

# ENVIRONMENTAL NOTIFICATION FORM

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## PROPOSED CATEGORY 1 GAMING ESTABLISHMENT BELMONT STREET, WEST STREET & FOREST AVENUE BROCKTON, MASSACHUSETTS



SUBMITTED TO:

EXECUTIVE OFFICE OF ENERGY  
AND ENVIRONMENTAL AFFAIRS  
100 CAMBRIDGE STREET, SUITE 900  
BOSTON, MA 02114  
ATTN: MEPA OFFICE

PREPARED BY:

BOHLER ENGINEERING  
75 FEDERAL STREET, SUITE 620  
BOSTON, MA 02110

SUBMITTED BY:

MASS GAMING & ENTERTAINMENT, LLC  
900 NORTH MICHIGAN AVENUE, SUITE 1600  
CHICAGO, IL 60611

IN ASSOCIATION WITH:

KLAI JUBA WALD ARCHITECTS  
MDM TRANSPORTATION CONSULTANTS, INC.  
DAIN, TORPY, LE RAY, WIEST & GARNER, P.C.  
DEVELOPMENT MANAGEMENT ASSOCIATES LLC

MAY 6, 2015



**BOHLER**  
ENGINEERING



May 6, 2015

Secretary Matthew A. Beaton  
Executive Office of Energy and Environmental Affairs (EEA)  
Attn: MEPA Office  
100 Cambridge Street, Suite 900  
Boston, MA 02114

**RE: Environmental Notification Form  
Proposed Category 1 Gaming Establishment  
Belmont Street, West Street & Forest Avenue  
Brockton, Massachusetts**

Dear Secretary Beaton:

Enclosed please find two (2) copies of the Environmental Notification Form (ENF) for the proposed Category 1 Gaming Establishment project located in Brockton. Additionally, a CD is provided with a full copy of the ENF in digital format.

Included in the ENF is a circulation list prepared in accordance with 301 CMR 11.16. Please notice the ENF in the May 20, 2015 Environmental Monitor to commence public review. Customarily, the public comment period would be open until June 9, 2015 with an ENF Decision expected on June 19, 2015. However, we are asking that the comment period be open until June 30, 2015 with an ENF Certificate expected by July 10, 2015 to accommodate any public interest.

Agency Action is required from the MassDOT via a Highway Access Permit and from the Massachusetts Gaming Commission via a Category 1 Gaming License.

Additional agencies or persons who would like to review the ENF should contact me at (617) 849-8040 or via e-mail at [smartorano@bohlereng.com](mailto:smartorano@bohlereng.com).

Sincerely,

BOHLER ENGINEERING

Stephen Martorano, P.E., LEED

Enclosures

Cc: ENF Distribution List  
Mass Gaming & Entertainment, LLC

M151001  
MEPA Cover Ltr (2015-05-06).doc

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\* SUPPORTING TRAFFIC APPENDICES PROVIDED ON CD IN DIGITAL FORMAT.  
HARD COPIES AVAILABLE BY REQUEST AT [SMARTORANO@BOHLERENG.COM](mailto:SMARTORANO@BOHLERENG.COM).  
PRINTED APPENDICES PROVIDED WITH MEPA AND DOT FILINGS.

**Commonwealth of Massachusetts**  
**Executive Office of Energy and Environmental Affairs**  
**Massachusetts Environmental Policy Act (MEPA) Office**

**Environmental Notification Form**

*For Office Use Only*

EEA#: \_\_\_\_\_

MEPA Analyst: \_\_\_\_\_

*The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.*

Project Name: Proposed Category 1 Gaming Establishment		
Street Address: Belmont Street, West Street, Forest Avenue, Thurber Avenue and Othello Street		
Municipality: Brockton	Watershed: Taunton	
Universal Transverse Mercator Coordinates: 465955m North, 331137m East	Latitude: 42°04'18.48" Longitude: 71°02'28.16"	
Estimated commencement date: After Award of the Casino License by the Massachusetts Gaming Board.	Estimated completion date: 24 Months After the Award of the Casino License.	
Project Type: Proposed Category 1 Gaming Establishment	Status of project design:     % complete Conceptual Design	
Proponent: Mass Gaming & Entertainment, LLC		
Street Address: 900 North Michigan Avenue, Suite 1600		
Municipality: Chicago	State: IL	Zip Code: 60611
Name of Contact Person: Stephen Martorano, P.E.		
Firm/Agency: Bohler Engineering	Street Address: 75 Federal Street, Suite 620	
Municipality: Boston	State: MA	Zip Code: 02110
Phone: (617) 849-8040	Fax: (857) 259-4958	E-mail: smartorano@bohlereng.com

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?

Yes  No

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:

a Single EIR? (see 301 CMR 11.06(8))

Yes  No  N/A

a Special Review Procedure? (see 301 CMR 11.09)

Yes  No  N/A

a Waiver of mandatory EIR? (see 301 CMR 11.11)

Yes  No  N/A

a Phase I Waiver? (see 301 CMR 11.11)

Yes  No  N/A

(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?

ENF & Mandatory EIR:

- 11.03(1)(a)(2): Creation of ten or more acres of impervious area.
- 11.03(6)(a)(6): Generation of 3,000 or more new ADT on roadways providing access to a single location.
- 11.03(6)(a)(7): Construction of 1,000 or more new parking spaces at a single location.

ENF and Other MEPA Review if the Secretary So Requires:

- 11.03(5)(b)(4)(a): New discharge or expansion of discharge to a sewer system of 100,000 or more gpd of sewerage, industrial waste water or untreated stormwater.

Which State Agency Permits will the project require?

- Massachusetts Gaming Commission – Category 1 Gaming License
- Massachusetts Department of Transportation – Highway Access Permit

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

None.

<b>Summary of Project Size &amp; Environmental Impacts</b>	<b>Existing</b>	<b>Change</b>	<b>Total</b>
<b>LAND</b>			
Total site acreage	45.8± Ac.		
New acres of land altered		49.4± Ac. *Including Off-Site Improvements **All land is previously disturbed	
Acres of impervious area	19.3± Ac.	12.8± Ac.	32.1± Ac.
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		0	
Acres of new non-water dependent use of tidelands or waterways		0	
<b>STRUCTURES</b>			
Gross square footage	110,000 ± SF	950,000± SF	258,000± SF (Casino) 254,000± SF (Hotel) 548,000± SF (Garage)
Number of housing units	0	N/A	0
Maximum height (feet)	60± FT (Grandstand)	40 FT	100 FT (Hotel)
<b>TRANSPORTATION</b>			
Vehicle trips per day	Seasonal Fair / Events	Weekday (Mon-Thur) +13,886± Friday +17,358±	Weekday (Mon-Thur) +13,886± Friday +17,358±
Parking spaces	Seasonal Fair / Events Parking on Grass/Unstriped Lot	+3000± Surface and Garage	+3000± Surface and Garage
<b>WASTEWATER</b>			
Water Use (Gallons per day)	Seasonal Fair / Events	+120,000± GPD	120,000 ± GPD
Water withdrawal (GPD)	N/A	N/A	N/A
Wastewater generation/treatment (GPD)	Seasonal Fair / Events	+110,000± GPD	110,000± GPD
Length of water mains (miles)	0	0	0
Length of sewer mains (miles)	0	0.2± Miles	0.2± Miles
<p>Has this project been filed with MEPA before?  <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No</p>			
<p>Has any project on this site been filed with MEPA before?  <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No</p>			

## **GENERAL PROJECT INFORMATION – all proponents must fill out this section**

### **PROJECT DESCRIPTION:**

#### **Describe the existing conditions and land uses on the project site:**

The Project Site (the “Project Site”) is bordered by Belmont Street to the northwest, by West Street to the southwest, by Forest Avenue to the south, by Thurber Avenue and Othello Street to the east, and to the north by properties containing several existing office/commercial buildings. The Project Site is approximately 45.7± acres in total area and comprised of three existing contiguous parcels. The three parcels contain storage buildings, grandstand with abandoned horse track, and pavement associated with the Brockton Fairgrounds. The entirety of the Project Site is cleared as paved surface or lawn, with a few tree lined driveways and roads.

Presently, the developed portion of the property is actively used for storage associated with commercial buildings, other commercial materials and recently as a snow storage yard for the City of Brockton. The majority of the time the former grand stands and track on the property are dormant since losing horse racing in 2001, however the grounds are utilized for occasional events such as carnivals and group running events.

The Project Site does not feature any wetland resource areas.

#### **Describe the proposed project and its programmatic and physical elements:**

*NOTE: The project description should summarize both the project’s direct and indirect impacts (including construction period impacts) in terms of their magnitude, geographic extent, duration and frequency, and reversibility, as applicable. It should also discuss the infrastructure requirements of the project and the capacity of the municipal and/or regional infrastructure to sustain these requirements into the future.*

The Project is a proposed Category 1 Gaming Establishment and related improvements (the “Resort Casino”) to be located on the Project Site in the City of Brockton. The design will incorporate elements inspired by local architecture. The Resort Casino will be designed with the objective to achieve LEED Gold Certification. The Proponent is uniquely qualified to deliver on this objective given that its affiliated casino, Rivers Casino in Des Plaines, IL, was the first LEED Gold Certified casino in the world.

#### **Resort Casino**

The preliminary design of the Resort Casino consists of an approximately 258,000 square foot (SF) building plus associated hotel and appurtenances as authorized by a Category 1 license under Chapter 23K of the General Laws. The Resort Casino is currently planned to include a gaming facility, a hotel with up to 300 rooms, restaurants, sundry retail, multifunctional event and entertainment space, and back of house spaces. In total, the proposed facility will consist of approximately 512,000 SF of floor area. Other components of the Resort Casino will include valet parking, surface parking areas and a parking structure, and all required systems in accordance with the law and the Resort Casino’s LEED Gold, sustainable, and energy efficiency objectives.

#### **Site Work**

Site work will include necessary earthwork operations, installation of durable concrete and asphalt pavement, curbs, sidewalks for pedestrian access, landscaping, utility work infrastructure, site lighting,

signage and all other improvements as required to support the construction of a destination casino. Onsite parking is planned to include a total of approximately 3,000 spaces, comprised of on-grade parking and a parking structure attached to the casino.

### **Transportation Improvements**

Transportation improvements are proposed to mitigate the impacts of the Resort Casino, which also will accelerate needed but currently unfunded roadway and signal improvements along Forest Avenue as identified in the Southwest Brockton Corridor Study. The Forest Avenue corridor improvements will improve capacity, reduce vehicle crashes and enhance pedestrian safety following casino opening relative to existing conditions. As further discussed in Appendix V, Proponent-funded transportation improvements are proposed to include an estimated Eight Million Six Hundred Thousand Dollar (\$8,600,000) package to upgrade signals at three locations along Belmont Street; widen and realign the West Street and Forest Avenue corridors to provide additional lane capacity and Complete Streets design elements from Belmont Street through the Memorial Drive intersection; a modern roundabout at Forest Avenue and West Street; new traffic signals at three (3) locations along Forest Avenue; and upgrades to three additional existing signals along Forest Avenue.

Proposed roadway improvements and new/upgraded signals along Forest Avenue will be designed to meet Complete Streets standards including shoulders for bicycle accommodation and sidewalk reconstruction. The Proponent will work with Brockton Area Transit (BAT) to evaluate the feasibility of incorporating the Project Site as a regular stop with an associated bus shelter. A shuttle bus loop serving the local community and integration of the Project Site as a stop on current BAT bus routes is currently under evaluation.

Refer to Appendix V for a detailed discussion of proposed transportation improvements.

### **Positive Impact**

In addition to the transportation improvements cited above, the proposed Project will redevelop a site which is not currently a viable attraction to the area for the majority of each year. The Resort Casino will be a viable attraction for the City of Brockton, Plymouth County, and beyond, and further increase economic activity for the region. The Resort Casino is expected to create approximately 1,400 construction jobs as well as approximately 1,500 permanent jobs. The proposed Project will be developed in a sustainable manner consistent with LEED Gold objectives and the Resort Casino's other sustainable and energy efficiency objectives.

**Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:**

*NOTE: The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.*

### **"No-Build Alternative"**

The "No-Build" Alternative is not an economically viable use of the property. The Project Site is located in the C2 General Commercial Zone in Brockton, adjacent to Route 123 and a little over a mile from Route 123's interchange with Route 24. The existing site is underutilized in its current state, in particular given the Project Site's proximity to Route 24, and regional accessibility from Route 24, Route 95/128, Route 93, Route 3, and Route 495. The City and surrounding area would lose out on

very significant revenue generation, job creation, and other economic benefits should the Project Site not be developed.

#### **“As of Right Development Option” (Alternative A)**

Given the Project Site’s accessibility to Route 24 and presence on Belmont Street, it is reasonable to expect the Project Site could be developed with a retail center similar in character to those that exist to the west of the Project Site. The “As of Right Development Option” provided in Appendix IV is a 386,000 SF retail center with 1,764 surface parking spaces. The anticipated breakdown of use categories includes 238,000 SF of discount superstores and 148,000 SF of typical general retail “shopping center” uses. While this plan does not provide as much parking or overall building area as the Preferred Alternative, it utilizes a larger impervious footprint and provides less buffer to the abutters, as retail development economics in this market do not support structured parking or multi-story development. The buffer to the residential neighborhoods would only be 20-feet as allowed under existing zoning versus the 80-foot minimum buffer provided under the Preferred Alternative option. As shown in the below Alternatives Analysis Summary Table, the traffic generation of such a development would be slightly greater relative to the proposed Casino and the “As of Right Development Option” would result in an AM and PM peak hour traffic generation greater than the proposed Resort Casino. This alternative will use less potable water and generate less sanitary sewerage than the Preferred Alternative, but also would result in significantly increased impervious coverage and a corresponding reduction in landscape areas and open space. Additionally, it is not reasonable to expect a development of this nature could support the off-site infrastructure improvements that the Resort Casino would provide. This alternative would also generate less revenue for the City of Brockton than the Preferred Alternative.

#### **“Mixed-Use Development Option” (Alternative B)**

Given the residential nature of the neighborhoods to the north and east of the Project Site, another Alternative is a mixed-use development of the Project Site as shown on the plan entitled “Alternative B Exhibit” and provided in Appendix IV. The “Mixed-Use Development Option” consists of eleven (11) four-story residential buildings and seven (7) retail pads. In total, this Alternative consists of 746,000 SF of residential floor area and 147,950 SF of retail uses, with 1,834 parking spaces. While this option shows a reduction in both the impervious coverage and peak hour traffic generation, it does increase impacts on the potable water use and the sanitary sewerage generation, as compared to the Preferred Alternative. Financially, it is reasonable to believe that this Alternative would represent a negative impact on Brockton finances, as the proposed residential units would represent a much larger burden on school budgets without the benefit of significant payment to be made by the Resort Casino.

#### **“Preferred Alternative”**

The Proponent is focused on this site as a Category 1 Gaming Establishment and no other alternative programming was entertained due to the Proponent’s business interests. It is the Proponent’s belief the “Preferred Alternative” is the highest and best use of the property.

The “Preferred Alternative” is a 258,000 SF gaming establishment with approximately 3,000 parking spaces including a parking structure (refer to Appendix II). Including uses attendant to the Resort Casino, the facility will contain a total of 512,000 SF of floor area. The design incorporates elements of local architecture. The building also will be designed to meet the Proponent’s LEED Gold Certification objectives and will incorporate other sustainable design features, which will be further detailed in future filings.

## ALTERNATIVES ANALYSIS SUMMARY TABLE

<b>Alternatives Analysis Summaries of Project Size &amp; Environmental Impacts</b>	<b>Preferred Alternative</b>	<b>As of Right Development Option</b>	<b>Mixed-Use Development Option</b>
Total site acreage	45.8± Ac.	45.8± Ac.	45.8± Ac.
New acres of land altered (All land in each development option is previously altered)	49.4± Ac. (Including Off-Site Improvements)	> 45.8± Ac. (Depending Upon Off-Site Improvements)	> 45.8± Ac. (Depending Upon Off-Site Improvements)
Acres of impervious area	32.1± Ac.	34.0± Ac.	27.5± Ac.
Square feet of new bordering vegetated wetlands alteration	0	0	0
SF of new other wetland alteration	0	0	0
Acres of new non-water dependent use of tidelands or waterways	0	0	0
Gross square footage	512,000 SF (not including garage)	385,950 SF	893,950 SF
Number of housing units	0	0	570± Units
Maximum height (feet)	100± FT (Hotel)	40± FT	50± FT
Vehicle trips per day	(Mon-Thur) +13,886± (Friday)+17,358± (Sat) +22,530±	(Mon-Thur) +17,880± (1) (Friday) +17,880± (1) (Sat) +23,100±	(Mon-Thur) +12,340± (2) (Friday) +12,340± (Sat) +16,050±
Peak hour traffic	(Mon-Thur) +880± (Friday) +1,105± (Sat) +1,410±	(Mon-Thur) +1,625± (Friday) +1,625± (Sat) +2,140±	(Mon-Thur) +1,110± (Friday) +1,110± (Sat) +1,380±
Parking spaces	3000± Spaces Surface and Garage	1,764± Spaces Surface	1,834± Spaces Surface
Revenue to City			
Real Estate Taxes / Pilot	\$8,000,000 Annually	< \$3,000,000 Annual Estimate	< \$4,000,000 Annual Estimate (3)
Additional payments under Host Community Agreement	\$2,000,000 Annually	\$0	\$0
Water use (Gallons per day)	120,000± GPD	30,000± GPD	145,000 ± GPD
Water withdrawal (GPD)	N/A	N/A	N/A
Wastewater generation/treatment	110,000± GPD	25,000± GPD	135,000± GPD
Length of water mains (miles)	0	0	0
Length of sewer mains (miles)	0.2± Miles	0.2± Miles	0.2± Miles

- (1) Average Daily Trips based on ITE LUC 815 applied to 183,000 SF and ITE LUC 820 applied to 203,000 SF of Shopping Center.
- (2) Average Daily Trips based on ITE LUC 820 applied to 148,000 SF of Shopping Center and ITE LUC 220 applied to 570 apartment units.
- (3) Residential developments inherently financially burden the school district to a further extent than both the Preferred Alternative option and the As of Right Development option.

**Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:**

As detailed below, the Resort Casino’s mitigation measures will incorporate significant economic benefits to the community, significant roadway improvements, Transportation Demand Management measures, stormwater management facilities in accordance with current design standards, and LEED Gold Certification Objectives.

**Economic Impact Assessment:**

This Project is expected to create approximately 1,400 construction jobs and approximately 1,500 permanent jobs and is subject to a Host Community Agreement dated February 19, 2015. The Project will redevelop an existing site which is vacant for the majority of each year into a viable attraction for the City of Brockton and Plymouth County, and further increase economic activity for the region. There will be opportunities for local businesses to be vendors to the Resort Casino and to participate in the Resort Casino rewards program or other marketing programs, and the Resort Casino operator will host one or more vendor forums to discuss opportunities for the local businesses.

Under the Host Community Agreement, the Proponent will provide the City of Brockton benefits that include those summarized below.

- Three Million Dollars (\$3,000,000) over the first two years after commencement of construction;
- Annual Payments up to a total amount equal to the greater of Ten Million Dollars (\$10,000,000) or two and a quarter percent (2.25%) of the Resort Casino’s annual Gross Gaming Revenue, contingent upon conditions listed in the Host Community Agreement;
- Estimated \$1,500,000 to \$2,000,000 per year of annual payments for meals, hotel, water and sewer taxes and fees.

In addition, the Host Community Agreement provides for a reasonable hiring preference for qualified residents of Brockton first and then of the surrounding communities, for construction and permanent jobs. Mass Gaming & Entertainment, LLC will conduct and promote in the City a career/jobs fair to highlight potential permanent jobs at the Resort Casino, and work with the Resort Casino’s general contractor, construction manager, and/or subcontractors to do the same with respect to potential construction jobs at the Resort Casino. Mass Gaming & Entertainment, LLC will also hold a vendor fair in Brockton to educate local vendors about opportunities to provide goods and services to the Resort Casino.

**Transportation Infrastructure**

Transportation improvements are proposed to mitigate the impacts of the Resort Casino within the surrounding site area, which also will advance and accelerate planned improvements along Forest Avenue as identified in the Southwest Brockton Corridor Study. As further discussed in Appendix V, proposed Proponent-funded transportation improvements include an estimated Eight Million Six Hundred Thousand Dollar (\$8,600,000) package to upgrade signals at three locations along Belmont Street; widen and realign the West Street and Forest Avenue corridors to provide additional lane capacity and Complete Streets design elements from Belmont Street through the Memorial Drive intersection; a modern roundabout at Forest Avenue and West Street; new traffic signals at three (3) locations along Forest Avenue; and upgrades to three (3) additional existing signals along Forest Avenue.

Refer to Appendix V for a detailed discussion of proposed transportation improvements.

### **Transportation Demand Management**

A number of TDM measures are being evaluated to reduce vehicle trips and encourage use of alternative travel modes by employees and patrons. Measures include incorporating the Project Site as a stop on the existing Brockton Area Transit Authority (BAT) bus routes which currently provide service linking the adjacent area with Brockton's intermodal transit center (BAT Centre); potential shuttle bus loop between the Project Site and the BAT Centre; sidewalk and bicycle accommodation design features that provide a connection between on-site pedestrian walkways and the nearby walkways; and a host of additional measures that provide incentives for carpooling/ridesharing, low emission vehicle use, and utilization of public transportation. A detailed description is provided in the Traffic Impact and Access Study (TIAS), in Appendix V.

### **Stormwater Design**

The existing conditions of the Project Site do not appear to provide stormwater runoff treatment measures for paved surfaces associated with the current development. In contrast, the proposed development will improve upon existing conditions and shall be designed in compliance with the Massachusetts Stormwater Management Policy Handbook. Stormwater runoff will be treated for TSS removal prior to any infiltration or outfall. The proposed system will be consistent with maintaining natural drainage flow patterns, to the extent reasonably possible, and will utilize LID (Low Impact Development) approaches in the design. A series of BMPs (Best Management Practices), including potential surface and underground detention/infiltration systems within and adjacent to the parking fields, will also be part of the on-site stormwater design. The Resort Casino will focus on stormwater infiltration on the Project Site to better maintain more consistent, groundwater flows for the Taunton River and its tributaries, as well as minimize impacts to the surrounding storm sewer system.

### **LEED Gold Certification Objectives**

A Project objective will be to obtain LEED Gold Certification under the LEED BD+C and the Resort Casino will incorporate sustainable design features consistent with the initiatives outlined below. The Proponent's affiliate has achieved this standard at its Rivers Casino in Des Plaines, IL, the first casino to be certified as LEED Gold. Below are some of the items the Proponent is currently considering and evaluating with respect to obtaining LEED Gold Certification for the Resort Casino.

**Sustainable sites credits** – design strategies are being evaluated to minimize impact on ecosystems and water resources, particularly in improving stormwater performance and in reducing heat island effect throughout the Project Site. Other strategies may include connecting to mass transit routes and potential on-site stops and providing for convenient bicycle and fuel efficient vehicle access to the Project Site for staff and guests.

**Water efficiency credits** – design strategies will be incorporated to promote smarter use of water, within the building and on-site, and to reduce potable water consumption.

**Energy & atmosphere credits** - innovative design strategies will be incorporated to promote better building energy performance. The Proponent will also investigate the inclusion of onsite renewable energy into the project design.

**Materials & resources credits** - sustainable building materials will be incorporated where feasible and techniques utilized to reduce waste. The Resort Casino will incorporate an area for waste material recycling during the ongoing operations of the facility. During construction, the goal will be to divert construction waste materials from the landfill. Consideration will also be given to using high recycled content materials, regionally sourced materials, and rapidly renewable materials in the design and

construction of the Resort Casino.

**Indoor environmental quality credits** – design strategies will be incorporated to promote better indoor air quality. Consideration will also be given to the use of low-emitting materials and controls for indoor pollutants like incorporating walk off mats at building entrances and controlling ventilation for stored janitorial materials. Lastly, the Proponent will investigate and employ appropriate lighting and comfort controls for staff and guests.

**If the project is proposed to be constructed in phases, please describe each phase:**

The Resort Casino is not anticipated to be constructed in phases.

**AREAS OF CRITICAL ENVIRONMENTAL CONCERN:**

Is the project within or adjacent to an Area of Critical Environmental Concern?

- Yes (Specify \_\_\_\_\_)  
 No

If yes, does the ACEC have an approved Resource Management Plan? \_\_\_ Yes \_\_\_ No;

If yes, describe how the project complies with this plan.

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Will there be stormwater runoff or discharge to the designated ACEC? \_\_\_ Yes  No;

If yes, describe and assess the potential impacts of such stormwater runoff/discharge to the designated ACEC.

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**RARE SPECIES:**

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see [http://www.mass.gov/dfwele/dfw/nhosp/regulatory\\_review/priority\\_habitat/priority\\_habitat\\_home.htm](http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/priority_habitat/priority_habitat_home.htm))

- Yes (Specify \_\_\_\_\_)  No

**HISTORICAL /ARCHAEOLOGICAL RESOURCES:** Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

- Yes (Specify: )  No

- Inventory # BRO.F: Brockton Fairgrounds

A Project Notification Form (PNF) was filed with the Massachusetts Historical Commission (MHC) on April 3, 2015 and on May 1, 2015 MHC provided a letter summarizing their findings. Copies of these two documents are included in Appendix IX.

The MHC response letter dated May 1, 2015 (MHC Response) states that “It is the opinion of the MHC staff that the Brockton Fairgrounds does not appear to meet the criteria of eligibility for listing in the State Register of Historic Places.”

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?  Yes (Specify: )  No

The Resort Casino will involve the redevelopment of the Brockton Fairgrounds (Inventory # BRO.F). There are several existing buildings on-site that will be demolished, including the former Brockton Fairgrounds grandstands, numerous small wood framed concession stands, maintenance buildings, all somewhat altered, and some modern stables. The Brockton Fairgrounds Exhibition Hall (MHC # BRO.14), located on the adjacent parcel, is not on the Project Site and will remain.

The MHC Response also states that “After review of the MHC files and the materials submitted, it has been determined that this project is unlikely to affect significant historic or archeological resources.”

**WATER RESOURCES:**

Is there an Outstanding Resource Water (ORW) on or within a half-mile radius of the project site? \_\_\_ Yes **X** No; if yes, identify the ORW and its location. \_\_\_\_\_

*(NOTE: Outstanding Resource Waters include Class A public water supplies, their tributaries, and bordering wetlands; active and inactive reservoirs approved by MassDEP; certain waters within Areas of Critical Environmental Concern, and certified vernal pools. Outstanding resource waters are listed in the Surface Water Quality Standards, 314 CMR 4.00.)*

Are there any impaired water bodies on or within a half-mile radius of the project site? \_\_\_ Yes **X** No; if yes, identify the water body and pollutant(s) causing the impairment: \_\_\_\_\_.

Is the project within a medium or high stress basin, as established by the Massachusetts Water Resources Commission? **X** Yes \_\_\_ No

- Taunton River Classified as "Medium" Stress Basin per "Massachusetts Water Resources Commission Stressed Basins in Massachusetts", approved December 13, 2001.

**STORMWATER MANAGEMENT:**

Generally describe the project's stormwater impacts and measures that the project will take to comply with the standards found in MassDEP's Stormwater Management Regulations:

The existing conditions of the Project Site do not appear to provide stormwater runoff treatment measures for paved surfaces associated with the existing development. In contrast, the proposed development will improve upon existing conditions and shall be designed in compliance with the Massachusetts Stormwater Management Policy Handbook. Stormwater runoff will be treated for TSS removal prior to any infiltration or outfall. The proposed system will be consistent with maintaining natural drainage flow patterns, to the extent possible, and will utilize LID (Low Impact Development) approaches to design. A series of BMPs (Best Management Practices), including potential underground detention systems within the parking fields, will also be part of the on-site stormwater design. In consideration of the Project Site's location with a "medium stressed basin," the Resort Casino will increase both stormwater treatment and infiltration on the Project Site, to help better maintain more consistent flows for the Taunton River and its tributaries. The Proponent will work with the City of Brockton to evaluate and mitigate any potential impacts to the existing stormwater infrastructure around the Project Site.

**MASSACHUSETTS CONTINGENCY PLAN:**

Has the project site been, or is it currently being, regulated under M.G.L.c.21E or the Massachusetts Contingency Plan? Yes \_\_\_ No **X**; if yes, please describe the current status of the site (including Release Tracking Number (RTN), cleanup phase, and Response Action Outcome classification): \_\_\_\_\_

Is there an Activity and Use Limitation (AUL) on any portion of the project site? Yes \_\_\_ No **X**; if yes, describe which portion of the site and how the project will be consistent with the AUL: \_\_\_\_\_.

Are you aware of any Reportable Conditions at the property that have not yet been assigned an RTN? Yes \_\_\_ No **X**; if yes, please describe: \_\_\_\_\_

*Phase I Environmental Site Assessment was conducted in March 2015 and reported no Recognized Environmental Concerns (REC) on the subject site.*

**SOLID AND HAZARDOUS WASTE:**

If the project will generate solid waste during demolition or construction, describe alternatives considered for re-use, recycling, and disposal of, e.g., asphalt, brick, concrete, gypsum, metal, wood:

Solid waste generated during demolition or construction will be minimized in a sustainable manner consistent with the Resort Casino’s LEED Gold objectives. The Resort Casino’s waste generation is limited. The proposal demolishes approximately 110,000± SF of buildings and structures. Metals are anticipated to be recycled as well as concrete and other material as practicable. Other construction debris and solid waste will be from packaging materials and scrap pieces of raw materials (corrugated cardboard, glass, aluminum, scrap metal, cable/wire). The contractor will be encouraged by the Proponent to recycle materials when practicable. Materials that cannot be reused or recycled will be transported by a contract hauler to a licensed facility per the DEP regulations for Solid Waste Facilities, 301 CMR 16.00.

*(NOTE: Asphalt pavement, brick, concrete and metal are banned from disposal at Massachusetts landfills and waste combustion facilities and wood is banned from disposal at Massachusetts landfills. See 310 CMR 19.017 for the complete list of banned materials.)*

Will your project disturb asbestos containing materials? Yes\_\_ No\_\_; **Undetermined at this time.** If asbestos abatement will be required, it shall be done in accordance with MassDEP requirements.

if yes, please consult state asbestos requirements at <http://mass.gov/MassDEP/air/asbhom01.htm>

Describe anti-idling and other measures to limit emissions from construction equipment:

The Proponent will take the following reasonable efforts to minimize impacts associated with construction efforts:

- Equipment will not needlessly idle on site during construction.
- Enclosures or barriers will be provided on small equipment that operates continuously.
- Equipment used throughout construction will be maintained properly with particular attention put to proper operation of equipment mufflers.

**DESIGNATED WILD AND SCENIC RIVER:**

Is this project site located wholly or partially within a defined river corridor of a federally designated Wild and Scenic River or a state designated Scenic River? Yes \_\_\_ No X;  
if yes, specify name of river and designation:

If yes, does the project have the potential to impact any of the “outstandingly remarkable” resources of a federally Wild and Scenic River or the stated purpose of a state designated Scenic River? Yes \_\_\_ No \_\_\_ ; if yes, specify name of river and designation: \_\_\_\_\_;

If yes, will the project will result in any impacts to any of the designated “outstandingly remarkable” resources of the Wild and Scenic River or the stated purposes of a Scenic River. Yes \_\_\_ No \_\_\_ ;

If yes, describe the potential impacts to one or more of the “outstandingly remarkable” resources or stated purposes and mitigation measures proposed.

## **ATTACHMENTS:**

1. List of all attachments to this document.
2. U.S.G.S. map (good quality color copy, 8-½ x 11 inches or larger, at a scale of 1:24,000) indicating the project location and boundaries.
- 3.. Plan, at an appropriate scale, of existing conditions on the project site and its immediate environs, showing all known structures, roadways and parking lots, railroad rights-of-way, wetlands and water bodies, wooded areas, farmland, steep slopes, public open spaces, and major utilities.
- 4 Plan, at an appropriate scale, depicting environmental constraints on or adjacent to the project site such as Priority and/or Estimated Habitat of state-listed rare species, Areas of Critical Environmental Concern, Chapter 91 jurisdictional areas, Article 97 lands, wetland resource area delineations, water supply protection areas, and historic resources and/or districts.
5. Plan, at an appropriate scale, of proposed conditions upon completion of project (if construction of the project is proposed to be phased, there should be a site plan showing conditions upon the completion of each phase).
6. List of all agencies and persons to whom the proponent circulated the ENF, in accordance with 301 CMR 11.16(2).
7. List of municipal and federal permits and reviews required by the project, as applicable.

**LAND SECTION** – all proponents must fill out this section

**I. Thresholds / Permits**

A. Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1))  
 Yes \_\_\_ No; if yes, specify each threshold:

ENF & Mandatory EIR:

- 11.03(1)(a)(2): Creation of ten or more acres of impervious area.

**II. Impacts and Permits**

A. Describe, in acres, the current and proposed character of the project site, as follows:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Footprint of buildings			<b>5.9±</b> (Casino) <b>1.3±</b> (Hotel) <b>3.1±</b> (Garage)
Footprint of buildings Totals	<b>2.2±</b>	<b>8.1±</b>	<b>10.3±</b> (Total)
Internal roadways	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Parking and other paved areas	<b>19.3±</b>	<b>2.5±</b>	<b>21.8±</b>
Other altered areas	<b>24.3±</b>	<b>-10.6±</b>	<b>13.7±</b>
Undeveloped areas	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total: Project Site Acreage</b>	<b>45.8±</b>	<b>0.0</b>	<b>45.8±</b>

B. Has any part of the project site been in active agricultural use in the last five years?  
 \_\_\_ Yes  No; if yes, how many acres of land in agricultural use (with prime state or locally important agricultural soils) will be converted to nonagricultural use?

C. Is any part of the project site currently or proposed to be in active forestry use?  
 \_\_\_ Yes  No; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a forest management plan approved by the Department of Conservation and Recreation:

D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97? \_\_\_ Yes  No; if yes, describe:

E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction? \_\_\_  
 Yes  No; if yes, does the project involve the release or modification of such restriction?  
 \_\_\_ Yes \_\_\_ No; if yes, describe:

F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A? \_\_\_ Yes  No; if yes, describe:

G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? Yes \_\_\_ No  ; if yes, describe:

**III. Consistency**

A. Identify the current municipal comprehensive land use plan

Title: City of Brockton Massachusetts – Comprehensive Policy Plan

Date: 1998

B. Describe the project's consistency with that plan with regard to:

1) economic development

The City of Brockton through its 1998 Comprehensive Policy Plan (“Comprehensive Plan”) states that the economic development goal is “To improve Brockton’s economic vitality, provide for the creation of a range of employment and job training opportunities for our residents, and expand the tax base.” The Resort Casino will be consistent with this need by providing a job growth opportunity through the creation of an estimated 1,400 construction jobs and the hiring of an estimated 1,500 permanent employees, as well as the indirect job creation for local businesses such as vendors, entertainers and marketing agencies to name a few. Existing local businesses will also benefit from the increase in visitors and tourists attracted by the Resort Casino. Additionally, the Host Community Agreement provides for a reasonable hiring preference for qualified Brockton residents first and then of the Surrounding Communities, for construction and permanent jobs. As outlined previously in this document, the Resort Casino will generate over Ten Million Dollars (\$10,000,000) annually in revenue to the city in the form of payments under the Host Community Agreement and other tax and fee revenue.

2) adequacy of infrastructure

Also within the Economic Development section of the Comprehensive Plan is the following statement relative to infrastructure improvements: “The City shall facilitate business development through investments in infrastructure, land and buildings, including transportation improvements, increasing water supply and sewerage treatment capacity, rehabilitation of buildings and restoration of brownfield sites.”

The Resort Casino will be providing several on and off-site infrastructure improvements that will benefit both the Project Site as well as the surrounding community, including roadway, sewer and drainage improvements. The traffic improvements to the roadways and intersections proximate to the Project Site will mitigate potential impacts, as well as enhance street layouts and improve pedestrian safety by implementing Complete Streets components. A more detailed description of transportation improvements can be found in the Traffic Impact and Access Study (TIAS) included as Appendix V.

For utility infrastructure improvements, the Comprehensive Plan also states the following three (3) goals: “The City shall continue to develop both short and long-term solutions to its water supply shortage; The City shall ensure that there is adequate capacity to meet current and future demand for sewerage treatment; and to provide efficient, cost effective and environmentally sound storm drainage and flood control facilities.” Relative to the water and sewer capacity statements, the City has since upgraded both the water and sewer municipal plants and both have sufficient capacity for the Resort Casino as well as reserve expansion capacity for future development. Also, the Resort Casino will work with appropriate state and local agencies in order to mitigate potential impacts to the utility infrastructures. It is anticipated that a new sanitary sewer

main will be constructed from the Project Site to the City of Brockton Sewer Interceptor which will serve the Resort Casino project as well as the surrounding community. The Resort Casino will also include a comprehensive stormwater management plan that will be designed in accordance with current city and state regulations, which will reduce peak runoff rate, increase infiltration and provide a high level of water quality treatment for all stormwater leaving the Project Site.

3) open space impacts

The City of Brockton through its Comprehensive Plan identifies a goal “To preserve and protect the City’s open space and natural resources”. This project proposes to repurpose an existing neglected sight into an attractive new development that is open to the public and becomes a year-round resource for residents, workers, and visitors. Significant landscaped buffers and open space will be located predominantly along the perimeter of the property adjacent to public roadways. A large vegetated open space is also proposed along the eastern project boundary to act as a buffer to the residential neighborhood. Low impact development techniques promoted under the MA Stormwater Handbook will be implemented into the Project Site’s stormwater management plan including what is intended to be a wet pond along the entry drive which will serve both as a water quality enhancement device, but also as an aesthetic feature to complement the landscaping and streetscape. These will improve the overall aesthetics of the property and enhance the experience for visitors as well as pedestrians, bicyclists, and motorist passing by the development.

4) compatibility with adjacent land uses

Under the Land Use Section of the Comprehensive Plan, the goal for Commercial, Industrial and Office Use properties is “To promote economic development, provide jobs and expand the tax base by providing and appropriately located and adequate supply of commercial, industrial and office acreage, compatible with adjoining neighborhoods”. The Project Site is located along the Belmont Street (Route 123) commercial corridor and was historically used as a horse race track and the location for the annual fair. This development will infill an underutilized site bordered on three sides by abutting commercial properties. Along the eastern boundary, where there are abutting residential properties, special care and consideration has been given to providing expansive landscape buffers, minimum 80-feet wide, far exceeding the 20-foot existing zoning requirement, to ease the transition from commercial corridor into the residential neighborhood.

C. Identify the current Regional Policy Plan of the applicable Regional Planning Agency (RPA)

RPA: Old Colony Planning Council

Title: Regional Land Use and Transportation Policy Plan

Date: October 20, 2000

Title: Comprehensive Economic Development Strategy

Date: June 2014

D. Describe the project's consistency with that plan with regard to:

1) economic development

The Old Colony Planning Council (OCPC) through its Comprehensive Economic Development Strategy (CEDS), dated June 2014, identifies Brockton "to have the highest yearly average unemployment rate in the region" for the year 2011, at 10.3%. The CEDS also identifies Brockton to "have the highest home foreclosure rates in Massachusetts". The Resort Casino will contribute to Brockton's economic development by providing a job growth opportunity through the creation of an estimated 1,400 construction jobs and the hiring of an estimated 1,500 permanent employees, as well as the indirect job creation for local businesses such as vendors, entertainers and marketing agencies to name a few. Existing local businesses will also benefit from the increase in visitors and tourists attracted by the Resort Casino. Additionally, the Host Community Agreement provides for a reasonable hiring preference for qualified Brockton residents first and then of the Surrounding Communities, for construction and permanent jobs.

The CEDS also identifies that "job training to meet the needs of present and future employers must be an essential part of the regional economic development strategy". The Host Community Agreements obligates Mass Gaming & Entertainment, LLC to conduct and promote in the City a career/jobs fair to highlight potential permanent jobs at the Resort Casino, and to work with the Resort Casino's general contractor, construction manager, and/or subcontractors to do the same with respect to potential construction jobs at the Resort Casino.

The CEDS identifies Brockton as an "Economic Target Area". Mass Gaming & Entertainment, LLC will hold a vendor fair in Brockton to educate local vendors about opportunities to provide goods and services to the Resort Casino. There will be opportunities for local businesses to be vendors to the Resort Casino and to participate in the Resort Casino rewards program.

2) adequacy of infrastructure

The CEDS identifies transportation as one of the region's assets, stating "the region is well served by a good north to south highway network, freight and commuter rail service and access to airports in Boston, Halifax, Plymouth, Providence and Worcester". The Casino proposes to utilize this asset through its proximity to Route 24 and by working with regional transit authorities to provide public transportation for the Project Site. The Resort Casino proposes traffic improvements to the roadways and intersections proximate to the Project Site to mitigate any potential impacts. A more detailed description of traffic improvements can be found in the TIAS included as Appendix V.

