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DEPARTMENT OF INFRASTRUCTURE ENGINEERING

INITIAL TRAFFIC EVALUATION

TO: Transportation Advisory Committee

FROM: Jason L. Mammone, P.E., Director of Engineering

DATE: May 30, 2019

SUBJECT: Traffic Calming Request #2019-002 – Upland Road

Purpose

The Transportation Advisory Committee (TAC), at their 04/10/19 meeting, reviewed the traffic calming request form (#2019-002) submitted by Carlo Prisco of 95 Upland Road. Based upon the information provided in the form Mr. Prisco's concerns are the speed at which vehicles travel, high traffic volume, and volume of heavy commercial vehicles. The TAC determined that this request warranted an initial evaluation on Upland Road and requested that the Engineering Department investigate this matter. This report summarizes the findings of the Engineering Department.

Study Area

Upland Road

Upland Road is an east/west thickly settled residential through street with a pavement width of approximately 23 to 26 feet. Upland Road is approximately 1,300 feet (0.25 miles) in length extending from East Street to Sprague Street. There is one sidewalk that extends for the entire length of Upland Road, but is not continuous. The sidewalk exists on the south side of the road from Sprague Street to just beyond Hermaine Avenue and then continues on the north side of the road from Hermaine Avenue to East Street. Some of the residents utilize Upland Road for on-street parking.

The prima facie speed limit on all roadways within the study area is 25 mph. A prima facie speed limit is a default speed limit that applies when no other specific speed limit is posted. According to Massachusetts General Laws (MGL), Chapter 90, Section 17 & Section 17c; unless posted otherwise, your speed would not be reasonable and proper if a motor vehicle is operated in excess of:

- 20 mph in a school zone
- 25 mph in a thickly settled or business district
- 40 mph outside a thickly settled or business district
- 50 mph on a highway outside a thickly settled or business district

Observations (Speed, Volume & Classification)

The Town of Dedham utilized a tube counter to log the speed, volume and classification of vehicles during the period beginning May 6, 2019 and ending May 9, 2019. The tubes were installed across the roadway at Station 9+34 located in front of #79 Upland Road (See Attached Locus Map).

The combined average speed for both directions was found to be 26 mph for Upland Road. The combined 85th percentile speed for both directions was found to be 32 mph. The 85th percentile speed is the speed at or below which 85 percent of vehicles travel and is the national standard utilized to determine if the speed on a given roadway is in excess, at or below the speed limit. Based upon the data, the 85th percentile speed is 7 mph over the speed limit with approximately 57% of the vehicles driving at speeds greater than 25 mph and approximately 22% driving at speeds greater than 30 mph.

The volume of traffic expressed as average daily traffic (ADT) and the speed data collected for Upland Road is shown below in the following table:

Table 1 – Traffic Data Station 9+34

<i>Direction of Traffic</i>	<i>ADT</i>	<i>Peak Hour Volume</i>	<i>Peak Volume Time</i>	<i>Speed Limit</i>	<i>85th Percentile Speed</i>	<i>Average Speed</i>
Westbound	446 (73%)	40	3 - 4 pm	25 mph ^a	31 mph	26 mph
Eastbound	168 (27%)	23	7 - 8 am	25 mph ^a	32 mph	25 mph
Combined	614	55	3 - 4 pm	25 mph ^a	32 mph	26 mph

^a – Prima Facie Speed Limit

The primary direction for cut through traffic is from vehicles heading north on Sprague Street and turning left onto Upland Road traveling westbound through to East Street. The most likely reason for the cut through traffic is to avoid the traffic built up on Sprague Street trying to enter the Endicott roundabout to get onto East Street.

Upland Road does not experience a higher than normal volume of vehicles. The observed ADT of 614 vehicles per day (VPD) is similar to those residential streets in Dedham with similar characteristics. Over the past few years, the Engineering Department has also performed traffic studies for Taylor Avenue (525 VPD) and Greenwood Avenue (398 VPD). These roadways are also utilized as a cut-through for traffic trying to avoid the Endicott roundabout. These neighborhoods however has a smaller residential density as compared to the Upland Road neighborhood.

