

Town of Acton

Sidewalk Cost Estimate



Prepared For:

Sidewalk Committee

Prepared By:

Engineering Department

April 30, 2008

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Attachment A	Town Map of Sidewalks
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SUMMARY

This Sidewalk Cost Estimate is a compilation of the estimated costs to construct sidewalks for the sections of roadway requested by the Sidewalk Committee. The actual costs of construction may differ from what is presented here due to adjustments in design, changes in material costs, or inflation.

A base cost to construct the proposed sidewalks was developed by designing a typical section of sidewalk to be assumed throughout the project. This typical section design was based on current optimal sidewalk construction standards. In some areas, due to constraints, this standard may not be achievable.

The route of each sidewalk was determined on site through field analyses and observations. The initial considerations were connecting the proposed sidewalk to existing ones in the area. Site restraints and traffic interactions were then considered and finally, the construction requirements were determined. Using this gathered information and engineering judgment, the route for the proposed sidewalk was decided upon.

Table 1 is a summary of the estimated cost to construct each sidewalk, including the cost per foot. Roads with an asterisk have been designated as scenic roads, which provides in part that any removal of trees or stone walls requires prior written consent of the Planning Board after a public hearing.

The majority of sidewalks will require easements from abutters and sidewalks within the 100-foot wetland's buffer zone will require a Notice of Intent filing with the Conservation Commission.

Table 1 – Summary of Costs

Location	Length [FT]	Base Cost (x\$45.07/FT)	Additional	Total	Cost / Foot
High Street (77 High Street to Parker Street)*	4,275	\$192,674	\$596,159	\$788,833	\$184.52
River Street (School Street to Parker Street)	5,000	\$225,350	\$553,106	\$778,456	\$155.69
Main Street (Great Road to North Street)	6,000	\$270,420	\$330,931	\$601,351	\$100.23
Main Street - Northern Side (Post Office Square to Great Road)	4,250	\$191,548	\$191,872	\$383,420	\$90.22
Piper Road (School Street to Farmstead Way)*	3,700	\$166,759	\$196,188	\$362,947	\$98.09
Parker Street (School Street to Drummer Road) ¹	4,550	\$205,069	\$128,846	\$333,915	\$73.39
Willow Street (Duggan Road to Marian Road)	3,075	\$138,590	\$183,238	\$321,828	\$104.66
Taylor Road (Main Street to Route 2)*	3,900	\$175,773	\$124,703	\$300,476	\$77.05
Main Street - Southern Side (Post Office Square to Great Road) ²	4,200	NA	NA	\$220,000	\$52.38
Central Street (Willow Street to Windsor Avenue)	1,865	\$84,056	\$129,764	\$213,820	\$114.65
High Street (30 High Street to 46 High Street)*	500	\$22,535	\$162,404	\$184,939	\$369.88
School Street (Hosmer Street to Lawsbrook Road)	1,500	\$67,605	\$79,698	\$147,303	\$98.20
Great Road (Nonset Path to Henley Road)	1,675	\$75,492	\$36,896	\$112,388	\$67.10

¹ Estimate does not include a pedestrian crossing at the railroad intersection.

² Estimate is based on the previous design as presentation at the 2008 Annual Town Meeting.

Location	Length [FT]	Base Cost (x\$45.07/FT)	Additional	Total	Cost / Foot
Great Road (Main Street to Davis Road)	1,600	\$72,112	\$36,555	\$108,667	\$67.92
Willow Street (Kingman Road to Central Street)	2,250	\$101,408	\$6,657	\$108,065	\$48.03
Prospect Street (Main Street to Central Street)	1,850	\$83,380	\$2,215	\$85,595	\$46.27
Great Road (Azalea Road to Keefe Road)	800	\$36,056	\$20,285	\$56,341	\$70.43
Massachusetts Avenue (Juniper Ridge Road to Birch Ridge Road)	1,200	\$54,084	\$1,828	\$55,912	\$46.59
Summer Street (Willow Street to Central Street)	750	\$33,803	\$5,175	\$38,978	\$51.97
Minot Avenue (Conant School to Taylor Road)*	750	\$33,803	\$1,515	\$35,318	\$47.09
Martin Street (Maple Street to Central Street) ¹	600	\$27,042	\$0	\$27,042	\$45.07
Powder Mill Road (Maynard to Concord)	350	\$15,775	\$1,645	\$17,420	\$49.77
Summer Street (Ethan Allen Drive to 148 Summer Street)	180	\$8,113	\$666	\$8,779	\$48.77
Total	54,820	\$2,281,443	\$2,790,346	\$5,291,789	\$96.53

The most expensive aspect of the sidewalk cost estimate were the retaining walls and tree removal. The estimates assumed the use of dry-set stone for their construction, however interlocking architectural blocks may be substituted at approximately a third of the cost. Table 2 in the Conclusion provides a comparison of these costs. The estimates also assumed that more or less trees could be removed during construction depending on the final layout. Therefore, the tree removal costs could increase or decrease in value.

TYPICAL BASE COST

The base cost to construct the proposed sidewalks was developed by initially designing a typical section of sidewalk to be assumed throughout the project. This typical section design was based on current optimal sidewalk construction standards. In some areas, due to constraints, this standard may not be achievable.

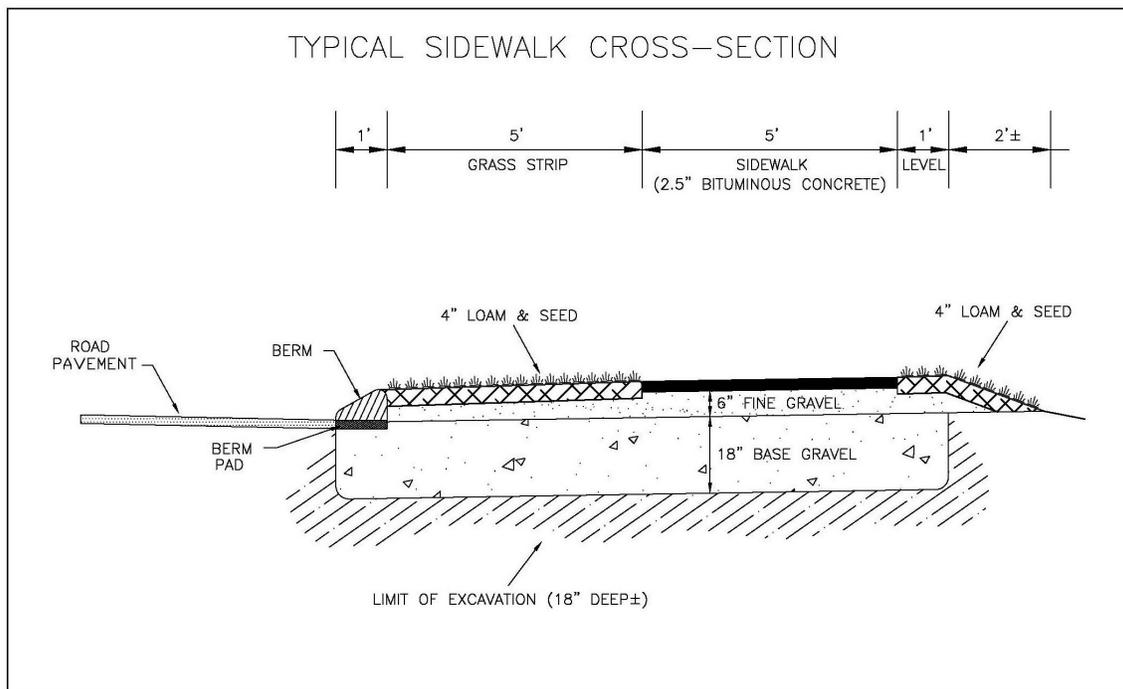
The typical section design was used to estimate material quantities required to construct a length of sidewalk. The design includes a 14-foot wide area that is comprised of a 1-foot roadway berm, a 5-foot grass strip, a 5-foot sidewalk, a 1-foot level area, and a 2-foot transitional slope (See Figure 1).

Construction of the typical section requires site preparation, installation of suitable materials, as well as paving and landscaping. Site preparation aspects include clearing trees and their respective stumps as well as brush and any smaller trees in the area. Site preparation also includes excavating and removing unsuitable materials such as rock or boulders. Installation of suitable materials includes importing and compacting gravels to proper grades as well as placing loam for seeding. Final paving and landscaping includes installing asphalt berms and the walkway as well as hydro-seeding the loam.

Using the estimated material quantities generated from the typical section and the construction reference manual, "RSMMeans Sitework Cost Data 2007", the base cost per foot of typical sidewalk was determined to be \$45.07 per foot.

The majority of sidewalks will require easements from abutters and sidewalks within the 100-foot wetland's buffer zone will require a Notice of Intent filing with the Conservation Commission.

Figure 1 – Typical Section Design



INDIVIDUAL SIDEWALK ANALYSIS

The Sidewalk Committee proposed sections of roadway to be included in the Town of Acton's Sidewalk Cost Estimate. A map of the Town of Acton indicating the proposed sidewalks in relation to the existing ones can be found in Attachment A.

These proposed sidewalks were individually analyzed and the route of each sidewalk was determined on site through field analyses and observations. The initial considerations were connecting the proposed sidewalk to existing ones in the area. Site restraints and traffic interactions were then considered and finally, the construction requirements were determined. Using this gathered information and engineering judgment, the route for the proposed sidewalk was decided upon.

The following sections include a description of each individual sidewalk analysis. Included with each analysis is a description of the sidewalk with any additional construction requirements, a Locus Map displaying the topographic features of the area, and a Layout Map with the sidewalk indicated in relation to the residential lots, wetland, and flood-plane areas. The layout maps were compiled from the flood-plane maps, which indicate wetland areas with a cross hatch and flood-plane areas with a solid grey.

Each analysis also includes the typical base cost for the respective section of sidewalk as well as the estimated cost due to any additional construction requirements. The actual costs of construction may differ from what is presented here due to adjustments in design, changes in material costs, or inflation. In addition, photos of respective construction aspects can be found at the end of each section.

Central Street

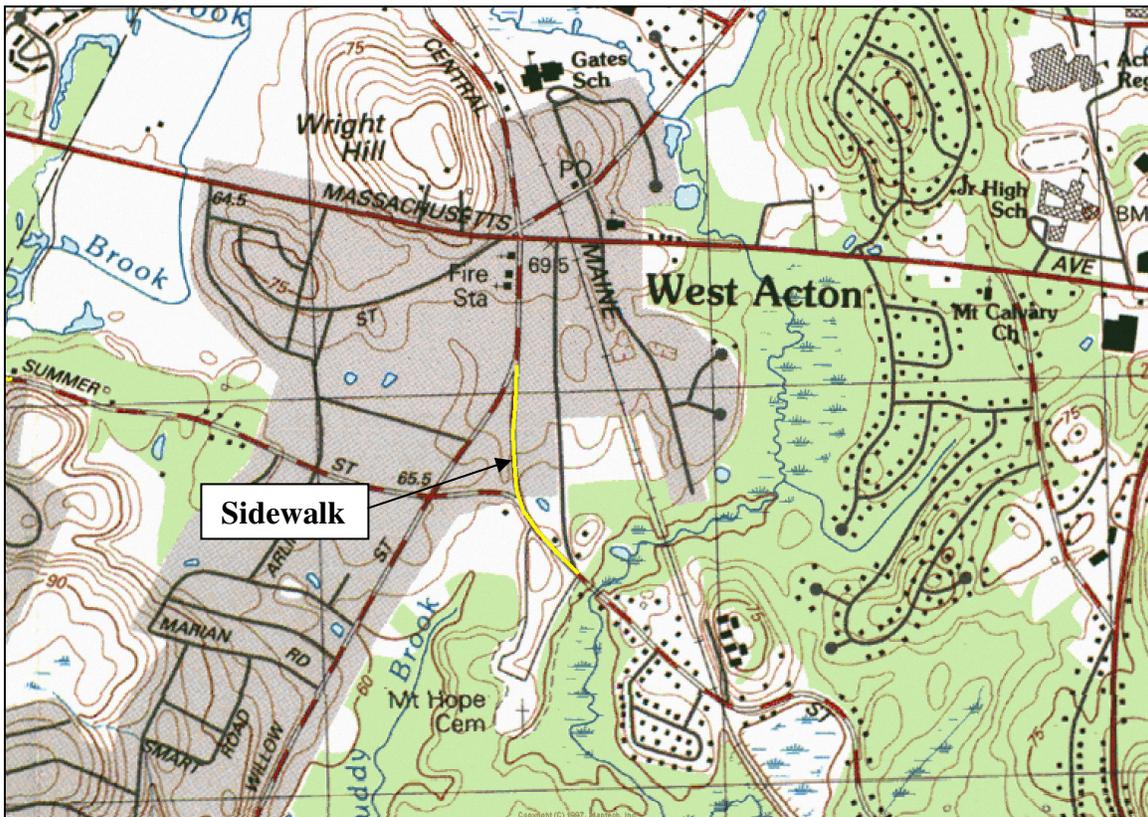
(Willow Street to Windsor Avenue)

The Central Street sidewalk consists of the section between Willow Street and Windsor Avenue, along Mount Hope Cemetery, crossing Summer Street, then crossing the roadway from the west to the east side. The total length is approximately 1,865 feet, which calculates to a base cost of \$84,056.

In addition to the typical design, construction of the Central Street sidewalk requires importing and placement of 338 cubic yards of fill, 5 trees removed, 888 square feet of pavement striping, as well as 190 feet of 8-foot stone retaining walls. Using RSMeanS Sitework Cost Data 2007, an estimate of the additional costs is \$129,764.

