

Ref: 7335

May 19, 2016

Ms. Jody Kablack  
Director of Planning and Community Development  
Town of Sudbury  
278 Old Sudbury Road  
Sudbury, MA 01776

Re: Site Circulation Review  
Meadow Walk Sudbury – 526 and 528 Boston Post Road  
Sudbury, Massachusetts

Dear Jody:

Vanasse & Associates, Inc. (VAI) has completed a review of the conceptual master plan and associated materials submitted by VHB on behalf of BPR Sudbury Development, LLC (the “Applicant”) in support of the proposed Meadow Walk Sudbury mixed-use open space development to be located at 526 and 528 Boston Post Road (Route 20) in Sudbury, Massachusetts. Our review focused on the following areas as they relate to the Project: i) vehicle, pedestrian and bicycle access and circulation; ii) parking design and layout; iii) accessibility for loading, delivery and emergency vehicles; and iv) consistency with accepted Traffic Engineering and Transportation Planning practices. Based on this review, we have concluded that access and circulation as depicted on the conceptual master plan for the Project will allow for safe and efficient access to the Project site, and accommodate internal circulation for vehicles, pedestrians and bicyclists in a safe, connected and unconstrained manner.

The following materials are the subject of this review:

1. *Overall Conceptual Planting Plan*, 526 & 528 Boston Post Road, Sudbury, MA; VHB; April 20, 2016, no revisions;
2. *Site Section Key Plan*, Meadow Walk Sudbury, 526 & 528 Boston Post Road Redevelopment; VHB, April 22, 2016;
3. *Master Vehicular Circulation Plan*, Meadow Walk Sudbury, 526 & 528 Boston Post Road Redevelopment; VHB, April 22, 2016; and
4. *Master Pedestrian Circulation Plan*, Meadow Walk Sudbury, 526 & 528 Boston Post Road Redevelopment; VHB, April 22, 2016.

In addition to the above materials, VAI is providing review services to the Town for the individual components of the Project which, to date, have included the Grocery Store at Meadow Walk Sudbury (the “Grocery Store Development”) and the Avalon Sudbury residential community. The Applicant submitted a comprehensive *Traffic Impact and Access Study* dated February 16, 2016 (the “February 2016 TIAS”) in support of the Grocery Store Development that included an assessment of the impacts on the transportation infrastructure associated with the build-out of all components of the Meadow Walk Sudbury mixed-use development, with detailed site plans also developed and submitted for both the

Grocery Store Development and the Avalon Sudbury residential community. These plans included specific details of the access configuration, internal roadway and sidewalk network, and off-site improvements along Route 20 to serve the Meadow Walk Sudbury mixed-use development.

At this time, all comments that were raised in our review letters concerning the Grocery Store Development have been addressed and we have offered comments on the site plans for the Avalon Sudbury residential community that are in the process of being addressed by Sudbury Avalon, Inc. With respect to the overall Meadow Walk Sudbury development, we have concluded that the planned transportation infrastructure improvements that will be completed in conjunction with the development will provide for safe and efficient access to the Project site, and afford sufficient capacity to accommodate the additional traffic demands that may be associated with the Project.

The Applicant has made application to the Massachusetts Department of Transportation (MassDOT) for a State High Access Permit to allow for access to the Project site and to complete the associated site access and off-site improvements within the State Highway Layout along Route 20. In conjunction with the MassDOT application, the Applicant submitted 25 Percent Design plans for the installation of a traffic control signal and associated roadway, sidewalk and bicycle accommodation improvements at the primary access to the Project site, inclusive of the installation of an emergency signal at the Sudbury Fire Department fire station located between the Project site driveways. These plans were reviewed by VAI on behalf of the Town prior to submission to MassDOT.

In addition, the Applicant has filed an Environmental Notification Form (ENF) with the Secretary of Energy and Environmental Affairs (EEA) pursuant to the provisions of the Massachusetts Environmental Policy Act (MEPA) due to the net increase in traffic that the Project represents over the current use of the site.

The following summarizes our review of access and on-site circulation as reflected on the conceptual master plan and supporting materials that have been submitted for the Project. In addition, we have attached a summary of the transportation infrastructure improvements that are planned as a part of the Project.

## **PROJECT DESCRIPTION**

The Meadow Walk Sudbury project entails the phased redevelopment of the approximate 50-acre Raytheon campus located at 526-528 Boston Post Road (Route 20) in Sudbury, Massachusetts, to accommodate a mixed-use development that will include 80,000± square feet (sf) of mixed retail space including a 45,000± sf grocery store (the Grocery Store Development); a 250 unit residential apartment community (Avalon Sudbury); an age-restricted, active adult residential community with up to 60 dwelling units; and an assisted living/memory care facility with up to 54 beds. At present the Raytheon campus contains 563,300± sf of office, research and development (R&D), and manufacturing space in multiple buildings that are operated by Raytheon and supported by 2,040± parking spaces and associated appurtenances. These facilities, excepting approximately 15,000± sf of R&D space, will be removed to accommodate the Meadow Walk Sudbury project.

