



**TOWN OF WESTFORD  
ENGINEERING DEPARTMENT**

28 North Street  
Westford, Massachusetts 01886  
TEL (978) 692-5520 FAX (978) 399-2739

**REQUEST FOR PROPOSALS  
FOR PROFESSIONAL ENGINEERING DESIGN SERVICES**

**MAIN STREET ROADWAY & WATER MAIN  
RECONSTRUCTION PROJECT**

**July 23, 2014**

**PROJECT OVERVIEW**

The town of Westford, through its Engineering Department & Water Department, is seeking proposals from firms with expertise in roadway and water system design to provide professional engineering services for the reconstruction of a portion of Main Street. The project limits would extend from the intersection with Depot Street to the Tadmuck Road intersection resulting in an overall project length of approximately 3,800 linear feet. A locus map and aerial photo illustrating approximate project limits are provided in the attachment.

The scope of services for the project will include, but is not limited to: field survey, engineering design, assisting the town with determining construction funding options, permitting, bidding, construction administration and inspection services. It is the town's desire to begin the design work as soon as possible and requests that a detailed schedule for completion of the requested services be provided in the proposal submission.

**EXISTING CONDITIONS**

The portion of Main Street to be reconstructed is located just outside the town's center and is classified by MassDOT as an urban minor arterial. The roadway is a municipally owned and maintained road that runs in a northeast – southwest direction through the center of the town and provides a direct connection between Westford and the town of Chelmsford. Past traffic counts performed by Northern Middlesex Council of Governments (NMCOG) indicate that the section of Main Street east of Depot Street has an average daily traffic volume of approximately 3,900 vehicles.

The roadway pavement is in fair condition and on average has a 24' wide travel way with very limited shoulders and a variable width right-of-way. There are currently no pedestrian or bicycle accommodations provided on this section of Main Street. The existing topography varies with approximately 1,700 feet of the road located on a challenging hill that has roadway grades approaching 10% with even steeper side slope and embankment grades. There are also existing

retaining walls located along this stretch of Main Street. Existing street drainage is typically confined to the roadway by old asphalt berms that direct stormwater runoff toward the existing drainage system which is comprised of catch basins, manholes, drainage pipes and multiple outfalls. The portions of the road that are not bounded by berm or curb rely on typical country drainage. The existing water system is comprised of both 4" cast iron water main and 8" asbestos cement water main. The water system also includes inline gate valves, fire hydrants and service connections.

Representative photographs of Main Street and a map illustrating the existing water system is provided in the attachments.

### **PROJECT OBJECTIVE**

The overall objective of this project is to reconstruct Main Street in order to increase roadway safety, add pedestrian and bicycle accommodations, replace and upgrade the aging water distribution and drainage systems and improve the water quality of stormwater runoff to the extent practicable. The project will also consider proposed recommendations made by NMCOG in their March 2014 Westford Town Center Traffic and Parking Study.

The construction funding source for this project is currently unknown however it is the town's desire to competitively position the project for public construction funding in as timely manner as possible. In anticipation of using state and/or federal construction funding the town is requesting that the project follow MassDOT and FHWA design procedures, guidelines and policies.

### **PROPOSAL PROCEDURE**

Six (6) bound copies and one (1) digital copy (in pdf format) on a USB flash drive of the proposal must be submitted in a sealed envelope clearly labeled "MAIN STREET RECONSTRUCTION - PROPOSAL" to the Westford Engineering Department located at 28 North Street, Westford, MA on or before 1:30 PM on Thursday, August 14, 2014. No reference to cost or fees shall be included in the proposal. One (1) hard copy of a cost summary by task, including proposed hours and expenses for each, shall be provided in a separate sealed envelope clearly labeled "MAIN STREET RECONSTRUCTION - FEE". In addition, direct labor rates and single multiplier shall be provided including: indirect labor, overhead, and profit. Payment will be made for actual time and expenses for each task with a not to exceed upset limit for each task. If it is determined during the course of the project that certain tasks are no longer required or necessary to successfully complete the project then no payment would be made for that work. The fee proposal shall also include a rate schedule that could be used for any additional work not included in the proposal scope. Fee proposals shall include proposed costs for sub-consultant work. The Fee Proposal shall also acknowledge the number of any Addenda that may be issued by the town pursuant to this RFP. Proposals may be hand delivered or mailed to the Engineering Department.

