

Town of Sudbury

Planning and Community Development Department

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Jody A. Kablack, Director

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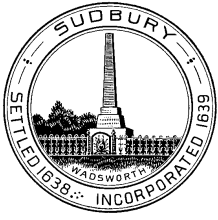
TO: Zoning Board of Appeals
FROM: *gak* Jody Kablack, Director of Planning and Community Development
DATE: February 26, 2016
RE: Avalon Sudbury Comprehensive Permit Application
526 & 528 Boston Post Road, Sudbury, MA

This office is in receipt of an application for a Comprehensive Permit on the above property filed with the Sudbury Town Clerk on February 4, 2016. Submitted with the application were the following documents and plans: Site Plans entitled "Site Plans, Avalon Sudbury" prepared by VHB and The Architectural Team (TAT), dated Jan. 20, 2016, consisting of 14 sheets and "Existing Conditions Plan of Land" prepared by VHB, dated 6, 2016 consisting of 6 sheets (SV-1 thru SV-6); Architectural Plans entitled "Avalon Sudbury, Sudbury MA, Application for Comprehensive Permit, Architectural Drawings" prepared by The Architectural Team (TAT), dated January 20, 2016, consisting of 27 sheets; Supporting documentation – Tabulation of proposed buildings, Preliminary Utilities Plan, Jurisdictional documentation, Waivers and Exceptions requested, List of Abutters, Filing and consulting fee.

I have reviewed the application, and have the following comments and recommendations as you begin the public hearing process:

A. Process

1. The hearing process, application submission, consultant review, proforma review, waivers from local requirements, and other aspects of the process are governed by 760 CMR 56.05, regulations promulgated by the Dept. of Housing and Community Development. The ZBA has also adopted Supplemental Rules for Comprehensive Permits Pursuant to MGL c. 40B, s. 20-23, as permitted in 760 CMR 56.05. The Board should adhere to these regulations during the review of this application.
2. The Board has 180 days from the date of the first hearing to complete the hearing, and then 40 days after the close of the hearing to vote a decision. This puts the close of the hearing on Sept. 2, 2016, and a vote of the Board on or before October 12, 2016.
3. In order to complete review of all the issues during the 180 day (6 month) time period, a schedule for specific issues should be established and followed. Given the work load of the ZBA, hearings on this application should be held monthly following the Board's published schedule. Members may miss only 1 hearing to be eligible to vote on the application. Alternate ZBA members should attend the hearings at the direction of the Chairman in the case of more than 1 absence by a full member.
4. For this application, the following schedule is recommended:
 - **Hearing 1, March 7** - Overview of project by applicant; expectations of the board for review fees and consultants; additional information needed; initial public comments
 - **Hearing 2, April 4** - Architectural Design/Building Massing/Density/unit sizes and configuration
 - **Hearing 3, May 9** - Other site impacts – visual, fiscal impacts; Mitigation/Community Needs
 - **Hearing 4, June 6** - Physical constraints of the site – stormwater, wastewater, clearing & grading
 - **Hearing 5, July 11** - Landscaping, lighting
 - **Hearing 6, August 1** - Additional information



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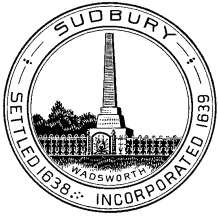
These dates are subject to change based on availability of information, and Board schedules. But this schedule gives the Board an indication of how the 6 month time period for review can proceed.

5. Due to the complexity and size of the proposal and the environmental sensitivity of the site, it is anticipated that review of this application will require a higher degree of skill and technical advice than is currently available from Town staff. The applicant has previously submitted \$10,000 for peer review, as required in the ZBA Supplemental Rules, however it will be beneficial for the Town to obtain professional advice from the following consultants as the application review proceeds:
 - a) Engineering Consultant to review stormwater management, soils information, groundwater impacts, wetland impacts and waiver requests from the Sudbury Wetlands Administration Bylaw, grading and other engineering issues. The Town is already engaged in a contract for similar services on other projects with the firm Horsley & Witten, and it is recommended to utilize this firm for the Avalon project. Stormwater review will include the master stormwater plan for the entire redevelopment project. I will provide the applicant with the Scope of Services and cost estimate for this work prior to execution of a contract by the Town Manager.
 - b) Traffic Consultant to review traffic impacts. The Town is already engaged in a contract for these services with the firm Vanasse & Associates, which is reviewing the master traffic plan for the entire redevelopment project.

As noted above, estimated consultant fees will likely be greater than the initial deposit made. Additional funds will be requested from the applicant once the estimated costs are provided.

B. Application Materials - Prompt submittal of this information is critical to technical review of this proposal, and delays in obtaining this information will hinder the Town's ability to ascertain basic feasibility of the proposal. There may also be additional information that will be needed as review proceeds.

1. Pursuant to 760 CMR 56.05(2), the Applicant must submit the following additional information:
 - a) Description of materials for streets, drives and parking areas;
 - b) Construction type of buildings and exterior finishes;
2. Pursuant to the Board's Supplemental Rules, the Applicant must submit the following additional information:
 - a) Materials proposed for streets, drives and paved areas;
 - b) Location and details of all proposed signs and exterior lighting;
 - c) Construction type of buildings and exterior finishes.
3. The Determination of Project Eligibility Letter issued by MHP dated December 23, 2015 requires the Applicant to address the following issues during the public hearing process:
 - a) The affirmative fair housing marketing and resident selection plan will ensure that the units will be made widely available to all populations.



