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

PROJECT NAME : The Pinnacle at Central Wharf
PROJECT MUNICIPALITY : Boston
PROJECT WATERSHED : Boston Harbor
EEA NUMBER : 16247
PROJECT PROPONENT : RHDC 70 East India LLC c/o The Chiofaro Company
DATE NOTICED IN MONITOR : July 22, 2020

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62I) and Section 11.03 of the MEPA Regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of a mandatory Draft Environmental Impact Report (DEIR).

I received over 80 comment letters from agencies, residents, institutions and community organizations. Many commenters support the project because it will remove the existing structure (known as the Harbor Garage) and replace it with a building with more active uses and public waterfront open space. Other commenters, including abutters to the site, expressed their opposition to the proposed height and density of the development and its potential traffic, shadow and wind impacts, as well as impacts to tidelands. Many commenters questioned what they view to be the premature the filing of the ENF prior to development of Design and Use Standards (DUS) by the City of Boston (the City) as required by the Downtown Waterfront Municipal Harbor Plan (DWMHP); the DUS are intended to provide consistent criteria for of

open space and climate change resiliency design for all projects in the planning area.¹ The City recently issued a Request for Proposals (RFP) seeking a consultant to prepare the DUS over a six-month period that will include a community engagement process. As discussed below, I expect that the DEIR will be filed after the DUS are developed to provide the necessary context for evaluating the project design. I appreciate the City's commitment to include a robust community engagement process in the development of the DUS. I also expect that the DEIR will evaluate the full range of alternatives to the project, including a lower building height and other designed features addressed under the DWMHP to provide a better understanding of the trade-offs between project goals and environmental impacts.

I note that MEPA review is not a permitting process; it does not pass judgment on whether a project should or should not proceed, or whether the project can or should receive a particular permit. Rather, the MEPA process requires public disclosure of a project's environmental impacts as well as the measures that the proponent will undertake to avoid, minimize and mitigate these impacts. MEPA review occurs before public agencies act to issue permits and approvals for a proposed project to ensure that those agencies are fully cognizant of the environmental consequences of their actions. I note the significant public interest in this project. The MEPA process provides a forum for public and stakeholder participation in the review of a project's impacts and mitigation prior to the commencement of State permitting.

I received many informed and thoughtful comment letters on the project. I note that some comments are based on additional information included in the Project Notification Form (PNF) submitted to the Boston Planning and Development Agency (BPDA) but not in the ENF. The Scope for the DEIR included herein requires detailed information about the project design and comprehensive analyses of its alternatives, potential impacts and proposed mitigation measures. I expect that the Proponent will provide a Response to Comments addressing issues raised in each comment letter and, where applicable, will incorporate relevant issues in the project description and analyses provided in the DEIR. The Scope included herein requires that the Proponent provide considerably greater design details and analyses to document the project's impacts and mitigation measures. Key requirements of the Scope include analyses of alternative designs of the building, open space, resiliency measures and vehicular access; detailed plans and descriptions of the designs of open space and resiliency measures based on the DUS; a review of the DWMHP and analyses, including wind and shadow studies, demonstrating the project's consistency with the DWMHP; a comprehensive transportation analysis, including evaluations of the project's impacts and mitigation measures associated with pedestrian and bicycle travel modes, transit use and roadway operations; and an evaluation of the Greenhouse Gas (GHG) emissions associated with the building energy use and mobile sources.

Project Description

As described in the Environmental Notification Form (ENF), the project consists of the construction of an 864,600-square foot (sf), 600-ft tall building with 44 stories.² The building will include 284,600 sf of residential use (200 units), 538,000 sf of office space, 42,000 sf of

¹ The term "Downtown Waterfront Municipal Harbor Plan" or "DWMHP" used herein includes the MHP submitted by the City and any provisions or conditions included in the EEA Secretary's approval of the MHP.

² The building will not exceed 585 ft to the highest occupiable floor.

space for retail and similar uses and 1,100 parking spaces in a below-grade garage. Vehicles will access the garage by full access driveways on Atlantic Avenue and East India Row. The project will provide 42,000 sf of public interior space on the first two floors, including a public corridor from the southwest corner of the site to the northeast corner.

According to the ENF, the building footprint will occupy 50 percent (28,673 sf) of the site. The other 50 percent of the site will be designed as publicly accessible open space, including an approximately 17,200-sf plaza along Milk Street on the north side of the site. As described in more detail below, the project will improve an adjacent section of Harborwalk and provide funding for additional off-site open space improvements.

Project Site

The 1.3-acre (57,346 sf) project site is occupied by a 418,626-sf building (excluding the area of two below-grade parking levels) with a parking garage with 1,475 spaces and 29,800 sf of mixed-use commercial space. It is bordered to the west by Atlantic Avenue, to the south by East India Row, to the east by the City's Harborwalk and to the north by Milk Street. The Boston Harbor shoreline is approximately 90 feet away from the site on the east side of the Harborwalk. The site lies between the New England Aquarium (Aquarium), located northeast of the site, and the Rose Kennedy Greenway (Greenway) on the west side of Atlantic Avenue. The entire site is occupied by the existing building.

The entire site is located on filled Private Tidelands subject to licensing by the Massachusetts Department of Environmental Protection (MassDEP) pursuant to M.G.L. Chapter 91 (c.91) and is within the planning area of the Downtown Waterfront Municipal Harbor Plan (DWMHP). According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) number 25025C0081J (effective March 16, 2016), portions of the site are located within the 100-year floodplain (Zone AE) with a Base Flood Elevation (BFE) of 10 feet North American Vertical Datum of 1988 (NAVD 88). The project site is landward of the boundary of a coastal flood zone with velocity hazard (VE) and BFE of 13 ft NAVD 88, which generally coincides with the Boston Harbor shoreline east of the site and includes adjacent sections of the Harborwalk.

The project includes activities affecting Boston Harbor. According to the Division of Marine Fisheries (DMF), this part of the harbor provides important habitat for a variety of spawning and migrating marine finfish species including winter flounder (*Pseudopleuronectes americanus*), rainbow smelt (*Osmerus mordax*), alewife (*Alosa pseudoharengus*), blueback (*Alosa aestivalis*), shad (*Alosa sapidissima*), American eel (*Anguilla rostrata*), white perch (*Morone americana*) and tomcod (*Microgadus tomcod*).

Environmental Impacts and Mitigation

Potential environmental impacts of the project include the nonwater-dependent use of 1.3 acres of filled tidelands; generation of 9,866 average daily trips (adt); use of approximately 85,778 gallons per day (gpd) of water; and generation of approximately 77,980 gpd of wastewater. The project may have wind and shadow impacts on adjacent land and watersheet. Greenhouse Gas (GHG) emissions and other air pollutants are associated with the burning of fossil fuels for on-site energy use and for vehicle trips generated by the project.

The project will minimize and mitigate environmental impacts by removing 0.16 acres of impervious area; enhancing pedestrian and bicycle access by providing open space on 50 percent of the site; improving the adjacent section of Harborwalk and providing funding for off-site resilience and open space enhancements; reducing the number of parking spaces by 375 spaces; implementing Transportation Demand Management (TDM) measures such as encouraging use of public transit and other alternate modes of travel; and construction of a stormwater management system with Best Management Practices (BMPs) to improve water quality, reduce flow rates and infiltrate stormwater. The DEIR should provide further analysis to demonstrate that the project includes measures to minimize stationary- and mobile-source GHG emissions generated by the project to the maximum extent practicable.

