



Memorandum

To: Mr. William Scanlan
Town Planner
Town of Dudley
71 West Main Street
Dudley MA, 01571

Date: February 21, 2022

Project #: 15303.00

From: Vinod K. Kalikiri, PE, PTOE

Re: Response to 10/20/21 Traffic Comments
Stevens Mill Redevelopment – 8 Mill Street
Dudley, Massachusetts

VHB prepared the August 24, 2021 Traffic Impact Assessment (August 2021 TIA) to summarize the anticipated transportation impacts associated with the Stevens Mill Redevelopment project at 8 Mill Street in Dudley, Massachusetts. The Town of Dudley's traffic peer review consultant, Vanasse & Associates, Inc. (VAI), reviewed the traffic documentation and summarized their comments in an October 20, 2021 comment letter. VHB has reviewed the comments and suggestions from VAI, consulted with them on an approach to addressing some of the comments, and prepared this memorandum to respond to the review comments.

August 2021 TIA Comments and Responses

Comment T1 *There are inconsistencies with the description of pedestrian facilities within the study area that should be corrected. Sidewalks are provided along the east side of Village Street and along the east side of Mill Street north of Village Street. In addition, pedestrian accommodations are provided at the Mill Street/Village Street (along both Village Street and Mill Street north of the intersection), West Main Street/Mill Street (along West Main Street) and West Main Street/Ardlock Place (along West Main Street) intersections. It is suggested that a graphic be prepared that shows the location of existing and proposed pedestrian facilities and trails be prepared.*

Response: While sidewalks exist along the east side of Village Street and at the intersection of Village Street/Mill Street, they are in poor condition, and in several instances, as narrow as 1.5 to 2.5 feet wide, which does not meet ADA requirements for pedestrian travel. In response to the comment, a graphical exhibit is included in the attachments to this memorandum that depicts the current locations of sidewalks, their approximate paved widths, and a qualitative notation indicating their condition (classified as good, fair and poor). Also indicated on the exhibit are location and condition of pedestrian ramps, and locations of missing crosswalks. Some of these deficiencies have also been identified in the town's Complete Streets prioritization plan as outlined in response to comment T2.

Comment T2 *A description of existing and proposed bicycle facilities/accommodations should be provided.*

Response: There are currently no marked on-street bicycle accommodations within the study area. An off-road trail and bike-path system, which includes the Quinebaug River Bikeway (Rail Trail) and the French River Greenway, traverse portions of the towns of Dudley and Webster. The eastern section of the Quinebaug River Bikeway (Dudley-Chaseville section) has potential to connect to the French River Greenway in Webster. These in turn would become part of the Midstate Trail plan which will connect to a larger network that covers three states.

As discussed in the August 2021 TIA, CMRPC has conducted a corridor wide planning study in 2020 for the Main Street/West Main Street corridor between Dudley and Webster. The CMRPC study found that increased pedestrian, bicycle, and public transit facilities would benefit the communities. Specifically, the study contemplates the potential for bike lanes on West Main Street through the study area, among other multimodal enhancements.

Supporting the goals of the corridor study, the Town of Dudley also completed its Complete Street Prioritization Plan in June 2021. The prioritization plan identifies, among other items, the following projects:

- › Feasibility study for a multi-use path along the French River beginning on West Main Street to the right of the Dunkin Donuts and extending behind the mill property and connecting to the mill parking lot, with the continuation of the path or a sidewalk to the existing sidewalk at the Mill Street and Flaxfield Road intersection
- › Construction of new sidewalks on Village Street from West Main Street to Ardlock Place and on Mill Street from West Main Street to the entrance of Tri-Valley Elder Services and removal of walking hazards that block pedestrian mobility, and to make the facilities ADA compliant for wheelchair accessibility.
- › Potential safety improvements to the intersection of West Main Street/Schofield Avenue/Village Street
- › Dudley's ADA Self-Evaluation and Transition Plan found numerous instances of non-compliance along the entire stretch of West Main Street including insufficient widths, lack of crosswalks and ADA compliant curb ramps, deteriorating sidewalks, which require a comprehensive solution to address the deficiencies.

As part of the planned development, the Proponent proposes to perform site/utility work and landscaping enhancements to reconnect the community to the French River via a new recreational path. Additionally, current site plans depict a potential solution to addressing the pinch point in the sidewalk width on Mill Street that is caused by a building encroachment. The Proponent also plans to implement sidewalk improvements on Ardlock Place as part of the Project.

Comment T3 *A review of public transportation services that will be accessible to residents of the Project should be undertaken. We note that the Worcester Regional Transit Authority (WRTA) provides fixed-route bus service to the Town of Dudley by way of the Webster-Dudley-Southbridge Shuttle, which includes service along West Main Street and will be accessible to residents of the Project.*

Response: As noted in the TIA, and in comment T3, a new shuttle bus service has been implemented by WRTA that includes stops in Dudley, Webster and Southbridge. The stop closest to the site is located at the intersection of Main Street at Davis St in Webster, approximately 1,000 feet to the east of Ardlock Place. The shuttle in turn connects to WRTA routes 29 and 42 which provides Dudley residents access to job and educational opportunities and various amenities in Worcester and surrounding communities.

Comment T4 *U.S. Census Journey-to-Work data should be reviewed to validate the trip distribution pattern that was used for the Project.*

Response: Peak hour analysis included in the TIA was based on the traffic patterns observed in the existing conditions traffic volumes and generally confirmed with county level "place of work" population percentages that were available in the U.S. Census journey to work data. In response to Comments T4 and T5, a sensitivity analysis was performed to account for alternate route choices that may be made by the residents of the proposed development in response to the congestion on West Main Street during peak commute hours. Specifically, the use of Mill Street by the residents of the proposed development destined to the regional highway system was analyzed as part of the sensitivity analysis. The revised trip distribution analysis, along with certain changes to site access, as further discussed in response to Comment T5, were used to update the capacity analysis presented in the TIA.

Response: Since the preparation of the original traffic evaluation and following feedback and discussions with the Town regarding improved site access, the Applicant has negotiated a shared access easement through the abutting Tri-Valley Inc. property (Tri-Valley) at 10 Mill Street. The revised site plans currently under development depict the new shared access for the Site that is slightly offset from the existing driveway for Tri-Valley. It is our understanding that a few different variations were considered by the Applicant for the location of the shared access driveway to address Tri-Valley's requirements. In addition to Tri-Valley's input, the location depicted on the site plans has been developed in consultation with the Town staff and VAI.

The availability of the shared access directly to Mill Street will help reduce the reliance on Ardlock Place and West Main Street by site traffic destined to/from regional highway system to the north. The new shared access, coupled with the peer review comment regarding constrained traffic operations along West Main Street, were used to develop an alternative trip distribution pattern that favors the use of Mill Street by a higher proportion of site traffic for travel to/from the north.

The revised trip distribution network, traffic volume network diagrams, and associated capacity analysis results are included in the attachment to this response memorandum. The revised analysis summary tables are included below. The revised analyses indicate that the use of the Mill Street shared driveway will reduce impacts on Ardlock Place and its intersections with West Main Street and Mill Street, without causing undue additional traffic impact to the traffic flow on Mill Street at the new driveway intersection. A review of the estimated revised traffic volume on Mill Street also indicates that the nominal increases in roadway traffic volume associated with the use of the new driveway would not result in negative impacts at other intersections along Mill Street.

Table 1 Signalized Intersection Capacity Analysis Summary

			2028 No-Build					2028 Build-Revised				
Location	Period	Movement	v/c	Delay	LOS	50 th Q	95 th Q	v/c	Delay	LOS	50 th Q	95 th Q
Village Street at Schofield Avenue and West Main Street	AM	EB L	0.63	32.7	C	61	#137	0.64	33.6	C	62	#140
		EB T/R	0.66	15.6	B	194	311	0.67	15.7	B	195	311
		WB L	0.41	37.4	D	25	59	0.41	37.5	D	25	59
		WB T/R	0.68	21.1	C	166	274	0.69	21.4	C	169	279
		NB L/T/R	0.77	34.1	C	99	#203	0.77	34.3	C	99	#204
		SB L/T/R	0.62	27.5	C	64	132	0.66	29.0	C	68	139
		Overall	0.80	23.6	C	-	-	0.81	24.1	C	-	-
	PM	EB L	0.46	29.5	C	39	82	0.50	29.8	C	42	87
		EB T/R	0.79	22.2	C	231	#413	0.79	22.2	C	233	#418
		WB L	0.62	37.3	D	38	#102	0.62	37.2	D	38	#102
		WB T/R	0.88	31.7	C	238	#430	0.88	31.9	C	239	#434
		NB L/T/R	0.87	46.4	D	103	#235	0.90	51.0	D	104	#238
		SB L/T/R	0.62	24.1	C	91	179	0.65	24.9	C	95	185
		Overall	0.98	29.7	C	-	-	0.99	30.5	C	-	-
a	volume-to-capacity ratio	EB, WB	eastbound, westbound									
b	delay, in seconds/vehicle	NB, SB	northbound, southbound									
c	level of service	L, T, R	left turn, through-right turn									
d	50th percentile queue length, in feet	#	95th percentile volume exceeds capacity; queue may be longer									
e	95th percentile queue length, in feet											

