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February 14, 2020

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME	: Capital Commerce Center
PROJECT MUNICIPALITY	: Lancaster and Leominster
PROJECT WATERSHED	: Nashua
EEA NUMBER	: 16043
PROJECT PROPONENT	: Capital Group Properties
DATE NOTICED IN MONITOR	: December 11, 2019

As Secretary of Energy and Environmental Affairs, I hereby determine that the Draft Environmental Impact Report (DEIR) submitted on this project **does not adequately and properly comply** with the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62I) and with its implementing regulations (301 CMR 11.00) and requires the filing of a Supplemental DEIR (SDEIR). Specifically, I find that the DEIR has not provided a comprehensive alternatives analysis nor addressed the potential impacts of the project on a designated Area of Critical Environmental Concern (ACEC), wetland resource areas, and water quality as required in the Scope for the DEIR. As such, I cannot find that the project has satisfied the regulatory requirements to ensure that the project's environmental impacts have been clearly described and fully analyzed or that it has incorporated all feasible means to avoid Damage to the Environment. Accordingly, I am requiring the Proponent to file a SDEIR pursuant to Section 11.08(8)(b) of the MEPA regulations.

Project Description

As described in the Environmental Notification Form (ENF) and DEIR, the project consists of a mixed-use development on a 471-acre site located in Lancaster and Leominster. The master plan for the project represents maximum (potential) build out of the site on five separate development parcels and will include construction of approximately 3,056,500 total square feet (sf) of industrial (1,647,800 sf), retail, recreational, hotel and residential uses. Residential development consisting of 117 single-family,

duplex and triplex units is proposed in the western portion of the site and 500 multi-family units (including 60 units, or 12 percent, designated as affordable) are proposed in seven buildings within the eastern portion of the site. The project includes construction of access roadways, 3,028 surface parking spaces and circulation areas, stormwater management systems, and utility infrastructure. The area of the site within Leominster is small and no buildings are proposed within this area. The eastern portion of the site contains a trucking facility and the Lancaster Crossing development project (described below). The trucking facility will be demolished.

Primary access to the site is proposed via McGovern Boulevard (a private way) from Lunenburg Road to the east. Access to the residential component from the west is proposed from Leominster via Johnny Appleseed Lane and White Pond Road. McGovern Boulevard will be extended approximately 4,200 linear feet (lf) to the west to provide access to multiple industrial buildings proposed in the central portion of the site.

The project includes construction of a wastewater treatment plant (WWTP) and construction of a 2.5-mile water line from Lunenburg to the project site. The Proponent has entered into a Memorandum of Understanding (MOU) with the Lunenburg Water District (LWD) to serve the project site; however, a formal Intermunicipal Agreement (IMA) between Lunenburg and Lancaster has yet to be executed. The LWD's request for increased water withdrawals to serve both this project and Lunenburg's own needs was the subject of a separate MEPA review (EEA #15126), which concluded in January 2020. As described below, the LWD will be required to submit a corrective action plan to the Massachusetts Department of Environmental Protection (MassDEP) to address elevated manganese levels in the new wellfield, and this contingency creates uncertainty as to whether and how water supply sources for this project will be secured. A 200,000-gallon concrete fire suppression tank on the site will be maintained, if required.

The following table associated with the Preferred Master Plan identifies land uses for each building, gross square footage (gsf) per use, and parking and loading requirements.

Table 1.2: Preferred Master Plan – DEIR

Land Use	Building/ Structure	Description	Units / Keys	Floorplate (Sq. Ft.)	Stories	GSF	Surface Parking	Trailer Parking	Loading Docks
Industrial	A	Industrial Building		1,020,000	1	1,020,000	587	316	214
	B	Industrial Building		150,000	1	150,000	116		32
	C	Industrial Building		42,000	1	42,000	62		5
	D	Industrial Building		145,600	1	145,600	84		13
	E	Industrial Building		100,000	1	100,000	56		25
	F	Industrial Building		70,800	1	70,800	84		26
	G	Industrial Building		37,500	1	37,500	68		14
	H	Industrial Building		37,500	1	37,500	38		15
	J	Auto Sales & Service Facility		14,400	1	14,400	72		0
	K	Industrial Building		30,000	1	30,000	32		11
Residential	I	Single Family, Duplex & Triplex Units	117	272,000	2	544,000			
	L	Multi-Family Apartments	140	44,650	4	178,600	260		
	M	Multi-Family Apartments	160	50,000	4	200,000	270		
	N	Multi-Family Apartments	200	64,400	4	257,600	210		
120 Room Hotel	O	Hotel	120	16,000	4	64,000	120		
Recreation	P	Existing Soccer Fields		5,000	1	5,000	276		
	Q	Indoor Sports Facility		86,400	1	86,400	216		
Retail	R	Proposed Retail		73,000	1	73,000	477		
Total			737	2,259,250		3,056,400	3,028	316	355

The project will be phased and constructed over multiple years depending on market conditions. The project is at a conceptual level of design. Several components of the Master Plan have already been constructed (Lancaster Crossing includes a Dunkin' and Mobil Gas Station; F.C. Stars Soccer Complex; and associated access, utility and drainage infrastructure). These components were previously reviewed through prior MEPA filings (EEA# 15604) and are described in the Master Plan so that cumulative impacts from the entirety of the site can be assessed. The Proponent has executed a purchase and sale agreement for the Automotive Sales and Service Facility (Building J) and is in discussions regarding purchase of buildings B and D in order to initiate development of those buildings. It is likely that these components of the Master Plan will be constructed prior to other uses. All existing development will be retained with the exception of the trucking facility and gravel mining operation.

The DEIR provides an update for potential phasing of the project:

- Phase 1 (already constructed) – Lancaster Crossing development project consisting of Dunkin, Mobil Gas Station and F.C. Stars Soccer Complex;
- Phase 2 – construction of primary access road (extension of McGovern Boulevard), water line extension and WWTP. This phase may include abandonment of water and sewer infrastructure that serves Dunkin' and Mobil Gas and connection to new water lines;
- Phase 3 – construction of Building J (Automotive Sales and Service Facility), and Buildings B and D; and
- Future phases for all other buildings will be determined based on market demand.

Changes to the Project Since Filing the ENF

The DEIR identifies the following changes to the project with associated environmental impacts:

- Significant increase in size of mixed-use development by 366,500 sf from 2,690,000 sf to 3,056,500 sf (approximately 14 percent);
- Slight decrease in parking spaces by 118 spaces from 3,146 spaces to 3,028 spaces;
- Addition of 26 new loading docks from 319 to 355;
- Addition of approximately 7.3 acres of impervious area from 152.7 acres to 160 acres;
- Addition of approximately 4 acres of land alteration from 55 acres to 59 acres;
- Addition of 3,500 sf of BVW alteration;
- Addition of new Building K (approximately 30,000 gsf adjacent to Building B with associated increase in impervious area;
- Reconfiguration and resizing of Buildings E, F, G and H (formerly Buildings E, F, H and I);
- Elimination of former location of Building G to reduce resource area impacts;
- Slight relocation of Building J based on end-user requests and to reduce resource area impacts;
- Shifting Residential Buildings L and M to the west to reduce resource area impacts;
- Addition of a vehicle turnaround to the area adjacent to Industrial Building A to facilitate emergency vehicle movements with associated increase in impervious area;

- Addition of trailhead parking to the area south of the access drive near Building G to provide connections to surrounding trails to the north and south of the site; and
- Elimination of a portion of the vehicle storage area associated with building J to provide additional buffer to resource areas.

The DEIR does not provide revised estimates of impacts to land alteration and impervious area for each project change.

Project Site

The 471-acre project site, which is comprised of numerous parcels, is located west of Lunenburg Road (Route 70). The majority of the site is in Lancaster; a small area along the westernmost edge of the site extends into Leominster. McGovern Boulevard and Lunenburg Road in Lancaster provide access from the east. Johnny Appleseed Lane in Leominster provides access from the west. The project site abuts Interstate 190 (I-190) to the west, and is located south of Route 2, which are both under the jurisdiction of the Massachusetts Department of Transportation (MassDOT). The project site is generally bounded by woods, wetlands, and residences to the north; I-190 to the west; woods, wetlands and the North Nashua River to the south; and Lunenburg Road and Kimball Farm to the east. The project site directly abuts the Cook Conservation Area and two parcels within the Lancaster State Forest that are under the care, custody and control of the Massachusetts Department of Conservation and Recreation (DCR).

The project site is composed of three areas (eastern, central and western). A portion of the eastern area of the site was recently developed as part of the Lancaster Crossing development project with a Dunkin', Mobil Gas Station, and soccer fields (F.C. Stars Soccer Complex) with associated driveways, parking areas, utilities, and stormwater management systems. The JB Hunt Trucking facility is also located in the eastern portion of the site with access from Lunenburg Road. A portion of the site in the west, located off Johnny Appleseed Lane, includes a house, horse barn, horse track, associated parking areas and utilities, and undeveloped areas consisting of woods and fields. The remaining portion of the site consists of an active gravel mining operation, gravel access roads, agricultural fields, and undeveloped fields, woodlands, and wetlands. A small land-locked parcel of land in the central portion of the site is not part of the project. Topography varies greatly with elevations ranging from 516 feet in the north to 268 feet in the south.

The site, previously under single ownership, is subdivided and owned by five additional ownership entities. Lancaster Crossing, located in the eastern portion of the site, contains approximately 50 acres of land and will be developed by a separate entity. Additional commercial, retail and residential uses will be incorporated into Lancaster Crossing. The site is located within the Enterprise District (Retail Sub-district) and Residential Zoning District. It is overlain by the Integrated Planning Overlay District (IPOD), which allows a broad range of uses, the Floodplain Overlay District and the Water Resources Overlay District.

The project site contains numerous wetland resource areas associated with White Pond, McGovern Brook and several of its tributary streams, and several isolated wetlands. Wetland resource areas include Bordering Vegetated Wetlands (BVW), Isolated Vegetated Wetlands (IVW), Bank, Bordering Land Subject to Flooding (BLSF), Isolated Land Subject to Flooding (ILSF), Land Under Water (LUW), Riverfront Area (RFA), and Buffer Zones to these wetland resource areas. The off-site water line route proposed along roadways in Lunenburg and Leominster includes two unnamed

perennial streams and associated wetlands. One Certified Vernal Pool (CVP) is located in the western portion of the site. Portions of the site to the north and east are located in a Zone A (one percent annual chance of flooding) and a small portion of the site along the southern edge is located within the Zone AE (one percent annual chance of flooding), with no base flood elevations (BFE), according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) (No. 25027C0289E, effective July 4, 2011). There are no Estimated or Priority Habitats of rare species present on the site. The southern half of the site is located within the Central Nashua River Valley Area of Critical Environmental Concern (ACEC). The North Nashua River, located south of the site, is considered a Class B Outstanding Resource Water (ORW). The Nashua River Watershed is identified as a medium Stress Basin in Massachusetts. Three public water supply wells and associated interim wellhead protection area (IWPA) are located in the eastern portion of the site; one was never put into service and the other two service the Dunkin' and Mobil Gas Station properties.

Prior MEPA Review

An ENF (EEA# 15604) for development associated with the site was submitted in October 2016 by North Lancaster Water LLC (NLW) to modify an existing Public Water Supply (PWS) permit to provide water service to the Dunkin' facility. The ENF was withdrawn by NLW on December 9, 2016 to address information necessary to adequately evaluate the project, including a "look back" analysis of development that was completed and identification of proposed and planned development in the project area. Based on changes to the project and the analysis provided, it was determined that the project did not require MEPA review. An Advisory Opinion (AO) issued on July 26, 2019 indicated that the Dunkin' and the Mobil Gas Station would require PWS permits from MassDEP but confirmed that the project did not exceed any MEPA environmental review thresholds. The AO indicated that development of any portion of the remainder of land now or formerly owned by NLW within five years of the AO could be subject to MEPA review based on cumulative impacts.

Environmental Impacts and Mitigation

Potential environmental impacts associated with the project include: alteration of 59 acres of land; creation of 160 acres of impervious area for a total of 173 acres; alteration of 3,500 sf of BVW, 1,815 sf of LUW (Farm/Wash Pond), 15,000 sf of BLSF and 437,216 sf of RFA; generation of 11,274 new unadjusted average daily trips (adt) for a total of 17,630 adt; construction of 3,028 parking spaces (includes 353 existing spaces) and 320 trailer spaces; use and generation of 155,385 gallons per day (gpd) of water and wastewater, respectively, for a total of 157,385 gpd; and construction of 4.1 miles of water main and 1.8 miles of sewer main. The Dunkin' and Mobil Gas Station resulted in impacts to an additional 15,295 sf of BLSF associated with the original McGovern Brook crossing and 42,234 sf of RFA. Emissions of Greenhouse Gases (GHG) and other air pollutants are associated with on-site energy use and automobile travel by residents, employees and visitors to the site.

Measures to avoid, minimize and mitigate potential environmental impacts associated with the project include traffic improvements (traffic signal and roadway widening); pedestrian and bicycle accommodations; construction and maintenance of a stormwater management system; restoration and/or replication for impacts to wetland resource areas; and implementation of construction-period best management practices (BMPs).

Permitting and Jurisdiction

The project is undergoing MEPA review and is subject to preparation of a mandatory Environmental Impact Report (EIR) pursuant to 301 CMR 11.03(1)(a)(1), (1)(a)(2), (3)(a)(1)(b), (6)(a)(6) and (6)(a)(7) because it requires Agency Actions and will alter 50 or more acres of land, create 10 or more acres of impervious area, alter 10 or more acres of other wetlands (RFA and BLSF), generate 3,000 or more new adt providing access to a single location, and construct 1,000 or more new parking spaces at a single location. The project will exceed ENF thresholds pursuant to 301 CMR 11.03(5)(b)(1) for construction of a new wastewater treatment and/or disposal facility with a capacity of 100,000 or more gpd and 301 CMR 11.03(5)(b)(3)(c) for construction of one or more new sewer mains one-half or more miles in length that are not located in the right of way of existing roadways. It will require a Vehicular Access Permit from MassDOT and the following Permits from MassDEP: a Water Distribution System Modification Permit, an Individual Permit for Sewerage Treatment Plant, a Hydrogeologic Evaluation Report Approval and a Water Management Act (WMA) Permit. The project is subject to the May 5, 2010 MEPA GHG Emissions Policy and Protocol (the Policy).

The project requires Orders of Conditions (OOC) from the Lancaster and Lunenburg Conservation Commissions (and potentially an OOC from the Leominster Conservation Commission) (and, on appeal only, a Superseding Order of Conditions from MassDEP), a National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) from the U.S. Environmental Protection Agency (EPA), and an Obstruction Evaluation/Airport Airspace Analysis from the Federal Aviation Administration (FAA).

The project is not receiving Financial Assistance from the Commonwealth. Therefore, MEPA jurisdiction is limited to those aspects of the project that are within the subject matter of any required or potentially required Agency Actions and that may cause Damage to the Environment, as defined in the MEPA regulations.

Review of the DEIR

The DEIR provides a description of the project and associated impacts and identifies changes to the project since the filing of the ENF. The Scope for the DEIR required the Proponent to include updated site plans for existing and post-development conditions at a legible scale which clearly identified: all major project components (proposed buildings, access roads, roadway improvements, etc.); areas of land alteration (new and previously disturbed); impervious areas; wetland resource areas; ownership of parcels including easement areas; pedestrian and bicycle accommodations; and stormwater and utility infrastructure. Conceptual plans were also required for on-site work and proposed off-site work for transportation or utility improvements. The DEIR contains limited site plans for existing and proposed conditions including wetland boundaries (BVW, RFA, and Buffer Zone), and conceptual plans for pedestrian and bicycle accommodations, off-site improvements, and on-site utility infrastructure. However, the DEIR did not provide many of the required site plans to facilitate review of this large Master Plan project. Supplemental information was submitted several times during the MEPA review period to provide some, but not all, of the required plans and other requested information.

According to the DEIR, there is limited existing utility infrastructure on-site because the majority of the site is an active gravel pit. Areas that contain other existing uses are served by on-site wells and septic systems. There are no known existing easements that would pose any constraints on project design. Locations of potential easements are unknown at this time and will be identified on future design plans associated with the project buildout.

The DEIR identifies State, federal and local permitting and review requirements associated with the project. It does not include a description and analysis of applicable statutory and regulatory standards and requirements, nor a discussion of the project's consistency with those standards (except the Massachusetts Stormwater Management Standards). This information was requested in the Scope for the DEIR. The Project is subject to the Town of Lancaster Zoning Bylaws. The DEIR states that the project will comply with the Zoning Bylaws and that no waivers or variances are anticipated at this time. The DEIR provides an update on local permitting processes, which will require a special permit approval for the Preferred Master Plan.

The DEIR identifies project phasing only for Phase 2 (utility and roadway construction) and Phase 3 (three industrial uses). A significant amount of subsequent phasing is dependent on market demand.

Alternatives Analysis

The DEIR (Table 2.2) provides an analysis and a summary of potential environmental impacts associated with each of the following alternatives: No-Build; Residential Master Plan A; Industrial Master Plan C; Reduced Build; and the Preferred Master Plan. The analysis includes a narrative and conceptual site layout plan for each of these alternatives. The DEIR quantifies each alternative's impacts on land alteration, creation of impervious area, impacts to wetland resource areas, traffic generation, parking, water use, and wastewater. It does not quantify development within the ACEC for each alternative as required. The DEIR also briefly analyzes the By-Right Alternative (development that requires no special permits or zoning variances from the Town); however, it does not identify impacts or include a tabular comparison of this alternative.

The No-Build Alternative would leave the existing active gravel pit in place and remainder of the site in its current condition. It was dismissed because it is inconsistent with the Town of Lancaster and the Montachusett Regional Planning Commission (MRPC) strategic framework plans, which include the site as a priority economic development area, and it would not meet project goals including creating housing options, economic growth, jobs, and tax revenue.

The By-Right Alternative would construct 79 single family houses, 335,000 sf of retail space, and 1,600,000 sf of office space without requiring any special permits under the IPOD. This alternative was deemed infeasible because it would result in a net cost to the Town (cost of municipal infrastructure and services would exceed potential tax revenue associated with the new residences); lack industrial space; be inconsistent with the Town's goal of creating a priority economic development area; and propose office space which has not been identified as a need in the Town.

The Residential Master Plan A Alternative would construct approximately one million sf more residential development (1,203 units) of varying density throughout the site than the Preferred Alternative, and include a hotel, sports facility and some retail development. It would result in increased traffic, water use, and wastewater generation compared with other build alternatives. The Proponent indicates that this alternative is infeasible because of local concerns regarding the increase in impacts to the community and municipal services associated with new residential developments; and limited economic benefits.

The Industrial Master Plan C Alternative includes 3.9 million sf of mixed-use development and is similar to the Preferred Master Plan, but places a greater focus on industrial development and

eliminates the auto sales portion of the project. The Proponent asserts that this alternative is not viable because the auto sales development is required to finance infrastructure costs for the development of the roadway into the site to support future industrial uses. The analysis indicates that auto sales use is a critical component of the project with a market and need in the Commonwealth and it is currently proposed in Phase 2.

Impacts to wetland resources areas including BVW, BLSF, and RFA are largely the same among the full build alternatives and include impacts from Phase 1, which was already constructed. The majority of resource area impacts described in the DEIR are associated with the construction of the roadway, and these impacts remain the same among the full build alternatives.

The Reduced Impact Alternative reduces much of the proposed residential development in the northwest corner of the site (not owned or controlled by the Proponent) and proposes industrial buildings, various residential development, a hotel, sports complex, and retail space. The Reduced Impact Alternative is similar to the Preferred Master Plan described in the ENF; therefore, it does not represent a true reduction in impacts from what was contemplated in the ENF. Moreover, the proposed reductions in impacts appear to be limited to areas that the Proponent does not control, and, therefore, will have limited ability to influence decision-making. The Scope for the SDEIR requires the Proponent to comprehensively evaluate a true Reduced Impact Alternative.

The Preferred Master Plan described in the DEIR proposes a significant increase in the size of mixed-use development than that described in the ENF including an increase in 366,500 sf in building development from 2,690,000 sf to 3,056,500 sf (approximately 14 percent); addition of 7.3 acres of impervious area from 152.7 acres to 160 acres; and addition of approximately 4 acres of land alteration from 55 acres to 59 acres. The Preferred Master Plan Alternative will alter the largest amount of land (275 acres) and create the most impervious area (173 acres) of all full build alternatives described in the DEIR. The table provided below compares the environmental impacts of each of the full build alternatives except the By-Right Alternative.

Table 2.2: Project Alternative Impact Comparison

Project Impacts	Alternative*				
	No Build Alternative	Alternative A	Alternative C	Reduced Impact Alternative	Preferred Alternative
Total Building Program (GSF)	7,100± (exist.)	2.3M±	3.9M±	2.5M±	3.0M±
Total Impervious Coverage (Ac)	13±	83±	162±	153±	173±
Total Disturbed Land Area (Ac)	216±**	252±	271±	230±	275±
New Land Alteration (Ac)	-	36±	55±	14±	59±
Impacts to BVW (SF)	-	3,500± (impact) 5,250± (mitigation)	3,500± (impact) 5,250± (mitigation)	3,500± (impact) 5,250± (mitigation)	3,500± (impact) 5,250± (mitigation)
Impacts to BLSF (SF)	-	30,295± (impact) 30,295± (mitigation)	30,295± (impact) 30,295± (mitigation)	30,295± (impact) 30,295± (mitigation)	30,295± (impact) 30,295± (mitigation)
Impacts to RFA (SF)	-	437,216 ±	437,216 ±	313,532 ±	437,216 ±
Parking Spaces	353 (car) (exist.)	2,120± (car)	3,740± (car) 530± (trailer)	2,400± (car) 320± (trailer)	3,030± (car) 320± (trailer)
Total trips per day	6,356	19,640±	18,368±	14,668±	17,630±
Water Demand (GPD)	2,000± (exist.)	385,430±	134,390±	120,365±	157,385±
Wastewater Demand (GPD)	2,000± (exist.)	385,430±	134,390±	120,365±	157,385±

*Alternative B not determined by MEPA staff to require further analysis, and the developer does not believe it is economically feasible at this time
** 75± acres of existing disturbed land is an active gravel pit

The DEIR indicates that the project will be phased to initially construct the roadway and utility infrastructure needed to serve proposed uses. The next anticipated phase is construction of the auto sales facility and work in this area will be planned to avoid and minimize environmental impacts. Remaining

areas will be developed on an as-needed basis to suit tenant needs. Construction in these areas will be limited to only what is needed for the proposed use to avoid and minimize environmental impacts. The project will incorporate retaining wall systems to minimize grading.

The DEIR indicates that the Proponent will work with the Town during the permitting process to identify areas, if any, where land banked parking may be feasible and allowed.

The DEIR was required to evaluate a development alternative that provides a substantial buffer to the Lancaster State Forest and avoids and minimizes development within the floodplain. Supplemental information indicates that the Proponent will evaluate expanding the proposed buffer adjacent to the DCR land; however, this analysis has yet to be provided. This analysis should be provided in the SDEIR. Additionally, and to the contrary, the Proponent, as discussed below, appears to be pursuing plans to acquire DCR conservation land in the Lancaster State Forest to expand the footprint of this project.

ACEC and Lancaster State Forest

The DEIR was required to demonstrate that the project will avoid and minimize adverse effects on natural resource values of the area and address how project planning and development can promote preservation, restoration, or enhancement of resource areas within the ACEC. Supplemental information indicates that approximately 245 acres of the project site (over 52 percent) is within the ACEC, of which approximately 119 acres was previously altered. The project will alter an additional 48.5 acres of ACEC (for a total alteration of 167.5 acres in the ACEC) and create 106.8 acres of new impervious area within the ACEC. The project will include approximately 36.9 acres of open space in the southwestern portion of the site adjacent to the proposed auto sales area, which contains wetland resource areas and is within the ACEC. The DEIR does not indicate if this open space will be permanently protected.

The Proponent plans to donate two parcels of land to the Town (Map 14, Lot 15 and Map 19, Lot 11; totaling 86.7 acres), which are located south of the site and adjacent to the Lancaster State Forest. However, the Proponent has entered into an agreement with the Town, which suggests that this conveyance is contingent on a separate acquisition of DCR conservation land through Article 97 of the Amendments to the Massachusetts Constitution (Article 97) legislation. DCR's comment letter has indicated its strong objection to this transfer of forested conservation land for this project. To the extent a Land Transfer is required, such a transfer will require further review through MEPA and compliance with EEA's Article 97 Land Disposition Policy. Additional information regarding this potential Land Transfer is required in the Scope for the SDEIR.

Land Alteration and Open Space

The project will result in significant new creation of impervious area of 160 acres for a site total of 173 acres, representing a substantial portion of the project site (37 percent of the site), and will create new alteration of 59 acres of land (for a total of 275 acres of land alteration or 58 percent of the project site) including clearing of wooded areas. The DEIR provides a limited breakdown of impervious area associated with building footprint (52 acres) and internal roadways/parking/other paved areas (108.2 acres), but does not otherwise provide details on the breakdown of other project elements such as automotive storage yard, wastewater, water and stormwater infrastructure, and landscaping which was requested in the Scope for the DEIR.

The Proponent proposes to balance cut/fill onsite during design to limit the need for soil

export/import to the maximum extent practicable. The DEIR includes Conceptual Heat Map Exhibits which identify areas of cut and fill.

The DEIR indicates that areas outside of proposed limits of development depicted on the Preferred Master Plan are anticipated to remain as open space including approximately 36.9 acres of open space in the southwestern portion of the site adjacent to the proposed auto storage area, and approximately 61.4 acres of open space in the northern portion of the site near Buildings C and D (both areas contain wetland resource areas). The Proponent should also work with the Town to identify its preferred approach for protecting open space when the project configuration is finalized.

As noted above, the Proponent may be pursuing plans to acquire DCR conservation land in the Lancaster State Forest to expand the footprint of this project. To the extent a Land Transfer is required, additional information regarding the Land Transfer, including but not limited to compliance with the EEA's Article 97 Land Disposition Policy is required in the SDEIR.

The project site currently includes an active earth removal and processing facility and agricultural fields. The DEIR indicates that tree clearing will be limited to areas outside the 100-foot Buffer Zone to the BVW, and where unavoidable, it will be limited to areas outside the 25-foot Buffer Zone. The DEIR indicates that there are no unique geologic formations on the project site. Existing, undisturbed wildlife corridors are limited to the northerly and southerly portions of the site and significant portions of them will be preserved. Supplemental plans depict these wildlife corridors. The DEIR indicates that the Proponent will consider the following Low Impact Development (LID) techniques for use on the individual lots: raingardens, bioretention areas, tree box filters, porous pavement, water quality swales, and green roofs. These LID measures were not included as mitigation commitments. The use of these techniques will be considered and discussed in future Notice of Intent (NOI) filings on a case by case basis as appropriate and feasible due to on site constraints (i.e. soils conditions, groundwater, location, etc.) to reduce impervious area and land disturbance. Stormwater management controls will be dispersed across the development of the individual lots to decentralize the system.

Wetlands

The project proposes work within wetland resource areas including BVW, Bank, BLSF, LUW and RFA, and associated buffer zones for Phase 2. The Lancaster, Lunenburg and Leominster Conservation Commissions will review the project and/or project elements to determine consistency with the Wetlands Protection Act (WPA), the Wetlands Regulations (310 CMR 10.00), and associated performance standards, including stormwater management standards (SMS). The ENF previously indicated that the project would not alter BVW; however, the DEIR describes alteration of 3,500 sf of BVW associated with widening of the existing perennial stream crossing for McGovern Boulevard, and does not explain why this widening is needed or explain any alternatives or mitigation for this change. The project will alter significant amounts of BLSF and RFA and unspecified areas of Bank and LUW; however, the DEIR does not clearly describe project-related impacts associated with the residential development proposed in the western portion of the site (Area I) or work associated with the proposed 2.5 mile water main extension from Lunenburg. Supplemental information was submitted to address questions concerning both these areas, but does not provide basic delineations of crucial resource areas. Additional information regarding impacts to wetland resource areas is required in the Scope for the SDEIR.

The Lancaster Conservation Commission issued an Order of Resource Area Delineation (ORAD) in 2018 to confirm jurisdictional wetlands and associated buffer zones within the 347-acre central portion of the 471-acre project site which is currently used for earth removal and agriculture. The Proponent provided a commitment to the Lancaster Conservation Commission that it would provide mitigation for previous fill associated with a farm pond/wash pond in this area (1,815 sf of impact to LUW). Wetlands associated with the proposed off-site 2.5-mile water line have not yet been delineated but are expected to be well-defined by the limits of disturbance associated with the existing public roadways. Wetlands associated with the Area I housing complex have not been recently delineated but are depicted based on prior delineations, existing topography, and MassGIS mapping; it is anticipated that the project will not result in direct impacts to wetlands north of Area I. The Proponent will be required to provide further delineation of wetlands for both elements in the SDEIR to address potential impacts to wetland resource areas.

Portions of the project have already been constructed including the outdoor athletic fields, the Dunkin' and the Mobil Gas Station in the eastern portion of the site. Work associated with the previously completed outdoor athletic fields and retail shops occurred within BLSF and RFA. The DEIR provides a brief permitting history for impacts and mitigation on the eastern portion of the site between fall of 2013 and spring of 2017. According to the DEIR, work within wetland resource areas included a roadway crossing of McGovern Brook and an intermittent stream roadway crossing. As noted above, the project includes additional improvements to this crossing which will result in additional impacts to wetland resource areas.