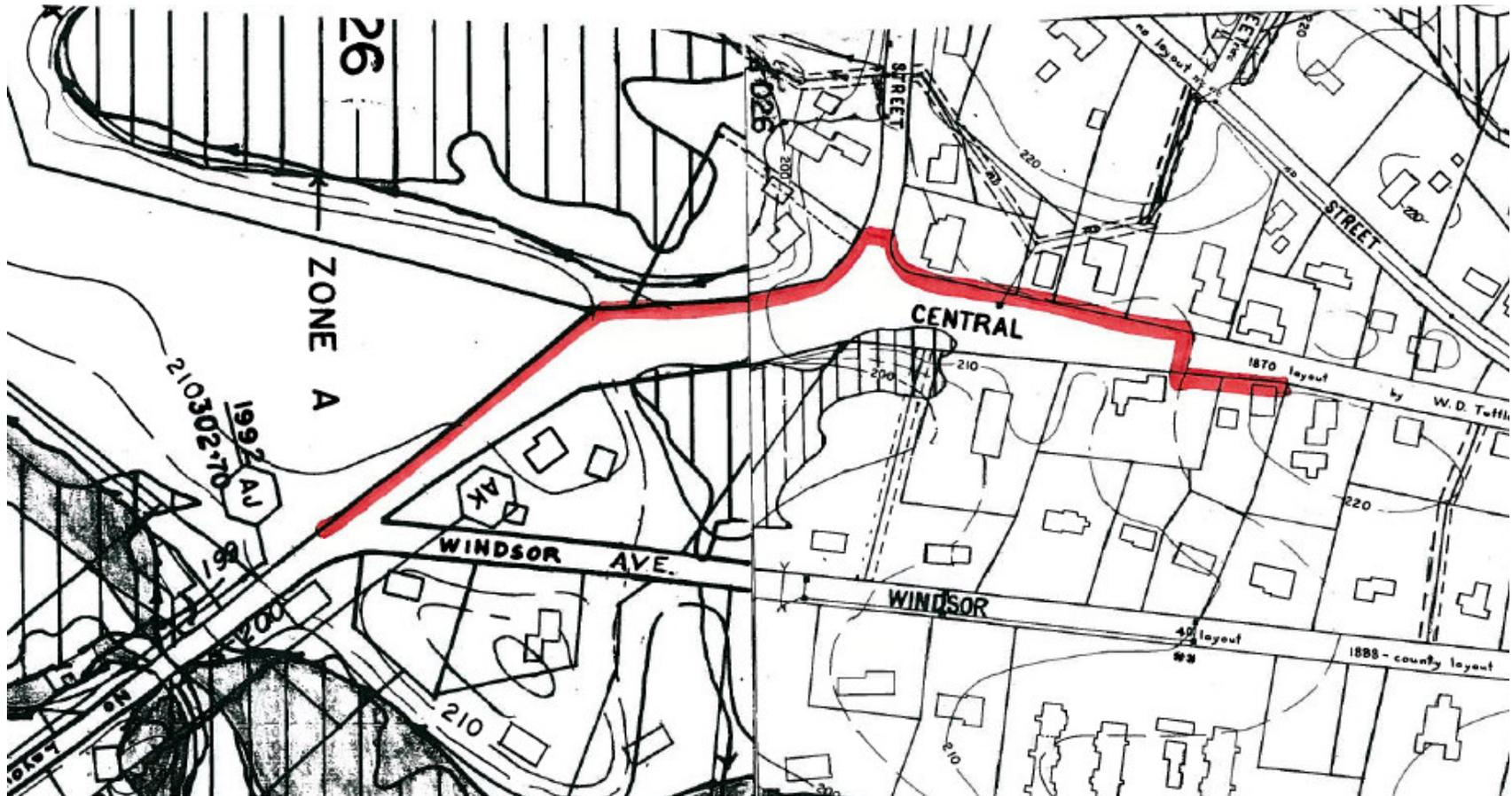
The summation of the base and additional costs leads to a total cost of \$213,820, which equates to a cost per foot of \$114.65.

Locus Map



There has been a petition submitted requesting safety improvements to the Summer Street / Central Street intersection - this evaluation should be done concurrently with the sidewalk design. Costs for intersection improvements are not included in this estimate.

Layout Map



Photos



Great Road

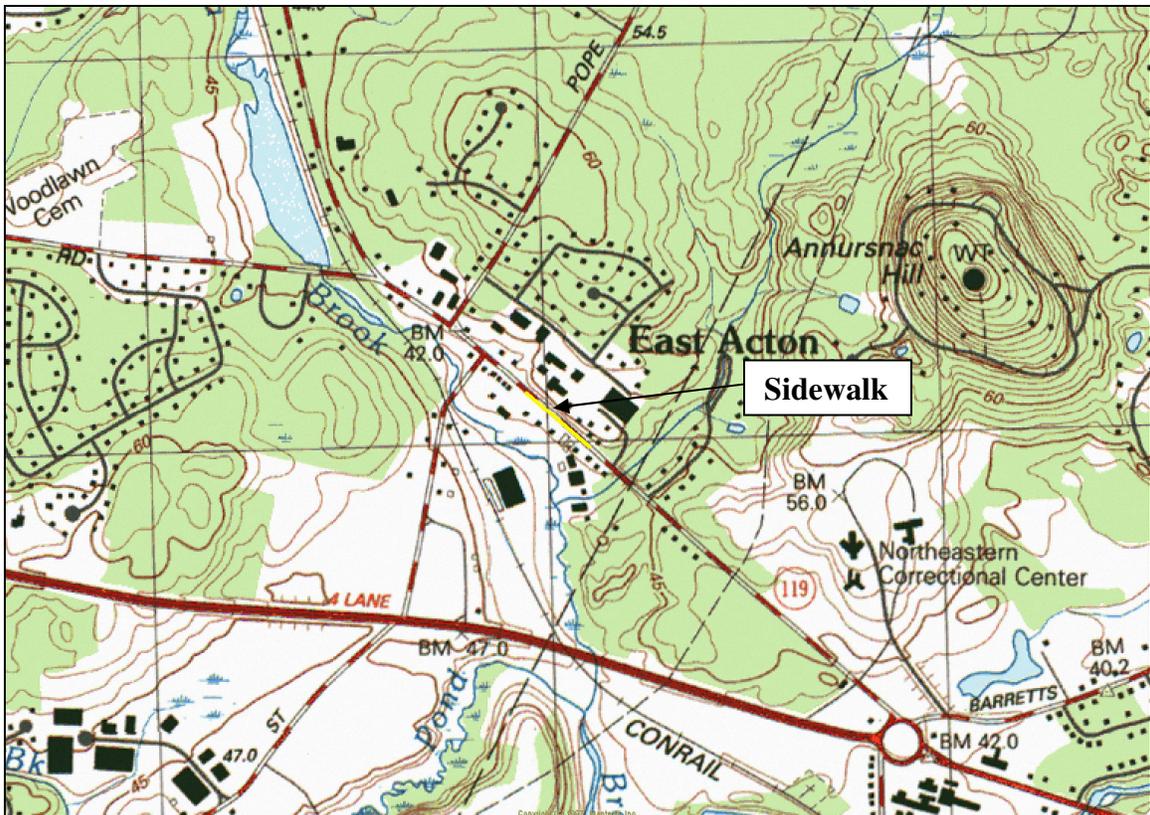
(Azalea Road to Keefe Road)

The Great Road sidewalk consists of the section between Azalea Road to Keefe Road, along the eastern side of the roadway. The length of the proposed sidewalk is approximately 800 feet, which calculates to a base cost of \$36,056.

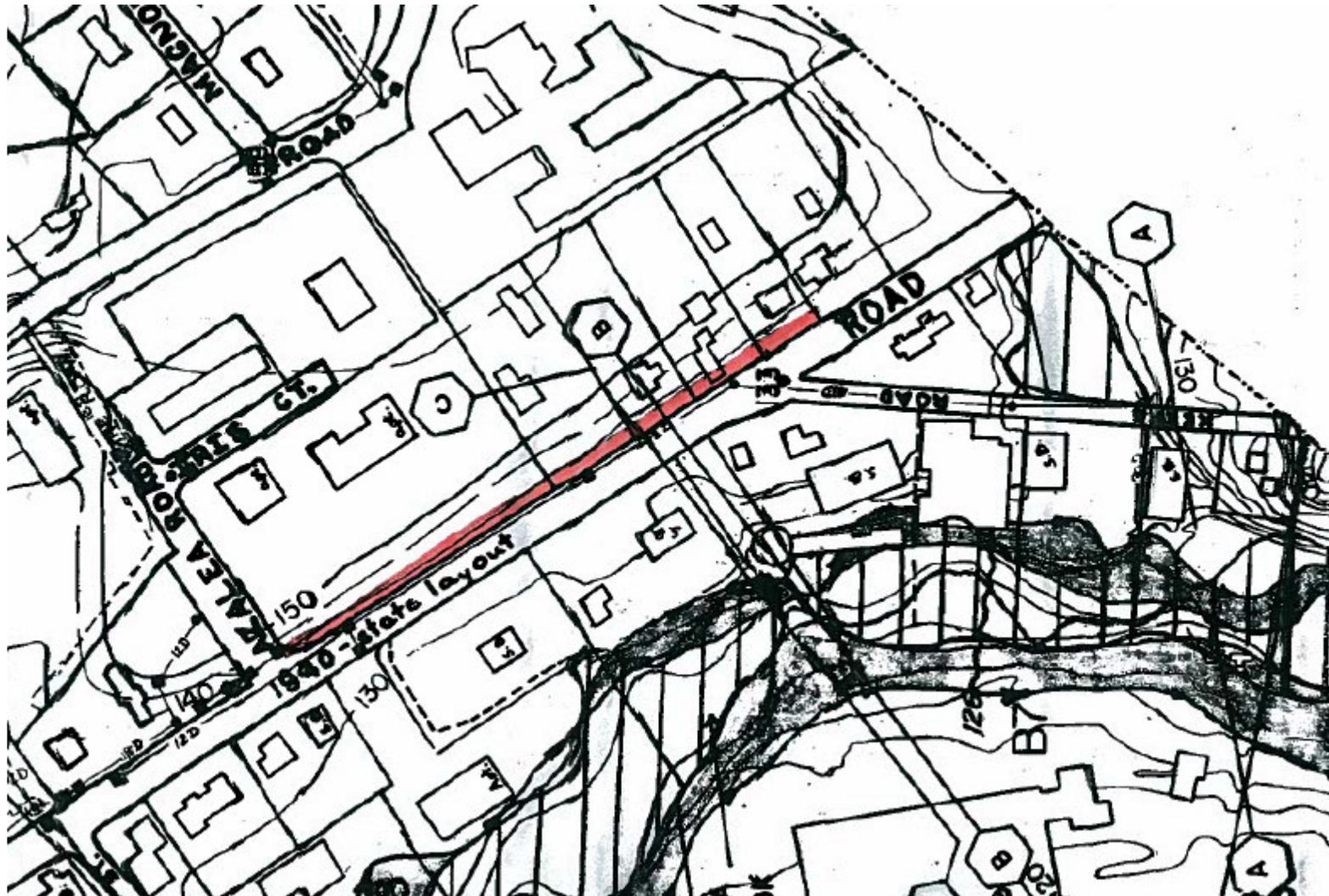
In addition to the typical design, construction of the Great Road sidewalk requires 4 trees removed and 800 feet of vertical granite curb. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$20,285.

The summation of the base and additional costs leads to a total cost of \$56,341, which equates to a cost per foot of \$70.43.

Locus Map



Layout Map



Photos



Great Road

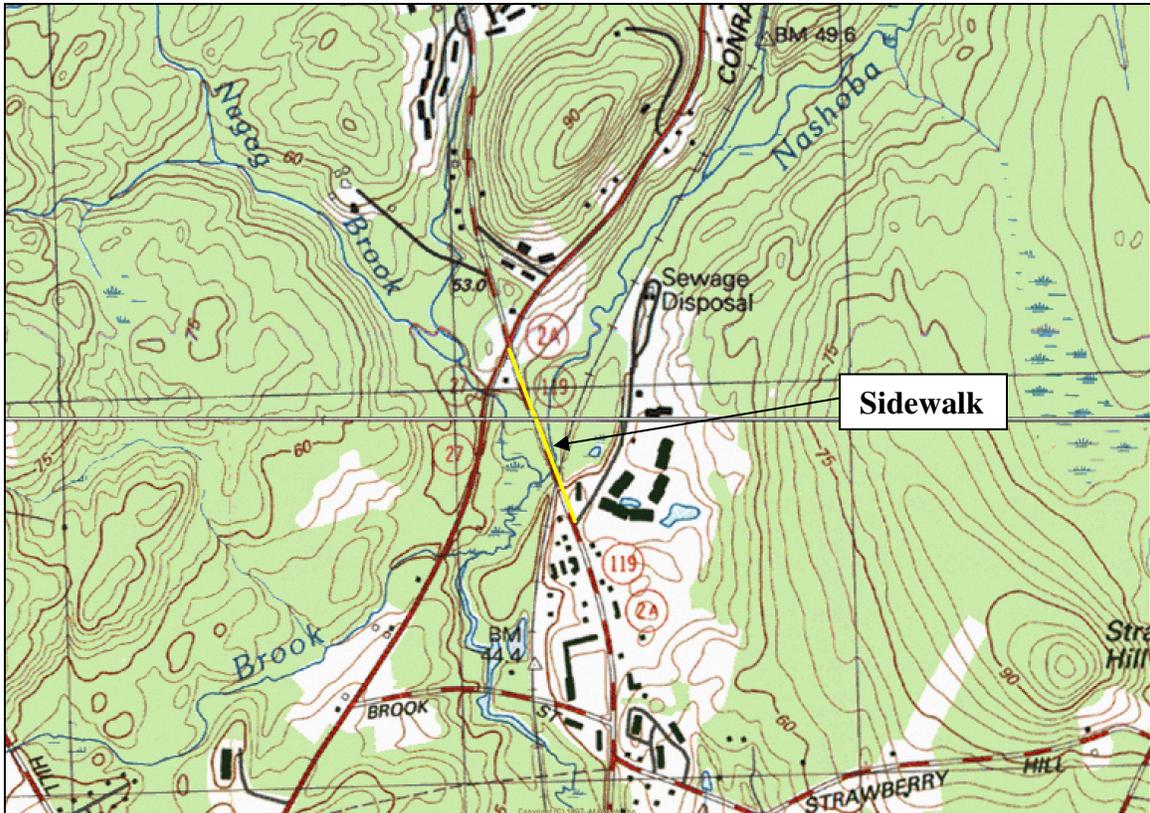
(Main Street to Davis Road)

The Great Road sidewalk consists of the sections between Main Street to Davis Road, along the eastern side of the roadway. The length of the proposed sidewalk is approximately 1,600 feet, which calculates to a base cost of \$72,112.

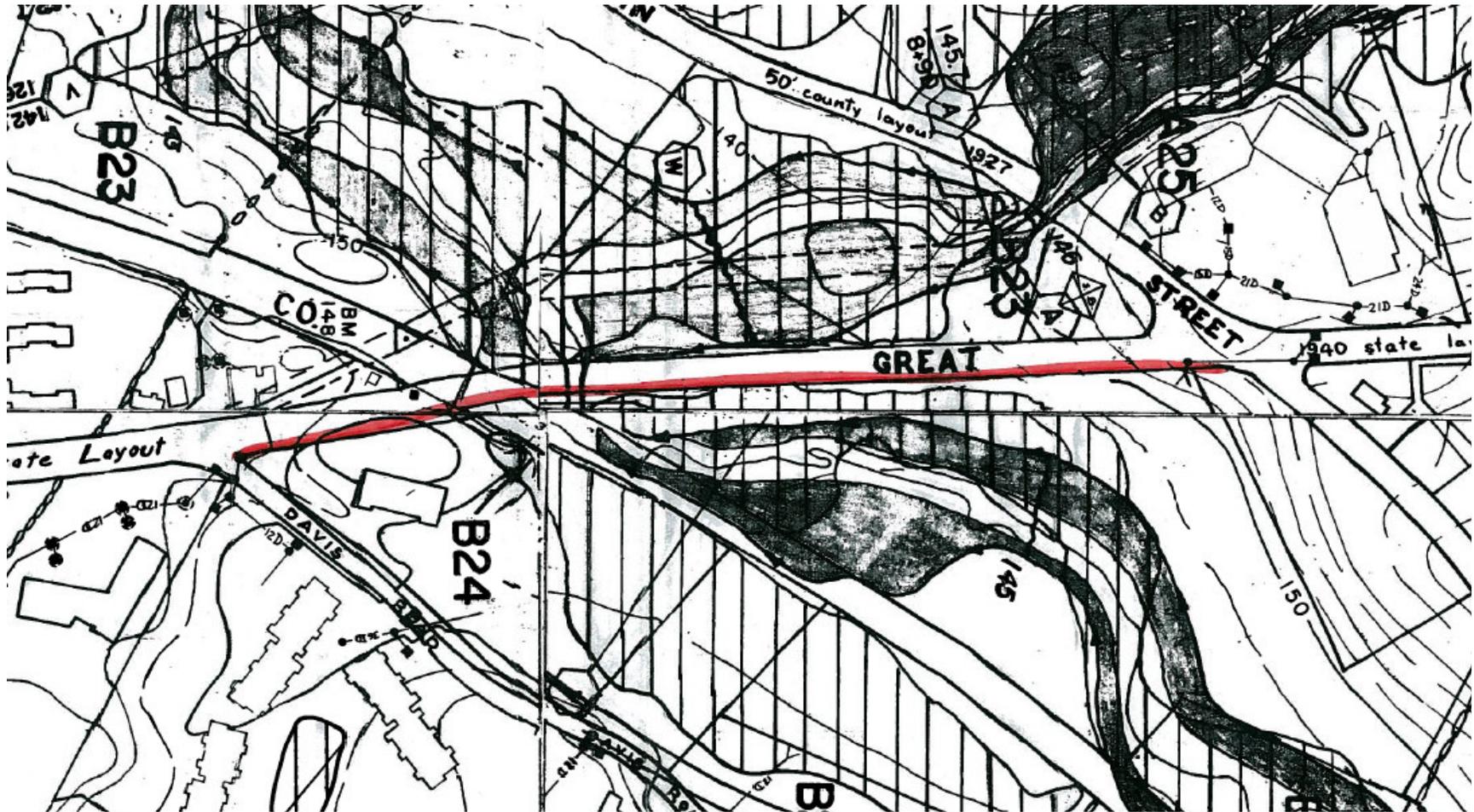
In addition to the typical design, construction of the Great Road sidewalk requires importing and placement of 204 cubic yards of fill and 1,600 feet of vertical granite curb. Using RSMeans Sitework Cost Data 2007, an estimate of the additional costs is \$36,555.

