

MAIN STREET SOUTH PEDESTRIAN SAFETY STUDY

SOUTHBURY, CONNECTICUT
MAY 2020



*This study is dedicated to the memory of
DeLoris Curtis (1940 – 2020)*

“She took great pride in how Southbury got developed for future generations. She spent 40 years working for the Town of Southbury in various roles, most recently as the certified AICP planning administrator... The next time you take a walk down Main Street, look at the beautiful trees, flowers and sidewalk; think of her...”

TABLE OF CONTENTS

1. Introduction and Study Purpose	page 3
2. Background	page 4
3. Existing Conditions	page 8
4. Recommended Improvements	page 16
5. Preliminary Cost-estimates	page 36
6. Safety benefits of Recommended Improvements	page 40
7. Next Steps	page 41
Appendix	page 43

1. INTRODUCTION AND STUDY PURPOSE

The Town of Southbury is seeking to improve pedestrian safety along Main Street South from Route 172 (South Britain Road & Georges Hill Road) to U.S. Route 6 (Main Street North). This approximately 1.8 mile stretch of Main Street South includes seven signalized intersections, many unsignalized intersections/driveways, a number of crosswalks (two at unsignalized locations), much of the town's commercial base, some residential buildings, the Southbury Green, municipal/town government buildings and the Pomperaug Elementary School. The Rochambeau Middle School and adjacent neighborhoods are also in the vicinity of Main Street South. As the Town of Southbury seeks to improve the livability and safety of residents, employees, and visitors, it has undertaken this study with the aid of Milone & MacBroom, Inc. (MMI) to identify areas along Main Street South where pedestrian safety could be improved and to development specific recommendations to address pedestrian safety needs. Where possible, this Pedestrian Safety Study also seeks to incorporate aesthetic improvements that would further complement and enhance the unique character, landscaping, and streetscape along Main Street South.

The report is divided into the following sections:



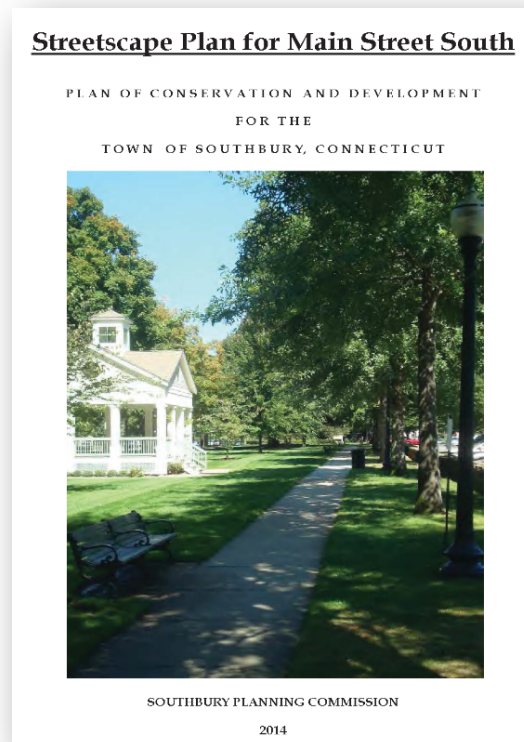
- **An overview of relevant past studies and plans for the area, as well as review of crashes involving non-motorists along Main Street South that have occurred**
- **A summary of pedestrian safety and mobility issues identified from site visits, a public forum and a walk-audit**
- **Pedestrian Safety Improvements that are recommended for the Main Street South corridor, illustrated as conceptual plans and renderings**
- **Preliminary cost-estimates for the recommended improvements**
- **Data describing safety benefits of the recommended improvements**
- **Prioritization of the recommendations**
- **Next-steps for implementation**

2. BACKGROUND

To set the stage for this Pedestrian Safety Study, past relevant information was reviewed. These included reports, studies, and plans that have been adopted by/completed for the Town of Southbury for Main Street South. Information was reviewed on a number of crashes involving pedestrians and non-motorists that occurred along Main Street South in the past several years. Review was also made of a State CTDOT project at the southerly end of the study corridor that is anticipated to improve traffic and roadway conditions.

