



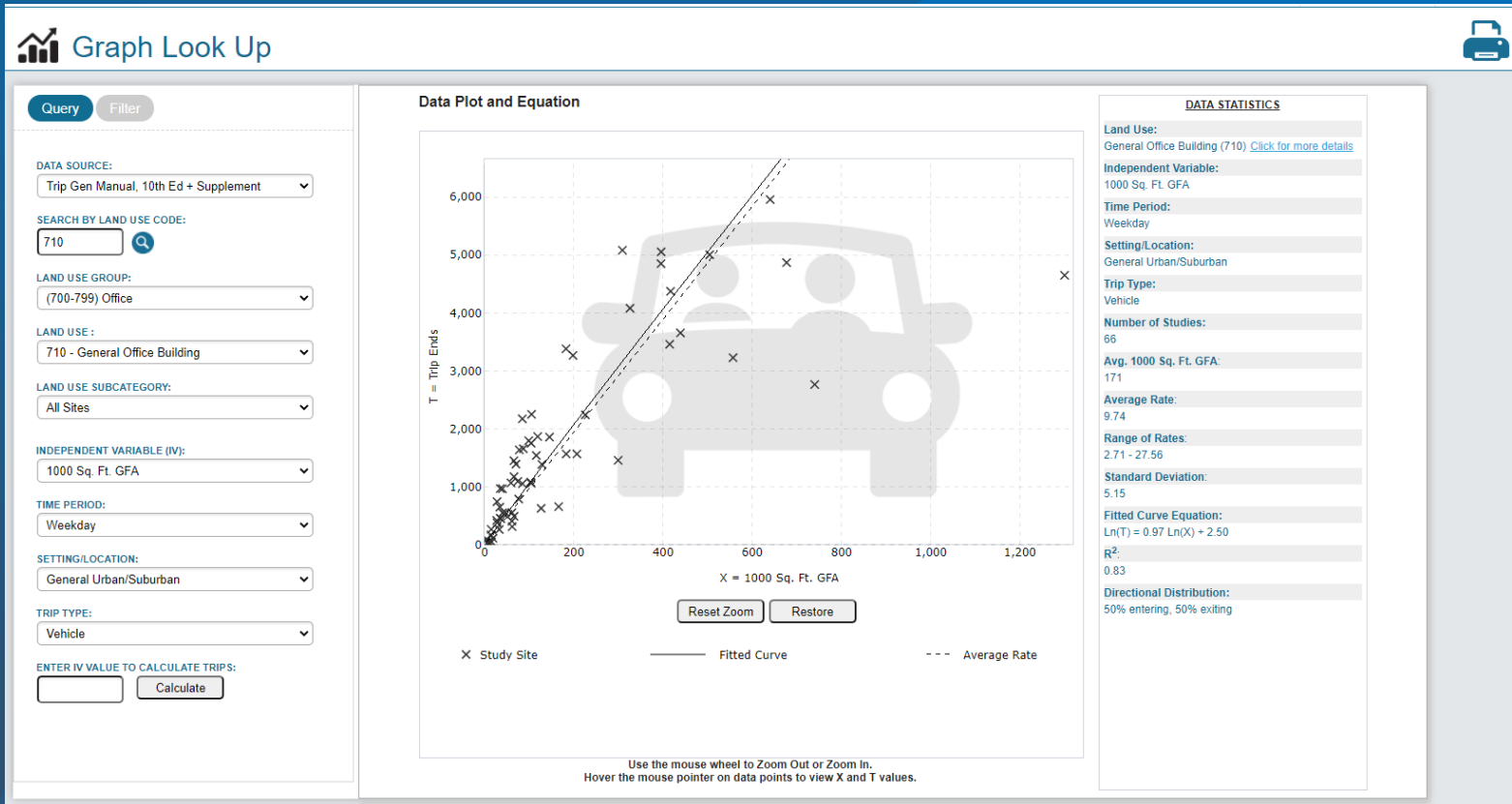
The Landing - Lancaster Traffic Impact & Off-site Improvements

Town of Lancaster, MA

December 15, 2021



Estimating Traffic & Distribution



Institute of Transportation
Engineers (ITE) – *Trip
Generation 10th Edition (2017)*

