

The Commonwealth of Massachusetts

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> > April 17, 2009

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE THIRD NOTICE OF PROJECT CHANGE

PROJECT NAME : New Patriots Stadium and Public

Infrastructure Project

PROJECT MUNICIPALITY : Foxborough
PROJECT WATERSHED : Neponset
EOEA NUMBER : 12037

PROJECT PROPONENT : NPS, LLC
DATE NOTICED IN MONITOR : March 11, 2009

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c.30, ss.61-62I) and Section 11.17 of the MEPA regulations (301 CMR 11.00), I have reviewed the Notice of Project Change (NPC) submitted on this project and hereby determine that it **does not** require

Project Overview

further MEPA review.

As described in this Phase III -3rd Notice of Project Change (Phase III/3rd NPC), the Proponent is proposing to construct approximately 790,000 square feet (sf) of general office space, 680,000 sf of high-tech office space (approximately 1.45 million sf total office space) in eight separate buildings and a separate 150,000 sf retail building on two adjoining parcels (146 acres total) fronting on west side of Route 1 directly across from the Patriots Stadium and the Patriots Place development within the expanded 2001 Town of Foxborough Economic Development Area/2008 State Growth District development area. This 3rd NPC project site currently contains paved and gravel parking areas and pedestrian facilities previously reviewed by the MEPA Office as part of the Proponent's Phase III/2nd NPC development plans (August 2007) to accommodate the proposed relocation of approximately 995 surface parking spaces from the Patriots Place commercial retail development site. According to the Proponent, the previously proposed and constructed roadway, wastewater, and stormwater management infrastructure improvements completed as part of the Overall Stadium Project

(Phase I –III) construction activities were designed and constructed with sufficient capacity to accommodate the proposed Phase III/3rd NPC development program.

The New Patriots Stadium and Public Infrastructure Project was originally proposed in September 1999 as a phased (Phase I-II) development project (Overall Stadium Project) consisting of the replacement of the existing 61,000-seat Foxborough Stadium on the 24-acre stadium property located off Route 1 in Foxborough with a new open-air 68,000-seat stadium ('Gillette Stadium'). Phase III involved the mixed-use development (Patriot Place) of 325-acre designated Economic Development Area (EDA). The overall project site is made up of several parcels (totaling 352 acres) located along Route 1 (Washington Street), approximately three miles south of I-95 and four miles north of I-495. The Final Environmental Impact Report (FEIR) for the New Patriots Stadium and Public Infrastructure Project was reviewed by the MEPA Office in July 2000 and found to be adequate (EOEA# 12037). The MEPA Office anticipated additional MEPA filings to review the potential localized impacts specifically associated with the Proponent's Phase III development plans, and required the Proponent to file a Notice of Project Change for Phase III when specific development plans were developed and proposed.

In addition to the aspects described above, the currently proposed Phase III/3rd NPC project also contains notable and innovative commitments to energy efficiency, reduction of vehicle trips and sustainable building design. In particular, I commend the Proponent's commitment to employ thin-film solar photo voltaic (PV) technology on one of its related buildings as well as the Proponent's innovative wastewater reuse system. I hope that the Proponent's comprehensive and forward-thinking Tenant Manual, designed to enable future tenants of the project to participate in and advance the Proponent's greenhouse gas (GHG) reduction commitments, will serve as a model for future projects to address the role tenants play in implementing a successful sustainability plan. And finally, I note and support the Proponent's ongoing efforts to work with the MBTA, the Town of Foxborough and the Massachusetts Highway Department to identify opportunities to accommodate future potential public transit facilities within the Foxborough EDA/State Growth District area.

Project History

Phase I - Replacement Stadium Construction

Phase I included the construction of a 68,000-seat open air stadium (60,000 general seats and 8,000 club seats), with associated plazas and pedestrian spaces, and the demolition of the existing 61,000-seat stadium, the Foxborough Entertainment Complex and the race track facilities on the 24-acre stadium property. The Phase I development program relied upon existing infrastructure systems, including on-site water supply and wastewater treatment facilities, and existing traffic access points to Route 1. The Proponent also implemented a new Traffic Management Plan (TMP) to improve traffic flows during Phase I construction activities.

Phase II – Roadway Improvements and Additional Facilities and Infrastructure

Phase II involved the construction of infrastructure improvements designed to further reduce traffic impacts and improve traffic flows compared with Phase I conditions. Phase II transportation improvements included the addition of approximately 5,000 new parking spaces located throughout the project site. Phase II also involved the construction of a site-wide stormwater management plan, three new practice fields, a practice pavilion, and improvements to existing water supply and wastewater management systems to meet the current and future water supply and wastewater management needs of the Town of Foxborough and the New Patriots Stadium and Public Infrastructure Project.

