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August 14, 2009

CERTIFICATE OF THE SECRETARY OF ENERGY & ENVIRONMENTAL AFFAIRS
ON THE
SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME:	Highland Commons
PROJECT MUNICIPALITY:	Hudson and Berlin
PROJECT WATERSHED:	Concord (Assabet)
EOEA NUMBER:	13795
PROJECT PROPONENT:	Sullivan Hayes Companies Northeast, LLC/Benderson Properties Development, LLC
DATE NOTICED IN MONITOR:	July 8, 2009

As Secretary of Energy and Environmental Affairs, I hereby determine that the Supplemental Environmental Impact Report (SEIR) submitted on this project **adequately and properly complies** with the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62I) and with its implementing regulations (301 CMR 11.00).

Original Project Description and MEPA History

The project was the subject of an Expanded Environmental Notification Form (Expanded ENF) in May, 2006 and a Single Environmental Impact Report (Single EIR) in September, 2006. As originally proposed, the project entailed the development of a commercial shopping center and hotel on a site located in the extreme western part of Hudson south of Coolidge Street (Route 62) and approximately 1/3 of a mile east of the I-495 Exit 26 interchange.

The project site encompasses 161 acres straddling the Hudson/Berlin municipal boundary. The site's primary roadway frontage is on Coolidge Street in Hudson. In the vicinity of the site, Coolidge Street is a numbered state highway (Route 62) but is under the jurisdiction of the Town of Hudson. The portion of the project site in Berlin has frontage on Gates Pond Road, a local roadway. Hog Brook passes through the north central part of the site and also

forms the northeast and east boundary of the site. An unnamed tributary to Hog Brook forms the southeast boundary of the site in Berlin. In 1989-90, a hotel and industrial park development was proposed on part of the site under the name "Metro-West Business Park". The project underwent MEPA review (EEA #7574), but was never constructed.

The project was proposed to be constructed in two phases. Phase 1 would involve construction of a shopping center on the easterly portion of the Hudson site with approximately 338,018 square feet (sf) of commercial building area and a 1,706 sf wastewater treatment plant building. The removal and reconstruction of a municipal water supply tank was also planned as part of Phase 1 of the project. Phase 2 of the project would involve construction of an approximately 133,000 sf hotel with approximately 222 rooms on the westerly portion of the Hudson site and an internal connector road between the two phases of the project.

Only the Hudson portion of the site was proposed to be developed during the review of the Expanded ENF and Single EIR; there were no specific plans for development of the site area in Berlin. However, based on the existing Town of Berlin zoning and the topographic characteristics of this portion of the site, a residential subdivision with approximately 30 single family homes could be developed. The Single EIR considered the traffic and wastewater impacts that would be associated with this potential future development. The proponent stated in the Single EIR that it would file a NPC with the MEPA office when development plans for the Berlin site were confirmed. The proponent submitted an Expanded NPC in April, 2009.

Expanded NPC

In May, 2009 a Certificate was issued on an Expanded NPC requiring a Supplemental EIR. In accordance with Section 11.05(7) of the MEPA regulations, the proponent had submitted an Expanded NPC with a request that I allow the proponent to fulfill its EIR obligations under MEPA with a Single EIR, which I granted. In the Expanded NPC, the proponent described proposed changes to the project focusing on Phase 1A (the replacement of the 133,000 square feet (sf) hotel with a 118,000 sf retail store on the Town line) and Phase 2 (the construction of approximately 422,000 of retail space and the redevelopment of an existing office building into a 29,400 sf two-story building).

As indicated above, at the time of the original MEPA filing, the Berlin portion of the site was zoned for residential use only. On May 14, 2008, after construction of the Project in Hudson had already commenced, Berlin Town Meeting approved a zoning change for 84+ acres of the Project Site in Berlin from residential to commercial, to allow for a larger unified shopping center complex in conjunction with the Hudson portion of the development. The Expanded NPC includes a Conceptual Site Plan – 2009 that depicts the site divided into four quadrants – Hudson East, Hudson West, Berlin East, and Berlin West.

Phase 1 - Hudson East

All of the development within the Hudson East portion of the site is currently under construction. There are no significant changes to what was presented previously in the MEPA documents. The Hudson East portion of the Highland Commons project, which has received its

MEPA Certification, is referred to as Phase 1 of the Project. While the disclosure of the impacts associated with this portion of the Project Site are included as they pertain to the cumulative impacts of the entire Project, Phase 1 issues were not revisited in the Expanded NPC.

Phase 1A – Hudson West

A Phase 1A has been added since the filing of the Single EIR for a Project modification proposed within the Hudson West portion of the site. Phase 1A represents the modification to the Project consisting of the elimination of the previously reviewed 133,000 sf hotel in Hudson for a 118,000 sf retail store that will straddle the Hudson/Berlin town line. Approximately 54,420 sf of the building will be located in Hudson and 63,580 sf will be located in Berlin. Additionally, this aspect of the Project will include an eight-pump fueling station associated with the retail store and land in Hudson.

Phase 2- Berlin East and Berlin West

Phase 2 represents the remainder of the development predominantly within the Town of Berlin (Berlin East and Berlin West) with the exception of a 3,776 sf existing building housing a bank in Hudson located off the west entrance drive. The revised Phase 2 presented in the Expanded NPC results in the elimination of the conceptual residential subdivision and instead includes 422,000+ sf of retail space and the redevelopment of an existing 16,700+ sf office building into a 29,400+ sf two-story office building.