- Professional Office
- General Retail
- Multifamily Housing
- Industrial Park

Estimating Traffic & Distribution

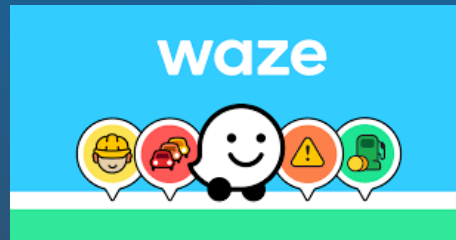


US Census Bureau Journey-to-Work & Journey-to-Home Data for Lancaster, MA

- Professional Office
- Multifamily Housing
- Industrial Park

US Census Bureau Population Data vs. Competing Opportunities

- Retail



Vehicle Trip Summary – All users

Time Period	EXISTING Vehicle Trips (Dunkin, Mobil, J.B. Hunt, FC Stars)	NET PROPOSED Vehicle Trips	Maynard Crossing Vehicle Trips
Weekday Daily	3,022	+ 7,484	10,258
Weekday AM Peak Hour	310	+ 920	430
Weekday PM Peak Hour	310	+ 912	930
Saturday Daily	3,494	+ 4,376	14,710
Saturday Midday Peak	330	+ 378	1,441

**This is the SUM of all
entering and exiting
traffic in all directions**

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Leominster Route 117 Shopping Centers (ITE Trip Gen)	Leominster Route 117 Shopping Centers (July 2021)	% Less (ITE vs. July 2021 Traffic Count)
21,698	16,882	22%
1,214	856	29%
1,941	1,497	23%

Trucks

Currently there are approximately 370 truck trips per day for
J.B. Hunt + Central Mass Sand & Gravel



These trucks will be removed from the roadway network

Full Build-Out Truck Traffic (SUM OF ALL DIRECTIONS)

NET Site Trucks - Day: 450

NET Site Trucks - AM Peak Hour: 48 (less than 1 new truck per minute)

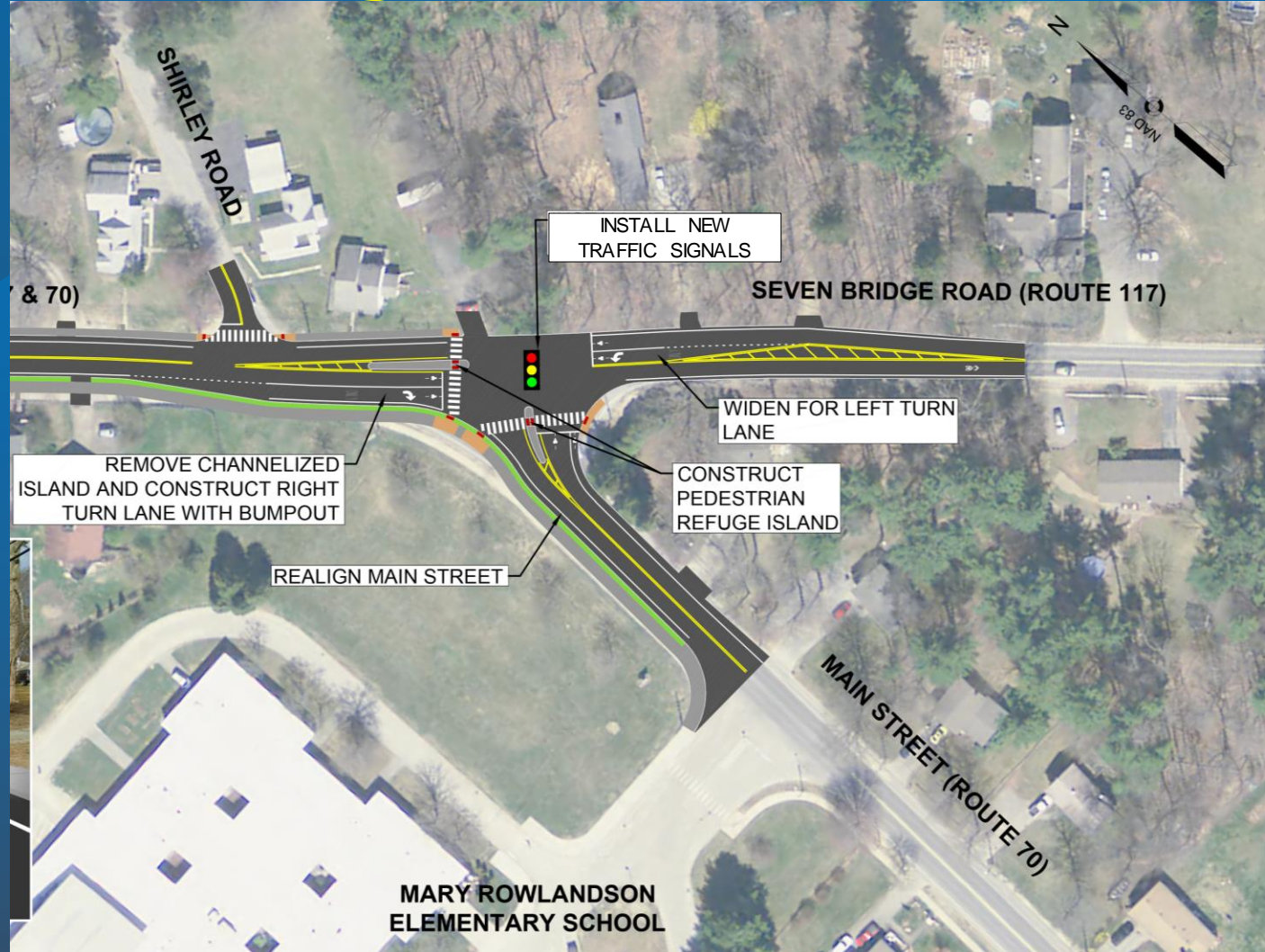
NET Site Trucks - PM Peak Hour: 13 (about 1 new truck per 5 minutes)

