



To: Town of Southborough

Date: July 15, 2022

Memorandum

Project #: 15295.01

From: VHB, Inc.

Re: 15295.01

At the request of the Town of Southborough, VHB has conducted a review of roadway classifications, traffic and truck data and existing commercial heavy vehicle exclusions (HVE's) in an effort to develop a Town-wide existing truck route map. This memorandum summarizes what is considered to be the first phase of the study which is to identify what roadways trucks are currently using, and whether the Town could benefit from modifications to the existing HVE's and, if so, what do these modifications look like and which routes or roadways does the Town prefer to emphasize.

Background

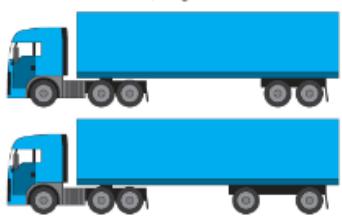
The Town of Southborough had numerous requests from residents to restrict heavy vehicles on multiple roadways throughout the Town, many of which the Town has reviewed internally. However, due to the significant number of HVE's currently in effect within the Town, including the entire length of Route 30, it has become difficult for commercial vehicles to make their way into or through Town without using roadways that have restrictions already in effect for larger vehicles. In an effort to evaluate the outstanding requests for HVE's, it was determined that a Town-wide review of truck traffic should occur. In an effort to identify the existing routes, a traffic counting program was identified, which included both automatic traffic recorder (ATR's) cameras and peak hour turning movement counts (TMC's) that were collected at various intersections. These counts were supplemented with count data previously collected by others and available in MassDOT's traffic data portal.

Commercial Heavy Vehicle Exclusions (HVE's)

What is a Heavy Vehicle?

The term "heavy vehicle" can refer to a variety of vehicles. For the purposes of heavy vehicle exclusions in Massachusetts it means a vehicle with a carrying capacity over 2.5 tons, which typically can be any vehicle with at least 2 axles and 6 tires, consistent with a small box truck (box type trucks such as UHaul, FedEx, UPS, etc.). For comparison, the maximum payload capacity of a semi-trailer that is allowed on an interstate highway (I-495, for example) is 40 tons.¹ Below provides an illustration of the twelve Federal Highway Administration (FHWA) vehicle classifications. For this study, Class 5 to 12 are considered to be heavy vehicles.

¹ *Compilation of Existing State Truck Size and Weight Limit Laws*, Report to Congress, US Department of Transportation Federal Highway Administration, 2015

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 			

Exclusions

Commercial heavy vehicle exclusions (HVE's) have long been used throughout the State of Massachusetts to minimize the number of heavy vehicles utilizing residential roadways and steer trucks towards roadways more capable of accommodating them from a design and land use standpoint. The issuance of a HVE is completed thru a process administered by the Massachusetts Department of Transportation (MassDOT). The two types of HVE's that DOT allows, as noted in the Massachusetts Amendments to the Manual for Uniform Traffic Control Devices (MUTCD), are for a 24-hour exclusion based on weight and a nighttime exclusion.

- › 24-Hour Exclusion: This exclusion would exclude all commercial vehicles with a carrying capacity over 2.5tons (Vehicle Classification 5 thru 12 as illustrated on the previous page).
- › Nighttime Exclusion: This would require all commercial vehicles with a carrying capacity over 2.5 tons to use an alternate route during hours of darkness or nighttime hours.

It should be noted that an exclusion does not restrict all heavy vehicles from a specific roadway. If a vehicle has a destination on an excluded road, or if the vehicle does not have a commercial license plate, they are exempt from the exclusion. In addition, if a roadway is under the jurisdiction of the state or is a state numbered route, it is not eligible for a HVE.

Warrants

There are three MassDOT warrants that are typically reviewed for HVE's, which include:

- A. A volume of heavy commercial vehicles, which usually is in the range of five (5) to eight (8) percent of the daily traffic for that roadway, reduces the utilization of the facility and is cause for a substantial reduction in capacity or safety.
- B. The condition of the roadway pavement structure of the route to be excluded indicates that further repeated heavy wheel loads will result in severe deterioration of the roadway (subject to MassDOT review).
- C. Notwithstanding the foregoing, in certain instances where land use is primarily residential in nature and a municipality has requested exclusion only during hours of darkness, a specific time of day or night exclusion may be granted.

Study Methodology

This assessment has been conducted in the following three stages.

1. The first stage involved a review of the existing conditions for the roadway networks and a review of existing traffic patterns, including daily and peak period traffic counts.
2. The second stage of the study established the framework for evaluating the roadway network for existing truck routes and identification of roadways that may qualify for future HVEs.
3. The third and final stage involved identifying the preferred truck routes thru the Town and determining what roadways should and should not be subject to HVE's for various reasons.

Existing Conditions

The following section provides an overview of the Town's existing roadway network and a review of existing traffic patterns, based on available data.

Roadway Network

A Town's roadway network is made up of various levels of streets (arterial, collector and local roadways), often maintained by multiple agencies. Each of these roadways has a specific purpose within the network hierarchy that, when working together, provides the best operations for an overall network. When reviewing potential truck routes, the goal is generally to keep trucks on higher level roadways capable of carrying trucks safely with minimal impact to

other roadway users. The following provides a brief overview of these hierarchies and which roadways within the Town's network fall in each category.

