Unified Parkway Industrial Development

Sutton & Millbury, MA

PROPONENT

UGPG RE Sutton LLC

223 Worcester Providence Turnpike Sutton, Massachusetts 01590

SUBMITTED TO

Executive Office of Energy & Environmental Affairs MEPA Office

100 Cambridge Street, Suite 900 Boston, Massachusetts 02114

SUBMITTED BY



99 High Street, 10th Floor Boston, Massachusetts 02110

IN ASSOCIATION WITH

Nutter McClennen & Fish LLP Bohler Engineering EcoTec, Inc.



July 31, 2023

Ref: 15047.01

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
Attn: Tori Kim, MEPA Director
100 Cambridge Street, Suite 900
Boston, MA 022114

Re: Unified Parkway Industrial Development - EEA# 16593

Single Environmental Impact Report

Dear Secretary Tepper and Director Kim:

On behalf of UGPG RE Sutton LLC, an affiliate of UN1F1ED² Global Packaging Group (the "Proponent"), and in accordance with the Certificate issued on the Project Commencement Notice" (the "PCN") on June 9, 2023, VHB is pleased to submit the enclosed Single Environmental Impact Report (the "SEIR") for the continued MEPA review of warehouse/distribution facilities totaling approximately 2.4 million GSF (the "Full Build Project") on approximately 448-acres of land located in Sutton and Millbury (the "Full Build Project Site"), as described in the initial Expanded Environmental Notification Form (the "EENF") filed on August 15, 2022 and the subsequent PCN filed on May 1, 2023.

The EENF provided an overview of the phased Full Build Project and a comprehensive assessment of potential environmental impacts associated with the initial phase of development. As part of the EENF, the Proponent requested, and was granted, a Special Review Procedure (the "SRP") that allowed for the initial phase of development to proceed with construction prior to completing MEPA review of the Full Build Project in order to meet the immediate operational needs of the Proponent. The subsequent PCN provided a detailed EIR-level assessment on the remaining phases of the proposed development for the Full Build Project and included a request for expedited review in the form of a SEIR, as allowed by the SRP, which was subsequently granted in the PCN Certificate.

The Project Site is located within one mile of three census tracts that meet the Environmental Justice ("EJ") criteria for Minority and Income populations. Pursuant to the *MEPA Public Involvement Protocol for Environmental Justice Populations* effective January 1, 2022, the PCN and the enclosed SEIR represent a comprehensive assessment of the potential environmental impacts of the Project and its effects on surrounding EJ populations in compliance with this protocol. As described further in the SEIR, the Proponent has provided enhanced community engagement throughout the MEPA process. The Proponent intends to host a virtual evening community meeting on August 16, 2023. This community meeting will provide the public an additional opportunity to engage with the project team and learn about the Full Build Project, as presented and analyzed in this SEIR, as well as receive an update on the ongoing construction related to the Phase I Project – Building 3. Chapter 2, *Environmental Justice and Public Health*, provides a detailed summary of the Proponent's analysis of the Remainder of Full Build Project as it relates to EJ populations, as well as its ongoing outreach and public engagement efforts.

Rebecca Tepper, Secretary Ref: 15047.01 July 31, 2023

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A variety of public benefits will result from the Full Build Project as outlined in the SEIR, including the following:

- > Construction jobs and permanent employment opportunities for various skill sets and as part of the Proponent's business operations.
- A new track and field facility or other public facility for the Town of Sutton.
- > Contributions to a Neighborhood Fund and the Wilkinsonville Water District.
- > Other significant community contributions, including science, technology, engineering, and mathematics (STEM) education, and transportation services for Sutton Senior Center.

We ask that you publish notice of availability of the SEIR for public review in the August 9th edition of the *Environmental Monitor*. We understand that public comments will be due by September 8th. This filing has been distributed electronically, per the requirements set forth by MEPA. Refer to Appendix A for the SEIR Distribution List.

We look forward to your review of this project. Please contact me at 617.335.1743 or ldevoe@vhb.com if you have any questions.

Sincerely,

Lauren DeVoe

Principal, Entitlement Permitting Strategic Advisor

VHB

Unified Parkway Industrial Development

Sutton and Millbury, Massachusetts

SUBMITTED TO Executive Office of Energy & Environmental Affairs

MEPA Office

100 Cambridge St., Suite 900 (9th Floor)

Boston MA, 02114

PROPONENT UGPG RE Sutton LLC

223 Worcester Providence Turnpike

Sutton, MA 01590

PREPARED BY VHB

99 High Street, 10th Floor

Boston, MA 02110

In association with:

Nutter McClennen & Fish Law Firm

Bohler Engineering

EcoTec Inc.

July 2023

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Project Description

In accordance with the Certificate of the Secretary of Energy and Environmental Affairs ("EEA") on the Project Commencement Notice (the "PCN") issued on June 12, 2023, and the Massachusetts Environmental Policy Act ("MEPA") Massachusetts General Law Chapter 30, Section 61-62I and the regulations promulgated thereunder set forth in 301 CMR 11.00, UGPG RE Sutton LLC, an affiliate of UN1F1ED² Global Packaging Group (the "Proponent"), respectfully submits this Single Environmental Impact Report (the "SEIR") for the continued MEPA review of certain warehouse/distribution facilities totaling approximately 2.4 million GSF (the "Project", or "Full Build Project") on approximately 448-acres of land located at 40 and 42 Unified Parkway and 105 Providence Road in Sutton with a portion in Millbury, Massachusetts, as described in the initial Expanded Environmental Notification Form (the "EENF") filed August 15, 2022 (EEA# 16593) and, subsequently, in the PCN filed May 1, 2023.

MEPA Review Overview

The EENF provided an overview of the phased Full Build Project and a comprehensive assessment of potential environmental impacts associated with the initial phase of development consisting of the construction of a 343,200 SF warehouse/distribution facility and associated parking (the "Phase 1 Project – Building 3", and "Phase I"). As part of the EENF, the Proponent also requested, and was granted, a Special Review Procedure ("SRP") that allowed the Phase 1 Project – Building 3 to proceed with construction prior to completing MEPA review of the Full Build Project in order to meet the immediate operational needs of the Proponent.

The PCN provided a detailed EIR-level assessment on the remaining phases of the proposed development for the Full Build Project (the "Remainder of Full Build Project", and "Phase II") to allow for expedited review with this SEIR. The PCN also included a comprehensive transportation study and Greenhouse Gas (GHG) emissions assessment for the Remainder of Full Build. Specifically, the PCN assessed the following three components of the Remainder of Full Build Project:

- An approximately 652,530 SF warehouse and distribution building supported by +252 auto and +33 trailer parking spaces ("Full Build Project – Building 2");
- 2. Completion of Unified Parkway, ("Unified Parkway"); and
- 3. An approximately 1,400,000 SF warehouse and distribution building supported by approximately \pm 1,247 auto and \pm 586 trailer parking spaces ("Full Build Project Building 1").

In accordance with the PCN Certificate, this SEIR provides additional information, as required by the SEIR Scope for the Full Build Project. This chapter provides an overview of the Full Build Project, including existing and proposed site conditions, public benefits, anticipated schedule, and regulatory context, as well as a description of ongoing public agency and community outreach. (Note: Chapter 2, *Environmental Justice and Public Health*, addresses the MEPA protocols related to Environmental Justice, including a description of enhanced public involvement beyond agency and community outreach described below).

As specifically required by the PCN Certificate, this chapter provides additional information and Project details to address the 'Project Description and Permitting section of the SEIR Scope (with chapter section references in **bold**):

- Identify any changes to the project since the PCN, and provide an update on any work associated with Phase I of the project since the filing of the PCN and provide an update on the construction of Unified Parkway, and any consolidation of business operations enabled by the construction of Building 3¹ and associated GHG emissions reductions. (Section 1.2.3)
- Identify and describe State, federal and local permitting and review requirements associated with the project and provide an update on the status of each of these pending actions. (Section 1.5)
- Describe and provide an analysis of applicable statutory and regulatory standards and requirements, and discuss the project's consistency with those standards. (Section 1.5.2)
- Include detailed site plans for existing and post-development conditions at a legible scale. Identify buildings, interior and exterior public areas, impervious areas, transportation improvements, pedestrian and bicycle accommodations, and stormwater and utility infrastructure. **Refer to Figures 1.2, 1.4-1.9b and Figures 3.5-3.8b**
- Include detailed plans, sections, and elevations to accurately depict existing and proposed conditions, including proposed above- and below-ground structures, on- and-off-site open space, and resiliency and other mitigation measures. Refer to Figures 1.3a through 1.12b and Figures 3.5-3.8b
- Identify permanent and temporary impacts associated with the dam removal, the acreage of the site, and any state permits or approvals required for this work. It should identify whether the dam removal was permitted as an Ecological Restoration project. (Section 1.5.2.3)

¹ While the PCN Certificate references Building 2, the Proponent assumes that the update is intended for Building 3 that is currently under construction.

1.1 Site Context and Existing Conditions

The Full Build Project Site contains approximately 448 acres of land in Sutton and Millbury, Massachusetts. Refer to Figure 1.1 for the site location map. Most of the Full Build Project Site is extensively disturbed due to historic gravel pit and earth removal operations that are no longer in use, with multiple dirt roads running through the site. Refer to Figure 1.2 for the existing site conditions plan and Figures 1.3a through 1.3g for historic aerials from the 1990's to 2021.

The Full Build Project Site includes six (6) lots, as shown on Figure 1.2. The Phase 1 Project – Building 3 is being constructed on Lot 3 (the "Building 3 Lot"). The Full Build Project – Building 2 will be developed within Lot 2 (the "Building 2 Lot") and the Full Build Project – Building 1 will be developed with Lot 1 (the "Building 1 Lot"). Unified Parkway comprises Lot 6. No development is currently planned on Lots 4 or 5, which total a combined 163 acres of the overall 448-acre Full Build Project Site.

The Sutton portion of Lot 1, as well as Lots, 2, 3, and 6, are designated by the Town of Sutton Zoning Map as "Office – Light Industrial" and makeup the area of development for the Full Build Project. Under this zoning designation, "Warehouse with Distribution" is an allowed use pursuant to a special permit issued by the Sutton Planning Board. The Millbury portion of Lot 1 is designated by the Town of Millbury Zoning Map as "Industrial I", wherein "warehousing, wholesale distribution not involving bulk storage" is an as of right use.

The Full Build Project Site is located between Providence Road (Route 122A) and Boston Road. Route 122A in Sutton is a regional corridor (not under state highway jurisdiction) that hosts similar industrial and warehouse uses to those proposed herein. The Full Build Project Site is also proximate to Route MA-146, which serves as a regional corridor of Central and Eastern Massachusetts connecting the Worcester area with Providence, Rhode Island.

1.2 Project Description

1.2.1 Proposed Development Program

Table 1-1 below presents the proposed development program for the Full Build Project, including the Phase 1 Project – Building 3 previously reviewed under MEPA as part of the EENF and the Remainder of the Full Build Project previously reviewed under the PCN. An overview of the Full Build Project Site with the Full Build Project proposed conditions overlay is shown on Figure 1.4. The conceptual layout of the Full Build Project is also depicted in Figure 1.5.

Table 1-1 Proposed Development Program			
-	Approximate Size	Number of Parking Spaces	
Phase 1 Project – Building 3 ¹			
Warehouse/Distribution	343,200 SF	_	
Auto Parking	_	Up to 90 spaces	
Trailer Parking		Up to 118 spaces	
Full Build Project – Building 2			
Warehouse/Distribution	652,530 SF	_	
Auto Parking	_	Up to 252 spaces	
Trailer Parking	_	Up to 33 spaces	
Full Build Project – Building 1			
Warehouse/Distribution	1,400,000 SF	_	
Auto Parking	_	Up to 1,247 spaces	
Trailer Parking	-	Up to 586 spaces	
Remainder of Full Build Project ²			
Warehouse/Distribution	2,052,530 SF	_	
Auto Parking	-	Up to 1,499 spaces	
Trailer Parking	-	Up to 715 spaces	
Full Build Project ³			
Warehouse/Distribution	2,395,730 GSF	-	
Auto Parking	_	Up to 1,589 spaces	
Trailer Parking	_	Up to 833 spaces	

Note: GSF – Gross Square Footage.

- 1 Phase 1 Project Building 3 impacts have been previously reviewed by MEPA through the Expanded Environmental Impact Form filed 8/15/22 and subsequent SRP issued on 10/31/22.
- 2 Remainder of Full Build Project includes the development program of Full Build Project Building 2, and Full Build Project Building 1.
- 3 Full Build Project includes the development program for Phase 1 Project Building 3, the Full Build Project Building 2, and the Full Build Project Building 1.

1.2.1 Full Build Project

1.2.1.1 Phase 1 Project – Building 3

As described in Table 1-1, the Phase 1 Project – Building 3 consists of the development of a 343,200 SF warehouse/distribution facility supported by approximately 90 auto parking spaces and approximately 118 trailer parking spaces. As shown in Figure 1.6, the proposed development will occur within the Building 3 Lot. The Proponent intends to use the Phase 1 Project – Building 3 as a means of consolidating the Proponent's business operations directly near their existing headquarters at 223 Worcester Providence Turnpike in Sutton as well as accommodate future business growth.

1.2.1.2 Full Build Project – Building 2

As described in Table 1-1, the Full Build Project – Building 2 includes the development of an approximately 652,530 SF warehouse/distribution facility, supported by up to 252 auto parking spaces and up to 33 trailer parking spaces. As shown in Figure 1.7, the Full Build Project – Building 2 will be constructed within the

SF – Square Footage.

Building 2 Lot. Shown in Figure 1.8, the proposed footprint of the Full Build Project – Building 2, will be largely developed on previously disturbed land. Similar to the Phase 1 Project – Building 3, the Proponent intends to use the Full Build Project – Building 2 as a means of consolidating the Proponent's business operations directly near their existing headquarters at 223 Worcester Providence Turnpike in Sutton as well as accommodate future business growth.

1.2.1.3 Full Build Project - Building 1

As described in Table 1-1, the Full Build Project – Building 1 includes the development of an approximately 1.4 million-SF warehouse/distribution facility, supported by up to 1,247 auto parking spaces and up to 586 trailer parking spaces.

As shown in Figure 1.9, the Full Build Project – Building 1, will be constructed in the Building 1 Lot. Shown in Figure 1.10, the proposed footprint of the Full Build Project – Building 1, will be developed on an entirely previously disturbed area. The Proponent intends to lease the Full Build Project – Building 1 to a third-party.

1.2.2 Unified Parkway

Local approvals for Unified Parkway were obtained in early 2022 for the layout and construction of Unified Parkway and construction commenced in April of 2022. Construction activities to date have included earthwork, a retaining wall, erosion controls and stormwater management facilities.

Concurrent with the construction of Unified Parkway, the Phase 1 Project EENF was filed for the Phase 1 Project – Building 3 that included the southern portion of Unified Parkway and utilities necessary to support the Phase 1 Project – Building 3. The EENF Certificate issued September 30, 2022, and the SRP issued October 31, 2022, stated that no further construction of Unified Parkway, beyond the portions reviewed as part of the Phase 1 Project – Building 3 shall be constructed.

Since the issuance of the SRP, construction of Unified Parkway beyond the portion included within the limits of the Phase 1 Project – Building 3 has been limited to the necessary utility connections in support of the Phase 1 Project – Building 3 and/or the completion of previously started improvements that needed to be finished for either safety reasons or stabilization and erosion/dust control measures. Section 1.2.2 of Chapter 1, *Project Description*, of the PCN provided an update on the extent of work on Unified Parkway through the Remainder of Full Build Project.

Figures 1.11a and 1.11b and 1.12a and 1.12b illustrate the existing and proposed conditions of the remainder of Unified Parkway that is to be constructed as part of the Full Build Project.

1.2.3 Changes Since the PCN

This section summarizes changes to the Project since submission of the PCN. These changes include the following:

- The Phase 1 Project Building 3 site and building construction has continued to advance since the filing of the PCN. A large percentage of the site stormwater and utility infrastructure has been installed. Portions of the parking lot and driveway base binder pavement have been installed. Building construction continues with the exterior masonry and metal panel walls installed, window installation underway, and interior finishes advancing to completion.
- Construction of the portion of Unified Parkway located within the Phase 1 Project – Building 3 has continued since the filing of the PCN. The 12-inch watermain has been installed, tested, and activated and the majority of the utilities and storm drainage systems has been installed. Pavement base binder has been installed within the limits of the Phase 1 Project.
- "The previously proposed improvements at the intersection of Boston Road/Unified Parkway (with local, not state, jurisdiction) have been modified to provide two westbound lanes on Boston Road and a realignment of the sidewalk along the north side of Boston Road. The improvements will continue to support traffic generated by the Full Build Project.

1.3 Summary of Public Benefits

The Full Build Project is intended to revitalize several hundred acres of land historically used for earth removal and gravel pit operations into modern warehouse and distribution facilities providing a substantial tax base for the municipality and job opportunities for the Town of Sutton and the greater Blackstone Valley region.

In terms of tax revenue, the Town of Sutton has designated the Full Build Project as a Local Incentive-Only Project under the Massachusetts Economic Development Incentive Program. The Town of Sutton and the Proponent have entered into a tax increment financing agreement (the "TIF Agreement") that is estimated to result in nearly \$9 million of new tax revenue for the Town of Sutton over its 15-year term.

Along with the TIF Agreement, the Town of Sutton and Proponent have entered into a Community Partnership Agreement (the "CPA"), whereby the Proponent has agreed to provide certain other community and economic benefits to the Town of Sutton, including:

- \$1,000,000 toward traffic improvements at the Boston Road and Providence Road intersection (the "Boston Road/Providence Road Intersection Improvements");
- \$5,000,000 toward a new Sutton track and field facility or alternative public facility;
- > \$900,000 toward a new fire engine;
- > \$100,000 toward STEM education;
- \$60,000 to Council for Aging toward new transportation vehicle for Sutton Senior Center;

- \$80,000 toward the Town's third-party costs for reviewing the Project (in addition to applicable permit fees); and
- \$150,000 towards a Neighborhood Fund to address abutter concerns with all remaining proceeds to be donated to the Sutton Food Pantry.

These contributions are contingent on obtaining all permits and approvals for the Full Build Project, and certain contributions are conditioned on securing a tenant for the Full Build Project – Building 1. In addition to these monetary contributions, approximately 500 temporary construction jobs and 1,200 permanent jobs are expected to be created. Lastly, the Proponent must also sponsor certain training programs for the Sutton Fire Department prior to the occupancy of the first building in the Full Build Project.

Additionally, the Proponent has entered into a letter agreement with the Wilkinsonville Water District ("WWD") to allow for the relocation of certain easements benefitting the WWD's well lot property that is surrounded by Lot 2 (See Figure 1.2 for reference) to help facilitate development of the Full Build Project. As part of this agreement, the Proponent has committed to fund up to \$50,000 in upgrades to the WWD's system-wide telecommunications equipment.

1.3.1 Proponent's Business Consolidation

As described in both the EENF and PCN, by consolidating the Proponent's business operations directly near their existing headquarters at 223 Worcester Providence Turnpike in Sutton, the Phase 1 Project – Building 3 is estimated to reduce tractor-trailer miles traveled between their Sutton headquarters and their existing warehouse locations by over 90 percent.

The Phase 1 Project – Building 3 is currently under construction and slated to open for operations in early 2024. It is expected that by the summer of 2024, the Proponent will begin the consolidation process of their existing warehouse locations based on the prior lease commitments of those sites. The consolidation process is expected to be completed in 2025.

1.4 Project Schedule

As stated above, the Phase I Project – Building 3 is currently under construction and is expected to be completed in early 2024. Upon completion of the MEPA review process for the Full Build Project, the Proponent intends to first complete construction of the remainder of Unified Parkway in early spring 2024.

Construction of the Full Build Project – Building 2 is currently expected to start in late 2024. Site preparation work for the Full Build Project – Building 1 is expected to commence in early 2024. However, building construction will be a function of specific tenant needs as the Proponent continues to actively market the Full Build Project – Building 1 for lease. In either case, market conditions will determine the timing of construction of each building.

1.5 Regulatory Compliance

1.5.1 Anticipated Permits and Approvals

Table 1-2 lists the permits and approvals from federal, state and local governmental authorities, that are anticipated to be required for the Full Build Project. It is possible that only some of the permits and approvals identified below will be required, and also that there are other permits and approvals which will be identified in the course of approval of the Full Build Project.

Table 1-2 Anticipated Project Permits and Approvals

AGENCY	PERMIT/APPROVAL	STATUS
Federal		
Environmental Protection Agency (EPA)	National Pollutant Discharge Elimination System (NPDES) Construction General Permit	Originally obtained in March 2022 and amended in August 2022 for the Full Build Project – Building 2 and Phase 1 Project – 3
Commonwealth of Massachuse	tts	
Executive Office of Energy and Environmental Affairs (EEA)	Certificate evidencing completion of MEPA Review	EENF filed August 15, 2022; PCN filed May 1, 2023; SEIR filed within; pending acceptance of SEIR.
Massachusetts Department of Transportation	Vehicular Access Permit	To be obtained
Massachusetts Historical Commission	Archaeological Review	MHC confirmed no further review on June 6, 2023
Town of Sutton		
Planning Board	Definitive Subdivision Plan approval,	Definitive Subdivision Plan for Unified Parkway issued on January 12, 2022, and last modified and approved June 5, 2023.
	Site Plan Review and approval as well as issuance of Special Permits (as necessary)	Site Plan Approval and Special Permits issued on August 4, 2022, for Phase 1 Project – Building 3 and Remainder of Full Build Project – Building 2 and last modified and approved June 5, 2023
	Scenic Road Alteration Permit	Scenic Road Alteration Permit issued on December 20, 2022, and last modified and approved Jun 5, 2023
Conservation Commission	Order of Conditions (OOC)	OOC issued on January 27, 2022, for Unified Parkway
		OOC issued on July 8, 2022, for Phase 1 Project – Building 3 and Remainder of Full Build Project – Building 2
Town of Millbury		

Planning Board	Site Plan Approval	Application not yet submitted for Remainder of Full Build Project – Building 1; pending securing Building 1 Tenant.
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1.5.2 Consistency with Federal and State Statutory and Regulatory Standards

1.5.2.1 Federal

Environmental Protection Agency (EPA)

In accordance with the EPA/NPDES guidelines, a Storm Water Pollution Prevention Plan (SWPPP) is in place for several project components (specifically, Phase 1 Project – Building 3, Unified Parkway, and site preparation work for future Remainder of Full Build – Building 1) and will be prepared for all remaining components of the Project (construction of the Remainder of Full Build Project – Building 1 and Remainder of Full Build Project – Building 2). The SWPPP will ensure best management practices are utilized during construction and post construction phases of the Project. During the construction phase, all erosion control devices and measures shall be maintained in accordance with the final plans, local/state approvals and conditions, and the NPDES Construction General Permit, of which is in effect for the Phase 1 Project – Building 3, Unified Parkway, and the Remainder of Full Build Project – Building 2, as well as for site preparation work for future Remainder of Full Build – Building 1 (General Permit number MAR10047W). Once construction is completed, the post development stormwater controls are to be operated and maintained.

1.5.2.2 State

MEPA Review

As summarized in the introduction section above, an SRP was established for MEPA review for the Full Build Project to allow the Phase 1 Project – Building 3 to commence prior to MEPA review of the Remainder of Full Build Project. The EENF provided an overview of the phased Full Build Project and a comprehensive assessment of potential environmental impacts associated with the initial phase. Subsequently, a PCN with a SEIR request was filed for the remaining phases of development. This SEIR intends to provide additional information on the Full Build Project to address the remaining agency and public issues or questions so that MEPA review can be completed and state permitting can commence.

With respect to sustainability, climate change and resiliency matters, the Proponent conducted extensive outreach and coordination with the Department of Energy Resources (DOER) throughout review of the EENF/SRP and PCN filings, including multiple meetings and supplemental memorandums provided in response to topics discussed with DOER.

Massachusetts Department of Transportation

Prior to filing this SEIR, the Proponent reached out to MassDOT PPDU, Boston Traffic Section and District 3 representatives to review the Agency's comments on the PCN and discuss the approach to address the comments, specifically those related to the Intersection Control Evaluation (ICE) Stage 2. As a result of follow-on coordination and input from MassDOT – District 3, it was determined that the Stage 1 review presented in the PCN adequately reviewed the characteristics of available options for the intersection improvements, and that in light of a planned Route 146 corridor study that will be undertaken by MassDOT, a Stage 2 ICE analysis will not be necessary for the Route 146/Boston Road intersection as part of the traffic assessment of the Full Build Project. The improvements outlined in the PCN for the Route 146/Boston Road intersection will serve as the framework for the MassDOT Section 61 Finding for the Full Build Project. A MassDOT Vehicular Access Permit will be required for construction of the proposed improvements at the Route 146/Boston Road intersection.

The follow-on coordination outlined above followed extensive outreach efforts that were undertaken with MassDOT staff prior to filing the PCN. Specifically, the Proponent has had several consultation meetings with the MassDOT staff in Boston and District 3 both during the EENF filing preparation as well as the weeks leading up to the filing of the PCN to discuss the framework for analyzing the traffic impacts of the Full Build Project and identifying proposed mitigation work at the Route 146 and Boston Road intersection. The meetings involved staff from MassDOT Boston, District 3 and the Town of Sutton staff. The input obtained during the pre-filing consultation meetings and communications was instrumental in refining the transportation analyses to suit MassDOT's expectations and thereby assist in streamlining agency review of the traffic impacts and mitigation recommendations for the Full Build Project.

It is also noted that, separate from the pre-filing coordination with MassDOT and Town staff leading up to this SEIR filing, an all-day Road Safety Audit (RSA) was also conducted at the intersection of Route 146/Boston Road. As described in the PCN filing, in addition to staff from MassDOT Boston and District 3, Town staff from Planning, DPW, police and fire and a representative from the Central Massachusetts Regional Planning Agency (CMRPC) attended the in-person meeting. The findings of the RSA were taken into consideration for ranking improvement alternatives considered in the ICE – Stage 1 review and during the development of the conceptual intersection improvement plan discussed in Chapter 4, *Transportation*, of the PCN filing. See Chapter 6, *Mitigation Summary*, for an outline of the traffic improvements proposed for the Full Build Project.

Massachusetts Historical Commission

The Proponent has continued outreach to the Massachusetts Historical Commission following the filing of the PCN. On June 6th, 2023, the agency confirmed that it will not comment on the PCN and that they do not have any archaeological concerns related to the Full Build Project. The Proponent will continue to provide MHC subsequent MEPA filings.

1.5.2.3 Local

Town of Sutton

The Phase 1 Project – Building 3 has received all local approvals from the Town of Sutton Planning Board and Town of Sutton Conservation Commission to proceed with construction. A NPDES Construction General Permit was obtained for the Phase 1 Project – Building 3 prior to commencing construction.

Unified Parkway and the Full Build Project – Building 2 have also received all local approvals from the Town of Sutton Planning Board and Town of Sutton Conservation Commission to proceed with construction. A NPDES Construction General Permit has been obtained for the Full Build Project – Building 2.

The Site Plan Approval and Special Permits for Use, Height, Common Driveway and Groundwater Protection District, were issued on August 4, 2022 for Phase 1 Project – Building 3 and the Full Build Project – Building 2. A Scenic Road Alteration Permit allowing for certain improvements supporting the Full Build Project within Boston Road (a designated scenic road in the Town of Sutton) was issued on December 20, 2022, and a subsequent amendment was approved by the Planning Board on June 5, 2023.

The Definitive Subdivision Plan for Unified Parkway was approved by the Town of Sutton Planning Board on January 12, 2022, and subsequent amendments were approved on December 20, 2022, and June 5, 2023.

The Proponent intends to commence local permitting of the Full Build Project – Building 1 upon securing a tenant. This will consist of Special Permits and Site Plan Review with the Town of Sutton Planning Board. No Orders of Condition will be necessary from the Sutton Conservation Commission.

As described in the PCN, prior to the adoption of certain amendments to the Town of Sutton Zoning Bylaw in May 2021 that would permit a development of the size and scope of the Full Build Project, the Proponent identified certain isolated vegetated wetlands on the Project Site that were subject to local regulation but exempt from any state or federal jurisdiction.

Town of Millbury

The Proponent intends to commence local permitting of the Full Build Project – Building 1 upon securing a tenant. This will consist of Site Plan Approval with the Town of Millbury Planning Board. No Orders of Condition will be necessary from the Millbury Conservation Commission.

A Site Plan Approval is not required for Phase 1 Project – Building 3, the Remainder of Full Build Project – Building 2 or Unified Parkway.

1.5.3 Town of Sutton Dam Removal Project

The impacts to the isolated vegetated wetlands regulated under the Town of Sutton Bylaw were proposed to be replicated as Bordering Vegetated Wetland (BVW)

associated with Cold Spring Brook. To permit this work, a Notice of Intent (NOI) was filed on February 4, 2021, and an Order of Conditions approving this work was issued on March 29, 2021. Given that this replication was required only under the local Bylaw, the Conservation Commission suggested an alternative to traditional replication measures and suggested the removal of an existing failed dam adjacent to the Project Site on a parcel owned by the Town of Sutton. After conducting further research and discussions with the Town of Sutton, it was determined that removal of the dam would provide a significant environmental benefit by removing a structure that hampers the movement of cold water trout along Cold Spring Brook and prevents the need to clear forested areas to construct a replication area. As such, the Proponent decided to move forward to permit this alternative option.

The dam within Cold Spring Brook consists of remnants of a dam that appears to have failed many years ago. This dam has a large crack in the center, has split into two large pieces and appears to have collapsed and/or settled 3-4 feet. During high flows water flows over the dam structure and during very low flows water passes through and under the structure. This structure hampers fish movement within a known cold water fishery resource.

The Proponent consulted with the Department of Conservation and Recreation (DCR), Office of Dam Safety (ODS) to obtain a letter indicating that this dam was non-jurisdictional under applicable ODS regulations. A copy of this letter is appended as Appendix B.

Removal of the dam required the filing of a Notice of Intent (NOI) with the Sutton Conservation Commission. Following a detailed review including peer review, an Order of Conditions was issued on August 25, 2021 approving the dam removal project. The approved project includes permanent impacts of 20-linear feet of bank, and 165 square feet of land under waterbodies and waterways. Temporary impacts include 640 square feet of land under waterbodies and waterways to install swamp mats to stage equipment and 8,625 square feet of riverfront area to gain access to the work area. A detailed construction sequence and restoration plan was included in the NOI application.

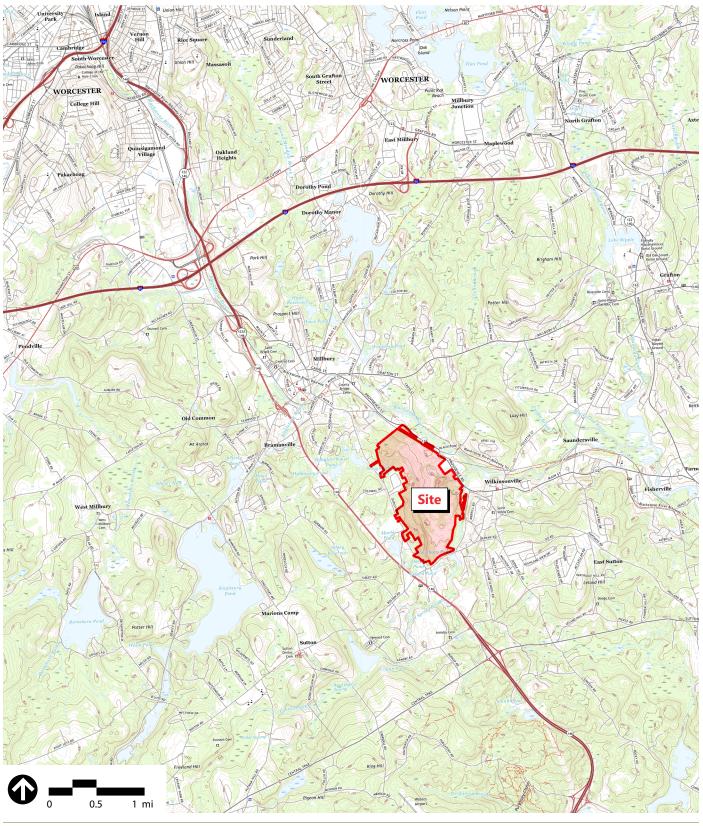
This NOI application was submitted as an ecological restoration project, which required utilizing the Ecological Restoration NOI application and complying with additional applicable requirements including contacting DCR- ODS and providing a notice in the Environmental Monitor prior to submission of the application. As noted above, the Sutton Conservation Commission issued an Order of Conditions approving the Project. No additional State permits are required for this dam removal project. The Proponent has not completed the dam removal project but intends to complete the work prior to August 2024.

1.6 Community Outreach

The Proponent has undertaken substantial community outreach efforts over the past year as the Full Build Project has taken shape.

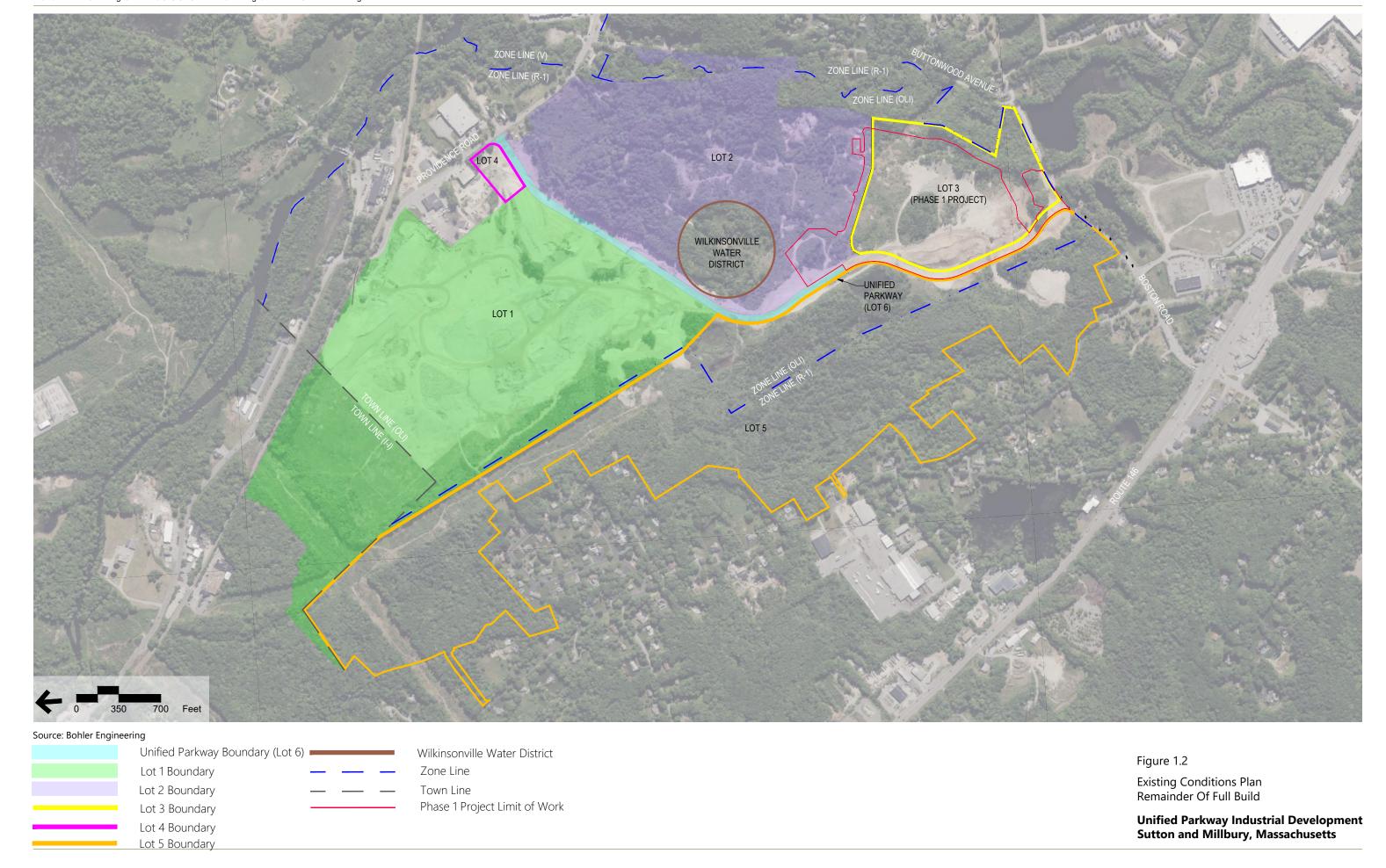
In Spring of 2022, the Proponent started a project website (Link: https://unified2parkwayproject.wordpress.com/) to keep residents informed of significant project updates and to answer frequently asked questions about the Full Build Project. The Proponent has used the website to advertise two public neighborhood meetings – one in May 2022 and another in November 2022 – hosted at the Proponent's headquarters at 223 Worcester Providence in Sutton. The Proponent intends to continue using the project website as a tool to keep the public informed of key milestones throughout the development, permitting and construction of the Full Build Project.

Following the PCN filing, the Proponent held a Neighborhood Meeting during the PCN Comment Period in May 2023 to gather public input from residents. The meeting information was posted on the Project website. (See Chapter 2, *Environmental Justice and Public Health*, for more details). A second Neighborhood Meeting is planned for the evening of August 16, 2023 to update the public on the project and MEPA review process.



Source: USGS

Figure 1.1 Site Location Map



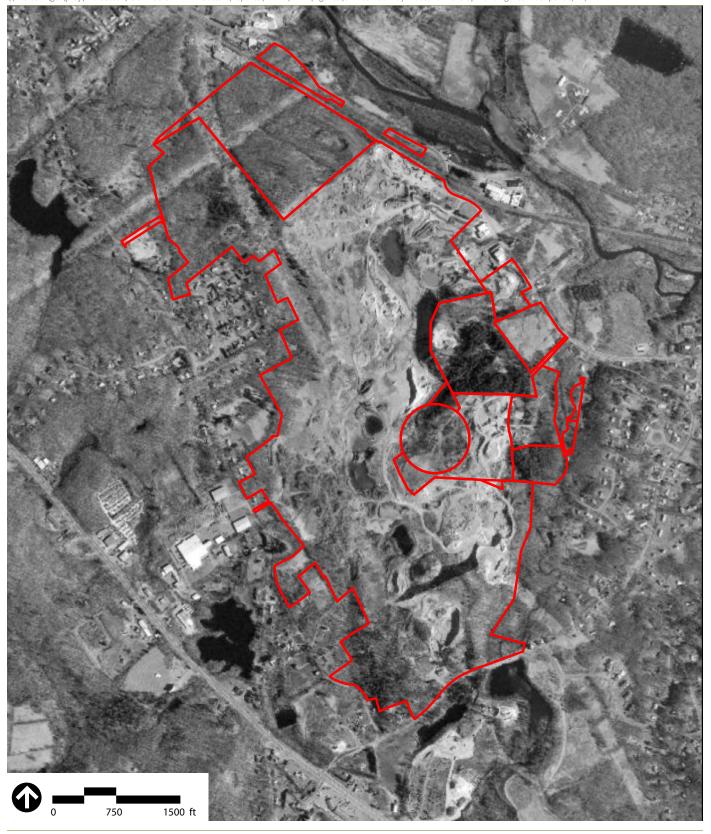


Figure 1.3a Historic Aerial: 1990s



Figure 1.3b Historic Aerial: 2001



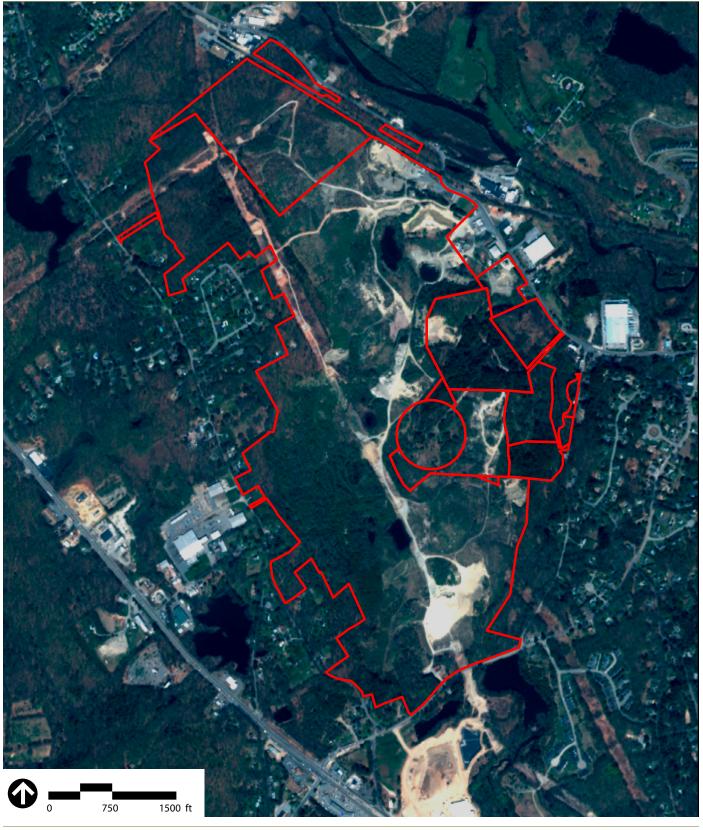
Figure 1.3c Historic Aerial: 2008-2009



Figure 1.3d Historic Aerial: 2011-2012



Figure 1.3e Historic Aerial: 2013-2014



Project Outline

Figure 1.3f Historic Aerial: 2015

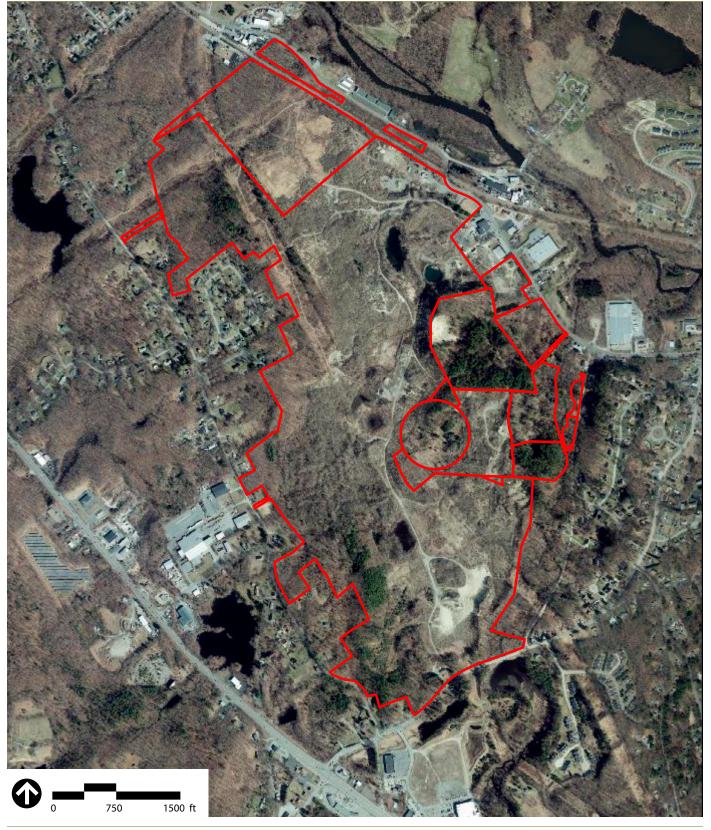
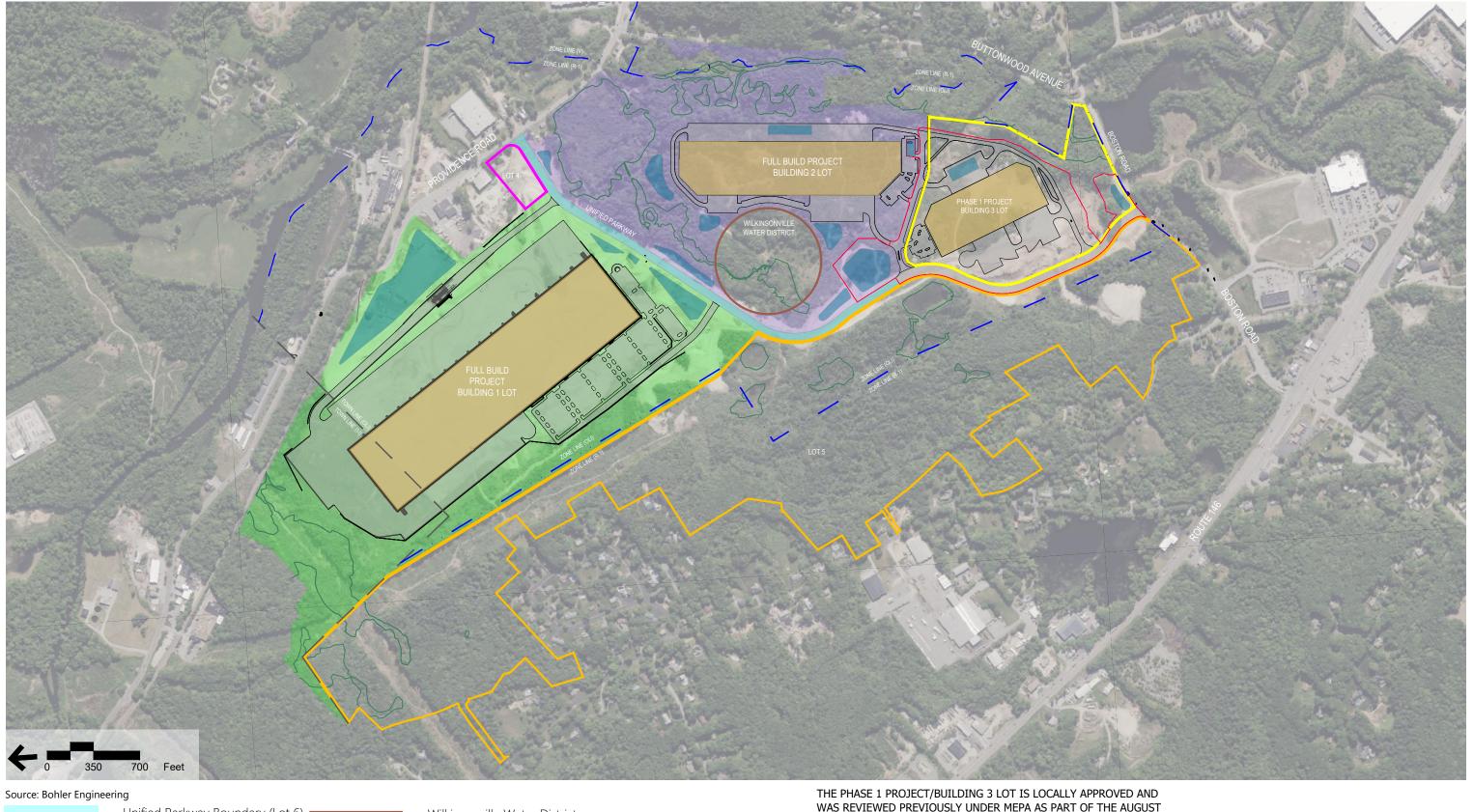


Figure 1.3g Historic Aerial: 2021



Source: UGPG RE Sutton LLC

Figure 1.4
Full Build Project Site Map with Proposed Building Locations



Unified Parkway Boundary (Lot 6) Wilkinsonville Water District Lot 1 Boundary Zone Line Town Line Lot 2 Boundary Stormwater Management Areas Lot 3 Boundary Phase 1 Project Limit of Work Lot 4 Boundary Wetland Line Lot 5 Boundary

WAS REVIEWED PREVIOUSLY UNDER MEPA AS PART OF THE AUGUST 2022 EENF. BUILDING 2 IS ALSO LOCALLY APPROVED.

Figure 1.5 Full Build Project Proposed Conditions Plan

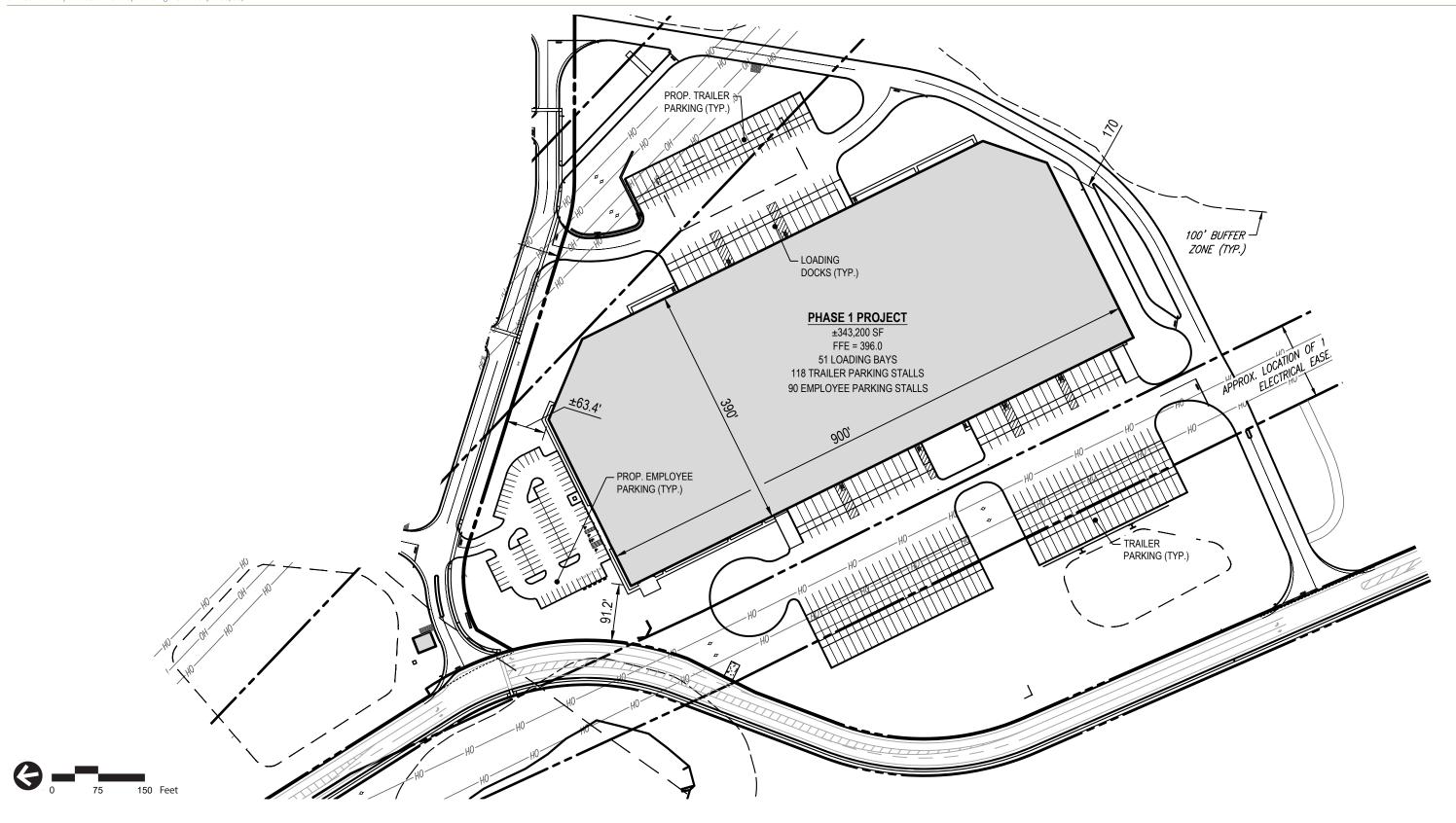
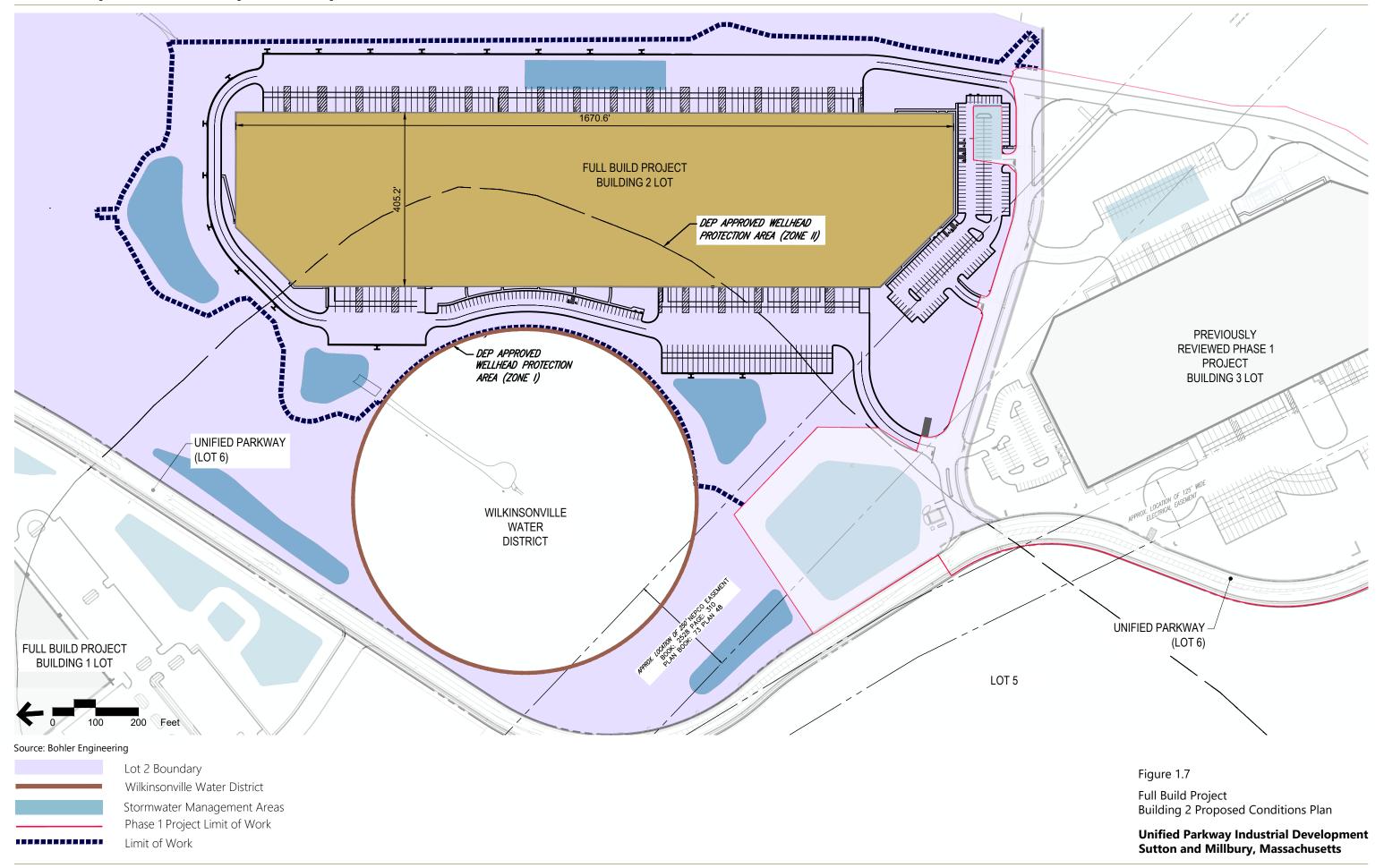
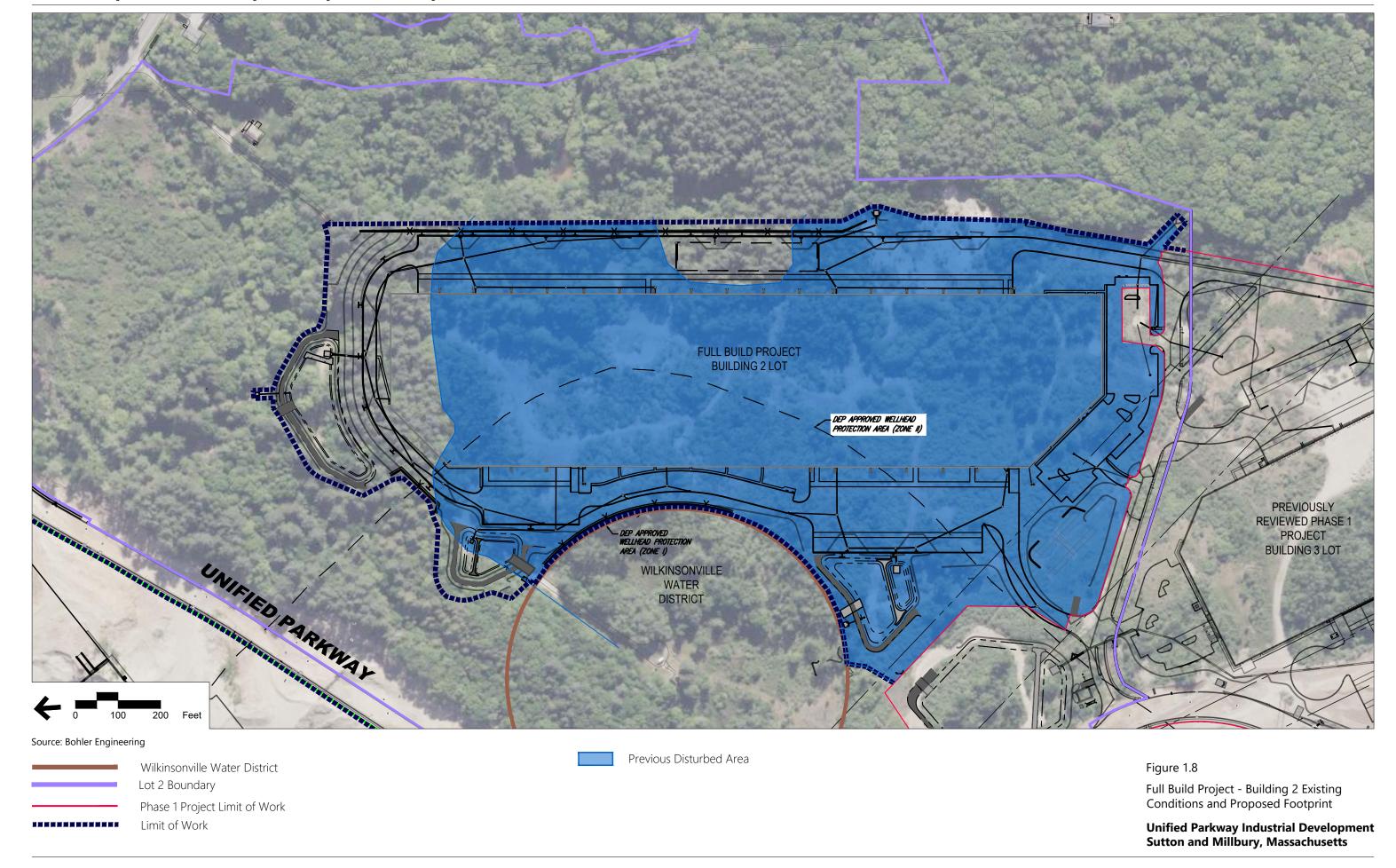
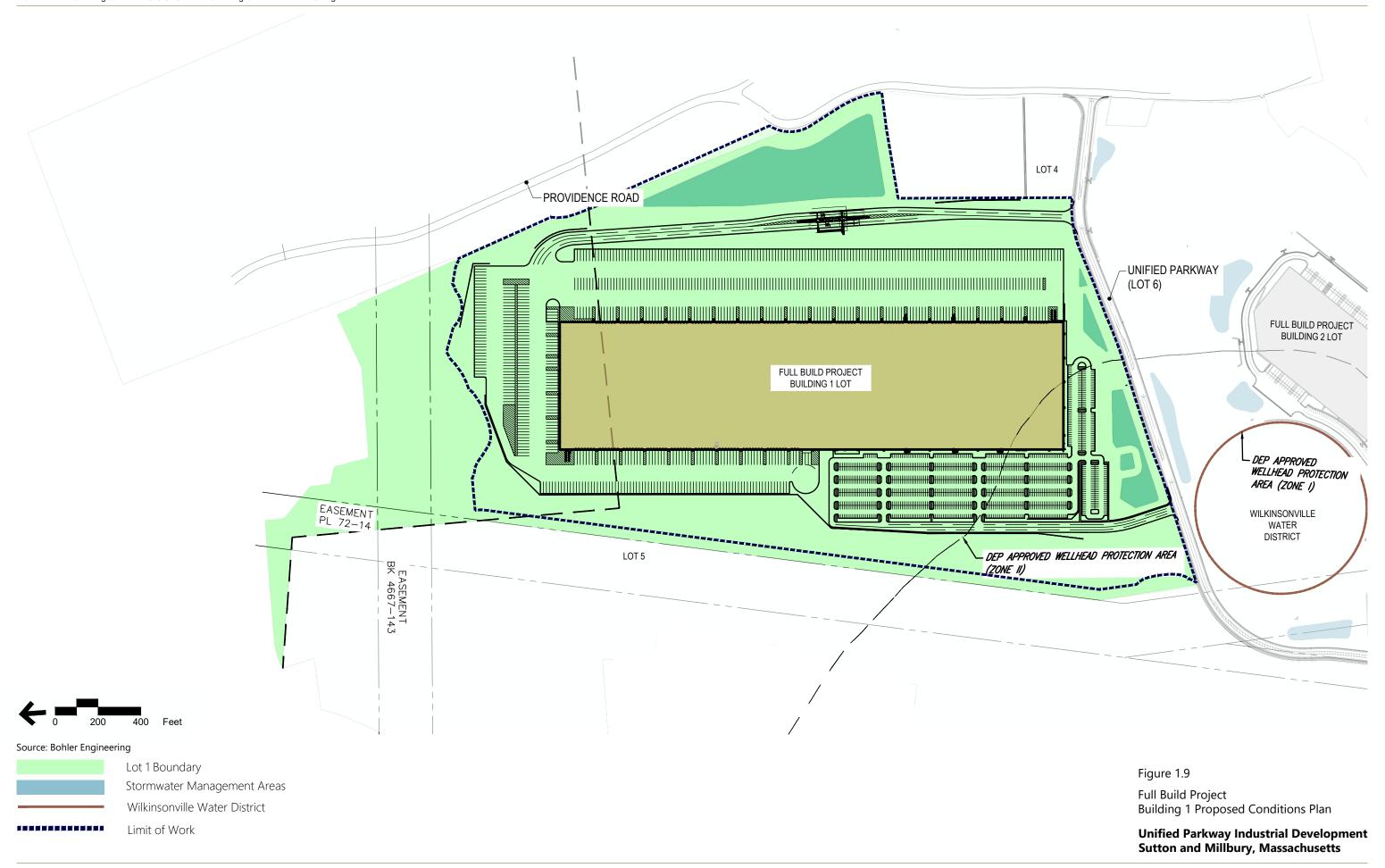


