

2025 Traffic Monitoring Program

Devens, Massachusetts

PREPARED FOR



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Executive Summary

Introduction

The 1995 Devens Final Environmental Impact Report (FEIR), issued by the United States Department of the Army, allowed portions of Fort Devens to be redeveloped as a mixed use planned community in accordance with the Devens Reuse Plan. Massachusetts Development Finance Agency (MassDevelopment, formerly The Massachusetts Land Bank) is the public agency with the exclusive responsibility to maintain, control, and redevelop the Devens community. As part of the 1995 FEIR, MassDevelopment committed to a traffic monitoring program at select locations to identify trends (changes) in traffic patterns and traffic volumes in the adjacent communities.

The Devens Base Reuse Plan originally limited development to 8.5 million square feet, and a daily vehicle-trip threshold of 59,265 trips was calculated based on projected development levels in the EIR. However, since the 8.5 million square foot threshold has been lifted as a criteria per the 2008 Notice of Project Change with MEPA, only the 59,625 daily trip threshold was analyzed for this report. This study is the sixth 5-year Traffic Monitoring Report.

Traffic Data Collection

The study area for this report was defined in the original 1995 EIR and has remained essentially unchanged from prior monitoring efforts. The specific study area includes Devens (the regional enterprise zone) as well as the surrounding towns of Ayer, Shirley, Harvard, Lancaster, Boxborough, Groton, Littleton, and Lunenburg which are included in the study area as communities that could be potentially impacted.

Traffic data were collected during Spring 2025 in order to develop an understanding of traffic operations at critical roadways and intersections within the defined study area. The following data were collected for this study:

- › Weekday morning (7-9AM) and weekday afternoon (4-6PM) peak period Turning Movement Counts (TMCs) at thirteen (13) intersections internal to Devens, at twenty-seven (27) business driveways within Devens, and at fourteen (14) intersections in towns surrounding Devens (external);
- › 48-hour and 7-day Automatic Traffic Recorder (ATR) counts at key locations consistent with previous reports, located both within Devens and in the surrounding communities;

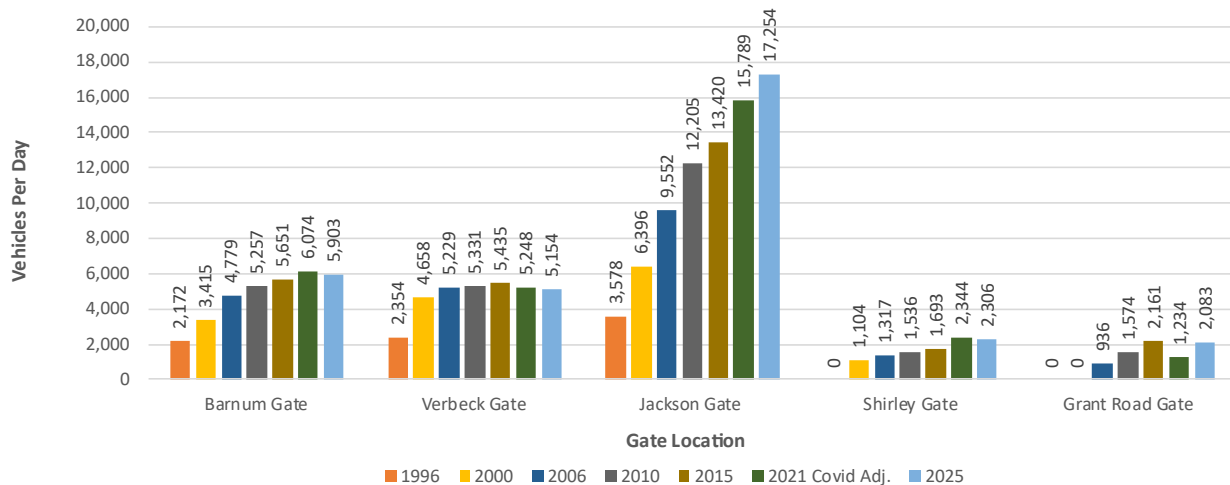
- › An origin-destination study using StreetLight Data was conducted for each of the five Devens access/egress gates;
- › Transportation surveys of both residents and employees of businesses in Devens; and
- › Commuter rail transit ridership data from the Massachusetts Bay Transportation Authority (MBTA).

Findings

To evaluate the 2025 conditions, the traffic volume data and the results of the capacity analyses were compared to those from previous reports, including the 2005, 2010, 2015, and 2021 years. The findings are summarized below:

- › Collectively, the *daily* traffic volumes collected by ATRs on study area roadway segments external to Devens have experienced an increase of 1.4% in traffic volumes when compared to the 2021 volumes (including a Covid adjustment). Additionally, the 7-day traffic volume trends show that the traffic volumes along Route 2 in the vicinity of Devens have increased by 6% since 2021.
- › This comprehensive traffic study indicates that regional *peak period* traffic volumes at intersections external to Devens collected by TMCs have generally decreased since 2021. The study area intersections external to Devens have collectively experienced a 1% decrease (63 vehicles) during the morning peak hour, and a 4% decrease (-842 vehicles) during the evening peak hour since 2021.
- › Weekday traffic volumes at all Devens Gates have increased by 8% since 2021 (Figure ES-1). The Grant Road Gate has seen the largest increase at 69% over 2021 volumes (+849 vehicles per day), while Jackson Gate experienced the largest volume increase with 1,469 vehicles (+9%) over 2021 observations. During the morning peak hour, traffic volumes have increased by 6% (+190 vehicles), and in the evening, traffic volumes have decreased by 2% (-51 vehicles).

Figure ES-1 Average Weekday Daily Traffic by Gate

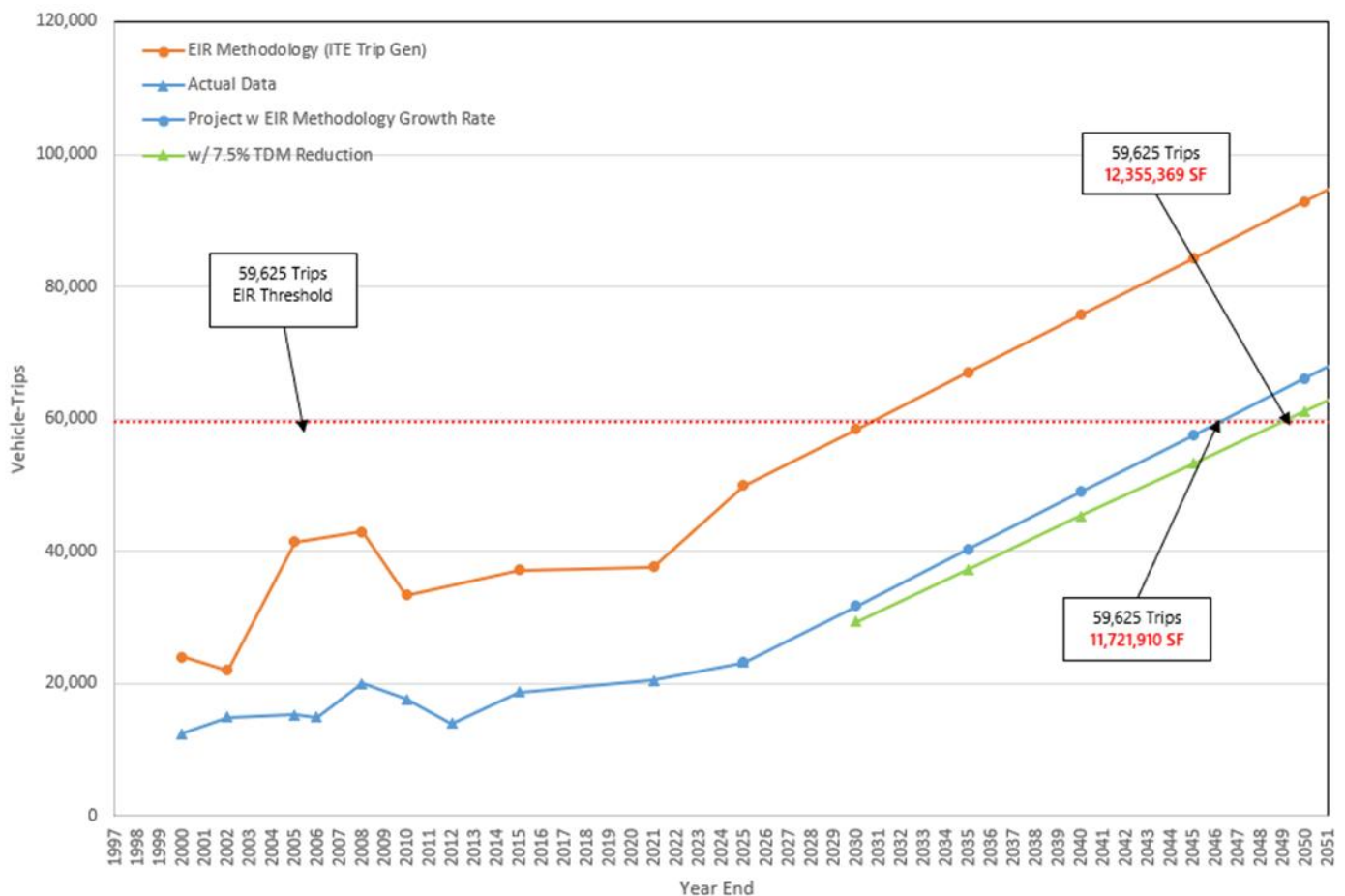


- › Overall, average weekday daily truck traffic has increased by 9% (+198) per day since 2021 with all gates seeing a modest increase when compared to 2021 data. Jackson Gate and Barnum Gate comprise over 85% of truck traffic in Devens. Shirley Gate and Grant Road Gate comprise approximately 5% of total truck traffic.
- › It was determined that in 2025, 29 percent of vehicles which enter Devens at one of the five gates use Devens roadways as cut-through routes. This percentage is essentially the same as it was in 2021 (a 4 percent decrease). The total number of morning (6am to noon) cut-through trips decreased when compared to 2021, suggesting perhaps that fewer drivers are using Devens as a cut-through to avoid regionally congested roadways in the morning periods. The highest number of cut-through trips continue to occur during the afternoon peak hours, with over 50% of all entering Devens' trips from 3:00 PM to 6:00 PM classified as cut-through trips. The largest daily origin-destination movements for the gates are Jackson Gate to Verbeck Gate (23%), Verbeck Gate to Jackson Gate (18%), and Jackson Gate to/from Barnum Gate (11%).
- › Transportation surveys prepared by MassDevelopment were distributed to residents and employees of businesses in Devens. The purpose of the surveys was to collect current information about commutes to and from Devens. The results of the survey, which were received from 518 people (65 residents and 453 employees) are summarized below:
 - 82% of Devens residents and employees utilize automobiles to get to work in 2025. 3% of those surveyed carpool, 1% bike, 1% use transit, and no responses indicated walking as their main mode of travel.
 - Jackson Gate continues to be the most utilized gate, used by ~55-60% of those surveyed.
- › The Massachusetts Bay Transportation Authority (MBTA) Fitchburg commuter rail line services Devens and the surrounding communities at four stations: Ayer, Shirley, North Leominster, and Fitchburg. Between 2018 and 2024, ridership boardings at Devens area stations decreased by 25%.
- › The occupied development in Devens has increased by approximately 364,065 square feet from 6.58 million square feet in 2021 to 6.95 million square feet in 2025.
- › Using standardized Institute of Transportation Engineers (ITE) trip generation rates, it is estimated that existing Devens developments would generate 49,912 vehicle-trips on weekdays.

After being adjusted for cut-through trips, the actual traffic counts at the gates indicate an average weekday daily traffic volume of 23,200 vehicle-trips in 2025. This means that Devens is currently generating traffic at a rate of 46% of what standardized ITE projects a comparable development would generate. By way of comparison, in 2021, results indicated that Devens was generating traffic at a rate of 54% of what a comparable development would generate.

- › Previous reports utilized a yearly build-out projection of 225,000 square feet per year. Conversations with MassDevelopment indicate that this rate should be held for the 2025 5-Year Traffic Monitoring Report. Using this rate, measured traffic volume data, and current development, it is estimated that the 59,625 vehicle-trip threshold would not be reached until 2045 – which would translate to approximately 11,720,000 square feet of occupied development in Devens at the above noted pace of absorption. With implementation of a reasonable Traffic Demand Management Strategies reducing traffic volumes by 7.5%, this threshold is not expected to be reached until 2049. (Figure ES-2). By way of comparison, the 2005 5-year Traffic Monitoring Report estimated that this threshold would be reached in 2014 with 7,360,854 square feet of development. This current update shows that Devens is currently generating significantly less traffic and being developed at a slower rate than projected using the standardized ITE-based projections.

Figure ES-2 Devens Build-out Summary by Year – Trips



- › Intersection Level of Service analyses were performed at fourteen study intersections external to Devens for the morning and evening peak hours using methodologies from the Highway Capacity Manual, 6th Edition. The results indicate that two of the fourteen analyzed intersections

have experienced no change in level of service from 1996 to 2025. Two study intersections have deteriorated by only one level of service and eight study intersections have deteriorated by two or more levels of service, while two intersections have improved in operations due to signalization.

- › Based on the review of the past 25 years of data, traffic on the regional roadway network has remained steady. Trips associated with the development of Devens have increased less than anticipated in the 1994 FEIR and ITE assumptions. Off-post roadways are at roughly 55-58% of FEIR projections while Devens entrances are between 34-45% of FEIR projections. This indicates that activity related to Devens is resulting in minimal impacts on surrounding regional roadways and intersections as compared to general background growth.

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1

Introduction

1.1 Project Purpose and Goals

The 1995 Devens Final Environmental Impact Report (FEIR), issued by the United States Department of the Army, allowed portions of Fort Devens to be redeveloped as a mixed use planned community in accordance with the Devens Reuse Plan. Massachusetts Development Finance Agency (MassDevelopment, formerly The Massachusetts Land Bank) is the public agency with the exclusive responsibility to maintain, control, and redevelop the Devens community. As part of the 1995 FEIR, MassDevelopment committed to a traffic monitoring program at selected locations to identify trends (changes) in traffic patterns and traffic volumes on the adjacent communities.

The Devens Base Reuse Plan limited development to 8.5 million square feet, and a daily vehicle-trip threshold of 59,265 trips was calculated based on projected development levels in the EIR. This study is the sixth 5-year Traffic Monitoring Report (2000, 2005, 2010, 2015, 2021¹ being the prior dates), comprised of the following:

1. A comprehensive review of current traffic trends;
2. Detailed comparison with previous traffic data from the EIR and 2000-2021 Traffic Monitoring Reports; and
3. Future traffic projections based on current traffic trends and methodology presented in the EIR.

1.2 Study Area

The study area for this report was originally defined in the EIR (Figure 1-1). Devens is a regional enterprise zone established by legislation and comprised of parts of Ayer, Shirley, Harvard, and Lancaster. Surrounding towns of Boxborough, Groton, Littleton, and Lunenburg are included in the study area as potential impact communities.

¹ 2020 Report was delayed due to COVID-19 impacts. The 2020 Report contains data from Spring 2021 and was officially published in Fall 2021.

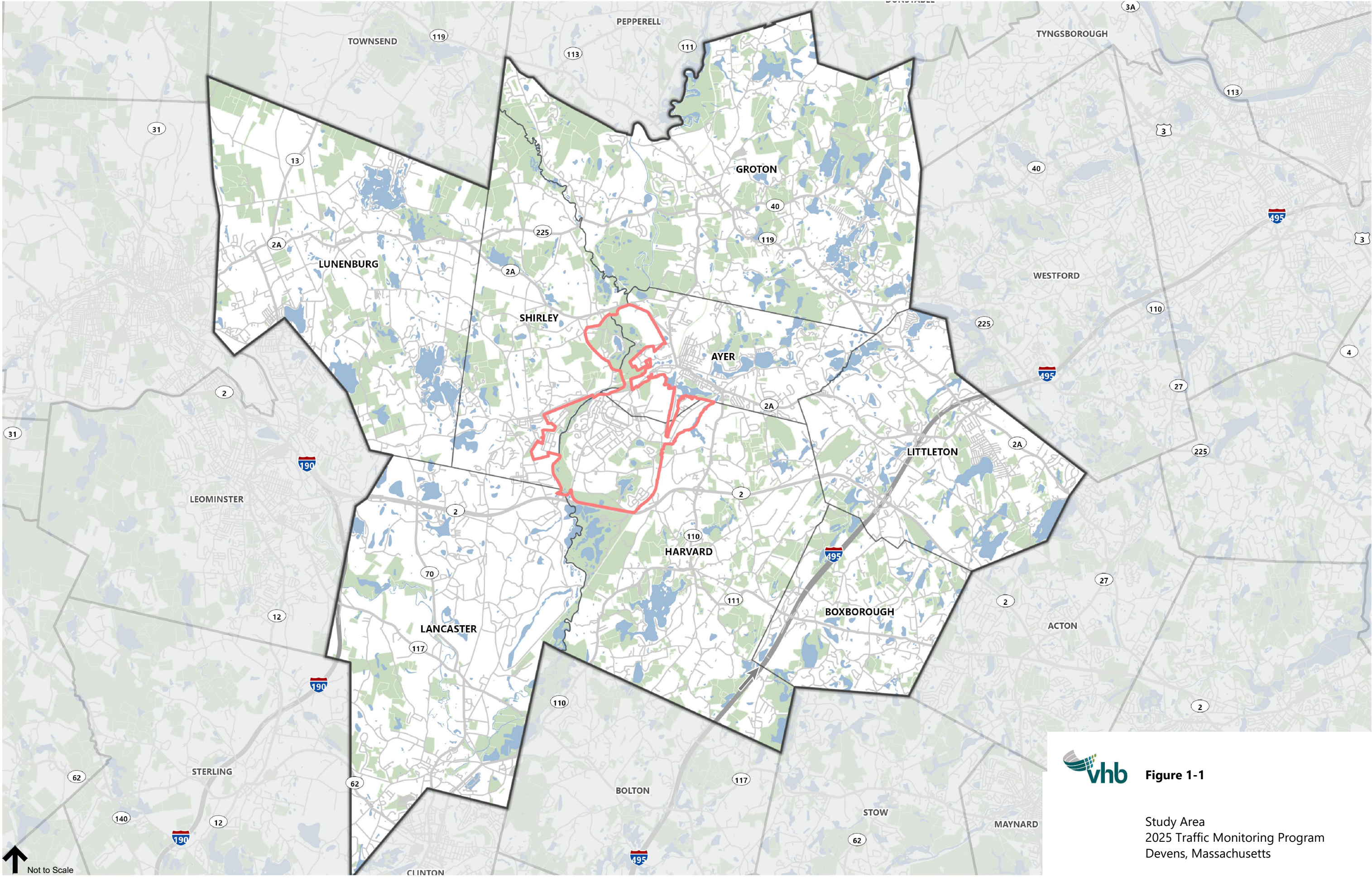


Figure 1-1

Study Area
2025 Traffic Monitoring Program
Devens, Massachusetts

1.3 Scope of Work

The tasks completed in this study are as follows:

- › Automatic traffic recorder volumes
- › Turning movement traffic volumes
- › Origin-destination study
- › Devens resident and business transportation survey
- › Build-out analysis of Devens for future traffic volumes
- › Traffic model update
- › Level of Service analysis for existing conditions, future no-build, and future build scenarios

1.4 Project Coordination

Communities surrounding Devens were contacted in order to gain an understanding of development patterns in the region. Each community was asked to provide an overview of the type and size of current, planned, proposed, and approved projects within its town. The following communities were contacted:

- › Ayer
- › Boxborough
- › Groton
- › Harvard
- › Lancaster
- › Littleton
- › Lunenburg
- › Shirley

The Montachusett Regional Planning Commission (MRPC) was also contacted in order to obtain historic background growth rate data, recent traffic trends, and planned development in the region that could affect the study transportation area.



2

Traffic Data Collection and Research

2.1 Overview

Extensive traffic data were obtained at locations identified in previous reports for consistency and comparison for traffic trends. The locations were both internal (Figure 2-1) and external (Figure 2-2) to Devens. The following traffic data were collected:

- › Intersection turning movement counts
- › Average daily traffic counts
- › Federal Highway Administration (FHWA) vehicle classifications
- › Origin-destination survey
- › Transportation Survey of Devens residents and employees
- › Transit ridership provided by the Massachusetts Bay Transportation Authority (2024 data)

2.2 COVID-19 Adjustment for 2021 Data

In Spring 2020, traffic conditions were influenced significantly by the outbreak of the COVID-19 virus and resulting pandemic. MassDevelopment, working with other state agencies, agreed to postpone the traffic counting efforts associated with the 2020 monitoring efforts until 2021 when traffic volumes would hopefully return to more traditional levels. The data collected and presented in this report for the 2020 edition reflect actual traffic counts conducted in late April and early May 2021 and a one-time 10-percent growth factor to reflect the reduced volumes around and within the Devens area. The 10-percent growth number was developed through review of 2019, 2020, and 2021 permanent count station data and an interim study prepared for MassDevelopment in September 2020 which indicated that traffic volumes were not fully back to 'normal' following the pandemic.

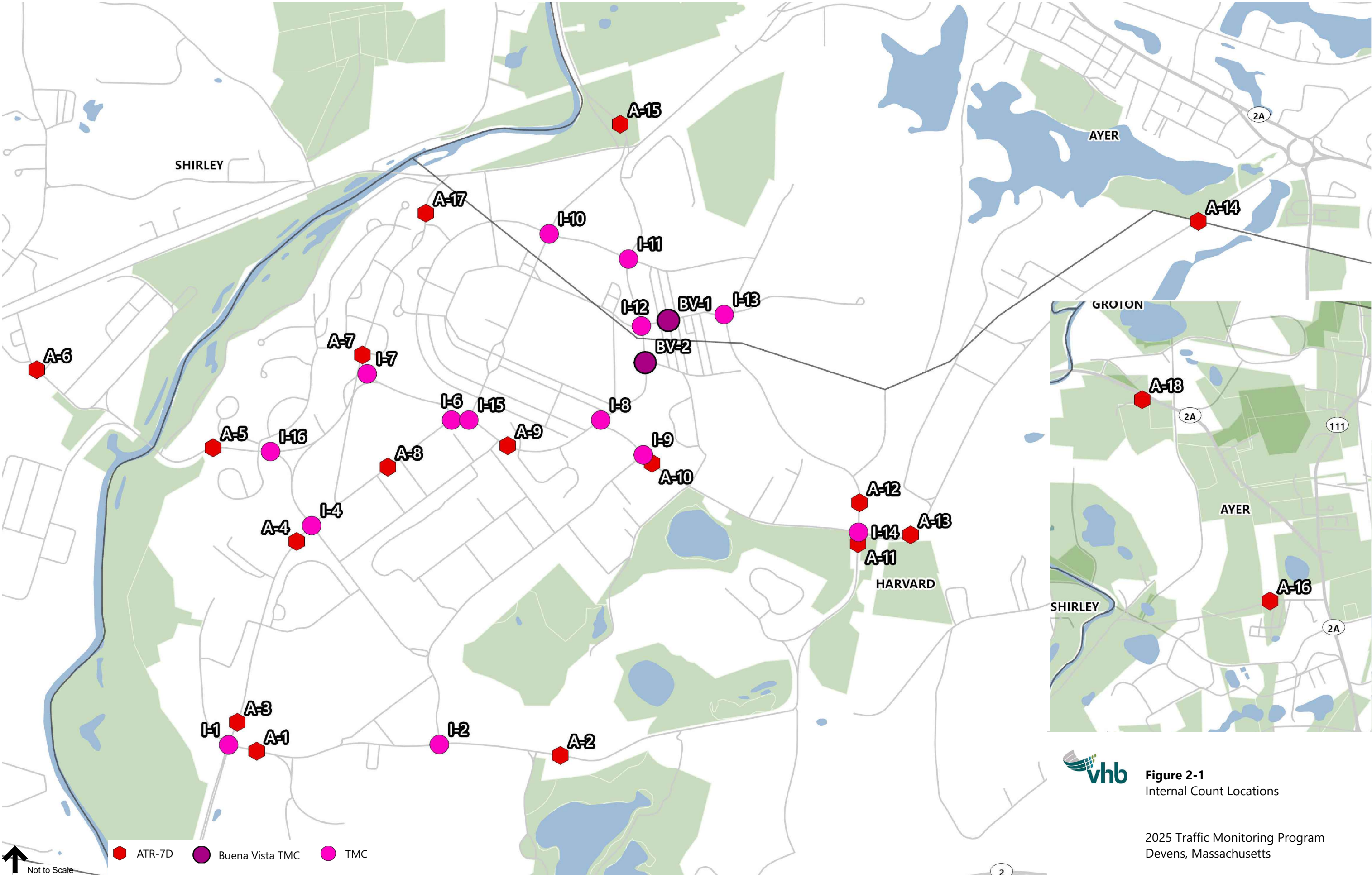
Where applicable, the 2025 data has been compared to the 2021 Covid Adjusted data, which was increased by 10-percent. All 2021 reported data includes the 2021 Covid adjustment.

2.3 Intersection Turning Movement Counts

Existing intersection traffic volumes were collected during the weekday AM (7-9) and PM (4-6) peak hours to establish a baseline 2025 condition. The locations and intersection numbering system used in this study are consistent with those from previous studies. Intersection turning movement counts were conducted at locations both internal (Figure 2-1) and external (Figure 2-2) to Devens.

2.3.1 Internal Counts

Intersection turning movement counts were conducted at fourteen locations internal to Devens during the weekday morning (7-9AM) and weekday afternoon (4-6PM) peak hours in May of 2025. These counts classified cars, heavy vehicles, pedestrians, and bicycles. The locations and count dates are listed on page 8 with corresponding intersection ID numbers, which will be used to identify the locations throughout this report. Morning and afternoon peak hour turning movement counts at internal intersections are provided in Figures 2-3 and 2-4, respectively.



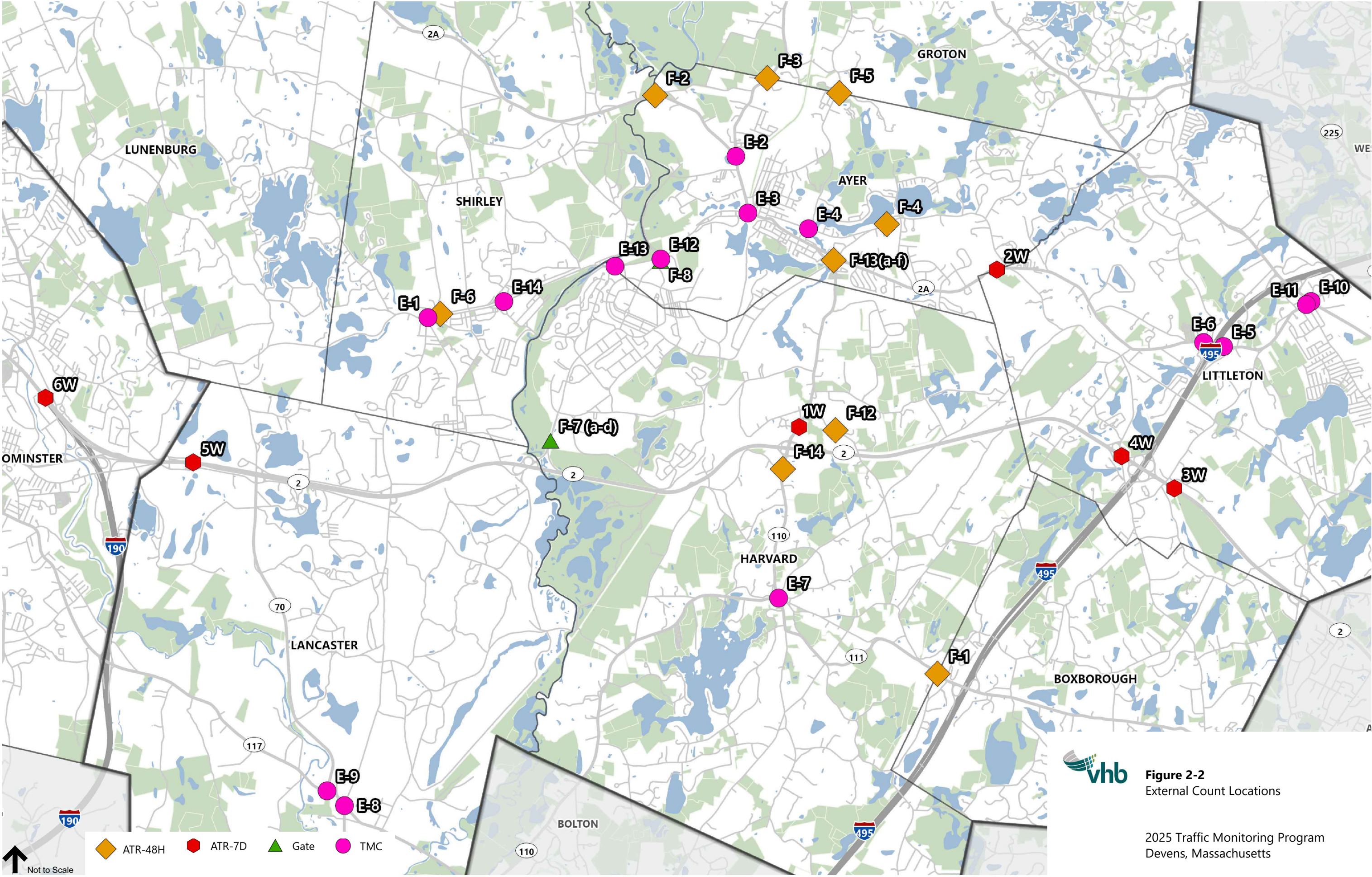


Figure 2-2
External Count Locations

2025 Traffic Monitoring Program
Devens, Massachusetts

Table 2-1 Internal Intersection Counts

ID	Intersection	Date
I-1	Jackson Road/Patton Road	5/7/2025
I-2	Patton Road/Queenstown Street	5/7/2025
I-3	Eliminated (2010)	
I-4	Jackson Road/Givry Street	5/7/2025
I-5	Eliminated (2010)	
I-6	Jackson Road/Pine Road	5/7/2025
I-7	Grant Road/Pine Road	5/7/2025
I-8	Jackson Road/Barnum Road	5/7/2025
I-9	Queenstown Street/Barnum Road	5/7/2025
I-10	Antietam Street/Sherman Avenue	5/7/2025
I-11	Antietam Street/Jackson Road	5/7/2025
I-12	Buena Vista Street/Jackson Road	5/7/2025
I-13	Buena Vista Street/Saratoga Boulevard/Independence Drive	5/7/2025
I-14	Patton Road/Barnum Road/Saratoga Boulevard	5/7/2025
I-15	Jackson Road/Sherman Avenue	5/7/2025
I-16	Givry Street at Hospital Road	5/7/2025

Internal intersections I-3 and I-5 were eliminated from the program following the 2010 monitoring study. Intersection I-7 was relocated in the 2015 study from Jackson Road/MacArthur Road to Grant Road/Pine Road in order to establish a baseline scenario for a new residential development to be constructed in the vicinity of this intersection. Intersection I-16 (a 3-sided, three-legged intersections) was added as part of this evaluation as development near this location occurred in the past 4 years.