Table 2 Unsignalized Intersection Capacity Analysis Summary

Location	Period	Movement	2028 No-Build				2028 Build-Revised			
			Dem	v/c	Delay	LOS	Dem	v/c	Delay	LOS
Mill Street at Village Street	Weekday Morning	EB-LTR	15	0.04	15.1	C	15	0.04	15.1	C
		WB-LTR	85	0.13	11.0	B	95	0.17	12.0	B
		NB-LTR	285	0.00	0.2	A	288	0.00	0.2	A
		SB-LTR	280	0.07	2.8	A	280	0.07	2.8	A
	Weekday Evening	EB-LTR	25	0.06	13.6	B	25	0.06	13.6	B
		WB-LTR	90	0.12	10.2	B	97	0.15	11.0	B
		NB-LTR	190	0.00	0.2	A	198	0.00	0.2	A
		SB-LTR	390	0.04	1.5	A	390	0.04	1.5	A
Mill Street at West Main Street and Dollar General	Weekday Morning	EB-LTR	685	0.00	0.1	A	690	0.00	0.1	A
		WB-LTR	510	0.00	0.0	-	514	0.00	0.0	-
		NB-LTR	0	0.00	0.0	A	0	0.00	0.0	A
		SB-LTR	10	0.05	24.1	C	12	0.06	21.7	C
	Weekday Evening	EB-LTR	670	0.01	0.1	A	667	0.01	0.1	A
		WB-LTR	665	0.01	0.2	A	667	0.01	0.2	A
		NB-LTR	15	0.12	36.6	E	15	0.12	37.4	E
		SB-LTR	0	0.00	0.0	A	1	0.00	12.9	B
Ardlock Place at West Main Street and Driveway	Weekday Morning	EB-LTR	680	0.00	0.0	-	681	0.00	0.0	A
		WB-LTR	590	0.00	0.0	-	593	0.00	0.0	-
		NB-LTR	0	0.00	0.0	A	0	0.00	0.0	A
		SB-LTR	100	0.96	147.1	F	108	1.03	164.0	F
	Weekday Evening	EB-LTR	660	0.00	0.0	-	664	0.00	0.1	A
		WB-LTR	750	0.00	0.0	-	758	0.00	0.0	-
		NB-LTR	0	0.00	0.0	A	0	0.00	0.0	A
		SB-LTR	65	0.91	170.8	F	70	0.99	194.0	F
Ardlock Place at Site Drive 1	Weekday Morning	WB-LR					8	0.01	9.3	A
		NB-TR					94	0.06	0.0	-
		SB-LT					103	0.00	0.1	A
	Weekday Evening	WB-LR					6	0.01	9.2	A
		NB-TR					99	0.06	0.0	-
		SB-LT					73	0.00	0.2	A

a demand in vehicles per hour for unsignalized intersections
b volume-to-capacity ratio for the critical movement
c delay of critical approach only
d level of service of the critical movement

EB, WB eastbound, westbound
NB, SB northbound, southbound
LTR left turn, through-right turn

Table 2 Unsignalized Intersection Capacity Analysis Summary (Continued)

Location	Period	Movement	2028 No-Build				2028 Build-Revised			
			Dem	v/c	Delay	LOS	Dem	v/c	Delay	LOS
Ardlock Place at Site Drive 2	Weekday Morning	WB-LR					12	0.01	9.1	A
		NB-TR					89	0.06	0.0	-
		SB-LT					106	0.00	0.1	A
	Weekday Evening	WB-LR					8	0.01	9.1	A
		NB-TR					102	0.07	0.0	-
		SB-LT					74	0.00	0.7	A
Flaxfield Road at Mill Street	Weekday Morning	EB-LTR	16	0.03	11.2	B	16	0.03	10.9	B
		WB-LTR*	2	0.00	12.9	B	-	-	-	-
		NB-LTR	350	0.01	0.3	A	354	0.01	0.3	A
		SB-LTR	273	0.00	0.1	A	270	0.17	0.0	-
	Weekday Evening	EB-LTR	13	0.02	11.4	B	13	0.02	11.3	B
		WB-LTR*	16	0.04	14.8	B	-	-	-	-
		NB-LTR	270	0.01	0.3	A	270	0.01	0.3	A
		SB-LTR	378	0.00	0.0	A	389	0.25	1.8	-
Shared Site Driveway at Mill Street	Weekday Morning	WB-LR					22	0.04	10.7	B
		NB-TR					349	0.22	0.0	-
		SB-LT					280	0.01	0.4	A
	Weekday Evening	WB-LR					30	0.06	12.1	B
		NB-TR					266	0.17	0.0	-
		SB-LT					399	0.02	0.6	A

a	demand in vehicles per hour for unsignalized intersections	EB, WB	eastbound, westbound
b	volume-to-capacity ratio for the critical movement	NB, SB	northbound, southbound
c	delay of critical approach only	LTR	left turn, through-right turn
d	level of service of the critical movement	*	Under the Build Condition, this movement is offset from the original geometry and becomes a new shared driveway intersection

Comment T6 *An assessment of both stopping sight distance and intersection sight distance should be provided for the Project site driveway intersections with Ardlock Place performed in accordance with the standards of the American Association of State Highway and Transportation Officials (AASHTO) and using the posted (or statutory) speed limit or the measured 85th percentile vehicle travel speed along Ardlock Place at the Project site driveways, whichever is higher. In addition, the stopping sight distance evaluation should consider the grade of Ardlock Place when establishing the required minimum sight distance for safe operation.*

Response: The total length of Ardlock Place, between Village Street and West Main Street, is approximately 525 feet. A chain-link fence currently blocks access to a point 14.5 feet from the edge of the travel way that marks the location of the driver's eye for sight distance measurement purposes. Nonetheless, field observations from the edge of the roadway indicates that visibility extends to either end of Ardlock Place. A review of the site plan indicates that a new sidewalk is proposed along the entire length of the property frontage. The plan indicates that the driver of a vehicle exiting the site driveway will be able to see both to the left and right on Ardlock Place to existing intersections that would carry turning vehicles towards the site driveway. During construction, location of signs, fences and landscaping will be adjusted to ensure that sight lines will not be obstructed.

Comment T7 *The Applicant should commit to implementing the improvements that are listed on the "Draft" exhibit titled "Planned and Proposed Traffic Improvements near the Stevens Mill Redevelopment Project" that were listed as "To be implemented by Stevens Mill Owners (before 2024)". That being said, these improvements are necessary to afford safe and efficient access to the Project and should be completed prior to the issuance of a Certificate of Occupancy for the Project.*

Response: A copy of the September 24, 2021 draft exhibit that outlined potential improvements in the area for further consideration by the Town, is included in the attachment to this memorandum. Sidewalk improvements along Mill Street and Ardlock Place identified in the exhibit are conceptually depicted on the revised site plan for construction as part of the project. The advance feedback speed sign on Mill Street can also be implemented as part of the project. Widening of Ardlock Place will likely be a longer term improvement that could be considered as a separate project. In lieu of widening the roadway, and as discussed in response to Comment T5 and analyzed in response to comment T6, a shared access driveway is being planned on the adjacent Tri-Valley property, which will help reduce the amount of site traffic that will need to use Ardlock Place.

The timing of the remaining longer term improvements listed in the September 2021 draft exhibit, including those shown in blue color as "potential future projects," will be the subject of further discussion and deliberation by the Town, independent of the Stevens Mill reuse project. It is noted that implementation of traffic signal control at area intersections, including mastarm mounted overhead pedestrian crossing signals such as pedestrian hybrid beacons (PHBs), is beyond the scope of the Stevens Mill redevelopment project. Such enhancements will need to be considered as part of future improvements in the area by others.

Comment T8 *The transportation improvement program for the Project should be expanded to include the following improvements:*

Response: Response to each of the listed additional improvement items is indicated following the item.

1. *"Intersection Ahead" warning signs (graphic symbol) should be installed on Mill Street in advance (north) of the Mill Street/Village Street intersection.*

Response: The advance warning signs will be implemented as part of the project.

2. *Install "Do Not Block" signs and accompanying pavement markings on West Main Street at Mill Street and at Ardlock Place.*

Response: The suggested signs and pavement markings will be implemented as part of the project.

3. *Design and implement an optimal traffic signal timing and phasing plan for the West Main Street/Village Street/Schofield Avenue intersection prior to achieving 50 percent occupancy of the Project so that the timing changes reflect the traffic patterns resulting from the Project.*

Response: Peak hour intersection traffic volumes will be collected, and the data will be used to optimize the intersection signal timing after 50 percent occupancy of the residential units is achieved.

4. *Implement a Transportation Demand Management (TDM) program inclusive of the following elements:*

- *A transportation coordinator should be assigned for the Project to coordinate the TDM program;*
- *Information regarding public transportation services, maps, schedules and fare information should be posted in a central location and/or otherwise made available to residents;*

- A “welcome packet” should be provided to residents detailing available public transportation services, bicycle and walking alternatives, and commuting options;
- Pedestrian accommodations should be incorporated within the Project site and extend to the planned sidewalks on Mill Street and Ardlock Place;
- Secure bicycle parking should be provided consisting of both weather protected bicycle parking and exterior bicycle racks; and
- A central mail drop should be provided within the Project.

Response: The suggested TDM measures will be reviewed by the Applicant for implementation as part of the site operations and management.

Site Layout Plan

Comment S1 *A vehicle turning analysis should be provided using the AutoTurn© software for a single-unit truck (SU-30 design vehicle) and the Dudley Fire Department design vehicle. The turning analysis should depict all maneuvers required to enter and exit the Project site, as well as those required to access the location for trash/recycling and service/loading, and should demonstrate that the subject vehicles can access the Project site and circulate in an unimpeded manner.*

Response: Vehicle turning analyses will be prepared and included in the revised site plan submittal package.

Comment S2 *A STOP-sign and marked STOP-line should be added to the Project site driveways.*

Response: Stop sign and stop line locations will be depicted in the revised site plan submittal package.

Comment S3 *Americans with Disabilities Act (ADA) compliant wheelchair ramps should be provided for crossing the Project site driveways and at pedestrian crossings within the Project site. As an alternative for crossing the Project site driveways, the proposed sidewalk can be designed so as to be flush across the driveways (i.e., pan-type driveway).*

Response: Sidewalks, accessible ramps and driveway details will be included in the revised site plan submittal.

Comment S4 *A note should be added stating: “All Signs and pavement markings to be installed within the Project site shall conform to the applicable specifications of the Manual on Uniform Traffic Control Devices (MUTCD).”*

Response: The suggested note will be included in the revised site plan submittal.

Comment S5 *Bicycle rack(s) should be provided at an appropriate location(s) within the Project site and weather protected bicycle parking should be provided within the building. The Zoning Bylaw requires that 0.05 bicycle parking spaces be provided for every vehicle parking space required under the Zoning Bylaw, with a minimum of one (1) and a maximum of 20.*

Response: Bicycle parking locations will be depicted in the revised site plan submittal.

Comment S6 *The sight triangle areas for the Project site driveway intersections should be shown along with a note to indicate: “Signs, landscaping and other features located within sight triangle areas shall be designed, installed and maintained so as not to exceed 2.5-feet in height. Snow accumulation (windrows) located*

within sight triangle areas that exceed 3.5-feet in height or that would otherwise inhibit sight lines shall be promptly removed."

Response: Sight lines and related notes about maintaining clear sight lines will be included in the revised site plan submittal.

