

**WESTFORD HIGHWAY
DEPARTMENT**

CAPITAL BUDGET REQUEST
FY 2014 - FY 2018



This Page Intentionally Left Blank



TOWN OF WESTFORD

Highway Department

RICHARD J. BARRETT, JR.
HIGHWAY SUPERINTENDENT

August 24, 2012

Capital Planning Committee
C/O Dan O'Donnell, Budget Director
Westford, MA 01886

As Highway Department Superintendent I am pleased to submit to the Capital Planning Committee the requested Highway Department 5 year capital program starting with FY 2014 through FY 2018.

This plan includes a wide range of public works projects for both existing and new infrastructure including roadway projects, stormwater management projects, and dams and bridges. Also outlined in this plan is a complete 5 year vehicle replacement program for the Highway Departments fleet that consists of Highway, Parks, Cemetery and Engineering vehicle needs. Outlined in the plan is a ranking system that helps identify and prioritize needs.

Projects are categorized into 3 groups, first group roadways, second stormwater and the third dams, bridges and structures. Each one of these groups has been ranked with project priorities. We have also included the overall top six public works projects.

We look forward to presenting and discussing all aspects of this capital plan. Thank you for this opportunity to share this information with you.

Respectfully Submitted,

Richard J. Barrett
Highway Superintendent

Highway Department • Grounds Department • Engineering Department
28 North Street • Westford, MA 01886
Tel. (978) 692-5520 • (978) 692-5517 • Fax (978) 399-2726

HIGHWAY CAPITAL BUDGET REQUEST REPORT

Prepared by:

Richard Barrett, *Highway Department Superintendent*

Paul Starratt, *Town Engineer*

Larry Panaro, *Water Department Business Manager*

Jeremy Downs, *Assistant Town Engineer*

With Contributions from:

Sarah Bradbury, *Northern Middlesex Council of Governments*

REPORT INDEX

1.) CAPTIAL BUDGET REQUESTS

- Highway Capital Project Costs
- Fleet Replacement Costs

2.) SUPPORTING DOCUMENTATION

Roadways

- Roadways Narrative
- Roadway Management System Maintenance Estimate
- Individual Roadway Project Summaries with Photos

Stormwater Management

- Stormwater Management Narrative
- Individual Stormwater Project Summaries with Photos

Dams & Bridges

- Dams & Bridges Narrative
- Individual Dam & Bridge Project Summaries with Photos

Fleet Replacement

- Fleet Replacement Narrative
 - Representative Fleet & Equipment Photos
-

CAPITAL BUDGET REQUESTS

| Highway Capital Projects | | | | | | | | | | |
|---|-----------|--------------------|---------|-------|-----------|-----------|---------|-----------|-------------|-------------|
| | | | Group | (1-6) | | | | | | |
| Capital Budget Request | Page # | Probable Cost | Ranking | Rank | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Total |
| Stormwater | | | | | | | | | | |
| Replace Rt. 40 Retaining Wall & Culvert @ Keyes Brook | 42 | | 1 | 2 | | | | | | |
| (Design estimate of \$50,000 & construction of \$450,000 possible FEMA grant) | | | | | | | | | | |
| Design Costs* | | \$60,000 | | | \$60,000 | | | | | \$60,000 |
| Construction Costs* | | <u>\$600,000</u> | | | \$600,000 | | | | | \$600,000 |
| TOTAL | | \$660,000 | | | | | | | | |
| Main Street Reconstruction/Drainage West of Graniteville Rd. | 44 | | 4 | | | | | | | |
| Design Costs* | | \$100,000 | | | | | | \$100,000 | | \$100,000 |
| Construction Costs* | | <u>\$1,000,000</u> | | | | | | | \$1,000,000 | \$1,000,000 |
| TOTAL | | \$1,100,000 | | | | | | | | |
| Graniteville Drainage Upgrade | 46 | | 3 | | | | | | | |
| (requires engineering drainage study-may be pd from operating funds) | | | | | | | | | | |
| Design Costs | | \$40,000 | | | | \$40,000 | | | | \$40,000 |
| Construction Costs | | <u>\$300,000</u> | | | | | | \$300,000 | | |
| TOTAL | | \$340,000 | | | | | | | | |
| Master Plan for Town's Drainage System (MS4) (Woodard & Curran proposal) | | | 2 | 5 | | | | | | |
| Design Costs | | \$300,000 | | | | \$300,000 | | | | \$300,000 |
| Construction Costs | | <u>\$0</u> | | | | | | | | |
| TOTAL | | \$300,000 | | | | | | | | |
| Bridge St. Culvert installation to redirect Boutwell Brook to alleviate flooding | 48 | | 5 | | | | | | | |
| Design Costs | | \$75,000 | | | | | | | \$75,000 | \$75,000 |
| Construction Costs | | <u>\$750,000</u> | | | | | | | \$750,000 | \$750,000 |
| TOTAL | | \$825,000 | | | | | | | | |
| Total Stormwater | | \$3,225,000 | | | \$660,000 | \$340,000 | \$0 | \$400,000 | \$1,825,000 | \$3,225,000 |

| Highway Capital Projects | | | | | | | | | | |
|---|--------------|---------------------|---------|-------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| | | | Group | (1-6) | | | | | | |
| Capital Budget Request | Page # | Probable Cost | Ranking | Rank | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Total |
| Bridges/Dams | | | | | | | | | | |
| Repair Bridge over Beaver Brook Rd. (Slipline technology) | 52 | | 1 | 4 | | | | | | |
| Design Costs | | \$23,000 | | | \$23,000 | | | | | \$23,000 |
| Construction Costs | | \$230,000 | | | \$230,000 | | | | | \$230,000 |
| TOTAL | | \$253,000 | | | | | | | | |
| Main Street (Hill) Retaining Wall | 54 | | 3 | | | | | | | |
| Design Costs | | \$20,000 | | | | | \$20,000 | | | \$20,000 |
| Construction Costs | | \$220,000 | | | | | \$220,000 | | | \$220,000 |
| TOTAL | | \$240,000 | | | | | | | | |
| Bridge St. & Stony Brook bridge wall guide rails | 56,58 | | 2 | | | | | | | |
| Design Costs | | \$6,000 | | | | | \$6,000 | | | \$6,000 |
| Construction Costs | | \$60,000 | | | | | \$60,000 | | | \$60,000 |
| TOTAL | | \$66,000 | | | | | | | | |
| Depot Street Dam replacement or removal | 60 | | 6 | | | | | | | |
| Studies & Analysis/Design | | \$17,000 | | | | | \$17,000 | | | \$17,000 |
| Design, Permitting & Construction Costs | | \$200,000 | | | | | | \$200,000 | | \$200,000 |
| TOTAL | | \$217,000 | | | | | | | | |
| Stony Brook Dam Remediation | 62 | | 4 | | | | | | | |
| Studies & Analysis | | \$13,000 | | | | \$13,000 | | | | \$13,000 |
| Design, Permitting & Construction Costs | | \$288,000 | | | | | \$288,000 | | | \$288,000 |
| TOTAL | | \$301,000 | | | | | | | | |
| Nabnasset Dam Remediation | 64 | | 5 | | | | | | | |
| Studies & Analysis | | \$11,000 | | | | | | \$11,000 | | \$11,000 |
| Design, Permitting & Construction Costs | | \$174,000 | | | | | | | \$174,000 | \$174,000 |
| TOTAL | | \$185,000 | | | | | | | | |
| Total Bridges/Dams | | \$1,262,000 | | | \$253,000 | \$13,000 | \$611,000 | \$211,000 | \$174,000 | \$1,262,000 |
| Total All Projects | | \$18,737,000 | | | \$1,913,000 | \$1,693,000 | \$2,991,000 | \$6,516,000 | \$5,624,000 | \$18,737,000 |

* Provided by Sarah Bradbury NMC0G(Northern Middlesex Council of Government)

| Highway Capital Fleet Replacement | | | | | | | | | |
|-----------------------------------|--------|-----------------------|-----------------|-----------|-----------|-----------|-----------|-----------|--------------------|
| Capital Budget Request | Page # | Unit Replacement Cost | Life Expectancy | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Total |
| Pickups | 71 | \$35,000 | 10 yrs | \$70,000 | \$70,000 | \$70,000 | \$35,000 | \$70,000 | \$315,000 |
| 1 Ton | 68 | \$50,000 | 10 yrs | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$250,000 |
| 4x4 Heavy 6 Wheeler Plow | 68 | \$165,000 | 15 yrs | | \$165,000 | | | | \$165,000 |
| Heavy 6 Wheeler Plow (8yd) | 68 | \$150,000 | 15 yrs | | | \$150,000 | \$150,000 | \$150,000 | \$450,000 |
| 10 Wheeler Dump | 68 | \$200,000 | 15 yrs | \$200,000 | | | | \$200,000 | \$400,000 |
| Brush Tractor | 69 | | | \$85,000 | | | | | \$85,000 |
| Front End Loader | 69 | | | | | | \$150,000 | | \$150,000 |
| Swaploader Asphalt Patch Body | 70 | | | \$85,000 | | | | | \$85,000 |
| Bobcat | 69 | \$50,000 | | | \$50,000 | | | | \$50,000 |
| Equipment Trailer | 71 | | | | \$6,500 | | | | \$6,500 |
| Farm Tractor | 69 | | | | | \$35,000 | | | \$35,000 |
| 10 ton equipment Trailer | 71 | | | | | \$12,000 | | | \$12,000 |
| Compressor | 70 | | | | | | \$35,000 | | \$35,000 |
| Chipper | 70 | | | | | | | \$65,000 | \$65,000 |
| Total Fleet Replacement | | | | \$490,000 | \$341,500 | \$317,000 | \$420,000 | \$535,000 | \$2,103,500 |

SUPPORTING DOCUMENTATION

ROADWAYS

ROADWAYS

Westford's roadway infrastructure is a critical and valuable asset that requires continuous maintenance and repair. Capital expenditure on this asset provides both short term and long term returns on the investment because timely and preventative maintenance will preclude the need for expensive structural repairs in the future. State and Federal authorities recognize the vital importance of a reliable transportation system and they provide funding assistance through Chapter 90 monies. State aid alone, however, does not provide the level of funds that are required to maintain Westford roads, so the town needs to invest capital money to protect this asset.

The Town's pavement management program consists of the Highway Superintendent's evaluation of Westford's roadway system each spring. Information such as proposed utility work, seasonal winter damage, proposed development, roadway conditions including cracks, road thickness, drainage and pavement management history, are analyzed and put into a proposed pavement improvement program. This program is then matched to available funds to best service the systems needs for the upcoming paving season. The Highway Departments proposal would consist of using \$1 million dollars of capital funds to supplement \$500,000 of the Town's chapter 90 money to improve the traveling surface of the Town's roadway system.

The Highway Department has produced a list of potential streets for road resurfacing over the next 5 years. The list of roads needs to be evaluated on a yearly basis so that it can be matched to the criteria explained above to determine each year's resurfacing program.

A Pavement Management System is a software program to **assist** Public Works managers with the decision making process for cost effective maintenance and rehabilitation of their town's roadway surfaces. The PMS program maintains an inventory of detailed roadway segment information which includes current roadway surface conditions and provides recommended maintenance procedures to assist with scheduling and cost estimates. The Highway Department is requesting that future operating budgets include the funding of a Pavement Management System at \$35,000 per year.

**Roadway Management System Maintenance
Budget Estimate
FY 2014 - FY 2018**

| Roadway | Length (ft) | Width (ft) | Pavement (in) | Price (per ton) | Tons | Pavement Cost | Contingency (25%) | Total Cost |
|-------------------------------------|-------------|------------|---------------|-----------------|-------|---------------|-------------------|------------|
| Hildreth Street | 8,892 | 23 | 3 | \$65.00 | 3,818 | \$248,170 | \$62,043 | \$310,213 |
| Flagg Road | 5,143 | 23 | 3 | \$65.00 | 2,209 | \$143,585 | \$35,896 | \$179,481 |
| Town Farm Road | 2,300 | 28 | 3 | \$65.00 | 1,203 | \$78,195 | \$19,549 | \$97,744 |
| West Street | 6,668 | 23 | 3 | \$65.00 | 2,863 | \$186,095 | \$46,524 | \$232,619 |
| Chamberlain Road | 7,723 | 22 | 3 | \$65.00 | 3,172 | \$206,180 | \$51,545 | \$257,725 |
| Quarry Hill Road | 1,450 | 26 | 3 | \$65.00 | 704 | \$45,760 | \$11,440 | \$57,200 |
| Applewood Drive | 999 | 26 | 3 | \$65.00 | 485 | \$31,525 | \$7,881 | \$39,406 |
| Sleigh Road | 1,629 | 28 | 3 | \$65.00 | 852 | \$55,380 | \$13,845 | \$69,225 |
| Kirsi Circle | 4,178 | 26 | 3 | \$65.00 | 2,028 | \$131,820 | \$32,955 | \$164,775 |
| Douglas Road | 1,520 | 26 | 3 | \$65.00 | 738 | \$47,970 | \$11,993 | \$59,963 |
| Anderson Lane | 423 | 26 | 3 | \$65.00 | 206 | \$13,390 | \$3,348 | \$16,738 |
| Fairview Drive | 1,749 | 27 | 3 | \$65.00 | 882 | \$57,330 | \$14,333 | \$71,663 |
| Dana Drive | 2,383 | 28 | 3 | \$65.00 | 1,246 | \$80,990 | \$20,248 | \$101,238 |
| Tadmuck Lane | 1,424 | 27 | 3 | \$65.00 | 718 | \$46,670 | \$11,668 | \$58,338 |
| Crusade Road | 1,485 | 26 | 3 | \$65.00 | 721 | \$46,865 | \$11,716 | \$58,581 |
| Palace Road | 733 | 26 | 3 | \$65.00 | 356 | \$23,140 | \$5,785 | \$28,925 |
| Jester Road | 528 | 26 | 3 | \$65.00 | 257 | \$16,705 | \$4,176 | \$20,881 |
| Crown Road | 3,279 | 25 | 3 | \$65.00 | 1,531 | \$99,515 | \$24,879 | \$124,394 |
| King Pine Road | 1,049 | 25 | 3 | \$65.00 | 490 | \$31,850 | \$7,963 | \$39,813 |
| Castle Road | 782 | 25 | 3 | \$65.00 | 366 | \$23,790 | \$5,948 | \$29,738 |
| Beaver Dam Drive | 2,397 | 30 | 3 | \$65.00 | 1,343 | \$87,295 | \$21,824 | \$109,119 |
| Fletcher Road | 3,155 | 27 | 3 | \$65.00 | 1,591 | \$103,415 | \$25,854 | \$129,269 |
| Blackthorn Drive | 451 | 27 | 3 | \$65.00 | 228 | \$14,820 | \$3,705 | \$18,525 |
| Heywood Road | 1,955 | 26 | 3 | \$65.00 | 949 | \$61,685 | \$15,421 | \$77,106 |
| Brookview Drive | 1,607 | 26 | 3 | \$65.00 | 781 | \$50,765 | \$12,691 | \$63,456 |
| Sawmill Drive | 1,547 | 27 | 3 | \$65.00 | 780 | \$50,700 | \$12,675 | \$63,375 |
| Crest Drive | 1,170 | 24 | 3 | \$65.00 | 525 | \$34,125 | \$8,531 | \$42,656 |
| River Street | 2,608 | 25 | 3 | \$65.00 | 1,218 | \$79,170 | \$19,793 | \$98,963 |
| Overlook Circle | 994 | 28 | 3 | \$65.00 | 520 | \$33,800 | \$8,450 | \$42,250 |
| Hopkins Place Chatfield Circle | 3,056 | 28 | 3 | \$65.00 | 1,598 | \$103,870 | \$25,968 | \$129,838 |
| Main Street (Flagg to Kirsi Circle) | 7,513 | 31 | 3 | \$65.00 | 4,348 | \$282,620 | \$70,655 | \$353,275 |
| Concord Road (Powers to Carlisle) | 5,821 | 26 | 3 | \$65.00 | 2,826 | \$183,690 | \$45,923 | \$229,613 |
| Carlisle Road | 14,855 | 27 | 3 | \$65.00 | 7,487 | \$486,655 | \$121,664 | \$608,319 |
| Vose Hill Road | 5,516 | 28 | 3 | \$65.00 | 2,884 | \$187,460 | \$46,865 | \$234,325 |
| Abby Road, Walter Circle | 1,879 | 23 | 3 | \$65.00 | 807 | \$52,455 | \$13,114 | \$65,569 |
| Landmark Road | 2,060 | 27 | 3 | \$65.00 | 1,039 | \$67,535 | \$16,884 | \$84,419 |
| Sequoia Road | 1,206 | 27 | 3 | \$65.00 | 608 | \$39,520 | \$9,880 | \$49,400 |
| Sassafrass Road | 1,670 | 27 | 3 | \$65.00 | 842 | \$54,730 | \$13,683 | \$68,413 |