The DEIR maintains that the project will comply with WPA performance standards for all wetland resource areas pursuant to 310 CMR 10.54 to 10.58; however, it does not provide a discussion on the project's consistency with relevant performance standards. The DEIR does not provide a plan that depicts all project elements (including utilities) in relation to all wetland resource areas and associated buffer zones within the site. Supplemental plans were provided to address this omission; however, plans continue to omit BLSF (based on FEMA FIRM) on-site in relation to project elements. According to the DEIR, the project will result in impacts to wetland resource area and propose mitigation as described in the following table:

Wetland Resource Area	Phase 1 (Constructed)	Phase 2 (Proposed)	Proposed Mitigation
BVW	0	3,500 sf	5,250 sf
Bank	0	0	0
ILSF	0	0	0
LUW	0	1,815 sf	2,800 sf
BLSF	15,295 sf (original McGovern Brook Crossing)	15,000 sf	15,295 sf – Phase 1 15,000 sf – Phase 2
RFA (Inner Riparian)	19,644 sf (temporary)	114,676 sf – McGovern Brook 0 sf – westerly stream	No mitigation required – Phase 1 No mitigation identified – Phase 2
RFA (Outer Riparian)	22,590 sf (permanent)	271,225 sf – McGovern Brook 10,257 sf – westerly stream	53,561 sf – Phase 1 No mitigation identified – Phase 2

Proposed upgrade/widening of the existing perennial stream crossing for McGovern Boulevard at McGovern Brook (Phase 2) will impact approximately 3,500 sf of BVW and 15,000 sf of BLSF. Work in Bank and LUW is associated with upgrades of the existing intermittent and perennial stream crossings for McGovern Boulevard and to the farm pond/wash pond that was filled. The DEIR does not

identify the location of work associated with Bank and LUW; it is unclear where the intermittent stream crossing is located on-site. No new stream crossings are proposed.

There are two separate areas of RFA on-site. Supplemental information indicates that the project will include alteration of approximately 437,216 sf of RFA[1] associated with parking areas in the westerly part of the site, and upgrade of the existing McGovern Brook crossing at McGovern Boulevard and build-out of existing disturbed areas adjacent to McGovern Brook. Proposed parking areas in RFA are within existing agricultural fields associated with the unnamed perennial stream in the westerly part of the site. According to the DEIR, work will comply with the Inner Riparian Zone disturbance restrictions as well as the 10 percent threshold for Outer Riparian Zone disturbance; supplemental information indicates that alteration with the outer riparian in the western portion of the site will be limited to the 10 percent allowable (10,257 sf) pursuant to the 310 CMR 10.58, therefore, total impacts to RFA will be reduced to 396,158 sf. The project will stabilize previously disturbed RFA and provide stormwater management in accordance with the SMS and additional greenspace along the inner riparian zone.

RFA	Western RFA			McGovern RFA			Total RFA		
	Existing Total	Existing Disturbed	Proposed Alteration	Existing Total	Existing Disturbed	Proposed Alteration	Existing Total	Existing Disturbed	Proposed Alteration
0-100 feet	55,564	0	0	541,267	114,676	114,676	596,831[3]	114,676	114,676
100-200 feet	102,569	0	51,315[2]	485,511	271,225	271,225	588,080	271,225	322,540
TOTAL	158,133	0	51,315[2]	1,026,778	385,901	385,901	1,184,911[4]	385,901	437,216[5]

[1] Units in sf

[2] Supplemental information indicates that the Proponent will refine the design in this area prior to local permitting to limit the work in the 200-foot RFA to the 10 percent allowable limit (10,257 sf) pursuant to the 310 CMR 10.58.

[3] Supplemental information incorrectly identifies this number as 597,191 sf.

[4] Supplemental information incorrectly identifies this number as 1,185,271 sf.

5 Supplemental information indicates that this impact will be reduced to 396,158 sf based on proposed reduction to impacts as described in Note 2.

The DEIR indicates that mitigation will be provided through replication of BVW and LUW, compensatory flood storage for impacts to BLSF, and wildlife habitat enhancements. The DEIR does not identify specific areas for this mitigation. Mitigation for impacts to BVW and LUW will be at a ratio of 1.5:1. Supplemental plans identify the general location of this mitigation. The DEIR does not provide detailed replication plans consistent with MassDEP's *Massachusetts Inland Wetland Replication Guidelines* (2002). The DEIR indicates that work proposed within BLSF will meet requirements for compensatory storage and wildlife habitat restoration; details regarding volume of flood storage displaced is not provided in the DEIR.

Two existing stream crossings will be upgraded to comply with the Massachusetts Stream Crossing Standards for replacement crossings including spanning a minimum of 1.2 times the bankfull width and providing a minimum openness ratio of 0.82 feet. The DEIR indicates that restoration of the stream channels will take place within the proposed stream culvert structures and will include restored Bank and LUW at a minimum ratio of 1:1. The DEIR does not describe impacts to Bank and LUW nor provide design details associated with the proposed stream crossings.

Portions of the project site are located within the 100-year floodplain (Zones A and AE which do

[1] The DEIR indicates impacts of 394,982 sf to RFA.

not include a BFE). The DEIR is not responsive to comment provided by DCR regarding compliance with regulatory standard and requirements related to floodplain development including, but not limited to, the State Building Code and Wetlands Regulations. The Proponent indicates that BFEs will be determined as part of future NOI applications. The DEIR maintains that proposed buildings and associated sites are anticipated to be several feet above floodplain elevation and will not impact floodplain based on existing steep topography on-site and well-defined wetland and low-lying areas.

Stormwater

According to the DEIR, the project will be designed in full compliance with the SMS. The DEIR includes a Drainage Report (Appendix H) that provides a comparative analysis of pre- and post-development site runoff conditions. It includes a description of the stormwater management system and provides documentation, including plans, stormwater checklist (unstamped and unsigned) and calculations, in support of the proposed design and its consistency with the SMS. The project will provide individual stormwater management systems for each building lot and within the proposed roadway. Site runoff will be collected in a series of deep-sump, hooded catch basins and directed to water quality units for additional treatment prior to discharge to forebays and surface infiltration systems or isolator rows and subsurface infiltration systems. Pretreatment will be provided by deep-sump, hooded catch basins, water quality units, and forebays or isolator rows. Infiltration basins will provide peak rate attenuation, stormwater recharge and water quality treatment. Overflow from basins will discharge to on-site wetlands. The DEIR includes a Stormwater Operation and Maintenance (O&M) Plan.

Stormwater management systems will be designed to capture and treat the one-inch water quality volume, provide 44 percent total suspended solids (TSS) removal prior to infiltration, and provide a minimum of 80 percent TSS removal prior to discharge (proprietary treatment units (oil grit separators) are proposed within each treatment train) to comply with Standard #5 for Land Uses with Higher Potential Pollutant Loads and Standard #6 for Critical Areas. The DEIR confirms that all stormwater structures will be located further than 100 feet of vernal pools.

Stormwater structures depicted on project plans are approximate and may change depending upon final tenant fit-out. These structures will be setback from resource areas to the maximum extent practicable during advancement of individual site development plans. Infiltration basins will be set back a minimum of 50 feet from resource areas. As noted above, the DEIR maintains that the Proponent will consider LID techniques to reduce impervious area and land disturbance in future NOI filings; however, it does not commit to specific implementation.

Traffic and Transportation

The project will require a Vehicular Access Permit from MassDOT because of anticipated impacts to Route 2 and the site's location abutting I-190. The DEIR includes an updated Transportation Impact Assessment that generally conforms to the EEA/MassDOT *Transportation Impact Assessment (TIA) Guidelines*.

Multi-family apartment buildings, hotel, indoor sports facility, and retail space are proposed in the eastern portion of the site, which includes the Lancaster Crossing development and trucking facility. Access to this area is proposed via the existing McGovern Boulevard and additional access points off of Lunenburg Road. Industrial buildings are proposed in the central portion of the site with access proposed via an extension of McGovern Boulevard. Housing units in Area I are proposed in the western portion of

the site with access from Johnny Appleseed Road to the west (through Leominster) and White Pond Road to the east; this area will be accessed separately from the eastern and central portions. The project will be constructed in phases.

The updated TIA includes an evaluation of the study area transportation network and presents an analysis of existing and future build conditions for each intersection. The study area was revised to include the Route 2 Off- and On-Ramps associated with Exit 34, along Old Union Turnpike and Harvard Street. The DEIR was required to provide capacity analyses and propose mitigation where the intersections or approaches under state jurisdiction are anticipated to operate at a Level of Service (LOS) E or F during a peak period under 2026 No-Build or Build conditions.

Trip Generation

Based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual's* Land Use Codes (LUC) 130 (Industrial Park), 210 (Single-Family Housing (Detached)), 221 (Multifamily Housing (Mid-Rise)), 310 (Hotel), 488 (Soccer Complex), and 820 (Shopping Center), the development project previously described in the ENF (based on 2.6 million sf of development), excluding existing uses, was expected to generate 11,332 unadjusted vehicle trips on an average weekday and 11,352 unadjusted vehicle trips on a Saturday, including 844, 1,062 and 1,455 vehicle trips expected during the weekday morning and evening, and Saturday midday peak-hours, respectively. It is unclear whether, though it appears that, the DEIR trip generation estimates are updated based on the larger Master Plan proposed in the DEIR (3.1 million sf of development); this should be clarified in the SDEIR. The DEIR indicates that the pass-by trip generation estimates do not exceed 15 percent of the adjacent street traffic for the peak hours studied. The DEIR clarifies that the site contains three existing soccer fields and the project will add one additional field (indoor). The DEIR provides a discussion to justify using the average rate rather than the fitted curve equation for LUC 820.

Traffic Operations

Capacity analyses were performed at the study area intersections for the 2019 Existing, 2026 No-Build, 2026 Build and 2026 Mitigated Build conditions. The DEIR provides a revised capacity and queue analysis which includes the Saturday midday peak hour. The TIA indicates that all intersections and approaches under state jurisdiction are anticipated to operate at an acceptable LOS during the weekday morning and evening peak periods, except the northbound Route 2 Westbound (WB) Off-Ramp left-turn approach at the Fort Pond Road/Route WB Ramps intersection (LOS for the left-turn approach deteriorates from D to E during the weekday evening peak hour). According to the DEIR, there are no practical mitigation alternatives for the approach that would restore this movement to a LOS D or better in the Build condition. The Proponent will provide mitigation along the Route 2 WB Off-Ramp approach to increase queue storage; however, this will not improve LOS. The DEIR includes a conceptual plan for improvements at this location (Figure 7.8 – Route 2 WB Exit 35 Storage & Deceleration Improvements). MassDOT comments concur with the general concept for this improvement.

Several alternatives are currently being evaluated for the Route 2 interchanges in Lancaster and Harvard as part of MassDOT project #605393; however, the TIA does not incorporate the MassDOT project into its analysis as it would not be constructed by 2026. The DEIR provides a summary of the current status of the MassDOT project.

The DEIR provides an updated mitigation program at several intersections under the jurisdiction

of the Town of Lancaster and at Route 2 WB Exit 35. The DEIR identifies the timing for implementation of several of these improvements; however, the timeline for other improvements is unspecified.

The Proponent proposes to install a temporary traffic signal to serve as interim improvements at the Route 70/Fort Pond Road/Woods Lane intersection when the project adds 22 new vehicle trips to the Fort Pond Road left-turn movement during the weekday evening peak hour based on trip projections provided in the DEIR (depending on the timing of the MassDOT project at the Route 2 Interchange 35).

Safety

The TIA includes a summary of crash rates based on MassDOT data. All but one of the study area intersections (Main Street/Lunenburg Road) experience crash rates below MassDOT statewide and District 3 averages. The intersection at Main Street/Lunenburg Road is listed as a 2013-2015 Highway Safety Improvement Program (HSIP)-eligible crash cluster. The Proponent conducted a Road Safety Audit (RSA) at the Main Street/Lunenburg Road intersection in 2017. The DEIR identifies the minor improvements identified in the RSA that will be implemented by the Proponent.

Parking

The project will reduce parking supply by 118 spaces for a total of 3,028 surface parking spaces. The DEIR asserts that the size and configuration of the project site does not provide opportunity for shared parking between the several land uses. As noted previously, reductions in impervious area and parking will improve resiliency, reduce traffic generation and improve air quality.

Multimodal

The TIA includes an inventory of bicycle, pedestrian and transit facilities and services in the vicinity of the project site. Pedestrian and bicycle accommodations are absent along Lunenburg Road; the Proponent has committed to providing these accommodations along McGovern Boulevard within the project site to connect to Lunenburg Road and to providing sidewalks along each side of Lunenburg Road. According to the DEIR, pedestrian accommodations will be provided on both sides of Lunenburg Road only within the reconstruction zone of the site driveway intersection. The Proponent will provide bicycle accommodations along Lunenburg Road in the form of five-foot wide bicycle lanes supplemented by MUTCD-compliant bicycle signage.

The Proponent has reached out to the Montachusett Regional Transit Authority (MART) to examine the feasibility of extending service to the project site. According to discussions with MART, additional services can be accommodated if demand is projected. The Proponent will continue discussions with the Town of Lancaster and MART to establish the service as needed and will consider providing financial contribution towards the service to a point where ridership builds up to fully justify the service.

Transportation Demand Management

The DEIR includes a Transportation Demand Management (TDM) program that commits to the following measures aimed at reducing site trip generation:

- Assignment of an Employee Transportation Coordinator to oversee, implement, monitor, and evaluate TDM measures and be responsible for managing rideshare/carpool programs and distributing information to encourage alternative means of transportation;
- Provision of preferential parking for rideshare, carpool and hybrid vehicles;
- Provision of electric vehicle charging stations;
- Provision of secure, weather-protected, long-term bicycle parking, and bicycle racks for short-term users;
- Provision of shower facilities for walking and bicycling commuters;
- Encouragement and promotion of vanpool and carpool participation, including implementation of a ride-matching program;
- Provision of a guaranteed ride home program; and
- Promotional events to encourage ridesharing and travel by alternative means of transportation.

The Proponent should work toward identifying the details of these measures as well as developing additional programs. The Proponent should consult with MassDOT to help implement the TDM program.

Transportation Monitoring Program

The Proponent will conduct an annual traffic monitoring program (TMP) to monitor traffic operations, parking occupancy, and public transportation/pedestrian/bicycle use following completion of the project. The intent of the TMP is to ensure that the project impacts are consistent with those predicted in the project's permitting process, evaluate the effectiveness of the TDM measures, and assess the need for additional off-site improvements or TDM measures. The TMP will commence six months after the issuance of the first Certificate of Occupancy for the project site and continue for a period of five years following full occupancy of the project. It will include:

- Evaluating traffic operations at specified intersections;
- Simultaneous automatic traffic recorder (ATR) counts along Lunenburg Road and McGovern Road for a continuous 72-hour period;
- Weekday AM and PM peak hour turning movement counts (TMC) and capacity analyses at site driveways and selected intersections;
- Compare TMCs with those projected in the SDEIR to determine whether the total vehicles entering each intersection exceeds the volumes projected;
- Compare capacity and queuing analysis to evaluate traffic operations at specific intersections and compare to the operations projected in the SDEIR;
- Parking demand counts during the weekday evening peak period;
- Complete an employee travel survey to gauge employee travel patterns and mode share;
- Assess whether additional improvements are necessary at any study intersections and identify measures to improve operations and/or reduce vehicular traffic volumes. Need for mitigation will be conditioned upon exceeding the total projected traffic volume through an intersection by more than 10 percent or exceeding the projected overall intersection delay by more than 20 percent;

- Assess whether constructed parking supply is adequate for the parking demand; and
- Prepare a memorandum summarizing the results of the TMCs, ATRs, parking demand counts and capacity/queue analysis for submission to MassDOT and the Town of Lancaster.

The monitoring program may be suspended if five years have passed since the issuance of an occupancy permit for the project and will recommence should an additional occupancy permit be issued.

Water Supply

Water demand is estimated at 157,385 gpd and is proposed to be supplied by the LWD. According to the DEIR, the Proponent conducted a feasibility study for development of an on-site public water supply; however, it was determined that the yield was insufficient to satisfy the project demand. Supplemental information submitted by the Proponent includes a Water Supply and Wastewater Assessment (June 2017) prepared for the Town of Lancaster. This 2017 report addresses, at a planning level, water supply infrastructure issues relating to increased development in portions of North Lancaster and evaluates potential water sources in Lancaster and from neighboring municipalities. Consequently, the Proponent executed a MOU with the LWD to serve the project. An IMA is currently being developed (though it has yet to be finalized), under which the Town of Lancaster will purchase water from LWD. It is expected that LWD will calculate the supply of water and bill the Town of Lancaster, which will bill individual users.

LWD is authorized by MassDEP's WMA Program to withdraw an annual average volume of 0.54 million gallons per day (MGD). Actual withdrawals from 2016 through 2018 ranged from 0.51 to 0.54 mgd; therefore, LWD will need to increase its authorization to meet project demand. LWD submitted a WMA Permit application in 2018 to increase its withdrawal volume by 0.313 MGD[2] and add a new wellfield. The LWD underwent MEPA review in 2020 (EEA#16126); the Certificate on the ENF was issued on January 10, 2020 which did not require the preparation of an EIR. The requested volume increase includes 0.253 MGD allocated as water to be sold to the Town of Lancaster to serve proposed development in North Lancaster. The remaining additional 0.06 MGD is for projected growth within the Town of Lunenburg. Requested volumes are consistent with a water needs forecast prepared by DCR. The pumping test was conducted in 2019 and will be reviewed concurrently by MassDEP with the WMA Permit application.

The project proposes to construct a 2.5-mile water line extension from the connection point at the intersection of Leominster Shirley Road and Reservoir Road in Lunenburg to the north, to the site at McGovern Boulevard off Lunenburg Road in Lancaster. The Proponent will provide funds to design and construct the water main infrastructure required for the extension from Lunenburg to Lancaster. In addition to serving the project's water needs, the extension will support the development and provide opportunity for future connection to other parcels of land along the 2.5-mile route. Water service to the Dunkin' and Mobil Gas Station is provided via two existing PWS wells located on-site on the west side of McGovern Brook. Following construction of the water line extension, these wells will be abandoned, and the properties will be served from the new water main.

As described in the MEPA filing concerning the LWD water supply, LWD's WMA permit will require a mitigation plan to be submitted and approved by MassDEP to offset withdrawals in excess of

[2] LWD requested an increase in the permitted volume by 0.313 MGD from 0.25 MGD to 0.563 MGD for a total authorized volume of 0.853 MGD through 2029 and a permitted volume of 0.553 MGD for a total authorized volume of 0.843 MGD from 2030 through 2034.

the baseline volume. A corrective action plan is also required to address unexpected levels of manganese discovered through pump tests of the new wellfields and within the district-wide supply. The DEIR does not identify support, if any, from the Proponent for mitigation projects to offset the increased demand on LWD's system. The DEIR does not provide an update on consultations with MassDEP and LWD regarding water supply.

Approximately 4.1 miles of water main will be extended from Lunenburg into Lancaster (including approximately 1.6 miles within the site) to supply drinking water. The project will require a Water Distribution System Modification Permit and WMA Permit from MassDEP for the new water main. MassDEP will work with the Town of Lancaster and LWD to determine ownership and responsibility of the water main associated with the public water system.

The DEIR identifies water conservation measures that will be incorporated into the project design, such as using drought tolerant plantings, minimizing irrigation and using techniques to reduce irrigation losses due to evaporation, installing water conservation equipment on irrigation infrastructure, installing low-flow plumbing fixtures, and developing/implementing maintenance and employee education programs. The DEIR does not estimate associated reductions in water demand.

Wastewater

The project will construct a WWTP pursuant to 314 CMR 5.00 (Groundwater Discharge Permit (GWDP) Regulations) to discharge treated effluent on-site up to a total design flow of 157,385 gpd. MassDEP will require that all wastewater generated on-site is connected to the WWTP; the DEIR confirms the project will comply with this requirement. The Proponent proposes to connect septic systems serving the Dunkin' and the Mobil Gas Station to the WWTP. The project will construct 1.8 miles of new watertight sewer mains through the site.

The Proponent submitted a Hydrogeologic Evaluation Report Approval application to MassDEP on June 13, 2019 for its review. The Proponent may apply for an Individual GWDP following a determination by MassDEP that the site has capacity for the discharge. The DEIR indicates that most of the site does not contain wastewater infrastructure. The commercial properties near Lunenburg Road (Dunkin', Mobil Gas Station and JB Hunt Trucking facility) discharge wastewater to individual on-site systems.

The project must meet the requirements for a privately owned WWTP pursuant to 314 CMR 5.15 which requires that a single entity be the permittee responsible for operation, monitoring, maintenance, and repair of the WWTP. However, if the privately owned WWTP treats waste from activities owned or controlled by other entities, all stakeholders must share the financial and operational responsibilities for the WWTP. The DEIR indicates that the Proponent will prepare legal ownership documents which stipulate all users will become members of an Association which will own, use, and operate the wastewater treatment facility (WWTF) (including ownership of the land and control of the property), with the ability to exert financial control and responsibility of the users/owners. The project may establish an umbrella trust consisting of representatives of the various users and trustees typically associated with the condo association, the hotel, the business, and other users. Association documents will identify individual flows associated with varying users and an equitable rate structure. The trust/trustees would be jointly responsible for the day to day operations of the facility and long-term maintenance, including future replacement.

Because the project includes residential uses, the GWDP will require a Financial Assurance Mechanism (FAM) to fund the immediate repair and replacement of the WWTP. The DEIR is vague on, and does not commit to, the legal and financial arrangements that will achieve compliance with this requirement. The Proponent will submit annual financial reports to MassDEP to ensure that these accounts are properly funded. An Immediate Repair and Replacement Fund of 15 percent of WWTP cost will be established to fund any major repairs at the facility on an immediate basis. In addition, a Capital Reserve fund will also be established to provide a financial growth mechanism to provide 25 percent of the replacement cost of the WWTP after a 20-year period.

Climate Change

Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth (EO 569) was issued on September 16, 2016. EO 569 recognizes the serious threat presented by climate change and directs agencies within the administration to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The Order seeks to ensure that Massachusetts will meet GHG emissions reduction limits established under the Global Warming Solution Act of 2008 (GWSA) and will work to prepare state government and cities and towns for the impacts of climate change.

I note that The Town of Lancaster has received a planning grant from the Municipal Vulnerability Preparedness (MVP) Program and is seeking designation from the Executive Office of Energy and Environmental Affairs (EEA) as a MVP community. The funding will be used to assess the Town's vulnerability to natural and climate-related hazards and to develop and prioritize specific actions to reduce vulnerability to the effects of climate change and improve resilience. I encourage the Proponent to consult with the Town regarding its planning and applicability to the project area.

The GHG Policy and requirements to analyze the effects of climate change through EIR review are an important part of this statewide strategy. These analyses advance understanding of a project's contribution and vulnerability to climate change. I strongly encourage the Proponent to consider complementary approaches, such as Passivehouse design, incorporation of renewables and inclusion of LID in site design, which can improve the project's resiliency, reduce GHG emissions and conserve and sustainably employ the natural resources of the Commonwealth.

Greenhouse Gas (GHG) Emissions

This project is subject to review under the GHG Policy. The DEIR includes an analysis of GHG emissions and mitigation measures for the proposed project in accordance with the standard requirements of this Policy, which requires projects to quantify carbon dioxide (CO_2) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis quantifies the direct and indirect CO_2 emissions associated with the project's energy use (stationary sources) and transportation-related emissions (mobile sources) and identifies mitigation commitments.

Stationary Sources

The DEIR includes a GHG emissions analysis[3] that calculates and compares GHG emissions associated with: 1) a Base Case corresponding to the 9th Edition of the Massachusetts Building Code,

[3] The GHG analysis in the DEIR is based on a 2.3 million sf mixed-use development. Future filings should update the analysis based on the expanded development contemplated in the DEIR, in addition to comparing GHG emissions to other alternatives.

and 2) a Preferred Alternative that achieves greater reductions in energy use and GHG emissions than required by the amended Building Code. The 9th edition of the Building Code references the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) 90.1-2013 and the International Energy Conservation Code (IECC) 2015. The Town of Lancaster adopted the Stretch Energy Code (SC) in 2011 subsequent to its designation as a Green Community under the provisions of the *Green Communities Act of 2008*. Therefore, the project will be required to meet the applicable version of the SC in effect at the time of construction. The SC requires a 10 percent reduction in energy use compared to the base Building Code requirements. The GHG analysis models energy use, GHG emissions, and mitigation measures associated with the project.

The GHG analysis calculated stationary source CO_2 emissions from the proposed building sources using eQuest v3.65 modeling software. The GHG analysis indicates that the Base Case will generate approximately 9,235.3 tons per year (tpy) of GHG emissions, consisting of 6,830.9 tpy of stationary source emissions and 2,404.4 tpy of mobile source emissions. The Preferred Alternative will reduce stationary source emissions by 971.7 tpy to 5,859.2 tpy (approximate 14.2 percent reduction) and will decrease mobile source emissions by 48.1 tpy to 2,356.3 tpy. Overall emissions will be reduced by 1,019.8 tpy for an approximate 11 percent reduction.

The project proposes the phased construction of 3.1 million sf of mixed-use development with a variety of uses. Energy models represent each proposed building including: nine one-story industrial buildings (A through H, K), an auto storage facility office (J), 117 units of single-family/duplex/triplex housing (I), 500 apartments in seven multi-family four-story buildings (L, M and N), a four-story hotel (O), an indoor soccer facility (Q), and a retail building (R). The DEIR includes a summary of modeling inputs for each building (e.g. U-values, efficiencies, lighting power densities (LPD), etc.) for the Base Case and the Preferred Alternative. The DEIR identifies those energy efficiency measures that will be incorporated into the project and were modeled in the GHG analysis, measures that were dismissed as infeasible or inappropriate (peak shaving/load shifting and green roof), and measures that will be studied further during the advanced design stages (air source heat pumps/variable refrigerant frequency (VRF) and rooftop solar). The DEIR indicates the Proponent will work with utility providers to identify resources including technical assistance, incentives and energy conservation strategies.

The GHG analysis identifies three industrial buildings (A, B and D) which are greater than 100,000 sf and require compliance with the SC. All other commercial structures (100,000 sf or less) must comply with the Massachusetts Building and Energy Code (780 CMR 13), which is the 2015 IECC with Section C406.1 code options 1 and 2. All residential structures are four stories or less and must comply with IECC 2015 with Massachusetts Amendments. The DEIR describes the assumptions used in the analysis for SC compliance. The Proponent will construct core and shell space in which the tenant will fit-out mechanical systems and lighting. The DEIR includes a draft outline for the Tenant Manual.

The DEIR identifies the following energy efficiency and sustainability measures:

- Higher efficiency than Code insulation for wall (all buildings) and roof (excludes 117 residential units (Building I))(commercial: roof-R38 and wall for CMU block walls-R13ci (U=0.084); single family/duplex/triplex residential: wall-R22+R0ci (U=0.056); and multi-family residential: roof-R49 and wall-R21+R4ci (U=0.048));
- Overall window areas in commercial buildings equal to or less than Base Case values in ASHRAE Table G3.1.1-1 (warehouse 6 percent, medium office 31 percent, hotel 34 percent

and retail stand-alone 11 percent). Window area for multi-family residential buildings is 24 percent;

- Cool roofs with a light-colored material on commercial building roofs;
- Higher efficiency than Code space heating and cooling systems;
- Using higher efficiency than Code domestic hot water systems;
- Interior and exterior lighting systems with a lower light power density than Code;
- Sealing, insulating, and testing HVAC supply ducts;
- Energy management systems;
- Using Energy STAR electric appliances;
- Providing solar-ready roof space on the building roofs for possible third-party PV systems;
- Water conserving fixtures and water efficient landscaping to minimize water use (drought-resistant and native plants);

Mobile Sources

Mobile-source emissions were modeled using the EPA's MOVES2014 model and data from the traffic study. Emissions were calculated for the 2019 Existing, 2026 No Build, 2026 Full Build conditions and 2026 Full Build with Mitigation. Under Future Build conditions, project-related emissions would be 2,404.4 tpy of CO_2. The DEIR estimates that the implementation TDM measures would reduce mobile-source emissions to 2,346.3 tpy (2.5 percent). The Proponent will install preferred parking spaces for hybrid and electric vehicles (EV) and EV charging stations.

The DEIR includes a mesoscale analysis prepared in accordance with MassDEP's *Guidelines for Performing Mesoscale Analysis of Indirect Sources.* The purpose of the mesoscale analysis is to determine whether and to what extent the proposed project will increase emissions of volatile organic compounds (VOCs) and nitrogen oxides (NO_X,) and to determine consistency with the State Implementation Plan (SIP). The analysis uses data consistent with the traffic analysis. The mesoscale analysis predicts that emissions of VOC and NO_X in the project study area for the 2026 Full Build cases will be larger than the emissions for the 2026 No-Build case (increase in emissions by 3.127 kg/day and 3.068 kg/day, respectively). The Proponent proposes to mitigate potential air quality impacts by implementing a TDM program to improve traffic operations, reduce project-generated vehicle trips, and reduce project-related motor vehicle air pollutant emissions. The Proponent does not calculate the emissions reductions associated with transportation improvements. The TDM program is predicted to result in small reductions in VOC and NOx emissions compared to the 2026 Full Build case (decrease in emission by 0.063 kg/day and 0.062 kg/day, respectively).

The DEIR does not identify certification and/or permits that likely will be required for proposed project elements such as boilers and generators.

Emissions from Land Alteration

In accordance with the GHG Policy, projects that alter over 50 acres of land are required to analyze the carbon associated with removal of trees and soil disturbance during the construction period and loss of carbon sequestration. The purpose of this analysis is to develop an *estimate,* not an exact accounting of GHG emissions associated with land clearing. The Proponent did not consult with EEA and MEPA on the development of this analysis.

The amount of carbon released due to tree removal is based on the projected amount of upland forest and forested wetland impacted due to land clearing. I note that the GHG analysis incorrectly indicates that the project will result in 55 acres of new alteration; the DEIR identifies 59 acres of new alteration. The DEIR maintains that most of the development area was previously cleared and used for a variety of uses including gravel pits, storage piles and haul roads and proposed buildings, parking lots and roadways will reuse areas that are mostly devoid of tree cover. The DEIR states that a map analysis reveals the project will remove 15 acres of mature forest cover.