The volume of heavy commercial vehicles for Upland Road is shown below in the following table:

Table 2 – Heavy Commercial Vehicles Station 9+34

<i>Direction of Traffic</i>	<i>ADT</i>	<i>Heavy Commercial Vehicle Pct. (Classes 5 thru 13)</i>	<i>2 Axle - 6 Tire Pct. (Class 5)</i>	<i>Class 6 and Greater Pct.</i>
Westbound	446	7.4	6.7	0.7
Eastbound	168	4.7	4.6	0.1
Combined	614	6.7	6.1	0.6

The Federal Highway Administration classifies vehicles into 13 classes. Classes 1 through 4 consists of vehicles such as motorcycles and passenger cars. Classes 5 through 13 are all considered heavy commercial vehicles ranging from two axle, six tire single units (Class 5) to seven or more axle, multi-trailer units (Class 13). The largest class vehicle observed on Upland Road during the time of the study was Class 9 (5-Axle tractor semitrailer). There was one Class 9 vehicle observed.

When considering a public roadway for a Heavy Commercial Vehicle Exclusion, typically Class 5 vehicles are not included in the analysis since they are usually comprised of delivery and service vehicles (i.e. FedEx, UPS, Uhaul, Furniture trucks, etc.) which need access for the purposes of making deliveries of goods, materials or merchandise on these roadways.

The State follows the Massachusetts Amendments to the 2009 Manual on Uniform Traffic Control Devices (MUTCD) when establishing a Heavy Commercial Vehicle Exclusion. A roadway must meet certain warrants to be considered for an exclusion, the most important being that the volume of heavy commercial vehicles be greater than 5% of the total daily traffic. Based upon the data above, less than 1% of the total daily traffic on Upland Road consists of Class 6 or greater vehicles.

Crash Data (Traffic Collisions)

The Engineering Department analyzed crash data utilizing the most recent 2016-2019 data available from the Dedham Police Department to determine if the subject area was experiencing a higher than normal rate of accidents.

Table 3 – Crash Data

<i>Road</i>	<i>Total # of Crashes</i>	<i>Crashes Per Year</i>
Upland Road	1	0.3

The one crash report was due to icy road conditions. The one crash also did not involve a pedestrian and/or bicyclist. Based upon this data, there are no overriding roadway geometric safety issues.

GIS Data (Pedestrian Generators & Residential Density)

The Engineering Department utilized our latest Geographic Information System (GIS) data to collect the types of pedestrian generators and determine the residential density located within a 1,000 foot buffer of the study area.

Pedestrian generators are those facilities that are considered points of interest that pedestrians travel to, such as parks, community centers, Town/neighborhood centers, libraries, public transit stations, churches and public schools. Based upon the available data, there is one pedestrian generator (St. Luke’s Church) within the 1,000 foot buffer area.

Based upon the available data, the 1,000 foot buffer area has approximately 2 Two-Family Dwellings, 406 Single-Family Dwellings and 60 Condo Units.

Scoring

According to the latest version of the Town’s Traffic Calming Policy, for a roadway to qualify for traditional traffic calming measures, the petitioned roadway must score more than 50 points utilizing the scores calculated from the 6 criteria including; Speed, Volume, Pedestrian Route, Traffic Collisions, Pedestrian Generators and Residential Density. The table below summarizes the scoring for each criterion.

Table 4 - Scoring

<i>Criteria</i>	<i>Score (Upland Road)</i>
Speed – Based upon how many mph the combined 85 th percentile speed is over the speed limit. 2 points awarded for each mph over the speed limit from 1 to 5 mph over the speed limit and 4 points awarded for each mph over the speed limit starting at 6 mph and greater over the speed limit	18
Volume – 1 point awarded for every 100 vehicles of average daily traffic (ADT)	6
Pedestrian Route – 10 points awarded if no continuous sidewalk exist on both sides of the roadway or 5 points awarded if there is only a continuous sidewalk on one side of the roadway	10
Traffic Collisions – 2 points awarded for each preventable collision in a 3 year period that occurred along the subject roadway. 8 points awarded if a collision involved a pedestrian or bicyclist.	0
Pedestrian Generators – 3 points awarded for every park, community center, library, public transit station or church located within 1,000 feet of the subject roadway. 10 points awarded for each public school within 1,000 feet of the subject roadway	3
Residential Density – 1 point awarded for every 50 dwelling units within 1,000 feet of the subject roadway	9
TOTAL SCORE	46

Conclusion

Traditional traffic calming measures are not recommended for Upland Road since it did not score greater than 50 points based upon the criterion listed in Table 4 above.