Phase III Patriots Place - 1st Notice of Project Change

Phase III included the planning and development of the EDA surrounding the 24-acre new stadium site in Foxborough. In May 2006, the Proponent submitted a Phase III - NPC describing the proposed mixed-use development of approximately 676,400 square feet (sf) of mixed office, retail and restaurant and commercial space, including a 3,700 seat restaurant, a 160,000 sf sporting goods retail store, a 3,500-seat 16-screen cinema, approximately 105,000 sf of medical office space, 75,000 sf of general office space, and a 200-room hotel to be located within the EDA.

Phase III Patriots Place – 2nd Notice of Project Change

In August 2007, the Proponent filed a Phase III - 2nd Notice of Project Change (2nd NPC) with the MEPA Office to restore and permanently protect a recently acquired 32-acre parcel of property containing approximately 7.6 acres of cranberry bog, a 10-acre man-made irrigation pond, and 2.4 acres of naturally vegetated wetlands resource area located outside of the 325-acre EDA but abutting the southwestern portion of the project site. The 2nd NPC also included the expansion of an existing 1,500-space gravel parking area located in within a 63-acre parcel fronting on Route 1 to accommodate the proposed relocation of approximately 995 surface parking spaces from within the Patriots Place commercial retail development site due to project design changes resulting from the local project review and permitting process.

Permits and Jurisdiction

As noted above, additional MEPA filings were contemplated in the prior review of this project to ensure review of the potential localized impacts specifically associated with the Proponent's Phase III development plans. The prior Certificates therefore required the Proponent to file a Notice of Project Change for Phase III when specific development plans were developed and proposed.

The project requires a Construction Dewatering Permit and a Fossil Fuel Emission Permit and a Groundwater Discharge Permit from the Department of Environmental Protection (MassDEP). The project must comply with the National Pollutant Discharge Elimination System (NPDES) General Permit for stormwater discharges from a construction site of over one acre and for a Construction Site Dewatering Discharge Permit from the U.S. Environmental Protection Agency. An air quality mesoscale analysis for ozone will be needed for this project to assess the total volatile organic compounds (VOC) and nitrogen oxides

(NOx) emissions associated with all project-related vehicle trips. The proposed project will require a Revised Highway Vehicular Access Permit from the Massachusetts Highway Department (MassHighway), and an Order of Conditions from the Foxborough Conservation Commission (and hence a Superseding Order from MassDEP if the local Order were appealed). The project is also subject to the EEA Greenhouse Gas (GHG) Emissions Policy and Protocol.

REVIEW OF THE PHASE III - THIRD NOTICE OF PROJECT CHANGE

Traffic

The 3rd NPC includes a traffic study that generally conforms to the EEA/EOT Guidelines for Traffic Impact Assessment. Using the Institute of Traffic Engineers Trip Generation land use code (LUC) 710 – General office Building, LUC 760 – Research and Development Center and LUC 820 - Shopping Center, the proposed office/retail project is estimated to generate a total of approximately 15,432 new vehicle trips on the average weekday, approximately 7,304 new vehicle trips on the average Saturday, and approximately 1,892 new vehicle trips on the average Sunday with a game-day Major Event.

Site access for the proposed mixed-use development project will be provided by constructing modifications to four existing site driveways (North Access - P10N, Central Site Driveway - P10S, South Central Site Driveway - P11 and South Site Driveway - P9) that currently provide access to previously reviewed parking lot areas located on the west side of Route 1 and used for major Gillette Stadium events. The proposed site driveway modifications will generally involve new signage, pavement markings, geometric improvements and timing modifications to existing traffic signals and the P11 driveway modification will consist of a deceleration lane to accommodate a right-turn only movement into the site.

In addition, the 3rd NPC includes Traffic Signal Warrants Analysis for several unsignalized intersections in the vicinity of the project. The analysis indicates that the installation of a traffic signal may be warranted in the future to address deteriorating conditions at the following locations: the Route 1/Madison Street intersection; the Route 140 (Main Street)/Pierce Street intersection; the Pine Street/Turner Road intersection; and the Route 140 (Pierce Street)/Turner Road intersection.

The 3rd NPC has identified a series of phased off-site improvements to address the impacts of this project along the Route 1 corridor. These improvements generally consist of traffic signal coordination, traffic signal improvements, roadway widening, and environmental documentation and design plans for project implementation by MassHighway. The Proponent's proposed off-site traffic mitigation plan involves the phased construction of intersection and roadway improvements and traffic mitigation measures, listed below, that have been designed to accommodate the additional traffic to be generated by the proposed project and build upon the Proponent's previously constructed traffic mitigation improvements.

The Proponent's off-site traffic mitigation measures include:

<u>Implementation of Optimal Signal Timing Plans for intersections located along the Route 1</u> corridor including:

- Route 1/Old Post Road;
- Route 1/Pine Street (Walpole);
- Route 1/Water Street/North Street; and
- Route 1Southbound/Patriot Place/Rodman Ford Driveway.

Phased construction of geometric improvements involving right-of-way takings and traffic signal improvements at the following intersections:

- Route 1/Pine Street (Foxborough) intersection; and
- Route 1/Thurston Street intersection.

