

Ref: 5801

November 18, 2011

Town of Seekonk Planning Board  
c/o Mr. John P. Hansen, Jr., AICP  
Town Planner  
100 Peck Street  
Seekonk, MA 02771

Re: Proposed Walmart  
1300 Fall River Avenue  
Seekonk, Massachusetts

Dear Mr. Hansen:

Vanasse & Associates, Inc. (VAI) is providing detailed responses to the comments raised in the November 4, 2011 letter from Pare Corporation (PARE) concerning their review of the March 2011 *Traffic Impact and Access Study* (TIAS) prepared by VAI (the "March 2011 TIAS") in support of the proposed Walmart retail store to be located at 1300 Fall River Avenue (Route 6) in Seekonk, Massachusetts (the "Project"). Responses to PARE's comments concerning the March 14, 2011 *Site Development Plans* prepared by Bohler Engineering for the Project have been submitted under separate cover. Listed below are each of the comments raised in PARE's review letter concerning the March 2011 TIAS followed by our detailed response.

**Comment:** **"INTRODUCTION**

*Project Description*

1. *Please confirm the proposed truck route into the site and revise the TIAS or site plan accordingly."*

**Response:**

Trucks will be able to access the Project site from either driveway; however, given that the majority of trucks serving the Project site will be oriented to/from I-195 via Exit 1, the signalized Project site driveway will serve as the primary truck access for the Project.

**Comment:** **"EXISTING CONDITIONS**

*Motor Vehicle Crash Data*

1. *MassDOT 2009 crash data is now available, although PARE recognizes it may not have been at the time of the completion of this report. Given the consistent number of crashes reported at the study intersections, it is likely that the 2009 data would show similar patterns. If the TIAS is revised based on other comments, the 2009 data could be included."*

**Response:** Table 3R provides an updated summary and analysis of the motor vehicle crash history for the study intersections based on the currently available MassDOT motor vehicle crash data (2007 through 2009). A review of updated motor vehicle crash data does not indicate any significant changes with respect to crash frequency, type or significance from the data that was presented in the March 2011 TIAS, with the exception of the Fall River Avenue/Anthony Street/School Street intersection which was no longer found to have a motor vehicle crash rate above the MassDOT average for a signalized intersection. The updated MassDOT intersection crash rate worksheets are attached.

**Comment:** *“FUTURE CONDITIONS*

*Project Generated Traffic*

- 3. Was credit for the full 25% pass-by trips taken during both peak hours? The number of pass-by trips listed in the ‘SITE’ box on Figures 8 and 9 in the TIA does not seem to reflect the number of pass-by trips shown on the flow charts. A revision to the number of pass-by trips shown on the flow charts may decrease the overall number of expected new trips. The impact is not expected to be significant.”*

**Response:** Pass-by trips for the Project are reflected in the volumes shown on Figures 8 and 9 and were assigned as follows: 25 pass-by trips assigned to and from the right-in/out Project site driveway and 61 trips assigned to and from the full access Project site driveway during the weekday evening peak-hour (a total of 86 entering and 86 exiting); 36 pass-by trips assigned to and from the right-in/out Project site driveway and 71 trips assigned to and from the full access Project site driveway during the Saturday midday peak-hour (a total of 107 entering and 107 exiting).

**Comment:** *“Future Traffic Volumes – Build Condition*

- 1. Please clarify how the values in Table 7 were obtained. The volumes for the existing, no-build and build conditions do not all correspond to the volumes shown on the respective flow chart. In addition, the values listed in the ‘Traffic Volume Increase Over No-Build’ column do not correspond to those contained in Figures 8 and 9.”*

**Response:** The traffic volume data presented in Table 7 was taken directly from the traffic volume data presented on Figures 3, 4, 5, 6, 10 and 11 of the March 2011 TIAS, and reflect the two-way traffic volume on the identified roadway at the specific location. The traffic volume increase column will not reflect the volumes shown on Figures 8 and 9 (Project-generated traffic) due to the elimination of trips associated with the current uses located within the Project site (traffic volume networks illustrating the removal of traffic associated with the Fantasyland family entertainment center are included in the appendix of the March 2011 TIAS). A minor discrepancy was noted in Table 7 for Anthony Street, north of Fall River

Avenue: the 2016 No-Build weekday evening peak-hour traffic volume should be 617 vs. 618 and the resulting percent increase over No-Build should be 3.4 percent vs. 3.2 percent.

