

To: Ms. Jody Kablack  
Zoning Board of Appeals  
Town of Sudbury  
278 Old Sudbury Road  
Sudbury, MA 01776

Date: June 6, 2016

Project 13125.00

From Karen F. Staffier, P.E.  
Vinod Kalikiri, P.E. VHB

Re: Avalon Sudbury  
Site and Traffic Engineering Review Comments

Cc: Jeffrey Dirk, P.E., VAI  
Dave Gillespie, AvalonBay

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### SITE PLANS

The following responses are offered with respect to the comments received by VHB from Vannasse & Associates, Inc. (VAI) in a letter dated May 3, 2016 Re: Traffic Engineering Peer Review, Avalon Sudbury” related to their review of the January 20, 2016 Site Plans prepared by VHB in support of the Project. Additionally, at the completion of the Public Hearing process, VHB will provide revised Site Plans (“Revised Site Plans”) incorporating all changes agreed to herein.

#### ***Comment:***

*The Site Plans should be updated to reflect the internal roadway network that was approved for the Grocery Store Development. In particular, the modern roundabout should be removed from the internal roadway network and the interface between the Project site and the balance of the overall Meadow Walk Sudbury roadway network should be updated.*

#### **Response:**

The Revised Site Plans will be updated to reflect the internal roadway network that was approved for the Grocery Store Development, including the removal of the roundabout and the balance of the Meadow Walk Sudbury roadway network.

#### ***Comment:***

*A truck turning analysis should be completed for the Project 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: 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.*

#### **Response:**

A truck turning analysis has been completed for the Project using Vehicle Tracking software and figures showing paths through the Site and both left and right-turn movements entering and exiting at Route 20 for a Sudbury Fire Truck and an SU-40 truck, representing both a moving vehicle and the Project trash truck, are attached. Vehicle overhangs are accounted for in the turning template.

***Comment:***

*An exterior bicycle rack(s) should be provided proximate to the entrance to the Clubhouse building and weather protected bicycle parking should be provided in secure areas within each of the residential buildings.*

**Response:**

The Revised Site Plans will indicate the locations of covered bike storage both near the clubhouse and in proximity to the residential buildings.

***Comment:***

*A sign and pavement marking plan should be provided as a part of the Site Plans in order to verify that the proposed traffic control devices are appropriately designed and located within the Project site.*

**Response:**

The Revised Site Plans will include additional details on the Layout and Materials Plans regarding proposed signs and pavement markings to demonstrate that the proposed traffic control devices are appropriately designed and located with the Project Site.

***Comment:***

*The Applicant should consider replacing the all-way-stop controlled intersection along the main internal circulating roadway with a raised intersection and eliminating the STOP-signs on the north and southbound approaches. In addition, it is suggested that the crosswalks across the main internal circulating roadway be constructed using textured (stamped asphalt or similar) and colorized pavement. The requested sign and pavement marking plan should include the requisite pedestrian crossing warning signs for the proposed crosswalks.*

**Response:**

Decorative crosswalks will be constructed along the proposed subdivision road. In addition, the Applicant agrees to construct the crosswalk across the main entry drive that connects the Avalon Bay housing Community Green and Senior Living area building with textured/ colorized asphalt. Within the Avalon Bay project area, crosswalks will be implemented with a traditional paint approach, to subtly denote the departure from the more public realm and entry into the residential neighborhood. The Revised Plans will include removal of the STOP-signs on the north and southbound approaches on the all-way stop as suggested. The design team and owner have considered a raised intersection in this location, and have determined through conversations with DPW that the approach above is appropriate for this location and raising the intersection would be less desirable from an emergency vehicle response standpoint. The Revised Site Plans will reflect these updates and will include requisite pedestrian crossing warning signs and additional details regarding proposed signs and pavement markings to demonstrate that the proposed traffic control devices are appropriately designed and located with the Project Site.