Although Upland Road is not recommended for traditional traffic calming measures, the collected data did show that there is a speeding issue present on Upland Road. It is recommended that the Police Department perform sporadic traffic enforcement on Upland Road to mitigate the speeding that occurs along this roadway. Utilizing the data collected, the best times for enforcement during the work week would be from 6 to 9 AM in the morning and

from 2 to 5 PM in the afternoon. The neighborhood could also reach out to the Police Department to see if they can place their mobile “Your Speed Is” indicator sign on Upland Road Avenue a couple of times throughout the year.

As discussed earlier, Upland Road does not have a continuous sidewalk on either side of the roadway that extends the full length of the roadway, but rather partial sidewalks on both sides of the street extending the full length of the roadway. The sidewalk on Upland Road terminates on both sides of the roadway at its intersection with Hermaine Avenue. Although there has not been any pedestrian accidents, it does not mean an improvement can be made to increase pedestrian safety for those that need to cross Upland Road to gain access to the sidewalk on either side of the road. The Engineering Department recommends the installation of a marked crosswalk across Upland Road including access ramps at the intersection of Hermaine Avenue. The marked crosswalk would also include the appropriate signage (See attached Proposed Crosswalk map).

The Engineering Department would also like to offer the following low-cost traffic calming measures that could be utilized and/or taken on by the concerned residents and neighbors.

- Purchasing a Step2 Kid Alert Visual Warning System – These can be purchased at Toys R’ Us, Wal-Mart, Amazon.com and other similar retail and online stores for about \$25 to \$35. The Step2 Kid should be placed at the end of your driveway so it is visible to motorists. This should only be placed out during times when kids are actually outside playing in the yard. By having it out all the time, it will reduce its effectiveness. Studies have shown that when used properly, it usually aids in the reduction of vehicle speeds.



Photo of Step 2 Kid Alert

- Work with your neighbors to park your cars on either side of the street in a staggered fashion as to reduce the openness of the roadway while still allowing for the safe passage of emergency response vehicles (i.e. Police, Ambulance, Fire Engine). This measure physically narrows the roadway making the motorist slow down to negotiate by the parked vehicles.

