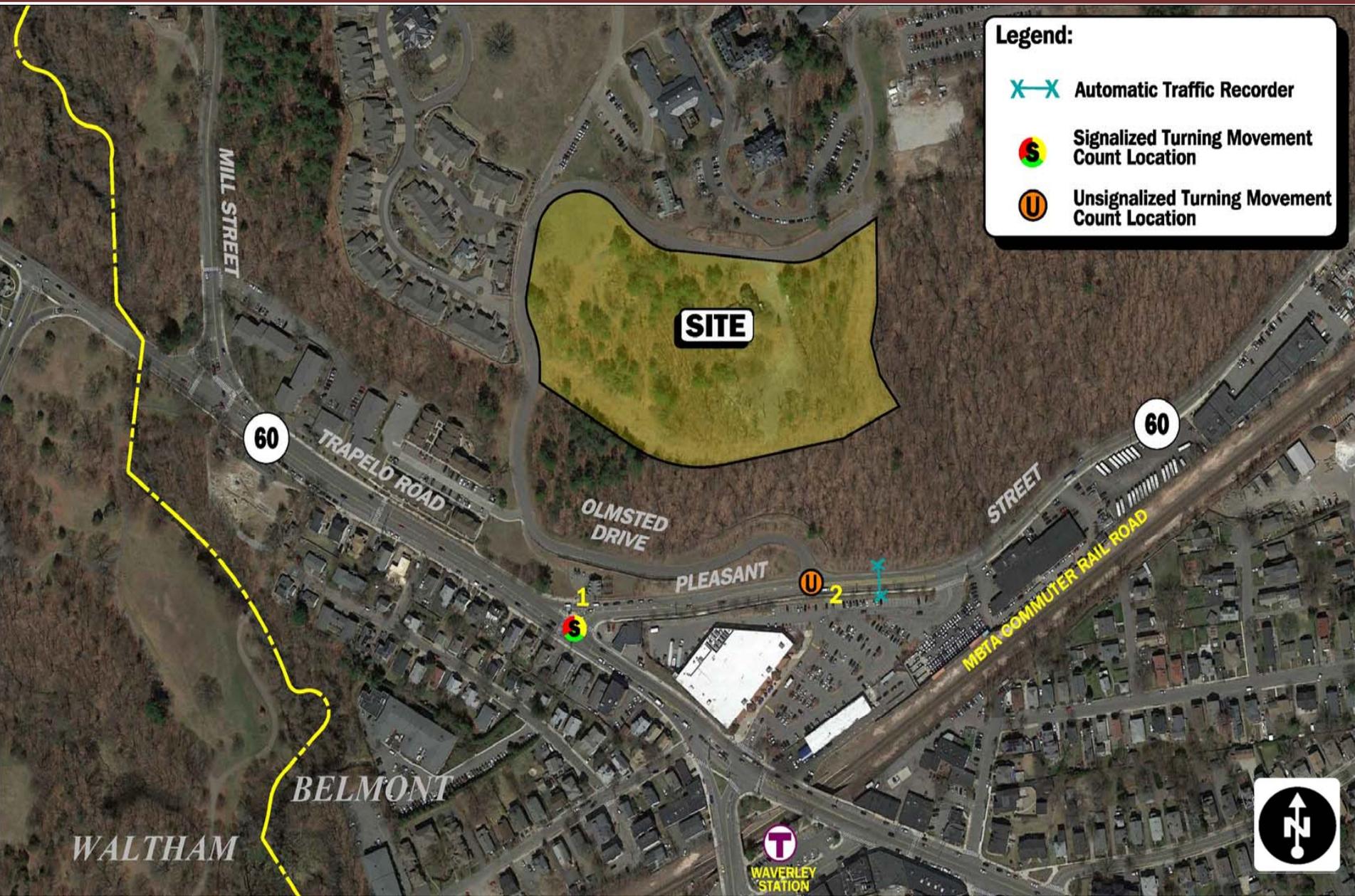


# The Residences at Bel Mont

September 21, 2021



# Study Area



# Existing Condition

## EXISTING ROADWAY TRAFFIC-VOLUME SUMMARY

Location	Daily Volume (vpd) <sup>a</sup>	Weekday Morning Peak Hour (7:30– 8:30 AM)			Weekday Evening Peak Hour (4:30 – 5:30 PM)		
		Volume (vph) <sup>b</sup>	Percent of Daily Traffic <sup>c</sup>	Predominant Flow	Volume (vph)	Percent of Daily Traffic	Predominant Flow
Pleasant Street east of Olmsted Drive	12,175	949	7.8	52% WB	1,148	9.4	52% WB