No proposal received after the time established for receiving said proposals will be considered regardless of the cause for delay in the receipt of any such proposal(s).

Questions pertaining to this Request for Proposals must be submitted in writing and sent to Paul Starratt, P.E., Town Engineer. Questions may be hand-delivered, mailed, emailed ([pstarratt@westfordma.gov](mailto:pstarratt@westfordma.gov)) or faxed by the close of business on Friday, August 8, 2014. Written responses will be emailed or faxed to all registered firms on record by the close of business on Tuesday, August 12, 2014. Only answers provided by the town in writing may be relied upon by the proposers.

The town of Westford is an Equal Opportunity Employer and encourages submittals from registered MBEs and WBEs.

### **PERTINENT INFORMATION**

The town of Westford Engineering Department has made available the following pertinent information for review at [www.westfordma.gov/MainStreetRFP](http://www.westfordma.gov/MainStreetRFP):

- Sample Owner-Engineer Agreement
- NMCOG - Draft Westford Town Center Traffic and Parking Study

Westford's Geographic Information System (GIS) online viewer is another resource that may provide useful information. The viewer provides access to various GIS layers that include: planimetric data, parcel information, topography, conservation related information and aerial photos. The online viewer can be accessed through the town's website at [www.westfordma.gov](http://www.westfordma.gov) or directly at [www.westfordma.gov/GIS](http://www.westfordma.gov/GIS).

### **ANTICIPATED SCOPE OF SERVICES**

Below is the anticipated scope of services that are believed to be required for the project. Proposals shall also include other work or services that the consultant feels would be required to complete the project but is not detailed or included below.

#### **1) Field Survey & Base Plan Requirements**

Conduct an existing conditions field survey of the project area to the limits necessary to successfully complete the project. Prepare an existing conditions plan of the project area using information collected during the field survey and project research that will serve as a base map for the project design. The plan shall include: existing surface and subsurface utilities with elevations where necessary, two foot ground contours, elevation spot grades where necessary, locations of all regulated wetland resource areas and associated buffer zones, edge of pavement, driveways, pavement markings, signs, walls, trees, mailboxes, fences, utility poles, landscaping features, fire hydrants, water system valves, water services & shut-offs, and any other surface or subsurface features considered significant to the project. The existing conditions plan shall be based on the Massachusetts State Plane coordinate system (NAD83) and vertical datum NAVD88. The existing conditions plan shall also establish the location of the existing right-of-way. All right-of-way lines shall be identified on the plan with bearings, distances, curve data as well as any other information necessary to define the right-of-way. Monuments used to establish

the right-of-way boundaries shall also be shown on the plans. The existing conditions plan shall be signed and stamped by a Professional Licensed Surveyor registered in Massachusetts.

All wetland resources in the vicinity of the project area shall be demarcated for this project by a qualified wetland scientist. GIS plans illustrating approximate wetland locations are included in the attachments.

Additional survey beyond the limits and requirements described above shall be performed as necessary to complete the project. All survey and existing conditions plan preparation shall be performed in accordance with MassDOT standards.

## **2) Preliminary Design**

The selected consultant will prepare up to three (3) conceptual designs that would be used to assist the town in selecting the most suitable roadway cross section and design solutions for the reconstruction project. The level of detail shall be adequate enough to identify potential obstacles, property impacts and constructability issues that would be associated with each conceptual design. Preliminary construction cost estimates for each design solution shall also be provided. The town will use the information prepared during this phase of the project along with recommendations from the consultant to select the most appropriate design solution that would be advanced to the Final Engineering Design phase.

## **3) Construction Funding**

The source for construction funding has not yet been determined for this project. The selected consultant will assist the town in determining the most appropriate funding source considering all possible alternatives. Ideally, the selected consultant would assist the town in acquiring federal and/or state construction funds that would best position the project for construction within the next two to five years.

