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January 22, 2010

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Massachusetts Mental Health Center Redevelopment
PROJECT MUNICIPALITY : Fenwood Road – Boston
PROJECT WATERSHED : Boston Harbor
EOEA NUMBER : 14440
PROJECT PROPONENT : Brigham and Women’s Hospital/Partners
HealthCare/Roxbury Tenants of Harvard
DATE NOTICED IN MONITOR : October 26, 2009

As Secretary of Energy and Environmental Affairs, I hereby determine that the Draft Environmental Impact Report (DEIR) submitted on the above project **adequately and properly** complies with the Massachusetts Environmental Policy Act (G. L., c. 30, ss. 61-62I) and with its implementing regulations (301 CMR 11.00). The Scope for the Final Environmental Impact Report (FEIR) provided below outlines the remaining issues.

Project Description

The proposed project consists of the construction of a 633,960 square foot (sf) mixed-use development and an underground parking garage. The project is proposed to be constructed in three phases. Phase 1 includes the demolition of the 190,000 sf Massachusetts Mental Health Center (MMHC) and the construction of both a 56,000 sf replacement clinical and office building on the Binney Street parcel and a 21,000 sf mental health hospital housing 47 beds. It would provide 50 surface parking spaces for the use of the Department of Mental Health (DMH) when it returns to the project site. Phase 2 would include the construction of an approximately 194-foot tall, 16 floor, 197,750 sf residential building with 136 units and a 10,000 sf community meeting area by the Roxbury Tenants of Harvard (RTH). The residential building would contain

approximately 66 affordable rental units and 70 condominiums. Phase 3 would include the construction of an approximately 220-foot tall, 14 floor (two mechanical floors), 358,670 sf medical office and research building with 406 underground parking spaces to be owned by Partners HealthCare.

The project site is comprised of three parcels that total approximately 3.15 acres. The Binney Street site is currently owned by Partners HealthCare and is vacant of buildings. The two other sites are owned by the Commonwealth of Massachusetts. The DMH is planning on relocating their service to within the new Brigham and Women's Hospital (BWH) Building and returning the Binney Street Building to BWH for its use as clinical space.

Access to the proposed parking garage, to be constructed in Phase III, will be from the Vining Street Extension on the back side of the building. Using the Institute of Traffic Engineers Trip Generation land use codes 220 for apartments, 610 for hospital, 620 for nursing home, 710 for office and 760 for research & development space, the proponent has estimated that there will be 6,518 unadjusted new average daily vehicle trips associated with the project. However, after adjusting for Boston Transportation Department (BTD) mode splits for the Longwood Medical Area (LMA), the proponent estimated that the project would only generate approximately 2,418 new average daily vehicle trips.

The proposed project will be connected to the existing municipal water and sewer service. It will consume approximately 122,770 gallons per day (gpd) of water and will generate approximately 111,608 gpd of wastewater flow.

State Permits and Jurisdiction

This project is subject to a mandatory EIR pursuant to Section 11.03(6)(a)(6) of the MEPA regulations because it requires state permits, involves a land transfer from the Commonwealth, and generates 3,000 or more new vehicle trips. It will require a long-term lease of state land (95 years) from the Division of Capital Asset Management (DCAM) and long-term leases/subleases on behalf of the Department of Mental Health. The proponent may require a Massachusetts Department of Conservation and Recreation (DCR) Approval for sidewalk/pedestrian improvements connecting to the Riverway. The project will require a Sewer Connection/Extension Permit and an Environmental Results Program Certification for emergency generators and commercial boilers from the Massachusetts Department of Environmental Protection (MassDEP). It is subject to the EEA/MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol. The proponent may need to obtain an Industrial Discharge Permit, a Sewer Use Discharge Permit, and a Construction Dewatering Permit from the Massachusetts Water Resources Authority (MWRA). The project may require State Register Review/Chapter 254 Review and Review for Consistency with the 2003 Memorandum of Agreement with the Massachusetts Historical Commission. It may require permits and other approvals for the Partial Hospital/ Fenwood Inn from the Department of Public Health. The project must comply with the National Pollutant Discharge Elimination System (NPDES)

General Permit for stormwater discharges from a construction site. It should submit a Notice of Preconstruction to the Massachusetts Aeronautics Commission and a Notice of Construction and Crane Approvals to the Federal Aviation Administration.