<u>Preparation of Functional Design Reports/25 Percent Design Plans for new traffic signals and geometric improvements for intersections located in the Overall Stadium Project area including:</u>

- Route 1/Madison Street;
- Route 140/Pierce Street intersection;
- Pine Street/Turner Road intersection; and,
- Route 140/Turner Road intersection.

According to the comments received from MassHighway, the Proponent has adequately identified the traffic impacts associate with the Phase III/3rd NPC development project and has proposed sufficient mitigation to generally address the project's traffic impacts. MassHighway has requested that the Proponent commit to updating or replacing traffic signal controllers that MassHighway may identify as outdated or inefficient for those intersections that will receive Optimal Signal Timing Plans. As noted above, the Proponent has proposed a phased approach to implementation of the mitigation plan. While MassHighway generally agrees with the phased approach, it will require that the design for the intersection geometric improvements be provided as part of the Phase I, and that all improvements be implemented prior to Phase II occupancy (i.e. occupancy of any space beyond 1.0 million square feet of office/high tech space and 150,000 square feet of retail).

MassHighway has also indicated that operating conditions at the Route 1/Madison Street intersection will likely degrade significantly and has requested that the Proponent commit to fully design and implement new traffic signalization and geometric improvements for this intersection as part of the Proponent's proposed traffic mitigation commitments for the 3rd NPC project. I urge the Proponent to consider making the additional commitment and request that the Proponent continue to work closely with MassHighway and the Town of Foxborough during final project design and the permitting process to further improve traffic movement under the 2017 Build scenario.

Parking

Approximately 21,700 existing surface parking spaces are located throughout the Overall Stadium project area, including the project site, that serve the Proponent's parking needs for both Major Event and non-Major Event days. The Proponent's current parking management plan incorporates the use of a shared-parking methodology which allows for different land uses located within the Overall Stadium Project area to share some or all of the Proponent's total parking spaces. The Proponent estimates that approximately 2,300 existing parking spaces will be displaced from the project site by the proposed 3rd NPC development project. Replacement parking spaces will be relocated within the Overall Stadium project area. According to the information provided in the 3rd NPC, the proposed 3rd NPC project will require approximately 6,400 parking spaces under the Town of Foxborough's Zoning requirements for parking related to office and retail uses that will be provided within the project site. The 3rd NPC includes site plans that depict the possible locations for future structured parking buildings within the project site and the Overall Stadium project area should additional parking spaces be required to meet the parking needs associated with the full build-out of the proposed project and the Overall Stadium Development project.

Pedestrian Circulation

The Proponent completed a number of pedestrian circulation improvements as part of the preceding Phase III project work including the construction of a Pedestrian Safety Zone along portion of the east and west sides of Route 1 fronting the entrances to the project site and Stadium Parking Areas P-10N and P-10S. The Pedestrian Safety Zone includes two pedestrian underpasses located beneath the P-10N and P-10S entrances. These pedestrian improvements were constructed to provide safe and efficient vehicle access to the improved Stadium parking lots, and to provide direct pedestrian-safe connections from proposed on-site and off-site Stadium parking areas to proposed pedestrian walkways and sidewalks serving the Patriots Stadium site. These pedestrian improvements will also provide project tenants, employees and visitors direct pedestrian-safe connections from the project site to Patriots Place and Patriots Stadium.

The Proponent has also proposed to construct a new Pedestrian Bridge across Route 1 to be located immediately north of the Stadium P6 driveway. As described in the 3rd NPC, the Route 1 Pedestrian Bridge will further enhance pedestrian connectivity between the project site, Patriot Stadium and Patriot Place and will result in improved vehicular and pedestrian along Route 1. MassHighway has asked that the Proponent provide MassHighway with additional information regarding bridge design, future ownership and long-term maintenance. I request that the Proponent provide the additional information and am confident that any outstanding issues pertaining to the proposed Pedestrian Bridge can be fully addressed during the MassHighway permitting process.

Transportation Demand Management

The Transportation Demand Management (TDM) measures that the Proponent develops and implements will play a critical role in reducing single passenger vehicle trips generated

by the project. The Proponent has proposed an extensive list of TDM measures to minimize the reliance on single occupancy private vehicles for employees and patrons of the proposed 3rd NPC project as well as the Patriots Stadium and Patriots Place developments. The Proponent's TDM Program includes;

