

Traffic Assessment

- Responses to Comment Areas from February 4, 2021 Planning Board Meeting
 - Use of ITE Data
 - Trip Projections
 - Roadway Traffic Levels
 - Traffic Operations



Use of ITE Data

- Scenarios analyzed for traffic impacts:
 1. FDOT/Others Alternative Methodology; 800,000 sf.
 2. ITE LUC 150, Warehousing; 800,000 sf
 3. ITE LUC 150 Warehousing; 700,000 sf
 4. ITE LUC 130 Industrial Park; 700,000 sf
 5. ITE LUC 150 Warehousing; 1,500,000 sf
 6. ITE LUC 130 Industrial Park; 1,500,000 sf
- Industrial Park analyses requested by Town's Peer Consultant for two-phase Sensitivity Analysis
- *Town's Peer Consultant and MassDOT satisfied with analysis results*



Vehicle Trip Projections

- Park initially approved for 3,000,000 sf development
 - Office, R&D, industrial uses
 - MEPA filings forecasted between 17,904 and 36,900 daily trips for Park
- Current phase is for 800,000 sf, brings Park to 1,500,000 sf
 - Hopping Brook Traffic – 3,456 daily trips
 - Warehouse use – 1,310 daily trips
 - Park forecast of 4,766 daily trips (73% – 87% reduction from MEPA forecast above:
 - $(4766 - 17904) / 17904 = -0.734$ or 73% reduction
 - $(4766 - 36900) / 36900 = -0.871$ or 87% reduction
- *Decreasing rate of building area and traffic generation with fewer impacts and trips than initially proposed and approved.*



Roadway Traffic Levels

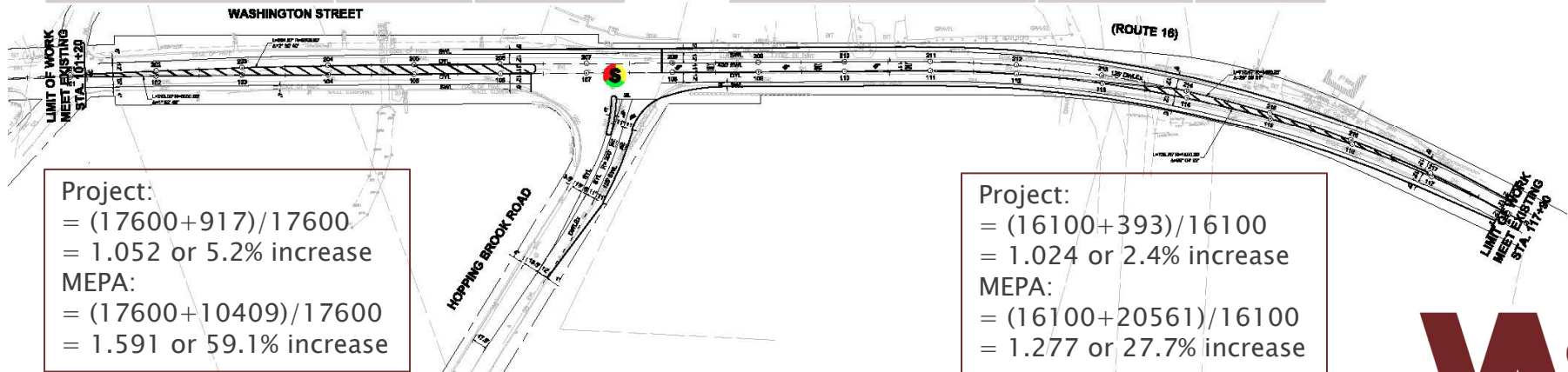
- Current phase of development represents a reduction in traffic from the approved and expected level of development.
- Results in a reduction in traffic increases on streets otherwise expected with the approved project.
- Washington Street traffic volumes, west and east of Hopping Brook Road due to the 800,000-sf warehouse phase and the MEPA-approved traffic levels:

Washington Street, West of Hopping Brook Road

Existing Volume, vpd	17,600	
	Project	MEPA
Change, vpd	917	10,409
New Volume, vpd	18,517	28,009
Change, %	5.2	59.1

Washington Street, East of Hopping Brook Road

Existing Volume, vpd	16,100	
	Project	MEPA
Change, vpd	393	4,461
New Volume, vpd	16,493	20,561
Change, %	2.4	27.7



Project:
 $= (17600+917)/17600$
 $= 1.052$ or 5.2% increase
 MEPA:
 $= (17600+10409)/17600$
 $= 1.591$ or 59.1% increase

Project:
 $= (16100+393)/16100$
 $= 1.024$ or 2.4% increase
 MEPA:
 $= (16100+20561)/16100$
 $= 1.277$ or 27.7% increase



Traffic Operations

- Comments on operations included traffic impacts from Project at other locations in town and driveways on Washington Street:
 - Project will be installing traffic signal at Hopping Brook Road that will provide gaps in Washington Street traffic.
 - There is a requirement from the state to perform an expanded traffic study looking at 12 intersections as part of the signal design. This study will address impacts from this phase and the full buildout of the Park.
 - This requirement as well as continuing traffic monitoring will provide additional opportunities for the state and Town to assess Project impacts.

