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October 23, 2015

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

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| PROJECT NAME | : The Lewis Wharf Project |
| PROJECT MUNICIPALITY | : Boston |
| PROJECT WATERSHED | : Boston Harbor |
| EEA NUMBER | : 15418 |
| PROJECT PROPONENT | : JW Capital Partners, LLC |
| DATE NOTICED IN MONITOR | : September 23, 2015 |

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62I) and Sections 11.03 and 11.06 of the MEPA regulations (301 CMR 11.00), I have reviewed the Environmental Notification Form (ENF) and hereby determine that this project **requires** an Environmental Impact Report (EIR). The Proponent should submit a Draft EIR (DEIR) in accordance with the Scope below.

The ENF provided sufficient information to understand the nature, scope and scale of the project and its potential environmental impacts, which is necessary to develop a Scope for the DEIR. The DEIR will provide an opportunity for the Proponent to present alternatives that respond to the opportunities and challenges of the site. Opportunities include a remarkable, waterfront location that is underutilized and marred by the deteriorating pile fields. In addition, the Boston Sailing Club (BSC) provides an existing water dependent use that can be incorporated into the project in a meaningful way. Challenges include achieving an appropriate balance and integration of public and private uses on the site, and addressing the vulnerability of the site to storm damage and flooding.

I received over a hundred comment letters, the majority of them from abutters or residents, which reflect significant concerns with the project. The project is opposed by many residents and elected officials representing the North End, including Senator Petruccelli, Representative Michlewitz, and City Councillors LaMattina, Murphy, Pressley, and Wu. The primary issues raised in opposition to the project include the effect of a project on the character of the neighborhood, the addition of more traffic on neighborhood streets, the impacts on the public's rights to tidelands and to access the waterfront, obstruction of views, impact to historical properties, and construction-period impacts. Commentors question its ability to be permitted as well as its advisability. Many commenters have urged me to deny the project. Many of the concerns identified in comment letters, including consistency with State regulations and standards, will be directly addressed through MEPA review. Other issues, such as compliance with zoning, will be addressed by the City of Boston through its review and permitting processes.

MEPA will provide a valuable forum for review of the project and public input; however, MEPA does *not* approve or deny a project. It is an environmental review process through which the Proponent will identify potential environmental impacts, consider alternatives to avoid impacts, and propose mitigation measures. A key purpose of MEPA is to "assist each Agency in using (in addition to applying any other applicable statutory and regulatory standards and requirements) all feasible means to avoid Damage to the Environment or, to the extent Damage to the Environment cannot be avoided, to minimize and mitigate Damage to the Environment to the maximum extent practicable" (301 CMR 11.01(1)(a)).

The Scope for the DEIR has been developed based on the MEPA regulations, consultation with State Agencies, and input from abutters, residents, advocacy groups and others. It will require the Proponent to develop a robust alternatives analysis, to consider and compare the environmental impacts of alternatives, and to identify how environmental impacts will be avoided, minimized and mitigated to the maximum extent practicable. The DEIR should demonstrate that the project can be designed consistent with the provisions of the City of Boston's 1991 HarborPark Municipal Harbor Plan (MHP) and to comply with Chapter 91 (c. 91). In addition, the DEIR should provide a detailed assessment of the site's vulnerability to flooding and storm damage and demonstrate that the project design responds appropriately to these vulnerabilities.

Project Description

As described in the ENF, the project consists of a hotel with function rooms, a restaurant, a bar, and below-grade parking. The project will include public open space, a marina, and a sailing pavilion to be used by the Boston Sailing Center (BSC). The project will be constructed on a 9.03-acre site that includes 2.43 acres of land, five acres of open water in Boston Harbor, and a 1.6-acre area of watersheet containing a pile-supported wharf and pile fields. The hotel will be located in two 55-foot high buildings with combined gross floor area of 187,000 square feet (sf). They will be constructed primarily on pile-supported piers within the footprint of the existing pier and pile fields, although a small portion will be located on land adjacent to the pile fields.

The hotel and ancillary uses will be connected by a lobby. The buildings will contain:

- 277 hotel rooms;
- A 5,000 sf restaurant;
- A 7,000 sf ballroom;
- Meeting rooms totaling 4,000 sf;
- Function rooms totaling 3,000 sf;
- A 3,800 sf lounge/bar; and
- An area of 725 sf to be used by the Boston Sailing Center.

The sailing pavilion, open space and parking area will be constructed on land. The land-based portion of the site is bisected by the Lewis Wharf Condominiums building. North of the condominium building, the Proponent will construct a below-grade parking garage with 379 spaces, a driveway and ramp to the parking garage, a surface auto court at the hotel entrance, and a landscaped 2.87-acre public park. The project will include a 3,122 sf building adjacent to Atlantic Avenue to be used by the Boston Sailing Center, which currently operates from a Louisiana riverboat moored between the two pile fields. The project will include a 1,800-linear foot (lf) Harborwalk of at least 12 feet in width along the perimeter of the land and pile-supported portions of the site. The ends of the reconstructed piers will include 35-ft wide public open spaces overlooking Boston Harbor. South of the condominium building, the project will relocate an existing swimming pool. Existing open space will be maintained. The marina docks will be located along the seaward perimeter of the site and will provide 130 slips.

Project Site

Lewis Wharf is located on Atlantic Avenue near its intersection with Commercial Street in Boston's North End waterfront district. It is located within a stretch of Boston Harbor that is marked by marinas, commercial space and private waterfront residences. The site is bordered to the north by the Pilot House building, to the south by Commercial Wharf, to the east by Boston Harbor, and to the west by the Lewis Wharf Condominiums and a mixed-use neighborhood with restaurants, offices, and residences.

The watersheet portion of the site is currently occupied by 53 boat slips, 31 boat moorings, and the BSC, a sailing school and sailing club. A 223-space surface parking lot and driveway occupies most of the land on the northern portion of the site. A small park is located along the water's edge between the site and the Pilot House. The southern portion of the site includes a paved parking area at the seaward end, a swimming pool used by the residents of the condominium building that is also open to area residents by membership, and landscaped open space.

The land-based portion of the site is located entirely on filled tidelands, including Commonwealth Tidelands below the historic low water mark at the seaward end of the site. The hotel buildings will be located entirely on Commonwealth Tidelands. The majority of the upland portion of the site is located on filled private tidelands. A harbor line is located at the eastern property line in Boston Harbor. The project site and the adjacent Lewis Wharf Condominiums Building are located within the Old Waterfront District, which is listed on the Massachusetts

Historical Commission's (MHC) *Inventory of Historic and Archaeological Assets of the Commonwealth* (the Inventory).

The site is located within the 100-year floodplain on both the current and preliminary Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency (FEMA). According to Map No. 25025C0081G, effective September 25, 2009, a portion of the site is located within a Zone A with a Base Flood Elevation (BFE) of 9 feet (ft) North American Vertical Datum of 1988 (NAVD 88) along Atlantic Avenue, 10 ft NAVD 88 on the eastern portion of the land area, and the pile fields are located in a coastal high hazard zone (Zone VE) with a BFE of 12 ft NAVD 88. A preliminary map (Map No. 25025C0081J effective date March 16, 2016) posted on the FEMA web site indicates that the land portion of the site is in a Zone A with a BFE of 10 ft NAVD 88 and the pile field is in a V Zone with a BFE of 13 ft NAVD 88.

According to the Division of Marine Fisheries (DMF), Boston Inner Harbor includes habitat for many finfish species, including winter flounder (*Pseudopleuronectes americanus*), which spawn in shallow water in early spring. Boston Harbor also provides passage for diadromous fish such destined for the Charles and Mystic Rivers, including rainbow smelt (*Osmerus mordax*), alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), shad (*Alosa sapidissima*), American eel (*Anguilla rostrata*), white perch (*Morone Americana*), and tomcod (*Microgadus tomcod*). Intertidal and nearshore raeas in the vicinity of the project site may also provide favorable habitat for blue mussels (*Mytilus edulis*) and lobster (*Homarus americanus*).