The OCPC through its Land Use and Transportation Policy Plan states as Policy 59 "To encourage and promote sewer system improvements including

treatment, distribution and export”. The Resort Casino will work with appropriate state and local agencies in order to mitigate potential impacts to the sewer and other utilities infrastructures. It is anticipated that a new sanitary sewer main will be constructed from the Project Site to the City of Brockton Sewer Interceptor which will serve the Resort Casino project as well as the surrounding community.

3) open space impacts

The OCPC through its Land Use and Transportation Policy Plan states as Policy 50 to “Provide adequate recreation and open space for the future population of the region” and as Policy 51 to “Increase state funding for open space and aquifer protection”.

This project proposes to repurpose an existing neglected sight into an attractive new development that is open to the public and becomes a year-round resource for residents, workers, and visitors. Significant landscaped buffers and open space will be located predominantly along the perimeter of the property adjacent to public roadways. A large vegetated open space, minimum 80-feet wide versus the existing zoning requirement of as close as 20-feet, is also proposed along the eastern project boundary to act as a buffer to the residential neighborhood. These will improve the overall aesthetics of the property and enhance the experience for visitors as well as pedestrians, bicyclists, and motorist passing by the development.

4) compatibility with adjacent land uses

The OCPC through its Land Use and Transportation Policy Plan strongly discourages “Sprawl” development in the region. The Policy Plan states that sprawl development can result in an inadequate population growth and job growth to support the amount of land and natural resources consumed. Sprawl growth can result in insufficient funding to support school costs, transportation and utility infrastructure costs, and public safety costs. The Policy Plan also states that sprawl can lead to environmental impacts to air quality, water quality, and community character/quality of life.

The Resort Casino will help mitigate the impacts that “sprawl” has had on the surrounding region through the creation of an estimated 1,400 construction jobs and 1,500 permanent local jobs on the subject parcel. The Resort Casino will mitigate transportation issues associated with sprawl by providing traffic improvements to integrate with the surrounding infrastructure and providing pedestrian connectivity. By infilling this underutilized parcel and creating local jobs, the Resort Casino presents new opportunities for Brockton and area residents to work locally, thereby reducing travel time and allowing for greater use of non-automobile transportation options (train, bus, bicycle, walk).

Additionally, the Old Colonial Planning Council, via their Regional Priority Development Area / Priority Protection Area Report in September 2010, mapped the subject site as a Priority Development Area.

## **RARE SPECIES SECTION**

### **I. Thresholds / Permits**

- A. Will the project meet or exceed any review thresholds related to **rare species or habitat** (see 301 CMR 11.03(2))? \_\_\_ Yes **X** No; if yes, specify, in quantitative terms:

*(NOTE: If you are uncertain, it is recommended that you consult with the Natural Heritage and Endangered Species Program (NHESP) prior to submitting the ENF.)*

- B. Does the project require any state permits related to **rare species or habitat**? \_\_\_ Yes **X** No
- C. Does the project site fall within mapped rare species habitat (Priority or Estimated Habitat?) in the current Massachusetts Natural Heritage Atlas (attach relevant page)? \_\_\_ Yes **X** No.
- D. If you answered "No" to all questions A, B and C, proceed to the **Wetlands, Waterways, and Tidelands Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Rare Species section below.

### **II. Impacts and Permits**

- A. Does the project site fall within Priority or Estimated Habitat in the current Massachusetts Natural Heritage Atlas (attach relevant page)? \_\_\_ Yes \_\_\_ No. If yes,
1. Have you consulted with the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP)? \_\_\_ Yes \_\_\_ No; if yes, have you received a determination as to whether the project will result in the "take" of a rare species? \_\_\_ Yes \_\_\_ No; if yes, attach the letter of determination to this submission.
  2. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? \_\_\_ Yes \_\_\_ No; if yes, provide a summary of proposed measures to minimize and mitigate rare species impacts
  3. Which rare species are known to occur within the Priority or Estimated Habitat?
  4. Has the site been surveyed for rare species in accordance with the Massachusetts Endangered Species Act? \_\_\_ Yes \_\_\_ No
  4. If your project is within Estimated Habitat, have you filed a Notice of Intent or received an Order of Conditions for this project? \_\_\_ Yes \_\_\_ No; if yes, did you send a copy of the Notice of Intent to the Natural Heritage and Endangered Species Program, in accordance with the Wetlands Protection Act regulations? \_\_\_ Yes \_\_\_ No
- B. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? \_\_\_ Yes \_\_\_ No; if yes, provide a summary of proposed measures to minimize and mitigate impacts to significant habitat:

## WETLANDS, WATERWAYS, AND TIDELANDS SECTION

### I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wetlands, waterways, and tidelands** (see 301 CMR 11.03(3))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits (or a local Order of Conditions) related to **wetlands, waterways, or tidelands**? \_\_\_ Yes X No; if yes, specify which permit:

- Local and State wetland permits may be required for off-site improvements, however no wetland permits are anticipated to be necessary for work on the project site.

C. If you answered "No" to both questions A and B, proceed to the **Water Supply Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wetlands, Waterways, and Tidelands Section below.

### II. Wetlands Impacts and Permits

A. Does the project require a new or amended Order of Conditions under the Wetlands Protection Act (M.G.L. c.131A)? \_\_\_ Yes \_\_\_ No; if yes, has a Notice of Intent been filed? \_\_\_ Yes \_\_\_ No; if yes, list the date and MassDEP file number: \_\_\_\_\_; if yes, has a local Order of Conditions been issued? \_\_\_ Yes \_\_\_ No; Was the Order of Conditions appealed? \_\_\_ Yes \_\_\_ No. Will the project require a Variance from the Wetlands regulations? \_\_\_ Yes \_\_\_ No.

B. Describe any proposed permanent or temporary impacts to wetland resource areas located on the project site:

C. Estimate the extent and type of impact that the project will have on wetland resources, and indicate whether the impacts are temporary or permanent:

<u>Coastal Wetlands</u>	<u>Area (square feet) or Length (linear feet)</u>	<u>Temporary or Permanent Impact?</u>
Land Under the Ocean	_____	_____
Coastal Beaches	_____	_____
Coastal Dunes	_____	_____
Barrier Beaches	_____	_____
Coastal Banks	_____	_____
Rocky Intertidal Shores	_____	_____
Salt Marshes	_____	_____
Land Under Salt Ponds	_____	_____
Land Containing Shellfish	_____	_____
Fish Runs	_____	_____
Land Subject to Coastal Storm Flowage	_____	_____
<u>Inland Wetlands</u>		
Bank (lf)	_____	_____
Bordering Vegetated Wetlands	_____	_____
Isolated Vegetated Wetlands	_____	_____
Land under Water	_____	_____
Isolated Land Subject to Flooding	_____	_____
Bordering Land Subject to Flooding	_____	_____
Riverfront Area	_____	_____

D. Is any part of the project:

1. proposed as a **limited project**? \_\_\_ Yes \_\_\_ No; if yes, what is the area (in SF)?
2. the construction or alteration of a **dam**? \_\_\_ Yes \_\_\_ No; if yes, describe:
3. fill or structure in a **velocity zone** or **regulatory floodway**? \_\_\_ Yes \_\_\_ No

4. dredging or disposal of dredged material? \_\_\_ Yes \_\_\_ No; if yes, describe the volume of dredged material and the proposed disposal site:
5. a discharge to an **Outstanding Resource Water (ORW)** or an **Area of Critical Environmental Concern (ACEC)**? \_\_\_ Yes \_\_\_ No
6. subject to a wetlands restriction order? \_\_\_ Yes \_\_\_ No; if yes, identify the area(in SF):
7. located in buffer zones? \_\_\_ Yes \_\_\_ No; if yes, how much (in SF)  
 \*Approximately 4,000±SF of disturbance anticipated within the buffer zone of wetlands associated with West Meadow Brook, within previously disturbed areas.

E. Will the project:

1. be subject to a local wetlands ordinance or bylaw? \_\_\_ Yes \_\_\_ No
2. alter any federally-protected wetlands not regulated under state law? \_\_\_ Yes \_\_\_ No; if yes, what is the area (SF)?

**III. Waterways and Tidelands Impacts and Permits**

A. Does the project site contain waterways or tidelands (including filled former tidelands) that are subject to the Waterways Act, M.G.L.c.91? \_\_\_ Yes \_\_\_ No; if yes, is there a current Chapter 91 License or Permit affecting the project site? \_\_\_ Yes \_\_\_ No; if yes, list the date and license or permit number and provide a copy of the historic map used to determine extent of filled tidelands:

B. Does the project require a new or modified license or permit under M.G.L.c.91? \_\_\_ Yes \_\_\_ No; if yes, how many acres of the project site subject to M.G.L.c.91 will be for non-water-dependent use? Current \_\_\_ Change \_\_\_ Total \_\_\_  
 If yes, how many square feet of solid fill or pile-supported structures (in SF)?

C. For non-water-dependent use projects, indicate the following:

Area of filled tidelands on the site: \_\_\_\_\_

Area of filled tidelands covered by buildings: \_\_\_\_\_

For portions of site on filled tidelands, list ground floor uses and area of each use:

\_\_\_\_\_ Does the project include new non-water-dependent uses located over flowed tidelands?

Yes \_\_\_ No \_\_\_

Height of building on filled tidelands \_\_\_\_\_

Also show the following on a site plan: Mean High Water, Mean Low Water, Water-dependent Use Zone, location of uses within buildings on tidelands, and interior and exterior areas and facilities dedicated for public use, and historic high and historic low water marks.

D. Is the project located on landlocked tidelands? \_\_\_ Yes \_\_\_ No; if yes, describe the project's impact on the public's right to access, use and enjoy jurisdictional tidelands and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

E. Is the project located in an area where low groundwater levels have been identified by a municipality or by a state or federal agency as a threat to building foundations? \_\_\_ Yes \_\_\_ No; if yes, describe the project's impact on groundwater levels and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

F. Is the project non-water-dependent **and** located on landlocked tidelands **or** waterways or tidelands subject to the Waterways Act **and** subject to a mandatory EIR? \_\_\_ Yes \_\_\_ No; (NOTE: If yes, then the project will be subject to Public Benefit Review and Determination.)

G. Does the project include dredging? \_\_\_ Yes \_\_\_ No; if yes, answer the following questions:  
 What type of dredging? Improvement \_\_\_ Maintenance \_\_\_ Both \_\_\_  
 What is the proposed dredge volume, in cubic yards (cys) \_\_\_\_\_

What is the proposed dredge footprint \_\_\_length (ft) \_\_\_width (ft)\_\_\_depth (ft);  
Will dredging impact the following resource areas?

Intertidal Yes\_\_\_ No\_\_\_; if yes, \_\_\_ sq ft

Outstanding Resource Waters Yes\_\_\_ No\_\_\_; if yes, \_\_\_ sq ft

Other resource area (i.e. shellfish beds, eel grass beds) Yes\_\_\_ No\_\_\_; if yes \_\_\_  
sq ft

If yes to any of the above, have you evaluated appropriate and practicable steps  
to: 1) avoidance; 2) if avoidance is not possible, minimization; 3) if either  
avoidance or minimize is not possible, mitigation?

If no to any of the above, what information or documentation was used to support  
this determination?

Provide a comprehensive analysis of practicable alternatives for improvement dredging in  
accordance with 314 CMR 9.07(1)(b). Physical and chemical data of the  
sediment shall be included in the comprehensive analysis.

Sediment Characterization

Existing gradation analysis results? \_\_\_Yes \_\_\_No: if yes, provide results.

Existing chemical results for parameters listed in 314 CMR 9.07(2)(b)6? \_\_\_Yes  
\_\_\_No; if yes, provide results.

Do you have sufficient information to evaluate feasibility of the following management  
options for dredged sediment? If yes, check the appropriate option.

Beach Nourishment \_\_\_

Unconfined Ocean Disposal \_\_\_

Confined Disposal:

Confined Aquatic Disposal (CAD) \_\_\_

Confined Disposal Facility (CDF) \_\_\_

Landfill Reuse in accordance with COMM-97-001 \_\_\_

Shoreline Placement \_\_\_

Upland Material Reuse\_\_\_

In-State landfill disposal\_\_\_

Out-of-state landfill disposal \_\_\_

(NOTE: This information is required for a 401 Water Quality Certification.)

#### IV. Consistency:

A. Does the project have effects on the coastal resources or uses, and/or is the project located  
within the Coastal Zone? \_\_\_ Yes\_\_\_No; if yes, describe these effects and the projects consistency  
with the policies of the Office of Coastal Zone Management:

B. Is the project located within an area subject to a Municipal Harbor Plan? \_\_\_ Yes\_\_\_No; if yes,  
identify the Municipal Harbor Plan and describe the project's consistency with that plan:

## WATER SUPPLY SECTION

### I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **water supply** (see 301 CMR 11.03(4))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **water supply**? \_\_\_ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Wastewater Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Water Supply Section below.

### II. Impacts and Permits

A. Describe, in gallons per day (gpd), the volume and source of water use for existing and proposed activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Municipal or regional water supply	_____	_____	_____
Withdrawal from groundwater	_____	_____	_____
Withdrawal from surface water	_____	_____	_____
Interbasin transfer	_____	_____	_____

*(NOTE: Interbasin Transfer approval will be required if the basin and community where the proposed water supply source is located is different from the basin and community where the wastewater from the source will be discharged.)*

B. If the source is a municipal or regional supply, has the municipality or region indicated that there is adequate capacity in the system to accommodate the project? \_\_\_ Yes \_\_\_ No

C. If the project involves a new or expanded withdrawal from a groundwater or surface water source, has a pumping test been conducted? \_\_\_ Yes \_\_\_ No; if yes, attach a map of the drilling sites and a summary of the alternatives considered and the results. \_\_\_\_\_

D. What is the currently permitted withdrawal at the proposed water supply source (in gallons per day)? \_\_\_\_\_ Will the project require an increase in that withdrawal? \_\_\_ Yes \_\_\_ No; if yes, then how much of an increase (gpd)? \_\_\_\_\_

E. Does the project site currently contain a water supply well, a drinking water treatment facility, water main, or other water supply facility, or will the project involve construction of a new facility? \_\_\_ Yes \_\_\_ No. If yes, describe existing and proposed water supply facilities at the project site:

	<u>Permitted Flow</u>	<u>Existing Avg Daily Flow</u>	<u>Project Flow</u>	<u>Total</u>
Capacity of water supply well(s) (gpd)	_____	_____	_____	_____
Capacity of water treatment plant (gpd)	_____	_____	_____	_____

F. If the project involves a new interbasin transfer of water, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or proposed?

G. Does the project involve:

1. new water service by the Massachusetts Water Resources Authority or other agency of the Commonwealth to a municipality or water district? \_\_\_ Yes \_\_\_ No
2. a Watershed Protection Act variance? \_\_\_ Yes \_\_\_ No; if yes, how many acres of alteration?

3. a non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking water supply for purpose of forest harvesting activities? \_\_\_ Yes \_\_\_ No

**III. Consistency**

Describe the project's consistency with water conservation plans or other plans to enhance water resources, quality, facilities and services:

## WASTEWATER SECTION

### I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wastewater** (see 301 CMR 11.03(5))?  Yes \_\_\_ No; if yes, specify, in quantitative terms:

ENF and Other MEPA Review if the Secretary So Requires:

- 11.03(5)(b)(4)(a): New discharge or expansion of discharge to a sewer system of 100,000 or more gpd of sewerage, industrial waste water or untreated stormwater.

B. Does the project require any state permits related to **wastewater**? \_\_\_ Yes  No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Transportation -- Traffic Generation Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wastewater Section below.

### II. Impacts and Permits

A. Describe the volume (in gallons per day) and type of disposal of wastewater generation for existing and proposed activities at the project site (calculate according to 310 CMR 15.00 for septic systems or 314 CMR 7.00 for sewer systems):

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge of sanitary wastewater	<u>0± GPD</u>	<u>110K GPD</u>	<u>110K GPD</u>
Discharge of industrial wastewater	<u>0 GPD</u>	<u>0 GPD</u>	<u>0 GPD</u>
TOTAL	<u>0± GPD</u>	<u>110K GPD</u>	<u>110K GPD</u>
	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge to groundwater	<u>0 GPD</u>	<u>0 GPD</u>	<u>0 GPD</u>
Discharge to outstanding resource water	<u>0 GPD</u>	<u>0 GPD</u>	<u>0 GPD</u>
Discharge to surface water	<u>0 GPD</u>	<u>0 GPD</u>	<u>0 GPD</u>
Discharge to municipal or regional wastewater facility	<u>0± GPD</u>	<u>110K GPD</u>	<u>110K GPD</u>
TOTAL	<u>0± GPD</u>	<u>110K GPD</u>	<u>110K GPD</u>

B. Is the existing collection system at or near its capacity?  Yes \_\_\_ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

The local sewer mains on the Project Site and in the adjacent streets are generally 6" and 8" clay lines which were intended for smaller residential flows. It is anticipated that the Resort Casino will construct an approximate 800-900 FT new main to better serve the immediate area and direct project flows to the City's sewer interceptor, near the westernmost intersection of West Street and Belmont Street.

C. Is the existing wastewater disposal facility at or near its permitted capacity? \_\_\_ Yes  No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

D. Does the project site currently contain a wastewater treatment facility, sewer main, or other wastewater disposal facility, or will the project involve construction of a new facility? \_\_\_ Yes  No; if yes, describe as follows:

	<u>Permitted</u>	<u>Existing Avg</u>	<u>Project Flow</u>	<u>Total</u>
		<u>Daily Flow</u>		

Wastewater treatment plant capacity  
(in gallons per day)

E. If the project requires an interbasin transfer of wastewater, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or new?  
(NOTE: Interbasin Transfer approval may be needed if the basin and community where wastewater will be discharged is different from the basin and community where the source of water supply is located.)

The Project will not require an interbasin transfer of wastewater.

F. Does the project involve new sewer service by the Massachusetts Water Resources Authority (MWRA) or other Agency of the Commonwealth to a municipality or sewer district? \_\_\_ Yes X No

G. Is there an existing facility, or is a new facility proposed at the project site for the storage, treatment, processing, combustion or disposal of sewage sludge, sludge ash, grit, screenings, wastewater reuse (gray water) or other sewage residual materials? \_\_\_ Yes X No; if yes, what is the capacity (tons per day):

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Treatment	_____	_____	_____
Processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

H. Describe the water conservation measures to be undertaken by the project, and other wastewater mitigation, such as infiltration and inflow removal.

By removing the old existing clay sewer mains throughout the Project Site and serving the Resort Casino with new watertight sewer mains, including a new municipal main to the nearby sewer interceptor, there will be a substantial reduction in infiltration entering the sewer system and being unnecessarily treated at Brockton’s wastewater treatment plant. Also, any identified on-site roof connections, catch basins, or other storm drainage sources will be disconnected from the sanitary collection system and routed to proper storm runoff discharge points. Additionally, design strategies will be incorporated under LEED objectives to promote smarter use of water, within the building and on-site, and to reduce potable water consumption. The goal will be to reduce potable water use, which thereby reduces the Resort Casino’s wastewater discharges.

**III. Consistency**

A. Describe measures that the proponent will take to comply with applicable state, regional, and local plans and policies related to wastewater management:

A Project objective will be to obtain LEED Gold Certification under the LEED BD+C . Under that objective, design strategies will be incorporated to promote smarter use of water, within the building and on-site, and to reduce wastewater generation.

B. If the project requires a sewer extension permit, is that extension included in a comprehensive wastewater management plan? \_\_\_ Yes X No; if yes, indicate the EEA number for the plan and whether the project site is within a sewer service area recommended or approved in that plan:

## TRANSPORTATION SECTION (TRAFFIC GENERATION)

### I. Thresholds / Permit

A. Will the project meet or exceed any review thresholds related to **traffic generation** (see 301 CMR 11.03(6))?  Yes \_\_\_ No; if yes, specify, in quantitative terms:

#### ENF & Mandatory EIR:

- 11.03(6)(a)(6): Generation of 3,000 or more new ADT on roadways providing access to a single location.
- 11.03(6)(a)(7): Construction of 1,000 or more new parking spaces at a single location.

#### ENF and Other MEPA Review if the Secretary So Requires:

- 11.03(6)(b)(13): Generation of 2,000 or more new adt on roadways providing access to a single location.
- 11.03(6)(b)(14): Generation of 1,000 or more new adt on roadways providing access to a single location and construction of 150 or more new parking spaces at a single location.
- 11.03(6)(b)(15): Construction of 300 or more new parking spaces at a single location.

B. Does the project require any state permits related to **state-controlled roadways**?  Yes \_\_\_ No; if yes, specify which permit:

- Highway Access Permit

C. If you answered "No" to both questions A and B, proceed to the **Roadways and Other Transportation Facilities Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Traffic Generation Section below.

### II. Traffic Impacts and Permits

A. Describe existing and proposed vehicular traffic generated by activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Number of parking spaces	<u>No Credit</u>	<u>+3,000±</u>	<u>+3,000±</u>
Number of vehicle trips per day			
Weekday:	<u>No Credit</u>	<u>+13,886±<sup>2</sup></u>	<u>+13,886±</u>
Friday:	<u>No Credit</u>	<u>+17,358±<sup>2</sup></u>	<u>+17,358±</u>
ITE Land Use Code(s):	<u>No Credit<sup>1</sup></u>	<u>Empirical Data + ITE LUC 310<sup>2</sup></u>	

<sup>1</sup>No credit is taken for existing site trips associated with seasonal and special events hosted at the Brockton Fair. The Fairgrounds are typically used seasonally for a 10 day period in July with several other special events hosted at the Project Site throughout the year.

<sup>2</sup>Estimated based on empirical trip data for casino gaming facilities located in the eastern United States and Illinois, including a Proponent-affiliated facility in Philadelphia, Pennsylvania. Projected trip generation is estimated using the average per-gaming-position trip rates which include activity associated with ancillary facilities such as restaurants and entertainment venues. As a conservative measure, trip rates published in ITE's *Trip Generation* for land use code (LUC) 330 *Resort Hotel* were used to estimate trips for the Project Site's ancillary amenities which include restaurants, up to a 300-room resort hotel with fitness center, spa and pool and a multi-function event and entertainment space. See Traffic Impact and Access Study in Appendix V.

B. What is the estimated average daily traffic on roadways serving the site?

<u>Roadway</u>	<u>Existing</u>	<u>Change</u>	<u>Total</u>
	(vehicle trips per day)		
<b><i>Weekday<sup>1</sup></i></b>			
1. <u>Belmont Street (west of West Street)</u>	<u>26,186±</u>	<u>+10,414±</u>	<u>36,600</u>
2. <u>Belmont Street (east of Fairgrounds Driveway)</u>	<u>23,214±</u>	<u>+2,084±</u>	<u>25,298</u>
3. <u>Forest Avenue (south of Memorial Drive)</u>	<u>19,342±</u>	<u>+694±</u>	<u>20,036</u>
4. <u>West Street (north of Torrey Street)</u>	<u>17,472±</u>	<u>+694±</u>	<u>18,166</u>
<b><i>Friday</i></b>			
1. <u>Belmont Street (west of West Street)</u>	<u>26,356±</u>	<u>+13,018±</u>	<u>39,374</u>
2. <u>Belmont Street (east of Fairgrounds Driveway)</u>	<u>23,586±</u>	<u>+2,604±</u>	<u>26,190</u>
3. <u>Forest Avenue (south of Memorial Drive)</u>	<u>23,028±</u>	<u>+868±</u>	<u>23,896</u>
4. <u>West Street (north of Torrey Street)</u>	<u>18,142±</u>	<u>+868±</u>	<u>19,010</u>

<sup>1</sup> Weekday daily projections for Site-generated trip increases represent an “average” condition under which daily trips are estimated to be 20 percent lower than peak Friday casino activity based on empirical data for other Proponent-affiliated casino facilities located in Pennsylvania and Illinois.

C. If applicable, describe proposed mitigation measures on state-controlled roadways that the project proponent will implement:

Proposed mitigation measures on state-controlled roadways are consistent with ongoing design efforts by MassDOT for Belmont Street as described in the TIAS found in Appendix V including signal equipment upgrades at the Belmont Street intersections with West Street/West Gate Plaza, Forest Avenue, and West Street. These signal upgrades and modifications are consistent with long-range improvements anticipated under MassDOT Project No. 608088 described in the TIAS. Signal operations would be coordinated among these three locations to maximize traffic efficiency along Belmont Street. The Proponent also commits to monitoring traffic volumes and signal operations at the signalized Belmont Street intersections at Manley Street, VA Hospital and Linwood Street/Lorraine Avenue following occupancy of the Resort Casino and to make any necessary signal timing/phasing modifications within a six month period following opening as necessary to ensure optimal operations during peak traffic hours.

D. How will the project implement and/or promote the use of transit, pedestrian and bicycle facilities and services to provide access to and from the project site?

Proposed access improvements along roadways adjacent to the property will be designed to meet Complete Streets standards including shoulders for bicycle accommodation, sidewalk reconstruction and signalized pedestrian crossings. Sidewalks within the Project Site will provide appropriate connections between the casino and hotel buildings and the public sidewalk system. Secure bicycle racks at appropriate on-site locations will also be provided. The Proponent will work with Brockton Area Transit (BAT) to evaluate the feasibility of incorporating the Project Site as a regular stop with an associated bus shelter. A shuttle bus loop serving the local community and BAT Centre is currently under evaluation. A more detailed description of transportation improvements is provided in the TIAS in Appendix V.

E. Is there a Transportation Management Association (TMA) that provides transportation demand management (TDM) services in the area of the project site? \_\_\_ Yes X No; if yes, describe if and how will the project will participate in the TMA:

F. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation facilities? \_\_\_\_ Yes X No; if yes, generally describe:

G. If the project will penetrate approach airspace of a nearby airport, has the proponent filed a Massachusetts Aeronautics Commission Airspace Review Form (780 CMR 111.7) and a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (FAA) (CFR Title 14 Part 77.13, forms 7460-1 and 7460-2)?

The Project will not penetrate or approach airspace of any airports.

### **III. Consistency**

Describe measures that the proponent will take to comply with municipal, regional, state, and federal plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services:

The Proponent will implement an Eight Million Six Hundred Thousand Dollar (\$8,600,000) roadway and signal improvement package that includes signal upgrades along Belmont Street east of Angus Beaton Drive that are consistent with long-range improvement objectives of MassDOT Project No. 608088 and corridor improvement initiatives outlined in the Old Colony Planning Council's Southwest Brockton Corridor Study for the Forest Avenue and West Street corridors. The design of improved roadways will incorporate Complete Streets design principles that include enhanced pedestrian sidewalks, signalized pedestrian crossings and shoulders for bicycle accommodation.

A number of TDM measures are being evaluated to reduce vehicle trips and encourage use of alternative travel modes by employees and patron. Measures include incorporating the Project Site as a stop on the existing Brockton Area Transit Authority (BAT) bus routes which currently provide service linking the adjacent area with Brockton's intermodal transit center (BAT Centre); potential shuttle bus loop between the Project Site and the BAT Centre; sidewalk and bicycle accommodation design features that provide a connection between on-site pedestrian walkways and the nearby walkways; and a host of additional measures that provide incentives for carpooling/ridesharing, low emission vehicle use, and utilization of public transportation.

A detailed description is provided in the TIAS, in Appendix V.

**TRANSPORTATION SECTION (ROADWAYS AND OTHER TRANSPORTATION FACILITIES)**

**I. Thresholds**

A. Will the project meet or exceed any review thresholds related to **roadways or other transportation facilities** (see 301 CMR 11.03(6))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **roadways or other transportation facilities**? \_\_\_ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Energy Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Roadways Section below.

**II. Transportation Facility Impacts**

A. Describe existing and proposed transportation facilities in the immediate vicinity of the project site:

B. Will the project involve any

1. Alteration of bank or terrain (in linear feet)? \_\_\_\_\_
2. Cutting of living public shade trees (number)? \_\_\_\_\_
3. Elimination of stone wall (in linear feet)? \_\_\_\_\_

**III. Consistency** -- Describe the project's consistency with other federal, state, regional, and local plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services, including consistency with the applicable regional transportation plan and the Transportation Improvements Plan (TIP), the State Bicycle Plan, and the State Pedestrian Plan:

## **ENERGY SECTION**

### **I. Thresholds / Permits**

A. Will the project meet or exceed any review thresholds related to **energy** (see 301 CMR 11.03(7))?  
\_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **energy**? \_\_\_ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Air Quality Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Energy Section below.

### **II. Impacts and Permits**

A. Describe existing and proposed energy generation and transmission facilities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Capacity of electric generating facility (megawatts)	_____	_____	_____
Length of fuel line (in miles)	_____	_____	_____
Length of transmission lines (in miles)	_____	_____	_____
Capacity of transmission lines (in kilovolts)	_____	_____	_____

B. If the project involves construction or expansion of an electric generating facility, what are:

1. the facility's current and proposed fuel source(s)?
2. the facility's current and proposed cooling source(s)?

C. If the project involves construction of an electrical transmission line, will it be located on a new, unused, or abandoned right of way? \_\_\_Yes \_\_\_No; if yes, please describe:

D. Describe the project's other impacts on energy facilities and services:

### **III. Consistency**

Describe the project's consistency with state, municipal, regional, and federal plans and policies for enhancing energy facilities and services:

## AIR QUALITY SECTION

### I. Thresholds

A. Will the project meet or exceed any review thresholds related to **air quality** (see 301 CMR 11.03(8))? \_\_\_ Yes **X** No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **air quality**? \_\_\_ Yes **X** No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Solid and Hazardous Waste Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Air Quality Section below.

### II. Impacts and Permits

A. Does the project involve construction or modification of a major stationary source (see 310 CMR 7.00, Appendix A)? \_\_\_ Yes \_\_\_ No; if yes, describe existing and proposed emissions (in tons per day) of:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Particulate matter	_____	_____	_____
Carbon monoxide	_____	_____	_____
Sulfur dioxide	_____	_____	_____
Volatile organic compounds	_____	_____	_____
Oxides of nitrogen	_____	_____	_____
Lead	_____	_____	_____
Any hazardous air pollutant	_____	_____	_____
Carbon dioxide	_____	_____	_____

B. Describe the project's other impacts on air resources and air quality, including noise impacts:

### III. Consistency

A. Describe the project's consistency with the State Implementation Plan:

B. Describe measures that the proponent will take to comply with other federal, state, regional, and local plans and policies related to air resources and air quality:

## **SOLID AND HAZARDOUS WASTE SECTION**

### **I. Thresholds / Permits**

A. Will the project meet or exceed any review thresholds related to **solid or hazardous waste** (see 301 CMR 11.03(9))? \_\_\_ Yes **X** No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **solid and hazardous waste**? \_\_\_ Yes **X** No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Historical and Archaeological Resources Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Solid and Hazardous Waste Section below.

### **II. Impacts and Permits**

A. Is there any current or proposed facility at the project site for the storage, treatment, processing, combustion or disposal of solid waste? \_\_\_ Yes \_\_\_ No; if yes, what is the volume (in tons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Treatment, processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

B. Is there any current or proposed facility at the project site for the storage, recycling, treatment or disposal of hazardous waste? \_\_\_ Yes \_\_\_ No; if yes, what is the volume (in tons or gallons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Recycling	_____	_____	_____
Treatment	_____	_____	_____
Disposal	_____	_____	_____

C. If the project will generate solid waste (for example, during demolition or construction), describe alternatives considered for re-use, recycling, and disposal:

D. If the project involves demolition, do any buildings to be demolished contain asbestos?  
\_\_\_ Yes \_\_\_ No

E. Describe the project's other solid and hazardous waste impacts (including indirect impacts):

### **III. Consistency**

Describe measures that the proponent will take to comply with the State Solid Waste Master Plan:

## **HISTORICAL AND ARCHAEOLOGICAL RESOURCES SECTION**

### **I. Thresholds / Impacts**

A. Have you consulted with the Massachusetts Historical Commission?  Yes \_\_\_ No; if yes, attach correspondence. For project sites involving lands under water, have you consulted with the Massachusetts Board of Underwater Archaeological Resources? \_\_\_ Yes \_\_\_ No; if yes, attach correspondence.

A Project Notification Form (PNF) was filed with the Massachusetts Historical Commission (MHC) on April 3, 2015 and on May 1, 2015 MHC provided a letter summarizing their findings. Copies of these two documents are included in Appendix IX.

B. Is any part of the project site a historic structure, or a structure within a historic district, in either case listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth?  Yes \_\_\_ No; if yes, does the project involve the demolition of all or any exterior part of such historic structure?  Yes \_\_\_ No; if yes, please describe:

The Resort Casino will involve the redevelopment of the Brockton Fairgrounds (Inventory # BRO.F). There are several existing buildings on-site that will be demolished, including the former Brockton Fairgrounds grandstands, numerous small wood framed concession stands, maintenance buildings, all somewhat altered, and some modern stables. The Brockton Fairgrounds Exhibition Hall (MHC # BRO.14), located on the adjacent parcel, is not within on the Project Site and will remain.

C. Is any part of the project site an archaeological site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? \_\_\_ Yes  No; if yes, does the project involve the destruction of all or any part of such archaeological site? \_\_\_ Yes \_\_\_ No; if yes, please describe:

D. If you answered "No" to all parts of both questions A, B and C, proceed to the **Attachments and Certifications** Sections. If you answered "Yes" to any part of either question A or question B, fill out the remainder of the Historical and Archaeological Resources Section below.

### **II. Impacts**

Describe and assess the project's impacts, direct and indirect, on listed or inventoried historical and archaeological resources:

The MHC response letter dated May 1, 2015 (MHC Response) states that "After review of the MHC files and the materials submitted, it has been determined that this project is unlikely to affect significant historic or archeological resources."

### **III. Consistency**

Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to preserving historical and archaeological resources:

In addition to the quote referenced in the Impacts Section above, the MHC response also states that "It is the opinion of the MHC staff that the Brockton Fairgrounds does not appear to meet the criteria of eligibility for listing in the State Register of Historic Places." Based on these findings, there are no known historical or archeological resources within the project boundaries that require preservation.

**CERTIFICATIONS:**

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

(Name) The Enterprise (Date) May 20, 2015

2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

**Signatures:**

5 May 2015 Charles Le Ray  
Date Signature of Responsible Officer  
or Proponent

5/5/2015 Stephen Martorano  
Date Signature of person preparing  
NPC (if different from above)

Charles Le Ray  
Dain, Torpy, Le Ray, Wiest & Garner, P.C.  
Name (print or type)

Stephen Martorano, P.E., LEED  
Name (print or type)

On behalf of:  
Mass Gaming & Entertainment, LLC  
Firm/Agency

Bohler Engineering  
Firm/Agency

900 N. Michigan Ave., Suite 1600  
Street

75 Federal Street, Suite 620  
Street

Chicago, IL 60611  
Municipality/State/Zip

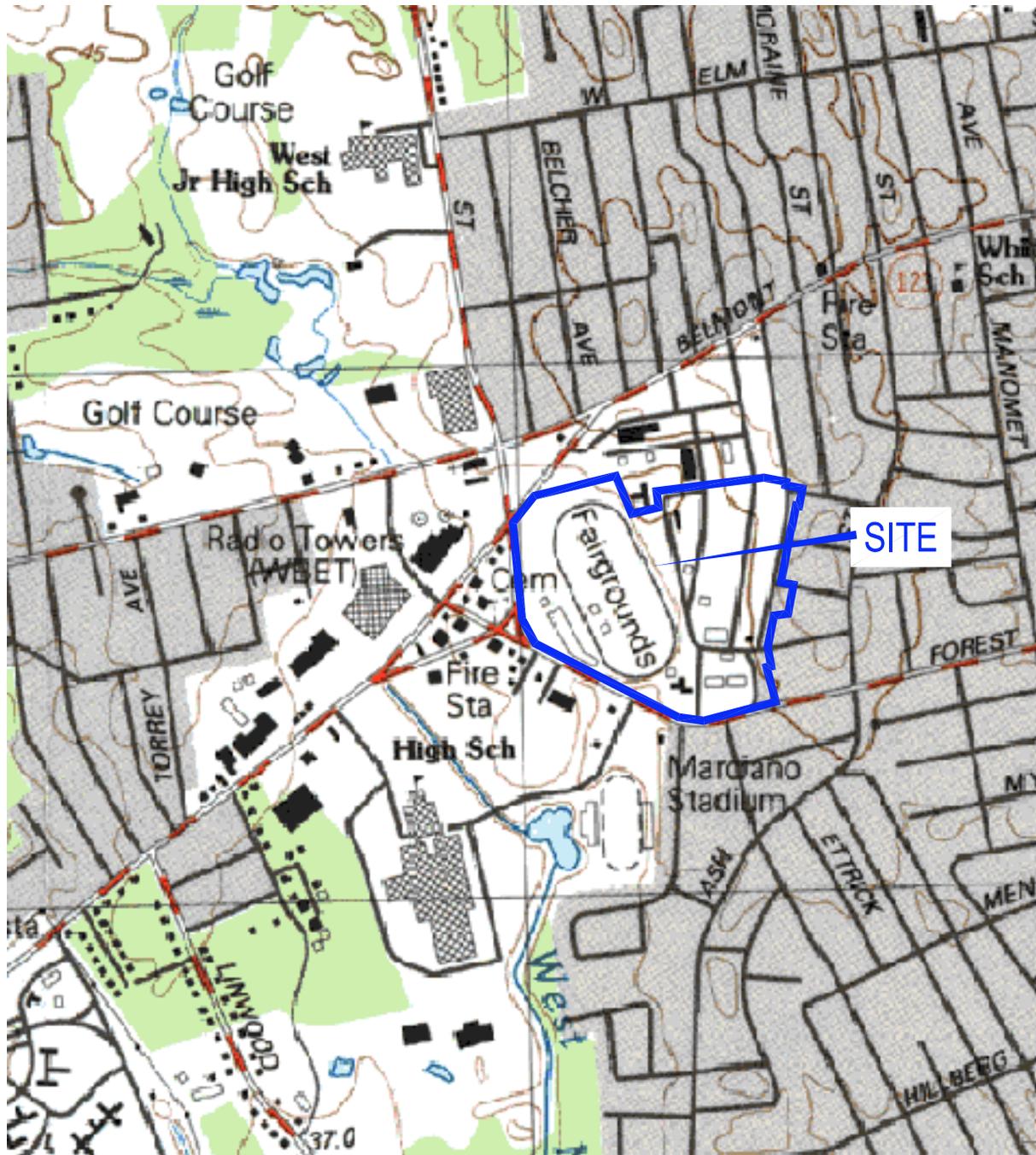
Boston, MA 02110  
Municipality/State/Zip

(312) 915-2791  
Phone

(617) 849-8040  
Phone

# APPENDIX I

## USGS SITE LOCATION MAP



SCALE: 1"=1000'  
PLAN REFERENCE: BROCKTON, MA USGS QUADRANGLE

PROJECT:

# USGS MAP

FOR

## MASS GAMING & ENTERTAINMENT, LLC

BELMONT STREET, WEST STREET, & FOREST AVENUE  
BROCKTON, PLYMOUTH COUNTY, MA



# BOHLER<sup>TM</sup>

## ENGINEERING

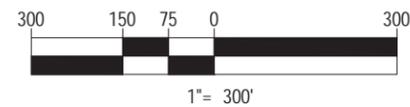
SITE CIVIL AND CONSULTING ENGINEERING  
LAND SURVEYING    PROGRAM MANAGEMENT    LANDSCAPE ARCHITECTURE  
SUSTAINABLE DESIGN    PERMITTING SERVICES    TRANSPORTATION SERVICES

- ◆ UPSTATE NEW YORK
- ◆ PHILADELPHIA, PA
- ◆ NORTHERN VIRGINIA
- ◆ NEW ENGLAND
- ◆ LEHIGH VALLEY, PA
- ◆ CENTRAL VIRGINIA
- ◆ BOSTON, MA
- ◆ SOUTHEASTERN, PA
- ◆ RALEIGH, NC
- ◆ NEW YORK METRO
- ◆ REHOBOTH BEACH, DE
- ◆ CHARLOTTE, NC
- ◆ NEW YORK, NY
- ◆ BALTIMORE, MD
- ◆ TAMPA, FL
- ◆ NEW JERSEY
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## APPENDIX II

### EXISTING & PROPOSED CONDITIONS PLANS



PROJECT:

## EXISTING CONDITIONS & LOCUS EXHIBIT

FOR

MASS GAMING & ENTERTAINMENT, LLC

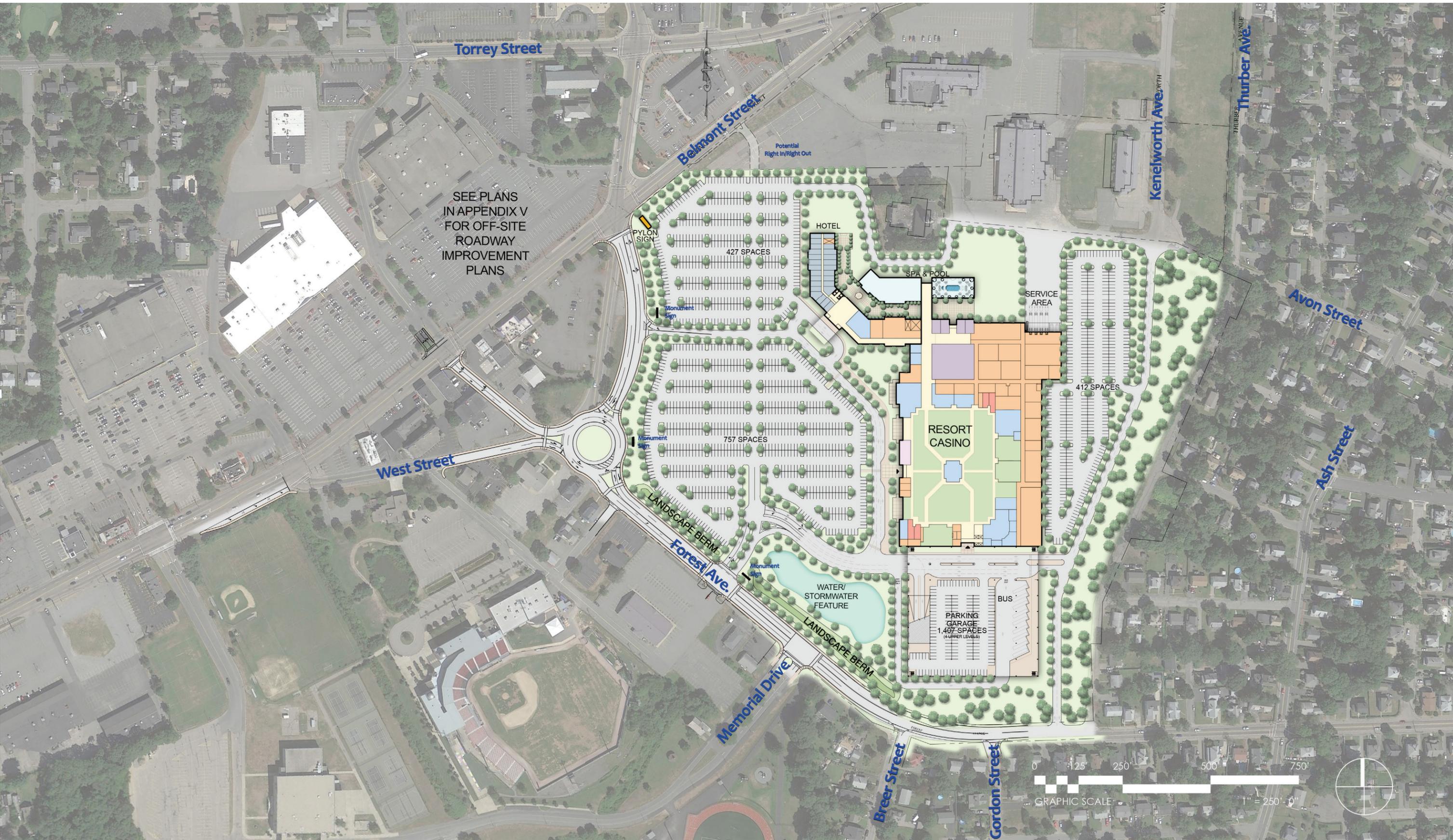
BELMONT STREET, WEST STREET, & FOREST AVENUE  
BROCKTON, PLYMOUTH COUNTY, MA



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ENGINEERING

- |                                       |                      |                         |
|---------------------------------------|----------------------|-------------------------|
| SITE CIVIL AND CONSULTING ENGINEERING |                      |                         |
| LAND SURVEYING                        | PROGRAM MANAGEMENT   | LANDSCAPE ARCHITECTURE  |
| SUSTAINABLE DESIGN                    | PERMITTING SERVICES  | TRANSPORTATION SERVICES |
| ◆ UPSTATE NEW YORK                    | ◆ PHILADELPHIA, PA   | ◆ NORTHERN VIRGINIA     |
| ◆ NEW ENGLAND                         | ◆ LEHIGH VALLEY, PA  | ◆ CENTRAL VIRGINIA      |
| ◆ BOSTON, MA                          | ◆ SOUTHEASTERN, PA   | ◆ RALEIGH, NC           |
| ◆ NEW YORK METRO                      | ◆ REHOBOTH BEACH, DE | ◆ CHARLOTTE, NC         |
| ◆ NEW YORK, NY                        | ◆ BALTIMORE, MD      | ◆ TAMPA, FL             |
| ◆ NEW JERSEY                          | ◆ SOUTHERN MARYLAND  | ◆ SOUTH FLORIDA         |

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Torrey Street

Belmont Street

Kenelworth Ave.