Access to the Project site will be provided by way of two (2) driveways that will intersect the north side of Route 20 as follows: an unsignalized driveway (STOP-sign control) that will be situated parallel to the west property line at the location of the existing driveway that serves the Raytheon campus, and a new driveway that will be aligned opposite the westernmost driveway to the Sudbury Plaza that will be placed



under traffic signal control and will incorporate Highland Avenue into the traffic signal system. The remaining driveways that serve the Raytheon campus will be closed. In conjunction with the access improvements, left-turn lanes will be added to Route 20 at the east Project site driveway (signalized), and the driveways to the Sudbury Plaza will be modified to accommodate the proposed roadway geometry.

### **CONCEPTUAL MASTER PLAN**

The following comments are offered with respect to our review of the conceptual master plan drawings prepared by VHB in support of the Project:

1. The conceptual master plan incorporates an interconnected sidewalk network that links the uses that are proposed within the development to the sidewalk infrastructure along Route 20, with provisions for a future connection to the Mass Central Rail Trail that will abut the Project site to the immediate north. We also note that the plans include the installation of a landscaped buffer that will separate the sidewalk from the vehicular travelled-way, excepting the sidewalk fronting along the memory care facility where the sidewalk will be adjacent to the travelled-way to allow for the development of a larger landscaped buffer between the sidewalk and the building.
2. The internal roadway network provides 24-foot wide circulating roadways throughout the Project site, with parallel parking provided along both sides of the main circulating roadway within the Avalon Sudbury portion of the Project. This roadway width is sufficient to efficiently convey two-way traffic within the Project site and accommodate emergency vehicle operations. We note that the Master Vehicle Circulation Plan dated April 22, 2016 shows a fire access drive at the north end of the Project site. If it is intended that this access be gated, appropriate turn-around areas should be provided prior to the gates.
3. Bicycle accommodations are provided or have been requested to be provided throughout the Project site consisting of both interior and exterior bicycle parking. In addition, as noted above, provisions for a future connection to the Mass Central Rail Trail have been provided.
4. We have requested that the Applicant provide a truck turning analysis for the Project (this has been completed for the Grocery Store Development) using the following design parameters as guidance: i) the analysis should be completed using the AutoTurn® or similar analysis software for the following design vehicles: a WB-62 (intermediate size tractor semi-trailer combination; evaluate for commercial uses only), an SU-30/40 (small delivery/moving vehicle and trash/recycling vehicle) and the Town of Sudbury Fire Department design vehicle; ii) the analysis should include the swept path for the front and rear tires of the design vehicles and any overhangs that may extend past the front and rear bumper of the vehicle (i.e., basket of the aerial ladder of the fire truck if so equipped); iii) the analysis should depict all maneuvers required to enter and exit the Project site by way of Route 20 (both left and right-turn movements entering and exiting), and all turning and maneuvering required within the Project site; iv) Back-up maneuvers, where required, should be clearly identified.
5. A sign and pavement marking plan should be provided as a part of the individual site plans as they are developed for the Project in order to verify that the proposed traffic control devices are appropriately designed and located within the Project site.
6. Crosswalks across the main internal circulating roadway should be constructed using textured (stamped asphalt or similar) and colorized pavement, providing a consistent theme and pattern throughout the Project where pedestrian crossings are provided.



7. Sidewalks and wheelchair ramps compliant with the Americans with Disabilities Act (ADA) should be provided where pedestrian crossings are proposed within the Project site.
8. A school bus waiting area should be provided within the Project site or at an appropriate location defined in consultation with the Town of Sudbury School Department.
9. A bus stop has been provided within the Grocery Store Development to facilitate future bus service by the Metro West Regional Transit Authority (MWRTA).
10. The Applicant has agreed to incorporate electric vehicle charging stations into the Project.

### **PARKING**

The formal site plans that have been submitted for review (the Grocery Store Development and the Avalon Sudbury residential community) have been designed to provide the requisite number of parking spaces required pursuant to Town Zoning requirements. We expect that the remaining elements of the Project will similarly comply with Town Zoning requirements as illustrated on the conceptual master plan. We also note that the parking layout in relation to the proposed uses is appropriate and conveniently located in relation to the proposed buildings.

### **SUMMARY**

VAI has completed a review of the conceptual master plan and associated materials submitted in support of the proposed Meadow Walk Sudbury mixed-use open space development to be located at 526 and 528 Boston Post Road (Route 20) in Sudbury, Massachusetts. Our review focused on the following areas as they relate to the Project: i) vehicle, pedestrian and bicycle access and circulation; ii) parking design and layout; iii) accessibility for loading, delivery and emergency vehicles; and iv) consistency with accepted Traffic Engineering and Transportation Planning practices. Based on this review, we have concluded that access and circulation as depicted on the conceptual master plan for the Project will allow for safe and efficient access to the Project site, and accommodate internal circulation for vehicles, pedestrians and bicyclists in a safe, connected and unconstrained manner.

