

Ref: 8292

May 23, 2019

Ms. Mary F. Savage Dunham, AICP, CFM  
Director of Community Planning  
Town of Hingham  
210 Central Street  
Hingham, MA 02043

Re: Traffic Engineering Peer Review  
World's End Traffic and Parking Monitoring Program  
Hingham, Massachusetts

Dear Mary:

Vanasse & Associates, Inc. (VAI) has completed a review of the materials that were submitted by The Trustees of Reservations ("The Trustees") in reference to the follow-up monitoring of traffic circulation and parking management for the World's End reservation in Hingham, Massachusetts. This information was submitted in conformance with the terms of Condition 2, *Parking/Traffic*, of the February 16, 2017 Decision of the Planning Board granting a Special Permit A3 for the World's End Reservation Parking, Circulation and Amenities Plan. Condition 2 requires that The Trustees provide the following follow-up reporting to the Planning Board:

- a) *Six months following completion of the "Parking, Circulation and Amenities Project," and in no event later than January 2018, the Applicant shall submit a request to the Planning Board for a duly noticed public hearing to review how the Parking Plan worked and if any changes are needed. If possible, this lookback will be scheduled for a joint Planning Board/Zoning Board meeting. The Applicant shall provide the Planning Board with documentation sufficient for the Board to determine the effectiveness of the Parking and Traffic Management Plan, including but not limited to visitation numbers, traffic counts, any occasions of note such as queuing in Martin's Lane or other operational problems, and frequency/duration of police details. The Planning Board may require changes to the Parking and Traffic Management Plan to address identified issues during the hearing.*
- b) *The Applicant shall provide a vehicle count by time of day, and corresponding visitor count for the duration of one of the top two highest volume visitation months including 4 full weekends and provide the summary report to the Planning Board in writing.*
- c) *Prior to conducting the analysis the Applicant shall review their methodology for the count with the Town's peer review engineer to ensure that the data will be useful and the methodology is consistent with industry standards.*

The Trustees submitted two documents and supporting materials on May 17, 2019 that were titled: "World's End Traffic and Circulation Project Look Back, Summary Materials"; and "World's End Traffic and Circulation Project Visitation Data Summary Notes"; respectively. A representative of The Trustees contacted VAI by email on May 15, 2018 to confirm the scope and methodology for the follow-up monitoring in accordance with Condition 2 c.

### **General Observations**

Based on the summary that was provided by The Trustees, advancement of the parking and circulation improvements commenced in April 2018 after delays due to legal action and subsequent weather conditions, with substantial completion of the improvements reached in March 2019. The improvements were generally completed in four phases as follows:

- **Phase 1:** relocation of the gatehouse away from the entrance and adjustment of the stone entrance column to increase the width of the access to accommodate two-way travel;
- **Phase 2:** Construction of the circular loop driveway within reservation and the addition of handicapped parking;
- **Phase 3:** Expansion of the far parking lots including grading, new gravel surface and the installation of cedar posts to delineate parking spaces; and
- **Phase 4:** Installation of landscaping and vegetated islands to define traffic flow, construction of pedestrian pathways and installation of gates to manage use of the parking lots.

It was noted that the Phase 1 improvements resulted in an immediate improvement in overall traffic flow by removing two key bottlenecks at the entrance to the reservation. Observations by The Trustees of traffic flow, circulation and parking within the reservation since the commencement of the improvements has indicated that the improvements and the implementation of the “tiered event” schedule have resulted in a reduction in the frequency and duration of vehicle queuing along Martins Lane and off-site parking. The Trustees identified two specific occasions since the completion of the improvements where parking within the reservation in non-designated areas created circulation constraints that caused back-ups. These conditions were immediately addressed by on-site operations staff and protocols have since been implemented to address the cause of the back-ups.

The Trustees have secured police details from the Hingham Police Department when needed to manage traffic during peak attendance days. Since the completion of the parking and circulation improvements, The Trustees have indicated that police details have not been needed or required.

### **Vehicle Counts and Visitation Numbers**

Vehicle counts and visitation numbers were provided by The Trustees for the month of November 2018, with the recorded visitations compared to those that occurred in November 2017. The vehicle counts were obtained using a recording device that was installed at the entrance to the reservation and reported both entering and exiting. The recorded vehicle counts were then reconciled with spot observations and compared to the visitation data. It was noted that in some instances the vehicle counts exceeded the visitation data by 10 percent (i.e., the vehicle counts were 110% higher than the visitation data), which we note is not uncommon and within the range of acceptable variances for data collection, particularly when travel speeds for vehicles are less than 10-15 mph.

Based on review of the collected data, the average number of vehicles accessing the reservation in November 2018 was 150 vehicles on a weekday and 484 vehicles on a weekend day, with a peak of 1,095 vehicles recorded on Sunday, November 4, 2018. The peak visitation time was identified to occur at 3:00 PM, with an average of 1,345 visitors reported during this period in November 2018, presumably most likely to occur on a weekend although it was not explicitly stated. Average daily visitations for November 2018 were identified to have declined by approximately 1,400 persons when compared to the average daily visitations in November 2017.

Condition 2 b requires that vehicle counts and corresponding visitor counts by time of day be provided for the duration of one of the top two highest volume visitation months including 4 full weekends. The data that was provided by The Trustees only included daily traffic counts and average visitation/admissions numbers by time of day, which does not comply with Condition 2 b. That being said, observations were provided with regard to internal circulation, parking and vehicle queuing on the peak attendance day (Sunday, November 4, 2018), which allowed for the development of a plan to address the operational issues that were identified. The purpose of the data collection effort that was identified as a part of Condition 2 b was to identify operational constraints and to develop corrective measures, both of which have been achieved.

### **Summary**

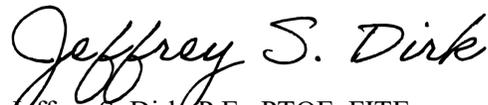
VAI has completed a review of the materials that have been submitted by The Trustees in reference to the follow-up monitoring of traffic circulation and parking management for the World's End reservation in Hingham, Massachusetts. This information has been submitted in conformance with the terms of Condition 2, *Parking/Traffic*, of the February 16, 2017 Decision of the Planning Board granting a Special Permit A3 for the World's End Reservation Parking, Circulation and Amenities Plan. The information that has been provided complies with the intent of Condition 2, which is to provide sufficient information to ascertain if the access, circulation and parking improvements combined with the "tiered event" scheduling have resulted in improved traffic flow and reduced back-ups along Martins Lane and off-site parking. Based on the information that has been provided, it appears that the improvements have reduced the frequency and duration of back-ups along Martins Lane to the extent that the need to provide police details to facilitate traffic management and maintain access for emergency vehicles has been reduced and limited to special event conditions or when required by the Police Chief.

The Trustees have identified follow-on measures that will be implemented to further enhance and improve operations at the reservation that include the installation of permanent wayfinding signs for vehicles and pedestrians and establishment of an 'on-call' protocol to increase staffing on days when unanticipated attendance levels may result in the need for enhanced parking management within the reservation.

If you should have any questions regarding our review, please feel free to contact me.

Sincerely,

VANASSE & ASSOCIATES, INC.



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

*Professional Engineer in CT, MA, ME, NH, RI and VA*

JSD/jsd

cc: File