Thurber Ave.

Avon Street

Ash Street

Memorial Drive

Breer Street

Gordon Street

West Street

Forest Ave.

SEE PLANS  
IN APPENDIX V  
FOR OFF-SITE  
ROADWAY  
IMPROVEMENT  
PLANS

Potential  
Right In/Right Out

Pylon  
Sign

Monument  
Sign

Monument  
Sign

Monument  
Sign

HOTEL

SPA & POOL

SERVICE  
AREA

RESORT  
CASINO

WATER/  
STORMWATER  
FEATURE

PARKING  
GARAGE  
1,407 SPACES  
(4 UPPER LEVELS)

BUS

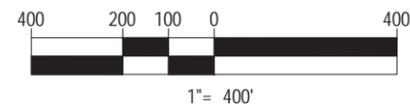
427 SPACES

757 SPACES

412 SPACES



APPENDIX III  
ENVIRONMENTAL CONSTRAINTS PLANS



PROJECT:

## ENVIRONMENTAL CONSTRAINTS PLAN

FOR  
MASS GAMING & ENTERTAINMENT, LLC

BELMONT STREET, WEST STREET, & FOREST AVENUE  
BROCKTON, PLYMOUTH COUNTY, MA



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◆ BOSTON, MA	◆ SOUTHEASTERN, PA	◆ RALEIGH, NC
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◆ NEW JERSEY	◆ BALTIMORE, MD	◆ TAMPA, FL
	◆ SOUTHERN MARYLAND	◆ SOUTH FLORIDA

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**LEGEND:**

 AREA OF CRITICAL ENVIRONMENTAL CONCERN  
(NONE SHOWN ON MAP EXTENTS)

SCALE: 1"=2000'  
SOURCE: MASSGIS (DEPARTMENT OF CONSERVATION & RECREATION)

PROJECT:

## AREAS OF CRITICAL ENVIRONMENTAL CONCERN MAP

— FOR —

**MASS GAMING & ENTERTAINMENT, LLC**

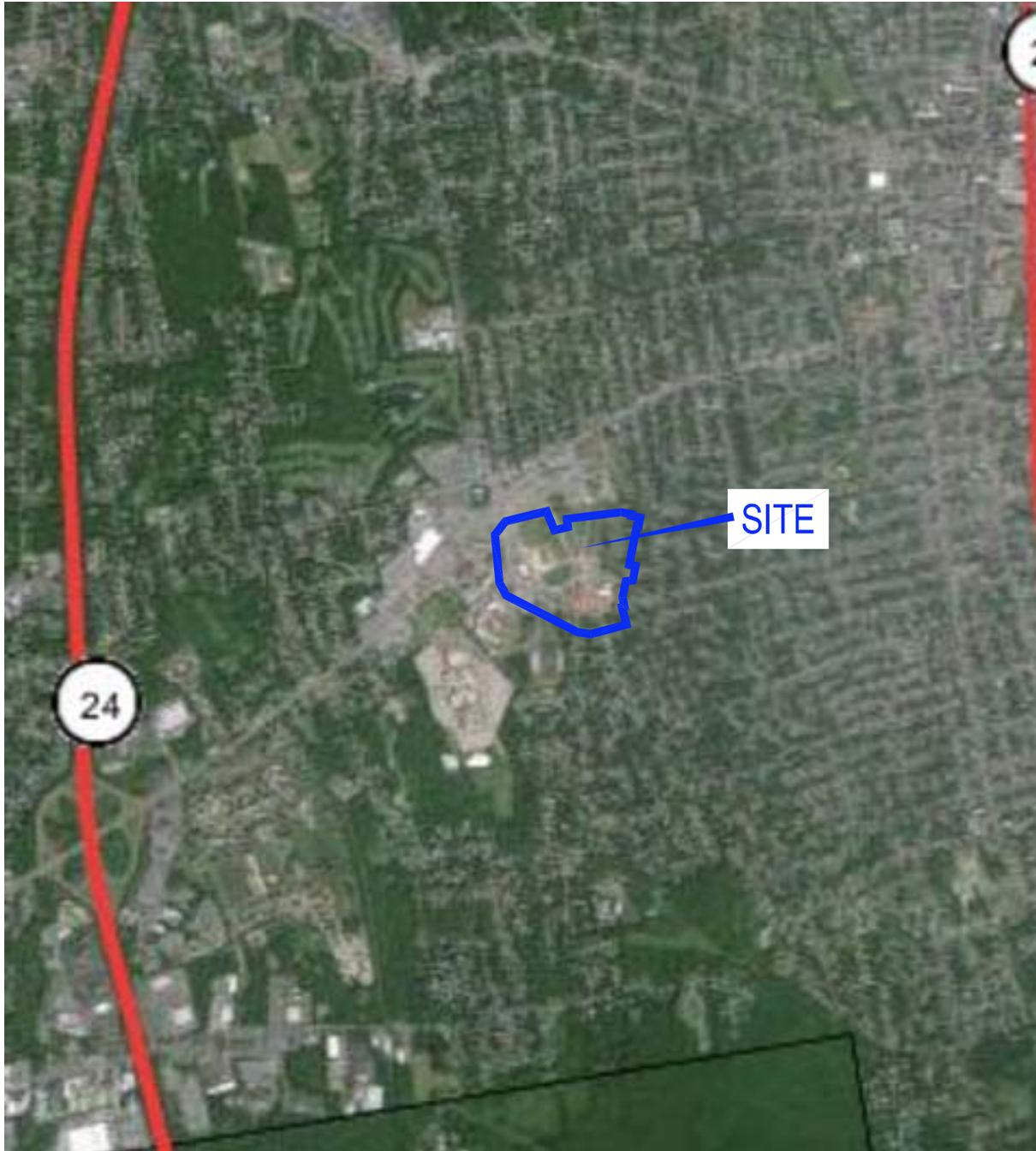
BELMONT STREET, WEST STREET, & FOREST AVENUE  
BROCKTON, PLYMOUTH COUNTY, MA



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- |   |   |   |
|---|---|---|
| <p>SITE CIVIL AND CONSULTING ENGINEERING</p> <p>LAND SURVEYING<br/>SUSTAINABLE DESIGN</p>   | <p>PROGRAM MANAGEMENT<br/>PERMITTING SERVICES</p>   | <p>LANDSCAPE ARCHITECTURE<br/>TRANSPORTATION SERVICES</p>   |
| <ul style="list-style-type: none"> <li>◆ UPSTATE NEW YORK</li> <li>◆ NEW ENGLAND</li> <li>◆ BOSTON, MA</li> <li>◆ NEW YORK METRO</li> <li>◆ NEW YORK, NY</li> <li>◆ NEW JERSEY</li> </ul> | <ul style="list-style-type: none"> <li>◆ PHILADELPHIA, PA</li> <li>◆ LEHIGH VALLEY, PA</li> <li>◆ SOUTHEASTERN, PA</li> <li>◆ REHOBOTH BEACH, DE</li> <li>◆ BALTIMORE, MD</li> <li>◆ SOUTHERN MARYLAND</li> </ul> | <ul style="list-style-type: none"> <li>◆ NORTHERN VIRGINIA</li> <li>◆ CENTRAL VIRGINIA</li> <li>◆ RALEIGH, NC</li> <li>◆ CHARLOTTE, NC</li> <li>◆ TAMPA, FL</li> <li>◆ SOUTH FLORIDA</li> </ul> |

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**LEGEND:**

-  NHESP ESTIMATED HABITATS OF RARE WILDLIFE (NONE SHOWN ON MAP EXTENTS)
-  NHESP PRIORITY HABITATS OF RARE SPECIES (NONE SHOWN ON MAP EXTENTS)

SCALE: 1"=2000'  
SOURCE: MASSGIS  
(NHESP 2008)

PROJECT:  
**NATURAL HERITAGE & ENDANGERED SPECIES (NHESP) MAP**  
 FOR  
**MASS GAMING & ENTERTAINMENT, LLC**  
 BELMONT STREET, WEST STREET, & FOREST AVENUE  
 BROCKTON, PLYMOUTH COUNTY, MA



## BOHLER<sup>TM</sup>

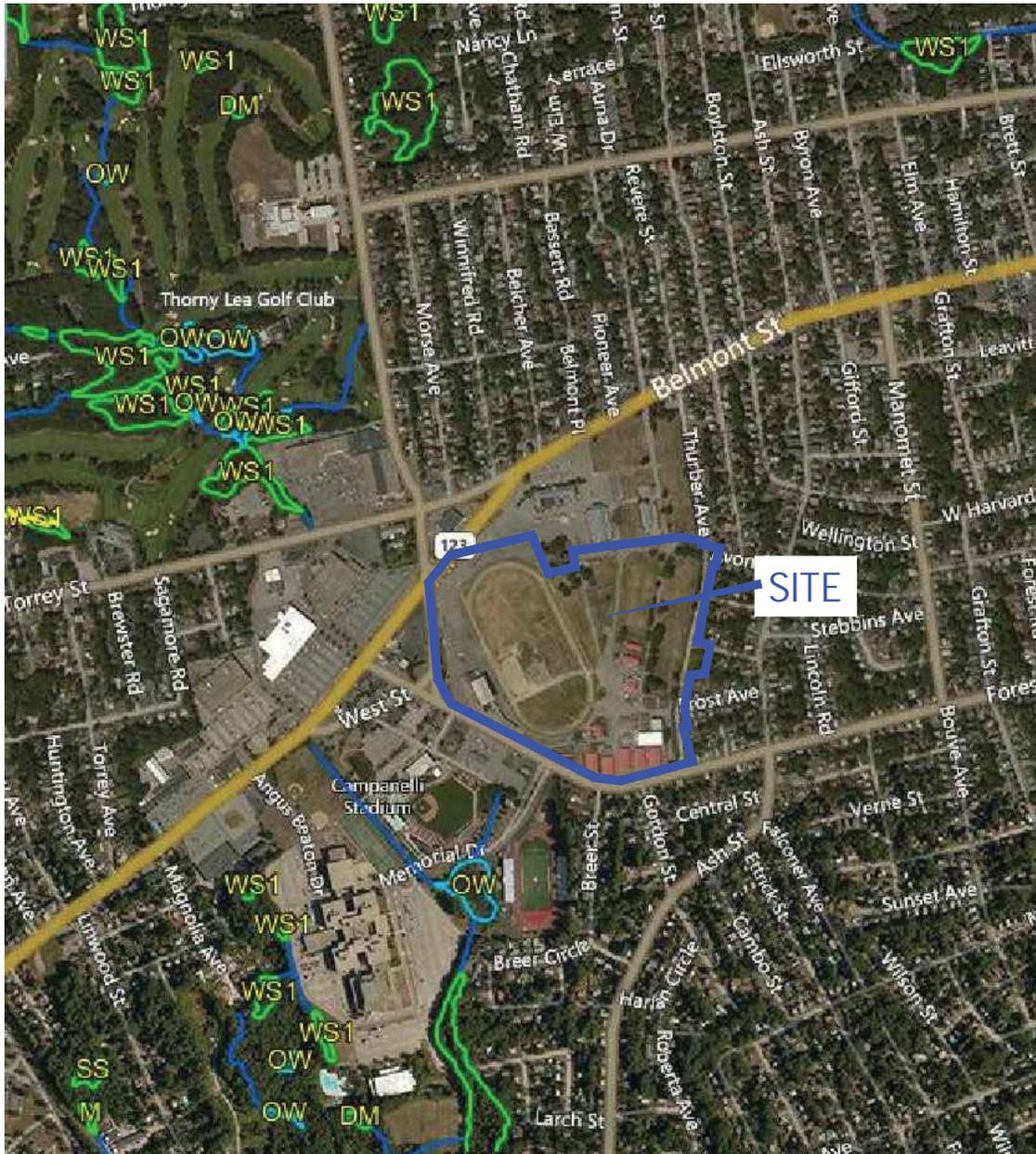
### ENGINEERING

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LAND SURVEYING	PROGRAM MANAGEMENT	LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN	PERMITTING SERVICES	TRANSPORTATION SERVICES

<ul style="list-style-type: none"> <li>◆ UPSTATE NEW YORK</li> <li>◆ NEW ENGLAND</li> <li>◆ BOSTON, MA</li> <li>◆ NEW YORK METRO</li> <li>◆ NEW YORK, NY</li> <li>◆ NEW JERSEY</li> </ul>	<ul style="list-style-type: none"> <li>◆ PHILADELPHIA, PA</li> <li>◆ LEHIGH VALLEY, PA</li> <li>◆ SOUTHEASTERN, PA</li> <li>◆ REHOBOTH BEACH, DE</li> <li>◆ BALTIMORE, MD</li> <li>◆ SOUTHERN MARYLAND</li> </ul>	<ul style="list-style-type: none"> <li>◆ NORTHERN VIRGINIA</li> <li>◆ CENTRAL VIRGINIA</li> <li>◆ RALEIGH, NC</li> <li>◆ CHARLOTTE, NC</li> <li>◆ TAMPA, FL</li> <li>◆ SOUTH FLORIDA</li> </ul>
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**LEGEND:**

- SHORELINE
- HYDROLOGIC CONNECTION
- APPARENT WETLAND LIMIT

**ABBREVIATIONS:**

- DM DEEP MARSH
- M SHALLOW MARSH, MEADOW, OR FEN
- OW OPEN WATER
- WS1 WOODED SWAMP DECIDUOUS

SCALE: 1"=1000'  
SOURCE: MASSDEP ONLINE MAP VIEWER

PROJECT:

## WETLAND MAP

— FOR —

### MASS GAMING & ENTERTAINMENT, LLC

BELMONT STREET, WEST STREET, & FOREST AVENUE  
BROCKTON, PLYMOUTH COUNTY, MA



# BOHLER

## ENGINEERING

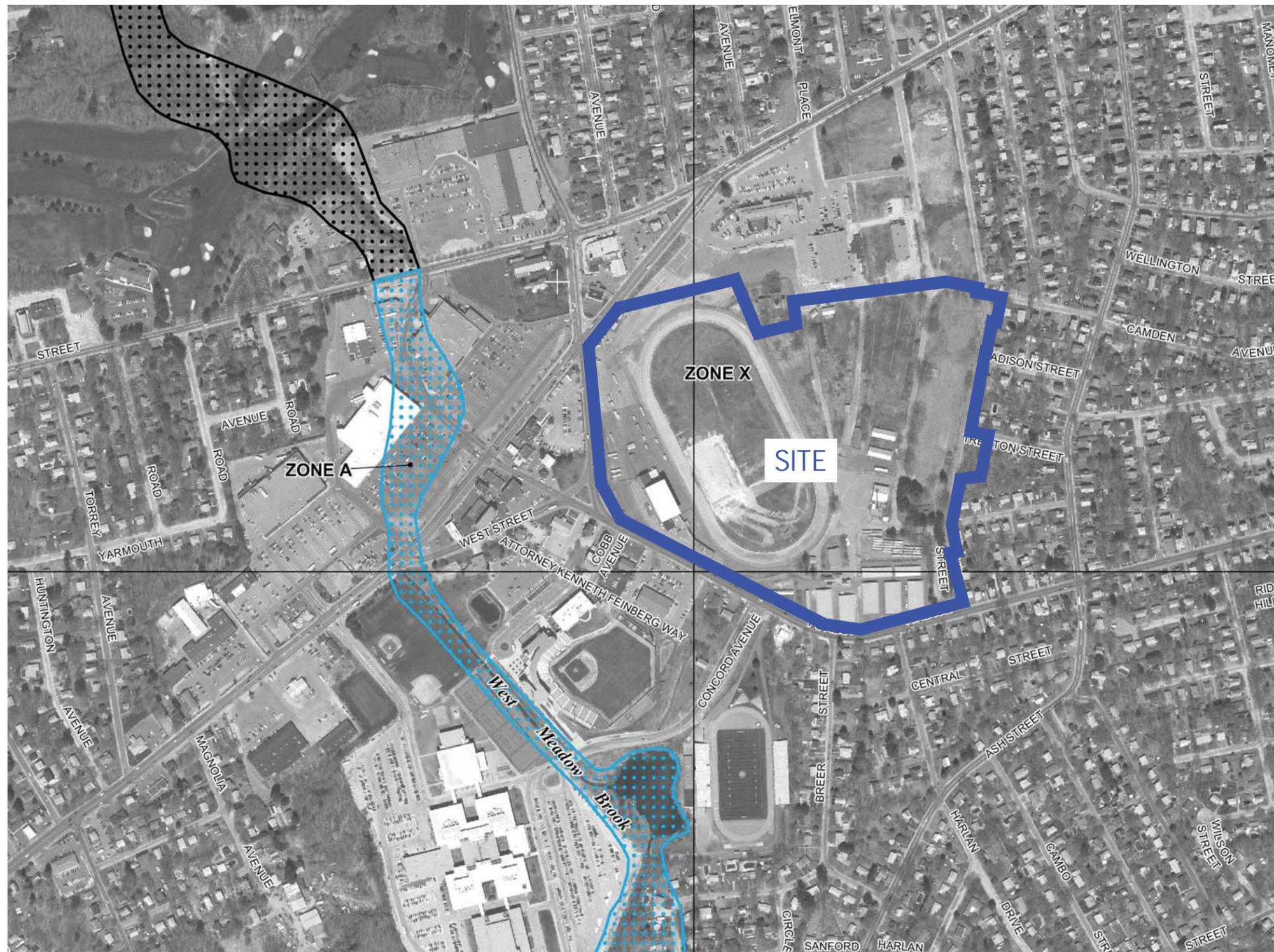
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SITE CIVIL AND CONSULTING ENGINEERING

LAND SURVEYING	PROGRAM MANAGEMENT	LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN	PERMITTING SERVICES	TRANSPORTATION SERVICES

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◆ NEW ENGLAND	◆ LEHIGH VALLEY, PA	◆ CENTRAL VIRGINIA
◆ BOSTON, MA	◆ SOUTHEASTERN, PA	◆ RALEIGH, NC
◆ NEW YORK METRO	◆ REHOBOTH BEACH, DE	◆ CHARLOTTE, NC
◆ NEW YORK, NY	◆ BALTIMORE, MD	◆ TAMPA, FL
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NFIP

PANEL 0158J

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**PLYMOUTH COUNTY,**  
**MASSACHUSETTS**  
**(ALL JURISDICTIONS)**

**PANEL 158 OF 650**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BROCKTON, CITY OF	250261	0158	J

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



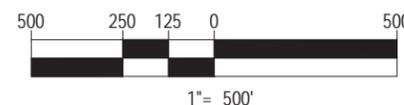
**MAP NUMBER**  
**25023C0158J**  
**EFFECTIVE DATE**  
**JULY 17, 2012**

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

LEGEND:

- ZONE A (100-YR FLOODPLAIN)
- ZONE X (OUTSIDE 500-YR FLOODPLAIN)



PROJECT:  
**FEDERAL EMERGENCY MANAGEMENT**  
**AGENCY (FEMA) FLOOD MAP**  
 FOR  
**MASS GAMING & ENTERTAINMENT, LLC**  
 BELMONT STREET, WEST STREET, & FOREST AVENUE  
 BROCKTON, PLYMOUTH COUNTY, MA

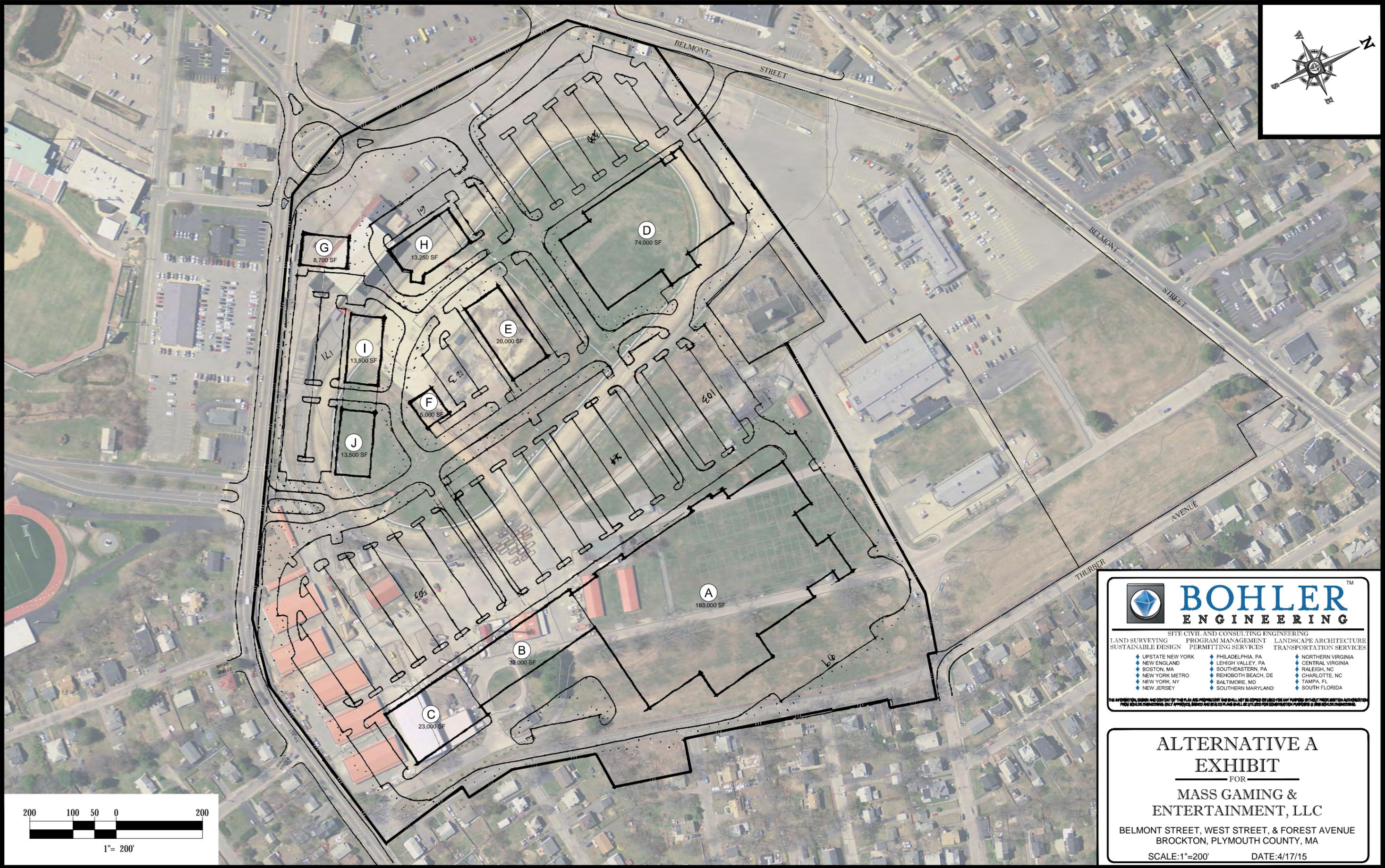
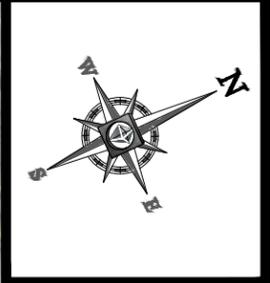
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APPENDIX IV  
ALTERNATIVES ANALYSIS PLANS



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SUSTAINABLE DESIGN    PERMITTING SERVICES    TRANSPORTATION SERVICES

◆ UPSTATE NEW YORK	◆ PHILADELPHIA, PA	◆ NORTHERN VIRGINIA
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◆ NEW YORK, NY	◆ BALTIMORE, MD	◆ TAMPA, FL
◆ NEW JERSEY	◆ SOUTHERN MARYLAND	◆ SOUTH FLORIDA

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**ALTERNATIVE A  
EXHIBIT**  
FOR  
**MASS GAMING &  
ENTERTAINMENT, LLC**

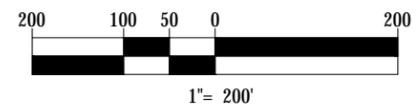
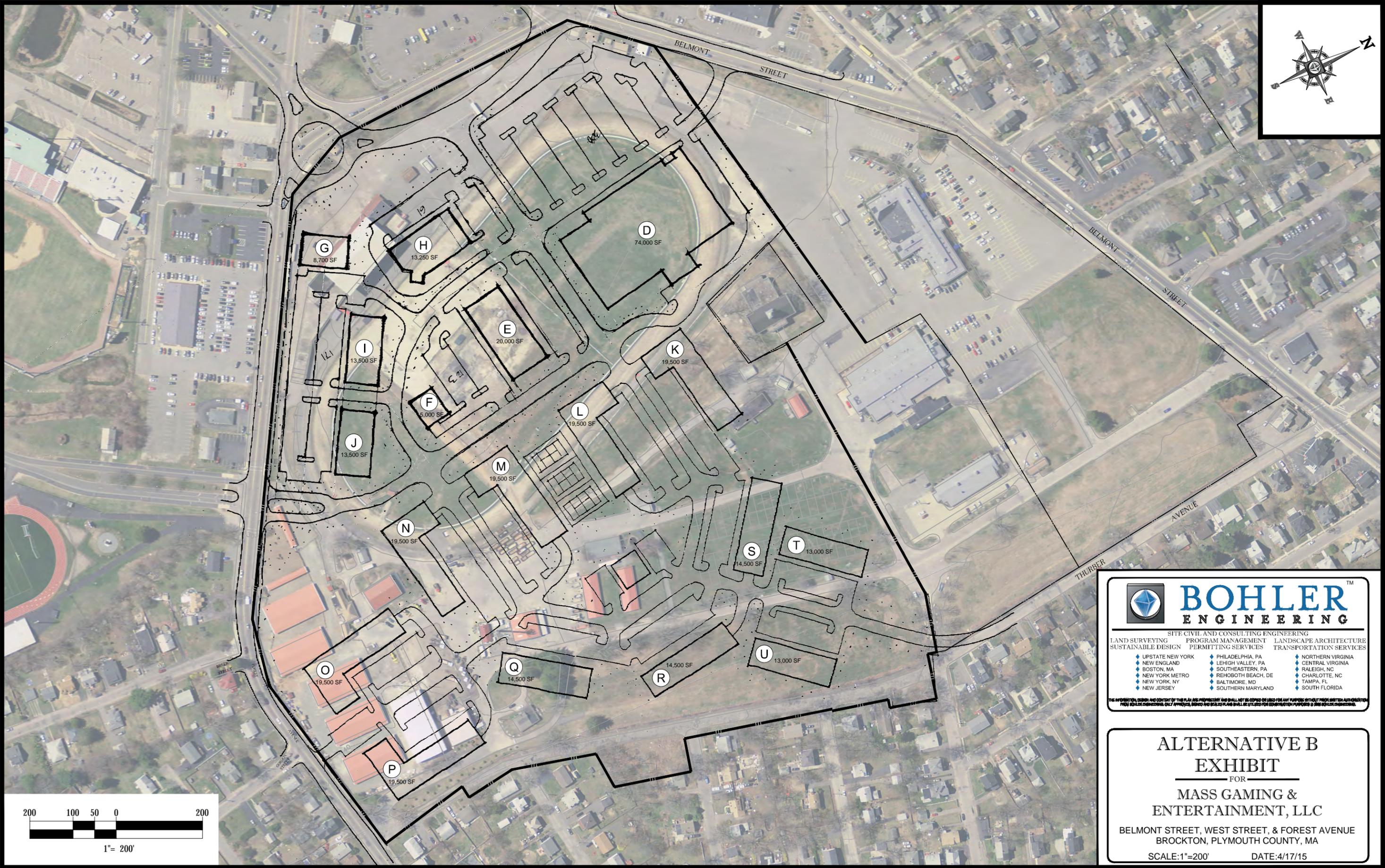
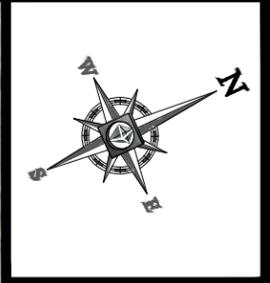
BELMONT STREET, WEST STREET, & FOREST AVENUE  
BROCKTON, PLYMOUTH COUNTY, MA

SCALE: 1"=200'      DATE: 4/17/15

**DEVELOPMENT SUMMARY - ALTERNATIVE A**

17-Apr-15

SYMBOL		G.S.F	Required Ratio		Spaces	Spaces
			Spaces	per x sf	Required	Provided
A	LARGE RETAIL	183,000	1.00	225	813	
B	SPECIALTY / INLINE RET.	32,000	1.00	225	142	
C	JUNIOR BOX	23,000	1.00	225	102	
<b>SUBTOTAL</b>		<b>238,000</b>			<b>1,058</b>	<b>1,071</b>
D	RETAIL STORE	74,000	1.00	225	329	338
E	JUNIOR BOX	20,000	1.00	225	89	123
F	PAD RETAIL	5,000	1.00	225	22	
G	PAD RETAIL	8,700	1.00	225	39	
H	PHARMACY	13,250	1.00	225	59	61
I	SPECIALTY / INLINE RET.	13,500	1.00	225	60	171
J	SPECIALTY / INLINE RET.	13,500	1.00	225	60	
<b>SUBTOTAL</b>		<b>147,950</b>			<b>658</b>	<b>693</b>
<b>TOTAL</b>		<b>385,950</b>			<b>1,715</b>	<b>1,764</b>



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 SUSTAINABLE DESIGN    PERMITTING SERVICES    TRANSPORTATION SERVICES

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◆ NEW JERSEY	◆ BALTIMORE, MD	◆ TAMPA, FL
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**ALTERNATIVE B  
EXHIBIT**  
FOR  
**MASS GAMING &  
ENTERTAINMENT, LLC**

BELMONT STREET, WEST STREET, & FOREST AVENUE  
BROCKTON, PLYMOUTH COUNTY, MA

SCALE: 1"=200'      DATE: 4/17/15

**DEVELOPMENT SUMMARY - ALTERNATIVE B**

17-Apr-15

SYMBOL		FOOTPRINT	G.S.F	Required Ratio		Spaces	Spaces
				Required	per unit	Required	Provided
<b>RESIDENTIAL</b>							
K	4-STORY RESIDENTIAL	19,500	78,000	1.5	60	90	126
L	4-STORY RESIDENTIAL	19,500	78,000	1.5	60	90	114
M	4-STORY RESIDENTIAL	19,500	78,000	1.5	60	90	114
N	4-STORY RESIDENTIAL	19,500	78,000	1.5	60	90	126
O	4-STORY RESIDENTIAL	19,500	78,000	1.5	60	90	114
P	4-STORY RESIDENTIAL	19,500	78,000	1.5	60	90	114
Q	4-STORY RESIDENTIAL	14,500	58,000	1.5	44	66	99
R	4-STORY RESIDENTIAL	14,500	58,000	1.5	44	66	89
S	4-STORY RESIDENTIAL	14,500	58,000	1.5	44	66	89
T	4-STORY RESIDENTIAL	13,000	52,000	1.5	39	59	78
U	4-STORY RESIDENTIAL	13,000	52,000	1.5	39	59	78
<b>SUBTOTAL</b>			746,000		570	855	1,141
<b>RETAIL</b>							
D	RETAIL STORE		74,000	1.00	225	329	338
E	JUNIOR BOX		20,000	1.00	225	89	123
F	PAD RETAIL		5,000	1.00	225	22	
G	PAD RETAIL		8,700	1.00	225	39	
H	PHARMACY		13,250	1.00	225	59	61
I	SPECIALTY / INLINE RET.		13,500	1.00	225	60	171
J	SPECIALTY / INLINE RET.		13,500	1.00	225	60	
<b>SUBTOTAL</b>			147,950			658	693
<b>TOTAL</b>			<b>893,950</b>			<b>1,513</b>	<b>1,834</b>

## APPENDIX V

### TRAFFIC IMPACT AND ACCESS STUDY\*

\*SUPPORTING TRAFFIC APPENDICES PROVIDED ON CD IN DIGITAL FORMAT. HARD COPIES AVAILABLE BY REQUEST AT [SMARTORANO@BOHLERENG.COM](mailto:SMARTORANO@BOHLERENG.COM). PRINTED APPENDICES PROVIDED WITH MEPA AND DOT FILINGS.

# TRAFFIC IMPACT AND ACCESS STUDY

## *Environmental Notification Form – Transportation Component*

### **PROPOSED CATEGORY 1 CASINO**

*Brockton Fairgrounds  
Brockton, Massachusetts*



*Prepared for:*  
**Mass Gaming & Entertainment, LLC**

**April 17, 2015**

TRAFFIC IMPACT AND ACCESS STUDY

*Environmental Notification Form – Transportation Component*

**PROPOSED CATEGORY 1 CASINO**

*Brockton Fairgrounds  
Brockton, Massachusetts*

*Prepared for:*  
Mass Gaming & Entertainment, LLC, Chicago, IL

*Prepared by:*  
MDM Transportation Consultants, Inc.  
28 Lord Road, Suite 280  
Marlborough, Massachusetts 01752  
Phone: (508) 303-0370  
Fax: (508) 303-0371

*April 17, 2015*

**MDM**

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---

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2	<i>Preliminary Site Layout</i>
3	<i>Existing Pedestrian Facilities</i>
4	<i>2015 Baseline Friday Evening Peak Hour Traffic Volumes</i>
5	<i>2015 Baseline Saturday Evening Peak Hour Traffic Volumes</i>
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7	<i>Area Road Improvement Initiatives</i>
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10	<i>Hourly Traffic Volumes – Belmont Street</i>
11	<i>Regional Trip Distribution Patterns</i>
12	<i>Local Trip Distribution Patterns</i>
13	<i>Site Generated Trips – Friday Evening Peak Hour</i>
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15	<i>2025 Build Friday Evening Peak Hour Traffic Volumes</i>
16	<i>2025 Build Saturday Evening Peak Hour Traffic Volumes</i>
17	<i>Conceptual Roadway and Access Improvement Plan</i>

## **TABLES**

---

<b>Number</b>	<b>Title</b>
1	<i>Baseline Roadway Traffic Volume Summary</i>
2	<i>Roadway Travel Speeds</i>
3	<i>Intersection Crash Summary</i>
4	<i>Empirical Trip Rates – Casino Gaming Facilities</i>
5	<i>Trip-Generation – Proposed Brockton Fairgrounds Casino</i>
6	<i>Regional Trip Distribution Patterns</i>
7	<i>Intersection Capacity Analysis Results – Friday Evening Peak Hour</i>
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10	<i>Vehicle Queue Analysis Summary – Friday Evening Peak Hour</i>
11	<i>Vehicle Queue Analysis Summary – Saturday Evening Peak Hour</i>
12	<i>Transportation Improvement Summary</i>

## *EXECUTIVE SUMMARY*

---

MDM Transportation Consultants, Inc. (MDM) has prepared this preliminary Traffic Impact and Access Study (TIAS) for the proposed Category 1 Casino to be located at the Brockton Fairgrounds site along Belmont Street in Brockton, Massachusetts. This preliminary TIAS provides an initial planning framework for transportation and access improvements necessary to support the project and to inform transportation-related discussions under the local host community agreement process.

This report documents existing operational and safety-related characteristics of roadways serving the development Site, estimates future year operating characteristics of these roadways independent of the development, estimates development-related trip generation, and identifies incremental impacts of Site-related traffic. Access improvements are identified for the development to meet operational needs of the Site and the adjacent roadways under future year (10-year horizon) Build conditions. In addition to traffic, an inventory of existing and proposed public transportation routes and facilities is provided to facilitate development of non-auto transportation programming for the proposed facility.

This TIAS has been prepared in general accordance with traffic study guidelines as jointly issued by the Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs/Massachusetts Department of Transportation (EEA/MassDOT). The study parameters include study intersections which are the primary gateways serving the Site as well as locations included as part of the recently completed Southwest Brockton Corridor Study prepared by the Old Colony Planning Council.

## E.1 PROJECT DESCRIPTION

The Site is located at the Brockton Fairgrounds which includes approximately 45 acres with frontage along Belmont Street, West Street, and Forest Avenue. The Site is located approximately 1.5 miles east of Route 24 (Exit 17 onto Route 123). The proximity of the Site and the study intersections in relation to the regional transportation system is shown in **Figure 1**.

For purposes of this TIAS, the proposed Site programming is assumed to consist of re-developing the Brockton Fairgrounds for a Category 1 Casino with 3,000± gaming positions. Ancillary amenities are assumed to include restaurants, a 300-room<sup>1</sup> resort hotel with fitness center, spa and pool and 25,000± of multi-function event and entertainment space. On-Site parking is planned to include a total of 3,000± parking spaces split between surface and structured parking and the casino will have a fully staffed valet service.

Public transportation routes are available in the area to facilitate non-auto access options; the Proponent will coordinate with the Brockton Area Transit Authority (BAT) to evaluate integrating the Site as a stop on the BAT routes which includes a connection to the BAT Intermodal Transit Centre.