Environmental Impacts and Mitigation

Potential environmental impacts associated with the project include land alteration, creation of impervious surfaces, nonwater-dependent use of filled and flowed tidelands, relocation of a water-dependent use (the BSC operations), traffic generation, water use, wastewater generation and greenhouse gas emissions (GHG). The pile-supported hotel will be located within a coastal high hazard area and the remainder of the site is located in a coastal flood zone.

The project will include a public park adjacent to Atlantic Avenue, a Harborwalk, open space areas along the perimeter of the site, and facilities for the BSC within the northern hotel building and a new building along Atlantic Avenue. The ENF indicated that the first floor of the hotel will be raised above the 100-year flood elevation and the garage will include flood-proofing measures.

The project will add 3,530 unadjusted average daily trips (adt) for a total of 4,164 based on vehicle trip generation estimates derived from the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition)* for Land Use Codes (LUC) 310 (Hotel), 831 (Quality Restaurant), 925 (Drinking Place (Lounge/Bar), and 420 (Marina). Adjusted to account for the use of alternative modes of transportation based on data prepared by the Boston Transportation Department (BTD), the project will generate 1,092 new adt by vehicles for a total of 1,726

adjusted adt. [1] The project will implement a number of Transportation Demand Management (TDM) measures to reduce single-occupant vehicle (SOV) trips to the site and may make streetscape improvements.

The project will add 0.35 acres of impervious area to the site and increase stormwater runoff. The project will implement stormwater Best Management Practices (BMPs) to improve the water quality of stormwater discharges from the site and to maintain preconstruction rates of stormwater discharge. The project will generate 47,060 gallons per day (gpd) of wastewater and use 51,766 gpd of drinking water supplied by the Boston Water and Sewer Commission (BWSC). The project will contribute to the City of Boston's inflow and infiltration (I/I) reduction program and will use low-flow plumbing fixtures and will not use irrigation to minimize water use. Energy use by the hotel and vehicular emissions of visitors to the site will result in GHG emissions. The ENF did not include an analysis of GHG emissions but included a commitment to include energy efficiency measures in the design of the hotel and encourage non-SOV use by visitors to the site.

Jurisdiction and Permitting

The project is undergoing MEPA review and is subject to a Mandatory EIR pursuant to 301 CMR 11.03(a)(5) and 11.03 (6)(a)(6) because it involves a nonwater-dependent use of one or more acres of tidelands and will generate more than 3,000 vehicle trips to a single location. The project will require a Chapter 91 (c. 91) License from the Massachusetts Department of Environmental Protection (MassDEP), a Construction Dewatering Permit from the Massachusetts Water Resources Authority (MWRA), and Federal Consistency Review by the Massachusetts Office of Coastal Zone Management (CZM). The project may require review by the Massachusetts Historical Commission (MHC). The project is subject to review under the MEPA GHG Emissions Policy and Protocol ("the Policy").

The project will also require an Order of Conditions from the Boston Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions from MassDEP). The project will require permits and approvals from the City of Boston, which may include Large Project Review pursuant to Article 80B of the Boston Zoning Code by the Boston Redevelopment Authority (BRA) and approval of a Construction Management Plan (CMP) and Transportation Access Plan Agreement (TAPA) by the Boston Transportation Department (BTD). The project also requires a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency (EPA) and a Determination of No Hazard to Air Navigation from the Federal Aviation Authority.

Because the project is subject to c. 91, MEPA jurisdiction extends to those aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in the MEPA regulations. Pursuant to 301 CMR 11.01 (2)(a)(3), MEPA subject matter jurisdiction is functionally equivalent to broad, or full scope, jurisdiction.

[1] During the review period, the Proponent provided revised tables reflecting the adjusted and unadjusted number of automobile trips to the site. The changes are discussed in the "Traffic and Transportation" section of this Certificate.

Review of the ENF

The ENF generally described the existing conditions within the project area and the proposed project and its programmatic and physical elements. The ENF included aerial photos and plans of existing conditions and conceptual proposed conditions plans. Because the project is located entirely on tidelands, the ENF described its consistency with the c.91 regulations and the Harborpark MHP. Potential environmental impacts and mitigation measures were described in a general way. The ENF identified potential project-related permits and identified additional areas for study as part of the DEIR.

Several commenters requested that the ENF be rejected as incomplete because it included neither a substantial alternatives analysis nor detailed documentation of the nature and extent of the project's impacts. Through the submission of a limited ENF, the Proponent missed an important opportunity to receive constructive feedback on the project and alternatives which could have limited the Scope for the DEIR. The Scope for the DEIR will require greater detail and analysis, including a comprehensive analysis of alternatives, detailed description and quantification of the project's impacts, commitments to implement specific mitigation measures, and responses to comments. As noted below, State Agencies and commenters have raised significant issues related to the permittability of the project under c. 91, the State Building Code and the City of Boston requirements for building in coastal high hazard areas. The DEIR should include a detailed analysis of these concerns.

*Alternatives Analysis*

The ENF listed the impacts of a project proposed in the early 1990s by Gunwyn Properties (EEA #7755) as an alternative to the project. The Gunwyn proposal included a 235,000 sf, 335-room hotel and a below-grade parking garage (570 spaces) occupying finger piers extending from Lewis Wharf. The Certificate on the Final Environmental Impact Report (FEIR), issued on December 14, 1990, determined that the project adequately and properly complied with MEPA. The project received preliminary approvals from the BRA and the MassDEP Waterways Program; however, it was not constructed. The ENF also noted that the Proponent had considered an alternative that included residential uses in the hotel buildings but this alternative could not be licensed under c. 91, which prohibits new facilities of private tenancy (FPT) for nonwater-dependent use on pile-supported structures. The ENF also indicated that design alternatives with more landward development and a larger atrium between hotel buildings had been considered. As detailed in the Scope below, a comprehensive and robust alternatives analysis will be required in the DEIR. While this discussion provides context for what was previously considered, reviewed and permitted on the site, its usefulness as an alternative is limited given the passage of time, changes in infrastructure and adjacent land uses, and changes to regulations.

*Chapter 91/Tidelands*

The entire project site is located on filled and flowed tidelands and the project will require a c. 91 license from MassDEP. According to the ENF, the existing fill and structures at the site have been authorized by either the Legislature or by c. 91 licenses issued since 1866.

The ENF briefly reviewed the applicability of the Harborpark Municipal Harbor Plan to the site and the provisions of the c. 91 regulations that are relevant to the project. The project is a nonwater-dependent use project and will be required to conform to a set of standards to conserve the capacity of the site to promote water-dependent uses. Nonwater- dependent uses are typically prohibited from new pile-supported structures, but this project may be permittable because it will replace an existing authorized pile field. The extent of the project shoreline, based on previous authorizations and extent of the pile fields, has not been determined. As the delineation of the shoreline may impact the project design and the ability of the project to meet regulatory standards, resolution of this issue is critical to the assessment of the feasibility of the project and is an important component of the Scope.

The project will maintain operational space for the BSC, provide a Harborwalk and waterfront plaza areas along the project shoreline, and convert surface parking areas to public open space. The ENF asserted that the project will comply with the setbacks, use limitations, height limits, and site coverage requirements of the standards for nonwater-dependent use projects. According to the Proponent, the buildings for nonwater-dependent use are appropriately set back from the project shoreline and the area of the setback is reserved for water-dependent uses, including public access. The ENF indicated that the hotel and ancillary uses are considered Facilities of Public Accommodation (FPA) because they are available for use by the general public. The ENF stated that there will be no Facilities of Private Tenancy (FPT) on the ground floor of any building, which in some cases are prohibited by the Waterways Regulations (310 CMR 9.00). The ENF did not indicate whether FPTs may be located on upper floors. The ENF acknowledged the 55-foot building height limit for nonwater-dependent use buildings and stated that the project has been designed to comply with that provision. As required by the standards for nonwater-dependent use projects, the 4.03-acre land-based portion of the site will contain more open space on tidelands outside of any building footprint (2.87 acres) than the area of tidelands occupied by buildings (1.16 acres). The ENF also contended that the Harborwalk, waterfront open space, water-based activity such as the BSC, and FPAs meet the higher standard of public benefits required for nonwater-dependent use projects located on Commonwealth Tidelands.