***Comment:***

*Sidewalks and wheelchair ramps compliant with the Americans with Disabilities Act (ADA) should be provided where pedestrian crossings are proposed within the Project site.*

**Response:**

The Revised Site Plans will indicate the locations of ACA compliant accessible curb ramps (ACRs) where pedestrian crossings are proposed within the Project Site.

**Comment:**

*A connection to the Mass Central Rail Trail that will abut the Project site to the immediate north should be developed and shown on the Site Plans.*

**Response:**

The Revised Site Plans will indicate an approximate location for the connection from the Site to the Mass Central Rail Trail.

**Comment:**

*A tenant move in/out management plan (narrative) should be provided and reflected in the truck turning analysis for the Project.*

**Response:**

Upon execution of a lease, all new residents will receive a move-in package which outlines all community rules, regulations and policies as well as a scheduled date and time for their move-in. This date and time will be coordinated with other move-ins/outs and site operations (i.e. trash removal, maintenance work) to minimize disruption to the apartment community, adjacent uses and the greater road network. The move-in paperwork will include the appropriate truck access route and staging area based on the apartment home location on site. The same policy will be used for residents that are moving out of Avalon Sudbury.

**Comment:**

*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.*

**Response:**

The Revised Site Plans will indicate the location of the Project's school bus waiting area.

**Comment:**

*The Applicant should consider incorporating electric vehicle charging stations into the Project.*

**Response:**

It is anticipated that a minimum of two electric vehicle charging stations will be provided within the project, at locations to be determined.

TRAFFIC

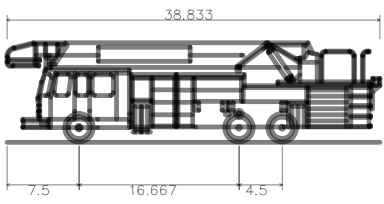
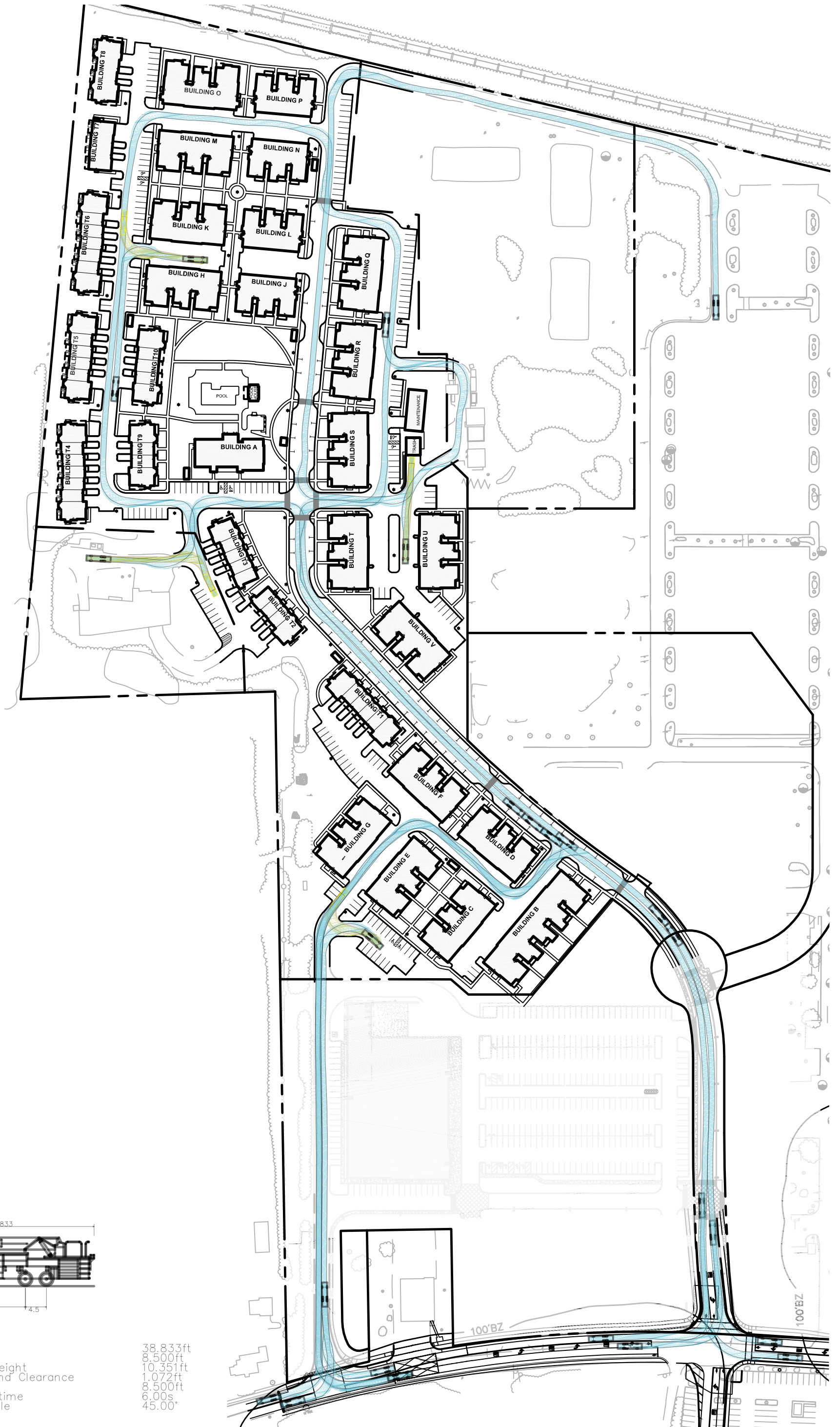
**Comment:**