**Comment:** ***“TRAFFIC OPERATIONS ANALYSIS***

*Methodology*

1. *The Highway Capacity Manual, 2010 Edition, is now available and should be used for capacity analysis calculations. The level of service thresholds in the 2010 edition are the same as those in the 2000 edition, therefore, no revisions are required.”*

**Response:** MassDOT has not yet approved the use of the 2010 *Highway Capacity Manual* or related software and, as such, the 2000 *Highway Capacity Manual* continues to be the MassDOT approved methodology for conducting traffic operations analyses.

**Comment:** ***“SIGHT DISTANCE EVALUATION***

2. *Sight distance measurements taken from the right-in/out project driveway are also appropriate. Regulatory and warning signs currently installed adjacent to Fall River Avenue that may be relocated or replaced during construction should be located such that the clear lines of sight are maintained.”*

**Response:** Signs and landscaping to be installed adjacent to the Project site driveways will be designed, installed and maintained so as not to impede sight lines to or from the Project site driveways.

**Comment:** ***“CONCLUSIONS AND RECOMMENDATIONS***

*Recommendations*

1. *The location of the truck entrance into the site should be confirmed, and this section of the TIAS revised as necessary”*

**Response:** Trucks will be able to access the Project site from either driveway; however, given that the majority of trucks serving the Project site will be oriented to/from I-195 via Exit 1, the signalized Project site driveway will serve as the primary truck access for the Project.

**Comment:** 2. *The feasibility of the installation of a raised median on Fall River Avenue in the vicinity of the secondary project driveway should be further reviewed. Although the driveway will be designed to preclude left turns from the driveway, the installation of a physical barrier in the adjacent roadway will remove the possibility. Given the through volumes on Fall River Avenue and the current travel speeds, left turns exiting the site from this driveway would be met with significant conflicts. At a minimum, the existing rumble strip should be extended.”*

**Response:** VAI completed a review of the available right-of-way along Fall River Avenue and determined that the installation of a raised median opposite the right-in/out Project site driveway could not be accomplished without impacting private properties. As such, the existing rumble strip will be extended past the right-in/out Project site driveway in order to reinforce the left-turn restriction. This improvement in combination with the channelized driveway design and the installation of appropriate signs and pavement markings should provide appropriate guidance to motorists as to the regulated flow at the intersection.

**Comment:** 3. *PARE is in agreement that the revised signal timings along the Fall River Avenue corridor may help mitigate the impacts of the proposed Walmart. It should be noted that the delay improvements in Table 13 for the 2016 Build Condition with Mitigation are minimal. Similarly, on some approaches, the expected queue is significantly decreased, while on others, it may experience slight increases. However, the conditions expected following mitigation are generally acceptable for this type of roadway, which has closely spaced signals, a significant number of adjacent commercial driveways, and carries a consistently high volume of traffic.*

**Response:** As stated by PARE, the optimization of a coordinated traffic signal system is designed to improve (reduce) overall travel times along the roadway corridor within the system. This optimization may result in minor increases or decreases in motorist delay and vehicle queuing for specific movements; however, the system performance is improved and overall travel times are reduced.

**Comment:** 4. *Based on the results contained in Table 13 for the signalized site entrance intersection with Fall River Avenue, it appears that the existing eastbound left turn lane length is insufficient for the expected queues. The 95<sup>th</sup> percentile queues of 343 feet and 457 feet shown for the Weekday and Saturday times, respectively, are significantly longer than the existing 200-foot left turn lane. With an insufficient queue storage length, left turning traffic may back up into the adjacent travel lane, causing delays for through vehicles.*

**Response:** Subject to the approval of MassDOT and the availability of public-right-of-way, the eastbound left-turn lane approaching the signalized Project site driveway can be extended and the proposed traffic signal timing modified to accommodate the projected vehicle queue in the lane. These improvements will be completed in conjunction with the Project subject to receipt of all necessary rights, permits and approvals, and the availability of public right-of-way.