Arterials

Arterials are a higher order roadway that is intended to carry traffic between communities and often regions. These roadways are large traffic generators carrying vehicles between major destinations, such as an interstate highway (interchange) to a shopping plaza or another destination. Arterials typically have wider pavement areas with wide shoulders to allow for maneuverability space in the event of vehicle breakdowns. These roadways typically have accommodations designated for pedestrians (sidewalks) and bicycles.

The following roadways within Town are classified as arterial roadways by MassDOT:

- › Route 9 (Turnpike Road),
- › Southville Road,
- › Washington Street,
- › Route 85 (River Street, Cordaville Road and Marlboro Road),
- › Route 30 (Boston Road and Main Street),
- › Oak Hill Road,
- › Central Street,
- › Firmin Avenue,
- › Framingham Road,
- › Newton Street,
- › Johnson Road, and
- › Northboro Road (north of Johnson Road).

Collectors

Collectors encompass a wide range of roadways, but generally have the primary purpose of carrying traffic from residential neighborhoods or smaller developments to the larger arterial roadways, where key destinations are far. Depending on the surrounding area, collector roadways may have striped shoulders, as well as accommodations for pedestrians (sidewalks) and bicycles. These roadways are more defined by their use, connectivity, and traffic volumes (typically less than arterials and more than local roadways).

The following roadways within Town are classified as collector roadways by MassDOT:

- › Parkerville Road,
- › Richards Road,
- › Woodland Road,
- › Breakneck Hill Road,
- › White Bagley Road,
- › Latisquama Road,
- › Deerfoot Road,
- › Flagg Road,
- › Clifford Street,
- › Jericho Hill Road,
- › Fisher Road,
- › Acre Bridge Road,
- › Pine Hill Road, and
- › Parmenter Road.

Local Roadways

Local roadways (often called sub-division roadways) typically make up the highest percentage of mileage within a community's roadway network. A grouping of local roadways is often interconnected with access to one collector or arterial roadway. The size and appearance of local roadways can vary greatly when compared to the other hierarchy roadways (collectors and arterials) and this can be based on when they were constructed. Roadways constructed based on current design standards will typically have sidewalk and potentially grass buffers or medians and underground utilities, while older roadways will often be narrower, tree-lined with overhead utility wires and rarely have sidewalks.

The remaining roadways in Town, which are not listed under collector or arterial categories, would be considered a local roadway.

Roadway Jurisdiction

The majority of roadways within a Town are typically the responsibility of the municipality (in this case the Town of Southborough). However, some roadways may fall under the jurisdiction of another agency, which means that agency is responsible for the roadway's maintenance, permitting and access. As noted, the roadways under MassDOT jurisdiction are not eligible for heavy vehicle exclusions per the current guidelines.

Within town MassDOT controls or has jurisdiction over the following roadways: Interstate 495, Interstate 90, Route 9, Granuaile Road, Lynbrook Road, Main Street (Route 30) between Westborough and Sears Road, Boston Road (Route 30) between Kallander Drive and Framingham, Firmin Avenue, and Southville Road between Route 85 and Ashland.

MassDOT also controls three bridges within town on Bridge Street, White Bagley Road, Marlboro Road (Route 85) and Northboro Road.

Existing Heavy Vehicle Exclusions (HVE)

As noted previously, there are a number of existing HVE's in effect within the Town of Southborough. Unless otherwise noted, all of these exclusions are currently listed on MassDOT's Trucking Network map as 24-Hour exclusions for all vehicles 2.5 tons and over (box type trucks such as UHaul, Fedex, UPS, etc.). The roadways currently subject to HVE's are as follows:

- › Route 30 (Main Street & Boston Road),
- › Firmin Avenue,
- › Gilmore Road (not included on MassDOT's map),
- › Washington Street,
- › Middle Road (North & South of Route 9),
- › Central Street,
- › Winter Street,
- › Latisquama Road,
- › School Street,
- › Ward Road,
- › Northboro Road,
- › Chestnut Hill Road, and
- › Fisher Road.

It should also be noted that existing HVE's in neighboring communities can sometimes impact driving routes taken by heavy vehicle operators to and from Southborough. As the Town develops its own HVE's, consideration should be given to those HVE's that MassDOT has previously approved in other communities. There are two existing HVE's that impact the way heavy vehicles enter and exit Southborough:

- › Framingham Road and Farm Road in Marlborough, which intersect Acre Bridge Road, and is aimed at keeping heavy vehicles on Route 20 and Route 85 in Marlborough; and
- › Badger Road and Myrtle Street in Ashland, which may cause heavy vehicle operators to "cut-through" Southborough streets when trying to access Route 9.

Data Collection

To identify current traffic flow characteristics within town peak-hour turning movement counts (TMCs) at intersections and daily traffic volumes or automatic traffic recorder (ATR) counts on roadways were collected at various locations within the Town in March 2022. Truck data was also collected. The purpose of these counts was to help identify existing routes that heavy vehicles are currently taking through the Town. The data collected as part of this effort was supplemented with data from other sources, including that provided on the MassDOT Traffic Volume portal. It should be noted that Northboro Road between Main Street and Johnson Road was closed during the period traffic counts were taken. The following provides more details as to the data that was collected:

- › ATR: In an attempt to quantify the number of trucks operating in town, the roadway counts were collected or observed over a 48-hour period at twelve (12) strategic locations around the Town in an attempt to capture the majority of trucks traveling on roads under the Town's jurisdiction.