The DEIR indicates that the MEPA carbon sequestration spreadsheet was used to determine the amount of carbon lost from removal of the trees (stock), and from the loss of annual sequestration potential. The estimation of sequestration loss per year due to permanent impacts assumed the affected acreage was 80 percent hardwoods (oak, pine, and ash) and 20 percent softwoods (maple, beech, birch). Hardwood and softwood densities per acre on typical southern New England land with forest cover are 1124 cubic feet (cf)/acre and 425 cf/acre, respectively. The spreadsheet was expanded to include a conversion of results from metric tonnes to English short tons of carbon. The calculated amount of lost carbon due to tree removal is 1,005 tons of carbon. The calculated amount of carbon not sequestered due to permanent tree removal as part of the project is 2.92 tons of carbon per year, which could have further offset the annual emissions associated with this project. However, the Proponent has stated a commitment to minimizing tree removal in all work zones.

Adaptation and Resiliency

The DEIR does not provide an analysis and discussion of vulnerabilities of the site to the potential effects associated with climate change including increased frequency and intensity of precipitation events, flooding and extreme heat events. The DEIR maintains that the Proponent will consider LID techniques to reduce impervious area and land disturbance in future NOI filings; however, it does not commit to specific implementation. The DEIR also maintains that proposed buildings and associated sites are anticipated to be several feet above floodplain elevation based on existing site topography and conceptual grading analysis; however, as noted, the Proponent has not calculated BFEs to support this claim. Building envelopes are proposed to be insulated better than Code to help buffer the impact of high temperature events and reduce power consumption. The Stormwater Report indicates that the post-development peak rates will not exceed pre-development rates to avoid off-site flooding impacts from the project site. The project does not identify open space areas within the site that have been designed to flood.

As noted, the Town of Lancaster has been designated a Green Community under the Green Communities Act of 2008, and is seeking designation as an MVP community under EEA's MVP program. This project should demonstrate a level of analysis and planning that is consistent with these local and statewide efforts to prepare for the effects of climate change.

Conclusion

The DEIR was not sufficiently responsive to the Scope. I appreciate the Proponent's commitment to respond to issues, questions and comments that have arisen during the MEPA review period on the DEIR and acknowledge that the supplemental information provided to date includes some of the information requested in the Scope for the DEIR. However, the DEIR and supplemental information do not provide an adequate analysis of alternatives and do not include sufficient analysis of measures to avoid, minimize and mitigate environmental impacts. In addition, comments from DCR

identify potential Article 97 issues. Comments from MassDEP and DCR reiterate the need for comprehensive delineation of wetland resource areas and analysis of the ACEC to identify potential project impacts, determine consistency with the WPA and ACEC regulations, and propose appropriate mitigation measures. Comments from MassDEP request additional information and analysis necessary to identify permitting requirements, environmental impacts, and avoidance, minimization, and mitigation measures. As such, I cannot find that the DEIR and supplemental information have satisfied the regulatory requirements to ensure that the project's environmental impacts have been clearly described and fully analyzed or that it has incorporated all feasible means to avoid Damage to the Environment. Accordingly, I am requiring the Proponent to file a SDEIR pursuant to Section 11.08(8)(b)(3) of the MEPA regulations.

SCOPE

General

The SDEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. The SDEIR should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible. I expect the SDEIR will provide a comprehensive response to comments that specifically address each comment letter on the DEIR; references to a chapter or extensive sections of the SDEIR alone are not adequate. The SDEIR should identify measures the Proponent will adopt to further reduce the impacts of the project since the filing of the DEIR, or, if certain measures are infeasible, the SDEIR should discuss why these measures will not be adopted.

Project Description and Permitting

The SDEIR should describe any changes to the project since the filing of the DEIR. It should include updated site plans, if applicable, for existing and post-development conditions at a legible scale. Conceptual plans should clearly identify with reasonable detail: all major project components (proposed buildings, access roads, etc.); areas of land alteration (new and previously disturbed); impervious areas; wetland resource areas; ownership of parcels including easement areas; pedestrian and bicycle accommodations; and stormwater and utility infrastructure. Conceptual plans should be provided for on-site work as well as any proposed off-site work for transportation or utility improvements. The SDEIR should confirm areas to be developed for each phase and identify associated activities. The SDEIR should include a plan that identifies the Water Resources Overlay District.

The SDEIR should include an updated list of required Permits, Financial Assistance, or other State approvals and provide an update on status. It should include a description and analysis of applicable statutory and regulatory standards and requirements, and a detailed discussion how the project will ensure consistency with those standards. The SDEIR should provide an update on the federal and local review and permitting processes.

Comments from residents identify concerns regarding alteration and impervious area within the ACEC including construction of an auto storage yard; the scale of the project; protection of rare species and wildlife in adjacent habitat and wildlife area; and traffic. The SDEIR should clarify whether the project is proposing an auto storage yard or auto salvage yard and describe measures that will be implemented to reduce impacts to ACEC, BVW and other sensitive resource areas from this use

associated with potential leaking fluids and other forms of contamination. The SDEIR should identify any state or local permitting/licensing requirements associated with the auto storage/salvage yard and describe the consistency of this use with applicable requirements.

Alternatives Analysis

The SDEIR should expand the alternatives analysis in the DEIR to demonstrate that Damage to the Environment will be avoided, minimized and mitigated to the maximum extent practicable. The SDEIR should evaluate the specific alternatives identified below. The SDEIR should describe and quantify each alternative's impacts on land alteration, creation of impervious area, development within the ACEC, impacts to wetland resource areas, traffic generation, parking, water use, and wastewater. This comparison should be provided in a tabular format with supporting narrative and conceptual site plans.

- Reduced Impact Alternatives including
  - Limit development to previously altered areas
  - Limit development out of all wetland resource areas and buffer zones
  - Provide 100-foot buffer to DCR land
  - Integrate uses throughout the site and consolidate uses within buildings
- A Preferred Alternative

The SDEIR should provide a more detailed description of how project phasing could be developed to avoid and minimize environmental impacts.

The Preferred Alternative represents maximum build-out of the site. Significant opportunities exist to reduce impacts. I strongly encourage the Proponent to implement cross-cutting measures, including Passivehouse design and preservation/creation of open space. High performance buildings built to Passivehouse standards will lower energy use, energy costs and will be quieter and better insulated from noise, which is particularly important in a development in close proximity to a highway. These structures are inherently more resilient because they can retain comfortable temperatures for a longer period of time during a power outage. Open space can function as part of a stormwater management system, provide amenities to tenants and resident and preserve/create flood storage capacity to support resiliency.

The alternatives analysis should evaluate a greater height, density, and grouping of buildings to reduce impervious surfaces and increase open space. It should analyze reduced parking ratios, structured parking and land banking of parking to reduce impervious area and traffic generation.

The DEIR does not include analysis of alternatives specifically targeted to reduce wetland resource area impacts by removing parking areas and housing units from RFA and BLSF or reducing the size of proposed wetland crossings. MassDEP comments opine that reduced impact alternatives exist beyond those presented in the DEIR that would result in a feasible project. The alternatives analysis should demonstrate consistency with 310 CMR 10.58. The SDEIR should also evaluate an alternative that avoids and minimizes development within the floodplain, including through a calculation of BFEs or other similar delineation to accurately identify impacts and flooding risks. The SDEIR should discuss steps the Proponent will take to further reduce the impacts of the project since the filing of the DEIR, or, if certain measures are infeasible, the SDEIR should discuss why these measures will not be adopted.

As requested by DCR, the SDEIR should evaluate an alternative that complies with the ACEC regulations and demonstrates measures taken to protect and preserve ACEC resources. The SDEIR should evaluate an alternative that provides a substantial buffer between DCR lands and any proposed development or infrastructure improvements, and that maintains public access to DCR conservation lands in the Lancaster State Forest.

ACEC and Lancaster State Forest

The SDEIR should clearly define, describe, and document how the project will minimize adverse effects on groundwater quality, habitat values, biodiversity, storm damage prevention, flood control, historic and archeological resources, scenic and recreational resources, and other natural resource values of the ACEC pursuant to 301 CMR 12.00. The SDEIR should include a narrative to describe the project's impacts to each of these resource values, an analysis of alternatives that prioritizes avoiding impacts to ACEC, and justification as to why the impacts associated with the Preferred Alternative cannot be avoided.

DCR comments note that the DEIR does not include an inventory of the flora, fauna and natural communities on this site (except wetlands). The SDEIR should include a bio-inventory for areas of proposed alteration within the ACEC to evaluate proposed impacts to biodiversity and related functions and values of the existing habitats, wildlife, and natural communities. DCR comments also indicate that extensive clearing, grading and increased impervious surface proposed in the ACEC, and increased discharges of runoff to the ACEC, may result in impacts and long-term effects on the wetlands and streams in the ACEC. The SDEIR should explore alternative designs that will improve, restore, and enhance the ACEC and avoid adverse effects on the land and water resources and other values described above and in the designation document for the Central Nashua River Valley ACEC.

Significant project infrastructure is proposed along the shared property line with the Lancaster State Forest. This includes parking areas, stormwater basins, a WWTP and sewage disposal area in the southern portion of the site. DCR comments reiterate concerns that the project is likely to create permanent adverse impacts on public conservation land. As previously mentioned, the SDEIR should analyze a Reduced Impact Alternative that includes a 100-foot no development buffer from DCR property lines. The SDEIR should describe measures to avoid impacts to DCR property and access rights and protect the function and values of public conservation land.

The Proponent was required to stake and monument all mutual property lines and corners abutting Lancaster State Forest and provide DCR an opportunity to review those boundaries prior to permanent installation. DCR comments note that some corners of the shared property lines have not been staked or monumented as requested and that it will conduct its own survey of Parcels 13-5 and 14-11. The Proponent should consult with DCR during the preparation of the SDEIR on this issue to obtain a shared understanding of the property boundaries with DCR. The SDEIR should describe how the Proponent will maintain permanent access, including by vehicle or on-foot, to Lancaster State Forest to provide public access and allow for ongoing maintenance activities.

As noted above, the Proponent plans to donate two parcels of land as open space to the Town. However, the Proponent has entered into an agreement with the Town, which suggests that this conveyance is contingent on a separate acquisition of DCR conservation land through Article 97 legislation. The SDEIR should specify to what Town entity the proposed donation of 86.7 acres of off-site land will be made and clarify that it will be subject to the protections of Article 97. As discussed,

this donation also appears to be contingent on efforts to acquire additional DCR conservation land in the Lancaster State Forest to support this development. DCR has expressed opposition to this plan. The Proponent has neither included in the DEIR the land transfers among the list of required agency actions nor provided any discussion and analysis of the uses that would occur on these parcels or address compliance with the EEA's Article 97 Land Disposition Policy, including the no-net-loss provision. The SDEIR must address these concerns, at a minimum, to avoid segmentation under the MEPA regulations. The SDEIR should clarify if this donation of two parcels is part of mitigation for the proposed project or was previously proposed mitigation pursuant to a 2017 settlement agreement.

Land Alteration and Open Space

The SDEIR should quantify (in a tabular format) the total amount of alteration and impervious area creation associated with each project element including buildings, roadways, parking, automotive storage yard, wastewater, water and stormwater infrastructure, landscaping, and other project components. This quantification should include a breakdown of proposed new land alteration and alteration proposed in previously altered areas. The SDEIR should clarify the location, type and amount of alteration in previously undisturbed areas. The SDEIR should include site plans that clearly identify locations of new land alteration, alteration proposed in existing altered areas, and impervious area creation. Plans should clearly locate and delineate areas proposed for development and those to be left undisturbed. In addition to conceptual heat maps, the SDEIR should include a grading plan and identify the depth and location of fill/excavation.

The Proponent will work with the Town of Lancaster to designate open space areas on-site where feasible. The SDEIR should include a plan which clearly identifies open space that will remain undisturbed and/or restored upon completion of construction and identify whether and how open space will be protected. Given the size of the project site, the Proponent should consider placing a conservation restriction (CR) on portions of the site designated as open space, including areas containing wetlands, to ensure their permanent protection.

The SDEIR should clarify the conditions under which the open space donation described above will be made to the Town, whether any Land Transfers from DCR serve as prerequisites for this project or the open space donation, and the status of any negotiations that have occurred to complete any such required transitions. The SDEIR should also clarify whether Article 97 legislation will be required as a prerequisite to this project or as a condition to the open space obligations owed to the Town.

The SDEIR should provide an update, in the narrative and on project plans, regarding the extent and type of clearing associated with the project and how impacts to mature trees and wildlife corridors will be avoided to the maximum extent practicable. The SDEIR should provide a comprehensive evaluation of all measures to reduce the amount of land alteration and impervious area, including reductions in roadway widths and impervious surfaces, pervious pavement for low intensity parking areas and sidewalks, and reducing parking. The SDEIR should provide a robust commitment to implementing LID techniques to reduce impervious area and land disturbance.

Wetlands

The DEIR and supplemental information indicate that the project will alter 3,500 sf of BVW,

15,000 sf of BLSF, 396,158 sf of RFA[4], and unspecified areas of Bank and LUW. MassDEP comments indicate that the DEIR is not responsive to many of the concerns raised in comments on the ENF and fails to fully address how the Proponent proposes to avoid, minimize, and mitigate impacts to wetland resource areas. The DEIR does not demonstrate that the project can be designed and constructed consistent with applicable WPA performance standards.

The SDEIR should include detailed plans at a reasonable scale that clearly delineate all applicable resource area and buffer zone boundaries including floodplain elevations. Project plans should depict all project elements (including utilities) in relation to all wetland resource areas and any associated buffer zones within the site. Plans should depict delineations of wetland resource areas associated with the proposed off-site water line and the Area I housing complex on which to base the determination of potential impacts to resource areas for both these components of the project. The SDEIR should include an updated description of all permanent and temporary wetland impacts associated with all project components (conceptual or otherwise) including grading, clearing and construction-related disturbances for on-site and off-site work and provide alternatives analyses consistent with regulatory requirements to demonstrate how wetland impacts will be avoided, minimized and mitigated. The SDEIR should include a discussion that demonstrates that the project can be designed and constructed consistent with applicable WPA performance standards. The SDEIR should describe the nature of all impacts that cannot be avoided and whether they are temporary or permanent in nature. The SDEIR should identify the limits of floodplain through the calculation of BFEs to accurately identify impacts associated with project elements. The SDEIR should provide a description of the areas where the project will impact BLSF (resulting in loss of flood storage), show the proposed location(s) of compensatory flood storage, or describe measures to minimize BLSF impacts. The SDEIR should describe proposed wildlife habitat enhancements.

The SDEIR should also clarify locations of intermittent and perennial streams on-site and associated impacts. Portions of the project, including the auto storage facility with a large gravel storage area and stormwater basins, are near wetlands located within the ACEC, which are sensitive wetland resource areas. The SDEIR should evaluate alternatives that locate these components further away from sensitive resource areas. The SDEIR should consider structured parking alternatives. The SDEIR should include information regarding use and maintenance of gravel storage areas and how impacts to sensitive resource areas and receptors will be avoided.

The SDEIR should justify the need for expanded wetland crossings along McGovern Boulevard, and provide a detailed wetland replication plan that meets BVW performance standards. The SDEIR should address the project's consistency with each of the Massachusetts River and Stream Crossing Standards. The SDEIR must demonstrate that the project meets the performance standard pursuant to 310 CMR 10.55(4)(e), or alternatively request a Variance pursuant to 310 CMR 10.05(10) if BVW alteration is proposed within the ACEC. MassDEP comments indicate that the Proponent may be required to obtain 401 Water Quality Certification (WQC) from MassDEP unless it can demonstrate that the project does not meet the filing criteria identified pursuant to 314 CMR 9.04 (1) and (3); the SDEIR should specifically address this comment and provide additional information to demonstrate consistency with the 401 WQC regulations pursuant to 314 CMR 9.00, if required.

As the coordinating agency for the NFIP, DCR's Flood Hazard Mitigation Program (FHMP) submitted comments regarding the project's consistency with applicable federal, state and local

[4] According to supplemental information which indicates that refinements to the design will limit work in the 200-foot RFA in the western portion of the site to the 10 percent allowable limit (10,257 sf) pursuant to the 310 CMR 10.58.

standards and requirements related to floodplain development including, but not limited to, the State Building Code and Wetlands Regulations. I expect the SDEIR will be responsive to the comments provided by DCR regarding compliance with regulatory standards and requirements and will include hydrologic and hydraulic analyses necessary to identify and mitigate potential impacts.

Stormwater

The DEIR contains information that indicates that the final project design will be able to comply with the SMS. It shows the approximate locations of stormwater basins on site plans, provides greater setbacks between stormwater BMPs and wetland resources, including the CVP. As noted, the SDEIR should include commitments to implement LID measures into the stormwater system design. The SDEIR should consider reuse of roof runoff for irrigation. The Proponent should analyze additional measures to reduce impervious area, including narrower roadways, locating parking underneath buildings, structured parking, shared parking and banking of parking until warranted by demand.

Traffic and Transportation

The Proponent should consult with MassDOT prior to submission of the SDEIR to ensure MassDOT's comments are addressed. The SDEIR should provide an update of the phasing of the project and the expected timing of each phase. The SDEIR should provide an update of the local permitting processes for the project regarding transportation issues. The Proponent should continue consultation with MassDOT PPDU and the District 3 Office during preparation of the SDEIR.

The SDEIR should include revised site generated traffic estimates and analyses to reflect the current development program or provide supporting documentation that the change is minimal. The SDEIR should apply appropriate internal capture and pass-by rates using rates obtained from the ITE *Trip Generation Handbook* (3rd Edition).

MassDOT comments concur with the general concept for the Route 2 WB Exit 35 storage and deceleration improvement identified on Figure 7.8. As requested by MassDOT, the Proponent should contact the MassDOT District 3 Office to discuss details of the improvements prior to submission of the SDEIR. I refer the Proponent to MassDOT's comment letter for additional guidance. The SDEIR should clarify that improvements to the Route 2 WB Interchange 35 Off-Ramp will be constructed prior to site occupancy.

The SDEIR should provide additional information on proposed interim improvements (installation of a temporary traffic signal) at the Route 70/Fort Pond Road/Woods Lane intersection to allow MassDOT to comment on whether the potential improvement is acceptable. The SDEIR should provide a Traffic Signal Warrants Analysis (TSWA) to determine if a traffic signal is warranted, and analyses summarizing the impacts of a traffic signal at this intersection, which is located approximately 400 feet from the Route 2 WB Interchange 35 Off-Ramp. The Proponent should conduct analyses to determine the level of development that can be constructed before the queue on the Fort Pond Road approach begins to impact operations at the Route 2 WB Off-Ramp, if the traffic signal is warranted. This information is necessary to identify appropriate thresholds to implement interim improvements.

The Route 2 WB Interchange 35 On-Ramp is under Stop-sign control with no acceleration lane provided on Route 2. The project is expected to add 159 vehicles to this movement during the weekday evening peak hour (more than doubling the existing volume). The SDEIR should evaluate mitigation

measures at this location. In addition, the SDEIR should provide trip generation and distribution for new truck traffic given the industrial nature of the project.

The SDEIR should provide additional justification for the large number of parking spaces and should demonstrate efforts to reduce or land bank some of the spaces.

The Proponent should further discuss pedestrian/bicycle improvements within the roadway layout with MassDOT for compliance with the Healthy Transportation Initiative (HTI) policy prior to the submission of the SDEIR. The SDEIR should summarize the outcome of these discussions with MassDOT.

The Proponent is working with the Town of Lancaster on the final layout of the site based on programming within the IPOD-1 district. Final layout of on-site pedestrian and bicycle accommodations, internal site circulation, and other on-site transportation networks will be designed following this Town process. The SDEIR will further describe and update these transportation enhancements, following consultation with the Town. The SDEIR should include graphics (and supporting narrative) depicting internal circulation patterns (vehicles, pedestrian, and bicycles) and connection points to adjacent land uses. The SDEIR should provide an update on proposed measures for improving pedestrian and bicycle access in the study area.

According to MassDOT comments, proposed mitigation within the state highway layout and all internal site circulation appear consistent with a healthy transportation design approach that provides adequate and safe accommodations for all roadway users, including pedestrians, bicyclists, and public transit riders. Design exceptions for improvements within state highway layout shall be discussed with MassDOT during any 25 percent design process. Following consultation with MassDOT, the SDEIR will further describe and update these transportation enhancements including complete street design consideration along McGovern Boulevard, and planned connections to the trail network north and south of the site.

The SDEIR should provide an update of consultations with MART and the Town of Lancaster regarding the feasibility of extending transit service to the project site.

Water Supply

As previously mentioned, the Proponent executed an MOU with the LWD to provide water to the project site. However, MassDEP comments indicate that the LWD cannot supply water to the project without activation of its proposed new wellfield off Lancaster Avenue in Lunenburg. The pumping test performed on the proposed new wellfield identifies elevated manganese concentrations which may require treatment to allow the LWD to deliver water reliably and consistently below the secondary maximum contaminant level for manganese. The LWD will need to submit a Corrective Action Plan to address elevated manganese to MassDEP for approval before beginning any construction on the project.

The DEIR indicates that the Proponent will provide funds for the design and construction of the 2.5-mile water main infrastructure associated with the project; it does not commit to providing funds to LWD to develop the new source, including the cost of treatment. The SDEIR should confirm the total length of water main proposed on-site and off-site. The SDEIR should identify if additional permitting will be required by MassDOT for work (installation of water main) within the state highway layout. However, given that the failure to address manganese contamination may jeopardize water supply to this project, the SDEIR should further clarify whether the Proponent will provide additional funding to

support efforts to reduce manganese concentrations in LWD water supply, if required, and, if not, to what extent this will require exploration of alternative water supplies for this project. Examples of mitigation projects suitable for the WMA program, and for which funding could be made available by the Proponent, are those that remove or disconnect impervious surface; protect and preserve open space; provide infiltration and inflow removal from a sewer system; or otherwise improve surface water wildlife habitat. Stormwater improvements that exceed standard requirements and culvert replacements that meet Massachusetts River and Stream Crossing Standards may also be considered as mitigation for WMA. The SDEIR should provide an update on the status of negotiations of the IMA between the Town of Lancaster and the LWD and include the IMA, if available.

The SDEIR should provide a discussion of reusing grey water and rainwater for toilet flushing and irrigation, and limits on outdoor water use. It should consider the use of roof runoff for irrigation. It should estimate associated reductions in water demand for all proposed water conservation measures.

Wastewater

The SDEIR should provide an update on existing and proposed wastewater infrastructure and flow and include a site plan that clearly depicts the location of the proposed WWTP and associated infrastructure. The DEIR indicates that all wastewater will be connected to the proposed treatment facility; the SDEIR should confirm that this commitment includes Buildings in Area I and, if not, clarify the wastewater infrastructure associated with Area I. The Proponent submitted a BRP WP 83 hydrogeologic application in June 2019 and requested an extension to May 2020 to modify its application and seek a revised disposal area. The SDEIR should include a breakdown of proposed and existing activities that will contribute to the ultimate design flow of 157,385 gpd.

MassDEP comments indicate that the DEIR does not describe how the project will meet the requirements for a privately owned WWTF pursuant to 310 CMR 5.15 and fails to describe any legal and financial arrangement (FAM to fund the immediate repair and replacement of the WWTF) that will achieve compliance with these permitting requirements. The SDEIR must provide a comprehensive response to MassDEP's comments on compliance with the GWDP regulations.

Climate Change

Greenhouse Gas (GHG) Emissions

I acknowledge the Proponent's responsiveness to comments from the Massachusetts Department of Energy Resources (DOER) on the ENF. The DEIR analyzes improved building envelope, efficient electrification in all buildings except Building A, and Passivehouse. According to DOER comments, the analyses in the DEIR confirm that these measures would reduce emissions and operating costs, and yield significant incentives for both the developer and the building users. However, despite these benefits, the Proponent has not committed to these measures. I strongly encourage the Proponent to prioritize measures that can offset emissions reductions and reduce energy costs over the lifespan of the project.

Comments from DOER indicate that the project could significantly reduce GHG emissions from commercial buildings A, B, D (each greater than 100,000-sf) from 5 percent (envelope improvements and more efficient HVAC equipment) to 32 percent (greater than six times improvement) based on efficient electrification of Buildings B and D with heat pumps for space and water heating and efficient electrification of Building A with heat pumps or variable refrigerant flow (VRF) for space and water heating; from commercial buildings (less than 100,000-sf each) from 12 percent (lighting and plug load

reduction) to 19 percent (a 60 percent improvement) with efficient electrification of space and water heating; and from residential buildings from 12 percent (lighting and plug load reduction and more efficient domestic hot water) to 70 percent (almost six times improvement) with heat pump water heaters, Passivehouse, and PV on 50 percent of roof (total of 1.1 MW). Efficient electrification would include swapping fuel-burning equipment with electric heat pumps or VRF for space and water heating. I strongly encourage the Proponent to reconsider these measures given they appear financially feasible and will provide significant GHG reduction benefits.

In addition to mitigating GHG emissions, the measures recommended by DOER may reduce costs by eliminating the need for gas service to the site, reducing the size of HVAC systems, and lower utility costs. The project could be eligible for significant financial incentives from the MassSave program, Alternative Energy Credits (AEC) for all-electric and Passivehouse options. The Commonwealth's Solar Massachusetts Renewable Target (SMART) program provides the opportunity for the Proponent or developer of the project to benefit directly by selling energy generated from rooftop solar PV to the utility.

The revised GHG analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which Damage to the Environment can be avoided, minimized, and mitigated to the maximum extent feasible. The SDEIR should confirm that the GHG analysis reflects the DEIR Master Plan project which proposes 3.1 million sf of mixed-use development. I expect the SDEIR will be responsive to comments from DOER.

The SDEIR should clarify the building envelope questions outlined in DOER's comment letter and evaluate opportunities to continue improving envelope performance (roof and wall) in all buildings.

The SDEIR should describe commitments to construct the multifamily buildings (L, M, and N) consistent with Passivehouse design based on analyses which show these buildings have lower emissions and improved payback. The SDEIR should provide a separate Passivehouse financial analysis for each residential building type (hotel, single-family, duplex, triplex) and substantiate all cost premiums. The Proponent should consult with MassSave to evaluate commissioning a MassSave® funded Passivehouse study for the multi-family buildings and to assess potential incentives for each residential type.

The SDEIR should analyze efficient electrification of Building A. The SDEIR should commit to efficient electrification of all residential and commercial buildings (gas water heating may be included in the design for Passivehouse multifamily) based on analyses demonstrates lower operating costs with qualifying AECs. The use of heat pumps for space and water heating of commercial buildings could reduce GHG emissions by 200 tpy and reduce operating costs of the project by $11,405 annually. Similarly, analyses demonstrate that efficient electrification for residential buildings would reduce emissions by over 360 tpy and yield up-front incentives for the developer worth up to $903,315.

The SDEIR should explain, in reasonable detail, why measures such as improving building envelope, Passivehouse design, and efficient electrification, which could provide significant GHG reductions, were not selected.

DOER comments indicate that the project currently does not propose solar readiness above Code. The SDEIR should describe commitments to maximize solar-readiness on all buildings with 80 percent PV ready space on the commercial buildings and 50 percent PV ready space for residential buildings. The SDEIR should provide a detailed explanation for each building, including detailed roof

plans, demonstrating why these recommendations are not feasible if the project is unable to commit to these recommendations.

The Proponent should also consider adoption of additional sustainable design measures for which GHG reductions cannot be easily quantified, such as water conservation measures, including the use of low flow water fixtures; rainwater harvesting; construction waste recycling; recycling areas; and recycled content/regional materials. Additional GHG reductions can be achieved through effective materials management during the design, construction, and operations phases of the project. These measures will be considered when evaluating whether the project can mitigate its GHG emissions to the greatest extent practicable. The SDEIR should note whether the project will seek certification by the Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system, and if so, to what level. If applicable, the SDEIR should identify specific measures that will be incorporated into the project design to achieve the LEED certification.

The SDEIR should include an updated mesoscale analysis based on the proposed 3.1 million sf of mixed-use development (analysis in DEIR is based on 2.6 million sf which was described in the ENF). The Proponent should thoroughly explore means to improve traffic operations and reduce SOV trips. Improvements in traffic operations that reduce idling time and a reduction in vehicle trips can reduce overall project-related mobile source GHG reductions. The Proponent should incorporate proposed transportation improvements, in addition to TDM measures, as part of the 2026 Full Build with Mitigation condition and estimate corresponding emissions reductions compared to the 2026 Full Build.

The SDEIR should also review measures to promote the use of low-emissions vehicles, including installing EV charging stations and providing designated parking spaces for these vehicles. I strongly encourage the Proponent to provide charging stations for at least 5% of spaces and provide an additional 5% of spaces as EV ready. The Build with Mitigation model should incorporate anticipated roadway improvements and TDM measures to be implemented by the project and document the resulting reductions in GHG emissions.

The SDEIR should identify the design of proposed parking structures (i.e., open air, enclosed, etc.) and, as appropriate, provide information on the location of emission vents and other combustion sources. Exhaust areas should be sited to avoid conflicts with pedestrian routes or public gathering spaces. EPA's AERMOD model is the appropriate tool for estimating potential ground-level impacts of parking garages and combustion source emissions (i.e., boilers, generators, etc.). Industrial, commercial, and institutional uses may use heating equipment and emergency generators that require certifications, inspections, and/or Permits from MassDEP. The SDEIR should identify certification and/or permits that may be required for proposed project elements, such as boilers and generators. The SDEIR should respond to MassDEP's comments on permitting associated with boilers, proper stack design, and engines; and careful consideration of the placement of generators and engine exhaust stack designs with respect to nearby terrain, buildings and other potentially sensitive receptors.

Adaptation and Resiliency

The Proponent should provide a revised and expanded list of measures to address improved resiliency and adaptability of the site to the effects of climate change as required in the Certificate on the ENF. I expect the Proponent will continue to consult with the Town regarding its MVP planning and, as appropriate, address how the project design is consistent with Town goals or requirements. The SDEIR should provide an update on MVP planning.