Planned access improvements are informed by area transportation initiatives by MassDOT and the City of Brockton, including recommendations identified in the recently completed *Southwest Brockton Corridor Study* prepared by the Old Colony Planning Council (OCPC). Proposed access/egress improvements for the Site include reconstruction of West Street at Forest Avenue to include a modern roundabout, thereby enhancing traffic capacity and reduced vehicle conflicts in the Site vicinity; widening of Forest Avenue and signaling the primary Site access/egress driveway and the Memorial Drive intersections; and widening of West Street east of Forest Avenue to provide a secondary (unsignalized) driveway for the Site. The existing unsignalized Site access along Belmont Street opposite Kenelworth Avenue is assumed to serve as an employee/service way.

## E.2 STUDY AREA

This TIAS evaluates transportation characteristics of roadways and intersections that provide a primary means of access to the Site, and that are likely to sustain a measurable level of traffic impact from the development, including locations recently evaluated by the Old Colony Planning Council as part of the *Southwest Brockton Corridor Study*. The study includes the following intersections serving the Site as shown in **Figure 1**:

- 1 - Belmont Street at Manley Street (Signalized)
- 2 - Belmont Street at VA Hospital/ Belmont Court (Signalized)
- 3 - Belmont Street at Linwood Street/ Lorraine Avenue (Unsignalized)

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<sup>1</sup> Current programming for the casino site includes a 225-room hotel; a 300-room hotel scenario is presented in this TIAS to provide a conservative analysis condition.

- 4 - Belmont Street at Belmont West Plaza/ Angus Beaton Drive (Signalized)
- 5 - Belmont Street at Westside Plaza/ West Street (Signalized)
- 6 - Belmont Street at Westside Plaza/ Forest Avenue (Signalized)
- 7 - Belmont Street at West Street (Signalized)
- 8 - Belmont Street at Torrey Street (Signalized)
- 9 - Belmont Street at Fairgrounds Driveway/ Kenelworth Avenue (Unsignalized)
- 10 - West Street at Torrey Street (Signalized)
- 11 - West Street at Forest Avenue – Four Way Intersection (Unsignalized)
- 12 - West Street at Forest Avenue – Three Way Intersection (Unsignalized)
- 13 - Forest Avenue at Memorial Drive (Future Signalized)
- 14 - Forest Avenue at Ash Street (Signalized)
- 15 - Forest Avenue at Manomet Street/ Bouve Avenue (Signalized)
- 16 - Forest Avenue at Warren Avenue (Signalized)
- 17 - Forest Avenue at Main Street/ Martin Place (Future Signalized)
- 18 - Route 24 Southbound Ramps at Belmont St (Unsignalized)
- 19 - Route 24 Northbound Ramp at Belmont St (Unsignalized)
- 20 - West Street at Proposed Casino Driveway (Unsignalized)
- 21 - Forest Avenue at Proposed Primary Site Drive (Future Signalized)

### E.3 SUMMARY OF ANALYSIS AND FINDINGS

A principal finding of the TIAS is that traffic flow and pedestrian conditions along the Belmont Street and Forest Avenue corridors in the study area, even with additional casino traffic, will improve relative to today's existing conditions following implementation of a \$6.5 Million roadway improvement package currently underway by MassDOT and as a result of an additional \$8.6 Million roadway improvement package proposed by the casino Proponent.

Traffic generation for the proposed Category 1 Casino is developed based on empirical trip generation rates for similar gaming facilities located in the United States, including available documented trip data for casino facilities that are located in the eastern United States. Review of all available empirical data, including data for a similar venue casino that is owned and operated by the Proponent's affiliate, resulted in selection of a trip rate that is consistent with those accepted for other similar gaming facilities in Massachusetts. On this basis, the proposed casino development is estimated to generate approximately 1,107 vehicle trips during the Friday evening peak hour (483 entering and 624 exiting) and 1,411 vehicle trips during the Saturday evening peak hour (686 entering and 725 exiting). This trip estimate does not reflect the potential for "shared" trips between the casino and hotel components, which results in a conservative estimate of traffic activity for the Site. Also noteworthy is that casino trip generation during most weekdays (Monday through Thursday) is expected to be up to 30 percent lower than these projections based on the Proponent's operational data for its other affiliated casino facilities.

The proximity of the Site to various regional highways and detailed review and inventory of available local routes serving the Site indicates that patron trips will be principally oriented to

the Route 24 Corridor via Belmont Street (78%), with a smaller percentage oriented to/from the east via local roadways, which reflects the likelihood that the majority of employee trips will be generated from within to the local community based on a local hiring preference.

Independent of the Category 1 Casino, MassDOT is undertaking \$6.5 Million in roadway, signal and pedestrian improvements along the Belmont Street corridor between Route 24 and Angus Beaton Drive in 2015/2016 that will enhance safety, capacity and pedestrian/bicycle accommodations. In addition to these funded MassDOT improvements, the Proponent will implement an estimated \$8.6 Million package of roadway and traffic signal improvements along portions of Belmont Street and Forest Avenue; these proposed improvements are consistent with planned improvements by MassDOT and recommendations cited in the Southwest Brockton Corridor Study but for which no funding currently exists.

Key findings of capacity analysis indicate the following:

- *The Belmont Street corridor currently experiences traffic operating and pedestrian safety deficiencies at numerous intersections that are the focus of funded improvements by MassDOT.*
  - The Belmont Street intersections at Manley Street, Lorraine Street, Linwood Street, and West Street currently experience long delays (LOS F conditions), long vehicle queues and/or high crash rates. Contributing factors include the lack of exclusive turn lanes at some locations, inefficient traffic signal phasing/timing, a lack of appropriate roadway shoulders and lack of appropriate pedestrian crossings and associated traffic controls.
- *Following implementation of \$6.5 Million roadway and signal upgrades by MassDOT, Belmont Street traffic operations will be below capacity (LOS C operation or better).*
  - MassDOT-sponsored improvements along Belmont Street between Route 24 and Angus Beaton Drive (study intersections 1 through 6) as described under Section 3.1 are currently underway and will be in place prior to casino operations. These improvements will enhance traffic flow along the corridor by adding turn lanes at major intersections and implementing coordinated signal operation. Enhanced pedestrian safety will result from new signal-controlled pedestrian crossings, improved sidewalks and a wider roadway that includes 4-foot wide shoulders.
- *Following implementation of an additional \$8.6 Million of roadway and signal improvements by the Proponent, traffic operations during weekday evening peak hours and will also continue to operate below capacity at LOS C operation with the additional Casino traffic.*
  - Proponent-sponsored improvements along Belmont Street east of Angus Beaton Drive to West Street are consistent with planned (long-range) improvements by

MassDOT, with traffic operations along Belmont Street of LOS C or better operation with additional casino traffic.

- Signals at Belmont Street intersections with West Street/Plaza Drive, Forest Avenue and West Street will be modified and upgraded by the casino Proponent to provide coordinated control, consistent with MassDOT's planned long-range improvements (intersections 5, 6 and 7). These upgrades represent a component of the \$8.6 Million improvement package by the Proponent.
- *Forest Avenue traffic operations indicate several intersections that currently operate at LOS F (failing conditions) and/or that have high crash rates that are planned for improvement but are not funded at this time. The casino proponent will work with the City of Brockton to advance improvements along Forest Avenue as a component of the \$8.6 Million improvement package that are consistent with recommendations of the Southwest Brockton Corridor Study that results in improved operation (LOS C or better operations) with additional casino traffic.*
  - Locations along Forest Avenue are currently subject to failing operation and long delays (LOS F conditions) include West Street, Memorial Drive, Manomet Street and Main Street. Proposed access improvements and implementation of new signals or upgraded signal equipment along Forest Avenue as described under Section 5.0 will result in traffic operations of LOS C or better at these failing locations with additional casino traffic.
  - Pedestrian infrastructure will be improved along Forest Avenue by the Proponent to enhance safety including: new sidewalks on both sides of the road along the Site frontage; roadway shoulders for bicycle accommodation; signal controlled pedestrian crossings at new signalized intersections of Memorial Drive, the Site driveway and Main Street; pedestrian crossings and refuge islands at the proposed roundabout; and upgraded pedestrian crossings at upgraded signalized intersections including Ash Street, Manomet Street and Warren Avenue.

In summary, completion of ongoing corridor improvements by MassDOT and additional Proponent-sponsored improvements along Belmont Street and Forest Avenue as described under Section 5.0 *Conclusions and Recommendations* result in traffic operations of LOS C or better at all primary signalized study locations and enhanced pedestrian safety. These improvements directly address today's capacity needs independent of the casino, resulting in efficient traffic flow and pedestrian accommodation in the area with the casino traffic and effectively advancing needed improvements that are not likely to otherwise occur in the near future.

## E.4 RECOMMENDATIONS

Roadway improvements that support projected traffic increases associated with the proposed Category 1 Casino are identified to mitigate project-related traffic impacts, address access needs for the Site and that enhance pedestrian safety and accommodation. In addition, non-auto transportation programming is proposed to integrate the Site with various bus and rail transportation options serving the area. Specific improvements include (a) access-related improvements, (b) off-site improvements, (c) non-auto transportation programming; and (d) transportation demand management. The mitigation commitments by the Proponent will be further refined as the project undergoes the local and state (MEPA) review process.

### SITE ACCESS IMPROVEMENTS

Site access improvements are proposed by the Proponent to support the casino operations, but that also serve to advance improvement initiatives along Belmont Street identified in the MassDOT Project No. 608088 and along Forest Avenue as identified in the Southwest Brockton Corridor Study.

#### **A: Site Access Improvements: West Street & Forest Avenue**

Proposed site access improvements along Forest Avenue and West Street will enhance traffic flow and reduce vehicle conflicts relative to existing conditions and include pedestrian and bicycle design features that facilitate walking access to/from the Site and vicinity. These roadway improvements will follow MassDOT "Complete Streets" design standards that are contemplated as part of the currently ongoing Belmont Street corridor improvement projects being undertaken by MassDOT, and that advance recommended improvements identified in the *Southwest Brockton Corridor Study*.

Primary site access/egress is proposed along Forest Avenue opposite the Brockton Registry of Motor Vehicles (Intersection 21). Secondary site access/egress is proposed via a driveway connection to West Street (Intersection 20) which will restrict egress movements to right turn movements to minimize conflict points along West Street. To provide improved traffic operations in the immediate area, a modern roundabout is proposed at the Forest Avenue intersection with West Street as well as the relocation and conversion of roadway segments to one-way travel. Primary access improvement features are depicted on the conceptual design plan in Section 5.0 with primary features as follows:

- *Modern Roundabout.* A two-lane modern roundabout is contemplated at the Forest Avenue intersection with West Street (Intersections 11 & 12). The roundabout is proposed to be designed for three-legged operation, under which a portion of West Street between Feinberg Way and Forest Avenue will be converted to one-way (eastbound) traffic flow toward the roundabout and the portion of Forest Avenue between West Street and Belmont Street will be converted to one way traffic flow (northbound) away from the roundabout. The easterly segment of West Street will be re-aligned and widened to provide a 4 travel lanes. All roundabout improvements and associated widening will be on property under control of the Proponent and/or within City jurisdiction.
  
- *Forest Avenue Widening.* Forest Avenue will be widened to a four lane cross-section between the proposed modern roundabout and Memorial Drive. These roadway improvements will follow MassDOT “Complete Streets” design standards and will include shoulders for bicycle accommodation, and ADA-compliant sidewalks and crossings. This cross-section will allow adequate capacity that serves the casino’s primary driveway which will accommodate approximately 60% of patron trips, thereby reducing impact to Belmont Street to the east of West Street/Plaza Drive.
  
- *Site Drive Signal.* Install a fully actuated traffic signal and associated pedestrian control equipment at the intersection of the Forest Avenue/Primary Site Driveway (Intersection 21). This signal will provide capacity to accommodate existing traffic flow and additional turning traffic for the casino and will operate in coordination with a traffic signal at Memorial Drive as outlined below.
  
- *Memorial Drive Signal.* Install a fully actuated traffic signal and associated pedestrian control equipment at the intersection of the Forest Avenue/Memorial Drive (Intersection 13). This signal has been identified as a recommended improvement in the *Southwest Brockton Corridor Study* that is currently warranted independent of the proposed casino.
  
- *West Street Widening & Realignment.* The existing 2-lane alignment of West Street between Belmont Street and Forest Avenue (east of Forest Avenue) will be re-aligned on property controlled by the Proponent and widened to provide a 4-lane cross-section. This will allow proper roadway alignment and separation of traffic movements at the modern roundabout and lane capacity to accommodate existing traffic flow and additional turning traffic for the casino.
  
- *West Street Driveway.* Proposed site egress to West Street will be restricted to right-turn movements by a raised, landscaped island to minimize conflict points along West Street. This driveway is expected to accommodate approximately 19% to 24% of casino patron traffic based on orientation of parking at the Site.

- *Forest Avenue One-Way Conversion.* The portion of Forest Avenue between West Street and Belmont Street will be converted to one-way northbound traffic flow to accommodate existing traffic flow patterns headed toward the West Gate Plaza and the primary outbound (exiting) traffic flow for the casino. This will allow for dual left-turn capability onto Belmont Street and efficient signal operations under Build traffic conditions. This will require modification of the lanes opposite Forest Avenue at the plaza driveway to provide dual left-turns, and will re-distribute trips currently using Forest Avenue southbound from the plaza to the re-aligned and expanded West Street.
  
- *West Street One-Way Conversion.* The portion of West Street between Feinberg Way and Forest Avenue will be converted to one-way (eastbound) traffic flow toward the modern roundabout. This orientation will retain the two-way flow along the remaining portion of West Street between Belmont Street and Feinberg Way to accommodate the existing fire station access/circulation and traffic flow associated with the sports stadium activities. To facilitate access onto West Street from Belmont Street, the existing eastbound right-turn lane will be expanded (lengthened), requiring an adjustment of the roadway right-of-way onto property owned by the City.
  
- *Belmont Street Signal Modifications.* Signal equipment, signal timing and signal phasing modifications will be implemented at the Belmont Street intersections with West Street/West Gate Plaza, Forest Avenue, and West Street. These signal upgrades and modifications are subject to MassDOT permitting but are consistent with anticipated long-range improvements that would be included under the MassDOT Project No. 608088 described under Section 3.1, and recommended improvements identified in the *Southwest Brockton Corridor Study* independent of the casino. Signal operations would be coordinated among these three locations to maximize traffic efficiency along Belmont Street.

With these access improvements in place, capacity analyses indicate that intersections serving the Site will operate below capacity at LOS C or better during peak hours.

## OFF-SITE TRANSPORTATION IMPROVEMENTS

### **B: Forest Avenue Signal Improvements**

The *Southwest Brockton Corridor Study* identifies traffic signal improvements and upgrades along the Forest Avenue corridor that are warranted under existing conditions independent of the proposed casino development. Although the Forest Avenue corridor is not expected to serve as a primary travel route to/from the casino and will sustain only modest traffic impact as a result, the Proponent will work with the City of Brockton to implement new signal control at Main Street and upgrades to existing signals at Ash Street, Manomet Street and Warren Avenue to enhance capacity and to meet current ADA requirements. These improvements will result in a notable reduction in delays with projected operations of LOS C or better with additional casino traffic – thereby eliminating failing conditions (LOS F) that currently exist for several of these intersections.

### **C: Belmont Street Signal Optimization**

The casino Proponent commits to monitoring traffic volumes and signal operations at the signalized Belmont Street intersections at Manley Street, VA Hospital and Linwood Street/Lorraine Avenue within 6 months of casino occupancy and to make any necessary signal timing/phasing modifications necessary at that time to ensure optimal operations during peak traffic hours. Specific provisions for traffic monitoring and signal timing adjustments will be identified under the MassDOT Section 61 Finding process.

## NON- AUTO TRANSPORTATION PROGRAMMING

### **D: Shuttle Service**

The Proponent is evaluating a community shuttle bus loop that would augment available transit services to facilitate access to area businesses and connections to existing available public transportation (BAT) serving the area. The Proponent will work with the BAT to identify feasibility of integrating the Site as a stop on its existing service for the area, thereby providing connections to other area public transportation options including the BAT Centre in Brockton which serves as a hub for additional regional BAT bus service and the MBTA Old Colony Line commuter rail service. Specific operating parameters for the proposed shuttle service for the Site and feasibility of integration with existing BAT bus service will be identified following discussions and coordination with the City of Brockton and BAT.

## TRANSPORTATION DEMAND MANAGEMENT (TDM)

The Proponent is committed to reduce auto dependency by employees and patrons by implementing a robust TDM program. Specific TDM program elements will be identified in more detail under the state review process. A preliminary list of potential TDM program elements may include the following, subject to refinement of the development program and further evaluation by the Proponent:

- *Shuttle and Bus Options.* Shuttle bus loop serving the local community (currently under evaluation) and integration of the Site as a stop on current BAT bus routes.
- *Public Transportation Information & Promotion.* Posting of service and schedule information for employees and patrons; on-site sale of transit passes to promote the use of public transportation by employees and patrons.
- *Bicycle Facilities and Promotion.* Bicycle racks at appropriate on-site locations; a bicycle sharing program to promote the use of bicycles as an alternative commuting method; dissemination of area bicycle route maps.
- *Pedestrian Infrastructure.* Sidewalk connections within the property along primary pedestrian desire lines that connect building entrances with the public sidewalk network; posting of area maps that highlight area walking routes to promote walking and bicycle travel to/from the Site and area businesses. The design of improvements along Forest Avenue will also include sidewalks and shoulders that are consistent with complete streets objectives.
- *On-Site Employee Transportation Coordinator.* The Proponent will identify an on-site employee whose responsibilities will include serving as an employee transportation coordinator responsible for disseminating relevant TDM information to employees including posting TDM information at appropriate locations within the buildings and during employee orientation.
- *On-Site Employee Services.* On-site banking facilities (ATM), employee showers, cafeteria, direct deposit of employee payroll checks, secure bicycle accommodations.
- *Preferential Parking for Carpools and Vanpools.* Preferential parking locations for employees within the employee parking area who use carpools and vanpools.
- *Preferential Parking for Low-Emission Vehicles.* Preferential parking locations for employees and patrons who use low-emission vehicles; charging stations for electric vehicles; VIP parking access for patrons who travel to the site using alternative fuel vehicles.
- *Transit Pass Subsidization.* Subsidize commuter rail and local bus passes for employees.

- *MassRides*. Promotion of commuter assistance programs available through Executive Office of Transportation's MassRides as part of the employee orientation program.
- *Guaranteed Ride Home*. A guaranteed ride home program that subsidizes taxi service for employees using non-auto commute options in cases of unexpected circumstances.
- *No Idling Signage*. Installation of "No Idling" signs throughout the site's parking areas to reduce the amount of greenhouse gasses emitted.
- *On-Site Patron Services*. Restaurants, ancillary retail, coat/bag check facilities, dissemination of shuttle and public transportation options, coordination of local taxi services, promotion of bicycle and walking options to area attractions.
- *Bus Shelter/Taxi Stand*. Bus shelter/taxi stand for patrons to wait for services on-site.
- *Valet Parking Operations*. A parking option for patrons for preferred parking spaces to facilitate parking operations at the Site.

## **1.0 INTRODUCTION**

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MDM Transportation Consultants, Inc. (MDM) has prepared this preliminary Traffic Impact and Access Study (TIAS) for the proposed Category 1 Casino to be located at the Brockton Fairgrounds site along Belmont Street in Brockton, Massachusetts. This TIAS provides an initial planning framework for transportation and access improvements necessary to support the project and to inform transportation-related discussions.

This report documents existing operational and safety-related characteristics of roadways serving the development Site, estimates future year operating characteristics of these roadways independent of the development, estimates development-related trip generation, and identifies incremental impacts of Site-related traffic. Access improvements are identified for the development to meet operational needs of the Site and the adjacent roadways under future year (10-year horizon) Build conditions. In addition to traffic, an inventory of existing and proposed public transportation routes and facilities is provided to facilitate development of non-auto transportation programming for the proposed facility.

This TIAS has been prepared in general accordance with traffic study guidelines as jointly issued by the Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs/Massachusetts Department of Transportation (EEA/MassDOT). The study parameters include study intersections which are the primary gateways serving the Site as well as locations included as part of the recently completed Southwest Brockton Corridor Study prepared by the Old Colony Planning Council.

## 1.1 PROPOSED DEVELOPMENT

The Site is located at the Brockton Fairgrounds which includes approximately 45 acres with frontage along Belmont Street, West Street, and Forest Avenue. The Site is located approximately 1.5 miles east of Route 24 (Exit 17 onto Route 123). The proximity of the Site and the study intersections in relation to the regional transportation system is shown in **Figure 1**.

For purposes of this TIAS, the proposed Site programming is assumed to consist of re-developing the Brockton Fairgrounds for a Category 1 Casino with 3,000± gaming positions. Ancillary amenities are assumed to include restaurants, a 300-room<sup>2</sup> resort hotel with fitness center, spa and pool and 25,000± of multi-function event and entertainment space. On-Site parking is planned to include a total of 3,000± parking spaces split between surface and structured parking and the casino will have a fully staffed valet service.

Public transportation routes are available in the area to facilitate non-auto access options; the Proponent will coordinate with the Brockton Area Transit Authority (BAT) to evaluate integrating the Site as a stop on the BAT routes which includes a connection to the BAT Intermodal Transit Centre.

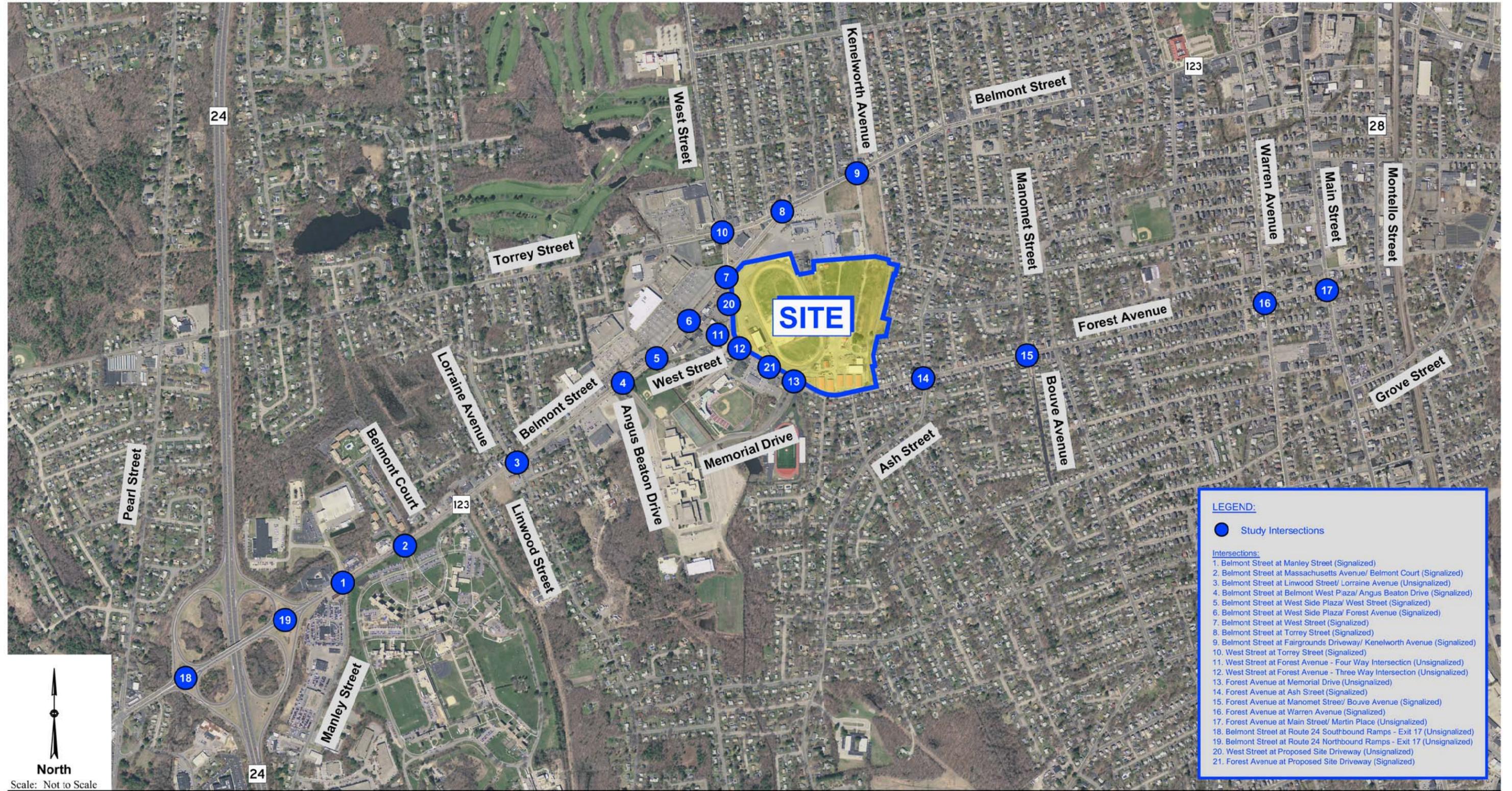
Planned access improvements are informed by area transportation initiatives by MassDOT and the City of Brockton, including recommendations identified in the recently completed *Southwest Brockton Corridor Study* prepared by the Old Colony Planning Council (OCPC). Proposed access/egress improvements for the Site include reconstruction of West Street at Forest Avenue to include a modern roundabout, thereby enhancing traffic capacity and reduced vehicle conflicts in the Site vicinity; widening of Forest Avenue and signaling the primary Site access/egress driveway and the Memorial Drive intersections; and widening of West Street east of Forest Avenue to provide a secondary (unsignalized) driveway for the Site. The existing unsignalized Site access along Belmont Street opposite Kenelworth Avenue is assumed to serve as an employee/service way. A preliminary site plan showing the site boundaries relative to local roadways is presented in **Figure 2**.

## 1.2 STUDY METHODOLOGY

This transportation impact and access evaluation is conducted in accordance with EEA/MassDOT guidelines, and consists of several steps. The first step documents existing conditions in the transportation study area including an inventory of roadway geometry, observed traffic volumes, public transportation, and safety characteristics. Next, future year traffic conditions are forecast that account for other planned area developments, normal area growth, and development-related traffic increases. The third step quantifies operating characteristics of the study intersection. Specific attention is given to the incremental impacts of the proposed development. Finally, improvements are identified to address specific

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<sup>2</sup> Current programming for the casino site includes a 225-room hotel; a 300-room hotel scenario is presented in this TIAS to provide a conservative analysis condition.



**LEGEND:**

● Study Intersections

Intersections:

1. Belmont Street at Manley Street (Signalized)
2. Belmont Street at Massachusetts Avenue/ Belmont Court (Signalized)
3. Belmont Street at Linwood Street/ Lorraine Avenue (Unsignalized)
4. Belmont Street at Belmont West Plaza/ Angus Beaton Drive (Signalized)
5. Belmont Street at West Side Plaza/ West Street (Signalized)
6. Belmont Street at West Side Plaza/ Forest Avenue (Signalized)
7. Belmont Street at West Street (Signalized)
8. Belmont Street at Torrey Street (Signalized)
9. Belmont Street at Fairgrounds Driveway/ Kenelworth Avenue (Signalized)
10. West Street at Torrey Street (Signalized)
11. West Street at Forest Avenue - Four Way Intersection (Unsignalized)
12. West Street at Forest Avenue - Three Way Intersection (Unsignalized)
13. Forest Avenue at Memorial Drive (Unsignalized)
14. Forest Avenue at Ash Street (Signalized)
15. Forest Avenue at Manomet Street/ Bouve Avenue (Signalized)
16. Forest Avenue at Warren Avenue (Signalized)
17. Forest Avenue at Main Street/ Martin Place (Unsignalized)
18. Belmont Street at Route 24 Southbound Ramps - Exit 17 (Unsignalized)
19. Belmont Street at Route 24 Northbound Ramps - Exit 17 (Unsignalized)
20. West Street at Proposed Site Driveway (Unsignalized)
21. Forest Avenue at Proposed Site Driveway (Signalized)

Figure 1

Study Locations



Site Plan Source: Klai Juba Wald Architects

Figure 2

development-related transportation requirements as needed.

### 1.3 STUDY AREA

This TIAS evaluates transportation characteristics of roadways and intersections that provide a primary means of access to the Site, and that are likely to sustain a measurable level of traffic impact from the development, including locations recently evaluated by the Old Colony Planning Council as part of the *Southwest Brockton Corridor Study*. The study includes the following intersections serving the Site as shown in **Figure 1**:

- 1 - Belmont Street at Manley Street (Signalized)
- 2 - Belmont Street at VA Hospital/ Belmont Court (Signalized)
- 3 - Belmont Street at Linwood Street/ Lorraine Avenue (Unsignalized)
- 4 - Belmont Street at Belmont West Plaza/ Angus Beaton Drive (Signalized)
- 5 - Belmont Street at Westside Plaza/ West Street (Signalized)
- 6 - Belmont Street at Westside Plaza/ Forest Avenue (Signalized)
- 7 - Belmont Street at West Street (Signalized)
- 8 - Belmont Street at Torrey Street (Signalized)
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- 18 - Route 24 Southbound Ramps at Belmont St (Unsignalized)
- 19 - Route 24 Northbound Ramp at Belmont St (Unsignalized)
- 20 - West Street at Proposed Casino Driveway (Unsignalized)
- 21 - Forest Avenue at Proposed Primary Site Drive (Future Signalized)

## ***2.0 EXISTING CONDITIONS***

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In order to provide a basis for quantifying the transportation impacts of the development, the existing roadway system and the existing traffic operations of study area roadways were reviewed. This section describes the existing traffic characteristics and operations of roadways and intersection within the study area. Specifically, this section presents an overview of the traffic data collection program, existing traffic volumes, safety issues and public transportation systems serving the area.

### ***2.1 STUDY AREA ROADWAY NETWORK***

The study area roadways and intersections are described briefly in this section. A general description of the physical roadway and intersection features is provided. The study area includes roadways under State (MassDOT) and local (Town) jurisdiction. The study area and intersections are depicted in **Figure 1**.

#### ***2.1.1 Roadways***

##### **Route 24**

Route 24 is generally a north-south roadway under state jurisdiction (MassDOT). Route 24 is classified by the MassDOT Urban Other Freeway & Expressway which provides a connection between I-93 in Randolph, MA to the north with Route 114 in Portsmouth, RI to the south with major connections to regional roadways including I-195, Route 123, and I-495. Within the study area, the roadway is a limited access highway with a median that generally provides three travel lanes in each direction with additional acceleration/deceleration lanes provided at its major interchanges. The posted speed limit in the immediate area is 65 mph. Pedestrians and bicycles are restricted from the highway.

### **Belmont Street (Route 123)**

Belmont Street is generally an east-west roadway under state jurisdiction (MassDOT) near the Route 24 ramps through West Street to the east and under local (Town) jurisdiction between West Street and Main Street to the east. Belmont Street is classified by the MassDOT as an Urban Other Principal Arterial roadway which provides a connection between Washington Street (Route 123) to the west and Main Street to the east. Between Route 24 and Torrey Street, the roadway generally provides two travel lanes in each direction separated by a double yellow centerline with additional turn lanes provided at its major intersections. Between Torrey Street and Main Street the roadway generally provides one travel lane in each direction separated by a double yellow centerline with additional turn lanes provided at its major intersections. Sidewalks are provided along both sides of Belmont Street throughout the study area. The posted speed limit ranges from 35 to 40 mph. Land uses along Belmont Street include a mix of land uses including but not limited to fairgrounds (Site), commercial plazas, residential homes, the Brockton High School, and general/ medical office uses.

### **West Street**

West Street is generally a north-south roadway under local (Town) jurisdiction. West Street is classified by the MassDOT as an Urban Collector roadway which provides a connection between Route 27 to the north and Belmont Street to the south. Within the study area, the roadway generally provides one travel lane in each direction with additional travel lanes provided at its major intersections. Sidewalks are provided along both sides of West Street throughout the study area. The posted speed limit in the immediate area is 30 mph. Land uses along West Street include a mix of land uses including but not limited to Brockton Fire Station 6, commercial properties, fairgrounds (Site), the West Middle School, a recreational golf course and residential homes.

### **Forest Avenue**

Forest Avenue is generally an east-west roadway under local (Town) jurisdiction. Forest Avenue is classified by the MassDOT as an Urban Major Collector roadway which provides a connection between Belmont Street to the west and Main Street to the east. Within the study area, the roadway generally provides one travel lane in each direction with additional travel lanes provided at its major intersections. Sidewalks are provided along both sides of Forest Avenue throughout the study area. The posted speed limit in the study area is 30 mph. Land uses along Forest Avenue include a mix of land uses including but not limited to commercial properties, fairgrounds (Site), the Brockton High School, Massachusetts Registry of Motor Vehicles, and residential homes.

## 2.2 PEDESTRIAN FACILITIES

The existing pedestrian and sidewalk system serving the study area has been documented. Sidewalks are provided along study area roadways as well as along the Site Driveway to connect Forest Street and West Street to the on-site buildings. **Figure 3** presents the existing sidewalk and crosswalk locations within the study area.

As described in more detail under Section 3.1, the Belmont Street corridor is scheduled to be widened and reconstructed by MassDOT to include enhancements to pedestrian and bicycle features following MassDOT Complete Streets design standards; additional enhancements include new or modified traffic signals along the corridor between Route 24 and West Street that will also enhance pedestrian safety and compliance with current ADA requirements.

## 2.3 BASELINE TRAFFIC VOLUMES

Traffic-volume data used in this study was collected at the study intersections in February 2015. Manual turning movement counts (TMCs) were conducted at each of the study intersections. Traffic data were collected during the Friday evening (4:00 to 7:00 PM) and Saturday evening (4:00 to 7:00 PM) peak periods. These hours represent the combination of busiest activity periods of the Site and adjacent roadway network.

Review of hourly traffic count data collected by MDM on Belmont Street in the Site vicinity and projected traffic generation for the casino (described in more detail under *Section 3: Future Conditions*) indicates that the highest combined traffic activity on area roads is the Friday evening (4 PM to 5 PM) period. The Friday evening peak hour data used in this evaluation therefore represents the critical “Design Hour” traffic conditions for purposes of determining worst-case traffic impacts of the casino and necessary traffic improvements to support the proposed use.

### 2.3.1 DAILY TRAFFIC

Baseline daily traffic volumes along Route 24, Belmont Street, Forest Avenue and West Street in the site vicinity as summarized in the *2014 Southwest Brockton Corridor Study*<sup>3</sup> and from historical MassDOT counts are summarized in **Table 1**.

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<sup>3</sup> *2014 Southwest Brockton Corridor Study*, prepared by Old Colony Planning Council dated December 2014.

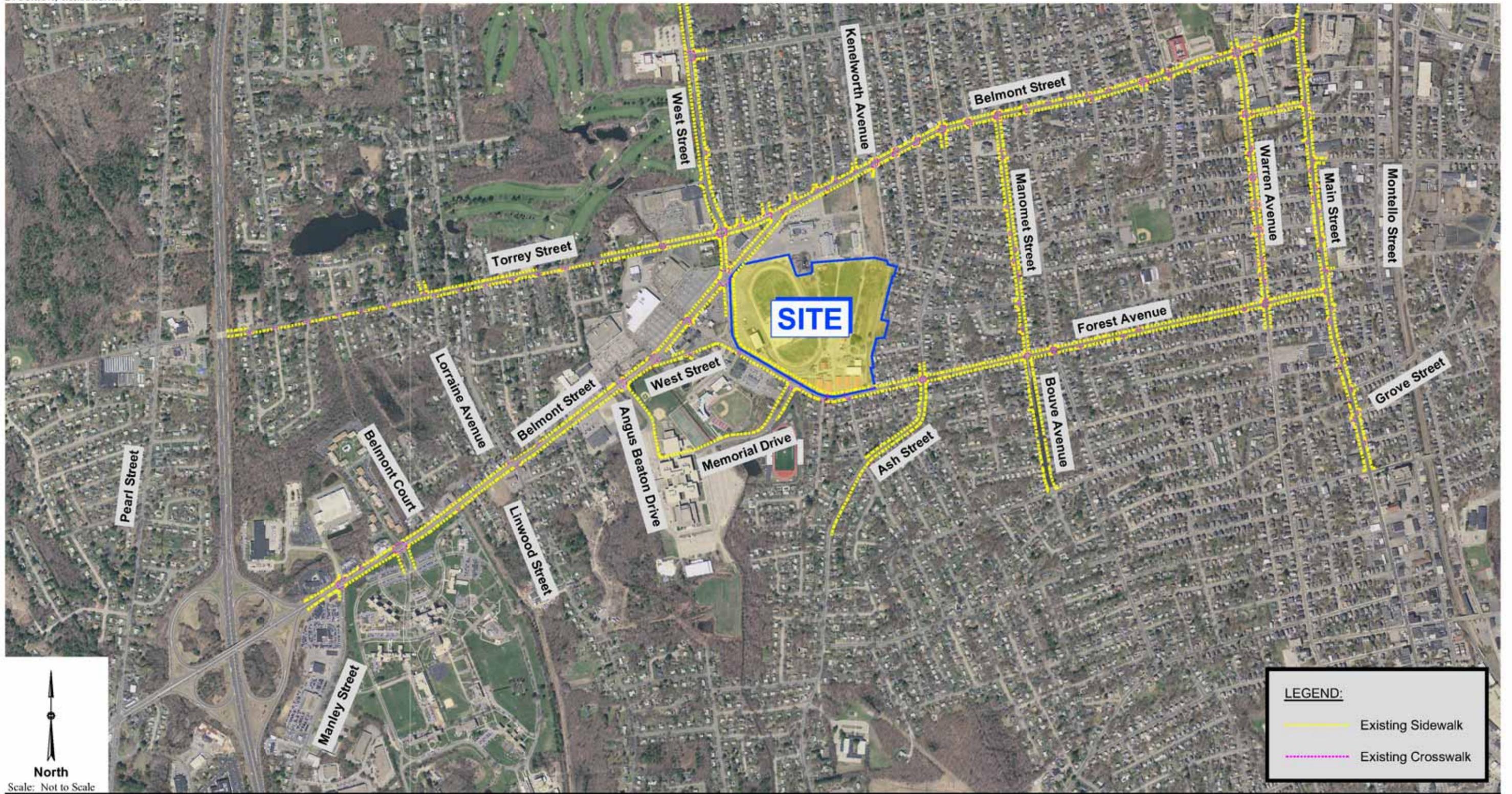


Figure 3

Existing Pedestrian Facilities

**TABLE 1**  
**BASELINE ROADWAY TRAFFIC VOLUME SUMMARY**

Location	Daily Volume (vpd) <sup>1</sup>
<i>Route 24 north of Belmont Street (MassDOT – September 2013)</i>	105,340
<i>Belmont Street west of Angus Beaton Drive<sup>2</sup></i>	24,900
<i>Belmont Street west of Moraine Street<sup>2</sup></i>	20,220
<i>Forest Avenue west of Ash Street<sup>2</sup></i>	15,050

<sup>1</sup>Two-way daily traffic expressed in vehicles per day without seasonal adjustment.

<sup>2</sup>Unadjusted daily two-way flow traffic volume data obtained from the 2014 Southwest Brockton Corridor Study.

Summary data presented in **Table 1** indicate that daily traffic volumes on Belmont Street range from approximately 20,000 to 25,000 vehicles per day (vpd) indicating its importance as a primary arterial roadway serving Brockton. Forest Avenue, a local collector roadway, exhibits daily traffic volumes of approximately 15,000 vpd and serves as a primary roadway connection to the Belmont Street corridor for points south. These routes provide a connection for regional travel via Route 24 which carries approximately 105,000 vpd based on recent data collected by MassDOT.

### 2.3.2 PEAK-HOUR TRAFFIC

Manual turning movement counts (TMCs) were conducted along study area roadways and intersections in February 2015. These traffic data were collected during the Friday evening and Saturday evening (4:00 to 7:00 PM) peak periods.

The traffic volume count months are representative of slightly below-average traffic volume conditions based on review of traffic count data maintained by MassDOT for the nearby permanent count station along Route 123. Accordingly, an upward adjustment of 3% (increase) of the count data was made to reflect average 2015 Baseline traffic conditions in accordance with MassDOT analysis protocol. Permanent count station data is provided in the **Appendix** for reference. The resulting 2015 Baseline Friday evening and Saturday evening peak hour traffic volumes for study intersections are depicted in **Figure 4** and **Figure 5**. As a point of reference, weekday peak hour traffic volume data for study intersections along Belmont Street and Forest Avenue as published in various studies by the Old Colony Planning Council and MassDOT indicates a high degree of consistency with the Baseline data (seasonally adjusted February 2015 counts) used in this study.

### 2.4 MEASURED TRAVEL SPEEDS

Vehicle speeds were obtained for Belmont Street, West Street, and Forest Avenue adjacent to the Site over a 48-hour weekday period in September 2013 as summarized in the 2014 Southwest Brockton Corridor Study. **Table 2** summarizes the posted and 85<sup>th</sup> percentile speeds for in the Site vicinity.

