July 25, 2017

HAND DELIVERED
Eric Goldberg, Chairman
Zoning Board of Appeals
Town of Wayland
41 Cochituate Road
Wayland MA 01778

RE: Comprehensive Permit Application
Properties located at 113, 115, 117 & 119 Boston Post Road, Wayland, Massachusetts
Assessor's Map 30 Parcel 71 and Map 30 Parcel 70.

Dear Chairman Goldberg:

This document comprises an application pursuant to G. L. c. 40B, §§ 20-23 (the "Act"), and the regulations promulgated thereunder with regard to a Comprehensive Permit to authorize the construction of sixty (60) dwelling units in one structure on land comprising approximately 6.49 acres located at 113, 115, 117 and 119 Boston Post Road, Wayland, Massachusetts which is located in a Single Residence 40,000 s.f. 180' frontage district (the "Property" or the "Site"). The Application for Zoning Board of Appeals Hearing is attached hereto in "Exhibit 1".

1.0 Applicant

This Application is filed by Eden Management Inc. (the "Applicant"), a Massachusetts corporation, with a principal address of 80 Hope Avenue Suite 512 Waltham MA 02453. A copy of the Applicant's Certificate of Organization as filed with the Massachusetts Secretary of State's Office and is attached hereto in "Exhibit 2".

The Applicant and related principals have been material in the development of several real estate developments. A list of past projects are attached hereto in "Exhibit 3".

The Applicant respectfully requests that all notices from the Board in connection with this Application be sent to this writer and Mark Bobrowksi and Paul Haverty, 9 Damonmill Sq., Concord, MA 01742, or electronically to mark@bbhlaw.com.

2.0 Project Subsidy

The Applicant has received a Project Eligibility Letter from the Department of Housing and Community Development ("DHCD") pursuant to the Housing Stabilization Fund ("HSF") Program. A copy of the Project Eligibility Letter is attached hereto in "Exhibit 4". The Project Eligibility Letter issued by DHCD satisfies the jurisdictional subsidy requirements established under the Act and the regulations promulgated thereunder.

The Project Eligibility Letter issued by DHCD contains the findings required by 760 CMR 56.04(4), including the finding that the Applicant controls the Site pursuant to 760 CMR 56.04(4)(g). Pursuant to 760 CMR 56.04(6), the determinations made by the Subsidizing Agency (in this instance DHCD) are conclusive, and any challenge to such determination may be made "solely upon the grounds that there has been a substantial change affecting the project eligibility requirements set forth at 760 CMR 56.04(1)."

The Applicant has notified the Subsidizing Agency of the submittal of this application. A copy of the notice to the DHCD is attached hereto in "Exhibit 5".

3.0 Site Control

The Applicant controls the Property within the meaning of the Act. The Property is controlled by the Applicant and the Developer. A copy of the Purchase and Sale Agreement are attached hereto in "Exhibit 6".

4.0 The Property

The property consists of 2 parcels. The parcels are identified as 113 and 115 Boston Post Road. The Property is illustrated on a set of plans by Beals & Thomas Inc. (the "Site Development Plans"), the

plans are attached hereto in "Exhibit 7". Such plans fulfill the requirements of 760 CMR 56.05(2)(a), preliminary site development plans. Additionally, context photographs of the surrounding area are attached hereto in "Exhibit 8". Such material, along with the existing conditions narrative contained herein, fulfills the requirement for an existing conditions summary contained in 760 CMR 56.05(2)(b).

The entirety of the Property is located along Boston Post Road (State Road 20). This proximity to Route 20 and the Pine Brook Road will avail project resident's significant access to existing vehicular transportation roads east, west and south. Additionally the project's location proximate to the Vokes Playhouse (cultural), multiple houses of worship and restaurants (Grill 131, Coach Grill) will help stimulate economic development and other mixed-use activities.

The retail portion of this site has historically been a garden center use dating back more than 100 years. The house at 113 Boston Post Road is of comparable age. Most recently the garden center has been known as the Mahoney's Garden Center. The Mahoney family is in the process of vacating the premises in favor of their Concord location. The house and garden center will be demolished as part of Cascade.

The character of the neighborhood is a well-travelled state road corridor populated with a mix of uses. These uses include older, midcentury and newer homes and multifamily properties; newer religious facilities, Independent and Assisted Living Facilities, restaurants and other cultural, retail and service uses. The predominant feature of the immediate neighborhood is State Route 20 / Boston Post Road which serves approximately 19,000 adt (average daily (vehicle) trips).

5.0 Project Description

Design features, floor plans and exterior elevations for the proposed structure is shown on a set of plans, prepared by Finegold Alexander Architects and attached hereto in "Exhibit 7" (the "Architectural Plans") (collectively, the Site Development Plans and the Architectural Plans are referred to as the "Project Plans" all which are attached hereto in "Exhibit 7"). The Architectural Plans submitted herewith fulfill the requirement for preliminary, scaled architectural plans as reflected in 760 CMR 56.05(2)(c). The Project plans are filed with this application and are made a part hereof by reference. Under the Act,

plans filed with a Comprehensive Permit application may be preliminary plans, and the Applicant reserves the right to revise the Project Plans prior to final approval of the Project.

For its own purposes the Town of Wayland has proposed a 4 story multifamily use on Boston Post Road. The Town's proposed project is called Rivers Edge. The metrics of Rivers Edge are 4 stories on a promontory with a density of approximately 22 units to the acre for 8 acres. Rivers Edge was approved by way of Town Meeting. In comparison Cascade's three story building design is contextually appropriate when compared to adjacent homes and buildings, and within height stipulations under Wayland's Zoning Bylaw 198-701.1.1 for parcels greater than 5 acres. Building envelope material choices are compatible with the adjacent residential neighborhood.

Although Cascade is denser than some of the surrounding neighborhood, the design of the building will incorporate elements consistent with the nature of the neighborhood, in order to mitigate the visual impact of the building.

The Cascade building is a series of three-story elements compromising a single structure. The single structure will constitute 60 dwelling units. Of the 60 dwelling units, 15 will be affordable to households under 80% of the area median income (AMI) and 45 will be available to households at market rates. As for unit distribution; six units will be studios, twenty four units will be one-bedroom, twenty four units will be two-bedroom and six units will be three bedroom.

The project will is designed to include significant landscaping. A tabulation of proposed buildings type, size and ground coverage is found in "Exhibit 7". The attached tabulation satisfies the requirements of 760 CMR 56.05(2)(d).

6.0 Existing Site and Surrounding Site Area Conditions (See 760 CMR 56.05(2)(b))

The subject property is located on the south side of Boston Post Road with approximately 750 feet of frontage. The property is located within the "Residence Zone 40,000 – 180' Front" as depicted on the Town of Wayland Zoning Map. The properties consists of a total of 6.49± acres (282,704 ± square feet) of which less than an acre is wetlands. The upland areas are located towards the front and rear portions of the site while the wetlands diagonally traverses the center. The wetlands are associated with

the Pine Brook and traverses from east to west before gathering into the river channel. While the Pine Brook qualifies as a river under the state statute, no portion of the property is located within the Natural Heritage and Endangered Species Program (NHESP) Priority Habitat and Estimated Habitat.

The site is currently occupied by the Mahoney Garden Center. It is anticipated the site will be vacated during this retail season. The Garden Center has a building footprint of approximately 20,000 square feet and occupies much of the site. In addition to the Garden Center there are several parking areas and mobilization areas spread throughout the site. In total the existing use qualifies as 3.6 acres or 55% the site with disturbances and improvements.

Significant Soil testing as witnessed by the Wayland's Board of Health and DEP North East Region has been performed at the site. See Exhibit 9 for the soil log. In summary there are more than sufficient soils present and satisfactory to support the necessary subsurface sewage disposal and storm water infiltration requirements of the program.

A key attributes of this proposed site is the reuse and improvement of the existing conditions. These improvements are expressed by improved storm water polishing, greater and more controlled infiltration, diminished footprint proximate to the river, enhanced access to the upland areas proximate to the site.

8.0 Proposed Landscaping/Buffers

The garden center has 3 curb cuts on Boston Post Road. This leads to significant turning movement conflicts and potentially unsafe vehicular operation. Cascade will have a single primary entrance to help improve safety and turning efficiency for residents, guests and service providers.

9.0 Project Impacts

A. Municipal Services

1. Water Supply

The Project will be serviced by Wayland's public water supply. Presently the Garden Center's agricultural uses are served by on site wells which are drawing from local groundwater. These agricultural wells are not monitored under the Town's Water Management Act (WMA) Permit and could have a

significant negative impact on local groundwater. The 89 bedrooms of Cascade are estimated to require 4,450 gallons per day. This water consumption is based upon DEP Empirical values and not Title V. The combination of removing the irrigation wells, improving the site storm water characteristics and the new construction best management practices will significantly inure to Wayland's Water Management Act Permit.

2. Wastewater

Cascade will design and build a new wastewater system. Depending upon the particulars we will build either an IA septic system or a Private Waste Water Treatment Facility. In either case this will be a significant improvement for effluent treatment when compared to existing or adjacent conditions. We anticipate Cascade will require treatment of approximately 4,450 gallons per day. DEP Empirical value.

3. Storm water

Under the post development conditions, storm water runoff for all exterior features (building, parking, walkways) will flow into a storm water treatment unit and then into a sub-surface infiltration system. This will polish and attenuate all storm water flows. All of the storm water for the two year and 25-year 24-hour storms will be totally infiltrated. For the 100-year 24-hour storm, some discharge will occur but as demonstrated by the storm water study flows will be substantially less than that which occurs for the existing condition. Storm water quality will also be addressed via the proposed storm water quality unit.

Peak rates of runoff were calculated using the TR-20 methodology developed by the NRCS. There will be an increase in runoff rates due to the additional impervious area proposed on the site. This increase is attenuated by the proposed subsurface infiltration system by providing infiltration, storage volume and discharge controls. These measures will both detain and infiltrate runoff, mitigating increased rates and volumes of runoff for the 2, 10, 25 and 100 year storms events to the wetlands. The storm water management system for the Project is designed in conformance with the Massachusetts Department of Environmental Protection's Storm water Management Standards. No adverse impact on

the municipal storm water drainage system will be generated by the Project, as the Project will not increase the volume of storm water discharging to wetlands.

Public Safety

Public safety is a function of adequate access to and from the Site. Public safety vehicle access to and from the site will be from Boston Post Road, a public way. Police and Fire apparatus will have sufficient access to the structure. The Project will have no adverse impact upon public safety.

4. Utilities

Utilities, including natural gas, electric and cable television, will be extended onto the Site from Boston Post Road, as shown on the Site Development Plans. No adverse impacts relative to public services or utilities to abutting properties or to the Town is anticipated.

B. Construction Impacts

Anticipated impacts of the Project associated with the construction process include erosion and sedimentation, noise, dust and debris control. Although these impacts will be temporary in nature, mitigation controls will be in place. Such controls include the following:

i. Construction sequencing, best management practices for erosion control, equipment and vehicle management, material storage and use, waste disposal and spill prevention and response.

ii. A daily inspection of the site conditions, as needed, to control dust during construction and to provide dust management through misting or sprinkling, as needed.

C. Historical and Archeological Impacts

A search of the Commonwealth of Massachusetts's MACRIS (Massachusetts Cultural Resource Information System) web site for this site or its elements and a similar search of the Town of Wayland's "Town's Historic Homes and Buildings Inventory" finds no elements that qualify as historical relevant or substantial.

D. Environmental Impacts

The Applicant does not expect the Project to result in any adverse environmental impacts to the Site. As noted above, the Applicant will take appropriate mitigation measures to address potential impacts, as needed.

E. Traffic Impacts

As discussed in the detailed traffic impact assessment prepared for this application, the proposed development is anticipated to generate minimal traffic impacts to the surrounding roadway system. The Property is located on Route 20 / Boston Post Road a major roadway in the Town and the region. The traffic generated by the newly constructed dwelling units will have nominal impact on Boston Post Road. This is especially pertinent in light of those periods in which the garden center generated volume during seasonal and weekday highs. See Vehicle Trip Generation Estimates attached hereto in "Exhibit 10".

10.0 Request for Zoning Waivers

The subject property is zoned "Single Family 40,000 180'frontage". Certain elements of the proposed development do not comply with the current underlying zoning. Consequently, an exception of use is required to enable multi-family residential at the proposed density to be constructed. Other exceptions to the Town of Wayland's Zoning Bylaws and other local land use regulations are specifically detailed in this application. If any specific exceptions have not been listed in this application, the applicant, upon notification of such an oversight, shall promptly amend the list of exceptions included herein. The Waiver Request List is attached hereto in "Exhibit 11".

11.0 G. L. c. 40B and Local Housing Needs

The Act, provides in relevant part that all communities are required to have a minimum of ten percent (10%) of their housing stock dedicated to low and moderate income housing. See G. L. c. 40B, § 20, and 760 CMR 56.03(3)(a). Based upon most recent applicable data available, the stock of housing utilized in Wayland for low to moderate income purposes is 4.0% which is below the 10% requirement. See DHCD Subsidized Housing Inventory as of December 5, 2014, attached hereto in "Exhibit 12". With the Town being below the required 10% threshold, there exists a legal presumption that there is a regional

housing need which outweighs local concerns. In such case, the municipality must approve the Comprehensive Permit or approve it with conditions.

The Applicant proposes and agrees that fifteen (15) of the total number of units in the Project will be dedicated as affordable units to persons earning not more than eighty percent (80%) of the area median income.

The project will also provide much needed fully-wheel chair accessible and adaptable units to the Wayland housing inventory.

The affordable units will be made available on a lottery basis, on terms acceptable to the Subsidizing Agency, in accordance with applicable fair housing law.

12.0 Filing with Other Boards

The Applicant will provide an application to the Conservation Commission and the Board of Health.

13.0 Additional Information

The Applicant has provided additional information / documents to this Application as described in the Table of Contents attached hereto.

The Applicant reserves the right to provide, and anticipates providing, additional information to the Board of Appeals during the course of the hearing process.

14.0 Phasing

The Applicant does not currently plan to phase the Project. The Applicant reserves the right to propose phasing, if necessary.

15.0 Finding of Fact

The applicant requests that the Board of Appeals make the following findings of fact in connection with the action of the Board on this application:

1. Eden Management Inc., the Applicant, shall form a limited profit organization within the meaning of General Laws, Chapter 40B, which shall be eligible to receive a subsidy under a state or federal affordable housing program after a Comprehensive Permit has been granted.

2. The Applicant has shown evidence of its site control to qualify it as a recipient of a Comprehensive Permit for this site.

3. DHCD, as the Program Administrator of the New England Fund Program, will be the subsidizing agency within the meaning of the regulations of 40B (760 CMR 56.04) and within the meaning of the procedural regulations of the Housing Appeals Committee (760 CMR 56.07).

4. The number of low or moderate income housing units in the town of Wayland constitutes less than ten percent (10%) as reported in the latest decennial census of the town and reported by the Department of Housing & Community Development.

5. The development as proposed in the application is consistent with local needs within the meaning of General Laws, Chapter 40B, Section 20.

The Applicant respectfully requests the Board of Appeals after complying with the procedural requirements as provided by law, to issue to the applicant a Comprehensive Permit for the development.

16.0 Summary

The within Application proposes an attractive, well-designed affordable housing development that will address a long-standing and serious shortage of affordable and elderly housing. The Site design and existing conditions afford ample area to accommodate the proposed development. Moreover, the Project has been designed to minimize and mitigate potential impacts to municipal systems and services.

The Applicant respectfully submits that the Project will meet a severe regional and local need for affordable rental housing while also addressing the health, safety, and environmental concerns of Wayland residents.

Respectfully submitted,

Eden Management Inc.

_____

Steven Zieff, President

TOWN OF WAYLAND

MASSACHUSETTS
01778

BOARD OF APPEALS

TOWN BUILDING
41 COCHITUATE ROAD
TELEPHONE: (508) 358-3600
FAX: (508) 358-3606

ZONING BOARD OF APPEALS APPLICATION FOR HEARING

(original should be pink copy)

CASE #_____

LOCATION OF SUBJECT PROPERTY

_____ _____ _____ _____

and Street Name | Plate | Parcel | Year Built

ZONING INFORMATION

_____ _____

Zoning District | Overlay District

_____ _____

Present Use | Proposed Use

	Required	**Existing**	**Proposed**
Lot Area			
Frontage			
Front Yard Setbacks			
Side Yard Setbacks			
Rear Yard Setbacks			
Gross Floor Area	N/A		
% of Increase of Gross Floor Area	N/A	N/A	

OWNER INFORMATION

_____

Name | Telephone Number

_____

Address

APPLICANT INFORMATION (if different from owner information)

_____

Name | Telephone Number

_____

Address

ATTORNEY/AGENT INFORMATION (if applicable)

_____

Name | Telephone Number

_____

Address

NARRATIVE (describe proposal)

_____

_____

_____

_____

_____

_____

SIGNS (if applicable)

Business Name _____ Telephone Number _____

Address _____

Type of Business _____ Hours of Operation _____

SIGN DETAILS

Existing Sign Information _____

Is sign illuminated ☐yes ☐ no If yes: ☐Internal ☐External

Number of Proposed Signs _____ Location of Signs _____

Are signs (check all that apply): ☐one sided, ☐ two sided, ☐ freestanding, ☐ awning, ☐ attached to building

Size of Sign: _____

Area of Signs: _____

Material of Signs: _____ Color: _____

***All Sign Submittals should include a photograph or colored rendering.**

I hereby request a hearing before the Zoning Board of Appeals with reference to the above application, with supporting documentation submitted, and that the proposed work is authorized by the Owner of Records and I have been authorized by the owner to make this application as the agent. I hereby consent to the Building Commissioner and Zoning Board of Appeals members' entry upon the exterior areas of the premises for the purpose of viewing and inspecting the property, which is the subject of the application.

Authorized Agent/Owner _____ Date _____

I have submitted nine (9) sets, each including the following:

☐ Application(1) ☐ Certified Plot Plan ☐ Schematic Architectural Plans ☐ Board of Health Approval
☐ Narrative ☐ Miscellaneous Additional Information

OFFICE USE ONLY:

☐ **Site Plan Approval** ☐ **Special Permit** ☐ **Variance**

☐ **Appeal of the Building Commissioner** ☐ **Other**

Applicable Sections on Zoning By-Laws: _____

Comments: _____

Reviewed by: _____
Date: _____
Fee Paid: _____

Received and Recorded by the Town Clerk:

_____
Signature of Town Clerk

Corporations Division

Business Entity Summary

ID Number: 043135218 Request certificate New search

Summary for: EDEN MANAGEMENT, INC.

The exact name of the Domestic Profit Corporation: EDEN MANAGEMENT, INC.	
Entity type: Domestic Profit Corporation	
Identification Number: 043135218	**Old ID Number:** 000371674
Date of Organization in Massachusetts: 09-04-1991	
	Last date certain:
Current Fiscal Month/Day: 12/31	**Previous Fiscal Month/Day:** 00/00

The location of the Principal Office:

Address: 80 HOPE AVE STE 512

City or town, State, Zip code, Country: WALTHAM, MA 02453 USA

The name and address of the Registered Agent:

Name: STEVEN N. ZIEFF

Address: 80 HOPE AVE STE 512

City or town, State, Zip code, Country: WALTHAM, MA 02453 USA

The Officers and Directors of the Corporation:

Title	Individual Name	Address
PRESIDENT	STEVEN N. ZIEFF	80 HOPE AVE STE 512 WALTHAM, MA 02453 USA
TREASURER	STEVEN N. ZIEFF	80 HOPE AVE STE 512 WALTHAM, MA 02453 USA
SECRETARY	STEVEN N. ZIEFF	80 HOPE AVE STE 512 WALTHAM, MA 02453 USA
DIRECTOR	STEVEN N. ZIEFF	80 HOPE AVE STE 512 WALTHAM, MA 02453 USA

Business entity stock is publicly traded: ☐

The total number of shares and the par value, if any, of each class of stock which this business entity is authorized to issue:

Class of Stock	Par value per share	Total Authorized		Total issued and outstanding
		No. of shares	Total par value	No. of shares
CNP	$ 0.00	20,000	$ 0.00	100

☐ **Consent** ☐ **Confidential Data** ☐ **Merger Allowed** ☐ **Manufacturing**

View filings for this business entity:

ALL FILINGS
Administrative Dissolution
Annual Report
Application For Revival
Articles of Amendment
Articles of Charter Surrender

View filings

Comments or notes associated with this business entity:

New search

Selected Projects

Communities / Municipality

55 Hope Street, Brooklyn – 92 dwelling conversion of industrial use.
680 South Avenue, Weston – 16 dwelling conversion of religious use.
Longview Place, Waltham – 348 dwelling revitalization of health care site.
Cronin's Landing, Waltham – 281 dwelling / 25,500 sf retail revitalization of abandoned urban core.
Boott Mills West, Lowell – 58 dwelling loft style conversion of National Historic Designation mill property.
Avalon Bear Hill, Waltham – 324 dwelling multifamily zoning conversion.

Forest Park of Auburn, Auburn – 87 dwelling revitalization of failed initiative.
The Village at Pillsbury Pond, Georgetown – 32 dwelling residential use.
The Village at Vinnin Square, Salem – 516 dwelling / 123 Bed / 35,000 sf PUD.
John W. Weeks House, Newton – 67 dwelling conversion of academic use.
Riverside Towers, Medford – 200 dwelling conversion of industrial use.

Environments / Municipality

Children's Hospital Boston, Waltham – Revitalization of 220 bed acute care hospital.
Beit Olam Cemetery I & II, Wayland – creation and execution.
Wayland Weston Rowing Association Boat House, Wayland – creation and execution.
Wayland Public Safety Building, Wayland – creation and execution.
Temple Shir Tikva I & II, Wayland- creation and execution.
S.S. Pierce, Coolidge Corner – design build historic rehabilitation.
Hillside Dormitories, Bentley College, Waltham – design build new construction.

Infrastructure / Municipality

Legacy Farms, Hopkinton – heavy, wet and dry infrastructure.
Moody Street Redevelopment, Waltham – heavy, wet and dry infrastructure.
Hope Avenue Redevelopment District, Waltham – heavy wet and dry infrastructure.
Loring Avenue Improvement District, Salem – wet infrastructure.

Suneeth P. John
RLA, LEED AP BD+C
35 Cherry Street, Newton MA 02465
suneethjohn@gmail.com; 814-883-4736

Licensed site design and planning expert with over 12 years of experience on award winning domestic and international projects of varying complexity. Experienced leader in community organizations focused on participatory planning and affordable housing development and preservation.

Areas of Expertise include:

- Development Permitting
- Masterplanning
- Affordable Housing
- Feasibility Studies
- Landscape Design
- Sustainable Site Solutions

EDUCATION

Master of Science in Real Estate Development (MSRED), Expected 2017
Center for Real Estate, Massachusetts Institute of Technology (MIT), MA

Master of Landscape Architecture (MLA), 2004
School of Architecture & Landscape Architecture (SALA), Pennsylvania State University, PA

Master of Science in Architecture (MS Arch), 2002
School of Architecture & Landscape Architecture (SALA), Pennsylvania State University, PA

Bachelor of Architecture (B Arch), 1997
College of Engineering Trivandrum, University of Kerala, India

PROFESSIONAL REGISTRATION/ACCREDITATION

Registered Landscape Architect, Massachusetts (2007 Onwards)

Registered Architect, Council of Architecture, India (1997 Onwards)

Registered Real Estate Salesperson, Massachusetts (2015 Onwards)

LEED Accredited Professional, Building Design + Construction/ USGBC LEED AP BD+C (2005 Onwards)

RELEVANT WORK EXPERIENCE

Paul Finger Associates Inc. (PFA), Waltham, MA (2015 Onwards)

Site Design & Development Permitting Specialist

Leading development permitting. Notable current projects include renovation and expansion of a 327,000 square foot USPS sorting facility into a 388,000 square foot first-class creative office complex (Post @ 200 Smith Street, Waltham, MA) and, a new 50-room boutique hotel overlooking the Charles River near downtown Waltham (on 210 Moody Street). Representative list of filings being worked on includes:

- Massachusetts Environmental Policy Act (MEPA) Approval, Massachusetts Executive Office of Energy and Environmental Affairs
- Right-of-Way License Renewal, Eversource Energy
- Air-Rights Easement, Waltham City Council
- Special Permits & Variances, Waltham Zoning Board of Appeals
- Fuel Storage License, Waltham City Council
- Notice of Intent (NOI), Waltham Conservation Commission & Mass DEP
- Engineering Review, Waltham City
- Building Permit, Waltham City

Suneeth P. John
RLA, LEED AP BD+C
35 Cherry Street, Newton MA 02465
suneethjohn@gmail.com; 814-883-4736

Independent Design & Creative Consultant (2012 Onwards)

Branded Space Planning, Site Design, Masterplanning

Includes work with Omloop Design (Signage & Wayfinding) and Doyle Engineering Inc. (Site Design, Civil Engineering and Masterplanning). Important projects include:

- Massachusetts Equestrian Center Concept Master Plan *by New England Horsemen's Benevolent and Protective Association/NEHBPA (with DEI)*
- Spaulding Rehabilitation Hospital (with Omloop Design)
- Tufts University Technology Corridor (with Omloop Design)
- Waltham Moody Street Revitalization *(with Doyle Engineering Group)*

Ai +Architecture LLC (Ai+), Concord, MA (2011 – 2015)

Project Manager, Project Landscape Architect & Planner

Managed projects in China from initial business development to final delivery. Work includes architecture, landscape architecture, planning, and marketing assignments. Travelled to China for project presentation and client briefings. Selected from a group of experts to be part of the *US Commercial Service Trade Mission to India and Sri Lanka*. Important projects include:

- *Sanya* Jinshui *Bay* Mixed-use Project, Hainan Island in China
- Yantai Greenway Eco-Infrastructure Improvement Plan, Shandong, China
- Yanyang Integrated Tourism Service Area Masterplan, Meizhou, China
- Raycom Songzhhuang 'Wisdom Castle' Residences, Beijing, China
- Beijing Capital Land Fangshan Residences, Beijing, China

Facilitated feasibility and programming studies for projects in the Middle East, India and Sri Lanka through work with Ai's joint venture partner Theodore Amenta of Amenta & Co. These include:

- Hawar Island Resorts, Bahrain
- Busaiteen Mall, Muharraq, Bahrain
- Social Housing at Sitra, Bahrain
- Crowne Plaza, Colombo, Sri Lanka

Sasaki Associates Inc., Watertown, MA (2008 – 2011)

Project Manager, Associate

Worked on multi-disciplinary teams on domestic and international planning and landscape design projects. As project manager, was in charge of producing comprehensive design development and construction documentation sets for large landscape design projects including *Food and Drug Administration (FDA)* consolidated campus in White Oak, MD.

Lead project landscape architect on *Lincoln Memorial Landscape and Reflecting Pool* renovation project that focused on accessibility and security upgrades while increasing the resilience of the heavily visited iconic site. Other important projects include:

- Abu Dhabi Media Zone (ADMZ) Public Realm, Abu Dhabi, UAE
- Brickell World Plaza, Miami, FL
- Ohio State University South Residences, Columbus, OH
- Northfield Mount Hermon School, Gill, MA
- Lake Nona South, Orlando, FL

Copley Wolff Design Group (CWDG), Boston, MA (2004 - 2008)

Project Manager, Landscape Designer

Study Uno Design Workshop, Trivandrum, Kerala, India (1997 - 1999)

Junior Architect

Suneeth P. John
RLA, LEED AP BD+C
35 Cherry Street, Newton MA 02465
suneethjohn@gmail.com; 814-883-4736

COMMUNITY ENGAGEMENT

President, Board of Directors, Metro West Collaborative Development (MWCD), Newton, MA

MWCD (www.metrowestcd.org) is a CDC focused on creating and preserving affordable housing and supporting economic development for residents of Boston's western suburbs. As the newly elected President of the Board of Directors, currently leading the ad-hoc committee engaged in due diligence for a potential merger with a local CDC. The merger, if finalized, has the potential to not only double MWCD's portfolio but also triple the value of real estate assets. Board member responsibilities include:

- Development project approvals
- Annual organizational planning
- Annual operating budget preparation (approx. $545,000 for 2016)
- Networking and fundraising

Chair, Board of Trustees, Repton Place Condominium, Watertown, MA

The Board of Trustees manages an $840,000 annual operating budget and an approx. $250,000 reserve fund for the 179-unit condominium property completed in 2007. Led the right-of-way easement negotiations when the previously undeveloped Phase 2 was formally split from Phase 1 (Repton Place) and sold to a separate entity to develop rental apartments. The agreement formalized the rules and regulations related to the shared amenity spaces housed within Phase 2. Important responsibilities include:

- Property management contracts
- Annual budget preparation
- Capital projects
- Reserve fund allocations
- Vendor negotiations and selections

Lead Designer -UTEC Lowell Plaza, with Community Outreach Group for Landscape Design (COGDesign), Cambridge, MA (2015)

The site design and planning services are provided under COGDesign. UTEC, based in Lowell, helps proven at-risk youth to trade violence and poverty for social and economic success. The design for the approx. 5,500 SF space envisages a multi-purpose "frontyard," which will house UTEC's activities as well as those of a UTEC managed Early Education Center.

Member, Zoning Board of Appeals (ZBA), Town of Watertown, MA (2009-2014)

As a ZBA member, was involved in decisions regarding special permits and variances. One of two design professionals in a panel consisting of 2 designers, one municipal planner and 2 lawyers. Part of some of the early permitting related to the ongoing strong development cycle in Watertown.

PROFESSIONAL AFFILIATIONS

United States Green Building Council (USGBC)

Boston Urban Plan, Urban Land Institute (ULI)

American Society of Landscape Architects (ASLA)

MASSHOUSING

Massachusetts Housing Finance Agency
One Beacon Street, Boston, MA 02108

TEL: 617.854.1000 | FAX: 617.854.1091
VP: 866.758.1435 | www.masshousing.com

September 23, 2016

Steven N. Zieff
Eden Management Inc.
80 Hope Avenue, Suite 512
Waltham, MA 02453

Re: Brookside, 113-119 Boston Road
Project Eligibility/Site Approval
MassHousing ID No. 851

Dear Mr. Zieff:

This letter is in response to your application as "Applicant" for a determination of Project Eligibility (Site Approval) pursuant to Massachusetts General Laws Chapter 40B ("Chapter 40B"), 760 CMR 56.00 (the "Regulations") and the Comprehensive Permit Guidelines issued by the Department of Housing and Community Development ("DHCD") (the "Guidelines" and, collectively with Chapter 40B and the Regulations, the "Comprehensive Permit Rules"), under the New England Fund ("NEF") Program ("the Program") of the Federal Home Loan Bank of Boston ("FHLBB").

Eden Management Inc. has submitted an application with MassHousing pursuant to Chapter 40B. You have proposed to build 60 units of rental housing (the "Project") on approximately 6.49 acres of land located on Boston Post Road (the "Site") in Wayland (the "Municipality"). The property is currently occupied by Mahoney's Garden Center, and includes several buildings and structures and a gravel parking area. In accordance with the Comprehensive Permit Rules, this letter is intended to be a written determination of Project Eligibility ("Site Approval") by MassHousing acting as Subsidizing Agency under the Guidelines, including Part V thereof, "Housing Programs In Which Funding Is Provided By Other Than A State Agency."

MassHousing has performed an on-site inspection of the Site, which local boards and officials were invited to attend, and has reviewed the pertinent information for the Project submitted by the Applicant, the Municipality and others in accordance with the Comprehensive Permit Rules.

Municipal Comments
The Municipality was given a thirty (30) day period, in which to review the Site Approval application and submit comments to MassHousing. Cherry Karlson, Chairman of the Wayland Board of Selectmen, submitted a letter (received by MassHousing on July 26, 2016) summarizing comments from municipal officials, staff, and members of the public. Also provided with the Selectmen's letter were copies of a memo prepared by the Town Planner

summarizing staff concerns with the Project, and a letter from the Pine Brook Neighborhood Association outlining abutter issues.

Municipal comments identified the following specific concerns:

- The Town expressed concern that the project did not conform to local planning goals as articulated in the Town's zoning by-law and draft Housing Production Plan. Specifically, the Town described ongoing efforts associated with River's Edge (a Town-sponsored, 188-unit, rental housing development proposed for an 8.4-acre parcel of town-owned land at 489-490 Boston Post Road). They expressed concern that the Brookside project, if allowed to proceed, would threaten the feasibility of the Town-sponsored project by drawing away potential residents.

- Municipal officials expressed concern with the height, mass and density of the proposed multi-family building, noting that it was out of character with the surrounding neighborhood. This concern was also noted in the letter prepared by the Pine Brook Neighborhood Association.

- The Municipality expressed concern that the Town's fire-safety equipment would not have the capacity to handle a multi-family building of this size, putting future residents and abutting properties at risk.

- Wayland public safety officials expressed concern that the Project would exacerbate risks to pedestrian safety resulting from the combined effect of the lack of sidewalks and high traffic volumes along Boston Post Road.

- The Wayland Historical Commission noted the presence of a potentially sensitive and significant archeological site near Pine Brook. They recommended an archeological survey of the Site before the site is developed.

- The Town identified concerns about the Project's potential environmental impacts. Specifically, in light of existing soil conditions in this area, staff from the Wayland Board of Health questioned the feasibility of the proposed septic system and expressed concern about potential contamination of Pine Brook, area wetlands, and local groundwater supplies. Similarly, the Conservation Administrator urged the use of local standards in the design of drainage and stormwater management facilities, citing the Site's proximity to Pine Brook.

- The Wayland Historical Commission submitted a letter, dated September 1, 2016, suggesting that the Site contain potentially contain significant archeological resources, and recommending that an appropriate archeological survey be performed to ensure a finding of "no impact" before development plans could proceed.

MassHousing also received a letter, dated August 18, 2016, from State Representative Carmine L. Gentile, who represents the 13th Middlesex District. Representative Gentile's letter urged MassHousing to deny the application for Brookside, reiterating Municipal concerns relative to the building's size, and non-compliance with local land use regulations. Representative Gentile emphasized recent Town actions to address local housing need, and, in particular, the ongoing efforts associated with River's Edge (a Town-sponsored, mixed income rental development) arguing that such efforts should justify the Town's insistence on compliance with the local Zoning By-law.

MassHousing Determination

MassHousing staff has determined that the Project appears generally eligible under the requirements of the Program, subject to final review of eligibility and to Final Approval. As a result of our review, we have made the findings as required pursuant to 760 CMR 56.04(1) and (4). Each such finding, with supporting reasoning, is set forth in further detail on Attachment 1 hereto.

Based on MassHousing's site and design review, and in light of feedback received from the Municipality, the following issues should be addressed prior to the submittal of your application for a Comprehensive Permit from the Wayland Zoning Board of Appeals (ZBA), and you should be prepared to explore them more fully in the local hearing process:

1. Development of this Site will require compliance with all state and federal environmental laws, regulations and standards applicable to existing conditions and to the proposed use related to building construction, stormwater management, and wastewater collection and treatment. The Applicant should expect that the Municipality will require evidence of such compliance prior to the issuance of a building permit for the Project.

2. The Applicant should be prepared to address Municipal concerns that the Project is in conflict with Wayland's planning and affordable housing goals. Additionally the Applicant should be prepared to respond to questions relative to market demand for multi-family housing in Wayland and the surrounding area, taking into account existing and proposed development, and, in particular the proposed affordable housing proposed for River's Edge.

3. The Applicant should be prepared to address Municipal concerns relative to the massing, height and density of the proposed building, and to work with the Town to mitigate or ameliorate potentially negative visual impacts to abutting properties and from Route 20. Should the Applicant apply for a Comprehensive Permit, they should provide detailed building elevations, sections and a landscape plan to facilitate this discussion.

4. The Applicant should be prepared to provide sufficient data to assess potential traffic impacts on area roadways and intersections, and to discuss appropriate mitigation. In particular, the Applicant should be prepared to address Municipal concerns relative to Project impacts on traffic volumes on Boston Post Road, and associated risks to pedestrian safety.

5. The Applicant should address Municipal concerns relative to the feasibility of the proposed septic system and its potential impacts to the groundwater supply, and to identify appropriate mitigation.

6. The Applicant should be prepared to describe the project's potential environmental impacts on Pine Brook, and work with Town officials to identify necessary mitigation.

7. The Applicant should be prepared to respond to the concerns of the Wayland Historical Commission relative to the possible presence of archeologically significant artifacts on the Site.

8. The Municipality asked that the Applicant provide evidence of the land's value. In accordance with 40B Regulations and as a part of the Site Approval process a third-party consultant was hired by MassHousing, and has completed an appraisal of the property. A copy of this appraisal was provided to the Wayland Town Planner via email on August 15, 2016.

9. In light of the number of two and three bedroom units, the site plan should include dedicated play space for young children. The Applicant should also provide information relative to snow storage, mail delivery, and trash pick-up.

This Site Approval is expressly limited to the development of no more than 60 rental units under the terms of the Program, of which not less than 25% (15) of such units shall be restricted as affordable for low or moderate income persons or families as required under the terms of the Guidelines. It is not a commitment or guarantee of NEF financing and does not constitute a site plan or building design approval. Should you consider, prior to obtaining a comprehensive permit, the use of any other housing subsidy program, the construction of additional units or a reduction in the size of the Site, you may be required to submit a new Site Approval application for review by MassHousing. Should you consider a change in tenure type or a change in building type or height, you may be required to submit a new site approval application for review by MassHousing.

For guidance on the comprehensive permit review process, you are advised to consult the Guidelines. Further, we urge you to review carefully with legal counsel the M.G.L. c.40B Comprehensive Permit Regulations at 760 CMR 56.00.

This approval will be effective for a period of two years from the date of this letter. Should the Applicant not apply for a comprehensive permit within this period this letter shall be considered to be expired and no longer in effect unless MassHousing extends the effective period of this letter in writing. In addition, the Applicant is required to notify MassHousing of the following: (1) the Applicant applies to the local ZBA for a Comprehensive Permit, (2) the ZBA issues a decision and (3) any appeals are filed.

Should a comprehensive permit be issued, please note that prior to (i) commencement of construction of the Project or (ii) issuance of a building permit, the Applicant is required to submit to MassHousing a request for Final Approval of the Project (as it may have been amended) in accordance with the Comprehensive Permit Rules (see especially 760 CMR 56.04(07) and the Guidelines including, without limitation, Part III thereof concerning Affirmative Fair Housing Marketing and Resident Selection). Final Approval will not be issued unless MassHousing is able to make the same findings at the time of issuing Final Approval as required at Site Approval.

Please note that MassHousing may not issue Final Approval if the Comprehensive Permit contains any conditions that are inconsistent with the regulatory requirements of the New England Fund Program of the FHLBB, for which MassHousing serves as Subsidizing Agency, as reflected in the applicable regulatory documents. In the interest of providing for an efficient review process and in order to avoid the potential lapse of certain appeal rights, the Applicant may wish to submit a "final draft" of the Comprehensive Permit to MassHousing for review. Applicants who avail themselves of this opportunity may avoid significant procedural delays that can result from the need to seek modification of the Comprehensive Permit after its initial issuance.

If you have any questions concerning this letter, please contact Katy Lacy at (617) 854-1098

Sincerely,

Timothy C. Sullivan
Executive Director

cc: Ms. Chrystal Kornegay, Undersecretary, DHCD
Cherry C. Carlson, Chairman, Board of Selectmen
Eric Goldberg, Chairman, Zoning Board of Appeals
Sarkis Sarkisian, Town Planner
Nan Balmer, Town Administrator

Attachment 1

760 CMR 56.04 Project Eligibility: Other Responsibilities of Subsidizing Agency
Section (4) Findings and Determinations

Brookside, Wayland, MA MH # 851

MassHousing hereby makes the following findings, based upon its review of the application, and taking into account information received during the site visit and from written comments:

(a) that the proposed Project appears generally eligible under the requirements of the housing subsidy program, subject to final approval under 760 CMR 56.04(7);

The Project is eligible under the NEF housing subsidy program and at least 25% of the units will be available to households earning at or below 80% of the Area Median Income (AMI), adjusted for household size, as published by the U.S. Department of Housing and Urban Development ("HUD"). The most recent HUD income limits indicate that 80% of the current median income for a four-person household in Wayland is $73,050

Proposed affordable rent levels of $1,094 for a studio apartment, $1,172 for a one-bedroom unit, $1,373 for a two-bedroom unit and $1,573 for a three-bedroom unit accurately reflect current affordable rent levels for the Worcester HMFA under the NEF Program, plus utility allowances of $126, $135, $195, and $239 for the studio, one, two- and three-bedroom units, respectively.

A letter of interest was provided by Rockland Trust, a member bank of the Federal Home Loan Bank of Boston.

(b) that the site of the proposed Project is generally appropriate for residential development, taking into consideration information provided by the Municipality or other parties regarding municipal actions previously taken to meet affordable housing needs, such as inclusionary zoning, multifamily districts adopted under c.40A, and overlay districts adopted under c.40R, (such finding, with supporting reasoning, to be set forth in reasonable detail);

Based on a site inspection by MassHousing staff, internal discussions, and a thorough review of the application, MassHousing finds that the Site is suitable for residential use and development, that such use would be compatible with surrounding uses, and would directly address the local need for affordable housing. While currently occupied by a non-conforming use (Mahoney's Garden Center) the Site is zoned for single-family residential development, suggesting that it is generally appropriate for residential use, and is in close proximity to area commuter routes and services. Water, gas and electricity are currently supplied to the Site.

Section IV-A (3) (a) of the Guidelines provide guidance to Subsidizing Agencies for evaluating a municipality's actions intended to meet affordable housing needs. MassHousing reviewed the information provided by the Wayland Board of Selectmen in their letter dated July 26, 2016 describing previous municipal actions intended to provide affordable housing. Selectmen

summarized the steps taken to date in support of the development of the 188-unit River's Edge rental development, including the identification of Town-owned land, allocation of CPA funds for pre-development, successful passage of a new zoning district, and the near completion of the developer selection process.

While MassHousing recognizes Wayland's efforts as meaningful, municipal actions to date have not resulted in housing production of a "character and scale to create significant opportunities as-of-right to meet the municipality's need for affordable housing as measured by the Statutory Minima." According to DHCD's Chapter 40B Subsidized Housing Inventory (SHI), updated through December, 2014, Wayland has 198 Subsidized Housing Inventory (SHI) units (3.99 % of its housing inventory). (It should be noted that according to the Town of Wayland's July 2016 Housing Production Plan, the Town currently has 258 units of affordable housing (5.2%). The additional units have recently been submitted to DHCD for inclusion in the Inventory. If these units are added to the SHI, an additional 238 would be required for Wayland to achieve the 10% threshold of 496.)

U.S. Census data from the 2010-1014 American Community Survey (ACS) further supports the need to increase the supply of affordable housing in Wayland. According to the ACS, of the 5,153 households in the Town of Wayland, approximately 42% earned less than 80% of the 2016 AMI ($98,100), 14% earned less than 30% AMI; 20.8% earned less than 50% AMI, and 23.9% earned less than 60% AMI. Additionally, Wayland's recently updated Housing Production Plan identified a need for additional rental housing, noting an 88.7% rate of homeownership as of 2010. They identify, as a goal, "the creation of a mix of rental and homeownership opportunities," and note the Town's commitment to "work with developers to create a diversity of housing types directed to different populations." The Brookside Project directly supports this goal.

(c) that the conceptual project design is generally appropriate for the site on which it is located, taking into consideration factors that may include proposed use, conceptual site plan and building massing, topography, environmental resources, and integration into existing development patterns (such finding, with supporting reasoning, to be set forth in reasonable detail)

- **Relationship to Adjacent Building Typology (Including building massing, site arrangement, and architectural details):**

  Buildings in close proximity to the Site accommodate a variety of uses (temple, assisted living facility, multi-family housing, mosque and restaurant along with more traditional single-family homes), and thus vary widely in style, size and materials. Throughout much of the rest of Wayland, however, the majority of buildings are 1-3 story, wood-frame Capes and Colonial-style single-family homes.

  The proposed Project building is a four-story, wood-frames structure, and includes detailing suggestive of the Victorian Shingle-style such as clapboard siding accented with architectural shingles, high peaked dormers, and a central turret feature. The building's "T" shaped configuration, dropped roofline and articulated façade help to mitigate building mass and

height. While distinct in character from the more simple single-family residential architecture prevalent throughout Wayland, the building elevations are traditional in style, and appear to be compatible with Wayland's lower-density suburban context.

- **Relationship to adjacent streets/Integration into existing development pattern**
  The proposed Project entrance is located directly across Boston Post Road from Rich Valley Road, creating a four-way, stop-controlled intersection. Sight lines appear to be sufficient in all directions.

  The Site is currently occupied by Mahoney's Garden center, and the surrounding pattern of development is characterized by a mix of land uses, including small-scale multi-family housing, a large assisted living facility, a temple, a mosque, a gas station and a restaurant. The Site is also less than ½ mile from Wayland's small commercial center, which includes a modest assortment of commercial uses (bank, gas station, liquor store and eating establishments, etc.) While the majority of land in Wayland is characterized by traditional, single-family development, the introduction of a multi-family use at this particular location will be compatible within the surrounding mixed-use context.

  Density
  The Developer intends to build 60 homes on 6.49 acres (5.6 buildable acres). The resulting density is 10 units per buildable acre, which is at the lower range for multi-family housing in a suburban context.

- **Conceptual Site Plan**
  The Site Plan concentrates development in the northeast corner, leaving the remainder of the property as open space, and effectively avoiding the more sensitive resource areas on the southern side of the Site. The site driveway enters the site at a location immediately across Route 20 from Rich Valley Road, branches off to a small, circular turn-around at the building's front entrance, continues to the garage entrance on the building's western side, and then around to the south side of the building. The bulk of the parking (seventy one parking spaces) will be located in a garage below the building, further reducing impervious surface and site disturbance. A limited amount of guest parking (approximately 20 spaces) is located in pull-in parking areas adjacent to the driveway.

  Environmental Resources
  The rear (southern) portion of the Site includes areas of bordering vegetated wetland and a section of the Pine Brook. The proposed building and associated infrastructure are all located in an upland area in the northeastern corner of the Site, minimizing resource impacts.

  Because the Site is already occupied by Mahoney's Garden Center, Brookside is a redevelopment project that will requirement minimal new clearing, and will, when complete, include more undeveloped open space than it currently does. Additionally, the project narrative indicates that proposed site work includes restoration of existing wetland disturbances, though no details are provided about specific remediation actions.

Topography
The Site slopes down from its frontage along the Boston Post Road to a low point in the western corner, where the Pine Brook runs along the property's rear (southern) boundary, traversing to its southeastern corner. The proposed Project building is sited on an upland area in the northeastern corner of the Site, set back approximately 50' from the Boston Post Road and 25' from the adjacent property boundary. While the building's location will be clearly visible from the right-of-way, adjacent properties to the east are heavily screened by existing vegetation. The building's location in the northeastern corner of the Site allows for the remainder of the property (80-90%) to remain open, and the more sensitive riverfront area near the Pine Brook to remain undisturbed.

(d) that the proposed Project appears financially feasible within the housing market in which it will be situated (based on comparable rentals or sales figures);

The Applicant proposes 60 rental apartments to be financed under the NEF Program. There will be 45 market-rate units with proposed average rent levels of $1,646 for the studio apartments, $1,738-2,111 for the one bedroom units; $2,666-2,833 for the two-bedroom units; and $3,023 for the three-bedroom units. A&M determined that the developer's proposed affordable rents and utility costs comply with 40B Guidelines, and market rents fall well within the range of adjusted comparable market rents for all unit sizes.

MassHousing's Appraisal and Marketing Department (A&M) performed a preliminary analysis of Project feasibility based on the area's market conditions and comparable rents. In summary, A&M found that a strong demand exists for both lower income and market-rate rental units in Wayland and the surrounding communities. A&M reported that while the area's conventional apartment market has been expanding, occupancy rates have been rising.

A&M noted that the proposal does not appear to include some of amenities found at higher end comparable properties in similarly affluent communities nearby such as Lexington, Concord and Wellesley. They also noted, however, the particularly limited supply of rental housing in Wayland. A&M recommends that a full market study be conducted prior to Final Approval in order to determine the depth of the market for rental housing in this location at that time.

(e) that an initial pro forma has been reviewed, including a land valuation determination consistent with the Department's Guidelines, and the Project appears financially feasible and consistent with the Department's Guidelines for Cost Examination and Limitations on Profits and Distributions (if applicable) on the basis of estimated development costs;

MassHousing has commissioned an as "As-Is" appraisal which indicates a land valuation of $980,000. A preliminary review of the Project pro-forma indicates that the per-unit construction costs are well within the normal range for similar multi-family developments in the suburban Metro Boston context. Based on a proposed investment of $4,943,583 in private equity, the application pro forma appears to be financially feasible and within the limitations on profits and distributions.

(f) that the Applicant is a public agency, a non-profit organization, or a Limited Dividend Organization, and it meets the general eligibility standards of the housing program; and

The Applicant must be organized as a Limited Dividend Organization. MassHousing sees no reason this requirement could not be met given information reviewed to date. The Applicant meets the general eligibility standards of the NEF housing subsidy program and has executed an Acknowledgment of Obligations to restrict their profits in accordance with the applicable limited dividend provisions

(g) that the Applicant controls the site, based on evidence that the Applicant or a related entity owns the site, or holds an option or contract to acquire such interest in the site, or has such other interest in the site as is deemed by the Subsidizing Agency to be sufficient to control the site.

The Applicant controls the entire by virtue of a Purchase and Sale Agreement dated December 31, 2015 between Mahoney's Garden Center (Seller) and Eden Management (Buyer). The expiration date for the P&S is the July 31, 2017.

EDEN
MANAGEMENT INC

July __, 2017

Ms. Chrystal Kornegay
Undersecretary
Massachusetts DHCD
100 Cambridge Street
Suite 300
Boston MA 02114

Re Mass Housing Id # 851

Dear Undersecretary Kornegay

Please be advised that the above project, as identified by Project Eligibility Letter #851, has been submitted to the Wayland Zoning Board of Appeals in the form of a Comprehensive permit.