The summation of the base and additional costs leads to a total cost of \$108,667, which equates to a cost per foot of \$67.92.

Locus Map



Layout Map



Photos



Great Road

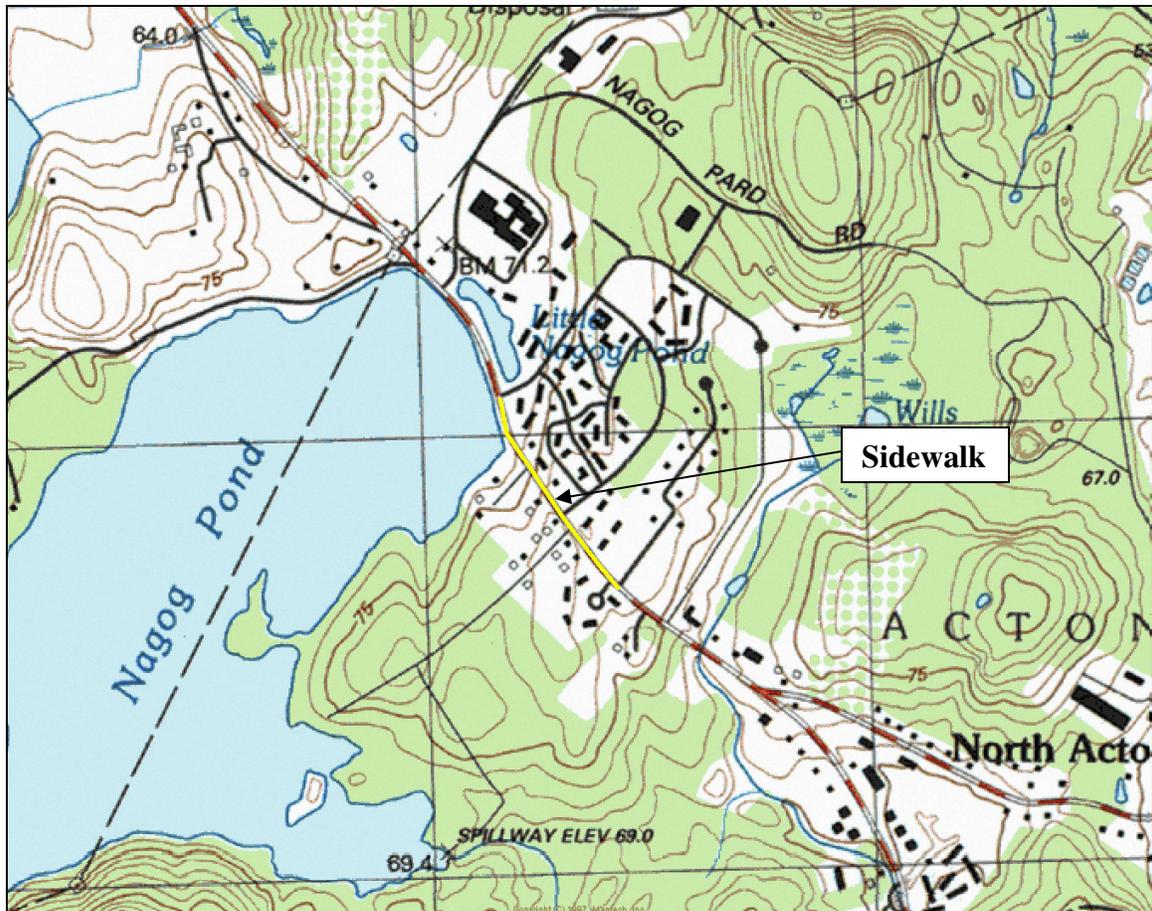
(Nonset Path to Henley Road)

The Great Road sidewalk consists of the sections between Nonset Path and Henley Road, along the eastern side of the roadway. The length of the proposed sidewalk is approximately 1,675 feet, which calculates to a base cost of \$75,492.

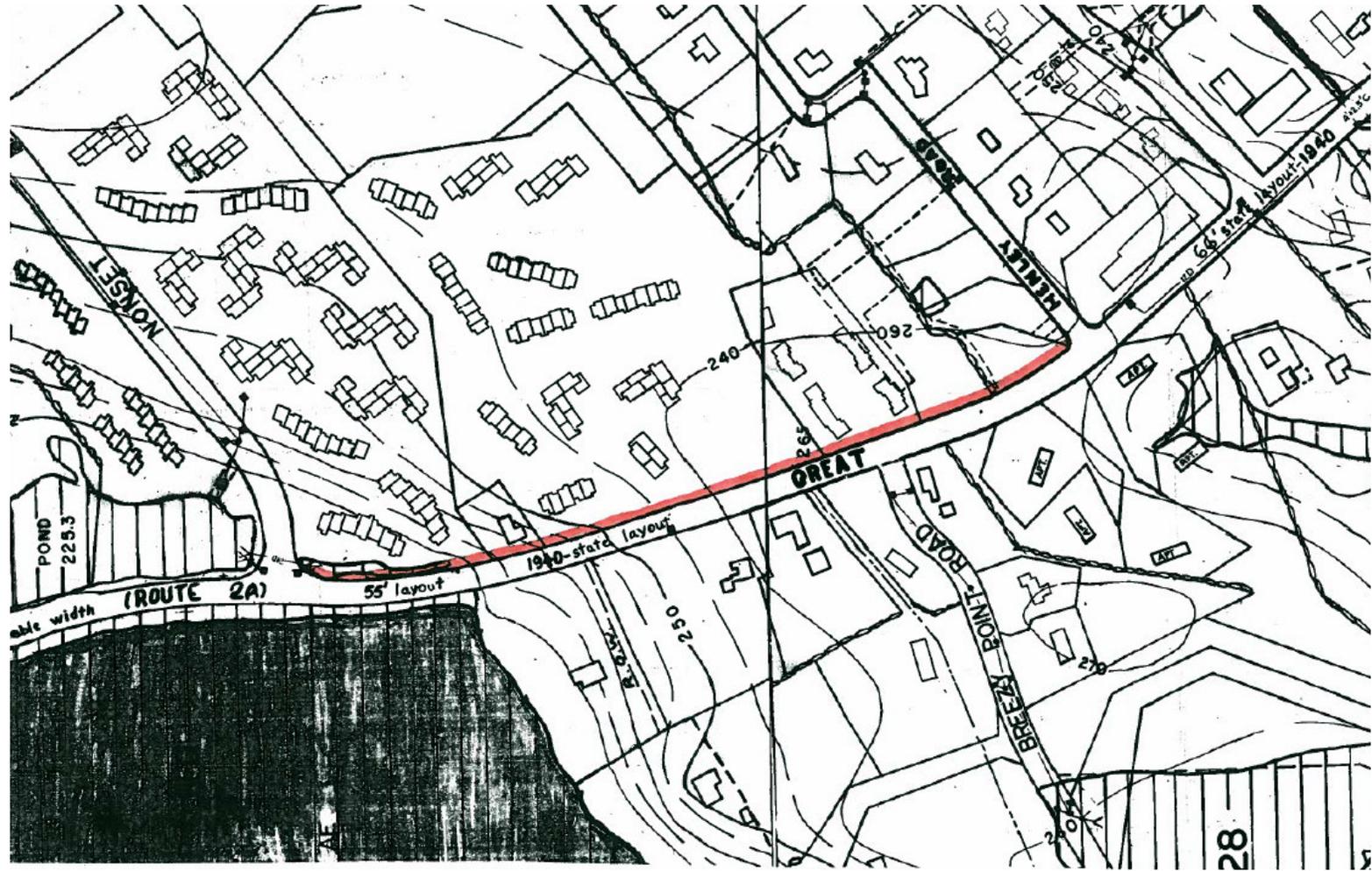
In addition to the typical design, construction of the Great Road sidewalk requires 1,675 feet of vertical granite curb. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$36,896.

The summation of the base and additional costs leads to a total cost of \$112,388, which equates to a cost per foot of \$67.10.

Locus Map



Layout Map



Photos



High Street

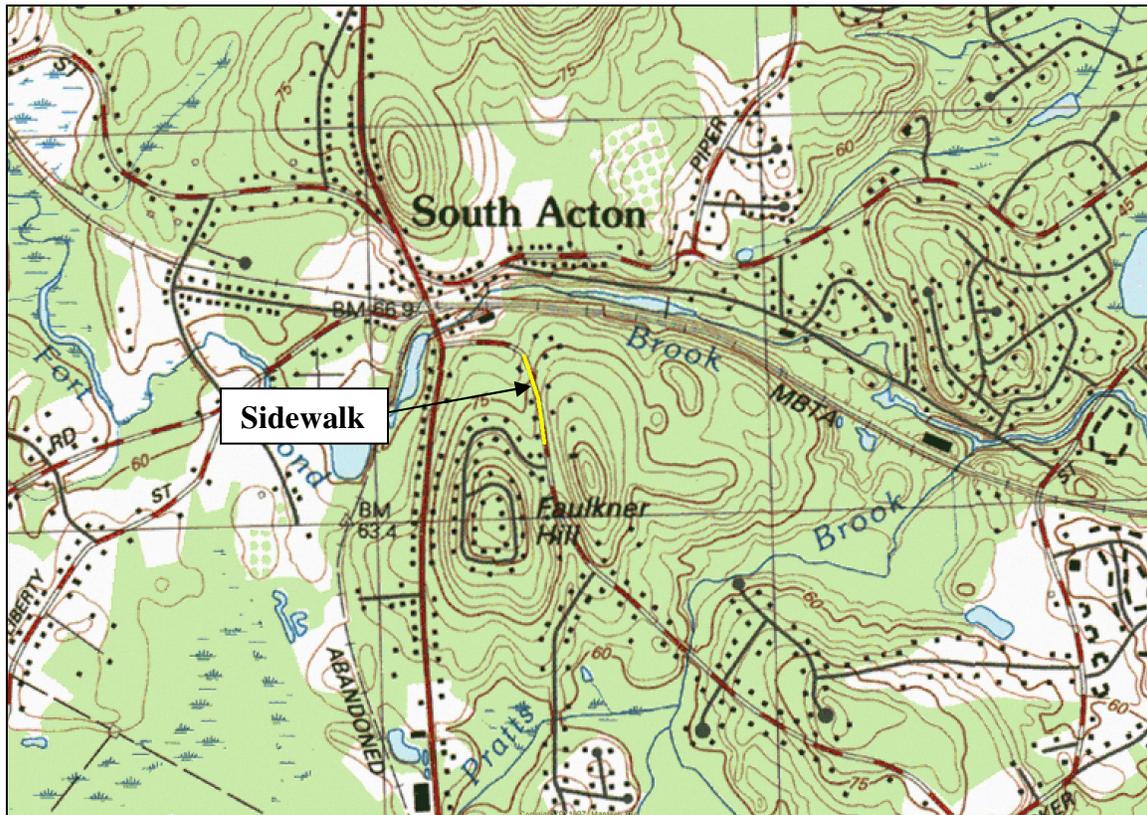
(30 High Street to 46 High Street)

The High Street sidewalk consists of the section between 30 High Street and 46 High Street, along the eastern side of the roadway. The length of the proposed sidewalk is approximately 500 feet, which calculates to a base cost of \$22,535.

In addition to the typical design, construction of the High Street sidewalk requires excavation of 622 cubic yards of unsuitable material, 6 trees removed, 156 feet of fencing, 250 feet of subdrain, as well as 156 feet of 8-foot stone retaining walls. Using RSMeans Sitework Cost Data 2007, an estimate of the additional costs is \$162,404.

The summation of the base and additional costs leads to a total cost of \$184,939, which equates to a cost per foot of \$369.88.

Locus Map



Layout Map



Photos



High Street

(77 High Street to Parker Street)

The High Street sidewalk consists of the section between 77 High Street and Parker Street, along the eastern side of the roadway. The length of the proposed sidewalk is approximately 4,275 feet, which calculates to a base cost of \$192,674.

In addition to the typical design, construction of the High Street sidewalk requires excavation of 1,245 cubic yards of unsuitable material, 103 trees removed, 744 square feet of pavement striping, removal and resetting of 165 feet of stone wall, as well as 265 feet of 3-foot, 135 feet of 4-foot, 365 feet of 5-foot, and 360 feet of 7-foot stone retaining walls. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$596,159.

The summation of the base and additional costs leads to a total cost of \$788,833, which equates to a cost per foot of \$184.52.

