



Massachusetts Gaming Commission
101 Federal Street, 12th Floor
Boston, MA 02110

2017 COMMUNITY MITIGATION FUND
Specific Impact Grant Application
BD-17-1068-1068C-1068L-11234

Please complete entire Application

City of Lynn

1. NAME OF MUNICIPALITY/GOVERNMENT ENTITY/DISTRICT

Department of Community Development

2. DEPARTMENT RECEIVING FUNDS

James Marsh, Director

3. NAME AND TITLE OF INDIVIDUAL RESPONSIBLE FOR HANDLING OF FUNDS

Dept. of Community Development, 3 City Hall Square, Lynn, MA 01901

4. ADDRESS OF INDIVIDUAL RESPONSIBLE FOR HANDLING OF FUNDS

781-586-6768 jmarsh@lynnma.gov

5. PHONE # AND EMAIL ADDRESS OF INDIVIDUAL RESPONSIBLE FOR HANDLING OF FUNDS

Judith Flanagan Kennedy, Mayor

6. NAME AND TITLE OF INDIVIDUAL AUTHORIZED TO COMMIT FUNDS ON BEHALF OF MUNICIPALITY/GOVERNMENTAL ENTITY

Mayor's Office, Lynn City Hall, 3 City Hall Square, Lynn, MA 01901

7. ADDRESS OF INDIVIDUAL AUTHORIZED TO COMMIT FUNDS ON BEHALF OF MUNICIPALITY/GOVERNMENTAL ENTITY

781-586-6857 jkennedy@lynn.ma.gov

8. PHONE # AND EMAIL ADDRESS OF INDIVIDUAL AUTHORIZED TO COMMIT FUNDS ON BEHALF OF MUNICIPALITY/GOVERNMENTAL ENTITY

Wynn MA, LLC/Everett

9. NAME OF GAMING LICENSEE

1. IMPACT DESCRIPTION

Please describe in detail the impact that is attributed to the construction of a gaming facility. Please provide support for the determination that the construction of the gaming facility caused or is causing the impact.

The City of Lynn is an older urban City with a large blue collar population. It is anticipated that many of the construction workers employed by the Licensee will reside in Lynn. These individuals will be traveling on Lynn's congested roadways during rush hour further congesting Lynn roads. It is likely the majority of these individuals will utilize Route 1A and Route 107 to travel back and forth to the construction site in Everett. Concrete/cement contractors from Lynn and the immediate surrounding areas will likely be utilized during the construction phase. These construction vehicles and trucks would be utilizing Routes 1A and 107 to and from the Everett facility.

Routes 1A and 107 are heavily traveled thoroughfares and during construction will be further congested. The General Electric facility is located between Routes 1A and 107 and sees heavy traffic during the rush hour commute. The construction of the Everett facility will further exacerbate traffic issues in the City of Lynn.

The City of Lynn is an older urban Gateway City with a population of over 90,000. Lynn is the largest city on the North Shore and tenth largest city in Massachusetts. Lynn's recently completed Waterfront Master Plan contains waterfront parcels that have been identified by the Commonwealth of Massachusetts as priority development sites. These parcels are a mere 8 miles from the proposed facility. In addition, thousands of Lynn, Swampscott, Marblehead and Salem residents commute to Boston and beyond each morning utilizing Lynn roads that lead them directly to the proposed facility.

Although the City of Lynn has steadily been working on reinventing itself, attracting loft and condo owners, one issue remains. The City is plagued by a lack of direct, free flowing traffic into and out of the city limits. Somewhere along each entry point, motorists must pass through residential neighborhoods or navigate limited access roads with traffic signals and numerous stops. Unlike urban communities abutting major thoroughfares such as Routes 128, 495 and 1, the City of Lynn's commercial base and resulting economics are limited to

what can be carried over these aging local roads. In fact, during a recent study administered by economist Dr. Barry Bluestone of Northeastern University, the lack of free flowing vehicular transportation was identified as one of the major "deal breakers" when it came to attracting new business to Lynn.

In an attempt to remedy these issues, the City has been tirelessly lobbying for funds to design, engineer, and implement a variety of improvements and alternatives aimed at streamlining vehicular, water, and transit oriented commuters and commerce into and out of the City's core business districts.

To date, Lynn has been successful lobbying for major improvements to one of the City's core business districts along Route 129. Major roadway improvements were undertaken and completed by the Commonwealth of Massachusetts. Lynn also obtained funding to offer a ferry service in 2014/2015. The ferry service eliminated significant vehicular traffic during the morning and evening rush hour commutes. The City is actively seeking funding for dredging for the ferry and other vessels as well as additional stops in Lynn on our commuter rail line, and exploring ways to create additional access to our waterfront, which is now primed for development. In addition, we are in the permitting phases of a variety of city intersections including access to our Waterfront off Route 1A, streamlining traffic on Route 107 and the extension of the Blue Line.

Across the Commonwealth, large municipal projects such as Quincy's Marina Bay and the new Quincy Center/Street Works Initiative, Somerville's Assembly Square/Inner Belt and Worcester's City Square are reinvigorating the economies of older Urban Centers. Governor Baker and his Chief Economic Advisor Jay Ash have observed Lynn's potential for significant growth and committed to work with Lynn to assist us to reach our goals. Governor Baker and Secretary Ash believe that Lynn has positioned itself for redevelopment of both our Waterfront and Downtown. As the economy improves, much like these other cities, State and local officials believe that Lynn is poised to continue its economic transformation and break through as one of the areas main, cultural, economic and tourist hubs.

2017 SPECIFIC IMPACT GRANT APPLICATION

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However, in attempting to bring in businesses to the City, many corporate leaders are looking to areas closer to the Everett facility. For more than a decade Lynn officials have attempted to attract a hotel to the City of Lynn. To date, this endeavor has been unsuccessful. While Lynn is only 8 miles from the Everett facility, hotels and other businesses have selected locations closer to the Everett facility with the anticipation of a fertile market. The significant traffic congestion in Lynn on a daily basis makes the 8-mile commute appear much longer in the eyes of businesses that we have sought to locate in Lynn. The increased traffic on Lynn's roadways during the course of the construction will only worsen the perceived traffic concerns of prospective businesses.

2. PROPOSED MITIGATION

Please identify below the manner in which the funds are proposed to be used. Please provide documentation (e.g. - invoices, proposals, estimates, etc.) adequate for the Commission to ensure that the funds will be used for the cost of mitigating the impact from the construction of a proposed gaming establishment. Please describe how the mitigation request will address the specific impact indicated. Please attach additional sheets/supplemental materials if necessary.

Lynn would utilize \$400,000 in funding to alleviate the significant traffic issues facing our City. Lynn has been actively seeking funding to create a left-hand turn into the ferry entrance for commuters traveling south on Route 1A. At the present time, ferry travelers are forced to drive past the ferry entrance and take a legal U-turn more than a half mile away from the ferry terminal.

The City is also actively seeking funding to operate the ferry this coming summer. The ferry shuttle from Lynn to Boston has been operational in the past with the assistance of state funds. At this time, no such funding has been allotted to the City of Lynn.

The City has conducted numerous traffic studies to synchronize the traffic lights on Routes 107 to alleviate congestion. Route 107 has been identified as a priority by the Commonwealth of Massachusetts because of traffic congestion. In fact, the Commonwealth of Massachusetts is holding a series of public hearings to discuss ways that Route 107 could be improved. Unfortunately, not all of Route 107 is under the jurisdiction of the Commonwealth. More than three miles of Route 107 including seven major intersections are under the jurisdiction of the City. Improvements undertaken by the Commonwealth of Massachusetts on sections of the road under its control will not have a maximum benefit unless the City secures funding to upgrade traffic signals under the City's control.

The City is also seeking funding to add additional stops on the Rockport/Newburyport Commuter Rail Line. Recently, a developer purchased a 65 acre site adjacent to the Riverworks commuter rail stop. However, presently, only employees of the General Electric can utilize this stop. It is envisioned that the property will be developed into several hundred residential units directly overlooking Boston Harbor. While the City strongly supports this proposed project, the City recognizes that the project will increase the significant traffic issues that exist at this time.

In order for this project to proceed, significant upgrades to the Riverwork station must be completed.

If awarded community mitigation funding, the City will consult with State officials including Secretary Ash and representatives of Massachusetts Highway to determine the best manner to expend these funds to lessen traffic and maximize the economic development in Lynn

3. MPACT CONTROLS/ADMINISTRATION OF IMPACT FUNDS

Please provide detail regarding the controls that will be used to ensure that funds will only be used to address the specific impact. If non-governmental entities will receive any funds, please describe what reporting will be required and how the applicant will remedy any misuse of funds.