The SDEIR should provide an analysis and discussion of vulnerabilities of the site to the potential effects associated with climate change including increased frequency and intensity of precipitation events, flooding and extreme heat events. To assist in this evaluation, the Proponent should review the 2018 Massachusetts State Hazard and Mitigation and Climate Adaptation Plan at www.resilientma.com and review data available through the Climate Change Clearinghouse for the Commonwealth.

The SDEIR should identify measures to improve the project's resiliency and adaptation to potential effects of climate change. Avoidance and minimization of land alteration and new impervious area within the unaltered, wooded portions of the site and avoidance of development within the floodplain are effective ways to reduce the vulnerability of the site to the effects of climate change. The SDEIR should incorporate ecosystem-based adaptation measures and infrastructure design to minimize and mitigate impacts. Building elevations and stormwater management infrastructure should be designed in a manner to promote climate change resiliency and adaptation. The Proponent should also consider impacts on the proposed structures, building entry and exit points, vehicular access, public and private on-site utilities, and first floor uses. The analysis provided in the SDEIR should demonstrate that the drainage system is designed to avoid exacerbating flooding of the site and adjacent properties.

The SDEIR should provide information on project phasing and development of active and passive recreation areas and open space features that will be designed to flood. It should include figures that depict existing and proposed elevation contours and a supporting narrative that addresses how the open space will function to absorb and buffer flood waters. The SDEIR should also identify site elements that have been incorporated into project design to reduce the impact of extreme heat waves and limit the potential impact of more frequent and intense storm precipitation. The Proponent should consider how on-site renewable energy, a central energy plant, or co- or tri-generation systems may provide added resiliency during periods of power loss during storms.

Construction Period

The DEIR includes a draft Construction Management Plan. The SDEIR should describe the schedule for construction of project elements and identify construction staging areas. It should evaluate construction-period impacts (including but not limited to erosion and sedimentation, air quality, solid waste disposal, and transportation/traffic) and outline feasible measures that can be implemented to eliminate or minimize these impacts. A construction period Stormwater Pollution Prevention Plan (SWPPP) should be developed consistent with the NPDES CGP for the project to reduce erosion and sedimentation impacts. The DEIR indicates that blasting may be required and will comply with applicable regulations.

I encourage the Proponent to mitigate the construction period impacts of diesel emissions, including requiring use of construction equipment with engines manufactured to Tier 4 federal emission standards or best available control technology (BACT). The DEIR confirms that the project will require construction contractors to use Ultra Low Sulfur Diesel (ULSD) fuel in off-road equipment. The DEIR addresses how the project will support compliance with the Massachusetts Idling regulation at 310 CMR 7.11 such as driver training, periodic inspections by site supervisors, and posting signage temporarily during construction and permanently post-construction.

The SDEIR should provide information regarding the project's generation, handling, recycling, and disposal of C&D debris. It should describe the management and disposal of any asbestos containing materials (ACM). The SDEIR should quantify and characterize the material to be generated and define

waste management and diversion goals to be implemented by the contractors constructing the project. The SDEIR should identify the specific and aggressive construction recycling and source reduction goals the Proponent will make as a way to increase the sustainability of the project. The SDEIR should address compliance with the waste bans regulations (310 CMR 19.017).

Excavating, removing, and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media must be done under the provisions of M.G.L. c. 21E and all other applicable federal, state, and local laws and regulations. The SDEIR should describe how it compliance with the MCP and M.G.L. c. 21E during construction and identify construction-period mitigation measures.

Mitigation/Draft Section 61 Findings

The SDEIR should include an updated chapter summarizing proposed mitigation measures. This chapter should include draft Section 61 Findings for each Permit to be issued by a State Agency. The SDEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and include a schedule for implementation. The SDEIR should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing, either tying mitigation commitments to overall project square footage/phase or environmental impact thresholds, to ensure that measures are in place to mitigate the anticipated impact associated with each development phase.

In order to ensure that all GHG emissions reduction measures adopted by the Proponent in the Preferred Alternative are actually constructed or performed, I require proponents to provide a self-certification to the MEPA Office indicating that all of the required mitigation measures, or their equivalent, have been completed. Specifically, I will require, as a condition of a Certificate approving an SDEIR, that following completion of construction of each building and/or phase the Proponent provide a certification to the MEPA Office signed by an appropriate professional (e.g., engineer, architect, transportation planner, general contractor) indicating that all of the mitigation measures proposed in the SDEIR have been incorporated into the building and/or phase. Alternatively, the Proponent may certify that equivalent emissions reduction measures that collectively are designed to reduce GHG emissions by the same percentage as the measures outlined in the SDEIR, based on the same modeling assumptions, have been adopted. The certification should be supported by plans that clearly illustrate where GHG mitigation measures have been incorporated. The commitment to provide this self-certification in the manner outlined above should be incorporated into draft Section 61 Findings. To the extent the building and/or phase to which the self-certification applies will be constructed by a different landowner or developer, the Proponent may assign responsibilities under this Certificate to such landowner, provided that the assignment is made pursuant to a legally enforceable document that is appended to the applicable filing to the MEPA Office.

Responses to Comments

The SDEIR 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 DEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended to, and shall not be construed to, enlarge the Scope of the DEIR beyond what has been expressly identified in this certificate. Responses must specifically address each comment letter on the DEIR; references to a chapter or extensive sections of the SDEIR alone are not adequate.

Circulation

The Proponent should circulate the SDEIR to those parties who commented on the ENF and/or DEIR, to any State Agencies from which the Proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. Per 301 CMR 11.16(5), the Proponent may circulate copies of the SDEIR to commenters in CD-ROM format or by directing commenters to a project website address. However, the Proponent must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The SDEIR submitted to the MEPA office should include a digital copy of the complete document. A copy of the SDEIR should be made available for review at the Lancaster and Leominster Public Libraries.

February 14, 2020
Date

K. Theoharides
Kathleen A. Theoharides

Comments received:

01/09/2020 Kristen Small
01/10/2020 Jeanne Rose
01/20/2020 Greg Jackson (duplicate comments submitted through comment portal 01/21/2020)
01/21/2020 Philip Eugene
01/21/2020 Steph Stanton
01/23/2020 Maribeth Eugene
01/23/2020 Emily Taylor
02/04/2020 Jean Lidstone
02/04/2020 Robert Lidstone, Lancaster Land Trust
02/05/2020 Cara Sanford
02/06/2020 David Harwood, on behalf of Lunenburg Water District (LWD)
02/07/2020 Victoria and John Petracca (2nd comments 02/07/2020)
02/07/2020 Al Futterman, Nashua River Watershed Association (NRWA)
02/07/2020 Christina Wiseman, Mass Audubon
02/07/2020 Nashoba Valley Climate Committee
02/07/2020 Massachusetts Department of Environmental Protection (MassDEP) – Central Regional Office (CERO)
02/10/2020 Massachusetts Department of Conservation and Recreation (DCR)
02/11/2020 Massachusetts Department of Transportation (MassDOT)
02/12/2020 Massachusetts Department of Energy Resources (DOER)

KAT/PPP/ppp

From:	Kristen S
To:	Patel, Purvi (EEA)
Subject:	Lancaster Capital Commerce Center development EEA 16043
Date:	Thursday, January 9, 2020 3:07:04 PM

Hello,
I am a homeowner in Lancaster and am very concerned about the size and impact of this upcoming development. The current plans are very large, I fear the overall impact on the environment such as groundwater or surface water contamination, loss of habitat, increased daily traffic in and out of the facility, and the increase in noise and dust and other problems something of this size is bound to create.

Reducing the encroachment into the 100-foot wetlands buffer as well as reducing the concentration of development along McGovern Brook should help the environmental impact of this development. The 1,000,000 sq. ft. distribution center that dominates the center of the site is excessive, and I am left to wonder if that much space is really necessary.

There are numerous ways this project may negatively impact the natural environment and water resources in North Lancaster. I hope that you will carefully review the proposed plans, required regulations that should be followed, and think of our natural resources that that may be impacted. Please help to ensure that this development does not have a terrible, damaging, and costly impact on our cherished town.

Thank you for your time,
Kristen Small
94 Deershorn Road
Lancaster, MA 01523
508-308-0283

From: Rose, Jeanne M.
To: Patel, Purvi (EEA)
Subject: Project 16043
Date: Friday, January 10, 2020 10:13:55 AM

Good morning,

As a concerned resident of Lancaster, MA, I am requesting that the state environmental review of the subject project be given the most thorough attention possible.

The Capital Commerce Center (CCC) development is a sprawling design that intrudes into wetlands buffers and/or resides in an Area of Critical Environmental Concern. The proposal will destroy large swaths of natural habitat, and in its current configuration, runs the risk of polluting the North Nashua River and McGovern Brook, and contaminating groundwater and surface water. Of particular concern is the plan to cover 80 acres of the site with gravel to create a parking lot for a used auto-sales facility where cars will be stored for various vendors. Assurances from CCC that no fluids will leak out of these used vehicles are met with skepticism.

As a reminder, the "Nashua Wild and Scenic River Act" was included in the Natural Resources Management Act (S.47) and signed into law by President Trump on March 12, 2019, thereby officially designating sections of the Nashua, Squannacook and Nissitissit Rivers as Partnership Wild and Scenic Rivers. These three rivers are in the Nashua River watershed, as are both the North Nashua River and McGovern Brook.

Lancaster is facing a huge loss of natural habitat with the CCC proposal. Please ensure that this development is not permitted at the expense of our waterways.

Thank you.

Jeanne Rose
46 S Meadow Road
Lancaster, MA

From:	gwjwi@aol.com
To:	Patel, Purvi (EEA)
Subject:	Public Comment on Capital Commerce Center -- EEA 16043, Lancaster, MA
Date:	Monday, January 20, 2020 2:13:40 PM
Attachments:	012020 Environmental Comments on Capital Commerce Center.pdf

Dear MEPA Office,

I have significant concerns about the environmental impact of the Capital Commerce Center proposed in the northern area of Lancaster. The project plans to add multiple industrial, retail, and residential structures in a 471 acre area that has been largely, previously undeveloped.

The sprawling development borders conservation land north of the North Nashua River and transects multiple tributary streams. In spite of numerous public hearings since the filing of the original Environmental Notification Form (ENF) last June, the proposed site plan has not substantially changed (with the exception of excluding the western neighborhood from the plan).

I'm concerned that the project will irreparably damage over 55 acres of existing woodlands and wetlands that provide important wildlife habitat as well as watershed for the nearby river. The concentration of buildings, parking areas, structures, and construction within the 100-foot wetlands buffer throughout the site threatens the preservation of those valuable resources.

Please see the attached comments regarding environmental concerns for the proposed Capital Commerce Center. These observations and questions were based primarily on the site plans submitted for MEPA review and do not consider changes that have been suggested, but not yet committed to by the applicant (for example, providing conservation land south of the river).

The preferred IPOD Master Plan dated 9/12/19 was used as a point of reference for these comments. The impact of any development in this area must be carefully and thoughtfully evaluated. Thank you for your continued efforts to review these important environmental concerns.

Sincerely,

Greg Jackson
Lancaster, MA

Energy & Environmental Affairs
Public Comments Portal

purvi.patel@mass.gov

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Comment Details

EEA #/MEPA ID*	**First Name**	**Address Line 1**	**Organization**
16043	Greg	40 Farnsworth Way	--
Comments Submit Date	**Last Name**	**Address Line 2**	**Affiliation Description**
1-21-2020	Jackson	--	Individual
Review Due By	**Phone**	**State**	**Status**
2-9-2020	--	MASSACHUSETTS	Opened
Reviewer	**Email**	**Zip Code**	
Purvi Patel 617-626-1029	anonymous	01523	

Comments

Topic: Public Comment on Capital Commerce Center -- EEA 16043, Lancaster, MA

Dear MEPA Office, I have significant concerns about the environmental impact of the Capital Commerce Center proposed in the northern area of Lancaster. The project plans to add multiple industrial, retail, and residential structures in a 471 acre area that has been largely, previously undeveloped. The sprawling development borders conservation land north of the North Nashua River and transects multiple tributary streams. In spite of numerous public hearings since the filing of the original Environmental Notification Form (ENF) last June, the proposed site plan has not substantially changed (with the exception of excluding the western neighborhood from the plan). I'm concerned that the project will irreparably damage over 55 acres of existing woodlands and wetlands that provide important wildlife habitat as well as watershed for the nearby river. The concentration of buildings, parking areas, structures, and construction within the 100-foot wetlands buffer throughout the site threatens the preservation of those valuable resources. Please see the attached comments regarding environmental concerns for the proposed Capital Commerce Center. These observations and questions were based primarily on the site plans submitted for MEPA review and do not consider changes that have been suggested, but not yet committed to by the applicant (for example, providing conservation land south of the river). The preferred IPOD Master Plan dated 9/12/19 was used as a point of reference for these comments. The impact of any development in this area must be carefully and thoughtfully evaluated. Thank you for your continued efforts to review these important environmental concerns. Sincerely, Greg Jackson Lancaster, MA

Attachments

012020 Environmental Comments on Capital Commerce Center.pdf

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Capital Commerce Center – 01/20/20 Environmental Concerns:

- With the exception of eliminating the western neighborhood, the proposed site plan appears to have changed little since the filing of the original Environmental Notification Form (ENF). Incorporating DEP review comments would likely require reducing the expanse of the project as well as the size of the buildings and parking lots.

  What is being done to incorporate requests and recommendations from the MEPA and DEIR reviews?

- The current site plans have numerous features, roads, parking lots, and storm water basins, within the 100-foot wetlands buffer. It proposes development up to the edge of the 25-foot buffer in numerous places, particularly along McGovern Brook, with buildings, roads and parking within the 100-foot wetlands and 200-foot river-front buffers.

  The current site plan does not appear to comply with town wetlands regulations in multiple areas. Why hasn't the site plan been revised?

- The excessive expanse of the proposed project over 471 acres, will certainly degrade water quality and habitat, particularly in areas of development concentrated near wetland's buffers. The close proximity of buildings and other construction to known flood plains will likely increase the damage from any future flooding.

  Moving development out of and away from the 100-foot buffers would reduce the inevitable damage.

- The MA Department of Conservation and Recreation (DCR), has suggested observing a 100-foot no-development buffer measured from DCR property lines such as those of the Lancaster State Forest.

  Why isn't this conservation land buffer identified and observed on the site plan?

- Significant portions of the project lie within the Central Nashua River Valley Area of Critical Environmental Concern (ACEC). MA DCR has expressed concerns about the adverse effects to resources in this area.

  How does the site plan minimize or mitigate the impact on groundwater, wildlife, habitat, or other natural resources in this critical area?

- The southern portion of the proposed development either lies within or boarders the town's water resource district north of the North Nashua River. The location of numerous storm water basins, parking for 8000 cars, and a major sewer treatment facility would not appear to be compatible with protection of the town's WRD.

  What is being done to mitigate and minimize the impact of storm water runoff and its contaminants in this sensitive area, and avoid any damage to the underlying aquifer?

- A 2017 report from Weston & Sampson evaluating potential water and sewer options for North Lancaster cited potential future town well sites north of the Nashua River.

  What effect will this development have on the viability of these future well sites?

- Reducing the size/extent of the 80-acre auto-sales parking lot and the adjacent 1,000,000 sq. ft. distribution center would reduce the overall impact on the environment, potential for nearby groundwater or surface water contamination, loss of habitat, reduce daily traffic in/out of the facility, and reduce noise and dust experienced by local neighborhoods.

  What changes is the applicant proposing to allow the site plan to meet state water protection and town wetlands regulations?

- Other than the existing soccer fields, the current site plan does not designate any land for open space, recreation, or conservation. Any wetlands placed under conservation restriction should include bordering land, at least their associated 100-foot buffer, to ensure that they are minimally protected.

  What, if any area within the 471-acre site has been set aside for Open Space, Recreation, or Conservation?

- With regard to utilization of alternative and renewable energy, there appears to be little of no mention of geothermal, wind power, solar electric, or solar thermal sources for meeting the electrical and heating/cooling needs of this development. The rooftops of the proposed industrial, commercial, and residential buildings as well as the expansive parking lots would appear to be well-suited for solar energy installations. Similarly, there are areas on site having higher elevations exposed to prevailing westerly winds that would appear suitable for wind power generators.

  What portion of the estimated energy needs of the development's buildings will be generated on site?

- The site plan indicates substantial alteration of much of the combined property and creation of a massive amount of impermeable surface. As noted above, construction frequently extends up to or into the 100-foot wetlands buffer. With the exception of two small areas near the bridge crossing McGovern Brook, little or no mitigation of these construction activities has been identified.

  It's hard to believe that this much development can occur in and around these environmentally valuable and sensitive areas with so little mitigation or restoration required.

- Construction of the proposed development will require cutting and clearing much of the remaining trees and brush on the 471-acre site. Conditions for cutting, clearing, and disposal of trees, brush, and stumps should be specified to avoid any further environmental damage from these activities.

  Logging trees for lumber, and chipping and composting brush should be considered. Burying or burning whole logs and stumps on site should be explicitly prohibited.

- The 8-foot high steel security fence surrounding the boundary of the proposed auto-sales parking lot is located substantially within the 100-foot buffer. It is hard to imagine a scenario where the construction and on-going maintenance of the fence would not adversely affect the adjacent wetlands.

  As is the case for many other features of this development, moving the security fence back and out of the wetlands buffer would minimize its impact on these valuable and vulnerable areas.

- The applicant has proposed a 100-foot "landscaped" buffer with tree plantings along the border with the existing White Pond residential neighborhood. It should be noted that this is the minimum depth required by the town's IPOD bylaw, Chapter 220, Section 8.7 C (7), Design Requirements.

  The applicant should consider extending this buffer to 150 or 200 feet to provide better visual screening and noise reduction of the large auto sales facility from the adjacent neighborhood. This would also improve habitat and wildlife corridors around this fenced, 80-acre parking lot.

The above comments pertain to the preferred IPOD Master Plan dated 9/12/19 and do not consider changes that have been suggested, but not yet committed to by the applicant.

Thank You,

Greg Jackson
Lancaster, MA

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purvi.patel@mass.gov

View Comment

Comment Details

EEA #/MEPA ID*	First Name	Address Line 1	Organization
16043	Philip	565 Langen rd	Self
Comments Submit Date	**Last Name**	**Address Line 2**	**Affiliation Description**
1-21-2020	Eugene	--	Individual
Review Due By	**Phone**	**State**	**Status**
2-9-2020	--	MASSACHUSETTS	Opened
Reviewer	**Email**	**Zip Code**	
Purvi Patel 617-626-1029	peugene@comcast.net	01523	

Comments

Topic: Comment of the proposal

Re: Capital Commerce Center DEIR (EEA #16043) Dear Sirs/Madam; This letter is to express concern over the +300 Arce build out site along Lunenburg Rd. In Lancaster Ma. I recently attend a Land trust meeting over the proposal, and I have many concerns. 1. Isolation of the protected Wildlife and Wetland areas. The Maps present show that the development would isolate several protected areas which will prevent free access by wildlife. 2. The number of trucks carrying the Vehicles will overwhelm the capacity of Lunenburg Rd and related entrance and exit. The exit off of Rout 2 is at capacity and the additional traffic will add to the traffic nightmare. Additionally, the other access point (Rt 117 and Lunenburg Rd) requires traffic to back up oner ½ mile. The additional traffic will only make the problem worse. 3. From the information present, it was unclear whether this sited was a "junk" yard or a used car sales lot. I think the use should clearly called out so that a comprehensive review/evaluation can be made. 4. With the Proposed number of vehicle (2500 cars) to be processed at the proposed plant, there was little or no mention of how to hand possible drip/leakage/waste material from the store Vehicles. Old cars over sand and gravel near a river is a recipe for disaster 5. According to the space of the lot, up to 6000-8000 could be stored there. The Proposal should have an absolute max on the number of vehicles that be present at any one time. Thank you for time and consideration Philip Eugene

Attachments

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purvi.patel@mass.gov

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Comment Details

EEA #/MEPA ID*	**First Name**	**Address Line 1**	**Organization**
16043	Steph	942 Main St.,	Nashoba Valley Climate Coalition
Comments Submit Date	**Last Name**	**Address Line 2**	**Affiliation Description**
1-21-2020	Stanton	--	Individual
Review Due By	**Phone**	**State**	**Status**
2-9-2020	--	MASSACHUSETTS	Opened
Reviewer	**Email**	**Zip Code**	
Purvi Patel 617-626-1029	swgarden@comcast.net	01523	

Comments

Topic: Map overlay

Thank you for making this portal accessible for folks to express their concerns. I am worried about the magnitude of the proposed project 16043. I do not see the Consevation Land Buffer ID'd on the map. This is worriesome. 80 acres of auto salvage yard is daunting. 471 acres is a lot of land. I want to see that every effort to support existing wildlife and habitat remain in tact... as much as is allowed. The proposed development is close to the Nashua River which is an important corridor supporting habitat and many species of birds, mammals, amphibians and more. Please help us keep these sensitive wildlife habitats in tact to your fullest ability. Thank you very much. Sincerely, Steph Stanton

Attachments

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purvi.patel@mass.gov

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Comment Details

EEA #/MEPA ID* 16043	**First Name** Emily	**Address Line 1** 634 Main Street	**Organization** --
Comments Submit Date 1-23-2020	**Last Name** Taylor	**Address Line 2** --	**Affiliation Description** Individual
Review Due By 2-9-2020	**Phone** --	**State** MASSACHUSETTS	**Status** Opened
Reviewer Purvi Patel 617-626-1029	**Email** emilyellisontaylor@gmail.com	**Zip Code** 01523	

Comments

Topic: Capital Commerce Center Project: Disingenuous, Bad for the Environment, and a Poor Fit for an Historic Town

Please see attachment for complete comments.

Attachments

Taylor, Emily Public Comments RE_ EEA #_ MEPA ID_ 16043_ Project Name_ Capital Commerce Center.pdf

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Emily Taylor
Main Street
Lancaster, MA 01523

23 January, 2020

RE: EEA #/MEPA ID: 16043
Project Name: Capital Commerce Center

Dear Sir/Madam,

My name is Emily Taylor, and I have been a resident of Lancaster for just over a year. I grew up in nearby Harvard, as did my husband, Samuel. We lived in Somerville for ten years before returning to Central Massachusetts to raise our family amongst the natural landscape and culture of American history we love.

I have been following the Capital Commerce Center (CCC) Project for some time. There are several things that concern me about the project. Thank you in advance for taking the time to read my comments.

Growing up, every New England child learns about the incredible efforts of environmental activists to restore the Nashua River to a pre-industrial state. In choosing Lancaster, and our specific home, we were particularly drawn to the proximity to this again-vibrant river, which is an important habitat for many species of birds. Indeed, in the past two months, multiple residents have spotted and photographed Bald Eagles in Lancaster. The river is a vital resource and a pride of Lancasters- our town motto is "Lancaster on the Nashua."

A salvage yard placed upstream of the majority of Lancaster is a threat to the incredible gains made in the health of this river. The known environmental contaminants that leach from unused cars do not belong anywhere near a waterway, much less on a porous surface that allows the contaminants to enter groundwater supplies. This is a danger to our environment, including animals and humans. The damage of heavy metals is not easily reversed: please do not take steps backwards toward a contaminated Nashua River.

Lancaster is the oldest town in Middlesex County, founded in 1653. That is more than 100 years before the Revolutionary War. As such, its main street (which is now Route 70) was built to accommodate horses, carriages, and foot traffic. Today, over 350 years later, it remains a much-used walking route for many residents. Leaving from the historic site of Mary Rowlandson's abduction and heading North, you will encounter rare and much treasured *sidewalks* that go all the way to the intersection of 117. Lancaster is a rarity- a small, Central Massachusetts town with an incredible level of walkability.

On this stretch of 70, you will pass no fewer than three churches (one built by Charles Bulfinch, architect of Fanueil Hall) four schools, three playgrounds, a senior center, the Town Hall, the Post Office, the Library, and the Emergency Services Department. Students from grades K-12 use these sidewalks to travel to and from school. During school hours, Perkins students and staff use the sidewalks to travel between buildings. As the parent of a three year old, I walk my son to and from school daily, using these sidewalks. I relish this, and frequently stop to remind myself how fortunate we are to live in a fringe-rural town with a walkable town center.

Adding upwards of 15,000 *large* vehicles/week to this small, pre-Colonial roadway is both dangerous, and an insult to the important historical nature of the town center. There are crosswalks up and down Main Street, though they are barely acknowledged by car traffic today. The speed limit is already fast for a densely populated area that serves hundreds of students and citizens. Limited parking at the Post Office means that residents must park on the side of the road. The addition of this through-traffic will hurt the character of Lancaster, and imperil its residents.

Now, to the proposed plan itself, and why it is illustrative of an extractive relationship between the Capital Group and Lancaster that is sure to follow. The Capital Group's website outlining the CCC boasts a roster of 5 hotels, 14 department stores, multiple grocers, and other revenue-generating and therefore taxable businesses for the Lunenburg Road Project. In *practice*, it has been shown that the Capital Group instead uses their land for distribution centers and salvage yards comprised of disused vehicles and temporary buildings. This circumvents the taxable activities, which means that the Capital Group's Commerce Center will not only be an environmental, social and cultural burden to Lancaster, but a financial one. Development of Lancaster's open lands should be thoughtfully done, and with a bias towards protecting the environment, and benefitting the residents- some of whom have been here for generations.

(Moreover: having been a lifelong resident of the Nashua River Valley, there is absolutely no demand for five hotels in Lancaster, even if one considers its proximity to larger towns like Worcester, Fitchburg and Leominster. This is marketing, plain and simple. No good business person would read a needs assessment of the Nashua River Valley vis a vis its hotel capacity versus its demand and consider investing in a hotel, much less five within several acres, wise. It is disingenuous and manipulative to sell Lancaster a bill of goods on which the Group has no intention of making good.)

I want to be very clear that I am not categorically against any development in Lancaster. Time passes, things change. I have seen enormous change in Central Massachusetts. While some of it is convenient (larger, more affordable grocers, for example) much of it is poorly done and with little regard to the character of the towns in which it sits. In the case of the Capital Project on Lunenburg road, it goes beyond disregard to outright exploitation of tax codes, deceitful marketing strategies, and a

flagrant disinterest in an important waterway, all for the financial benefit of the company.

This project has been insincere and even deceptively framed in an effort to sell it to the town of Lancaster. It has been pushed through quickly, and without proper convening of all stakeholders. The Capital Group is proposing a plan consisting of businesses for which there is no demand, to push through a site that is a poor fit for Lancaster.

People live in Lancaster because it is a small town, and an historic one. We treasure our crooked old houses and our centuries-old stables. We deal with narrow roads and low bridges because they are a testament to the realities that existed when the town was established. Towns like Lancaster are a direct link to our past. Forcing their town centers to become thoroughfares for large commercial vehicles is dismissive of the history of the town.

People also live in Lancaster because it is a direct democracy. While this process is not, I appreciate having an accessible way to participate in this important process. As a resident of Lancaster, I want to be heard very clearly when I say that the environmental, social, cultural and financial fallout of the Capital Group Project on Lunenburg Road will be real.

Thank you for taking the time to read my comments. I look forward to reading your decision after a thoughtful reconsideration of the appropriateness and viability of this project as currently structured.

Sincerely,

Emily Taylor

Main Street, Lancaster

Energy & Environmental Affairs
Public Comments Portal

purvi.patel@mass.gov

View Comment

Comment Details

EEA #/MEPA ID*	First Name	Address Line 1	Organization
16043	Maribeth	565 Langen Rd	1948
Comments Submit Date	**Last Name**	**Address Line 2**	**Affiliation Description**
1-23-2020	EUgene	565	Individual
Review Due By	**Phone**	**State**	**Status**
2-9-2020	--	MASSACHUSETTS	Opened
Reviewer	**Email**	**Zip Code**	
Purvi Patel 617-626-1029	mb_eugene@comcast.net	01523	

Comments

Topic: Capital Commerce Center DEIR (EEA #16043)

This project needs thorough MEPA review for the following reasons. The impacts to this small town's resources and its infrastructure will be significant and destructive if not carefully limited: The auto sales parking area and 1,000,000 sq. ft. warehouse were almost completely within the Central Nashua River Valley Area of Critical Environmental Concern (ACEC) The Water Resource District around the the medium yield aquifer under this project needs to be protected and the applicant has failed to identify where in its plans is the WRD. The client that Commerce is negotiating with for this area (BHT Properties) is in the auto salvage (junkyard) business not "used auto wholesale" as claimed during the tour of the site by Commerce and in representations to the Planning Board. There is a lot of concern regarding leaking fluids so near protected areas. The parking lot could hold between 6000 to 8000 cars even thought the town was told the maximum would be 2500. The amount of traffic projected in an area with limited road and highway access would cause severe air pollution/degradation. Your attention and diligence in this matter are greatly needed!

Attachments

Update Status

Status

Opened ▾ SUBMIT

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From: Lidstones
To: Patel, Purvi (EEA)
Subject: EEA # 16043
Date: Tuesday, February 4, 2020 10:14:12 AM

Ms Patel,

Public Comment on Capital Commerce Group
EEA 16043, Lancaster, MA

I wrote the Central Nashua River Valley Area of Critical Environmental Concern (CNRV ACEC) 27 years ago. It was approved by the boards of selelctmen, planning boards and conservation commissions in the towns of Lancaster, Harvard and Bolton. At the time the Lancaster board of selectmen and planning board approved of the boundary lines and it was implicitly understood that there would be no development south of McGovern Boulevard, at the time a dirt road.

Now we are faced with a junkyard and a 1,000,000 square foot warehouse with 250 loading docks in sandy uplands with a medium yield aquifer directly underneath. The uplands are an aquifer recharge area very vulnerable to contaminants from the junkyard due to the porosity of the soil. The adjacent clean high quality wetlands are all interconnected and would spread contamination quickly through the Nashua River valley, destroying threatened turtle and salamander populations as well as otters, birds and other species.