**Roadway Management System Maintenance
Budget Estimate
FY 2014 - FY 2018**

| Roadway | Length (ft) | Width (ft) | Pavement (in) | Price (per ton) | Tons | Pavement Cost | Contingency (25%) | Total Cost |
|---|-------------|------------|---------------|-----------------|-------|---------------|-------------------|------------|
| Phillips Drive | 3,403 | 27 | 3 | \$65.00 | 1,716 | \$111,540 | \$27,885 | \$139,425 |
| Tallard Road, Royce Lane, Dutchman Lane | 3,387 | 27 | 3 | \$65.00 | 1,708 | \$111,020 | \$27,755 | \$138,775 |
| Forrest Road | 7,400 | 24 | 3 | \$65.00 | 3,316 | \$215,540 | \$53,885 | \$269,425 |
| Nutting Road | 8,241 | 22 | 3 | \$65.00 | 3,385 | \$220,025 | \$55,006 | \$275,031 |
| Polley Road (Lucille to Stony Brook) | 2,100 | 20 | 3 | \$65.00 | 785 | \$51,025 | \$12,756 | \$63,781 |
| Stony Brook (Polley to Plain) | 3,250 | 20 | 3 | \$65.00 | 1,214 | \$78,910 | \$19,728 | \$98,638 |
| Cummings Road (to Lowell Road) | 1,550 | 25 | 3 | \$65.00 | 724 | \$47,060 | \$11,765 | \$58,825 |
| Endmoor Road | 3,311 | 25 | 3 | \$65.00 | 1,546 | \$100,490 | \$25,123 | \$125,613 |
| Trails End Road | 756 | 18 | 3 | \$65.00 | 255 | \$16,575 | \$4,144 | \$20,719 |
| Hadley Road | 581 | 19 | 3 | \$65.00 | 207 | \$13,455 | \$3,364 | \$16,819 |
| Edwards Avenue | 2,178 | 19 | 3 | \$65.00 | 773 | \$50,245 | \$12,561 | \$62,806 |
| Wilson Lane | 75 | 18 | 3 | \$65.00 | 26 | \$1,690 | \$423 | \$2,113 |
| Graniteville Road (Cold Spring to Main) | 4,151 | 25 | 3 | \$65.00 | 1,938 | \$125,970 | \$31,493 | \$157,463 |
| East Prescott Street | 3,898 | 30 | 3 | \$65.00 | 2,183 | \$141,895 | \$35,474 | \$177,369 |
| West Prescott Street | 3,047 | 32 | 3 | \$65.00 | 1,821 | \$118,365 | \$29,591 | \$147,956 |
| Pleasant Street | 4,024 | 31 | 3 | \$65.00 | 2,329 | \$151,385 | \$37,846 | \$189,231 |
| Pine Street | 1,570 | 26 | 3 | \$65.00 | 763 | \$49,595 | \$12,399 | \$61,994 |
| Concord Road (From Abbot to Rt 110) | 8,613 | 27 | 3 | \$65.00 | 4,341 | \$282,165 | \$70,541 | \$352,706 |
| Groton Road (Depot to Groton Line) | 15,322 | 28 | 3 | \$65.00 | 8,009 | \$520,585 | \$130,146 | \$650,731 |
| Groton Road (Greystone to Chelmsford) | 3,923 | 31 | 3 | \$65.00 | 2,271 | \$147,615 | \$36,904 | \$184,519 |
| Depot Street (Groton to Main) | 14,398 | 27 | 3 | \$65.00 | 7,257 | \$471,705 | \$117,926 | \$589,631 |
| Oak Hill Road | 5,569 | 25 | 3 | \$65.00 | 2,599 | \$168,935 | \$42,234 | \$211,169 |
| Boston Road | 7,108 | 30 | 3 | \$65.00 | 3,981 | \$258,765 | \$64,691 | \$323,456 |
| Blake's Hill Road | 3,363 | 27 | 3 | \$65.00 | 1,695 | \$110,175 | \$27,544 | \$137,719 |
| Rome Drive | 720 | 23 | 3 | \$65.00 | 310 | \$20,150 | \$5,038 | \$25,188 |
| Old Homestead Road | 2,959 | 26 | 3 | \$65.00 | 1,437 | \$93,405 | \$23,351 | \$116,756 |
| Long Meadow Road | 1,790 | 26 | 3 | \$65.00 | 869 | \$56,485 | \$14,121 | \$70,606 |
| Beaver Brook Road | 5,794 | 26 | 3 | \$65.00 | 2,813 | \$182,845 | \$45,711 | \$228,556 |
| Patton Road | 5,729 | 23 | 3 | \$65.00 | 2,460 | \$159,900 | \$39,975 | \$199,875 |
| True Bean Way | 1,908 | 24 | 3 | \$65.00 | 855 | \$55,575 | \$13,894 | \$69,469 |
| Cutter Lane | 1,256 | 22 | 3 | \$65.00 | 516 | \$33,540 | \$8,385 | \$41,925 |
| Butterfield Lane | 2,784 | 24 | 3 | \$65.00 | 1,248 | \$81,120 | \$20,280 | \$101,400 |
| Humiston Circle | 891 | 23 | 3 | \$65.00 | 375 | \$24,375 | \$6,094 | \$30,469 |
| Southwick Circle | 933 | 19 | 3 | \$65.00 | 323 | \$20,995 | \$5,249 | \$26,244 |
| Torrey Terrace | 631 | 23 | 3 | \$65.00 | 266 | \$17,290 | \$4,323 | \$21,613 |
| Acton Road | 9,525 | 25 | 3 | \$65.00 | 4,446 | \$288,990 | \$72,248 | \$361,238 |
| Old Lowell Road | 10,450 | 21 | 3 | \$65.00 | 4,097 | \$266,305 | \$66,576 | \$332,881 |
| South Chelmsford Road | 6,242 | 30 | 3 | \$65.00 | 3,496 | \$227,240 | \$56,810 | \$284,050 |

**Roadway Management System Maintenance
Budget Estimate
FY 2014 - FY 2018**

| Roadway | Length (ft) | Width (ft) | Pavement (in) | Price (per ton) | Tons | Pavement Cost | Contingency (25%) | Total Cost |
|---|-------------|------------|---------------|-----------------|-------|---------------|-------------------|------------|
| Wilson Farm Road | 1,529 | 21 | 3 | \$65.00 | 600 | \$39,000 | \$9,750 | \$48,750 |
| Atwater Drive | 885 | 21 | 3 | \$65.00 | 347 | \$22,555 | \$5,639 | \$28,194 |
| Steeple Chase Circle | 3,111 | 21 | 3 | \$65.00 | 1,220 | \$79,300 | \$19,825 | \$99,125 |
| Vose Road (Old Lowell to Steeple Chase) | 1,100 | 21 | 3 | \$65.00 | 432 | \$28,080 | \$7,020 | \$35,100 |
| Hearthstone Road | 1,186 | 26 | 3 | \$65.00 | 576 | \$37,440 | \$9,360 | \$46,800 |
| Cobbler Road | 733 | 26 | 3 | \$65.00 | 356 | \$23,140 | \$5,785 | \$28,925 |
| Chippewa Road | 3,390 | 26 | 3 | \$65.00 | 1,646 | \$106,990 | \$26,748 | \$133,738 |
| Morning Glory Circle | 1,449 | 22 | 3 | \$65.00 | 596 | \$38,740 | \$9,685 | \$48,425 |
| Main Street (Kirsi to Chelmsford Line) | 7,559 | 25 | 3 | \$65.00 | 3,528 | \$229,320 | \$57,330 | \$286,650 |
| Forge Village Road | 8,296 | 25 | 3 | \$65.00 | 3,872 | \$251,680 | \$62,920 | \$314,600 |
| Abbot Street | 1,514 | 30 | 3 | \$65.00 | 848 | \$55,120 | \$13,780 | \$68,900 |
| Robinson Road | 3,610 | 23 | 3 | \$65.00 | 1,550 | \$100,750 | \$25,188 | \$125,938 |
| Macquarrie Lane | 1,315 | 22 | 3 | \$65.00 | 541 | \$35,165 | \$8,791 | \$43,956 |
| Mulberry Lane | 702 | 25 | 3 | \$65.00 | 328 | \$21,320 | \$5,330 | \$26,650 |
| Buckboard Drive | 5,547 | 27 | 3 | \$65.00 | 2,796 | \$181,740 | \$45,435 | \$227,175 |
| Stonebolt Way | 365 | 27 | 3 | \$65.00 | 184 | \$11,960 | \$2,990 | \$14,950 |
| Haywagon Circle | 633 | 22 | 3 | \$65.00 | 261 | \$16,965 | \$4,241 | \$21,206 |
| Carriage Way | 538 | 22 | 3 | \$65.00 | 222 | \$14,430 | \$3,608 | \$18,038 |
| Russell's Way | 13,292 | 27 | 3 | \$65.00 | 6,700 | \$435,500 | \$108,875 | \$544,375 |
| Perham Circle | 986 | 22 | 3 | \$65.00 | 406 | \$26,390 | \$6,598 | \$32,988 |
| Curren Drive | 1,017 | 22 | 3 | \$65.00 | 418 | \$27,170 | \$6,793 | \$33,963 |
| Danley Drive | 977 | 22 | 3 | \$65.00 | 402 | \$26,130 | \$6,533 | \$32,663 |
| Morrison Lane | 2,599 | 22 | 3 | \$65.00 | 1,068 | \$69,420 | \$17,355 | \$86,775 |
| Caldwell Drive | 3,059 | 22 | 3 | \$65.00 | 1,257 | \$81,705 | \$20,426 | \$102,131 |
| Chandler Road | 2,100 | 27 | 3 | \$65.00 | 1,059 | \$68,835 | \$17,209 | \$86,044 |
| Pine Ridge Road | 4,841 | 24 | 3 | \$65.00 | 2,169 | \$140,985 | \$35,246 | \$176,231 |
| Country Road | 3,267 | 25 | 3 | \$65.00 | 1,525 | \$99,125 | \$24,781 | \$123,906 |
| Shelly Lane | 2,158 | 28 | 3 | \$65.00 | 1,128 | \$73,320 | \$18,330 | \$91,650 |
| Rutland Circle | 497 | 25 | 3 | \$65.00 | 233 | \$15,145 | \$3,786 | \$18,931 |
| Koala Bear Lane | 935 | 24 | 3 | \$65.00 | 419 | \$27,235 | \$6,809 | \$34,044 |
| Marie Anne Drive | 812 | 21 | 3 | \$65.00 | 319 | \$20,735 | \$5,184 | \$25,919 |
| Nutting Lane | 528 | 25 | 3 | \$65.00 | 247 | \$16,055 | \$4,014 | \$20,069 |
| Bobolink Road | 879 | 30 | 3 | \$65.00 | 493 | \$32,045 | \$8,011 | \$40,056 |
| Timberlee Road | 1,105 | 24 | 3 | \$65.00 | 496 | \$32,240 | \$8,060 | \$40,300 |
| Almeria Circle | 3,332 | 27 | 3 | \$65.00 | 1,680 | \$109,200 | \$27,300 | \$136,500 |
| Villanova Drive | 2,821 | 27 | 3 | \$65.00 | 1,422 | \$92,430 | \$23,108 | \$115,538 |
| Granada Drive | 729 | 27 | 3 | \$65.00 | 368 | \$23,920 | \$5,980 | \$29,900 |
| Plain Road | 9,730 | 25 | 3 | \$65.00 | 4,541 | \$295,165 | \$73,791 | \$368,956 |