- › TMC: Concurrent with the ATRs, peak-hour turning movement counts (TMCs) at intersections were collected at nine (9) intersections on Wednesday, March 30, 2022 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. The specific count locations were selected based on an understanding of the Town's roadway network and traffic operations within the region, as well as input from Town Officials.

The existing traffic volumes that were reviewed as part of this study are summarized below.

Existing Traffic Volumes

The traffic data collected or observed (ATRs) have been summarized in Table 1. Supplemental traffic data (ATRs) from MassDOT's online database is summarized in Table 2, but it is noted that this data ranges from 2013 to 2022. For reference, the HV% noted in these tables is the percentage of heavy vehicle using the roadway on a daily basis. See footer of table for additional definitions.

The data summarized in Tables 1 and 2 have also been provided graphically on Figures 1 and 2. Based on all of the data summarized in both tables, the roadway segments that could satisfy the warrants for a HVE based solely on the observed percentages of heavy vehicles being greater than 5% are:

- › Southville Road – between Ashland T.L. and Route 85,
- › Flagg Road,
- › Parkerville Road – between Route 30 and Route 9, and
- › Northboro Road – between Marlborough C.L. and Jericho Hill Road.

These roadways are also shaded in the tables below. In addition to the data summarized in Tables 1 and 2, VHB used the collected TMC data, and its local knowledge of the town's roadway network system to develop Figure 3 Truck Routes.

Table 1 Observed Weekday Traffic Volumes - ATR

Location	Daily			Morning Peak Hour			Evening Peak Hour		
	Vol ¹	HV ²	HV% ³	Vol ⁴	K ⁵	DD ⁶	Vol	K	DD
Southville Rd at Ashland T.L.	4,900	258	5.27%	265	5.3%	62% EB	280	5.7%	52% WB
Southville Rd at Westborough T.L.	4,900	147	3.00%	250	5.2%	55% EB	240	5.0%	53% EB
River St (Rt. 85) at Hopkinton T.L.	7,100	118	1.66%	320	4.5%	61% NB	355	5.0%	62% SB
Cordaville Rd (Rt. 85) north of Rt. 9	8,800	279	3.17%	425	4.8%	53% SB	415	4.7%	54% SB
Marlboro Rd (Rt. 85) north of Framingham Rd	20,700	509	2.46%	875	4.2%	67% SB	895	4.3%	58% NB
Central St south of Boston Rd (Rt. 30)	6,200	165	2.66%	250	4.0%	51% NB	290	4.7%	57% NB
Boston Rd (Rt. 30) east of Central St	13,800	294	2.13%	655	4.7%	72% EB	665	4.8%	61% WB
Pine Hill Rd south of Parmenter Rd	2,500	72	2.88%	105	4.3%	68% SB	125	5.0%	60% NB
Northboro Rd at Marlborough C.L.	5,700	300	5.26%	410	7.2%	53% SB	295	5.2%	53% SB
Main St (Rt. 30) at Westborough T.L.	5,700	112	1.96%	285	5.0%	70% EB	300	5.3%	55% WB
Boston Rd (Rt. 30) west of Framingham Rd	3,700	71	1.92%	215	5.7%	66% EB	200	5.4%	59% WB
Oak Hill Rd south of Rt. 9	8,100	326	4.02%	335	4.1%	63% NB	355	4.3%	51% NB

Source: A vendor retained by VHB. Based on automatic traffic recorder counts collected in March 2022.

1 Average Daily Traffic volume, expressed in vehicles per day

2 Total number of heavy vehicles observed in a 24-hour period

3 Heavy Vehicle percentage

4 Peak period traffic volume, expressed in vehicles per hour

5 Represents the percent daily traffic which occurs during the peak hour

6 Directional distribution of peak hour traffic

Table 2 Supplemental Weekday Traffic Volumes - ATR

Location	Daily			Morning Peak Hour			Evening Peak Hour		
	Vol ¹	HV ²	HV% ³	Vol ⁴	K ⁵	DD ⁶	Vol	K	DD
Flagg Rd (2021) south of Blackthorn Dr	950	53	5.58%	75	7.9%	53% SB	105	11.1%	57% SB
Breakneck Hill Rd (2018) north of Mt. Vickery Rd	3,445	66	1.92%	305	8.9%	56% NB	285	8.3%	61% SB
White Bagley Rd (2020) south of Latisquama Rd	2,135	35	1.64%	180	8.4%	52% NB	180	8.4%	50% NB
Route 9 (2022) east of Breakneck Hill Rd	41,605	2,028	4.87%	3,100	7.5%	60% EB	3,205	7.7%	51% WB
Woodland Rd (2021) north of Oregon Rd	2,330	28	1.20%	160	6.9%	74% NB	225	9.7%	69% SB
Parkerville Rd (2021) south of Richards Rd	2,150	49	2.28%	260	12.1%	60% SB	240	11.2%	54% SB
Cordaville Rd (Rt. 85) (2015) south of Woodland Rd	9,830	66	0.67%	765	7.8%	59% NB	1,010	10.3%	51% SB
Deerfoot Rd (2019) north of Flagg Rd	2,050	36	1.76%	225	11.0%	53% SB	235	11.5%	51% SB
Jericho Hill Rd (2021) at Marlborough C.L.	1,345	63	4.68%	115	8.6%	52% SB	135	10.0%	56% SB
Parkerville Rd (2021) south of Main St (Rt. 30)	1,120	57	5.09%	220	19.6%	52% SB	180	16.1%	53% NB
Acre Bridge Rd (2021) at Marlborough C.L.	4,030	85	2.08%	360	8.9%	51% SB	375	9.3%	57% NB

Source: Based on automatic traffic recorder counts collected by others and included in MassDOT's online database.

