August 3, 2017

Zoning Board of Appeals
Town of Weston
P.O. Box 378
Weston, MA 02493
Attn: Ms. Noreen Stockman

Subject: Transportation Peer Review Comments
104 Boston Post Road 40B Residential Development (Stony Brook Weston)
Weston, MA

Dear Chair and Board Members:

MDM Transportation Consultants, Inc. (MDM) is pleased to provide you with the following supplemental transportation review comments for the above-referenced project. These comments have been prepared based on site visits conducted by MDM in July 2017 and review of the documents identified below. To facilitate response by Applicant, review items requiring response are noted in Bold Italic.

Documents Reviewed

MDM has reviewed the following supplemental documents a submitted by the Applicant to the ZBA under the 40B review process, which augment prior submittals as noted in our initial review dated June 12, 2017:

- Collision Diagrams and Supporting Incident Reports, Route 20 at Sibley Road and Mobil Station, 2015-Present, prepared by VAI and received electronically 7/19/17.
Applicant Responses

Comment No. 1: RSA Documented Safety Issues Along Route 20. MDM recommends that the Applicant review the RSA and associated data/recommendations and factor these data/recommendations into its proposed access improvements at Sibley Road. Applicant suggests that the previously identified left-turn lane along Route 20 is consistent with MassDOT’s Road Safety Audit (RSA) recommendations, and that the specific design will be reviewed during the permit process with MassDOT.

MDM Supplemental Comment: The RSA recommendation of reduced lanes on Route 20 is unsustainable given the known queue extents that occur in the two general-purpose westbound travel lanes; conversion of one of these general purposes lanes to allow only left-turns would significantly constrain capacity resulting in untenable impacts to the high-speed segments of the Route 20 interchange – a scenario discussed with and concurred by VAI during the peer review.

Provision of an exclusive left-turn lane as conceptually shown by Applicant remains unchanged relative to the initial submittal and is not consistent with MassDOT design requirements. The conceptual design does not meet applicable safety-based design criteria including sight lines for vehicles approaching the left-turn lane, lane transition length to allow proper deceleration of vehicles, storage length to accommodate projected peak-hour volumes. Further, the left-turn lane is in direct conflict with Mobil station driveways which have a known and documented history of illegal turning movements (particularly the west driveway) including those noted on the most recently submitted local crash data and collision diagramming submitted by the Applicant.

Proposed access improvements at Sibley Road if not designed to address known operational deficiencies at the Mobil Station (illegal turns) and recognized standards published by MassDOT for high-speed travel on Route 20 presents a serious safety concern that has a direct bearing on public travel on Route 20 and Sibley Road. MDM therefore recommends that the Applicant provide a conceptual access improvements plan that identifies a left-turn lane that conforms to MassDOT design criteria and that addresses the exiting (left-turn) movement conflicts at the Mobil Station property.

MDM acknowledges MassDOT’s jurisdiction for an Access Permit in this case, however, we also advise the Town that this does not insulate the project from comments and input from the Town for MassDOT consideration in its review of the project. The present concept for Route 20 improvements is seriously deficient relative to safety-based design criteria (sight lines, lane
transition and storage lengths, conflict with Mobil Station driveway operations) and we have serious doubt that these design criteria can be met based on constraints imposed by the nearby Route 20/I-95 Interchange. We advise that these concerns be conveyed to MassDOT District 6 Office in written form so that due consideration be given to addressing these issues to include the following:

- The necessity of fully meeting design criteria cited in MassDOT’s Project Development and Design Guide Section 6.7.3.1;
- The necessity of fully meeting sight line criteria for the left-turn lane for approaching vehicles travelling westbound on Route 20;
- Design features that physically restrict left-turn exiting movements from the adjoining Mobil Station property that are in direct conflict with the proposed left-turn lane;
- Inclusion of pedestrian accommodations along Route 20 between the Site and the 133 Boston Post Road signal, including a new pedestrian pushbutton-controlled crossing of Route 20.

**Comment No. 2: TIA Study Area.** The study area used in the preliminary evaluation should include the signalized intersection at 133 Boston Post Road.