Please do not hesitate to contact us should you have any questions.

Respectfully submitted,

Steven N. Zieff

PURCHASE AND SALE AGREEMENT
113 BOSTON POST ROAD
AND
115-121 BOSTON POST ROAD, WAYLAND, MA

PREAMBLE: The Property is zoned Residence 40,000 – 180' frontage. Seller operates a garden center at the Property pursuant to an exemption provided by M.G.L. 40A ⊙ 3. While its present use in unaffected by the zone, the garden center land use and associated impacts are either protected or preexisting non-conforming. The Parties agree securing land use permits and relief in the Wayland is empirically difficult. In order to economically justify the Purchase Price the Purchaser needs to secure certain land use permits and relief. This Agreement allows the Purchaser sufficient time to secure the necessary zoning relief and land use permits to build and occupy a residential multifamily mixed use facility, or in the event the Town rejects this concept, a multiple unit single family dwelling layout. Both Purchaser and Seller are concerned with their legacy and will operate to support their mutual strategic interests.

The Preamble is not a term or provision of the Agreement.

ARTICLE 1: PROPERTY/PURCHASE PRICE

1.1 Certain Basic Terms.

(a) Seller: Mahoney's Garden Centers LLC.

(b) Purchaser: Eden Management, Inc.

(c) Date of this Agreement: 12.31, __, 2015

(d) Purchase Price: $2,125,000.00

(e) Due Diligence Period: The period beginning on the date of this Agreement and ending the latter of: (a) at 5:00 p.m. Eastern Time on the 60th day after the date of this Agreement or: (b) ending 60 days of the definitive action of the Wayland Board of Selectmen approval of a warrant article for a new Zone for the property on the Town Meeting Warrant (either Spring or Fall). Should the 60th day fall on a holiday or weekend, the Due Diligence Period shall be extended to the first business day.

(f) Closing Date: a date mutually agreed upon by the Parties no earlier than 45 days after receipt of a building permit for the intended use, no later than July 31, 2017. The Parties may mutually accelerate or extend the Closing Date, in the event of an appeal or for their convenience.

(g) Title Company: Commonwealth Land Title Company

(h) Broker: Not applicable

1.2 Property. Subject to the terms and conditions of this Purchase and Sale Agreement (this "Agreement"), Seller agrees to sell to Purchaser, and Purchaser agrees to purchase from Seller, the following property (collectively, the "Property"); as is with no alteration of the Property permitted except as provided herein.

(a) The "Real Property," being the land described in Exhibit A hereto, together with (i) all improvements located thereon (the "Improvements"), and (ii) the rights, benefits, privileges, easements, tenements, hereditaments and appurtenances thereon or thereto, including any right, title and interest of Seller in and to adjacent streets, alleys or rights-of-way or in anywise appertaining to such real property. The Real Property is located at 113 Boston Post Road and 115-121 Boston Post Road, Wayland, Massachusetts. The Seller retains the option to remove any structure above the surface of the site prior to the Closing Date, subject to the permission of the Purchaser.

(b) The "Intangible Personal Property," being all of Seller's right, title and interest in and to all intangible personal property related to the Real Property, including, without limitation: the plans and specifications and other architectural and engineering drawings related to the Improvements; warranties; and governmental permits, approvals and licenses relating to the Real Property.

1.3 Deposit; Certain Remedies.

(a) Initial Deposit shall be One Thousand Dollars ($1,000.00) cash with signed Purchase and Sale Agreement. Per the provisions chronologically set forth on Exhibit "E" of "Benchmark Dates", the Deposit shall increase after the waiver of the Due Diligence Period, and the Zone Change milestones are achieved. Deposits (initial and subsequent, if any) shall be held by a mutually acceptable escrow agent. Retention of said Deposit shall be Seller's sole remedy at law or in equity for Buyer's default. In the event Buyer accepts the results of the Due Diligence Period, Buyer shall increase Deposit by Fourteen Thousand Dollars ($14,000.000). Upon written acceptance of zoning bylaw by the Attorney General, Deposit shall be increased by $85,000.00 for a total of $100,000.00. In the event the milestones set forth on Exhibit "E" is not achieved on or before July 31, 2016 Buyer shall be in default and retention of the total deposit shall be Seller's sole remedy at law and in equity. See Exhibit "E" regarding timing of Zoning Adoption and possible right to extend.

(b) Title Company shall serve as escrow agent for the transaction contemplated by this Agreement. Title Company shall hold the Deposit in an interest bearing account reasonably acceptable to Purchaser and Seller and shall disburse the Deposit in accordance with the terms of this Agreement. Interest earned on the Deposit shall follow the Deposit. The duties of Title Company hereunder are purely ministerial in nature and shall be expressly limited to the safekeeping and disposition of the Deposit in accordance with this Agreement. Title Company shall incur no liability in connection with the safekeeping or disposition of the Deposit for any reason other than Title Company's willful misconduct or gross negligence. In the event that Title Company shall be in doubt

as to its duties or obligations with regard to the Deposit, or in the event that Title Company receives conflicting instructions from Purchaser and Seller with respect to the Deposit, Title Company shall not be required to disburse the Deposit and may, at its option, continue to hold the Deposit until both Purchaser and Seller agree as to its disposition, or until a final judgment is entered by a court of competent jurisdiction directing its disposition, or Title Company may interplead the Deposit in a Massachusetts court in accordance with the laws of the Commonwealth of Massachusetts. Title Company shall not be responsible for any interest on the Deposit except as is actually earned. Title Company shall execute this Agreement solely for the purpose of being bound by the provisions of this Section 1.3(b).

(c) If Purchaser should fail to consummate the purchase of the Property for any reason other than Seller's default, failure of a contingency or condition to Purchaser's obligation to close, or the exercise by Purchaser of an express right of termination granted herein, Seller's sole remedy in such event shall be to terminate this Agreement (excluding those indemnities which expressly survive termination) and to retain the Deposit as liquidated damages, Seller waiving all other rights or remedies in the event of such default by Purchaser. The parties acknowledge that Seller's actual damages in the event of a default by Purchaser under this Agreement will be difficult to ascertain, and that such liquidated damages represent the parties' best estimate of such damages.

(d) If, on or prior to the Closing Date, Seller shall default in the performance of Seller's obligations under this Agreement and Purchaser does not wish to waive such default, Purchaser, as its sole and exclusive remedies for such default, may either:

(i) terminate this Agreement, in which event Purchaser shall be entitled to

(A) the immediate return of the Deposit shall be delivered to Seller; and

(B) recover Purchaser's actual out-of-pocket costs incurred in connection with negotiating and pursuing this Agreement, or

(ii) enforce this Agreement by specific performance against Seller and recover Purchaser's actual out-of-pocket costs in connection with such enforcement, including, but not limited to, reasonable attorneys' fees; provided that if specific performance is not available to Purchaser as a remedy, Purchaser may pursue damages against Seller.

ARTICLE 2: INSPECTION

2.1 Seller's Delivery of Specified Documents. Within one business day after the date of this Agreement, Seller shall deliver to Purchaser true, correct and complete copies of the following documents relating to the Property, to the extent that such documents are in the possession or control of Seller, any affiliate of Seller, or any of their

respective agents, attorneys, accountants or other representatives (the "Documents"), to the extent not previously provided to Purchaser:

(a) Appraisals and Physical Inspection Reports. Any appraisals and any architectural, engineering and/or physical inspection reports related to the Property;

(b) Environmental Reports and Materials. Copies of all reports, permits, studies, analyses, documents and materials related to the environmental condition of the Real Property and/or the presence or absence of, and/or any bids, proposals or contracts for removal or remediation of, any Hazardous Materials (as defined below) located in, on, under, about and/or around the Real Property;

(c) Plans and Specifications. All construction plans and specifications relating to any Improvements;

(d) Existing Title Policies and Surveys. Copies of any existing title insurance policies and ALTA "as built" or other surveys with respect to the Real Property;

(e) Certificates of Occupancy, Licenses, Permits and Governmental Approvals. Copies of all certificates of occupancy, licenses, permits, governmental approvals and notices issued by any governmental authority, insurance company or underwriter relating to the Property; and

(f) Pending or Threatened Proceedings. A list of all pending or threatened lawsuits, administrative proceedings, enforcement actions, governmental inquiries, tax appeals and/or other proceedings affecting the Property and/or Seller.

Upon delivery of the last of the foregoing, Seller shall deliver to Purchaser a written notice certifying that all such deliveries have been completed. Seller shall promptly provide to Purchaser true, correct and complete copies of any documents described above which come into Seller's possession or are produced by Seller after the initial delivery referred to above and shall continue to promptly provide same during the pendency of this Agreement. Purchaser acknowledges that the Documents and all other information of any kind provided to Purchaser are provided for informational purposes only and do not constitute representations or warranties of any kind. Upon any termination of this Agreement other than by reason of a default by Seller, Purchaser shall return the Documents to Seller.

2.2 Due Diligence.

(a) Purchaser shall have through 5:00 p.m. Eastern Time on the last day of the Due Diligence Period in which to examine, inspect and investigate the Property at its sole cost and expense, and, in Purchaser's sole and absolute judgment and discretion, to determine whether the Property is acceptable to Purchaser. Purchaser may terminate this Agreement by giving notice of termination to Seller by 5:00 p.m. Eastern Time on the last day of the Due Diligence Period. If this Agreement terminates pursuant to this Section

2.2(a), the Deposit shall be refunded to Purchaser immediately upon request, and all further rights and obligations of the parties under this Agreement shall terminate, except those obligations which expressly survive termination. If Purchaser does not elect to terminate this Agreement by the end of the Due Diligence Period, Purchaser shall have no further right to terminate this Agreement pursuant to this Section 2.2(a), and the entire Deposit shall become non-refundable, except as otherwise provided in this Agreement.

(b) Purchaser and Purchaser's agents, employees, representatives, contractors, architects, engineers, consultants, appraisers, lenders and designers shall have reasonable access to the Property for the purpose of conducting appraisals, surveys, architectural, engineering, geotechnical wetland delineation and environmental inspections and tests, and any other inspections, studies or tests as Purchaser, in its sole discretion, determines to conduct. Purchaser will indemnify, defend, and hold Seller harmless from all liens, claims and liabilities asserted against Seller as a result of any such entry, inspections or tests by Purchaser, its agents, employees, representatives, contractors, architects, engineers, consultants, appraisers, lenders and designers. If any inspection or test disturbs the Property, Purchaser shall, provided that Purchaser receives a notice from Seller requesting restoration within ten days after termination of this Agreement, promptly restore the Property to substantially the same condition as existed prior to any such inspection or test (but Purchaser shall not be required to so restore the Property if Closing occurs).

(c) Purchaser and its agents, employees, representatives, contractors, architects, engineers, consultants, appraisers, lenders and designers shall have a continuing right of reasonable access to the Property during the pendency of this Agreement and the right to conduct a "walk-through" of the Property prior to the Closing. Purchaser may make inquiries to third parties, including, without limitation, lenders, contractors, property managers and municipal, local, and other government officials and representatives, and Seller consents to such inquiries.

ARTICLE 3: TITLE AND SURVEY REVIEW

3.1 Title Commitment and Survey. Purchaser shall obtain: (i) a commitment for title insurance (the "Title Commitment") issued by Title Company with respect to the Real Property with Purchaser as the proposed insured, and accompanied by copies of all documents referred to in the Title Commitment; (ii) a current survey of the Real Property (the "Survey") satisfying Purchaser's survey requirements, addressed to Purchaser, Title Company and such other parties as Purchaser may specify; and (iii) Uniform Commercial Code searches in the name of Seller. Any amount of Title Insurance in excess of the Purchase Price shall be the liability of the Buyer.

3.2 Title Review and Cure. If any of the exceptions set forth in Schedule B of the Title Commitment or any matter disclosed by the Survey is unsatisfactory to Purchaser, Purchaser may object to such title exception or survey matter (any such title exception or survey matter to which Purchaser objects being called a "Noted Exception") by written notice given to Seller no later than the end of the Due Diligence Period. Seller

may, within five business days after Purchaser gives such notice of objection to a Noted Exception (such five business day period being called the "Response Period"), give Purchaser written notice that Seller will cure such Noted Exception, in which event Seller shall cure such Noted Exception at or prior to Closing. If Seller does not, within the Response Period, give Purchaser written notice that Seller will cure a Noted Exception to which Purchaser has objected as provided above, Purchaser may, by written notice given to Seller within five business days after expiration of the Response Period, terminate this Agreement by giving written notice to Seller, in which case the Deposit shall be returned by Title Company to Purchaser. If Purchaser does not so terminate this Agreement within five business days after expiration of the Response Period, Purchaser will be deemed to have waived the objection to the Noted Exception and the transaction shall proceed without reduction in the purchase price. All title exceptions and survey matters existing as of the date of this Agreement to which Purchaser does not object by the end of the Due Diligence Period as provided above, together with any Noted Exceptions to which Purchaser objects but subsequently waives the objection, are collectively called the "Permitted Exceptions;" provided that in no event shall any lien which may be satisfied by payment of a liquidated amount, other than real estate taxes not yet due, be a Permitted Exception, and Seller shall be obligated to cause all such liens to be satisfied and released at or prior to Closing.

3.3 Title Policy. At the Closing, as a condition to Purchaser's obligation to close, Title Company shall deliver to Purchaser, upon payment of the usual and customary premium, an ALTA Form B Owner's Policy of Title Insurance ("Title Policy") issued by Title Company in accordance with the Title Commitment, with ALTA General Exceptions I through 3 (provided Purchaser obtains an ALTA survey of the Property) and Exclusion from Coverage 4 deleted, containing the endorsements and affirmative insurance coverage specified in the Title Commitment, dated the date and time of the recording of the Deed (defined below) insuring Purchaser as owner of fee simple title to the Real Property, subject only to the Permitted Exceptions. Any amount of Title Insurance in excess of the Purchase Price shall be the liability of the Buyer. Seller shall execute at Closing, an affidavit in a form such that Title Company will delete the exceptions as to parties in possession, unrecorded liens, broker's liens and similar matters. The Title Policy may be delivered after the Closing if, at the Closing, Title Company issues a currently effective, duly-executed "marked-up" Title Commitment and irrevocably commits in writing to issue the Title Policy consistent with the "marked-up" Title Commitment within seven days after the Closing Date.

3.4 Title and Survey Costs. The cost of the Survey, including any necessary revisions and updates, the premium for the Title Policy and all other title charges of Title Company shall be paid for by Purchaser.

ARTICLE 4: OPERATIONS AND RISK OF LOSS

4.1 Performance under Agreements. During the pendency of this Agreement, Seller will fully and timely perform all of its obligations under all agreements affecting the Property.

4.2 Contracts. During the pendency of this Agreement, without the prior written consent of Purchaser, Seller will not enter into any agreement (including any easement or similar instrument) that creates an obligation affecting the Property subsequent to the Closing.

4.3 Other Offers. During the pendency of this Agreement, Seller will not solicit or make or accept any offers to sell the Property or any portion thereof, engage in any discussions or negotiations with any third party with respect to the sale or other disposition of the Property or any portion thereof, or enter into any contracts or agreements regarding any disposition of the Property or any portion thereof.

4.4 Leases. During the pendency of this Agreement, Seller shall not enter into any lease of any portion of the Property that would survive the Closing.

4.5 Operations. During the pendency of this Agreement, Seller shall (a) keep the Property in as good condition and repair as exists on the date of this Agreement, (b) make and perform any and all maintenance, repairs, improvements and replacements as may be necessary or appropriate to operate the Property in a manner consistent with past practice, (c) comply with all applicable laws, rules, regulations and orders affecting the Property, and (d) maintain the presently existing property insurance on the Property. Prior to Closing, Seller shall remove all tangible personal property from the Real Property except any tangible property parties desire to remain by mutual consent, in writing.

4.6 Damage. Subject to the utility of the permits and relief secured by the Buyer, in the event buildings are damaged, the Closing will still proceed, as the buildings are not material to the anticipated use and therefore all insurance proceeds are property of Seller.

4.7 Condemnation. Seller shall immediately notify Purchaser in the event that Seller is notified or otherwise becomes aware that proceedings in eminent domain are contemplated or threatened or have been instituted with respect to the Property or any portion thereof by anybody having the power of eminent domain. Purchaser may by notice to Seller given within 30 days after Purchaser receives Seller's notice as aforesaid (and if necessary the Closing Date shall be extended to give Purchaser the full 30 day period to make such election): (a) terminate this Agreement, in which even the Deposit, other than the Independent Consideration which shall be delivered to Seller, shall be immediately returned to Purchaser; or (b) proceed under this Agreement, in which event Seller shall, at the Closing, (i) give Purchaser a credit against the Purchase Price equal to any amounts received by Seller on account of any such proceeding and (ii) assign to Purchaser its entire right, title and interest in and to any condemnation award, and Purchaser shall have the sole right during the pendency of this Agreement to negotiate and otherwise deal with the condemning authority in respect of such matter.

4.8 Adverse Conditions. As a condition precedent to Purchaser's obligation to consummate the transaction contemplated by this Agreement, Seller shall have complied with its obligations under this Article 4 and there shall have been no material adverse change in the condition of or affecting the Property (including, but not limited to, any material adverse environmental or physical change in the condition of the Real Property) that has occurred after the date hereof. If a material adverse change has occurred, Purchaser may (a) terminate this Agreement, in which event, notwithstanding anything to the contrary contained in this Agreement, the Deposit, other than the Independent Consideration which shall be delivered to Seller, shall be returned to Purchaser, or (b) proceed pursuant to this Agreement.

ARTICLE 5: CLOSING

5.1 Closing. The Closing shall occur on the Closing Date in escrow through Title Company.

5.2 Conditions to the Parties' Obligations to Close. In addition to all other conditions set forth elsewhere in this Agreement, the obligation of Seller, on the one hand, and Purchaser, on the other hand, to consummate the transactions contemplated under this Agreement shall be contingent upon the following:

(a) The other party's representations and warranties contained herein shall be true and correct in all material respects as of the date of this Agreement and the Closing Date; and

(b) As of the Closing Date, the other party shall have performed its obligations hereunder and all deliveries to be made at Closing by the other party shall have been tendered (provided, however, that neither party need perform its obligations hereunder nor tender the deliveries required of such party hereunder in the event of a breach or anticipatory breach of this Agreement by the other party).

So long as a party is not in default hereunder, if any condition to such party's obligation to proceed with the Closing hereunder has not been satisfied as of the Closing Date, such party may, in its sole discretion, terminate this Agreement by delivering written notice to the other party on or before the Closing Date, or elect to close, notwithstanding the non-satisfaction of such condition, in which event such party shall (i) be deemed to have waived such condition if such condition has not been satisfied for reasons other than a default by the other party hereto or (ii) not be deemed to have waived such condition if such condition has not been satisfied due to a default by the other party hereto. In the event that, in the case of clause (ii) above, the non-defaulting party elects to close, notwithstanding the nonsatisfaction of the applicable condition, the defaulting party shall be fully liable for any failures on the part of the defaulting party to perform its obligations under this Agreement and for any breaches of representations and warranties by the defaulting party regardless of whether or not the non-defaulting party had actual knowledge at Closing.

5.3 Additional Conditions to Purchaser's Obligation to Close. In addition to all other conditions set forth elsewhere in this Agreement, the obligation of Purchaser to consummate the transactions contemplated under this Agreement shall be contingent upon the following:

(a) There shall exist no actions, suits, arbitrations, claims, attachments, proceedings, assignments for the benefit of creditors, insolvency, bankruptcy, reorganization or other proceedings, pending or threatened against Seller that would, if determined adversely to Seller, materially and adversely affect the operation or value of the Property or Seller's ability to perform its obligations under this Agreement; and

(b) There shall exist no pending or threatened action, suit or proceeding with respect to Seller or the Property before or by any court or administrative agency which seeks to restrain or prohibit, or to obtain damages or a discovery order with respect to, this Agreement or the consummation of the transactions contemplated hereby.

5.4 Seller's Deliveries in Escrow. At the Closing, Seller shall deliver or cause to be delivered in escrow to Title Company the following:

(a) Deed. A quitclaim deed in the form of Exhibit B hereto (the "Deed"), executed by Seller, conveying to Purchaser fee simple title to the Real Property, subject only to the Permitted Exceptions.

(b) Bill of Sale. A Bill of Sale in the form of Exhibit C hereto, executed by Seller, with respect to the Intangible Personal Property.

(c) Certificate of Representations and Warranties. A certificate in the form of Exhibit D hereto, signed by Seller and reaffirming and updating to the Closing Date the representations and warranties given by Seller under Section 7.1.

(d) Title Clearance Instruments. Such other instruments as shall be reasonably required by Title Company for the purpose of issuing an owner's title insurance policy at standard rates insuring title to the Property as set forth in Section 3.3, including such affidavits and indemnity agreements as may be customary for (i) deleting exceptions for mechanics' and materialmen's liens, unrecorded easements, rights of parties in possession and lien rights of brokers, (ii) limiting persons in possession, and (iii) providing so called "gap" or "New York Style" insurance coverage.

(e) FIRPTA. A FIRPTA Certificate in form complying with applicable law certifying that Seller is not a foreign person within the meaning of the Internal Revenue Code.

(f) Authority. Evidence of existence, good standing, organization, and authority of Seller and the authority of the persons executing documents on behalf of Seller satisfactory to Purchaser and Title Company.

(g) Additional Documents. Any additional documents that Purchaser or Title Company may reasonably require for the proper consummation of the transactions contemplated by this Agreement.

5.5 Purchaser's Deliveries in Escrow. At the Closing, Purchaser shall deliver in escrow to Title Company the following:

(a) Purchase Price. The Purchase Price, plus or minus applicable prorations, credits and adjustments, in immediate, same-day federal funds wired for credit into Title Company's escrow account.

(b) Additional Documents. Any additional documents that Seller or Title Company may reasonably require for the proper consummation of the transactions contemplated by this Agreement.

5.6 Closing Statements/Escrow Fees. At the Closing, Seller and Purchaser shall execute closing statements consistent with this Agreement in form required by Title Company. Title Company's escrow fee, if any, shall be shared equally by Seller and Purchaser.

5.7 Title Policy. Title Company shall deliver to Purchaser the Title Policy pursuant to Section 3.3.

5.8 Possession. Seller shall deliver possession of the Property to Purchaser at the Closing subject to the Permitted Exceptions.

5.9 Delivery of Books and Records. At the Closing, Seller shall deliver to Purchaser copies or originals of all books and records with respect to the Property excepting any records related to the operation of a nursery and garden center.

5.10 Close of Escrow. Upon satisfaction or completion of the foregoing conditions and deliveries set forth in Sections 5.2 through 5.9, the parties shall direct Title Company to immediately record and deliver the documents described above to the appropriate parties, and make disbursements according to the closing statements executed by Seller and Purchaser.

ARTICLE 6: PRORATIONS AND ADJUSTMENTS IN COMPLIANCE WITH MASSACHUSETTS CONVEYANCER'S HANDBOOK.

6.1 Prorations. Real estate taxes and assessments imposed by governmental authority ("Taxes") and any assessments by private covenant constituting a lien or charge on the Property for the then-current calendar year or other current tax period not yet due and payable shall be prorated between Seller and Purchaser as of the close of the day immediately preceding the Closing Date. If the Closing occurs prior to the receipt by

Seller of the tax bill for the calendar year or other applicable tax period in which the Closing occurs, Purchaser and Seller shall prorate Taxes for such calendar year or other applicable tax period based upon the most recent ascertainable assessed values and tax rates. Seller shall pay all delinquent Taxes and assessments and all Taxes and assessments due for all prior calendar years. Water and sewer charges, including any such charges which may be the subject of a municipal lien, whether or not due, shall be prorated.

6.2 Closing Costs. Closing costs shall be allocated and paid as follows:

Cost	Responsible Party
Title Commitment if required	Buyer
Premium for standard form Title Policy required to be delivered	Buyer
Premium for any upgrade of Title Policy for extended or additional coverage and any endorsements desired by Buyer, any inspection fee charged by the Title Agent, tax certificates, municipal and utility lien certificates, and any other Title Agent charges	Buyer
Costs of Survey and/or any revisions, modifications or re-certifications thereto	Buyer
Costs for UCC Searches performed by Buyer	Buyer
Recording Fees for the Quitclaim Deed to Buyer	Buyer
Recording Fees for mortgage discharges or other instruments to clear title	Seller
Any deed taxes, documentary stamps and transfer taxes	Seller
Any escrow fee charged by Escrow Agent for holding the Earnest Money or conducting the Closing	Buyer ½ Seller ½
All other closing costs, expenses, charges and fees	The party customarily responsible for paying such costs in connection with the sale of commercial real estate in Boston, Massachusetts

6.3 Sale Commissions. NO BROKER.

ARTICLE 7: REPRESENTATIONS AND WARRANTIES

7.1 Seller's Representations and Warranties. As a material inducement to Purchaser to execute this Agreement and consummate this transaction, Seller represents and warrants to Purchaser that:

(a) Organization and Authority of Seller. Seller is a Massachusetts limited liability company. Seller has the full right and authority and has obtained any and

all consents required to enter into this Agreement and consummate the transactions contemplated by this Agreement. This Agreement has been, and all of the documents to be delivered by Seller at the Closing shall be, duly authorized and properly executed and constitute the valid and binding obligations of Seller, enforceable in accordance with their terms.

(b) Conflicts and Pending Actions or Proceedings. There is no agreement to which Seller is a party or binding on Seller which is in conflict with this Agreement. There is no action or proceeding pending or, to Seller's knowledge, threatened against the Property, including, without limitation, any condemnation or re-zoning proceedings, any tax abatement or other action or proceeding with respect to the assessed valuation, real estate taxes and/or assessments affecting the Property, or any action or proceeding which challenges or impairs Seller's ability to execute or perform its obligations under this Agreement.

(c) Leases. There are no leases affecting the Property.

(d) Documents. Each of the Documents prepared by Seller or Seller's agents (the "Seller Prepared Documents") and delivered to Purchaser is a true, correct and complete copy of such Document. The Seller Prepared Documents do not and will not contain any misstatements or omissions of any material facts. Each of the Seller Prepared Documents is true and correct in all material respects. Each of the Documents delivered to Purchaser which is not a Seller Prepared Document (the "Other Documents") is a true, correct and complete copy of such Other Document as in the possession of Seller. Seller has no knowledge of any material omission or misstatement in any of the Other Documents and, to Seller's knowledge, each of the Other Documents is true and correct in all material respects.

(e) Notice of Violations or Defects. Seller has received no notice: (i) that the Property or the use thereof violates any governmental law or regulation or any covenants or restrictions encumbering the Property; (ii) that any material physical defect exists with respect to the Improvements; or (iii) from any insurance company or underwriter of any defect that would adversely affect the insurability of the Property or cause an increase in insurance premiums.

(f) ERISA. Seller does not contribute to any employee pension benefit plan that is subject to Title IV of ERISA, nor has it terminated or withdrawn from any such plan.

(g) Environmental. Other than as disclosed in documents furnished by Seller to Purchaser prior to the date of this Agreement or furnished by Seller to Purchaser pursuant to Section 2.1(e), Seller has no actual knowledge of any violation of Environmental Laws related to the Property or actual knowledge of the unlawful presence or release of Hazardous Materials on or from the Property or the presence of unlawful quantities of Hazardous Materials on the Property, including, without limitation, actual knowledge of any of the following: (i) Hazardous Materials located or stored on the

Property, released into the environment and/or discharged, placed or disposed of from, on or under the Property; (ii) tanks, storage vessels, drums, containers, or other man-made facilities (whether buried, partially-buried or above ground) located on the Property; (iii) use of the Property, or any portion thereof, as a dump for waste materials; and/or (iv) the dumping, discharge, burial or other release of Hazardous Materials on or under the Property, including into the soil, water, groundwater and/or any municipal or private sewer or drainage system. The term "Environmental Laws" includes without limitation the Resource Conservation and Recovery Act and the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") and other federal laws governing the environment as in effect on the date of this Agreement together with their implementing regulations and guidelines as of the date of this Agreement, and all state, regional, county, municipal and other local laws, regulations and ordinances that are equivalent or similar to the federal laws recited above or that purport to regulate Hazardous Materials. The term "Hazardous Materials" includes petroleum as defined in CERCLA and any substance, material waste, pollutant or contaminant listed or defined as hazardous or toxic under any Environmental Law. Pesticides lawfully used pursuant to FIFRA and/or the Commercial Pesticide Control Act shall not be considered "Hazardous Material."

(h) Condition of Property. Except for any express representations and warranties set forth in this Agreement or in any of the documents required to be delivered by Seller at closing (collectively, the "document representations"), the Property is to be sold pursuant to this Agreement as is, where is, with all faults and without any warranty, express or implied, all of which are hereby disclaimed by Purchaser. Except as provided in the document representations, no guarantees, representations or warranties, express or implied, are made by Seller with respect to the Property. Purchaser further acknowledges that any information Seller has provided to Purchaser has been provided to Purchaser for informational purposes only and that Seller does not represent, warrant or guarantee the contents or opinions contained in or the accuracy or completeness of any such information except as provided in the document representations. Purchaser's decision with respect to the ultimate purchase of the Property will be based solely upon its own investigation of the Property and upon the document representations. Purchaser agrees that Seller may remove from the Property any real or tangible property associated with the operation of the nursery and garden center. Seller acknowledges some fixtures may relate to "grandfathering" conditions and agree that any fixtures or structure that protects a "grandfather" condition shall remain until such time as Purchaser consents to its removal. Any property removed by the Seller shall be removed in a workman like matter satisfactory to the Purchaser. There shall be no further consideration for any real or tangible property lawfully removed.

7.2 Purchaser's Representations and Warranties. As a material inducement to Seller to execute this Agreement and consummate this transaction, Purchaser represents and warrants to Seller that:

(a) Organization and Authority. Purchaser has been duly organized and validly exists as a Massachusetts corporation. Purchaser has the full right and authority

and has obtained any and all consents required to enter into this Agreement and consummate the transactions contemplated by this Agreement. This Agreement and all of the documents to be delivered by Purchaser at the Closing have been and will be authorized and properly executed and will constitute the valid and binding obligations of Purchaser, enforceable in accordance with their terms.

(b) Conflicts and Pending Action. There is no agreement to which Purchaser is a party or binding on Purchaser which is in conflict with this Agreement. There is no action or proceeding pending or, to Purchaser's knowledge, threatened, against Purchaser which challenges or impairs Purchaser's ability to execute or perform its obligations under this Agreement.

7.3 Survival of Representations and Warranties. The representations and warranties set forth in this Article 7 are made as of the date of this Agreement and will be remade as of the Closing Date and shall not be deemed to be merged into or waived by Deed and/or other instruments delivered at Closing, but shall survive the Closing for a period of one year. Each party agrees to defend and indemnify the other against any claim, liability, damage or expense asserted against or suffered by such other party arising out of the breach or inaccuracy of any such representation or warranty.

ARTICLE 8: MISCELLANEOUS

8.1 Parties Bound. Seller may assign this Agreement to a qualified intermediary in connection with a like kind exchange pursuant to Section 1031 of the Internal Revenue Code. Purchaser may not assign this Agreement without the prior written consent of Seller; provided that Purchaser may assign this Agreement to a qualified intermediary in connection with a like kind exchange pursuant to Section 1031 of the Internal Revenue Code, or to a corporation, partnership, limited liability company, trust or other entity controlled by or under common control of Purchaser. No assignment of this Agreement by Purchaser shall operate to release Purchaser from its obligations under this Agreement. Subject to the foregoing, this Agreement shall be binding upon and inure to the benefit of the respective successors and assigns of the parties.

8.2 Headings. The article and section headings of this Agreement are for convenience only and in no way limit or enlarge the scope or meaning of the language hereof.

8.3 Invalidity and Waiver. If any portion of this Agreement is held invalid or inoperative, then so far as is reasonable and possible the remainder of this Agreement shall be deemed valid and operative, and effect shall be given to the intent manifested by the portion held invalid or inoperative. The failure by either party to enforce against the other any term or provision of this Agreement shall not be deemed to be a waiver of such party's right to enforce against the other party the same or any other such term or provision.

8.4 Governing Law. This Agreement shall, in all respects, be governed, construed, applied, and enforced in accordance with the law of the Commonwealth of Massachusetts.

8.5 Survival. Only (a) those provisions of this Agreement that contemplate performance after Closing or termination of this Agreement and (b) those provisions of this Agreement which are expressly stated to survive Closing or termination of this Agreement shall survive the Closing or termination of this Agreement.

8.6 No Third Party Beneficiary. This Agreement is not intended to give or confer any benefits, rights, privileges, claims, actions or remedies to any person or entity as a third party beneficiary or otherwise.

8.7 Seller and Purchaser acknowledge the existing nursery or garden center use may inure to the Purchaser's proposed land uses. In the same vein a retail tenancy of nursery or gardening situated in a mixed use on the site may inure to the Seller's business. To that end on or before Closing the parties shall enter a mutually agreeable First Right of Refusal that provides the Seller with an opportunity to lease a portion of the site, while allowing the Purchaser or any subsequent purchaser to maintain certain zoning exceptions under M.G.L. (Dover Amendment).

8.8 Entirety and Amendments. This Agreement embodies the entire agreement between the parties and supersedes all prior agreements and understandings relating to the Property. This Agreement may be amended or supplemented only by an instrument in writing executed by the party against whom enforcement is sought.

8.9 Time. Time is of the essence in the performance of this Agreement.

8.10 Confidentiality. Neither Seller nor Purchaser shall divulge the business particulars of this contemplated transaction without the prior written specific consent except as required by law. Purchaser and Seller may disclose the intent of this Agreement as necessary to perform their respective obligations hereunder.

8.11 Attorneys' Fees. Should either party employ attorneys to enforce any of the provisions hereof, the party losing in any final judgment agrees to pay the prevailing party all reasonable costs, charges and expenses, including reasonable attorneys' fees, actually expended or incurred in connection therewith.

8.12 Notices. All notices required or permitted hereunder shall be in writing and shall be served on the parties at the following address:

If to Purchaser: Eden Management Inc.
Attn: Steven N. Zieff
80 Hope Avenue Suite 512
Waltham MA 02453-2747
Telephone: (508) 269-6900

Email: szieff@edenmanagementinc.com

With a copy to:

Peter M. Daigle, P.C.
1550 Falmouth Road
Suite 10
Centerville MA 02632
Telephone: 508 771 7444
Email: pdaigle@daiglelawoffice.com

If to Seller:

Mahoney's Garden Centers LLC
Attn: Thomas Mahoney
242 Cambridge Street
Winchester, MA 01890
Telephone: (781) 729-5900
Email: tmahoney@mahoneysgarden.com

With a copy to:

Francis A. Di Luna, Esquire
Murtha Cullina LLP
600 Unicorn Park Drive
Woburn, MA 01801
Telephone: (781) 897-4981
E-mail: fdiluna@murthalaw.com

Any such notices shall be either (a) sent by certified mail, return receipt requested, in which case notice shall be deemed delivered and effective three business days after deposit, postage prepaid in the U.S. Mail, (b) sent by overnight delivery using a nationally recognized overnight courier, in which case it shall be deemed delivered and effective one business day after deposit with such courier, (c) sent by email, in which case notice shall be deemed delivered and effective upon receipt, or (d) sent by personal delivery, in which case notice shall be deemed delivered and effective upon delivery. The above addresses may be changed by written notice to the other party; provided, however, that no notice of a change of address shall be effective until actual receipt of such notice. Copies of notices are for informational purposes only, and a failure to give or receive copies of any notice shall not be deemed a failure to give notice. Notices by Purchaser and Seller may be given by their respective counsel.

8.12 Construction. The parties acknowledge that the parties and their counsel have reviewed and revised this Agreement and that the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement or any exhibits or amendments hereto.

8.13 Calculation of Time Periods. As used herein, "business day" shall mean any day in which banks are open in the Commonwealth of Massachusetts and which is not a Saturday, Sunday or legal holiday in the Commonwealth of Massachusetts. Unless otherwise specified, in computing any period of time described herein, the day of the act or event after which the designated period of time begins to run is not to be included and

the last day of the period so computed is to be included, unless such last day is not a business day, in which event the period shall run until the end of the next day which is a business day.

8.14 Further Assurances. In addition to the acts and deeds recited herein and contemplated to be performed, executed and/or delivered by Seller to Purchaser at Closing, Seller agrees to perform, execute and deliver, on or after the Closing any further deliveries and assurances as may be reasonably requested by Purchaser to consummate the transactions contemplated hereby or to further perfect the conveyance, transfer and assignment of the Property to Purchaser.

8.15 Relocation Sign. For six (6) months after the Closing Date Purchaser agrees to allow Seller to erect and maintain a "Relocation Sign" of similar size and in the same location as the current Mahoney signage directing customers and patrons to other Mahoney facilities.

8.15 Section 1031 Exchange. Seller and Purchaser shall cooperate fully with the other in order to facilitate Purchaser's or Seller's desire to structure the purchase of the Property as part of a so-called like kind exchange (the "Exchange") pursuant to Section 1031 of the Internal Revenue Code of 1986, as amended, if Purchaser or a Seller elects to effect an Exchange; provided that: (a) the Closing shall not be delayed or affected by reason of the Exchange, nor shall the consummation or accomplishment of the Exchange be a condition precedent or condition subsequent to Purchaser's obligations under this Agreement; (b) the Exchange shall not affect or diminish Purchaser's or Seller's rights under this Agreement; (c) neither Seller nor Purchaser shall be required to acquire or hold title to any real property for purposes of consummating the Exchange (Purchaser or Seller may use a qualified intermediary to acquire or hold title); and (d) with respect to any Exchange, the non-exchanging party shall not incur any out-of-pocket expense in facilitating the Exchange for the exchanging party (other than for review of documents related to the Exchange). Neither Seller nor Purchaser make representations nor guarantees to the other that the transaction contemplated under this provision will result in any particular tax treatment or will qualify as an exchange under Section 1031 of the Internal Revenue Code.

8.16 Limitation of Liability. No present or future officer, director, shareholder, employee, trustee, member, manager, partner, agent, beneficiary or representative of Seller or Purchaser shall be personally liable for any obligations of Seller or Purchaser under this Agreement.

8.17 Signatures; Counterparts. This Agreement may be executed by facsimile signature and/or in one or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

8.18 Assignment. Assignment of this transaction may be made to a single asset entity in which the Buyer is a member.

8.19 Closing Costs. The Buyer and the Seller shall each pay the costs of its own consultants and legal counsel. Closing costs shall be paid as is customary in the Commonwealth of Massachusetts. See matrix at 6.2.

[execution on following page]

The parties have executed this Agreement as of the date first set forth above.

MAHONEY'S GARDEN CENTERS LLC

By: _____
Susan Mahoney Covino
Manager

By: _____
Thomas E. Mahoney
Manager

EDEN MANAGEMENT, INC.

By: _____
Steven N. Zieff

COMMONWEALTH LAND TITLE
INSURANCE COMPANY

For the sole purpose of agreeing to be bound by Section 1.3(b).

By: _____
Name: _____
Title: _____

EXHIBITS

A – Plan and Legal Description of Real Property
B – Form of Quitclaim Deed
C – Form of Bill of Sale
D – Form of Certificate Updating Representations and Warranties
E – Benchmark Activities and Conceptual Dates

EXHIBIT A

Legal Description of Real Property

EXHIBIT B

QUITCLAIM DEED

MAHONEY'S GARDEN CENTERS LLC, a Massachusetts limited liability company, the address of which is 242 Cambridge Street, Winchester, MA 01890, for consideration of _____and no/100 Dollars ($_____), grants to Eden Management, Inc., the address of which is 80 Hope Avenue Suite 512, Waltham MA 02453, with quitclaim covenants, that certain parcel of land, together with all buildings and other improvements thereon and all appurtenances thereto, such real property being known as 113 Boston Post Road and 115-121 Boston Post Road, Wayland, Massachusetts, being bounded and more particularly described on Exhibit A which is attached hereto and made a part hereof. Such property is conveyed with the benefit of all easements and appurtenances of record now benefiting such property, and is conveyed with the benefit of and subject to all encumbrances and matters appearing of public record as of the date hereof, to the extent the same are in force and applicable.

For grantor's title, see deed recorded with the Middlesex Registry of Deeds in Book _____, Page ____.

Massachusetts Deed Excise Tax Stamps in the amount of $_____ (representing Deed Stamps calculated at $____ per thousand dollars of value on the amount of the consideration of $_____) have been affixed hereto and canceled prior to recording.

In witness whereof, this Quitclaim Deed has been executed as a sealed instrument to be effective as of the ____ day of _____, 201_.

MAHONEY'S GARDEN CENTERS LLC

By: _____
Susan Mahoney Covino
Manager

By: _____
Thomas E. Mahoney
Manager

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this ____ day of _____, 2015, before me, the undersigned notary public, personally appeared Susan Mahoney Covino, as Manager of Mahoney's Garden Centers LLC, proved to me through satisfactory evidence of identification, which were Massachusetts Driver's License, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purpose.

_____
Notary Public
My Commission Expires:

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this ____ day of ____, 2015, before me, the undersigned notary public, personally appeared Thomas E. Mahoney, as Manager of Mahoney's Garden Centers LLC, proved to me through satisfactory evidence of identification, which were Massachusetts Driver's License, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

_____
Notary Public
My Commission Expires:

EXHIBIT C

BILL OF SALE

THIS BILL OF SALE is executed and delivered as of the ____ day of _____, 2014, by MAHONEY'S GARDEN CENTERS LLC, a Massachusetts limited liability company ("Grantor"), to _____ ("Grantee").

Contemporaneously herewith, Grantor is conveying to Grantee the land and building located at and commonly known as 113 Boston Post Road and 115-121 Boston Post Road, Wayland, Massachusetts (the "Real Estate").

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor does hereby bargain, sell and deliver to Grantee all of Seller's right, title and interest in and to all intangible personal property related to the Real Property, including, without limitation, the plans and specifications and other architectural and engineering drawings related to the improvements to the Real Property, warranties, and governmental permits, approvals and licenses relating to the Real Property (collectively, the "Personal Property").

To have and to hold unto Grantee, it's successors and assigns forever.

Grantor hereby covenants and warrants to and with Grantee that (i) Grantor owns, and has the right to sell to Grantee, the Personal Property, (ii) the Personal Property is free and clear of all security interests, liens and encumbrances, and (iii) Grantor will warrant and defend the Personal Property against all lawful claims and demands which are contrary to the aforesaid covenants.

Except for the covenants and warranties relating to title contained in the immediately preceding paragraph, Grantor has not made and does not make any express or implied warranty or representation with respect to the Personal Property, including but not limited to merchantability of the Personal Property or its fitness for any particular purpose, the condition of the Personal Property, or the quality or capacity of the Personal Property.

Grantor has executed this Bill of Sale as of the date first set forth above.

MAHONEY'S GARDEN CENTERS LLC

By: _____
Name: _____
Title: _____

EXHIBIT D

CERTIFICATE UPDATING REPRESENTATIONS AND WARRANTIES

Mahoney's Garden Centers LLC, a Massachusetts limited liability company ("Seller"), hereby certifies to _____, which is the assignee of Eden Management, Inc. ("Purchaser"), that the representations and warranties set forth in Section 7.1 of that certain Purchase and Sale Agreement ("Agreement") dated _____, 2015, by Seller and Purchaser with respect to the sale of certain real property in Wayland, Massachusetts, more particularly described in the Agreement, are and remain true and correct as provided in the Agreement and are reaffirmed as of this date and survive the Closing (as defined in the Agreement) to the extent provided in the Agreement.

Executed this ____ day of _____, 2015.

MAHONEY'S GARDEN CENTERS LLC

By: _____
Name: _____
Title: _____

EXHIBIT E

Draft Milestones
113, 115 Boston Post Road
Wayland

Title Abstract

Environmental Review

Wetland Resource Determination

Transportation Impact and Access Study

Board of Health and DEP NW District review and general agreement on treatment of wastewater.

Recommend Zoning Bylaw Amendment with Host Community Agreement and conceptual master plan for site and adjacencies.

Attorney General acceptance of Zone Change

Notice of Intent & Order of Conditions

Site Plan Special Permit

State and Federal permits, if any.

Construction Documents, Wastewater Treatment, EPA and ACOE storm water controls.

Loan Agreement and Commitment

Conveyance

EDEN MANAGEMENT INC
80 HOPE AVE APT 512
WALTHAM, MA 02453-2747

111
53-447/113
473

12/31/15
Date

Pay to the Order of Commonwealth Land Title Co. $ 1,000.42

One-thousand and 42 Dollars

Security Features Details on Back.

ROCKLAND TRUST

For P.S. Bond Ref. No. Watford

MP

⑆011304478⑆ 2473006514⑈ 50111

Harland Clarke

ELOQUENT®

1st Amendment to PURCHASE AND SALE AGREEMENT
regarding
113, 115 - 121 BOSTON POST ROAD
WAYLAND, MA

Date November 11, 2016

Seller and Buyer acknowledge the zone change particulars outlined in the P&S were not complied with.
This non-compliance was a result of the Buyer's judgement, due diligence with the Town, due diligence with abutters and the Parties concurrent discussions.

Buyer and Seller wish to advance the agreement in keeping with present circumstances.

Except where superseded by Amendment Language, the Agreement and its terms remain in force.

Found below is the Original Language and the superseding Amendment Language:

ARTICLE 1: PROPERTY/PURCHASE PRICE
1.1 Certain Basic Terms

Original Language

(e) Due Diligence Period: The period beginning on the date of this Agreement and ending the latter of: (a) at 5:00 p.m. Eastern Time on the 60th day after the date of this Agreement or: (b) ending 60 days of the definitive action of the Wayland Board of Selectmen approval of a warrant article for a new Zone for the property on the Town Meeting Warrant (either Spring or Fall). Should the 60th day fall on a holiday or weekend, the Due Diligence Period shall be extended to the first business day.

Amendment Language

(e) Due Diligence Period: Expires November 11, 2016.

Original Language

(f) Closing Date: a date mutually agreed upon by the Parties no earlier than 45 days after receipt of a building permit for the intended use, no later than July 31, 2017. The Parties may mutually accelerate or extend the Closing Date, in the event of an appeal or for their convenience.

Amendment Language

(f) Closing Date: a date mutually agreed upon by the Parties no earlier than 45 days after receipt of a building permit for the intended use, no later than July 31, 2017. The Parties may mutually accelerate or extend the Closing Date, in the event of an appeal or for their convenience. An appeal shall warrant an extension with consideration equivalent to the opportunity costs as set forth hereto below, until it is resolved to the Buyer's satisfaction.

On the condition the Buyer has pursued but not secured the necessary permits by June 30, 2017, the Buyer may elect to extend the Closing Date beyond July 31, 2017. An extension beyond July 31 2017 shall be conditioned by:

1) Buyer shall notify Seller of its intent to extend on or before June 30, 2017.
2) Buyer shall continue to diligently pursue all necessary permits and approvals.
3) In the event of a Buyer initiates a month to month ~~6-month~~ extension to the Closing Date, Buyer agrees to pay Seller an extension fee at the Closing. Extension fee shall be the opportunity cost to the Seller for not receiving the Purchase Price on the original Closing Date. The opportunity cost shall be calculated as the Purchase Price outstanding between the original Closing Date and the extended Closing Date, at a 4% annual rate, compounded monthly.
4) Closing shall be coordinated with the Seller's necessities.
5) Parties acknowledge and agree Time Is Of The Essence.

1.3 Deposit; Certain Remedies.

Original Language

(a) Initial Deposit shall be One Thousand Dollars ($1,000.00) cash with signed Purchase and Sale Agreement. Per the provisions chronologically set forth on Exhibit "E" of "Benchmark Dates", the Deposit shall increase after the waiver of the Due Diligence Period, and the Zone Change milestones are achieved. Deposits (initial and subsequent, if any) shall be held by a mutually acceptable escrow agent. Retention of said Deposit shall be Seller's sole remedy at law or in equity for Buyer's default. In the event Buyer accepts the results of the Due Diligence Period, Buyer shall increase Deposit by Fourteen Thousand Dollars ($14,000.000). Upon written acceptance of zoning bylaw by the Attorney General, Deposit shall be increased by $85,000.00 for a total of $100,000.00. In the event the milestones set forth on Exhibit "E" is not achieved on or before July 31, 2016 Buyer shall be in default and retention of the total deposit shall be Seller's sole remedy at law and in equity. See Exhibit "E" regarding timing of Zoning Adoption and possible right to extend.

Amendment Language

(a) Initial Deposit shall be One Thousand Dollars ($1,000.00) cash with signed Purchase and Sale Agreement. With this Amendment the Buyer shall increase Deposit by Fourteen Thousand Dollars ($14,000.000) for a total of $15,000.

ARTICLE 8: MISCELLANEOUS

Original Language

8.18 Assignment. Assignment of this transaction may be made to a single asset entity in which the Buyer is a member.

Amendment Language (no change).

8.18 Assignment. Assignment of this transaction may be made to a single asset entity in which the Buyer is a member.

The parties have executed this Amendment as of the date first set forth above.