The Chief Financial Officer of the City of Lynn has insisted that any community mitigation funding awarded to the City of Lynn be placed in a separate revolving account. In this manner, the funding would only be permitted if it addressed the specific transportation needs of the City. Community Development Director Marsh would be required to obtain the approval of both the Mayor and the City Council prior to any expenditure of community mitigation funding.

City officials have worked tirelessly to secure funding for the projects identified in Section 2 of the Application. The City is hopeful that a public/private partnership can result to bring these projects to completion. However, the City understands that Lynn will need to contribute funding to any other sources of public and private financing that becomes available. The community mitigation monies would ensure that Lynn could meet its obligations to bring the traffic improvements to fruition.

4. RELEVANT EXCERPTS FROM HOST OR SURROUNDING COMMUNITY AGREEMENTS

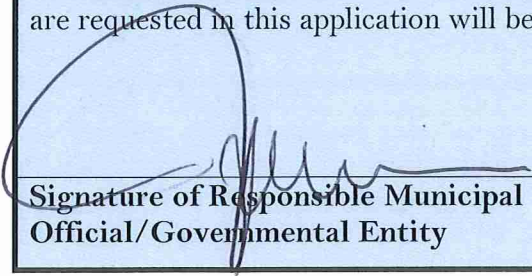
Please describe and include excerpts from any relevant sections of any Host or Surrounding Community Agreement. Please explain how this impact was either anticipated or not anticipated in that Agreement.

Attached please find a Neighboring Community Agreement between the City of Lynn and Wynn MA, LLC.

Since the execution of this Agreement, Wynn MA, LLC has selected Suffolk Construction as the general contractor to construct its facility. Suffolk Construction employs a significant number of employees in the Greater Lynn area. Traditionally, Suffolk has hired many Lynn tradesmen as subcontractors and vendors on local construction projects. The selection of Suffolk Construction ensures that Lynn will be adversely effected as a result of the injection of increased vehicular traffic.

CERTIFICATION BY MUNICIPALITY/GOVERNMENTAL ENTITY

On behalf of the aforementioned municipality/governmental entity I hereby certify that the funds that are requested in this application will be used solely for the purposes articulated in this Application.



Signature of Responsible Municipal
Official/Governmental Entity

Date

2/4/17

APPROVAL OF THE MASSACHUSETTS GAMING COMMISSION

On behalf of the Massachusetts Gaming Commission, the Commission hereby authorizes the payment from the Community Mitigation Fund in accordance with M.G.L. c. 23K as outlined in this Application.

Executive Director

Date

Ombudsman

Date

COPY

NEIGHBORING COMMUNITY AGREEMENT

By and Between the City of Lynn, Massachusetts and Wynn MA, LLC

This Neighboring Community Agreement (this "Agreement") is made and entered into as of January 28, 2014 (the "Effective Date"), by and between the City of Lynn, Massachusetts, a municipal corporation organized under the laws of the Commonwealth of Massachusetts, with principal offices located at 3 City Hall Square (the "City"), and Wynn MA, LLC, a limited liability company formed under the laws of the State of Nevada, with principal offices located at 3131 Las Vegas Boulevard South, Las Vegas, Nevada 89109 ("Wynn"). Hereafter, the parties may also be collectively referred to as the "Parties."

GENERAL RECITALS

Pursuant to Chapter 194 of the Acts and Resolves of 2011, and Commonwealth of Massachusetts General Laws Chapter 23K, the Massachusetts Gaming Act (the "Act"), Wynn has applied to the Massachusetts Gaming Commission (the "Commission") for a Category 1 gaming license to develop a luxury hotel and destination resort on the site (the "Project Site") depicted in Exhibit A in Everett, Massachusetts (the "Project");

WHEREAS, the City is a neighboring community to the Project and has petitioned the Commission for designation as a "Surrounding Community," as such term is defined in the Act;

WHEREAS, the Parties have agreed that it is unlikely that the City will suffer significant and adverse impacts as a result of the construction or operation of the Project;

WHEREAS, the City has agreed to withdraw its petition for designation as a "Surrounding Community" and the Parties have agreed to enter into this Agreement for the purpose of facilitating benefits of the Project to the City;

NOW, THEREFORE, in consideration of the covenants and mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, intending to be bound hereby, agree as follows:

AGREEMENT

1. Significant and Adverse Impacts.

In reliance upon the terms of conditions of (i) that certain Live Entertainment Venue Agreement by and between Wynn and Massachusetts Performing Arts Coalition, Inc. and (ii) this Agreement, the Parties have agreed that it is unlikely that the City will suffer significant and adverse impacts as a result of the construction or operation of the Project. In the event that the City identifies any such impacts that are directly attributable to the Project, Wynn agrees to meet with the City to consider, in good faith, the mitigation of such impacts.

2. Concierge Program.

In recognition of the unique cultural, historical and entertainment attractions near the Project, Wynn has developed a proprietary concierge program for the purpose of cross-marketing these attractions. The City has agreed to participate in this cross-marketing venture for the purpose of promoting its local businesses and other attractions. Prior to the opening of the Project, the Parties will work together and in coordination with the City's Chamber of Commerce to include the City's businesses in the Concierge Program so that they may benefit from the Project.

3. WE Save.

The WE Save program offers local business of all industries the opportunity to market their offerings to Wynn's 4,000 employees, hopefully creating new and repeat customers. Wynn is actively seeking local and regional partnerships in its neighboring communities and the region to facilitate this program. In furtherance thereof, Wynn has agreed to purchase gift vouchers from local businesses within the City. Wynn intends to use a portion of these vouchers to drive employee spending in the City thereby stimulating retail activity in the City.

4. Business Development.

The Parties recognize and agree that the Project is likely to provide certain opportunities for the City's local business community (e.g., service providers, suppliers, etc.). The Parties will work together to communicate with the local business community to ensure that the community is best prepared to take advantage of these opportunities. Specifically, Wynn will coordinate with the City to hold vendor fairs that provide the City's businesses with information concerning the process of providing goods and services to the Project both during and post-construction. In addition, Wynn agrees to work with and assist local businesses to become "Wynn certified" to ensure that such businesses are prepared to take advantage of the business opportunities provided by the Project.

5. Jobs Program.

The Parties acknowledge that the City desires to help its residents who are interested in attaining employment at the Project. The Parties agree that the City's demographic is an appropriate, suitable, desirable and employable work force for the Project, and therefore it is mutually beneficial to provide a structured program to educate the City's residents about available employment opportunities. Following the engagement of a construction manager, Wynn shall, in coordination with the City, advertise and hold at least one event open to the City's residents, at which it will publicize its construction needs and explain to attendees the process by which they may seek to be hired in connection with the construction of the Project. Prior to beginning the process of hiring employees (other than internally) for the Project, Wynn shall advertise and hold at least one event open to the City's residents, at which it will publicize its hiring needs and explain to attendees the process by which they may seek to be hired in connection with the Project.

6. Community Fund.

As part of its charitable donation program and in recognition that employees of the Project will reside in the City, Wynn will invite the City to present, on an annual basis, the needs of the many important non-profit organizations throughout the City. Wynn will consider, in good faith, the needs of such organizations in determining its charitable donations.

7. City's Obligations.

In consideration of the obligations hereunder to be taken by Wynn, and in further recognition of the benefits the Project will bring to the City, the City shall support the Project and actively work with and assist Wynn and its contractors and agents to obtain any and all permits, certifications, legislation or regulatory approvals from governmental entities and officials.

8. Additional Terms and Conditions.

- a. This Agreement is contingent upon the receipt by Wynn of a Category 1 gaming license to develop the Project on the Project Site.