1 Average Daily Traffic volume, expressed in vehicles per day

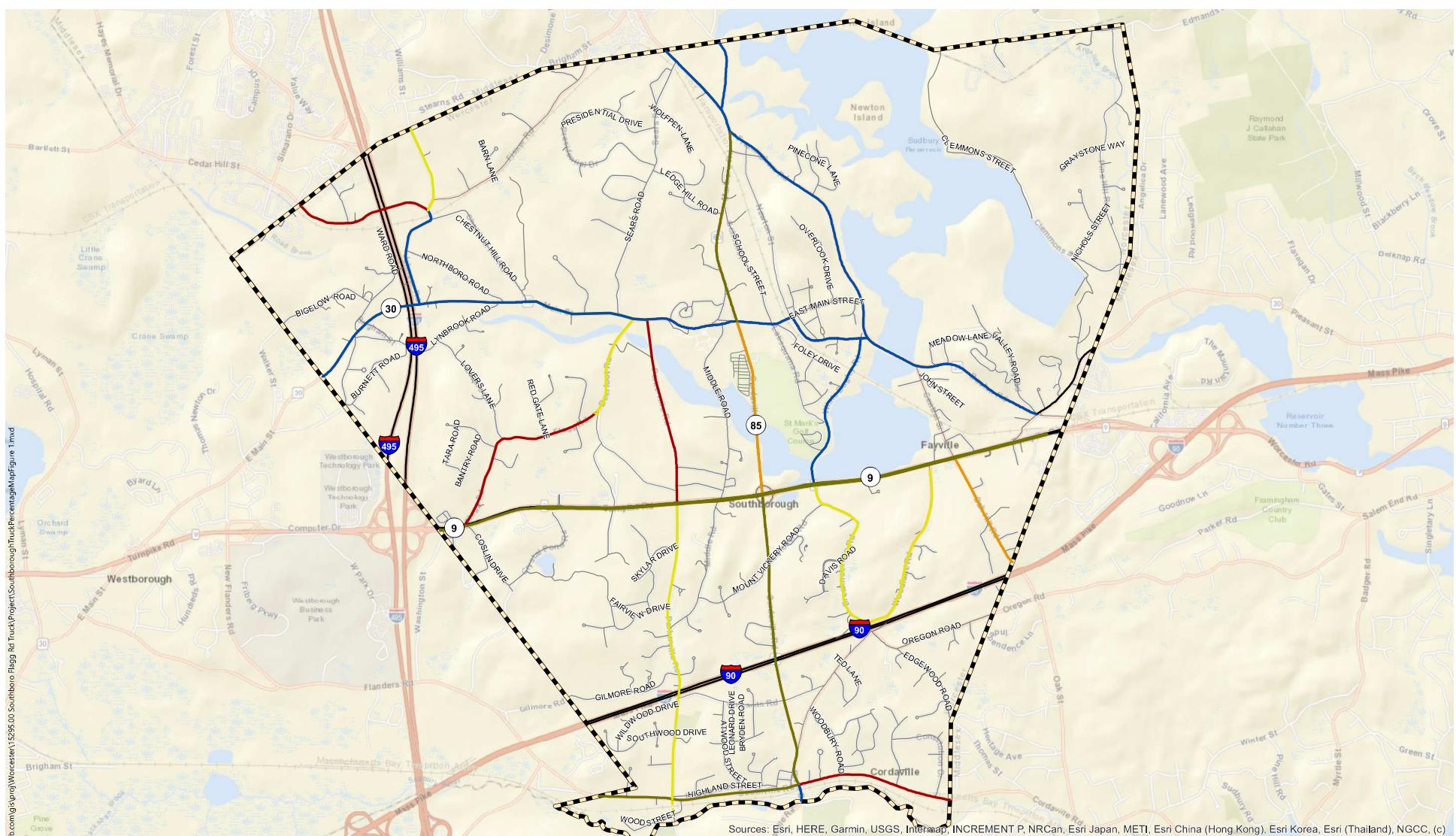
2 Total number of heavy vehicles observed in a 24-hour period

3 Heavy Vehicle percentage

4 Peak period traffic volume, expressed in vehicles per hour

5 Represents the percent daily traffic which occurs during the peak hour

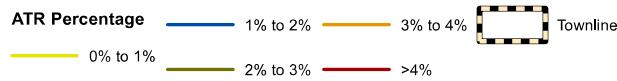
6 Directional distribution of peak hour traffic