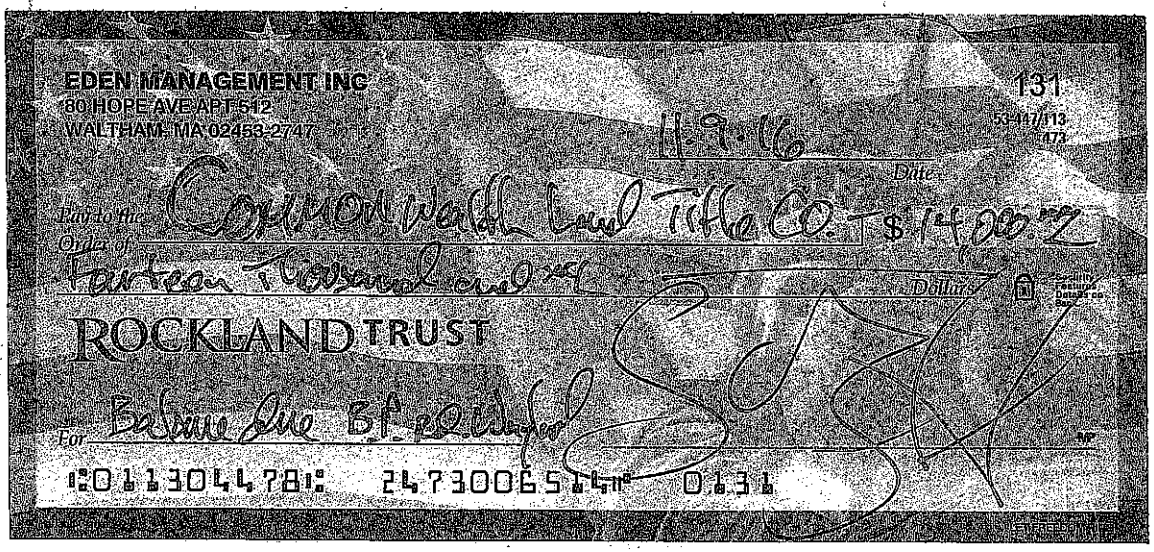
MAHONEY'S GARDEN CENTERS LLC

By: _____
Name: Susan Mahoney Covino
Title: Manager

By: _____
Name: Thomas E. Mahoney
Title: Manager

EDEN MANAGEMENT, INC.

By: _____
Steven N. Zieff
Title: President



EDEN MANAGEMENT INC
80 HOPE AVE APT 512
WALTHAM, MA 02453-2747

131
53-117/113
1179

11-9-16
Date

Pay to the Order of Commonwealth Land Title Co. $ 14,000.00

Fourteen Thousand and 00/100 Dollars

ROCKLAND TRUST

For Balance due BP P.O. Wright

⑆011304178⑆ 2473006544 0131

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(Middlesex County)

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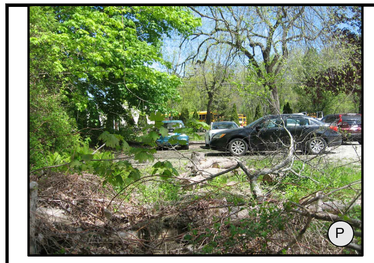
Notes:
The Brookside project site is occupied by a single family home, a retail garden center, several outbuildings, greenhouses and significant vehicular circulation and parking area.

Adjacencies include retail, restaurants, infrastructure, cultural, religious and residential uses. Much of the site is disturbed due to existing use. Historically, the uses of the site have been retail, residential and agricultural.

The site has more than 600' of frontage and several curb cuts on Route 20 / Boston Post Road. Traffic volume for this road is reported to be as much as 19,000 vehicles per day.

The topography of the area and the site is hilly with uplands and a low area corresponding to the Pine Brook meander.

Brookside will mitigate disturbance and maximize utility through a site plan that is sensitive to site and area characteristics, resources and requirements while complementing the existing patterns of grouped use and intensity.



Ⓐ ROUTE 20 LOOKING EAST
Ⓑ ROUTE 20 LOOKING WEST
Ⓒ LOOKING SOUTH
Ⓓ LOOKING NORTH
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Developer
Eden Manag ent Inc

0 ope venue Suite 2
Waltha M 02
T (0) 2 00
E szie eden anage entinc co

Contact Steven ie

Civil Engineer

dei
SITE DESIG
CIVIL E GI EERI G
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www.doyleeng.co

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Suneeth P ohn

Cherry Street
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o	Description	Date

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roo side

oston Post Road
Wayland M 0
(Middlesex County)

Drawing Title:

SITE L SIS PL
P OTOS

Drawing o:

SP

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

DEP has provided this form for use by on-site professionals and local Boards of Health. Other forms may be used, but the information must be substantially the same as provided here. Before using this form, check with your local Board of Health to determine the form they use.

A. Facility Information

1. Facility Information

Mahoney's Garden Center, LLC
Owner Name

115 Boston Post Road Map/Lot: Map 30, Lot 071
Street Address

Wayland MA 01778
City/Town State Zip Code

B. Site Information

1. (Check one) New Construction ☒ Upgrade ☐ Repair ☐

2. Published Soil Survey available? Yes ☒ No ☐ If yes: _____ _____ __
Year Published Publication Scale Soil Map Unit

Haven Urban Land Complex (MassGIS) _____
Soil Name Soil limitations

3. Surficial Geological Report available? Yes ☐ No ☒ If yes: _____ _____ _____
Year Published Publication Scale Map Unit

_____ _____
Geologic Material Landform

4. Flood Rate Insurance Map:

Above the 500 year flood boundary? Yes ☒ No ☐ Within the 100 year flood boundary? Yes ☐ No ☒

Within the 500 year flood boundary? Yes ☐ No ☒ Within a Velocity Zone? Yes ☐ No ☒

5. Wetland Area: National Wetland Inventory Map _____ _____
Map Unit Name

Wetlands Conservancy Program Map _____ _____
Map Unit Name

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

6. Current Water Resource Conditions (USGS) December 2016 (Month/Year) Range: Above Normal ☐ Normal ☐ Below Normal ☒

7. Other references reviewed: _____

_____

C. On-Site Review (*minimum of two holes required at every proposed primary and reserved disposal area)*

Deep Observation Hole Number: December 13, 2016 (Date) AM (Time) Sunny 30s F (Weather)

1. Location

Ground Elevation at Surface of Hole Varies

Location (Identify on Plan) See Plan

2. Land Use: Nursery (e.g. woodland, agricultural field, vacant lot, etc.) None (Surface Stones) 3-8% (Slope (%))

Disturbed (Vegetation) Moraine (Landform) _____ (Position on landscape (attach sheet))

3. Distances from: Open Water Body > 100 feet Drainage Way > 100 feet Possible Wet Area > 100 feet

Property Line >10 feet Drinking Water Well > 100 feet Other _____

4. Parent Material: Ice Contact Outwash Unsuitable Materials Present: Yes ☒ No ☐

If Yes: Disturbed Soil☐ Fill Material☒ Impervious Layer(s) ☐ Weathered/Fractured Rock☐ Bedrock ☒

5. Groundwater Observed: Yes ☒ No ☐

If Yes: Depth Weeping from Pit Varies Depth Standing Water in Hole Varies

Estimated Depth to High Groundwater: Varies (see Testpits) inches _____ elevation

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-1

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			

Additional Notes Excavation within buried foundation

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-2

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-42	Fill		38”								
42-60	C_1	2.5 Y 7/6				Very Fine Sand			Single Grain	Loose	
60-108	C_2	2.5 Y 6/6				Sandy Loam			Massive	Friable	

Additional Notes Water Weeping @ 78”, ESHGW = 38”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-3

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-22	Fill										
22-33	A	10 YR 3/2				Sandy Loam			Massive	Friable	
33-105	C_1	2.5 Y 6/6	58”			Loamy Sand			Single Grain	Loose	

Additional Notes Water Weeping @ 74”, ESHGW=58”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-4

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-50	Fill										
50-57	A	10 YR 3/2	55”			Sandy Loam			Massive	Friable	
57-72	C_1	2.5 Y 6/3				Coarse Sand			Single Grain	Loose	
72-106	C_2	2.5 Y 6/3				Very Fine Loamy Sand			Single Grain	Loose	

Additional Notes Water Weeping @ 72”, ESHGW=55”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-5

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-90	Fill										
90-101	A	10 YR 3/2	90”			Sandy Loam			Massive	Friable	
101-132	C	2.5 Y 5/6				Very Fine Loamy Sand			Single Grain	Loose	

Additional Notes Water Standing @ 112”, ESHGW=90”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-6

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-13	Fill										
13-24	A	10 YR 3/2				Sandy Loam			Massive	Friable	
24-48	Bw	10 YR 5/6	39”			Sandy Loam			Massive	Friable	
48-108	C_1	2.5 Y 6/6				Sandy Loam			Massive	Friable	

Additional Notes ESHGW=39”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method used:
   - ☒ Depth observed standing water in observation hole — A. Varies inches B. _____ inches
   - ☒ Depth weeping from side of observation hole — A. Varies inches B. _____ inches
   - ☒ Depth to soil redoximorphic features (mottles) — A. Varies inches B. _____ inches
   - ☐ Groundwater adjustment (USGS methodology) — A. _____ inches B. _____ inches

2. Index Well Number _____ Reading Date _____ Index Well Level _____

Adjustment Factor _____ Adjusted Groundwater Level _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

   a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? Yes ☐ No ☐

   b. If yes, at what depth was it observed? Upper boundary: Varies inches Lower boundary: Varies inches

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

_____ Signature of Soil Evaluator

__ _____ Date

Raymond Willis, P.E., SE2612 Typed or Printed Name of Soil Evaluator/License Number

May 1996 *Date of Soil Evaluator Exam

Darren MacCaughey Name of Board of Health Witness

Town of Wayland Board of Health

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

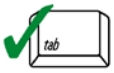
Use this sheet for field diagrams:

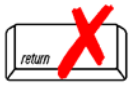
See Attached Plans

Commonwealth of Massachusetts
City/Town of Wayland
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.





A. Site Information

Mahoney's Nursery
Owner Name

115 Boston Post Road
Street Address or Lot #

Wayland	MA	01778
City/Town	State	Zip Code

Contact Person (if different from Owner) | Telephone Number

B. Test Results

	12/13/2016 Date	AM Time	12/13/2016 Date	PM Time
Observation Hole #	OSE-TP-3		OSE-TP-6	
Depth of Perc	40"-58"		51"-69"	
Start Pre-Soak	9:59 AM		1:43 PM	
End Pre-Soak	10:15 AM		1:59 PM	
Time at 12”	10:15 AM		1:59 PM	
Time at 9”	10:23 AM		2:25 PM	
Time at 6”	10:34 AM		2:57 PM	
Time (9”-6”)	11 minutes		32 minutes	
Rate (Min./Inch)	4 mpi		11 mpi	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

Raymond Willis, P.E.
Test Performed By:

Darren MacCaughey
Witnessed By:

Comments:

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

DEP has provided this form for use by on-site professionals and local Boards of Health. Other forms may be used, but the information must be substantially the same as provided here. Before using this form, check with your local Board of Health to determine the form they use.

A. Facility Information

1. Facility Information

Mahoney's Garden Center, LLC
Owner Name

115 Boston Post Road Map/Lot: Map 30, Lot 071
Street Address

Wayland MA 01778
City/Town State Zip Code

B. Site Information

1. (Check one) New Construction ☒ Upgrade ☐ Repair ☐

2. Published Soil Survey available? Yes ☒ No ☐ If yes: _____ _____ _
Year Published Publication Scale Soil Map Unit

Haven Urban Land Complex (MassGIS) _____
Soil Name Soil limitations

3. Surficial Geological Report available? Yes ☐ No ☒ If yes: _____ _____ _____
Year Published Publication Scale Map Unit

_____ _____
Geologic Material Landform

4. Flood Rate Insurance Map:

Above the 500 year flood boundary? Yes ☒ No ☐ Within the 100 year flood boundary? Yes ☐ No ☒

Within the 500 year flood boundary? Yes ☐ No ☒ Within a Velocity Zone? Yes ☐ No ☒

5. Wetland Area: National Wetland Inventory Map _____ _____
Map Unit Name

Wetlands Conservancy Program Map _____ _____
Map Unit Name

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

6. Current Water Resource Conditions (USGS) January 2017 (Month/Year) Range: Above Normal ☐ Normal ☐ Below Normal ☒

7. Other references reviewed: _____

_____

C. On-Site Review (*minimum of two holes required at every proposed primary and reserved disposal area)*

Deep Observation Hole Number: January 12, 2017 (Date) AM (Time) Overcast-Sunny 50s F (Weather)

1. Location

Ground Elevation at Surface of Hole Varies

Location (Identify on Plan) See Plan

2. Land Use: Nursery (e.g. woodland, agricultural field, vacant lot, etc.) None (Surface Stones) 3-8% (Slope (%))

Disturbed (Vegetation) Moraine (Landform) _____ (Position on landscape (attach sheet))

3. Distances from: Open Water Body > 100 feet Drainage Way > 100 feet Possible Wet Area > 100 feet

Property Line >10 feet Drinking Water Well > 100 feet Other _____

4. Parent Material: Ice Contact Outwash Unsuitable Materials Present: Yes ☒ No ☐

If Yes: Disturbed Soil☐ Fill Material☒ Impervious Layer(s) ☐ Weathered/Fractured Rock☐ Bedrock ☒

5. Groundwater Observed: Yes ☒ No ☐

If Yes: Depth Weeping from Pit Varies Depth Standing Water in Hole Varies

Estimated Depth to High Groundwater: Varies (see Testpits) (inches) _____ (elevation)

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-7

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-24	Fill										
24-36	C_1	2.5 Y 7/6				Coarse Sand &Gravel		>5%	Single Grain	Loose	Gravel
36-156	C_2	2.5 Y 7/4	42”			Coarse Sand &Gravel		>5%	Single Grain	Loose	Gravel

Additional Notes Water Standing @ 53”, ESHGW @ 42”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-8

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-44	Fill		34”								
44-66	C_1	2.5 Y 7/4				Coarse Sand & Gravel		>5%	Single Grain	Loose	Gravel
66-120	C_2	2.5 Y 6/4				Medium Sand			Single Grain	Loose	

Additional Notes Water Standing @ 54”, ESHGW = 34”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-9

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-12	Fill										
12-24	C_1	2.5 Y 7/6				Medium Sand			Single Grain	Loose	
24-120	C_2	2.5 Y 7/4	31”			Coarse Sand & Gravel		>5%	Single Grain	Loose	Gravel

Additional Notes Water Standing @ 53”, ESHGW=31”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-10

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-25	Fill										
25-45	C_1	2.5 Y 7/4				Coarse Sand & Gravel			Single Grain	Loose	
45	R										

Additional Notes No Water, No Mottles

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-11

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-15	Fill										
15-55	C_1	10 YR 5/6	36”			Loamy Sand			Single Grain	Loose	
55-101	C_2	2.5 Y 6/4				Coarse Sand & Gravel		>5%	Single Grain	Loose	Gravel, Caving

Additional Notes Water Standing @ 60”, ESHGW=36”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-12

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-32	Fill										
32-82	C_1	2.5 Y 6/6	57”			Sandy Loam			Single Grain	Loose	
82-144	C_2	2.5 Y 6/6				Sandy Loam		>5%	Single Grain	Loose	Gravel
144	R										Rock or Large Boulder

Additional Notes Water Weeping @ 77”, ESHGW=57”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-13

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-34	Fill										
34-54	C_1	2.5 Y 7/4	54”			Very Fine Loamy Sand			Single Grain	Loose	
54-125	C_2	2.5 Y 6/6				Sandy Loam			Massive	Friable	
125	R										

Additional Notes Water Weeping @ 96”, ESHGW=54”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-14

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-30	Fill										
30-120	C_1	2.5 Y 7/4	36”			Very Fine Loamy Sand			Single Grain	Loose	

Additional Notes Water Standing @ 58”, ESHGW=36”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-15

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-65	Fill		60”								
65-72	C_1	2.5 Y 7/4				Very Fine Loamy Sand			Single Grain	Loose	
72-120	C_2	2.5 Y 6/4				Coarse Sand & Gravel		>5%	Single Grain	Loose	Gravel

Additional Notes Water Standing @ 65”, ESHGW=60”

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Deep Observation Hole Number: OSE-TP-16

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-39	Fill										
39-98	C_1	2.5 Y 6/6				Sandy Loam			Massive	Friable	

Additional Notes No water, west side of hole has 57" of fill.

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method used:
   - ☒ Depth observed standing water in observation hole — A. Varies inches B. _ inches
   - ☒ Depth weeping from side of observation hole — A. Varies inches B. _ inches
   - ☒ Depth to soil redoximorphic features (mottles) — A. Varies inches B. _ inches
   - ☐ Groundwater adjustment (USGS methodology) — A. _____ inches B. _____ inches

2. Index Well Number _____ Reading Date _____ Index Well Level _____

Adjustment Factor _____ Adjusted Groundwater Level _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

   a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? Yes ☒ No ☐

   b. If yes, at what depth was it observed? Upper boundary: Varies inches Lower boundary: Varies inches

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

_____ Signature of Soil Evaluator

__ _____ Date

Raymond Willis, P.E.; SE2612 Typed or Printed Name of Soil Evaluator/License Number

May 1996 *Date of Soil Evaluator Exam

Darren MacCaughey Name of Board of Health Witness

__ Town of Wayland Board of Health

Commonwealth of Massachusetts
City/Town of Brookfield, Massachusetts

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

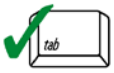
Use this sheet for field diagrams:

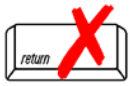
See Attached Plans

Commonwealth of Massachusetts
City/Town of Wayland
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.





A. Site Information

Mahoney's Nursery
Owner Name

115 Boston Post Road
Street Address or Lot #

Wayland	MA	01778
City/Town	State	Zip Code

Contact Person (if different from Owner) | Telephone Number

B. Test Results

	1/12/2017 Date / AM Time	1/12/2017 Date / PM Time
Observation Hole #	OSE-TP-9	OSE-TP-11
Depth of Perc	24"-52"	17"-35"
Start Pre-Soak	11:59 AM	12:04 PM
End Pre-Soak		12:22 PM
Time at 12”		12:22 PM
Time at 9”		12:26 PM
Time at 6”		12:33 PM @ 5.5"
Time (9”-6”)		7 minutes
Rate (Min./Inch)	<2 mpi	2 mpi
	Test Passed: ☒ Test Failed: ☐	Test Passed: ☒ Test Failed: ☐

Raymond Willis, P.E.
Test Performed By:

Darren MacCaughey
Witnessed By:

Comments:

TP-9 - 24 gallons passed in less than 15 minutes

Commonwealth of Massachusetts
City/Town of Wayland
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

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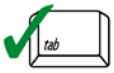

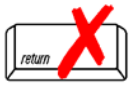

A. Site Information

Mahoney's Nursery
Owner Name

115 Boston Post Road
Street Address or Lot #

Wayland	MA	01778
City/Town	State	Zip Code

Contact Person (if different from Owner) | Telephone Number

B. Test Results

	1/12/2017 Date / AM Time	1/12/2017 Date / PM Time
Observation Hole #	OSE-TP-12	OSE-TP-14
Depth of Perc	53"-71"	30"-48"
Start Pre-Soak	11:29 AM	2:45 PM
End Pre-Soak	11:44 AM	3:02 PM
Time at 12"	11:44 AM	3:02 PM
Time at 9"	12:11 PM	3:24 PM
Time at 6"	12:50 PM	4:00 PM
Time (9"-6")	39 minutes	36 minutes
Rate (Min./Inch)	13 mpi	12 mpi
	Test Passed: ☒ Test Failed: ☐	Test Passed: ☒ Test Failed: ☐

Raymond Willis, P.E.
Test Performed By:

Darren MacCaughey
Witnessed By:

Comments:

Commonwealth of Massachusetts
City/Town of Wayland
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

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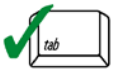
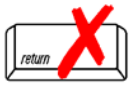




A. Site Information

Mahoney's Nursery
Owner Name

115 Boston Post Road
Street Address or Lot #

Wayland	MA	01778
City/Town	State	Zip Code

Contact Person (if different from Owner) | Telephone Number

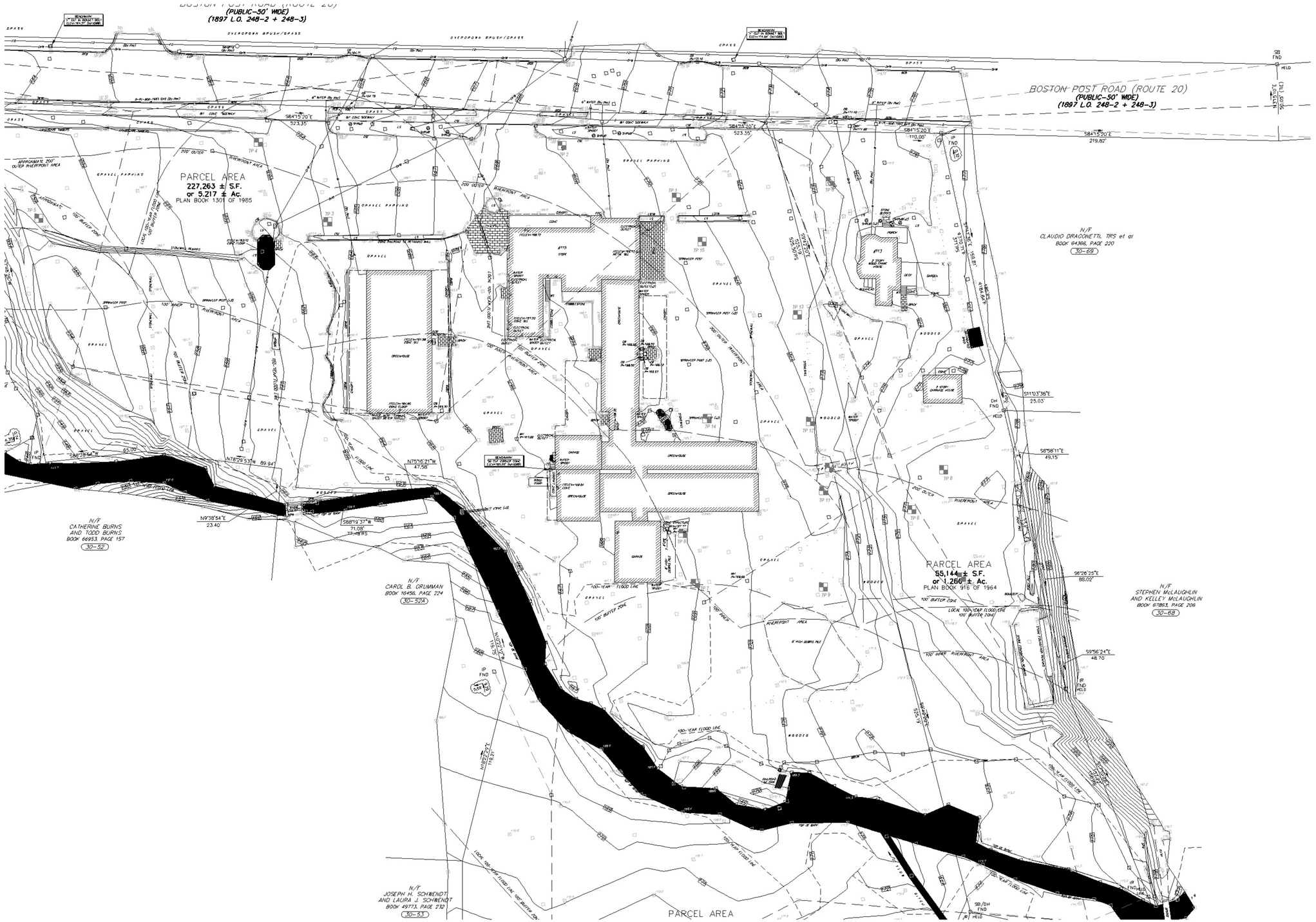
B. Test Results

	Date	Time	Date	Time
	1/12/2017	AM		
Observation Hole #	OSE-TP-16			
Depth of Perc	46"-64"			
Start Pre-Soak	2:22 PM			
End Pre-Soak	2:37 PM			
Time at 12”	2:37 PM			
Time at 9”	3:15 PM @ 8.75"			
Time at 6”	4:02 PM @ 5.75"			
Time (9”-6”)	47 minutes			
Rate (Min./Inch)	16 mpi			
	Test Passed: ☒		Test Passed: ☐	
	Test Failed: ☐		Test Failed: ☐	

Raymond Willis, P.E.
Test Performed By:

Darren MacCaughey
Witnessed By:

Comments:



ONSITE ENGINEERING
Water, Wastewater and Stormwater Specialists
279 East Central Street
Franklin, MA 02038
508-553-0616
www.onsite-eng.com

BROOKSIDE WAYLAND
115 BOSTON POST ROAD

TEST PIT LOCATION PLAN

REV DATE DESCRIPTION

PROJECT NO.: 01380
DATE: .2-13-17
SCALE: 1"=30'
SHEET: 1 of 1

DRAWN BY: DESIGNED BY:
CHECKED BY: APPROVED BY:

Fig 1

Memorandum

To: Steven N. Zieff
Eden Management, Inc.
80 Hope Avenue, Suite 512
Waltham, MA 02453

Date: June 23, 2017

Project #: 13831.00

From: Vinod K. Kalikiri, PE, PTOE
Senior Project Manager

Matthew Duranleau, EIT
Transportation Designer

Re: Proposed Residential Development
113-115 Boston Post Road
Wayland, Massachusetts

Traffic Impact Evaluation

Introduction

VHB has conducted a traffic impact assessment to evaluate the potential traffic impacts associated with the redevelopment of the existing Mahoney's Garden Center and a single-family residence located at 113-115 Boston Post Road (Route 20), Wayland, Massachusetts (the Site) into a multi-family residential development (the Project). Specifically, the Project involves the demolition of the existing uses on the Site and the construction of a 60-unit multi-family residential development. The proposed development will be served by two curb-cuts on Route 20; an entrance-only driveway on the west side of the property and a full access driveway aligned with Rich Valley Road. The full access driveway will be stop sign controlled.

This memorandum includes an evaluation of the existing traffic operations and safety; assessment of future conditions without the Project; an estimate of projected traffic volumes for the Project; and its potential impact on future traffic operations in the area. As detailed herein, while Route 20 is congested during the weekday morning and evening commute peak hours, the Project itself is expected to have minimal impact on the roadway traffic operations. The Project would replace an active garden center use that generates significant amount of traffic during the non-winter months.

In comparison to the peak hour traffic volume on Route 20 which is in the order of 1,200 to 1,400 vehicles per hour during the morning and evening commute times, the proposed residential development would generate approximately 33 to 51 vehicle trips per hour (entering + exiting traffic). However, not all estimated traffic for the Project will be new trips on the area roadway network. The Site currently supports an active garden center use which will be replaced by the residential development. Based on Institute of Transportation Engineers (ITE) guidelines, the garden center could generate as many as 30 to 85 weekday peak hour trips. i.e., the peak hour trip generation for the proposed residential use is comparable to that of a garden center during peak season.

The traffic analysis presented in this memorandum indicates that the relatively low peak hour vehicle trips estimated for the Project would not contribute to noticeable additional delays or congestion to the area roadway network. Subject to review and approval by the Massachusetts Department of Transportation (MassDOT), the Proponent plans to reconstruct the existing sidewalk along the Site frontage, on the south side of Route 20.

Site Location

Mahoney's Garden Center is located on the south side of Route 20, across from the Rich Valley Road intersection in Wayland. Figure 1 shows a site location map. Access to the Site is currently provided via three full-access unsignalized

101 Walnut Street
PO Box 9151
Watertown, MA 02472-4026
P 617.924.1770

0 250 500 Feet

Site Location Map and
Study Area Intersections
Eden Management Inc.
Wayland, Massachusetts

Figure 1

curb-cuts along Route 20, none of which align with Rich Valley Road. The easterly curb-cut is shared with the adjacent single family home which will also be demolished as part of the redevelopment.

The Site Plans indicate that future Site access will be via two curb-cuts on Route 20; an entrance only driveway on the west side of the property and a full access driveway aligned with Rich Valley Road. The full access driveway will be stop sign controlled. Route 20 is under the jurisdiction of MassDOT and therefore, in addition to local approvals, construction of the residential development and any associated roadway changes within the State Highway Layout (such as curb cut modifications and sidewalk improvements), will also require an Access Permit from the Massachusetts Department of Transportation (MassDOT).

Study Methodology

In conformance with the MassDOT guidelines for traffic impact assessment, this evaluation has been prepared in three stages. The first stage involved an assessment of existing traffic conditions in the study area and included an inventory of roadway geometry, observations of traffic flow, and collection of daily and peak period traffic counts. In the second stage, future traffic conditions without and with the Project were estimated and analyzed. Travel demand forecasts for the Project were assessed along with future traffic demands due to expected traffic growth independent of the Project. A seven-year time horizon was selected for analysis consistent with MassDOT's Guidelines for traffic impact assessment. The traffic analysis identified existing and projected future roadway capacity deficiencies. The third stage of the Study evaluated the need for improvement measures to minimize the traffic impacts associated with the Project, if any. As noted earlier, the traffic analysis presented in this memorandum indicates that the relatively low peak hour vehicle trips estimated for the Project would minimally impact area roadway traffic operations. The detailed traffic analysis presented in this memorandum does not take into consideration any trip credit for the existing garden center use on the Site that will be replaced.

Existing Conditions

The existing transportation conditions in the study area, including roadway geometry, traffic controls, daily and peak hour traffic flow, and traffic safety data are discussed below.

Study Area

A study area was selected for analysis based on input from the Wayland Planning Department as well as based on an understanding of the area roadway network and the expected transportation characteristics of the Project. Specifically, the following locations and their approaches were analyzed as part of the study:

- Route 20 (Boston Post Road) at Rich Valley Road/Site Driveway Middle – *unsignalized*
- Route 20 (Boston Post Road) at Site Driveway East – *unsignalized*
- Route 20 (Boston Post Road) at Site Driveway West – *unsignalized*
- Route 20 (Boston Post Road) at Old Connecticut Path/ Liquor Store Driveway East – *unsignalized*
- Route 20 (Boston Post Road) at Old Connecticut Path/Gas Station Driveway East – *unsignalized*
- Old Connecticut Path at Westway Road – *unsignalized*

The existing conditions analysis consisted of an inventory of the traffic control, roadway, driveway and intersection geometry in the study area, the collection of daily and peak hour traffic volumes, and a review of recent crash history. Each of these elements is discussed in the sections below.

Roadway Geometry

Descriptions of the study area roadways and intersections are included below. Figure 2 shows lane configuration and traffic control at the study intersections.

Roadways

Route 20 (Boston Post Road)

Route 20 (Boston Post Road) is a two-way minor arterial roadway under MassDOT jurisdiction. Route 20 generally runs in an eastbound/westbound direction and acts as a commuter route linking I-95/Route 128 (Yankee Division Highway) to the east with Route 27 and Route 126 to the west. There is no on-street parking along this road. Land use along the roadway, within the study area, is a mix of residential and commercial. The posted speed limit along the roadway is 35 miles per hour (mph) in both directions. There are three non-continuous segments of sidewalk along Route 20 in the study area; on the north side of the roadway, from the Sunoco Gas Station approximately 600 feet west of Old Connecticut Path to the edge of the study area in the east, on the north side of the roadway from Rich Valley Road to the Islamic Center of Boston driveway approximately 250 feet west, and on the south side of the roadway from the Site Driveway East to the edge of the study area in the west. There are no marked bicycle accommodations on the roadway. On street parking is not allowed along the roadway within the study area.

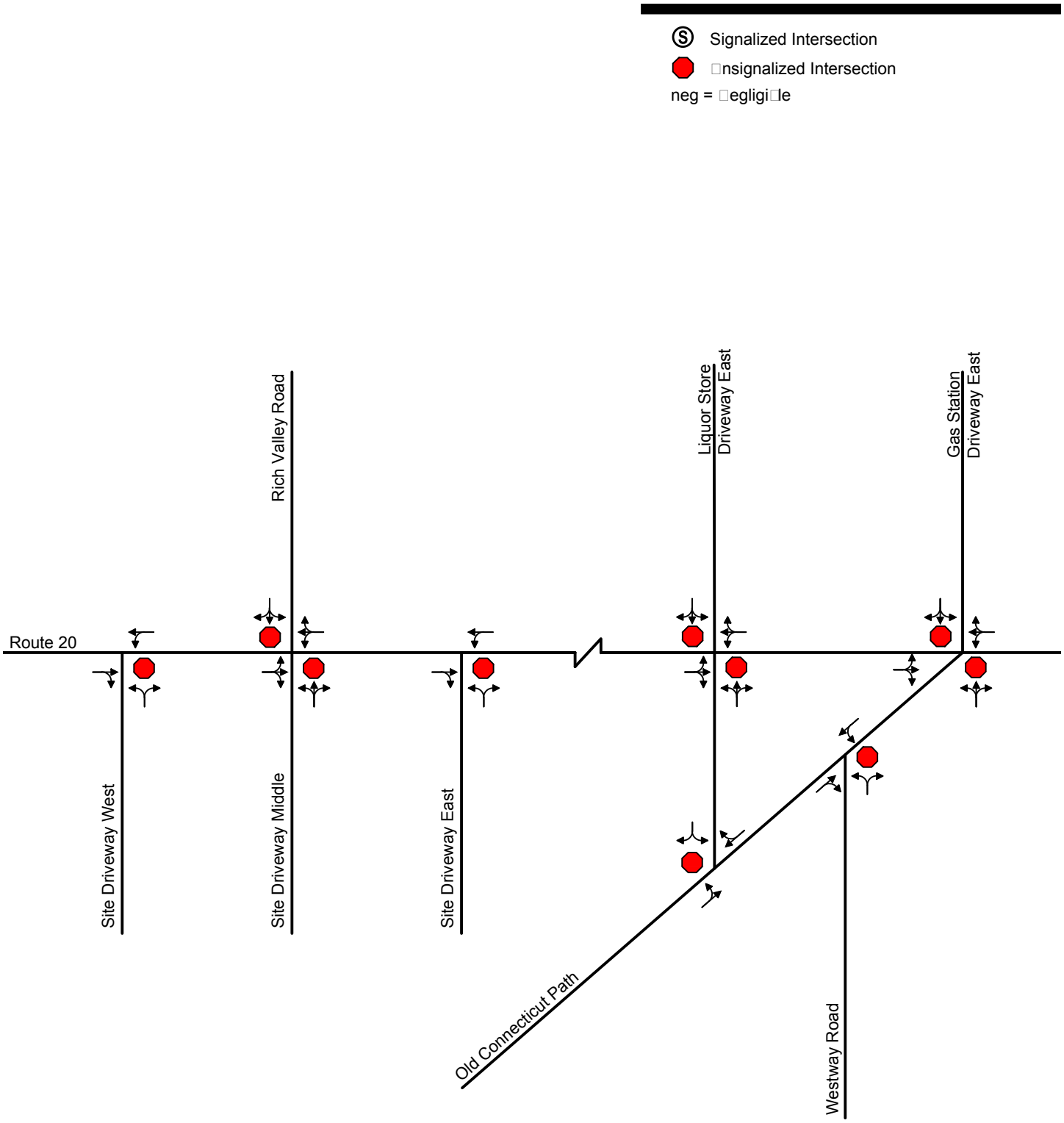
Intersections

Route 20 at Rich Valley Road/Site Driveway Middle

Rich Valley Road and Site Driveway Middle intersect Route 20 to form an offset four-legged unsignalized intersection. Rich Valley Road intersects from the north and Site Driveway Middle from the south. The Route 20 eastbound and westbound approaches each consist of one shared general purpose lane. The Rich Valley Road southbound approach consists of one shared general purpose lane and is under STOP sign control. The Site Driveway Middle northbound approach consists of one shared general purpose lane and is not signed but operates as a STOP controlled movement. Sidewalks exist on the south side of Route 20 and on the north side of Route 20 west of Rich Valley Road. There are no crosswalks at the intersection. Land use in the area is a mix of residential, institutional and commercial.

Route 20 at Site Driveway East

Site Driveway East intersects Route 20 from the south to form a three-legged unsignalized intersection. The Route 20 eastbound and westbound approaches each consist of one shared general purpose lane. The Site Driveway East northbound approach consists of one shared general purpose lane and is not signed but operates as a STOP controlled movement. There is a sidewalk on the south side of Route 20 west of the intersection. Land use in the area is a mix of residential and commercial.



Not to Scale

Intersection Lane Geometry and
Traffic Control
Eden Management Inc.
Wayland, Massachusetts

Figure 2

Route 20 at Site Driveway West

Site Driveway West intersects Route 20 from the south to form a three-legged unsignalized intersection. The Route 20 eastbound and westbound approaches each consist of one shared general purpose lane. The Site Driveway West northbound approach consists of one shared general purpose lane and is not signed but operates as a STOP controlled movement. There is no on-street parking. Sidewalks exist on both sides of Route 20 but there are no crosswalks at the intersection. Land use in the area is a mix of residential and commercial.

Route 20 at Old Connecticut Path (west)/Liquor Store Driveway East

Old Connecticut Path (west) and liquor store driveway intersect Route 20 to form a four-legged unsignalized intersection. The liquor store driveway intersects from the north and Old Connecticut Path from the south. The Route 20 eastbound and westbound approaches each consist of one shared general purpose lane. Old Connecticut Path northbound approach consists of one shared general purpose lane and is under STOP control. The liquor store driveway southbound approach consists of one shared general purpose lane and not signed but operates as a STOP controlled movement. There is a sidewalk on the north side of Route 20 and there are no existing crosswalks at the intersection. Land use in the area is primarily commercial use.

Route 20 at Old Connecticut Path (east)/Gas Station Driveway East

Old Connecticut Path (east) and gas station driveway intersect Route 20 to form a four-legged unsignalized intersection. The gas station driveway intersects from the north and Old Connecticut Path from the south. The Route 20 eastbound and westbound approaches each consist of one shared general purpose lane. The Old Connecticut Path northbound approach consists of one shared general purpose lane and is under STOP control. The gas station driveway southbound approach consists of one shared general purpose lane and is not signed but operates as a STOP controlled movement. There is a sidewalk on the north side of Route 20. Land use in the area is primarily commercial use.

Old Connecticut Path at Westway Road

Westway Road intersects Old Connecticut Path from the south to form a three-legged unsignalized intersection. This intersection is approximately 60 feet south of the intersection of Route 20 at Old Connecticut Path (east)/Gas Station Driveway East. The Old Connecticut Path eastbound and westbound approaches each consist of one shared general purpose lane. The Westway Road northbound approach consists of one shared general purpose lane and is not signed but operates as a STOP controlled movement. There are no sidewalks at the intersection. Land use in the area consists of commercial and residential uses.

Traffic Volumes

To assess the existing operational conditions at the study area intersections, automatic traffic recorder (ATR) counts were conducted from Tuesday, March 7, 2017 through Wednesday, March 8, 2017 along Route 20 in the vicinity of the Site. The average daily traffic volume data are summarized below in Table 1 and the existing count data is included in the Attachments to this memorandum.

Table 1 Existing Peak Season Traffic Volume Summary

Location	Weekday Daily Volume [a]	Weekday Morning Peak Hour Vol [b]	Weekday Morning Peak Hour K Factor [c]	Weekday Morning Peak Hour Dir. Dist. [d]	Weekday Evening Peak Hour Volume	Weekday Evening Peak Hour K Factor	Weekday Evening Peak Hour Dir. Dist.
Route 20, west of Rich Valley Road	18,800	1,240	7%	63% EB	1,405	8%	59% WB

Source: Automatic Traffic Recorder (ATR) counts conducted by VHB in March 2017
a Daily traffic expressed in vehicles per day
b Peak hour volumes expressed in vehicles per hour
c Percent of daily traffic, which occurs during the peak hour
d Directional distribution of peak period traffic
Note: Peak hours do not necessarily coincide with the peak hours of the individual intersection turning movement counts.

As shown in Table 1, Route 20 carries approximately 18,800 vehicles per day on a typical weekday, with approximately seven-percent during the weekday morning peak hour and approximately eight-percent during the weekday evening peak hour. The directionality of peak hour traffic flow on the roadway is representative of the commuter traffic flows (heavier traffic flow in the eastbound direction during the weekday morning peak hour and heavier in the westbound direction during the weekday evening peak hour).

In addition to daily traffic volumes, peak hour turning movement counts (TMCs) were conducted at the intersection of Route 20/Rich Valley Road in March 2017. Very limited vehicle activity was observed at the Site driveways as Mahoney's Garden Center was not fully operational at the time of performing the March traffic counts.

In addition to the March 2017 TMC at Rich Valley Road, additional TMCs were conducted in April 2017 at the Route 20/Old Connecticut Path intersections based on feedback from the Wayland Planning Department that the Route 20/Old Connecticut Path intersection should be included in the evaluation.

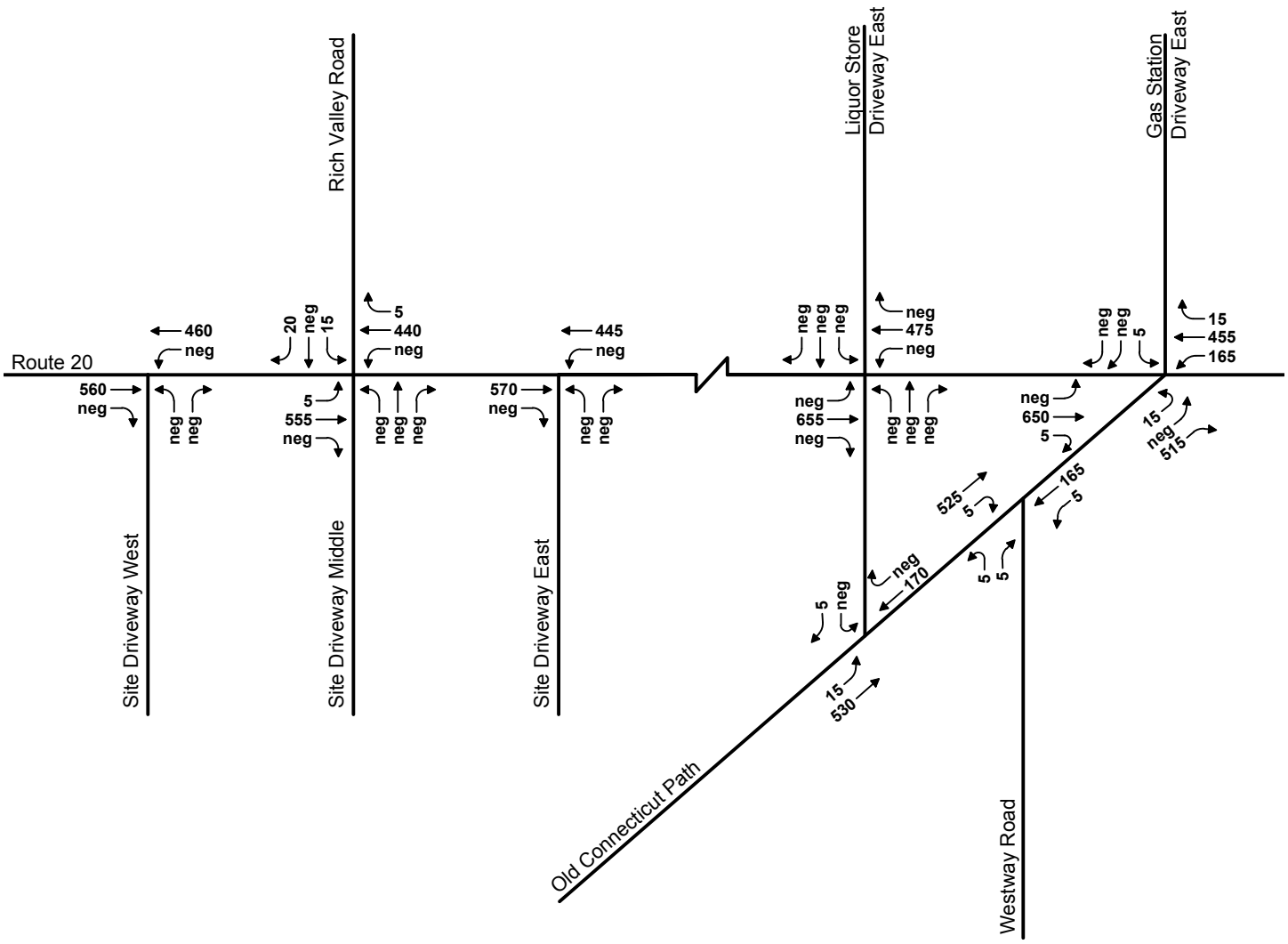
All TMCs were conducted during the weekday morning peak period from 7:00 AM to 9:00 AM and during the weekday evening peak period from 4:00 PM to 6:00 PM. Based on a review of the count data, the weekday morning and evening peak hours of vehicular activity were determined to be 8:00 AM to 9:00 AM and 4:45 PM to 5:45 PM, respectively. The traffic volume counts are provided in the Attachments to this memorandum.

Seasonal Variation

MassDOT historical traffic counts were reviewed to understand the seasonality of traffic count data collected in the month of March and April. The statewide data for seasonal variation of traffic volumes indicate that traffic counts in March are generally four-percent higher than the average month and traffic counts in April are generally eight-percent higher than the average month. To present a conservative analysis, no seasonal adjustment factors were applied to the count data to adjust them down to represent average conditions. The MassDOT seasonal factors are included in the Attachments to this memorandum.

The 2017 Existing peak hour traffic volume networks for the weekday morning and evening are shown in Figures 3 and 4, respectively.

Ⓢ Signalized Intersection
neg = negligible

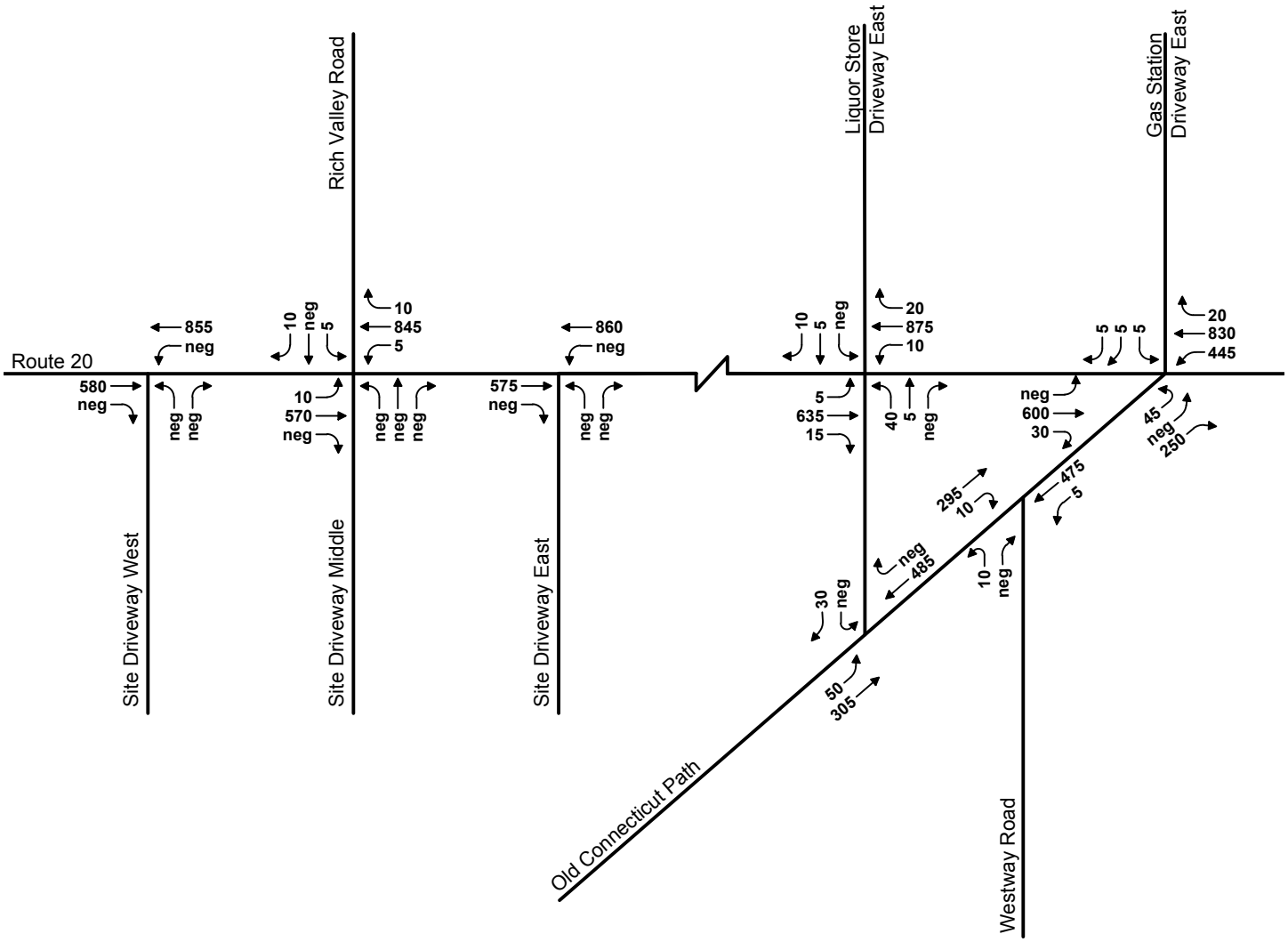


Not to Scale

2017 Existing Conditions
Weekday Morning Peak Hour Traffic Volumes
Eden Management Inc.
Wayland, Massachusetts

Figure 3

Ⓢ Signalized Intersection
neg = negligible



Not to Scale

Figure 4
2017 Existing Conditions
Weekday Evening Peak Hour Traffic Volumes
Eden Management Inc.
Wayland, Massachusetts

Crash Summary

To identify potential vehicle crash trends in the study area, vehicular crash data for the study area intersections were obtained from Massachusetts Department of Transportation (MassDOT) for the most recent five-year period (2010-2014) available. A summary of the MassDOT vehicular crash history is provided in Table 2 and the detailed crash data is provided in the Attachments to this memorandum. For the crash analysis, the intersections of Route 20 at Old Connecticut Path (east)/Gas Station Driveway East and Old Connecticut Path at Westway Road were analyzed as one intersection due to the proximity of the two intersections.

The current MassDOT average crash rates for signalized and unsignalized intersections in District 3 (the MassDOT district for Wayland) are 0.90 crashes per million entering vehicles and 0.65 crashes per million entering vehicles, respectively. In other words, on average, 0.65 crashes occurred per million vehicles entering unsignalized intersections throughout District 3. The crash rate worksheets are included in the Attachments to this memorandum.

