

November 28, 2022

Mr. Joshua Middleton
Town Engineer
400 South Main Street
Blacksburg, Virginia 24060
Phone: (540) 443-1353

Reference: **Glade Heights** – Response to TIA Comments

Dear Mr. Middleton,

Please see attached for the revised Traffic Impact Analysis based on the TIA comments that were sent on November 8th, 2022. The **comments** and how they were addressed are laid out below.

1. All files should utilize actual heavy vehicle percentages by movement that were collected in the turning movement counts. Default values of 2% were utilized instead.

The heavy vehicle percentages from the traffic counts were utilized for all analysis scenarios and kept consist with the peak hour throughout future analysis scenarios. At the proposed site driveway where no heavy vehicle percentages were existing, a default of 2% was utilized to allow for a conservative analysis.

2. Existing peak hour analysis should include calculated peak hour factors by intersection based on turning movement counts. Synchro files utilized a default of 0.90 only.

The existing peak hour factor calculated per intersection based on the counts was utilized for existing traffic conditions.

3. Future (no-build and build) peak hour analysis should include calculated peak hour factors based on turning movement counts if the PHF is greater than 0.92. A minimum value of 0.92 should be used for all other locations.

The existing peak hour factor calculated per intersection based on the counts was utilized for future traffic conditions where the peak hour factor was greater than 0.92. As stated above, a minimum value of 0.92 was utilized for all other intersections during future traffic conditions.

4. Pedestrian volumes and pedestrian signal calls were not coded in any analysis files. These should be included as they will impact operational results.

Pedestrian volumes were coded at all intersections based on the pedestrian volumes from the existing traffic counts. It should be noted that conflicting pedestrian volumes were utilized even at intersections or approaches without crosswalks to provide a conservative approach. Pedestrian signal calls were coded at the signalized intersections based on guidelines within the Synchro Studio 11 User Guide.

-
5. Intersection of Prices Fork Road at University City Blvd is incorrectly coded. Mainline left turns operate protected only. There are also no right-turn overlaps utilized at this intersection.

The signalized intersection of Prices Fork Road and University City Boulevard was updated in all analysis conditions to reflect the comments above.

6. Intersection of University City Blvd at Glade Rd is incorrectly coded. Northbound left turn operates protected-permissive with a flashing yellow arrow (should be coded as D.P+P for turn type). There are also no right-turn overlaps utilized at this intersection.

The signalized intersection of University City Boulevard and Glade Road was updated in all analysis conditions to reflect the comments above.

Please let us know if there are any additional questions or comments while reviewing the revised TIA. While the above comments slightly affected the analysis results, the overall recommendations were not affected and have not changed since the original submission.

November 25, 2022

Mr. Joshua Middleton
Town Engineer
400 South Main Street
Blacksburg, Virginia 24060
Phone: (540) 443-1353

Reference: **Glade Heights** – Traffic Impact Analysis (TIA)
Town of Blacksburg, Virginia

Dear Mr. Middleton,

Glade Spring Crossing LLC is proposing to construct a residential development bound by Village Way (north), Glade Road (south), US Route 460 (east) and Shadow Lake Road (west). The development plan includes a maximum of 180 single family residences with one (1) new driveway proposed along Glade Road and interconnectivity proposed with Village Way which feeds into Toms Creek Road. If approved, the proposed neighborhood is expected to be built-out by 2026.

Ramey Kemp Associates (RKA) has performed this Traffic Impact Analysis (TIA) in coordination with the Town. Figure 1 shows the site location and study intersections, and Figure 2 shows the preliminary site plan.

Existing Roadway Conditions

Prices Fork Road is a four-lane Minor Arterial with an average daily traffic (ADT) volume of approximately 23,000 vehicles per day (vpd) and a posted speed limit of 40 and 35 miles per hour (mph) within the study area. The ADTs are based on the most recent Virginia Department of Transportation (VDOT) Traffic Data publications from 2021.

University City Boulevard is a four-lane Major Collector with an average daily traffic (ADT) volume of approximately 8,300 vehicles per day (vpd) and a posted speed limit of 25 miles per hour (mph) within the study area. The ADTs are based on the most recent VDOT Traffic Data publications from 2021.

Glade Road is a two-lane Major Collector with an average daily traffic (ADT) volume of approximately 2,000 vehicles per day (vpd) and a posted speed limit of 25 miles per hour (mph) in the vicinity of the site. The ADTs are based on the most recent VDOT Traffic Data publications from 2021.

Old Glade Road is a local roadway with an ADT volume of approximately 6,200 vpd and a posted speed limit of 25 mph within the study area. This ADT is based on the traffic counts from 2022 and assuming the weekday PM peak hour volume accounts for 10% of the average daily traffic.

Toms Creek Road is a two-lane Major Collector with an average daily traffic (ADT) volume of approximately 1,800 vehicles per day (vpd) and a posted speed limit of 25 miles per hour (mph) within the study area. The ADTs are based on the most recent VDOT Traffic Data publications from 2021.

Redbud Road is a local roadway with an ADT volume of approximately 720 vpd and a posted speed limit of 25 mph in the vicinity of the site. This ADT is based on the traffic counts from 2022 and assuming the weekday PM peak hour volume accounts for 10% of the average daily traffic.

Honeysuckle Drive is a local roadway with an ADT volume of approximately 1,300 vpd and a posted speed limit of 25 mph in the vicinity of the site. This ADT is based on the traffic counts from 2022 and assuming the weekday PM peak hour volume accounts for 10% of the average daily traffic.

Figure 3 shows the existing traffic control and roadway configurations at the study intersection.

Existing Traffic Volumes

The AM peak hour (7:00 to 9:00 AM) and PM peak hour (4:00 to 6:00 PM) turning movement counts were conducted by Burns Services, Inc. at the following intersections during the week of April 7th, 2022:

- Prices Fork Road and University City Boulevard
- Prices Fork Road and Old Glade Road
- University City Boulevard and Glade Road
- Old Glade Road and Glade Road
- Glade Road and Shadow Lake Road
- Toms Creek Road and Redbud Road
- Toms Creek Road and Honeysuckle Drive

Through coordination with the Town, it was determined based on traffic trends, traffic patterns have nearly returned to 'pre-COVID' levels and since counts were taken while school was in session, no traffic adjustments were necessary. The traffic count data is enclosed, and the inflated existing 2022 volumes are shown in Figure 4.

Approved Developments

Through coordination with the Town, three (3) approved developments were included in this TIA: Berewick, Sturbridge/The Union, and The Farm. It was assumed that all adjacent developments would be constructed and fully operational by 2026.

The Berewick development is assumed to consist of 76 single family units and is located on Toms Creek Road north of Redbud Road.

The Sturbridge/The Union development consists of 1,038 bedrooms of off-campus student housing and is located on University City Boulevard opposite of Broce Drive.

The Farm development is assumed to consist of 8 single family units and 90 bedrooms of off-campus student housing and is located on Glade Road opposite of Oriole Drive.

Background Traffic Growth

Based on discussion with the Town, the 2022 peak hour traffic volumes were grown by an annual rate of 0.5% per year to estimate the no-build 2026 peak hour traffic volumes which are shown in Figure 5.

Trip Generation

Table 1 shows a conservative estimate of the trip generation potential of the proposed community based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual – 11th Edition*. It is our understanding that the development is anticipated to consist of some combination of attached and detached single-family housing. However, for the purpose of this TIA, all units were assumed to be detached.

Table 1: ITE Trip Generation – Weekday – 11th Edition

Land Use (ITE Land Use Code)	Size	Weekday Daily Traffic (vpd)		AM Peak Hour (vph)		PM Peak Hour (vph)	
		Enter	Exit	Enter	Exit	Enter	Exit
Single Family Detached Housing (210)	180 units	867	867	33	94	109	64

Based on information contained within the Trip Generation Manual, the development could be expected to generate approximately 1,734 trips on a typical weekday with 127 trips (33 entering and 94 exiting) generated during the AM peak hour and 173 trips (109 entering and 64 exiting) generated during the PM peak hour.

Site Trip Distribution

The following site trip distribution was applied based on a review of the existing traffic volumes, the adjacent roadway network, and engineering judgement:

- 10% to / from the north on University City Boulevard
- 40% to / from the east on Prices Fork Road
- 30% to / from the west on Prices Fork Road
- 5% to/from the west on Glade Road
- 15% to/from the east on Toms Creek Road

Figure 6 shows the site trip distribution, Figure 7 shows the site trip assignment, and Figure 8 shows the build 2026 peak hour traffic volumes.

Through coordination with the Town, it was determined that 30% of the existing traffic utilizing Honeysuckle Drive or Redbud Road to access the Village neighborhood to the north of the proposed site would utilize the proposed interconnectivity to access Glade Road instead of continuing to utilize the Toms Creek Road. Therefore, rerouted traffic assumptions for 30% of this traffic were calculated. Refer to Figure 10 for an illustration of the rerouted traffic throughout the study network.

VDOT Turn Lane Warrant Analysis

The projected build-out AM and PM peak hour traffic volumes at the proposed entrance on Glade Road were compared to the turn lane warrants in the Virginia Department of Transportation (VDOT) *Access Management Design Standards for Entrances and Intersections*. A westbound right-turn lane along Glade Road is warranted at the proposed site access.



Traffic Capacity Analysis

Traffic capacity analysis for the study intersections was performed using Synchro 10, which is a comprehensive software package that allows the user to model signalized and unsignalized intersections to determine levels-of-service based on the thresholds specified in the Highway Capacity Manual (HCM) – 6th Edition.

Per coordination with the Town, all analysis scenarios utilized the actual heavy vehicle percentages (HVP) by movement that were collected in the turning movement counts. Additionally, the existing analysis scenario utilized the calculated peak hour factor (PHF) from the collected traffic counts for the overall intersection. For future analysis scenarios, a minimum PHF of 0.92 and the calculated PHF from the collected traffic counts was utilized. A PHF of 0.92 was used at the proposed access location during the build traffic conditions. Existing pedestrian volumes from the collected traffic counts were analyzed within the analysis scenarios for all traffic conditions.

Prices Fork Road and University City Boulevard

Table 2 summarizes the capacity analysis results for the signalized intersection of Prices Fork Road and University City Boulevard. The Synchro outputs are enclosed for reference.

Table 2: Level-of-Service Summary for Price Fork Road and University City Boulevard

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)
Existing (2022) Conditions	EBL	E	72	197	C (27)	F	82	306	D (36)
	EBT (2)	B	17	384		C	22	322	
	EBR	A	0	0		A	0	0	
	WBL	E	68	29		E	69	56	
	WBT (2)	C	25	236		D	39	597	
	WBR	A	2	13		B	12	181	
	NBL	E	69	44		E	73	105	
	NBT/R	D	37	31		E	61	109	
	SBL (2)	E	62	154		E	58	244	
SBT/R	B	18	56	B	12	101			
No-Build (2026) Conditions	EBL	E	71	208	C (28)	F	87	365	D (38)
	EBT (2)	B	17	388		C	23	330	
	EBR	A	0	0		A	0	0	
	WBL	E	68	30		E	69	56	
	WBT (2)	C	25	240		D	42	615	
	WBR	A	3	31		B	14	224	
	NBL	E	68	43		E	73	106	
	NBT/R	D	42	40		E	67	123	
	SBL (2)	E	62	190		E	59	283	
SBT/R	B	17	75	B	13	124			
Build (2026) Conditions	EBL	E	71	204	C (29)	F	86	341	D (39)
	EBT (2)	B	17	388		C	23	330	
	EBR	A	0	0		A	0	0	
	WBL	E	68	30		E	69	56	
	WBT (2)	C	25	246		D	43	650	
	WBR	A	3	33		B	15	237	
	NBL	E	68	43		E	73	106	
	NBT/R	D	42	40		E	67	123	
	SBL (2)	E	61	213		E	60	301	
SBT/R	B	17	74	B	13	119			

Capacity analysis indicates that the signalized intersection is expected to operate at an overall LOS D or better during the AM and PM peak hours for all traffic conditions. All lane groups are expected to operate at LOS E or better during the AM and PM peak hours for all traffic conditions, with the exception of the eastbound left-turn movement during the PM peak hour for all traffic conditions. When comparing build to no-build conditions, delays are not expected to increase by more than 2 seconds, and all levels of service are expected to be maintained. Additionally, queues are not expected to increase by more than 23 feet (approximately 1 vehicle). Furthermore, the site trips are expected to increase the total volume at this intersection by approximately 2% during the AM and PM peak hours.

Due to minimal impacts from the proposed development, no improvements are recommended at this intersection at build-out of the proposed community.



Prices Fork Road and Old Glade Road

Table 3 summarizes the capacity analysis results for the unsignalized intersection of Prices Fork Road and Old Glade Road. The Synchro outputs are enclosed for reference.

Table 3: Level-of-Service Summary for Prices Fork Road & Old Glade Road

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)
Existing (2022) Conditions	EBL ²	B	11	40	N/A ³	D	28	135	N/A ³
	EBT (2)	--	--	--		--	--	--	
	WBT	--	--	--		--	--	--	
	WBT/R	--	--	--		--	--	--	
	SBR ¹	C	17	83		F	68	248	
No-Build (2026) Conditions	EBL ²	B	10	30	N/A ³	D	34	163	N/A ³
	EBT (2)	--	--	--		--	--	--	
	WBT	--	--	--		--	--	--	
	WBT/R	--	--	--		--	--	--	
	SBR ¹	B	15	58		F	87	290	
Build (2026) Conditions	EBL ²	B	11	33	N/A ³	F	56	260	N/A ³
	EBT (2)	--	--	--		--	--	--	
	WBT	--	--	--		--	--	--	
	WBT/R	--	--	--		--	--	--	
	SBR ¹	C	16	75		F	127	378	

1. Level of service for minor approach
2. Level of service for major-street left-turn movement
3. HCM methodology does not provide lane group or overall LOS, delay, and queue lengths for major street through movements or right turns at unsignalized intersections.

Capacity analysis indicates that the minor-street approach is expected to operate at LOS C or better during the AM peak hour and LOS F during the PM peak hour. The major street left-turn movement is expected to operate at LOS B during the AM peak hour and LOS F or better during the PM peak hours for all traffic conditions. Based on SimTraffic performance reports, which calculates delay per vehicle based on simulation modeling of the study network taking into account the effect of adjacent signals, it is expected that delays in the field are significantly less than the synchro reports calculate. SimTraffic performance reports indicate that the southbound right turn and eastbound left turn delay per vehicle are expected to be 35.0 seconds or less per vehicle, which correlates to LOS E or better. The site trips are expected to increase the total volume at this intersection by less than 4% during the AM and PM peak hours.

While increased delays are expected during the PM peak hour, less than desirable levels of operation currently exist. Additionally, no laneage improvements are expected to decrease delays and the proximity to the signalized intersection of Prices Fork Road and University City Boulevard make traffic control improvements impractical.

Based on the minimal site traffic utilizing the intersection, no improvements are recommended at this intersection at build-out of the proposed community.



University City Boulevard and Glade Road

Table 4 summarizes the capacity analysis results for the signalized intersection of University City Boulevard and Glade Road. The Synchro outputs are enclosed for reference.

Table 4: Level-of-Service Summary for University City Boulevard & Glade Road/Starbucks Driveway

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)
Existing (2022) Conditions	EBL/T	C	32	84	B (14)	C	30	86	B (11)
	EBR	A	5	20		A	7	39	
	WBL/T/R	C	31	89		B	20	68	
	NBL	A	6	12		A	7	56	
	NBT/TR	A	5	15		A	5	47	
	SBL/T	A	7	51		A	10	73	
	SBT/R	A	7	51		A	10	73	
No-Build (2026) Conditions	EBL/T	C	31	86	B (14)	C	30	87	B (11)
	EBR	A	7	38		A	7	42	
	WBL/T/R	C	30	91		C	20	70	
	NBL	A	5	16		A	7	65	
	NBT/TR	A	5	19		A	6	57	
	SBL/T	A	7	69		B	12	101	
	SBT/R	A	7	69		B	12	101	
Build (2026) Conditions	EBL/T	C	32	93	B (14)	C	31	91	B (11)
	EBR	A	7	46		A	7	46	
	WBL/T/R	C	29	91		C	20	70	
	NBL	A	6	18		A	7	72	
	NBT/TR	A	5	17		A	6	52	
	SBL/T	A	8	60		B	12	98	
	SBT/R	A	8	60		B	12	98	

Capacity analysis indicates that the signalized intersection is expected to operate at an overall LOS B during the AM and PM peak hours for all traffic conditions. All lane groups are expected to operate at LOS C or better during the AM and PM peak hours for all traffic conditions. When comparing build to no-build conditions, delays are not expected to increase by more than 5 seconds, and all levels of service are expected to be maintained. Additionally, queues are not expected to increase by more than 10 feet (approximately 1 vehicle). Furthermore, the site trips are expected to increase the total volume at this intersection by approximately 5% and 2% during the AM and PM peak hours, respectively.

Due to minimal impacts from the proposed development, no improvements are recommended at this intersection at build-out of the proposed community.



Old Glade Road and Glade Road

Table 5 summarizes the capacity analysis results for the unsignalized intersection of Old Glade Road and Glade Road. The Synchro outputs are enclosed for reference.

Table 5: Level-of-Service Summary for Old Glade Road & Glade Road

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)
Existing (2022) Conditions	EBT	--	--	--	N/A ³	--	--	--	N/A ³
	EBR	--	--	--		--	--	--	
	WBL/T ²	A	9	10		A	8	10	
	NBL ¹	B	15	20		D	28	103	
	NBR ¹	A	10	13	A	10	15		
No-Build (2026) Conditions	EBT	--	--	--	N/A ³	--	--	--	N/A ³
	EBR	--	--	--		--	--	--	
	WBL/T ²	A	9	10		A	8	10	
	NBL ¹	B	15	20		E	37	135	
	NBR	A	10	13	A	10	15		
Build (2026) Conditions	EBT	--	--	--	N/A ³	--	--	--	N/A ³
	EBR	--	--	--		--	--	--	
	WBL/T ²	A	9	10		A	8	13	
	NBL ¹	C	17	33		F	133	378	
	NBR	B	10	13	B	10	15		

1. Level of service for minor approach
2. Level of service for major-street left-turn movement
3. HCM methodology does not provide lane group or overall LOS, delay, and queue lengths for major street through movements or right turns at unsignalized intersections.

Capacity analysis indicates that the minor-street approach is expected to operate at LOS C or better during the AM peak hour and LOS E or better during the PM peak hour with the exception of the build PM traffic conditions. The major street left-turn movement is expected to operate at LOS A during the AM and PM peak hours for all traffic conditions. While the northbound approach is expected to increase in delays, it is not uncommon for the minor-street approach to experience higher delays during the peak hour when the mainline traffic is the highest. It should be mentioned that heavy queues are not expected to be a consistent issue as the average queue is not expected to exceed 135 feet during the PM peak hour. SimTraffic performance reports calculate the northbound left delay per vehicle to be approximately 23 seconds during the PM peak hour (which correlates to LOS C or better).

As requested by the Town, a signal warrant was analyzed according to the methodology contained within the Manual on Uniform Traffic Control Devices (MUTCD). 12-hour traffic counts were collected in April of 2022, while schools were in session and projected to the build out year (2026) with the aforementioned growth rate. The estimated new site traffic was added to the projected 2026 traffic volumes to determine the volumes used for the analysis. Based on the findings, a traffic signal is not expected to meet warrants. See attached for more information regarding the signal warrant analysis. Based on the results of this analysis, no improvements are recommended at this intersection at build-out of the proposed community.



Glade Road and Shadow Lake Road

Table 6 summarizes the capacity analysis results for the unsignalized intersection of Glade Road and Shadow Lake Road. The Synchro outputs are enclosed for reference.

Table 6: Level-of-Service Summary for Glade Road and Shadow Lake Road

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)
Existing (2022) Conditions	EBL/T/R ²	A	8	0	N/A ³	A	8	0	N/A ³
	WBL/T/R ²	A	8	0		A	8	3	
	NBL/T/R ¹	A	10	5		A	9	3	
	SBL/T/R ¹	B	13	23		B	14	8	
No-Build (2026) Conditions	EBL/T/R ²	A	7	0	N/A ³	A	8	0	N/A ³
	WBL/T/R ²	A	8	0		A	8	3	
	NBL/T/R ¹	A	10	3		A	9	3	
	SBL/T/R ¹	B	12	15		B	15	8	
Build (2026) Conditions	EBL/T/R ²	A	8	0	N/A ³	A	8	0	N/A ³
	WBL/T/R ²	A	8	0		A	8	3	
	NBL/T/R ¹	A	10	3		A	9	3	
	SBL/T/R ¹	B	12	15		B	15	8	

1. Level of service for minor approach
2. Level of service for major-street left-turn movement
3. HCM methodology does not provide lane group or overall LOS, delay, and queue lengths for major street through movements or right turns at unsignalized intersections.

Capacity analysis indicates that all approaches are expected to operate at LOS B or better during the weekday AM and PM peak hours for all traffic conditions. The site trips are expected to increase the total volume at this intersection by less than 2% during the AM and PM peak hours.

Based on minimal impacts from the proposed development and minimal site traffic utilizing the intersection, no improvements are recommended at this intersection at build-out of the proposed community.

Toms Creek Road and Redbud Road

Table 7 summarizes the capacity analysis results for the unsignalized intersection of Toms Creek Road and Redbud Road. The Synchro outputs are enclosed for reference.

Table 7: Level-of-Service Summary for Toms Creek Road and Redbud Road

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)
Existing (2022) Conditions	EBL/T/R ²	A	0	0	N/A ³	A	8	0	N/A ³
	WBL/T/R ²	A	8	0		A	7	3	
	NBL/T/R ¹	A	9	5		A	9	3	
	SBL/T/R ¹	A	10	5		B	11	3	
No-Build (2026) Conditions	EBL/T/R ²	A	0	0	N/A ³	A	8	0	N/A ³
	WBL/T/R ²	A	8	0		A	7	3	
	NBL/T/R ¹	A	9	5		A	9	3	
	SBL/T/R ¹	B	11	5		B	12	3	
Build (2026) Conditions	EBL/T/R ²	A	0	0	N/A ³	A	8	0	N/A ³
	WBL/T/R ²	A	8	0		A	7	3	
	NBL/T/R ¹	A	9	3		A	9	3	
	SBL/T/R ¹	B	10	5		B	11	3	

1. Level of service for minor approach
2. Level of service for major-street left-turn movement
3. HCM methodology does not provide lane group or overall LOS, delay, and queue lengths for major street through movements or right turns at unsignalized intersections.

Capacity analysis indicates that all approaches are expected to operate at LOS B or better during the weekday AM and PM peak hours for all traffic conditions. The site trips are expected to increase the total volume at this intersection by less than 3% during the AM and PM peak hours.

Based on minimal impacts from the proposed development and minimal site traffic utilizing the intersection, no improvements are recommended at this intersection at build-out of the proposed community.

Toms Creek Road and Honeysuckle Drive

Table 8 summarizes the capacity analysis results for the unsignalized intersection of Toms Creek Road and Honeysuckle Drive. The Synchro outputs are enclosed for reference.

Table 8: Level-of-Service Summary for Toms Creek Road and Honeysuckle Drive

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)
Existing (2022) Conditions	EBT/R	--	--	--	N/A ³	--	--	--	N/A ³
	WBL ²	A	8	3		A	8	5	
	WBT	--	--	--		--	--	--	
	NBL/R ¹	A	10	8		A	9	3	
No-Build (2026) Conditions	EBT/R	--	--	--	N/A ³	--	--	--	N/A ³
	WBL ²	A	8	3		A	8	5	
	WBT	--	--	--		--	--	--	
	NBL/R ¹	A	10	8		A	9	3	
Build (2026) Conditions	EBT/R	--	--	--	N/A ³	--	--	--	N/A ³
	WBL ²	A	8	3		A	8	5	
	WBT	--	--	--		--	--	--	
	NBL/R ¹	A	10	8		A	9	3	

1. Level of service for minor approach
2. Level of service for major-street left-turn movement
3. HCM methodology does not provide lane group or overall LOS, delay, and queue lengths for major street through movements or right turns at unsignalized intersections.

Capacity analysis indicates that all approaches are expected to operate at LOS A during the weekday AM and PM peak hours for all traffic conditions. The site trips are expected to increase the total volume at this intersection by approximately 5% during the AM and PM peak hours.

Based on minimal impacts from the proposed development and minimal site traffic utilizing the intersection, no improvements are recommended at this intersection at build-out of the proposed community.



Glade Road and Proposed Site Access

Table 9 summarizes the capacity analysis results for the proposed intersection of Glade Road and the Site Access. The Synchro outputs are enclosed for reference.

Table 9: Level-of-Service Summary for Glade Road and Site Access

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)
Build (2026) Conditions	EBL/T ²	A	8	0	N/A ³	A	8	0	N/A ³
	WBT	--	--	--		--	--	--	
	WBR	--	--	--		--	--	--	
	SBL/R ¹	B	13	20		B	14	15	

Bold indicates improvements.

1. Level of service for minor approach
2. Level of service for major-street left-turn movement
3. HCM methodology does not provide lane group or overall LOS, delay, and queue lengths for major street through movements or right turns at unsignalized intersections.

As mentioned previously, a westbound right-turn lane is warranted and recommended. Capacity analysis indicates that with this improvement, all approaches are expected to operate at LOS B or better during the weekday AM and PM peak hours. Due to acceptable levels of service, no additional improvements are recommended.

Recommendations

Based on the traffic capacity analysis, all study intersections are expected to operate at acceptable levels at build out of the proposed community with the following improvement.

- Construct a westbound right turn lane on Glade Road at the proposed site access location. Based on the results of the TIA and the VDOT *Access Management Design Standards for Entrances and Intersections*, a turn lane with a minimum of 100 feet of storage should be provided.

Refer to Figure 9 for an illustration of the recommended lane configurations for the study intersections.

We appreciate your attention to this matter. Please contact me at (336) 714-0112 if you have any questions about this report.

Sincerely yours,

Chase Smith, PE
Infrastructure Consulting Services, Inc.
dba
Ramey Kemp Associates

License #0407008438

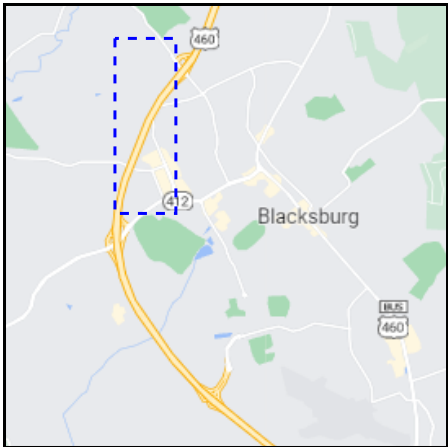
Enclosures: Figures, Traffic count data, Synchro and SimTraffic output

Copy to: Ms. Meredith Jones, Eden & Associates, P. C.

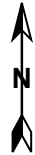
TECHNICAL APPENDIX





APPENDIX A

FIGURES



LEGEND



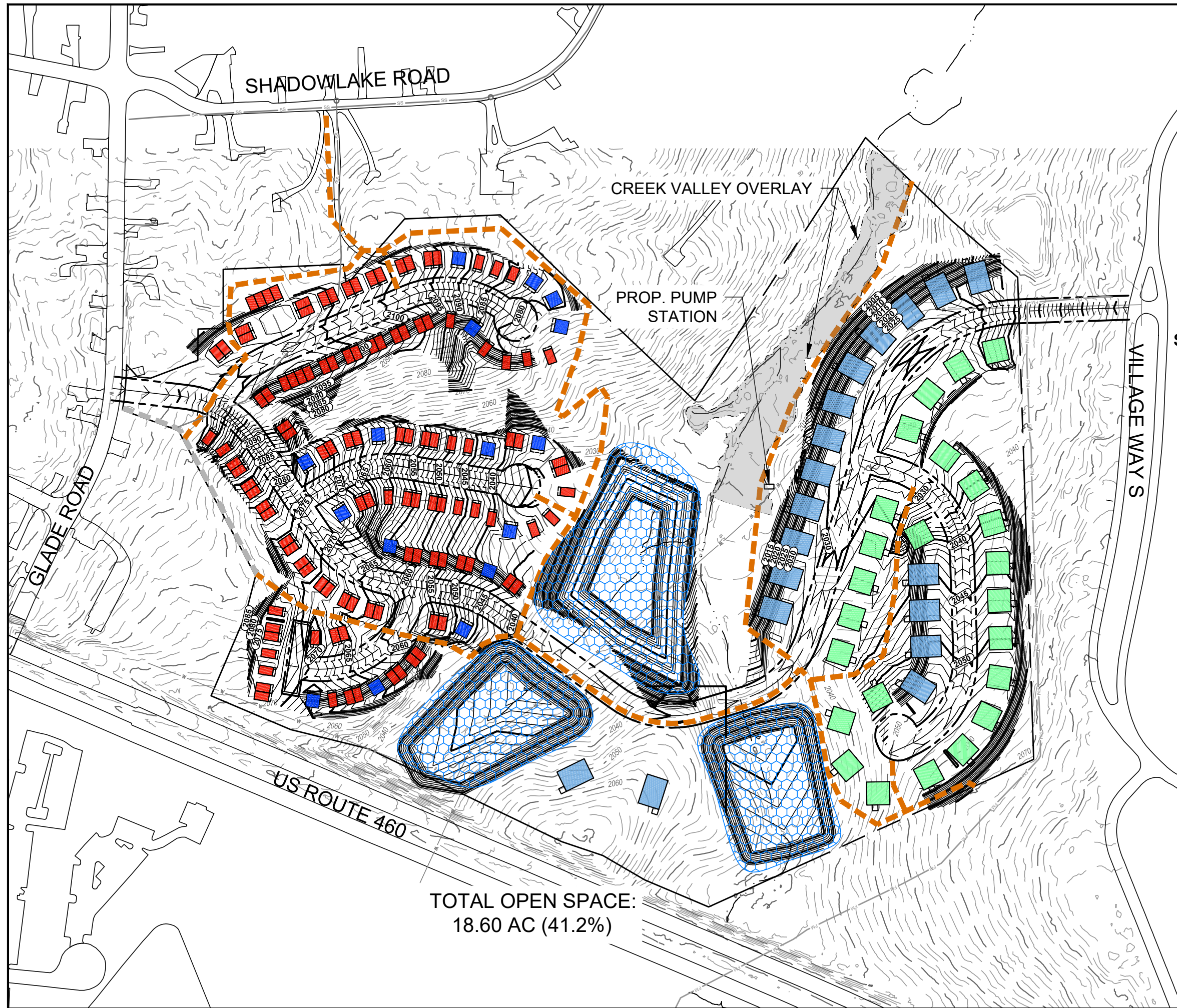
-  Proposed Site Location
-  Study Area
-  Study Intersection
-  Proposed Access

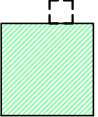





Glade Heights
Blacksburg, VA

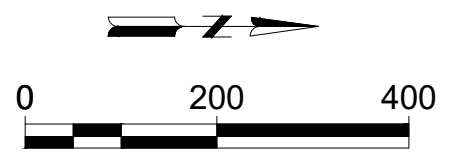
Site Location Map

Scale: Not to Scale Figure 1



-  24 48x48 PAD (BRADFORD, WESTFIELD)
-  18 45x63 PAD (BRADFORD, WESTFIELD, CORVALLIS, LINDEN III/TERRACE)
- SUBTOTAL: 42**
-  16 28x28 PAD (24x28 or 28x24 UNIT) (WORK FORCE CONCEPTS)
-  118 18x30 PAD (ATTACHED/DETACHED) (WORK FORCE CONCEPT)
- SUBTOTAL: 134**
- +36 MARKET RATE
- TOTAL: 170**
- TOTAL: 176**

DWELLING TYPE:	NO. DWELLING UNITS
18x30 DETACHED	38
18x30 DUPLEX	68 = 34x2
18x30 QUAD	12 = 3x4
18x30 UNIT TOTAL =	118
4 D.U./AC. =	45.0976 AC x 4 D.U./AC
TOTAL ALLOWED =	180 D.U.

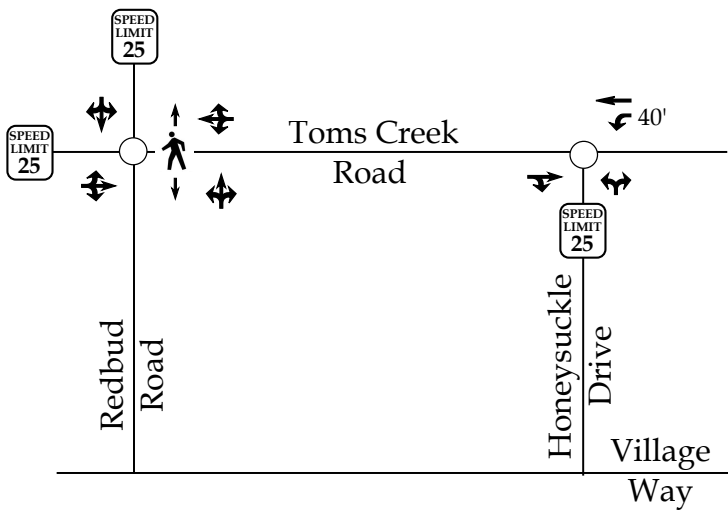


TOTAL OPEN SPACE:
18.60 AC (41.2%)

GLADE HEIGHTS
CONCEPT PLAN 1: THROUGH-ROAD OPTION - 06/10/2022

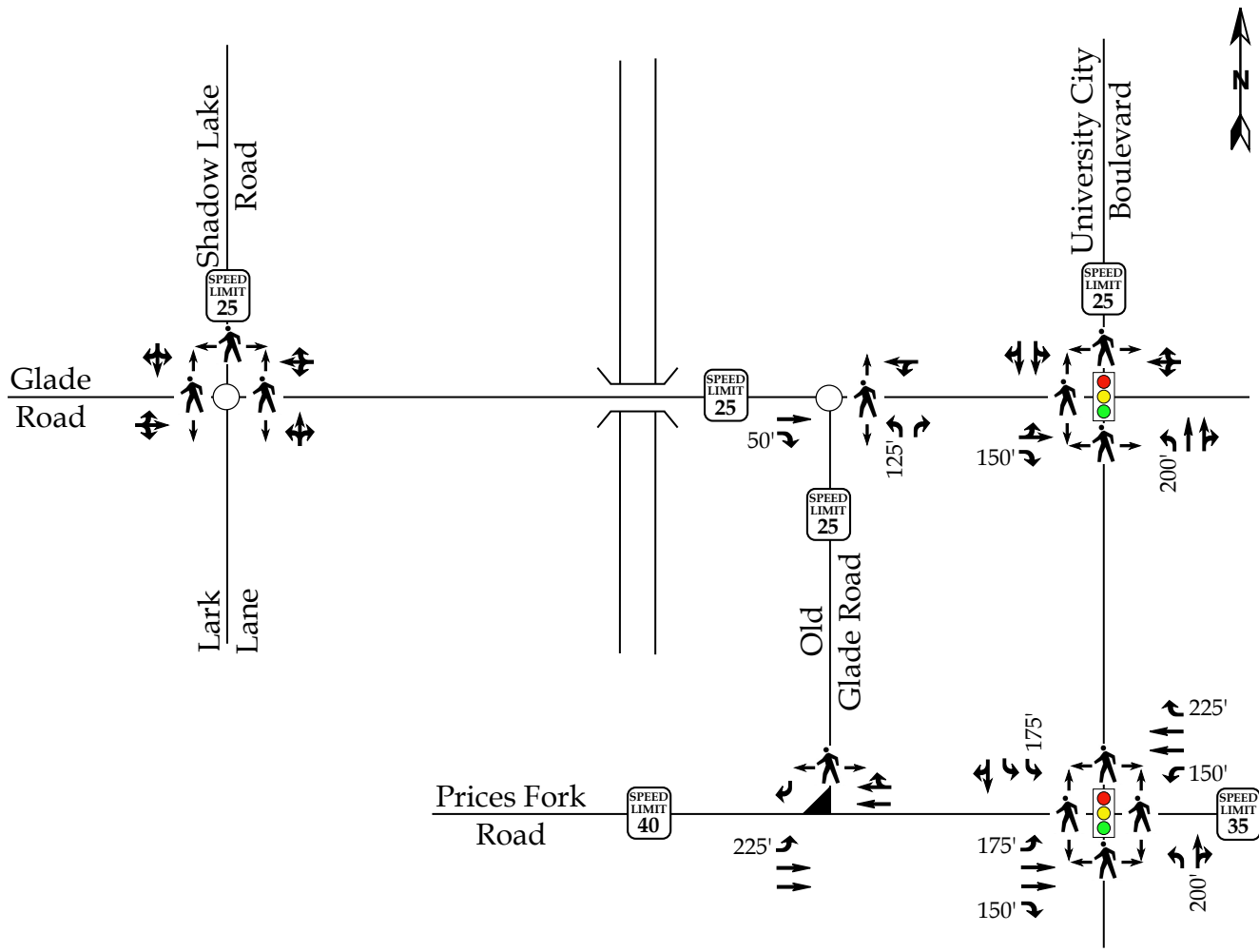
1000 BLOCK GLADE ROAD
BLACKSBURG, VA 24060





LEGEND

- Unsignalized Intersection
- ⬆️⬆️⬆️ Signalized Intersection
- ⬆️ Left-Over Intersection
- ➔ Existing Lane
- x' Storage (In Feet)
- ⬆️⬆️⬆️ Posted Speed Limit XX
- ➔ Pedestrian Crosswalk



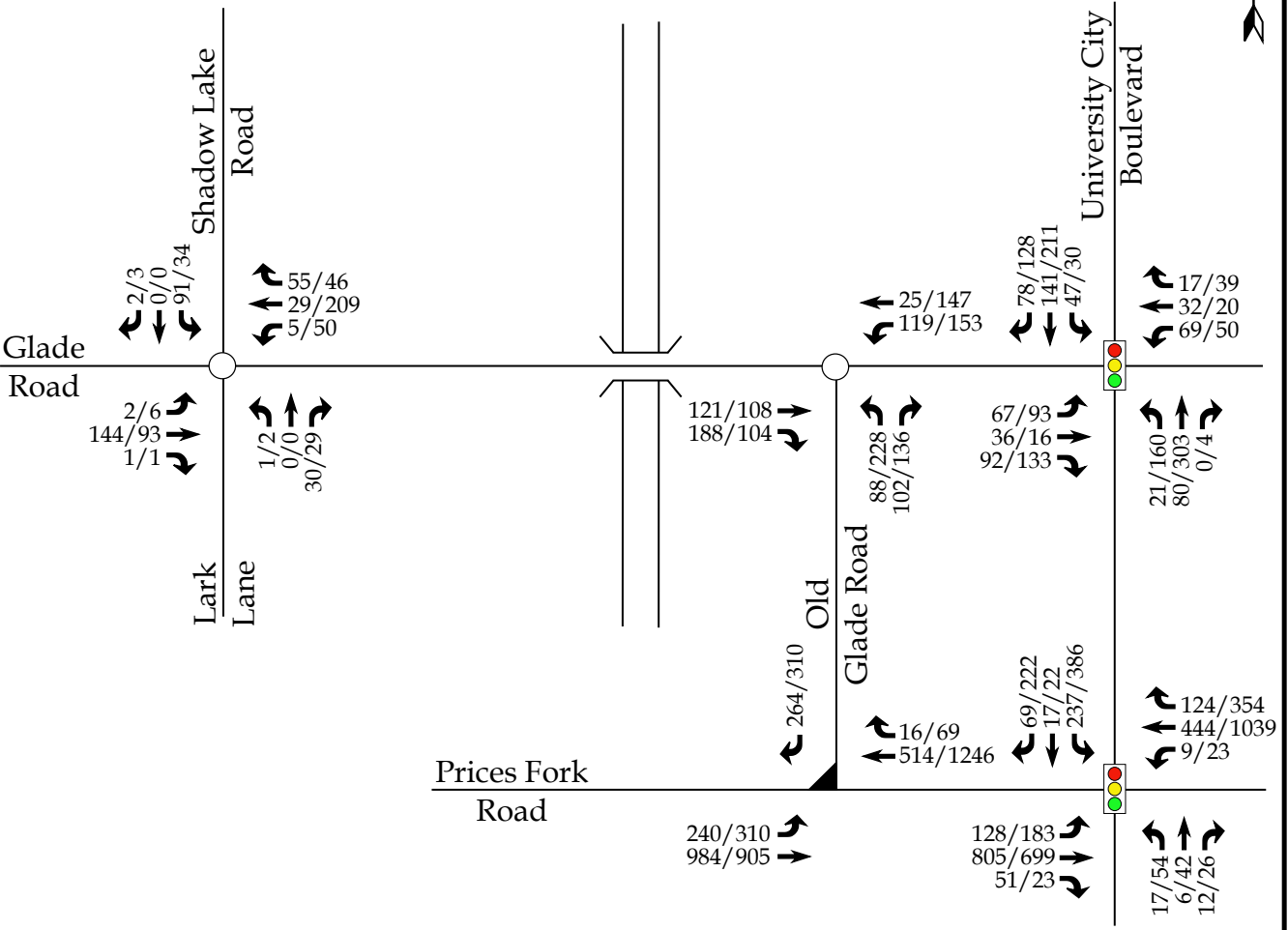
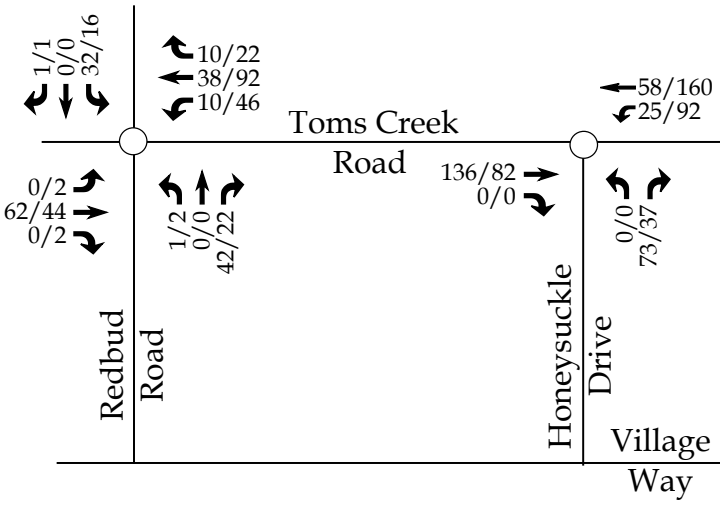
Glade Heights
Blacksburg, VA

2022 Existing
Lane Configurations

Scale: Not to Scale Figure 3

LEGEND

- Unsignalized Intersection
- 🚦 Signalized Intersection
- ▲ Left-Over Intersection
- X / Y → Weekday AM / PM Peak Hour Traffic







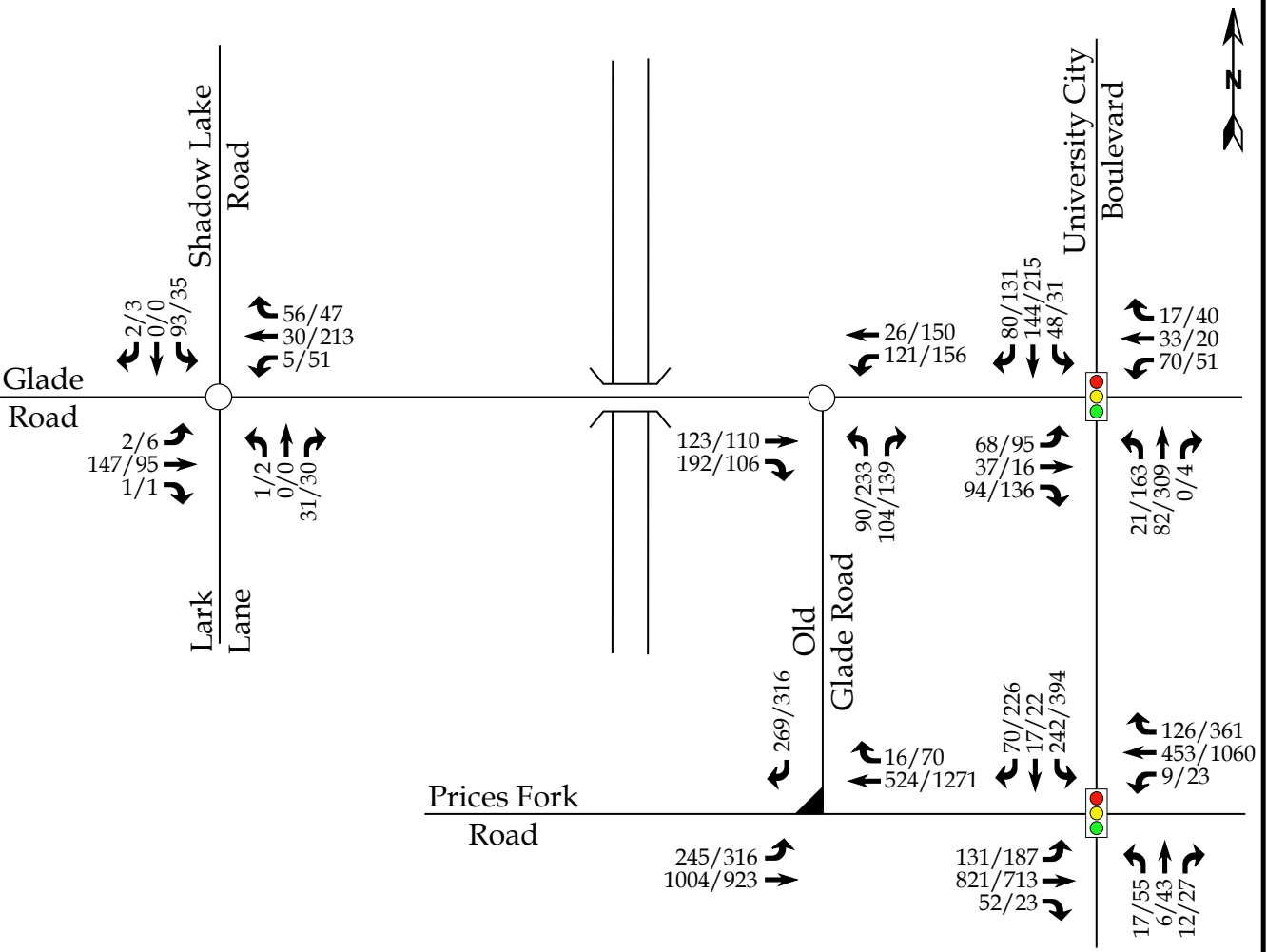
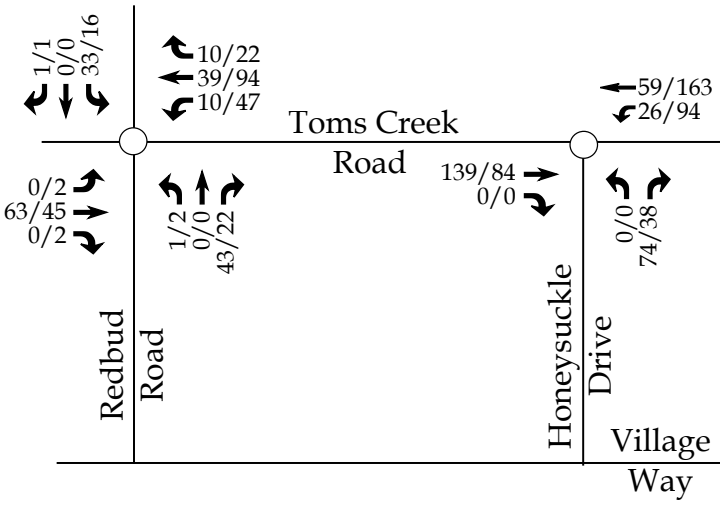
Glade Heights
Blacksburg, VA

2022 Existing
Peak Hour Traffic

Scale: Not to Scale Figure 4

LEGEND

-  Unsignalized Intersection
-  Signalized Intersection
-  Left-Over Intersection
- X / Y  Weekday AM / PM Peak Hour Traffic