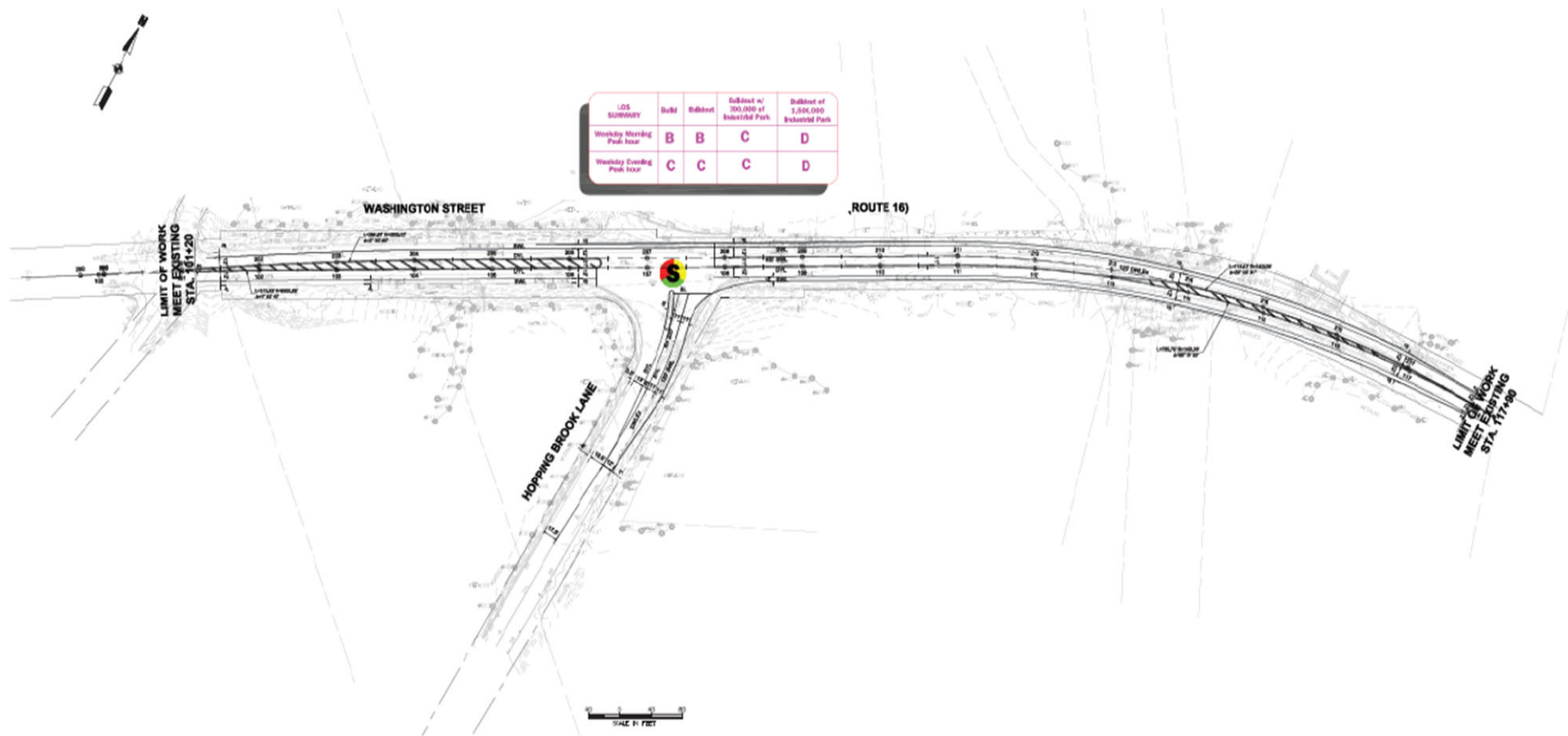


Mitigation

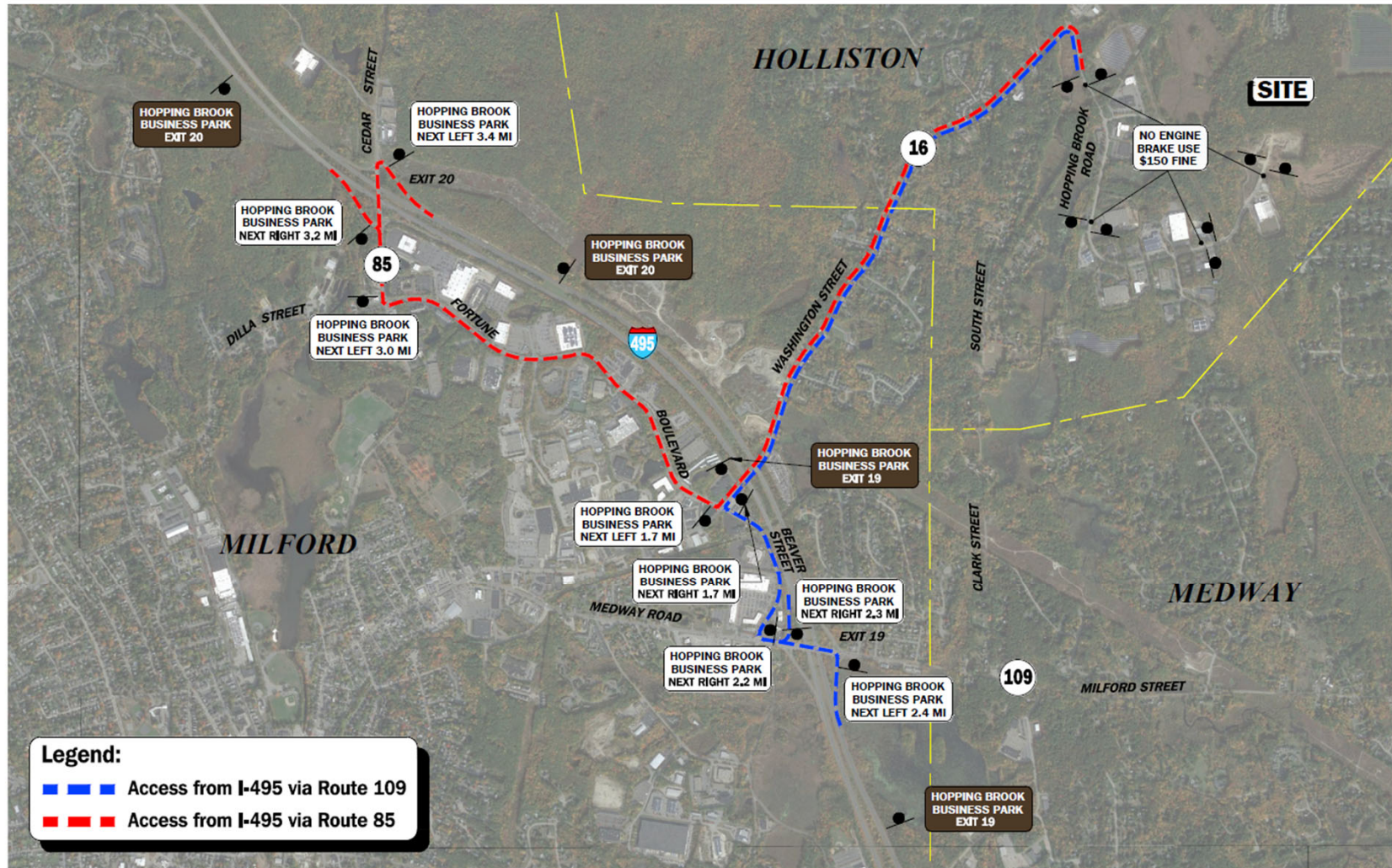
- The Applicant is proposing several measures to mitigate the impact of the Project:
 - Signalization of the Hopping Brook Road/Washington Street intersection
 - Wayfinding signage plan identifying the routes for Project traffic to use in traveling to and from the site
 - Traffic Monitoring Program
 - Trip Generation Counts of the site driveway
 - Traffic Compliance Counts of the Hopping Brook Road/Washington Street intersection
 - Traffic Compliance Counts of the South Street/Washington Street intersection