Figure 1.6
Phase 1 Project - Building 3 Proposed Site Plan

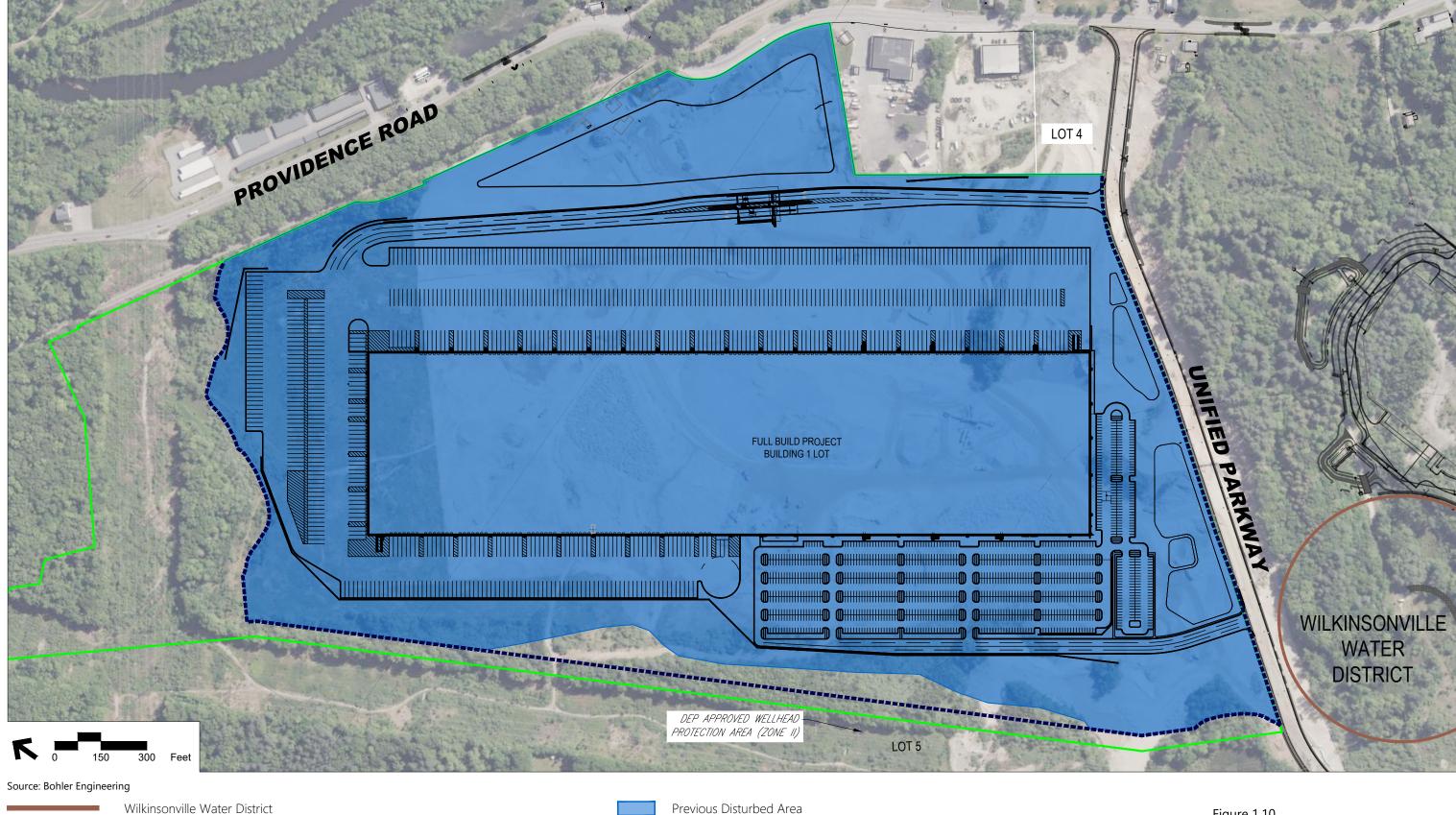






Limit of Work

Lot 1 Boundary

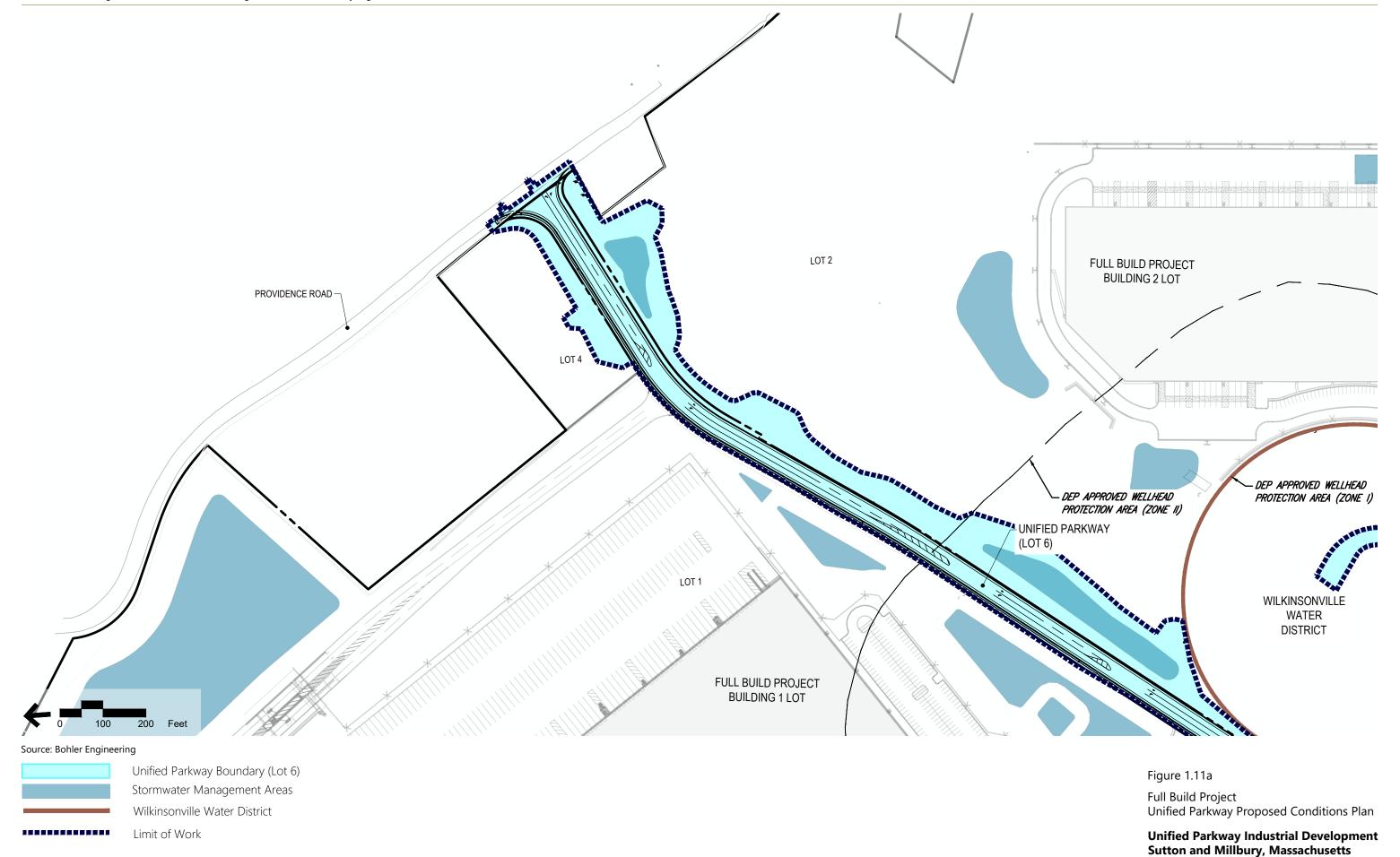


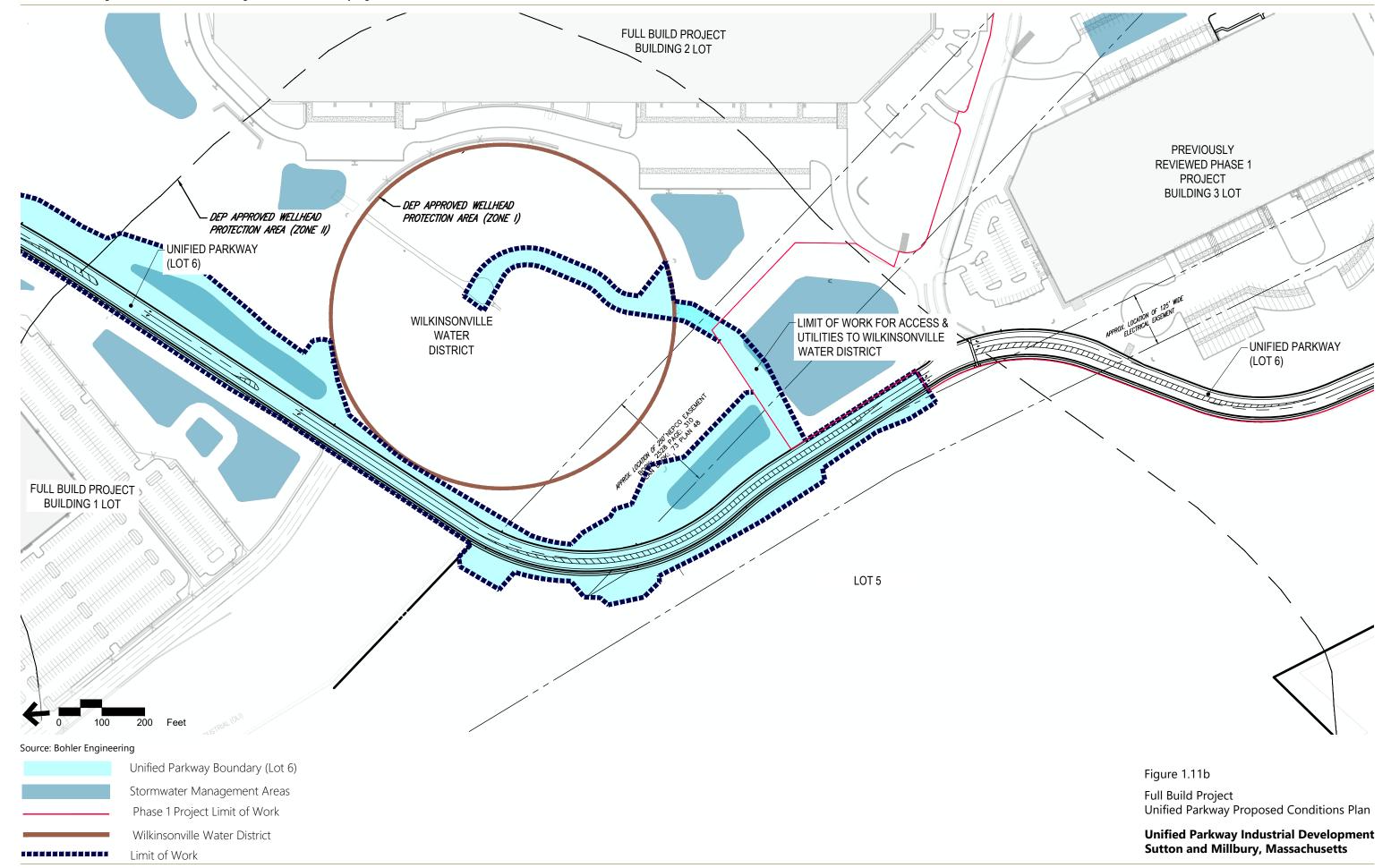
Previous Disturbed Area

Figure 1.10

Full Build Project - Building 1 Existing
Conditions and Proposed Footprint

Unified Parkway Industrial Development Sutton and Millbury, Massachusetts



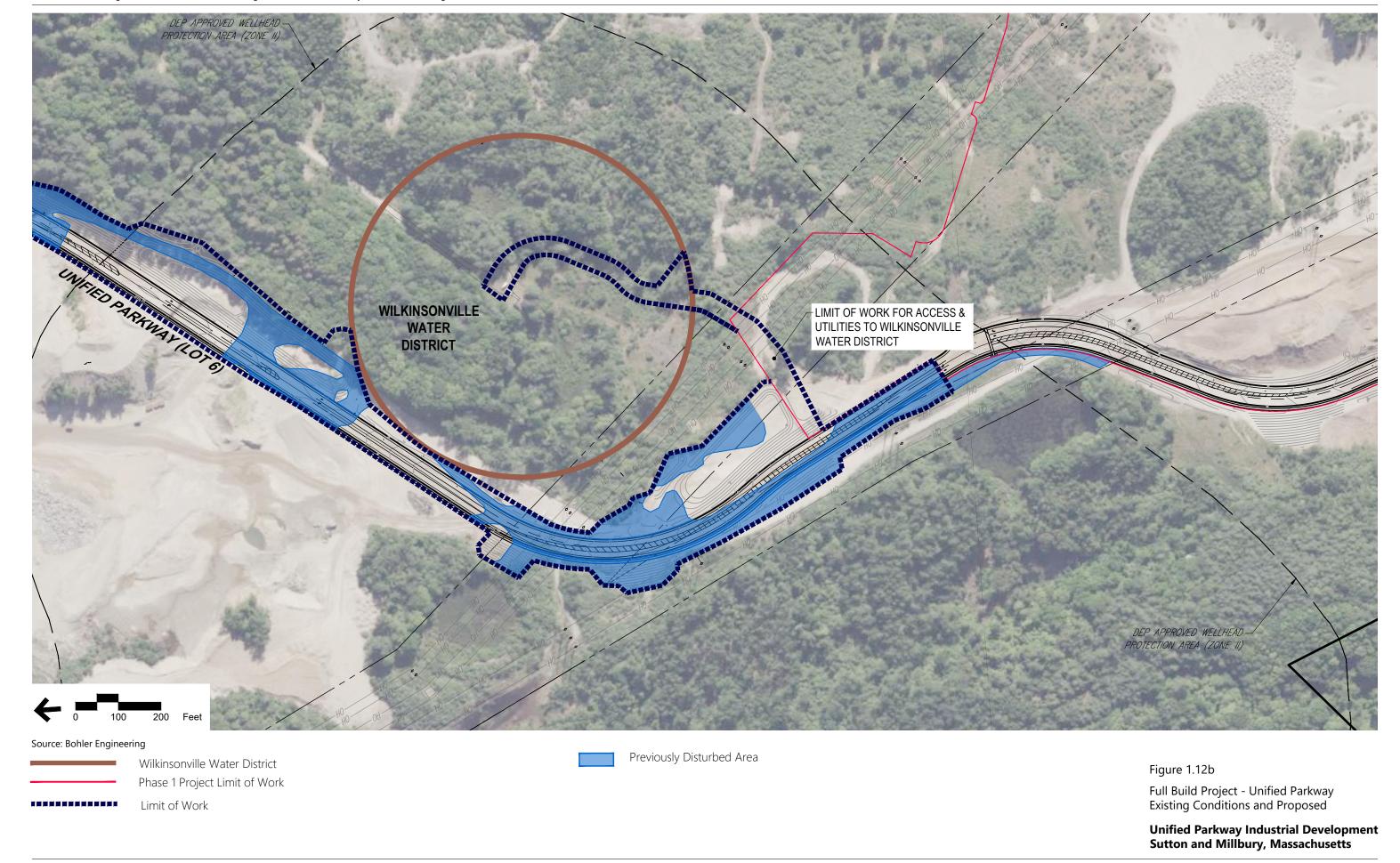


Limit of Work



Full Build Project - Unified Parkway
Existing Conditions and Proposed

Unified Parkway Industrial Development Sutton and Millbury, Massachusetts



2

Environmental Justice and Public Health

This chapter provides an assessment of the Full Build Project's potential impacts on surrounding Environmental Justice ("EJ") populations in accordance with the MEPA protocols for Environmental Justice effective January 1, 2022 and as required by the PCN Certificate. As specifically required by the PCN Certificate, this chapter provides additional information and Project details to address the 'Environmental Justice' ("EJ") and 'Public Health' sections of the SEIR Scope (with chapter section references in **bold**):

Environmental Justice

- Include an updated description of measures the Proponent intends to undertake to promote public involvement by such EJ populations during the remainder of the MEPA review process including a discussion of any of the best practices listed in the MEPA EJ Public Involvement Protocol that will be employed. (Section 2.1.1)
- > Include an update on any outreach conducted since the filing of the PCN and a description of any changes made to the project (including mitigation measures) in response to this outreach. (Section 2.1.1)
- Survey the environmental indicators shown in U.S. EPA's "EJ Screen" for each identified EJ population within the 1-mile Designated Geographical Area (DGA). (Section 2.1.2)
- Provide information on road infrastructure, MBTA bus and rapid transit, other transportation infrastructure, regional transit agencies, and/or energy generation and supply, and clearly identify the total number of major air and waste facilities using the DPH EJ Tool. (Section 2.1.3)
- Confirm that traffic impacts will be sufficiently mitigated to avoid impacts to EJ populations (Section 2.1.4.1)
- Explore opportunities to mitigate air emissions impacts, for instance, through increased commitments to EV charging for tractor trailers or early adoption of Advanced Clean Truck regulations. (Section 2.1.4.2)

Supplement climate resiliency analysis to ensure that the resiliency of the project is adequate to protect potential future residents, including those in EJ populations, of the project. (Section 2.1.4.3)

Public Health

- Assess the public health conditions in the immediate vicinity of the project site based on data from the DPH EJ Tool. (Section 2.2.1)
- Discuss any known or reasonably foreseeable public health consequences that may result from the environmental impacts of the project. Particular focus should be given to any impacts that may materially exacerbate "vulnerable health EJ criteria." (Section 2.2.2)
- Discuss any permits that contain performance standards and how the Project intends to meet or exceed them. (Section 2.2.3)
- Discuss the potential for future treatment for PFAS contamination in the Town's water supply, including any added risks associated with stormwater discharge to the wellhead area. (Section 2.2.3.1)

2.1 Environmental Justice

2.1.1 Enhanced Public Outreach

Throughout the MEPA process, the Proponent has made a meaningful effort to engage with the local community through expanded outreach measures. In accordance with recommendations in the Public Involvement Protocol to ensure positive outreach, the Proponent has undertaken in the following measures:

- Created and continuously updated the public Project website, located at <u>www.unified2parkwayproject.com</u>
- Distributed the EENF/PCN/SEIR filings to the EJ Reference List and updated as needed throughout the MEPA Process
- Held an in-person community meeting on May 11, 2023, to encourage feedback from the public
- > Translated Project materials into Spanish
 - o The Proponent will continue to provide Project materials in Spanish
- Published public notices in the Millbury-Sutton Chronicle as well as a Spanish translated version
- The Proponent anticipates holding a virtual community meeting on August 16th at 6:00 PM with notice provided to EJ CBO's, as well as other interested parties.

The Proponent is committed to hosting more open gatherings as development advances so members of the public have the opportunity to learn and comment on each phase of development. The Proponent will continue to meet with key stakeholders and community groups in an effort to ensure an inclusive process and

to effectively reach the community. Public feedback has been encouraged throughout the filing, however, since the PCN, there have been no changes to the Project as a result of outreach measures and no written comments on the PCN were submitted by any EJ community members or organizations.

2.1.2 U.S. EPA's EJ Screen Environmental Indicators

The Proponent consulted the EPA "EJ Screen," which provides a percentile ranking by Census Block Groups, compared against statewide averages, for 12 environmental indicators. The buffer report generated by this tool (pages 2-5 of Appendix B) indicates the following Census Block Groups for the one-mile radius area from the Project Site are above the 80th percentile for the statewide average.

Block Group 2, Census Tract 7372, Worcester County

Wastewater Discharge Indicator (toxicity-weighted concentration/meter) –
 96th percentile

Block Group 1, Census Tract 7372, Worcester County

- Wastewater Discharge Indicator (toxicity-weighted concentration/meter) –
 94th percentile
- > Lead Paint Indicator (percent of housing built before 1960) 88th percentile

Block Group 2, Census Tract 7381, Worcester County

Wastewater Discharge Indicator (toxicity-weighted concentration/meter) –
 94th percentile

As described on the EPA EJ Screen website, the wastewater discharge indicator takes the pollutant discharge information reported from facilities to EPA and assigns it to the streams and rivers which receive those discharges. This mapping process includes toxicity-weighted results. The indicator ranks Census Block Groups based on the proximity to these stream segments and the toxicity-weighted pollutant discharge. Refer to Section 2.2.2 below for further discussion on the EPA EJ Screen results.

2.1.3 DPH EJ Tool Pollution Sources

As required by the SEIR Scope, the Proponent utilized the Massachusetts DPH EJ Tool to identify potential sources of pollution within a five-mile radius of the Project Site. Specifically, the Proponent identified major air and waste facilities, road and transportation infrastructure, MBTA bus and rapid transit, regional transit agencies, and energy generation/supply.

Major Air and Waste Facilities

Large Quantity Generators

- > Polyfoam Corp
- Raymond E. Shaw elementary school
- > Upper Blackstone WPAD

- > Wheelabrator Millbury Inc
- Wyman Gordon Company

Air Operating Permits

- > Upper Blackstone WPAD
- Wheelabrator Millbury Inc
- > Wyman Gordon Company
- > Polyfoam Corp

Large Quantity Toxic User

- Allied Machined Products Corp
- > Ameripride
- > Barrday Corporation
- > Jen MFG INC
- Rand Whitney Container LLC
- > United County Ind DBA County Heat Treat
- > Wheelabrator Millbury Inc

Road Infrastructure

- > Route 146
- > I-90
- > US-20

MBTA Bus and Rapid Transit

> MBTA Commuter Rail Line – Worcester

Other Transportation Infrastructure

- Waters Airport
- > Worcester P&W RR Wiser Ave Yard
- Greenwood Yard
- > North Grafton Yard
- > P&W Railroad Tracks
- CSX Railroad Tracks

Regional Transportation Agency

Worcester Regional Transit Authority (WRTA)

Energy Generation/Supply

- > 23 Transmission Lines
- > Millbury Solar
- > Northbridge Solar
- Wheelabrator Millbury Facility

2.1.4 Consideration of Additional Mitigation

2.1.4.1 Traffic

As shown in Figures 8.2 and 8.3 of the PCN, the majority of truck traffic will avoid EJ populations. Within a five-mile radius of the Project Site, there are 23 EJ populations that Project-generated truck trips will pass through. Within a one-mile radius, the DGA, there is one EJ population that is adjacent to proposed truck routes. As described in Section 4.6.1.1 of Chapter 4, *Transportation*, of the PCN, the Proponent proposes to implement the improvements at the intersection of Route 146 and Boston Road pending its ability to secure all necessary local and state approvals for the Full Build Project – Building 1 and subject to MassDOT's review and approval of the detailed design plans for the improvements during the Access Permit process. Refer to Table 6-1 in Section 6.1 of Chapter 6, *Mitigation Summary*, for more information regarding transportation mitigation measures.

2.1.4.2 Mobile Source Air Emissions

MassDEP has proposed regulatory changes to adopt the California Air Resources Board (CARB)'s Medium and Heavy Duty (MHD) engine and vehicle regulations. These MHD regulations include three parts: 1) GHG Phase 2 Standards for MHD Engines and Vehicles starting in model year (MY) 2025; 2) Heavy-Duty Omnibus Regulation which contains a comprehensive set of emission standards and other emission-related requirements for heavy-duty engines and vehicles, starting in MY 2025; and 3) Advanced Clean Trucks Regulation resulting in zero emission vehicle (ZEV) sales starting in MY 2025 and ramping up to 55% of Class 2b-3, 75% of Class 4-8 and 40% of Class 7-8 tractor sales being ZEVs in MY 2035. Ultimately the adoption of these standards will be effective through manufacturer implementation and fleet turnover with industry purchasing of new trucks.

The Proponent remains committed to exploring all alternative fuel options and early adoption of Advanced Clean Truck regulations, to reduce GHG emissions, including the use of trucks meeting the above forthcoming emissions standards and EV truck tractors to haul trailers. If and when the Proponents truck leasing vendors and or truck manufactures increase the availability and reliability of electric truck tractors and tractors meeting the advanced clean truck regulations, the Proponent will commit to incorporating them into their truck fleet if deemed reliable and economical. Early adoption of these standards is dependent on manufacturer's making compliant trucks widely available prior to the required implementation date within the regulations.

Electric Truck Charging Infrastructure

The Proponent is considering additional mitigation for diesel trucks, such as EV charging in trailer spaces, to reduce diesel emissions. EV truck charging equipment within trailer spaces is not necessarily appropriate as generally trailers would be parked there, and truck tractors will generally reside near the loading docks. As such, the Proponent will design the Full Build Project – Building 1 and the Full Build

Project – 2 to ensure sufficient electrical power exists to accommodate EV truck charging stations at the loading dock doors or elsewhere on site where tractors may be located, as needed.

2.1.4.3 Resiliency

The proposed design for the Full Build Project Site has considered potential risks from more extreme precipitation-based flood events. The proposed stormwater management controls will be designed in accordance with both the Town of Sutton and Town of Millbury requirements as well as those described in the MassDEP Stormwater Handbook. The proposed stormwater management systems have been designed so that post-development peak rates of runoff are below pre-development conditions for the 2-, 10-, 25- and 100-year storm events at all design points.

The Full Build Project – Building 2 and Unified Parkway have been fully designed to manage Project Site runoff from the proposed impervious area, and the proposed stormwater management systems will provide above-grade and underground systems to hold an additional one inch of runoff generated by the total proposed impervious area on-site. This additional storage of runoff will provide increased infiltration and peak rate reduction beyond what is required under the current regulations and more consistent with the anticipated regulatory changes to be implemented by MassDEP in the near future to mitigate downstream flooding impacts. Further, the stormwater design has utilized the higher NOAA rainfall amounts for the analysis. The intended design for the Full Build Project – Building 1 will be similar to the design for Full Build Project – Building 2 and Unified Parkway.

The Phase 1 Project Site has been fully designed to manage Phase 1 Project Site runoff from the proposed impervious area and the proposed stormwater management system will provide above-grade and underground systems to hold an additional one inch of runoff generated by the total proposed impervious area onsite.

The proposed site design also includes measures aimed at reducing urban heat island effect, including new landscaping and light-colored hardscape materials, as well as tree plantings around the perimeter of truck parking areas.

2.2 Public Health

2.2.1 Public Health Conditions

The DPH EJ Tool was used to assess the public health conditions in the immediate vicinity of the Project Site. Table 2-1 below outlines vulnerable health EJ criteria indicators that are available on the DPH EJ Tool and identifies health criteria for municipalities within a five-mile radius to the Project Site. As shown, all municipalities within a five-mile radius of the Project Site, except for the City of Worcester and the Town of Northbridge, do <u>not</u> exhibit any indicators of Vulnerable Health EJ Criteria.

Table 2-1 Vulnerable Health EJ Criteria in Surrounding Municipalities

Municipality	Heart Attack	Pediatric Asthma ED Visits	Elevated Blood Lead Prevalence	Low Birth Weight
Sutton	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate
Millbury	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate
Grafton	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate
Auburn	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate
Northbridge	Below 110% of the statewide rate	Below 110% of the statewide rate	Above 110% of the statewide rate	Above 110% of the statewide rate
Worcester	Below 110% of the statewide rate	Above 110% of the statewide rate	Above 110% of the statewide rate	Above 110% of the statewide rate
Shrewsbury	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate	Below 110% of the statewide rate

Table 2-2 below represents vulnerable heath EJ criteria for census tracts within a five-mile radius of the Project Site. Low Birth Weight and Elevated Blood Lead Prevalence are the only health indicators shown on the DPH Tool for this area. The table below shows that the only vulnerable health EJ criteria indicators above 110% the statewide rate are within the Town of Northbridge for Low Birth Weight and Elevated Blood Lead Prevalence.

Census Tract	EJ Population	Heart Attack	Pediatric Asthma ED Visits	Elevated Blood Lead Prevalence	Low Birth Weight	
7381.00	Yes	-	ı	Below 110% Statewide Median	NS	
7511.01	No	_	ı	NS	NS	
7371.00	No	-	Ī	NS	NS	
7511.02	No	-	Ī	NS	NS	
7372.00	Yes	_	ı	NS	NS	
7373.00	No	-	1	NS	Above 110% Statewide Median	
7328.01	Yes	-	1	Below 110% Statewide Median	Below 110% Statewide Median	
7328.02	Yes	_	ı	Below 110% Statewide Median	Below 110% Statewide Median	
7329.01	Yes	-	Ī	Below 110% Statewide Median	Above 110% Statewide Median	
7364.00	No	-	-	Below 110% Statewide Median	Below 110% Statewide Median	
7391.00	Yes	_	ı	Above 110% Statewide Median	Below 110% Statewide Median	
7391.02	Yes	-	Ī	NS	NS	
7613.00	No	-	-	NS	NS	
7323.01	Yes	_	ı	NS	NS	
7502.00	No	-	1	NS	Above 110% Statewide Median	
7501.00	No	_	_	Above 110% Statewide Median	Above 110% Statewide Median	
7531.00	No	_	_	Below 110% Statewide Median	Below 110% Statewide Median	
7365.00	Yes			NS	NS	
NS – Not S	NS – Not Shown					

Table 2-2 Vulnerable Health Criteria of Census Tracts Within a Five-Mile Radius

2.2.2 Public Health Impacts

In accordance with the MEPA Interim Protocol for Analysis of EJ Impacts, the Proponent has analyzed the public health conditions within the DGA to identify any Project-related impacts that could materially exacerbate such conditions.

2.2.2.1 Wastewater Discharge

As described in Section 2.1.2 above, using the EPA EJ Screen, the Proponent identified wastewater indicators in census blocks in proximity to the Project Site. The Project is not anticipated to materially exacerbate the identified environmental indicator of wastewater discharge through compliance with stormwater and water quality standards. Further, sewer from the proposed buildings discharge towards Providence Road via a pipe and manhole network. This discharge location is not within the census blocks that meet the wastewater indicators.

2.2.2.2 Transportation

As identified above in Section 2.1.3, the major roadways in proximity to the Project Site that will be utilized include I-90, Route 146 and US 20. While the Full Build Project will generate traffic in the immediate vicinity of the Project Site, the consolidation of business operations, as described in Section 1.3.1 of Chapter 1,

Project Description, is estimated to reduce tractor-trailer miles traveled between the Proponent's Sutton headquarters and their existing warehouse locations by over 90 percent. This comes out to a reduction of 14 daily local truck trips within a five-mile radius of the Project Site and 118 daily truck trips outside of a five-mile radius.

As shown on Figure 8.3, of the PCN, the truck traffic generated by the Full Build Project will largely avoid EJ populations, with the majority of trucks traveling along I-90 and south on Route 146. The trucks along these routes will not pass through or be adjacent to EJ populations. However, within a five-mile radius of the Project Site, approximately 8 truck trips will pass through EJ populations along US 20.

The Project generated truck trips are not anticipated to materially exacerbate public health conditions in the vicinity of the Project Site as the vulnerable health EJ criteria identified in the DPH EJ Tool include Blood Lead Prevalence and Low Birth Weight. As a measure to promote public health conditions, the Proponent is committed to exploring options regarding an electric truck fleet when it becomes feasible. Refer to Section 5.2.3 of Chapter 5, *Climate Change*, for further information.

2.2.3 Regulatory Performance Standards

2.2.3.1 Stormwater Management/Water Quality

The proposed stormwater management system has been designed for the Full Build Project in accordance with both the Town of Sutton and MassDEP Stormwater Handbook requirements and standards. Also, each component of the Full Build Project will also provide erosion and sedimentation controls during the demolition and construction periods, as well as long term stabilization of the Full Build Project Site. An Operation and Maintenance (O&M) Plan for the Full Build Project has been prepared. The O&M Plan outlines procedures and time tables for the long term operation and maintenance of the proposed site stormwater management system, including initial inspections upon completion of construction, and periodic monitoring of the system components, in accordance with established practices and the manufacturer's recommendations.

Phase 1 Project - Building 3

The vast majority of the Phase 1 Project – Building 3 with the exception of a few perimeter areas, including the proposed parking areas, has been designed to drain to deep-sump, hooded catch basins. The remaining perimeter areas, which consist mostly of landscaped pervious areas, will drain to temporary swales and basins for management of stormwater runoff until the construction of future phases when the runoff will be directed to permanent stormwater BMPs.

Water quality treatment is provided via deep sump catch basins, forebays, isolator rows and infiltration basins. The Phase 1 Project – Building 3 is required to treat water quality volume as defined in Stormwater Standard 4. The proposed infiltration basins will provide greater than the required water quality volume below the lowest outlet for water quality treatment. Refer to Section 3.3, of Chapter 3,

Land/Stormwater and Wetlands, of the EENF for further discussion on the Phase 1 Project – Building 3 stormwater management measures.

Remainder of the Full Build Project

Water quality treatment is provided via deep sump catch basins, forebays, isolator rows and infiltration basins. The Remainder of Full Build Project is required to treat water quality volume as defined in Stormwater Standard 4. The proposed infiltration basins will provide greater than the required water quality volume below the lowest outlet for water quality treatment. Refer to Section 3.6 of Chapter 3, Wetlands and Land/Stormwater Management of the PCN for additional information.

Mitigating Impacts to WWD Public Water Supply

Given the stormwater management system that will be implemented as part of the Full Build Project, including the degree of water quality treatment prior to any infiltration into the Wilkinsonville Water District's ("WWD") wellhead area, the Full Build Project has mitigated the risk of any contamination in the WWD's water supply. The Proponent has had numerous discussions with the WWD about the Full Build Project, how the Proponent is mitigating the project's impacts and minimizing any risk to the water supply. During the local Site Plan Review of the Full Build Project – Building 2 and the Phase 1 Project – Building 3, the WWD requested, and the Proponent agreed, to redesign certain portions of the stormwater management system to increase the amount of treated stormwater infiltrated into the surrounding wellhead protection area.

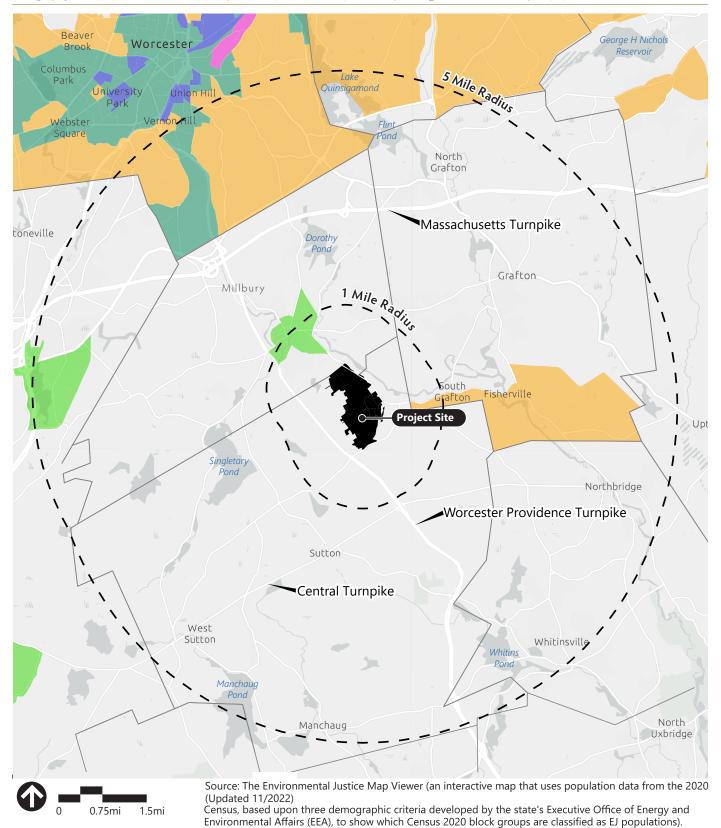
The Proponent is unaware of any specific plans to expand the WWD wellhead treatment facility for PFAS treatment or other needs or uses. During the peer review discussions with the WWD engineering consultant regarding the proposed 12-inch watermain connection to the well, the request was made to shift the proposed watermain location south and east around the existing wellhead building to accommodate possible future expansion. The request was incorporated into the proposed design. In addition to accommodating possible future treatment expansion adjacent to the wellhead, it also allowed the proposed work to remain outside the 100-foot wetland buffer zone.

2.2.3.2 Hazardous Materials

There are no state or federal hazardous waste site (HWS) listings, active or closed Release Tracking Numbers (RTNs), or Response Action Outcomes/Permanent Solutions associated with the Project Site. Two release "cleanups" have been performed at the Project Site for non-reportable releases of petroleum products. These cleanups were performed as Limited Removal Actions (LRAs) under the Massachusetts Contingency Plan (MCP). As a result of the remedial actions performed (contaminated soil excavation), concentrations of petroleum contaminants in soil were reduced below state reportable levels. Minor residual petroleum contamination may be encountered in subsurface soil at the locations of the LRAs. No other soil or groundwater contamination is anticipated to be found during site excavation activities. If soil contamination is discovered, the Proponent

will take all necessary steps to identify any hazardous materials and use proper handling procedures for their removal.

Should excess soil be generated during construction that requires off-site disposal, analytical testing of the soil will be required so that it can be properly disposed of at an off-site facility. Materials will be handled according to all applicable federal, state and municipal environmental laws and regulations. In the event that subsurface contamination exceeding MCP reporting thresholds is encountered, MassDEP will be notified and the contamination managed in accordance with the Massachusetts Contingency Plan ("MCP").



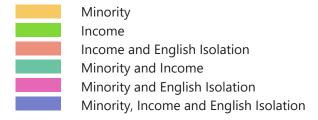




Figure 2.1

Environmental Justice Populations

Unified Parkway Industrial Development Sutton and Millbury, Massachusetts

3

Land Alteration/Stormwater

This chapter provides an assessment of the Full Build Project's potential impacts on land alteration and stormwater as required by the PCN Certificate. As specifically required by the PCN Certificate, this chapter provides additional information and Project details to address the 'Land Alteration/Stormwater' section of the SEIR Scope (with chapter section references in **bold**):

- Identify all land alteration associated with the project (broken up into Phase I and II), including areas that have been previously altered by the historic gravel operations at the site. (Section 3.3, Figures 3.1 through 3.4b)
- Identify the amount of alteration and the amount of impervious surface creation in Zone II Wellhead Protection Areas (WPA), and confirm that no alteration will occur in Zone I areas. (Section 3.3, Figures 3.5-3.8b)
- Confirm whether emergency shutoff valves have been included in the Phase II (Remainder of the Full Build) project components. (Section 3.4.1)
- Provide an update on the monitoring wells proposed to be installed in locations across the site to monitor long-term water quality. (Section 3.4.2)
- Discuss whether alternative alignments of Unified Parkway would reduce the stormwater discharge in WPA, particularly to Zone I. (Section 3.4.3)

3.1 Key Findings & Benefits

- > The Phase 1 Project Building 3 has been designed to avoid substantial disturbance of the soils, topography, drainage, vegetation, and other water-related natural characteristics of the Phase 1 Project Site to be developed.
- > The Phase 1 Project Building 3's proposed stormwater management system has been designed in accordance with both the Town of Sutton and MassDEP Stormwater Handbook requirements and standards.
- The proposed stormwater management systems have been designed for the Full Build Project – Building 2 and Unified Parkway, in accordance with both the Town of Sutton and MassDEP Stormwater Handbook requirements and standards.
- The Full Build Project Building 1 will be designed in accordance with both the Town of Sutton and Town of Millbury site plan regulations along with

the MassDEP Stormwater Handbook requirements and standards as part of the forthcoming Site Plan approval process in both municipalities.

3.2 Summary of Existing Site Conditions

The northern portion of the Remainder of Full Build Project Site drains overland to the northeast to a large onsite wetland system. The southern portion of the Remainder of Full Build Project Site drains overland to an existing well, WPA (Zone I), prior to overflowing to the large on-site wetland system to the north.

Due to the historic mining operations and subsequent regrowth on the site, expansive areas of the former gravel pit are dominated by a dense stand of autumn elaeagnus (*Elaeagnus umbellate*) shrubs, which is an aggressive invasive plant species. The existing site contains a large wetland system associated with Cold Spring Brook in the eastern portion of the site. Two wetland systems associated with intermittent streams are located in the northeastern-central portion of the site within the Wilkinsonville Water District ("WWD") property and extending northerly and a large wetland system in the northern portion of the property located within the Town of Millbury.

In addition to the wetland systems, a number of isolated wetlands are found within the Full Build Project Site. It is likely that many of these areas were created by the historic gravel operations, when excavation occurred below groundwater or where areas were constructed to collect runoff away from those operations. These are generally found within the central and southern portions of the Full Build Project Site.

3.3 Land Alteration

As shown in Table 3-1 below, the Phase I Project – Building 3 will result in a total of 7.9 acres of new land alteration and the Remainder of the Full Build Project will result in a total of 14.54 acres of new land alteration. Refer to Figures 3.1 through 3.4b for the land impact plans.

Table 3-1 Land Alteration

	Phase 1 Project – Building 3 ¹	Remainder of Full Build Project ²	Full Build Project
Previous Land Alteration	30.3 acres	156.86 acres	187.16 acres
New Land Alteration	7.9 acres	14.54 acres	22.44 acres
Total Land Alteration	38.2 acres	171.4 acres	209.6 acres

¹ Referred to as "Phase I" in the SEIR Scope.

3.3.1 Zone II Wellhead Protection Area

The amount of impervious surface creation in the Zone II WPA will be 22.54 acres. Within the Zone II WPA, the new land alteration area is 5.58 acres and the previous

² Referred to as "Phase II" in the SEIR Scope.

land altered is 33.66 acres. Within the Zone I area there will be 0.63 acres of land alteration. This minimal land alteration is required to provide a new access driveway, water line and electric service to the well as requested by the Wilkinsonville Water District. No alterations associated with this work will result in impervious area within the Zone I. The Proponent and WWD have entered into an agreement memorializing the construction of these improvements by the Proponent for the benefit of the WWD within the Zone 1 area.

3.4 Stormwater

The proposed stormwater management plans are shown in Figure 3.5 for the Phase 1 Project – Building 3 and Figures 3.6-3.8b for the Remainder of Full Build Project.

3.4.1 Operations & Maintenance Plan

An Operation and Maintenance (O&M) Plan for the Full Build Project has been prepared. The O&M Plan outlines procedures and time tables for the long term operation and maintenance of the proposed site stormwater management system, including initial inspections upon completion of construction, and periodic monitoring of the system components, in accordance with established practices and the manufacturer's recommendations.

Construction Phase

During the construction phase, all erosion control devices and measures shall be maintained in accordance with the final record plans, local/state approvals and conditions, the EPA Construction General Permit and the Stormwater Pollution Prevention Plan (SWPPP) if applicable. Additionally, the maintenance of all erosion / siltation control measures during construction shall be the responsibility of the general contractor. Contact information of the OWNER and CONTRACTOR shall be listed in the SWPPP for this site. The SWPPP also includes information regarding construction period allowable and illicit discharges, housekeeping and emergency response procedures. Upon proper notice to the property owner, the Town or its authorized designee shall be allowed to enter the property at a reasonable time and in a reasonable manner for the purposes of inspection.

Post Development Controls

Once construction is completed, the post development stormwater controls are to be operated and maintained in compliance with the following permanent procedures (note that the continued implementation of these procedures shall be the responsibility of the Owner or its assignee). All Operation and Maintenance forms and reports included herein shall be filed with the Sutton Planning Board and the Wilkinsonville Water District within fourteen days of completion:

1. **Subdivision Roadway:** Sweep at least two times per year and on a more frequent basis depending on sanding operations. All resulting sweepings shall be collected

- and properly disposed of offsite in accordance with MADEP and other applicable requirements.
- Parking lots and access drives: Sweep at least two times per year and on a more frequent basis depending on sanding operations. All resulting sweepings shall be collected and properly disposed of offsite in accordance with MADEP and other applicable requirements.
- 3. Catch basins, drop inlets, trench drains, manholes and piping: Preventative maintenance shall be performed after every major storm event during the first three (3) months of operation and at least twice per year thereafter. During preventative maintenance these features shall be inspected and cleaned a minimum of two (2) times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the catch basin or underground system. Accumulated sediment and hydrocarbons present must be removed and properly disposed of offsite in accordance with MADEP and other applicable requirements.
- 4. Forebays: The sediment forebay areas shall be inspected once per month to ensure they are operating as intended and that all components are stable and in working order. Inspections shall be by qualified personnel. During the growing season, the forebay shall be mowed at least twice, with additional cuttings performed as needed. All vegetation (i.e. tree saplings) will be removed from embankments and the forebay bottom. The inlet to the forebay shall be inspected for erosion and sedimentation, and rip-rap shall be promptly repaired as needed. Sediment forebays shall be cleaned quarterly and when sediment depth reaches half the height of the stone weir, or three to six feet, whichever is less. After sediment is removed, replace any vegetation damaged during the clean out by either reseeding or re-sodding. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements.
- 5. Surface Infiltration Basin: Preventative maintenance shall be performed after every major storm event during the first three months of operation and at least twice per year thereafter. For the first three months the structure and pretreatment BMP shall be inspected and maintained to ensure proper operation after every major storm event (generally equal or greater to 3.0 inches in 24 hours). Preventative maintenance shall include mowing the buffer area, side slopes and basin bottom if grassed floor, rake if stone or sand bottom, remove trash and debris, remove grass clippings and accumulated organic matter. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements.
- 6. Stormtech Underground Infiltration Basins: Preventative maintenance shall be performed after every major storm event during the first three months of operation and at least twice per year thereafter. For the first three months the structure and pretreatment BMP shall be inspected and maintained to ensure proper operation after every major storm event (generally equal or greater to 3.0 inches in 24 hours) Preventative maintenance shall include inspection of the basin outlet for erosion and sedimentation, and rip-rap shall be promptly repaired in

- the case of erosion. Sediment collecting in the bottom of the basin shall be inspected twice annually, and removal shall commence any time the sediment reaches a depth of six inches anywhere in the basin. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements.
- 7. Geo-Storge Underground Infiltration Basins: Preventative maintenance shall be performed after every major storm event during the first three months of operation and at least twice per year thereafter. For the first three months the structure and pretreatment BMP shall be inspected and maintained to ensure proper operation after every major storm event (generally equal or greater to 3.0 inches in 24 hours). Preventative maintenance shall include inspection of the basin outlet for erosion and sedimentation, and rip-rap shall be promptly repaired in the case of erosion. Sediment collecting in the bottom of the basin shall be inspected at least twice per year thereafter, and removal shall commence any time the sediment reaches a depth of six inches anywhere in the basin. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements. The geotextile fabric at the bottom of the system can also be removed and replaced as part of the maintenance should it be necessary.

Drainage emergency shut off valves will be added to the Remainder of the Full Build (or "Phase II") in two locations. They will be installed previous to the surface infiltration basins that directly discharge to the Zone I WPA.

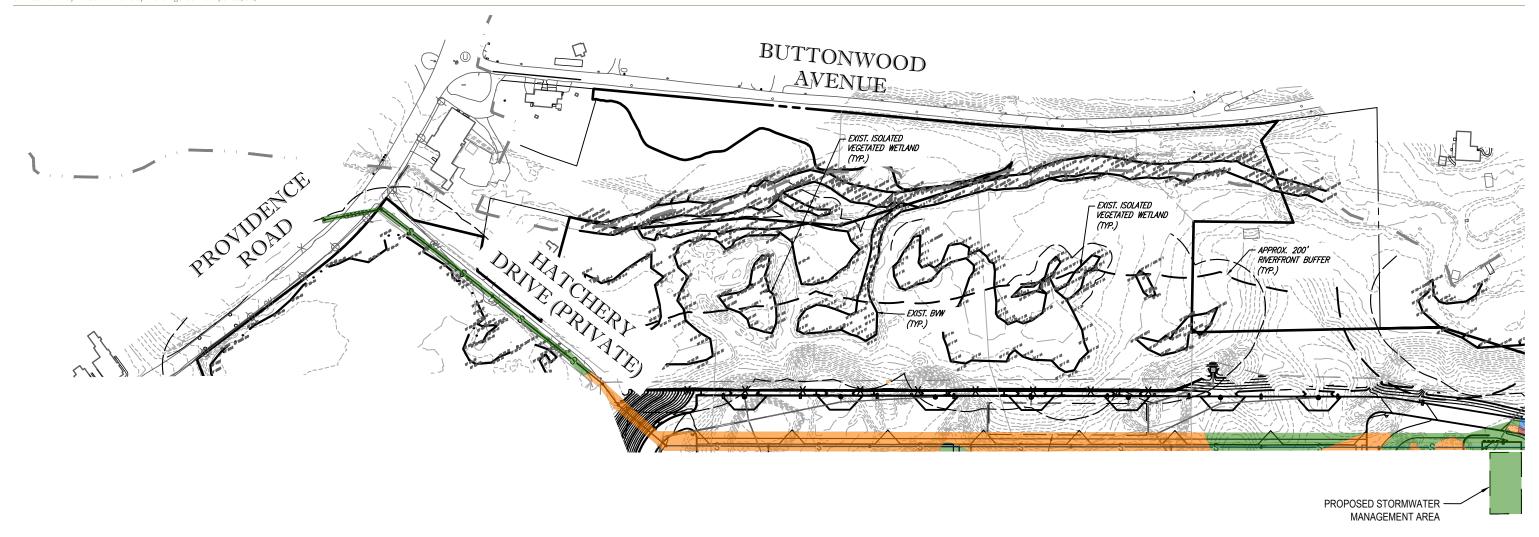
3.4.2 Monitoring Wells

As described in the EENF, the four monitoring wells have been installed across the Project Site at the request of the Wilkinsonville Water District (WWD). The Proponent was made aware that the District's consultant sampled the wells and measured the depths to groundwater on December 8, 2022. No results of the sampling were shared with the Proponent.

3.4.3 Alternative Alignment of Unified Parkway

Alternative alignments of Unified Parkway would not reduce the stormwater discharge in the Zone I WPA or the Zone II WPA. Unified Parkway has been designed with surface infiltration basins for stormwater management. Even if the alignment is altered, surface infiltration basins would still need to discharge to the WPA given other constraints on the roadway alignment and other site improvements, such as wetland resource areas topography and zoning. Of the four surface infiltration basins, only two of them discharge towards Zone I or Zone II WPA's.





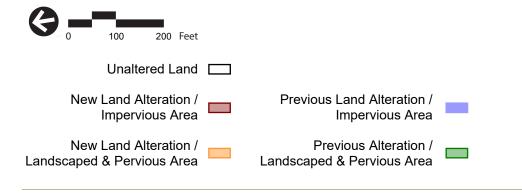
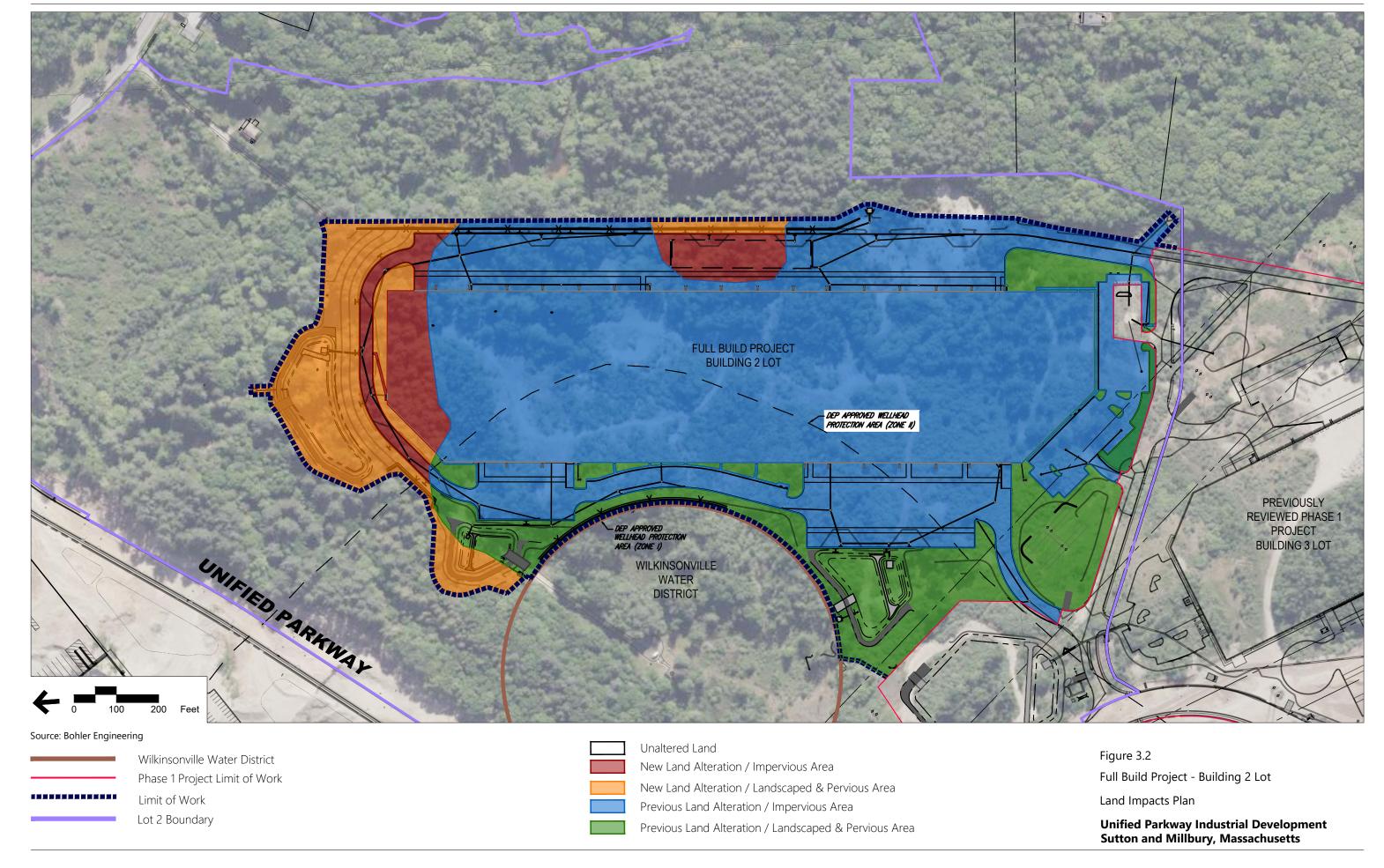
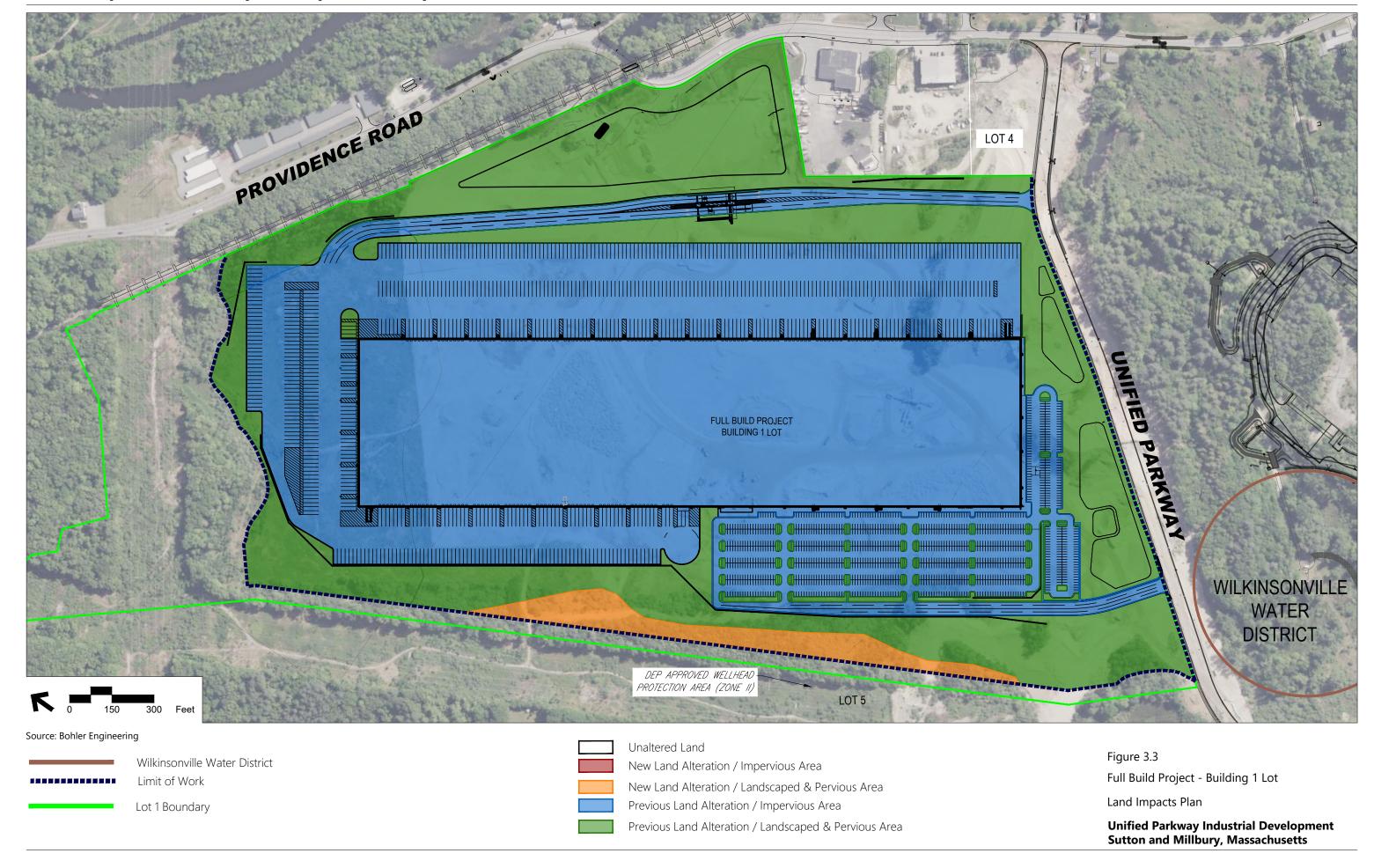
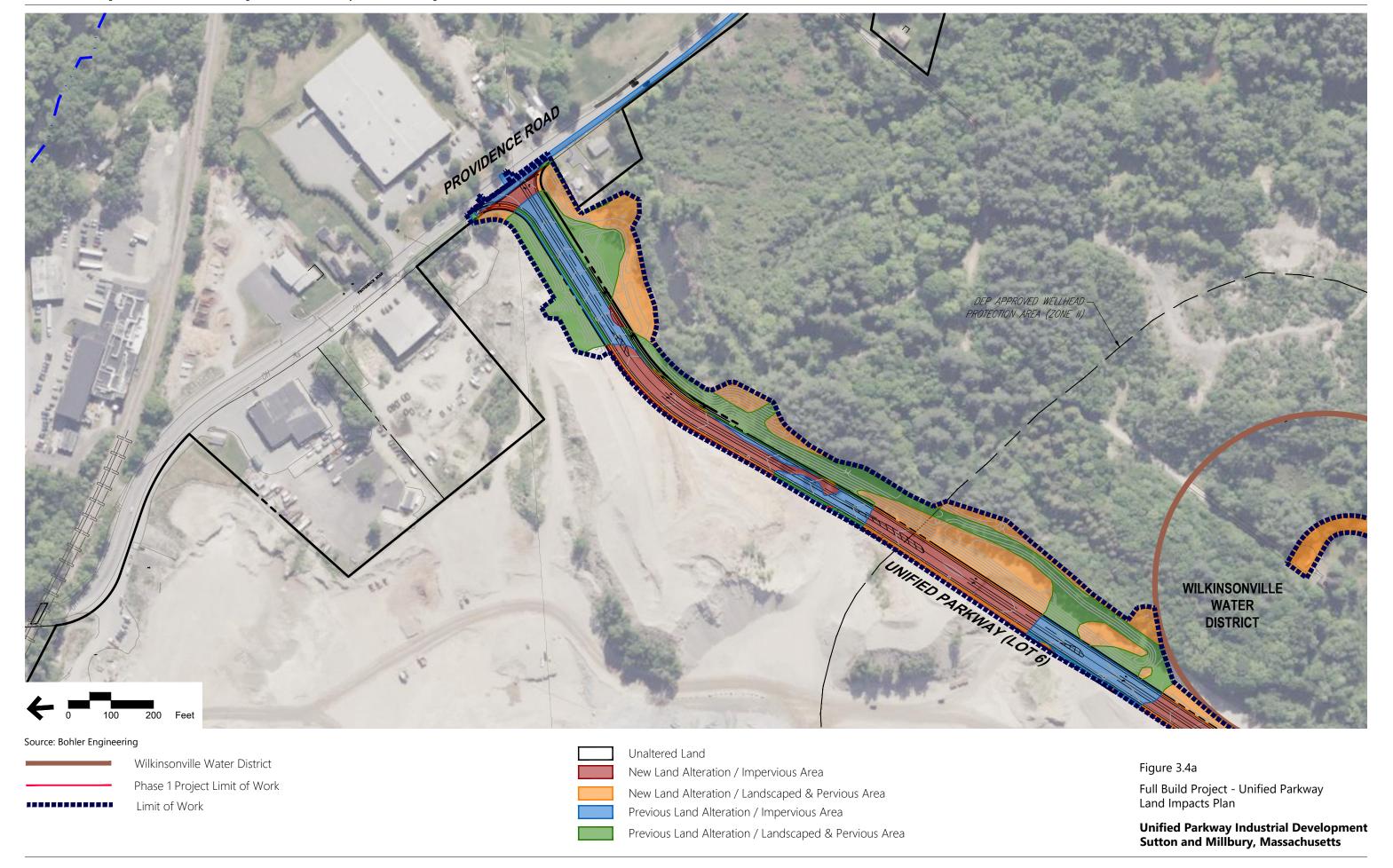