*Coastal Wetland Resource Areas*

The project will be located within coastal wetlands resource areas. The ENF noted the presence of Land Under the Ocean (LUO), Coastal Bank, Anadromous/Catadromous Fish Run, and Land Subject to Coastal Storm Flowage (LSCSF). The ENF acknowledged that the project will affect these areas and that approval under the Wetlands Protection Act will be required. The ENF did not describe or quantify the project's impacts to wetlands resource areas. Resource area delineations, identification of potential impacts and measures to avoid, minimize and mitigate impacts are included in the Scope.

The ENF described the project design with respect to the flood zones identified on a preliminary FEMA map dated November 15, 2013. According to the ENF, that preliminary map indicated that the site lies within the 100-year floodplain with a BFE of 13 ft NAVD 88 and a zone of moderate wave action in the flowed portions of the site with a BFE of 14 ft NAVD 88.

The project buildings will be elevated such that the first habitable floor will be elevated above the BFE. In addition, the ENF indicated that the entrance to the garage will be protected to preclude flooding. As noted in the Scope and by commentors, the 2013 preliminary map has been superseded and FEMA has produced a new preliminary map that should be used as the basis of the design of the buildings.

At the MEPA site visit and consultation session held on October 8, 2015, the Proponent's representative indicated that the project may install a floating breakwater in order to protect the site from storm surges, wave damage, and other effects of coastal storms. The effect of a breakwater may form the basis of a request to FEMA for a change in the FIRM maps to reflect a lower VE zone elevation.

*Climate Change Adaptation*

The project will include a number of building design measures to address the vulnerability of the site to sea-level rise, storm surges, and climate change. The ENF indicated that the purpose of these measures is to support re-occupation of the buildings after storm events and to maintain essential services such as drinking water, safety, and temperature for the inhabitants of the building. The design measures include:

- The first floor elevation of the hotel buildings will be above the 100-year flood elevation;
- Paving and landscaping will be designed to withstand flooding, including salt tolerant plants and sidewalks sloped toward tree pitas and lawn areas, and to help minimize the heat island effect;
- The parking garage entrance will be protected to prevent floodwaters from entering;
- The buildings will be equipped with emergency generators; and
- Critical systems will not be located below the second floor.

*Traffic and Transportation*

The ENF included a summary of the existing parking and transportation conditions in the vicinity of the project site. The ENF briefly discussed the project's parking requirements and traffic generation, including expected modes of travel by visitors to the site, and provided a preliminary list of TDM measures to be implemented by the project. During the review period, the Proponent provided updated trip generation estimates that were higher than the estimate included in the ENF. Unadjusted trip generation is unchanged at 3,530 adt, but the total number of trips, including existing trips, is 4,164 adt (not 3,594 adt as shown on page 2 and elsewhere in the ENF). Adjusted adt was shifted upwards from 1,042 adt to 1,092 adt, resulting in a total of 1,726 adt. Table 3.1-7 was also adjusted accordingly to reflect slightly higher trip values during the AM and PM peak hours. These changes should be reflected in the DEIR.

The project will add 3,530 unadjusted adt for a total of 4,164 adt based on trip generation estimates derived from the Institute of Transportation Engineers (ITE) *Trip Generation Manual (9th Edition)* for Land Use Codes (LUC) 310 (Hotel), 831 (Quality Restaurant), 925 (Drinking Place (Lounge/Bar), and 420 (Marina). Adjusted to account for the use of alternative modes of

transportation based on data prepared by the Boston Transportation Department (BTD), the project will generate 1,726 new adt by vehicles, representing 31percent of the total trips to and from the site. Public transit (15 percent) or walking/bicycling (54 percent) make up the remaining trips.

The project will generate 91 vehicle trips during the morning peak hour and 133 trips during the evening peak hour. Eighty percent of the trips throughout the day will originate from the regional roadway network, including Interstate-93 (I-93), the Massachusetts Turnpike, Storrow Drive, and Route 1A. Local traffic will account for 20 percent of the trips.

The ENF identified a proposed study area as the basis of further analysis required by the BRA that will be included in the DEIR. Existing and future traffic conditions at the following intersections will be analyzed:

- Atlantic Avenue at Richmond Street;
- Commercial Street at Fleet Street;
- Commercial Street at Hanover Street; and
- Atlantic Avenue at Commercial Street and the site driveway.

The project will implement a number of TDM measures to reduce single occupancy vehicle (SOV) trips to the site and may make streetscape improvements to mitigate traffic impacts of the project. The Proponent will prepare a Transportation Access Plan Agreement (TAPA) and Construction Management Plan (CMP) for the BTD that identify mitigation commitments during the construction period and on an ongoing basis.

*Stormwater*

The ENF included a brief description of the existing stormwater management system on the site. Runoff from the site is directed either into an 18-inch diameter storm drain that discharges into Boston Harbor or into the BWSC's 18-inch diameter stormwater main in Atlantic Avenue. The existing stormwater management system does not treat or attenuate peak flows.

The project will result in a net increase of 0.35 acres of impervious area. According to the ENF, the project will include a stormwater management system that will meet the Wetlands Regulations' (310 CMR 10.00) Stormwater Management Standards (SMS). The project will remove 80 percent of the total suspended solids (TSS) in stormwater prior to discharge, reduce peak runoff discharge rates, and infiltrate stormwater into the soil to recharge groundwater. Rooftop runoff from the hotel buildings will be directed into Boston Harbor. A detailed description of the existing and proposed stormwater management system will be provided in the DEIR. The project will employ sedimentation and erosion control measures during construction to minimize water quality impacts.

*Water and Wastewater*

Wastewater from the site is carried in a 12-inch diameter sanitary sewer to a 15-inch BWSC sanitary sewer main in Atlantic Avenue for treatment and discharge at the Massachusetts

Water Resources Authority's (MWRA) Deer Island Wastewater Treatment Plant. The capacity of the 15-inch BWSC sewer is 4.776 cubic feet per second (cfs). Based on the project's anticipated wastewater generation of 47,060 gpd, the project will add 0.07 cfs of flow into the sewer main, which is approximately 1.4 percent of the capacity of the Atlantic Avenue main. The project will mitigate its wastewater impacts by contributing to BWSC's inflow and infiltration (I/I) mitigation program and by using low-flow plumbing fixtures.

The project will use 51,766 gpd of water which will be provided through a 16-inch diameter BWSC water main in Atlantic Avenue. The ENF indicated that two existing fire hydrants and an eight-inch private water main connecting to the Atlantic Avenue main will provide adequate water and fire protection service to the project site. A second connection to the 16-inch main may be necessary to provide a loop to serve the site.

*Historical Resources*

The ENF included a list of historic resources within and in the vicinity of the project site. The project site and the adjacent Lewis Wharf Granite Building are located within the Old Waterfront District, which is listed on the Massachusetts Historical Commission's (MHC) *Inventory of Historic and Archaeological Assets of the Commonwealth* (the Inventory). The ENF identified eleven additional structures or areas in the vicinity of the site that are listed in the Inventory. Six resources in the vicinity of the site are listed in the State and National Registers of Historic Places, including the Fulton-Commercial Streets District (BOS.CU), Long Wharf and Custom House Block (BOS.AQ), and Union Wharf (BOS.CW). According to the ENF, the project has been designed to be architecturally sensitive to the surrounding historic resources and will generally not affect existing views of the historic Lewis Wharf (Granite) Building. MHC's database did not list any archaeological resources at the site. According to the Board of Underwater Archaeological Resources (BUAR), there is no record of submerged archaeological resources at the project site.