Past Reports

A **Southbury Center Area Plan** was first produced in 1975 and a **Streetscape Plan for Main Street South** was originally adopted in 1990. These plans have set the basis for the character of the built and landscaped environment along Main Street South, unifying many design features that include street trees, green space, sidewalks, and building and parking placement into the uniquely scenic and attractive rural place that is the Town center of Southbury. The Streetscape Plan has provided an overall landscape and streetscape design for Main Street South that has unified the separate areas along the roadway into a corridor that is unique and distinctive to the identity of Southbury. While most of the elements of the Streetscape Plan have been installed, the plan continues to provide guidance through recommendations to minimize the number of curb cuts (access management), reduce width of curb cuts where/if they may exceed Town standards, provide pedestrian street lights, provide adequate sidewalks, improve pedestrian crossings, and so on. The Streetscape Plan, which is a vital component of the Town, was re-affirmed and adopted again in 2014. The Southbury Center Plan, which was last updated in 1994, continues to guide land use, building placement, site design, the general size of Main Street South (number of travel lanes), traffic circulation, and other features in the Southbury Center Area.



In developing the recommendations set forth in this Pedestrian Safety Study of Main Street South, we have striven to be consistent with these Town of Southbury legacy plans.

Southbury's current **Plan of Conservation and Development** (POCD) is the 2012 plan. This POCD, which is updated approximately once a decade, makes a number of recommendations pertaining to Main Street South including chiefly to continue to apply the *Streetscape Plan for Main Street South* to development and roadway projects. The POCD recommends sidewalks from premise to premise with traffic calming while also seeking to balance those needs with vehicular traffic flow. It points out the need to continue to expand and enhance walking/ alternative transportation options and infrastructure (sidewalks, pedestrian-friendly crosswalks, etc.) for "communities with a large senior population" and to promote "healthful lifestyle[s]." With the Town's focus on continuing to keep Main Street South as the focal point for business development, investment for all road users will be critical. The POCD additionally recommends that a drainage study for the area be conducted.

A 2013 study, the *Strategic Plan to Accommodate Bicycle Travel on Main Street South*, was also completed to look at the feasibility of bike lanes along Main Street South. This plan additionally included recommendations for traffic calming measures, increased pedestrian accommodations, and various strategies to otherwise promote bicycling. Though there is desire to make the road more bicycle friendly, the result of this 2013 plan was that the Town ultimately decided not to consider the addition of dedicated/formal bike lanes on Main Street South. While this has been decided, it is noted that some people do nonetheless bicycle on the roadway shoulders, and will continue to do so, and other passive/recreational bicycling occurs on sidewalks, such as by youths. Thus, the installation of appropriate traffic calming along the corridor and the possible creation of *off-road* bicycle and walking path(s) should be further investigated to improve overall safety.