The huge warehouse would not allow rain and snow to percolate into the aquifer, which would lower ground water levels and reduce stream flow. Impervious surfaces cause more flooding downstream. iI the wetlands were allowed to dry out even a small amount, many of the sedges and aquatic plants that waterfowl rely on for sustenance would not be available. The Nashua River is at a critical position on the North Atlantic Flyway and migratory birds depend on the river. Migrating bird populations, already under threat, could be decimated. Because the wetlands along the Nashua river are hydrologically connected, the consequences of a lower ground water level and reduced stream flow as well as contamination would be felt for miles downstream. These contaminants would end up in brooks and oxbows and ultimately in the Nashua and Merrimack Rivers. Cities and towns along the Merrimack depend on the river for drinking water.

The largest population of Blanding's turtles is found within the CNRV ACEC. They are on the Fort Devens South Post, the Oxbow National Wildlife Refuge in Harvard, near Langen Road and in the wetlands behind Atlantic Union College. It is extremely likely that they have followed the river upstream into the Cook Conservation Area along with the Eastern box and wood turtles. Eastern box turtles have been observed at the Cook Conservation Area, which is right next to where the junk yard is to go. I request that no decision be made on this DEIR until herpetologists can survey the area in the spring.

The Blanding's turtle nests in sandy well-drained soil away from its home marsh. One female on the Fort Devens South Post walked 1 1/2 miles in 72 hours to lay her eggs. It is extremely critical not to have roads or fences dissecting its habitat. Because of the high rate of egg loss to predators, the loss of a turtle of reproductive age to an automobile can have a long term negative effect on the population. This is particularly true of the Blanding's turtle because they are so long-lived; a female in Minnesota has been documented at 77 years old. Not only do these turtles require a home marsh and sandy upland for nesting, but they also turn to vernal pools in the spring for the rich food supply and utilize cool forest floors in shady woodlands during the hot summer. Herpetologist Brian Butler observed that the Nashua River and its drainages serve as travel corridors for the turtles to get to more remote woodlands where competition for food is reduced. They use the same routes and habitats year after year. This combination of habitats undivided by roads and fences is not found in any other place in central Massachusetts except within the CNRV ACEC. Blanding's turtles have been spotted in the wetlands behind Atlantic Union College by biology professor Dr. Harold Merrimen and near Langen Road in Lancaster and have likely travelled the riverine corridor to the Cook Conservation Area and beyond.

Not only have the engineers who wrote the Capital Commerce Group DEIR not read the CNRV ACEC nomination,

evidently they have not travelled on Rtes 117 or 495 after 2:30 pm weekdays. At that time all the school busses that service the Emerson School and Nashoba Regional High School disgorge themselves on to Rte 117. This causes long backups in the breakdown lane of Rte 495, resulting in 40 minute or longer delays to get on to Rte 117 west. Another 17,630 vehicle trips with 2000 of them being semis, is going to back up cars even more. This will put local people at risk who need police, fire or ambulance services.

Thank you,
Jean Lidstone

From: Lidstones
To: Patel, Purvi (EEA)
Subject: EEA 16043
Date: Tuesday, February 4, 2020 10:17:07 AM

Ms Patel,

Lancaster Land Trust Comments on Commerce Capital Center

At its January meeting (1/15/20) the Lancaster Land Trust voted to submit the following comments on EOEA # 16043.

The auto sales parking area and 1,000,000 sq. ft. warehouse are almost completely within the Central Nashua River Valley Area of Critical Environmental Concern (ACEC). This is a problem because of the importance of one of the prime resources cited in the ACEC nomination: the large contiguous open spaces connecting a variety of habitats for those species needing access to different habitats for different seasons or life stages. Turtles are especially dependent on access from their usual habitats to sandy areas for nesting. By developing every bit of uplands with pavement and/or fencing this essential connection is destroyed.

With the size of the parking lot proposed (80 acres - 3,282,800 sq. ft.), leaking fluids from used cars are likely and, given the porous sand the lot will be built on, adjacent wetlands are likely to be impacted. Also the Water Resource District around the medium yield aquifer under this project needs to be protected and the applicant has failed to identify where in its plans is the WRD. Containment infrastructure and monitoring wells should be installed and a monitoring plan developed to protect each bordering wetland and the WRD.

The nature of the business is also in question as the client that Commerce is negotiating with for this area (BHT Properties) is in the auto salvage (junkyard) business not "used auto wholesale" as claimed during the tour of the site by Commerce and in representations to the Planning Board. See video (https://www.youtube.com/watch?v=j5ycxo31azo) and note the condition of the cars. BHT already has Lancaster listed as "Coming Soon" (acknowledgment: Cara Sanford).

Traffic from the site is planned to eventually reach 17,620 vehicle trips per weekday and 18,368 per Saturday, more than doubling the traffic on Lunenburg road. The Massachusetts Department of Transportation comment on the ENF agreed with the applicant's scope, but this does not consider Route 117 beyond its intersection with Route 70. With most traffic going from Rt. 2 east to 495 south or 495 north to Rt. 2 west using 117, intersections in Bolton are already overloaded and the additional impact should be studied. Also the 117/190 intersection on the Leominster/Lancaster line should be studied given the likelihood Lunenburg Road will become congested causing Rte. 2/495 traffic to use 190 to get to 117.

The storm water management plan is intended to retain a volume of runoff equivalent to 1 inch. This leaves a huge amount of runoff going into wetlands and streams many times a year.

The 84 acres of conservation land offered for mitigation is not clearly defined and may include the 72 acres of Sartelle land near our Ballard Hill North property which is already required to be donated by a previous, independent settlement.

There are no details provided in the description of "low impact development techniques." This should be expanded to include quantifiable objectives, construction techniques, and where these have been used on other properties operated by the proposed tenant.

Robert Lidstone
President, Lancaster Land Trust

From:	Cara Sanford
To:	Patel, Purvi (EEA)
Subject:	official comment letter EOEA: 16043
Date:	Wednesday, February 5, 2020 8:16:59 PM
Attachments:	CAPS_DEP_LANCASTER.pdf

Dear Ms. Patel,

1. The Capital Group insisted on getting a Lancaster Planning Board vote on its controversial and full build-out development despite being mid-stream with the MEPA DEIR process and with out having yet offered MEPA a reduced version of the proposed project as part of this current DEIR review. In my opinion, the developer's approach to the town boards and citizenry and its implied threat to do something worse with the land if it does not get its way is not appreciated by us locals. After much local opposition and an unwillingness by the Capital Group to downsize the project, remove the controversial auto storage yard, minimize the footprint in the ACEC, and address traffic concerns, the Planning Board denied the site plan at the 1/27/20 Planning Board meeting. The public stream web page is here and the reference to this begins at the 2 hour, 12 min mark, going forward (date: Jan 27, 2020--Lancaster Planning Board)

https://townhallstreams.com/towns/lancasterma

2. The Capital Group's statement that the two land parcels (local assessor 19-11 and 14-15) are accepted by the Planning Board as specific open space set aside mitigation for this DEIR is not factual. There is a 2017 settlement that the developer's attorney provided that references these parcels as open space set aside with Lancaster's Board of Selectmen signed in October 2017. In the settlement, there is a reference to protection of this land as important to the town and as a plan of development in the area of this project. The MEPA reviewers should not, in my opinion, believe my statement or the Capital Group's statement on this, but verify directly with the Lancaster Planning Board through the Lancaster Office of Community Development. There is no agreement that I am aware of where the Lancaster Planning Board is accepting these two 2017 settlement parcels as double duty for the required open space set aside of its IPOD site plan review. My anecdotal understanding, rather, is that the land from the 2017 settlement hasn't been turned over to the town by the Capital Group yet because there are title issues. This may now be moot because the IPOD site plan special permit was denied at the above-referenced Planning Board meeting.

3. The preferred site plan in this DEIR is going to ruin the ACEC. It is as simple as that. In addition to the locus's ACEC and BioMap 2 designation, this attached map from UM-Amherst and The Nature Conservancy (TNC) depict how this area is mapped as "Habitat of Potential Regional and Statewide Importance". MEPA is likely getting many comments to this DEIR from other people about the incompatability of intense development in the ACEC.

4. About the buffer around the Lancaster State Forest--there needs to be a buffer. Both for habitat protection from "edge effect" and encroachment, but for the aesthetic sense of the hiker or nature lover enjoying the Lancaster State Forest land. Lancaster has a stringent Earth Products Removal Bylaw. The developer is required to replace topsoil and plant cover when retiring a gravel/sand site. Native vegetation and cover should be planted and monitored for

invasives for "x" period of time to ensure a full buffer around all edges of the Lancaster State Forest. The 2018 ESRI aerials suggest that the stormwater from the FC Stars soccer fields and parking lots is discharging directly into the Lancaster State Forest border. Additionally, one of the parking lots appears to be less than 25 feet away from the Lancaster State Forest border.

Sincerely,

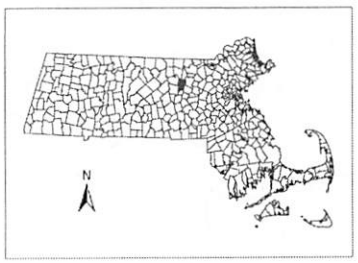
Cara Sanford, personal opinion

Lancaster, MA

Habitat of Potential Regional or Statewide Importance
Town of LANCASTER, MA

0 0.5 1 2 Miles

Updated November 2011



Important Wildlife Habitat

The MassDEP's Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands, June 2006 adopted a new approach for assessing wildlife habitat impacts associated with work in wetlands. This approach utilizes maps developed at the University of Massachusetts Amherst using the Conservation Assessment and Prioritization System (CAPS). The maps depict "Habitat of Potential Regional or Statewide Importance" that may trigger more intensive levels of review. For more information on how to assess wildlife habitat impacts, see Section III of the Guidance document: http://www.mass.gov/dep/water/laws/wldhab.pdf.

The CAPS model assesses the ecological integrity of Massachusetts landscape features as influenced by environmental stressor metrics (e.g. pollution, fragmentation). CAPS relies on data that are broadly available across Massachusetts. Ecological features which are not consistently surveyed or uniformly available, such as certified vernal pools, rare species, and contamination sites are not included in CAPS. When available, this more specific ecological information may be used in conjunction with the CAPS outputs to better understand particular sites in Massachusetts and support informed conservation decision-making. For more information on the statewide maps produced by the CAPS model, see: http://www.masscaps.org.

These maps are funded in part by the Massachusetts Executive Office of Energy and Environmental Affairs, the Massachusetts Department of Environmental Protection and the U.S. Environmental Protection Agency under section 104 (b)(3) of the U.S. Clean Water Act. Environmental data sources include the Office of Geographic and Environmental Information (MassGIS).

MassDEP

UMass Extension
CENTER FOR AGRICULTURE

From: Cara Sanford
To: Patel, Purvi (EEA)
Subject: Re: comments EEA#16043 Capital Commerce Center - Lancaster
Date: Wednesday, February 5, 2020 8:18:49 PM

Hi Purvi, I just submitted my official comment letter that is intended for the proponent and MEPA to consider in preparing the Final EIR. All other emails from me are intended as inquiries or informational and all of them are public record for the proponent to read, if desired. Thank you for having asked me about this.

Cara

On 2/5/2020 2:45 PM, Patel, Purvi (ENV) wrote:

> Cara – please let me know which of your emails to me are specifically comments on the DEIR. All of your emails are part of the public record; however, I am assuming some were inquiries or informational, while others are intended as comments for the Proponent to consider in preparing the Final EIR. I will refrain from guessing and ask you to specify. If you require a list of emails, I can provide a screenshot. Thank you.
>
> Best,
> Purvi
>
> Ms. Purvi P. Patel, EIT
> Massachusetts Environmental Policy Act (MEPA) Office
> Executive Office of Energy and Environmental Affairs
> 100 Cambridge Street, Suite 900
> Boston, MA 02114
>
> 617-626-1029

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To: Patel, Purvi (EEA)
Subject: Re: comments EEA#16043 Capital Commerce Center - Lancaster
Date: Wednesday, February 5, 2020 8:18:49 PM

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> Ms. Purvi P. Patel, EIT
> Massachusetts Environmental Policy Act (MEPA) Office
> Executive Office of Energy and Environmental Affairs
> 100 Cambridge Street, Suite 900
> Boston, MA 02114
>
> 617-626-1029

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February 6, 2020

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Purvi P. Patel, EIT
Massachusetts Environmental Policy Act (MEPA) Office
100 Cambridge St, Suite 900
Boston, MA 02114

RE: **EEA# 16043 Capital Commerce Center – Lancaster**

Dear Ms. Patel:

The following provides comments submitted on behalf of the Lunenburg Water District (LWD) for the referenced project. These comments are specific to the proponent's responses to MEPA questions in a letter from their consultant Bohler Engineering dated February 5, 2020.

The original MEPA question and the proponent's responses are copied preceding the LWD's comment.

Comment 28: *What will be the course of action if water cannot be provided readily from LWD?*
Response 28: *Based upon discussions with the LWD the excess manganese was experienced at the secondary well and not the primary well for the Town. It is our understanding that LWD's desired solution at this time is to install a filtration system on the secondary well which will provide mitigation for the manganese.*

The proponent's response is not accurate. The LWD gets is supply from five groundwater wells: Well 1, Well 2, Well 4, and Wellfield 5A each located off Lancaster Ave. and the Keating Well on Leominster Shirley Road. Well 3 and the Tubular Wellfield 5 (both also located off Lancaster Ave.) and LWD's Hickory Hills Well are inactive due to unacceptable concentrations of manganese. Well 2 operates at a greatly reduced rate as a result of high manganese concentrations. A new wellfield (named Wellfield 9) was tested in the Fall of 2019 and was found to have concentrations of manganese over the Secondary Maximum Contaminant Level. MADEP will require treatment of this source if it is constructed and added to their system. The LWD's January 2, 2020 response to a MEPA question in the certificate for the Wellfield 9 project (EEA #16126) regarding this condition is repeated below:

As noted previously, the manganese concentrations measured during the pumping test were unexpected. At this time, there are no plans for treatment. Alternatives at this time include:

1. Adding additional production wells to the wellfield to the north and possibly abandoning the southern (2) test wells. The southern test well had the highest manganese concentration. Recall the center test well did not have an economical yield.

NEW HAMPSHIRE
186 Granite Street
3rd Floor, Suite A
Manchester, NH 03101
Tel 603.314.0820

MASSACHUSETTS
1 Monarch Drive
Suite 201
Littleton, MA 01460
Tel 978.679.1600

MAINE
4 Market Place Drive
2nd Floor, Suite 207
York, ME 03909
Tel 207.606.1043

CONNECTICUT
200 Court Street
2nd Floor
Middletown, CT 06457
Tel 860.894.1022

2. Designing and constructing a treatment facility with either traditional greensand or Mangazur technology. This alternative would only be feasible if the proponents of the Capital Commerce Center in Lancaster (the recipient of the additional water requested in the Water Management Act Permit Application) are willing to pay for it. The residents of Lunenburg have consistently demonstrated their unwillingness to pay for water system improvements. Their willingness to pay for improvements to benefit another town is very unlikely.
3. Abandoning the project. The Lunenburg Water District could continue to serve its current customers without the operational flexibility and redundancy that the project would provide. Serving water to the Capital Commerce Center would not be possible and the current Water Management Act Permit application would be revised to reflect only the water needs of Lunenburg.

Comment 29: *Provide discussion regarding on-site water supply evaluation and potential use of Town-owned parcels. Refer to Comments #31 and 32 below.*
Response 29: *During past permitting efforts involving the existing Lancaster Crossing development it was noted by DEP that further development should explore alternatives to constructing additional public water supply wells on-site therefore the proponent approached the LWD regarding the water extension.*

The proponent's response does not include the required discussion of on-site water supply evaluation. It is not clear what the status is of determining on-site water supply feasibility.

Comment 31: *As noted in the Weston and Sampson Water Supply and Wastewater Assessment, the LWD has constructed a new well in the area with sufficient capacity to serve the EDTA. LWD has expressed a willingness to work on permitting for expanding their water extractions. Increased withdrawals from this well may require significant mitigation under regulations promulgated in 2014. DCR's Water Needs forecast indicates that it has no surplus water available for supply to the EDTA and LWD needs to request increase in WMA permit. How will mitigation be provided? Provide discussion regarding on-site water supply evaluation and potential use of Town-owned parcels.*
Response 31: *Any mitigation required at the LWD wells will be provided by LWD and the proponent will fund and construct the 2.5-mile water main. This will support the development and provide opportunity for future connection to all parcels of land along the 2.5-mile route. As noted above, during past permitting efforts involving the development of the existing Lancaster Crossing development it was noted by DEP that further development should explore alternatives to constructing additional public water supply wells on-site therefore the proponent approached the LWD regarding the water extension.*

The proponent's response is not accurate. The LWD has no intentions of providing the Water Management Act's required mitigation unless the project proponent is willing to pay for it. The LWD has always made it very clear that they would provide water to the Capital Commerce Center in Lancaster only if it did not result in any cost the LWD. The proponent's response again did not provide the required discussion of the feasibility for an on-site water supply.

Comment 32: *As noted in the Weston and Sampson Water Supply and Wastewater Assessment, the new demand (approximately 260,000 gpd) from the LWD will need mitigation pursuant to WMA Permit Guidelines promulgated by DEP in 2014. LWD has indicated that Lancaster would be responsible for the cost of this mitigation. However, since the nature of the mitigation is not known, a reliable cost estimate is not possible. The planning level cost estimate of facilities needed to connect the EDTA to the LWD*

service area (Figure 8) is shown in Table 6. How will mitigation be provided? Provide discussion regarding on-site water supply evaluation and potential use of Town-owned parcels.
***Response 32:** As noted, any mitigation required at the LWD wells will be provided by LWD and the proponent will fund and construct the 2.5-mile water main. This will support the development and provide opportunity for future connection to all parcels of land along the 2.5-mile route. As noted above, during past permitting efforts involving the development of the existing Lancaster Crossing development it was noted by DEP that further development should explore alternatives to constructing additional public water supply wells on-site therefore the proponent approached the LWD regarding the water extension.*

The proponent's response is not accurate. As noted above, the LWD has no intentions of providing the Water Management Act's required mitigation unless paid for by the project proponent. The LWD has always made it very clear that they would provide water to the Capital Commerce Center in Lancaster only if it did not result in any cost the LWD. The proponent's response again did not provide the required discussion of on-site water supply evaluation.

Thank you for your consideration of these comments. Should you have any questions, please call us at (978) 679-1600.

Sincerely,
GEOINSIGHT, INC.

David G. Harwood, P.G.
Senior Hydrogeologist

David A. Maclean, P.G., L.S.P., L.E.P.
Director of Water Supply Services

cc: Fran McNamara, Lunenburg Water District

\\geomao\MAO_Projects\8335 - Well 9 - Lunenburg MA\ENF\MEPA Comments on Lancaster Crossing.docx

Mass Audubon
Advocacy Department
208 South Great Road, Lincoln, MA 01773
781.259. 2172 hricci@massaudubon.org

February 7, 2020

Secretary Kathleen A. Theoharides
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Attention: Purvi Patel

Re: EOEEA # 16043, Capital Commerce Center, Lancaster

Dear Secretary Theoharides:

On behalf of Mass Audubon, I submit the following comments on the Draft Environmental Impact Report (DEIR) for the Capital Commerce Center in Lancaster.

This is a large and complex project, on a 471-acre site in a sensitive setting. Over half of the site is located within the Central Nashua River Valley Area of Critical Environmental Concern (ACEC). As noted in the ACEC description, the property is part of a large, interconnected area of forests, floodplains, streams, and wetlands connected to the Nashua River and providing important wildlife habitat linkages. The site abuts the Cook Conservation Area and the Lancaster State Forest, including lands mapped as habitat for rare turtles that likely also utilize the development site. A turtle study should be required. The proposed development would result in 173 acres of impervious surfaces, alteration of more than 10 acres of Riverfront area and 30,295 sf of Bordering Land Subject to Flooding, as well as loss and fragmentation of forest.

The DEIR does not present a meaningful alternatives analysis. The only alternative considered is elimination of the residential component, and it is unclear whether that might be replaced with other forms of development, possibly with equal or greater impacts. A more extensive alternatives analysis as well as design refinements should be required to be presented, including designs that work with the existing land contours and minimize the amount of land clearing and grading needed. Alternative designs should also be pursued to reduce the amount of impervious surface, incorporate bioswales and other Low Impact Development (LID) features dispersed within parking lots and other developed areas, and reduce impacts to Riverfront Area and floodplain. The DEIR proposes that centralized stormwater drainage systems will be constructed including deep sump catch basins flowing to infiltration/detention basins. While this may on paper meet the DEP stormwater standards, it is not a best practice, and LID should be utilized throughout the site instead.

In addition to water quality concerns associated with so much impervious surface, catch basins and large detention basins are prime mosquito breeding habitat, whereas LID features do not create mosquito habitat. In light of the recent geographic expansion of Eastern Equine Encephalitis (EEE) across Massachusetts, as well as the occurrence of West Nile Virus statewide, all new development should use stormwater designs that do not create new mosquito breeding habitat.

The project as designed also increases water supply demand by 157,385 gallons per day and will require the town of Lancaster to obtain an expanded water withdrawal permit under the Water Management Act, in the Nashua basin where water supplies are already stressed. Native vegetation and soils should be retained on the site to the maximum extent possible, and any landscaping that needs to be installed should be comprised of native species that will not require irrigation. Instead, LID stormwater management features should be incorporated throughout the development so that all runoff from rooftops, parking lots, and other impervious surfaces are directed into vegetated features like bioswales, rain gardens, and tree boxes. Stormwater should be the only source of irrigation for landscaped features on the site.

Maintaining the integrity and functionality of the land, vegetation, and soils to absorb increasing storm intensities associated with climate change, as well as the many other functions provided by the natural landscape, should be a high priority.

We urge that a more complete alternatives analysis be conducted for the project, and that the final design reduces impacts to forests, wetlands, streams, Riverfront Area, floodplains, and water supplies.

Sincerely,

E. Heidi Ricci

E. Heidi Ricci
Assistant Director of Advocacy

Cc: Nathaniel Mahonen, Bohler
Nashua River Watershed Association
Lancaster Planning Board
Lancaster Conservation Commission

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

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

February 7, 2020

Secretary Kathleen A. Theoharides
Executive Office of Environmental Affairs
100 Cambridge Street, 9th Floor
Boston, MA 02114

Attention: MEPA Unit – Purvi Patel

Re: Draft Environmental Impact Report (DEIR)
Capital Commerce Center
Lancaster
EEA #16043

Dear Secretary Theoharides,

The Massachusetts Department of Environmental Protection's ("MassDEP") Central Regional Office (CERO) has reviewed the DEIR for the proposed Capital Commerce Center in Lancaster (the "Project"). Capital Group Properties (the "Proponent") is proposing to construct approximately 3,056,500 gross square footage (gsf) of mixed uses on 471+/- acres, along with associated access roadways, parking and circulation areas, stormwater management systems, and utility infrastructure. The Project includes the construction of numerous industrial buildings including an automotive sales and service facility; single family, duplex and triplex units residential; multi-family apartments; a hotel; a new indoor sports facility; and retail space.

The existing 471-acre Site has been subdivided and sold to five ownership entities. The Lancaster Crossing development project (EEA# 15604) contains approximately 50± acres located in the eastern portion of the Site along Lunenburg Road, and is proposed to be developed by a separate entity with commercial/retail/residential uses. The Dunkin', Mobil Gas Station, and soccer complex have already been constructed as part of the Lancaster Crossing project. The DEIR includes proposed development on all parcels that make up the Site, regardless of current ownership.

MEPA History

On October 31, 2016, North Lancaster Water LLC filed an Environmental Notification Form (ENF) with MEPA for a Dunkin' facility proposed to be constructed at 1474 Lunenburg Road. Development of the Dunkin' facility would require a modification to the public water supply permit issued by MassDEP for an existing facility. On December 1, 2016, MEPA requested a "look back" analysis of the 50-acre commercial/retail development known as Lancaster Crossing, which included the proposed Dunkin' facility. North Lancaster Water withdrew the ENF without prejudice on December 9, 2016.

On March 29, 2017, the Proponent filed two applications with MassDEP for public water supply wells on parcels within the Lancaster Crossing development to serve the Dunkin' and a proposed Mobil gas station. The Proponent provided MEPA with the preliminary results of the "look back" analysis. As a result, MEPA indicated the filing of a Request for an Advisory Opinion would be appropriate.

On June 19, 2017, the Proponent submitted a Request for an Advisory Opinion letter to MEPA requesting confirmation that the proposed Dunkin' and Mobil gas station project would not be subject to review under MEPA. Based on the information provided, MEPA determined that the proposed Dunkin' and Mobil gas station project was not subject to MEPA review and the submission of an ENF was not required. However, if development of any portion of the remainder of land then or formerly owned by North Lancaster Water is proposed in the next five years, the Proponent was directed to consult with MEPA to determine whether it may be subject to MEPA review.

On May 31, 2019, the Proponent filed an ENF with MEPA for the current Project. On July 11, 2019, the Secretary of Energy and Environmental Affairs issued a Certificate on the ENF requiring preparation of an EIR.

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

- 11.03(1)(a)(1) – Direct alteration of 50 or more acres of land
- 11.03(1)(a)(2) – Creation of 10 or more acres of impervious area
- 11.03(6)(a)(6) – Generation of 3,000 or more New adt on roadways providing access to a single location
- 11.03(6)(a)(7) – Construction of 1,000 or more parking spaces at a single location
- 11.03(3)(a)(1)(b) – Alteration of 10 or more acres of other wetlands (Riverfront Area and Bordering Land Subject to Flooding)
- 11.03(5)(b)(1) – Construction of a new wastewater treatment facility with a capacity of 100,000 or more gallons per day (gpd)

The Project requires the following State Agency Permits:

- MassDEP – Water Distribution System Modification Permit (BRP WS 32)
- Individual Permit for Sewerage Treatment Plan (BRP WP79)

- Hydrogeologic Evaluation Report Approval (WP83)
- Water Management Act Permit (BRP WM03)
- Vehicular Access Permit - MassDOT
- Superseding Order of Conditions (if local Order of Conditions is appealed)

MassDEP offers the following comments:

Alternatives Analysis

The DEIR summarized and compared the No-Build Alternative, the By-Right Alternative, the Alternative Master Plan A - Residential, Alternative Master Plan B, Alternative Master Plan C, Reduced Impact Alternative, and the Preferred Master Plan (the Project).

According to the ENF, the No-Build Alternative is not in line with the Town of Lancaster and the Montachusett Regional Planning Commission municipal and regional strategic framework plans, which include this property as a priority economic development area. Under this alternative, the existing active gravel pit would remain in place.

The By-Right Alternative would include 79 single family homes, 335,000 sf of retail space, and 1,600,000 sf of office space. This alternative would result in a net cost to the town due to the new homes and lack of industrial space. Office space has not been identified as a need in the town. The By-Right alternative would not meet the town's goal of creating a priority economic development area.

Alternative Master Plan A - Residential presents residential developments of varying density throughout the site, as well as a hotel, sports facility and some retail development. This alternative would result in increased traffic, water use, and sanitary sewer generation compared with the other alternatives. There is also local concern about the increase in population new residential developments would cause. This alternative would produce very limited economic benefits, and the Proponent does not believe it is a viable option.

Alternative Master Plan B – Equestrian consists of a centrally-located racetrack with associated parking and facilities, a hotel, retail, and several residential developments. The Proponent does not believe this alternative is a viable option at this time. MEPA staff did not identify this alternative as needing further analysis.

Alternative Master Plan C – Industrial is similar to the Preferred Master Plan, but with greater focus on industrial development and elimination of the auto sales portion of the Project. The auto sales development will provide funding for the infrastructure costs, so this benefit would not be present for Alternative Master Plan C. The Proponent believes this option is not feasible.

The Reduced Impact Alternative reduces much of the proposed residential development in the northwest corner of the property (not owned or controlled by the Proponent). This

alternative consists of industrial buildings, various residential development, a hotel, sports complex, and retail space.

The DEIR Preferred Master Plan is the proposed Project.

Water Supply

Although the Project is located in Lancaster, the Proponent proposes to obtain water from the Lunenburg Water District. However, the Lunenburg Water District cannot supply water to the Project without activation of its proposed new wellfield. The pumping test performed on the proposed new well indicates the presence of elevated manganese. Treatment for manganese may be required so that Lunenburg Water District can deliver water reliably and consistently below the secondary maximum contaminant level for manganese. The Lunenburg Water District should submit a Corrective Action Plan to address elevated manganese to MassDEP for approval before beginning any construction on the Project.

In addition, the DEIR does not indicate whether the Project will support mitigation projects to offset the increased demand on the Lunenburg Water District system, as required in the Certificate on the ENF. Mitigation measures could include removal or disconnection of impervious surface; protection and preservation of open space; infiltration and inflow removal from a sewer system; and improvement of surface water wildlife habitat. Stormwater improvements that exceed standard requirements and culvert replacements that meet stream crossing standards can also be considered as mitigation under the Water Management Act.

The DEIR states that the Proponent will provide funds for the design and construction of the water main infrastructure necessary for the Project's needs but does not mention assistance to Lunenburg Water District with the development of the new source, including the cost of treatment. MassDEP also understands that the Town of Lancaster and the Lunenburg Water District have yet to finalize an Intermunicipal Agreement pursuant to which the Lunenburg Water District will provide water to the Town of Lancaster, which will in turn supply water to the Project. To the extent that any agreements among the parties may address MassDEP permitting, MassDEP requests to be copied on those agreements.

Wastewater

The Certificate stated that the DEIR should describe how the Project will meet the requirements for a privately owned WWTF pursuant to 310 CMR 5.15, but the DEIR does not provide this information. The proposed wastewater treatment facility (WWTF) will serve all proposed and existing uses at the Site consisting of retail, commercial and residential facilities. A single entity must be permittee for the WWTF. If the privately owned WWTF treats waste from activities owned or controlled by other entities, all stakeholders must share the financial and operations responsibilities for the WWTF. Because the Project includes residential uses, the discharge permit will require a Financial Assurance Mechanism to fund the immediate repair and replacement of the WWTF. The DEIR failed to describe any legal and financial arrangement that will achieve compliance with these permitting requirements.