Jurisdiction and Permitting Requirements

The project underwent MEPA review and required the preparation of an EIR pursuant to Section 11.03(1)(a)(1) and 11.03(1)(a)(2) of the MEPA regulations, because it required Agency Action and was estimated to result in the direct alteration of more than 50 acres of land and the creation of more than 10 acres of new impervious surface; and Section 11.03(6)(a)(6) and 11.03(6)(a)(7), because the project was estimated to result in more than 3,000 new average daily trips (adt) and require the construction of more than 1,000 new parking spaces. The project also exceeded the following ENF review thresholds: Section 11.03 (3)(b)(1)(f) (alteration of more than ½ an acre of any other wetlands) and Section 11.03(5)(b)(3)(c) and Section 11.03(5)(b)(4)(c)(ii) (the construction of more than half a mile of new sewer main and discharge more than 50,000 gallons per day (gpd) of wastewater to groundwater).

The project requires the following permits and/or review: a National Pollutant Discharge and Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency (EPA); a Groundwater Discharge Permit and a Sewer Extension/Connection Permit from the Department of Environmental Protection (MassDEP); a Vehicular Access Permit (Category II) and a Traffic Signal Control Permit from the Massachusetts Highway Department (MassHighway); review from the Massachusetts Historical Commission (MHC); and Site Plan Approval from the Hudson Planning Board. I note that the project requires additional approval from the Hudson Conservation Commission through an amended Order of Conditions, and an Order of Conditions from the Berlin Conservation Commission (and on appeal only, a Superseding Order of Conditions from MassDEP). The project is also subject to

the EEA Greenhouse Gas (GHG) Emissions Policy and Protocol.

Because the proponent is not seeking financial assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that may cause significant Damage to the Environment and that are within the subject matter of required or potentially required state permits. In this case, MEPA jurisdiction extends to land alteration, stormwater, transportation, wetlands, wastewater, historic resources and greenhouse gas emissions.

Review of the Supplemental EIR

General

The proponent prepared the Supplemental EIR (SEIR) in accordance with the general guidelines for outline and content found in Section 11.07 of the MEPA regulations. The SEIR responded to the Scope on the Expanded NPC from May, 2009 with sufficient detail to address the requests of State agencies during the review of the Expanded NPC.

Permitting and Consistency

The SEIR contained a description of the project and a characterization of the existing and proposed project site conditions. It carried forward a table from the Expanded NPC that included a summary of required permit approvals, and a summary table comparing potential environmental impacts between the Approved Project and the Project Change. The SEIR outlined a project phasing scheme and construction sequencing program.

The SEIR demonstrated that the project will meet applicable performance standards. In accordance with Executive Order No. 385, "Planning for Growth" and Section 11.03(3)(a) of the MEPA regulations. The SEIR discussed the consistency of the project with the local and regional growth management and open space plans. The SEIR also discussed the consistency of project design with any applicable state policies and contained an update on the local permitting process for the project.

Alternatives

The Expanded NPC explored the following project alternatives: a No-Build Alternative, a Previously MEPA Review Site Layout Alternative, and a Preferred Alternative and assessed the environmental impacts associated with each. The Expanded NPC included a table that effectively allowed for comparison of the project alternatives, demonstrating that the Preferred Alternative will avoid, minimize and mitigate damage to the environment as mandated in the MEPA regulations. The Preferred Alternative was carried forward into the SEIR.

The SEIR included a discussion of Low Impact Development (LID) measures that the proponent will incorporate into project design, including additional Best Management Practices (BMPs) beyond what had been proposed in the Expanded NPC. I commend the Proponent for

committing to these additional measures which will further reduce environmental impacts associated with the project.

Land Alteration

The SEIR provided site plans of existing and proposed grades depicting conceptual cuts and fills necessary to achieve the project. The SEIR described how project design was advanced in a manner that reduced the overall project footprint, retained vegetated areas, and reduced impervious area. This narrative and supporting graphics demonstrated that building layout, parking areas and stormwater management features were located in a way that minimized project impacts.

Stormwater

The SEIR contained an analysis of existing and proposed drainage conditions, and presented pre- and post-development runoff calculations. Development of the site will include the installation of a stormwater management system that will fully comply with MassDEP's Stormwater Management Policy. The SEIR presented an amended stormwater management plan which incorporated concerns from the Organization for the Assabet River's (OAR) comments during the Expanded NPC. The comment letter from OAR described that during construction of Phase 1 of the project in Hudson, there were two major failures of a sediment forebay, resulting in the release of large quantities of very fine silt into Hog Brook, Tripp's Pond and the Assabet River. The SEIR included a description of the problem that occurred, the causes, and what steps have been taken to ensure that a similar problem does not occur in subsequent phases of construction. The SEIR discussed the feasibility of installing a sediment monitoring system on Hog Brook during the construction phase so that the occurrence and causes of such problems can be more quickly understood, prevented and remediated. The SEIR also evaluated and committed to using white roofs on all buildings. This will reduce the energy use in the buildings and heat island effect of the project site, and it will also reduce the temperature of the stormwater runoff which may help protect the habitat quality of Hog Brook and its tributaries.