Additionally, driveway turning movement counts and vehicle classifications were conducted at twenty-seven businesses during the weekday morning (7-9AM) and weekday afternoon (4-6PM) peak hours in May 2025. The locations and count dates are listed below with corresponding intersection ID numbers, which will be used to identify the locations throughout this report. These volumes provide a snapshot of traffic activity and generation by Devens businesses. Peak hour driveway turning movement volumes are also included in Figures 2-3 and 2-4.

Table 2-2 Driveway Counts

ID	Business Driveway	Date
D-1	Quiet Logistics (formerly American Superconductor) – 64 Jackson Road	5/7/2025
D-2	Quiet Logistics (formerly Anheuser-Busch) – 235 Barnum Road	5/6/2025
D-3	FBOP – Federal Medical Facility – 24 Patton Road	5/6/2025
D-4	Quiet Logistics (formerly Gillette) – 66 Saratoga Boulevard	5/6/2025
D-5	Job Corps – 270 Jackson Road	5/6/2025
D-9	SMC LTD (formerly Sonoco) – 18 Independence Drive	5/7/2025
D-10	Rock Tenn (formerly Southern Container) – 51 Independence Boulevard	5/6/2025
D-11	AOA Xinetics – 115 Jackson Road	5/7/2025
D-12	Army Enclave at Quebec Street and 10 th Mountain Division Road	5/7/2025
D-13	Devens Common – Ryans Way	5/6/2025
D-14	Devens Common – Andrews Parkway	5/6/2025
D-15	Bristol-Meyer Squibb – 38 Jackson Road	5/7/2025
D-16	NYPRO (formerly Evergreen Solar) – 112 Barnum Road	5/8/2025
D-17	Army Enclave at Lovell Road at Hospital Road	5/8/2025
D-18	IMEC Systems – 137-139 Barnum Road	5/8/2025
D-19	National Distribution Centers (formerly NFI) – 32 Independence Drive	5/6/2025
D-20	Devens Recycling Center – 45 Independence Drive	5/6/2025
D-21	85 Patton Road – TerraVista Health Center	5/7/2025
D-22	45 Jackson Road – Azzur Group, Pathways Devens (KSP)	5/8/2025
D-23	65 Jackson Road – Canteen Café, Sterling Street Brewery	5/6/2025
D-24	35 Saratoga Boulevard – Avantor (Barnum Rd entrance)	5/6/2025
D-25	15 Independence Drive - O'Reilly Auto Parts	5/6/2025
D-26	16 Bulge Road – Watson-Marlow Fluid Technology Group	5/7/2025
D-27	Airfield - Massachusetts State Police EVOG Training	5/6/2025
D-28	49 Antietam Street – Parker Charter School	5/7/2025
D-29	111 Hospital Road	5/7/2025
D-30	117 Hospital Road	5/6/2025

Note: Driveways D-6, D-7, and D-8 were removed from evaluation in previous assessments. Driveways D-21 through D-30 were added as part of this assessment.

Driveway locations were eliminated because they were either vacant or determined to be duplicative due to other access points to the same properties.

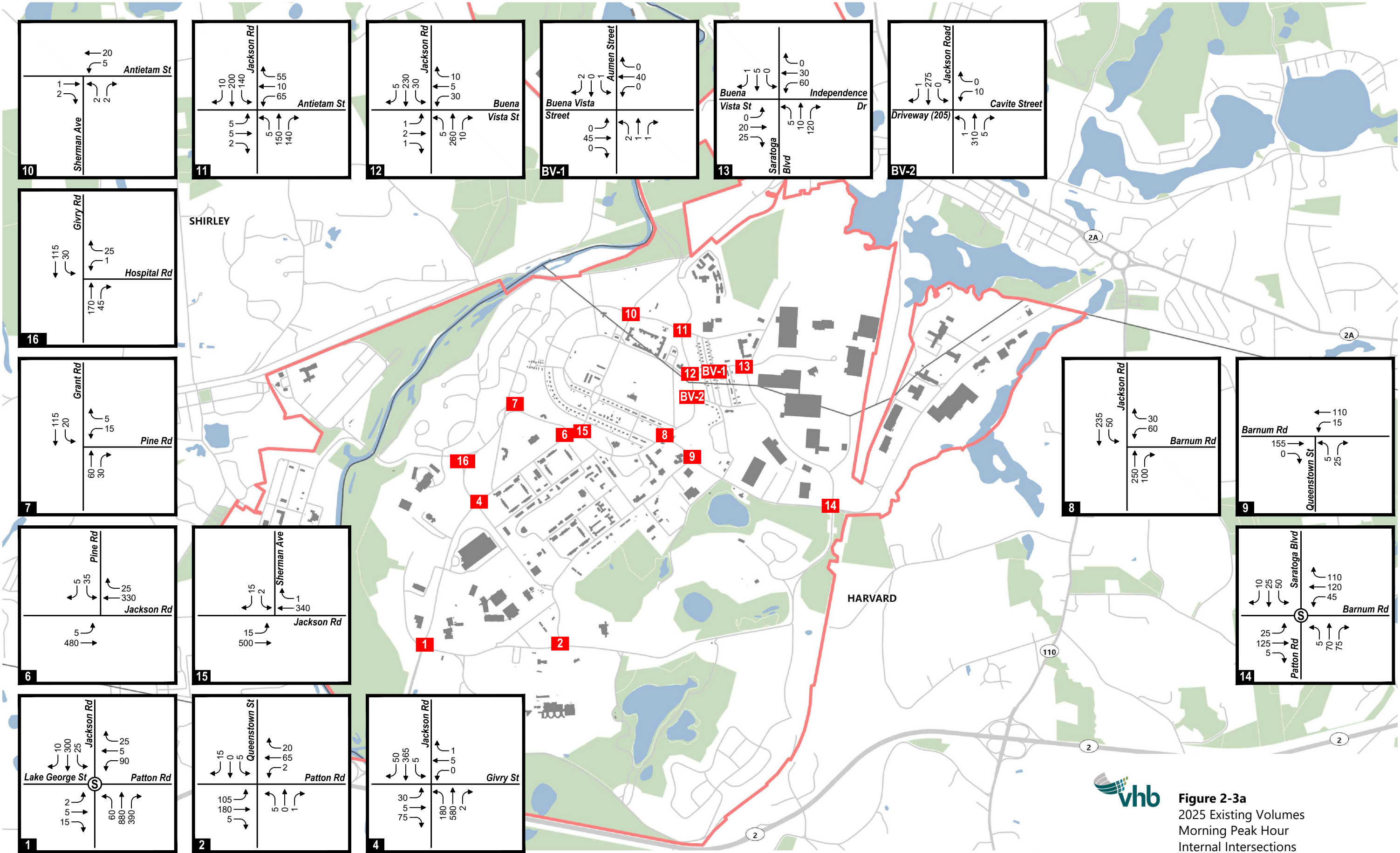


Figure 2-3a
2025 Existing Volumes
Morning Peak Hour
Internal Intersections
2025 Traffic Monitoring Program
Devens, Massachusetts

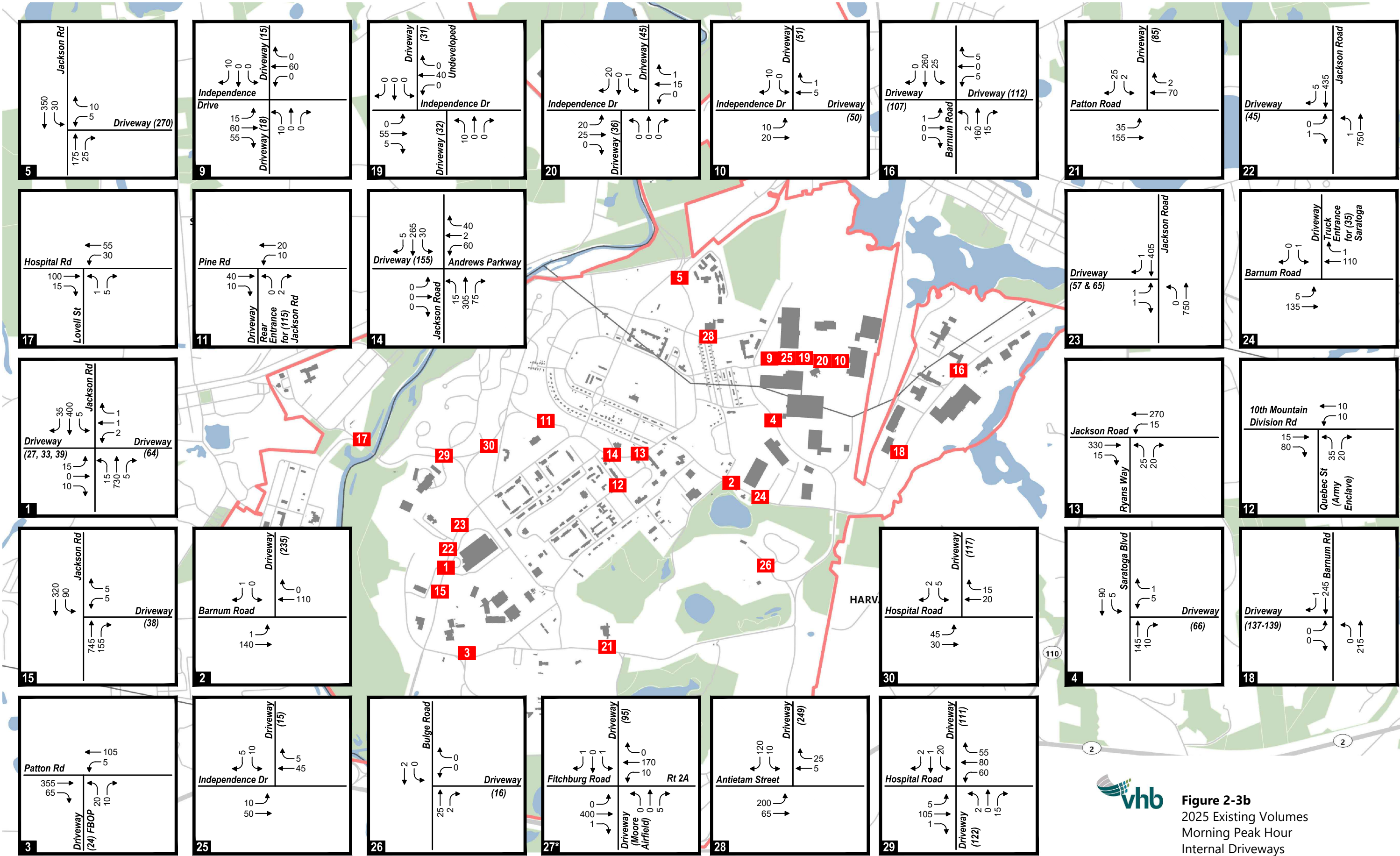


Figure 2-3b
2025 Existing Volumes
Morning Peak Hour
Internal Driveways
2025 Traffic Monitoring Program
Devens, Massachusetts

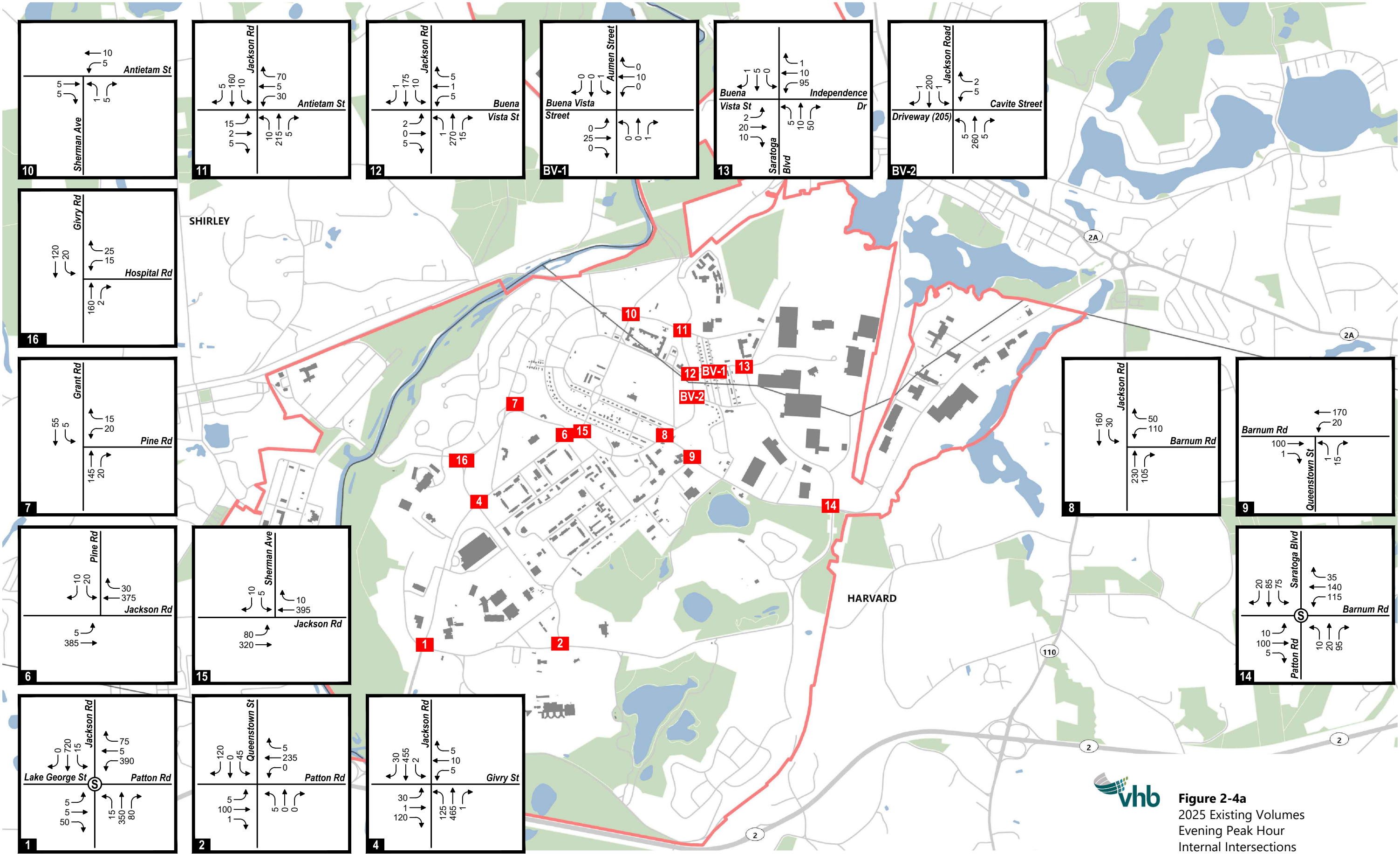
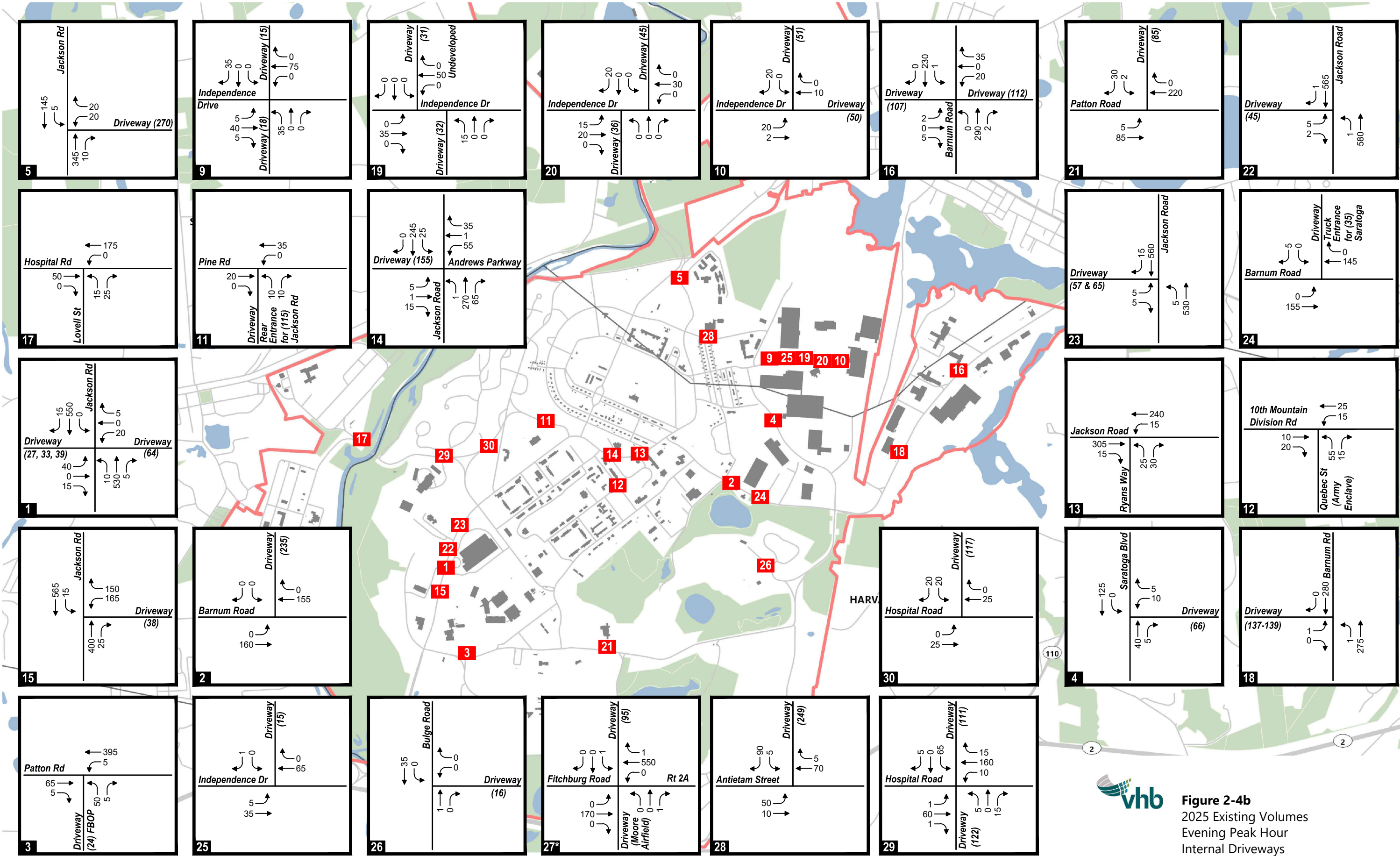


Figure 2-4a
2025 Existing Volumes
Evening Peak Hour
Internal Intersections
2025 Traffic Monitoring Program
Devens, Massachusetts



2.3.2 External Counts

Intersection turning movement counts and vehicle classifications were conducted at fourteen locations in towns surrounding Devens during the weekday morning (7-9AM) and weekday afternoon (4-6PM) peak hours on Thursday May 8, 2025. These external locations and count dates are listed below with corresponding intersection ID numbers, which will be used to identify the locations throughout this report. Morning and afternoon peak hour turning movement counts at external intersections are provided in Figures 2-5 and 2-6, respectively.

Table 2-3 External Intersection Counts

ID	Intersection	Town	Date
1	Front Street/Lancaster Street/Leominster Road/Center Road	Shirley	5/8/2025
2	Park Street/Fitchburg Road/Groton School Road	Ayer	5/8/2025
3	Park Street/Main Street/West Main Street	Ayer	5/8/2025
4	Groton-Harvard Road/Central Avenue	Ayer	5/8/2025
5	Route 2A-110/I-495 Exit 30 Northbound (NB) Ramps	Littleton	5/8/2025
6	Route 2A-110/I-495 Exit 30 Southbound (SB) Ramps	Littleton	5/8/2025
7	Route 110-111 (Ayer Road)/Route 110 (Still River Road)/Route 111	Harvard	5/8/2025
8	Route 70/117 (Seven Bridge Road)	Lancaster	5/8/2025
9	Route 70/117 (Lunenburg Road)	Lancaster	5/8/2025
10	Route 110 (King Street)/Route 119/Route 2A (Great Road)	Littleton Common	5/8/2025
11	Route 2A-110 (King Street)/Goldsmith Street	Littleton Common	5/8/2025
12	Verbeck Gate/MacPherson Road	Ayer	5/8/2025
13	Grant Road/West Main Street	Ayer	5/8/2025
14	Hospital Road/Front Street	Shirley	5/8/2025

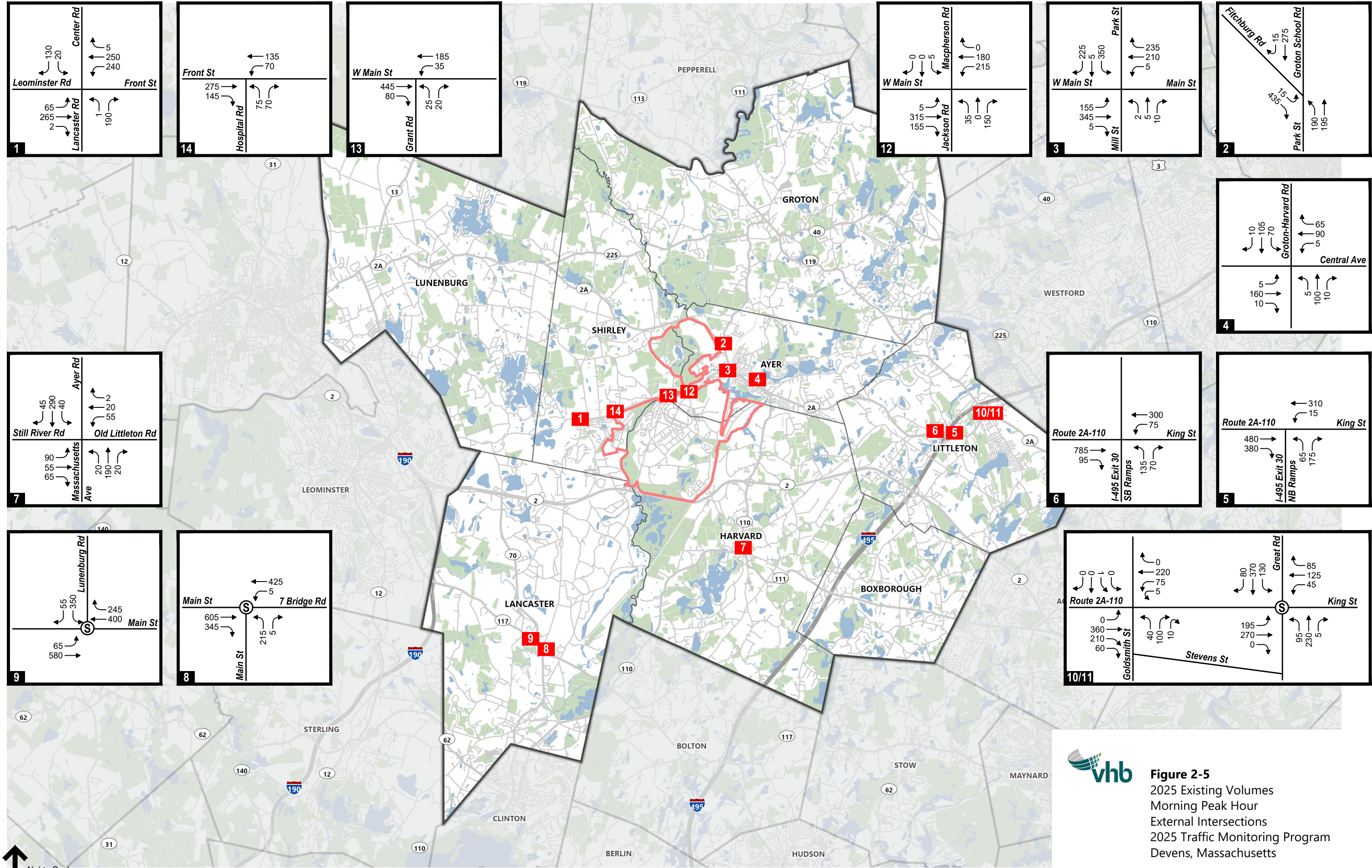
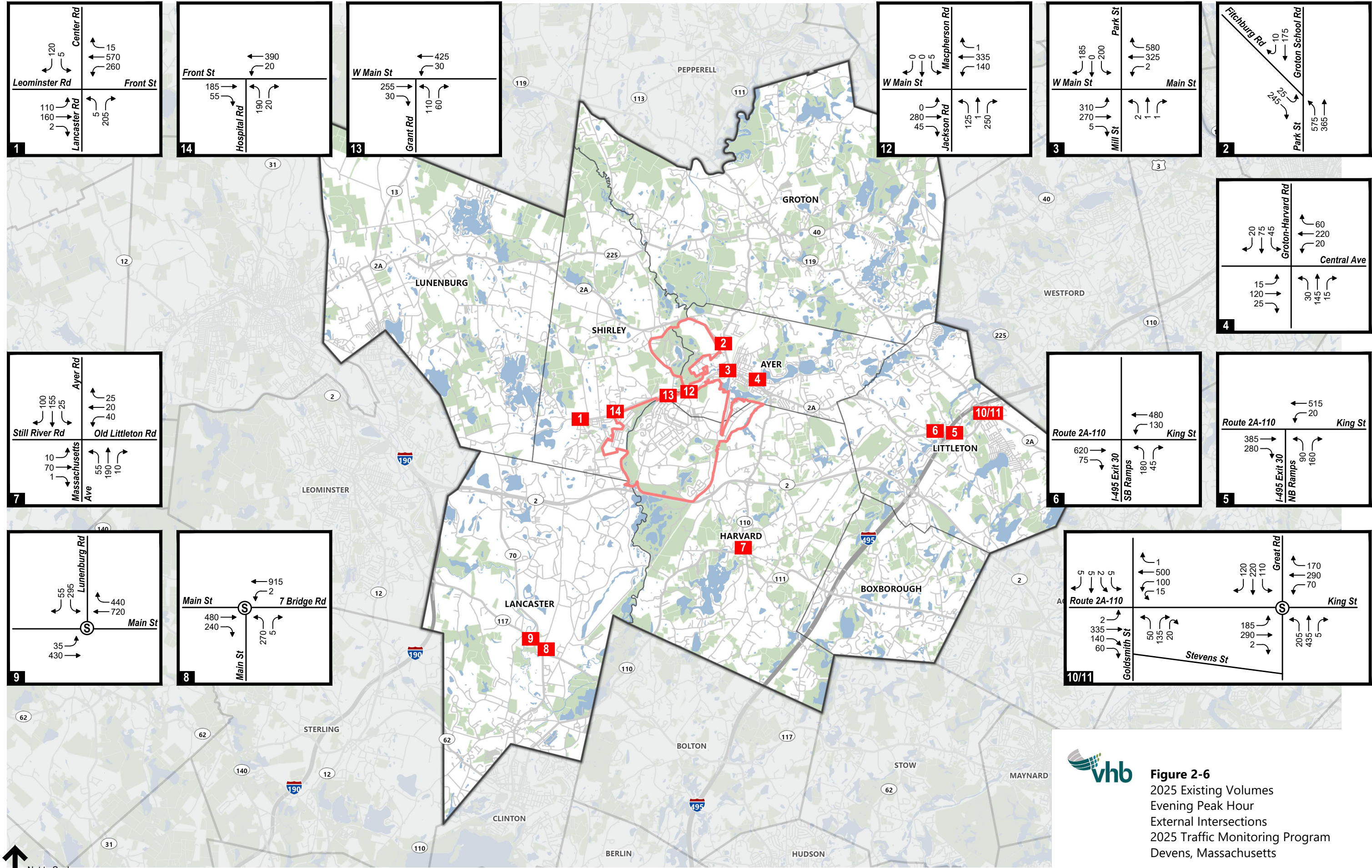


Figure 2-5
2025 Existing Volumes
Morning Peak Hour
External Intersections
2025 Traffic Monitoring Program
Devens, Massachusetts



2.4 Average Daily Traffic Counts

In addition to turning movement counts, automatic traffic recorders (ATRs) were placed at key locations consistent with previous reports to record 48-hour and full week-long (7-day) traffic volume counts. Count dates and a summary of average weekday daily traffic (AWDT) volumes are provided in Table 2-4. Data recorded includes:

- › Weekday daily volumes
- › AM and PM peak hour volumes
- › Vehicle classification based on FHWA criteria: motorcycles, passenger cars, 4 Tire single unit, buses, 2 Axle 6 Tire, 3 Axle Single, 4 Axle Single, <5 Axle Double, 5 Axle Double, >6 Axle Double, <6 Axle Multi, 6 Axle Multi and >6 Axle Multi vehicles.