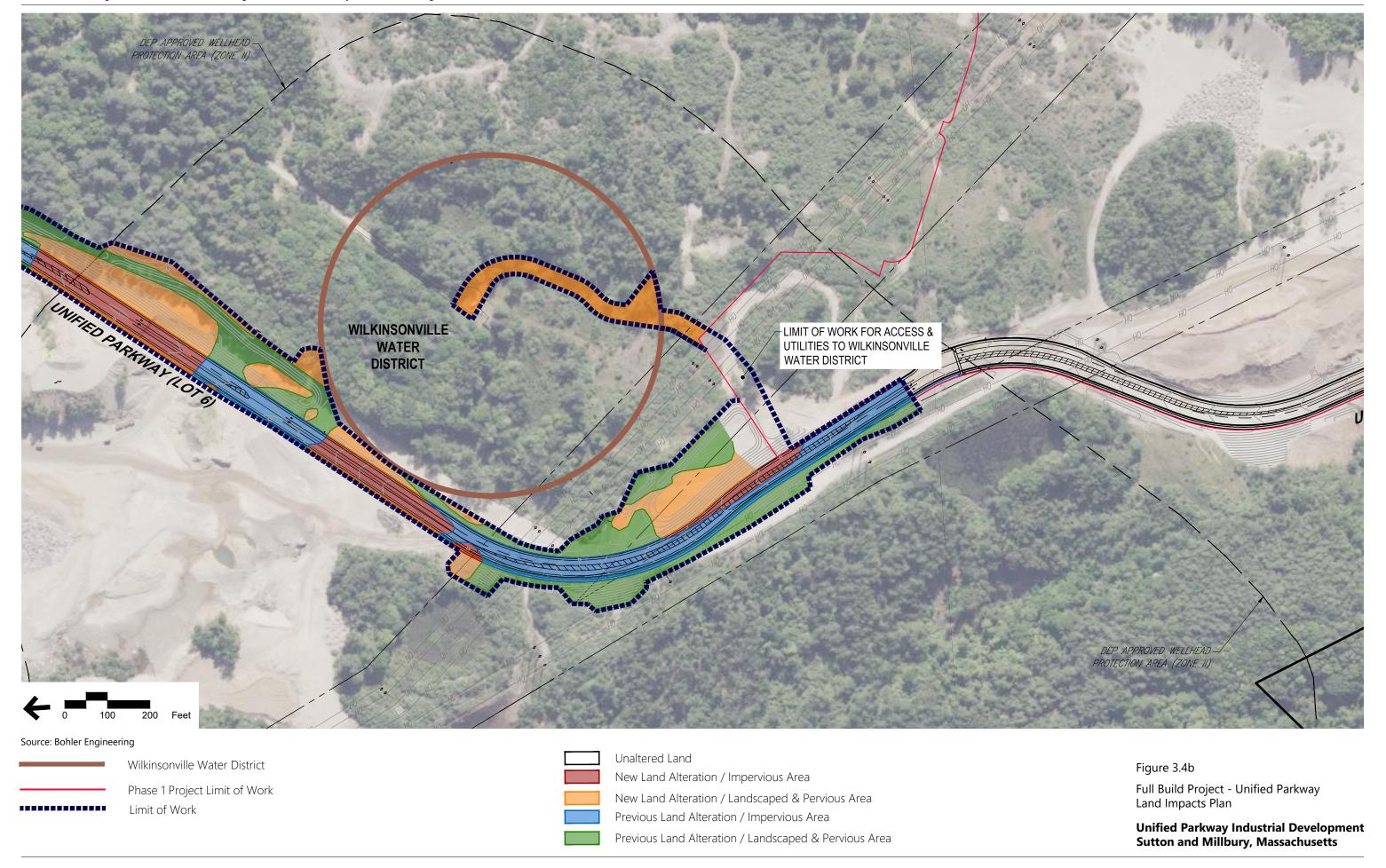
Figure 3.1b Phase 1 Project - Building 3 Land Impacts Plan

Unified Parkway Industrial Development Sutton and Millbury, Massachusetts









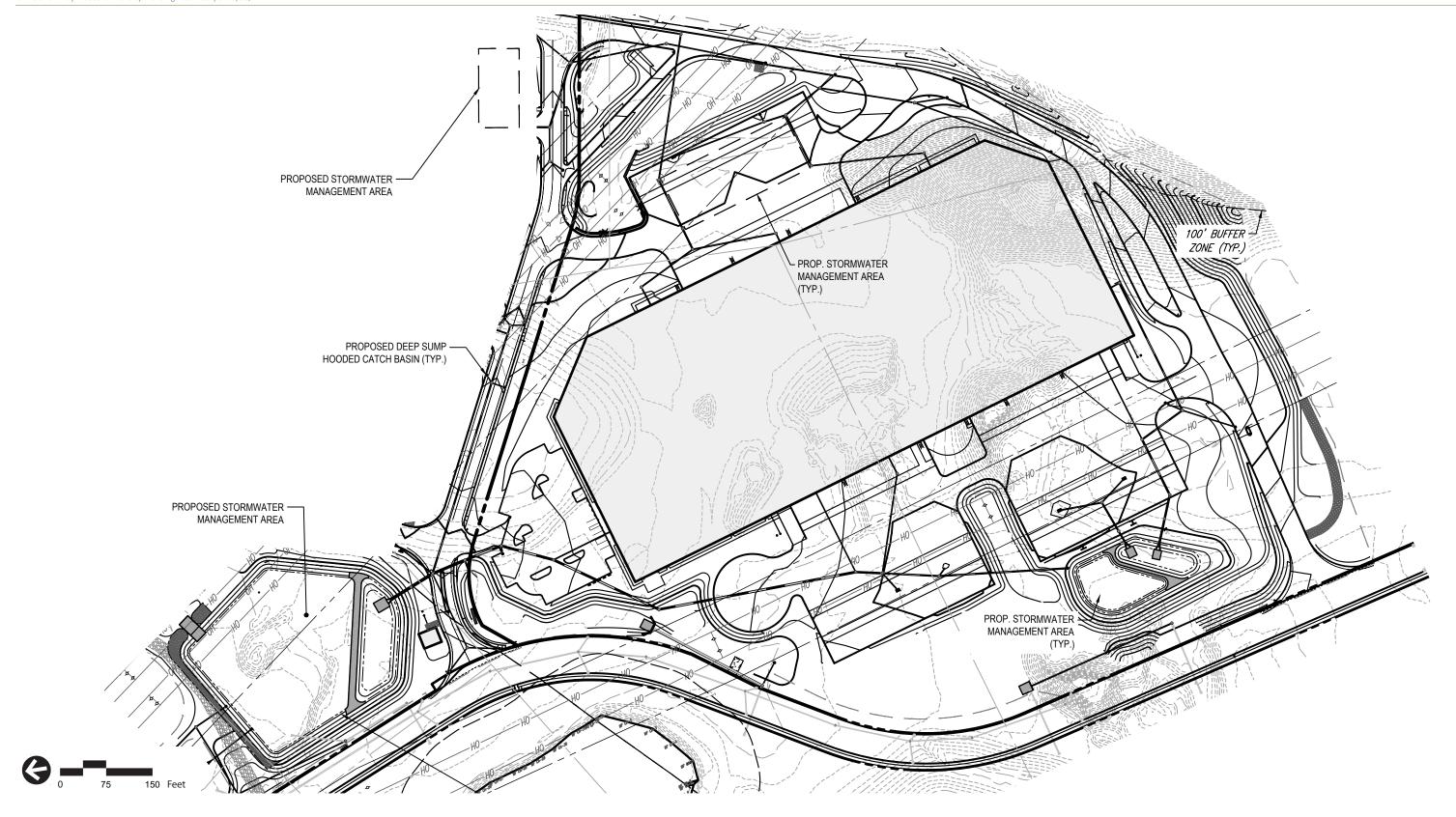
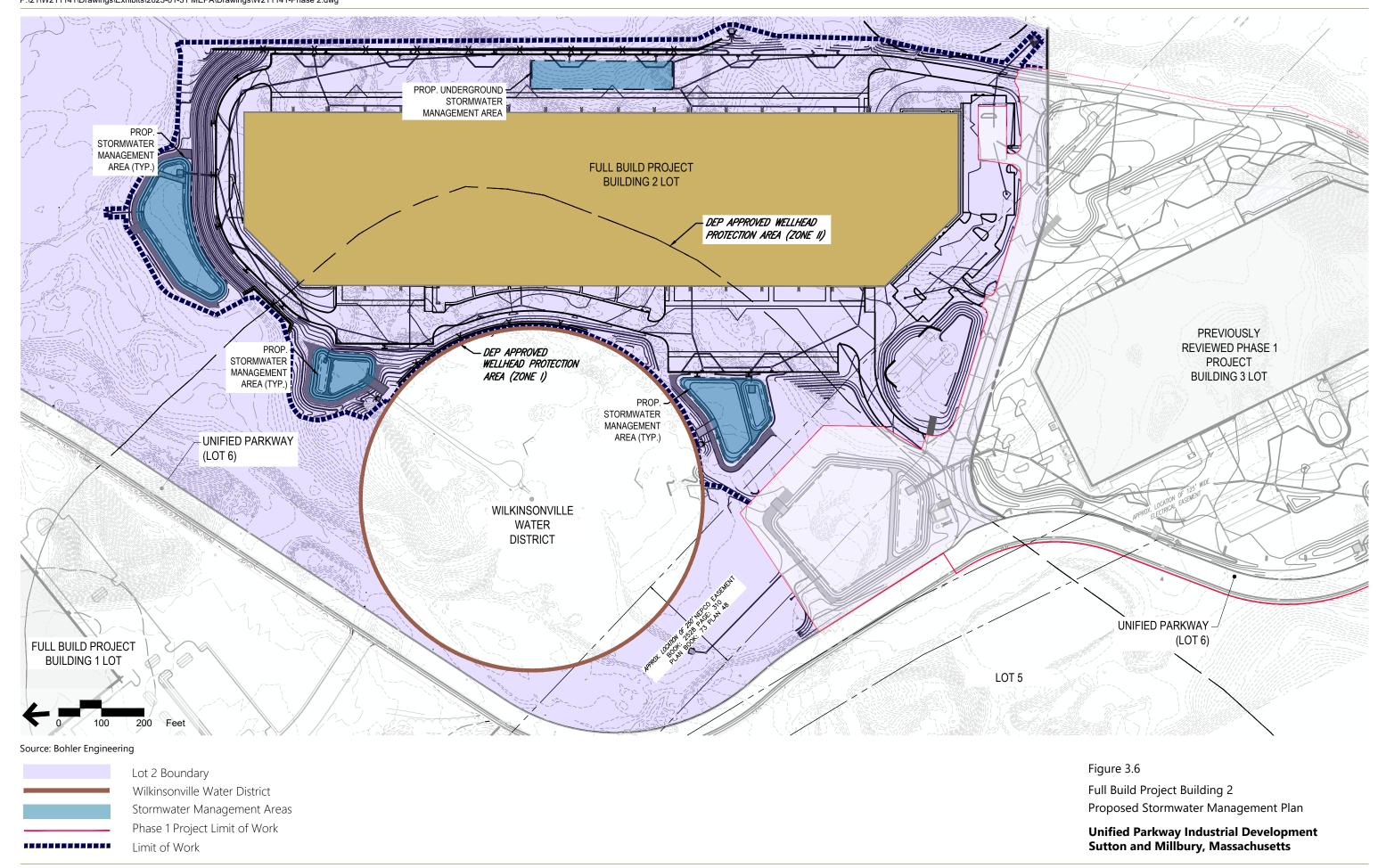


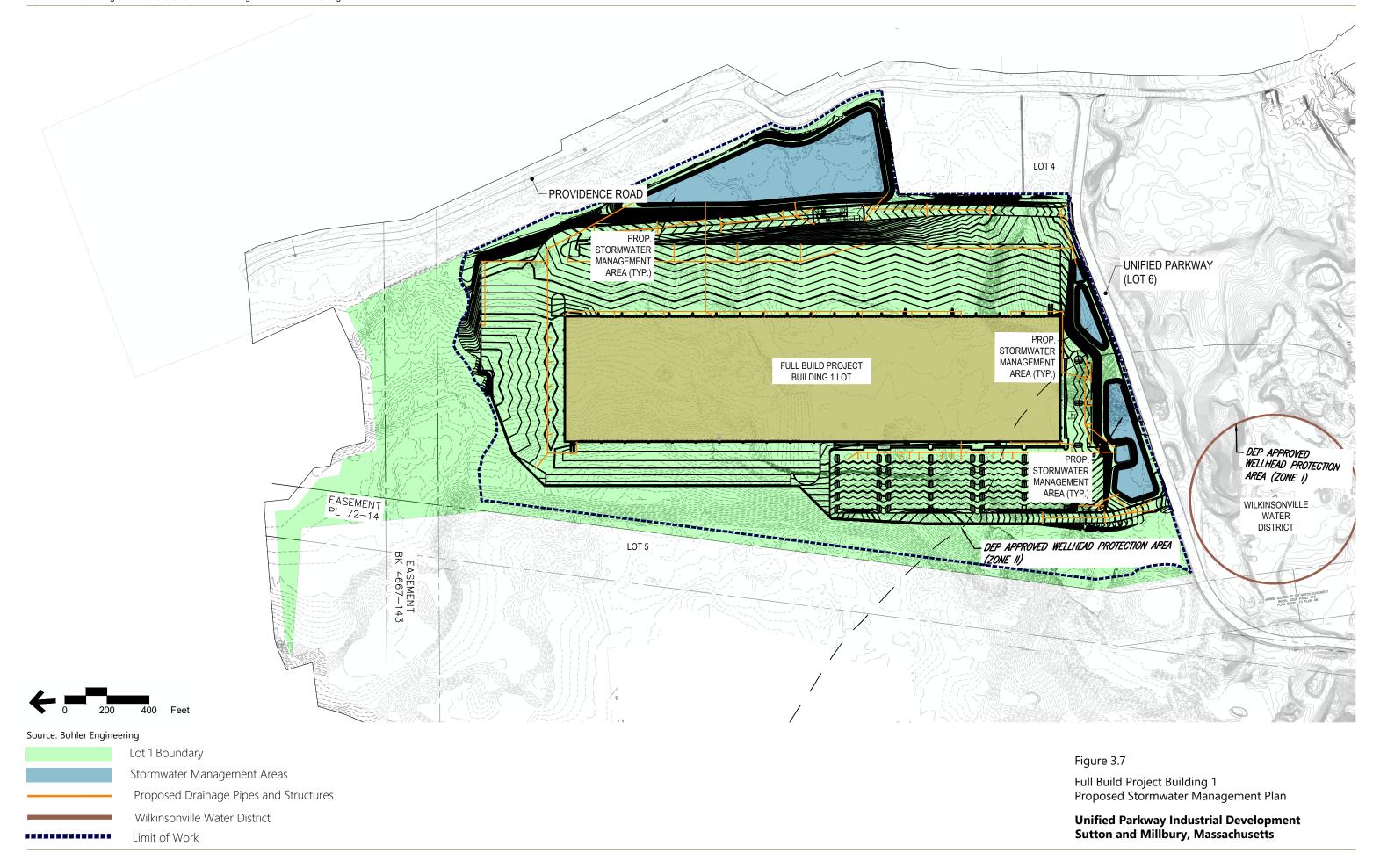
Figure 3.5

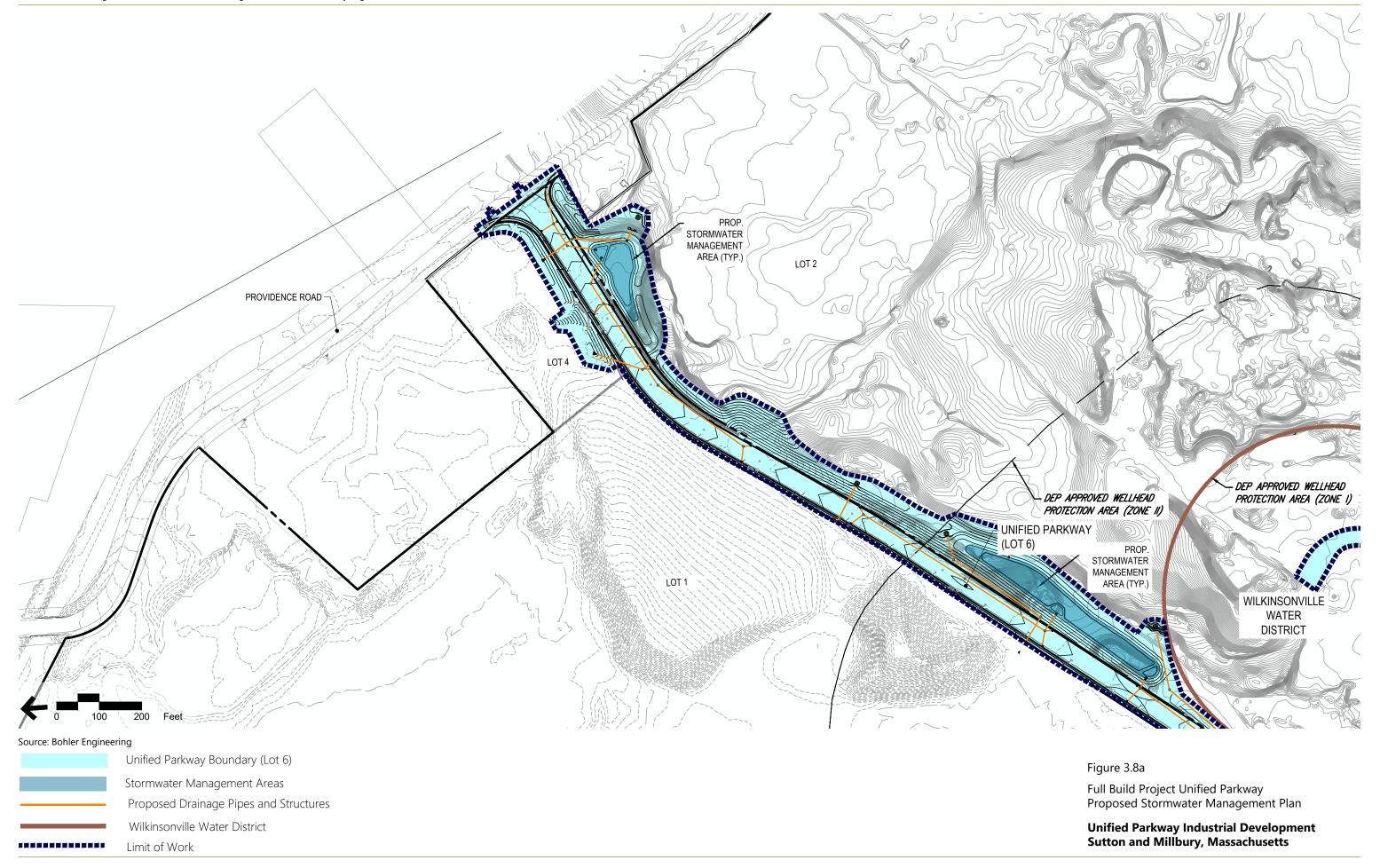
Phase 1 Project - Building 3 Proposed Stormwater

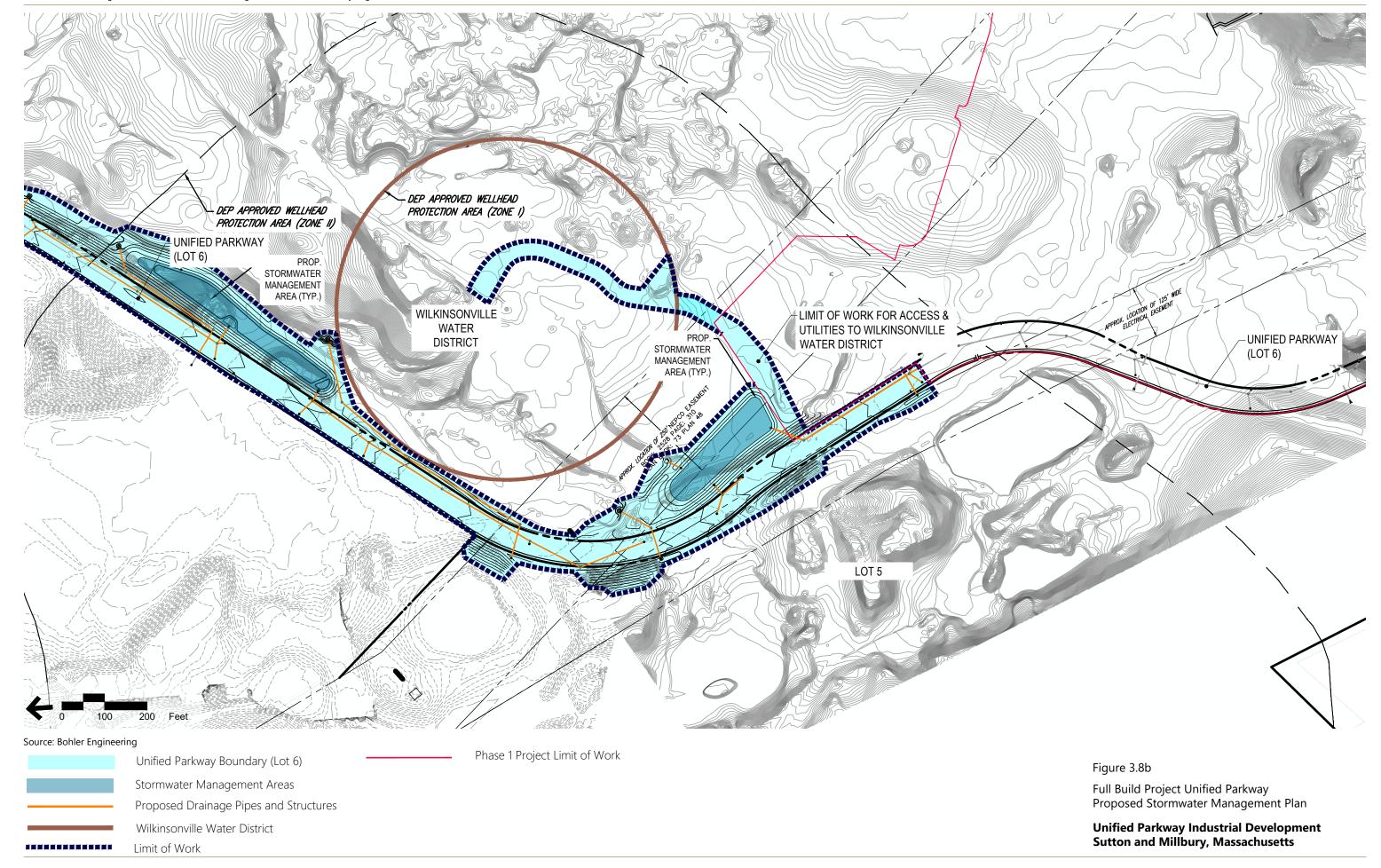
Management Plan

Unified Parkway Industrial Development Sutton and Millbury, Massachusetts









4

Traffic and Transportation

This chapter provides an assessment of the Full Build Project's potential transportation impacts. As specifically required by the PCN Certificate and the MassDOT comment letter, this chapter provides additional information and Project details to address the 'Traffic/Transportation' section of the SEIR Scope (with chapter section references in **bold**):

- Evaluate measures to reduce impacts associated with the Phase 1 Project –
 Building 3 and the Full Build Project Building 2. (Section 4.1)
- Identify Transportation Demand Management ("TDM") measures proposed for the Phase 1 Project – Building 3 and the Full Build Project - Building 2. (Section 4.1)
- Update the ICE analysis prepared for the intersection of Route 146 at Boston Road. (Section 4.2)
- Incorporate countermeasures identified in the October 25, 2022 Road Safety Audit conducted at the intersection of Route 146 at Boston Road into the proposed mitigation. (Section 4.3)
- > Provide an update on MassDOT coordination. (Section 4.4)
- > Provide an update on efforts to obtain a tenant for Building 1 and clarify how mitigation commitments will be enforced upon securing a tenant (through tenant manuals or other means). (Section 4.8)

4.1 Building 2 and Building 3

Buildings 2 and 3 will serve UN1F1ED² Global Packaging Group's (UGPG) future growth needs and will replace their existing warehouse facilities throughout Southern New England to consolidate their warehouse facilities near UGPG's existing headquarters located at 223 Worcester-Providence Turnpike in Sutton.

Building 3 will consist of approximately 343,200 SF warehouse/distribution space supported by ± 90 auto and ± 118 trailer parking spaces. Building 3 was previously permitted as Phase 1 of the Full Build Project. A detailed transportation evaluation for Building 3 was included in the August 2022 Expanded ENF prepared for the Full Build Project.

Building 2 will consist of approximately 652,530 SF warehouse/distribution space supported by ± 252 auto and ± 33 trailer parking spaces. The transportation study provided in the PCN evaluated the traffic-related impacts of Buildings 2 and 3 only in addition to an evaluation of the full buildout of the Project Site, inclusive of Building 1.

Buildings 2 and 3 were shown to have minimal impact on traffic operations at the study intersections evaluated in the PCN and therefore, no additional mitigation related to intersection operations or capacity was proposed for the two buildings. Additionally, Buildings 2 and 3 were reviewed and approved by the Town of Sutton Planning Board. As part of that review, the Proponent is required to conduct post occupancy traffic monitoring studies that will involve reviews of the traffic counts and conditions at the study intersections. In the event that the traffic monitoring study demonstrates an increase in peak hour traffic volumes that is directly identified as being generated from the Full Build Project of a material nature, additional review will be conducted by the Town of Sutton determine the need for mitigation at locations under Town jurisdiction related to the Full Build Project's traffic impacts.

In addition, the Proponent will construct the intersection of Boston Road at Unified Parkway (under town jurisdiction) to support traffic generated by both the Phase 1 Project – Building 3 and the Full Build Project – Building 2. The intersection will be constructed with conduit and pull boxes for potential future signalization related to the Full Build Project – Building 1.

4.2 Intersection Control Evaluation Update

An ICE Stage 1 analysis for the intersection of Route 146 at Boston Road was submitted with the PCN and identified several potential at-grade alternatives that involve additional/new traffic signals either on Route 146 and/or Boston Road to support turning traffic. While signalization is a reasonable short-term goal, MassDOT's long term objective for the area is to remove traffic signal control at the intersection if it is determined that a grade-separated interchange is a suitable solution to handle future traffic projections in the region. To study the long-term needs of the intersection as well as the Route 146 corridor, MassDOT – District 3 is in the process of seeking internal funding for preparing a corridor study to identify long term improvements and develop recommendations that can be advanced to design and construction.

In light of the above information which was provided during a follow-on coordination with MassDOT – District 3, it was determined that the ICE Stage 1 review presented in the PCN for the Full Build Project adequately covered the characteristics of available options for the intersection improvements, and that a Stage 2 ICE analysis will not be necessary for the intersection as part of the SEIR filing. MassDOT believes that the intersection improvements discussed in the PCN present an optimal short-term solution to mitigate the Full Build Project's impacts until longer term improvements are reviewed by MassDOT as part of their independent study. Accordingly, the

improvements outlined in the PCN for the Route 146/Boston Road intersection will serve as the framework for the MassDOT Section 61 Finding for the Full Build Project.

4.3 Implementation of Road Safety Audit Countermeasures

The PCN included a conceptual improvement plan for the intersection of Route 146 at Boston Road. The design of the improvements at the intersection will incorporate many of the recommended countermeasures listed in the RSA. As the design of the improvements advances through the MassDOT process, the Proponent will coordinate with MassDOT – District 3 on incorporating countermeasures listed in the RSA. Some of the countermeasures identified in the RSA that could be considered for incorporation in the design of the intersection may include the following. Some measures, such as relocation of guide signs, or installation of overhead lane usage signs, if determined to be necessary, may be outside of the scope of the Full Build Project. In such instances, such measures will be highlighted for attention by MassDOT as part of their annual maintenance projects.

- New traffic signal timing plan, including updated clearance times (yellow and allred times) to ensure that they are adequate for the geometry of the intersection;
- "Signal Ahead" pavement markings along Route 146 will be evaluated for inclusion in design;
- Additional/improved ground mounted advance lane assignment signage on Route 146 will be evaluated;
- Right-turn-on-red movements will be restricted on Boston Road westbound due to the proposed geometry at the intersection;
- Subject to MassDOT's concurrence, the painted portion of the median on Route 146 northbound will be replaced with a raised median to provide pedestrians with a refuge and to reinforce the left-turn restriction along this approach;
- Signal heads will be upgraded by replacing green ball indications with vertical green arrows for the through lanes along Route 146 that do not allow turning movements;
- Broken lane lines will be installed at the intersection to enhance vehicle turning movement tracking through the intersection;
- Pavement markings will be upgraded at the Pleasant Valley Road intersection along Route 146 northbound to improve visibility;
- > The location of the guide signs in advance of Pleasant Valley Road will be evaluated for visibility;
- Additional signage for the left-turn movement at Pleasant Valley Road onto Boston Road may be installed to provide motorists with better wayfinding;
- > Signage will be installed along the Route 146 median facing each curb cut and driveway to indicate that left-turns are prohibited;

- > To the extent that the Proponent is allowed to modify the Bank of America driveway along Boston Road, the driveway would be redesigned to reinforce the left-turn prohibition at the intersection;
- The Proponent will work with the Town of Sutton Police Department to evaluate the emergency vehicle detection system to identify necessary upgrades and provide funding for implementation;
- A new crosswalk and pedestrian signal equipment will be installed across the southern leg of Route 146, subject to MassDOT's concurrence;

The improvements listed above were identified as part of the RSA. The design of the intersection improvements will be coordinated through MassDOT and each countermeasure that is deemed as being suitable for implementation by the Full Build Project (as opposed to implementation by MassDOT as part of other efforts) will be evaluated as part of the design process.

4.4 MassDOT Coordination

Prior to filing this SEIR, the Proponent reached out to MassDOT PPDU, Boston Traffic Section and District 3 representatives to review the Agency's comments on the PCN and discuss the approach to address the comments, specifically those related to the Intersection Control Evaluation (ICE) Stage 2. As a result of follow-on coordination and input from MassDOT – District 3 staff, it was determined that the Stage 1 review presented in the PCN adequately reviewed the characteristics of available options for the intersection improvements, and that in light of a planned Route 146 corridor study that will be undertaken by MassDOT, a Stage 2 ICE analysis will not be necessary for the Route 146/Boston Road intersection. The improvements outlined in the PCN for the Route 146/Boston Road intersection will serve as the framework for the MassDOT Section 61 Finding for the Full Build Project. A MassDOT Vehicular Access Permit will be required for construction of the proposed improvements at the Route 146/Boston Road intersection.

The follow-on coordination outlined above followed extensive outreach efforts that were undertaken with MassDOT staff prior to filing the PCN. Specifically, the Proponent has had several consultation meetings with the MassDOT staff in Boston and District 3 both during the EENF filing preparation as well as the weeks leading up to the filing of the PCN to discuss the framework for analyzing the traffic impacts of the Full Build Project and identifying proposed mitigation work at the Route 146 and Boston Road intersection. The meetings involved staff from MassDOT Boston, District 3 and the Town of Sutton staff The input obtained during the pre-filing consultation meetings and communications was instrumental in refining the transportation analyses to suit MassDOT's expectations and thereby, assist in streamlining agency review of the traffic impacts and mitigation recommendations for the Full Build Project.

4.5 Transportation Improvements

The analyses of traffic conditions presented in the PCN indicate that certain movements at the intersection of Route 146 at Boston Road could experience operational deficiencies in the future, independent of the Full Build Project. These estimated future deficiencies are a result of the assumptions related to future traffic growth projections along Route 146, as reflected in the numerous background projects along the Route 146 corridor that were included in the No-Build condition as well as the annual traffic growth rate assumption used to grow the existing traffic volumes over and above the known development projects included in the analysis. None of these planned background projects proposed any mitigation at the atgrade signalized intersection of Route 146/Boston Road.

The improvements for each phase of the Full Build Project are described in the following sections.

4.5.1 Phase 1 Project – Building 3 and Full Build Project – Building 2

4.5.1.1 Boston Road at Unified Parkway

The Proponent will construct the intersection of Boston Road at Unified Parkway to support traffic generated by both the Phase 1 Project – Building 3 and the Full Build Project – Building 2. The intersection will be constructed with conduit and pull boxes for potential future signalization related to the Full Build Project – Building 1.

4.5.2 Full Build Project – Building 1

4.5.2.1 Route 146 at Boston Road

The Proponent proposes to implement the following improvements at the intersection pending its ability to secure all necessary local and state approvals for the Full Build Project and subject to MassDOT's review and approval of the detailed design plans for the improvements during the Access Permit process. The Proponent will be responsible for constructing the final at-grade traffic signal improvements that are mutually agreed upon by the Proponent and MassDOT through the ongoing MEPA review:

- Resurface all the existing pavement of Boston Road from the intersection of Galaxy Pass to the intersection of Marble Road.
- > Widen the Boston Road westbound approach and create a second exclusive right-turn lane.
- Modify the Boston Road eastbound approach to eliminate the channelizing island located in the southwesterly corner of the intersection.
- > Shift the two future Boston Road eastbound through movements departing the intersection to the south to provide better alignment with the receiving lanes on the east side of the intersection.

- Reconfigure the Bank of America driveway along Boston Road to provide a larger channelizing island and further reinforce the left-turn restrictions entering and exiting the driveway.
- > Provide an optimal traffic signal timing and phasing plan at the intersection to support the estimated future traffic volumes.
- Install a crosswalk and pedestrian signal equipment across the south leg of Route 146. A pedestrian refuge will be constructed in the existing painted median that separates the northbound and southbound directions of travel, subject to MassDOT's concurrence.
- Refresh or update pavement markings and regulatory signage at the intersection of Route 146 at Boston Road.
- Adjust the location of the existing traffic signal equipment at the intersection to accommodate the proposed geometry.
- Install necessary hardware within the traffic signal controller to add signal coordination in the future, if determined to be necessary, based on the findings of post-construction traffic monitoring. The intersection will operate as an uncoordinated, fully actuated signal until such time that MassDOT deems coordination as a viable solution for the intersection. MassDOT District 3 staff have indicated their preference to not interconnect the state-controlled signal with the Town controlled signals on Boston Road.

4.5.2.2 Boston Road at Galaxy Pass

The following improvements will be implemented at the occupancy of the Full Build Project – Building 1:

- Maintain the existing lane configuration at the intersection and modify the lane markings to work with the proposed lane geometry at the adjacent intersection of Boston Road/Unified Parkway.
- Extend the proposed northerly sidewalk along Boston Road from the Proponent's property to the Galaxy Pass intersection. The Town of Sutton has approved the construction of the shared use path. The Proponent will construct a majority of the shared use path at the time of constructing the Boston Road/Unified Parkway intersection. Construction of the remaining small portion of the path near the Boston Road/Galaxy Pass intersection will need to be coordinated with the Town and constructed at later date.
- > Provide an optimal traffic signal timing plan at the intersection to support future traffic volumes on Boston Road.
- Install necessary hardware within the traffic signal controller to add signal coordination in the future between Galaxy Pass and Unified Parkway, if determined to be necessary, based on the findings of post-construction traffic monitoring. The intersection will operate as an uncoordinated, fully actuated signal until such time that Town of Sutton deems coordination with Unified Parkway as a viable solution for the intersection.

4.5.2.3 Boston Road at Unified Parkway

Depending on the tenant(s) for the Full Build Project – Building 1, certain additional improvements may be necessary at the intersection. The specifics of these improvements will need to be further refined with input from the Town of Sutton during the review of the Full Build Project – Building 1. Pending determination of the specific tenant needs, the Proponent commits to implementing the following improvements at the intersection of Boston Road at Unified Parkway.

- Install a fully actuated traffic signal at the intersection. The intersection will be initially designed to support a fully actuated traffic signal, but the actual installation of the signal may be deferred until such time that a specific tenant is identified for Full Build Project Building 1 and it is confirmed that their actual operations would trigger the need for traffic signal control.
- Install necessary hardware within the traffic signal controller to add signal coordination in the future with the Galaxy Pass signal, if determined to be necessary, based on the findings of post-construction traffic monitoring and approval by the Town of Sutton.

4.6 Transportation Demand Management

The Proponent will implement on its own and encourage its future tenants to implement a number of measures that will contribute toward the reduction of vehicular traffic to and from the Project Site. These measures will be implemented for each building and will include:

- > Designate an employee to be the on-site Transportation Coordinator
- > Implement a Guaranteed Ride Home Program through a taxi voucher program or another similar measure (in case of emergencies for those who use may choose to participate in ridesharing)
- Provide Ridesharing/Ridematching Services (to promote carpooling and reduce single-occupancy vehicle trips)
- Depending on demand, designate parking spaces as preferred parking for any ridesharing services (car/vanpools)
- > Designate parking spaces as preferred parking for any hybrid or zero/low-emission vehicles
- > Provide charging stations for electric vehicles

In addition, it is expected that the proposed use, by its very nature, would likely generate more traffic outside of the roadway hours than during the peak hours. Employees at such facilities tend to work on multiple shifts, with the employees in the largest shift arriving before the start of the morning peak and leaving before the start of the afternoon roadway peak. Some of the measures listed above would further reduce the potential for peak hour travel as well as travel by single occupant vehicles.

4.7 Transportation Monitoring Program

As part of the Access Permit that will be issued for the Full Build Project, it is expected that MassDOT would impose a requirement for an annual transportation monitoring program (TMP) for a specified period after full occupancy of the Full Build Project. Typical TMPs include the following elements:

The Proponent will be willing to implement a transportation monitoring program (TMP) after full occupancy of the Project. Typical TMPs include the following elements:

- Automatic traffic recorder (ATR) counts at the Project Site access points (either end of Unified Parkway) for a continuous 24-hour period on a typical weekday;
- > Travel survey of employees and visitors at the Project Site;
- > Weekday morning and evening peak hour turning movement counts (TMCs) and operations analysis at selected Study intersections to compare to the results presented in this study; and
- A summary update on the usage and effectiveness of the TDM measures that will be available to the future employees.

4.8 Tenant Mitigation Commitments

The Proponent continues to market the Project, specifically the Full Build Project – Building 1 to secure a tenant. At the time of this SEIR filing, the market demand for buildings of this magnitude remaining limited, however, the Proponent remains committed to find the right use for the Full Build Project – Building 1 that compliments the overall development program as well as the Town of Sutton master plan goals of economic benefit and employment opportunities. Mitigation commitments associated with the Full Build Project – Building 1 tenant will be addressed through the lease agreements between the Proponent and the tenant.

5

Climate Change

This chapter provides an assessment of the Full Build Project's potential impacts on climate change as required by the PCN Certificate. As specifically required by the PCN Certificate, this chapter provides additional information and Project details to address the 'Climate Change' and section of the SEIR Scope (with chapter section references in **bold**):

Adaptation and Resiliency

- Compare the elevation of the buildings to the base flood elevation (BFE) associated with the Zone AE present on-site. (Section 5.1.1)
- Discuss the extent to which future flooding risk may exist for the proposed buildings notwithstanding their location outside currently mapped flood plain areas. (Section 5.1.1)
- Consult the methodology available in the RMAT Tool for generating "peak riverine flood elevations" associated with a future storm event (10-year to 50- year storms as of 2070) to address whether the proposed buildings are likely to be situated above these anticipated future flood elevations. (Section 5.1.2.2)
- Identify and compare the 24-hour total precipitation depth that the proposed stormwater management systems could attenuate for all buildings and Unified Parkway, and compare these values to the 24-hr precipitation depths recommended by the RMAT Tool. (Section 5.1.2.1)

GHG Emissions

- Respond to recommendations in comments from DOER and identify the solar-ready zone the Proponent is committing to. (Section 5.2.1)
- Provide a revised mobile emissions analysis that provides the emissions associated with Buildings 2 and 3, the buildings which have already obtained all local approvals and will be used by the Proponent, as stated in the PCN. (Section 5.2.2)
- Describe any mitigation measures that are being proposed to reduce mobile emissions from Buildings 2 and 3 that are not contingent on Building 1 being constructed and/or occupied. (Section 5.2.2.1)
- > Consider additional mitigation for diesel trucks, such as EV charging in trailer spaces, to reduce diesel emissions. (Section 5.2.3)

5.1 Adaptation and Resiliency

5.1.1 Finished Floor Elevations

The proposed finished floor elevations for the Full Build Project – Building 1, the Full Build Project – Building 2, and the Phase 1 Project – Building 3 are 394 feet, 387 feet and 396 feet, respectively. The base flood elevation of the Zone AE near the Full Build Project – Building 1 is 339 feet, near the Full Build Project – Building 2 is 355 feet and near the Phase 1 Project – Building 3 is 367 feet. Therefore, there is no risk of flooding impacting any of the buildings since there are all significantly higher than the base flood elevations.

5.1.2 RMAT Recommendations

5.1.2.1 Proposed Stormwater Management

The 24-hour total precipitation depths for the proposed stormwater management systems for all of the buildings and Unified Parkway are listed below. This rainfall data is based on NOAA. The Project Site and the proposed stormwater management system have been designed so that post-development peak rates of runoff are below pre-development conditions for the 2-, 10-, 25- and 100-year storm events at all design points.

Design Year	Depth
2-year	3.27 inches
10-year	5.07 inches
25-year	6.19 inches
100-year	7.92 inches

Table 5-1 24-Hour Total Precipitation Depths

The 24-hour precipitation depth recommended by the RMAT Tool is 6.9 inches for 10-year design storm and 9.5 inches for 50-year design storm. Therefore, the proposed design exceeds the RMAT recommended of 6.9 inches for the 10-year storm. All of the surface infiltration basins for the Unified Parkway design were maximized to use the available space and are oversized. The basins were designed this way to increase the groundwater recharge. Therefore, the development of Unified Parkway is also designed so that the post-development peak rates of runoff are below pre-development conditions for the RMAT recommended 50-year design storm of 9.5 inches.

The development for the Full Build Project – Building 2 and the Phase 1 Project – Building 3 has been designed such that there is excess room to expand the proposed surface infiltration basins and the proposed underground infiltration

stormwater systems and / or add another underground stormwater system in the future. These new and/or expanded systems could be designed to provide stormwater attenuation and infiltration should it be needed due to the increase stormwater rainfall intensities in the future.

5.1.2.2 Projected Riverine Peak Flood Elevation Analysis

As required by the PCN Certificate, the Proponent consulted the RMAT Tool for identifying the risk of future projected riverine flooding into the Project Site. As demonstrated by the analysis below no impacts are anticipated from the future 50-year 2070 event. All of the proposed work, including site grading, is proposed to be located above the projected peak flood elevations for 2070.

The Secretary's Certificate on the PCN filing requested that the Proponent consult the methodologies available in the RMAT Tool for generating "peak riverine flood elevations" associated with a future storm event (10-year to 50- year storms as of 2070) to address whether the proposed buildings are likely to be situated above these anticipated future flood elevations. RMAT guidance recommends developing a hydrologic and hydraulic (h/h) model; however, for simplicity the FEMA FIS was used for this analysis because FEMA has already completed h/h analyses of the abutting Cold Springs Brook and Blackstone River, which incorporate bridges, culverts, and stream geometry.

The details of the analysis methodology and results are described below. The estimated future peak riverine flood elevations were determined to be well below the proposed building finished floor elevations (>17 feet), as well as below the limits of proposed work, including site grading, and therefore there are no impacts anticipated from the future 50-year 2070 event.

FEMA Mapping

Certain portions of the Project Site are within a mapped Federal Emergency Management Agency (FEMA) Special Hazard Area Zone AE associated Cold Spring Brook, which flows along on the east side of the Project Site. The Blackstone River flows along the north side of the property and its associated floodplain is adjacent to the Project Site. See Figure 5.1 for the FEMA mapping.

Methodology

The RMAT Tool recommends considering the 10-year and 50-year storm events, so the 50-year rainfall event was selected as the more conservative approach. It was assumed that the rainfall data values used in the FEMA FIS study correspond to values from the Technical Paper 40 (TP-40), the standard when the hydrologic analysis of Cold Spring Brook was completed in 1980. The 50-year projected precipitation depth for year 2070 was obtained from the RMAT Report. Table 5-1 shows TP-40 and projected precipitation data.

Table 5-2 Precipitation Depths at Project Site

Storm Event	TP-40 Precipitation Depth (in)	Projected Precipitation Depth (in)	% Increase
50-year/24-hour	6.0	9.5	58%

Flood flows and flood elevations from the effective FEMA Flood Insurance Study (FIS) (Worcester County, Massachusetts, effective date June 21, 2023) for the Project location were used as a basis to develop projected 2070 peak flood elevations for the 50-year rainfall event. Tables 5-2 and 5-3 show flow and elevation data at cross sections for Blackstone River and Cold Spring Brook within the vicinity of the Project Site. Refer to Figure 5.1 for the cross-section (XS) locations.

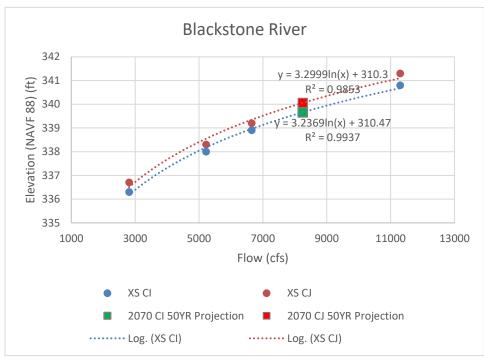
Table 5-3 Flow and Elevation Data at Select Cross Sections at Blackstone River

				ect Cross-Section AVD 88)
Storm Event (year)	%Annual Chance	Flow (cfs)	CI	CJ
500	0.2	11300	340.8	341.3
100	1	6650	338.9	339.2
50	2	5220	338.0	338.3
10	10	2810	336.3	336.7

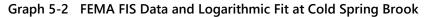
Table 5-4 Flow and Elevation Data at Select Cross Sections at Cold Spring Brook

			Elevation (ft – NAVD 88) at Select Cross-Section			
Storm Event (year)	%Annual Chance	Flow (cfs)	D	E	F	G
500	0.2	1170	332.7	337.2	356.5	371
100	1	760	331.8	336.8	356	370.5
50	2	620	331.3	336.1	355.7	370.2
10	10	360	329.8	335.5	354.9	369.3

For the purpose of estimating the future peak flood elevations, it was assumed that the 50-year flood flows will increase in the same proportion as the 50-year rainfall depth increase, that is 58%. This estimates the 2070 50-year flow rate of 8248 cfs for the Blackstone River and 980 cfs for Cold Spring Brook. To provide an estimate of future flooding elevations, the existing FEMA FIS flow and elevation data from Tables 5-2 and 5-3, was fit into a logarithmic trendline, which was used to estimate the future flood elevations using the projected flows. Graphs 5-1 and 5-2 show the data and best fit for both streams and the corresponding best fit equation. The graphs also show the projected flow-elevation data point for the 50-year event in 2070 for each of the cross sections. Tables 5-4 and 5-5 show the projected flows and peak flood elevation values.



Graph 5-1 FEMA FIS Data and Logarithmic Fit at Blackstone River



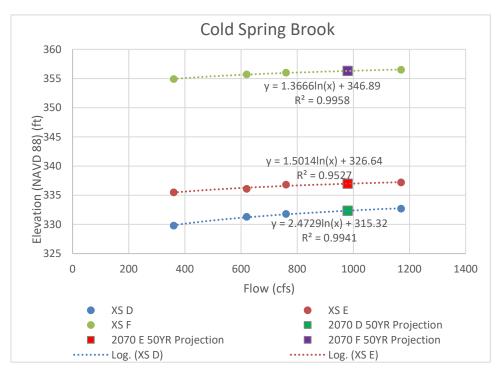


Table 5-5 2070 Projected Flow and Elevation Data at Select Cross Sections at Blackstone River

		Projected Elevation at Select Cross-Section (ft-NAVD 88		
Storm Event (year)	Projected Flow (cfs)	CI	CI	
50	8248	339.7	340.1	

Table 5-6 2070 Projected Flow and Elevation Data at Select Cross Sections at Cold Spring Brook

Projected Elevation at Select Cross-Section (ft-NAVD				(ft-NAVD 88)	
Event (year)	Projected Flow (cfs)	D	E	F	G
50	980	332.4	337.0	356.3	370.8

Results

Results from Table 5-4 show that the projected flood elevations at Blackstone River along the north bound are around 340-ft. Results from Table 5-5 show projected flood elevations at Cold Spring Brook along the east bound at around 332-ft close to Providence Rd on the NE corner and 370-ft close to Boston Rd on the SE corner of the property.

The proposed finished floor elevations for the proposed buildings range within 387-ft and 396-ft, which is well above the projected flood elevations for 2070. All of the proposed work, including site grading, is located above the projected peak flood elevations for 2070 and therefore there are no impacts anticipated from the future 50-year 2070 event.

5.2 GHG Emissions

5.2.1 On-Site Renewable Energy

The comment letter from DOER and the Secretary's Certificate on the PCN filing requested the Proponent to commit to making 80% of the warehouse roof area solar-ready. The Proponent will commit to making all roof area not occupied by roof top equipment, skylights, or required setbacks solar-ready on both the Full Build Project – Building 1 and the Full Build Project – Building 2. The Proponent estimates that this will correspond to approximately 80% of the roof area. As defined in the energy code, the solar ready area will include the appropriate structural capacity and electrical infrastructure to support a solar PV system at a future date. The Proponent's commitment to solar-readiness goes well above the current code requirement and represents 100 percent increase in solar readiness beyond code requirements. Thus, all three warehouse buildings for the Project will meet the requested 80% solar-ready rooftop area.

5.2.2 Mobile Source GHG Emissions

The Secretary's Certificate on the PCN filing requested the Proponent present a revised mobile source emissions analysis that included the emissions associated with the Full Build Project – Building 2 and the Phase 1 Project – Building 3 and present the mitigation measures associated with only the Full Build Project – Building 2 and the Phase 1 Project – Building 3 (not dependent on the construction of the Full Build Project – Building 1).

The mobile source emissions analysis presented in the PCN filing included an estimation of emissions associated with the Remainder of Full Build Project, including Buildings 1 and 2. Since the traffic analysis is unchanged, a revised mobile source emissions analysis for the full build condition is not required. The results of the PCN mobile source analysis which included the emissions associated with the Full Build Project – Buildings 1, 2, and the Phase 1 Project – Building 3 are shown in Table 5-6.

Table 5-7 PCN Buildings 1, 2, and 3 Mobile Source Emissions

	Duildings 1 2 2	Savings Due to	Sovience Due to	Mitigated
Pollutant	Buildings 1, 2, 3 Emissions ¹	Roadway Improvements ²	Savings Due to TDM Measures ³	Buildings 1, 2, 3 Emissions
Volatile Organic Compounds (kg/day)	3.90	-0.34	-0.08	3.48
Oxides of Nitrogen (kg/day)	2.47	-0.37	-0.05	2.05
Carbon Dioxide (tpy)	2,638	-374	-53	2,212

- 1 Represents the difference in pollutant emissions between the Build and No-Build Conditions.
- 2 Proposed roadway improvements are presented in Chapter 4 of the PCN filing.
- 3 Mitigation from TDM Measures presented in Chapter 4 of the PCN filing.

At the request of the Secretary, the Proponent re-analyzed the mobile source emissions for the interim traffic scenario where only the Full Build Project – Building 2 and the Phase 1 Project – Building 3 were constructed. The transportation results of this scenario were presented in Chapter 4 of the PCN filing. The modeling was conducted based on the same methodology presented in the PCN filing. The resulting mobile source emissions associated with the construction of the Full Build Project – Building 2 and the Phase 1 Project – Building 3 are presented in Table 5-7. It is estimated that the Full Build Project – Building 2 and the Phase 1 Project – Building 3 will result in 844 tons per year of GHG emissions. Comparing to the estimated emissions for the full build project in Table 5-6 shows that most mobile source emissions are associated with the Full Build Project – Building 1 since this building is the largest of the development. As such, the proposed roadway improvements that will offer substantial emissions reductions are associated with its construction.

Table 5-8 Buildings 2 and 3 Mobile Source Emissions

Pollutant	No Build Emissions	Buildings 2+3 Build Emissions ¹	Buildings 2+3 Project Emissions ²	Savings Due to TDM Measures ³	Mitigated Buildings 2+3 Project Emissions
Volatile Organic Compounds (kg/day)	25.8	26.9	1.10	-0.02	1.08
Oxides of Nitrogen (kg/day)	15.1	15.8	0.77	-0.02	0.75
Carbon Dioxide (tpy)	16,511	17,355	844	-17	828

- 1 Represents the emissions associated with both the Project and no build roadway network.
- 2 Represents the difference in pollutant emissions between the Build and No-Build Conditions.
- 3 Proposed roadway improvements are presented in Chapter 4 of the PCN filing.
- 4 Mitigation from TDM Measures presented in Chapter 4 of the PCN filing.

The mitigated scenario in Table 5-7 includes an emissions reduction associated with implementing TDM measures (as described in the next section). However, it should be noted that the construction of the Full Build Project – Building 2 and the Phase 1 Project – Building 3 will also offer significant regional reductions in mobile source GHG emissions associated with the consolidation of the Unified business operations. The estimated truck VMT reductions associated with this consolidation from the PCN filing is shown in Table 5-8. This reduction in miles driven will greatly benefit regional GHG emissions by an estimated reduction of 1,700 tons per year.¹

Table 5-9 Distances and Trips between Unified Facilities

Location of Existing Unified Facility	Miles From Sutton HQ (round trip)	Number of trips per day	Miles per Day	Miles per Week (6.5 days)	Miles per Year (52 Weeks)
330 Romano Vineyard Way, N. Kingstown RI	102	4	408	2,652.0	137,904.0
262 Swansea Mall Dr., Swansea, MA	89	5	445	2,892.5	150,410.0
50 Howe Ave., Millbury MA	12	12	144	936.0	48,672.0
355 Main Street, Whitinsville MA	8	2	16	104.0	5,408.0
580 Fort Pond Road, Lancaster MA	67	20	1,340	8,710.0	452,920.0
100 Simplex Drive, Westminster MA	70	5	350	2,275.0	118,300.0
240 Industrial Ave., E. Lowell MA	98	5	490	3,185.0	165,620.0
Total Existing Conditions	446	53	3,193	20,755.0	1,079,234.0
Project	5	53	258	1,677.0	87,204.0
Reduction in Miles from Full Build Project					92%

5.2.2.1 Buildings 2 and 3 Mobile Source Mitigation

The traffic generation from the Full Build Project - Building 2 and the Phase 1 Project - Building 3 would not generate enough trips to warrant the roadway improvement measures for the Route 146/Boston Road intersection that stem from the anticipated

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¹ Emissions reduction estimated for a short-haul combination truck traveling on urban restricted roadway at 40 mph in MOVES3.

traffic generation of the Full Build Project – Building 1. As such, the "Savings Due to Roadway Improvements" in in Table 5-7 would not be realized if the Full Build Project – Building 1 were not constructed, but mitigation due to TDM measures would still occur.

As described in the PCN filing, the Proponent will implement on its own a number of measures that will contribute toward the reduction of vehicular traffic to and from the Full Build Project – Building 2 and the Phase 1 Project – Building 3. These measures include:

- Designate an employee to be the on-site Transportation Coordinator
- > Implement a Guaranteed Ride Home Program through a taxi voucher program or another similar measure (in case of emergencies for those who use may choose to participate in ridesharing)
- Provide Ridesharing/Ridematching Services (to promote carpooling and reduce single-occupancy vehicle trips)
- Depending on demand, designate parking spaces as preferred parking for any ridesharing services (car/vanpools)
- Designate parking spaces as preferred parking for any hybrid or zero/lowemission vehicles

In addition, it is expected that the proposed use of the Full Build Project – Building 2 and the Phase 1 Project – Building 3 as warehouse and distribution facilities operated by the Proponent, by its very nature, would likely generate more traffic outside of the roadway hours than during the peak hours. Employees at such facilities tend to work on multiple shifts, with the employees in the largest shift arriving before the start of the morning peak and leaving before the start of the afternoon roadway peak. Some of the measures listed above would further reduce the potential for peak hour travel as well as travel by single occupant vehicles.

The Proponent also made substantial commitments to EV charging infrastructure at the Full Build Project – Building 2 and the Phase 1 Project – Building 3. As described in the PCN filings, for the Phase 1 Project – Building 3, the Proponent committed to installing 10 EV charging stations (11% of the total spaces) as well as making all remaining vehicle spaces EV Ready and for the Full Build Project – Building 2 the Proponent committed to installing EV Charging stations for 10% of the vehicle spaces, with the remaining spaces made EV Ready for future demand.

5.2.3 Truck Emissions Mitigation

The Secretary's Certificate on the PCN filing requested the Proponent consider make commitments to clean truck standards and electric truck charging infrastructure.

5.2.3.1 Clean Truck Standards

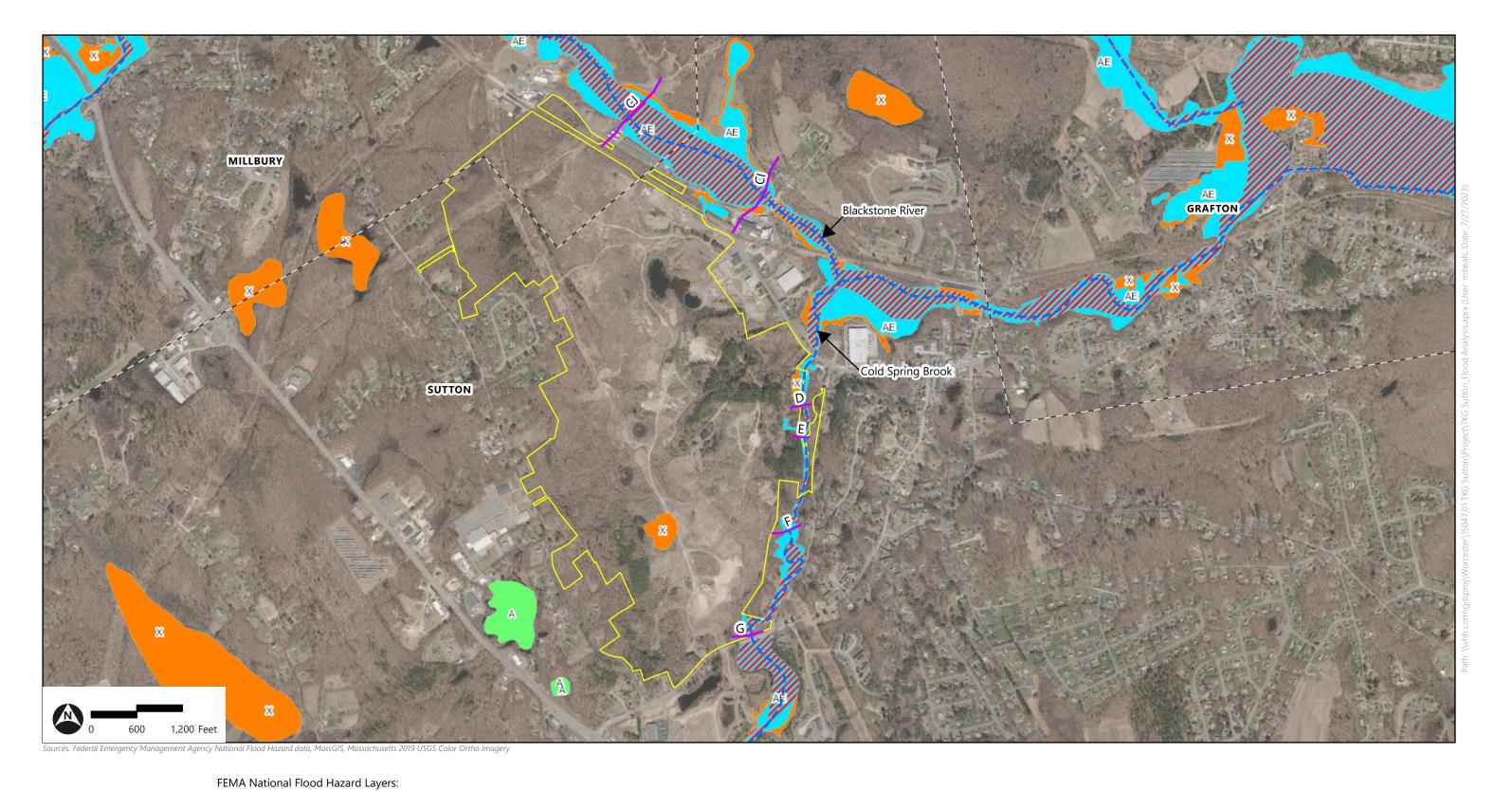
MassDEP has proposed regulatory changes to adopt the California Air Resources Board (CARB)'s Medium and Heavy Duty (MHD) engine and vehicle regulations.