- promoting the future development of a Park'n'Ride facility within Overall Stadium project area;
- implementing a ride-matching program, including coordination with MassRides, to promote and sponsor car/van pooling opportunities for employees and patrons;
- an employee/visitor shuttle bus from project site to MBTA Walpole Commuter Rail Station;
- a project site connection for a future fixed-route shuttle or bus service to link the project site to MBTA's Commuter Rail Stations in Mansfield, Norfolk, Sharon and Walpole;
- providing preferential parking for use of hybrid/alternative fueled vehicles;
- implementing an annual traffic monitoring program that will monitor traffic and parking patterns for Gillette Stadium events on an annual basis;
- providing an on-site Transportation Demand Management (TDM) Coordinator;
- providing comprehensive commuter information from central commuter information centers to be located within office building lobbies, retail facility entrances, common areas and other high viability location throughout the project site;
- promoting carpool/rideshare programs;
- promoting scheduling non-standard hours (flex-time) employee work shifts;
- providing subsidies of monthly or multi-trip transit passes for qualified full-time employees;
- encouraging the use of on-site banking, ATM, and employee direct deposit banking;
- promoting alternate transportation modes;
- encouraging project tenants to implement appropriate office and retail specific TDM measures identified in Tenant Manual;
- promoting on-site bicycle and pedestrian travel;
- improving off-site pedestrian and bicycle infrastructure including constructing the Pedestrian Bridge across Route 1; and
- providing on-site accommodations for car sharing (i.e., Zip Car) services.

Comments received from MassHighway indicate that the Proponent should also commit to provide bicycle lanes within the project site, bicycle racks and showers. MassHighway also urges the Proponent to commit to provide shuttle service within the project site and to make its shuttle services available to the general public. A robust traffic demand management plan is an integral component of a successful traffic mitigation and greenhouse gas mitigation program. I therefore strongly encourage the Proponent to make the additional commitments MassHighway has requested. In addition, all project tenants and businesses should be required to participate in the proposed TDM plan. The Section 61 Findings should demonstrate the proponent's commitment to implement, monitor, and continuously fund the proposed TDM plan.

Traffic Monitoring Program

The Proponent has committed to implementing a traffic monitoring program that will be conducted annually and will include peak hour manual turning movements and 24-hour automatic traffic recorder (ATR) counts for a seven-day period. The Proponent's traffic monitoring program also includes a commitment to monitor participation in each component of the proposed TDM program. The results of the Proponent's annual traffic monitoring program will be provided to MassHighway, the Town of Foxborough and the Metropolitan Area Planning Commission (MAPC).

Water Supply

The estimated total water supply demand for the proposed mixed-use office/retail project is 88,000 gallons per day (gpd). As described in the Phase III/3rd NPC, the current water supply need for the Overall Stadium Project is served by a combination of three separate water supply systems including the Town of Foxborough's municipal water supply system to provide potable water for drinking and washing, the Proponent's existing wastewater reuse system, and the Proponent's on-site irrigation water well. According to the information provided in the 3rd NPC, the Proponent's wastewater reuse system will supply approximately 30,000 gpd to the Phase III/3rd NPC project thereby reducing the project's estimated water supply needs to approximately 58,000 gpd. According to the comments received from MassDEP and the Town of Foxborough, the Town of Foxborough has sufficient water supply capacity and authorized volume under its Water Management Act Permit to service the Proponent's proposed Phase III/3rd NPC development project. In its comments, MassDEP has noted that the Proponent's current wastewater reuse system has been permitted by MassDEP for toilet flushing only. The Proponent will be required to obtain approval from MassDEP to use reuse water for irrigation purposes.

Wastewater

The wastewater flows generated from existing developments located within the Overall Stadium Project site (approximately 152,000 gpd) are currently served by the Proponent's existing on-site wastewater treatment plant (Gillette Stadium WWTP). Constructed as part of the Proponent's Phase I and Phase II project activities, the Gillette WWTP incorporates a treated wastewater reuse system and an on-site leach field designed and permitted by MassDEP to accommodate up to 250,000 gallons per day (gpd) of wastewater flow. Approximately 30-40 percent of the treated wastewater is reused for on-site toilet flushing, and approximately 70 percent is discharged to the Proponent's existing on-site leaching field. MassDEP has indicated that the Gillette WWTP has sufficient design and permitted capacity (250,000 gpd total) to accommodate the additional wastewater flows anticipated from the Phase III 3rd NPC development.

Stormwater

As noted elsewhere in this Certificate, the project site is currently comprised of paved and gravel parking areas and pedestrian facilities previously reviewed by the MEPA Office as part of the Proponent's Phase III/2nd NPC development plans (August 2007). The Phase III/3rd NPC project will create an additional 18 acres (36 acres total) of impervious surface area. The stormwater management system for the proposed project has been designed to comply with MassDEP's Stormwater Management Regulations for land uses with higher potential pollutant loads (LUHPPL) located within a Zone II to a public drinking water supply.

The stormwater management system will incorporate new stormwater management infrastructure and modifications to portions of the project site's existing stormwater management system constructed as part of the 2nd NPC project activities. The new stormwater management system design includes the use of best management practices (BMPs), deep sump hooded catch basins with water quality treatment units and the use of six stormwater detention/infiltration basins with sediment forebays, and subsurface infiltration structures to provide water quality treatment, peak flow attenuation and recharge of surface stormwater and roof runoff. The stormwater management design also integrates the use of landscaped elements including grassed channels and vegetated water quality swales to enhance the removal of stormwater pollutants and total suspended solids (TSS). According to the information provided in the 3rd NPC, the Proponent's stormwater management plan has been designed to achieve a TSS removal rate of 80 percent. I anticipate that MassDEP's permit review process will require the Proponent to demonstrate the project's consistency with existing MassDEP's Stormwater Management Regulations.