## **4) Final Engineering Design**

The consultant will be responsible for completing the final design in accordance with the process established in MassDOT's Project Development and Design Guide. This shall include all work necessary to meet the requirements of MassDOT's 25% Design, 75% Design, 100% Design and PS&E project phases. It is anticipated that the project design phase may require: Functional Design Report, Design Exception Report, pedestrian & bike accommodations, pavement cores, pavement design, traffic counts, soil borings, retaining wall design, documents for a unit price bid project, utility design and coordination, drainage & stormwater design, itemized cost estimate, calculation book, specifications, bid documents and detail sheets per MassDOT standards, and all other work and efforts necessary to comply with FHWA and MassDOT requirements.

## **5) Project Permitting**

It is anticipated that preparation of a Notice of Intent (NOI), Categorical Exclusion Checklist, Stormwater & Drainage Report demonstrating compliance with the MADEP Stormwater Standards & MassDOT environmental requirements, including addressing impaired waterbodies if necessary, an Environmental Notification Form (ENF) and NPDES Construction General Permit may be required to complete the project. The consultant shall be required to comply with Chapter 2 of the MassDOT Project Development & Design Guide including the Early Environmental Coordination Checklist, and will be responsible to ensure that environmental permitting is coordinated throughout the design process, to the maximum degree feasible. The project will also be subject to the requirements of Westford's Non-Zoning Wetland Bylaw, Stormwater Management Bylaw and their supporting regulations. Coordination with the Westford Historic Commission may also be required.

## **6) Right-of-Way & Land Acquisition**

It is likely that permanent and temporary takings and/or easements will be required as part of the project. The acquisition of property necessary to implement the project will be determined by the consultant. Preparation of Preliminary Right-of-Way Plans, Final Right-of-Way Plans, Written Order of Taking and Highway Alteration Plans will be prepared by the selected consultant in accordance with MassDOT Right-of-Way Bureau requirements. The selected consultant will also provide guidance to the town throughout the right-of-way process.

## **7) Project Bidding**

The selected consultant shall assist the town in the public bidding process which will include, but is not limited to: preparation of the public bid notice & advertisement, participation in a Pre-Bid Conference (if deemed necessary), preparation of written responses to contractor inquiries on bid documents, preparation of bid addenda, attendance at the bid opening, review of bids received, preparation of bid tabulation, conduct reference checks, provide the town with a written recommendation of award and assist the town in the preparation of the construction contract for execution.

## **8) Construction Administration**

The consultant shall provide services necessary for construction administration. The anticipated services shall include, but may not be limited to the following: schedule and conduct a pre-construction meeting and distribute meeting minutes, review material and shop drawing submittals for conformance to the contract documents, prepare change orders as necessary, attend construction progress meetings, review schedules, assist the town with resolving construction issues, review and approve applications for payment, develop punch list items to be completed and corrected, perform periodic and final inspections with town staff, and provide the town with two (2) sets of record drawings.

## 9) Inspectional Services

The consultant shall provide full time on-site inspectional services in order to observe all construction operations and to enforce conformance with the contract documents. These services shall include maintaining observation records, tracking quantities, collecting field measurements and all other type of work typically required. A separate budget for inspectional services shall be identified in the fee summary.

## 10) Reimbursable Expenses

Reimbursable expenses for the project, such as printing and reprographics, plotting, travel, subsistence, telephone charges, shipping, postage, courier service charges, purchase of maps and similar documents, etc. will be reimbursed at cost plus 15%. Reimbursable expenses shall be in addition to labor costs necessary to complete the project. A separate budget for reimbursable expenses shall be identified in the fee summary.

## 11) Meetings

The proposal shall include a summary of the various project meetings anticipated to be required to successfully complete the project. The time and cost associated with each of those meetings needs to be included in the separate fee summary. Additional meetings beyond those specified and included in the proposal require prior authorization by the town and would be compensated on a time and materials basis.

## FORMAT AND CONTENT REQUIREMENTS FOR PROPOSALS

Consultant shall provide the following in the proposal in as concise a manner as possible:

1. A narrative including a statement of project understanding, goals and objectives.
2. A statement of clearly defined tasks and scope for managing and performing the required services, formatted based on the MassDOT Standard Scope of Services (modified as necessary for additional work).
3. Experience in assisting municipalities in securing public construction funding.
4. Project Manager and qualifications.
5. Proof of MassDOT pre-qualification in Basic Roadway Design and Traffic Operation Studies and Design.
6. Key personnel to be assigned to the project and their qualifications. This shall include sub-consultants as well.
7. Proposed schedule.