These MHD regulations include three parts: 1) GHG Phase 2 Standards for MHD Engines and Vehicles starting in model year (MY) 2025; 2) Heavy-Duty Omnibus Regulation which contains a comprehensive set of emission standards and other emission-related requirements for heavy-duty engines and vehicles, starting in MY 2025; and 3) Advanced Clean Trucks Regulation resulting in zero emission vehicle (ZEV) sales starting in MY 2025 and ramping up to 55% of Class 2b-3, 75% of Class 4-8 and 40% of Class 7-8 tractor sales being ZEVs in MY 2035. Ultimately the adoption of these standards will be effective through manufacturer implementation and fleet turnover with industry purchasing of new trucks.

The Proponent remains committed to exploring all alternative fuel options and early adoption of Advanced Clean Truck regulations, to reduce GHG emissions, including the use of trucks meeting the above forthcoming emissions standards and EV truck tractors to haul trailers. If and when the Proponent's truck leasing vendors and/or truck manufactures increase the availability and reliability of electric truck tractors and tractors meeting the advanced clean truck regulations, the Proponent will commit to incorporating them into their truck fleet if deemed reliable and economical. Early adoption of these standards is dependent on manufacturer's making compliant trucks widely available prior to the required implementation date within the regulations.

5.2.3.2 Electric Truck Charging Infrastructure

As discussed previously in Section 2.1.4.2 of Chapter 2, *Environmental Justice and Public Health*, The Proponent is considering additional mitigation for diesel trucks, such as EV charging in trailer spaces, to reduce diesel emissions. EV truck charging equipment within trailer spaces is not necessarily appropriate as generally trailers would be parked there, and truck tractors will generally reside near the loading docks. As such, the Proponent will design the Full Build Project – Building 1 and the Full Build Project – Building 2 to ensure sufficient electrical power exists to accommodate EV truck charging stations at the loading dock doors or elsewhere on site where tractors may be located, as needed.



Site A: 1% Annual Chance of AH: 1% Annual Chance VE: High Risk Coastal X: 1% Drainage Area < 1 Flooding, no BFE of 1-3ft Ponding, with Town Boundary BFE AE: 1% Annual Chance X: Reduced Flood Risk due to Levee D: Possible But **--** Stream of Flooding, with BFE AO: 1% Annual Chance **Undetermined Hazard** FEMA Flood Insurance of 1-3ft Sheet Flow Area Not Included X: 0.2% Annual Chance AE: Regulatory Study Cross Sections Flooding, with Depth Floodway of Flooding Area with no DFIRM - Paper FIRMs in Effect

Figure 5.1 FEMA Map

Unified Parkway Industrial Development Sutton and Millbury, Massachusetts

6

Mitigation Summary

This chapter provides an overview of the measures proposed to mitigate the impacts of the Full Build Project along with draft Section 61 Findings for the anticipated MassDOT Access Permit to permit the proposed improvements to mitigate the traffic impacts of the Full Build Project, and a draft Letter of Commitment for the Greenhouse Gas (GHG) Self-Certification for documenting energy efficiency and stationary source GHG emission reductions anticipated for the Full Build Project based on conceptual design.

As specifically required by the PCN Certificate, this chapter provides additional information and project details to address the 'Mitigation and Draft Section 61 Findings' section of the SEIR Scope (with chapter section references in **bold**):

- Include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations. (Section 6.1, Table 6-1)
- Contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. (Section 6.1, Table 6-1)
- List the commitments in a tabular format organized by subject matter (traffic, water/wastewater, GHG, environmental justice, etc.) and identify the Agency Action or Permit associated with each category of impact. (Section 6.1, Table 6-1, and Section 6.2)
- Indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase. (Section 6.1, Table 6-1)
- Include Draft Section 61 Findings separately included for each Agency Action to be taken on the project. **(Section 6.3)**
- Provide a self-certification to the MEPA Office indicating that all of the required mitigation measures, or their equivalent, have been completed. (Section 6.4)

6.1 Mitigation Summary Table

As demonstrated in Table 6-1 below, mitigation will be provided for the Full Build Project, as described in Chapter 1, *Project Description*, subject to the receipt of all necessary permits, approvals, and revisions required by applicable regulatory entities.

Table 6-1 Summary of Proposed Mitigation Measures for the Full Build Project

Mitigation Measure	Responsible Party	Timing	Costs
Phase 1 Project – Building	3		
Land/Stormwater			
The development of the site and the proposed stormwater management system have been designed so that post-development peak rates of runoff are below pre-development conditions for the 2-, 10-, 25- and 100-year storm events at all design points.	Proponent	Design	
Infiltrate one inch of water quality volume within a Wellhead Protection Area.	Proponent	Design	
Runoff from impervious surface areas, including the building roof and paved parking/driveway areas shall be collected and passed through the proposed drainage system for treatment prior to discharge.	Proponent	Design	
Stormwater runoff from the Phase 1 Project – Building 3 will be collected and diverted to one of the proposed infiltration basins.	Proponent	Design	\$1.3M
Proposed infiltration basins will provide greater than required volume below the lowest outlet for groundwater recharge.	Proponent	Design	
The stormwater management system has been designed to provide at least 80% removal of Total Suspended Solids (TSS) through the use of Best Management Practices (BMPs), including deep-sump hooded catch basins, forebays, and surface infiltration basins.	Proponent	Design	
Implement an Operation and Maintenance (O&M) Plan for the Phase 1 Project – Building 3.	Proponent	Operations	\$50K
Wetlands			
The proposed site has been designed to avoid all direct wetland impacts and is located outside the 100-foot Buffer Zone.	Proponent	Design	N/A
Removal of invasive plants in portions of the Phase 1 Project – Building 3 site, substantial additional infiltration beyond what the MassDEP Stormwater Management Standards would otherwise require (489,794 Cubic Feet (CF) vs. 91,051 CF), removal of a historic dumping area, and restoration of previously degraded Buffer Zones, including planting native saplings, shrubs, and ground cover.	Proponent	Operations	\$55K

Table 6-1 Summary of Proposed Mitigation Measures for the Full Build Project

, , ,	1	I	I
Mitigation Measure	Responsible Party	Timing	Costs
Traffic and Transportation			
Notwithstanding that the Phase 1 Project – Building 3 will have a minimal effect on traffic flow and operations in the area, improvements at the intersection of Boston Road/Unified Parkway (local jurisdiction) have been approved for construction by the Town of Sutton. These improvements have been designed to support traffic generated by both the Phase 1 Project – Building 3 and the Full Build Project - Building 2.	Proponent	Certificate of Occupancy for Phase 1 Project – Building 3	\$350K
Greenhouse Gas Emissions/Air Quality			
Design and construct the warehouse building to have energy mitigation measures which would result in an estimated 12 percent energy savings and in a reduction by approximately 10 percent in stationary source GHG emissions compared to a current stretch code design.	Proponent	Design	\$200K
Implement traffic improvements described above and install EV charging stations and EV ready spaces.	Proponent	Construction	\$71K
Climate Change Resiliency			
The Phase 1 Project – Building 3 will be designed to manage the peak rates of runoff from the Full Build Project Site for the 2-, 10-, 25-, and 100-year design storms.	Proponent	Design	See Land/Stormwater Phase I Project – Building 3
The site design will include new landscaping and light-colored hardscape materials to reduce the urban heat island effect.	Proponent	Design	\$250K
The building design will include measures to adapt to high heat conditions, including a high-performance building envelope that will reduce cooling loads in the summer and the installation of high performance HVAC equipment.	Proponent	Design	See Greenhouse Gas Emissions/Air Quality, Phase 1 Project – Building 3
Water and Wastewater			
A drip irrigation system will be utilized on site landscaping and plantings.	Proponent	Operations	\$100K
Implementation of low flow toilets and fixtures.	Proponent	Operations	\$20K
Temporary Construction Period Impacts			
Construction Stormwater Runoff			
> Implement erosion and sedimentation controls, including silt fence and hay bales, along appropriate downgrade portions of the perimeter of the excavated areas to protect wetland resource areas and prevent construction materials from contaminating the storm drainage system.	Construction Manager	Construction	\$55K
Construction Air Quality			
> If required, water sprays during excavation, stockpiling, and loading of demolition and soil materials for removal;	Construction	Construction	\$75K
> Site watering as required to mitigate wind erosion;	Manager	CONSTRUCTION	JC 1¢
 Street sweeping of adjacent local roadways to address potential sediment accumulation; 			

Table 6-1 Summary of Proposed Mitigation Measures for the Full Build Project

Mitigation Measure	Responsible Party	Timing	Costs
> Secure covering of piles of excavated materials;			
> Properly secured covers on truck cargos during materials transport; and			
 Minimization of the free drop height of excavated or aggregate material during earthwork operations. 			
Construction Noise			
 The CMP specifications will require that construction equipment will be required to have installed and properly operating appropriate noise muffler systems; 			
> The CMP specifications will require that construction vehicles and equipment will be required to maintain their original engine noise control equipment;			
 All construction activities will typically be limited to normal working hours and off-hour work would be minimized, to the extent practicable; 			
 Appropriate traffic management techniques implemented during the construction period will mitigate roadway traffic noise impacts; 			
 Proper operation and maintenance, and prohibition of excessive idling of construction equipment engines, will be implemented as required by MassDEP regulation 310 CMR 7.11; 	Construction Manager	Construction	\$0
Work hours and relevant noise generating activities will be reviewed further with the Town of Sutton to outline those construction activities which may occur prior to 7:00 AM and after 7:00 PM, Monday through Friday and before 8:00 AM and after 12:00 PM on Saturdays, as well as those activities which may occur during overnight hours (if necessary);			
 Additional noise control options will be evaluated during the design process for effectiveness and feasibility; and 			
> Appropriate operational specifications and performance standards will be			
incorporated into the construction contract documents.			
Construction Waste			
The Phase 1 Project – Building 3 Construction Manager will implement a waste management plan	Construction Manager	Construction	\$9K
Full Build Project – Buildi	ng 2		
Land/Stormwater			
The development of the site and the proposed stormwater management system have been designed so that post-development peak rates of runoff are below predevelopment conditions for the 2-, 10-, 25- and 100-year storm events at all design points.	Proponent	Design	
Stormwater runoff from the Full Build Project – Building 2 will be collected and diverted to one of the proposed infiltration basins.	Proponent	Design	\$2M
The stormwater management system has been designed to provide at least 80% removal of Total Suspended Solids (TSS) through the use of Best Management Practices (BMPs), including deep-sump hooded catch basins, forebays, and surface infiltration basins.	Proponent	Design	

Table 6-1 Summary of Proposed Mitigation Measures for the Full Build Project

Mitigation Measure	Responsible Party	Timing	Costs
Runoff from impervious surface areas, including the building roof and paved parking/driveway areas, shall be collected and passed through the proposed drainage system for treatment prior to discharge.	Proponent	Design	
Infiltrate one inch of water quality volume within a Wellhead Protection Area.	Proponent	Design	
Proposed infiltration basins will provide greater than the required volume below the lowest outlet for groundwater recharge.	Proponent	Operations	
Implement an Operation and Maintenance (O&M) Plan for the Full Build Project – Building 2.	Proponent	Design	\$50K
Wetlands			
Removal of invasive plants in portions of the Full Build Project – Building 2 site, substantial additional infiltration beyond what the MassDEP Stormwater Management Standards would otherwise require (489,794 CF vs. 91,051 CF), removal of a historic dumping area, and restoration of previously degraded Buffer Zones, including planting native saplings, shrubs, and ground cover.	Proponent	Operations	\$500K
Traffic and Transportation			
Note: this is a duplication of the mitigation outlined earlier for Phase 1 Project – Building 3 and not an additional item. Notwithstanding that the Full Build Project – Building 2 will have a minimal effect on traffic flow and operations in the area, improvements at the intersection of Boston Road/Unified Parkway (local jurisdiction) have been approved for construction by the Town of Sutton. These improvements have been designed to support traffic generated by both the Phase 1 Project – Building 3 and the Full Build Project - Building 2.	Proponent	Certificate of Occupancy for Phase 1 Project – Building 3	\$350K
Greenhouse Gas Emissions/Air Quality			
Design and construct the Full Build Project – Building 2 to have energy mitigation measures such that the Full Build Project – Building 2 would result in an estimated 5 percent energy savings and in an increase by approximately 8 percent in stationary source GHG emissions compared to the 2023 Stretch Code Base.	Proponent	Design	\$400K
Implement traffic improvements described above and install EV charging stations (10% of vehicle parking spaces) and EV ready spaces (remaining 90% of vehicle parking spaces).	Proponent	Construction	\$200K
Climate Change Resiliency			
The Full Build Project – Building 2 will be designed to manage the peak rates of runoff from the Full Build Project – Building 2 site for the 2-, 10-, 25-, and 100-year design storms.	Proponent	Design	See Land/Stormwater - Full Build Project- Building 2
The site design will include new landscaping and light-colored hardscape materials to reduce the urban heat island effect.	Proponent	Design	\$220K
The building design will include measures to adapt to high heat conditions, including a high-performance building envelope that will reduce cooling loads in the summer and the installation of high performance HVAC equipment.	Proponent	Design	See Greenhouse Gas Emissions/Air Quality, Full Build Project – Building 2

measures that have been discussed with MassDOT to-date.

Table 6-1 Summary of Proposed Mitigation Measures for the Full Build Project

Mitigation Measure	Responsible Party	Timing	Costs	
Water and Wastewater				
A drip irrigation system will be utilized on site landscaping and plantings.	Proponent	Operations	\$150K	
Implementation of low flow toilets and fixtures.	Proponent	Operations	\$30K	
Temporary Construction Period Impacts				
See Phase 1 Project – Building 3 Temporary Construction Impacts				
Full Build Project – Build	ing 1			
Land/Stormwater				
The development of the site and the proposed stormwater management system will be designed so that post-development peak rates of runoff are below pre-development conditions for the 2-, 10-, 25- and 100-year storm events at all design points.	Proponent	Design		
Stormwater runoff from the Full Build Project – Building 1 will be collected and diverted to one of the proposed infiltration basins.	Proponent	Design		
The stormwater management system will be designed to provide at least 80% removal of Total Suspended Solids (TSS) through the use of Best Management Practices (BMPs), including deep-sump hooded catch basins, forebays, and surface infiltration basins.	Proponent	Design	\$5M	
Runoff from impervious surface areas, including the building roof and paved parking/driveway areas, will be collected and passed through the proposed drainage system for treatment prior to discharge.	Proponent	Design		
Infiltrate one inch of water quality volume within a Wellhead Protection Area.	Proponent	Design		
Proposed infiltration basins will provide greater than the required volume below the lowest outlet for groundwater recharge.	Proponent	Operations		
Implement an Operation and Maintenance (O&M) Plan for the Full Build Project – Building 1 site.	Proponent	Design	\$50K	
Wetlands				
As shown in the figures and stated in the chapters, there are no anticipated wetland impacts for the Full Build Project – Building 1.	Proponent	Operations	N/A	
Traffic and Transportation		ı	I	
Route 146 at Boston Road				
NOTE: Concurrent with the review of the PCN, MassDOT reviewed an intersection control evaluation (ICE) – Stage 1 document that considered alternative treatments for the intersection. Based on the review of the ICE, MassDOT determined that the following improvements are the most appropriate measures to address the Project-related traffic impacts for the Full Build Project – Building 1. The specifics will be outlined in the MassDOT Section 61 Finding that will be issued after the MEPA process is complete. The outline below is presented for completeness of this section and identifies	Proponent	Prior to Full Occupancy of the Full Build Project – Building 1	\$3.0M	

Table 6-1 Summary of Proposed Mitigation Measures for the Full Build Project

		Mitigation Measure	Responsible Party	Timing	Costs
	interse for the detaile The Pr interse	roponent proposes to implement the following improvements at the ection pending its ability to secure all necessary local and state approvals a Full Build Project and subject to MassDOT's review and approval of the ed design plans for the improvements during the Access Permit process. Toponent will be responsible for constructing the final at-grade ection improvements that are mutually agreed upon by the Proponent lassDOT through the on-going MEPA review:			
	>	Resurface all the existing pavement of Boston Road from the intersection of Galaxy Pass to the intersection of Marble Road.			
	>	Widen the Boston Road westbound approach and create a second exclusive right-turn lane.			
	>	Modify the Boston Road eastbound approach to eliminate the channelizing island located in the southwesterly corner of the intersection.			
	>	Shift the two future Boston Road eastbound through movements departing the intersection to the south to provide better alignment with the receiving lanes on the east side of the intersection.			
	>	Subject to applicable approvals, reconfigure the Bank of America driveway along Boston Road to provide a larger channelizing island and further reinforce the left-turn restrictions entering and exiting the driveway.			
	>	Provide an optimal traffic signal timing and phasing plan at the intersection to support the estimated future traffic volumes.			
	>	Install a crosswalk and pedestrian signal equipment across the south leg of Route 146. A pedestrian refuge will be constructed in the existing painted median that separates the northbound and southbound directions of travel, subject to MassDOT's concurrence.			
	>	Refresh or update pavement markings and regulatory signage at the intersection of Route 146 at Boston Road.			
	>	Adjust the location of the existing traffic signal equipment at the intersection to accommodate the proposed geometry.			
	>	Install necessary hardware within the traffic signal controller to add signal coordination in the future, if determined to be necessary, based on the findings of post-construction traffic monitoring.			
Bost	ton Roa	ad at Galaxy Pass			
		ng improvements will be implemented at the occupancy of the Full Build uilding 1:	Proponent	Occupancy of the	\$200K
	lane m	ain the existing lane configuration at the intersection and modify the narkings to work with the proposed lane geometry at the adjacent ection of Boston Road/Unified Parkway.	Поропен	Full Build Project – Building 1	¥250K

Table 6-1 Summary of Proposed Mitigation Measures for the Full Build Project

	Mitigation Measure	Responsible Party	Timing	Costs
>	Extend the proposed northerly shared use path along Boston Road from the Proponent's property to the Galaxy Pass intersection. The Town of Sutton has approved the construction of the shared use path. The Proponent will construct a majority of the shared use path at the time of constructing the Boston Road/Unified Parkway intersection. Construction of the remaining small portion of the path near the Boston Road/Galaxy Pass intersection will need to be coordinated with the Town and constructed at later date			
>	Provide an optimal traffic signal timing plan at the intersection to support future traffic volumes on Boston Road.			
>	Install necessary hardware within the traffic signal controller to add signal coordination in the future between Galaxy Pass and Unified Parkway, if determined to be necessary, based on the findings of post-construction traffic monitoring. The intersection will operate as an uncoordinated, fully actuated signal until such time that Town of Sutton deems coordination with Unified Parkway as a viable solution for the intersection.			
Во	ston Road at Unified Parkway			
imį imį du spe	poending on the tenant(s) for the Full Build Project – Building 1, certain additional provements may be necessary at the intersection. The specifics of these provements will need to be further refined with input from the Town of Suttoning the review of the Full Build Project – Building 1. Pending determination of the ecific tenant needs, the Proponent commits to implementing the following provements at the intersection of Boston Road at Unified Parkway.			
>	Install a fully actuated traffic signal at the intersection. The intersection will be initially designed to support a fully actuated traffic signal to support Phase 1 Project – Building 3, but the actual installation of the signal may be deferred until such time that a specific tenant is identified for the Full Build Project – Building 1 and it is confirmed that their actual operations would trigger the need for traffic signal control.	Proponent	Certificate of Occupancy	\$650K
>	Install necessary hardware within the traffic signal controller to add signal coordination in the future with the Galaxy Pass signal, if determined to be necessary, based on the findings of post-construction traffic monitoring and approval by the Town of Sutton.			
Tra	nsportation Demand Management (TDM)			
>	Designate an employee to be the on-site Transportation Coordinator.			
>	Implement a Guaranteed Ride Home Program through a taxi voucher program or another similar measure (in case of emergencies for those who use may choose to participate in ridesharing).	Proponent	Certificate of Occupancy	\$75K
>	Provide Ridesharing/Ridematching Services (to promote carpooling and reduce single-occupancy vehicle trips).			

Table 6-1 Summary of Proposed Mitigation Measures for the Full Build Project

	Mitigation Measure	Responsible Party	Timing	Costs
>	Depending on demand, designate parking spaces as preferred parking for any ridesharing services (car/vanpools).			
>	Designate parking spaces as preferred parking for any hybrid or zero/low-emission vehicles.			
>	Provide charging stations for electric vehicles.			
Gr	eenhouse Gas Emissions/Air Quality			<u>'</u>
me pei	sign and construct the Full Build Project – Building 1 to have energy mitigation easures such that the Full Build Project – Building 1 would result in an estimated 5 reent energy savings and in an increase by approximately 8 percent in stationary urce GHG emissions compared to the 2023 Stretch Code Base.	Proponent	Design	\$800K
(10	plement traffic improvements described above and install EV charging stations 0% of vehicle parking spaces) and EV ready spaces (20% of vehicle parking aces).	Proponent	Construction	\$660K
Cli	mate Change Resiliency			
fro	e Full Build Project – Building 1 will be designed to manage the peak rates of runoff m the Full Build Project – Building 1 site for the 2-, 10-, 25-, and 100-year design orms.	Proponent	Design	See Land/Stormwater Full Build Project – Building 1
	e site design will include new landscaping and light-colored hardscape materials to duce the urban heat island effect.	Proponent	Design	\$750K
hig	e building design will include measures to adapt to high heat conditions, including a ph-performance building envelope that will reduce cooling loads in the summer and e installation of high performance HVAC equipment.	Proponent	Design	See Greenhouse Gas Emissions/Air Quality, Full Build Project – Building 1
W	ater and Wastewater			
Ac	drip irrigation system will be utilized on site landscaping and plantings.	Proponent	Operations	\$150K
lm	plementation of low flow toilets and fixtures.	Proponent	Operations	\$40K
Te	mporary Construction Impacts			

6.2 Environmental Justice Mitigation

See Phase 1 Project – Building 3 Temporary Construction Impacts

The Full Build Project Site is not located within an EJ community and there are no EJ populations within a five-mile radius that exhibit Vulnerable Health EJ Criteria above the statewide median rate. Vulnerable Health EJ Criteria levels on surrounding census tracts and communities are significantly lower than the state medians, with the exception of two census tracts located in Worcester. The Full Build Project includes several measures to limit the Full Build Project-related impacts on Environmental Justice communities within proximity to the Full Build Project Site. The Full Build Project has been designed specifically to mitigate impacts related to climate change,

including extreme precipitation and extreme heat through the Full Build Project's stormwater management systems, including green infrastructure, landscaping, and the use of light-colored hardscape materials. With regard to the Phase 1 Project – Building 3, through the consolidation of the Proponent's business operations into a new warehouse/distribution facility at the Full Build Project Site located near their existing manufacturing headquarters at 223 Worcester Providence Turnpike in Sutton, it is estimated that there will be an over 90 percent reduction in tractor-trailer miles traveled between their facilities and Sutton headquarters once the Phase 1 Project – Building 3 is fully operational and their other facilities are consolidated. Additionally, the Full Build Project – Building 2 is also intended to further consolidate the Proponent's business operations and future growth near its existing Sutton headquarters. Together, these buildings will greatly reduce the regional air quality impacts from the Proponent's business. The Full Build Project is not anticipated to cause disproportionate effects on EJ populations

As the Full Build Project Site is not located in an EJ population, the Full Build Project is not anticipated to cause disproportionate effects on EJ populations.

6.3 Draft Section 61 Findings

On behalf of UGPG RE Sutton LLC (the "Proponent"), VHB has prepared the following Draft Section 61 Findings/Letter of Commitment for the off-site traffic mitigation measures to be implemented for the proposed warehouse/distribution facilities along Unified Parkway in Sutton and Millbury, Massachusetts. The Project proposes to construct three warehouse and distribution buildings totaling up to 2.4 million square feet (SF) (the "Full Build Project") on approximately 448 acres of land located primarily in Sutton, with a small portion in Millbury.

A transportation evaluation was submitted as part of the Expanded Environmental Notification Form (EENF¹) that provided an overview of the phased Full Build Project and a comprehensive assessment of potential traffic impacts associated with the initial phase of development consisting of the construction of a 343,200 SF warehouse/distribution facility and associated parking (the "Phase 1 Project – Building 3"). On September 30, 2022, MEPA issued a Certificate on the EENF that established a framework for a Special Review Procedure (SRP) to allow for a phased review of the Full Build Project.

An expanded transportation impact and access study was submitted as part of the Project Commencement Notice (PCN²). The updated study provided a comprehensive analysis of the potential cumulative traffic impacts associated with the construction of

² Project Commencement Notice, Unifed Parkway Industrial Development, Sutton & Millbury, MA; VHB, Inc.; May 2023. EEA #16593.

¹ Expanded Environmental Notification Form, Unifed Parkway Industrial Development, Sutton & Millbury, MA; VHB, Inc.; August 2022. EEA #16593.

Building 3 (the "Phase 1 Project – Building 3"), Building 2 (the "Full Build Project – Building 2") and Building 1 (the "Full Build Project – Building 1"). The analysis also included a separate review of the impacts of Buildings 2 and 3 only which demonstrated that the two buildings, by themselves, will not trigger the need for any traffic improvements at state highway locations. On June 9, 2023, MEPA issued a Certificate on the PCN.

The following section describes the Project and the Proponent's commitments to mitigation for the Project.

Project Description

The Project is expected to be developed in multiple phases based on market conditions and tenant demand. The Phase 1 Project – Building 3 is currently under construction and scheduled to be completed in early 2024. It is anticipated that the Full Build Project – Building 2 will commence construction in late 2024 and be completed in early 2026. These two buildings will serve UN1F1ED² Global Packaging Group's (UGPG) future growth needs as well as consolidate their existing warehouse facilities throughout Southern New England near UGPG's existing headquarters located at 223 Worcester-Providence Turnpike in Sutton. The two buildings will operate 24-hours per day, 7-days per week to support UGPG's Sutton based manufacturing operations.

Both the Phase 1 Project – Building 3 and the Full Build Project – Building 2 have obtained local approvals through the Town of Sutton. Additionally, as noted earlier, the Phase 1 Project – Building 3 was also the subject of an EENF in 2022. MassDOT reviewed the Traffic Impact Evaluation for the Phase 1 Project – Building 3 that was included in the EENF and determined that a State Highway Access Permit was not required for that component of the Full Build Project.

The Full Build Project – Building 1 will be constructed at a later date when the Proponent and the future tenant(s) of the building have an agreement in place. While the specific tenant is unknown at this time for the Full Build Project - Building 1, the Proponent anticipates that this component of the Full Build Project will be operated as a warehouse with distribution for a national retailer (or a similar use).

A listing of the three buildings is presented below.

- 1. An approximately 343,200 SF warehouse/distribution building supported by \pm 90 auto and \pm 118 trailer parking spaces (the "Phase 1 Project Building 3")
- 2. An approximately 652,530 SF warehouse and distribution building supported by ±252 auto and ±33 trailer parking spaces ("Full Build Project Building 2");
- 3. An approximately 1,400,000 SF warehouse and distribution building supported by approximately \pm 1,247 auto and \pm 586 trailer parking spaces ("Full Build Project Building 1").

The analysis contained in the PCN considered a number of potential trip generation estimates, ultimately selecting the land use code that most accurately describes the

uses being considered on the Project Site. The trip generation estimates are based on ITE Trip Generation³ rates and are summarized in the table below.

³ <u>Trip Generation Manual, 11th Edition</u>, Institute of Transportation Engineers, Washington, D.C., 2021.

Trip Generation Summary

				ıilding 2¹	Phase 1	Phase 1 Project – Building 3 ²			UGPG Facilities (Buildings 2 + 3)			Full Build Project – Building 1 ³			Full Build Project Total ⁶		
Time Period	Movement	Total Vehicle Trips	Auto Trips	Truck Trips	Total Vehicle Trips	Auto Trips	Truck Trips	Total Vehicle Trips	Auto Trips	Truck Trips	Total Vehicle Trips	Auto Trips	Truck Trips	Total Vehicle Trips	Auto Trips	Truck Trips	
Weekday Daily ⁴	Enter	457	385	72	240	202	38	697	587	110	1,852	1,453	399	2,549	2,040	509	
	<u>Exit</u>	<u>457</u>	<u>385</u>	<u>72</u>	240	<u>202</u>	<u>38</u>	<u>697</u>	<u>587</u>	<u>110</u>	<u>1,852</u>	<u>1,453</u>	<u>399</u>	2,549	<u>2,040</u>	<u>509</u>	
	Total	914	770	144	480	404	76	1,394	1,174	220	3,704	2,906	798	5,098	4,080	1,018	
Weekday AM Peak Hour ⁵	Enter	66	62	4	35	33	2	101	95	6	500	472	28	601	567	34	
,	<u>Exit</u>	<u>19</u>	<u>16</u>	<u>3</u>	<u>10</u>	<u>8</u>	<u>2</u>	<u>29</u>	<u>24</u>	<u>5</u>	<u>75</u>	<u>61</u>	<u>14</u>	<u>104</u>	<u>85</u>	<u>19</u>	
	Total	85	78	/	45	41	4	130	119	11	575	533	42	705	652	53	
Weekday PM Peak Hour ⁵	Enter	38	31	7	20	16	4	58	47	11	118	91	27	176	138	38	
,	<u>Exit</u>	<u>73</u>	<u>67</u>	<u>6</u>	<u>39</u>	<u>36</u>	<u>3</u>	<u>112</u>	<u>103</u>	<u>9</u>	<u>443</u>	<u>400</u>	<u>43</u>	<u>555</u>	<u>503</u>	<u>52</u>	
	Total	111	98	13	59	52	7	170	150	20	561	491	70	731	641	90	

Based on ITE LUC 154 – High Cube Transload and Short-Term Storage for 652,530 sf

² Based on ITE LUC 154 – High Cube Transload and Short-Term Storage for 343,200 sf

Based on ITE LUC 130 – Industrial Park, for 1,400,000 sf

⁴ Vehicles per day

⁵ Vehicles per hour

Overall Project Impacts

Occupancy of the Full Build Project is expected to generate 5,098 new vehicle-trips to and from the Project Site during an average weekday, including 705 vehicle-trips during the weekday morning peak hour and 731 trips during the weekday evening peak hours. MassDOT has assessed the impacts of this anticipated traffic load on the surrounding regional roadway network based upon information set forth in the PCN.

Access to and from the Project Site have been designed to minimize the potential impacts associated with the truck and passenger vehicle trips that will be generated by the Project on surrounding neighborhood roadways. The Project-related traffic would be expected to have minimal levels of operational and safety impact throughout most of the study area. The Project will have the most impact upon the segment of Boston Road between Unified Parkway and Route 146, inclusive of the existing traffic signal at the intersection of Route 146 at Boston Road. The study area includes the following thirteen (13) locations:

- Worcester-Providence Turnpike (Route 146) at Boston Road
- Boston Road at Dudley Road/Pleasant Valley Road
- > Boston Road at Galaxy Pass
- Boston Road at Unified Parkway (Build conditions only)
- Providence Road (Route 122A) at Boston Road
- > Providence Road (Route 122A) at Unified Parkway (Build Conditions only)
- Providence Street (Route 122A) at Riverlin Street
- > Riverlin Street at Canal Street/Grafton Street
- > Providence Street (Route 122A) at Canal Street
- Canal Street (Route 122A) at Elm Street/Driveway
- Worcester-Providence Turnpike (Route 146) at Marble Road
- Worcester-Providence Turnpike (Route 146) Northbound Ramps at Central Turnpike
- Worcester-Providence Turnpike (Route 146) Southbound Ramps at Central Turnpike

The traffic impacts at specific locations and the mitigation measures proposed and assessed in the MEPA filings required to address them are detailed in the next section of this Section 61 Finding.

Specific Project Impacts and Mitigation Measures

The Proponent presented analysis in the PCN that MassDOT has reviewed and commented on. The operational and safety impacts in the affected state highway area due to the proposed Project were assessed and the resulting mitigation measures outlined below were determined to acceptably minimize the traffic

impacts of this Project. Additionally, the Proponent conducted a Road Safety Audit (RSA) at the intersection of Route 146 at Boston Road on October 25, 2022 that identified existing safety issues and recommended improvements to improve safety.

The Proponent submitted a Stage 1 Intersection Control Evaluation (ICE) analysis with the PCN for improvements at the intersection of Route 146 at Boston Road. The ICE analysis identified several potential at-grade alternatives that involve additional/new traffic signals either on Route 146 and/or Boston Road to support turning traffic.

While signalization is a reasonable short-term goal, MassDOT's long term objective for the area is to remove traffic signal control at the intersection if it is determined that a grade-separated interchange is a suitable solution to handle future traffic projections in the region. To study the long-term needs of the intersection as well as the Route 146 corridor, MassDOT – District 3 is in the process of seeking internal funding for preparing a corridor study to identify long term improvements and develop recommendations that can be advanced to design and construction.

Through coordination with MassDOT – District 3 staff, it was determined that the improvements presented in the PCN at this intersection present an optimal short-term solution to mitigate the Project's impacts until longer term improvements are reviewed by MassDOT as part of their independent study.

Based on discussions with MassDOT, the Proponent has committed to undertake the following mitigation measures in cooperation with the identified parties. Specifics of the improvement elements will be subject of MassDOT's review of detailed design plans prior to the issuance of an Access Permit.

Route 146 at Boston Road (Full Build Project) – MassDOT jurisdiction

Critical turning movements at the intersection of Route 146 at Boston Road (Route 146 southbound left-turns, Boston Road WB movements, Boston Road NB through movements) are projected to operate at congested levels during the peak hours, independent of the Project. Opportunities for operational and pedestrian safety improvements exist, and these were closely examined with MassDOT staff input as part of the pre-filing coordination effort leading up to the filing of the PCN and this SEIR.

The Proponent proposes to implement the improvements at the intersection pending its ability to secure all necessary local and state approvals for the Full Build Project and subject to MassDOT's review and approval of the detailed design plans for the improvements during the Access Permit process.

The Proponent proposes to implement the following improvements at the intersection pending its ability to secure all necessary local and state approvals for the Full Build Project and subject to MassDOT's review and approval of the detailed design plans for the improvements during the Access Permit process. The Proponent will be responsible for constructing the final at-grade intersection improvements:

- Resurface all the existing pavement of Boston Road from the intersection of Galaxy Pass to the intersection of Marble Road.
- > Widen the Boston Road westbound approach and create a second exclusive right-turn lane.
- Modify the Boston Road eastbound approach to eliminate the channelizing island located in the southwesterly corner of the intersection.
- Shift the two future Boston Road eastbound through movements departing the intersection to the south to provide better alignment with the receiving lanes on the east side of the intersection.
- Subject to applicable approvals, reconfigure the Bank of America driveway along Boston Road to provide a larger channelizing island and further reinforce the left-turn restrictions entering and exiting the driveway.
- Provide an optimal traffic signal timing and phasing plan at the intersection to support the estimated future traffic volumes.
- Install a crosswalk and pedestrian signal equipment across the south leg of Route 146. A pedestrian refuge will be constructed in the existing painted median that separates the northbound and southbound directions of travel, subject to MassDOT's concurrence.
- > Refresh or update pavement markings and regulatory signage at the intersection of Route 146 at Boston Road.
- Adjust the location of the existing traffic signal equipment at the intersection to accommodate the proposed geometry.
- Install necessary hardware within the traffic signal controller to add signal coordination in the future, if determined to be necessary, based on the findings of post-construction traffic monitoring. The intersection will operate as an uncoordinated, fully actuated signal until such time that MassDOT deems coordination as a viable solution for the intersection. MassDOT District 3 staff have indicated their preference to not interconnect the state-controlled signal with the Town controlled signals on Boston Road.

Boston Road at Galaxy Pass (Full Build Project) - Town Jurisdiction

The intersection of Boston Road at Galaxy Pass, which is under the Town of Sutton jurisdiction, currently operates at acceptable levels of service with no capacity-related deficiencies and is projected to continue at acceptable levels with the full build-out of the Project. The following improvements will be implemented prior to a certificate of occupancy for the Full Build Project – Building 1:

Extend the proposed northerly shared use path along Boston Road from the Proponent's property to the Galaxy Pass intersection. The Town of Sutton has approved the construction of the shared use path. The Proponent will construct a majority of the shared use path at the time of constructing the Boston Road/Unified Parkway intersection. Constructing of the remaining

- small portion of the path near the Boston Road/Galaxy Pass intersection will need to be coordinated with the Town and constructed at later date.
- > Provide an optimal traffic signal timing plan at the intersection to support future traffic volumes on Boston Road.
- Install necessary hardware within the traffic signal controller to add signal coordination in the future between Galaxy Pass and Unified Parkway, if determined to be necessary, based on the findings of post-construction traffic monitoring. The intersection will operate as an uncoordinated, fully actuated signal until such time that Town of Sutton deems coordination with Unified Parkway as a viable solution for the intersection.

Boston Road at Unified Parkway - Town Jurisdiction

As part of the local approvals granted in 2022 for the Phase 1 Project – Building 3 and the Full Build Project – Building 2, the Town of Sutton also approved certain improvements at the proposed intersection of Boston Road at Unified Parkway. These improvements are depicted in the approved intersection improvement plan that was included in the PCN.

Depending on the tenant(s) for the Full Build Project – Building 1, certain additional improvements may be necessary at the intersection. The specifics of these improvements will need to be further refined with input from the Town of Sutton during the review of the Full Build Project – Building 1. Pending determination of the specific tenant needs, the Proponent commits to implementing the following improvements at the intersection of Boston Road at Unified Parkway.

- Install a fully actuated traffic signal at the intersection. The intersection will be initially designed to support a fully actuated traffic signal, but the actual installation of the signal may be deferred until such time that a specific tenant is identified for the Full Build Project Building 1 and it is confirmed that their actual operations would trigger the need for traffic signal control.
- Install necessary hardware within the traffic signal controller to add signal coordination along Boston Road in the future, if determined to be necessary, based on the findings of post-construction traffic monitoring and approval by the Town of Sutton.

Site Access

Access to the Project Site will be provided by Unified Parkway. Local approvals for Unified Parkway were obtained in early 2022 and construction commenced in April 2022. However, the current construction of Unified Parkway was limited to access changes along Boston Road to serve the Phase 1 Project – Building 3 only, based on the requirements of the MEPA Certificate on the EENF.

When the roadway is completed after securing MEPA's concurrence, the full length of Unified Parkway will be constructed as the primary internal Site roadway and will provide travel between Boston Road and Providence Road. The Unified Parkway

intersection at Boston Road will be the primary access for all three buildings and will serve all new truck-related activity on the Site. New truck trips will be directed to/from the west on Boston Road and will not use the segment of Boston Road between Unified Parkway and Providence Road. The Unified Parkway intersection at Providence Road will serve passenger vehicles and some limited truck activity that will be consolidated with UGPG's other existing facilities on Providence Road. A brief outline of the access improvements supporting Buildings 2 and 3, and the Full Build Project, are presented below.

Phase 1 Project - Building 3 and Full Build Project - Building 2 Site Access

The intersection of Boston Road at Unified Parkway will operate as an unsignalized intersection for the Phase 1 Project – Building 3 and the Full Build Project – 2 with the following elements:

- Boston Road eastbound will consist of a 400-foot long exclusive left-turn lane and a through lane.
- Boston Road westbound will consist of two travel lanes. The two-lane section of Boston Road westbound will start approximately 300 feet east of Unified Parkway. The directions of travel along Boston Road east of the intersection will be separated by a scored concrete island.
- > Unified Parkway will consist of exclusive left-turn and right-turn lanes and will operate under stop-sign control.
- A sidewalk will be constructed on the west side of Unified Parkway.
- A shared use path will be constructed along the north side of Boston Road, between Unified Parkway and Galaxy Pass. The Town of Sutton has approved the construction of the shared use path. The Proponent will construct a majority of the shared use path at the time of constructing the Boston Road/Unified Parkway intersection. Constructing of the remaining small portion of the path near the Boston Road/Galaxy Pass intersection will need to be coordinated with the Town and constructed at later date.

The intersection of Providence Road at Unified Parkway will operate as an unsignalized intersection and will include the following elements:

- Providence Road eastbound and westbound will consist of single travel lanes.
- Unified Parkway northbound will consist of a single travel lane under stopsign control.

Full Build Site Access

To accommodate the increase in Project-generated traffic volumes under the Full Build Condition, the intersection of Boston Road at Unified Parkway will likely need to be signalized. However, the final configuration of the intersection will be decided by the operations of the tenant for Building 1, when they are identified. Until such time, it is likely that the Proponent would construct the Full Build Project required

roadway geometry but not signalize it until it is determined that the Building 1 tenants requires signalization.

The intersection of Providence Road at Unified Parkway will continue to operate the same as the Phase 1 Project – Building 3 and the Full Build Project – Building 2 conditions under the Full Build Project.

The following changes will be made at the intersection of Boston Road at Unified Parkway under Full Build conditions. The timing of some of these changes will be developed in consultation with the Town of Sutton during the review of the Site Plans for the Full Build Project – Building 1:

- The geometry along the Boston Road eastbound and Unified Parkway southbound approaches will remain the same as under the Phase 1 Project – Building 3 and the Full Build Project – 2 conditions.
- > The intersection of Boston Road at Unified Parkway will be initially operated as an unsignalized intersection, and would be signalized pending analytical verification of traffic control needs for the Building 1 tenant.
- If the Boston Road at Unified Parkway intersection signalized, it will likely be coordinated with the Boston Road at Galaxy Pass traffic signal. Based on MassDOT feedback, it is not likely that the local traffic signal(s) on Boston Road will be coordinated with the Route 146 at Boston Road signal which is under MassDOT jurisdiction.

Pedestrian, Bicycle, and Transit Facilities

The Proponent is proposing the following pedestrian and bicycle enhancements, subject to approval by MassDOT and the Town of Sutton, as applicable:

- Install a crosswalk and pedestrian signal equipment across the south leg of Route 146. A pedestrian refuge will be constructed in the existing painted median that separates the northbound and southbound directions of travel. This improvement will coincide with the capacity related improvements at the intersection of Route 146 at Boston Road prior to the issuance of a certificate of occupancy for the Full Build Project – Building 1.
- Construct a new shared use path along the north side of Boston Road. The path will extend west of Unified Parkway, approximately to the intersection of Boston Road at Galaxy Pass. The Town of Sutton has approved the construction of the shared use path. The Proponent will construct a majority of the shared use path at the time of constructing the Boston Road/Unified Parkway intersection. Constructing of the remaining small portion of the path near the Boston Road/Galaxy Pass intersection will need to be coordinated with the Town and constructed at later date.
- Construct a sidewalk along the west side of Unified Parkway.
- > Construct five foot paved shoulders on either side of Unified Parkway.

Transportation Demand Management (TDM)

In recognition of the existing and future traffic demands on the study area roadway system, a number of Transportation Demand Management (TDM) measures are proposed and will be implemented by the Proponent to help reduce the number of single occupant vehicles (SOV) traveling to and from the Project Site, and to encourage the use of alternative modes of transportation to reach the Project Site and better manage the traffic generated by the Project.

The following specific TDM measures may be implemented for each component of the Project and the Project as a whole and will be specifically detailed through discussions with the final tenant(s):

- Designate an employee to be the on-site Transportation Coordinator.
- > Implement a Guaranteed Ride Home Program through a taxi voucher program or another similar measure (in case of emergencies for those who use may choose to participate in ridesharing).
- > Provide Ridesharing/Ridematching Services (to promote carpooling and reduce single-occupancy vehicle trips).
- Depending on demand, designate parking spaces as preferred parking for any ridesharing services (car/vanpools).
- Designate parking spaces as preferred parking for any hybrid or zero/lowemission vehicles.
- > Provide charging stations for electric vehicles.

Traffic Monitoring Program

The Proponent is committed to monitoring traffic into and out of the Project Site and reporting the findings to MassDOT on a regular basis. The following monitoring measures will be conducted annually, beginning six-months after initial occupancy of the development. The monitoring program will include the following elements which will be summarized and reported to both the Town and MassDOT until a period of five years after full development or when both parties are satisfied that the monitoring efforts are no longer necessary (whichever comes first):

- Automatic traffic recorder (ATR) counts at the Site access points (either end of Unified Parkway) for a continuous 24-hour period on a typical weekday.
- > Travel survey of employees and visitors at the Site.
- Weekday morning and evening peak hour turning movement counts (TMCs) and operations analysis at selected Study intersections to compare to the results presented in this study.
- A summary update on the usage and effectiveness of the TDM measures that will be available to the future employees.

The results of the annual transportation monitoring program will be summarized in a technical memorandum and submitted to MassDOT and the Town of Sutton. Should

the comparison of the projected phased buildout volumes presented in the trip generation tables in the PCN be exceeded by 10 percent of those projections, the Proponent will meet with MassDOT to discuss the necessity to conduct additional capacity analyses at specific intersections, identify potential actions to reduce the Project's impacts on the roadway infrastructure, and (if necessary) adjust the timing/phasing of any of the recommended mitigation measures within the study area.

Construction Period Impacts

Construction period impacts on the local transportation system, including access points, truck routes, and hours of construction and deliveries, will be minimized by coordination with the Town of Sutton and MassDOT. Construction workers will be encouraged to car/vanpool and parking will be provide on-site to minimize impacts to off-site roadways and neighborhoods. Staging areas will be coordinated with the Proponent, Contactor, and the Town of Sutton to minimize impacts to the movement of vehicles and pedestrians in the area. Large vehicle deliveries will be made via Route 146. The Proponent will work with MassDOT to identify an appropriately scaled Temporary Traffic Control Plan (TTCP) for the Project Site during the construction phase(s) for the development. Police details will be used as necessary during busy periods of heavy truck activities to facilitate access to the campus for construction vehicles and to maintain safe and efficient passage for pedestrians and motor vehicles along the impacted roadway network as needed.

6.4 Draft Letter of Commitment for GHG Self-Certification

In accordance with the MEPA GHG Policy, the Proponent will provide a Self-Certification to the MEPA Office signed by an appropriate professional (e.g., engineer, architect, or general contractor) following completion of construction to demonstrate that the stationary source GHG emissions have been mitigated. The Self-Certification will demonstrate the Full Build Project – Building 2 and the Full Build Project – Building 1 have met the commitment to GHG emissions reductions presented in this document or equivalent reductions by percentage as stated in the MEPA GHG Policy. A draft commitment letter for this Self-Certification submission is provided below for the Full Build Project – Building 2 and the Full Build Project – Building 1.

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$\boldsymbol{\mathcal{L}}$		_		

_____, 202__

Secretary Rebecca Tepper Executive Office of Energy & Environmental Affairs 100 Cambridge Street, Suite 900 Boston, MA 02114

ATTN: Director Tori Kim, MEPA Office

Re: Letter of Commitment for Stationary Source Greenhouse Gas Emissions Self-Certification

Unified Parkway Industrial Development Sutton & Millbury, MA (EEA No. 16593)

On behalf of UGPG RE Sutton LLC (the "Proponent"), VHB has prepared a summary of the estimated reduction in overall energy use and stationary source Greenhouse Gas (GHG) emissions for the Unified Parkway Industrial Development located in Sutton, MA (the "Project").⁴

In accordance with the current the MEPA Greenhouse Gas Emissions Policy and Protocol (the "GHG Policy") dated May 2010, the stationary source GHG assessment for the Phase 1 Project – Building 3 was provided to the MEPA Office as part of the August 2022 Expanded Environmental Notification Form (EENF) and, subsequently, the May 2023 Project Commencement Notification (PCN) filed for the Full Build Project – Building 2 and the Full Build Project – Building 1. The design case assumed building design and system improvements that would result in energy reductions, in accordance with the GHG Policy. On September 30, 2022, a Certificate was issued stating that the Phase 1 Project – Building 3 EENF adequately and properly complied with the Massachusetts Environmental Policy Act (MEPA) and its implementing regulations.

The energy conservation measures proposed for the Full Build Project - Building 1 and the Full Build Project - Building 2 are estimated to reduce the overall energy use by 6 percent resulting in a 4 percent increase in stationary source CO₂ emissions when compared to Stretch Code Base. The following table presents the estimated energy savings and CO₂ emissions reductions for each building:

		Energy Consumption			CO ₂ Emissions			
		Electricity (MWh/yr)	Natural Gas (MMBtu/yr)	Total (MMBtu/yr)	Performance Energy Index	Electricity (tons/yr)	Natural Gas (tons/yr)	Total (tons/yr)
_	ASHRAE App. G ¹	13,673	34,452	81,103	-	4,471	2.015	6,486
Building		6,016	15,159	35,685	0.44	1,967	887	2,854
<u> </u>	Design Case	8,526	4,999	34,091	0.42	2,788	292	3,081

⁴ A Letter of Commitment for Stationary Source Greenhouse Gas Emissions Self-Certification was submitted to the MEPA Office with respect to Building 3 of the Project (i.e., the Phase 1 Project) on _______, 2024.

	End-Use Savings	-2,510	10,160	1,594	0.02	-821	594	-227
	Percent Savings			5%	5%			-8%
	ASHRAE App. G ¹	6,494	15,795	37,951	-	2,123	924	3,047
ng 2	2023 Stretch Code Base ²	2,857	6,950	16,698	0.44	934	407	1,341
Building	Design Case	3,976	2,357	15,924	0.42	1,300	138	1,438
Ā	End-Use Savings	-1,119	4,593	774	0.02	-366	269	-97
	Percent Savings			5%	5%			-7%
-23	Current Stretch Code Base ³	2,113	8,256	15,466	-	691	483	1,174
Building	Design Case	2,051	6,577	13,577	-	671	385	1,055
Buil	End-Use Savings	62	1,679	1,889	-	20	98	119
	Percent Savings			12%	-			10%
	Stretch Code Base ⁴	10,986	30,365	67,849	-	3,592	1,777	5,369
Build	Design Case	14,553	13,933	63,592	-	4,759	815	5,574
<u> </u>	End-Use Savings	-3,567	16,432	4,257	-	-1,167	962	-205
ш	Percent Savings			6%	-			-4%
		40.441 3.4		B I TI	1.1.1.1.			

tons/yr = short tons per year; MWh = Megawatt hour; MMBtu = million British Thermal Units

- 1. This case represents ASHRAE 90.1-2019 Appendix G conditions.
- 2. This case includes 2023 MA Stretch Code amendments with minimum Building Performance Factors. Minimum performance assumed a Building Performance Factor applied to all regulated energy end-uses proportionally for natural gas and electricity. Note that code requires an aggregate BPF for all regulated site energy and does not specify whether reductions come from natural gas or electricity end-uses.
- 3. The case represents the current stretch energy code as defined by ASHRAE 90.1-2013 with Massachusetts amendments. This case was defined in the EENF filing.
- 4. Represents the summation of the stretch energy code base case defined for each respective building. This is a mix of the 2023 Stretch Code Base for Buildings 1 and 2 and the Current Stretch Code Base for Building 3.

The building energy model results/energy savings and resulted stationary source GHG emissions reductions are preliminary as not all of the proposed buildings have progressed past a conceptual level of design. Following completion of construction of each element, the Proponents will submit a self-certification to the MEPA Office, signed by an appropriate professional, which identifies the as-built energy conservation measures and documents the stationary source GHG emissions reductions from the baseline case.

If you have any questions, please contact me at ldevoe@vhb.com.

Very truly yours,

Lauren DeVoe Senior Environmental Planner VHB 7

Response to Comments

This chapter includes direct responses to comments from the Certificate of the Secretary of Energy and Environmental Affairs on the Project Commencement Notice (PCN) issued on June 9, 2023, and each comment letter received during the public review period of the PCN. The delineated comments are included in Appendix E for reference. Listed below in Table 7-1, the PCN Certificate is assigned a letter (C) and each comment letter is assigned a number. Each individual comment is assigned a numbering that corresponds to the comment delineations. Direct responses provided herein aim to refer to specific sections of the SEIR for further information, where appropriate.

Table 7-1 Comment Letters

Letter No.	Commenter	Affiliation	Date Received
C	Rebecca Tepper	Massachusetts Office of Energy and Environmental Affairs	6/12/23
1	Mary Jude Pigsley	Massachusetts Department of Environmental Protection – Central Regional Office	6/7/23
2	David J. Mohler	Massachusetts Department of Transportation	6/7/23
3	Paul F. Ormond	Massachusetts Department of Energy Resources	6/9/23
4	Jennifer S. Hager	Town of Sutton	6/12/23

Public Comment Letters

Public comment letters are listed below in Table 7-2. The comment letter is responded to in Section 7.2.

Table 7-2	Letters of Support	

Comment	Letters
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Commenter	Date Received
Jack Sheehan	6/12/23

7.1 Project Commencement Notification Certificate

Comment C.1

The Single EIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent practicable.

Response

The SEIR follows Section 11.07 of the MEPA regulations and provides the details required in the SEIR Scope. The SEIR chapters describe the Project's measures to avoid, minimize and mitigate damage to the environment to the maximum extent practicable.

Comment C.2

The Single EIR should identify any changes to the project since the filing of the PCN, and should provide an updated on any work associated with Phase I of the project since the filing of the PCN. In particular, it should continue to provide an update on any construction on Unified Parkway, and any consolidation of business operations enabled by the construction of Building 2 and associated GHG emissions reductions.

Response

Section 1.2.3 of Chapter 1, *Project Description*, identifies changes to the Project since the filing of the PCN as well as updates to the ongoing work associated with the Phase I Project and Unified Parkway. There are no changes to the consolidation of business operations to report on. Refer to Section 1.3.1 of Chapter 1, *Project Description*, for more information.

Comment C.3

It should identify and describe State, federal and local permitting and review requirements associated with the project and provide an update on the status of each of these pending actions.

Response

Table 1-2 in Section 1.5 of Chapter 1, *Project Description*, lists the permits and approvals from federal, state and local governmental authorities, that are anticipated to be required for the Full Build Project as well as an update on the status of each action.

Comment C.4

The Single EIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards.

Response

The SEIR includes a description and analysis of applicable statutory and regulatory standards as well as a discussion of the Project's consistency with the standards. Refer to Section 1.5.2 of Chapter 1, *Project Description*, for more information.

Comment C.5

The Single EIR should include detailed site plans for existing and post-development conditions at a legible scale. Plans should clearly identify buildings, interior and exterior public areas, impervious areas, transportation improvements, pedestrian and bicycle accommodations, and stormwater and utility infrastructure

Response

The SEIR includes detailed site plans for existing and proposed conditions. Refer to Figures 1.2 for existing conditions and Figures 1.4-1.7, 1.9 and 1.11a-b for proposed conditions of the Full Build Project.

Comment C.6

The Single EIR should provide detailed plans, sections, and elevations to accurately depict existing and proposed conditions, including proposed above and below-ground structures, on- and-off-site open space, and resiliency and other mitigation measures.

Response

The SEIR includes detailed plans that depict the existing and proposed conditions of the Project. Refer to Figures 1.4-1.7, 1.9 and 1.11a-b for proposed conditions of the Full Build Project and Figures 3.4-3.6b for the proposed stormwater management plan for the Remainder of Full Build Project.

Comment C.7

The information and analyses identified in this Scope should be addressed within the main body of the Single EIR and not in appendices. In general, appendices should be used only to provide raw data, such as drainage calculations, traffic counts, capacity analyses and energy modelling, that is otherwise adequately summarized with text, tables and figures within the main body of the Single EIR.

Response

The main body of the SEIR addresses the information and analyses identified in this Scope. Appendices provide data and other documentation used to inform the SEIR.

Comment C.8

Information provided in appendices should be indexed with page numbers and separated by tabs, or, if provided in electronic format, include links to individual sections. Any references in the Single EIR to materials provided in an appendix should include specific page numbers to facilitate review.

Response

Appendices are indexed with page numbers and bookmarked. The SEIR directs readers to specific appendix pages.

Comment C.9

The Sutton Conservation Commission issued an Order of Conditions on August 25, 2021 to allow this work to proceed in lieu of constructing the replication area for the impacts to the two Aggregate Industries wash ponds (isolated vegetated wetlands). The PCN states that the Proponent received a determination from the Department of Conservation and Recreation (DCR), Office of Dam Safety that the dam is not a jurisdictional dam. As the dam removal appears to be proposed as mitigation for impacts associated with this project, the Single EIR should identify permanent and temporary impacts associated with the dam removal, the acreage of the site, and any state permits or approvals required for this work. It should identify whether the dam removal was permitted as an Ecological Restoration project.

Response

The impacts to the isolated vegetated wetlands regulated under the Town of Sutton Bylaw were proposed to be replicated as Bordering Vegetated Wetland (BVW) associated with Cold Spring Brook. To permit this work, a Notice of Intent (NOI) was filed on February 4, 2021, and an Order of Conditions approving this work was issued on March 29, 2021. Given that this replication was required only under the local Bylaw, the Conservation Commission suggested an alternative to traditional replication measures and suggested the removal of an existing failed dam adjacent to the Project Site on a parcel owned by the Town of Sutton. After conducting further research and discussions with the Town of Sutton, it was determined that removal of the dam would provide a significant environmental benefit by removing a structure that hampers the movement of cold water trout along Cold Spring Brook and prevents the need to clear forested areas to construct a replication area. As such, the Proponent decided to move forward to permit this alternative option.

The dam within Cold Spring Brook consists of remnants of a dam that appears to have failed many years ago. This dam has a large crack in the center, has split into two large pieces and appears to have collapsed and/or settled 3-4 feet. During high flows water flows over the dam structure and during very low flows water passes through and under the structure. This structure hampers fish movement within a known cold water fishery resource.

The Proponent consulted with the Department of Conservation and Recreation (DCR), Office of Dam Safety (ODS) to obtain a letter indicating that this dam was non-jurisdictional under applicable ODS regulations. A copy of this letter is appended as Appendix B.

Removal of the dam required the filing of a Notice of Intent (NOI) with the Sutton Conservation Commission. Following a detailed review including peer review, an Order of Conditions was issued on August 25, 2021 approving the dam removal

project. The approved project includes permanent impacts of 20-linear feet of bank, and 165 square feet of land under waterbodies and waterways. Temporary impacts include 640 square feet of land under waterbodies and waterways to install swamp mats to stage equipment and 8,625 square feet of riverfront area to gain access to the work area. A detailed construction sequence and restoration plan was included in the NOI application.

This NOI application was submitted as an ecological restoration project, which required utilizing the Ecological Restoration NOI application and complying with additional applicable requirements including contacting DCR- ODS and providing a notice in the Environmental Monitor prior to submission of the application. As noted above, the Sutton Conservation Commission issued an Order of Conditions approving the Project. No additional State permits are required for this dam removal project. The Proponent has not completed the dam removal project but intends to complete the work prior to August 2024.

Comment C.10

The Single EIR should include a separate section on "Environmental Justice" that contains an updated description of measures the Proponent intends to undertake to promote public involvement by such EJ populations during the remainder of the MEPA review process including a discussion of any of the best practices listed in the MEPA EJ Public Involvement Protocol that will be employed.

Response

Section 2.1.1 of Chapter 2, *Environmental Justice and Public Health* provides an updated description of outreach measures intended during the MEPA review process.

Comment C.11

The Single EIR should include an update on any outreach conducted since the filing of the PCN and a description of any changes made to the project (including mitigation measures) in response to this outreach.

Response

The Proponent held a Neighborhood Meeting on May 11, 2023 at their headquarters located at 223 Worcester-Providence Turnpike in Sutton. The meeting was well-attended with approximately 18 residents, including two Planning Board members. The focus of the meeting was to provide a construction update on the Phase I Project - Building 3, review the recent PCN filing as well as listen and address questions or concerns the residents may have. The questions asked focused primarily on traffic impacts, overall project timeline/schedules, and possible uses/tenants for the Full Build Project – Building 1.

Section 2.1.1 of Chapter 2, *Environmental Justice and Public Health* provides an updated description of outreach conducted since the filing of the PCN and planned outreach after the filing of this SEIR, including a web-based community meeting to

be held on August 16, 2023. There have been no changes to the Project as a result of outreach.

Comment C.12

The Single EIR, or a summary thereof, should be distributed to the "EJ Reference List," with any updates to the list provided by the MEPA Office upon request.