Jurisdiction and Permitting

The project is subject to the preparation of a Mandatory EIR pursuant to 301 CMR 11.03(3)(a)(5) and 301 CMR 11.03(6)(a)(6), respectively, because it requires State Agency Actions and involves the nonwater-dependent use of more than one acre of tidelands and will generate 3,000 or more new adt on roadways providing access to a single location. The project requires a c. 91 License from MassDEP; a Vehicular Access Permit from the Massachusetts Department of Transportation (MassDOT); and a Sewer Use Discharge Permit from the Massachusetts Water Resources Authority (MWRA). The project requires a Public Benefit Determination (PBD) and is subject to review under the May 2010 MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol (“the Policy”). It requires review by the Massachusetts Historical Commission (MHC) pursuant to M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00).

The project requires an Order of Conditions from the Boston Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions (SOC) from MassDEP). It requires Article 80 Large Project Review and PDA Development Plan Approval by the BPDA and a Transportation Access Plan Agreement (TAPA) and Construction Management Plan (CMP) approval from the Boston Transportation Department (BTD). The project requires a determination of no hazard to air navigation from the Federal Aviation Administration (FAA) and a National Pollutant Discharge Elimination System (NPDES) Stormwater General Permit from the Environmental Protection Agency (EPA).

Because the Proponent is not seeking State Financial Assistance, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required Permits that are likely, directly or indirectly, to cause Damage to the Environment. As the entire site is located in regulated tidelands, the subject matter of the c. 91 License is sufficiently broad such that jurisdiction is functionally equivalent to full scope jurisdiction and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment.

Review of the ENF

At the Proponent’s request, the comment period was extended from 21 days to 80 days in order to coincide with the BPDA’s comment period. A remote Consultation Session was conducted via videoconference on the evening of September 14th. The Proponent translated the

Consultation Session notice into traditional and simplified Chinese and Spanish. In addition to a standard distribution list consisting of State, City and regional agencies and environmental and community groups, notice of the Consultation Session was provided to the Chinese Progressive Association, Asian American Civic Association, ABCD Citywide Boston Hispanic Center, Sociedad Latina, posted on the bulletin board of the Chinatown branch of the Boston Public Library and provided to others upon request. The Proponent offered to provide Cantonese, Mandarin and Spanish interpretation services for the Consultation Session upon request; however, there were no requests for interpretation services.

The ENF included a description of existing site conditions, a basic project description and conceptual plans of proposed conditions that were not scaled. The ENF identified the project's potential impacts on tidelands, transportation, water and wastewater infrastructure, stormwater and historic resources, but did not provide a detailed assessment of impacts or a comprehensive analysis of mitigation measures. The ENF briefly addressed c. 91 requirements applicable to the site, including those reflected in the DWMHP. I note that the PNF submitted to the BPDA includes included a transportation analysis and more information about existing and proposed conditions than provided in the ENF, such as building and open space design, infrastructure, energy use and GHG emissions, climate resiliency and cultural resources. This information was not been reviewed herein. The DEIR should provide a more detailed description of existing and proposed conditions and a comprehensive review of the project's impacts and measures to avoid, minimize and mitigate such impacts, as set forth in the Scope below.

SCOPE

General

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible.

Project Description and Permitting

The DEIR should include detailed site plans for existing and post-development conditions at a legible scale. Plans should be provided at a legible scale and clearly identify buildings, interior and exterior public areas, impervious areas, pedestrian and bicycle accommodations, and stormwater and utility infrastructure. The DEIR should provide sufficient detail and analysis to document how the project design affects access to adjacent facilities, including the Harborwalk and Aquarium.

The DEIR should describe the project and identify any changes since the filing of the ENF. It should identify and describe State, federal and local permitting and review requirements associated with the project and provide an update on the status of each of these pending actions. The DEIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards. It should confirm that the height of the proposed building will comply with the Massachusetts Port Authority's (Massport) Logan Airspace Map and any FAA requirements.

The information and analyses identified in this Scope should be addressed within the main body of the DEIR and not in appendices. In general, appendices should be used only to provide raw data, such as drainage calculations, traffic counts, capacity analyses and energy modelling, that is otherwise adequately summarized with text, tables and figures within the main body of the DEIR. Information provided in appendices should be indexed with page numbers and separated by tabs, or, if provided in electronic format, include links to individual sections. Any references in the DEIR to materials provided in an appendix should include specific page numbers to facilitate review.

Alternatives Analysis

The ENF identified two alternatives to the project: the No Build and Standard Chapter 91 Alternatives. The No Build alternative would avoid impacts associated with the project, as it would continue the use of the site as a public parking garage with limited commercial space. According to the ENF, the No Build Alternative is not consistent with the DWMHP as proposed by the City and the City's redevelopment goals for the area, and would not provide the proposed public amenities, stormwater improvements and resiliency benefits associated with the project. The Standard Chapter 91 Alternative reflects the potential redevelopment of the site in accordance with the building height, lot coverage, use limitations and public access requirements of the c. 91 regulations. It would include a 297,550-sf building with office and research and development (R&D) uses and 300 parking spaces. The building would range in height from 105 ft on the east side to 145 ft on the west and have a ground-level footprint similar to that proposed in the Preferred Alternative. According to the ENF, the Standard Chapter 91 Alternative would generate fewer adt, use less water and generate less wastewater than the Preferred Alternative. It would include a new stormwater management system that would improve the quality of runoff from the site, but it would not provide all of the public benefits proposed with the Preferred Alternative, including publicly accessible open space, interior public uses and funding for off-site improvements.

The DEIR should include an expanded alternatives analysis that, for each alternative, documents proposed conditions, quantifies environmental impacts and provides a conceptual plan. It should compare the alternatives with respect to their impacts on traffic, tidelands and public use of the site, water use, wastewater generation, impervious area and stormwater management. The DEIR should provide a detailed comparison of wind, shadow and GHG impacts and review climate change resiliency features of each alternative. In addition to the No Build and Standard Chapter 91 Alternatives identified in the ENF, the DEIR should review one or more Reduced Build Alternatives of a size between the two alternatives included in the ENF. The Reduced Build Alternative(s) should be developed in accordance with the guidelines, including substitutions and offsets, in the DWMHP. As noted in my decision on the DWMHP, the plan approval set forth maximum heights and other substitutions; it did not approve a specific project or development footprint. I encourage the Proponent to evaluate additional alternatives reflecting the range of development densities allowed under the DWMHP to provide a better understanding of the trade-offs between project goals and environmental impacts. This information is also needed for subsequent permitting at DEP, which will be ultimately responsible for licensing a particular project and proposed use of tidelands.

Land Use

The DEIR should provide detailed plans, sections and elevations to accurately depict existing and proposed conditions, including proposed above- and below-ground structures and on- and-offsite open space and resiliency and other mitigation measures. The plans should include property lines and ownership of all parcels where project activities are proposed, including off-site parcels. The DEIR should identify and easements or land acquisition necessary to construct the project and proposed mitigation measures.