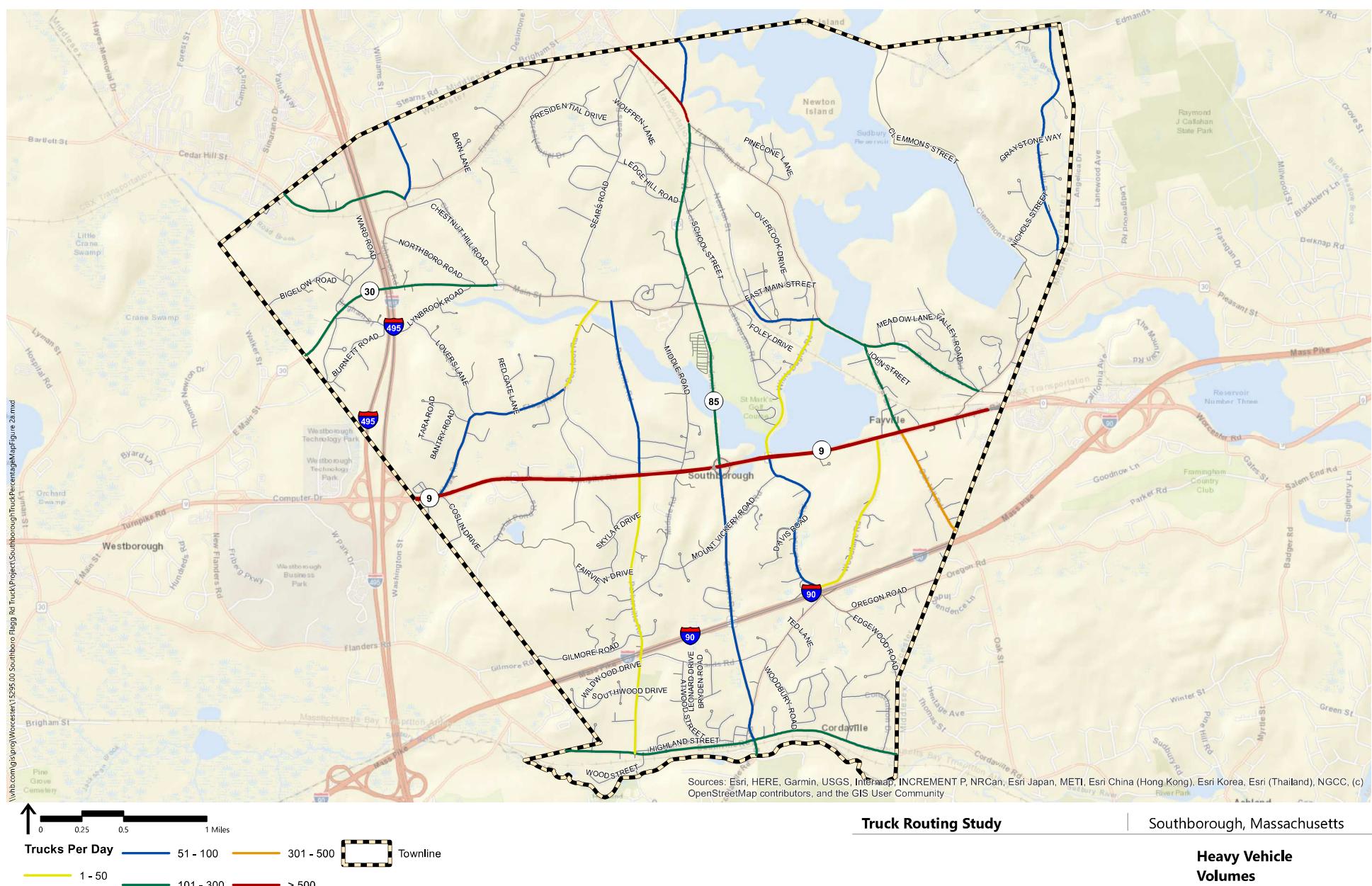
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Truck Routing Study

Southborough, Massachusetts



Heavy Vehicle Percentages



Existing Truck Routes

Using the traffic data above, what appears to be the preferred routes used by heavy vehicle operators through the Town were identified. It is noted that routes may vary depending on the specific size of the heavy vehicles in question. For instance, the data suggests that larger trailer trucks appear to be utilizing arterial roadways while smaller heavy vehicles (box type trucks such as UHaul, Fedex, UPS, etc) were observed using lower hierarchy roadways but at higher percentages. Based on the available data there appear to be several primary routes that heavy vehicles are utilizing through town. These routes are as follows:

Route 9 (Turnpike Road)

Route 9 serves as the primary east-west arterial route for heavy vehicles traveling into and through the town. Route 9 provides access, either directly or indirectly, to every other collector or local roadway within Town. Route 9 also provides these other roadways connectivity to the interstate highway system in both the east and west. While the data only indicates that 4.9% of the daily traffic was trucks, this percentage is equivalent to over 2,000 trucks per day.

Route 85 (Cordaville Road and Marlboro Road)

Route 85 serves as the primary north-south arterial route for heavy vehicles traveling into and through town. Route 85 is the only route that provides direct access for heavy vehicles to, and across, Route 9 from both the north and south. All other routes that provide direct access to or across Route 9 are subject to HVE's or other barriers such as medians. For example, in the case of Oak Hill Road exclusions on Central Street and Boston Road (Route 30) prevent cross traffic forcing heavy vehicles to turn onto Route 9. The review of available data seems to indicate that the majority of trucks on Route 85 south of Route 9 appear to be originating in Ashland and using Southville Road, with only around 1.7% of the daily traffic was trucks (or 118 trucks per day) traveling to/from Hopkinton. The Cordaville Road corridor was observed to carry 3.2% trucks or 279 trucks per day while Marlboro Road north of its intersection with Framingham Road was observed carrying 2.5% trucks or 509 trucks per day. When reviewing the data for Boston Road it appears that around 42% of the trucks traveling from Marlborough are using Cordaville Road (see next summary on Marlboro Road corridor).