Response

The SEIR has been distributed to the most up-to-date EJ Reference List.

Comment C.13

The Proponent is also directed to continue to provide translation services in Spanish as part of future outreach.

Response

The Proponent will continue to offer translation services in Spanish as part of ongoing outreach.

Comment C.14

To the extent additional public meetings are conducted, the Proponent is encouraged to utilize community-based strategies to notify the public and not rely exclusively on email distribution to the EJ Reference List.

Response

The Proponent continues to engage through various means, including updating the Project website, posting on the Town of Sutton website, as well as providing notice to the EJ Reference List.

Comment C.15

Hard copy distributions of public meeting notices should be conducted in locations that are likely to be frequented by EJ populations, with emphasis in locations along truck route near EJ populations.

Response

Hard copies of public meeting notices will be provided in accessible locations, including Sutton Town Hall/Library and the Millbury Town Office.

Comment C.16

The Single EIR should survey the environmental indicators shown in U.S. EPA's "EJ Screen" (which are available at the census block level) for each identified EJ population within the 1-mile DGA. Any indicator that is shown to be 80th percentile or higher of statewide average should be noted for each census block reviewed and viewed as an indicator of an "unfair or inequitable" burden impacting that population. In such instance, the Single EIR should review project impacts to assess whether they may materially exacerbate any identified environmental indicators.

Response

The SEIR has surveyed the EPA EJ Screen for each Census Block Group within a 1-mile radius of the Project Site. Refer to Sections 2.1.2 and 2.2.2 of Chapter 2, *Environmental Justice and Public Health*, for further details on the results of the EPA EJ Screen.

Comment C.17

In particular, the Single EIR should confirm that traffic impacts will be sufficiently mitigated to avoid impacts to EJ populations, and should supplement climate resiliency analysis as described below to ensure that the resiliency of the project is adequate to protect potential future residents, including those in EJ populations, of the project.

Response

The SEIR includes a discussion on the traffic impacts and mitigation proposed as well as a description of climate resiliency measures taken by the Proponent. Refer to Section 2.1.4.3 of Chapter 2, *Environmental Justice and Public Health*, for further details.

Comment C.18

As noted above, in reviewing the DPH EJ Tool for sources of potential pollution within the identified EJ populations within 5 miles of the project site, the PCN did not identify sources of potential pollution related to road infrastructure, MBTA bus and rapid transit, other transportation infrastructure, regional transit agencies, and/or energy generation and supply. It also did not clearly identify the total number of major air and waste facilities. This information should be provided in the Single EIR in accordance with the MEPA Interim Protocol for Analysis of EJ Impacts.

Response

The Proponent utilized the DPH EJ Tool to identify potential sources of pollution with a five-mile radius of the Project Site. Section 2.1.3 of Chapter 2, *Environmental Justice and Public Health*, includes a description of the uses identified on the DPH EJ Tool.

Comment C.19

As noted above, notwithstanding relatively modest increases in air emissions directly adjacent to the identified EJ populations, total emissions increases associated with the project on a mesoscale level (measured over the traffic study area) still near or exceed 1 ton per year for VOCs and NOx, even with proposed roadway mitigation. The project should continue to explore opportunities to mitigate air emissions impacts, for instance, through increased commitments to EV charging for tractor trailers or early adoption of Advanced Clean Truck regulations.

Response

The Proponent has committed to substantial mobile source mitigation, including roadway improvements, TDM measures and EV charging/readiness. The Proponent

has further evaluated clean truck standards and truck EV charging in Section 5.2.3 of Chapter 5, Climate Change.

The Proponent remains committed to exploring all alternative fuel options and early adoption of Advanced Clean Truck regulations, to reduce GHG emissions, including the use of trucks meeting the above forthcoming emissions standards and EV truck tractors to haul trailers. If, and when the Proponent's truck leasing vendors and/or truck manufacturers increase the availability and reliability of electric truck tractors and tractors meeting the advanced clean truck regulations, the Proponent will commit to incorporating them into their truck fleet if deemed reliable and economical. The Proponent will design the Full Build Project - Building 1 and the Full Build Project - Building 2 to ensure sufficient electrical power exists to accommodate EV truck charging stations at the loading dock doors or elsewhere on site where tractors may be located, as needed.

Comment C.20

The Single EIR should include a separate section on "Public Health," and discuss any known or reasonably foreseeable public health consequences that may result from the environmental impacts of the project. Particular focus should be given to any impacts that may materially exacerbate "vulnerable health EJ criteria," in accordance with the MEPA Interim Protocol for Analysis of EJ Impacts.

Response

Refer to Section 2.2 of Chapter 2, *Environmental Justice and Public Health*, for a description of potential public health consequences related to environmental impacts of the Project.

Comment C.21

In addition, other publicly available data, including through the DPH EJ Tool, should be surveyed to assess the public health conditions in the immediate vicinity of the project site, in accordance with 301 CMR 11.07(6)(q)10.

Response

The DPH EJ Tool and the EPA EJ Screen were both used to identify public health conditions within vicinity of the Project Site. Refer to Sections 2.1.2 and 2.1.3 of Chapter 2, *Environmental Justice and Public Health*.

Comment C.22

Any project impacts that could materially exacerbate such conditions should be analyzed.

Response

Project impacts that could exacerbate vulnerable health conditions were analyzed by the Proponent. Refer to Section 2.2.2 of Chapter 2, *Environmental Justice and Public Health* for further information.

Comment C.23

To the extent any required Permits for the project contain performance standards intended to protect public health, the Single EIR should contain specific discussion of such standards and how the project intends to meet or exceed them.

Response

Refer to Section 2.2.3 of Chapter 2, *Environmental Justice and Public Health* for further information on public health standards and how the Project intends on meeting them.

Comment C.24

The Single EIR should include a thorough discussion of the potential for future treatment for PFAS contamination in the Town's water supply, including any added risks associated with stormwater discharge to the wellhead area.

Response

Given the stormwater management system that will be implemented as part of the Full Build Project, including the degree of water quality treatment prior to any infiltration into the Wilkinsonville Water District's ("WWD") wellhead area, the Full Build Project has mitigated the risk of any contamination in the WWD's water supply. The Proponent has had numerous discussions with the WWD about the Full Build Project, how the Proponent is mitigating the project's impacts and minimizing any risk to the water supply. During the local Site Plan Review of the Full Build Project – Building 2 and the Phase 1 Project – Building 3, the WWD requested, and the Proponent agreed, to redesign certain portions of the stormwater management system to increase the amount of treated stormwater infiltrated into the surrounding wellhead protection area.

The Proponent is unaware of any specific plans to expand the WWD wellhead treatment facility for PFAS treatment or other needs or uses. During the peer review discussions with the WWD engineering consultant regarding the proposed 12-inch watermain connection to the well, the request was made to shift the proposed watermain location south and east around the existing wellhead building to accommodate possible future expansion. The request was incorporated into the proposed design. In addition to accommodating possible future treatment expansion adjacent to the wellhead, it also allowed the proposed work to remain outside the 100-foot wetland buffer zone.

Comment C.25

The Single EIR should identify all land alteration associated with the project (broken up into Phase I and II), including areas that have been previously altered by the historic gravel operations at the site.

Response

Please refer to the areas below showing the land alteration associated with the Full Build Project including areas that have been previously altered by the historic gravel operations at the Project Site.

	Phase 1 Project –	Remainder of Full	Full Build Project
	Building 3	Build Project	
Previous Land Alteration	30.3 acres	156.86 acres	187.16 acres
New Land Alteration	7.9 acres	14.54 acres	22.44 acres
Total Land Alteration	38.2 acres	171.4 acres	209.6 acres

Comment C.26

The Single EIR should identify the amount of alteration and the amount of impervious surface creation in Zone II Wellhead Protection Areas (WPA), and confirm that no alteration will occur in Zone I areas.

Response

The amount of impervious surface creation in the Zone II WPA will be 22.54 acres. Within the Zone II WPA, the new land alteration area is 5.58 acres and the previous land altered is 33.66 acres. Within the Zone I area there will be 0.63 acres of land alteration. This minimal land alteration is required to provide a new access driveway, water line and electric service to the well as requested by the Wilkinsonville Water District. No alterations associated with this work will result in impervious area within the Zone I. The Proponent and WWD have entered into an agreement memorializing the construction of these improvements by the Proponent for the benefit of the WWD within the Zone 1 area.

Comment C.27

The EENF also stated that the stormwater system for Phase I (Building 3) had been designed to include emergency shutoff valves that would be used in the event of a hazardous material spill. The Single EIR should provide further details on the O&M Plan regarding the Full Build project, and confirm whether emergency shutoff valves have been included in the Phase II project components.

Response

The Proponent has prepared an Operation and Maintenance (O&M) Plan for each component of the Full Build Project. The O&M Plan outlines procedures and time tables for the long-term operation and maintenance of the proposed site stormwater management system, including initial inspections upon completion of construction, and periodic monitoring of the system components, in accordance with established practices and the manufacturer's recommendations.

Construction Phase

During the construction phase, all erosion control devices and measures shall be maintained in accordance with the final record plans, local/state approvals and

conditions, the EPA Construction General Permit and the Stormwater Pollution Prevention Plan (SWPPP) if applicable. Additionally, the maintenance of all erosion/siltation control measures during construction shall be the responsibility of the general contractor. Contact information of the OWNER and CONTRACTOR shall be listed in the SWPPP for this site. The SWPPP also includes information regarding construction period allowable and illicit discharges, housekeeping and emergency response procedures. Upon proper notice to the property owner, the Town or its authorized designee shall be allowed to enter the property at a reasonable time and in a reasonable manner for the purposes of inspection.

Post Development Controls

Once construction is completed, the post development stormwater controls are to be operated and maintained in compliance with the following permanent procedures (note that the continued implementation of these procedures shall be the responsibility of the Owner or its assignee). All Operation and Maintenance forms and reports included herein shall be filed with the Sutton Planning Board and the Wilkinsonville Water District within fourteen days of completion:

- 1. Subdivision Roadway: Sweep at least two times per year and on a more frequent basis depending on sanding operations. All resulting sweepings shall be collected and properly disposed of offsite in accordance with MADEP and other applicable requirements.
- 2. Parking lots and access drives: Sweep at least two times per year and on a more frequent basis depending on sanding operations. All resulting sweepings shall be collected and properly disposed of offsite in accordance with MADEP and other applicable requirements.
- 3. Catch basins, drop inlets, trench drains, manholes and piping: Preventative maintenance shall be performed after every major storm event during the first three months of operation and at least twice per year thereafter. During preventative maintenance these features shall be inspected and cleaned a minimum of two times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the catch basin or underground system. Accumulated sediment and hydrocarbons present must be removed and properly disposed of offsite in accordance with MADEP and other applicable requirements.
- 4. Forebays: The sediment forebay areas shall be inspected once per month to ensure they are operating as intended and that all components are stable and in working order. Inspections shall be by qualified personnel. During the growing season, the forebay shall be mowed at least twice, with additional cuttings performed as needed. All vegetation (i.e. tree saplings) will be removed from embankments and the forebay bottom. The inlet to the forebay shall be inspected for erosion and sedimentation, and rip-rap shall be promptly repaired as needed. Sediment forebays shall be cleaned quarterly and when sediment depth reaches half the height of the stone weir, or three to six feet, whichever is less. After sediment is

removed, replace any vegetation damaged during the clean out by either reseeding or re-sodding. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements.

- 5. Surface Infiltration Basin: Preventative maintenance shall be performed after every major storm event during the first three months of operation and at least twice per year thereafter. For the first three months the structure and pretreatment BMP shall be inspected and maintained to ensure proper operation after every major storm event (generally equal or greater to 3.0 inches in 24 hours). Preventative maintenance shall include mowing the buffer area, side slopes and basin bottom if grassed floor, rake if stone or sand bottom, remove trash and debris, remove grass clippings and accumulated organic matter. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements.
- 6. Stormtech Underground Infiltration Basins: Preventative maintenance shall be performed after every major storm event during the first three months of operation and at least twice per year thereafter. For the first three months the structure and pretreatment BMP shall be inspected and maintained to ensure proper operation after every major storm event (generally equal or greater to 3.0 inches in 24 hours) Preventative maintenance shall include inspection of the basin outlet for erosion and sedimentation, and rip-rap shall be promptly repaired in the case of erosion. Sediment collecting in the bottom of the basin shall be inspected twice annually, and removal shall commence any time the sediment reaches a depth of six inches anywhere in the basin. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements.
- 7. Geo-Storge Underground Infiltration Basins: Preventative maintenance shall be performed after every major storm event during the first three months of operation and at least twice per year thereafter. For the first three months the structure and pretreatment BMP shall be inspected and maintained to ensure proper operation after every major storm event (generally equal or greater to 3.0 inches in 24 hours). Preventative maintenance shall include inspection of the basin outlet for erosion and sedimentation, and rip-rap shall be promptly repaired in the case of erosion. Sediment collecting in the bottom of the basin shall be inspected at least twice per year thereafter, and removal shall commence any time the sediment reaches a depth of six inches anywhere in the basin. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements. The geotextile fabric at the bottom of the system can also be removed and replaced as part of the maintenance should it be necessary.

Drainage emergency shut off valves will be added in Phase II in two locations. They will be installed previous to the surface infiltration basins that directly discharge to the Zone I WPA.

Comment C.28

It should provide an update on the monitoring wells proposed to be installed in locations across the site as determined by the WWD to monitor long-term water quality, which the EENF indicated would be installed in late October 2022.

Response

The four monitoring wells have been installed as shown on the Site Plans. WWD sampled the wells and also measured the depths to groundwater on December 8, 2022. No water quality issues were noted at the time.

Comment C.29

The Single EIR should discuss whether alternative alignments of Unified Parkway would reduce the stormwater discharge in wellhead protection areas, particularly to Zone I.

Response

Alternative alignments of Unified Parkway would not reduce the stormwater discharge in either of the WPA (Zone 1 or Zone II). Unified Parkway has been designed with surface infiltration basins for stormwater management. Even if the alignment is altered, surface infiltration basins would still need to discharge to the wellhead protection areas. Of the four surface infiltration basins, only two of them discharge towards Zone I or Zone II.

Comment C.30

The Proponent is encouraged to further evaluate measures to reduce traffic impacts associated with just Buildings 2 and 3. While comments from MassDOT concur that the traffic impacts of only Buildings 2 and 3 are not significant, MassDOT notes that this partial build-out does result in increased delays at the intersection of Route 146/Boston Road, and the TIA indicates delays to certain turning operations at other intersections in the study area.

Response

Please refer to Chapter 4, *Transportation*, for response to the transportation-related Scope items outlined in the PCN Certificate.

The detailed transportation studies included in the EENF and in the PCN demonstrated that Buildings 2 and 3 have limited trip generation and therefore would have minimal impact on traffic operations at the study intersections evaluated. These findings are also consistent with the study prepared for approval by the Town of Sutton, which was independently reviewed by a peer review consultant hired by the Town. As a requirement of the local approvals, the Proponent is required to conduct post occupancy traffic monitoring studies that will involve reviews of the traffic counts and conditions at the study intersections. The traffic monitoring studies will occur 9, 18, and 30 months after full occupancy of each building. In the event that the traffic monitoring study demonstrates an

increase in peak hour traffic volumes that is directly identified as being generated from the Project of a material nature, additional review will be conducted by the Town of Sutton determine the need for mitigation at locations under Town jurisdiction related to the Project's traffic impacts.

It is expected that similar post construction monitoring will be required for the Full Build Project as part of the MassDOT Access Permit.

It is also noted that independent of the studies that have been prepared for the Project, MassDOT is planning a Route 146 corridor study that will look at long term needs for the corridor, including the potential for replacing the existing traffic signal at Route 146/Boston Road with a grade separated interchange, to handle regional traffic growth. In this context, at-grade improvements proposed by the Proponent will serve as near term improvements until such time that the longer term improvement envisioned by MassDOT for the area are implemented.

Comment C.31

The Single EIR should identify any TDM measures proposed for Buildings 2 and 3, which will be occupied by the Proponent, that will be incorporated regardless/prior to the Full Build project receiving a Certificate of Occupancy.

Response

Please refer to Chapter 4, *Transportation*, for response to the transportation-related Scope items outlined in the PCN Certificate, including an outline of the proposed TDM measures for all buildings on the Site.

The TDM measures described in the PCN will be applied to all buildings on the Site. The following measures will be incorporated into the operations for Buildings 2 and 3 upon receiving a Certificate of Occupancy for each building:

- Designate an employee to be the on-site Transportation Coordinator;
- > Implement a Guaranteed Ride Home Program through a taxi voucher program or another similar measure (in case of emergencies for those who use may choose to participate in ridesharing);
- > Provide Ridesharing/Ridematching Services (to promote carpooling and reduce single-occupancy vehicle trips);
- Depending on demand, designate parking spaces as preferred parking for any ridesharing services (car/vanpools);
- Designate parking spaces as preferred parking for any hybrid or zero/lowemission vehicles; and
- > Provide charging stations for electric vehicles.

Comment C.32

The Single EIR should provide an update on the ICE Stage 2 preparation/review.

Response

Please refer to Chapter 4, *Transportation*, for response to the transportation-related Scope items outlined in the PCN Certificate, including an update on the ICE analysis.

An ICE Stage 1 analysis for the intersection of Route 146 at Boston Road was submitted with the PCN and identified several potential at-grade alternatives that involve additional/new traffic signals either on Route 146 and/or Boston Road to support turning traffic. While signalization is a reasonable short-term goal, MassDOT's long term objective for the area is to remove traffic signal control at the intersection if it is determined that a grade-separated interchange is a suitable solution to handle future traffic projections in the region. To study the long-term needs of the intersection as well as the Route 146 corridor, MassDOT – District 3 is in the process of seeking internal funding for preparing a corridor study to identify long-term improvements and develop recommendations that can be advanced to design and construction.

In light of the above information which was provided during follow-on coordination with MassDOT – District 3, it was determined that the ICE Stage 1 review presented in the PCN for the Project adequately covered the characteristics of available options for the intersection improvements, and that a Stage 2 ICE analysis will not be necessary for the intersection as part of the SEIR filing. MassDOT believes that the intersection improvements discussed in the PCN present an optimal short-term solution to mitigate the Project's impacts until longer term improvements are reviewed by MassDOT as part of their independent study. Accordingly, the improvements outlined in the PCN for the Route 146/Boston Road intersection will serve as the framework for the MassDOT Section 61 Finding for the Project.

Comment C.33

It should provide a summary of any consultation with MassDOT since the filing of the PCN.

Response

Prior to filing this SEIR, the Proponent reached out to MassDOT PPDU, Boston Traffic Section and District 3 representatives to review the Agency's comments on the PCN and discuss the approach to address the comments, specifically those related to the Intersection Control Evaluation (ICE) Stage 2. As a result of follow-on coordination and input from MassDOT – District 3, it was determined that the Stage 1 review presented in the PCN adequately reviewed the characteristics of available options for the intersection improvements, and that in light of a planned Route 146 corridor study that will be undertaken by MassDOT, a Stage 2 ICE analysis will not be necessary for the Route 146/Boston Road intersection. The improvements outlined in the PCN for the Route 146/Boston Road intersection will serve as the framework for the MassDOT Section 61 Finding for the Project. A MassDOT Vehicular Access Permit will be required for construction of the proposed improvements at the Route 146/Boston Road intersection.

Comment C.34

The Single EIR should provide an update on efforts to obtain a tenant for Building 1, and should clarify how mitigation commitments will be enforced upon securing a tenant (through tenant manuals or other means).

Response

The Proponent continues to market the Project, specifically the Full Build Project – Building 1 to secure a tenant. At the time of this SEIR filing, the market demand for buildings of this magnitude remaining limited, however, the Proponent remains committed to find the right use for the Full Build Project – Building 1 that compliments the overall development program as well as the Town of Sutton master plan goals of economic benefit and employment opportunities. Mitigation commitments associated with the Full Build Project – Building 1 tenant will be addressed through the lease agreements between the Proponent and the tenant.

Comment C.35

The Single EIR should compare the elevation of the buildings to the base flood elevation (BFE) associated with the Zone AE present on-site.

Response

The proposed finish floor elevations for Building 1, Building 2, and Building 3 are 394', 387' and 396', respectively. The base flood elevation of the Zone AE near Building 1 is 339', near Building 2 is 355' and near Building 3 is 367', respectively.

Comment C.36

Given the "High" risk rating returned by the MA Resilience Design Tool for riverine flooding, the Single EIR should discuss the extent to which future flooding risk may exist for the proposed buildings notwithstanding their location outside currently mapped flood plain areas.

Response

Based on the finish floor elevations and base flood elevations of the Zone AE noted above, there is no risk of flooding impacting any of the buildings since there are all significantly higher than the base flood elevations.

Comment C.37

The methodologies available in the Tool for generating "peak riverine flood elevations" associated with a future storm event (10-year to 50- year storms as of 2070) should be consulted to address whether the proposed buildings are likely to be situated above these anticipated future flood elevations.

Response

The Proponent consulted the RMAT Tool for identifying the risk of future projected riverine flooding into the Project Site. As demonstrated by the analysis in Section 5.1.2.2 of Chapter 5, *Climate Change*, no impacts are anticipated from the future 50-

year 2070 event. All of the proposed work, including site grading, is proposed to be located above the projected peak flood elevations for 2070.

Comment C.38

The Single EIR should identify and compare the 24-hour total precipitation depth that the proposed stormwater management systems could attenuate for all buildings and Unified Parkway, and compare these values to the 24-hr precipitation depths recommended by the MA Resilience Design Tool. To the extent proposed design does not meet recommendations, the Single EIR should continue to explore ways in which to improve the efficacy and sizing of the stormwater system.

Response

The 24-hour total precipitation depths for the proposed stormwater management systems for all of the buildings and Unified Parkway are listed below. This rainfall data is based on NOAA. The Project Site and the proposed stormwater management system have been designed so that post-development peak rates of runoff are below pre-development conditions for the 2-, 10-, 25- and 100-year storm events at all design points.

Design Year	Depth
2-year	3.27 inches
10-year	5.07 inches
25-year	6.19 inches
100-year	7.92 inches

The 24-hour precipitation depth recommended by the RMAT Tool is 6.9 inches for 10-year design storm and 9.5 inches for 50-year design storm. Therefore, the proposed design exceeds the RMAT recommended of 6.9 inches for the 10-year storm. Also, several of the surface infiltration basin has been oversized above and beyond the design required for the 100-year storm event.

Comment C.39

The Single EIR should respond to recommendations in comments from DOER. Specifically, the Single EIR should identify the solar-ready zone the Proponent is committing to.

Response

The Proponent has responded to the DOER comment in Section 5.2.1 of Chapter 5, *Climate Change*. The Proponent will commit to making all roof area not occupied by roof top equipment, skylights, or required setbacks solar-ready on both Buildings 1 and 2. The Proponent estimates that this will correspond to approximately 80% of the roof area. Thus, all three warehouse buildings for the Project will meet the requested 80% solar-ready rooftop area.

Comment C.40

I encourage the Proponent to consider incorporating solar PV, given the generation potential noted in DOER's comments.

Response

The Proponent has committed to substantial solar-readiness as requested by DOER. Per the description provided in the PCN, the Proponent cannot commit to installation of solar arrays at this time due to limitations with utility. The Proponent hired a solar consultant to assess the feasibility of the interconnection process for the Phase 1 Project - Building 3. Based on discussions with the utility and solar consultant, it was determined that interconnection was not feasible at this time, pending the results of region-wide interconnection study that the utility is undertaking.

Comment C.41

The Single EIR should provide a revised mobile emissions analysis that provides the emissions associated with Buildings 2 and 3, the buildings which have already obtained all local approvals and will be used by the Proponent, as stated in the PCN.

Response

The Proponent has provided an additional condition to the mobile source analysis that studies a Building condition with just Buildings 2 and 3. The analysis was based on the interim condition studied in the Transportation Chapter of the PCN filing. The results of this analysis are presented in Section 5.2.2 of Chapter 5, *Climate Change*.

Comment C.42

This revised analysis should include any mitigation measures that are being proposed to reduce mobile emissions from Buildings 2 and 3 that are not contingent on Building 1 being constructed and/or occupied.

Response

The Proponent has provided an additional mobile source analysis considering emissions generation by the construction of Buildings 2 and 3 only. Mobile source mitigation measures associated with the construction of Buildings 2 and 3 are discussed in Sections 5.2.2 and 5.2.3 of Chapter 5, *Climate Change*.

Comment C.43

I encourage the Proponent to consider additional mitigation for diesel trucks, such as EV charging in trailer spaces, to reduce diesel emissions.

Response

See response to comment C.19.

Comment C.44

The Single EIR should include a separate chapter summarizing all proposed mitigation measures including construction-period measures. This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations.

Response

Refer to Section 6.1 of Chapter 6, *Mitigation Summary*, for a list of all proposed mitigation measures the Proponent intends to take to avoid, minimize, and mitigate the potential environmental and public health impacts of the Project. Refer to Section 6.2 for the proposed commitments relative to EJ populations.

Comment C.45

The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.

Response

Section 6.1 of Chapter 6, *Mitigation Summary*, includes individual cost estimates of each proposed measure, the responsible party, and an anticipated schedule for implementation.

Comment C.46

The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, environmental justice, etc.) and identify the Agency Action or Permit associated with each category of impact.

Response

Section 6.1 of Chapter 6, *Mitigation Summary*, is in tabular format organized by subject matter and agency action/permit associated with each category.

Comment C.47

Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project.

Response

There is a separate Draft Section 61 Findings for each agency action to be taken. Refer to Section 6.3 of Chapter 6, *Mitigation Summary*.

Comment C.48

The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase.

Response

Section 6.1 of Chapter 6, *Mitigation Summary*, indicates the anticipated implementation of each mitigation measures based upon the Full Build Project phasing.

Comment C.49

To ensure that all GHG emissions reduction measures adopted by the Proponent as the Preferred Alternative are actually constructed or performed by the Proponent, the Proponent must provide a self-certification to the MEPA Office indicating that all of the required mitigation measures, or their equivalent, have been completed. The commitment to provide this self-certification in the manner outlined above shall be incorporated into the draft Section 61 Findings included in the Single EIR.

Response

Refer to Section 6.4 of Chapter 6, *Mitigation Summary*, for the self-certification indicating that the required mitigation measures have been completed. This is incorporated in the Draft Section 61 Findings.

Comment C.50

The Single EIR should contain a copy of this Certificate and a copy of each comment letter received.

Response

Appendix E includes a copy of the PCN Certificate, and a copy of each comment letter received.

Comment C.51

In order to ensure that the issues raised by commenters are addressed, the Single EIR should include direct responses to comments to the extent that they are within MEPA jurisdiction.

Response

The SEIR includes direct responses to comments raised on the PCN. Refer to Chapter 7, Response to Comments.

Comment C.52

The Proponent should circulate the Single EIR to each Person or Agency who previously commented on the PCN, each Agency from which the Project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope.

Response

The SEIR has been distributed to each person/agency who previously commented on the PCN and from which the Project will seek an agency action. Appendix A provides the SEIR Distribution List.

Comment C.53

The Proponent may circulate copies of the Single EIR to commenters other than Agencies in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first come, first served basis.

Response

The Proponent has circulated a number of hard copies to accommodate those without access to a computer. The copies are available at the Town of Sutton and the Town of Millbury libraries.

Comment C.54

A copy of the Single EIR should be made available for review in the Millbury and Sutton Public Libraries.

Response

A copy of the SEIR has been sent to the Millbury and Sutton public libraries.

Letter 1: Massachusetts Department of Environmental Protection

Comment 1.1

In Table 1-1, the square footage of each building is given as 343,200 square feet (sf), 625,530 sf and 1,400,000 sf. According to the Table, the total square footage is 2,395,730 sf, but the three numbers add up to 2,368,730 sf. The Proponent should clarify which number is correct.

Response

To clarify the square footage of each building, the Phase 1 Project – Building 3 is 343,200 SF, the Full Build Project – Building 2 is 652,530 SF and the Full Build Project – Building 1 is 1,400,000 SF, for a total of 2,395,730.

Comment 1.2

The Project Proponent states in the PCN that an NOI will be filed with the Sutton and Millbury Conservations for construction activities associated with the construction of Building 2.

Response

An NOI was filed with the Town of Sutton Conservation Commission for Building 2 (concurrent with Building 3) and an Order of Conditions was issued on July 8, 2022 for Buildings 2 and 3, and remains valid. Building 2 is wholly located withing the Town of Sutton and therefore, doesn't require any filings with the Town of Millbury.

Comment 1.2

On November 21, 2021, the District provided a Will Serve Letter to the Proponent outlining its commitment to provide up to 35,775 gallons per day to service the Full Build Project. However, the estimated water usage is 39,362 gpd for the full build out. The Proponent should explain the difference.

Response

The Proponent has coordinated directly with the Wilkinsonville Water District ("WWD") throughout the planning and design process of the Full Build Project for anticipated water demand. On November 21, 2021, the WWD provided a Will Serve Letter outlining its commitment to provide up to 35,775 gallons per day to service the Full Build Project, which is consistent with the Full Build Project's anticipated wastewater generation, but is 10% less than the anticipated water demand for the Full Build Project cited above (39,362 gpd). This difference is due to studies showing that the average daily sewer flow generated from a site may actually be 10% less than the actual daily water demand. Even still, because the Proponent used conservative estimates based on the anticipated warehouse and distribution uses within the Full Build Project and relied in part on Title V wastewater standards to generate the water demand capacity approved by the WWD, the actual water demand for the Full Build Project is likely to fall well-below these estimates. In the

unlikely event, however, that the Proponent needs additional water capacity beyond what the WWD has approved, the Proponent would continue to work with the WWD if additional capacity is required.

Comment 1.3

If the Proponent plans to develop Lots 4 and 5 (a total of 163 acres), and/or additional projects require withdrawals above 0.29 MGD, the District must obtain a new Water Management Act permit. That permitting process can take up to a year and a new permit would require the District to provide mitigation for the increase in withdrawal volume. MassDEP encourages the Proponent to assist the District in providing any needed mitigation that may be required in a new Water Management Act permit.

Response

Understood. Please note at this time the Proponent has no plans to develop Lot 4 or Lot 5.

Comment 1.4

In its comments on the EENF, MassDEP noted that the Hatchery Road Well for the District is in the middle of the Project site on land owned by the Water District. MassDEP does not agree that the Project will provide environmental benefits to the public water supply. MassDEP believes construction around the well has the potential to adversely affect drinking water quality. Redirection of water from the increased impervious surfaces to the area around the well is not an environmental benefit. Water from the impervious surfaces may carry contaminants such as oil, vehicle fluids, and salt. That water will also be warmer after contact with the impervious surfaces. The amount of recharge will not change as a result of the Project; it will just be redirected toward the drinking water source.

Response

The proposed stormwater management system has been designed for the Full Build Project in accordance with both the Town of Sutton and MassDEP Stormwater Handbook requirements and standards. Each component of the Full Build Project will also provide erosion and sedimentation controls during the demolition and construction periods, as well as long term stabilization of the Full Build Project Site.

Unified Parkway has been designed to drain to deep-sump, hooded catch basins. The catch basins will capture and convey stormwater runoff, via an underground pipe system, to one of the proposed surface infiltration basins. Pretreatment of stormwater runoff will be provided by a combination of the deep-sump, hooded catch basins and forebays prior to discharge into the proposed infiltration basins.

The Full Build Project – Building 2, including the proposed parking areas, has been designed to drain to deep-sump, hooded catch basins. The catch basins will capture and convey stormwater runoff, via an underground pipe system, to one of the proposed underground infiltration basins or one of the surface infiltration basins. Pretreatment of stormwater runoff will be provided by a combination of the deep-

sump, hooded catch basins, forebays and isolator rows prior to discharge into the proposed infiltration basins. Rooftop runoff has been designed to flow to the basins as well.

The Full Build Project – Building 1, including the proposed parking areas, will be designed to drain to deep-sump, hooded catch basins. The catch basins will capture and convey stormwater runoff, via an underground pipe system, to one of the proposed surface infiltration basins. Pretreatment of stormwater runoff will be provided by a combination of the deep-sump, hooded catch basins, forebays and/or water quality units prior to discharge into the proposed infiltration basins. Rooftop runoff will be designed to flow to the basins as well.

The best management practices (BMPs) incorporated into the proposed stormwater management system have been designed to meet, or exceed, the standards set forth in the MassDEP Stormwater Handbook standards.

In addition, emergency southgate shut off valves will be installed prior to the surface infiltration basins that directly discharge to the Zone II WPA.

Post development stormwater discharging from impervious surfaces may be warmer at certain periods of the year. Typically, warm stormwater runoff is a concern when discharged directly into bodies of water. The stormwater management for the development has been designed, in part at the request of the Wilkinsonville Water District, to infiltrate all stormwater to aid in recharging the aquifer. There will be no stormwater discharge directly into any bodies of water.

Comment 1.5

MassDEP requested the Proponent to clarify whether the Project may affect the ability of the District to install treatment for PFAS if necessary in the future. The Proponent stated in the Response to Comments that the District has indicated that an expansion of the treatment building may be required but the proposed water line connection and access road have been designed to accommodate future building expansion. MassDEP encourages the Proponent to work with the District to ensure a suitable location for the any expanded treatment system.

Response

Given the stormwater management system that will be implemented as part of the Full Build Project, including the degree of water quality treatment prior to any infiltration into the Wilkinsonville Water District's ("WWD") wellhead area, the Full Build Project has mitigated the risk of any contamination in the WWD's water supply. The Proponent has had numerous discussions with the WWD about the Full Build Project, how the Proponent is mitigating the project's impacts and minimizing any risk to the water supply. During the local Site Plan Review of the Full Build Project – Building 2 and the Phase 1 Project – Building 3, the WWD requested, and the Proponent agreed, to redesign certain portions of the stormwater management system to increase the amount of treated stormwater infiltrated into the surrounding wellhead protection area.

The Proponent is unaware of any specific plans to expand the WWD wellhead treatment facility for PFAS treatment or other needs or uses. During the peer review discussions with the WWD engineering consultant regarding the proposed 12-inch watermain connection to the well, the request was made to shift the proposed watermain location south and east around the existing wellhead building to accommodate possible future expansion. The request was incorporated into the proposed design. In addition to accommodating possible future treatment expansion adjacent to the wellhead, it also allowed the proposed work to remain outside the 100-foot wetland buffer zone.

Letter 2: Massachusetts Department of Transportation Comment 2.1

As part of the mitigation at the intersection prior to the occupancy of Building 1, the Proponent should consider other countermeasures from the RSA that could be implemented as part of the proposed work.

Response

Please refer to Chapter 4, *Transportation*, for response to the transportation-related Scope items outlined in the PCN Certificate, including how countermeasures identified in the RSA will be incorporated into the mitigation and design of the Route 146/Boston Road intersection.

The PCN included a conceptual improvement plan for the intersection of Route 146 at Boston Road. The design of the improvements at the intersection will incorporate many of the recommended countermeasures listed in the RSA. As the design of the improvements advances through the MassDOT process, the Proponent will coordinate with MassDOT – District 3 on incorporating countermeasures listed in the RSA. Some of the countermeasures identified in the RSA that could be considered for incorporation in the design of the intersection may include the following. Some measures, such as relocation of guide signs, or installation of overhead lane usage signs, if determined to be necessary, may be outside of the scope of the Project. In such instances, such measures will be highlighted for attention by MassDOT as part of their annual maintenance projects.

- New traffic signal timing plan, including updated clearance times (yellow and all-red times) to ensure that they are adequate for the geometry of the intersection;
- "Signal Ahead" pavement markings along Route 146 will be evaluated for inclusion in design;
- Additional/improved ground mounted advance lane assignment signage on Route 146 will be evaluated;
- Right-turn-on-red movements will be restricted on Boston Road westbound due to the proposed geometry at the intersection;
- Subject to MassDOT's concurrence, the painted portion of the median on Route 146 northbound will be replaced with a raised median to provide pedestrians with a refuge and to reinforce the left-turn restriction along this approach;
- Signal heads will be upgraded by replacing green ball indications with vertical green arrows for the through lanes along Route 146 that do not allow turning movements;
- Broken lane lines will be installed at the intersection to enhance vehicle turning movement tracking through the intersection;
- Pavement markings will be upgraded at the Pleasant Valley Road intersection along Route 146 northbound to improve visibility;

- > The location of the guide signs in advance of Pleasant Valley Road will be evaluated for visibility;
- Additional signage for the left-turn movement at Pleasant Valley Road on to Boston Road may be installed to provide motorists with better wayfinding;
- Signage will be installed along the Route 146 median facing each curb cut and driveway to indicate that left-turns are prohibited;
- To the extent that the Proponent is allowed to modify the Bank of America driveway along Boston Road, the driveway would be redesigned to reinforce the left-turn prohibition at the intersection;
- The Proponent will work with the Town of Sutton Police Department to evaluate the emergency vehicle detection system to identify necessary upgrades and provide funding for implementation;
- A new crosswalk and pedestrian signal equipment will be installed across the southern leg of Route 146, subject to MassDOT's concurrence;

The improvements listed above were identified as part of the RSA. The design of the intersection improvements will be coordinated through MassDOT and each countermeasure that is deemed as being suitable for implementation by the Project (as opposed to implementation by MassDOT as part of other efforts) will be evaluated as part of the design process.

Comment 2.2

The Proponent should complete the ICE Stage 2 prior to the SEIR filing so an intersection control alternative can be selected and specific mitigation identified prior to the completion of the MEPA process.

Response

Please refer to Chapter 4, *Transportation*, for response to the transportation-related Scope items outlined in the PCN Certificate, including an update on the ICE analysis.

See response to Comment C.32, which provides an update and additional information related to the ICE.

Letter 3: Massachusetts Department of Energy Resources

Comment 3.1

We note that the solar ready zone is only marginally improved over code requirements (code requires 40%). We recommend the solar ready zone be increased to at least 80% for these large footprint buildings.

Response

The Proponent has responded to the DOER comment in Section 5.2.1 of Chapter 5, Climate Change. The Proponent will commit to making all roof area not occupied by roof top equipment, skylights, or required setbacks solar-ready on both Buildings 1 and 2. The Proponent estimates that this will correspond to approximately 80% of the roof area. Thus, all three warehouse buildings for the Project will meet the requested 80% solar-ready rooftop area.

Letter 4: Town of Sutton

Comment 4.1

The majority of the projects 4,600+/- trips will be traveling north and south on Route 146 directly impacting the intersection of Route 146 and Boston Road. Employee trips will also impact local roads like Dudley and Central Turnpike. We are concerned that no mention of the use of rail has been made in any MEPA documents even though a rail spur exists at this property. Why is the use of rail to potentially off set truck traffic not addressed?

Response

The Proponent has explored the use of rail in support of their business needs specific to the Full Build Project – Building 2 and the Phase 1 Project – Building 3 and determined that direct rail connections to these buildings is not possible due to the topographic and resource area constraints between the buildings and the existing rail line adjacent to Lot 1. In addition, the Proponent's operations would only substantially benefit from bulk product rail service if manufacturing were proposed at the Project Site, which is currently not contemplated.

Rail service remains an option for the Full Build Project – Building 1 if there is a specific tenant need, however, due to the geometric requirements of rail line design (i.e., minimum horizontal curves and maximum vertical grades), the physical connection from the existing rail line to Building 1 will limit the size of the Full Build Project – Building 1 program and/or require additional material (e.g., rock/ledge) to be exported from the site to accommodate the program. So far, all of the tenants that have expressed interest in the Full Build Project – Building 1 do not transport bulk product via rail as part of their operations.

Comment 4.2

The second, although related, concern is environmental impact. While it is clear having warehousing much closer to Unified headquarters is a plus and will reduce greenhouse gas(GHG) emissions along and at the previous warehouse locations, the traffic study still shows 80% of truck trips using Route 14, north. Therefore, these trips are not traveling to and from the headquarters located south of the project site. These are new trips to this area with an increase in GHG emission to the Sutton and Blackstone Valley corridor area which should be mitigated in this area.

Response

The Proponent has committed to substantial mobile source mitigation, including roadway improvements, TDM measures and EV charging/readiness. The consolidation of the Proponent's business operations will also provide a substantial reduction in regional GHG emissions. Since GHG are a regional/global issue, not a local issue, these regional reductions in emissions have meaningful mitigative impacts. The proposed mobile source mitigation measures were discussed in in Chapter 5 of the PCN filing.

New to this filing, the Proponent has further evaluated clean truck standards and truck EV charging in Section 5.2.3 of Chapter 5, Climate Change. The Proponent remains committed to exploring all alternative fuel options and early adoption of Advanced Clean Truck regulations, to reduce GHG emissions, including the use of trucks meeting the above forthcoming emissions standards and EV truck tractors to haul trailers. If and when the Proponents truck leasing vendors and or truck manufactures increase the availability and reliability of electric truck tractors and tractors meeting the advanced clean truck regulations, the Proponent will commit to incorporating them into their truck fleet if deemed reliable and economical. The Proponent will design Buildings 1 and 2 to ensure sufficient electrical power exists to accommodate EV truck charging stations at the loading dock doors or elsewhere on site where tractors may be located, as needed

Comment 4.3

While the buildings are noted as solar ready, no commitment has been made to alternative green energy sources. Electric heating is still predominantly fueled by fossil fuels. Additionally, this phase of the project will render more than 100 acres impervious and create a significant potential for heat island effect. The use of materials, vegetation, and technology to reduce/eliminate this impact should be mandatory.

Response

The Proponent has committed to substantial solar-readiness as requested by DOER. Per the description provided in the PCN, the Proponent cannot commit to installation of solar arrays at this time due to limitations with the necessary interconnections with the utility. The Proponent hired a solar consultant to assess the feasibility of the interconnection process for the Phase 1 Project - Building 3. Based on discussions with the utility and solar consultant, it was determined that interconnection was not feasible at this time, pending the results of region-wide interconnection study that the utility is undertaking.

The Proponent has also made a substantial commitment to hybrid electrification. Electrification is a preferred mitigation measure amongst State energy agencies as it ensures the building will greatly reduce on-site fossil fuel usage and will result in reduced indirect GHG emissions as the grid greens with added renewable energy sources.

The proposed site design also includes measures aimed at reducing urban heat island effect, including new landscaping and light-colored hardscape materials. Tree plantings around the perimeter of truck parking areas will also be implemented as a condition of the local approvals for the Phase 1 Project – Building 3 and the Full Build Project – Building 2. Further, while the Town is correct that the Project will include over 100 acres of impervious areas, the Project Site will include over 300 acres of impervious areas, of which over 200 acres will not be impacted by the Project.

7.2 Resident Comment Letter

Jack Sheehan

Comment 5.1

The traffic impacts, as yet to be realized, will likely have a dramatic effect on the immediate area. More importantly this project is one of several either completed, under construction or in the planning process. Most of the space is not occupied or not in operation. When all of this space goes on line I fear the planning and the infrastructure inadequate.

Response

Please refer to Chapter 4, *Transportation*, for response to the transportation-related Scope items outlined in the PCN Certificate.

MassDOT's long term objective for the area is to remove traffic signal control at the intersection of Route 146/Boston Road if it is determined that a grade-separated interchange is a suitable solution to handle future traffic projections in the region. To study the long-term needs of the intersection as well as the Route 146 corridor, MassDOT – District 3 is in the process of seeking internal funding for preparing a corridor study to identify long term improvements and develop recommendations that can be advanced to design and construction.

The intersection improvements discussed in the PCN present an optimal short-term at-grade solution that could be implemented by the Proponent to mitigate the Project's impacts until longer term grade separated improvements are reviewed by MassDOT as part of their independent study.

Comment 5.2

A continued emphasis on the importance of the site to the water resources of the area. The storm water drainage system has been designed and peer reviewed but maintenance and observation, modification if necessary will ensure protection of the aquifer.

Response

It is agreed that maintenance and observation is necessary to ensure protection of the aquifer. An Operation and Maintenance (O&M) Plan for each component of the Full Build Project has been prepared. The O&M Plan outlines procedures and time tables for the long term operation and maintenance of the proposed site stormwater management system, including initial inspections upon completion of construction, and periodic monitoring of the system components, in accordance with established practices and the manufacturer's recommendations.

Comment 5.3

There remains a large parcel of the site zoned residential at the western side of the property. Development of this parcel, although not planned, would add another set of impacts yet to be determined.

Response

As previously stated in the PCN, the Proponent has no plans at this time to develop Lot 5. The Proponent acknowledges that any future development on Lot 5 would follow the prescribed process through MEPA (Notice of Project Change) and Town of Sutton Site Plan Approval.

APPENDIX A: SEIR Distribution List

SEIR Distribution List

Below is a list of state and municipal agencies from whom the Proponent will seek permits or approvals and other parties as specified in 301 CMR 11.16. These are the parties to whom the SEIR is required to be circulated.

State and Regional Agencies and Officials

Secretary Rebecca Tepper	Massachusetts Department of Transportation
Executive Office of Energy and	Public/Private Development Unit
Environmental Affairs	Attn: J. Lionel Lucien
Attn: MEPA Office	10 Park Plaza Suite #4150
100 Cambridge Street, Suite 900	Boston, MA 02116
Boston, MA 02114	MassDOTPPDU@dot.state.ma.us
mepa@mass.gov	
tori.kim@state.ma.us	
Department of Environmental Protection	DEP/Central Regional Office
Attn: Commissioner's Office	Attn: MEPA Coordinator
One Winter Street	8 New Bond Street
Boston, MA 02108	Worcester, MA 01606
helena.boccadoro@mass.gov	andrea.briggs@mass.gov
Massachusetts Historical Commission	Massachusetts DOT District #3
Attn: Brona Simon	Attn: MEPA Coordinator
The MA Archives Building	499 Plantation Parkway
220 Morrissey Boulevard	Worcester, MA 01605
Boston, MA 02125	jeffrey.r.gomes@dot.state.ma.us
brona.simon@state.ma.us	
Central Massachusetts Regional Planning	Massachusetts Water Resource
Commission	Authority
Attn: Executive Director	Attn: MEPA Coordinator
One Mercantile Street, Suite 520	100 First Avenue
Worcester, MA 01608	Charlestown Navy Yard
mepafiling@cmrpc.org	Boston, MA 02129
	katherine.ronan@mwra.com
MEPA Office	Department of Energy Resources
Attn: EEA EJ Director	Attn: MEPA Coordinator
100 Cambridge Street, Suite 900	100 Cambridge Street, 10th floor
Boston, MA 02144	Boston, MA 02114
MEPA-EJ@mass.gov	paul.ormond@mass.gov

Town of Sutton Agencies and Officials

Planning Department	Select Board
Attn: Director	Attn: Chair
4 Uxbridge Road	4 Uxbridge Road
Sutton, MA 01590	Sutton, MA 01590
j.hager@town.sutton.ma.us	d.jacques@town.sutton.ma.us

Board of Health	Conservation Commission
Attn: Chair	Attn: Chair
4 Uxbridge Road	4 Uxbridge Road
Sutton, MA 01590	Sutton, MA 01590
j.bater@sutton.ma.us	w.bien@town.sutton.ma.us

Town of Millbury Agencies and Officials

Planning Department	Select Board
Attn: Planning Director	Attn: Chair
127 Elm Street	127 Elm Street
Millbury, MA 01527	Millbury, MA 01527
cmccormack@townofmillbury.net	AFleming@townofmillbury.net
Public Health	Conservation Commission
Attn: Chairman	Attn: Chainman
127 Elm Street	127 Elm St
Millbury, MA 01527	Millbury, MA 01527
MillburyBOH@townofmillbury.net	<pre>cmccormack@townofmillbury.net</pre>

Statewide Community Based Organizations

Environment Massachusetts	Mass Rivers Alliance
Clean Water Action	The Trust for Public Land
Sierra Club MA	Browning the Greenspace
Neighbor to Neighbor	Environmental League of MA
Appalachian Mountain Club	Mass Land Trust Coalition
Mass Audubon	Ocean River Institute
Conservation Law Foundation	Community Action Works
Unitarian Universalist Mass Action Network	

Tribal Organizations

Chappaquiddick Tribe of the Wampanoag Nation, Whale Clan	Massachusetts Commission on Indian Affairs (MCIA)		
Nipmuc Nation (Hassanamisco Nipmucs)	Wampanoag Tribe of Gay Head (Aquinnah)		
North American Indian Center of Boston	Herring Pond Wampanoag Tribe		
Massachusetts Tribe at Ponkapoag	Mashpee Wampanoag Tribe		
Chaubunagungamaug Nipmuck Indian	Pocassett Wampanoag Tribe		
Council			

EENF/PCN Commenters

Marie DeCosta	Janice Berthiaume	
Jack Sheehan	James Nault	
Rick Meucci	Jim LeClaire	
Rob Liddy	Eric Dasilva	
James LaPlante	Paul Granger	
Andrea Mattei	Karen Cadrin	

APPENDIX B: Department of Conservation and Recreation Jurisdiction Verification Form

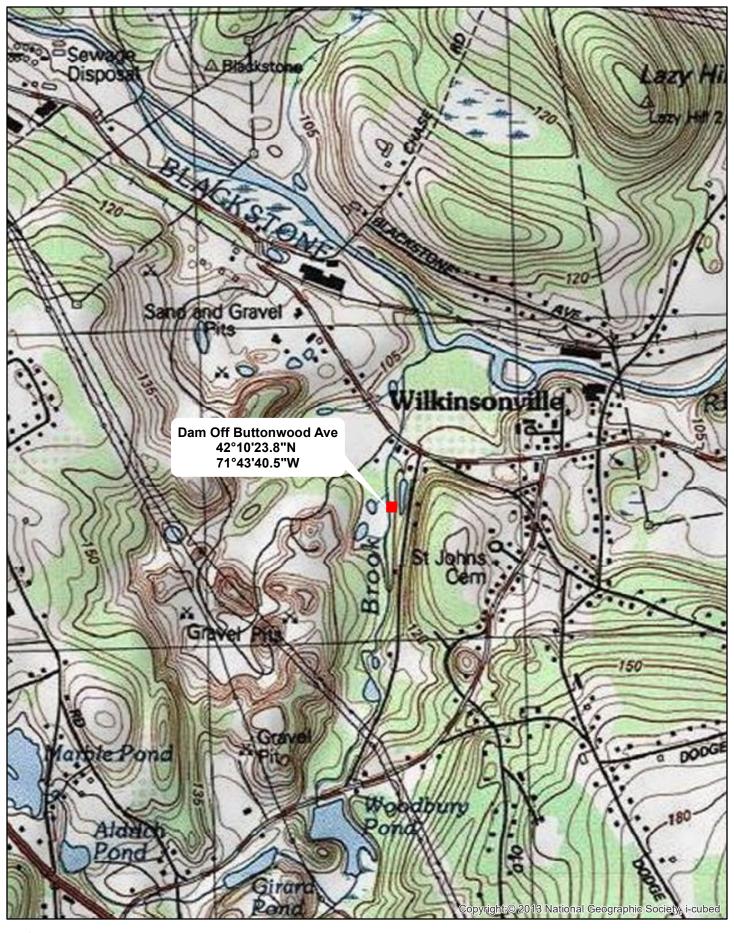


Commonwealth of Massachusetts Department of Conservation and Recreation (DCR) Office of Dam Safety (ODS)

JURISDICTION VERIFICATION FORM

For ODS Records

Department Name:	Office of Dam Safety		ODS Staff:	Bryan Carignan, P.E.	
Date:	6/11/2021		Town:	Sutton, MA	
National ID No.:	MA03500		Dam Name:	Buttonwood Avenue Dar	m
C4				Q	C
	am:t of dam as measured from s				feet
(incusared vertical neigh	it of dain as incasared from t	on cumoca at c	to which cann too to e	rest of dum)	
	Impoundment:			N	/A (breached)acre-feet
(estimated volume in ac	re-feet of pool at top of dam	elevation)			
Hydraulic Height of D	am:			2	(breached) feet
	nt of normal pool impoundm				
					4 (haranahan)
	npoundment:			<u><</u>	1 (breached) acre-feet
(estimated volume in ac	re-feet of pool at Spillway C	rest elevation)		
Dam Location Lat.:	42.173396	Long.:	-71.728277	Overall Conditio	n: Breached
	42.173396 Yes No				🗸
Public Road on Crest?	Yes No	If Public I	Road, is there a Br	idge across Spillway?	Yes No
Recommendation: (ma					
Does the dam meet the	definition of a Jurisdictional	dam in accord	lance with MGL Ch	napter 253 Section 44 – 48	8 and 302 CMR 10.00
Dam Safety Regulations	s?	Yes	No		
Is the dam currently Jur	isdictional?	Yes X	No		
Existing Hazard Potenti	s? isdictional? al Classification: N/A				
Suggested Harand Dat	ential Classification:	II:ah	Cianifiaan	, I am X	Non Invisdiational
Suggesteu Hazaru Fot		mgn _	Significan	t Low	Non-Jurisaictional
Additional Comments	: (apparent condition, descrip	otion of hazaro	d, etc., add a sheet i	f necessary)	
The dam appears to have b	een breached for quite some tim	e. The collapse	d spillway has been ui	ndermined and water flows u	
	r dam that did not appear to have	e a large impou	ndment. Evidence of p	possible dike along the right	embankment of Cold Spring
Brook.					
E. ODC II. O. I.					
For ODS Use Only		4/4	1111		
Name of ODS Staff Re	viewing Recommendations	: 1/10	M. A around	Date:	July 8, 2021
		•			_
ODS Staff Review Cor					
The Dam Doe	s 🗵 Does Not Meet	the Definition	of a Jurisdictional	Dam.	
Data contained on this f	form was entered into the OD	S Database o	n July 8, 2021		
Data Contained on this i	oim was entered into the OL	Database 0	(Date)		





Locus Map

Feet 0 500 1,000 2,000

PHOTOS



Photo 1: Overview of collapsed spillway from right embankment. Note water is flowing underneath the collapsed spillway on the left side.



Photo 2: Rock riffle immediately downstream of the collapsed spillway.



Photo 3: Channel immediately upstream of the dam.



Photo 4: Collapsed spillway. Note that very little water flows over the collapsed spillway currently, as most flow goes underneath the undermined portion.



Photo 5: Embankment that runs along the right side of Cold Springs Brook appears to be the remnants of a man-made levee.

APPENDIX C: EPA EJ Screen



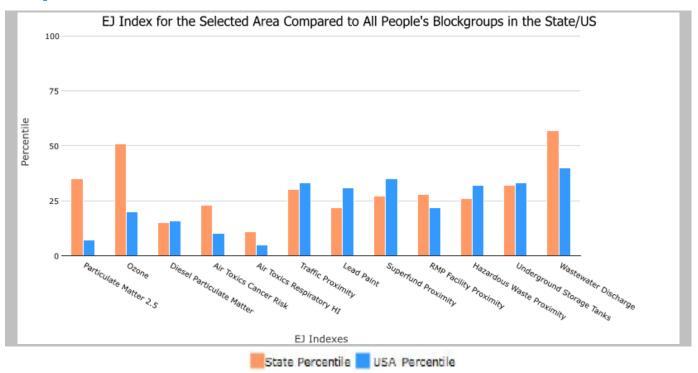


1 mile Ring Centered at 42.175546,-71.736863, MASSACHUSETTS, EPA Region 1

Approximate Population: 1,458 Input Area (sq. miles): 3.14

Selected Variables	State Percentile	USA Percentile	
Environmental Justice Indexes			
Particulate Matter 2.5 EJ index	35	7	
Ozone EJ index	51	20	
Diesel Particulate Matter EJ index*	15	16	
Air Toxics Cancer Risk EJ index*	23	10	
Air Toxics Respiratory HI EJ index*	11	5	
Traffic Proximity EJ index	30	33	
Lead Paint EJ index	22	31	
Superfund Proximity EJ index	27	35	
RMP Facility Proximity EJ index	28	22	
Hazardous Waste Proximity EJ index	26	32	
Underground Storage Tanks EJ index	32	33	
Wastewater Discharge EJ index	57	40	

EJ Indexes - The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.



^{*}Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

June 21, 2023





1 mile Ring Centered at 42.175546,-71.736863, MASSACHUSETTS, EPA Region 1

Approximate Population: 1,458 Input Area (sq. miles): 3.14

Map image session is timeout.

Sites reporting to EPA		
Superfund NPL	0	
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	1	

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1 mile Ring Centered at 42.175546,-71.736863, MASSACHUSETTS, EPA Region 1

Approximate Population: 1,458 Input Area (sq. miles): 3.14

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (μg/m³)	6.61	6.79	41	8.67	9
Ozone (ppb)	40.1	39.5	72	42.5	32
Diesel Particulate Matter* (μg/m³)	0.128	0.307	13	0.294	<50th
Air Toxics Cancer Risk* (lifetime risk per million)	20	24	54	28	<50th
Air Toxics Respiratory HI*	0.2	0.3	22	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	340	2400	31	760	58
Lead Paint (% Pre-1960 Housing)	0.22	0.49	19	0.27	50
Superfund Proximity (site count/km distance)	0.077	0.18	32	0.13	58
RMP Facility Proximity (facility count/km distance)	0.17	0.74	29	0.77	31
Hazardous Waste Proximity (facility count/km distance)	0.77	5.6	21	2.2	51
Underground Storage Tanks (count/km²)	0.76	3.4	31	3.9	44
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.022	0.21	89	12	75
Socioeconomic Indicators					
Demographic Index	12%	26%	28	35%	13
Supplemental Demographic Index	8%	12%	35	15%	20
People of Color	13%	29%	34	40%	28
Low Income	10%	22%	32	30%	18
Unemployment Rate	4%	5%	55	5%	52
Limited English Speaking Households	1%	6%	47	5%	58
Less Than High School Education	7%	9%	55	12%	43
Under Age 5	4%	5%	51	6%	45
Over Age 64	18%	17%	59	16%	60
Low Life Expectancy	16%	17%	29	20%	17

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

June 21, 2023 3/4



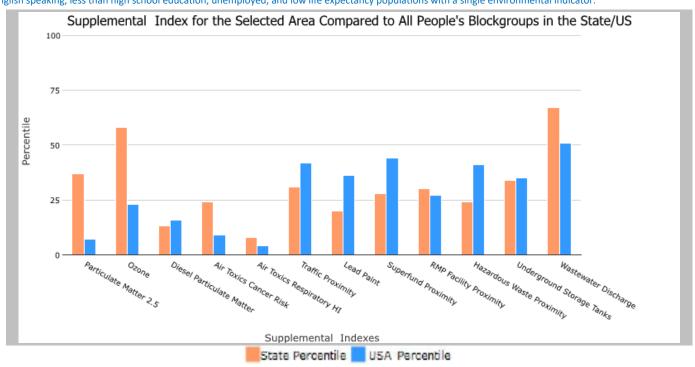


1 mile Ring Centered at 42.175546,-71.736863, MASSACHUSETTS, EPA Region 1

Approximate Population: 1,458 Input Area (sq. miles): 3.14

Selected Variables	State Percentile	USA Percentile
Supplemental Indexes		
Particulate Matter 2.5 Supplemental Index	37	7
Ozone Supplemental Index	58	23
Diesel Particulate Matter Supplemental Index*	13	16
Air Toxics Cancer Risk Supplemental Index*	24	9
Air Toxics Respiratory HI Supplemental Index*	8	4
Traffic Proximity Supplemental Index	31	42
Lead Paint Supplemental Index	20	36
Superfund Proximity Supplemental Index	28	44
RMP Facility Proximity Supplemental Index	30	27
Hazardous Waste Proximity Supplemental Index	24	41
Underground Storage Tanks Supplemental Index	34	35
Wastewater Discharge Supplemental Index	67	51

Supplemental Indexes - The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on low-income, limited English speaking, less than high school education, unemployed, and low life expectancy populations with a single environmental indicator.



This report shows the values for environmental and demographic indicators, EJScreen indexes, and supplemental indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. For additional information, see: www.epa.gov/environmentaljustice.

