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October 18, 2006

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

PROJECT NAME: The Reserve at Barton Hill
PROJECT MUNICIPALITY: Charlton
PROJECT WATERSHED: French River/Quinebaug
EOEA NUMBER: 13766
PROJECT PROPONENT: Charlton Freeman, LLC
DATE NOTICED IN MONITOR: September 11, 2006

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that the Draft Environmental Impact Report (DEIR) submitted for this project **adequately and properly complies** with MEPA and its implementing regulations. The proponent may prepare and submit the Final Environmental Impact Report (FEIR) for MEPA review.

Project Description

As described in the DEIR, the Reserve at Barton Hill (formerly called the Reserve at Bonner's Hill) consists of two single-family residential subdivisions on Freeman Road in Charlton, MA. The Environmental Notification Form (ENF) filed for the project in April 2006 only discussed the project on the west side of Freeman Road, referred to as the Reserve at Barton Hill West. In response to the Certificate on the ENF, the DEIR addresses the impacts of both the Reserve at Barton Hill West and the Reserve at Barton Hill East. The DEIR outlines the impacts of each project individually, and also considers the cumulative impacts of the two projects.

The Reserve at Barton Hill West is to be located off Freeman Road in Charlton, MA on approximately 165 +/- acres of undeveloped land. The project consists of the construction of single-family residences on 83 lots in a flexible development scheme. Serving the house lots are approximately 11,912 linear feet of roadway and associated stormwater management facilities encompassing a total area of about 75 acres. Approximately 16 acres of new impervious surface will be created as a result of this project. Of the total site acreage, approximately 51 acres will remain as dedicated open space to be deeded to the Town of Charlton or other entity deemed appropriate by the Town. Access to the site is proposed from two different locations off Freeman Road.

The Reserve at Barton Hill East is located off Freeman Road and Colburn Road. The project consists of the construction of single-family residences on 41 lots in a flexible development scheme. Serving the house lots are approximately 7,354 linear feet of roadway and associated stormwater management facilities. Approximately 10 acres of new impervious surface will be created as a result of this project. Of the total site acreage, approximately 32.2 acres will remain as dedicated open space to be deeded to the Town of Charlton or other entity deemed appropriate by the Town.

The Reserve at Barton Hill West and East cumulatively occupy approximately 264 +/- acres of undeveloped land on the east and west sides of Freeman Road in Charlton, MA. A total of 124 lots and 19,266 linear feet of roadway will be built as a result of both projects. Approximately 35 acres of new impervious area will be created as a result of both projects. Of the total site acreage for both sites, approximately 83 acres will remain as dedicated open space in perpetuity. The total proposed open space will consist of approximately 48 acres of upland and 33 acres of wetland. Combined, the projects will result in the alteration of approximately 11,230 square feet (sf) of wetland impacts from multiple limited roadway crossings. Temporary construction related wetland impacts total 2,587 sf.

Each home will be served by an on-site individual wastewater treatment facility that will be designed and constructed in full compliance with Title 5. Once all appropriate permits have been secured, the construction portion of each project will span approximately 5 to 7 years. In accordance with the Town of Charlton's zoning bylaw, only 20% of the total of each project will be constructed each year. Both projects will consist of five phases.

Changes Since ENF Review

According to the DEIR, there have been significant modifications to the proposed developments to lessen impacts on environmental resources since the filing of the ENF. The following changes have been made to the Reserve at Barton Hill West since the filing of the ENF:

- The total area of land alteration has been reduced from 80 +/- acres to 75 +/- acres.
- The proposed number of lots has been reduced from 85 to 83.
- The total amount of new acres of impervious surface has been reduced from 25 +/- acres to

16 +/- acres.

- Wetland impacts have been reduced from 14,555 sf to 6,522 sf as a result of design modification and the acquisition of abutting upland property.
- The number of wetland crossings has been reduced from seven to five.

The following changes have been made to the Reserve at Barton Hill East since the filing of the ENF:

- The total area of land alteration has been reduced from 62 +/- acres to 46 +/- acres.
- The proposed number of lots has been reduced from 46 to 41 lots.
- The total amount of new impervious surface has been reduced from 11 to 10 acres.
- The subdivision access road has been shifted to the east to avoid impacts to a vernal pool.

