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December 31, 2008

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

PROJECT NAME:	Reading Woods
PROJECT MUNICIPALITY:	Reading
PROJECT WATERSHED:	Boston Harbor
EEA NUMBER:	14252
PROJECT PROPONENT:	Jacob Way LLC c/o National Development
DATE NOTICED IN MONITOR:	November 24, 2008

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

Project Description

As described in the Single EIR, the project consists of the redevelopment of the 24.8-acre Addison-Wesley-Longman office/warehouse complex into a mix of residential, senior living, and office space. The project site is located at the Route 128/Route 28 interchange (exit 38) and presently contains 208,000 square feet (sf) of office/warehouse space in six buildings. The project entails the construction of 202 apartment units in two buildings (including 41 affordable units) in compliance with the Commonwealth's 40R Smart Growth Zoning allowance in Reading's newly established Gateway Smart Growth District; 142 senior independent and assisted living units; 16 townhouses; and, 160,000 sf of Class A office space. A total of 1,064 parking spaces will be provided on-site, 240 of which will be located in a structured garage. Average daily domestic water consumption and wastewater generation rates are estimated to be 70,040 gallons per day (GPD) each. The project is expected to generate approximately 405 total

vehicle trips during the weekday morning peak hour and 425 vehicle trips during the weekday evening. The project is expected to generate approximately 3,890 vehicle trips on an average weekday.

Jurisdiction and Permitting

This project is subject to MEPA review because it requires a State agency action and will generate 3,000 or more new average daily trips on roadways providing access to a single location (301 CMR 11.03(6)(a)(6)). The project will require an Indirect Vehicular Access Permit from the Massachusetts Highway Department (MassHighway) for impact to state-controlled roadways. The project will also require a Sewer Connection/Extension Permit from the Massachusetts Department of Environmental Protection (MassDEP). Coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency will be required. Finally, the project must obtain an Order of Conditions from the Reading Conservation Commission, or in the case of an appeal, a Superseding Order of Conditions from MassDEP. The project is subject to the EEA/MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol.

The project will receive financial assistance from the Massachusetts Department of Housing and Community Development in accordance with M.G.L. Chapter 40R – Smart Growth Zoning and Housing Production Bylaw. Therefore, MEPA jurisdiction for this project is broad and shall extend to all aspects of the project that are may directly or indirectly cause Damage to the Environment as defined in the MEPA regulations.

Review of the Single EIR

The Single EIR included a detailed description of the proposed project, including a discussion of minor modifications made to the building program between the filing of the Expanded Environmental Notification Form (EENF) and the Single EIR. Notable modifications include the enhancement of sustainable and energy efficient design measures to substantially reduce project-related GHG emissions. The Single EIR characterized both existing and proposed site conditions, the context of the project with local land uses and zoning, and contained a list of required permits and approvals associated with the project. The Single EIR included a response to comments section addressing comment letters received on the EENF.

Traffic

The Single EIR included a traffic study that generally conforms to the EOEEA/EOTPW Guidelines for Traffic Impact Assessment. The Single EIR included a commitment to a Transportation Demand Management (TDM) program and several intersection improvements to offset traffic generated by the project. The Single EIR contained intersection improvement plans at 80-scale and acknowledged the responsibility of future noise abatement measures, if necessary. Specific mitigation commitments have been outlined in the Mitigation section of this Certificate.

Greenhouse Gas Emissions (GHG)

The Single EIR presented a modified Preferred Alternatives that achieved greater GHG reductions than those proposed in the EENF. The Single EIR included the results of an updated GHG analysis prepared in accordance with the EEA Greenhouse Gas Policy and Protocol and the Scope on the EENF. The Single EIR noted that all of the GHG emissions presented in the updated analysis were substantially higher than those presented in the EENF due to a revised review methodology that allowed for more accurate measurements of GHG emissions and reduction measures. I commend the Proponent for responding thoroughly to MassDEP and the Division of Energy Resource's (DOER) comment letter on the EENF within both the Single EIR and in a supplemental memorandum submitted on December 10, 2008.

The updated GHG analysis evaluated GHG reduction measures, provided supporting modeling data, specified which GHG reduction measures would be implemented on-site, and clarified why certain measures were chosen while others were discarded in the final design. The Single EIR described the evaluation of numerous stationary source GHG reduction measures including: evaluating the project's components with the Advanced Buildings Core Performance Guide, the potential benefits of utility rebates, building orientation and roofing materials, use of high efficiency HVAC systems, use of energy efficient lighting, duct insulation, third party commissioning, building energy management systems, roof and wall insulation, renewable energy sources (both photovoltaic (PV) and wind), district heating and cooling, water conservation and wastewater reduction efforts, and tenant sustainability guidelines.