## MOTOR VEHICLE CRASH DATA SUMMARY<sup>a</sup>

Scenario	Trapelo Road at Pleasant Street (Signalized)	Pleasant Street at Olmsted Drive (Unsignalized)
<b>Total</b>	<b>49</b>	<b>1</b>
<b>All intersections below MassDOT average crash rates</b>		

<sup>a</sup>Source: MassDOT, 2013 through 2017.

## VEHICLE TRAVEL SPEED MEASUREMENTS

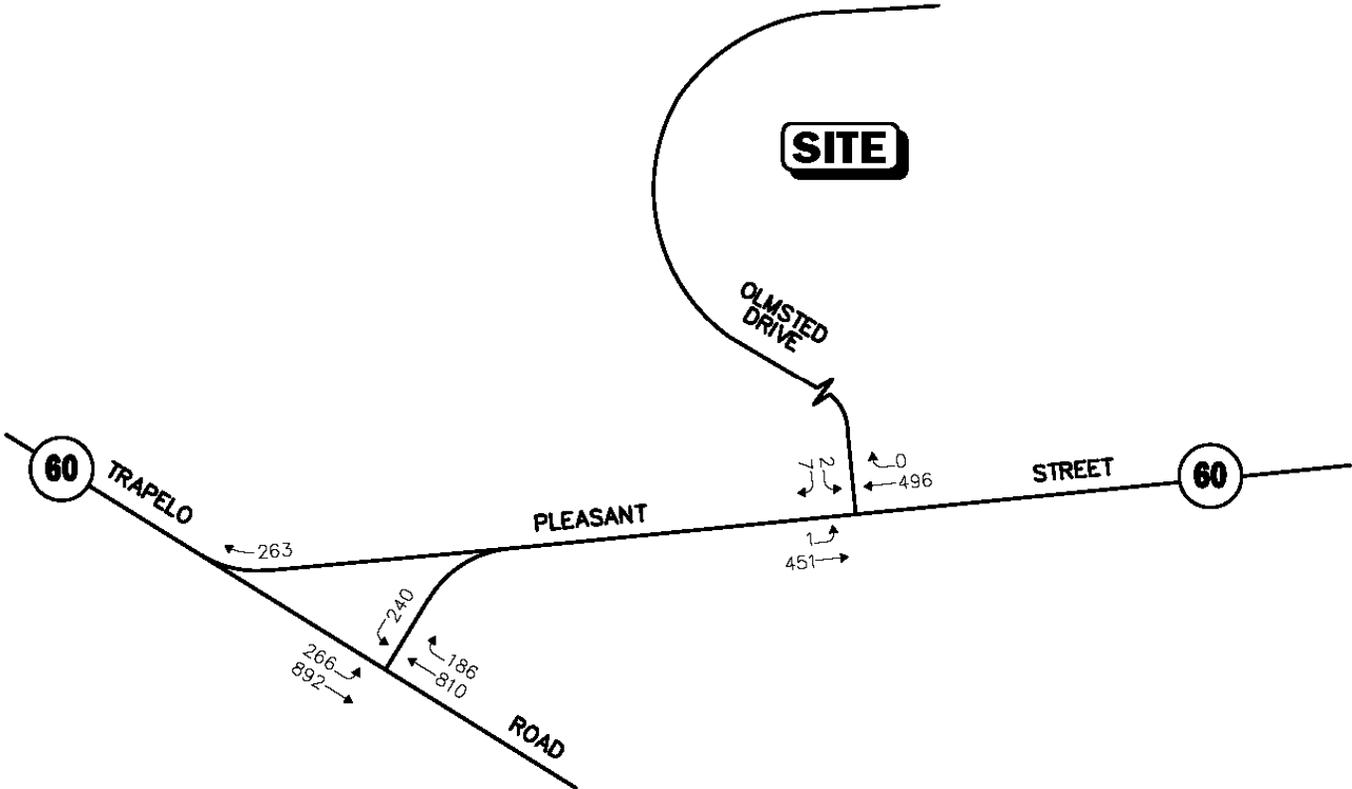
	Pleasant Street Eastbound	Pleasant Street Westbound
Mean Travel Speed (mph)	31	31
85 <sup>th</sup> Percentile Speed (mph)	34	34
Speed Limit (mph)	--	--