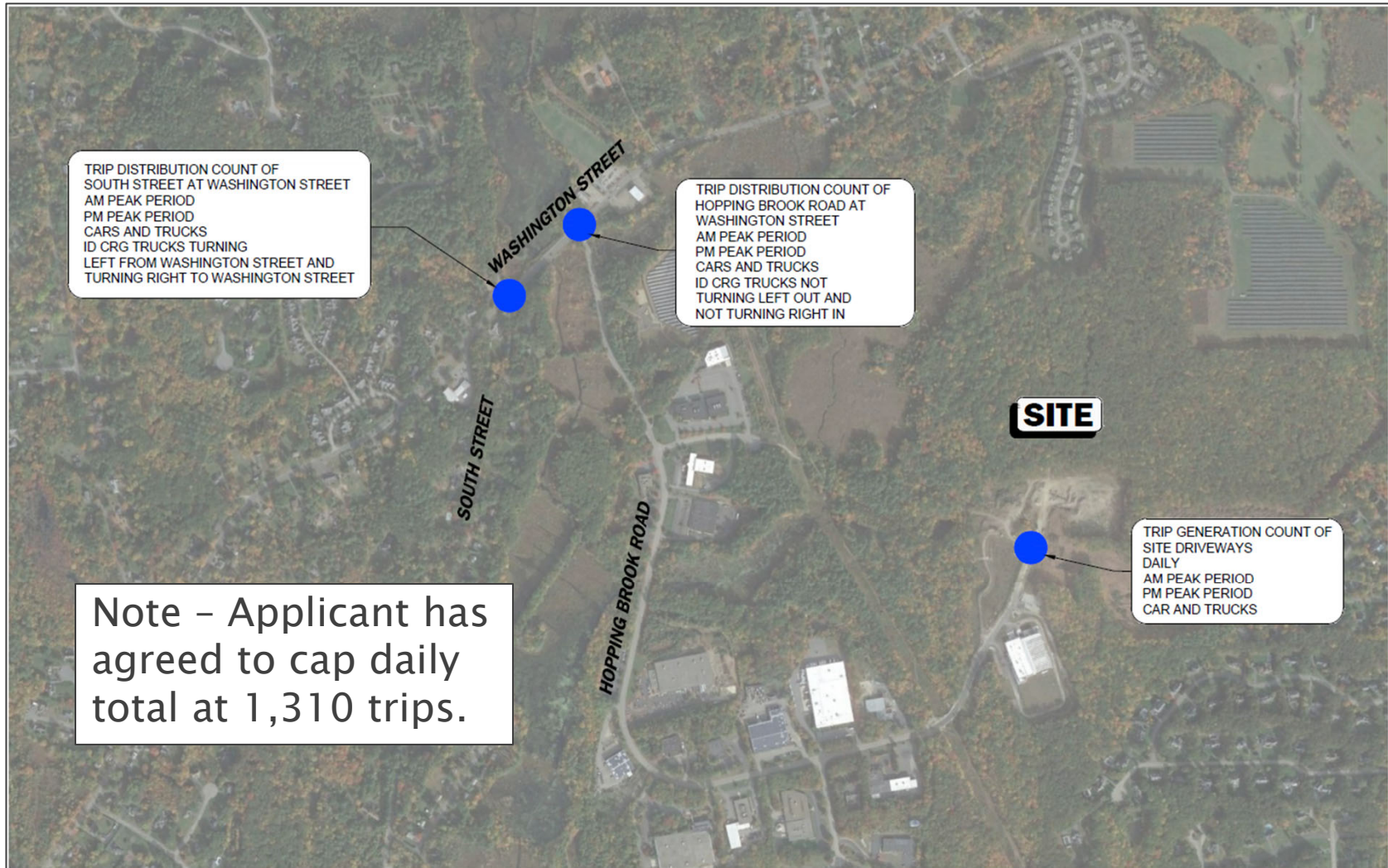
Hopping Brook Road at Washington Street Signal



Wayfinding and Signage



Traffic Monitoring Program



Conclusions

- The traffic study process is informed by the Applicant or Developer and the traffic engineer. The most appropriate land use code is chosen based on the information available.
- Trip generation is estimated based on the most likely land use code and applied to identify impacts to the study area.
- If there are concerns with the initial estimates, review agencies request changes in the analysis. This occurred with both MassDOT and the Peer Consultant, resulting in changes to provide subsequent analyses.
- The state and the Town's Peer Consultant, both separate professional entities, have approved the traffic analyses conducted for this phase.
- The Applicant is willing to restrict the site to 1,310 daily trips.



Conclusions (continued)

- The current phase of development represents a significant reduction in traffic levels for the Park as compared with initial forecasts and approvals.
- Traffic increases to existing Washington Street traffic from this phase are between 2.4 and 5.2 percent on a daily basis; conversely, traffic increases to existing Washington Street due to the MEPA-approved traffic levels are between 27.7 and 59.1 percent on a daily basis.
- Traffic studies will be ongoing beyond the current phase to identify the traffic impact of the Park as the next phase is proposed.
- Traffic monitoring as identified by the State and by the Town's Peer Consultant will be implemented for the current phase and for the future build-out of the Park.



Questions?