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APPENDIX D: Mesoscale Analysis

Unified Parkway Industrial Development Mesoscale Analysis

	2023	2030	2030	2030	2030
	Existing	No-Build	Building 2+3 Build	Mitigation- TDM Reduction	Building 2+3 Build Mitigation
OXIDES OF NITROGEN (NOx)					
Emissions (kg/d)	29.7	15.1	15.8		15.8
Project Contribution (kg/d)			0.77	-0.02	0.75
VOLATILE ORGANIC COMPOUNDS (VOC)					
Emissions (kg/d)	35.7	25.8	26.9		26.9
Project Contribution (kg/d)			1.10	-0.02	1.08
GREENHOUSE GAS (CO ₂)					
Emissions (short tons per year)	17,216	16,511	17,355		17,338
Project Contribution (short tons per year)			844	-17	828

	Build With Mitigation	Dag	adayay.	Emi	ssion		Seasonally	VMT	VMT	Peak Period		eak Traffic Da			Peak Traffic I		<u>Link E</u> ı	missions
Link No.	<u>Description</u>		Adway Length (miles)	Fac (g/s NO _x	<u>tor</u>	AADT (veh/day)	Adjusted <u>ADT</u> (veh/day)	Peak (veh-miles)	Off-Peak (veh-miles)	Factor	Period <u>Volume</u> (vehicles)	Average <u>Delay</u> (sec)	Adjusted <u>Delay</u> (veh-sec)	Period <u>Volume</u> (vehicles)	Average <u>Delay</u> (sec)	Adjusted <u>Delay</u> (veh-sec)	NO _x (grams)	VOC (grams)
	Boston Road W of Rte 146	35	0.18	0.14	0.36	5,480	5,480	544	443	0.55	3,022	35	106,209	2,459	32	77,781	143	357
	Rte 146 S of Boston Rd to Central Turnpike	50	0.94	0.11	0.11	49,789	49,789	25,804	20,997	0.55	27,452	19	532,560	22,337	17	390,011	5,103	4,982
}	Central Turnpike offramp from 146 SB	30	0.24	0.21	0.31	4,023	4,023	532	433	0.55	2,218	6	13,530	1,805	5	9,908	206	299
ļ	Central Turnpike W of SB Ramps	30	0.15	0.15	0.43	5,888	5,888	487	396	0.55	3,247	0	0	2,642	0	0	130	378
,	Central Turnpike onramp to 146 SB	30	0.26	0.13	0.27	1,224	1,224	176	143	0.55	675	0	0	549	0	0	40	87
)	Central Turpike - SB Ramps to NB Ramps	30	0.13	0.14	0.48	8,220	8,220	589	479	0.55	4,532	2	6,799	3,688	1	4,979	147	513
7	Central Turnpike offramp from 146 NB	30	0.26	0.11	0.27	1,749	1,749	251	204	0.55	964	8	7,618	785	7	5,579	48	123
}	Central Turnpike E of NB Ramps	30	0.20	0.18	0.35	9,445	9,445	1,041	847	0.55	5,207	0	0	4,237	0	0	333	652
)	Central Turnpike onramp to 146 NB	30	0.26	0.07	0.26	3,207	3,207	460	374	0.55	1,768	0	0	1,439	0	0	55	219
.0	Rte 146 N of Boston Rd to Marble Rd	50	0.17	0.18	0.37	53,637	53,637	5,027	4,091	0.55	29,573	15	433,246	24,064	13	317,280	1,622	3,403
.1	Marble Rd W of Rte 146	30	0.15	0.12	0.42	0	0	0	0	0.55	0	0	0	0	0	0	0	0
2	Marble Rd E of Rte 146	30	0.15	0.14	0.43	58	58	5	4	0.55	32	13	410	26	11	300	1 100	4
.3	Rte 146 N of Marble Rd.	50	0.20	0.11 0.19	0.31 0.45	53,579 14,808	53,579	5,908	4,808 930	0.55	29,541	0		24,038 6,644	37		1,199 389	3,372 942
.4	Boston Road , Rte 146 to Pleasant Valley/Dudley Rds Pleasant Valley Rd	35 35	0.14 0.11	0.19	0.45	2,274	14,808 2,274	1,143 138	112	0.55 0.55	8,165 1,254	41 12	333,938 15,357	1,020	11	244,554 11,247	389	136
.6	Dudley Rd	30	0.11	0.12	0.54	1,108	1,108	61	50	0.55	611	10	6,230	497	9	4,562	16	67
.7	Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	0.10	0.14	1.12	15,333	15,333	423	344	0.55	8,454	4	29,589	6,879	3	21,669	95	859
	Galaxy Pass	25	0.03	0.15	0.49	9,153	9,153	656	534	0.55	5,047	5	25,234	4,107	5	18,479	180	584
9	Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd Ac	35	0.15	0.16	0.42	11,544	11,544	955	777	0.55	6,365	4	24,504	5,179	3	17,945	277	734
20	Unified Parkway (Boston Rd Access)	25	0.27	0.16	0.28	1,749	1,749	260	212	0.55	964	0	0	785	0	0	73	133
21	Boston Rd, Unified Parkway (Boston Rd Access) to Rte 12	35	1.00	0.14	0.12	8,570	8,570	4,725	3,845	0.55	4,725	7	32,368	3,845	6	23,704	1,189	1,033
22	Rte 122A, S of Boston Rd	35	0.10	0.12	0.59	9,445	9,445	521	424	0.55	5,207	3	14,320	4,237	2	10,487	114	560
23	Rte 122A, Boston Rd to Unified Parkway (Providence Rd	30	0.45	0.13	0.19	4,956	4,956	1,230	1,000	0.55	2,732	0	0	2,223	0	0	283	422
24	Unified Parkway (Providence Rd Access)	25	0.30	0.16	0.26	350	350	58	47	0.55	193	0	0	157	0	0	17	28
25	Rte 122A, N of Unified Parkway (Providence Rd Access) t	30	1.68	0.12	0.10	7,054	7,054	6,534	5,317	0.55	3,890	0	0	3,165	0	0	1,479	1,218
26	Riverin St, Rte 122A to Grafton/Canal St	30	0.11	0.14	0.55	3,790	3,790	230	187	0.55	2,089	12	24,864	1,700	11	18,209	56	231
27	Rte 122A, Riverin to Canal	30	0.17	0.12	0.38	5,947	5,947	557	454	0.55	3,279	0	1,312	2,668	0	960	123	386
28	Canal St, Rte 122A/CVS to Riverin St	30	0.14	0.13	0.45	9,969	9,969	770	626	0.55	5,497	6	32,156	4,473	5	23,549	187	628
29	Grafton St, E of Riverin St	25	0.11	0.13	0.56	9,037	9,037	548	446	0.55	4,982	5	25,659	4,054	5	18,791	131	557
30	Riverin St, N of Canal/Grafton	30	0.10	0.15	0.60	7,754	7,754	428	348	0.55	4,275	9	37,408	3,479	8	27,395	114	468
81	CVS Drive	10	0.05	0.23	1.22	2,041	2,041	56	46	0.55	1,125	10	11,194	915	9	8,198	24	124
	Rte 122A/Canal St, CVS to Elm St	30	0.14	0.14	0.45	16,966	16,966	1,310	1,066	0.55	9,354	8	77,639	7,611	7	56,858	343	1,074
	Rte 122A/Canal St, N of Elm	30	0.12	0.17	0.52	9,853	9,853	652	530	0.55	5,432	8	44,003	4,420	7	32,225	197	614
	Gas Station DW	10	0.03	0.23	1.92	292	292	5	4	0.55	161	0	0	131	0	0	2	17
5	Elm St	30	0.21	0.19	0.33	9,153	9,153	1,060	862	0.55	5,047	6	28,262	4,107	5	20,697	357	643
							VMT (per day) VMT (per year)	63,143 23,047,203	51,380 18,753,604.9			Arterial	1,864,407			1,365,368	14.7 Daily To NO _X	25.8 Total (kg)

VMT Total (per year)	41,800,807.65

	EF (g/s)	<u>NOx</u> <u>Idle</u> (g/day)	<u>Idle</u> (kg/day)	<u>EF</u> (g/s)	<u>VOC</u> <u>Idle</u> (g/day)	<u>Idle</u> (kg/day)
Arterial						
Peak Period	0.0003	650	0.65	0.0003	593	0.59
Off-Peak Period	0.0003	476	0.48	0.0003	434	0.43
Total (Including Link)			15.83			26.87

	<u>Build</u>	n	,	1 7.			Seasonally	¥ / Þ # # #	* / P # / P	Peak	_	eak Traffic Da			Peak Traffic I		<u>Link E</u>	missions
Link No.	<u>Description</u>		ndway <u>Length</u> (miles)	Emis <u>Fac</u> (g/ı NO _x	<u>tor</u>	AADT (veh/day)	Adjusted <u>ADT</u> (veh/day)	VMT <u>Peak</u> (veh-miles)	VMT <u>Off-Peak</u> (veh-miles)	Period <u>Factor</u>	Period <u>Volume</u> (vehicles)	Average <u>Delay</u> (sec)	Adjusted <u>Delay</u> (veh-sec)	Period <u>Volume</u> (vehicles)	Average <u>Delay</u> (sec)	Adjusted <u>Delay</u> (veh-sec)	<u>NO_x</u> (grams)	<u>VOC</u> (grams)
1	Boston Road W of Rte 146	35	0.18	0.14	0.36	5,480	5,480	544	443	0.55	3,022	35	106,209	2,459	32	77,781	143	357
2	Rte 146 S of Boston Rd to Central Turnpike	50	0.94	0.11	0.11	49,789	49,789	25,804	20,997	0.55	27,452	19	532,560	22,337	17	390,011	5,103	4,982
3	Central Turnpike offramp from 146 SB	30	0.24	0.21	0.31	4,023	4,023	532	433	0.55	2,218	6	13,530	1,805	5	9,908	206	299
4	Central Turnpike W of SB Ramps	30	0.15	0.15	0.43	5,888	5,888	487	396	0.55	3,247	0	0	2,642	0	0	130	378
5	Central Turnpike onramp to 146 SB	30	0.26	0.13	0.27	1,224	1,224	176	143	0.55	675	0	0	549	0	0	40	87
6	Central Turpike - SB Ramps to NB Ramps	30	0.13	0.14	0.48	8,220	8,220	589	479	0.55	4,532	2	6,799	3,688	1	4,979	147	513
7	Central Turnpike offramp from 146 NB	30	0.26	0.11	0.27	1,749	1,749	251	204	0.55	964	8	7,618	785	7	5,579	48	123
8	Central Turnpike E of NB Ramps	30	0.20	0.18	0.35	9,445	9,445	1,041	847	0.55	5,207	0	0	4,237	0	0	333	652
9	Central Turnpike onramp to 146 NB	30	0.26	0.07	0.26	3,207	3,207	460	374	0.55	1,768	0	0	1,439	0	0	55	219
10	Rte 146 N of Boston Rd to Marble Rd	50	0.17	0.18	0.37	53,637	53,637	5,027	4,091	0.55	29,573	15	433,246	24,064	13	317,280	1,622	3,403
11	Marble Rd W of Rte 146	30	0.15	0.12	0.42	0	0	0	0	0.55	0	0	0	0	0	0	0	0
12	Marble Rd E of Rte 146	30	0.15	0.14	0.43	58	58	5	4	0.55	32	13	410	26	11	300	1 100	4
13	Rte 146 N of Marble Rd.	50	0.20	0.11	0.31	53,579	53,579	5,908	4,808 930	0.55 0.55	29,541	0	U	24,038	0 37	U	1,199 389	3,372
14 15	Boston Road , Rte 146 to Pleasant Valley/Dudley Rds Pleasant Valley Rd	35 35	0.14 0.11	0.19 0.12	0.45 0.54	14,808 2,274	14,808 2,274	1,143 138	112	0.55	8,165 1,254	41 12	333,938 15,357	6,644 1,020	11	244,554 11,247	389	942 136
16	Dudley Rd	30	0.11	0.12	0.54	1,108	1,108	61	50	0.55	611	10	6,230	497	9	4,562	16	67
17	Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	0.10	0.14	1.12	15,333	15,333	423	344	0.55	8,454	4	29,589	6,879	3	21,669	95	859
18	Galaxy Pass	25	0.03	0.12	0.49	9,153	9,153	656	534	0.55	5,047	5	25,234	4,107	5	18,479	180	584
19	Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd Ac		0.15	0.16	0.42	11,544	11,544	955	777	0.55	6,365	4	24,504	5,179	3	17,945	277	734
20	Unified Parkway (Boston Rd Access)	25	0.27	0.16	0.28	1,749	1,749	260	212	0.55	964	0	0	785	0	0	73	133
21	Boston Rd, Unified Parkway (Boston Rd Access) to Rte 12		1.00	0.14	0.12	8,570	8,570	4,725	3,845	0.55	4,725	7	32,368	3,845	6	23,704	1,189	1,033
22	Rte 122A, S of Boston Rd	35	0.10	0.12	0.59	9,445	9,445	521	424	0.55	5,207	3	14,320	4,237	2	10,487	114	560
23	Rte 122A, Boston Rd to Unified Parkway (Providence Rd	30	0.45	0.13	0.19	4,956	4,956	1,230	1,000	0.55	2,732	0	0	2,223	0	0	283	422
24	Unified Parkway (Providence Rd Access)	25	0.30	0.16	0.26	350	350	58	47	0.55	193	0	0	157	0	0	17	28
25	Rte 122A, N of Unified Parkway (Providence Rd Access) t	30	1.68	0.12	0.10	7,054	7,054	6,534	5,317	0.55	3,890	0	0	3,165	0	0	1,479	1,218
26	Riverin St, Rte 122A to Grafton/Canal St	30	0.11	0.14	0.55	3,790	3,790	230	187	0.55	2,089	12	24,864	1,700	11	18,209	56	231
27	Rte 122A, Riverin to Canal	30	0.17	0.12	0.38	5,947	5,947	557	454	0.55	3,279	0	1,312	2,668	0	960	123	386
28	Canal St, Rte 122A/CVS to Riverin St	30	0.14	0.13	0.45	9,969	9,969	770	626	0.55	5,497	6	32,156	4,473	5	23,549	187	628
29	Grafton St, E of Riverin St	25	0.11	0.13	0.56	9,037	9,037	548	446	0.55	4,982	5	25,659	4,054	5	18,791	131	557
30	Riverin St, N of Canal/Grafton	30	0.10	0.15	0.60	7,754	7,754	428	348	0.55	4,275	9	37,408	3,479	8	27,395	114	468
31	CVS Drive	10	0.05	0.23	1.22	2,041	2,041	56	46	0.55	1,125	10	11,194	915	9	8,198	24	124
32	Rte 122A/Canal St, CVS to Elm St	30	0.14	0.14	0.45	16,966	16,966	1,310	1,066	0.55	9,354	8	77,639	7,611	7	56,858	343	1,074
33	Rte 122A/Canal St, N of Elm	30	0.12	0.17	0.52	9,853	9,853	652	530	0.55	5,432	8	44,003	4,420	7	32,225	197	614
34	Gas Station DW	10	0.03	0.23	1.92	292	292	5	4	0.55	161	0	0	131	0	0	2	17
35	Elm St	30	0.21	0.19	0.33	9,153	9,153	1,060	862	0.55	5,047	6	28,262	4,107	5	20,697	357	643
							VMT (per day) VMT (per year)		51,380 18,753,604.9			Arterial	1,864,407			1,365,368	14.7 Daily To NO _X	25.8 Total (kg) VOC

VMT Total (per year)	41,800,807.65

	<u>EF</u> (g/s)	<u>NOx</u> <u>Idle</u> (g/day)	<u>Idle</u> (kg/day)	<u>EF</u> (g/s)	<u>VOC</u> <u>Idle</u> (g/day)	<u>Idle</u> (kg/day)
Arterial						
Peak Period	0.0003	650	0.65	0.0003	593	0.59
Off-Peak Period	0.0003	476	0.48	0.0003	434	0.43
Total (Including Link)			15.83			26.87

	No Build	Ros	ıdwav	Emi	ssion		Seasonally Adjusted	VMT	VMT	Peak Period	<u>P</u> Period	eak Traffic Da Average	<u>ta</u> Adjusted	<u>Off-</u> Period	Peak Traffic l Average	<u>Data</u> Adjusted	<u>Link E</u>	<u>Emissions</u>
Link No.	<u>Description</u>		Length (miles)	<u>Fac</u> (g/	<u>ctor</u> mi)	AADT (veh/day)	ADT (veh/day)	Peak (veh-miles)	Off-Peak (veh-miles)	<u>Factor</u>	Volume (vehicles)	Delay (sec)	Delay (veh-sec)	Volume (vehicles)	Delay (sec)	Delay (veh-sec)	NO _x (grams)	<u>VOC</u> (grams)
			2.12	NO _x	VOC								10170			=	122	- 211
	Boston Road W of Rte 146	35	0.18	0.14	0.36	5,305	5,305	527	428	0.55	2,925	35	101,503	2,380	31	74,334	138	346
	Rte 146 S of Boston Rd to Central Turnpike Central Turnpike offramp from 146 SB	50 30	0.94 0.24	0.11 0.21	0.11	49,381 3,964	49,381 3,964	25,593 525	20,825 427	0.55 0.55	27,227 2,186	19 6	514,581 13,115	22,154 1,779	17 5	376,845 9,605	5,062 203	4,941 295
	Central Turnpike W of SB Ramps	30	0.24	0.21	0.31	5,830	5,830	482	392	0.55	3,214	0	13,115	2,616	0	9,605	129	374
	Central Turnpike w of SB Kamps Central Turnpike onramp to 146 SB	30	0.15	0.13	0.43	1,224	1,224	176	143	0.55	675	0	0	549	0	0	40	87
	Central Turnpike of Amps to NB Ramps	30	0.20	0.13	0.48	8,220	8,220	589	479	0.55	4,532	2	6,799	3,688	1	4,979	147	513
	Central Turpike - 3B Kamps to NB Kamps Central Turpike offramp from 146 NB	30	0.13	0.14	0.40	1,749	1,749	251	204	0.55	964	8	7,618	785	7	5,579	48	123
<u> </u>	Central Turnpike E of NB Ramps	30	0.20	0.11	0.35	9,445	9,445	1,041	847	0.55	5,207	0	0	4,237	0	0	333	652
	Central Turnpike onramp to 146 NB	30	0.26	0.07	0.26	3,207	3,207	460	374	0.55	1,768	0	0	1,439	0	0	55	219
0	Rte 146 N of Boston Rd to Marble Rd	50	0.17	0.18	0.37	52,879	52,879	4,956	4,033	0.55	29,155	14	405,257	23,724	13	296,784	1,599	3,355
1	Marble Rd W of Rte 146	30	0.15	0.12	0.42	0	0	0	0	0.55	0	0	0	0	0	0	0	0
2	Marble Rd E of Rte 146	30	0.15	0.14	0.43	58	58	5	4	0.55	32	12	399	26	11	292	1	4
.3	Rte 146 N of Marble Rd.	50	0.20	0.11	0.31	52,821	52,821	5,825	4,740	0.55	29,123	0	0	23,698	0	0	1,182	3,324
4	Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	35	0.14	0.19	0.45	13,526	13,526	1,044	850	0.55	7,458	36	268,845	6,068	32	196,884	355	860
.5	Pleasant Valley Rd	35	0.11	0.12	0.54	2,041	2,041	124	101	0.55	1,125	11	11,982	915	10	8,775	27	122
6	Dudley Rd	30	0.10	0.14	0.60	1,108	1,108	61	50	0.55	611	9	5,375	497	8	3,936	16	67
7	Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	0.05	0.12	1.12	13,876	13,876	383	311	0.55	7,650	4	27,542	6,225	3	20,170	86	778
.8	Galaxy Pass	25	0.13	0.15	0.49	9,153	9,153	656	534	0.55	5,047	4	22,458	4,107	4	16,447	180	584
9	Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd Ac	35	0.15	0.16	0.42	8,279	8,279	685	557	0.55	4,565	4	17,802	3,714	4	13,037	199	526
0	Unified Parkway (Boston Rd Access)	25	0.27	0.16	0.28	0	0	0	0	0.55	0	0	0	0	0	0	0	0
1	Boston Rd, Unified Parkway (Boston Rd Access) to Rte 12	35	1.00	0.14	0.12	8,279	8,279	4,565	3,714	0.55	4,565	7	30,354	3,714	6	22,229	1,149	998
2	Rte 122A, S of Boston Rd	35	0.10	0.12	0.59	9,095	9,095	501	408	0.55	5,015	3	13,790	4,080	2	10,099	110	539
3	Rte 122A, Boston Rd to Unified Parkway (Providence Rd.)	30	0.45	0.13	0.19	5,364	5,364	1,331	1,083	0.55	2,957	0	0	2,406	0	0	307	457
4	Unified Parkway (Providence Rd Access)	25	0.30	0.16	0.26	0	0	0	0	0.55	0	0	0	0	0	0	0	0
5	Rte 122A, N of Unified Parkway (Providence Rd Access) t	30	1.68	0.12	0.10	5,364	5,364	4,968	4,043	0.55	2,957	0	0	2,406	0	0	1,125	926
6	Riverin St, Rte 122A to Grafton/Canal St	30	0.11	0.14	0.55	3,731	3,731	226	184	0.55	2,057	12	24,173	1,674	11	17,703	55	227
7	Rte 122A, Riverin to Canal	30	0.17	0.12	0.38	5,772	5,772	541	440	0.55	3,182	0	1,273	2,589	0	932	120	374
8	Canal St, Rte 122A/CVS to Riverin St	30	0.14	0.13	0.45	9,969	9,969	770	626	0.55	5,497	6	32,156	4,473	5	23,549	187	628
9	Grafton St, E of Riverin St	25	0.11	0.13	0.56	9,037	9,037	548	446	0.55	4,982	5	25,659	4,054	5	18,791	131	557
0	Riverin St, N of Canal/Grafton	30	0.10	0.15	0.60	7,696	7,696	424	345	0.55	4,243	9	37,127	3,453	8	27,189	113	464
1	CVS Drive	10	0.05	0.23	1.22	2,041	2,041	56	46	0.55	1,125	10	10,913	915	9	7,992	24	124
2	Rte 122A/Canal St, CVS to Elm St	30	0.14	0.14	0.45	16,849	16,849	1,301	1,058	0.55	9,290	8	77,105	7,559	7	56,467	340	1,067
3	Rte 122A/Canal St, N of Elm	30	0.12	0.17	0.52	9,853	9,853	652	530	0.55	5,432	8	43,731	4,420	7	32,026	197	614
4	Gas Station DW	10	0.03	0.23	1.92	292	292	5	4	0.55	161	0	0	131	0	0	2	17
5	Elm St	30	0.21	0.19	0.33	9,037	9,037	1,046	851	0.55	4,982	6	27,902	4,054	5	20,433	353	635
							VMT (per day) VMT (per year)		49,079 17,913,657.6			Arterial	1,727,458			1,265,076	14.0 Daily T NO _X	24.8 Fotal (kg) VOC

VMT Total (per year)	39,928,608.82

	EF (g/s)	<u>NOx</u> <u>Idle</u> (g/day)	<u>Idle</u> (kg/day)	<u>EF</u> (g/s)	<u>VOC</u> <u>Idle</u> (g/day)	<u>Idle</u> (kg/day)
Arterial						
Peak Period	0.0003	602	0.60	0.0003	550	0.55
Off-Peak Period	0.0003	441	0.44	0.0003	403	0.40
Total (Including Link)			15.06			25.75

	Existing	Roa	ıdwav	Emi	ssion		Seasonally Adjusted	VMT	VMT	Peak Period	Period	eak Traffic Da Average	<u>ta</u> Adjusted	<u>Off-</u> Period	<u>Peak Traffic l</u> Average	Data Adjusted	<u>Link E</u>	<u>missions</u>
<u>Link</u> No.	<u>Description</u>		Length (miles)	Fac	<u>ctor</u> mi)	AADT (veh/day)	ADT (veh/day)	Peak (veh-miles)	Off-Peak (veh-miles)	<u>Factor</u>	Volume (vehicles)	Delay (sec)	Delay (veh-sec)	Volume (vehicles)	Delay (sec)	Delay (veh-sec)	<u>NO_x</u> (grams)	<u>VOC</u> (grams)
	Boston Road W of Rte 146	35	0.18	0.32	VOC 0.55	5,014	5,014	498	405	0.55	2,764	29	80,583	2,249	26	59,014	289	499
	Rte 146 S of Boston Rd to Central Turnpike	50	0.18	0.32	0.16	42,618	42,618	22,088	17,973	0.55	23,498	18	421,784	19,120	16	308,887	9,775	6,551
	Central Turnpike offramp from 146 SB	30	0.24	0.48	0.49	3,906	3,906	517	421	0.55	2,154	6	13,138	1,752	5	9,621	448	455
	Central Turnpike W of SB Ramps	30	0.15	0.32	0.65	5,713	5,713	473	384	0.55	3,150	0	0	2,563	0	0	277	560
	Central Turnpike onramp to 146 SB	30	0.26	0.28	0.42	1,224	1,224	176	143	0.55	675	0	0	549	0	0	88	135
	Central Turpike - SB Ramps to NB Ramps	30	0.13	0.30	0.73	8,046	8,046	577	469	0.55	4,436	2	6,876	3,610	1	5,035	316	765
	Central Turnpike offramp from 146 NB	30	0.26	0.23	0.42	1,749	1,749	251	204	0.55	964	8	7,715	785	7	5,650	105	189
	Central Turnpike E of NB Ramps	30	0.20	0.39	0.53	9,212	9,212	1,016	827	0.55	5,079	0	0	4,133	0	0	715	982
	Central Turnpike onramp to 146 NB	30	0.26	0.14	0.40	3,148	3,148	451	367	0.55	1,736	0	0	1,412	0	0	117	327
0	Rte 146 N of Boston Rd to Marble Rd	50	0.17	0.40	0.57	45,941	45,941	4,306	3,504	0.55	25,330	13	321,691	20,611	11	235,585	3,157	4,420
1	Marble Rd W of Rte 146	30	0.15	0.27	0.64	0	0	0	0	0.55	0	0	0	0	0	0	0	0
2	Marble Rd E of Rte 146	30	0.15	0.30	0.65	58	58	5	4	0.55	32	10	315	26	9	231	3	6
3	Rte 146 N of Marble Rd.	50	0.20	0.25	0.48	45,883	45,883	5,060	4,117	0.55	25,298	0	0	20,585	0	0	2,300	4,359
4	Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	35	0.14	0.42	0.69	12,768	12,768	986	802	0.55	7,040	28	194,999	5,728	25	142,804	748	1,242
5	Pleasant Valley Rd	35	0.11	0.26	0.82	1,982	1,982	120	98	0.55	1,093	11	12,022	889	10	8,804	58	180
6	Dudley Rd	30	0.10	0.31	0.92	1,108	1,108	61	50	0.55	611	9	5,680	497	8	4,160	35	101
7	Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	0.05	0.27	1.69	13,059	13,059	360	293	0.55	7,200	4	25,561	5,859	3	18,719	179	1,101
8	Galaxy Pass	25	0.13	0.33	0.75	9,037	9,037	648	527	0.55	4,982	5	22,421	4,054	4	16,420	386	879
9	Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd Ac	35	0.15	0.35	0.65	7,696	7,696	636	518	0.55	4,243	4	16,548	3,453	4	12,119	408	746
0	Unified Parkway (Boston Rd Access)	25	0.27	0.34	0.44	0	0	0	0	0.55	0	0	0	0	0	0	0	0
1	Boston Rd, Unified Parkway (Boston Rd Access) to Rte 12	35	1.00	0.31	0.19	7,696	7,696	4,243	3,453	0.55	4,243	6	26,731	3,453	6	19,576	2,360	1,473
2	Rte 122A, S of Boston Rd	35	0.10	0.27	0.90	8,046	8,046	444	361	0.55	4,436	3	12,421	3,610	3	9,096	215	721
3	Rte 122A, Boston Rd to Unified Parkway (Providence Rd	30	0.45	0.28	0.30	4,956	4,956	1,230	1,000	0.55	2,732	0	0	2,223	0	0	619	658
4	Unified Parkway (Providence Rd Access)	25	0.30	0.36	0.41	0	0	0	0	0.55	0	0	0	0	0	0	0	0
5	Rte 122A, N of Unified Parkway (Providence Rd Access) t	30	1.68	0.27	0.17	4,956	4,956	4,590	3,735	0.55	2,732	0	0	2,223	0	0	2,269	1,380
6	Riverin St, Rte 122A to Grafton/Canal St	30	0.11	0.30	0.84	3,731	3,731	226	184	0.55	2,057	12	24,379	1,674	11	17,853	121	345
7	Rte 122A, Riverin to Canal	30	0.17	0.27	0.58	5,305	5,305	497	405	0.55	2,925	0	1,316	2,380	0	964	240	525
8	Canal St, Rte 122A/CVS to Riverin St	30	0.14	0.29	0.69	9,853	9,853	761	619	0.55	5,432	6	31,780	4,420	5	23,273	405	947
9	Grafton St, E of Riverin St	25	0.11	0.29	0.85	8,920	8,920	541	440	0.55	4,918	5	25,820	4,002	5	18,909	282	835
0	Riverin St, N of Canal/Grafton	30	0.10	0.32	0.92	7,579	7,579	418	340	0.55	4,179	9	36,773	3,400	8	26,930	245	695
1	CVS Drive	10	0.05	0.46	1.83	2,041	2,041	56	46	0.55	1,125	10	10,801	915	9	7,910	47	187
2	Rte 122A/Canal St, CVS to Elm St	30	0.14	0.32	0.69	16,208	16,208	1,251	1,018	0.55	8,936	8	73,724	7,271	7	53,990	718	1,565
	Rte 122A/Canal St, N of Elm	30	0.12	0.37	0.79	8,908	8,908	589	480	0.55	4,912	8	38,311	3,997	7	28,057	392	847
4	Gas Station DW	10	0.03	0.46	2.88	292	292	5	4	0.55	161	0	0	131	0	0	4	25
5	Elm St	30	0.21	0.41	0.52	8,920	8,920	1,033	840	0.55	4,918	6	27,050	4,002	5	19,809	770	972
							VMT (per day) VMT (per year)	•	44,030 16,070,852.4			Arterial	1,438,439			1,053,417	28.1 Daily T NO _X	34.7 Total (kg) VOC

VMT Total (per year)	35,821,092.25

	EF (g/s)	<u>NOx</u> <u>Idle</u> (g/day)	<u>Idle</u> (kg/day)	<u>EF</u> (g/s)	<u>VOC</u> <u>Idle</u> (g/day)	<u>Idle</u> (kg/day)
Arterial						
Peak Period	0.0007	942	0.94	0.0004	611	0.61
Off-Peak Period	0.0007	690	0.69	0.0004	448	0.45
Total (Including Link)			29.72			35.73

Build With Mitgation					<u>We</u>	<u>ekday</u>						We	ekday			Link Emissions
					Seasonally			Annual	Peak	<u>P</u>	Peak Traffic Data		Off-Peak Traffic Data			
ink	Roa	dway	Emission		Adjusted	VMT	VMT	Weekday	Period	Period	Average	Adjusted	Period	Average	Adjusted	
O. Description	Link 1	Length	Factor	AADT	<u>ADT</u>	<u>Peak</u>	Off-Peak	<u>Trips</u>	Factor	Volume	Delay	Delay	Volume	Delay	<u>Delay</u>	<u>CO₂</u>
	Speed	(miles)	(g/mi)	(veh/day)	(veh/day)	(veh-miles)	(veh-miles)	(veh/yr)		(vehicles)	(sec)	(veh-sec)	(vehicles)	(sec)	(veh-sec)	(grams)
			CO ₂													
Boston Road W of Rte 146	35	0.18	386.6	5,480	5,480	198,519	161,536	2,000,303	0.55	1,102,883	35	38,766,335	897,420	32	28,389,896	139,208,912
Rte 146 S of Boston Rd to Central Turnpike	50	0.94	309.3	49,789	49,789	9,418,620	7,663,971	18,172,969	0.55	10,019,809	19	194,384,290	8,153,160	17	142,354,176	5,283,427,462
Central Turnpike offramp from 146 SB	30	0.24	532.0	4,023	4,023	194,295	158,099	1,468,308	0.55	809,563	6	4,938,334	658,745	5	3,616,509	187,483,816
Central Turnpike W of SB Ramps	30	0.15	392.1	5,888	5,888	177,752	144,637	2,149,262	0.55	1,185,013	0	0	964,250	0	0	126,419,593
Central Turnpike onramp to 146 SB	30	0.26	350.3	1,224	1,224	64,061	52,127	446,876	0.55	246,389	0	0	200,488	0	0	40,700,465
Central Turpike - SB Ramps to NB Ramps	30	0.13	374.1	8,220	8,220	215,062	174,997	3,000,455	0.55	1,654,324	2	2,481,487	1,346,131	1	1,817,276	145,927,738
Central Turnpike offramp from 146 NB	30	0.26	312.9	1,749	1,749	91,516	74,467	638,395	0.55	351,984	8	2,780,673	286,411	7	2,036,381	51,934,047
Central Turnpike E of NB Ramps	30	0.2	449.8	9,445	9,445	380,143	309,324	3,447,331	0.55	1,900,713	0	0	1,546,618	0	0	310,154,322
Central Turnpike onramp to 146 NB	30	0.26	236.4	3,207	3,207	167,779	136,522	1,170,390	0.55	645,304	0	0	525,086	0	0	71,926,455
Rte 146 N of Boston Rd to Marble Rd	50	0.17	455.7	53,637	53,637	1,835,009	1,493,155	19,577,437	0.55	10,794,173	15	158,134,640	8,783,264	13	115,807,334	1,516,701,262
Marble Rd W of Rte 146	30	0.15	343.0	0	0	0	0	0	0.55	0	0	0	0	0	0	0
Marble Rd E of Rte 146	30	0.15	373.8	58	58	1,760	1,432	21,280	0.55	11,733	13	149,593	9,547	11	109,552	1,193,087
Rte 146 N of Marble Rd.	50	0.2	315.4	53,579	53,579	2,156,488	1,754,743	19,556,157	0.55	10,782,441	0	0	8,773,717	0	0	1,233,485,079
Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	35	0.14	474.8	14,808	14,808	417,218	339,492	5,405,075	0.55	2,980,130	41	121,887,336	2,424,945	37	89,262,210	359,274,808
Pleasant Valley Rd	35	0.11	338.1	2,274	2,274	50,334	40,957	829,913	0.55	457,579	12	5,605,344	372,334	11	4,104,982	30,869,282
Dudley Rd	30	0.1	385.3	1,108	1,108	22,292	18,139	404,317	0.55	222,923	10	2,273,816	181,393	9	1,665,192	15,579,493
Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	0.05	346.7	15,333	15,333	154,286	125,543	5,596,593	0.55	3,085,726	4	10,800,040	2,510,868	3	7,909,234	97,010,793
Galaxy Pass	25	0.13	412.1	9,153	9,153	239,466	194,855	3,340,932	0.55	1,842,049	5	9,210,246	1,498,883	5	6,744,974	178,998,469
Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd A	35	0.15	416.0	11,544	11,544	348,464	283,547	4,213,405	0.55	2,323,094	4	8,943,911	1,890,311	3	6,549,928	262,946,795
Unified Parkway (Boston Rd Access)	25	0.27	420.3	1,749	1,749	95,036	77,331	638,395	0.55	351,984	0	0	286,411	0	0	72,448,857
Boston Rd, Unified Parkway (Boston Rd Access) to Rte 1	35	1	374.5	8,570	8,570	1,724,721	1,403,413	3,128,134	0.55	1,724,721	7	11,814,340	1,403,413	6	8,652,040	1,171,429,857
Rte 122A, S of Boston Rd	35	0.1	340.0	9,445	9,445	190,071	154,662	3,447,331	0.55	1,900,713	3	5,226,961	1,546,618	2	3,827,880	117,204,096
Rte 122A, Boston Rd to Unified Parkway (Providence Rd	30	0.45	352.3	4,956	4,956	448,779	365,174	1,808,785	0.55	997,288	0	0	811,497	0	0	286,782,869
Unified Parkway (Providence Rd Access)	25	0.3	434.6	350	350	21,119	17,185	127,679	0.55	70,397	0	0	57,282	0	0	16,646,651
Rte 122A, N of Unified Parkway (Providence Rd Access)	30	1.68	347.6	7,054	7,054	2,385,043	1,940,719	2,574,859	0.55	1,419,668	0	0	1,155,190	0	0	1,503,771,526
Riverin St, Rte 122A to Grafton/Canal St	30	0.11	368.3	3,790	3,790	83,889	68,261	1,383,188	0.55	762,632	12	9,075,319	620,557	11	6,646,162	56,040,161
Rte 122A, Riverin to Canal	30	0.17	342.4	5,947	5,947	203,447	165,545	2,170,542	0.55	1,196,745	0	478,698	973,797	0	350,567	126,335,304
Canal St, Rte 122A/CVS to Riverin St	30	0.14	366.2	9,969	9,969	280,883	228,556	3,638,850	0.55	2,006,308	6	11,736,904	1,632,541	5	8.595.331	186,581,651
Grafton St, E of Riverin St	25	0.11	377.7	9,037	9,037	200,044	162,777	3,298,373	0.55	1,818,584	5	9,365,705	1,479,789	5	6,858,822	137,028,581
Riverin St, N of Canal/Grafton	30	0.11	392.1	7.754	7,754	156.046	126,975	2,830,216	0.55	1,560,462	9	13.654.043	1,269,754	8	9,999,316	110,982,122
CVS Drive	10	0.05	647.5	2,041	2,041	20,532	16,707	744,794	0.55	410,648	10	4,085,947	334,146	9	2,992,277	24,110,912
Rte 122A/Canal St, CVS to Elm St	30	0.14	386.4	16,966	16,966	477,994	388,946	6,192,429	0.55	3,414,244	8	28,338,225	2,778,185	7	20,753,039	334,976,946
Rte 122A/Canal St, N of Elm	30	0.12	430.5	9,853	9,853	237,941	193,614	3,596,290	0.55	1,982,843	8	16,061,026	1,613,447	7	11,762,031	185,801,979
Gas Station DW	10	0.03	643.6	292	292	1,760	1,432	106,399	0.55	58,664	0	0	47,735	0	0	2,054,269
Elm St	30	0.03	471.1	9,153	9.153	386,830	314,765	3,340,932	0.55	1,842,049	6	10,315,475	1,498,883	5	7,554,371	330,528,122
Lim ot	30	0.21	1/1.1	7,100	7,100	300,030	311,703	0,010,702	0.55	1,012,017	U	10,010,170	1,170,003	3	7,551,571	330,320,122
					VMT (per year)	23,047,203	18,753,605								1	16,221.30
					vivii (pei year)	23,077,203	10,733,003				Arterial	680,508,687			498,359,480	Total (tons/vea

	<u>Weekday</u>	<u>Total</u>
VMT per year	41,800,807.65	41,800,807.65

		Weekday Idlo	<u>e</u>		<u>Total Idle</u>			
	<u>EF</u>	<u>Idle</u>	<u>Idle</u>	<u>EF</u>	<u>Idle</u>	<u>Idle</u>		
	(g/s)	(g/year)	(tons/year)	(g/s)	(g/year)	(tons/year)		
Arterial								
Peak Period	0.8727	########	654.64			654.64		
Off-Peak Period	0.8727	########	479.42			479.42		
Total			1,134.06	Total (Includ	ing Link)	17,355.36		

<u>Build</u>					<u>We</u>	<u>ekday</u>						We	ekday			Link Emissions
					Seasonally			Annual	Peak	Peak Traffic Data			Off-Peak Traffic Data			
ink	Roa	ndway	Emission		Adjusted	VMT	VMT	Weekday	Period	Period	Average	Adjusted	Period	Average	Adjusted	
No. <u>Description</u>	Link	Length	Factor	<u>AADT</u>	<u>ADT</u>	Peak	Off-Peak	<u>Trips</u>	Factor	Volume	Delay	Delay	Volume	Delay	Delay	<u>CO₂</u>
	Speed	(miles)	(g/mi)	(veh/day)	(veh/day)	(veh-miles)	(veh-miles)	(veh/yr)		(vehicles)	(sec)	(veh-sec)	(vehicles)	(sec)	(veh-sec)	(grams)
			CO_2													
Boston Road W of Rte 146	35	0.18	386.6	5,480	5,480	198,519	161,536	2,000,303	0.55	1,102,883	35	38,766,335	897,420	32	28,389,896	139,208,912
Rte 146 S of Boston Rd to Central Turnpike	50	0.94	309.3	49,789	49,789	9,418,620	7,663,971	18,172,969	0.55	10,019,809	19	194,384,290	8,153,160	17	142,354,176	5,283,427,462
Central Turnpike offramp from 146 SB	30	0.24	532.0	4,023	4,023	194,295	158,099	1,468,308	0.55	809,563	6	4,938,334	658,745	5	3,616,509	187,483,816
Central Turnpike W of SB Ramps	30	0.15	392.1	5,888	5,888	177,752	144,637	2,149,262	0.55	1,185,013	0	0	964,250	0	0	126,419,593
Central Turnpike onramp to 146 SB	30	0.26	350.3	1,224	1,224	64,061	52,127	446,876	0.55	246,389	0	0	200,488	0	0	40,700,465
Central Turpike - SB Ramps to NB Ramps	30	0.13	374.1	8,220	8,220	215,062	174,997	3,000,455	0.55	1,654,324	2	2,481,487	1,346,131	1	1,817,276	145,927,738
Central Turnpike offramp from 146 NB	30	0.26	312.9	1,749	1,749	91,516	74,467	638,395	0.55	351,984	8	2,780,673	286,411	7	2,036,381	51,934,047
Central Turnpike E of NB Ramps	30	0.2	449.8	9,445	9,445	380,143	309,324	3,447,331	0.55	1,900,713	0	0	1,546,618	0	0	310,154,322
Central Turnpike onramp to 146 NB	30	0.26	236.4	3,207	3,207	167,779	136,522	1,170,390	0.55	645,304	0	0	525,086	0	0	71,926,455
Rte 146 N of Boston Rd to Marble Rd	50	0.17	455.7	53,637	53,637	1,835,009	1,493,155	19,577,437	0.55	10,794,173	15	158,134,640	8,783,264	13	115,807,334	1,516,701,262
Marble Rd W of Rte 146	30	0.15	343.0	0	0	0	0	0	0.55	0	0	0	0	0	0	0
Marble Rd E of Rte 146	30	0.15	373.8	58	58	1,760	1,432	21,280	0.55	11,733	13	149,593	9,547	11	109,552	1,193,087
Rte 146 N of Marble Rd.	50	0.2	315.4	53,579	53,579	2,156,488	1,754,743	19,556,157	0.55	10,782,441	0	0	8,773,717	0	0	1,233,485,079
Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	35	0.14	474.8	14,808	14,808	417,218	339,492	5,405,075	0.55	2,980,130	41	121,887,336	2,424,945	37	89,262,210	359,274,808
Pleasant Valley Rd	35	0.11	338.1	2,274	2,274	50,334	40,957	829,913	0.55	457,579	12	5,605,344	372,334	11	4,104,982	30,869,282
Dudley Rd	30	0.1	385.3	1,108	1,108	22,292	18,139	404,317	0.55	222,923	10	2,273,816	181,393	9	1,665,192	15,579,493
Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	0.05	346.7	15,333	15,333	154,286	125,543	5,596,593	0.55	3,085,726	4	10,800,040	2,510,868	3	7,909,234	97,010,793
Galaxy Pass	25	0.13	412.1	9,153	9,153	239,466	194,855	3,340,932	0.55	1,842,049	5	9,210,246	1,498,883	5	6,744,974	178,998,469
Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd A	35	0.15	416.0	11,544	11,544	348,464	283,547	4,213,405	0.55	2,323,094	4	8,943,911	1,890,311	3	6,549,928	262,946,795
Unified Parkway (Boston Rd Access)	25	0.27	420.3	1,749	1,749	95,036	77,331	638,395	0.55	351,984	0	0	286,411	0	0	72,448,857
Boston Rd, Unified Parkway (Boston Rd Access) to Rte 1	35	1	374.5	8,570	8,570	1,724,721	1,403,413	3,128,134	0.55	1,724,721	7	11,814,340	1,403,413	6	8,652,040	1,171,429,857
Rte 122A, S of Boston Rd	35	0.1	340.0	9,445	9,445	190,071	154,662	3,447,331	0.55	1,900,713	3	5,226,961	1,546,618	2	3,827,880	117,204,096
Rte 122A, Boston Rd to Unified Parkway (Providence Rd	30	0.45	352.3	4,956	4,956	448,779	365,174	1,808,785	0.55	997,288	0	0	811,497	0	0	286,782,869
Unified Parkway (Providence Rd Access)	25	0.3	434.6	350	350	21,119	17,185	127,679	0.55	70,397	0	0	57,282	0	0	16,646,651
Rte 122A, N of Unified Parkway (Providence Rd Access)	30	1.68	347.6	7,054	7,054	2,385,043	1,940,719	2,574,859	0.55	1,419,668	0	0	1,155,190	0	0	1,503,771,526
Riverin St, Rte 122A to Grafton/Canal St	30	0.11	368.3	3,790	3,790	83,889	68,261	1,383,188	0.55	762,632	12	9,075,319	620,557	11	6,646,162	56,040,161
Rte 122A, Riverin to Canal	30	0.17	342.4	5,947	5,947	203,447	165,545	2,170,542	0.55	1,196,745	0	478,698	973,797	0	350,567	126,335,304
Canal St, Rte 122A/CVS to Riverin St	30	0.14	366.2	9,969	9,969	280,883	228,556	3,638,850	0.55	2,006,308	6	11,736,904	1,632,541	5	8,595,331	186,581,651
Grafton St, E of Riverin St	25	0.11	377.7	9,037	9,037	200,044	162,777	3,298,373	0.55	1,818,584	5	9,365,705	1,479,789	5	6,858,822	137,028,581
Riverin St, N of Canal/Grafton	30	0.1	392.1	7,754	7,754	156,046	126,975	2,830,216	0.55	1,560,462	9	13,654,043	1,269,754	8	9,999,316	110,982,122
CVS Drive	10	0.05	647.5	2,041	2,041	20,532	16,707	744,794	0.55	410,648	10	4,085,947	334,146	9	2,992,277	24,110,912
Rte 122A/Canal St, CVS to Elm St	30	0.14	386.4	16,966	16,966	477,994	388,946	6,192,429	0.55	3,414,244	8	28,338,225	2,778,185	7	20,753,039	334,976,946
Rte 122A/Canal St, N of Elm	30	0.12	430.5	9,853	9,853	237,941	193,614	3,596,290	0.55	1,982,843	8	16,061,026	1,613,447	7	11,762,031	185,801,979
Gas Station DW	10	0.03	643.6	292	292	1,760	1,432	106,399	0.55	58,664	0	0	47,735	0	0	2,054,269
Elm St	30	0.21	471.1	9,153	9,153	386,830	314,765	3,340,932	0.55	1,842,049	6	10,315,475	1,498,883	5	7,554,371	330,528,122
					VMT (per year)	23,047,203	18,753,605									16,221.30
											Arterial	680,508,687			498,359,480	Total (tons/yea

	<u>Weekday</u>	<u>Total</u>
VMT per year	41,800,807.65	41,800,807.65

		Weekday Idlo	<u>e</u>		<u>Total Idle</u>	
	<u>EF</u>	<u>Idle</u>	<u>Idle</u>	<u>EF</u>	<u>Idle</u>	<u>Idle</u>
	(g/s)	(g/year)	(tons/year)	(g/s)	(g/year)	(tons/year)
Arterial						
Peak Period	0.8727	########	654.64			654.64
Off-Peak Period	0.8727	########	479.42			479.42
Total			1,134.06	Total (Includi	ing Link)	17,355.36

<u>No Build</u>					We	<u>ekday</u>						We	ekday			Link Emissions
					Seasonally			Annual	Peak	Peak Traffic Data			<u>Of</u>	Off-Peak Traffic Data		
ink	Ros	adway	Emission		Adjusted	VMT	VMT	Weekday	Period	Period	Average	Adjusted	Period	Average	Adjusted	
No. <u>Description</u>	Link	Length	Factor	AADT	<u>ADT</u>	<u>Peak</u>	Off-Peak	<u>Trips</u>	Factor	<u>Volume</u>	Delay	Delay	<u>Volume</u>	Delay	Delay	<u>CO</u> 2
	Speed	(miles)	(g/mi)	(veh/day)	(veh/day)	(veh-miles)	(veh-miles)	(veh/yr)		(vehicles)	(sec)	(veh-sec)	(vehicles)	(sec)	(veh-sec)	(grams)
			CO_2													
Boston Road W of Rte 146	35	0.18	386.6	5,305	5,305	192,183	156,380	1,936,464	0.55	1,067,685	35	37,048,654	868,779	31	27,131,979	134,766,075
Rte 146 S of Boston Rd to Central Turnpike	50	0.94	309.3	49,381	49,381	9,341,418	7,601,151	18,024,010	0.55	9,937,679	19	187,822,136	8,086,331	17	137,548,490	5,240,120,680
Central Turnpike offramp from 146 SB	30	0.24	532.0	3,964	3,964	191,479	155,807	1,447,028	0.55	797,830	6	4,786,981	649,198	5	3,505,668	184,766,659
Central Turnpike W of SB Ramps	30	0.15	392.1	5,830	5,830	175,992	143,205	2,127,982	0.55	1,173,280	0	0	954,703	0	0	125,167,914
Central Turnpike onramp to 146 SB	30	0.26	350.3	1,224	1,224	64,061	52,127	446,876	0.55	246,389	0	0	200,488	0	0	40,700,465
Central Turpike - SB Ramps to NB Ramps	30	0.13	374.1	8,220	8,220	215,062	174,997	3,000,455	0.55	1,654,324	2	2,481,487	1,346,131	1	1,817,276	145,927,738
Central Turnpike offramp from 146 NB	30	0.26	312.9	1,749	1,749	91,516	74,467	638,395	0.55	351,984	8	2,780,673	286,411	7	2,036,381	51,934,047
Central Turnpike E of NB Ramps	30	0.2	449.8	9,445	9,445	380,143	309,324	3,447,331	0.55	1,900,713	0	0	1,546,618	0	0	310,154,322
Central Turnpike onramp to 146 NB	30	0.26	236.4	3,207	3,207	167,779	136,522	1,170,390	0.55	645,304	0	0	525,086	0	0	71,926,455
Rte 146 N of Boston Rd to Marble Rd	50	0.17	455.7	52,879	52,879	1,809,080	1,472,056	19,300,800	0.55	10,641,647	14	147,918,893	8,659,153	13	108,325,998	1,495,269,613
Marble Rd W of Rte 146	30	0.15	343.0	0	0	0	0	0	0.55	0	0	0	0	0	0	0
Marble Rd E of Rte 146	30	0.15	373.8	58	58	1,760	1,432	21,280	0.55	11,733	12	145,487	9,547	11	106,545	1,193,087
Rte 146 N of Marble Rd.	50	0.2	315.4	52,821	52,821	2,125,983	1,729,921	19,279,520	0.55	10,629,914	0	0	8,649,605	0	0	1,216,036,433
Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	35	0.14	474.8	13,526	13,526	381,081	310,087	4,936,919	0.55	2,722,009	36	98,128,422	2,214,910	32	71,862,755	328,156,518
Pleasant Valley Rd	35	0.11	338.1	2.041	2,041	45,171	36,756	744,794	0.55	410,648	11	4,373,400	334.146	10	3,202,789	27,703,202
Dudley Rd	30	0.1	385.3	1,108	1,108	22,292	18,139	404,317	0.55	222,923	9	1,961,724	181,393	8	1,436,636	15,579,493
Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	0.05	346.7	13,876	13,876	139,620	113,610	5,064,598	0.55	2,792,406	4	10,052,661	2.272.192	3	7,361,903	87,789,234
Galaxy Pass	25	0.13	412.1	9,153	9,153	239,466	194,855	3,340,932	0.55	1,842,049	4	8,197,119	1,498,883	4	6,003,027	178,998,469
Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd A	_	0.15	416.0	8,279	8,279	249,909	203,352	3,021,735	0.55	1,666,057	4	6,497,623	1,355,678	4	4,758,429	188,578,005
Unified Parkway (Boston Rd Access)	25	0.27	420.3	0	0	0	0	0	0.55	0	0	0	0	0	0	0
Boston Rd, Unified Parkway (Boston Rd Access) to Rte 1		1	374.5	8,279	8,279	1,666,057	1,355,678	3,021,735	0.55	1,666,057	7	11,079,280	1,355,678	6	8,113,731	1,131,585,304
Rte 122A, S of Boston Rd	35	0.1	340.0	9,095	9,095	183,032	148,934	3,319,652	0.55	1,830,316	3	5,033,370	1,489,336	2	3,686,107	112,863,203
Rte 122A, Boston Rd to Unified Parkway (Providence Rd		0.45	352.3	5,364	5,364	485,738	395,247	1,957,744	0.55	1,079,417	0	0	878,326	0	0	310,400,281
Unified Parkway (Providence Rd Access)	25	0.3	434.6	0	0	0	0	0	0.55	0	0	0	0	0	0	0
Rte 122A, N of Unified Parkway (Providence Rd Access)		1.68	347.6	5,364	5,364	1,813,421	1,475,588	1,957,744	0.55	1,079,417	0	0	878,326	0	0	1,143,363,475
Riverin St, Rte 122A to Grafton/Canal St	30	0.11	368.3	3,731	3,731	82,599	67,211	1,361,909	0.55	750,899	12	8,823,063	611,010	11	6,461,427	55.178.005
Rte 122A, Riverin to Canal	30	0.11	342.4	5,772	5,772	197,463	160,676	2,106,702	0.55	1,161,547	0	464,619	945,156	0	340,256	122,619,560
Canal St, Rte 122A/CVS to Riverin St	30	0.17	366.2	9,969	9,969	280.883	228,556	3,638,850	0.55	2.006.308	6	11,736,904	1.632.541	5	8.595.331	186,581,651
Grafton St, E of Riverin St	25	0.14	377.7	9,037	9,037	200,044	162,777	3,298,373	0.55	1,818,584	5	9,365,705	1,479,789	5	6,858,822	137,028,581
Riverin St, N of Canal/Grafton	30	0.11	392.1	7,696	7,696	154,873	126,021	2,808,937	0.55	1,548,729	9	13,551,381	1,260,207	8	9,924,133	110,147,670
CVS Drive	10	0.05	647.5	2,041	2,041	20,532	16,707	744,794	0.55	410,648	10	3,983,285	334,146	9	2,917,094	24,110,912
Rte 122A/Canal St, CVS to Elm St	30	0.03	386.4	16,849	16,849	474,709	386,273	6,149,869	0.55	3,390,778	8	28,143,460	2,759,090	7	20,610,406	332,674,699
Rte 122A/Canal St, CVS to Elin St Rte 122A/Canal St, N of Elm	30	0.14	430.5	9.853	9,853	237,941	193,614	3,596,290	0.55	1,982,843	8	15,961,884	1,613,447	7	11,689,426	185,801,979
Gas Station DW	10	0.12	643.6	292	292	1,760	1,432		0.55	58,664	0	15,961,884	47,735	0	11,669,426	2,054,269
Elm St	30	0.03	471.1	9.037	9.037	381,903	310,756	106,399 3,298,373	0.55	1,818,584	6	10.184.068	1,479,789	5	7.458.137	326,317,573
EIIII St	30	0.21	4/1.1	9,037	9,037	381,903	310,/50	3,498,373	0.55	1,818,584	б	10,184,068	1,4/9,/89	5	/,458,13/	340,317,573
					VIMT (max	22.014.054	17.012.650								T	15 460 20
					VMT (per year)	22,014,951	17,913,658				A 1	(20 522 270			461 752 745	15,460.20
											Arterial	630,522,278			461,752,745	Total (tons/ye

	<u>Weekday</u>	<u>Total</u>
VMT per year	39,928,608.82	39,928,608.82

		Weekday Idlo	<u>e</u>		<u>Total Idle</u>	
	<u>EF</u>	<u>Idle</u>	<u>Idle</u>	<u>EF</u>	<u>Idle</u>	<u>Idle</u>
	(g/s)	(g/year)	(tons/year)	(g/s)	(g/year)	(tons/year)
Arterial						
Peak Period	0.8727	########	606.56			606.56
Off-Peak Period	0.8727	########	444.20			444.20
Total			1,050.76	Total (Includ	ing Link)	16,510.96

<u>Existing</u>					We	<u>ekday</u>						We	ekday			Link Emissions
					Seasonally			Annual	Peak	<u>P</u>	eak Traffic D	<u>Data</u>	Off-Peak Traffic Data			
ink	Roa	ndway	Emission		Adjusted	VMT	VMT	Weekday	Period	Period	Average	Adjusted	Period	Average	Adjusted	
<u>Description</u>	Link	Length	Factor	<u>AADT</u>	<u>ADT</u>	Peak	Off-Peak	<u>Trips</u>	Factor	Volume	Delay	Delay	<u>Volume</u>	Delay	Delay	<u>CO</u> 2
	Type	(miles)	(g/mi)	(veh/day)	(veh/day)	(veh-miles)	(veh-miles)	(veh/yr)		(vehicles)	(sec)	(veh-sec)	(vehicles)	(sec)	(veh-sec)	(grams)
			CO_2													
Boston Road W of Rte 146	35	0.18	450.0	5,014	5,014	181,624	147,788	1,830,065	0.55	1,009,021	29	29,412,949	821,044	26	21,540,095	148,239,081
Rte 146 S of Boston Rd to Central Turnpike	50	0.94	359.1	42,618	42,618	8,062,074	6,560,143	15,555,551	0.55	8,576,675	18	153,951,311	6,978,876	16	112,743,741	5,251,444,828
Central Turnpike offramp from 146 SB	30	0.24	619.8	3,906	3,906	188,663	153,516	1,425,748	0.55	786,097	6	4,795,194	639,651	5	3,511,683	212,072,906
Central Turnpike W of SB Ramps	30	0.15	456.8	5,713	5,713	172,472	140,341	2,085,423	0.55	1,149,814	0	0	935,609	0	0	142,899,210
Central Turnpike onramp to 146 SB	30	0.26	408.1	1,224	1,224	64,061	52,127	446,876	0.55	246,389	0	0	200,488	0	0	47,416,258
Central Turpike - SB Ramps to NB Ramps	30	0.13	435.8	8,046	8,046	210,486	171,274	2,936,616	0.55	1,619,126	2	2,509,645	1,317,490	1	1,837,898	166,373,958
Central Turnpike offramp from 146 NB	30	0.26	364.6	1,749	1,749	91,516	74,467	638,395	0.55	351,984	8	2,815,871	286,411	7	2,062,158	60,511,137
Central Turnpike E of NB Ramps	30	0.2	524.1	9,212	9,212	370,756	301,686	3,362,212	0.55	1,853,782	0	0	1,508,430	0	0	352,433,781
Central Turnpike onramp to 146 NB	30	0.26	275.7	3,148	3,148	164,728	134,040	1,149,110	0.55	633,571	0	0	515,539	0	0	82,379,041
Rte 146 N of Boston Rd to Marble Rd	50	0.17	529.6	45,941	45,941	1,571,726	1,278,920	16,768,501	0.55	9,245,444	13	117,417,141	7,523,056	11	85,988,535	1,509,802,273
Marble Rd W of Rte 146	30	0.15	399.5	0	0	0	0	0	0.55	0	0	0	0	0	0	0
Marble Rd E of Rte 146	30	0.15	435.4	58	58	1,760	1,432	21,280	0.55	11,733	10	114,981	9,547	9	84,205	1,389,809
Rte 146 N of Marble Rd.	50	0.2	366.2	45,883	45,883	1,846,742	1,502,702	16,747,221	0.55	9,233,711	0	0	7,513,509	0	0	1,226,598,209
Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	35	0.14	552.7	12,768	12,768	359,728	292,712	4,660,281	0.55	2,569,483	28	71,174,667	2,090,799	25	52,123,611	360,632,602
Pleasant Valley Rd	35	0.11	393.6	1,982	1,982	43,881	35,706	723,514	0.55	398,915	11	4,388,066	324,599	10	3,213,529	31,326,781
Dudley Rd	30	0.1	448.9	1,108	1,108	22,292	18,139	404,317	0.55	222,923	9	2,073,185	181,393	8	1,518,264	18,150,137
Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	0.05	403.5	13,059	13,059	131,407	106,927	4,766,680	0.55	2,628,147	4	9,329,920	2,138,534	3	6,832,616	96,176,836
Galaxy Pass	25	0.13	480.4	9,037	9,037	236,416	192,373	3,298,373	0.55	1,818,584	5	8,183,626	1,479,789	4	5,993,146	206,004,818
Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd A	35	0.15	484.3	7,696	7,696	232,309	189,031	2,808,937	0.55	1,548,729	4	6,040,044	1,260,207	4	4,423,328	204,034,698
Unified Parkway (Boston Rd Access)	25	0.27	490.0	0	0	0	0	0	0.55	0	0	0	0	0	0	0
Boston Rd, Unified Parkway (Boston Rd Access) to Rte 1	35	1	435.9	7,696	7,696	1,548,729	1,260,207	2,808,937	0.55	1,548,729	6	9,756,994	1,260,207	6	7,145,376	1,224,395,836
Rte 122A, S of Boston Rd	35	0.1	395.8	8,046	8,046	161,913	131,749	2,936,616	0.55	1,619,126	3	4,533,553	1,317,490	3	3,320,074	116,218,321
Rte 122A, Boston Rd to Unified Parkway (Providence Rd	30	0.45	410.4	4,956	4,956	448,779	365,174	1,808,785	0.55	997,288	0	0	811,497	0	0	334,077,176
Unified Parkway (Providence Rd Access)	25	0.3	506.7	0	0	0	0	0	0.55	0	0	0	0	0	0	0
Rte 122A, N of Unified Parkway (Providence Rd Access)	30	1.68	405.0	4,956	4,956	1,675,443	1,363,315	1,808,785	0.55	997,288	0	0	811,497	0	0	1,230,738,880
Riverin St, Rte 122A to Grafton/Canal St	30	0.11	429.1	3,731	3,731	82,599	67,211	1,361,909	0.55	750,899	12	8,898,153	611,010	11	6,516,418	64,287,536
Rte 122A, Riverin to Canal	30	0.17	398.8	5,305	5,305	181,506	147,692	1,936,464	0.55	1,067,685	0	480,458	868,779	0	351,856	131,296,512
Canal St, Rte 122A/CVS to Riverin St	30	0.14	426.7	9,853	9,853	277,598	225,883	3,596,290	0.55	1,982,843	6	11,599,630	1,613,447	5	8,494,800	214,844,886
Grafton St, E of Riverin St	25	0.11	440.4	8,920	8,920	197,463	160,676	3,255,813	0.55	1,795,118	5	9,424,369	1,460,695	5	6,901,784	157,740,550
Riverin St, N of Canal/Grafton	30	0.1	456.8	7,579	7,579	152,526	124,111	2,766,377	0.55	1,525,264	9	13,422,320	1,241,113	8	9,829,618	126,373,356
CVS Drive	10	0.05	753.9	2,041	2,041	20,532	16,707	744,794	0.55	410,648	10	3,942,220	334,146	9	2,887,021	28,075,153
Rte 122A/Canal St, CVS to Elm St	30	0.14	450.2	16,208	16,208	456,640	371,570	5,915,791	0.55	3,261,718	8	26,909,170	2,654,073	7	19,706,494	372,829,702
Rte 122A/Canal St, N of Elm	30	0.12	501.5	8,908	8,908	215,133	175,054	3,251,557	0.55	1,792,771	8	13,983,617	1,458,786	7	10,240,675	195,684,881
Gas Station DW	10	0.03	749.4	292	292	1,760	1,432	106,399	0.55	58,664	0	0	47,735	0	0	2,391,991
Elm St	30	0.21	548.9	8,920	8,920	376,975	306,746	3,255,813	0.55	1,795,118	6	9,873,149	1,460,695	5	7,230,440	375,261,763
				, , ,		,		, , , , , , ,		, ,		,,	, ,	-	, ,	,
					VMT (per year)	19,750,240	16,070,852									16,195.00
					Q - 7 7	, -, -	, -,				Arterial	525,030,235			384,497,362	Total (tons/yea