**Comment:** 5. *The safety improvements discussed are appropriate, and may help decrease the number of crashes at the study intersections.*

**Response:** No response required.



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We trust that this information is responsive to the comments raised in PARE's November 4, 2011 review letter concerning their review of the March 2011 TIAS prepared in support of the Project. If you should have any questions regarding our responses or would like to discuss this information in more detail, please feel free to contact me.

Sincerely,

VANASSE & ASSOCIATES, INC.



Jeffrey S. Dirk, P.E., PTOE  
Vice President

JSD/jsd

#### Attachments

cc: J. Stearns, P.E. – Woodard & Curran (via email)  
C. Adamo, P.E. – PARE (via email)  
M. Smith, P.E., J. Cranston – Bohler Engineering (via email)  
BG, File

**Table 3R  
MOTOR VEHICLE CRASH DATA SUMMARY**

	Fall River Avenue/ Highland Avenue	Fall River Avenue/ Mink Street/ Sam's Club	Fall River Avenue/ Walmart Driveway	Fall River Avenue/ Commerce Way	Fall River Avenue/ Site Driveway	Fall River Avenue/ Primrose Drive	Fall River Avenue/ Anthony Street/ School Street
	<i>Year:</i>						
2007	7	23	1	23	1	1	7
2008	6	18	1	17	0	0	7
2009	4	14	0	13	1	2	6
Total	17	55	2	53	2	3	20
Average <sup>a</sup>	5.67	18.33	0.67	17.67	0.67	1.00	6.67
Crash Rate <sup>b</sup>	0.44	1.29	0.07	1.63	0.08	0.09	0.69
Significant <sup>c</sup>	No	Yes	No	Yes	No	No	No
<i>Type:</i>							
Angle	6	23	0	8	1	0	4
Rear-End	4	24	0	39	1	3	14
Head-On	1	0	2	0	0	0	0
Sideswipe	4	6	0	3	0	0	1
Unknown/Other	2	2	0	3	0	0	1
Total	17	55	2	53	2	3	20
<i>Severity:</i>							
Property Damage	14	48	2	45	1	1	15
Personal Injury	3	7	0	8	1	2	4
Fatality	0	0	0	0	0	0	1
Total	17	55	2	53	2	3	20
<i>Conditions:</i>							
Clear	13	43	1	43	1	2	12
Cloudy	0	4	1	7	0	0	3
Rain	4	7	0	2	1	1	4
Snow/ice	0	0	0	1	0	0	1
Unknown	0	1	0	0	0	0	0
Total	17	55	2	53	2	3	20
<i>Lighting:</i>							
Daylight	11	43	1	39	1	2	11
Dawn/Dusk	2	1	0	0	0	1	0
Dark (Road Lit)	4	11	0	14	1	0	9
Dark (Road Unlit)	0	0	1	0	0	0	0
Other/Unknown	0	0	0	0	0	0	0
Total	17	55	2	53	2	3	20

<sup>a</sup>Average crash over three-year period.

<sup>b</sup>Crash rate per million vehicles entering the intersection.

<sup>c</sup>The intersection crash rate is significant if it is found to exceed 0.60 crashes per million vehicles entering the intersection for unsignalized intersections and 0.77 crashes per million vehicles entering the intersection for signalized intersections as defined by MassDOT for the MassDOT Highway Division District in which the project is located (District 5).