**Roadway Management System Maintenance
Budget Estimate
FY 2014 - FY 2018**

| Roadway | Length (ft) | Width (ft) | Pavement (in) | Price (per ton) | Tons | Pavement Cost | Contingency (25%) | Total Cost |
|-----------------------|-------------|--------------|---------------|-----------------|----------------|---------------------|--------------------|---------------------|
| Patriot Lane | 2,032 | 25 | 3 | \$65.00 | 949 | \$61,685 | \$15,421 | \$77,106 |
| Ledgewood Drive | 1,089 | 22 | 3 | \$65.00 | 448 | \$29,120 | \$7,280 | \$36,400 |
| Oak Street | 236 | 22 | 3 | \$65.00 | 97 | \$6,305 | \$1,576 | \$7,881 |
| Chestnut Street | 293 | 20 | 3 | \$65.00 | 110 | \$7,150 | \$1,788 | \$8,938 |
| Pond Street | 817 | 23 | 3 | \$65.00 | 351 | \$22,815 | \$5,704 | \$28,519 |
| Canal Street | 233 | 20 | 3 | \$65.00 | 88 | \$5,720 | \$1,430 | \$7,150 |
| Bradford Street | 732 | 28 | 3 | \$65.00 | 383 | \$24,895 | \$6,224 | \$31,119 |
| Magnolia Drive | 4,761 | 27 | 3 | \$65.00 | 2,400 | \$156,000 | \$39,000 | \$195,000 |
| Heather Drive | 2,492 | 27 | 3 | \$65.00 | 1,256 | \$81,640 | \$20,410 | \$102,050 |
| Primrose Lane | 971 | 22 | 3 | \$65.00 | 399 | \$25,935 | \$6,484 | \$32,419 |
| Chicory Road | 4,481 | 27 | 3 | \$65.00 | 2,259 | \$146,835 | \$36,709 | \$183,544 |
| Rosebud Lane | 637 | 22 | 3 | \$65.00 | 262 | \$17,030 | \$4,258 | \$21,288 |
| Greenbrier Drive | 1,145 | 27 | 3 | \$65.00 | 578 | \$37,570 | \$9,393 | \$46,963 |
| Indigo Lane | 520 | 22 | 3 | \$65.00 | 214 | \$13,910 | \$3,478 | \$17,388 |
| Thistle Lane | 898 | 22 | 3 | \$65.00 | 369 | \$23,985 | \$5,996 | \$29,981 |
| Juneberry Lane | 962 | 22 | 3 | \$65.00 | 396 | \$25,740 | \$6,435 | \$32,175 |
| Little Bear Hill Road | 2,125 | 27 | 3 | \$65.00 | 1,071 | \$69,615 | \$17,404 | \$87,019 |
| Grizzly Bear Circle | 1,188 | 22 | 3 | \$65.00 | 488 | \$31,720 | \$7,930 | \$39,650 |
| Polar Bear Drive | 683 | 22 | 3 | \$65.00 | 281 | \$18,265 | \$4,566 | \$22,831 |
| Bear Cub Lane | 730 | 22 | 3 | \$65.00 | 300 | \$19,500 | \$4,875 | \$24,375 |
| TOTALS | 76 | MILES | | | 192,524 | \$12,514,060 | \$3,128,515 | \$15,642,575 |

Note:

The 25% contingency item covers the miscellaneous work necessary to prepare and complete a paving job. Typically this work includes: police details, addition of gravel, shimming roadway surfaces, adjusting drainage structures, reconstructing driveway aprons, etc.).



Town of Westford, MA

Highway Capital Projects

Signals @ Rt 40/Oak Hill Rd

GROTON ROAD (ROUTE 40) & OAK HILL ROAD INTERSECTION

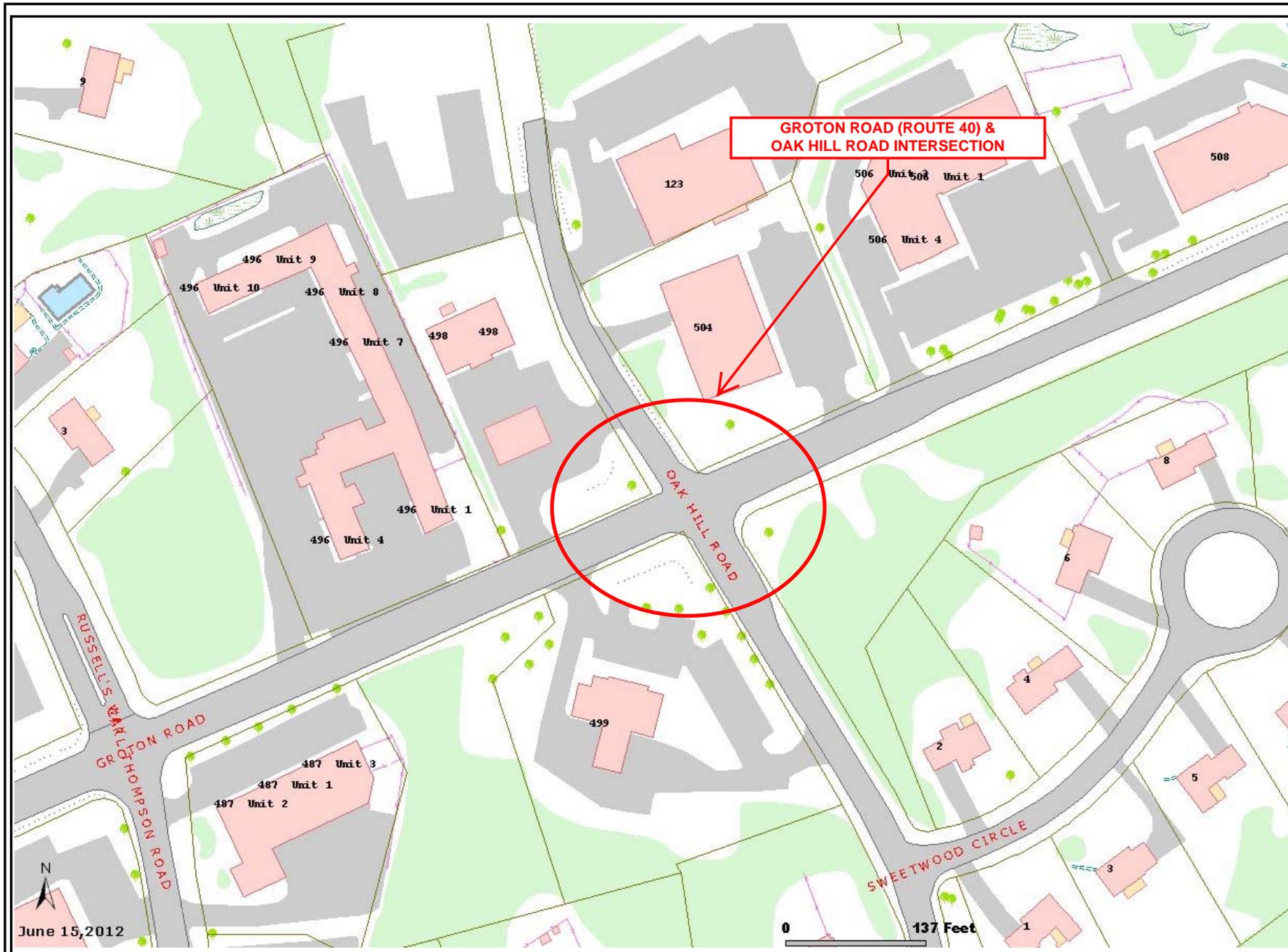
A high crash rate at the intersection of Oak Hill Road and Groton Road (Route 40) requires that this intersection be fully signalized, including Opticom emergency response signal changer, pedestrian crosswalks, increased lane widths for turning movements, drainage improvements and increased sight distances. It is likely that land takings will be necessary to accomplish the work.

Estimated Design Costs: \$125,000

Estimated Construction: \$1.2 Million

TOTAL = \$1.325 Million

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.



June 15, 2012



**GROTON ROAD (ROUTE 40) &
OAK HILL ROAD
INTERSECTION**



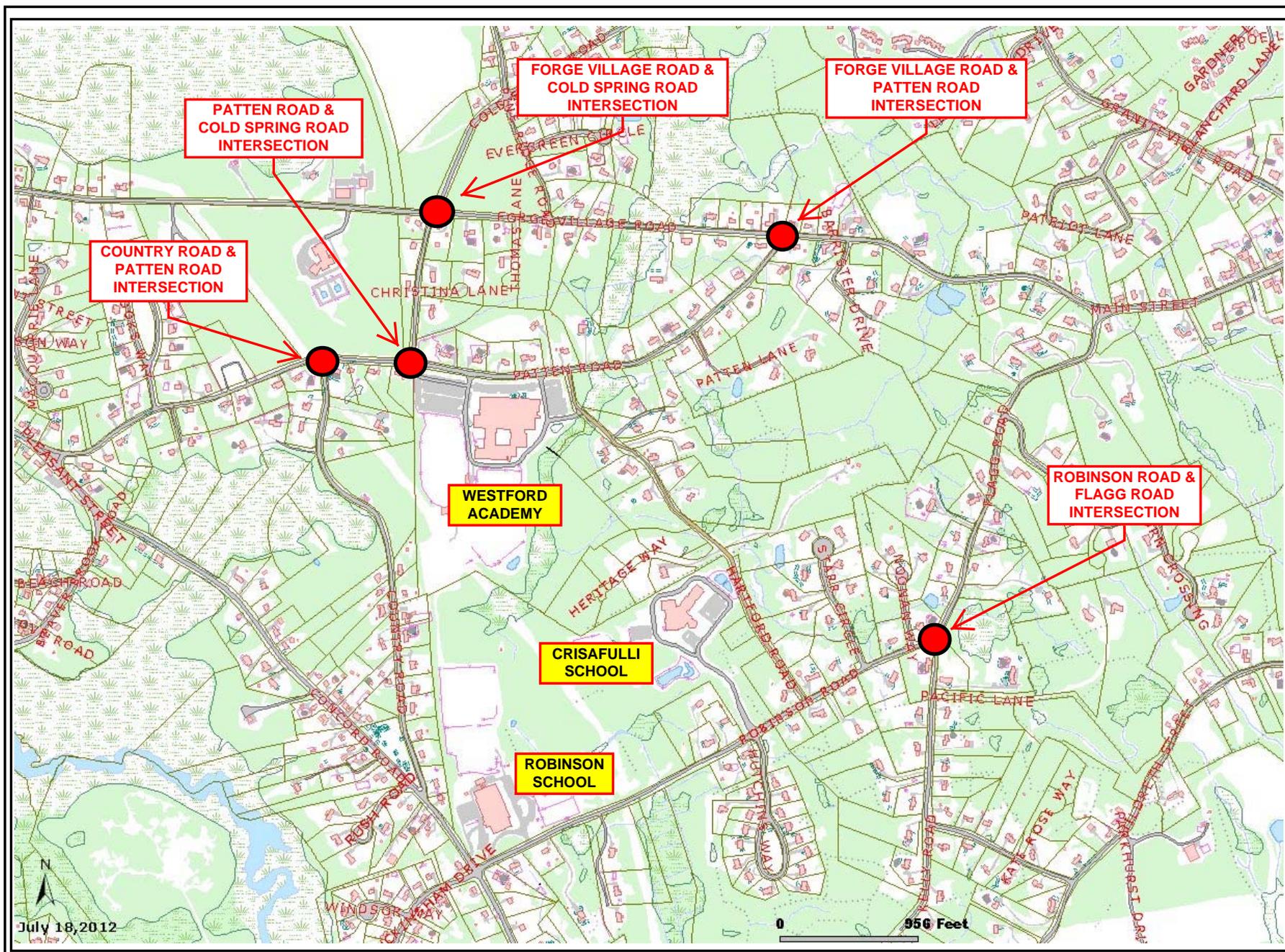
Highway Capital Project
2002 NMCOG Traffic Study Area

A 2002 Traffic and Circulation Study was conducted by NMCOG on the roadway system in the vicinity of Westford Academy and the neighboring Robinson and Cristafulli Schools. The study concluded that several improvements are necessary at the following intersections:

- Robinson Road/Flagg Road, Country Road/Patten Road, Patten Road/Cold Spring Road, Forge Village Road/Cold Spring Road, & Forge Village Road/Patten Road.

Estimated Design Costs: \$200,000
 Estimated Construction: \$2 Million
TOTAL = \$2.2 Million

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.



July 18, 2012



**COUNTRY ROAD &
PATTEN ROAD
INTERSECTION**



**FORGE VILLAGE ROAD &
COLD SPRING ROAD
INTERSECTION**



**FORGE VILLAGE ROAD &
PATTEN ROAD
INTERSECTION**



**PATTEN ROAD &
COLD SPRING ROAD
INTERSECTION**



**ROBINSON ROAD &
FLAGG ROAD
INTERSECTION**



Town of Westford, MA

Highway Capital Project

Signals @ RT 40/Dunstable Road

ROUTE 40 (GROTON ROAD) & DUNSTABLE ROAD INTERSECTION

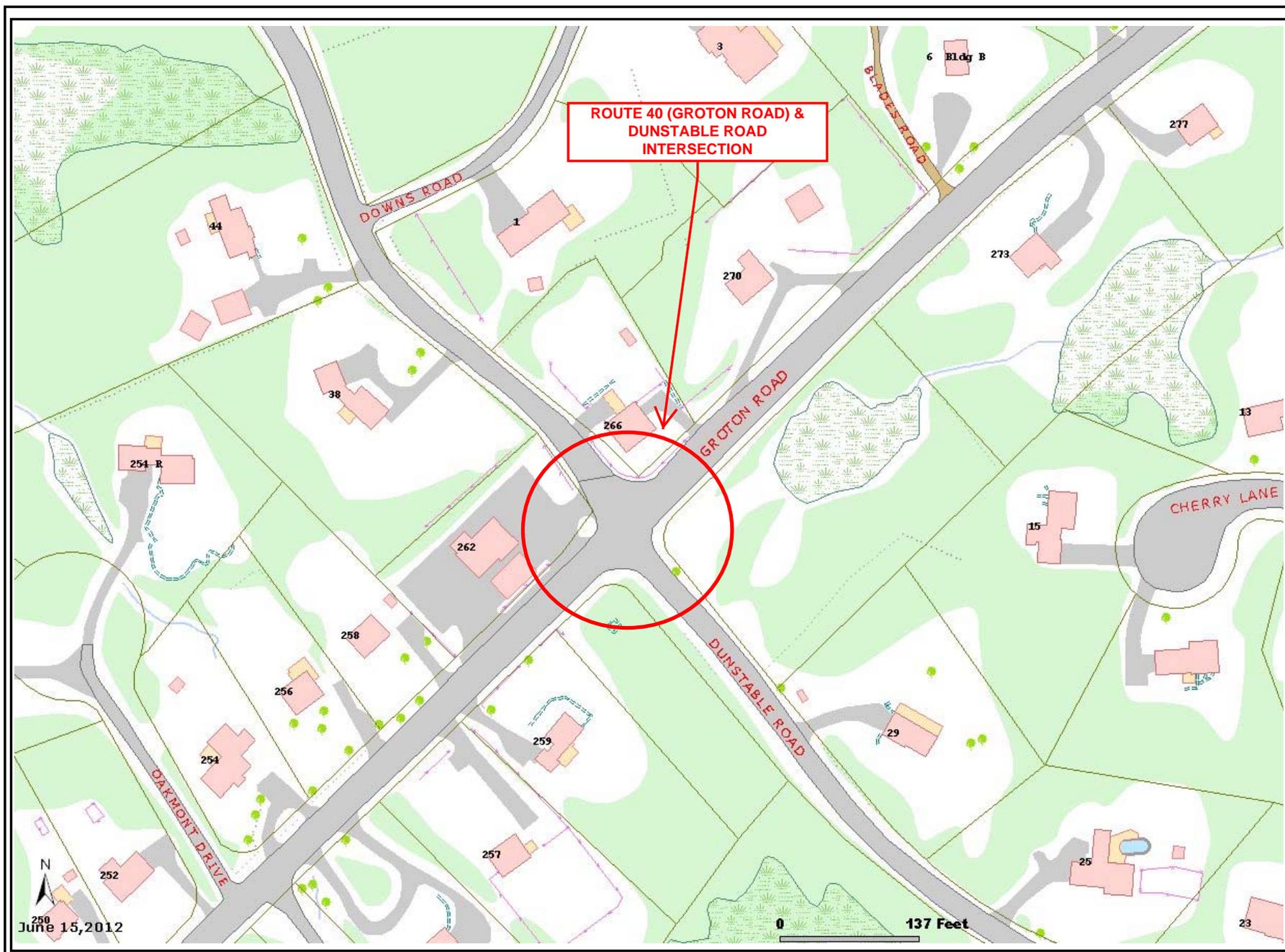
A high crash rate at the intersection of Dunstable Road and Groton Road (Route 40) requires that the existing flashing signal be replaced with a full signal, including Opticom emergency response signal changer, re-alignment of the southerly portion of Dunstable Road, increasing lane widths and improvements to sight distance and drainage.