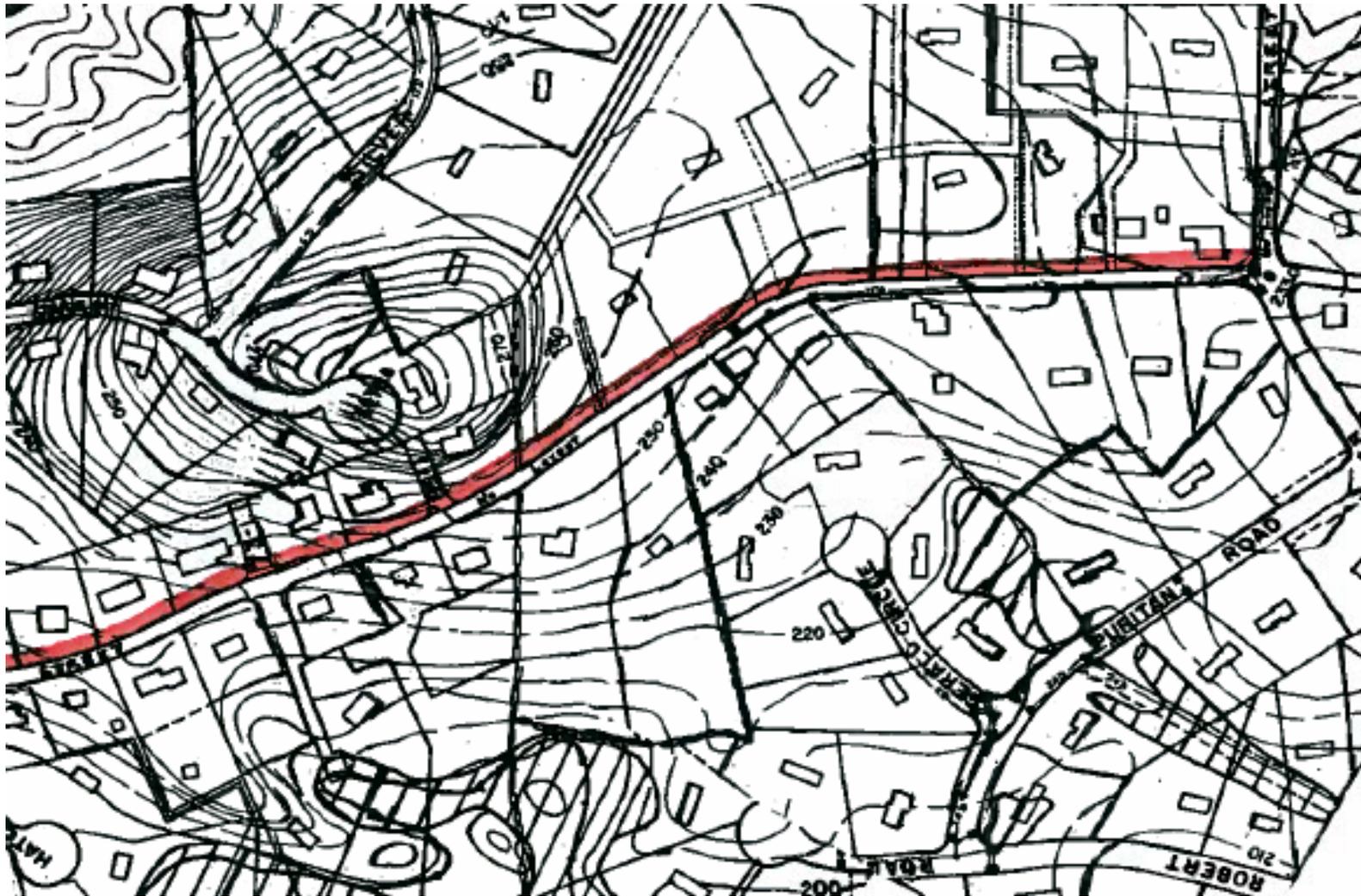
Locus Map



Layout Map - 1



Layout Map - 2



Photos



Main Street – Northern Side

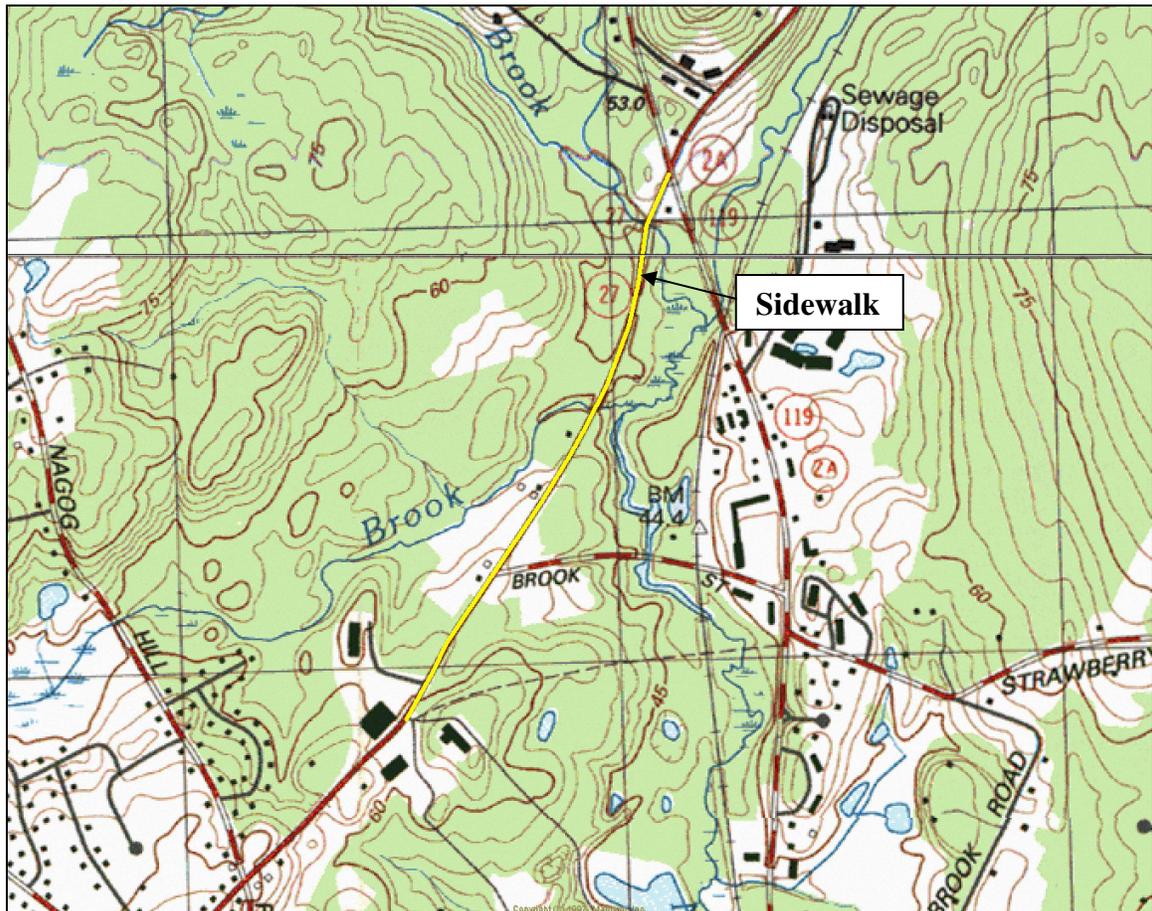
(Post Office Square to Great Road)

The Main Street – Northern Side sidewalk consists of the section between Post Office Square and Great Road, along the northern side of the roadway. The length of the proposed sidewalk is approximately 4,250, which calculates to a base cost of \$191,548.

In addition to the typical design, construction of the Main Street – Northern Side sidewalk requires 62 trees removed, 2,070 feet of vertical granite curb, importing and placement of 639 cubic yards of fill, as well as 155 feet of 8-foot stone retaining walls. Using RSMeans Sitework Cost Data 2007, an estimate of the additional costs is \$191,872 .

The summation of the base and additional costs leads to a total cost of \$383,420, which equates to a cost per foot of \$90.22.

Locus Map



Layout Map



Photos



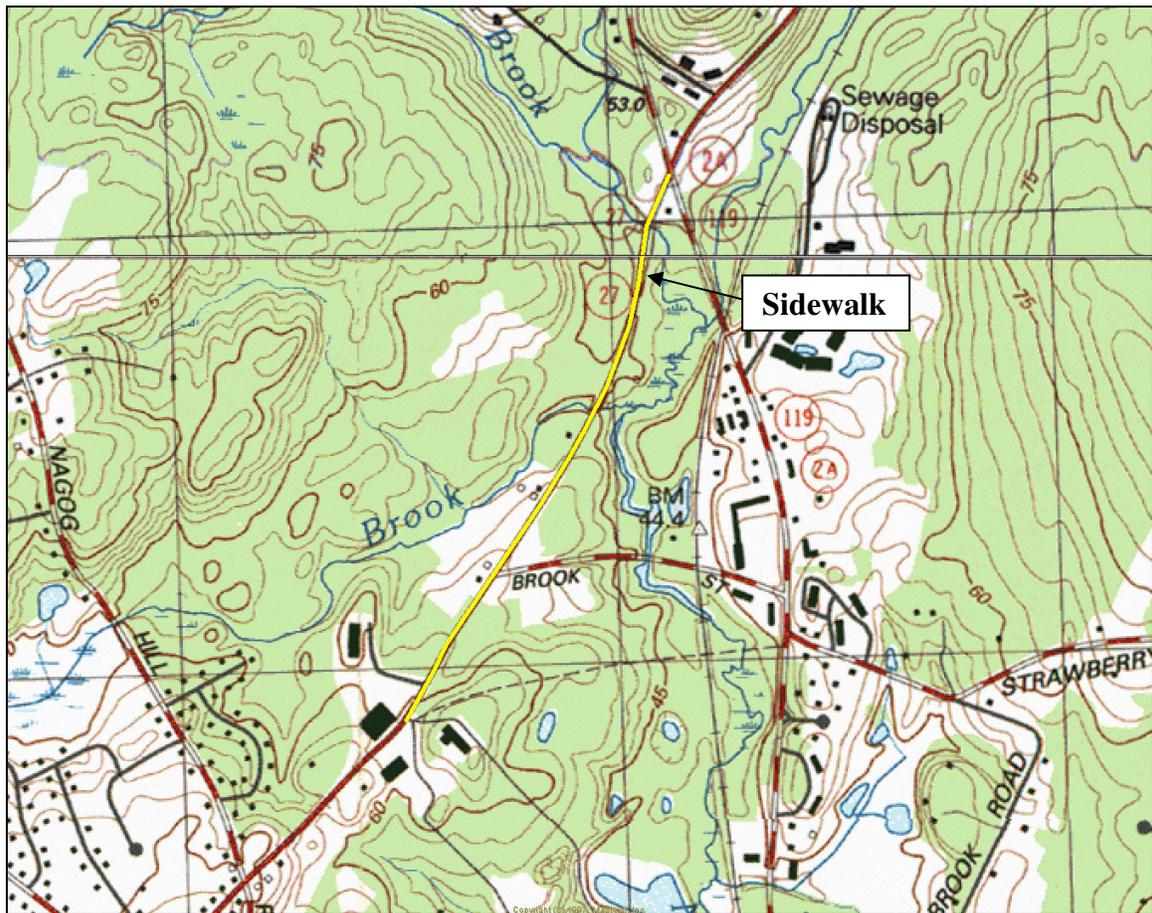
Main Street – Southern Side

(Post Office Square to Great Road)

The Main Street – Southern Side sidewalk consists of the section between Post Office Square and Great Road, along the southern side of the roadway, with an approximate length of 4,200 feet.

The estimated cost to construct this sidewalk, as presented at the 2008 Annual Town Meeting, is \$220,000, which equates to a cost per foot of \$52.38.

Locus Map



Layout Map



Photos



Main Street

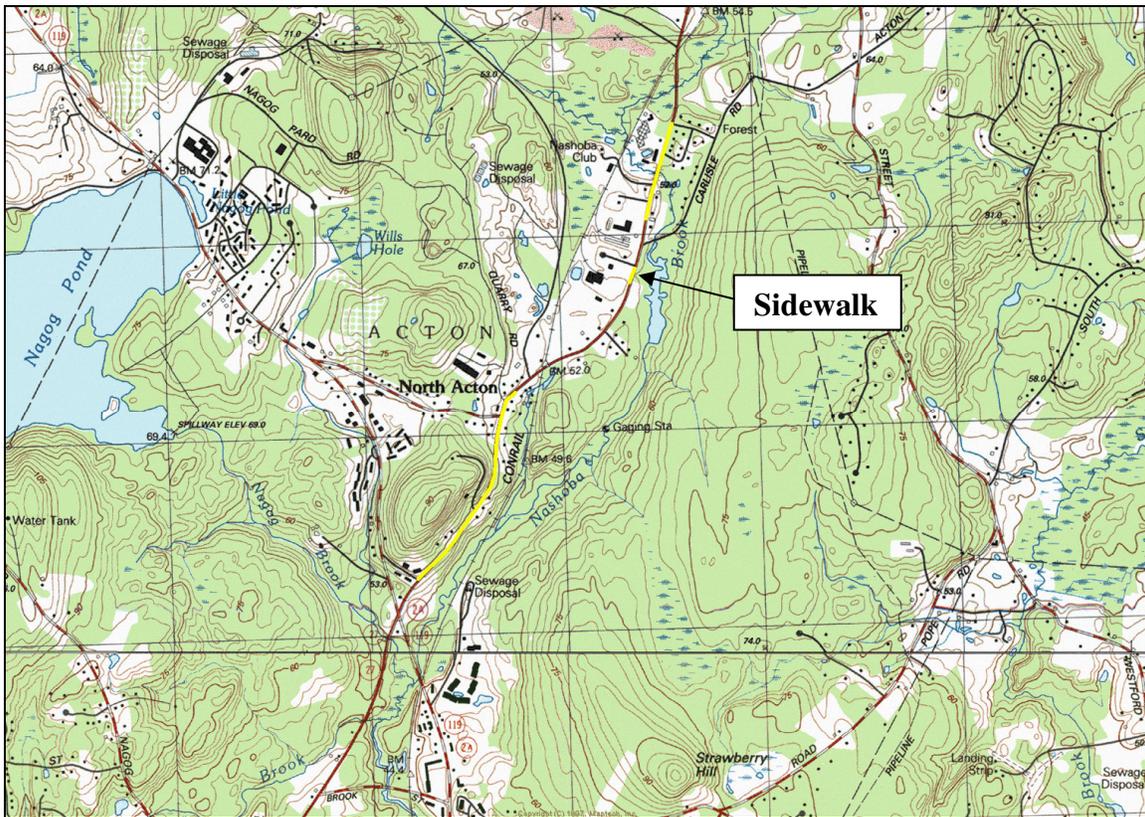
(Great Road to North Street)

The Main Street sidewalk consists of the section between Great Road and North Street, along the eastern side of the roadway from Great Road to Ledge Rock Way and crossing to the western side to meet up with the existing sidewalk from Ledge Rock Way to North Street. The length of the proposed sidewalk is approximately 6,000 feet, which calculates to a base cost of \$270,420.