As shown in Table 2, the intersections of Route 20 at Rich Valley Road and Site Driveway Middle, Route 20 at Old Connecticut Path East and Westway Road, and Route 20 at Old Connecticut Path West experienced crashes during the five-year period of available data. The only intersection in the study area that had calculated crash rates above the MassDOT District 3 average crash rates was Route 20 at Old Connecticut Path East and Westway Road. The majority of the crashes that occurred at the study area intersections were angle and rear-end collisions, resulting in property damage or injury. One crash at the intersection of Route 20 at Rich Valley Road involved a non-motorist (bicyclist or pedestrian).

Table 2 Vehicular Crash Data (2010 - 2014)

	Route 20 at Rich Valley Road and Site Driveway Middle	Route 20 at Old Connecticut Path (West)	Route 20 at Old Connecticut Path (East) and Westway Road
Signalized?	No	No	No
MassDOT Average Crash Rate	0.65	0.65	0.65
Calculated Crash Rate	0.24	0.28	0.68
Exceeds Average Crash Rate?	No	No	Yes
Year			
2010	1	3	5
2011	1	2	8
2012	1	1	8
2013	3	2	7
2014	1	1	3
Total	7	9	31
Collision Type			
Angle	1	3	14
Rear-end	3	4	10
Head-on	0	1	0
Sideswipe, same direction	0	0	2
Sideswipe, opposite direction	0	0	2
Single vehicle crash	3	1	3
Crash Severity			
Fatal injury	0	0	0
Non-fatal injury	4	1	6
Property damage only (none injured)	3	8	23
Not Reported	0	0	2
Time of Day			
Weekday, 7:00 AM - 9:00 AM	0	2	3
Weekday, 4:00 PM - 6:00 PM	0	2	7
Saturday, 11:00 AM - 2:00 PM	1	0	0
Weekday, other time	4	3	17
Weekend, other time	2	2	4
Pavement Conditions			
Dry	5	8	25
Wet	0	0	5
Snow	1	1	1
Sand, Mud, Dirt, Gravel	1	0	0
Non-Motorist (Bike, Pedestrian)	1	0	0

Source: MassDOT vehicle crash data

Future Conditions

To determine the impacts of the site-generated traffic volumes, future traffic conditions were evaluated. A seven-year horizon (2024) was used for the evaluation to be consistent with MassDOT's traffic impact assessment guidelines.

Traffic growth on area roadways is a function of the expected land development, environmental activity, and changes in demographics. A frequently used procedure is to identify estimated traffic generated by planned developments that would be expected to affect the project study area roadways. An alternative procedure is to estimate an annual percentage increase and apply that increase to study area traffic volumes. For this evaluation, both procedures were considered. The following summarizes the traffic forecasting process.

Regional Traffic Growth

Traffic studies conducted in the Town of Wayland and historic count data were reviewed to establish a rate at which traffic volumes can be expected to grow. A review of recent traffic studies indicated that a one-percent per year growth rate is appropriate for analysis purposes.

Planned/Approved Developments

In addition to accounting for background growth, the traffic associated with other planned/approved developments near the site was also considered. Based on discussions with the Town of Wayland Planning Department staff, it was determined that there are several planned development projects within the vicinity of the study area that would need to be considered as part of the future traffic conditions, independent of the Project. Traffic volumes generated from the planned development projects were obtained from published traffic studies for use in the analysis.

- **Wayland Town Center:** This development is a mixed-use site designed to include up to up to 100 residential units, 10,000 square feet (sf) of office space, and approximately 155,000 sf of retail space. The development has been mostly constructed in the past decade, but approximately 30% of the retail space is not yet built/unoccupied. Therefore, traffic expected to be generated by this space was estimated and included in the analysis.
- **Rivers Edge Residential Development:** The development involves the construction of approximately 188 apartment units at 489 Boston Post Road (Route 20) near the Sudbury town line.
- **Meadow Walk (Sudbury):** The project, located at 526-528 Boston Post Road (Route 20) in Sudbury, consists of a mixed-use development that will include approximately 80,000 sf of retail (including a grocery store), a 250-unit apartment development, a 60-unit active adult residential development, and a 54-bed assisted living/memory care facility. This development will replace the approximately 560,000 sf of office, research & development, and manufacturing Raytheon facility that operated on the Site until 2015.

Background Transportation Projects

In assessing future traffic conditions, proposed roadway improvements within the study area were considered. Based on a conversation with the Town of Wayland Planning Department, there are no roadway improvement projects in study area that would impact traffic conditions within the seven-year horizon.

No-Build Traffic Volumes

The 2024 No-Build traffic volume networks for the weekday morning and weekday evening peak hours, developed based on the aforementioned assumptions, are presented in Figures 5 and 6, respectively.

Future Residential Trip Generation

To estimate the trip-generating characteristics for the Project, traffic projections were derived from trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation* manual. The Project involves the construction of a 60-unit multi-family rental apartment development. To estimate the traffic generation for the Project, ITE Land Use Code (LUC) 220 (Apartment) was used in the analysis using number of units as the independent variable. The trip generation calculations are included in the Attachments to this memorandum.

Table 3 summarizes the Project-related trip projections.

Table 3 Future Peak Hour Trip Generation Summary

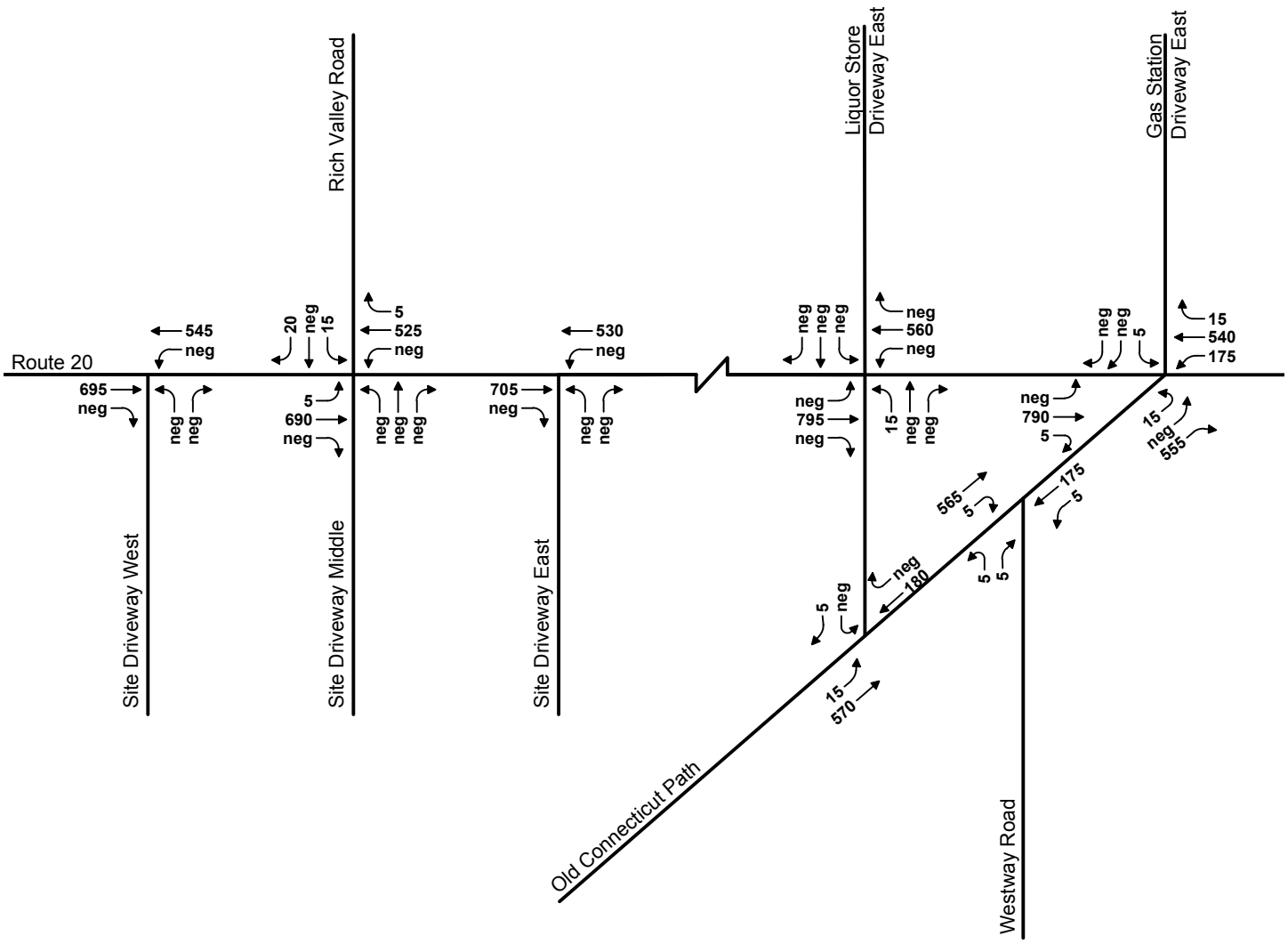
Time Period	Movement	Apartment Use [a]
Weekday Morning	Enter	7
Peak Hour	Exit	26
	Total	*33*
Weekday Evening	Enter	33
Peak Hour	Exit	18
	Total	*51*

a Trip generation estimate based on ITE LUC 220 (Apartment) for 60 units

As shown in Table 3, the project is expected to generate approximately 33 vehicle trips per hour (7 entering/26 exiting) during the weekday morning peak hour and 51 vehicle trips per hour (33 entering/18 exiting) during the weekday evening peak hour.

The Site currently supports an active 12,000+ sf garden center use. Based on ITE trip generation guidelines, the garden center would generate 30 vehicle trips per hour (15 entering/15 exiting) during the weekday morning peak hour and 84 vehicle trips per hour (42 entering/42 exiting) during the weekday evening peak hour. I.e., during the commute peak hours, the trip generation for the proposed residential development is comparable to the trip generation of the garden center during the peak season. However, to present a conservatively worst case analysis, no trip credit was applied to the calculations under the future condition and all estimated residential trips were treated as new trips to the area roadway network.

Ⓢ Signalized Intersection
neg = negligible

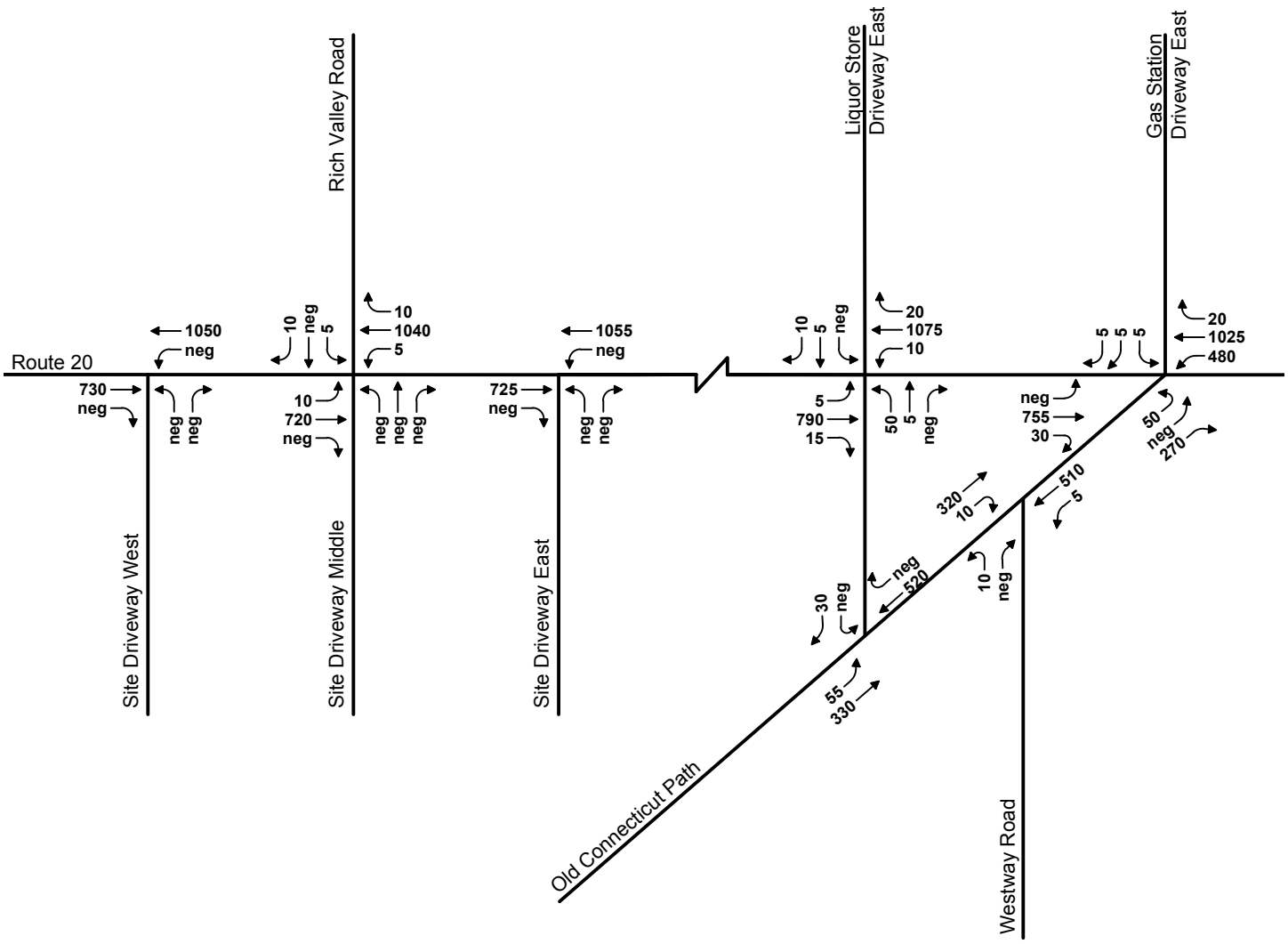


2024 No Build Conditions
Weekday Morning Peak Hour Traffic Volumes
Eden Management Inc.
Wayland, Massachusetts

Figure 5

Not to Scale

Ⓢ Signalized Intersection
neg = negligible



Not to Scale

2024 No Build Conditions
Wekday Evening Peak Hour Traffic Volumes
Eden Management Inc.
Wayland, Massachusetts

Figure 6

Trip Distribution

Since the residential traffic leaving the Site in the morning and returning home in the evening would generally have a similar trip patterns as the commuting traffic on Route 20, the distribution of the peak hour traffic associated with the Project was developed based on the existing travel patterns along Route 20 and Old Connecticut Path. The trip distribution percentages are presented in Table 4 and illustrated in Figure 7.

Table 4 Trip Distribution

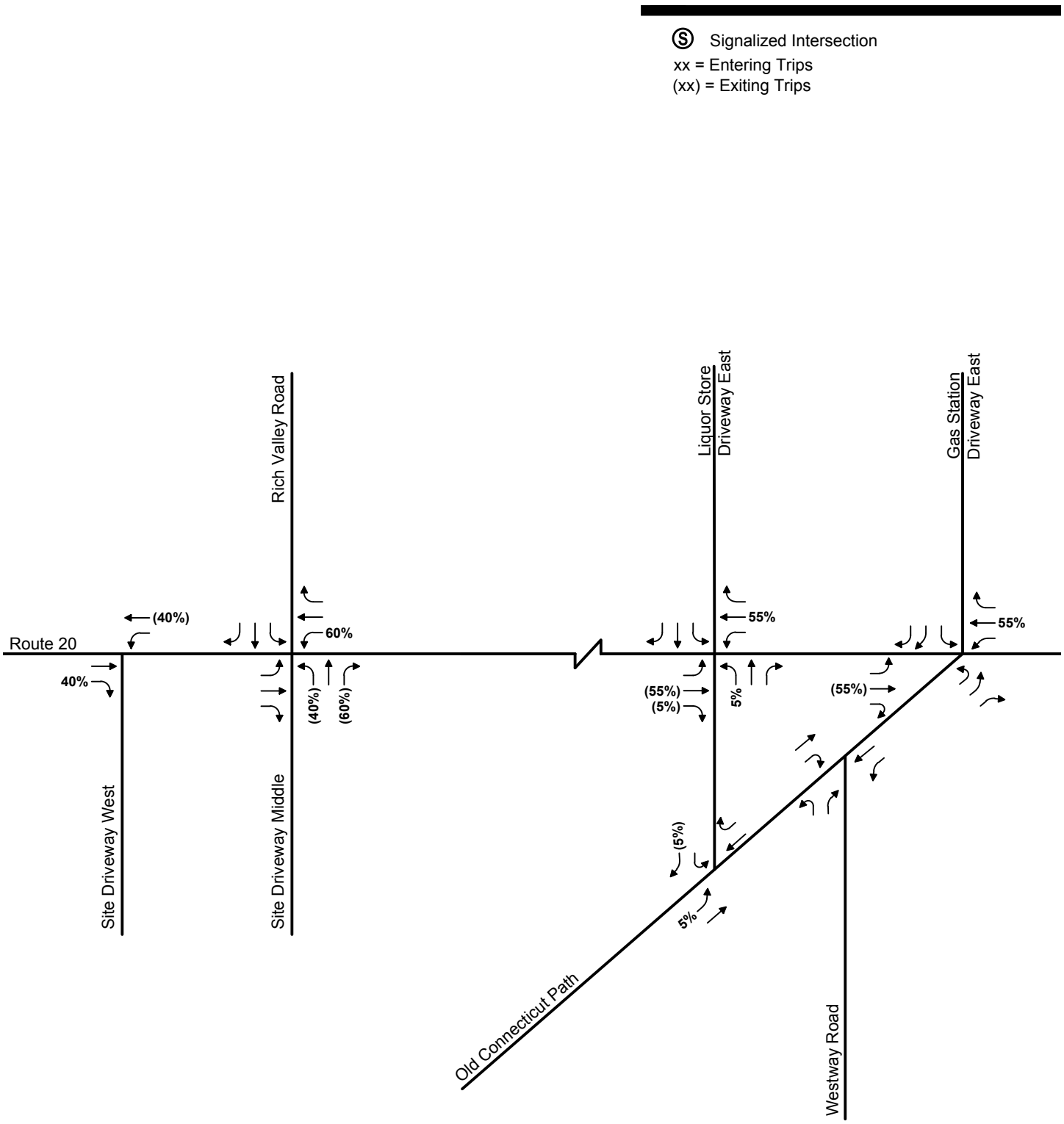
Travel Route	Direction (to/from)	Trip Distribution
Route 20	East	55%
Route 20	West	40%
Old Connecticut Path	South	5%
Total		100%

Build Condition Traffic Volumes

The Site-generated traffic volumes were assigned to the roadway network according to the distribution assumptions outlined above, and added to the No-Build traffic volumes and the garden center trips removed from the network to develop the Build condition peak hour traffic volume networks. Figures 8 and 9 presents the resulting 2024 Build traffic volumes for the weekday morning and weekday evening peak hours, respectively. Traffic networks showing the Site-generated volumes are provided in the Attachments to this memorandum.

Traffic Volumes Increases

Table 5 provides a comparison of No-Build and Build condition peak hour net traffic volume changes at various locations within the study area as a result of the Project. As noted earlier, to present a conservatively worst case analysis, no trip credit was applied to the calculations under the future conditions and all estimated residential trips were treated as new trips to the area roadway network.

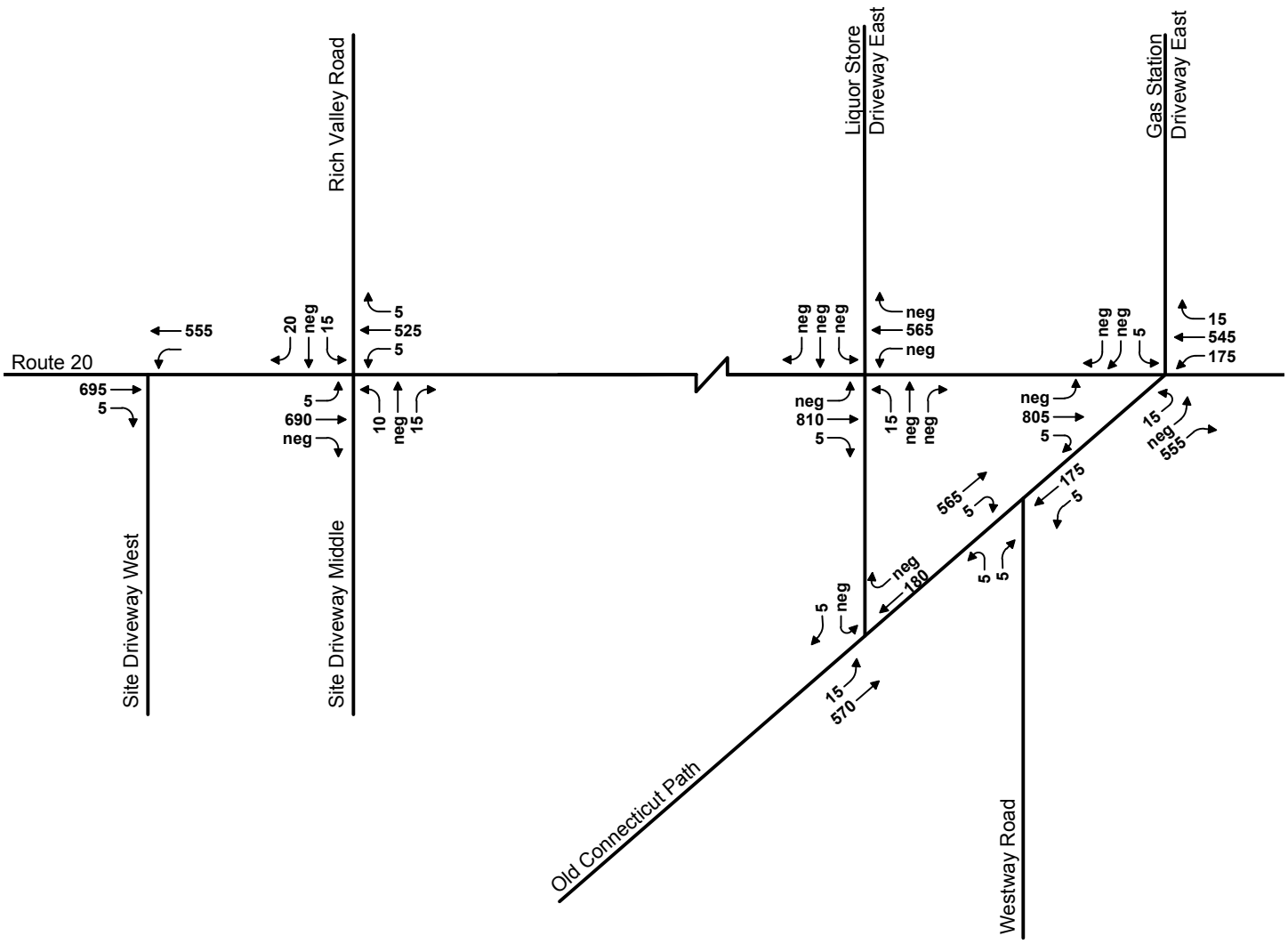


Not to Scale

Trip Distribution
Weekday Morning and Evening
Eden Management Inc.
Wayland, Massachusetts

Figure 7

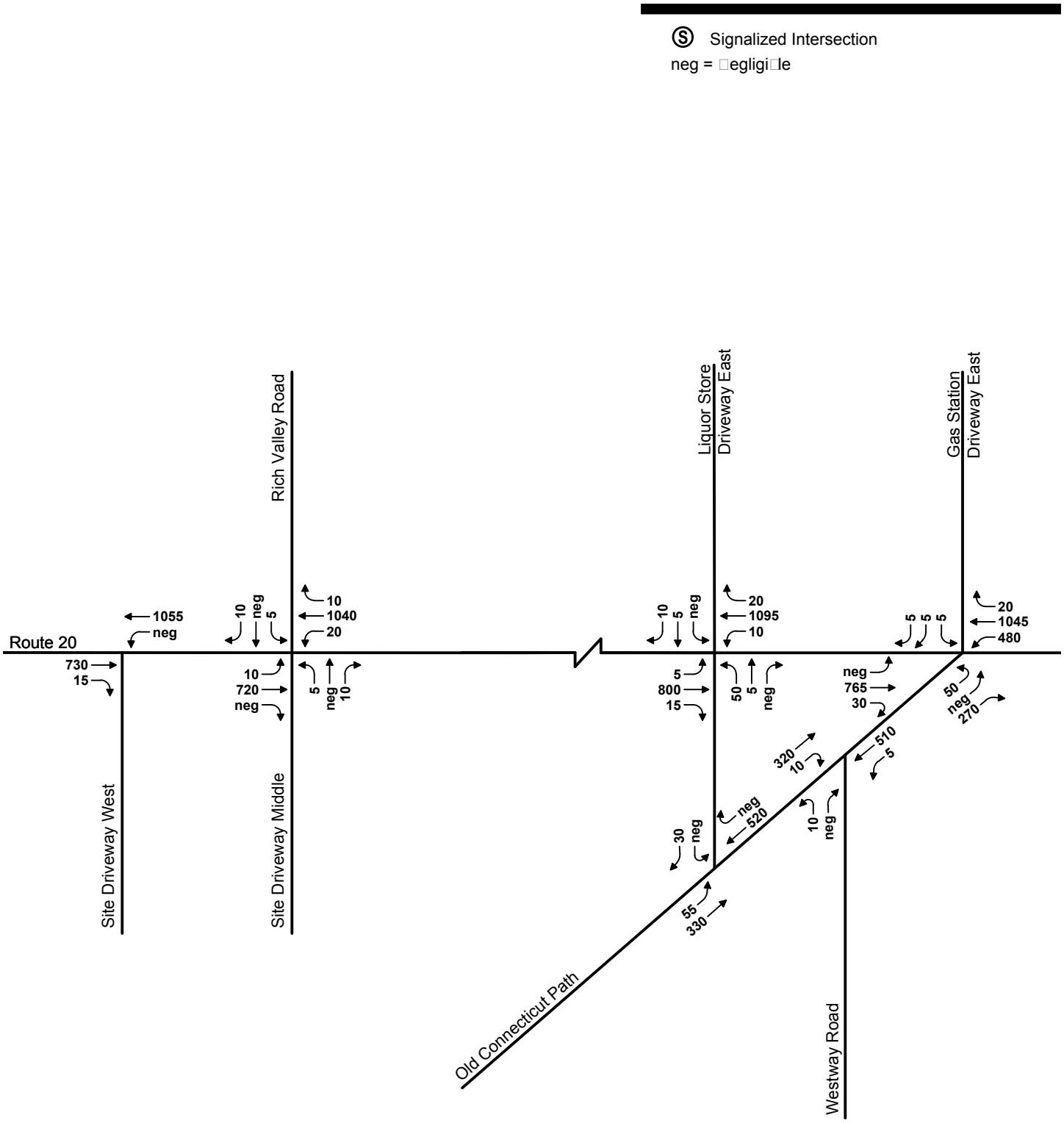
Ⓢ Signalized Intersection
neg = negligible



Not to Scale

2024 Build Conditions
Weekday Morning Peak Hour Traffic Volumes
Eden Management Inc.
Wayland, Massachusetts

Figure 8



2024 Build Conditions
Weekday Evening Peak Hour Traffic Volumes
Eden Management Inc.
Wayland, Massachusetts

Figure 9

Table 5 Peak Period Traffic Volume Increase (Trips per Hour)

Location	Peak Hour	No-Build Condition [a]	Build Condition [b]	Change [c]
Route 20, West of the Site	AM	1,244	1,257	+13
	PM	1,779	1,799	+20
Route 20, east of Old Conn Path	AM	2,081	2,099	+18
	PM	2,551	2,579	+28
Old Conn Path, South of Route 20	AM	769	771	+2
	PM	933	936	+3

a Condition where the Project is not constructed in the future and there is no garden center activity on the Site.
b Site is redeveloped as depicted in the Site plans.
c Change in roadway traffic after the project; this analysis does not take into consideration that the garden center currently generates trips on the roadways in the area during peak seasons. It treats all residential trips as "new" trips, which is a conservatively worst case analysis.

As shown in Table 5, the Project is estimated to add relatively low traffic volumes to the area roadway network, even with the assumption that all residential trips are new to the area, and no trip reduction credit is applied to account for the garden center trips that will be eliminated in the future.

Sight Distance Analysis

A sight distance analysis, in conformance with guidelines of the American Association of State Highway and Transportation Officials (AASHTO) was performed at the proposed Site driveways on Route 20. Sight distance considerations are generally divided into two categories: Stopping Sight Distance (SSD) and Intersection Sight Distance (ISD). Stopping Sight Distance (SSD) is the distance required for a vehicle approaching an intersection from either direction to perceive, react and come to a complete stop before colliding with an object in the road, in this case the exiting vehicle from a minor street or driveway. In this respect, SSD can be considered as the minimum visibility criterion for the safe operation of an unsignalized intersection.

Intersection Sight Distance (ISD) is based on the time required for perception, reaction and completion of the desired critical exiting maneuver once the driver on a minor street or driveway approach decided to execute the maneuver. Calculation for the critical ISD includes the time to (1) turn left, and to clear the half of the intersection without conflicting with the vehicles approaching from the left; and (2) accelerate to the operating speed of the roadway without causing approaching vehicles to unduly reduce their speed. In this context, ISD can be considered as a desirable visibility criterion for the safe operation of an unsignalized intersection. Essentially, while SSD is the minimum distance needed to avoid collisions, ISD is the minimum distance needed so that mainline motorists will not have to substantially reduce their speed due to turning vehicles.

To calculate the required SSD and ISD, the 85th percentile speed measured by the ATR count on Route 20 was utilized. The 85th percentile speed along Route 20 was observed to be 37 mph eastbound and 38 mph westbound. The

posted speed limit along Route 20 is 35 mph in both directions. Table 6 summarizes the sight distance analysis and the sight distance worksheet is included in the Attachments to this memorandum.

Table 6 Sight Distance Summary

	Stopping Sight Distance (feet)			Intersection Sight Distance (feet)		
Location	Traveling	Required [a]	Measured [b]	Looking	Desirable [a]	Measured [b]
Route 20 at Proposed Site Driveways	EB	270	>500	Left	420	>500
	WB	280	>500	Right	420	>500

a. Calculated based on standards established in A Policy on the Geometric Design of Highways and Streets, AASHTO, 2013 using the 85th percentile speeds of 37 mph eastbound and 38 mph westbound on Route 20.
b. Field measurements by VHB in March 2017

As shown in Table 6, adequate SSD and ISD will be available in both directions at the proposed curb cuts on Route 20.

Traffic Operations Analysis

To assess quality of flow, intersection capacity analyses were conducted with respect to 2017 Existing, 2024 No-Build, and 2024 Build traffic volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them. Roadway operating conditions are classified by calculated levels-of-service.

The evaluation criteria used to analyze the signalized study area intersection in this traffic study is based on the percentile-delay method (SYNCHRO results). The evaluation criteria used to analyze the unsignalized study area intersection is based on the *2010 Highway Capacity Manual* (HCM)[1]. Level–of-service (LOS) is the term used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads. It is a qualitative measure that considers a number of factors including roadway geometry, speed, travel delay and freedom to maneuver. Level-of-service provides an index to operational qualities of a roadway segment or an intersection. Level-of-service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing congested operating conditions.

Intersection Capacity Analysis

Levels-of-service analyses were conducted for the 2017 Existing, 2024 No-Build, and 2024 Build conditions for the study area intersections. Table 8 summarizes the capacity analysis results for the study area intersections. The capacity analyses worksheets are included in the Attachments to this memorandum.

[1] Highway Capacity Manual, Transportation Research Board, Washington D.C., 2010.

As shown in Table 7, traffic operations are congested at the Route 20/Old Connecticut Path intersection under current conditions and they are projected to continue in the future with or without the Project. However, from a Project impact point of view, the limited Site generate vehicular traffic, summarized in the "change" column of Table 5, is not expected to contribute to noticeable additional delays or congestion to the area roadway network.

Table 7 Unsignalized Intersection Capacity Analysis

Location / Movement	2017 Existing Conditions					2024 No-Build Conditions [a]					2024 Build Conditions				
	D [b]	v/c [c]	Del [d]	LOS [e]	95 Q [f]	D	v/c	Del	LOS	95 Q	D	v/c	Del	LOS	95 Q
Route 20 at Rich Valley Road and Site Driveway Middle															
Weekday Morning															
EB L	5	0.01	8	A	0	5	0.01	9	A	0	5	0.01	9	A	0
WB L	neg	-	0	A	0	neg	-	0	A	0	5	0.01	9	A	0
NB L/T/R	neg	-	0	A	0	neg	-	0	A	0	n/a	n/a	n/a	n/a	n/a
NB L	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10	0.09	38	E	8
NB T/R	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15	0.04	14	B	3
SB L/T/R	35	0.13	19	C	13	35	0.17	24	C	15	35	0.18	26	D	15
Weekday Evening															
EB L	10	0.02	0	A	0	10	0.02	11	B	3	10	0.02	11	B	3
WB L	5	0.01	9	A	0	5	0.01	9	A	0	20	0.03	9	A	3
NB L/T/R	neg	0.05	50	F	3	neg	0.02	87	F	3	n/a	n/a	n/a	n/a	n/a
NB L	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	0.13	106	F	10
NB T/R	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10	0.03	14	B	3
SB L/T/R	15	0.13	29	D	10	15	0.16	47	E	13	15	0.18	52	F	15
Route 20 at Site Driveway East															
Weekday Morning															
WB L	neg	-	0	A	0	neg	-	0	A	0	*Intersection does not exist under Build conditions*				
NB L/R	neg	-	0	A	0	neg	-	0	A	0					
Weekday Evening															
WB L	neg	-	0	A	0	neg	-	0	A	0					
NB L/R	neg	-	0	A	0	neg	-	0	A	0					
Route 20 at Site Driveway West															
Weekday Morning															
WB L	neg	-	0	A	0	neg	-	0	A	0	neg	-	0	A	0
NB L/R	neg	-	0	A	0	neg	-	0	A	0	n/a	n/a	n/a	n/a	n/a
Weekday Evening															
WB L	neg	-	0	A	0	neg	-	0	A	0	neg	-	0	A	0
NB L/R	neg	-	0	A	0	neg	-	0	A	0	n/a	n/a	n/a	n/a	n/a

Table 7 Unsignalized Intersection Capacity Analysis (Cont.)

Location / Movement	2017 Existing Conditions					2024 No-Build Conditions [a]					2024 Build Conditions				
	D [b]	v/c [c]	Del [d]	LOS [e]	95 Q [f]	D	v/c	Del	LOS	95 Q	D	v/c	Del	LOS	95 Q
Route 20 at Old Connecticut Path/Liquor Store Driveway East															
Weekday Morning															
EB L	neg	0.00	9	A	0	neg	0.00	9	A	0	neg	0.00	9	A	0
WB L	neg	0.00	9	A	0	neg	0.00	10	A	0	neg	0.00	10	A	0
NB L/T/R	18	0.16	27	E	15	18	0.19	47	E	15	18	0.19	49	E	18
SB L/T/R	neg	0.02	36	D	3	neg	0.02	32	D	0	neg	0.02	34	D	3
Weekday Evening															
EB L	5	0.01	10	B	0	5	0.01	11	B	0	5	0.01	11	B	0
WB L	10	0.01	9	A	0	10	0.01	10	A	0	10	0.01	10	A	0
NB L/T/R	47	0.95	>120	F	115	57	>1.20	>120	F	170	55	>1.20	>120	F	170
SB L/T/R	15	0.16	31	D	13	15	0.16	46	E	13	15	0.16	47	E	13
Route 20 at Old Connecticut Path/Gas Station Driveway East															
Weekday Morning															
EB L	neg	-	0	A	0	neg	-	0	A	0	neg	-	0	A	0
WB L	165	0.21	10	B	20	175	0.25	11	B	25	175	0.25	11	B	25
NB L/T/R	530	>1.20	>120	F	868	570	>1.20	>120	F	1143	570	>1.20	>120	F	1165
SB L/T/R	6	Err	Err	Err	Err	6	Err	Err	Err	Err	6	Err	Err	Err	Err
Weekday Evening															
EB L	neg	0.00	10	A	0	neg	0.00	11	B	0	neg	0.00	11	B	0
WB L	445	0.52	13	B	78	480	0.66	18	C	128	480	0.67	18	C	130
NB L/T/R	296	Err	Err	Err	Err	321	Err	Err	Err	Err	321	Err	Err	Err	Err
SB L/T/R	15	Err	Err	Err	Err	15	Err	Err	Err	Err	15	Err	Err	Err	Err
Old Connecticut Path at Westway Road															
Weekday Morning															
SB L	5	0.01	9	A	0	5	0.01	9	A	0	5	0.01	9	A	0
NWB L/R	10	0.03	14	B	3	10	0.03	14	B	3	10	0.03	14	B	3
Weekday Evening															
SB L	5	0.00	8	A	0	5	0.01	8	A	0	5	0.01	8	A	0
NWB L/R	11	0.06	16	C	5	11	0.04	19	C	3	11	0.04	17	C	3

a No Build Conditions analysis does not include trips generated by the existing Garden Center.
b Demand
c Volume to capacity ratio
d Average total delay, in seconds per vehicle
e Level-of-service
f 95th percentile queue, in feet
Err Analytical parameters of the analysis software exceeded; reportable results were not generated.

Site Access

Under existing conditions the site is accessed via three full-access unsignalized driveways on Route 20. Under the proposed condition, the site will be served by two curb-cuts on Route 20; an entrance only driveway on the west side of the property and a full access driveway aligned with Rich Valley Road.

A signal warrant analysis was performed to assess the need for potential traffic control improvements at the future full access driveway intersection for the Site. The results of the warrant analysis are presented below.

Signal Warrant Analysis

The Federal Highway Administration (FHWA) has established criteria for evaluating the need for traffic signal control at an intersection. Several warrants, published in the Manual on Uniform Traffic Control Devices (MUTCD) [2], provide guidelines for determining the need for a signal based on such factors as traffic volume, pedestrian volume, progressive movement of traffic, vehicular delay, and others. While satisfaction of one or more of these warrants alone does not necessarily justify installation of a traffic signal, warrants in combination with capacity analysis, crash analysis, and a study of intersection safety provide valuable criteria for evaluating the need for a traffic signal.

Traffic signal warrants were evaluated for the intersection of Route 20 at Rich Valley Road/Site driveway for the 2024 Build condition. The three traffic volume based signal warrants specified by the MUTCD have been evaluated as part of this analysis; Warrant 1 (peak hour warrant), Warrant 2 (four-hour warrant) and Warrant 3 (eight-hour warrant). Route 20 hourly traffic volume was obtained from the ATR data. Site-generated hourly traffic volumes were estimated based on temporal distribution data published by ITE[3]. Table 8 presents the results of the warrant analyses completed for this review. The warrant analysis worksheets are provided in the Attachments to this memorandum.

Table 8 Signal Warrant Analysis Summary

Signal Warrant	Warrant Met?
Warrant 1A – Minimum Vehicular Volume (eight hours)	**No**
Warrant 1B – Interruption of Continuous Traffic (eight hours)	**No**
Warrant 2 – Four-Hour Vehicular Volume	**No**
Warrant 3 – Peak Hour	**No**

Note: For each signal warrant tested, "Yes" is indicated if the warrant is satisfied, "No" means the warrant is not satisfied.

The signal warrant analysis indicates that none of the traffic volume based thresholds are exceeded for the consideration of traffic signal control at the intersection of Route 20 at Rich Valley Road/Site driveway. The driveway will therefore be operated under a stop sign control.

[2] Manual on Uniform Traffic Control Devices, 2009 Edition; U.S. Department of Transportation Federal Highway Administration, Washington DC, December 2009.
[3] Hourly Variations in Trip Generation for Office and Residential Land Uses; Aaron T. Zimmerman, PTP; ITE Journal; January 2015

Subject to review and approval by the Massachusetts Department of Transportation (MassDOT), the Proponent plans to reconstruct the existing sidewalk along the Site frontage, on the south side of Route 20.

Conclusion

The detailed analysis presented in this evaluation indicates that the redevelopment of the Mahoney's garden center site for a 60-unit residential development will have minimal impact upon roadway traffic flow and operations. While Route 20 carries heavy traffic volume, especially during the commuter peak times, the estimated Site generated traffic is too low for the consideration of traffic signal control at the intersection. Additionally, while the traffic analysis treated all future traffic to/from the Site as new traffic on area roadways, the Project would eliminate a significant number of vehicular trips that are associated with a garden center use.

Attachments

- Traffic Count Data
- Seasonal Adjustment Factors
- Crash Data
- Planned/Approved-Development Generated Trips
- Site-Generated Trip Calculations
- Project Generated Trips
- Sight Distance Worksheet
- Capacity Analysis Worksheets
- Signal Warrant Analysis

PDI File #: **175530 A**
Location: **N: Rich Valley Road S: Mahoneys Middle Driveway**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ C. Trearchis**
Site Code: **13831.00**
Count Date: **Wednesday, March 08, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	4	0	3	0	7	0	104	0	0	104	0	0	0	0	0	0	152	1	0	153	264
7:15 AM	3	0	2	0	5	0	117	0	0	117	0	0	0	0	0	0	121	0	0	121	243
7:30 AM	5	0	2	0	7	0	97	0	0	97	0	0	0	0	0	0	121	0	0	121	225
7:45 AM	1	0	5	0	6	2	110	0	0	112	0	0	0	0	0	0	125	0	1	126	244
Total	13	0	12	0	25	2	428	0	0	430	0	0	0	0	0	0	519	1	1	521	976
8:00 AM	4	0	3	0	7	1	100	0	0	101	0	0	0	0	0	0	94	1	0	95	203
8:15 AM	7	0	3	0	10	2	118	0	0	120	0	0	0	0	0	0	146	0	0	146	276
8:30 AM	5	0	4	0	9	1	116	0	0	117	0	0	0	0	0	0	156	2	0	158	284
8:45 AM	4	0	3	0	7	0	106	0	0	106	0	0	0	0	0	0	158	0	0	158	271
Total	20	0	13	0	33	4	440	0	0	444	0	0	0	0	0	0	554	3	0	557	1034
Grand Total	33	0	25	0	58	6	868	0	0	874	0	0	0	0	0	0	1073	4	1	1078	2010
Approach %	56.9	0.0	43.1	0.0		0.7	99.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	99.5	0.4	0.1		
Total %	1.6	0.0	1.2	0.0	2.9	0.3	43.2	0.0	0.0	43.5	0.0	0.0	0.0	0.0	0.0	0.0	53.4	0.2	0.0	53.6	
Exiting Leg Total					10					1098					0					902	2010
Cars	31	0	25	0	56	6	818	0	0	824	0	0	0	0	0	0	1037	4	1	1042	1922
% Cars	93.9	0.0	100.0	0.0	96.6	100.0	94.2	0.0	0.0	94.3	0.0	0.0	0.0	0.0	0.0	0.0	96.6	100.0	100.0	96.7	95.6
Exiting Leg Total					10					1062					0					850	1922
Heavy Vehicles	2	0	0	0	2	0	50	0	0	50	0	0	0	0	0	0	36	0	0	36	88
% Heavy Vehicles	6.1	0.0	0.0	0.0	3.4	0.0	5.8	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	3.3	4.4
Exiting Leg Total					0					36					0					52	88

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	4	0	3	0	7	1	100	0	0	101	0	0	0	0	0	0	94	1	0	95	203
8:15 AM	7	0	3	0	10	2	118	0	0	120	0	0	0	0	0	0	146	0	0	146	276
8:30 AM	5	0	4	0	9	1	116	0	0	117	0	0	0	0	0	0	156	2	0	158	284
8:45 AM	4	0	3	0	7	0	106	0	0	106	0	0	0	0	0	0	158	0	0	158	271
Total Volume	20	0	13	0	33	4	440	0	0	444	0	0	0	0	0	0	554	3	0	557	1034
% Approach Total	60.6	0.0	39.4	0.0		0.9	99.1	0.0	0.0		0.0	0.0	0.0	0.0		0.0	99.5	0.5	0.0		
PHF	0.714	0.000	0.813	0.000	0.825	0.500	0.932	0.000	0.000	0.925	0.000	0.000	0.000	0.000	0.000	0.000	0.877	0.375	0.000	0.881	0.910
Cars	18	0	13	0	31	4	414	0	0	418	0	0	0	0	0	0	534	3	0	537	986
Cars %	90.0	0.0	100.0	0.0	93.9	100.0	94.1	0.0	0.0	94.1	0.0	0.0	0.0	0.0	0.0	0.0	96.4	100.0	0.0	96.4	95.4
Heavy Vehicles	2	0	0	0	2	0	26	0	0	26	0	0	0	0	0	0	20	0	0	20	48
Heavy Vehicles %	10.0	0.0	0.0	0.0	6.1	0.0	5.9	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	3.6	4.6
Cars Enter Leg	18	0	13	0	31	4	414	0	0	418	0	0	0	0	0	0	534	3	0	537	986
Heavy Enter Leg	2	0	0	0	2	0	26	0	0	26	0	0	0	0	0	0	20	0	0	20	48
Total Entering Leg	20	0	13	0	33	4	440	0	0	444	0	0	0	0	0	0	554	3	0	557	1034
Cars Exiting Leg					7					547					0					432	986
Heavy Exit Leg					0					20					0					28	48
Total Exiting Leg					7					567					0					460	1034

PDI File #: **175530 A**
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Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
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Client: **VHB/ C. Trearchis**
Site Code: **13831.00**
Count Date: **Wednesday, March 08, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	4	0	3	0	7	0	100	0	0	100	0	0	0	0	0	0	149	1	0	150	257
7:15 AM	3	0	2	0	5	0	104	0	0	104	0	0	0	0	0	0	117	0	0	117	226
7:30 AM	5	0	2	0	7	0	92	0	0	92	0	0	0	0	0	0	114	0	0	114	213
7:45 AM	1	0	5	0	6	2	108	0	0	110	0	0	0	0	0	0	123	0	1	124	240
Total	13	0	12	0	25	2	404	0	0	406	0	0	0	0	0	0	503	1	1	505	936
8:00 AM	4	0	3	0	7	1	96	0	0	97	0	0	0	0	0	0	90	1	0	91	195
8:15 AM	6	0	3	0	9	2	110	0	0	112	0	0	0	0	0	0	139	0	0	139	260
8:30 AM	4	0	4	0	8	1	107	0	0	108	0	0	0	0	0	0	153	2	0	155	271
8:45 AM	4	0	3	0	7	0	101	0	0	101	0	0	0	0	0	0	152	0	0	152	260
Total	18	0	13	0	31	4	414	0	0	418	0	0	0	0	0	0	534	3	0	537	986
Grand Total	31	0	25	0	56	6	818	0	0	824	0	0	0	0	0	0	1037	4	1	1042	1922
Approach %	55.4	0.0	44.6	0.0		0.7	99.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	99.5	0.4	0.1		
Total %	1.6	0.0	1.3	0.0	2.9	0.3	42.6	0.0	0.0	42.9	0.0	0.0	0.0	0.0	0.0	0.0	54.0	0.2	0.1	54.2	
Exiting Leg Total					10					1062					0					850	1922

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	4	0	3	0	7	1	96	0	0	97	0	0	0	0	0	0	90	1	0	91	195
8:15 AM	6	0	3	0	9	2	110	0	0	112	0	0	0	0	0	0	139	0	0	139	260
8:30 AM	4	0	4	0	8	1	107	0	0	108	0	0	0	0	0	0	153	2	0	155	271
8:45 AM	4	0	3	0	7	0	101	0	0	101	0	0	0	0	0	0	152	0	0	152	260
Total Volume	18	0	13	0	31	4	414	0	0	418	0	0	0	0	0	0	534	3	0	537	986
% Approach Total	58.1	0.0	41.9	0.0		1.0	99.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	99.4	0.6	0.0		
PHF	0.750	0.000	0.813	0.000	0.861	0.500	0.941	0.000	0.000	0.933	0.000	0.000	0.000	0.000	0.000	0.000	0.873	0.375	0.000	0.866	0.910
Entering Leg	18	0	13	0	31	4	414	0	0	418	0	0	0	0	0	0	534	3	0	537	986
Exiting Leg					7					547					0					432	986
Total					38					965					0					969	1972

PDI File #: **175530 A**
Location: **N: Rich Valley Road S: Mahoneys Middle Driveway**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ C. Trearchis**
Site Code: **13831.00**
Count Date: **Wednesday, March 08, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

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46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
7:15 AM	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	4	0	0	4	17
7:30 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	12
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
Total	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	0	16	0	0	16	40
8:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	8
8:15 AM	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	16
8:30 AM	1	0	0	0	1	0	9	0	0	9	0	0	0	0	0	0	3	0	0	3	13
8:45 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	11
Total	2	0	0	0	2	0	26	0	0	26	0	0	0	0	0	0	20	0	0	20	48
Grand Total	2	0	0	0	2	0	50	0	0	50	0	0	0	0	0	0	36	0	0	36	88
Approach %	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	2.3	0.0	0.0	0.0	2.3	0.0	56.8	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0	40.9	
Exiting Leg Total					0					36					0					52	88

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	8
8:15 AM	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	16
8:30 AM	1	0	0	0	1	0	9	0	0	9	0	0	0	0	0	0	3	0	0	3	13
8:45 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	11
Total Volume	2	0	0	0	2	0	26	0	0	26	0	0	0	0	0	0	20	0	0	20	48
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.500	0.000	0.000	0.000	0.500	0.000	0.722	0.000	0.000	0.722	0.000	0.000	0.000	0.000	0.000	0.000	0.714	0.000	0.000	0.714	0.750
Entering Leg	2	0	0	0	2	0	26	0	0	26	0	0	0	0	0	0	20	0	0	20	48
Exiting Leg					0					20					0					28	48
Total					2					46					0					48	96

PDI File #: **175530 A**
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Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Rich Valley Road							Boston Post Road (Route 20)							Mahoneys Middle Driveway							Boston Post Road (Route 20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	
Exiting Leg Total							0							1							0							1	2