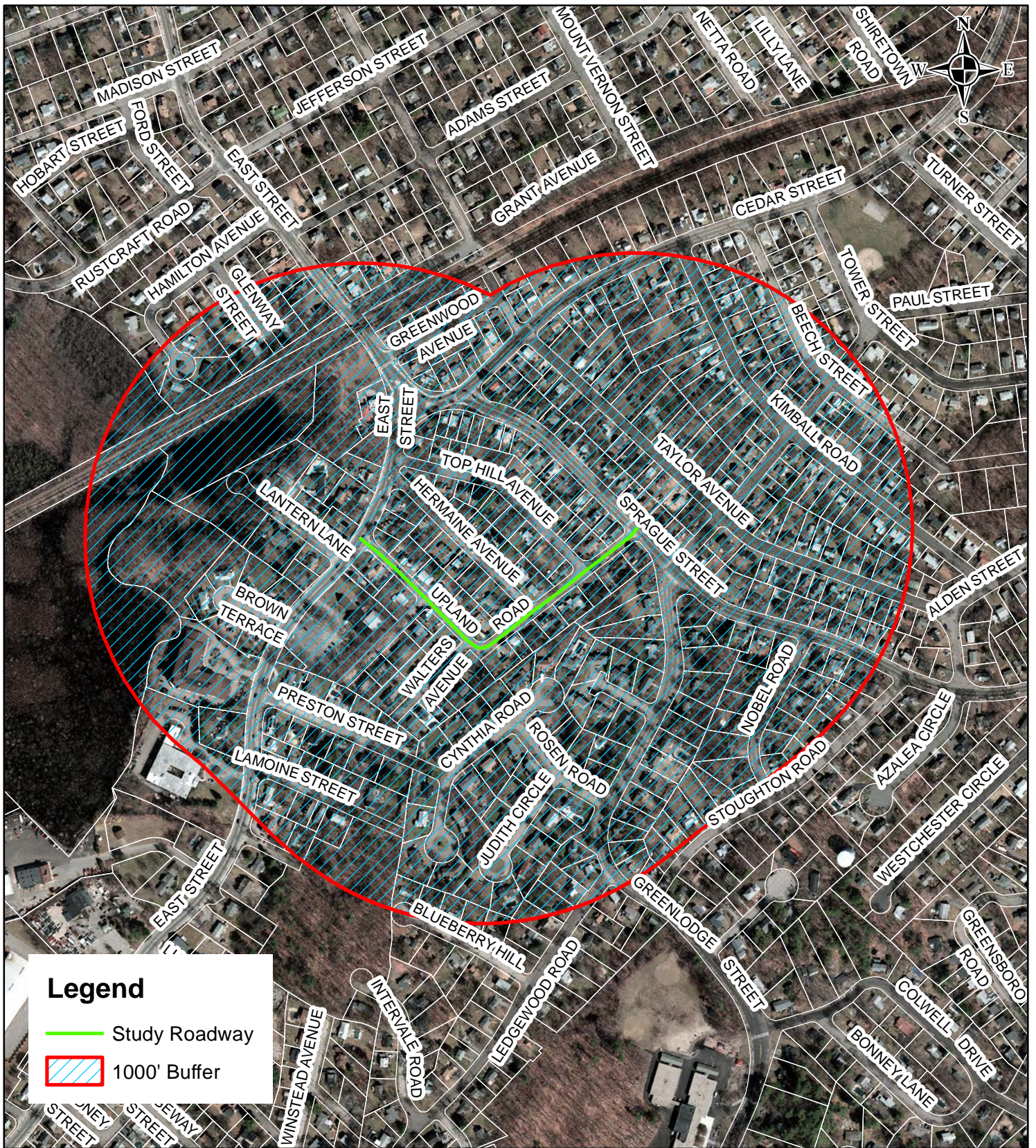
Cc: Board of Selectmen

Attachments: Upland Road Locus Map
Upland Road Neighborhood Locus Map
Combined Speed Statistics Report
Combined Vehicle Classification Report
FHWA Vehicle Classification Chart
Traffic Volume Report
Proposed Crosswalk Map





**UPLAND ROAD
REQUEST #2019-002
LOCUS MAP**





Legend

-  Study Roadway
-  1000' Buffer

**LOCUS MAP
UPLAND ROAD NEIGHBORHOOD
MAY 2019**



TOWN OF DEDHAM, MASSACHUSETTS



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Site Code:
Station ID: STA 9+34
Tubes install across the road at
STA 9+34 (79 Upland Rd)
Latitude: 0' 0.0000 Undefined

COMBINED

Report for 5/6/2019 12:00:00 PM to 5/9/2019 1:59:59 PM

SPEED STATISTICS - 15 to 70+ by 5 MPH

Speed in MPH	1 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	51 - 55	56 - 60	61 - 65	66 - 70	71 - 75	76 - 999
Count	100	200	498	677	350	81	3	1	0	0	0	0	0	0
Percent	5.2	10.5	26.1	35.4	18.3	4.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0

Over Speed	15	20	25	30	35	40	45	50	55	60	65	70	75	999
Count	1810	1610	1112	435	85	4	1	0	0	0	0	0	0	0
Percent	94.8	84.3	58.2	22.8	4.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Percentile	5%	10%	15%	45%	50%	55%	85%	90%	95%
Speed	15	18	20	26	27	27	32	33	35

Average 26
(Mean)

Pace Speed 22-31
Number in 1208
Pace
Percent in 63.2
Pace



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COMBINED

Speed	Volume
4	3
5	1
6	2
7	6
8	7
9	7
10	4
11	7
12	8
13	16
14	16
15	23
16	33
17	30
18	31
19	53
20	53
21	80
22	98
23	95
24	103
25	122
26	135
27	132
28	152
29	140
30	118
31	113
32	85
33	73
34	47
35	32
36	29
37	19
38	14
39	15
40	4
41	2
42	0
43	1
44	0
45	0
46	0
47	0
48	0
49	0
50	1