Specific to the entry points to the Devens area, the recorded 2025 traffic data shows that the Jackson Gate has the highest number of daily vehicle-trips entering and exiting Devens (17,254) followed by Barnum (5,903), Verbeck (5,154), and Shirley (2,306). Grant Road Gate recorded the fewest number of daily trips (2,083). Additional discussions of the traffic data trends are presented in Section 3.

2.5 Origin-Destination Survey

In addition to the specific locations within and external to Devens, an origin-destination study was conducted in order to determine the amount of traffic using Devens' roadways as a cut-through route. Traffic data was gathered using StreetLight for the dates traffic counts were gathered along Devens roadways. StreetLight uses location-based services data from smartphone applications combined with navigation-GPS data from connected commercial vehicles normalized against U.S. Census data to gather vehicle trip data.² Using StreetLight software, vehicles were recorded as they passed through the each of the five Devens gates (either entering or exiting Devens). The trip identifiers were sorted and matched according to the 60-minute interval in which they were recorded passing into or out of one of the gates. These identifiers entering Devens at each of the five gates were then matched to those exiting the other four Devens gates. Results of the origin-destination survey as well as discussions on cut-through traffic are provided in Section 3.6.

2 *StreetLight AADT 2019 Methodology and Validation White Paper*, StreetLight Insight, May 2020.

Table 2-4 Average Weekday ATR Counts

Location Number	Location	Count Dates	AWDT 2025	AM Peak Hour 2025	PM Peak Hour 2025
48-Hour ATR Counts					
1	Route 111 at Boxborough /Harvard Town Line	5/6/2025-5/7/2025	5,217	560	509
2	Route 2A at Ayer/Shirley Town Line	5/6/2025-5/7/2025	7,260	619	705
3	Route 111 at Ayer/Groton Town Line	5/6/2025-5/7/2025	5,230	418	528
4	Sandy Pond Road east of Central Avenue, Ayer	5/6/2025-5/7/2025	6,783	604	704
5	Groton-Harvard Road at Ayer/Groton Town Line	5/6/2025-5/7/2025	4,200	331	403
6	Front Street west of Ayer Street, Shirley	5/6/2025-5/7/2025	8,171	700	840
7	Jackson Gate		17,254	1,741	1,700
	› From Route 2 WB Off Ramp to Jackson Road NB	5/6/2025-5/7/2025	3,629	622	215
	› From Route 2 EB Off Ramp to Jackson Road NB	5/6/2025-5/7/2025	5,368	713	284
	› From Jackson Road SB to Route 2 WB On Ramp	5/6/2025-5/7/2025	5,164	258	713
	› From Jackson Road SB to Route 2 EB On Ramp	5/6/2025-5/7/2025	3,094	148	488
8	Verbeck Gate	5/6/2025-5/7/2025	5,154	568	513
9	Shirley Gate	5/6/2025-5/7/2025	2,306	188	243
10	Barnum Gate	5/6/2025-5/7/2025	5,903	491	571
11	Grant Road Gate	5/6/2025-5/7/2025	2,083	186	219
12	Poor Farm Road east of Route 110/111, Harvard	5/6/2025-5/7/2025	1,396	135	143
13	Carlton Rotary				
	› Route 2A/110 east of rotary	5/6/2025-5/7/2025	12,662	902	1,083
	› Sandy Pond Road north of rotary	5/6/2025-5/7/2025	5,323	376	476
	› Route 2A/111 west of rotary (WB)	5/6/2025-5/7/2025	8,853	501	978
	› Route 2A/111 west of rotary (EB)	5/6/2025-5/7/2025	8,257	827	494
	› Barnum Road south of rotary	5/6/2025-5/7/2025	6,341	548	608
	› Route 110/111 south of rotary	5/6/2025-5/7/2025	14,583	1,171	1,193
14	Route 110/111 south of Route 2, Harvard	5/6/2025-5/7/2025	7,875	811	739
48 Hour ATR Counts – Buena Vista Area					
BV-A	Jackson Avenue north of Antietam Street	5/4/2025-5/10/2025	5,007	548	526
BV-B	Jackson Avenue south of Antietam Street	5/4/2025-5/10/2025	4,766	544	479
BV-C	Jackson Avenue south of Buena Vista Street	5/4/2025-5/10/2025	5,227	560	497
BV-D	Jackson Avenue south of Cavite Street	5/4/2025-5/10/2025	5,358	574	503
BV-E	Antietam Street west of Cook Street	5/4/2025-5/10/2025	623	85	93
BV-F	Buena Vista Street west of Saratoga Boulevard	5/4/2025-5/10/2025	1,016	74	46
BV-G	Saratoga Boulevard south of Buena Vista Street	5/4/2025-5/10/2025	2,227	234	208
BV-H	Independence Drive east of Cook Street	5/4/2025-5/10/2025	2,861	240	218

Table 2-4 Average Weekday ATR Counts (Continued)

Location Number	Location	Count Dates	AWDT 2025	AM Peak Hour 2025	PM Peak Hour 2025
7-Day ATR Counts					
1	Route 110-111 north of Route 2, Harvard	5/4/2025-5/10/2025	14,855	1,243	1,256
2	Route 2A-110 at Littleton/Ayer Town Line	5/4/2025-5/10/2025	10,257	745	883
3	Route 2 east of I-495, Littleton	5/4/2025-5/10/2025	52,018	4,238	3,969
4	Route 2 west of I-495, Littleton	5/4/2025-5/10/2025	62,635	4,894	4,742
5	Route 2 west of Route 70, Lancaster	5/4/2025-5/10/2025	63,491	4,418	4,944
6	Route 2 west of I-190, Leominster	5/4/2025-5/10/2025	80,743	5,740	6,277
A1*	Patton Road, East of Jackson Road	5/4/2025-5/10/2025	4,725	516	522
A2*	Patton Road, East of Mirror Lake Road	5/4/2025-5/10/2025	3,199	286	337
A3*	Jackson Road, North of Patton Road	5/4/2025-5/10/2025	12,679	1208	1126
A4*	Jackson Road, South of Givry Street	5/4/2025-5/10/2025	12,226	1143	1090
A5*	Hospital Road, Between NE Studios & Bill Ashe Center	5/4/2025-5/10/2025	4,144	369	348
A6*	Hospital Road, Between Frost Road & Shirley Meadows	5/4/2025-5/10/2025	2,306	188	243
A7*	Grant Road, North of Pine Road	5/4/2025-5/10/2025	2,128	190	212
A8*	Jackson Road, Between Peggy St & Charlestown Street	5/4/2025-5/10/2025	8,099	768	747
A9*	Jackson Road, Between MacArthur Avenue & Andrews Parkway	5/4/2025-5/10/2025	8,427	786	763
A10*	Barnum Road, East of Queenstown St	5/4/2025-5/10/2025	3,087	259	312
A11*	Patton Road, South of Barnum Road	5/4/2025-5/10/2025	2,735	224	295
A12*	Saratoga Boulevard, North of US Army	5/4/2025-5/10/2025	3,007	287	275
A13*	Barnum Road, East of Railroad Bridge	5/4/2025-5/10/2025	5,511	455	549
A14*	Barnum Road, at DREZ Line	5/4/2025-5/10/2025	5,903	491	571
A15*	Macpherson Road, North of West Main Street	5/4/2025-5/10/2025	616	82	43
A16*	Bishop Road, West of Sacred Heart Avenue	5/4/2025-5/10/2025	906	97	74
A17*	Grant Road, North of Malvern Hill Street	5/4/2025-5/10/2025	2,083	186	219
A18*	Moore Army Airfield, Southwest of Fitchburg Road	5/4/2025-5/10/2025	158	29	11

*Location added in 2025

2.6 Devens Resident and Business Employee Transportation Survey

Transportation surveys prepared by MassDevelopment were distributed to both residents and employees of businesses in Devens. The purpose of the survey was to collect information about commutes to and from Devens. The survey (see Appendix) posed the following questions:

- › How do you travel to work?

- › What time do you typically arrive to work and leave work Monday through Friday?
- › Do you work within Devens or outside of Devens?
- › Which gate/entrance do you use most often to get to work?
- › Which gate/entrance do you use most often to return home from work?
- › What are the primary route(s) you use to and from work?
- › Where do you work?
- › What town do you live in?
- › Has COVID-19 changed your commuting habits?
- › Do you foresee returning to a commuting pattern you experienced prior to the Pandemic?

Results of the survey were received from 518 people (65 residents and 453 employees). The results are summarized in Figures 2-7, and 2-8. In 2010, 2015 and 2021, the results of this survey indicated that the majority of residents and employees (~55-60%) used Jackson Gate for their commutes to and from work. Results of the survey in 2025 indicate that Jackson Gate continues to be the most highly utilized gate, used by 75% of those surveyed (a measurable increase when compared to 2021 data). This is in line with the overall traffic trends and utilization of the gates.

As expected, a high number of respondents noted that they drove alone (83%) in 2025. More typically, prior reports note that majority of those surveyed in 2021 (81%) drove to and from work by themselves.

Figure 2-7 Devens Transportation Survey Results (by Gate)

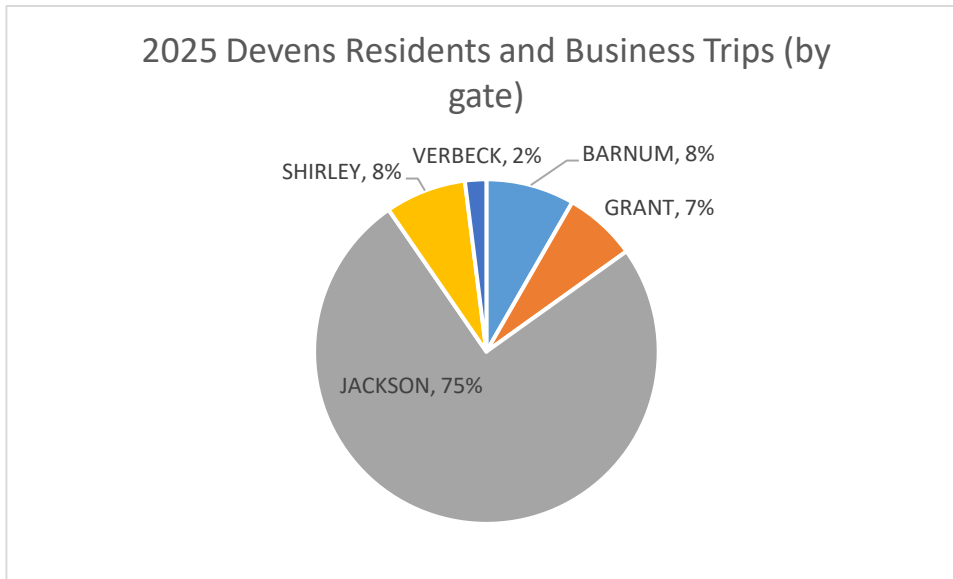
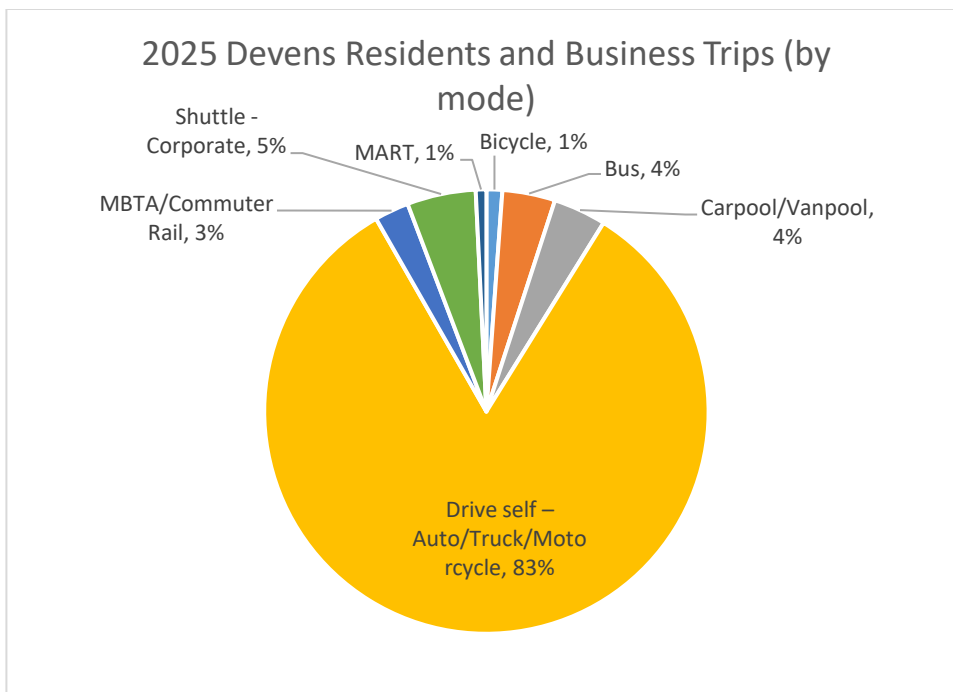


Figure 2-8 Devens Transportation Survey Results (by mode)



2.7 Transit Ridership

The Massachusetts Bay Transportation Authority (MBTA) Fitchburg commuter rail line services Devens and surrounding communities at four stations, Ayer, Shirley, North Leominster, and Fitchburg. Between 2018 and 2024, daily boardings have continued to decrease (Table 2-5). The latest MBTA data available (2024) shows a decrease in boardings of 25% in the region since 2018.

This decrease in boardings has been experienced by all four stations in the region. Overall, combined daily boardings at the four stations have decreased by 25% from 2018 to 2024. Much of this could be attributed to remote work implementation throughout the Commonwealth and slow rebound of commuter rail activity.

Table 2-5 MBTA Commuter Rail Daily Boardings at Devens Area Stations

Station	2/99	2/00	2/01	2/02	2/03	2/04	2/05	4/06	6/07	2/08	2/09	11/10	11/11	11/12	4/13	5/18	Fall 24	% Change 2018 -2024
Ayer	186	190	228	194	209	245	292	336	327	427	490	304	419	405	435	244	190	-22%
Shirley	162	171	151	115	116	130	180	179	191	218	144	189	240	297	315	147	103	-30%
North Leominster	217	200	208	185	176	186	311	321	357	408	366	348	481	318	313	236	146	-38%
Fitchburg	201	231	209	240	236	195	307	363	386	440	462	429	465	411	516	287	250	-13%
Total	766	792	796	734	737	756	1090	1199	1261	1493	1462	1270	1605	1431	1579	914	689	-25%

Source: Massachusetts Bay Transit Authority

Results of the transportation survey indicate that 7% of Devens residents use some form of transit to get to and from work, while 17% of employee responses indicated this mode choice³. Montachusett Area Regional Transit (MART) typically provides a shuttle from Littleton Station (which provides commuter rail service to North Station in Boston) to and from Devens businesses during morning and afternoon peak hours to encourage use of the commuter rail by those reverse commuting to and from the Boston area. The moderate response rate for transit usage suggests the TDM strategies being employed by Devens businesses and residents are proving successful.

In addition to the MBTA, MART also provides regional shuttle services to the general public from Fitchburg and Leominster to Devens, Shirley and Ayer.⁴ The shuttle service has fixed stops in Fitchburg and Leominster but begins flag-down service once it reaches the Devens area. Service runs on a fixed schedule in the early AM and the evening on Monday - Friday. This service has two fare zones—Regional (from Fitchburg/Leominster) and Local (within Shirley, Ayer and Devens). Service to the Devens Area is currently an on-demand taxi service.

Additionally, Bristol-Myers Squibb (BMS) operates a shuttle from their Devens location (38 Jackson Road) to Alewife Station with a stop at the Littleton/495 Commuter Rail Station.⁵ There are two shuttles that operate in both the morning and evening peak hour at no charge for employees.

³ Transit mode choice considers the following responses: bus; carpool/vanpool; MBTA/Commuter Rail; Shuttle; and MART.

⁴ <http://www.mrta.us/routes-schedules/devens-regional-shuttle>

⁵ <http://www.bmsshuttle.com/>

2.8 Background Traffic Growth

Background traffic growth is typically a function of future land development, increased economic activity, and changes in travel patterns. These developments are external to Devens. The Montachusett Regional Planning Commission (MRPC) was consulted to determine the appropriate annual growth rate for projecting future traffic volumes in the Devens area. MRPC indicated that a 2% regional growth rate is warranted for the MRPC region. This growth rate is consistent with the 2021 report and is slightly higher than the 1.77% used in the 2015 report.

2.9 Regional Development

There is currently no ongoing construction for projects of regional significance in the Devens area. This was confirmed through consultation with MRPC and MassDOT representatives. However, there are three noted projects included on the most recent Transportation Improvement Program (TIP) in relative close proximity to Devens:

- › Ayer – Roadway rehabilitation on Route 2A/111 (Park Street and Main Street)
- › Lunenburg – Safety Improvements at Route 2A at Electric Avenue and Chase Road (Route 13)
- › Harvard – Resurfacing and box widening on Ayer Road, from Route 2 to the Ayer Town Line

These projects are expected to have minimal influence on traffic volume conditions in and around the Devens area once constructed. A number of projects on the MRPC Transportation Improvement Program within the study area had less of a regional focus.

Municipalities surrounding Devens as well as the MRPC were contacted in order to understand projects that are in progress, planned, and/or have the potential to be new projects that may contribute to future traffic volumes in and around Devens. The following are the results of this correspondence:

- › Ayer
 - 106 residential units at 65 Fitchburg Road
 - 53 residential units at High Street and Groton Harvard Road
- › Groton
 - 24 residential units at 63 Gratuity Road
 - Village at Shepley Hill (Longley Road and Sand Hill Road) – 13 duplex townhomes (26 total units); age restricted to 55+ (Parcel 226-2)
- › Lancaster
 - 150 residential units at McGovern Boulevard
 - 135-acre mixed-use redevelopment of Atlantic Union College of Main Street on South Lancaster
 - 80-acre residential redevelopment along Old Common Road
- › Littleton
 - Commercial office / R&D development at 225 Taylor Street
 - 7 Lot subdivision at 195 Tahattawan Road

- Industrial site redevelopment at 410 Great Road
- Storage facility at 6 Spectacle Pond Road
- › Shirley
 - No Information

The following communities did not report any projects of significance:

- › Boxborough
- › Harvard
- › Shirley
- › Lunenburg

Based on information received from the municipalities, Ayer and Lancaster are expected to see the most significant amount of new development. Given the flat growth in traffic volumes in recent years, the application of the 2% per year annual growth rate would yield conservative estimates (i.e., higher than expected) and account for any specific regional background growth projects.



3

Traffic Trends

Traffic data obtained in the 2025 traffic monitoring program were compared with data from previous years in order to identify changes in traffic over time. The following trends were analyzed:

- › Devens driveway volumes
- › Average weekday daily traffic counts at locations internal and external to Devens
- › Peak external intersection volumes
- › Average weekday daily traffic volumes at Devens gates
- › Weekday truck traffic
- › Cut-through traffic

For the purposes of this report, traffic trends are generally compared with the 2021 Five-Year Traffic Report. Data from previous five-year traffic studies as well as biennial studies are included throughout this report.

3.1 COVID-19 Adjustments

In March 2020, the COVID-19 virus outbreak had a direct impact on traffic volumes at every level of roadway (local, regional, and interstate) both locally, regionally, and nationally. The pandemic-related impacts significantly influenced the reported traffic observations in the 2021 Devens monitoring study.

As the past four years have seen a rebound to near-normal traffic conditions, it is clear that many businesses (particularly those with traditional office-settings) have adjusted the ways their employees commute to/from their place of employment. It has become more common for business to offer remote and hybrid work accommodations where applicable to their employees as opposed to the formerly traditional “9 to 5” office hours, five days a week.

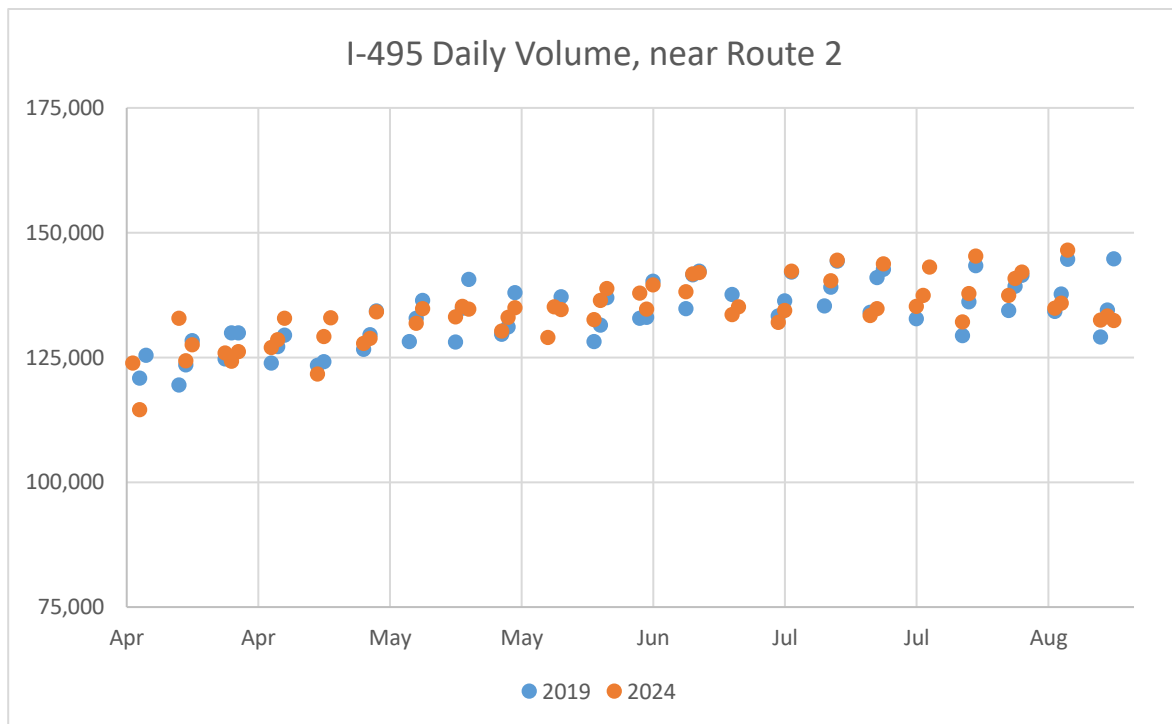
Working with MassDOT, information was gathered from regional counting stations to provide a summary of how volumes were pre-pandemic, and in 2024, after normal driving activity levels had

rebounded. Figure 3-1 below provides a scatter diagram of these volumes as they exist along I-495 just adjacent Route 2 (the closest regional traffic counting station near Devens).

The resulting findings note that on a daily basis, existing regional volumes from 2024 along I-495 are similar to daily volumes from 2019 (pre-pandemic volumes). As such, the effects of the pandemic from a daily volume perspective, no longer appear to be impacting volumes at a regional level.

MassDOT has also issued updated guidance on traffic count data in 2022 through their global Engineering Directive E-22-003 which supersedes the *Guidance on Traffic Count Data* (E-20-005), which provided estimation guidance for counts conducted after March 13, 2020 due to reductions in traffic volumes caused by the COVID-19 pandemic.

Figure 3-1 Weekday Daily Traffic STA 4091 (2019 and 2024)



3.2 Devens Driveway Volumes

Morning and evening peak hour turning movement volumes at seventeen driveways within Devens were compared to volumes from previous years (Table 3-1). Driveways D-21 through D-30 were added to this edition of the traffic monitoring report and has no historical comparisons to show.

The most significant decreases since 2021 took place at the Sonoco, Andrews Parkway, and Army Enclave at Quebec Street, which experienced decreases of 47% (-58 vehicles), 18% (-45 vehicles), and 15% (-26 vehicles), respectively during the AM peak hour, while FBOP, Army Enclave at Quebec Street experienced decreases of 30% (-26 vehicles), 20% (-26 vehicles), respectively during the PM peak hour. The driveway with the most significant increase since 2021 was the Bristol-Meyer Squibb driveway with 78% (+114 vehicles) and 82% (+160 vehicles), during the AM and PM peak hour, respectively.

Table 3-1 Devens Business Driveway Count Comparison (2000-2025)

Driveway Turning Movement Counts		AM Peak Hour						Difference 2021- 2025	PM Peak Hour						Difference 2021-2025
		2000	2005	2010	2015	2021 ¹	2025		2000	2005	2010	2015	2021 ¹	2025	
D-1	American Superconductor - 64 Jackson Road	n/a	21	77	46	12	10	-2	n/a	23	48	28	14	27	13
D-2	Anheuser Busch – 235 Barnum Road	n/a	7	0	n/a	9	2	-7	n/a	5	0	n/a	10	0	-10
D-3	FBOP - Federal Medical Facility	195	164	195	175	112	102	-10	109	89	163	85	88	62	-26
D-4	Quiet Logistics (Gillette) - 66 Saratoga Boulevard	20	18	6	50	28	27	-1	17	34	17	23	25	21	-4
D-5	Job Corps - MacArthur Avenue	35	62	55	52	36	66	30	55	72	62	54	32	51	19
D-6	Netstal / Xinetics – 53 & 57 Jackson Road	27	15	20	n/a	n/a	n/a	n/a	24	15	15	n/a	n/a	n/a	n/a
D-7	Parker-Hannifin – 14 Robbins Pond Road	22	28	53	n/a	n/a	n/a	n/a	32	23	33	n/a	n/a	n/a	n/a
D-8	Ryerson – 45 Saratoga Boulevard	18	10	14	n/a	n/a	n/a	n/a	10	0	15	n/a	n/a	n/a	n/a
D-9	Sonoco – 18 Independence Boulevard	n/a	75	50	n/a	123	65	-58	n/a	23	17	n/a	48	38	-10
D-10	Southern Container - 51 Independence Boulevard	n/a	11	40	36	11	17	6	n/a	11	19	19	33	39	6
D-11	Xinetics - 115 Jackson Road	n/a	20	2	7	14	19	5	n/a	18	5	8	11	11	0
D-12	Army Enclave at Quebec Street and 10th Mountain Division Road	n/a	n/a	265	123	176	150	-26	n/a	n/a	169	114	128	102	-26
D-13	Devens Common – Ryans Way	n/a	n/a	151	n/a	74	77	3	n/a	n/a	90	n/a	48	87	39

1 Traffic counts from 2021 were adjusted by 10% to account for COVID-19 impacts. See section 3.1 for more information on the adjustment.