The updated GHG analysis included modeling data that reflected the commitments made by the Proponent to reduce stationary and mobile source GHG emissions from the project. The Single EIR used the EQUEST model to compute direct and indirect CO_2 emissions from stationary sources and the U.S. EPA's COMMUTER model Version 2 to estimate changes in CO_2 emissions due to roadway mitigation and traffic demand management measures.

As can be seen in the following Table, under the 2012 Build Condition, CO_2 emissions are expected to increase by 5,014.0 tons per year (tpy) from the No-Build Condition. With recommended mitigation measures the reduction in stationary source emissions is 1,160.8 tpy, a 21.5 percent reduction, and the overall project CO_2 emissions are estimated to be reduced by 1,211.8 tpy, a 4.0 percent reduction.

GHG Analysis	2007 Existing Condition	2012 No-Build	2012 Build	2012 Project Emissions	2012 Reductions Due to Project Mitigation	2012 Build with Mitigation Condition	Percent Reduction of Project Mitigation to Project Emissions
Mobile Sources	19,245.0	24,047.8	24,671.8	624.0	-51.0	24,620.8	0.21%
Direct/ Indirect Stationary Sources	1,005.1	1,005.1	5,395.1	4,390.0	-1,160.8	4,234.3	21.5%
Total	20,250.1	25,052.9	30,066.9	5,014.0	-1,211.8	28,855.1	4.0%

(All data expressed in tons per year)
Source: Single EIR Tables 5-1 and 5-2

The Single EIR presented an evaluation of the viability of a PV system on the project site. This evaluation included a discussion of the limitations of a PV system due to the lack of PV incentives and rebates, as the site is serviced by the Reading Municipal Light District, which does not contribute to the Commonwealth's Renewable Energy Trust. The Single EIR and supplemental memorandum contained an estimate of cost and potential revenue generation for 50kW system for the office component. A 500kW system to service the entire site was also considered, but quickly determined to be impractical. The calculations for the 50kW system concluded that with an assumption of full tax credit benefits and no rebate savings, the system would have a negative net present value (NPV) and a 22-year simple payback. Therefore, the Proponent has decided not to pursue a PV system at this time. However, I encourage the Proponent to continue to investigate the feasibility of utilizing a third-party power purchase agreement for the installation of a solar PV system, as this may be an opportunity to further reduce GHG emissions if found economically feasible. In addition, the Climate Protection and Green Economy Act, M.G.L.c. 21N, mandates economy-wide reduction targets for greenhouse gas emissions in Massachusetts of between 10 and 25 percent by 2020. I encourage the Proponent to construct the facility with consideration for the added weight of future PV systems so that they may be installed in the future based upon tenant needs.

The Single EIR also discussed mobile source GHG reduction efforts including intersection improvements to improve traffic flow, TDM measures, and a commitment to fund a portion of the proposed Reading Shuttle bus as noted in the Mitigation section of this Certificate. The commitment to TDM measures were considered in the GHG modeling for the mobile sources of CO_2 associated with the project.

Upon completion of construction, 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 mitigation measures referenced in the Section on Mitigation and Section 61 Findings below, or equivalent measures that collectively will reduce stationary source GHG Emissions by 21.5 percent and mobile GHG emissions by 0.21 percent, 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) the Proponent should provide an updated plan identifying the measures, the schedule for implementation and how progress

towards achieving the measures will be obtained. MassHighway should incorporate this self-certification requirement into its Section 61 finding for both the mobile and stationary source GHG emission components of this project.

Wetlands

The Single EIR included a discussion of the two wetland resource areas located on the project site and their relationship to the proposed development. Wetland #1 is a Bordering Vegetated Wetland (BVW) that occurs in a stormwater detention area constructed during the original site development and is regulated under the Massachusetts Wetlands Protection Act (WPA). Wetland #2 is a regulated Fresh Water Wetland subject to the Reading Wetland Protection Regulations, but is not regulated under the WPA. Each wetland resource area was characterized and the Single EIR discussed the significance of the wetlands in accordance with the Massachusetts Wetlands Protection Act.