Because the proponents may be receiving funding from the Commonwealth (Massachusetts Health and Educational Facilities Authority (MHEFA) and housing grants) and the site is the subject to a land transfer of Commonwealth property, MEPA jurisdiction is broad and extends to all aspects of the project that may cause Damage to the Environment, as defined in the MEPA regulations.

The project is also subject to review by the Boston Redevelopment Authority (BRA) under the Article 80 Large Project Review process of the Boston Zoning Code. Accordingly, the proponent has prepared a Project Impact Report (PIR).

Review of the DEIR

General

The DEIR provided a detailed project description with a summary/history of the project. It included existing and proposed site plans. The DEIR identified and described the project phasing and the timing of the phases. It described the long-term lease arrangements between the proponents and the Commonwealth. The DEIR included a conceptual-level landscaping plan and building elevations from all sides. It identified the potential lighting impacts on adjacent residential structures. The DEIR discussed how this project is compatible with local, regional, and state land use planning. The height of the Residential Building has increased by approximately twelve feet from what was presented in the ENF.

Alternatives

The DEIR summarized the alternatives that have previously been explored for the project site by the proponent. According to the proponent, the financial viability of the project is contingent upon the proponent's proposed building program. The evolution of the project's massing has resulted in a general reduction of the environmental impacts. The wind conditions improved or stayed the same with the Preferred Alternative. The relocation of the Residential Building from the western-most edge of the site and the reduction of the length of the northwest façade has reduced the early morning shadows cast on the Riverway. The massing of the BWH Building has been made more slender, further reducing shadow impacts. The access and egress from the garage is along the least-utilized road adjacent to the site. The preferred building configurations on the project site resulted in fewer impacts, particularly on traffic, parking, wind, and shadows.

Traffic

The traffic analysis presented in the DEIR was prepared in conformance with the EEA/EOT Guidelines for EIR/EIS Traffic Impact Assessment. The unadjusted and adjusted trip generation rates were explained in the DEIR. The DEIR included a Level-of-Service (LOS) analysis for the thirteen required intersections in the Certificate of August 7, 2009 on the ENF. In addition, the DEIR also included an LOS analysis at the four following intersections: Vining Street/Private Way; Longwood Avenue/Huntington Avenue; Longwood Avenue/Binney Street; and Longwood Avenue/Riverway. The DEIR's LOS tables included the weekday morning (7:15 – 8:15 am) and evening peak hours (4:45 – 5:45 pm) for each movement at these above intersections. The DEIR provided a traffic distribution map and background growth from other proposed projects in the area. Future conditions covered a five-year (2016) and a ten-year (2021) time horizon to account for the phasing of the project. The DEIR examined existing (2009) and future (2016 and 2021) build and no-build traffic volumes for the impacted roadways and intersections. The Volume/Capacity ratio was also provided for signalized intersections. The DEIR included a summary of average and 95th percentile vehicle queues for each intersection within the study area. It included an LOS analysis for the Riverway/Brookline Avenue intersection evaluating a full-build scenario without a proposed right-turn lane on the Riverway northbound at the Brookline Avenue intersection and a full-build scenario with the proposed improvement. Traffic accident history for the three most recent years for which data are available was reviewed and presented for the study area. Based on its analysis of impacts, the DEIR is not proposing any roadway modifications or upgrades at this time.

Parking

The DEIR included a parking needs assessment and identified the number of parking spaces required by zoning, and recommended by the Boston Transportation Department (BTD) in its citywide standards. The parking needs assessment took into account the daily turnover rates for employees (1.6), patients (3.3), and residences (very little). It described the parking supply and demand in the Longwood Medical Area (LMA) generally and presented vehicle occupancies/modal splits for the trips generated in order to estimate parking demand. The DEIR also discussed ambulance and service parking. Service parking included truck traffic (deliveries).

Based on the results of the parking needs assessment, parking at the site will include approximately 406 parking spaces in an underground garage under the BWH building. The proponent is also proposing to supply MMHC with 50 parking spaces when MMHC returns to the site. This may be initially done as a surface parking area and later as part of the proponent's 406-space garage. Residential units will be supplied with parking from BWH's existing lease of approximately 90 parking spaces in the adjacent RTH garage. The DEIR also indicated that off-site parking lots would be used for future BWH staff at these buildings. No valet parking was proposed in the DEIR.