Wetlands

The project site contains several wetlands associated with Hog Brook and an unnamed tributary to the Hog Brook. Portions of the proposed work will occur within Riverfront Area, Bank and the 100-foot wetland buffer zone as defined under 310 CMR 10.58 of the Wetlands Protection Act regulations. While much of the work proposed in Riverfront Area is related to restoration of degraded areas, any work in Riverfront Area that does not qualify as a limited project under 310 CMR 10.53 or is not eligible under 310 CMR 10.58(5) will be subject to an alternatives analysis under 310 CMR 10.58(4). The SEIR contained updates on discussion with MassDEP on this issue.

Transportation

The SEIR contain a Traffic Impact and Access Study that was prepared in accordance with the Executive Office of Energy and Environmental Affairs (EEA)/Executive Office of

Transportation (EOT) guidelines. The traffic impact analysis and proposed mitigation were developed in coordination with the Massachusetts Highway Department (MHD) and local officials. The project change requires an amended Highway Access Permit from the Massachusetts Highway Department (MassHighway) for the construction of improvements at the I-495 / Route 62 interchange. An Amendment to Highway Access Permit Permit No. 3-2007-0048 will be filed with MassHighway at the conclusion of the MEPA review process.

During the review of the Expanded NPC, MassHighway stated in its comments that the project change will generate approximately 13,210 additional vehicle trips per day on an average weekday, with 1,215 additional trips in the evening peak hour. MassHighway has also stated that the project change will generate approximately 16,220 additional vehicle trips per day on a Saturday, with 1,675 additional trips during the Saturday peak hour. The trip generation for the retail portion of the full development program was reduced by 10 percent to account for pass-by and diverted link trips from I-495. The SEIR addressed the methodology concerns raised in MasHighway's comments on the Expanded NPC.

Because of the impact from the project, the proponent is proposing mitigation at two intersections under MassHighway jurisdiction: Route 62 at I-495 Northbound Ramps and Route 62 at I-495 Southbound Ramps. In addition, the proponent is proposing mitigation at the Route 62 / Gates Pond Road intersection, which is approximately 300 feet east of the I-495 Northbound Ramps. The full mitigation proposal for the project is summarized as follows:

Phase 1 Improvements:

The Proponent has committed to implement improvement measures or provide full design plans and/or funding for improvements at the following locations in conjunction with Phase 1 of the Project:

- Route 62 at the I-495 Southbound Ramps;
- Route 62 at the I-495 Northbound Ramps;
- Route 62 at Central Street;
- Route 85 at Packard Street and Cox Street (design plans only);
- The Hudson Rotary (funding only);
- Route 62 at Sawyer Hill Road; and
- Gates Pond Road (funding for traffic calming study and implementation).

Phase 2 Improvements:

The Proponent has identified additional roadway and intersection improvements that will be necessary to mitigate the additional Phase 2 Project-related traffic to be generated by the full build-out of the Project, as described in the SEIR. The Proponent proposes to implement additional roadway and intersection improvements, financial contribution, or safety improvements at the following locations:

- Route 62 at I-495 Southbound Ramps;
- Route 62 at I-495 Northbound Ramps;
- Route 62 at Gates Pond Road;
- Gates Pond Road; and

- Route 62 at Sawyer Hill Road.

Traffic Signal Coordination:

Due to the distance between three proposed signalized intersections along Route 62 listed above (Route 62/I-495 Southbound Ramps, Route 62/I-495 northbound Ramps, and Route 62/Gates Pond Road), the Proponent proposes to implement a coordinated traffic signal system for these intersections to ensure safe and efficient traffic flow along Route 62 in the vicinity of I-495.

In its comments on the Expanded NPC, EOT had expressed concerns about the Proponent's proposal to install a traffic signal at the intersection of Route 62 and Gates Pond Road. MassHighway stated that with the proximity of this intersection to the I-495 Northbound Ramps, this new signal could cause traffic congestion on the ramp. The SEIR considered alternatives that do not require the installation of a full traffic signal. The proponent met with MassHighway to address the concerns MassHigway had regarding congestion, safety and also to discuss additional highway and traffic improvements to mitigate the impacts of the revised development program. The SEIR reflects these discussions and proposes refinements to the mitigation program. Specifically, the SEIR proposes the following refinements to the mitigation program: a simplified phasing scheme at the Route 62/Gates Pond Road intersection and an improved design for the northbound approach to the Route 62I-495 northbound ramps intersection that entails the installation of two left-turn lanes and one right-turn lane to complement the phasing at the Route 62/Gates Pond Road intersection. EOT has indicated that these improvements would adequately mitigate the additional traffic impacts of the project. Any remaining refinements to the traffic mitigation design can be addressed during permitting.

Parking

There will be 2,912 parking spaces provided for the retail component of the project and 150 parking spaces provided for the office component. This is an increase of 1,814 parking spaces for the retail component and 150 for the office component as compared to the previously presented project. In the SEIR, the proponent discussed the project's required parking as determined by the local approval process for the project. However, I continue to encourage the proponent to explore with the Towns the feasibility of reducing the number of parking spaces associated with the project which could in turn the total amount of impervious surfaces and also serve to discourage single-occupancy vehicle travel to the site.

Transportation Demand Management

The SEIR outlines Transportation Demand Management (TDM) strategies that the proponent will encourage its tenants to implement to reduce vehicular traffic to and from the site. Specific TDM measures to be implemented include designation of an on-site transportation coordinator and secure bicycle racks. The project proponent will also request that the future tenants of the project install showers and clothing lockers and provide other enhancements for employees, such as bicycle helmets, locks and store coupons, to increase employee bicycle use to the site. The proponent is exploring ways to promote ridesharing for employees to use transit or carpool to the proposed project, including providing a guaranteed ride home program,

preferential parking spaces, showers, direct deposit, telecommuting options, flexible work hours and financial incentives. The proponent will also provide carpool incentives to shoppers to encourage shoppers to use transit or carpool to the proposed project, including offering discounts to customers who come to the retail establishments in a carpool, by transit or other alternative to single-occupancy vehicle travel. The project will also comply with the Massachusetts Rideshare Regulation.