The Proponent submitted a BRP WP 83 hydrogeologic application in June 2019. The permit remains under review. The Proponent has requested an extension to May 2020 in order to modify its application and seek a revised disposal area. MassDEP will not take Agency Action on the permit application until completion of the MEPA process.

The DEIR discusses the wastewater design flow of 157,385 gallons per day (gpd) from the site. The FEIR should include a breakdown of proposed and existing activities that will contribute to the ultimate design flow of 157,385 gpd.

Wetlands

There are numerous wetland resource areas on the Site including Bank associated with intermittent and perennial streams, Land Under Water (LUW), Bordering Vegetated Wetlands (BVW), Isolated Vegetated Wetlands, Bordering Land Subject to Flooding (BLSF), and Riverfront Area (RA). The southern half of the Site is within the Central Nashua River Valley Area of Critical Environmental Concern (ACEC).

Portions of the Project have already been constructed including the outdoor athletic fields and retail shops in the eastern portion of the property. Work associated with the previously completed outdoor athletic fields and retail shops occurred within BLSF and RA. The DEIR indicates that the remainder of the Project will potentially alter an additional 3,500 sf of BVW, 15,000 sf of BLSF, 394,982 sf of RA, and unspecified areas of Bank and LUW, but the quantification of the extent of alterations has not yet been fully determined. The DEIR does not include responses to many of the concerns raised in the Certificate on the ENF and thus fails to fully address how the Proponent plans to avoid, minimize, and mitigate impacts to wetland resources.

The Project Alternatives presented by the Proponent in the DEIR do not include any alternatives specifically targeted to reduce wetland resource area impacts by removing parking areas and housing units from Riverfront Area and Bordering Land Subject to Flooding, or reducing the size of proposed wetland crossings. MassDEP believes that reduced impact alternatives exist beyond those presented by the Proponent in the DEIR that will still result in a viable Project.

A final Order of Conditions is required for the remainder of the Project in accordance with the Massachusetts Wetlands Protection Act (G.L. c. 131, § 40; WPA). The Project must be designed and constructed to meet all performance standards identified in the WPA Regulations at 310 CMR 10.00 for work proposed in each wetland resource area affected. While the DEIR states that the Project "will comply with the Wetlands Protection Act performance standards for all wetland resource areas," the DEIR fails to demonstrate that the Project can be designed and constructed consistent with the applicable WPA performance standards. In addition, the Proponent does not identify if wetland impacts can be avoided minimized, or mitigated, nor contain a detailed alternatives analysis describing how RA impacts will be avoided, minimized, or mitigated.

Portions of the Project, including the auto storage facility with a large gravel storage area and stormwater basins, are near ACEC wetlands, which are sensitive wetland resource areas. The Proponent does not evaluate alternatives that would situate these components further away from sensitive resource areas. The DEIR also does not consider structured parking alternatives or analyze how the large gravel storage areas would be utilized and maintained in a manner to prevent impacts to sensitive resource areas and receptors.

The DEIR does not contain calculations that establish a Base Flood Elevation, therefore an accurate location of the limit of BLSF is not available for MassDEP to review. The DEIR and associated Site Plans fail to show the estimated limit of BLSF, provide a description of the areas where the Project will impact BLSF, show the proposed location(s) of compensatory flood storage, or describe measures to minimize BLSF impacts.

The ENF did not previously mention proposed BVW alterations and the DEIR does not provide an explanation of why expanded wetland crossings are needed along McGovern Boulevard, nor a detailed wetland replication plan that meets BVW performance standards. If BVW alteration is proposed within the ACEC, the Proponent must demonstrate that the Project meets the performance standard in 310 CMR 10.55(4)(e), or alternatively request a Variance under 310 CMR 10.05(10). The Proponent may be required to obtain 401 Water Quality Certification from MassDEP unless it can demonstrate that the Project does not meet the filing criteria contained in 314 CMR 9.04 (1) and (3).

Stormwater

The Project must comply with the Massachusetts Stormwater Standards ("Stormwater Standards"). The DEIR contains an unstamped/unsigned stormwater checklist and supporting calculations that indicate that the final Project design will be able to comply with the Stormwater Standards. As directed in the Certificate on the ENF, the DEIR shows the approximate locations of stormwater basins on the site plans, provides greater setbacks between stormwater best management practices and wetland resources, including the certified vernal pool. The DEIR does not contain a review of whether the Project can incorporate low-impact development measures and/or further reduce the coverage of impervious surfaces. The DEIR does not adequately describe the proposed expanded wetland crossings, nor provide adequate details to confirms that the crossings will fully comply with the Massachusetts Stream Crossing Standards.

Air Quality

In accordance with the Certificate on the ENF, a mesoscale air quality analysis was performed in order to calculate the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NOx). The mesoscale analysis predicted that the emissions of VOC and NOx in the Project study area for the 2026 Full Build cases will be larger than the emissions for the 2026 No-Build case. The Proponent proposed to mitigate potential air quality impacts by committing to a number of transportation demand management measures that will improve traffic operations, reduce Project-generated vehicle trips, and reduce Project-related motor vehicle air pollutant

emissions. These mitigation measures are predicted to result in small reductions in VOC and NOx emissions compared to the 2026 Full Build case.

Although the Certificate on the ENF required the Proponent to identify the certification and/or permits that likely will be required for the Project elements, such as boilers and generators, the Proponent did not do so. Depending on the size of any boilers installed, they may be subject to permitting requirements (310 CMR 7.02) and/or performance standards (310 CMR 7.26(30) through (33)). MassDEP requires proper stack design, which will address location, height, and exit velocity. In addition, should engine/generators be installed as part of the Project, those engines may be subject to MassDEP permitting requirements (310 CMR 7.02) and/or performance standards (310 CMR 7.26(42) and (43)). The future placement of any generators, and engine exhaust stack designs must be carefully considered with respect to nearby terrain, buildings and other potentially sensitive receptors.

The Proponent indicated that dust generated from clearing/grading operations, demolition, and construction of buildings, parking areas, and roadways/access ways and other construction activities will be controlled though the application of water or other dust suppression methods, and that roadways will be swept regularly. In addition, the Proponent indicated that potential noise impacts relating to construction will be mitigated through limiting idling of vehicles, locating noise generating equipment as far from sensitive receptors as possible, and other measures. The mitigation measures described by the Proponent should be adequate to ensure compliance with MassDEP's dust, odor, noise, construction, demolition regulations (310 CMR 7.09 and 310 CMR 7.10).

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 at (508) 767-2716.

Very truly yours,

Mary Jude Pigsley
Regional Director

cc: Commissioner's Office, MassDEP

NASHOBA VALLEY
CIMATE COMMITTEE

February 7, 2020

Purvi Patel, MEPA Analyst

MEPA Office

100 Cambridge St., Suite 900

Boston, MA 02114 RE: EEA No. 16043:

Capital Commerce Center DEIR, Lancaster

Dear Ms. Patel,

The Nashoba Valley Climate Coalition (NVCC) submits the following comments and observations about the proposed Capital Commerce Center DEIR.

The NVCC is an informal environmental organization whose mission is to promote action from our legislature, towns and ourselves towards a zero carbon future while encouraging innovation and economic justice for those affected.

We have reviewed this project and the comments of the NWWA who views the potential environmental impacts associated with the project as being enormous. We agree with their assessment.

In a time where we must **reduce our greenhouse gas emissions** by 45% in 10 short years, the 52 acres of new building and the emission-causing concrete ; an additional 108 acres of new impervious area (for a total of 173 acres of impervious cover); alteration of 30,295 square feet (sf) of Bordering Land Subject to Flooding (BLSF), and 437,216 sf of River Front Area; construction of 3,028 new car and truck parking spaces; and use and generation of 157,385 gallons per day of water and wastewater, respectively is clearly going in the wrong direction.

Huge swaths of trees have been indiscriminately mowed down already in our town. As we are a small group, are encouraging **tree planting** of small saplings. This damage flies in the face of any plantings we can accomplish. This project clearly damages the carbon sequestration ability from the tree clearing and the hot parking lots will cause more emissions, warming, as well as the possibility of leaking fluids from the vehicles.

NASHOBA VALLEY
CIMATE COMMITTEE

We are having residential housing projects being proposed, and these projects should be moved from other areas are better situated in the north of Lancaster, where they are closer to shops and the train, not unlimited rows of empty cars.

Best regards,

Natascha Finnerty

Organization Founder

NASHUA RIVER WATERSHED ASSOCIATION

Protecting our water, our land, our communities

February 5, 2020

Purvi Patel, MEPA Analyst
MEPA Office
100 Cambridge St., Suite 900
Boston, MA 02114

RE: EEA No. 16043: Capital Commerce Center DEIR, Lancaster

Dear Ms. Patel,

The Nashua River Watershed Association (NRWA) submits the following comments and observations about the proposed Capital Commerce Center DEIR. The NRWA is a regional leader in natural resource protection in the 32 communities of the Nashua River watershed, including Lancaster. Our mission is to *"work for a healthy ecosystem with clean water and open spaces for human and wildlife communities, where people work together to sustain* ***mutual economic and environmental well-being*** *in the Nashua River watershed."* Our goals include conserving open spaces for water quality, wildlife habitat, farms, forests, and recreation, **and encouraging careful land use with well-planned development.** It is with these goals in mind that we voice our concerns about the proposed development, as currently planned, that threatens ecosystems we and our partners have endeavored to protect for the past 50 years.

The potential environmental impacts associated with the project are enormous. They include: 52 acres of new building footprints (although there is an apparent agreement problem internally with some of the tables – comment below); an additional 108 acres of new impervious area (for a total of 173 acres of impervious cover); alteration of 30,295 square feet (sf) of Bordering Land Subject to Flooding (BLSF), and 437,216 sf of River Front Area; construction of 3,028 new car and truck parking spaces; and use and generation of 157,385 gallons per day of water and wastewater, respectively.

Comprehensive Alternatives Analysis

NRWA does not believe the Alternatives Analysis is adequate, receiving only 7 (seven) pages of attention in a 1,487 page document.

The Draft Environmental Impact Report (DEIR) requires the proponent to provide a comprehensive alternatives analysis that demonstrates damage to the environment can be avoided, minimized or mitigated to the maximum extent practicable.

The Reduced Impact Alternative's only difference from the Preferred Master Plan is the elimination of the residential units in the northwest corner of the property. However, in the Preferred Master Plan Alternative, the Proponent states: "the community may not be fully supportive of the residential portion of the development at the level proposed. The Proponent is fully willing to remove or reduce the level of residential development and has proposed the current level of residential development to meet the current Town zoning requirements." From the NRWA reading of this statement, the Reduced Impact Alternative and the

Preferred Master Plan are the same, if the Preferred Master Plan does indeed eliminate the residential

development with the Town's blessing. Beyond reducing the residential component of the project, the Proponent has not included a comprehensive alternatives analysis that avoids, minimizes or mitigates damage to the environment to the **maximum extent possible.**

The Project Alternative Impact Comparison numbers (Table 2.2) do not agree with the Proposed Project Impacts numbers (Table 3.1). The Preferred Alternative from Table 2.2 states the Total Building Program GSF will be 3.0M, which is 69 acres; Table 3.1 gives the total impacts (existing and change) at 52 acres. The Reduced Impact Alternative (2.5M sf) is 57 acres.

No discussion is included in the Alternatives Analysis of the percentage of the development in the Area of Critical Environmental Concern (ACEC) for each Alternative. Additionally, NRWA finds it inappropriate the Proponent proposes to quantify mitigations to the Riverfront Area and Bordering Land Subject to Flooding "further as the Master Plan evolves." The Preferred Alternative states the square foot impact to Riverfront Area (RA) is 437,216 sf or **10 acres of impact**. Beyond removing or reducing the residential housing component, the Proponent does not indicate how they will minimize RA impacts. Clearly the Alternatives Analysis is not complete.

Area of Critical Environmental Concern (ACEC)

The DEIR does not discuss how the project planning and development will promote preservation, restoration, or enhancement of resource areas within the ACEC, as required by the Department of Conservation and Recreation (DCR) in comments on the Environmental Notification Form (ENF).

Approximately 245 acres, or **52%, of the total 471-acre subject site are within the Central Nashua River Valley Area of Critical Environmental Concern (the ACEC).** An ACEC is a special designation given by the Commonwealth of Massachusetts to a region that has high quality, unique, and significant natural and cultural resources: "...significant to the protection of groundwater supply and private water supplies, the prevention of pollution, flood control, the prevention of storm damage, the protection of fisheries, and the protection of wildlife habitat." (www.mass.gov/files/documents/2016/08/ru/cnr-des.pdf). The below description of the Central Nashua River Valley ACEC (www.mass.gov/service-details/central-nashua-river-valley-acec) aptly describes the subject property itself.

> *The heart of the Central Nashua River Valley ACEC is the 20-mile riparian corridor of the North Nashua and Nashua Rivers situated south of Route 2 in Leominster, Lancaster, Bolton and Harvard. Associated with this corridor are extensive surface waters, wetlands, floodplains and aquifers, as well as interrelated riparian and upland wildlife and rare species habitat, forest... Portions of the ACEC are included in the statewide Scenic Landscape Inventory, and reflect the unique cultural history and natural beauty of this area, with its hills, farmlands and forests gently contrasting with the Nashua River and the adjacent floodplains, streams and wetlands....Further, the river valley provides significant linkages between important wildlife areas...In addition to the diversity of the natural and cultural resources of the area, another highly distinctive and significant feature of the ACEC is the extensive network of publicly and privately owned open space along the river and the adjacent uplands.* (emphases added)

The western boundary of the subject property is the North Nashua River and the southern boundary is entirely conservation open space which itself is bounded by the same North Nashua River. It is approximately 3.5 miles' straight line distance from this site to the "Meeting of Waters", the confluence

of the North and South Nashua Rivers, which is the official southern terminus of the federally-designated *Nashua Wild and Scenic River*. The water quality of the North Nashua River--a Class B Outstanding Resource Water--has a great effect on the mainstem Nashua River.

On page 3 of the Central Nashua River Valley ACEC designation (www.mass.gov/files/documents/2016/08/ru/cnr-des.pdf) one reads:

> *It is also important that federal, state, municipal and private agencies and organizations work together, coordinate and plan for the management and stewardship of the resources of this ACEC. The Nashua River Watershed Association, which has played an instrumental and nationally recognized role in the clean-up and stewardship of the Nashua River, is one of many key potential partners in this effort. The ACEC designation, and the GIS mapping and environmental analysis provided as part of the nomination review, is only a starting point for achieving the long-term goals of designation.*

Potential Impacts to the Central Nashua River Valley ACEC

There are likely to be significant negative environmental impacts from the addition of 3,028 parking spaces to the site, including 316 tractor-trailer parking spaces provided within the industrial park. If this Capital Commerce project is allowed to develop in its Preferred ("Master Plan") manner, it is the opinion of the NRWA, that the long-term goals of the ACEC will be compromised. Despite a 30% open space component to this development project, the type and intensity of the development – notably impervious surfaces—as well as, and in combination with, minimally allowable vernal pool, wetland and stream set-backs, will almost certainly result in both short- and long-term diminutions to the very resource features that warranted inclusion in the ACEC program.

For example, on page 4 of the ACEC designation (www.mass.gov/files/documents/2016/08/ru/cnr-des.pdf) the following is specifically called out under "Wetlands" heading:

> *Principal wetland areas are located...north of the North Nashua in the vicinity of the Cook Conservation Area and Lancaster State Forest.* And two paragraphs further: *According to correspondence from the* [Massachusetts Natural Heritage and Endangered Species Program, Division of Fisheries and Wildlife] *Program concerning the nomination, "The river valley provides significant linkages between important wildlife areas. The relatively undeveloped nature of this area is critical to preserving thriving rare species populations."*

The proposed impervious surface for this project, 173 acres of the total 471 acres, (*36.7 % impervious surface*) will result in increased flooding in McGovern Brook, the unnamed perennial brook on the site, and the North Nashua River, and will degrade water quality in all water bodies adjacent to and downstream from the site.

According to research from the EPA (Office of Water Recovery Potential Screening Website www.epa.gov/recoverypotential/) and the Center for Watershed Protection and many other sources, streams are impaired when impervious surfaces cover just **10%** of a watershed, and impervious surfaces **of 15 to 20% are highly degraded.** What to expect when even a small percentage of a watershed is covered with impervious surfaces[1]:

[1] Hydrologic, Physical, Water Quality, and Biological Impacts Associated with IC (ENSR, USEPA, 2005)

Hydrologic Impacts
•Increased runoff volume (flooding)
• Increased peak flow rates
• Increased bankfull flow
• Decreased baseflow

Biological Impacts
• Reduced aquatic insect diversity
• Reduced fish diversity
• Reduced wetland plant diversity
• Reduced amphibian diversity

Physical Impacts
• Modified sediment transport
• Channel enlargement
• Channel incision
• Stream embeddedness
• Loss of large woody debris
• Loss of riparian cover
• Reduced channel sinuosity
• Warmer in-stream temperatures

Where over 25% of a local basin is covered with impervious surfaces, streams are highly degraded. Predevelopment stream form and health cannot be fully maintained even when best management practices or retrofits are fully maintained. Mitigation will be difficult. Restoration projects may improve conditions in these basins (ibid).

Regarding wildlife corridors, read further on page 5 of the ACEC designation: (www.mass.gov/files/documents/2016/08/ru/cnr-des.pdf)

> *According to the Natural Heritage Program's comment letter, three very important wildlife areas, the South Post of Fort Devens, the Oxbow National Wildlife Refuge (NWR) and the Bolton Flats Wildlife Management Area (WMA) provide critical habitat for rare species.... These three wildlife areas are part of the overall riparian corridor along the Nashua and North Nashua Rivers. Also, according to the Fort Devens EIS, the Cook Conservation Area and Lancaster State Forest lands contribute to a wildlife corridor extending west of the South Post to the North Nashua River in Lancaster and Leominster.*

The 471-acre subject site contributes to the wildlife corridor on public lands cited above. It is worth noting that the impact of non-public lands is referenced on page 8 of the ACEC designation: "[other lands]*...are not public recreation or conservation areas, nevertheless they provide highly significant undeveloped or natural areas to the network of open space within the ACEC."* [emphasis added]

Core Habitat

According to Geographic Information System (GIS) of the Executive Office of Energy and Environmental Affairs (EOEEA)—or MassGIS--- **nearly the entirety of the subject site is within a BioCore ID # C590.**

Mapping and resource analysis prepared for this review shows that the adjacent Cook Conservation Area and Lancaster State Forest lands are *Core Habitats*: *"the most viable habitat for rare species and natural communities in Massachusetts."* (Core Habitat is one of [the] data layers resulting from the BioMap biodiversity mapping project. http://mvcommission.org/sites/default/files/docs/massgisnhespbiomapcorehabitat.htm)

Priority habitat mapping indicates the approximate extent of the most important sites for rare species in the Commonwealth, and includes sites that represent upland as well as wetland habitats for rare plant and animal species and significant natural communities.

It has come to our attention that **MA NHESP state-listed turtles have been encountered on the adjacent open spaces of Lancaster State Forest and contiguous Cook Conservation Area.** It is our understanding that turtles will seek sandy substrate soils to nest in. Such sites are most easily found on the subject property, thus it is reasonable to anticipate that such MA NHESP state-listed turtles can be found on the subject site during nesting season. **NRWA requests a turtle survey be conducted in the spring.**

Aquifers

There is no discussion of the aquifers beneath or adjacent to the site. A medium-yield aquifer is located on the eastern portion of the site.

Conclusion

In the opinion of the Nashua River, there is sufficient probability of significant negative impact for the Secretary to issue a Certificate of Non Compliance at this juncture, and urges that the project, if it goes forward, be confined to a smaller area not within the ACEC.

Martha Morgan, NRWA Water Programs Director, and Al Futterman, NRWA's Land Programs Director have both reviewed this DEIR due to the significance of the project. We appreciate the opportunity to comment.

Sincerely,

Elizabeth Ainsley Campbell

Elizabeth Ainsley Campbell
Executive Director

From:	Victoria Petracca
To:	Patel, Purvi (EEA); MEPA (ENV)
Subject:	Public Comment - Capital Commerce DEIR (EEA #16043)
Date:	Friday, February 7, 2020 6:34:06 AM
Attachments:	07.18.17 Blandings Turtle Lancaster.pdf

Dear Ms. Patel,

We wish to submit the following public comments concerning the Capital Commerce DEIR (EEA #16043) for your review. Due to the environmental significance of this project, we have outlined four specific requests for MEPA's consideration.

(1) MESA Evaluation

Please note that an Animal Observation Form was recently filed with the Natural Heritage and Endangered Species Program ("NHESP") at MassWildlife regarding the Eastern Box Turtle (*terrapene carolina*). A Lancaster Conservation Commission Member documented the finding in the Cook Conservation Area adjacent to the proposed Capital Commerce site. The completed paperwork including maps was mailed to NHESP's attention on Monday morning, February 3, 2020. A second Lancaster Conservation Commission member assisted in this filing. This is not an isolated finding. In addition to the documented observation described, other sightings of Eastern Box turtles are known in the area.

The Eastern Box Turtle is one of six species included by NHESP under **MESA Listed Species**: https://www.mass.gov/guides/turtles-of-massachusetts. The Eastern Box turtle has a status of MA Special Concern. Due to the sandy conditions of New England Specialty Soils' adjacent gravel pit, and known roaming distances of the species, there is serious concern that the Eastern Box Turtle may using this critical upland area within the Nashua River corridor as important nesting habitat in its life cycle.

In addition, there are also NHESP documented observations of Blanding's Turtles (*emydoidea blandingii*) near the Nashua River in Lancaster. The MESA Listed Species site above references the Blanding's Turtle's status of MA Threatened.

Please find attached a NHESP submittal for a Blanding's Turtle on Langen Road located due south of the Capital Commerce site, and importantly, connected by the Nashua River. **Page 4 attached illustrates the sighting's location in connection via the Nashua to the development site on Route 70.** The Blanding's Turtle is well-known to travel along the banks of larger riverways such as the Nashua River. Given the proximity of the Nashua to the proposed development, there is additional concern for the presence of Blanding's Turtles on-site, as well.

Request: Due to the two MESA listed species in proximity, we emphatically request that a turtle study by a certified herpetologist be required in the environmental evaluation of this

large 471-acre site.

(2) Protection of the Central Nashua Valley Area of Critical Environmental Concern (ACEC) and Water Resource District (WRD)

Over half of the site's acreage (52%) sits within the Central Nashua Valley ACEC and adjacent to the Cook Conservation Area. On January 27, 2020, the Lancaster Planning Board rejected the Applicant's request for a Special Permit allowing an 80-acre used automobile "salvage yard" on-site within the ACEC. While we applaud the Planning Board's decision, it remains unknown what will be proposed by the Applicant in the ACEC instead.

It is important to note that the nearly the entire site is within BioCore Habitat (ID #C590), i.e. not only the portion within the ACEC. Additionally, the site is adjacent to and extends into Critical Natural Landscape ID# 1058 The site is also adjacent to Priority Habitat ID #590. Despite this, the current proposal extends into wetlands buffers and riverfront protection areas.

A large portion of the site lies within an important Water Resource District (WRD). It has been repeatedly requested that a map depicting the WRD boundaries be produced by the Applicant to assess impacts.

A prior Settlement Agreement with the Applicant requires roughly 87 acres (in two parcels) be set aside for Conservation purposes. In its February 5, 2020 communication to MEPA, Bohler describes multiple times as donated land. However, this was a legal requirement and should not be considered new mitigation as a gift to the Town. Any donated conservation land would be above and beyond the Settlement Agreement's requirement to be considered new mitigation. The February 5, 2020 communication further states there is an attached map of the parcels but the image provided shows trails only. MEPA, the Town of Lancaster, and other concerned parties should be well aware of location of the Settlement Agreement land to more accurately understand this proposal and negotiate new mitigation. It is concerning that this, and the Water Resource District, remain vague and unmapped.

Request: We strongly urge that the ACEC portion of the site be protected from development by MEPA given the environmental criteria in place for this designation. Additionally, the entire should be formally evaluated for NHESP wildlife and habitat given its status within a BioCore Habitat and smaller portions within a Critical Natural Landscape, as well as adjacency to Priority Habitat. Setbacks from wetlands and river-front protection areas need to be clearly identified on site plans, as requested previously. A clear map and impact analysis of the Water Resource District is also needed. We further need to understand the size and location of the conservation land required under the prior Settlement Agreement with a clear and precise map. Important: new open space mitigation is not included in the current proposal and should be.

(3) Affordable Housing Requirement

The current proposal includes 617 units of market-rate housing. Under the Affordable Housing laws of the Commonwealth, every municipality must include over 10% of its year-round housing inventory as income-eligible, deed-restricted affordable housing according to MA Department of Housing and Community Development (MA DHCD) requirements.

With every unit of market rate housing built, a Town's requirement for affordable housing increases. Given the 617 units included in this proposal, it is vital that over 10% of the units be deed-restricted as affordable. If not, the Town of Lancaster will be faced with developing an additional 68 units of affordable housing elsewhere – vastly increasing the environmental (and financial) impacts of this project.

Currently, there is no agreement in place for affordable housing to be included within the project.

Request: We respectfully ask that MEPA formally require (or at a minimum strongly recommend) that over 10% of residential construction on-site be deed-restricted as affordable as defined by MA DHCD guidelines. This will greatly reduce the associated, off-site environmental impacts of this project.

(4) DEIR Conclusion

As widely documented by the Nashua River Watershed Association and others, there are tremendous and increasingly rare environmental resources within and adjacent to this 471-acre site. The current proposal contains overwhelming negative impacts and leaves too many open questions. MEPA's report after the ENF filing included specific recommendations for improvement, and unfortunately, it is not apparent these were incorporated into the DEIR currently under review.

Request: Given the threat to the environmental resources on-site from the current proposal, we recommend the Secretary issue a Certificate of Non-Compliance at this time. Moving forward, the Capital Commerce proposal would greatly benefit from the 3 recommended requirements above.

Thank you for considering these requests when reviewing the Capital Commerce proposal.

Sincerely yours,
Victoria and John Petracca, Residents
67 Woodland Meadow Drive
Lancaster

Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife

Name: Rebekah Stevens
Telephone #: 978-733-1858
Email: Rivkahannah@gmail.com

Please note, for report to be accepted into NHESP database, all required fields including signature field on page 3 must be completed

IN MAKING THIS OBSERVATION FORM AVAILABLE FOR USE BY THE PUBLIC, THE NHESP DOES NOT AUTHORIZE OR CONDONE ENTRY ONTO PRIVATE PROPERTY WITHOUT THE OWNER'S KNOWLEDGE AND PERMISSION. THE UNLAWFUL TRESPASS ONTO PRIVATE PROPERTY MAY SUBJECT A TRESPASSER TO THE CRIMINAL OR CIVIL SANCTIONS AVAILABLE UNDER THE LAW. FOR THESE REASONS, THE NHESP STRONGLY RECOMMENDS THAT THE PERMISSION OF THE LANDOWNER BE OBTAINED PRIOR TO ENTERING PRIVATE PROPERTY TO COLLECT INFORMATION FOR THIS FORM. IT IS THE SOLE RESPONSIBILITY OF EACH PERSON COLLECTING INFORMATION FOR THIS FORM TO ENSURE THAT THEIR ACTIVITIES COMPLY WITH THE LAW.

NHESP ANIMAL OBSERVATION FORM

***Required Fields** (additional information may be requested during NHESP review of observation report)

Survey Information

***SPECIES NAME** (scientific name preferred): Blanding's Turtle Emydoidea blandingii

***Date(s) and time(s) of observation(s):** 7/18/2017 8:40 AM

Amount of area surveyed/time spent surveying area: N/A

Species Identification

***Description of the diagnostic characteristics upon which the ID was based** (including how distinguished from similar species): spotted/speckled carapace, plastron yellow w/dark blotches, symetrical

***Photographs taken** (Y) N)? If yes, please submit a clear photo/slide/or electronic digital image of the animal showing diagnostic features. On image, please indicate your name, the date, location, and species.

***Was a specimen taken and curated for deposition in a biological research collection** (Y /(N)? If yes, please indicate the institution or personal collection where the specimen will be deposited: _____

Location Information

***Town:** Lancaster **County:** Worcester **Waterbody:** forested wetland (not named)

***Describe how to get to the site of the observation using obvious permanent landmarks such as a road intersection (measuring to at least the nearest 1/10 mile):** turn onto Langen Road from 117 follow langen to the intersection of Langen and Old Country Rd turtle was spotted crossing this intersection ~~from~~ towards wet side of Langen

***Please attach a copy of the appropriate section of a USGS topo map, aerial photograph, or similar map (i.e. Google Earth map, GIS map, etc.), and carefully mark the specific site where you observed this rare species.**

Site Coordinates (if available): *System* used (circle one): UTM Lat-Long Mass. State Plane Datum: _____

Source of coordinates (circle one): GPS (Google Earth) other GIS system (please specify_____)

Coordinates at original observation location		If GPS, accuracy of GPS unit at the time the coordinates were taken:
Obs #1: 42°27'13"N	71°41'16"W	
Obs #2:		
Obs #3:		

Please submit field forms, appropriate maps with specific location clearly marked, and all supporting documentation to:
Data Manager, Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries & Wildlife, Rt. 135, Westborough, MA 01581

Population Information

***Number of individuals observed.** If known, age/life stage, and sex (please describe how age and sex were determined): One, estimated at 22 yrs old

Evidence (if any) of breeding activity at this site (e.g. eggs, nests, carrying food to young, copulation, juveniles present): no

Behavioral notes (e.g. crossing road, basking): crossing road

Have you observed this species at this site in previous years (Y / (N)?) If yes, please give details:

Site Information

Description of habitat at site where the animal was observed (e.g. forest, open field). If possible, please list dominant vegetation, size of habitat patch, information on the physical environment (e.g. vegetation structure, substrate type, hydrology, slope), and information on local land use and alterations to ecological processes (e.g. damming, logging, rip-rapping of stream): forested wetland adjacent to wet meadow

Associated species at this site:

Observed or potential threats to the species or its habitat at this site (e.g. land clearing, invasive species)? If yes, describe:

Landowner's name and address, if known:

Additional comments: Turtle was crossing road from higher topography to lower topography.