I strongly encourage the Proponent to continue to evaluate opportunities for incorporating sustainable design alternatives including Low Impact Development (LID) techniques in the project's site design and stormwater management plans. LID techniques incorporate stormwater best management practices (BMPs) and can reduce impacts to land and water resources by conserving natural systems and hydrologic functions. The primary tools of LID are landscaping features and naturally vegetated areas, which encourage detention, infiltration and filtration of stormwater on-site. Other tools include water conservation and use of pervious surfaces. Clustering of buildings is an example of how LID can preserve open space and minimize land disturbance. LID can also protect natural resources by incorporating wetlands, stream buffers and mature forests as project design features. For more information on LID, visit http://www.mass.gov/envir/lid/. Other LID resources include the national LID manual (Low Impact Development Design Strategies: An Integrated Design Approach), which can be found on the EPA website at: http://www.epa.gov/owow/nps/lid/.

Greenhouse Gas Emissions

The Phase III/3rd NPC project is subject to EEA's Greenhouse Gas (GHG) Emissions Policy and Protocol that requires Proponents to quantify project-related GHG emissions and propose and quantify the impact of mitigation measures to reduce GHG emissions. The Proponent submitted the results of the GHG analysis with the Phase III/3rd NPC.

In the analysis, the Proponent calculated GHG emissions from both mobile sources and direct and indirect stationary sources. While the project is in the planning stage, assumptions were made regarding the type of building construction, window and wall treatment, and rooftop equipment that would likely be used. The Proponent has committed to design and construct the proposed project in a manner that will achieve greater than a 15 percent reduction in stationary source GHG emissions in comparison to the baseline Massachusetts State Building Code (7th Ed.). I commend the Proponent for both its proactive approach to GHG emissions reductions and to its LEED Certification goal. As noted below, the Proponent has achieved notable reductions in project-related CO₂ emissions.

Direct and indirect carbon dioxide (CO₂) emissions from the proposed direct and indirect stationary sources were calculated using the EQUEST Model. The Proponent evaluated potential stationary source GHG emissions for the 2014-Build Condition (the Base Case), the 2014-Build Conditions with Improvements, and the 2014-Build Conditions with Improvements and Energy Management System. The Preferred Alternative selected by the Proponent is the 2014-Build Conditions with Improvements and Energy Management System. Supplemental materials provided during the NPC comment period by the Proponent summarized the total CO₂ emissions achievable under each development scenario. As presented in the Phase III/3rd NPC and supplemental memorandum, the total CO₂ emissions in the 2014 Base Case is estimated to be approximately 12,523.3 tons per year (tpy). Under the 2014 Preferred Alternative, the total CO₂ emissions would be reduced by 2419.8 tpy (10,103.5 tpy total), a 19.3 percent reduction from the Base Case. This analysis has affirmed that the Proponent's commitment to a15 percent reduction in GHG emissions appears achievable in compliance with the MEPA GHG Policy. I encourage the Proponent to continue to explore additional opportunities to further reduce stationary and mobile source GHG emission for this project.

Mobile source CO₂ emissions produced by the project-generated vehicle trips were analyzed using the EPA MOBILE 6.2 Source Emission Factor Model. The Proponent evaluated the change in CO₂ emissions from project-related traffic and proposed building/energy consumption sources for the 2008 Existing, the 2014 No-Build, the 2014 Build and the 2014 Build with Improvements Condition (the Preferred Alternative). The Phase III/3rd NPC estimated project generated mobile source GHG emissions in the year 2014 at 13,255.1 tpy. CO2 emissions in the 2014 Build Condition were estimated at 195,063.9 tpy, while emissions in the 2014 Build Condition with Improvements scenario were estimated at 192,152.4 tpy. The Proponent has estimated a reduction of 2,911.5 tpy (a 22 percent reduction) of mobile source GHG emissions attributable to project related transportation improvements.

Stationary Sources of GHG Reductions

The Proponent's Preferred Project Alternative includes numerous mitigation measures designed to reduce the Project's direct and indirect energy-related CO₂ emissions including:

- HVAC Duct Sealing;
- Use of a highly-reflective (high-albedo) Cool Roof Design;
- High –Efficiency (EER 11.5) HVAC Systems;

- High –Efficiency (EER 0.92) Heating Systems;
- Lighting Motion sensors in conference rooms, bathrooms and storage areas in office buildings;
- Use of High Efficiency interior lighting;
- Third Party Building Commissioning for Building Energy Systems;
- Use of Building Management System (BMS);
- Purchase Renewable Energy Credits (RECs) offsets;
- Use of Energy Efficient Double Low-E (U-value 0.50) Windows;
- Use of increased insulation (R-18) in Project buildings exterior walls;
- Use of increased insulation (R-30) in Project roofs;
- Use of Environmentally Friendly Building Materials;
- Use of a Construction Waste Management Program;
- Use of an Operations Waste Management Program;
- Use of Water Conserving low-flow plumbing fixtures and sensor-operated faucets and toilets;
- Use of Wastewater Reuse systems;
- Use of a Tenant Manual; and,
- Use of thin-Film Photovoltaic (PV) systems.