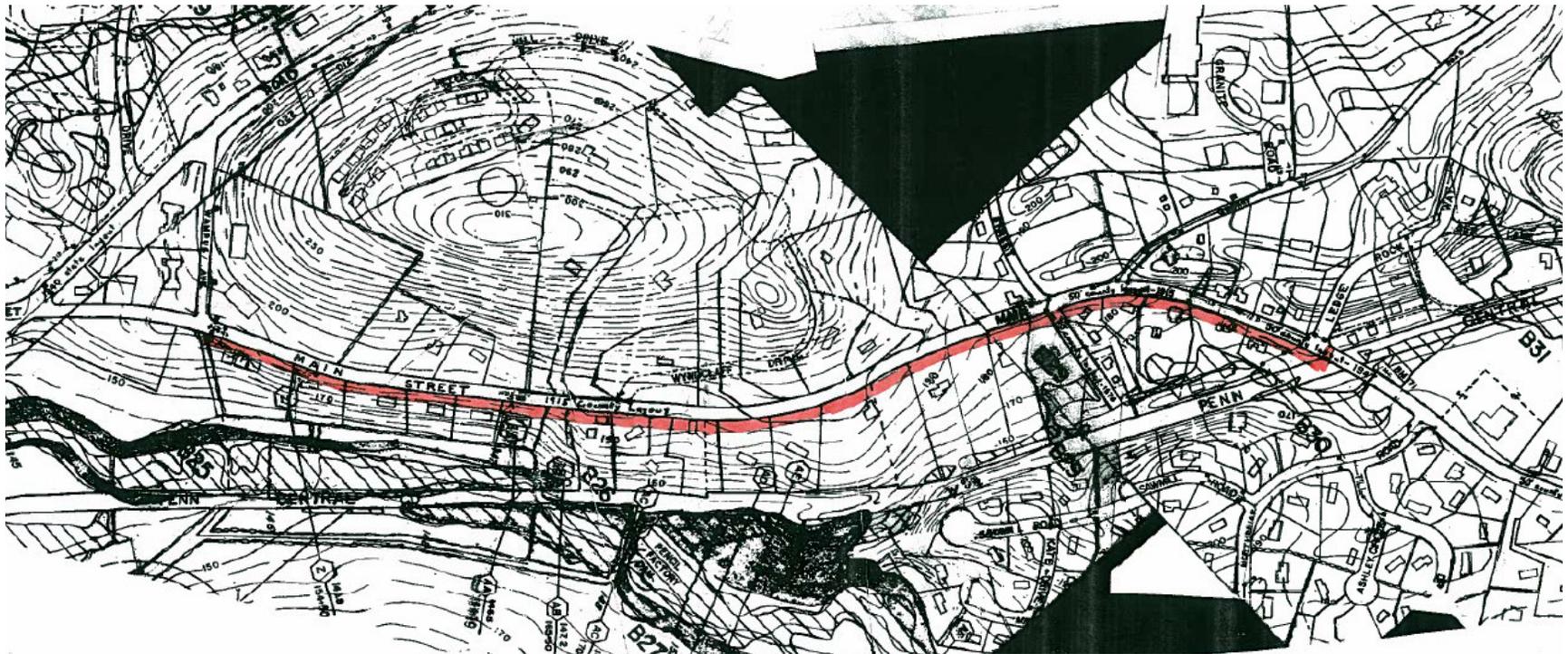
In addition to the typical design, construction of the Main Street sidewalk requires excavation of 506 cubic yards of unsuitable material, 36 trees removed, importing and placement of 439 cubic yards of fill, removal and resetting of 60 feet of stone wall, as well as 275 feet of 4-foot and 325 feet of 7-foot stone retaining walls. Using RSMans Sitework Cost Data 2007, an estimate of the additional costs is \$330,931.

The summation of the base and additional costs leads to a total cost of \$601,351, which equates to a cost per foot of \$100.23.

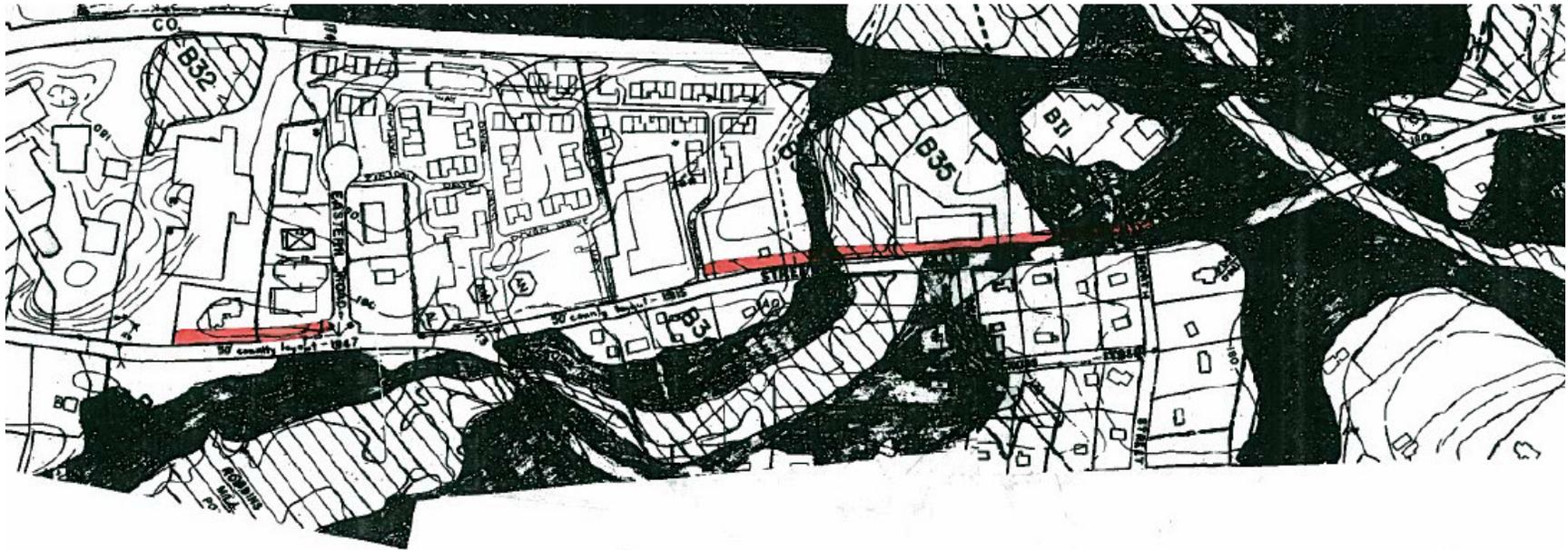
Locus Map



Layout Map -1



Layout Map - 2



Photos



Martin Street

(Maple Street to Central Street)

The Martin Street sidewalk consists of the section between Maple Street and Central Street, along the eastern side of the roadway. The length of the proposed sidewalk is approximately 600 feet, which calculates to a base cost of \$27,042.

There are no additional construction costs associated with Martin Street.

The total cost of \$27,042 equates to a cost per foot of \$45.07.

Locus Map



Estimate does not include a pedestrian crossing at the railroad intersection.

Layout Map



Photos



Massachusetts Avenue

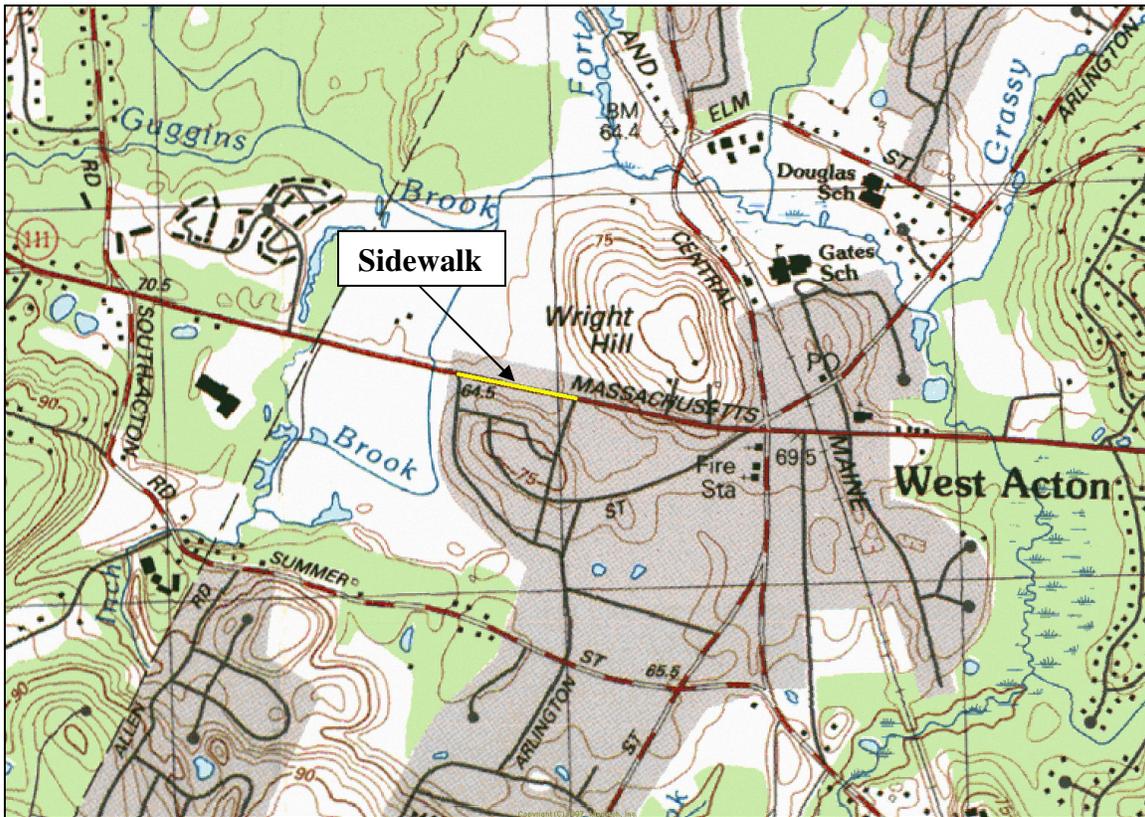
(Juniper Ridge Road to Birch Ridge Road)

The Massachusetts Avenue sidewalk consists of the section between Juniper Ridge Road and Birch Ridge Road, along the southern side of the roadway. The length of the proposed sidewalk is approximately 1,200 feet, which calculates to a base cost of \$54,084.

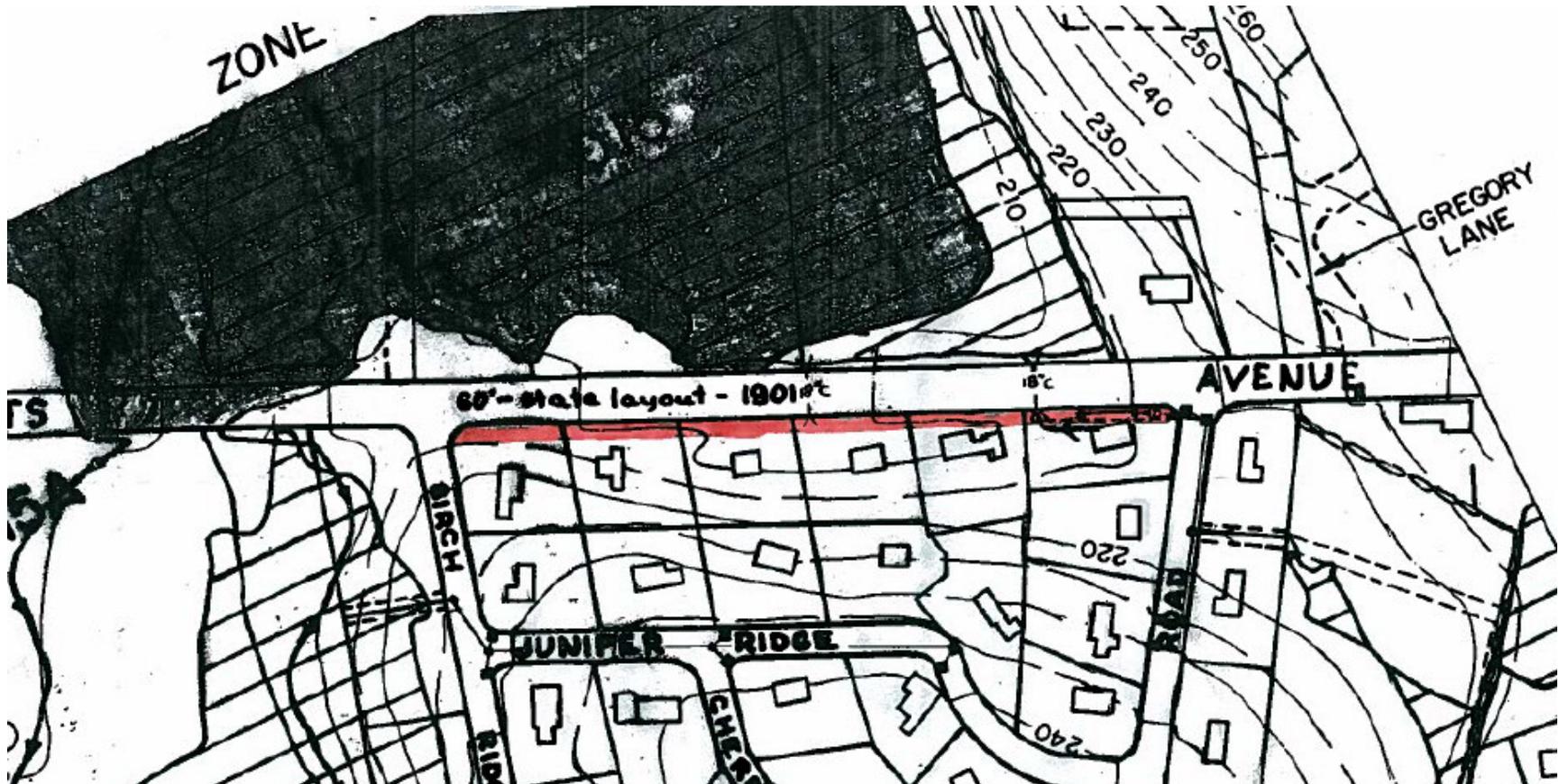
In addition to the typical design, construction of the Massachusetts Avenue sidewalk requires importing and placement of 13 cubic yards of fill, 2 trees removed, and 12 feet of 18-inch reinforced concrete pipe. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$1,828.

The summation of the base and additional costs leads to a total cost of \$55,912, which equates to a cost per foot of \$46.59.

Locus Map



Layout Map



Photos



Minot Avenue

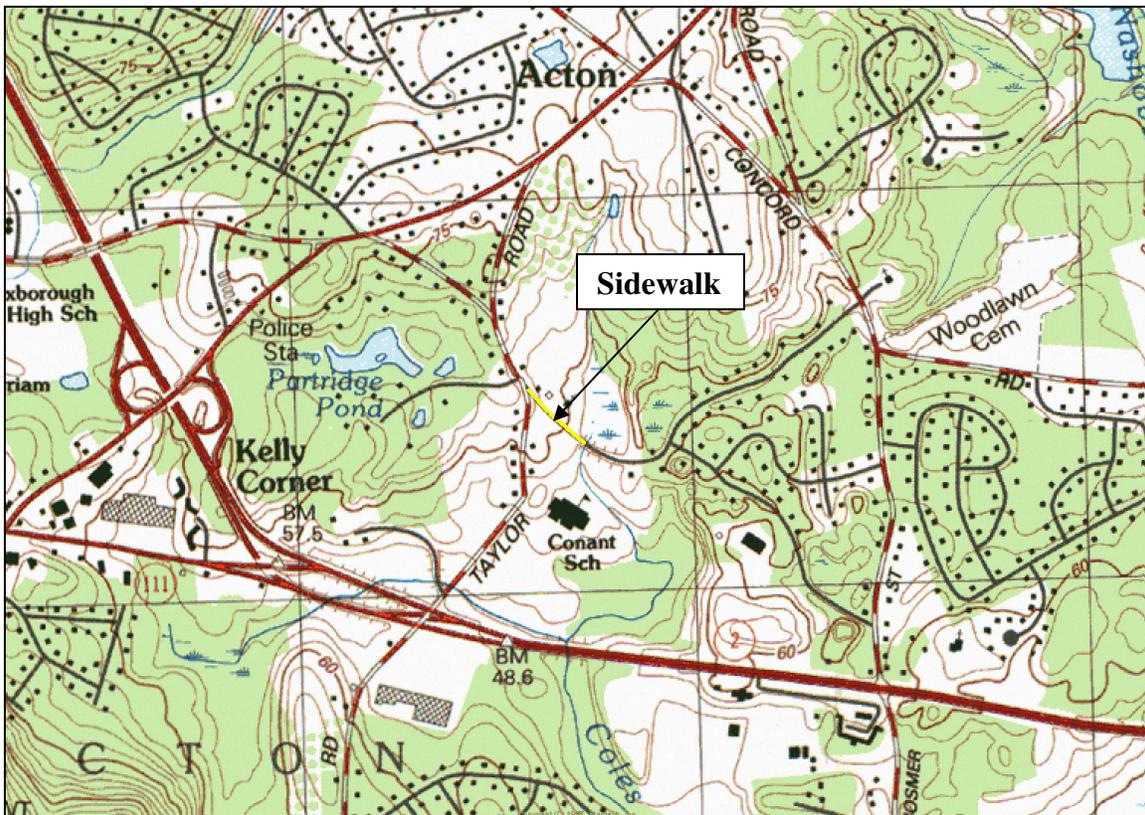
(Conant School to Taylor Road)

The Minot Avenue sidewalk consists of the section between the Conant School and Taylor Road, along the northern side of the roadway. The length of the proposed sidewalk is approximately 750 feet, which calculates to a base cost of \$33,803.