If you should have any questions regarding our review of access and circulation for the Project as envisioned as a part of the conceptual master plan, please feel free to contact me.

Sincerely,

VANASSE & ASSOCIATES, INC.



Jeffrey S. Dirk, P.E., PTOE, FITE  
Principal

JSD/jsd

cc: File

## MEADOW WALK SUDBURY TRANSPORTATION INFRASTRUCTURE IMPROVEMENTS

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The Applicant has committed to a comprehensive transportation improvement program for the Meadow Walk Sudbury mixed-use development that includes physical roadway, intersection and traffic control improvements, and trip-reduction strategies. These improvements include the following:

### **Site Access**

**Primary Driveway** – Placed under traffic signal control and aligned with Sudbury Plaza west driveway, with left-turn lanes to be provided on the Route 20 approaches to the intersection, pedestrian accommodations for crossing Route 20 and the driveways to both the Sudbury Plaza and the Project site, and bicycle detection. The traffic signal system will also incorporate Highland Avenue in order to address current safety deficiencies resulting from the proximity of Highland Avenue to the Sudbury Plaza driveway.

**Secondary Driveway** – Secondary access is proposed via the existing west driveway that serves the Raytheon campus which will be improved to accommodate truck turning maneuvers and will remain under STOP-sign control.

**Pedestrian and Bicycle Improvements** – Widen the existing sidewalk on the north side of Route 20 along the site frontage; extend the sidewalk along the south side of Route 20 to the Sudbury Plaza west driveway; subject to the availability of right-of-way, provide widened shoulders along both sides of Route 20 within the limits of the planned roadway improvements to accommodate bicycle travel; incorporate crosswalks, pedestrian traffic signal equipment and bicycle detection as a part of the proposed traffic signal system at the primary site driveway.

**Sight Line Maintenance** - Signs and landscape features to be installed within the sight triangle areas of the site driveways will not exceed 2.5 feet in height as measured from the surface elevation of the site driveways. Snow windrows within the sight triangle areas of the site driveways will be promptly removed where such accumulations would exceed 2.5 feet in height.

### **Off-Site**

**Fire Station Pre-Emption Signal** – Design and install an emergency vehicle traffic control signal at the Sudbury Fire Department fire station that will be coordinated with the proposed traffic signal to be installed at the primary Project site driveway.

**Traffic Signal Coordination** – Design and install a time-based coordinated traffic signal system along Route 20 to include the following intersections: Primary site driveway; Nobscot Road; and Union Street.

### **Transportation Demand Management (TDM)**

- A transportation coordinator will be assigned for the overall development
- Join the Metro West/495 Transportation Management Association (TMA)
- Encourage participation in ridesharing programs
- A bus stop will be provided to accommodate future expansion of Metro-West Regional Transit Authority (MWRTA) bus service to the development
- Pedestrian and bicycle accommodations will be provided within the development, including sidewalks throughout and bicycle racks at appropriate locations
- Electric vehicle charging stations will be provided



**MEADOW WALK SUDBURY  
TRANSPORTATION INFRASTRUCTURE IMPROVEMENTS**

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**Transportation Demand Management (TDM) (Continued)**

- Preferential parking for car/vanpools and alternatively fueled vehicles will be provided
- The TDM program will be coordinated with the Town and MassRides, MassDOT's rideshare coordinator

**Traffic Monitoring and Reporting Program**

The Applicant will conduct a traffic monitoring program that will include the following elements:

- i) Performing an automatic traffic recorder (ATR) count on the 20 site driveways over a continuous 72-hour (Thursday through Saturday) period; and
- ii) Performing manual turning movement and vehicle classification counts at the site driveway intersections with Route 20 during the weekday morning (7:00 to 9:00 AM), weekday evening (4:00 to 6:00 PM) and Saturday midday (11:00 AM to 2:00 PM) peak hours.

The monitoring program will commence six (6) months after issuance of the first Certificate of Occupancy for the Meadow Walk Sudbury development and will continue on an annual basis for a period of 2-years after the completion of the development. The results of the monitoring program will be summarized in a report provided to the Town within 2-months after the completion of the data collection effort. The report will document the traffic volumes associated with the development as occupied at the time that the traffic counts are completed. If the measured traffic volumes associated with the development exceed the traffic volume projections that form the basis of the February 2016 *Traffic Impact and Access Study* that was submitted in support of the development by more than 10 percent on a regular and sustained basis during the monitoring period, the Meadow Walk Sudbury developer will identify and undertake corrective measures in conjunction with the appropriate parties and subject to receipt of all necessary rights permits and approvals. These measures may include without limitation:

- Sign and pavement marking installation
- Traffic signal timing adjustments
- Consideration of geometric refinements at the Project site driveways

The corrective measures, if any, will be documented in the transportation monitoring report and will identify the appropriate parties responsible for implementation, required approvals, and the timeline for implementation. The status of implementation of the identified improvement measures will be documented in the subsequent monitoring report.