Transportation Demand Management

The DEIR outlined the proponent's proposed Transportation Demand Management (TDM) Program which includes the following measures: a transit subsidy to employees using public transportation (currently provides a 50 percent subsidy) ; an on-site vehicle trip reduction coordinator; a rideshare matching program; a guaranteed ride home program; bicycle incentives; and parking management to discourage single passenger driving. The proponent will also participate in the Longwood Medical Area (LMA) Transportation Management Agency (TMA).

Public Transit

The project site is served by existing public transportation stations including the Huntington Avenue/Brigham Circle Stop on the Heath Street Branch and Longwood Station on the Riverside Branch of the Green Line, the Orange Line, and several MBTA bus routes and bus stops in the neighborhood. There are also shuttle bus routes and stops in the area provided by the Medical Academic and Scientific Community Organization (MASCO). The DEIR identified what transit services have limited capacity available during peak hours. However, the DEIR stated that with the new Charlie Card tickets, the MBTA has the ability to monitor passenger loads and adjust schedules as needed to meet customer demands.

Pedestrian and Bicycle Facilities

The DEIR illustrated where sidewalks currently exist on a map of the area and where the proponent has proposed to install new sidewalks and identified certain proposed bicycle facility improvements to be made in connection with the project. A new pedestrian path will be constructed between the private way and Binney Street. The proponent will reconstruct sidewalks around the project site. It will provide secure bicycle storage at each project building. The proponent will also provide shower facilities and lockers for employees at the BWH Building.

Air Quality

The DEIR provided air quality microscale modeling for carbon monoxide for intersections deteriorating to LOS D or worse where the project contributes ten percent or more to the existing traffic volumes. An air quality mesoscale analysis for ozone was provided for this project to assess the total volatile organic compound (VOC) and nitrogen oxide (NOx) emissions associated with all project-related vehicle trips. Since VOC/NOx emissions from the Preferred Alternative are greater than the no-build case, the proponent will expand its TDM program. The DEIR discussed opportunities to enhance pedestrian, bicycle, and transit modes as required to reduce the air quality impacts in the mitigation section. The proponent proposed to comply with MassDEP's Ridesharing Regulations, 310 CMR 7.16. The mesoscale analysis was also used to estimate indirect carbon dioxide (CO₂) emissions from transportation sources in conjunction with the GHG Policy and Protocol. The proponent has also committed to participate in the MassDEP Diesel Retrofit Program and utilize ultra low sulfur diesel fuel in the off-road engines of

construction vehicles.

Greenhouse Gas Emissions (GHG)

The DEIR included an analysis of GHG emissions performed in conformance with MEPA's GHG Emissions Policy and Protocol ("the Policy"). The Policy requires projects to quantify carbon dioxide (CO₂) emissions and identify measures to avoid, minimize or mitigate such emissions. The GHG analysis evaluated CO₂ emissions for three alternatives as required by the Policy including 1) a Base Case corresponding to meet the 7th Edition of the Massachusetts Building Code (Code) (ASHRAE 90.1-2007) (Case 1); 2) a Preferred Alternative, which included measures incorporated into the building shell that go beyond those required for code compliance (Case 2); and 3) a project alternative with greater GHG emissions-related mitigation than the Preferred Alternative (Case 3). The proponent used the Trane Trace 700 model, version 6.1.3, to analyze direct and indirect stationary sources of GHG emissions for the Binney Street Building, the Partial Hospital/Fenwood Inn, and the BWH Building. The EQUEST model was used to analyze stationary sources of GHG emissions for the Residential Building. On November 4, 2009, the proponent supplied monthly energy consumption tables for each building in a new Appendix G. 4. I second DOER's commendation of the proponent for providing a detailed and high-quality GHG analysis that effectively and thoroughly evaluates the wide variety of potential GHG reduction measures that could be implemented as part of this project.

The DEIR essentially included four separate GHG analyses to effectively evaluate the unique GHG reduction measures that may be incorporated to the four project buildings. The DEIR provided a building GHG mitigation technologies matrix that compared proposed and rejected GHG reduction measures for each building and identified those measures that will continue to be investigated as project design advances, as well as those that were examined as part of the Case 3 Alternative. The DEIR described additional operational or construction period measures that will be incorporated into the building program that may provide indirect GHG reduction benefits that cannot be accurately quantified. Additionally, the DEIR provided a discussion of rejected technologies that are not feasible for implementation at any of the four project buildings.