Marlboro Road-Framingham Road-Boston Road-Pleasant Street Connector

This route generally runs north-south and serves vehicles traveling to/from Framingham through Southborough and into Marlborough. Generally, traffic utilizing this corridor appears to be accessing Route 9 eastbound. It should be noted that both Boston Road and Firmin Avenue/Pleasant Street Connector have existing HVE's in effect. The traffic data collected indicates that the exclusion is currently limiting truck access since the percentages of heavy vehicles are less than 5%, however this appears to indicate that trucks are diverting down Route 85 to Route 9. Since these are state numbered routes, and Boston Road is under the state's jurisdiction, they would no longer qualify for a HVE.

Southville Road

Southville Road runs east-west and serves as a primary connection between the Towns of Ashland and Westborough. There are approximately 111 trucks per day that do not make the full trip between Ashland and Westborough. This likely means that between 40% and 50% of these trucks travel to/from Route 85 north or south. Given the numbers discussed above, it is likely that these trucks are picked up from Cordaville Road and avoiding Route 9 or with destinations that are in Ashland.

Main Street-Johnson Road-Northboro Road

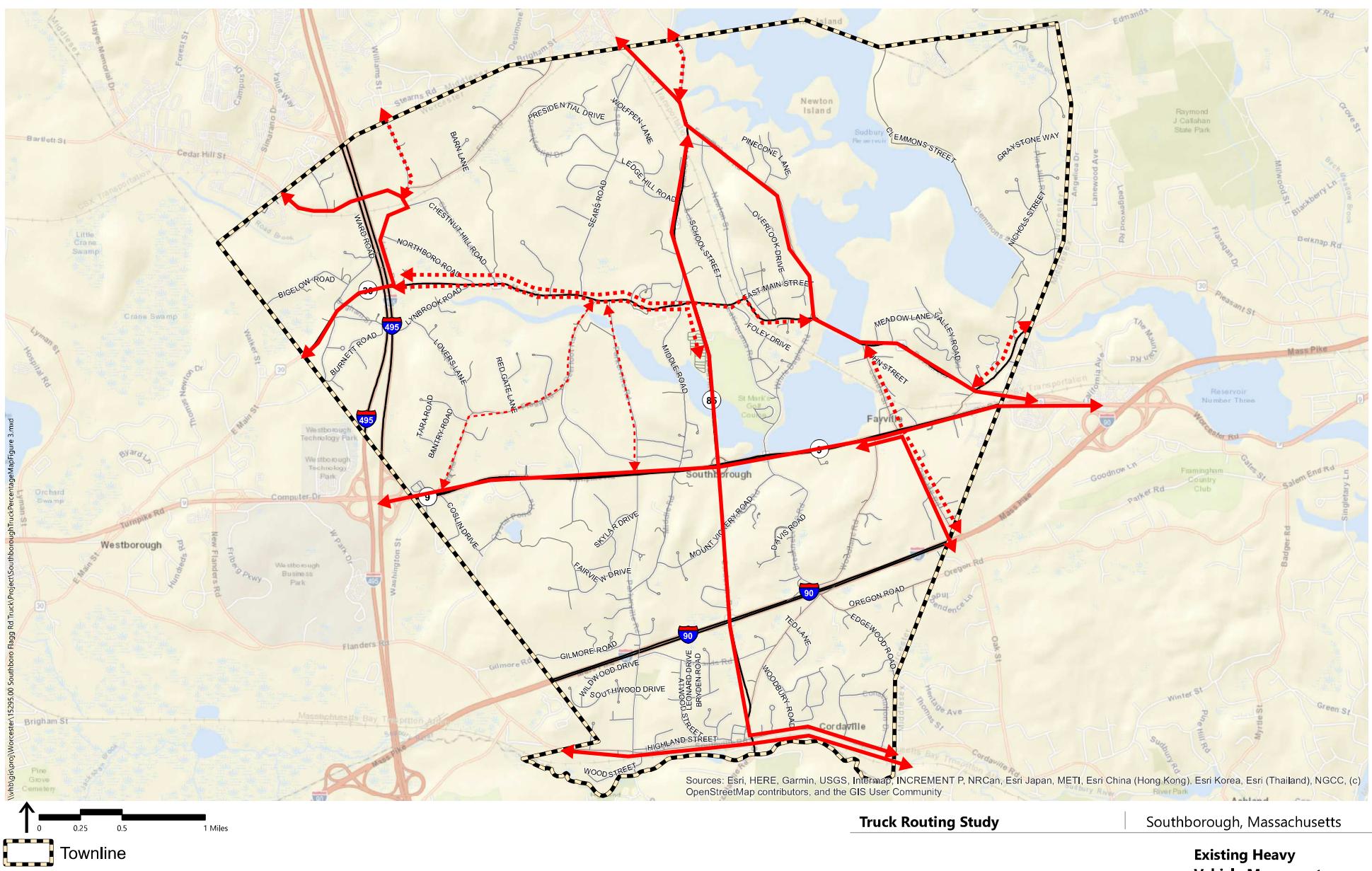
This route serves vehicles that are traveling between Route 30 to the west and the industrial properties in the vicinity of Simarano Drive in Marlborough. Both Main Street and Northboro Road are subject to existing HVE's, Johnson Road is not, and 300 trucks were observed at the Southborough/ Northboro Town Line.