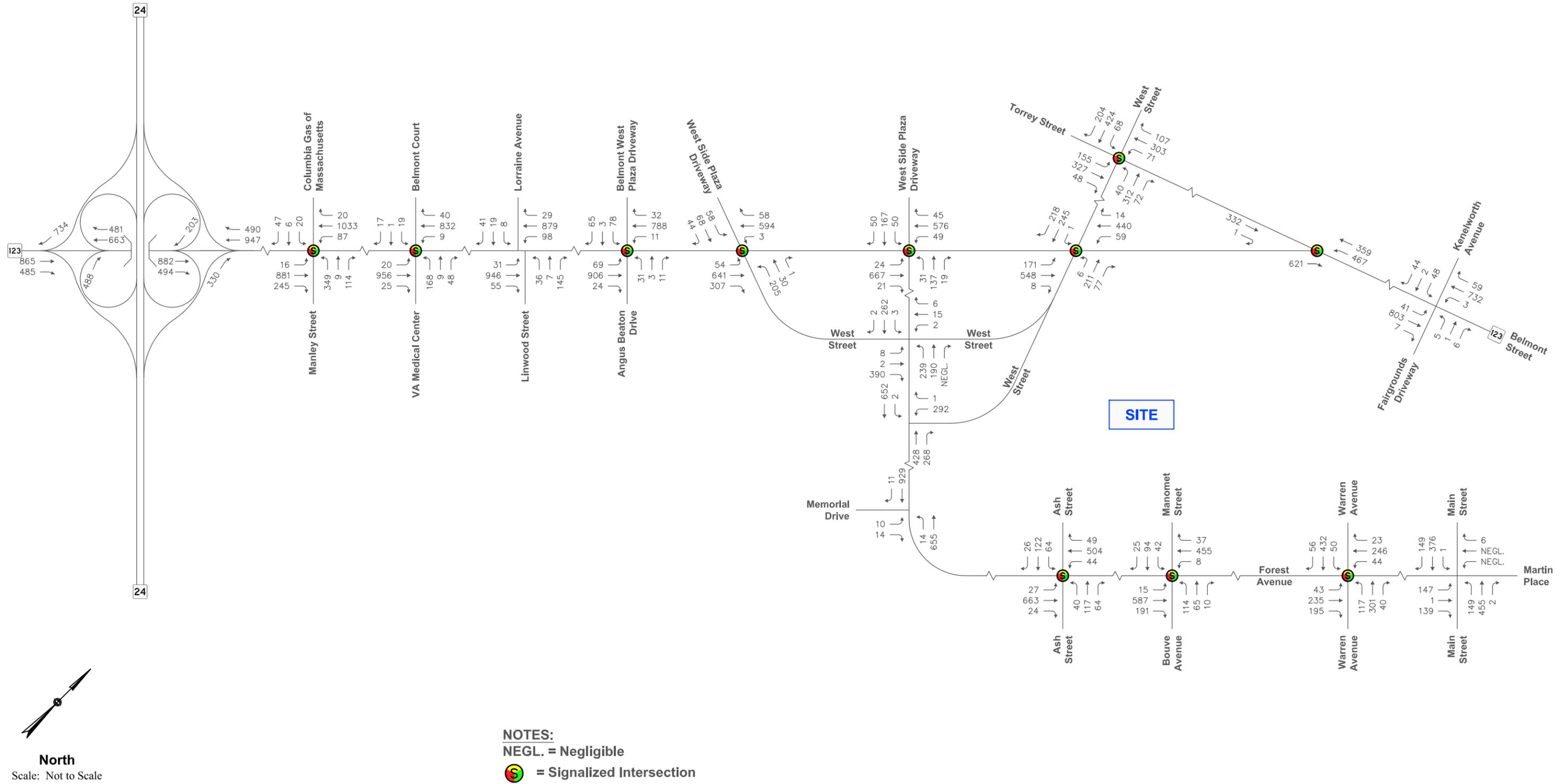
**TABLE 2**  
**ROADWAY TRAVEL SPEEDS**

Location	Travel Speeds	
	Posted Speed <sup>1</sup>	85 <sup>th</sup> Percentile <sup>2</sup>
<i>Belmont Street west of Angus Beaton Drive<sup>3</sup></i>	35	40
<i>West Street north of Forest Avenue<sup>3</sup></i>	30	32
<i>Forest Avenue west of Ash Street<sup>3</sup></i>	30	35

<sup>1</sup>Posted Speed (mph)

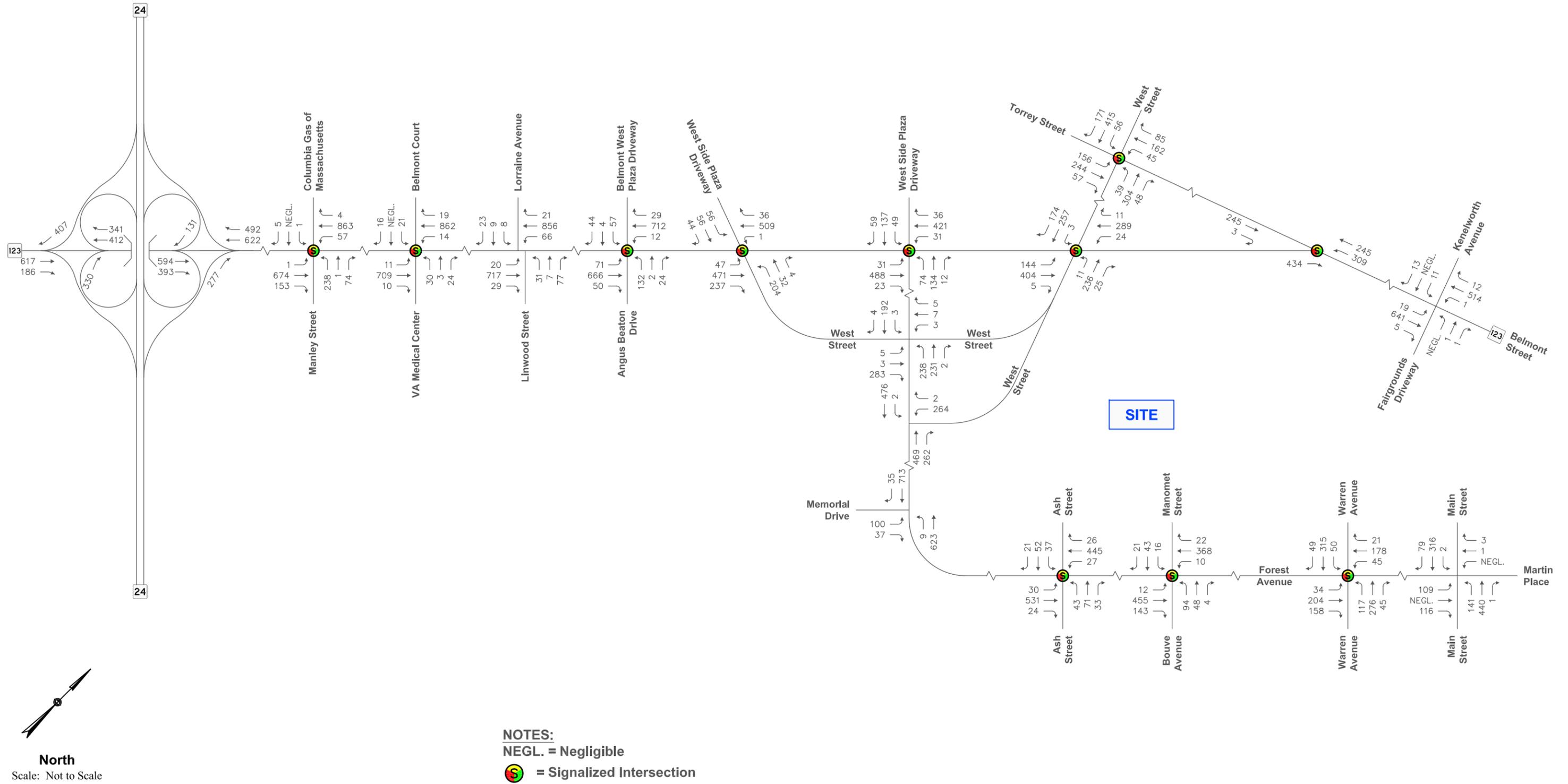
<sup>2</sup>The speed at or below which 85 percent of the vehicles are traveling

<sup>3</sup>Unadjusted travel speed data obtained from the 2014 Southwest Brockton Corridor Study.



**Figure 4**

**2015 Existing Friday Evening  
 Peak Hour Traffic Volumes**



**Figure 5**

**2015 Existing Saturday Evening  
 Peak Hour Traffic Volumes**

As summarized in **Table 2**, the 85<sup>th</sup> percentile travel speeds along Belmont Street, West Street, and Forest Avenue are slightly higher but consistent with the posted speed limits. Within the immediate study area, the observed travel speeds are between 2 and 5 mph above the posted speed limits.

## 2.5 SAFETY

In order to identify crash trends and safety characteristics for study area intersections, crash data were obtained from MassDOT for the City of Brockton for the three-year period 2010 through 2012 (the most recent data currently available from MassDOT). Crash data for the study intersections is summarized in **Table 3** with detailed data provided in the **Appendices**.

Crash rates were calculated for the study area intersections as reported in **Table 3**. This rate quantifies the number of crashes per million entering vehicles. MassDOT has determined the official District 5 crash rate to be 0.58 for unsignalized intersections and 0.77 for signalized intersections. This rate represents MassDOT's "average" crash experience for District 5 communities and serves as a basis for comparing reported crash rates for the study intersections. Where calculated crash rates notably exceed the district average, some form of safety countermeasures may be warranted.

**TABLE 3**  
**INTERSECTION CRASH SUMMARY - 2010 THROUGH 2012<sup>1</sup>**

Data Category	INTERSECTION									
	(1) Belmont St at Manley St	(2) Belmont St at VA Hospital/ Belmont Court	(3) Belmont St at Linwood St/ Lorraine Ave	(4) Belmont St at Belmont West Plaza/ Angus Beaton Drive	(5) Belmont St at Westside Plaza/ West St	(6) Belmont St at Westside Plaza/ Forest Ave	(7) Belmont St at West St	(8) Belmont St at Torrey St	(9) Belmont St at Fairgrounds Dwy/ Kenelworth Ave	(10) West St at Torrey St
Traffic Control	Signalized	Signalized	Unsignalized	Signalized	Signalized	Signalized	Signalized	Signalized	Unsignalized	Signalized
Crash Rate <sup>2</sup>	<b>0.63</b>	<b>0.21</b>	<b>0.70</b>	<b>0.03</b>	<b>0.03</b>	<b>0.73</b>	<b>1.02</b>	<b>0.47</b>	<b>0.15</b>	<b>0.51</b>
District 5 Avg <sup>3</sup>	0.77	0.77	0.58	0.77	0.77	0.77	0.77	0.77	0.58	0.77
<i>Year</i>										
2010	8	3	7	0	0	7	11	7	0	6
2011	15	0	11	0	1	8	9	5	1	4
<u>2012</u>	<u>5</u>	<u>4</u>	<u>8</u>	<u>1</u>	<u>0</u>	<u>6</u>	<u>12</u>	<u>1</u>	<u>3</u>	<u>7</u>
Total	<b>28</b>	<b>7</b>	<b>26</b>	<b>1</b>	<b>1</b>	<b>21</b>	<b>32</b>	<b>13</b>	<b>4</b>	<b>17</b>
<i>Type:</i>										
Angle	15	1	19	0	0	15	20	7	1	8
Rear-End	6	3	6	1	1	3	9	3	2	7
Head-On	0	0	0	0	0	1	1	0	1	0
Sideswipe	1	1	0	0	0	2	0	2	0	2
Single Vehicle	4	2	1	0	0	0	2	0	0	0
Unknown	0	0	0	0	0	0	0	1	0	0
<i>Severity:</i>										
P. Damage Only	16	3	16	1	1	13	20	8	3	11
Personal Injury	11	4	10	0	0	8	12	5	1	6
Fatality	0	0	0	0	0	0	0	0	0	0
Unknown	1	0	0	0	0	0	0	0	0	0
<i>Conditions:</i>										
Dry	20	5	19	0	0	13	24	9	3	9
Wet	7	2	7	1	1	8	8	3	0	4
Snow	0	0	0	0	0	0	0	0	1	4
Other/Unknown	1	0	0	0	0	0	0	1	0	0
<i>Time:</i>										
7:00 to 9:00 AM	2	1	5	0	0	2	0	1	0	2
4:00 to 6:00 PM	4	3	3	1	1	4	6	2	1	2
Rest of Day	22	3	18	0	0	15	26	10	3	13

<sup>1</sup>Source: MassDOT Crash Database

<sup>2</sup>Crashes per million entering vehicles

<sup>3</sup>District 5 averages = 0.58 (unsignalized) and 0.77 (signalized)

**TABLE 3 (Continued)**  
**INTERSECTION CRASH SUMMARY - 2010 THROUGH 2012<sup>1</sup>**

Data Category	INTERSECTION									
	(11) & (12) West St at Forest Ave	(13) Forest Ave at Memorial Drive	(14) Forest Ave at Ash St	(15) Forest Ave at Manomet St/ Bouve Ave	(16) Forest Ave at Warren Ave	(17) Forest Ave at Main St/ Martin Place	(18) Route 24 SB Ramp at Belmont St WB	(19) Route 24 SB Ramp at Belmont St EB	(20) Route 24 NB Ramp at Belmont St WB	(21) Route 24 NB Ramp at Belmont St EB
Traffic Control	Unsignalized	Unsignalized	Signalized	Signalized	Signalized	Unsignalized	Unsignalized	Unsignalized	Unsignalized	Unsignalized
Crash Rate <sup>2</sup>	<b>0.53</b>	<b>0.04</b>	<b>0.66</b>	<b>1.01</b>	<b>1.22</b>	<b>0.81</b>	<b>0.00</b>	<b>0.15</b>	<b>0.23</b>	<b>0.27</b>
District 5 Avg <sup>3</sup>	0.58	0.58	0.77	0.77	0.77	0.58	0.58	0.58	0.58	0.58
<i>Year</i>										
2010	9	0	5	11	12	6	0	0	5	2
2011	3	0	6	7	7	7	0	2	3	4
<u>2012</u>	<u>2</u>	<u>1</u>	<u>7</u>	<u>8</u>	<u>15</u>	<u>5</u>	<u>0</u>	<u>4</u>	<u>1</u>	<u>5</u>
Total	<b>14</b>	<b>1</b>	<b>18</b>	<b>26</b>	<b>34</b>	<b>18</b>	<b>0</b>	<b>6</b>	<b>9</b>	<b>11</b>
<i>Type:</i>										
Angle	5	0	9	20	22	13	0	0	0	2
Rear-End	6	0	7	4	6	3	0	5	7	9
Head-On	2	0	0	1	2	0	0	0	0	0
Sideswipe	0	0	2	0	0	1	0	0	1	0
Single Vehicle	0	1	0	0	4	0	0	1	1	0
Unknown	1	0	0	1	0	1	0	0	0	0
<i>Severity:</i>										
P. Damage Only	10	0	11	13	14	10	0	3	6	5
Personal Injury	3	0	6	13	20	8	0	4	3	6
Fatality	0	0	0	0	0	0	0	0	0	0
Unknown	1	1	1	0	0	0	0	0	0	0
<i>Conditions:</i>										
Dry	7	0	12	23	21	12	0	6	7	7
Wet	4	1	4	3	12	4	0	0	2	4
Snow	2	0	2	0	1	2	0	0	0	0
Other/Unknown	1	0	0	0	0	0	0	0	0	0
<i>Time:</i>										
7:00 to 9:00 AM	1	0	0	3	1	0	0	2	0	4
4:00 to 6:00 PM	7	0	3	5	5	2	0	0	0	0
Rest of Day	6	1	15	18	28	16	0	4	9	7

<sup>1</sup>Source: MassDOT Crash Database

<sup>2</sup>Crashes per million entering vehicles

<sup>3</sup>District 5 averages = 0.58 (unsignalized) and 0.77 (signalized)

As summarized in **Table 3**, the majority of the study intersections generally experience crash rates that are below the District 5 averages for signalized and unsignalized intersections and there were no fatalities reported for any of the study intersections. However, five (5) study locations experienced crash rates higher than the District-wide averages as described in more detail below:

- *Belmont Street at Lorraine Ave/Linwood Street.* The Belmont Street/Linwood Street intersection is ranked #145 in MassDOT's 2010 *Top 200 Crash Locations Report*. A total of twenty-six (26) crashes were reported for the Belmont Street at Linwood Street/Lorraine Street unsignalized intersection – approximately 9 per year – resulting in a crash rate of 0.71. The majority of reported crashes at the intersection were angle type collisions (73%) resulting in property-damage only (62%) and occurring under dry pavement conditions (73%). The majority (69%) of crashes occurred outside of the peak commuting periods. Intersection safety and capacity improvements are planned for this location by MassDOT (project Numbers 608025 and 606036) as described in more detail under Section 3.1.
- *Belmont Street at West Street.* A total of thirty-two (32) crashes were reported for the Belmont Street/West Street signalized intersection – approximately 11 per year – resulting in a crash rate of 1.15. The majority of reported crashes at the intersection angle-type collisions (63%) resulting in property-damage only (63%) and occurring under dry pavement conditions (75%). The majority (81%) of crashes occurred outside of the peak commuting periods. Intersection safety and capacity improvements are planned for this location by MassDOT (project No. 608088) as described in more detail under Section 3.1. Proponent-sponsored improvements are also identified in Section 5.0 along this stretch of Belmont Street that include signal equipment upgrades that are consistent with the longer range MassDOT improvements and that will enhance capacity and safety.
- *Forest Ave at Manomet Street/Bouve Ave.* Twenty-six (26) crashes were reported for the Forest Avenue/Manomet Street/Bouve Avenue signalized intersection – approximately 9 per year – resulting in a crash rate of 1.23. The majority of reported crashes at the intersection were rear-end and angle-type collisions (77%) and occurring under dry pavement conditions (88%). The majority (69%) of crashes occurred outside of the peak commuting periods. Half of the crashes resulted in property damage only while the remaining half of the crashes resulted in personal injury. As described under *Recommendations*, the Proponent proposes to implement signal equipment upgrades and signal timing improvements at the Forest Ave at Manomet Street/Bouve Ave intersection that are aimed at improving safety and operations at this location.

- *Forest Ave at Warren Ave.* A total of thirty-four (34) crashes were reported for the Forest Ave/Warren Street signalized intersection – approximately 11 per year – resulting in a crash rate of 1.53. The intersection is ranked #53 on MassDOT’s 2010 Top 200 Crash Locations Report. The majority of reported crashes at the intersection were angle-type collisions (65%) that occurring under dry pavement conditions (62%) outside of the peak commuting periods. Fourteen (14) of the crashes (41%) resulted in property damage only and twenty (20) of the crashes (59%) of the crashes resulted in personal injury. As described under *Recommendations*, the Proponent proposes to implement signal equipment upgrades, signal timing improvements and pedestrian crossing improvements at the Forest Ave/Warren Street intersection that are aimed at improving safety and operations at this location.
  
- *Forest Ave at Main Street.* A total of eighteen (18) crashes were reported for the Forest Ave/Main Street unsignalized intersection – approximately 9 per year – resulting in a crash rate of 0.85. The majority of reported crashes at the intersection were angle-type collisions (72%) resulting in property-damage only (56%) and occurring under dry pavement conditions (67%). The majority (89%) of crashes occurred outside of the peak commuting periods. As described under *Recommendations*, the Proponent proposes to implement signal equipment upgrades, signal timing improvements and pedestrian crossing improvements at the Forest Ave/Main Street intersection that are aimed at improving safety and operations at this location.

## 2.6 PUBLIC TRANSPORTATION FACILITIES

The Brockton Regional Transportation Authority (BAT) currently operates bus service to the site vicinity with connections to various regional transit connections at the BAT Centre in Brockton, thereby presenting an opportunity for alternative travel modes to the project Site. The BAT Centre in Brockton serves as a hub for additional regional BAT bus service and the MBTA Old Colony Lines commuter rail service. **Figure 6** presents the existing public transportation facilities in the area with specific route and schedule information for all available services through the BAT Centre is provided in the **Appendices**.

Specific BAT bus routes currently operate in the immediate area of the Site as follows:

- **BAT Route 3:** Bus Route 3 runs from the BAT Centre to the VA Hospital via Belmont Street. The bus route passes immediately in front of the Site along Belmont Street. Service generally runs M-F 6:00am to 9:00pm, Saturdays 7:00am to 9:00pm, and Sundays 11:00am to 6:30 pm.
- **BAT Route 9:** Bus Route 3 runs from the BAT Centre to Stonehill via Belmont Street, Torrey Street, and West Street. The bus route passes near Site with the closet stop at the Torrey Street intersection with West Street. Service generally runs M-F 6:00am to 6:00pm with no weekend service.
- **BAT Route 13 (Mini Maller):** Bus Route 13 runs from the BAT Centre to the Westgate Mall via Belmont Street, Torrey Street, and West Street. The bus route passes near Site with the closet stop at the Belmont Street intersection with West Street. Service generally runs M-F 9:30am to 4:30pm, Saturdays 10:30am to 5:30pm with no Sunday service.

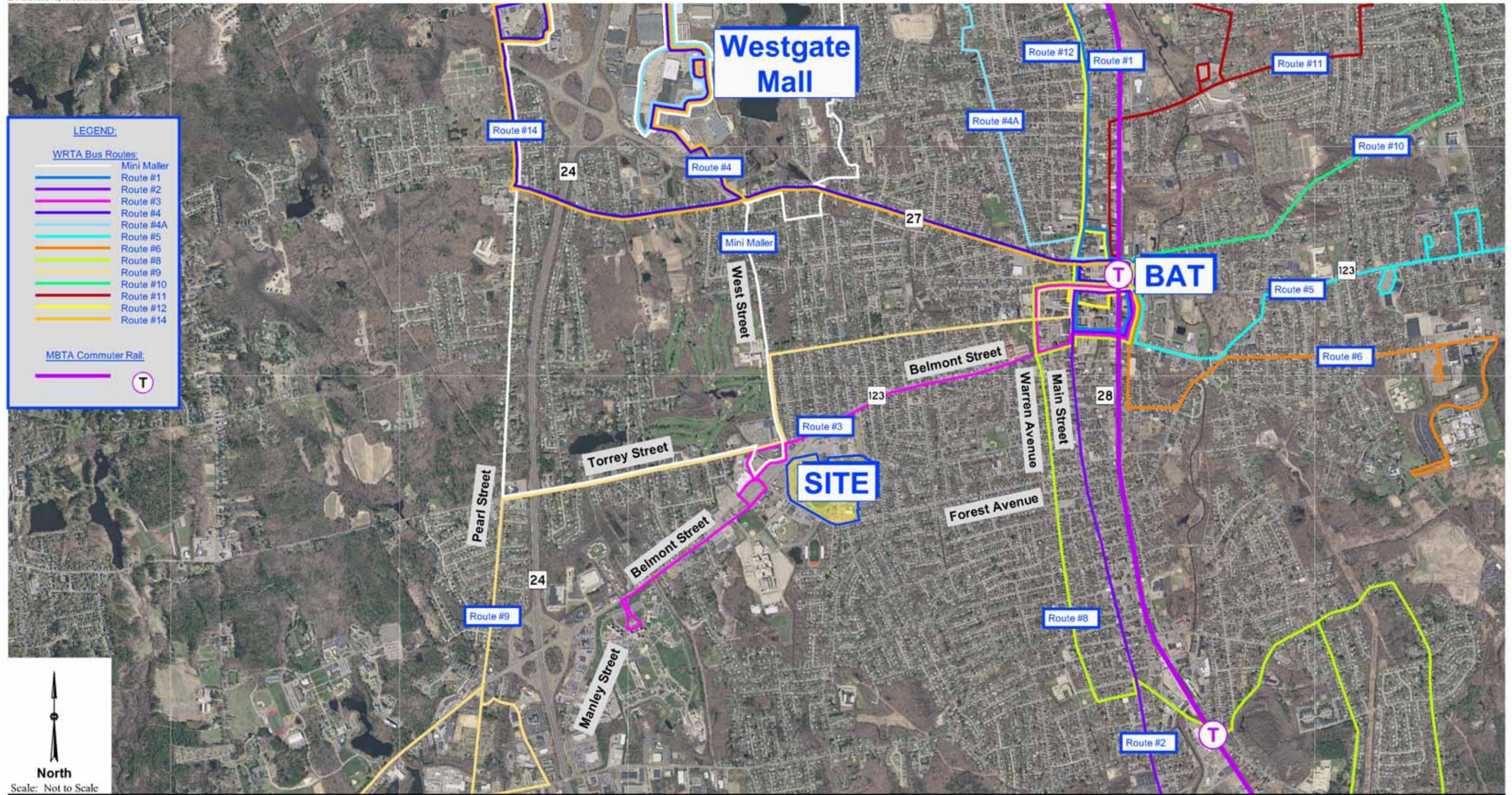


Figure 6

### ***3.0 FUTURE CONDITIONS***

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Evaluation of the proposed development impacts requires the establishment of a future baseline analysis condition. This section estimates future roadway and traffic conditions with and without the proposed development. Current EEA/MassDOT guidelines require a minimum 7-year planning horizon; for purposes of this study a 10-year horizon was selected as a conservative measure and consistency with submissions of other gaming facility applications in Massachusetts.

To determine the impact of Site-generated traffic volumes on the roadway network under future conditions, baseline traffic volumes in the study area were projected to a future year condition. Traffic volumes on the roadway network at that time, in the absence of the development (that is, the No-Build condition), would include existing traffic, new traffic due to general background traffic growth, and traffic related to specific development by others that is currently under review at the local and/or state level. Consideration of these factors resulted in the development of No-Build traffic volumes. Anticipated Site-generated traffic volumes were then superimposed upon these No-Build traffic-flow networks to develop future Build conditions.

The following sections provide an overview of planned roadway improvement, future No-Build traffic volumes and projected Build traffic volumes.

#### ***3.1 STUDY AREA ROADWAY IMPROVEMENTS***

This section provides an overview of roadway improvements in the study area that are currently programmed and under construction, planned for future implementation or that have been identified as recommendations in recent studies based on consultation with MassDOT, the Old Colony Planning Council and City of Brockton. For discussion purposes, the identified improvements are categorized and described as (a) MassDOT improvements that have been funded and are pending construction; (b) MassDOT planned improvements that are subject to funding allocation under the state's Transportation Improvement Program (TIP), and (c)

recommended roadway improvements under the OCPC Southwest Corridor Study. A key map showing the locations for each of these roadway improvement categories is presented in **Figure 7** for reference; a summary of improvements is provided below.

### MassDOT Funded Corridor Improvements

MassDOT has completed design and has allocated funding for roadway, traffic signal and pedestrian/bicycle improvements along the Belmont Street corridor (MassDOT project Numbers 608025 and 606036) as highlighted on **Figure 7** in green. The project limits include Belmont Street from the Route 24 ramps through Angus Beaton Drive, the signalized intersections of Belmont Street with Manley Street, VA Hospital Driveway, and Angus Beaton Drive and the unsignalized intersection of Belmont Street with Linwood Street/Lorraine Avenue. These projects have a combined estimated construction cost of approximately \$6.5 million and are funded through the State's Transportation Improvement Program (TIP). Construction on project No. 606025, which includes the portion of Belmont Street from Route 24 to the VA Hospital, is scheduled to begin in summer 2015. Project No. 608036 is currently in the final design stage with construction planned for Spring 2016. Available design plans showing specific work to be completed are included in the **Appendices** and include the following features:

- **Roadway Widening:** Widening and geometric improvements on Belmont Street within the project limits to provide turn lanes at major intersections and Complete Streets design standards including 4-foot wide paved shoulders for bicycle accommodation and reconstruction of sidewalks to ADA-compliant standards. A dedicated bus turnout area is also proposed along the eastern side of Belmont Street just east of Angus Beaton Drive.
- **Traffic Signal Upgrades:** Upgrade of existing traffic signal equipment at the intersections of Manley Street and VA Hospital including new controller cabinets and bases, mast arms, traffic signal heads, pedestrian signal heads, traffic signal conduit, pull-boxes, interconnection conduit and loop detection (vehicular and bicycle).
- **Signal Coordination:** Programmed traffic signal operation for actuated, coordinated traffic signal control for the Belmont Street intersections with Manley Street and VA Hospital Driveway for the weekday morning and weekday evening peak periods and full actuated traffic signal operations during all other time periods.
- **Linwood/Lorraine Improvements and Signalization:** Re-align the Linwood Street and Lorraine Street approaches to create a single four-way intersection with Belmont Street. Modify the Lorraine Street approach to provide additional turn lanes. Widening of Belmont Street to install a westbound left-turn lane. Install a fully actuated traffic signal control for the Belmont Street intersection with Linwood Street/Lorraine Avenue.

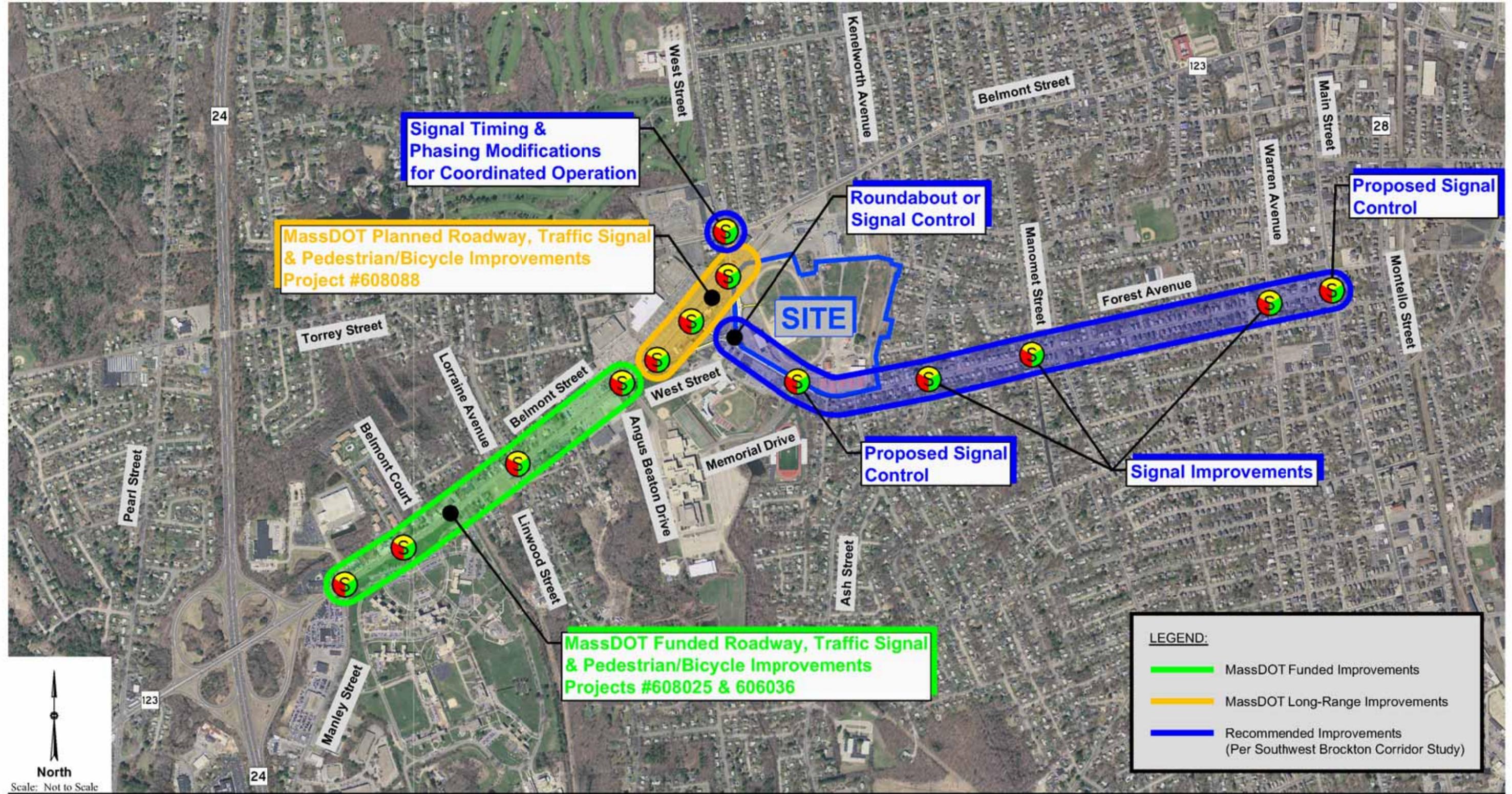


Figure 7

- **Angus Beaton/Belmont West Plaza Drive Improvements.** Modify the Belmont West Plaza Driveway and Angus Beaton Drive approaches to Belmont Street to improve lane geometry. Upgrade traffic signal operation to implement fully actuated traffic signal control for the Belmont Street intersections with Angus Beaton Drive. An optimized traffic signal phasing and timing plan will be implemented at the intersection.

#### MassDOT Planned Corridor Improvements

MassDOT has initiated preliminary design of the remaining portion of Belmont Street between Angus Beaton Drive and West Street as outlined in a Project Initiation Form (PIF) filed in October 2014 (MassDOT project No. 608088). The project limits are depicted in **Figure 7** in orange. This area represents the last section of Belmont Street in the corridor which is under MassDOT jurisdiction. The improvements are to include box widening and resurfacing along Belmont Street to provide a consistent cross section along the corridor to meet Complete Streets standards including shoulders for bicycle accommodation, sidewalk reconstruction and anticipated upgrades to traffic signals at West Street/Plaza Drive, Forest Avenue/Plaza Drive and West Street/Belmont Street. The estimated construction cost of the improvements is approximately \$4 Million and is subject to the upcoming round of funding under the state's Transportation Improvement Program.

#### Old Colony Planning Council Recommended Improvements

As part of its *2014 Southwest Brockton Corridor Study*, the Old Colony Planning Council identified recommended transportation improvements along portions of the Belmont Street and Forest Avenue corridors. Specific improvement locations are shown in **Figure 7** in blue. These recommended improvements are identified for planning purposes as part of the Old Colony's Uniform Planning Work Program (UPWP) and have not advanced to the preliminary design or funding stages. The recommended improvements include the following:

- Update the traffic signal equipment and implement actuated coordinated traffic signal control for three locations along Belmont Street including both signalized intersections with West Street and the signalized intersection with Forest Avenue. (This improvement overlaps with MassDOT project No. 608088 described above under which this improvement is expected to be addressed).
- Upgrade of the traffic signal equipment to provide fully actuated traffic signal operation with optimized traffic signal timing plans for the signalized intersections of Forest Avenue with Ash Street, Manomet Street, and Warren Avenue.
- Reconstruct the West Street and Forest Avenue intersections to provide improved geometry including either signalized traffic operations or a modern roundabout.

- Install a fully actuated traffic signal and equipment at the intersection of Forest Avenue and Memorial Drive (Brockton High School). The inclusions of pedestrian crossings at the proposed traffic signal are highly desired to increase pedestrian mobility and safety at the High School driveway which includes a high pedestrian volume. This intersection was identified in the OCPC study as satisfying the MUTCD traffic signal warrants under existing conditions.
- Install a fully actuated traffic signal and equipment at the intersection of Forest Avenue and Main Street. This intersection was identified in the OCPC study as satisfying the MUTCD traffic signal warrants under existing conditions.

Given the lack of funding it is assumed that the improvement initiatives identified in the OCPC study will not be in place under the No-Build analysis condition in this study. However, the Proponent anticipates implementing access improvements that address most of the recommended improvements and further commits to work with the City to advance and implement additional improvements along Forest Avenue that are consistent with those recommended in the Southwest Brockton Corridor Study as described in more detail under *Section 5.0 Conclusions and Recommendations*.

## 3.2 BACKGROUND TRAFFIC GROWTH

Background traffic includes demand generated by other planned developments in the area as well as demand increases caused by external (regional) growth factors. External growth factors are general increases in traffic not attributable to a specific development and are determined using historical traffic data for permanent count stations in the region and growth patterns that are consistent with trends documented in the *2014 Southwest Brockton Corridor Study*.

### 3.2.1 Historical Area Growth

Nearby permanent count station data published by MassDOT indicates a declining (-0.4 percent per year) growth rate. For purposes of this evaluation, a 1.0 percent compounded annual growth rate was used (10.5 percent increase over a 10-year horizon). This growth rate is consistent with methodology used in the Southwest Brockton Corridor Study and represents a growth rate that is higher than historic rates. As such, application of this growth rate is expected to account for reasonable fluctuations in hourly traffic as may occur from time to time in the study area as well as traffic associated with other potential small developments or vacancies in the area. MassDOT permanent count station data and background growth calculations are provided in the **Appendices**.

### 3.2.2 Background Development-Related Growth

Development of future No-Build traffic volumes also considers traffic generated from specific area developments. Based on review of Massachusetts Environmental Policy Act (MEPA) files, there are currently no significant development projects planned to be completed in the study area in the near future.

### 3.3 NO-BUILD TRAFFIC VOLUMES

In summary, to account for future traffic growth in the study area future No-Build traffic volumes are developed by increasing the 2015 Baseline volumes by approximately 10.5 percent (1.0 percent compounded annually over 10 years). The resulting 2025 No-Build traffic volumes for the Friday evening and Saturday evening peak hours are displayed in **Figure 8** and **Figure 9**, respectively.

### 3.4 SITE-GENERATED TRAFFIC

Traffic generation characteristics for the proposed Category 1 Casino are estimated based on available trip generation data for several similar size/venue gaming facilities located in the eastern United States, including a Proponent-affiliated facility in Philadelphia, Pennsylvania. Trip rates per gaming-position are developed to allow a uniform comparison of trip characteristics among the surveyed facilities. Detailed hourly trip data for the Proponent's Pennsylvania facility as well as a comparable casino as documented in the *ITE Journal*<sup>4</sup> provide the basis for determining hourly trip characteristics for the proposed facility for planning purposes. Casino facilities that serve as the basis for estimating trip activity for the Site are described below. Summary trip data for the surveyed facilities are included in the **Appendices**.

#### Empirical Casino Trip Data

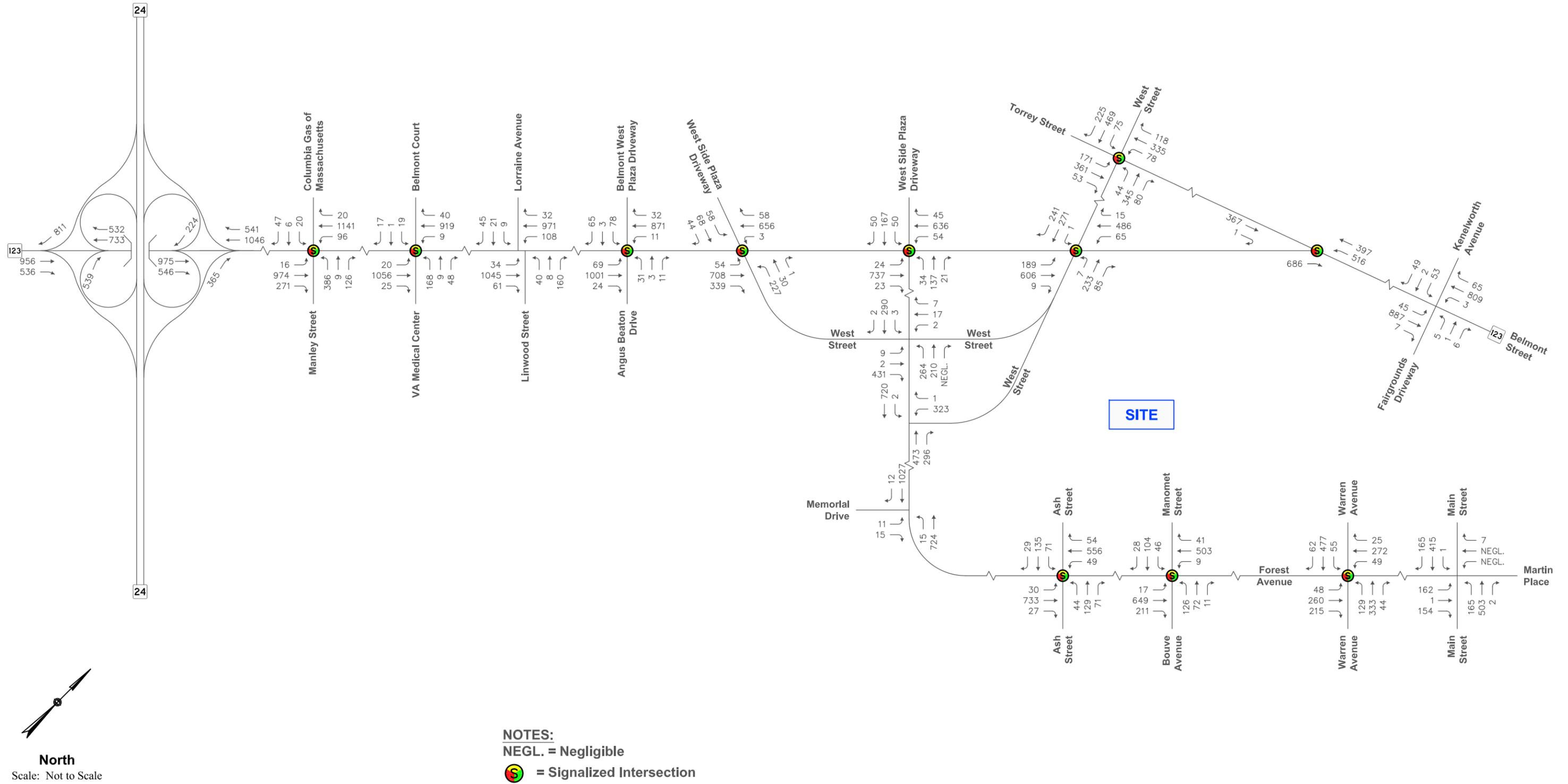
Empirical data for several casino facilities with programming similar to the proposed Fairgrounds facility are considered in determining likely traffic characteristics for the Site that including the following:

- *Sugarhouse Casino, Philadelphia, PA*: The Sugarhouse Casino is a Proponent-affiliated facility that has approximately 1,956 gaming positions comprising slot machines and table games. Surveys of this facility were conducted in June 2012 as documented in a traffic impact assessment for Sugarhouse Casino<sup>5</sup> which include peak Friday and Saturday trip data and hourly Automatic traffic recorder (ATR) data.