*The Applicant should provide an update on the timing of implementation of the improvements as they relate to the schedule for the Project and the overall Meadow Walk Sudbury development. In addition, the Applicant should affirm the commitment to implement the elements of the TDM program as a part of the Project.*

**Response:**

The TDM plan outlined in the transportation documents for the Project is integral to the overall master plan development. As the development advances, including the subject multifamily residential component, relevant bicycle and pedestrian amenities will be incorporated into the site design. Other elements of the TDM such as designation of the Transportation Coordinator for the overall development and investigation of membership to the MetroWest/495 TMA will be undertaken during the advancement of the grocery store and multifamily residential components of the development. It is expected that the Proponent will continue to work with MassDOT during the Access Permit application review process to finalize the TDM plan for the development.

We trust that the summary above and the forthcoming Revised Site Plans adequately address your comments and questions.



Sudbury Fire  
 Overall Length 38.833ft  
 Overall Width 8.500ft  
 Overall Body Height 10.351ft  
 Min Body Ground Clearance 1.072ft  
 Track Width 8.500ft  
 Lock-to-lock time 6.00s  
 Max Wheel Angle 45.00°

38.833ft  
 8.500ft  
 10.351ft  
 1.072ft  
 8.500ft  
 6.00s  
 45.00°

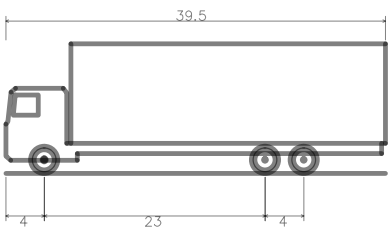
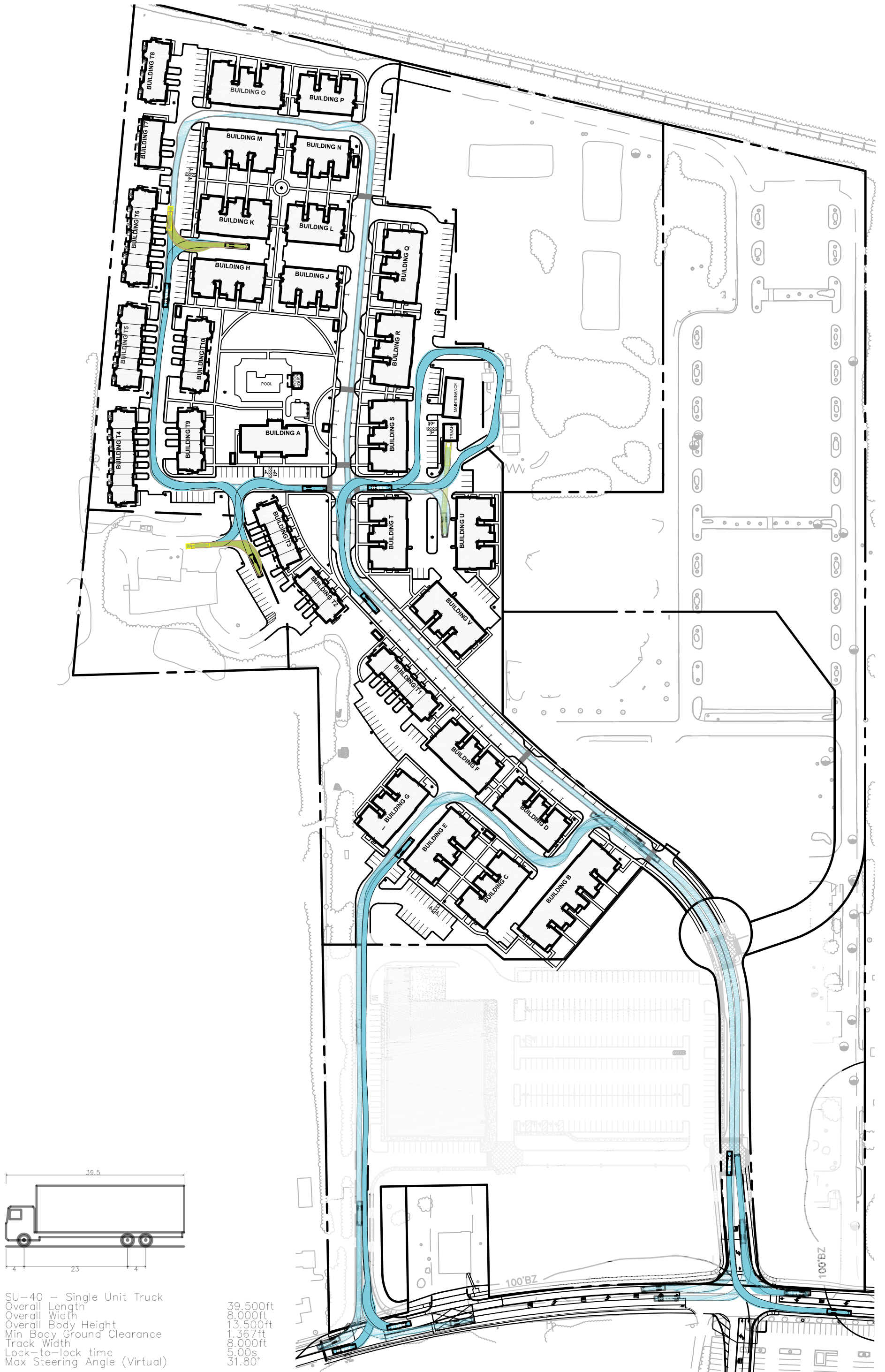


Fire Truck  
 Avalon Sudbury  
 Sudbury, MA

**Figure #1**

May 2016





SU-40 - Single Unit Truck  
 Overall Length 39.500ft  
 Overall Width 8.000ft  
 Overall Body Height 13.500ft  
 Min Body Ground Clearance 1.367ft  
 Track Width 8.000ft  
 Lock-to-lock time 5.00s  
 Max Steering Angle (Virtual) 31.80°

39.500ft  
 8.000ft  
 13.500ft  
 1.367ft  
 8.000ft  
 5.00s  
 31.80°



SU-40  
 Avalon Sudbury  
 Sudbury, MA

**Figure #2**

May 2016