MassDOT / Town Scheduled Transportation Improvements

**Infrastructure Projects Below are Independent of the Capital Group
Off-Site Infrastructure Improvement Program**

- NEW Traffic Signal and Turn Lanes at Lunenburg Road / Main Street
(Construction begins Spring/Summer 2022)
- NEW Traffic Signal and Turn Lanes at Main Street / Seven Bridge Road
(Construction begins Spring/Summer 2022)
- NEW Ramp Realignment w/ Acceleration & Deceleration at Route 2
Interchange 102 (DESIGN STARTED – MassDOT Working on Route 2 Study)
- NEW Ramp Realignment w/ Acceleration & Deceleration at Route 2
Interchange 103 & 104 (MassDOT Pre-Planning Stage - MassDOT Working
on Route 2 Study)

Route 70 / 117 Signalization (MassDOT) - 2022



Route 70 / 117 Signalization (MassDOT) - 2022



Route 2 Exit 102 Reconstruction (MassDOT #608832) Currently Under Design by Jacobs Engineering



D'Ambrosio Eye Care

Bouchard
Kia/Nissan/Honda

Route 2 Exit 103 Reconstruction (MassDOT) Currently in Planning – Route 2 Corridor Study



Capital Group Off-Site Infrastructure Improvement Program

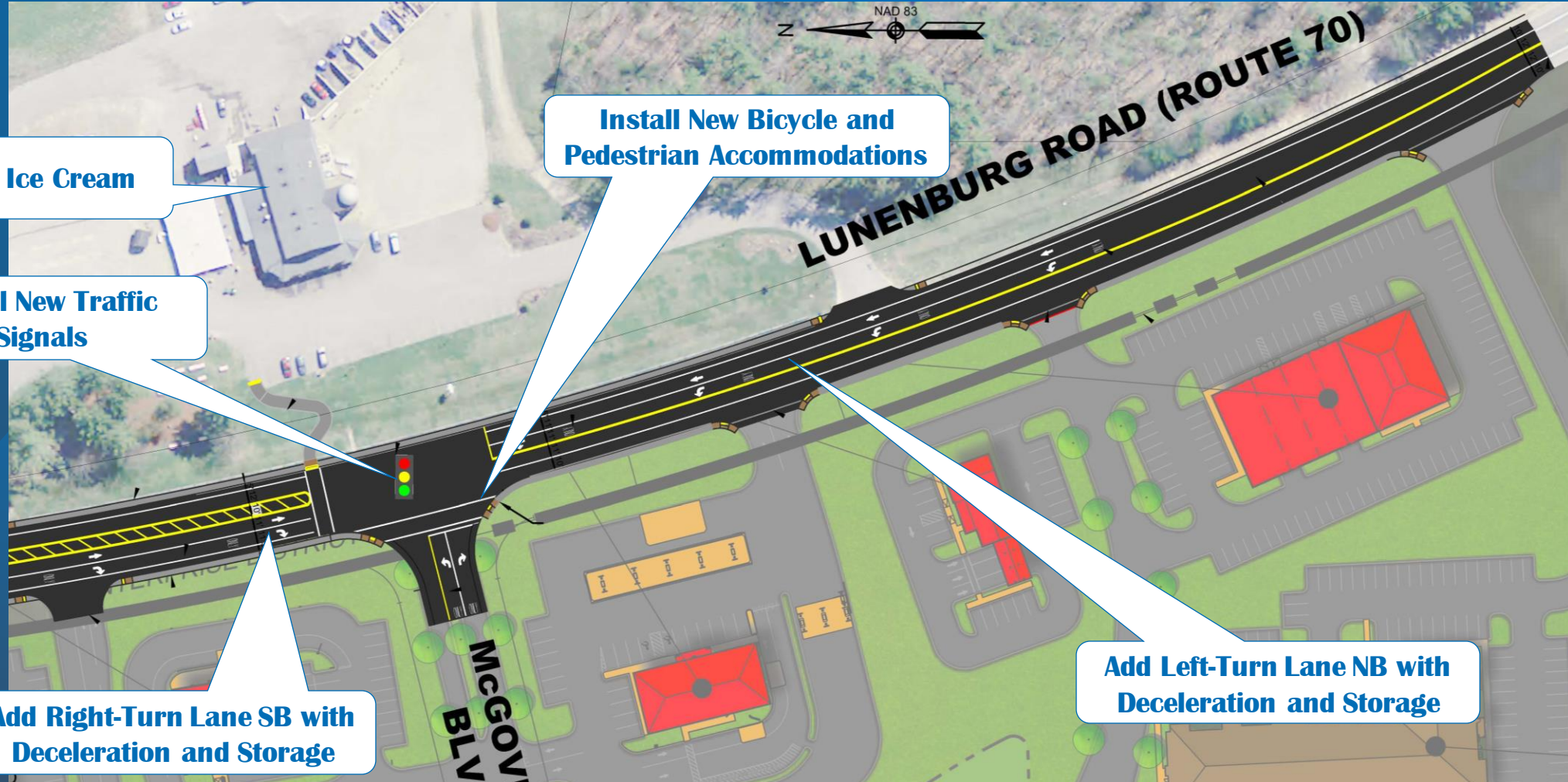
- NEW Traffic Signal, Ped/Bike Accommodations, and Turn Lanes at McGovern Boulevard / Lunenburg Road (Route 70)
- Interim Acceleration and Deceleration Lane Extension at Route 2 Exit 103 Westbound Ramps
- Interim Traffic Signal at Lunenburg Road (Route 70) / Fort Pond Road (Prior to MassDOT Future Interchange Reconstruction)
- Signal timing upgrades Main Street / Lunenburg Road & Main Street / Seven Bridge Roads at key occupancy stages.

