

AMORY ENGINEERS, P.C.

WATER WORKS • WATER RESOURCES • CIVIL WORKS

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April 5, 2016

Mr. Joseph M. Fisher, Chairman
Hingham Zoning Board of Appeals
210 Central Street
Hingham, MA 02043

Subject: Avalon Hingham Shipyard II – Comprehensive Permit

Dear Mr. Fisher:

This is to advise that we have reviewed the following documents which were included in the Comprehensive Permit Application, Supplemental Information Submission, dated March 30, 2016, by AvalonBay Communities:

- Stormwater Management Report Revised, dated March 30, 2016, prepared by Howard Stein Hudson
- Avalon Hingham Shipyard II plan set (19 sheets), dated March 30, 2016, prepared by Howard Stein Hudson, A-Plus Construction Services Corp., The Architectural Team, Inc. and Hawk Design, Inc.
- Response to Engineering Peer Review Comments (REPRC), dated March 30, 2016, prepared by Howard Stein Hudson

The documents were prepared in response to our letter to the Board, dated March 8, 2016, public comments raised at the March 10 public hearing and meetings between AvalonBay representatives and area residents over the past few weeks. We note that the Supplemental Information Submission included other documents related to traffic which are being reviewed by the Board's traffic engineer, Vanasse & Associates, Inc.

After our initial review of the documents listed above, we requested additional information from Howard Stein Hudson (HSH) via email dated April 4, 2016. Ms. Hilary Holmes, P.E. of HSH responded to our request and provided additional information via emails on April 4 and 5 which adequately address our questions/comments. A copy of the email string is attached to this letter.

Summary of Changes

The scope of the project has been reduced from a six-story, 250-unit structure to a five-story, 190-unit structure. As a result of the reduction in units, the number of proposed parking spaces and area of impervious surfaces have also been reduced, thereby increasing the proposed open space area. Another major change is the addition of a subsurface infiltration system beneath the building to mitigate a portion of the roof runoff. The driveway on the north side of the building connecting Shipyard Drive East to USS Amesbury Drive is now proposed to be 24-foot wide with a sidewalk along the north side. The proposed building now shows five residential units on

the ground floor along USS Amesbury Drive and elimination of the garage access to USS Amesbury Drive.

Comments

With the reduction in scope and the changes noted above the majority of the comments in our March 8 letter have been fully addressed. Below follows the same numbering as our March 8 letter, plain text summarizes how the comment has been addressed, *italic text* repeats our original comment if it has not been addressed and **bold text** indicates that additional information and/or action is needed.

General comments

1. Informational, no further comment.
2. The number of units and bedrooms has been corrected.
3. The proposed open space is approximately 32,305 square feet (19.7% of the parcel), which includes landscaped areas, and paved/concrete walkways.
4. A retaining wall detail is shown on the plans and the **REPRC indicated that the final design would be by a registered structural engineer. Should the Board approve the project we suggest this be a condition of approval.**
5. The bike storage area has been eliminated and bike racks have been shown in the podium parking garage.
6. The proposed sidewalk along the access drive north of the building provides a safe pedestrian route between USS Amesbury Drive and Shipyard Drive East.
7. *The MHP eligibility letter also recommended a playground if additional property is acquired, or if additional property is not acquired, "a play area or program element identified for children should be provided." We have not seen a play area or program element identified for children. The REPRC indicated that "the Applicant will further explore options as Supplemental information is provided to the Board."*
8. Stormwater management:
 - a. An Operation and Maintenance Plan for the stormwater system has been provided and is in compliance with DEP's Stormwater Management Standards.
 - b. Revised calculations indicate that all catch basins will adequately convey the design storm without surcharge.
 - c. With the inclusion of the subsurface infiltration system, discharge to the existing stormwater systems will not be increased under proposed conditions. **However, without the subsurface infiltration system, flows will be increased so**

maintenance of the system is critical. We note that the infiltration system is located under the podium parking garage pavement and replacement of the system will be difficult.

9. The size of the domestic and fire water services have been increased and the **REPRC indicates that the required sizes will be confirmed during final building design.**
10. A proposed fire hydrant is shown north of the visitor parking driveway off USS Amesbury Drive. **The REPRC also indicated that “the Applicant will work with the Fire Department to determine if additional (hydrant) locations are needed.”**
11. *ZBL Sections IV-E.2.e requires a plan showing the “exterior lighting pattern to include description and location of lighting fixtures.” A photometric plan and light fixture detail should be submitted.* **The REPRC indicated that “a photometric plan and light fixture detail will be provided during the comprehensive permit process.” If the plan is not provided before the end of the public hearing and should the Board approve the project we suggest this be a condition of approval.**
12. *ZBL Section V-A.5.k requires that parking areas be laid out to “provide sufficient space for the storage of plowed snow unless removal by other means is assured.” Snow storage areas should be shown on the plans or the Applicant should document how snow will be removed.* The revised plans show two small snow storage areas adjacent to the south side of the visitor parking area. **The REPRC indicated that “the Applicant intends to remove snow from the site during large storm events.” Should the Board approve the project we suggest this be a condition of approval.**

Our comments related to the Listing of Requested Exceptions / Waivers have been adequately addressed with submission of the most recent version of the list, received April 4 via email (copy attached).