Please submit field forms, appropriate maps with specific location clearly marked, and all supporting documentation to:
Data Manager, Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries & Wildlife, Rt. 135, Westborough, MA 01581

Observer Information and Certification

*Observed at original location by (please sign below): Rebekah Stevens

*Observer's Permanent Address: 141 Schumacher Rd, Lancaster MA

*Email Address (if available): Rivkahannah@gmail.com *Telephone: 978-733-1858

Affiliations/Qualifications: _____

*List names of other observers (and qualifications): Leah Novak

I hereby certify under pains and penalties of perjury that the information contained in this report is true and complete to the best of my knowledge.

*Signature: [signature] *Date: 5/5/18

(The person who observed the species must sign here)

Additional Data Submission Information

If the organism's species identification was made by someone other than the observer listed above, please provide contact information for person who identified the organism:

Name: _____

Permanent Address: _____

_____

Email Address: _____

Telephone: _____

Affiliations/Qualifications: _____

_____

If form filled out by someone other than the observer listed above, please provide contact information:

Name: _____

Permanent Address: _____

_____

Email Address: _____

Telephone: _____

Affiliations/Qualifications: _____

_____

IS THIS OBSERVATION ASSOCIATED WITH A NHESP REVIEW FILE? Yes___ No X Don't Know___

If "Yes" please list NHESP file/tracking #: _____

IS THIS OBSERVATION ASSOCIATED WITH A COLLECTION PERMIT? Yes___ No X Don't Know___

If "Yes" please list Collection Permit #: _____

Thank you for contributing to the Natural Heritage & Endangered Species Program database.
Your efforts are valuable and appreciated.

Please submit field forms, appropriate maps with specific location clearly marked, and all supporting documentation to:
Data Manager, Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries & Wildlife, Rt. 135, Westborough, MA 01581

07.18.17 Blandings Turtle Observation

Old County/Langen Roads, Lancaster, MA

1 inch = 4445 Feet

0 4445 8890 13335

September 24, 2019

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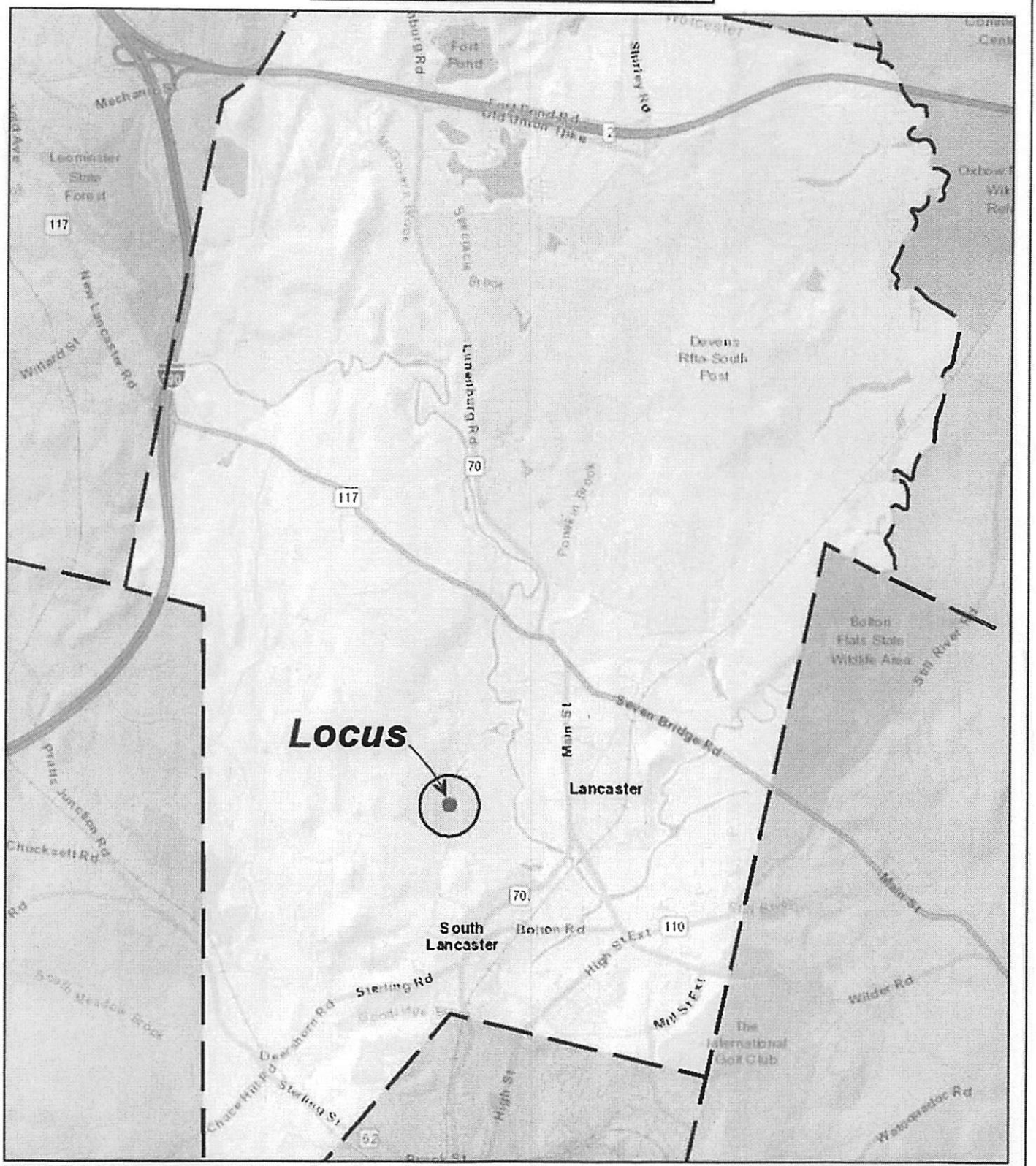

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

From: Victoria Petracca
To: Patel, Purvi (EEA)
Subject: 310 CMR 11.01(2)(c) - MEPA Anti-Segmentation Clause
Date: Friday, February 7, 2020 4:16:36 PM

Dear Ms. Patel,

A subdivision plan for the Capital Commerce site has come to our attention since our prior public comment.

(1) Upcoming Planning Board Agenda for Monday, February 10, 2020 posted Thursday at 5:28 pm:
https://www.ci.lancaster.ma.us/sites/lancasterma/files/agendas/pb_agenda_february_10_2020_rev.pdf

Please note: "McGovern Boulevard - Preliminary Subdivision." McGovern Boulevard is a road into the Capital Commerce development site. It is unclear what plans are being presented on Monday, and we will certainly attend to learn more.

(2) In light of any proposed subdivision and prior site history, we wish to raise the MEPA Anti-Segmentation Clause as confirmation that state environmental review must include the entirety of the site – whether or not Capital Group controls every parcel presently and in the future:

Here is the applicable DEP anti-segmentation reg re MEPA, which is 301 CMR 11.01(2)(c) copied below. There's a similar rule for MESA, 321 CMR 10.16. Sometimes, this concept is referred to as "aggregation" instead of anti-segmentation. Specifically, aggregation of design flows for wastewater under 310 CMR 15.010(4).

(c) Segmentation. In determining whether a Project is subject to MEPA jurisdiction or meets or exceeds any review thresholds, and during MEPA review, the Proponent, any Participating Agency, and the Secretary shall consider the entirety of the Project, including any likely future Expansion, and not separate phases or segments thereof. The Proponent may not phase or segment a Project to evade, defer or curtail MEPA review. The Proponent, any Participating Agency, and the Secretary shall consider all circumstances as to whether various work or activities constitute one Project, including but not limited to: whether the work or activities, taken together, comprise a common plan or independent undertakings, regardless of whether there is more than one Proponent; any time interval between the work or activities; and whether the environmental impacts caused by the work or activities are separable or cumulative. Examples of work or activities that constitute one Project include work or activities that:
1. meet or exceed one or more review thresholds on an area previously subject to a Land Transfer, provided that not more than five years have elapsed between the Land Transfer and the work or activities; and
2. construct more than one structure (such as more than one single family dwelling) and appurtenant structures, facilities, and other improvements on a site, unless a plan for the subdivision or other legal division creating or allowing separate lots or parcels was definitively approved or endorsed in accordance with applicable statutes and regulations prior to the effective date of 301 CMR 11.00.

301 CMR 11.00: MEPA Regulations | Mass.gov

We want to raise this clarification on record pro-actively to avoid any segmentation of current or future environmental review.

Thank you,
Victoria and John Petracca
67 Woodland Meadow Drive
Lancaster

dcr
Massachusetts

February 7, 2020

Secretary Kathleen A. Theoharides
Executive Office of Energy and Environmental Affairs
Attn: Purvi Patel, MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: EOEEA #16043 Capital Commerce Center DEIR

Dear Secretary Theoharides:

The Department of Conservation and Recreation ("DCR" or "Department") is pleased to submit the following comments in response to the Draft Environmental Impact Report ("DEIR") submitted by Capital Group Properties (the "Proponent") for the Capital Commerce Center project (the "Project") in Lancaster.

As described in the DEIR, the proposed Project will construct 2,690,000 sf of new development on a 471-acre site, consisting of several parcels. The development plan includes 617 residential units in four buildings; ten industrial buildings that total 1.6 million square feet; a hotel containing 120 rooms; one retail building (73,000 sf); and an indoor soccer facility. The Project site currently contains an existing gas station and soccer fields. An additional 173 acres of the site is proposed to become impervious surface. Wastewater treatment will be provided by an on-site treatment plant. DCR commented on the ENF for the Project in July 2019.

The Project directly abuts two parcels under DCR's care, custody and control, both part of Lancaster State Forest. As proposed, the Project involves activities within a 100-year floodplain as delineated on the current effective Flood Insurance Rate Map ("FIRM") for Worcester County, dated July 16, 2014. A significant portion of the Project Site is within the Central Nashua River Valley Area of Critical Environmental Concern ("ACEC").

Central Nashua River Valley ACEC

In 1996, the Executive Office of Energy and Environmental Affairs designated the 12,900-acre Central Nashua River Valley ACEC. This ACEC includes additional regulatory protections over a 20-mile riparian corridor of the North Nashua and Nashua Rivers situated south of Route 2 in Leominster, Lancaster, Bolton and Harvard. Associated with this corridor are extensive surface waters, wetlands, floodplains and aquifers, as well as associated riparian zones, wildlife and rare species habitats, forests, farmlands, and publicly and privately owned open space.

The ACEC requires the highest standard of environmental review, restoration, and protection for projects and activities within the boundaries of the Central Nashua River Valley ACEC. Due to the ACEC designation over substantial portions of this project site, DCR notes that EOEEA agency actions are required to ensure that this project incorporates adequate measures to preserve, restore, or enhance the resource areas in accordance with 301 CMR 12.11 (1) and (2). Development designs must ensure that impacts will minimize any adverse effects on groundwater quality, habitat values, biodiversity, storm

Department of Conservation and Recreation
251 Causeway Street, Suite 600
Boston, MA 02114-2199
617-626-1250 617-626-1351 Fax
www.mass.gov/orgs/department-of-conservation-recreation

Charles D. Baker
Governor

Karyn E. Polito
Lt. Governor

Kathleen A. Theoharides, Secretary, Executive
Office of Energy & Environmental Affairs

Jim Montgomery, Commissioner
Department of Conservation & Recreation

damage prevention, flood control, historic and archeological resources, in addition to scenic and recreational resources, and other natural resource values of the ACEC.

DCR requests that the FEIR clearly define, describe, and justify specific impacts of this proposal to the ACEC and the effects of the development on groundwater quality, habitat values, biodiversity, storm damage prevention, and flood control, historic and archaeological resources, and scenic and recreational resources, as requested in the previous ACEC comments and referenced in the ACEC Regulations (301 CMR 12.11 (1) and (2)). DCR requests specific tables and narratives to describe each of the impacts to the ACEC, an alternatives analysis that would include proposed use of the overall site that will avoid impacting the ACEC, and justification as to why the impacts shown in the preferred alternative cannot be avoided.

DCR notes that for any activities and alterations proposed in the ACEC, the preferred or final alternative must minimize any adverse effects on groundwater quality, habitat values, biodiversity, storm damage prevention, flood control, historic and archeological resources, scenic and recreational resources, and other natural resource values of the area. DCR requests that the FEIR include additional information to clearly describe and define, by existing land cover type (upland forest, shrub thicket, meadow, wetland riparian zone, gravel, pavement, etc.), the amounts and types of impacts proposed in the ACEC with an explanation of how each of these impacts will affect the values described above and in 301 CMR 12.11(1). Concerning potential impacts to existing biodiversity onsite in the ACEC, the DEIR does not include an inventory of the flora, fauna and natural communities on this site (with the exception of the wetland resource evaluation). A thorough bio-inventory for all ACEC areas to be altered would be necessary in order to evaluate proposed impacts to biodiversity and to the related functions and values of the existing habitats, wildlife, and natural communities. For previously disturbed areas in the ACEC, please describe and quantify how these areas will be restored or enhanced to improve the functions and values of the ACEC onsite.

In addition, the performance standard in 310 CMR 10.55(4)(e) of the Wetlands Protection Act regulations states that work shall not destroy or impair Bordering Vegetated Wetlands in an ACEC. In the FEIR, DCR requests additional clarification as to how the proposed development will comply with this performance standard due to the changes in land cover proposed. It appears from the proposal submitted for the preferred alternative that with the extensive clearing, grading and increased impervious surface proposed in the ACEC, in addition to increased discharges of runoff to the ACEC, that the current proposal will result in impacts and long-term effects on the wetlands and streams in the ACEC. Alternative designs should be further explored for these parcels that will improve, restore, and enhance the ACEC, instead of increasing adverse effects on the land and water resources and other values described above and in the Designation document for the Central Nashua River Valley ACEC.

Lancaster State Forest

DCR notes that the Preferred Alternative has not changed much from the ENF alternative, with respect to the southern portion of the site plan. The Preferred Alternative shows several locations where Project infrastructure, including parking areas, storm water basins, and a subsurface wastewater treatment plant, are placed up to the edge of the shared property line. DCR reiterates its observation from its comment letter on the ENF that this Project infrastructure, if placed in such close proximity to DCR property, is likely to adversely affect public conservation land permanently.

DCR requests that in the FEIR the Proponent develop and evaluate an alternative that would use a 100-foot no development buffer measured from DCR property lines, similar to the buffer that is being provided in

the northwest portion of the Site. This development analysis should avoid adverse impacts to DCR property and access rights and protect the function and values of public conservation land.

In the ENF, DCR requested that the Proponent stake and monument all mutual property lines and corners abutting Lancaster State Forest prior to the filing of the DEIR, and provide the Department an opportunity to review those boundaries prior to permanent installation, in particular Assessor's Map Lot 13-5. DCR notes that some corners of the shared property lines have not been staked or monumented as requested. DCR is conducting its own survey of Parcels 13-5 and 14-11. DCR requests that the Proponent consult with DCR during the preparation of its FEIR specifically on this issue, with the goal of obtaining a shared understanding of the property boundaries with the Department. Further, DCR requests the FEIR describe how the Proponent will maintain permanent access, including by vehicle or on-foot, to Lancaster State Forest. Consistent with its DEIR comments, DCR has a right of access to Lancaster State Forest along the ancient roadway along the north side of Assessor's Lot 14-11 and through Lancaster Town Forest. The Project would unacceptably remove or limit DCR's longstanding right of access for DCR and the general public, and would effectively nullify DCR's ability to access the State Forest by vehicle, which is critical for maintenance and operations. Such impacts upon access must be avoided.

Open Space

DCR notes, under an agreement between the Proponent (initially made by North Lancaster LLC) and the town of Lancaster, the Proponent is offering to donate 86.8 acres of open space (Assessors Map 14, Parcel 15; and Assessor's Map 19, Parcel 11) under its control to the Town. In the FEIR, DCR requests that the Proponent specify to what Town entity the proposed donation will be made, and clarify that it will be subject to the protections of Article XCVII of the Amendments to the Massachusetts Constitution ("Article 97"). DCR notes that the land should be protected by Article 97 to meet the conservation purpose of the donation.

Also, under the agreement between the Proponent and the Town, the Proponent intends to seek Article 97 legislation for the Commonwealth to transfer to the Proponent an undetermined part of DCR's parcel 14-11 and all of DCR's parcel 13-5. DCR already communicated that DCR would not support such a transfer under the agreement. Notwithstanding the agreement, the Proponent has neither included the land transfers among the required agency actions nor provided any discussion and analysis of the uses that would occur on these parcels or how the Proponent would mitigate the impacts to DCR (i.e., providing land to the town does not mitigate the impact). The Proponent needs to address these concerns now, at least to avoid segmentation under the MEPA regulations.

Summary

In light of the concerns raised above, DCR requests that the Proponent evaluate a development alternative that is in compliance with the ACEC regulations and provides a substantial buffer between DCR lands and any proposed development or infrastructure improvements. DCR also requests that the Proponent provide monumentation at property boundaries, and ensure that access to Lancaster State Forest is not discontinued.

Thank you for the opportunity to comment on the DEIR. General questions regarding DCR's comments can be directed to Nat Tipton, MEPA Review Coordinator, at (617) 626-1341 or nathaniel.tipton@mass.gov. Questions regarding the Central Nashua River Valley ACEC can be directed to Nancy Putnam, DCR Director of Ecology and ACEC Programs at (617) 626-1394 or nancy.putnam@mass.gov. Questions regarding land protection can be directed to Christine Berry at (978) 887-5931 ext. 7 or christine.berry@mass.gov.

Sincerely,

Jim Montgomery
Commissioner

cc: Christine Berry, Eric Carlson, Priscilla Geigis, Jennifer Howard, Nancy Putnam (DCR)

Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, MassDOT Secretary & CEO

massDOT
Massachusetts Department of Transportation

February 10, 2020

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

RE: Lancaster: Capital Commerce Center – DEIR
(EEA #16043)

ATTN: MEPA Unit
Purvi Patel

Dear Secretary Theoharides:

On behalf of the Massachusetts Department of Transportation, I am submitting comments regarding the proposed Capital Commerce Center project, 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
Office of Transportation Planning

DJM/jll

Ten Park Plaza, Suite 4150, Boston, MA 02116
Tel: 857-368-4636, TTY: 857-368-0655
www.mass.gov/massdot

cc: Jonathan Gulliver, Administrator, Highway Division
Patricia Leavenworth, P.E., Chief Engineer, Highway Division
Neil Boudreau, Assistant Administrator of Traffic and Safety Engineering
Barry Lorion, P.E., District 3 Highway Director
Community Development and Planning Office, Town of Lancaster
Office of Planning & Development, City of Leominster
Montachusett Regional Transit Authority
Montachusett Regional Planning Commission
PPDU Files

Charles D. Baker, Governor
Karyn E. Polito, Lieutenant. Governor
Stephanie Pollack, MassDOT Secretary & CEO

massDOT
Massachusetts Department of Transportation

MEMORANDUM

TO: David Mohler, Executive Director
Office of Transportation Planning

FROM: J. Lionel Lucien, P.E, Manager
Public/Private Development Unit

DATE: February 10, 2020

RE: Lancaster: Capital Commerce Center – DEIR
(EEA #16043)

The Public/Private Development Unit (PPDU) has reviewed the Draft Environmental Impact Report (DEIR) for the Capital Commerce Center project in Lancaster and Leominster. The 471-acre site currently consists of five separate development parcels made up of several different uses, including a 2,300 square foot coffee/donut shop, a 5,000 square foot gas station with convenience store, an outdoor soccer facility, an 11,800 square foot trucking facility, a residence and equestrian uses, gravel pits and access roads, and undeveloped fields, woodland, and wetlands. The project proposes to construct 3,056,500 million square feet (an increase from 2,690,000 sf) of mixed-use development, including an approximately 1.647,800 million square foot industrial park with 355 loading docks, 117 single-family, duplex, and triplex residential units, 500 multi-family residential units, a 120-room hotel, an approximately 86,400 square foot indoor soccer facility, and approximately 73,000 sf retail space. All existing development will be retained except for the trucking facility and the soil\gravel facility yard for the New England Specialty Soils.

The project site is made up of three parts. The eastern portion of the project site, which includes the existing Lancaster Crossing development and the trucking facility, would involve the construction of the multi-family apartment buildings, hotel, indoor sports facility, and retail space. Access to this portion of the site is proposed via the existing McGovern Boulevard as well as via additional access points off Lunenburg Road. The central portion of the project site would consist of the industrial buildings with access proposed via an extension of McGovern Boulevard. The western portion of the project site would consist of 117 single-family, duplex, and triplex housing units accessed by Johnny Appleseed Road to the west (through Leominster) and White Pond Road to the east. The western portion of the project site would be accessed separately from the eastern and central portions. A Vehicular Access Permit from MassDOT will be required due to anticipated impacts on Route 2, a state-owned roadway. The project site also abuts I-190, a state-owned roadway.

Ten Park Plaza, Suite 4150, Boston, MA 02116
Tel: 857-368-4636, TTY: 857-368-0655
www.mass.gov/massdot

The project is expected to be built in several phases. The DEIR provides a summary of the expected phasing of the project, Phases 1 through 3 and future phases. The FEIR should provide an update of the phasing of the project and the expected timing of each phase.

The DEIR includes an updated Transportation Impact Assessment (TIA) that includes an evaluation of the study area transportation network and presents an analysis of existing and future build conditions for each intersection. The TIA is in general conformance with the latest EOEEA/MassDOT Guidelines for an EIR/EIS Traffic Impact Assessment.

Trip Generation

As presented in the DEIR, trip generation rates were calculated using the Institute of Transportation Engineers (ITE)'s *Trip Generation Manual* (10th Edition). Trip generation was calculated based on Land Use Code (LUC) 130 – Industrial Park, LUC 210 – Single-Family Housing (Detached), LUC 221 – Multifamily Housing (Mid-Rise), LUC 310 – Hotel, LUC 488 – Soccer Complex, and LUC 820 – Shopping Center. The original development project, separate from existing traffic-generating land uses, site was expected to generate 11,332 unadjusted vehicle trips on an average weekday and 11,352 unadjusted vehicle trips on an average Saturday, with 844 trips during the weekday morning peak hour, 1,062 trips during the weekday evening peak hour, and 1,445 trips during the Saturday midday peak hour. The FEIR should include revised site generated traffic and analyses to reflect the current development program or provide supporting documentation that the change is minimal. Appropriate internal capture and pass-by rates should be obtained from the ITE *Trip Generation Handbook* (3rd Edition).

Traffic Operations

Capacity analyses were conducted for the weekday morning and weekday evening peak periods for the existing, 2026 No-Build, 2026 Build, and 2026 Mitigated Build conditions. According to the TIA included in the DEIR, all intersections and intersection approaches under state jurisdiction are anticipated to operate at an acceptable Level of Service (LOS) during the weekday morning and weekday evening peak periods, except for the northbound Route 2 Westbound Off-Ramp left-turn approach at the Fort Pond Road/Route 2 Westbound Ramps intersection. The Level of Service for this left-turn approach deteriorates from D to E during the weekday evening peak hour. As requested, the DEIR includes a concept for improvements at this location. MassDOT is in agreement with the general concept for the Route 2 WB Exit 35 Storage & Deceleration Improvements shown on Figure 7.8; however, prior to the filing of the FEIR, the proponent should contact the District 3 Office to discuss details of the improvements, such as the deceleration length and shoulder width. In addition, the FEIR should clarify that the improvements to the Route 2 WB Interchange 35 off-ramp will be constructed prior to site occupancy.

Depending on the timing of the potential MassDOT project at the Route 2 Interchange 35, the Proponent proposes to install a temporary traffic signal to serve as interim improvements at the Route 70/Fort Pond Road/Woods Lane intersection when the project adds 22 new vehicle trips to the Fort Pond Road left turn movement during the weekday evening peak hour based on

trip projections provided in the DEIR. Additional details on the Proponent's proposal to install a temporary traffic signal are needed before the MassDOT can comment on whether the potential improvement is acceptable. A Traffic Signal Warrants Analysis (TSWA) should be provided to determine if a traffic signal is warranted, as well as analyses summarizing the impacts of a traffic signal at this intersection, which is located approximately 400 feet from the Route 2 WB Interchange 35 off-ramp. If the traffic signal is found to be acceptable, analyses should be conducted to determine the level of development that can be constructed before the queue on the Fort Pond Road approach begins to impact operations at the Route 2 WB off-ramp and with that information, appropriate thresholds to implement the interim improvements can be identified.

The Route 2 WB Interchange 35 on-ramp is under Stop-sign control with no acceleration lane provided on Route 2. The project is expected to add 159 vehicles to this movement during the weekday evening peak hour, more than doubling the existing volume. The FEIR should evaluate mitigation measures at this location. In addition, given the industrial nature of the development, the FEIR should provide trip generation and distribution for new truck traffic.

Conceptual Plans

Proposed mitigation within the state highway layout and all internal site circulation appears consistent with a healthy transportation design approach that provides adequate and safe accommodations for all roadway users, including pedestrians, bicyclists, and public transit riders; however, the proponent is waiting on FEIR to complete conceptual plans addressing these goals. This includes complete street design consideration along the main street through the property, as well as planned connections to the trail network north and south of the site.

Parking

The project will include provision for 3,462 spaces at Full-Build, including existing spaces on-site. A comparison of this figure with Town of Lancaster Zoning By-Laws and estimates from the *Parking Generation* (4th edition) are detailed in the TIA, demonstrating that the parking supply falls below Town of Lancaster requirements but above ITE recommendations.

Multimodal Access and Facilities

The TIA includes an inventory of pedestrian, bicycle, and transit facilities and services in the vicinity of the project site. Pedestrian and bicycle accommodations are absent along Lunenburg Road; the Proponent has committed to providing these accommodations along McGovern Boulevard within the project site which would connect with Lunenburg. The Proponent will provide sidewalks along each side of Lunenburg Road. According to the DEIR, pedestrian accommodations will be provided on both sides only within the reconstruction zone of the site driveway intersection. The Proponent has clarified that bicycle accommodations along Lunenburg Road will be provided in the form of 5-foot bicycle lanes supplemented by MUTCD-compliant bicycle signage. The Proponent should further discuss the roadway layout with MassDOT for compliance with the Healthy Transportation Initiative (HTI) policy prior to the submission of the FEIR.

The Proponent has reached out to the Montachusett Regional Transit Authority (MART) to examine the feasibility of extending service to the project site. According to discussions with MART, additional services can be accommodated if demand is projected. The Proponent will continue discussions with the Town of Lancaster and MART to establish the service as needed and will consider providing contribution towards the service to a point where ridership builds up fully to justify the service.

Parking

The DEIR continues to include a total of 3,462 spaces at Full-Build, including existing spaces on-site. The FEIR should provide more details to justify this high number of parking spaces and should demonstrate efforts to reduce or land bank some of the spaces. A comparison of this figure with Town of Lancaster Zoning By-Laws and estimates from the *Parking Generation* (4th edition) are detailed in the TIA, demonstrating that the parking supply falls below Town of Lancaster requirements but above ITE recommendations.

Transportation Demand Management Program

The DEIR includes a Transportation Demand Management (TDM) program that explores feasible measures aimed at reducing site trip generation. To reduce site trip generation, the TIA includes a comprehensive Transportation Demand Management (TDM) program.

- Assignment of an Employee Transportation Coordinator to oversee, implement, monitor, and evaluate TDM measures. The Transportation Coordinator will be responsible for managing rideshare and carpool programs and distributing information to encourage alternative means of transportation;
- Provision of preferential parking for rideshare, carpool and hybrid vehicles;
- Provision of electric vehicle charging stations;
- Provision of secure, weather-protected, long-term bicycle parking, as well as bicycle racks for short-term users;
- Provision of shower facilities for walking and bicycling commuters;
- Encouragement and promotion of vanpool and carpool participation, including implementation of a ride-matching program;
- Provision of a guaranteed ride home program; and
- Promotional events to encourage ridesharing and travel by alternative means of transportation.

The Proponent should identify the details of these measures as well as work to develop additional programs. We encourage the Proponent to consult with MassDOT to help implement the TDM program.

Transportation Monitoring Program

The Proponent is committed to implementing a Transportation Monitoring Program. This will include providing traffic count information to the MassDOT District 3 office and the Town of Lancaster for use of tracking site-generated trips and will include the following components:

- Traffic operations at the intersections of:
  - Main Street / Lunenburg Road
  - Lunenburg Road / McGovern Boulevard
  - Lunenburg Road / Old Union Turnpike
  - Lunenburg Road / Fort Pond Road / Woods Lane
- Adequacy of the constructed parking supply
- Effectiveness of TDM measures.

The Proponent also agreed to complete the several tasks annually for five years following the mixed-use development's first completion that supports transportation monitoring efforts, and to coordinate findings from these tasks with MassDOT District 3 and the Town of Lancaster.

Section 61 Finding

The FEIR should include an updated Draft Section 61 Finding, outlining the mitigation measures the Proponent has committed to implementing in conjunction with this project. The updated Draft Section 61 Finding will be the basis for MassDOT to issue a final Section 61 Finding for the project.

The FEIR should provide an update of the local permitting processes for the proposed project, particularly with respect to any transportation issues being discussed. We strongly encourage the Proponent to consult with MassDOT before any transportation issues are discussed in local meetings or hearings.

The Proponent should continue consultation with appropriate MassDOT units, including PPDU and the District 3 Office, during the preparation of the FEIR. If you have any questions regarding these comments, please contact me at (857) 368-8862.

