



October 14, 2015

Malden Planning Board
and City Council
City of Malden
Malden Government Center
200 Pleasant Street, Room 223
Malden, MA 02148

Re: **Malden, Massachusetts – Task 40 – City Hall Redevelopment/Jefferson at Malden Center**

Dear Planning Board Members and City Council:

As requested, BETA Group, Inc. (BETA) has completed our review of the Transportation Study prepared by Howard/Stein-Hudson Associates, Inc. (HSH), September 9, 2015 for the Proposed mixed use City Hall Redevelopment in Malden, Massachusetts. Our findings based on the Report are as follows:

INTRODUCTION

Project Description

The proposed new site is a mixed-use development, consisting of 310-320 residential units, 20,000 – 21,730 gsf of retail space, 44,000-46,000 gsf of office space, and a garage with 320-340 spaces. The site is on the existing Government Center site, and Pleasant Street will be rejoined to the Commercial Street/Florence Street intersection. The police station will be relocated to Eastern Avenue. Two garage sections will be separated and on different levels. Site driveways will be on Exchange Street and to Abbott Street.

EXISTING CONDITIONS

Study Area Intersections

The study area consists of eleven intersections, in addition to site drives under Build conditions, as follows:

- Centre Street (Route 60)/Pearl Street (signalized)
- Pleasant Street/Commercial Street/Florence Street (signalized)
- Commercial Street/Exchange Street/MBTA driveway (signalized)
- Centre Street (Route 60)/Commercial Street (signalized)
- Pleasant Street/Main Street (signalized)
- Exchange Street/Main Street (signalized)

BETA GROUP, INC.

315 Norwood Park South, 2nd Floor, Norwood, MA 02062
P: 781.255.1982 | F: 781.255.1974 | W: www.BETA-Inc.com

- Centre Street (Route 60)/Pleasant Street (unsignalized)
- Pleasant Street/Pearl Street/Pleasant Street Park (unsignalized)
- Pleasant Street/Abbott Street (unsignalized)
- Exchange Street/Abbott Street (unsignalized)
- Exchange Street/Jackson Street (unsignalized)

In addition, this report includes traffic counts collected at the following eight intersections for subsequent analysis by the City:

- Centre Street (Route 60)/Jackson Street (signalized)
- Florence Street/Washington Street (signalized)
- Pleasant Street/Washington Street ((unsignalized)
- Exchange Street/Washington Street (unsignalized)
- Florence Street/Main Street (signalized)
- Main Street/Salem Street/Ferry Street (signalized)
- Centre Street (Route 60/Main Street (signalized)
- Centre Street (Route 60/Ferry Street (signalized)

BETA concurs with the appropriateness of the study area.

Roadway Network

The report provides an accurate description of the surrounding roadway network.

Pedestrian and Bicycle Facilities

Pedestrian amenities are provided throughout most of the study area, but bicycle accommodations are sparse.

Crash Summary

HSR performed a crash analysis for the years 2012-2014 based on the most recent data available from the Malden Police Department. Calculated crash rates are below the District average of 0.77 for signalized intersections and 0.58 for unsignalized intersections, except for three intersections:

- Exchange Street/Commercial Street – 1.13 vs. 0.77. This intersection is a concern
- Central Street/Commercial Street – 0.85 vs. 0.77. Signal phasing has recently been modified to provide a Centre Street westbound left turn advance phase, which should result in fewer crashes.
- Pleasant Street/Pearl Street – 0.64 vs. 0.58. This is based on only 5 crashes over a three year period.

No fatalities were reported.

Public Transportation

The Traffic Study includes a detailed description of existing public transportation within the study area.

Existing Traffic Volumes

The applicant conducted peak hour turning movement counts (TMC's) for all eleven study area intersections, and for an additional eight intersections for subsequent use. Counts were conducted during the weekday morning (7:00 AM-9:00 AM), and the afternoon peak period 4:00 PM-6:00 PM). Traffic counts were conducted on Wednesday, April 29, 2015 (counts at two intersections were taken from the Traffic study conducted for the proposed CVS pharmacy on Centre Street). BETA finds the times and days of data collection acceptable.

Seasonal Variation

MassDOT historical statewide traffic data suggests that October counts are typically 5% lower than average annual counts, but to be conservative, the HSH study did not adjust the volumes downward to reflect average month conditions. BETA agrees that this represents a conservative analysis.