Table 3-1 Devens Business Driveway Count Comparison (2000-2025) (Continued)

Driveway Turning Movement Counts		AM Peak Hour							PM Peak Hour						
		2000	2005	2010	2015	2021 ¹	2025	Difference 2021-2025	2000	2005	2010	2015	2021 ¹	2025	Difference 2021-2025
D-14	Devens Common – Andrews Parkway	n/a	n/a	347	n/a	253	208	-45	n/a	n/a	195	n/a	172	185	13
D-15	Bristol-Meyer Squibb - 38 Jackson Road	n/a	n/a	173	115	145	259	114	n/a	n/a	125	137	195	355	160
D-16	Evergreen Solar – 112 Barnum Road	n/a	n/a	67	n/a	40	48	8	n/a	n/a	141	n/a	24	58	34
D-17	Army Enclave at Lovell Road	n/a	n/a	117	180	68	46	-22	n/a	n/a	90	149	48	38	-10
D-18	Systems H2O - 137 Barnum Road	n/a	n/a	n/a	61	6	1	-5	n/a	n/a	n/a	60	2	2	0
D-19	National Distribution Center at Independence Drive	n/a	n/a	n/a	n/a	22	14	-8	n/a	n/a	n/a	n/a	12	14	2
D-20	Devens Recycling Center at Independence Drive	n/a	n/a	n/a	n/a	32	42	10	n/a	n/a	n/a	n/a	13	37	24
D-21	TerraVista Health Center - 85 Patton Road	n/a	n/a	n/a	n/a	n/a	65	n/a	n/a	n/a	n/a	n/a	n/a	35	n/a
D-22	Pathways Devens (KSP) - 45 Jackson Road	n/a	n/a	n/a	n/a	n/a	9	n/a	n/a	n/a	n/a	n/a	n/a	7	n/a
D-23	Canteen Café, Sterling St Brewing - 65 Jackson Road	n/a	n/a	n/a	n/a	n/a	3	n/a	n/a	n/a	n/a	n/a	n/a	29	n/a

1 Traffic counts from 2021 were adjusted by 10% to account for COVID-19 impacts. See section 3.1 for more information on the adjustment.

Table 3-1 Devens Business Driveway Count Comparison (2000-2025) (Continued)

		AM Peak Hour							PM Peak Hour						
Driveway Turning Movement Counts		2000	2005	2010	2015	2021	2025	Difference 2021-2025	2000	2005	2010	2015	2021	2025	Difference 2021-2025
D-24	Avantor - 35 Saratoga Boulevard (Barnum Entrance)	n/a	n/a	n/a	n/a	n/a	7	n/a	n/a	n/a	n/a	n/a	n/a	4	n/a
D-25	O'Reilly Auto Parts - 15 Independence Drive	n/a	n/a	n/a	n/a	n/a	27	n/a	n/a	n/a	n/a	n/a	n/a	6	n/a
D-26	Watson-Marlow Fluid Tech Group - 16 Bulge Road	n/a	n/a	n/a	n/a	n/a	31	n/a	n/a	n/a	n/a	n/a	n/a	36	n/a
D-27	Airfield - Massachusetts State Police EVOC Training	n/a	n/a	n/a	n/a	n/a	15	n/a	n/a	n/a	n/a	n/a	n/a	1	n/a
D-28	Parker Charter School - 49 Antietam Street	n/a	n/a	n/a	n/a	n/a	357	n/a	n/a	n/a	n/a	n/a	n/a	151	n/a
D-29	111 Hospital Road	n/a	n/a	n/a	n/a	n/a	81	n/a	n/a	n/a	n/a	n/a	n/a	89	n/a
D-30	117 Hospital Road	n/a	n/a	n/a	n/a	n/a	68	n/a	n/a	n/a	n/a	n/a	n/a	41	n/a

1 Traffic counts from 2021 were adjusted by 10% to account for COVID-19 impacts. See section 3.1 for more information on the adjustment.

The 2025 driveway count data was compared with trip generation rates provided by the Institute of Transportation Engineers (ITE), which will be discussed in Section 5.3.

3.3 Average Weekday Traffic – External Locations

Average weekday daily traffic counts from 2025 were compared to counts from previous years, as shown in Figures 3-2 and 3-3 and Tables 3-2 through 3-5. Collectively, the study roadways have experienced a 1.4% increase in traffic volume since 2021 (including a Covid adjustment). The annual traffic growth rate based on this data is 0.35%. The historical annual growth rate cited earlier in this report is 2%. Compared to this rate, towns surrounding Devens are experiencing no growth conditions.

Most roadways have not experienced significant changes in volume since 2021. The most significant increase in traffic occurred at Grant Road Gate, at which traffic volumes increased by 69% (+849

vehicles). Barnum Road south of the Rotary in Ayer experienced the greatest decrease in traffic, with a net loss of 14% (-1,012 vehicles).

Four ATRs were placed along Route 2 in the vicinity of Devens. Collectively, weekday traffic volumes at these locations have increased by 6% (+15,333 vehicles) since 2021. The largest increases occurred east of I-495 (22% or +9,447 vehicles), while a decrease occurred west of I-190 (6% or -4,753 vehicles). The increase in traffic along Route 2 could be reflective of economic expansion and population growth in the region.

Figure 3-2 Average Weekday Daily Traffic – 48 Hour Count Locations

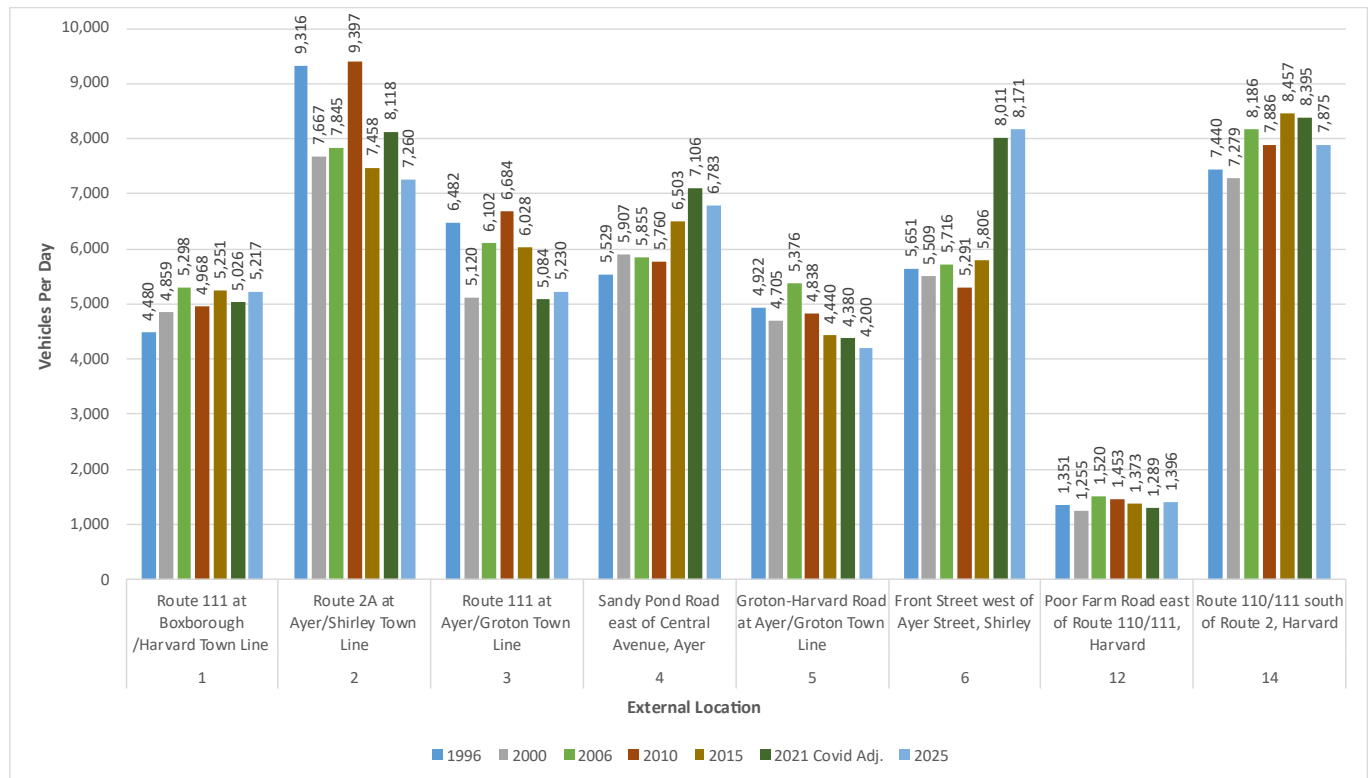


Table 3-2 Average Weekday Daily Traffic (AWDT) – External Locations (48 Hour Counts)

Location Number	Location	1996	2000	2006	2010	2015	2021	2025
1	Route 111 at Boxborough /Harvard Town Line	4,480	4,859	5,298	4,968	5,251	5,026	5,217
2	Route 2A at Ayer/Shirley Town Line	9,316	7,667	7,845	9,397	7,458	8,118	7,260
3	Route 111 at Ayer/Groton Town Line	6,482	5,120	6,102	6,684	6,028	5,084	5,230
4	Sandy Pond Road east of Central Avenue, Ayer	5,529	5,907	5,855	5,760	6,503	7,106	6,783
5	Groton-Harvard Road at Ayer/Groton Town Line	4,922	4,705	5,376	4,838	4,440	4,380	4,200
6	Front Street west of Ayer Street, Shirley	5,651	5,509	5,716	5,291	5,806	8,011	8,171
7	Jackson Gate	3,578	6,398	9,552	12,205	13,420	15,789	17,254
	From Route 2 WB Off Ramp to Jackson Road				2,062	2,323	3,043	3,629
	From Route 2 EB Off Ramp to Jackson Road NB				4,505	4,357	5,152	5,368
	From Jackson Road SB to Route 2 WB On Ramp				4,299	4,378	4,951	5,164
	From Jackson Road SB to Route 2 EB On Ramp				2,110	2,670	2,643	3,094
8	Verbeck Gate	2,354	4,655	5,229	5,331	5,435	5,248	5,154
9	Shirley Gate	n/a	1,104	1,317	1,536	1,693	2,344	2,306
10	Barnum Gate	2,172	3,418	4,779	5,257	5,651	6,074	5,903
11	Grant Road Gate	n/a	n/a	936	1,574	2,161	1,234	2,083
12	Poor Farm Road east of Route 110/111, Harvard	1,351	1,255	1,520	1,453	1,373	1,289	1,396
13	Carlton Rotary							
	Route 2A/110 east of rotary	14,472	14,131	16,722	13,744	14,177	13,395	12,662
	Sandy Pond Road north of rotary	4,701	3,798	5,178	5,236	5,611	3,969	5,323
	Route 2A/111 west of rotary (WB)	10,355	9,629	10,080	9,102	9,462	8,154	8,853
	Route 2A/111 west of rotary (EB)	9,951	9,483	9,370	8,670	8,947	8,007	8,257
	Barnum Road south of rotary	3,186	3,418	5,920	6,314	5,835	7,352	6,341
	Route 110/111 south of rotary	13,837	13,475	10,715	12,864	13,348	14,007	14,583
14	Route 110/111 south of Route 2, Harvard	7,440	7,279	8,186	7,886	8,457	8,395	7,875

Table 3-3AM Peak Hour Traffic – External Locations (48 Hour Counts)

Location Number	Location	1996	2000	2006	2010	2015	2021	2025
1	Route 111 at Boxborough /Harvard Town Line	448	540	516	526	592	407	560
2	Route 2A at Ayer/Shirley Town Line	852	723	728	788	666	650	619
3	Route 111 at Ayer/Groton Town Line	596	426	496	544	490	425	418
4	Sandy Pond Road east of Central Avenue, Ayer	445	502	481	482	514	560	604
5	Groton-Harvard Road at Ayer/Groton Town Line	473	546	552	440	392	371	331
6	Front Street west of Ayer Street, Shirley	412	429	456	416	515	590	700
7	Jackson Gate	324	812	951	1,469	1,319	1,628	1,741
	From Route 2 WB Off Ramp to Jackson Road				382	328	438	622
	From Route 2 EB Off Ramp to Jackson Road NB				693	596	766	713
	From Jackson Road SB to Route 2 WB On Ramp				204	218	273	258
	From Jackson Road SB to Route 2 EB On Ramp				190	188	152	148
8	Verbeck Gate	217	470	454	457	534	567	568
9	Shirley Gate	n/a	70	132	194	181	204	188
10	Barnum Gate	159	260	366	400	462	462	491
11	Grant Road Gate	n/a	n/a	97	190	212	103	186
12	Poor Farm Road east of Route 110/111, Harvard	129	132	154	147	143	107	135
13	Carlton Rotary							
	Route 2A/110 east of rotary	1,023	1,071	1,097	1,005	1,059	873	902
	Sandy Pond Road north of rotary	307	325	433	426	450	279	376
	Route 2A/111 west of rotary (WB)	537	519	546	495	489	461	501
	Route 2A/111 west of rotary (EB)	1,056	1,034	890	802	878	756	827
	Barnum Road south of rotary	220	260	403	518	488	596	548
	Route 110/111 south of rotary	1,075	1,121	796	1,000	1,054	1,059	1,171
14	Route 110/111 south of Route 2, Harvard	658	672	738	733	824	705	811

Table 3-4PM Peak Hour Traffic – External Locations (48 Hour Counts)

Location Number	Location	1996	2000	2006	2010	2015	2021	2025
1	Route 111 at Boxborough /Harvard Town Line	538	530	603	496	558	492	509
2	Route 2A at Ayer/Shirley Town Line	905	704	762	986	681	853	705
3	Route 111 at Ayer/Groton Town Line	554	406	529	578	540	508	528
4	Sandy Pond Road east of Central Avenue, Ayer	538	575	563	530	629	725	704
5	Groton-Harvard Road at Ayer/Groton Town Line	438	453	483	431	399	421	403
6	Front Street west of Ayer Street, Shirley	492	471	495	445	526	810	840
7	Jackson Gate	369	579	926	1,188	1,225	1,625	1,700
	From Route 2 WB Off Ramp to Jackson Road				147	152	176	215
	From Route 2 EB Off Ramp to Jackson Road NB				268	258	282	284
	From Jackson Road SB to Route 2 WB On Ramp				519	579	820	713
	From Jackson Road SB to Route 2 EB On Ramp				254	292	348	488
8	Verbeck Gate	206	380	488	462	457	531	513
9	Shirley Gate	n/a	122	138	160	175	254	243
10	Barnum Gate	172	367	462	430	510	644	571
11	Grant Road Gate	n/a	n/a	92	153	200	157	219
12	Poor Farm Road east of Route 110/111, Harvard	147	124	140	133	142	128	143
13	Carlton Rotary							
	Route 2A/110 east of rotary	1,248	1,133	1,414	1,093	1,148	1,228	1,083
	Sandy Pond Road north of rotary	456	320	494	484	486	383	476
	Route 2A/111 west of rotary (WB)	1,232	1,043	1,086	922	1,006	933	978
	Route 2A/111 west of rotary (EB)	611	581	604	574	587	582	494
	Barnum Road south of rotary	261	367	598	536	524	669	608
	Route 110/111 south of rotary	1,222	1,098	944	1,081	1,142	1,187	1,193
14	Route 110/111 south of Route 2, Harvard	760	600	764	696	834	814	739

Table 3-5 Average Weekday Daily Traffic (AWDT) — External Locations (7 Day Counts)

Location Number	Location	1996	2000	2006	2010	2015	2021	2025
ADT								
1	Route 110-111 north of Route 2, Harvard	11,912	13,258	12,758	14,511	10,754	13,231	13,396
2	Route 2A-110 at Littleton/Ayer Town Line ^a	8,567	12,039	11,376	10,233	11,456	11,453	9,310
3	Route 2 east of I-495, Littleton	36,141	43,851	41,970	40,131	36,777	38,836	48,659
4	Route 2 west of I-495, Littleton	41,510	42,485	52,484	49,552	44,169	52,765	59,449
5	Route 2 west of Route 70, Lancaster	41,441	n/a	53,198	54,266	46,072	53,164	59,574
6	Route 2 west of I-190, Leominster	51,857	58,650	69,094	66,889	60,181	81,528	78,026
AWDT								
1	Route 110-111 north of Route 2, Harvard	13,185	14,748	13,907	15,606	11,769	14,453	14,855
2	Route 2A-110 at Littleton/Ayer Town Line ^a	9,598	12,039	13,101	11,362	12,657	11,717	10,257
3	Route 2 east of I-495, Littleton	40,233	50,195	45,982	42,787	37,591	42,571	52,018
4	Route 2 west of I-495, Littleton	44,720	46,707	57,240	53,297	45,321	57,632	62,635
5	Route 2 west of Route 70, Lancaster	43,940	43,870	57,464	58,973	48,316	57,855	63,491
6	Route 2 west of I-190, Leominster	55,588	64,482	73,935	71,220	60,577	85,495	80,743
AM Peak Hour								
1	Route 110-111 north of Route 2, Harvard	1,083	1,201	1,150	1,303	897	1,145	1,243
2	Route 2A-110 at Littleton/Ayer Town Line ^a	799	1,030	958	902	859	822	745
3	Route 2 east of I-495, Littleton	3,886	4,374	4,217	3,774	2,495	3,422	4,238
4	Route 2 west of I-495, Littleton	4,096	4,486	5,008	4,580	3,119	4,637	4,894
5	Route 2 west of Route 70, Lancaster	4,143	^b	4,830	4,712	3,224	4,567	4,418
6	Route 2 west of I-190, Leominster	4,701	5,556	5,998	5,213	4,309	6,234	5,740
PM Peak Hour								
1	Route 110-111 north of Route 2, Harvard	1,169	1,237	1,185	1,285	907	1,305	1,256
2	Route 2A-110 at Littleton/Ayer Town Line ^a	725	940	1,060	1,019	1,014	1,026	883
3	Route 2 east of I-495, Littleton	3,872	5,133	4,025	3,688	2,561	3,291	3,969
4	Route 2 west of I-495, Littleton	4,008	4,052	4,914	4,583	3,270	4,765	4,742
5	Route 2 west of Route 70, Lancaster	3,858	^b	4,966	4,788	3,652	4,968	4,944
6	Route 2 west of I-190, Leominster	4,625	5,313	6,058	5,758	4,779	6,871	6,277

a 2-day count in 2000

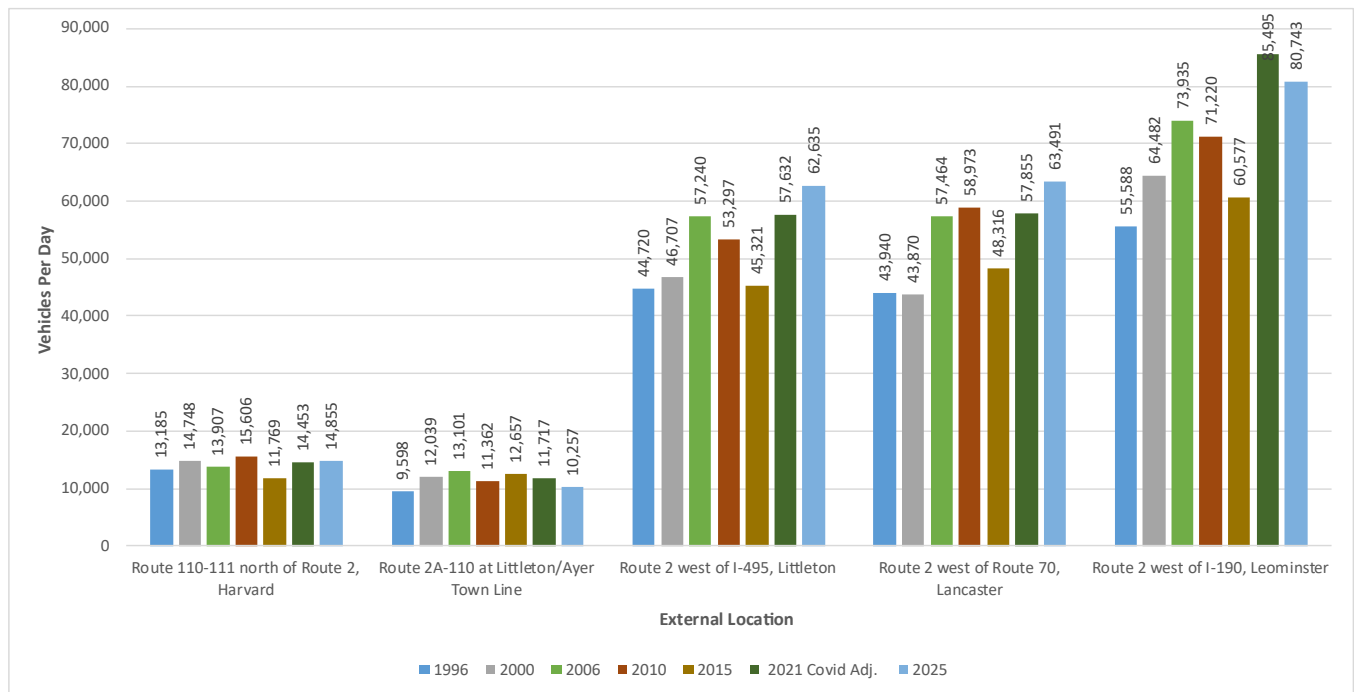
b Data not available from MHD permanent count locations

Table 3-5 Average Weekday Daily Traffic (AWDT) -- External Locations (7 Day Counts) (continued)

Location Number	Location	1996	2000	2006	2010	2015	2021	2025
Saturday Peak Hour								
1	Route 110-111 north of Route 2, Harvard	880	875	1,000	1,133	790	1,135	955
2	Route 2A-110 at Littleton/Ayer Town Line ^a	553	n/a	704	606	635	1,148	634
3	Route 2 east of I-495, Littleton	2,047	2,227	2,595	2,918	1,879	2,171	3,412
4	Route 2 west of I-495, Littleton	2,383	2,341	3,134	3,103	2,396	2,879	4,386
5	Route 2 west of Route 70, Lancaster	2,553	^b	3,341	3,311	3,566	3,011	4,235
6	Route 2 west of I-190, Leominster	3,174	3,952	4,680	4,399	3,929	6,071	6,297
Sunday Peak Hour								
1	Route 110-111 north of Route 2, Harvard	628	828	800	909	639	838	815
2	Route 2A-110 at Littleton/Ayer Town Line ^a	491	n/a	652	625	642	986	539
3	Route 2 east of I-495, Littleton	1,989	2,436	2,758	2,411	1,679	2,462	3,223
4	Route 2 west of I-495, Littleton	2,499	2,616	3,363	3,340	2,688	3,383	4,141
5	Route 2 west of Route 70, Lancaster	2,642	^b	3,289	3,266	2,526	3,432	4,088
6	Route 2 west of I-190, Leominster	3,310	3,592	4,454	4,445	4,247	6,992	5,628
Saturday								
1	Route 110-111 north of Route 2, Harvard	10,175	10,641	11,307	13,367	9,214	11,663	10,515
2	Route 2A-110 at Littleton/Ayer Town Line ^a	6,597	n/a	9,003	7,799	9,020	12,209	7,783
3	Route 2 east of I-495, Littleton	27,235	28,399	34,039	39,368	30,608	29,715	43,141
4	Route 2 west of I-495, Littleton	30,194	33,015	42,099	41,038	39,015	40,462	53,615
5	Route 2 west of Route 70, Lancaster	35,527	^b	45,817	46,279	42,586	40,330	51,426
6	Route 2 west of I-190, Leominster	43,925	43,368	62,440	60,836	55,794	70,980	76,545
Sunday								
1	Route 110-111 north of Route 2, Harvard	7,282	8,442	8,464	10,185	7,222	8,639	8,981
2	Route 2A-110 at Littleton/Ayer Town Line ^a	5,380	n/a	6,906	7,026	7,882	9,426	6,119
3	Route 2 east of I-495, Littleton	24,582	27,591	29,845	27,603	27,475	29,304	37,335
4	Route 2 west of I-495, Littleton	29,775	30,834	38,089	39,340	36,773	40,783	49,381
5	Route 2 west of Route 70, Lancaster	32,387	^b	39,248	38,713	36,098	42,563	48,176
6	Route 2 west of I-190, Leominster	41,133	30,834	51,540	51,272	51,021	72,173	65,915

a 2-day count in 2000

b Data not available from MHD permanent count locations

Figure 3-3 Average Weekday Daily Traffic – 7 Day Count Locations

Daily traffic volumes dropped in 2015 from 2006 and 2010 levels but have since rebounded in 2021. The 2025 volumes have remained consistent since 2021 levels.

3.4 Total Intersection Volumes – External Locations

Tables 3-6 and 3-7 show the peak hour volumes for external intersections. More than half of the AM and PM peak hour intersection volumes have decreased since 2021. Overall, traffic volumes during the AM peak hour have decreased by less than 1% (-63 vehicles) between 2021 and 2025, and volumes during the PM peak hour have decreased by 4% (-842 vehicles). Traffic volumes at external study intersection locations are seeing minor decreases despite regional traffic volumes, external to Devens, increasing only slightly or not at all.

Table 3-6 Total AM Peak Hour Intersection Volumes – External Locations

Intersection	1996 (vph)	2000 (vph)	2006 (vph)	2010 (vph)	2015 (vph)	2021 (vph)	2025 (vph)
1. Front St./Lancaster St./Leominster Rd./Center Rd., Shirley	802	803	815	841	907	832	867
2. Park St./Fitchburg Rd./Groton School Rd., Ayer	1,210	1,157	1,196	1,220	1,218	1,087	1,121
3. Park St./Main St./West Main St., Ayer	1,492	1,361	1,578	1,448	1,335	1,452	1,550
4. Groton-Harvard Rd./Central Ave., Ayer	864	880	782	737	707	716	643
5. Route 2A-110 (King St.)/I-495 Exit 30 NB Ramps, Littleton	1,555	1,833	1,462	1,559	1,694	1,452	1,423
6. Route 2A-110 (King St.)/I-495 Exit 30 SB Ramps, Littleton	1,539	1,830	1,657	1,631	1,847	1,664	1,459
7. Route 110-111 (Ayer Rd.)/Route 110/Route 111, Harvard	818	833	891	844	1,026	793	890
8. Route 70/Route 117 (Seven Bridge Rd.), Lancaster	1,452	1,616	1,621	1,620	1,767	1,720	1,597
9. Route 70/Route 117 (Lunenburg Rd.), Lancaster	1,471	1,652	1,664	1,681	1,833	1,761	1,695
10. Route 110 (King St.)/Route 119/Route 2A, Littleton Common	2,085	2,225	1,873	1,825	1,979	1,438	1,625
11. Route 2A-110 (King St.)/Goldsmith St., Littleton Common	1,469	1,674	1,213	1,138	1,355	1,001	1,082
12. Verbeck Gate/Macpherson Rd., Ayer	774	888	1,094	883	1,000	1,092	1,057
13. Grant Rd./West Main St., Ayer	n/a	n/a	625	649	850	820	793
14. Hospital Rd./Front St., Shirley	n/a	n/a	553	624	805	804	767

Table 3-7 Total PM Peak Hour Intersection Volumes – External Locations

Intersection	1996 (vph)	2000 (vph)	2006 (vph)	2010 (vph)	2015 (vph)	2021 (vph)	2025 (vph)
1. Front St./Lancaster St./Leominster Rd./Center Rd., Shirley	953	847	776	815	973	1,048	1,086
2. Park St./Fitchburg Rd./Groton School Rd., Ayer	1,353	1,447	1,450	1,381	1,283	1,500	1,396
3. Park St./Main St./West Main St., Ayer	1,721	1,698	1,804	1,689	1,325	1,823	1,877
4. Groton-Harvard Rd./Central Ave., Ayer	841	904	796	693	738	820	789
5. Route 2A-110 (King St.)/I-495 Exit 30 NB Ramps, Littleton	1,675	1,656	1,893	1,514	1,626	1,580	1,455
6. Route 2A-110 (King St.)/I-495 Exit 30 SB Ramps, Littleton	1,844	1,814	1,959	1,655	1,761	1,824	1,526
7. Route 110-111 (Ayer Rd.)/Route 110/Route 111, Harvard	869	668	609	592	820	978	699
8. Route 70/Route 117 (Seven Bridge Rd.), Lancaster	1,614	1,657	1,677	1,730	1,826	1,992	1,917
9. Route 70/Route 117 (Lunenburg Rd.), Lancaster	1,578	1,679	1,720	1,787	1,889	2,071	1,978
10. Route 110 (King St.)/Route 119/Route 2A, Littleton Common	2,809	2,574	2,450	2,304	2,310	2,131	2,100
11. Route 2A-110 (King St.)/Goldsmith St., Littleton Common	1,758	1,588	1,521	1,440	1,480	1,356	1,369
12. Verbeck Gate/Macpherson Rd., Ayer	726	926	1,093	924	1,004	1,156	1,180
13. Grant Rd./West Main St., Ayer	n/a	n/a	617	713	831	872	915
14. Hospital Rd./Front St., Shirley	n/a	n/a	591	610	684	838	860

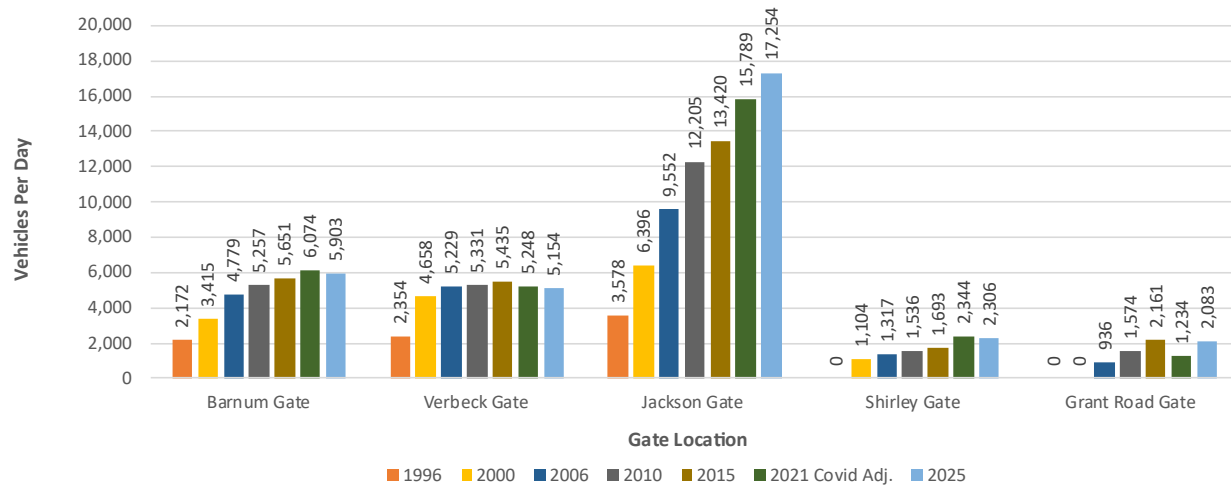
3.5 Average Weekday Traffic – Devens Gates

Weekday traffic volumes at the five Devens Gates have collectively increased by 8% since 2021 (Table 3-8 and Figure 3-4). Grant Road Gate experienced the largest percentage increase with 69% (+849 vehicles), while Jackson Gate saw the largest volume increase with 1,465 vehicles (+9%) since 2021. Barnum Gate, Verbeck Gate, and Shirley Gate all experienced a slight decrease in traffic since 2021.