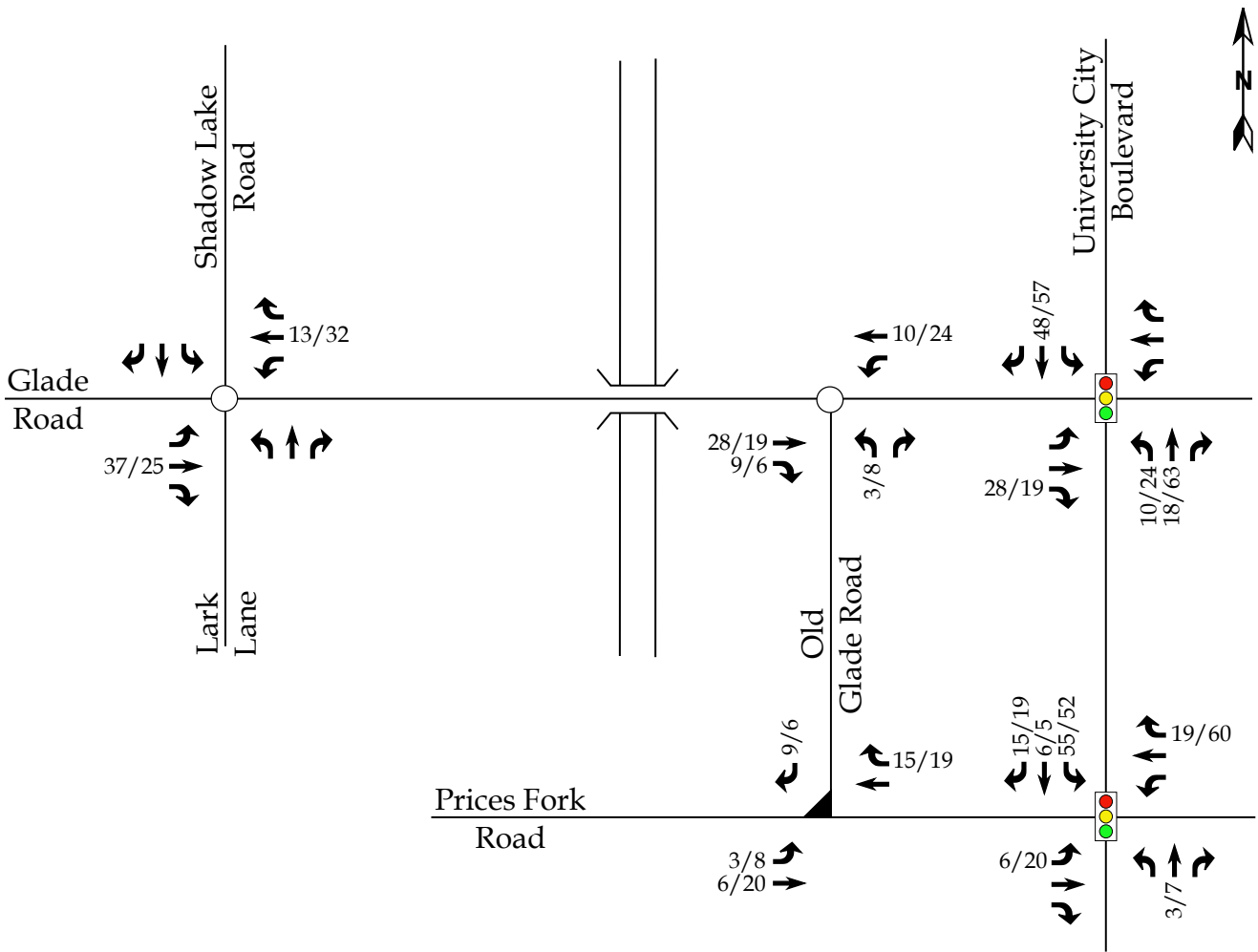
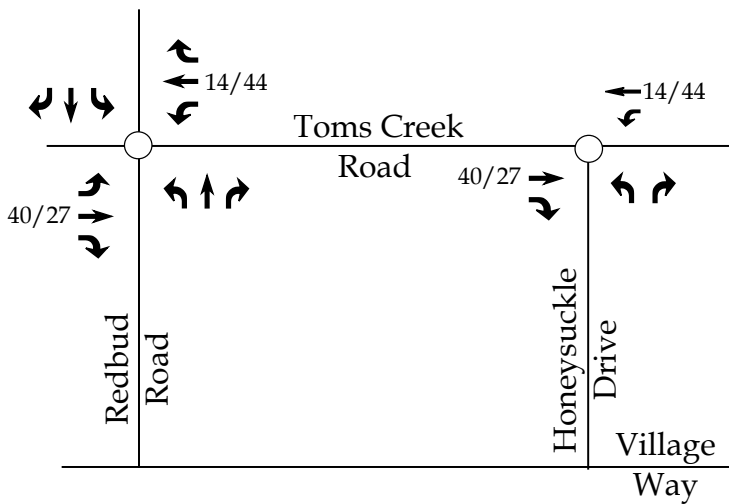
Glade Heights
Blacksburg, VA

2026 Projected
Peak Hour Traffic

Scale: Not to Scale	Figure 5
---------------------	----------

LEGEND

- Unsignalized Intersection
- 🚦 Signalized Intersection
- ▲ Left-Over Intersection
- X / Y → Weekday AM / PM Peak Hour Adjacent Development Trips



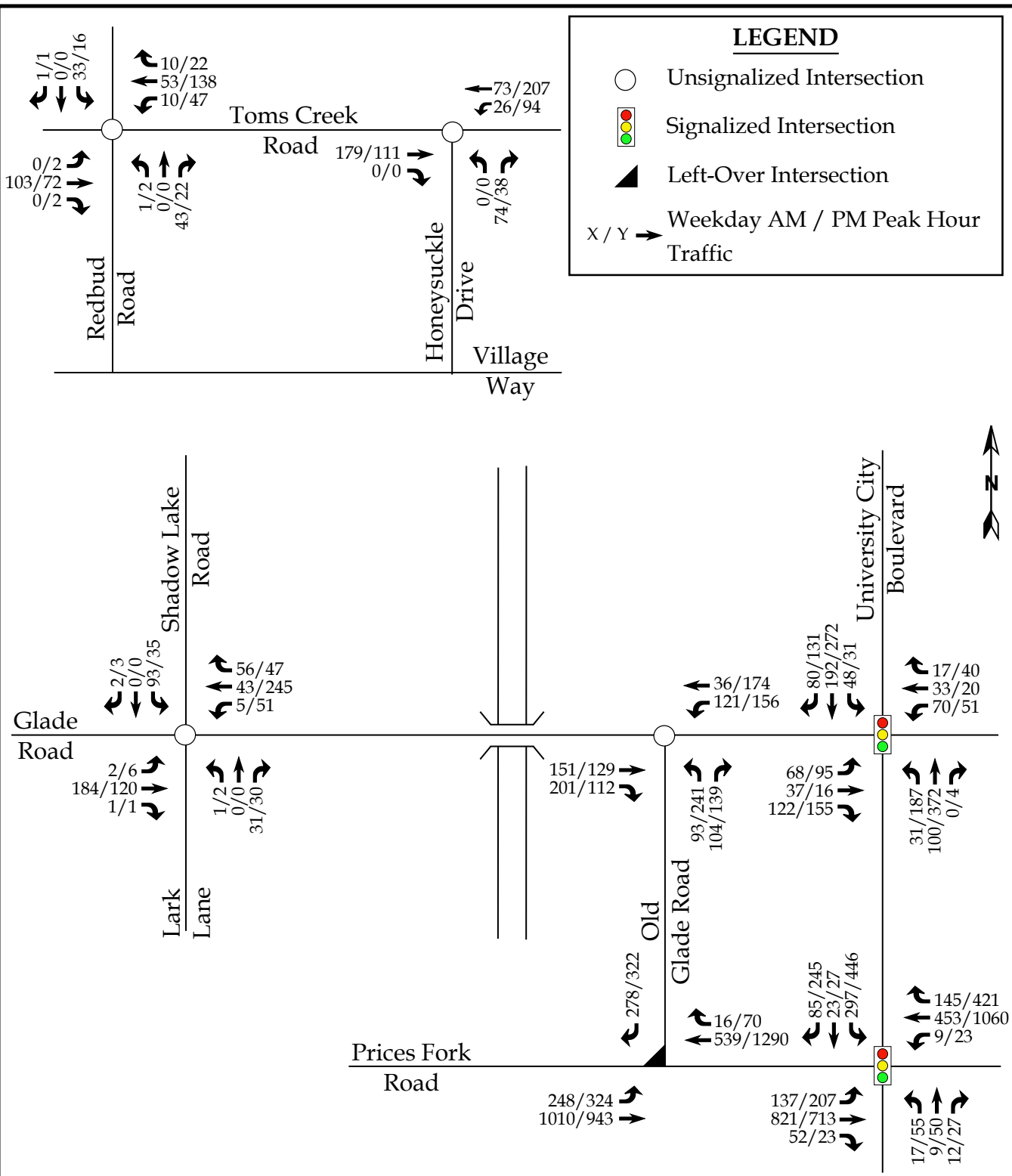
Glade Heights
Blacksburg, VA

Peak Hour Adjacent
Development Trips

Scale: Not to Scale Figure 6

LEGEND

- Unsignalized Intersection
- 🚦 Signalized Intersection
- ▲ Left-Over Intersection
- X / Y → Weekday AM / PM Peak Hour Traffic



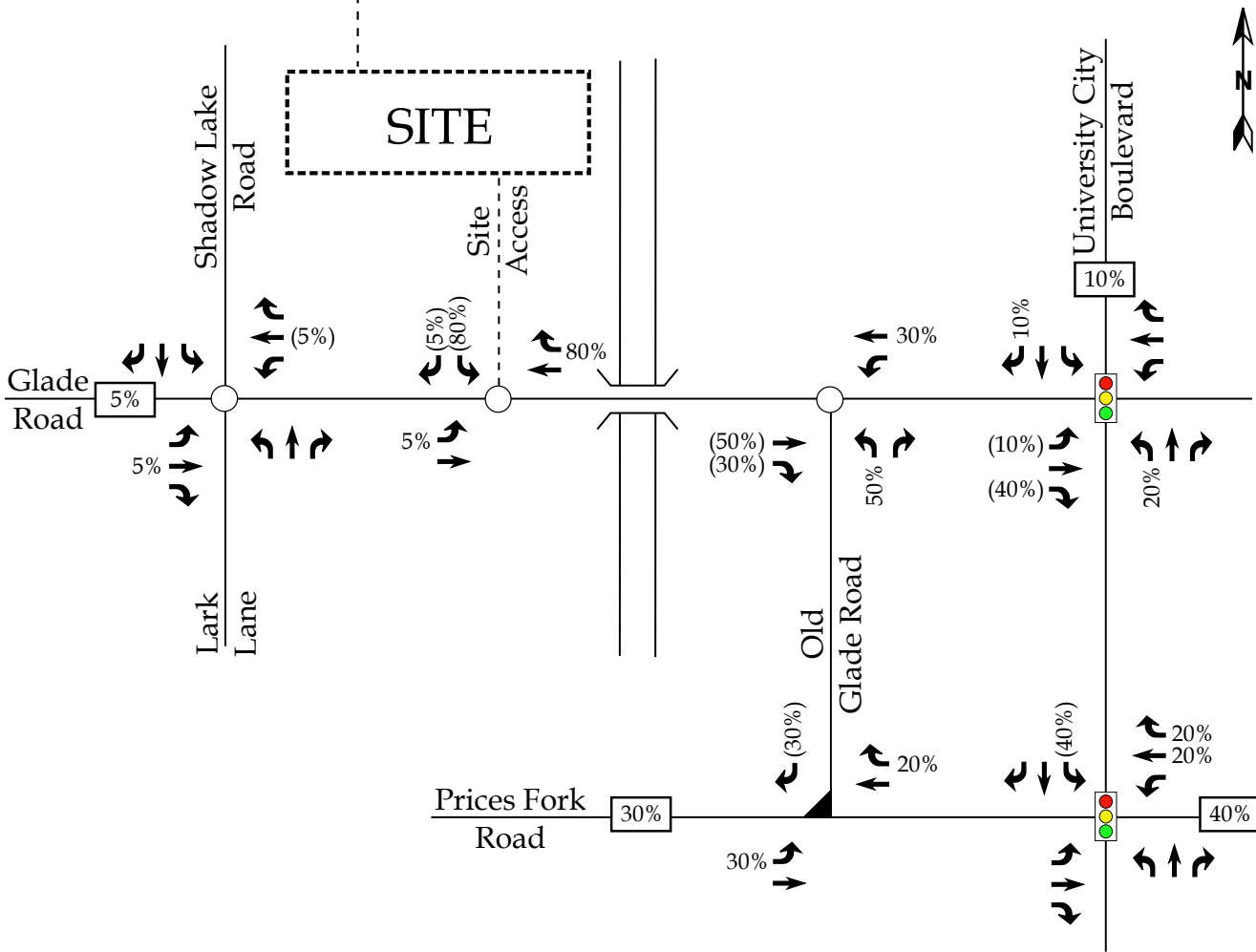
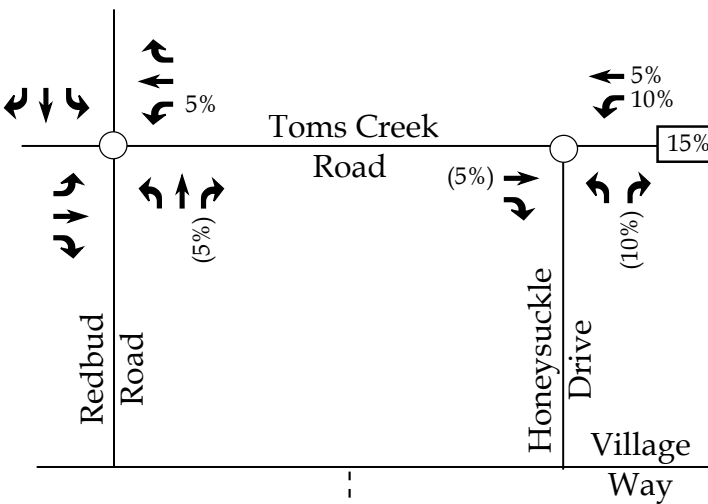
Glade Heights
Blacksburg, VA

2026 No-Build
Peak Hour Traffic

Scale: Not to Scale Figure 7

LEGEND

- Unsignalized Intersection
- ◫ Signalized Intersection
- ◄ Left-Over Intersection
- x% → Entering Trip Distribution
- (Y%) → Exiting Trip Distribution
- ◻XX% Regional Trip Distribution



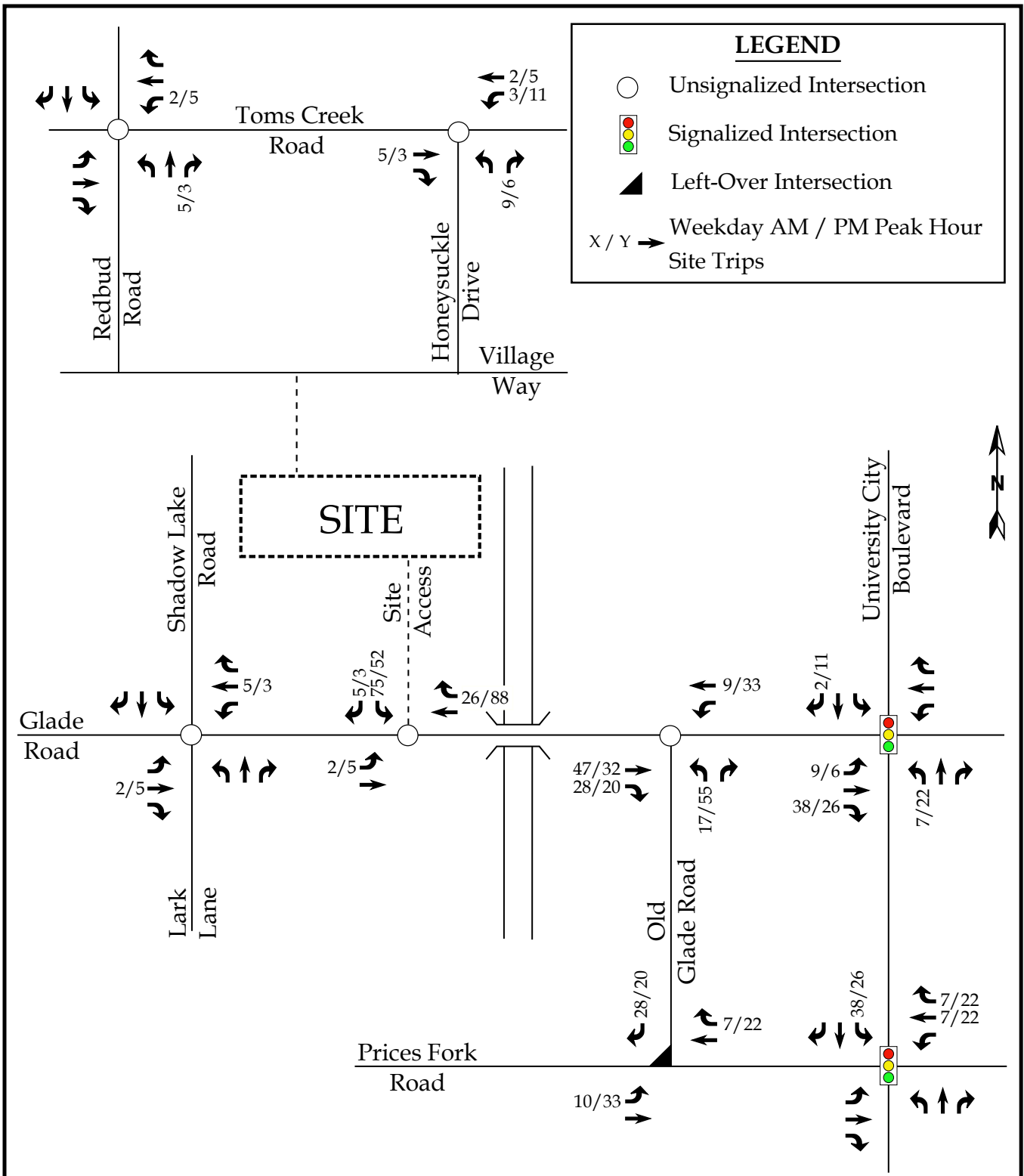
Glade Heights
Blacksburg, VA

Site Trip Distribution

Scale: Not to Scale Figure 8

LEGEND

- Unsignalized Intersection
- 🚦 Signalized Intersection
- ▲ Left-Over Intersection
- X / Y → Weekday AM / PM Peak Hour Site Trips



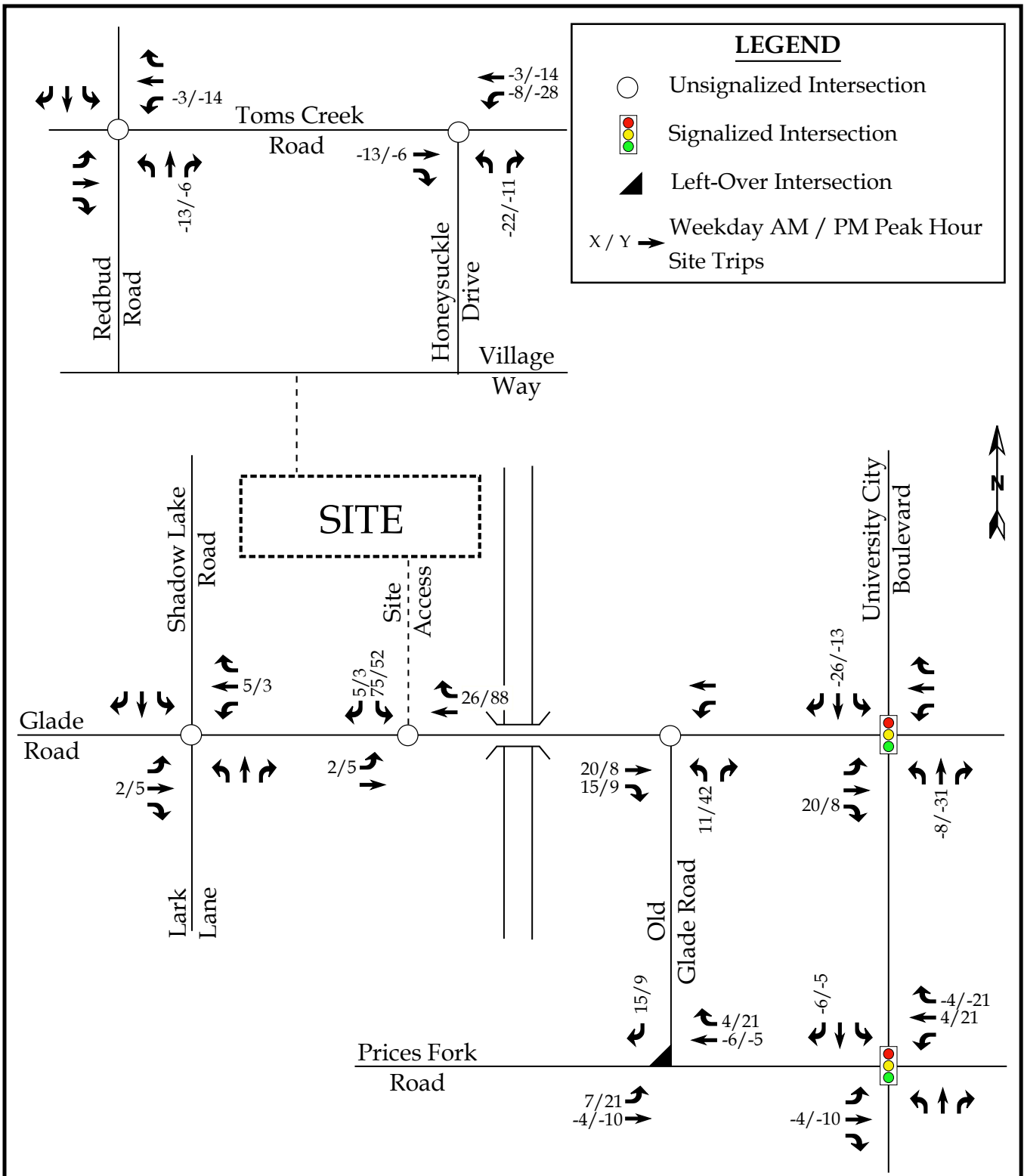
Glade Heights
Blacksburg, VA

Site Trip Assignment

Scale: Not to Scale	Figure 9
---------------------	----------

LEGEND

- Unsignalized Intersection
- 🚦 Signalized Intersection
- ▲ Left-Over Intersection
- X / Y → Weekday AM / PM Peak Hour Site Trips







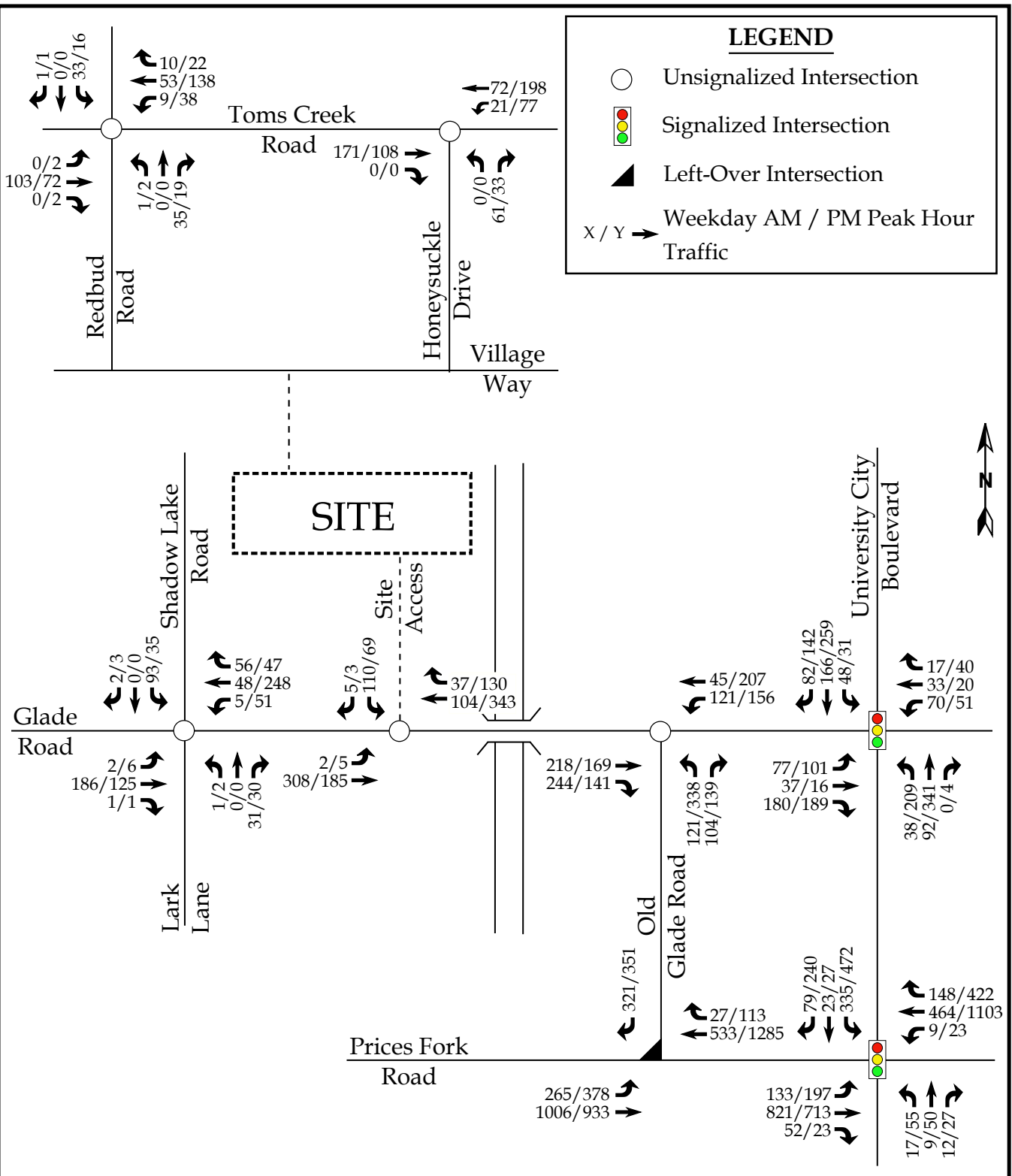
Glade Heights
Blacksburg, VA

Rerouted Village
Existing Traffic

Scale: Not to Scale Figure 10

LEGEND

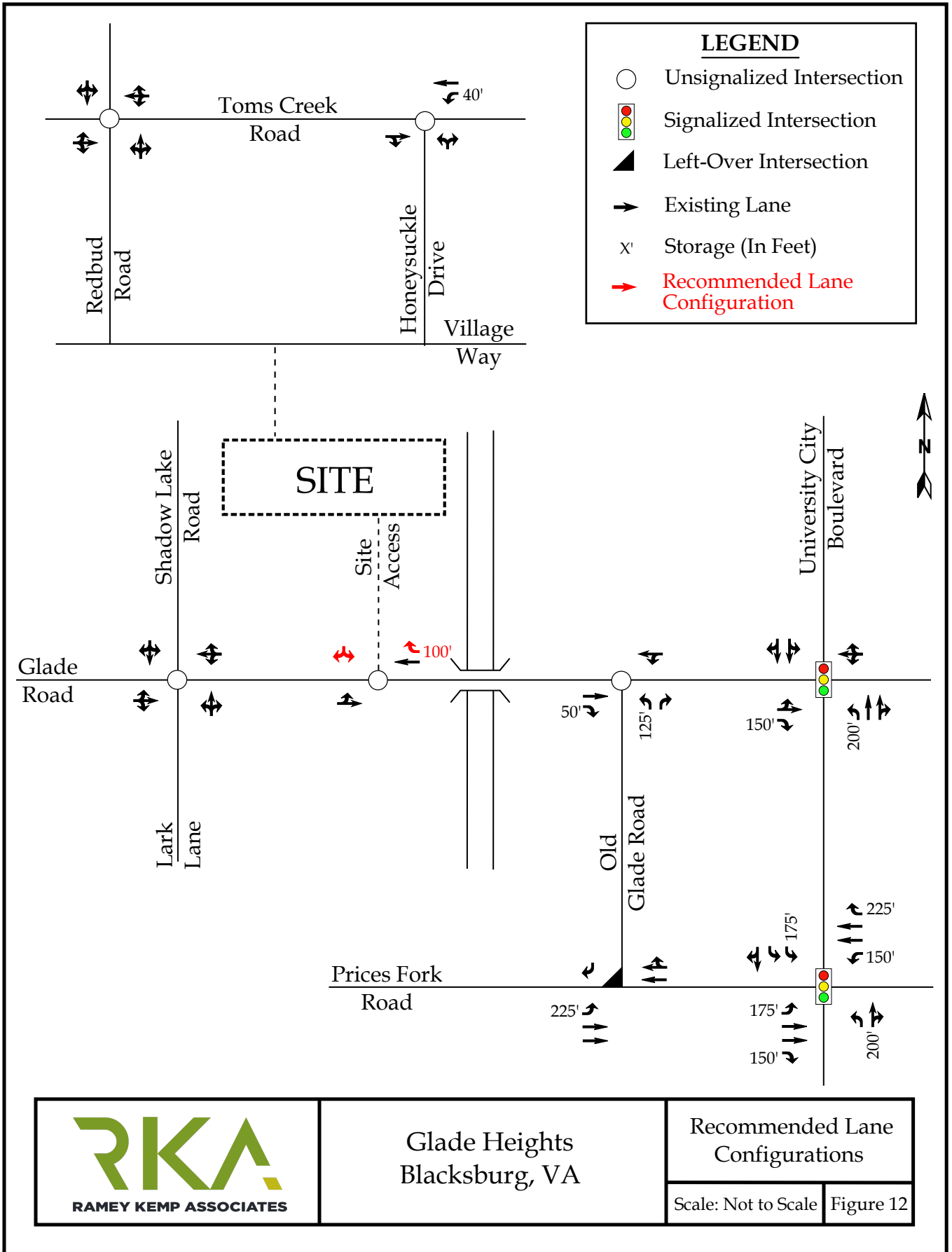
-  Unsignalized Intersection
-  Signalized Intersection
-  Left-Over Intersection
- X / Y  Weekday AM / PM Peak Hour Traffic



Glade Heights
Blacksburg, VA

2026 Build
Peak Hour Traffic

Scale: Not to Scale Figure 11



LEGEND

- Unsignalized Intersection
- ◻ (with traffic light symbol) Signalized Intersection
- ▲ Left-Over Intersection
- ➔ Existing Lane
- x' Storage (In Feet)
- ➔ (in red) Recommended Lane Configuration



Glade Heights
Blacksburg, VA

Recommended Lane Configurations	
Scale: Not to Scale	Figure 12

APPENDIX B

COUNT DATA

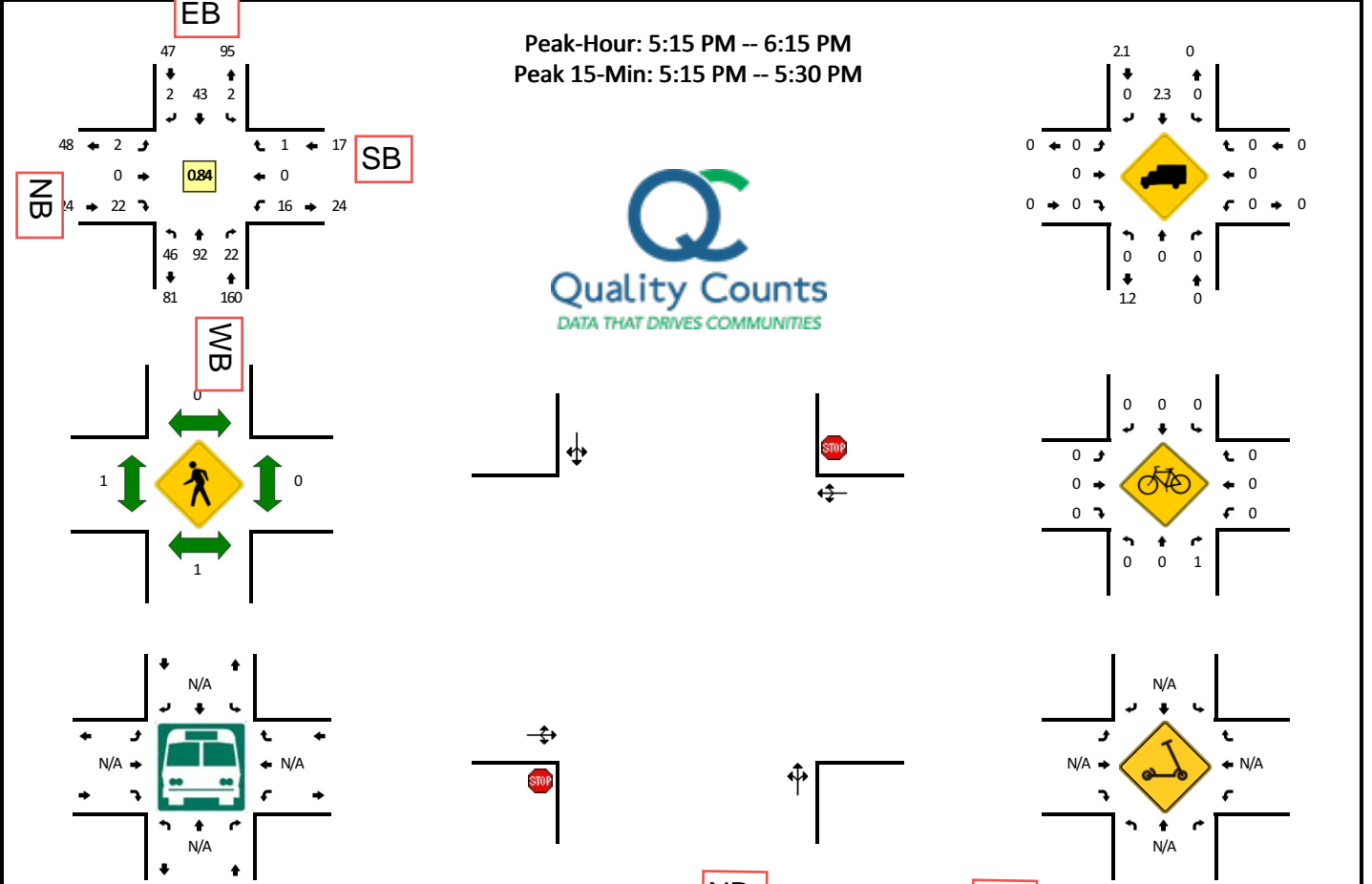
15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Honeysuckle Dr (Eastbound)				Honeysuckle Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	11	33	0	0	0	20	0	0	0	0	11	0	0	0	0	0	75	292
5:00 PM	12	29	0	0	0	26	0	0	0	0	8	0	0	0	0	0	75	297
5:15 PM	17	46	0	0	0	24	0	0	0	0	15	0	0	0	0	0	102	317
5:30 PM	26	41	0	0	0	20	0	0	0	0	5	0	0	0	0	0	92	344
5:45 PM	17	36	0	1	0	16	0	0	0	0	8	0	0	0	0	0	78	347
6:00 PM	30	35	0	1	0	22	0	0	0	0	9	0	0	0	0	0	97	369
6:15 PM	13	28	0	1	0	16	0	0	0	0	8	0	0	0	0	0	66	333
6:30 PM	9	29	0	1	0	20	1	0	1	0	6	0	0	0	0	0	67	308
6:45 PM	11	13	0	0	0	34	0	0	0	0	17	0	0	0	0	0	75	305
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	68	184	0	0	0	96	0	0	0	0	60	0	0	0	0	0	408	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Buses																		
Pedestrians		4				0				0				0			4	
Bicycles	0	0	0		0	0	0		0	0	4		0	0	0		4	
Scoters																		
<i>Comments:</i>																		

Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Toms Creek Rd -- Redbud Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762702
DATE: Wed, Apr 6 2022



15-Min Count Period Beginning At	Toms Creek Rd (Northbound) WB				Toms Creek Rd (Southbound) EB				Redbud Rd (Eastbound) NB				Redbud Rd (Westbound) SB				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	4	1	0	1	8	0	0	0	0	4	0	2	1	0	0	22	
7:15 AM	1	4	3	0	0	7	0	0	0	1	11	0	8	0	0	0	35	
7:30 AM	3	5	3	0	0	13	1	0	0	0	12	0	8	0	0	0	45	
7:45 AM	2	5	2	0	0	19	0	0	0	0	19	0	13	0	1	0	61	163
8:00 AM	6	10	3	0	0	12	0	0	0	0	3	0	7	0	0	0	41	182
8:15 AM	0	8	1	0	0	15	0	0	1	0	6	0	5	0	0	0	36	183
8:30 AM	2	4	4	0	0	16	0	0	0	0	14	0	7	0	0	0	47	185
8:45 AM	6	9	6	0	0	19	0	0	1	0	5	0	8	0	0	0	54	178
9:00 AM	2	10	2	0	0	7	0	0	0	0	6	0	4	0	0	0	31	168
9:15 AM	3	7	1	0	0	8	0	0	0	0	6	0	1	0	0	0	26	158
9:30 AM	3	8	1	0	0	14	0	0	0	0	6	0	1	0	0	0	33	144
9:45 AM	2	5	3	0	0	16	0	0	0	0	3	0	3	0	0	0	32	122
10:00 AM	2	7	1	0	0	10	0	0	0	0	2	0	4	0	0	0	26	117
10:15 AM	1	3	2	0	0	14	1	0	0	1	3	0	1	0	0	0	26	117
10:30 AM	2	7	3	0	0	5	0	0	2	0	5	0	0	0	0	0	24	108
10:45 AM	3	7	2	0	0	14	0	0	0	0	4	0	3	0	1	0	34	110
11:00 AM	3	9	4	0	0	8	0	0	0	0	5	0	4	0	0	0	33	117
11:15 AM	3	10	3	0	0	10	0	0	0	0	5	0	1	0	0	0	32	123
11:30 AM	1	13	0	0	0	8	0	0	0	0	2	0	0	0	0	0	24	123
11:45 AM	4	8	3	0	0	12	0	0	0	0	4	0	4	0	0	0	35	124
12:00 PM	6	13	6	0	0	12	0	0	0	0	4	0	6	1	0	0	48	139
12:15 PM	7	18	2	0	0	2	0	0	1	1	7	0	5	0	0	0	43	150
12:30 PM	6	12	5	0	0	12	0	0	0	1	6	0	3	0	0	0	45	171
12:45 PM	5	15	3	0	0	14	1	0	0	0	6	0	6	0	0	0	50	186
1:00 PM	3	11	4	0	1	9	0	0	2	0	1	0	3	1	0	0	35	173
1:15 PM	1	15	3	0	0	14	0	0	1	0	0	0	3	1	0	0	38	168
1:30 PM	2	14	2	0	0	12	0	0	0	0	3	0	1	0	0	0	34	157
1:45 PM	5	12	0	0	0	7	0	0	0	1	4	0	0	0	0	0	29	136
2:00 PM	2	11	5	0	0	15	1	0	0	0	5	0	0	0	1	0	40	141
2:15 PM	3	5	3	0	0	10	1	0	1	0	2	0	5	0	1	0	31	134
2:30 PM	4	14	5	0	0	10	1	0	0	0	1	0	3	1	1	0	40	140
2:45 PM	6	14	1	0	0	15	0	0	1	0	9	0	2	1	0	0	49	160
3:00 PM	6	17	1	0	0	14	1	0	0	0	6	0	4	0	0	0	49	169
3:15 PM	5	19	6	0	2	8	0	0	0	0	11	0	3	0	0	0	54	192
3:30 PM	12	17	5	0	0	13	0	0	0	0	3	1	5	0	0	0	56	208
3:45 PM	12	21	11	0	0	22	1	0	1	0	4	0	4	0	0	0	76	235
4:00 PM	6	14	4	0	0	15	0	0	0	0	4	0	2	1	0	0	46	232
4:15 PM	2	22	4	0	0	10	0	0	1	0	6	0	7	0	1	0	53	231
4:30 PM	8	11	4	1	0	14	0	0	1	0	7	0	3	0	0	0	49	224

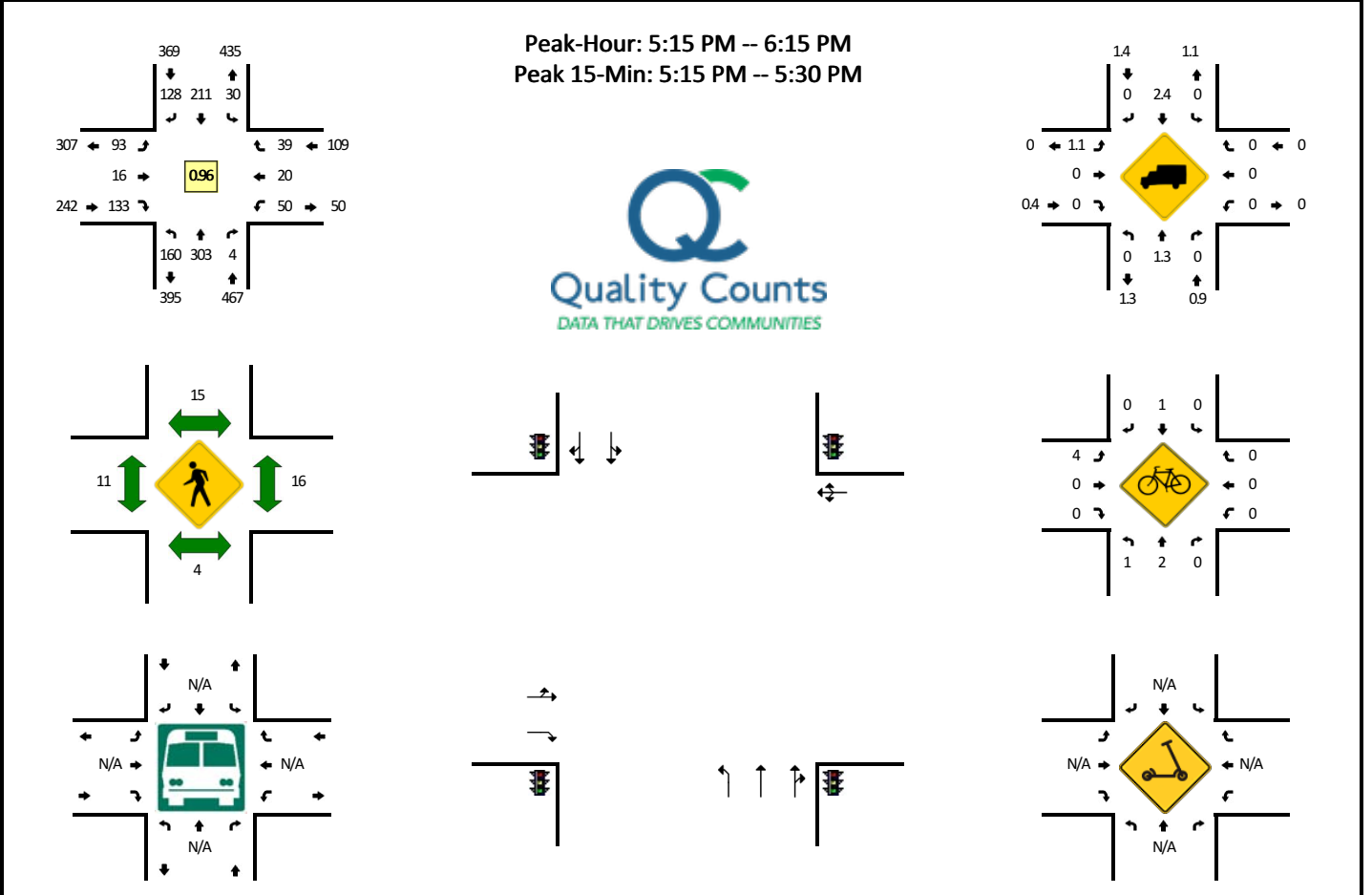
15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Redbud Rd (Eastbound)				Redbud Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	8	19	5	0	0	9	0	0	0	0	6	0	3	0	0	0	50	198
5:00 PM	6	15	5	0	0	15	1	0	0	0	5	0	4	0	0	0	51	203
5:15 PM	13	30	5	0	0	14	0	0	0	0	4	0	7	0	1	0	74	224
5:30 PM	13	22	6	0	1	12	1	0	0	0	6	0	2	0	0	0	63	238
5:45 PM	12	19	4	0	0	10	1	0	1	0	5	0	3	0	0	0	55	243
6:00 PM	8	21	7	0	1	7	0	0	1	0	7	0	4	0	0	0	56	248
6:15 PM	8	15	4	0	0	9	0	0	0	0	7	0	2	1	0	0	46	220
6:30 PM	8	17	6	0	0	9	0	0	2	0	4	0	4	1	0	0	51	208
6:45 PM	5	6	4	0	0	22	2	0	1	0	7	0	5	0	0	0	52	205
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	52	120	20	0	0	56	0	0	0	0	16	0	28	0	4	0	296	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		
<i>Comments:</i>																		

Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: University City Blvd -- Glade Rd/Starbucks Dwy
CITY/STATE: Blacksburg, VA

QC JOB #: 15762703
DATE: Wed, Apr 6 2022



15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Glade Rd/Starbucks Dwy (Eastbound)				Glade Rd/Starbucks Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	8	0	0	11	14	4	0	15	4	9	0	9	5	4	0	87	
7:15 AM	6	15	1	0	8	16	10	0	13	9	10	0	15	5	8	0	116	
7:30 AM	8	11	0	0	13	26	13	0	21	12	22	0	15	13	2	0	156	
7:45 AM	6	16	5	0	19	36	32	0	18	6	21	0	17	20	6	0	202	561
8:00 AM	6	16	0	0	6	35	18	0	14	11	31	0	22	10	4	0	173	647
8:15 AM	8	20	0	0	6	24	12	0	21	9	15	0	8	7	3	0	133	664
8:30 AM	4	21	0	0	16	30	24	0	13	7	19	0	19	9	2	0	164	672
8:45 AM	3	23	0	0	19	52	24	0	19	9	27	0	20	6	8	0	210	680
9:00 AM	11	29	0	0	10	28	19	0	11	10	11	0	17	4	13	0	163	670
9:15 AM	10	25	1	0	9	37	20	0	15	7	22	0	11	5	6	0	168	705
9:30 AM	12	14	2	0	7	38	21	0	13	7	13	0	13	6	5	0	151	692
9:45 AM	10	29	2	0	8	39	14	0	15	6	25	0	13	8	5	0	174	656
10:00 AM	16	28	3	0	8	36	24	0	12	5	20	0	9	6	5	0	172	665
10:15 AM	17	35	3	0	7	32	27	0	16	6	21	0	12	9	7	0	192	689
10:30 AM	15	30	2	0	20	33	24	0	12	2	27	0	19	6	7	0	197	735
10:45 AM	16	30	0	1	12	24	19	1	19	3	22	0	17	3	6	0	173	734
11:00 AM	20	35	1	0	10	46	25	0	17	3	25	0	9	1	14	0	206	768
11:15 AM	17	42	4	0	8	40	32	0	22	5	24	0	7	4	12	0	217	793
11:30 AM	26	42	1	1	11	29	23	0	22	3	27	0	14	9	9	0	217	813
11:45 AM	15	48	0	0	3	57	30	0	27	3	34	0	17	11	11	0	256	896
12:00 PM	19	48	1	0	9	39	34	0	24	8	30	0	9	6	7	0	234	924
12:15 PM	32	47	2	0	7	42	27	0	28	2	21	0	25	8	13	0	254	961
12:30 PM	24	84	2	0	5	49	30	0	25	5	27	0	16	7	12	0	286	1030
12:45 PM	16	62	1	1	12	37	23	0	21	5	33	0	8	8	11	0	238	1012
1:00 PM	23	56	1	2	15	46	27	0	24	6	38	0	10	10	7	0	265	1043
1:15 PM	19	56	3	1	9	45	23	0	19	6	18	0	15	6	8	0	228	1017
1:30 PM	28	58	1	0	3	41	20	0	18	2	18	0	15	8	7	0	219	950
1:45 PM	20	49	3	0	8	41	24	0	31	7	25	0	9	4	9	0	230	942
2:00 PM	17	62	2	1	8	43	22	0	19	2	23	0	18	6	9	0	232	909
2:15 PM	22	39	2	0	7	46	32	0	19	9	30	0	13	6	8	0	233	914
2:30 PM	28	46	2	0	4	51	21	0	22	3	24	0	9	7	8	0	225	920
2:45 PM	34	53	1	2	2	37	20	0	19	5	14	0	9	4	11	0	211	901
3:00 PM	26	50	0	0	6	48	30	0	20	7	20	0	10	8	12	0	237	906
3:15 PM	23	50	3	0	6	43	26	0	18	2	30	0	13	3	9	0	226	899
3:30 PM	14	56	2	0	3	43	13	0	13	3	19	0	18	6	2	0	192	866
3:45 PM	22	77	1	0	3	56	27	0	30	2	37	0	10	5	4	0	274	929
4:00 PM	32	76	0	0	5	54	22	0	16	1	22	0	8	3	5	0	244	936
4:15 PM	33	60	1	1	7	39	33	0	22	4	30	0	10	4	15	0	259	969
4:30 PM	31	66	2	0	6	50	33	0	35	6	31	0	7	6	10	0	283	1060