- b. All definitions contained in the Act and regulations promulgated thereto are incorporated herein by reference as if fully set forth herein and shall be applicable hereto where relevant.
- c. The captions and headings in this Agreement are inserted for convenience of reference only and in no way shall affect, modify, define, limit or be used in construing the scope or intent of this Agreement or any of the provisions hereof. Where the context requires, all singular works in the Agreement shall be construed to include their plural and all words of neuter gender shall be construed to include the masculine and feminine forms of such words.
- d. If any term of this Agreement or the application thereof to any person or circumstance shall, to any extent, be determined by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions of this Agreement, or the application of such term to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and this Agreement shall otherwise remain in full force and effect.
- e. No amendment or modification of this Agreement shall be deemed valid unless mutually agreed upon and duly authorized by the Parties and effectuated by a written amendment signed by the Parties.
- f. The Parties acknowledge that from time to time following commencement of this Agreement that additional regulations may be promulgated, and/or statutes and regulations may be amended from time to time. The Parties agree to be bound by said amended and/or modified regulations and statutes, and further agree to renegotiate any terms and conditions contained herein which may be substantially and materially modified by any said amended and/or modified regulations and statutes.
- g. All notices required or permitted to be given hereunder shall be in writing and delivered by hand or courier service; by a nationally-recognized delivery service, by mailing, postage prepaid via certified mail, to the following addresses, or to other addresses as may be furnished by the parties from time to time in writing hereafter:

In the case of notice to City:

To: Judith Flanagan Kennedy, Mayor
Mayor's Office
3 City Hall Square
Lynn MA 01901

In the case of notice to Wynn:

To: Wynn MA, LLC
c/o Wynn Resorts, Limited
3131 Las Vegas Blvd. South
Las Vegas, NV 89109
Attn: Kim Sinatra, Sr. VP and General Counsel

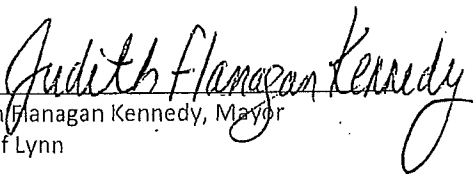
and in the case of either Party, to such other address as shall be designated by written notice given to the other Party in accordance with this section. Any such notice shall be deemed given when so delivered by hand, by courier delivery on date of service, or if mailed, when delivery receipt is signed by the party designated herein as accepting notice. Each Party shall ensure that the other party is notified in writing immediately of any changes in the contact and address information above.

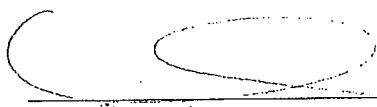
- h. Failure of either Party to require strict performance of the terms and conditions herein shall not be deemed a waiver of any rights and remedies available to such Party, and shall not be deemed a waiver of subsequent default or nonperformance of said terms or conditions in the future. No actual waiver by a Party of performance of any terms, conditions or obligations under this Agreement shall be effective unless agreed upon and in writing signed by such Party. No waiver of either Party to require strict performance of any terms and conditions shall constitute a waiver of such Party's right to demand strict compliance with the terms and conditions of this Agreement.
- i. Each Party shall have thirty (30) days from receipt of written notice of failure, violation or default to cure said failure, violation or default. If such failure, violation or default cannot in good faith be cured within such thirty (30) day period, the defaulting Party shall notify the other Party immediately in writing and diligently pursue curing said default to completion. Except as expressly provided herein, the rights and remedies of the Parties, whether provided by law or by this Agreement, shall be cumulative, and the exercise by a Party of any one or more of such remedies shall not preclude the exercise by it, at the same or different times, of any other such remedies for the same default or breach or of any of its remedies for any other default or breach by the other Party.
- j. This Agreement shall be subject to, governed under, and construed in accordance with the laws and regulations of the Commonwealth of Massachusetts, including any amendments thereto which may occur from time to time following execution of this Agreement, and said laws and regulations shall govern the validity, enforcement of terms, conditions, rights and obligations, and performance of this Agreement. The Parties further agree that any legal proceedings whether in law or equity arising hereunder shall be instituted in the Commonwealth of Massachusetts. The prevailing Party in any action shall recover its litigation costs (including attorneys' fees and expert witness fees). Notwithstanding the foregoing provisions for forum selection, the Parties agree that before resorting to any formal dispute resolution process concerning any dispute arising from or in any way relating to this Agreement, the Parties will first engage in good faith negotiations in an effort to find a solution that services their respective and mutual interests.

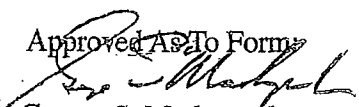
IN WITNESS WHEREOF, the parties, by and through the signatories below, acknowledge they are duly authorized and have the full power, right and authority to enter into, execute, deliver, and perform the terms and conditions of this Agreement, and hereto have hereunto set their hands and seals as of the Effective Date.

City of Lynn
 Agreed to
 Subject to City Council Consent

Wynn MA, LLC


 Judith Flanagan Kennedy, Mayor
 City of Lynn


 Kim Sinatra
 Secretary

Approved As To Form

 George S. Markopoulos
 Assistant City Solicitor

AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
THE ~~TOWN~~-CITY OF LYNN, MASSACHUSETTS
FOR THE
LYNN HARBOR NAVIGATION IMPROVEMENT FEASIBILITY STUDY

THIS AGREEMENT is entered into this _____ day of _____, _____, by and between the Department of the Army (hereinafter the "Government"), represented by the U.S. Army Engineer, New England District (hereinafter the "District Engineer") and the Town of Lynn, Massachusetts (hereinafter the "Non-Federal Sponsor"), represented by the Mayor.

WITNESSETH, THAT:

WHEREAS, Section 107 of the River and Harbor Act of 1960 authorizes the Corps of Engineers to improve navigation including dredging of channels, anchorage areas, and turning basins and construction of breakwaters, jetties and groins, through a partnership with non-Federal government sponsor such as cities, counties, special chartered authorities, or units of state government. The maximum Federal cost for project development and construction of any one project is \$10 million and each project must be economically justified, environmentally sound, and technically feasible;

WHEREAS, Section 105(a) of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2215(a)), specifies the cost-sharing requirements; and

WHEREAS, the Government and the Non-Federal Sponsor have the full authority and capability to perform in accordance with the terms of this Agreement.

NOW, THEREFORE, the parties agree as follows:

ARTICLE I - DEFINITIONS

A. The term "Study" means the activities and tasks required to identify and evaluate alternatives and the preparation of a decision document that, as appropriate, recommends a coordinated and implementable solution for Navigation Improvements at Lynn Harbor, Lynn, Massachusetts.

B. The term "shared study costs" means all costs incurred by the Government and Non-Federal Sponsor after the effective date of this Agreement that are directly related to performance of the Study and cost shared in accordance with the terms of this Agreement. The term includes, but is not necessarily limited to, the Government's costs for preparing the PMP; for plan formulation and evaluation, including costs for economic, engineering,

real estate, and environmental analyses; for preparation of a floodplain management plan if undertaken as part of the Study; for preparing and processing the decision document; for supervision and administration; for Agency Technical Review and other review processes required by the Government; and for response to any required Independent External Peer Review; and the Non-Federal Sponsor's creditable costs for in-kind contributions. The term does not include any costs for dispute resolution; for participation in the Study Coordination Team; for audits; for an Independent External Peer Review panel, if required; or for negotiating this Agreement. The term also does not include the first \$100,000 of costs for the Study incurred by the Government, whether before or after execution of this Agreement.

C. The term "PMP" means the project management plan, and any modifications thereto, developed in consultation with the Non-Federal Sponsor, that specifies the scope, cost, and schedule for Study activities and tasks, including the Non-Federal Sponsor's in-kind contributions, and that guides the performance of the Study.

D. The term "in-kind contributions" means those planning activities (including data collection and other services) that are integral to the Study and would otherwise have been undertaken by the Government for the Study and that are identified in the PMP and performed or provided by the Non-Federal Sponsor after the effective date of this Agreement and in accordance with the PMP.

E. The term "maximum Federal study cost" means the \$1,500,000 Federal cost limit for the Study, unless the Government has approved a higher amount, and includes the first \$100,000 of costs for the Study incurred by the Government.

F. The term "fiscal year" means one year beginning on October 1st and ending on September 30th of the following year.

ARTICLE II - OBLIGATIONS OF THE PARTIES

A. In accordance with Federal laws, regulations, and policies, the Government shall conduct the Study using funds appropriated by the Congress and funds provided by the Non-Federal Sponsor. The Non-Federal Sponsor shall perform or provide any in-kind contributions in accordance with applicable Federal laws, regulations, and policies.

B. The Non-Federal Sponsor shall contribute 50 percent of the shared study costs in accordance with the provisions of this paragraph and provide required funds in accordance with Article III.

1. After considering the estimated amount of credit for in-kind contributions, if any, that will be afforded in accordance with paragraph C. of this Article and the first \$100,000 of the costs incurred by the Government that are excluded from shared costs, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor for the remainder

of the initial fiscal year of the Study. No later than 15 calendar days after such notification, the Non-Federal Sponsor shall provide the full amount of such funds to the Government.