FUTURE CONDITIONS

This would include impacts of the following developments some smaller developments in Malden:

- 18 Jackson Street (formerly known as 100 & 150 Exchange Street
- 480 Main at Malden Square
- 180 Eastern Avenue
- 32-54 Ferry Street
- 46 Pleasant Street
- 86 Pleasant Street
- 126-150 Pleasant Street

Traffic generated by these developments was superimposed on the estimated background traffic to represent a No-Build network

Trip Generation (Site-Generated Traffic)

Trip Generation for new trips was conducted using standard Institute of Transportation Engineers (ITE) Land Use Codes for Residential/Apartments (LUC 220), and for Retail/Shopping Center (LUC 820).

BETA agrees with this methodology.

Trip Distribution/Assignment

Site distribution/assignment was based on 2010 Census Journey to Work data, and actual assignment was based on applicable site access points. The proposed trip distribution appears reasonable.

Mode Split

A recent survey of existing Government Center workers indicates that 94 percent of City employees currently drive to work. The Mode split for other uses was based on journey-to-work data from the 2013 American survey for census tract 3413 (where the project site is located). Based on that information, approximately 42 percent of residential, and 70 percent of retail users will drive to the site. These driver splits seem reasonable.

CAPACITY ANALYSIS

The traffic study provides Highway Capacity Manual (HCM) compliant capacity analysis at the study area locations. Virtually no difference is noted at any location between No-Build and Build conditions.

Tables 14 and 15 provide a useful comparison of the difference in queues between No-Build and Build conditions, for those locations in which storage is expected to be deficient. In cases, where the available storage is limited (50 to 75 feet), the queue will likely be monitored by adjacent traffic signal operation. In other cases, a difference of one to three vehicle lengths occurs. While not ideal, these differences also will likely be controlled by signal operation.

ACCESS

The main site drives at Exchange Street and at Abbot Street will operate at LOS A/B.

PARKING

The project site will include 310 -320 parking spaces, which complies with residential spaces and exceeds requirements for residential use.

LOADING

Loading and service activity are described on page 77 of the report and appear satisfactory.

SITE DISTANCE

Site distance on exchange Street would be less (140 feet) than the required 155 feet at 25 miles per hour. The sight distance can be increased to 190 feet if on-street parking is restricted along the north curb for 125 feet to the west of the driveway. We concur with the warning lights on the building at each driveway.

TRAFFIC/ACCESS MANAGEMENT DURING CONSTRUCTION

No discussion is included.

PROPOSED MITIGATION

Proposed improvements include:

- Install warning lights on the building near each driveway
- Install pedestrian tactile warning panels at each crosswalk at the following intersections:
 - Pleasant Street/commercial Street/Florence Street
 - Exchange Street/Commercial Street
 - Exchange Street/Abbott Street
 - Pleasant Street/Abbott Street
- Restripe existing crosswalks with thermoplastic (ladder pattern) at the following intersections:
 - Pleasant Street/commercial Street/Florence Street
 - Exchange street/Abbott Street
 - Pleasant Street/Abbott Street
- Provide new sidewalks abutting the Project site at:
 - North and south sides of Pleasant Street, between Commercial Street and Abbott Street
 - East side of commercial Street, between Exchange Street and Pleasant Street
 - West side of Abbott Street
 - North side of Exchange Street, between Commercial Street and Abbott Street
- Upgrade Traffic signal equipment to provide signal coordination at the intersections of:
 - Pleasant Street/Commercial Street/Florence Street
 - Exchange Street/Commercial Street
- Extend pedestrian clearance times at the intersections of
 - Pleasant Street/Commercial Street/Florence Street
 - Exchange Street/commercial Street
- Provide pedestrian countdown signal heads at the intersections of:
 - Pleasant Street/Commercial Street/Florence Street
 - Exchange Street/Commercial Street

RECOMMENDED MITIGATION

Additional mitigation is recommended as follows:

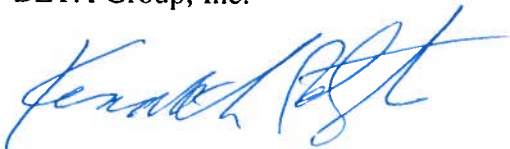
- We recommend that on street parking be restricted along the north curb of Exchange Street for 125 feet to the west of the driveway. This would increase sight distance to 190 feet
- Modify pedestrian crossing times at each of the eleven study area intersections as needed.
- Provide pedestrian countdown signal heads at the intersection of Route 60 and Commercial Street.

Malden Planning Board
and City Council
October 14, 2015
Page 6 of 6

It is also recommended that the City have an opportunity to peer review the Proponent's response to these recommendations prior to the Board making a decision regarding this proposed development.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.



Kenneth Petraglia, P.E, PTOE
Vice President