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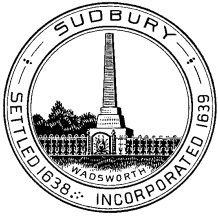
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- b) Local preference will be permitted in accordance with the Comprehensive Permit Rules to the extent that satisfactory evidence of the need for local preference is demonstrated by the Town.
 - c) Lease terms should not permit occupancy of dens as bedrooms;
 - d) The bedroom mix has been adjusted so that there are 7 affordable 3-bedroom units.
 - e) Issues such as mitigation of school, public safety and resident service costs are outside the scope of Chapter 40B.
4. Additional materials which will assist the Board in understanding the impacts of this development are requested to be submitted, including:
- a) Cross section analysis of the anticipated visual impacts of the proposed development at several locations, including Horse Pond Road and Trailside Circle.
 - b) A Stormwater Plan has been prepared for the full redevelopment plan, which includes the Avalon Sudbury development. The applicant is urged to submit this plan as an official part of the Comprehensive Permit application so it is fully understood how the drainage system will work.
 - c) A Traffic Impact Study has been prepared for the full redevelopment plan, which includes the Avalon Sudbury development. The applicant is urged to submit this plan as an official part of the Comprehensive Permit application so it is fully understood how the traffic from the development will be mitigated.
 - d) Proposed cross-section for the construction of the development roadway.
 - e) A fiscal impact analysis describing impacts from the development on the Town's infrastructure, school system, public safety departments, Board of Health and other areas that will be impacted by the inclusion of 250 new housing units.
 - f) Submittal of a Water Impact Report to the Sudbury Water District.
5. The applicant has requested numerous waivers from the local bylaws and regulations, but has not supplied information on the extent of the waivers. For example, a waiver is requested on the height limitation in the Zoning Bylaw, but the total height of the buildings is not indicated. Other variances from the Zoning Bylaw, including setbacks, building coverage, parking, stormwater management requirements, etc. should be described in sufficient detail so that the Board can make a determination on its relevance and impact. Extraneous waiver requests should be removed from the list.

C. Additional Recommendations

1. The Board should consider requiring a connection from the development property to the abutting Mass Central Rail Trail corridor for future access.
2. It is noted that the proposed development will utilize the existing Raytheon wastewater treatment plant, which has a design capacity of approximately 50,000 gallons/day. It is also noted that the applicant has requested an increase in the capacity of the treatment plan to DEP. This system does not require a permit from the Sudbury Board of Health, but is under the jurisdiction of Mass DEP. It is recommended that all actions and correspondence directed to DEP on this property be submitted to



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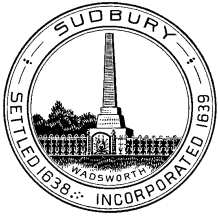
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the Board and the Sudbury Health Director so that the Town is well informed on the progress and outcomes.

3. A Stormwater Pollution Prevention Plan (SWPPP) is required for the proposal.
4. The applicant should submit additional details on the Preliminary Subdivision Plan so that the Town can ascertain compliance with the Regulations, including frontage measurements, metes and bounds of all lots lines, and radii at street intersections.
5. The plan proposes 582 parking spaces, which is greater than the requirement of 2 spaces/unit in the Zoning Bylaw. Approximately 60 spaces are located along the main roadway in the development. It appears that all units have at least 1 space in a parking garage attached to the unit. Some units have driveways for additional tandem parking. There are also small parking lots scattered around the development. It is recommended to discuss the removal of the on-street parking, which creates an urban feel to the development. This would result in a narrower roadway and decreased impervious area, and may create a more suburban environment along the street.
6. It is questioned if the internal road will be named?
7. Many details of the development are contained on the plans, including construction details, landscaping details. One such detail is the development entrance sign, which is shown on Sheet C-7.2. The sign is 24 sq. ft., and not illuminated.
8. Details on the exterior lighting are requested.
9. Tenancy data from similar developments in Massachusetts is requested so the Town can better understand the population of residents who will live in the development, and any particular municipal needs that the development will require.
10. Many units in the development contain 3 stories, and are of concern for fire protection and public safety response for medical calls, as the buildings do not contain elevators.
11. The Townhouse buildings along the western property line should be setback further from the property line, or the landscaping behind these buildings should be enhanced, to minimize intrusion onto the open abutting farm property. These units will be visible from Horse Pond Road as there is minimal natural vegetation along the property line.
12. All utilities must be installed underground. A notation to this effect should be included on the Notation Sheet of the Site Plan.
13. Development of this property would normally require applications in front of the Planning Board (Stormwater Management), Conservation Commission, and Design Review Board. However, under MGL c. 40B, s. 21, the ZBA has the authority for the comprehensive approval of the development.



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These other boards shall make recommendations to the ZBA, and the ZBA can attach conditions to the permit regarding height, site plan, size or shape, or building materials.

I expect that additional comments will be forthcoming once the Town officials have had the opportunity to fully review the proposal.

cc: DPW Director
Building Inspector
Conservation Coordinator
Health Director
Fire Chief
Police Chief
Town Counsel
Board of Selectmen
Sudbury Water District
Planning Board
Applicant



John M. Whalen
Assistant Fire Chief

TOWN OF SUDBURY

Fire Department

77 Hudson Road
Sudbury, MA 01776
Tel. (978) 443-2239
Fax (978) 440-8213

March 8, 2016

To: Jody Kablack
Director of Planning

Subject: Avalon Housing Development 526-528 Boston Post Road.

The plans provided for this thirty two building development located off of Boston Post Road were reviewed by the Fire Department. The following conditions need to be met to receive approval from the Fire Department.