Please give us a call should you have any question.

Very truly yours,

AMORY ENGINEERS, P.C.

By:



Patrick G. Brennan, P.E.



PGB
enc.



Pat Brennan <pbrennan@amoryengineers.com>

Avalon Hingham Shipyard II

Hilary Holmes <hholmes@hshassoc.com>

Tue, Apr 5, 2016 at 8:28 AM

To: "pbrennan@amoryengineers.com" <pbrennan@amoryengineers.com>

Cc: Richard Latini <rlatini@hshassoc.com>, Joe SanClemente <jsanclemente@hshassoc.com>,

"Lars_Unhjem@AVALONBAY.com" <Lars_Unhjem@avalonbay.com>, "wentworthe@hingham-ma.gov"

<wentworthe@hingham-ma.gov>

Hi Pat,

Please refer to the table and figure attached regarding your forth bullet "Do you have information on depth to groundwater on the site? The infiltration system needs to have adequate separation to function." These are from the Phase I Environmental Site Assessment/Limited Phase II Investigation prepared by VHB on 11/5/15. The depth to groundwater ranges from was 11.14-14.01 ft. from existing grade. The proposed stormwater infiltration system is set approximately 3-3.5 ft. below existing grade (4.5-5 ft. below proposed grade), therefore there will be adequate separation between the system and groundwater.

The Post-development HydroCAD calculations have been revised to reflect P3 routed to Link 2L. Please refer to the attached pdf.

Thanks,

Hilary

Hilary Holmes, P.E., LEED AP BD+C

Project Manager | Senior Civil Engineer



direct: 617.348.3313 office: 617.482.7080

11 Beacon Street, Suite 1010, Boston, MA 02108

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From: Hilary Holmes

Sent: Monday, April 04, 2016 3:31 PM

To: pbrennan@amoryengineers.com

Cc: Richard Latini; Joe SanClemente; Lars_Unhjem@AVALONBAY.com; 'wentworthe@hingham-ma.gov'

Subject: RE: Avalon Hingham Shipyard II

Hi Pat,

Please see our responses below. I will follow up with the revised HydroCAD pages as soon as possible.

Thank you,

Hilary Holmes, P.E., LEED AP BD+C
Project Manager | Senior Civil Engineer



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From: Pat Brennan [<mailto:pbrennan@amoryengineers.com>]

Sent: Monday, April 04, 2016 2:28 PM

To: Hilary Holmes

Cc: Richard Latini; Joe SanClemente; Emily Wentworth

Subject: Re: Avalon Hingham Shipyard II

Hilary,

I've been going through the revised documents and have the following questions/comments that I'm hoping you and/or Rick Latini may be able to answer/address before I submit a letter to the ZBA:

- There are discrepancies between the calculations and Tabulation of Proposed Buildings (TPB) for open space and paved parking/vehicular areas. The TPB lists 32,305 s.f. open space and 26,280 s.f. paved parking/vehicular areas whereas the calculations have 25,440 s.f. and 32,269 s.f. respectively. Is the discrepancy related to paved/concrete walks, etc. being included in the TPB open space? **Yes, that is the case. The paved/concrete walks would not have been included in the paved parking/vehicular areas calculations in the TPB, but would have been included as impervious area in the stormwater calculations.**
- The post-development calculations have area P3 routed through the subsurface infiltration system. This area does not go into the infiltration system and should be routed to Link 2L. Would you make this change and send me the post-development HydroCAD pages (or file if easier) after doing so? **We will reroute P3 to Link 2L and send you the revised pages as soon possible, likely early tomorrow morning.**
- Where does the roof drain connect to the infiltration system and how many inspection ports are proposed? **A plumbing engineer will be engaged after the comprehensive permit process at which time the design with roof drain connections to the infiltration system will be finalized. Inspection ports will be proposed at the ends and corners of the system, see attached mark-up.**
- Do you have information on depth to groundwater on the site? The infiltration system needs to have adequate separation to function.

- Why is the rear yard setback waiver being requested with 34 feet being provided? **A rear yard setback waiver is not required and has been removed from the waiver request list. An updated version has been sent to Emily Wentworth, see attached.**

Thank you and please let me know if you have any questions.

Pat Brennan

On Thu, Mar 31, 2016 at 1:47 PM, Hilary Holmes <hholmes@hshassoc.com> wrote:

Hi Patrick,

We sent a courier to deliver a hard copy of the Avalon Hingham Shipyard II Comprehensive Permit supplemental materials to your office. There was no response, so the courier left the package at the door. Please let me when you receive the package (roll of plans and a separate white envelope). If they are not there then we can resend via overnight mail to the P.O. Box if that would be better.