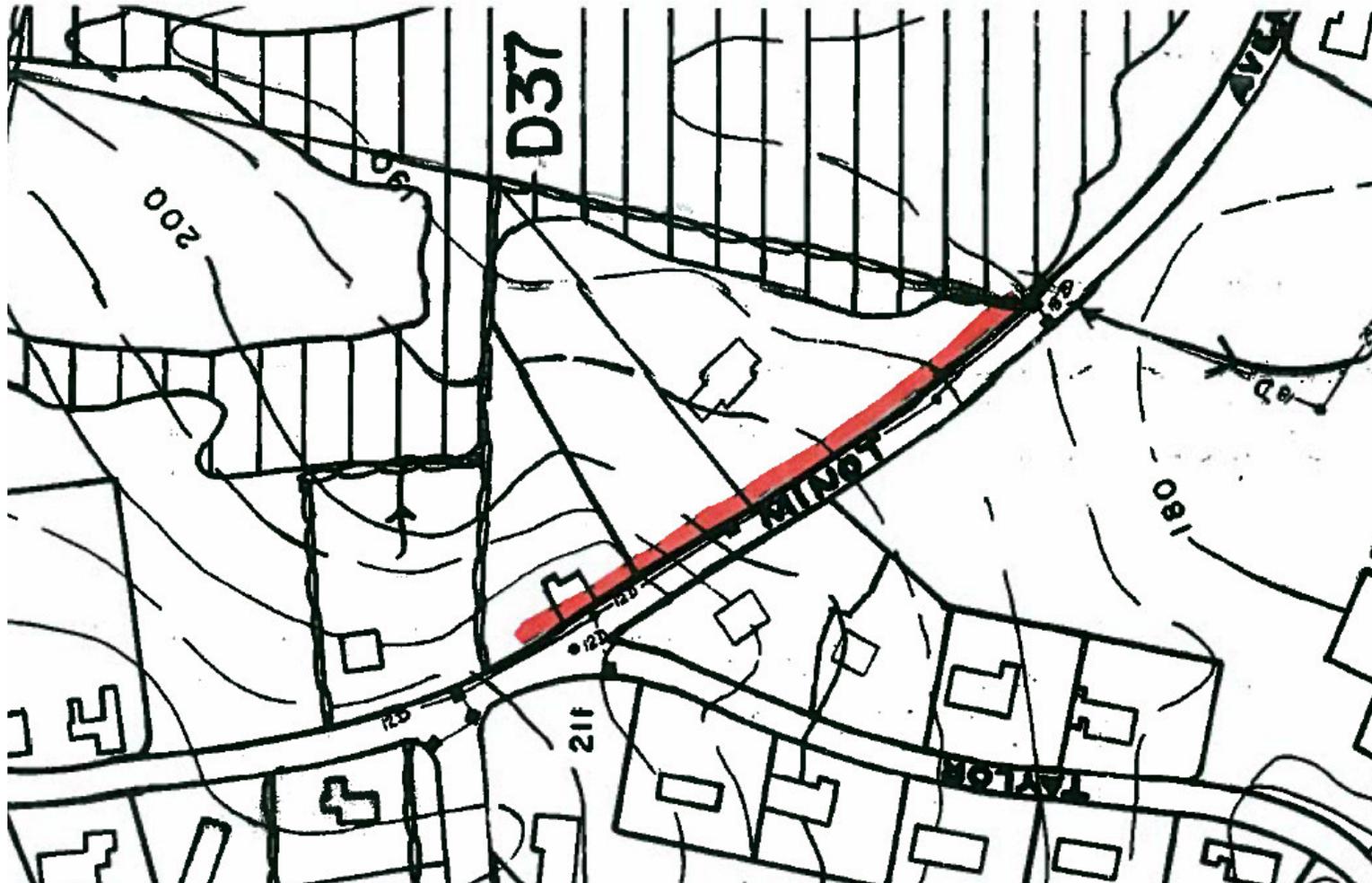
In addition to the typical design, construction of the Minot Avenue sidewalk requires 1 tree removed and removal and resetting of 40 feet of stone wall. Using RSMeans Sitework Cost Data 2007, an estimate of the additional costs is \$1,515.

The summation of the base and additional costs leads to a total cost of \$35,318, which equates to a cost per foot of \$47.09.

Locus Map



Layout Map



Photos



Parker Street

(School Street to Drummer Road)

The Parker Street sidewalk consists of the section between School Street and Drummer Road, along the eastern side of the roadway. The length of the proposed sidewalk is approximately 4,550 feet, which calculates to a base cost of \$205,069.

In addition to the typical design, construction of the Parker Street sidewalk requires excavation of 276 cubic yards of unsuitable material, importing and placement of 22 cubic yards of fill, 32 trees removed, removal and resetting of 90 feet of stone wall, 1 30-foot pedestrian bridge, as well as 192 feet of 3-foot and 110 feet of 4-foot stone retaining walls. Using RSMeanS Sitework Cost Data 2007, an estimate of the additional costs is \$128,846.

The summation of the base and additional costs leads to a total cost of \$333,915, which equates to a cost per foot of \$73.39.

Locus Map



Estimate does not include a pedestrian crossing at the railroad intersection.

Layout Map



Photos



Piper Road

(School Street to Farmstead Way)

The Piper Road sidewalk consists of the section between School Street and Farmstead Way, along the eastern side of the roadway. The length of the proposed sidewalk is approximately 3,700 feet, which calculates to a base cost of \$166,759.

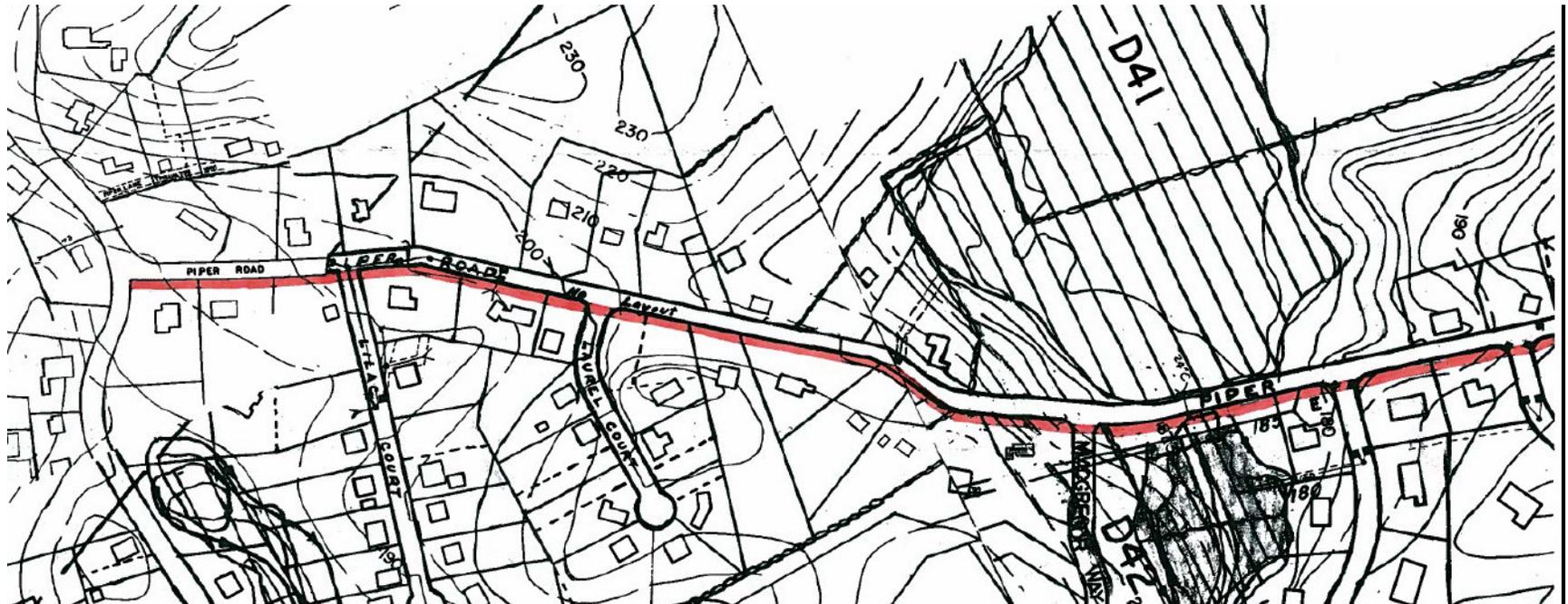
In addition to the typical design, construction of the Piper Road sidewalk requires excavation of 311 cubic yards of unsuitable material, importing and placement of 224 cubic yards of fill, 50 trees removed, removal and resetting of 780 feet of stone wall, as well as 280 feet of 3-foot and 215 feet of 4-foot stone retaining walls. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$196,188.

The summation of the base and additional costs leads to a total cost of \$362,947, which equates to a cost per foot of \$98.09.

Locus Map



Layout Map - 1



Layout Map - 2



Photos



Powder Mill Road

(Maynard to Concord)

The Powder Mill Road sidewalk consists of the section between Maynard and Concord, along the southern side of the roadway. The length of the proposed sidewalk is approximately 350 feet, which calculates to a base cost of \$15,775.

In addition to the typical design, construction of the Route 62 sidewalk requires 600 square feet of pavement striping. Using RSMeans Sitework Cost Data 2007, an estimate of the additional costs is \$1,645.

The summation of the base and additional costs leads to a total cost of \$17,420, which equates to a cost per foot of \$49.77.

Locus Map



Layout Map



Photos



Prospect Street

(Main Street to Central Street)

The Prospect Street sidewalk consists of the section between Main Street and Central Street, along the western side of the roadway. The length of the proposed sidewalk is approximately 1,850 feet, which calculates to a base cost of \$83,380.

In addition to the typical design, construction of the Prospect Street sidewalk requires importing and placement of 67 cubic yards of fill and 12 feet of 18-inch diameter reinforced concrete pipe. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$2,215.

The summation of the base and additional costs leads to a total cost of \$85,595, which equates to a cost per foot of \$46.27.

Locus Map



Layout Map



Photos



River Street

(School Street to Parker Street)

The River Street sidewalk consists of the section between School Street and Parker Street, along the northern side of the roadway. The length of the proposed sidewalk is approximately 5,000 feet, which calculates to a base cost of \$225,350.

In addition to the typical design, construction of the River Street sidewalk requires excavation of 1,123 cubic yards of unsuitable material, importing and placement of 51 cubic yards of fill, 69 trees removed, 2,820 square feet of pavement striping, 1 100-foot pedestrian bridge, as well as 85 feet of 3-foot, 50 feet of 4-foot, 115 feet of 5-foot, 210 feet of 8-foot, and 235 feet of 10-foot stone retaining wall. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$553,106.

The summation of the base and additional costs leads to a total cost of \$778,456, which equates to a cost per foot of \$155.69.

Locus Map



Layout Map - 1



Layout Map - 2



Photos



School Street / Lawsbrook Road

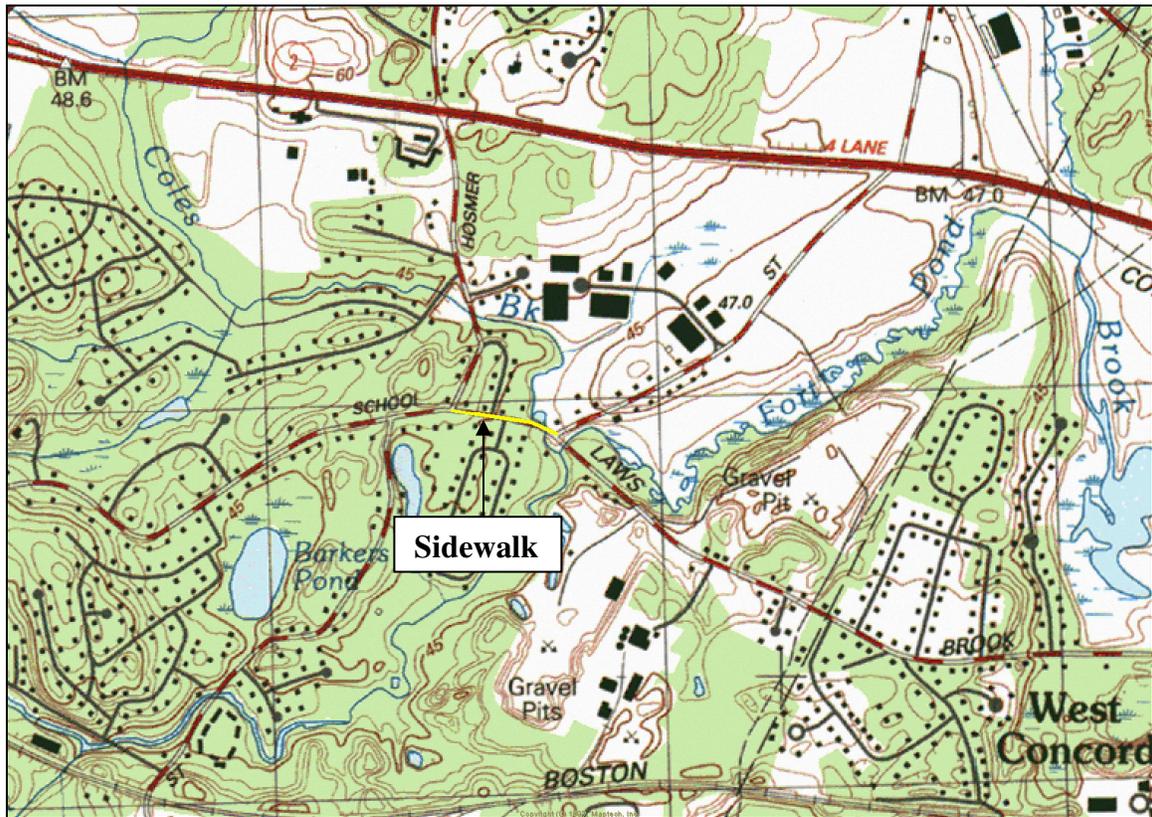
(Hosmer Street to Lawsbrook Road)

The School Street sidewalk consists of the section between Hosmer Street and the existing sidewalk on Lawsbrook Road, along the northern side of the roadway. The length of the proposed sidewalk is approximately 1,500 feet, which calculates to a base cost of \$67,605.