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<sup>4</sup> *ITE Journal/ March 1998, Gaming Casino Traffic*, by Paul C. Box and William Bunte.

<sup>5</sup> *Sugarhouse Casino Traffic Impact Assessment Report*, prepared by Urban Engineers, Inc. dated February 27, 2013.



**Figure 8**

**2025 No-Build Friday Evening  
 Peak Hour Traffic Volumes**

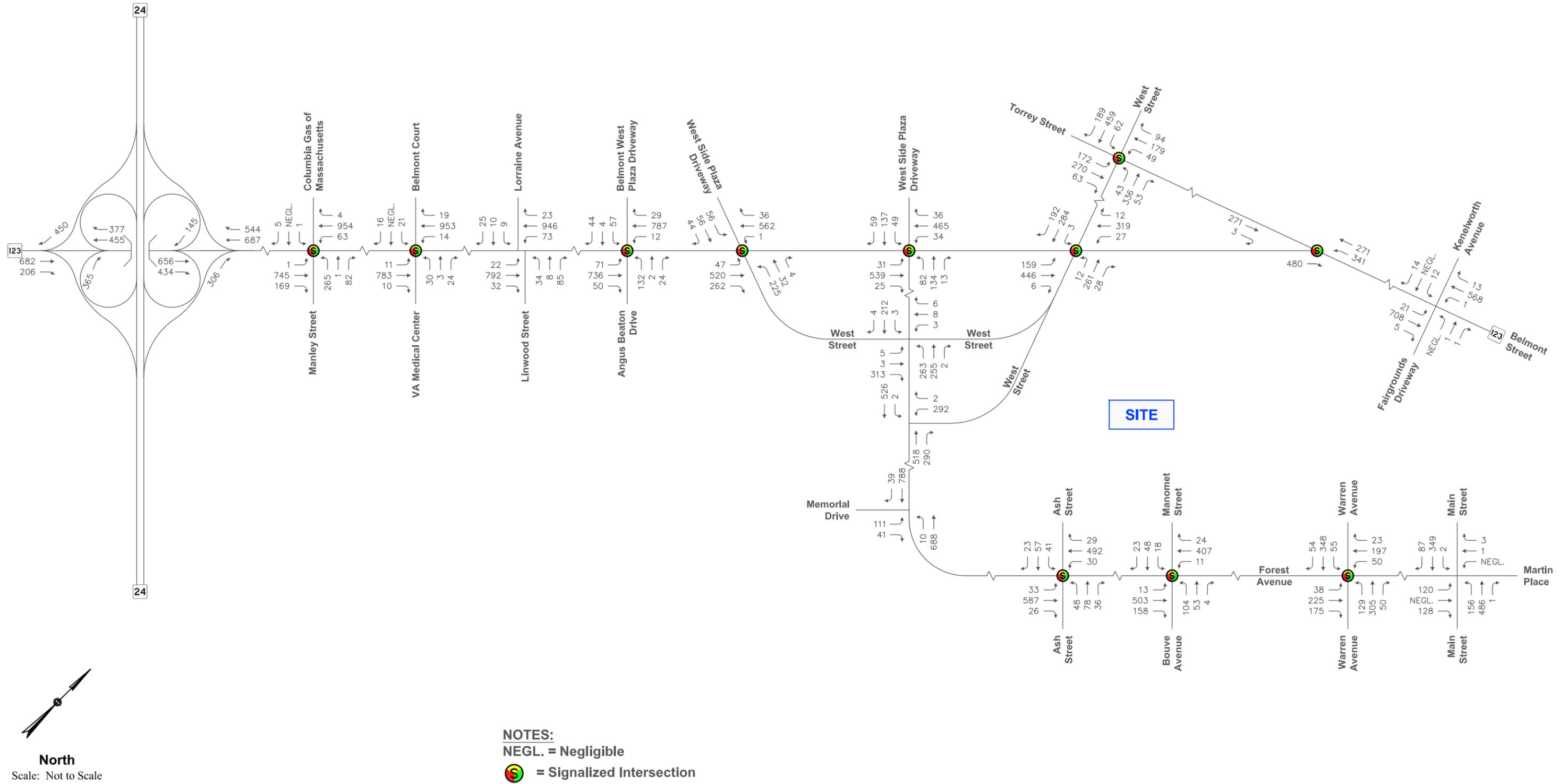


Figure 9

2025 No-Build Saturday Evening  
 Peak Hour Traffic Volumes

- *Twin River Casino, Lincoln, RI:* The Twin River Casino has approximately 4,700 slot machines and associated (ancillary) restaurant and entertainment venues. Twin River Casino also offers simulcasting of horse and greyhound racing. Trip data for this facility were collected in March 2012<sup>6</sup> for weekday and weekend periods.
  
- *Casino St. Charles, Metro Saint Louis, Il:* Located in the St. Louis metropolitan area, the Casino St. Charles has approximately 2,500 gaming positions of which the vast majority (80 percent) are video poker machines. Surveys of this facility were conducted for weekdays and weekends in 1995 as documented in the *ITE Journal*. Average seasonal trip rates for this facility serve as the basis for trip rates presented in this section and are based on trends as summarized in the *ITE Journal* publication.
  
- *First Light/Mohegan Sun Trip Rates:* Trip rate data published for a nearby proposed Casino facility (First Light)<sup>7</sup> is considered as an additional comparable facility; trip generation estimates for this facility are primarily based on empirical trip generation characteristics of Mohegan Sun Resort and Casino located in New England (Connecticut).

Empirical trip data for the above casino gaming facilities are summarized using gaming positions as the independent variable to derive trip rates for peak facility operations; peak facility operations are documented to occur on Friday evenings and Saturdays evening periods. **Table 4** provides a summary of resulting peak period trip rates for the surveyed casino facilities and trip rates from comparable facilities.

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<sup>6</sup> DEIR, *Plainridge Racecourse, EOE 11431*, prepared by Tilton Associates, December 2012.

<sup>7</sup> DEIR, *Project First Light Destination Resort Casino*, located in Taunton MA, prepared by Epsilon Associates dated 5/15/2013

**TABLE 4**  
**EMPIRICAL TRIP RATES – CASINO GAMING FACILITIES**  
**4:00 – 5:00 PM**

<u>Facility</u>	Gaming Positions	<u>Vehicle-Trips</u>		<u>Trip Rate (Per Gaming Position)</u>	
		<u>Friday Peak</u>	<u>Saturday Peak</u>	<u>Friday Peak</u>	<u>Saturday Peak</u>
<b>Proponent-affiliated Facility</b>					
Sugarhouse Casino <sup>1</sup>	1,956	626	567	0.32	0.29
<b>St. Louis Facility (ITE Journal)</b>					
Casino St. Charles <sup>2</sup>	2,500	978	1,300	0.39	0.52
<b>East Coast Facilities</b>					
Twin River Casino <sup>3</sup>	4,700	1,397	1,643	0.29	0.35
Proposed First Light <sup>4</sup>	4,500	1,710	1,580	0.28	0.31
<b>Average Trip Rate Used for Analysis:</b>				<b>0.32</b>	<b>0.37</b>

<sup>1</sup> June 2012 count data as reported in *Sugarhouse Casino Traffic Impact Assessment Report*, prepared by Urban Engineers, Inc. dated February 27, 2013.

<sup>2</sup> January 1995 count data adjusted to average season casino operating conditions; derived from *ITE Journal/ March 1998, Gaming Casino Traffic*, by Paul C. Box and William Bunte.

<sup>3</sup> March 2012 count data as reported in *DEIR, Plainridge Racecourse, EOE 11431*, prepared by Tilton Associates, 12/2012.

<sup>4</sup> DEIR, Project First Light Destination Resort Casino, located in Taunton MA, prepared by Epsilon Associates dated 5/15/2013

As summarized in **Table 4**, facility trip generation rates for which current data is available are highly consistent among casinos located in the eastern United States inclusive of the Proponent-affiliated Sugarhouse Casino facility in Pennsylvania, averaging 0.29 to 0.35 vehicle-trips per gaming position. Trip rates based on the St. Louis casino location as documented in ITE Journal is notably higher with 0.39 to 0.52 vehicle-trips per gaming position; this higher rate is potentially the result of survey data that reflected a lack of competing casino uses in the St. Louis area in the mid 1990's. For analysis purposes, an average of the four (4) casino venues were used for the Casino portion of the development result in 0.32 trips per gaming position (0.14 inbound trips/ 0.18 outbound trips) for a peak weekday evening peak period (Friday evening scenario) and result in 0.37 trips per gaming position (0.18 inbound trips/0.19 outbound trips) for a peak Saturday evening peak period.

The empirical trip rates include trip activity associated with restaurant and entertainment venues at comparable gaming facilities including the Pennsylvania facility that is affiliated with the Proponent.

## Projected Trip Generation

Projected trip generation for the Brockton Fairgrounds Category 1 casino facility are estimated using the average per-gaming-position trip rates summarized in **Table 4**, which include activity associated with ancillary facilities such as restaurants and entertainment venues. As a conservative measure, additional trip activity is estimated for the hotel component; however, trip activity for this portion of the development will be attributed almost exclusively to casino patrons and is inherently included in the average trip rates cited in **Table 4**. Trip rates published in ITE's *Trip Generation*<sup>8</sup> for land use code (LUC) 330 *Resort Hotel* present the best-fit category for the proposed hotel, which is described in ITE *Trip Generation* as follows:

*"Resort Hotels are similar to hotels in that they provide sleeping accommodations, restaurants, cocktail lounges, retail shops, and guest services. The primary difference is that resort hotels cater to the tourist and vacation industry, often providing a wide variety of recreational facilities/programs....Resort hotels are normally located in suburban or outlying location on larger sites than conventional hotels."*

**Table 5** presents the trip-generation estimates for the proposed development based on trip generation rates presented in **Table 4** applied to the 3,000 total gaming positions proposed at the site and ITE trip generation rates for a Resort Hotel applied to 300 occupied rooms.

**TABLE 5**  
**TRIP-GENERATION**  
**PROPOSED BROCKTON DESTINATION CASINO**

Period/Direction	Site Trips <sup>1</sup>		
	Casino	Hotel	Total
<i>Friday Evening Peak Hour (4-5PM)</i>			
Entering	420	63	483
<u>Exiting</u>	<u>540</u>	<u>84</u>	<u>624</u>
Total	960	147	1,107
<i>Saturday Evening Peak Hour (4-5PM)</i>			
Entering	540	146	686
<u>Exiting</u>	<u>570</u>	<u>155</u>	<u>725</u>
Total	1,110	301	1,411
<i>Friday Daily (24 hrs)</i>	15,484	1,874	17,358
<i>Saturday Daily (24 hrs)</i>	18,500	4,030	22,530

<sup>1</sup> Based on average trip rates presented in **Table 4** applied to 3,000 gaming positions and ITE LUC 330 applied to 300 occupied rooms.

<sup>8</sup>*Ibid*

As summarized in **Table 5**, the proposed development is estimated to generate approximately 1,107 vehicle trips during the weekday (Friday) evening peak hour design hour (483 entering and 624 exiting). On a Saturday evening peak hour the proposed development is estimated to generate approximately 1,411 vehicle trips (686 entering and 725 exiting).

Noteworthy is that casino trip generation during most weekdays (Monday through Thursday) is expected to be up to 30 percent lower than these projections based on the Proponent's operational data for other affiliated casino facilities.

### Hourly Trip Characteristics

For planning purposes, hourly trip characteristics for Site-generated trips are expected to follow patterns that are documented for the St. Louis facilities in the *ITE Journal*, as these hourly patterns are generally consistent with the Proponent-affiliated Philadelphia casino patterns but are also slightly more conservative (i.e., show higher proportion of trip activity during early evening peak hours). These patterns show peak trip activity for casino use occurs during early evening hours between 4 PM and 7 PM.

Documented and empirical trip patterns for casino uses support the selection of a Friday evening peak design hour and Saturday evening peak hour as documented in this TIAS, which represent the highest combination of Site trip activity and adjacent street traffic activity. While the Saturday evening trip rate is slightly higher for the casino, traffic volumes data for Belmont Street are approximately 30% less on Saturday peak hours than the Friday evening design hour used in this study. Detailed hourly distribution calculations and graphs are provided in the **Appendix**. For reference, **Figure 10** presents a graphical summary of the projected hourly traffic volumes on Belmont Street, indicating that the weekday (Friday) evening period from 4 PM to 5PM represents the critical "Design Hour" condition – i.e., the highest volume condition when compared to average Friday and peak weekend periods.

## 3.5 TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution of development-generated trips on the roadway network is a function of a number of variables including market area population density, competing facilities, proprietary market demographic data and the travel time efficiency of roadways serving the Site. Trip distribution for the proposed Category 1 Casino is based on a gravity model that includes these factors to approximate trip distribution for casino trip assignment. Communities located within a 90-minute market area were used for determining the trip distribution pattern for the proposed development. Supporting gravity model calculations are provided in the **Appendices**. A summary of regional and local trip distribution patterns for the Site based on the gravity model is provided in **Table 6** and presented in **Figure 11**. Local trip assignment to individual site driveways is based on proximity and distribution of site parking spaces with resulting trip assignment presented in **Figure 12**.

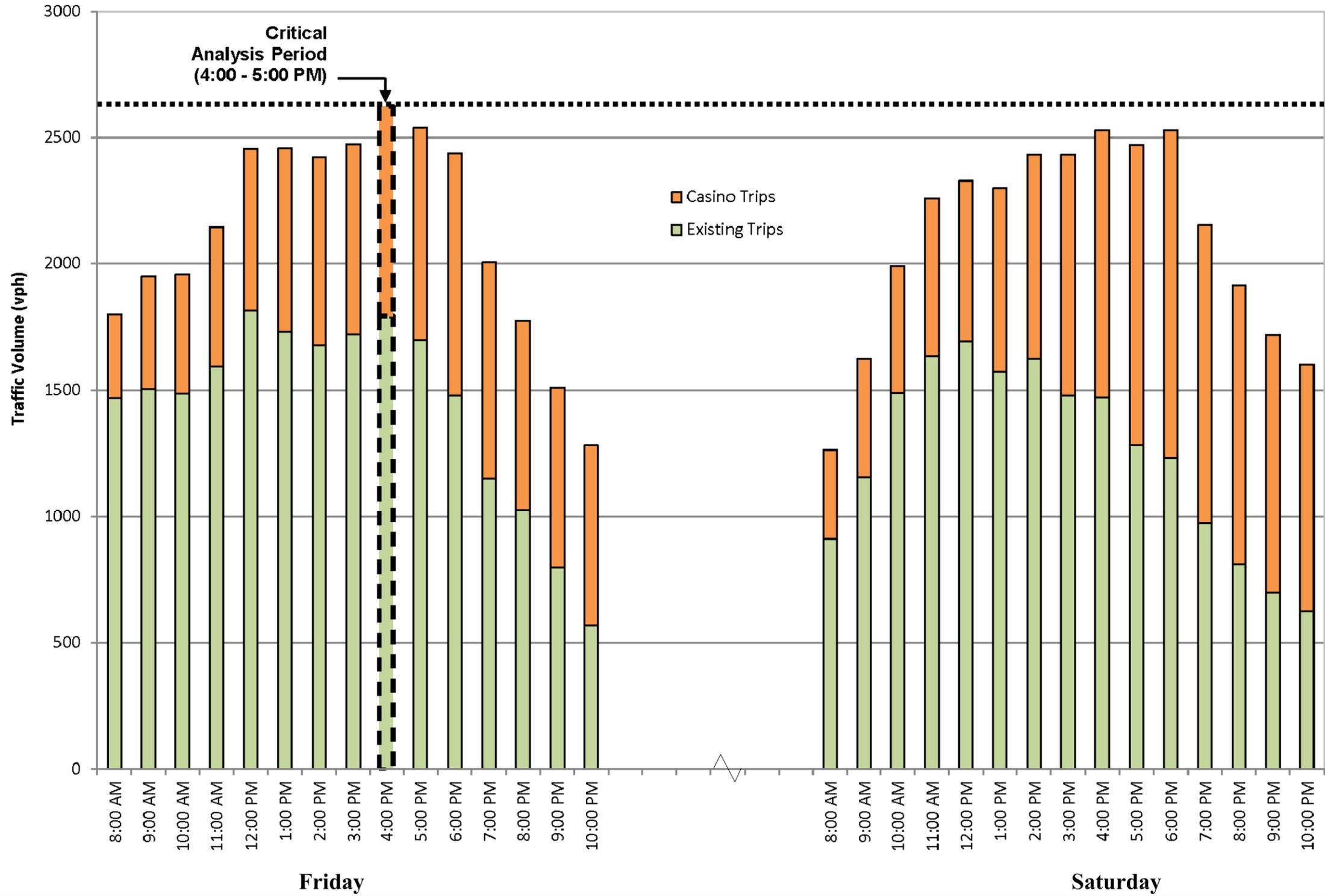


Figure 10

**Hourly Traffic Volumes  
 (Belmont Street to the west of West Street)**

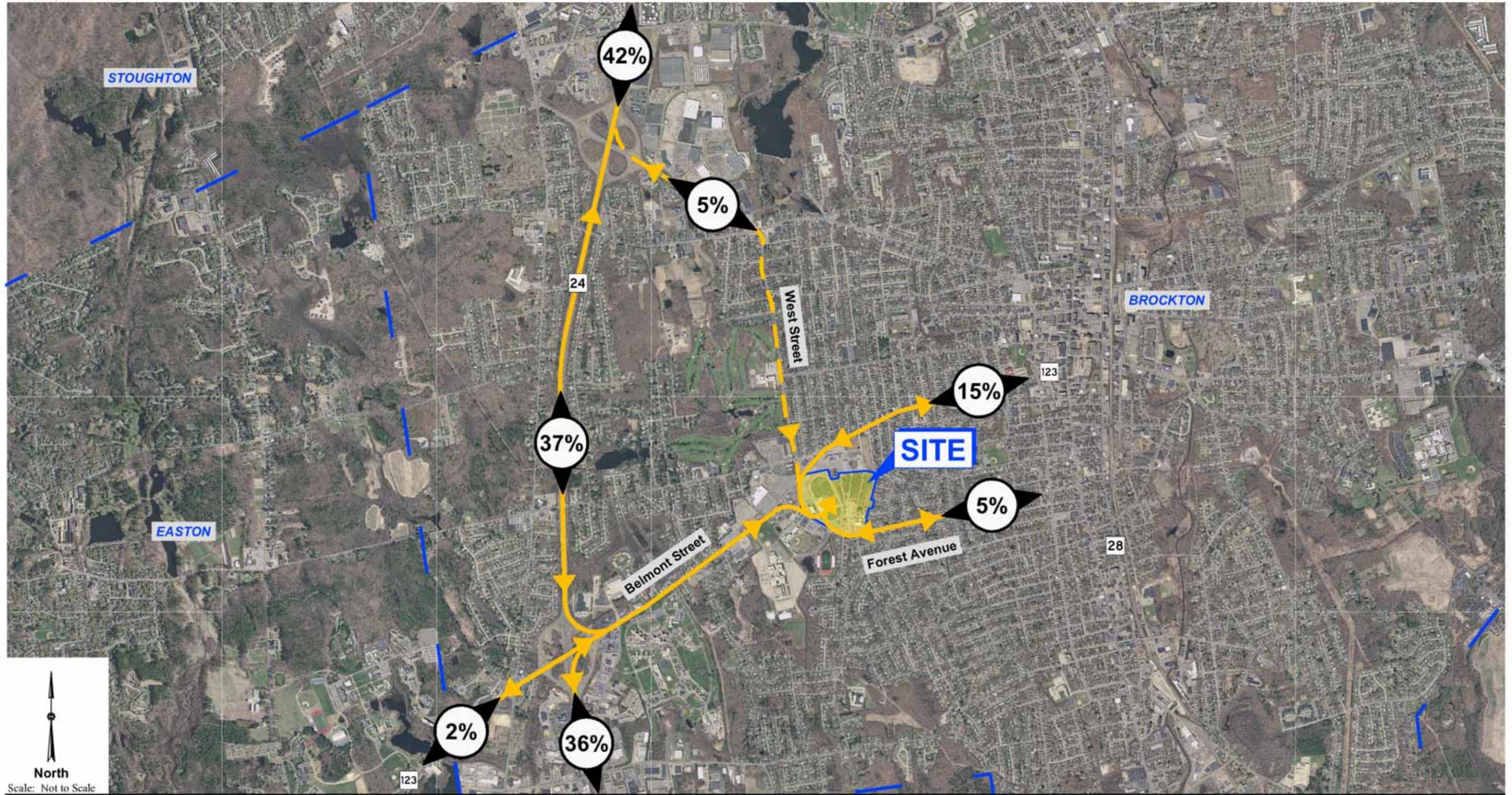


Figure 11

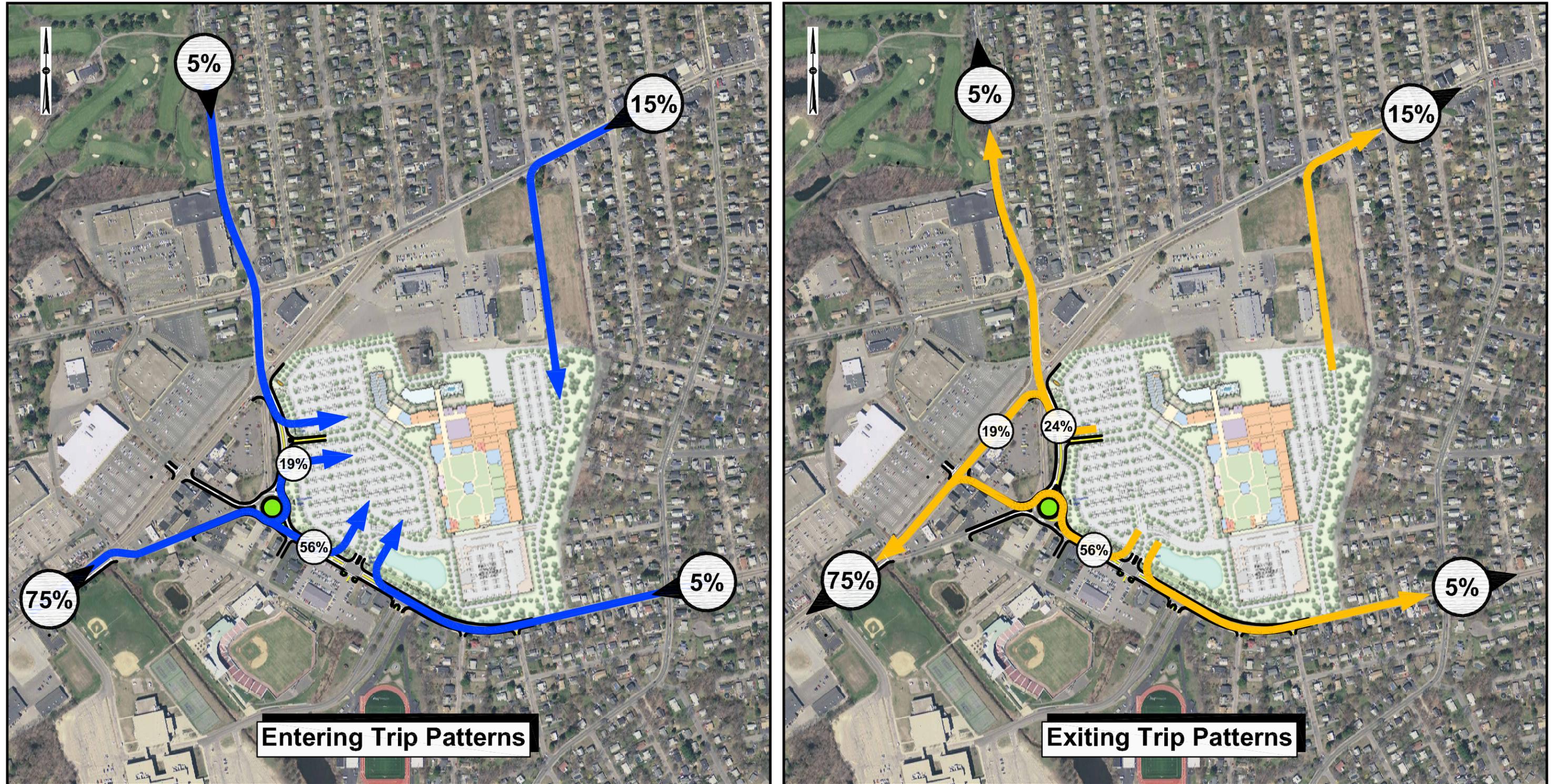


Figure 12

**TABLE 6**  
**TRIP-DISTRIBUTION PATTERNS**

<b>Roadway Segment (To/From)</b>	<b>Trip Percentage<sup>1</sup></b>
Route 24 (North)	42%
Route 24 (South)	36%
Route 123 (East)	15%
Route 123 (West)	2%
<u>Forest Avenue (East)</u>	<u>5%</u>
<b>TOTAL</b>	<b>100%</b>

<sup>1</sup>Based on Population Densities within a 90 minute travel time, weighted by market zone and travel propensity. Refer to Appendices for gravity model inputs and projections.

As summarized in **Table 6**, gravity modeling results indicate that trip activity for the proposed facility will be principally oriented to the Route 24 corridor which accounts for approximately 78 percent of the trips, followed by the Route 123 corridor to/from the east (15 percent) and the Forrest Avenue corridor (5 percent).

Regional distribution of trips along Route 24 has a higher orientation to/from the north (42 percent) than from the south (36 percent) due to slightly higher market population densities and proprietary market demographic data; the distribution also factors in travel times for various route options and existing competing casino facilities in Rhode Island (Twin River Casino), Connecticut (Foxwood Casino, Mohegan Sun Casino) and the planned Massachusetts casino facilities in Springfield and Everett. The regional trip distribution along Route 24 to/from the north is also informed by traffic-calibrated GPS route assignment and travel time runs for peak weekday evening periods, which indicates that most trips will be oriented to the Belmont Street (Route 123) interchange; a small percentage of trips from the north are assigned to the Route 27 interchange and West Street corridors representing 5% of total casino trips. Supporting travel time run data are included in the **Appendices**. Trip distribution from communities east of the Site are assumed to be oriented principally to the Belmont Street corridor, though population density for this segment of the regional market is relatively modest and a substantial proportion of trips generated along this roadway are expected to be from employees, assuming a local hiring preference for the casino.

#### Site Trip Assignment

Site-generated trips are assigned to the roadway network using the trip-generation estimates presented in **Table 5** and the trip distribution patterns summarized in **Table 6**. Site-generated peak hour trips for each study intersection for the Friday evening and Saturday evening peak hours are identified in **Figure 13** and **Figure 14**.

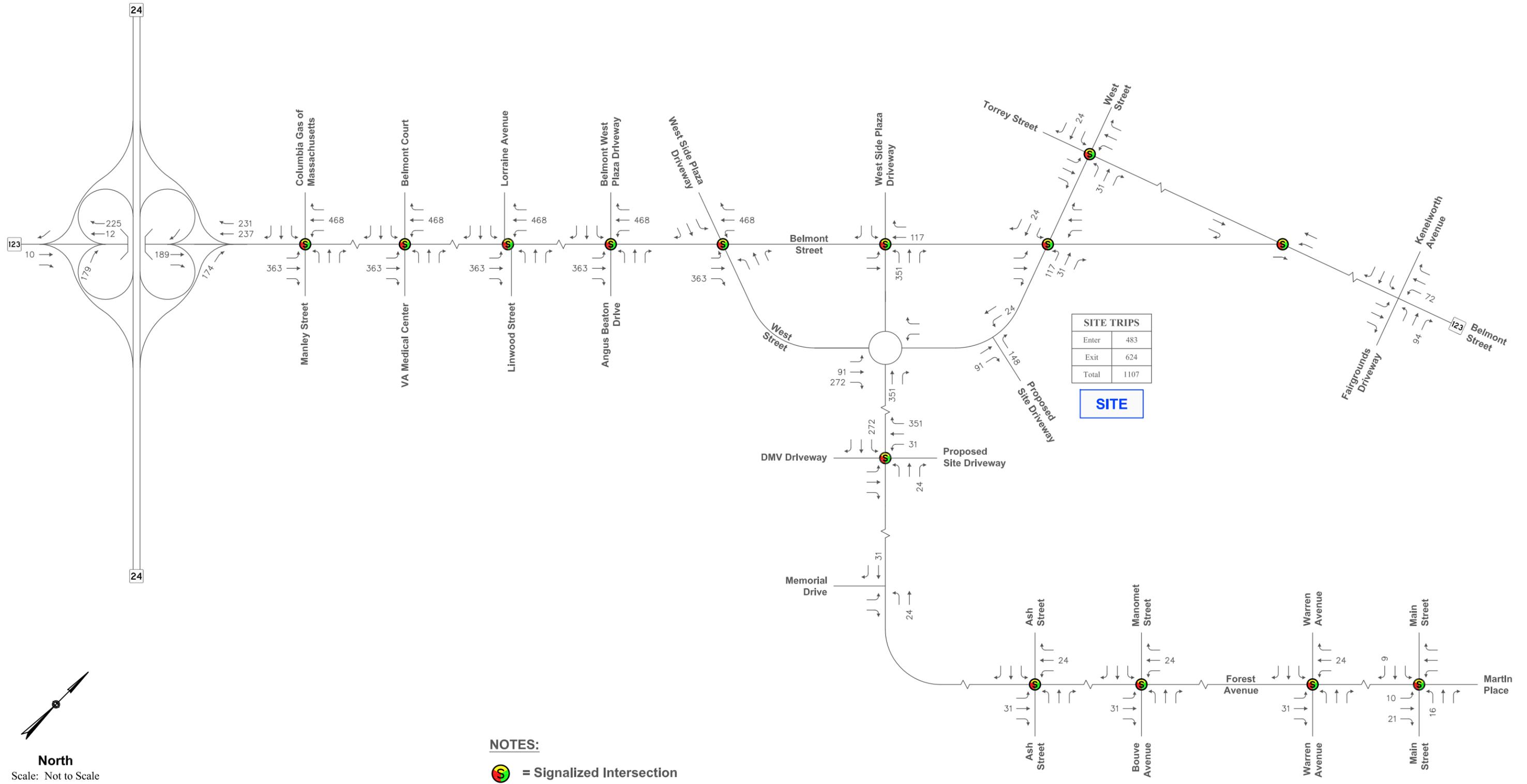
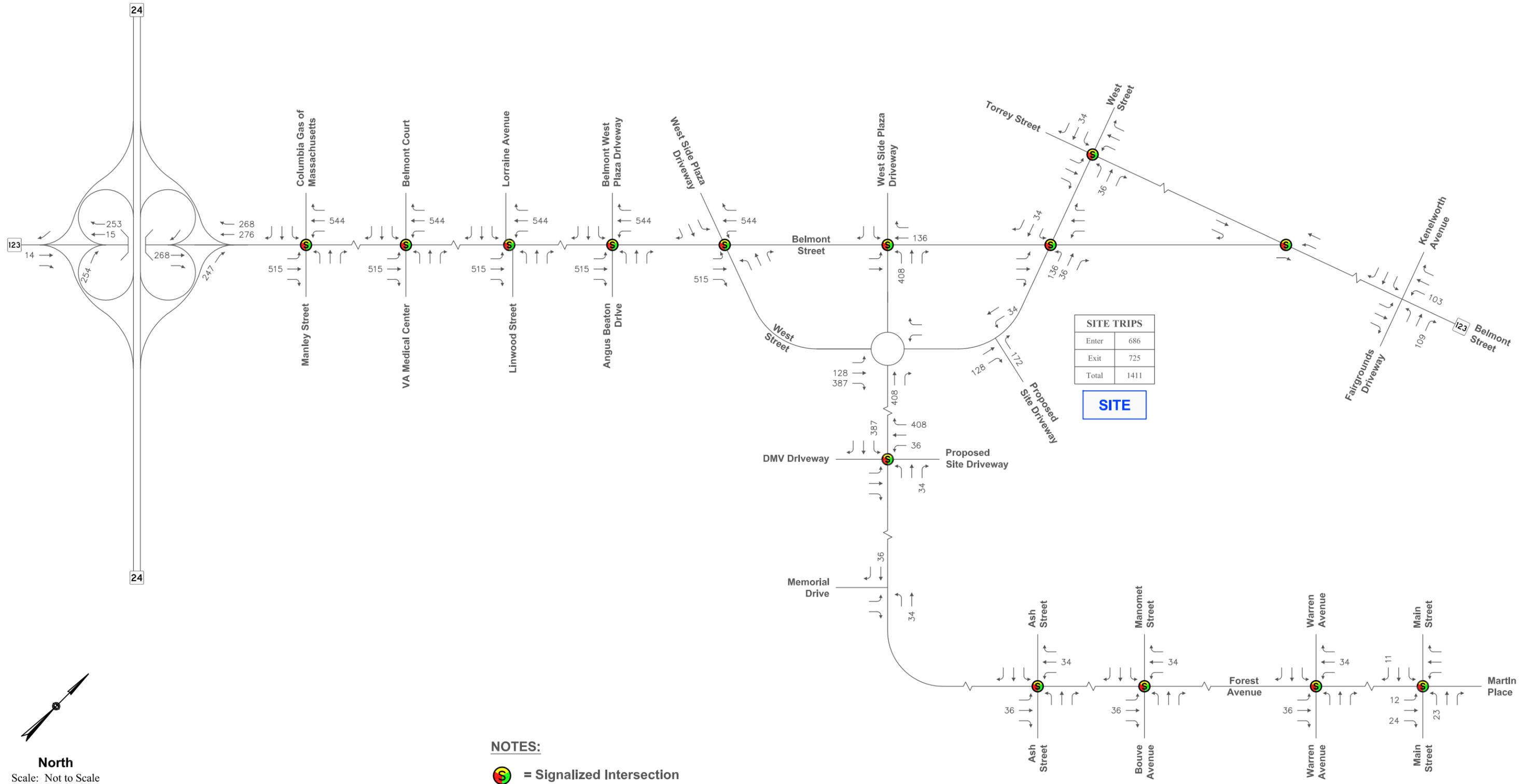


Figure 13

Site Generated Trips Friday Evening  
 Peak Hour Traffic Volumes



**Figure 14**

**Site Generated Trips Saturday Evening  
 Peak Hour Traffic Volumes**

### 3.6 BUILD TRAFFIC VOLUMES

Future Build condition traffic volumes were arrived at by adding development-specific traffic volumes to the 2025 No-Build conditions. The 2025 Build condition traffic-volume networks for the Friday evening and Saturday evening peak hours are displayed in **Figure 15** and **Figure 16**.

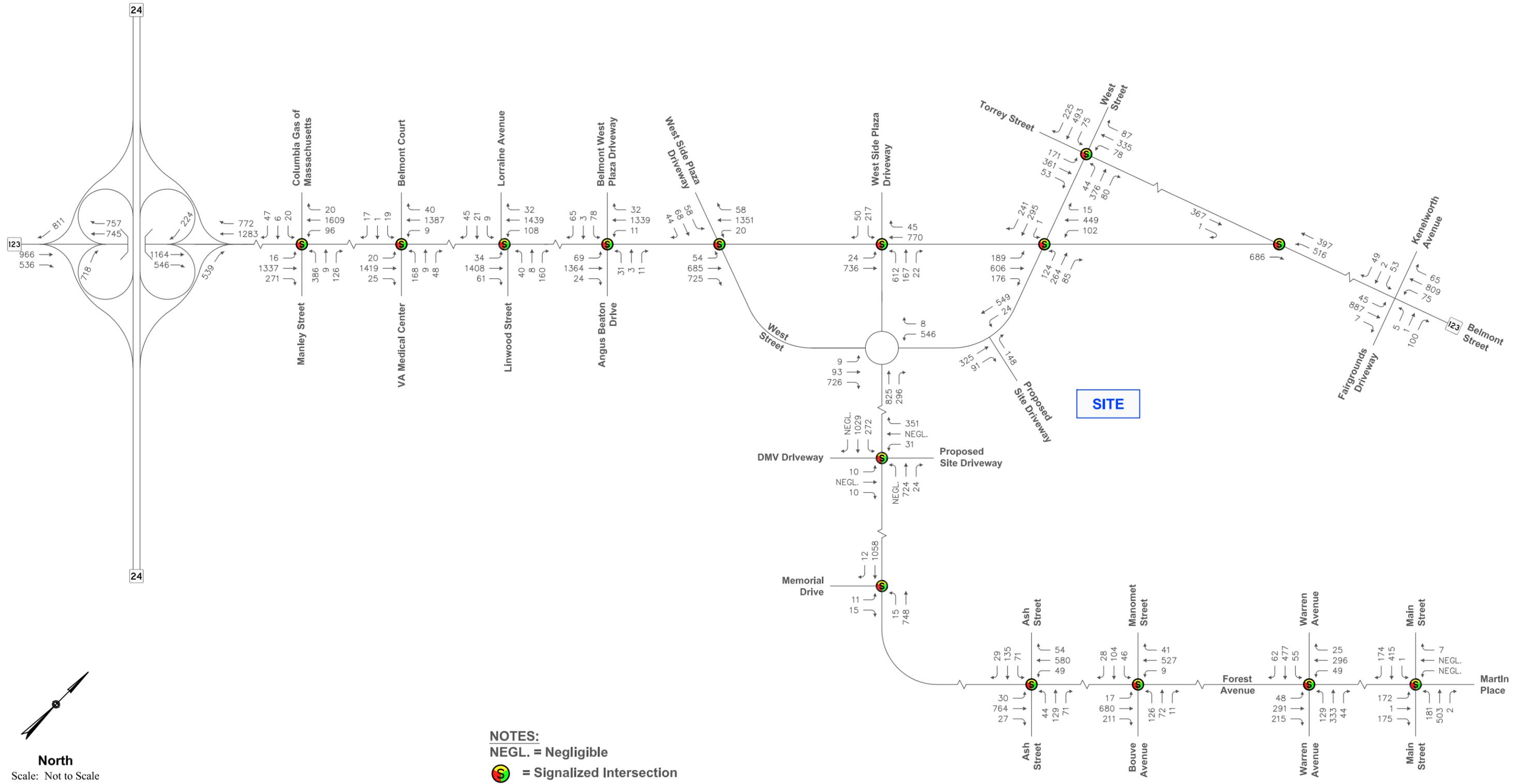


Figure 15

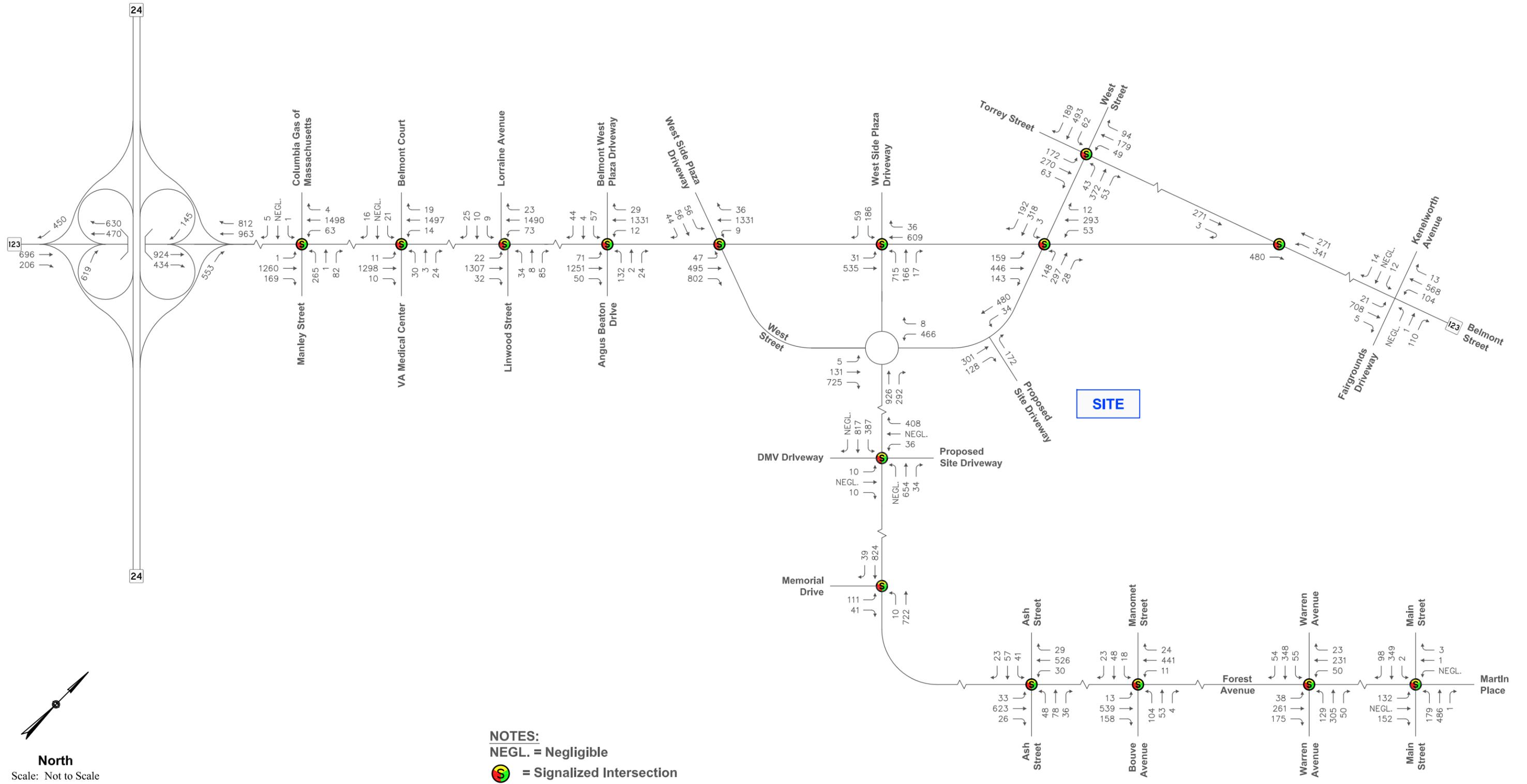


Figure 16

2025 Build Saturday Evening  
 Peak Hour Traffic Volumes

## ***4.0 TRAFFIC OPERATIONS ANALYSIS***

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Intersection capacity analyses for the primary study intersections are presented in this section for the Baseline, No-Build, and Build traffic-volume conditions. Capacity analyses, conducted in accordance with EEA/MassDOT guidelines, provide an index of how well the roadway facilities serve the traffic demands placed upon them. The operational results provide the basis for recommended access and roadway improvements in the following section.