Table 3-8 Average Weekday Daily Traffic (AWDT) – Devens Gates

Location	1996	2000	2006	2010	2015	2021	2025
Barnum Gate	2,172	3,415	4,779	5,257	5,651	6,074	5,903
Verbeck Gate	2,354	4,658	5,229	5,331	5,435	5,248	5,154
Jackson Gate	3,578	6,396	9,552	12,205	13,420	15,789	17,254
Shirley Gate	n/a	1,104	1,317	1,536	1,693	2,344	2,306
Grant Road Gate	n/a	n/a	936	1,574	2,161	1,234	2,083
Total	8,104	15,573	21,813	25,903	28,360	30,690	32,700

Figure 3-4 Average Weekday Daily Traffic by Gate



On a daily basis, the distribution of traffic throughout the gates (which are used to access Devens) has remained constant. The largest changes in distribution were a 2% increase in utilizing Jackson and Grant Road Gates. Barnum Gate (18%) and Verbeck Gate (16%) are the next highest used gates after Jackson Gate (53%). Shirley Gate (7%) and Grant Road Gate (6%) are the least used gates.

Peak hour traffic at the gates has seen a slight increase for the morning peak hour and is relatively stable in the evening peak hour since 2021 (Table 3-9). During the morning peak hour, traffic volumes have increased by 6% (+190 vehicles), and in the evening, traffic volumes have decreased by 2% (-51 vehicles).

Table 3-9 Peak Hour Traffic – Devens Gates

Location	1996		2000		2006		2010		2012		2015		2021		2025	
	AM Peak	% Total	AM Peak	% Total	AM Peak	% Total	AM Peak	% Total	AM Peak	% Total	AM Peak	% Total	AM Peak	% Total	AM Peak	% Total
Barnum Gate	159	23%	260	16%	366	18%	400	15%	441	17%	462	17%	462	16%	491	16%
Verbeck Gate	217	31%	470	29%	454	23%	457	17%	474	19%	534	20%	567	19%	568	18%
Jackson Gate	324	46%	812	50%	951	48%	1,469	54%	1,302	51%	1,319	49%	1,628	55%	1,720	55%
Shirley Gate	n/a	n/a	70	4%	132	7%	194	7%	172	7%	181	7%	204	7%	188	6%
Grant Road Gate	n/a	n/a	n/a	n/a	97	5%	190	7%	173	7%	212	8%	103	3%	186	6%
Total	700	100%	1,612	100%	2,000	100%	2,710	100%	2,562	100%	2,708	100%	2,963	100%	3,153	100%

Location	1996		2000		2006		2010		2012		2015		2021		2025	
	PM Peak	% Total	PM Peak	% Total	PM Peak	% Total	PM Peak	% Total	PM Peak	% Total	PM Peak	% Total	PM Peak	% Total	PM Peak	% Total
Barnum Gate	172	23%	367	25%	462	22%	430	18%	423	18%	510	20%	644	20%	566	18%
Verbeck Gate	206	28%	380	26%	488	23%	462	19%	432	19%	457	18%	531	17%	513	16%
Jackson Gate	369	49%	579	40%	926	44%	1,188	50%	1,150	49%	1,225	48%	1,613	50%	1,636	52%
Shirley Gate	n/a	n/a	122	8%	138	7%	160	7%	162	7%	175	7%	254	8%	215	7%
Grant Road Gate	n/a	n/a	n/a	n/a	92	4%	153	6%	162	7%	200	8%	157	5%	218	7%
Total	747	100%	1,448	100%	2,106	100%	2,393	100%	2,329	100%	2,567	100%	3,199	100%	3,148	100%

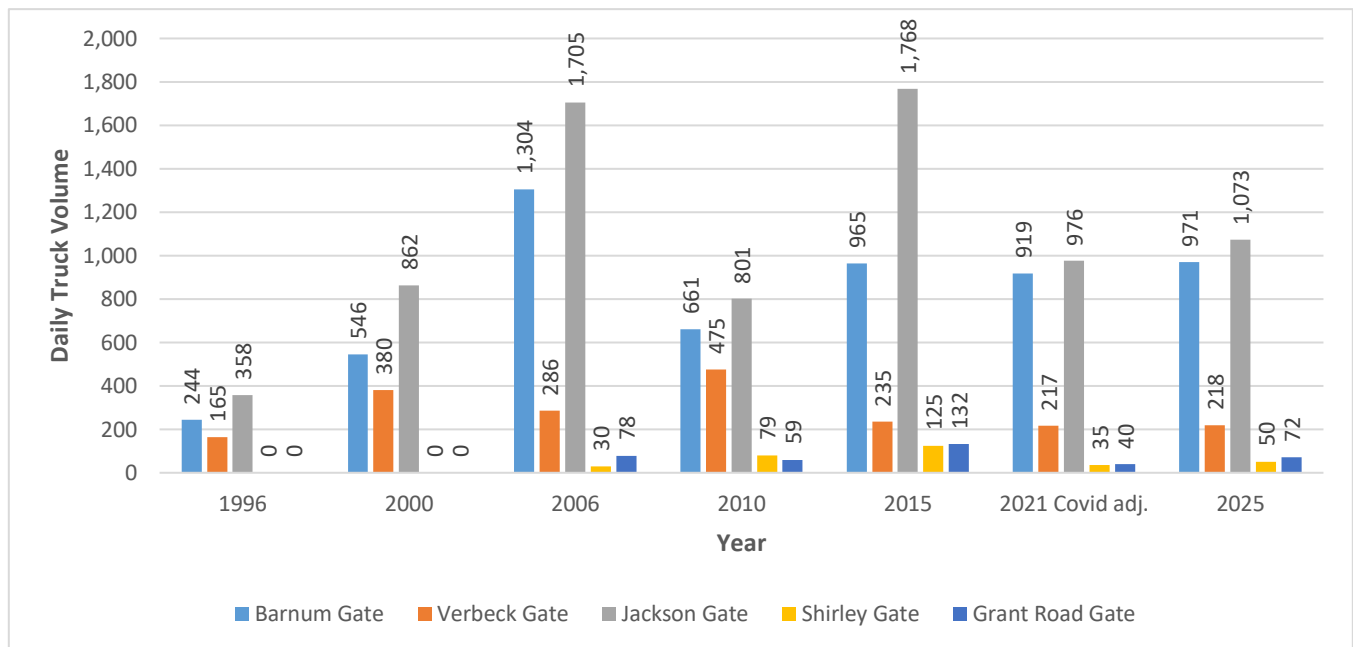
3.6 Average Weekday Daily Truck Traffic – Devens Gates

For the purposes of this report, the following FHWA vehicle classifications are considered trucks: buses, 2 Axle 6 Tire, 3 Axle Single, 4 Axle Single, <5 Axle Double, 5 Axle Double, >6 Axle Double, <6 Axle Multi, 6 Axle Multi and >6 Axle Multi vehicles.

Truck traffic in Devens has increased at all gates and has a total growth of 9% (+198 vehicles) since 2021 (Table 3-10 and Figure 3-5). Jackson Gate and Barnum Gate comprise over 85% of truck traffic in Devens. Shirley Gate and Grant Road Gate comprise approximately 5% of total truck traffic.

Table 3-10 Average Weekday Daily Truck Traffic – Devens Gates

Location	1996	2000	2006	2010	2015	2021	2025
Barnum Gate	244	546	1,304	661	965	919	971
Verbeck Gate	165	380	286	475	235	217	218
Jackson Gate	358	862	1,705	801	1,768	976	1,073
Shirley Gate	n/a	n/a	30	79	125	35	50
Grant Road Gate	n/a	n/a	78	59	132	40	72
Total	767	1,788	3,403	2,075	3,224	2,186	2,384

Figure 3-5 Average Weekday Daily Truck Distribution by Gate

3.7 Origin-Destination Survey

An origin-destination study was conducted to determine the amount of cut-through traffic in Devens. For this effort, StreetLight data (an algorithm using location records of smart phones and navigation devices associated with vehicles and their drivers with normalized travel patterns via traffic counts and embedded sensors⁶) was used to complete the O-D study. Using StreetLight, zones (the 5 Gates plus Devens proper) were setup that identified which gate(s) a trip was completed through or if a trip started/ended in Devens. For this purpose, a cut-through is defined as a vehicle entering one gate and exiting another within a 60-minute interval. It is assumed that vehicles entering and exiting

⁶ Note: no personal or user-specific information was recorded as part of this process.

in this amount of time are using Devens as a means to reach a destination outside of Devens, and thus are not factored into trip generation calculations.

Table 3-11 shows cut-through traffic by hour. By comparing the total number of vehicles entering Devens' gates and the number of vehicles using the gates as a cut-through, it was determined that 29% of trips that pass through the gates between the hours of 6:00 AM and 6:00 PM are cut-through trips. The cut-through percentage steadily increased from 2000-2010, during which it increased by 14%. This percentage has now begun to stabilize, having increased by 2% from 2010 to 2015 and having decreased 1% from 2015 to 2021, and now 4% from 2021 to 2025. The total number of cut-through trips decreased during the morning hours suggesting that fewer drivers are using Devens as a cut-through during the morning than in 2021. The highest number of cut-through trips continue to occur during the afternoon peak hour, with over 50% of trips from 3:00 PM to 6:00 PM being cut-through trips.

The data show a clear difference between morning and afternoon cut-through patterns. In 2025, morning cut-through percentages (6:00–9:00 AM) are relatively low, generally in the mid- to high-teens, with some increase into the 30% range by late morning (9:00 AM–12:00 PM). These lower and declining morning percentages suggest that a larger share of AM peak traffic is made up of trips that begin or end in Devens (such as employee and commercial trips), rather than vehicles using Devens solely as a cut-through. By contrast, in the afternoon the cut-through share rises above 30% after about 1:00–2:00 PM, and during the 3:00–6:00 PM peak more than half of all trips are considered cut-through trips, reaching roughly 60% between 4:00 and 6:00 PM. This indicates that Devens' roadway network functions as an alternate route during the PM peak, consistent with commuters and regional traffic using the internal network as an alternative to parallel state and local routes, including access to and from Route 2.

Regionally, this pattern is likely influenced by the higher and more widespread PM congestion on Route 2 and key north–south approaches through this area, as compared to the morning. In the afternoon, heavier delays at Route 2 ramps and nearby town-center intersections (e.g., in Ayer, Shirley, and Harvard) can push drivers to divert through Devens, favoring internal connections such as Jackson–Verbeck, Verbeck–Jackson, and Barnum–Jackson as alternate routes with relatively less congestion. In contrast, the morning peak appears to be more dominated by Devens-oriented trips, which helps keep the AM cut-through share lower even as overall traffic volumes grow.

Table 3-11 Cut-through Traffic by Hour

Period	Total Entering						Total Cut-Through						Cut-Through Percentage of Total Trips					
	2000	2005	2010	2015	2021	2025	2000	2005	2010	2015	2021	2025	2000	2005	2010	2015	2021	2025
6 -7AM	739	938	898	918	1,505	1,577	81	140	204	223	259	254	11%	15%	23%	24%	17%	16%
7-8 AM	935	1,176	1,296	1,221	1,898	2,064	160	223	254	306	408	325	17%	19%	20%	25%	22%	16%
8-9 AM	787	1,094	1,218	1,044	1,564	1,963	136	223	318	277	386	344	17%	20%	26%	27%	25%	18%
9-10 AM	390	566	622	563	883	1020	57	131	178	147	187	235	15%	23%	29%	26%	21%	23%
10-11 AM	330	380	480	423	729	674	76	90	196	155	244	240	23%	24%	41%	37%	34%	36%
11 AM-12 PM	358	496	516	494	785	744	62	145	216	183	238	240	17%	29%	42%	37%	30%	32%
12-1 PM	411	672	691	640	927	946	64	146	214	170	293	270	16%	22%	31%	27%	32%	28%
1-2 PM	401	550	601	691	867	814	65	129	221	229	327	244	16%	23%	37%	33%	38%	30%
2-3 PM	398	652	625	628	998	777	72	166	240	264	392	328	18%	25%	38%	42%	39%	42%
3-4 PM	387	607	725	783	1,034	958	124	203	316	361	558	497	32%	33%	44%	46%	54%	52%
4-5 PM	382	555	667	758	904	947	119	233	291	383	460	562	31%	42%	44%	51%	51%	59%
5-6 PM	338	663	601	713	706	803	27	218	237	347	447	485	8%	33%	39%	49%	63%	60%
Total	5,856	8,349	8,940	8,876	12,800	13,287	1,043	2,047	2,885	3,045	4,197	3,845	18%	25%	32%	34%	33%	29%

Table 3-12 shows the number of cut-through trips by gate. Since 2010, the total percentage of cut-through trips has remained constant as well as the distribution of these trips through each gate. Cut-through trips between Jackson Gate (origin) and Verbeck Gate (destination) have increased by 6% since 2021. In contrast, trips between Barnum Gate (origin) and Jackson Gate (destination) have decreased 3%, while cut-through trips between Verbeck Gate and Jackson Gate have increased by 3%. The three routes that make up more than half (52%) of all cut-through trips are Jackson to Verbeck (23%), Verbeck to Jackson (18%) and Barnum to Jackson (11%).

Table 3-12 Cut-through Traffic by Gate

Origin	Destination	Total Number of Cut-throughs						Percent Overall					
		2000	2005	2010	2015	2021	2025	2000	2005	2010	2015	2021	2025
Jackson Gate	Verbeck	270	479	367	305	730	886	26%	23%	17%	10%	17%	23%
	Shirley	66	170	154	212	426	398	6%	8%	7%	7%	10%	10%
	Barnum	93	176	260	298	385	289	9%	9%	12%	10%	9%	8%
	Grant Road	n/a	44	150	272	338	413	n/a	2%	7%	9%	8%	11%
Verbeck Gate	Jackson	287	327	299	423	634	675	28%	16%	14%	14%	15%	18%
	Shirley	15	24	22	14	32	6	1%	1%	1%	0%	1%	0%
	Barnum	49	63	81	67	90	48	5%	3%	4%	2%	2%	1%
	Grant Road	n/a	11	29	30	22	14	n/a	1%	1%	1%	1%	0%
Shirley Gate	Jackson	47	181	131	247	278	204	5%	9%	6%	8%	7%	5%
	Verbeck	14	35	28	25	18	16	1%	2%	1%	1%	0%	0%
	Barnum	15	33	41	56	40	14	1%	2%	2%	2%	1%	0%
	Grant Road	n/a	9	11	12	0	3	n/a	0%	1%	0%	0%	0%
Barnum Gate	Jackson	109	212	252	483	600	422	10%	10%	12%	16%	14%	11%
	Verbeck	51	117	87	83	202	82	5%	6%	4%	3%	5%	2%
	Shirley	27	47	37	54	89	75	3%	2%	2%	2%	2%	2%
	Grant Road	n/a	12	13	33	11	10	n/a	1%	1%	1%	0%	0%
Grant Road	Jackson	n/a	67	130	353	244	285	n/a	3%	6%	12%	6%	7%
	Verbeck	n/a	19	28	25	4	1	n/a	1%	1%	1%	0%	0%
	Shirley	n/a	7	17	13	24	1	n/a	0%	1%	0%	1%	0%
	Barnum	n/a	14	23	40	30	2	n/a	1%	1%	1%	1%	0%
Total		1,043	2,047	2,160	3,045	4,197	3,845	100%	100%	100%	100%	100%	100%

3.8 Carlton Rotary

Traffic volumes were recorded entering and exiting each leg of the Carlton Rotary (Tables 3-13 through 3-15). These volumes were then balanced so that the total number of vehicles entering the rotary is equivalent to the total number of vehicles exiting the rotary.

Table 3-13 Carlton Rotary – Weekday Volumes – Entering/ Exiting (balanced)

Location	Entering (vpd)						
	1996	2000	2006	2010	2015	2021	2025
Route 2A-110, East of Rotary	7,200	6,994	8,248	7,068	7,388	6,685	6,294
Route 110-111, South of Rotary	7,400	6,775	6,194	6,960	7,089	7,214	7,855
Barnum Road	1,650	1,704	3,105	3,337	3,054	3,626	3,339
Route 2A-111 EB, West of Rotary	10,350	9,489	9,300	9,234	9,318	8,073	8,429
Route 2A-111 WB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sandy Pond Road	2,650	2,003	2,082	2,242	2,423	1,958	2,382
Total	29,250	26,965	28,929	28,841	29,272	27,555	28,299

Location	Exiting (vpd)						
	1996	2000	2006	2010	2015	2021	2025
Route 2A-110, East of Rotary	7,600	7,140	8,235	7,103	7,083	6,765	6,497
Route 110-111, South of Rotary	6,750	6,693	4,605	6,325	6,541	6,853	6,888
Barnum Road	1,550	1,713	2,693	3,179	2,902	3,757	3,070
Route 2A-111 EB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Route 2A-111 WB, West of Rotary	10,350	9,625	10,318	9,104	9,462	8,154	8,853
Sandy Pond Road	3,000	1,794	3,079	3,130	3,284	2,026	2,991
Total	29,250	26,965	28,930	28,841	29,272	27,555	28,299

Location	Total (vpd)						
	1996	2000	2006	2010	2015	2021	2025
Route 2A-110, East of Rotary	14,800	14,134	16,483	14,171	14,471	13,450	12,791
Route 110-111, South of Rotary	14,150	13,468	10,799	13,285	13,630	14,067	14,743
Barnum Road	3,200	3,417	5,798	6,516	5,956	7,382	6,409
Route 2A-111 EB, West of Rotary	10,350	9,489	9,300	9,234	9,318	8,073	8,429
Route 2A-111 WB, West of Rotary	10,350	9,625	10,318	9,104	9,462	8,154	8,853
Sandy Pond Road	5,650	3,797	5,161	5,372	5,707	3,984	5,373
Total	58,500	53,930	57,859	57,682	58,544	55,110	56,598

The overall balanced volumes increased by 2.7% from 2021 to 2025. Traffic volumes have stayed relatively consistent dating back to 1996. The morning peak hour saw an 8.8% increase in volumes while the evening peak hour relatively flat since 2021.

Table 3-14 Carlton Rotary – AM Peak Hour Volumes – Entering/Exiting (balanced)

Location	Entering Peak (vph)						
	1996	2000	2006	2010	2015	2021	2025
Route 2A-110, East of Rotary	332	658	436	421	421	406	378
Route 110-111, South of Rotary	441	586	357	477	486	479	543
Barnum Road	86	252	197	200	193	230	204
Route 2A-111 EB, West of Rotary	1,143	518	842	873	892	704	810
Route 2A-111 WB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sandy Pond Road	150	186	229	231	234	149	210
Total	2,152	2,200	2,061	2,202	2,226	1,967	2,145

Location	Exiting Peak (vph)						
	1996	2000	2006	2010	2015	2021	2025
Route 2A-110, East of Rotary	716	413	643	603	644	468	525
Route 110-111, South of Rotary	651	515	426	546	575	563	630
Barnum Road	141	118	210	328	298	366	344
Route 2A-111 EB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Route 2A-111 WB, West of Rotary	476	1,019	568	519	489	457	480
Sandy Pond Road	168	135	214	206	220	122	166
Total	2,152	2,200	2,061	2,202	2,226	1,976	2,145

Location	Peak Total (vph)						
	1996	2000	2006	2010	2015	2021	2025
Route 2A-110, East of Rotary	1,048	1,071	1,079	1,024	1,065	873	903
Route 110-111, South of Rotary	1,092	1,101	783	1,023	1,061	1,042	1,173
Barnum Road	227	370	407	528	491	596	548
Route 2A-111 EB, West of Rotary	1,143	518	940	873	892	704	810
Route 2A-111 WB, West of Rotary	476	1,019	622	519	489	457	480
Sandy Pond Road	318	321	443	437	454	271	376
Total	4,304	4,400	4,122	4,404	4,452	3,942	4,290

Table 3-15 Carlton Rotary – PM Peak Hour Volumes – Entering/Exiting (balanced)

Location	Entering Peak (vph)						
	1996	2000	2006	2010	2015	2021	2025
Route 2A-110, East of Rotary	820	359	828	649	658	683	612
Route 110-111, South of Rotary	809	438	632	638	703	661	720
Barnum Road	110	45	326	312	312	325	352
Route 2A-111 EB, West of Rotary	579	1,063	659	634	623	516	489
Route 2A-111 WB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sandy Pond Road	169	228	204	225	223	188	202
Total	2,487	2,133	2,649	2,458	2,520	2,373	2,375

Location	Exiting Peak (vph)						
	1996	2000	2006	2010	2015	2021	2025
Route 2A-110, East of Rotary	458	703	609	497	528	502	460
Route 110-111, South of Rotary	443	678	346	496	480	514	480
Barnum Road	61	210	302	250	230	254	219
Route 2A-111 EB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Route 2A-111 WB, West of Rotary	1,232	443	1,099	937	1,006	906	978
Sandy Pond Road	293	99	293	278	276	197	238
Total	2,487	2,133	2,649	2,458	2,520	2,373	2,375

Location	Peak Total (vph)						
	1996	2000	2006	2010	2015	2021	2025
Route 2A-110, East of Rotary	1,278	1,062	1,437	1,146	1,186	1,185	1,072
Route 110-111, South of Rotary	1,252	1,116	978	1,134	1,183	1,175	1,200
Barnum Road	171	255	628	562	542	579	571
Route 2A-111 EB, West of Rotary	579	1,063	659	634	623	516	489
Route 2A-111 WB, West of Rotary	1,232	443	1,099	937	1,006	906	978
Sandy Pond Road	462	327	497	503	499	385	440
Total	4,974	4,266	5,298	4,916	5,040	4,746	4,750



4

Traffic Demand Management

The purpose of Transportation Demand Management (TDM) is to reduce the number of single occupancy vehicle-trips during morning and afternoon peak hours. As part of the FEIR for the redevelopment of Devens, a TDM program will be initiated once development reaches a critical mass. This program provides alternative transportation options throughout the community. The goal of this program is to reduce at least 15% of overall vehicle-trips in Devens. MassDevelopment is the agency in charge of initiating this program. It is noted that the results of the transportation survey show that approximately 3% of Devens employees and residents carpool to work.

The United States Environmental Protection Agency (EPA) requires that businesses with at least 250 employees file a TDM Plan with the Massachusetts Department of Environmental Protection (MassDEP). TDM strategies that could be implemented include:

- › Carpooling, ridesharing, vanpools
- › Shuttle bus service to and from public transit
- › Public transportation (MBTA commuter rail)
- › Parking management
- › Park and ride lots
- › Non-vehicle accommodations (bicycle racks, showering facilities, access to trail networks, etc.)
- › Guaranteed ride home program
- › Flexible work hours (to reduce peak hour traffic)
- › Improved access to local services (dry cleaners, day care, bank etc.)

The MBTA has established a reverse commute schedule for trains between North Station and both Littleton and Fitchburg Stations in the morning and evening peak commuting periods. MART has also established a shuttle for reverse commuters from the Littleton and Fitchburg MBTA Stations to Mount Wachusett Community College and is planning a bus route through Devens that will connect the Shirley MBTA station, downtown Devens, and the Ayer MBTA station. The availability of this shuttle makes commuting from Boston to Devens via the commuter rail a viable transportation

option. Devens participates in the North Central Mass RIDES TMA, including: guaranteed ride home, rideshare coordination, and first/last-mile programs. Additional transit/shuttle services are:

- › MART shuttle from Littleton Station;
- › Corporate/Alewife shuttles;
- › Fixed-route local shuttles;
- › On-demand taxi/livery;
- › First/last-mile MBTA commuter rail connections.

MassDevelopment, in conjunction with the Devens Enterprise Commission, informs every applicant about TDM and requires them to incorporate trip reduction strategies to the extent reasonable and practical. In addition, each unfilled permit issued includes a requirement that at such time a transportation management association is created in Devens, they agree to join.

Previous studies used a 7.5% target reduction in vehicle-trips as a result of TDM implementation to be conservative. This report will continue to use the 7.5% figure, although the transportation survey showed that 3% of Devens employees and residents carpool to and from work.



5

Build-out Analysis and Trip Generation/ Distribution

5.1 Overview

New development and redevelopment of existing facilities at Devens have continued over the past several years, including the initial build and expansion of Commonwealth Fusion Systems, pharmaceutical development company Veranova, Bristol Myers Squibb expansion, and the construction of research and development facilities along Jackson Road. This section focuses on documenting current level of development, existing trip comparison with standard trip generation methodology, and future projection based on thresholds identified in the EIR and Final Environmental Impact Study (FEIS). It determines where development and traffic currently are and forecasts to determine future impacts based on current characteristics using standard methodology from the EIR. This year's traffic monitoring report also affords the opportunity to check projections made twenty-five years ago.

The original Devens Base Reuse Plan limited total development in Devens to 8.5 million square feet and a daily vehicle-trips threshold of 59,625 vehicle-trips per day was calculated based on projected development levels. In a 2008 Notice of Project Change (NPC) filing to MEPA, MassDevelopment received approval to discontinue using the building floor area as the basis for build-out limit.

5.2 Existing Build-out

In order to develop a build-out analysis, all available data pertaining to existing and planned development was reviewed. The MassDevelopment Real Estate Office provided information related to existing, planned, and potential build-out in Devens. The following information was provided:

- › Building owner

- › Address
- › Zoning District
- › Building Size (SF)
- › Projected Expansion Size (SF)
- › Projected Number of Employees

Table 5-1 presents the growth in occupied commercial building space in Devens between 2000 and 2025, based on data provided by MassDevelopment. The table indicates that occupied commercial space has still been increasing but has slowed down during the last 5-year interval as compared to the previous monitoring studies. However, Table 5-2 notes a significant amount (820,150 sf) of under-construction commercial space.

Table 5-1 Devens Occupied Commercial Space Summary

Year	Occupied Commercial Space (Building SF)
2000	1,936,806
2005	3,561,634
2010	3,662,758
2015	4,708,099
2020	6,584,621
2025	6,948,686

Note: Build-out data presented in Table 5-1 and used elsewhere in this report is approximate and may not reflect the actual conditions at the time of the study.

Table 5-2 summarizes the build-out information provided by MassDevelopment.

Table 5-2 Devens Build-out Summary

Category	Area (Building SF)
Occupied	6,948,686
Under Construction	820,150
<u>DEC Planned or Permitted</u>	<u>109,437</u>
<i>subtotal</i>	<i>7,878,273</i>
No Development Initiated	662,682
Expansion Potential	997,726
Pipeline Projects	38,000
<u>Remaining Development Area</u>	<u>3,430,904</u>
<i>subtotal</i>	<i>5,129,312</i>
Total Actual and Planned Buildout	13,007,585

Note: Build-out data presented in Table 5-1 and used elsewhere in this report is approximate and may not reflect the actual conditions at the time of the study.