Comment S7 *Consideration should be given to installing electric vehicle (EV) charging stations for use by residents of the Project.*

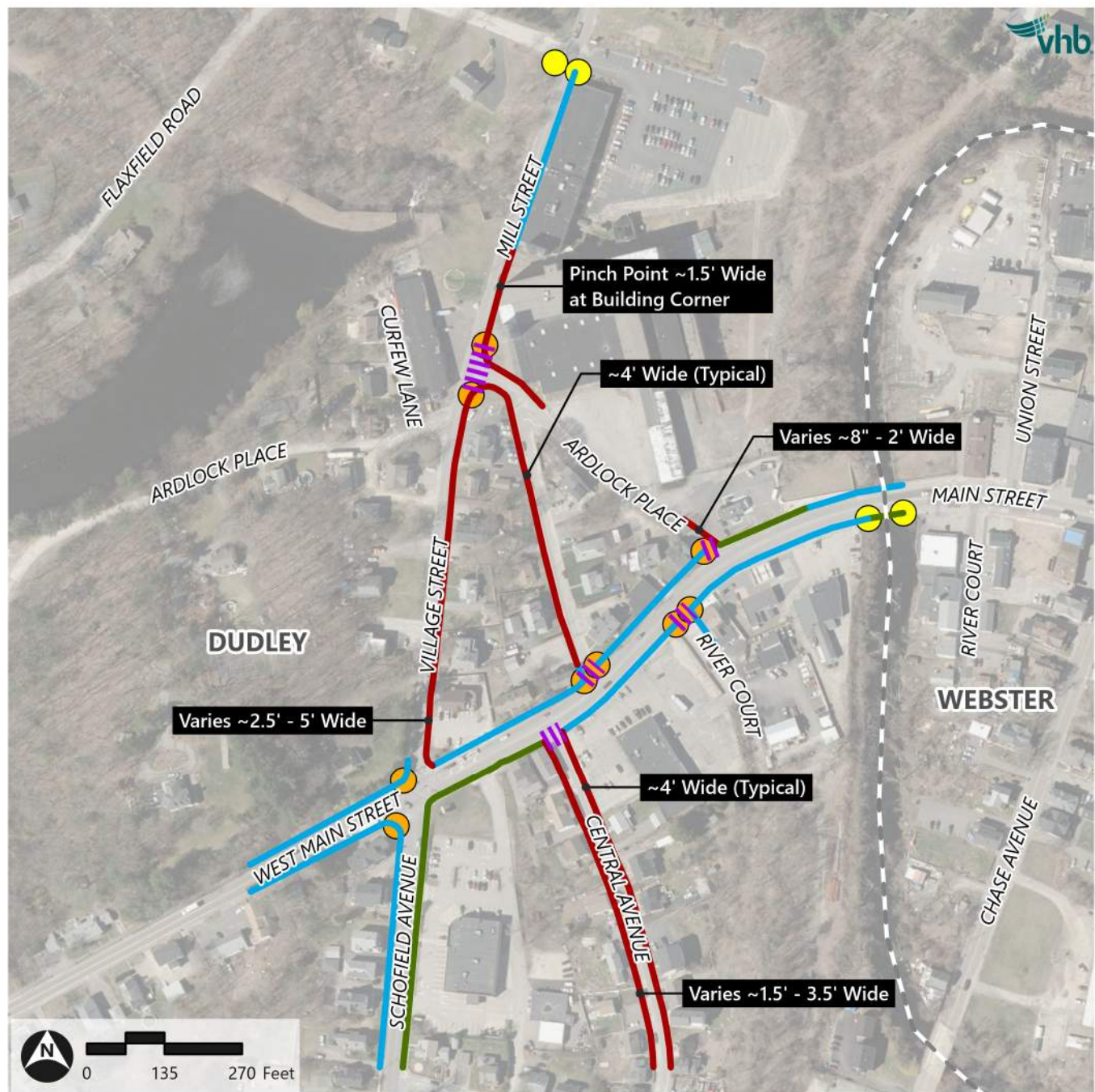
Response: EV charging station locations will be shown in the revised site plans.

Attachments

- › Existing sidewalk inventory
- › Turning movement counts for Mill Street/Flaxfield Road
- › Revised trip distribution and traffic volume diagrams
- › Revised capacity analysis worksheets
- › September 24, 2021 draft exhibit of potential improvements in the area

Figure 1: Existing Sidewalk Inventory

Mill Street | Dudley, Massachusetts



Path: \\vhb\gis\proj\Wat-LD\15303 00 Stevens Mill Grant\Project\Project.aprx (LCapriotti, 1/7/2022)

Sidewalk Inventory

Condition

Good

Fair

Poor

Missing Crosswalk Striping

Deficient Pedestrian Ramp

Missing Pedestrian Ramp

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	35	0	0	36	0	0	0	0	0	0	68	2	0	70	2	0	0	0	2	108
7:15 AM	0	33	0	0	33	0	0	0	0	0	0	59	1	0	60	4	0	1	0	5	98
7:30 AM	0	44	2	0	46	0	0	1	0	1	4	55	1	0	60	1	0	0	0	1	108
7:45 AM	1	59	2	0	62	1	0	0	0	1	4	46	0	0	50	1	0	3	0	4	117
Total	2	171	4	0	177	1	0	1	0	2	8	228	4	0	240	8	0	4	0	12	431
8:00 AM	1	29	2	0	32	0	0	0	0	0	2	51	0	0	53	1	0	0	0	1	86
8:15 AM	0	28	2	0	30	0	0	0	0	0	0	60	0	0	60	0	0	0	0	0	90
8:30 AM	0	57	2	0	59	0	0	1	0	1	2	50	1	0	53	2	0	3	0	5	118
8:45 AM	1	33	3	0	37	0	0	1	0	1	4	42	0	0	46	0	0	0	0	0	84
Total	2	147	9	0	158	0	0	2	0	2	8	203	1	0	212	3	0	3	0	6	378
Grand Total	4	318	13	0	335	1	0	3	0	4	16	431	5	0	452	11	0	7	0	18	809
Approach %	1.2	94.9	3.9	0.0		25.0	0.0	75.0	0.0		3.5	95.4	1.1	0.0		61.1	0.0	38.9	0.0		
Total %	0.5	39.3	1.6	0.0	41.4	0.1	0.0	0.4	0.0	0.5	2.0	53.3	0.6	0.0	55.9	1.4	0.0	0.9	0.0	2.2	
Exiting Leg Total	439					29					332					9					809
Cars	4	297	12	0	313	0	0	2	0	2	15	413	5	0	433	11	0	7	0	18	766
% Cars	100.0	93.4	92.3	0.0	93.4	0.0	0.0	66.7	0.0	50.0	93.8	95.8	100.0	0.0	95.8	100.0	0.0	100.0	0.0	100.0	94.7
Exiting Leg Total	420					27					310					9					766
Heavy Vehicles	0	21	1	0	22	1	0	1	0	2	1	18	0	0	19	0	0	0	0	0	43
% Heavy Vehicles	0.0	6.6	7.7	0.0	6.6	100.0	0.0	33.3	0.0	50.0	6.3	4.2	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	5.3
Exiting Leg Total	19					2					22					0					43

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	35	0	0	36	0	0	0	0	0	0	68	2	0	70	2	0	0	0	2	108
7:15 AM	0	33	0	0	33	0	0	0	0	0	0	59	1	0	60	4	0	1	0	5	98
7:30 AM	0	44	2	0	46	0	0	1	0	1	4	55	1	0	60	1	0	0	0	1	108
7:45 AM	1	59	2	0	62	1	0	0	0	1	4	46	0	0	50	1	0	3	0	4	117
Total Volume	2	171	4	0	177	1	0	1	0	2	8	228	4	0	240	8	0	4	0	12	431
% Approach Total	1.1	96.6	2.3	0.0		50.0	0.0	50.0	0.0		3.3	95.0	1.7	0.0		66.7	0.0	33.3	0.0		
PHF	0.500	0.725	0.500	0.000	0.714	0.250	0.000	0.250	0.000	0.500	0.500	0.838	0.500	0.000	0.857	0.500	0.000	0.333	0.000	0.600	0.921
Cars	2	162	4	0	168	0	0	1	0	1	7	224	4	0	235	8	0	4	0	12	416
Cars %	100.0	94.7	100.0	0.0	94.9	0.0	0.0	100.0	0.0	50.0	87.5	98.2	100.0	0.0	97.9	100.0	0.0	100.0	0.0	100.0	96.5
Heavy Vehicles	0	9	0	0	9	1	0	0	0	1	1	4	0	0	5	0	0	0	0	0	15
Heavy Vehicles %	0.0	5.3	0.0	0.0	5.1	100.0	0.0	0.0	0.0	50.0	12.5	1.8	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	3.5
Cars Enter Leg	2	162	4	0	168	0	0	1	0	1	7	224	4	0	235	8	0	4	0	12	416
Heavy Enter Leg	0	9	0	0	9	1	0	0	0	1	1	4	0	0	5	0	0	0	0	0	15
Total Entering Leg	2	171	4	0	177	1	0	1	0	2	8	228	4	0	240	8	0	4	0	12	431
Cars Exiting Leg	228					11					171					6					416
Heavy Exiting Leg	5					1					9					0					15
Total Exiting Leg	233					12					180					6					431

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	35	0	0	36	0	0	0	0	0	0	64	2	0	66	2	0	0	0	2	104
7:15 AM	0	33	0	0	33	0	0	0	0	0	0	59	1	0	60	4	0	1	0	5	98
7:30 AM	0	41	2	0	43	0	0	1	0	1	4	55	1	0	60	1	0	0	0	1	105
7:45 AM	1	53	2	0	56	0	0	0	0	0	3	46	0	0	49	1	0	3	0	4	109
Total	2	162	4	0	168	0	0	1	0	1	7	224	4	0	235	8	0	4	0	12	416
8:00 AM	1	28	1	0	30	0	0	0	0	0	2	50	0	0	52	1	0	0	0	1	83
8:15 AM	0	26	2	0	28	0	0	0	0	0	0	56	0	0	56	0	0	0	0	0	84
8:30 AM	0	48	2	0	50	0	0	0	0	0	2	42	1	0	45	2	0	3	0	5	100
8:45 AM	1	33	3	0	37	0	0	1	0	1	4	41	0	0	45	0	0	0	0	0	83
Total	2	135	8	0	145	0	0	1	0	1	8	189	1	0	198	3	0	3	0	6	350
Grand Total	4	297	12	0	313	0	0	2	0	2	15	413	5	0	433	11	0	7	0	18	766
Approach %	1.3	94.9	3.8	0.0		0.0	0.0	100.0	0.0		3.5	95.4	1.2	0.0		61.1	0.0	38.9	0.0		
Total %	0.5	38.8	1.6	0.0	40.9	0.0	0.0	0.3	0.0	0.3	2.0	53.9	0.7	0.0	56.5	1.4	0.0	0.9	0.0	2.3	
Exiting Leg Total	420					27					310					9					766