8. Experience with similar projects. This shall specifically list at least three (3) other projects of similar magnitude as well as design services provided for other municipalities.
9. Office location(s) where services are to be performed.
10. Financial stability.
11. Ability to meet town of Westford insurance requirements as outlined in the Sample Owner-Engineer Agreement provided under the Pertinent Information section.
12. References, including description and dates of referenced project(s).
13. Identify items that the consultant assumes the town will pay for.

### **COMPARATIVE EVALUATION CRITERIA**

The final selection of the consultant will be based on the comparative evaluation criteria provided below. Each criterion will be deemed either “highly advantageous”, “advantageous” or “not advantageous”.

1. Firm’s ability to clearly define, within their written proposal, the tasks and scope required to complete the project in a timely and cost-effective way.
2. Firm’s history and resource capability to perform required services.
3. Related experience.
4. Firm’s ability to secure public funding.
5. Project Manager’s experience.
6. Qualifications of assigned personnel and subconsultants.
7. Demonstrated ability to have defined and met schedules on similar type projects.
8. Reference checks.
9. Price proposal formatted based on MassDOT Standard Scope of Services and Work Estimate Form.

### **METHOD OF SELECTION**

Complete proposals submitted prior to the deadline will be reviewed and evaluated by a selection committee appointed by the Town Manager. Each member of the selection committee will review and rank all proposals received based on the Comparative Evaluation Criteria. A composite ranking of individual rankings will be summarized.

After the composite ranking is established, two or more consultants may be invited to give an oral presentation of up to 20 minutes in length and answer questions. The presentation shall be given by key staff who have been identified in the staffing plan and who will contribute substantially to the project. The selection committee will re-rank the proposals of the interviewed consultants and open the cost proposals. After the cost proposals are opened, the level of effort for each task of the highest ranked consultant will be compared to the lower ranked consultants. A second interview may be required to resolve substantial differences, at the discretion of the selection committee. If negotiations with the highest ranked consultant are unsuccessful, the next highest ranked consultant will be selected to continue the process until a final recommendation is made to the Town Manager. The Town Manager, acting in its capacity as the town's Chief Procurement Officer, will work to execute a contract with the recommended consultant.

It is anticipated that a contract will be executed with a consultant for this project within thirty (30) days of the deadline for proposals, and that work will begin within fourteen (14) days thereafter.