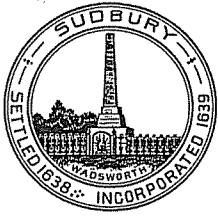
1. Traffic on Boston Post Road is congested during the commuting hours of the day.
A traffic control system will need to be designed to allow free movement of fire apparatus leaving Fire Station #2, located adjacent to the property.
2. No Ladder Truck access to the rear of town house buildings four through ten, and buildings J thru P. Present department staffing is insufficient for multiple ground ladder rescues.
3. All buildings will require a fire sprinkler system. Each building will have a designated fire sprinkler control room access by an outside door.
4. All units will be equipped with a monitored fire sprinkler zone control valve to allow for maintenance and repair of each unit's fire sprinkler system.
5. A fire alarm system will need to be installed in each building to monitor the fire sprinkler systems. This system will report via a radio fire alarm master box.
6. Location and number of fire hydrants will be approved by the Fire Department only.
7. All roadways will provide twenty (20) feet of unobstructed access at all times for fire apparatus.
8. Wastewater Treatment plant will have a fire alarm system installed. A chemical detection system will also be installed to monitor any chemicals used in the wastewater treatment process.

9. The developer will ensure proper emergency radio communications exist inside all buildings for use by the public safety departments per the Massachusetts building code 780 CMR.

If you have any question or concerns please contact me so I may assist you.

Sincerely,

John M. Whalen
Assistant Fire Chief



Town of Sudbury

Dept. of Public Works

275 Old Lancaster Road
Sudbury, MA 01776
(978) 440-5421; (978) 440-5451 fax
I. William Place, DPW Director/Town Engineer

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February 17, 2016

Jonathan O'Brian Chairman
Board of Appeals
278 Old Sudbury Road
Sudbury, MA 01776

Subject: Comprehensive Permit 40B/Sudbury Avalon. Inc.

Dear Mr. O'Brian:

The Department of Public Works is in receipt of an Application for a Comprehensive Permit Chp.40B from Sudbury Avalon Inc. dated February 4, 2016

I have reviewed the referenced materials and my comments are as follows:

1. Preliminary Plan dated January 20, 2016 does not conform to the Preliminary Plan requirements of the Planning Boards, Rules and Regulation governing the Subdivision of land.
2. A definitive Plan of the Subdivision Road should be submitted for review
3. Drainage calculation have not been received for review. Rim and invert elevations of catch basin and manhole, pipe size, and type should be shown on drainage plan.
4. Regrading for the access driveways was shown however, regrading around the proposed buildings, has not been shown. It would appear a retaining wall will be needed at the rear of building T4.
5. Retaining walls are to be designed by Registered Professional Structural Engineer.

6. The applicant is requesting a waiver for Article VF of Town Bylaw Stormwater Management, I would recommend the Board not grant this waiver. The Bylaw was enacted to control the rate and volume of runoff, to control erosion and sedimentation from the site. This Bylaw is in an effort to protect the health, safety, environment and welfare of the Public.

If there are any questions, please advise.

Sincerely,

A handwritten signature in cursive script that reads "I. William Place".

I. William Place, P.E.
Town Engineer/DPW Director



To: Town of Sudbury Zoning Board of Appeals

Date: March 1, 2016

Memorandum

Project #: 13125.00

From: Vinod Kalikiri, PE, PTOE

Re: Avalon Sudbury
526-528 Boston Post Road, Sudbury, MA
Traffic Memorandum

On behalf of Sudbury Avalon, Inc. (the "Applicant"), VHB has prepared this traffic memorandum in support of the *Avalon Sudbury* apartment development proposed to be located at 526-528 Boston Post Road in Sudbury, Massachusetts. The residential development will be located on approximately 18 acres of land located at the northwestern corner of a 50-acre parcel that will be redeveloped as a mixed use development (the "Site").

This memorandum is provided to support the Zoning Board of Appeal's review of the *Avalon Sudbury* apartment development for the issuance of a Comprehensive Permit pursuant to MGL Chapter 40B, Sections 20-23. It is noted that VHB has prepared and submitted to the Town of Sudbury a comprehensive Traffic Impact and Access Study (TIAS) dated February 16, 2016 that covers the analysis of impacts associated with the entire mixed-use development. The TIAS incorporates revisions based on the Town's peer review comments. The information included herein serves as a summary of the excerpts from the TIAS that are relevant to the review of the *Avalon Sudbury* apartment development.

Context of Overall Development

The Site is currently occupied by a Raytheon facility that includes a mix of office and research and development space, supported by approximately 2,040 parking spaces. As part of the overall redevelopment, all existing buildings on the Site (with the exception of approximately 15,000± square foot (sf) of ancillary R&D space) would be eventually demolished and a new mixed-use development would be constructed in multiple construction phases. The overall Project described in TIAS consists of the following new development components:

- 80,000± sf of mixed retail use (including a 45,000± sf grocery store);
- A residential development with 250 apartment units (**the subject of this memorandum**);
- An active adult (age-restricted) residential development with up to 60 housing units; and,
- An assisted living/memory care facility with up to 54 beds.

Trip Generation

The Site currently houses a 563,300± sf office/R&D complex, which consists of office space (421,300± sf), research & development space (112,000± sf) and manufacturing facilities (28,000± sf) in multiple buildings. Raytheon has begun their relocation process and will be winding down their operations at the Site over the next two years. If Raytheon were to vacate the Site entirely and the Proponent were not to construct the proposed mixed-use Project, other office/R&D tenant(s) would be identified to move in and use the entire 563,300± sf space and 2,040± parking spaces that currently exist on the Site. To estimate the effect of such a reuse of the Site, Institute of Transportation Engineers (ITE) *Trip Generation*¹ guidelines were used to calculate the number of vehicle trips that would be generated by a new

¹ Trip Generation Handbook; 9th Edition Institute of Transportation Engineers; Washington, DC; 2009.

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re-use tenant. Specifically, ITE Land Use Code (LUC) 710 (General Office Building), ITE LUC 760 (R&D) and LUC 140 (Manufacturing) were used in calculating the trip generation potential of the existing buildings on the Site.