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	35	0	0	36	0	0	0	0	0	0	64	2	0	66	2	0	0	0	2	104
7:15 AM	0	33	0	0	33	0	0	0	0	0	0	59	1	0	60	4	0	1	0	5	98
7:30 AM	0	41	2	0	43	0	0	1	0	1	4	55	1	0	60	1	0	0	0	1	105
7:45 AM	1	53	2	0	56	0	0	0	0	0	3	46	0	0	49	1	0	3	0	4	109
Total Volume	2	162	4	0	168	0	0	1	0	1	7	224	4	0	235	8	0	4	0	12	416
% Approach Total	1.2	96.4	2.4	0.0		0.0	0.0	100.0	0.0		3.0	95.3	1.7	0.0		66.7	0.0	33.3	0.0		
PHF	0.500	0.764	0.500	0.000	0.750	0.000	0.000	0.250	0.000	0.250	0.438	0.875	0.500	0.000	0.890	0.500	0.000	0.333	0.000	0.600	0.954
Entering Leg	2	162	4	0	168	0	0	1	0	1	7	224	4	0	235	8	0	4	0	12	416
Exiting Leg	228					11					171					6					416
Total	396					12					406					18					832

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:45 AM	0	6	0	0	6	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	8
Total	0	9	0	0	9	1	0	0	0	1	1	4	0	0	5	0	0	0	0	0	15
8:00 AM	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
8:15 AM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
8:30 AM	0	9	0	0	9	0	0	1	0	1	0	8	0	0	8	0	0	0	0	0	18
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	12	1	0	13	0	0	1	0	1	0	14	0	0	14	0	0	0	0	0	28
Grand Total	0	21	1	0	22	1	0	1	0	2	1	18	0	0	19	0	0	0	0	0	43
Approach %	0.0	95.5	4.5	0.0		50.0	0.0	50.0	0.0		5.3	94.7	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	48.8	2.3	0.0	51.2	2.3	0.0	2.3	0.0	4.7	2.3	41.9	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	19					2					22					0					43
Buses	0	17	0	0	17	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	33
% Buses	0.0	81.0	0.0	0.0	77.3	0.0	0.0	0.0	0.0	0.0	0.0	88.9	0.0	0.0	84.2	0.0	0.0	0.0	0.0	0.0	76.7
Exiting Leg Total	16					0					17					0					33
Single-Unit Trucks	0	4	1	0	5	1	0	1	0	2	1	2	0	0	3	0	0	0	0	0	10
% Single-Unit	0.0	19.0	100.0	0.0	22.7	100.0	0.0	100.0	0.0	100.0	100.0	11.1	0.0	0.0	15.8	0.0	0.0	0.0	0.0	0.0	23.3
Exiting Leg Total	3					2					5					0					10
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	6	0	0	6	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	8
8:00 AM	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
8:15 AM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
8:30 AM	0	9	0	0	9	0	0	1	0	1	0	8	0	0	8	0	0	0	0	0	18
Total Volume	0	18	1	0	19	1	0	1	0	2	1	13	0	0	14	0	0	0	0	0	35
% Approach Total	0.0	94.7	5.3	0.0		50.0	0.0	50.0	0.0		7.1	92.9	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.250	0.000	0.528	0.250	0.000	0.250	0.000	0.500	0.250	0.406	0.000	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.486
Buses	0	16	0	0	16	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	27
Buses %	0.0	88.9	0.0	0.0	84.2	0.0	0.0	0.0	0.0	0.0	0.0	84.6	0.0	0.0	78.6	0.0	0.0	0.0	0.0	0.0	77.1
Single-Unit Trucks	0	2	1	0	3	1	0	1	0	2	1	2	0	0	3	0	0	0	0	0	8
Single-Unit %	0.0	11.1	100.0	0.0	15.8	100.0	0.0	100.0	0.0	100.0	100.0	15.4	0.0	0.0	21.4	0.0	0.0	0.0	0.0	0.0	22.9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	16	0	0	16	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	27
Single-Unit Trucks	0	2	1	0	3	1	0	1	0	2	1	2	0	0	3	0	0	0	0	0	8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	18	1	0	19	1	0	1	0	2	1	13	0	0	14	0	0	0	0	0	35
Buses	11					0					16					0					27
Single-Unit Trucks	3					2					3					0					8
Articulated Trucks	0					0					0					0					0
Total Exiting Leg	14					2					19					0					35

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	10
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
8:30 AM	0	9	0	0	9	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	15
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	11	0	0	11	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	23
Grand Total	0	17	0	0	17	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	33
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	51.5	0.0	0.0	51.5	0.0	0.0	0.0	0.0	0.0	0.0	48.5	0.0	0.0	48.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	16					0					17					0					33

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
8:30 AM	0	9	0	0	9	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	15
Total Volume	0	16	0	0	16	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	27
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.444	0.000	0.000	0.444	0.000	0.000	0.000	0.000	0.000	0.000	0.458	0.000	0.000	0.458	0.000	0.000	0.000	0.000	0.000	0.450
Entering Leg	0	16	0	0	16	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	27
Exiting Leg	11					0					16					0					27
Total	27					0					27					0					54

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	1	0	0	1	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	3
Total	0	3	0	0	3	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	5
8:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	2	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	5
Grand Total	0	4	1	0	5	1	0	1	0	2	1	2	0	0	3	0	0	0	0	0	10
Approach %	0.0	80.0	20.0	0.0		50.0	0.0	50.0	0.0		33.3	66.7	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	40.0	10.0	0.0	50.0	10.0	0.0	10.0	0.0	20.0	10.0	20.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	3					2					5					0					10

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	1	0	0	1	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	3
8:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	3
Total Volume	0	2	1	0	3	1	0	1	0	2	1	2	0	0	3	0	0	0	0	0	8
% Approach Total	0.0	66.7	33.3	0.0		50.0	0.0	50.0	0.0		33.3	66.7	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.250	0.000	0.750	0.250	0.000	0.250	0.000	0.500	0.250	0.250	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.667
Entering Leg	0	2	1	0	3	1	0	1	0	2	1	2	0	0	3	0	0	0	0	0	8
Exiting Leg	3					2					3					0					8
Total	6					4					6					0					16

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Mill Street							Tri Valley Driveway							Mill Street							Flaxfield Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Mill Street							Tri Valley Driveway							Mill Street							Flaxfield Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Mill Street							Tri Valley Driveway							Mill Street							Flaxfield Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							1							0							0							1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Mill Street							Tri Valley Driveway							Mill Street							Flaxfield Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.250
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	0							1							0							0							1
Total	0							2							0							0							2

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	65	0	0	65	0	0	0	0	0	0	43	4	0	47	2	0	2	0	4	116
4:15 PM	2	60	0	0	62	1	0	1	0	2	0	61	2	0	63	2	0	0	0	2	129
4:30 PM	2	67	0	0	69	1	0	2	0	3	1	47	1	0	49	0	0	1	0	1	122
4:45 PM	2	49	0	0	51	0	0	4	0	4	1	50	1	0	52	1	0	1	0	2	109
Total	6	241	0	0	247	2	0	7	0	9	2	201	8	0	211	5	0	4	0	9	476
5:00 PM	3	58	1	0	62	2	0	4	0	6	0	54	1	0	55	0	0	0	0	0	123
5:15 PM	4	39	1	0	44	0	0	0	0	0	0	38	1	0	39	3	0	1	0	4	87
5:30 PM	0	62	0	0	62	1	0	2	0	3	1	34	1	0	36	0	0	1	0	1	102
5:45 PM	1	28	0	0	29	0	0	0	0	0	0	34	1	0	35	1	0	1	0	2	66
Total	8	187	2	0	197	3	0	6	0	9	1	160	4	0	165	4	0	3	0	7	378
Grand Total	14	428	2	0	444	5	0	13	0	18	3	361	12	0	376	9	0	7	0	16	854
Approach %	3.2	96.4	0.5	0.0		27.8	0.0	72.2	0.0		0.8	96.0	3.2	0.0		56.3	0.0	43.8	0.0		
Total %	1.6	50.1	0.2	0.0	52.0	0.6	0.0	1.5	0.0	2.1	0.4	42.3	1.4	0.0	44.0	1.1	0.0	0.8	0.0	1.9	
Exiting Leg Total	373					5					450					26					854
Cars	14	424	2	0	440	5	0	13	0	18	3	359	12	0	374	9	0	7	0	16	848
% Cars	100.0	99.1	100.0	0.0	99.1	100.0	0.0	100.0	0.0	100.0	100.0	99.4	100.0	0.0	99.5	100.0	0.0	100.0	0.0	100.0	99.3
Exiting Leg Total	371					5					446					26					848
Heavy Vehicles	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	6
% Heavy Vehicles	0.0	0.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.7
Exiting Leg Total	2					0					4					0					6

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:15 PM	2	60	0	0	62	1	0	1	0	2	0	61	2	0	63	2	0	0	0	2	129
4:30 PM	2	67	0	0	69	1	0	2	0	3	1	47	1	0	49	0	0	1	0	1	122
4:45 PM	2	49	0	0	51	0	0	4	0	4	1	50	1	0	52	1	0	1	0	2	109
5:00 PM	3	58	1	0	62	2	0	4	0	6	0	54	1	0	55	0	0	0	0	0	123
Total Volume	9	234	1	0	244	4	0	11	0	15	2	212	5	0	219	3	0	2	0	5	483
% Approach Total	3.7	95.9	0.4	0.0		26.7	0.0	73.3	0.0		0.9	96.8	2.3	0.0		60.0	0.0	40.0	0.0		
PHF	0.750	0.873	0.250	0.000	0.884	0.500	0.000	0.688	0.000	0.625	0.500	0.869	0.625	0.000	0.869	0.375	0.000	0.500	0.000	0.625	0.936
Cars	9	233	1	0	243	4	0	11	0	15	2	211	5	0	218	3	0	2	0	5	481
Cars %	100.0	99.6	100.0	0.0	99.6	100.0	0.0	100.0	0.0	100.0	100.0	99.5	100.0	0.0	99.5	100.0	0.0	100.0	0.0	100.0	99.6
Heavy Vehicles	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Heavy Vehicles %	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.4
Cars Enter Leg	9	233	1	0	243	4	0	11	0	15	2	211	5	0	218	3	0	2	0	5	481
Heavy Enter Leg	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total Entering Leg	9	234	1	0	244	4	0	11	0	15	2	212	5	0	219	3	0	2	0	5	483
Cars Exiting Leg	217					3					247					14					481
Heavy Exiting Leg	1					0					1					0					2
Total Exiting Leg	218					3					248					14					483