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Rich Valley Road							Boston Post Road (Route 20)							Mahoneys Middle Driveway							Boston Post Road (Route 20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg							0							0							0							1	1
Total							0							1							0							1	2

PDI File #: **175530 A**
Location: **N: Rich Valley Road S: Mahoneys Middle Driveway**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ C. Trearchis**
Site Code: **13831.00**
Count Date: **Wednesday, March 08, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Pedestrians

	Rich Valley Road							Boston Post Road (Route 20)							Mahoneys Middle Driveway							Boston Post Road (Route 20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Rich Valley Road							Boston Post Road (Route 20)							Mahoneys Middle Driveway							Boston Post Road (Route 20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **175530 AA**
Location: **N: Rich Valley Road S: Mahoneys Middle Driveway**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ C. Trearchis**
Site Code: **13831.00**
Count Date: **Wednesday, March 08, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	6	0	2	0	8	3	189	0	0	192	0	0	0	0	0	0	122	3	0	125	325
4:15 PM	3	0	1	0	4	6	214	0	0	220	0	0	0	0	0	0	132	2	0	134	358
4:30 PM	3	0	0	0	3	0	207	0	0	207	0	0	1	0	1	0	117	0	0	117	328
4:45 PM	0	0	1	0	1	1	221	3	0	225	0	0	1	0	1	0	146	4	0	150	377
Total	12	0	4	0	16	10	831	3	0	844	0	0	2	0	2	0	517	9	0	526	1388
5:00 PM	4	0	1	0	5	4	197	0	0	201	0	0	0	0	0	0	112	2	0	114	320
5:15 PM	1	0	1	0	2	2	224	0	0	226	0	0	0	0	0	0	158	4	0	162	390
5:30 PM	3	0	2	0	5	4	204	0	0	208	0	0	0	0	0	0	152	1	0	153	366
5:45 PM	2	0	0	0	2	2	229	0	0	231	0	0	0	0	0	0	149	2	0	151	384
Total	10	0	4	0	14	12	854	0	0	866	0	0	0	0	0	0	571	9	0	580	1460
Grand Total	22	0	8	0	30	22	1685	3	0	1710	0	0	2	0	2	0	1088	18	0	1106	2848
Approach %	73.3	0.0	26.7	0.0		1.3	98.5	0.2	0.0		0.0	0.0	100.0	0.0		0.0	98.4	1.6	0.0		
Total %	0.8	0.0	0.3	0.0	1.1	0.8	59.2	0.1	0.0	60.0	0.0	0.0	0.1	0.0	0.1	0.0	38.2	0.6	0.0	38.8	
Exiting Leg Total					40					1096					3					1709	2848
Cars	22	0	8	0	30	22	1661	3	0	1686	0	0	2	0	2	0	1069	18	0	1087	2805
% Cars	100.0	0.0	100.0	0.0	100.0	100.0	98.6	100.0	0.0	98.6	0.0	0.0	100.0	0.0	100.0	0.0	98.3	100.0	0.0	98.3	98.5
Exiting Leg Total					40					1077					3					1685	2805
Heavy Vehicles	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	0	19	0	0	19	43
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.7	1.5
Exiting Leg Total					0					19					0					24	43

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	4	0	1	0	5	4	197	0	0	201	0	0	0	0	0	0	112	2	0	114	320
5:15 PM	1	0	1	0	2	2	224	0	0	226	0	0	0	0	0	0	158	4	0	162	390
5:30 PM	3	0	2	0	5	4	204	0	0	208	0	0	0	0	0	0	152	1	0	153	366
5:45 PM	2	0	0	0	2	2	229	0	0	231	0	0	0	0	0	0	149	2	0	151	384
Total Volume	10	0	4	0	14	12	854	0	0	866	0	0	0	0	0	0	571	9	0	580	1460
% Approach Total	71.4	0.0	28.6	0.0		1.4	98.6	0.0	0.0		0.0	0.0	0.0	0.0		0.0	98.4	1.6	0.0		
PHF	0.625	0.000	0.500	0.000	0.700	0.750	0.932	0.000	0.000	0.937	0.000	0.000	0.000	0.000	0.000	0.000	0.903	0.563	0.000	0.895	0.936
Cars	10	0	4	0	14	12	842	0	0	854	0	0	0	0	0	0	563	9	0	572	1440
Cars %	100.0	0.0	100.0	0.0	100.0	100.0	98.6	0.0	0.0	98.6	0.0	0.0	0.0	0.0	0.0	0.0	98.6	100.0	0.0	98.6	98.6
Heavy Vehicles	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	8	0	0	8	20
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	1.4
Cars Enter Leg	10	0	4	0	14	12	842	0	0	854	0	0	0	0	0	0	563	9	0	572	1440
Heavy Enter Leg	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	8	0	0	8	20
Total Entering Leg	10	0	4	0	14	12	854	0	0	866	0	0	0	0	0	0	571	9	0	580	1460
Cars Exiting Leg					21					567					0					852	1440
Heavy Exit Leg					0					8					0					12	20
Total Exiting Leg					21					575					0					864	1460

PDI File #: **175530 AA**
Location: **N: Rich Valley Road S: Mahoneys Middle Driveway**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ C. Trearchis**
Site Code: **13831.00**
Count Date: **Wednesday, March 08, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	6	0	2	0	8	3	184	0	0	187	0	0	0	0	0	0	119	3	0	122	317
4:15 PM	3	0	1	0	4	6	212	0	0	218	0	0	0	0	0	0	125	2	0	127	349
4:30 PM	3	0	0	0	3	0	204	0	0	204	0	0	1	0	1	0	116	0	0	116	324
4:45 PM	0	0	1	0	1	1	219	3	0	223	0	0	1	0	1	0	146	4	0	150	375
Total	12	0	4	0	16	10	819	3	0	832	0	0	2	0	2	0	506	9	0	515	1365
5:00 PM	4	0	1	0	5	4	196	0	0	200	0	0	0	0	0	0	109	2	0	111	316
5:15 PM	1	0	1	0	2	2	221	0	0	223	0	0	0	0	0	0	157	4	0	161	386
5:30 PM	3	0	2	0	5	4	199	0	0	203	0	0	0	0	0	0	150	1	0	151	359
5:45 PM	2	0	0	0	2	2	226	0	0	228	0	0	0	0	0	0	147	2	0	149	379
Total	10	0	4	0	14	12	842	0	0	854	0	0	0	0	0	0	563	9	0	572	1440
Grand Total	22	0	8	0	30	22	1661	3	0	1686	0	0	2	0	2	0	1069	18	0	1087	2805
Approach %	73.3	0.0	26.7	0.0		1.3	98.5	0.2	0.0		0.0	0.0	100.0	0.0		0.0	98.3	1.7	0.0		
Total %	0.8	0.0	0.3	0.0	1.1	0.8	59.2	0.1	0.0	60.1	0.0	0.0	0.1	0.0	0.1	0.0	38.1	0.6	0.0	38.8	
Exiting Leg Total					40					1077					3					1685	2805

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	4	0	1	0	5	4	196	0	0	200	0	0	0	0	0	0	109	2	0	111	316
5:15 PM	1	0	1	0	2	2	221	0	0	223	0	0	0	0	0	0	157	4	0	161	386
5:30 PM	3	0	2	0	5	4	199	0	0	203	0	0	0	0	0	0	150	1	0	151	359
5:45 PM	2	0	0	0	2	2	226	0	0	228	0	0	0	0	0	0	147	2	0	149	379
Total Volume	10	0	4	0	14	12	842	0	0	854	0	0	0	0	0	0	563	9	0	572	1440
% Approach Total	71.4	0.0	28.6	0.0		1.4	98.6	0.0	0.0		0.0	0.0	0.0	0.0		0.0	98.4	1.6	0.0		
PHF	0.625	0.000	0.500	0.000	0.700	0.750	0.931	0.000	0.000	0.936	0.000	0.000	0.000	0.000	0.000	0.000	0.896	0.563	0.000	0.888	0.933
Entering Leg	10	0	4	0	14	12	842	0	0	854	0	0	0	0	0	0	563	9	0	572	1440
Exiting Leg					21					567					0					852	1440
Total					35					1421					0					1424	2880

PDI File #: **175530 AA**
Location: **N: Rich Valley Road S: Mahoneys Middle Driveway**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ C. Trearchis**
Site Code: **13831.00**
Count Date: **Wednesday, March 08, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	9
4:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	11	0	0	11	23
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
5:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
5:30 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	7
5:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
Total	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	8	0	0	8	20
Grand Total	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	0	19	0	0	19	43
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	55.8	0.0	0.0	55.8	0.0	0.0	0.0	0.0	0.0	0.0	44.2	0.0	0.0	44.2	
Exiting Leg Total					0					19					0					24	43

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Rich Valley Road					Boston Post Road (Route 20)					Mahoneys Middle Driveway					Boston Post Road (Route 20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	9
4:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	11	0	0	11	23
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.000	0.000	0.600	0.000	0.000	0.000	0.000	0.000	0.000	0.393	0.000	0.000	0.393	0.639
Entering Leg	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	11	0	0	11	23
Exiting Leg					0					11					0					12	23
Total					0					23					0					23	46

PDI File #: **175530 AA**
Location: **N: Rich Valley Road S: Mahoneys Middle Driveway**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ C. Trearchis**
Site Code: **13831.00**
Count Date: **Wednesday, March 08, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Rich Valley Road							Boston Post Road (Route 20)							Mahoneys Middle Driveway							Boston Post Road (Route 20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Rich Valley Road							Boston Post Road (Route 20)							Mahoneys Middle Driveway							Boston Post Road (Route 20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

PDI File #: **175530 AA**
Location: **N: Rich Valley Road S: Mahoneys Middle Driveway**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ C. Trearchis**
Site Code: **13831.00**
Count Date: **Wednesday, March 08, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Pedestrians

	Rich Valley Road							Boston Post Road (Route 20)							Mahoneys Middle Driveway							Boston Post Road (Route 20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Rich Valley Road							Boston Post Road (Route 20)							Mahoneys Middle Driveway							Boston Post Road (Route 20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg							0							0							0							0	0
Total							0							0							0							0	0

Boston Post Road (Route 20)
west of Rich Valley Road
City, State: Wayland, MA
Client: VHB/ C. Trearchis

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

175530 A Volume
Site Code: 13831.00

Start	EB				WB				Combined				03/07/17
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	3		151		19		140		22		291		
12:15	8		126		14		141		22		267		
12:30	10		134		11		146		21		280		
12:45	7	28	117	528	1	45	132	559	8	73	249	1087	
01:00	6		114		6		139		12		253		
01:15	2		142		6		132		8		274		
01:30	4		127		3		152		7		279		
01:45	3	15	137	520	1	16	162	585	4	31	299	1105	
02:00	0		128		4		179		4		307		
02:15	3		128		3		182		6		310		
02:30	0		114		0		170		0		284		
02:45	5	8	148	518	2	9	197	728	7	17	345	1246	
03:00	5		120		2		200		7		320		
03:15	3		110		7		192		10		302		
03:30	4		137		6		220		10		357		
03:45	6	18	135	502	6	21	189	801	12	39	324	1303	
04:00	7		109		3		212		10		321		
04:15	18		116		5		213		23		329		
04:30	10		114		9		201		19		315		
04:45	36	71	121	460	11	28	192	818	47	99	313	1278	
05:00	43		131		19		194		62		325		
05:15	77		155		23		192		100		347		
05:30	135		142		31		200		166		342		
05:45	157	412	136	564	50	123	199	785	207	535	335	1349	
06:00	222		133		82		225		304		358		
06:15	278		134		77		222		355		356		
06:30	162		139		94		217		256		356		
06:45	121	783	101	507	99	352	235	899	220	1135	336	1406	
07:00	69		88		99		177		168		265		
07:15	30		87		110		182		140		269		
07:30	109		76		99		138		208		214		
07:45	118	326	77	328	96	404	120	617	214	730	197	945	
08:00	105		61		100		115		205		176		
08:15	163		66		99		102		262		168		
08:30	166		72		104		84		270		156		
08:45	182	616	59	258	103	406	94	395	285	1022	153	653	
09:00	178		51		135		80		313		131		
09:15	224		57		103		88		327		145		
09:30	200		59		106		69		306		128		
09:45	182	784	32	199	113	457	54	291	295	1241	86	490	
10:00	139		45		114		53		253		98		
10:15	139		23		111		37		250		60		
10:30	157		28		119		43		276		71		
10:45	178	613	19	115	129	473	36	169	307	1086	55	284	
11:00	136		12		103		26		239		38		
11:15	153		13		111		28		264		41		
11:30	141		6		131		25		272		31		
11:45	114	544	7	38	124	469	25	104	238	1013	32	142	
Total	4218		4537		2803		6751		7021		11288		
Percent	60.1%		40.2%		39.9%		59.8%						
Day Total		8755				9554				18309			
Peak	05:45	-	05:15	-	10:45	-	06:00	-	09:00	-	06:00	-	- -
Vol.	819	-	566	-	474	-	899	-	1241	-	1406	-	- -
P.H.F.	0.737		0.913		0.905		0.956		0.949		0.982		

Boston Post Road (Route 20)
west of Rich Valley Road
City, State: Wayland, MA
Client: VHB/ C. Trearchis

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

175530 A Volume
Site Code: 13831.00

Start	EB				WB				Combined				03/08/17
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	8		169		14		132		22		301		
12:15	5		157		15		131		20		288		
12:30	5		137		8		137		13		274		
12:45	6	24	153	616	14	51	175	575	20	75	328	1191	
01:00	3		144		2		146		5		290		
01:15	1		148		7		146		8		294		
01:30	7		140		2		116		9		256		
01:45	8	19	147	579	4	15	165	573	12	34	312	1152	
02:00	6		130		4		153		10		283		
02:15	3		126		3		187		6		313		
02:30	2		155		8		184		10		339		
02:45	8	19	144	555	3	18	182	706	11	37	326	1261	
03:00	4		138		1		205		5		343		
03:15	5		122		3		208		8		330		
03:30	4		126		8		215		12		341		
03:45	12	25	116	502	4	16	198	826	16	41	314	1328	
04:00	7		124		0		190		7		314		
04:15	16		131		4		214		20		345		
04:30	24		120		6		202		30		322		
04:45	21	68	148	523	9	19	223	829	30	87	371	1352	
05:00	41		113		22		194		63		307		
05:15	72		153		19		226		91		379		
05:30	122		153		34		206		156		359		
05:45	141	376	151	570	49	124	223	849	190	500	374	1419	
06:00	240		123		67		190		307		313		
06:15	295		132		72		201		367		333		
06:30	238		138		88		226		326		364		
06:45	132	905	139	532	97	324	242	859	229	1229	381	1391	
07:00	149		132		108		200		257		332		
07:15	107		107		126		176		233		283		
07:30	106		71		95		138		201		209		
07:45	122	484	60	370	107	436	145	659	229	920	205	1029	
08:00	90		63		97		114		187		177		
08:15	143		70		131		116		274		186		
08:30	156		66		117		119		273		185		
08:45	158	547	58	257	107	452	105	454	265	999	163	711	
09:00	210		61		98		97		308		158		
09:15	222		63		113		87		335		150		
09:30	182		62		108		55		290		117		
09:45	167	781	44	230	135	454	61	300	302	1235	105	530	
10:00	165		31		121		55		286		86		
10:15	170		36		127		50		297		86		
10:30	135		16		113		36		248		52		
10:45	135	605	19	102	137	498	52	193	272	1103	71	295	
11:00	135		14		115		46		250		60		
11:15	126		17		134		40		260		57		
11:30	144		21		161		45		305		66		
11:45	168	573	10	62	131	541	28	159	299	1114	38	221	
Total	4426		4898		2948		6982		7374		11880		
Percent	60.0%		41.2%		40.0%		58.8%						
Day Total		9324				9930				19254			
Peak	05:45	-	12:00	-	10:45	-	06:15	-	09:00	-	05:15	-	- -
Vol.	914	-	616	-	547	-	869	-	1235	-	1425	-	- -
P.H.F.	0.775		0.911		0.849		0.898		0.841		0.940		

Boston Post Road (Route 20)
west of Rich Valley Road
City, State: Wayland, MA
Client: VHB/ C. Trearchis

PRECISION DATA INDUSTRIES, LLC
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Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

175530 A Class
Site Code: 13831.00

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/07/1														
7	0	23	4	0	1	0	0	0	0	0	0	0	0	28
01:00	0	12	0	0	0	0	0	2	1	0	0	0	0	15
02:00	0	4	1	1	0	1	0	0	1	0	0	0	0	8
03:00	0	17	1	0	0	0	0	0	0	0	0	0	0	18
04:00	0	54	12	0	3	1	0	0	1	0	0	0	0	71
05:00	0	330	69	4	6	0	0	1	2	0	0	0	0	412
06:00	6	636	117	7	11	2	2	1	0	1	0	0	0	783
07:00	4	295	23	0	2	1	0	0	1	0	0	0	0	326
08:00	4	531	55	6	12	6	1	0	1	0	0	0	0	616
09:00	3	687	63	3	18	4	2	1	3	0	0	0	0	784
10:00	4	517	57	4	18	8	0	0	5	0	0	0	0	613
11:00	3	458	54	3	15	7	0	0	4	0	0	0	0	544
12 PM	4	430	63	3	14	10	0	1	2	1	0	0	0	528
13:00	1	433	55	2	18	5	1	3	0	2	0	0	0	520
14:00	1	431	64	1	13	7	0	0	1	0	0	0	0	518
15:00	1	420	54	4	14	8	0	1	0	0	0	0	0	502
16:00	3	421	30	0	3	2	0	1	0	0	0	0	0	460
17:00	7	502	45	5	3	2	0	0	0	0	0	0	0	564
18:00	9	459	33	1	2	1	0	1	1	0	0	0	0	507
19:00	2	311	13	0	1	0	0	0	1	0	0	0	0	328
20:00	0	245	9	1	1	2	0	0	0	0	0	0	0	258
21:00	0	187	10	0	1	0	0	1	0	0	0	0	0	199
22:00	0	100	13	0	1	0	0	0	1	0	0	0	0	115
23:00	0	36	1	0	1	0	0	0	0	0	0	0	0	38
Total	52	7539	846	45	158	67	6	13	25	4	0	0	0	8755
Percent	0.6%	86.1%	9.7%	0.5%	1.8%	0.8%	0.1%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	09:00	06:00	06:00	09:00	10:00	06:00	01:00	10:00	06:00				09:00
Vol.	6	687	117	7	18	8	2	2	5	1				784
PM Peak	18:00	17:00	14:00	17:00	13:00	12:00	13:00	13:00	12:00	13:00				17:00
Vol.	9	502	64	5	18	10	1	3	2	2				564

Boston Post Road (Route 20)
west of Rich Valley Road
City, State: Wayland, MA
Client: VHB/ C. Trearchis

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

175530 A Class
Site Code: 13831.00

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/08/1														
7	0	21	3	0	0	0	0	0	0	0	0	0	0	24
01:00	1	14	2	0	1	0	0	1	0	0	0	0	0	19
02:00	0	15	1	1	0	1	0	0	1	0	0	0	0	19
03:00	0	23	2	0	0	0	0	0	0	0	0	0	0	25
04:00	0	50	13	0	4	1	0	0	0	0	0	0	0	68
05:00	0	297	67	5	3	3	0	0	1	0	0	0	0	376
06:00	9	710	148	5	23	3	1	1	3	2	0	0	0	905
07:00	6	416	49	1	3	4	0	3	2	0	0	0	0	484
08:00	3	451	73	4	12	3	0	0	1	0	0	0	0	547
09:00	5	631	99	7	25	7	0	3	3	1	0	0	0	781
10:00	4	508	59	2	15	11	0	2	4	0	0	0	0	605
11:00	5	470	69	2	12	8	1	3	2	1	0	0	0	573
12 PM	4	510	71	6	14	7	0	1	3	0	0	0	0	616
13:00	1	476	71	5	11	9	0	2	4	0	0	0	0	579
14:00	3	456	70	2	17	5	0	0	2	0	0	0	0	555
15:00	3	411	74	0	7	6	0	0	1	0	0	0	0	502
16:00	1	460	48	2	9	1	0	1	1	0	0	0	0	523
17:00	9	511	41	1	5	3	0	0	0	0	0	0	0	570
18:00	4	485	30	1	8	4	0	0	0	0	0	0	0	532
19:00	1	351	12	0	2	1	0	1	2	0	0	0	0	370
20:00	0	246	10	0	0	1	0	0	0	0	0	0	0	257
21:00	2	213	15	0	0	0	0	0	0	0	0	0	0	230
22:00	0	92	9	0	0	1	0	0	0	0	0	0	0	102
23:00	0	59	3	0	0	0	0	0	0	0	0	0	0	62
Total	61	7876	1039	44	171	79	2	18	30	4	0	0	0	9324
Percent	0.7%	84.5%	11.1%	0.5%	1.8%	0.8%	0.0%	0.2%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	06:00	06:00	09:00	09:00	10:00	06:00	07:00	10:00	06:00				06:00
Vol.	9	710	148	7	25	11	1	3	4	2				905
PM Peak	17:00	17:00	15:00	12:00	14:00	13:00		13:00	13:00					12:00
Vol.	9	511	74	6	17	9		2	4					616

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Boston Post Road (Route 20)
west of Rich Valley Road
City, State: Wayland, MA
Client: VHB/ C. Trearchis

175530 A Class
Site Code: 13831.00

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/07/1														
7	0	42	1	0	2	0	0	0	0	0	0	0	0	45
01:00	0	16	0	0	0	0	0	0	0	0	0	0	0	16
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
03:00	0	20	1	0	0	0	0	0	0	0	0	0	0	21
04:00	0	20	4	1	1	0	0	1	1	0	0	0	0	28
05:00	0	91	22	1	5	1	0	2	1	0	0	0	0	123
06:00	1	283	46	4	7	8	0	0	2	0	0	0	1	352
07:00	1	329	48	10	6	6	0	0	4	0	0	0	0	404
08:00	3	345	40	5	9	4	0	0	0	0	0	0	0	406
09:00	3	372	51	5	14	10	1	0	1	0	0	0	0	457
10:00	4	380	59	4	16	6	0	0	3	1	0	0	0	473
11:00	0	371	64	2	13	11	4	2	0	2	0	0	0	469
12 PM	2	466	58	3	17	7	1	2	2	1	0	0	0	559
13:00	1	468	74	4	27	6	2	0	2	1	0	0	0	585
14:00	4	627	76	4	8	6	1	0	2	0	0	0	0	728
15:00	8	665	96	3	20	5	0	3	1	0	0	0	0	801
16:00	6	699	91	1	15	1	0	4	1	0	0	0	0	818
17:00	3	718	49	3	10	2	0	0	0	0	0	0	0	785
18:00	10	823	58	4	2	1	0	0	1	0	0	0	0	899
19:00	2	590	17	1	3	2	1	1	0	0	0	0	0	617
20:00	1	369	23	0	1	0	0	0	1	0	0	0	0	395
21:00	0	274	15	0	1	0	0	1	0	0	0	0	0	291
22:00	0	158	10	0	1	0	0	0	0	0	0	0	0	169
23:00	0	96	8	0	0	0	0	0	0	0	0	0	0	104
Total	49	8230	912	55	178	76	10	16	22	5	0	0	1	9554
Percent	0.5%	86.1%	9.5%	0.6%	1.9%	0.8%	0.1%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	10:00	11:00	07:00	10:00	11:00	11:00	05:00	07:00	11:00			06:00	10:00
Vol.	4	380	64	10	16	11	4	2	4	2			1	473
PM Peak	18:00	18:00	15:00	13:00	13:00	12:00	13:00	16:00	12:00	12:00				18:00
Vol.	10	823	96	4	27	7	2	4	2	1				899

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Boston Post Road (Route 20)
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City, State: Wayland, MA
Client: VHB/ C. Trearchis

175530 A Class
Site Code: 13831.00

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/08/1														
7	0	44	6	0	0	0	0	0	1	0	0	0	0	51
01:00	0	13	2	0	0	0	0	0	0	0	0	0	0	15
02:00	0	15	3	0	0	0	0	0	0	0	0	0	0	18
03:00	0	16	0	0	0	0	0	0	0	0	0	0	0	16
04:00	0	18	1	0	0	0	0	0	0	0	0	0	0	19
05:00	0	87	26	4	2	1	0	1	3	0	0	0	0	124
06:00	5	252	43	6	8	7	0	1	1	1	0	0	0	324
07:00	0	355	60	8	6	3	0	2	2	0	0	0	0	436
08:00	2	369	58	8	8	5	0	2	0	0	0	0	0	452
09:00	4	363	53	1	17	11	1	1	3	0	0	0	0	454
10:00	2	382	82	3	15	3	2	4	2	3	0	0	0	498
11:00	6	429	75	4	13	9	2	0	3	0	0	0	0	541
12 PM	5	444	77	5	22	13	2	4	3	0	0	0	0	575
13:00	5	484	56	4	14	5	2	1	2	0	0	0	0	573
14:00	5	589	81	9	12	4	3	1	2	0	0	0	0	706
15:00	2	696	100	4	14	4	2	2	1	1	0	0	0	826
16:00	7	725	74	3	14	5	0	1	0	0	0	0	0	829
17:00	7	773	55	1	7	4	0	2	0	0	0	0	0	849
18:00	13	775	59	1	6	3	0	1	0	1	0	0	0	859
19:00	3	603	45	0	3	2	0	0	2	1	0	0	0	659
20:00	1	424	26	1	1	0	0	0	1	0	0	0	0	454
21:00	2	282	14	0	0	2	0	0	0	0	0	0	0	300
22:00	0	180	12	1	0	0	0	0	0	0	0	0	0	193
23:00	0	147	11	0	1	0	0	0	0	0	0	0	0	159
Total	69	8465	1019	63	163	81	14	23	26	7	0	0	0	9930
Percent	0.7%	85.2%	10.3%	0.6%	1.6%	0.8%	0.1%	0.2%	0.3%	0.1%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	10:00	07:00	09:00	09:00	10:00	10:00	05:00	10:00				11:00
Vol.	6	429	82	8	17	11	2	4	3	3				541
PM Peak	18:00	18:00	15:00	14:00	12:00	12:00	14:00	12:00	12:00	15:00				18:00
Vol.	13	775	100	9	22	13	3	4	3	1				859

Boston Post Road (Route 20)
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PRECISION
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175530 A Speed
Site Code: 13831.00

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
03/07/ 17	0	0	0	1	13	10	4	0	0	0	0	0	0	28	38	35
01:00	0	0	0	1	5	7	1	1	0	0	0	0	0	15	38	36
02:00	0	0	0	0	4	2	2	0	0	0	0	0	0	8	41	36
03:00	0	0	0	0	3	12	2	1	0	0	0	0	0	18	39	37
04:00	0	0	0	1	7	34	22	**6**	**1**	0	0	0	0	71	43	39
05:00	0	0	2	26	159	195	28	1	1	0	0	0	0	412	38	35
06:00	**77**	**45**	**72**	105	347	132	5	0	0	0	0	0	0	783	34	28
07:00	34	14	32	81	118	46	1	0	0	0	0	0	0	326	33	27
08:00	0	1	29	123	263	189	10	1	0	0	0	0	0	616	36	32
09:00	0	1	8	**133**	**419**	188	**34**	1	0	0	0	0	0	**784**	36	33
10:00	0	1	7	81	317	176	29	2	0	0	0	0	0	613	37	33
11:00	1	0	8	68	247	**197**	22	1	0	0	0	0	0	544	37	33
12 PM	0	1	14	75	248	159	**29**	**2**	0	0	0	0	0	528	37	33
13:00	0	0	10	63	237	**181**	27	2	0	0	0	0	0	520	37	34
14:00	0	**5**	**17**	86	275	116	17	2	0	0	0	0	0	518	36	32
15:00	**1**	1	14	98	233	132	22	1	0	0	0	0	0	502	37	32
16:00	0	0	3	68	219	149	21	0	0	0	0	0	0	460	37	33
17:00	0	1	5	87	**310**	145	14	2	0	0	0	0	0	**564**	36	33
18:00	0	0	15	**187**	236	66	3	0	0	0	0	0	0	507	33	31
19:00	0	1	9	66	163	80	8	1	0	0	0	0	0	328	36	32
20:00	0	1	3	30	111	94	19	0	0	0	0	0	0	258	37	34
21:00	0	0	4	21	94	71	9	0	0	0	0	0	0	199	37	34
22:00	0	0	1	12	40	49	13	0	0	0	0	0	0	115	38	35
23:00	0	0	1	2	9	18	7	1	0	0	0	0	0	38	40	36
Total	113	72	254	1415	4077	2448	349	25	2	0	0	0	0	8755		
%	1.3%	0.8%	2.9%	16.2%	46.6%	28.0%	4.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	06:00	06:00	09:00	09:00	11:00	09:00	04:00	04:00					09:00		
Vol.	77	45	72	133	419	197	34	6	1					784		
PM Peak	15:00	14:00	14:00	18:00	17:00	13:00	12:00	12:00						17:00		
Vol.	1	5	17	187	310	181	29	2						564		

Stats

15th Percentile :	27 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	38 MPH
Mean Speed(Average) :	32 MPH
10 MPH Pace Speed :	30-39 MPH
Number in Pace :	6525
Percent in Pace :	74.5%
Number of Vehicles > 35 MPH :	2334
Percent of Vehicles > 35 MPH :	26.7%

PRECISION
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175530 A Speed
Site Code: 13831.00

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
03/08/ 17	0	0	0	0	4	13	2	3	**1**	**1**	0	0	0	24	46	39
01:00	0	0	1	1	9	5	3	0	0	0	0	0	0	19	39	34
02:00	0	0	0	0	8	8	2	1	0	0	0	0	0	19	39	36
03:00	0	0	0	0	5	12	6	2	0	0	0	0	0	25	42	38
04:00	0	0	0	0	4	40	22	2	0	0	0	0	0	68	42	39
05:00	0	0	0	11	128	179	54	**4**	0	0	0	0	0	376	39	36
06:00	**20**	13	**118**	**347**	296	104	7	0	0	0	0	0	0	**905**	33	29
07:00	19	**19**	62	160	156	61	7	0	0	0	0	0	0	484	33	28
08:00	0	3	12	78	209	212	31	2	0	0	0	0	0	547	37	34
09:00	3	3	7	81	**361**	**288**	33	4	0	1	0	0	0	781	37	34
10:00	0	1	14	88	231	209	**59**	3	0	0	0	0	0	605	38	34
11:00	0	0	3	52	209	251	56	2	0	0	0	0	0	573	38	35
12 PM	**9**	9	25	91	239	204	33	**6**	0	0	0	0	0	**616**	37	33
13:00	4	**13**	**32**	76	183	**228**	42	1	0	0	0	0	0	579	38	33
14:00	3	8	17	102	211	182	30	2	0	0	0	0	0	555	37	33
15:00	0	0	7	53	197	192	48	5	0	0	0	0	0	502	38	34
16:00	0	1	8	51	206	195	**57**	5	0	0	0	0	0	523	38	34
17:00	1	5	5	71	259	188	37	3	1	0	0	0	0	570	37	34
18:00	1	0	16	**103**	**297**	107	8	0	0	0	0	0	0	532	35	32
19:00	0	3	18	71	154	110	14	0	0	0	0	0	0	370	37	32
20:00	0	3	12	28	143	62	7	1	1	0	0	0	0	257	36	32
21:00	0	0	1	27	102	88	12	0	0	0	0	0	0	230	37	34
22:00	0	0	1	17	27	39	15	3	0	0	0	0	0	102	39	35
23:00	0	1	1	2	15	29	10	2	**2**	0	0	0	0	62	41	37
Total	60	82	360	1510	3653	3006	595	51	5	2	0	0	0	9324		
%	0.6%	0.9%	3.9%	16.2%	39.2%	32.2%	6.4%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	07:00	06:00	06:00	09:00	09:00	10:00	05:00	00:00	00:00				06:00		
Vol.	20	19	118	347	361	288	59	4	1	1				905		
PM Peak	12:00	13:00	13:00	18:00	18:00	13:00	16:00	12:00	23:00					12:00		
Vol.	9	13	32	103	297	228	57	6	2					616		

Stats

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	40 MPH
Mean Speed(Average) :	33 MPH
10 MPH Pace Speed :	30-39 MPH
Number in Pace :	6659
Percent in Pace :	71.4%
Number of Vehicles > 35 MPH :	3058
Percent of Vehicles > 35 MPH :	32.8%

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175530 A Speed
Site Code: 13831.00

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
03/07/ 17	0	0	1	1	13	17	10	2	**1**	0	0	0	0	45	42	37
01:00	0	0	0	1	1	5	6	3	0	0	0	0	0	16	45	40
02:00	0	0	0	1	0	4	2	1	0	**1**	0	0	0	9	47	40
03:00	0	0	0	1	5	11	4	0	0	0	0	0	0	21	40	36
04:00	0	0	1	0	2	9	11	4	1	0	0	0	0	28	45	40
05:00	0	0	0	4	11	65	40	3	0	0	0	0	0	123	42	38
06:00	0	**3**	**23**	22	59	170	**73**	2	0	0	0	0	0	352	40	35
07:00	0	0	10	19	142	178	49	6	0	0	0	0	0	404	38	35
08:00	**5**	1	3	**35**	88	195	73	6	0	0	0	0	0	406	40	36
09:00	0	1	2	30	152	200	66	6	0	0	0	0	0	457	39	35
10:00	0	0	7	27	**154**	225	52	**8**	0	0	0	0	0	**473**	38	35
11:00	0	0	0	10	139	**261**	54	4	1	0	0	0	0	469	38	36
12 PM	0	0	3	23	195	252	**79**	**6**	**1**	0	0	0	0	559	39	36
13:00	3	3	11	41	236	231	55	5	0	0	0	0	0	585	38	34
14:00	2	3	25	66	250	314	68	0	0	0	0	0	0	728	38	34
15:00	**6**	10	23	85	284	327	64	2	0	0	0	0	0	801	38	34
16:00	0	1	8	59	332	362	53	3	0	0	0	0	0	818	38	34
17:00	1	4	9	59	287	**370**	51	4	0	0	0	0	0	785	38	34
18:00	6	**19**	**35**	**129**	**373**	308	29	0	0	0	0	0	0	**899**	37	32
19:00	0	2	10	51	221	279	53	1	0	0	0	0	0	617	38	35
20:00	0	0	2	22	86	213	69	3	0	0	0	0	0	395	39	36
21:00	0	0	1	4	84	163	36	1	1	0	**1**	0	0	291	38	36
22:00	0	0	3	12	29	81	41	3	0	0	0	0	0	169	41	37
23:00	0	0	1	0	27	61	14	0	0	**1**	0	0	0	104	38	36
Total	23	47	178	702	3170	4301	1052	73	5	2	1	0	0	9554		
%	0.2%	0.5%	1.9%	7.3%	33.2%	45.0%	11.0%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	06:00	06:00	08:00	10:00	11:00	06:00	10:00	00:00	02:00				10:00		
Vol.	5	3	23	35	154	261	73	8	1	1				473		
PM Peak	15:00	18:00	18:00	18:00	18:00	17:00	12:00	12:00	12:00	23:00	21:00			18:00		
Vol.	6	19	35	129	373	370	79	6	1	1	1			899		

Stats

15th Percentile :	29 MPH
50th Percentile :	34 MPH
85th Percentile :	38 MPH
95th Percentile :	42 MPH
Mean Speed(Average) :	35 MPH
10 MPH Pace Speed :	30-39 MPH
Number in Pace :	7471
Percent in Pace :	78.2%
Number of Vehicles > 35 MPH :	4574
Percent of Vehicles > 35 MPH :	47.9%

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Boston Post Road (Route 20)
west of Rich Valley Road
City, State: Wayland, MA
Client: VHB/ C. Trearchis

175530 A Speed
Site Code: 13831.00

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
03/08/ 17	0	0	1	1	10	21	16	2	0	0	0	0	0	51	42	37
01:00	0	0	0	0	3	6	5	0	1	0	0	0	0	15	42	39
02:00	0	0	0	0	3	9	5	1	0	0	0	0	0	18	42	38
03:00	0	0	0	1	1	9	2	3	0	0	0	0	0	16	45	39
04:00	0	0	0	0	1	10	8	0	0	0	0	0	0	19	42	39
05:00	0	0	0	3	16	65	35	5	0	0	0	0	0	124	42	38
06:00	**1**	3	**24**	16	68	146	58	6	**2**	0	0	0	0	324	40	35
07:00	0	1	19	**51**	114	202	47	2	0	0	0	0	0	436	38	34
08:00	1	**7**	6	24	104	227	**74**	**9**	0	0	0	0	0	452	40	36
09:00	1	2	6	30	126	216	69	4	0	0	0	0	0	454	39	35
10:00	0	0	1	20	**158**	251	65	2	1	0	0	0	0	498	38	36
11:00	0	0	9	33	128	**295**	71	5	0	0	0	0	0	**541**	38	36
12 PM	3	5	9	33	174	289	56	5	**1**	0	0	0	0	575	38	35
13:00	5	10	12	35	143	275	88	5	0	0	0	0	0	573	39	35
14:00	**9**	**12**	12	62	143	351	113	4	0	0	0	0	0	706	39	35
15:00	0	6	17	54	202	440	99	**8**	0	0	0	0	0	826	38	35
16:00	4	2	8	26	204	**451**	**127**	7	0	0	0	0	0	829	39	36
17:00	1	11	**22**	51	311	400	48	5	0	0	0	0	0	849	38	34
18:00	3	1	13	**97**	**453**	267	25	0	0	0	0	0	0	**859**	37	33
19:00	0	1	12	47	290	270	38	1	0	0	0	0	0	659	37	34
20:00	0	0	2	36	169	208	37	1	0	**1**	0	0	0	454	38	35
21:00	0	0	1	2	85	174	35	3	0	0	0	0	0	300	38	36
22:00	0	0	1	7	46	106	32	0	1	0	0	0	0	193	39	36
23:00	0	0	0	0	26	79	50	4	0	0	0	0	0	159	42	38
Total	28	61	175	629	2978	4767	1203	82	6	1	0	0	0	9930		
%	0.3%	0.6%	1.8%	6.3%	30.0%	48.0%	12.1%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	08:00	06:00	07:00	10:00	11:00	08:00	08:00	06:00					11:00		
Vol.	1	7	24	51	158	295	74	9	2					541		
PM Peak	14:00	14:00	17:00	18:00	18:00	16:00	16:00	15:00	12:00	20:00				18:00		
Vol.	9	12	22	97	453	451	127	8	1	1				859		

Stats

15th Percentile :	30 MPH
50th Percentile :	35 MPH
85th Percentile :	38 MPH
95th Percentile :	42 MPH
Mean Speed(Average) :	35 MPH
10 MPH Pace Speed :	30-39 MPH
Number in Pace :	7745
Percent in Pace :	78.0%
Number of Vehicles > 35 MPH :	5106
Percent of Vehicles > 35 MPH :	51.4%

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 A**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars, Heavy Vehicles, and Buses (Combined)

	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	102	0	0	103	0	0	0	0	1	0	1	1	126	1	0	0	0	128	0	0	0	0	0	0	0	235
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	122	0	0	122	0	0	0	0	3	0	3	0	130	0	0	0	0	130	0	0	0	0	0	0	0	255
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	6	0	8	0	0	0	109	0	0	109	0	0	0	0	5	0	5	1	130	4	0	0	0	135	0	0	0	0	0	0	0	257
7:45 AM	0	0	0	0	0	0	0	0	0	3	0	1	0	4	0	0	0	130	0	0	130	0	0	0	0	2	0	2	2	124	3	0	1	0	130	0	0	0	0	0	0	0	266
Total	0	0	0	0	0	0	0	0	0	8	0	7	0	15	0	1	0	463	0	0	464	0	0	0	0	11	0	11	4	510	8	0	1	0	523	0	0	0	0	0	0	0	1013
8:00 AM	0	0	0	1	0	0	1	1	0	2	0	0	0	3	0	0	0	129	0	0	129	0	0	0	0	4	0	4	0	125	1	1	0	0	127	0	0	0	0	0	0	0	264
8:15 AM	0	1	0	0	0	0	1	0	0	1	0	1	0	2	0	0	0	114	0	0	114	0	1	0	0	2	0	3	0	189	2	0	0	0	191	0	0	0	0	0	0	0	311
8:30 AM	0	0	0	0	0	0	0	0	0	4	1	2	0	7	0	0	2	110	0	0	112	0	1	1	0	2	0	4	1	166	5	0	0	0	172	0	0	0	0	0	0	0	295
8:45 AM	0	0	0	0	0	0	0	0	0	1	1	3	0	5	0	1	0	95	0	0	96	0	0	0	0	5	0	5	1	164	0	0	0	0	165	0	0	0	0	0	0	0	271
Total	0	1	0	1	0	0	2	1	0	8	2	6	0	17	0	1	2	448	0	0	451	0	2	1	0	13	0	16	2	644	8	1	0	0	655	0	0	0	0	0	0	0	1141
Grand Total	0	1	0	1	0	0	2	1	0	16	2	13	0	32	0	2	2	911	0	0	915	0	2	1	0	24	0	27	6	1154	16	1	1	0	1178	0	0	0	0	0	0	0	2154
Approach %	0.0	50.0	0.0	50.0	0.0	0.0		3.1	0.0	50.0	6.3	40.6	0.0		0.0	0.2	0.2	99.6	0.0	0.0		0.0	7.4	3.7	0.0	88.9	0.0		0.5	98.0	1.4	0.1	0.1	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.7	0.1	0.6	0.0	1.5	0.0	0.1	0.1	42.3	0.0	0.0	42.5	0.0	0.1	0.0	0.0	1.1	0.0	1.3	0.3	53.6	0.7	0.0	0.0	0.0	54.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							5							18							1168							8							952							3	2154
Cars	0	0	0	1	0	0	1	1	0	16	2	13	0	32	0	1	2	855	0	0	858	0	2	1	0	20	0	23	5	1082	14	1	1	0	1103	0	0	0	0	0	0	0	2017
% Cars	0.0	0.0	0.0	100.0	0.0	0.0	50.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	0.0	50.0	100.0	93.9	0.0	0.0	93.8	0.0	100.0	100.0	0.0	83.3	0.0	85.2	83.3	93.8	87.5	100.0	100.0	0.0	93.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.6
Exiting Leg Total							4							16							1096							7							891							3	2017
Heavy Vehicles	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	53	0	0	54	0	0	0	0	2	0	2	1	72	2	0	0	0	75	0	0	0	0	0	0	0	132
% Heavy Vehicles	0.0	100.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	5.8	0.0	0.0	5.9	0.0	0.0	0.0	0.0	8.3	0.0	7.4	16.7	6.2	12.5	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
Exiting Leg Total							1							2							72							1							56							0	132
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	8.3	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Exiting Leg Total							0							0							0							0							5							0	5

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
8:00 AM	0	0	0	1	0	0	1	1	0	2	0	0	0	3	0	0	0	129	0	0	129	0	0	0	0	4	0	4	0	125	1	1	0	0	127	0	0	0	0	0	0	0	264
8:15 AM	0	1	0	0	0	0	1	0	0	1	0	1	0	2	0	0	0	114	0	0	114	0	1	0	0	2	0	3	0	189	2	0	0	0	191	0	0	0	0	0	0	0	311
8:30 AM	0	0	0	0	0	0	0	0	0	4	1	2	0	7	0	0	2	110	0	0	112	0	1	1	0	2	0	4	1	166	5	0	0	0	172	0	0	0	0	0	0	0	295
8:45 AM	0	0	0	0	0	0	0	0	0	1	1	3	0	5	0	1	0	95	0	0	96	0	0	0	0	5	0	5	1	164	0	0	0	0	165	0	0	0	0	0	0	0	271
Total Volume	0	1	0	1	0	0	2	1	0	8	2	6	0	17	0	1	2	448	0	0	451	0	2	1	0	13	0	16	2	644	8	1	0	0	655	0	0	0	0	0	0	0	1141
% Approach Total	0.0	50.0	0.0	50.0	0.0	0.0		5.9	0.0	47.1	11.8	35.3	0.0		0.0	0.2	0.4	99.3	0.0	0.0		0.0	12.5	6.3	0.0	81.3	0.0		0.3	98.3	1.2	0.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.000	0.500	0.250	0.000	0.500	0.500	0.500	0.000	0.607	0.000	0.250	0.250	0.868	0.000	0.000	0.874	0.000	0.500	0.250	0.000	0.650	0.000	0.800	0.500	0.852	0.400	0.250	0.000	0.000	0.857	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.917
Cars	0	0	0	1	0	0	1	1	0	8	2	6	0	17	0	1	2	422	0	0	425	0	2	1	0	10	0	13	1	607	8	1	0	0	617	0	0	0	0	0	0	0	1073
Cars %	0.0	0.0	0.0	100.0	0.0	0.0	50.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	94.2	0.0	0.0	94.2	0.0	100.0	100.0	0.0	76.9	0.0	81.3	50.0	94.3	100.0	100.0	0.0	0.0	94.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.0
Heavy Vehicles	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	26	0	0	26	0	0	0	0	2	0	2	1	37	0	0	0	0	38	0	0	0	0	0	0	0	67
Heavy Vehicles %	0.0	100.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	5.8	0.0	0.0	0.0	0.0	15.4	0.0	12.5	50.0	5.7	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cars Enter Leg	0	0	0	1	0	0	1	1	0	8	2	6	0	17	0	1	2	422	0	0	425	0	2	1	0	10	0	13	1	607	8	1	0	0	617	0	0	0	0	0	0	0	1073
Heavy Enter Leg	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	26	0	0	26	0	0	0	0	2	0	2	1	37	0	0	0	0	38	0	0	0	0	0	0	0	67
Bus Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Entering Leg	0	1	0	1	0	0	2	1	0	8	2	6	0	17	0	1	2	448	0	0	451	0	2	1	0	13	0	16	2	644	8	1	0	0	655	0	0	0	0	0	0	0	1141
Cars Exiting Leg							4							10							614							3							440							2	1073
Heavy Exiting Leg							0							0							37							1							29							0	67
Buses Exiting Leg							0							0							0							0							1							0	1
Total Exiting Leg							4							10							651							4							470							2	1141

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 A**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Cars

	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	93	0	0	93	0	0	0	0	1	0	1	1	119	1	0	0	0	121	0	0	0	0	0	0	0	218
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	0	0	115	0	0	0	0	2	0	2	0	117	0	0	0	0	117	0	0	0	0	0	0	0	234
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	6	0	8	0	0	0	104	0	0	104	0	0	0	0	5	0	5	1	122	3	0	0	0	126	0	0	0	0	0	0	0	243
7:45 AM	0	0	0	0	0	0	0	0	0	3	0	1	0	4	0	0	0	121	0	0	121	0	0	0	0	2	0	2	2	117	2	0	1	0	122	0	0	0	0	0	0	0	249
Total	0	0	0	0	0	0	0	0	0	8	0	7	0	15	0	0	0	433	0	0	433	0	0	0	0	10	0	10	4	475	6	0	1	0	486	0	0	0	0	0	0	0	944
8:00 AM	0	0	0	1	0	0	1	1	0	2	0	0	0	3	0	0	0	118	0	0	118	0	0	0	0	4	0	4	0	114	1	1	0	0	116	0	0	0	0	0	0	0	242
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	108	0	0	108	0	1	0	0	1	0	2	0	184	2	0	0	0	186	0	0	0	0	0	0	0	298
8:30 AM	0	0	0	0	0	0	0	0	0	4	1	2	0	7	0	0	2	105	0	0	107	0	1	1	0	2	0	4	1	155	5	0	0	0	161	0	0	0	0	0	0	0	279
8:45 AM	0	0	0	0	0	0	0	0	0	1	1	3	0	5	0	1	0	91	0	0	92	0	0	0	0	3	0	3	0	154	0	0	0	0	154	0	0	0	0	0	0	0	254
Total	0	0	0	1	0	0	1	1	0	8	2	6	0	17	0	1	2	422	0	0	425	0	2	1	0	10	0	13	1	607	8	1	0	0	617	0	0	0	0	0	0	0	1073
Grand Total	0	0	0	1	0	0	1	1	0	16	2	13	0	32	0	1	2	855	0	0	858	0	2	1	0	20	0	23	5	1082	14	1	1	0	1103	0	0	0	0	0	0	0	2017
Approach %	0.0	0.0	0.0	100.0	0.0	0.0		3.1	0.0	50.0	6.3	40.6	0.0		0.0	0.1	0.2	99.7	0.0	0.0		0.0	8.7	4.3	0.0	87.0	0.0		0.5	98.1	1.3	0.1	0.1	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.1	0.6	0.0	1.6	0.0	0.0	0.1	42.4	0.0	0.0	42.5	0.0	0.1	0.0	0.0	1.0	0.0	1.1	0.2	53.6	0.7	0.0	0.0	0.0	54.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							4							16							1096							7							891							3	2017

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
8:00 AM	0	0	0	1	0	0	1	1	0	2	0	0	0	3	0	0	0	118	0	0	118	0	0	0	0	4	0	4	0	114	1	1	0	0	116	0	0	0	0	0	0	0	242
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	108	0	0	108	0	1	0	0	1	0	2	0	184	2	0	0	0	186	0	0	0	0	0	0	0	298
8:30 AM	0	0	0	0	0	0	0	0	0	4	1	2	0	7	0	0	2	105	0	0	107	0	1	1	0	2	0	4	1	155	5	0	0	0	161	0	0	0	0	0	0	0	279
8:45 AM	0	0	0	0	0	0	0	0	0	1	1	3	0	5	0	1	0	91	0	0	92	0	0	0	0	3	0	3	0	154	0	0	0	0	154	0	0	0	0	0	0	0	254
Total Volume	0	0	0	1	0	0	1	1	0	8	2	6	0	17	0	1	2	422	0	0	425	0	2	1	0	10	0	13	1	607	8	1	0	0	617	0	0	0	0	0	0	0	1073
% Approach Total	0.0	0.0	0.0	100.0	0.0	0.0		5.9	0.0	47.1	11.8	35.3	0.0		0.0	0.2	0.5	99.3	0.0	0.0		0.0	15.4	7.7	0.0	76.9	0.0		0.2	98.4	1.3	0.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.500	0.500	0.500	0.000	0.607	0.000	0.250	0.250	0.894	0.000	0.000	0.900	0.000	0.500	0.250	0.000	0.625	0.000	0.813	0.250	0.825	0.400	0.250	0.000	0.000	0.829	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900
Entering Leg	0	0	0	1	0	0	1	1	0	8	2	6	0	17	0	1	2	422	0	0	425	0	2	1	0	10	0	13	1	607	8	1	0	0	617	0	0	0	0	0	0	0	1073
Exiting Leg							4							10							614							3							440							2	1073
Total							5							27							1039							16							1057							2	2146