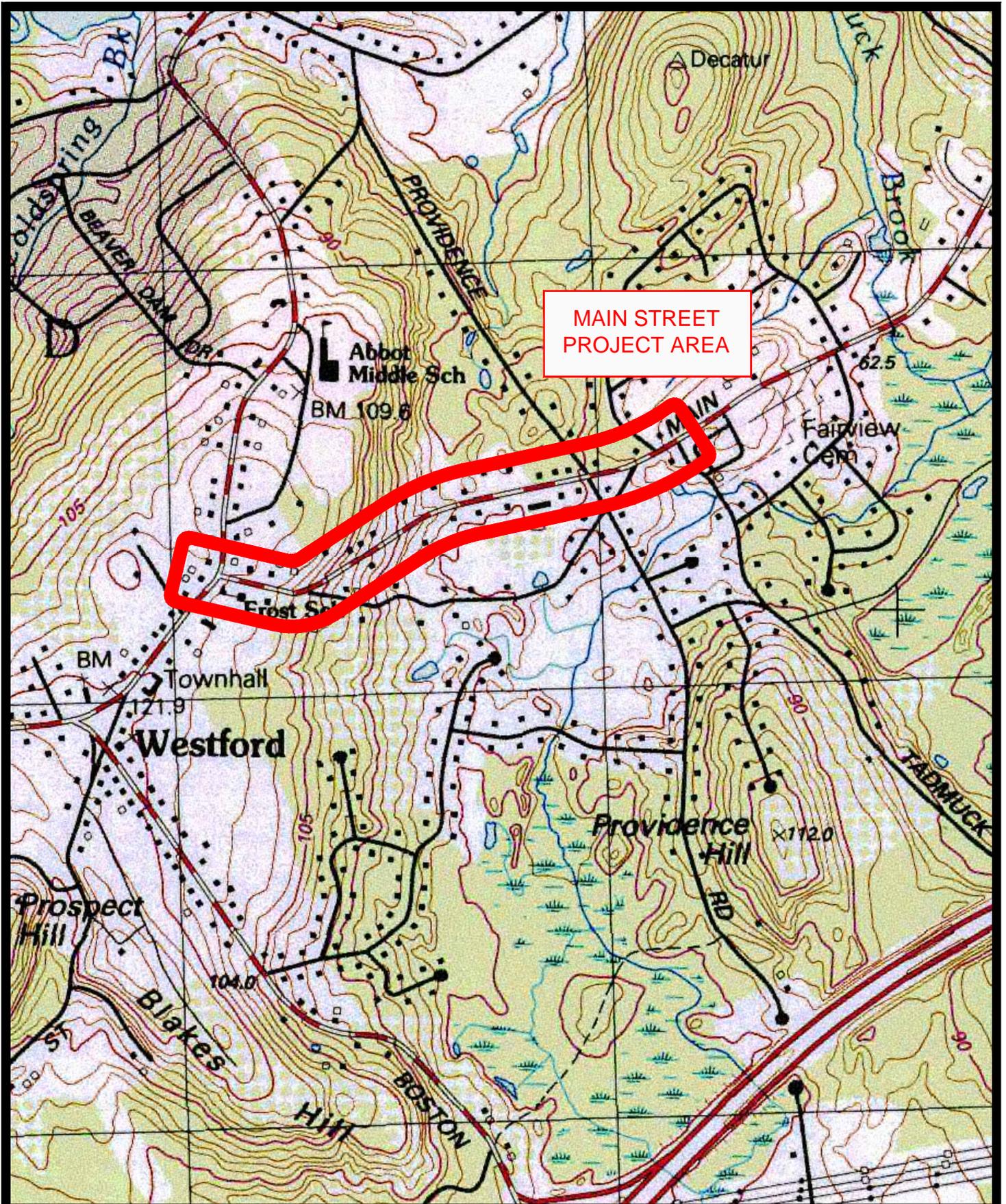
### **TERMS & CONDITIONS**

The town of Westford reserves the right to accept or reject any or all proposals and parts of any and all proposals for any reason, and to waive any or all conditions, terms or requirements of this Request for Proposals.

One contract will be awarded to the most advantageous proposal from a responsive and responsible proposer taking into consideration overall price and evaluation criteria. Price shall not be the sole consideration for consultant selection.

All survey work, design work, supporting analyses, and project documents completed as part of this project shall become property of the town of Westford and shall be delivered to the town in hard copy and in the software format that it was developed (i.e. AutoCAD, WORD, EXCEL, pdf, etc.) upon the town's request.