The DEIR provided tables outlining GHG modeling results for each building for direct emissions (natural gas) and indirect emissions (electricity) showing total GHG annual emissions. It also supplied a table for each building showing key building elements that were input into the GHG model. It described the specific measures to be implemented in each building and provided supporting data on anticipated CO₂ reduction measures. For Case 3, additional energy efficiency and GHG reduction measures were evaluated for each building and included, depending upon the building, purchase of Green Energy and different energy recovery systems, a higher degree of building insulation, reduced air exchanges in laboratory spaces, and cogeneration. The DEIR described specific measures to be implemented in each building and provided supporting data on anticipated CO₂ reduction benefits. It explained trade-offs inherent in the evaluation and application of potential GHG reduction measures. The BWH Building and the Residential

Building will be designed and constructed photovoltaic (PV)-ready so as not to preclude PV from future application. The proponent has determined that PV systems (both roof-top and façade) appear to be financially infeasible at this time due to small roof areas even after the consideration of available federal and state tax credits.

As noted in the DEIR, the project's GHG emissions included direct emissions of CO₂ from natural gas combustion for heating and indirect emissions of CO₂ from project generated motor vehicle trips and electricity used for lighting, building cooling and ventilation, and the operation of other equipment inside the project buildings. The DEIR stated that because the TDM program is prescriptive by City of Boston requirements, and in part negotiated, it is not practical to determine a mobile sources build-without-mitigation case in the DEIR. Therefore, although the proponent will be implementing a host of TDM measures which will mitigate mobile source GHG emissions, a baseline without these measures has not been calculated in the DEIR. Mobile source emissions from traffic were modeled using data gathered as part of the mesoscale analysis. The GHG analysis estimated CO₂ emissions for the 2021 Build condition minus the No-Build conditions at 295 tons per year and no credit was taken for transportation mitigation. Total mobile source GHG emissions are a very small fraction (about one percent) of the estimated stationary source emissions.

Because building space will be leased by the Department of Mental Health, the proponent has considered the recommendations and energy-related measures included in Executive Order No.484, Leading by Example for the Binney Street Building but not for BWH Building. The DEIR identified that USDOE Office of Energy Efficiency EnergySmart Hospital Program is not applicable to this project.

Given the phased nature of this project, the DEIR considered design options that would allow it to cost effectively integrate efficiency or renewable energy measures in the future when it is more financially or technically feasible. In the DEIR, the proponent considered GHG mitigation measures and committed to continuing to evaluate these measures as the building designs are finalized. Mass DEP commended the proponent for including water and wastewater energy use and other energy reduction measures (variable speed fans and elevators with regenerative brakes).

I recognize the challenges associated with accurately modeling future GHG emissions for a project with an extended design and construction horizon. The DEIR has concluded that GHG reductions of 30 percent and 35 percent can be achieved at the Binney Street and Partial Hospital/Fenwood buildings, respectively. These two buildings will be constructed in the initial project phase, and these GHG reduction goals seem reasonably achievable based on current building design status. The proponent has established minimum energy performance standards (and therefore associated GHG emissions reductions) for each building based on the results of the GHG analysis, including the BWH and residential buildings, where their conceptual design status presents challenges to GHG modeling. Given the more uncertain nature of design of the BWH and residential buildings, and the ongoing evolution of GHG reduction technologies, there

appears additional opportunity to refine project design and present construction commitments to achieve further GHG reductions beyond those modeled in the DEIR. I have presented additional GHG-related items for evaluation as part of the FEIR scope.

The GHG analysis estimated the Base Case (Case 1) total CO₂ emissions at 22,555 tons per year (tpy). Under the Preferred Alternative (Case 2), utilizing mitigation measures as identified in the DEIR, the total CO₂ emissions were estimated at 20,289 tpy, a reduction of about ten percent from the Base Case. In the DEIR, no summary was provided for Alternatives with Greater GHG Mitigation (Case 3). However, the individual tables for each building provided estimates of CO₂ for Case 3. Because the mitigation measures vary depending on the building, total CO₂ ranged from 19,746 tpy (a 12.5 percent reduction from Case 1) to 16,964 tpy (a 24.8 percent reduction from Case 1).

Wind and Shadow

The DEIR considered specific building design alternatives as a means of reducing adverse wind and shadow impacts on the ground level pedestrian environment. It was guided by the wind tunnel testing of the LMA massing. The wind analysis evaluated pedestrian level impacts. Of the 30 locations studied for wind, the annual wind gust speeds were similar for both the No-Build and Build conditions. Wind conditions were comfortable for their intended usage in most areas. The number of locations with dangerous wind conditions on an annual basis was reduced from four for the No-Build Condition to one for the Build Condition. The proponent will explore potential mitigation measures during the design stage to reduce wind impacts. Possible wind control mitigation measures may include installing canopies and planting coniferous trees.