In its comments, MassDEP has identified additional opportunities for further reducing the project's GHG emissions to enhance the Proponent's ability to achieve their stated goal of voluntarily supporting Executive Order 484, Leading By Example. According to MassDEP, the Proponent could achieve additional gains in reducing the project's GHG emissions through the selection of a better performing (U-value 0.55) metal-framed window assembly, higher efficiency (EER 14.3) HVAC systems and the use of LED lighting fixtures for the project's interior and exterior lighting programs. I encourage the Proponent to consider these measures as final project design is advanced.

In addition, the Proponent is committed to incorporating a number of additional innovative and exemplary GHG reduction measures, listed below, in the design of the proposed project, many of which are currently used by the Proponent in existing buildings constructed as part of the Patriot Stadium and Patriot Place development projects:

Energy Building Management System – The Proponent currently maintains a centralized energy building management system (BMS) that controls all Stadium-related energy and mechanical systems and Proponent-owned and operated systems associated with the Patriot Place development. The Proponent has committed to incorporate a BMS system for the proposed project and will determine the specific BMS system design once specific project tenants and their respective use requirements and building requirements have been identified.

On-site Wastewater Reuse System – Currently the Proponent's on-site wastewater reuse system recycles approximately 30-40 percent of the wastewater flows from the Patriots Stadium and Patriots Place developments. The Proponent proposes to expand the existing wastewater reuse system to include the proposed mix-use office development project and estimates that the project will reduce its total potable water

demand from 88,000 gpd to 58,000 gpd and could result in a maximum annual reduction of 0.72 tpy of carbon dioxide (CO₂).

Offsets Commitments - The Proponent purchases Renewable Energy Credits (RECs) to offset the Stadium's carbon footprint for specific Stadium events. The Proponent has purchased RECs for the NFL at-home games and the NCAA Lacrosse Championship in 2008 that has resulted in a total offset of approximately 609 tons of CO₂ emissions in 2008. The Proponent has committed to continue purchasing RECs for 2009 at-home NFL games and the 2009 NCAA Lacrosse Championship and committed to evaluate the application of future offsets with project tenants or in conjunction with future Stadium events.

Solar Energy - The Proponent has committed to construct a 560,980 kilo-watt-hour (kWh) thin-Film Photovoltaic (PV) system for application on the existing Field House building which would effectively supplement approximately 2.4 percent of the Stadium's total annual electricity usage. According to the Proponent, this proposed thin-Film PV system could reduce the Proponent's stationary source CO2 emissions by approximately 310.5 tpy. The Proponent is currently working with a third party solar panel provider to evaluate the feasibility of incorporating PV using thin-film Amorphous Silicon PV panels on the Stadium Field House building and the proposed 3rd NPC project buildings. The Proponent will determine the applicability of thin-film or other PV systems to the proposed project buildings once specific project tenants and their respective use requirements and building requirements have been identified.

<u>Tenant Manual</u> - As described in the 3rd NPC submittal and listed below, the Proponent has also committed to design and implement an innovative Tenant Manual containing a set of guidelines that will require and/or encourage future project tenants to adopt appropriate sustainable design and GHG reduction measures and TDM commitments to the extend feasible as part of their respective lease agreements.

The Tenant Manual will require project tenants to adopt water/energy conservation measures and TDM measures in the construction of their respective interior spaces including:

- Utilization of reuse water;
- Use of Energy Star-rated appliances;
- Compatibility of electrical wiring/systems with the application of the building Energy Management System (EMS) and automated lighting controls;
- Participation in the state-wide Green Initiatives Recycling Program;
- Promotion of employee participation to on-site ATMs, retail and restaurant amenities;
- Promotion of employee and patron participation to alternative transportation amenities to reduce single-occupancy vehicles including: on-site bicycle storage and showers, and preferential parking for ride sharing, car sharing, and electric vehicle charging stations; and
- Participation in Proponent's Traffic Monitoring Program to document actual traffic characteristics and trip patterns.

The Proponent's Tenant Manual will also encourage and assist project tenants to evaluate additional energy reduction measures in the design and construction of their respective office and retail spaces including:

- Identify and evaluate energy-efficient options in the standard commercial interiors specifications;
- Provide individual control and metering of energy use and efficiency for tenantcontrolled space;
- Provide a LEED Guide to encourage and assist project tenants to achieve LEED-equivalent, LEED-certified or more energy efficient tenant-controlled space;
- Encourage project tenants to use environmentally-friendly building materials in the fitout of tenant controlled spaces;
- Encourage project tenants to participate in green housekeeping services;
- Encourage project tenants to participate in additional TDM program measures to reduce project-generated single-occupancy vehicle trips including; providing subsidized transit passes, flexible employee work hours, and direct deposit of paychecks.