Jurisdiction

The project is undergoing review and is subject to the preparation of a Mandatory EIR pursuant to Sections 11.03 (1)(a)(1) and 11.03 (1)(a)(2) of the MEPA regulations because it will result in the alteration of more than 50 acres of land and result in the creation of greater than 10 acres of new impervious surface. The project is also subject to review pursuant to Section 11.03(3)(b)(1)(d) of the MEPA regulations because it will result in the alteration of more than 5,000 sf of Bordering Vegetated Wetland (BVW).

The project requires a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency (EPA); a Category 2 Programmatic General Permit from the U.S. Army Corps of Engineers (ACOE); a 401 Water Quality Certificate from the Department of Environmental Protection (MassDEP); an Order of Conditions from the Charlton Conservation Commission; review from the Charlton Planning Board; and Title 5 Approval from the Charlton Board of Health. The project also requires review from the Massachusetts Historical Commission (MHC). Because the proponent is not seeking financial assistance from the Commonwealth for the project, MEPA jurisdiction is limited to the subject matter of required or potentially required state permits. In this case, MEPA jurisdiction extends to issues of land alteration, drainage, wetlands and historic resources.

The purpose of MEPA review is to ensure that a project proponent studies feasible alternatives to a proposed project; fully discloses environmental impacts of a proposed project; and incorporates all feasible means to avoid, minimize, or mitigate Damage to the Environment as defined by the MEPA statute. I have fully examined the record before me, including but not limited to the Scope issued on May 10, 2006; the DEIR filed in response; and the comments entered into the record. I find that the DEIR is sufficiently responsive to the requirements of the MEPA regulations and the Scope to meet the regulatory standard for adequacy. In the FEIR, the proponent should respond to the remaining issues outlined in this Certificate and to comments submitted on the DEIR.

SCOPE

General

The FEIR should discuss any changes to the project since the filing of the DEIR and provide an update on the local, state and federal permits and/or review required for the project. The FEIR should contain a copy of this Certificate and a copy of each comment received. The FEIR should respond to the comments received, to the extent that the comments are within MEPA subject matter jurisdiction. The FEIR should present additional narrative and/or technical analysis as necessary to respond to the concerns raised.

The FEIR should be circulated in compliance with Section 11.16 of the MEPA regulations and copies should be sent to any state agencies from which the proponent will seek permits or approvals, to the list of "comments received" below, and to Charlton officials. A copy of the FEIR should be made available for public review at the Charlton Public Library.

Alternatives

The Certificate on the ENF required that the proponent conduct a comprehensive alternatives analysis that evaluated a reduced build alternative that could result in the creation of less impervious surface and less wetlands impacts. The DEIR considered the environmental impacts of a no-build alternative; a conventional subdivision on both the east and west parcels; and a flexible subdivision build with reduced impacts from those outlined in the ENF.

A conventional subdivision scheme on the Barton Hill West site would consist of the construction of single-family residences on 77 lots (minimum lot size of 60,000 sf) and approximately 14,092 linear feet of roadways. Although this design would result in fewer lots, the amount of land disturbance and wetland alteration would be greater. The conventional development scheme would result in nine wetland crossings with approximately 32,346 sf of permanent wetland disturbance. There would be no protected open space provided due to the minimum lot sizes required by local planning regulations. For the Reserve at Barton Hill East, the conventional and flexible schemes would result in similar amounts of land and wetland disturbance on site; however the flexible development scheme provides approximately 32 acres of dedicated open space where none can be provided under the conventional scheme.

The proponent's preferred alternative, a flexible development scheme on the east and west parcels, has been modified since the submittal of the ENF to reduce environmental impacts. By purchasing additional land and altering project design, wetland impacts on the Barton Hill West site have been reduced by approximately 8,033 sf. In addition, wetlands crossings on each site have been designed to minimize impacts to the greatest extent practicable. The narrowest point at each wetland crossing was selected for road placement. On the Reserve at Barton Hill East site, the proponent has reached an agreement with an abutting landowner that will provide an alternative to a roadway crossing in a wetland that has been identified as a vernal pool. This new roadway layout has the additional positive effect of reducing wetland alteration by 125 sf. In response to comments from MassDEP, the FEIR should include a plan that clearly identifies

owners of the adjacent parcels of the two project sites. This information will be required for the 401 Water Quality Certification application as part of the alternatives analysis. The proponent should also investigate alternative points of access into the sites.