Oak Hill Road

Oak Hill Road serves as a north-south connection between the Town of Ashland and Route 9. Oak Hill Road also serves as a secondary route, via Central Street, to access Route 30 to the north. Central Street currently has a HVE.

In addition to the primary routes identified above, there are several other routes that heavy vehicles were observed utilizing that may have been of concern to some residents in town. Some of these roadways currently have HVEs. The following provides a quick summary of these locations:

- › Main Street (between Johnson Road and Boston Road) – 2.0% of daily traffic or 112 trucks per day,
- › Deerfoot Road (north of Flagg Road) – 1.8% of daily traffic or 36 trucks per day,
- › Flagg Road (south of Blackthorn Dr) – 5.6% of daily traffic or 75 trucks per day,
- › Central Street (south of Boston Road) – 2.7% of daily traffic or 165 trucks per day – HVE currently exists on Central Street,
- › Jericho Hill Road (at Marlborough C.L.) – 4.7% of daily traffic or 115 trucks per day,
- › Acre Bridge Road (at Marlborouh C.L.) – 2.1% of daily traffic or 84 trucks per day, and
- › Pine Hill Road (south of Parmenter Road) – 2.9% of daily traffic or 72 trucks per day.



Summary and Findings

Based on the review of the traffic data that was available from MassDOT and observed through new traffic counts, several routes in town were identified to be carrying a decent number of heavy vehicles based on the roadway classification. Based on the traffic patterns, it does appear that heavy vehicle operators use more direct routes to avoid traveling along longer roadway segments. This seems to correspond with the active HVE's. For example, Cordaville Road through the center of town vs. using Framingham Road to Boston Road to Route 9.

Tractor Trailer (TT) Observations

While this study reviewed all heavy vehicles, Class 5 and above, VHB did review tractor trailer movements from the data collected and the following provides a summary of those observations on key roadways in town:

- › Deerfoot Road – 5 daily TT (4 SB)
- › Flagg Road – 4 daily TT (2 SB)
- › Pine Hill Road – 1 daily TT (1 NB)
- › Oak Hill Road – 54 daily TT (28 SB)
- › Parkerville Road (north) – 0 daily TT
- › Parkerville Road (south) – 6 daily TT (3 SB)

With this in mind, the following findings have been identified for the town's consideration:

1. **Consider removing existing heavy vehicle exclusions.** Potentially request that MassDOT remove the existing commercial heavy vehicle exclusions from the following roadways:
 - › Route 30 (Boston Road and Main Street) – This would be consistent with State guidance to not allow HVE's on state numbered routes. While we realize that this corridor is considered by many a cut-through corridor for all vehicles, opening this corridor to heavy vehicles could alleviate trucks on other local roadways.

Removing this heavy vehicle exclusion could support adding new exclusions within town, especially when coordinating with MassDOT, by allowing for a bypass route contained within the Town's borders.

2. **Potential heavy vehicle exclusions.** Consider submitting official applications to MassDOT to request implementation of commercial heavy vehicle exclusions on the following roadways:

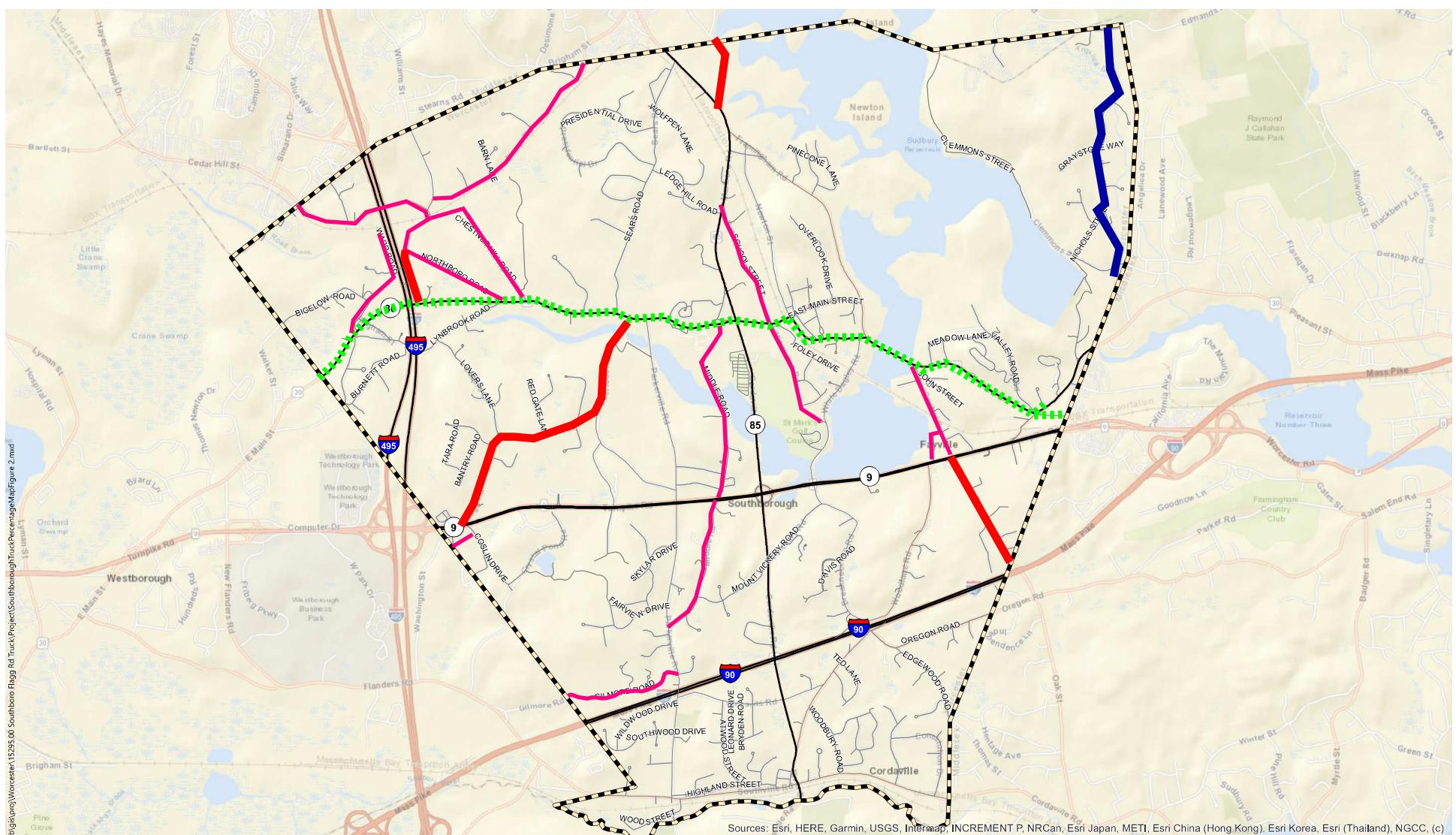
- › Flagg Road - Flagg Road appears to qualify for a HVE based on its residential nature, narrow width, percentage of heavy vehicles over 5 percent, and poor pavement quality. If the existing HVE on Main Street is removed, trucks should be able to bypass both Flagg Road and Deerfoot Road.
- › Deerfoot Road – While Deerfoot Road does not qualify on its own due to the low percentage of trucks (1.7%), it is recommended that an HVE be requested in order to provide consistent direction for heavy vehicle operators between Main Street (Route 30) and Route 9. In addition, special consideration should also be given to exclusions on Clifford Road and Parkerville Road to minimize the opportunity for heavy vehicles to use these roadways as alternative routes to reach their destinations.
- › Johnson Road – To be consistent with Northboro Road, and to not encourage heavy vehicle usage on this roadway should the HVE on Main Street be lifted, a truck exclusion on this roadway between Main Street and Northboro Road should be explored. It should be noted that the existing HVE on Northboro Road may be subject to review by MassDOT, as there is no route around this segment that is solely contained within Southborough or only utilizes roadways under MassDOT jurisdiction.
- › Oak Hill Road – Previously it was stated that there was a HVE in Ashland on Badger Road and Myrtle Street, this restriction could be encouraging heavy vehicles to use Oak Hill Road to access Route 9. The town should notify Ashland Officials should this exclusion be pursued as it could impact other roadways within the Town of Ashland.
- › Acre Bridge Road – Consideration should be given to requesting a HVE on Acre Bridge Road. An HVE on this roadway will provide consistent direction to heavy vehicle operators to stay on Route 85, given the existing HVE's on Framingham Road and Farm Road in Marlborough. In addition, implementing a HVE on Acre Bridge Road will also help reduce maintenance costs for the Town, as the existing pavement structure and roadway width are not compatible with a high percentage of heavy vehicles.

3. **Consider Overnight exclusions.** Request MassDOT to consider implementing overnight commercial heavy vehicle exclusions on the following residential roadways:

- › Oak Hill Road – If coordination with Ashland indicates that a full truck exclusion would be a detriment to their local roadways, an overnight exclusion could be explored as an alternative.
- › Pine Hill Road – Based on information above, there are not a significant amount of trucks on this roadway nor is there a viable route around this roadway, as it is bordered at either end by Framingham and Marlborough. Therefore, overnight exclusions could be explored here as well.

4. **Evaluate HVE Signage.** Work to upgrade signage so that excluded roadways are clearly marked to provide operators enough time to modify their selected route.

5. **Follow-up Observations.** It is recommended that additional counts be taken on a semi-annual basis to identify changes in traffic patterns on key roadways resulting from the removal of existing HVE's and/or addition of any new HVE's that are approved by MassDOT.



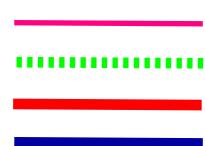
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Truck Routing Study

Southborough, Massachusetts

Heavy Vehicle Exclusions

Existing HVE To Remain
Existing HVE To Be Removed
Proposed HVE
Proposed Overnight HVE



Townline

0 0.25 0.5 1 Miles