The project will have an onsite network of sidewalks and crosswalks to promote pedestrian activity throughout the development. The proponent has also committed to contribute $50,000 toward the creation of municipal bike paths, which is a commendable commitment that will, I hope, serve to increase reliance on bicycle travel in the area generally. The proponent also plans to install additional sidewalks along the road connecting Retail Buildings and the other buildings in that area of the project. The walkways are proposed to be well lit.

Comments received from MassDEP and the Department of Energy Resources (DOER) identify several concerns with the proposed TDM program. First, it appears that the proponent intends to designate a TDM Coordinator only once a tenant association has been established- will the establishment of the tenant association be the responsibility of the proponent or of the tenants? Also, many of the mitigation measures outlined above will be voluntary measures of the future tenants of the project—as discussed further below, this approach carries inherent uncertainties that can and should be addressed through additional commitments by the proponent. These commitments could include the provision of resources to encourage and facilitate adoption of voluntary measures, such as dedicating a fund for future tenants to use for implementation of some of the measures outlined above. It could also include adoption of a tenant manual that would require certain measures to be implemented. In addition, MassDEP recommends that the proponent should consider establishing a shuttle program linking intra-site parcels to one another, that the proposed site access driveways intersecting at Route 62 be designed with roadway detection loops for bicycle users, and that the proponent continue to work with the Town of Hudson town officials in support of bicycle and pedestrian access to the site.

After review of the SEIR, I find that the TDM commitments made by the proponent to date are adequate to meet the minimum standards for approval under MEPA, but I also strongly encourage the proponent to follow DEP's additional recommendations which could serve to further reduce traffic and associated air emissions resulting from the proposed project. I also ask that MassHighway further examine additional options for TDM commitments by the proponent during its permitting process.

Greenhouse Gas (GHG) Emissions

The Greenhouse Gas Emissions Policy and Protocol (the Policy) requires projects to quantify carbon dioxide (CO_2) emissions and identify measures to avoid, minimize or mitigate such emissions. The GHG analysis evaluated CO_2 emissions for three alternatives as required by the Policy, including: 1) a Base Case corresponding to the 7th Edition of the Massachusetts Building Code with the 2006 and 2007 International Energy Conservation Code (IECC) supplements; 2) a Preferred Alternative, which included some energy saving design features; and 3) a Mitigation Alternative, which included additional energy saving elements. The Proponent used the e-Quest

Model to perform the GHG analysis and has committed to constructing the project in accordance with those energy saving measures modeled in the Build Alternative plus Greater Mitigations (Mitigation Alternative). The SEIR provided several tables outlining GHG reduction measures associated with project siting, building design and operations, and transportation that were considered as part of the project.

The GHG assessment quantifies the impact of specific sustainable Project elements that provide GHG emissions benefits (reductions), as required by the Policy. The overall sustainable design goals and specific sustainable design and operational measures presented in the SEIR state that the Proponent is committed to a reduction in project-related GHG emissions including:

- An overall seventeen percent (17%) in the Project's stationary source GHG emissions; and
- An overall three and half percent (3.5%) reduction in mobile source GHG emissions.

I commend the proponent for committing to the achievement of GHG reductions at this level. However, as discussed further below, I have continuing concerns with the analysis presented in the SEIR and with the proponent's ability to actually achieve the specified reductions, which currently rely heavily on voluntary participation by future tenants of the project. According to the SEIR, the GHG assessment is based upon the best information that is available at the current planning phase. The Proponent has requested the right to substitute comparable GHG reduction measures to help the Project reach the GHG reduction commitments for those portions of the Project Change where tenant/users are not yet identified. Because the proponent has committed to make up any shortfall in reductions that result from future tenant choices that differ from the assumptions presented in the SEIR, I am finding that the SEIR is adequate under MEPA. However, as set forth below, additional details will need to be provided to ensure that the calculated reductions are both feasible and ultimately achieved.

Stationary Source

The proponent has grouped its proposed 17% GHG stationary source reduction commitment into three categories: building and shell measures (8.1%), Energy Star equipment reductions (9%-15%) and third party solar providers. The proponent has made the Energy Star equipment-related reductions wholly contingent upon future tenants' participation in that program. The proponent has also committed to construct roofs to be solar ready.

The SEIR states that of an overall reduction of 825.5 Tons per year CO2 is due solely to the tenant use of Energy Star equipment and appliances. If accurate, the CO2 reduction due to this measure is approximately twice as much as the reduction due achieved by mitigations of the building envelope, HVAC and lighting systems. During the review of the SEIR and in response to questions concerning this calculation from MassDEP and the Department of Energy Resources (DOER), the proponent submitted documentation to support and increase the average savings from *individual* Energy Star rated units from 10% to 50%. In addition, the proponent submitted a revised summary table based on application of this 50% savings rate compared to the base case, resulting in an *overall* GHG reduction of 23%. The proponent also stated that modeling results showed that by increasing the expected savings in the eQuest miscellaneous electrical loads class (which includes the units proposed as Energy Star rated) the projected overall GHG reduction could be maintained at the 17% level.