The DEIR should include a review of the City's zoning applicable to the site, including requirements associated with the Downtown Waterfront Subdistrict, Greenway Overlay District and Planned Development Area (PDA) for the site.

Chapter 91/Tidelands

The entire site is located on filled Private Tidelands subject to c. 91 licensing jurisdiction. The buildings are proposed to be used for nonwater-dependent uses and the project is therefore subject to the setbacks, use limitations, height requirements, site coverage limits and public access standards under the Waterways Regulations. In addition, the project is subject to provisions and guidelines identified in the DWMHP, including substitute provisions and amplifications that modify the baseline standards of the Waterways Regulations and offsets intended to mitigate impacts associated with substitute provisions.

The ENF provided a brief review of the project's compliance with the Waterways Regulations and the DWMHP. As detailed below, the DEIR must include documentation in support of the Proponent's assertion that the project will meet the requirements of the DWMHP and Waterways Regulations, including the information and analyses requested by CZM and MassDEP. The ENF indicated that the project will conform to the DWMHP height limit of 600 ft (585 feet for the highest occupiable floor) and the building will be designed to minimize net new shadow, avoid new shadow on Long Wharf and meet the City's requirements for wind conditions at the ground level. As required by the DWMHP, the project will mitigate impacts associated with the increased allowable height of the building by providing a \$300,000 contribution to the advancement of a signature waterfront park and water transportation gateway at the Chart House parking lot and a \$10 million contribution for design and construction of public realm improvements associated with the Blueway proposed by the Aquarium. In addition, half of the project site will be developed as open space, including an area of approximately 17,000 sf (30 percent of the project site area) on the north side of the site along Milk Street. The project will conform to the DWMHP amplification requiring the project to provide a higher level of exterior and interior public accommodations than are typically associated with projects on Commonwealth Tidelands.

The DWMHP anticipates that open space and resiliency measures to be provided by the project will be implemented consistent with DUS to be developed by the City. The DUS are intended to provide uniform requirements for the Harborwalk, public open space and public amenities to be provided by this and other project proponents to activate the public realm within the planning area and improve resilience. To ensure that the commitments will be implemented in a timely and coordinated manner, the DWMHP establishes review and permitting milestones for advancing the design of open space; in particular, the DUS are to be developed by the City

within a timeframe coincident with MEPA review and the Proponent must place the \$300,000 contribution into escrow prior to filing the ENF.³

The DWMHP designates the Aquarium as a Special Public Destination Facility (SPDF) in recognition of its prominence as a public water-dependent use and as a key resource for achieving the City's goals of enhanced public access and resiliency in the planning area. The SPDF designation also affords the Aquarium some protection from impacts to its operations and potential displacement by nonwater-dependent uses. The DWMHP requires the Proponent to enter into a legally binding agreement with the City and Aquarium that addresses interim and future parking and an indemnification framework over the construction period of the project; this agreement must be finalized within 60 days of the issuance of the BPDA's Scoping document. According to the Aquarium, no agreement is in place and it believes that additional area-wide planning, including development of the DUS, and related changes to the project design will be necessary before progress on the agreement can be made.

The DEIR should provide a comprehensive and detailed review of the DWMHP and related planning documents. It should describe all requirements of the approved DWMHP that are pertinent to the site, such as height, lot coverage, public facilities and implementation milestones, and document how the project has or will comply with these requirements. The DEIR should provide analyses of the wind and shadow impacts of the proposed building and demonstrate how the design conforms to the DWMHP. It should provide updates on the status of the legally binding agreement between the City, Proponent and Aquarium, and the formation and actions of the Operations Board established by the DWMHP to oversee the implementation of mitigation commitments funded by the Proponent. The DEIR should address all other applicable requirements of the Waterways Regulations, and should address whether and how the proposed project will meet the performance standards in the regulations in light of the specific project components as currently proposed (whether or not included in the DWMHP as proposed by the City). According to MassDEP, the Proponent has indicated that it may seek separate c. 91 license for on-site and off-site project components. The DEIR should provide a comprehensive discussion of the proposed licensing process for the project, including any off-site mitigation measure that may be implemented by the City, Aquarium or other entity.

The DEIR should provide detailed plans, including profiles and cross-sections as necessary, showing existing and proposed fill and structures; ground-floor and upper-floor uses; and publicly-accessible interior and exterior areas, including the Harborwalk and open space. The DEIR should provide a detailed review of the DUS and document how the project will be consistent with those standards. The design of open space and resiliency measures presented in the DEIR should incorporate the DUS. The DEIR should include alternative designs that are consistent with the DUS and achieve open space and resiliency goals in different ways. It should describe and provide detailed plans of the open space, and identify each open space by its character and proposed use, such as landscaped, hardscaped plaza, sidewalks, etc. The DEIR should describe the overall goals and planning area of the Blueway, identify how proposed open space and resiliency measures to be constructed by the Proponent are consistent with the Blueway and describe how project funding may be used to implement the Blueway. The DEIR should describe how view corridors to and along the water will be maximized and how water-

³ During the review period, the Proponent provided an executed Escrow Agreement dated July 9, 2020 to document that this requirement was fulfilled prior to the filing of the ENF.

dependent uses such as water transportation and navigation will be integrated into the open space. It should describe the design of interior and exterior public areas, including operational and programmatic features that will attract diverse populations to the site on a year-round basis. The Proponent should consider WalkBoston's suggestions for open space amenities that create human-friendly microclimates on the site, such as spray stations for the summer, seating with solid legs and backs and wind protection for the winter, and different orientations to take advantage of the sun at every season.

Public Benefit Determination

The project site is comprised of tidelands subject to the provisions of *An Act Relative to Licensing Requirements for Certain Tidelands* (2007 Mass. Acts ch. 168) and the Public Benefit Determination regulations (301 CMR 13.00). Consistent with Section 8 of the legislation, I must conduct a Public Benefit Review as part of the review of EIR projects located on tidelands that entail new use or modification of an existing use. I will issue a PBD within 30 days of the issuance of a Certificate on the Final Environmental Impact Report (FEIR).

Section 3 of this legislation requires that any project that is subject to MEPA review and proposes a new use or structure or modification of an existing use or structure within tidelands address the project's impacts on tidelands and groundwater within the ENF. It indicates that the ENF "*shall include an explanation of the project's impact on the public's right to access, use and enjoy tidelands that are protected by chapter 91, and identify measures to avoid, minimize or mitigate any adverse impacts on such rights set forth herein.*" If a project is located in an area where low groundwater levels have been identified by a municipality or by a State or federal agency as a threat to building foundations, the ENF "*shall also include an explanation of the project's impacts on groundwater levels, and identification and commitment to taking measures to avoid, minimize, or mitigate any adverse impacts on groundwater levels.*" The legislation notes that these provisions apply to the filing of an EIR if one is required.