*Construction Period*

The Proponent will be required to develop a Construction Management Plan (CMP) and a Transportation Access Plan Agreement (TAPA) with the BTD. These plans will include measures that will be implemented to minimize noise, traffic, dust, and air quality impacts during construction of the project. The ENF listed mitigation measures that will be employed, including:

- Designated truck routes;
- Police details to direct pedestrians and vehicles, if necessary;
- Temporary barricades, signage, and other measures to ensure safe pedestrian and vehicular access to and around the site during construction;
- Use of wetting agents, covered trucks, street and sidewalk sweeping, and management and monitoring of construction practices to minimize fugitive dust;
- Use of mufflers on construction equipment and muffling enclosures around continuously running equipment;

- Scheduling project activities to keep average noise levels low and synchronize the noisiest operations with high ambient sound levels; and
- Turning off noisy equipment when not needed.

The project will employ rodent control measures consistent with City of Boston requirements, including inspection, monitoring, and treatment before and during construction.

According to the ENF, the project site has not had identified releases of hazardous materials requiring notification or action under the Massachusetts Contingency Plan (MCP). Based on previous testing results, low levels of contaminants may be present in surface soils. Prior to the start of construction, the Proponent will conduct additional soil sampling to determine if any specific mitigation measures may be required and to prepare data necessary for the disposal of excavated soil.

## SCOPE

### General

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope.

As noted previously, this Scope has been developed in consultation with State Agencies, and input from abutters, residents, advocacy groups and others. It will require the Proponent to develop a robust alternatives analysis, to consider and compare the environmental impacts of alternatives, and to identify how environmental impacts will be avoided, minimized and mitigated to the maximum extent practicable. The DEIR should demonstrate that the project can be designed consistent with the HarborPark MHP and to comply with c. 91 use and dimensional requirements. In addition, the DEIR should provide a detailed assessment of the site's vulnerability to flooding and storm damage and demonstrate that the project design responses appropriately to this vulnerability. I encourage the Proponent to think creatively about how to address these challenges while better integrating public and private uses on the site.

Comments from MassDEP, CZM, and DCR, as well as abutters and neighborhood residents, indicated that the ENF lacked sufficient detail about the project and did not sufficiently address issues necessary to assess the ability of the project to be permitted. Primary among these concerns is the location of the hotel on pile-supported piers in the VE zone, within which the State Building Code requires new construction to be located landward of the mean high tide line. In addition, the Building Code requires that structures built in the VE zone be elevated such that the lowest horizontal member of the lowest floor is elevated two feet above the BFE.

Comments from MassDEP, detailed in the Chapter 91/Tidelands section, indicate that the some development over the pile fields may be permitted pursuant to a provision of the Waterways regulations at 310 CMR 9.32(1)(a)(4). This provision allows the construction of pile-supported structures below the high water mark which replace or modify existing, previously authorized wharves or pile fields. The viability of this proposed development will be dependent, in large part, on the delineation of the project shoreline based on the extent of the existing pile

fields. Prior to filing the DEIR, the Proponent should conduct the survey of the pile fields called for by MassDEP and evaluate the design options for the project based on the area of the pile field available for development pursuant to the Waterways regulations. The Proponent should provide a detailed response to each of the issues identified in the MassDEP comment letter. In addition, I note that c. 91 regulations require that the project be designed to withstand wind and wave forces associated with the 100-year storm event and to accommodate sea-level rise over the expected lifetime of the project.

In addition, I strongly encourage the Proponent to request a pre-filing meeting with the MEPA Office prior to filing the DEIR.

Project Description and Permitting

The DEIR should include a detailed description of the project and describe any changes to the project since the filing of the ENF. The DEIR should include updated site plans, if applicable, for existing and post-development conditions at a legible scale. Conceptual plans should be provided at a legible scale and clearly identify impervious areas, open space and water-related facilities for public use, pedestrian and bicycle accommodations, and stormwater and utility infrastructure. The DEIR should include detailed plan and cross-section views, at a standard engineering scale, of the pile-supported piers, hotel buildings, and parking garage.

The DEIR should also include a discussion of permitting requirements associated with the project and how the project will be constructed in accordance with applicable regulatory performance standards. It should identify permits and approvals required by the City of Boston and describe the status of these reviews and approvals, in particular, in regards to any implications to the project uses or design. The DEIR should provide the information and analysis requested in the Massachusetts Historical Commission's comment letter.

Alternatives Analysis

The DEIR should include a robust and comprehensive alternatives analysis. In addition to the Proponent's development goals and consideration of existing constraints, it should be guided by the Harborpark MHP, consistency with c. 91 dimension and use requirements and designs that respond to the vulnerability of the site to the effects of climate change, including sea level rise and more frequent and intense storms. To support analysis of the feasibility of alternatives, the DEIR must include confirmation of the shoreline, delineation of wetland resource areas, and delineation of the V-zone and A-zone based on the FEMA FIRM and projected sea level rise scenarios. It should consider how alternative site designs could meet c. 91 use and dimensional standards while avoiding and minimizing the vulnerability of the site to storm damage and flooding. It should consider an alternative that shifts the buildings to the landward area of the site while providing open and green spaces along the waterfront to buffer the impacts of storms as well as enhance public access along the waterfront. All alternatives should include consideration of design and mitigation measures, including elevation of structures, to increase the project's resiliency to flooding and storm damage.

At a minimum, the DEIR should provide a detailed analysis of the following additional alternatives:

- At least one project design that complies with the State Building Code standards for new construction in a VE zone, including a land-based location for the hotel at the project site;
- A reduced footprint alternative; and
- An alternative involving only water-dependent use of the pile fields.

The DEIR should describe the alternatives in the narrative and provide conceptual site plans for each alternative. It should quantify and compare the impacts of each alternative with respect to public use of tidelands, water-dependent uses, wetlands, traffic, historic resources, and water quality. The DEIR should also provide a table comparing impacts of the alternatives to the Preferred Alternative. The analysis should also describe the advantages of each alternative with respect to GHG emission, feasibility of on-site energy generation, and climate change adaptation. The DEIR should provide a rationale to explain why certain alternatives are selected and others ruled out for further consideration.

Land Alteration

The DEIR should identify the total amount of land alteration and identify and quantify impervious and pervious areas under existing and proposed conditions. The DEIR should describe landscape treatments that minimize impervious pavement, including the use of pervious pavement and other materials and vegetated landscaped areas.

Chapter 91/Tidelands

The DEIR should review the history of c. 91 licensing and legislative authorizations for the site and include copies of prior approvals. The DEIR should include overlays of the previous license plans to document specific areas of the site that have been authorized under c. 91. The DEIR should provide a detailed inventory of existing structures and uses on tidelands at the site, including the watersheet, and confirm the location of the most current Harbor Line(s) within or adjacent to the site. The DEIR should provide a structural analysis of the existing seawalls and any repairs or reconstruction that may be necessary to accommodate the project and to maintain the integrity of the site regardless of the changes needed to construct the project.

The DEIR should detail the marine construction process for the project, including the installation and removal of piles, seawall repair or construction, placement of fill, dredging, and installation of floats and other structures, such as water and sewer utilities, for use by the BSC and marina. The DEIR should provide an analysis of pump-out facilities available in nearby areas along the waterfront and evaluate the feasibility of providing pump-out services at the proposed marina. The DEIR should provide an analysis of any impacts of the project's pile-supported structures on navigation, including general navigation in Boston Harbor and access to existing or potential dockage at adjacent sites. The DEIR should also provide a detailed description of the construction of the garage, BSC building along Atlantic Avenue, the swimming pool, park and harborwalk, and any other components of the project on land. The

DEIR should identify any changes to public access to tidelands during or after the construction process. The DEIR should include plans showing all work in relation to the mean high water mark, mean low water mark, and historic low water mark.