Estimated Design Costs: \$85,000

Estimated Construction: \$850,000

TOTAL = \$935,000

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.



June 15, 2012



**GROTON ROAD (ROUTE 40) &
DUNSTABLE ROAD
INTERSECTION**



Town of Westford, MA

Highway Capital Project

RT 225 - Griffin Road Intersection Improvements

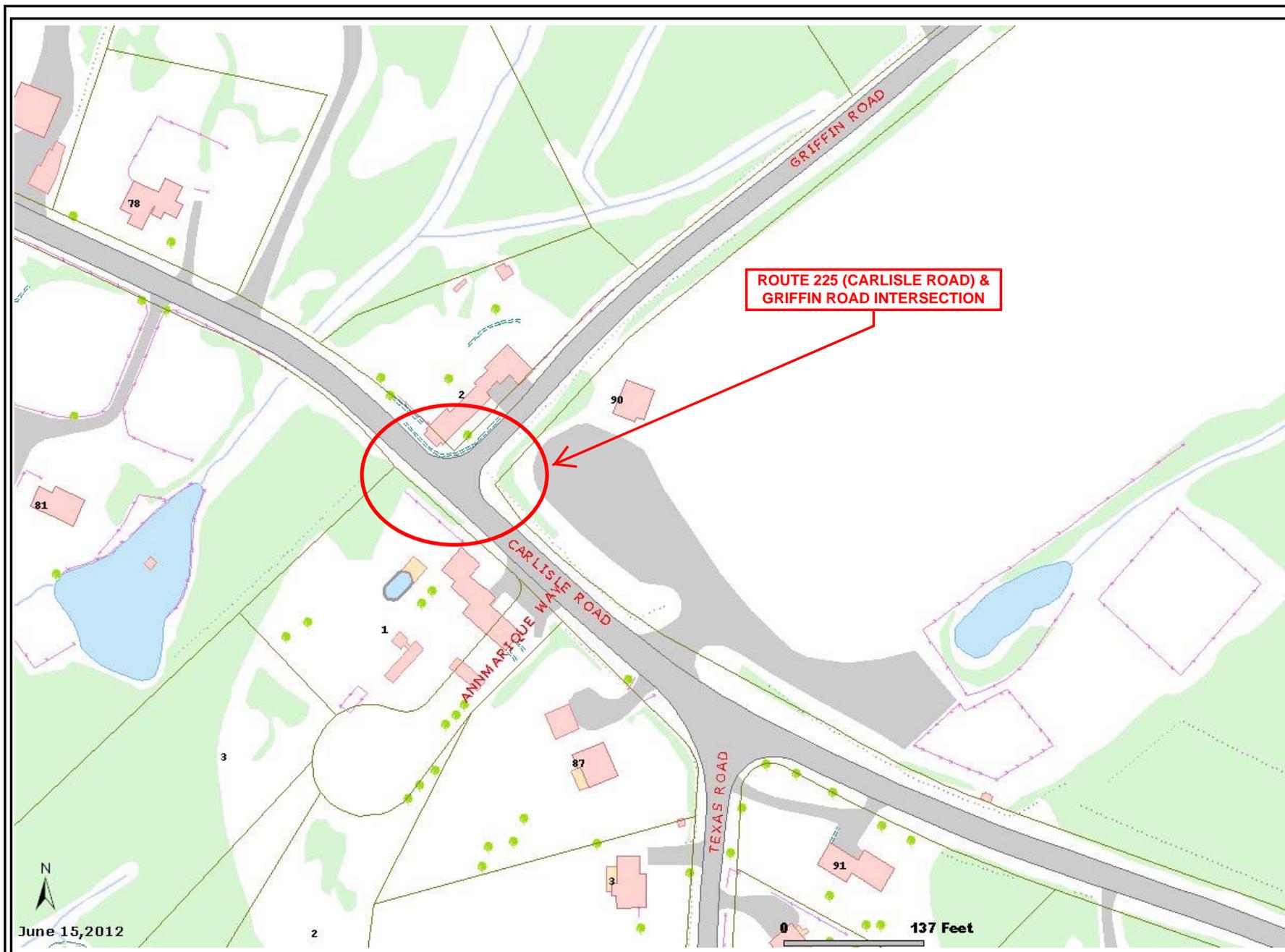
The intersection of Griffin Road and Route 225 (Carlisle Road) has inadequate width for safe turning movements and needs to be widened. In order to accomplish this, Griffin Road will need to be moved away from an adjacent residential home to provide a larger turning radius. Drainage and sight distance improvements are also needed at this intersection.

Estimated Design Costs: \$40,000

Estimated Construction: \$100,000

TOTAL = \$140,000

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.



June 15, 2012



**CONCORD ROAD (ROUTE 225) &
GRIFFIN ROAD
INTERSECTION**



Town of Westford, MA

Highway Capital Project

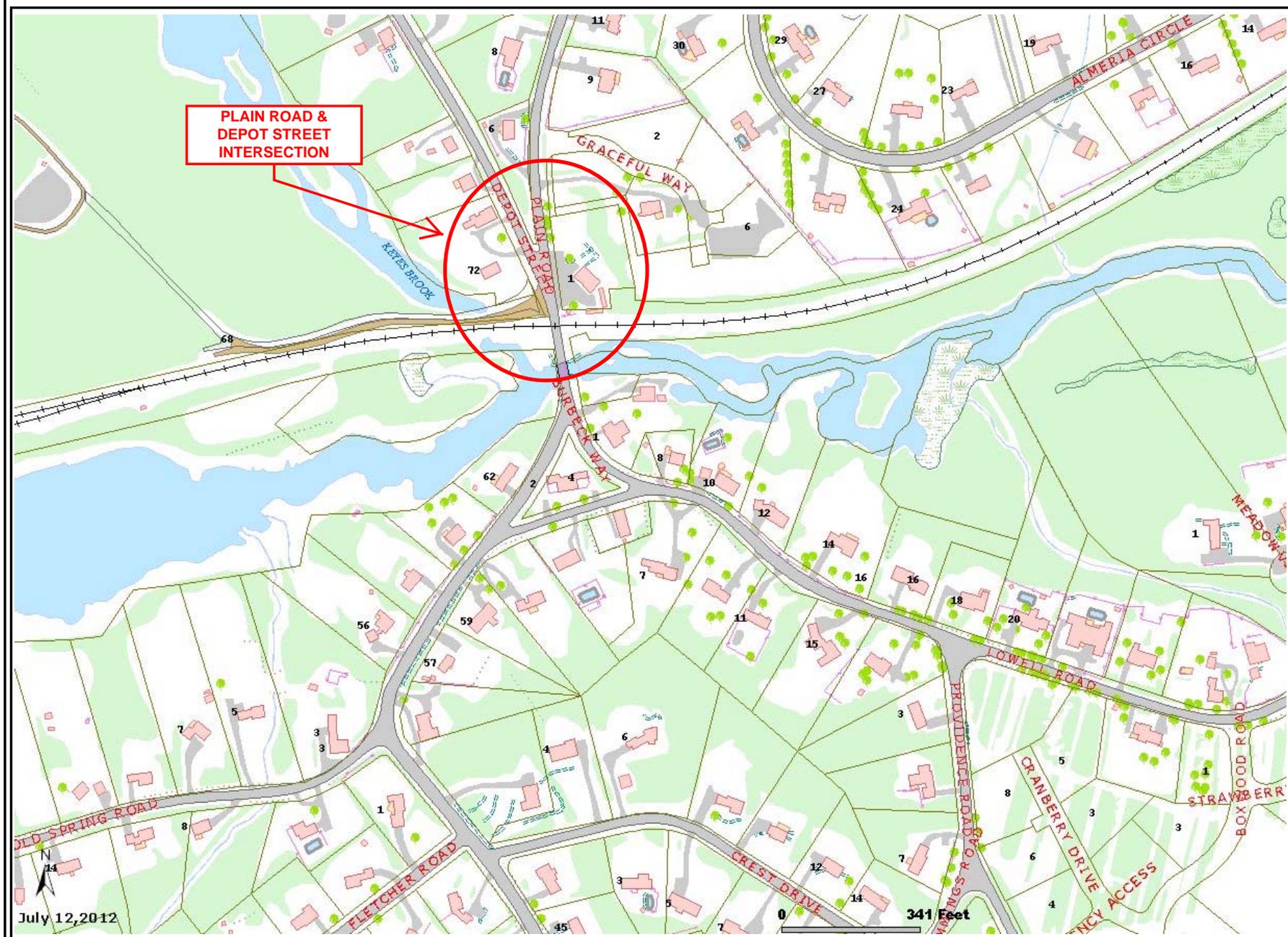
Plain Road - Depot Street Study

**PLAIN ROAD &
DEPOT STREET
INTERSECTION**

The need for improvements to the intersection of Plain Road and Depot Street was identified in the Master Plan and will need to be studied for possible changes.

Estimated Study Costs: \$100,000

TOTAL = \$100,000



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.

July 12, 2012



**PLAIN ROAD &
DEPOT STREET
INTERSECTION**



Town of Westford, MA

Highway Capital Project

RT 225 Concord Rd - Carlisle Rd Intersection

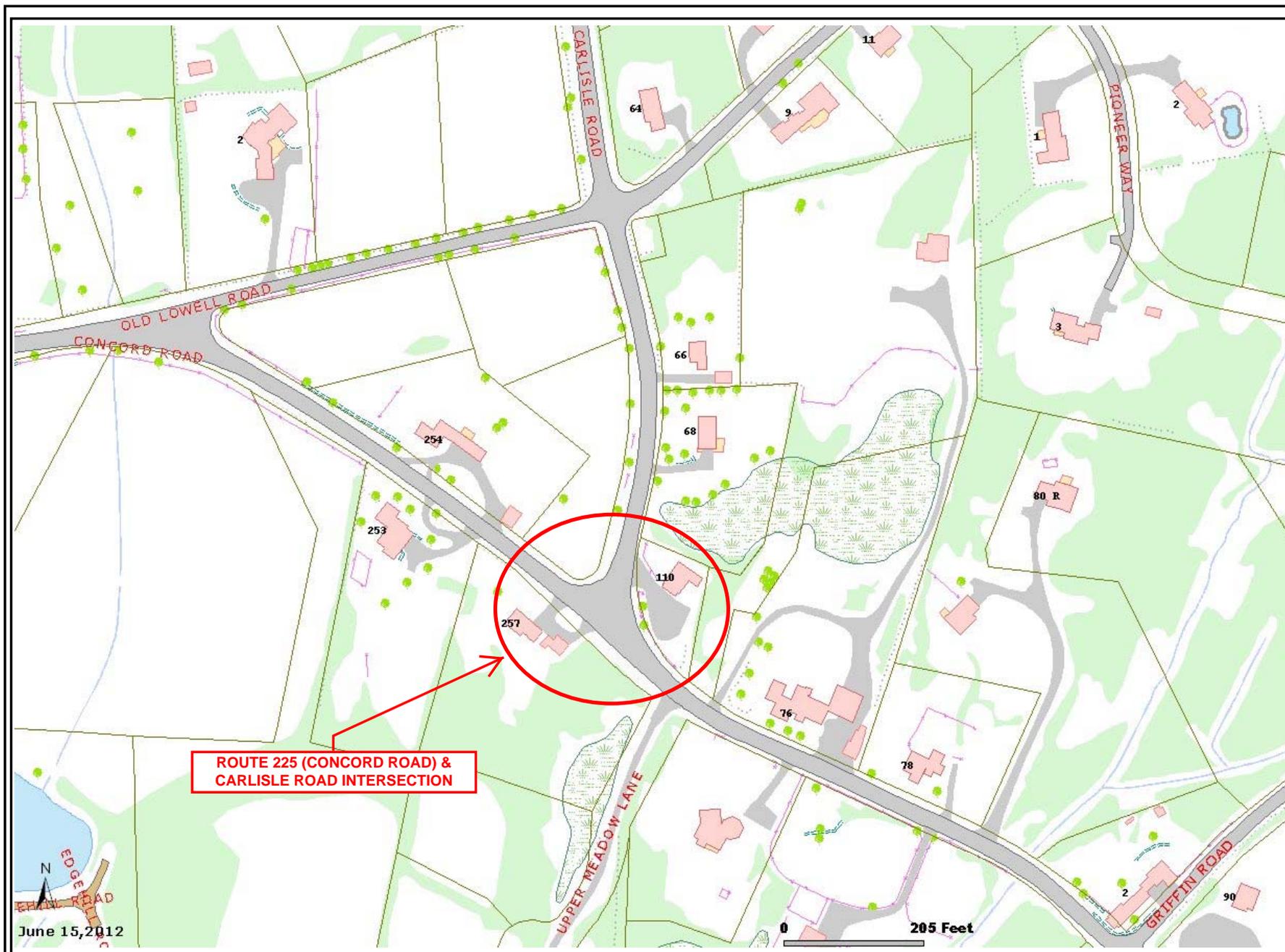
Poor sight distance and high speed turning movements through the intersection of Route 225 (Concord Road) and Carlisle Road requires that this intersection be improved, including the addition of a traffic island, relocating the southerly edge of Concord Road and the development of a "T" style intersection by re-aligning Carlisle Road.

Estimated Design Costs: \$80,000

Estimated Construction: \$800,000

TOTAL = \$880,000

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.