Traffic and Transportation

According to the ENF, the project will generate a total of 9,866 adt, an increase of 8,544 adt from the 1,342 adt associated with the existing uses at the site. The trip generation estimate is based on trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th edition, using Land Use Codes (LUC) 222 (Multifamily Housing-High-Rise), 710 (General Office Building) and 820 (Shopping Center). The project includes the construction of a below-grade garage with 1,100 parking spaces, a reduction of 375 spaces from the 1,475 spaces present at the existing garage. Vehicular access to the garage will be provided by driveways on Atlantic Avenue and East India Row. Access to and from the loading docks and to commercial and public parking spaces will be from the Atlantic Avenue entrance. The driveway on East India Row will be used by vehicles exiting the commercial and public parking spaces and by residents entering and leaving the garage. According to the ENF, the Proponent will encourage the use of alternative modes of travel to the site by implementing a Transportation Demand Management (TDM) program and providing pedestrian and bicycle facilities, including a bicycle sharing station. The TDM program will include measures to encourage use of nearby public transit services operated by Massachusetts Bay Transportation Authority (MBTA), including the Blue Line Aquarium station adjacent to the site and other subway lines, bus routes and ferry service.

The DEIR should include a traffic study prepared consistent with the EEA/MassDOT *Transportation Impact Assessment (TIA) Guidelines* issued in March 2014, MassDOT's comment letter, and this Scope. The TIA should provide a comprehensive evaluation of the project's use of area roadways, public and private transit, pedestrian and bicycle facilities, and other transportation modes. It should describe existing conditions, include a plan of the transportation study area, and identify the proposed site access and egress. It should provide counts of existing traffic in the traffic study area and include projections for future traffic conditions under No Build, Build, and Build with Mitigation scenarios. A seven-year planning horizon should be used for the analysis. Future traffic conditions should incorporate background growth due to nearby planned development projects and an overall annual growth in traffic volumes.

The study area for the TIA should, at a minimum, include the following intersections:

- Cross Street at North Street/I-93 Northbound (NB) off-ramp;
- John F. Fitzgerald Surface Road at North Street/I-93 NB off-ramp;
- John F. Fitzgerald Surface Road at Clinton Street/I-93 Southbound (SB) off-ramp;
- John F. Fitzgerald Surface Road at Mercantile Street;
- Atlantic Avenue/Cross Street at Mercantile Street;
- John F. Fitzgerald Surface Road at State Street;
- Atlantic Avenue at State Street;
- Atlantic Avenue at Central Street;
- India Street at Milk Street;
- John F. Fitzgerald Surface Road at Milk Street;
- Atlantic Avenue at Milk Street;
- Atlantic Avenue at Project Driveway
- John F. Fitzgerald Surface Road at India Street;
- Atlantic Avenue at India Street/East India Row;
- Project Driveway at East India Row;
- John F. Fitzgerald Surface Road/Purchase Street at High Street;
- Purchase Street at Oliver Street/Seaport Boulevard and I-93 SB off-ramp;
- Atlantic Avenue at High Street; and,
- Atlantic Avenue at Seaport Boulevard and North Street/I-93 NB on-ramp.

If necessary, the study area should be expanded if project-generated trips are anticipated to increase peak hour traffic volume by five percent or more or by more than 100 vehicles per hour at other locations.

The DEIR should fully describe and document existing and proposed pedestrian and bicycle facilities, transit operations and roadway and intersection conditions within the study area. The TIA should describe the project's anticipated transportation impacts and identify appropriate mitigation measures. The Proponent should indicate a clear commitment to implement proposed mitigation measures and describe the timing of their implementation, including whether measures are implemented based on phases of the project or occupancy levels. Any proposed roadway improvements, including bicycle/pedestrian facilities, that are

recommended to mitigate traffic impacts or address safety issues should be consistent with Complete Streets design guidelines contained in the *MassDOT Project Development and Design Guide*.

Trip Generation

The DEIR should fully document the project's trip generation, including any adjustments, for each proposed use. For the total project and for each land use, the TIA should provide estimates of weekday daily, and weekday morning and evening peak period trips for each mode and describe and document any adjustment of these estimates using applicable methodologies from the most recent editions of ITE's *Trip Generation Manual* and *Trip Generation Handbook*. As recommended by MassDOT, the adjusted trip generation should be compared to observed trip counts at similar mixed-use sites and refined as necessary. The DEIR should identify the daily and peak hour volumes of commercial vehicles using the site driveways.

According to MassDOT, it will be a challenge to adequately model the transit trip generation and trip assignments for the project because of its proximity to so many transit options. The Proponent should work closely with the MassDOT Office of Transportation Planning, the MBTA Service Planning Department and the City to develop appropriate and reasonable travel demand and trip generation characteristics. Since it is likely that this project would have a much higher share of walking, bicycling, and transit use, the ITE numbers should be adjusted based on the Boston Transportation Department (BTD) mode splits for this area of the Boston. The DEIR should fully document how the multimodal trip generation estimates and trip assignment rates were developed and compare the mode split and mode share assumptions used in the analysis to those recently used for projects in the study area. I encourage the Proponent to set aggressive mode share goals for transit, bicycling and walking.

Pedestrian and Bicycle Facilities

The DEIR should describe all existing and proposed pedestrian and bicycle facilities, including sidewalks, crosswalks, bicycle paths and bicycle parking spaces, located within the study area. It should identify the number, type and location of proposed on-site bicycle parking spaces. The DEIR should review the regional pedestrian and bicycle network, including bikeway types, bikeway widths, numbers of bicyclists, and speeds and likely travel routes for bicyclists within the study area, and evaluate the safety and capacity of the network. Because the project is expecting a high pedestrian mode share, the DEIR should provide a mitigation package that ensures that walking and bicycling will be an attractive way to access the site the Harborwalk, Aquarium plaza and Blueway. The DEIR should reevaluate these routes based on the origin-destination of potential employees and residents. Based on this analysis, the Proponent should consider the feasibility of expanding some of these existing routes or consider new routes to encourage bicycle travel in and around the site. The Proponent should consult with MassDOT and the City to provide a seamless connection between the existing and planned bicycle facilities in the study area.

Several commenters noted the Harborwalk and roadways adjacent to the site are used on a year-round basis by residents, workers, Aquarium visitors and tourists and provide important links to other Downtown Boston destinations and that Atlantic Avenue has become an important bicycle route. As described in the ENF, access to the parking garage will require that cars and

trucks cross the heavily-used sidewalks on Atlantic Avenue and East India Row, creating potential conflicts with pedestrians and bicyclists. The DEIR should include an analysis of the pedestrian Level-of-Service (LOS) for the Atlantic Avenue, Milk Street, Harborwalk, and East India Row sidewalk segments adjacent to the project site for existing and proposed conditions. The analysis should use the methodology described in the most recent edition of the Transportation Research Board's *Highway Capacity Manual*, which incorporates pedestrian volumes per hour (ped/hr) and the sidewalk area per pedestrian (sf/ped). The average pedestrian space (APS) should be used to calculate the sidewalk LOS, which ranges from a high of LOS A (APS more than 60 sf/ped) to a low of LOS F (APS less than 8 sf/ped). Existing pedestrian volumes should be collected between 7:00 to 9:00 AM and 4:00 to 6:00 PM to identify pedestrian volumes for the weekday morning and afternoon peak hours, peak 15-minute periods, and peak 5-minute periods. Future conditions should be estimated to account for background growth and project-related pedestrian activity, over a 7-year planning horizon.