15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Glade Rd/Starbucks Dwy (Eastbound)				Glade Rd/Starbucks Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	33	66	1	0	6	48	32	0	30	4	32	0	5	3	8	0	268	1054
5:00 PM	39	71	1	0	7	43	40	0	22	7	29	0	10	2	12	0	283	1093
5:15 PM	39	81	0	0	7	49	37	0	24	8	32	0	20	5	6	0	308	1142
5:30 PM	39	75	1	0	9	61	41	0	22	2	25	0	12	7	9	0	303	1162
5:45 PM	41	74	1	1	8	50	26	0	25	2	40	0	7	4	11	0	290	1184
6:00 PM	40	73	2	0	6	51	24	0	22	4	36	0	11	4	13	0	286	1187
6:15 PM	27	55	1	0	8	50	53	0	24	7	42	0	7	8	5	0	287	1166
6:30 PM	50	63	2	1	5	38	25	0	20	1	28	0	6	6	7	0	252	1115
6:45 PM	35	54	1	0	7	51	27	0	21	3	32	0	13	4	6	0	254	1079
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	156	324	0	0	28	196	148	0	96	32	128	0	80	20	24	0	1232	
Heavy Trucks	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	
Buses																		
Pedestrians		0				24				8				24			56	
Bicycles	4	4	0		0	0	0		4	0	0		0	0	0		12	
Scoters																		
<i>Comments:</i>																		

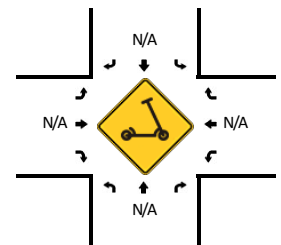
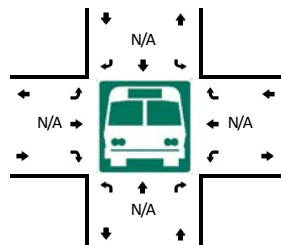
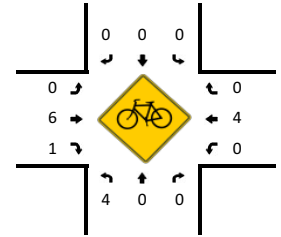
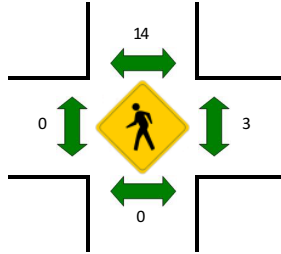
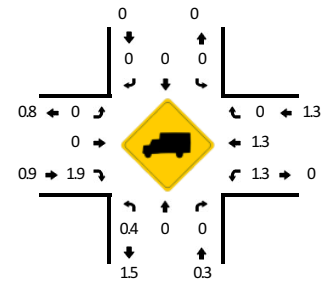
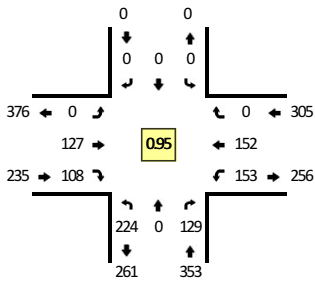
Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Old Glade Rd -- Glade Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762704
DATE: Wed, Apr 6 2022

Peak-Hour: 5:00 PM -- 6:00 PM
 Peak 15-Min: 5:15 PM -- 5:30 PM



15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	21	0	20	0	0	0	0	0	0	14	19	0	8	5	0	0	87	
7:15 AM	9	0	21	0	0	0	0	0	0	23	36	0	13	10	0	0	112	
7:30 AM	18	0	22	0	0	0	0	0	0	27	44	0	34	2	0	0	147	
7:45 AM	23	0	24	0	0	0	0	0	0	42	52	0	41	11	0	0	193	539
8:00 AM	34	0	32	0	0	0	0	0	0	36	53	0	22	9	0	0	186	638
8:15 AM	13	0	24	0	0	0	0	0	0	16	39	0	22	3	0	0	117	643
8:30 AM	20	0	23	0	0	0	0	0	0	27	37	0	27	9	0	0	143	639
8:45 AM	29	0	23	0	0	0	0	0	0	30	35	0	19	11	0	0	147	593
9:00 AM	25	0	20	0	0	0	0	0	0	19	20	0	19	11	0	0	114	521
9:15 AM	16	0	21	0	0	0	0	0	0	25	16	0	15	10	0	0	103	507
9:30 AM	13	0	15	1	0	0	0	0	0	33	20	0	24	12	0	0	118	482
9:45 AM	13	0	12	0	0	0	0	0	0	27	23	0	16	10	0	0	101	436
10:00 AM	28	0	22	0	0	0	0	0	0	15	21	0	25	10	0	0	121	443
10:15 AM	13	0	15	0	0	0	0	0	0	25	23	0	20	16	0	0	112	452
10:30 AM	17	0	12	0	0	0	0	0	0	27	20	0	30	11	0	0	117	451
10:45 AM	37	0	28	0	0	0	0	0	0	22	20	0	22	8	0	0	137	487
11:00 AM	17	0	23	0	0	0	0	0	0	26	15	0	20	18	0	0	119	485
11:15 AM	27	0	22	0	0	0	0	0	0	28	15	0	25	21	0	0	138	511
11:30 AM	26	0	29	0	0	0	0	0	0	32	21	0	32	17	0	0	157	551
11:45 AM	19	0	27	0	0	0	0	0	0	30	32	0	42	22	0	0	172	586
12:00 PM	26	0	30	0	0	0	0	0	0	27	24	0	27	21	0	0	155	622
12:15 PM	26	0	23	0	0	0	0	0	0	23	20	0	28	31	0	0	151	635
12:30 PM	27	0	28	0	0	0	0	0	0	26	11	0	23	29	0	0	144	622
12:45 PM	19	0	31	0	0	0	0	0	0	29	19	0	29	12	0	0	139	589
1:00 PM	23	0	19	0	0	0	0	0	0	31	24	0	29	23	0	0	149	583
1:15 PM	21	0	30	0	0	0	0	0	0	13	20	0	22	20	0	0	126	558
1:30 PM	34	0	20	0	0	0	0	0	0	17	17	0	26	13	0	0	127	541
1:45 PM	28	0	22	0	0	0	0	0	0	26	19	0	22	14	0	0	131	533
2:00 PM	10	0	27	0	0	0	0	0	0	25	13	0	27	21	0	0	123	507
2:15 PM	21	0	21	0	0	0	0	0	0	25	20	0	22	18	0	0	127	508
2:30 PM	36	0	26	0	0	0	0	0	0	27	17	0	30	16	0	0	152	533
2:45 PM	39	0	20	0	0	0	0	0	0	17	25	0	42	28	0	0	171	573
3:00 PM	56	0	33	0	0	0	0	0	0	27	35	0	23	33	0	0	207	657
3:15 PM	36	0	23	0	0	0	0	0	0	24	25	0	30	20	0	0	158	688
3:30 PM	28	0	22	0	0	0	0	0	0	29	31	0	26	16	0	0	152	688
3:45 PM	37	0	22	0	0	0	0	0	0	33	25	0	23	34	0	0	174	691
4:00 PM	40	0	24	0	0	0	0	0	0	21	18	0	25	35	0	0	163	647
4:15 PM	45	0	26	0	0	0	0	0	0	28	24	0	30	19	0	0	172	661
4:30 PM	49	0	27	0	0	0	0	0	0	30	35	0	31	25	0	0	197	706

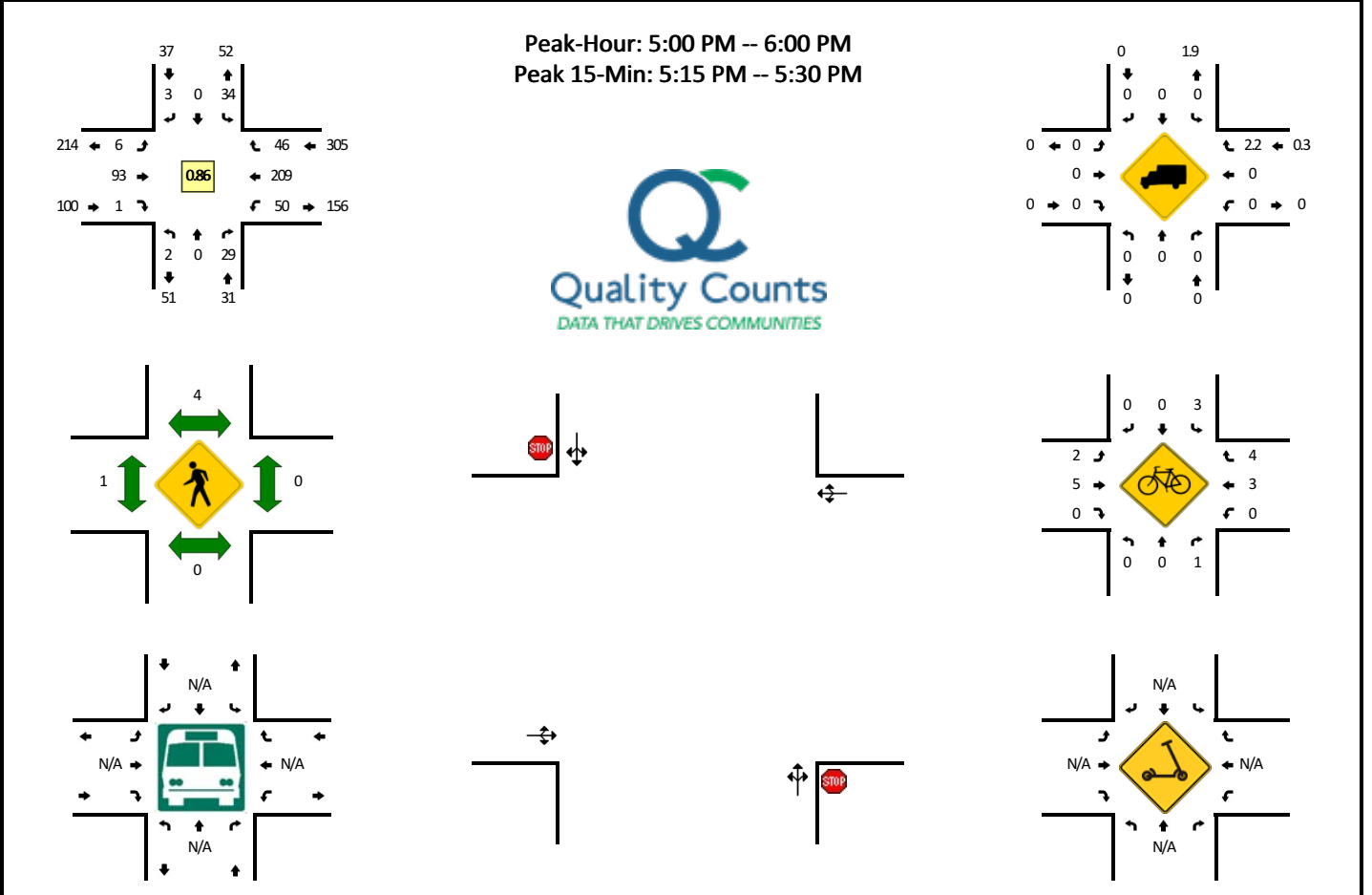
15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	30	0	39	0	0	0	0	0	0	30	25	0	43	30	0	0	197	729
5:00 PM	51	0	35	0	0	0	0	0	0	28	28	0	37	39	0	0	218	784
5:15 PM	63	0	35	0	0	0	0	0	0	32	25	0	33	47	0	0	235	847
5:30 PM	57	0	29	0	0	0	0	0	0	30	29	0	45	34	0	0	224	874
5:45 PM	53	0	30	0	0	0	0	0	0	37	26	0	38	32	0	0	216	893
6:00 PM	54	0	27	0	0	0	0	0	0	34	15	0	29	37	0	0	196	871
6:15 PM	30	0	16	0	0	0	0	0	0	40	22	0	53	32	0	0	193	829
6:30 PM	40	0	21	0	0	0	0	0	0	28	13	0	34	34	0	0	170	775
6:45 PM	42	0	26	0	0	0	0	0	0	24	26	0	32	33	0	0	183	742
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	252	0	140	0	0	0	0	0	0	128	100	0	132	188	0	0	940	
Heavy Trucks	0	0	0		0	0	0		0	0	4		0	4	0		8	
Buses																		
Pedestrians		0				12				0				4			16	
Bicycles	0	0	0		0	0	0		0	4	0		0	8	0		12	
Scoters																		
<i>Comments:</i>																		

Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Shadow Lake Rd/Lark Ln -- Glade Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762705
DATE: Wed, Apr 6 2022



15-Min Count Period Beginning At	Shadow Lake Rd/Lark Ln (Northbound)				Shadow Lake Rd/Lark Ln (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	7	0	8	0	0	0	0	16	0	0	0	12	10	0	53	
7:15 AM	0	0	7	0	10	0	1	0	0	33	1	0	1	4	8	0	65	
7:30 AM	1	0	9	0	15	0	0	0	0	30	0	0	1	6	6	0	68	
7:45 AM	0	0	11	0	36	0	0	0	2	53	0	0	2	6	20	0	130	
8:00 AM	0	0	3	0	30	0	1	0	0	28	0	0	1	13	21	0	97	
8:15 AM	0	0	11	0	11	0	0	0	0	23	1	0	2	5	4	0	57	
8:30 AM	0	0	12	0	11	0	0	0	0	28	1	0	2	12	6	0	72	
8:45 AM	1	0	11	0	15	0	0	0	0	21	0	0	7	17	5	0	77	
9:00 AM	1	0	3	0	5	0	2	0	0	17	0	0	2	19	8	0	57	
9:15 AM	0	0	2	0	5	0	0	0	0	22	0	0	3	12	2	0	46	
9:30 AM	0	0	6	0	10	0	0	0	1	19	0	0	3	7	4	0	50	
9:45 AM	0	0	4	0	6	0	1	0	1	30	0	0	1	14	3	0	60	
10:00 AM	0	0	3	0	6	0	0	0	0	13	0	0	3	16	6	0	47	
10:15 AM	0	0	5	0	6	0	0	0	0	26	0	0	2	9	6	0	54	
10:30 AM	0	0	6	0	9	0	0	0	0	14	0	0	3	9	2	0	43	
10:45 AM	0	0	2	0	8	0	1	0	0	21	1	0	4	18	5	0	60	
11:00 AM	0	0	8	0	3	0	0	0	0	14	0	0	5	16	5	0	51	
11:15 AM	0	1	6	0	11	0	0	0	1	21	0	0	6	23	8	0	77	
11:30 AM	0	0	9	0	8	1	0	0	1	22	0	0	6	20	8	0	75	
11:45 AM	0	0	3	0	3	0	1	0	0	33	0	0	0	13	9	0	62	
12:00 PM	0	0	2	0	10	0	0	0	0	22	1	0	5	20	7	0	67	
12:15 PM	0	1	5	0	7	0	0	0	1	16	0	0	5	28	10	0	73	
12:30 PM	1	0	4	0	6	1	1	0	0	13	1	0	5	31	11	0	74	
12:45 PM	0	0	3	0	5	1	0	0	0	32	4	0	4	17	7	0	73	
1:00 PM	0	0	5	0	13	0	1	0	0	21	0	0	7	21	6	0	74	
1:15 PM	1	0	4	0	5	0	1	0	0	17	1	0	4	15	7	0	55	
1:30 PM	0	0	8	0	5	0	1	0	0	18	1	0	7	17	10	0	67	
1:45 PM	0	0	2	0	3	0	0	0	0	19	1	0	4	21	7	0	57	
2:00 PM	1	0	2	0	8	0	0	0	0	17	0	0	9	14	1	0	52	
2:15 PM	1	0	4	0	6	0	0	0	0	20	0	0	4	18	4	0	57	
2:30 PM	1	0	2	0	4	0	0	0	0	27	0	0	0	25	10	0	69	
2:45 PM	0	0	4	0	12	0	0	0	1	16	0	0	8	23	24	0	88	
3:00 PM	0	0	6	0	26	0	0	0	1	19	0	0	9	40	24	0	125	
3:15 PM	1	0	10	0	11	0	0	0	1	16	0	0	6	29	11	0	85	
3:30 PM	0	0	4	0	11	0	2	0	0	26	0	0	2	19	8	0	72	
3:45 PM	0	0	4	0	10	1	0	0	1	19	0	0	9	34	16	0	94	
4:00 PM	1	1	1	0	11	0	2	0	1	19	0	0	5	37	12	0	90	
4:15 PM	0	0	5	0	5	0	1	0	1	30	0	0	9	29	14	0	94	
4:30 PM	0	0	6	0	15	0	2	0	1	29	0	0	5	44	10	0	112	

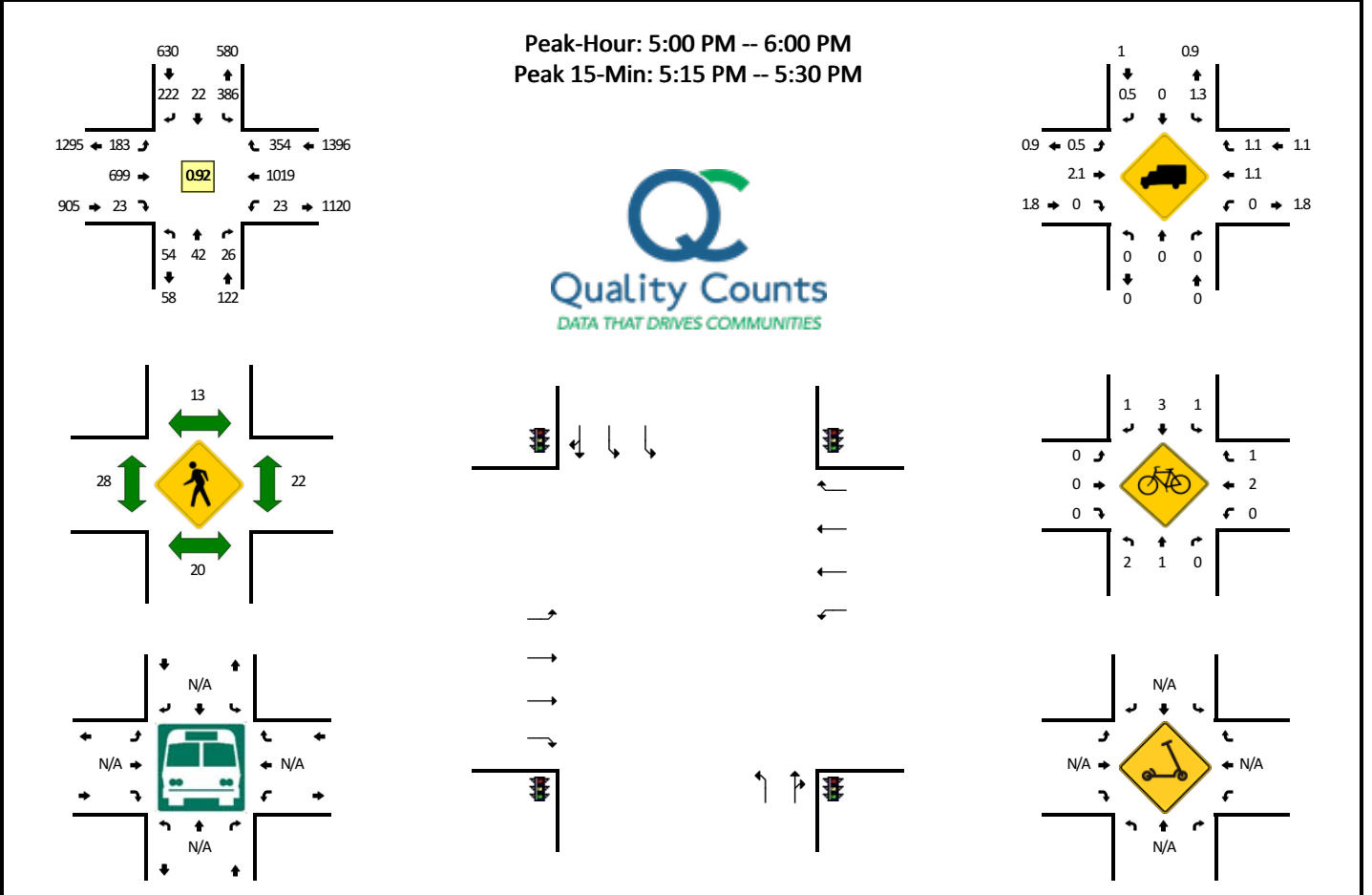
15-Min Count Period Beginning At	Shadow Lake Rd/Lark Ln (Northbound)				Shadow Lake Rd/Lark Ln (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	1	0	7	0	12	0	0	0	0	20	0	0	5	30	9	0	84	380
5:00 PM	0	0	11	0	6	0	1	0	1	13	0	0	12	44	14	0	102	392
5:15 PM	0	0	6	0	14	0	1	0	1	19	0	0	16	69	12	0	138	436
5:30 PM	2	0	5	0	7	0	0	0	2	31	0	0	9	48	10	0	114	438
5:45 PM	0	0	7	0	7	0	1	0	2	30	1	0	13	48	10	0	119	473
6:00 PM	1	0	5	0	6	0	0	0	1	21	0	0	11	42	13	0	100	471
6:15 PM	0	0	6	0	8	0	0	0	1	26	1	0	9	35	8	0	94	427
6:30 PM	0	1	5	0	4	0	2	0	1	20	0	0	6	41	10	0	90	403
6:45 PM	0	0	2	0	10	1	0	0	0	25	1	0	8	49	8	0	104	388
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	24	0	56	0	4	0	4	76	0	0	64	276	48	0	552	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0	
Buses																		
Pedestrians		0				8				0				0			8	
Bicycles	0	0	0		0	0	0		0	0	0		0	4	12		16	
Scoters																		
<i>Comments:</i>																		

Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: University City Blvd -- Prices Fork Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762706
DATE: Wed, Apr 6 2022



15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	2	0	0	37	3	11	0	15	122	8	0	0	53	14	0	266	
7:15 AM	3	0	1	0	43	2	17	0	19	131	2	0	1	68	21	0	308	
7:30 AM	3	1	1	0	45	5	26	0	20	170	8	0	4	124	21	0	428	
7:45 AM	1	1	5	0	74	7	19	0	34	236	22	0	4	122	30	0	555	1557
8:00 AM	2	1	4	0	65	4	16	0	27	205	10	0	2	88	29	0	453	1744
8:15 AM	7	0	2	0	35	2	15	0	30	158	13	0	3	61	29	0	355	1791
8:30 AM	7	4	1	0	63	4	19	0	37	206	6	0	0	70	36	0	453	1816
8:45 AM	1	4	4	0	67	3	22	0	29	235	12	0	12	87	40	0	516	1777
9:00 AM	2	4	5	0	55	10	21	0	32	190	5	0	8	102	55	0	489	1813
9:15 AM	1	1	1	0	55	4	17	0	24	113	3	0	0	69	41	1	330	1788
9:30 AM	2	2	2	0	48	4	16	0	21	136	9	0	2	90	40	0	372	1707
9:45 AM	3	3	3	0	75	2	20	0	33	199	9	0	1	87	39	0	474	1665
10:00 AM	5	7	5	0	63	3	18	0	19	138	4	0	0	104	79	1	446	1622
10:15 AM	1	3	4	0	83	0	22	0	29	109	7	0	1	97	63	0	419	1711
10:30 AM	4	1	4	0	61	4	25	0	20	109	5	0	1	75	46	0	355	1694
10:45 AM	2	5	5	0	64	3	19	0	31	144	8	0	6	94	50	0	431	1651
11:00 AM	3	3	6	0	78	4	19	0	25	121	6	0	3	122	67	0	457	1662
11:15 AM	4	2	5	0	57	4	33	1	29	102	9	0	2	122	69	1	440	1683
11:30 AM	4	2	8	0	106	2	22	0	33	111	2	0	6	116	89	0	501	1829
11:45 AM	8	3	7	0	78	9	42	0	37	146	11	0	7	118	72	2	540	1938
12:00 PM	9	8	3	0	88	10	26	0	35	165	9	0	2	130	76	0	561	2042
12:15 PM	11	8	3	0	107	10	42	0	33	118	5	0	7	144	111	0	599	2201
12:30 PM	2	9	2	0	100	5	38	0	36	124	3	0	6	121	85	0	531	2231
12:45 PM	5	1	5	0	90	9	27	0	40	148	10	0	1	138	55	2	531	2222
1:00 PM	6	2	3	0	110	9	43	0	32	157	11	0	2	147	71	0	593	2254
1:15 PM	6	5	9	0	84	3	29	0	20	133	5	0	7	139	68	3	511	2166
1:30 PM	10	5	3	0	80	2	33	0	31	120	3	0	3	161	87	1	539	2174
1:45 PM	4	4	4	0	78	3	29	0	37	134	7	0	3	137	48	2	490	2133
2:00 PM	3	8	4	0	79	2	37	0	36	142	2	0	4	125	64	3	509	2049
2:15 PM	11	5	7	0	87	7	49	0	34	126	5	0	4	149	58	0	542	2080
2:30 PM	4	5	0	0	67	1	37	0	41	102	3	0	5	205	84	1	555	2096
2:45 PM	2	3	0	0	58	1	43	0	26	137	6	0	5	172	77	0	530	2136
3:00 PM	8	3	6	0	63	3	32	0	41	151	4	0	4	139	64	0	518	2145
3:15 PM	4	4	4	0	95	3	42	0	30	159	4	0	4	143	69	3	564	2167
3:30 PM	5	6	4	0	80	8	36	0	34	148	11	0	2	186	71	1	592	2204
3:45 PM	6	13	3	0	82	7	52	0	43	171	10	0	1	181	67	1	637	2311
4:00 PM	14	8	6	0	86	2	37	0	51	139	2	0	3	249	86	1	684	2477
4:15 PM	14	7	2	0	77	3	47	0	45	124	5	0	4	238	86	1	653	2566
4:30 PM	14	7	1	0	63	5	50	0	37	138	1	0	2	227	63	0	608	2582

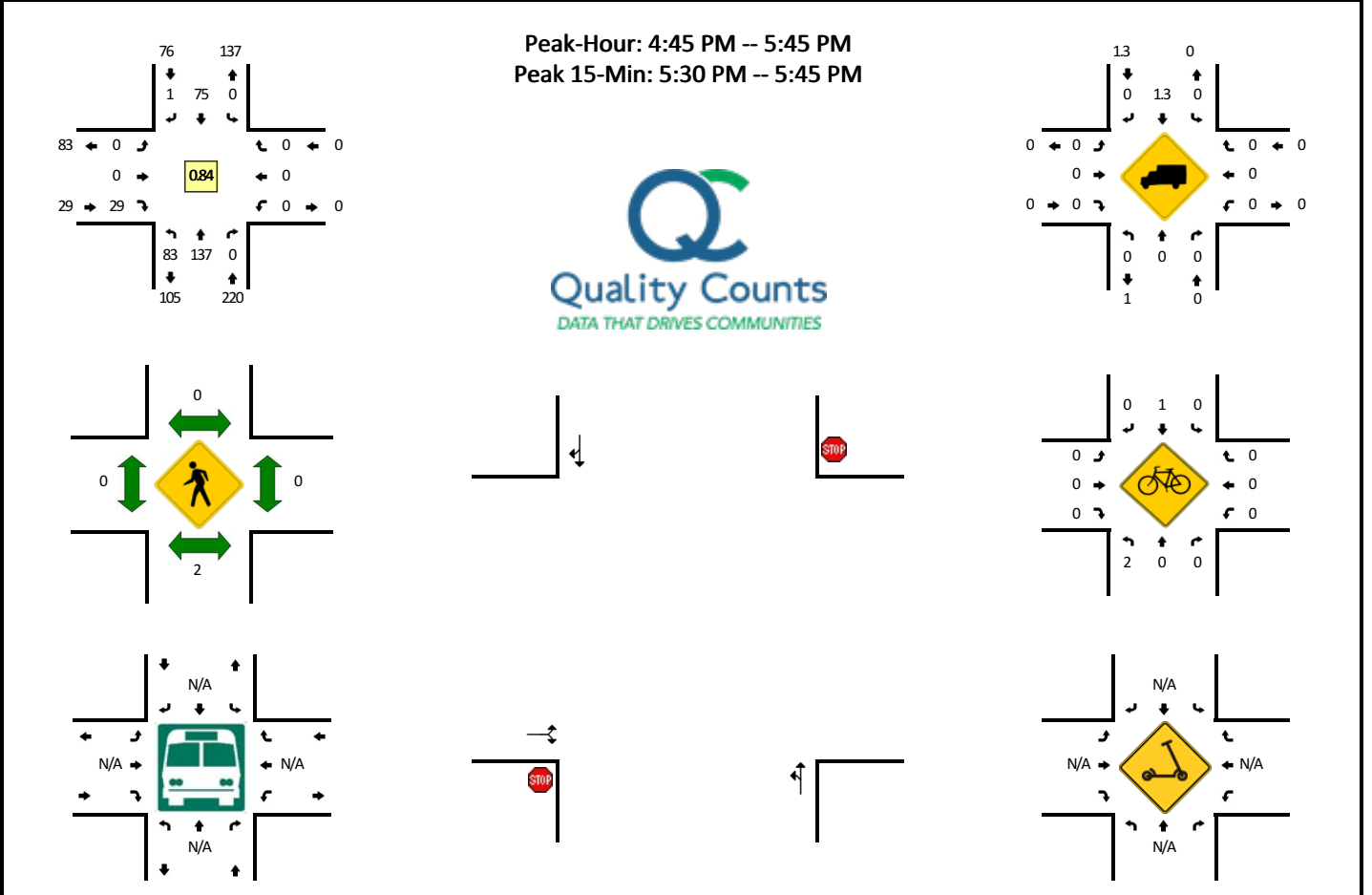
15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	7	8	4	0	86	6	50	0	44	133	7	0	5	218	101	3	672	2617
5:00 PM	20	10	8	0	78	5	56	0	42	191	7	0	3	246	82	1	749	2682
5:15 PM	15	15	7	0	105	2	62	0	49	186	7	0	5	279	96	2	830	2859
5:30 PM	13	8	9	0	83	5	55	1	40	135	6	0	2	273	110	1	741	2992
5:45 PM	6	9	2	0	119	10	49	0	52	187	3	0	3	221	66	6	733	3053
6:00 PM	2	4	5	0	66	3	35	2	53	148	3	0	4	197	84	0	606	2910
6:15 PM	7	5	5	0	111	4	40	1	46	163	6	0	7	189	74	3	661	2741
6:30 PM	7	3	3	0	91	4	37	0	43	155	4	0	1	186	84	3	621	2621
6:45 PM	3	2	1	0	95	2	24	0	31	141	2	0	4	185	88	2	580	2468
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	60	60	28	0	420	8	248	0	196	744	28	0	20	1116	384	8	3320	
Heavy Trucks	0	0	0		4	0	0		0	12	0		0	12	4		32	
Buses																		
Pedestrians		16				24				28				40			108	
Bicycles	4	0	0		0	0	4		0	0	0		0	0	4		12	
Scoters																		
<i>Comments:</i>																		

Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Toms Creek Rd -- Honeysuckle Dr
CITY/STATE: Blacksburg, VA

QC JOB #: 15762708
DATE: Thu, Apr 7 2022



15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Honeysuckle Dr (Eastbound)				Honeysuckle Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	5	4	0	0	0	9	0	0	0	0	0	6	0	0	0	0	24	
7:15 AM	2	11	0	0	0	26	0	0	0	0	0	12	0	0	0	0	51	
7:30 AM	2	5	0	0	0	39	1	0	0	0	0	16	0	0	0	0	63	
7:45 AM	2	9	0	0	0	39	0	0	0	0	0	20	0	0	0	0	70	208
8:00 AM	7	17	0	0	0	23	0	0	0	0	0	7	0	0	0	0	54	238
8:15 AM	4	11	0	0	0	26	0	0	0	0	0	11	0	0	0	0	52	239
8:30 AM	4	6	0	2	0	33	0	0	0	0	0	17	0	0	0	0	62	238
8:45 AM	9	16	0	0	0	33	0	0	0	0	0	18	0	0	0	0	76	244
9:00 AM	12	13	0	0	0	20	0	0	0	0	0	19	0	0	0	0	64	254
9:15 AM	8	13	0	0	0	18	1	0	0	0	0	11	0	0	0	0	51	253
9:30 AM	7	14	0	0	0	15	0	0	0	0	0	5	0	0	0	0	41	232
9:45 AM	7	14	0	0	0	18	0	0	0	0	0	7	0	0	0	0	46	202
10:00 AM	5	12	0	0	0	17	0	0	0	0	0	7	0	0	0	0	41	179
10:15 AM	1	8	0	1	0	11	0	0	0	1	0	8	0	0	0	0	30	158
10:30 AM	6	17	0	0	0	13	1	0	0	0	0	9	0	0	0	0	46	163
10:45 AM	12	17	0	1	0	23	0	0	0	1	0	12	0	0	0	0	66	183
11:00 AM	7	12	0	0	0	19	0	0	0	0	0	6	0	0	0	0	44	186
11:15 AM	5	10	0	0	0	13	0	0	0	1	0	8	0	0	0	0	37	193
11:30 AM	8	16	0	1	0	15	0	0	0	0	0	9	0	0	0	0	49	196
11:45 AM	9	21	0	0	0	24	0	0	0	0	0	12	0	0	0	0	66	196
12:00 PM	12	22	0	0	0	21	0	0	0	0	0	9	0	0	0	0	64	216
12:15 PM	12	15	0	0	0	20	1	0	0	0	0	8	0	0	0	0	56	235
12:30 PM	12	11	0	0	0	12	0	0	0	0	0	10	0	0	0	0	45	231
12:45 PM	13	16	0	0	0	28	0	0	0	0	0	3	0	0	0	0	60	225
1:00 PM	7	17	0	0	0	17	0	0	0	0	0	10	0	0	0	0	51	212
1:15 PM	10	14	0	0	0	18	1	0	0	0	0	9	0	0	0	0	52	208
1:30 PM	16	20	0	0	0	11	1	0	0	1	0	16	0	0	0	0	65	228
1:45 PM	6	18	0	0	0	19	0	0	0	0	0	11	0	0	0	0	54	222
2:00 PM	9	15	0	0	0	22	0	0	0	0	0	8	0	0	0	0	54	225
2:15 PM	10	10	0	0	0	15	0	0	0	0	0	5	0	0	0	0	40	213
2:30 PM	6	14	0	0	0	12	1	0	0	0	0	10	0	0	0	0	43	191
2:45 PM	12	22	0	1	0	14	0	0	0	1	0	14	0	0	0	0	64	201
3:00 PM	9	23	0	0	0	18	0	0	0	0	0	11	0	0	0	0	61	208
3:15 PM	13	26	0	0	0	21	0	0	0	0	0	12	0	0	0	0	72	240
3:30 PM	7	21	0	0	0	24	0	0	0	0	0	7	0	0	0	0	59	256
3:45 PM	12	18	0	0	0	20	0	0	0	1	0	7	0	0	0	0	58	250
4:00 PM	10	30	0	0	0	15	1	0	0	0	0	5	0	0	0	0	61	250
4:15 PM	8	28	0	0	0	16	1	0	0	0	0	13	0	0	0	0	66	244
4:30 PM	12	45	0	0	0	14	0	0	0	0	0	15	0	0	0	0	86	271

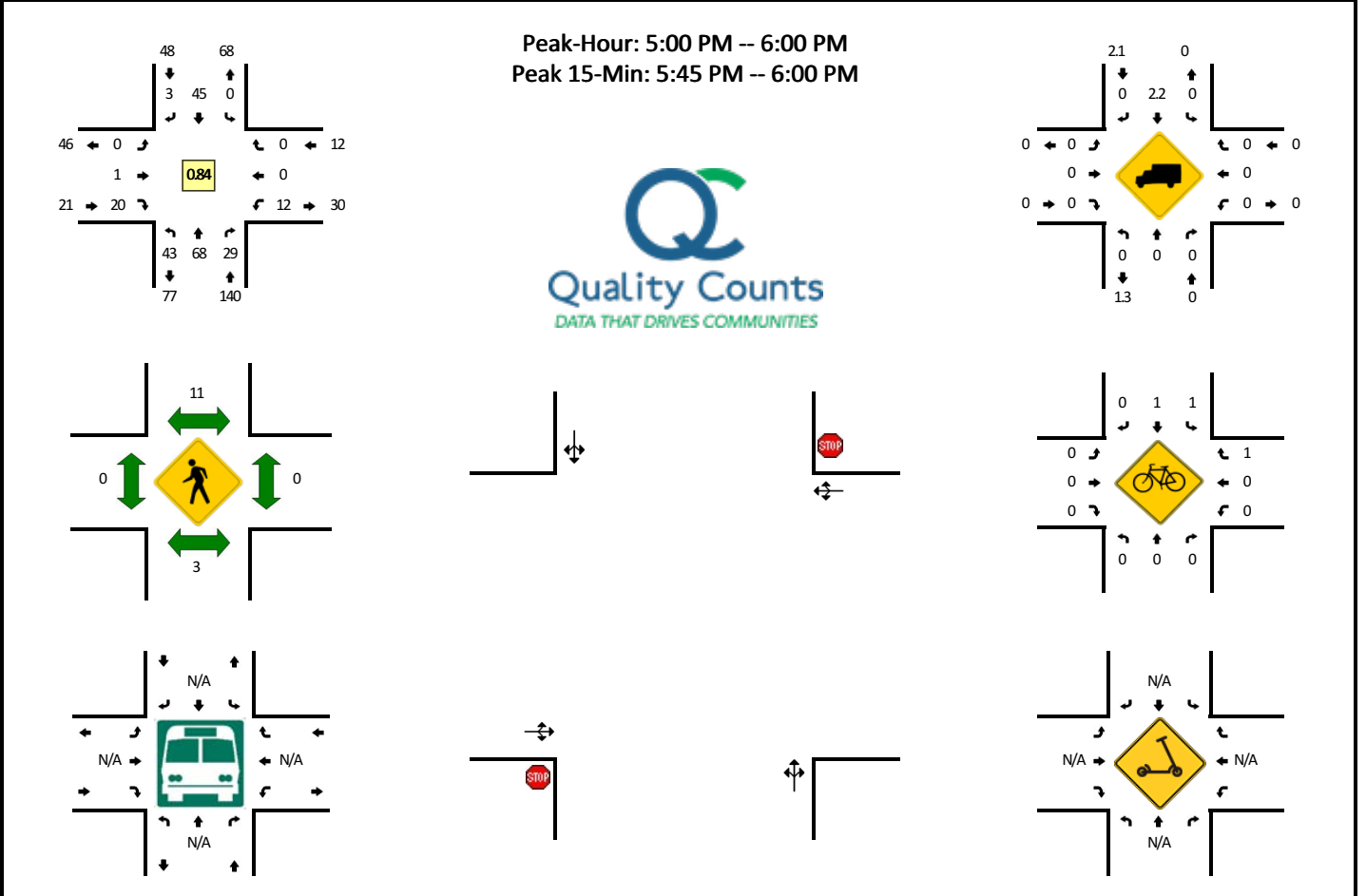
15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Honeysuckle Dr (Eastbound)				Honeysuckle Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	22	37	0	0	0	22	0	0	0	0	6	0	0	0	0	0	87	300
5:00 PM	10	29	0	0	0	19	1	0	0	0	9	0	0	0	0	0	68	307
5:15 PM	22	32	0	0	0	12	0	0	0	0	7	0	0	0	0	0	73	314
5:30 PM	28	39	0	1	0	22	0	0	0	0	7	0	0	0	0	0	97	325
5:45 PM	13	40	0	0	0	25	0	0	0	0	8	0	0	0	0	0	86	324
6:00 PM	3	28	0	0	0	21	0	0	0	0	4	0	0	0	0	0	56	312
6:15 PM	11	21	0	0	0	14	0	0	0	0	6	0	0	0	0	0	52	291
6:30 PM	14	20	0	0	0	17	0	0	0	0	11	0	0	0	0	0	62	256
6:45 PM	4	20	0	0	0	18	0	0	0	0	10	0	0	0	0	0	52	222
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	112	156	0	4	0	88	0	0	0	0	28	0	0	0	0	0	388	
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	0	0		4	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																		
<i>Comments:</i>																		

Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Toms Creek Rd -- Redbud Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762709
DATE: Thu, Apr 7 2022



15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Redbud Rd (Eastbound)				Redbud Rd (Westbound)				Total	Hourly Totals	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
7:00 AM	1	5	0	0	0	4	1	0	0	0	0	3	0	2	0	0	0	16	
7:15 AM	3	6	2	0	0	11	0	0	0	0	1	8	0	7	0	0	0	38	
7:30 AM	1	4	0	0	0	16	0	0	0	0	0	17	0	7	0	0	0	45	
7:45 AM	4	4	1	0	0	13	0	0	0	1	0	10	0	14	0	0	0	47	146
8:00 AM	4	9	3	0	0	11	0	0	0	2	0	8	0	5	0	0	0	42	172
8:15 AM	2	5	2	0	0	20	0	0	0	1	0	3	0	3	0	0	0	36	170
8:30 AM	2	8	0	0	0	16	0	0	0	0	0	12	0	5	0	0	0	43	168
8:45 AM	5	5	3	0	0	15	3	0	0	0	0	10	0	8	0	0	0	49	170
9:00 AM	6	7	3	0	0	10	0	0	0	0	0	5	0	6	0	1	0	38	166
9:15 AM	4	6	3	0	0	7	0	0	0	0	0	5	0	7	0	0	0	32	162
9:30 AM	2	12	0	0	0	6	0	0	0	0	0	5	0	3	0	0	0	28	147
9:45 AM	2	8	4	0	0	9	0	0	0	0	0	8	0	1	0	0	0	32	130
10:00 AM	4	4	3	0	0	10	0	0	0	0	0	5	0	1	0	0	0	27	119
10:15 AM	3	6	0	0	0	8	0	0	0	0	1	3	0	0	0	0	0	21	108
10:30 AM	6	7	1	0	0	8	0	0	0	0	0	5	0	2	0	0	0	29	109
10:45 AM	5	14	3	0	0	17	1	0	0	0	0	3	0	3	0	0	0	46	123
11:00 AM	2	8	2	0	0	10	0	0	0	1	0	6	0	1	1	0	0	31	127
11:15 AM	2	7	0	0	0	7	0	0	0	0	0	3	0	4	0	0	0	23	129
11:30 AM	6	11	1	0	0	10	0	0	0	1	0	5	0	2	0	0	0	36	136
11:45 AM	3	15	3	0	1	12	0	0	0	0	0	3	0	6	1	0	0	44	134
12:00 PM	5	12	4	0	0	19	0	0	0	0	0	2	0	0	0	0	0	42	145
12:15 PM	5	7	2	0	0	18	0	0	0	1	0	3	0	2	1	0	0	39	161
12:30 PM	3	6	4	0	0	4	0	0	0	1	0	5	0	1	0	0	0	24	149
12:45 PM	2	10	2	0	0	16	0	0	0	0	0	5	0	8	0	0	0	43	148
1:00 PM	4	8	6	0	0	5	0	0	0	1	1	8	0	3	0	0	0	36	142
1:15 PM	3	10	1	0	1	10	1	0	0	0	0	6	0	2	1	0	0	35	138
1:30 PM	3	13	4	0	0	6	0	0	0	0	0	2	0	3	0	0	0	31	145
1:45 PM	2	11	2	0	0	8	0	0	0	0	0	9	0	3	0	0	0	35	137
2:00 PM	5	10	5	0	0	12	0	0	0	0	0	4	0	4	0	0	0	40	141
2:15 PM	2	5	3	0	0	13	1	0	0	0	0	1	0	3	0	1	0	29	135
2:30 PM	3	9	1	0	0	8	0	0	0	0	0	3	0	2	0	0	0	26	130
2:45 PM	6	15	2	0	0	10	0	0	0	0	0	4	0	1	0	0	0	38	133
3:00 PM	4	14	6	0	0	8	0	0	0	0	0	7	0	3	1	0	0	43	136
3:15 PM	7	12	6	0	1	9	0	0	0	1	0	9	0	3	0	0	0	48	155
3:30 PM	6	8	5	1	0	14	0	0	0	0	0	5	0	4	0	0	0	43	172
3:45 PM	6	10	4	0	0	15	0	0	0	0	0	4	0	1	0	0	0	40	174
4:00 PM	8	13	6	0	0	12	0	0	0	0	0	2	0	2	0	0	0	43	174
4:15 PM	3	25	1	0	0	8	0	0	0	1	0	7	0	2	0	0	0	47	173
4:30 PM	12	30	5	0	0	10	0	0	0	0	0	2	0	1	0	0	0	60	190

15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Redbud Rd (Eastbound)				Redbud Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	7	24	5	0	1	10	1	0	0	0	8	0	5	0	0	0	61	211
5:00 PM	8	15	7	0	0	10	1	0	0	0	6	0	3	0	0	0	50	218
5:15 PM	9	17	5	0	0	8	1	0	0	0	1	0	3	0	0	0	44	215
5:30 PM	15	16	8	0	0	15	0	0	0	0	5	0	2	0	0	0	61	216
5:45 PM	11	20	9	0	0	12	1	0	0	1	8	0	4	0	0	0	66	221
6:00 PM	5	16	6	0	0	12	0	0	0	0	4	0	4	0	0	0	47	218
6:15 PM	8	7	6	0	1	10	0	0	1	0	4	0	2	0	1	0	40	214
6:30 PM	6	12	2	0	1	9	0	0	0	0	3	0	2	1	1	0	37	190
6:45 PM	3	12	5	0	2	8	0	0	0	0	3	0	6	0	1	0	40	164
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	44	80	36	0	0	48	4	0	0	4	32	0	16	0	0	0	264	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		4	0	0		0	0	0		0	0	0		4	
Scooters																		

Comments:

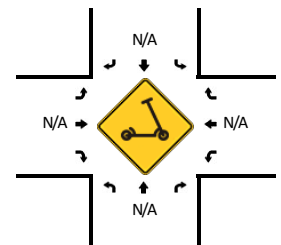
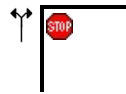
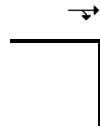
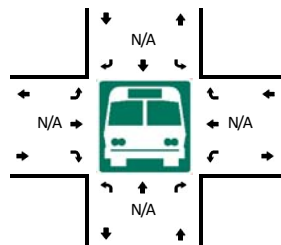
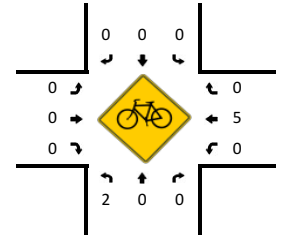
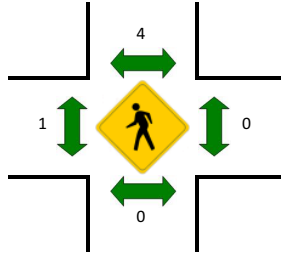
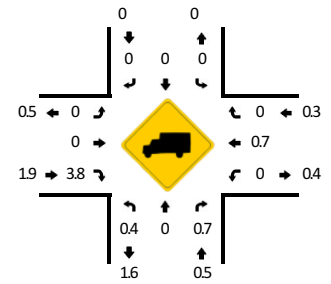
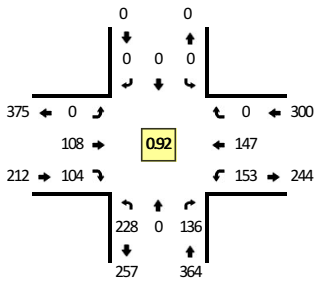
Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Old Glade Rd -- Glade Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762711
DATE: Thu, Apr 7 2022

Peak-Hour: 5:00 PM -- 6:00 PM
 Peak 15-Min: 5:30 PM -- 5:45 PM



15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	21	0	25	0	0	0	0	0	0	15	17	0	6	2	0	0	86	
7:15 AM	10	0	18	0	0	0	0	0	0	31	28	0	18	8	0	0	113	
7:30 AM	14	0	22	0	0	0	0	0	0	25	45	0	26	7	0	0	139	
7:45 AM	24	0	20	0	0	0	0	0	0	35	49	0	40	10	0	0	178	516
8:00 AM	22	0	29	0	0	0	0	0	0	31	36	0	19	11	0	0	148	578
8:15 AM	12	0	18	0	0	0	0	0	0	16	40	0	16	9	0	1	112	577
8:30 AM	17	0	24	0	0	0	0	0	0	20	40	0	18	4	0	0	123	561
8:45 AM	28	0	25	0	0	0	0	0	0	26	38	0	17	13	0	0	147	530
9:00 AM	22	0	26	0	0	0	0	0	0	28	18	0	20	12	0	0	126	508
9:15 AM	13	0	20	0	0	0	0	0	0	32	25	0	9	16	0	0	115	511
9:30 AM	8	0	30	0	0	0	0	0	0	24	20	0	17	13	0	0	112	500
9:45 AM	20	0	21	0	0	0	0	0	0	22	22	0	20	8	0	0	113	466
10:00 AM	15	0	25	0	0	0	0	0	0	25	18	0	25	15	0	0	123	463
10:15 AM	13	0	22	0	0	0	0	0	0	16	16	0	22	9	0	0	98	446
10:30 AM	21	0	20	0	0	0	0	0	0	26	12	0	18	14	0	0	111	445
10:45 AM	19	0	25	0	0	0	0	0	0	16	17	0	26	17	0	0	120	452
11:00 AM	18	0	25	0	0	0	0	0	0	24	22	0	33	20	0	0	142	471
11:15 AM	31	0	19	0	0	0	0	0	0	16	16	0	22	13	0	0	117	490
11:30 AM	23	0	22	0	0	0	0	0	0	27	12	0	31	14	0	0	129	508
11:45 AM	31	0	17	0	0	0	0	0	0	25	20	0	26	9	0	0	128	516
12:00 PM	25	0	26	0	0	0	0	0	0	33	28	0	23	21	0	0	156	530
12:15 PM	24	0	30	0	0	0	0	0	0	32	15	0	41	21	0	0	163	576
12:30 PM	31	0	29	0	0	0	0	0	0	23	22	0	35	27	0	0	167	614
12:45 PM	31	0	19	0	0	0	0	0	0	30	26	0	24	26	0	0	156	642
1:00 PM	19	0	23	0	0	0	0	0	0	28	13	0	24	16	0	0	123	609
1:15 PM	27	0	21	0	0	0	0	0	0	24	18	0	27	17	0	0	134	580
1:30 PM	18	0	19	0	0	0	0	0	0	29	11	0	30	23	0	0	130	543
1:45 PM	21	0	29	0	0	0	0	0	0	21	18	0	29	20	0	0	138	525
2:00 PM	21	0	22	0	0	0	0	0	0	15	20	0	19	12	0	0	109	511
2:15 PM	20	0	22	0	0	0	0	0	0	17	18	0	23	13	0	1	114	491
2:30 PM	17	0	13	0	0	0	0	0	0	14	20	0	34	13	0	0	111	472
2:45 PM	22	0	20	0	0	0	0	0	0	17	19	0	26	16	0	0	120	454
3:00 PM	39	0	32	0	0	0	0	0	0	23	16	0	23	13	0	0	146	491
3:15 PM	42	0	28	0	0	0	0	0	0	29	22	0	28	24	0	0	173	550
3:30 PM	28	0	20	0	0	0	0	0	0	19	24	0	24	19	0	0	134	573
3:45 PM	39	0	35	0	0	0	0	0	0	23	20	0	34	33	0	0	184	637
4:00 PM	31	0	33	0	0	0	0	0	0	29	17	0	32	18	0	0	160	651
4:15 PM	47	0	16	0	0	0	0	0	0	21	19	0	36	32	0	0	171	649
4:30 PM	30	0	22	0	0	0	0	0	0	36	26	0	29	31	0	0	174	689

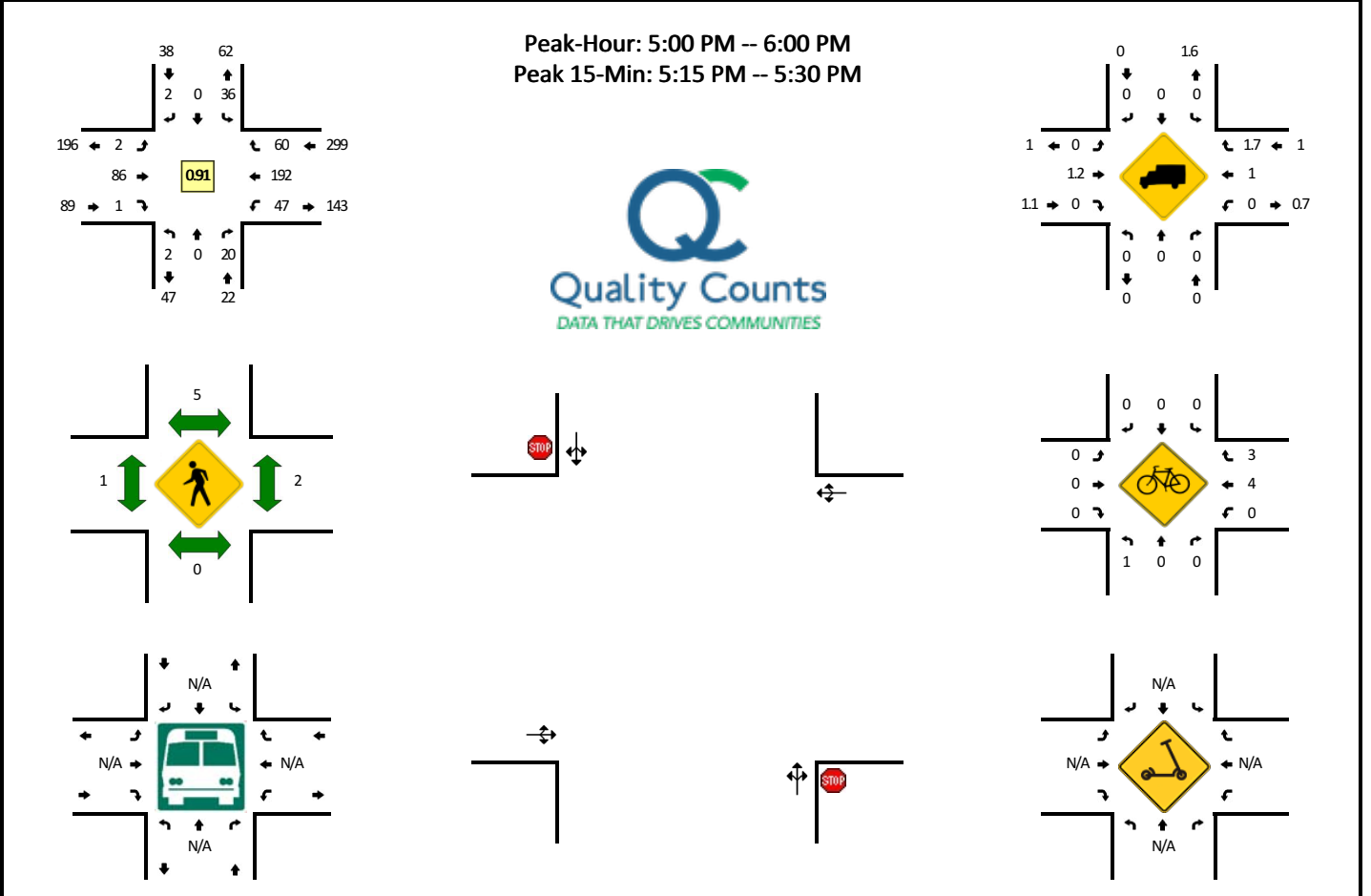
15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	37	0	24	0	0	0	0	0	0	34	21	0	34	29	0	0	179	684
5:00 PM	52	0	31	0	0	0	0	0	0	23	36	0	46	33	0	0	221	745
5:15 PM	55	0	44	0	0	0	0	0	0	28	18	0	36	56	0	0	237	811
5:30 PM	61	0	33	0	0	0	0	0	0	30	30	0	54	30	0	0	238	875
5:45 PM	60	0	28	0	0	0	0	0	0	27	20	0	17	28	0	0	180	876
6:00 PM	37	0	23	0	0	0	0	0	0	30	22	0	35	29	0	0	176	831
6:15 PM	43	0	29	0	0	0	0	0	0	29	23	0	32	29	0	0	185	779
6:30 PM	49	0	35	0	0	0	0	0	0	27	13	0	37	32	0	0	193	734
6:45 PM	39	0	24	0	0	0	0	0	0	29	23	0	23	38	0	0	176	730
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	244	0	132	0	0	0	0	0	0	120	120	0	216	120	0	0	952	
Heavy Trucks	0	0	0		0	0	0		0	0	4		0	0	0		4	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	4	0	0		0	0	0		0	0	0		0	0	0		4	
Scoters																		
<i>Comments:</i>																		

Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Shadow Lake Rd/Lark Ln -- Glade Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762712
DATE: Thu, Apr 7 2022



15-Min Count Period Beginning At	Shadow Lake Rd/Lark Ln (Northbound)				Shadow Lake Rd/Lark Ln (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	5	0	9	0	0	0	0	15	0	0	0	11	5	0	45	
7:15 AM	0	0	3	0	14	0	3	0	1	22	1	0	1	5	4	0	54	
7:30 AM	0	0	8	0	15	0	0	0	0	34	0	0	4	5	3	0	69	
7:45 AM	0	0	11	0	11	0	0	0	1	39	0	0	4	10	5	0	81	249
8:00 AM	0	0	7	0	14	0	1	1	0	29	0	0	3	10	8	0	73	277
8:15 AM	0	0	7	0	16	0	0	0	1	23	1	0	4	7	6	0	65	288
8:30 AM	0	0	12	0	10	0	1	0	0	30	0	0	0	8	4	0	65	284
8:45 AM	0	0	9	0	13	0	0	0	2	24	0	0	5	17	8	0	78	281
9:00 AM	0	0	5	0	8	0	0	0	0	21	0	0	2	20	2	0	58	266
9:15 AM	0	0	2	0	5	0	0	0	0	27	0	0	3	10	6	1	54	255
9:30 AM	0	1	3	0	8	0	1	0	0	24	1	0	2	8	3	0	51	241
9:45 AM	0	0	6	0	2	0	0	0	0	18	0	0	1	14	6	0	47	210
10:00 AM	0	0	5	0	4	1	0	0	0	17	0	0	3	11	5	0	46	198
10:15 AM	0	0	6	0	9	0	0	0	0	12	1	0	3	5	6	0	42	186
10:30 AM	0	0	5	0	7	0	0	0	0	16	0	0	6	19	4	0	57	192
10:45 AM	1	0	7	0	5	0	0	0	1	14	0	0	5	18	3	0	54	199
11:00 AM	0	1	9	0	8	0	1	0	0	12	0	0	2	16	5	0	54	207
11:15 AM	0	0	5	0	7	0	0	0	0	16	1	0	5	18	9	0	61	226
11:30 AM	0	1	6	0	5	0	1	0	1	13	1	0	9	11	7	0	55	224
11:45 AM	1	0	7	0	8	1	0	0	0	12	0	0	3	18	5	0	55	225
12:00 PM	0	0	6	0	6	0	0	0	0	26	0	0	7	14	9	0	68	239
12:15 PM	0	0	4	0	6	0	0	0	1	11	0	0	3	17	8	0	50	228
12:30 PM	0	0	5	0	7	1	0	0	0	22	0	0	7	22	9	0	73	246
12:45 PM	1	0	3	0	12	0	0	0	0	25	0	0	7	26	9	0	83	274
1:00 PM	0	0	6	0	5	0	0	0	0	17	2	0	5	13	5	0	53	259
1:15 PM	2	0	3	0	8	1	0	0	1	19	0	0	5	17	9	0	65	274
1:30 PM	0	1	5	0	7	0	1	0	0	14	1	0	3	19	10	0	61	262
1:45 PM	0	0	3	0	6	0	0	0	0	18	0	0	5	19	7	0	58	237
2:00 PM	0	1	4	0	7	0	0	0	0	11	1	0	6	15	6	0	51	235
2:15 PM	0	0	5	0	6	0	0	0	0	11	1	0	4	11	3	1	42	212
2:30 PM	0	0	4	0	3	0	0	0	0	23	0	0	3	11	7	0	51	202
2:45 PM	0	0	7	0	8	0	0	0	0	15	0	0	5	15	9	0	59	203
3:00 PM	0	0	3	0	8	0	0	0	0	13	2	0	11	20	8	0	65	217
3:15 PM	1	0	6	0	9	0	0	0	1	22	2	0	8	35	10	0	94	269
3:30 PM	0	0	7	0	5	0	0	0	1	19	0	0	4	17	11	0	64	282
3:45 PM	0	0	5	0	11	0	0	0	2	17	0	0	9	42	11	0	97	320
4:00 PM	2	0	10	0	9	0	1	0	0	14	0	0	1	25	8	1	71	326
4:15 PM	0	0	4	0	6	0	0	0	1	20	0	0	5	36	22	0	94	326
4:30 PM	0	0	8	0	11	0	2	0	0	23	0	0	7	23	12	0	86	348

15-Min Count Period Beginning At	Shadow Lake Rd/Lark Ln (Northbound)				Shadow Lake Rd/Lark Ln (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	0	0	8	0	8	0	0	0	0	16	0	0	10	33	12	0	87	338
5:00 PM	1	0	6	0	12	0	0	0	0	15	0	0	12	46	11	1	104	371
5:15 PM	1	0	5	0	7	0	1	0	1	18	1	0	19	50	20	0	123	400
5:30 PM	0	0	5	0	11	0	0	0	1	26	0	0	8	48	14	0	113	427
5:45 PM	0	0	4	0	6	0	1	0	0	27	0	0	7	48	15	0	108	448
6:00 PM	0	0	6	0	4	0	1	0	2	28	0	0	6	32	11	0	90	434
6:15 PM	0	0	2	0	9	1	1	0	0	27	0	0	5	40	10	0	95	406
6:30 PM	0	0	2	0	5	0	0	0	1	19	0	0	17	34	13	0	91	384
6:45 PM	0	0	5	0	7	1	0	0	0	24	1	0	11	38	9	0	96	372
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	4	0	20	0	28	0	4	0	4	72	4	0	76	200	80	0	492	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	4	4		8	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	4	0	0		0	0	0		0	0	0		0	4	8		16	
Scooters																		

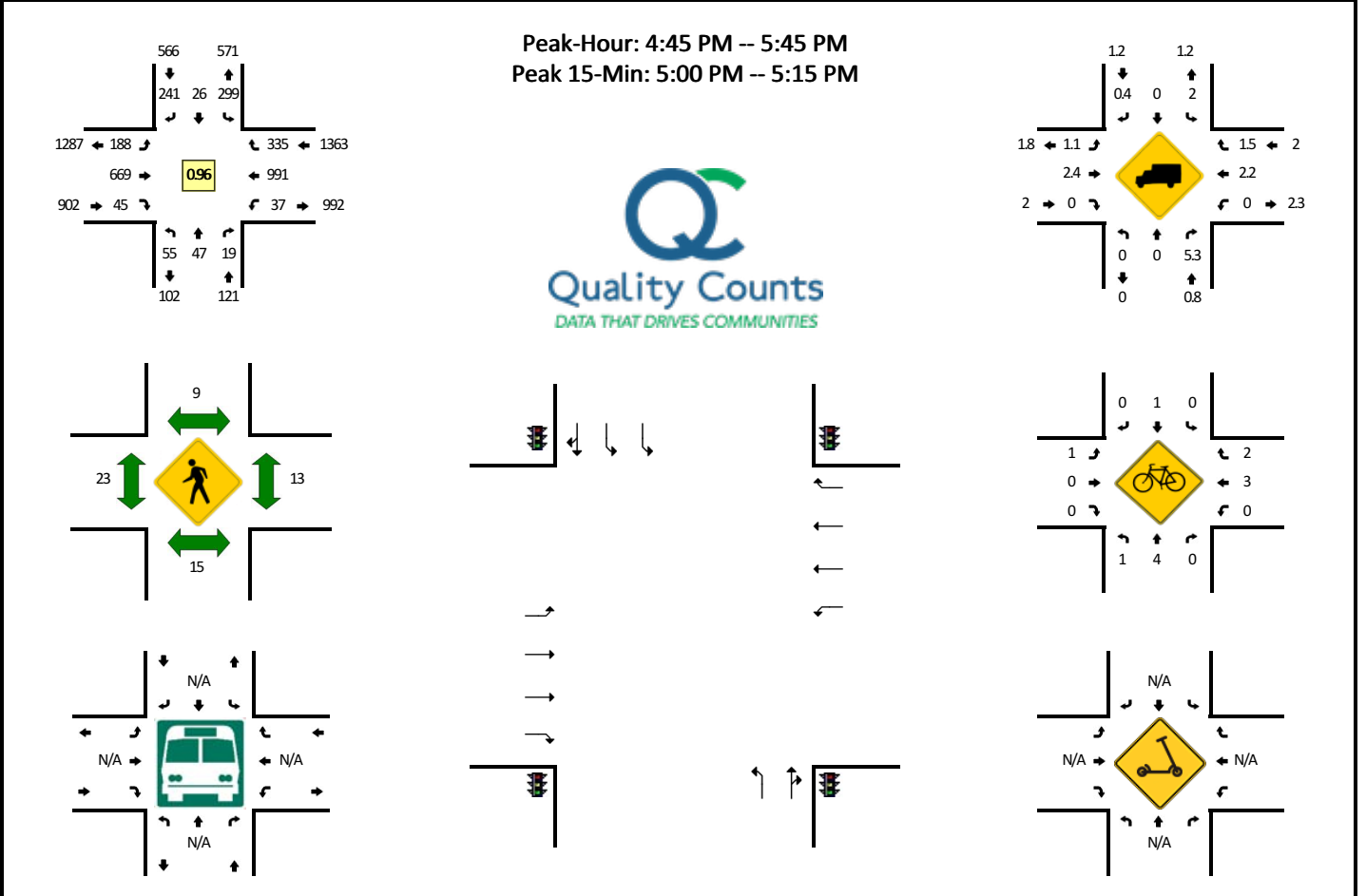
Comments:

Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: University City Blvd -- Prices Fork Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762713
DATE: Thu, Apr 7 2022



15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	2	1	0	27	4	8	0	12	120	2	0	2	44	15	0	240	
7:15 AM	2	1	1	0	34	4	11	0	16	135	2	0	1	89	21	0	317	
7:30 AM	0	1	0	0	39	4	26	0	19	198	11	0	2	118	17	0	435	
7:45 AM	4	2	1	0	71	8	23	0	37	237	15	0	12	146	35	1	592	
8:00 AM	3	3	1	0	58	6	15	0	49	191	7	0	2	78	27	1	441	
8:15 AM	1	0	2	0	39	4	19	0	26	127	6	0	2	63	26	0	315	
8:30 AM	2	3	2	0	46	2	16	0	32	124	2	0	1	66	34	0	330	
8:45 AM	5	1	3	0	61	4	24	0	36	200	8	0	3	86	38	0	469	
9:00 AM	2	2	1	0	74	5	24	0	36	225	7	0	1	76	39	0	492	
9:15 AM	3	6	3	0	77	6	22	0	37	204	7	0	2	90	46	1	504	
9:30 AM	3	1	1	0	65	4	14	0	26	122	7	0	4	93	26	0	366	
9:45 AM	2	2	2	0	57	2	20	0	27	130	8	0	0	92	47	0	389	
10:00 AM	1	3	3	0	63	3	21	0	29	92	4	0	3	76	49	0	347	
10:15 AM	1	2	1	0	76	1	28	0	21	118	5	0	2	88	44	0	387	
10:30 AM	0	2	4	0	72	9	15	0	27	143	5	0	0	84	37	1	399	
10:45 AM	6	7	7	0	58	6	23	0	29	167	9	0	4	116	63	0	495	
11:00 AM	5	3	1	0	65	4	34	0	39	99	7	0	5	146	53	1	462	
11:15 AM	6	8	8	0	68	7	32	0	37	93	11	0	2	110	52	1	435	
11:30 AM	1	6	3	0	57	5	35	0	38	100	8	0	6	101	43	0	403	
11:45 AM	4	5	10	0	79	6	31	0	42	143	9	0	6	122	62	3	522	
12:00 PM	8	8	5	0	94	8	37	0	38	175	10	0	5	148	73	1	610	
12:15 PM	6	7	4	0	99	9	42	0	35	162	12	0	4	152	96	6	634	
12:30 PM	4	5	8	0	114	7	37	0	47	123	8	0	9	176	82	1	621	
12:45 PM	6	3	6	0	84	8	40	0	33	123	5	0	4	135	84	3	534	
1:00 PM	15	3	6	0	89	2	36	0	35	122	7	0	6	134	82	1	538	
1:15 PM	2	2	4	0	82	6	35	0	29	136	8	0	4	110	58	2	478	
1:30 PM	4	3	5	0	84	6	49	0	29	146	15	0	4	132	48	4	529	
1:45 PM	13	12	4	0	90	4	28	0	24	162	11	0	4	148	88	1	589	
2:00 PM	8	11	7	0	64	6	44	0	26	93	9	0	4	181	65	0	518	
2:15 PM	7	2	4	0	71	4	30	0	34	112	6	0	3	154	59	3	489	
2:30 PM	4	3	0	0	68	1	43	0	35	103	3	0	1	148	53	2	464	
2:45 PM	3	6	4	0	86	5	39	0	37	127	6	1	1	146	63	1	525	
3:00 PM	4	3	6	0	79	2	28	0	37	172	15	0	3	150	61	2	562	
3:15 PM	4	8	4	0	90	4	48	0	40	194	10	0	2	191	81	0	676	
3:30 PM	13	9	4	0	62	1	41	0	45	129	6	0	4	252	59	2	627	
3:45 PM	12	7	3	0	67	3	43	0	46	125	4	0	2	185	79	2	578	
4:00 PM	12	6	4	0	72	1	71	0	38	121	3	0	3	192	73	0	596	
4:15 PM	8	8	4	0	57	3	48	0	41	151	5	0	4	206	67	1	603	
4:30 PM	6	6	3	0	85	6	58	0	33	125	7	0	6	223	80	2	640	

15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	13	17	7	0	78	8	61	0	42	160	11	0	8	223	79	1	708	2547
5:00 PM	23	12	7	0	79	6	64	0	45	161	11	0	7	263	90	2	770	2721
5:15 PM	13	13	3	0	67	7	66	0	49	165	11	0	10	255	93	0	752	2870
5:30 PM	6	5	2	0	74	5	50	1	52	183	12	0	6	250	73	3	722	2952
5:45 PM	5	5	2	0	100	4	37	0	35	160	1	0	0	185	70	0	604	2848
6:00 PM	4	1	2	0	114	7	47	0	32	151	5	0	3	174	70	1	611	2689
6:15 PM	1	3	7	0	82	4	34	0	39	130	6	0	3	208	73	0	590	2527
6:30 PM	8	6	3	0	86	3	33	0	41	152	3	0	7	179	59	3	583	2388
6:45 PM	3	4	4	0	73	2	36	0	39	162	1	0	3	143	74	1	545	2329
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	92	48	28	0	316	24	256	0	180	644	44	0	28	1052	360	8	3080	
Heavy Trucks	0	0	4		8	0	4		0	16	0		0	28	4		64	
Buses																		
Pedestrians		20				4				24				20			68	
Bicycles	0	4	0		0	0	0		0	0	0		0	4	0		8	
Scoters																		
<i>Comments:</i>																		

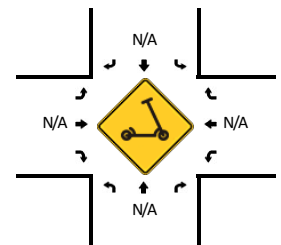
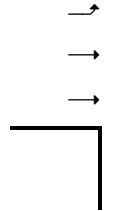
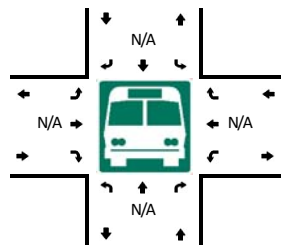
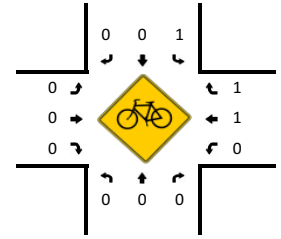
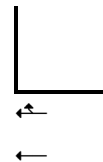
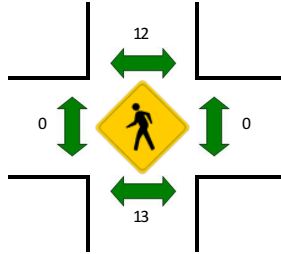
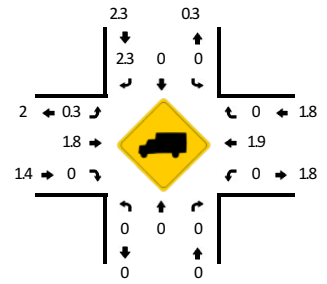
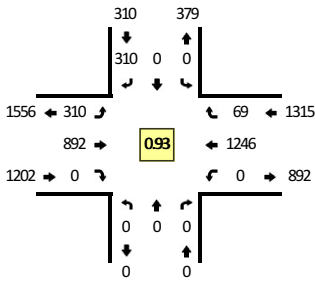
Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Old Glade Rd -- Prices Fork Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762714
DATE: Thu, Apr 7 2022

Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:15 PM -- 5:30 PM



15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	21	0	58	147	0	0	0	50	4	0	281	
7:15 AM	0	0	0	0	0	0	42	0	46	140	0	0	0	73	3	0	304	
7:30 AM	0	0	0	0	0	0	53	0	46	193	0	0	0	157	0	0	449	
7:45 AM	0	0	0	0	0	0	95	0	62	306	0	0	0	169	2	0	634	1668
8:00 AM	0	0	0	0	0	0	54	0	74	250	0	0	0	109	7	0	494	1881
8:15 AM	0	0	0	0	0	0	62	0	58	177	0	0	0	79	7	0	383	1960
8:30 AM	0	0	0	0	0	0	51	0	57	159	0	0	0	84	3	0	354	1865
8:45 AM	0	0	0	0	0	0	54	0	63	203	0	0	0	94	12	0	426	1657
9:00 AM	0	0	0	0	0	0	51	0	66	254	0	0	0	100	3	0	474	1637
9:15 AM	0	0	0	0	0	0	45	0	50	301	0	0	0	104	4	0	504	1758
9:30 AM	0	0	0	0	0	0	46	0	32	139	0	0	0	102	6	0	325	1729
9:45 AM	0	0	0	0	0	0	39	0	40	175	0	0	0	108	4	0	366	1669
10:00 AM	0	0	0	0	0	0	36	0	44	134	0	1	0	97	12	0	324	1519
10:15 AM	0	0	0	0	0	0	48	0	37	142	0	0	0	98	4	0	329	1344
10:30 AM	0	0	0	0	0	0	36	0	45	162	0	0	0	109	7	0	359	1378
10:45 AM	0	0	0	0	0	0	39	0	49	215	0	0	0	116	8	0	427	1439
11:00 AM	0	0	0	0	0	0	56	0	45	152	0	0	0	182	12	0	447	1562
11:15 AM	0	0	0	0	0	0	54	0	46	146	0	0	0	135	14	0	395	1628
11:30 AM	0	0	0	0	0	0	48	0	40	127	0	0	0	139	9	0	363	1632
11:45 AM	0	0	0	0	1	0	53	0	48	192	0	0	0	142	16	0	452	1657
12:00 PM	0	0	0	0	1	0	58	0	54	215	0	0	0	155	12	0	495	1705
12:15 PM	0	0	0	0	0	0	52	0	51	222	0	0	0	189	11	0	525	1835
12:30 PM	0	0	0	0	0	0	62	0	54	173	0	0	0	201	13	0	503	1975
12:45 PM	0	0	0	0	0	0	70	0	48	166	0	0	0	178	12	0	474	1997
1:00 PM	0	0	0	0	0	0	49	0	47	157	0	0	0	180	7	0	440	1942
1:15 PM	0	0	0	0	0	0	51	0	52	179	0	0	0	159	8	0	449	1866
1:30 PM	0	0	0	0	1	0	42	0	40	188	0	0	0	162	4	0	437	1800
1:45 PM	0	0	0	0	1	0	52	0	47	203	0	0	0	171	15	0	489	1815
2:00 PM	0	0	0	0	0	0	50	0	44	135	0	0	0	227	14	0	470	1845
2:15 PM	0	0	0	0	0	0	44	0	32	143	0	0	0	182	11	0	412	1808
2:30 PM	0	0	0	0	0	0	62	0	31	140	0	0	0	181	10	0	424	1795
2:45 PM	0	0	0	0	0	0	54	0	46	172	0	0	0	194	9	0	475	1781
3:00 PM	0	0	0	0	0	0	63	0	59	220	0	0	0	167	10	0	519	1830
3:15 PM	0	0	0	0	0	0	50	0	85	253	0	0	0	232	14	0	634	2052
3:30 PM	0	0	0	0	0	0	58	0	40	162	0	0	0	264	13	0	537	2165
3:45 PM	0	0	0	0	0	0	71	0	63	189	0	0	0	237	10	0	570	2260
4:00 PM	0	0	0	0	0	0	53	0	64	167	0	0	0	263	14	0	561	2302
4:15 PM	0	0	0	0	0	0	59	0	54	182	0	0	0	265	17	0	577	2245
4:30 PM	0	0	0	0	0	0	62	0	51	156	0	0	0	253	16	0	538	2246

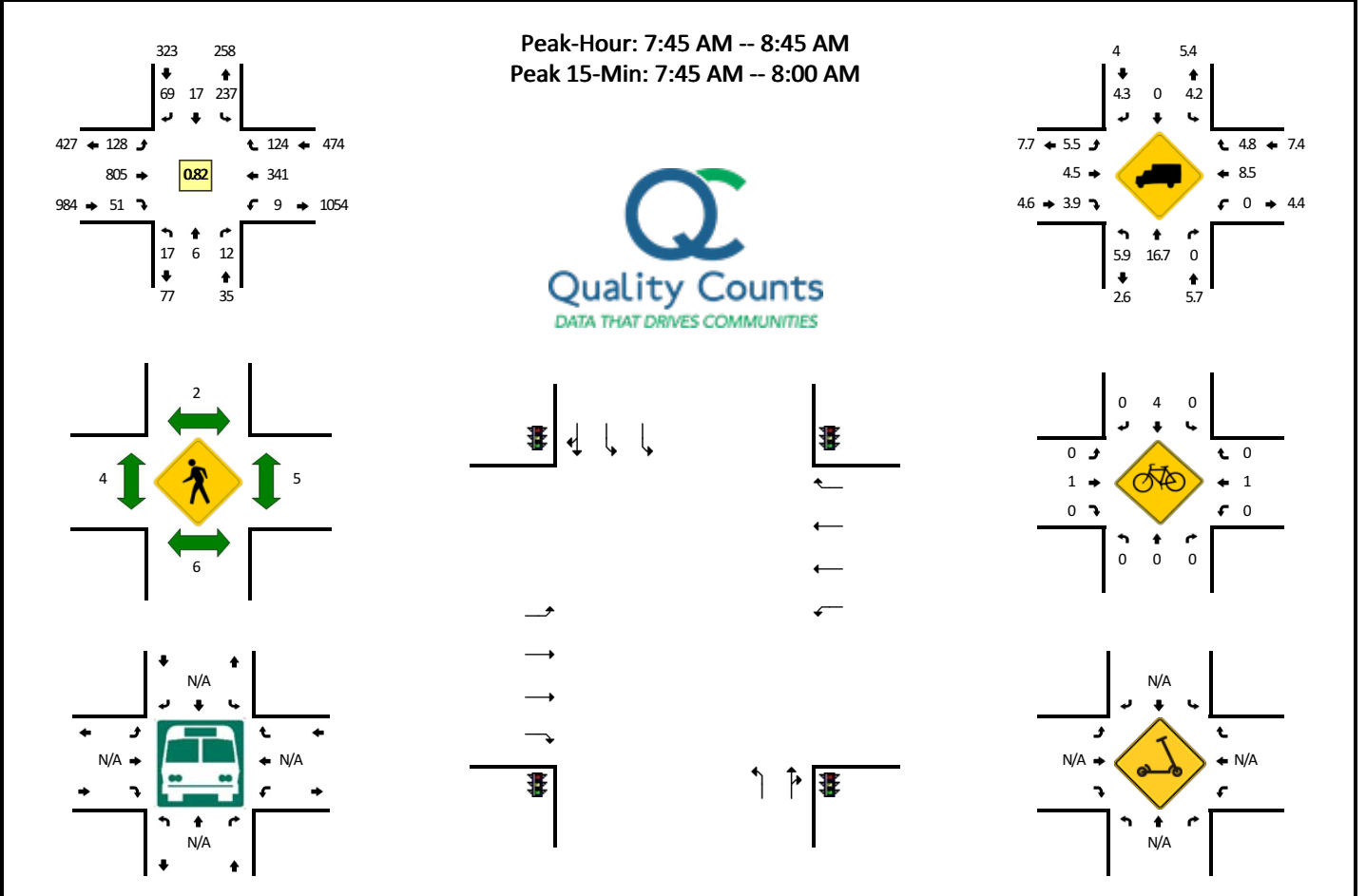
15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:45 PM	0	0	0	0	0	0	66	0	55	231	0	0	0	282	11	0	645	2321
5:00 PM	0	0	0	0	0	0	83	0	80	212	0	0	0	331	19	0	725	2485
5:15 PM	0	0	0	0	0	0	82	0	88	232	0	0	0	340	19	0	761	2669
5:30 PM	0	0	0	0	0	0	79	0	87	217	0	0	0	293	20	0	696	2827
5:45 PM	0	0	0	0	0	0	57	0	72	210	0	0	0	245	18	0	602	2784
6:00 PM	0	0	0	0	0	0	58	0	58	192	0	1	0	207	10	0	526	2585
6:15 PM	0	0	0	0	0	0	66	0	81	189	0	0	0	231	13	0	580	2404
6:30 PM	0	0	0	0	0	0	58	0	65	169	0	0	0	218	17	0	527	2235
6:45 PM	0	0	0	0	0	0	61	0	59	219	0	0	0	173	18	0	530	2163
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	0	0	328	0	352	928	0	0	0	1360	76	0	3044	
Heavy Trucks	0	0	0	0	0	0	16	0	4	12	0	0	0	24	0	0	56	
Buses																		
Pedestrians		4				4				0				0			8	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scoters																		
<i>Comments:</i>																		

Report generated on 4/21/2022 12:25 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: University City Blvd -- Prices Fork Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762725
DATE: Wed, Apr 6 2022

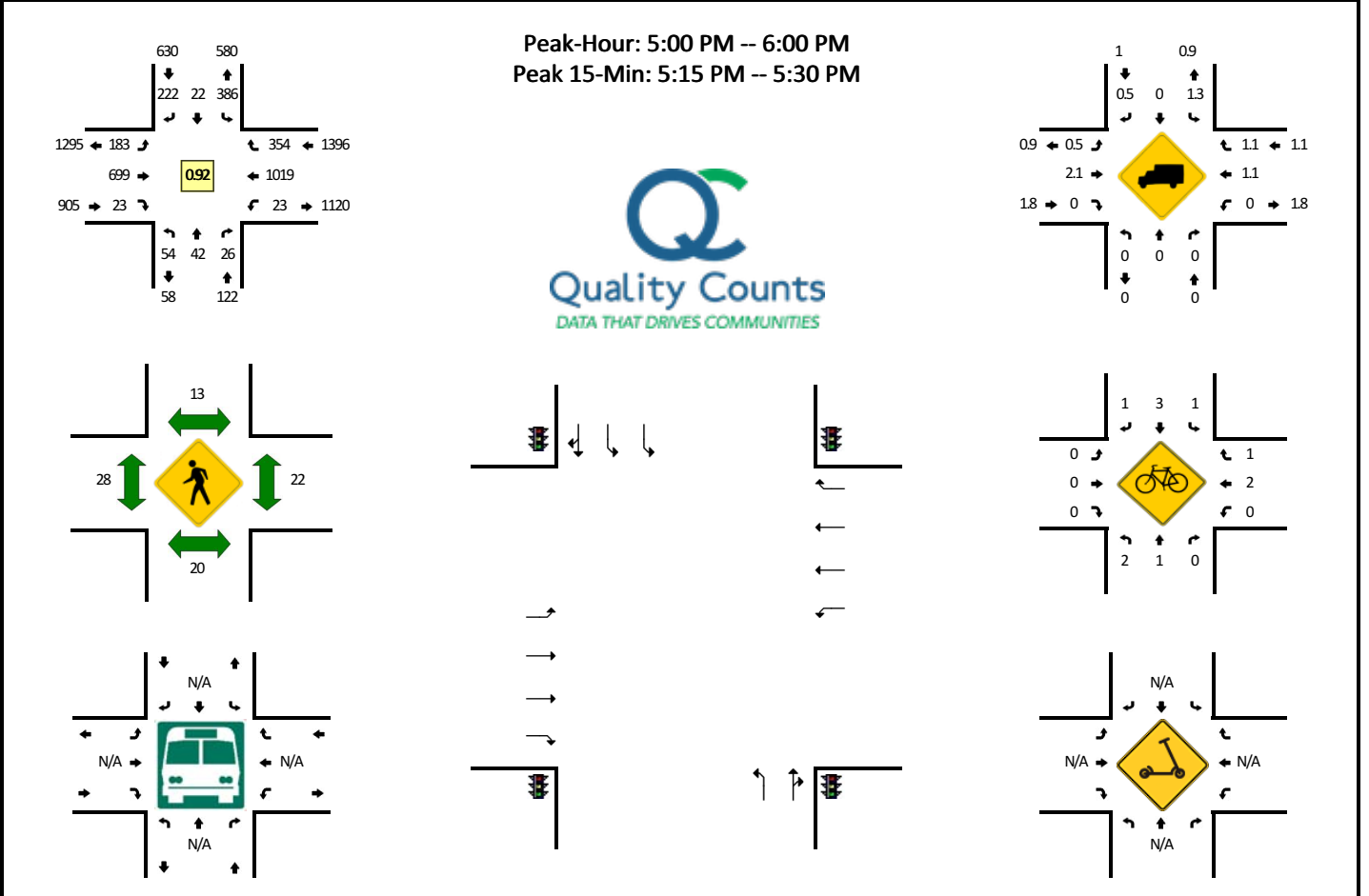


15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	2	0	0	37	3	11	0	15	122	8	0	0	53	14	0	266	
7:15 AM	3	0	1	0	43	2	17	0	19	131	2	0	1	68	21	0	308	
7:30 AM	3	1	1	0	45	5	26	0	20	170	8	0	4	124	21	0	428	
7:45 AM	1	1	5	0	74	7	19	0	34	236	22	0	4	122	30	0	555	1557
8:00 AM	2	1	4	0	65	4	16	0	27	205	10	0	2	88	29	0	453	1744
8:15 AM	7	0	2	0	35	2	15	0	30	158	13	0	3	61	29	0	355	1791
8:30 AM	7	4	1	0	63	4	19	0	37	206	6	0	0	70	36	0	453	1816
8:45 AM	1	4	4	0	67	3	22	0	29	235	12	0	12	87	40	0	516	1777
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	4	4	20	0	296	28	76	0	136	944	88	0	16	488	120	0	2220	
Heavy Trucks	0	0	0		8	0	4		4	36	4		0	32	8		96	
Buses																	0	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																	0	

Comments:

LOCATION: University City Blvd -- Prices Fork Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762726
DATE: Wed, Apr 6 2022



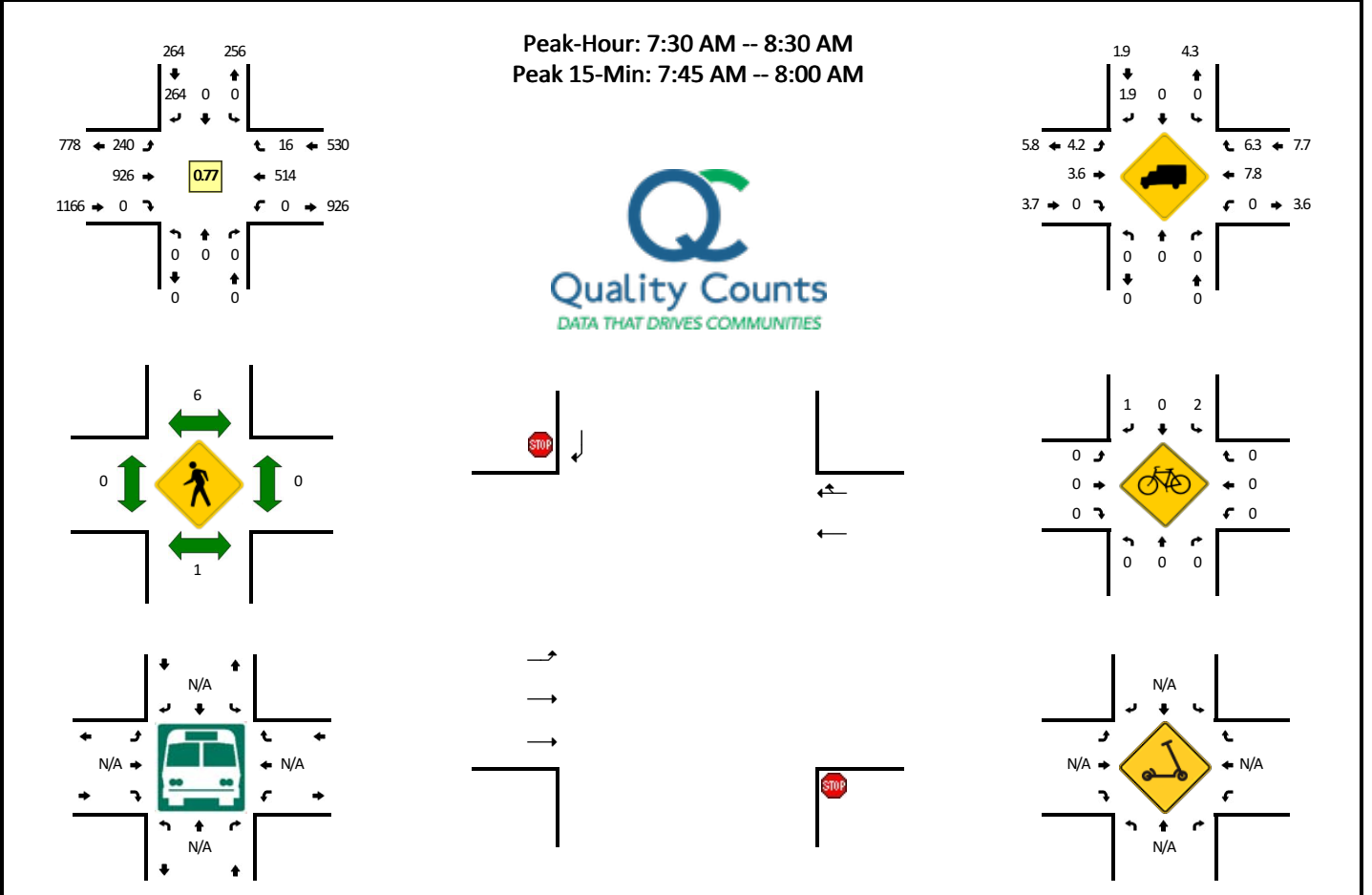
15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	14	8	6	0	86	2	37	0	51	139	2	0	3	249	86	1	684	
4:15 PM	14	7	2	0	77	3	47	0	45	124	5	0	4	238	86	1	653	
4:30 PM	14	7	1	0	63	5	50	0	37	138	1	0	2	227	63	0	608	
4:45 PM	7	8	4	0	86	6	50	0	44	133	7	0	5	218	101	3	672	2617
5:00 PM	20	10	8	0	78	5	56	0	42	191	7	0	3	246	82	1	749	2682
5:15 PM	15	15	7	0	105	2	62	0	49	186	7	0	5	279	96	2	830	2859
5:30 PM	13	8	9	0	83	5	55	1	40	135	6	0	2	273	110	1	741	2992
5:45 PM	6	9	2	0	119	10	49	0	52	187	3	0	3	221	66	6	733	3053

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	60	28	0	420	8	248	0	196	744	28	0	20	1116	384	8	3320
Heavy Trucks	0	0	0		4	0	0		0	12	0		0	12	4		32
Buses																	
Pedestrians		16				24				28				40			108
Bicycles	4	0	0		0	0	4		0	0	0		0	0	4		12
Scoters																	

Comments:

LOCATION: Old Glade Rd -- Prices Fork Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762741
DATE: Thu, Apr 7 2022