As of August 2025, approximately 6.95 million square feet of total build-out is occupied, 820,150 square feet is under construction, and 109,437 square feet is planned or permitted through the DEC. The total and actual planned build-out (13.01 million square feet) is 4.51 million square feet above the previously discussed 8.5 million square feet threshold commissioned as part of the Devens Base Reuse Plan, but as noted later in this report, the traffic volumes are still well below the thresholds contemplated as part of that effort. Since 2021, the total occupied build-out has increased by 364,065 square feet, and the total actual and planned buildout has increased by 3,152,607 square feet.

The 225,000 SF/year development assumption has been used consistently in Devens 5-Year Traffic Monitoring Reports since at least 2010. This rate was confirmed with MassDevelopment during the proposal phase for this study and was retained to ensure continuity with prior analyses and to allow a direct comparison of when the 59,625 daily trip threshold is projected to be reached. A review of actual SF of build-out in Devens (shown in Table 5-1) suggests that about 6.95 million square feet of build-out is currently occupied. When considering the 30 years (1995-2025) between when the Devens FEIR was finalized and now, that translates to about 225,000 SF/year absorption rate.

In addition, the residential cap in Devens was lifted in 2024, and recent conversations with MassDevelopment indicate there may be a push to consider residential development opportunities. To reflect this potential change in growth patterns, an additional 500 residential units have been assumed for analysis purposes.

Application of ITE trip-generation rates indicates that this residential growth would translate to approximately 2,900 new daily vehicle-trips, with a corresponding increase in peak-hour trips that will be reflected in the subsequent analysis elements of the study. A portion of these residential trips will be internal to Devens and will not use the surrounding external roadway network, meaning only a

share of the total estimated trips is expected to affect off-site traffic conditions. Consistent with current conditions, based on data from the surveys taken as part of this effort, the analysis assumes that approximately 20 percent of Devens homeowners are either working from home or retired. This assumption has been carried forward as a base regional assumption to moderate external trip impacts. For context, the baseline commercial absorption rate provided by MassDevelopment and used in prior iterations of the Monitoring Study remains at approximately 225,000 square feet of commercial space per year, which equates to about 1,717 new daily vehicle-trips. After reductions, it is assumed that 2,000 new daily vehicle trips will be generated as part of the added residential growth, which equates to one year of commercial growth.

5.3 Existing Trip Generation

Trip generation results quantify trips associated with any development. To estimate the trip generation characteristics for future development in Devens, the Institute of Transportation Engineers (ITE) Trip Generation⁷ manual was employed. The ITE Manual is widely used by traffic engineers for this application and provides vehicle-trip generation projections for a number of land uses. It incorporates data from all over the country and, as shown in previous Traffic Monitoring Reports, could be conservative compared to actual local data. The current traffic counts in Devens confirm this.

Based on the Devens real estate information provided by the MassDevelopment Real Estate Office, vehicle-trips were generated for each existing development. Trip generation information for existing uses is provided in the Appendix. As previously discussed, driveway turning movement counts were conducted at 27 business driveways throughout Devens. The total entering and exiting volumes were calculated for both the morning and afternoon peak hours. These volumes were then compared with projections based on ITE trip generation rates and equations. Most of these rates and equations are based on building size in square feet; however, others utilize variables such as number of hotel rooms or employees. Table 5-3 provides existing driveway counts in addition to projections based on rates and equations from the ITE Manual.

⁷ *Trip Generation Manual*. 11th ed., Institute of Transportation Engineers (ITE), Washington, D.C., 2017

Table 5-3 Devens Driveway Trip Generation Comparison

Driveway Turning Movement Counts		AM Peak Hour			PM Peak Hour		
		Existing	ITE Projection	Difference	Existing	ITE Projection	Difference
D-1	American Superconductor - 64 Jackson Road	10	53	-43	27	57	-30
D-2	Anheuser Busch – 235 Barnum Road	2	28	-26	0	29	-29
D-3	FBOP - Federal Medical Facility	102	21	81	62	15	47
D-4	Quiet Logistics - 66 Saratoga Boulevard	27	130	-103	21	139	-118
D-5	Job Corps - MacArthur Avenue	66	243	-177	51	237	-186
D-9	Sonoco – 18 Independence Boulevard	65	207	-142	38	264	-226
D-10	Southern Container - 51 Independence Boulevard	17	141	-124	39	171	-132
D-11	Xinetics - 115 Jackson Road	19	43	-24	11	27	-16
D-12	Army Enclave at Quebec Street and 10th Mountain Division Road	150	86	64	102	86	16
D-13	Devens Common – Ryans Way	77	177	-100	87	203	-116
D-14	Devens Common – Andrews Parkway	208	559	-351	185	530	-345
D-15	Bristol-Meyer Squibb – 38 Jackson Road	259	673	-414	355	929	-574
D-16	Evergreen Solar – 112 Barnum Road	48	282	-234	58	371	-313
D-17	Army Enclave at Lovell Road	46	42	4	38	42	-4
D-18	Systems H2O – 139 Barnum Road	1	109	-108	2	110	-108
D-19	National Distribution Center at Independence Drive	14	158	-144	14	73	-59
D-20	Devens Recycling Center at Independence Drive	42	65	-23	37	37	0
D-21	TerraVista Health Center - 85 Patton Road	65	64	1	35	67	-32
D-22	Pathways Devens (KSP) - 45 Jackson Road	9	155	-146	7	158	-151
D-23	Canteen Café, Sterling St Brewing - 65 Jackson Road	3	8	-5	29	55	-26
D-24	Avantor - 35 Saratoga Boulevard (Barnum Entrance)	7	32	-25	4	35	-31
D-25	O'Reilly Auto Parts - 15 Independence Drive	27	57	-30	6	61	-55
D-26	Watson-Marlow Fluid Tech Group - 16 Bulge Road	31	120	-89	36	120	-84
D-27	Airfield - Massachusetts State Police EVOG Training	15	15	0	1	13	-12
D-28	Parker Charter School - 49 Antietam Street	357	296	61	151	144	7
D-29	111 Hospital Road	81	169	-88	89	161	-72
D-30	117 Hospital Road	68	151	-83	41	144	-103
Total		1816	4084	-2268	1526	4278	-2752

The results of this comparison indicate that developments in Devens are generating traffic at rates well below those published by ITE estimates, which is consistent with previous 5-Year Traffic Monitoring Reports. As Table 5-3 indicates, these trips are 56 to 64 percent lower on a peak hour basis. For this study, trip generation rates for future expansions and planned developments will be based on rates provided in the ITE Manual.

5.4 Build-out Projections

In previous monitoring reports, two development scenarios were analyzed as part of the build-out analysis: 8.5 million square feet threshold and 59,625 daily trips. However, since the 8.5 million square foot threshold has been lifted as a criteria per the 2008 Notice of Project Change with MEPA, only the 59,625 daily trip threshold was analyzed for this report. In order to evaluate conditions under this scenario, potential development and traffic volumes were projected out to the 59,625 daily vehicle-trip threshold (Figure 5-1 and Figure 5- 2). It is noted that as of the most recent NPC, the 59,625 vehicle-trip limit has been removed; however, it has been included in this report for comparison with previous reports.

The Year 2025 total average weekday traffic (AWDT) at the Devens Gates is 32,700 vehicle-trips. To account for the fact that 29 percent of this traffic is made up of cut-through trips, this number was adjusted to 23,200 vehicle-trips in order to focus on only the traffic being generated by development within Devens. This volume serves as the baseline condition for projecting future weekday daily vehicle- trips.

Build-out projections are based on measured traffic volume data and the real estate data provided by MassDevelopment. Where insufficient information is available, the following assumptions were made:

1. Development will take place at a rate of 225,000 square feet per year, corresponding with a rate of 1,717 additional daily vehicle-trips per year.
2. Unplanned development will consist of similar land uses as current development.
3. Additional 500 residential units to be considered, corresponding to an approximate 2,000 additional daily vehicle-trips total, equivalent to 1 year of commercial development.

Figure 5-1 Devens Build-out Summary by Year – Trips

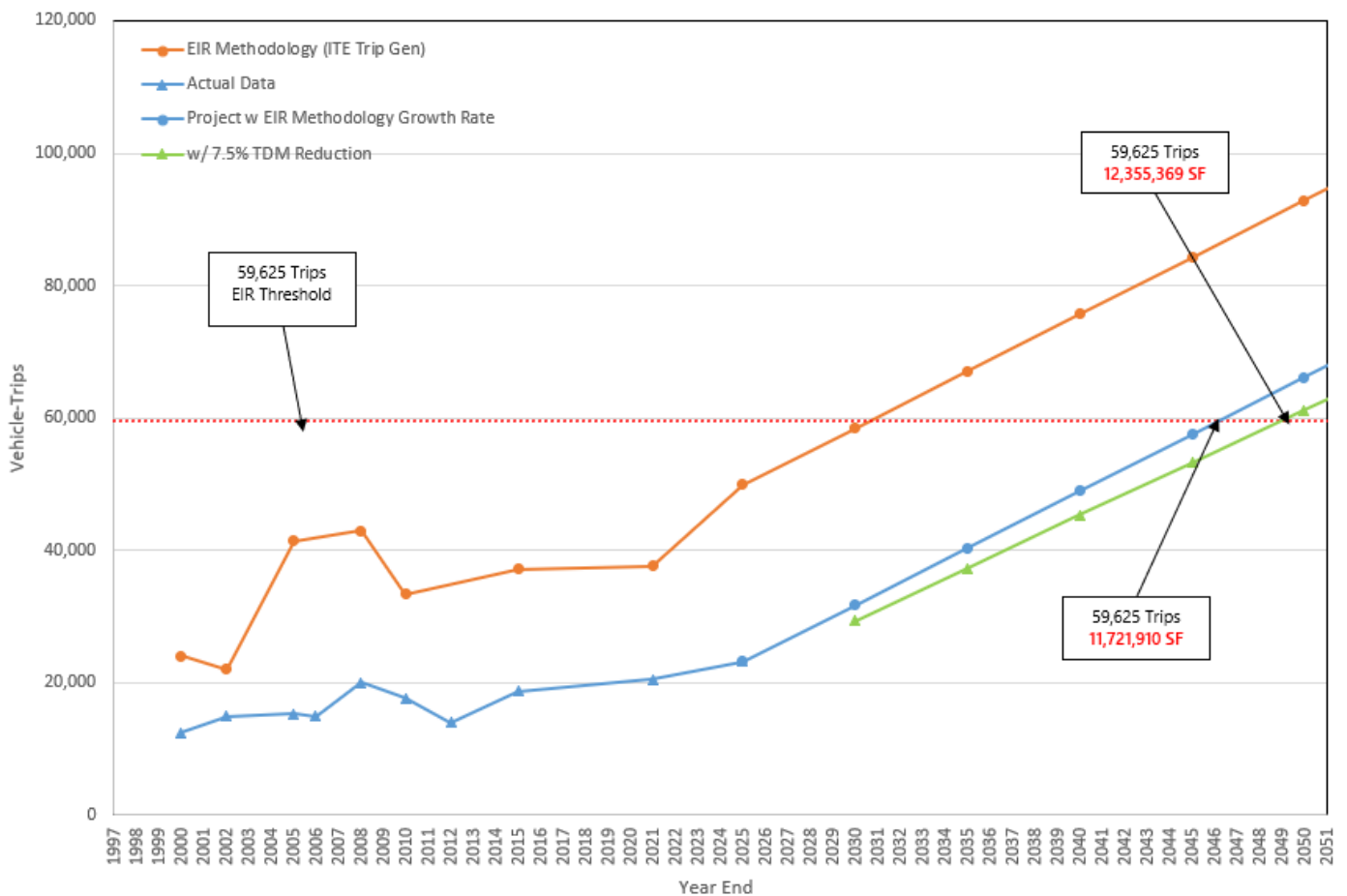


Figure 5-1 projects development over time and forecasts when daily vehicle-trip and development thresholds will be reached. The trend labeled “EIR Methodology” represents historic and current trip estimates based on ITE trip generation rates and is projected in a linear fashion after 2025. The trend labeled “Actual data” represents traffic volume counts collected in 2025 as well as previous traffic studies with a linear projection for years after 2025. Using this projection, it is estimated that the 59,625 vehicle-trip threshold (Scenario 1) will not be reached until 2045, assuming approximately 11,720,000 square feet of occupied development in Devens. The 2005 5-year Traffic Monitoring Report estimated that this threshold would be reached in 2014 with 7,360,854 square feet of development. This shows that Devens is currently generating significantly less traffic and being developed at a slower rate than projected.

The trend labeled “w/ 7.5% TDM” represents the projection of vehicle-trips at a linear rate with the previously discussed TDM measures in place. Using this rate, the 59,625 daily vehicle-trip threshold would not be reached until 2048. At that time, it is projected that there would be approximately 12,360,000 square feet of build-out assuming that development continues to take place at a rate of 225,000 square feet per year.

Figure 5-2 Devens Build-Out Summary by Square Feet – Trips

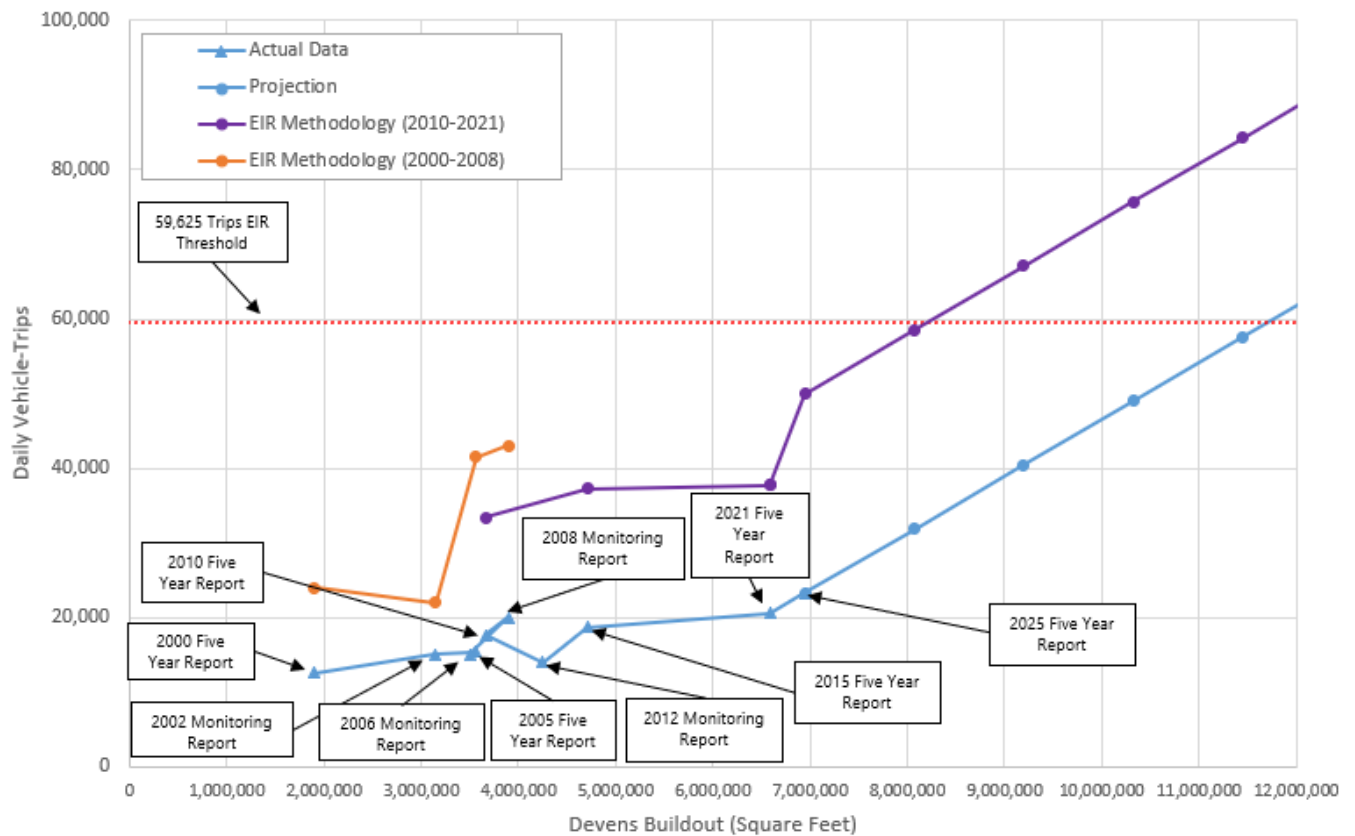


Figure 5-2 represents the relationship between square feet of occupied development in Devens and daily vehicle-trips. The trend labeled “EIR Methodology (2000-2008)” represents historic traffic volume estimates based on ITE trip generation rates during those years. The trend labeled “EIR Methodology (2010-2021)” represents traffic volume estimates based on ITE trip generation rates from the 2010 5-Year Traffic Monitoring Report forward. The reason for this discrepancy is that from 2000-2008, these estimates were based on more generic land uses. Starting with the 2010 report, trip generation was based on more specific land uses in order to produce a more accurate estimate. This accounts for the lower number of trips corresponding with equivalent build-out areas.

It should be noted that the 2025 EIR methodology utilized ITE 11th edition trip generation rates while the 2021 EIR methodology utilized ITE 10th edition trip generation rates. The ITE 11th edition trip generation rates are generally lower than ITE 9th edition trip generation rates, but reflect the current commuting and delivery trends in residential and commercial space and should be considered more reflective of traffic projections. Furthermore, many of the developments that have been occupied since 2015 have been relatively low generators of traffic when compared to the assumptions made in the original traffic projections. These include large warehousing developments and manufacturing facilities.

5.5 Traffic Analysis Zones

As part of the EIR, traffic analysis zones (TAZ) were established to analyze existing and future traffic conditions. These zones have been carried forward throughout all subsequent Traffic Monitoring Reports and will be utilized in this report for consistency and comparison purposes. Figure 5-3 depicts the boundaries of each TAZ. In order to establish a baseline condition, each existing development was assigned to a specific zone. Trip generation for each of the scenarios required assigning each planned development to a specific zone. A detailed breakdown of land use and area for each TAZ is provided in the Appendix.

AM and PM peak hour trips as well as daily trips were projected for three different scenarios. These trips were calculated using ITE trip generation rates and traffic volume counts at Devens gates. The three scenarios are as follows:

1. Existing Trips – Existing Methodology: existing buildings and occupied new construction. Trips calculated using 2025 traffic volume data.
2. Existing Trips – EIR Methodology: existing buildings and occupied new construction. Trip generation rates based on ITE Manual.
3. Future Trips – Scenario 1: build-out condition where 59,625 daily vehicle-trip limit is reached. Trip generation rates based on 2025 traffic volume data and ITE Manual.

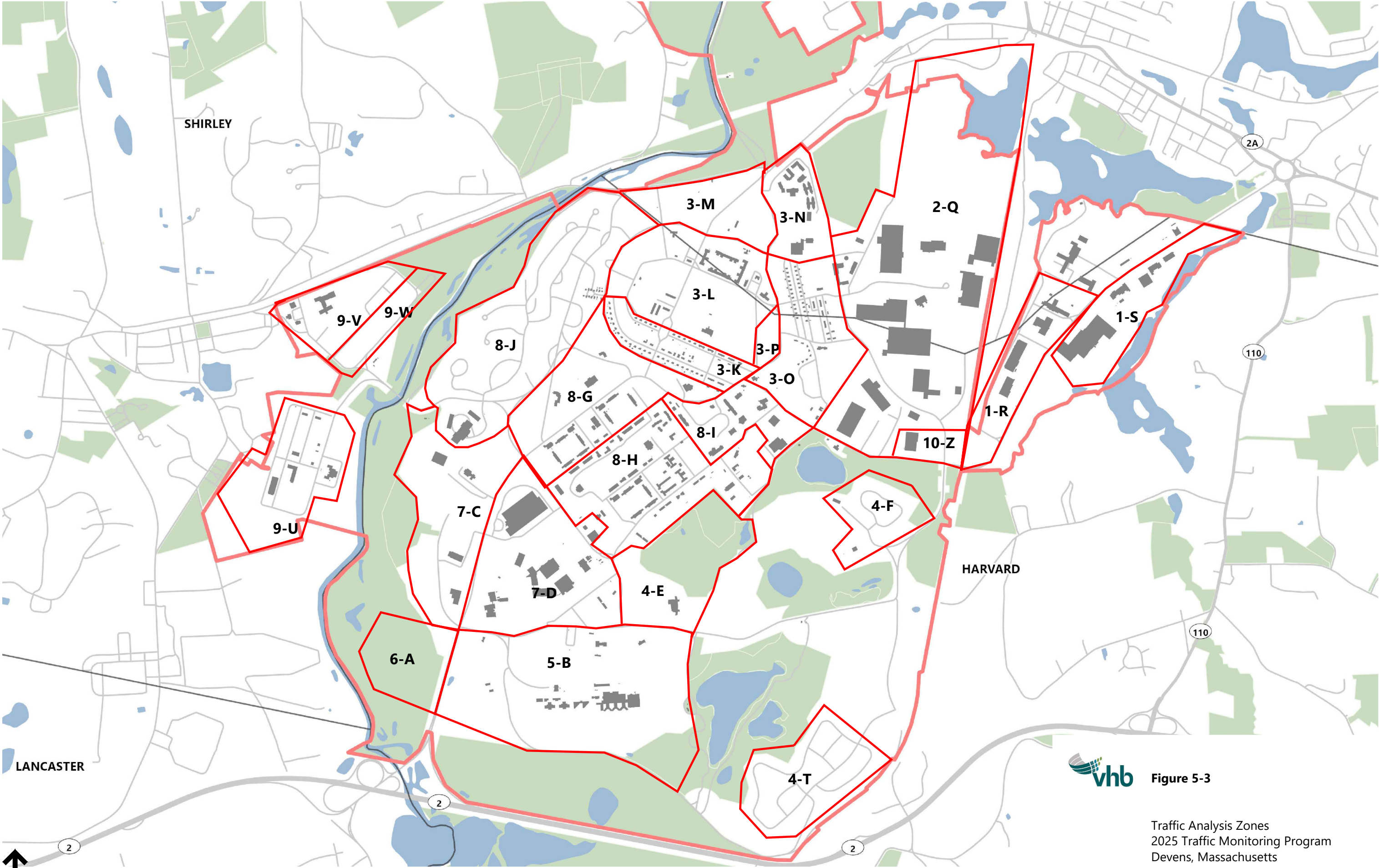


Figure 5-3

Traffic Analysis Zones
2025 Traffic Monitoring Program
Devens, Massachusetts

Table 5-4 Trip Generation Summary by Scenario

	Existing Trips - Existing Methodology					Existing Trips - EIR Methodology				
	AM in	AM out	PM in	PM out	Daily	AM in	AM out	PM in	PM out	Daily
Zone 1	319	108	176	348	2,356	685	232	379	749	5,069
Zone 2	426	126	197	382	3,829	917	272	424	821	8,237
Zone 3	354	204	252	431	4,059	763	440	541	928	8,733
Zone 4	17	16	17	22	400	37	35	37	48	861
Zone 5	84	52	48	130	654	181	112	104	280	1,408
Zone 6										
Zone 7	436	165	236	402	3,281	939	355	507	864	7,059
Zone 8	559	285	340	617	8,018	1,203	613	731	1,328	17,251
Zone 9	56	48	46	46	601	120	104	99	99	1,293
Zone 10										
Zone 11										
Zone 12										
Total	2,252	1,005	1,311	2,378	23,200	4,845	2,163	2,821	5,117	49,912
	Future Trips - Scenario 1									
	AM in	AM out	PM in	PM out	Daily					
Zone 1	98	43	57	103	1,002					
Zone 2	266	119	155	280	2,735					
Zone 3	101	45	59	107	1,039					
Zone 4	86	39	50	91	885					
Zone 5										
Zone 6										
Zone 7	266	119	155	281	2,741					
Zone 8	108	49	63	114	1,115					
Zone 9	19	9	11	20	197					
Zone 10										
Zone 11										
Zone 12										
Total	943	422	549	997	9,713					
	Cumulative				59,625					

5.6 Build-out Analysis/Trip Generation Summary

Using ITE trip generation rates, it is estimated that existing Devens developments would generate 49,912 vehicle–trips on weekdays. After being adjusted for cut–through trips, the actual traffic counts at the gates indicate an average weekday daily traffic volume of 23,200 vehicle–trips in 2025. This means that Devens is currently generating traffic at a rate of 46% of what ITE projects a comparable development would generate. In 2021, results indicated that Devens was generating traffic at a rate of 54% of what a comparable development would generate. Table 5–5 shows an average trip generation rate of 3.16 trips/KSF in 2025 compared to 3.12 trips/KSF in 2021. ITE estimates that a comparable development would generate 7.18 trips/KSF when 6,948,686 square feet of build–out is occupied.

Table 5-5 Trip Generation Summary

	Year 2021	Year 2025	Difference
Occupied Development	6,584,621 SF	6,948,686 SF	+364,065 SF
Total Daily Traffic Counts at Devens Gates	30,690 vehicle trips	32,700 vehicle trips	+2,010 vehicle trips
Daily Gate Counts Adjusted for Cut–Thru Traffic	20,562 vehicle trips	23,200 vehicle trips	+2,638 vehicle trips
Daily Vehicle–trips per 1,000 SF Development	3.12 trips/KSF	3.16 trips/KSF	+0.04 trips/KSF
ITE Estimated Daily Devens Trips	37,697 vehicle trips	49,912 vehicle trips	+12,215 vehicle trips
ITE Estimated Daily Trips per 1,000 SF	5.73 trips/KSF	7.18 trips/KSF	+1.46 trips/KSF

The drop from 54% (2021) to 46% (2025) is assumed to be primarily a function of changes in the ITE reference rates. Between 2021 and 2025, the observed Devens trip rate remained essentially flat (from 3.12 to 3.16 trips/KSF), while the aggregate *estimated* ITE rate applied to the Devens land use mix increased from 5.73 to 7.18 trips/KSF with the shift from 10th to 11th Edition ITE Trip Generation data. As a result, Devens’ actual trips now represent a smaller share of a higher ITE benchmark.

In addition, several structural and behavioral factors help explain why Devens continues to operate well below ITE-projected trip levels:

- › Use mix: A growing share of industrial, warehouse, manufacturing, and production uses that typically generate fewer trips per square foot and more off-peak or shift-based traffic than office or retail.
- › Remote/hybrid work: Persistent post-COVID changes in commuting patterns, including reduced peak-period commuting and greater schedule flexibility.
- › Vacancy and ramp-up: Not all constructed or permitted space is fully occupied or at steady-state operations; some square footage included in the build-out totals is currently generating few or no trips, whereas ITE assumes full, stabilized occupancy.

5.7 Trip Distribution

After trip generation was established, forecasted trips generated within the study area were distributed to determine where people living and working in Devens travel to and from. Trip distribution patterns consist of trips leaving the region, trips entering the region, and trips that travel within the region.

Separate distributions were produced for those who live in Devens and those who work in Devens.

Devens employee trip distribution was developed from the following sources:

- › 2025 Devens Business Employee Transportation Survey
- › 2017-2021 US Census Journey-to-Work Data

Devens resident trip distribution was developed from the following sources:

- › 2025 Devens Resident Transportation Survey
- › 2017-2021 US Census Journey-to-Work Data

Figure 5–4 shows the distribution of Devens employment trips through thirteen external gateways around Devens. Previous reports placed these gateways in locations that must be passed through in order to enter any of the Devens gates. Using 2017-2021 Journey-to-Work census data, trips from surrounding municipalities were assigned to the various gateways, and then these trips were aggregated in order to produce a percentage of trips traveling through each gateway. Gateway 8, Route 2 west of Route 70, continues to be the most utilized gateway, making up approximately 39% of total trips into Devens.