For comparison, the TIAS submitted to the Town also included future conditions daily trip generation estimates using following ITE land use codes.

- Mixed-use retail: ITE LUC 820 (Shopping Center)
- Apartments: ITE LUC 220 (Apartments)
- Active adult residential use: ITE LUC 252 (Senior Adult Housing – Attached)
- Memory care/Assisted living use: ITE LUC 254 (Assisted Living)

The daily trip comparison is summarized in Table 1. Detailed calculations are included in the TIAS.

Table 1: Daily Trip Generation Comparison

Movement	Existing Development on the Site			Future Full Build-out				Increase (Future – Existing)
	Office Space	R&D	Manufacturing	Mixed-Retail	Avalon Sudbury	Age-restricted Housing	Assisted Living	
ITE LUC	710	760	140	820	220	252	254	
Size	421.3 ksf	112 ksf	28,000 sf	80 ksf	250 Units	60 Units	54 Beds	
Enter	1,960	550	45	2,940	820	100	100	+ 1,405
Exit	<u>1,960</u>	<u>550</u>	<u>45</u>	<u>2,940</u>	<u>820</u>	<u>100</u>	<u>100</u>	<u>+ 1,405</u>
Total	3,920	1,100	90	5,880	1,640	200	200	+ 2,810

Note: All numbers in the table represent "vehicle trips per day"

As shown in Table 1, the daily trip generation for the *Avalon Sudbury* apartment development is a small component (21-percent) of the overall future build-out. Additionally, the *Avalon Sudbury* residential trips represent only 36-percent of the total daily trip generation of the existing buildings on the Site.

Table 2 provides a similar comparison of the *gross* peak hour trip generation. The calculation methodology for the peak hour trip calculation is discussed in detail in the TIAS. For ease of reference, and to understand the contribution of the *Avalon Sudbury* apartment development to the overall peak hour trip generation, Table 2 separates out the apartment trip generation in a separate column. It is noted that the numbers presented in Table 2 do not reflect the effect of trip reduction characteristics that are inherent to mixed-use developments and are hence referred to as *gross trips*. Application of the adjustment factors further reduces the overall trip generation for the Project as discussed in the TIAS.

Table 2: Peak Hour Trip Generation Comparison (Gross Trips)

Movement	Existing Development on the Site	Future Full Build-Out ^a	Avalon Sudbury ^b
Morning Peak Hour			
Enter	665	155	25
<u>Exit</u>	<u>100</u>	<u>185</u>	<u>100</u>
Total	765	340	125
Evening Peak Hour			
Enter	125	350	100
<u>Exit</u>	<u>585</u>	<u>325</u>	<u>55</u>
Total	710	675	155
Saturday Midday Peak Hour			
Enter	100	435	100
<u>Exit</u>	<u>85</u>	<u>395</u>	<u>55</u>
Total	185	830	155

Note: All numbers in the table represent “vehicle trips per hour”

- a Represents *gross* trips as they do not reflect adjustments for shared trips between uses and pass-by trip reductions associated with retail uses
- b Represents *gross* trips as they do not reflect adjustments for shared trips between uses

Table 2 indicates that even before accounting for the efficiency between the uses in the mixed-use development in the form of internal capture or shared trips, the *Avalon Sudbury* trips represent a small percentage of both the weekday peak hour trip generation for the existing buildings on the Site as well as the overall future build-out. Additional calculations showing the beneficial effect of the internal capture or shared trips and the trip distribution analysis for the residential uses are included in the TIAS.

Signal Warrant Analysis

A traffic signal Warrant analysis was conducted to determine if the projected traffic volumes for the *Avalon Sudbury* apartment development utilizing the primary Site drive at its intersection with Boston Post Road would exceed the thresholds for the installation of a traffic signal at the location.

The Manual on Uniform Traffic Control Devices² (MUTCD) is the established standard for Warrant analyses. The Warrants consider the roadway geometry, traffic volume entering the intersection, and speeds. Specifically, the traffic projections were evaluated for following three volume-based Warrants.

² Manual on Uniform Traffic Control Devices, Federal Highway Administration, Washington DC

Warrant 1 (Eight Hour Vehicular Volume) – Warrant 1 is based on any eight hours of a day where the traffic entering the intersection reaches a threshold that warrants considering signal control.

Warrant 2 (Four Hour Vehicular Volume) – Warrant 2 is for any four hours of a day.

Warrant 3 (Peak Hour) – Warrant 3 is for the peak hour of any given day.

The traffic signal Warrant analysis indicates that the *Avalon Sudbury* apartment development, by itself, does not exceed the thresholds for the installation of a traffic signal at the primary Site driveway's intersection with Boston Post Road. i.e., if the *Avalon Sudbury* apartment development was the only component of the overall redevelopment plan that is constructed, the residential traffic would rely on unsignalized driveway connections to Boston Post Road and no traffic mitigation would be necessary. Details of the Warrant analyses are included in the TIAS.

Proposed Transportation Improvements for the Overall Development

The foregoing trip generation comparison and signal warrant analysis finding indicates that the *Avalon Sudbury* apartment development, in and of itself, does not trigger the need for any significant transportation improvements when compared to the re-use of the existing buildings on the Site by an office/R&D tenant. However, when considered in the context of the overall mixed-use development, the relatively limited traffic impact of the residential use can be mitigated by the implementation of the following significant roadway, traffic control, and multi-modal transportation improvements as part of the overall development. These improvements benefit both the Site traffic as well as the traffic on Boston Post Road that is unrelated to the development. Specifics of each of the improvement measures is included in the TIAS.