	<u>Weekday</u>	<u>Total</u>
VMT per year	35,821,092.25	35,821,092.25

		<u>Weekday</u>			<u>Total</u>	
	<u>EF</u>	<u>Idle</u>	<u>Idle</u>	<u>EF</u>	<u>Idle</u>	<u>Idle</u>
	(g/s)	(g/year)	(tons/year)	(g/s)	(g/year)	(tons/year)
Arterial						
Peak Period	1.0186	########	589.50			589.50
Off-Peak Period	1.0186	########	431.71			431.71
Total			1,021.20	Total (Includi	ing Link)	17,216.20

Unified Parkway Industrial Development														
Weekday Traffic														
		Existing			No Build	ı		Buile	d			Build with N	/litigation	
Link Roadway	Roadway	Roadway	Seasonal	Roadway	Seasonal	Traffic	Roadway	Seasonal	Traffic	Traffic	Roadway	Seasonal	Traffic	Traffic
No. Description	S.A.F.	<u>ADT</u>	ADT	ADT	ADT	<u>Increase</u>	ADT	<u>ADT</u>	Increase	<u>Increase</u>	ADT	<u>ADT</u>	<u>Increase</u>	<u>Increase</u>
		(veh/day)	(veh/day)	(veh/day)	(veh/day)	(existing)	(veh/day)	(veh/day)	(existing)	(no-build)	(veh/day)	(veh/day)	(existing)	(no-build)
1 Boston Road W of Rte 146	100%	5,014	5,014	5,305	5,305	6%	5,480	5,480	9%	3%	5,480	5,480	9%	3%
2 Rte 146 S of Boston Rd to Central Turnpike	100%	42,618	42,618	49,381	49,381	16%	49,789	49,789	17%	1%	49,789	49,789	17%	1%
3 Central Turnpike offramp from 146 SB	100%	3,906	3,906	3,964	3,964	1%	4,023	4,023	3%	1%	4,023	4,023	3%	1%
4 Central Turnpike W of SB Ramps	100%	5,713	5,713	5,830	5,830	2%	5,888	5,888	3%	1%	5,888	5,888	3%	1%
5 Central Turnpike onramp to 146 SB	100%	1,224	1,224	1,224	1,224	0%	1,224	1,224	0%	0%	1,224	1,224	0%	0%
6 Central Turpike - SB Ramps to NB Ramps	100%	8,046	8,046	8,220	8,220	2%	8,220	8,220	2%	0%	8,220	8,220	2%	0%
7 Central Turnpike offramp from 146 NB	100%	1,749	1,749	1,749	1,749	0%	1,749	1,749	0%	0%	1,749	1,749	0%	0%
8 Central Turnpike E of NB Ramps	100%	9,212	9,212	9,445	9,445	3%	9,445	9,445	3%	0%	9,445	9,445	3%	0%
9 Central Turnpike onramp to 146 NB	100%	3,148	3,148	3,207	3,207	2%	3,207	3,207	2%	0%	3,207	3,207	2%	0%
10 Rte 146 N of Boston Rd to Marble Rd	100%	45,941	45,941	52,879	52,879	15%	53,637	53,637	17%	1%	53,637	53,637	17%	1%
11 Marble Rd W of Rte 146	100%	0	0	0	0	#DIV/0!	0	0	#DIV/0!	#DIV/0!	0	0	#DIV/0!	#DIV/0!
12 Marble Rd E of Rte 146	100%	58	58	58	58	0%	58	58	0%	0%	58	58	0%	0%
13 Rte 146 N of Marble Rd.	100%	45,883	45,883	52,821	52,821	15%	53,579	53,579	17%	1%	53,579	53,579	17%	1%
14 Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	100%	12,768	12,768	13,526	13,526	6%	14,808	14,808	16%	9%	14,808	14,808	16%	9%
15 Pleasant Valley Rd	100%	1,982	1,982	2,041	2,041	3%	2,274	2,274	15%	11%	2,274	2,274	15%	11%
16 Dudley Rd	100%	1,108	1,108	1,108	1,108	0%	1,108	1,108	0%	0%	1,108	1,108	0%	0%
17 Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	100%	13,059	13,059	13,876	13,876	6%	15,333	15,333	17%	11%	15,333	15,333	17%	11%
18 Galaxy Pass	100%	9,037	9,037	9,153	9,153	1%	9,153	9,153	1%	0%	9,153	9,153	1%	0%
19 Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd A	100%	7,696	7,696	8,279	8,279	8%	11,544	11,544	50%	39%	11,544	11,544	50%	39%
20 Unified Parkway (Boston Rd Access)	100%	0	0	0	0	#DIV/0!	1,749	1,749	#DIV/0!	#DIV/0!	1,749	1,749	#DIV/0!	#DIV/0!
21 Boston Rd, Unified Parkway (Boston Rd Access) to Rte 1	100%	7,696	7,696	8,279	8,279	8%	8,570	8,570	11%	4%	8,570	8,570	11%	4%
22 Rte 122A, S of Boston Rd	100%	8,046	8,046	9,095	9,095	13%	9,445	9,445	17%	4%	9,445	9,445	17%	4%
23 Rte 122A, Boston Rd to Unified Parkway (Providence Rd	100%	4,956	4,956	5,364	5,364	8%	4,956	4,956	0%	-8%	4,956	4,956	0%	-8%
24 Unified Parkway (Providence Rd Access)	100%	0	0	0	0	#DIV/0!	350	350	#DIV/0!	#DIV/0!	350	350	#DIV/0!	#DIV/0!
25 Rte 122A, N of Unified Parkway (Providence Rd Access)	100%	4,956	4,956	5,364	5,364	8%	7,054	7,054	42%	32%	7,054	7,054	42%	32%
26 Riverin St, Rte 122A to Grafton/Canal St	100%	3,731	3,731	3,731	3,731	0%	3,790	3,790	2%	2%	3,790	3,790	2%	2%
27 Rte 122A, Riverin to Canal	100%	5,305	5,305	5,772	5,772	9%	5,947	5,947	12%	3%	5,947	5,947	12%	3%
28 Canal St, Rte 122A/CVS to Riverin St	100%	9,853	9,853	9,969	9,969	1%	9,969	9,969	1%	0%	9,969	9,969	1%	0%
29 Grafton St, E of Riverin St	100%	8,920	8,920	9,037	9,037	1%	9,037	9,037	1%	0%	9,037	9,037	1%	0%
30 Riverin St, N of Canal/Grafton	100%	7,579	7,579	7,696	7,696	2%	7,754	7,754	2%	1%	7,754	7,754	2%	1%
31 CVS Drive	100%	2,041	2,041	2,041	2,041	0%	2,041	2,041	0%	0%	2,041	2,041	0%	0%
32 Rte 122A/Canal St, CVS to Elm St	100%	16,208	16,208	16,849	16,849	4%	16,966	16,966	5%	1%	16,966	16,966	5%	1%
33 Rte 122A/Canal St, N of Elm	100%	8,908	8,908	9,853	9,853	11%	9,853	9,853	11%	0%	9,853	9,853	11%	0%
34 Gas Station DW	100%	292	292	292	292	0%	292	292	0%	0%	292	292	0%	0%
35 Elm St	100%	8,920	8,920	9,037	9,037	1%	9,153	9,153	3%	1%	9,153	9,153	3%	1%

Emissions Factors By Link (g/mi)

Emission Factors From MOVES3

					Emission	Factors Fron	n MOVES3						
			2023			2030			2030			2030	
	Roadway Segments	NO _x	Existing VOC	\mathbf{CO}_2	NO _x	No Build VOC	CO_2	NO _x	Build VOC	CO_2	NO _x	Build-Mit VOC	CO ₂
1	Boston Road W of Rte 146	0.32	0.55	450.01	0.14	0.36	386.63	0.14	0.36	386.63	0.14	0.36	386.63
2	Rte 146 S of Boston Rd to Central Turnpike	0.24	0.16	359.14	0.11	0.11	309.29	0.11	0.11	309.29	0.11	0.11	309.29
3	Central Turnpike offramp from 146 SB	0.48	0.49	619.77	0.21	0.31	532.03	0.21	0.31	532.03	0.21	0.31	532.03
4	Central Turnpike W of SB Ramps	0.32	0.65	456.82	0.15	0.43	392.13	0.15	0.43	392.13	0.15	0.43	392.13
5	Central Turnpike onramp to 146 SB	0.28	0.42	408.10	0.13	0.27	350.30	0.13	0.27	350.30	0.13	0.27	350.30
6	Central Turpike - SB Ramps to NB Ramps	0.30	0.73	435.81	0.14	0.48	374.12	0.14	0.48	374.12	0.14	0.48	374.12
7	Central Turnpike offramp from 146 NB	0.23	0.42	364.56	0.11	0.27	312.89	0.11	0.27	312.89	0.11	0.27	312.89
8	Central Turnpike E of NB Ramps	0.39	0.53	524.11	0.18	0.35	449.85	0.18	0.35	449.85	0.18	0.35	449.85
9	Central Turnpike onramp to 146 NB	0.14	0.40	275.73	0.07	0.26	236.37	0.07	0.26	236.37	0.07	0.26	236.37
10	Rte 146 N of Boston Rd to Marble Rd	0.40	0.57	529.64	0.18	0.37	455.72	0.18	0.37	455.72	0.18	0.37	455.72
11	Marble Rd W of Rte 146	0.27	0.64	399.51	0.12	0.42	342.95	0.12	0.42	342.95	0.12	0.42	342.95
12	Marble Rd E of Rte 146	0.30	0.65	435.41	0.14	0.43	373.78	0.14	0.43	373.78	0.14	0.43	373.78
13	Rte 146 N of Marble Rd.	0.25	0.48	366.21	0.11	0.31	315.37	0.11	0.31	315.37	0.11	0.31	315.37
14	Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	0.42	0.69	552.74	0.19	0.45	474.79	0.19	0.45	474.79	0.19	0.45	474.79
15	Pleasant Valley Rd	0.26	0.82	393.62	0.12	0.54	338.14	0.12	0.54	338.14	0.12	0.54	338.14
16	Dudley Rd	0.31	0.92	448.91	0.14	0.60	385.33	0.14	0.60	385.33	0.14	0.60	385.33
17	Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	0.27	1.69	403.54	0.12	1.12	346.68	0.12	1.12	346.68	0.12	1.12	346.68
18	Galaxy Pass	0.33	0.75	480.43	0.15	0.49	412.13	0.15	0.49	412.13	0.15	0.49	412.13
19	Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd Access)	0.35	0.65	484.25	0.16	0.42	416.05	0.16	0.42	416.05	0.16	0.42	416.05
20	Unified Parkway (Boston Rd Access)	0.34	0.44	490.01	0.16	0.28	420.32	0.16	0.28	420.32	0.16	0.28	420.32
21	Boston Rd, Unified Parkway (Boston Rd Access) to Rte 122A	0.31	0.19	435.89	0.14	0.12	374.48	0.14	0.12	374.48	0.14	0.12	374.48
22	Rte 122A, S of Boston Rd	0.27	0.90	395.76	0.12	0.59	339.99	0.12	0.59	339.99	0.12	0.59	339.99
23	Rte 122A, Boston Rd to Unified Parkway (Providence Rd Access)	0.28	0.30	410.44	0.13	0.19	352.33	0.13	0.19	352.33	0.13	0.19	352.33
24	Unified Parkway (Providence Rd Access)	0.36	0.41	506.66	0.16	0.26	434.60	0.16	0.26	434.60	0.16	0.26	434.60
25	Rte 122A, N of Unified Parkway (Providence Rd Access) to Riverin	0.27	0.17	405.01	0.12	0.10	347.63	0.12	0.10	347.63	0.12	0.10	347.63
26	Riverin St, Rte 122A to Grafton/Canal St	0.30	0.84	429.13	0.14	0.55	368.32	0.14	0.55	368.32	0.14	0.55	368.32
27	Rte 122A, Riverin to Canal	0.27	0.58	398.84	0.12	0.38	342.38	0.12	0.38	342.38	0.12	0.38	342.38
28	Canal St, Rte 122A/CVS to Riverin St	0.29	0.69	426.72	0.13	0.45	366.25	0.13	0.45	366.25	0.13	0.45	366.25
29	Grafton St, E of Riverin St	0.29	0.85	440.44	0.13	0.56	377.68	0.13	0.56	377.68	0.13	0.56	377.68
30	Riverin St, N of Canal/Grafton	0.32	0.92	456.82	0.15	0.60	392.13	0.15	0.60	392.13	0.15	0.60	392.13
31	CVS Drive	0.46	1.83	753.90	0.23	1.22	647.45	0.23	1.22	647.45	0.23	1.22	647.45
32	Rte 122A/Canal St, CVS to Elm St	0.32	0.69	450.16	0.14	0.45	386.39	0.14	0.45	386.39	0.14	0.45	386.39
33	Rte 122A/Canal St, N of Elm	0.37	0.79	501.52	0.17	0.52	430.54	0.17	0.52	430.54	0.17	0.52	430.54
34	Gas Station DW	0.46	2.88	749.38	0.23	1.92	643.57	0.23	1.92	643.57	0.23	1.92	643.57
35	Elm St	0.41	0.52	548.85	0.19	0.33	471.11	0.19	0.33	471.11	0.19	0.33	471.11

2 Rtt	Description oston Road W of Rte 146 te 146 S of Boston Rd to Central Turnpike			Approach	Adjusted	J D -1 *	0 1: 1												A	Adjusted	I D -1 *	
2 Rtt	te 146 S of Boston Rd to Central Turnpike		NB or EB			SB or WB	Combined <u>Delay</u>		Approach SB or WB	NB or EB	d Delay * SB or WB	Combined <u>Delay</u>	Delay By NB or EB	SB or WB	NB or EB		Combined <u>Delay</u>		SB or WB	NB or EB	SB or WB	Combine <u>Delay</u>
2 Rtt	te 146 S of Boston Rd to Central Turnpike	Directions	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)
2 Rtt	te 146 S of Boston Rd to Central Turnpike	2	58.3		58.3	0	29.15	69.4		69.4	0	34.7	70.3		70.3	0	35.15	70.3		70.3	0	35.15
3 Ce 4 Ce 5 Ce 6 Ce 7 Ce 8 Ce 7 Ce 8 Ce 9 Ce 11 Ma 11 Ma 12 Ma 13 Rt 14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rt 23 Rt 23 Rt 23 Rt		2	35.9		35.9	0	17.95	37.8		37.8	0	18.9	38.8		38.8	0	19.4	38.8		38.8	0	19.4
4 Ce 5 Ce 6 Ce 7 Ce 8 Ce 9 Ce 10 Rt 11 Ma 12 Ma 13 Rt 14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rt 23 Rt	entral Turnpike offramp from 146 SB	1		6.1	0	6.1	6.1	0.10	6.0	0	6	6		6.1	0	6.1	6.1	0.0.0	6.1	0	6.1	6.1
5 Ce 6 Ce 7 Ce 8 Ce 9 Ce 10 Rtd 11 Ma 11 Ma 12 Ma 13 Rtt 14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rtt 23 Rtt	entral Turnpike W of SB Ramps	2	0.0		0	0	0	0.0		0	0	0	0.0		0	0	0	0.0		0	0	0
7 Ce: 8 Ce: 9 Ce: 10 Ce: 11 Max 12 Max 13 Rtc 15 Plc 16 Du 17 Bo 20 Un 22 Rtc 23 Rtc 23 Rtc 23 Rtc 12 Rtc 1	entral Turnpike onramp to 146 SB	1			0	0	0			0	0	0			0	0	0			0	0	0
8 Ce. 9 Ce 10 Rte 11 Ma 12 Ma 13 Rte 14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 22 Rte 22 Rte 23 Rte	entral Turpike - SB Ramps to NB Ramps	2	1.5	1.6	1.5	1.6	1.55	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
9 Ce: 10 Rtc 11 Ma 12 Ma 13 Rtc 14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rtc 23 Rtc 23 Rtc	entral Turnpike offramp from 146 NB	1	8.0		8	0	8	7.9		7.9	0	7.9	7.9		7.9	0	7.9	7.9		7.9	0	7.9
10 Rttd 11 Ma 12 Ma 13 Rttd 14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rttd 23 Rttd 23 Rttd	entral Turnpike E of NB Ramps	2		0.0	0	0	0		0.0	0	0	0		0.0	0	0	0		0.0	0	0	0
11 Ma 12 Ma 13 Rtx 14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rtc 23 Rtc	entral Turnpike onramp to 146 NB	1			0	0	0			0	0	0			0	0	0			0	0	0
12 Ma 13 Rtt 14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rtc 23 Rtc	te 146 N of Boston Rd to Marble Rd	2	0.0	25.4	0	25.4	12.7	0.0	27.8	0	27.8	13.9	0.0	29.3	0	29.3	14.65	0.0	29.3	0	29.3	14.65
13 Rte 14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rte 23 Rte	arble Rd W of Rte 146	2	0.0		0	0	0	0.0		0	0	0	0.0		0	0	0	0.0		0	0	0
14 Bo 15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rte 23 Rte	arble Rd E of Rte 146	2		19.6	0	19.6	9.8		24.8	0	24.8	12.4		25.5	0	25.5	12.75		25.5	0	25.5	12.75
15 Ple 16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rte 23 Rte	te 146 N of Marble Rd.	2	0.0		0	0	0	0.0		0	0	0	0.0		0	0	0	0.0		0	0	0
16 Du 17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rte 23 Rte	oston Road , Rte 146 to Pleasant Valley/Dudley Rds	2	0.1	55.3	0.1	55.3	27.7	0.1	72.0	0.1	72	36.05	0.1	81.7	0.1	81.7	40.9	0.1	81.7	0.1	81.7	40.9
17 Bo 18 Ga 19 Bo 20 Un 21 Bo 22 Rte 23 Rte	leasant Valley Rd	2	22.0		22	0	11	21.3		21.3	0	10.65	24.5		24.5	0	12.25	24.5		24.5	0	12.25
18 Ga 19 Bo 20 Un 21 Bo 22 Rts 23 Rts	udley Rd	2	7.0	18.6	0	18.6	9.3		17.6	0	17.6	8.8		20.4	0	20.4	10.2		20.4	0	20.4	10.2
19 Bo 20 Un 21 Bo 22 Rts 23 Rts	oston Rd, Pleasant Valley/Dudley to Galaxy Pass	2	7.0	0.1	7	0.1	3.55	7.1	0.1	7.1	0.1	3.6	6.9	0.1	6.9	0.1	3.5	6.9	0.1	6.9	0.1	3.5
20 Un 21 Bo 22 Rts 23 Rts	alaxy Pass	2	9.0		9	0	4.5	8.9		8.9	Ü	4.45	10.0		10	0	5	10.0		10	0	
21 Bo 22 Rte 23 Rte	oston Rd, Galaxy Pass to Unified Parkway (Boston Rd Access)	2		7.8	0	7.8	3.9		7.8	0	7.8	3.9	0.0	7.7	0	7.7	3.85	0.0	7.7	0	7.7	3.85
22 Rte	nified Parkway (Boston Rd Access) oston Rd. Unified Parkway (Boston Rd Access) to Rte 122A	2	12.6		0 12.6	0	0	13.3		0 13.3	0	0	12.7	0.0	0 13.7	0	0 6.85	12.7	0.0	0 13.7	0	6.85
23 Rte	te 122A, S of Boston Rd	2	12.6	5.6	0	0 5.6	6.3 2.8	13.3	5.5	0	5.5	6.65 2.75	13.7	5.5	0	5.5	2.75	13.7	5.5	0	5.5	2.75
	te 122A, Boston Rd to Unified Parkway (Providence Rd Acces:	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
24 Un	nified Parkway (Providence Rd Access)	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
	te 122A, N of Unified Parkway (Providence Rd Access) to Rive	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
	iverin St, Rte 122A to Grafton/Canal St	2	9.2	14.5	9.2	14.5	11.85	9.0	14.5	9	14.5	11.75	9.0	14.8	9	14.8	11.9	9.0	14.8	9	14.8	11.9
	te 122A. Riverin to Canal	2	0.9	0.0	0.9	0	0.45	0.8	0.0	0.8	0	0.4	0.8	0.0	0.8	0	0.4	0.8	0.0	0.8	0	0.4
	anal St, Rte 122A/CVS to Riverin St	2	11.7	0.0	11.7	0	5.85	11.7	0.0	11.7	0	5.85	11.7	0.0	11.7	0	5.85	11.7	0.0	11.7	0	5.85
	rafton St, E of Riverin St	2	11.7	10.5	0	10.5	5.25	11.7	10.3	0	10.3	5.15	11.7	10.3	0	10.3	5.15	11.7	10.3	0	10.3	5.15
	iverin St, N of Canal/Grafton	2		17.6	0	17.6	8.8		17.5	0	17.5	8.75		17.5	0	17.5	8.75		17.5	0	17.5	8.75
	VS Drive	2		19.2	0	19.2	9.6		19.4	0	19.4	9.7		19.9	0	19.9	9.95		19.9	0	19.9	9.95
	te 122A/Canal St, CVS to Elm St	2	5.5	11.0	5.5	11	8.25	5.4	11.2	5.4	11.2	8.3	5.4	11.2	5.4	11.2	8.3	5.4	11.2	5.4	11.2	8.3
	te 122A/Canal St, N of Elm	2	0.0	15.6	0	15.6	7.8		16.1	0	16.1	8.05	3.1	16.2	0	16.2	8.1		16.2	0	16.2	8.1
	as Station DW	2	0.0		0	0	0	0.0		0	0	0	0.0		0	0	0	0.0		0	0	0
35 Elr	lm St	2	11.0		11	0	5.5	11.2		11.2	0	5.6	11.2		11.2	0	5.6	11.2		11.2	0	5.6
и реак	CONDITION																					
LAY BY	APPROACH (seconds)				Exi	isting				No	Build				E	uild				Buil	d-Mit	
				EB	WB	NB	SB		EB	WB	NB	SB		EB	WB	NB	SB		EB	WB	NB	SB
1 2:	Riverlin Street & Canal Street/Grafton Street			11.7	10.5	9.2	17.6		11.7	10.3	9.0	17.5		11.7	10.3	9.0	17.5		11.7	10.3	9.0	17.5
	Elm Street & Canal Street			11.0	11.0	0.0	15.6		11.2	11.2	0.0	16.1		11.2	11.2	0.0	16.2		11.2	11.2	0.0	16.2
	Route 146 & Boston Road			58.3	55.3	35.9	25.4		69.4	72.0	37.8	27.8		70.3	81.7	38.8	29.3		70.3	81.7	38.8	29.3
	Galaxy Pass & Boston Road			7.0	7.8	9.0			7.1	7.8	8.9			6.9	7.7	10.0			6.9	7.7	10.0	
5 5:	Providence St Route 122A & Riverlin Street			0.9	0.0		14.5		0.8	0.0		14.5		0.8	0.0		14.8		0.8	0.0		14.8
6 6:	Canal Street & Providence St Route 122A			5.5	0.0		19.2		5.4	0.0		19.4		5.4	0.0		19.9		5.4	0.0		19.9
7 6:	Pleasant Valley Road & Boston Road			0.1	0.1	22.0	18.6		0.1	0.1	21.3	17.6		0.1	0.1	24.5	20.4		0.1	0.1	24.5	20.4
8 14	4: Boston Rd & Providence Rd			0.0	5.6	12.6			0.0	5.5	13.3			0.0	5.5	13.7			0.0	5.5	13.7	
9 15	5: Marble Road & Route 146			0.0	0.0	0.0	19.6		0.0	0.0	0.0	24.8		0.0	0.0	0.0	25.5		0.0	0.0	0.0	25.5
10 20	D: Route 146 NB Ramps & Central Turnpike			1.5	0.0	8.0			1.5	0.0	7.9			1.5	0.0	7.9			1.5	0.0	7.9	
11 22	1 22: Route 146 SB Ramps & Central Turnpike			0.0	1.6		6.1		0.0	1.5		6.0		0.0	1.5		6.1		0.0	1.5		6.1
12 27																						

12

Week	Neekday Average Daily Traffic (ADT) for Mesoscale Roadway Network												
			2023 Existing	2030 No-Build	2030 Build	2030 Build-Mit	К	CAF	<u>Unad</u>	usted PM Pea	<u>k Hour</u>		
	Roadway Segments	Speed (mph)	Volume (ADT)	Volume (ADT)	Volume (ADT)	Volume (ADT)	Factor	S.A.F.	Existing	No-Build	uilding 2+3 Buil	Build-Mit	
	Roduway Segments	(iiipii)	(IDT)	(IID1)	(1121)	(1101)	8.6%	1.00	LAISTING	No Dunu	unung 2 · 5 Dun	Dunu Mit	
1	Boston Road W of Rte 146	35	5,014	5,305	5,480	5,480			430	455	470	470	
2	Rte 146 S of Boston Rd to Central Turnpike	50	42,618	49,381	49,789	49,789			3655	4235	4270	4270	
3	Central Turnpike offramp from 146 SB	30	3,906	3,964	4,023	4,023			335	340	345	345	
4	Central Turnpike W of SB Ramps	30	5,713	5,830	5,888	5,888			490	500	505	505	
5	Central Turnpike onramp to 146 SB	30	1,224	1,224	1,224	1,224			105	105	105	105	
6	Central Turpike - SB Ramps to NB Ramps	30	8,046	8,220	8,220	8,220			690	705	705	705	
7	Central Turnpike offramp from 146 NB	30	1,749	1,749	1,749	1,749			150	150	150	150	
8	Central Turnpike E of NB Ramps	30	9,212	9,445	9,445	9,445			790	810	810	810	
9	Central Turnpike onramp to 146 NB	30	3,148	3,207	3,207	3,207			270	275	275	275	
10	Rte 146 N of Boston Rd to Marble Rd	50	45,941	52,879	53,637	53,637			3940	4535	4600	4600	
11	Marble Rd W of Rte 146	30	0	0	0	0			0	0	0	0	
12	Marble Rd E of Rte 146	30	58	58	58	58			5	5	5	5	
13	Rte 146 N of Marble Rd.	50	45,883	52,821	53,579	53,579			3935	4530	4595	4595	
14	Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	35	12,768	13,526	14,808	14,808			1095	1160	1270	1270	
15	Pleasant Valley Rd	35	1,982	2,041	2,274	2,274			170	175	195	195	
16	Dudley Rd	30	1,108	1,108	1,108	1,108			95	95	95	95	
17	Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	13,059	13,876	15,333	15,333			1120	1190	1315	1315	
18	Galaxy Pass	25	9,037	9,153	9,153	9,153			775	785	785	785	
19	Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd Access)	35	7,696	8,279	11,544	11,544			660	710	990	990	
20	Unified Parkway (Boston Rd Access)	25	0	0	1,749	1,749			0	0	150	150	
21	Boston Rd, Unified Parkway (Boston Rd Access) to Rte 122A	35	7,696	8,279	8,570	8,570			660	710	735	735	
22	Rte 122A, S of Boston Rd	35	8,046	9,095	9,445	9,445			690	780	810	810	
23	Rte 122A, Boston Rd to Unified Parkway (Providence Rd Access)	30	4,956	5,364	4,956	4,956			425	460	425	425	
24	Unified Parkway (Providence Rd Access)	25	0	0	350	350			0	0	30	30	
25	Rte 122A, N of Unified Parkway (Providence Rd Access) to Riverin St	30	4,956	5,364	7,054	7,054			425	460	605	605	
26	Riverin St, Rte 122A to Grafton/Canal St	30	3,731	3,731	3,790	3,790			320	320	325	325	
27	Rte 122A, Riverin to Canal	30	5,305	5,772	5,947	5,947			455	495	510	510	
28	Canal St, Rte 122A/CVS to Riverin St	30	9,853	9,969	9,969	9,969			845	855	855	855	
29	Grafton St, E of Riverin St	25	8,920	9,037	9,037	9,037			765	775	775	775	
30	Riverin St, N of Canal/Grafton	30	7,579	7,696	7,754	7,754			650	660	665	665	
31	CVS Drive	10	2,041	2,041	2,041	2,041			175	175	175	175	
32	Rte 122A/Canal St, CVS to Elm St	30	16,208	16,849	16,966	16,966			1390	1445	1455	1455	
33	Rte 122A/Canal St, N of Elm	30	8,908	9,853	9,853	9,853			764	845	845	845	
34	Gas Station DW	10	292	292	292	292			25	25	25	25	
35	Elm St	30	8,920	9,037	9,153	9,153			765	775	785	785	

Weekday ATR Volumes

Boston Road west of Buttonwood Avenue								Providence Road (Route 122A) north of Hatchery Road																
	Tueso	lay, June 15,	2021			Wedne	esday, June 16,	2021			Tuesd	ay, June 15,	2021			Wedne	sday, June 16	, 2021						
			Peak F	eriod Data				Peak Pe	riod Data				Peak P	eriod Data				Peak P	eriod Data					
Begin Time	Volume	V/C Ratio	Hours	Volume	Begin Time	Volume	V/C Ratio	Hours	Volume	Begin Time	Volume	V/C Ratio	Hours	Volume	Begin Time	Volume	V/C Ratio	Hours	Volume					
12:00 AM	36	0.02	0	0	12:00 AM	21	0.01	0	0	12:00 AM	16	0.01	0	0	12:00 AM	18	0.01	0	0					
1:00 AM	18	0.01	0	0	1:00 AM	18	0.01	0	0	1:00 AM	9	0.01	0	0	1:00 AM	12	0.01	0	0					
2:00 AM	17	0.01	0	0	2:00 AM	15	0.01	0	0	2:00 AM	7	0.00	0	0	2:00 AM	17	0.01	0	0					
3:00 AM	29	0.02	0	0	3:00 AM	19	0.01	0	0	3:00 AM	15	0.01	0	0	3:00 AM	10	0.01	0	0					
4:00 AM	46	0.03	0	0	4:00 AM	53	0.03	0	0	4:00 AM	22	0.01	0	0	4:00 AM	23	0.01	0	0					
5:00 AM	155	0.10	0	0	5:00 AM	164	0.10	0	0	5:00 AM	81	0.05	0	0	5:00 AM	87	0.05	0	0					
6:00 AM	437	0.27	0	0	6:00 AM	428	0.27	0	0	6:00 AM	265	0.17	0	0	6:00 AM	249	0.16	0	0					
7:00 AM	736	0.46	1	736	7:00 AM	734	0.46	1	734	7:00 AM	359	0.22	1	359	7:00 AM	317	0.20	0	0					
8:00 AM	687	0.43	1	687	8:00 AM	673	0.42	1	673	8:00 AM	323	0.20	0	0	8:00 AM	338	0.21	0	0					
9:00 AM	513	0.32	0	0	9:00 AM	510	0.32	0	0	9:00 AM	302	0.19	0	0	9:00 AM	302	0.19	0	0					
10:00 AM	508	0.32	0	0	10:00 AM	501	0.31	0	0	10:00 AM	333	0.21	0	0	10:00 AM	310	0.19	0	0					
11:00 AM	535	0.33	0	0	11:00 AM	591	0.37	0	0	11:00 AM	372	0.23	1	372	11:00 AM	373	0.23	1	372					
12:00 PM	633	0.40	1	633	12:00 PM	662	0.41	1	662	12:00 PM	380	0.24	1	380	12:00 PM	390	0.24	1	380					
1:00 PM	595	0.37	0	0	1:00 PM	596	0.37	0	0	1:00 PM	347	0.22	0	0	1:00 PM	372	0.23	1	347					
2:00 PM	749	0.47	1	749	2:00 PM	628	0.39	0	0	2:00 PM	432	0.27	1	432	2:00 PM	402	0.25	1	432					
3:00 PM	758	0.47	1	758	3:00 PM	722	0.45	1	722	3:00 PM	481	0.30	1	481	3:00 PM	479	0.30	1	481					
4:00 PM	808	0.51	1	808	4:00 PM	859	0.54	1	859	4:00 PM	452	0.28	1	452	4:00 PM	496	0.31	1	452					
5:00 PM	811	0.51	1	811	5:00 PM	854	0.53	1	854	5:00 PM	470	0.29	1	470	5:00 PM	507	0.32	1	470					
6:00 PM	571	0.36	0	0	6:00 PM	640	0.40	1	640	6:00 PM	352	0.22	1	352	6:00 PM	362	0.23	1	352					
7:00 PM	428	0.27	0	0	7:00 PM	469	0.29	0	0	7:00 PM	239	0.15	0	0	7:00 PM	292	0.18	0	0					
8:00 PM	317	0.20	0	0	8:00 PM	348	0.22	0	0	8:00 PM	176	0.11	0	0	8:00 PM	194	0.12	0	0					
9:00 PM	216	0.14	0	0	9:00 PM	243	0.15	0	0	9:00 PM	94	0.06	0	0	9:00 PM	105	0.07	0	0					
10:00 PM	132	0.08	0	0	10:00 PM	137	0.09	0	0	10:00 PM	54	0.03	0	0	10:00 PM	57	0.04	0	0					
11:00 PM	67	0.04	0	0	11:00 PM	70	0.04	0	0	11:00 PM	32	0.02	0	0	11:00 PM	28	0.02	0	0					
Total	9,802		7	5,182	Total	9,955		7	5,144	Total	5,613		8	3,298	Total	5,740		8	3,286					
Roadway		Crit. V/C		al Capacity		Capacity	Crit. V/C		Capacity		Capacity	Crit. V/C		l Capacity		y Capacity	Crit. V/C		l Capacity					
1,60	0	38%		608	1,6	00	40%	64	10	1,6	00	22%	:	352	1,6	500	22%	:	352			Average Dat	1	
Peak Hour (K) Factor	0.083			Peak Hour	(K) Factor	0.086			Peak Hou	(K) Factor	0.086			Peak Hou	r (K) Factor	0.088			Peak Hou	r (K) Factor	0.086		
Peak Per	iod Volume	Factor	0.529		Peak I	Period Volume	Factor	0.517		Peak Pe	eriod Volume	Factor	0.588		Peak P	eriod Volume	Factor	0.572		Peak P	eriod Volume	Factor	0.551	

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Mesoscale Roadway Data

Link No.	Description	Speed (mph)	Link Length (miles)		Finish Elev (ft)	Grade (%)	Directions
1	Boston Road W of Rte 146	35	0.18	452	469	1.8	2
2	Rte 146 S of Boston Rd to Central Turnpike	50	0.94	454	438	0.3	2
3	Central Turnpike offramp from 146 SB	30	0.24	436	500	5.1	1
4	Central Turnpike W of SB Ramps	30	0.15	500	512	1.5	2
5	Central Turnpike onramp to 146 SB	30	0.26	500	505	0.4	1
6	Central Turpike - SB Ramps to NB Ramps	30	0.13	500	493	1.0	2
7	Central Turnpike offramp from 146 NB	30	0.26	505	493	-0.9	1
8	Central Turnpike E of NB Ramps	30	0.20	493	461	3.0	2
9	Central Turnpike onramp to 146 NB	30	0.26	493	436	-4.2	1
10	Rte 146 N of Boston Rd to Marble Rd	50	0.17	486	452	3.8	2
11	Marble Rd W of Rte 146	30	0.15	486	487	0.1	2
12	Marble Rd E of Rte 146	30	0.15	486	478	1.0	2
13	Rte 146 N of Marble Rd.	50	0.20	491	486	0.5	2
14	Boston Road , Rte 146 to Pleasant Valley/Dudley Rds	35	0.14	452	423	3.9	2
15	Pleasant Valley Rd	35	0.11	423	426	0.5	2
16	Dudley Rd	30	0.10	423	430	1.3	2
17	Boston Rd, Pleasant Valley/Dudley to Galaxy Pass	35	0.05	423	421	0.8	2
18	Galaxy Pass	25	0.13	421	414	1.0	2
19	Boston Rd, Galaxy Pass to Unified Parkway (Boston Rd Access)	35	0.15	421	401	2.5	2
20	Unified Parkway (Boston Rd Access)	25	0.27	401	383	1.3	2
21	Boston Rd, Unified Parkway (Boston Rd Access) to Rte 122A	35	1.00	435	357	1.5	2
22	Rte 122A, S of Boston Rd	35	0.10	357	354	0.6	2
23	Rte 122A, Boston Rd to Unified Parkway (Providence Rd Access)	30	0.45	357	347	0.4	2
24	Unified Parkway (Providence Rd Access)	25	0.30	347	373	1.6	2
25	Rte 122A, N of Unified Parkway (Providence Rd Access) to Riverin St	30	1.68	323	348	0.3	2
26	Riverin St, Rte 122A to Grafton/Canal St	30	0.11	345	350	0.9	2
27	Rte 122A, Riverin to Canal	30	0.17	351	350	0.1	2
28	Canal St, Rte 122A/CVS to Riverin St	30	0.14	351	345	0.8	2
29	Grafton St, E of Riverin St	25	0.11	345	345	0.0	2
30	Riverin St, N of Canal/Grafton	30	0.10	345	353	1.5	2
31	CVS Drive	10	0.05	351	353	0.8	2
32	Rte 122A/Canal St, CVS to Elm St	30	0.14	351	361	1.4	2
33	Rte 122A/Canal St, N of Elm	30	0.12	377	361	2.5	2
34	Gas Station DW	10	0.03	360	361	0.6	2
35	Elm St	30	0.21	400	361	3.5	2

Project Data

TRAFFIC DATA

Project Name

Unified Parkway Industrial Development

Project County Worcester
Existing Year 2023
No-Build Year 2030
Build Year 2030
Build with Mitigation Year 2030
Seasonal Adjustment Factor 1.00
K-Factor 8.6%

Idle Emission Factors

<u>Year</u>	<u>NOx (g/hr)</u>	<u> VOC (g/hr)</u>	<u>CO2 (g/hr)</u>
2023	2.36	1.53	3666.86
2030	1.25	1.15	3141.79
2030 Truck	30.37	3.60	6267.13

APPENDIX E: PCN Certificate and Comment Letters



The Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs 100 Cambridge Street, Suite 900 Boston, MA 02114

Tel: (617) 626-1000 Fax: (617) 626-1081 http://www.mass.gov/eea

LIEUTENANT GOVERNOR

Rebecca L. Tepper **SECRETARY**

June 9, 2023

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE PROJECT COMMENCEMENT NOTICE

PROJECT NAME : Unified Parkway Industrial Development

PROJECT MUNICIPALITY : Millbury and Sutton

PROJECT WATERSHED : Blackstone EEA NUMBER : 16593

PROJECT PROPONENT : UGPG RE Sutton LLC

DATE NOTICED IN MONITOR : May 10, 2023

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.09 of the MEPA regulations (301 CMR 11.00), I have reviewed the Project Commencement Notice (PCN) and hereby determine that this project requires the preparation of a mandatory Environmental Impact Report (EIR). In accordance with a Special Review Procedure (SRP) established on October 31, 2022 to guide review of the project, the Proponent requested that I allow a Single EIR to be submitted in lieu of the usual two-stage Draft and Final EIR process. I hereby grant the request to file a Single EIR, which the Proponent should submit in accordance with the Scope included in this Certificate.

Project History

An Expanded Environmental Notification Form (EENF) was submitted in August 2022 for the redevelopment of portions of a 448-acre site located in the Towns of Sutton and Millbury. As described in the EENF, the Full Build project consisted of a warehouse and distribution center totaling up to 2.4 million gross-square-feet (gsf) spread across three buildings (further discussed below). Phase I of the project, as described in the EENF, consisted of the construction of a single warehouse building ("Building 3"), totaling approximately 343,200 square feet (sf), with 208 surface parking spaces (118 spaces for vehicle parking and 90 for trailer parking) and

associated infrastructure. Phase I of the project also included the partial construction of a new internal access drive, referred to in the EENF as "Unified Parkway." At the time the EENF was filed, only the section of Unified Parkway from Boston Road to the site access drive for Phase I was proposed to be constructed as part of this first phase.

The Proponent requested in the EENF that I establish an SRP to allow Phase I to proceed through MEPA review and permitting prior to the completion of MEPA review of the remainder of the Full Build, as Phase I was needed immediately to meet the Proponent's operational needs and to consolidate the Proponent's warehouse operations from across several locations. An SRP was issued on October 31, 2022 indicating that the two phases of the project could proceed through MEPA review separately. A Certificate on the EENF was issued on September 30, 2022 which indicated that no further review was required for Phase I (which did not individually exceed any mandatory EIR thresholds), provided that supplemental greenhouse gas (GHG) analysis was submitted for review by the Massachusetts Department of Energy Resource (DOER); this analysis was subsequently provided. The EENF Certificate also noted that the mitigation commitments for Phase I were required to be incorporated into Section 61 Findings for the Full Build project.

The SRP required that a Project Commencement Notice (PCN) be submitted to address the remainder of the Full Build. As described in the SRP, the PCN was required to include the level of information consistent with an Environmental Notification Form (ENF), including an alternatives analysis, overview of impacts of the next phase (including but not limited to traffic, land, impervious area, stormwater, water/wastewater, and construction period impacts) and a description of measures to avoid, minimize, and mitigate said impacts. The PCN was also required to contain an updated review of cumulative impacts of the Full Build Project (including but not limited to a Traffic Impact and Access Study), and an update on the consolidation of business operations and associated GHG emissions reductions that were described in the EENF for Phase I. While provisions for additional phasing of Lots 1 and 2 (Buildings 1 and 2) were also included in the SRP, the PCN provides analysis of the Full Build project without further phasing.

The PCN notes that, since the issuance of the SRP, construction of Unified Parkway has extended beyond the portion included within the limits of Phase I (Building 3), but this has been limited to the necessary utility connections in support of Building 3 and/or the completion of previously commenced improvements that needed to be finished for either safety reasons or stabilization and erosion/dust control measures. Construction activities to date have included earthwork, a retaining wall, erosion controls and stormwater management facilities. As noted, the PCN does not propose any further phasing of the lots for Buildings 1 and 2. Therefore, commencement of construction of the project, including full buildout of Unified Parkway, will await the conclusion of MEPA review.

Project Description

The PCN describes the remainder of the Full Build project (referred to herein as Phase II), which will consist of the construction of an approximately 1,400,000 sf warehouse and distribution building ("Building 1") with 1,833 surface parking space (1,247 spaces for vehicle parking and 586 for trailer parking); an approximately 652,530 sf warehouse and distribution building ("Building 2") with 285 surface parking spaces (252 spaces for vehicle parking and 33

for trailer parking); and the remainder of Unified Parkway. Phase II is proposed within an approximately 238-acre portion of the project site located at 42 and 67 Unified Parkway in Sutton with a portion of Building 1 located in Millbury. Building 1 is proposed to be leased by the Proponent to a third party, while Building 2 is proposed to be used by the Proponent as a means of consolidating business operations near their existing headquarters in Sutton, as well as to accommodate future business growth. As described in the PCN, the Full Build project (Phases I and II) will consist of a total of 2,395,730 gsf of warehouse/distribution space and 2,422 surface parking spaces.

Project Site

The project site consists of approximately 448 acres of land bounded by Providence Road (Route 122A) and Providence Street to the north, Buttonwood Avenue to the east, Boston Road to the south, and Dudley Road to the west. The site is located predominantly in the Town of Sutton, with a portion of the site located in the Town of Millbury. As noted above, the site contains former gravel pits no longer in operation and multiple dirt roads associated with this former use. Portions of the project site are undeveloped and/or re-vegetated, most notably in the southeast corner and western edge of the site. Surrounding land uses are predominantly residential, with commercial uses along Providence Road and Boston Road. Located centrally within, but separate from, the project site is a Zone I Wellhead Protection Area (as designated by the Massachusetts Department of Environmental Protection (MassDEP)) associated with a public well owned and operated by the Wilkinsonville Water District (Water District). The project site contains mapped Zone II Wellhead Protection Area associated with this well. The Branch River lies northeast of the site; wetland resources on site include Bordering Vegetated Wetland (BVW) and Bank. The PCN states that portions of the site are located within Federal Emergency Management Agency (FEMA) 100-year floodplain but that the Phase II buildings will be developed upgradient of these areas.

The project site does not contain Estimated and Priority Habitat of Rare Species as delineated by the Natural Heritage and Endangered Species Program (NHESP) in the 15th Edition of the Massachusetts Natural Heritage Atlas or an Area of Critical Environmental Concern (ACEC). The project site contains historic resources listed in the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth, further discussed below. Several waterbodies within one-half mile of the project site are listed as impaired, specifically: Woodbury Pond, Girard Pond, Aldrich Pond, Marble Pond, and the Blackstone River. A Limited Removal Action (LRA) was performed at the site in September 2015, in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000), to address a release of fuel oil to soil from a former underground storage tank (UST). The EENF states a Release Tracking Number (RTN) was not assigned to this release as fuel oil concentrations in soil were reduced below the applicable Reportable Concentrations within 120days of identification of the release condition. Comments from MassDEP submitted on the EENF identified 12 RTNs located within or near the project area; of these, 11 were described as having the potential to impact the project: RTN 2-0018327, 2-0012481, 2-0017245, 2-008730, 2-0010801, 2-0017039, 2-0010227, 2-001-575, 2-0011076, 2-0011136, and 2-0020150.

The project site is not located within an Environmental Justice (EJ) population but is located within one mile of three EJ populations characterized by Income and Minority criteria, respectively. As stated in the PCN, there are 29 additional EJ populations within a five-mile

radius of the site characterized by Minority, Income, and Minority and Income criteria. The EENF included a review of potential impacts of Phase 1 and benefits to EJ populations within one mile of the project site and described public involvement efforts undertaken to date. The PCN included additional analysis of impacts over a five-mile radius around the project site.

Environmental Impacts and Mitigation

Potential environmental impacts associated with Phase II of the project include the alteration of 238 acres of land (including 14.54 acres of new alteration); the creation of approximately 109.19 acres of impervious surface; the generation of 4,618 New unadjusted adt (including 942 truck trips); the construction of 2,214 parking spaces; 38,775 gallons per day (gpd) of water usage; the generation of 35,250 gpd of wastewater; and Greenhouse Gas (GHG) emissions and other air pollutants associated with the burning of fossil fuels for on-site energy use and transportation.

As described in the PCN, cumulative impacts of the Full Build project (inclusive of Phase I/Building 3) include the new alteration of 22.44 acres of land; the creation of 129.21 acres of impervious surface; the generation of 5,098 New unadjusted adt (including 1,018 truck trips); the construction of 2,422 parking spaces; 39,362 gpd of water usage; and 35,775 gpd of wastewater generation.

Measures to avoid, minimize, and mitigate environmental impacts include the use of a previously disturbed site; creation of a stormwater management system that has been designed to provide at least 80% removal of Total Suspended Solids (TSS) through the use of Best Management Practices (BMPs), including deep-sump hooded catch basins, forebays, and surface infiltration basins; improvements at the intersection of Boston Road/Unified Parkway (local roadways); removal of invasive species and restoration of degraded Buffer Zone to wetland resources within the Building 2 and 3 sites (the PCN indicates Building 1 will not result in impacts to wetland resources); sustainable building design measures to reduce water usage and heat island effects; instillation of electric vehicle (EV) charging spaces and EV-ready spaces; and use of sediment and erosion controls during construction.

The PCN describes additional mitigation measures that are contingent on obtaining all permits and approvals for the Full Build project (in particular, Building 1), and in certain cases (such as monetary contributions to the Town of Sutton), on securing a tenant for Building 1. As further discussed below, the PCN asserts that the combined trip generation estimates for Buildings 2 and 3 (the buildings that are proposed to be occupied by the Proponent, and which have obtained local approvals through the Town of Sutton) do not trigger the need for a State Highway Access Permit based on traffic impacts, and in turn, do not necessitate implementing the transportation mitigation measures that are proposed for the Full Build project. These additional transportation measures include additional geometric improvements along Boston Road, Galaxy Road, and Route 146; a transportation demand management (TDM) program; and transportation monitoring program (TMP).

Permitting and Jurisdiction

The project is undergoing MEPA review and is subject to preparation of a mandatory EIR because the project requires Agency Action and exceeds MEPA review thresholds requiring the

preparation of a mandatory EIR. For Phase II only, the PCN identifies the exceedance of the thresholds at 301 CMR 11.03(1)(a)(2) and 11.03(6)(a)(6): the creation of ten or more acres of impervious area, and the generation of 3,000 or more New adt on roadways providing access to a single location. Based on the impacts identified in the PCN, the Full Build project also exceeds the mandatory EIR thresholds at 301 CMR 11.03(1)(a)(1) and 11.03(6)(a)(7): the direct alteration of 50 or more acres of land (mostly already disturbed areas), and the construction of 1,000 or more New parking spaces at a single location. The project is also required to prepare an EIR pursuant to 301 CMR 11.06(7)(b) because it is located within a DGA (1 mile) around one or more EJ Populations.

Based on the impacts identified in the PCN, the Full Build project is also expected to exceed the ENF thresholds at 301 CMR 11.03(1)(b)(1), 11.03(1)(b)(2), 11.03(6)(b)(13), 11.03(6)(b)(14), and 11.03(6)(b)(15); respectively: the direct alteration of 25 or more acres of land; the creation of five or more acres of impervious area; generation of 2,000 or more New adt on roadways providing access to a single location; generation of 1,000 or more New adt on roadways providing access to a single location and construction of 150 or more New parking spaces at a single location; and construction of 300 or more New parking spaces at a single location.

The project will require a Vehicular Access Permit from the Massachusetts Department of Transportation (MassDOT) due to the anticipated traffic impacts of the Full Build project on the Worcester Turnpike (Route 146), a state jurisdictional roadway. The project is subject to the MEPA GHG Emissions Policy and Protocol.

The project requires Orders of Conditions from the Sutton Conservation Commission (which the PCN indicates have already been obtained) as well as approvals and Special Permits from the Sutton Planning Board. The project also requires Site Plan Approval from the Millbury Planning Board. The project requires a National Pollutant Discharge Elimination System (NPDES) Stormwater General Permit from the Environmental Protection Agency (EPA).

Because the Proponent is not seeking Financial Assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations.

Request for Single EIR

In accordance with the SRP, the PCN includes a request for a Single EIR for Phase II. The MEPA regulations indicate a Single EIR may be allowed provided I find that the MEPA filing:

- a) describes and analyzes all aspects of the project and all feasible alternatives, regardless of any jurisdictional or other limitation that may apply to the Scope;
- b. provides a detailed baseline in relation to which potential environmental impacts and mitigation measures can be assessed; and,
- c. demonstrates that the planning and design of the project use all feasible means to avoid potential environmental impacts.

For any Project for which an EIR is required in accordance with 301 CMR 11.06(7)(b), I must also find that the filing:

d. describes and analyzes all aspects of the Project that may affect EJ Populations located in whole or in part within the Designated Geographic Area around the project; describes measures taken to provide meaningful opportunities for public involvement by EJ Populations prior to filing the PCN, including any changes made to the project to address concerns raised by or on behalf of EJ Populations; and provides a detailed baseline in relation to any existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ Populations in accordance with 301 CMR 11.07(6)(n)(1)

Review of the PCN

The PCN provided a project description, an alternatives analysis, existing and proposed conditions plans, an estimate of environmental impacts, a transportation study, proposed mitigation measures, and a GHG analysis for the remainder of the Full Build project. As required by the SRP, it identified measures to avoid, minimize and mitigate environmental and public health impacts. Consistent with the MEPA Interim Protocol on Climate Change Adaptation and Resiliency, the PCN contained an output report from the MA Climate Resilience Design Standards Tool prepared by the Resilient Massachusetts Action Team (RMAT) (the "MA Resilience Design Tool"), ¹ together with information on climate resilience strategies to be undertaken by the project during Phase II. It also included a description of measures taken to enhance public involvement by EJ populations and a baseline assessment of any existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ Populations in accordance with 301 CMR 11.07(6)(n)(1). The PCN includes a description of EJ outreach conducted to date and analysis of EJ impacts over a 5-mile radius.

As required by the SRP, the PCN included an update on the consolidation of business operations and associated GHG emissions reductions that were described in the EENF for Phase I. As stated in the EENF, the consolidation of operations enabled by the construction of Building 3 (the subject to the EENF) is expected to reduce tractor-trailer miles traveled between the Proponent's Sutton headquarters and their existing warehouse locations by over 90 percent and in turn, reduce mobile GHG emissions. The PCN states that Building 3 is currently under construction and slated to open for operations in early 2024. It is expected that by the summer of 2024, the Proponent will begin the consolidation process of their existing warehouse locations based on the prior lease commitments of those sites. The consolidation process is expected to be completed in 2025.

Comments from MassDOT state that, given the level of information included in the PCN, the Department does not object to the request for a Single EIR. Comments from MassDEP identify concerns with the project's potential to impact public water supplies, further discussed below.

 $^{1}\ \underline{https://resilientma.org/rmat_home/designstandards/}$

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Alternatives Analysis

The PCN included an alternatives analysis for Phase II (specifically, for Building 1, Building 2, and the remainder of Unified Parkway). The PCN describes the project goals as developing a warehouse facility in close proximity to the Proponent's existing main manufacturing plant and headquarters (located at 223 Worcester Providence Turnpike in Sutton) in order to meet growing business demands and reduce operational inefficiencies, while also redeveloping an underutilized and previously altered area in Sutton to drive job creation and increase tax revenue. The PCN states that alternative locations were taken into consideration and analyzed by the Proponent but were deemed unable to meet the needs of the Proponent, either due to financial infeasibility or as they did not meet the requirements of the Proponent's operations.

The PCN describes a No-Build Alternative, As of Right Build Alternatives for Buildings 1 and 2, and the Preferred Alternatives for Building 1 and 2. The PCN included a table comparing environmental impacts across the three alternatives, copied below:

Table 2-2 Comparison of Project Alternatives Impacts					
Impact Category	No-Build Alternative	Building 2 Lot Build Alternative	Building 1 Lot Build Alternative	Building 2 Lot Preferred Alternative	Building 1 Lot Preferred Alternative
Land					
New Land Alteration	0	5.99 acres	3.27 acres	5.99 acres	3.27 acres
New Impervious Area	0	23.80 acres	76.88 acres	25.49 acres	79.83 acres
Wetland Resource Areas					
BVW Buffer Area	0	123,335 SF	0 SF	123,335 SF	0 SF
Transportation & Parking					
Daily Vehicle Trips (Unadjusted) ¹	0	4,600	14,010	960	3,700
Peak Trips (AM)	0	645	1,955	85	575
Peak Trips (PM)	0	580	1,765	110	560
New Parking Spaces	0	2,453	7,684	33	1,247
New Trailer Parking Spaces	0	-0-	-0-	252	586
Water & Wastewater					
Water Use	0	49,500 GPD	150,769 GPD	2,475 GPD	36,300 GPD
Wastewater Generation	0	45,000 GPD	137,063 GPD	2,250 GPD	33,000 GPD

BLSF Bordering Land Subject to Flooding

As described in the PCN, the No-Build Alternative would leave in place previously disturbed land from an underutilized gravel pit no longer in operation, but would not result in new environmental impacts. The PCN states that the No Build Alternative would not meet project goals, and would increase the Proponent's transportation impacts elsewhere in the state by limiting the Proponent's ability to access a warehouse facility in close proximity to their headquarters in Sutton. The No-Build Alternative would also eliminate the Proponent's ability to

GPD Gallons Per Day

¹ Adjusted Vehicle Trips would be same as unadjusted to due limited to no alternative transportation options available in the Project area.

provide public benefits from the development of the Full Build project, including increased tax revenue and creation of new jobs, and the community and economic benefits provided to the Town of Sutton through the Community Partnership Agreement (CPA).² For these reasons, the No Build Alternative was not considered viable.

The Build (As of Right) Alternatives represent an alternative use for the Building 1 lot and, separately, Building 2 lot allowed by right under the Sutton Zoning Bylaw. The As of Right Building 1 Alternative would consist of approximately 1,827,500 sf of commercial office space in the form of multiple buildings (up to five total) supported by approximately 7,684 parking spaces, to meet the minimum parking requirements under the local zoning bylaw for office uses. The As of Right Building 2 Alternative would consist of approximately 600,000 sf of commercial office space in the form of two buildings supported by approximately 2,453 parking spaces (similarly, to meet zoning parking minimums). The PCN indicates that the Build (As of Right) Alternatives would not meet the project goal of fulfilling the Proponent's immediate business needs of increasing warehousing space and operational efficiency, and (as shown in the table above) would result in significantly more water usage, wastewater generation, and traffic impacts, as compared to the Preferred Alternative, and so they were dismissed.

The PCN indicates that the Preferred Alternatives for Buildings 1 and 2 were selected because, as compared to the Build (As of Right) Alternatives, they meet project goals; result in fewer transportation impacts, less water usage and wastewater generation, and in the case of Building 1, fewer land alteration impacts; and would enhance and improve efficiencies in the Proponent's operations while providing benefits to the Town of Sutton through job creation, increased tax revenue and other community benefits.

The PCN also discussed alternative alignments for Unified Parkway. As described in the PCN, the primary goal of Unified Parkway is to allow for the full development potential of the project site by directing as much traffic as possible towards Route 146 via Boston Road in order to avoid alternative local roadways. The PCN states that the idea of the Unified Parkway connection to Boston Road was developed by the Town of Sutton and advanced by the Town's sponsorship of zoning changes to accommodate Unified Parkway. As described in the PCN, the preferred layout of Unified Parkway was designed to utilize an existing cart path and haul road that was used for the historic gravel removal operation, as it was already cleared and utilized by heavy equipment, avoided steep slopes and wetland resource areas, and generally met the roadway design layout requirements with minimal changes to the layout. The PCN states that the natural resources (wetlands, steep slopes, etc.) and man-made constraints (easements, zoning restrictions, etc.) result in limited opportunities for alternative alignments of the roadway, and that the preferred layout avoids wetlands impacts and minimizes impacts to wetland Buffer Zones to the extent practicable while also avoiding other site constraints.

Environmental Justice

As noted above, while the project site is not located within an EJ population, it is located within one mile of three EJ populations characterized by Income and Minority criteria, respectively. As stated in the PCN, there are 29 additional EJ populations within a five-mile

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² As noted above, the CPA benefits are contingent on obtaining all permits and approvals for the Full Build project and in certain cases, on securing a tenant for Building 1.

radius of the site characterized by Minority, Income, and Minority and Income criteria. Within the census tracts containing the above EJ populations within 5 miles of the project site, Spanish is identified as spoken by 5% or more of residents who also identify as not speaking English very well; there are no languages spoken by 5% or more of residents who also identify as not speaking English very well within 1 mile of the project site. The PCN indicates that the DGA for the Full Build project is 5 miles as it will create more than 150 adt of diesel vehicle traffic, and included an expanded analysis (beyond that included in the EENF, which was based on a 1-mile DGA) of potential impacts to EJ populations in this area.

Effective January 1, 2022, all new projects in "Designated Geographic Areas" ("DGA," as defined in 301 CMR 11.02, as amended) around EJ populations are subject to new requirements imposed by Chapter 8 of the Acts of 2021: An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy (the "Climate Roadmap Act") and amended MEPA regulations at 301 CMR 11.00. Two related MEPA protocols – the MEPA Public Involvement Protocol for Environmental Justice Populations (the "MEPA EJ Public Involvement Protocol") and MEPA Interim Protocol for Analysis of project Impacts on Environmental Justice Populations (the "MEPA Interim Protocol for Analysis of EJ Impacts") – are also in effect for new projects filed on or after January 1, 2022. Under the new regulations and protocols, all projects located in a DGA around one or more EJ populations must take steps to enhance public involvement opportunities for EJ populations, and must submit analysis of impacts to such EJ populations in the form of an EIR.