The total amount of land alteration and creation of impervious surface resulting from the proponent's preferred alternative has also decreased since the submittal of the ENF. On the Barton Hill West site, the total area of land alteration has been from 80 +/- acres to 75 +/- acres and the amount of new impervious surface has been reduced from 25 +/- acres to 16 +/- acres. On the Barton Hill East site, the total area of land alteration has been reduced from 62 +/- acres to 46 +/- acres and the total amount of new impervious surface has been reduced from 11 to 10 acres.

The DEIR concludes that the preferred alternative results in an increased amount of natural land set aside for conservation; a reduced amount of impervious surface; and reduced impacts to wetland resources. The proponent may carry the preferred alternative forward to the FEIR.

Land Alteration/Drainage

The Reserve at Barton Hill East and West will result in the alteration of 121 acres of land and the creation of 26 acres of new impervious surface. The DEIR included a stormwater management report that examined existing drainage conditions and analyzed rates of runoff under existing and proposed conditions. The DEIR presented a plan for a stormwater management system that will fully comply with MassDEP's Stormwater Management Policy and guidelines. Structural Best Management Practices (BMPs) include catch basins with deep sumps and oil hoods, vortechinics stormwater units, sediment forebays, extended detention ponds providing infiltration, and water quality swales. One of the project's stormwater management basins is proposed to be partially located within a New England Power Service Company easement. The proponent should discuss what approvals will be needed for placement of the basin in this area.

The DEIR provided a discussion of compliance with the MassDEP Stormwater Management Policy and the EPA's NPDES Stormwater Permit for Construction Activities. A Stormwater Pollution and Prevention Plan will be completed, implemented and available on site throughout project construction. During project construction, erosion and sedimentation controls will be used to minimize the movement of soil/sediment from contained construction areas. The proponent's contractor will be responsible for erosion and sedimentation control at the site. According to the DEIR, the contractor will utilize a system of operations and inspections to maintain all necessary erosion and sedimentation control measures to minimize damage at the site and to prevent to migration of sediment into environmentally sensitive areas.

The DEIR also contained a draft Operation and Maintenance Plan for the project which detailed pavement maintenance, stormwater system maintenance and snow removal. In the FEIR, the proponent should discuss whether the internal roads will be conveyed to the Town, and what entity will be responsible for the ongoing operation and maintenance of structural stormwater BMPs.

The DEIR indicates that a vernal pool was identified on the Barton Hill East site. Vernal pools are considered Outstanding Resource Waters under the Massachusetts Surface Water Quality Standards and critical areas under MassDEP's Stormwater Policy. The hydrological implications and stormwater impacts of this project on this vernal pool were not discussed in the DEIR. Stormwater discharges to the wetland resource area containing the vernal pool may be subject to Standard 6 of the Stormwater Policy. The sites should be evaluated for the presence of additional vernal pools and include mitigation measures to identify and protect these areas from impacts associated with the development.

In the Certificate on the ENF, I encouraged the proponent to consider Low Impact Development (LID) techniques in site design and storm water management plans. LID techniques incorporate stormwater best management practices (BMPs) and can reduce impacts to land and water resources by conserving natural systems and hydrologic functions. The primary tools of LID are landscaping features and naturally vegetated areas, which encourage detention, infiltration and filtration of stormwater on-site. Other tools include water conservation and use of pervious surfaces. Clustering of buildings is an example of how LID can preserve open space and minimize land disturbance. LID can also protect natural resources by incorporating wetlands, stream buffers, and mature forests as project design features. The FEIR should provide a discussion of LID measures that could be incorporated into the site design.

Wetlands

The following resource areas exist on the Reserve at Barton Hill West site: BVW, Inland Bank associated with multiple intermittent stream channels, and Riverfront area associated with an offsite perennial stream. The site also contains two Isolated Vegetated Wetlands (IVW) that meet federal jurisdictional criteria. The development on the Barton Hill West site will result in the alteration of approximately 6,522 sf of BVW as a result of four limited project roadway crossings to access upland areas on the project site and one additional interior crossing. Temporary construction related impacts total approximately 1,542 sf.