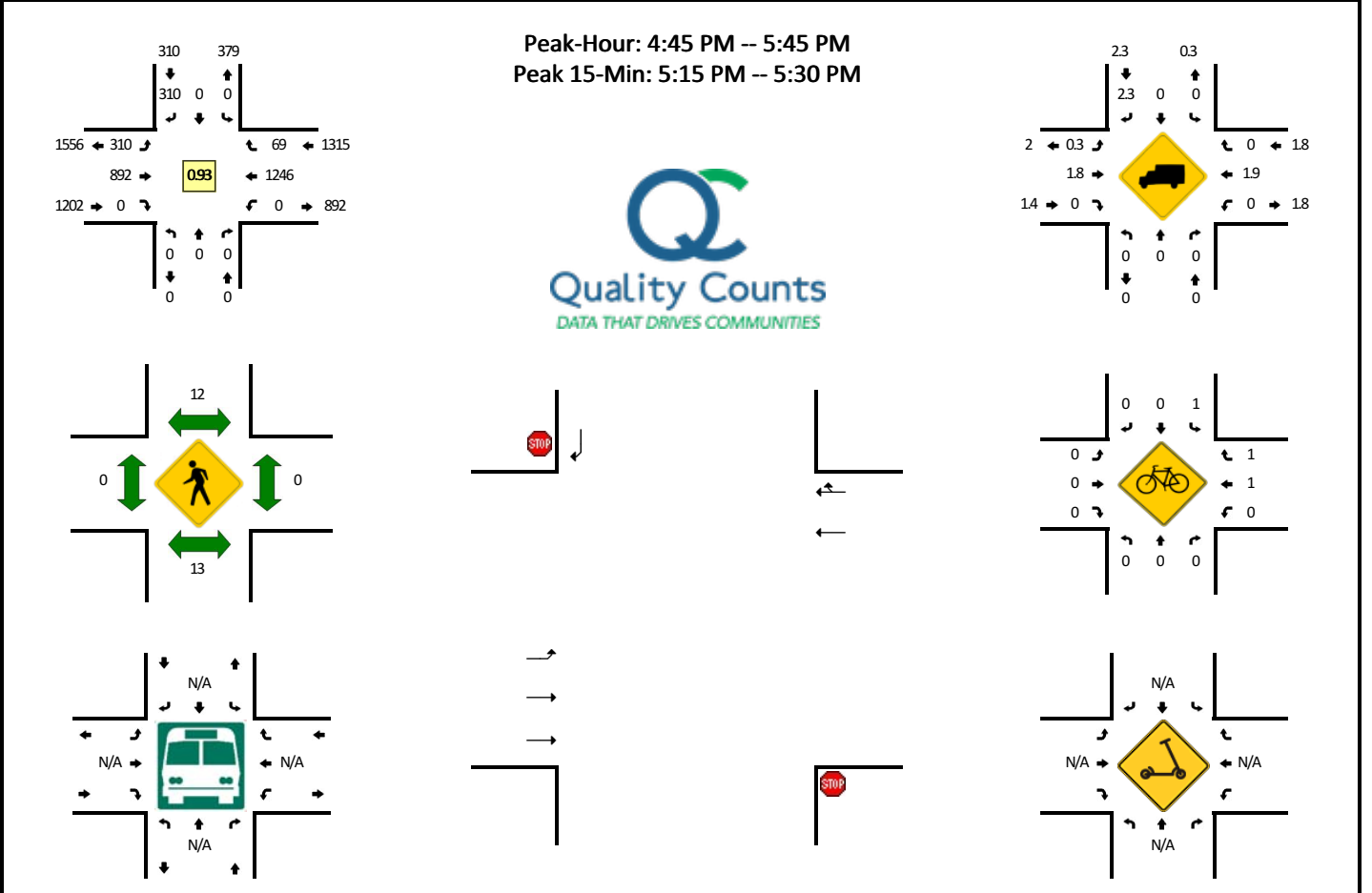


15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	21	0	58	147	0	0	0	50	4	0	281	
7:15 AM	0	0	0	0	0	0	42	0	46	140	0	0	0	73	3	0	304	
7:30 AM	0	0	0	0	0	0	53	0	46	193	0	0	0	157	0	0	449	
7:45 AM	0	0	0	0	0	0	95	0	62	306	0	0	0	169	2	0	634	1668
8:00 AM	0	0	0	0	0	0	54	0	74	250	0	0	0	109	7	0	494	1881
8:15 AM	0	0	0	0	0	0	62	0	58	177	0	0	0	79	7	0	383	1960
8:30 AM	0	0	0	0	0	0	51	0	57	159	0	0	0	84	3	0	354	1865
8:45 AM	0	0	0	0	0	0	54	0	63	203	0	0	0	94	12	0	426	1657
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	0	0	380	0	248	1224	0	0	0	676	8	0	2536	
Heavy Trucks	0	0	0	0	0	0	4	0	8	32	0	0	0	32	0	0	76	
Buses																		
Pedestrians		0				4				0				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: Old Glade Rd -- Prices Fork Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762742
DATE: Thu, Apr 7 2022

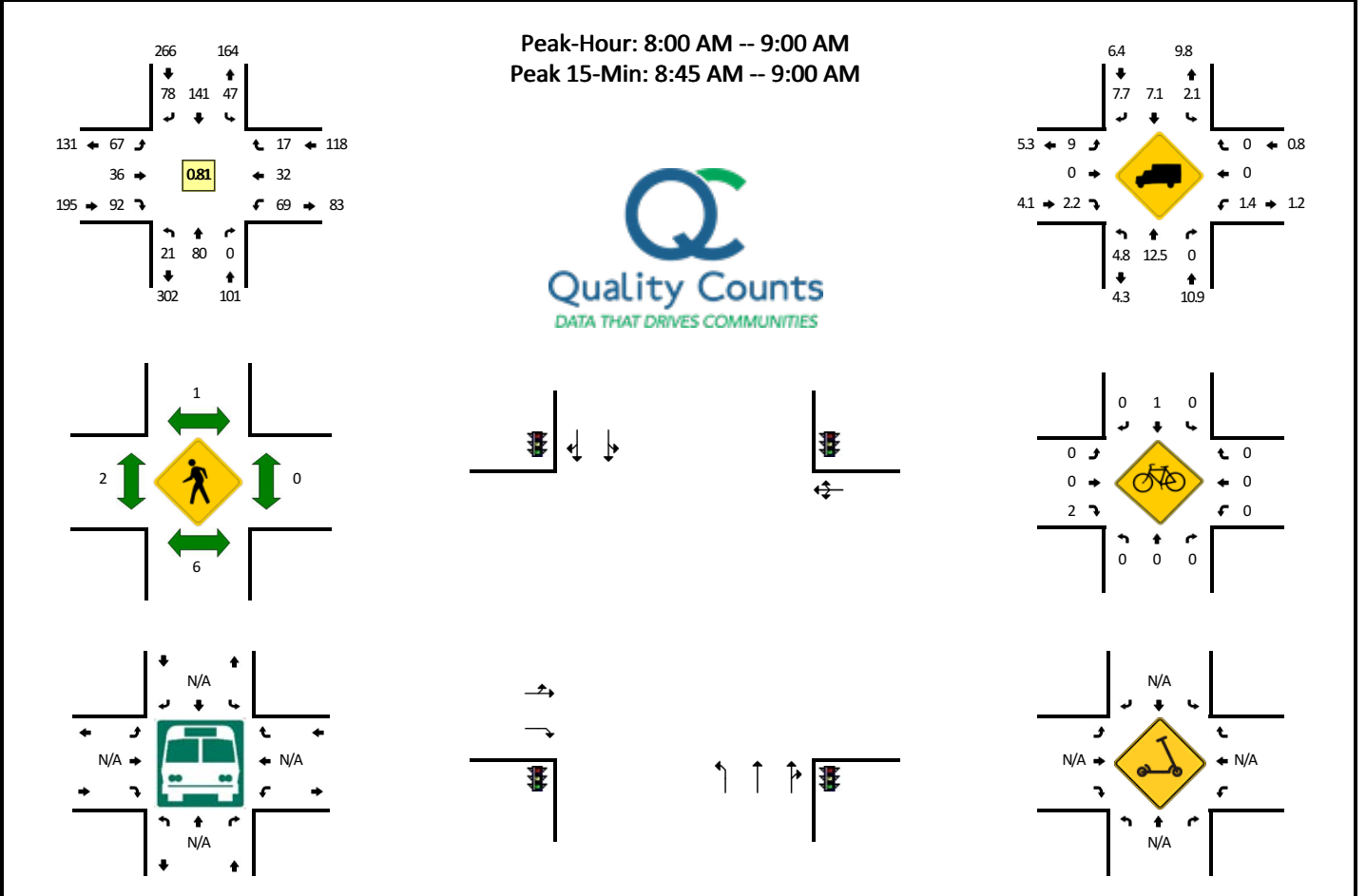


15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Prices Fork Rd (Eastbound)				Prices Fork Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	53	0	64	167	0	0	0	263	14	0	561	
4:15 PM	0	0	0	0	0	0	59	0	54	182	0	0	0	265	17	0	577	
4:30 PM	0	0	0	0	0	0	62	0	51	156	0	0	0	253	16	0	538	
4:45 PM	0	0	0	0	0	0	66	0	55	231	0	0	0	282	11	0	645	2321
5:00 PM	0	0	0	0	0	0	83	0	80	212	0	0	0	331	19	0	725	2485
5:15 PM	0	0	0	0	0	0	82	0	88	232	0	0	0	340	19	0	761	2669
5:30 PM	0	0	0	0	0	0	79	0	87	217	0	0	0	293	20	0	696	2827
5:45 PM	0	0	0	0	0	0	57	0	72	210	0	0	0	245	18	0	602	2784
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	0	0	328	0	352	928	0	0	0	1360	76	0	3044	
Heavy Trucks	0	0	0	0	0	0	16	0	4	12	0	0	0	24	0	0	56	
Buses																		
Pedestrians		4				4				0				0			8	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: University City Blvd -- Glade Rd/Starbucks Dwy
CITY/STATE: Blacksburg, VA

QC JOB #: 15762719
DATE: Wed, Apr 6 2022

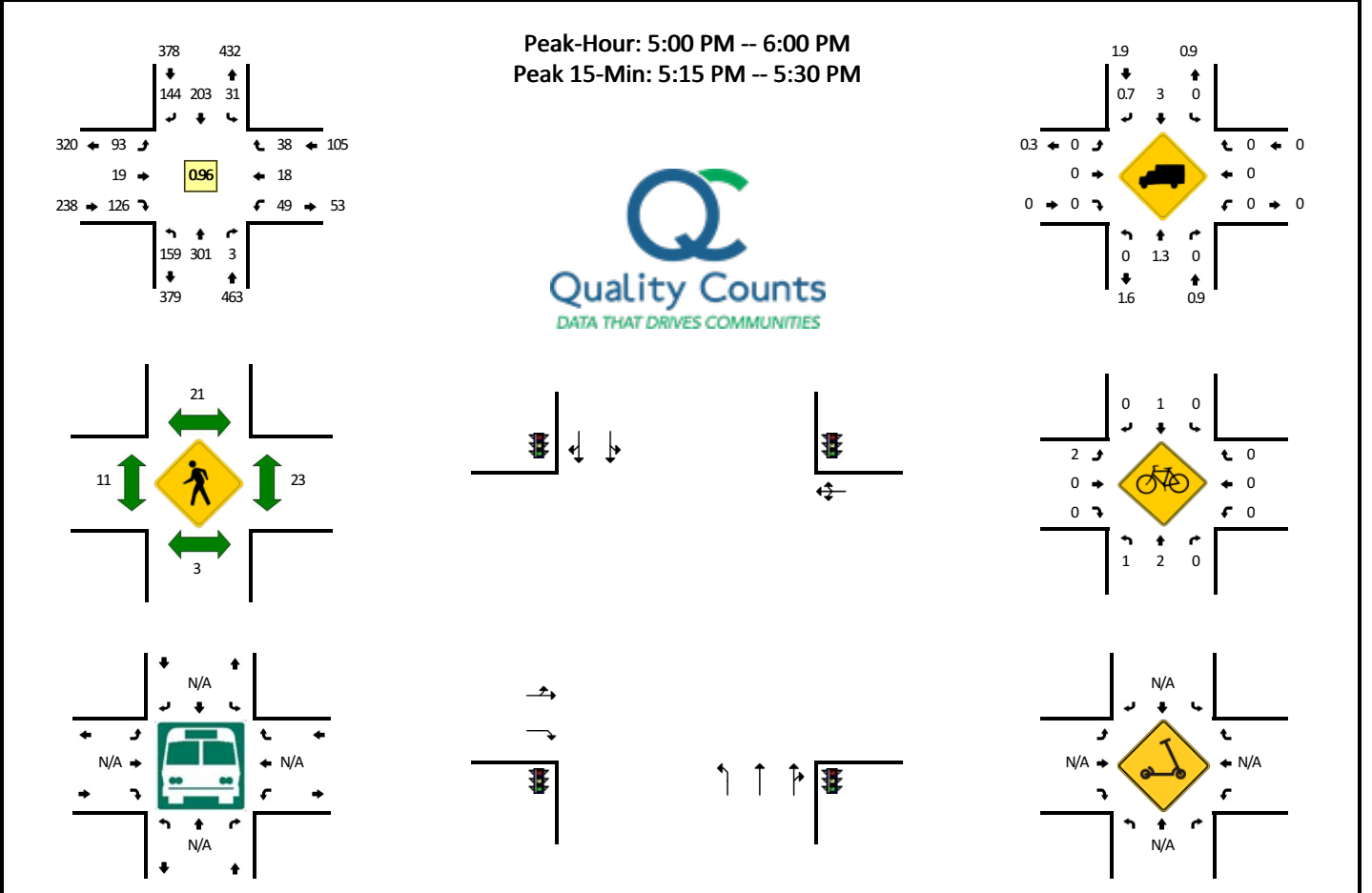


15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Glade Rd/Starbucks Dwy (Eastbound)				Glade Rd/Starbucks Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	8	0	0	11	14	4	0	15	4	9	0	9	5	4	0	87	
7:15 AM	6	15	1	0	8	16	10	0	13	9	10	0	15	5	8	0	116	
7:30 AM	8	11	0	0	13	26	13	0	21	12	22	0	15	13	2	0	156	
7:45 AM	6	16	5	0	19	36	32	0	18	6	21	0	17	20	6	0	202	561
8:00 AM	6	16	0	0	6	35	18	0	14	11	31	0	22	10	4	0	173	647
8:15 AM	8	20	0	0	6	24	12	0	21	9	15	0	8	7	3	0	133	664
8:30 AM	4	21	0	0	16	30	24	0	13	7	19	0	19	9	2	0	164	672
8:45 AM	3	23	0	0	19	52	24	0	19	9	27	0	20	6	8	0	210	680
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	92	0	0	76	208	96	0	76	36	108	0	80	24	32	0	840	
Heavy Trucks	0	12	0	0	4	16	4	0	4	0	0	0	0	0	0	0	40	
Buses																		
Pedestrians		0				4				0				0			4	
Bicycles	0	0	0		0	0	0		0	0	4		0	0	0		4	
Scooters																		

Comments:

LOCATION: University City Blvd -- Glade Rd/Starbucks Dwy
CITY/STATE: Blacksburg, VA

QC JOB #: 15762720
DATE: Wed, Apr 6 2022

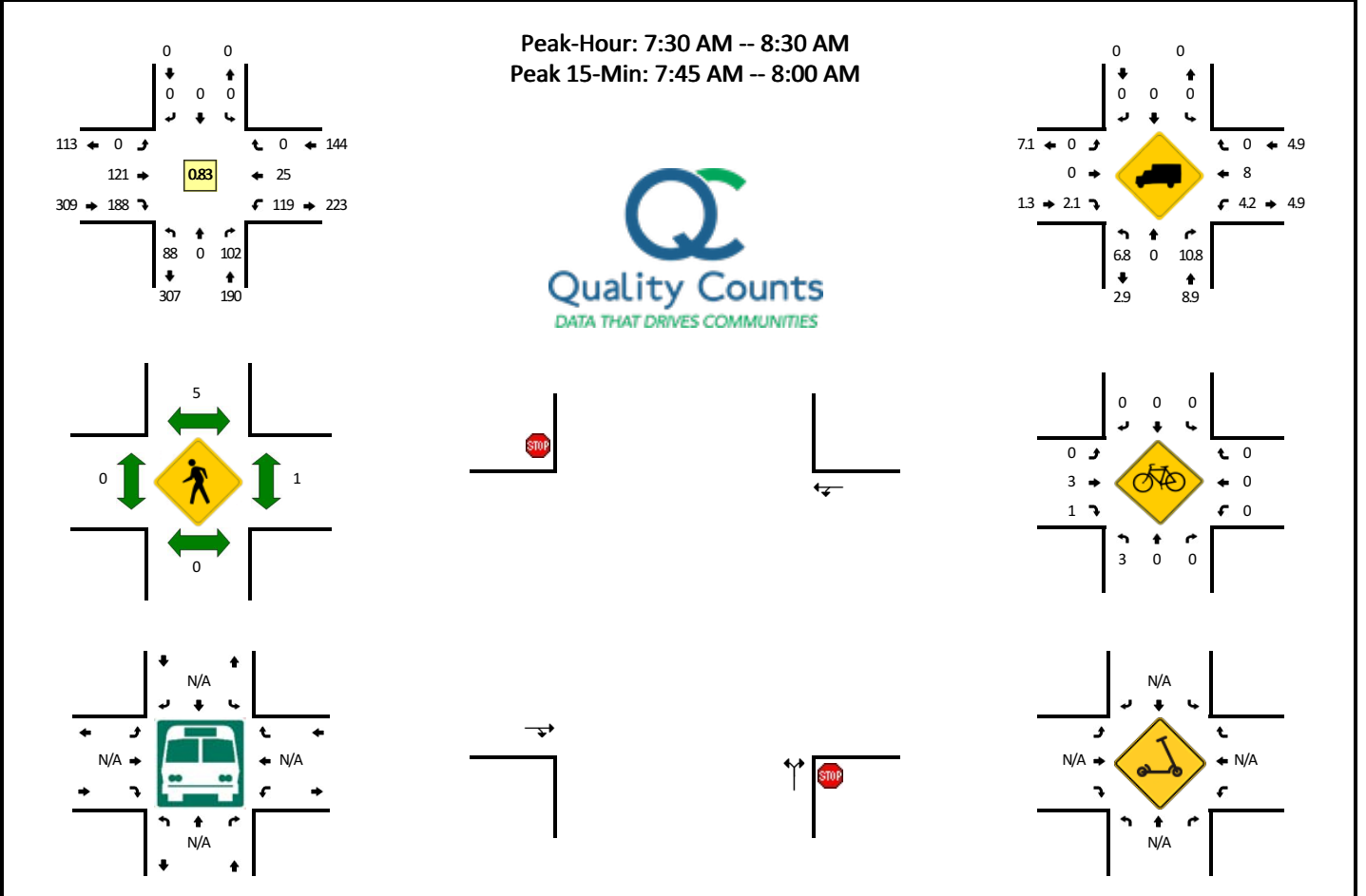


15-Min Count Period Beginning At	University City Blvd (Northbound)				University City Blvd (Southbound)				Glade Rd/Starbucks Dwy (Eastbound)				Glade Rd/Starbucks Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	32	76	0	0	5	54	22	0	16	1	22	0	8	3	5	0	244	
4:15 PM	33	60	1	1	7	39	33	0	22	4	30	0	10	4	15	0	259	
4:30 PM	31	66	2	0	6	50	33	0	35	6	31	0	7	6	10	0	283	
4:45 PM	33	66	1	0	6	48	32	0	30	4	32	0	5	3	8	0	268	1054
5:00 PM	39	71	1	0	7	43	40	0	22	7	29	0	10	2	12	0	283	1093
5:15 PM	39	81	0	0	7	49	37	0	24	8	32	0	20	5	6	0	308	1142
5:30 PM	39	75	1	0	9	61	41	0	22	2	25	0	12	7	9	0	303	1162
5:45 PM	41	74	1	1	8	50	26	0	25	2	40	0	7	4	11	0	290	1184
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	156	324	0	0	28	196	148	0	96	32	128	0	80	20	24	0	1232	
Heavy Trucks	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	
Buses																		
Pedestrians		0				24				8				24			56	
Bicycles	4	4	0		0	0	0		4	0	0		0	0	0		12	
Scoters																		

Comments:

LOCATION: Old Glade Rd -- Glade Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762721
DATE: Wed, Apr 6 2022

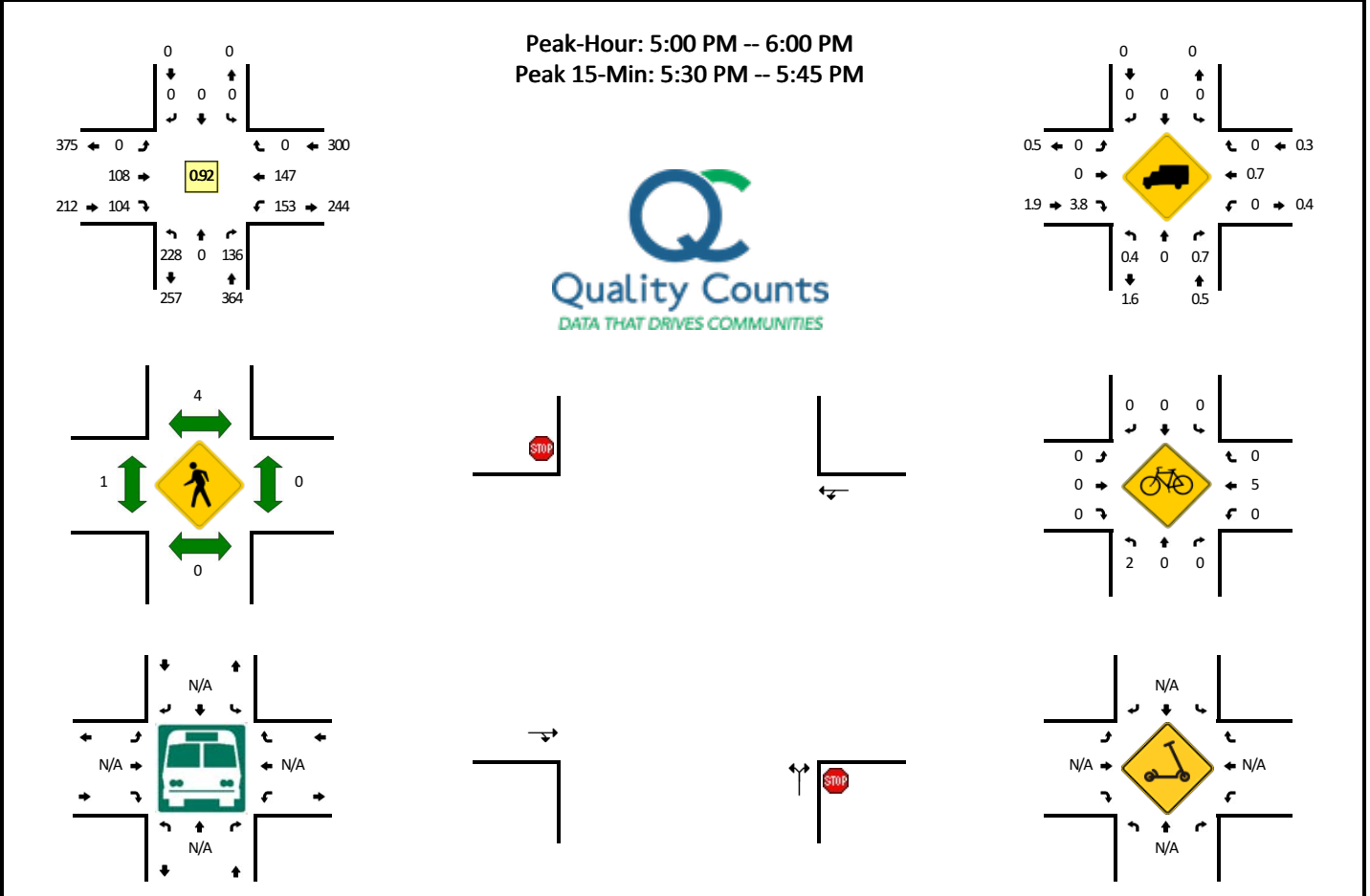


15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	21	0	20	0	0	0	0	0	0	14	19	0	8	5	0	0	87	
7:15 AM	9	0	21	0	0	0	0	0	0	23	36	0	13	10	0	0	112	
7:30 AM	18	0	22	0	0	0	0	0	0	27	44	0	34	2	0	0	147	
7:45 AM	23	0	24	0	0	0	0	0	0	42	52	0	41	11	0	0	193	539
8:00 AM	34	0	32	0	0	0	0	0	0	36	53	0	22	9	0	0	186	638
8:15 AM	13	0	24	0	0	0	0	0	0	16	39	0	22	3	0	0	117	643
8:30 AM	20	0	23	0	0	0	0	0	0	27	37	0	27	9	0	0	143	639
8:45 AM	29	0	23	0	0	0	0	0	0	30	35	0	19	11	0	0	147	593
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	92	0	96	0	0	0	0	0	0	168	208	0	164	44	0	0	772	
Heavy Trucks	4	0	12		0	0	0		0	0	8		8	0	0		32	
Buses																	0	
Pedestrians		0				0				0				0			0	
Bicycles	4	0	0		0	0	0		0	0	0		0	0	0		4	
Scoters																		

Comments:

LOCATION: Old Glade Rd -- Glade Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762736
DATE: Thu, Apr 7 2022

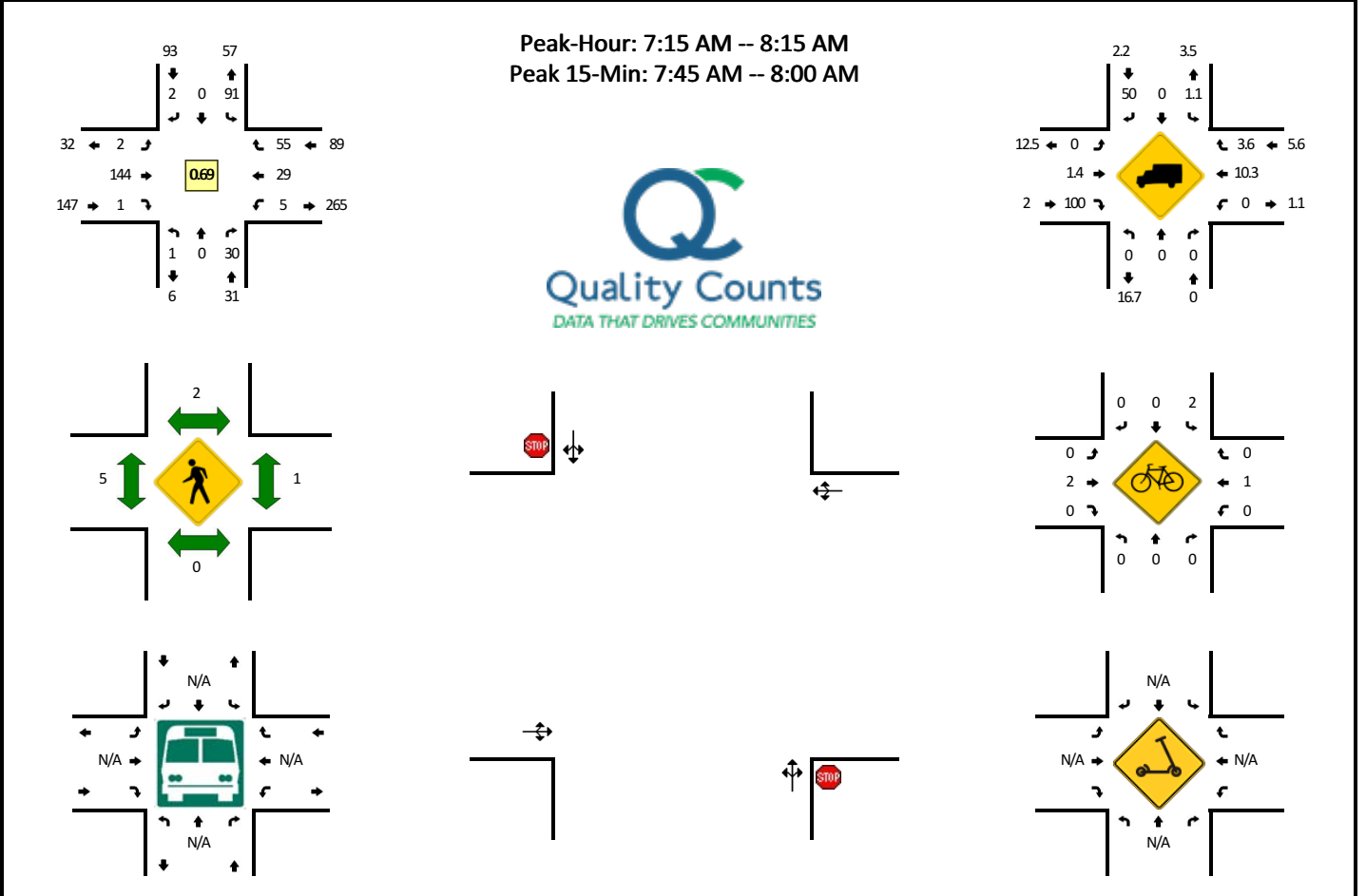


15-Min Count Period Beginning At	Old Glade Rd (Northbound)				Old Glade Rd (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
4:00 PM	31	0	33	0	0	0	0	0	0	29	17	0	32	18	0	0	160		
4:15 PM	47	0	16	0	0	0	0	0	0	21	19	0	36	32	0	0	171		
4:30 PM	30	0	22	0	0	0	0	0	0	36	26	0	29	31	0	0	174		
4:45 PM	37	0	24	0	0	0	0	0	0	34	21	0	34	29	0	0	179	684	
5:00 PM	52	0	31	0	0	0	0	0	0	23	36	0	46	33	0	0	221	745	
5:15 PM	55	0	44	0	0	0	0	0	0	28	18	0	36	56	0	0	237	811	
5:30 PM	61	0	33	0	0	0	0	0	0	30	30	0	54	30	0	0	238	875	
5:45 PM	60	0	28	0	0	0	0	0	0	27	20	0	17	28	0	0	180	876	
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
All Vehicles	244	0	132	0	0	0	0	0	0	120	120	0	216	120	0	0	952		
Heavy Trucks	0	0	0		0	0	0		0	0	4		0	0	0		4		
Buses																			
Pedestrians		0				0				0				0				0	
Bicycles	4	0	0		0	0	0		0	0	0		0	0	0		4		
Scooters																			

Comments:

LOCATION: Shadow Lake Rd/Lark Ln -- Glade Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762723
DATE: Wed, Apr 6 2022

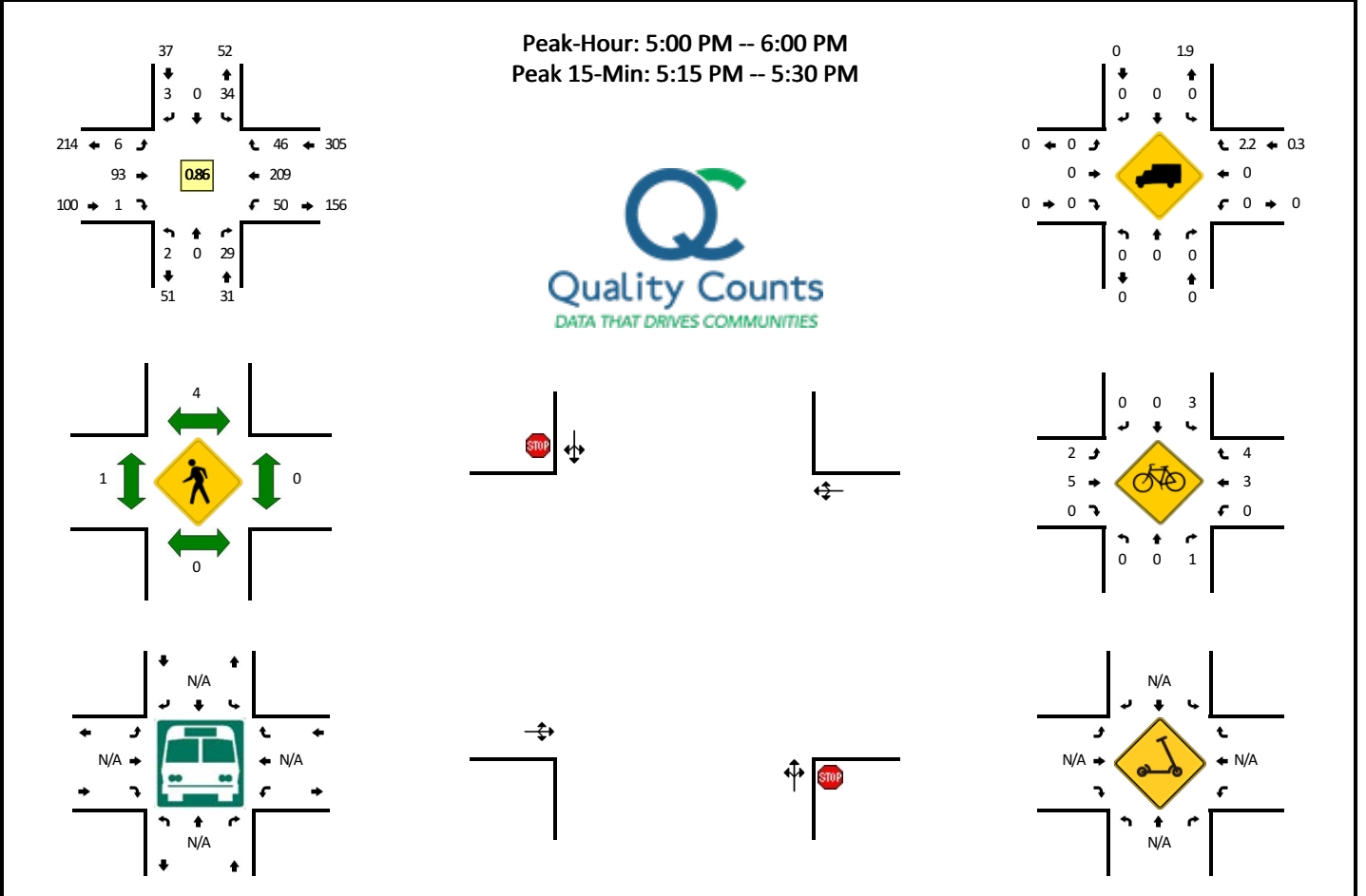


15-Min Count Period Beginning At	Shadow Lake Rd/Lark Ln (Northbound)				Shadow Lake Rd/Lark Ln (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	7	0	8	0	0	0	0	16	0	0	0	12	10	0	53	
7:15 AM	0	0	7	0	10	0	1	0	0	33	1	0	1	4	8	0	65	
7:30 AM	1	0	9	0	15	0	0	0	0	30	0	0	1	6	6	0	68	
7:45 AM	0	0	11	0	36	0	0	0	2	53	0	0	2	6	20	0	130	316
8:00 AM	0	0	3	0	30	0	1	0	0	28	0	0	1	13	21	0	97	360
8:15 AM	0	0	11	0	11	0	0	0	0	23	1	0	2	5	4	0	57	352
8:30 AM	0	0	12	0	11	0	0	0	0	28	1	0	2	12	6	0	72	356
8:45 AM	1	0	11	0	15	0	0	0	0	21	0	0	7	17	5	0	77	303
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	44	0	144	0	0	0	8	212	0	0	8	24	80	0	520	
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	4	0		8	
Buses																		
Pedestrians		0				0				4				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	4	0		4	
Scoters																		

Comments:

LOCATION: Shadow Lake Rd/Lark Ln -- Glade Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762724
DATE: Wed, Apr 6 2022

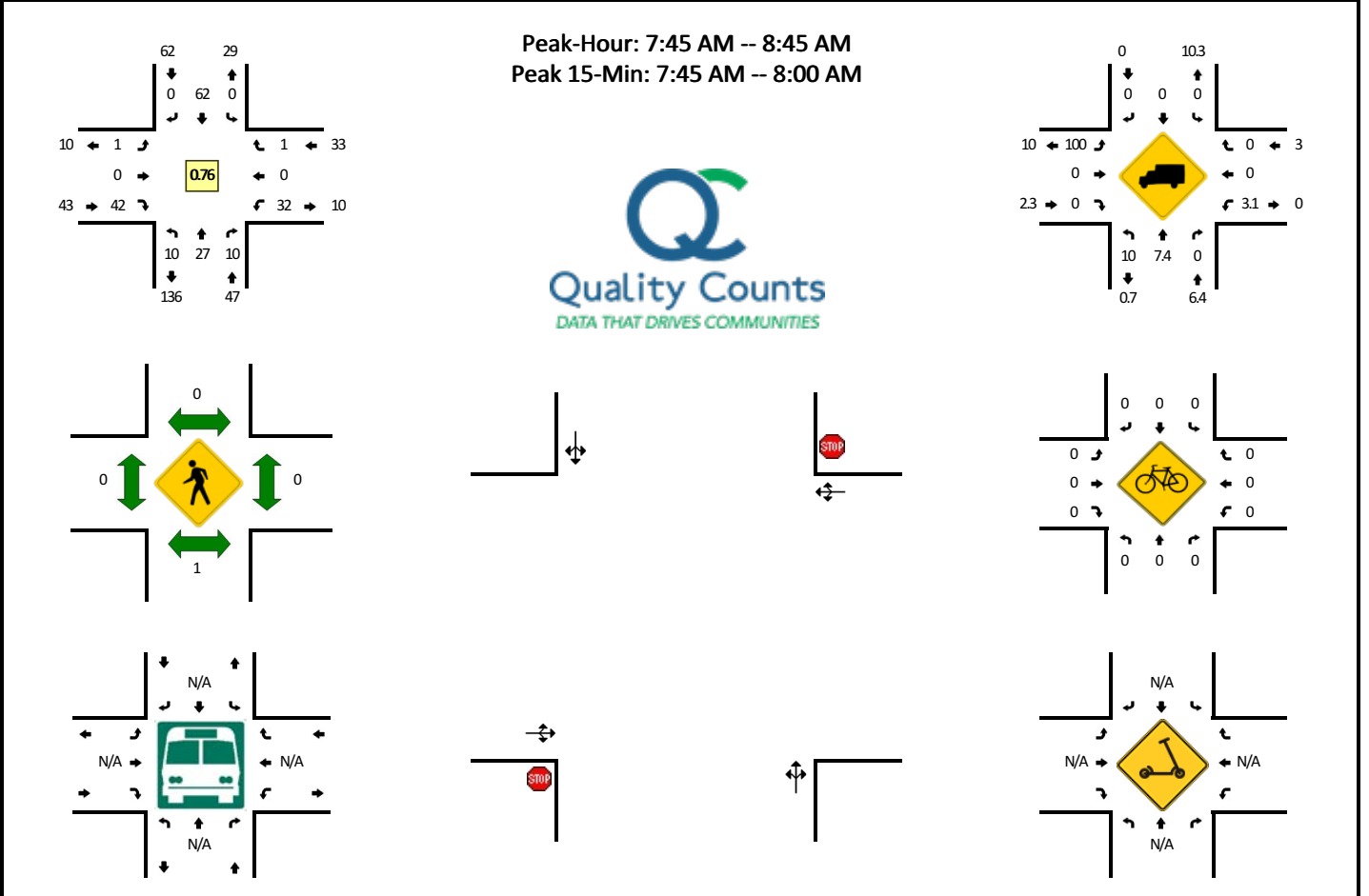


15-Min Count Period Beginning At	Shadow Lake Rd/Lark Ln (Northbound)				Shadow Lake Rd/Lark Ln (Southbound)				Glade Rd (Eastbound)				Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	1	1	0	11	0	2	0	1	19	0	0	5	37	12	0	90	
4:15 PM	0	0	5	0	5	0	1	0	1	30	0	0	9	29	14	0	94	
4:30 PM	0	0	6	0	15	0	2	0	1	29	0	0	5	44	10	0	112	
4:45 PM	1	0	7	0	12	0	0	0	0	20	0	0	5	30	9	0	84	380
5:00 PM	0	0	11	0	6	0	1	0	1	13	0	0	12	44	14	0	102	392
5:15 PM	0	0	6	0	14	0	1	0	1	19	0	0	16	69	12	0	138	436
5:30 PM	2	0	5	0	7	0	0	0	2	31	0	0	9	48	10	0	114	438
5:45 PM	0	0	7	0	7	0	1	0	2	30	1	0	13	48	10	0	119	473
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	24	0	56	0	4	0	4	76	0	0	64	276	48	0	552	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0	
Buses																		
Pedestrians		0				8				0				0			8	
Bicycles	0	0	0		0	0	0		0	0	0		0	4	12		16	
Scoters																		

Comments:

LOCATION: Toms Creek Rd -- Redbud Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762717
DATE: Wed, Apr 6 2022

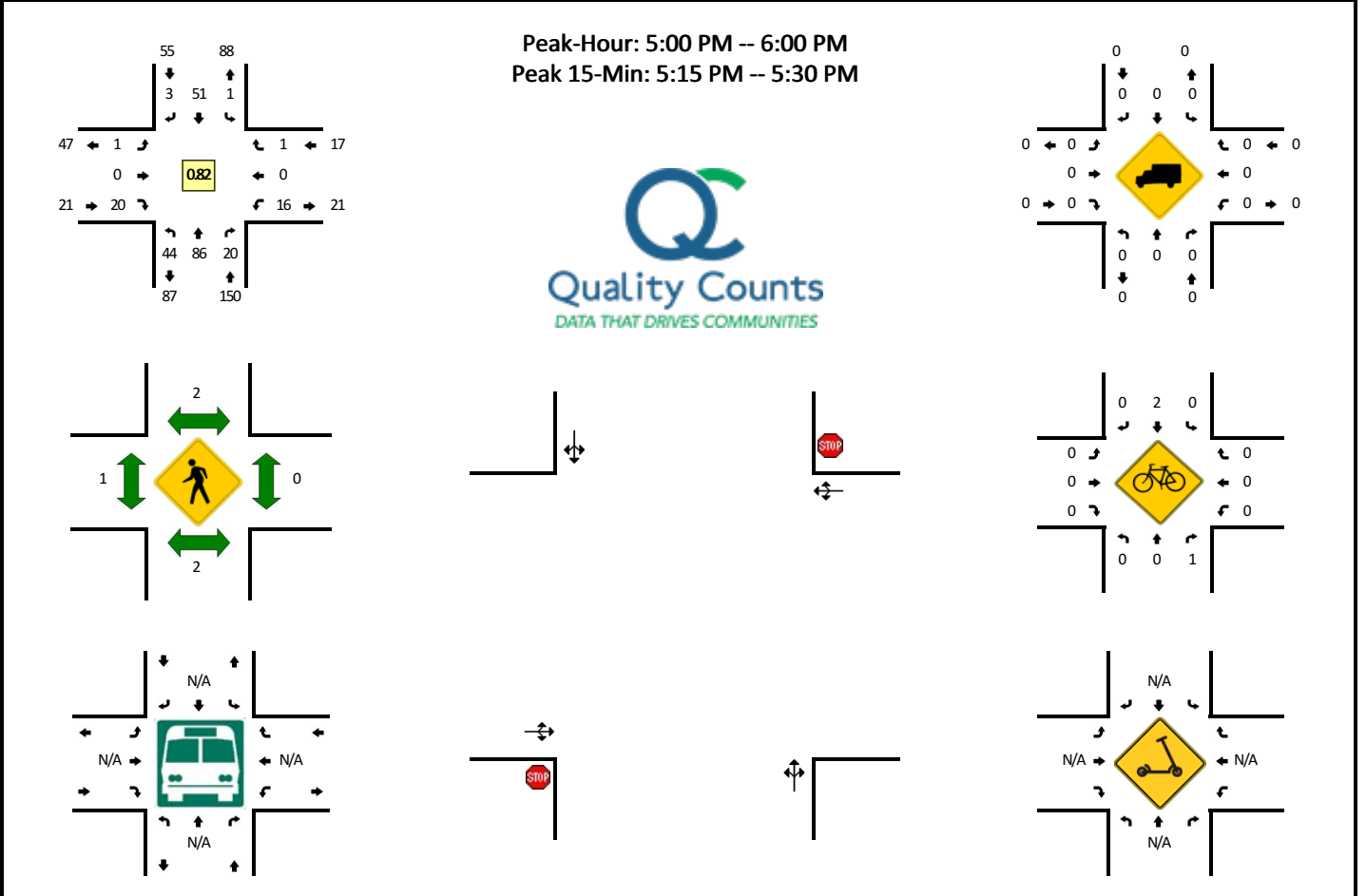


15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Redbud Rd (Eastbound)				Redbud Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	4	1	0	1	8	0	0	0	0	4	0	2	1	0	0	22	
7:15 AM	1	4	3	0	0	7	0	0	0	1	11	0	8	0	0	0	35	
7:30 AM	3	5	3	0	0	13	1	0	0	0	12	0	8	0	0	0	45	
7:45 AM	2	5	2	0	0	19	0	0	0	0	19	0	13	0	1	0	61	163
8:00 AM	6	10	3	0	0	12	0	0	0	0	3	0	7	0	0	0	41	182
8:15 AM	0	8	1	0	0	15	0	0	1	0	6	0	5	0	0	0	36	183
8:30 AM	2	4	4	0	0	16	0	0	0	0	14	0	7	0	0	0	47	185
8:45 AM	6	9	6	0	0	19	0	0	1	0	5	0	8	0	0	0	54	178
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	20	8	0	0	76	0	0	0	0	76	0	52	0	4	0	244	
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: Toms Creek Rd -- Redbud Rd
CITY/STATE: Blacksburg, VA

QC JOB #: 15762718
DATE: Wed, Apr 6 2022

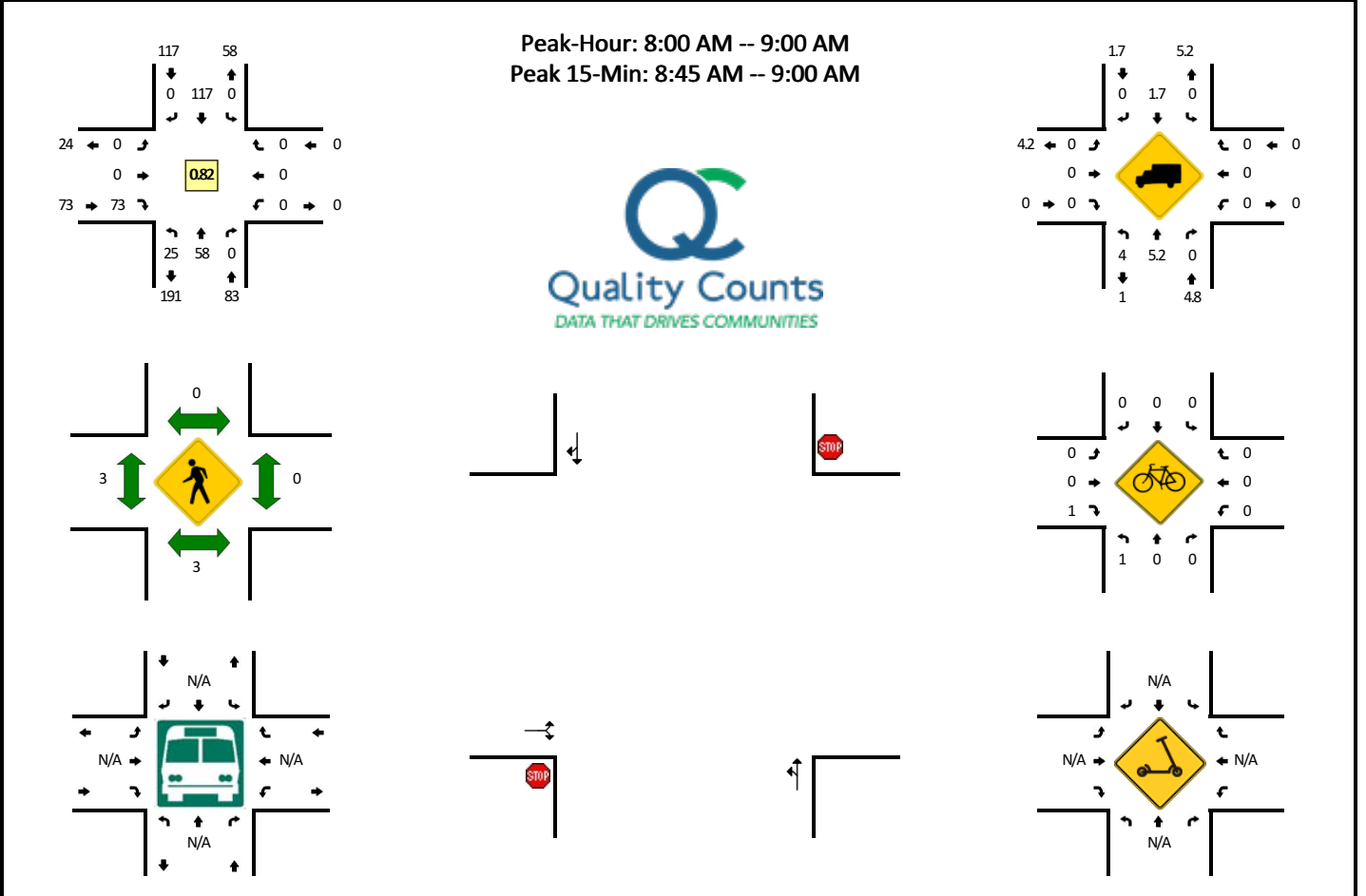


15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Redbud Rd (Eastbound)				Redbud Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	6	14	4	0	0	15	0	0	0	0	4	0	2	1	0	0	46	
4:15 PM	2	22	4	0	0	10	0	0	1	0	6	0	7	0	1	0	53	
4:30 PM	8	11	4	1	0	14	0	0	1	0	7	0	3	0	0	0	49	
4:45 PM	8	19	5	0	0	9	0	0	0	0	6	0	3	0	0	0	50	198
5:00 PM	6	15	5	0	0	15	1	0	0	0	5	0	4	0	0	0	51	203
5:15 PM	13	30	5	0	0	14	0	0	0	0	4	0	7	0	1	0	74	224
5:30 PM	13	22	6	0	1	12	1	0	0	0	6	0	2	0	0	0	63	238
5:45 PM	12	19	4	0	0	10	1	0	1	0	5	0	3	0	0	0	55	243
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	52	120	20	0	0	56	0	0	0	0	16	0	28	0	4	0	296	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0	
Buses																	0	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																	0	

Comments:

LOCATION: Toms Creek Rd -- Honeysuckle Dr
CITY/STATE: Blacksburg, VA

QC JOB #: 15762715
DATE: Wed, Apr 6 2022



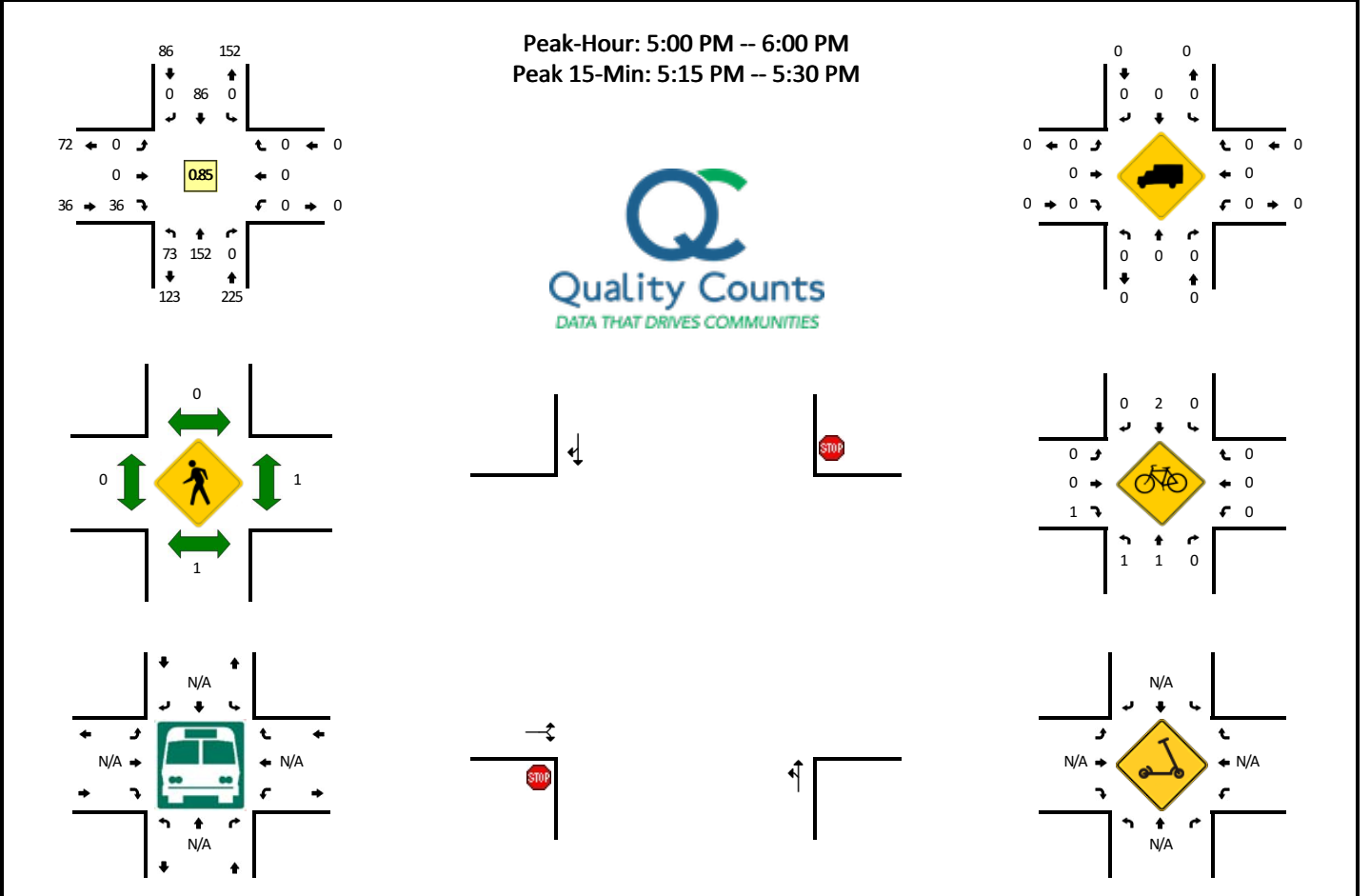
15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Honeysuckle Dr (Eastbound)				Honeysuckle Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	7	0	0	0	17	0	0	0	0	6	0	0	0	0	0	34	
7:15 AM	0	6	0	0	0	25	0	0	0	0	13	0	0	0	0	0	44	
7:30 AM	1	12	0	0	0	30	1	0	0	0	13	0	0	0	0	0	57	
7:45 AM	5	9	0	0	0	52	0	0	0	0	13	0	0	0	0	0	79	214
8:00 AM	4	18	0	0	0	22	0	0	0	0	13	0	0	0	0	0	57	237
8:15 AM	6	9	0	1	0	27	0	0	0	0	19	0	0	0	0	0	62	255
8:30 AM	4	12	0	0	0	37	0	0	0	0	18	0	0	0	0	0	71	269
8:45 AM	10	19	0	0	0	31	0	0	0	0	23	0	0	0	0	0	83	273

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	76	0	0	0	124	0	0	0	0	92	0	0	0	0	0	332
Heavy Trucks	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
Buses																	
Pedestrians		0				0					0			0			0
Bicycles	0	0	0		0	0	0			0	0		0	0	0		0
Scooters																	

Comments:

LOCATION: Toms Creek Rd -- Honeysuckle Dr
CITY/STATE: Blacksburg, VA

QC JOB #: 15762716
DATE: Wed, Apr 6 2022



15-Min Count Period Beginning At	Toms Creek Rd (Northbound)				Toms Creek Rd (Southbound)				Honeysuckle Dr (Eastbound)				Honeysuckle Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	16	22	0	0	0	20	1	0	2	0	9	0	0	0	0	0	70	
4:15 PM	15	29	0	0	0	22	1	0	2	0	13	0	0	0	0	0	82	
4:30 PM	12	21	0	0	0	24	1	0	0	0	7	0	0	0	0	0	65	
4:45 PM	11	33	0	0	0	20	0	0	0	0	11	0	0	0	0	0	75	292
5:00 PM	12	29	0	0	0	26	0	0	0	0	8	0	0	0	0	0	75	297
5:15 PM	17	46	0	0	0	24	0	0	0	0	15	0	0	0	0	0	102	317
5:30 PM	26	41	0	0	0	20	0	0	0	0	5	0	0	0	0	0	92	344
5:45 PM	17	36	0	1	0	16	0	0	0	0	8	0	0	0	0	0	78	347
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	68	184	0	0	0	96	0	0	0	0	60	0	0	0	0	0	408	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Buses																		
Pedestrians		4				0					0			0			4	
Bicycles	0	0	0		0	0	0			0	0	4		0	0	0	4	
Scoters																		

Comments:

APPENDIX C

ADJACENT DEVELOPMENT INFORMATION



GAY AND NEEL, INC.