2. No later than August 1st prior to each subsequent fiscal year of the Study, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor during that fiscal year. No later than September 1st prior to that fiscal year, the Non-Federal Sponsor shall provide the full amount of such required funds to the Government.

C. The Government shall include in the shared study costs and credit towards the Non-Federal Sponsor's share of such costs, the costs, documented to the satisfaction of the Government, that the Non-Federal Sponsor incurs in providing or performing in-kind contributions, including associated supervision and administration, after the effective date of this Agreement. Such costs shall be subject to audit in accordance with Article VI to determine reasonableness, allocability, and allowability, and crediting shall be in accordance with the following procedures, requirements, and limitations:

1. As in-kind contributions are completed and no later than 60 calendar day after such completion, the Non-Federal Sponsor shall provide the Government appropriate documentation, including invoices and certification of specific payments to contractors, suppliers, and the Non-Federal Sponsor's employees. Failure to provide such documentation in a timely manner may result in denial of credit. The amount of credit afforded for in-kind contributions shall not exceed the Non-Federal Sponsor's share of the shared study costs.

2. No credit shall be afforded for interest charges, or any adjustment to reflect changes in price levels between the time the in-kind contributions are completed and credit is afforded; for the value of in-kind contributions obtained at no cost to the Non-Federal Sponsor; for any items provided or performed prior to completion of the PMP; or for costs that exceed the Government's estimate of the cost for such item if it had been performed by the Government.

D. To the extent practicable and in accordance with Federal laws, regulations, and policies, the Government shall afford the Non-Federal Sponsor the opportunity to review and comment on solicitations for contracts prior to the Government's issuance of such solicitations; proposed contract modifications, including change orders; and contract claims prior to resolution thereof. Ultimately, the contents of solicitations, award of contracts, execution of contract modifications, and resolution of contract claims shall be exclusively within the control of the Government.

E. The Non-Federal Sponsor shall not use Federal Program funds to meet any of its obligations under this Agreement unless the Federal agency providing the funds verifies in writing that the funds are authorized to be used for the Study. Federal program funds are those funds provided by a Federal agency, plus any non-Federal contribution required as a matching share therefor.

F. Except as provided in paragraph C. of this Article, the Non-Federal Sponsor shall not be entitled to any credit or reimbursement for costs it incurs in performing its responsibilities under this Agreement.

G. In carrying out its obligations under this Agreement, the Non-Federal Sponsor shall comply with all the requirements of applicable Federal laws and implementing regulations, including, but not limited to: Title VI of the Civil Rights Act of 1964 (P.L. 88-352), as amended (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto; the Age Discrimination Act of 1975 (42 U.S.C. 6102); and the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Army Regulation 600-7 issued pursuant thereto.

H. If Independent External Peer Review (IEPR) is required for the Study, the Government shall conduct such review in accordance with Federal laws, regulations, and policies. The Government's costs for an IEPR panel shall not be included in the shared study costs or the maximum Federal study cost.

I. In addition to the ongoing, regular discussions of the parties in the delivery of the Study, the Government and the Non-Federal Sponsor may establish a Study Coordination Team to discuss significant issues or actions. The Government's costs for participation on the Study Coordination Team shall not be included in the shared study costs, but shall be included in calculating the maximum Federal study cost. The Non-Federal Sponsor's costs for participation on the Study Coordination Team shall not be included in the shared study costs and shall be paid solely by the Non-Federal Sponsor without reimbursement or credit by the Government.

ARTICLE III - PAYMENT OF FUNDS

A. As of the effective date of this Agreement, the shared study costs are projected to be \$570,000, with the Government's share of such costs projected to be \$285,000 and the Non-Federal Sponsor's share of such costs projected to be \$285,000. These amounts are estimates only that are subject to adjustment by the Government and are not to be construed as the total financial responsibilities of the Government and the Non-Federal Sponsor.

B. The Government shall provide the Non-Federal Sponsor with quarterly reports setting forth the estimated shared study costs and the Government's and Non-Federal Sponsor's estimated shares of such costs; costs incurred by the Government, using both Federal and Non-Federal Sponsor funds, to date; the amount of funds provided by the Non-Federal Sponsor to date; the estimated amount of any creditable in-kind contributions; and the estimated remaining cost of the Study.

C. The Non-Federal Sponsor shall provide to the Government required funds by delivering a check payable to "FAO, USAED, NEW ENGLAND (E6)" to the District

Engineer, or verifying to the satisfaction of the Government that the Non-Federal Sponsor has deposited such required funds in an escrow or other account acceptable to the Government, with interest accruing to the Non-Federal Sponsor, or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government.

D. The Government shall draw from the funds provided by the Non-Federal Sponsor to cover the non-Federal share of the shared study costs as those costs are incurred. If the Government determines at any time that additional funds are needed from the Non-Federal Sponsor to cover the Non-Federal Sponsor's required share of the shared study costs, the Government shall provide the Non-Federal Sponsor with written notice of the amount of additional funds required. Within 60 calendar days of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of such additional funds.

E. Upon conclusion of the Study and resolution of all relevant claims and appeals, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with the written results of such final accounting. Should the final accounting determine that additional funds are required from the Non-Federal Sponsor, the Non-Federal Sponsor, within 60 calendar days of written notice from the Government, shall provide the Government with the full amount of such additional funds. Should the final accounting determine that the Non-Federal Sponsor has provided funds in excess of its required amount, the Government shall refund the excess amount, subject to the availability of funds. Such final accounting does not limit the Non-Federal Sponsor's responsibility to pay its share of shared study costs, including contract claims or any other liability that may become known after the final accounting.

ARTICLE IV - TERMINATION OR SUSPENSION

A. Upon 30 calendar days written notice to the other party, either party may elect at any time, without penalty, to suspend or terminate future performance of the Study. Furthermore, unless an extension is approved by the Assistant Secretary of the Army (Civil Works), the Study will be terminated if a Detailed Project Report is not completed for the Study within 3 years after the effective date of this Agreement.

B. In the event of termination, the parties shall conclude their activities relating to the Study. To provide for this eventuality, the Government may reserve a percentage of available funds as a contingency to pay the costs of termination, including any costs of resolution of contract claims, and resolution of contract modifications.

C. Any suspension or termination shall not relieve the parties of liability for any obligation previously incurred. Any delinquent payment owed by the Non-Federal Sponsor pursuant to this Agreement shall be charged interest at a rate, to be determined by the Secretary of the Treasury, equal to 150 per centum of the average bond equivalent rate of the 13 week Treasury bills auctioned immediately prior to the date on which such

payment became delinquent, or auctioned immediately prior to the beginning of each additional 3 month period if the period of delinquency exceeds 3 months.

ARTICLE V - DISPUTE RESOLUTION

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to the parties. Each party shall pay an equal share of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

ARTICLE VI - MAINTENANCE OF RECORDS AND AUDIT

A. The parties shall develop procedures for the maintenance by the Non-Federal Sponsor of books, records, documents, or other evidence pertaining to costs and expenses for a minimum of three years after the final accounting. The Non-Federal Sponsor shall assure that such materials are reasonably available for examination, audit, or reproduction by the Government.

B. The Government may conduct, or arrange for the conduct of, audits of the Study. Government audits shall be conducted in accordance with applicable Government cost principles and regulations. The Government's costs of audits for the Study shall not be included in shared study costs, but shall be included in calculating the maximum Federal study cost.

C. To the extent permitted under applicable Federal laws and regulations, the Government shall allow the Non-Federal Sponsor to inspect books, records, documents, or other evidence pertaining to costs and expenses maintained by the Government, or at the request of the Non-Federal Sponsor, provide to the Non-Federal Sponsor or independent auditors any such information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The costs of non-Federal audits shall be paid solely by the Non-Federal Sponsor without reimbursement or credit by the Government.

ARTICLE VII - RELATIONSHIP OF PARTIES

In the exercise of their respective rights and obligations under this Agreement, the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other. Neither party shall provide, without the consent of the other party, any contractor with a release that

waives or purports to waive any rights a party may have to seek relief or redress against that contractor.

ARTICLE VIII - NOTICES

A. Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally or mailed by certified mail, with return receipt, as follows:

If to the Non-Federal Sponsor:

Lynn City Hall and Memorial Auditorium
Office of the Mayor
Room 306
3 City Hall Square
Lynn, Massachusetts 01901

If to the Government:

District Engineer
US Army Corps of Engineers
New England District
696 Virginia Road
Concord, Massachusetts 01742

B. A party may change the recipient or address for such communications by giving written notice to the other party in the manner provided in this Article.