## **ATTACHMENTS**



**MAIN STREET  
PROJECT AREA**

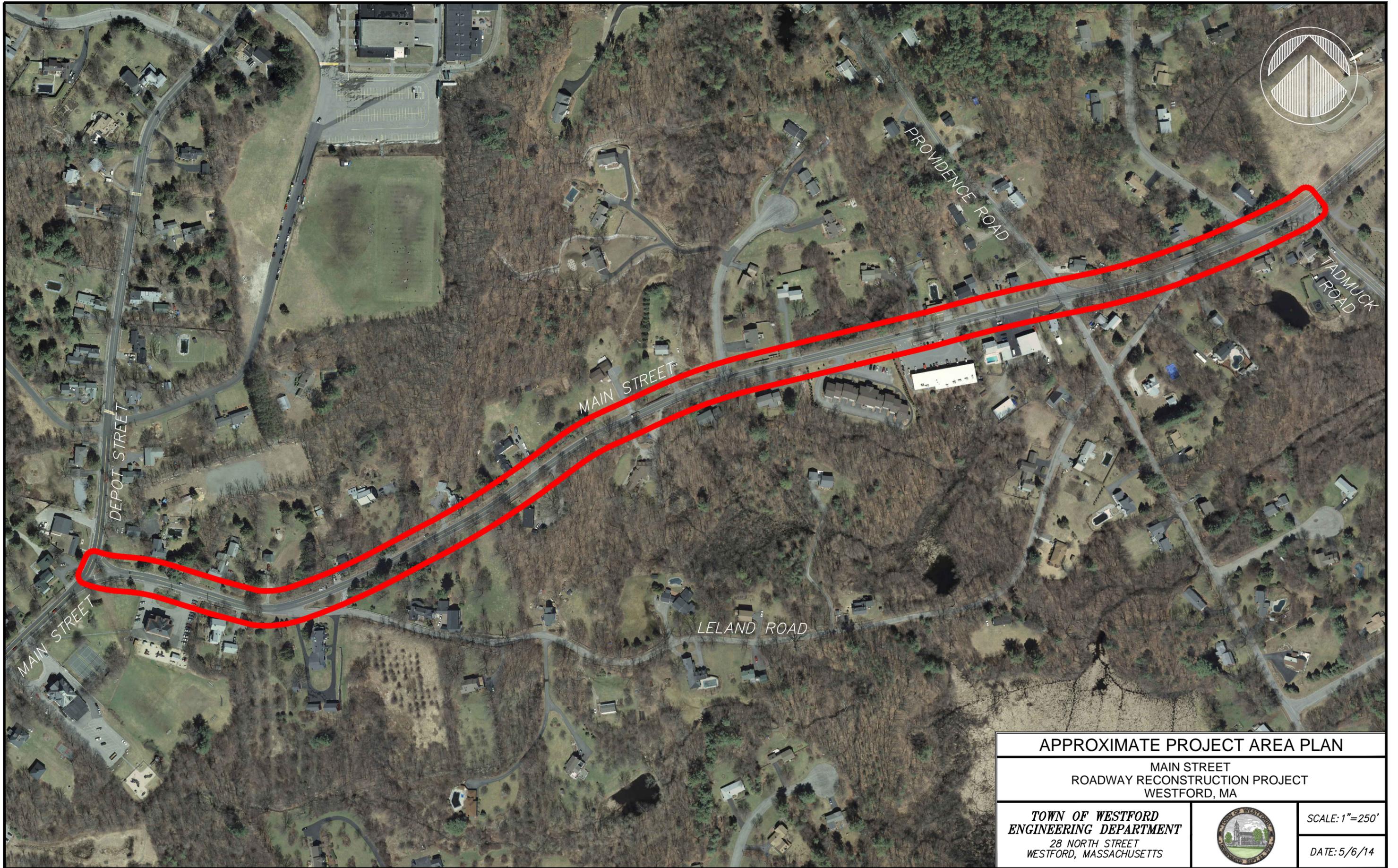
**TOWN OF WESTFORD  
ENGINEERING DEPARTMENT**  
28 NORTH STREET  
WESTFORD, MASSACHUSETTS

**USGS LOCUS MAP**  
ROADWAY RECONSTRUCTION PROJECT  
MAIN STREET  
WESTFORD, MA

SCALE: 1"=1,000'  
DATE: 5/5/14



IMAGES OBTAINED FROM: "OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS"



**APPROXIMATE PROJECT AREA PLAN**

MAIN STREET  
ROADWAY RECONSTRUCTION PROJECT  
WESTFORD, MA

**TOWN OF WESTFORD**  
**ENGINEERING DEPARTMENT**  
28 NORTH STREET  
WESTFORD, MASSACHUSETTS



SCALE: 1"=250'