Significant questions still remain as to the validity of these calculations. In particular, there is no specific, verifiable means proposed in the SEIR to ensure that future tenants of the project will in fact install Energy Star rated equipment at a rate sufficient to justify the calculations provided. The SEIR did not propose any firm commitments on behalf of the proponent to facilitate the use of these units by tenants such as staffing or funding energy efficiency/renewable power consulting services or providing other financial incentives directly to tenants to incentivize purchase of energy star equipment. Without such commitments, it is difficult to predict what the rate of tenant adoption will actually be, and therefore what reductions in overall energy use and GHGs is feasible.

As alluded-to above, the solution proposed to this problem in the SEIR is the proponent's commitment to substitute other GHG-reduction technologies, if necessary, to achieve the overall reduction commitment of 17%. While I recognize and appreciate the proponent's commitment, and the uncertainties faced by a developer with as of yet unidentified tenants, I am troubled that there is no mechanism described in the SEIR to evaluate, monitor or audit the tenant's use of Energy Star rater equipment such that the proponent can know when or how to make up any shortfall, either on an up-front or ongoing basis. In response to this concern, MassDEP and DOER suggest that the proponent continue to evaluate and consider more conventional and predictable energy conservation measures related to improving the thermal performance of the proposed buildings' envelope including: increased wall and roof insulation; and better performing windows with lower U-values. These measures have the advantage of being independent of the cooperation of the unidentified future tenants.

And while I recognize and support the proponent's commitment to construct the buildings to be solar ready, I also strongly urge the proponent to reconsider the installation of solar PV systems, which could significantly reduce the project's fossil-fuel generated energy use and corresponding greenhouse gas emissions in a way that is not dependent upon potentially transient tenant practices.

In sum, while I am finding that the SEIR adequately complies with MEPA, there are outstanding concerns that should be addressed with respect to the mitigation commitments concerning GHG reduction measures. To ensure the proponent's commitment to a 17% reduction in stationary source emissions is met, the proponent will be required to submit a self-certification to the MEPA Office signed by an appropriate consultant (e.g., engineer, architect, general contractor) indicating that the all of the above-referenced GHG reduction and TDM mitigation measures have been incorporated into the project, or equivalent measures to reduce total CO_2 emissions by 17 percent. This self-certification should address the issues outlined above, and should clearly document that, for measures for which the tenant is primarily responsible for implementation, the proponent has audited tenant installations or otherwise verified the level of tenant participation. If in this process shortfalls in adoption are identified, then the proponent should make commitments to alternative feasible measures the proponent could implement directly. The self-certification requirement should be included in Section 61 Findings issued for the project by state agencies.

Mobile Source

Mobile source emissions were modeled using data gathered as part of the mesoscale study. The GHG analysis estimated CO_2 emissions for the existing conditions, 2009 Conditions, 2014 No-Build conditions, the 2014 Build conditions, and the 2014 Build plus Greater Mitigations condition. The 2009 Conditions are estimated to have approximately 39,557.9 tpy of CO_2 attributable to traffic (the Base Case). The 2014 No-Build conditions are estimated to have approximately 43,083.9 tpy of CO_2 attributable to an increase in traffic due to growth in the area. Under the 2014 Build conditions, the total mobile source project will emissions (Existing plus Project Emissions) were estimated to be 98,543.9 tpy of CO_2, within the project study area. Under the 2014 Build with Mitigation conditions, the emissions were estimated to be 95,084.9 tpy of CO_2, within the project study area. This results in a decrease of 3,459 tons per year in mobile source CO_2 emissions as compared to the 2014 Build Condition, which appears to result in a reduction of mobile source GHG emissions of 3.5%.

Concerns with the TDM program that serves as the basis for achieving mobile source reductions are outlined above. As with stationary sources, the proponent has committed to meet the overall reduction goal of 3.5% by adopting additional measures if necessary to account for a shortfall in reductions by tenants. As with stationary sources, the details of this program will need to be further provided in the proponent's self-certification to the MEPA Office.

Mitigation / Draft Section 61 Findings

The SEIR contained a separate chapter on mitigation measures. This chapter included separate permit-specific updated draft Section 61 Findings for each State agency that will issue permits for the project. The draft Section 61 Findings contained clear commitments to implement mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.

Traffic

To mitigate the project's impact on traffic and to address existing deficiencies in and around the project site, the proponent has committed to implementing several roadway and transportation mitigation measures. These measures include strategies related to improving roadway and intersection capacity and traffic safety, as well as providing improved access to the project site. Intersection capacity improvement measures include intersection widening and/or traffic control improvements.

The proponent has committed to several intersection improvements as part of the previously approved Highland Commons Project. These improvements have been developed as part of the Expanded NPC and this SEIR, as well as in consultation with MassHighway and the Towns of Hudson and Berlin. The Proponent should continue to work closely with MassHighway throughout the design process for these improvements. In summary, the proponent has committed to implement improvement measures or provide full design plans and/or funding for improvements at the following locations in conjunction with Phase 1 of the Project:

- Route 62 at the I-495 Southbound Ramps;

- Route 62 at the I-495 Northbound Ramps;
- Route 62 at Central Street;
- Route 85 at Packard Street and Cox Street (final design plans only);
- The Hudson Rotary (funding only); and
- Gates Pond Road (funding for traffic calming study and implementation).