- Construction of a new traffic signal on Boston Post Road by aligning the primary Site driveway with the westerly driveway for Sudbury Plaza and Highland Avenue (a private way). This would also include the construction of designated left turn lanes on Boston Post Road, a new actuated pedestrian crosswalk and bicycle accommodations at the intersection; in addition to the Project, these improvements will also benefit the retail plaza and the residents of Highland Avenue on the south side of Boston Post Road;
- Improved safety through the elimination of traffic control by a police officer at the primary Site driveway during the weekday evening peak hour;
- Improved pedestrian accommodations by widening the existing sidewalk on the north side of Boston Post Road along the Site frontage and extending the limits of the existing sidewalk on the south side of Boston Post Road;
- Implementation of a time-based coordinated signal system between the new signalized Site driveway, Nobscot Road and Union Avenue intersections on Boston Post Road to better manage vehicular queues and improve progression of through traffic at multiple intersections;
- Construction of a new emergency preemption signal at the fire station located along the Site frontage and integration of the signal into the new traffic signal at the primary Site driveway;
- Subject of right-of-way availability, addition of five-foot paved shoulders (which could become part of future bike lanes) on either side of Boston Post Road within the limits of the roadway improvements; and,
- Implementation of a robust Traffic Demand Management (TDM) program, underpinned by a significant investment in on-site circulation enhancements.



To: Town of Sudbury Zoning Board of Appeals

Date: March 4, 2016

Project #: 13125.00

Memorandum

From: Karen F. Staffier, P.E.

Re: Avalon Sudbury
526-528 Boston Post Road, Sudbury, MA
Stormwater Management Memorandum

On behalf of Sudbury Avalon, Inc. (the "Applicant"), VHB respectfully submits the following Stormwater Management Memorandum, and attached Preliminary Stormwater Management Master Plan ("Stormwater Master Plan"), to support the Site Plans issued by VHB for Comprehensive Permit Approvals titled "Avalon Sudbury" dated January 20, 2016 (the "Project") located at 526-528 Boston Post Road in Sudbury, MA (the "Site"). The Project will encompass approximately 17.4 acres located at the northwestern corner of the Site (the "Project Area").

This memorandum and attached Master Plan is provided to support the Zoning Board of Appeal's review of the Avalon Bay plans submitted for Comprehensive Permit pursuant to MGL Chapter 40B, Sections 20-23. In conjunction with further refinement of the proposed subdivision and master plan for the Site, a comprehensive Stormwater Management Report, complete with associated figures, calculations, and supporting documentation, will be submitted for the Town's review. The information included below, and as further described in the Stormwater Master Plan, serve as a summary of the design and intent of the proposed stormwater management system and the stormwater-related benefits of the Project.

Existing Site and Drainage Conditions

Under existing conditions, the approximately 50-acre commercial Site is developed and consists of predominately impervious surfaces including several buildings, most notably two large buildings and associated paved parking, with generally flat topography sloping southeasterly. The existing Site development was constructed from the 1950's to the 1980's and also includes two smaller research buildings, and a wastewater treatment plant. Pervious surfaces on the Site include a centrally located vegetated area including lawn areas surrounding the larger buildings, a manmade stormwater retention pond and a series of wetlands which were originally constructed as stormwater Best Management Practices (BMPs). The Project Area is located almost entirely within an existing paved parking area, drained by catch basins and a closed drainage system tributary to the manmade stormwater retention pond and series of wetlands located at the centroid of the Site.

The Site lies within the Town of Sudbury's Nobscot sub-watershed which flows via an unnamed stream to Landham Brook and Wash Brook and eventually to the Sudbury River. The Site consists of two major catchment areas; on-site and off-site areas tributary to the centrally located retention basin and an area that drains via a closed pipe system to the municipal stormwater system. On the southwestern perimeter of the Site, stormwater swales and wetlands also collect and convey water to the retention pond, which accepts stormwater from a majority of the Site area. Outflows from the retention pond combine with the closed drainage system located on the southern portion of the Site through an existing piping network, which ultimately discharges to a wetland on the southern side of Boston Post Road, east of the Sudbury Plaza.

The site currently contains a stormwater management system that was constructed prior to the current DEP Stormwater Management Standards and as such is a "grandfathered" existing condition. Raytheon recently undertook

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a significant maintenance effort, with approval of the Sudbury Conservation Commission, to re-establish and enhance the functional characteristics of the on-site stormwater management system. While the system is compliant as an existing condition, the water quality treatment is not consistent with current state stormwater management standards that would be applicable to new developments. Stormwater from the majority of the parking areas is collected in catch basins and routed to swales and the retention pond prior to discharge. The remainder of the parking and drive aisles directly connected to the closed piping system, which provides some level of treatment, prior to discharge from the site.

Proposed Project and Project Area Drainage Conditions

The Project represents the multi-family housing portion of a multi-phase, mixed-use redevelopment project (the "Full Build Redevelopment"). The Full Build Redevelopment proposes to demolish all of the existing buildings and parking on Site (other than the 15,000 sf Beltran Building located in the rear of the property along the westerly property line), and will maintain/upgrade the wastewater treatment plant.

The Project Area site design incorporates a progressive and comprehensive stormwater management system that has been developed in accordance with the Massachusetts Stormwater Handbook to improve water quality and groundwater recharge. Low Impact Development (LID) techniques and stormwater BMPs implemented into the Project Area site design include reduction of impervious area, deep-sump and hooded catch basins, bio-retention areas, and subsurface infiltration equipped with isolator rows where feasible. All treatment BMPs will be designed to provide a minimum of 80% removal of Total Suspended Solids (TSS) for the one inch Water Quality Volume and provide a minimum of 44% TSS pretreatment prior to infiltration.