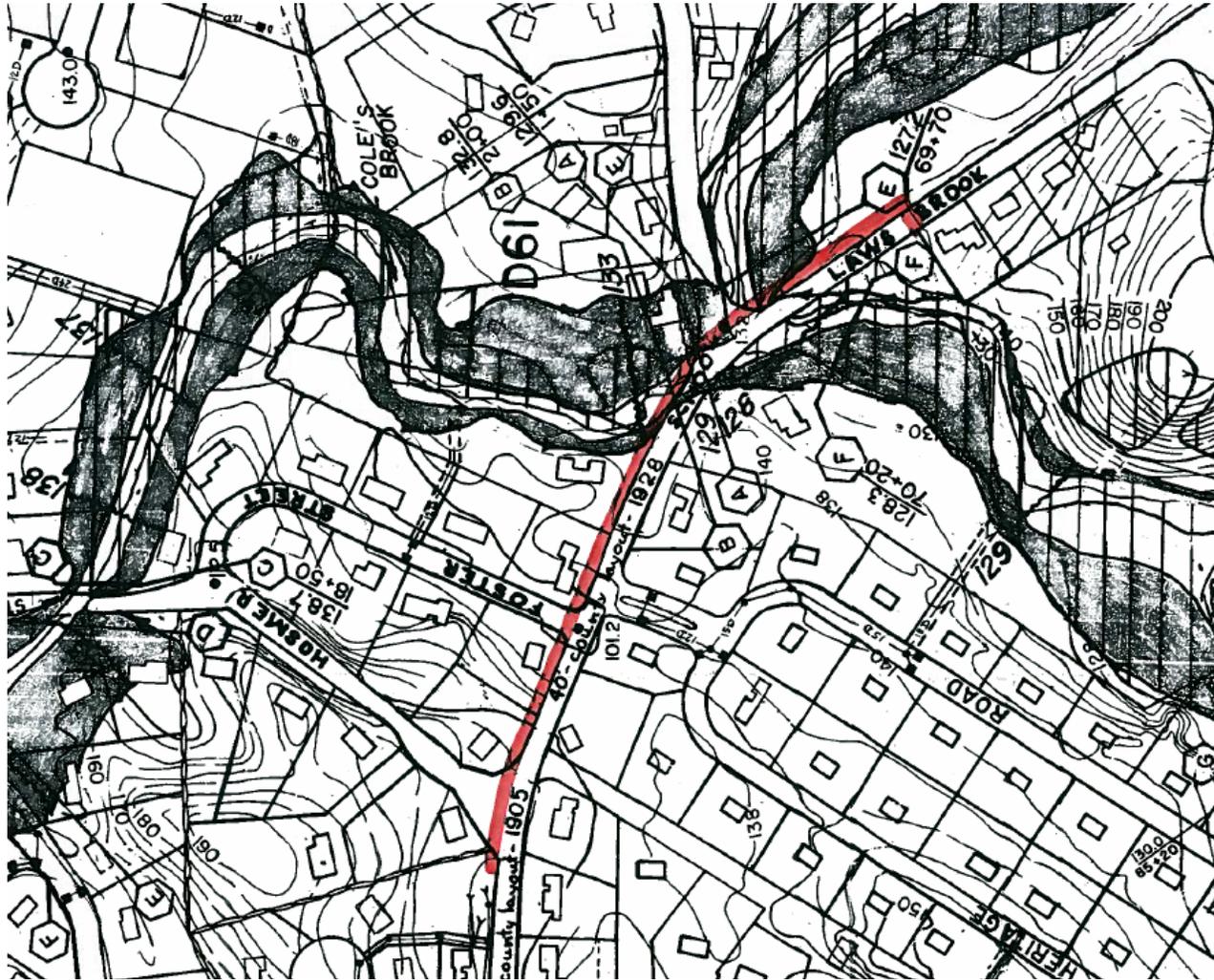
In addition to the typical design, construction of the School Street sidewalk requires excavation of 100 cubic yards of unsuitable material, 7 trees removed, 2,328 square feet of pavement striping, 1 50-foot pedestrian bridge, as well as 150 feet of 3-foot stone retaining walls. Using RSMans Sitework Cost Data 2007, an estimate of the additional costs is \$79,698.

The summation of the base and additional costs leads to a total cost of \$147,303, which equates to a cost per foot of \$98.20.

Locus Map



Layout Map



Photos



Summer Street

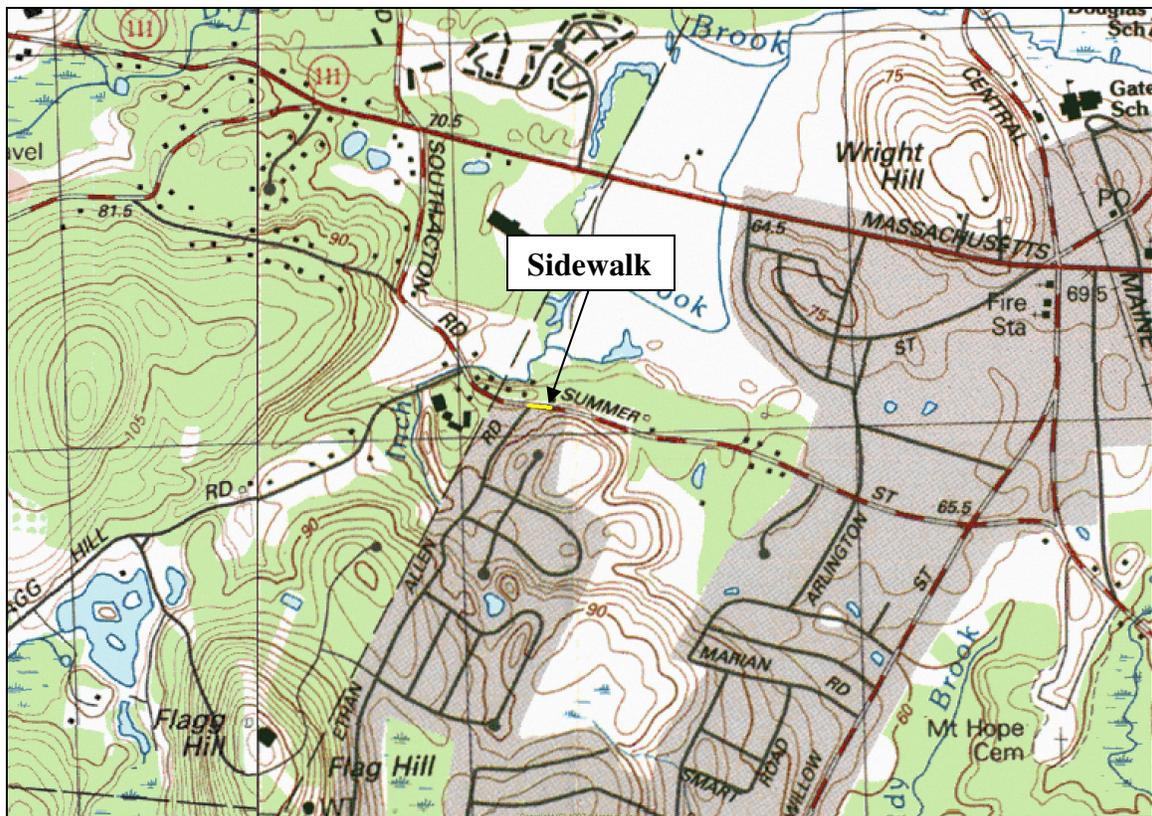
(Ethan Allen Drive to 148 Summer Street)

The Summer Street sidewalk consists of the section between Ethan Allen Drive and 148 Summer Street, along the southern side of the roadway. The length of the proposed sidewalk is approximately 180 feet, which calculates to a base cost of \$8,113.

In addition to the typical design, construction of the Summer Street sidewalk requires 1 tree removed. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$666.

The summation of the base and additional costs leads to a total cost of \$8,779, which equates to a cost per foot of \$48.77.

Locus Map



Layout Map



Photos



Summer Street

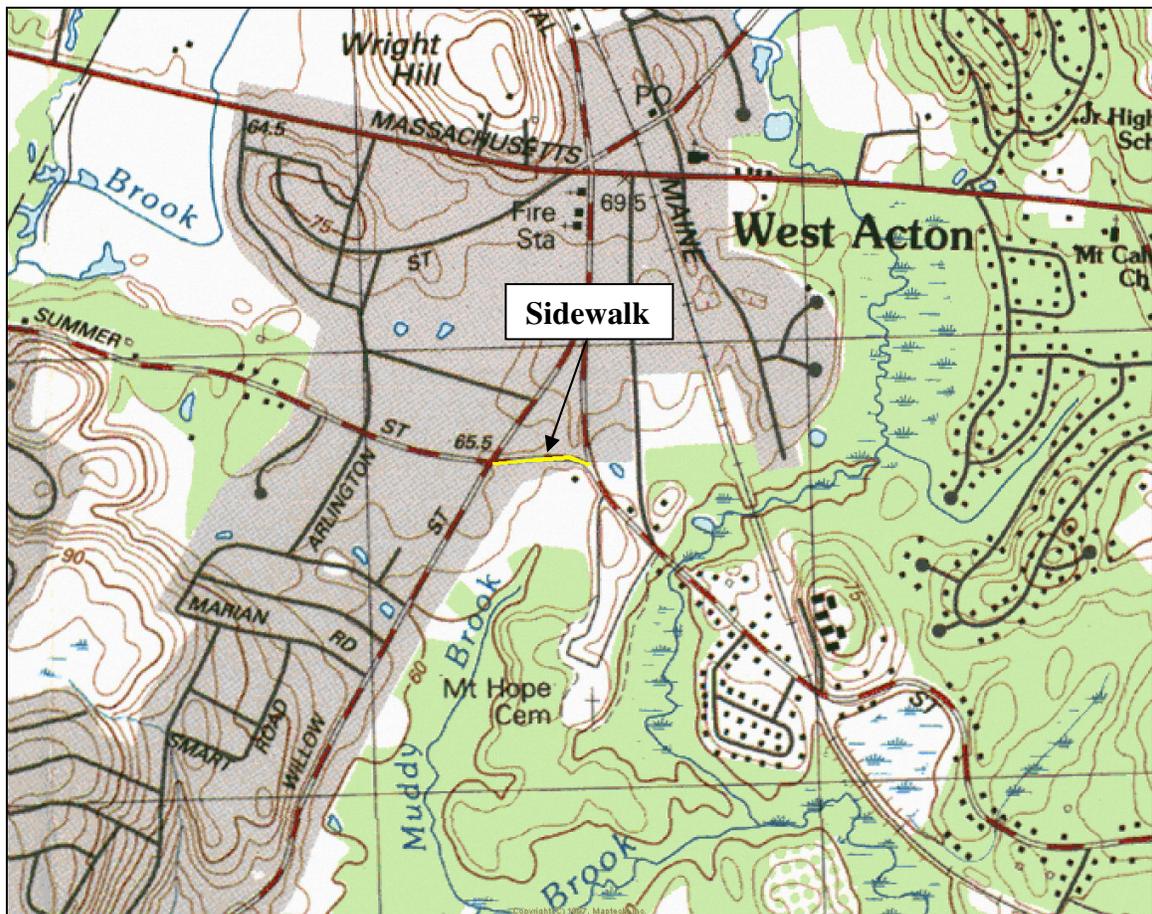
(Willow Street to Central Street)

The Summer Street sidewalk consists of the section between Willow Street and Central Street, along the southern side of the roadway. The length of the proposed sidewalk is approximately 750 feet, which calculates to a base cost of \$33,803.

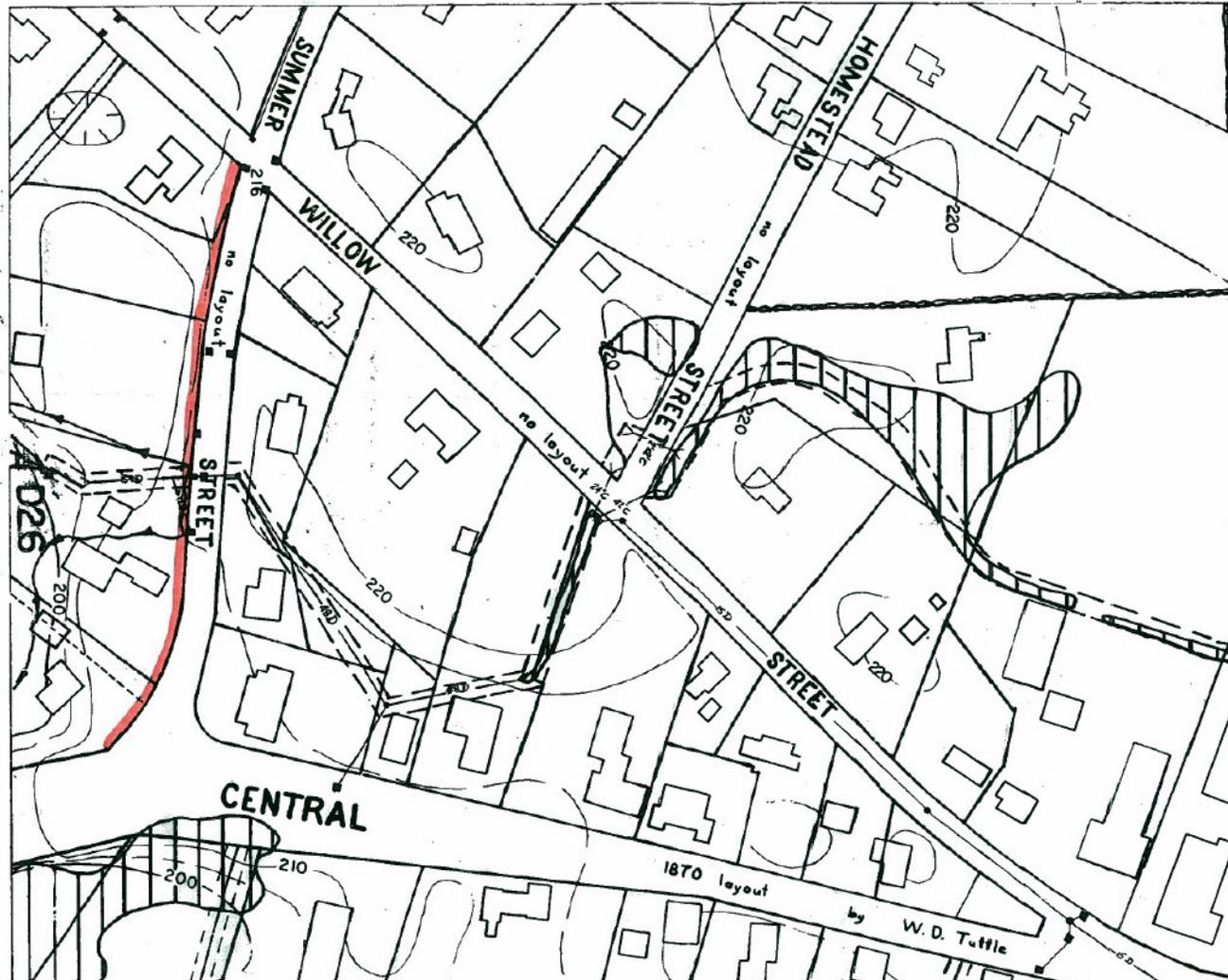
In addition to the typical design, construction of the Summer Street sidewalk requires importing and placement of 156 cubic yards of fill, 2 trees removed, and removing and resetting of 204 feet of wood fencing. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$5,175.

The summation of the base and additional costs leads to a total cost of \$38,978, which equates to a cost per foot of \$51.97.

Locus Map



Layout Map



Photos



Taylor Road

(Main Street to Route 2)

The Taylor Road sidewalk consists of the section between Main Street and Route 2, along the eastern side of the roadway. The length of the proposed sidewalk is approximately 3,900 feet, which calculates to a base cost of \$175,773.

In addition to the typical design, construction of the Taylor Road sidewalk requires excavation of 187 cubic yards of unsuitable material, importing and placement of 333 cubic yards of fill, 17 trees removed, 600 square feet of pavement striping, removal and resetting of 1,645 feet of stone wall, as well as 280 feet of 3-foot stone retaining walls. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$124,703.