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	63	0	0	63	0	0	0	0	0	0	43	4	0	47	2	0	2	0	4	114
4:15 PM	2	60	0	0	62	1	0	1	0	2	0	60	2	0	62	2	0	0	0	2	128
4:30 PM	2	67	0	0	69	1	0	2	0	3	1	47	1	0	49	0	0	1	0	1	122
4:45 PM	2	48	0	0	50	0	0	4	0	4	1	50	1	0	52	1	0	1	0	2	108
Total	6	238	0	0	244	2	0	7	0	9	2	200	8	0	210	5	0	4	0	9	472
5:00 PM	3	58	1	0	62	2	0	4	0	6	0	54	1	0	55	0	0	0	0	0	123
5:15 PM	4	39	1	0	44	0	0	0	0	0	0	37	1	0	38	3	0	1	0	4	86
5:30 PM	0	61	0	0	61	1	0	2	0	3	1	34	1	0	36	0	0	1	0	1	101
5:45 PM	1	28	0	0	29	0	0	0	0	0	0	34	1	0	35	1	0	1	0	2	66
Total	8	186	2	0	196	3	0	6	0	9	1	159	4	0	164	4	0	3	0	7	376
Grand Total	14	424	2	0	440	5	0	13	0	18	3	359	12	0	374	9	0	7	0	16	848
Approach %	3.2	96.4	0.5	0.0		27.8	0.0	72.2	0.0		0.8	96.0	3.2	0.0		56.3	0.0	43.8	0.0		
Total %	1.7	50.0	0.2	0.0	51.9	0.6	0.0	1.5	0.0	2.1	0.4	42.3	1.4	0.0	44.1	1.1	0.0	0.8	0.0	1.9	
Exiting Leg Total	371					5					446					26					848

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:15 PM	2	60	0	0	62	1	0	1	0	2	0	60	2	0	62	2	0	0	0	2	128
4:30 PM	2	67	0	0	69	1	0	2	0	3	1	47	1	0	49	0	0	1	0	1	122
4:45 PM	2	48	0	0	50	0	0	4	0	4	1	50	1	0	52	1	0	1	0	2	108
5:00 PM	3	58	1	0	62	2	0	4	0	6	0	54	1	0	55	0	0	0	0	0	123
Total Volume	9	233	1	0	243	4	0	11	0	15	2	211	5	0	218	3	0	2	0	5	481
% Approach Total	3.7	95.9	0.4	0.0		26.7	0.0	73.3	0.0		0.9	96.8	2.3	0.0		60.0	0.0	40.0	0.0		
PHF	0.750	0.869	0.250	0.000	0.880	0.500	0.000	0.688	0.000	0.625	0.500	0.879	0.625	0.000	0.879	0.375	0.000	0.500	0.000	0.625	0.939
Entering Leg	9	233	1	0	243	4	0	11	0	15	2	211	5	0	218	3	0	2	0	5	481
Exiting Leg	217					3					247					14					481
Total	460					18					465					19					962

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Grand Total	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	6
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	2					0					4					0					6
Buses	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
% Buses	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	66.7
Exiting Leg Total	2					0					2					0					4
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Single-Unit	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3
Exiting Leg Total	0					0					2					0					2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.500
Buses	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Buses %	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	50.0
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Single-Unit %	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
Buses	1					0					1					0					2
Single-Unit Trucks	0					0					2					0					2
Articulated Trucks	0					0					0					0					0
Total Exiting Leg	1					0					3					0					4

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Grand Total	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	2					0					2					0					4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Exiting Leg					1					0					1					0	2
Total	2					0					2					0					4

PDI File #: **218343 A**
Location: **N: Mill Street S: Mill Street**
Location: **E: Tri Valley Driveway W: Flaxfield Road**
City, State: **Dudley, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **15303.00**
Count Date: **Wednesday, January 5, 2022**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:



Single-Unit Trucks

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					0					2					0					2

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	
Entering Leg	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Exiting Leg	0					0					2					0					2
Total	2					0					2					0					4

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Mill Street					Tri Valley Driveway					Mill Street					Flaxfield Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Mill Street							Tri Valley Driveway							Mill Street							Flaxfield Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Mill Street							Tri Valley Driveway							Mill Street							Flaxfield Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **218343 A**
 Location: **N: Mill Street S: Mill Street**
 Location: **E: Tri Valley Driveway W: Flaxfield Road**
 City, State: **Dudley, MA**
 Client: **VHB/ V. Kalikiri**
 Site Code: **15303.00**
 Count Date: **Wednesday, January 5, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:

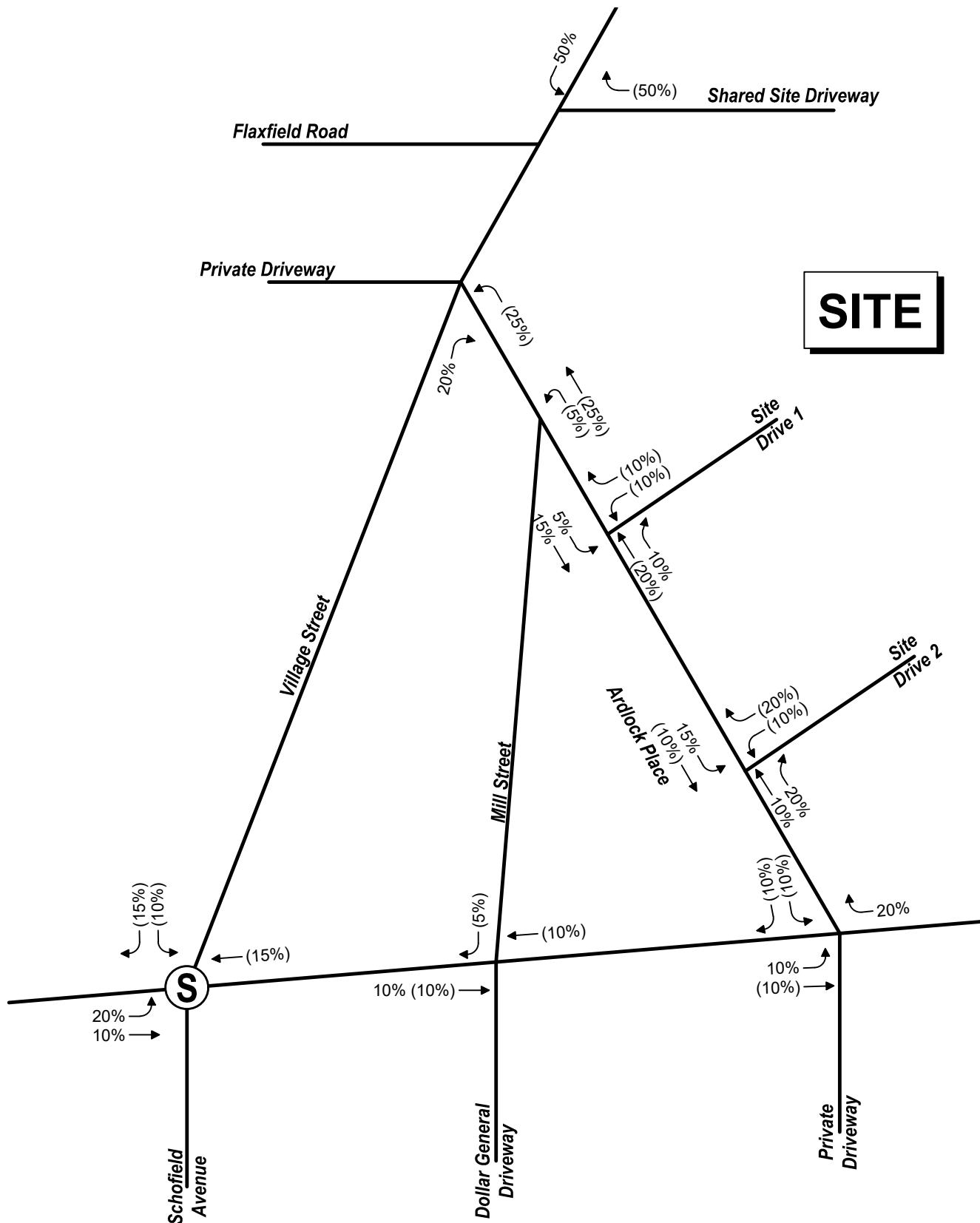


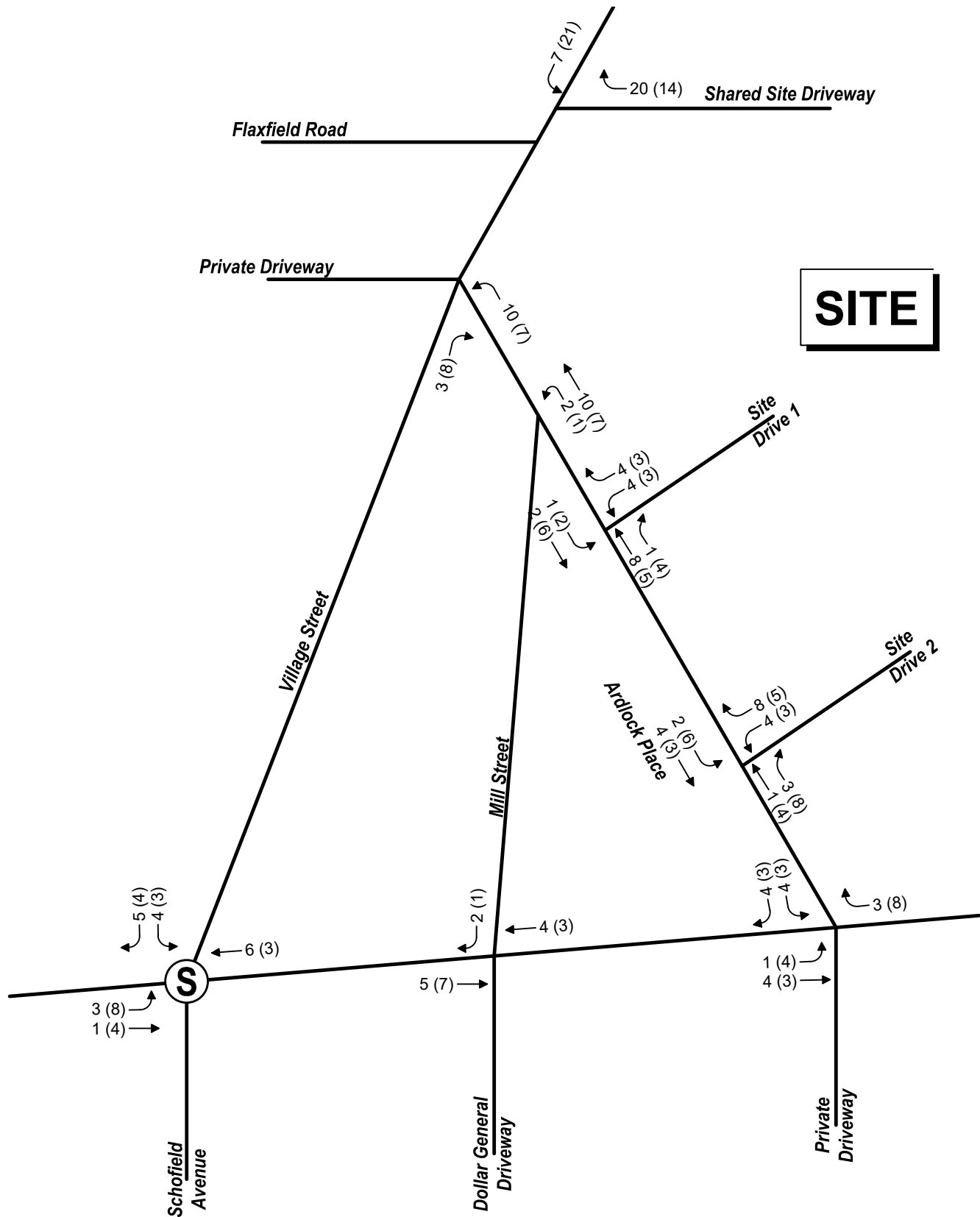
Pedestrians

	Mill Street							Tri Valley Driveway							Mill Street							Flaxfield Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

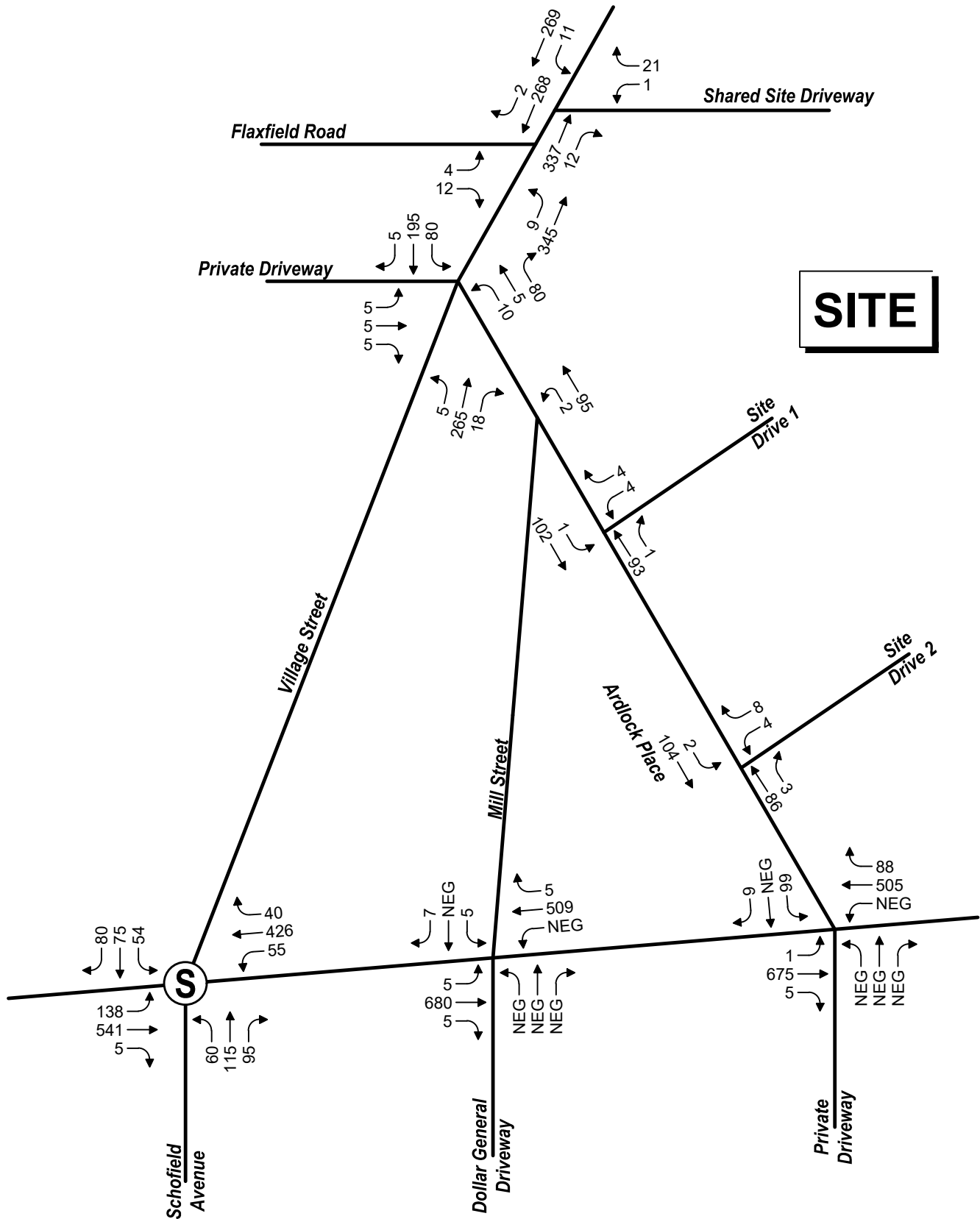
4:00 PM	Mill Street							Tri Valley Driveway							Mill Street							Flaxfield Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