**MDM Supplemental Comment:** The submitted July 2017 TIA includes the requested location. Operations analysis for the 133 Boston Post Road signal is consistent with field observations conducted by MDM which indicate queues regularly extend in the eastbound travel direction beyond Sibley Road and the Mobil Station driveways during weekday evening peak hours. This condition underscores the need to provide an exclusive left-turn lane on Route 20 that retains the two westbound through lanes.

*As noted above under Comment No. 1, the proposed exclusive left-turn lane must be designed to meet applicable MassDOT criteria for safety reasons and should include features that physically restrict illegal left-turn movements onto Route 20 from the west Mobil Station driveway.*

**Comment No. 3: Baseline Conditions Data.** A revised TIA should clarify count data used to develop existing conditions networks as well as any growth factors/seasonal correction factors that are applied to establish baseline traffic conditions. Discrepancies between count data and volumes used in the existing conditions traffic networks should be rectified. The July 2017 TIA addresses volume discrepancies. No further response necessary.
Comment No. 4: Pedestrian and Bicycle Volumes. Pedestrian and bicycle volumes for study intersections should be quantified in volume networks as these modes of transportation will factor in to proposed mitigation actions.

MDM Supplemental Comment: The July 2017 TIA summarizes pedestrian and bicycle volumes which are noted to be relatively low. The relatively low activity is likely a function of when counts were conducted (January and November); higher activity levels are documented in prior studies of the Route 20 corridor and will increase as a function of the new residential development. Accordingly, pedestrian design features should be included in the access and roadway improvements for the project to include a sidewalk connecting the Site to the Mobil Station (including ADA-compliant crossing at Sibley Road) and a sidewalk connecting the Site to 133 Boston Post Road traffic signal. MDM also notes that current MassDOT policy requires provisions for bicycle accommodation that should be addressed in the plan.

Comment No. 5: Public Transportation. No documentation of existing or proposed transportation routes or services is provided in the preliminary assessment. The July TIA document available public transportation at Brandeis Station.

MDM Supplemental Comment: MDM also notes that the Kendal Green commuter rail station is located along Church Street. Likewise, early planning efforts are underway for a future MBTA station adjacent to the 133 Boston Post Road site with potential vehicular access via Jones Road in Waltham. Walking/biking connections to area public transportation facilities (Kendal Green, Brandeis Station and the potential future MBTA station at Jones Road) should accommodated by provision of sidewalk improvements and bicycle accommodation features proposed by the Applicant as conceptually indicated on Figure 8 of the July 2017 TIA.

Applicant has not presented or proposed a Transportation Demand Management (TDM) plan for the project – measures that are aimed at promoting and encouraging alternative transportation public transportation use including bicycle accommodation, carpooling/ridesharing, and public transportation. A commitment to providing a TDM program for the Site is appropriate and consistent with good planning practices and MassDOT’s GreenDOT policy and should be identified by the Applicant in a formal response.

Comment No. 6: Crash/Incident Data. Applicant has provided supplemental crash analysis to include local police records through May 2017 and associated collision diagrams that provide an important and necessary basis for designing access improvements at Sibley Road.
MDM Supplemental Comment: Local crash records support the necessity of access improvements that physically restrict left-turn movements onto Route 20 from the Mobil Station property which observation and history shows occurs on a regular basis, sometimes involving collisions. Likewise, some recorded crashes show causal factor related to limited/insufficient sight line to stopped vehicles attempting left-turns at the Mobil Station property. Increased trip activity at Sibley Road will generate notably higher demand for left-turns from Route 20 (up to approximately 70 turns per hour during peak hours versus 30 currently).

As noted above under Comment No. 1, the proposed exclusive left-turn lane must be designed to meet applicable MassDOT criteria for safety reasons and should include features that physically restrict illegal left-turn movements onto Route 20 from the west Mobil Station driveway.

Comment No. 7: Future Year Conditions. Applicant has submitted a July 2017 TIA that provides supporting data/traffic volume networks for background growth and projects including the recently submitted 133 Boston Post Road project. No Further Response Required.