ENGINEERING ♦ LANDSCAPE ARCHITECTURE ♦ SURVEYING
540.381.6011 www.gayandneel.com

Job Name Glade Road
Job No. 1108.7 Time _____
By BAP Date 5/17/14
Sheet No. _____ Of _____

Record Of Communication Turn Lane Analysis

Glade Road: Boxwood Dr. → Oriole Dr.

* AADT: 3000
DIR Factor: 0.584
K Factor: 0.103

Multi-Family Housing (Low Rise) - Peak Enters:

$$T_1 = .66(X) + 1.41 \quad X = 93 \text{ BR units}$$

$$= .66(93) + 1.41$$

$$T_1 \approx 63 \rightarrow (63)(.54 \text{ Enters}) = 37.17 \approx 37 \text{ Trips}$$

OFF-Campus Student Apartments - Peak Enters:

$$T_2 = 0.33(X) - 7.94 \quad X = 42 \text{ BR units}$$

$$= 0.33(42) - 7.94$$

$$T_2 = 5.92 \approx 6 \rightarrow (6)(.52) \approx 3 \text{ Trips}$$

Total Trip Generation: [40 Trips]

Left turn Analysis:

$$\text{VPH Opposing Volume} - (3000)(1 - 0.584)(0.103) = \text{Existing: } 129 \text{ Trips}$$

$$\text{VPH Advancing Volume} - (3000)(.584)(0.103) = 180 \text{ Trips}$$

* Advancing Volume Headed Towards Oriole Dr.

Peak Enters - 40 Trips

$$\text{Peak Left Turn Enters } (56.4\%) \approx 23 \text{ Trips}$$

$$\text{Peak Right Turn Enters } (41.6\%) \approx 17 \text{ Trips}$$

$$\text{Total Opposing: } 129 + 17 = 146 \text{ Trips}$$

$$\text{Total Advancing: } 180 + 23 = 203 \text{ Trips}$$

$$\% \text{ Vehicles Making Left Turn Into Site: } [23/203] \approx 10\% = L$$

Right Turn Analysis:

$$\text{VPH Advancing Volume} = (129 + 17) = 146 \text{ Trips}$$

* Advancing Volume Headed Towards Boxwood Dr.

$$\text{Peak Right Turn Enters } (41.6\%) = 17 \text{ Trips}$$

Sturbridge Square

Existing Traffic on University City Boulevard (Manual Traffic Count Data)

*Note: Traffic counts were performed during the AM and PM peak hours on a Wednesday and a Thursday to capture both class schedules at Virginia Tech. The Wednesday traffic was used for the AM peak hour and the Thursday traffic was used for the PM peak hour.

Southbound AM Peak Hour = 253 vph * 1.5% growth rate for 2 years = 261 vph

Southbound PM Peak Hour = 406 vph * 1.5% growth rate for 2 years = 418 vph

Northbound AM Peak Hour = 64 vph * 1.5% growth rate for 2 years = 66 vph

Northbound PM Peak Hour = 296 vph * 1.5% growth rate for 2 years = 305 vph

Trip Generation – As shown in the rezoning document.

*Note: Trip generation for the existing development equates to approximately 42% of the trip generation of the proposed development. Therefore, it was assumed that 58% of the proposed trips are new trips on the roadway.

Trip Reductions

58% bus reduction based on information provided by the Town

4% pedestrian reduction based on bicycle/pedestrian accommodations in the vicinity of the project

3% bicycle reduction based on bicycle/pedestrian accommodations in the vicinity of the project

Total = 65% bus/bike/ped reduction

Southern Access Point (60% of Entering Traffic)

AM Peak Hour

59 entering trips * 60% utilizing this entrance * 65% bus/bike/ped reduction = 12 entering vehicles

Right turns = 12 entering trips * 0.3 = 4 right turns

Advancing volume = 261 vph + 4 vph * 58% = 263 vph

From VDOT Road Design Manual, Appendix F, Figure 3-26 → **No Right Turn Lane Warranted**

Left turns = 12 entering trips * 0.7 = 8 left turns (11% of advancing volume)

Advancing volume = 66 vph + 8 vph * 58% + 6 vph * 58% = 74 vph

Opposing volume = 263 vph

From VDOT Road Design Manual, Appendix F, Figure 3-5 → **No Left Turn Lane Warranted**

PLANNERS • ARCHITECTS • ENGINEERS • SURVEYORS

ROANOKE • RICHMOND • NEW RIVER VALLEY • SHENANDOAH VALLEY

1208 Corporate Circle • Roanoke, Virginia 24018 • (540) 772-9580 • FAX (540) 772-8050

www.baizer.cc

PM Peak Hour

274 entering trips * 60% utilizing this entrance * 65% bus/bike/ped reduction = 58 entering vehicles

Right turns = 58 entering trips * 0.3 = 17 right turns

Advancing volume = 418 vph + 17 vph * 58% = 428 vph

From VDOT Road Design Manual, Appendix F, Figure 3-26 → **No Right Turn Lane Warranted**

Left turns = 58 entering trips * 0.7 = 41 left turns (12% of advancing volume)

Advancing volume = 305 vph + 41 vph * 58% + 27 vph * 58% = 344 vph

Opposing volume = 428 vph

From VDOT Road Design Manual, Appendix F, Figure 3-6 → **No Left Turn Lane Warranted**

Northern Access Point (40% of Entering Traffic)

AM Peak Hour

59 entering trips * 40% utilizing this entrance * 65% bus/bike/ped reduction = 8 entering vehicles

Right turns = 8 entering trips * 0.3 = 2 right turns

Advancing volume = 261 vph + 2 vph * 58% + 4 vph * 58% = 264 vph

From VDOT Road Design Manual, Appendix F, Figure 3-26 → **No Right Turn Lane Warranted**

Left turns = 8 entering trips * 0.7 = 6 left turns (9% of advancing volume)

Advancing volume = 66 vph + 6 vph * 58% = 69 vph

Opposing volume = 264 vph

From VDOT Road Design Manual, Appendix F, Figure 3-5 → **No Left Turn Lane Warranted**

PM Peak Hour

274 entering trips * 40% utilizing this entrance * 65% bus/bike/ped reduction = 38 entering vehicles

Right turns = 38 entering trips * 0.3 = 11 right turns

Advancing volume = 418 vph + 11 vph * 58% + 17 vph * 58% = 434 vph

From VDOT Road Design Manual, Appendix F, Figure 3-26 → **No Right Turn Lane Warranted**

Left turns = 38 entering trips * 0.7 = 27 left turns (8% of advancing volume)

Advancing volume = 305 vph + 27 vph * 58% = 321 vph

Opposing volume = 434 vph

From VDOT Road Design Manual, Appendix F, Figure 3-6 → **No Left Turn Lane Warranted**

**Traffic Impact Analysis: Berewick
Town of Blacksburg, VA
Tax Map No. 195-A-5
Parcel ID 006160**

July 1, 2020



EDEN & ASSOCIATES
engineering • planning • development

**1109 Brookdale Street, Suite B
Martinsville, Virginia 24112
Ph. 276.632.6231
Fax 276.632.3648
www.edenandassociates.com**

Part I: Introduction

Lucas TRC, LLC proposes to develop an eighty-four (84) parcel development along Toms Creek Road at Tax Parcel 195-A-5. The proposed development includes a new roadway connection to Toms Creek Road, between the intersection of “Toms Creek Road & Redbud Road” and the existing access to Toms Creek Park, on the eastern side of Toms Creek Road. Seventy-nine (79) lots will utilize the proposed roadway network. Five (5) proposed lots will have direct access to Redbud Road, adjacent to Brookfield Village. The property is currently zoned RR-1 (Rural Residential 1) with a request for PRD (Planned Residential District).

Toms Creek Road is a two-lane, undivided roadway that provides north / south access from US 460 Bypass to Laurel Drive, becoming Meadowbrook Drive and providing access to Glade Road. The proposed street network will connect to Toms Creek Road and ultimately extend to two undeveloped properties, Tax Parcels 165-A-7 and 195-1-1A. Extension of the roadway network by others could ultimately connect to Hidden Valley Drive and/or Redbud Road. The site has limiting factors relative to two tributaries flowing to Tom’s Creek. The proposed development proposes a single crossing of a tributary, thus limiting the immediate ability to connect to other existing roadways. A conceptual plan and preliminary plat, prepared by Eden & Associates, PC is included for reference of this analysis.

The traffic impact analysis includes the following specific items:

- a) analysis for any required turn lane and / or taper along Toms Creek Road;
- b) analysis for any impacts / Level of Service (LOS) to the signalized intersection at US 460 Bypass and Toms Creek Road;
- c) analysis for any impacts / LOS to the signalized intersection at Toms Creek Road / Patrick Henry Drive / University City Boulevard.

Part II: Executive Summary

(A) The proposed development, utilizing a new connection to Toms Creek Road for seventy-nine (79) proposed lots is positioned with adequate intersection sight distance along Toms Creek Road. The proposed development does not warrant any additional right turn lane / taper or left turn lane. The proposed intersection is adequate into the foreseeable future, as traffic could increase by an additional 50% prior to any right turn taper being warranted. Traffic would need to increase to four times the anticipated traffic patterns to warrant a left turn lane.

The proposed five (5) lots along Redbud Road has little impact to the intersection of Redbud Road and Toms Creek Road. The existing roadway serves fifty-five dwellings / lots. The existing traffic at the intersection of Redbud Road and Toms Creek Road can easily accommodate the traffic from five additional lots. The analysis is performed similar to the process performed at the proposed connection; however, Redbud Road has fewer right turns than the turns proposed by the development.

(B) The total proposed development has no significant impact to the signalized intersection at US 460 Bypass and Toms Creek Road. The proposed development does not degrade the overall level of service below LOS C. The Traffic Impact Statement from other proposed developments, "*The View (Frith Property)*" and "*Terrace View*", in the area show the overall signalized intersection to operate at a Level of Service B or better and for each lane group to operate at a Level of Service C or better. Specific reference is directed to "Table 3" from "*The View (Frith Property)*" for 'Build (2020) Conditions.

The proposed development introduces additional traffic to the signal. This analysis utilizes a potential ninety-five (95) dwellings; however, the actual number of dwellings proposed is eighty-four (84). This analysis incorporates the proposed development and other known proposed developments, not yet finalized, uses a background growth rate of 0.5% for the existing traffic, and evaluates Year 2028. As shown in the "Capacity Analysis Results" for the signal at "Tom's Creek Road and WB US 460 Ramp", the level of impact to the AM Peak Hour is approximately 0.6 seconds, and remains at LOS A. The delay to the PM Peak Hour is increased from approximately 11.2 to 14.8, an increase in 3.6 seconds; however, the overall level of service remains at LOS B. In addition, no segment is below a LOS C; the results of this analysis are similar to previous reports.

(C) The total proposed development has no significant impact to the signalized intersection at Toms Creek Road / Patrick Henry Drive / University City Boulevard. The proposed development does not degrade the overall level of service below LOS C. The Traffic Impact Statement from other proposed developments, "*The View (Frith Property)*" and "*Terrace View*", in the area show the overall signalized intersection to operate at a Level of Service B during the AM Peak Hour and Level of Service C during the PM Peak Hour. Specific reference is directed to "Table 8" from "*Terrace View*" for '2020 Buildout Conditions. Within the previous study, the analysis shows that the "WBTR" lane operates at a LOS C (21.8 sec/veh) during the AM Peak Hour and a LOS D (45.1 sec/veh) during the PM Peak Hour.

As shown in the "Capacity Analysis Results" for the signal at "Tom's Creek Road and University City Blvd / Patrick Henry Dr", the level of impact to the intersection during the AM Peak Hour is approximately 0.8 sec/veh, and remains at LOS B. The delay to the PM Peak Hour is increased from approximately 29.5 to 31.5, an increase of 2.0 sec/veh; however, the overall level of service remains at LOS C. While the previous reports show a segment LOS D for the WBTR, this analysis shows that two segments, WBT/R and NBT/R depict a LOS D. Overall, the signal remains as a LOS C at 31.5 sec/veh. While the reported LOS is at the upper portion of LOS C, it is not at the upper limit (35 sec/veh).

The proposed road crossing of the tributary to Tom's Creek is designed to insure the 100-year flow does not overtop the roadway, the impacts to floodwaters do not impact upstream properties, and the flood elevation of waters crossing Toms Creek Road is not increased.

The proposed roadway network meets the requirements of the Virginia Department of Transportation relative to extension to undeveloped properties. The extension to undeveloped properties provides for potential "second connections" without additional crossing of tributaries.

Part III: Existing Roadway Data

Toms Creek Road is Town of Blacksburg Maintained. The Town has classified the roadway as a Collector Road with posted speed limit (25 MPH). Historically, traffic counts were performed along Toms Creek Road by other developments on April 4th, April 5th, and April 18th of 2018 relative to rezoning applications in the area between US 460 Bypass and Patrick Henry Drive. In addition, VDOT has provided published counts for 2018 in the segment between US460 Bypass and Patrick Henry Drive as well as the segment between US 460 Bypass and Redbud Road.

In review of the available information for the segment between US 460 Bypass and Patrick Henry Drive, it appears that traffic counts collected on Wednesday, April 18, 2018 is approximately 10% higher than the averaged traffic collected on Wednesday, April 4 and Thursday, April 5, 2018. The counts gathered on April 18, 2018 appear to be 30% higher than the VDOT 2018 published rates; to that extent, if VDOT published data is utilized, it shall be adjusted accordingly as a conservative measure to approximate anticipated traffic during normal operations.

Relative to the roadway segment from US 460 (Bypass Interchange) to Redbud Road (local road) the VDOT published information includes and ADT: 1800; K: 0.113; and Peak Hour Direction: 0.679. In addition, twelve-hour (12-hr) counts were taken on Thursday May 28, 2020 and Wednesday June 3, 2020. Due to the COVID-19 restrictions, these counts were collected to analyze percentages at the intersection of "Toms Creek Road and Redbud Road" rather than the overall volume of traffic. Results of the counts (in ½ hour increments) are provided in the attachment titled "Gathered Traffic Counts - Intersection of Toms Creek Road and Redbud Road".

As the VDOT 2018 published counts are the most recent counts meeting count criteria, this analysis takes the conservative approach to adjust the published counts to the percent volume shown by other counts of 2018 (an adjustment of 30%).

The proposed connection on Toms Creek Road (a collector road) is described as follows:
Minimum Distance (road connection to Redbud Road) = 600 LF or greater. (250 LF Table 2-2)
Minimum distance (road connection to US 460 Interchange) = 1,440 LF or greater. (750 LF Table 2-4).
Minimum distance of road connection to US 460 Interchange Signalized Intersection = 2,160 LF. (750 LF Table 2-4).

For reference, the applicable VDOT design standards are referenced in parenthesis (), with the minimum spacing requirement.

This Traffic Impact Statement is based on utilizing a conservative approach on multiple levels. The basis of analysis includes the following:

- A conservative background growth estimate of 0.5 percent (VDOT recommended) is utilized for known traffic counts;
- Known anticipated trip generation from rezoned properties, in which the development is not yet finalized, is incorporated into the analysis;
- In areas where traffic counts conflict, the most conservative estimate is utilized;

Part IV: Analysis of Existing Traffic

VDOT has published traffic counts for this area and is attached. Given the existing dwellings, the existing traffic appears to be less than anticipated, using 10 trips per dwelling from the ITE Trip Generation Manual. While published counts are utilized, additional data suggests that published counts could fluctuate as much as 30% above the published counts, to that extent, the published counts have been adjusted upward accordingly.

The published counts for Toms Creek Road are on a segment between US 460 Bypass and Redbud Road; however, no distribution of existing trips at the Toms Creek Road / Redbud Road intersection is published. An initial analysis of distribution based on the percentage of dwellings at each segment was utilized; however, actual 2020 traffic counts did not support the original distribution. A revised distribution, based on “actual 2020 counts”, is utilized to determine the amount of traffic adjacent the proposed connection. The line item “Trips to Remainder” describes the anticipated traffic along Tom’s Creek Road, across the site.

Part V: Analysis of Proposed Traffic

Using the 10th Edition of the ITE Trip Generation Manual, ITE Land Use for Single-Family Detached (210). The number of proposed dwellings utilizing the new connection is 79 dwellings. 5 proposed dwellings will utilize Redbud Road. The anticipated Daily, AM peak trips, and PM peak trips are calculated and depicted as attached. While the directional distribution of Toms Creek Road would suggest a 68/32 split relative to “toward US 460” or “away from US 460”, the existing traffic patterns at Redbud Road suggest that a more conservative approach be utilized. The site distribution of 92/8 has been utilized.

The proposed connection is analyzed for any need relative to right turn taper, right turn lane, and left turn lane. No taper or lane is warranted.

Beyond the site connection point, the signalized intersection at Toms Creek / US 460 Bypass has been analyzed for capacity and Level of Service (LOS). The preliminary distribution of traffic was circulated to the Town of Blacksburg and VDOT. The trip distribution is based in part on visual analysis of the existing traffic patterns and the 2018 counted traffic. The findings are described in the Executive Summary above.

In addition, the signalized intersection at Toms Creek Road / Patrick Henry Drive / University City Boulevard has been analyzed for capacity and Level of Service (LOS). The findings are described in the Executive Summary above.

Part VI: Analysis of Existing and Proposed Traffic – Turn Lane

As depicted in “Post-developed Traffic Volume – Analysis for Turn Lane”, the existing and proposed traffic is analyzed to determine the need for either a left turn lane or right turn lane. As summarized at the bottom of the page, using the assumption of a single connection to Tom’s Creek Road, no right turn lane is warranted based on anticipated peak hour trips. As no charts exists for a left turn lane warrant for design speeds of 30 MPH, no left turn lane is warranted. Further analysis of a left turn lane warrant for design speeds of 40 MPH was performed; no left turn lane is warranted. While the analysis was for eighty (80) lots, seventy-nine (79) lots are proposed to utilize this connection.

Part VII: Analysis of Existing and Proposed Traffic – US 460 Interchange

As depicted by the existing traffic counts, the interchange on the west side of US 460 experiences approximately 1,800 existing daily trips, or approximately 203 hourly trips. Given the traffic counts of April 4th, 5th, and 18th, 2018, the published traffic counts were adjusted to a conservative estimate. A full analysis for each of the referenced signalized intersections is completed. As reported above, each signal remains at an overall LOS C or better. The full analysis is provided by the report prepared by Ramey Kemp Associates and is attached.

Part VIII. Attachments

Existing Published Traffic Counts – East of US 460 (Analysis of data)

Background Growth Rate Analysis

Existing Published Traffic Counts – East of US 460 (VDOT published counts)

Existing Published Traffic Counts – West of US 460 (Analysis of data)

Existing Published Traffic Counts – West of US 460 (VDOT published count)

Gathered Traffic Counts – Map of Movements

Gathered Traffic Counts - Intersection of Toms Creek Road and Redbud Road

Proposed Trip Generation – based on dwelling units

Combination of Existing and Proposed Traffic – Turn Lane Warrant Analysis

Table 3-1 – Left Turn Lane Warrant Threshold

Figure 3-26 – Right Turn Taper / Lane Warrant Threshold

Aerial Map depicting dwellings within the area

Proposed Development Concept Plan

Traffic Projections (by Ramey Kemp Associates)

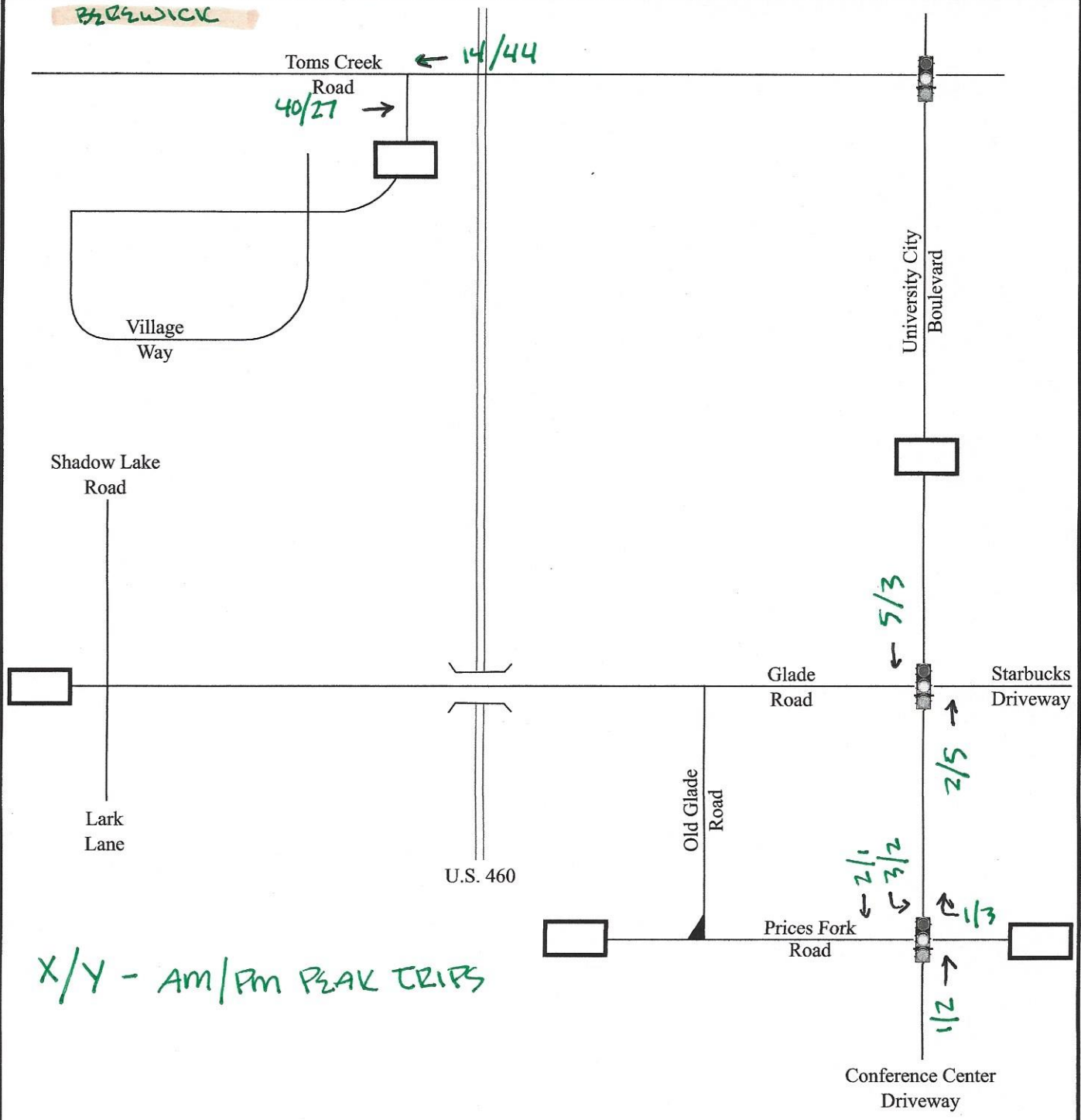
Trip Generation Summary and Capacity Analysis (by Ramey Kemp Associates)

Full Report of Signalized Intersections (by Ramey Kemp Associates)

Published Traffic Count (2018)				
Count Taken between US 460 and Prices Fork Road (East of US 460)				
Toms Creek Road (NB and SB)				
AADT	9,300			
K Factor	0.087			
Peak Hour Trips	809			
Direction Factor	0.601			
PHV	486	Peak direction (AM is SB, toward Prices Fork Rd)		
	323	Non-peak direction (AM is NB, toward US 460)		
Validation of VDOT 2018 counts using Averaged counts of 4/4/2018 and 4/5/2018				
PM Peak Hour Count:		1057	vehicles	1.31
Validation of VDOT 2018 counts using counts of 4/18/2018				
PM Peak Hour Count:		1183	vehicles	1.46
Recommendation: Given two known counts over three days that exceed published AADT, adjust the published AADT based on other known data.				
Background Growth Rate:				
Given seven counts over a 10-year period, a background growth rate can be established. Rather than utilize a negative growth rate, the VDOT recommended growth rate of 0.5% annual growth is used to address development on properties that do not include "rezoning" or "special exception". Known planned developments / redevelopments are incorporated into the analysis. This process, in addition to the 0.5% growth rate, more than adequately anticipates future traffic patterns. Utilizing this approach, the overall increase in traffic by other developments is more efficiently evaluated and could be described as a traffic growth rate of 4% to 5% between the years of 2018 and when development is finalized.				

Background Growth Rate				
Utilizing Route 3159 (Toms Creek Rd) from US 460 to Prices Fork Rd				
The segment utilized has more traffic counts performed on a more routine basis.				
Year	AADT	Yearly Growth Rate	Peak Hr Factor	Directional Peak
2018	9300	-1%	0.087	0.601
2017	9400	1%	0.093	0.502
2015	9200	2%	0.087	0.601
2014	9000	-11%	0.087	0.601
2012	11000	3%	0.091	0.505
2009	10000	-10%	0.099	0.517
2008	11000		0.096	0.523
Average Background Growth Rate:		-3%	As calculated over 10 years	
Background Growth Rate Used:		0.50%	As recommended by VDOT	
NOTES:				
1. Background Growth Rate is to approximate development of parcels where no rezoning or special exception process is utilized.				
2. A more appropriate approximation is to utilize the anticipated counts from any rezoning / special use process to better anticipate traffic in areas where development has not yet occurred.				
2. Deerfield was rezoned July 1991 and constructed prior to 2018 traffic counts.				
3. Brookfield Village was rezoned September 1996 and constructed prior to 2018 traffic counts.				
4. The Village at Toms Creek was rezoned and revised October 2001. While a majority of the dwellings have been constructed, the background growth rate will accommodate the remaining dwellings to be constructed.				

BERSWICK

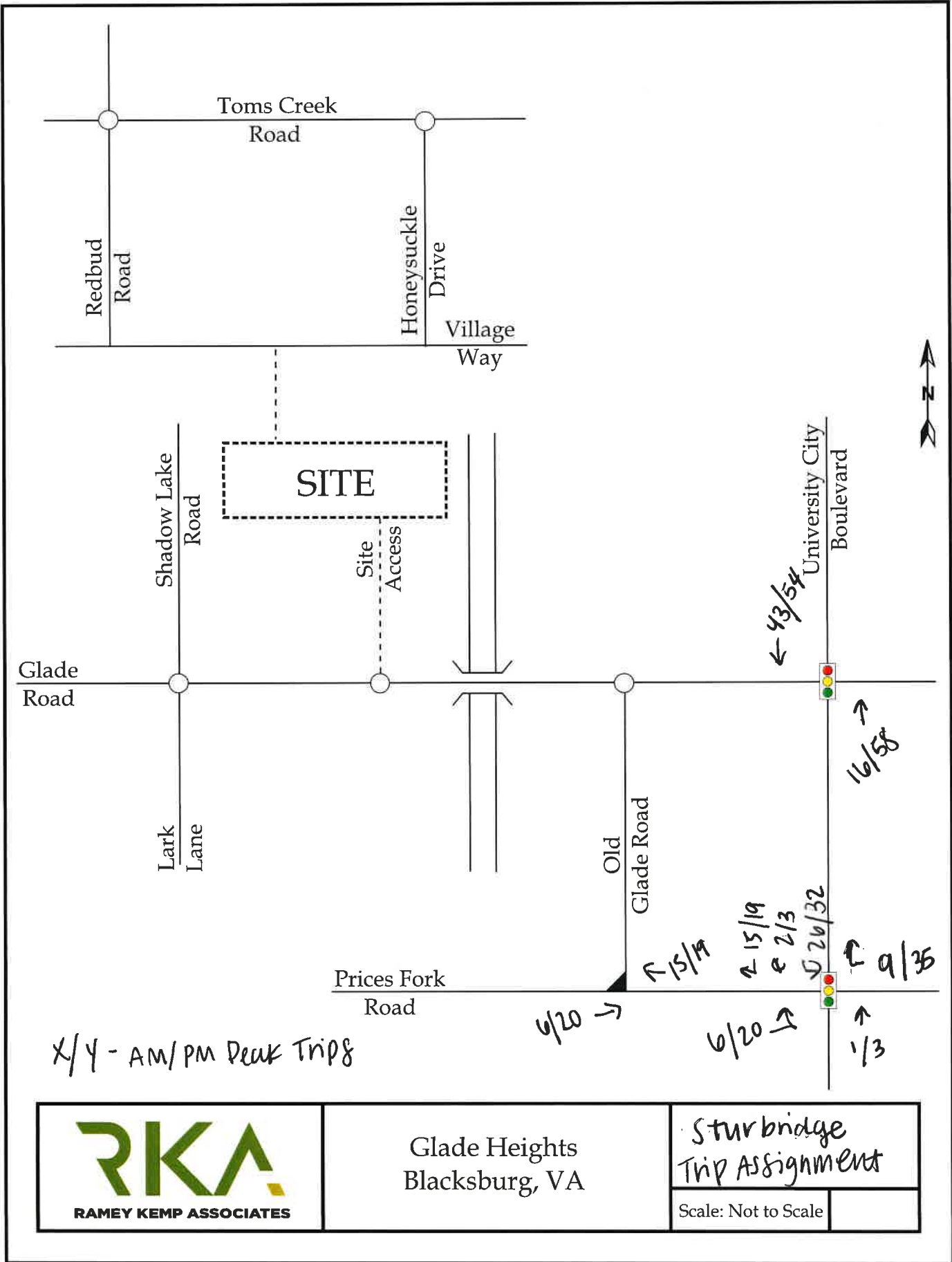


X/Y - AM/PM PEAK TRIPS



BERSWICK
TRIP ASSIGNMENT

Scale: Not to Scale



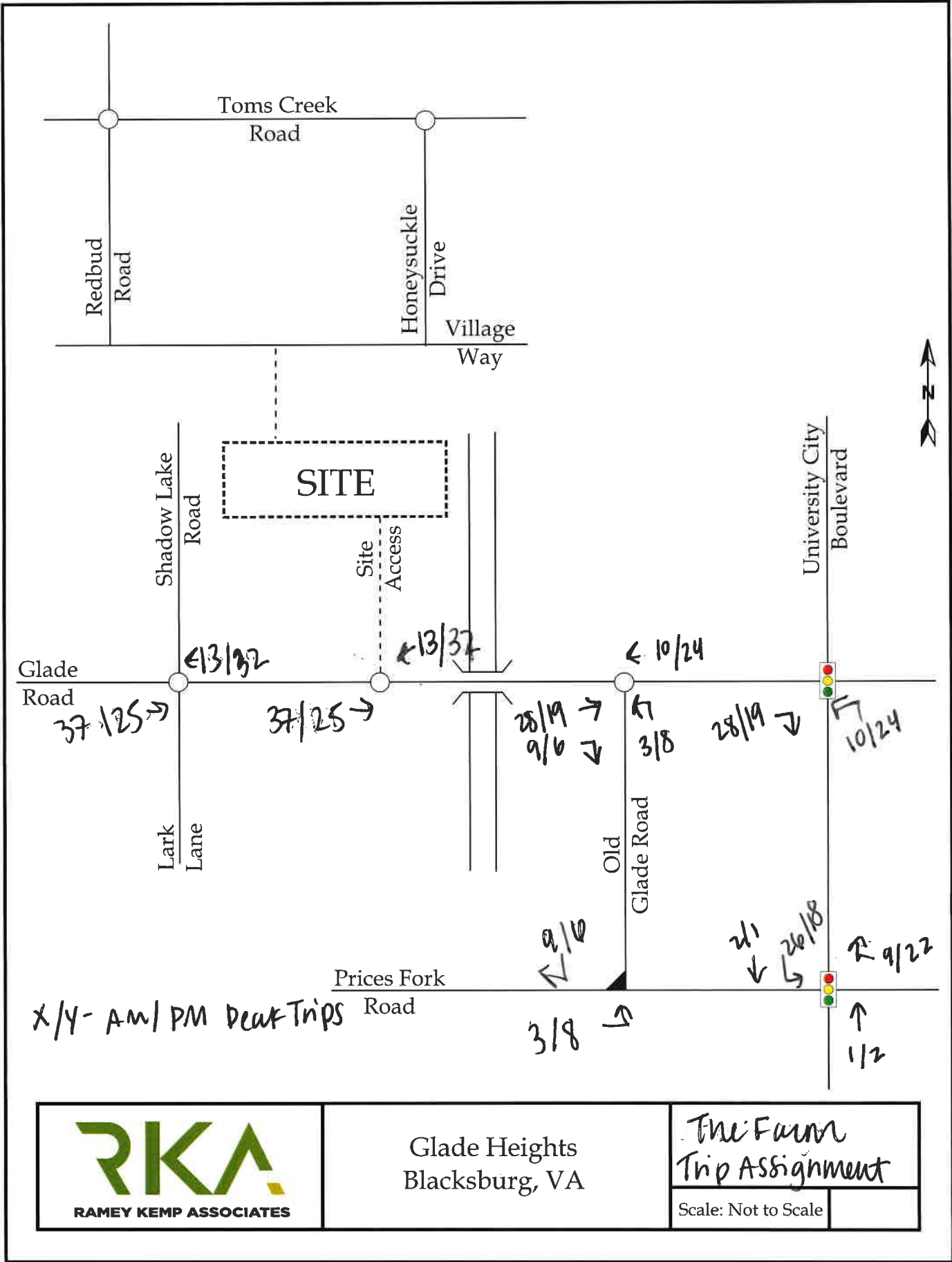
X/4 - AM/PM Peak Trips



Glade Heights
Blacksburg, VA

Sturbridge
Trip Assignment

Scale: Not to Scale



Glade Heights
Blacksburg, VA

The Farm
Trip Assignment

Scale: Not to Scale

APPENDIX D

CAPACITY ANALYSIS CALCULATIONS

**Prices Fork Road and University City
Boulevard**

Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

Existing (2022) Conditions
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	805	51	9	444	124	17	6	12	237	17	69
Future Volume (vph)	128	805	51	9	444	124	17	6	12	237	17	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		150	150		225	0		200	175		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.96			0.98		0.99			0.99	
Frt			0.850			0.850		0.898			0.880	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	3438	1553	1805	3312	1538	1703	1598	0	3367	1597	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1703	3438	1497	1805	3312	1515	1703	1598	0	3367	1597	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			132			185		15			84	
Link Speed (mph)		40			35			15			25	
Link Distance (ft)		312			732			495			793	
Travel Time (s)		5.3			14.3			22.5			21.6	
Confl. Peds. (#/hr)			6			2			5			4
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	6%	5%	4%	0%	9%	5%	6%	17%	0%	4%	0%	4%
Adj. Flow (vph)	156	982	62	11	541	151	21	7	15	289	21	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	156	982	62	11	541	151	21	22	0	289	105	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	2	3	3		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	5.0		8.0	8.0	
Minimum Split (s)	12.4	34.7	34.7	11.8	34.7	34.7	38.8	38.8		38.5	38.5	
Total Split (s)	30.0	75.0	75.0	15.0	60.0	60.0	20.0	20.0		40.0	40.0	
Total Split (%)	20.0%	50.0%	50.0%	10.0%	40.0%	40.0%	13.3%	13.3%		26.7%	26.7%	
Yellow Time (s)	3.6	4.7	4.7	3.2	4.7	4.7	3.4	3.4		3.6	3.6	
All-Red Time (s)	3.8	2.0	2.0	3.6	2.0	2.0	3.4	3.4		3.9	3.9	
Lost Time Adjust (s)	-2.4	-1.7	-1.7	-1.8	-1.7	-1.7	-1.8	-1.8		-2.5	-2.5	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	21.8	98.0	98.0	9.3	77.4	77.4	9.9	9.9		23.4	23.4	
Actuated g/C Ratio	0.15	0.65	0.65	0.06	0.52	0.52	0.07	0.07		0.16	0.16	
v/c Ratio	0.63	0.44	0.06	0.10	0.32	0.17	0.19	0.18		0.55	0.33	
Control Delay	71.5	16.6	0.1	67.8	24.6	2.2	68.6	37.2		61.7	17.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	71.5	16.6	0.1	67.8	24.6	2.2	68.6	37.2		61.7	17.5	
LOS	E	B	A	E	C	A	E	D		E	B	
Approach Delay		22.9			20.4			52.5			49.9	

Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

Existing (2022) Conditions
 Timing Plan: AM Peak Hour

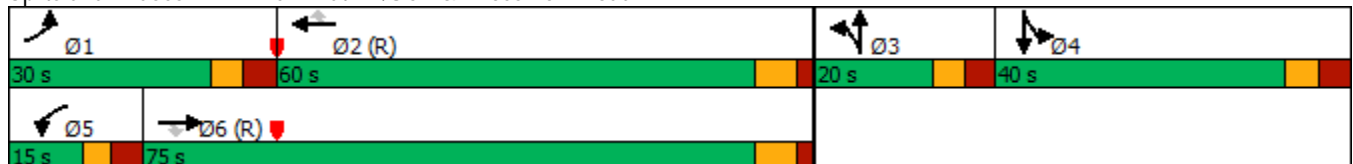


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			C			D			D		
Queue Length 50th (ft)	145	204	0	10	160	0	20	7		137	18	
Queue Length 95th (ft)	197	384	0	29	236	13	44	31		154	56	
Internal Link Dist (ft)	232			652			415			713		
Turn Bay Length (ft)	175		150	150		225				175		
Base Capacity (vph)	286	2246	1023	122	1708	871	170	173		785	437	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.55	0.44	0.06	0.09	0.32	0.17	0.12	0.13		0.37	0.24	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	101 (67%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle:	125
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	27.3
Intersection LOS:	C
Intersection Capacity Utilization	57.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 1: The Inn at VT/UCB & Prices Fork Road



Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

Existing (2022) Conditions
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	699	23	23	1039	354	54	42	26	386	22	222
Future Volume (vph)	183	699	23	23	1039	354	54	42	26	386	22	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		150	150		225	0		200	175		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.93			0.97		0.98			0.95	
Frt			0.850			0.850		0.943			0.864	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3539	1615	1805	3574	1599	1805	1763	0	3467	1550	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3539	1498	1805	3574	1547	1805	1763	0	3467	1550	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			132			259		16			241	
Link Speed (mph)		40			35			15			25	
Link Distance (ft)		312			732			495			793	
Travel Time (s)		5.3			14.3			22.5			21.6	
Confl. Peds. (#/hr)			20			13			22			28
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 (%)	1%	2%	0%	0%	1%	1%	0%	0%	0%	1%	0%	1%
Adj. Flow (vph)	199	760	25	25	1129	385	59	46	28	420	24	241
Shared Lane Traffic (%)												
Lane Group Flow (vph)	199	760	25	25	1129	385	59	74	0	420	265	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	2	3	3		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	5.0		8.0	8.0	
Minimum Split (s)	12.4	34.7	34.7	11.8	34.7	34.7	38.8	38.8		38.5	38.5	
Total Split (s)	27.0	72.0	72.0	20.0	65.0	65.0	19.0	19.0		39.0	39.0	
Total Split (%)	18.0%	48.0%	48.0%	13.3%	43.3%	43.3%	12.7%	12.7%		26.0%	26.0%	
Yellow Time (s)	3.6	4.7	4.7	3.2	4.7	4.7	3.4	3.4		3.6	3.6	
All-Red Time (s)	3.8	2.0	2.0	3.6	2.0	2.0	3.4	3.4		3.9	3.9	
Lost Time Adjust (s)	-2.4	-1.7	-1.7	-1.8	-1.7	-1.7	-1.8	-1.8		-2.5	-2.5	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	21.6	83.1	83.1	10.4	66.4	66.4	12.1	12.1		29.9	29.9	
Actuated g/C Ratio	0.14	0.55	0.55	0.07	0.44	0.44	0.08	0.08		0.20	0.20	
v/c Ratio	0.77	0.39	0.03	0.20	0.71	0.46	0.41	0.47		0.61	0.53	
Control Delay	81.8	22.1	0.0	69.0	38.6	11.9	73.3	60.9		58.2	11.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	81.8	22.1	0.0	69.0	38.6	11.9	73.3	60.9		58.2	11.9	
LOS	F	C	A	E	D	B	E	E		E	B	
Approach Delay		33.7			32.5			66.4			40.3	

Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

Existing (2022) Conditions
 Timing Plan: PM Peak Hour

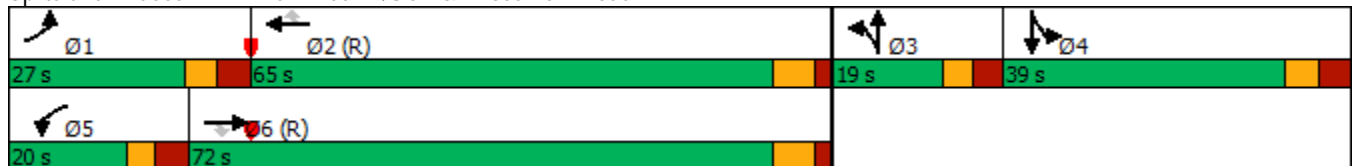


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			C			E			D		
Queue Length 50th (ft)	189	254	0	24	506	83	55	54		189	19	
Queue Length 95th (ft)	#306	322	0	56	597	181	105	109		244	101	
Internal Link Dist (ft)	232			652			415			713		
Turn Bay Length (ft)	175		150	150		225				175		
Base Capacity (vph)	266	1961	889	180	1581	829	168	179		785	537	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.75	0.39	0.03	0.14	0.71	0.46	0.35	0.41		0.54	0.49	