The DEIR identified shadow impacts during the different times of the year as required by the BRA.

Drainage

The DEIR presented drainage calculations and plans for the management of stormwater from the proposed project. It included an overview of the proposed drainage system design. The current design for the proposed site will reduce impervious areas through increased landscaped areas. The proponent is investigating the use of permeable pavement materials, vegetated stormwater management areas, and subsurface infiltration/detention systems. The rates of stormwater runoff were identified for the 2, 10, 25 and 100-year storm events. The proposed drainage system will control storm flows at existing levels. The proponent will recharge roof runoff and other treated stormwater runoff from paved areas and driveways in order to retain as much as possible of the existing groundwater flows and drainage patterns. The DEIR identified the drainage permits required from the City

The DEIR's stormwater management section discussed infiltration, slowing runoff from the site, maximizing the use of vegetation, capturing rooftop runoff for irrigation, and

minimizing sediment and nutrient loading downstream. The DEIR addressed the performance standards of MassDEP's Stormwater Management Guidelines. The design of the drainage system appeared to be consistent with these guidelines. The DEIR's stormwater analysis evaluated the use of some Low Impact Development (LID) techniques. The Residential Building site is being evaluated for the sighting of bio-swales and rain gardens.

Water and Wastewater

The DEIR provided a detailed breakdown of the estimated water demand and wastewater generation for each component of the proposed project. Since the ENF, the water demand has increased from 109,100 to 122,770 gpd, and wastewater generation has increased from 99,180 to 111,608 gpd. This breakdown included the proposed outdoor watering demand for landscaping and the projected water source.

Historical/Archeological Issues

The DEIR provided an examination of the MMHC site to determine the items for potential inclusion into the replacement buildings. The proponent has committed to salvage and replicate the original fencing, the Seal of the Commonwealth on the existing building, and reuse MMHC fireplace mantels, bookcases, and some original light fixtures in the new buildings. The DEIR has identified the potential shadows from new construction on the Riverway, which is listed on the State and National Registers. It has identified potential shadow impacts on historic residential areas #1 and #7 on Figure 6-1.

Riverway Parkland Impacts

The DEIR included a figure (Figure 2-20) that showed parkland trails, sidewalks, roadways, and other recreational facilities within the adjacent park. It identified shadow impacts on the Riverway during the morning hours.

Construction Impacts

The DEIR presented a discussion of construction period impacts and analyzed feasible measures that can avoid or eliminate these impacts, such as using wheel washes, wetting agents and fully covering trucks to reduce dust and retrofitting construction equipment to use ultra low-sulfur fuel. It also presented a construction sequencing plan, and a traffic mitigation plan to be used during construction periods.

Recycling Issues

The DEIR considered future waste reduction and recycling, and it integrated recycled materials into the project to minimize or mitigate long-term solid waste impacts from the project.

SCOPE

The FEIR should resolve the remaining issues outlined below. It should follow the MEPA regulations at 301 CMR 11.07 for outline and content, as modified by this Certificate.

Project Description

The FEIR should provide an updated project description detailing any changes since the DEIR. It should continue to provide an existing and proposed site plan and should describe each state agency action required for the project. The FEIR should provide sufficient information to allow the permitting agencies to understand the environmental consequences related to the project.

Alternatives Analysis

The FEIR should discuss and compare in a tabular format the Preferred Alternative, an alternative showing the buildable bulk and density under the existing zoning provisions without zoning relief, and the No-Build Alternative. It should provide a comparative analysis that clearly shows the differences between the environmental impacts associated with each of the alternatives.

Traffic

Because this project contains a specialized hospital with outpatient services, the FEIR should identify the number and type of outpatient services for the Massachusetts Mental Health Center (MMHC) and BWH. The EIR should provide information regarding how these outpatient visits will reach MMHC and BWH. It should include a breakdown by transportation mode and the reasoning behind these estimated trip generation numbers. It should fully describe all of the proposed components at MMHC and BWH to provide accurate trip generation estimations.