ARTICLE IX - CONFIDENTIALITY

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

ARTICLE X - THIRD PARTY RIGHTS, BENEFITS, OR LIABILITIES

Nothing in this Agreement is intended, nor may be construed, to create any rights, confer any benefits, or relieve any liability, of any kind whatsoever in any third person not a party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer.

DEPARTMENT OF THE ARMY

TOWN OF LYNN, MASSACHUSETTS

BY: _____
Christopher J. Barron
Colonel, U.S. Army
District Engineer

BY: _____
Judith F. Kennedy
Mayor

DATE: _____

DATE: _____

Approved As To Form

George S. Markopoulos
Assistant City Solicitor



To: City of Lynn

Date: September 9, 2015

Memorandum

Project #: 11942.03

From: Nicolette Hastings, PE
Kathleen Keen, EIT

Re: Lynnway at Blossom Street
Conceptual Improvements

Introduction

VHB evaluated a conceptual improvement option for the intersection of Lynnway (Route 1A) at Blossom Street in Lynn, Massachusetts. The evaluation considered impacts to traffic flow and operations along the Lynnway as a result of a potential improvement option at Blossom Street to improve access to the Lynn Commuter Ferry Terminal. This memorandum summarizes the results of this evaluation and includes a sketch level conceptual improvement plan and order of magnitude cost estimates for the City's consideration.

Existing Conditions

The existing conditions evaluation consisted of field inventories (including signal timing/phasing), the collection of peak period traffic volumes, and an operational analysis at the study area intersections.

Study Area

This memorandum evaluates the Lynnway in the vicinity of Blossom Street. The Lynnway is a principal arterial under the Department of Conservation and Recreation (DCR) jurisdiction and is oriented in an east-west direction within the study area. The Lynnway consists of three travel lanes in each direction with no shoulders. Eastbound and westbound traffic are separated by a concrete median. The posted speed limit in the vicinity of Blossom Street is 35 miles per hour (mph) eastbound and westbound. The study area consists of the following three intersections:

- **Lynnway (Route 1A) at Shepard Street/Marine Boulevard:** Signalized intersection with Shepard Street intersecting the Lynnway from the north and Marine Boulevard intersecting the Lynnway from the south. The Lynnway eastbound and westbound approaches consist of an exclusive left-turn storage lane, two through travel lanes, and a shared through/right-turn lane. There is a u-turn restriction for trucks on the Lynnway eastbound approach. The Shepard Street southbound approach and the Marine Boulevard northbound approach both consist of a single general purpose lane accommodating all movements. Sidewalks exist on both sides of the Lynnway and Shepard Street. Crosswalks are present across the eastbound, northbound, and southbound approaches.
- **Lynnway (Route 1A) at Blossom Street:** Unsignalized intersection with Blossom Street intersecting the Lynnway from the north and south. The Blossom Street northbound and southbound approaches are under STOP control and are right-in/right-out with the Lynnway eastbound and westbound traffic separated by a concrete median. The Lynnway eastbound approach consists of an exclusive left-turn storage lane for the downstream intersection with Kingman Street, two through travel lanes, and a shared through/right-turn lane. The Lynnway westbound approach consists of two through travel lanes and a shared through/right-turn lane. Sidewalks are present on all corners of the intersection with the exception of the western side of Blossom Street south of the Lynnway. Crosswalks exist on both the northbound and

101 Walnut Street
Watertown, MA 02472
P 617.924.1770



southbound approaches of Blossom Street; there are no pedestrian accommodations across the Lynnway at this location

- **Lynnway (Route 1A) at Kingman Street/jughandle:** Signalized intersection with Kingman Street intersecting the Lynnway from the south and a one-way northbound driveway intersecting the Lynnway from the north. The Lynnway eastbound and westbound approaches consist of an exclusive left-turn storage lane, two through travel lanes, and a shared through/right-turn lane. The Kingman Street approach consists of shared through/left-turn lane and an exclusive right-turn lane. Sidewalks are present on both sides of the Lynnway and crosswalks exist across the westbound, northbound, and southbound approaches.

Traffic Volumes

Manual turning movement counts (TMCs) were conducted at the three study area intersections during the weekday morning from 7:00 AM to 9:00 AM and during the weekday evening from 4:00 PM to 6:00 PM in November 2014. It should be noted that the TMCs were conducted during a time when the Lynn ferry service was not operational. A review of the data collected indicate the weekday morning peak hour is from 7:00 AM to 8:00 AM and the weekday evening peak hour is from 4:45 PM to 5:45 PM.

Lynn Commuter Ferry Service

The Lynn commuter ferry terminal is located at the southern end of Blossom Street. The Lynn to Boston ferry service operated seasonally in 2014 (the first year of a two year pilot program), from mid-May to mid-September. During this period, service was offered on weekday mornings and weekday evenings with two trips departing from Lynn in the morning and two trips departing from Boston during the evening.

The City of Lynn provided ferry ridership data for the month of September 2014 which was used to establish typical weekday morning and weekday evening peak hour traffic volumes at the study area intersections while the ferry service is operational. Table 1 shows the total number of vehicle trips added to the weekday morning and weekday evening existing traffic volumes.



Table 1 Peak Hour Ferry Ridership

	<u>Weekday Morning</u>	<u>Weekday Evening</u>
Enter	56	13
Exit	4	64
Total	60	77

Source: Lynn ferry ridership data, September 2014.

The trips in Table 1 were distributed onto the existing roadway network assuming 90 percent of the trips are coming to/from points north/east and 10 percent of trips are coming to/from points south/west. These assumptions are based on information provided by the City of Lynn. Figure 1 shows the resulting 2014 Existing Conditions (with ferry traffic) traffic volumes during the weekday morning and weekday evening peak hours at the study area intersections.

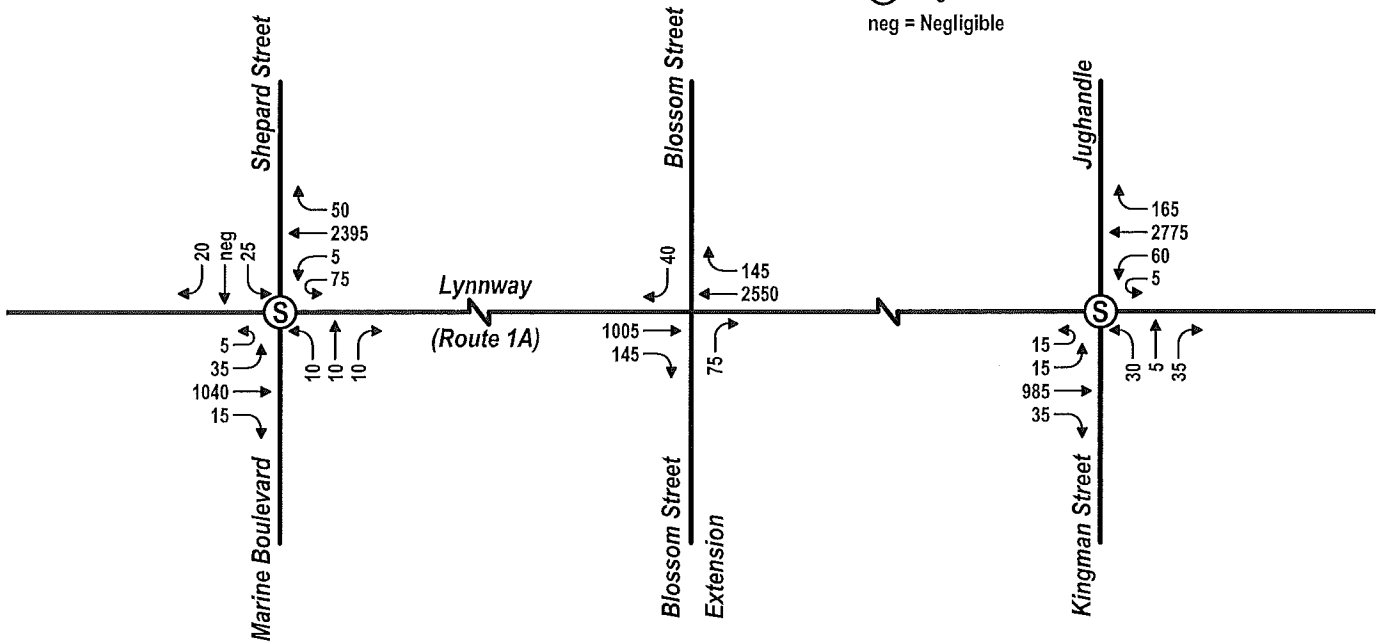
Traffic Operations Analysis

VHB conducted capacity analyses using SYNCHRO 8 software. The percentile delay method (SYNCHRO outputs) was used to evaluate how the signalized intersections accommodate the traffic demands, consistent with current MassDOT standards. Methods from the 2000 Highway Capacity Manual (HCM)¹ were used to evaluate how the unsignalized intersections accommodate the traffic demands as the HCM 2010 methodology does not support more than three through lanes on a major street approach. The capacity analyses were used to evaluate operations of the study area intersections and to provide a baseline to assess the operational benefits of the improvement options. Tables 2 and 3 show the results of the operations analysis at the signalized and unsignalized study area intersections, respectively.