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Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/06/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	0	19	7	0	3	0	0	0	0	0	0	0	0	1	30
13:00	1	34	8	0	2	0	0	0	0	0	0	0	0	1	46
14:00	1	41	7	1	1	0	0	0	0	0	0	0	0	2	53
15:00	1	47	10	2	0	2	0	0	0	0	0	0	0	0	62
16:00	0	36	5	0	4	0	0	0	0	0	0	0	0	0	45
17:00	0	31	7	0	1	0	0	0	0	0	0	0	0	0	39
18:00	0	25	4	0	0	0	0	0	0	0	0	0	0	0	29
19:00	0	26	3	0	1	0	0	0	0	0	0	0	0	0	30
20:00	0	8	0	0	1	0	0	0	0	0	0	0	0	0	9
21:00	0	7	0	0	0	0	0	0	0	0	0	0	0	3	10
22:00	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
23:00	0	4	3	0	0	0	0	0	0	0	0	0	0	0	7
Total	3	283	55	3	13	2	0	0	0	0	0	0	0	7	366
Percent	0.8%	77.3%	15.0%	0.8%	3.6%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	
AM Peak Vol.															
PM Peak Vol.	13:00 1	15:00 47	15:00 10	15:00 2	16:00 4	15:00 2								21:00 3	



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05/07/19	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	3	2	0	0	0	0	0	0	0	0	0	0	1	6
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	8	1	0	0	0	0	0	0	0	0	0	0	1	10
06:00	1	21	3	1	2	0	0	0	0	0	0	0	0	1	29
07:00	1	31	10	0	4	0	0	0	0	0	0	0	0	0	46
08:00	0	31	9	0	2	0	0	1	0	0	0	0	0	0	43
09:00	0	25	8	0	4	0	0	0	0	0	0	0	0	0	37
10:00	0	21	4	0	1	0	0	0	0	0	0	0	0	0	26
11:00	0	32	7	1	2	0	0	0	0	0	0	0	0	1	43
12 PM	1	32	10	1	2	0	0	0	0	0	0	0	0	3	49
13:00	0	27	10	1	3	1	0	0	0	0	0	0	0	2	44
14:00	0	32	8	1	3	1	0	0	0	0	0	0	0	0	45
15:00	0	32	7	1	5	1	0	0	1	0	0	0	0	2	49
16:00	1	48	2	0	0	0	0	0	0	0	0	0	0	0	51
17:00	1	31	8	0	0	0	0	0	0	0	0	0	0	0	40
18:00	0	24	4	0	3	0	0	0	0	0	0	0	0	0	31
19:00	0	15	3	0	0	0	0	0	0	0	0	0	0	0	18
20:00	0	17	2	0	0	0	0	0	0	0	0	0	0	0	19
21:00	0	10	2	0	1	0	0	0	0	0	0	0	0	0	13
22:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
23:00	0	8	1	0	1	0	0	0	0	0	0	0	0	0	10
Total	5	461	102	6	33	3	0	1	1	0	0	0	0	11	623
Percent	0.8%	74.0%	16.4%	1.0%	5.3%	0.5%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	1.8%	
AM Peak	06:00	11:00	07:00	06:00	07:00			08:00						03:00	
Vol.	1	32	10	1	4			1						1	
PM Peak	12:00	16:00	12:00	12:00	15:00	13:00			15:00					12:00	
Vol.	1	48	10	1	5	1			1					3	