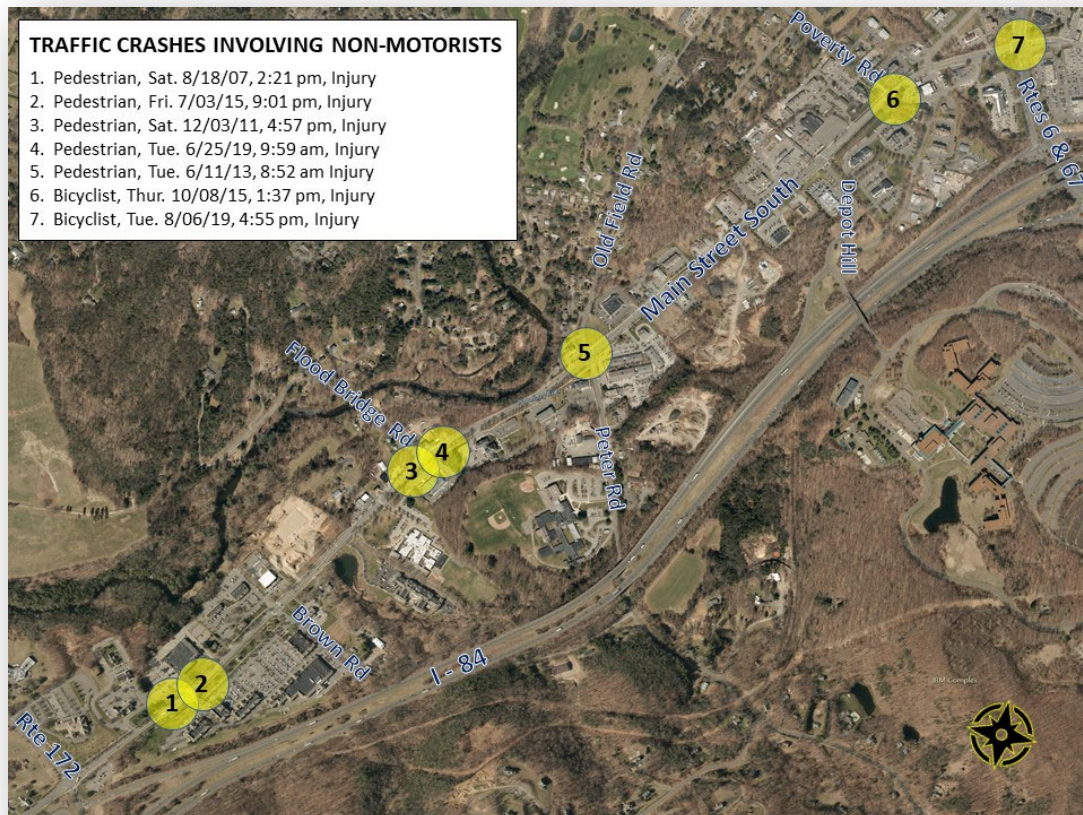
Crash History

Information on motor vehicles crashes that occurred along the Main Street South study corridor during the last two decades was reviewed for those that involved non-motorists. The crash history that was reviewed included data from the Connecticut Crash Data Repository (hosted by the University of Connecticut, the Connecticut Department of Transportation [CTDOT], and the state Department of Public Safety [DPS]), as well as crash report information as supplemented from the Southbury Police Department. The following table summarizes this crash data.

There were seven (7) such reported crashes that occurred over the last approximately 20 years; five (5) involving pedestrians and two (2) involving bicyclists. Each of these crashes involved some degree of non-motorist injury. Note that the 2007 crash is in the database with some unknown information. The following map illustrates that these crashes occurred generally spread out along the length of the nearly 2-mile corridor. However, two crashes occurred at the intersection of Main Street South and the Southbury Green driveway, and another two crashes occurred at the Main Street South intersection with Flood Bridge Road/the Southbury Senior Center driveway. The two reported bicyclist crashes both occurred at the northeastern end of the corridor. Most of these crashes occurred within or in close proximity to crosswalks – highlighting a need to improve upon crosswalk conditions to increase pedestrian/non-motorist safety.

TRAFFIC CRASHES INVOLVING NON-MOTORISTS

LOCATION	DATE	TIME	CRASH TYPE	SEVERITY	NON-MOTORIST LOCATION
Main St S at Southbury Green	Tue. 8/18/2007	2:21 pm	Pedestrian	Injury	Unknown
Main St S at Southbury Green	Fri. 7/03/2015	9:01 pm	Pedestrian	Injury	In Crosswalk
Main St S at Flood Bridge Rd	Sat. 12/03/2011	4:57 pm	Pedestrian	Injury	In Crosswalk
Main St S at Flood Bridge Rd	Tue. 6/25/2019	9:59 am	Pedestrian	Injury	In Crosswalk
Main St S at Old Field Road	Tue. 6/11/2013	8:52 am	Pedestrian	Injury	In Crosswalk
Oak Tree Road/Poverty Road	Thur. 10/08/2015	1:37 pm	Bicyclist	Injury	In Road Lane
Main St S at U.S. Route 6	Tue. 8/06/19	4:55 pm	Bicyclist	Injury	In Crosswalk



State Roadway Project for Route 172

CTDOT is in the process of designing changes for Route 172 that are to include improvements to the intersections with Main Street South and the I-84 interchange 14 ramps. Listed as State-project 130-0173 in the CTDOT Transportation Capital Infrastructure Program (CIP) 5-year Plan (2019-2023), this is to include realignment of the I-84 southbound off-ramp to Route 172 and modifications to each intersection. Pertaining to this Pedestrian Safety Study, the intersection of Route 172 at Main Street South is expected to be improved with the addition of new sidewalks and new pedestrian signal and crosswalk infrastructure. These types of pedestrian improvements are included as recommendations, among others, for much of the Main Street South corridor as part of this Pedestrian Safety Study. The timing of State-project 130-0173 is unknown as of recent correspondence with CTDOT.

Existing Conditions



CTDOT Improvement Project 130-0173



3. EXISTING CONDITIONS

To gain an understanding of pedestrian safety needs along the Main Street South corridor, review was made of existing conditions through a process of field reconnaissance by MMI staff, a daytime public walk audit that was conducted along the study corridor, and an evening public information gathering session. This assessment involved reviewing needs and deficiencies along sidewalks and crossings (existing and where new ones should be considered), and additionally looked at the streetscape and built-environment in general. The intent of this existing conditions assessment was to identify shortcomings in order to then determine specific enhancements (discussed in the next section of this report) that could and should be made to Main Street South to improve non-motorist safety and mobility.