Mobile Source GHG Reductions

As described above, the Proponent has also committed to implement a number of mitigation measures designed to reduce the Phase III/3rd NPC project's GHG emissions from mobile sources including:

- modifying existing roadway and intersection configurations and signal phasing and timing at 10 project-area intersections located along the Route 1 corridor to increase roadway capacity and reduce delays at project-area intersections;
- constructing a Pedestrian Bridge crossing over Route 1; and,
- implementing a TDM program as described above to reduce project-generated vehicle trips.

Upon completion of construction, 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, or equivalent measures designed to reduce total CO₂ emissions by at least 15.0 percent have been undertaken. The certification should be supported by asbuilt 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. I request that MassDEP and MassHighway incorporate this self-certification requirement into their Section 61 Findings for this project.

Construction Period Impacts

The Proponent should employ measure to minimize to the maximum extent practicable, construction period impacts, including: impacts from earth moving/blasting, impacts to vegetation, potential impacts from erosion and sedimentation, traffic impacts on adjacent roadways, and impacts to adjacent land uses. The Proponent should also require its contractors to retrofit diesel-powered equipment with emissions controls, such as particulate filters or traps, and use low-sulfur diesel fuel. The Proponent should also commit to specific TDM measures that can be implemented during construction.

SUMMARY OF 3rd NPC MITIGATION COMMITTMENTS

The 3rd NPC includes mitigation measures and draft Section 61 Findings. The draft Section 61 Findings contained a clear commitment to implement mitigation measures, estimated the costs of specific mitigation measures, and identified the parties responsible and schedule for implementing the mitigation.

The Proponent committed to the following mitigation measures in the SDEIR:

Transportation Infrastructure:

<u>Implementation of Optimal Signal Timing Plans for intersections located along the Route 1</u> corridor including:

- Route 1/Old Post Road;
- Route 1/Pine Street (Walpole);
- Route 1/Water Street/North Street; and
- Route 1Southbound/Patriot Place/Rodman Ford Driveway.

<u>Phased construction of geometric improvements involving right-of-way takings and traffic signal improvements at the following intersections:</u>

- Route 1/Pine Street (Foxborough) intersection; and
- Route 1/Thurston Street intersection.

<u>Preparation of Functional Design Reports/25 Percent Design Plans for new traffic signals and geometric improvements for intersections located in the Overall Stadium Project area including:</u>

- Route 1/Madison Street;
- Route 140/Pierce Street intersection;
- Pine Street/Turner Road intersection; and,
- Route 140/Turner Road intersection.

<u>Transportation Demand Management:</u>

The Proponent's TDM Program includes commitments to the following:

- promoting the future development of a Park'n'Ride facility within Overall Stadium project area;
- implementing a ride-matching program, including coordination with MassRides, to promote and sponsor car/van pooling opportunities for employees and patrons;
- an employee/visitor shuttle bus from project site to MBTA Walpole Commuter Rail Station;
- a project site connection for a future fixed-route shuttle or bus service to link the project site to MBTA's Commuter Rail Stations in Mansfield, Norfolk, Sharon and Walpole;
- providing preferential parking for use of hybrid/alternative fueled vehicles;
- implementing an annual traffic monitoring program that will monitor traffic and parking patterns for Gillette Stadium events on an annual basis;
- providing an on-site Transportation Demand Management (TDM) Coordinator;
- providing comprehensive commuter information from central commuter information centers to be located within office building lobbies, retail facility entrances, common areas and other high viability location throughout the project site;
- promoting carpool/rideshare programs;
- promoting scheduling non-standard hours (flex-time) employee work shifts;
- providing subsidies of monthly or multi-trip transit passes for qualified full-time employees;
- encouraging the use of on-site banking, ATM, and employee direct deposit banking;
- promoting alternate transportation modes;
- encouraging project tenants to implement appropriate office and retail specific TDM measures identified in Tenant Manual;
- promoting on-site bicycle and pedestrian travel;
- improving off-site pedestrian and bicycle infrastructure including constructing the Pedestrian Bridge across Route 1; and
- providing on-site accommodations for car sharing (i.e., Zip Car) services.

Stormwater:

New stormwater management infrastructure and modifications to portions of the project site's existing stormwater management system including: the use of best management practices (BMPs), deep sump hooded catch basins with water quality treatment units and the use of six stormwater detention/infiltration basins with sediment forebays, and subsurface infiltration structures to provide water quality treatment, peak flow attenuation and recharge of surface stormwater and roof runoff. The stormwater management design also integrates the use of landscaped elements including grassed channels and vegetated water quality swales.