In the FEIR, traffic accident problem areas should be identified, and solutions should be proposed. The FEIR should discuss the proponent's coordination efforts with DCR, MassDOT, and BTD officials as they address regional and local traffic concerns within this area. It should provide the most current information on the proposed construction dates for any roadway improvements in the area. The proponent should consider participating in proposals by DCR, MassDOT, and the BTD to provide traffic mitigation measures to reduce the impacts on estimated delay at adjacent intersections along the Brookline Avenue corridor.

I note that during the review of the DEIR the MEPA Office received a proposal for another medical office project in the vicinity of this project, at 2 Brookline Place. Because the 2 Brookline Place project was proposed after the DEIR was submitted, the cumulative impact of

the two projects on area traffic was not evaluated in the DEIR. I ask that the FEIR contain a qualitative discussion of the cumulative impact, if any, of these two projects on the local and regional traffic patterns.

For TDM measures, MassDEP has suggested that the proponent offer parking preferences or additional discounts to hybrid and electric vehicles and I strongly encourage the proponent to consider this suggestion.

Public Transit

In order to encourage the use of public transit to the maximum extent possible, the FEIR should evaluate the feasibility of providing a free transit pass to each residential unit as part of the rent or management fee. The FEIR should identify the needed improvements to existing transit service and evaluate the potential contributions that can be made by this project to improving transit service in the area.

Pedestrian and Bicycle Facilities

The FEIR should identify proposed bicycle parking/storage areas on a plan and should identify the specific number of bicycle parking spaces that will be provided. Spaces outside the building should be provided for short-term visits and indoor bicycle parking should also be made available for longer-term visits. I encourage the proponent to make an affirmative commitment to support and improve plans for pedestrian and bike improvements in the area that benefit the project tenants as well as the community. The proponent should evaluate the recommendation in several comment letters to repave the pedestrian path and restore the adjacent landscaping at Brookline Avenue/Riverway intersection.

GHG Emissions

Generally, the FEIR should seek to refine project details, explore additional technologies, and where feasible, commit to additional GHG emissions-related mitigation measures based upon guidance provided in comment letters on the DEIR. The FEIR should summarize the total CO₂ emissions for each building for the three associated GHG scenarios (Case 1, 2, and 3) in a tabular format with an accompanying text, modified as necessary in response to any additional GHG mitigation commitments presented since review of the DEIR. This clarification is necessary because in certain places the discussion in the DEIR text does not match the data contained in the tables containing the modeling results. The discrepancies should be explained and corrected in the FEIR. Energy performance minima (and associated GHG emissions) for each building should be updated in the FEIR, reflective of modified GHG analyses and project design commitments established in response to this scope. The FEIR should clearly outline those GHG mitigation measures that the proponent will commit to implement for each building, those that may require further refinement based on future design, and any additional measures that may have been rejected based upon additional analysis performed in response to the FEIR scope.

As noted previously, there appears to be additional opportunity for GHG mitigation at the BWH and residential buildings, particularly in light of the fact that these buildings make up the majority of new building square footage for the project (and thus potentially the majority of stationary source GHG emissions). The Department of Energy Resources (DOER) has provided several recommendations that the proponent should explore as part of the FEIR that may assist in achieving additional CO₂ reductions. Moreover, DOER indicated that because the MDMH will be a tenant in the BWH Building, there is an expectation that the building will be designed, built, and operated to achieve reductions comparable to any state facility operating under Executive Order 484.

The FEIR should respond to DOER's concerns for clarity regarding the LEED New Construction certification and ASHRAE modeling for the BWH building. The FEIR should also continue to explore ways to reduce lab hood exhaust demand on the overall heating and ventilation building loads. DOER has also indicated that connecting the BWH Building to the MATEP plant (and the residential building as contemplated in Case 3), which is a combined heat and power facility, could provide a significant GHG reduction benefit to the project. I strongly encourage the proponent to work with the new facility owner, Veolia Energy North America, to evaluate possible connections to MATEP to serve the heating and cooling loads of the BWH and residential buildings. The FEIR should provide a discussion and analysis of how connection to this facility could reduce the overall GHG emissions associated with the project, and if feasible at this time commit to either continue to explore CHP opportunities or connect the facility to MATEP.

In an effort to bring GHG mitigation reductions to a level commensurate with the Binney Street and Partial Hospital/Fenwood buildings, DOER also suggested that the FEIR establish two options for its Preferred Alternative for the BWH Building: one which includes a connection to MATEP and reduced lab air changes; and the other through building envelope performance by increasing the efficiency of the HVAC systems and reducing the lighting power levels. These two alternatives should be explored subsequent to evaluation of connection possibilities to MATEP and reduced lab air exchanges. If these measures are technically or economically infeasible, I proponent should evaluate and commit to additional building envelope enhancement options to achieve greater levels of GHG reduction at the BWH building.