The DEIR should include an analysis of alternatives for vehicular access to the garage. The analysis should consider different driveway locations and configurations and use restrictions, such as limiting truck deliveries to alternative driveways or during limited hours. The DEIR should describe potential design and operational measures that could be implemented to minimize conflicts between pedestrians/bicyclists and vehicles.

Public Transportation

The DEIR should describe existing public transportation facilities and operations in the study area. It should contain an analysis of the project's peak hour transit demand and evaluate the impacts to the subway, bus, rail and ferry services associated with increased ridership generated by the project. This analysis should be conducted in accordance with the MBTA Office of Performance Management and Innovation's (OPMI) methodology for calculating comfort metrics for each bus route within the study area under Existing, No Build, and Build conditions. It should include an analysis of project-generated ridership on the Blue Line throughout the day in comparison to the capacity of the system. The DEIR should include an analysis of any stations or individual headhouses that would serve a substantial amount of site-generated transit trips during any hour. The DEIR should describe routes between the site and transit services, including bus stops and subway stations, and review the routes with respect to safety and accessibility.

The DEIR should propose mitigation measures if project-related trips are determined to cause an exceedance in bus comfort level thresholds, impact operations of subways or other transit services or significantly increase the use of stations or headhouses that operate at or above capacity. It should propose improvements to sidewalks and other facilities used to provide access between transit service and the site. The DEIR should review transit improvement projects under consideration by MassDOT, the MBTA and the City to ensure that any mitigation proposed by the Proponent is consistent with planned improvements. The Proponent should consult with MassDOT and the MBTA for guidance on performing these analyses and identifying potential mitigation measures.

Traffic Operations

The TIA should describe and fully document the anticipated trip distribution. For each intersection in the study area, the DEIR should provide capacity analyses for the weekday peak periods for existing and future conditions and any intersections where mitigation is proposed. For all analysis scenarios, the TIA should provide illustrations depicting the peak hour 50th (average) and 95th percentile queue lengths for each lane group/turning movement and a tabular summary of the results of the intersection operations analysis, including volume-to-capacity ratios (V/C) and average delays. The level-of-service (LOS) for each lane group/turning movement should be clearly indicated for each condition.

The DEIR should include a calculation of crash rates for each study area intersection using local and MassDOT data covering the most recent five-year period. Mitigation should be proposed for any intersection that exceeds the State and/or District 6 average crash rates. The DEIR should identify any intersections listed in the Highway Safety Improvement Program (HISP) and consult with MassDOT regarding the need to prepare any Road Safety Audits (RSA).

Parking

The DEIR should document how the project's parking demand, including parking for uses adjacent to the site, was determined and compare the number of proposed spaces to the amount required based on the ITE's *Parking Generation* (4th edition) and local zoning requirements. The TIA should reevaluate the number of parking spaces required for the project based on a comparison of parking rates for projects with a similar mix of uses and public transportation options and identify the number of parking spaces that can be reduced through implementation of TDM measures. It should determine the number of parking spaces occupied at various times of the day and identify the periods of peak use, and evaluate opportunities for shared parking.

Transportation Demand Management

The ENF identified potential TDM measures that will be implemented to minimize the number of single-occupancy vehicle (SOV) trips to the site by residents, employees and visitors. Measures identified in the ENF include installing a bicycle sharing station, designating a full-time transportation coordinator, encouraging tenants to offer on-site MBTA pass sales and transit subsidies and providing information on travel alternatives to residents, employees and visitors to the site.

The DEIR should include a commitment to implement a robust TDM program to minimize trips to the site by SOV and Transportation Network Companies (TNC) such as Uber and Lyft. At a minimum, the DEIR should evaluate measures recommended by MassDOT and the Metropolitan Area Planning Council (MAPC), including limiting the parking supply, providing on-site amenities and conveniences to minimize the need for automobile travel, providing seamless pedestrian access to nearby transit hubs, providing parking spaces for car sharing services, offering flexible work hours and teleworking options for employees, charging market rates for parking and uncoupling parking from residential leases. The DEIR should confirm the Proponent's commitment to comply with the City's Electric Vehicle Readiness Policy for New Developments, which requires projects undergoing Section 80 or TAPA review

provide electric vehicle (EV) charging stations at 25 percent of all parking spaces and that the remaining spaces be EV-ready. The Proponent should consult with A Better City Transportation Management Association (TMA) regarding successful TDM measures used at similar projects in Boston and evaluate the potential effectiveness of these measures for the project.

Transportation Monitoring Program

The DEIR should include a draft traffic monitoring program to evaluate the assumptions made in the traffic study and the adequacy of the transportation mitigation measures, including the TDM program in meeting mode share goals. The program should include annual traffic monitoring for a period of five years beginning six months after the first Certificate of Occupancy is issued. The monitoring program should include:

- Simultaneous automatic traffic recorder (ATR) counts at each parking entrance for a continuous 24-hour period on a typical weekday;
- Travel survey of employees, patrons, and residents at the site (to be administered by the Transportation Coordinator);
- Weekday AM and PM peak hour turning movement counts (TMCs) and operations analysis at “mitigated” intersections, including those involving parking entrances; and
- An update on TDM effectiveness and transit ridership.

Wetlands and Stormwater

The project includes proposed fill and structures within portions of the site and adjacent areas of the Harborwalk that are located within LSCSF. In addition, a section of the Harborwalk is located within the VE Zone. Work within these areas includes adding fill to elevate the site and raising a 273-linear foot section of the seawall to increase resiliency to climate change and providing public open space amenities. In addition, the ENF included a plan with a conceptual design for the naturalization of the shoreline east of the site, but did not provide a discussion of its potential design and impacts. The DEIR should provide and cross-sections showing existing and proposed grades, proposed buildings and structures, and boundaries of LSCSF, Coastal Bank and LUO. As detailed below, the DEIR should include an analysis of the effects of proposed fill on the flow patterns of floodwaters under existing and future conditions. It should include a detailed description of the project’s impacts on wetlands resource areas and the floodplain and review how the project will comply with the relevant performance standards in the Wetlands Regulations (310 CMR 10.00). According to DMF, in-water silt-producing work should be avoided from February 15 to June 30 to minimize impacts to winter flounder and migrating diadromous fish.

The project will reduce impervious area by 0.16 acres (approximately 7,000 sf) by converting impervious area to landscaped open space. According to the ENF, runoff from the site discharges to Fort Point Channel via the Boston Water and Sewer Commission’s (BWSC) drainage system in East India Row and Atlantic Avenue and to Boston Harbor via a combined sewer in Milk Street. According to the ENF, the project includes the construction of a new stormwater management system that will be designed to meet the Massachusetts Stormwater Management Standards (SMS) and BWSC requirements, including infiltration of the first 1.25-inches of runoff from impervious areas. The DEIR should provide a detailed analysis of site

drainage under existing and proposed conditions. It should review the BWSC drainage system to which runoff will be discharged, including its capacity and any improvements to drainage infrastructure that may be necessary. The DEIR should describe the proposed on-site stormwater management system, document how it will be designed to meet the SMS with plans and calculations and show the location and size of BMPs. It should evaluate alternative open designs to further reduce impervious area on the site, including a range of low-impact design (LID) measures appropriate for the site. The DEIR should identify the rainfall conditions used to design the drainage system and review the potential for sizing the system to handle increased future flows.