GHGs:

The following measures are also included to reduce the Project's stationary source GHG emissions:

- HVAC Duct Sealing;
- Use of a highly-reflective (high-albedo) Cool Roof Design;
- High –Efficiency (EER 11.5) HVAC Systems;
- High –Efficiency (EER 0.92) Heating Systems;
- Lighting Motion sensors in conference rooms, bathrooms and storage areas in office buildings;
- Use of High Efficiency interior lighting;
- Third Party Building Commissioning for Building Energy Systems;
- Use of Building Management System (BMS);
- Purchase Renewable Energy Credits (RECs) offsets;
- Use of Energy Efficient Double Low-E (U-value 0.50) Windows;
- Use of increased insulation (R-18) in Project buildings exterior walls;
- Use of increased insulation (R-30) in Project roofs;
- Use of Environmentally Friendly Building Materials;
- Use of a Construction Waste Management Program;
- Use of an Operations Waste Management Program;
- Use of Water Conserving low-flow plumbing fixtures and sensor-operated faucets and toilets;
- Use of Wastewater Reuse systems;
- Use of a Tenant Manual; and,
- Use of thin-Film Photovoltaic (PV) systems.

Additional GHG Mitigation Measures include:

- Energy Building Management System;
- On-site Wastewater Reuse System;
- Offsets Commitments;
- On-site Solar Energy;
- Tenant Manual: will require project tenants to adopt water/energy conservation measures and TDM measures in the construction of their respective interior spaces including:
 - Utilization of reuse water;
 - Use of Energy Star-rated appliances;
 - Compatibility of electrical wiring/systems with the application of the building Energy Management System (EMS) and automated lighting controls;
 - Participation in the state-wide Green Initiatives Recycling Program;
 - Promotion of employee participation to on-site ATMs, retail and restaurant amenities;
 - Promotion of employee and patron participation to alternative transportation amenities to reduce single-occupancy vehicles including: on-site bicycle

- storage and showers, and preferential parking for ride sharing, car sharing, and electric vehicle charging stations; and
- Participation in Proponent's Traffic Monitoring Program to document actual traffic characteristics and trip patterns.

The Proponent should forward to the MEPA Office for the file an updated summary of all mitigation to which the Proponent has committed, and/or completed for the full-build New Patriots Stadium and Public Infrastructure Project and the proposed 3rd NPC mixed-use development project, and an updated and revised draft Section 61 Findings for MassDEP and MassHighway permits. The Section 61 Findings for MassHighway should be in the form of a draft Letter of Commitment. In addition, the Proponent and the agencies should forward the final Section 61 Findings to the MEPA for publication in the *Environmental Monitor* as required under the MEPA regulations.

Conclusion

Based on the review of the Phase III/3rd NPC submittal and additional information provided by the Proponent to the MEPA Office, a review of comments submitted on the project, and consultation with public agencies, I find that the Proponent has provided a complete description and analysis of the project and its potential impacts, has adequately addressed the issues within MEPA jurisdiction, and has committed to measures that will avoid, minimize and mitigate adverse impacts. The information provided in the Phase III/3rd NPC demonstrates that the previously proposed and constructed roadway, intersection, wastewater, and stormwater management infrastructure improvements and mitigation commitments completed as part of the Overall Stadium Project (Phase I –III) construction activities, together with the additional mitigation commitments proposed as part of this project, provide sufficient capacity to accommodate the proposed Phase III/3rd NPC development program. The significant GHG reductions to be achieved from incorporating the proposed energy efficient measures in the Phase III 3rd NPC project are innovative and commendable.

After a thorough consideration of the traffic mitigation commitments presented in the 3rd NPC and the comments received from MassHighway, the Town of Foxborough, the Town of Walpole and others, I am satisfied that any outstanding design issues relating to roadway improvements will be fully considered and addressed during state and local permitting. As noted elsewhere in this Certificate, the Proponent should continue to work closely with MassHighway and the Town of Foxborough, the Town of Walpole during final project design to evaluate the feasibility of constructing any additional traffic, transit, pedestrian, and bicycle improvements within the project area in response to remaining regional and local traffic concerns.

<u>April 24, 2009</u> DATE

Ian A. Bowles, Secretary

Comments received:

03/31/09	Town of Foxborough, Board of Water and Sewer Commissioners
04/14/09	Town of Foxborough, Planning Board
04/14/09	Edgewood Development Company, LLC
04/09/09	Town of Foxborough, Board of Selectmen
04/09/09	Town of Foxborough, Board of Selectmen
03/31/09	Town of Walpole, Town Administrator
03/27/09	Town of Walpole, Conservation Commission
04/13/09	Town of Walpole, Planning Board
04/06/09	Goulston & Storrs
04/10/09	Department of Environmental Protection (MassDEP) – SERO
04/10/09	Massachusetts Highway Department (MassHighway)
04/10/09	495/MetroWest
04/13/09	Goulston & Storrs

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