The summation of the base and additional costs leads to a total cost of \$300,476, which equates to a cost per foot of \$77.05.

Locus Map



Costs associated with a pedestrian crossing of Route 2 are not included in this estimate.

Layout Map



Photos



Willow Street

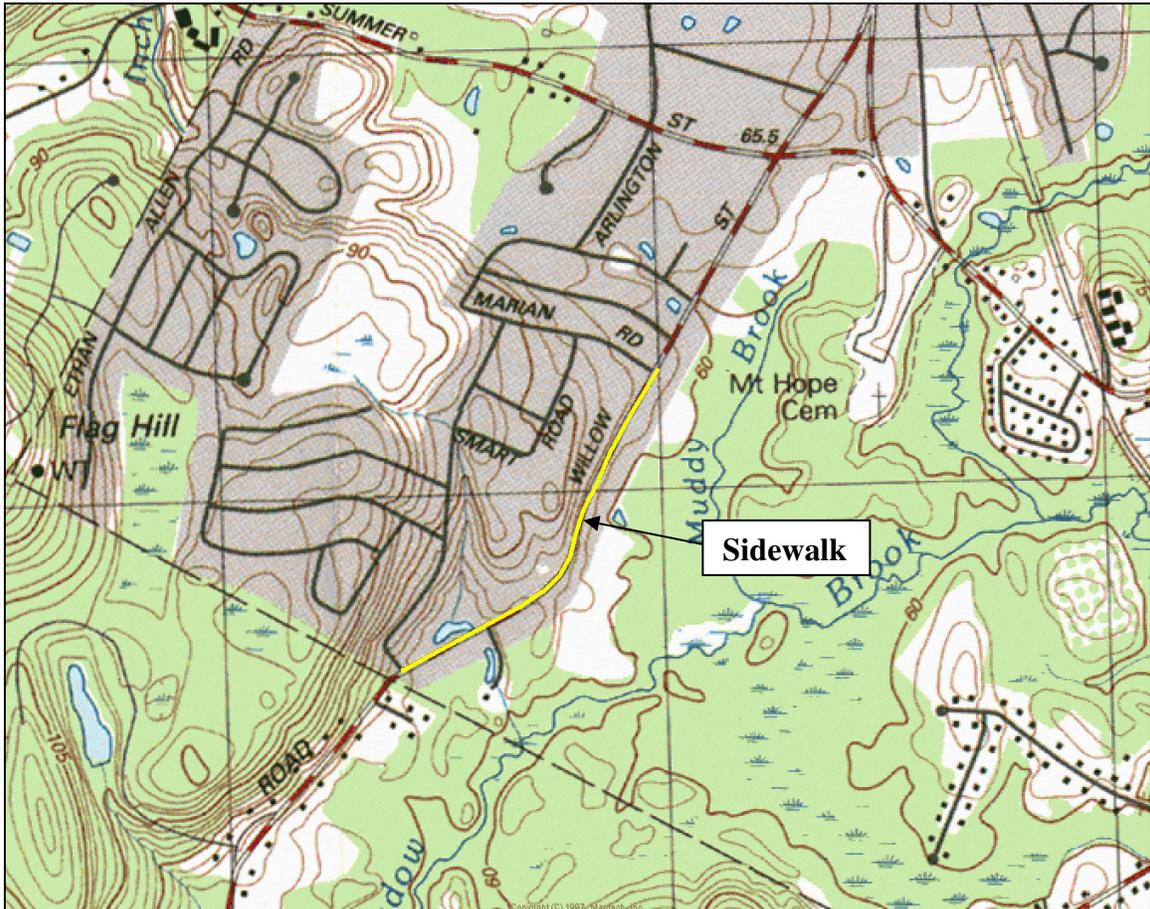
(Duggan Road to Marian Road)

The Willow Street sidewalk consists of the section between Duggan Road and Marian Road, along the western side of the roadway. The length of the proposed sidewalk is approximately 3,075 feet, which calculates to a base cost of \$138,590.

In addition to the typical design, construction of the Willow Street sidewalk requires excavation of 396 cubic yards of unsuitable material, importing and placement of 310 cubic yards of fill, 50 trees removed, as well as 108 feet of 3-foot, 265 feet of 4-foot, and 80 feet of 5-foot stone retaining walls. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$183,238.

The summation of the base and additional costs leads to a total cost of \$321,828, which equates to a cost per foot of \$104.66.

Locus Map



Layout Map



Photos



Willow Street

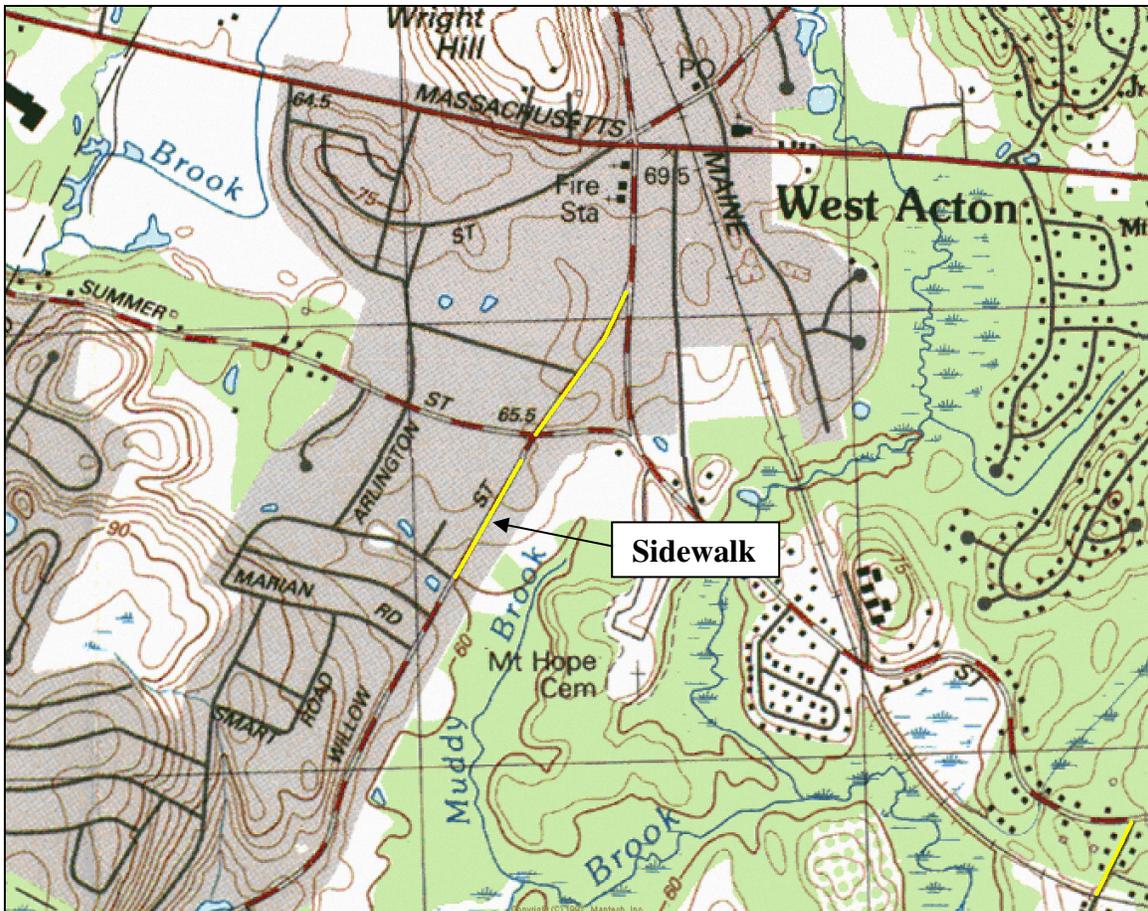
(Kingman Road to Central Street)

The Willow Street sidewalk consists of the section between Duggan Road and Central Street, along the western side of the roadway. The length of the proposed sidewalk is approximately 2,250 feet, which calculates to a base cost of \$101,408.

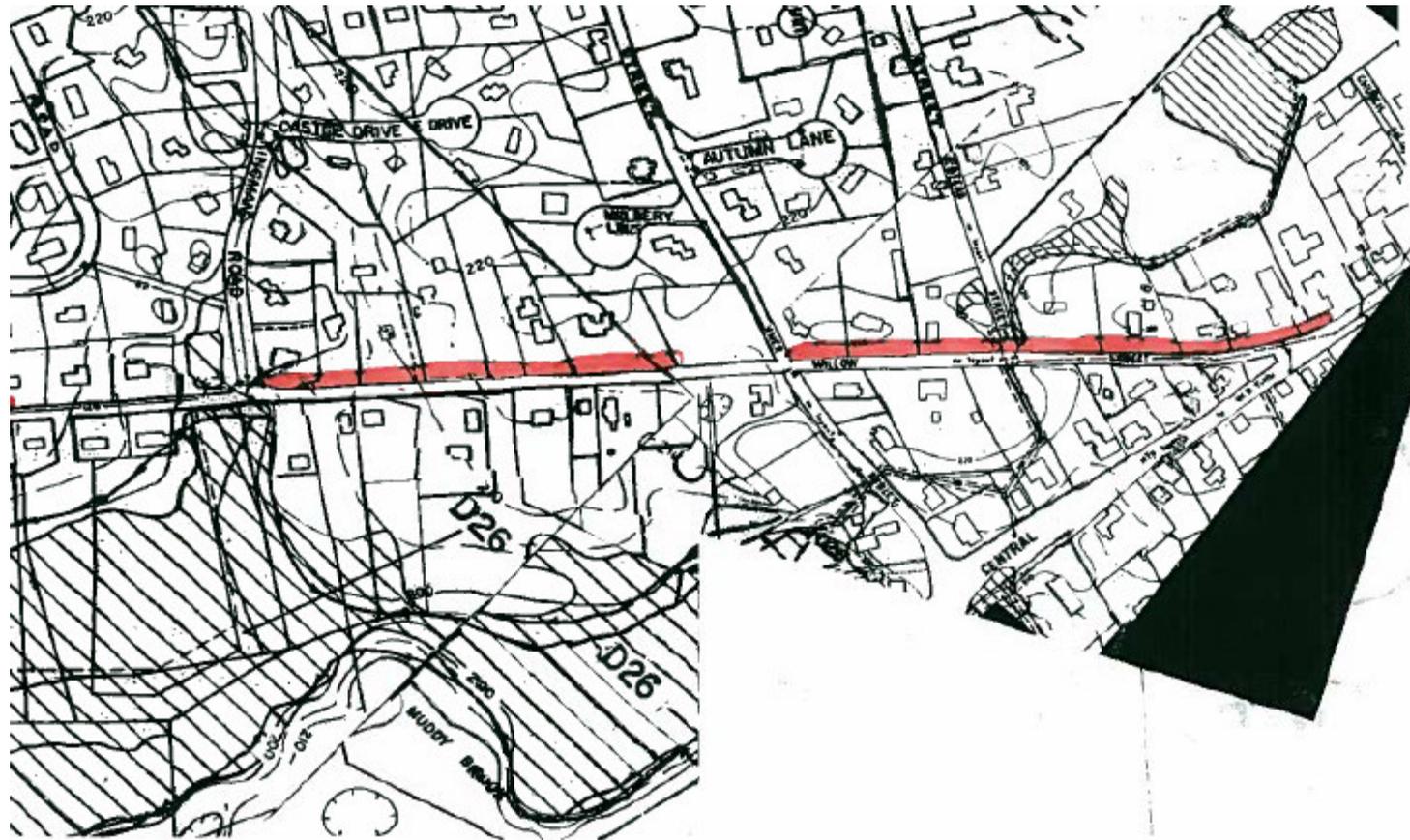
In addition to the typical design, construction of the Willow Street sidewalk requires 10 trees removed. Using RSMMeans Sitework Cost Data 2007, an estimate of the additional costs is \$6,657.

The summation of the base and additional costs leads to a total cost of \$108,065, which equates to a cost per foot of \$48.03.

Locus Map



Layout Map



Photos



CONCLUSION

As stated in the Table 1, High Street (77 High Street to Parker Street), River Street (School Street to Parker Street), and Main Street (Great Road to North Street) will be the most expensive sidewalks to construct with costs of \$788,833, \$778,456, and \$601,351, respectively. This is due to their longer lengths in combination to their higher additional costs. However, the sidewalks with the highest cost per foot are High Street (30 High Street to 46 High Street), High Street (77 High Street to Parker Street), and River Street (School Street to Parker Street), with cost per foots of \$369.81, \$184.52, and \$155.69, respectively.

The most expensive aspects of the sidewalk cost estimate were the retaining walls and tree removal. The estimates assumed the use of dry-set stone for the wall construction, however interlocking architectural blocks may be substituted at approximately a third of the cost. Table 2 is a comparison of the costs to construct the retaining walls using stone versus blocks. Photos of interlocking architectural block walls are provided at the end of this section, specifically Ellsworth Village Drive and some online examples. The estimates also assumed that greater or fewer trees could be removed during construction depending on the final layout. Therefore, the tree removal costs could increase or decrease in value.

Table 2 – Wall Construction Comparison

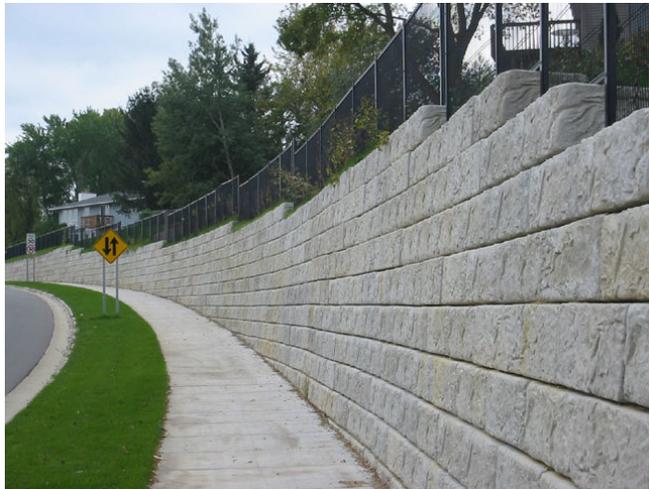
Location	Rock	Block
High Street (77 High Street to Parker Street)	\$ 516,393	\$ 172,131
River Street (School Street to Parker Street)	\$ 436,083	\$ 145,361
Main Street (Great Road to North Street)	\$ 302,525	\$ 100,842
Willow Street (Duggan Road to Marian Road)	\$ 145,768	\$ 48,589
Piper Road (School Street to Farmstead Way)	\$ 143,870	\$ 47,957
High Street (30 High Street to 46 High Street)	\$ 136,656	\$ 45,552
Central Street (Willow Street to Windsor Avenue)	\$ 124,450	\$ 41,483
Main Street - Northern Side (Post Office Square to Great Road)	\$ 103,075	\$ 34,358
Parker Street (School Street to Drummer Road)	\$ 86,452	\$ 28,817
Taylor Road (Main Street to Route 2)	\$ 73,780	\$ 24,593
School Street (Hosmer Street to Lawsbrook Road)	\$ 39,525	\$ 13,175
Total	\$ 2,108,577	\$ 702,859
Difference		\$ 1,405,718

Photos

Ellsworth
Village
Drive



Online
Examples



ATTACHMENT A

Town Map of Sidewalks