DATE: 5/6/14

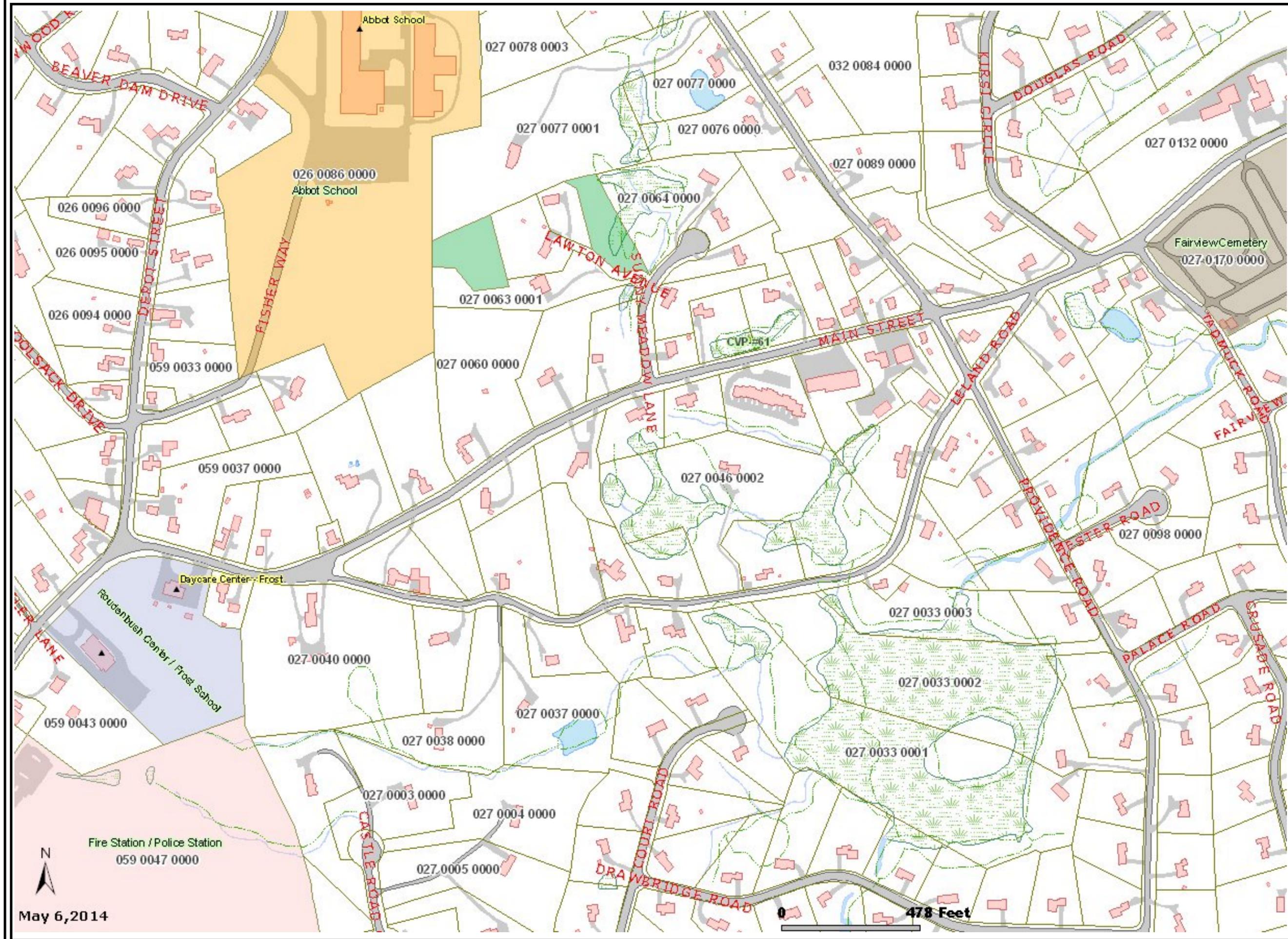


Town of Westford, MA

### CONSERVATION MAP

MAIN STREET

Overview Map



Town of Westford, MA makes no warranty or representation as to the accuracy, timeliness or completeness of any of the data. The Town of Westford, MA, shall have no liability for the data or lack thereof, or any decision made or action taken or not taken in reliance upon any of the data.