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05/08/19	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	10	3	1	2	0	0	0	0	0	0	0	0	0	17
06:00	0	21	3	1	3	0	0	0	0	0	0	0	0	0	28
07:00	1	35	8	0	1	0	0	0	0	0	0	0	0	2	47
08:00	0	35	7	1	3	0	0	0	0	0	0	0	0	0	46
09:00	0	22	3	0	4	0	0	0	0	0	0	0	0	0	29
10:00	0	27	7	2	6	1	0	0	0	0	0	0	0	1	44
11:00	0	22	4	1	3	0	0	0	0	0	0	0	0	0	30
12 PM	1	25	8	0	2	0	0	0	0	0	0	0	0	3	39
13:00	0	33	11	0	3	0	0	0	0	0	0	0	0	2	49
14:00	0	34	6	1	7	0	0	0	0	0	0	0	0	0	48
15:00	1	39	10	2	3	0	0	0	0	0	0	0	0	0	55
16:00	0	34	2	0	1	0	0	0	0	0	0	0	0	0	37
17:00	0	38	8	0	2	0	0	0	0	0	0	0	0	0	48
18:00	0	31	4	0	2	0	0	0	0	0	0	0	0	0	37
19:00	0	19	5	0	0	0	0	0	0	0	0	0	0	0	24
20:00	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10
21:00	0	12	0	0	0	0	0	0	0	0	0	0	0	0	12
22:00	0	7	1	0	0	0	0	0	0	0	0	0	0	0	8
23:00	0	8	2	0	0	0	0	0	0	0	0	0	0	0	10
Total	4	468	93	9	42	1	0	0	0	0	0	0	0	8	625
Percent	0.6%	74.9%	14.9%	1.4%	6.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	
AM Peak	05:00	07:00	07:00	10:00	10:00	10:00								07:00	
Vol.	1	35	8	2	6	1								2	
PM Peak	12:00	15:00	13:00	15:00	14:00									12:00	
Vol.	1	39	11	2	7									3	



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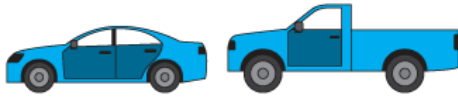
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/09/19	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	9	3	0	0	0	0	0	0	0	0	0	0	1	13
06:00	0	22	1	1	1	0	0	0	0	0	0	0	0	0	25
07:00	1	32	8	0	2	1	0	1	0	0	0	0	0	1	46
08:00	0	21	7	0	2	0	0	0	0	0	0	0	0	1	31
09:00	0	17	3	0	5	0	0	0	0	0	0	0	0	0	25
10:00	0	21	4	1	2	0	0	0	0	0	0	0	0	2	30
11:00	0	27	9	0	0	0	0	1	0	0	0	0	0	0	37
12 PM	2	28	6	0	8	0	0	0	0	0	0	0	0	2	46
13:00	0	35	13	2	10	0	0	1	0	0	0	0	0	2	63
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	3	218	55	4	30	1	0	3	0	0	0	0	0	9	323
Percent	0.9%	67.5%	17.0%	1.2%	9.3%	0.3%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	
AM Peak	07:00	07:00	11:00	06:00	09:00	07:00		07:00						10:00	
Vol.	1	32	9	1	5	1		1						2	
PM Peak	12:00	13:00	13:00	13:00	13:00			13:00						12:00	
Vol.	2	35	13	2	10			1						2	
Grand Total	15	1430	305	22	118	7	0	4	1	0	0	0	0	35	1937
Percent	0.8%	73.8%	15.7%	1.1%	6.1%	0.4%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	1.8%	