¹ 2000 Highway Capacity Manual; Transportation Research Board: Washington, D.C.

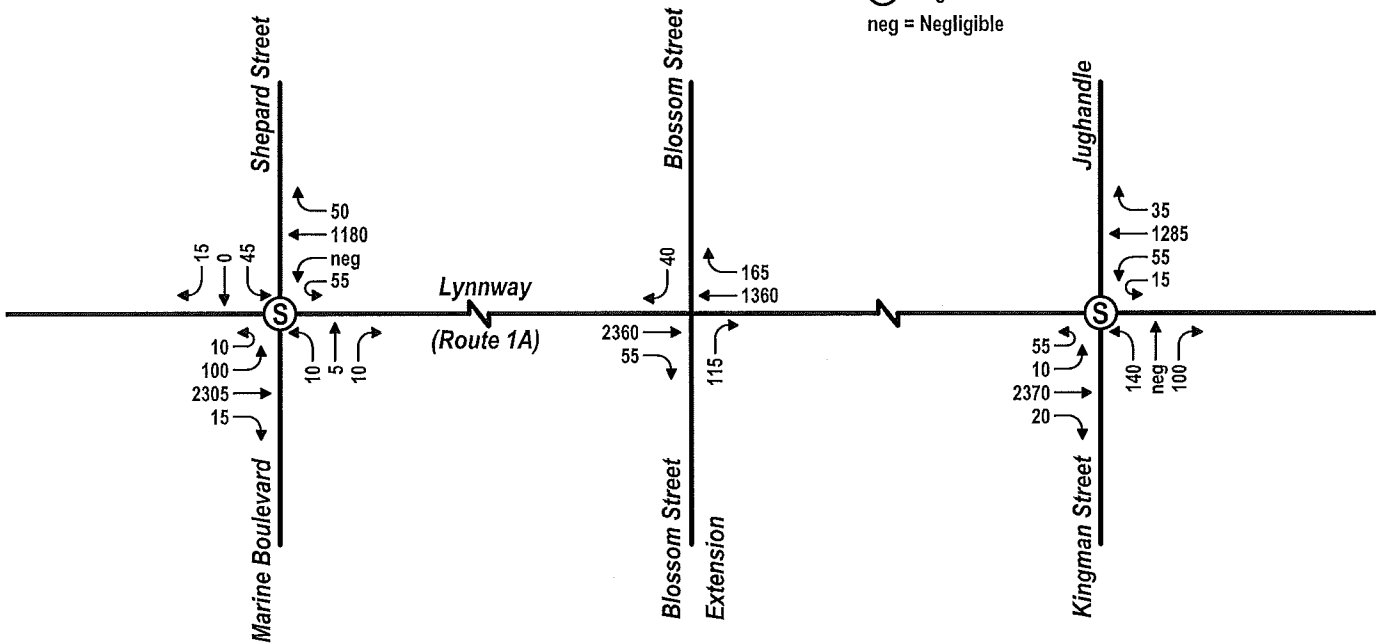
WEEKDAY MORNING PEAK HOUR

Ⓢ Signalized Intersection
neg = Negligible



WEEKDAY EVENING PEAK HOUR

Ⓢ Signalized Intersection
neg = Negligible



Vanasse Hangen Brustlin, Inc.

2014 Existing Conditions
Peak Hour Traffic Volumes
with Ferry Traffic

Figure 1

Blossom Street Improvements
Lynn, Massachusetts



Not to Scale



Memorandum

Table 2 Signalized Intersection Capacity Analyses

		2014 Existing Conditions with Ferry Traffic									
		Weekday Morning Peak Hour					Weekday Evening Peak Hour				
Intersection	Movement	V/C ¹	Del ²	LOS ³	50 Q ⁴	95 Q ⁵	V/C	Del	LOS	50 Q	95 Q
1: Lynnway (Route 1A) at Shepard Street/ Marine Boulevard	Lynnway EB L	0.34	50	D	27	65	0.56	53	D	64	134
	Lynnway EB T/R	0.38	9	A	114	208	0.65	12	B	277	551
	Lynnway WB L	0.49	52	D	48	107	0.38	51	D	34	85
	Lynnway WB T/R	0.70	12	B	330	648	0.41	10	B	125	257
	Marine Blvd NB L/T/R	0.40	40	D	17	34	0.37	34	C	23	17
	Shepard St SB L/T/R	0.26	9	A	0	19	0.34	17	B	4	37
	Overall		13	B				14	B		
3: Lynnway (Route 1A) at Kingman Street/ jughandle	Lynnway EB L	0.14	23	C	9	35	0.25	25	C	19	58
	Lynnway EB T/R	0.39	10	B	82	182	1.05	54	D	~355	#619
	Lynnway WB L	0.25	24	C	17	58	0.27	25	C	22	62
	Lynnway WB T/R	0.88	20	C	186	#797	0.60	14	B	122	238
	Kingman St NB L/T	0.21	19	B	12	27	0.57	23	C	70	77
	Kingman St NB R	0.19	5	A	0	8	0.35	7	A	7	12
	Overall		17	B				37	D		

Source: VHB, Inc. using SYNCHRO 8 software

1 Volume-to-capacity ratio, based on theoretical capacity.

2 Average delay, in seconds per vehicle

3 Level of service

4 50th percentile queue length estimate, in feet

5 95th percentile queue length estimate, in feet

~ Volume exceeds capacity, queue is theoretically infinite

95th percentile volumes exceeds capacity, queue may be longer

Table 3 Unsignalized Intersection Capacity Analyses

		2014 Existing Conditions with Ferry Traffic									
		Weekday Morning Peak Hour					Weekday Evening Peak Hour				
Intersection	Critical Movements	D ¹	V/C ²	Del ³	LOS ⁴	95 Q ⁵	D	V/C	Del	LOS	95 Q
2: Lynnway (Route 1A) at Blossom Street	Blossom St Ext NB R	75	0.12	10	A	10	115	0.16	10	B	15
	Blossom St SB R	40	0.13	14	B	11	40	0.07	10	A	6

Source: VHB, Inc. using SYNCHRO 8 software.

Note: The HCM 2010 methodology does not support more than three through lanes on a major street approach, results reported are based on HCM 2000 methodology.

1 Demand, in vehicles

2 Volume-to-capacity ratio, based on theoretical capacity.

3 Average delay, in seconds per vehicle

4 Level of service

5 95th percentile queue length estimate, in feet



Memorandum

As shown in Tables 2 and 3, all three study area intersections operate at an acceptable LOS D or better during both the weekday morning and weekday evening peak hours.

Conceptual Improvement Evaluation

In coordination with the City of Lynn, VHB developed and evaluated a conceptual improvement option to add a Lynnway westbound left-turn lane at Blossom Street. The following section includes a discussion of the conceptual improvement option, summarizes impacts to traffic operations, and provides a preliminary lump sum cost estimate.

As shown in Figure 2, the conceptual improvement option includes a westbound left-turn lane along the Lynnway at the Blossom Street intersection. To accommodate the left-turn lane, the existing eastbound left-turn lane at Kingman Street would be shortened and the existing median would be relocated. The westbound left-turn lane at Blossom Street would be approximately 100 feet and the remaining eastbound left-turn lane at Kingman Street would be approximately 310 feet. The revised median design shown in the concept plan would serve to discourage left-turn and through movements from Blossom Street in both directions. In addition, a diverter island is proposed on the Blossom Street southbound approach to reinforce right-in/right-out operations. The preliminary lump sum cost estimate for this improvement option is approximately \$145,000.