Capital Group Off-Site Infrastructure Improvement Program

Transportation Demand Management (TDM) Program

- Extend MART Bus Route 8 to Site (2 stops in site)
- Bike and Ped Accommodations on-site connecting to Dunkins', Mobil, Kimball's, etc.
- On-Site Services (i.e. laundry services or carpooling)
- Transportation Monitoring Program (TMP) from first occupancy to 5-years following full occupancy.

Lunenburg Rd / McGovern Blvd (CGP) - 2022



Kimball's Ice Cream

**Install New Traffic
Signals**

**Install New Bicycle and
Pedestrian Accommodations**

**Add Right-Turn Lane SB with
Deceleration and Storage**

**Add Left-Turn Lane NB with
Deceleration and Storage**

Route 2 WB Exit 103 Off-Ramp (Interim)



Route 2 WB Exit 103 On-Ramp (Interim)



Lunenburg Road at Fort Pond Road (Interim)



- Construct interim traffic signal at intersection within same geometry.
- Interim traffic signal will be in place until MassDOT improvements at Exit 103 are completed.

Lunenburg Road at Old Union Turnpike Roundabout



Roundabout vs. Traffic Signal?

- Signal has 32 vehicle conflict points
- Roundabout has 8 vehicle conflict points

Space Constraints:

- Signal with turn lane storage requires more space away from intersection

Lunenburg Road at Old Union Turnpike Roundabout



- Designed for trucks to drive over the center brick inlay to navigate the roundabout.
- Traffic patterns in roundabout will significantly change with MassDOT Exit 102, 103, & 104 Projects.
- When designed, the roundabout design anticipated future development in the area.

Interstate 190 Ramp Discussion

**FHWA prefers full-access ramps
– this will add cut-thru traffic
on local streets**

**Cannot meet FHWA criteria for
1-mile ramp spacing
(1.64 mi today from Route 2 to
Route 117)**

**Impacts to Nashua River buffers
even with partial ramp**

**Limited development/trips will not
support ramp investment**

**Difficult to establish need
given proximity of existing
highway access**



Improvement Summary

MASSDOT & Town Transportation Improvements [Independent of the Capital Group Infrastructure Improvement Project]

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- NEW Ramp Realignment w/ Acceleration & Deceleration at Route 2 Interchange 102 (DESIGN STARTED – MassDOT working on Route 2 corridor study)
- NEW Ramp Realignment w/ Acceleration & Deceleration at Route 2 Interchange 103 & 104 (MassDOT Pre-Planning Stage – MassDOT working on Route 2 corridor study)

Capital Group Off-Site Infrastructure Improvement Project

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- Signal timing optimization at Main Street / Lunenburg Road & Main Street / Seven Bridge Road
- TDM Program