ROUTE 225 (CONCORD ROAD) & CARLISLE ROAD INTERSECTION

June 15, 2012



**CARLISLE ROAD &
CONCORD ROAD (ROUTE 225)
INTERSECTION**



Town of Westford, MA

Highway Capital Project

Abbot Rd - Town Farm Road Intersection

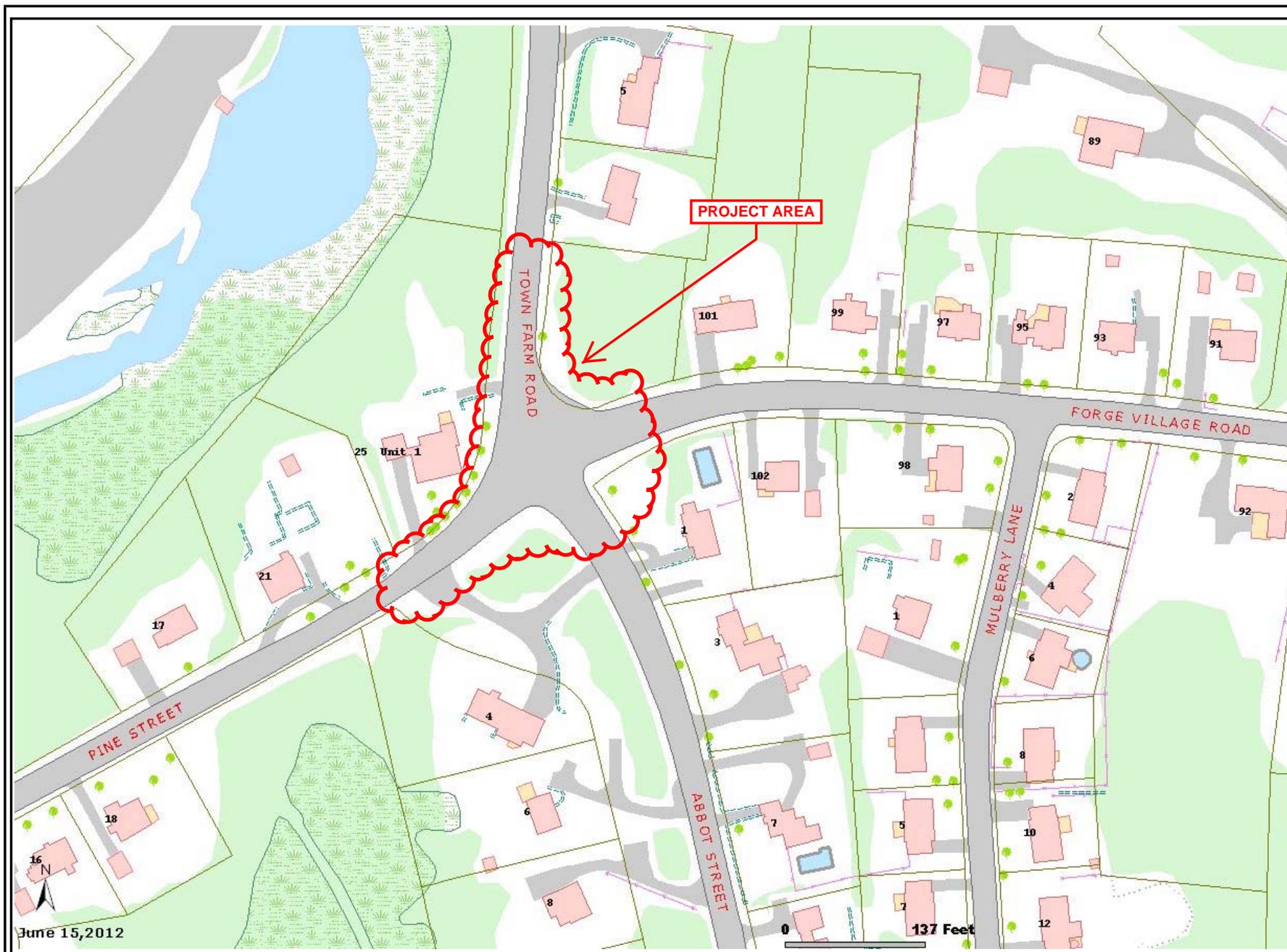
The Intersection of Town Farm Road, Forge Village Road, Abbot Street and Pine Street needs to be realigned and regraded to improve sight distance and drainage.

Estimated Design Costs: \$70,000

Estimated Construction: \$500,000

TOTAL = \$570,000

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.



June 15, 2012



**ABBOT ROAD &
TOWN FARM ROAD
INTERSECTION**



Town of Westford, MA

Highway Capital Project

Reconstruct Boston Road: Sidewalk/
Drainage

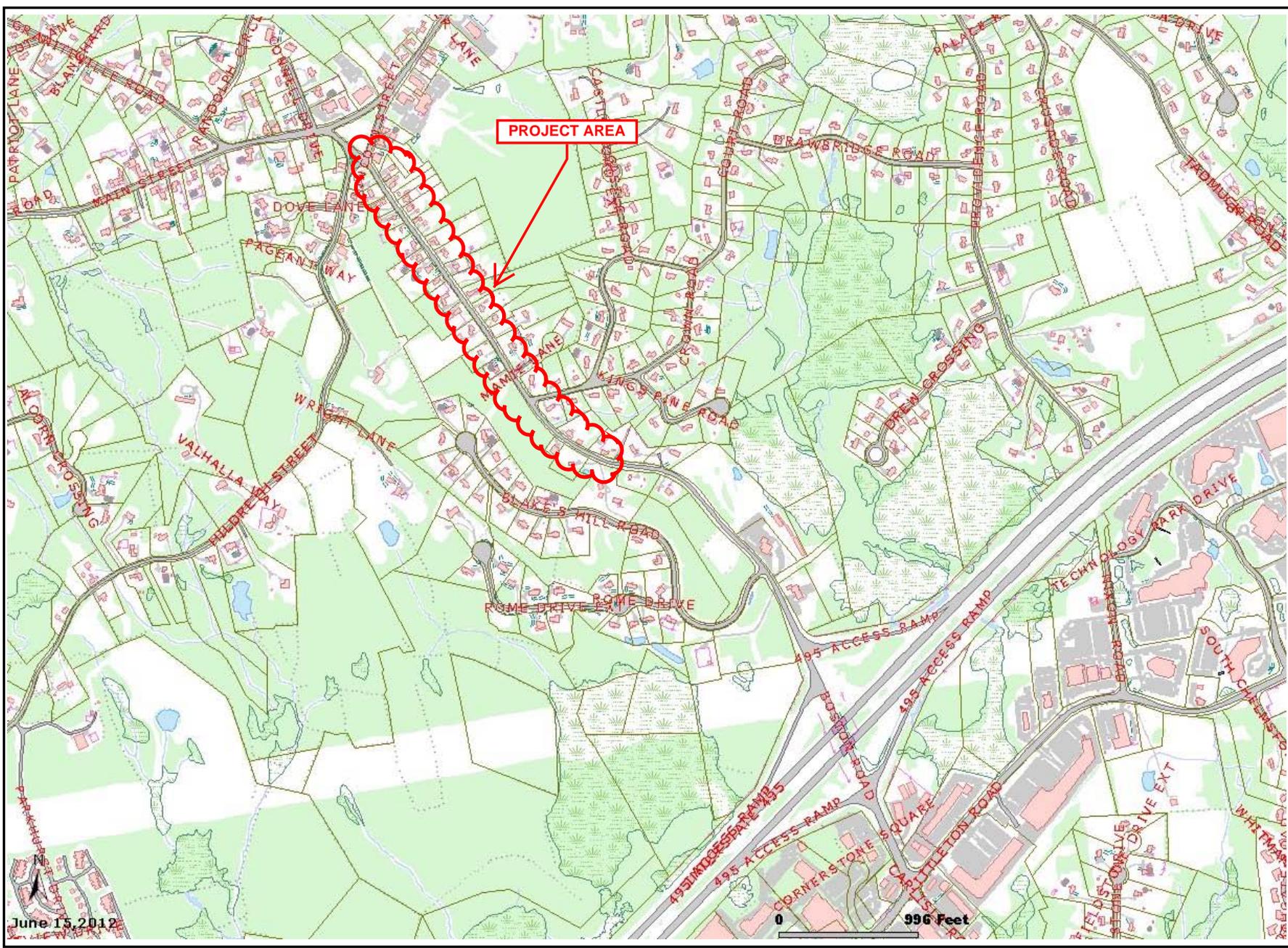
Re-construction of Boston Road is required to improve and repair a drainage system that is inadequate, and to facilitate pedestrian traffic, including the replacement and extension of the existing sidewalk.

Estimated Design Costs: \$250,000

Estimated Construction: \$2.5 Million

TOTAL = \$2.75 Million

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.





BOSTON ROAD



Town of Westford, MA

Highway Capital Project

Signal Upgrade at 27 and 225

Replace outdated traffic signal at the intersection of Route 225 (Carlisle Road) and Route 27 (Acton Road), including installation of Opticom emergency response signal changer and minor curb work.

Estimated Design Costs: \$25,000

Estimated Construction: \$250,000

TOTAL = \$275,000

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.

**ROUTE 27 &
ROUTE 225
INTERSECTION**



June 15, 2012



0 145 Feet



**CARLISLE ROAD (ROUTE 225) &
ACTON ROAD (ROUTE 27)
INTERSECTION**

STORMWATER MANAGEMENT

STORMWATER MANAGEMENT

The Clean Water Act has revolutionized how cities and towns are required to manage stormwater and their impact on natural resources like rivers, ponds and wetlands. The EPA has mandated minimum requirements for stormwater management, and over the past ten years, these mandates have become increasingly restrictive and more costly to achieve. Westford has managed to keep up with the requirements, but projections for the next round of permitting indicate that costs will outpace the current stormwater budget. Westford is now at a point of transition where consideration of a stormwater utility is a reasonable funding option. A Stormwater Master Plan will provide the town with the information needed to assess the feasibility and effectiveness of a stormwater utility.

Included in this capital projects request, in addition to the master plan, are the following projects that deal with stormwater:

- The replacement of the Route 40 retaining wall and culvert at Keyes Brook
- Main Street reconstruction/installation of drainage system, west of Graniteville Road
- Upgrading the drainage system in the Graniteville section of Town
- Bridge Street culvert installation to redirect Boutwell Brook to alleviate flooding



Town of Westford, MA

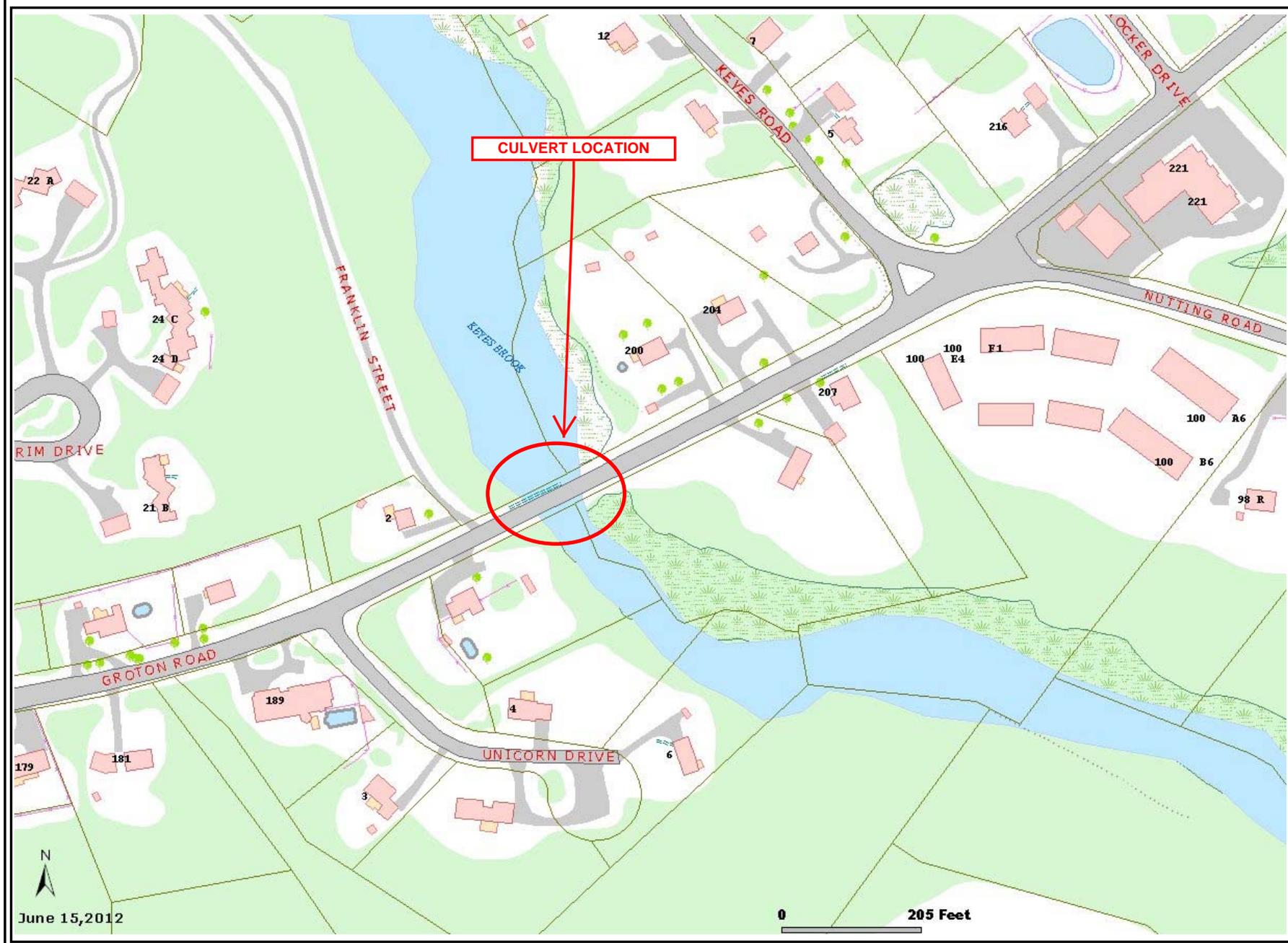
Highway Capital Project
Rt 40 Retaining Wall - Culvert

The Keyes Brook culvert passing under Groton Road (Route 40) is in failure and needs to be replaced. Improvements to the roadway, drainage and existing retaining walls on both the north and south sides of Groton Road is also required.

Estimated Construction: \$600,000

TOTAL = \$600,000

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.