### ***4.1 CAPACITY ANALYSIS PROCEDURES***

Capacity analysis of intersections is developed using the Synchro® and Sidra® computer software, which implement the methods of the Highway Capacity Manual (HCM). The resulting analysis presents a level-of-service (LOS) designation for individual intersection movements. The LOS is a letter designation that provides a qualitative measure of operating conditions based on several factors including roadway geometry, speeds, ambient traffic volumes, traffic controls, and driver characteristics. Since the LOS of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of LOS, depending on the time of day, day of week, or period of year. A range of six levels of service are defined on the basis of average delay, ranging from LOS A (the least delay) to LOS F (delays greater than 50 seconds for unsignalized movements and 80 seconds for signalized movements). The specific control delays and associated LOS designations are presented in the **Appendices**.

### ***4.2 INTERSECTION ANALYSIS RESULTS***

Capacity analysis results for the Friday evening and Saturday evening peak hours for the study intersections are described below, with detailed capacity and queuing analysis results presented in the **Appendices**.

#### ***4.2.1 Level of Service Analysis***

The capacity analysis results for the intersections in the study area are summarized in **Table 7** and **Table 8** for the Friday evening and Saturday evening peak hours, respectively. Detailed capacity analysis results are presented in the **Appendices**.

**TABLE 7  
INTERSECTION CAPACITY ANALYSIS RESULTS  
FRIDAY EVENING PEAK HOUR**

Intersection	Approach	2015 Baseline			2025 No-Build <sup>4</sup>			2025 Build (w/ Mitigation) <sup>5</sup>		
		v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	v/c	Delay	LOS	v/c	Delay	LOS
1 - Belmont Street (Route 123) at Manley Street/ Columbia Gas	Eastbound	0.98	50	D	0.83	28	C	0.91	33	C
	Westbound	0.88	22	C	0.69	18	B	0.83	21	C
	Northbound	>1.0	>80	F	0.86	50	D	0.91	67	E
	Southbound	<u>0.18</u>	<u>13</u>	<u>B</u>	<u>0.45</u>	<u>27</u>	<u>C</u>	<u>0.59</u>	<u>43</u>	<u>D</u>
	<b>Overall</b>	<b>&gt;1.0</b>	<b>56</b>	<b>E</b>	<b>0.86</b>	<b>28</b>	<b>C</b>	<b>0.91</b>	<b>32</b>	<b>C</b>
2 - Belmont Street (Route 123) at VA Hospital/Belmont Court	Eastbound	0.61	11	B	0.52	7	A	0.66	<5	A
	Westbound	0.54	10	A	0.46	8	A	0.63	8	A
	Northbound	0.52	19	B	0.69	38	D	0.77	55	D
	Southbound	<u>0.06</u>	<u>12</u>	<u>B</u>	<u>0.08</u>	<u>20</u>	<u>C</u>	<u>0.09</u>	<u>30</u>	<u>C</u>
<b>Overall</b>	<b>0.61</b>	<b>11</b>	<b>B</b>	<b>0.69</b>	<b>10</b>	<b>A</b>	<b>0.77</b>	<b>9</b>	<b>A</b>	
3 - Belmont Street (Route 123) at Linwood Street/ Lorraine Avenue	Eastbound	0.05	<5	A	0.76	20	C	0.77	7	A
	Westbound	0.16	<5	A	0.45	8	A	0.66	8	A
	Northbound	>1.0	>50	F	0.33	19	B	0.58	43	D
	Southbound	<u>&gt;1.0</u>	<u>&gt;50</u>	<u>F</u>	<u>0.31</u>	<u>19</u>	<u>B</u>	<u>0.47</u>	<u>35</u>	<u>C</u>
<b>Overall</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.76</b>	<b>15</b>	<b>B</b>	<b>0.77</b>	<b>10</b>	<b>A</b>	
4 - Belmont Street (Route 123) at Angus Beaton Drive/ Belmont West Plaza	Eastbound	0.41	12	B	0.46	12	B	0.59	11	B
	Westbound	0.44	15	B	0.48	16	B	0.69	5	A
	Northbound	0.25	34	C	0.25	34	C	0.20	27	C
	Southbound	<u>0.34</u>	<u>23</u>	<u>C</u>	<u>0.34</u>	<u>23</u>	<u>C</u>	<u>0.71</u>	<u>40</u>	<u>D</u>
<b>Overall</b>	<b>0.44</b>	<b>14</b>	<b>B</b>	<b>0.48</b>	<b>15</b>	<b>B</b>	<b>0.71</b>	<b>10</b>	<b>A</b>	
5 - Belmont Street (Route 123) at West Street/ West Side Plaza	Eastbound	0.37	47	A	0.38	7	A	0.57	<5	A
	Westbound	0.44	15	B	0.49	15	B	0.74	12	B
	Northbound	0.69	34	C	0.71	34	C	0.00	24	C
	Southbound	<u>0.38</u>	<u>20</u>	<u>B</u>	<u>0.36</u>	<u>19</u>	<u>B</u>	<u>0.66</u>	<u>37</u>	<u>D</u>
<b>Overall</b>	<b>0.69</b>	<b>13</b>	<b>B</b>	<b>0.71</b>	<b>14</b>	<b>B</b>	<b>0.74</b>	<b>10</b>	<b>A</b>	
6 - Belmont Street (Route 123) at Forest avenue/ West Side Plaza	Eastbound	0.34	5	A	0.38	5	A	0.53	12	B
	Westbound	0.35	6	A	0.39	7	A	0.53	13	B
	Northbound	0.74	46	D	0.78	50	D	0.91	40	D
	Southbound	<u>0.66</u>	<u>35</u>	<u>D</u>	<u>0.66</u>	<u>35</u>	<u>D</u>	<u>0.60</u>	<u>19</u>	<u>B</u>
<b>Overall</b>	<b>0.74</b>	<b>14</b>	<b>B</b>	<b>0.78</b>	<b>14</b>	<b>B</b>	<b>0.91</b>	<b>22</b>	<b>C</b>	
7 - Belmont Street (Route 123) at West Street	Eastbound	0.68	14	B	0.73	17	B	0.67	6	A
	Westbound	0.42	10	B	0.46	11	B	0.41	9	A
	Northbound	0.58	19	B	0.63	21	C	0.78	39	D
	Southbound	<u>0.48</u>	<u>12</u>	<u>B</u>	<u>0.53</u>	<u>13</u>	<u>B</u>	<u>0.66</u>	<u>20</u>	<u>B</u>
<b>Overall</b>	<b>0.68</b>	<b>13</b>	<b>B</b>	<b>0.73</b>	<b>15</b>	<b>B</b>	<b>0.78</b>	<b>16</b>	<b>B</b>	

<sup>1</sup>Volume-to-capacity ratio

<sup>2</sup>Average control delay per vehicle (in seconds)

<sup>3</sup>Level of service

<sup>4</sup>No Build assumes implementation of programmed/funded improvements along Belmont Street by MassDOT.

<sup>5</sup>See Section 5.0 for description of mitigation.

na = Not Applicable

**TABLE 7 (CONT.)  
INTERSECTION CAPACITY ANALYSIS RESULTS  
FRIDAY EVENING PEAK HOUR**

Intersection	Approach	2015 Baseline			2025 No-Build <sup>4</sup>			2025 Build (w/ Mitigation) <sup>5</sup>		
		v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	v/c	Delay	LOS	v/c	Delay	LOS
8 – Belmont Street (Route 123) at Torrey Street	Eastbound	0.51	10	A	0.57	11	B	0.57	11	B
	Westbound	0.44	6	A	0.49	6	A	0.49	6	A
	<u>Southbound</u>	<u>0.71</u>	<u>32</u>	<u>C</u>	<u>0.76</u>	<u>34</u>	<u>C</u>	<u>0.76</u>	<u>34</u>	<u>C</u>
	<b>Overall</b>	<b>0.71</b>	<b>12</b>	<b>B</b>	<b>0.76</b>	<b>13</b>	<b>B</b>	<b>0.76</b>	<b>13</b>	<b>B</b>
9 - Belmont Street (Route 123) at Fairgrounds Driveway/ Kenelworth Avenue	Eastbound	0.05	<5	A	0.06	<5	A	0.06	<5	A
	Westbound	0.01	<5	A	0.01	<5	A	0.13	<5	A
	Northbound	0.10	45	E	0.14	>50	F	0.22	>50	F
	Southbound	0.10	>50	F	>1.0	>50	F	>1.0	>50	F
10 – West Street at Torrey Street	Eastbound	0.80	24	C	0.88	32	C	0.79	24	C
	Westbound	0.61	15	B	0.65	16	B	0.57	14	B
	Northbound	0.72	24	C	0.85	35	D	0.88	37	D
	<u>Southbound</u>	<u>0.69</u>	<u>18</u>	<u>B</u>	<u>0.77</u>	<u>21</u>	<u>C</u>	<u>0.77</u>	<u>21</u>	<u>C</u>
	<b>Overall</b>	<b>0.80</b>	<b>20</b>	<b>B</b>	<b>0.88</b>	<b>26</b>	<b>C</b>	<b>0.88</b>	<b>24</b>	<b>C</b>
11 - West Street at Forest Avenue	Eastbound	0.73	23	C	0.81	31	E	Roundabout See Location 12 Below		
	Westbound	0.68	21	C	0.06	11	D			
	Northbound	0.05	10	B	0.86	36	B			
	Southbound	0.47	14	B	0.56	18	C			
12 - West Street at Forest Avenue	Eastbound	>1.0	9	F	0.00	<5	A	0.30	11	B
	Northbound	n/a	n/a	n/a	n/a	n/a	n/a	0.39	<5	A
	Southbound	0.00	>50	A	>1.0	>50	F	0.41	6	A
13 – Forest Avenue at Memorial Drive	EB L Exit	0.11	46	E	0.15	>50	F	0.08	30	C
	EB R Exit	0.05	17	C	0.06	19	C	0.10	16	B
	Northbound	0.02	10	B	0.02	11	B	0.24	<5	A
	<u>Southbound</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>0.35</u>	<u>&lt;5</u>	<u>A</u>
	<b>Overall</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.35</b>	<b>&lt;5</b>	<b>A</b>
14 - Forest Avenue at Ash Street	Eastbound	0.73	15	B	0.82	19	B	0.85	20	B
	Westbound	0.65	13	B	0.73	15	B	0.76	16	B
	Northbound	0.46	19	B	0.50	20	B	0.62	27	C
	<u>Southbound</u>	<u>0.47</u>	<u>21</u>	<u>C</u>	<u>0.53</u>	<u>22</u>	<u>C</u>	<u>0.70</u>	<u>34</u>	<u>C</u>
	<b>Overall</b>	<b>0.73</b>	<b>16</b>	<b>B</b>	<b>0.82</b>	<b>18</b>	<b>B</b>	<b>0.85</b>	<b>21</b>	<b>C</b>

<sup>1</sup>Volume-to-capacity ratio

<sup>2</sup>Average control delay per vehicle (in seconds)

<sup>3</sup>Level of service

<sup>4</sup>No Build assumes implementation of programmed/funded improvements along Belmont Street by MassDOT.

<sup>5</sup>See Section 5.0 for description of mitigation.

na = Not Applicable

**TABLE 7 (CONT.)**  
**INTERSECTION CAPACITY ANALYSIS RESULTS**  
**FRIDAY EVENING PEAK HOUR**

Intersection	Approach	2015 Baseline			2025 No-Build <sup>4</sup>			2025 Build (w/ Mitigation) <sup>5</sup>		
		v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	v/c	Delay	LOS	v/c	Delay	LOS
15 – Forest Avenue at Manomet Street/ Bouve Avenue	Eastbound	0.68	11	B	0.87	20	C	0.85	19	B
	Westbound	0.42	7	A	0.54	9	A	0.54	9	A
	Northbound	0.51	24	C	0.67	33	C	0.71	40	D
	<u>Southbound</u>	<u>0.40</u>	<u>20</u>	<u>C</u>	<u>0.48</u>	<u>23</u>	<u>C</u>	<u>0.49</u>	<u>26</u>	<u>C</u>
	<b>Overall</b>	<b>0.68</b>	<b>13</b>	<b>B</b>	<b>0.87</b>	<b>18</b>	<b>B</b>	<b>0.85</b>	<b>19</b>	<b>B</b>
16 - Forest Avenue at Warren Avenue	Eastbound	0.78	25	C	0.87	32	C	0.85	31	C
	Westbound	0.54	18	B	0.62	19	B	0.58	20	B
	Northbound	0.58	13	B	0.67	15	B	0.84	30	C
	<u>Southbound</u>	<u>0.63</u>	<u>13</u>	<u>B</u>	<u>0.70</u>	<u>15</u>	<u>B</u>	<u>0.80</u>	<u>25</u>	<u>C</u>
	<b>Overall</b>	<b>0.78</b>	<b>17</b>	<b>B</b>	<b>0.87</b>	<b>20</b>	<b>C</b>	<b>0.85</b>	<b>27</b>	<b>C</b>
17 – Forest Avenue at Main Street/Martin Place	Eastbound	>1.0	>50	F	>1.0	>50	F	0.86	40	D
	Westbound	0.07	12	B	0.02	13	B	0.01	<5	A
	Northbound	0.17	10	A	0.20	10	B	0.60	13	B
	<u>Southbound</u>	<u>0.00</u>	<u>9</u>	<u>A</u>	<u>0.00</u>	<u>9</u>	<u>A</u>	<u>0.93</u>	<u>43</u>	<u>D</u>
	<b>Overall</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.93</b>	<b>30</b>	<b>C</b>
18 – Belmont Street at Route 24 SB off-ramp to Belmont Street eastbound (Exit 17A)	Eastbound				Ramp Merge Junction					
	Westbound				See Table 9 Below					
	NB R Exit									
	SB R Exit									
19 – Belmont Street at Route 24 NB off-ramp to Belmont Street eastbound (Exit 17A)	Eastbound				Ramp Merge Junction					
	Westbound				See Table 9 Below					
	NB R Exit									
	SB									
20 – West Street at Proposed Site Driveway	Westbound	n/a	n/a	n/a	n/a	n/a	n/a	0.21	11	B
	Southbound	n/a	n/a	n/a	n/a	n/a	n/a	0.02	8	A
21 – Forest Avenue at Proposed Site Driveway	Eastbound	n/a	n/a	n/a	n/a	n/a	n/a	0.07	<5	A
	Westbound	n/a	n/a	n/a	n/a	n/a	n/a	0.70	22	C
	Northbound	n/a	n/a	n/a	n/a	n/a	n/a	0.36	8	A
	<u>Southbound</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>0.57</u>	<u>&lt;5</u>	<u>A</u>
	<b>Overall</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.70</b>	<b>8</b>	<b>A</b>

<sup>1</sup>Volume-to-capacity ratio

<sup>2</sup>Average control delay per vehicle (in seconds)

<sup>3</sup>Level of service

<sup>4</sup>No Build assumes implementation of programmed/funded improvements along Belmont Street by MassDOT.

<sup>5</sup>See Section 5.0 for description of mitigation.

na = Not Applicable

**TABLE 8  
INTERSECTION CAPACITY ANALYSIS RESULTS  
SATURDAY EVENING PEAK HOUR**

Intersection	Approach	2015 Baseline			2025 No-Build <sup>4</sup>			2025 Build (w/ Mitigation) <sup>5</sup>		
		v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	v/c	Delay	LOS	v/c	Delay	LOS
1 - Belmont Street (Route 123) at Manley Street/ Columbia Gas	Eastbound	0.73	29	C	0.48	14	B	0.85	24	C
	Westbound	0.64	14	B	0.43	9	A	0.74	16	B
	Northbound	0.86	53	D	0.67	39	D	0.64	36	D
	Southbound	<u>0.01</u>	<u>&lt;5</u>	<u>A</u>	<u>0.03</u>	<u>&lt;5</u>	<u>A</u>	<u>0.02</u>	<u>&lt;5</u>	<u>A</u>
	<b>Overall</b>	<b>0.86</b>	<b>25</b>	<b>C</b>	<b>0.67</b>	<b>15</b>	<b>B</b>	<b>0.85</b>	<b>21</b>	<b>C</b>
2 - Belmont Street (Route 123) at VA Hospital/Belmont Court	Eastbound	0.34	<5	A	0.30	<5	A	0.50	<5	A
	Westbound	0.42	5	A	0.36	<5	A	0.59	5	A
	Northbound	0.11	13	B	0.29	32	C	0.22	27	C
	Southbound	<u>0.08</u>	<u>10</u>	<u>A</u>	<u>0.21</u>	<u>24</u>	<u>C</u>	<u>0.15</u>	<u>22</u>	<u>C</u>
	<b>Overall</b>	<b>0.42</b>	<b>5</b>	<b>A</b>	<b>0.36</b>	<b>&lt;5</b>	<b>A</b>	<b>0.59</b>	<b>5</b>	<b>A</b>
3 - Belmont Street (Route 123) at Linwood Street/ Lorraine Avenue	Eastbound	0.03	<5	A	0.51	14	B	0.66	14	B
	Westbound	0.01	<5	A	0.36	6	A	0.54	7	A
	Northbound	>1.0	>50	F	0.17	15	B	0.33	26	C
	Southbound	<u>0.57</u>	<u>&gt;50</u>	<u>F</u>	<u>0.14</u>	<u>17</u>	<u>B</u>	<u>0.24</u>	<u>24</u>	<u>C</u>
	<b>Overall</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.51</b>	<b>10</b>	<b>A</b>	<b>0.66</b>	<b>11</b>	<b>B</b>
4 - Belmont Street (Route 123) at Angus Beaton Drive/ Belmont West Plaza	Eastbound	0.43	12	B	0.43	12	B	0.60	11	B
	Westbound	0.47	14	B	0.47	15	B	0.74	<5	A
	Northbound	>1.0	>80	F	>1.0	>80	F	0.86	32	C
	Southbound	<u>0.30</u>	<u>26</u>	<u>C</u>	<u>0.30</u>	<u>26</u>	<u>C</u>	<u>0.67</u>	<u>40</u>	<u>D</u>
	<b>Overall</b>	<b>&gt;1.0</b>	<b>23</b>	<b>C</b>	<b>&gt;1.0</b>	<b>23</b>	<b>C</b>	<b>0.74</b>	<b>10</b>	<b>A</b>
5 - Belmont Street (Route 123) at West Street/ West Side Plaza	Eastbound	0.34	7	A	0.36	7	A	0.69	6	A
	Westbound	0.39	16	B	0.44	17	B	0.76	13	B
	Northbound	0.72	34	C	0.74	34	C	0.00	22	C
	Southbound	<u>0.36</u>	<u>19</u>	<u>B</u>	<u>0.34</u>	<u>18</u>	<u>B</u>	<u>0.62</u>	<u>33</u>	<u>C</u>
	<b>Overall</b>	<b>0.72</b>	<b>15</b>	<b>B</b>	<b>0.74</b>	<b>15</b>	<b>B</b>	<b>0.76</b>	<b>11</b>	<b>B</b>
6 - Belmont Street (Route 123) at Forest avenue/ West Side Plaza	Eastbound	0.27	4	A	0.30	5	A	0.46	14	B
	Westbound	0.25	6	A	0.27	7	A	0.46	13	B
	Northbound	0.87	61	E	0.88	60	E	0.89	35	C
	Southbound	<u>0.51</u>	<u>28</u>	<u>C</u>	<u>0.50</u>	<u>27</u>	<u>C</u>	<u>0.51</u>	<u>13</u>	<u>B</u>
	<b>Overall</b>	<b>0.87</b>	<b>17</b>	<b>B</b>	<b>0.88</b>	<b>17</b>	<b>B</b>	<b>0.89</b>	<b>22</b>	<b>C</b>
7 - Belmont Street (Route 123) at West Street	Eastbound	0.54	12	B	0.60	13	B	0.48	5	A
	Westbound	0.27	9	A	0.29	10	A	0.21	8	A
	Northbound	0.50	15	B	0.54	16	B	0.84	38	D
	Southbound	<u>0.47</u>	<u>11</u>	<u>B</u>	<u>0.50</u>	<u>11</u>	<u>B</u>	<u>0.66</u>	<u>20</u>	<u>B</u>
	<b>Overall</b>	<b>0.54</b>	<b>12</b>	<b>B</b>	<b>0.59</b>	<b>12</b>	<b>B</b>	<b>0.84</b>	<b>17</b>	<b>B</b>

<sup>1</sup>Volume-to-capacity ratio

<sup>2</sup>Average control delay per vehicle (in seconds)

<sup>3</sup>Level of service

<sup>4</sup>No Build assumes implementation of programmed/funded improvements along Belmont Street by MassDOT.

<sup>5</sup>See Section 5.0 for description of mitigation.

na = Not Applicable

**TABLE 8 (CONT.)  
INTERSECTION CAPACITY ANALYSIS RESULTS  
SATURDAY EVENING PEAK HOUR**

Intersection	Approach	2015 Baseline			2025 No-Build			2025 Build (w/ Mitigation) <sup>5</sup>		
		v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	v/c	Delay	LOS	v/c	Delay	LOS
8 – Belmont Street (Route 123) at Torrey Street	Eastbound	0.33	7	A	0.37	8	A	0.37	8	A
	Westbound	0.26	<5	A	0.30	<5	A	0.30	<5	A
	<u>Southbound</u>	<u>0.60</u>	<u>29</u>	<u>C</u>	<u>0.63</u>	<u>29</u>	<u>C</u>	<u>0.63</u>	<u>29</u>	<u>C</u>
	<b>Overall</b>	<b>0.60</b>	<b>10</b>	<b>A</b>	<b>0.76</b>	<b>13</b>	<b>B</b>	<b>0.76</b>	<b>13</b>	<b>B</b>
9 - Belmont Street (Route 123) at Fairgrounds Driveway/ Kenelworth Avenue	Eastbound	0.02	<5	A	0.02	<5	A	0.02	<5	A
	Westbound	0.00	<5	A	0.00	<5	A	0.15	<5	A
	Northbound	0.01	<5	C	0.01	23	C	0.29	17	C
	Southbound	0.10	22	C	0.18	26	D	0.30	>50	F
10 – West Street at Torrey Street	Eastbound	0.69	18	B	0.76	21	C	0.76	22	C
	Westbound	0.40	11	B	0.43	11	B	0.43	12	B
	Northbound	0.33	21	C	0.72	24	C	0.73	24	C
	<u>Southbound</u>	<u>0.33</u>	<u>15</u>	<u>B</u>	<u>0.66</u>	<u>17</u>	<u>B</u>	<u>0.67</u>	<u>17</u>	<u>B</u>
	<b>Overall</b>	<b>0.69</b>	<b>16</b>	<b>B</b>	<b>0.76</b>	<b>19</b>	<b>B</b>	<b>0.76</b>	<b>19</b>	<b>B</b>
11 - West Street at Forest Avenue	Eastbound	0.82	29	D	0.95	48	E	Roundabout See Location 12 Below		
	Westbound	0.51	14	B	0.60	47	C			
	Northbound	0.03	10	A	0.04	11	B			
	Southbound	0.37	12	B	0.44	14	B			
12 - West Street at Forest Avenue	Westbound	>1.0	>50	F	>1.0	>50	F	0.27	11	B
	Northbound	n/a	n/a	n/a	n/a	n/a	n/a	0.43	<5	A
	Southbound	0.00	10	A	0.00	10	A	0.41	6	A
13 – Forest Avenue at Memorial Drive	EB L Exit	0.82	>50	F	>1.0	>50	F	0.46	33	C
	EB R Exit	0.10	15	C	0.13	17	C	0.16	10	A
	Northbound	0.01	10	A	0.01	10	A	0.30	<5	A
	<u>Southbound</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>0.33</u>	<u>&lt;5</u>	<u>A</u>
	<b>Overall</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.46</b>	<b>6</b>	<b>A</b>
14 - Forest Avenue at Ash Street	Eastbound	0.62	12	B	0.68	14	B	0.62	10	A
	Westbound	0.52	10	B	0.59	12	B	0.54	8	A
	Northbound	0.32	17	B	0.35	17	B	0.49	22	C
	<u>Southbound</u>	<u>0.24</u>	<u>16</u>	<u>B</u>	<u>0.27</u>	<u>16</u>	<u>B</u>	<u>0.38</u>	<u>20</u>	<u>C</u>
	<b>Overall</b>	<b>0.62</b>	<b>12</b>	<b>B</b>	<b>0.68</b>	<b>14</b>	<b>B</b>	<b>0.62</b>	<b>11</b>	<b>B</b>

<sup>1</sup>Volume-to-capacity ratio

<sup>2</sup>Average control delay per vehicle (in seconds)

<sup>3</sup>Level of service

<sup>4</sup>No Build assumes implementation of programmed/funded improvements along Belmont Street by MassDOT.

<sup>5</sup>See Section 5.0 for description of mitigation.

na = Not Applicable

**TABLE 8 (CONT.)**  
**INTERSECTION CAPACITY ANALYSIS RESULTS**  
**SATURDAY EVENING PEAK HOUR**

Intersection	Approach	2015 Baseline			2025 No-Build			2025 Build (w/ Mitigation) <sup>5</sup>		
		v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	v/c	Delay	LOS	v/c	Delay	LOS
15 – Forest Avenue at Manomet Street/ Bouve Avenue	Eastbound	0.59	9	A	0.64	10	A	0.62	10	A
	Westbound	0.38	7	A	0.41	7	A	0.41	7	A
	Northbound	0.40	20	B	0.46	22	C	0.53	25	C
	<u>Southbound</u>	<u>0.19</u>	<u>14</u>	<u>B</u>	<u>0.21</u>	<u>15</u>	<u>B</u>	<u>0.24</u>	<u>16</u>	<u>B</u>
	<b>Overall</b>	<b>0.59</b>	<b>10</b>	<b>B</b>	<b>0.64</b>	<b>11</b>	<b>B</b>	<b>0.62</b>	<b>11</b>	<b>B</b>
16 - Forest Avenue at Warren Avenue	Eastbound	0.65	17	B	0.72	21	C	0.74	22	C
	Westbound	0.42	15	B	0.48	16	B	0.50	17	B
	Northbound	0.53	11	B	0.60	13	B	0.76	23	C
	<u>Southbound</u>	<u>0.49</u>	<u>11</u>	<u>B</u>	<u>0.55</u>	<u>12</u>	<u>B</u>	<u>0.65</u>	<u>18</u>	<u>B</u>
	<b>Overall</b>	<b>0.65</b>	<b>13</b>	<b>B</b>	<b>0.72</b>	<b>15</b>	<b>B</b>	<b>0.76</b>	<b>20</b>	<b>C</b>
17 – Forest Avenue at Main Street/Martin Place	Eastbound	>1.0	>50	F	>1.0	>50	F	0.71	23	C
	Westbound	0.02	18	C	0.02	20	C	0.01	14	B
	Northbound	0.15	<5	A	0.17	<5	A	0.54	11	B
	<u>Southbound</u>	<u>0.00</u>	<u>&lt;5</u>	<u>A</u>	<u>0.00</u>	<u>&lt;5</u>	<u>A</u>	<u>0.72</u>	<u>22</u>	<u>C</u>
	<b>Overall</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.72</b>	<b>17</b>	<b>B</b>
18 – Belmont Street at Route 24 SB off-ramp to Belmont Street eastbound (Exit 17A)										
							Ramp Merge Junction See Table 9 Below			
19 – Belmont Street at Route 24 NB off-ramp to Belmont Street eastbound (Exit 17A)										
							Ramp Merge Junction See Table 9 Below			
20 – West Street at Proposed Site Driveway	Westbound	n/a	n/a	n/a	n/a	n/a	n/a	0.24	11	B
	Northbound	n/a	n/a	n/a	n/a	n/a	n/a	0.03	8	A
21 – Forest Avenue at Proposed Site Driveway	Eastbound	n/a	n/a	n/a	n/a	n/a	n/a	0.07	<5	A
	Westbound	n/a	n/a	n/a	n/a	n/a	n/a	0.71	24	C
	Northbound	n/a	n/a	n/a	n/a	n/a	n/a	0.46	11	B
	<u>Southbound</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>0.57</u>	<u>&lt;5</u>	<u>A</u>
	<b>Overall</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.71</b>	<b>10</b>	<b>A</b>

<sup>1</sup>Volume-to-capacity ratio

<sup>2</sup>Average control delay per vehicle (in seconds)

<sup>3</sup>Level of service

<sup>4</sup>No Build assumes implementation of programmed/funded improvements along Belmont Street by MassDOT.

<sup>5</sup>See Section 5.0 for description of mitigation.

na = Not Applicable

## Summary of Traffic Operations

A principal finding of the TIAS is that traffic flow and pedestrian conditions along the Belmont Street and Forest Avenue corridors in the study area, even with additional casino traffic, will improve relative to today's existing conditions following implementation of a \$6.5 Million roadway improvement package currently underway by MassDOT and as a result of an additional \$8.6 Million roadway improvement package proposed by the casino Proponent.

Key findings of capacity analysis presented in **Table 7** and **Table 8** are as follows:

- *The Belmont Street corridor currently experiences traffic operating and pedestrian safety deficiencies at numerous intersections that are the focus of funded improvements by MassDOT.*
  - The Belmont Street intersections at Manley Street, Lorraine Street, Linwood Street, and West Street currently experience long delays (LOS F conditions), long vehicle queues and/or high crash rates. Contributing factors include the lack of exclusive turn lanes at some locations, inefficient traffic signal phasing/timing, a lack of appropriate roadway shoulders and lack of appropriate pedestrian crossings and associated traffic controls.
- *Following implementation of \$6.5 Million roadway and signal upgrades by MassDOT, Belmont Street traffic operations will be below capacity (LOS C operation or better).*
  - MassDOT-sponsored improvements along Belmont Street between Route 24 and Angus Beaton Drive (study intersections 1 through 6) as described under Section 3.1 are currently underway and will be in place prior to casino operations. These improvements will enhance traffic flow along the corridor by adding turn lanes at major intersections and implementing coordinated signal operation. Enhanced pedestrian safety will result from new signal-controlled pedestrian crossings, improved sidewalks and a wider roadway that includes 4-foot wide shoulders.
- *Following implementation of an additional \$8.6 Million of roadway and signal improvements by the Proponent, traffic operations during weekday evening peak hours and will also continue to operate below capacity at LOS C operation with the additional Casino traffic.*
  - Proponent-sponsored improvements along Belmont Street east of Angus Beaton Drive to West Street are consistent with planned (long-range) improvements by MassDOT, with traffic operations along Belmont Street of LOS C or better operation with additional casino traffic.

- Signals at Belmont Street intersections with West Street/Plaza Drive, Forest Avenue and West Street will be modified and upgraded by the casino Proponent to provide coordinated control, consistent with MassDOT's planned long-range improvements (intersections 5, 6 and 7). These upgrades represent a component of the \$8.6 Million improvement package by the Proponent.
- *Forest Avenue traffic operations indicate several intersections that currently operate at LOS F (failing conditions) and/or that have high crash rates that are planned for improvement but are not funded at this time. The casino proponent will work with the City of Brockton to advance improvements along Forest Avenue as a component of the \$8.6 Million improvement package that are consistent with recommendations of the Southwest Brockton Corridor Study that results in improved operation (LOS C or better operations) with additional casino traffic.*
- Locations along Forest Avenue are currently subject to failing operation and long delays (LOS F conditions) include West Street, Memorial Drive, Manomet Street and Main Street. Proposed access improvements and implementation of new signals or upgraded signal equipment along Forest Avenue as described under Section 5.0 will result in traffic operations of LOS C or better at these failing locations with additional casino traffic.
  - Pedestrian infrastructure will be improved along Forest Avenue by the Proponent to enhance safety including: new sidewalks on both sides of the road along the Site frontage; roadway shoulders for bicycle accommodation; signal controlled pedestrian crossings at new signalized intersections of Memorial Drive, the Site driveway and Main Street; pedestrian crossings and refuge islands at the proposed roundabout; and upgraded pedestrian crossings at upgraded signalized intersections including Ash Street, Manomet Street and Warren Avenue.

In summary, completion of ongoing corridor improvements by MassDOT and additional Proponent-sponsored improvements along Belmont Street and Forest Avenue as described under Section 5.0 *Conclusions and Recommendations* result in traffic operations of LOS C or better at all primary signalized study locations and enhanced pedestrian safety. These improvements directly address today's capacity needs independent of the casino, resulting in efficient traffic flow and pedestrian accommodation in the area with the casino traffic and effectively advancing needed improvements that are not likely to otherwise occur in the near future.

## 4.2.2 Highway Ramp Capacity Analysis

Highway ramp capacity analysis was also reviewed for the Route 24 northbound and southbound off-ramp merge junction areas with Belmont Street (Exit 17) are summarized in **Table 9** for the weekday morning and weekday evening peak hours, respectively. Detailed analysis results are presented in the **Appendix**.

**TABLE 9**  
**CAPACITY ANALYSIS RESULTS**  
**HIGHWAY RAMP MERGE JUNCTIONS**

Highway Ramp/ Peak Hour	2015 Baseline			2025 No-Build			2025 Build		
	v/c <sup>1</sup>	Density <sup>2</sup>	LOS <sup>3</sup>	v/c <sup>1</sup>	Density <sup>2</sup>	LOS <sup>3</sup>	v/c <sup>1</sup>	Density <sup>2</sup>	LOS <sup>3</sup>
<i>18a – Route 24 Southbound Off-ramp to Belmont Street Eastbound (Exit 17A)</i>									
Friday PM Peak Hour	0.36	18.9	B	0.39	20.3	C	0.44	23.1	C
Saturday PM Peak Hour	0.25	14.5	B	0.28	15.6	B	0.35	19.5	B
<i>18b – Route 24 Southbound Off-ramp to Belmont Street Westbound (Exit 17B)</i>									
Friday PM Peak Hour	0.37	20.5	C	0.41	22.2	C	0.41	22.3	C
Saturday PM Peak Hour	0.22	13.6	B	0.24	14.6	B	0.24	14.7	B
<i>19a – Route 24 Northbound Off-ramp to Belmont Street Eastbound (Exit 17A)</i>									
Friday PM Peak Hour	0.32	16.7	B	0.35	18.0	B	0.45	22.1	C
Saturday PM Peak Hour	0.23	13.7	B	0.25	14.6	B	0.39	20.4	C
<i>19b – Route 24 Northbound Off-ramp to Belmont Street Westbound (Exit 17B)</i>									
Friday PM Peak Hour	0.30	15.3	B	0.33	16.4	B	0.40	18.3	B
Saturday PM Peak Hour	0.20	11.7	B	0.22	12.4	B	0.29	14.6	B

<sup>1</sup>Volume-to-capacity ratio

<sup>2</sup>Density in passenger cars per mile per lane (pc/mi/ln)

<sup>3</sup>Level of service

As summarized in **Table 9**, under Build conditions the merge junction areas with Route 24 northbound and southbound off-ramps to Belmont Street (Exit 17) will continue to operate below capacity at LOS C or better during the Friday evening and Saturday evening peak hours.

## 4.2.3 Vehicle Queue Analysis

Vehicle queue results are presented for the signalized study intersections. These vehicle queues are compared to available storage lengths, which are defined as lengths of exclusive turn lanes or the distance to the nearest major intersection for through lanes. Vehicle queue results from the capacity analysis are summarized in **Table 10** and **Table 11**. Detailed worksheets of the queuing analysis are provided in the **Appendices**.

As presented in **Table 10** and **Table 11**, vehicle queues at the signalized study intersections are contained within available storage lanes during the Friday evening and Saturday evening peak hours. The Proponent proposes to implement traffic signal timing optimization at many of the study intersections aimed at improving operations and queue management as described in more detail under *Conclusions and Recommendations*.

**TABLE 10  
VEHICLE QUEUE ANALYSIS SUMMARY  
FRIDAY EVENING PEAK HOUR**

Approach	Storage Length (feet)	2025 No-Build <sup>2</sup>		2025 Build	
		Average Queue Length	95 <sup>th</sup> Percentile Queue Length <sup>1</sup>	Average Queue Length	95 <sup>th</sup> Percentile Queue Length
<b><i>1-Belmont Street (Route 123) at Manley Street</i></b>					
Eastbound L	175±	<25	<25	<25	<25
Eastbound T/R	>1000	372	529	640	837
Westbound L	225±	<25	69	37	118
Westbound T/R	730±	202	456	307	830
Northbound L	300±	166	307	230	394
Northbound T/R	>1000	126	220	186	309
Southbound L/T/R	>1000	<25	60	<25	83
<b><i>2-Belmont Street (Route 123) at VA Hospital/Belmont Court</i></b>					
Eastbound L/T/R	175±	85	144	55	67
Westbound L/ T/R	550±	118	204	234	276
Northbound L	250±	96	151	133	204
Northbound T/R	250±	<25	34	<25	43
Southbound L	100±	<25	26	<25	34
Southbound T/R	>1000	<25	<25	<25	<25
<b><i>3-Belmont Street (Route 123) at Linwood Street/Lorraine Avenue</i></b>					
Eastbound L/T/R	550±	221	413	75	120
Westbound L	200±	47	97	87	146
Westbound T/R	420±	82	133	160	193
Northbound L/T	>1000	<25	56	40	94
Northbound R	75	39	79	81	141
Southbound L/T/R	>1000	<25	52	<25	75
<b><i>4-Belmont Street (Route 123) at Angus Beaton Drive</i></b>					
Eastbound L	230±	36	77	34	76
Eastbound T/R	800±	136	318	168	371
Westbound L	175±	<25	<25	<25	<25
Westbound T/R	420±	123	242	<25	38
Northbound L/T/R	600±	<25	44	<25	39
Southbound L/T/R	400±	34	81	100	170
<b><i>5-Belmont Street (Route 123) at West Street/West Side Plaza</i></b>					
Eastbound L	175±	<25	69	26	40
Eastbound T/R	420±	30	39	25	50
Eastbound R	130±	n/a	n/a	<25	75
Westbound L/T/R	520±	163	238	255	358
Northbound L/T/R	710±	116	178	n/a	n/a
Southbound L/T/R	400±	58	96	69	127
<b><i>6-Belmont Street (Route 123) at Forest Avenue/West Side Plaza</i></b>					
Eastbound L/T/R	520±	42	112	83	164
Westbound L/T/R	570±	71	133	120	173
Northbound L&L/T/R	420±	95	154	182	358
Southbound L	170±	<25	51	50	118
Southbound T/R	900±	100	156	<25	55
<b><i>7-Belmont Street (Route 123) at West Street</i></b>					
Eastbound L/T/R	570±	96	204	48	70
Westbound L/T/R	420±	56	118	68	113
Northbound L	370±	n/a	n/a	53	120
Northbound T/R	600±	79	166	144	227
Southbound L/T	400±	70	145	125	195
Southbound R	400±	<25	45	<25	48

<sup>1</sup> Average and 95<sup>th</sup> percentile queue lengths are reported in feet per lane.