The PCN describes public involvement activities that have been conducted since the filing of the EENF. A project website has been maintained to provide updates about the project and answer frequently asked questions about the Full Build project.³ The website was also used to advertise a public neighborhood meeting in November 2022, hosted at the Proponent's headquarters at 223 Worcester Providence in Sutton. During review of the PCN, the Proponent held another neighborhood meeting (on May 11, 2023) which was noticed on the project website; a list of community-based organizations (CBOs) and tribes/indigenous organizations provided by the MEPA Office (the "EJ Reference List") was also used to provide notice of this meeting. Prior to filing the PCN, the Proponent provided Advance Notification of the PCN filing to the EJ Reference list through the distribution of an EJ Screening Form translated in English and Spanish, and published a notice in the Millbury-Sutton Chronicle in English and Spanish. The PCN states that the Proponent will provide translated materials in Spanish and provide additional oral interpretation services, if requested. Additionally, the PCN states that the Proponent will continue to meet with key stakeholders and community groups in an effort to ensure an inclusive process and to effectively reach EJ populations.

The PCN contained a baseline assessment of any existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ Populations over the 5-mile DGA, in accordance with 301 CMR 11.07(6)(n)(1) and the MEPA Interim Protocol for Analysis of EJ Impacts. According to the PCN, the data surveyed show some indication of an existing "unfair or inequitable" burden impacting the identified EJ populations. Specifically, the PCN notes that the DPH EJ Tool identifies the Town of Northbridge and City of Worcester as municipalities exhibiting "vulnerable health EJ criteria"; this term is defined in the DPH EJ Tool to include any one of four environmentally related health indicators that are measured to be

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³ The project website can be accessed here: https://unified2parkwayproject.wordpress.com/

110% above statewide rates based on a five-year rolling average, in this case, Low Birth Weight and Elevated Blood Lead Prevalence. The PCN states that there are two additional census tracts that include the identified EJ populations, which meet vulnerable health EJ criteria for Low Birth Weight and Elevated Blood Lead Prevalence; these census tracts are located approximately five miles from the site in Worcester and Shrewsbury.

In addition, the PCN indicates that the following sources of potential pollution exist within the identified EJ populations within 5 miles of the project site, based on the mapping layers available in the DPH EJ Tool:

• Major air and waste facilities: Up to 46

• M.G.L. c. 21E sites: 27

• "Tier II" Toxics Release Inventory Site: 69

• MassDEP sites with AULs: 23

• MassDEP groundwater discharge permits: 1

• Wastewater treatment plants:

• MassDEP public water suppliers: 10

Underground storage tanks: 47

• EPA facilities: 6

The PCN did not identify sources of potential pollution related to road infrastructure, MBTA bus and rapid transit, other transportation infrastructure, regional transit agencies, and/or energy generation and supply. It also did not clearly identify the number of major air and waste facilities. This information should be provided in the Single EIR, as further detailed in the Scope below.

The PCN indicates that potential impacts to EJ populations associated with the project are primarily limited to traffic. As described in the PCN, the project will provide a robust stormwater management system to address impacts associated with the increased impervious surface on site, employ water quality measures, and enable a significant reduction in mobile source emission through consolidation of the Proponent's existing warehouse operations. However, as further discussed in the Water/Wastewater section below, comments from MassDEP note the large increase in impervious area proposed by the project, and express concern with the project's potential to impact public drinking water sourced from the Hatchery Road Well. As noted above, the Full Build Project is expected to generate approximately 5,098 new adt, approximately 1,018 of which are associated with truck trips (diesel vehicle traffic). The PCN states that Buildings 2 and 3, the buildings which are proposed to be used by the Proponent, are expected to generate a combined 220 adt of diesel truck traffic. As these buildings will enable the consolidation of the Proponent's existing operations, the PCN states that the project will reduce the overall number of trucks generated by the Proponent beyond the study area and concentrate future business growth in close proximity to its Sutton headquarters. The PCN states that truck trips generated from Buildings 2 are primarily oriented to/from Route 146, with no new impact to local roadways east and north of the site. However, some trucks may utilize local roadways during periods of high congestion on highways. The PCN states that the occasional truck trips do not represent new truck trips on local roads.

Building 1, the building that is proposed to be leased to a third party, is expected to generate approximately 798 truck trips on a daily basis. As stated in the PCN, these trips are considered to be new truck trips on the surrounding roadway network. An analysis of the expected trip distribution from the building indicates that approximately 30 percent of the truck trips will be oriented to/from the south on Route 146, and 70 percent oriented to/from the north on Route 146. As described in the PCN, based on this analysis, net new truck trips that will be generated by the project site will not travel through the intersection of Boston Road/Providence Road, and will primarily use limited access highways to their destinations, thereby minimizing or eliminating the need for trucks to dwell at traffic signals or other activities that result in higher emissions. As further discussed below, a mesoscale analysis included in the PCN indicates that the remainder of the Full Build project is expected to result in a net increase in mobile source emissions. The project does propose traffic mitigation measures, though most of these measures are contingent on Building 1 being constructed (further discussed below).

The PCN included an air quality analysis that estimated the increase in emissions for a five-mile area around the project site based on the estimated emissions associated with truck traffic. Truck emissions were estimated for NOx, VOC, Particulate Matter 10 (PM10), Particulate Matter 2.5 (PM2.5), and Diesel Particulate Matter (DPM). The results of this analysis were summarized in a table, copied below. The PCN asserts that all increases in pollutant emissions are expected to be minor, with the largest increase in any EJ population occurring in Census Tract 7329.01 (over three miles from the project site) at less than 1 kg/day (approximately 0.4 tons per year (tpy)) for all pollutants. As stated in the PCN, the modest increases in emissions in EJ areas are less than the emission increases expected in non-EJ areas within five miles. As such, the PCN states that no disproportionate air quality impacts are anticipated on EJ populations as compared to non-EJ populations. I note, however, that the total number of roadway segments surveyed in non-EJ areas appears higher (with higher cumulative associated emissions) than EJ areas.

Table 5-13 Truck Emissions in EJ Census Tracts within 5 Miles

Block Group/ Census Tract	Vulnerable Health Criteria	Adjacent Daily Trucks	NOx (kg/day)	VOC (kg/day)	PM10 (kg/day)	PM2.5 (kg/day)	DPM (kg/day)
B2/7372	None	534	0.77	0.03	0.05	0.03	0.02
B2/7328.02	Childhood Blood Lead Low Birth Weight Childhood Asthma	167	0.47	0.02	0.03	0.02	0.01
B1/7328.02		8	0.04	0.00	0.00	0.00	0.00
B1/7328.01		8	0.06	0.00	0.00	0.00	0.00
B1/7329.01		167	0.89	0.04	0.06	0.03	0.03
EJ Area Totals			2.24	0.09	0.14	0.08	0.07
Non-EJ Areas			183.67	7.76	11.50	6.38	5.68

The PCN indicates that the project will provide a variety of public benefits associated with the project, including to EJ populations. As discussed in the Climate Change section below, the PCN states that the project has been designed to mitigate impacts related to climate change through stormwater management systems (including green infrastructure), landscaping, and the use of light-colored hardscape materials as well as utilizing sustainable design measures. As noted above, the Town of Sutton and the Proponent have entered into a CPA, whereby the

Proponent has agreed to provide certain other community and economic benefits to the Town of Sutton, including the following:

- \$1,000,000 toward traffic improvements at the Boston Road and Providence Road intersection (the "Boston Road/Providence Road Intersection Improvements")
- \$5,000,000 toward a new Sutton track and field facility or alternative public facility
- \$900,000 toward a new fire engine
- \$100,000 toward STEM education
- \$60,000 to Council for Aging toward new transportation vehicle for Sutton Senior Center
- \$80,000 toward the Town's third-party costs for reviewing the project (in addition to applicable permit fees)
- \$150,000 towards a Neighborhood Fund to address abutter concerns with all remaining proceeds to be donated to the Sutton Food Pantry

As stated in the PCN, these contributions are contingent on obtaining all permits and approvals for the Full Build Project, and certain contributions are conditioned on securing a tenant for Building 1 (the PCN does not identify which contributions are subject to this requirement). The PCN states that in addition to these monetary contributions, approximately 500 temporary construction jobs and 1,200 permanent jobs are expected to be created by the project. The PCN states that the Proponent must also sponsor certain training programs for the Sutton Fire Department prior to the occupancy of the first building in the Full Build project.

Land Alteration / Stormwater

As described in the PCN, the site contains large areas that were part of the former gravel removal operation, with the buildings proposed primarily in these previously disturbed areas, and Unified Parkway located along the existing cart path and haul road utilized for the historic gravel removal operation. According to the PCN, Phase II of the project will result in the creation of approximately 109.19 acres of impervious surface and the new alteration of 14.54 acres of land, with the Full Build project resulting in the creation of approximately 129.21 acres of impervious surface and the new alteration of 22.44 acres of land in total. As described in the PCN, Phase II project components (Buildings 1, 2, and Unified Parkway) have been designed to drain to deepsump, hooded catch basins. The catch basins will capture and convey stormwater runoff, via an underground pipe system, to one of the proposed underground infiltration basins or one of the surface infiltration basins. Pretreatment of stormwater runoff will be provided by a combination of the deep-sump, hooded catch basins, forebays and isolator rows prior to discharge into the proposed infiltration basins. Rooftop runoff has been designed to flow to the basins as well.

The PCN states that the stormwater improvements (primarily associated with the Phase I project) will increase the volume of water directed toward the Zone 1 WPA, at the Water District's request, and as such will provide an environmental benefit to the surrounding communities by increasing access to water resources. Comments from MassDEP submitted on the PCN reiterate concerns expressed in comments on the EENF regarding the potential impact to public water supplies. MassDEP states that the Department does not consider redirection of water from the increased impervious surfaces to the area around the well as an environmental benefit, as water from the impervious surfaces may carry contaminants such as oil, vehicle

fluids, and salt, and will be warmer after contact with the impervious surfaces. MassDEP indicates that the amount of recharge will not change as a result of the project, as water that currently recharges through natural processes that may otherwise potentially runoff outside of the wellhead area following project construction will just be redirected toward the same drinking water source instead. The PCN states the stormwater management systems have been designed such that post-development peak rates of runoff are below pre-development conditions for the current 2-, 10-, 25- and 100-year storm events, as further discussed below. While the PCN indicates Phase II is not considered to be a Land Use with Higher Potential Pollutant Loads (LUHPPL), the stormwater system has been designed to provide a minimum 44% TSS removal prior to stormwater entering infiltration basins; and at least 80% removal of TSS prior to infiltration. Additionally, a Stormwater Pollution Prevention Plan (SWPPP) will be implemented during the construction period in compliance with federal NPDES permitting requirements.

Water / Wastewater

As noted above, the PCN indicates that Phase II of the project will generate 38,775 gpd of water usage and 35,250 gpd of wastewater. In total, the Full Build project is expected to generate 39,362 gpd of water usage; and 35,775 gpd of wastewater generation. Wastewater will be conveyed via 8-inch gravity pipes connecting to the municipal sewer lines in Providence Road. The PCN states that a 12-inch water main will be constructed within Unified Parkway to connect to the existing 12-inch water mains at intersections of Unified Parkway with Boston Road and Providence Road. Additionally, the Proponent has entered into a letter agreement with the Wilkinsonville Water District (WWD) to provide a new 12-inch water main connection to the WWD's well lot property located within the Building 2 Lot (replacing an existing 6-inch line onsite). Existing easements associated with the existing WWD 6-inch main will be relocated to facilitate the installation of the new 12-inch main. As part of this agreement, the Proponent has committed to fund up to \$50,000 in upgrades to the WWD's systemwide telecommunications equipment. The PCN states that the proposed connection to the WWD's well lot property, as well the Unified Parkway water main connecting Providence Road to Boston Road, will improve the overall performance of the WWD water distribution system, increase pressure and service flow to the Project Site, as well as provide redundancy to the WWD distribution network on both the Project Site and off-site customer locations.

Comments from MassDEP note that the Water District has a Water Management Act (WMA) permitted withdrawal rate of 0.29 million gallons per day (MGD), and that in 2022 the average daily withdrawal was approximately 0.238 MGD. MassDEP states that while the District currently has sufficient capacity to support the project as proposed, if the Proponent plans to develop Lots 4 and 5 (a total of 163 acres), and/or additional projects require withdrawals above 0.29 MGD, the District must obtain an amended Water Management Act permit. This permitting process can take up to a year and a new permit would require the District to provide mitigation for the increase in withdrawal volume. MassDEP encourages the Proponent to assist the District in providing any needed mitigation that may be required in a new Water Management Act permit. As described in the PCN, in order to reduce water usage, the project incorporates lowflow toilets, drip irrigation systems for site landscaping and plantings, and conservation seed mix in the majority of the disturbed areas, which would not require irrigation that traditional grass areas would.

Comments from MassDEP note that per- and polyfluoroalkylated substances (PFAS) have been detected below the current Massachusetts Drinking Water standards in the Hatchery Road Well (the Water District's well, located on the interior of the project site). However, the U.S. EPA has proposed a national drinking water for certain PFAS compounds, including perfluorooctanoic acid (PFOA), which could be lower than state standards. As stated in MassDEP's comments, the proposed national standard for PFOA is 4.0 parts per trillion, and the Hatchery Road Well's most recent result for that well was 5.9 parts per trillion. In comments submitted on the EENF, MassDEP requested that the Proponent clarify whether the project may affect the ability of the District to install treatment for PFAS if necessary in the future. As stated in the PCN, the District has indicated that an expansion of the treatment building may be required but that the proposed water line connection and access road have been designed to accommodate future building expansion. MassDEP encourages the Proponent to work with the District to ensure a suitable location for the any expanded treatment system. As noted, to the extent the discharge of stormwater directly into wellhead areas may increase the risk of PFAS contamination, this should be fully evaluated.

Traffic/Transportation

As noted above, Phase II proposes the construction of 2,214 parking spaces and is expected to generate 4,618 New unadjusted adt (including 942 truck trips). The Full Build project is expected to involve the construction of 2,422 parking spaces and generate 5,098 New unadjusted adt (including 1,018 truck trips). The Full Build project is anticipated to require a Vehicular Access Permit from MassDOT. The PCN included a transportation study for the Full Build project consistent with the current MassDOT/EOEEA *Transportation Impact Assessment (TIA) Guidelines*. The TIA evaluated impacts associated with just Buildings 2 and 3, and separately, the Full Build project.

Trip Generation

The PCN states that the trip generation estimates for the project were based on standard Institute of Transportation Engineers (ITE) trip rates published in ITE's *Trip Generation Manual*, 11th Edition. Trip generation for Buildings 2 and 3 were calculated using the ITE Land Use Code (LUC) 154: High Cube and Short-Term Storage Warehouses, while trip generation for Building 1 was estimated using LUC 130: Industrial Park. Comments from MassDOT state that Proponent has met several times with MassDOT since the EENF filing to discuss details of the trip generation, background growth rates, as well as to discuss potential mitigation, and do not object to the utilized trip generation estimates.

Study Area

As described in the EENF, the TIA evaluated intersections based on the traffic characteristics of the proposed uses and the surrounding transportation network. The study area for the TIA includes the following intersections:

- Worcester-Providence Turnpike (Route 146) at Boston Road
- Boston Road at Dudley Road/Pleasant Valley Road
- Boston Road at Galaxy Pass
- Boston Road at Unified Parkway (Build conditions only)

- Providence Road (Route 122A) at Boston Road
- Providence Road (Route 122A) at Unified Parkway (Build Conditions only)
- Providence Street (Route 122A) at Riverlin Street
- Riverlin Street at Canal Street/Grafton Street
- Providence Street (Route 122A) at Canal Street
- Canal Street (Route 122A) at Elm Street/Driveway
- Worcester-Providence Turnpike (Route 146) at Marble Road
- Worcester-Providence Turnpike (Route 146) Northbound Ramps at Central Turnpike
- Worcester-Providence Turnpike (Route 146) Southbound Ramps at Central Turnpike

Capacity Analysis

The TIA includes analysis of area intersections under 2023 Existing Conditions, 2030 No-Build Conditions, and 2030 Future Build Conditions. As noted above, in order to determine what mitigation would be needed with partial build-out as opposed to what would be needed at full build, impacts were evaluated using two build conditions: one with only Buildings 2 and 3 occupied (the building that have received all local permits and are proposed to be utilized by the Proponent), and a Full Build condition. The PCN asserts that no physical improvements are necessary to support the estimated traffic generation from Buildings 2 and 3. Comments from MassDOT state that, while the partial build-out does have some impact to the expected delays at the intersection of Route 146/Boston Road, MassDOT agrees that the impacts associated with Buildings 2 and 3 are not significant.

I note that the TIA indicates that the intersection of Route 146/Boston Road currently operates at an overall Level of Service (LOS) of D, with some turning operations operating at LOS F during the weekday morning peak hour. As compared to the 2030 No-Build Condition, the 2030 Build condition for just Buildings 2 and 3 are expected to decrease the overall LOS of the Route 146/Boston Road intersection during weekday mornings from LOS D to LOS E (the overall LOS for weekday evenings would remain at LOS D, though specific turning operations at the intersection are expected to decrease). At various other local roadway intersections included in the TIA study area (for which overall LOS is not provided), specific turning operations are also expected to decrease by one LOS (for example, from LOS C to D) under the 2030 Build condition for just Buildings 2 and 3.

Similarly, the results of the TIA show a decrease in the overall LOS at the intersection of Route 146/Boston Road from the 2030 No-Build Condition (LOS D) to the 2030 Full Build Condition (LOS E). At various other local roadway intersections included in the TIA study area, specific turning operations are also expected to decrease by one or more LOS under the 2030 Full Build Condition as compared to the 2030 No-Build Condition. The Proponent proposes mitigation for the traffic impacts associated with the 2030 Full Build condition, further discussed below. For the Route 146/Boston Road intersection, the LOS is expected to be maintained at an overall LOS D for the weekday evening peak hour between the 2030 No Build/2030 Full Build with mitigation; however, the overall LOS during the weekday morning peak hour is still expected to decrease from LOS D to E as a result of the Full Build project despite the proposed mitigation.

Safety

The TIA includes a summary of crash rates derived from the MassDOT crash portal for the five-year period between 2015 and 2020. The intersection of Boston Road and Route 146 represents a crash cluster, with 1.75 crashes per million entering vehicles as compared to the District 3 average of 0.89 crashes per million entering vehicles at signalized intersections. To identify safety issues and possible countermeasures to improve safety, a Road Safety Audit (RSA) was conducted at the intersection of Route 146 at Boston Road on October 25, 2022. The PCN states that the findings of the RSA were, in part, instrumental in the development of the off-site traffic improvements proposed at Full Build.

Site Access

Primary access to the site is proposed by adding an access driveway (Unified Parkway) to the north side of Boston Road and placed under stop sign control, approximately 1,700 feet east of the intersection of Route 146 and Boston Road. Additional access to the site will be provided via the connection of Unified Parkway to Providence Road (Route 122A).

Parking

As described above, the Full Build project proposes the construction of 2,326 parking spaces, consisting of 1,589 spaces for vehicle parking and 407 for trailer parking. The PCN notes that 10% of spaces will be electric vehicle (EV) charging stations, and that 20% of spaces associated with Building 1 and 90% of spaces associated with Building 2 will be EV-ready. The Proponent previously committed to installing 10 EV charging stations (11% of the total spaces) associated with Building 3, as well as making all remaining vehicle spaces for Building 3 EV-ready.

Mitigation

As noted above, based on the TIA and in consultation with MassDOT, no physical improvements are proposed to mitigate the construction and operation of Buildings 2 and 3. The PCN describes mitigation measures that the Proponent has committed to as part of the Full Build project. At the intersection of Route 146 / Boston Road, the Proponent has committed to modifying/adding turning lanes on Boston Road, provide a pedestrian crossing across Route 146, and install any necessary hardware to support potential coordination along Boston Road if deemed desirable by MassDOT. The PCN also states that the Intersection Control Evaluation (ICE) Stage 1 has been submitted to MassDOT for review. Comments from MassDOT state that the ICE Stage 2 will need to be completed and accepted by MassDOT before the mitigation at the intersection of Route 146 / Boston Road can be specified. Comments from MassDOT state that as part of the mitigation at the intersection prior to the occupancy of Building 1, the Proponent should consider other countermeasures from the RSA that could be implemented as part of the proposed work.

The PCN also identifies mitigation to improve multi-modal access to the project site. Specifically, the Route 146/Boston Post Road intersection will include a crosswalk and a new sidewalk will be constructed along the north side of Boston Post Road and wide side of Unified Parkway. The PCN also describes a range of TDM measures that will be implemented as part of

the Full Build, with the goal of reducing single-occupancy vehicle trips to the site. The Proponent has also committed to implement a Transportation Monitoring Program (TMP) to begin six months after the issuance of a Certificate of Occupancy for the Full Build project and to run for five years, with annual reporting to MassDOT and the Town of Sutton

Climate Change

Greenhouse Gas (GHG) Emissions

The PCN included a GHG analysis based on the MEPA GHG Policy and Protocol (GHG Policy) and proposed mitigation measures to reduce GHG emissions. The project's stationary and mobile sources of GHG emissions were evaluated.

Stationary Sources

The stationary source GHG analysis included in the PCN evaluated CO₂ emissions for Buildings 1 and 2 under two alternatives: a Base Case and Preferred Case (Mitigation Alternative). The Base Case was designed to meet the 9th Edition of the Massachusetts Building Code (and more specifically, 2023 Stretch Energy Code), which references the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2013-Appendix G with Massachusetts Amendments including C401.3, C402.1.5, C402.2.8, C402.3 through C402.7, C405.2.4, C405.13, C406, C407.2, and C408. These sections include additional energy efficiency measures such as thermal envelope certification, building envelope requirements, daylight-responsive controls, electric vehicle charging, additional efficiency requirements, and commissioning. As noted above, the remainder of Full Build project (Phase II) includes the construction of two warehouse buildings that are 1,400,000 sf (Building 1) and 652,530 sf (Building 2). Building 1 is expected to be fully conditioned while the Building 2 is intended to be heated-only. However, due to the incorporation of air source heat pumps (sized at 25 percent of the design load) in both buildings, Building 2 was modeled to include some space cooling to reflect the inherent capabilities of the proposed heat pump systems.

According to the PCN, under the 2023 Stretch Code Base Case, the CO₂ emissions for Phase II are 4,195 tons per year (tpy). Due to the current mix of fuel sources supplying the electricity and the methodology for calculating emissions under the 2023 Stretch Code, Phase II is modeled as having increased emissions relative to the 2023 Stretch Code Base, despite having greater energy efficiency and greatly reducing natural gas usage. Specifically, Phase II of the project is expected to result in an 8% increase in GHG emissions as compared to the 2023 Stretch Code Base Case; however, the buildings are expected to result in a 23% reduction in 2050 GHG emissions relative to 2023 Stretch Code Base Case, due to the expected increase in renewable energy generation (either on-site or as part of the grid). Comments from DOER acknowledge the change in methodology for reporting emissions in the July 2023 Stretch Code, and commend the project for making notable progress in GHG commitments in contrast to the "near negligible" commitments noted by DOER on the EENF (Phase I project), which compared emissions to the current Base Code (not considering the pre-2023 Stretch Code in effect at the time) for Building 3.

While solar photovoltaics (PV) is not currently proposed, the PCN states that the Proponent will commit to making all roof area not occupied by rooftop equipment, skylights, or

required setbacks on both Buildings 1 and 2 solar-ready. The PCN estimates that this will correspond to approximately 80% of the roof area; comments from DOER note that this would provide enough space for almost 20 MW of solar. The PCN also evaluates Full Electrification alternatives for Buildings 1 and 2. As described in the PCN, the proposed hybrid system was chosen as the basis of design over the full electrification alternatives because it offered a balance between electrifying the space heating end use and having a backup gas heating source, a priority for the Proponent. The PCN also states that fully electrifying the remaining warehouse rooftop units would have a significant upfront cost over the proposed hybrid design.

Mobile Source

The PCN includes a mesoscale air quality analysis prepared in accordance with the MassDEP *Guidelines for Performing Mesoscale Analysis of Indirect* and mobile source greenhouse gas (GHG) emissions assessment, in accordance with the *MEPA Greenhouse Gas Emissions Policy and Protocol* (MEPA GHG Policy). The PCN analyzed the project's mobile-source emissions using the EPA's MOVES emissions model and data from the traffic study. The MOVES model calculates emissions factors for vehicles expressed in a volume per distance travelled. Total emissions of vehicles are estimated by applying Vehicle Miles Travelled (VMT) data to vehicles in the study area and emissions from idling trucks at the facility. The analysis calculated GHG emissions under 2023 Existing, 2030 No-Build, 2030 Build, and 2030 Build with Mitigation scenarios. Results of the analysis were presented in a table, copied below:

Pollutant	Existing Conditions	No-Build Conditions	Build Conditions	Project- Related Emissions ¹
Volatile Organic Compounds (kg/day)	35.7	25.8	29.7	3.90
Oxides of Nitrogen (kg/day)	29.7	15.1	17.5	2.47
Carbon Dioxide (tpy)	17,216	16,511	19,149	2,638

¹ Represents the difference in emissions between the Build and No-Build Conditions

The PCN also evaluated the impact that proposed transportation mitigation measures (all measures proposed for the Full Build project) would have on mobile GHG emissions. As shown in the table copied below, the project is still expected to result in a net increase in mobile source emissions even under the mitigation scenario. Specifically, the Phase II project, with mitigation, is expected to result in an increase in VOC emissions of 3.48 kilograms per day (kg/day), in NO_x emissions of 2.05 kg/day, and mobile source CO₂ emissions of 2,212 tpy. Converted to tons per year, VOC and NOx emissions are approximately 1.4 tpy (VOCs) and 0.82 tpy (NOx), representing an approximately 13% increase for each pollutant.⁴

Pollutant	Project-related Emissions ¹	Savings Due to Roadway Improvements ²	Savings Due to TDM Measures ³	Mitigated Project- related Emissions
Volatile Organic Compounds (kg/day)	3.90	-0.34	-0.08	3.48
Oxides of Nitrogen (kg/day)	2.47	-0.37	-0.05	2.05
Carbon Dioxide (tpy)	2,638	-374	-53	2,212

¹ Represents the difference in pollutant emissions between the Build and No-Build Conditions.

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² Proposed roadway improvements are presented in Chapter 4.

³ Mitigation from TDM Measures presented in Chapter 4.

⁴ Conversion from kg/day to tpy is 0.402 (kg/day x 0.402 = tpy).

Measures to reduce mobile emissions include implementation of a comprehensive TDM program, extensive roadway improvement measures, and installing EV parking with charging stations and EV-Ready spaces.

Adaptation and Resiliency

Effective October 1, 2021, all MEPA projects are required to submit an output report from the MA Resilience Design Tool to assess the climate risks of the project. Based on the output report attached to the PCN, the Phase II project has a "High" exposure rating based on the project's location for the following climate parameters: extreme precipitation (urban flooding), extreme precipitation (riverine flooding), and extreme heat (Phase I of the project received the same ratings). Phase II of the project also received a "Moderate" Ecosystem Benefits score.

Based on the 50-year useful life identified for Building 1, Building 2, and Unified Parkway, and the self-assessed criticality of these assets, the MA Resilience Design Tool recommends a planning horizon of 2070 and a return period associated with a 10-year (10% chance) storm event when designing the buildings to be resilient to extreme precipitation, and a planning horizon of 2070 and a return period associated with a 50-year (10% chance) storm event when designing Unified Parkway to be resilient to extreme precipitation. The recommendations for the warehouse buildings appear to be based on a "Low" criticality assessment of these buildings; for "Medium" to "High" criticality assets, the Tool provides recommendations for a 25-year to 50-year storm event for a 11-to-50-year planning horizon.⁵ The PCN notes that the proposed infiltration basins will provide greater than the required volume of groundwater recharge than that required by the MassDEP Stormwater Handbook. As noted above, the stormwater management system has been designed so that post-development peak rates of runoff are below pre-development conditions for the current 2-, 10-, 25- and 100-year storm events; these were based on the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 precipitation data, which reflects modern precipitation rates, but does not account for the increased frequently and volume of storms anticipated with climate change. Additional information regarding the resiliency of the proposed stormwater systems in accordance with the Scope below.

Regarding the project's High exposure rating for riverine flooding, the PCN states that certain portions of the project site are within mapped FEMA floodplain designated as Zone AE. According to the PCN, because the Phase II project will be developed upgradient of these areas and will not impact, or fill, the floodplain areas, there will be no impact to existing on-site flood storage. As noted above, the project still received a "High" risk for riverine flooding risk based on anticipated future climate conditions; this assessment should be addressed in the Single EIR. Regarding the project's vulnerability to extreme heat, the PCN notes that the project will includes measures aimed at reducing urban heat island effect, including new landscaping and light-colored hardscape materials, as well as tree plantings around the perimeter of truck parking areas. Additionally, the PCN states that all three buildings will include measures to adapt to high heat conditions, including the installation of high-performance HVAC equipment and the use of

⁵ See https://eea-nescaum-dataservices-assets-prd.s3.amazonaws.com/cms/GUIDELINES/V1.2_SECTION_4.pdf, at p. 23 (precipitation).

high-performance building envelopes, which will reduce cooling loads in the summer and heating in the winter.

SCOPE

General

The Single EIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent practicable.

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Project Description and Permitting

The Single EIR should identify any changes to the project since the filing of the PCN, and should provide an updated on any work associated with Phase I of the project since the filing of the PCN. In particular, it should continue to provide an update on any construction on Unified Parkway, and any consolidation of business operations enabled by the construction of Building 2 and associated GHG emissions reductions. It should identify and describe State, federal and local permitting and review requirements associated with the project and provide an update on the status of each of these pending actions. The Single EIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards.





The Single EIR should include detailed site plans for existing and post-development conditions at a legible scale. Plans should clearly identify buildings, interior and exterior public areas, impervious areas, transportation improvements, pedestrian and bicycle accommodations, and stormwater and utility infrastructure. The Single EIR should provide detailed plans, sections, and elevations to accurately depict existing and proposed conditions, including proposed aboveand below-ground structures, on- and-off-site open space, and resiliency and other mitigation measures.



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The information and analyses identified in this Scope should be addressed within the main body of the Single EIR and not in appendices. In general, appendices should be used only to provide raw data, such as drainage calculations, traffic counts, capacity analyses and energy modelling, that is otherwise adequately summarized with text, tables and figures within the main body of the Single EIR. Information provided in appendices should be indexed with page numbers and separated by tabs, or, if provided in electronic format, include links to individual sections. Any references in the Single EIR to materials provided in an appendix should include specific page numbers to facilitate review.

The PCN states that the Order of Conditions issued by the Town of Sutton on April 1, 2021 for project work includes an alternative method of mitigation in lieu of replication for impacts to locally-jurisdictional isolated vegetated wetlands; this alternative method would involve the removal of a failing dam from Cold Spring Brook on a Town-owned lot immediately adjacent to the Building 2 lot. The PCN states that, as a cold-water fishery, the removal of the

dam in Cold Spring Brook would remove a restriction that prevents fish passage throughout this segment of the stream and would result in a significant environmental benefit to the local stream ecosystem. The Sutton Conservation Commission issued an Order of Conditions on August 25, 2021 to allow this work to proceed in lieu of constructing the replication area for the impacts to the two Aggregate Industries wash ponds (isolated vegetated wetlands). The PCN states that the Proponent received a determination from the Department of Conservation and Recreation (DCR), Office of Dam Safety that the dam is not a jurisdictional dam. As the dam removal appears to be proposed as mitigation for impacts associated with this project, the Single EIR should identify permanent and temporary impacts associated with the dam removal, the acreage of the site, and any state permits or approvals required for this work. It should identify whether the dam removal was permitted as an Ecological Restoration project.

Environmental Justice

The Single EIR should include a separate section on "Environmental Justice" that contains an updated description of measures the Proponent intends to undertake to promote public involvement by such EJ populations during the remainder of the MEPA review process including a discussion of any of the best practices listed in the MEPA EJ Public Involvement Protocol that will be employed. The Single EIR should include an update on any outreach conducted since the filing of the PCN and a description of any changes made to the project (including mitigation measures) in response to this outreach. The Single EIR, or a summary thereof, should be distributed to the "EJ Reference List," with any updates to the list provided by the MEPA Office upon request. The Proponent is also directed to continue to provide translation services in Spanish as part of future outreach. To the extent additional public meetings are conducted, the Proponent is encouraged to utilize community-based strategies to notify the public and not rely exclusively on email distribution to the EJ Reference List. Hard copy distributions of public meeting notices should be conducted in locations that are likely to be frequented by EJ populations, with emphasis in locations along truck route near EJ populations.

The Single EIR should survey the environmental indicators shown in U.S. EPA's "EJ Screen" (which are available at the census block level) for each identified EJ population within the 1-mile DGA. Any indicator that is shown to be 80th percentile or higher of statewide average should be noted for each census block reviewed and viewed as an indicator of an "unfair or inequitable" burden impacting that population. In such instance, the Single EIR should review project impacts to assess whether they may materially exacerbate any identified environmental indicators. In particular, the Single EIR should confirm that traffic impacts will be sufficiently mitigated to avoid impacts to EJ populations, and should supplement climate resiliency analysis as described below to ensure that the resiliency of the project is adequate to protect potential future residents, including those in EJ populations, of the project. As noted above, in reviewing the DPH EJ Tool for sources of potential pollution within the identified EJ populations within 5 miles of the project site, the PCN did not identify sources of potential pollution related to road infrastructure, MBTA bus and rapid transit, other transportation infrastructure, regional transit agencies, and/or energy generation and supply. It also did not clearly identify the total number of major air and waste facilities. This information should be provided in the Single EIR in accordance with the MEPA Interim Protocol for Analysis of EJ Impacts.

As noted above, notwithstanding relatively modest increases in air emissions directly adjacent to the identified EJ populations, total emissions increases associated with the project on

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a mesoscale level (measured over the traffic study area) still near or exceed 1 ton per year for VOCs and NOx, even with proposed roadway mitigation. The project should continue to explore opportunities to mitigate air emissions impacts, for instance, through increased commitments to EV charging for tractor trailers or early adoption of Advanced Clean Truck regulations. MassDEP has proposed regulatory changes to adopt the California Air Resources Board (CARB)'s Medium and Heavy Duty (MHD) engine and vehicle regulations. These MHD regulations include three parts: 1) GHG Phase 2 Standards for MHD Engines and Vehicles starting in model year (MY) 2025; 2) Heavy-Duty Omnibus Regulation which contains a comprehensive set of emission standards and other emission-related requirements for heavy-duty engines and vehicles, starting in MY 2025; and 3) Advanced Clean Trucks Regulation resulting in zero emission vehicle (ZEV) sales starting in MY 2025 and ramping up to 55% of Class 2b-3, 75% of Class 4-8 and 40% of Class 7-8 tractor sales being ZEVs in MY 2035.

Public Health

The Single EIR should include a separate section on "Public Health," and discuss any known or reasonably foreseeable public health consequences that may result from the environmental impacts of the project. Particular focus should be given to any impacts that may materially exacerbate "vulnerable health EJ criteria," in accordance with the MEPA Interim Protocol for Analysis of EJ Impacts. In addition, other publicly available data, including through the DPH EJ Tool, should be surveyed to assess the public health conditions in the immediate vicinity of the project site, in accordance with 301 CMR 11.07(6)(g)10. Any project impacts that could materially exacerbate such conditions should be analyzed. To the extent any required Permits for the project contain performance standards intended to protect public health, the Single EIR should contain specific discussion of such standards and how the project intends to meet or exceed them. The Single EIR should include a thorough discussion of the potential for future treatment for PFAS contamination in the Town's water supply, including any added risks associated with stormwater discharge to the wellhead area.

Land Alteration / Stormwater

The Single EIR should identify all land alteration associated with the project (broken up into Phase I and II), including areas that have been previously altered by the historic gravel operations at the site. As noted, MassDEP has identified concerns with stormwater discharges to surrounding drinking water supplies. The Single EIR should identify the amount of alteration and the amount of impervious surface creation in Zone II Wellhead Protection Areas (WPA), and confirm that no alteration will occur in Zone I areas. In the EENF, the Proponent stated that the Proponent filed an Operations and Maintenance (O&M) Plan with the Town of Sutton that identifies areas where de-icing and fertilizer use is restricted in order to mitigate any runoff to the Zone II, and ultimately Zone I, WPA. The EENF also stated that the stormwater system for Phase I (Building 3) had been designed to include emergency shutoff valves that would be used in the event of a hazardous material spill. The Single EIR should provide further details on the O&M Plan regarding the Full Build project, and confirm whether emergency shutoff valves have been included in the Phase II project components. It should provide an update on the monitoring wells proposed to be installed in locations across the site as determined by the WWD to monitor long-term water quality, which the EENF indicated would be installed in late October 2022. The Single EIR should discuss whether alternative alignments of Unified Parkway would reduce the stormwater discharge in wellhead protection areas, particularly to Zone I.

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Traffic/Transportation

The Proponent is encouraged to further evaluate measures to reduce traffic impacts associated with just Buildings 2 and 3. While comments from MassDOT concur that the traffic impacts of only Buildings 2 and 3 are not significant, MassDOT notes that this partial build-out does result in increased delays at the intersection of Route 146/Boston Road, and the TIA indicates delays to certain turning operations at other intersections in the study area. Further, although the consolidation of business operations enabled by the construction and operation of Buildings 2 and 3 will result in a reduction in mobile GHG emission in the region (beyond the traffic study area for the project), this consolidation will concentrate future business growth in the project area (specifically, in close proximity to its Sutton headquarters). The Single EIR should identify any TDM measures proposed for Buildings 2 and 3, which will be occupied by the Proponent, that will be incorporated regardless/prior to the Full Build project receiving a Certificate of Occupancy. The Single EIR should provide an update on the ICE Stage 2 preparation/review. It should provide a summary of any consultation with MassDOT since the filing of the PCN. The Single EIR should provide an update on efforts to obtain a tenant for Building 1, and should clarify how mitigation commitments will be enforced upon securing a tenant (through tenant manuals or other means). It is my expectation that final mitigation commitments for the project will include those that will extend to future tenants, and that the failure to implement such measures will result in the need for future Notice of Project Change (NPC) filings.

Climate Change

Adaptation and Resiliency

The Single EIR should compare the elevation of the buildings to the base flood elevation (BFE) associated with the Zone AE present on-site. Given the "High" risk rating returned by the MA Resilience Design Tool for riverine flooding, the Single EIR should discuss the extent to which future flooding risk may exist for the proposed buildings notwithstanding their location outside currently mapped flood plain areas. The methodologies available in the Tool for generating "peak riverine flood elevations" associated with a future storm event (10-year to 50-year storms as of 2070) should be consulted to address whether the proposed buildings are likely to be situated above these anticipated future flood elevations.

The Single EIR should identify and compare the 24-hour total precipitation depth that the proposed stormwater management systems could attenuate for all buildings and Unified Parkway, and compare these values to the 24-hr precipitation depths recommended by the MA Resilience Design Tool. To the extent proposed design does not meet recommendations, the Single EIR should continue to explore ways in which to improve the efficacy and sizing of the stormwater system/

GHG Emissions

The Single EIR should respond to recommendations in comments from DOER.

Specifically, the Single EIR should identify the solar-ready zone the Proponent is committing to.

I encourage the Proponent to consider incorporating solar PV, given the generation potential

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noted in DOER's comments. The Single EIR should provide a revised mobile emissions analysis that provides the emissions associated with Buildings 2 and 3, the buildings which have already obtained all local approvals and will be used by the Proponent, as stated in the PCN. This revised analysis should include any mitigation measures that are being proposed to reduce mobile emissions from Buildings 2 and 3 that are not contingent on Building 1 being constructed and/or occupied. I encourage the Proponent to consider additional mitigation for diesel trucks, such as EV charging in trailer spaces, to reduce diesel emissions.

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Mitigation and Draft Section 61 Findings

The Single EIR should include a separate chapter summarizing all proposed mitigation measures including construction-period measures. This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations. The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, environmental justice, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase.

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To ensure that all GHG emissions reduction measures adopted by the Proponent as the Preferred Alternative are actually constructed or performed by the Proponent, the Proponent must provide a self-certification to the MEPA Office indicating that all of the required mitigation measures, or their equivalent, have been completed. The commitment to provide this self-certification in the manner outlined above shall be incorporated into the draft Section 61 Findings included in the Single EIR.

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Responses to Comments

The Single EIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the Single EIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the scope of the Single EIR beyond what has been expressly identified in this certificate.

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Circulation

The Proponent should circulate the Single EIR to each Person or Agency who previously commented on the PCN, each Agency from which the Project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope. The Proponent may circulate copies of the Single EIR to commenters other than Agencies in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient

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access to a computer to be distributed upon request on a first come, first served basis. A copy of the Single EIR should be made available for review in the Millbury and Sutton Public Libraries.



June 9, 2023	(Type
Date	Rebecca L. Tepper

Comments received:

05/30/2023	Massachusetts Department of Environmental Protection (MassDEP), Central
	Regional Office (CERO)
06/07/2023	Massachusetts Department of Transportation (MassDOT)
06/08/2023	Massachusetts Department of Energy Resources (DOER)
06/08/2023	Jack Shaheen

RLT/ELV/elv



Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

Maura T. Healey Governor

Kimberley Driscoll Lieutenant Governor Rebecca L. Tepper Secretary

> Bonnie Heiple Commissioner

May 30, 2023

Secretary Rebecca Tepper Executive Office of Environmental Affairs 100 Cambridge Street, 9th Floor Boston, MA 02114

Attention: MEPA Unit – Eva Vaughn

Re: Project Commencement Notice (PCN)

Unified Parkway Industrial Development

Sutton and Millbury

EEA #16593

Dear Secretary Tepper,

The Massachusetts Department of Environmental Protection's ("MassDEP") Central Regional Office has reviewed the PCN for the Unified Parkway Industrial Development (the "Project"). UGPG RE Sutton LLC (the "Proponent") is proposing to construct a warehouse and distribution building on 448 acres at 40 and 42 Unified Parkway and 105 Providence Road in Sutton. A portion of the site is in Millbury. The property consists of former gravel pits and vegetated undeveloped areas including large wetland systems.

The Project will be completed in at least two phases. The Proponent received a Phase 1 Waiver and is proceeding with the construction of Phase 1, which consists of a 343,200-square-foot warehouse and distribution building (Building 3) with up to 90 automobile parking spaces and 118 trailer parking spaces on approximately 38 acres of the Project Site. Phase 1 includes a stormwater management system, water mains, sewer mains and partial construction of Unified Parkway, a new internal access drive. Phase 2 consists of construction of a 1,400,000-square-foot warehouse and distribution building with 1,247 auto and 586 trailer parking spaces (Building 1), and a 652,530 square-foot warehouse and distribution building with 252 auto and 33 trailer parking spaces (Building 2). Phase 2 includes the completion of Unified Parkway.

The Proponent is requesting permission to prepare a Single EIR pursuant to the Special Review Procedure Certificate issued on [date]. The Secretary allowed a Phase 1 Waiver but required the Proponent to file a Project Commencement Notice that would consider the potential environmental harm for the Project as a whole.

The Project is under MEPA review because it meets or exceeds the following review thresholds:

- 301 CMR 11.03 (1)(a)2 Creation of ten or more acres of impervious area;
- 301 CMR 11.03(6)(a)(6): the generation of 3,000 or more New adt on roadways providing access to a single location.

The Project requires the following State Agency Permits:

- Massachusetts Department of Transportation Vehicular Access Permit;
- MassDEP Superseding Order of Conditions (if local Orders of Conditions are appealed).

MassDEP offers the following comments:

General

In Table 1-1, the square footage of each building is given as 343,200 square feet (sf), 625,530 sf and 1,400,000 sf. According to the Table, the total square footage is 2,395,730 sf, but the three numbers add up to 2,368,730 sf. The Proponent should clarify which number is correct.

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Wetlands

On July 8, 2022, the Town of Sutton issued an Order of Conditions (OOC) for Building 3 (DEP File # 303-966), approving the proposed Project for the construction of Building 3 and related infrastructure. The OOC was not appealed. Building 3 is currently under construction.

Building 1 will be located in the towns of Sutton and Millbury. No work is proposed in any Wetland Resource Areas or the 100-foot Buffer Zone. A Notice of Intent (NOI) is not required to be filed with either town.

Building 2 will be located in the town of Sutton. No direct Wetland Resource Areas impacts are proposed; however, some work is proposed within the 100-foot Buffer Zone (BZ) to a Bordering Vegetated Wetland. The proposed development will impact 27,056 sf of the BZ previously disturbed during the historic gravel removal operation and 96,279 sf of newly disturbed naturally forested areas of the BZ for a total of 123,335 sf. The Project Proponent states in the PCN that an NOI will be filed with the Sutton and Millbury Conservations for construction activities associated with the construction of Building 2.

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The full build out (Buildings 1,2 & 3) has been designed to avoid all direct Wetland Resource Area impacts, and work within the 100-foot BZ has been minimized. Stormwater

Management has been designed to meet MassDEP's Stormwater Management Standards and Regulations.

Water Supply

The PCN provides information pertaining to the full Project scope. Drinking water will be supplied to the three buildings via 12" water mains from the existing Wilkinsonville Water District (the "District") system on Boston Road and Providence Road. The full build-out estimate for drinking water in the EENF was 35,376 gallons per day (gpd). The full build water supply estimate is stated as 39,362 gpd in the PCN:

Table 7-1 Estimated Water Use		
Phase 1 Project – Building 3 ¹	587 GPD	
Full Build Project – Building 2	2,475 GPD	
Full Build Project – Building 1	36,300 GPD	
Remainder of Full Build Project Total	38,775 GPD	
Full Build Project Total	39,362 GPD	
1 Phase 1 Project – Ruilding 3 impacts were previously reviewed under MEPA as part of		

¹ Phase 1 Project – Building 3 impacts were previously reviewed under MEPA as part of the August 2022 EENF.

On November 21, 2021, the District provided a Will Serve Letter to the Proponent outlining its commitment to provide up to 35,775 gallons per day to service the Full Build Project. However, the estimated water usage is 39,362 gpd for the full build out. The Proponent should explain the difference.

MassDEP noted in its comments on the EENF that the District has a Water Management Act permitted withdrawal of 0.29 million gallons per day (MGD) from all sources combined. In 2021, the District reported an average daily withdrawal of 0.201 MGD and in 2022 an average daily withdrawal of 0.238 MGD from its sources. The District currently has sufficient capacity to support the Project as proposed. However, in a recent meeting with MassDEP, the District stated that there are several other pending projects that the District has been asked to serve and they are proceeding with seeking a new water needs forecast from the Department of Conservation and Recreation. This would be the first step in whether additional water withdrawals would be allowable.

If the Proponent plans to develop Lots 4 and 5 (a total of 163 acres), and/or additional projects require withdrawals above 0.29 MGD, the District must obtain a new Water Management Act permit. That permitting process can take up to a year and a new permit would require the District to provide mitigation for the increase in withdrawal volume. MassDEP encourages the Proponent to assist the District in providing any needed mitigation that may be required in a new Water Management Act permit.

1.3

In its comments on the EENF, MassDEP noted that the Hatchery Road Well for the District is in the middle of the Project site on land owned by the Water District. MassDEP does not agree that the Project will provide environmental benefits to the public water supply. MassDEP believes construction around the well has the potential to adversely affect drinking water quality. Redirection of water from the increased impervious surfaces to the area around the well is not an environmental benefit. Water from the impervious surfaces may carry contaminants such as oil, vehicle fluids, and salt. That water will also be warmer after contact with the impervious surfaces. The amount of recharge will not change as a result of the Project; it will just be redirected toward the drinking water source.

1.5

1.6

In addition, per- and polyfluoroalkylated substances (PFAS) have been detected in the Hatchery Road Well below the current Massachusetts drinking water standards. However, the United States Environmental Protection Agency has proposed a national drinking water for certain PFAS compounds, including perfluorooctanoic acid (PFOA). The proposed national standard for PFOA is 4.0 parts per trillion; the Hatchery Road Well's most recent result for that well was 5.9 parts per trillion. MassDEP requested the Proponent to clarify whether the Project may affect the ability of the District to install treatment for PFAS if necessary in the future. The Proponent stated in the Response to Comments that the District has indicated that an expansion of the treatment building may be required but the proposed water line connection and access road have been designed to accommodate future building expansion. MassDEP encourages the Proponent to work with the District to ensure a suitable location for the any expanded treatment system.

MassDEP appreciates the opportunity to comment on the Project. If you have any questions regarding these comments, please do not hesitate to contact JoAnne Kasper-Dunne, Central Regional Office MEPA Coordinator, at (508) 767-2716.

Very truly yours,

Mary Jude Pigsley Regional Director

Maugudelagely

cc: Commissioner's Office, MassDEP





June 6, 2023

Rebecca Tepper, Secretary Executive Office of Energy and Environmental Affairs 100 Cambridge Street, Suite 900 Boston, MA 02114-2150

RE: Sutton: Unified Parkway Industrial Development – PCN

(EEA #16593)

ATTN: MEPA Unit

Eva Vaughn

Dear Secretary Tepper:

On behalf of the Massachusetts Department of Transportation, I am submitting comments regarding the Project Commencement Notice (PCN) filed for the Unified Parkway Industrial Development project in Sutton as prepared by the Office of Transportation Planning. If you have any questions regarding these comments, please contact J. Lionel Lucien, P.E., Manager of the Public/Private Development Unit, at (857) 368-8862.

Sincerely,

David J. Mohler Executive Director

2 Mom

Office of Transportation Planning

cc: Jonathan Gulliver, Administrator, Highway Division
Carrie Lavallee, P.E., Chief Engineer, Highway Division
Mary Joe Perry, District 5 Highway Director
James Danila, P.E., State Traffic Engineer
Planning Board, Town of Sutton
Central Massachusetts Regional Planning Commission (CMRPC)





MEMORANDUM

TO: David J. Mohler, Executive Director

Office of Transportation Planning

FROM: J. Lionel Lucien, P.E., Manager

Public/Private Development Unit

DATE: June 6, 2023

RE: Sutton – Unified Parkway Industrial Development

(EEA #16593)

The Public/Private Development Unit (PPDU) has reviewed the Project Commencement Notice (PCN) submitted for the Unified Parkway Industrial Development located at 103 Providence Road in Sutton as submitted by Vanasse Hangen Brustlin, Inc. on behalf of UGPG RE Sutton LLC (the "Proponent"). The 103 Providence Road site represents 448 acres of former gravel storage space over three parcels in common ownership. Full Build of the warehouse/distribution facilities would total approximately 2.4 million square feet in Sutton and Millbury ("Project")

The Project was previously reviewed through an Expanded Environmental Notification Form (EENF) that was filed on August 24, 2022, and this PCN is being filed consistent with the MEPA Certificate issued on October 31, 2022, that outlined a Special Review Procedure for the Project. Although the development site does not abut State Highway, the development will require a Vehicular Access Permit from MassDOT for mitigation at the intersection of Route 146 and Boston Road, which is expected to be impacted by traffic generated by the project.

The site consists of three buildings, one of which (Building 3) was allowed to begin construction prior to the MEPA review of the full impact of the Project. The components evaluated in this PCN are:

- 1) An approximately 652,530 SF warehouse and distribution building supported by 252 auto and thirty-three trailer parking spaces (Building 2);
- 2) Completion of Unified Parkway, ("Unified Parkway"); and
- 3) An approximately 1,400,000 SF warehouse and distribution building supported by approximately 1,247 auto and 586 trailer parking spaces (Building 1).

Primary access to the site is proposed by adding an access driveway (Unified Parkway) to the north side of Boston Road and placed under stop sign control, approximately 1,700 feet east of the intersection of Route 146 and Boston Road. Unified Parkway connects Providence Road (Route 122A) to Boston Road and will additionally provide access to the Project site.

The PCN includes a transportation study that is consistent with the *EEA/MassDOT Transportation Impact Assessment (TIA) Guidelines*. The TIA includes an analysis of the surrounding study area that addresses intersection operations, safety, and bicycle, pedestrian, and transit modes. As part of this PCN filing, the Proponent has requested a Single Environmental Impact Report.

The Proponent has met several times with MassDOT since the EENF filing to discuss details of the trip generation, background growth rates, as well as to discuss potential mitigation. At full build, the Project is expected to generate 5,098 vehicle trips per day (4,080 auto trips + 1,018 truck trips), with 705 vehicle trips during the weekday AM peak hour and 731 vehicle trips during the weekday PM peak hour. Land Use Code (LUC) 154 (High Cube Transload and Short-Term Storage) as provided in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual (11th Ed.)* was used for Buildings 2 and 3, while LUC 130 (Industrial Park) was used for Building 1.

The Proponent has analyzed the study area intersections using two build conditions (one with only Buildings 2 and 3 occupied, and a full build) to determine what mitigation would be needed with partial build-out vs. what is needed at full build. The Proponent states that mitigation is not needed at the intersection of Route 146/Boston Road until full build. While the partial build-out does have some impact to the expected delays at the intersection, MassDOT agrees that the impact of only Buildings 2 and 3 is not significant.

At the intersection of Route 146 / Boston Road, the Proponent outlines commitments to modify/add turning lanes on Boston Road, provide a pedestrian crossing across Route 146, and install any necessary hardware to support potential coordination along Boston Road if deemed desirable by MassDOT. The Proponent also states that the Intersection Control Evaluation (ICE) Stage 1 has been submitted to MassDOT for review. The ICE Stage 2 will need to be completed and accepted by MassDOT before the mitigation at the intersection of Route 146 / Boston Road can be specified. It should be noted that the Proponent conducted a Road Safety Audit at this intersection on October 25, 2022. As part of the mitigation at the intersection prior to the occupancy of Building 1, the Proponent should consider other countermeasures from the RSA that could be implemented as part of the proposed work.

The Proponent has identified in the PCN mitigation to improve multi-modal access to the Project site. The Route 146/Boston Post Road intersection will include a crosswalk and a new sidewalk will be constructed along the north side of Boston Post Road and wide side of Unified Parkway. The Project also includes a range of Transportation Demand Management (TDM) measures with the goal of reducing single-occupancy vehicle trips to the Project site. Last, the Proponent has committed to implement a Transportation Monitoring Program (TMP) to begin six months after the issuance of a Certificate of Occupancy for the Project and to run

for five years, with annual reporting to MassDOT and the Town of Sutton.

2.1

MassDOT offers no objection to the Proponent's requests for an SEIR given the level of information included in this PCN. The Proponent should complete the ICE Stage 2 prior to the SEIR filing so an intersection control alternative can be selected and specific mitigation identified prior to the completion of the MEPA process. The Proponent should continue consultation with MassDOT during the preparation of the SEIR for the Project. If you have any questions regarding these comments, please contact *Lionel.Lucien@dot.state.ma.us*.

2.2



COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS

DEPARTMENT OF ENERGY RESOURCES

100 CAMBRIDGE ST., SUITE 1020 BOSTON, MA 02114

> Telephone: 617-626-7300 Facsimile: 617-727-0030

Maura Healey Governor

Kim Driscoll Lt. Governor Rebecca Tepper Secretary

Elizabeth Mahony Commissioner

8 June 2023

Rebecca Tepper, Secretary Executive Office of Energy & Environmental Affairs 100 Cambridge Street Boston, Massachusetts 02114

Attn: MEPA Unit

RE: Unified Parkway Industrial Development, Sutton and Millbury, MA, EEA #16593

cc: Ian Finlayson, Acting Director of Energy Efficiency, Department of Energy Resource Elizabeth Mahony, Commissioner, Department of Energy Resources

Dear Secretary Tepper:

We've reviewed the Project Commencement Notice (PCN) for the proposed project. The project includes two warehouse buildings (1,400,000-sf and 652,530-sf). Both buildings also contain an office component.

The project was very responsive to past DOER comments and both buildings now contain significant mitigation measures. Key commitments are noted below.

One recommendation is to increase PV readiness. PV readiness at 80% would provide enough space for almost **20 MW** of solar, a size which could be potentially attractive to utility-scale solar developers.

Summary of Key Mitigation Commitments

- Proposed building energy use for both buildings is about 24 kBtu/sf-yr.
- In both buildings, gas use is near eliminated. Proposed gas use in both buildings will be less than 4 kBtu/sf-yr.

Unified Parkway Industrial Development, EEA No. 16593 Sutton and Millbury, Massachusetts

- o In both buildings, primary heating system for the non-office portions of the warehouse will be air source heat pumps, sized to 25% of the buildings' peak heating load. Secondary heating system will be natural gas.
- o In both buildings, the office portion will be heated with air source VRF heat pumps and no gas will be used.
- o All service water heating will be air source heat pump hot water.
- In both buildings, envelope performance as follows:

Roof: R-45.5Wall: R-14.5

o Window to wall ratio: 7.3%

o Air infiltration: 0.35 cfm/sf at 75 Pa

- In both buildings, ventilation energy recovery having 70% effectiveness will be included
- In both buildings, 50% rooftop solar readiness.

Recommendation: Increase Solar Readiness

We note that the solar ready zone is only marginally improved over code requirements (code requires 40%). We recommend the solar ready zone be increased to at least 80% for these large footprint buildings.

The large building format could provide a significant space asset for PV. A rooftop with 80% solar readiness could provide about 40 acres of space. This is enough space to house about **20 MW** of solar PV. This is a significant space resource which could potentially be monetized with a lease to a utility-scale solar developer, for example.

Sincerely,

Paul F. Ormond, P.E.

Energy Efficiency Engineer

Massachusetts Department of Energy Resources

3.1

William Talcott, Chair Scott Paul, Vice-Chair Robert S. Largess Jr. Walter A. Baker Michael Gagan Erica McCallum, Associate

Jennifer S. Hager, Planning & Economic Development Director



Sutton Town Hall 4 Uxbridge Road Sutton, Massachusetts 01590 Phone: (508) 865-8729 www.suttonma.org

TOWN OF SUTTON PLANNING BOARD & DEPARTMENT

June 9, 2023

Rebecca Tepper, Secretary Executive Office of Energy and Environmental Affairs 100 Cambridge Street, Suite 900 Boston, MA 02114

RE: EEA# 16593 – Unified Parkway Industrial Development

Secretary Tepper:

The Town of Sutton Planning Board would like to provide the following commentary relative to the Project Commencement Notice (PCN) submitted for the Unified Parkway Industrial Development project to be located between Boston and Providence Roads in Sutton.

Our first concern is traffic impact. The majority of the projects 4,600+/- trips will be traveling north and south on Route 146 directly impacting the intersection of Route 146 and Boston Road. Employee trips will also impact local roads like Dudley and Central Turnpike. We are concerned that no mention of the use of rail has been made in any MEPA documents even though a rail spur exists at this property. Why is the use of rail to potentially off set truck traffic not addressed?

The second, although related, concern is environmental impact. While it is clear having warehousing much closer to Unified headquarters is a plus and will reduce greenhouse gas(GHG) emissions along and at the previous warehouse locations, the traffic study still shows 80% of truck trips using Route 146 north. Therefore, these trips are not traveling to and from the headquarters located south of the project site. These are new trips to this area with an increase in GHG emission to the Sutton and Blackstone Valley corridor area which should be mitigated in this area.

While the buildings are noted as solar ready, no commitment has been made to alternative green energy sources. Electric heating is still predominantly fueled by fossil fuels. Additionally, this phase of the project will render more than 100 acres impervious and create a significant potential for heat island effect. The use of materials, vegetation, and technology to reduce/eliminate this impact should be mandatory.

.1

4.2

4.5

Sutton is absolutely in favor of more tax base development as well as the creation of a wide range of jobs and housing opportunities within our limited commercial and industrial districts. However, the proposed project will also have impacts in and beyond Sutton that must be thoroughly understood and mitigated.

We request the State's assistance in ensuring the effects of this project, and the cumulative effects of this and other projects being developed along the Route 146 Corridor, are mitigated. These efforts are essential to ensure the long term viability of working, living and thriving within the Blackstone Valley.

Thank you in advance for your consideration of our input. Feel free to reach out to our Planning Director for any questions or clarifications.

Sincerely,

Jennifer & Hager,

Planning & Economic Development Director

cc: Eva Vaughan, MEPA

Lauren DeVoe, VHB Sutton Town Manager

Sutton Select Board

Barry Lorion, Director, District 3 MassDOT

Central Massachusetts Regional Planning Commission

Vaughan, Eva (EEA)

From: Jack Sheehan < jacksheehan26@gmail.com>

Sent: Thursday, June 8, 2023 10:47 PM

To: Vaughan, Eva (EEA) **Subject:** Unified 16593

Follow Up Flag: Follow up Flag Status: Follow up

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Please accept the following comments on the Unified project PCN #16593.

The project proponent has presented a thorough reasonable proposal for the redevelopment of a large tract of land in Sutton.

Traffic studies predict what the impact of the full build will look like.

The traffic impacts, as yet to be realized, will likely have a dramatic effect on the immediate area. More importantly this project is one of several either completed, under construction or in the planning process. Most of the space is not occupied or not in operation. When all of this space goes on line I fear the planning and the infrastructure inadequate.

5.1

A continued emphasis on the importance of the site to the water resources of the area. The storm water drainage system has been designed and peer reviewed but maintenance and observation, modification if necessary will ensure protection of the aquifer.

There remains a large parcel of the the site zoned residential at the western side of the property. Development of this parcel, although not planned, would add another set of impacts yet to be determined.

5.1

I would like make note that after the SRP process was completed I had some further questions and sought clarification from MEPA and others. Subsequently I met with the project proponent and representatives and had my questions answered including the expected completion of the full build filing. I appreciated the cooperation and information.

Thank you Jack Sheehan