June 15, 2012



**GROTON ROAD (ROUTE 40)
KEYES BROOK CULVERT**



Town of Westford, MA

Highway Capital Project

Main Street Drainage

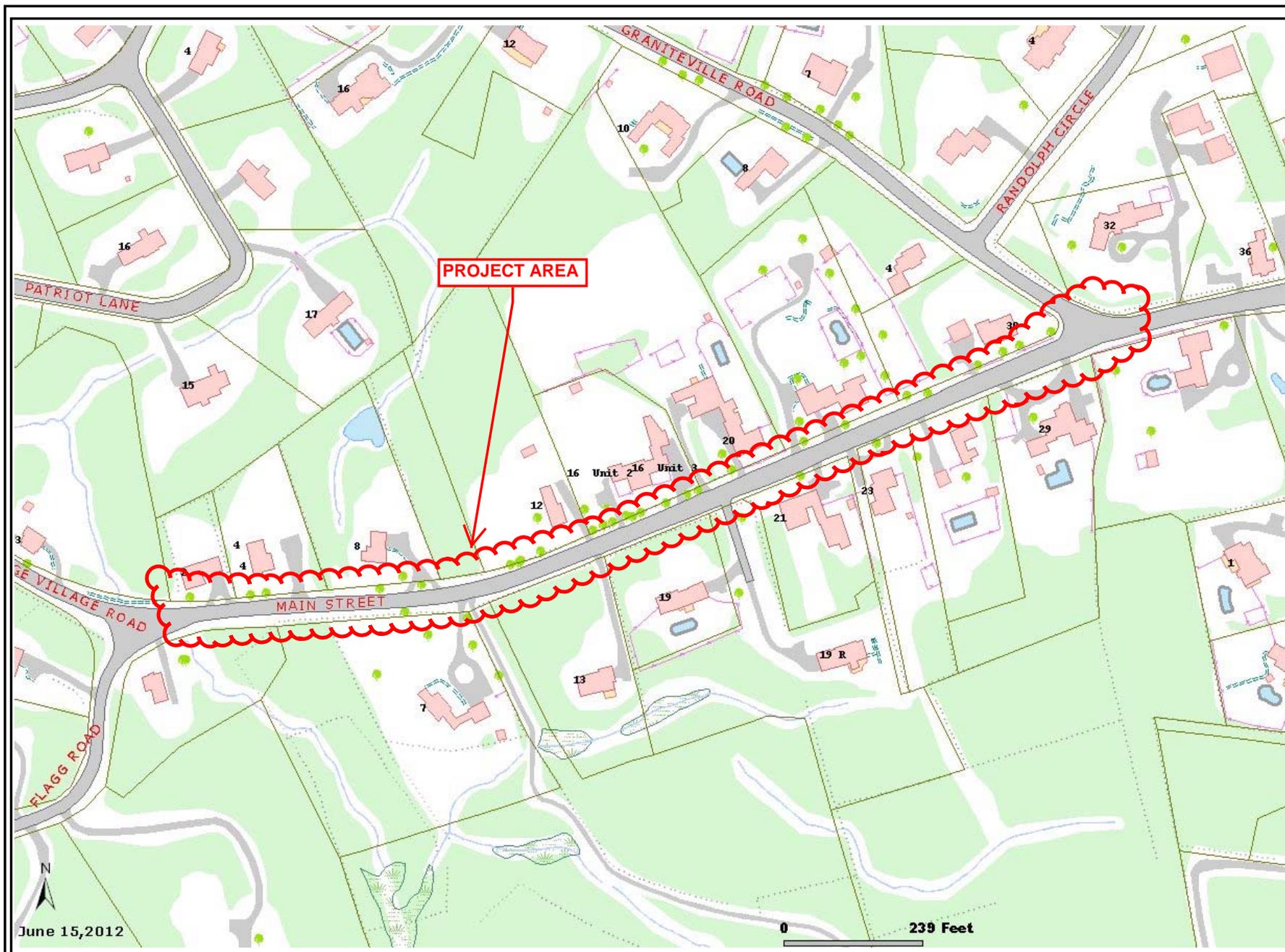
The existing roadway and drainage system on Main Street between Graniteville Road and Forge Village Road is currently inadequate and needs to be upgraded, including the installation of curbing on both sides of the road to channel runoff and prevent erosion. A new sidewalk is also needed along this stretch of roadway.

Estimated Design Costs: \$100,000

Estimated Construction: \$1,000,000

TOTAL = \$1.1 Million

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.





**MAIN STREET
WEST OF GRANITEVILLE ROAD**



Town of Westford, MA

Highway Capital Project

Graniteville Drainage Upgrade

The Graniteville area experiences flooding during moderate rainfall events. Drainage improvements would be necessary to alleviate existing flooding conditions.

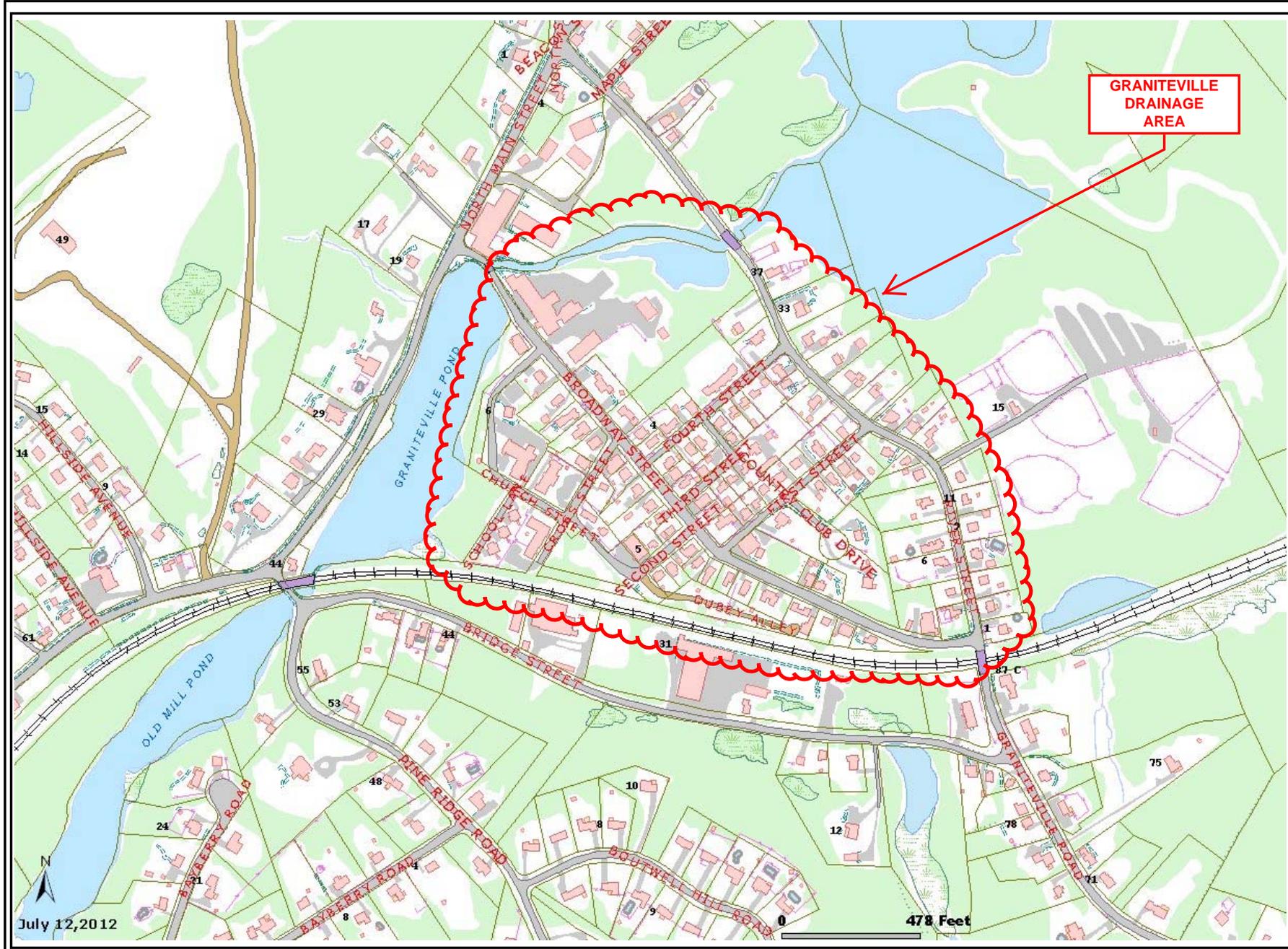
Estimated Design Cost: \$40,000

Estimated Construction: \$300,000

TOTAL = \$340,000

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.

GRANITEVILLE DRAINAGE AREA



July 12, 2012



GRANITEVILLE AREA



Town of Westford, MA

Highway Capital Project

Bridge Street Culvert

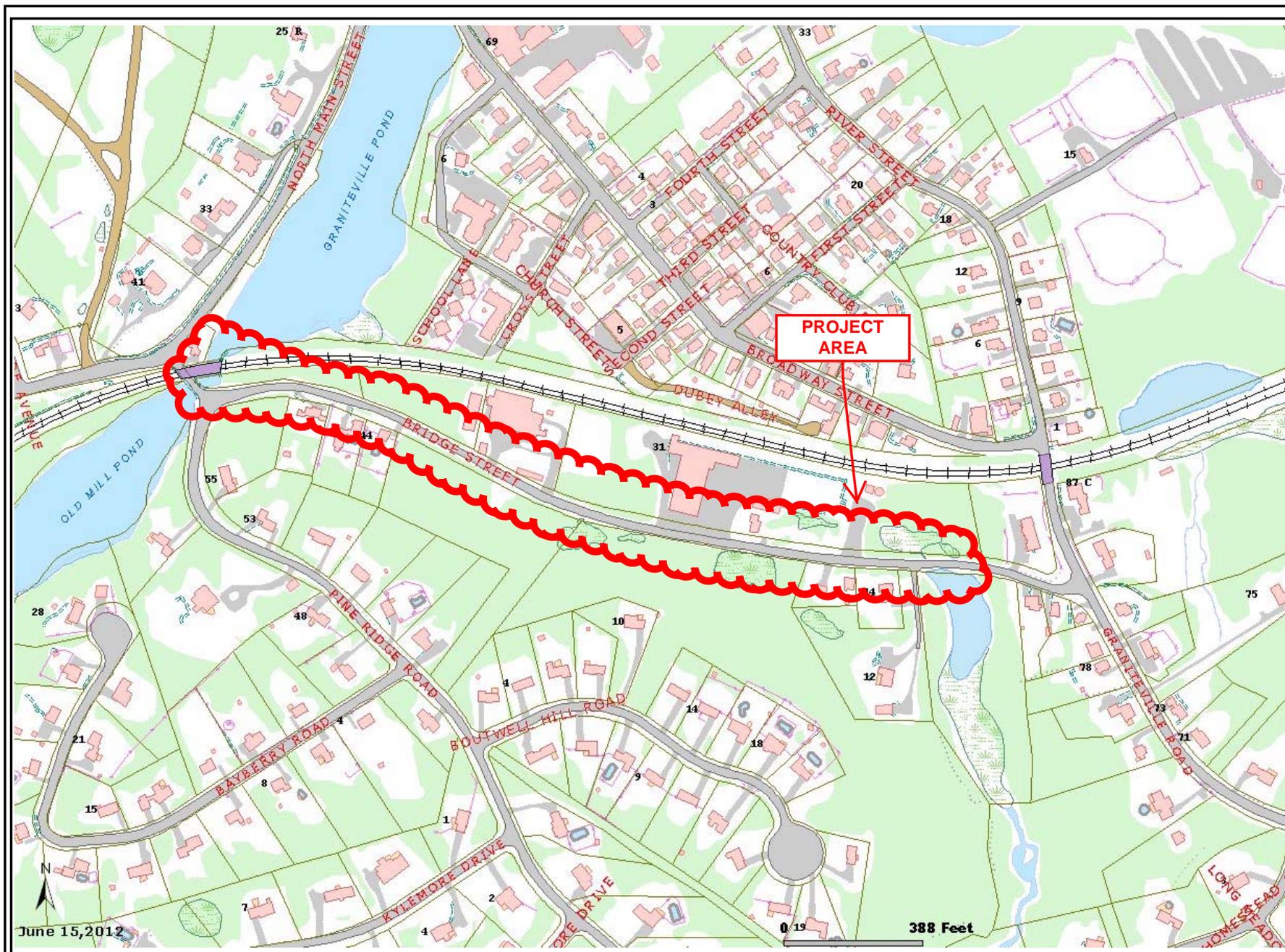
Boutwell Brook, in the vicinity of Bridge Street, is collected by several old culverts that convey the brook to Graniteville Pond and Stony Brook. The existing culverts are old, undersized and located on private property. Bridge Street periodically needs to be closed due to flooding during periods of moderate rainfall. A proposed improvement to existing conditions would be to re-direct Boutwell Brook into a new, larger culvert system constructed within the Bridge Street right of way.

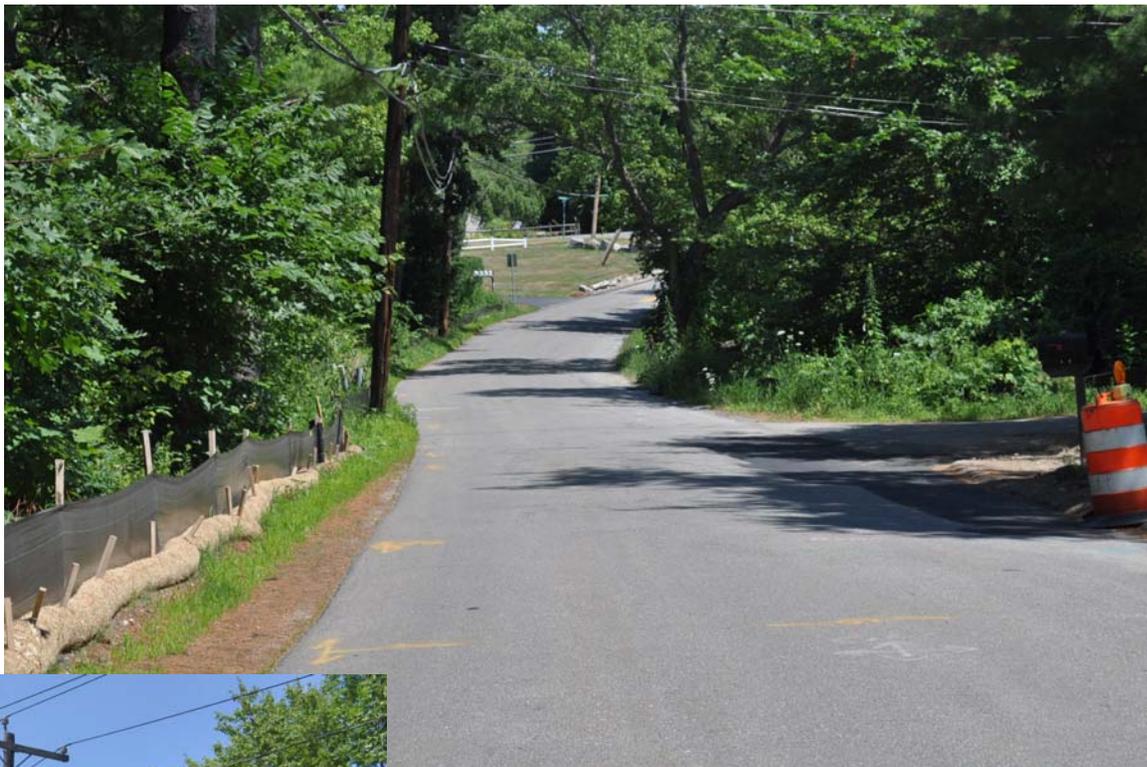
Estimated Design Costs:
\$75,000

Estimated Construction:
\$750,000

Total = \$825,000

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.