<sup>2</sup> Assumes implementation of planned/funded MassDOT improvements along Belmont Street.

**TABLE 10 (CONT.)  
VEHICLE QUEUE ANALYSIS SUMMARY  
FRIDAY EVENING PEAK HOUR**

Approach	Storage Length (feet)	2025 No-Build <sup>2</sup>		2025 Build	
		Average Queue Length	95 <sup>th</sup> Percentile Queue Length <sup>1</sup>	Average Queue Length	95 <sup>th</sup> Percentile Queue Length
<b>8-Belmont Street (Route 123) at Torrey Street</b>					
Eastbound L/T	800±	173	276	173	276
Westbound T	>1000	122	202	122	202
Westbound R	130±	<25	<25	<25	<25
Southbound L/T/R	550±	145	234	145	234
<b>10-West Street at Torrey Street</b>					
Eastbound L/T/R	>1000	190	384	177	384
Westbound L/T/R	550±	140	237	123	225
Northbound L/T/R	400±	159	313	166	320
Southbound L/T & T/R	>1000	118	180	117	177
<b>13-Forest Avenue at Memorial Drive</b>					
Eastbound L	375±	n/a	n/a	<25	<25
Eastbound R	>400	n/a	n/a	<25	<25
Northbound L/T	>1000	n/a	n/a	<25	51
Southbound T/R	250±	n/a	n/a	<25	<25
<b>14-Forest Avenue at Ash Street</b>					
Eastbound L/T/R	>1000	229	465	245	412
Westbound L/T/R	900±	172	298	183	310
Northbound L/T/R	>1000	69	133	77	163
Southbound L/T/R	>1000	75	140	83	196
<b>15-Forest Avenue at Manomet Street/Bouve Avenue</b>					
Eastbound L/T/R	900±	210	466	240	418
Westbound L/T/R	>1000	99	168	112	181
Northbound L/T/R	>1000	69	154	74	188
Southbound L/T/R	>1000	52	105	57	123
<b>16-Forest Avenue at Warren Avenue</b>					
Eastbound L/T/R	>1000	126	290	181	377
Westbound L/T/R	650±	84	157	113	205
Northbound L/T/R	>1000	104	196	171	340
Southbound L/T/R	>1000	126	228	197	322
<b>17-Forest Avenue at Main Street/Martin Street</b>					
Eastbound L/T/R	650±	n/a	n/a	117	259
Westbound L/T/R	150±	n/a	n/a	<25	<25
Northbound L	250±	n/a	n/a	39	76
Northbound T/R	>1000	n/a	n/a	133	213
Southbound L/T/R	>1000	n/a	n/a	241	450
<b>21-Forest Avenue at Site Drive</b>					
Eastbound L/T/R	200±	n/a	n/a	<25	<25
Westbound L/T	300±	n/a	n/a	<25	40
Westbound R	300±	n/a	n/a	91	145
Northbound T/R	250±	n/a	n/a	72	54
Southbound L	425±	n/a	n/a	<25	44
Southbound TR	425±	n/a	n/a	<25	273

<sup>1</sup> Average and 95<sup>th</sup> percentile queue lengths are reported in feet per lane.

<sup>2</sup> Assumes implementation of planned/funded MassDOT improvements along Belmont Street.

**TABLE 11**  
**VEHICLE QUEUE ANALYSIS SUMMARY**  
**SATURDAY EVENING PEAK HOUR**

Approach	Storage Length (feet)	2025 No-Build <sup>2</sup>		2025 Build	
		Average Queue Length	95 <sup>th</sup> Percentile Queue Length <sup>1</sup>	Average Queue Length	95 <sup>th</sup> Percentile Queue Length
<b>1-Belmont Street (Route 123) at Manley Street</b>					
Eastbound L	175±	<25	<25	<25	<25
Eastbound T/R	>1000	151	268	308	728
Westbound L	225±	<25	<25	<25	39
Westbound T/R	730±	74	292	206	741
Northbound L	300±	107	158	90	185
Northbound T/R	>1000	70	120	67	152
Southbound L/T/R	>1000	<25	<25	<25	<25
<b>2-Belmont Street (Route 123) at VA Hospital/Belmont Court</b>					
Eastbound L/T/R	175±	28	38	113	178
Westbound L/ T/R	550±	70	104	151	240
Northbound L	250±	<25	44	<25	41
Northbound T/R	250±	<25	26	<25	25
Southbound L	100±	<25	35	<25	31
Southbound T/R	>1000	<25	<25	<25	<25
<b>3-Belmont Street (Route 123) at Linwood Street/Lorraine Avenue</b>					
Eastbound L/T/R	550±	128	202	288	468
Westbound L	200±	<25	66	43	87
Westbound T/R	420±	75	115	166	258
Northbound L/T	>1000	<25	45	25	58
Northbound R	75	<25	37	<25	55
Southbound L/T/R	>1000	<25	34	<25	44
<b>4-Belmont Street (Route 123) at Angus Beaton Drive</b>					
Eastbound L	230±	40	77	33	85
Eastbound T/R	800±	93	197	133	314
Westbound L	175±	<25	<25	<25	<25
Westbound T/R	420±	106	198	<25	<25
Northbound L/T/R	600±	95	191	31	60
Southbound L/T/R	400±	27	64	27	83
<b>5-Belmont Street (Route 123) at West Street/West Side Plaza</b>					
Eastbound L	175±	<25	64	<25	33
Eastbound T/R	420±	56	37	21	40
Eastbound R	130±	n/a	n/a	41	141
Westbound L/T/R	520±	152	210	261	444
Northbound L/T/R	710±	125	190	n/a	n/a
Southbound L/T/R	400±	55	91	61	111
<b>6-Belmont Street (Route 123) at Forest Avenue/West Side Plaza</b>					
Eastbound L/T/R	520±	34	54	73	152
Westbound L/T/R	570±	57	87	100	124
Northbound L&L/T/R	420±	114	222	176	358
Southbound L	170±	<25	50	36	90
Southbound T/R	900±	77	137	<25	35
<b>7-Belmont Street (Route 123) at West Street</b>					
Eastbound L/T/R	570±	55	126	37	69
Westbound L/T/R	420±	27	65	33	70
Northbound L	370±	n/a	n/a	62	130
Northbound T/R	600±	54	143	125	175
Southbound L/T	400±	52	137	127	175
Southbound R	400±	<25	35	<25	37

<sup>1</sup> Average and 95<sup>th</sup> percentile queue lengths are reported in feet per lane.

<sup>2</sup> Assumes implementation of planned/funded MassDOT improvements along Belmont Street.

**TABLE 11 (CONT.)  
VEHICLE QUEUE ANALYSIS SUMMARY  
SATURDAY EVENING PEAK HOUR**

Approach	Storage Length (feet)	2025 No-Build <sup>2</sup>		2025 Build	
		Average Queue Length	95 <sup>th</sup> Percentile Queue Length <sup>1</sup>	Average Queue Length	95 <sup>th</sup> Percentile Queue Length
<b><i>8-Belmont Street (Route 123) at Torrey Street</i></b>					
Eastbound L/T	800±	78	166	78	166
Westbound T	>1000	53	117	53	117
Westbound R	130±	<25	<25	<25	<25
Southbound L/T/R	550±	99	166	99	166
<b><i>10-West Street at Torrey Street</i></b>					
Eastbound L/T/R	580±	127	246	136	241
Westbound L/T/R	>1000	59	121	63	118
Northbound L/T/R	400±	115	244	125	289
Southbound L/T/ & T/R	420±	86	163	171	171
<b><i>13-Forest Avenue at Memorial Drive</i></b>					
Eastbound L	375±	n/a	n/a	47	88
Eastbound R	>400	n/a	n/a	<25	<25
Northbound L/T	>1000	n/a	n/a	51	90
Southbound T/R	250±	n/a	n/a	70	42
<b><i>14-Forest Avenue at Ash Street</i></b>					
Eastbound L/T/R	>1000	167	279	113	241
Westbound L/T/R	900±	130	216	89	188
Northbound L/T/R	>1000	45	92	33	106
Southbound L/T/R	>1000	32	71	<25	82
<b><i>15-Forest Avenue at Manomet Street/Bouve Avenue</i></b>					
Eastbound L/T/R	900±	117	254	108	240
Westbound L/T/R	>1000	65	136	63	135
Northbound L/T/R	>1000	38	111	35	110
Southbound L/T/R	>1000	<25	55	<25	55
<b><i>16-Forest Avenue at Warren Avenue</i></b>					
Eastbound L/T/R	>1000	95	217	116	246
Westbound L/T/R	650±	61	118	72	154
Northbound L/T/R	>1000	93	172	123	276
Southbound L/T/R	>1000	84	154	109	237
<b><i>17-Forest Avenue at Main Street/Martin Street</i></b>					
Eastbound L/T/R	650±	n/a	n/a	56	153
Westbound L/T/R	150±	n/a	n/a	<25	<25
Northbound L	250±	n/a	n/a	27	67
Northbound T/R	>1000	n/a	n/a	90	194
Southbound L/T/R	>1000	n/a	n/a	125	253
<b><i>21-Forest Avenue at Site Drive</i></b>					
Eastbound L/T/R	200±	n/a	n/a	<25	<25
Westbound L/T	300±	n/a	n/a	<25	42
Westbound R	300±	n/a	n/a	141	178
Northbound T/R	250±	n/a	n/a	67	85
Southbound L	425±	n/a	n/a	<25	117
Southbound TR	425±	n/a	n/a	<25	171

<sup>1</sup> Average and 95<sup>th</sup> percentile queue lengths are reported in feet per lane.

<sup>2</sup> Assumes implementation of planned/funded MassDOT improvements along Belmont Street.

## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

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Roadway improvements that support projected traffic increases associated with the proposed Category 1 Casino are identified to mitigate project-related traffic impacts, address access needs for the Site and that enhance pedestrian safety and accommodation. In addition, non-auto transportation programming is proposed to integrate the Site with various bus and rail transportation options serving the area. Specific improvements include (a) access-related improvements, (b) off-site improvements, (c) non-auto transportation programming; and (d) transportation demand management. The mitigation commitments by the Proponent will be further refined as the project undergoes the local and state (MEPA) review process.

### **5.1 ACCESS IMPROVEMENTS**

Site access improvements are proposed by the Proponent to support the casino operations, but that also serve to advance improvement initiatives along Belmont Street identified in the MassDOT Project No. 608088 and along Forest Avenue as identified in the Southwest Brockton Corridor Study.

#### **A: Site Access Improvements: West Street & Forest Avenue**

Proposed site access improvements along Forest Avenue and West Street will enhance traffic flow and reduce vehicle conflicts relative to existing conditions and include pedestrian and bicycle design features that facilitate walking access to/from the Site and vicinity. These roadway improvements will follow MassDOT “Complete Streets” design standards that are contemplated as part of the currently ongoing Belmont Street corridor improvement projects being undertaken by MassDOT, and that advance recommended improvements identified in the *Southwest Brockton Corridor Study*.

Primary site access/egress is proposed along Forest Avenue opposite the Brockton Registry of Motor Vehicles (Intersection 21). Secondary site access/egress is proposed via a driveway connection to West Street (Intersection 20) which will restrict egress movements to right turn

movements to minimize conflict points along West Street. To provide improved traffic operations in the immediate area, a modern roundabout is proposed at the Forest Avenue intersection with West Street as well as the relocation and conversion of roadway segments to one-way travel. Primary access improvement features are depicted on the conceptual design plan as shown in **Figure 17** with primary features as follows:

- *Modern Roundabout.* A two-lane modern roundabout is contemplated at the Forest Avenue intersection with West Street (Intersections 11 & 12). The roundabout is proposed to be designed for three-legged operation, under which a portion of West Street between Feinberg Way and Forest Avenue will be converted to one-way (eastbound) traffic flow toward the roundabout and the portion of Forest Avenue between West Street and Belmont Street will be converted to one way traffic flow (northbound) away from the roundabout. The easterly segment of West Street will be re-aligned and widened to provide a 4 travel lanes. All roundabout improvements and associated widening will be on property under control of the Proponent and/or within City jurisdiction.
- *Forest Avenue Widening.* Forest Avenue will be widened to a four lane cross-section between the proposed modern roundabout and Memorial Drive. These roadway improvements will follow MassDOT “Complete Streets” design standards and will include shoulders for bicycle accommodation, and ADA-compliant sidewalks and crossings. This cross-section will allow adequate capacity that serves the casino’s primary driveway which will accommodate approximately 65% of patron trips, thereby reducing impact to Belmont Street to the east of West Street/Plaza Drive.
- *Site Drive Signal.* Install a fully actuated traffic signal and associated pedestrian control equipment at the intersection of the Forest Avenue/Primary Site Driveway. This signal will provide capacity to accommodate existing traffic flow and additional turning traffic for the casino and will operate in coordination with a traffic signal at Memorial Drive as outlined below.
- *Memorial Drive Signal.* Install a fully actuated traffic signal and associated pedestrian control equipment at the intersection of the Forest Avenue/ Memorial Drive. This signal has been identified as a recommended improvement in the *Southwest Brockton Corridor Study* that is currently warranted independent of the proposed casino.
- *West Street Widening & Realignment.* The existing 2-lane alignment of West Street between Belmont Street and Forest Avenue (east of Forest Avenue) will be re-aligned on property controlled by the Proponent and widened to provide a 4-lane cross-section. This will allow proper roadway alignment and separation of traffic movements at the modern roundabout and lane capacity to accommodate existing traffic flow and additional turning traffic for the casino.

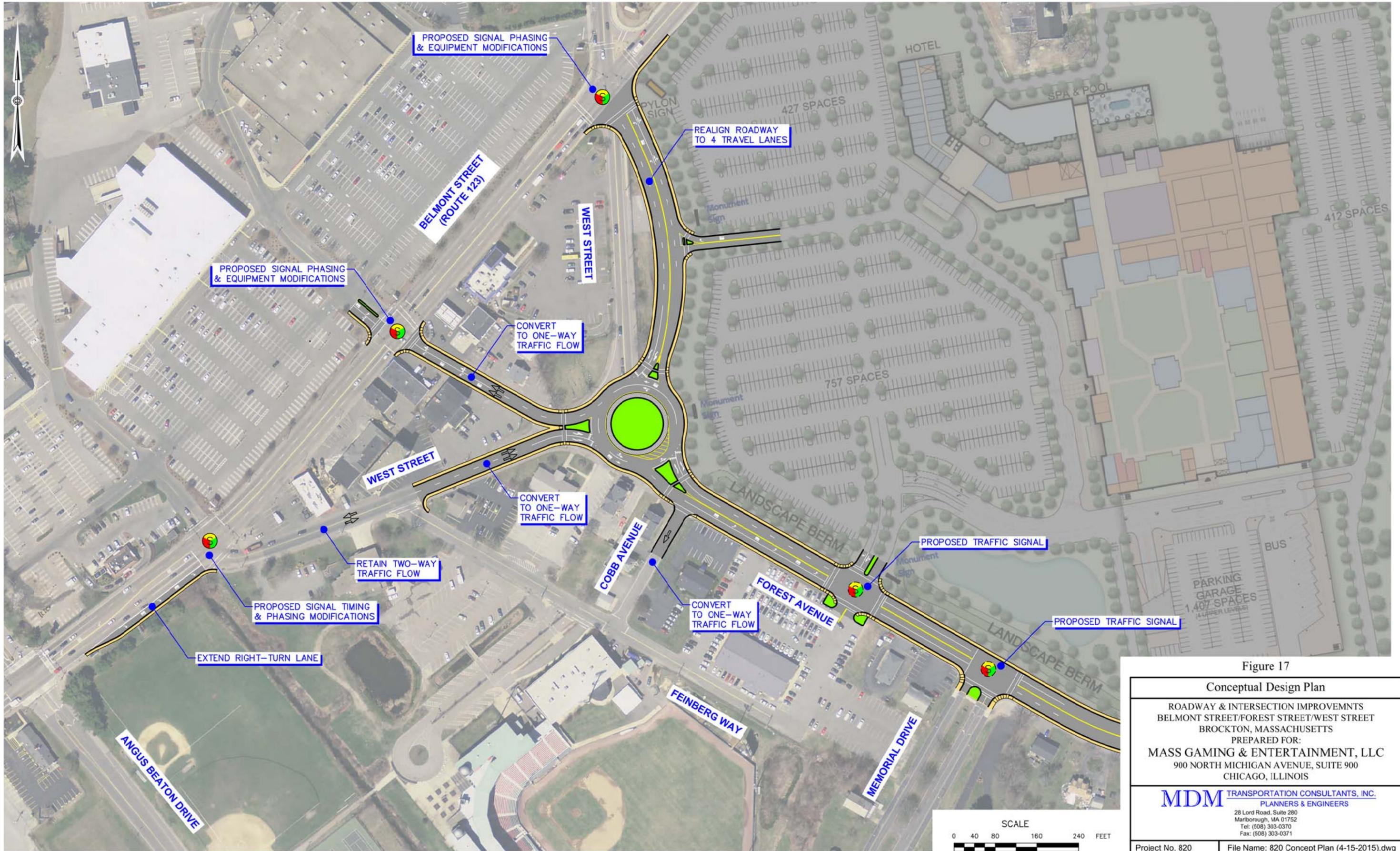


Figure 17

<b>Conceptual Design Plan</b>		
ROADWAY & INTERSECTION IMPROVEMENTS BELMONT STREET/FORREST STREET/WEST STREET BROCKTON, MASSACHUSETTS PREPARED FOR: <b>MASS GAMING &amp; ENTERTAINMENT, LLC</b> 900 NORTH MICHIGAN AVENUE, SUITE 900 CHICAGO, ILLINOIS		
<b>MDM</b> TRANSPORTATION CONSULTANTS, INC. PLANNERS & ENGINEERS 28 Lord Road, Suite 280 Marlborough, MA 01752 Tel: (508) 303-0370 Fax: (508) 303-0371		
Project No. 820	File Name: 820 Concept Plan (4-15-2015).dwg	
Date: April 15, 2015	Scale: As Noted	Sheet 1 of 1

- *West Street Driveway.* Proposed site egress to West Street will be restricted to right-turn movements by a raised, landscaped island to minimize conflict points along West Street. This driveway is expected to accommodate approximately 25% of casino patron traffic based on orientation of parking at the Site.
- *Forest Avenue One-Way Conversion.* The portion of Forest Avenue between West Street and Belmont Street will be converted to one-way northbound traffic flow to accommodate existing traffic flow patterns headed toward the West Gate Plaza and the primary outbound (exiting) traffic flow for the casino. This will allow for dual left-turn capability onto Belmont Street and efficient signal operations under Build traffic conditions. This will require modification of the lanes opposite Forest Avenue at the plaza driveway to provide dual left-turns, and will re-distribute trips currently using Forest Avenue southbound from the plaza to the re-aligned and expanded West Street.
- *West Street On-Way Conversion.* The portion of West Street between Feinberg Way and Forest Avenue will be converted to one-way (eastbound) traffic flow toward the modern roundabout. This orientation will retain the two-way flow along the remaining portion of West Street between Belmont Street and Feinberg Way to accommodate the existing fire station access/circulation and traffic flow associated with the sports stadium activities. To facilitate access onto West Street from Belmont Street, the existing eastbound right-turn lane will be expanded (lengthened), requiring an adjustment of the roadway right-of-way onto property owned by the City.
- *Belmont Street Signal Modifications.* Signal equipment, signal timing and signal phasing modifications will be implemented at the Belmont Street intersections with West Street/West Gate Plaza, Forest Avenue, and West Street. These signal upgrades and modifications are subject to MassDOT permitting but are consistent with anticipated long-range improvements that would be included under the MassDOT Project No. 608088 described under Section 3.1, and recommended improvements identified in the *Southwest Brockton Corridor Study* independent of the casino. Signal operations would be coordinated among these three locations to maximize traffic efficiency along Belmont Street.

With these access improvements in place, capacity analyses indicate that intersections serving the Site will operate below capacity at LOS C or better during peak hours.

## 5.2 OFF-SITE TRANSPORTATION IMPROVEMENTS

### **B: Forest Avenue Signal Improvements**

The *Southwest Brockton Corridor Study* identifies traffic signal improvements and upgrades along the Forest Avenue corridor that are warranted under existing conditions independent of the proposed casino development. Although the Forest Avenue corridor is not expected to serve as a primary travel route to/from the casino and will sustain only modest traffic impact as a result, the Proponent will work with the City of Brockton to implement new signal control at Main Street and upgrades to existing signals at Ash Street, Manomet Street and Warren Avenue to enhance capacity and to meet current ADA requirements. These improvements will result in a notable reduction in delays with projected operations of LOS C or better with additional casino traffic – thereby eliminating failing conditions (LOS F) that currently exist for several of these intersections.

### **C: Belmont Street Signal Optimization**

The casino Proponent commits to monitoring traffic volumes and signal operations at the signalized Belmont Street intersections at Manley Street, VA Hospital and Linwood Street/Lorraine Avenue within 6 months of casino occupancy and to make any necessary signal timing/phasing modifications necessary at that time to ensure optimal operations during peak traffic hours. Specific provisions for traffic monitoring and signal timing adjustments will be identified under the MassDOT Section 61 Finding process.

## 5.3 NON-AUTO TRANSPORTATION PROGRAMMING

### **D: Shuttle Service**

The Proponent is evaluating a community shuttle bus loop that would augment available transit services to facilitate access to area businesses and connections to existing available public transportation (BAT) serving the area. The Proponent will work with the BAT to identify feasibility of integrating the Site as a stop on its existing service for the area, thereby providing connections to other area public transportation options including the BAT Centre in Brockton which serves as a hub for additional regional BAT bus service and the MBTA Old Colony Line commuter rail service. Specific operating parameters for the proposed shuttle service for the Site and feasibility of integration with existing BAT bus service will be identified following discussions and coordination with the City of Brockton and BAT.

## 5.4 TRANSPORTATION DEMAND MANAGEMENT (TDM)

The Proponent is committed to reduce auto dependency by employees and patrons by implementing a robust TDM program. Specific TDM program elements will be identified in more detail under the state review process. A preliminary list of potential TDM program elements may include the following, subject to refinement of the development program and further evaluation by the Proponent:

- *Shuttle and Bus Options.* Shuttle bus loop serving the local community (currently under evaluation) and integration of the Site as a stop on current BAT bus routes.
- *Public Transportation Information & Promotion.* Posting of service and schedule information for employees and patrons; on-site sale of transit passes to promote the use of public transportation by employees and patrons.
- *Bicycle Facilities and Promotion.* Bicycle racks at appropriate on-site locations; a bicycle sharing program to promote the use of bicycles as an alternative commuting method; dissemination of area bicycle route maps.
- *Pedestrian Infrastructure.* Sidewalk connections within the property along primary pedestrian desire lines that connect building entrances with the public sidewalk network; posting of area maps that highlight area walking routes to promote walking and bicycle travel to/from the Site and area businesses. The design of improvements along Forest Avenue will also include sidewalks and shoulders that are consistent with complete streets objectives.
- *On-Site Employee Transportation Coordinator.* The Proponent will identify an on-site employee whose responsibilities will include serving as an employee transportation coordinator responsible for disseminating relevant TDM information to employees including posting TDM information at appropriate locations within the buildings and during employee orientation.
- *On-Site Employee Services.* On-site banking facilities (ATM), employee showers, cafeteria, direct deposit of employee payroll checks, secure bicycle accommodations.
- *Preferential Parking for Carpools and Vanpools.* Preferential parking locations for employees within the employee parking area who use carpools and vanpools.
- *Preferential Parking for Low-Emission Vehicles.* Preferential parking locations for employees and patrons who use low-emission vehicles; charging stations for electric vehicles; VIP parking access for patrons who travel to the site using alternative fuel vehicles.
- *Transit Pass Subsidization.* Subsidize commuter rail and local bus passes for employees.

- *MassRides*. Promotion of commuter assistance programs available through Executive Office of Transportation's MassRides as part of the employee orientation program.
- *Guaranteed Ride Home*. A guaranteed ride home program that subsidizes taxi service for employees using non-auto commute options in cases of unexpected circumstances.
- *No Idling Signage*. Installation of "No Idling" signs throughout the site's parking areas to reduce the amount of greenhouse gasses emitted.
- *On-Site Patron Services*. Restaurants, ancillary retail, coat/bag check facilities, dissemination of shuttle and public transportation options, coordination of local taxi services, promotion of bicycle and walking options to area attractions.
- *Bus Shelter/Taxi Stand*. Bus shelter/taxi stand for patrons to wait for services on-site.
- *Valet Parking Operations*. A parking option for patrons for preferred parking spaces to facilitate parking operations at the Site.

## 5.5 MITIGATION SUMMARY

A summary of primary Proponent-sponsored transportation mitigation measures and estimated construction costs are outlined in **Table 12** and are described in more detail under Sections 5.1 through 5.3 above.

**TABLE 12**  
**TRANSPORTATION IMPROVEMENT SUMMARY (Proponent Sponsored)**

<b>Improvement Action</b>	<b>Estimated Construction Cost</b>
<b>A: Access Improvements</b> Construction of modern roundabout at Forest Avenue, widening of Forest Avenue and West Street with “Complete Streets” design elements, new signal at Forest Avenue, signal equipment upgrades to Belmont Street (3 locations).	\$5,300,000 ±
<b>B: Forest Avenue Corridor and Signal Improvements</b> New traffic signal at Memorial Drive, signal equipment upgrades and sidewalk reconstruction at Ash Street, Manomet Street and Warren Avenue, new traffic signal and roadway improvements at Main Street.	\$3,300,000 ±

## APPENDIX VI

### DISTRIBUTION LIST

## DISTRIBUTION LIST

SECRETARY MATTHEW A. BEATON  
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS (EEA)  
ATTN: MEPA OFFICE  
100 CAMBRIDGE STREET, SUITE 900  
BOSTON, MA 02114

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION  
COMMISSIONER'S OFFICE  
ONE WINTER STREET  
BOSTON, MA 02108

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHEASTERN REGIONAL OFFICE  
ATTN: MEPA COORDINATOR  
20 RIVERSIDE DRIVE  
LAKEVILLE, MA 02347

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION  
PUBLIC/PRIVATE DEVELOPMENT UNIT  
10 PARK PLAZA  
BOSTON, MA 02116

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION - DISTRICT #5  
ATTN: MEPA COORDINATOR  
BOX 111  
1000 COUNTY STREET  
TAUNTON, MA 02780

MASSACHUSETTS GAMING COMMISSION  
101 FEDERAL STREET, 23<sup>RD</sup> FLOOR  
BOSTON, MA 02110

MASSACHUSETTS HISTORICAL COMMISSION  
THE MA ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MA 02125

OLD COLONY PLANNING COUNCIL  
70 SCHOOL STREET  
BROCKTON, MA 02401-4097

ENERGY FACILITIES SITING BOARD  
ATTN: MEPA COORDINATOR  
ONE SOUTH STATION  
BOSTON, MA 02110

DIVISION OF ENERGY RESOURCES  
ATTN: MEPA COORDINATOR  
100 CAMBRIDGE STREET, 10<sup>TH</sup> FLOOR  
BOSTON, MA 02114

CITY OF BROCKTON  
CITY COUNCIL  
BROCKTON CITY HALL  
45 SCHOOL STREET  
BROCKTON, MA 02301

CITY OF BROCKTON  
PLANNING BOARD  
BROCKTON CITY HALL  
45 SCHOOL STREET  
BROCKTON, MA 02301

CITY OF BROCKTON  
CONSERVATION COMMISSION  
BROCKTON CITY HALL  
45 SCHOOL STREET  
BROCKTON, MA 02301

CITY OF BROCKTON  
BOARD OF HEALTH  
BROCKTON CITY HALL  
45 SCHOOL STREET  
BROCKTON, MA 02301

CITY OF BROCKTON  
PUBLIC LIBRARY  
304 MAIN STREET  
BROCKTON, MA 02301

TOWN OF STOUGHTON  
BOARD OF SELECTMEN  
10 PEARL STREET  
STOUGHTON, MA 02072

TOWN OF STOUGHTON  
PLANNING BOARD  
10 PEARL STREET  
STOUGHTON, MA 02072

TOWN OF STOUGHTON  
CONSERVATION COMMISSION  
10 PEARL STREET  
STOUGHTON, MA 02072

TOWN OF STOUGHTON  
PUBLIC LIBRARY  
84 PARK STREET  
STOUGHTON, MA 02072

TOWN OF AVON  
BOARD OF SELECTMEN  
65 EAST MAIN STREET  
AVON, MA 02322

TOWN OF AVON  
PLANNING BOARD  
65 EAST MAIN STREET  
AVON, MA 02322

TOWN OF AVON  
CONSERVATION COMMISSION  
65 EAST MAIN STREET  
AVON, MA 02322

TOWN OF AVON  
PUBLIC LIBRARY  
280 WEST MAIN STREET  
AVON, MA 02322

TOWN OF HOLBROOK  
BOARD OF SELECTMEN  
50 NORTH FRANKLIN STREET  
HOLBROOK, MA 02343

TOWN OF HOLBROOK  
PLANNING BOARD  
50 NORTH FRANKLIN STREET  
HOLBROOK, MA 02343

TOWN OF HOLBROOK  
CONSERVATION COMMISSION  
50 NORTH FRANKLIN STREET  
HOLBROOK, MA 02343

TOWN OF HOLBROOK  
PUBLIC LIBRARY  
2 PLYMOUTH STREET  
HOLBROOK, MA 02343

TOWN OF ABINGTON  
BOARD OF SELECTMEN  
500 GLINIEWICZ WAY  
ABINGTON, MA 02351

TOWN OF ABINGTON  
PLANNING BOARD  
500 GLINIEWICZ WAY  
ABINGTON, MA 02351

TOWN OF ABINGTON  
CONSERVATION COMMISSION  
500 GLINIEWICZ WAY  
ABINGTON, MA 02351

TOWN OF ABINGTON  
PUBLIC LIBRARY  
600 GLINIEWICZ WAY  
ABINGTON, MA 02351

TOWN OF WHITMAN  
BOARD OF SELECTMEN  
54 SOUTH AVE  
WHITMAN, MA 02382

TOWN OF WHITMAN  
PLANNING BOARD  
54 SOUTH AVE  
WHITMAN, MA 02382

TOWN OF WHITMAN  
CONSERVATION COMMISSION  
54 SOUTH AVE  
WHITMAN, MA 02382

TOWN OF WHITMAN  
PUBLIC LIBRARY  
100 WEBSTER STREET  
WHITMAN, MA 02382

TOWN OF EAST BRIDGEWATER  
BOARD OF SELECTMEN  
175 CENTRAL STREET  
E. BRIDGEWATER, MA 02333

TOWN OF EAST BRIDGEWATER  
PLANNING BOARD  
175 CENTRAL STREET  
E. BRIDGEWATER, MA 02333

TOWN OF EAST BRIDGEWATER  
CONSERVATION COMMISSION  
175 CENTRAL STREET  
E. BRIDGEWATER, MA 02333

TOWN OF EAST BRIDGEWATER  
PUBLIC LIBRARY  
32 UNION STREET  
E. BRIDGEWATER, MA 02333

TOWN OF WEST BRIDGEWATER  
BOARD OF SELECTMEN  
65 NORTH MAIN STREET  
W. BRIDGEWATER, MA 02379

TOWN OF WEST BRIDGEWATER  
PLANNING BOARD  
65 NORTH MAIN STREET  
W. BRIDGEWATER, MA 02379

TOWN OF WEST BRIDGEWATER  
CONSERVATION COMMISSION  
65 NORTH MAIN STREET  
W. BRIDGEWATER, MA 02379

## APPENDIX VII

### PUBLIC NOTICE OF ENVIRONMENTAL REVIEW

***Commonwealth of Massachusetts  
Executive Office of Energy and Environmental Affairs***

***MEPA Office***

100 Cambridge St., Suite 900  
Boston, MA 02114  
Telephone 617-626-1020

The following should be completed and submitted to a local newspaper:

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**A. PUBLIC NOTICE OF ENVIRONMENTAL REVIEW**

**PROJECT:** Proposed Category 1 Gaming Establishment

**LOCATION:** Belmont Street, West Street & Forest Avenue, Brockton, MA

**PROPONENT:** Mass Gaming & Entertainment, LLC

**The undersigned is submitting an Environmental Notification Form ("ENF") to the Secretary of Energy & Environmental Affairs on or before April 30, 2015 (date)**

**This will initiate review of the above project pursuant to the Massachusetts Environmental Policy Act ("MEPA", M.G.L. c. 30, s.s. 61-62I). Copies of the ENF may be obtained from:**

Bohler Engineering, Attn: Stephen Martorano, P.E.

75 Federal Street, Suite 620

Boston, MA 02110

(617) 849-8040; smartorano@bohlereng.com

*(Name, address, phone number of proponent or proponent's agent)*

**Copies of the ENF are also being sent to the Conservation Commission and Planning Board of Brockton (Municipality) where they may be inspected.**

The Secretary of Energy & Environmental Affairs will publish notice of the ENF in the Environmental Monitor, will receive public comments on the project for 20 days, and will then decide, within ten days, if an environmental Impact Report is needed. A site visit and consultation session on the project may also be scheduled. All persons wishing to comment on the project, or to be notified of a site visit or consultation session, should write to the Secretary of Energy & Environmental Affairs, 100 Cambridge St., Suite 900, Boston, Massachusetts 02114, Attention: MEPA Office, referencing the above project.

By Mass Gaming & Entertainment, LLC (Proponent)

## APPENDIX VIII

### REQUIRED MUNICIPAL & FEDERAL PERMITS

The following permits are expected to be required for this project with current status:

Agency	Permit	Status
<b>Federal</b>		
U.S. Environmental Protection Agency	NPDES General Permit for Stormwater Discharge from Construction Activities	To be filed
<b>State</b>		
Massachusetts Gaming Commission	Category 1 Gaming License	RFA-1 Application submitted; RFA-2 Application anticipated to be filed in summer 2015
MassDOT	Highway Access Permit	To be filed
<b>City of Brockton</b>		
Planning Board	Site Plan Approval	To be filed
Planning Board or DPW	Stormwater Permit	To be filed
Conservation Commission (Potentially for Off-Site Improvements)	Order of Conditions	To be filed
Dept of Building and Inspections	Building Permit	To be filed
Dept of Building and Inspections	Trench Permit	To be filed
Dept of Building and Inspections/DPW	Road Opening Permit	To be filed

APPENDIX IX

MASSACHUSETTS HISTORICAL COMMISSION

PROJECT NOTIFICATION FORM

&

RESPONSE LETTER



**The Commonwealth of Massachusetts**  
William Francis Galvin, Secretary of the Commonwealth  
Massachusetts Historical Commission

May 1, 2015

Stephen Martorano  
Bohler Engineering  
75 Federal Street  
Suite 620  
Boston, MA 02110

RE: MA Gaming & Entertainment LLC Casino and Hotel at Brockton Fairgrounds, Brockton, MA; MHC# RC.57890

Dear Mr. Martorano:

Thank you for submitting a Project Notification Form (PNF) for the project referenced above, which was received at this office on April 3, 2015. The staff of the Massachusetts Historical Commission (MHC) have reviewed the information submitted and have the following comments.

The proposed project consists of the demolition of multiple structures within the Brockton Fairgrounds including the grandstand, numerous small wood framed concession stands, maintenance buildings, and modern stables. The information provided indicates that the project will require a Massachusetts Gaming Commission Category 1 Gaming License and a MassDOT Highway Access Permit.

Review of the MHC's *Inventory of Historic and Archaeological Assets of the Commonwealth* indicates that the Brockton Fairgrounds, bounded by West Street, Belmont Street, Thurber Avenue, Othello Street and Forest Avenue, is included in MHC's Inventory (BRO.F). It is the opinion of the MHC staff that the Brockton Fairgrounds does not appear to meet the criteria of eligibility for listing in the State Register of Historic Places. The 1932 Brockton Fairgrounds Exhibition Hall, located on a separate parcel at the center of the Brockton Fairgrounds, is included in MHC's Inventory (BRO.14) and it is the opinion of the MHC staff that the 1932 Brockton Fairgrounds Exhibition Hall meets the criteria of eligibility for listing in the National Register of Historic Places.

The Brockton Fairgrounds Exhibition Hall, located on the adjacent parcel, is not within the project boundaries.

After review of the MHC files and the materials submitted, it has been determined that this project is unlikely to affect significant historic or archaeological resources.

These comments are offered to assist in compliance with M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00). Please do not hesitate to contact Elizabeth Sherva of my staff if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Brona Simon".

Brona Simon  
State Historic Preservation Officer  
Executive Director  
Massachusetts Historical Commission

xc: Mass Gaming & Entertainment, LLC  
Massachusetts Gaming Commission  
MassDOT 220 Morrissey Boulevard, Boston, Massachusetts 02125  
(617) 727-8470 • Fax: (617) 727-5128  
[www.sec.state.ma.us/mhc](http://www.sec.state.ma.us/mhc)

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

APPENDIX A  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD  
BOSTON, MASS. 02125  
617-727-8470, FAX: 617-727-5128

**PROJECT NOTIFICATION FORM**

Project Name: Proposed Category 1 Gaming License

Location / Address: 600 Belmont Street, West Street, and Forest Avenue - Brockton Fairgrounds

City / Town: Brockton, MA

Project Proponent

Name: Mass Gaming & Entertainment, LLC

Address: 900 North Michigan Avenue, Suite 1600

City/Town/Zip/Telephone: Chicago, IL 60611 (312)915-2791

Agency license or funding for the project (list all licenses, permits, approvals, grants or other entitlements being sought from state and federal agencies).

<u>Agency Name</u>	<u>Type of License or funding (specify)</u>
Massachusetts Gaming Commission	Category 1 Gaming License
MassDOT	Highway Access Permit

**Project Description (narrative):**

This site is being considered for development as a Proposed Category 1 Gaming Establishment, pursuant to the Massachusetts gaming Commission Gaming License scheduled to be issued in Fall 2015. While the site plans and full building program are in early design stages, the conceptual design program includes a 250,000sf casino, a hotel, associated surface and structured parking, and perimeter landscaped buffers.

**Does the project include demolition? If so, specify nature of demolition and describe the building(s) which are proposed for demolition.**

Yes. There are several existing buildings on-site that will be demolished, including the former Brockton Fairgrounds grandstands, numerous small wood framed concession stands, maintenance buildings, all somewhat altered, and some modern stables. The Brockton Fairgrounds Exhibition Hall (MHC#BRO.14), located on the adjacent parcel, is not within the project limits and will remain.

**Does the project include rehabilitation of any existing buildings? If so, specify nature of rehabilitation and describe the building(s) which are proposed for rehabilitation.**

No.

**Does the project include new construction? If so, describe (attach plans and elevations if necessary).**

Yes. The project is being considered for development as a Proposed Category 1 Gaming Establishment. Plans and elevations have not yet been formally prepared for same.

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

APPENDIX A (continued)

**To the best of your knowledge, are any historic or archaeological properties known to exist within the project's area of potential impact? If so, specify.**

The Brockton Fairgrounds is listed under Inventory No. BRO.F

**What is the total acreage of the project area?**

Woodland	<u>0</u>	acres	Productive Resources:		
Wetland	<u>0</u>	acres	Agriculture	<u>0</u>	acres
Floodplain	<u>0</u>	acres	Forestry	<u>0</u>	acres
Open space	<u>13</u>	acres	Mining/Extraction	<u>0</u>	acres
Developed	<u>33</u>	acres	Total Project Acreage	<u>46</u>	acres

**What is the acreage of the proposed new construction?** 46+/- (Total Site) acres

**What is the present land use of the project area?**

Presently, the developed portion of the property is actively used for storage of commercial vehicles, other commercial materials and recently as a snow storage yard for the City of Brockton. The majority of the time the the former grand stands and track on the property are dormant since losing horse racing in 2001, however the grounds are utilized for a handful of events such as carnivals and group running events.

**Please attach a copy of the section of the USGS quadrangle map which clearly marks the project location.**

This Project Notification Form has been submitted to the MHC in compliance with 950 CMR 71.00.

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Signature of Person submitting this form:  Date: 4/1/2015

Name: Stephen Martorano, P.E.

Address: 75 Federal Street, Suite 620

City/Town/Zip: Boston, MA 02110

Telephone: (617)849-8040

REGULATORY AUTHORITY

950 CMR 71.00: M.G.L. c. 9, §§ 26-27C as amended by St. 1988, c. 254.

# MASSACHUSETTS HISTORICAL COMMISSION PROJECT NOTIFICATION FORM

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## SUPPLEMENTAL MATERIALS

- ↪ APPENDIX I USGS SITE LOCATION MAP  
(SEE APPENDIX I OF ENF)
- ↪ APPENDIX II EXISTING CONDITIONS PLANS  
(SEE APPENDIX II OF ENF)
- ↪ APPENDIX III EXISTING SITE PHOTOGRAPHS

APPENDIX III  
EXISTING SITE PHOTOGRAPHS



**View of the Forest Avenue Entrance and Rear of Grandstands**



**View of the Grandstand from Forest Avenue**



**View of the typical Stable Buildings**



**View of the Fairgrounds**



**View of the typical Fairgrounds Buildings**



**View of the Existing Brockton Fairgrounds Exhibition Hall on the Adjacent Parcel**