As part of the conceptual improvement option, commuter ferry traffic currently making a westbound u-turn at the Lynnway and Shepard Street/Maine Boulevard intersection would be relocated to make a westbound left-turn at Blossom Street. Figure 3 shows the resulting weekday morning and weekday evening peak hour traffic volumes.

Tables 4 and 5 summarize the traffic operations under the conceptual improvement option for the signalized and unsignalized intersections, respectively. This analysis assumes that the Lynnway at Blossom Street intersection would remain unsignalized; no signal timing changes at the Lynnway and Shepard Street/Marine Boulevard intersection are assumed. No changes in operations would occur at intersection of Lynnway and Kingman Street/jughandle. As shown in Table 4, overall operations at the intersection of Lynnway and Shepard Street/Marine Boulevard are expected to improve during both peak hours under the conceptual improvement option, which may be attributed to the reduction in the westbound u-turn volume. As shown in Table 5, the westbound left-turn lane at the intersection of Lynnway and Blossom Street is expected to operate at LOS C or better during both peak hours with minimal queues under the conceptual improvement option. It should be noted that the revised turn lane lengths at the intersections with Blossom Street and Kingman Street discussed above can adequately accommodate the projected weekday morning and weekday evening peak hour queue demands at both locations.

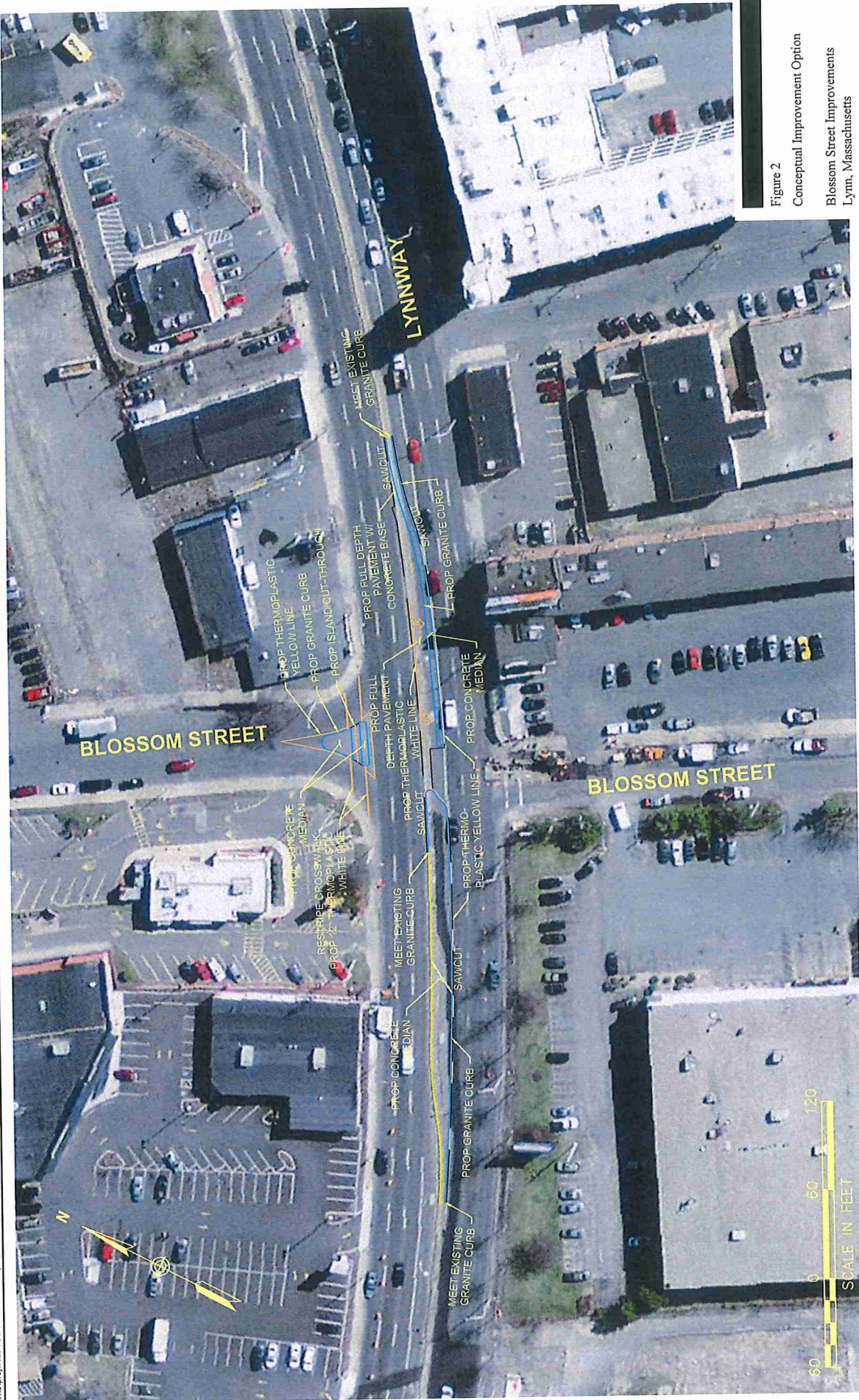
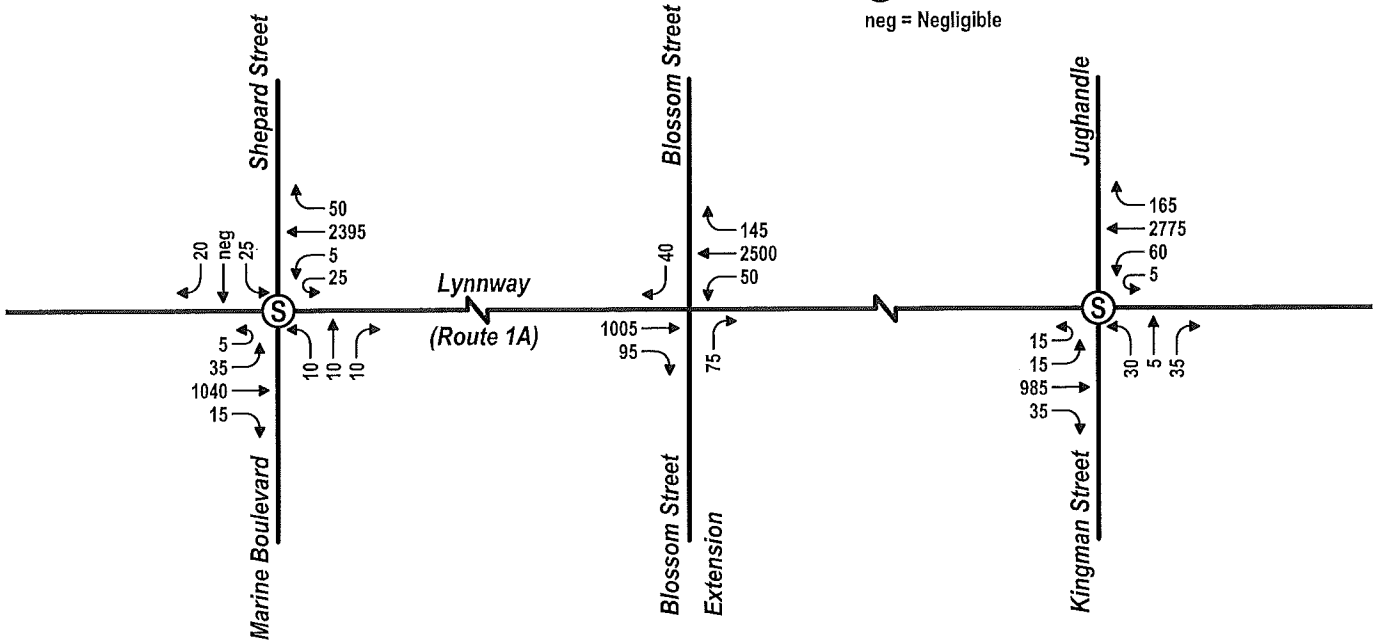


Figure 2
 Conceptual Improvement Option
 Blossom Street Improvements
 Lynn, Massachusetts