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 A**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Heavy Vehicles

	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8	0	0	9	0	0	0	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	16
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	13	0	0	0	0	13	0	0	0	0	0	0	0	18
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	8	1	0	0	0	9	0	0	0	0	0	0	0	14
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	7	1	0	0	0	8	0	0	0	0	0	0	0	17
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	27	0	0	28	0	0	0	0	0	0	0	0	35	2	0	0	0	37	0	0	0	0	0	0	0	65
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	22
8:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	12
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	16
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	2	0	2	1	10	0	0	0	0	11	0	0	0	0	0	0	0	17
Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	26	0	0	26	0	0	0	0	2	0	2	1	37	0	0	0	0	38	0	0	0	0	0	0	0	67
Grand Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	53	0	0	54	0	0	0	0	2	0	2	1	72	2	0	0	0	75	0	0	0	0	0	0	0	132
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	1.9	0.0	98.1	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		1.3	96.0	2.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.8	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	40.2	0.0	0.0	40.9	0.0	0.0	0.0	0.0	1.5	0.0	1.5	0.8	54.5	1.5	0.0	0.0	0.0	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							1							2							72							1							56							0	132

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	13	0	0	0	0	13	0	0	0	0	0	0	0	18
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	8	1	0	0	0	9	0	0	0	0	0	0	0	14
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	7	1	0	0	0	8	0	0	0	0	0	0	0	17
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	22
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	30	0	0	0	0	0	0	0	0	39	2	0	0	0	41	0	0	0	0	0	0	0	71
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	95.1	4.9	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.682	0.000	0.000	0.682	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.500	0.000	0.000	0.000	0.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.807
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	30	0	0	0	0	0	0	0	0	39	2	0	0	0	41	0	0	0	0	0	0	0	71
Exiting Leg							0							2							39							0							30							0	71
Total							0							2							69							0							71							0	142

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
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PDI File #: **175618 A**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Buses

	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							0							0							5							0	5

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Exiting Leg							0							0							0							0							4							0	4
Total							0							0							3							1							4							0	8

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 A**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

Bicycles (on Roadway and Crosswalks)

	Liquor Store (East Driveway)									Gas Station (West Driveway)									Boston Post Road (Route 20)									Old Connecticut Path (West)									Boston Post Road (Route 20)									Liquor Store (West Driveway)									
	North									Northeast									East									South									West									Northwest									
	Hard Right	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	CW-NES	CW-SWB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total									0									0									1									0									0									0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Liquor Store (East Driveway)									Gas Station (West Driveway)									Boston Post Road (Route 20)									Old Connecticut Path (West)									Boston Post Road (Route 20)									Liquor Store (West Driveway)									
	North									Northeast									East									South									West									Northwest									
	Hard Right	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	CW-NES	CW-SWB	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Exiting Leg									0									0									1									0									0									0	1
Total									0									0									1									0									1									0	2

PRECISION
D A T A
INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 A**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class: **Pedestrians**

	Liquor Store (East Driveway)									Gas Station (West Driveway)									Boston Post Road (Route 20)									Old Connecticut Path (West)									Boston Post Road (Route 20)									Liquor Store (West Driveway)									
	North									Northeast									East									South									West									Northwest									
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Righ	Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Right	Bear Left	Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total									0									0									0									0									0									0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:
7:00 AM

	Liquor Store (East Driveway)									Gas Station (West Driveway)									Boston Post Road (Route 20)									Old Connecticut Path (West)									Boston Post Road (Route 20)									Liquor Store (West Driveway)									
	North									Northeast									East									South									West									Northwest									
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Righ	Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Right	Bear Left	Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg									0									0									0									0									0									0	0
Total									0									0									0									0									0									0	0

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 AA**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Cars, Heavy Vehicles, and Buses (Combined)

	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
4:00 PM	0	0	0	2	0	0	2	0	0	4	2	0	0	6	0	5	0	203	1	0	209	0	1	0	0	6	0	7	7	136	4	1	1	0	149	1	0	0	0	0	0	1	374
4:15 PM	0	3	2	2	0	0	7	0	0	5	2	4	0	11	0	6	2	210	0	0	218	0	0	0	0	6	0	6	6	140	1	0	0	0	147	6	0	0	0	0	0	6	395
4:30 PM	0	2	0	0	0	0	2	0	0	1	1	1	0	3	0	6	1	181	0	0	188	2	0	1	0	15	0	18	1	140	1	0	0	0	142	8	0	0	0	0	0	8	361
4:45 PM	0	2	2	0	0	0	4	0	0	3	2	4	0	9	0	4	0	232	0	0	236	1	0	2	0	13	0	16	4	162	1	0	0	0	167	1	0	0	0	0	0	1	433
Total	0	7	4	4	0	0	15	0	0	13	7	9	0	29	0	21	3	826	1	0	851	3	1	3	0	40	0	47	18	578	7	1	1	0	605	16	0	0	0	0	0	16	1563
5:00 PM	0	3	3	0	0	0	6	1	0	4	1	0	0	6	0	9	0	214	2	0	225	0	0	0	0	10	0	10	4	132	3	0	2	0	141	4	0	0	0	0	0	4	392
5:15 PM	0	3	1	0	0	0	4	0	0	3	2	1	0	6	0	5	0	198	0	0	203	0	0	3	0	6	0	9	2	150	2	1	0	0	155	5	0	0	0	0	0	5	382
5:30 PM	0	0	0	0	0	0	0	0	0	7	3	1	0	11	0	2	0	193	1	0	196	0	1	0	0	13	0	14	5	143	2	2	0	0	152	2	0	1	0	0	0	3	376
5:45 PM	0	2	0	0	0	0	2	0	0	6	0	1	0	7	0	5	0	205	1	0	211	2	0	0	0	15	0	17	2	142	1	0	1	0	146	2	0	0	0	0	0	2	385
Total	0	8	4	0	0	0	12	1	0	20	6	3	0	30	0	21	0	810	4	0	835	2	1	3	0	44	0	50	13	567	8	3	3	0	594	13	0	1	0	0	0	14	1535
Grand Total	0	15	8	4	0	0	27	1	0	33	13	12	0	59	0	42	3	1636	5	0	1686	5	2	6	0	84	0	97	31	1145	15	4	4	0	1199	29	0	1	0	0	0	30	3098
Approach %	0.0	55.6	29.6	14.8	0.0	0.0		1.7	0.0	55.9	22.0	20.3	0.0		0.0	2.5	0.2	97.0	0.3	0.0		5.2	2.1	6.2	0.0	86.6	0.0		2.6	95.5	1.3	0.3	0.3	0.0		96.7	0.0	3.3	0.0	0.0	0.0		
Total %	0.0	0.5	0.3	0.1	0.0	0.0	0.9	0.0	0.0	1.1	0.4	0.4	0.0	1.9	0.0	1.4	0.1	52.8	0.2	0.0	54.4	0.2	0.1	0.2	0.0	2.7	0.0	3.1	1.0	37.0	0.5	0.1	0.1	0.0	38.7	0.9	0.0	0.0	0.0	0.0	0.0	1.0	
Exiting Leg Total							53							17							1167							57							1797							7	3098
Cars	0	15	8	4	0	0	27	1	0	33	13	12	0	59	0	42	3	1598	4	0	1647	5	2	6	0	79	0	92	31	1108	15	4	4	0	1162	29	0	1	0	0	0	30	3017
% Cars	0.0	100.0	100.0	100.0	0.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	97.7	80.0	0.0	97.7	100.0	100.0	100.0	0.0	94.0	0.0	94.8	100.0	96.8	100.0	100.0	100.0	0.0	96.9	100.0	0.0	100.0	0.0	0.0	0.0	100.0	97.4
Exiting Leg Total							53							17							1130							56							1754							7	3017
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	0	0	36	0	0	0	0	5	0	5	0	36	0	0	0	0	36	0	0	0	0	0	0	0	77
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.1	0.0	0.0	0.0	0.0	6.0	0.0	5.2	0.0	3.1	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
Exiting Leg Total							0							0							36							0							41							0	77
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	4
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	20.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Exiting Leg Total							0							0							1							1							2							0	4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
4:45 PM	0	2	2	0	0	0	4	0	0	3	2	4	0	9	0	4	0	232	0	0	236	1	0	2	0	13	0	16	4	162	1	0	0	0	167	1	0	0	0	0	0	1	433
5:00 PM	0	3	3	0	0	0	6	1	0	4	1	0	0	6	0	9	0	214	2	0	225	0	0	0	0	10	0	10	4	132	3	0	2	0	141	4	0	0	0	0	0	4	392
5:15 PM	0	3	1	0	0	0	4	0	0	3	2	1	0	6	0	5	0	198	0	0	203	0	0	3	0	6	0	9	2	150	2	1	0	0	155	5	0	0	0	0	0	5	382
5:30 PM	0	0	0	0	0	0	0	0	0	7	3	1	0	11	0	2	0	193	1	0	196	0	1	0	0	13	0	14	5	143	2	2	0	0	152	2	0	1	0	0	0	3	376
Total Volume	0	8	6	0	0	0	14	1	0	17	8	6	0	32	0	20	0	837	3	0	860	1	1	5	0	42	0	49	15	587	8	3	2	0	615	12	0	1	0	0	0	13	1583
% Approach Total	0.0	57.1	42.9	0.0	0.0	0.0		3.1	0.0	53.1	25.0	18.8	0.0		0.0	2.3	0.0	97.3	0.3	0.0		2.0	2.0	10.2	0.0	85.7	0.0		2.4	95.4	1.3	0.5	0.3	0.0		92.3	0.0	7.7	0.0	0.0	0.0		
PHF	0.000	0.667	0.500	0.000	0.000	0.000	0.583	0.250	0.000	0.607	0.667	0.375	0.000	0.727	0.000	0.556	0.000	0.902	0.375	0.000	0.911	0.250	0.250	0.417	0.000	0.808	0.000	0.766	0.750	0.906	0.667	0.375	0.250	0.000	0.921	0.600	0.000	0.250	0.000	0.000	0.000	0.650	0.914
Cars	0	8	6	0	0	0	14	1	0	17	8	6	0	32	0	20	0	821	3	0	844	1	1	5	0	41	0	48	15	567	8	3	2	0	595	12	0	1	0	0	0	13	1546
Cars %	0.0	100.0	100.0	0.0	0.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	0.0	98.1	100.0	0.0	98.1	100.0	100.0	100.0	0.0	97.6	0.0	98.0	100.0	96.6	100.0	100.0	100.0	0.0	96.7	100.0	0.0	100.0	0.0	0.0	0.0	100.0	97.7
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	0	0	0	1	0	1	0	20	0	0	0	0	20	0	0	0	0	0	0	0	35
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.6	0.0	0.0	0.0	0.0	2.4	0.0	2.0	0.0	3.4	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cars Enter Leg	0	8	6	0	0	0	14	1	0	17	8	6	0	32	0	20	0	821	3	0	844	1	1	5	0	41	0	48	15	567	8	3	2	0	595	12	0	1	0	0	0	13	1546
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	0	0	0	1	0	1	0	20	0	0	0	0	20	0	0	0	0	0	0	0	35
Bus Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Entering Leg	0	8	6	0	0	0	14	1	0	17	8	6	0	32	0	20	0	837	3	0	860	1	1	5	0	42	0	49	15	587	8	3	2	0	615	12	0	1	0	0	0	13	1583
Cars Exiting Leg							29							9							575							32							899							2	1546
Heavy Exiting Leg							0							0							20							0							15							0	35
Buses Exiting Leg							0							0							0							0							2							0	2
Total Exiting Leg							29							9							595							32							916							2	1583

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 AA**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Cars

	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
4:00 PM	0	0	0	2	0	0	2	0	0	4	2	0	0	6	0	5	0	194	0	0	199	0	1	0	0	4	0	5	7	132	4	1	1	0	145	1	0	0	0	0	0	1	358
4:15 PM	0	3	2	2	0	0	7	0	0	5	2	4	0	11	0	6	2	204	0	0	212	0	0	0	0	5	0	5	6	135	1	0	0	0	142	6	0	0	0	0	0	6	383
4:30 PM	0	2	0	0	0	0	2	0	0	1	1	1	0	3	0	6	1	177	0	0	184	2	0	1	0	15	0	18	1	134	1	0	0	0	136	8	0	0	0	0	0	8	351
4:45 PM	0	2	2	0	0	0	4	0	0	3	2	4	0	9	0	4	0	228	0	0	232	1	0	2	0	13	0	16	4	153	1	0	0	0	158	1	0	0	0	0	0	1	420
Total	0	7	4	4	0	0	15	0	0	13	7	9	0	29	0	21	3	803	0	0	827	3	1	3	0	37	0	44	18	554	7	1	1	0	581	16	0	0	0	0	0	16	1512
5:00 PM	0	3	3	0	0	0	6	1	0	4	1	0	0	6	0	9	0	212	2	0	223	0	0	0	0	9	0	9	4	126	3	0	2	0	135	4	0	0	0	0	0	4	383
5:15 PM	0	3	1	0	0	0	4	0	0	3	2	1	0	6	0	5	0	195	0	0	200	0	0	3	0	6	0	9	2	148	2	1	0	0	153	5	0	0	0	0	0	5	377
5:30 PM	0	0	0	0	0	0	0	0	0	7	3	1	0	11	0	2	0	186	1	0	189	0	1	0	0	13	0	14	5	140	2	2	0	0	149	2	0	1	0	0	0	3	366
5:45 PM	0	2	0	0	0	0	2	0	0	6	0	1	0	7	0	5	0	202	1	0	208	2	0	0	0	14	0	16	2	140	1	0	1	0	144	2	0	0	0	0	0	2	379
Total	0	8	4	0	0	0	12	1	0	20	6	3	0	30	0	21	0	795	4	0	820	2	1	3	0	42	0	48	13	554	8	3	3	0	581	13	0	1	0	0	0	14	1505
Grand Total	0	15	8	4	0	0	27	1	0	33	13	12	0	59	0	42	3	1598	4	0	1647	5	2	6	0	79	0	92	31	1108	15	4	4	0	1162	29	0	1	0	0	0	30	3017
Approach %	0.0	55.6	29.6	14.8	0.0	0.0		1.7	0.0	55.9	22.0	20.3	0.0		0.0	2.6	0.2	97.0	0.2	0.0		5.4	2.2	6.5	0.0	85.9	0.0		2.7	95.4	1.3	0.3	0.3	0.0		96.7	0.0	3.3	0.0	0.0	0.0		
Total %	0.0	0.5	0.3	0.1	0.0	0.0	0.9	0.0	0.0	1.1	0.4	0.4	0.0	2.0	0.0	1.4	0.1	53.0	0.1	0.0	54.6	0.2	0.1	0.2	0.0	2.6	0.0	3.0	1.0	36.7	0.5	0.1	0.1	0.0	38.5	1.0	0.0	0.0	0.0	0.0	0.0	1.0	
Exiting Leg Total							53							17							1130							56							1754							7	3017

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
4:45 PM	0	2	2	0	0	0	4	0	0	3	2	4	0	9	0	4	0	228	0	0	232	1	0	2	0	13	0	16	4	153	1	0	0	0	158	1	0	0	0	0	0	1	420
5:00 PM	0	3	3	0	0	0	6	1	0	4	1	0	0	6	0	9	0	212	2	0	223	0	0	0	0	9	0	9	4	126	3	0	2	0	135	4	0	0	0	0	0	4	383
5:15 PM	0	3	1	0	0	0	4	0	0	3	2	1	0	6	0	5	0	195	0	0	200	0	0	3	0	6	0	9	2	148	2	1	0	0	153	5	0	0	0	0	0	5	377
5:30 PM	0	0	0	0	0	0	0	0	0	7	3	1	0	11	0	2	0	186	1	0	189	0	1	0	0	13	0	14	5	140	2	2	0	0	149	2	0	1	0	0	0	3	366
Total Volume	0	8	6	0	0	0	14	1	0	17	8	6	0	32	0	20	0	821	3	0	844	1	1	5	0	41	0	48	15	567	8	3	2	0	595	12	0	1	0	0	0	13	1546
% Approach Total	0.0	57.1	42.9	0.0	0.0	0.0		3.1	0.0	53.1	25.0	18.8	0.0		0.0	2.4	0.0	97.3	0.4	0.0		2.1	2.1	10.4	0.0	85.4	0.0		2.5	95.3	1.3	0.5	0.3	0.0		92.3	0.0	7.7	0.0	0.0	0.0		
PHF	0.000	0.667	0.500	0.000	0.000	0.000	0.583	0.250	0.000	0.607	0.667	0.375	0.000	0.727	0.000	0.556	0.000	0.900	0.375	0.000	0.909	0.250	0.250	0.417	0.000	0.788	0.000	0.750	0.750	0.926	0.667	0.375	0.250	0.000	0.941	0.600	0.000	0.250	0.000	0.000	0.000	0.650	0.920
Entering Leg	0	8	6	0	0	0	14	1	0	17	8	6	0	32	0	20	0	821	3	0	844	1	1	5	0	41	0	48	15	567	8	3	2	0	595	12	0	1	0	0	0	13	1546
Exiting Leg							29							9							575							32							899							2	1546
Total							43							41							1419							80							1494							15	3092

PRECISION DATA INDUSTRIES, LLC
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PDI File #: **175618 AA**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Heavy Vehicles

	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	2	0	2	0	4	0	0	0	0	4	0	0	0	0	0	0	0	15
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	1	0	1	0	5	0	0	0	0	5	0	0	0	0	0	0	0	12
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	10
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	13
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	23	0	0	0	0	3	0	3	0	24	0	0	0	0	24	0	0	0	0	0	0	0	50
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	1	0	1	0	6	0	0	0	0	6	0	0	0	0	0	0	0	9
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	8
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	0	0	0	2	0	2	0	12	0	0	0	0	12	0	0	0	0	0	0	0	27
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	0	0	36	0	0	0	0	5	0	5	0	36	0	0	0	0	36	0	0	0	0	0	0	0	77
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.8	0.0	0.0	46.8	0.0	0.0	0.0	0.0	6.5	0.0	6.5	0.0	46.8	0.0	0.0	0.0	0.0	46.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							36							0							41							0	77

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	2	0	2	0	4	0	0	0	0	4	0	0	0	0	0	0	0	15
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	1	0	1	0	5	0	0	0	0	5	0	0	0	0	0	0	0	12
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	10
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	13
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	23	0	0	0	0	3	0	3	0	24	0	0	0	0	24	0	0	0	0	0	0	0	50
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.639	0.000	0.000	0.639	0.000	0.000	0.000	0.000	0.375	0.000	0.375	0.000	0.667	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.833
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	23	0	0	0	0	3	0	3	0	24	0	0	0	0	24	0	0	0	0	0	0	0	50
Exiting Leg							0							0							24							0							26							0	50
Total							0							0							47							3							50							0	100

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 AA**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class: **Buses**

	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	3
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	4
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	66.7	33.3	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	25.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							0							1							1							2							0	4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Liquor Store (East Driveway)							Gas Station (West Driveway)							Boston Post Road (Route 20)							Old Connecticut Path (West)							Boston Post Road (Route 20)							Liquor Store (West Driveway)							
	North							Northeast							East							South							West							Northwest							
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg							0							0							0							1							0							0	1
Total							0							0							1							1							0							0	2

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 AA**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

Bicycles (on Roadway and Crosswalks)

	Liquor Store (East Driveway)									Gas Station (West Driveway)									Boston Post Road (Route 20)									Old Connecticut Path (West)									Boston Post Road (Route 20)									Liquor Store (West Driveway)									
	North									Northeast									East									South									West									Northwest									
	Hard Right	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	CW-NES	CW-SWB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total									0									0									0									0									2									0	2

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Liquor Store (East Driveway)									Gas Station (West Driveway)									Boston Post Road (Route 20)									Old Connecticut Path (West)									Boston Post Road (Route 20)									Liquor Store (West Driveway)									
	North									Northeast									East									South									West									Northwest									
	Hard Right	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	CW-NES	CW-SWB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg									0									0									0									0									1									0	1
Total									0									0									1									0									1									0	2

PRECISION
D A T A
INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

PDI File #: **175618 AA**
Location: **N: Liquor Store (East Driveway) S: Old Connecticut Path (West) NE: Gas Station (West Driveway) NW: Liquor Store (West Driveway)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20)**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class: **Pedestrians**

	Liquor Store (East Driveway)									Gas Station (West Driveway)									Boston Post Road (Route 20)									Old Connecticut Path (West)									Boston Post Road (Route 20)									Liquor Store (West Driveway)									
	North									Northeast									East									South									West									Northwest									
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	100.0	
Exiting Leg Total									0									0									0									0									0									2	2

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Liquor Store (East Driveway)									Gas Station (West Driveway)									Boston Post Road (Route 20)									Old Connecticut Path (West)									Boston Post Road (Route 20)									Liquor Store (West Driveway)									
	North									Northeast									East									South									West									Northwest									
	Hard Righ	Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Righ	Right	Bear Righ	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Righ	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
Exiting Leg									0									0									0									0									0									2	2
Total									0									0									0									0									0									4	4

PDI File #: **175618 B**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Cars, Heavy Vehicles, and Buses (Combined)

	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	2	102	33	0	0	137	3	0	0	2	0	5	0	128	0	1	0	129	1	0	128	0	0	129	400
7:15 AM	0	0	0	1	0	1	2	122	39	0	0	163	4	0	0	3	0	7	1	128	0	2	0	131	0	0	137	0	0	137	439
7:30 AM	0	0	0	4	0	4	3	109	27	0	0	139	3	0	0	3	0	6	4	125	1	4	0	134	1	0	131	1	0	133	416
7:45 AM	0	0	0	2	0	2	6	130	30	3	0	169	3	0	0	2	0	5	0	128	0	3	0	131	2	0	130	0	0	132	439
Total	0	0	0	7	0	7	13	463	129	3	0	608	13	0	0	10	0	23	5	509	1	10	0	525	4	0	526	1	0	531	1694
8:00 AM	1	0	0	2	0	3	1	128	33	0	0	162	1	0	0	2	0	3	1	121	0	3	0	125	0	0	127	0	0	127	420
8:15 AM	0	0	0	1	0	1	6	113	44	1	0	164	1	0	0	1	0	2	4	109	0	2	0	115	0	0	190	0	0	190	472
8:30 AM	0	0	0	0	0	0	5	112	36	2	0	155	2	0	0	0	0	2	0	142	0	4	0	146	2	0	165	0	0	167	470
8:45 AM	0	0	0	1	0	1	4	95	47	3	0	149	1	0	0	1	0	2	1	139	0	5	0	145	1	0	170	0	0	171	468
Total	1	0	0	4	0	5	16	448	160	6	0	630	5	0	0	4	0	9	6	511	0	14	0	531	3	0	652	0	0	655	1830
Grand Total	1	0	0	11	0	12	29	911	289	9	0	1238	18	0	0	14	0	32	11	1020	1	24	0	1056	7	0	1178	1	0	1186	3524
Approach %	8.3	0.0	0.0	91.7	0.0		2.3	73.6	23.3	0.7	0.0		56.3	0.0	0.0	43.8	0.0		1.0	96.6	0.1	2.3	0.0		0.6	0.0	99.3	0.1	0.0		
Total %	0.0	0.0	0.0	0.3	0.0	0.3	0.8	25.9	8.2	0.3	0.0	35.1	0.5	0.0	0.0	0.4	0.0	0.9	0.3	28.9	0.0	0.7	0.0	30.0	0.2	0.0	33.4	0.0	0.0	33.7	
Exiting Leg Total						31						2227						20						310						936	3524
Cars	0	0	0	9	0	9	28	852	280	7	0	1167	18	0	0	13	0	31	10	1000	1	20	0	1031	7	0	1113	1	0	1121	3359
% Cars	0.0	0.0	0.0	81.8	0.0	75.0	96.6	93.5	96.9	77.8	0.0	94.3	100.0	0.0	0.0	92.9	0.0	96.9	90.9	98.0	100.0	83.3	0.0	97.6	100.0	0.0	94.5	100.0	0.0	94.5	95.3
Exiting Leg Total						30						2140						17						300						872	3359
Heavy Vehicles	1	0	0	2	0	3	1	56	6	1	0	64	0	0	0	0	0	0	0	20	0	2	0	22	0	0	65	0	0	65	154
% Heavy Vehicles	100.0	0.0	0.0	18.2	0.0	25.0	3.4	6.1	2.1	11.1	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	8.3	0.0	2.1	0.0	0.0	5.5	0.0	0.0	5.5	4.4
Exiting Leg Total						1						87						1						6						59	154
Buses	0	0	0	0	0	0	0	3	3	1	0	7	0	0	0	1	0	1	1	0	0	2	0	3	0	0	0	0	0	0	11
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	11.1	0.0	0.6	0.0	0.0	0.0	7.1	0.0	3.1	9.1	0.0	0.0	8.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Exiting Leg Total						0						0						2						4						5	11

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
8:00 AM	1	0	0	2	0	3	1	128	33	0	0	162	1	0	0	2	0	3	1	121	0	3	0	125	0	0	127	0	0	127	420
8:15 AM	0	0	0	1	0	1	6	113	44	1	0	164	1	0	0	1	0	2	4	109	0	2	0	115	0	0	190	0	0	190	472
8:30 AM	0	0	0	0	0	0	5	112	36	2	0	155	2	0	0	0	0	2	0	142	0	4	0	146	2	0	165	0	0	167	470
8:45 AM	0	0	0	1	0	1	4	95	47	3	0	149	1	0	0	1	0	2	1	139	0	5	0	145	1	0	170	0	0	171	468
Total Volume	1	0	0	4	0	5	16	448	160	6	0	630	5	0	0	4	0	9	6	511	0	14	0	531	3	0	652	0	0	655	1830
% Approach Total	20.0	0.0	0.0	80.0	0.0		2.5	71.1	25.4	1.0	0.0		55.6	0.0	0.0	44.4	0.0		1.1	96.2	0.0	2.6	0.0		0.5	0.0	99.5	0.0	0.0		
PHF	0.250	0.000	0.000	0.500	0.000	0.417	0.667	0.875	0.851	0.500	0.000	0.960	0.625	0.000	0.000	0.500	0.000	0.750	0.375	0.900	0.000	0.700	0.000	0.909	0.375	0.000	0.858	0.000	0.000	0.862	0.969
Cars	0	0	0	4	0	4	16	422	157	5	0	600	5	0	0	4	0	9	5	498	0	11	0	514	3	0	614	0	0	617	1744
Cars %	0.0	0.0	0.0	100.0	0.0	80.0	100.0	94.2	98.1	83.3	0.0	95.2	100.0	0.0	0.0	100.0	0.0	100.0	83.3	97.5	0.0	78.6	0.0	96.8	100.0	0.0	94.2	0.0	0.0	94.2	95.3
Heavy Vehicles	1	0	0	0	0	1	0	26	3	1	0	30	0	0	0	0	0	0	0	13	0	2	0	15	0	0	38	0	0	38	84
Heavy Vehicles %	100.0	0.0	0.0	0.0	0.0	20.0	0.0	5.8	1.9	16.7	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	14.3	0.0	2.8	0.0	0.0	5.8	0.0	0.0	5.8	4.6
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	2
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	7.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cars Enter Leg	0	0	0	4	0	4	16	422	157	5	0	600	5	0	0	4	0	9	5	498	0	11	0	514	3	0	614	0	0	617	1744
Heavy Enter Leg	1	0	0	0	0	1	0	26	3	1	0	30	0	0	0	0	0	0	0	13	0	2	0	15	0	0	38	0	0	38	84
Bus Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	2
Total Entering Leg	1	0	0	4	0	5	16	448	160	6	0	630	5	0	0	4	0	9	6	511	0	14	0	531	3	0	652	0	0	655	1830
Cars Exiting Leg						16						1121						10						164						433	1744
Heavy Exiting Leg						0						51						1						3						29	84
Buses Exiting Leg						0						0						1						0						1	2
Total Exiting Leg						16						1172						12						167						463	1830

PDI File #: **175618 B**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars, Heavy Vehicles, and Buses (Combined)

Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
North						East						Southeast						South						West						
Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total

PDI File #: **175618 B**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars**

	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	2	92	29	0	0	123	3	0	0	1	0	4	0	127	0	1	0	128	1	0	123	0	0	124	379
7:15 AM	0	0	0	0	0	0	1	113	39	0	0	153	4	0	0	3	0	7	1	126	0	1	0	128	0	0	128	0	0	128	416
7:30 AM	0	0	0	3	0	3	3	103	25	0	0	131	3	0	0	3	0	6	4	123	1	4	0	132	1	0	126	1	0	128	400
7:45 AM	0	0	0	2	0	2	6	122	30	2	0	160	3	0	0	2	0	5	0	126	0	3	0	129	2	0	122	0	0	124	420
Total	0	0	0	5	0	5	12	430	123	2	0	567	13	0	0	9	0	22	5	502	1	9	0	517	4	0	499	1	0	504	1615
8:00 AM	0	0	0	2	0	2	1	118	33	0	0	152	1	0	0	2	0	3	1	118	0	3	0	122	0	0	116	0	0	116	395
8:15 AM	0	0	0	1	0	1	6	108	44	1	0	159	1	0	0	1	0	2	3	107	0	1	0	111	0	0	183	0	0	183	456
8:30 AM	0	0	0	0	0	0	5	106	34	2	0	147	2	0	0	0	0	2	0	137	0	4	0	141	2	0	153	0	0	155	445
8:45 AM	0	0	0	1	0	1	4	90	46	2	0	142	1	0	0	1	0	2	1	136	0	3	0	140	1	0	162	0	0	163	448
Total	0	0	0	4	0	4	16	422	157	5	0	600	5	0	0	4	0	9	5	498	0	11	0	514	3	0	614	0	0	617	1744
Grand Total	0	0	0	9	0	9	28	852	280	7	0	1167	18	0	0	13	0	31	10	1000	1	20	0	1031	7	0	1113	1	0	1121	3359
Approach %	0.0	0.0	0.0	100.0	0.0		2.4	73.0	24.0	0.6	0.0		58.1	0.0	0.0	41.9	0.0		1.0	97.0	0.1	1.9	0.0		0.6	0.0	99.3	0.1	0.0		
Total %	0.0	0.0	0.0	0.3	0.0	0.3	0.8	25.4	8.3	0.2	0.0	34.7	0.5	0.0	0.0	0.4	0.0	0.9	0.3	29.8	0.0	0.6	0.0	30.7	0.2	0.0	33.1	0.0	0.0	33.4	
Exiting Leg Total						30						2140						17						300						872	3359

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	2	0	2	1	118	33	0	0	152	1	0	0	2	0	3	1	118	0	3	0	122	0	0	116	0	0	116	395
8:15 AM	0	0	0	1	0	1	6	108	44	1	0	159	1	0	0	1	0	2	3	107	0	1	0	111	0	0	183	0	0	183	456
8:30 AM	0	0	0	0	0	0	5	106	34	2	0	147	2	0	0	0	0	2	0	137	0	4	0	141	2	0	153	0	0	155	445
8:45 AM	0	0	0	1	0	1	4	90	46	2	0	142	1	0	0	1	0	2	1	136	0	3	0	140	1	0	162	0	0	163	448
Total Volume	0	0	0	4	0	4	16	422	157	5	0	600	5	0	0	4	0	9	5	498	0	11	0	514	3	0	614	0	0	617	1744
% Approach Total	0.0	0.0	0.0	100.0	0.0		2.7	70.3	26.2	0.8	0.0		55.6	0.0	0.0	44.4	0.0		1.0	96.9	0.0	2.1	0.0		0.5	0.0	99.5	0.0	0.0		
PHF	0.000	0.000	0.000	0.500	0.000	0.500	0.667	0.894	0.853	0.625	0.000	0.943	0.625	0.000	0.000	0.500	0.000	0.750	0.417	0.909	0.000	0.688	0.000	0.911	0.375	0.000	0.839	0.000	0.000	0.843	0.956
Entering Leg	0	0	0	4	0	4	16	422	157	5	0	600	5	0	0	4	0	9	5	498	0	11	0	514	3	0	614	0	0	617	1744
Exiting Leg						16						1121						10						164						433	1744
Total						20						1721						19						678						1050	3488

PDI File #: **175618 B**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	9	1	0	0	10	0	0	0	0	0	0	0	1	0	0	0	1	0	0	5	0	0	5	16
7:15 AM	0	0	0	1	0	1	1	7	0	0	0	8	0	0	0	0	0	0	0	2	0	0	0	2	0	0	9	0	0	9	20
7:30 AM	0	0	0	1	0	1	0	6	2	0	0	8	0	0	0	0	0	0	0	2	0	0	0	2	0	0	5	0	0	5	16
7:45 AM	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	2	0	0	0	2	0	0	8	0	0	8	18
Total	0	0	0	2	0	2	1	30	3	0	0	34	0	0	0	0	0	0	0	7	0	0	0	7	0	0	27	0	0	27	70
8:00 AM	1	0	0	0	0	1	0	10	0	0	0	10	0	0	0	0	0	0	0	3	0	0	0	3	0	0	11	0	0	11	25
8:15 AM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	2	0	0	0	2	0	0	7	0	0	7	14
8:30 AM	0	0	0	0	0	0	0	6	2	0	0	8	0	0	0	0	0	0	0	5	0	0	0	5	0	0	12	0	0	12	25
8:45 AM	0	0	0	0	0	0	0	5	1	1	0	7	0	0	0	0	0	0	0	3	0	2	0	5	0	0	8	0	0	8	20
Total	1	0	0	0	0	1	0	26	3	1	0	30	0	0	0	0	0	0	0	13	0	2	0	15	0	0	38	0	0	38	84
Grand Total	1	0	0	2	0	3	1	56	6	1	0	64	0	0	0	0	0	0	0	20	0	2	0	22	0	0	65	0	0	65	154
Approach %	33.3	0.0	0.0	66.7	0.0		1.6	87.5	9.4	1.6	0.0		0.0	0.0	0.0	0.0	0.0		0.0	90.9	0.0	9.1	0.0		0.0	0.0	100.0	0.0	0.0		
Total %	0.6	0.0	0.0	1.3	0.0	1.9	0.6	36.4	3.9	0.6	0.0	41.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	1.3	0.0	14.3	0.0	0.0	42.2	0.0	0.0	42.2	
Exiting Leg Total						1						87						1						6						59	154

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
8:00 AM	1	0	0	0	0	1	0	10	0	0	0	10	0	0	0	0	0	0	0	3	0	0	0	3	0	0	11	0	0	11	25
8:15 AM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	2	0	0	0	2	0	0	7	0	0	7	14
8:30 AM	0	0	0	0	0	0	0	6	2	0	0	8	0	0	0	0	0	0	0	5	0	0	0	5	0	0	12	0	0	12	25
8:45 AM	0	0	0	0	0	0	0	5	1	1	0	7	0	0	0	0	0	0	0	3	0	2	0	5	0	0	8	0	0	8	20
Total Volume	1	0	0	0	0	1	0	26	3	1	0	30	0	0	0	0	0	0	0	13	0	2	0	15	0	0	38	0	0	38	84
% Approach Total	100.0	0.0	0.0	0.0	0.0		0.0	86.7	10.0	3.3	0.0		0.0	0.0	0.0	0.0	0.0		0.0	86.7	0.0	13.3	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.650	0.375	0.250	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.000	0.250	0.000	0.750	0.000	0.000	0.792	0.000	0.000	0.792	0.840
Entering Leg	1	0	0	0	0	1	0	26	3	1	0	30	0	0	0	0	0	0	0	13	0	2	0	15	0	0	38	0	0	38	84
Exiting Leg						0						51						1						3						29	84
Total						1						81						1						18						67	168

PDI File #: **175618 B**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	3	3	1	0	7	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	9
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	0	3	3	1	0	7	0	0	0	1	0	1	1	0	0	2	0	3	0	0	0	0	0	0	11
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	42.9	42.9	14.3	0.0		0.0	0.0	0.0	100.0	0.0		33.3	0.0	0.0	66.7	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3	27.3	9.1	0.0	63.6	0.0	0.0	0.0	9.1	0.0	9.1	9.1	0.0	0.0	18.2	0.0	27.3	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						0						0						2						4						5	11

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	3	3	1	0	7	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	9
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	42.9	42.9	14.3	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.250	0.250	0.000	0.438	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.450
Entering Leg	0	0	0	0	0	0	0	3	3	1	0	7	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	9
Exiting Leg						0						0						1						4						4	9
Total						0						7						2						5						4	18

PDI File #: **175618 B**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
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Class:

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46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Gas Station (East Driveway)								Boston Post Road (Route 20)								Westway Road								Old Connecticut Path (East)								Boston Post Road (Route 20)								
	North								East								Southeast								South								West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total								0								0								0								1								0	1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Gas Station (East Driveway)								Boston Post Road (Route 20)								Westway Road								Old Connecticut Path (East)								Boston Post Road (Route 20)								
	North								East								Southeast								South								West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg								0								0								0								1								0	1
Total								0								1								0								1								0	2

PDI File #: **175618 B**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Gas Station (East Driveway)								Boston Post Road (Route 20)								Westway Road								Old Connecticut Path (East)								Boston Post Road (Route 20)								
	North								East								Southeast								South								West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total								0								0								0								0								0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Gas Station (East Driveway)								Boston Post Road (Route 20)								Westway Road								Old Connecticut Path (East)								Boston Post Road (Route 20)								
	North								East								Southeast								South								West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg								0								0								0								0								0	0
Total								0								0								0								0								0	0

PDI File #: **175618 BB**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars, Heavy Vehicles, and Buses (Combined)

	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
4:00 PM	3	0	0	1	0	4	8	199	109	1	0	317	0	0	0	1	0	1	1	47	3	6	0	57	10	0	136	0	0	146	525
4:15 PM	0	0	0	2	0	2	5	211	102	2	0	320	3	0	0	1	0	4	3	65	1	7	0	76	10	0	146	0	0	156	558
4:30 PM	0	0	0	1	0	1	3	186	132	1	0	322	2	0	0	3	0	5	4	56	0	16	0	76	2	0	140	2	0	144	548
4:45 PM	0	0	0	0	0	0	5	226	96	0	0	327	0	0	0	3	0	3	5	48	1	15	0	69	8	0	169	1	0	178	577
Total	3	0	0	4	0	7	21	822	439	4	0	1286	5	0	0	8	0	13	13	216	5	44	0	278	30	0	591	3	0	624	2208
5:00 PM	2	0	0	0	0	2	5	218	111	1	0	335	1	0	0	0	0	1	2	56	0	9	0	67	10	0	130	0	0	140	545
5:15 PM	0	0	0	1	0	1	7	196	119	0	0	322	0	0	0	1	0	1	3	76	0	6	0	85	5	0	154	0	0	159	568
5:30 PM	2	3	0	2	0	7	4	188	114	3	0	309	0	0	0	4	0	4	2	67	0	13	0	82	9	0	147	0	0	156	558
5:45 PM	1	0	0	0	0	1	10	201	117	0	0	328	1	0	0	2	0	3	3	78	0	13	0	94	4	0	146	0	0	150	576
Total	5	3	0	3	0	11	26	803	461	4	0	1294	2	0	0	7	0	9	10	277	0	41	0	328	28	0	577	0	0	605	2247
Grand Total	8	3	0	7	0	18	47	1625	900	8	0	2580	7	0	0	15	0	22	23	493	5	85	0	606	58	0	1168	3	0	1229	4455
Approach %	44.4	16.7	0.0	38.9	0.0		1.8	63.0	34.9	0.3	0.0		31.8	0.0	0.0	68.2	0.0		3.8	81.4	0.8	14.0	0.0		4.7	0.0	95.0	0.2	0.0		
Total %	0.2	0.1	0.0	0.2	0.0	0.4	1.1	36.5	20.2	0.2	0.0	57.9	0.2	0.0	0.0	0.3	0.0	0.5	0.5	11.1	0.1	1.9	0.0	13.6	1.3	0.0	26.2	0.1	0.0	27.6	
Exiting Leg Total						55						1675						31						976						1718	4455
Cars	8	3	0	7	0	18	47	1590	886	7	0	2530	7	0	0	15	0	22	22	486	5	82	0	595	57	0	1127	3	0	1187	4352
% Cars	100.0	100.0	0.0	100.0	0.0	100.0	100.0	97.8	98.4	87.5	0.0	98.1	100.0	0.0	0.0	100.0	0.0	100.0	95.7	98.6	100.0	96.5	0.0	98.2	98.3	0.0	96.5	100.0	0.0	96.6	97.7
Exiting Leg Total						55						1627						29						961						1680	4352
Heavy Vehicles	0	0	0	0	0	0	0	33	13	1	0	47	0	0	0	0	0	0	0	6	0	3	0	9	0	0	40	0	0	40	96
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.4	12.5	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	3.5	0.0	1.5	0.0	0.0	3.4	0.0	0.0	3.3	2.2
Exiting Leg Total						0						46						1						13						36	96
Buses	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	1	1	0	0	0	2	1	0	1	0	0	2	7
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.2	0.0	0.0	0.0	0.3	1.7	0.0	0.1	0.0	0.0	0.2	0.2
Exiting Leg Total						0						2						1						2						2	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	5	226	96	0	0	327	0	0	0	3	0	3	5	48	1	15	0	69	8	0	169	1	0	178	577
5:00 PM	2	0	0	0	0	2	5	218	111	1	0	335	1	0	0	0	0	1	2	56	0	9	0	67	10	0	130	0	0	140	545
5:15 PM	0	0	0	1	0	1	7	196	119	0	0	322	0	0	0	1	0	1	3	76	0	6	0	85	5	0	154	0	0	159	568
5:30 PM	2	3	0	2	0	7	4	188	114	3	0	309	0	0	0	4	0	4	2	67	0	13	0	82	9	0	147	0	0	156	558
Total Volume	4	3	0	3	0	10	21	828	440	4	0	1293	1	0	0	8	0	9	12	247	1	43	0	303	32	0	600	1	0	633	2248
% Approach Total	40.0	30.0	0.0	30.0	0.0		1.6	64.0	34.0	0.3	0.0		11.1	0.0	0.0	88.9	0.0		4.0	81.5	0.3	14.2	0.0		5.1	0.0	94.8	0.2	0.0		
PHF	0.500	0.250	0.000	0.375	0.000	0.357	0.750	0.916	0.924	0.333	0.000	0.965	0.250	0.000	0.000	0.500	0.000	0.563	0.600	0.813	0.250	0.717	0.000	0.891	0.800	0.000	0.888	0.250	0.000	0.889	0.974
Cars	4	3	0	3	0	10	21	814	436	3	0	1274	1	0	0	8	0	9	12	243	1	43	0	299	32	0	581	1	0	614	2206
Cars %	100.0	100.0	0.0	100.0	0.0	100.0	100.0	98.3	99.1	75.0	0.0	98.5	100.0	0.0	0.0	100.0	0.0	100.0	100.0	98.4	100.0	100.0	0.0	98.7	100.0	0.0	96.8	100.0	0.0	97.0	98.1
Heavy Vehicles	0	0	0	0	0	0	0	13	3	1	0	17	0	0	0	0	0	0	0	4	0	0	0	4	0	0	19	0	0	19	40
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.7	25.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	1.3	0.0	0.0	3.2	0.0	0.0	3.0	1.8
Buses	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cars Enter Leg	4	3	0	3	0	10	21	814	436	3	0	1274	1	0	0	8	0	9	12	243	1	43	0	299	32	0	581	1	0	614	2206
Heavy Enter Leg	0	0	0	0	0	0	0	13	3	1	0	17	0	0	0	0	0	0	0	4	0	0	0	4	0	0	19	0	0	19	40
Bus Enter Leg	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Entering Leg	4	3	0	3	0	10	21	828	440	4	0	1293	1	0	0	8	0	9	12	247	1	43	0	303	32	0	600	1	0	633	2248
Cars Exiting Leg						23						828						15						479						861	2206
Heavy Exiting Leg						0						23						1						3						13	40
Buses Exiting Leg						0						0						0						1						1	2
Total Exiting Leg						23						851						16						483						875	2248

PDI File #: **175618 BB**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars, Heavy Vehicles, and Buses (Combined)

Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
North						East						Southeast						South						West						
Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total

PDI File #: **175618 BB**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
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Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
4:00 PM	3	0	0	1	0	4	8	190	106	1	0	305	0	0	0	1	0	1	1	46	3	6	0	56	9	0	129	0	0	138	504
4:15 PM	0	0	0	2	0	2	5	205	101	2	0	313	3	0	0	1	0	4	2	64	1	6	0	73	10	0	140	0	0	150	542
4:30 PM	0	0	0	1	0	1	3	183	128	1	0	315	2	0	0	3	0	5	4	55	0	15	0	74	2	0	133	2	0	137	532
4:45 PM	0	0	0	0	0	0	5	222	96	0	0	323	0	0	0	3	0	3	5	46	1	15	0	67	8	0	160	1	0	169	562
Total	3	0	0	4	0	7	21	800	431	4	0	1256	5	0	0	8	0	13	12	211	5	42	0	270	29	0	562	3	0	594	2140
5:00 PM	2	0	0	0	0	2	5	216	108	1	0	330	1	0	0	0	0	1	2	55	0	9	0	66	10	0	126	0	0	136	535
5:15 PM	0	0	0	1	0	1	7	194	119	0	0	320	0	0	0	1	0	1	3	75	0	6	0	84	5	0	151	0	0	156	562
5:30 PM	2	3	0	2	0	7	4	182	113	2	0	301	0	0	0	4	0	4	2	67	0	13	0	82	9	0	144	0	0	153	547
5:45 PM	1	0	0	0	0	1	10	198	115	0	0	323	1	0	0	2	0	3	3	78	0	12	0	93	4	0	144	0	0	148	568
Total	5	3	0	3	0	11	26	790	455	3	0	1274	2	0	0	7	0	9	10	275	0	40	0	325	28	0	565	0	0	593	2212
Grand Total	8	3	0	7	0	18	47	1590	886	7	0	2530	7	0	0	15	0	22	22	486	5	82	0	595	57	0	1127	3	0	1187	4352
Approach %	44.4	16.7	0.0	38.9	0.0		1.9	62.8	35.0	0.3	0.0		31.8	0.0	0.0	68.2	0.0		3.7	81.7	0.8	13.8	0.0		4.8	0.0	94.9	0.3	0.0		
Total %	0.2	0.1	0.0	0.2	0.0	0.4	1.1	36.5	20.4	0.2	0.0	58.1	0.2	0.0	0.0	0.3	0.0	0.5	0.5	11.2	0.1	1.9	0.0	13.7	1.3	0.0	25.9	0.1	0.0	27.3	
Exiting Leg Total						55						1627						29						961						1680	4352

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
5:00 PM	2	0	0	0	0	2	5	216	108	1	0	330	1	0	0	0	0	1	2	55	0	9	0	66	10	0	126	0	0	136	535
5:15 PM	0	0	0	1	0	1	7	194	119	0	0	320	0	0	0	1	0	1	3	75	0	6	0	84	5	0	151	0	0	156	562
5:30 PM	2	3	0	2	0	7	4	182	113	2	0	301	0	0	0	4	0	4	2	67	0	13	0	82	9	0	144	0	0	153	547
5:45 PM	1	0	0	0	0	1	10	198	115	0	0	323	1	0	0	2	0	3	3	78	0	12	0	93	4	0	144	0	0	148	568
Total Volume	5	3	0	3	0	11	26	790	455	3	0	1274	2	0	0	7	0	9	10	275	0	40	0	325	28	0	565	0	0	593	2212
% Approach Total	45.5	27.3	0.0	27.3	0.0		2.0	62.0	35.7	0.2	0.0		22.2	0.0	0.0	77.8	0.0		3.1	84.6	0.0	12.3	0.0		4.7	0.0	95.3	0.0	0.0		
PHF	0.625	0.250	0.000	0.375	0.000	0.393	0.650	0.914	0.956	0.375	0.000	0.965	0.500	0.000	0.000	0.438	0.000	0.563	0.833	0.881	0.000	0.769	0.000	0.874	0.700	0.000	0.935	0.000	0.000	0.950	0.974
Entering Leg	5	3	0	3	0	11	26	790	455	3	0	1274	2	0	0	7	0	9	10	275	0	40	0	325	28	0	565	0	0	593	2212
Exiting Leg						26						845						13						493						835	2212
Total						37						2119						22						818						1428	4424

PDI File #: **175618 BB**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	8	3	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	18
4:15 PM	0	0	0	0	0	0	0	6	1	0	0	7	0	0	0	0	0	0	0	1	0	1	0	2	0	0	6	0	0	6	15
4:30 PM	0	0	0	0	0	0	0	3	4	0	0	7	0	0	0	0	0	0	0	1	0	1	0	2	0	0	7	0	0	7	16
4:45 PM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	2	0	0	0	2	0	0	9	0	0	9	15
Total	0	0	0	0	0	0	0	21	8	0	0	29	0	0	0	0	0	0	0	4	0	2	0	6	0	0	29	0	0	29	64
5:00 PM	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	0	0	1	0	0	0	1	0	0	4	0	0	4	9
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3	0	0	3	6
5:30 PM	0	0	0	0	0	0	0	5	1	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	10
5:45 PM	0	0	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	1	7
Total	0	0	0	0	0	0	0	12	5	1	0	18	0	0	0	0	0	0	0	2	0	1	0	3	0	0	11	0	0	11	32
Grand Total	0	0	0	0	0	0	0	33	13	1	0	47	0	0	0	0	0	0	0	6	0	3	0	9	0	0	40	0	0	40	96
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	70.2	27.7	2.1	0.0		0.0	0.0	0.0	0.0	0.0		0.0	66.7	0.0	33.3	0.0		0.0	0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.4	13.5	1.0	0.0	49.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	3.1	0.0	9.4	0.0	0.0	41.7	0.0	0.0	41.7	
Exiting Leg Total						0						46						1						13						36	96

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	8	3	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	18
4:15 PM	0	0	0	0	0	0	0	6	1	0	0	7	0	0	0	0	0	0	0	1	0	1	0	2	0	0	6	0	0	6	15
4:30 PM	0	0	0	0	0	0	0	3	4	0	0	7	0	0	0	0	0	0	0	1	0	1	0	2	0	0	7	0	0	7	16
4:45 PM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	2	0	0	0	2	0	0	9	0	0	9	15
Total Volume	0	0	0	0	0	0	0	21	8	0	0	29	0	0	0	0	0	0	0	4	0	2	0	6	0	0	29	0	0	29	64
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	72.4	27.6	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	66.7	0.0	33.3	0.0		0.0	0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.656	0.500	0.000	0.000	0.659	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.750	0.000	0.000	0.806	0.000	0.000	0.806	0.889
Entering Leg	0	0	0	0	0	0	0	21	8	0	0	29	0	0	0	0	0	0	0	4	0	2	0	6	0	0	29	0	0	29	64
Exiting Leg						0						33						0						8						23	64
Total						0						62						0						14						52	128

PDI File #: **175618 BB**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
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City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
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Class:

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Office: 508-875-0100 Fax: 508-875-0118
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Buses

	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	2	1	0	0	0	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
Grand Total	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	1	1	0	0	0	2	1	0	1	0	0	2	7
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	66.7	33.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0	0.0		50.0	0.0	50.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.6	14.3	0.0	0.0	42.9	0.0	0.0	0.0	0.0	0.0	0.0	14.3	14.3	0.0	0.0	0.0	28.6	14.3	0.0	14.3	0.0	0.0	28.6	
Exiting Leg Total						0						2						1						2						2	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Gas Station (East Driveway)						Boston Post Road (Route 20)						Westway Road						Old Connecticut Path (East)						Boston Post Road (Route 20)						
	North						East						Southeast						South						West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	2	1	0	0	0	0	1	4
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.000	0.250	0.333
Entering Leg	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	2	1	0	0	0	0	1	4
Exiting Leg						0						1						1						1						1	4
Total						0						2						1						3						2	8

PDI File #: **175618 BB**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Gas Station (East Driveway)								Boston Post Road (Route 20)								Westway Road								Old Connecticut Path (East)								Boston Post Road (Route 20)								
	North								East								Southeast								South								West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3
Grand Total	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	5
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total								0								3								0								0								2	5

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gas Station (East Driveway)								Boston Post Road (Route 20)								Westway Road								Old Connecticut Path (East)								Boston Post Road (Route 20)								
	North								East								Southeast								South								West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3
Exiting Leg								0								2								0								0								1	3
Total								0								3								0								2								1	6

PDI File #: **175618 BB**
Location: **N: Gas Station (East Driveway) S: Old Connecticut Path (East)**
Location: **E: Boston Post Road (Route 20) W: Boston Post Road (Route 20) SE: Westway Road**
City, State: **Wayland, MA**
Client: **VHB/ V. Kalikiri**
Site Code: **13831.00**
Count Date: **Thursday, April 13, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Gas Station (East Driveway)								Boston Post Road (Route 20)								Westway Road								Old Connecticut Path (East)								Boston Post Road (Route 20)								
	North								East								Southeast								South								West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total								0								0								0								0								0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Gas Station (East Driveway)								Boston Post Road (Route 20)								Westway Road								Old Connecticut Path (East)								Boston Post Road (Route 20)								
	North								East								Southeast								South								West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg								0								0								0								0								0	0
Total								0								0								0								0								0	0

MASSACHUSETTS HIGHWAY DEPARTMENT - STATEWIDE TRAFFIC DATA COLLECTION

2011 WEEKDAY SEASONAL FACTORS *

* Note: These are weekday factors. The average of the factors for the year will not equal 1, as weekend data are not considered.