**MASSDOT INTERSECTION CRASH RATE WORKSHEETS**

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## INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Seekonk COUNT DATE : Jun-10

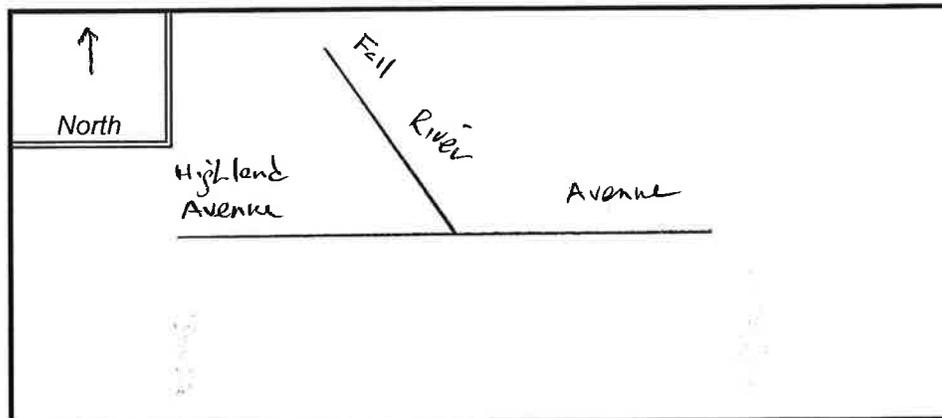
DISTRICT : 5 UNSIGNALIZED :  SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Highland Avenue

MINOR STREET(S) : Fall River Avenue

**INTERSECTION  
 DIAGRAM  
 (Label Approaches)**



**PEAK HOUR VOLUMES**

APPROACH :	1	2	3	4	5	<b>Total Peak Hourly Approach Volume</b>
DIRECTION :	NB	SB	EB	WB		
PEAK HOURLY VOLUMES (PM) :		724	969	1,479		3,172

"K" FACTOR :  INTERSECTION ADT ( V ) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES :  # OF YEARS :  AVERAGE # OF CRASHES PER YEAR ( A ) :

**CRASH RATE CALCULATION :**  RATE =  $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : Below District 5 Crash Rate

Project Title & Date: Proposed Wal-Mart 10/2011





## INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Seekonk COUNT DATE : Jun-10

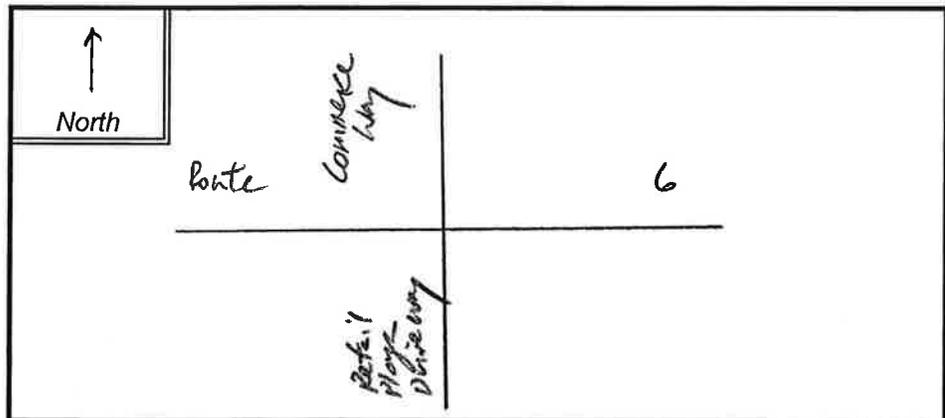
DISTRICT : 5 UNSIGNALIZED :  SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Route 6

MINOR STREET(S) : Commerce Way

**INTERSECTION  
 DIAGRAM**  
 (Label Approaches)



**PEAK HOUR VOLUMES**

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB	EB	WB		
PEAK HOURLY VOLUMES (PM) :	43	666	1,142	818		2,669

" K " FACTOR :

**0.090**

INTERSECTION ADT ( V ) = TOTAL DAILY APPROACH VOLUME :

29,656

TOTAL # OF CRASHES :

53

# OF YEARS :

3

AVERAGE # OF CRASHES PER YEAR ( A ) :

17.67

**CRASH RATE CALCULATION :**

**1.63**

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : Above District 5 Crash Rate

Project Title & Date : Proposed Wal-Mart 10/2011