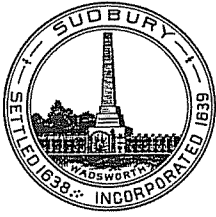
The Project provides a unique opportunity to enhance the existing on-site stormwater management system. The forthcoming analysis will demonstrate compliance with current standards developed to improve the existing conditions on the Project Area and other portions of the Site by:

- Implementing an environmentally sensitive design that optimizes proposed open space features providing a pleasant pedestrian experience and wildlife habitat benefits.
- Re-establishing components of a natural water cycle (evapotranspiration, groundwater recharge and runoff) on the Site as a result of increased open space, additional groundwater recharge and stormwater BMPs.
- Improving surface water quality and groundwater quality.
- Protecting downstream resources through the use of Low Impact Development techniques, where feasible, as well as traditional Best Management Practices combined with a concise Operation and Maintenance Plan.
- Protecting and minimizing disruption to existing wetland resource areas through the maintenance and enhancement of existing protective buffers and a thorough temporary and permanent erosion control system.

As proposed, the Project will maintain the existing retention pond and reduce impervious cover on a net basis. The stormwater management system will result in further attenuation of peak rates of runoff, improved water quality and balanced hydrologic conditions to existing wetland resource areas through the implementation of supplemental Low Impact Development techniques including decentralized stormwater BMPs. While not currently proposed, the Project

may also include minor modifications to the existing inlets and outlets to existing stormwater features including the existing retention pond. The addition of stormwater BMP's will aid to treat the Project Area runoff before discharging to the closed drainage system and introduce the opportunity for additional groundwater recharge to the underlying aquifer, subject to validation of adequate separation to groundwater. The Project will also incorporate appropriate temporary and permanent erosion controls and a comprehensive stormwater management operations and maintenance plan to enable the long-term functionality of the drainage system and associated BMPs.

The forthcoming Stormwater Management Report will document compliance with the Massachusetts Department of Environmental Protection (DEP) Stormwater Management Standards.



Town of Sudbury

Planning and Community Development Department

Jody A. Kablack, Director

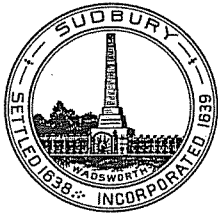
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<http://www.sudbury.ma.us/services/planning>
kablackj@sudbury.ma.us

TO: Zoning Board of Appeals
FROM: *jak* Jody Kablack, Director of Planning and Community Development
DATE: April 1, 2016
RE: Avalon Sudbury Comprehensive Permit Application
526 & 528 Boston Post Road, Sudbury, MA

As a follow-up to my previous memo dated February 26, 2016, I offer the following comments and recommendations on this proposal:

1. The Massachusetts Housing Partnership has approved the Town's application for a 40B Technical Assistance Grant in the amount of \$10,000 to hire Michael Jacobs to assist the Town with this application. The Board is familiar with Mr. Jacobs, who is also assisting with the Village at Sudbury Station review.
2. The Executive Office of Energy and Environmental Affairs issued a Certificate under the Mass. Environmental Policy Act (MEPA) for the entire Raytheon redevelopment project on March 25, 2016. The Board has received this document and it is included in the correspondence list for this application.
3. The Traffic Impact and Access Study prepared by VHB is undergoing peer review by the Town's consultant Jeff Dirk, Vanasse Associates. This review will be presented to the Board at the meeting scheduled for May 9, 2016. Mr. Dirk has previously reviewed this study for the Planning Board. Copies of his reports are attached to this memo.
4. The Town has engaged the firm Horsley & Witten to review the Stormwater Management plan prepared by VHB for the project. We are waiting for that report to be completed, and will schedule that peer review at the appropriate time.
5. A Fiscal Impact Study has been prepared by RKG Associates for the entire redevelopment project, including the Avalon Sudbury development. The Town will be peer reviewing this study, and the results will be forwarded to the ZBA for your information.
6. A subdivision of the former Raytheon property is contemplated in the 40B application. It is questioned if the intent is to only subdivide the property to create the Avalon lot, or will the property be subdivided into several lots. The applicant is urged to submit a definitive subdivision plan in conformance with the Planning Board Subdivision Regulations.
7. At the last hearing, the Board indicated that it might be possible to combine hearings on this proposal. Based on the materials submitted to date, and those that have not yet been completed, the following schedule is recommended:
 - **Hearing 2, April 4** - Architectural Design/Building Massing/Density/unit sizes and configuration; presentation of Fiscal Impact Study
 - **Hearing 3, May 9** - Presentation on traffic (including peer review); Applicant presentation of Stormwater Management Plan; Applicant presentation on lighting, landscaping and other plan details
 - **Hearing 4, June 6** - Final peer review comments on traffic, stormwater and fiscal impact
 - **Hearing 5, July 11**
 - **Hearing 6, August 1**



Town of Sudbury

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8. The correspondence list has been updated to reflect materials received since the last hearing. It is noted that there has been no comprehensive response to the staff comments received.