According to MassDEP, the project may be permitted pursuant to a provision of the Waterways regulations at 310 CMR 9.32(1)(a)(4), which allows the construction of pile-supported structures below the high water mark which replace or modify existing, previously authorized wharves or pile fields. As noted previously, a threshold question for the project design concerns the area available for development based on the extent of the existing pile fields.

The ENF included a survey of the pile fields performed in June, 2000 and did not include any more recent information on the number or location of remaining piles. I received comments from an abutter to the project that included a visual inspection of the pile field conducted on its behalf by a professional consulting and engineering firm in July and August, 2015.[2] The report suggests that the area of the pile field may be significantly smaller than was shown in the ENF. As suggested by MassDEP, the Proponent should conduct a site visit with MassDEP staff to agree on a methodology for a survey of the existing pile field. The DEIR should include a revised plan of the pile field based on a new survey. To ensure a constructive review of the DEIR, the Proponent should conduct this survey and evaluate the design options for the project based on the area of the pile field available for development pursuant to the Waterways regulations. If the area of the pile field is smaller than that shown in the ENF, it should form the basis of the "Reduced Footprint" alternative. The DEIR should include a detailed report of the survey methods, including the tidal conditions during which the survey was performed, method for determining whether a pile should be counted, how the position of a pile should be represented on a plan, and how any gaps in the pile field are treated.

The Waterways regulations include measures to prevent displacement of water-dependent uses by nonwater-dependent use projects. The DEIR should describe what provisions will be made to ensure that water-dependent uses at or in the vicinity of the site are not impacted or displaced by construction activities. The DEIR should describe any temporary or permanent relocation of the BSC and describe the facilities that will be made available for use by the BSC.

The DEIR should describe publicly accessible open space and other facilities, signage, and programming to be provided at the site in order to fulfill c. 91 requirements. The DEIR should include facilities for the public that will activate the shoreline and attract the public on a year-round basis, in accordance with the high standards for nonwater-dependent use projects on Commonwealth Tidelands.

Public Benefit Determination

This project is subject to a mandatory Public Benefit review pursuant to 301 CMR 13.00. The DEIR should include detailed information describing the nature of the tidelands affected by the project and the public benefit of the project. The DEIR should discuss the impact of the project on abutters and the surrounding community, enhancement to the property, and benefits to

[2] *Lewis Wharf Pile Field Visual Inspection, Lewis Wharf, Boston*, dated October 13, 2015. Prepared by ESS Group, Inc. for Pilot House Properties, LLC. Pilot House Properties is the abutter of the project site to the north.

the public trust rights in tidelands and other rights. The DEIR should identify benefits of the project provided through municipal permits, community activities on the site, environmental protection and preservation, public health and safety, and the general welfare.

Coastal Wetland Resource Areas

The ENF did not include a delineation of wetlands resource areas on the site or analyze the project's impacts on these resources. The DEIR should include plans showing the location of mean high and low water marks and wetland resource areas on the site and in relation to project activities. The DEIR should quantify impacts to wetlands and identify measures to minimize and mitigate these impacts. The DEIR should provide an analysis of how the project will meet the performance standard for each resource area.

The DEIR should include a benthic habitat survey. I recommend that the Proponent consult with DMF regarding the design and methodology of the survey. If possible, the results of the survey should be provided in the DEIR and so that the project's impacts on marine habitat and potential mitigation measures can be identified. DMF recommends that no in-water, silt producing work, including cutting of old pilings, take place from February 15 to June 30 to avoid impacts to winter flounder and diadromous species using Boston Harbor.

The DEIR should include a detailed analysis of the projected effects of coastal flooding and storm surge on existing and proposed conditions at the site, including the parking garage. According to the ENF, the first floor of the hotel will be elevated above the 100-year flood elevation. While providing some protection to the buildings, this measure does not conform to all of the requirements of the Building Code, including the requirement that the lowest horizontal structural member be elevated two feet above the BFE. The DEIR should confirm the elevation that will be used to the design the building based on the appropriate FEMA map, and discuss whether the project will be designed to elevate the building or the pile-supported base above the BFE. The DEIR should include a detailed discussion of the Building Code requirements at the site and describe, with plans and any data or analysis necessary, how the project has been designed in accordance with those standards.

If the Proponent intends to propose a structural device, such as a wave attenuator or breakwater to reduce the effective BFE and storm wave energy, the DEIR should include a detailed design of the structure, document its use and effectiveness in existing installations, and describe any maintenance activities that are necessary for its long-term effectiveness. The impacts and any necessary mitigation to resource areas or navigation of the structure should be documented in the DEIR. The DEIR should state whether the Proponent will seek a map revision from FEMA to alter the BFE based on the structural wave attenuator or any other data available to the Proponent.

Climate Change Adaptation

The DEIR should provide additional analysis and discussion of potential impacts to the project site from predicted sea level rise, increased frequency and intensity of precipitation events and extreme heat events. The DEIR should identify site elements that will be designed to

reduce the impact of extreme heat waves and limit the potential impact of more frequent and intense storm precipitation including, but not limited to:

- Ecosystem-based adaptation measures, such as integration of tree canopy cover, rain gardens, LID stormwater management techniques, to reduce the heat island effect and mitigate stormwater runoff;
- Use of on-site renewable energy or Combined Heat and Power (CHP) systems to add resiliency during periods of power loss during storms;
- Protection of emergency generator fuel supplies from effects of extreme weather and flood proofing; and
- Sizing emergency generators to allow for select common areas and other emergency and life safety systems to remain operational for a period of time beyond code requirements.

According to the ENF, the first floor of the hotel will be elevated above the 100-year flood elevation. It does not appear that the building will be designed at a higher elevation to account for sea-level rise. The DEIR should review the available literature regarding potential sea-level rise scenarios and discuss changes to the project that would be necessary to provide protection to the building under those scenarios. To assist in the evaluation of climate change resiliency and adaptation measures the Proponent should review EOEEA's *Climate Change Adaptation Report* (September 2011) (http://www.mass.gov/eea/docs/eea/energy/cca/eea-climate-adaptation-report.pdf). Additional information on potential sea level rise impacts can be found in the Office of Coastal Zone Management's (CZM) December 2013 report entitled, *Sea Level Rise: Understanding and Applying Trends and Future Scenarios for Analysis and Planning* (http://www.mass.gov/eea/docs/czm/stormsmart/slr-guidance-2013.pdf). The Proponent may also review the Boston Harbor Association's (THBA) *Preparing for the Rising Tide* report issued in 2013 for additional information. In addition, the Massachusetts Department if Transportation (MassDOT) may have data collected and analyzed as part of its review of climate change impacts to the Central Artery/Tunnel (CA/T) system. I encourage the Proponent to consult with the MEPA Office for additional clarification prior to undertaking this task.

Traffic and Transportation

According to MassDOT, the project will not significantly impact state highways and no state traffic-related permits will be required of the project. The DEIR should include a transportation study prepared in conformance with the BRA and BTD requirements for the assessment of traffic impacts. The analysis should describe both existing and proposed roadway, pedestrian, and bicycle conditions; public transit capacity and infrastructure; roadway and intersection volumes; safety issues; and operational analyses for intersections for the weekday morning and evening peak hours. I encourage the Proponent to consider comments requesting an expansion of the Study Area. The DEIR should clearly identify proposed adjusted and unadjusted adt on a per use basis (i.e., BSC visitors, hotel guests, employees) and identify assumptions associated with internal trip or pass-by credits. The DEIR should evaluate the use of water transportation to the site. The analysis should evaluate the potential use of water taxis or regularly scheduled ferry service to the site or nearby terminals. The DEIR should clearly identify any mitigation measures that will be necessary to minimize impacts to the local road network, including TDM measures and roadway improvements. The DEIR should discuss how

the amount of parking including in the Preferred Alternative was determined and compare proposed parking supply to ITE's *Parking Generation* guidance and to City of Boston requirements.