The proponent has also identified additional roadway and intersection improvements that will be necessary to mitigate the additional Phase 2 Project-related traffic to be generated by the full build-out of the Project, which were described in the Expanded NPC. The proponent has committed to implement additional roadway and intersection improvements, financial contribution, or safety improvements at the following locations:

- Route 62 at I-495 Southbound Ramps;
- Route 62 at the I-495 Northbound Ramps; and
- Route 62 at Gates Pond Road.

Due to the distance between the three proposed signalized intersections along Route 62 listed above (Route 62/I-495 Southbound Ramps, Route 62/I-495 Northbound Ramps, and Route 62/Gates Pond Road), the proponent has committed to implement a coordinated traffic signal system for these intersections to ensure safe and efficient traffic flow along Route 62 in the vicinity of I-495. This work will be coordinated with MassHighway and is subject to their review and approval.

At the request of the Town of Berlin, the proponent has agreed to provide funding for the preparation of study to identify potential traffic calming measures along Gates Pond Road. The funding will be used to both prepare the study and to implement any measures that are recommended by the study. The proponent has also committed to the installation of warning signs along Route 62 in advance of Sawyer Hill Road in both directions.

TDM Measures

The proponent has committed to perform certain measures directly and also will take responsibility to encourage its Shopping Center tenants to implement measures that will contribute toward the reduction of vehicular traffic to and from the site. The proponent has committed to:

- The proponent, through any tenant association, will provide an on-site transportation coordinator to monitor and oversee the implementation of on-site TDM measures.
- Tenants in both the retail and office components of the Project will be encouraged to promote ridesharing to its employees via car pools.
- Tenants are anticipated to provide secure bicycle storage racks and access to shower facilities where appropriate. In addition, walking incentives will be provided including, taxi service availability, sidewalks, and crosswalks within the Project.
- On-site services will be provided, intended to decrease employee mid-day trip making, including but not limited to, services such as food service and dining options within the Project, employee refrigerators, automatic teller machine, full service Bank and fueling station, all on the Project Site.

A TDM program will be identified by the TDM coordinator that, depending on the future tenants and uses, could include items such as:

1. Provide flexible hours so that employees have the option of commuting outside the peak traffic periods. Similar benefits can also be realized through staggered work hours so that employee trips occur over a broader period and thereby reduce peak hour demands;
2. Telecommuting options;
3. Provide incentives for bicycling and HOV commuting;
4. Prioritize local hiring;
5. Offer direct deposit to employees;
6. Provide a guaranteed ride home program to eliminate an often-cited deterrent to carpool and vanpool participation;
7. Sponsor vanpools and subsidize expenses;
8. Provide preferential carpool and vanpool parking within the parking garages and spaces near the building entrance as a convenience to participants and to promote ridesharing; and
9. Provide shower facilities to employees.

Retail employers can provide a slightly different array of measures. The on-site transportation coordinator will work with retailers, depending on the future tenants and uses, to encourage the following:

- Demand and on-call scheduling to reduce peak hour trips;
- Enforce Massachusetts Idling Regulations (310 CMR 7.11) through education and sign postings;
- Provide preferential parking for employee HOV;
- Provide dedicated store front pick-up and drop off areas for restaurant take-out services;
- Assign one employee per establishment as liaison to shopping center transportation coordinator;
- Provide guaranteed ride home programs for employees;
- Promote ride share programs; and
- Provide annual or semi-annual transportation awareness days to promote transportation demand management.

Greenhouse Gas Emissions

The proponent has committed to Project design-related improvements at the current stage of conceptual design in order to reduce GHG emissions for Phase 1A and Phase 2 of the project. The project improvements, such as site and architectural design and treatments, building systems, and a Building Management System, were evaluated in the stationary source GHG emissions assessment.

Retail Store "I" GHG Mitigation

The proponent has identified the likely anchor tenant for the project building identified as Retail Store "I". Assuming the tenant undertakes the construction of Retail Store I, the following specific program commitments to reduce GHG emissions will be included:

Roof Design:

- Install highly-reflective white (high-albedo) roofing materials.

Efficient Appliances/Systems:

- Install Energy Star Rated appliances in employee areas and in kitchen, where allowed by law/code (e.g., not for baking ovens where health code prohibits use); and
- Install high-efficiency HVAC systems (EER of 9.5 required by Mass Building Code; EER of 11.0 to be used in building).

Building Material:

- Utilization of environmentally-friendly building materials, including materials with recycled content, rapidly renewable building materials and low-VOC materials.
- Whenever practical, purchase building materials that are manufactured within the region.
- Consistent with past practice, every attempt will be made to recycle materials that may exist on the site prior to the build-out of the new project.

Energy Efficient Interior Lighting and Day Lighting

- Install skylights with photocells positioned around the building to control dimmable ballasts in the T-5 lighting fixtures to promote "daylight harvesting".
- Motion sensor activated lighting will be used for administrative offices and restrooms.
- Approximately 95% of the interior lighting is high efficient T-5 fluorescent light fixtures with dimmable ballasts.
- Circuiting will accommodate half lighting when the store is closed to the public and re-stocking is in progress.