Intersection Summary

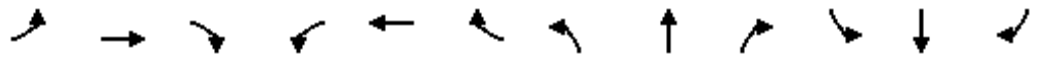
Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 46 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 35.8
 Intersection LOS: D
 Intersection Capacity Utilization 82.6%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: The Inn at VT/UCB & Prices Fork Road



Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

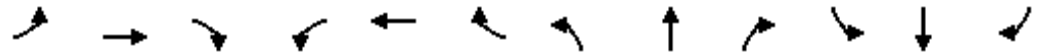
2026 No-Build Conditions
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	821	52	9	453	145	17	9	12	297	23	85
Future Volume (vph)	137	821	52	9	453	145	17	9	12	297	23	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		150	150		225	0		200	175		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.96			0.98		0.99			0.99	
Fr _t			0.850			0.850		0.915			0.882	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	3438	1553	1805	3312	1538	1703	1602	0	3367	1602	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1703	3438	1497	1805	3312	1515	1703	1602	0	3367	1602	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			132			185		13			92	
Link Speed (mph)		40			35			15			25	
Link Distance (ft)		312			732			495			793	
Travel Time (s)		5.3			14.3			22.5			21.6	
Confl. Peds. (#/hr)			6			2			5			4
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 (%)	6%	5%	4%	0%	9%	5%	6%	17%	0%	4%	0%	4%
Adj. Flow (vph)	149	892	57	10	492	158	18	10	13	323	25	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	892	57	10	492	158	18	23	0	323	117	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	2	3	3		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	5.0		8.0	8.0	
Minimum Split (s)	12.4	34.7	34.7	11.8	34.7	34.7	38.8	38.8		38.5	38.5	
Total Split (s)	30.0	75.0	75.0	15.0	60.0	60.0	20.0	20.0		40.0	40.0	
Total Split (%)	20.0%	50.0%	50.0%	10.0%	40.0%	40.0%	13.3%	13.3%		26.7%	26.7%	
Yellow Time (s)	3.6	4.7	4.7	3.2	4.7	4.7	3.4	3.4		3.6	3.6	
All-Red Time (s)	3.8	2.0	2.0	3.6	2.0	2.0	3.4	3.4		3.9	3.9	
Lost Time Adjust (s)	-2.4	-1.7	-1.7	-1.8	-1.7	-1.7	-1.8	-1.8		-2.5	-2.5	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	21.3	96.9	96.9	9.2	76.7	76.7	9.8	9.8		24.7	24.7	
Actuated g/C Ratio	0.14	0.65	0.65	0.06	0.51	0.51	0.07	0.07		0.16	0.16	
v/c Ratio	0.62	0.40	0.06	0.09	0.29	0.18	0.16	0.20		0.58	0.34	
Control Delay	71.2	16.5	0.1	67.7	24.5	2.7	68.1	41.7		61.5	17.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	71.2	16.5	0.1	67.7	24.5	2.7	68.1	41.7		61.5	17.4	
LOS	E	B	A	E	C	A	E	D		E	B	
Approach Delay		23.1			19.9			53.3			49.8	

Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

2026 No-Build Conditions
 Timing Plan: AM Peak Hour

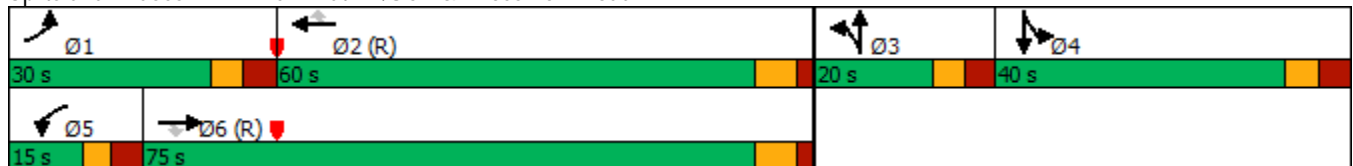


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			B			D			D		
Queue Length 50th (ft)	139	184	0	9	144	0	17	10		153	21	
Queue Length 95th (ft)	208	388	0	30	240	31	43	40		190	75	
Internal Link Dist (ft)	232			652			415			713		
Turn Bay Length (ft)	175		150	150		225				175		
Base Capacity (vph)	286	2220	1013	122	1693	864	170	171		785	444	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.52	0.40	0.06	0.08	0.29	0.18	0.11	0.13		0.41	0.26	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	101 (67%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle:	125
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	27.9
Intersection LOS:	C
Intersection Capacity Utilization	59.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 1: The Inn at VT/UCB & Prices Fork Road



Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

2026 No-Build Conditions
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	713	23	23	1060	421	55	50	27	446	27	245
Future Volume (vph)	207	713	23	23	1060	421	55	50	27	446	27	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		150	150		225	0		200	175		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.93			0.97		0.99			0.95	
Frt			0.850			0.850		0.948			0.865	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3539	1615	1805	3574	1599	1805	1775	0	3467	1553	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3539	1498	1805	3574	1547	1805	1775	0	3467	1553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			132			302		14			255	
Link Speed (mph)		40			35			15			25	
Link Distance (ft)		312			732			495			793	
Travel Time (s)		5.3			14.3			22.5			21.6	
Confl. Peds. (#/hr)			20			13			22			28
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 (%)	1%	2%	0%	0%	1%	1%	0%	0%	0%	1%	0%	1%
Adj. Flow (vph)	225	775	25	25	1152	458	60	54	29	485	29	266
Shared Lane Traffic (%)												
Lane Group Flow (vph)	225	775	25	25	1152	458	60	83	0	485	295	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	2	3	3		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	5.0		8.0	8.0	
Minimum Split (s)	12.4	34.7	34.7	11.8	34.7	34.7	38.8	38.8		38.5	38.5	
Total Split (s)	27.0	72.0	72.0	20.0	65.0	65.0	19.0	19.0		39.0	39.0	
Total Split (%)	18.0%	48.0%	48.0%	13.3%	43.3%	43.3%	12.7%	12.7%		26.0%	26.0%	
Yellow Time (s)	3.6	4.7	4.7	3.2	4.7	4.7	3.4	3.4		3.6	3.6	
All-Red Time (s)	3.8	2.0	2.0	3.6	2.0	2.0	3.4	3.4		3.9	3.9	
Lost Time Adjust (s)	-2.4	-1.7	-1.7	-1.8	-1.7	-1.7	-1.8	-1.8		-2.5	-2.5	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	22.6	81.5	81.5	10.4	63.7	63.7	12.3	12.3		31.4	31.4	
Actuated g/C Ratio	0.15	0.54	0.54	0.07	0.42	0.42	0.08	0.08		0.21	0.21	
v/c Ratio	0.84	0.40	0.03	0.20	0.76	0.55	0.41	0.53		0.67	0.56	
Control Delay	87.1	23.0	0.0	69.0	41.5	13.6	73.2	66.5		59.2	13.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	87.1	23.0	0.0	69.0	41.5	13.6	73.2	66.5		59.2	13.3	
LOS	F	C	A	E	D	B	E	E		E	B	
Approach Delay		36.5			34.1			69.3			41.9	

Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

2026 No-Build Conditions
 Timing Plan: PM Peak Hour

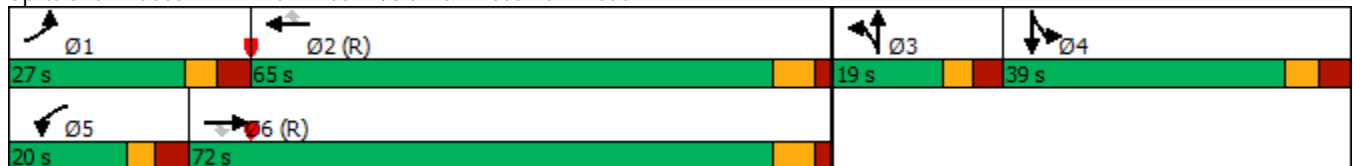


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			E			D		
Queue Length 50th (ft)	218	261	0	24	522	111	56	65		222	31	
Queue Length 95th (ft)	#365	330	0	56	615	224	106	123		283	124	
Internal Link Dist (ft)		232			652			415			713	
Turn Bay Length (ft)	175		150	150		225				175		
Base Capacity (vph)	271	1921	873	180	1517	831	168	178		785	549	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.83	0.40	0.03	0.14	0.76	0.55	0.36	0.47		0.62	0.54	

Intersection Summary

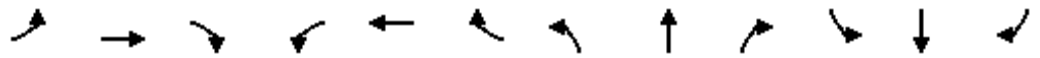
Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 46 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 37.9
 Intersection LOS: D
 Intersection Capacity Utilization 86.4%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: The Inn at VT/UCB & Prices Fork Road



Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

2026 Build Conditions
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	821	52	9	464	148	17	9	12	335	23	79
Future Volume (vph)	133	821	52	9	464	148	17	9	12	335	23	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		150	150		225	0		200	175		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.96			0.98		0.99			0.99	
Fr _t			0.850			0.850		0.915			0.884	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	3438	1553	1805	3312	1538	1703	1602	0	3367	1607	0
Fl _t Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1703	3438	1497	1805	3312	1515	1703	1602	0	3367	1607	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			132			185		13			86	
Link Speed (mph)		40			35			15			25	
Link Distance (ft)		312			732			495			793	
Travel Time (s)		5.3			14.3			22.5			21.6	
Confl. Peds. (#/hr)			6			2			5			4
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 (%)	6%	5%	4%	0%	9%	5%	6%	17%	0%	4%	0%	4%
Adj. Flow (vph)	145	892	57	10	504	161	18	10	13	364	25	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	892	57	10	504	161	18	23	0	364	111	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	2	3	3		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	5.0		8.0	8.0	
Minimum Split (s)	12.4	34.7	34.7	11.8	34.7	34.7	38.8	38.8		38.5	38.5	
Total Split (s)	30.0	75.0	75.0	15.0	60.0	60.0	20.0	20.0		40.0	40.0	
Total Split (%)	20.0%	50.0%	50.0%	10.0%	40.0%	40.0%	13.3%	13.3%		26.7%	26.7%	
Yellow Time (s)	3.6	4.7	4.7	3.2	4.7	4.7	3.4	3.4		3.6	3.6	
All-Red Time (s)	3.8	2.0	2.0	3.6	2.0	2.0	3.4	3.4		3.9	3.9	
Lost Time Adjust (s)	-2.4	-1.7	-1.7	-1.8	-1.7	-1.7	-1.8	-1.8		-2.5	-2.5	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	21.1	95.4	95.4	9.2	75.4	75.4	9.8	9.8		26.2	26.2	
Actuated g/C Ratio	0.14	0.64	0.64	0.06	0.50	0.50	0.07	0.07		0.17	0.17	
v/c Ratio	0.61	0.41	0.06	0.09	0.30	0.19	0.16	0.20		0.62	0.32	
Control Delay	70.9	17.1	0.1	67.7	25.3	2.9	68.1	41.7		61.4	17.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	70.9	17.1	0.1	67.7	25.3	2.9	68.1	41.7		61.4	17.3	
LOS	E	B	A	E	C	A	E	D		E	B	
Approach Delay		23.4			20.6			53.3			51.1	

Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

2026 Build Conditions
 Timing Plan: AM Peak Hour

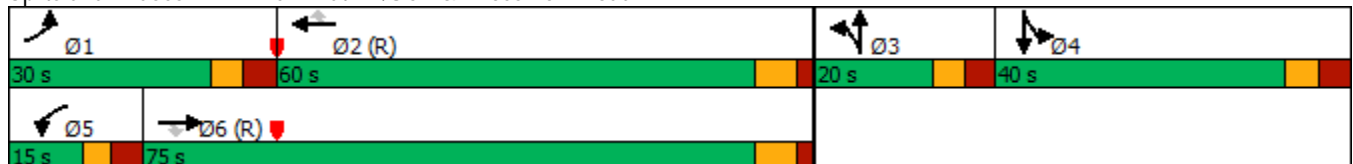


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			C			D			D		
Queue Length 50th (ft)	135	192	0	9	152	0	17	10		172	21	
Queue Length 95th (ft)	204	388	0	30	246	33	43	40		213	74	
Internal Link Dist (ft)	232			652			415			713		
Turn Bay Length (ft)	175		150	150		225				175		
Base Capacity (vph)	286	2186	999	122	1664	853	170	171		785	440	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.51	0.41	0.06	0.08	0.30	0.19	0.11	0.13		0.46	0.25	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	101 (67%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle:	125
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	28.9
Intersection LOS:	C
Intersection Capacity Utilization	60.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 1: The Inn at VT/UCB & Prices Fork Road



Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

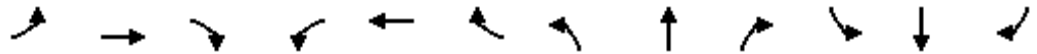
2026 Build Conditions
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	713	23	23	1103	422	55	50	27	472	27	240
Future Volume (vph)	197	713	23	23	1103	422	55	50	27	472	27	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		150	150		225	0		200	175		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.93			0.97		0.99			0.95	
Frt			0.850			0.850		0.948			0.865	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3539	1615	1805	3574	1599	1805	1775	0	3467	1553	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3539	1498	1805	3574	1547	1805	1775	0	3467	1553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			132			291		14			253	
Link Speed (mph)		40			35			15			25	
Link Distance (ft)		312			732			495			793	
Travel Time (s)		5.3			14.3			22.5			21.6	
Confl. Peds. (#/hr)			20			13			22			28
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 (%)	1%	2%	0%	0%	1%	1%	0%	0%	0%	1%	0%	1%
Adj. Flow (vph)	214	775	25	25	1199	459	60	54	29	513	29	261
Shared Lane Traffic (%)												
Lane Group Flow (vph)	214	775	25	25	1199	459	60	83	0	513	290	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	2	3	3		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	5.0		8.0	8.0	
Minimum Split (s)	12.4	34.7	34.7	11.8	34.7	34.7	38.8	38.8		38.5	38.5	
Total Split (s)	27.0	72.0	72.0	20.0	65.0	65.0	19.0	19.0		39.0	39.0	
Total Split (%)	18.0%	48.0%	48.0%	13.3%	43.3%	43.3%	12.7%	12.7%		26.0%	26.0%	
Yellow Time (s)	3.6	4.7	4.7	3.2	4.7	4.7	3.4	3.4		3.6	3.6	
All-Red Time (s)	3.8	2.0	2.0	3.6	2.0	2.0	3.4	3.4		3.9	3.9	
Lost Time Adjust (s)	-2.4	-1.7	-1.7	-1.8	-1.7	-1.7	-1.8	-1.8		-2.5	-2.5	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	22.0	80.8	80.8	10.4	63.7	63.7	12.3	12.3		32.0	32.0	
Actuated g/C Ratio	0.15	0.54	0.54	0.07	0.42	0.42	0.08	0.08		0.21	0.21	
v/c Ratio	0.82	0.41	0.03	0.20	0.79	0.56	0.41	0.53		0.69	0.55	
Control Delay	85.9	23.2	0.0	69.0	43.0	14.5	73.2	66.5		59.6	12.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	85.9	23.2	0.0	69.0	43.0	14.5	73.2	66.5		59.6	12.9	
LOS	F	C	A	E	D	B	E	E		E	B	
Approach Delay		35.9			35.6			69.3			42.8	

Glade Heights - Blacksburg, VA
 1: The Inn at VT/UCB & Prices Fork Road

2026 Build Conditions
 Timing Plan: PM Peak Hour

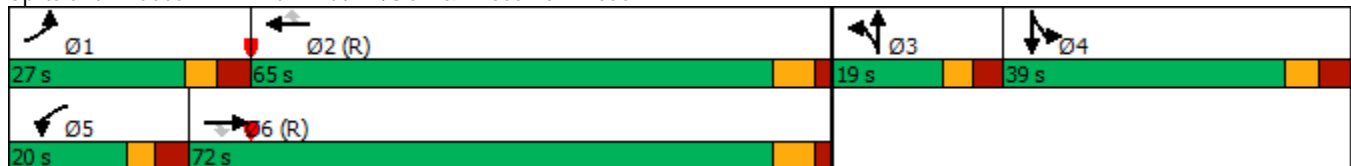


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			D			E			D		
Queue Length 50th (ft)	206	262	0	24	554	122	56	65		237	29	
Queue Length 95th (ft)	#341	330	0	56	650	237	106	123		301	119	
Internal Link Dist (ft)	232			652			415			713		
Turn Bay Length (ft)	175		150	150		225				175		
Base Capacity (vph)	267	1906	867	180	1517	824	168	178		785	547	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.80	0.41	0.03	0.14	0.79	0.56	0.36	0.47		0.65	0.53	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 46 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 38.6
 Intersection LOS: D
 Intersection Capacity Utilization 87.8%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: The Inn at VT/UCB & Prices Fork Road



Prices Fork Road and Old Glade Road

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	240	984	514	16	0	264
Future Vol, veh/h	240	984	514	16	0	264
Conflicting Peds, #/hr	6	0	0	6	0	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	225	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	4	4	8	6	0	2
Mvmt Flow	312	1278	668	21	0	343

Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	695	0	-	0	-	357
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.18	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.24	-	-	-	-	3.32
Pot Cap-1 Maneuver	883	-	-	-	0	639
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	878	-	-	-	-	632
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	878	-	-	-	632
HCM Lane V/C Ratio	0.355	-	-	-	0.542
HCM Control Delay (s)	11.3	-	-	-	17.2
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	1.6	-	-	-	3.3

Intersection						
Int Delay, s/veh	10.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	310	905	1246	69	0	310
Future Vol, veh/h	310	905	1246	69	0	310
Conflicting Peds, #/hr	12	0	0	12	0	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	225	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	2	2	0	0	2
Mvmt Flow	333	973	1340	74	0	333

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1426	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	483	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	477	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	67.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	477	-	-	-	356
HCM Lane V/C Ratio	0.699	-	-	-	0.936
HCM Control Delay (s)	28.2	-	-	-	67.6
HCM Lane LOS	D	-	-	-	F
HCM 95th %tile Q(veh)	5.4	-	-	-	9.9

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	248	1010	539	16	0	278
Future Vol, veh/h	248	1010	539	16	0	278
Conflicting Peds, #/hr	6	0	0	6	0	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	225	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	8	6	0	2
Mvmt Flow	270	1098	586	17	0	302

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	609	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.18	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.24	-	3.32
Pot Cap-1 Maneuver	952	-	682
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	947	-	674
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	947	-	-	-	674
HCM Lane V/C Ratio	0.285	-	-	-	0.448
HCM Control Delay (s)	10.3	-	-	-	14.6
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	1.2	-	-	-	2.3

Intersection						
Int Delay, s/veh	13.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	324	943	1290	70	0	322
Future Vol, veh/h	324	943	1290	70	0	322
Conflicting Peds, #/hr	12	0	0	12	0	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	225	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	2	2	0	0	2
Mvmt Flow	348	1014	1387	75	0	346

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1474	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	3.32
Pot Cap-1 Maneuver	463	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	458	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	8.6	0	86.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	458	-	-	-	343
HCM Lane V/C Ratio	0.761	-	-	-	1.009
HCM Control Delay (s)	33.8	-	-	-	86.7
HCM Lane LOS	D	-	-	-	F
HCM 95th %tile Q(veh)	6.5	-	-	-	11.6

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	265	1006	533	27	0	321
Future Vol, veh/h	265	1006	533	27	0	321
Conflicting Peds, #/hr	6	0	0	6	0	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	225	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	8	6	0	2
Mvmt Flow	288	1093	579	29	0	349

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	614	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.18	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.24	-	3.32
Pot Cap-1 Maneuver	948	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	943	-	672
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	943	-	-	-	672
HCM Lane V/C Ratio	0.305	-	-	-	0.519
HCM Control Delay (s)	10.5	-	-	-	16
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	1.3	-	-	-	3

2: Prices Fork Road & Old Glade Road Performance by approach

Approach	EB	WB	SB	All
Denied Delay (hr)	0.3	0.0	0.0	0.3
Total Delay (hr)	2.6	0.4	0.4	3.3

Intersection						
Int Delay, s/veh	21.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	378	933	1285	113	0	351
Future Vol, veh/h	378	933	1285	113	0	351
Conflicting Peds, #/hr	12	0	0	12	0	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	225	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	2	2	0	0	2
Mvmt Flow	406	1003	1382	122	0	377

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1516	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	446	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	441	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	16.2	0	127.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	441	-	-	-	332
HCM Lane V/C Ratio	0.922	-	-	-	1.137
HCM Control Delay (s)	56.3	-	-	-	127.2
HCM Lane LOS	F	-	-	-	F
HCM 95th %tile Q(veh)	10.4	-	-	-	15.1

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2: Prices Fork Road & Old Glade Road Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	13.4	0.0	0.1	5.8
Total Del/Veh (s)	35.3	5.0	30.5	21.1

**University City Boulevard and Glade
Road**

Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

Existing (2022) Conditions
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕			↕	↖
Traffic Volume (vph)	67	36	92	69	32	17	21	80	0	47	141	78
Future Volume (vph)	67	36	92	69	32	17	21	80	0	47	141	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	200		0	0		175
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00	0.98		1.00		1.00					0.99
Frt			0.850		0.981							0.956
Flt Protected		0.968			0.972		0.950					0.991
Satd. Flow (prot)	0	1737	1583	0	1798	0	1719	3195	0	0	3192	0
Flt Permitted		0.734			0.750		0.554					0.889
Satd. Flow (perm)	0	1317	1556	0	1384	0	1000	3195	0	0	2863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			134		11							96
Link Speed (mph)		25			25			25				25
Link Distance (ft)		588			465			738				368
Travel Time (s)		16.0			12.7			20.1				10.0
Confl. Peds. (#/hr)	1		6	6		1	2					2
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	9%	0%	2%	1%	0%	0%	5%	13%	0%	2%	7%	8%
Adj. Flow (vph)	83	44	114	85	40	21	26	99	0	58	174	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	114	0	146	0	26	99	0	0	328	0
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	
Protected Phases		8			4		1	6				2
Permitted Phases	8		8	4			2			2		
Detector Phase	8	8	8	4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		5.0	15.0		15.0	15.0	
Minimum Split (s)	32.2	32.2	32.2	32.2	32.2		11.1	21.1		25.1	25.1	
Total Split (s)	25.0	25.0	25.0	25.0	25.0		15.0	50.0		35.0	35.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		20.0%	66.7%		46.7%	46.7%	
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4		3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		-2.2	-2.2		-2.2		-1.1	-1.1				-1.1
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0				5.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effect Green (s)		14.9	14.9		14.9		48.1	50.1				45.1
Actuated g/C Ratio		0.20	0.20		0.20		0.64	0.67				0.60
v/c Ratio		0.48	0.27		0.51		0.04	0.05				0.19
Control Delay		32.1	5.2		30.5		5.6	5.2				6.9
Queue Delay		0.0	0.0		0.0		0.0	0.0				0.0
Total Delay		32.1	5.2		30.5		5.6	5.2				6.9
LOS		C	A		C		A	A				A
Approach Delay		19.4			30.5			5.3				6.9

Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

Existing (2022) Conditions
 Timing Plan: AM Peak Hour

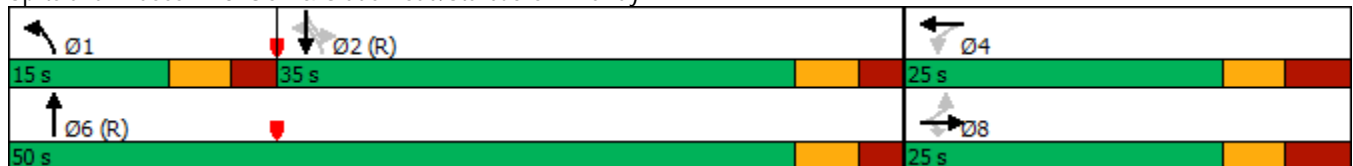


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	
Queue Length 50th (ft)		53	0		56		3	6			17	
Queue Length 95th (ft)		84	20		89		12	15			51	
Internal Link Dist (ft)		508			385			658			288	
Turn Bay Length (ft)			150				200					
Base Capacity (vph)		351	513		377		749	2133			1758	
Starvation Cap Reductn		0	0		0		0	0			0	
Spillback Cap Reductn		0	0		0		0	0			0	
Storage Cap Reductn		0	0		0		0	0			0	
Reduced v/c Ratio		0.36	0.22		0.39		0.03	0.05			0.19	

Intersection Summary

Area Type:	Other
Cycle Length:	75
Actuated Cycle Length:	75
Offset:	42 (56%), Referenced to phase 2:NBSB and 6:NBT, Start of Green
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	14.3
Intersection LOS:	B
Intersection Capacity Utilization	44.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 3: UCB & Glade Road/Starbucks Driveway



Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

Existing (2022) Conditions
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕			↕	
Traffic Volume (vph)	93	16	133	50	20	39	160	303	4	30	211	128
Future Volume (vph)	93	16	133	50	20	39	160	303	4	30	211	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	200		0	0		175
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		0.99	0.99		0.99		0.99	1.00			0.98	
Frt			0.850		0.951			0.998			0.948	
Flt Protected		0.959			0.978		0.950				0.996	
Satd. Flow (prot)	0	1822	1615	0	1748	0	1805	3566	0	0	3292	0
Flt Permitted		0.712			0.802		0.524				0.909	
Satd. Flow (perm)	0	1335	1591	0	1432	0	984	3566	0	0	2997	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			139		37			3			126	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		588			465			738			368	
Travel Time (s)		16.0			12.7			20.1			10.0	
Confl. Peds. (#/hr)	21		3	3		21	11		23	23		11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	3%	1%
Adj. Flow (vph)	97	17	139	52	21	41	167	316	4	31	220	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	139	0	114	0	167	320	0	0	384	0
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8		8	4			2			2		
Detector Phase	8	8	8	4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		5.0	15.0		15.0	15.0	
Minimum Split (s)	32.2	32.2	32.2	32.2	32.2		11.1	21.1		25.1	25.1	
Total Split (s)	25.0	25.0	25.0	25.0	25.0		25.0	50.0		25.0	25.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		33.3%	66.7%		33.3%	33.3%	
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4		3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		-2.2	-2.2		-2.2		-1.1	-1.1			-1.1	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0			5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)		15.1	15.1		15.1		44.9	49.9			35.5	
Actuated g/C Ratio		0.20	0.20		0.20		0.60	0.67			0.47	
v/c Ratio		0.42	0.32		0.36		0.24	0.13			0.26	
Control Delay		29.8	6.5		19.9		6.7	5.4			9.6	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		29.8	6.5		19.9		6.7	5.4			9.6	
LOS		C	A		B		A	A			A	
Approach Delay		17.0			19.9			5.8			9.6	

Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

Existing (2022) Conditions
 Timing Plan: PM Peak Hour

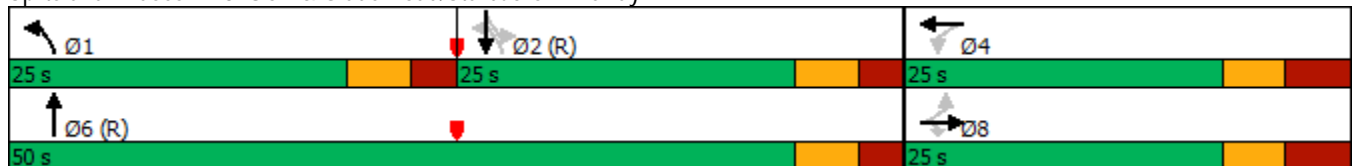


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		48	0		31		23	22			32	
Queue Length 95th (ft)		86	39		68		56	47			73	
Internal Link Dist (ft)		508			385			658			288	
Turn Bay Length (ft)			150				200					
Base Capacity (vph)		356	526		409		873	2371			1484	
Starvation Cap Reductn		0	0		0		0	0			0	
Spillback Cap Reductn		0	0		0		0	0			0	
Storage Cap Reductn		0	0		0		0	0			0	
Reduced v/c Ratio		0.32	0.26		0.28		0.19	0.13			0.26	

Intersection Summary

Area Type:	Other
Cycle Length:	75
Actuated Cycle Length:	75
Offset:	43 (57%), Referenced to phase 2:NBSB and 6:NBT, Start of Green
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	10.6
Intersection LOS:	B
Intersection Capacity Utilization	58.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 3: UCB & Glade Road/Starbucks Driveway



Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

2026 No-Build Conditions
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕			↕	↖
Traffic Volume (vph)	68	37	122	70	33	17	31	100	0	48	192	80
Future Volume (vph)	68	37	122	70	33	17	31	100	0	48	192	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	200		0	0		175
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00	0.98		1.00		1.00					0.99
Frt			0.850		0.981							0.962
Flt Protected		0.969			0.972		0.950					0.993
Satd. Flow (prot)	0	1739	1583	0	1798	0	1719	3195	0	0	3219	0
Flt Permitted		0.750			0.756		0.543					0.898
Satd. Flow (perm)	0	1346	1556	0	1395	0	980	3195	0	0	2911	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			134		11							72
Link Speed (mph)		25			25			25				25
Link Distance (ft)		588			465			738				368
Travel Time (s)		16.0			12.7			20.1				10.0
Confl. Peds. (#/hr)	1		6	6		1	2					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
Heavy Vehicles (%)	9%	0%	2%	1%	0%	0%	5%	13%	0%	2%	7%	8%
Adj. Flow (vph)	74	40	133	76	36	18	34	109	0	52	209	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	133	0	130	0	34	109	0	0	348	0
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	
Protected Phases		8			4		1	6				2
Permitted Phases	8		8	4			2			2		
Detector Phase	8	8	8	4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		5.0	15.0		15.0	15.0	
Minimum Split (s)	32.2	32.2	32.2	32.2	32.2		11.1	21.1		25.1	25.1	
Total Split (s)	25.0	25.0	25.0	25.0	25.0		15.0	50.0		35.0	35.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		20.0%	66.7%		46.7%	46.7%	
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4		3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		-2.2	-2.2		-2.2		-1.1	-1.1				-1.1
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0				5.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)		14.3	14.3		14.3		48.7	50.7				45.6
Actuated g/C Ratio		0.19	0.19		0.19		0.65	0.68				0.61
v/c Ratio		0.44	0.33		0.47		0.05	0.05				0.19
Control Delay		31.4	6.9		29.5		5.4	5.0				7.4
Queue Delay		0.0	0.0		0.0		0.0	0.0				0.0
Total Delay		31.4	6.9		29.5		5.4	5.0				7.4
LOS		C	A		C		A	A				A
Approach Delay		18.2			29.5			5.1				7.4

Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

2026 No-Build Conditions
 Timing Plan: AM Peak Hour

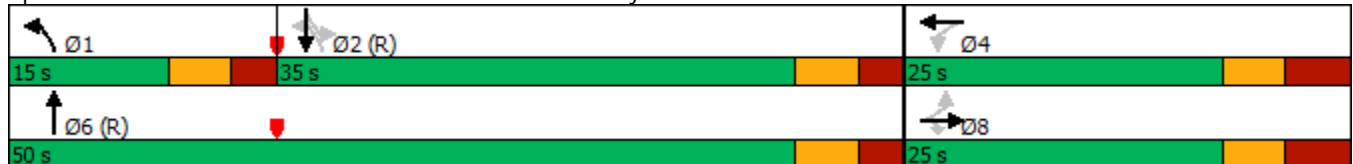


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			A			A		
Queue Length 50th (ft)		48	0		50		4	7			20	
Queue Length 95th (ft)		86	38		91		16	19			69	
Internal Link Dist (ft)		508			385			658			288	
Turn Bay Length (ft)			150				200					
Base Capacity (vph)		358	513		380		746	2158			1796	
Starvation Cap Reductn		0	0		0		0	0			0	
Spillback Cap Reductn		0	0		0		0	0			0	
Storage Cap Reductn		0	0		0		0	0			0	
Reduced v/c Ratio		0.32	0.26		0.34		0.05	0.05			0.19	

Intersection Summary

Area Type:	Other
Cycle Length:	75
Actuated Cycle Length:	75
Offset:	42 (56%), Referenced to phase 2:NBSB and 6:NBT, Start of Green
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization	47.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 3: UCB & Glade Road/Starbucks Driveway



Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

2026 No-Build Conditions
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕			↕	↖
Traffic Volume (vph)	95	16	155	51	20	40	187	372	4	31	272	131
Future Volume (vph)	95	16	155	51	20	40	187	372	4	31	272	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	200		0	0		175
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		0.99	0.99		0.99		0.99	1.00			0.99	
Frt			0.850		0.951			0.998			0.955	
Flt Protected		0.959			0.978		0.950				0.996	
Satd. Flow (prot)	0	1822	1615	0	1748	0	1805	3566	0	0	3319	0
Flt Permitted		0.708			0.800		0.476				0.906	
Satd. Flow (perm)	0	1327	1591	0	1428	0	895	3566	0	0	3013	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			161		37			2			88	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		588			465			738			368	
Travel Time (s)		16.0			12.7			20.1			10.0	
Confl. Peds. (#/hr)	21		3	3		21	11		23	23		11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	3%	1%
Adj. Flow (vph)	99	17	161	53	21	42	195	388	4	32	283	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	161	0	116	0	195	392	0	0	451	0
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8		8	4			2			2		
Detector Phase	8	8	8	4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		5.0	15.0		15.0	15.0	
Minimum Split (s)	32.2	32.2	32.2	32.2	32.2		11.1	21.1		25.1	25.1	
Total Split (s)	25.0	25.0	25.0	25.0	25.0		25.0	50.0		25.0	25.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		33.3%	66.7%		33.3%	33.3%	
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4		3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		-2.2	-2.2		-2.2		-1.1	-1.1			-1.1	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0			5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)		15.2	15.2		15.2		44.8	49.8			34.9	
Actuated g/C Ratio		0.20	0.20		0.20		0.60	0.66			0.47	
v/c Ratio		0.43	0.36		0.36		0.30	0.17			0.31	
Control Delay		30.0	6.5		20.1		7.1	5.6			12.0	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		30.0	6.5		20.1		7.1	5.6			12.0	
LOS		C	A		C		A	A			B	
Approach Delay		16.3			20.1			6.1			12.0	

Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

2026 No-Build Conditions
 Timing Plan: PM Peak Hour

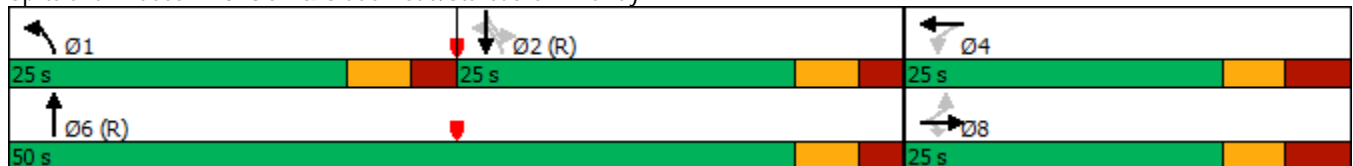


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B				C				A			B
Queue Length 50th (ft)		49	0		32		27	28				48	
Queue Length 95th (ft)		87	42		70		65	57				101	
Internal Link Dist (ft)		508				385				658			288
Turn Bay Length (ft)			150				200						
Base Capacity (vph)		353	542		407		836	2368				1448	
Starvation Cap Reductn		0	0		0		0	0				0	
Spillback Cap Reductn		0	0		0		0	0				0	
Storage Cap Reductn		0	0		0		0	0				0	
Reduced v/c Ratio		0.33	0.30		0.29		0.23	0.17				0.31	

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 43 (57%), Referenced to phase 2:NBSB and 6:NBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.43
 Intersection Signal Delay: 11.1
 Intersection Capacity Utilization 58.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 3: UCB & Glade Road/Starbucks Driveway



Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

2026 Build Conditions
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕			↕	↕
Traffic Volume (vph)	77	37	180	70	33	17	38	92	0	48	166	83
Future Volume (vph)	77	37	180	70	33	17	38	92	0	48	166	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	200		0	0		175
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00	0.98		1.00		1.00					0.99
Frt			0.850		0.981							0.958
Flt Protected		0.967			0.972		0.950					0.992
Satd. Flow (prot)	0	1732	1583	0	1798	0	1719	3195	0	0	3201	0
Flt Permitted		0.742			0.750		0.557					0.896
Satd. Flow (perm)	0	1328	1556	0	1384	0	1005	3195	0	0	2891	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			196		11							90
Link Speed (mph)		25			25			25				25
Link Distance (ft)		588			465			738				368
Travel Time (s)		16.0			12.7			20.1				10.0
Confl. Peds. (#/hr)	1		6	6		1	2					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
Heavy Vehicles (%)	9%	0%	2%	1%	0%	0%	5%	13%	0%	2%	7%	8%
Adj. Flow (vph)	84	40	196	76	36	18	41	100	0	52	180	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	196	0	130	0	41	100	0	0	322	0
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	
Protected Phases		8			4		1	6				2
Permitted Phases	8		8	4			2			2		
Detector Phase	8	8	8	4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		5.0	15.0		15.0	15.0	
Minimum Split (s)	32.2	32.2	32.2	32.2	32.2		11.1	21.1		25.1	25.1	
Total Split (s)	25.0	25.0	25.0	25.0	25.0		15.0	50.0		35.0	35.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		20.0%	66.7%		46.7%	46.7%	
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4		3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		-2.2	-2.2		-2.2		-1.1	-1.1				-1.1
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0				5.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)		14.7	14.7		14.7		47.3	50.3			42.7	
Actuated g/C Ratio		0.20	0.20		0.20		0.63	0.67			0.57	
v/c Ratio		0.48	0.42		0.47		0.06	0.05			0.19	
Control Delay		32.1	6.9		29.0		5.6	5.1			7.8	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		32.1	6.9		29.0		5.6	5.1			7.8	
LOS		C	A		C		A	A			A	
Approach Delay		16.7			29.0			5.2			7.8	

Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

2026 Build Conditions
 Timing Plan: AM Peak Hour

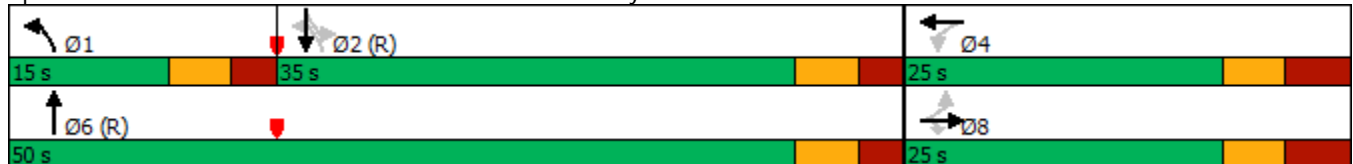


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	
Queue Length 50th (ft)		52	0		49		5	6			27	
Queue Length 95th (ft)		93	46		91		18	17			60	
Internal Link Dist (ft)		508			385			658			288	
Turn Bay Length (ft)			150				200					
Base Capacity (vph)		354	558		377		747	2143			1684	
Starvation Cap Reductn		0	0		0		0	0			0	
Spillback Cap Reductn		0	0		0		0	0			0	
Storage Cap Reductn		0	0		0		0	0			0	
Reduced v/c Ratio		0.35	0.35		0.34		0.05	0.05			0.19	

Intersection Summary

Area Type:	Other
Cycle Length:	75
Actuated Cycle Length:	75
Offset:	42 (56%), Referenced to phase 2:NBSB and 6:NBT, Start of Green
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	13.5
Intersection LOS:	B
Intersection Capacity Utilization	53.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 3: UCB & Glade Road/Starbucks Driveway



Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

2026 Build Conditions
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕			↕	↖
Traffic Volume (vph)	101	16	189	51	20	40	209	341	4	31	259	142
Future Volume (vph)	101	16	189	51	20	40	209	341	4	31	259	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	200		0	0		175
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		0.99	0.99		0.99		0.99	1.00			0.98	
Frt			0.850		0.951			0.998			0.951	
Flt Protected		0.959			0.978		0.950				0.996	
Satd. Flow (prot)	0	1822	1615	0	1748	0	1805	3566	0	0	3303	0
Flt Permitted		0.707			0.798		0.475				0.909	
Satd. Flow (perm)	0	1325	1591	0	1424	0	893	3566	0	0	3008	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197		37			3			109	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		588			465			738			368	
Travel Time (s)		16.0			12.7			20.1			10.0	
Confl. Peds. (#/hr)	21		3	3		21	11		23	23		11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	3%	1%
Adj. Flow (vph)	105	17	197	53	21	42	218	355	4	32	270	148
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	197	0	116	0	218	359	0	0	450	0
Turn Type	Perm	NA	Perm	Perm	NA		D.P+P	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8		8	4			2			2		
Detector Phase	8	8	8	4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		5.0	15.0		15.0	15.0	
Minimum Split (s)	32.2	32.2	32.2	32.2	32.2		11.1	21.1		25.1	25.1	
Total Split (s)	25.0	25.0	25.0	25.0	25.0		25.0	50.0		25.0	25.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		33.3%	66.7%		33.3%	33.3%	
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4		3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		-2.2	-2.2		-2.2		-1.1	-1.1			-1.1	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0			5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effect Green (s)		15.3	15.3		15.3		44.7	49.7			34.3	
Actuated g/C Ratio		0.20	0.20		0.20		0.60	0.66			0.46	
v/c Ratio		0.45	0.41		0.36		0.33	0.15			0.31	
Control Delay		30.5	6.5		20.0		7.4	5.5			11.7	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		30.5	6.5		20.0		7.4	5.5			11.7	
LOS		C	A		C		A	A			B	
Approach Delay		15.6			20.0			6.2			11.7	

Glade Heights - Blacksburg, VA
 3: UCB & Glade Road/Starbucks Driveway

2026 Build Conditions
 Timing Plan: PM Peak Hour

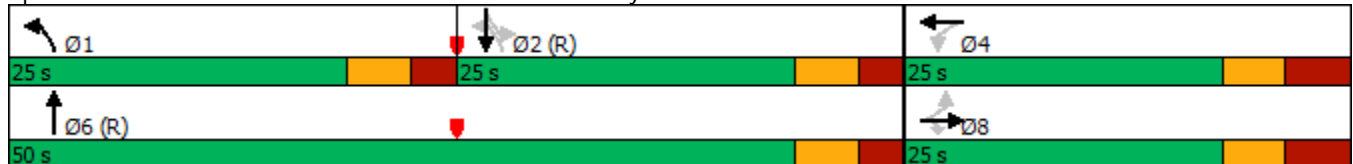


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B				C				A			B
Queue Length 50th (ft)		51	0		32		32	26				46	
Queue Length 95th (ft)		91	46		70		72	52				98	
Internal Link Dist (ft)		508				385				658			288
Turn Bay Length (ft)			150					200					
Base Capacity (vph)		353	568		406		834	2363				1434	
Starvation Cap Reductn		0	0		0		0	0				0	
Spillback Cap Reductn		0	0		0		0	0				0	
Storage Cap Reductn		0	0		0		0	0				0	
Reduced v/c Ratio		0.35	0.35		0.29		0.26	0.15				0.31	

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 43 (57%), Referenced to phase 2:NBSB and 6:NBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.45
 Intersection Signal Delay: 11.1
 Intersection Capacity Utilization 58.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 3: UCB & Glade Road/Starbucks Driveway



Glade Road and Old Glade Road

Intersection						
Int Delay, s/veh	5.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	121	188	119	25	88	102
Future Vol, veh/h	121	188	119	25	88	102
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	-	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	2	4	8	7	11
Mvmt Flow	146	227	143	30	106	123

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	374	0	463	148
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	316	-
Critical Hdwy	-	-	4.14	-	6.47	6.31
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	-	-	2.236	-	3.563	3.399
Pot Cap-1 Maneuver	-	-	1174	-	548	876
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	728	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1173	-	480	874
Mov Cap-2 Maneuver	-	-	-	-	480	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	638	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	480	874	-	-	1173	-
HCM Lane V/C Ratio	0.221	0.141	-	-	0.122	-
HCM Control Delay (s)	14.6	9.8	-	-	8.5	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.8	0.5	-	-	0.4	-

Intersection						
Int Delay, s/veh	10.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	108	104	153	147	228	136
Future Vol, veh/h	108	104	153	147	228	136
Conflicting Peds, #/hr	0	1	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	-	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	0	1	0	1
Mvmt Flow	117	113	166	160	248	148

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	231	0	611
Stage 1	-	-	-	-	118
Stage 2	-	-	-	-	493
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1349	-	460
Stage 1	-	-	-	-	912
Stage 2	-	-	-	-	618
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1348	-	397
Mov Cap-2 Maneuver	-	-	-	-	397
Stage 1	-	-	-	-	911
Stage 2	-	-	-	-	534

Approach	EB	WB	NB
HCM Control Delay, s	0	4.1	21.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	397	936	-	-	1348	-
HCM Lane V/C Ratio	0.624	0.158	-	-	0.123	-
HCM Control Delay (s)	28	9.6	-	-	8	0
HCM Lane LOS	D	A	-	-	A	A
HCM 95th %tile Q(veh)	4.1	0.6	-	-	0.4	-

Intersection						
Int Delay, s/veh	4.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	151	201	121	36	93	104
Future Vol, veh/h	151	201	121	36	93	104
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	-	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	4	8	7	11
Mvmt Flow	164	218	132	39	101	113

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	383	0	468
Stage 1	-	-	-	-	165
Stage 2	-	-	-	-	303
Critical Hdwy	-	-	4.14	-	6.47
Critical Hdwy Stg 1	-	-	-	-	5.47
Critical Hdwy Stg 2	-	-	-	-	5.47
Follow-up Hdwy	-	-	2.236	-	3.563
Pot Cap-1 Maneuver	-	-	1165	-	544
Stage 1	-	-	-	-	852
Stage 2	-	-	-	-	738
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1164	-	480
Mov Cap-2 Maneuver	-	-	-	-	480
Stage 1	-	-	-	-	851
Stage 2	-	-	-	-	652

Approach	EB	WB	NB
HCM Control Delay, s	0	6.5	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	480	853	-	-	1164	-
HCM Lane V/C Ratio	0.211	0.133	-	-	0.113	-
HCM Control Delay (s)	14.5	9.9	-	-	8.5	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.8	0.5	-	-	0.4	-

Intersection						
Int Delay, s/veh	12.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	129	112	156	174	241	139
Future Vol, veh/h	129	112	156	174	241	139
Conflicting Peds, #/hr	0	1	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	-	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	0	1	0	1
Mvmt Flow	140	122	170	189	262	151

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	263	0	671 141
Stage 1	-	-	-	-	141 -
Stage 2	-	-	-	-	530 -
Critical Hdwy	-	-	4.1	-	6.4 6.21
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.309
Pot Cap-1 Maneuver	-	-	1313	-	425 910
Stage 1	-	-	-	-	891 -
Stage 2	-	-	-	-	594 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1312	-	363 909
Mov Cap-2 Maneuver	-	-	-	-	363 -
Stage 1	-	-	-	-	890 -
Stage 2	-	-	-	-	507 -

Approach	EB	WB	NB
HCM Control Delay, s	0	3.9	26.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	363	909	-	-	1312	-
HCM Lane V/C Ratio	0.722	0.166	-	-	0.129	-
HCM Control Delay (s)	36.8	9.7	-	-	8.2	0
HCM Lane LOS	E	A	-	-	A	A
HCM 95th %tile Q(veh)	5.4	0.6	-	-	0.4	-

Intersection						
Int Delay, s/veh	5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	218	244	121	46	121	104
Future Vol, veh/h	218	244	121	46	121	104
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	-	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	4	8	7	11
Mvmt Flow	237	265	132	50	132	113