The entrance to the garage and the hotel guest drop-off area are situated adjacent to the Harborwalk and open space areas that will attract pedestrian and bicycle activity. The DEIR should address the design of these areas to ensure that they do not create conflicts between non-motorists and vehicles. The DEIR should describe any guidance provided by the BRA or the BTD for the design of these areas. I recommend that the Proponent consult with WalkBoston for additional assistance.

*Transportation Demand Management*

The DEIR should include a comprehensive TDM program that will provide incentives for using alternative transportation and discourage single-occupant vehicle (SOV) trips. The TDM program should evaluate all feasible measures to reduce trip generation associated with the project. The TDM program should be based on specific measures that have been successful in reducing trip generation for similar projects. The TDM plan should seek to maximize the use of pedestrian and bicycle facilities, offer incentives for using public transportation and local transportation and shuttle services, and encourage the use of low-emissions vehicles. The DEIR should review the potential for pedestrian and bicycle improvements to area roadways to promote non-vehicular access to the site. The Proponent should consider implementing the following measures:

- Designate a full-time on-site TDM coordinator;
- Provide commuter information for employees and visitors, including a website available to employees and visitors;
- Construct bicycle and pedestrian improvements within the project site and connections to adjacent streets, public transportation, and other destinations;
- Participate in programs providing alternative transportation;
- Participate in available fixed-route transit services that are or may become available in the vicinity;
- Subsidize passes for employees;
- Encourage employers to offer alternative work schedules and staggered work shifts to employees to reduce peak period traffic volumes;
- Provide financial incentives for employees who use alternative modes of transportation, including bicycling, walking, carpooling, vanpooling, and public transportation, to get to work;
- Implement a parking pricing program to encourage the use of alternative modes of transportation to access the site;
- Provide bicycles for use by employees and residents for daily trips;
- Include on-site cafeterias, ATMs, and mail drop boxes to eliminate the need for employees to make off-site vehicle trips;
- Support for ride-sharing matching/carpooling through the active promotion of NuRide, the Commonwealth's web-based trip planning and ride-matching system that allows users to earn rewards for taking greener trips;

- Provide an appropriate number of parking spaces for a car-sharing program;
- Designate preferred parking spaces for vanpools and carpools;
- Provide preferential parking for low-emission vehicles;
- Install on-site electric vehicle (EV) and solar-powered EV charging stations;
- Implement a five-year monitoring program to determine the effectiveness of the TDM program, on an iterative basis;
- Organize carpools/vanpools to nearby employment, retail, and health care centers;
- Provide indoor, secure bicycle parking;
- Implement a Guaranteed Ride Home program for employees who use alternative modes of transportation to get to work who have to leave in the event of an emergency or unscheduled overtime;
- Participate in EPA's SmartWay Transport Program to help shippers and carriers reduce vehicle trips and emissions; and
- Consult with MassRIDES, the Commonwealth's Travel Options provider, to help implement the program.

The DEIR should include an outline of a Tenant Manual that identifies which of these measures will be implemented by tenants of the building. The Tenant Manual should also offer resources and recommendations for further energy-efficiency measures and activities that tenants can pursue individually. The DEIR should also outline a monitoring plan that will be used to determine the effectiveness of the TDM measures and the modifications that may be necessary to maximize the use of alternative mides of transportation to and from the site.

Greenhouse Gas Emissions

This project is subject to review under the May 5, 2010 MEPA GHG Policy. The DEIR should include an analysis of GHG emissions and mitigation measures in accordance with the standard requirements of this Policy. The Policy requires Proponents to quantify carbon dioxide ($CO_2$) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis should quantify the direct and indirect $CO_2$ emissions of the project's energy use (stationary sources) and transportation-related emissions (mobile sources). Direct emissions include on-site stationary sources, which typically emit GHGs by burning fossil fuel for heat, hot water, steam and other processes. Indirect emissions result from the consumption of energy, such as electricity, that is generated off-site by burning of fossil fuels, and from emissions from vehicles used by employees, vendors, customers and others. The DEIR should identify and commit to mitigation measures to avoid and minimize GHG emissions. The Proponent should refer to the Policy for additional guidance on the GHG analysis. MEPA, MassDEP and the Department of Energy Resources (DOER) staff are available to assist with these efforts and I encourage the Proponent to consult with them regarding the analysis prior to submission of the DEIR.

*Stationary Sources*

The DEIR should include a GHG emissions analysis that calculates and compares GHG emissions from: 1) a Base Case corresponding to the current Massachusetts Building Code and 2) a Preferred Alternative that achieves greater reductions in energy use and GHG emissions than

required by the Building Code. The Building Code incorporates the building energy provisions of the International Energy Conservation Code (IECC) 2012, which references the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2010 standards. The GHG analysis should model energy use, GHG emissions, and mitigation measures associated with the hotel and BSC in accordance with the GHG Policy and the Department of Energy Resource's (DOER) comment letter.

I note that the City of Boston is a designated Green Community. As such, the City has adopted the Commonwealth of Massachusetts' Stretch Energy Code. Therefore, the project will be required to meet the applicable version of the Stretch Code in effect at the time of construction. The Stretch Code increases the energy efficiency code requirements for new construction (both residential and commercial) and for major residential renovations or additions in municipalities that adopt it. A revised Stretch Code (SCII) is pending review and approval by the Board of Building Regulations and Standards (BBRS) and has not been modified to designate the IECC 2012 as the comparable baseline. Projects may meet the Stretch Code requirement of 20-percent better energy efficiency than the State's base energy code by either meeting the standard of 20-percent better than ASHRAE 90.1-2007 Appendix G (energy only), or by using a prescriptive energy code. The revised SCII is anticipated to require energy use in new large buildings to be 12 to 15 percent below the baseline of IECC 2012. Therefore, to demonstrate the project's commitment to avoid, minimize, and mitigate GHG emission to the maximum extent feasible, the DEIR should include a GHG analysis evaluating energy efficiency measures to achieve compliance with the proposed SCII.

The GHG analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible. The Proponent should identify the model used to analyze GHG emissions, clearly state modeling assumptions, explicitly note which GHG reduction measures have been modeled, and identify whether certain building design or operational GHG reduction measures will be mandated by the Proponent to future occupants or merely encouraged for adoption and implementation. The DEIR should include the modeling printout for each alternative and emission tables that compare base case emissions in tons per year (tpy) with the Preferred Alternative showing the anticipated reduction in tpy and percentage by emissions source (direct, indirect and transportation). Other tables and graphs may also be included to convey the GHG emissions and potential reductions associated with various mitigation measures as necessary. The DEIR should provide the information and formatted tables requested in the DOER comment letter.