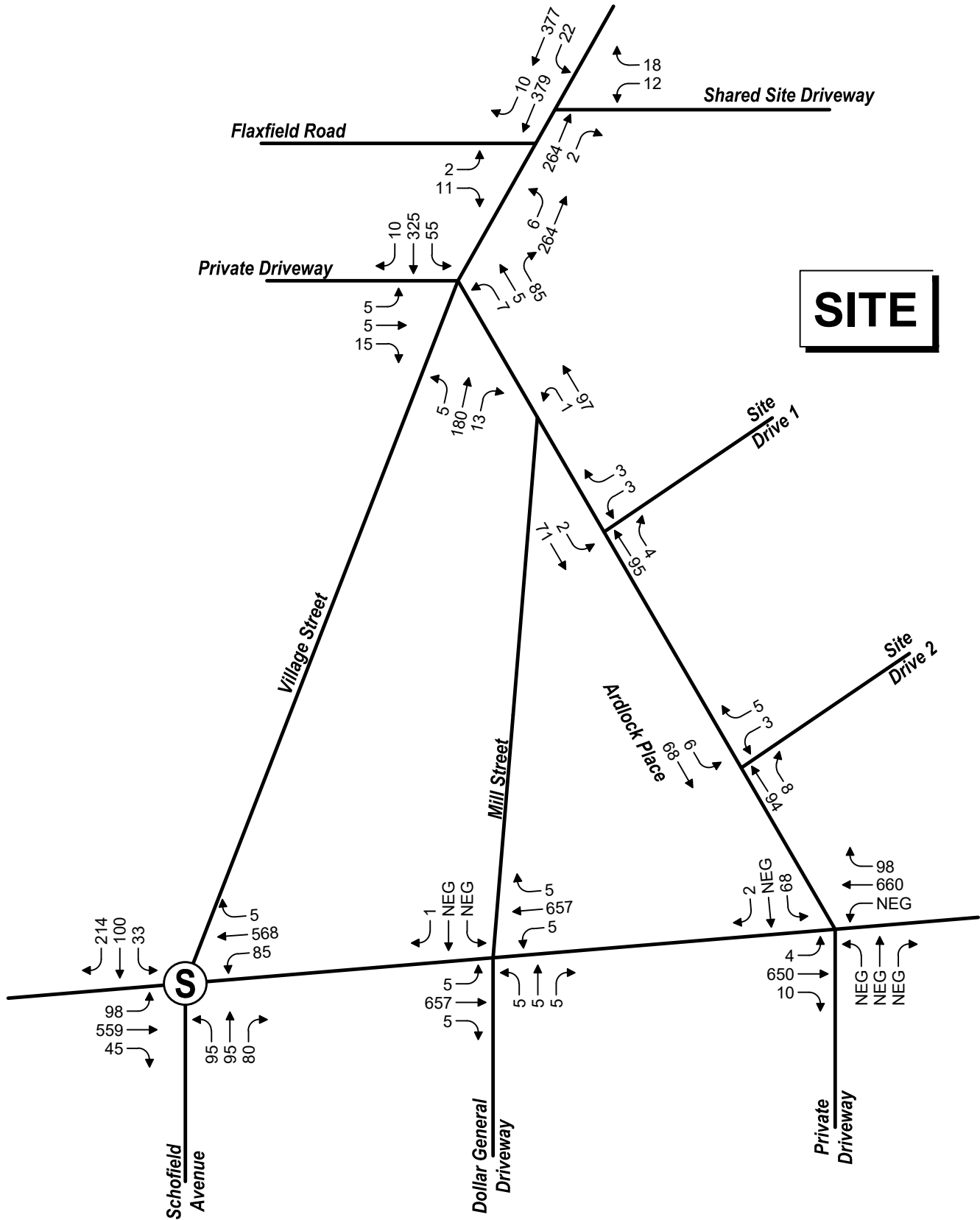




Proposed Mill Redevelopment
Site Generated Traffic
Dudley, MA

Figure





Queues

3: Schofield Ave/Village St & W Main St

2028 Build Conditions
Weekday Morning Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø2
Lane Configurations									
Traffic Volume (vph)	138	541	55	426	60	115	54	75	
Future Volume (vph)	138	541	55	426	60	115	54	75	
Lane Group Flow (vph)	150	593	59	501	0	293	0	225	
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2	3	2 3		4		4	2
Permitted Phases					4		4		
Detector Phase	1	1 2	3	2 3	4	4	4	4	
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0		11.0		11.0	11.0	11.0	11.0	9.5
Total Split (s)	14.0		11.0		23.0	23.0	23.0	23.0	22.0
Total Split (%)	20.0%		15.7%		32.9%	32.9%	32.9%	32.9%	31%
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0		0.0	
Total Lost Time (s)	5.0		5.0			5.0		5.0	
Lead/Lag	Lead		Lead		Lag	Lag	Lag	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	None		Max		None	None	None	None	Max
v/c Ratio	0.64	0.68	0.41	0.68		0.79		0.70	
Control Delay	43.4	19.7	39.4	21.9		37.8		31.3	
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	
Total Delay	43.4	19.7	39.4	21.9		37.8		31.3	
Queue Length 50th (ft)	62	195	25	169		99		68	
Queue Length 95th (ft)	#140	311	59	279		#204		139	
Internal Link Dist (ft)		572		291		483		677	
Turn Bay Length (ft)	65		80						
Base Capacity (vph)	233	877	143	737		435		377	
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	0.64	0.68	0.41	0.68		0.67		0.60	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 67.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Schofield Ave/Village St & W Main St





















HCM Signalized Intersection Capacity Analysis

3: Schofield Ave/Village St & W Main St

2028 Build Conditions

















Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	541	5	55	426	40	60	115	95	54	75	80
Future Volume (vph)	138	541	5	55	426	40	60	115	95	54	75	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	10	11	11	14	14	14	12	12	12
Grade (%)		-4%			0%			2%			0%	
Total Lost time (s)	5.0	5.0		5.0	4.5			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.99			0.95			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1745	1898		1604	1727			1783			1663	
Flt Permitted	0.95	1.00		0.95	1.00			0.84			0.77	
Satd. Flow (perm)	1745	1898		1604	1727			1519			1290	
Peak-hour factor, PHF	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	150	588	5	59	458	43	65	125	103	58	81	86
RTOR Reduction (vph)	0	1	0	0	5	0	0	29	0	0	33	0
Lane Group Flow (vph)	150	592	0	59	496	0	0	264	0	0	192	0
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	6%	6%	6%	7%	7%	7%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2		3	2 3			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	9.0	31.5		6.0	28.0			15.2			15.2	
Effective Green, g (s)	9.0	31.5		6.0	28.0			15.2			15.2	
Actuated g/C Ratio	0.13	0.47		0.09	0.42			0.23			0.23	
Clearance Time (s)	5.0			5.0				5.0			5.0	
Vehicle Extension (s)	3.0			3.0				3.0			3.0	
Lane Grp Cap (vph)	233	889		143	719			343			291	
v/s Ratio Prot	0.09	c0.31		0.04	c0.29							
v/s Ratio Perm								c0.17			0.15	
v/c Ratio	0.64	0.67		0.41	0.69			0.77			0.66	
Uniform Delay, d1	27.6	13.8		28.9	16.0			24.4			23.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	6.0	1.9		8.6	5.4			9.9			5.3	
Delay (s)	33.6	15.7		37.5	21.4			34.3			29.0	
Level of Service	C	B		D	C			C			C	
Approach Delay (s)		19.3			23.1			34.3			29.0	
Approach LOS		B			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			24.1			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			67.2			Sum of lost time (s)			19.5			
Intersection Capacity Utilization			64.7%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

6: Private Drive/Ardlock Pl & W Main St

















2028 Build Conditions
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	675	5	0	505	88	0	0	0	99	0	9
Future Volume (Veh/h)	1	675	5	0	505	88	0	0	0	99	0	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	1	734	5	0	549	96	0	0	0	108	0	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		678										
pX, platoon unblocked				0.75			0.75	0.75	0.75	0.75	0.75	
vC, conflicting volume	645			739			1346	1384	736	1336	1338	597
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	645			480			1293	1344	477	1280	1283	597
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	0	100	98
cM capacity (veh/h)	935			800			103	114	442	107	124	505
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	740	645	0	118								
Volume Left	1	0	0	108								
Volume Right	5	96	0	10								
cSH	935	800	1700	115								
Volume to Capacity	0.00	0.00	0.00	1.03								
Queue Length 95th (ft)	0	0	0	172								
Control Delay (s)	0.0	0.0	0.0	164.0								
Lane LOS	A		A	F								
Approach Delay (s)	0.0	0.0	0.0	164.0								
Approach LOS			A	F								
Intersection Summary												
Average Delay			12.9									
Intersection Capacity Utilization			49.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

7: Village St & Parking Lot & Mill St

















2028 Build Conditions
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	10	5	80	5	265	18	80	195	5
Future Volume (Veh/h)	5	5	5	10	5	80	5	265	18	80	195	5
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
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
Hourly flow rate (vph)	5	5	5	11	5	87	5	288	20	87	212	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage veh)												
Upstream signal (ft)	757											
pX, platoon unblocked												
vC, conflicting volume	786	706	214	704	699	298	217				308	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	786	706	214	704	699	298	217				308	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.2	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.3	
p0 queue free %	98	99	99	97	99	88	100				93	
cM capacity (veh/h)	257	336	831	325	335	739	1347				1214	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	15	103	313	304								
Volume Left	5	11	5	87								
Volume Right	5	87	20	5								
cSH	371	619	1347	1214								
Volume to Capacity	0.04	0.17	0.00	0.07								
Queue Length 95th (ft)	3	15	0	6								
Control Delay (s)	15.1	12.0	0.2	2.8								
Lane LOS	C	B	A	A								
Approach Delay (s)	15.1	12.0	0.2	2.8								
Approach LOS	C	B										
Intersection Summary												
Average Delay				3.2								
Intersection Capacity Utilization				46.4%	ICU Level of Service				A			
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

9: Dollar General/Mill St & W Main St










2028 Build Conditions
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	680	5	0	509	5	0	0	0	5	0	7
Future Volume (Veh/h)	5	680	5	0	509	5	0	0	0	5	0	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	716	5	0	553	5	0	0	0	5	0	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		371										
pX, platoon unblocked				0.75			0.75	0.75	0.75	0.75	0.75	
vC, conflicting volume	558			721			1292	1286	718	1284	1286	556
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	558			457			1222	1214	454	1211	1214	556
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	96	100	99
cM capacity (veh/h)	1008			817			116	136	456	120	136	535
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	726	558	0	13								
Volume Left	5	0	0	5								
Volume Right	5	5	0	8								
cSH	1008	817	1700	229								
Volume to Capacity	0.00	0.00	0.00	0.06								
Queue Length 95th (ft)	0	0	0	4								
Control Delay (s)	0.1	0.0	0.0	21.7								
Lane LOS	A		A	C								
Approach Delay (s)	0.1	0.0	0.0	21.7								
Approach LOS			A	C								
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization			50.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

10: Ardlock PI & Site Drive 2










2028 Build Conditions
Weekday Morning Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	8	86	3	2	104
Future Volume (Veh/h)	4	8	86	3	2	104
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	9	93	3	2	113
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	212	94			96	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	212	94			96	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	776	962			1498	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	13	96	115			
Volume Left	4	0	2			
Volume Right	9	3	0			
cSH	896	1700	1498			
Volume to Capacity	0.01	0.06	0.00			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	9.1	0.0	0.1			
Lane LOS	A		A			
Approach Delay (s)	9.1	0.0	0.1			
Approach LOS	A					
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization		17.1%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

15: Mill St & Flaxfield Road










2028 Build Conditions
Weekday Morning Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	12	9	345	268	2
Future Volume (Veh/h)	4	12	9	345	268	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	13	10	375	291	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				1231		
pX, platoon unblocked						
vC, conflicting volume	687	292	293			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	687	292	293			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	98	99			
cM capacity (veh/h)	409	747	1269			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	17	385	293			
Volume Left	4	10	0			
Volume Right	13	0	2			
cSH	626	1269	1700			
Volume to Capacity	0.03	0.01	0.17			
Queue Length 95th (ft)	2	1	0			
Control Delay (s)	10.9	0.3	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.9	0.3	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization		35.4%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

17: Ardlock Pl/Mill St & Site Drive 1










2028 Build Conditions
Weekday Morning Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	4	93	1	1	102
Future Volume (Veh/h)	4	4	93	1	1	102
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	4	101	1	1	111
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	214	102			102	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	214	102			102	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	773	954			1490	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	8	102	112			
Volume Left	4	0	1			
Volume Right	4	1	0			
cSH	854	1700	1490			
Volume to Capacity	0.01	0.06	0.00			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	9.3	0.0	0.1			
Lane LOS	A		A			
Approach Delay (s)	9.3	0.0	0.1			
Approach LOS	A					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization		16.2%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

19: Mill St & Shared Site Driveway

2028 Build Conditions
Weekday Morning Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	21	337	12	11	269
Future Volume (Veh/h)	1	21	337	12	11	269
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	23	366	13	12	292
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			1314			
pX, platoon unblocked						
vC, conflicting volume	688	372			379	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	688	372			379	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	97			99	
cM capacity (veh/h)	408	673			1179	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	24	379	304			
Volume Left	1	0	12			
Volume Right	23	13	0			
cSH	656	1700	1179			
Volume to Capacity	0.04	0.22	0.01			
Queue Length 95th (ft)	3	0	1			
Control Delay (s)	10.7	0.0	0.4			
Lane LOS	B		A			
Approach Delay (s)	10.7	0.0	0.4			
Approach LOS	B					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			33.1%	ICU Level of Service		A
Analysis Period (min)			15			

Queues

3: Schofield Ave/Village St & W Main St

2028 Build Conditions
Weekday Evening Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø2
Lane Configurations									
Traffic Volume (vph)	98	559	85	568	95	95	33	100	
Future Volume (vph)	98	559	85	568	95	95	33	100	
Lane Group Flow (vph)	102	629	90	609	0	290	0	378	
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	
Protected Phases	1	1 2	3	2 3		4		4	2
Permitted Phases					4		4		
Detector Phase	1	1 2	3	2 3	4	4	4	4	
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0		11.0		11.0	11.0	11.0	11.0	9.5
Total Split (s)	13.0		11.0		26.0	26.0	26.0	26.0	20.0
Total Split (%)	18.6%		15.7%		37.1%	37.1%	37.1%	37.1%	29%
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0		0.0	
Total Lost Time (s)	5.0		5.0			5.0		5.0	
Lead/Lag	Lead		Lead		Lag	Lag	Lag	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	None		None		None	None	None	None	Max
v/c Ratio	0.50	0.80	0.62	0.86		0.91		0.71	
Control Delay	38.0	28.1	51.4	35.0		54.8		22.9	
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	
Total Delay	38.0	28.1	51.4	35.0		54.8		22.9	
Queue Length 50th (ft)	42	233	38	239		104		95	
Queue Length 95th (ft)	87	#418	#102	#434		#238		185	
Internal Link Dist (ft)		572		291		483		677	
Turn Bay Length (ft)	65		80						
Base Capacity (vph)	206	783	146	706		359		590	
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	0.50	0.80	0.62	0.86		0.81		0.64	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 67.7

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.




