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	503	0	552 239
Stage 1	-	-	-	-	238 -
Stage 2	-	-	-	-	314 -
Critical Hdwy	-	-	4.14	-	6.47 6.31
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	-	-	2.236	-	3.563 3.399
Pot Cap-1 Maneuver	-	-	1051	-	486 778
Stage 1	-	-	-	-	790 -
Stage 2	-	-	-	-	729 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1050	-	423 777
Mov Cap-2 Maneuver	-	-	-	-	423 -
Stage 1	-	-	-	-	789 -
Stage 2	-	-	-	-	635 -

Approach	EB	WB	NB
HCM Control Delay, s	0	6.5	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	423	777	-	-	1050	-
HCM Lane V/C Ratio	0.311	0.145	-	-	0.125	-
HCM Control Delay (s)	17.3	10.4	-	-	8.9	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	0.5	-	-	0.4	-

4: Old Glade Road & Glade Road Performance by approach

Approach	EB	WB	NB	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.2	0.5	0.9

Intersection						
Int Delay, s/veh	41.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	169	141	156	207	338	139
Future Vol, veh/h	169	141	156	207	338	139
Conflicting Peds, #/hr	0	1	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	-	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	0	1	0	1
Mvmt Flow	184	153	170	225	367	151

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	338	0	751
Stage 1	-	-	-	-	185
Stage 2	-	-	-	-	566
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1232	-	381
Stage 1	-	-	-	-	852
Stage 2	-	-	-	-	572
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1231	-	~ 320
Mov Cap-2 Maneuver	-	-	-	-	~ 320
Stage 1	-	-	-	-	851
Stage 2	-	-	-	-	481

Approach	EB	WB	NB
HCM Control Delay, s	0	3.6	97
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	320	859	-	-	1231	-
HCM Lane V/C Ratio	1.148	0.176	-	-	0.138	-
HCM Control Delay (s)	132.8	10.1	-	-	8.4	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	15.1	0.6	-	-	0.5	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

4: Old Glade Road & Glade Road Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.4	0.0	0.0	0.1
Total Del/Veh (s)	1.5	2.8	22.5	10.7

Glade Road and Shadow Lake Road

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	144	1	5	29	55	1	0	30	91	0	2
Future Vol, veh/h	2	144	1	5	29	55	1	0	30	91	0	2
Conflicting Peds, #/hr	7	0	0	1	0	3	5	0	1	3	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	1	100	0	10	4	0	0	0	1	0	50
Mvmt Flow	3	209	1	7	42	80	1	0	43	132	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	129	0	0	211	0	0	322	360	214	343	320	96
Stage 1	-	-	-	-	-	-	217	217	-	103	103	-
Stage 2	-	-	-	-	-	-	105	143	-	240	217	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.11	6.5	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.11	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.11	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.509	4	3.75
Pot Cap-1 Maneuver	1469	-	-	1372	-	-	635	570	831	613	600	844
Stage 1	-	-	-	-	-	-	790	727	-	905	814	-
Stage 2	-	-	-	-	-	-	906	782	-	766	727	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1459	-	-	1371	-	-	624	561	828	572	590	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	624	561	-	572	590	-
Stage 1	-	-	-	-	-	-	788	725	-	897	803	-
Stage 2	-	-	-	-	-	-	891	772	-	722	725	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			9.7			13.1		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	819	1459	-	-	1371	-	-	576
HCM Lane V/C Ratio	0.055	0.002	-	-	0.005	-	-	0.234
HCM Control Delay (s)	9.7	7.5	0	-	7.6	0	-	13.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.9

Glade Heights - Blacksburg, VA
 5: Lark Lane/Shadow Lake Road & Glade Road

Existing (2022) Conditions
 Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	93	1	50	209	46	2	0	29	34	0	3
Future Vol, veh/h	6	93	1	50	209	46	2	0	29	34	0	3
Conflicting Peds, #/hr	5	0	1	0	0	4	1	0	0	4	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	2	0	0	0	0	0	0
Mvmt Flow	7	108	1	58	243	53	2	0	34	40	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	301	0	0	110	0	0	516	541	114	535	515	280
Stage 1	-	-	-	-	-	-	124	124	-	391	391	-
Stage 2	-	-	-	-	-	-	392	417	-	144	124	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1272	-	-	1493	-	-	473	451	944	459	466	764
Stage 1	-	-	-	-	-	-	885	797	-	637	611	-
Stage 2	-	-	-	-	-	-	637	595	-	864	797	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1266	-	-	1492	-	-	449	425	940	421	439	757
Mov Cap-2 Maneuver	-	-	-	-	-	-	449	425	-	421	439	-
Stage 1	-	-	-	-	-	-	879	791	-	630	579	-
Stage 2	-	-	-	-	-	-	601	564	-	825	791	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			1.2			9.3			14.1		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	878	1266	-	-	1492	-	-	437
HCM Lane V/C Ratio	0.041	0.006	-	-	0.039	-	-	0.098
HCM Control Delay (s)	9.3	7.9	0	-	7.5	0	-	14.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.3

Intersection

Int Delay, s/veh 3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	184	1	5	43	56	1	0	31	93	0	2
Future Vol, veh/h	2	184	1	5	43	56	1	0	31	93	0	2
Conflicting Peds, #/hr	7	0	0	1	0	3	5	0	1	3	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	100	0	10	4	0	0	0	1	0	50
Mvmt Flow	2	200	1	5	47	61	1	0	34	101	0	2

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	115	0	0	202
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1487	-	-	1382
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1477	-	-	1381
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.4	9.5	12.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	830	1477	-	-	1381	-	-	605
HCM Lane V/C Ratio	0.042	0.001	-	-	0.004	-	-	0.171
HCM Control Delay (s)	9.5	7.4	0	-	7.6	0	-	12.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.6

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	120	1	51	245	47	2	0	30	35	0	3
Future Vol, veh/h	6	120	1	51	245	47	2	0	30	35	0	3
Conflicting Peds, #/hr	5	0	1	0	0	4	1	0	0	4	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	2	0	0	0	0	0	0
Mvmt Flow	7	130	1	55	266	51	2	0	33	38	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	322	0	0	132	0	0	554	578	136	572	553	302
Stage 1	-	-	-	-	-	-	146	146	-	407	407	-
Stage 2	-	-	-	-	-	-	408	432	-	165	146	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1249	-	-	1466	-	-	446	430	918	434	444	742
Stage 1	-	-	-	-	-	-	861	780	-	625	601	-
Stage 2	-	-	-	-	-	-	624	586	-	842	780	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1243	-	-	1465	-	-	424	405	914	398	419	735
Mov Cap-2 Maneuver	-	-	-	-	-	-	424	405	-	398	419	-
Stage 1	-	-	-	-	-	-	855	775	-	618	570	-
Stage 2	-	-	-	-	-	-	590	556	-	804	775	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1.1			9.4			14.7		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	852	1243	-	-	1465	-	-	413
HCM Lane V/C Ratio	0.041	0.005	-	-	0.038	-	-	0.1
HCM Control Delay (s)	9.4	7.9	0	-	7.6	0	-	14.7
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.3

Intersection

Int Delay, s/veh 3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	186	1	5	48	56	1	0	31	93	0	2
Future Vol, veh/h	2	186	1	5	48	56	1	0	31	93	0	2
Conflicting Peds, #/hr	7	0	0	1	0	3	5	0	1	3	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	100	0	10	4	0	0	0	1	0	50
Mvmt Flow	2	202	1	5	52	61	1	0	34	101	0	2

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	120	0	0	204
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1480	-	-	1380
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1470	-	-	1379
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	9.5	12.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	828	1470	-	-	1379	-	-	598
HCM Lane V/C Ratio	0.042	0.001	-	-	0.004	-	-	0.173
HCM Control Delay (s)	9.5	7.5	0	-	7.6	0	-	12.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.6

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	125	1	51	248	47	2	0	30	35	0	3
Future Vol, veh/h	6	125	1	51	248	47	2	0	30	35	0	3
Conflicting Peds, #/hr	5	0	1	0	0	4	1	0	0	4	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	2	0	0	0	0	0	0
Mvmt Flow	7	136	1	55	270	51	2	0	33	38	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	326	0	0	138	0	0	564	588	142	582	563	306
Stage 1	-	-	-	-	-	-	152	152	-	411	411	-
Stage 2	-	-	-	-	-	-	412	436	-	171	152	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1245	-	-	1458	-	-	439	424	911	427	438	739
Stage 1	-	-	-	-	-	-	855	775	-	622	598	-
Stage 2	-	-	-	-	-	-	621	583	-	836	775	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1239	-	-	1457	-	-	417	400	907	392	413	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	417	400	-	392	413	-
Stage 1	-	-	-	-	-	-	849	770	-	615	568	-
Stage 2	-	-	-	-	-	-	587	553	-	798	770	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1.1			9.4			14.8		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	845	1239	-	-	1457	-	-	407
HCM Lane V/C Ratio	0.041	0.005	-	-	0.038	-	-	0.101
HCM Control Delay (s)	9.4	7.9	0	-	7.6	0	-	14.8
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.3

Toms Creek Road and Redbud Road

Glade Heights - Blacksburg, VA
 6: Redbud Road & Toms Creek Road

Existing (2022) Conditions
 Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	62	0	10	38	10	1	0	42	32	0	1
Future Vol, veh/h	0	62	0	10	38	10	1	0	42	32	0	1
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	10	7	0	100	0	0	3	0	0
Mvmt Flow	0	82	0	13	50	13	1	0	55	42	0	1

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	64	0	0	83	0	0	166	173	84	195	167	58
Stage 1	-	-	-	-	-	-	83	83	-	84	84	-
Stage 2	-	-	-	-	-	-	83	90	-	111	83	-
Critical Hdwy	4.1	-	-	4.2	-	-	8.1	6.5	6.2	7.13	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.1	5.5	-	6.13	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.1	5.5	-	6.13	5.5	-
Follow-up Hdwy	2.2	-	-	2.29	-	-	4.4	4	3.3	3.527	4	3.3
Pot Cap-1 Maneuver	1551	-	-	1465	-	-	622	724	981	762	729	1014
Stage 1	-	-	-	-	-	-	730	830	-	922	829	-
Stage 2	-	-	-	-	-	-	730	824	-	892	830	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1550	-	-	1464	-	-	616	716	979	712	721	1013
Mov Cap-2 Maneuver	-	-	-	-	-	-	616	716	-	712	721	-
Stage 1	-	-	-	-	-	-	729	829	-	921	821	-
Stage 2	-	-	-	-	-	-	722	816	-	841	829	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	9	10.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	966	1550	-	-	1464	-	-	718
HCM Lane V/C Ratio	0.059	-	-	-	0.009	-	-	0.06
HCM Control Delay (s)	9	0	-	-	7.5	0	-	10.3
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	44	2	46	92	22	2	0	22	16	0	1
Future Vol, veh/h	2	44	2	46	92	22	2	0	22	16	0	1
Conflicting Peds, #/hr	2	0	3	3	0	2	3	0	3	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	54	2	56	112	27	2	0	27	20	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	141	0	0	59
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1455	-	-	1558
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1452	-	-	1554
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.1	8.9	11.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	956	1452	-	-	1554	-	-	614
HCM Lane V/C Ratio	0.031	0.002	-	-	0.036	-	-	0.034
HCM Control Delay (s)	8.9	7.5	0	-	7.4	0	-	11.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	103	0	10	53	10	1	0	43	33	0	1
Future Vol, veh/h	0	103	0	10	53	10	1	0	43	33	0	1
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	10	7	0	100	0	0	3	0	0
Mvmt Flow	0	112	0	11	58	11	1	0	47	36	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	113	0	0	199	205	114	224	200	65
Stage 1	-	-	-	-	-	-	113	113	-	87	87	-
Stage 2	-	-	-	-	-	-	86	92	-	137	113	-
Critical Hdwy	4.1	-	-	4.2	-	-	8.1	6.5	6.2	7.13	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.1	5.5	-	6.13	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.1	5.5	-	6.13	5.5	-
Follow-up Hdwy	2.2	-	-	2.29	-	-	4.4	4	3.3	3.527	4	3.3
Pot Cap-1 Maneuver	1544	-	-	1428	-	-	589	695	944	729	699	1005
Stage 1	-	-	-	-	-	-	701	806	-	918	827	-
Stage 2	-	-	-	-	-	-	727	823	-	864	806	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1543	-	-	1427	-	-	584	688	942	687	692	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	584	688	-	687	692	-
Stage 1	-	-	-	-	-	-	700	805	-	917	820	-
Stage 2	-	-	-	-	-	-	720	816	-	820	805	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	9.1	10.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	929	1543	-	-	1427	-	-	693
HCM Lane V/C Ratio	0.051	-	-	-	0.008	-	-	0.053
HCM Control Delay (s)	9.1	0	-	-	7.5	0	-	10.5
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	72	2	47	138	22	2	0	22	16	0	1
Future Vol, veh/h	2	72	2	47	138	22	2	0	22	16	0	1
Conflicting Peds, #/hr	2	0	3	3	0	2	3	0	3	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	78	2	51	150	24	2	0	24	17	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	176	0	0	83	0	0	354	364	85	364	353	167
Stage 1	-	-	-	-	-	-	86	86	-	266	266	-
Stage 2	-	-	-	-	-	-	268	278	-	98	87	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1412	-	-	1527	-	-	605	567	980	596	575	882
Stage 1	-	-	-	-	-	-	927	827	-	744	692	-
Stage 2	-	-	-	-	-	-	742	684	-	913	827	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1409	-	-	1523	-	-	583	543	974	562	550	878
Mov Cap-2 Maneuver	-	-	-	-	-	-	583	543	-	562	550	-
Stage 1	-	-	-	-	-	-	923	824	-	742	665	-
Stage 2	-	-	-	-	-	-	712	657	-	887	824	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.7			9			11.5		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	922	1409	-	-	1523	-	-	574
HCM Lane V/C Ratio	0.028	0.002	-	-	0.034	-	-	0.032
HCM Control Delay (s)	9	7.6	0	-	7.4	0	-	11.5
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Glade Heights - Blacksburg, VA
6: Redbud Road & Toms Creek Road

2026 Build Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	103	0	9	53	10	1	0	35	33	0	1
Future Vol, veh/h	0	103	0	9	53	10	1	0	35	33	0	1
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	10	7	0	100	0	0	3	0	0
Mvmt Flow	0	112	0	10	58	11	1	0	38	36	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	113	0	0	197	203	114	217	198	65
Stage 1	-	-	-	-	-	-	113	113	-	85	85	-
Stage 2	-	-	-	-	-	-	84	90	-	132	113	-
Critical Hdwy	4.1	-	-	4.2	-	-	8.1	6.5	6.2	7.13	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.1	5.5	-	6.13	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.1	5.5	-	6.13	5.5	-
Follow-up Hdwy	2.2	-	-	2.29	-	-	4.4	4	3.3	3.527	4	3.3
Pot Cap-1 Maneuver	1544	-	-	1428	-	-	591	697	944	737	701	1005
Stage 1	-	-	-	-	-	-	701	806	-	920	828	-
Stage 2	-	-	-	-	-	-	729	824	-	869	806	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1543	-	-	1427	-	-	587	691	942	702	695	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	587	691	-	702	695	-
Stage 1	-	-	-	-	-	-	700	805	-	919	821	-
Stage 2	-	-	-	-	-	-	723	817	-	833	805	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	9.1	10.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	926	1543	-	-	1427	-	-	708
HCM Lane V/C Ratio	0.042	-	-	-	0.007	-	-	0.052
HCM Control Delay (s)	9.1	0	-	-	7.5	0	-	10.4
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	72	2	38	138	22	2	0	19	16	0	1
Future Vol, veh/h	2	72	2	38	138	22	2	0	19	16	0	1
Conflicting Peds, #/hr	2	0	3	3	0	2	3	0	3	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	78	2	41	150	24	2	0	21	17	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	176	0	0	83	0	0	334	344	85	343	333	167
Stage 1	-	-	-	-	-	-	86	86	-	246	246	-
Stage 2	-	-	-	-	-	-	248	258	-	97	87	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1412	-	-	1527	-	-	623	582	980	615	590	882
Stage 1	-	-	-	-	-	-	927	827	-	762	706	-
Stage 2	-	-	-	-	-	-	760	698	-	914	827	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1409	-	-	1523	-	-	604	561	974	585	569	878
Mov Cap-2 Maneuver	-	-	-	-	-	-	604	561	-	585	569	-
Stage 1	-	-	-	-	-	-	923	824	-	760	683	-
Stage 2	-	-	-	-	-	-	734	676	-	891	824	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.4			9			11.2		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	920	1409	-	-	1523	-	-	597
HCM Lane V/C Ratio	0.025	0.002	-	-	0.027	-	-	0.031
HCM Control Delay (s)	9	7.6	0	-	7.4	0	-	11.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Toms Creek Road and Honeysuckle Drive

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	136	0	25	58	0	73
Future Vol, veh/h	136	0	25	58	0	73
Conflicting Peds, #/hr	0	3	6	0	3	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	40	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	0	4	5	0	0
Mvmt Flow	166	0	30	71	0	89

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	172	0	306
Stage 1	-	-	-	-	172
Stage 2	-	-	-	-	134
Critical Hdwy	-	-	4.14	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.236	-	3.5
Pot Cap-1 Maneuver	-	-	1393	-	690
Stage 1	-	-	-	-	863
Stage 2	-	-	-	-	897
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1385	-	669
Mov Cap-2 Maneuver	-	-	-	-	669
Stage 1	-	-	-	-	858
Stage 2	-	-	-	-	875

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	860	-	-	1385	-
HCM Lane V/C Ratio	0.104	-	-	0.022	-
HCM Control Delay (s)	9.7	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	
Traffic Vol, veh/h	82	0	92	160	0	37
Future Vol, veh/h	82	0	92	160	0	37
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	40	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	96	0	108	188	0	44

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	97	0	501 98
Stage 1	-	-	-	-	97 -
Stage 2	-	-	-	-	404 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1509	-	533 963
Stage 1	-	-	-	-	932 -
Stage 2	-	-	-	-	679 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1508	-	494 961
Mov Cap-2 Maneuver	-	-	-	-	494 -
Stage 1	-	-	-	-	931 -
Stage 2	-	-	-	-	630 -

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	961	-	-	1508	-
HCM Lane V/C Ratio	0.045	-	-	0.072	-
HCM Control Delay (s)	8.9	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection						
Int Delay, s/veh	2.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	179	0	26	73	0	74
Future Vol, veh/h	179	0	26	73	0	74
Conflicting Peds, #/hr	0	3	6	0	3	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	40	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	4	5	0	0
Mvmt Flow	195	0	28	79	0	80

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	201	0	339
Stage 1	-	-	-	-	201
Stage 2	-	-	-	-	138
Critical Hdwy	-	-	4.14	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.236	-	3.5
Pot Cap-1 Maneuver	-	-	1359	-	661
Stage 1	-	-	-	-	838
Stage 2	-	-	-	-	894
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1351	-	641
Mov Cap-2 Maneuver	-	-	-	-	641
Stage 1	-	-	-	-	833
Stage 2	-	-	-	-	873

Approach	EB	WB	NB
HCM Control Delay, s	0	2	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	829	-	-	1351	-
HCM Lane V/C Ratio	0.097	-	-	0.021	-
HCM Control Delay (s)	9.8	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	111	0	94	207	0	38
Future Vol, veh/h	111	0	94	207	0	38
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	40	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	121	0	102	225	0	41

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	122	0	551
Stage 1	-	-	-	-	122
Stage 2	-	-	-	-	429
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1478	-	499
Stage 1	-	-	-	-	908
Stage 2	-	-	-	-	661
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1477	-	464
Mov Cap-2 Maneuver	-	-	-	-	464
Stage 1	-	-	-	-	907
Stage 2	-	-	-	-	615

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	931	-	-	1477	-
HCM Lane V/C Ratio	0.044	-	-	0.069	-
HCM Control Delay (s)	9	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	171	0	21	72	0	61
Future Vol, veh/h	171	0	21	72	0	61
Conflicting Peds, #/hr	0	3	6	0	3	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	40	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	4	5	0	0
Mvmt Flow	186	0	23	78	0	66

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	192	0	319
Stage 1	-	-	-	-	192
Stage 2	-	-	-	-	127
Critical Hdwy	-	-	4.14	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.236	-	3.5
Pot Cap-1 Maneuver	-	-	1370	-	678
Stage 1	-	-	-	-	845
Stage 2	-	-	-	-	904
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1362	-	660
Mov Cap-2 Maneuver	-	-	-	-	660
Stage 1	-	-	-	-	840
Stage 2	-	-	-	-	886

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	838	-	-	1362	-
HCM Lane V/C Ratio	0.079	-	-	0.017	-
HCM Control Delay (s)	9.7	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	108	0	77	198	0	33
Future Vol, veh/h	108	0	77	198	0	33
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	40	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	117	0	84	215	0	36

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	118	0	501
Stage 1	-	-	-	-	118
Stage 2	-	-	-	-	383
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1483	-	533
Stage 1	-	-	-	-	912
Stage 2	-	-	-	-	694
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1482	-	502
Mov Cap-2 Maneuver	-	-	-	-	502
Stage 1	-	-	-	-	911
Stage 2	-	-	-	-	654

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	936	-	-	1482	-
HCM Lane V/C Ratio	0.038	-	-	0.056	-
HCM Control Delay (s)	9	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Glade Road and Site Access

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Vol, veh/h	2	308	104	37	110	5
Future Vol, veh/h	2	308	104	37	110	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	-	-	-	100	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	2	335	113	40	120	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	153	0	0	452	113
Stage 1	-	-	-	113	-
Stage 2	-	-	-	339	-
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	1428	-	-	565	940
Stage 1	-	-	-	912	-
Stage 2	-	-	-	722	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1428	-	-	564	940
Mov Cap-2 Maneuver	-	-	-	564	-
Stage 1	-	-	-	910	-
Stage 2	-	-	-	722	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1428	-	-	-	574
HCM Lane V/C Ratio	0.002	-	-	-	0.218
HCM Control Delay (s)	7.5	0	-	-	13
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.8

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Vol, veh/h	5	185	343	130	69	3
Future Vol, veh/h	5	185	343	130	69	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	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	201	373	141	75	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	514	0	0	584	373
Stage 1	-	-	-	373	-
Stage 2	-	-	-	211	-
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	1052	-	-	474	673
Stage 1	-	-	-	696	-
Stage 2	-	-	-	824	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1052	-	-	472	673
Mov Cap-2 Maneuver	-	-	-	472	-
Stage 1	-	-	-	693	-
Stage 2	-	-	-	824	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	14
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1052	-	-	-	478
HCM Lane V/C Ratio	0.005	-	-	-	0.164
HCM Control Delay (s)	8.4	0	-	-	14
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	Glade Heights
Project/File #	0
Scenario	2026 Build

Intersection Information			
Major Street (E/W Road)	Glade Road	Minor Street (N/S Road)	Old Glade Road
Analyzed with	1 approach lane	Analyzed with	2 or more approach lanes
Total Approach Volume	5634 vehicles	Total Approach Volume	2994 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	0 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

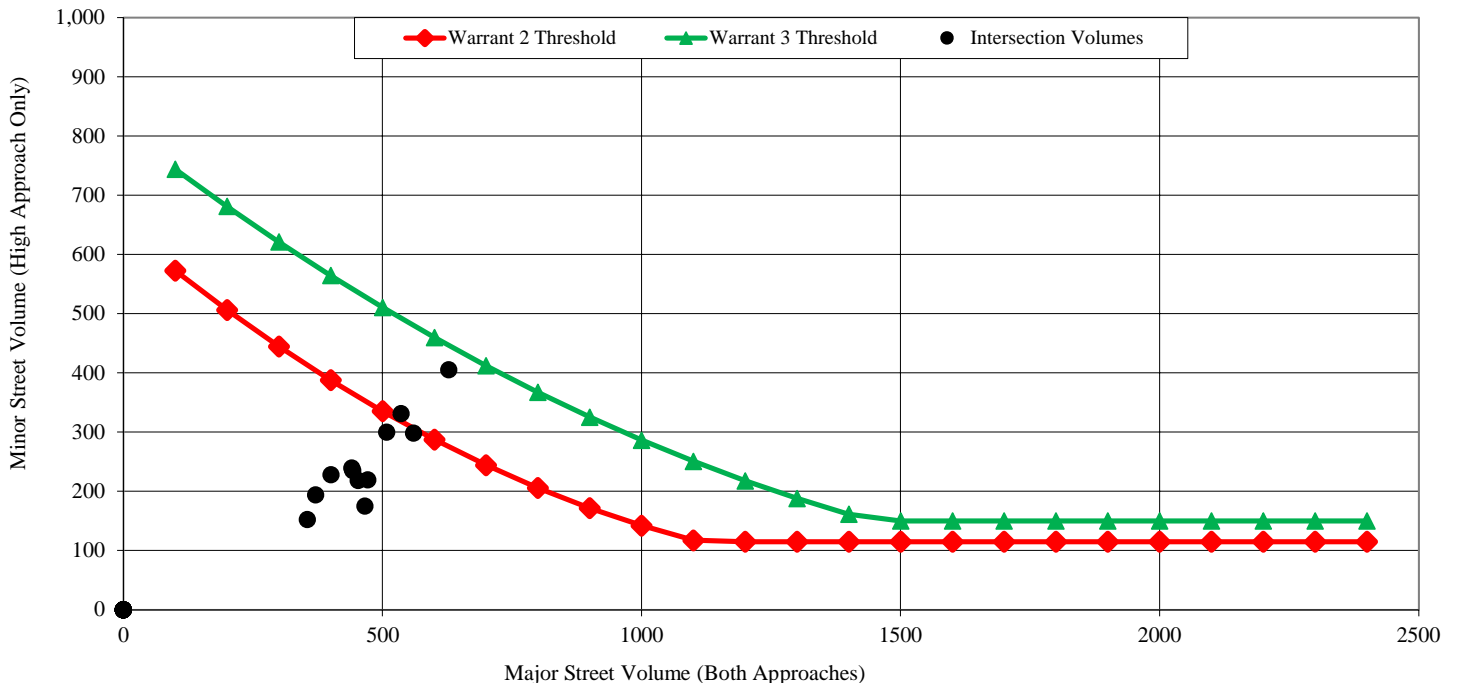
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	4 hours	0 hours	10 (Cond. A) & 1 (Cond. B)
Criteria - Major Street (veh/hr)	500	750	400 (Cond. A) & 600 (Cond. B)
Criteria - Minor Street (veh/hr)	200	100	160 (Cond. A) & 80 (Cond. B)

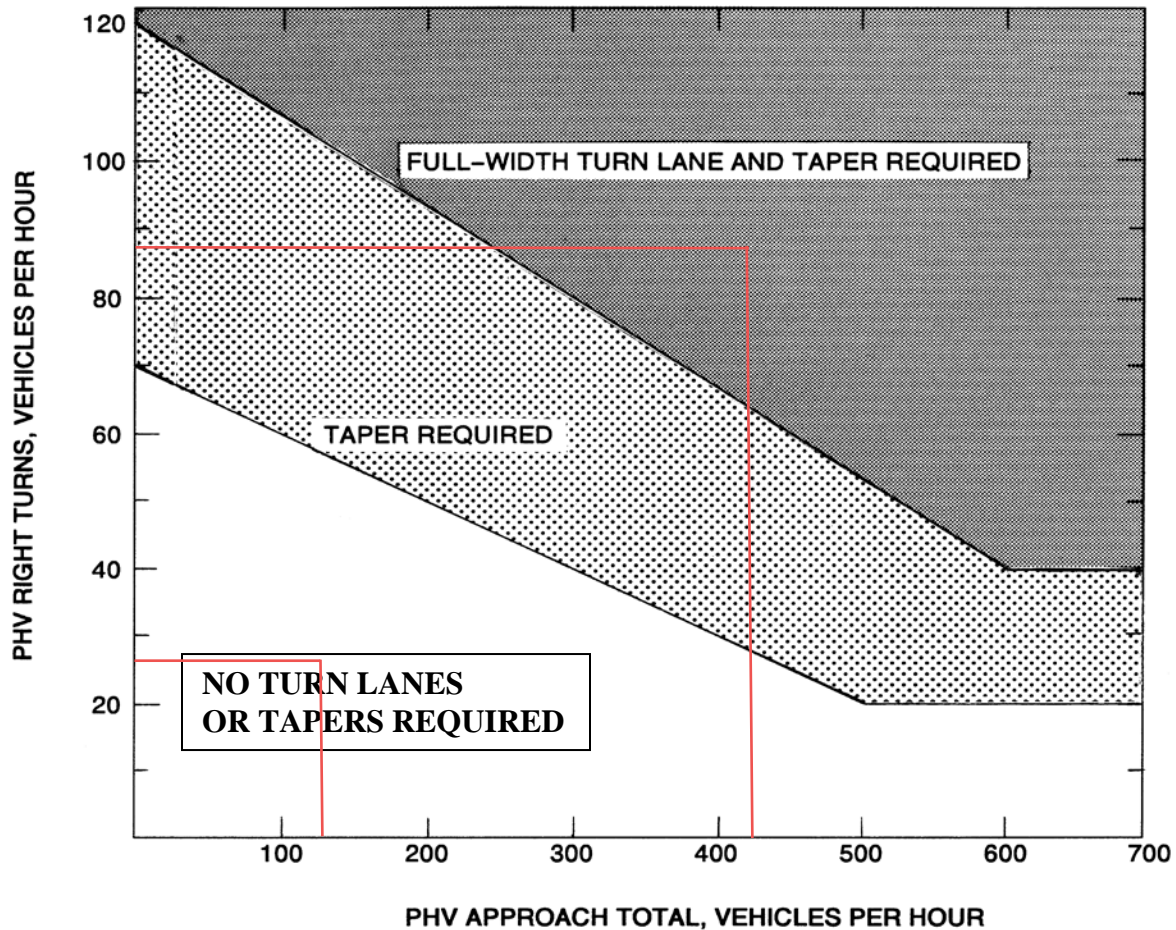
* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	2 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Not Satisfied
Required values reached for	1033 total, 405 minor, 0 delay	0 hours
Criteria - Total Approach Volume (veh in one hour)	650	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	150	
Criteria - Minor Street High Side Delay (veh-hrs)	5	

Figure 4C-1 (Warrant 2) & Figure 4C-3 (Warrant 3)





Appropriate Radius required at all Intersections and Entrances (Commercial or Private).

LEGEND

PHV - Peak Hour Volume (also Design Hourly Volume equivalent)

Adjustment for Right Turns

For posted speeds at or under 45 mph, PHV right turns > 40, and PHV total < 300.

Adjusted right turns = PHV Right Turns - 20

If PHV is not known use formula: $PHV = ADT \times K \times D$

K = the percent of AADT occurring in the peak hour

D = the percent of traffic in the peak direction of flow

Note: An average of 11% for K x D will suffice.

When right turn facilities are warranted, see Figure 3-1 for design criteria.*

FIGURE 3-26 WARRANTS FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)

APPENDIX E

SIMTRAFFIC QUEUEING REPORTS

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	L
Maximum Queue (ft)	234	260	247	77	41	275	247	78	55	82	263	291
Average Queue (ft)	130	156	130	12	10	124	86	30	17	17	111	151
95th Queue (ft)	221	291	259	52	32	254	210	64	48	50	222	242
Link Distance (ft)		241	241			676	676		431			732
Upstream Blk Time (%)	1	5	2	0								
Queuing Penalty (veh)	0	30	10	0								
Storage Bay Dist (ft)	175			150	150			225		200	175	
Storage Blk Time (%)	8	12	7			8	0				1	8
Queuing Penalty (veh)	37	16	4			1	0				1	10

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	168
Average Queue (ft)	48
95th Queue (ft)	119
Link Distance (ft)	732
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Prices Fork Road & Old Glade Road

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	R
Maximum Queue (ft)	216	265	229	44	26	130
Average Queue (ft)	55	34	22	2	1	9
95th Queue (ft)	131	152	126	16	13	67
Link Distance (ft)		585	585	241	241	1197
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225					
Storage Blk Time (%)		1				
Queuing Penalty (veh)		2				

Intersection: 3: UCB & Glade Road/Starbucks Driveway

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	LT	TR
Maximum Queue (ft)	165	63	155	46	64	8	104	91
Average Queue (ft)	72	34	72	8	15	0	41	29
95th Queue (ft)	134	57	131	30	45	4	85	67
Link Distance (ft)	507		419		698	698	310	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		150		200				175
Storage Blk Time (%)	1							
Queuing Penalty (veh)	1							

Intersection: 4: Old Glade Road & Glade Road

Movement	EB	WB	NB	NB
Directions Served	R	LT	L	R
Maximum Queue (ft)	50	66	85	78
Average Queue (ft)	3	23	33	36
95th Queue (ft)	21	57	62	64
Link Distance (ft)		507		1197
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	50		125	
Storage Blk Time (%)	0			0
Queuing Penalty (veh)	0			0

Intersection: 5: Lark Lane/Shadow Lake Road & Glade Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	6	25	35	76
Average Queue (ft)	0	1	19	36
95th Queue (ft)	0	11	40	64
Link Distance (ft)	692	610	770	992
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Redbud Road & Toms Creek Road

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	12	60	54
Average Queue (ft)	1	24	19
95th Queue (ft)	6	49	44
Link Distance (ft)	580	647	786
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Honeysuckle Drive & Toms Creek Road

Movement	EB	WB	WB	NB
Directions Served	TR	L	T	LR
Maximum Queue (ft)	6	36	6	54
Average Queue (ft)	0	4	0	27
95th Queue (ft)	4	21	5	50
Link Distance (ft)	580		811	619
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		40		
Storage Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	

Network Summary

Network wide Queuing Penalty: 113

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	L
Maximum Queue (ft)	240	298	251	198	249	680	662	325	221	222	275	729
Average Queue (ft)	202	219	169	14	35	344	317	148	71	79	244	525
95th Queue (ft)	275	347	316	88	121	704	672	367	159	178	321	833
Link Distance (ft)		241	241			676	676		431			732
Upstream Blk Time (%)	16	29	2	0		2	1					14
Queuing Penalty (veh)	0	130	11	0		0	0					0
Storage Bay Dist (ft)	175			150	150			225		200	175	
Storage Blk Time (%)	47	25	13		0	34	20	0	0	1	56	73
Queuing Penalty (veh)	164	45	3		2	8	73	1	0	1	108	140

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	714
Average Queue (ft)	446
95th Queue (ft)	819
Link Distance (ft)	732
Upstream Blk Time (%)	14
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Prices Fork Road & Old Glade Road

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	R
Maximum Queue (ft)	325	570	479	211	165	334
Average Queue (ft)	205	222	130	20	14	105
95th Queue (ft)	365	516	388	106	74	287
Link Distance (ft)		585	585	241	241	1197
Upstream Blk Time (%)		1		0		
Queuing Penalty (veh)		0		0		
Storage Bay Dist (ft)	225					
Storage Blk Time (%)	16	13				
Queuing Penalty (veh)	71	39				

Intersection: 3: UCB & Glade Road/Starbucks Driveway

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	LT	TR
Maximum Queue (ft)	243	180	168	106	138	100	136	125
Average Queue (ft)	91	42	76	43	60	9	61	48
95th Queue (ft)	184	97	145	84	113	47	113	101
Link Distance (ft)	507		419		698	698	310	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		150		200				175
Storage Blk Time (%)	4				0			
Queuing Penalty (veh)	6				0			

Intersection: 4: Old Glade Road & Glade Road

Movement	EB	WB	NB	NB
Directions Served	R	LT	L	R
Maximum Queue (ft)	30	84	184	64
Average Queue (ft)	2	24	68	35
95th Queue (ft)	14	60	136	59
Link Distance (ft)		507		1197
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	50		125	
Storage Blk Time (%)	0		3	
Queuing Penalty (veh)	0		4	

Intersection: 5: Lark Lane/Shadow Lake Road & Glade Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	30	45	40	66
Average Queue (ft)	1	5	16	21
95th Queue (ft)	11	27	39	52
Link Distance (ft)	692	610	770	992
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Redbud Road & Toms Creek Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	14	30	37	32
Average Queue (ft)	0	2	16	13
95th Queue (ft)	6	15	40	36
Link Distance (ft)	940	580	647	786
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Honeysuckle Drive & Toms Creek Road

Movement	WB	WB	NB
Directions Served	L	T	LR
Maximum Queue (ft)	36	6	43
Average Queue (ft)	7	0	23
95th Queue (ft)	28	6	45
Link Distance (ft)		811	619
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	40		
Storage Blk Time (%)	0	0	
Queuing Penalty (veh)	1	0	

Network Summary

Network wide Queuing Penalty: 806

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	L
Maximum Queue (ft)	240	273	262	200	49	284	226	74	76	68	273	446
Average Queue (ft)	153	190	157	25	9	145	100	33	16	17	151	206
95th Queue (ft)	251	311	293	114	32	262	222	68	47	51	271	360
Link Distance (ft)		241	241			676	676		431			732
Upstream Blk Time (%)	5	16	2	0								
Queuing Penalty (veh)	0	82	11	0								
Storage Bay Dist (ft)	175			150	150			225		200	175	
Storage Blk Time (%)	21	16	10			10	0				10	23
Queuing Penalty (veh)	86	23	5			1	0				15	34

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	164
Average Queue (ft)	54
95th Queue (ft)	127
Link Distance (ft)	732
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Prices Fork Road & Old Glade Road

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	R
Maximum Queue (ft)	174	290	271	86	56	130
Average Queue (ft)	74	91	67	8	4	8
95th Queue (ft)	200	323	273	45	33	59
Link Distance (ft)		585	585	241	241	1197
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)	225					
Storage Blk Time (%)		7				
Queuing Penalty (veh)		17				

Intersection: 3: UCB & Glade Road/Starbucks Driveway

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	LT	TR
Maximum Queue (ft)	216	111	169	52	86	8	134	105
Average Queue (ft)	78	43	75	12	21	0	51	34
95th Queue (ft)	156	91	141	36	61	5	102	82
Link Distance (ft)	507		419		698	698	310	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		150		200				175
Storage Blk Time (%)	2						0	
Queuing Penalty (veh)	3						0	

Intersection: 4: Old Glade Road & Glade Road

Movement	EB	EB	WB	NB	NB
Directions Served	T	R	LT	L	R
Maximum Queue (ft)	6	44	71	78	70
Average Queue (ft)	0	4	29	35	38
95th Queue (ft)	5	22	66	63	65
Link Distance (ft)	1428		507		1197
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		50		125	
Storage Blk Time (%)		0		0	
Queuing Penalty (veh)		0		0	

Intersection: 5: Lark Lane/Shadow Lake Road & Glade Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	6	25	41	69
Average Queue (ft)	0	2	19	38
95th Queue (ft)	4	12	40	58
Link Distance (ft)	692	610	770	992
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Redbud Road & Toms Creek Road

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	17	56	41
Average Queue (ft)	1	24	18
95th Queue (ft)	9	49	42
Link Distance (ft)	580	647	786
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Honeysuckle Drive & Toms Creek Road

Movement	EB	WB	WB	NB
Directions Served	TR	L	T	LR
Maximum Queue (ft)	18	36	17	52
Average Queue (ft)	1	6	1	30
95th Queue (ft)	8	26	9	46
Link Distance (ft)	580		811	619
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		40		
Storage Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	

Network Summary

Network wide Queuing Penalty: 278

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	L
Maximum Queue (ft)	240	287	252	77	217	691	702	325	241	226	275	754
Average Queue (ft)	211	226	185	9	41	400	364	185	71	87	243	643
95th Queue (ft)	270	343	315	59	135	767	737	410	176	179	306	929
Link Distance (ft)		241	241			676	676		431			732
Upstream Blk Time (%)	22	34	3	0		3	3					43
Queuing Penalty (veh)	0	161	15	0		0	0					0
Storage Bay Dist (ft)	175			150	150			225		200	175	
Storage Blk Time (%)	53	32	14			37	24	0	1	3	67	76
Queuing Penalty (veh)	191	66	3			8	101	1	0	2	150	168

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	754
Average Queue (ft)	592
95th Queue (ft)	925
Link Distance (ft)	732
Upstream Blk Time (%)	34
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Prices Fork Road & Old Glade Road

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	R
Maximum Queue (ft)	325	590	508	186	141	339
Average Queue (ft)	212	249	152	19	14	110
95th Queue (ft)	364	547	412	97	73	282
Link Distance (ft)		585	585	241	241	1197
Upstream Blk Time (%)		4	0	0		
Queuing Penalty (veh)		0	0	0		
Storage Bay Dist (ft)	225					
Storage Blk Time (%)	17	14				
Queuing Penalty (veh)	79	47				

Intersection: 3: UCB & Glade Road/Starbucks Driveway

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	LT	TR
Maximum Queue (ft)	211	176	164	116	154	125	162	159
Average Queue (ft)	93	48	70	53	72	9	76	61
95th Queue (ft)	170	100	134	98	136	55	132	125
Link Distance (ft)	507		419		698	698	310	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		150		200				175
Storage Blk Time (%)	4				0		0	0
Queuing Penalty (veh)	6				0		0	0

Intersection: 4: Old Glade Road & Glade Road

Movement	EB	WB	NB	NB
Directions Served	R	LT	L	R
Maximum Queue (ft)	51	79	177	68
Average Queue (ft)	3	27	71	36
95th Queue (ft)	21	64	138	62
Link Distance (ft)		507		1197
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	50		125	
Storage Blk Time (%)	0		2	
Queuing Penalty (veh)	0		3	

Intersection: 5: Lark Lane/Shadow Lake Road & Glade Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	32	71	40	49
Average Queue (ft)	1	9	17	23
95th Queue (ft)	13	40	39	48
Link Distance (ft)	692	610	770	992
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Redbud Road & Toms Creek Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	8	34	28	37
Average Queue (ft)	0	3	15	13
95th Queue (ft)	4	18	38	36
Link Distance (ft)	940	580	647	786
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Honeysuckle Drive & Toms Creek Road

Movement	EB	WB	WB	NB
Directions Served	TR	L	T	LR
Maximum Queue (ft)	6	50	10	41
Average Queue (ft)	0	10	0	21
95th Queue (ft)	4	35	8	43
Link Distance (ft)	580		811	619
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		40		
Storage Blk Time (%)		0	0	
Queuing Penalty (veh)		1	0	

Network Summary

Network wide Queuing Penalty: 1002

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	L
Maximum Queue (ft)	240	263	273	201	86	292	246	90	74	88	274	520
Average Queue (ft)	168	200	176	26	14	144	102	33	20	21	168	226
95th Queue (ft)	262	311	298	110	55	271	221	71	57	63	282	408
Link Distance (ft)		241	241			676	676		431			732
Upstream Blk Time (%)	5	14	3	0								
Queuing Penalty (veh)	0	70	13	0								
Storage Bay Dist (ft)	175			150	150			225		200	175	
Storage Blk Time (%)	21	23	11			12	1				13	26
Queuing Penalty (veh)	84	30	6			1	1				21	43

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	200
Average Queue (ft)	60
95th Queue (ft)	154
Link Distance (ft)	732
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Prices Fork Road & Old Glade Road

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	R
Maximum Queue (ft)	274	378	293	58	42	155
Average Queue (ft)	75	87	50	3	2	16
95th Queue (ft)	180	277	202	27	19	87
Link Distance (ft)		585	585	241	241	1197
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225					
Storage Blk Time (%)	0	3				
Queuing Penalty (veh)	0	9				

Intersection: 3: UCB & Glade Road/Starbucks Driveway

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	LT	TR
Maximum Queue (ft)	155	80	171	61	77	15	119	107
Average Queue (ft)	82	46	77	14	20	1	51	38
95th Queue (ft)	134	72	143	43	56	7	103	86
Link Distance (ft)	507		419		698	698	310	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		150		200				175
Storage Blk Time (%)	0							
Queuing Penalty (veh)	1							

Intersection: 4: Old Glade Road & Glade Road

Movement	EB	WB	NB	NB
Directions Served	R	LT	L	R
Maximum Queue (ft)	48	94	99	81
Average Queue (ft)	6	35	43	40
95th Queue (ft)	29	74	75	70
Link Distance (ft)		507		1197
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	50		125	
Storage Blk Time (%)	0		0	
Queuing Penalty (veh)	0		0	

Intersection: 5: Lark Lane/Shadow Lake Road & Glade Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	16	47	45	66
Average Queue (ft)	1	1	18	37
95th Queue (ft)	9	10	41	58
Link Distance (ft)	692	617	770	992
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Redbud Road & Toms Creek Road

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	21	49	38
Average Queue (ft)	1	21	17
95th Queue (ft)	8	47	41
Link Distance (ft)	580	647	786
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Honeysuckle Drive & Toms Creek Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	12	25	53
Average Queue (ft)	0	3	27
95th Queue (ft)	5	18	48
Link Distance (ft)	580		619
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		40	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Intersection: 8: Glade Road & Site Access

Movement	SB
Directions Served	LR
Maximum Queue (ft)	64
Average Queue (ft)	32
95th Queue (ft)	54
Link Distance (ft)	1018
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 280

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	L
Maximum Queue (ft)	240	280	261	82	249	691	700	325	183	226	275	751
Average Queue (ft)	193	195	166	7	38	407	393	175	67	89	252	724
95th Queue (ft)	280	340	312	46	126	800	802	405	142	185	294	844
Link Distance (ft)		241	241			676	676		431			732
Upstream Blk Time (%)	15	22	4	0		4	5					70
Queuing Penalty (veh)	0	102	18	0		0	0					0
Storage Bay Dist (ft)	175			150	150			225		200	175	
Storage Blk Time (%)	44	26	14			35	25	0	0	3	81	85
Queuing Penalty (veh)	158	52	3			8	106	1	0	2	190	201

Intersection: 1: The Inn at VT/UCB & Prices Fork Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	747
Average Queue (ft)	658
95th Queue (ft)	933
Link Distance (ft)	732
Upstream Blk Time (%)	46
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Prices Fork Road & Old Glade Road

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	R
Maximum Queue (ft)	325	590	540	210	165	422
Average Queue (ft)	270	351	197	23	19	181
95th Queue (ft)	402	701	521	112	82	377
Link Distance (ft)		585	585	241	241	1197
Upstream Blk Time (%)		14	0	0	0	
Queuing Penalty (veh)		0	0	0	0	
Storage Bay Dist (ft)	225					
Storage Blk Time (%)	42	8				
Queuing Penalty (veh)	199	30				

Intersection: 3: UCB & Glade Road/Starbucks Driveway

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	LT	TR
Maximum Queue (ft)	184	98	177	125	156	120	149	164
Average Queue (ft)	92	48	75	59	71	15	76	70
95th Queue (ft)	161	80	149	102	134	72	131	136
Link Distance (ft)	507		419		698	698	310	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		150		200				175
Storage Blk Time (%)	2	0					0	0
Queuing Penalty (veh)	4	0					0	0

Intersection: 4: Old Glade Road & Glade Road

Movement	EB	EB	WB	NB	NB
Directions Served	T	R	LT	L	R
Maximum Queue (ft)	6	36	108	225	430
Average Queue (ft)	0	4	38	133	92
95th Queue (ft)	0	21	83	237	309
Link Distance (ft)	1423		507		1197
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		50		125	
Storage Blk Time (%)		0		20	0
Queuing Penalty (veh)		0		27	0

Intersection: 5: Lark Lane/Shadow Lake Road & Glade Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	24	76	40	40
Average Queue (ft)	1	14	19	23
95th Queue (ft)	11	51	41	46
Link Distance (ft)	692	617	770	992
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Redbud Road & Toms Creek Road

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	22	33	38
Average Queue (ft)	2	12	12
95th Queue (ft)	13	35	36
Link Distance (ft)	580	647	786
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Honeysuckle Drive & Toms Creek Road

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	36	34
Average Queue (ft)	7	19
95th Queue (ft)	28	41
Link Distance (ft)		619
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	40	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	1	

Intersection: 8: Glade Road & Site Access

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	49	4	4	61
Average Queue (ft)	3	0	0	24
95th Queue (ft)	24	3	3	47
Link Distance (ft)	617	1423		1018
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 1102