Comment No. 8&9: Traffic Operations Analysis. Operational analysis of the Sibley Road intersection assuming Sibley Road as a single lane approach is addressed in the July 2017 TIA; likewise, analysis includes traffic associated with 133 Boston Post Road. Applicant also confirms that proposed improvements along Route 20 will be implemented independent of the 133 BPR project. Results of this analysis confirm extensive vehicle queuing westbound on Route 20 during weekday evening peak hours (736 feet) and on Sibley Road during the morning and evening peak hours (90 to 122 feet). These analysis results support recommended modification of the Site access to restrict the northerly Sibley Road driveway to “entrance only” and design of the Route 20 left-turn lane as a separate, dedicated lane to comply with applicable MassDOT design criteria. No further response required.

Comment No. 10-12: Proposed Access Improvements. Applicant should address how the proposed design will address numerous existing operational and safety deficiencies including U-turns, pedestrian activity and illegal turns at or in immediate proximity to the intersection that are in direct conflict with increased Project traffic exiting Sibley Road.

MDM Supplemental Comment: Proposed access improvements have not been advanced or modified to address noted safety-related issues and do not comply with MassDOT's Project Development & Design Guide Section 6.7.3.1. Refer to our supplemental comments under Comment No. 1. As noted above under Comment No. 1, the proposed exclusive left-turn lane must be designed to meet applicable MassDOT criteria for safety reasons and should include
features that physically restrict illegal left-turn movements onto Route 20 from the west Mobil Station driveway. In the absence of physical restrictions limiting these illegal movements, associated safety deficiencies will continue unabated or may be worsened by increased trip activity into/exiting Sibley Road.

Comment No. 13: Sibley Road Driveway. The northerly Site driveway is within 90 feet of Route 20; vehicles attempting to exit this driveway would be blocked by queues on Sibley Road and the short distance is insufficient to meet applicable sight lines from Route 20 for high speed turning traffic. Applicant proposes to design this northerly driveway as “entrance only”.

MDM Supplemental Comment: Applicant should confirm specific Site Plan design changes to ensure the northerly Sibley Road driveway will in fact function only as an entrance-only; these design modifications should include features that physically restrict egress to the northerly driveway from the parking structure below the building and any surface parking within the property. Signs alone are not likely to effectively preclude use of this driveway as an exit to Sibley Road – a significant safety concern if not properly restricted.

Comment No. 14: Sibley Road Layout. Applicant confirms that a minimum 24-foot wide curb-to-curb roadway dimension can be achieved within the Sibley Road layout without encroachment on adjoining properties.

MDM Supplemental Comment: MDM notes that no supporting design document or roadway layout plan is provided to confirm this finding, and no conceptual design layout is presented that delineates curbside parking (or restrictions thereto) along Sibley Road. A conceptual plan showing Sibley Road cross-section, parking areas and/or areas of parking restrictions necessary to accommodate two-way traffic flow is requested.

Comment No. 15: Sibley Road Parking. Parking is observed to regularly occur along the entire west edge of Sibley Road during weekdays; most of this curbside parking will be displaced by Project driveways.

MDM Supplemental Comment: A conceptual plan showing Sibley Road cross-section, parking areas and/or areas of parking restrictions necessary to accommodate two-way traffic flow is requested. Likewise, documentation for parking activity along Sibley Road is appropriate (ie., an inventory of demand by time of day, parking duration/turnover and likely orientation of parking activity (Mobil Station, Sibley Road businesses or other) would provide a useful basis for determining the impacts of eliminating existing curbside parking.
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Comment No. 16: Pedestrian Improvements. Implementation of a pedestrian crossing at the 133 Boston Post Road signal and sidewalk connection to the Site is identified in a conceptual improvement plan; MDM advises that this represents an important commitment to address pedestrian needs, mobility and safety for the Project and will address the uncontrolled crossings that currently occur across Route 20. The Applicant commits to implementing identified pedestrian improvements subject to necessary easements from the City of Cambridge.

MDM Supplemental Comment: Applicant should update concept plans to incorporate pedestrian improvements including an ADA-compliant crossing of Sibley Road.

MDM appreciates the opportunity to provide Transportation Planning & Engineering Services to the Town of Weston and look forward to discussing our findings at the upcoming Zoning Board hearings. If you have any questions or concerns, please feel free to contact this office.

Sincerely,

[Signature]

Robert J. Michaud, P.E.
Managing Principal