Finally, the FEIR should provide an update on the proponent's evaluation of other sustainable design features that the proponent is committing to implement. The DEIR indicates that the Partial Hospital/Fenwood Inn will be LEED certified and that the Binney Street Building and the BWH Building will be LEED Silver Certified. According to MassDEP, the LEED Checklist (Appendix F) for the Binney Street Building included one credit for an undetermined activity (Credit 1.4). If this credit was removed from the Binney Street Building, it would no longer have enough points to qualify for LEED Silver. The FEIR should address this issue by explaining what the credit applies to. The DEIR also indicates that the proposed Residential Building will be LEED Certified with the possibility of being LEED Silver Certified. The FEIR

should update the reviewers on the proposed LEED status of each building.

Wind Impacts

As final design plans are determined, the FEIR should identify any mitigation measures to reduce wind impacts.

Drainage

The FEIR should identify if any Boston Water and Sewer Commission (BWSC) stormwater system improvements will be required to connect to the stormwater system. It should identify with specificity any potential drainage impacts on the Muddy River. The FEIR should indicate and discuss where the Riverway, Fenwood Road, Vining Street, and the Vining Street Extension drainage systems discharge in this area. As recommended by the Charles River Watershed Association (CRWA), the FEIR should evaluate whether the project will meet the phosphorous reduction requirements of the Total Maximum Daily Load for Nutrients (TMDL) in the Lower Charles River Basin and should be designed to minimize nutrient loading to nearby waterways to the maximum extent feasible. The stormwater system should also be designed to reduce the sediment load to the Muddy River. The FEIR should report on the results of the proponent's commitment to determine groundwater flow directions on the project site. The Massachusetts Water Resources Authority (MWRA) encourages the proponent to undertake additional measures to reduce the cumulative stormwater flow from the project site in order to protect nearby and downstream water infrastructure systems.

The FEIR should include a more detailed Stormwater Management Plan for the project. In addition, a maintenance program for the drainage system should be included in the FEIR to ensure its effectiveness. This maintenance program should outline the actual maintenance operations, responsible parties, and back-up systems. It should provide additional information about the potential for downstream impacts and identify mitigation measures as requested by the MWRA. The FEIR should discuss the consistency of the project with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit from the U.S. Environmental Protection Agency for stormwater discharges from construction sites. It should include a discussion of best management practices employed to meet the NPDES requirements, and should include a draft Pollution Prevention Plan that will be adhered to by project contractors.

Water and Wastewater

The FEIR should identify if BWSC water and/or wastewater system improvements that will be required in order to connect to the municipal water and wastewater systems. It should outline the proponent's efforts to reduce water consumption and thereby reduce wastewater

generation. The FEIR should also provide an analysis of the required Infiltration/Inflow (I/I) removal from the hydraulically related sewer system as identified in the comments from MassDEP. If the proponent proposes funding rather than I/I removal, the FEIR should provide information validating that the fund contribution would cover the costs for removal of I/I at a rate of 4:1. Finally, the FEIR should also provide further discussion of the project's likely impacts on community and MWRA systems downstream of the project, as requested in comments from the MWRA.

Historical/Archaeological Issues

The FEIR should revise Figure 6-1 from the DEIR and identify 20 Netherlands Road as on the National Register.

Riverway Parkland Impacts

The FEIR should identify the groundwater, drainage, shadow, and/or other impacts on the Riverway. The proponent should work with the Boston Parks and Recreation Department to ensure that any shadow impacts from the total project on the Riverway and the Parkway trees are mitigated to the greatest extent possible.

Hazardous Wastes

The FEIR should present a summary of the results of any hazardous waste studies and remediation efforts undertaken at the site by the proponent. It should identify potential groundwater contamination. The BWSC reported that a draft Remediation General Permit for groundwater contamination, contaminated construction dewatering and miscellaneous surface water discharges from the project site was issued by the U.S. Environmental Protection Agency. The FEIR should address this contamination on the site and identify any future remediation efforts.

Mitigation

The FEIR should include a separate chapter on mitigation measures. This chapter on mitigation should include proposed Section 61 Findings for MassDEP, Massachusetts Water Resources Authority, Massachusetts Historical Commission, Massachusetts Aeronautics Commission, Massachusetts Department of Conservation and Recreation, and the Department of Public Safety. The proposed Section 61 Findings should contain a clear commitment to mitigation, an estimate of the individual costs of the proposed mitigation and the identification of the parties responsible for implementing the mitigation. A schedule for the implementation of mitigation should also be included.