Water and Wastewater

The project will use 85,778 gpd of water and generate 77,980 gpd of wastewater. Domestic and fire protection water will be supplied by connections to BWSC water mains in Atlantic Avenue and East India Row. Wastewater from the site will be conveyed to the BWSC's sewer system through connections to the sewer mains in East India Row. The ENF did not describe the condition or capacity of the water and sewer infrastructure serving the site but indicated that the systems will undergo a design review process with BWSC to determine the condition and capacity of existing infrastructure. The DEIR should describe the location and size of infrastructure and connections to the BWSC's water and sewer systems. It should document that adequate water and sewer capacity exist to serve the site. The DEIR should identify and describe water conservation measures that will be incorporated into design and operations. 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.

According to the MWRA and BWSC, the sanitary sewer mains serving the site convey flows to combined sewer systems. In large storms, the capacity of the combined systems may be exceeded, resulting in the discharge of combined sewer overflows (CSO) to Fort Point Channel and Boston Harbor. The project will be required to mitigate its contribution of flow into the City's sanitary system. MassDEP regulations at 314 CMR 12.04(2)(d) specify that communities with 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 Proponent should consult with the BWSC to identify appropriate I/I mitigation for this project. The DEIR should include a commitment to I/I removal and identify any mitigation projects or monetary contribution by the Proponent. As noted by the MWRA, groundwater discharges into the sanitary system are prohibited. The DEIR should include a commitment to use oil/gas separators in the parking garage drainage systems.

Cultural Resources

According to the ENF, there are no historic structures present on the site but 15 properties and districts listed in the State and National Registers of Historic Places are located within a quarter-mile radius.

The project site includes a small section of Fort Point Channel and is adjacent to the Fort Point Channel Historic District (BOS.WZ), which is listed in both the State and National Registers of Historic Places. The Fort Point Channel and Seawalls are contributing elements to the historic district. The site is also adjacent to the Fort Point Channel Landmark District

(BOS.ZG), which is listed in the State Register of Historic Places. The DEIR should provide the information requested by MHC to facilitate its review of the project and so that it can determine the potential effect of size, scale, and massing of the new buildings on the character and setting of the State and National Register listed properties. Information and analyses requested by MHC include:

- An analysis of the visual impact of the proposed building on State Register properties and districts, including pedestrian-level perspectives of the project from various vantage points and views of the building from historic resources throughout the city;
- A shadow analysis of the proposed building design, including maps showing shadows under existing and proposed conditions and all historical resources in areas affected by shadows;
- A wind study that provides anticipated wind conditions at or near historic properties in the impacted area; and,
- A description of the project's area of potential effect.

Air Quality

In accordance with the State Implementation Plan (SIP) for ozone attainment, the Proponent must conduct an indirect source review analysis. This analysis should be conducted in accordance with MassDEP *Guidelines for Performing Mesoscale Analysis of Indirect Sources*. The Proponent should consult with MassDEP for guidance and for confirmation of the appropriate study areas. The purpose of the analysis is to determine whether and to what extent the project will increase the amount of volatile organic compounds (VOC) and nitrogen oxides (NO_x) emitted in the project area and to determine consistency with the SIP. The analysis should model emissions under No Build and Build conditions. If VOC emissions are greater than the No Build scenario, mitigation measures must be provided, including a TDM Program.

Climate Change

Governor Baker's Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth (EO 569; the Order) was issued on September 16, 2016. The Order recognizes the serious threat presented by climate change and directs Executive Branch agencies to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The Order seeks to ensure that Massachusetts will meet GHG emissions reduction limits established under the Global Warming Solution Act of 2008 (GWSA) and will work to prepare state government and cities and towns for the impacts of climate change. I note that the MEPA statute directs all State Agencies to consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise, when issuing permits, licenses and other administrative approvals and decisions.

The GHG Policy and requirements to analyze the effects of climate change through EIR review play an important role in this statewide strategy. These analyses advance proponents' understanding of a project's contribution and vulnerability to climate change. I encourage the Proponent to consider complementary approaches – such as Passivehouse design, incorporation of renewable energy generation and inclusion of low impact development in site design - which

can improve the project's resiliency, reduce GHG emissions and conserve and sustainably employ the natural resources of the Commonwealth.

Adaptation and Resiliency

The region's climate is expected to experience higher temperatures and more frequent and intense storms. The Northeast Climate Science Center at the University of Massachusetts at Amherst has developed projections of changes in temperature, precipitation and sea level rise for Massachusetts. This data is available through the Climate Change Clearinghouse for the Commonwealth at www.resilientMA.org. By the end of the century, the average annual temperature in the Boston Harbor Basin is projected to rise by 3.5 to 10.8 degrees Fahrenheit (F), including an increase in the number of days with temperatures over 90 F from 8 days documented in the 1971-2000 baseline period to up to 75 days. During the same time span, the average annual precipitation is projected to increase by 1.1 to 9.0 inches, which may be associated with more frequent and more intense storms. The BPDA's Sea Level Rise-Flood Hazard Area map indicates that with a projected 40-inch increase in sea level by 2070, the site will be subject to flooding from a 100-year flood event (1-percent chance annual storm).

The City is a participant in the Commonwealth's Municipal Vulnerability Preparedness (MVP) program. The MVP program is a community-driven process to define natural and climate-related hazards, identify existing and future vulnerabilities and strengths of infrastructure, environmental resources and vulnerable populations, and develop, prioritize and implement specific actions the City can take to reduce risk and build resilience. The *Climate Ready Boston* report (December 2016) identifies the City's vulnerabilities to climate change and potential measures to increase its resilience and the City is currently preparing the *Climate Ready Downtown and North End* plan that will include recommendations for promoting the neighborhood's resilience. The DEIR should provide a review of the City's extensive studies on climate vulnerabilities and potential solutions and describe how the project incorporates climate-related design specifications and standards included in *Climate Ready Downtown and North End* and *Coastal Resilience Solutions for the Downtown and North End*.

According to the ENF, the site grade will be raised and the first floor of the building will be at an elevation of 21.0 ft Boston City Base (BCB). I note that this is consistent with the BPDA's recommendation for buildings potentially subject to coastal storm flooding and is based on a projected sea level rise of 40 inches plus eighteen inches of freeboard. The project will raise the elevation of the Harborwalk to 21.5 ft BCB to provide additional protection from storm surge and flooding and add landscaping and pervious area to infiltrate runoff and mitigate heat island effects.