Thanks,

Hilary

Hilary Holmes, P.E., LEED AP BD+C
Project Manager | Senior Civil Engineer



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From: Joe SanClemente
Sent: Wednesday, March 30, 2016 4:02 PM
To: Wentworth, Emily (wentworthe@hingham-ma.gov)
Cc: Lars Unhjem/MA/API; Richard Latini; Hilary Holmes; Haley Vermes; Michael Littman; Edward R. Bradford; Jeffrey S. Dirk, P.E.,PTOE; pbrennan@amoryengineers.com; Michael_Roberts@avalonbay.com
Subject: Avalon Hingham Shipyard II

Hi Emily –

The Avalon Hingham Shipyard II Comprehensive Permit supplemental materials, and responses to the Town's Peer Review Consultants, can be downloaded from the following link:

<https://hshassoc.sharefile.com/d-sb62de67917b41409>

Rick Latini is hand delivering a hard copy of the materials to you this afternoon. We will also send hard copies to the peer review consultants via courier first thing tomorrow (3/31) morning.

Please let me know if you have any questions or need any additional information.

Thank you,
Joe

Joe SanClemente, P.E., AICP

Associate Principal | Senior Transportation Engineer



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2 attachments

 **Post-Development Calculation Revisions 2016-04-05.pdf**
691K

 **Groundwater Gauge - HINGHAM Combined Phase I-II.pdf**
1283K

Avalon Hingham Shipyard II - Hingham, MA
MGL Ch. 40B Comprehensive Permit Application

Listing of Requested Exceptions / Waivers

In accordance with Section 2.E.8 of the Town of Hingham Rules and Regulations for Comprehensive Permits and Section 56.05(2)(a) and (f) of the Chapter 40B Regulations, a list of requested exceptions to local requirements, codes, bylaws, and regulations is provided herein.

Zoning Requirements - Industrial District				
Criteria	Required	Existing	Proposed	Waiver Required
Zoning By-Law §III – Schedule of Uses (Subsection 1.4) and all provisions of IV-E, Multi-Unit Development	Apartment House is subject to the provisions of IV-E, Multi-Unit Development, and is prohibited in Industrial District	Existing building is a two-story warehouse and office building	Project as shown on Plan.	X
Zoning By-Law §IV-A – Minimum Lot Frontage	200 ft.	160.27 ft. and 103.56 ft. Lincoln St	160.27 ft. and 103.56 ft. Lincoln St.	X
Zoning By-Law §IV-A – Maximum Stories	3	2	5	X
Zoning By-Law §IV-A – Maximum Building Coverage	40%	49%	64.2%	X
Zoning By-Law §IV-A – Maximum Floor Area Ratio	0.35 by right 0.50 by Special Permit	Approx. 0.95	1.55	X
Zoning By-Law §IV-A – Minimum Side Yard	25 ft.	3.63	16.1 ft.	X
Zoning By-Law §IV-B.1. – Special Requirements to Schedule of Dimension Requirements	No building, structure, parking area, or septic system shall be constructed within 100 ft. of a residential district.	Existing building is within 72.5 ft. from a residential district	Building will be constructed within 79.8 ft. from a residential district.	X

Off-Street Parking Requirements				
Criteria	Required	Existing	Proposed	Waiver Required
Zoning By-Law § V-A.3 – Residential Use – General Business Office/Warehouse	2 spaces/unit 3 1/2 spaces/1000 SF of GFA (General Business Office); 1 space/1000 SF of GFA (Wholesale/Warehouse)	 Approx. 0.21 spaces/1,000 SF of GFA	 1.57 spaces/unit or approx. 1.17 spaces/1,000 SF of GFA	 X
Zoning By-Law § V-A.3 – Standard Parking Spaces	Width 9 ft. Length 18 ft. with overhang 20 ft. without overhang	Varies Width 9 ft. min. Length 18 ft. min. without overhang	Width 9 ft. Length 18 ft. without overhang	X
Zoning By-Law § V-A.3 – Loading Spaces	Width 12 ft. Height Clearance 14 ft.	Width N/A Height Clearance N/A	Width 10 ft. Height clearance N/A	X

By requesting the foregoing waivers from local bylaws and regulations, it is the intention of the Applicant to request a Comprehensive Permit to permit construction of the Project as shown on the Plan. If, in reviewing the Applicant's building permit application(s), the Building Commissioner determines that any additional waiver from local bylaws or regulations is necessary to permit construction to proceed as shown on the Plan, the Applicant requests that the Building Commissioner proceed as follows: The Applicant shall be informed of any additional waiver required and (a) any matter determined by the Building Commissioner to be of a de minimus nature shall be deemed within the scope of the waivers granted by the Comprehensive Permit; or (b) for any matter determined by the Building Commissioner not of a de minimus nature, including but not limited to potential adverse impacts on public health, safety, welfare or the environment, Applicant may submit a request to the Board for a determination under 760 CMR 56.05(11).