The DEIR should present an evaluation of mitigation measures identified in the GHG Policy Appendix. In particular, the feasibility of each of the mitigation measures outlined below should be assessed for each of the major project elements, and if feasible, GHG emissions reduction potential associated with major mitigation elements should be evaluated to assess the relative benefits of each measure. The DEIR should explain, in reasonable detail, why certain measures, which could provide significant GHG reductions, were not selected – either because it is not applicable to the project or is considered technically or financially infeasible. The DEIR should assess the feasibility of the following mitigation measures:

- Minimize energy use through building orientation and evaluate its impacts on energy usage, including solar gain, day-lighting and viability of solar photovoltaic (PV) systems;
- Use of high-albedo roofing materials;
- Install high-efficiency HVAC systems and adequate numbers of thermal zones to support temperature controls;
- Reduce energy use through peak shaving or load shifting strategies;
- Maximize interior day-lighting through floor-plates, increased building perimeter and use of skylights, clerestories and light wells;
- Incorporate window glazing to balance and optimize daylighting, heat loss and solar heat gain performance;
- Incorporate roof and wall insulation to minimize heat loss and minimize uncontrolled infiltration through the building envelope;
- Incorporate lighting motion sensors, climate control and building energy management systems;
- Install energy efficient lighting, both exterior and interior;
- Evaluate additional measures to reduce project plug loads, including the use of more efficient equipment (such as Energy Star), consider energy consumption as a factor in the selection of special equipment, and consider power management techniques.
- Use of small packaged CHP units sized to meet the domestic hot water and some space heating load;
- Investigate the use of LED fixtures to obtain an illumination level equivalent to what would be delivered by a standard fixture at the proposed lighting power density (LPD) of 0.87 w/sf;
- Develop a tenant manual to encourage energy and water conservation, recycling, and use of Energy Star rated appliances to reduce plug loads. Measures targeted specifically at the hotel industry are available on the EPA web site[3]; and
- If applicable, consider the development of a "green lease" program whereby tenants agree to pay the landlord recovery costs for energy efficiency improvements based on predicted cost savings to the tenant.

The DEIR should analyze the feasibility and benefits of incorporating on-site generation and renewable energy sources thoroughly in the DEIR. At a minimum, the DEIR should analyze the feasibility of employing solar photovoltaic (PV), solar hot water, CHP systems, and document the expected energy savings and reduction in GHG emissions from each generating technology. The Proponent should consider the use of one or more CHP systems for this project. Beyond providing efficient power for lighting and heating, CHP can also create greater reliability for electricity, greater control over uncertainties associated with energy prices, and produce off-grid power in the event of a black-out. I encourage the Proponent to consult with DOER regarding this analysis to ensure that the analysis accurately reflects the benefits of CHP.

The solar feasibility analysis should consider solar PV and solar thermal options for both a first-party and a third-party ownership structure. The Proponent should contact the MEPA

[3] http://www2.epa.gov/p2/green-hotels-resources-ecolabels-and-standards

office for recently updated data on solar installation costs and a solar financial modeling spreadsheet. The analysis should:

- Estimate available roof area (excluding areas dedicated for mechanical equipment) or ground space for solar panel installation;
- State the assumed panel efficiency;
- Estimate electrical or thermal output of the potential system; and
- Estimate annual GHG reductions due to the use of renewable energy versus electricity or natural gas.

The analysis should include a narrative and data to support the Proponent's adoption (or dismissal) of solar PV or solar thermal systems as a feasible measure to avoid, minimize or mitigate project-related GHG emissions and Damage to the Environment. For those projects that choose not to implement the use of solar in conjunction with the project, the analysis should include:

- A commitment to construct the project as "solar-ready". At a minimum, this commitment should include design of a structure capable of supporting solar-related infrastructure. Such a commitment may also include provision of interconnection and inverter equipment, or other design features to facilitate future solar installations.
- Completion of cost analysis to determine the overall financial feasibility of installation of solar, including potential payback periods for first-party and third-party ownership systems.
- Discussion of potential environmental constraints (shading, presence of wetlands, etc.) limiting the application of solar on-site.

I encourage the Proponent to consider design options that will allow for cost-effective integration of efficiency or renewable energy measures in the future when such measures may become more financially or technically feasible.

*Mobile sources*

The GHG analysis should include an evaluation of potential GHG emissions from mobile emissions sources. The DEIR should follow the guidance provided in the Policy for *Indirect Emissions from Transportation* to determine mobile emissions for Existing Conditions, Build Conditions, and Build Conditions with Mitigation. The Proponent should thoroughly explore means to improve traffic operations and minimize overall single occupancy vehicle trips. Improvements in traffic operations that minimize idling time can minimize overall project-related mobile source emissions. The DEIR should also review measures to promote the use of low-emissions vehicles, including installing EV charging stations and providing designated parking spaces for these vehicles. The Build with Mitigation model should incorporate roadway improvements and TDM measures to be implemented by the Proponent.

*Mitigation*

The DEIR should include a commitment to provide a self-certification to the MEPA Office at the completion of the project. It should be signed by an appropriate professional (e.g.

engineer, architect, transportation planner, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project.

Sustainable Design

Article 37 of the Boston Zoning Code requires that the project be certifiable by the U.S. Green Building Council's Leadership in Energy and Environmental Design program. The ENF included an outline of measures the project will implement that are creditable toward LEED certification. The DEIR should include a full evaluation of sustainable design elements for the buildings and exterior site areas, including measures identified in the LEED rating system. The DEIR should also describe how the project will use recycled building materials and incorporate recycling and source reduction.

Stormwater

The DEIR should describe existing stormwater management infrastructure, including on-site outfalls, connections to the BWSC system, and ultimate discharge points. The DEIR should detail the proposed stormwater management system and provide supporting documentation or data to demonstrate that it will comply with the MassDEP SMS and BWSC standards. The DEIR should describe the proposed management system and include calculations, plans at a readable scale, and design details for Best Management Practices (BMPs). The DEIR should identify BMPs and low impact development measures, such as pervious/porous ground surfaces, green roofs, and rain gardens to maximize groundwater recharge. It should identify specific BMPs for the parking garage to mitigate stormwater runoff, in particular oil separators or similar BMPs.

Water and Wastewater

The DEIR should fully characterize the existing and proposed water and wastewater systems on site and in the BWSC system. The DEIR should describe the location and size of infrastructure, connections to the BWSC water and sewer systems, and the path and ultimate disposal of wastewater from the site. It should analyze flow pressure and/or existing capacity of the BWSC water and sewer system that serve the site. It should identify any combined sewers along this path, discuss potential impacts to system capacity during dry and wet weather conditions, and identify opportunities to minimize combined sewer overflow (CSO) events within the system. The DEIR should tabulate wastewater generation and water consumption by use.

The project will be required to mitigate its contribution of flow into the BWSC sanitary system. MassDEP regulations at 314 CMR 12.04(2)(d) specify that communities with combined sewer overflows (CSOs), such as Boston, must require projects generating 15,000 gpd or more of new wastewater flow to remove four gallons of infiltration and inflow (I/I) for each gallon of wastewater. The DEIR should include a commitment to I/I removal and identify any mitigation projects or monetary contribution by the Proponent. The Proponent should consult with BWSC to identify appropriate I/I mitigation in connection with this project.

The DEIR should describe water conservation efforts to be incorporated into the project. At a minimum, the DEIR should review the feasibility of installing low-flow fixtures and using rainwater or gray water for irrigation and other purposes.

Solid Waste

The DEIR should characterize the solid waste expected to be generated by the operation of the hotel and ancillary uses. In 2014, Massachusetts banned the disposal of commercial organic wastes by businesses and institutions that generate a ton or more of organic materials per week. Business subject to the ban must use composting, conversion (such as anaerobic digestion), recycling or reuse of organic waste. The DEIR should indicate whether the hotel may be subject to the waste ban and how it may dispose of its organic waste.

The DEIR should describe measures to reduce and recycle organic and other wastes through waste diversion and recycling programs. The Proponent should consult MassDEP's comment letter for additional information and links to web sites providing technical assistance.

Construction Period

The DEIR should identify construction-period impacts and mitigation relative to noise, air quality, wetlands and water quality, and traffic. The DEIR should document any contaminated soil or groundwater regulated under the Massachusetts Contingency Plan (MCP) and describe remediation and mitigation measures if necessary. The DEIR should confirm that the project will require its construction contractors to use Ultra Low Sulfur Diesel fuel, and discuss the use of after-engine emissions controls, such as oxidation catalysts or diesel particulate filters. More information regarding construction-period diesel emission mitigation may be found on MassDEP's web site at http://www.mass.gov/dep/air/diesel/conretro.pdf.