Energy Management System

- Tenant to maintain an energy management team who are responsible to utilize Tenant's highly efficient "Control" Energy Management System to control heating, cooling, and lighting in the building.
- Store functions and energy needs to be closely monitored and energy use related to heat, cooling, refrigeration and lighting is minimized. The energy management system, utilizing thermostats that are remotely programmed, will be utilized in the store.
- Tenant to implement a program that incorporates "main" and "sub-metering" of the refrigeration racks, interior and exterior lighting with active alarming capabilities that are automatically sent to the Energy Department.
- Real time commissioning of the systems to be utilized within the building to ensure they are functioning at peak efficiency.
- Tenant's Energy Management team to employ sophisticated energy usage tracking software. This allows Tenant's Energy Management team members to track historical energy use and costs as well analyze trends and usage patterns to make certain that equipment is operating at peak efficiency within the store.

Water Conservation Measures

Install water conservation measures, including:

- low-flow toilets and urinals;
- low flow aerators on faucets; and
- metered faucets and sensor activated toilets.

Duct Sealing
- Seal all HVAC ducts to reduce air leakage; and
- Implement a quality control program focused specifically on airtight installation of ductwork.

Solar Power Installations
- Rooftop to be designed and constructed to support solar photovoltaic (PV) installation; and
- Tenant is committed to pursuing with a third-party vendor providing for a rooftop PV system. Based upon analysis, third-party vendor to provide, install and maintain a PV system on the roof and sell power to store.

Recycling Program
- Store design to provide approximately 50 s.f. for storage and collection of recyclables.
- Unsold bakery items will be donated to charities and vendors.

Water Efficient Landscaping
- Water efficient and drought resistant plantings shall be utilized in landscaping design.

Storm water Management Plan, Low Impact Development and Best Management Practices (BMP's)
- LID measures incorporated into storm water management system.
- BMP's utilized to collect, treat and infiltrate runoff from impervious surfaces.
- Rain water from building roof will be directed to subsurface groundwater infiltration systems to help recharge the local groundwater system at the source. This is considered to be the most effective reuse of the rooftop drainage water rather than having the water runoff into the storm water drainage system.
- A long-term operation and maintenance plan shall be developed and will be implemented to ensure the long-term effectiveness of the proposed storm water management system.

Minimize Development Footprint
Building size dependent on market requirements and parcel size. Development area to be reduced and green area to be maximized through comprehensive approach, including:
- avoiding excess parking; and
- preservation/maintenance of green areas.

Increased Insulation
- Use of increased insulation in roof (R-23 required by Mass Building Code: R-30 to be used in the building).

Building Commissioning
- Comprehensive building commissioning will be performed before building is operational to assure that building's heating, cooling, ventilation, lighting and energy management systems operate in accordance with design specifications.

Anchor Retail Stores "H" through "W" GHG Mitigation
Site and Architectural Design/Treatments

- Install highly-reflective (white) roofing materials;
- Install insulated clear glass; and
- Incorporate window glazing to balance and optimize daylighting, heat loss, and solar heat gain performance in all Project buildings.

Building Systems

- Install high-efficiency HVAC systems (EER of 9.5 required by Mass Building Code; EER of 11.0 to be used.
- Use of increased insulation in exterior walls of Project buildings (R-13 required by Mass Building Code; R-20 to be used in the Project).
- Use of increased insulation in roofs of Project buildings (R-23 required by Mass Building Code: R-24 to be used in the Project).
- Install a Building Management System, including daylight responsive controls for the lighting of common spaces (described further below).
- Install photocells and timers for exterior lighting.
- Install high-efficiency lighting (an approximate 10 percent reduction from the Building Code watts per square foot requirements).
- Incorporate motion sensors in the building in areas such as bathrooms, storage areas and utility rooms (an approximate 25 percent reduction).
- Seal all HVAC ducts to reduce air leakage. The Proponent will also introduce a quality control program focused specifically on airtight installation of ductwork.

The proponent has committed to elements to be implemented to reduce GHG emissions beyond that which are required to meet the Massachusetts Building Code baseline standard. The stationary source GHG emissions assessment in the SEIR assumes that all project users will utilize Energy Star® rated appliances, wherever feasible in the retail buildings, which will result in additional GHG emissions reductions. The demonstration of a 17 percent reduction in stationary source GHG emissions is based upon building construction and operational measures that are planned at this time. The proponent has stated that specific building construction and operational measures may be substituted as the buildings go to final design in order to meet this reduction. In this way, the proponent has committed to include building construction and operational measures to meet the standard of a 17 percent reduction in stationary source GHG emissions as demonstrated by the analysis included in the SEIR.

Upon completion of construction of the project, the proponent should provide a certification to the MEPA Office signed by an appropriate professional (e.g., engineer, architect, general contractor) indicating that the all of the GHG emissions mitigation measures, or equivalent measures that collectively will achieve the 17% GHG emissions as committed to in the SEIR, have been incorporated into the project. The certification should be supported by as-built plans. For those measures that are operational in nature (i.e. TDM, recycling, use of Energy Star-rated equipment) the proponent should provide an updated plan identifying the measures, the schedule for implementation and how progress towards achieving the measures will be obtained. I request that EOT/MassHighway incorporate this self-certification requirement into its Section 61 Finding for this project.

Stormwater Management

The Stormwater Management Plan was developed is compatible with the stormwater management requirements, allowed consideration of LEED-type attributes for retail projects, and allowed consideration and implementation of Low Impact Development Strategies (LID) where appropriate. The plan includes all on-site development and the Route 62 improvements that have been and will be constructed along the Route 62 frontage in support of the development project. Because the majority of Route 62 (Coolidge Street) lies in a roadway fill section with tight right-of-way constraints, detention of stormwater does not exist. The water is treated through a series of water quality units and the site stormwater design has been expanded to include detention basins with enough excess capacity to mitigate the increase in peak discharge resulting from the increase in impervious areas created along Route 62 (Coolidge Street) as part of the offsite improvements.