In the DEIR, the proponent has committed to provide the following mitigation measures:

- BWH will offer a comprehensive TDM program that includes: an Employee Transportation Advisor; bicycle racks; a 50 percent transit pass subsidy to employees; a 50 percent discount for commuters using non-MBTA bus lines; location-priced parking; supporting MASCO; CommuteWorks Transportation Management Association membership; Emergency Ride Home Program; interior and exterior bicycle storage areas; and telecommuting and compressed workweeks for employees.
- RTH will offer after school programs for children that eliminate after school pick-ups. It provides a van service allowing residents to run errands. It will provide information packets to its new residents regarding TDM. No new parking will be provided for the residential building; parking will be provided in existing nearby RTH-owned Mission Park Garage, and this will in turn result in some BWH employee parking being relocated to the new garage at the Brigham Building.
- Create over 100 affordable housing units, including affordable condominiums.
- Create about 10,000 sf of new community meeting and office space to serve the community and a new indoor gymnasium.
- Shift the BWH Building's footprint to the east and relocate the Residential Building to reduce shadow impacts.
- Institute an extensive recycling program in both the BWH-run and RTH buildings
- Segregate, reprocess, reuse, and recycle materials during demolition.
- Provide an underground concrete galley system under the driveway for the infiltration of roof runoff (Partial Hospital/Fenwood Inn) and underground recharge systems for infiltration of roof runoff (Main MMHC Site).
- Utilize water spray to reduce dust during demolition.
- Utilize wetting agents, cover trucks, and use ultra low-sulfur diesel fuel, vacuum surrounding streets, and use wheel washes to reduce dust emissions from construction.
- Use sediment barriers during construction (silt fencing, hay bales, and catch basin sacks.
- Provide building cores that comply with the Advanced Buildings Core Performance Guide, New Buildings Institute, July 2007; high albedo and vegetated roofs; room occupancy sensors; high performance lighting; low flow plumbing fixtures, Energy Star appliances; and high efficiency mechanical equipment. The residential building will also include heat recovery from ventilation exhaust; room occupancy sensors in common areas; individual unit HVAC controls; natural ventilation; two-stage ventilation exhaust; and Energy-Star lighting fixtures.
- Supply some new street trees and widened sidewalks adjacent to the project site.
- Create approximately 21,780 sf of open space.
- Develop an architectural salvage and reuse plan for incorporation of historic MMHC building elements into the BWH/DMH proposed building plans.
- Replicate or reuse the wrought iron and brick post fence on the project site.
- Ensure chlorofluorocarbon reduction in all heating, ventilation, air-conditioning, and refrigeration equipment purchased.

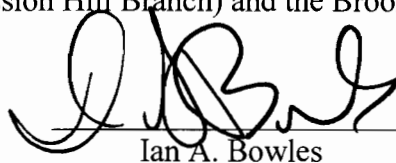
Response to Comments

In order to ensure that the issues raised by commenters are addressed, the FEIR should include a detailed response to comments. This directive is not intended to and shall not be construed to enlarge the scope of the FEIR beyond what has been expressly identified in this Certificate.

Circulation

The FEIR should be circulated in compliance with Section 11.16 of the MEPA regulations and copies should also be sent to the list of "comments received" below and to Boston and Brookline officials. A copy of the FEIR should be made available for public review at the Boston Public Library (Mission Hill Branch) and the Brookline Public Library.

January 22, 2010
Date



Ian A. Bowles

Comments received:

Epsilon Associates, 11/4/09
Vanasse Hangen Brustlin, 12/23/09
Medical Academic and Scientific Community Organization, 12/23/09
Alison Pultinas, 12/30/09
Charles River Watershed Association, 1/11/10
Massachusetts Department of Environmental Protection/Northeast Regional Office, 1/14/10
Massachusetts Department of Energy Resources, 1/15/10
Massachusetts Water Resources Authority, 1/15/10
Boston Parks and Recreation Department, 1/15/10
Hugh Mattison, 1/15/10
Alison Pultinas, 1/19/10
Muddy River Restoration Project, 1/19/10
Vanasse Hangen Brustlin, 1/20/10
Epsilon Associates, 1/20/10

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