## PUBLIC TRANSPORTATION

- Commuter rail service
- Local bus service

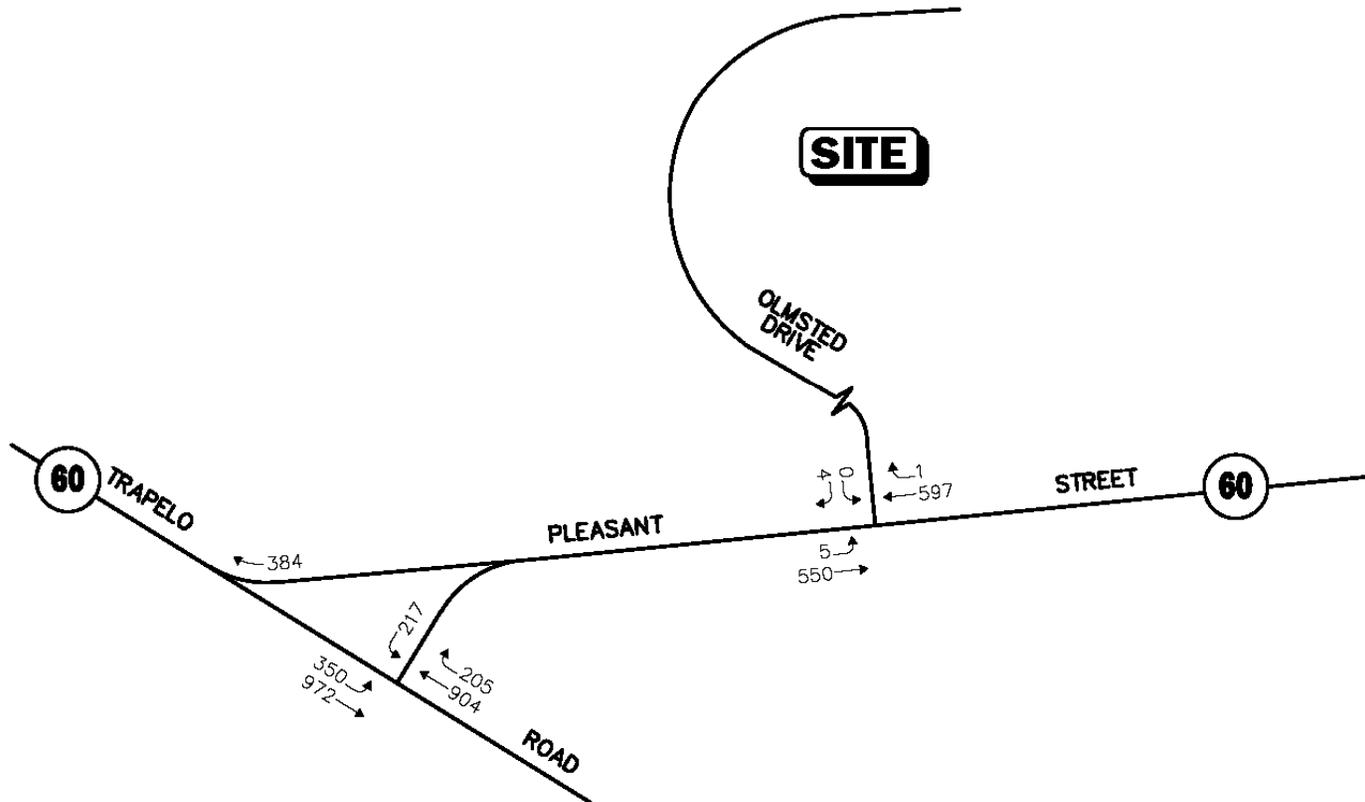
# 2021 Existing Traffic Volumes

WEEKDAY MORNING PEAK HOUR (7:30 - 8:30 AM)