Attachments: Traffic memos from Vanasse Associates
Correspondence List

cc: DPW Director
Building Inspector
Conservation Coordinator
Health Director
Fire Chief
Police Chief
Town Counsel
Board of Selectmen
Sudbury Water District
Planning Board
Applicant

Avalon Sudbury
526-528 Boston Post Road
Materials received as of 4/1/16

The Board of Appeals is in receipt of the following:

1. Comprehensive Permit Application under M.G.L. Chapter 40B, Sections 20-23 (received February 4, 2016), including:
 - a) Waivers and exceptions requested
 - b) Jurisdictional documentation
 - c) Abutters list
 - d) Site Plans prepared by VHB dated January 20, 2016:
 - Legend and General Notes; C-1
 - Preliminary Subdivision Plan; C-2
 - Overall Site Plan; C-3
 - Layout and Materials Plan; C-4.1 and C-4.2
 - Grading, Drainage, and Erosion Control Plan; C-5.1 and C-5.2
 - Utility Plan; C-6.1 and C-6.2
 - Site Details; C-7.1 and C-7.2
 - Planting Plan; L-1 and L-2
 - Planting Details; L-3Existing Conditions Plan of Land (6 sheets) prepared by VHB dated January 25, 2016
 - e) Architectural Drawings prepared by The Architectural Team, dated January 20, 2016:
 - Project Cover; T0.01
 - Project Information, Drawing List & Building Key Plan; T0.02
 - Building G, J, L, N&P 1st, 2nd & 3rd floor Plans Direct Entry 1; A1-01
 - Building C,D,E,F,H,K,M,O,Q,R,S,T,U & V 1st, 2nd & 3rd Floor Plans – Direct Entry 1; A1.02
 - Building B 1st & 2nd Floor Plans Direct Entry 3; A1.03
 - Building B 3rd Floor Plan Direct Entry 3; A1.04
 - Townhome Floor Plans; A1.05-A1.11
 - Clubhouse & Trash/Maintenance Plans; A1.12
 - Typical Unit Plans; A2.01-A2.06
 - Exterior Elevations; A4.01-A4.06
 - Exterior Perspective Views; A4.07
2. Email from David Gillespie, Avalon Sudbury, consent to an extension for a first hearing date; dated February 4, 2016.
3. Memos from Bill Place, DPW Director, dated February 17, 2016 and February 25, 2016
4. Memo from Jody Kablack, Director of Planning and Community Development; dated February 26, 2016.
5. Preliminary Stormwater Management Master Plan prepared by VHB, dated November 2015, with a memo from Karen Staffier, VHB, dated March 4, 2016.
6. Traffic Impact and Access Study prepared by VHB, dated February 16, 2016, with a memo from Vinod Kalikiri, VHB, dated March 1, 2016.
7. Letter from Assistant Fire Chief, John Whalen, dated March 8, 2016.

Since last Hearing March 4, 2016

8. RKG Associates Inc. Fiscal Impact Analysis, Meadow Walk Sudbury/Avalon Sudbury; dated March 15, 2016.
9. Letter from MHP approving the 40B Technical assistance Grant; dated March 14, 2016.
10. MEPA Certificate from EOEEA Dated March 25, 2016.
11. Memo from Jody Kablack, Director of Planning and Community Development; dated April 1, 2016.

May 5, 2016

Jonathan F.X. O'Brien
Chairman, Board of Appeals
Town of Sudbury
Flynn Building
278 Old Sudbury Road
Sudbury, MA 01776

Dear Mr. O'Brien:

AvalonBay Communities, Inc., on behalf of Sudbury Avalon, Inc. has prepared the following response to the memorandum dated February 26, 2016 from Jody Kablack, Director of Planning and Community Development to the Zoning Board of Appeals ("Board"). Ms. Kablack's comments are noted above *the Avalon responses which are in italics*.

B. Application Materials

1. Pursuant to 760 CMR 56.05(2), the Applicant must submit the following additional information:
 - a) Description of materials for streets, drives and parking areas;

All streets and drives will be bituminous concrete (asphalt). Sidewalks will be either poured concrete or bituminous concrete.

- b) Construction type of buildings and exterior finishes;

All buildings are wood frame structure. The apartment homes are Group R2 and R3 – Type 5B. The Clubhouse is Group A3 and B- Type 5B and the maintenance shop/recycle center is Group U- Type 5B. The exterior finish materials are called out on architectural sheets A4.01-A4.06.

2. Pursuant to the Board's Supplemental Rules, the Applicant must submit the following additional information:
 - a) Materials proposed for streets, drives and paved areas;

See comment above.

- b) Location and details of all proposed signs and exterior lighting;

A supplemental drawing package with these details will be provided.

- c) Construction type of buildings and exterior finishes.

See comment above.

- 3. The Determination of Project Eligibility Letter issued by MHP dated December 23, 2015 requires the Applicant to address the following issues during the public hearing process:

- a) The affirmative fair housing marketing and resident selection plan will ensure that the units will be made widely available to all populations.

A sample affirmative fair marketing plan from Avalon Framingham is included with this submission. This plan was approved by DHCD in 2015. The final details of a specific plan for Avalon Sudbury will be subject to comment and approval from MHP.

- b) Local preference will be permitted in accordance with the Comprehensive Permit Rules to the extent that satisfactory evidence of the need for local preference is demonstrated by the Town.

Avalon has a great deal of experience implementing affirmative fair marketing plans which include local preference. Avalon will work with the Planning and Community Development Department to assemble documents for MHP's review and approval. If the local preference is approved by MHP, Avalon agrees to implement the program to the extent allowed by law.

- c) Lease terms should not permit occupancy of dens as bedrooms;

The inclusion of dens do not impact the number of allowed residents in an apartment home. The maximum occupancy is dictated solely by the number of bedrooms.

- d) The bedroom mix has been adjusted so that there are 7 affordable 3-bedroom units.

Avalon agrees to this change subject to the approval of 250 apartment homes.

- e) Issues such as mitigation of school, public safety and resident service costs are outside the scope of Chapter 40B.

- 4. Additional materials which will assist the Board in understanding the impacts of this development are requested to be submitted, including:

- a) Cross section analysis of the anticipated visual impacts of the proposed development at several locations, including Horse Pond Road and Trailside Circle.

TAT and VHB have prepared images for the Board's review at a prior meeting. These changes will be included in the revised site plans submitted for approval.

- b) A Stormwater Plan has been prepared for the full redevelopment plan, which includes the Avalon Sudbury development. The applicant is urged to submit this plan as an official part of the Comprehensive Permit application so it is fully understood how the drainage system will work.