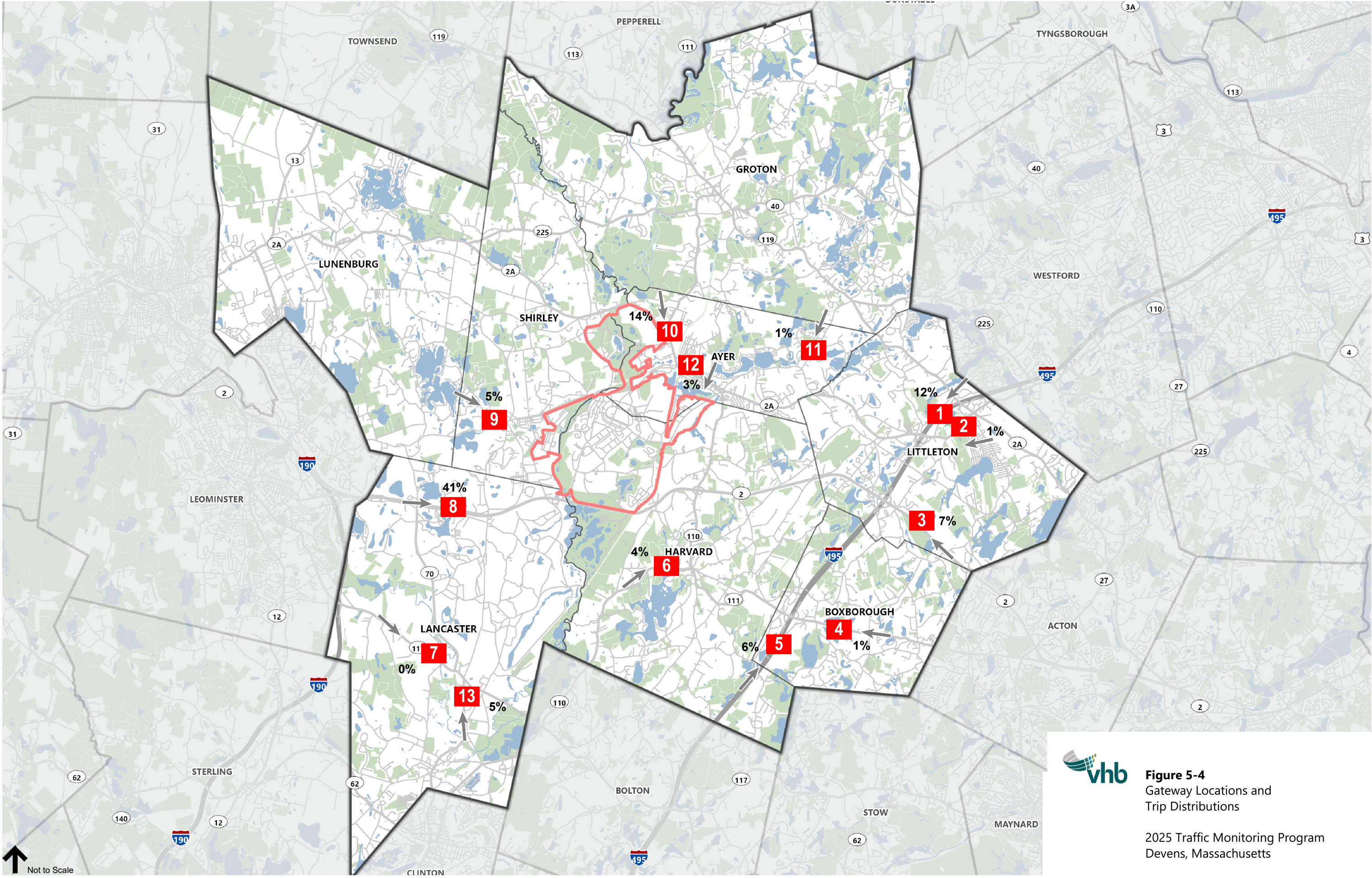


Figure 5-4
Gateway Locations and
Trip Distributions

2025 Traffic Monitoring Program
Devens, Massachusetts

5.8 Comparison with 1995 Final Environmental Impact Report

The 1995 FEIR projected traffic volumes twenty years into the future (2015). Tables 5-6 through 5-8 show comparisons between 1990 baseline volumes, 2025 projections using 1995 FEIR methodologies, and traffic volumes counted in 2025 for off-post roadways, Devens entrances, and Devens Roadways, respectively.

The 1995 FEIR did not project traffic volumes past 2015. The 1995 FEIR used a total background growth rate (prior to development growth) of 8.9% over 25 years. To be consistent with the 1995 FEIR, a growth rate (3.6%) was applied to the 2015 FEIR projected baseline volumes to create the 2025 levels. The 2025 projected volumes were then compared with the 2025 actual traffic volumes.

Off-post roadways on which traffic volumes were counted in 1990 are currently experiencing 58% of projected traffic volumes in the morning peak hour and 55% in the evening peak hour. Devens entrances are experiencing 34% of projected traffic volumes in the morning peak hour and 45% in the evening peak hour. Devens roadways are experiencing traffic volumes at rates of 26% and 30% of projections during the morning and evening peak hours, respectively.

Compared with measured 1990 baseline traffic volumes, off-post roadways are currently experiencing 12% (1,180 vehicles) more traffic in the morning peak hour and 1% (90 vehicles) in the evening peak hour. This is in line with the 2021 counts when external locations experienced an increase in traffic volumes. In 2025, traffic volumes at the Devens gates are also higher than in 1990. In the morning and evening peak hours, traffic counts are currently 66% (+890 vehicles) and 58% (+815 vehicles) higher, respectively, than they were 25 years ago. Because traffic counts were not performed at two of the three internal intersections in 1990, volumes at these intersections cannot be compared.

Table 5-6 Off-post Roadways FEIR Comparison

Location	Direction	1990 Baseline Volume	FEIR 2025	2025	Difference
			Projection	Counted Volume	
Morning Peak Hour					
Route 2					
West of Jackson Road	EB	3,025	6,023	3,875	-2,148
East of Routes 110/111	EB	2,670	3,408	2,896	-512
Jackson Road Ramps					
From Route 2 West		440	3,061	713	-2,348
From Route 2 East		85	1,433	622	-811
Routes 110/111					
South of Carlton Rotary	NB	445	726	542	-184
South of Carlton Rotary	SB	730	890	630	-260
Routes 2A/110 East of Carlton Rotary	WB	660	834	377	-457
MacPherson Road North of Verbeck Gate	SB	131	505	4	-501
Routes 111/2A					
Park St. North of Main St., Ayer	SB	592	1,155	569	-586
West of Carlton Rotary	EB	1,100	1,098	827	-271
Total		9,878	19,133	11,055	-8,078
Evening Peak Hour					
Route 2					
West of Jackson Road	WB	2,910	5,418	3,156	-2,262
East of Routes 110/111	WB	2,535	3,652	2,919	-733
Jackson Road Ramps					
From Route 2 West		430	2,591	284	-2,307
From Route 2 East		100	1,220	215	-1,005
Routes 110/111					
South of Carlton Rotary	NB	815	1,043	676	-367
South of Carlton Rotary	SB	450	690	517	-173
Routes 2A/110 East of Carlton Rotary	EB	815	928	476	-452
MacPherson Road North of Verbeck Gate	NB	106	497	2	-495
Routes 111/2A					
Park St. North of Main St., Ayer	NB	621	1,1,108	890	-218
West of Carlton Rotary	WB	1,245	1,192	978	-214
Total		10,027	18,338	10,113	-8,225

Table 5-7 Fort Devens Entrances FEIR Comparison

Location	Direction	1990 Baseline	FEIR 2025 Projection	2025 Counted Volume	Difference
Morning Peak Hour					
Jackson Gate	NB	525	4,485	1,335	-3,150
Barnum Gate	SB	325	1,089	242	-847
Verbeck Gate	SB	495	844	376	-468
Shirley Gate	EB	n/a	87	154	+67
Grant Gate	SB	n/a	n/a	129	+129
Total		1,345	6,506	2,236	4,270
Evening Peak Hour					
Jackson Gate	SB	530	3,383	1,207	-2,176
Barnum Gate	NB	265	805	300	-505
Verbeck Gate	NB	605	680	355	-325
Shirley Gate	WB	n/a	66	192	+126
Grant Gate	NB	n/a	n/a	163	+163
Total		1,400	4,935	2,217	-2,718

Table 5-8 Fort Devens Roadways FEIR Comparison

Location	Direction	1990 Baseline	FEIR 2025 Projection	2025 Counted Volume	Difference
Morning Peak Hour					
Jackson Road					
North of Patton Road	NB	n/a	2,782	656	-2,126
Patton Road					
East of Jackson Road	EB	n/a	1,759	402	-1,357
Barnum Road					
At Railroad Bridge	SB	253	543	242	-301
Total		253	5,084	1,300	-3,784
Evening Peak Hour					
Jackson Road					
North of Patton Road	SB	n/a	2,296	576	-1,720
Patton Road					
East of Jackson Road	WB	n/a	1,579	434	-1,145
Barnum Road					
At Railroad Bridge	NB	259	494	300	-194
Total		259	4,369	1,310	-1,206



6

Traffic Model

6.1 Overview

A Devens traffic model was created for 2025 conditions in order to obtain information about current conditions and forecast future traffic volumes. The model was created using PTV Vistro⁸, a successor to the Traffix software used for analysis in the previous Traffic Monitoring Reports. It is made up of a network of study area roadways and intersections, traffic volumes, and TAZs. The model utilizes the four steps of the transportation planning process:

- › Trip generation
- › Trip distribution
- › Mode Split
- › Trip Assignment

The model includes 2025 morning and afternoon peak hour baseline traffic volumes, along with traffic volume projections for the following conditions as discussed in Section 5.4:

- › No-Build (year 2045)
- › Build Scenario 1 (year 2045)

6.2 Traffic Model Development

A traffic model was created using PTV Vistro software to model current 2025 conditions. The 2025 traffic volumes were input in order to establish a baseline condition. Traffic generated from the Scenario 1 build-out scenario, as discussed in Section 5, were input to forecast future traffic volumes.

⁸ PTV Vistro 2024 – 64 bit (1)

Along with current and future traffic volumes, trip distributions through each of the thirteen gateways were added to the model.

6.2.1 Intersection Volume Data

Data from turning movement counts collected in 2025 (see Section 2) were entered into the model to represent current 2025 traffic conditions. These data include traffic volumes, heavy vehicle percentages, and peak hour factors for both the morning and evening peak hours. Figures 6-1 through 6-4 show turning movement volumes for the morning and evening peak hours under the conditions of each build-out scenario.

6.2.2 Roadway Network

The model roadway network created in PTV Vistro is made up of roadways and intersections both internal and external to Devens. The network includes roadway geometry along with lane configurations.

6.2.3 Traffic Analysis Zones

The twelve TAZs established in previous reports and retained for consistency were created within the model. Each TAZ was defined by its geographical location and current and future traffic volumes. The TAZs reflect 2025 baseline volumes as well as the traffic volume projections discussed in Section 5.

6.2.4 Trip Distribution

The distribution entered into the model assumes that future travel patterns will be consistent with existing traffic patterns as established in Section 5. The thirteen gateway locations from previous 5-Year Traffic Monitoring Reports have been retained, but gateway utilization has been updated to reflect 2017-2021 US Census Journey-to-Work data for employees working in Devens.

6.2.5 Background Traffic Growth

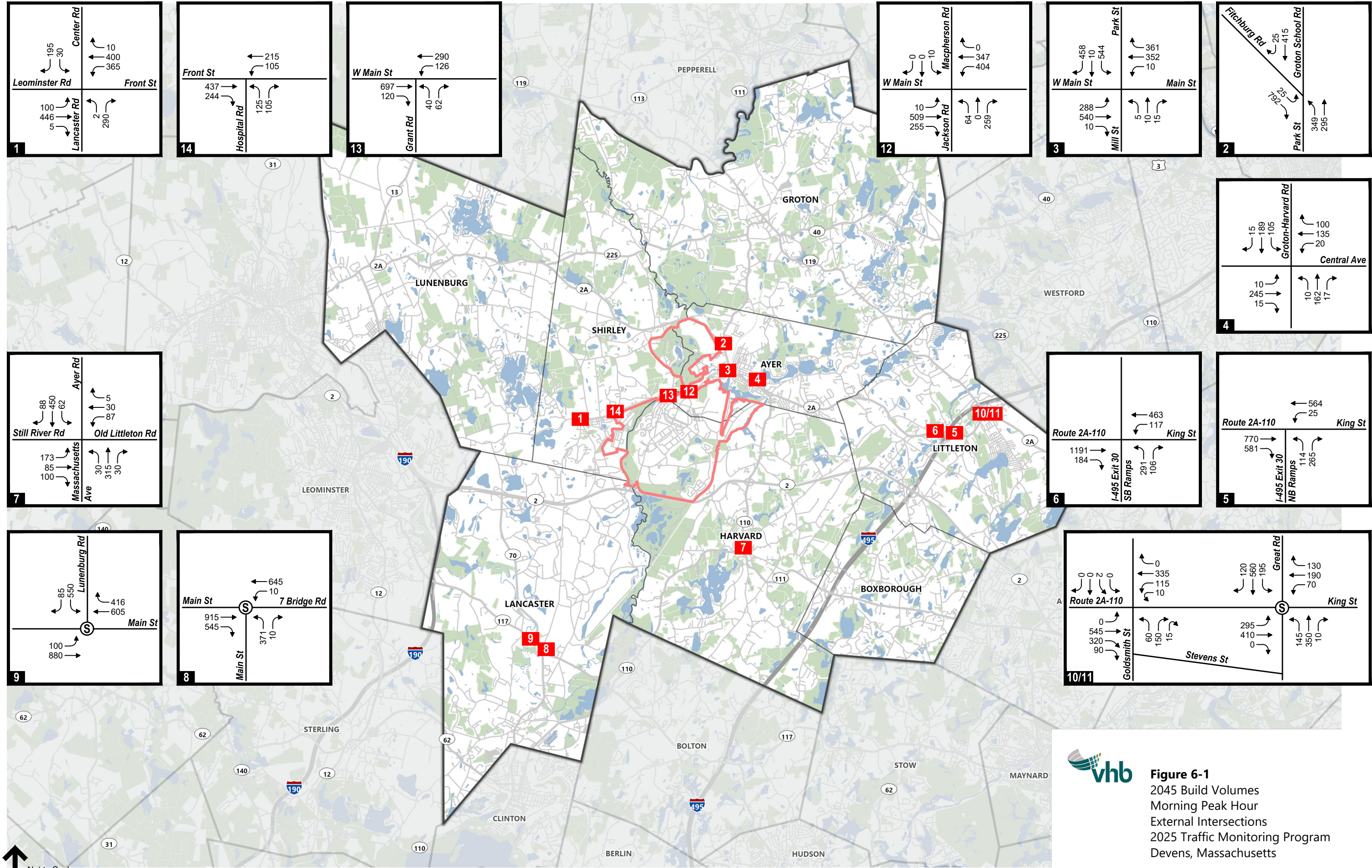
Background traffic growth is typically a function of future land development, increased economic activity, and changes in travel patterns external to Devens. Because of this, planned and proposed developments external to Devens were evaluated to determine any possible effects they may have on future traffic volumes. As discussed in Section 2, the annual traffic growth rate of 2.0%, as recommended by MRPC was used for the traffic model.

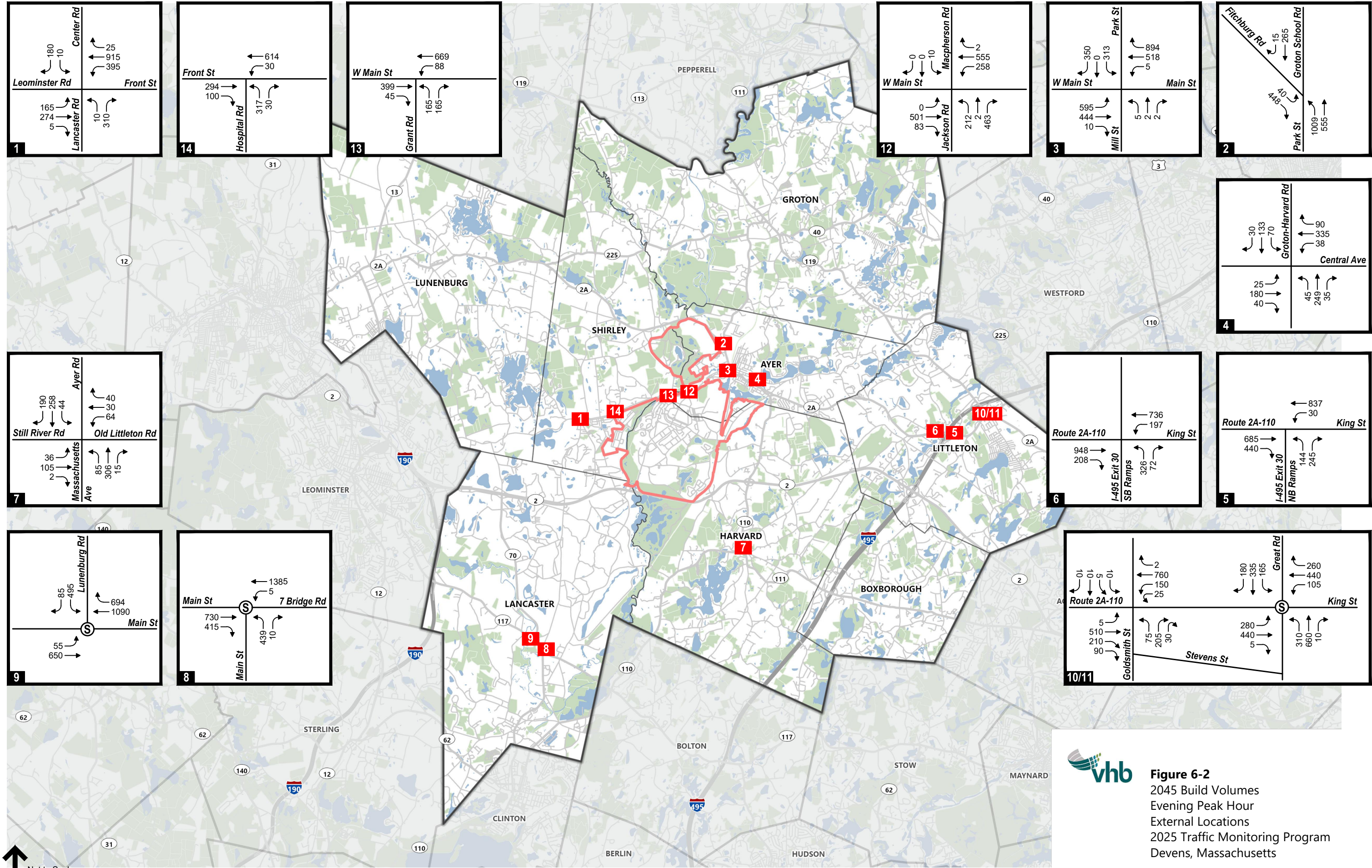
6.2.6 Project Traffic

For this study, project traffic includes the additional trips generated by future developments internal to Devens. The additional trips generated in each TAZ due to projected Devens build-out (Section 5) were entered into the traffic model for the Scenario 1 build out.

6.2.7 Traffic Assignment

Traffic generated by future Devens build-out was assigned routes through the roadway network based on the origin and destination of each of these trips, in addition to data from the Devens Resident and Employee Transportation Survey.





6.2.8 Transportation Mode Split

Modal split was determined by results of the transportation survey in addition to MBTA commuter rail ridership data. The transportation survey indicated that 82% of Devens residents and employees utilize automobiles to get to work in 2025. 3% of those surveyed carpool, 1% bike, 4% use transit, and no responses indicated walking as the main mode. Interestingly, the MBTA commuter rail data shows an 42% decrease in boardings at Devens area stations between the years of 2013 and 2018 (which would not have been influenced by the COVID-19 pandemic). Some of the decrease could be the result of a change in commuter rail scheduling that the MBTA implemented, specifically reverse commute activity to and from the Boston-core area. Similarly, the increase in available private-sector shuttle services to and from Cambridge and Alewife areas may have also influenced these volumes as well. For the purposes of developing the model, all trips were assumed to be made by vehicle in order to present a conservative assessment of potential traffic volumes on area roadways.



7

Model Results Summary

7.1 Overview

Intersection capacity analysis has been performed to determine traffic operations under existing and future conditions for each scenario. Capacity analyses provide a standardized indication of the ability of an intersection to accommodate the traffic demands placed upon it. The primary results of capacity analyses are intersection delay (by approach and overall delay) and levels of service.

The concept of Level of Service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A Level of Service definition generally describes operational conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. In doing so, Level of Service provides an index to quality of traffic flow.

Six Levels of Service are defined for each type of facility. They are given letter designations, from A to F, with LOS A representing the best operating conditions and LOS F representing the worst. Since the Level of Service of a traffic facility is a function of traffic flows placed upon it, an intersection may operate at a wide range of Levels of Service, depending on time of day, day of week, or period of year.

The average delay per vehicle approaching an intersection is used to quantify the Level of Service at a particular intersection. LOS designations for signalized and unsignalized intersections are defined in Table 7-1. Average delay measures the mean stopped delay experienced by vehicles entering an intersection during the design period. Average delay is measured for each individual turning movement that must yield the right of way, and for the intersection as a whole, if signalized (including through vehicles that experience no delay). The volume to capacity (v/c) ratio is also reported for each of the movements.

Table 7-1 Level of Service Designations for Unsignalized and Signalized Intersections

Category	Unsignalized Intersection	Signalized Intersection
	Delay (sec/veh)	Delay (sec/veh)
LOS A	0.0 – 10.0	0.0 – 10.0
LOS B	10.1 – 15.0	10.1 – 20.0
LOS C	15.1 – 25.0	20.1 – 35.0
LOS D	25.1 – 35.0	35.1 – 55.0
LOS E	35.1 – 50.0	55.1 – 80.0
LOS F	50.1 +	80.1 +

Source: Transportation Research Board, Highway Capacity Manual 6, National Research Council, 2016.

7.2 Existing (2025) Conditions

Capacity analysis for Existing 2025 Conditions has been performed in order to serve as a baseline for this study (Tables 7-2 and 7-3). Generally, the 2025 levels of service are similar to those measured in the 2021 Traffic Monitoring Report. Notable levels of service changes since 2021 are as follows:

- › **Location 1 (Front Street/Lancaster Street/Leominster Road/Center Road):** PM peak hour operations for the northbound approach, has degraded from LOS B to LOS C. All other movements are similar to 2021 operations. To remain consistent with the 2015 report, the two intersections were presented as a single intersection.
- › **Location 2 (Park/Fitchburg/Groton School):** The southbound approach, while still maintaining a LOS F under AM peak hour operations, but the delay increases to more than 2 minutes. This is primarily due to an increase in volume since 2021.
- › **Location 5 (Route 2A-110/I-495 Exit 30 NB Ramps):** AM and PM peak hour operations for the northbound approach (exiting I-495 Ramps) have improved due to an overall decrease in northbound traffic volumes.
- › **Location 7 (Route 110-111 (Ayer Road)/Still River Road):** PM peak hour operations for the northbound Ayer Road left-turn have improved due to an overall decrease in northbound approach volumes.
- › **Location 8 (Route 70/Route 117 (Seven Bridge Road):** This location has been signalized since 2021. Operations were able to improve significantly after signalization, specifically with the northbound approach.
- › **Location 9 (Route 70 (Lunenburg Road)/Route 117):** This location has been signalized since 2021. Operations were able to improve significantly after signalization, specifically with the southbound approach.
- › **Location 11 (Route 2A-110 (King Street)/Goldsmith Street):** PM peak hour operations for the northbound approach (Goldsmith Street) have degraded due to an increase in northbound traffic volumes.
- › **Location 12 (Verbeck Gate/MacPherson Road/West Main Street):** AM and PM peak hour operations for the northbound approach (MacPherson Road) have improved due to a decrease in

traffic volumes for all northbound movements, while the operations for the southbound approach have degraded due to an increase in volume for all southbound movements.

Table 7-2 Intersection Capacity Analysis Level of Service Summary – 1996 to 2025 AM Peak Hour

	1996		2000		2006		2010		2015		2021		2025	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
UNSIGNALIZED INTERSECTIONS														
Location 1 - Front/Lancaster/Leominster/Center														
All movements from Lancaster Northbound	B	6	D	26	B	13	C	19	C	16	B	13	B	13
All movements from Center Southbound	B	10	E	48	C	23	F	52	F	57	B	13	B	14
Left turn from Leominster Eastbound	A	2	A	8	A	7	A	8	A	8	A	8	A	8
Left turn from Front Street Westbound	A	3	A	8	A	8	A	8	A	8	A	9	A	9
Location 2 - Park/Fitchburg/Groton School														
Left/Right from Groton School Southbound (stop control)	F	>120	F	102	C	20	F	>120	F	>120	F	59	F	>120
Left turn from Fitchburg Road Eastbound	A	3	A	8	A	9	A	8	A	8	A	8	A	8
Location 3 - Park/Main/West Main														
All movements from Park (Mill) Street Northbound	B	9	n/a	n/a	C	15	C	20	C	18	C	20	D	28
All movements from Park Street Southbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Left turn from West Main Street Eastbound	A	4	A	9	A	9	A	9	A	8	A	9	A	9
Left turn from Main Street Westbound	A	3	n/a	n/a	A	8	A	8	A	8	A	8	A	8
Location 4 - Groton-Harvard/Central														
All movements from Groton-Harvard Northbound	B	8	C	18	B	13	F	55	C	15	C	17	B	15
All movements from Groton-Harvard Southbound	C	12	F	80	C	20	C	18	C	24	C	20	C	21
Left turn from Central Eastbound	A	3	A	8	A	8	A	8	A	8	A	8	A	8
Left turn from Central Westbound	A	3	A	8	A	8	A	8	A	8	A	8	A	8
Location 5 - Route 2A-110/I-495 Northbound Ramps														
Left turn from Ramps Northbound	C	16	E	106	C	22	E	35	F	83	F	79	E	36
Right turn from Ramps Northbound	C	15	F	n/a	B	13	C	20	D	27	B	14	C	16
Left turn from Route 2A-110 Westbound	B	5	B	11	A	9	A	10	B	10	A	9	A	9
Location 6 - Route 2A-110/I-495 Southbound Ramps*														
Left turn from Ramps Northbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Right turn from Ramps Northbound	B	6	C	21	B	14	C	15	C	18	B	15	C	18
All movements from Murray Park Southbound	E	35	F	>120	F	76	F	>120	F	>120	n/a	n/a	n/a	n/a
Left turn from Route 2A-110 Eastbound	A	3	A	8	A	8	A	8	A	8	n/a	n/a	n/a	n/a
Left turn from Route 2A-110 Westbound	B	6	B	12	B	10	B	11	B	12	B	11	B	10
Location 7 - Route 110-111(Ayer Road)/Still River														
All movements from Still River Road Eastbound	C	11	E	47	C	20	B	13	C	15	C	15	C	16
All movements from Still River Road Westbound	C	12	F	>120	D	27	B	12	B	13	C	15	B	13
All movements from Ayer Road Northbound	A	3	A	8	A	8	C	17	D	27	C	20	C	17
All movements from Ayer Road Southbound	A	3	A	8	A	8	C	22	D	34	D	33	D	26

Table 7-2 Intersection Capacity Analysis Level of Service Summary – 1996 to 2025 AM Peak Hour (Continued)

	1996		2000		2006		2010		2015		2021		2025	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
SIGNALIZED INTERSECTIONS														
Location 8 - Route 70/Route 117 (Seven Bridge Rd)*														
All movements from Route 70 Northbound	B	7	F	>120	F	>120	F	>120	F	>120	F	>120	C	20
All movements from Route 70 Southbound	n/a	n/a	E	43	D	26	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Left/Through from Main Street (Rt. 117) Eastbound	F	88	A	< 8	n/a	n/a	A	3	A	0	n/a	n/a	B	12
Right turn from Main Street (Rt. 117) Eastbound													A	2
Left turn from Seven Bridge Road Westbound	B	10	B	11	B	11	B	11	B	12	B	11	B	20
Through/Right turn from Seven Bridge Road Westbound													A	10
Location 9 - Route 70 (Lunenburg Road) Route 117*														
All movements from Lunenburg Road Southbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	n/a	n/a
Left turn from Lunenburg Road Southbound													D	43
Right turn from Lunenburg Road Southbound													C	25
Through from Route 117 Westbound													B	15
Right turn from Route 117 Westbound													B	14
Left turn from Route 117 Eastbound	A	4	A	9	A	8	A	9	A	9	A	9	A	8
Through from Route 117 Eastbound													B	11
Location 10 – Route 110 (King St)/Route 119 (Great Road) *														
Left turn from King St Northbound (or Eastbound)	F	66	F	>120	B	17	D	43	C	27	C	25	C	33
Through/Right from King St Northbound (or Eastbound)	C	17			B	16	D	43	C	27	B	16	B	19
Left turn from King St Southbound (or Westbound)	D	38			B	14	C	33	D	36	C	20	C	26
Through/Right from King St Southbound (or Westbound)	B	13			B	15	C	33	B	18	B	16	B	19
Left turn from Great Road Westbound (or Northbound)	B	6			A	6	B	14	D	50	D	35	D	42
Through/Right from Great Road Westbound (or Northbound)	B	7			C	28	B	17	D	36	B	18	C	24
Left turn from Great Road Eastbound (or Southbound)	A	4			A	8	A	10	D	43	D	35	D	51
Through/Right from Great Road Eastbound (or Southbound)											C	24	C	33

Note: (*) Location 1 is now Location 1-a and 1-b. Location 6 southbound and Location 8 southbound approaches were not counted in 2021. Location 8 and 9 became signalized in 2023. Location 10 was a signalized intersection as of 2006.