Fire Station / Police Station  
059 0047 0000



0 478 Feet

May 6, 2014

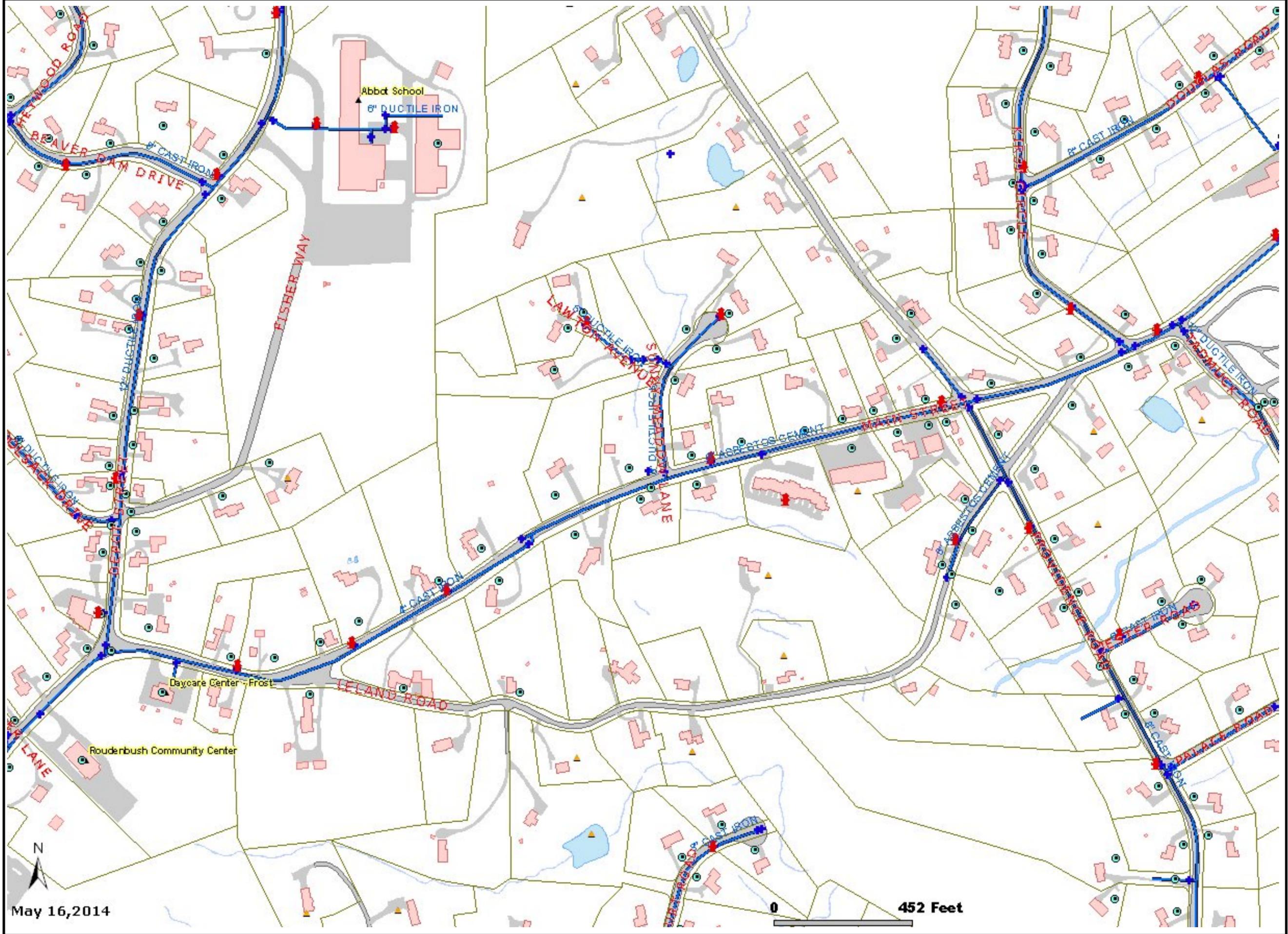


Town of Westford, MA

### Water System Map

Main Street

Overview Map



May 16, 2014

0 452 Feet

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**REPRESENTATIVE PHOTOGRAPHS**

**MAIN STREET**

**WESTFORD, MASSACHUSETTS**



**REPRESENTATIVE PHOTOGRAPHS**

**MAIN STREET**

**WESTFORD, MASSACHUSETTS**



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**MAIN STREET**

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**REPRESENTATIVE PHOTOGRAPHS**

**MAIN STREET**

**WESTFORD, MASSACHUSETTS**