FHWA Vehicle Classifications

1. Motorcycles
2 axles, 2 or 3 tires



2. Passenger Cars
2 axles, can have 1- or 2-axle trailers



3. Pickups, Panels, Vans
2 axles, 4-tire single units
Can have 1 or 2 axle trailers



4. Buses
2 or 3 axles, full length



5. Single Unit 2-Axle Trucks
2 axles, 6 tires (dual rear tires), single-unit



6. Single Unit 3-Axle Trucks
3 axles, single unit



7. Single Unit 4 or More-Axle Trucks
4 or more axles, single unit



8. Single Trailer 3- or 4-Axle Trucks
3 or 4 axles, single trailer



9. Single Trailer 5-Axle Trucks
5 axles, single trailer



10. Single Trailer 6 or More-Axle Trucks
6 or more axles, single trailer



11. Multi-Trailer 5 or Less-Axle Trucks
5 or less axles, multiple trailers

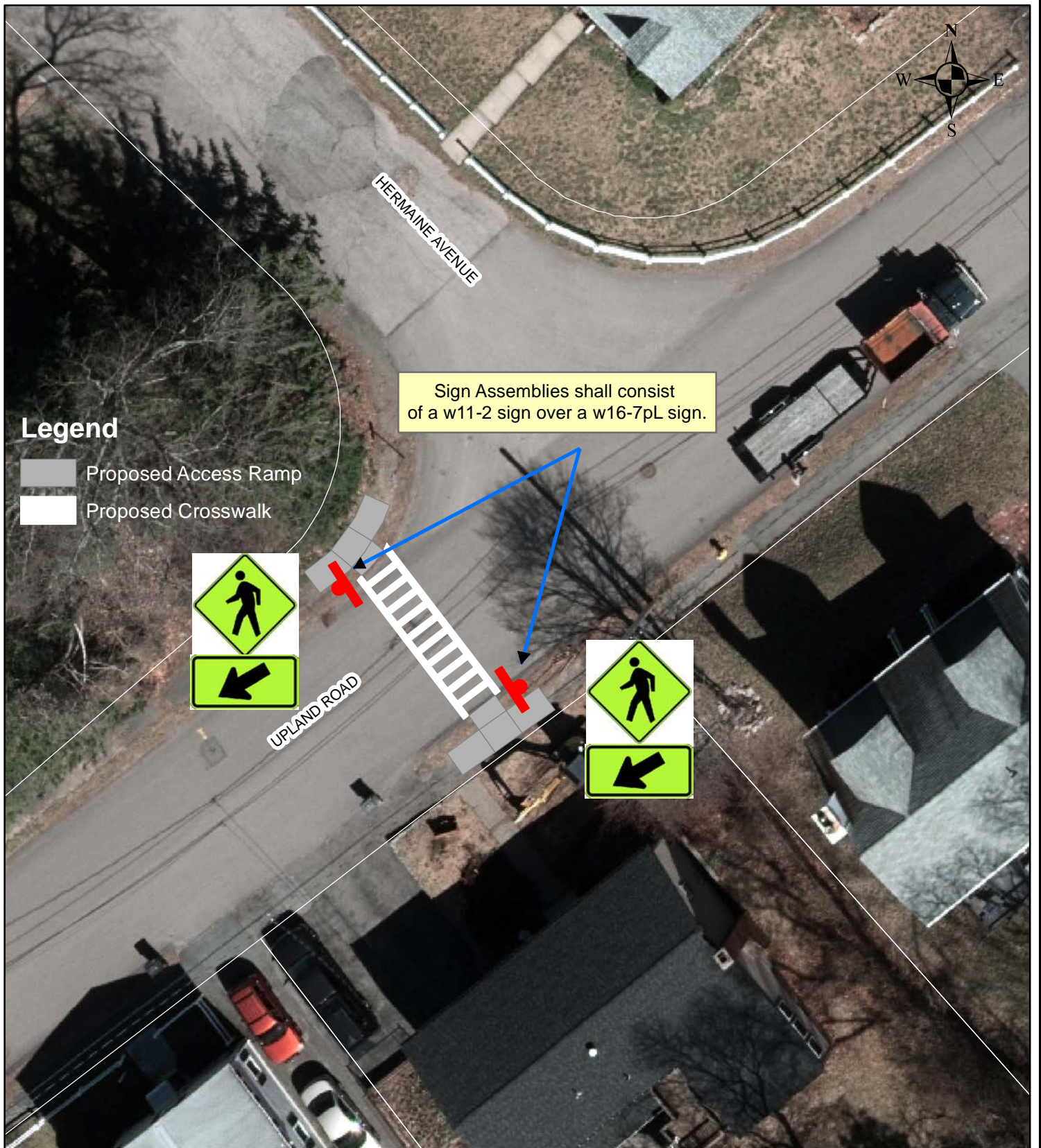


12. Multi-Trailer 6-Axle Trucks
6 axles, multiple trailers



13. Multi-Trailer 7 or More-Axle Trucks
7 or more axles, multiple trailers





Legend

- Proposed Access Ramp
- Proposed Crosswalk

Sign Assemblies shall consist of a w11-2 sign over a w16-7pL sign.



**TCR #2019-002
UPLAND ROAD
PROPOSED CROSSWALK**