Table 7-2 Intersection Capacity Analysis Level of Service Summary – 1996 to 2025 AM Peak Hour (Continued)

	1996		2000		2006		2010		2015		2021		2025	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
UNSIGNALIZED INTERSECTIONS														
Location 11 - Route 2A-110/Goldsmith														
All movements from Goldsmith Northbound	F	>120	F	117	C	20	C	20	D	34	C	19	C	18
Left turn from Route 2A-110 Westbound	B	9	B	12	A	10	A	9	B	10	A	9	A	10
Location 12 - Verbeck Gate/MacPherson/ West Main														
All movements from MacPherson Northbound	B	7	C	20	E	36	D	31	D	32	F	58	D	32
All movements from MacPherson Southbound	B	6	A	< 5	D	35	E	40	E	44	E	42	F	69
Left turn from West Main Eastbound			A	< 5	A	8	A	8	A	8	A	8	A	8
Left turn from West Main Westbound	A	4	A	9	A	9	A	9	A	9	A	9	B	10
Location 13 - Grant/West Main														
All movements from Grant Road Northbound					B	12	B	13	C	18	C	17	C	16
Left turn from Front Street (West Main St) Westbound					A	8	A	8	A	9	A	9	A	9
Location 14 - Hospital/Front														
All movements from Hospital Road Northbound					B	12	C	16	C	25	E	46	E	41
Left turn from Front Street Westbound					A	8	A	9	A	9	A	4	A	10

Table 7-3 Intersection Capacity Analysis Level of Service Summary – 1996 to 2025 PM Peak Hour

	1996		2000		2006		2010		2015		2021		2025	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
UNSIGNALIZED INTERSECTIONS														
Location 1 - Front/Lancaster/Leominster/Center														
All movements from Lancaster Northbound	B	9	C	23	C	16	C	24	D	30	B	11	C	19
All movements from Center Southbound	C	12	C	24	C	23	E	38	E	39	C	19	C	21
Left turn from Leominster Eastbound	A	3	A	8	A	8	A	8	A	8	A	9	A	9
Left turn from Front Street Westbound	A	3	A	8	A	8	A	8	A	8	A	8	A	9
Location 2 - Park/Fitchburg/Groton School														
Left/Right from Groton School Southbound (stop control)	F	>120	F	>120	F	54	F	>120	F	70	F	>120	F	>120
Left turn from Fitchburg Road Eastbound	B	6	B	11	A	10	B	10	B	10	A	1	B	11
Location 3 - Park/Main/West Main														
All movements from Park (Mill) Street Northbound	C	10			D	33	D	26	C	24	F	62	F	>120
All movements from Park Street Southbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Left turn from West Main Street Eastbound	B	8	B	10	B	13	B	11	A	9	B	13	B	14
Left turn from Main Street Westbound	A	3			A	8	A	8	A	7	A	8	A	8
Location 4 - Groton-Harvard/Central														
All movements from Groton-Harvard Northbound	C	10	D	34	C	23	D	26	C	19	C	20	D	31
All movements from Groton-Harvard Southbound	B	10	D	34	C	24	C	18	C	19	D	30	D	27
Left turn from Central Eastbound	A	3	A	8	A	8	A	8	A	8	A	8	A	8
Left turn from Central Westbound	A	2	A	8	A	8	A	8	A	8	A	8	A	8
Location 5 - Route 2A-110/I-495 Northbound Ramps														
Left turn from Ramps Northbound	F	73	F	94	F	>120	F	59	F	55	E	43	E	39
Right turn from Ramps Northbound	B	6	C	16	C	20	B	14	B	13	B	12	B	13
Left turn from Route 2A-110 Westbound	A	4	A	9	A	9	A	9	A	9	A	9	A	8
Location 6 - Route 2A-110/I-495 Southbound Ramps														
Left turn from Ramps Northbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Right turn from Ramps Northbound	B	5	B	14	B	13	B	12	B	13	B	14	B	14
All movements from Murray Park Southbound	F	49	F	78	F	>120	F	82	F	>120	n/a	n/a	n/a	n/a
Left turn from Route 2A-110 Eastbound	A	5	A	9	A	10	A	9	A	9	n/a	n/a	n/a	n/a
Left turn from Route 2A-110 Westbound	B	5	A	9	A	10	A	10	B	10	B	10	A	10
Location 7 - Route 110-111(Ayer Road)/Still River														
All movements from Still River Road Eastbound	C	11	C	18	C	16	A	10	B	11	B	12	B	10
All movements from Still River Road Westbound	B	9	C	23	C	19	A	9	B	11	B	13	B	11
All movements from Ayer Road Northbound	A	3	A	8	A	8	B	11	C	22	E	41	B	12
All movements from Ayer Road Southbound	A	3	A	8	A	8	A	10	B	14	C	17	B	13

Note: (*) Location 1 is now Location 1-a and 1-b. Location 6 southbound and Location 8 southbound approaches were not counted in 2021. Location 8 and 9 became signalized in 2023. Location 10 was a signalized intersection as of 2006.

Table 7-3 Intersection Capacity Analysis Level of Service Summary – 1996 to 2025 AM Peak Hour (Continued)

	1996		2000		2006		2010		2015		2021		2025	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
SIGNALIZED INTERSECTIONS														
Location 8 - Route 70/Route 117 (Seven Bridge Rd)*														
All movements from Route 70 Northbound	A	4	F	>120	F	>120	F	>120	F	>120	F	>120	D	38
All movements from Route 70 Southbound	B	5	E	36	E	37	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Left/Through from Main Street (Rt. 117) Eastbound	F	>120	A	10	A	10	A	3	A	0	n/a	n/a	A	9
Right turn from Main Street (Rt. 117) Eastbound													A	1
Left turn from Seven Bridge Road Westbound	C	14	A	9	A	9	A	9	A	9	A	9	B	14
Through/Right turn from Seven Bridge Road Westbound													B	17
Location 9 - Route 70 (Lunenburg Road) Route 117*														
All movements from Lunenburg Road Southbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	n/a	n/a
Left turn from Lunenburg Road Southbound													D	40
Right turn from Lunenburg Road Southbound													C	27
Through from Route 117 Westbound													B	18
Right turn from Route 117 Westbound													B	14
Left turn from Route 117 Eastbound	B	7	B	11	B	11	B	12	B	12	B	13	B	11
Through from Route 117 Eastbound													A	7
Location 10 – Route 110 (King St)/Route 119 (Great Road) *														
Left turn from King St Northbound (or Eastbound)	F	>120	F	>120	F	>120	C	28	F	>120	F	>120	F	>120
Through/Right from King St Northbound (or Eastbound)	B	7			B	16	C	28	C	23	B	19	B	19
Left turn from King St Southbound(or Westbound)	B	11			B	15	E	70	C	35	C	25	C	28
Through/Right from King St Southbound (or Westbound)	B	15			C	33	E	70	D	35	C	34	C	26
Left turn from Great Road Westbound (or Northbound)	E	60			A	9	B	19	D	46	F	>120	F	82
Through/Right from Great Road Westbound (or Northbound)	D	39			F	>120	C	21	C	28	C	33	C	30
Left turn from Great Road Eastbound (or Southbound)	E	55			A	7	C	22	D	49	D	41	D	40
Through/Right from Great Road Eastbound (or Southbound)											C	29	C	32

Note: (*) Location 1 is now Location 1-a and 1-b. Location 6 southbound and Location 8 southbound approaches were not counted in 2021. Location 8 and 9 became signalized in 2023. Location 10 was a signalized intersection as of 2006.

Table 7-3 Intersection Capacity Analysis Level of Service Summary – 1996 to 2025 PM Peak Hour (Continued)

	1996		2000		2006		2010		2015		2021		2025	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
UNSIGNALIZED INTERSECTIONS														
Location 11 - Route 2A-110/Goldsmith														
All movements from Goldsmith Northbound	F	>120	F	58	F	88	C	22	F	54	D	34	F	>120
Left turn from Route 2A-110 Westbound	B	7	A	9	A	10	A	9	A	9	A	9	A	10
Location 12 - Verbeck Gate/MacPherson/West Main														
All movements from MacPherson Northbound	B	7	E	44	F	>120	D	35	F	53	F	99	E	44
All movements from MacPherson Southbound	B	7	C	16	D	33	C	18	C	18	C	24	E	45
Left turn from West Main Eastbound	A	3	A	8	A	8	A	8	A	8	A	8	A	8
Left turn from West Main Westbound	A	3	A	8	A	8	A	8	A	8	A	8	A	9
Location 13 - Grant/West Main														
All movements from Grant Road Northbound					B	12	C	16	F	101	C	20	D	27
Left turn from Front Street (West Main St) Westbound					A	8	A	8	A	9	A	8	A	8
Location 14 - Hospital/Front														
All movements from Hospital Road Northbound					B	13	C	16	C	19	D	28	D	31
Left turn from Front Street Westbound					A	8	A	8	A	8	A	8	A	8

Note: (*) Location 1 is now Location 1-a and 1-b. Location 6 southbound and Location 8 southbound approaches were not counted in 2021. Location 8 and 9 became signalized in 2023. Location 10 was a signalized intersection as of 2006.

Based on the above results, operations at study area intersection have changed to various degrees. When comparing existing levels of service to 1996 baseline conditions, these intersections can be classified as unaffected, minimally affected, or affected.

Unaffected intersections are those intersections where the 2025 levels of service have remained relatively unchanged from 1996. The unaffected intersections are as follows:

- › Location 2 - Park Street/Fitchburg Road/Groton School Road
- › Location 7 – Route 110-111 (Ayer Road)/ Still River Road

Minimally affected intersections are those intersections where the 2025 levels of service have degraded only one level since 1996. The additional delay may be attributed to several factors, including regional traffic growth. The minimally affected intersections are as follows:

- › Location 1 - Front Street/Lancaster Street/Leominster Road/Center Road (PM only)
- › Location 6 - Route 2A-110/I-495 Exit 30 SB Ramps.

Affected intersections are those intersections where the 2025 levels of service have degraded by more than one level since 1996. The additional delay may be attributed to several factors, including regional traffic growth. The affected intersections are as follows:

- › Location 3 - Park Street/Main Street/West Main Street (PM only)
- › Location 4 - Groton-Harvard Road/Central Avenue
- › Location 5 - Route 2A-110/I-495 Exit 30 NB Ramps (AM only)Location 7 - Route 110-111 (Ayer Road)/Route 110 (Still River Road)/Route 111
- › Location 10 - Route 110 (King Street)/Route 119/Route 2A (Great Road)
- › Location 11 - Route 2A-110 (King Street)/Goldsmith Street (AM only)
- › Location 12 - Verbeck Gate/MacPherson Road/West Main Street
- › Location 13 - Grant Road/West Main Street *compared to 2006
- › Location 14 - Hospital Road/Front Street *compared to 2006

Improved intersections are those intersections where 2025 levels of service have improved since 1996. Both these locations have been signalized in 2023 and are operating in a much improved basis when compared to the prior levels of service. The improved intersections are as follows:

- › Location 8 - Route 70/117 (Seven Bridge Road)
- › Location 9 - Route 70/117 (Lunenburg Road)

7.3 Future No-Build (2045)

In order to evaluate traffic impacts associated with future development, future No-Build Condition traffic volumes were examined to provide a baseline condition for comparison. The No-Build Condition traffic volumes were projected for the year 2045 based on baseline traffic volume data.

Future No-Build Condition traffic volume projections consist of general background growth. Typically, background growth is a function of changes in population, future land development, increased economic activity, and changes in travel patterns. As discussed previously, a regional growth rate of 2.0% was utilized in projecting traffic volumes. Compounding this rate over 20 years results in significant traffic growth, and therefore increased delay. This increase in delay often results in LOS F at study intersections (Table 7-4).

Table 7-4 Intersection Level of Service Comparison – Existing versus No-Build

	AM Peak Hour				PM Peak Hour			
	2025 Existing		2045 No-Build		2025 Existing		2045 No-Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
UNSIGNALIZED INTERSECTIONS								
Location 1A – Lancaster/Leominster	D	27	F	51	F	51	F	96
Location 1B – Lancaster/Center/Main	C	20	E	38	E	36	F	98
Location 2 – Park/Fitchburg/Groton School	F	>120	F	>120	F	>120	F	>120
Location 3 – Park/Main/West Main	F	>120	F	>120	F	>120	F	>120
Location 4 – Groton-Harvard/Central	D	27	F	54	E	48	F	>120
Location 5 – Route 2A-110/I-495 NB Ramps	E	36	F	97	E	39	F	>120
Location 6 – Route 2A-110/I-495 SB Ramps	F	>120	F	>120	F	>120	F	>120
Location 7 – Route 110-111(Ayer Road)/Still River	C	20	F	65	B	12	C	18
Location 11 – Route 2A-110/Goldsmith	D	27	F	91	F	>120	F	>120
Location 12 – Verbeck Gate/MacPherson/West Main	F	88	F	>120	F	98	F	>120
Location 13 – Grant/West Main	C	19	D	30	D	30	F	>120
Location 14 – Hospital/Front	E	48	F	53	D	31	F	>120
SIGNALIZED INTERSECTION								
Location 8 – Route 70/Route 117 (Seven Bridge Road)	B	11	D	38	B	16	F	>120
Location 9 – Route 70 (Lunenburg Road)/Route 117	B	19	D	39	B	19	F	84
Location 10 – Route 110 (King Street)/Route 119 (Great Road)	C	33	F	>120	D	45	F	>120

The following intersections are expected to deteriorate to LOS E or LOS F in the morning or evening peak hours as a result of regional background growth independent of additional development in Devens:

- › Location 1 - Front Street/Lancaster Street/Leominster Road/Center Road
- › Location 4 - Groton-Harvard Road/Central Avenue
- › Location 7 - Route 110-111 (Ayer Road)/Still River Road
- › Location 8 - Route 70/Route 117 (Seven Bridge Road)
- › Location 9 - Route 70/117 (Lunenburg Road)
- › Location 10 - Route 110 (King Street)/Route 119/Route 2A (Great Road)
- › Location 11 - Route 2A-110 (King Street)/Goldsmith Street
- › Location 13 - Grant Road/West Main Street
- › Location 14 - Hospital Road/Front Street

7.4 Future Build (2045) Scenario 1

The future Build scenarios include traffic generated by projected development in Devens in addition to regional traffic growth (Figures 6-1 through 6-4). It is projected that most study intersections will operate at LOS F in the future with or without further development in Devens. Tables 7-5 and 7-6 show comparisons between Existing (2025) and Build (2045) levels of service and delays for study area intersections.

Table 7-5 Intersection Capacity Analysis Level of Service Summary Existing versus Build AM Peak Hour

	2025 Existing		2045 Build	
	LOS	Delay	LOS	Delay
UNSIGNALIZED INTERSECTIONS				
Location 1A - Lancaster/Leominster				
All movements from Lancaster Northbound	B	13	C	18
Left turn from Front Street Westbound	A	9	B	10
Location 1B - Lancaster/Center/Main				
All movements from Center Southbound	B	14	C	23
Left turn from Leominster Eastbound	A	8	A	9
Location 2 - Park/Fitchburg/Groton School				
Left/Right from Groton School Southbound (stop control)	F	> 120	F	> 120
Left turn from Fitchburg Road Eastbound	A	8	A	9
Location 3 - Park/Main/West Main				
All movements from Park (Mill) Street Northbound	D	28	F	> 120
All movements from Park Street Southbound	F	> 120	F	> 120
Left turn from West Main Street Eastbound	A	9	B	11
Left turn from Main Street Westbound	A	8	A	9
Location 4 - Groton-Harvard/Central				
All movements from Groton-Harvard Northbound	B	15	C	23
All movements from Groton-Harvard Southbound	C	21	F	73
Left turn from Central Eastbound	A	8	A	8
Left turn from Central Westbound	A	8	A	8
Location 5 - Route 2A-110/I-495 Northbound Ramps				
Left turn from Ramps Northbound	E	36	F	> 120
Right turn from Ramps Northbound	C	16	E	39
Left turn from Route 2A-110 Westbound	A	9	A	9
Location 6 - Route 2A-110/I-495 Southbound Ramps				
Left turn from Ramps Northbound	F	> 120	F	> 120
Right turn from Ramps Northbound	C	18	E	49
All movements from Murray St (Hartwell Ave) Southbound	n/a	n/a	n/a	n/a
Left turn from Route 2A-110 Eastbound	n/a	n/a	n/a	n/a
Left turn from Route 2A-110 Westbound	B	10	B	14
Location 7 - Route 110-111(Ayer Road)/Still River				
All movements from Still River Road Eastbound	C	16	D	26
All movements from Still River Road Westbound	B	13	C	15
All movements from Ayer Road Northbound	C	17	D	28
All movements from Ayer Road Southbound	D	26	F	119

Table 7-5 Intersection Capacity Analysis Level of Service Summary Existing versus Build AM Peak Hour (Continued)

	2025 Existing		2045 Build	
	LOS	Delay	LOS	Delay
UNSIGNALIZED INTERSECTIONS				
Location 11 - Route 2A-110/Goldsmith				
All movements from Goldsmith Northbound	C	18	F	74
Left turn from Route 2A-110 Westbound	A	10	B	12
Location 12 - Verbeck Gate/MacPherson/West Main				
All movements from MacPherson Northbound	D	32	F	> 120
All movements from MacPherson Southbound	F	69	F	> 120
Left turn from West Main Eastbound	A	8	A	8
Left turn from West Main Westbound	B	10	B	15
Location 13 - Grant/West Main				
All movements from Grant Road Northbound	C	16	D	35
Left turn from Front Street (West Main St) Westbound	A	9	B	11
Location 14 - Hospital/Front				
All movements from Hospital Road Northbound	E	41	F	69
Left turn from Front Street Westbound	A	10	B	10

Table 7-5 Intersection Capacity Analysis Level of Service Summary Existing versus Build AM Peak Hour (Continued)

	2025 Existing		2045 Build	
	LOS	Delay	LOS	Delay
SIGNALIZED INTERSECTIONS				
Location 8 - Route 70/Route 117 (Seven Bridge Rd)	B	11	D	54
All movements from Route 70 Northbound	C	20	F	>120
All movements from Route 70 Southbound	A	0	A	0
Left/Through from Main Street (Rt. 117) Eastbound	B	12	B	15
Right turn from Main Street (Rt. 117) Eastbound	A	2	A	1
Left turn from Seven Bridge Road Westbound	B	20	C	27
Through/Right turn from Seven Bridge Road Westbound	A	10	A	8
Location 9 - Route 70 (Lunenburg Road)/Route 117	B	19	D	42
Left turn from Lunenburg Road Southbound	D	43	F	83
Right turn from Lunenburg Road Southbound	25	C	C	21
Through/Right turn from Route 117 Westbound	B	15	C	30
Right turn from Route 117 Westbound	B	14	C	24
Left turn from Route 117 Eastbound	A	8	B	17
Through/Right turn from Route 117 Eastbound	B	11	D	38
Location 10 – Route 110 (King St)/Route 119 (Great Road) (overall)	C	33	F	>120
Left turn from King St Northbound (or Eastbound)	D	41	F	>120
Through/Right from King St Northbound (or Eastbound)	C	22	E	56
Left turn from King St Southbound (or Westbound)	C	29	F	115
Through/Right from King St Southbound (or Westbound)	C	22	D	42
Left turn from Great Road Westbound (or Northbound)	D	47	D	46
Through/Right from Great Road Westbound (or Northbound)	C	29	C	21
Left turn from Great Road Eastbound (or Southbound)	D	44	D	44
Through/Right from Great Road Eastbound (or Southbound)	D	36	D	37

Table 7-6 Intersection Capacity Analysis Level of Service Summary Existing versus Build PM Peak Hour

	2025 Existing		2045 Build	
	LOS	Delay	LOS	Delay
UNSIGNALIZED INTERSECTIONS				
Location 1A - Lancaster/Leominster				
All movements from Lancaster Northbound	C	19	D	32
Left turn from Front Street Westbound	A	9	A	9
Location 1B - Lancaster/Center/Main				
All movements from Center Southbound	C	21	F	73
Left turn from Leominster Eastbound	A	10	B	12
Location 2 - Park/Fitchburg/Groton School				
Left/Right from Groton School Southbound (stop control)	F	> 120	F	> 120
Left turn from Fitchburg Road Eastbound	B	11	C	16
Location 3 - Park/Main/West Main				
All movements from Park (Mill) Street Northbound	F	> 120	F	> 120
All movements from Park Street Southbound	F	> 120	F	> 120
Left turn from West Main Street Eastbound	B	14	F	> 120
Left turn from Main Street Westbound	A	8	A	8
Location 4 - Groton-Harvard/Central				
All movements from Groton-Harvard Northbound	D	31	F	> 120
All movements from Groton-Harvard Southbound	D	27	F	> 120
Left turn from Central Eastbound	A	8	A	8
Left turn from Central Westbound	A	8	A	8
Location 5 - Route 2A-110/I-495 Northbound Ramps				
Left turn from Ramps Northbound	E	39	F	> 120
Right turn from Ramps Northbound	B	13	C	22
Left turn from Route 2A-110 Westbound	A	8	B	13
Location 6 - Route 2A-110/I-495 Southbound Ramps				
Left turn from Ramps Northbound	F	> 120	F	> 120
Right turn from Ramps Northbound	B	14	D	28
All movements from Murray St (Hartwell Ave) Southbound	n/a	n/a	n/a	n/a
Left turn from Route 2A-110 Eastbound	n/a	n/a	n/a	n/a
Left turn from Route 2A-110 Westbound	A	10	A	9
Location 7 - Route 110-111(Ayer Road)/Still River				
All movements from Still River Road Eastbound	B	10	B	13
All movements from Still River Road Westbound	B	11	B	13
All movements from Ayer Road Northbound	B	12	C	24
All movements from Ayer Road Southbound	B	13	D	32

Table 7-6 Intersection Capacity Analysis Level of Service Summary Existing versus Build PM Peak Hour (Continued)

	2025 Existing		2045 Build	
	LOS	Delay	LOS	Delay
UNSIGNALIZED INTERSECTIONS				
Location 11 - Route 2A-110/Goldsmith				
All movements from Goldsmith Northbound	F	> 120	F	> 120
Left turn from Route 2A-110 Westbound	A	10	B	12
Location 12 - Verbeck Gate/MacPherson/West Main				
All movements from MacPherson Northbound	E	44	F	> 120
All movements from MacPherson Southbound	E	45	F	> 120
Left turn from West Main Eastbound	A	0	A	0
Left turn from West Main Westbound	A	9	B	10
Location 13 - Grant/West Main				
All movements from Grant Road Northbound	D	27	F	> 120
Left turn from Front Street (West Main Street) Westbound	A	8	A	9
Location 14 - Hospital/Front				
All movements from Hospital Road Northbound	D	31	F	> 120
Left turn from Front Street Westbound	A	8	A	8

Table 7-6 Intersection Capacity Analysis Level of Service Summary Existing versus Build PM Peak Hour (Continued)

	2025 Existing		2045 Build	
	LOS	Delay	LOS	Delay
SIGNALIZED INTERSECTIONS				
Location 8 - Route 70/Route 117 (Seven Bridge Rd)	B	16	F	>120
All movements from Route 70 Northbound	D	38	F	>120
All movements from Route 70 Southbound	A	0	A	0
Left/Through from Main Street (Rt. 117) Eastbound	A	9	A	8
Right turn from Main Street (Rt. 117) Eastbound	A	1	A	1
Left turn from Seven Bridge Road Westbound	B	14	D	40
Through/Right turn from Seven Bridge Road Westbound	B	17	F	106
Location 9 - Route 70 (Lunenburg Road)/Route 117	B	19	F	102
Left turn from Lunenburg Road Southbound	D	40	D	49
Right turn from Lunenburg Road Southbound	C	27	C	21
Through from Route 117 Westbound	B	18	F	>120
Right turn from Route 117 Westbound	B	14	F	66
Left turn from Route 117 Eastbound	B	11	B	20
Through from Route 117 Eastbound	A	7	B	17
Location 10 – Route 110 (King Street)/Route 119 (Great Road)	D	45	F	>120
Left turn from King St Northbound (or Eastbound)	F	>120	F	>120
Through/Right from King St Northbound (or Eastbound)	C	23	E	72
Left turn from King St Southbound (or Westbound)	C	33	F	>120
Through/Right from King St Southbound (or Westbound)	C	31	F	>120
Left turn from Great Road Westbound (or Northbound)	D	44	D	49
Through/Right from Great Road Westbound (or Northbound)	C	32	C	33
Left turn from Great Road Eastbound (or Southbound)	D	47	D	45
Through/Right from Great Road Eastbound (or Southbound)	D	39	D	40



8

Conclusions

This comprehensive traffic study indicates that regional peak period traffic volumes at intersections external to Devens have generally decreased since 2021. The study area intersections external to Devens have collectively experienced a 1% decrease (63 vehicles) during the morning peak hour, and a 4% decrease (-842 vehicles) during the evening peak hour since 2021. However, the daily traffic volumes on study area roadway segments external to Devens have experienced a slight increase by 1% since 2021.

Total daily traffic volumes at Devens gates have increased since 2021.

- › During the morning peak hour, traffic volumes increased by 6% (+190 vehicles), and in the evening, traffic volumes decreased by 2% (-51 vehicles).
- › Average total weekday truck traffic volumes have increased at all gates since 2021.
- › Cut through traffic includes vehicles entering Devens gates and passing through Devens without stopping. In 2021, the 33% of trips through Devens gates were classified as cut-through trips. This number has essentially remained the same at 29% in 2025.

Previous restrictions for Devens Base Reuse Plan limited total development in Devens to 8.5 million square feet. This build-out coincided with a daily vehicle-trip threshold of 59,625 trips per day. In a 2008 Notice of Project Change (NPC) filing to MEPA, MassDevelopment received approval to discontinue using the building floor area as the basis for build-out limit.

- › As of August 2025, approximately 6.95 million square feet of total build-out is occupied, 820,150 square feet is under construction, and 109,437 million square feet is planned or permitted through the DEC.
- › The total and actual planned build-out (13.01 million square feet) is 4.51 million square feet above the previously discussed 8.5 million square feet threshold commissioned as part of the Devens Base Reuse Plan.
- › It is projected that the 59,625 daily vehicle-trip threshold will not be reached until 2045, with a corresponding 11.7 million square feet of occupied development in Devens.

According to a review of the 1995 FEIR, the following intersections were identified as potential off-site locations that would require MassDevelopment to implement mitigation should congestion become a problem:

- › Location 2 - Park Street/Fitchburg Road/Groton School Road in Ayer
- › Location 5 - Route 2A-110/I-495 Exit 30 NB Ramps in Littleton
- › Location 6 - Route 2A-110/I-495 Exit 30 SB Ramps in Littleton
- › Location 3 - Park Street/Main Street/West Main Street in Ayer
- › Carlton Rotary in Ayer

Level of service analyses of these locations show that, compared to 1996 baseline volumes, levels of service have either been unaffected or minimally affected. Considering the minimal increase in regional traffic volumes surrounding Devens, it is unlikely that traffic generated by Devens has adversely affected delays at these intersections beyond what was projected and, in many cases, is well below what was anticipated at that time. Traffic volumes in 2025 are similar to pre-2000 volumes even with the redevelopment of Devens.

As noted earlier, information from MRPC indicated that traffic in the region is stable, even declining in some communities. The findings in this study are similar to MRPC's observations. In areas where there are increases in traffic volumes, the magnitudes are not significant. Existing infrastructure is, for the most part, able to accommodate the increased and increasing development occurring within Devens; therefore, it is anticipated that the continued development at Devens will have negligible impact on the regional roadway network at its current pace.

The 1995 Section 61 Finding required that MassDevelopment implement a "5-Year traffic reporting program to evaluate results of, and redirect as necessary, the traffic monitoring program." As noted in Chapter 3, regional traffic volumes at the external study locations have increased only slightly (1.4%) since 2021. Documented data including the 2025 results have shown that Devens development is generating significantly less traffic than was anticipated in the original MEPA and transportation planning studies conducted in 1995.

Although there is an increase in the area redeveloped within Devens, traffic operations at external intersections have not been significantly impacted due to the combined effect of the increase in regional traffic and the lower Devens trip rates. While cut-through traffic has increased since 2000, almost doubling from 18% in 2000 to 29% in 2025, the cut-through rate has remained constant over the last several years with the cut-through percentage being 34% in 2015 and 33% in 2021. This is an indication that the redevelopment of Devens over the last several years has not had a significant and unexpected impact on the area roadway network.