Wetlands and Natural Resources

The project will comply with the standards of the Massachusetts Stormwater Regulations and will protect adjacent wetlands from long-term stormwater impacts. Although not required to offset impacts to wetland resources, a portion of Hog Brook will be restored along with nearby Riverfront Area. With the expansion of the project development into Berlin, the previously approved crossing of Wetland H1 is now being avoided. The new internal access road will loop south of Wetland H1 eliminating the bridge and the associated impacts to BVW and Bank. The expansion of the development in Berlin and the redesign of portions of the project in Hudson allow the project to completely avoid the previously approved 5,164 sf of shadow impact to BVW and Bank.

Mitigation of impacts to Riverfront Area caused by Phase 1 includes the restoration of 10,025 sf of degraded Riverfront Area along the gravel road off Coolidge Street that crosses Hog Brook, and 31,000 sf of restoration to Riverfront Area in the sand and gravel pit adjacent to the Assabet River tributary in Berlin. Phase 1A and 2 activities will have additional impacts to both degraded and non-degraded Riverfront Area. Approximately 35,413 sf of additional non-degraded Riverfront Area will be impacted. Mitigation for Riverfront Area will include restoration of an additional 17,175 sf that exists along the gravel road off Coolidge Street and 18,600 sf of additional restoration of the sand and gravel area in Berlin, adjacent to the existing 31,000 sf restoration area. Expansion of Riverfront Area restoration in Hudson will enlarge the existing 10,025 sf area by 17,175 sf to 27,200 sf. The increase in restoration area is possible due to the elimination of Detention Pond B.

The restoration of 17,175 sf of Riverfront Area along the gravel road from Coolidge Street will also allow a portion of Hog Brook to be restored through the removal of an existing 60-foot section of culvert. The restoration program is anticipated to result in the creation of 120 linear feet of natural Bank, 500 600 sf of Land Under Water Bodies and Waterways, and 4,000-5,000 SF of Bordering Vegetated Wetlands. The remainder of the 17,175 sf of Riverfront Area restoration is upland that will be enhanced by placement of loam and planted.

In addition to impacts in Hudson, Riverfront Area in Berlin will be altered and require mitigation. An existing 31,000 SF riverfront mitigation area has been constructed in Berlin for impacts associated with the Coolidge Street widening. This area will be expanded by 18,600 sf to mitigate for 7,532 sf of Riverfront Area impacts in Berlin and additional impacts in Hudson associated with Phases 1A and 2. In addition, an approximately 4,035 sf of Wetland I5, an isolated wetland created by former gravel removal operations, will be impacted for filling and grading in Berlin. The lost wetland area will be replaced with a 4,100 sf wetland replacement area created next to the impact area, within the existing sand and gravel area and adjacent to Wetland I5.

Water Supply

A new 1.5 million gallon (MG) municipal water storage tank has been constructed on site adjacent to Retail "C" or approximately 420 feet southeast of the 1.3 MG storage tank it replaced. The old tank has been removed from the site. The new water, which is located adjacent to Retail "C" is a 95 foot diameter elevated structure, with a working vertical range of approximately 35 feet. The water tank is connected to the existing 16-inch diameter municipal supply line in Coolidge Street via a section of new 16 inch diameter supply service line. The new water storage tank, booster pump, and a total of 3,340 linear feet of 8-inch to 16-inch water distribution line have been constructed and are operational. The water tank and distribution line are owned and operated by the Town of Hudson. The booster pump at the base of the new tank provides a separate pressure zone for the Highland Commons project. The project is served by the Town of Hudson municipal water system.

Wastewater

As part of Phase 1 of the Highland Commons project, an 82,000 gallon per day (GPD) wastewater treatment facility (WWTF) was approved by MassDEP and has been constructed on site to provide advanced treatment of Project-generated wastewater flows and disposal of the highly treated effluent to groundwater in Hudson. The WWTF was sized to accommodate the wastewater flow from the entirety of the 2006 Project, including the 222-room hotel and 30 homes in Berlin. Wastewater flow from the revised Project including Phase 1A and Phase 2 can be accommodated by the WWTF. The on-site wastewater treatment facility has undergone full review by MassDEP and has received its Groundwater Discharge Permit. The capacity of the onsite wastewater treatment plant and discharge volumes will not change. The collection and conveyance system will be expanded to provide sewers to the office building and new retail spaces that involve a larger geographic area. Therefore, the length of sewers required for the amended project will increase.

Construction Management

The proponent has committed to measures to reduce construction period impacts that include: controlling soil erosion, sedimentation, and dust; controlling machinery air emissions; minimizing noise; and properly managing construction-related truck traffic in the immediate vicinity of the site and on the surrounding roadways.

Conclusion

I am satisfied that the SEIR adequately and properly complies with MEPA. The project may proceed to permitting. State agencies should forward copies of the final Section 61 Findings to the MEPA Office for publication in accordance with 301 CMR 11.12.

August 14, 2009
Date

Ian A. Bowles, Secretary

Comments received:

07/29/2009	Department of Environmental Protection - CERO
08/07/2009	Massachusetts Highway Department
08/11/2009	Department of Environmental Protection and Department of Energy Resources

IAB/ACC/acc