# 2021 Existing Traffic Volumes

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



# Trip Generation Summary

Time Period/Direction	ITE Senior Housing			ITE Multifamily Housing				Total New trips (150 units)
	(93 Units) <sup>a</sup>	Transit Reduction Trips (5%)	Total	(57 Units) <sup>b</sup>	Transit Reduction Trips (10%)	Total	TOTAL	
<b>Average Weekday</b>	348.49	17.42	331.07	308.90	30.89	278.01	609.08	610
<b>Weekday Morning Peak Hour:</b>								
<b>Entering</b>	6.45	0.32	6.13	5.34	0.53	4.81	10.94	11
<b>Exiting</b>	<u>11.97</u>	<u>0.60</u>	<u>11.37</u>	<u>15.18</u>	<u>1.52</u>	<u>13.66</u>	<u>25.03</u>	<u>25</u>
<b>Total</b>	18.42	0.92	17.50	20.52	2.05	18.47	35.97	36
<b>Weekday Evening Peak Hour:</b>								
<b>Entering</b>	13.27	0.66	12.61	15.30	1.53	13.77	26.38	26
<b>Exiting</b>	<u>11.31</u>	<u>0.57</u>	<u>10.74</u>	<u>9.78</u>	<u>0.98</u>	<u>8.80</u>	<u>19.54</u>	<u>20</u>
<b>Total</b>	24.58	1.23	23.35	25.08	2.51	22.57	45.92	46

<sup>a</sup>Based on ITE LUC 252, *Senior Adult Housing*.

<sup>b</sup>Based on ITE LUC 221, *Multifamily Housing (Mid-rise)*.

# Project Trip-TMMA Limit Comparison

Traffic Mitigation and Monitoring Agreement (TMMA) dated November of 1999.

<b>Time Period/ Direction</b>	<b>TMMA Limits (Vehicle Trips)</b>	<b>Proposed 150 Housing Units (Vehicle Trips)</b>
<b>Average Weekday</b>	1,148	610
<b>Weekday Morning Peak Hour</b>	36	36
<b>Weekday Evening Peak Hour</b>	92	46

# Trip Generation Summary (Updated)

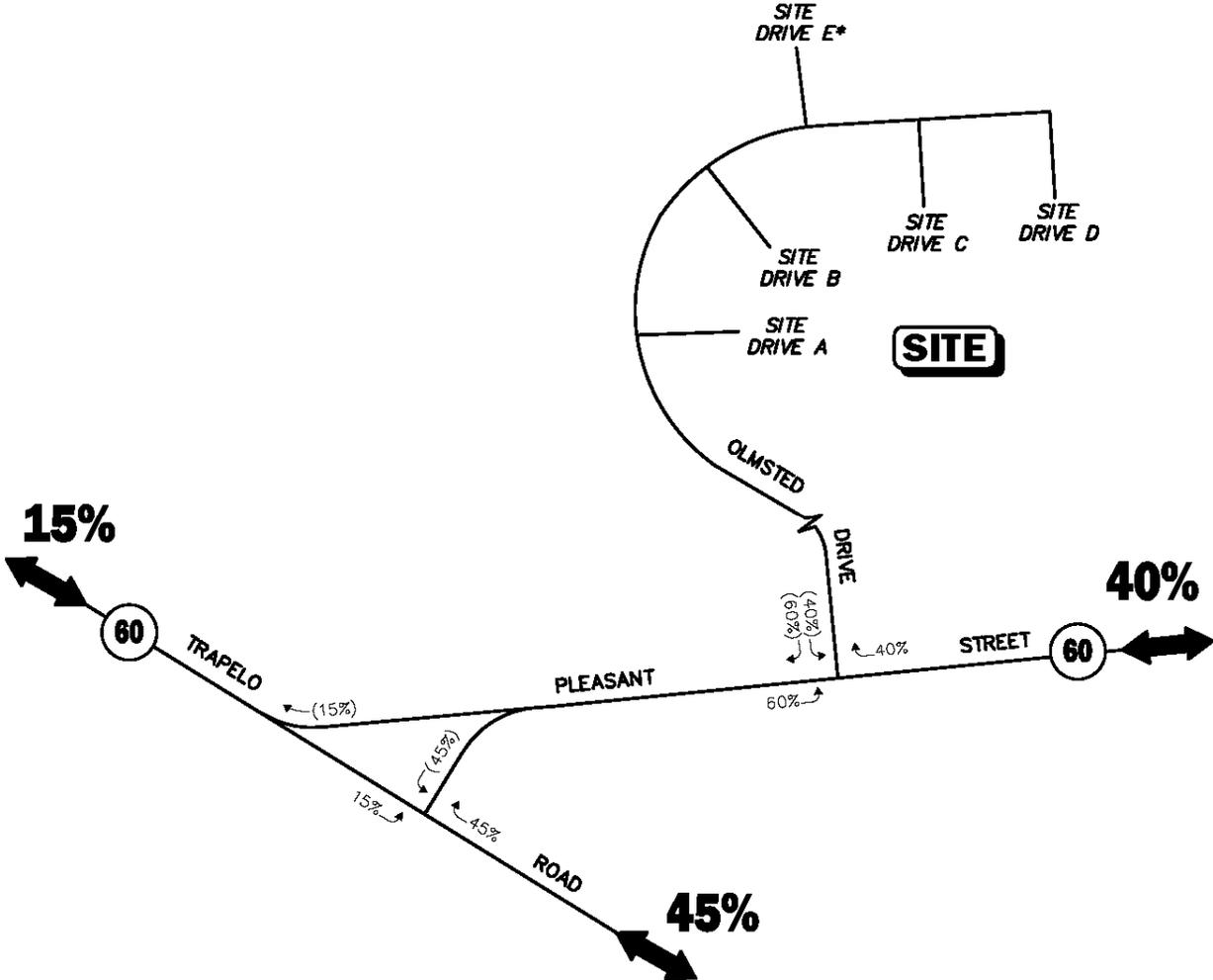
## Added two units at the Chapel Building (152 total units)