The DEIR should include a comprehensive discussion of the potential effects of climate change on the project site and describe features incorporated into the project design that will increase the resiliency of the site to these changes. It should provide a review of the City's resiliency plans, including regional solutions requiring coordination between the Proponent and abutters and other stakeholders. The DEIR should identify the projected climate conditions and assumptions, such as temperature, sea level rise and precipitation rates, that will be used to design the project's resiliency measures. The Massachusetts Flood Risk Model (MC-FRM) will be available shortly and may update available information regarding the extent of sea level rise and anticipated flooding along the New England coastline. I encourage the Proponent to consult

the most updated climate data in making design choices for the project. The DEIR should address whether data from the MC-FRM, if available, differ from current climate projections incorporated into project design, and, if so, what if any design adjustments could be made to address any such revised projections. The DEIR should identify opportunities to increase resilience through enhancement of the site, and adjacent Harborwalk, open space, and other public zones consistent with the DUS. It should review district-wide solutions identified in City planning studies, evaluate the potential benefits of those measures to the site and describe how the project will be designed to be consistent with potential district-wide measures.

Abutters to the site expressed concern that raising the site and Harborwalk could redirect floodwaters and cause impacts to adjacent properties and public facilities. It should include plans and cross-sections showing existing and proposed site grades. It should include the analysis of potential changes to coastal floodwater flow and drainage patterns caused by the proposed fill, grading, and structures, as requested by CZM. The analysis should consider rain events and coastal storm events with a combination of rain and coastal flooding under proposed conditions and future conditions based on up-to-date sea level rise projections and should identify alternatives that avoid, minimize and mitigate impacts to the floodplain and adjacent properties. The DEIR should provide a detailed description and plans of a reasonable scale depicting topography and the sources, flow direction, and pathways of existing and proposed coastal and inland flooding onto, through, and off the site during a coastal storm event. The analysis should demonstrate, through the flow arrows and narrative, how coastal floodwater will flow onto and off the project site and surrounding area under existing and proposed conditions, including if the proposed berm changes, reduces and/or eliminates any flood pathways. This should include an analysis of changes in velocity, direction, depth, and extent of coastal floodwater, and should reflect a quantitative and scientific approach rather than a narrative description or assumptions without quantitative documentation. The DEIR should review potential design changes and mitigation measures that could minimize impacts to the floodplain. The Proponent should consult with CZM for guidance on how to perform this analysis. As noted above, the ENF included a conceptual plan of a naturalized shoreline in place of the seawall east of the site. The DEIR should explain how this feature will be designed to provide environmental benefits and increase resiliency of the area.

In addition to the site design measures identified above, the DEIR should evaluate incorporating the following potential resiliency and adaption features into the project design:

- Ecosystem-based adaptation measures to reduce heat island effect and mitigate stormwater runoff, such as integration of tree canopy cover, rain gardens, and LID stormwater management techniques;
- Stormwater management system design that will accommodate rainfall under projected climate conditions;
- Use of on-site renewable energy systems that may provide added resiliency during periods of power loss during storms;
- Protection of emergency generator fuel supplies from effects of extreme weather and flood-proofing of parking garages and other structures; and,
- Expansion of the size of 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.

Greenhouse Gas (GHG) Emissions

This project is subject to review under the May 5, 2010 MEPA GHG Policy. The Policy requires Proponents to quantify carbon dioxide (CO₂) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis should quantify the direct and indirect CO₂ 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 ENF did not provide an analysis of the project's stationary- and mobile-source GHG emissions or review potential mitigation measures. The DEIR should include a GHG analysis prepared in accordance with the GHG Policy, guidance provided in the comment letter submitted by the Department of Energy Resources (DOER), which is incorporated in this Certificate in its entirety, and this Scope.

Stationary Sources

The DEIR should include an analysis that calculates and compares GHG emissions associated with: 1) a Base Case that conforms to the 9th Edition of the Massachusetts Building Code, which references the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2013 and the International Energy Conservation Code (IECC) 2015 and 2) a Preferred Alternative that achieves greater reductions in GHG emissions. The City has adopted the Massachusetts Stretch Energy Code (SC). Therefore, the project will be required to meet the applicable version of the SC in effect at the time of construction. The SC 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. The current SC requires a reduction in energy use of 10 percent compared to that achieved by complying with the baseline energy provisions of the State Building Code. As noted by DOER, an updated Building Code will take effect in November 2020 including new and modified Massachusetts amendments. The Stretch Code to take effect in November continues to use ASHRAE 90.1-2013-Appendix G. To accurately evaluate mitigation measures for this project, and in light of the immanency of these amendments, the Base Case should be established based on the updated Code scheduled to take effect in November 2020.

The GHG analysis should clearly demonstrate consistency with the key objective of MEPA review, which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible. The DEIR 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. As requested by DOER, the commercial and residential portions of the building should be analyzed separately. The DEIR should include the modeling printouts 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. Other tables and graphs, such as the table of mitigation measures recommended by DOER, may also be included to convey the GHG emissions and potential reductions associated with various mitigation measures as necessary. The DEIR should provide data and analysis in the format requested in DOER's letter.

The DEIR should present an evaluation of mitigation measures identified in DOER's comment letter. 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 that could provide significant GHG reductions were not selected – either because it is not applicable to the project or is deemed technically or financially infeasible. It should include a review of available financial incentives potentially available for the project, as described in DOER's comment letter. At a minimum, the DEIR should consider the following GHG mitigation measures:

- Residential portion of the building designed in conformance with Passivehouse standards;
- Above-Code continuous roof and wall insulation and avoiding glass curtain wall assemblies to minimize heat loss and uncontrolled infiltration through the building envelope;
- Efficient electrification of space and water heating in all buildings, including electric space heating and water heating using air source heat pumps (ASHP), variable refrigerant flow (VRF), ground source heat pumps (GSHP) and/or solar thermal systems;
- High-albedo roofing materials, external shading and windows with improved solar heat gain coefficient (SHGC);
- Energy recovery ventilation and wastewater systems;
- Rooftop solar photovoltaic (PV) systems and/or solar-ready roofs; and,
- LED lighting, both exterior and interior.

The residential portion of the building is well-suited to Passivehouse design, which would include energy-efficient building envelope and heating and cooling systems that minimize GHG emissions and reduce utility costs for future residents. As noted by DOER, recent studies have demonstrated that buildings constructed to Passivehouse design standards are economically feasible and may be eligible for financial incentives. While Passivehouse design is becoming increasingly common for residential buildings, it may also be used for office space. At a minimum, the DEIR should analyze an alternative project design that includes Passivehouse design in the residential building. The Proponent should consult with staff from DOER and MEPA prior to submitting the DEIR. I note that a significant and aggressive commitment to Passivehouse design with electrification may be sufficient to avoid the need for extensive modeling and analysis of other components of the residential building design.

The DEIR should include all analyses requested in DOER's comment letter, including the use of solar thermal to supply domestic hot water, installation of rooftop solar PV systems, the use of external shading and windows with low SHGC to minimize cooling needs and financial

incentives available from Alternative Energy Credits (AEC), MassSave and the Solar Massachusetts Renewable Target (SMART) program.

Mobile sources

The GHG analysis should include an evaluation of potential GHG emissions associated with mobile emissions sources. The DEIR should follow the guidance provided in the GHG 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 reduce overall single occupancy vehicle trips. The DEIR should also review measures to promote the use of low-emissions vehicles, including installing electric vehicle charging stations and providing designated parking spaces for these vehicles in accordance with the City's Electric Vehicle Readiness Policy for New Developments. More information on electric vehicle infrastructure can be obtained from the MassEVolves program at www.massevolves.org. The Build with Mitigation model should incorporate TDM measures and any roadway improvements implemented by the project, and document the reductions in GHG emissions associated with the mitigation. The DEIR should explain how TDM measures will be monitored and adjusted over time, and provide a methodology for quantifying emission reductions impacts rather than an assumed percentage reduction.