Splits and Phases: 3: Schofield Ave/Village St & W Main St



HCM Signalized Intersection Capacity Analysis

3: Schofield Ave/Village St & W Main St

















2028 Build Conditions
Weekday Evening Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	559	45	85	568	5	95	95	80	33	100	214
Future Volume (vph)	98	559	45	85	568	5	95	95	80	33	100	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	10	11	11	14	14	14	12	12	12
Grade (%)		-4%			0%			2%			0%	
Total Lost time (s)	5.0	5.0		5.0	4.5			5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.96			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.98			1.00	
Satd. Flow (prot)	1745	1879		1652	1798			1838			1716	
Flt Permitted	0.95	1.00		0.95	1.00			0.58			0.95	
Satd. Flow (perm)	1745	1879		1652	1798			1086			1636	
Peak-hour factor, PHF	0.96	0.96	0.96	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	102	582	47	90	604	5	102	102	86	36	109	233
RTOR Reduction (vph)	0	4	0	0	1	0	0	22	0	0	86	0
Lane Group Flow (vph)	102	625	0	90	608	0	0	268	0	0	292	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	1%	1%	1%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	1 2		3	2 3			4			4	
Permitted Phases							4			4		
Actuated Green, G (s)	8.0	28.5		6.0	26.0			18.6			18.6	
Effective Green, g (s)	8.0	28.5		6.0	26.0			18.6			18.6	
Actuated g/C Ratio	0.12	0.42		0.09	0.38			0.28			0.28	
Clearance Time (s)	5.0			5.0				5.0			5.0	
Vehicle Extension (s)	3.0			3.0				3.0			3.0	
Lane Grp Cap (vph)	206	792		146	691			298			450	
v/s Ratio Prot	0.06	c0.33		0.05	c0.34							
v/s Ratio Perm								c0.25			0.18	
v/c Ratio	0.50	0.79		0.62	0.88			0.90			0.65	
Uniform Delay, d1	27.9	16.9		29.7	19.4			23.6			21.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.9	5.3		7.5	12.6			27.4			3.2	
Delay (s)	29.8	22.2		37.2	31.9			51.0			24.9	
Level of Service	C	C		D	C			D			C	
Approach Delay (s)		23.3			32.6			51.0			24.9	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			30.5			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.99									
Actuated Cycle Length (s)			67.6			Sum of lost time (s)			19.5			
Intersection Capacity Utilization			87.5%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

6: Private Drive/Ardlock Pl & W Main St

















2028 Build Conditions
Weekday Evening Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	650	10	0	660	98	0	0	0	68	0	2
Future Volume (Veh/h)	4	650	10	0	660	98	0	0	0	68	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	707	11	0	688	102	0	0	0	74	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		678										
pX, platoon unblocked				0.70			0.70	0.70	0.70	0.70	0.70	
vC, conflicting volume	790			718			1462	1510	712	1460	1465	739
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	790			388			1445	1515	380	1442	1450	739
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	2	100	100
cM capacity (veh/h)	830			823			77	84	472	75	89	409
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	722	790	0	76								
Volume Left	4	0	0	74								
Volume Right	11	102	0	2								
cSH	830	823	1700	77								
Volume to Capacity	0.00	0.00	0.00	0.99								
Queue Length 95th (ft)	0	0	0	132								
Control Delay (s)	0.1	0.0	0.0	194.0								
Lane LOS	A		A	F								
Approach Delay (s)	0.1	0.0	0.0	194.0								
Approach LOS			A	F								
Intersection Summary												
Average Delay			9.3									
Intersection Capacity Utilization			51.2%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

7: Village St & Parking Lot & Mill St

















2028 Build Conditions
Weekday Evening Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	15	7	5	85	5	180	13	55	325	10
Future Volume (Veh/h)	5	5	15	7	5	85	5	180	13	55	325	10
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
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
Hourly flow rate (vph)	5	5	16	8	5	92	5	196	14	60	353	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage veh)												
Upstream signal (ft)							757					
pX, platoon unblocked												
vC, conflicting volume	786	698	358	710	697	203	364				210	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	786	698	358	710	697	203	364				210	
tC, single (s)	7.2	6.6	6.3	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	98	99	98	98	99	89	100				96	
cM capacity (veh/h)	253	335	664	325	349	840	1195				1367	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	26	105	215	424								
Volume Left	5	8	5	60								
Volume Right	16	92	14	11								
cSH	442	707	1195	1367								
Volume to Capacity	0.06	0.15	0.00	0.04								
Queue Length 95th (ft)	5	13	0	3								
Control Delay (s)	13.6	11.0	0.2	1.5								
Lane LOS	B	B	A	A								
Approach Delay (s)	13.6	11.0	0.2	1.5								
Approach LOS	B	B										
Intersection Summary												
Average Delay				2.8								
Intersection Capacity Utilization				47.8%	ICU Level of Service				A			
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

9: Dollar General/Mill St & W Main St










2028 Build Conditions
Weekday Evening Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	657	5	5	657	5	5	5	5	0	0	1
Future Volume (Veh/h)	5	657	5	5	657	5	5	5	5	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	714	5	5	677	5	5	5	5	0	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)	371											
pX, platoon unblocked				0.70				0.70	0.70	0.70	0.70	0.70
vC, conflicting volume	682			719				1417	1418	716	1424	1418
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	682			388				1382	1384	384	1391	1384
tC, single (s)	4.1			4.1				7.1	6.5	6.2	7.1	6.5
tC, 2 stage (s)												
tF (s)	2.2			2.2				3.5	4.0	3.3	3.5	4.0
p0 queue free %	99			99				94	95	99	100	100
cM capacity (veh/h)	911			822				85	101	469	80	101
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	724	687	15	1								
Volume Left	5	5	5	0								
Volume Right	5	5	5	1								
cSH	911	822	126	455								
Volume to Capacity	0.01	0.01	0.12	0.00								
Queue Length 95th (ft)	0	0	10	0								
Control Delay (s)	0.1	0.2	37.4	12.9								
Lane LOS	A	A	E	B								
Approach Delay (s)	0.1	0.2	37.4	12.9								
Approach LOS				E	B							
Intersection Summary												
Average Delay				0.6								
Intersection Capacity Utilization				50.0%		ICU Level of Service			A			
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

10: Ardlock PI & Site Drive 3










2028 Build Conditions
Weekday Evening Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	5	94	8	6	68
Future Volume (Veh/h)	3	5	94	8	6	68
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	5	102	9	7	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	194	106			111	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	194	106			111	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	791	948			1479	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	8	111	81			
Volume Left	3	0	7			
Volume Right	5	9	0			
cSH	882	1700	1479			
Volume to Capacity	0.01	0.07	0.00			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	9.1	0.0	0.7			
Lane LOS	A		A			
Approach Delay (s)	9.1	0.0	0.7			
Approach LOS	A					
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			18.5%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

16: Mill St & Flaxfield Road










2028 Build Conditions
Weekday Evening Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	11	6	264	379	10
Future Volume (Veh/h)	2	11	6	264	379	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	12	7	287	412	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				1231		
pX, platoon unblocked						
vC, conflicting volume	718	418	423			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	718	418	423			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	98	99			
cM capacity (veh/h)	393	635	1136			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	14	294	423			
Volume Left	2	7	0			
Volume Right	12	0	11			
cSH	584	1136	1700			
Volume to Capacity	0.02	0.01	0.25			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	11.3	0.3	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.3	0.3	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			30.6%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

17: Ardlock Pl/Mill St & Site Drive 1










2028 Build Conditions
Weekday Evening Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	3	95	4	2	71
Future Volume (Veh/h)	3	3	95	4	2	71
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	3	103	4	2	77
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	186	105			107	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	186	105			107	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	802	949			1484	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	6	107	79			
Volume Left	3	0	2			
Volume Right	3	4	0			
cSH	870	1700	1484			
Volume to Capacity	0.01	0.06	0.00			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	9.2	0.0	0.2			
Lane LOS	A		A			
Approach Delay (s)	9.2	0.0	0.2			
Approach LOS	A					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization		15.3%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

20: Mill St & Shared Site Driveway

2028 Build Conditions
Weekday Evening Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	18	264	2	22	377
Future Volume (Veh/h)	12	18	264	2	22	377
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	20	287	2	24	410
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			1314			
pX, platoon unblocked						
vC, conflicting volume	746	288			289	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	746	288			289	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	97			98	
cM capacity (veh/h)	374	751			1273	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	33	289	434			
Volume Left	13	0	24			
Volume Right	20	2	0			
cSH	537	1700	1273			
Volume to Capacity	0.06	0.17	0.02			
Queue Length 95th (ft)	5	0	1			
Control Delay (s)	12.1	0.0	0.6			
Lane LOS	B		A			
Approach Delay (s)	12.1	0.0	0.6			
Approach LOS	B					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			47.8%	ICU Level of Service	A	
Analysis Period (min)			15			

RED = TO BE IMPLEMENTED BEFORE 2024. BLUE = POTENTIAL FUTURE PROJECTS

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