The DEIR should provide more information regarding the project's generation, handling, recycling, and disposal of construction and demolition debris (C&D) and identify measures to reduce solid waste generated by the project. I strongly encourage the Proponent to incorporate C&D recycling activities as a sustainable measure for the project. Demolition of the existing building and other structures must comply with the MassDEP Asbestos Regulations (310 CMR 7.15) that became effective on June 20, 2014. These regulations require a pre-demolition and post-abatement surveys and inspections by a licensed asbestos monitor. The Proponent should consult the MassDEP comment letter with regard to regulatory requirements and potential mitigation measures for the removal, handling, and disposal of asbestos containing material (ACM) and other demolition debris during the construction period. The Proponent is reminded that any contaminated material encountered during construction must be managed in accordance with the MCP and with prior notification to MassDEP.

The DEIR should describe potential construction period dewatering requirements, discuss how dewatering will be conducted in a manner consistent with MWRA, MassDEP and/or BWSC regulations/guidelines, and identify any necessary permits. The draft CMP should include appropriate erosion and sedimentation control BMPs. I encourage the Proponent to adopt erosion

and sedimentation controls consistent with a Stormwater Pollution Prevention Plan prepared in accordance with the NPDES Construction General Permit requirements.

Mitigation and Section 61 Findings

The DEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each State Agency that will issue permits for the project. The DEIR should contain 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.

To ensure that all GHG emissions reduction measures adopted by the Proponent in the Preferred Alternative are actually constructed or performed, the Proponent must provide a self-certification to the MEPA Office signed by an appropriate professional (e.g., engineer, architect, transportation planner, general contractor) indicating that all of the required mitigation measures, or their equivalent, have been completed as a condition of a Certificate approving an FEIR (or Supplemental FEIR if necessary). The commitment to provide this self-certification should be incorporated into the draft Section 61 Findings included in the DEIR.

Responses to Comments

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

Circulation

The Proponent should circulate the DEIR to those parties who commented on the EENF, to any State Agencies from which the Proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. A copy of the DEIR should be made available for review at the local branch of the Boston Public Library. The DEIR submitted to the MEPA office should include a digital copy of the complete document.

October 23, 2015
Date

Matthew A. Beaton

Comments received:

9/23/2015 Barbara J. McNeil
9/23/2015 Catherine McDonnell

9/23/2015 J.W. Schniewind
9/23/2015 John McDonnell
9/23/2015 Anderson Kreiger on behalf of Pilot House Properties
9/23/2015 Peter Murley
9/24/2015 Anna Plotnikova
9/24/2015 Ellen Smith
9/25/2015 Deborah Lucas
9/25/2015 Jamy Madeja
9/25/2015 Larry Christofori
9/25/2015 Bud Ris
9/28/2015 Arlene Ellis
9/28/2015 Don& Kelli Valade
9/28/2015 Jamy Madeja(2)
9/28/2015 Prince Condominium Trust
9/28/2015 Tom Ellis
9/29/2015 Luke Auen
9/30/2015 Bobbi Smart
9/30/2015 Massachusetts Bureau of Underwater Archaeological Resources (BUAR)
9/30/2015 James B. Re
9/30/2015 Joyce P. Amico
9/30/2015 Shirley A. Durgin
10/01/2015 Betsy B. Gabrielson
10/01/2015 Boston Water and Sewer Commission
10/01/2015 Michael Malm
10/01/2015 Cathy Rocheleau
10/01/2015 Donald V. Smart
10/01/2015 Ernest Haddad
10/02/2015 Charles M. Malkemus
10/02/2015 Jamy Madeja(3)
10/02/2015 Mary Sanderson
10/04/2015 Marilyn and Mitchel Ross
10/04/2015 Pauline Cuoco
10/05/2015 Jean Eisenstadt
10/05/2015 Ryan Kenny
10/06/2015 Jamy Madeja (4) with attachments
10/06/2015 Jamy Madeja (5)
10/06/2015 Mark Tommey
10/07/2015 Erik Lund
10/07/2015 Jamy Madeja(6)
10/07/2015 Jamy Madeja (7)
10/07/2015 John Reilly
10/08/2015 MassDOT
10/9/2015 Catherine McDonnell(2)
10/9/2015 Jamie McNeil
10/9/2015 Jean Eisenstadt (2)
10/9/2015 Jess Nelson

| | |
|---|---|
| 10/9/2015 | Massachusetts Historical Commission (MHC) |
| 10/9/2015 | Ron Salett |
| 10/9/2015 | Sandra Caso |
| 10/9/2015 | Sarah S. Taymore |
| 10/9/2015 | Tara Shea |
| 10/9/2015 | William Caulder |
| 10/10/2015 | John McDonnell(2) |
| 10/12/2015 | Andrew Nguyen |
| 10/12/2015 | Jann E. Leeming & Arthur D. Little |
| 10/12/2015 | Mike Pergola |
| 10/13/2015 | Andrew Snatos |
| 10/13/2015 | Anthony J. Lochiatto |
| 10/13/2015 | Ben Gomez |
| 10/13/2015 | Brian Lang |
| 10/13/2015 | Massachusetts Department of Energy Resources (DOER) |
| 10/13/2015 | Evvajean Mintz |
| 10/13/2015 | Guy Rossman |
| 10/13/2015 | James Labeck |
| 10/13/2015 | Jamy Madeja (8) |
| 10/13/2015 | Jen Price |
| 10/13/2015 | Joanne M. Hayes-Rines |
| 10/13/2015 | John J. Boyle Jr. |
| 10/13/2015 | Will Adams – JW Capital Problems |
| 10/13/2015 | John Pregmon |
| 10/13/2015 | Joseph Zeinoun |
| 10/13/2015 | Massachusetts Department of Environmental Protection (MassDEP) – Northern Regional Office (NERO) |
| 10/13/2015 | Massachusetts Water Resources Authority (MWRA) |
| 10/13/2015 | Michelle Crothers |
| 10/13/2015 | Boston City Councilor Michelle Wu |
| 10/13/2015 | Mike Farrell |
| 10/13/2015 | Monika Kratzman |
| 10/13/2015 | Monika Kratzman (2) |
| 10/13/2015 | Nate & Jennifer Crampton |
| 10/13/2015 | Nate Crampton |
| 10/13/2015 | North End Waterfront Residents Association |
| 10/13/2015 | Paul Stanislas |
| 10/13/2015 | Anderson Kreiger on behalf of Pilot House Properties (2) |
| 10/13/2015 | Ron Salett(2) |
| 10/13/2015 | Rosa Greenberg |
| 10/13/2015 | The Boston Harbor Association |
| 10/13/2015 | Tim Mauro |
| 10/13/2015 | Wade R. Edwards – Boston Sailing Club |
| 10/13/2015 | William Pressley |
| 10/14/2015 | Barbara McNeil(2) |
| 10/14/2015 | Jerrold A. Olanoff |

10/14/2015 crwolff
10/14/2015 David Anderson
10/14/2015 Georgeane D'Agrosa
10/14/2015 Jessica Conway
10/14/2015 Save Our North End Waterfront & Petition with 1,000 Signatures
10/14/2015 Steve Johnson
10/15/2015 Conservation Law Foundation (CLF)
10/16/2015 Massachusetts Office of Coastal Zone Management (CZM)
10/18/2015 Brittany Durgin
10/18/2015 Dan Durgin
10/19/2015 Massachusetts Department of Conservation and Recreation (DC)
10/19/2015 Bud Ris(2)
10/20/2015 Dan Durgin Jr.
10/21/2015 Massachusetts Department of Marine Fisheries (DMF)

MAB/AJS/ajs