Time Period/Direction	ITE Senior Housing			ITE Multifamily Housing			Total New trips (152 units)	TMMA <sup>c</sup>
	(93 Units) <sup>a</sup>	Transit Reduction Trips (5%)	Total	(59 Units) <sup>b</sup>	Transit Reduction Trips (10%)	Total		
<b>Average Weekday</b>	348.49	17.42	331.07	319.80	31.98	287.82	618.89	1,148
<b>Weekday Morning Peak Hour:</b>								
<b>Entering</b>	6.45	0.32	6.13	5.52	0.55	4.97	11.1	
<b>Exiting</b>	<u>11.97</u>	<u>0.60</u>	<u>11.37</u>	<u>15.72</u>	<u>1.57</u>	<u>14.15</u>	<u>25.52</u>	
<b>Total</b>	18.42	0.92	17.50	21.24	2.12	19.12	36.62	36
<b>Weekday Evening Peak Hour:</b>								
<b>Entering</b>	13.27	0.66	12.61	15.84	1.58	14.26	26.87	
<b>Exiting</b>	<u>11.31</u>	<u>0.57</u>	<u>10.74</u>	<u>10.12</u>	<u>1.01</u>	<u>9.11</u>	<u>19.85</u>	
<b>Total</b>	24.58	1.23	23.35	25.96	2.59	23.37	46.72	92

<sup>a</sup>Based on ITE LUC 252, *Senior Adult Housing*.

<sup>b</sup>Based on ITE LUC 221, *Multifamily Housing (MidRise)*.