GHG Self-Certification

The DEIR should include a commitment to provide a GHG self-certification to the MEPA Office upon construction 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. If equivalent measures are adopted, the project is encouraged to commit to achieving the same level of GHG emissions (i.e., "carbon footprint") identified in the Preferred Alternative expressed as a volumetric measure (tpy) in addition to a percentage GHG reduction from Base Case.

Construction Period

The DEIR should provide a comprehensive review of the project's construction-period impacts and mitigation relative to noise, air quality, water quality, and transportation, including pedestrians, bicyclists and transit riders. Consistent with the DWMHP, the DEIR should describe mitigation measures that will minimize impacts to the Aquarium's facilities, operations and visitors. The DEIR should include measures that will minimize damage to the site and adjacent areas that could result from coastal storms during the construction period. It should identify the schedule for construction of various project elements, including open space. It 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 encourage the Proponent to commit to C&D recycling activities as a sustainable measure for the project. The DEIR should review procedures to be used for the removal and disposal of any asbestos at the site. It should describe how contaminated soil or groundwater encountered during construction will be managed in accordance with M.G.L. c. 21E and the Massachusetts Contingency Plan (MCP).

The project will be required to develop a Stormwater Pollution Prevention Plan (SWPP) in accordance with its NPDES CGP to manage stormwater during the construction period. The DEIR should describe stormwater management measures that will be implemented during construction. It should describe potential construction period dewatering requirements, discuss how dewatering will be conducted in a manner consistent with MWRA regulations/guidelines, and identify any necessary permits.

Mitigation and Draft Section 61 Findings

The DEIR should include a separate chapter summarizing all proposed mitigation measures, including construction-period measures. This chapter should also include draft Section 61 Findings for each permit to be issued by State Agencies. The DEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and a schedule for implementation. The DEIR should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing, either tying mitigation commitments to overall project square footage/phase or environmental impact thresholds, to ensure that adequate measures are in place to mitigate impacts associated with each development phase.

Responses to Comments

The DEIR should contain a copy of this Certificate and a copy of each comment letter received. It should include a comprehensive response to comments on the ENF that specifically address each issue raised in the comment letter; references to a chapter or sections of the DEIR alone are not adequate and should only be used, with reference to specific page numbers, to support a direct response. 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 ENF, to any State Agencies from which the Proponent will seek permits or approvals, to any parties specified in section 11.16 of the MEPA regulations and make a copy available for review at the Boston Public Library.⁴ The Proponent should provide translated notices of the availability of

⁴ Requirements for hard copy distribution or mailings will be suspended during the Commonwealth's COVID-19 response. Please consult the MEPA website for further details on interim procedures during this emergency period: <https://www.mass.gov/orgs/massachusetts-environmental-policy-act-office>.

the DEIR to the Chinese Progressive Association, Asian American Civic Association, ABCD Citywide Boston Hispanic Center, Sociedad Latina, and the Chinatown branch of the Boston Public Library. Per 301 CMR 11.16(5), the Proponent may circulate copies of the EIR to commenters in CD-ROM format or by directing commenters to a project website address. However, the Proponent must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The DEIR submitted to the MEPA office should include a digital copy of the complete document.

October 16, 2020

Date

Kathleen A. Theoharides

Comments received:

07/24/2020	Boston Water and Sewer Commission (BWSC)
08/29/2020	Julie Hatfield
09/10/2020	Roberta Shaw
09/13/2020	Ethan Sherman
09/14/2020	Harry Paulus
09/14/2020	Selma Rutenburg
09/15/2020	Conservation Law Foundation (CLF)
09/15/2020	Julie Hatfield
09/18/2020	Christopher and Cynthia Gorton
09/19/2020	cottas92917@mypacks.net
09/22/2020	Robert Gordon
10/01/2020	Michail Sitkovski
10/01/2020	New England Aquarium
10/01/2020	Jane Kinsel
10/02/2020	Julie Hatfield
10/02/2020	Massachusetts Water Resources Authority (MWRA)
10/02/2020	Sheree Dunwell
10/02/2020	North End/Waterfront Residents Association
10/03/2020	Julie Hatfield
10/04/2020	Timothy Leland
10/04/2020	Ryan Jacobs

10/05/2020 Kyle Andrews
10/06/2020 Peter Vambito
10/06/2020 Cliff Dever
10/07/2020 Todd Lee
10/07/2020 Sandi Padellaro
10/07/2020 Massachusetts Historical Commission (MHC)
10/08/2020 Residences at the InterContinental
10/08/2020 Elizabeth Pasciucco
10/08/2020 Steve Kane
10/08/2020 Trustees of the Harbor Towers I Condominium Trust and Trustees of the Harbor
Towers II Condominium Trust
10/08/2020 Eric Gordon
10/08/2020 Daniel Sweeney
10/08/2020 Joseph Frechette
10/08/2020 Citizens MA
10/08/2020 Brian Sawyer
10/08/2020 Sam Aquillano
10/08/2020 Teddy Beaudoin
10/08/2020 William Brickford
10/08/2020 J. Phillip Cooper
10/08/2020 Westy Egmont
10/08/2020 Steve Dahill
10/08/2020 Scott de Grasse
10/08/2020 David A. Kubiak
10/08/2020 Larry Davey
10/08/2020 Matt Dillon
10/08/2020 James Early
10/08/2020 David Gutierrez
10/08/2020 George Issa
10/08/2020 Kenny Khirv
10/08/2020 North End/Waterfront Neighborhood Council
10/08/2020 Dan Shea
10/08/2020 Ron Tutalo
10/08/2020 Dietrich Warner
10/09/2020 Wharf District Council
10/09/2020 Steve Weikal
10/09/2020 WalkBoston
10/09/2020 Nuchine Nobari
10/09/2020 New England Aquarium
10/09/2020 Massachusetts Port Authority (Massport)
10/09/2020 Metropolitan Area Planning Council (MAPC)
10/09/2020 Cynthia Kelly
10/09/2020 Joanne Hayes-Rines
10/09/2020 Division of Marine Fisheries (DMF)
10/09/2020 Massachusetts Department of Environmental Protection (MassDEP)/Waterways
Regulation Program (WRP)
10/09/2020 Ann DeLuca
10/09/2020 Massachusetts Office of Coastal Zone Management (CZM)

10/09/2020 Conservation Law Foundation (CLF)
10/09/2020 Victor Brogna
10/09/2020 Allan McIntosh
10/09/2020 Boston Harbor Now
10/09/2020 Boston Cyclists Union
10/09/2020 Ramesh Advani
10/09/2020 Boston Harbor Cruises
10/09/2020 Robert Curtis
10/09/2020 Massachusetts Department of Transportation (MassDOT)
10/09/2020 Julie A. Mairano
10/09/2020 Sara McCammond
10/09/2020 Wesley E. Stimpson
10/15/2020 Parin Shah
10/16/2020 Department of Energy Resources (DOER)

KAT/AJS/ajs