BRIDGE STREET

DAMS & BRIDGES

DAMS AND BRIDGES

The Town of Westford maintains dams and bridges on many of the Town's waterways. Although there are more than 10 dams located within Westford the Town owns and operates 3 of these structures. These structures are located at Byrne Avenue/Nabnasset Pond, Depot Street at Stony Brook, and Broadway Street at Stony Brook. Under State law these structures need to be inspected every 5 years. Yearly maintenance on these structures is performed under the Highway's operating budget. Over and above the maintenance component the Town should provide engineering analyses to maintain the long term feasibility of each structure and evaluate the pluses and minuses of the associated hazards.

These are the many bridges in Town that the Westford Highway Department is responsible for the maintenance of:

- Brookside Road over Stony Brook
- Stony Brook Road over Stony Brook
- Depot Street over Stony Brook
- River Street over Stony Brook
- Broadway Street over Stony Brook
- Bridge Street over Stony Brook
- Town Farm Road over Stony Brook
- Pleasant Street over Stony Brook
- Pleasant Street over Abbot Mill Canal

In addition to the Highway operating funds capital funds need to be used to maintain these structures, to ensure the safety of the public that travel over the structures and to ensure the long term structural components are maintained.



Town of Westford, MA

Highway Capital Projects

Beaver Brook Road Culvert

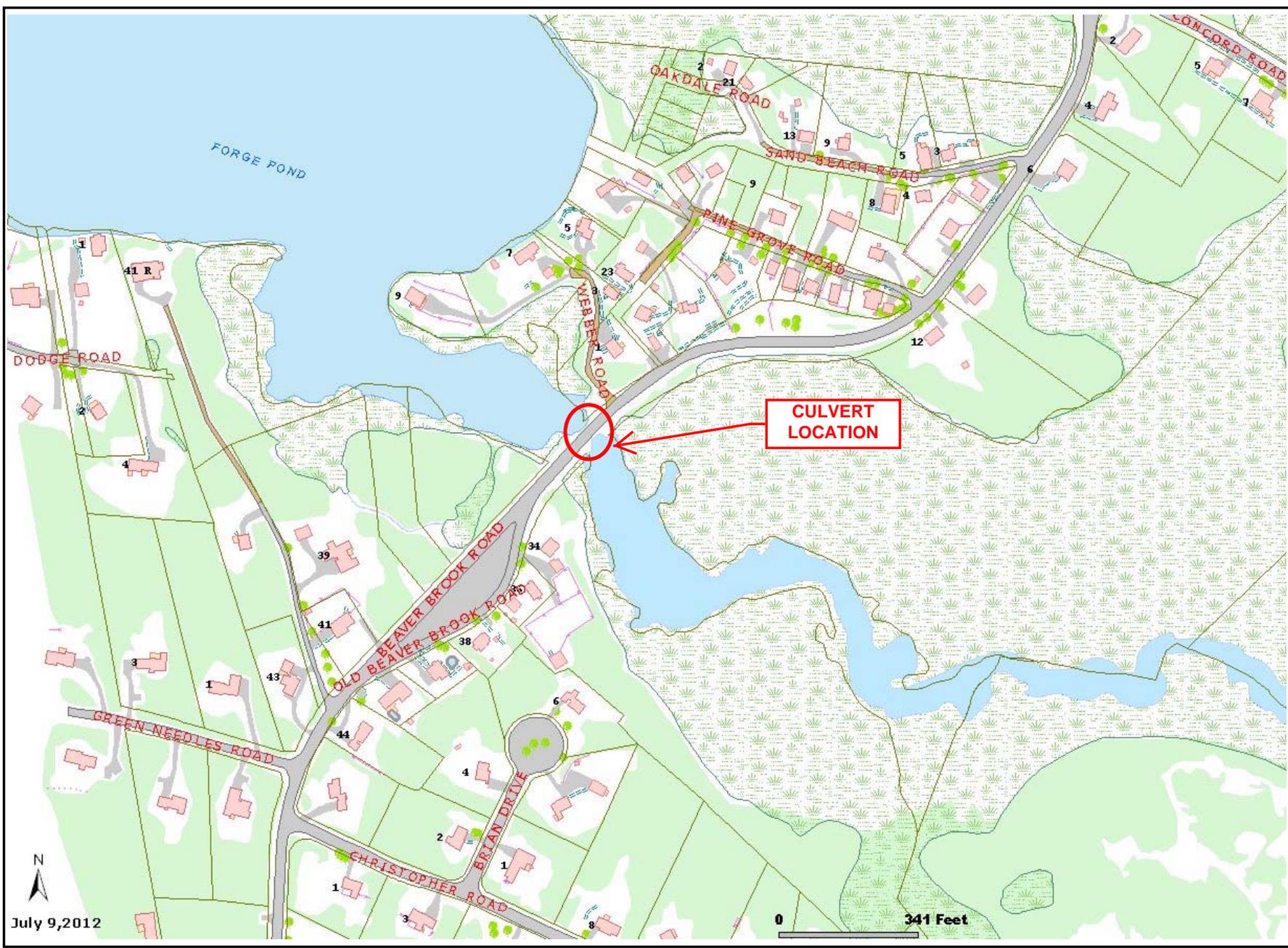
The dual culverts that carry Beaver Brook beneath Beaver Brook Road have been identified to be structurally deficient and require rehabilitation or replacement. The use of pipe sliplining technology has been identified as the most cost effective approach to rehabilitate the culverts.

Estimated Design Costs: \$23,000

Estimated Construction: \$230,000

TOTAL = \$253,000

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.



July 9, 2012

0 341 Feet



**BEAVER BROOK ROAD
CULVERTS**



Town of Westford, MA

Highway Capital Projects

Main Street Retaining Wall

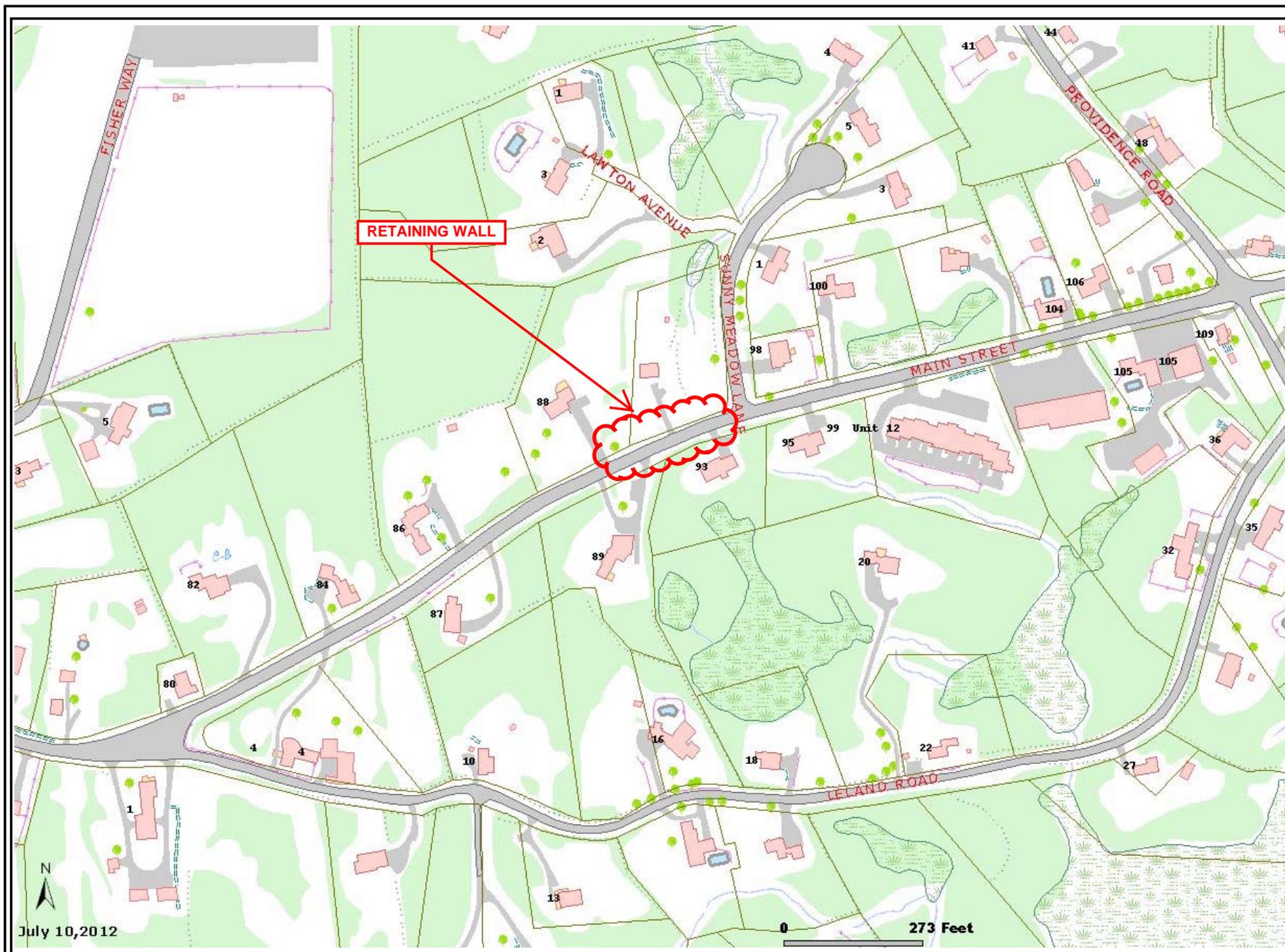
The Main Street roadway in the vicinity of the existing stone retaining wall is showing signs of settlement which indicates that the wall may be shifting. The wall needs to be inspected by a structural engineer which may result in a recommendation to replace the wall.

Estimated Design Costs: \$20,000

Estimated Construction: \$220,000

TOTAL: \$240,000

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.





**MAIN STREET
RETAINING WALL**



Town of Westford, MA

Highway Capital Projects

Bridge Street - Bridge Wall Guard Rails

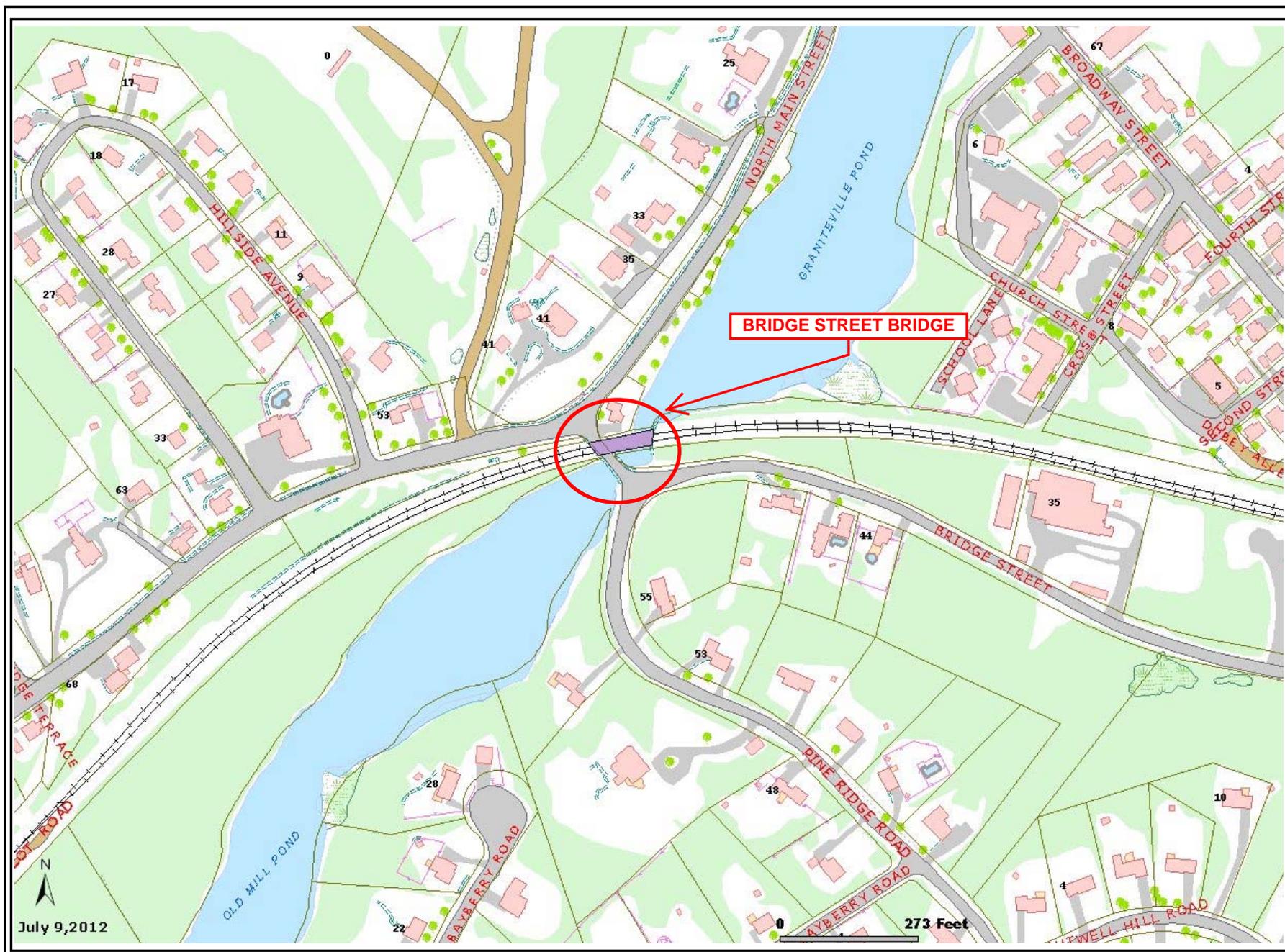
The installation of guard rails is recommended along portions of Bridge Street in the vicinity of the Bridge Street railroad bridge. The guard rails would provide a safety barrier between the roadway and adjacent ponds and bridge.

Estimated Design Costs: \$3,000

Estimated Construction: \$30,000

TOTAL = \$33,000

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.