FACTOR GROUP	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
GROUP 1 - WEST INTERSTATE	0.98	0.93	0.90	0.89	0.90	0.88	0.91	0.90	0.89	0.89	0.93	0.95
Use group 2 for R5, R6, & R0 GROUP 2 - RURAL MAJOR COLLECTOR (R-5)	1.12	1.12	1.07	0.99	0.91	0.90	0.86	0.86	0.92	0.93	1.01	1.05
GROUP 3A - RECREATIONAL **(1-4) See below	1.26	1.25	1.20	1.06	0.96	0.89	0.76	0.76	0.92	0.99	1.08	1.14
GROUP 3B - RECREATIONAL ***(5) See below	1.22	1.26	1.22	1.06	0.96	0.90	0.72	0.74	0.97	1.02	1.14	1.15
GROUP 4 - I-495 INTERSTATE	1.02	1.00	1.00	0.96	0.92	0.89	0.85	0.83	0.93	0.96	1.01	1.03
GROUP 5 - EAST INTERSTATE	1.04	1.00	0.96	0.93	0.92	0.91	0.91	0.89	0.93	0.93	0.96	1.01
Use group 6 for U2, U3, U5, U6, U0, R2, & R3 GROUP 6 - URBAN ARTERIALS, COLLECTORS & RURAL ARTERIALS (R-2, R-3)	1.03	1.01	0.96	0.92	0.91	0.90	0.92	0.92	0.93	0.92	0.97	0.97
GROUP 7 - I-84 PROXIMITY (STAS. 17,3921)	1.24	1.24	1.15	1.04	0.99	1.00	0.93	0.89	1.05	1.05	1.05	1.12
GROUP 8 - I-295 PROXIMITY (STA. 6590)	1.00	0.99	0.95	0.92	0.94	0.91	0.93	0.92	0.95	0.94	0.97	0.95
GROUP 9 - I-195 PROXIMITY (STA. 7)	1.13	1.05	1.03	0.95	0.89	0.87	0.86	0.79	0.88	0.91	0.99	1.03

RECREATIONAL: (ALL YEARS)

****GROUP 3A:**

1. CAPE COD (ALL TOWNS)
2. PLYMOUTH(SOUTH OF RTE.3A)

7014, 7079,7080,7090,7091,7092,7093,7094,7095,7096,7097,7108,7178

3. MARTHA'S VINEYARD
4. NANTUCKET

*****GROUP 3B:**

5. PERMANENTS 2 & 189

1066,1067,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,
1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,
1105,1106,1107,1108,1113,1114,1116,2196,2197,2198

2011 AXLE CORRECTION FACTORS

ROAD INVENTORY FUNCTIONAL CLASSIFICATION	AXLE CORRECTION FACTOR
RURAL	
1	0.95
2	0.97
3	0.98
0,5,6	0.98
URBAN	
1	0.96
2	0.98
3	0.98
5	0.98
0,6	0.99
I-84	0.90

Apply I-84 factor to stations: 3290,3929

ROUND OFF

0 - 999.....10
> 1,000.....100

Crash Number	Crash Date	Crash Time	City/Town	Crash Severity	Manner of Collision	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Roadway	Distance And Direction From Intersection
Route 20 at Rich Valley Road / Middle Driveway														
2897483	2/5/2010	3:58 PM	WAYLAND	Non-fatal injury	Single vehicle crash	V1:W	V1:(Collision with utility pole)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	BOSTON POST ROAD / BOSTON POST ROAD Rte 20 W / RICH VALLEY ROAD	
2910457	12/18/2011	5:21 PM	WAYLAND	Non-fatal injury	Rear-end	V1:E	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Passenger car)	P4:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Daylight	Clear	BOSTON POST ROAD	
3287516	8/2/2012	3:25 PM	WAYLAND	Non-fatal injury	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Sand, mud, dirt, oil, gravel	Daylight	Clear	BOSTON POST ROAD	
3371606	1/28/2013	8:37 PM	WAYLAND	Property damage only (none injured)	Single vehicle crash	V1:N	V1:(Collision with tree)	V1:(Passenger car)		Snow	Dark - lighted roadway	Snow/Sleet, hail (freezing rain or drizzle)	RICH VALLEY ROAD / BOSTON POST ROAD	
3422951	4/30/2013	11:31 AM	WAYLAND	Non-fatal injury	Single vehicle crash	V1:S	V1:(Collision with other fixed object (wall, building, tunnel, etc.))	V1:(Passenger car)		Dry	Dark - lighted roadway	Clear	BOSTON POST ROAD	
3482091	5/18/2013	1:47 PM	WAYLAND	Property damage only (none injured)	Angle	V1:S / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Unknown heavy truck, cannot classify)		Dry	Daylight	Clear	BOSTON POST ROAD / RICH VALLEY ROAD	
3964271	9/28/2014	2:13 PM	WAYLAND	Property damage only (none injured)	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Dry	Daylight	Cloudy	BOSTON POST ROAD Rte 20 W	100 feet W of
Route 20 at Old Connecticut Path (West)														
2589157	3/9/2010	3:22 PM	WAYLAND	Non-fatal injury	Head-on	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	BOSTON POST ROAD Rte 20	
2608419	5/26/2010	8:30 AM	WAYLAND	Property damage only (none injured)	Angle	V1:E	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Passenger car)		Dry	Daylight	Clear/Clear	BOSTON POST ROAD	
2671474	11/30/2010	5:21 PM	WAYLAND	Property damage only (none injured)	Single vehicle crash	V1:W	V1:(Collision with light pole or other post/support)	V1:(Single-unit truck (2-axle, 6-tire))		Dry	Other	Clear	BOSTON POST ROAD	30 feet S of
2707667	2/7/2011	1:51 PM	WAYLAND	Property damage only (none injured)	Rear-end	V1:8	V1:()	V1:()		Dry	Daylight	Cloudy	BOSTON POST ROAD	
2750198	7/9/2011	7:20 PM	WAYLAND	Property damage only (none injured)	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD Rte 20 E	
3325388	10/15/2012	7:09 AM	WAYLAND	Property damage only (none injured)	Rear-end	V1:E / V2:E / V3:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car) V3:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	BOSTON POST ROAD	
3422997	3/29/2013	2:52 PM	WAYLAND	Property damage only (none injured)	Angle	V1:W / V2:E	V1:() V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD	
3726091	11/13/2013	4:59 PM	WAYLAND	Property damage only (none injured)	Angle	V1:N / V2:E / V3:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V3:(Passenger car)		Dry	Dusk	Cloudy	BOSTON POST ROAD	
3772729	2/15/2014	5:23 PM	WAYLAND	Property damage only (none injured)	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Snow	Dark - lighted roadway	Cloudy/Snow	BOSTON POST ROAD	

Crash Number	Crash Date	Crash Time	City/Town	Crash Severity	Manner of Collision	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Roadway	Distance And Direction From Intersection
Route 20 at Old Connecticut Path (East) and Westway Road														
2897479	1/8/2010	6:29 AM	WAYLAND	Non-fatal injury	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)		Wet	Dawn	Clear	BOSTON POST ROAD / OLD CONNECTICUT PATH	
2590426	3/29/2010	7:05 AM	WAYLAND	Property damage only (none injured)	Angle	V1:E / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Wet	Daylight	Rain	BOSTON POST ROAD / BOSTON POST ROAD Rte 20 E / OLD CONNECTICUT PATH Rte 126 E	
2596425	4/28/2010	4:29 PM	WAYLAND	Property damage only (none injured)	Angle	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)		Dry	Daylight	Cloudy	BOSTON POST ROAD Rte 20 / OLD CONNECTICUT PATH	
2608423	5/21/2010	2:49 PM	WAYLAND	Property damage only (none injured)	Angle	V1:W / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	OLD CONNECTICUT PATH	
2685728	12/25/2010	8:24 PM	WAYLAND	Non-fatal injury	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Dark - lighted roadway	Clear	OLD CONNECTICUT PATH / BOSTON POST ROAD Rte 20 E	
2702879	1/23/2011	12:37 PM	WAYLAND	Property damage only (none injured)	Angle	V1:E / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:() V2:()		Dry	Daylight	Clear	/ BOSTON POST ROAD Rte 20	
2707677	2/17/2011	8:16 PM	WAYLAND	Property damage only (none injured)	Single vehicle crash	V1:E	V1:(Collision with other movable object)	V1:(Passenger car)		Wet	Dark - lighted roadway	Clear/Clear	BOSTON POST ROAD	
2707674	2/22/2011	8:03 AM	WAYLAND	Property damage only (none injured)	Sideswipe, same direction	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD	
2736215	6/1/2011	1:43 PM	WAYLAND	Property damage only (none injured)	Angle	V1:W / V2:8	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	BOSTON POST ROAD Rte 20 / OLD CONNECTICUT PATH	
2743432	6/18/2011	2:11 PM	WAYLAND	Property damage only (none injured)	Single vehicle crash	V1:E	V1:(Collision with motor vehicle in traffic)	V1:(Single-unit truck (2-axle, 6-tire))		Dry	Daylight	Clear	OLD CONNECTICUT PATH / BOSTON POST ROAD	
2743929	6/24/2011	5:33 PM	WAYLAND	Property damage only (none injured)	Angle	V1:W / V2:N / V3:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V3:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear/Clear	BOSTON POST ROAD Rte 20 W	
2763441	8/25/2011	9:35 AM	WAYLAND	Not Reported	Rear-end	V1:8 / V2:E	V1:() V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	BOSTON POST ROAD	
2910441	12/13/2011	1:13 PM	WAYLAND	Property damage only (none injured)	Angle	V1:E / V2:8	V1:(Collision with motor vehicle in traffic) V2:()	V1:() V2:()		Dry	Daylight	Clear	BOSTON POST ROAD Rte 20 E / OLD CONNECTICUT PATH	
3112235	3/1/2012	5:37 PM	WAYLAND	Property damage only (none injured)	Sideswipe, same direction	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:() V2:(Passenger car)		Snow	Dark - lighted roadway	Snow	BOSTON POST ROAD Rte 20 W	
3226331	5/17/2012	5:16 PM	WAYLAND	Property damage only (none injured)	Angle	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD	
3252363	7/18/2012	4:43 PM	WAYLAND	Property damage only (none injured)	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:() V2:(Passenger car)		Wet	Daylight	Cloudy/Rain	BOSTON POST ROAD / OLD CONNECTICUT PATH / Rte 20	
3287507	9/13/2012	3:58 PM	WAYLAND	Property damage only (none injured)	Angle	V1:W / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Dry	Daylight	Clear	Rte 20 / BOSTON POST ROAD / OLD CONNECTICUT PATH	
3324675	10/4/2012	4:45 PM	WAYLAND	Non-fatal injury	Angle	V1:N / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD Rte 20 W / OLD CONNECTICUT PATH	
3347304	11/5/2012	9:22 AM	WAYLAND	Not Reported	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD / OLD CONNECTICUT PATH	
3347306	11/6/2012	9:34 AM	WAYLAND	Property damage only (none injured)	Rear-end	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD / OLD CONNECTICUT PATH	
3350279	12/21/2012	5:35 PM	WAYLAND	Property damage only (none injured)	Sideswipe, opposite direction	V1:W / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Wet	Dark - lighted roadway	Rain	WESTWAY ROAD / OLD CONNECTICUT PATH	
3385918	2/14/2013	7:59 AM	WAYLAND	Property damage only (none injured)	Rear-end	V1:E / V2:E	V1:() V2:()	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	OLD CONNECTICUT PATH / BOSTON POST ROAD	
3422049	3/9/2013	4:24 PM	WAYLAND	Property damage only (none injured)	Rear-end	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	ANDREW STREET Rte 20 E	
3603814	6/4/2013	11:33 AM	WAYLAND	Non-fatal injury	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD	
3604383	6/26/2013	12:09 PM	WAYLAND	Property damage only (none injured)	Single vehicle crash	V1:W / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	OLD CONNECTICUT PATH / WESTWAY ROAD	
3657940	9/9/2013	7:07 PM	WAYLAND	Property damage only (none injured)	Sideswipe, opposite direction	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Unknown heavy truck, cannot classify)		Dry	Daylight	Clear/Clear	OLD CONNECTICUT PATH / BOSTON POST ROAD Rte 20 E	
3657706	9/25/2013	2:03 PM	WAYLAND	Property damage only (none injured)	Angle	V1:W / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	OLD CONNECTICUT PATH	
3657692	9/27/2013	3:58 PM	WAYLAND	Property damage only (none injured)	Rear-end	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:()	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)		Dry	Daylight	Clear	BOSTON POST ROAD Rte 20 / OLD CONNECTICUT PATH	
3925841	6/17/2014	1:32 PM	WAYLAND	Non-fatal injury	Angle	V1:W / V2:N	V1:() V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD / OLD CONNECTICUT PATH	
4009887	11/3/2014	11:31 AM	WAYLAND	Non-fatal injury	Angle	V1:N / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)		Dry	Daylight	Clear	BOSTON POST ROAD / OLD CONNECTICUT PATH	
3994603	12/2/2014	1:57 PM	WAYLAND	Property damage only (none injured)	Angle	V1:N / V2:E / V3:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:()	V1:(Passenger car) V2:(Truck/trailer) V3:(Tractor/semi-trailer)		Dry	Daylight	Cloudy	BOSTON POST ROAD Rte 20 / OLD CONNECTICUT PATH	

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Wayland, MA COUNT DATE : March 2017

DISTRICT : 3 UNSIGNALIZED : X (0.65) SIGNALIZED : (0.90)

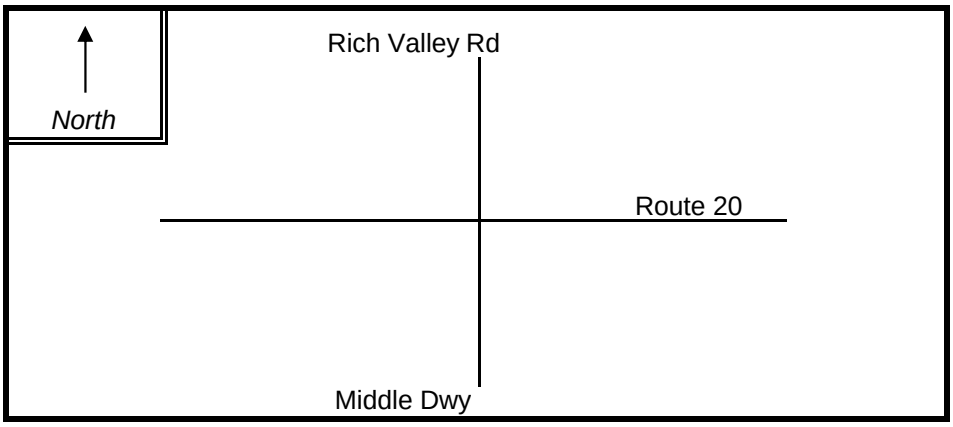
~ INTERSECTION DATA ~

MAJOR STREET : Route 20 (Boston Post Road)

MINOR STREET(S) : Rich Valley Road

Site Driveway Middle

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB	
PEAK HOURLY VOLUMES (AM/**PM**) :	580	860	1	15	**1,456**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **16,178**

TOTAL # OF CRASHES : 7

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **1.40**

CRASH RATE CALCULATION : **0.24**

RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT Accident Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Wayland, MA COUNT DATE : April 2017

DISTRICT : 3 UNSIGNALIZED : X (0.65) SIGNALIZED : (0.90)

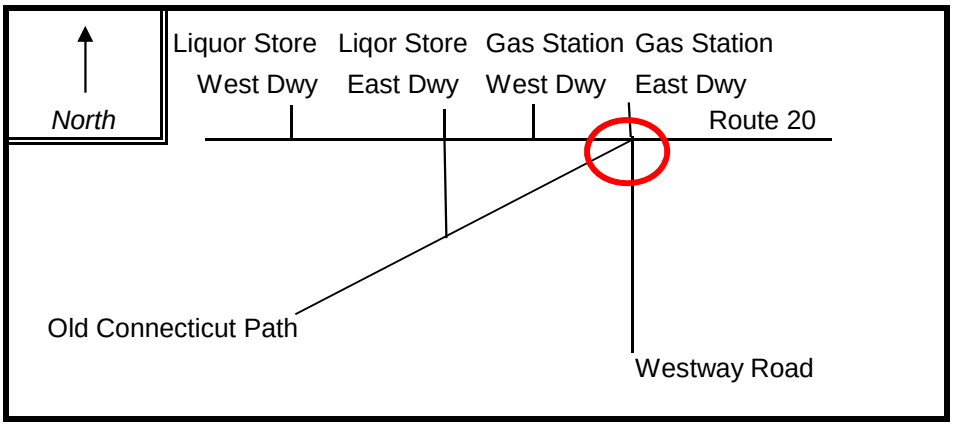
~ INTERSECTION DATA ~

MAJOR STREET : Route 20 (Boston Post Road)

MINOR STREET(S) : Old Connecticut Path East

Westway Road

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB	NWB	
PEAK HOURLY VOLUMES (AM/**PM**) :	635	1,295	305	10	10	**2,255**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **25,056**

TOTAL # OF CRASHES : 31 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **6.20**

CRASH RATE CALCULATION : **0.68** RATE = (A * 1,000,000) / (V * 365)

Comments : MassDOT Accident Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Wayland, MA COUNT DATE : April 2017

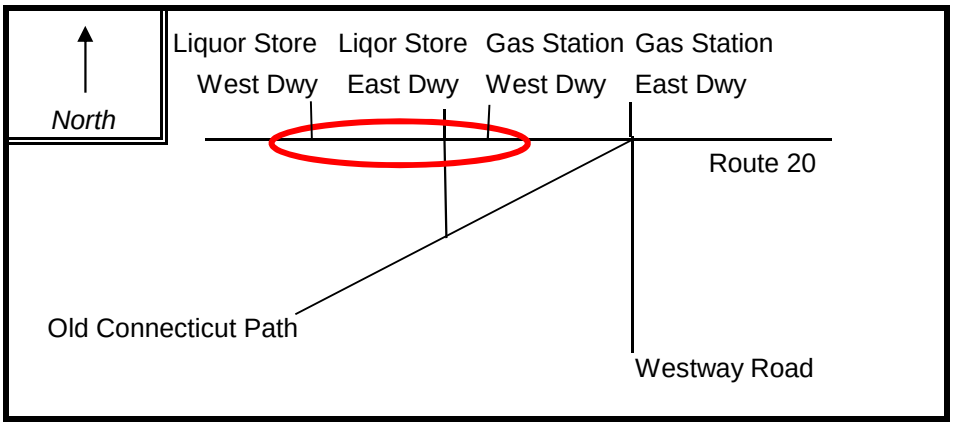
DISTRICT : 3 UNSIGNALIZED : X (0.65) SIGNALIZED : (0.90)

~ INTERSECTION DATA ~

MAJOR STREET : Route 20 (Boston Post Road)

MINOR STREET(S) : Old Connecticut Path West

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	6	Total Peak Hourly Approach
DIRECTION :	EB	WB	NB	SB	SEB	SWB	
PEAK HOURLY VOLUMES (AM/**PM**) :	615	860	50	15	15	30	**1,585**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **17,611**

TOTAL # OF CRASHES : 9

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **1.80**

CRASH RATE CALCULATION : **0.28**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data

Project Title & Date:

TRAFFIC GROWTH CALCULATIONS

Project Name: Edens Management -- Wayland
Project No: 13831.00

		BACKGROUND DEVELOPMENT							
		Town Center		Rivers Edge 40B Development (188 units)		Meadow Walk Sudbury		TOTAL BACKGROUND PROJECTS	
INTERSECTION	MOVEMENT	AM	PM	AM	PM	AM	PM		
ROUTE 20 AT RICH VALLEY ROAD/SITE DRIVEWAY									
Route 20	EB L								
	EB T	5	29	47	26	41	51	93	106
	EB R								
	WB L								
	WB T	10	26	12	48	28	61	50	135
	WB R								
Site Driveway Middle	NB L								
	NB T								
	NB R								
Rich Valley Road	SB L								
	SB T								
	SB R								
ROUTE 20 AT SITE DRIVEWAY EAST									
Route 20	EB T	5	29	47	26	41	51	93	106
	EB R								
	WB L								
	WB T	10	26	12	48	28	61	50	135
Site Driveway East	NB L								
	NB R								
3. ROUTE 20 AT SITE DRIVEWAY WEST									
Route 20	EB T	5	29	47	26	41	51	93	106
	EB R								
	WB L								
	WB T	10	26	12	48	28	61	50	135
Site Driveway West	NB L								
	NB R								

TRAFFIC GROWTH CALCULATIONS

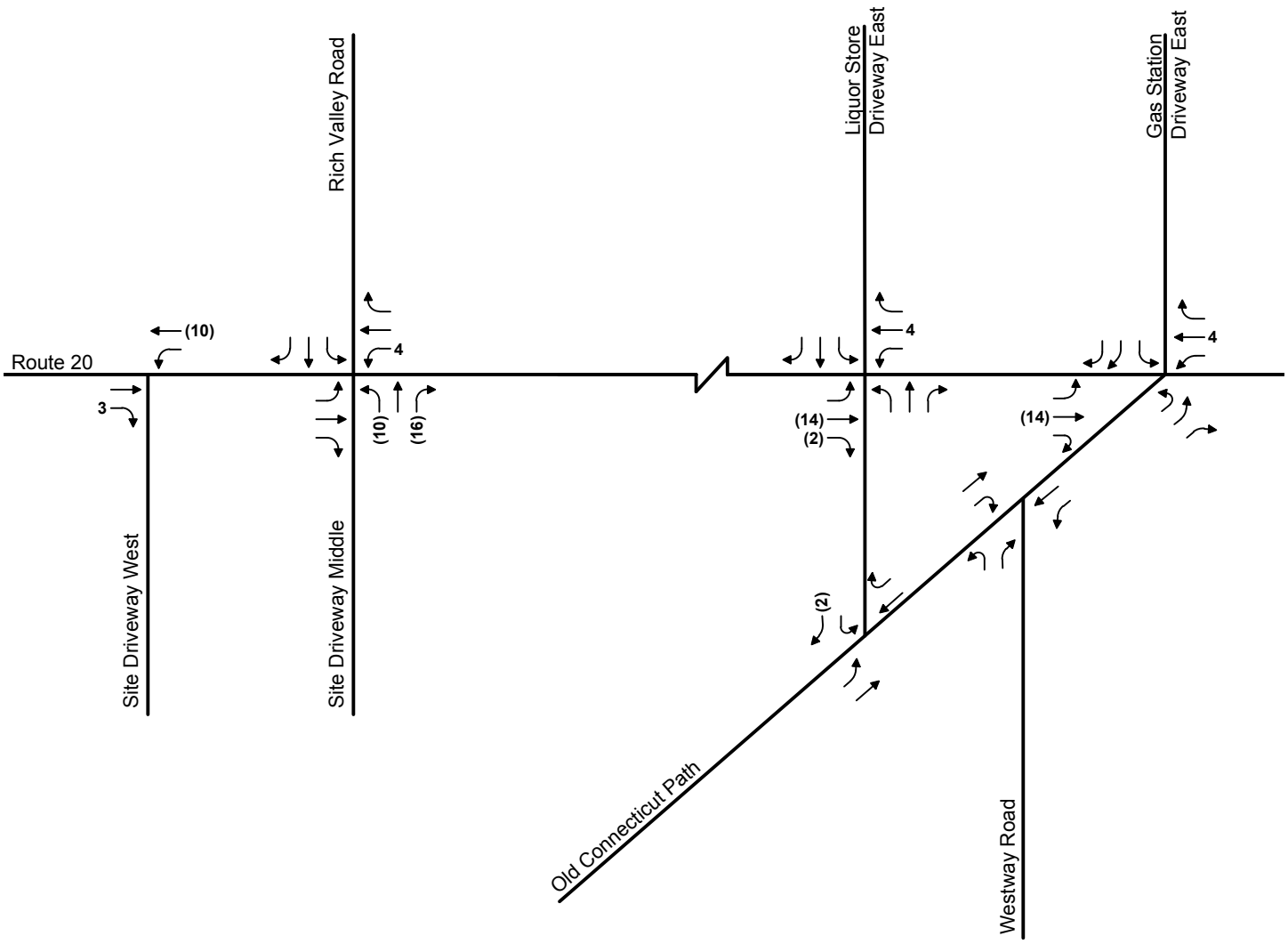
Project Name: Edens Management -- Wayland
Project No: 13831.00

		BACKGROUND DEVELOPMENT							
		Town Center		Rivers Edge 40B Development (188 units)		Meadow Walk Sudbury		TOTAL BACKGROUND PROJECTS	
INTERSECTION	MOVEMENT	AM	PM	AM	PM	AM	PM		
ROUTE 20 AT OLD CONNECTICUT PATH WEST									
Route 20	EB L								
	EB T	5	29	47	26	41	51	93	106
	EB R								
Route 20	WB L								
	WB T	10	26	12	48	28	61	50	135
	WB R								
Old Connecticut Path West	NB L								
	NB T								
	NB R								
Liquor Store Driveway East	SB L								
	SB T								
	SB R								
ROUTE 20 AT OLD CONNECTICUT PATH EAST									
Route 20	EB L								
	EB T	5	29	47	26	41	51	93	106
	EB R								
Route 20	WB L								
	WB T	10	26	12	48	28	61	50	135
	WB R								
Old Connecticut Path East	NB L								
	NB T								
	NB R								
Gas Station East Driveway	SB L								
	SB T								
	SB R								
OLD CONNECTICUT PATH EAST AT WESTWAY ROAD									
Old Connecticut Path	NB T								
	NB R								
	SB L								
	SB T								
Westway Road	NWB L								
	NWB R								

Project Information	
Project Name:	Mahoneys redev - proposed residential
No:	1383100
Date:	2/28/2017
City:	
State/Province:	MA
Zip/Postal Code:	
Country:	
Client Name:	Eden Management
Analyst's Name:	VK
Edition:	ITE-TGM 9th Edition

Land Use	Size	Weekday		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.		Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.		Saturday		Saturday, Peak Hour of Generator	
		Entry	Exit	Entry	Exit	Entry	Exit	Entry	Exit	Entry	Exit
220 - Apartment	60 Dwelling Units	244	244	7	26	33	18	108	107	0	0
Reduction		0	0	0	0	0	0	0	0	0	0
Internal		0	0	0	0	0	0	0	0	0	0
Pass-by		0	0	0	0	0	0	0	0	0	0
Non-pass-by		244	244	7	26	33	18	108	107	0	0
817 - Nursery (Garden Center)	12.31 1000 Sq. Feet Gross Floor Area	419	419	15	15	43	43	821	820	0	0
Reduction		0	0	0	0	0	0	0	0	0	0
Internal		0	0	0	0	0	0	0	0	0	0
Pass-by		0	0	0	0	0	0	0	0	0	0
Non-pass-by		419	419	15	15	43	43	821	820	0	0

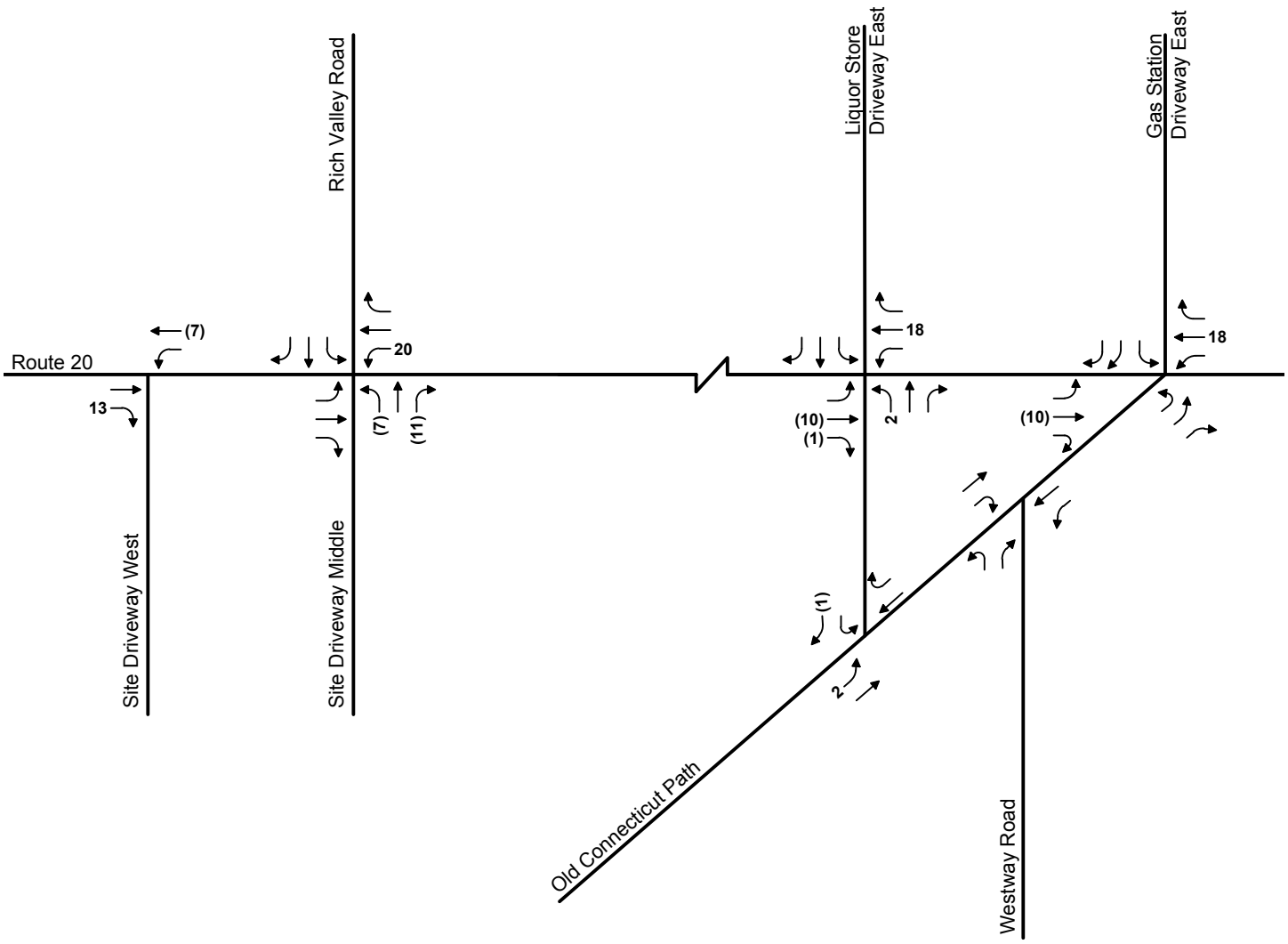
Ⓢ Signalized Intersection
xx = Entering Trips
(xx) = Exiting Trips



Not to Scale

Site-Generated Trips
Weekday Morning Peak Hour Traffic Volumes
Eden Management Inc.
Wayland, Massachusetts

Ⓢ Signalized Intersection
xx = Entering Trips
(xx) = Exiting Trips



Not to Scale

Site-Generated Trips
Weekday Evening Peak Hour Traffic Volumes
Eden Management Inc.
Wayland, Massachusetts

Stopping Sight Distance and Intersection Sight Distance Calculator [v0.97]
Based on 'A Policy on Geometric Design of Highways and Streets', AASHTO, 2004

Section I

Project Information

Project Number:	13831.00	**Analyst:**	VHB
City/Town, State:	Wayland Massachusetts		
Location:	115 Boston Post Road	**Client:**	

Street Names and Directions

Major Street name:	Boston Post Road	EB/WB
Minor Street name:	115 Boston Post Rd Dwy	NB/SB
Minor Street intersects *from* the:	south	
The minor street *predominantly* serves...	Passenger Cars	
Sight distance location intersection is...	Existing	
Total number of lanes on Major Street is...	2	

Street Notes

Grade Information [enter down slope as a negative number]

Major Street Approach Grade:	0.00%	EB
	0.00%	WB
Minor Street Approach Grade:	0.00%	SB
	0.00%	NB

Major Street Speed Information

	Posted		*Observed **
	35	EB	37
	35	WB	38

** note:* off-peak *85th percentile speeds*

Section II

ISD and SSD *Observations*

Instructions on how to observe and measure ISD and SSD are included on subsequent pages.

ISD - Intersection sight distance is the distance that is based on the time required for perception, reaction and completion of the desired critical exiting maneuver [typically, a left turn] once the driver on a minor street approach [or a site drive] decides to execute the maneuver. Calculation for the critical ISD includes the time to [1] turn left, and to clear the near half of the intersection without conflicting with the vehicles approaching from the left; and [2] upon turning left, to accelerate to the operating speed on the roadway without causing approaching vehicles on the main road to unduly reduce their speed. In this context, ISD can be considered as a *desirable* visibility criterion for the safe operation of an unsignalized intersection.

SSD - Stopping sight distance is the distance required for a vehicle approaching an intersection from either direction to perceive, react, and come to a complete stop before colliding with the exiting vehicle from a driveway. In this respect, SSD can be considered as the *minimum* visibility criterion for the safe operation of an unsignalized intersection.

			Limiting Factors:
***Observed* ISD:**	920	looking left [west]	horizontal curve
(rounded to nearest 5 feet)	655	looking right [east]	
***Observed* SSD:**	1120	traveling EB	horizontal curve
(rounded to nearest 5 feet)	1030	traveling WB	

Section III

ISD and SSD *Calculations* (rounded up to the next highest 5 feet) [sources: SSD - AASHTO, pp.110-117; ISD - AASHTO, pp. 650 - 664]

Cases are described in detail on subsequent pages. In summary...

B1: left turn from minor road, from stop control
B2: right turn from minor road, from stop control
B3: crossing maneuver from minor road, from stop control, assuming left- and right turns are not permitted *[otherwise, case B1 or B2 would supercede]*

***Desirable* Calculated...**		**Condition Met?**
... ISD, case B1:	420	**Yes**
... ISD, case B2:	355	**Yes**
... ISD, case B3:	365	**Yes**

[note: if number of lanes crossed exceeds 6, or if grades are steep, consult the manual]

***Minimum* Calculated ...**		**Condition Met?**
... ISD, case B1:	280	**Yes**
... ISD, case B2:	270	**Yes**
... ISD, case B3:	280	**Yes**

[note: minimum *ISD is equal to required SSD]*

Calculated ...			**Condition Met?**
... SSD:	270	traveling EB	**Yes**
	280	traveling WB	**Yes**

Section IV

AASHTO Guidance

Refer to AASHTO for specific guidance on SSD and ISD if presented with an unusual/atypical case.
Adequate ISD is not needed at signalized intersections, assuming traffic signal heads are visible on all approaches.
Any object that would obstruct the driver's view should be removed or lowered, if practical. Such objects include buildings, parked cars, highway structures, hedges/vegetation/trees/bushes/unmowed lawn, walls, fences, and terrain.
For ISD, an object should be considered an obstruction if it obstructs the vision of a driver whose eye height is 3.5 feet above the roadway surface and the object to be seen is 3.5 feet above the surface of the intersecting road.
Where horizontal sight restrictions occur on downgrades, particularly at the ends of long downgrades, it is desirable to provide SSD that exceeds those values indicated above (refer to page 114 of AASHTO).

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	555	0	0	440	5	0	0	0	15	0	20
Future Vol, veh/h	5	555	0	0	440	5	0	0	0	15	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	93	93	93	92	92	92	89	89	89
Heavy Vehicles, %	4	4	4	5	5	5	2	2	2	6	6	6
Mvmt Flow	6	631	0	0	473	5	0	0	0	17	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	478	0	0	631	0	0	1129	1120	631	1118	1118	476
Stage 1	-	-	-	-	-	-	642	642	-	476	476	-
Stage 2	-	-	-	-	-	-	487	478	-	642	642	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1074	-	-	937	-	-	181	206	481	181	204	581
Stage 1	-	-	-	-	-	-	463	469	-	562	550	-
Stage 2	-	-	-	-	-	-	562	556	-	456	463	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1074	-	-	937	-	-	173	204	481	180	202	581
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	204	-	180	202	-
Stage 1	-	-	-	-	-	-	459	465	-	557	550	-
Stage 2	-	-	-	-	-	-	540	556	-	452	459	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	19
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1074	-	-	937	-	-	297
HCM Lane V/C Ratio	-	0.005	-	-	-	-	-	0.132
HCM Control Delay (s)	0	8.4	0	-	0	-	-	19
HCM Lane LOS	A	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	570	0	0	445	0	0
Future Vol, veh/h	570	0	0	445	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	93	93	92	92
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	648	0	0	478	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	648	0	1126	648
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	478	-
Critical Hdwy	-	-	4.15	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.245	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	924	-	227	470
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	624	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	924	-	227	470
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	624	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	924	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	560	0	0	460	0	0
Future Vol, veh/h	560	0	0	460	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	93	93	92	92
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	636	0	0	495	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	636	0	1131	636
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	495	-
Critical Hdwy	-	-	4.15	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.245	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	933	-	225	478
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	933	-	225	478
Mov Cap-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	613	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	933	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	655	2	2	475	2	15	1	2	1	0	1
Future Vol, veh/h	1	655	2	2	475	2	15	1	2	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	87	87	87	80	80	80	50	50	50
Heavy Vehicles, %	6	6	6	6	6	6	13	13	13	50	50	50
Mvmt Flow	1	762	2	2	546	2	19	1	3	2	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	548	0	0	764	0	0	1318	1318	763	1319	1318	547
Stage 1	-	-	-	-	-	-	765	765	-	552	552	-
Stage 2	-	-	-	-	-	-	553	553	-	767	766	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.23	6.63	6.33	7.6	7	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.63	-	6.6	6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.63	-	6.6	6	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.617	4.117	3.417	3.95	4.45	3.75
Pot Cap-1 Maneuver	1002	-	-	831	-	-	127	149	387	107	126	455
Stage 1	-	-	-	-	-	-	380	397	-	442	445	-
Stage 2	-	-	-	-	-	-	498	497	-	330	349	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1002	-	-	831	-	-	126	148	387	105	125	455
Mov Cap-2 Maneuver	-	-	-	-	-	-	126	148	-	105	125	-
Stage 1	-	-	-	-	-	-	379	396	-	441	444	-
Stage 2	-	-	-	-	-	-	494	496	-	326	348	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	36.4	26.6
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	137	1002	-	-	831	-	-	171
HCM Lane V/C Ratio	0.164	0.001	-	-	0.003	-	-	0.023
HCM Control Delay (s)	36.4	8.6	0	-	9.3	0	-	26.6
HCM Lane LOS	E	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	95.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	650	5	165	455	15	15	0	515	5	0	1
Future Vol, veh/h	0	650	5	165	455	15	15	0	515	5	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	96	96	96	91	91	91	42	42	42
Heavy Vehicles, %	6	6	6	5	5	5	3	3	3	20	20	20
Mvmt Flow	0	756	6	172	474	16	16	0	566	12	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	762	0	0	1586	1592	759	1868	1588	482
Stage 1	-	-	-	-	-	-	759	759	-	826	826	-
Stage 2	-	-	-	-	-	-	827	833	-	1042	762	-
Critical Hdwy	4.16	-	-	4.15	-	-	7.13	6.53	6.23	7.3	6.7	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.3	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.3	5.7	-
Follow-up Hdwy	2.254	-	-	2.245	-	-	3.527	4.027	3.327	3.68	4.18	3.48
Pot Cap-1 Maneuver	1053	-	-	837	-	-	87	107	~ 405	50	98	549
Stage 1	-	-	-	-	-	-	397	413	-	341	362	-
Stage 2	-	-	-	-	-	-	364	382	-	257	388	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1053	-	-	837	-	-	68	77	~ 405	-	70	549
Mov Cap-2 Maneuver	-	-	-	-	-	-	68	77	-	-	70	-
Stage 1	-	-	-	-	-	-	397	413	-	341	260	-
Stage 2	-	-	-	-	-	-	260	274	-	-	388	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.7	$ 327.4	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	355	1053	-	-	837	-	-	-
HCM Lane V/C Ratio	1.641	-	-	-	0.205	-	-	-
HCM Control Delay (s)	$ 327.4	0	-	-	10.4	0	-	-
HCM Lane LOS	F	A	-	-	B	A	-	-
HCM 95th %tile Q(veh)	34.7	0	-	-	0.8	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	525	5	5	165	5	5
Future Vol, veh/h	525	5	5	165	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	96	96	75	75
Heavy Vehicles, %	6	6	5	5	0	0
Mvmt Flow	610	6	5	172	7	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	616	0	795	613
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	182	-
Critical Hdwy	-	-	4.15	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.245	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	949	-	359	496
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	854	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	949	-	357	496
Mov Cap-2 Maneuver	-	-	-	-	357	-
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	849	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0.3	14
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	415	949	-
HCM Lane V/C Ratio	-	-	0.032	0.005	-
HCM Control Delay (s)	-	-	14	8.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	570	0	5	845	10	1	0	0	5	0	10
Future Vol, veh/h	10	570	0	5	845	10	1	0	0	5	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	95	95	95	25	25	25	65	65	65
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	11	640	0	5	889	11	4	0	0	8	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	900	0	0	640	0	0	1576	1574	640	1568	1568	895
Stage 1	-	-	-	-	-	-	663	663	-	905	905	-
Stage 2	-	-	-	-	-	-	913	911	-	663	663	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	759	-	-	949	-	-	90	111	479	91	112	342
Stage 1	-	-	-	-	-	-	454	462	-	334	358	-
Stage 2	-	-	-	-	-	-	330	356	-	454	462	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	759	-	-	949	-	-	84	107	479	89	108	342
Mov Cap-2 Maneuver	-	-	-	-	-	-	84	107	-	89	108	-
Stage 1	-	-	-	-	-	-	444	452	-	327	354	-
Stage 2	-	-	-	-	-	-	312	352	-	444	452	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	50	28.5
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	84	759	-	-	949	-	-	176
HCM Lane V/C Ratio	0.048	0.015	-	-	0.006	-	-	0.131
HCM Control Delay (s)	50	9.8	0	-	8.8	0	-	28.5
HCM Lane LOS	F	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	575	0	0	860	0	0
Future Vol, veh/h	575	0	0	860	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	95	95	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	646	0	0	905	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	646	0	1551	646
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	905	-
Critical Hdwy	-	-	4.11	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.209	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	944	-	125	472
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	395	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	944	-	125	472
Mov Cap-2 Maneuver	-	-	-	-	125	-
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	395	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	944	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	580	0	0	855	0	0
Future Vol, veh/h	580	0	0	855	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	95	95	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	652	0	0	900	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	652	0	1552	652
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	900	-
Critical Hdwy	-	-	4.11	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.209	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	939	-	125	468
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	397	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	939	-	125	468
Mov Cap-2 Maneuver	-	-	-	-	125	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	397	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	939	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	635	15	10	875	20	40	5	2	0	5	10
Future Vol, veh/h	5	635	15	10	875	20	40	5	2	0	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	91	91	91	77	77	77	58	58	58
Heavy Vehicles, %	3	3	3	2	2	2	2	2	2	0	0	0
Mvmt Flow	5	690	16	11	962	22	52	6	3	0	9	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	984	0	0	707	0	0	1716	1714	698	1709	1712	973
Stage 1	-	-	-	-	-	-	709	709	-	995	995	-
Stage 2	-	-	-	-	-	-	1007	1005	-	714	717	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	698	-	-	891	-	-	71	90	440	73	91	309
Stage 1	-	-	-	-	-	-	425	437	-	297	325	-
Stage 2	-	-	-	-	-	-	290	319	-	425	437	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	698	-	-	891	-	-	60	87	440	66	87	309
Mov Cap-2 Maneuver	-	-	-	-	-	-	60	87	-	66	87	-
Stage 1	-	-	-	-	-	-	420	432	-	293	316	-
Stage 2	-	-	-	-	-	-	259	310	-	411	432	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	206.6	30.5
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	64	698	-	-	891	-	-	167
HCM Lane V/C Ratio	0.954	0.008	-	-	0.012	-	-	0.155
HCM Control Delay (s)	206.6	10.2	0	-	9.1	0	-	30.5
HCM Lane LOS	F	B	A	-	A	A	-	D
HCM 95th %tile Q(veh)	4.6	0	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	600	30	445	830	20	45	1	250	5	5	5
Future Vol, veh/h	1	600	30	445	830	20	45	1	250	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	96	96	96	89	89	89	36	36	36
Heavy Vehicles, %	3	3	3	1	1	1	1	1	1	0	0	0
Mvmt Flow	1	674	34	464	865	21	51	1	281	14	14	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	885	0	0	708	0	0	2509	2506	691	2636	2512	875
Stage 1	-	-	-	-	-	-	693	693	-	1802	1802	-
Stage 2	-	-	-	-	-	-	1816	1813	-	834	710	-
Critical Hdwy	4.13	-	-	4.11	-	-	7.11	6.51	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.209	-	-	3.509	4.009	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	761	-	-	895	-	-	~ 19	29	446	16	29	351
Stage 1	-	-	-	-	-	-	435	446	-	103	133	-
Stage 2	-	-	-	-	-	-	100	130	-	365	440	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	761	-	-	895	-	-	-	0	446	-	0	351
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	434	445	-	103	0	-
Stage 2	-	-	-	-	-	-	-	0	-	135	439	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.6		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	761	-	-	895	-	-	-
HCM Lane V/C Ratio	-	0.001	-	-	0.518	-	-	-
HCM Control Delay (s)	-	9.7	0	-	13.3	0	-	-
HCM Lane LOS	-	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-	3.1	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	295	10	5	475	10	1
Future Vol, veh/h	295	10	5	475	10	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	96	96	56	56
Heavy Vehicles, %	3	3	1	1	0	0
Mvmt Flow	331	11	5	495	18	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	343	0	842	337
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	505	-
Critical Hdwy	-	-	4.11	-	7.1	6.2
Critical Hdwy Stg 1	-	-	-	-	6.1	-
Critical Hdwy Stg 2	-	-	-	-	6.1	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1222	-	286	710
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	553	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1222	-	285	710
Mov Cap-2 Maneuver	-	-	-	-	285	-
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	550	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0.1	17.8
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	301	1222	-
HCM Lane V/C Ratio	-	-	0.065	0.004	-
HCM Control Delay (s)	-	-	17.8	8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	690	0	0	525	5	0	0	0	15	0	20
Future Vol, veh/h	5	690	0	0	525	5	0	0	0	15	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	5	5	5	2	2	2	6	6	6
Mvmt Flow	5	750	0	0	571	5	0	0	0	16	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	576	0	0	750	0	0	1345	1337	750	1334	1334	573
Stage 1	-	-	-	-	-	-	761	761	-	573	573	-
Stage 2	-	-	-	-	-	-	584	576	-	761	761	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	987	-	-	846	-	-	129	153	411	128	151	511
Stage 1	-	-	-	-	-	-	398	414	-	498	497	-
Stage 2	-	-	-	-	-	-	498	502	-	392	408	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	987	-	-	846	-	-	123	152	411	127	150	511
Mov Cap-2 Maneuver	-	-	-	-	-	-	123	152	-	127	150	-
Stage 1	-	-	-	-	-	-	394	410	-	494	497	-
Stage 2	-	-	-	-	-	-	477	502	-	388	404	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	24.4
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	987	-	-	846	-	-	223
HCM Lane V/C Ratio	-	0.006	-	-	-	-	-	0.171
HCM Control Delay (s)	0	8.7	0	-	0	-	-	24.4
HCM Lane LOS	A	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	705	0	0	530	0	0
Future Vol, veh/h	705	0	0	530	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	766	0	0	576	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	766	0	1342	766
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	576	-
Critical Hdwy	-	-	4.15	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.245	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	834	-	168	403
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	562	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	834	-	168	403
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	562	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	834	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	695	0	0	545	0	0
Future Vol, veh/h	695	0	0	545	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	5	5	2	2
Mvmt Flow	755	0	0	592	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	755	0	1347	755
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	592	-
Critical Hdwy	-	-	4.15	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.245	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	842	-	167	409
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	553	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	842	-	167	409
Mov Cap-2 Maneuver	-	-	-	-	167	-
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	553	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	842	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	795	2	2	560	2	15	1	2	1	0	1
Future Vol, veh/h	1	795	2	2	560	2	15	1	2	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	13	13	13	50	50	50
Mvmt Flow	1	864	2	2	609	2	16	1	2	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	611	0	0	866	0	0	1482	1482	865	1483	1482	610
Stage 1	-	-	-	-	-	-	867	867	-	614	614	-
Stage 2	-	-	-	-	-	-	615	615	-	869	868	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.23	6.63	6.33	7.6	7	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.63	-	6.6	6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.63	-	6.6	6	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.617	4.117	3.417	3.95	4.45	3.75
Pot Cap-1 Maneuver	949	-	-	761	-	-	98	118	337	81	99	417
Stage 1	-	-	-	-	-	-	333	355	-	406	415	-
Stage 2	-	-	-	-	-	-	460	465	-	287	310	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	949	-	-	761	-	-	97	117	337	80	98	417
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	117	-	80	98	-
Stage 1	-	-	-	-	-	-	332	354	-	405	413	-
Stage 2	-	-	-	-	-	-	457	463	-	284	309	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	46.5	32.3
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	106	949	-	-	761	-	-	134
HCM Lane V/C Ratio	0.185	0.001	-	-	0.003	-	-	0.016
HCM Control Delay (s)	46.5	8.8	0	-	9.7	0	-	32.3
HCM Lane LOS	E	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	146