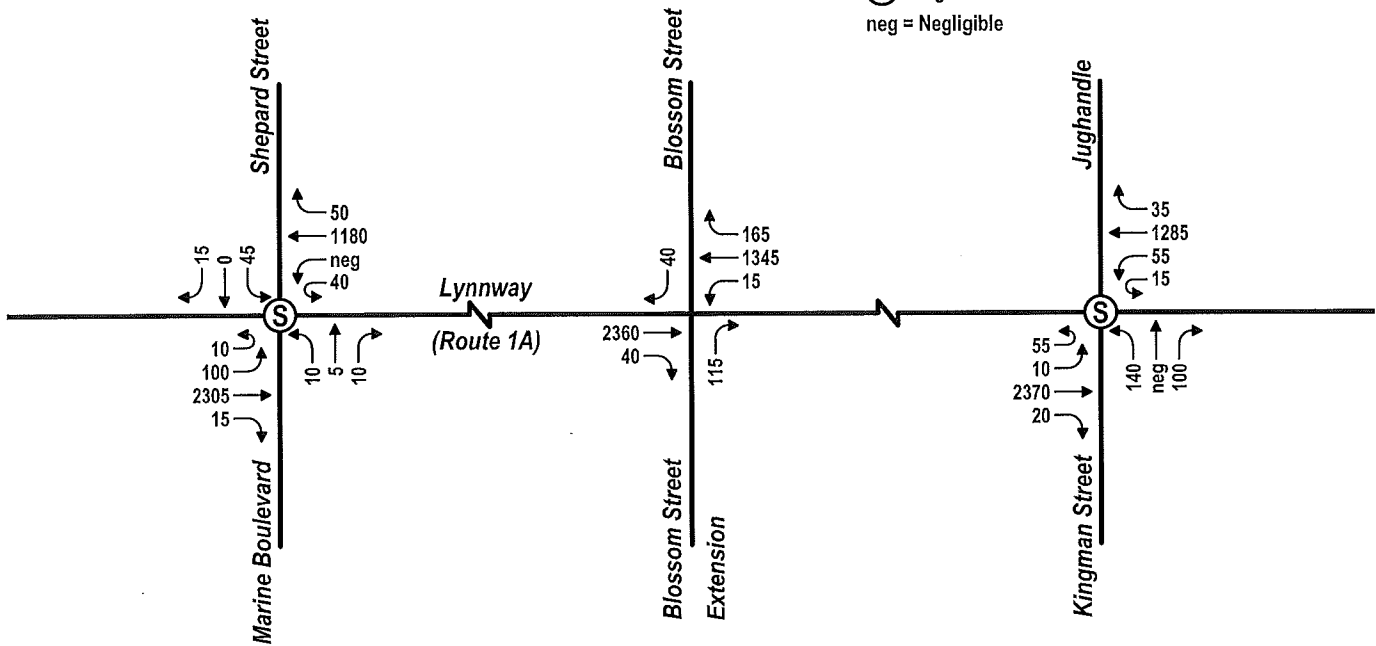
WEEKDAY MORNING PEAK HOUR

Ⓢ Signalized Intersection
neg = Negligible



WEEKDAY EVENING PEAK HOUR

Ⓢ Signalized Intersection
neg = Negligible



Vanasse Hangen Brustlin, Inc.

2014 Existing Conditions
Peak Hour Traffic Volumes
with Ferry Traffic and Future Geometry

Figure 3



Not to Scale

Blossom Street Improvements
Lynn, Massachusetts



Table 4 Signalized Intersection Capacity Analyses

		Improvement Option: Westbound Left-Turn Lane									
		Weekday Morning Peak Hour					Weekday Evening Peak Hour				
Intersection	Movement	V/C ¹	Del ²	LOS ³	50 Q ⁴	95 Q ⁵	V/C	Del	LOS	50 Q	95 Q
1: Lynnway (Route 1A) at Shepard Street/ Marine Boulevard	Lynnway EB L	0.32	48	D	27	64	0.56	53	D	64	134
	Lynnway EB T/R	0.36	7	A	105	186	0.62	10	B	270	531
	Lynnway WB L	0.22	46	D	18	52	0.30	50	D	25	67
	Lynnway WB T/R	0.71	13	B	328	648	0.41	10	B	125	257
	Marine Blvd NB L/T/R	0.39	38	D	17	33	0.37	34	C	23	17
	Shepard St SB L/T/R	0.25	8	A	0	19	0.34	17	B	4	37
Overall			12	B				13	B		

Source: VHB, Inc. using SYNCHRO 8 software

- 1 Volume-to-capacity ratio, based on theoretical capacity.
- 2 Average delay, in seconds per vehicle
- 3 Level of service

- 4 50th percentile queue length estimate, in feet
- 5 95th percentile queue length estimate, in feet.
- ~ Volume exceeds capacity, queue is theoretically infinite
- # 95th percentile volumes exceeds capacity, queue may be longer

Table 5 Unsignalized Intersection Capacity Analyses

		Improvement Option: Westbound Left-Turn Lane									
		Morning Peak Hour					Evening Peak Hour				
Intersection	Critical Movements	D ¹	V/C ²	Del ³	LOS ⁴	95 Q ⁵	D	V/C	Del	LOS	95 Q
2: Lynnway (Route 1A) at Blossom Street	Lynnway WB L	50	0.09	11	B	7	15	0.06	19	C	5
	Blossom St Ext NB R	75	0.11	10	A	10	115	0.18	11	B	16
	Blossom St SB R	40	0.13	14	B	11	40	0.07	10	A	6

Source: VHB, Inc. using SYNCHRO 8 software.

Note: The HCM 2010 methodology does not support more than three through lanes on a major street approach, results reported are based on HCM 2000 methodology.

- 1 Demand, in vehicles
- 2 Volume-to-capacity ratio, based on theoretical capacity.
- 3 Average delay, in seconds per vehicle
- 4 Level of service
- 5 95th percentile queue length estimate, in feet

To increase awareness of the Lynnway westbound left-turn movement at Blossom Street, an intersection control beacon could be installed in accordance with the standards established in the Manual on Uniform Traffic Control Devices² (MUTCD). The beacon would have flashing yellow signal heads directed toward the Lynnway eastbound and have flashing red signal heads directed towards the Blossom Street northbound approach and Lynnway westbound

² MUTCD, Part 4 – Highway Traffic Signals, USDOT/FHWA, December 2009.



left-turn lane. The preliminary lump sum cost estimate to install an intersection control beacon is approximately \$60,000, in addition to the cost of the geometric improvements.

Signal Warrant Analysis

VHB performed a traffic signal warrant analysis at the intersection of Lynnway at Blossom Street, assuming the improvements proposed as part of the conceptual improvement option. The MUTCD lists specific criteria, or warrants, for the consideration of installation of a traffic signal at an intersection. The MUTCD also notes that, "the satisfaction of a traffic signal warrant or warrants shall not, in itself, require the installation of a traffic control signal." The traffic signal warrant analysis provides guidance as to locations where signals would not be appropriate and locations where they could be considered further.

A traffic signal warrant analysis was performed for the volume-based Warrant 3: Peak Hour Volume for the weekday morning and weekday evening peak hours. The warrant analysis was performed in a manner that considers the Lynnway westbound left-turn volume as the "minor street" volume and the opposing traffic on the Lynnway eastbound as the "major street" volume, as allowed by the MUTCD. The warrant is not met at the intersection for either of the peak hours. The City of Lynn has noted the possibility of expanding ferry services in the future. It is recommended that traffic volumes at the intersection continue to be monitored and if the signal warrant is met in the future, the installation of a signal at the Lynnway and Blossom Street intersection should be re-evaluated. The preliminary lump sum cost estimate for the installation of a signal is approximately \$117,000.

Summary

VHB, in coordination with the City of Lynn, has developed and evaluated a conceptual improvement option along the Lynnway within the vicinity of Blossom Street which would improve access to the Lynn Commuter Ferry Terminal. The improvement option considers a Lynnway westbound left-turn lane at Blossom Street.

VHB evaluated traffic operations under the conceptual improvement option. Overall traffic operations are expected to improve within the study area and minimal queues are expected in the proposed Lynnway westbound left-turn lane at Blossom Street. In addition, VHB performed a signal warrant analysis for the intersection of Lynnway at Blossom Street assuming the improvement proposed as part of the conceptual improvement option; a signal is not warranted at this time. The intersection should continue to be monitored and if the warrant is met in the future with potential increased ferry service, the installation of a traffic signal at this location should be re-evaluated. While a traffic signal is not currently warranted, an intersection control beacon could be installed to increase awareness of the intersection.

The preliminary lump sum cost estimate of the geometric improvements under the conceptual improvement option is approximately \$145,000. The installation of an intersection control beacon would have an additional cost of approximately \$60,000. In the future, if a traffic signal is warranted, the installation of a traffic signal would cost approximately \$117,000.