July 9, 2012

273 Feet



**BRIDGE STREET
BRIDGE**



Town of Westford, MA

Highway Capital Projects

Stony Brook Road - Bridge Wall
Guard Rails

Guard rails have been recommended for the Stony Brook Road bridge in order to provide a safety barrier between the roadway and Stony Brook.

Estimated Design Costs: \$3,000

Estimated Construction: \$30,000

TOTAL = \$33,000

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.



July 9, 2012



**STONY BROOK ROAD
BRIDGE**



Town of Westford, MA

Highway Capital Projects

Depot Street Dam

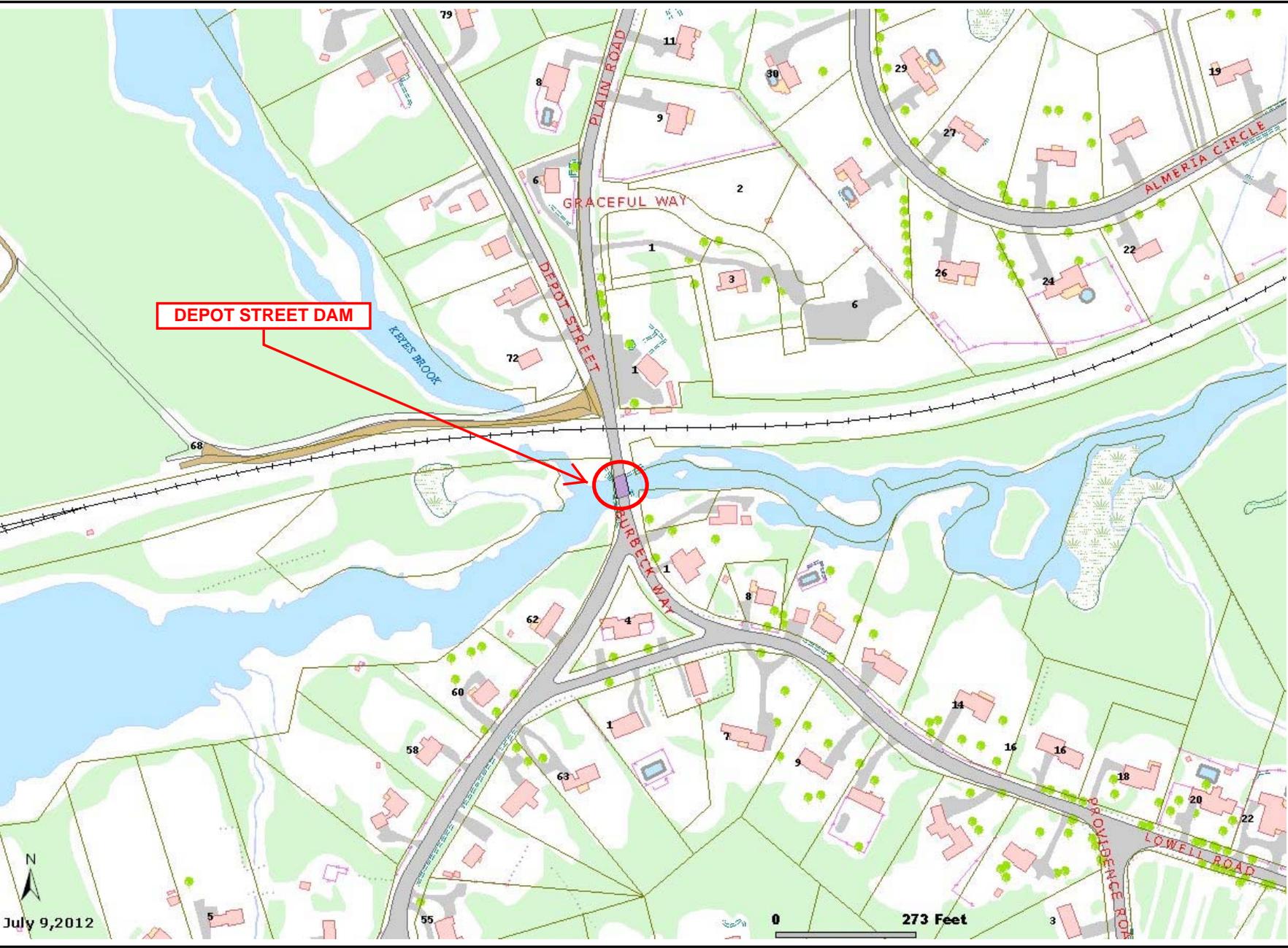
An evaluation of the Westford Depot Dam was performed by Weston & Sampson on 9/2/10 and documented in a written report. The report identified several issues that should be addressed to preserve the integrity and functionality of the dam. The following are the estimated costs for the recommended work.

Studies & Analyses:
\$17,000

Repairs & Remedial Recommendations:
\$200,000

TOTAL = \$217,000

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.



DEPOT STREET DAM

July 9, 2012

0 273 Feet



DEPOT STREET DAM



Town of Westford, MA

Highway Capital Project

Stony Brook Dam

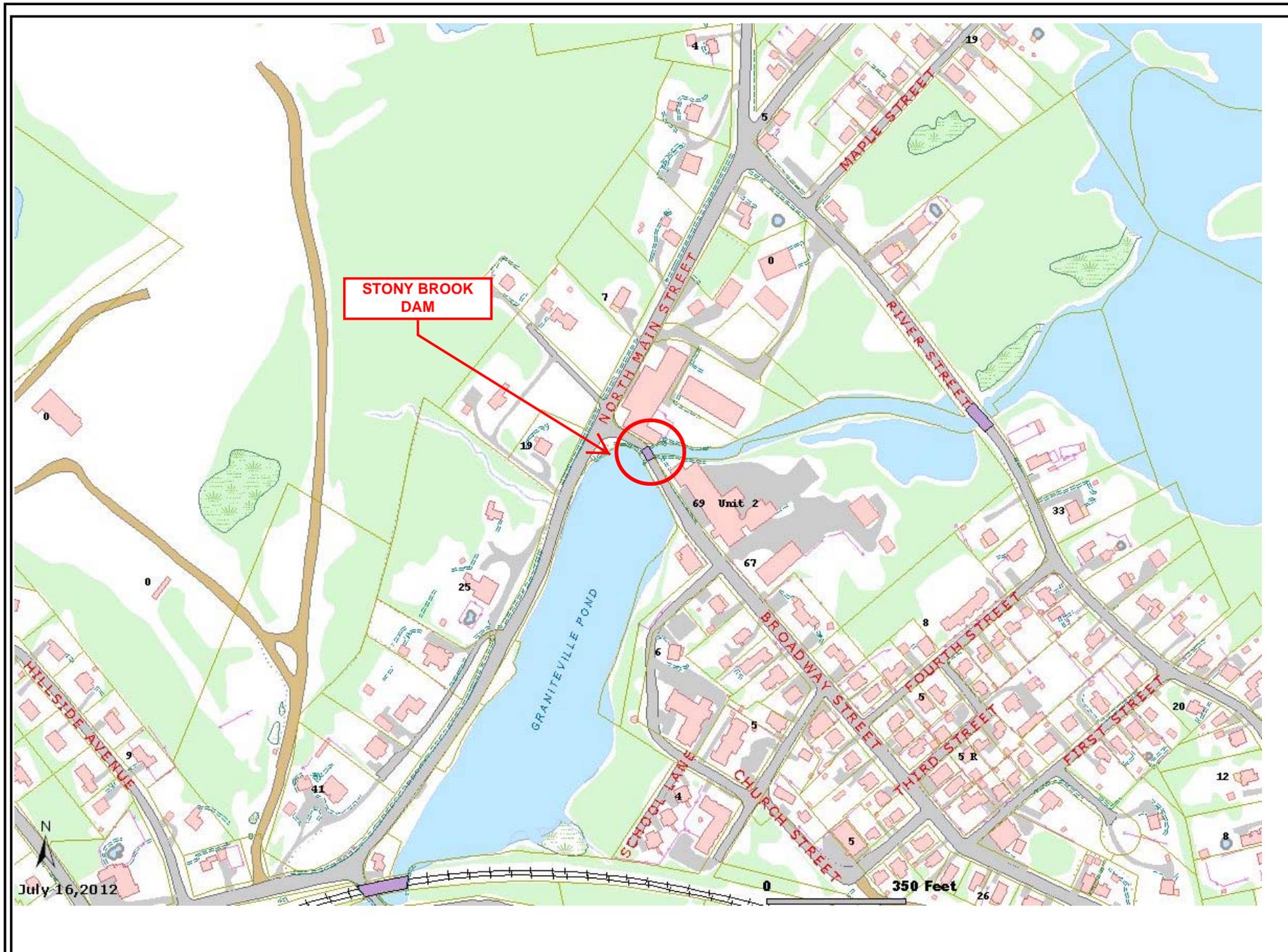
An evaluation of the Westford Stony Brook Dam was performed by Weston & Sampson on 12/8/11 and documented in a written report. The report identified several issues that should be addressed to preserve the integrity and functionality of the dam. The following are the estimated costs for the recommended work.

Studies & Analyses:
\$13,000

Repairs & Remedial Recommendations:
\$288,000

TOTAL = \$301,000

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.





**STONY BROOK
DAM**



Town of Westford, MA

Highway Capital Project

Nabnasset Pond Dam

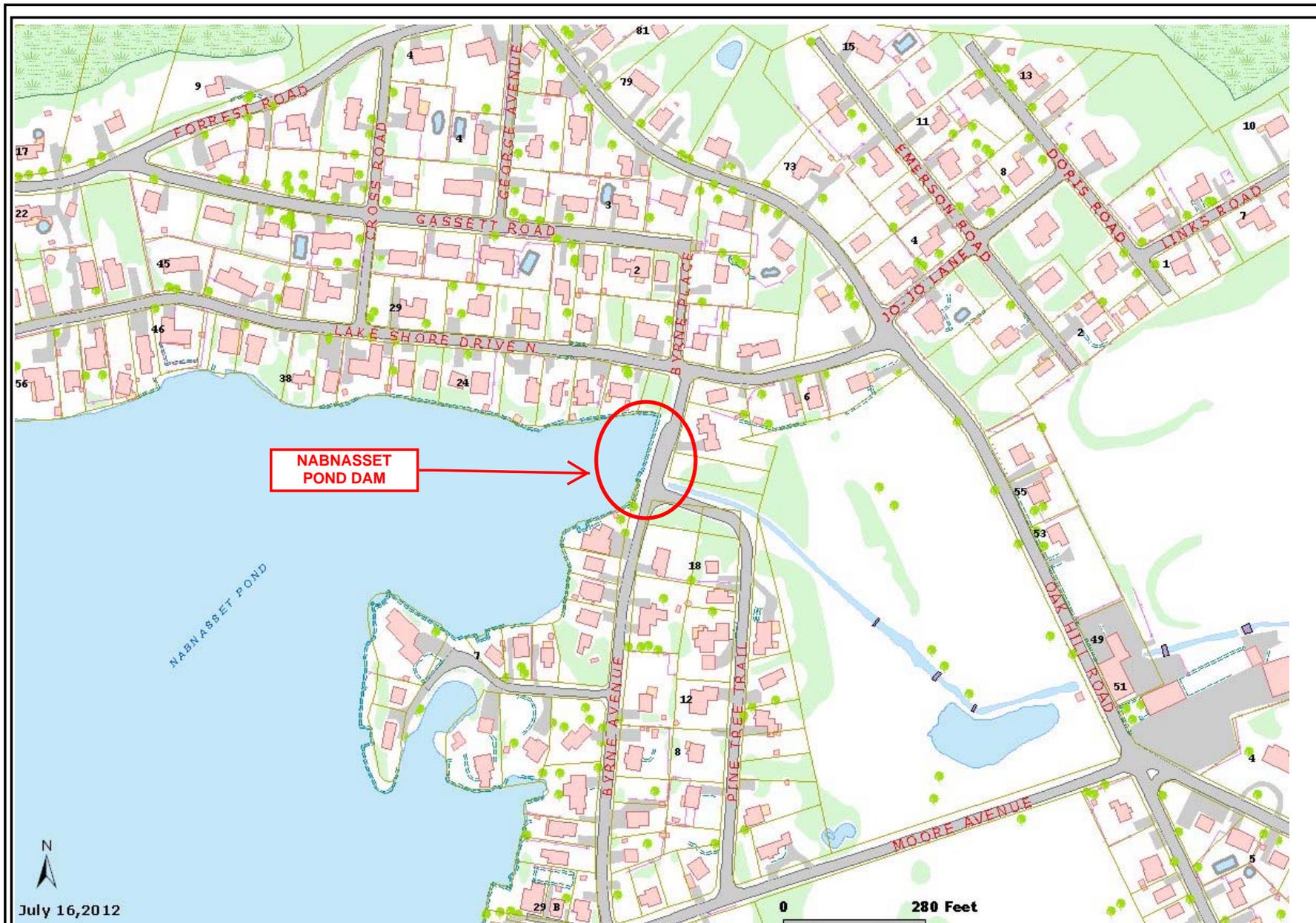
An evaluation of the Nabnasset Pond Dam was performed by Weston & Sampson on 12/8/11 and documented in a written report. The report identified several issues that should be addressed to preserve the integrity and functionality of the dam. The following are the estimated costs for the recommended work.

Studies & Analyses:
\$11,000

Repairs & Remedial
Recommendations:
\$174,000

TOTAL = \$185,000

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.





**NABNASSET POND
DAM**

FLEET REPLACEMENT

HIGHWAY FLEET REPLACEMENT

The Westford Highway Department fleet consists of vehicles ranging from the smallest tractor and trailer to large earth moving equipment such as our caterpillar road grader. The Highway Departments vehicles support the operational needs for not only the Highway Department but the Parks, Cemetery and Engineering departments in Town.

Because of reduced capital budgets over the last ten years we have not been able to keep up with the scheduled replacement needs of equipment. This leads to outdated equipment that is not able to perform to modern equipment expectations. Some of these deficiencies include economic aspects of fleet management such as higher fuel usage, increased maintenance costs, outdated components that lead to inefficiencies, safety related issues and uncertainty of catastrophic repairs or failures.

A 5 year budget request outlining recommended capital fleet acquisitions for the future is included in the Capital Budget Requests section of this report which can be found on Page 10. Representative photos of the various vehicles and equipment include in this capital request can be found on the following pages.



10 WHEELER DUMP TRUCK



4X4 HEAVY 6 WHEELER PLOW



1 TON TRUCK



HEAVY 6 WHEELER PLOW (8yd)



BOBCAT



BRUSH TRACTOR



FARM TRACTOR



FRONT END LOADER



WOOD CHIPPER



COMPRESSOR



SWAPLOADER ASPHALT PATCH BODY



PICKUP TRUCK



10 TON EQUIPMENT TRAILER



EQUIPMENT TRAILER