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF
ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENERGY RESOURCES
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Charles D. Baker
Governor

Karyn E. Polito
Lt. Governor

Kathleen A. Theoharides
Secretary

Patrick C. Woodcock
Commissioner

12 February 2020

Kathleen Theoharides, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02114
Attn: MEPA Unit

RE: Capital Commerce Center, Lancaster, Massachusetts, EEA #16034

Cc: Maggie McCarey, Director of Energy Efficiency, Department of Energy Resources
Patrick Woodcock, Commissioner, Department of Energy Resources

Dear Secretary Theoharides:

We've reviewed the Draft Environment Impact Report (DEIR) for the above project. The proposed project includes 2.7M-sf of built-space consisting of approximately 900,000-sf of residential buildings (single family, duplex, triplex, and multifamily), 1.6M-sf of industrial space, and 200,000-sf of commercial space (hotel, retail, recreation).

Executive Summary

We wish to recognize the proponent's responsiveness to analyze efficient electrification and Passivehouse, as recommended by the DOER. Our ENF anticipated that electrification and Passivehouse would likely be two effective emission strategies for this project.

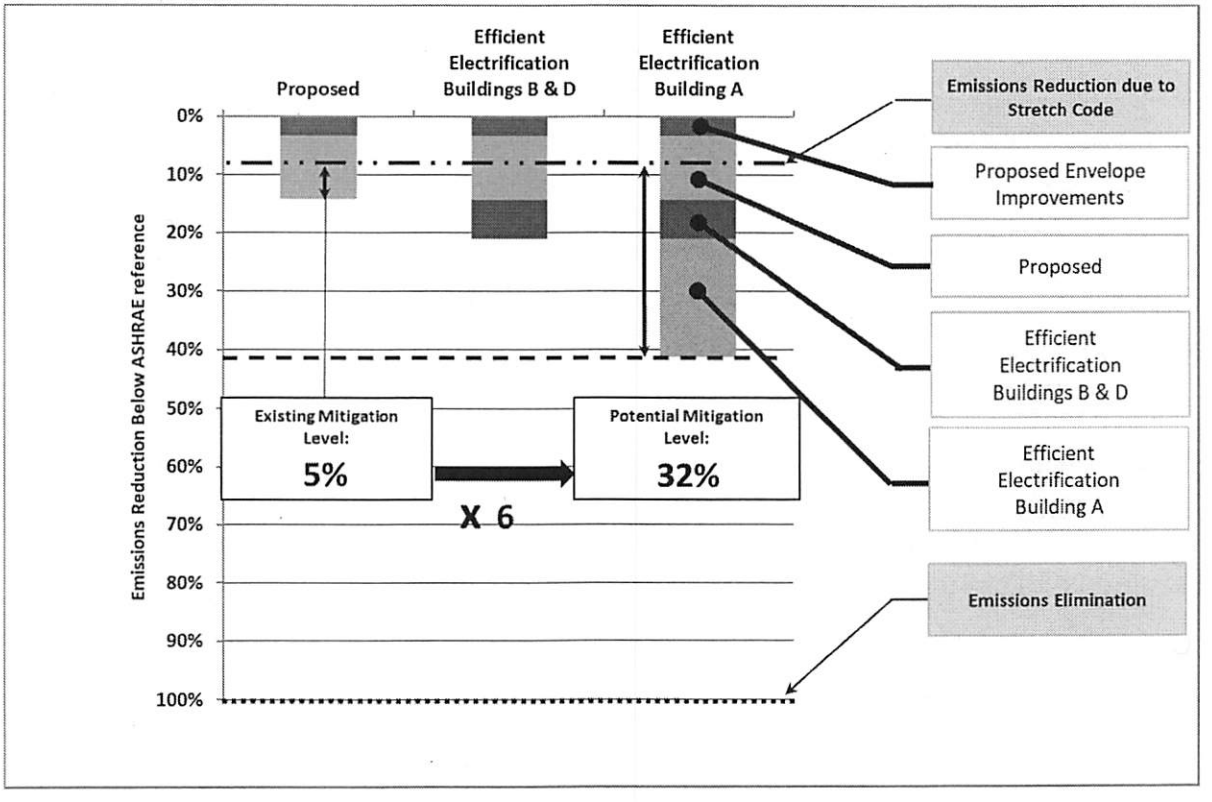
The proponent's analyses confirm that these measures would: (a) reduce emissions, (b) reduce operating costs, and (c) yield significant incentives for both the developer and the building users. However, despite these benefits, these measures remain uncommitted.

Our letter herein summarizes the results of the proponent's analyses to reinforce the benefits these (and other) measures would deliver. This letter also presents some recommendations for further analysis.

Pathway to 32% Mitigation Level – Commercial Buildings A, B, D (>100,000-sf, each)

As illustrated below, the project can achieve a 32% Mitigation Level[1] for commercial buildings A, B, C, and D. In summary:

- The currently-committed efficiency strategies (largely: envelop improvements and more efficient HVAC equipment) deliver a Mitigation Level (ML) of 5%.
- Mitigation Level can be improved to 32% (a more than x6 improvement) as follows:
  - Efficient electrification of Buildings B & D with heat pumps for space and water heating would improve ML to 12%.
  - Efficient electrification of Building A with heat pumps or VRF for space and water heating would improve ML to 32%.

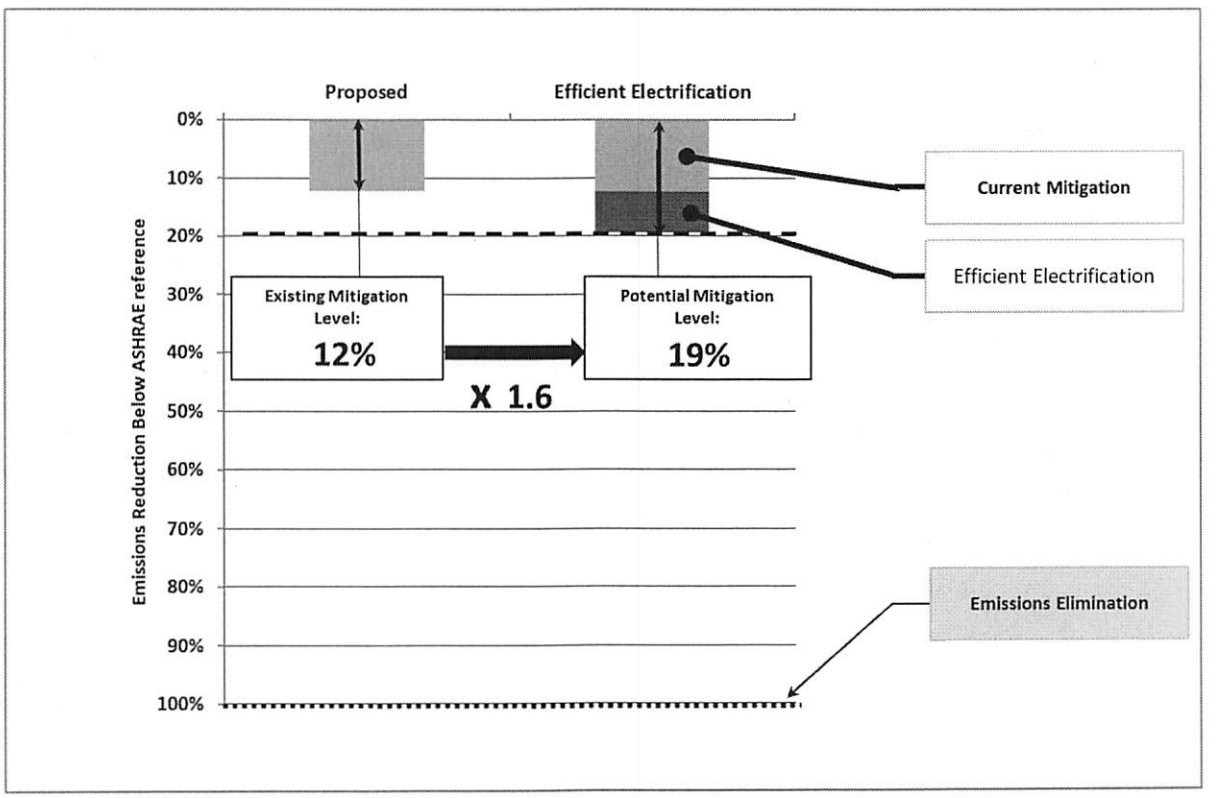


[1] Mitigation Level is the percent GHG reduction beyond the reduction that would occur as a result of following state and local building codes. A Mitigation Level of 0% means that no mitigation is proposed.

Pathway to 19% Mitigation Level – Commercial Buildings C, E-H, K, J, R, Q (each <100,000-sf)

Commercial building C, E-H, K, J, R, and Q are proposed to have a Mitigation Level of 12%. As illustrated below, the project can achieve a 19% Mitigation Level (a 60% improvement) for these buildings. In summary:

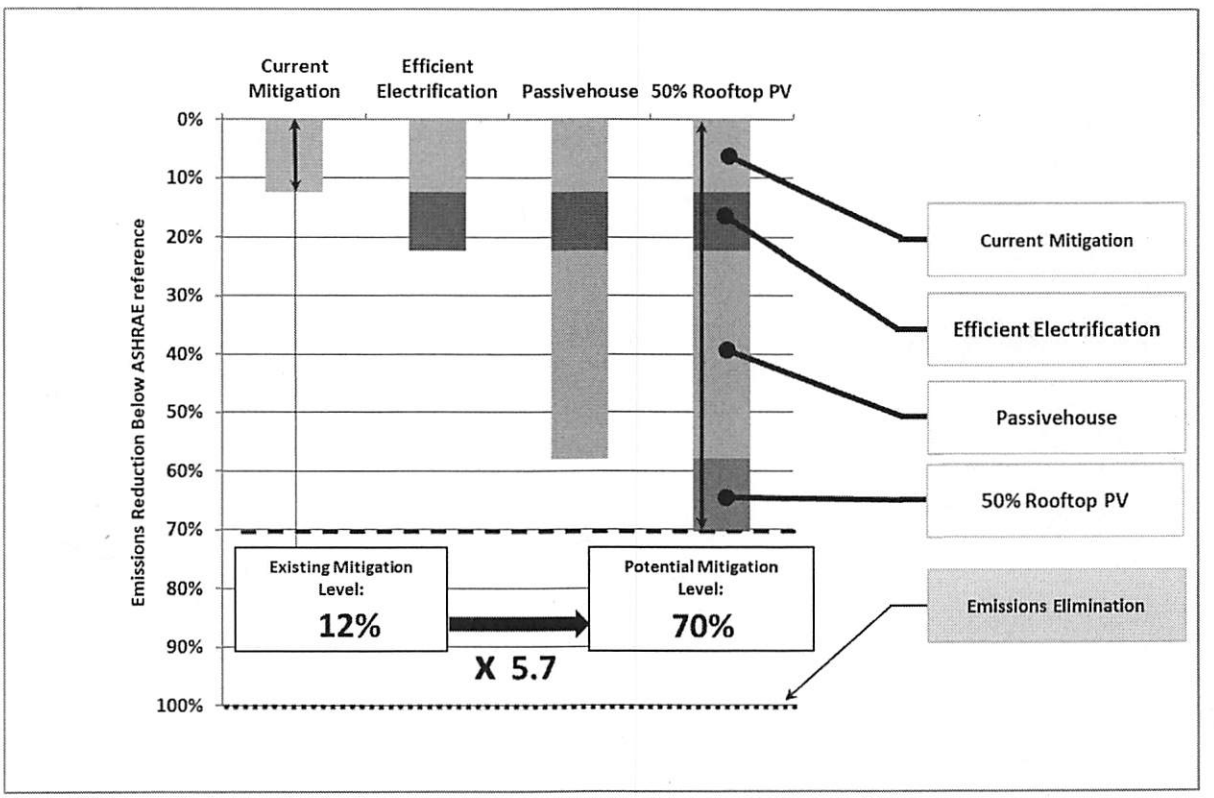
- The currently-committed efficiency strategies (largely: lighting and plug load reduction) deliver a Mitigation Level (ML) of 12%.
- Mitigation Level can be improved to 19% with efficient electrification of space and water heating.



Pathway to 70% Mitigation Level – Residential

The residential buildings are proposed to have a Mitigation Level of 12%. This can be improved by almost x6 to 70%. In summary:

- The currently-committed efficiency strategies (largely, reduction in lighting and plug loads and more efficient domestic hot water) deliver a Mitigation Level (ML) of 12%.
- Mitigation Level can be improved to 70% as follows:
  - Heat pump water heaters would improve ML to 22%
  - Achieving Passivehouse improves ML to 58%;
  - PV on 50% of the roof (total of 1.1MW) improves ML to 70%;



Integrity of Building Envelope

A key feature of an energy efficient building is a high-performing envelope. High-performing envelope is not only a key to successful GHG mitigation but presents a key opportunity for resiliency.

Key strategies for maintaining integrity of envelope are:

- Limiting or eliminating use of glass "curtain wall" and spandrel assemblies;
- Maximizing framed, insulated walls sections;
- Avoiding excessive window areas.

The proponent was responsive to review envelope improvements and has isolated the effects of the proposed improvements to roof and wall performance on project GHG reduction. The analyses summarized in Tables 4A-4S confirm the effectiveness of the proposed envelope improvements. The results demonstrate that envelope improvements alone account for 35% of proposed emission reduction. Given these results, the project should continue to look into both roof and wall performance improvements.

To confirm envelope commitments, please clarify the following:

1. Confirm the envelope code pathway used for Buildings A-H, J, K, Q & R. The project is currently listing roof of R-30 which implies no continuous insulation. Code requires either: R-30c.i. (continuous insulation); or, R-38. Confirm which of these two pathways was used in the base case.

2. Similarly, confirm the envelope code pathway for the roof and walls of Building O (Hotel). Being a hotel use, this building would fall into the residential code and therefore must follow the Group R pathway which requires either R-30c.i.; or R-49 for roof insulation and R-13.3 for mass wall. The values used for base case need to be confirmed.

3. Similarly, confirm envelope code pathway for Buildings L, M, & N. Code requires R-30c.i.; or, R-49 for base code.

Electric Space and Service Water Heating

Efficient electrification of space and service water heating is an effective strategy for GHG mitigation. Electrification entails swapping from gas-fueled equipment to electric heat pumps and VRF systems.

The proponent was responsive to the recommendations in the ENF and evaluated electrification for space and water heating in all buildings (except Building A), analyzing replacing gas equipment for electric heat pumps for space and water heating.

Summary of Efficient Electrification Benefits

Commercial

The analysis demonstrates that efficient electrification of the commercial buildings results in lower operating costs when you consider the value of Alternative Energy Credits (AECs). AECs are available to projects which use qualifying efficient electric equipment.

For the commercial buildings, the use of heat pumps for space and water heating could save the project approximately 200 tpy in GHG emissions and reduce the operating costs of the project by over $11,000 annually.

The table below summarizes the proponent's analysis for the commercial buildings which shows show that the value of AECs more than offsets increased utility costs, resulting in operating cost savings.

GHG Reduction (tpy)	Annual Utility Cost Change ($/yr)	Estimated AEC Value ($/yr)	Operating Cost Reduction ($/yr)
202	(45,070)	56,475	11,405

Residential

For the residential buildings, analyses demonstrate that efficient electrification would reduce emissions by over 360 tpy and yield up-front incentives for the developer which could be worth more than $900,000.

The table below presents the value of the AECs by residential type and also normalized on a per dwelling unit basis.

Residential Type	AEC Value ($)	AEC Value Per Dwelling Unit ($/unit)
Single Family	4,680	2,340
Duplex	143,539	2,243
Triplex	80,096	1,571
Multifamily	675,000	1,350
Total	**903,315**	

Passivehouse Financial Analysis

Passivehouse is a design approach which prioritizes envelope performance to such an extent that much of the HVAC/MEP equipment typically used can be greatly reduced and simplified. Passivehouse projects typically have very low emissions and operating costs. In addition, Passivehouse buildings are also comfortable, quite, resilient, and have superior indoor air quality.

Massachusetts recognizes two Passivehouse standards in its building code: Passivehouse Institute US (PHIUS) and Passivehouse Institute (PHI).

The proponent was responsive to evaluate Passivehouse for the residential portions of the project, estimating incentives, reduced operating costs, and emissions reduction. The following table summarizes the performance of Passivehouse compared to Code:

Residential Type	GHG Reduction (tons/year)	GHG Reduction (%)	Annual Operating Savings ($/Unit)
Multi-Family High-Rise (L, M, N)	1,358	56%	1,192
Single Family/Duplex/Triplex	648	59%	2,208
Hotel	372	80%	733

Despite these positive findings, the DEIR concludes that Passivehouse is infeasible and thus does not commit to Passivehouse for any of the residential buildings.

This conclusion is based on the following unusual assumptions in the proponent's financial analysis of Passivehouse:

- The financial evaluation shows paying 15 years' of accumulated interest up-front during "year 1", rather than amortizing these over time;

- The financial evaluation combines all residential building types (hotel, single family, duplex and tri-plex, and multifamily), utilizing the same cost premiums and incentives for all, even though premiums and incentives can vary considerably between these types.

For the multifamily residential, the DEIR uses an out-of-date Passivehouse premium cost of 5%, taken from a study completed in 2018[2]. However, newly available data (2019) from 268 multifamily projects[3] in Pennsylvania show premium costs of **3% or smaller**. In fact, the last year of data collection shows a premium cost of **1% less**. In other words, in the last year, multifamily Passivehouse simply costs the same or less to build than conventional multifamily.

[2] https://www.pembina.org/reports/passive-house-report-2016.pdf

[3] Data set which contributed to following article https://www.post-gazette.com/business/development/2018/12/31/pa-affordable-housing-tax-credits-pennsylvania-housing-finance-agency-passive-house-design/stories/201812190012

Additionally, a 3% Passivehouse premium (or less) experienced in Pennsylvania is consistent with eight multifamily Passivehouse projects located in **Massachusetts** which have also confirmed a premium cost of **3% or less**[4].

The subsections below present payback and cash flow financial evaluations for the multifamily buildings. Two payback evaluations are presented, one that does not consider interest and one that does consider interest. Evaluations are based on 2019 cost data (3% cost premium over code). Evaluations present both Passivehouse scenario and the currently-proposed scenario (which is not Passivehouse) which is reported in the submission to have a premium cost of 0.5% over code.

Multifamily Simple Payback – No Interest

A payback evaluation is presented below. This evaluation does not consider interest cost.

	Currently Proposed DEIR Commitment (0.5% Premium)	**Passivehouse (3% Premium)**
Premium Cost (%)	0.5%	3%
Premium Cost ($/sf)	(0.84)	(5.01)
MassSave ($/sf)	-	2.36
AEC's ($/sf)	-	1.77
Net Premium Cost ($/sf)	(0.84)	(0.89)
Net Cost to Developer ($)	**(531,561)**	**(564,366)**
Annual Operating Savings ($/yr)	140,605	371,859
Simple Payback (yrs)	**3.8**	**1.5**

The above shows that Passivehouse would cost the developer approximately the same as currently-proposed but would have greatly improved savings and payback.

[4] https://www.masscec.com/emerging-initiatives/passive-house

Multifamily Simple Payback – With Interest

The DEIR financial analysis for Passivehouse erroneously shows paying 15 years' of financing costs in one, up-front payment during "year 1".

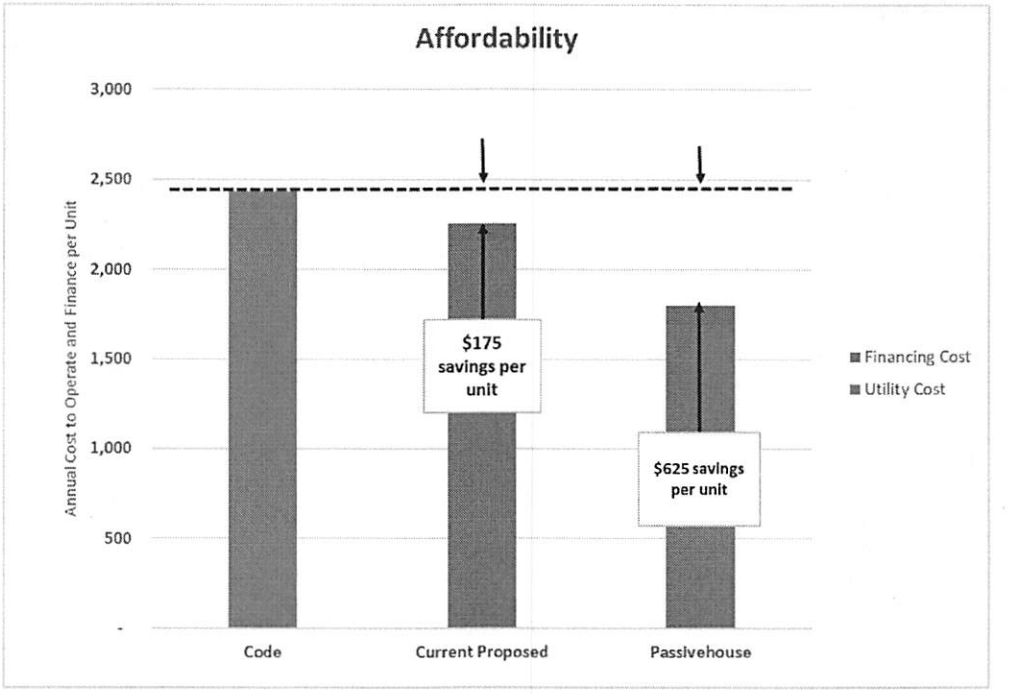
If the proponent wishes to consider interest costs, the table below presents this scenario but with interest correctly included. The table below uses the same interest rate (5.5%) and financing duration (15 year) as used in the DEIR.

	Currently Proposed DEIR Commitment (0.5% Premium)	**Passivehouse (3% Premium)**
Premium Cost (%)	0.5%	3%
Pre-Incentive Premium ($)	(531,561)	(3,189,366)
Total Incentives ($)	-	2,625,000
Net Cost to Developer ($)	(531,561)	(564,366)
Annual Operating Savings ($/yr)	140,604	371,860
Annual Financing Cost ($/yr)	(52,119)	(55,336)
Net Operating Savings ($/yr)	88,485	316,523
Financed Payback (yrs)	**6.0**	**1.78**

With or without interest, Passivehouse has a payback shorter than the currently proposed because incentives cover a significant portion of the premium costs.

Multifamily Cash-flow

Another approach that consider interest is a cash-flow analysis. Using the same interest rate and financing duration as used in the DEIR (5.5%, 15 years), a cash flow analysis shows that multifamily Passivehouse is much more affordable to operate than either Code or as currently proposed. The illustration below is normalized by number of dwelling units to provide a picture of the affordability benefits to the future apartment residents.



In summary, compared to currently-proposed, Passivehouse multifamily would:

- cost the developer about the same;
- have much shorter payback (this is true with or without interest);
- improve tenant affordability by a factor of 3.5 (Passivehouse would save $625/unit versus $175, compared to Code);
- reduce emissions by 56% which is a **x2 improvement** over current commitments.

Based on the above, it is clear that multifamily should be Passivehouse for this project.

The above analysis should be separately repeated for single family, duplex, triplex, and hotel using appropriate premium costs and incentives. If financing costs are to be considered, the financial analysis should amortize the interest and financing payments over the term, and not lump all interest costs in year 1.

MassSave Passivehouse Incentives

The proponent included the MassSave® Passivehouse incentives but appears to have overestimated the applicability to all residential building. The project should account only for the applicable incentives for each building type.

Mid and High-rise Multi-Family

Passivehouse multifamily buildings may qualify for significant incentives. Recently, MassSave® released their mid- and high-rise multifamily PH incentives as follows:

Passive House Incentive Structure for Multi-Family Mid- and High-Rise			
Incentive Timing	**Activity**	**Incentive Amount**	**Max. Incentive**
Pre-Construction	Feasibility Study	100% Feasibility costs	$5,000
	Energy Modeling	75% of Energy Modeling costs	$20,000
	Pre-Certification	$500/unit	N/A
Post-Construction	Certification	$2,500/unit	
	Net Performance Bonus	$0.75/kWh	

Based on the above incentives, the multi-family portion of the project could qualify for approximately **$250,000** in pre-construction incentives, with an additional **$1.25M** in post construction incentives, if certified Passivehouse. Additionally, the project can utilize the pre-construction feasibility and energy modeling incentives to perform a Passivehouse feasibility study during the design phase.

Low-Rise Residential

The project should meet with MassSave® to determine any incentives that may be applicable to the single family, duplex, and tri-plex portion of the project. MassSave® is expected to announce Passivehouse incentives for low-rise residential in the near future.

Hotel

The project should meet with MassSave to determine any incentives that may be applicable to the Hotel building if built to Passivehouse standards. We do not anticipate MassSave® developing a Passivehouse incentive for hotels in the near future. However, significant incentives may be available through their traditional performance pathway.

Penetration of Passivehouse in Massachusetts

Since the ENF review in July 2019, adoption of Passivehouse in Massachusetts has increased substantially. Passivehouse is becoming the "go-to" solution for high-performing residential construction in Massachusetts. Over **4,300** units have committed to Passivehouse in just the last 12 months. About 65% of these new commitments are MEPA commitments.

Below are some examples of Passivheouse projects in Massachustts:

One Charlestown,
Charlestown, MA
2,900 units of PH

Newton Riverside,
Newton, MA
542 units of PH

Newton Northland
Newton, MA
385,000 sf of PH

Mattapan Station
Boston, MA
135 affordable PH units

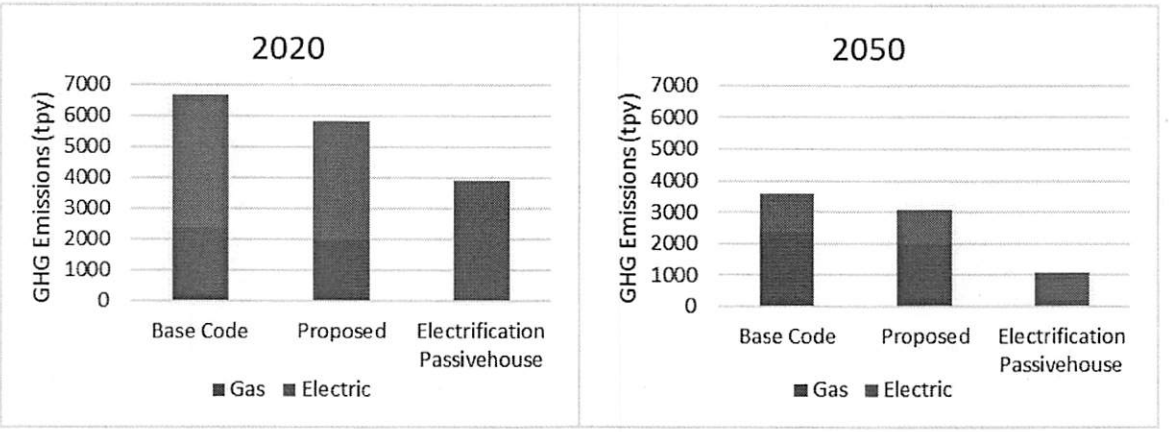
Emissions 2020 to 2050

The DOER also analyzed the effect of mitigation measures over the buildings' first 30 years of operation. This analysis uses current grid emissions rates and anticipated emissions rates through the year 2050.

Massachusetts currently has relatively low emissions rates which are expected to decline even more due to the Commonwealth's renewable commitments and policies[5]. Current emission rate is about 700 lbs/MWhr. Emission rates are expected to be about 200 lbs/MWhr by 2050.

The following illustrates the effect of declining emission rates for the project comparing Code, current-proposed, and an alternative in which all commercial buildings are built with efficient electrification and all residential buildings are built with efficient electrification and also built to Passivehouse standards.

[5] https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=fadee14ffc925769d112205e9322aee2&mc=true&r=PART&n=pt40.8.60#ap40.8.60_15580.2; and https://www.mass.gov/files/documents/2019/02/13/310cmr07.pdf



As shown in the illustration, both Code and currently-proposed scenarios lock-in gas emissions (red) which do not decline over time. In contrast, the electrified and Passivehouse scenario, which has no gas use, has a carbon emission footprint which declines over time.

By 2050, the recommended approach (electrification and Passivehouse) has an emissions footprint which is almost **70% less** than the emissions footprint of the currently-proposed approach.

Solar PV

PV presents a significant opportunity for this project and rooftop solar readiness should be maximized for all buildings. The project currently has **no above-code** solar readiness.

We recommend that the project commit to the solar readiness shown below:

Buildings	Solar Readiness
A-H, J, Q,R	80%
I, L-O	50%

If the project is unable to commit to above, the project should provide a detailed explanation for each building, including detailed roof plans demonstrating why the above are not feasible.

Recommendations for Future Submissions

Recommendations for the next submission are as follows:

1. The proponent should clarify the envelope questions above and review opportunities to continue improving envelope performance throughout.

2. Analyses show that the multifamily (buildings L, M, &N) have lower emissions and improved payback with Passivehouse. Therefore, we recommend that this residential building type be Passivehouse.

a. Consider commissioning a MassSave® funded Passivehouse study for the multi-family buildings.

3. For the other residential building types (single family, duplex, tri-plex, and hotel):

   a. Passivehouse financial analysis should separately analyzed for each residential building type (Hotel, Single Family, Duplex, Triplex). Any and all cost premiums should be substantiated.

   b. Meet MassSave® to assess potential incentives for each residential type (Hotel, Single Family, Duplex, Triplex).

4. The project should analyze the opportunity for efficient electrification of Building A.

5. The project should commit to efficient electrification for all residential and commercial buildings. The DOER is open to gas water heating for Passivehouse multifamily

6. The project should maximize solar-readiness on all buildings with a recommended commitment of 80% PV ready on the Commercial buildings and 50% for the residential buildings. If the project is unable to commit to these recommendations, provide a detailed explanation for each building, including detailed roof plans, demonstrating why the above are not feasible.

Sincerely,

Paul F. Ormond, P.E.
Energy Efficiency Engineer
Massachusetts Department of Energy Resources

Brendan Place
Clean Energy Engineer
Massachusetts Department of Energy Resources