Stormwater

The Single EIR presented an assessment of the existing and proposed drainage conditions on the project site, described the stormwater management system, and discussed compliance with the MassDEP Stormwater Management Regulations. Stormwater Best Management Practices (BMPs) proposed include: deep sump catch basins, oil/grit separators, Stormceptor® Water Quality units, sediment forebays, vegetated drainage channels, water quality swales, bioretention areas and rain gardens, gravel wetlands, StormTech® chamber systems, and infiltration basins. Several of these BMPs are consistent with the goals of Low Impact Development (LID) stormwater management techniques. The Proponent committed in the Single EIR to develop and implement a long-term operation and maintenance plan for the stormwater management system. The Proponent will also prepare and implement a Stormwater Pollution Prevention Plan in accordance with the U.S. EPA's NPDES General Permit requirements.

Wastewater

The Single EIR included revised wastewater flow calculations, further detail of the existing and proposed sewerage collection system and planned project Inflow and Infiltration (I/I) mitigation funding. Factoring for water conservation measures, the Single EIR estimated wastewater flows at 60,636 GPD. Given the previous flows of 15,600 GPD associated with the Addison-Wesley buildings, the net new wastewater flows are estimated to be 45,036 GPD. However, for purposes of MassDEP permitting no allowance (or credit) for water conservation is permitted, therefore the unadjusted maximum projected wastewater flow is estimated to be 70,040 GPD, with a net new flow of 54,440 GPD.

The Single EIR notes that the Proponent will be filing a Sewer Connection Permit with MassDEP for the full build new wastewater flow of 54,440 GPD. It is possible that individual buildings will be constructed in phases over time, therefore the Proponent will request that MassDEP allow the transfer of each parcel's portion of the required capacity (and mitigation) to the entity identified as the owner/controller of that parcel. The Single EIR included a discussion

of wastewater I/I removal efforts, including identification of possible locations for infrastructure improvements. The Single EIR detailed a sewer mitigation payment allocation and mitigation timing schedule based upon anticipated project phasing.

Water Supply

The Single EIR estimated water supply demand at 70,040 GPD, with consideration for conservation measures to be implemented on-site. Net new water demand was estimated at 54,440 GPD, based upon an historic water demand of 15,600 GPD. The Single EIR proposed the use of an existing on-site irrigation well, reducing potable water demand for landscaping purposes. This irrigation source has been proposed in lieu of potable water use or the reuse of grey water. The Single EIR described an integrated planning approach to water conservation efforts, including design, construction and operations measures to reduce water demand. Key conservation components include the sub-metering of utilities in rental units and the installation of high-efficiency fixtures.

Construction Period

The Single EIR included a discussion of construction phasing and mitigation, including construction hours, transportation impacts, and compliance with MassDEP's Solid Waste and Air Quality Control regulations during the construction period. The Single EIR notes that to the greatest practical degree, the Proponent will seek to engage a contractor familiar with participation in the MassDEP's Clean Construction Equipment Initiative.

Mitigation

The Single EIR included proposed mitigation and draft Section 61 findings for use by State permitting agencies. The Proponent has committed to the following mitigation measures which should be included in the agencies' Section 61 findings for the project:

Traffic

Proposed traffic intersection improvements include:

- Widening the South Street eastbound and westbound approaches to two lanes. This will allow for an exclusive left turn lane and shared through/right turn lane in each direction;
- Upgrading the traffic signal hardware at the intersection of Main Street/South Street; improve safety and reduce drive confusion by providing a left turn arrow designation for northbound traffic; and
- If desired by the Town of Reading, reconfiguring the intersection of South Street/Jacob Way to promote Jacob Way as the primary route to the site, with South Street as a minor street under stop sign control.

Components of the Travel Demand Management Program include:

- Partial funding of the proposed town of Reading shuttle service after opening Phase I of the development. The service will link neighborhoods to areas such as the Reading MBTA Commuter Rail station, the Public Library, Reading Memorial High School, the Senior Center, and the Walkers Brook Drive retail area. The Town of Reading has preliminarily agreed to revise the proposed routes and extend one of the routes to service the Reading Woods development;
- Partnering with MassRIDES to provide commuter services such as carpool and vanpool matching, guaranteed ride home programs, bike to work information, etc.;
- Designation of an on-site Transportation Coordinator;
- Promotion of ridesharing opportunities for employees, tenants and residents;
- Provision of bicycle storage racks;
- Provision of on-site services such as payroll direct deposit, lunch rooms, vending machines, etc., to reduce employee trips during the day; and
- Making commuter rail and shuttle bus schedules available for employees and residents.