The master plan stormwater documents have been submitted to the Board. Following final site design, a detailed Avalon specific plan with calculations will be submitted to confirm the specific design features comply with the master plan stormwater documents.

- c) A Traffic Impact Study has been prepared for the full redevelopment plan, which includes the Avalon Sudbury development. The applicant is urged to submit this plan as an official part of the Comprehensive Permit application so it is fully understood how the traffic from the development will be mitigated.

The Traffic Impact Study has been submitted.

- d) Proposed cross-section for the construction of the development roadway.

This will be included in the next iteration of site plans.

- e) A fiscal impact analysis describing impacts from the development on the Town's infrastructure, school system, public safety departments, Board of Health and other areas that will be impacted by the inclusion of 250 new housing units.

A comprehensive fiscal impact study has been developed for the entire 50 acre master plan. The Board of Selectmen have evaluated and peer reviewed this study. A summary of this analysis has been presented to the Board.

- f) Submittal of a Water Impact Report to the Sudbury Water District.

A Water Impact Report has been submitted to the Water District. To the extent that any comments from the Sudbury Water District require waivers from the local Bylaws or System Rules and Regulations, these waivers will be requested from the Board.

5. The applicant has requested numerous waivers from the local bylaws and regulations, but has not supplied information on the extent of the waivers. For example, a waiver is requested on the height limitation in the Zoning Bylaw, but the total height of the buildings is not indicated. Other variances from the Zoning Bylaw, including setbacks, building coverage, parking, stormwater management requirements, etc. should be described in sufficient detail so that the Board can make a determination on its relevance and impact. Extraneous waiver requests should be removed from the list.

Avalon will submit an updated list of waivers with more specific details following development of the revised site plans and consultation with Town staff and officials.

C. Additional Recommendations

1. The Board should consider requiring a connection from the development property to the abutting Mass Central Rail Trail corridor for future access.

If the Mass Central Rail Trail is developed, Avalon and National Development will work collaboratively to provide a connection to the trail within the master planned 50 acre site.

2. It is noted that the proposed development will utilize the existing Raytheon wastewater treatment plant, which has a design capacity of approximately 50,000 gallons/day. It is also noted that the applicant has requested an increase in the capacity of the treatment plan to DEP. This system does not require a permit from the Sudbury Board of Health, but is under the jurisdiction of Mass DEP. It is recommended that all actions and correspondence directed to DEP on this property be submitted to the Board and the Sudbury Health Director so that the Town is well informed on the progress and outcomes.

Agreed.

3. A Stormwater Pollution Prevention Plan (SWPPP) is required for the proposal.

Agreed. The SWPPP will be developed with the final site design and prior to construction.

4. The applicant should submit additional details on the Preliminary Subdivision Plan so that the Town can ascertain compliance with the Regulations, including frontage measurements, metes and bounds of all lots lines, and radii at street intersections.

Avalon is seeking Subdivision Plan approval through the Comprehensive Permit. These plans will be updated in a following submission.

5. The plan proposes 582 parking spaces, which is greater than the requirement of 2 spaces/unit in the Zoning Bylaw. Approximately 60 spaces are located along the main roadway in the development. It appears that all units have at least 1 space in a parking garage attached to the unit. Some units have driveways for additional tandem parking. There are also small parking lots scattered around the development. It is recommended to discuss the removal of the on-street parking, which creates an urban feel to the development. This would result in a narrower roadway and decreased impervious area, and may create a more suburban environment along the street.

Avalon will review the site plans to confirm that all parking spaces are needed. A higher number is required for this project due to the product type and low density.

6. It is questioned if the internal road will be named?

Yes. We will confer with National Development on a naming plan and submit it to the Board.

7. Many details of the development are contained on the plans, including construction details, landscaping details. One such detail is the development entrance sign, which is shown on Sheet C-7.2. The sign is 24 sq. ft., and not illuminated.

Please note that this sign is not internally illuminated but will feature a ground level light so it can be seen at night. An additional signage presentation will be made to the Board detailing all site signage.

8. Details on the exterior lighting are requested.

These details will be provided.

9. Tenancy data from similar developments in Massachusetts is requested so the Town can better understand the population of residents who will live in the development, and any particular municipal needs that the development will require.

Avalon projects between 55-75 school aged children and approximately 500 total residents. The fiscal impact analysis and peer review came to similar conclusions.

10. Many units in the development contain 3 stories, and are of concern for fire protection and public safety response for medical calls, as the buildings do not contain elevators.

Avalon has met with the Sudbury Fire Department and is happy to meet with any Town officials to further understand this concern and discuss possible mitigation measures. This design is compliant the Massachusetts State Building Code and the applicable NFPA sections. Avalon safely operates 3 story non-elevator buildings in almost all of our suburban communities.

11. The Townhouse buildings along the western property line should be setback further from the property line, or the landscaping behind these buildings should be enhanced, to minimize intrusion onto the open abutting farm property. These units will be visible from Horse Pond Road as there is minimal natural vegetation along the property line.

Separate studies have been developed to show views from both Horse Pond Rd and Trailside Circle. Landscape buffers will be used to mitigate visual impacts.

12. All utilities must be installed underground. A notation to this effect should be included on the Notation Sheet of the Site Plan.

All proposed utilities within the Avalon lot will be installed underground. The Beltran Building will continue to be served by overhead electric and tele/data while in use.

Please let me know you have any additional comments or questions. We look forward to presenting to you again next week.

Sincerely,

A handwritten signature in blue ink, appearing to read 'D. Gillespie', with a stylized flourish at the end.

David O. Gillespie
Vice President- Development
AvalonBay Communities, Inc.