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	790	5	175	540	15	15	0	555	5	0	1
Future Vol, veh/h	0	790	5	175	540	15	15	0	555	5	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	5	5	5	3	3	3	20	20	20
Mvmt Flow	0	859	5	190	587	16	16	0	603	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	603	0	0	864	0	0	1837	1845	861	2139	1840	595
Stage 1	-	-	-	-	-	-	861	861	-	976	976	-
Stage 2	-	-	-	-	-	-	976	984	-	1163	864	-
Critical Hdwy	4.16	-	-	4.15	-	-	7.13	6.53	6.23	7.3	6.7	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.3	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.3	5.7	-
Follow-up Hdwy	2.254	-	-	2.245	-	-	3.527	4.027	3.327	3.68	4.18	3.48
Pot Cap-1 Maneuver	955	-	-	766	-	-	58	74	~ 354	31	68	472
Stage 1	-	-	-	-	-	-	349	371	-	280	307	-
Stage 2	-	-	-	-	-	-	301	325	-	218	347	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	955	-	-	766	-	-	41	46	~ 354	-	43	472
Mov Cap-2 Maneuver	-	-	-	-	-	-	41	46	-	-	43	-
Stage 1	-	-	-	-	-	-	349	371	-	280	192	-
Stage 2	-	-	-	-	-	-	188	203	-	-	347	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.7	$ 534.6	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	295	955	-	-	766	-	-	-
HCM Lane V/C Ratio	2.1	-	-	-	0.248	-	-	-
HCM Control Delay (s)	$ 534.6	0	-	-	11.2	0	-	-
HCM Lane LOS	F	A	-	-	B	A	-	-
HCM 95th %tile Q(veh)	45.7	0	-	-	1	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	565	5	5	175	5	5
Future Vol, veh/h	565	5	5	175	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	6	5	5	0	0
Mvmt Flow	614	5	5	190	5	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	620	0	818	617
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	201	-
Critical Hdwy	-	-	4.15	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.245	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	946	-	348	494
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	946	-	346	494
Mov Cap-2 Maneuver	-	-	-	-	346	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	833	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0.2	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	407	946	-
HCM Lane V/C Ratio	-	-	0.027	0.006	-
HCM Control Delay (s)	-	-	14.1	8.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	720	0	5	1040	10	1	0	0	5	0	10
Future Vol, veh/h	10	720	0	5	1040	10	1	0	0	5	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	11	783	0	5	1130	11	1	0	0	5	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1141	0	0	783	0	0	1956	1956	783	1951	1951	1136
Stage 1	-	-	-	-	-	-	804	804	-	1147	1147	-
Stage 2	-	-	-	-	-	-	1152	1152	-	804	804	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	616	-	-	840	-	-	49	65	397	49	65	248
Stage 1	-	-	-	-	-	-	380	398	-	244	276	-
Stage 2	-	-	-	-	-	-	243	275	-	380	398	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	616	-	-	840	-	-	45	62	397	47	62	248
Mov Cap-2 Maneuver	-	-	-	-	-	-	45	62	-	47	62	-
Stage 1	-	-	-	-	-	-	368	385	-	236	272	-
Stage 2	-	-	-	-	-	-	229	271	-	368	385	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	87	46.9
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	45	616	-	-	840	-	-	102
HCM Lane V/C Ratio	0.024	0.018	-	-	0.006	-	-	0.16
HCM Control Delay (s)	87	10.9	0	-	9.3	0	-	46.9
HCM Lane LOS	F	B	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	725	0	0	1055	0	0
Future Vol, veh/h	725	0	0	1055	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	788	0	0	1147	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	788	0	1935	788
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	1147	-
Critical Hdwy	-	-	4.11	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.209	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	836	-	72	391
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	303	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	836	-	72	391
Mov Cap-2 Maneuver	-	-	-	-	72	-
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	303	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	836	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	730	0	0	1050	0	0
Future Vol, veh/h	730	0	0	1050	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	793	0	0	1141	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	793	0	1934	793
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	1141	-
Critical Hdwy	-	-	4.11	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.209	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	832	-	72	389
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	305	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	832	-	72	389
Mov Cap-2 Maneuver	-	-	-	-	72	-
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	305	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	832	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	18.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	790	15	10	1075	20	50	5	2	0	5	10
Future Vol, veh/h	5	790	15	10	1075	20	50	5	2	0	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	2	2	2	2	2	2	0	0	0
Mvmt Flow	5	859	16	11	1168	22	54	5	2	0	5	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1190	0	0	875	0	0	2087	2090	867	2083	2087	1179
Stage 1	-	-	-	-	-	-	878	878	-	1201	1201	-
Stage 2	-	-	-	-	-	-	1209	1212	-	882	886	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	583	-	-	771	-	-	~ 39	53	352	39	53	234
Stage 1	-	-	-	-	-	-	343	366	-	228	260	-
Stage 2	-	-	-	-	-	-	223	255	-	344	365	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	583	-	-	771	-	-	~ 33	50	352	34	50	234
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 33	50	-	34	50	-
Stage 1	-	-	-	-	-	-	337	360	-	224	249	-
Stage 2	-	-	-	-	-	-	199	244	-	331	359	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	$ 615.8	45.5
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	35	583	-	-	771	-	-	105
HCM Lane V/C Ratio	1.77	0.009	-	-	0.014	-	-	0.155
HCM Control Delay (s)	$ 615.8	11.2	0	-	9.7	0	-	45.5
HCM Lane LOS	F	B	A	-	A	A	-	E
HCM 95th %tile Q(veh)	6.8	0	-	-	0	-	-	0.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	755	30	480	1025	20	50	1	270	5	5	5
Future Vol, veh/h	1	755	30	480	1025	20	50	1	270	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	1	1	1	1	1	1	0	0	0
Mvmt Flow	1	821	33	522	1114	22	54	1	293	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1136	0	0	853	0	0	3013	3018	837	3154	3023	1125
Stage 1	-	-	-	-	-	-	839	839	-	2168	2168	-
Stage 2	-	-	-	-	-	-	2174	2179	-	986	855	-
Critical Hdwy	4.13	-	-	4.11	-	-	7.11	6.51	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.209	-	-	3.509	4.009	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	611	-	-	790	-	-	~ 8	13	368	7	13	252
Stage 1	-	-	-	-	-	-	362	383	-	63	87	-
Stage 2	-	-	-	-	-	-	62	85	-	301	378	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	611	-	-	790	-	-	-	0	368	-	0	252
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	361	382	-	63	0	-
Stage 2	-	-	-	-	-	-	-	0	-	61	377	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5.7		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	611	-	-	790	-	-	-
HCM Lane V/C Ratio	-	0.002	-	-	0.66	-	-	-
HCM Control Delay (s)	-	10.9	0	-	18	0	-	-
HCM Lane LOS	-	B	A	-	C	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-	5.1	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	320	10	5	510	10	1
Future Vol, veh/h	320	10	5	510	10	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	1	1	0	0
Mvmt Flow	348	11	5	554	11	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	359	0	918	353
Stage 1	-	-	-	-	353	-
Stage 2	-	-	-	-	565	-
Critical Hdwy	-	-	4.11	-	7.1	6.2
Critical Hdwy Stg 1	-	-	-	-	6.1	-
Critical Hdwy Stg 2	-	-	-	-	6.1	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1205	-	254	695
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	513	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1205	-	253	695
Mov Cap-2 Maneuver	-	-	-	-	253	-
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	510	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0.1	19
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	269	1205	-
HCM Lane V/C Ratio	-	-	0.044	0.005	-
HCM Control Delay (s)	-	-	19	8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	690	0	5	525	5	10	0	15	15	0	20
Future Vol, veh/h	5	690	0	5	525	5	10	0	15	15	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	5	5	5	2	2	2	6	6	6
Mvmt Flow	5	750	0	5	571	5	11	0	16	16	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	576	0	0	750	0	0	1356	1348	750	1353	1345	573
Stage 1	-	-	-	-	-	-	761	761	-	584	584	-
Stage 2	-	-	-	-	-	-	595	587	-	769	761	-
Critical Hdwy	4.14	-	-	4.15	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.236	-	-	2.245	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	987	-	-	846	-	-	126	151	411	124	149	511
Stage 1	-	-	-	-	-	-	398	414	-	491	492	-
Stage 2	-	-	-	-	-	-	491	497	-	388	408	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	987	-	-	846	-	-	119	148	411	117	146	511
Mov Cap-2 Maneuver	-	-	-	-	-	-	119	148	-	117	146	-
Stage 1	-	-	-	-	-	-	394	410	-	487	488	-
Stage 2	-	-	-	-	-	-	466	493	-	369	404	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	23.8	26
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	119	411	987	-	-	846	-	-	209
HCM Lane V/C Ratio	0.091	0.04	0.006	-	-	0.006	-	-	0.182
HCM Control Delay (s)	38.3	14.1	8.7	0	-	9.3	0	-	26
HCM Lane LOS	E	B	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.3	0.1	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	695	5	0	555	0	0
Future Vol, veh/h	695	5	0	555	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	755	5	0	603	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	758
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	407
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	407
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	810	5	2	565	2	15	1	2	1	0	1
Future Vol, veh/h	1	810	5	2	565	2	15	1	2	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	13	13	13	50	50	50
Mvmt Flow	1	880	5	2	614	2	16	1	2	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	616	0	0	886	0	0	1505	1506	883	1507	1508	615
Stage 1	-	-	-	-	-	-	885	885	-	620	620	-
Stage 2	-	-	-	-	-	-	620	621	-	887	888	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.23	6.63	6.33	7.6	7	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.63	-	6.6	6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.63	-	6.6	6	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.617	4.117	3.417	3.95	4.45	3.75
Pot Cap-1 Maneuver	945	-	-	748	-	-	94	114	329	77	95	414
Stage 1	-	-	-	-	-	-	325	348	-	403	412	-
Stage 2	-	-	-	-	-	-	457	462	-	280	303	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	945	-	-	748	-	-	93	113	329	76	94	414
Mov Cap-2 Maneuver	-	-	-	-	-	-	93	113	-	76	94	-
Stage 1	-	-	-	-	-	-	324	347	-	402	410	-
Stage 2	-	-	-	-	-	-	454	460	-	277	302	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	48.5	33.6
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	102	945	-	-	748	-	-	128
HCM Lane V/C Ratio	0.192	0.001	-	-	0.003	-	-	0.017
HCM Control Delay (s)	48.5	8.8	0	-	9.8	0	-	33.6
HCM Lane LOS	E	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	151.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	805	5	175	545	15	15	0	555	5	0	1
Future Vol, veh/h	0	805	5	175	545	15	15	0	555	5	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	5	5	5	3	3	3	20	20	20
Mvmt Flow	0	875	5	190	592	16	16	0	603	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	609	0	0	880	0	0	1860	1867	878	2160	1861	601
Stage 1	-	-	-	-	-	-	878	878	-	981	981	-
Stage 2	-	-	-	-	-	-	982	989	-	1179	880	-
Critical Hdwy	4.16	-	-	4.15	-	-	7.13	6.53	6.23	7.3	6.7	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.3	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.3	5.7	-
Follow-up Hdwy	2.254	-	-	2.245	-	-	3.527	4.027	3.327	3.68	4.18	3.48
Pot Cap-1 Maneuver	950	-	-	756	-	-	56	72	~ 346	30	66	469
Stage 1	-	-	-	-	-	-	341	364	-	278	305	-
Stage 2	-	-	-	-	-	-	299	323	-	214	341	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	950	-	-	756	-	-	39	45	~ 346	-	41	469
Mov Cap-2 Maneuver	-	-	-	-	-	-	39	45	-	-	41	-
Stage 1	-	-	-	-	-	-	341	364	-	278	189	-
Stage 2	-	-	-	-	-	-	185	200	-	-	341	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.7	$ 561.4	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	287	950	-	-	756	-	-	-
HCM Lane V/C Ratio	2.159	-	-	-	0.252	-	-	-
HCM Control Delay (s)	$ 561.4	0	-	-	11.4	0	-	-
HCM Lane LOS	F	A	-	-	B	A	-	-
HCM 95th %tile Q(veh)	46.6	0	-	-	1	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	565	5	5	175	5	5
Future Vol, veh/h	565	5	5	175	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	6	5	5	0	0
Mvmt Flow	614	5	5	190	5	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	620	0	818	617
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	201	-
Critical Hdwy	-	-	4.15	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.245	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	946	-	348	494
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	946	-	346	494
Mov Cap-2 Maneuver	-	-	-	-	346	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	833	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0.2	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	407	946	-
HCM Lane V/C Ratio	-	-	0.027	0.006	-
HCM Control Delay (s)	-	-	14.1	8.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱			↕	
Traffic Vol, veh/h	10	720	0	20	1045	10	5	0	10	5	0	10
Future Vol, veh/h	10	720	0	20	1045	10	5	0	10	5	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	11	783	0	22	1136	11	5	0	11	5	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1147	0	0	783	0	0	1994	1994	783	1995	1989	1141
Stage 1	-	-	-	-	-	-	804	804	-	1185	1185	-
Stage 2	-	-	-	-	-	-	1190	1190	-	810	804	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	613	-	-	840	-	-	46	61	397	46	62	247
Stage 1	-	-	-	-	-	-	380	398	-	233	265	-
Stage 2	-	-	-	-	-	-	231	263	-	377	398	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	613	-	-	840	-	-	41	55	397	41	56	247
Mov Cap-2 Maneuver	-	-	-	-	-	-	41	55	-	41	56	-
Stage 1	-	-	-	-	-	-	368	385	-	226	246	-
Stage 2	-	-	-	-	-	-	205	244	-	355	385	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	44.8	52.4
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	41	397	613	-	-	840	-	-	92
HCM Lane V/C Ratio	0.133	0.027	0.018	-	-	0.026	-	-	0.177
HCM Control Delay (s)	105.8	14.3	11	0	-	9.4	0	-	52.4
HCM Lane LOS	F	B	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.4	0.1	0.1	-	-	0.1	-	-	0.6

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	730	15	0	1060	0	0
Future Vol, veh/h	730	15	0	1060	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	793	16	0	1152	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	802
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	384
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	384
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	19

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	800	15	10	1090	20	50	5	0	0	5	10
Future Vol, veh/h	5	800	15	10	1090	20	50	5	0	0	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	2	2	2	2	2	2	0	0	0
Mvmt Flow	5	870	16	11	1185	22	54	5	0	0	5	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1207	0	0	886	0	0	2115	2117	878	2108	2114	1196
Stage 1	-	-	-	-	-	-	889	889	-	1217	1217	-
Stage 2	-	-	-	-	-	-	1226	1228	-	891	897	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	575	-	-	764	-	-	~ 37	51	347	38	51	229
Stage 1	-	-	-	-	-	-	338	361	-	223	256	-
Stage 2	-	-	-	-	-	-	218	250	-	340	361	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	575	-	-	764	-	-	~ 31	48	347	33	48	229
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 31	48	-	33	48	-
Stage 1	-	-	-	-	-	-	332	355	-	219	245	-
Stage 2	-	-	-	-	-	-	194	239	-	329	355	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	$ 677.2	47.4
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	32	575	-	-	764	-	-	101
HCM Lane V/C Ratio	1.868	0.009	-	-	0.014	-	-	0.161
HCM Control Delay (s)	$ 677.2	11.3	0	-	9.8	0	-	47.4
HCM Lane LOS	F	B	A	-	A	A	-	E
HCM 95th %tile Q(veh)	6.8	0	-	-	0	-	-	0.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	765	30	480	1040	20	50	1	270	5	5	5
Future Vol, veh/h	1	765	30	480	1040	20	50	1	270	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	1	1	1	1	1	1	0	0	0
Mvmt Flow	1	832	33	522	1130	22	54	1	293	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1152	0	0	864	0	0	3040	3046	848	3182	3051	1141
Stage 1	-	-	-	-	-	-	850	850	-	2185	2185	-
Stage 2	-	-	-	-	-	-	2190	2196	-	997	866	-
Critical Hdwy	4.13	-	-	4.11	-	-	7.11	6.51	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.209	-	-	3.509	4.009	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	603	-	-	783	-	-	~ 8	13	363	6	13	247
Stage 1	-	-	-	-	-	-	357	378	-	61	85	-
Stage 2	-	-	-	-	-	-	60	83	-	297	373	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	603	-	-	783	-	-	-	0	363	-	0	247
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	356	377	-	61	0	-
Stage 2	-	-	-	-	-	-	-	0	-	57	372	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5.7		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	603	-	-	783	-	-	-
HCM Lane V/C Ratio	-	0.002	-	-	0.666	-	-	-
HCM Control Delay (s)	-	11	0	-	18.3	0	-	-
HCM Lane LOS	-	B	A	-	C	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-	5.2	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	320	10	5	510	10	1
Future Vol, veh/h	320	10	5	510	10	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	1	1	0	0
Mvmt Flow	348	11	5	554	11	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	359	0	918	353
Stage 1	-	-	-	-	353	-
Stage 2	-	-	-	-	565	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1205	-	304	695
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1205	-	302	695
Mov Cap-2 Maneuver	-	-	-	-	302	-
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	570	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0.1	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	318	1205	-
HCM Lane V/C Ratio	-	-	0.038	0.005	-
HCM Control Delay (s)	-	-	16.8	8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Route 20 at Rich Valley Road/Site Driveway

Major Street Direction: Eastbound-Westbound

Year: 2024 **Condition:** Build

Operating speed on major roadway: 38 mph

Number of approaches: 4

			Required approach volumes Minimum*	Adjusted Minimum**
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**			
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	**1** Lane(s) on each approach	500	500
	Minor Street :	**2** Lane(s) on each approach	200	200
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	2 Lane(s) on each approach	100	100
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	2 Lane(s) on each approach	160	80

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**		
	Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
	Minor Street :	2 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**		
	Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
	Minor Street :	2 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Eastbound	Entering Vol. on Major Road Westbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
7:00 - 8:00 AM	22	488	524	1011	No	No	No	No	No
8:00 - 9:00 AM	26	700	535	1235	No	No	No	No	No
9:00 - 10:00 AM	16	942	568	1510	No	No	No	No	No
10:00 - 11:00 AM	13	733	605	1339	No	No	No	No	No
11:00 - 12:00 AM	14	672	630	1302	No	No	No	No	No
12:00 - 1:00 AM	13	689	707	1396	No	No	No	No	No
1:00 - 2:00 PM	14	661	722	1384	No	No	No	No	No
2:00 - 3:00 PM	14	646	894	1540	No	No	No	No	No
3:00 - 4:00 PM	15	604	1015	1619	No	No	No	No	No
4:00 - 5:00 PM	15	592	1027	1619	No	No	No	No	No
5:00 - 6:00 PM	18	683	1019	1701	No	No	No	No	No
6:00 - 7:00 PM	12	625	1096	1722	No	No	No	No	No
7:00 - 8:00 PM	12	420	796	1216	No	No	No	No	No
					No	**No**	**No**	**No**	**No**
			Warrants Met?		**1**			**2**	**3**
					NO			**No**	**No**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing: No

See MUTCD for details.

Warrant 6, Coordinated Signal System: No

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network: No

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

Development: Cascade

113, 115, 117, 119 Boston Post Road

EXHIBIT A – WAIVER LIST – APPROVAL DECISION

The applicant provides the following information to assist the permit granting authority in analyzing the project and assessing the likely impact on the community as defined in 760 CMR 56. The project meets the intent of each and every by-law, rule, and regulation in terms of interests sought to be protected thereunder. The applicant provides the following waiver language to allow the permit granting authority to easily adopt or modify as it deems appropriate.

The Board of Appeals authorizes the following waivers from the requirements of the Wayland Zoning Bylaw and other local by-laws, rules, and regulations listed in this Exhibit A if and only if the Comprehensive Permit for the Project containing the Conditions identified in the attached Comprehensive Permit Application is finally issued and only to the extent necessary and sufficient to construct, occupy, and maintain the project in accordance with the Comprehensive Permit, the Conditions, and Plans and Specifications listed in the Comprehensive Permit Decision, and provided that the project is in fact constructed in accordance with the Comprehensive Permit, the Conditions, and the Plans and Specifications. Once the project has been fully constructed and certificates of occupancy have been issued, these Waivers, the Comprehensive Permit and the Conditions shall not authorize any further waiver of the Wayland Zoning Bylaws or other local bylaws, rules, or regulations; any proposed further modification of the project or any unit within the project thereafter must conform to the Wayland Zoning Bylaw and other local bylaws, rules, and regulations, subject to the regulations concerning modifications of comprehensive permits found at 760 CMR 56.05(11).

EXHIBIT A-1

CHAPTER 198
ZONING BYLAWS OF THE TOWN OF WAYLAND

In supplementation of the general information contained on page 1 of Exhibit A, the applicant believes the following waivers are required for issuance of the Comprehensive Permit and therefore requests the permit granting authority issue waivers relative to the following requirements:

Section Number	Title	Requirement, Waiver Requested
Section 198-501.1;	SIGNS AND EXTERIOR LIGHTING	The zoning by-laws require a 15-foot front yard setback for any signage or exterior lighting. The proposed project includes signs and exterior lighting fixtures within 15-feet. Waiver requested from the minimum setback requirements for exterior lighting and signage.
Section 502.1; 502.2; 502.3	TEMPORARY SIGNS	The zoning by-laws prevent temporarily signs to exceed 15 square feet and prohibits more than one temporarily sign during construction. Applicant requests a waiver to allow developer to place several temporarily signs during construction.
Section 504.1	EARTH REMOVAL	The proposed Project includes earth removal more than 500 cubic yards. Waiver requested from the by-laws which restricts earth removal in excess of 500 cubic yards in the Residential zoning district.
Section 506.1.10	OFF-STREET PARKING	Applicant requests a waiver from the minimum parking spaces required by the by-laws.
Section 506.8	LANDSCAPING IN PARKING FACILITIES	Applicant requests waiver to landscape the parking areas as proposed by the project plans.
Article 6	SITE PLAN APPROVAL	The applicant requests the ZBA waive the Site Plan Approval requirement.
Section 506.7.5	STANDARD PARKING DIMENSIONAL REGULATIONS	Applicant requests relief from the required parking dimensional regulations to allow normal and compact spaces as shown on the proposed plans.
Section 804; Table of Uses (4) & (57)	SCHEDULE OF USES	The proposed Project includes multi-family structures which is not allowed as a matter of right within all zoning districts. Waiver requested from the use regulations to allow multi-family dwellings.

Section Number	Title	Requirement, Waiver Requested
Section 901	SINGLE RESIDENCE DISTRICT	The zoning by-laws prohibits business or office use. Applicant requests waiver to allow for one on-site managerial/management office.
Section 704	LOT COVERAGE	The by-laws set a maximum lot coverage of 20% in the Residential District. The proposed project may exceed 20% and therefore requests a waiver from Section 704 of the Zoning By-laws.
Section 701	HEIGHT RESTRICTIONS	The proposed Project exceeds two and one half (2-1/2) stories in height. Waiver requested from height regulation to allow a structure three (3) stories and more than 35 feet.
Article 22	INCLUSION OF AFFORDABLE HOUSING	The Zoning Board of Appeals shall act as the comprehensive permit permitting authority.

EXHIBIT A-2

CHAPTER 193
WAYLAND STORMWATER AND LAND DISTURBANCE RULES AND REGULATIONS

In supplementation of the general information contained on page 1 of Exhibit A, the applicant believes the following waivers are required for issuance of the Comprehensive Permit and therefore requests the permit granting authority issue waivers relative to the following requirements:

Section Number	Title	Requirement, Waiver Requested
Chapter 193	STORMWATER AND LAND DISTURBANCE	Applicant seeks a waiver from this Chapter as the Zoning Board of Appeals is provided with the authority to issue all local approvals. The Project does meet the intent of the DEP Stormwater Handbook.
Section 1	PURPOSE AND OBJECTIVE	The purpose of the Wayland Stormwater and Land Disturbance Regulations is to "expand upon the requirements of state and federal statutes and regulations relating to stormwater and illicit discharges[.]" Applicant requests a waiver from these requirements and states further that the Project will Comply with the State and Federal regulations.
Section 4	APPLICABILITY	The local regulations require issuance of a Stormwater Management and Land Disturbance Permit (SMLDP). Applicant requests a waiver from this requirement.
Section 5	WAIVER	The Commission is allowed to waive strict compliance with any requirements of Chapter 193. Applicant seeks a waiver from this section as the Zoning Board of Appeals is provided with the authority to issue all local approvals.
Section 7	ENFORCEMENT	Applicant seeks a waiver from this section as the Zoning Board of Appeals is provided with the authority to issue all local approvals.

EXHIBIT A-3

CHAPTER 194
WAYLAND WETLAND AND WATER RESOURCE BY-LAWS

In supplementation of the general information contained on page 1 of Exhibit A, the applicant believes the following waivers are required for issuance of the Comprehensive Permit and therefore requests the permit granting authority issue waivers relative to the following requirements:

Section Number	Title	Requirement, Waiver Requested
Chapter 194	WETLAND AND WATER RESOURCE	Applicant seeks a waiver from this section as the Zoning Board of Appeals is provided with the authority to issue all local approvals. Applicant will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40 and 310 CMR 10.00 et. seq.
Section 1	PURPOSE	The purpose of the Wayland Wetlands and Water Resources Protection Regulations is to provide a greater degree of protection of wetlands, buffer zones, and related water resources, than the protection of these resources areas provided under M.G.L. c. 131, § 40. Applicant requests a waiver from these requirements and states further that the Project will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40 and 310 CMR 10.00 et. seq.
Section 3(A)	PROCEDURE	Per the Wayland regulations, a written application and a filing fee for Request for Determination or Notice of Intent is required in conjunction with filings under G.L. c. 131, § 40. Applicant requests a waiver from this requirement and will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40 and 310 CMR 10.00 et. seq.
Section 3(B)	PROCEDURE	The regulations require a review by other Town boards and officials; issuance of "wetlands and water resources permit" in conjunction with order of conditions pursuant to G.L. c. 131, § 40. Applicant requests a waiver from this requirement and will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40 and 310 CMR 10.00 et. seq.

Section 4	PUBLIC HEARING	Applicant requests waiver from public hearing to address local wetlands by-laws. Applicant with have a public hearing on State WPA.
Section 8	BURDEN OF PROOF	The regulations place the burden on the applicant of proving by a preponderance of the credible evidence that the work proposed in the notice of intent will not cause harm to the functions and values sought to be protected by this chapter. The Applicant requests a waiver from this burden and further states that it will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40 and 310 CMR 10.00 et. seq.
Section 9	SECURITY	Section 9 allows the Commission to require a security in addition to any security required by any other Town or state board, commission or agency. Applicant will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40 and 310 CMR 10.00 et. seq.

Chapter 194 General Regulations dated June 12, 2014:

Section C (4)	ENFORCEMENT ORDERS	The regulations provide the Conservation Commission with the authority to issue an Enforcement Order for a violation under Chapter 194 of the Wayland bylaws. The Applicant requests a waiver from this burden and further states that it will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40.
Notification of Watercourse Alternation	RIVERFRONT AREA	Applicant proposes work that alternates a riverfront. The Applicant requests a waiver from this burden and further states that it will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40 and 310 CMR 10.00 et. seq.
Notification of Watercourse Alternation	STREAMS	The Applicant requests a waiver from this burden and further states that it will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40 and 310 CMR 10.00 et. seq.

EXHIBIT A-4

WAYLAND BOARD OF HEALTH REGULATIONS

In supplementation of the general information contained on page 1 of Exhibit A, the applicant believes the following waivers are required for issuance of the Comprehensive Permit and therefore requests the permit granting authority issue waivers relative to the following requirements:

Section Number	Title	Requirement, Waiver Requested
Board of Health Regulations	BOARD OF HEALTH REGULATIONS	Applicant seeks a waiver from this section as the Zoning Board of Appeals is provided with the authority to issue all local approvals.
Floor Drain Regulation Wayland Board of Health	FLOOR DRAIN REGULATION WAYLAND BOARD OF HEALTH	As part of the Project the snowmelt and other rain will need to be collected in a floor drain and discharged to an industrial holding tank. The rain will not go into a septic system. The Applicant requests a waiver from this local regulation.
Regulations for On-Site Subsurface Disposal Systems Section 3	GROUND WATER TESTING SEASON	Applicant requests waiver from the limitations of the ground water testing season as required by Section 3.
Section 4	PERIODIC FLOODING	Applicant request a waiver from the Board of Health's requirements of periodic flooding. Applicant will meet state regulations.
Section II (C)(1)	LEACHING FACILITIES	The Board of Health Regulations sets a maximum volume of sewage flow to 165 gallons a day per bedroom for new construction of multiple dwelling units. The Applicant requests a waiver from this local regulation. Applicant will comply with the requirements of 310 CMR 15.203.

Section II (C)(2)	LEACHING FACILITIES	The Board of Health allows leach fields, leaching trenches, leaching pits and leaching galleys to be designed to Title 5 standards with approval of the Director of the Board of Health. Applicant requests a waiver from the requirement to obtain approval from the Director as the Zoning Board of Appeals is provided with the authority to issue all local approvals.
Section II (D)	DISTANCES	Section II(D) regulates the location of disposal facilities. The Applicant requests a waiver from the local regulations to build the Project as proposed by the Plans.
Section II (E)	FLOOD PLAINS AND LAND AND LAND SUBJECT TO FLOODING	Section II(E) regulates the location of construction, basements and grading by the Board of Health. The Applicant requests a waiver from this local regulation to build the Project as proposed by the Plans.
Section II (G) (2)	PUMP DESIGNS	Board of Health Regulations require no more than 1 inch of effluent on each dose cover. Applicant requests a waiver to have effluent greater than 1 inch.
Section II (G) (5)	PUMP DESIGNS	Board of Health regulations require that the distribution boxes shall be “back vented” to the pump chamber with a minimum 2 inch PVC schedule 40 pipe. Applicant requests waiver from this requirement.
Section II (L)	HYDROGEOLOGICAL EVALUATION	The Board of Health regulations require a hydrogeological evaluation at the expense of the applicant. Per the regulations, the Board of Health determines whether the ground and surface water is not compromised. The Applicant will perform a Title V mounding analysis as required.

Department of Housing and Community Development
Chapter 40B Subsidized Housing Inventory (SHI)
as of December 5, 2014

Community	2010 Census Year Round Housing Units	Total Development Units	SHI Units	%
Abington	6,364	511	478	7.5%
Acton	8,475	1,107	551	6.5%
Acushnet	4,097	133	103	2.5%
Adams	4,337	321	321	7.4%
Agawam	12,090	499	467	3.9%
Alford	231	0	0	0.0%
Amesbury	7,041	869	505	7.2%
Amherst	9,621	1,081	1,034	10.7%
Andover	12,324	1,428	1,145	9.3%
Aquinnah	158	41	41	25.9%
Arlington	19,881	1,429	1,121	5.6%
Ashburnham	2,272	147	32	1.4%
Ashby	1,150	0	0	0.0%
Ashfield	793	2	2	0.3%
Ashland	6,581	346	241	3.7%
Athol	5,148	247	247	4.8%
Attleboro	17,978	1,177	1,177	6.5%
Auburn	6,808	242	242	3.6%
Avon	1,763	74	74	4.2%
Ayer	3,440	456	290	8.4%
Barnstable	20,550	1,832	1,373	6.7%
Barre	2,164	83	83	3.8%
Becket	838	0	0	0.0%
Bedford	5,322	1,087	902	16.9%
Belchertown	5,771	398	372	6.4%
Bellingham	6,341	702	537	8.5%
Belmont	10,117	392	380	3.8%
Berkley	2,169	139	24	1.1%
Berlin	1,183	222	65	5.5%
Bernardston	930	24	24	2.6%
Beverly	16,522	2,142	1,946	11.8%
Billerica	14,442	1,487	857	5.9%
Blackstone	3,606	165	123	3.4%
Blandford	516	1	1	0.2%
Bolton	1,729	192	64	3.7%
Boston	269,482	52,453	49,324	18.3%
Bourne	8,584	1,227	596	6.9%
Boxborough	2,062	327	24	1.2%
Boxford	2,730	64	23	0.8%

Boylston	1,765	26	24	1.4%
Braintree	14,260	1,636	1,098	7.7%
Brewster	4,803	293	246	5.1%
Bridgewater	8,288	579	524	6.3%
Brimfield	1,491	80	80	5.4%
Brockton	35,514	4,485	4,485	12.6%
Brookfield	1,452	47	41	2.8%
Brookline	26,201	2,634	2,111	8.1%
Buckland	866	3	3	0.3%
Burlington	9,627	1,395	993	10.3%
Cambridge	46,690	7,174	7,084	15.2%
Canton	8,710	1,180	1,075	12.3%
Carlisle	1,740	52	46	2.6%
Carver	4,514	146	146	3.2%
Charlemont	615	3	3	0.5%
Charlton	4,774	83	83	1.7%
Chatham	3,460	176	170	4.9%
Chelmsford	13,741	1,545	1,169	8.5%
Chelsea	12,592	2,130	2,125	16.9%
Cheshire	1,481	0	0	0.0%
Chester	585	22	22	3.8%
Chesterfield	524	17	17	3.2%
Chicopee	25,074	2,588	2,551	10.2%
Chilmark	418	3	3	0.7%
Clarksburg	706	8	8	1.1%
Clinton	6,375	549	549	8.6%
Cohasset	2,898	325	311	10.7%
Colrain	731	0	0	0.0%
Concord	6,852	766	710	10.4%
Conway	803	0	0	0.0%
Cummington	426	16	16	3.8%
Dalton	2,860	158	158	5.5%
Danvers	11,071	1,472	1,109	10.0%
Dartmouth	11,775	959	929	7.9%
Dedham	10,115	1,152	1,107	10.9%
Deerfield	2,154	33	33	1.5%
Dennis	7,653	349	335	4.4%
Dighton	2,568	417	115	4.5%
Douglas	3,147	183	140	4.4%
Dover	1,950	69	17	0.9%
Dracut	11,318	1,004	719	6.4%
Dudley	4,360	104	104	2.4%
Dunstable	1,085	0	0	0.0%
Duxbury	5,532	441	196	3.5%
East Bridgewater	4,897	230	173	3.5%
East Brookfield	888	0	0	0.0%
East Longmeadow	6,072	504	436	7.2%

Eastham	2,632	59	50	1.9%
Easthampton	7,567	505	449	5.9%
Easton	8,105	629	531	6.6%
Edgartown	1,962	94	89	4.5%
Egremont	596	0	0	0.0%
Erving	778	0	0	0.0%
Essex	1,477	40	40	2.7%
Everett	16,691	1,314	1,314	7.9%
Fairhaven	7,003	473	473	6.8%
Fall River	42,650	4,927	4,831	11.3%
Falmouth	14,870	1,231	963	6.5%
Fitchburg	17,058	1,656	1,655	9.7%
Florida	335	0	0	0.0%
Foxborough	6,853	621	611	8.9%
Framingham	27,443	2,870	2,870	10.5%
Franklin	11,350	1,543	1,078	9.5%
Freetown	3,263	98	80	2.5%
Gardner	9,064	1,297	1,297	14.3%
Georgetown	3,031	354	354	11.7%
Gill	591	24	24	4.1%
Gloucester	13,270	986	951	7.2%
Goshen	440	6	6	1.4%
Gosnold	41	0	0	0.0%
Grafton	7,160	642	325	4.5%
Granby	2,451	66	66	2.7%
Granville	630	3	3	0.5%
Great Barrington	3,072	316	244	7.9%
Greenfield	8,325	1,160	1,143	13.7%
Groton	3,930	378	212	5.4%
Groveland	2,423	137	80	3.3%
Hadley	2,200	285	285	13.0%
Halifax	2,971	28	28	0.9%
Hamilton	2,783	124	84	3.0%
Hampden	1,941	60	60	3.1%
Hancock	326	0	0	0.0%
Hanover	4,832	455	455	9.4%
Hanson	3,572	270	148	4.1%
Hardwick	1,185	22	22	1.9%
Harvard	1,982	279	110	5.5%
Harwich	6,121	333	333	5.4%
Hatfield	1,549	47	47	3.0%
Haverhill	25,557	2,694	2,465	9.6%
Hawley	137	0	0	0.0%
Heath	334	0	0	0.0%
Hingham	8,841	2,161	561	6.3%
Hinsdale	918	0	0	0.0%
Holbrook	4,262	439	439	10.3%

Holden	6,624	507	393	5.9%
Holland	1,051	19	19	1.8%
Holliston	5,077	332	225	4.4%
Holyoke	16,320	3,411	3,368	20.6%
Hopedale	2,278	108	108	4.7%
Hopkinton	5,087	558	439	8.6%
Hubbardston	1,627	49	49	3.0%
Hudson	7,962	1,089	918	11.5%
Hull	4,964	93	93	1.9%
Huntington	919	47	47	5.1%
Ipswich	5,735	520	494	8.6%
Kingston	4,881	356	179	3.7%
Lakeville	3,852	572	256	6.6%
Lancaster	2,544	207	124	4.9%
Lanesborough	1,365	28	28	2.1%
Lawrence	27,092	3,926	3,907	14.4%
Lee	2,702	173	176	6.5%
Leicester	4,231	163	163	3.9%
Lenox	2,473	178	178	7.2%
Leominster	17,805	1,479	1,442	8.1%
Leverett	792	2	2	0.3%
Lexington	11,946	1,510	1,329	11.1%
Leyden	300	0	0	0.0%
Lincoln	2,153	310	238	11.2%
Littleton	3,443	643	431	12.5%
Longmeadow	5,874	267	267	4.5%
Lowell	41,308	5,250	5,215	12.6%
Ludlow	8,337	187	187	2.2%
Lunenburg	4,037	164	164	4.1%
Lynn	35,701	4,452	4,451	12.5%
Lynnfield	4,319	704	491	11.4%
Malden	25,122	2,628	2,562	10.2%
Manchester	2,275	122	110	4.8%
Mansfield	8,725	1,042	946	10.8%
Marblehead	8,528	399	333	3.9%
Marion	2,014	204	155	7.7%
Marlborough	16,347	1,728	1,660	10.2%
Marshfield	9,852	753	550	5.6%
Mashpee	6,473	314	298	4.6%
Mattapoisett	2,626	71	71	2.7%
Maynard	4,430	387	369	8.3%
Medfield	4,220	209	191	4.5%
Medford	23,968	1,685	1,647	6.9%
Medway	4,603	285	233	5.1%
Melrose	11,714	1,209	892	7.6%
Mendon	2,072	77	40	1.9%
Merrimac	2,527	397	141	5.6%

Methuen	18,268	1,938	1,649	9.0%
Middleborough	8,921	928	509	5.7%
Middlefield	230	4	4	1.7%
Middleton	3,011	173	151	5.0%
Milford	11,379	980	718	6.3%
Millbury	5,592	244	221	4.0%
Millis	3,148	184	121	3.8%
Millville	1,157	26	26	2.2%
Milton	9,641	733	477	4.9%
Monroe	64	0	0	0.0%
Monson	3,406	152	152	4.5%
Montague	3,926	423	391	10.0%
Monterey	465	0	0	0.0%
Montgomery	337	0	0	0.0%
Mount Washington	80	0	0	0.0%
Nahant	1,612	48	48	3.0%
Nantucket	4,896	179	121	2.5%
Natick	14,052	1,672	1,442	10.3%
Needham	11,047	969	838	7.6%
New Ashford	104	0	0	0.0%
New Bedford	42,816	5,155	5,124	12.0%
New Braintree	386	0	0	0.0%
New Marlborough	692	0	0	0.0%
New Salem	433	0	0	0.0%
Newbury	2,699	94	94	3.5%
Newburyport	8,015	720	606	7.6%
Newton	32,346	2,515	2,438	7.5%
Norfolk	3,112	144	111	3.6%
North Adams	6,681	886	880	13.2%
North Andover	10,902	1,393	932	8.5%
North Attleborough	11,553	308	296	2.6%
North Brookfield	2,014	142	142	7.1%
North Reading	5,597	645	533	9.5%
Northampton	12,604	1,586	1,521	12.1%
Northborough	5,297	718	605	11.4%
Northbridge	6,144	470	455	7.4%
Northfield	1,290	27	27	2.1%
Norton	6,707	898	588	8.8%
Norwell	3,652	426	271	7.4%
Norwood	12,441	992	980	7.9%
Oak Bluffs	2,138	158	146	6.8%
Oakham	702	0	0	0.0%
Orange	3,461	431	431	12.5%
Orleans	3,290	337	307	9.3%
Otis	763	0	0	0.0%
Oxford	5,520	404	404	7.3%
Palmer	5,495	329	284	5.2%

Paxton	1,590	62	62	3.9%
Peabody	22,135	2,146	2,031	9.2%
Pelham	564	4	4	0.7%
Pembroke	6,477	807	625	9.6%
Pepperell	4,335	197	129	3.0%
Peru	354	0	0	0.0%
Petersham	525	0	0	0.0%
Phillipston	658	11	11	1.7%
Pittsfield	21,031	2,078	1,957	9.3%
Plainfield	283	0	0	0.0%
Plainville	3,459	209	175	5.1%
Plymouth	22,285	840	692	3.1%
Plympton	1,039	63	51	4.9%
Princeton	1,324	21	21	1.6%
Provincetown	2,122	210	169	8.0%
Quincy	42,547	4,077	4,077	9.6%
Randolph	11,980	1,279	1,279	10.7%
Raynham	5,052	604	489	9.7%
Reading	9,584	1,137	742	7.7%
Rehoboth	4,252	95	23	0.5%
Revere	21,956	1,769	1,759	8.0%
Richmond	706	3	3	0.4%
Rochester	1,865	8	8	0.4%
Rockland	7,030	453	407	5.8%
Rockport	3,460	135	135	3.9%
Rowe	177	0	0	0.0%
Rowley	2,226	179	94	4.2%
Royalston	523	3	3	0.6%
Russell	687	13	13	1.9%
Rutland	2,913	81	81	2.8%
Salem	18,998	2,350	2,348	12.4%
Salisbury	3,842	555	342	8.9%
Sandisfield	401	0	0	0.0%
Sandwich	8,183	566	287	3.5%
Saugus	10,754	825	749	7.0%
Savoy	318	0	0	0.0%
Scituate	7,163	355	310	4.3%
Seekonk	5,272	88	84	1.6%
Sharon	6,413	472	472	7.4%
Sheffield	1,507	30	30	2.0%
Shelburne	893	51	51	5.7%
Sherborn	1,479	41	34	2.3%
Shirley	2,417	60	60	2.5%
Shrewsbury	13,919	957	860	6.2%
Shutesbury	758	2	2	0.3%
Somerset	7,335	271	271	3.7%
Somerville	33,632	3,270	3,258	9.7%

South Hadley	7,091	396	396	5.6%
Southampton	2,310	44	44	1.9%
Southborough	3,433	610	286	8.3%
Southbridge	7,517	490	490	6.5%
Southwick	3,852	177	173	4.5%
Spencer	5,137	268	267	5.2%
Springfield	61,556	10,247	9,970	16.2%
Sterling	2,918	269	68	2.3%
Stockbridge	1,051	111	111	10.6%
Stoneham	9,399	501	495	5.3%
Stoughton	10,742	1,535	1,207	11.2%
Stow	2,500	331	179	7.2%
Sturbridge	3,759	260	209	5.6%
Sudbury	5,921	575	354	6.0%
Sunderland	1,718	8	8	0.5%
Sutton	3,324	176	42	1.3%
Swampscott	5,795	218	212	3.7%
Swansea	6,290	247	236	3.8%
Taunton	23,844	1,844	1,650	6.9%
Templeton	3,014	476	198	6.6%
Tewksbury	10,803	1,306	1,037	9.6%
Tisbury	1,965	123	109	5.5%
Tolland	222	0	0	0.0%
Topsfield	2,157	164	146	6.8%
Townsend	3,356	214	150	4.5%
Truro	1,090	27	27	2.5%
Tyngsborough	4,166	638	340	8.2%
Tyringham	149	0	0	0.0%
Upton	2,820	223	178	6.3%
Uxbridge	5,284	427	257	4.9%
Wakefield	10,459	1,059	694	6.6%
Wales	772	55	55	7.1%
Walpole	8,984	470	470	5.2%
Waltham	24,805	2,253	1,785	7.2%
Ware	4,539	425	425	9.4%
Wareham	9,880	889	759	7.7%
Warren	2,202	108	108	4.9%
Warwick	363	0	0	0.0%
Washington	235	0	0	0.0%
Watertown	15,521	1,219	1,000	6.4%
Wayland	4,957	362	200	4.0%
Webster	7,788	666	666	8.6%
Wellesley	9,090	597	561	6.2%
Wellfleet	1,550	34	34	2.2%
Wendell	419	5	5	1.2%
Wenham	1,404	190	122	8.7%
West Boylston	2,729	429	136	5.0%

West Bridgewater	2,658	173	119	4.5%
West Brookfield	1,578	57	57	3.6%
West Newbury	1,558	86	34	2.2%
West Springfield	12,629	440	440	3.5%
West Stockbridge	645	0	0	0.0%
West Tisbury	1,253	38	23	1.8%
Westborough	7,304	718	668	9.1%
Westfield	16,001	1,138	1,138	7.1%
Westford	7,671	987	575	7.5%
Westhampton	635	10	10	1.6%
Westminster	2,826	274	87	3.1%
Weston	3,952	252	142	3.6%
Westport	6,417	449	222	3.5%
Westwood	5,389	611	493	9.1%
Weymouth	23,337	1,919	1,895	8.1%
Whately	654	2	2	0.3%
Whitman	5,513	218	218	4.0%
Wilbraham	5,442	254	253	4.6%
Williamsburg	1,165	51	51	4.4%
Williamstown	2,805	148	148	5.3%
Wilmington	7,788	1,048	820	10.5%
Winchendon	4,088	345	345	8.4%
Winchester	7,920	199	152	1.9%
Windsor	387	0	0	0.0%
Winthrop	8,253	637	637	7.7%
Woburn	16,237	1,318	1,150	7.1%
Worcester	74,383	9,983	9,971	13.4%
Worthington	553	22	22	4.0%
Wrentham	3,821	269	165	4.3%
Yarmouth	12,037	625	518	4.3%
Totals	**2,692,186**	**282,268**	**250,863**	**9.3%**

*This data is derived from Information provided to the Department of Housing and Community Development (DHCD) by individual communities and is subject to change as new information is obtained and use restrictions expire.