Greenhouse Gas Emissions

The following stationary-source GHG mitigation measures have been proposed for the project:

- The project will qualify and apply for gas rebates offered by National Grid as applicable to the various land uses pertaining to gas heating, water heating, gas commercial kitchen equipment, and Energy Star thermostats;
- Orientation of all buildings on an east/west axis, with maximization of southerly exposure;
- Installation of high-albedo roofing materials on the multi-family and office buildings, with the use of lighter colored roofing materials on the sloped roofs of the Senior Housing and Townhouse buildings;
- Use of a cooling tower or Variable Refrigerant Volume (VRV) HVAC system for the Senior Housing component, a VRV HVAC system for the office component, and a through-wall ducted system (gas fired forced hot air and electric air conditioning) HVAC system for the apartments and townhouse component of the project;
- Use of energy efficient lighting in hallways and common areas of the residential buildings, along with circuitry to automatically turn off fixtures in common areas;
- Separate metering of all utilities (electricity, gas, water) in all apartment units, along with dedicated HVAC systems for each unit;
- Use of high efficiency metal halide light fixtures for office area exterior lighting;
- Introduction of a quality control program focused on the airtight installation of ductwork;
- Implementation of a commissioning process by the architect and mechanical/electrical/plumbing engineers for the Office project that focuses on the proper set-up and operation of the energy consuming building systems shortly after the building opens;

- Implementation of an Energy Management System for the Office component of the project under the Proponent's control (i.e., common areas and corridors);
- Installation of insulation in the Apartment, Senior Housing, and Townhouse buildings with an R-factor of up to R-19 in the walls and R-30 in the roofs;
- Installation of insulation in the Office building with an R-factor of up to R-19 in the walls and R-25 in the roofs; and
- Preparation of Tenant Sustainability Guidelines to create awareness amongst tenants of additional sustainable products and practices.

Wastewater

Proposed wastewater mitigation measures include:

- Inflow and Infiltration (I/I) payments to the Town of Reading in the amount of $435,520 per the project's Development and Infrastructure Agreement. Subsequent to studies prepared by Camp Dresser & McKee, Inc., on behalf of the Town of Reading: *Identification of Illicit Sewer System Inflow Building Inspection Program (January 2007)* and *Sewer Flow Monitoring (Draft) Report (April 2008)* the Proponent and the Town have agreed that I/I payments will be utilized to remove I/I from Area 2B; and
- Up to $50,000 as a one-time payment of supplemental funds if needed to address sewer I/I problems, sewer capacity limitations and to make enhancements to the public sewer mains within the Town of Reading.

Water Supply

- Sub-metering of utilities in individual rental units;
- Installation of low flow, high-efficiency faucets and low-flow water closets and urinals in the office building;
- Installation of low flow, high-efficiency faucets in the 160 apartment units, the 142 senior living units, and the 16 townhomes;
- Use of drought-tolerant landscaping; and
- Payment of buy-in fees to the Massachusetts Water Resources Authority (MWRA) water system, estimated at $312,000.

The Single EIR presented draft Section 61 findings that addressed traffic-related mitigation measures. These Section 61 findings must be expanded to include stationary-source GHG mitigation measures in accordance with the GHG Policy. The final Section 61 findings will be included with all state permits issued for this project, and will be considered binding upon the proponent as mitigation commitments. In accordance with Section 11.12(5)(e) of the MEPA regulations, final Section 61 findings must be forwarded by each permitting agency to the MEPA Office, which will publish a Notice of Availability in the Environmental Monitor.

As noted elsewhere in this Certificate, the Proponent should provide a certification to the MEPA Office signed by an appropriate consultant (e.g., engineer, architect, general contractor) indicating that the all of the above referenced mitigation measures 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) the Proponent should provide an updated plan identifying the measures, the schedule for implementation and how progress towards achieving measures will be obtained. MassHighway should incorporate this self-certification requirement into its Section 61 finding for both the mobile and stationary source GHG emission components of this project.

Conclusion

I find the Single EIR to be adequate and am allowing the project to proceed to the state agencies for permitting. The Single EIR contained adequate information on project impacts and mitigation, and provided the state permitting agencies with sufficient information to understand the environmental consequences of their permit decisions. No further MEPA review is required.

December 31, 2008
Date

Ian A. Bowles

Comments received:

12/24/2008 Massachusetts Department of Environmental Protection – NERO
12/24/2008 Executive Office of Transportation and Public Works

IAB/HSJ/hsj