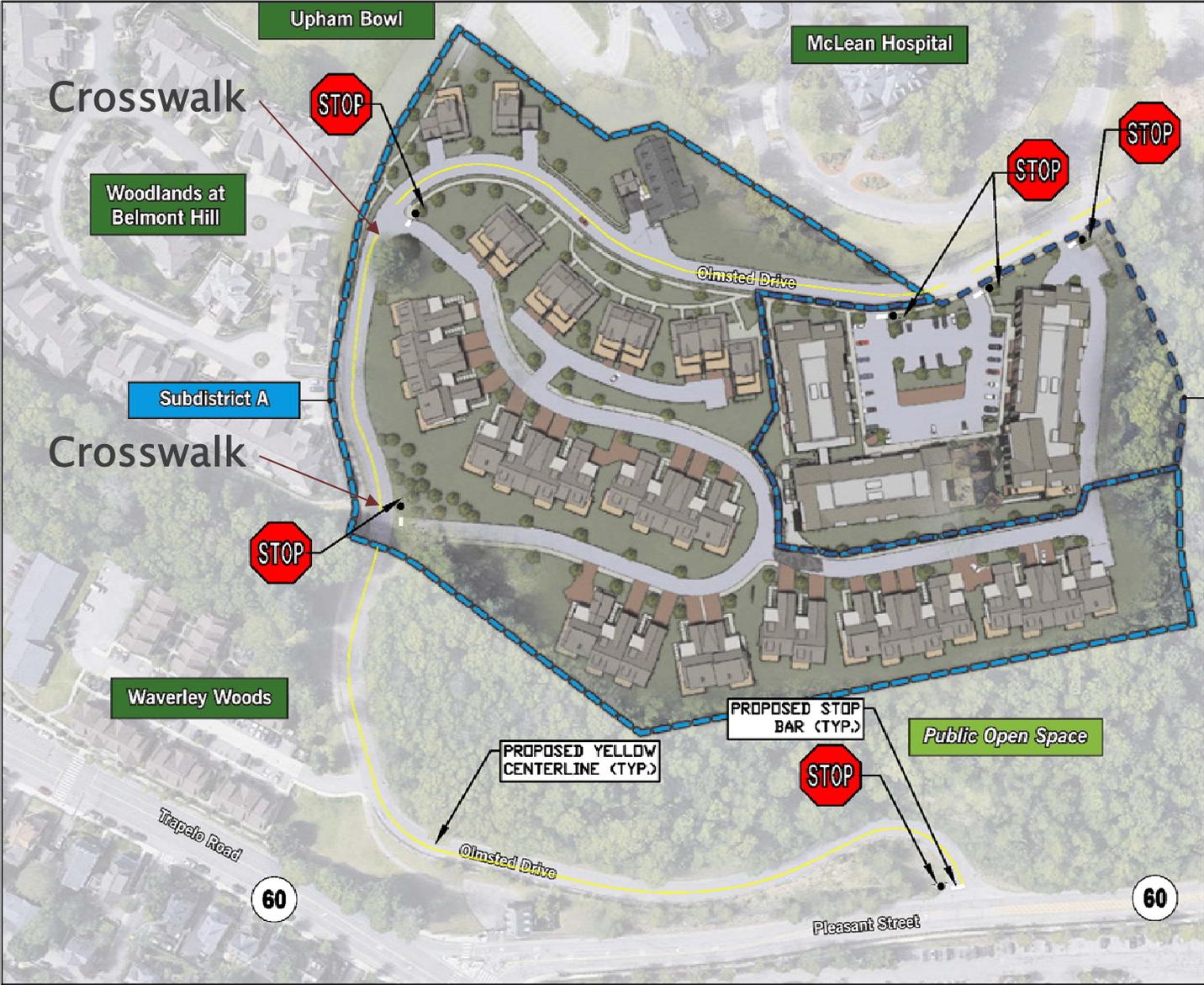
# Trip Distribution Summary



# Signal Warrant Analysis

Warrant No.	Description	Satisfied for 2021 Existing Conditions	Satisfied for 2028 No-Build Conditions	Satisfied for 2028 Build Conditions w/Zone 3
1	Eight-Hour Vehicular Volume			
	Condition A – Min. Vehicular Volume	No	No	No
	Condition B – Interruption of Continuous Traffic	No	No	No
2	Four-Hour Vehicular Volume	No	No	No
3	Peak Hour	No	No	No
4	Pedestrian Volume	No	No	No
5	School Crossing	No	No	No
6	Coordinated Signal System	No	No	No
7	Crash Experience	No	No	No
8	Roadway Network	No	No	No
9	Grade Crossing	No	No	No

# Conceptual Improvement Plan



# Recommendations

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## *Site Access:*

- Improved Olmsted Drive through striping of travel lanes, centerline, and crosswalks
- Stop control at driveways

## *Off-Site Improvements*

- Olmsted Drive at Pleasant Streets/STOP control

## *Transportation Demand Management:*

- On-Site Transportation Coordinator
- Provide secure weather-protected Resident and outdoor Visitor bike racks
- “Welcome” transportation options packet provided to new residents
- Access to real-time public transportation and rideshare schedules for residents
- Car/vanpool resources identification for residents

# Recommendations

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## *TMMA-Traffic Monitoring Agreement*

- A “Weekly Sampling Report”
- TDM plan shall be submitted within six months after the issuance of a building permit

# Conclusions

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- Project meets TMMA limits
- No Traffic Signal Warrant met
- Safe access and egress provided
- Minimal impact as required by TMMA