The following resource areas exist at the Reserve at Barton Hill East site: BVW, Inland Bank associated with intermittent stream channels, Bordering Land Subject to Flooding (BLSF), and one IVW that meets federal jurisdictional criteria. The Reserve at Barton Hill East will result in the alteration of approximately 4,708 sf of BVW from three limited project crossings. One crossing is located within BVW and BLSF and will result in a permanent impact to 1,666 sf of floodplain. Compensatory flood storage will be provided for all flood storage volume that will be lost as a result of the roadway crossing.

For both sites, the proponent filed an Abbreviated Notice of Resource Area Delineation (ANRAD) in March of 2006 to confirm wetland resource areas with the Charlton Conservation Commission. The project will require an Order of Conditions from the Commission, a 401 Water Quality Certificate from MassDEP and a PGP from the ACOE. In response to comments from MassDEP, the FEIR should include an evaluation of alternative designs for wetlands crossings. Only one of the proposed crossings features an open box culvert. Impacts to stream banks

associated with intermittent streams should be identified in the FEIR. All crossings should be designed in compliance with the "Technical Guidelines for Rivers and Stream Crossings", which is available at http://www.umass.edu/nrec/pdf_files/guidelines_river_stream_crossings.pdf.

In their comments on the ENF, MassDEP requested that a wildlife habitat evaluation be conducted for the wetland resource areas proposed to be impacted. This was not included in the DEIR. The evaluation should be conducted in accordance with MassDEP's "Wildlife Habitat Protection Guidance for Inland Wetlands", dated March 2006.

On-site mitigation for wetland disturbances includes the creation of wetland replication areas at a 2:1 ratio. At the Reserve at Barton Hill West site, the proponent has identified a location for a single replication area totaling 13,044 sf. This area was chosen for replication due to its location within a historical disturbed upland area adjacent to the wetland boundary. At the Reserve at Barton Hill East, the proponent has identified a location for a single replication totaling 10,700 sf. According to the DEIR, a formal wetland replication plan will be developed for review by the Charlton Conservation Commission, ACOE and DEP during permitting. The wetland replication plan will be consistent with the Massachusetts Inland Wetland Replication Guidelines and will meet the requirements of the WPA (310 CMR 10.55(4)) and Section 401 of the Clean Water Act. The proponent submitted specifications for wetlands restoration and replication in the DEIR and outlined an ongoing monitoring program to be implemented upon completion of replication activities.

Historic Resources

In its comments on the ENF, MHC stated that while there are no recorded historical or archaeological resources within the boundary of the project area, portions of the project area are considered to be archaeologically sensitive and likely to contain archaeological sites associated with ancient and historical period occupation of the Charlton area. MHC requested that the proponent undertake an intensive (locational) archaeological survey for the project to locate, identify and evaluate any significant historic or archaeological resources that may be affected by the proposed development.

In response to MHC's comments, the proponent contracted with the Public Archaeology Laboratory (PAL) to conduct the archaeological survey for the project to locate, identify and evaluate any significant historic or archaeological resources that may be affected by the proposed projects. According to the DEIR, PAL has completed their field work at the site and has concluded that there are no significant cultural resources on either property. A copy of PAL's summary report letter is included with the DEIR. MHC's comments on the DEIR concur that there are no significant archaeological resources at the site and that the site is not eligible for listing in the National Register of Historic Places. The FEIR should contain a discussion of the proponent's consultation with MHC in a manner that does not disclose the location of any archaeological sites in the vicinity of the project.

Mitigation

The Certificate on the ENF required that the DEIR contain a separate chapter on mitigation measures and Draft Section 61 Findings for all state permits. The DEIR presented a Draft Section 61 Finding for the MassDEP Water Quality Certificate but the Finding did not include 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 as required by the ENF Certificate. This information should be included in the FEIR. The proponent should also summarize other proposed measures to mitigate for impacts related to land alteration, the creation of impervious surface and historic resources and land alteration. The FEIR should provide a schedule for the implementation of the mitigation, based on the construction phases of the project. The Section 61 Findings will be included with all state permits issued for this project, and will be considered binding upon the proponent as mitigation commitments.

October 18, 2006
Date


Robert W. Golledge, Jr.

Comments received:

- 9/19/2006 Massachusetts Historical Commission
- 9/21/2006 Town of Charlton, Planning Board
- 10/11/2006 Department of Environmental Protection, Central Regional Office

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