The walk audit took place during afternoon hours on Wednesday, June 5, 2019, where both sides of Main Street South were walked with a group of Town officials, Planning Commission members, and community individuals. The public information meeting occurred later that evening at 7:00 p.m. where a brief presentation was made about the purpose of this study before the floor was opened up for members of the public to walk around to maps of different areas of Main Street South and casually share their concerns about safety and mobility needs for non-motorists on the corridor.



Figure 1, Figure 2, and Figure 3 summarize the different needs and issues at specific locations along the Main Street South corridor that were identified and/or brought to our attention.

Important concerns pertaining to non-motorist safety, mobility, as well as comfort, along Main Street South include the following:

- Lack of/need for pedestrian countdown signals at existing traffic signal intersections
- Need for traffic signals at several intersections to provide an exclusive pedestrian crossing phase – where all traffic stops while pedestrians have a ‘walk’ signal
- Lack of/need for pedestrian signals or beacons at some unsignalized crosswalks
- Possible need for new and/or modified crosswalks
- Need for detectable warning surfaces at pedestrian curb ramps
- Speeding of cars on roads/need for some traffic calming measures
- Deteriorating sidewalks in some locations
- Narrow sidewalks (less than 5 feet wide) in some locations
- Need for new sidewalks in some locations, especially on some side roads
- Steepness of the sidewalk in the vicinity of Peter Road
- Consider measures to mitigate flooding over sidewalk in locations where it freezes
- Need to trim vegetation or branches in some areas to clear path and/or improve visibility
- Excessive number of driveway curb cuts in some areas (need for access management)

Furthermore, aesthetic/streetscape enhancements that could be made along Main Street South that were noted include the possibility of adding landscaped roadway medians where there are currently only painted striped medians, as well as the possible strategically placed addition of new trees, plantings, and new plaza/bench area(s).

Crosswalk at U.S. Route 6 is without pedestrian countdown signal



No pedestrian signal-head indication of any sort at some traffic signals. Main Street South at Brown Road shown.

Peter Road crosswalk located too far back – motorists inch up on and ahead of crosswalk.





*Steepness/steep
-grade of
sidewalk on
Main Street
South near
Peter Road.*

*Excessive number of
driveway curb cuts, as
well as sidewalk up
down mogul effect.*





Vegetation overgrowth



Sidewalk in need of repair



1. Sidewalks are narrow and need to be widened to the Town standard of 5'
2. Opportunity to bury utility lines
3. Opportunity to implement a vegetated median to improve traffic calming
4. Consider adding trees along road
5. Full pedestrian countdown signal is needed, along with crosswalk across commercial driveway
6. Consider a median or island in this area, along with new crosswalk
7. Deteriorating/Uneven sidewalks require improvements
8. Flooding and poor drainage due to low elevation
9. Residents of the assisted living center use this sidewalk in wheelchairs
10. Area lacks trees along corridor
11. Side-street-green pedestrian pushbutton do not appear to work. Town needs overall plan for annual signal maintenance. Suggest signage alerting drivers of pedestrian crossing.
12. Wayfinding signage could prove to be an interactive option for the public
13. There is a need for additional doggie litter stations at the Town Green and throughout corridor
14. Consider installing speed bumps
15. Low hanging branches need pruned
16. Need to identify proposed off-ramp improvements by CTDOT
17. Current intersection has a lack of pedestrian access to cross between commuter parking and employee parking for Maggie McFly's
18. Awkward sidewalk alignment.

Figure 1 - Existing Issues and Needs (Section 1)



1. Ped ramps feel too steep at this intersection. Consider new crosswalks and reconfigure pedestrian access with a signal
2. Pedestrian and vehicular traffic conflict at school exit – suggest signage making motorists aware of school crossing
3. Steep up and down sidewalks (sidewalk mogul effect) – suggest leveling sidewalks across driveways
4. Consider implementing a new stamped crosswalk, intersection treatments, pedestrian signal and signage improvements, and/or pedestrian refuge island in place of a vehicle turn lane.
5. The rectangular rapid flashing beacon (RRFB) push-button is somewhat too far from crosswalk.
6. Required maintenance of sidewalk
7. Crosswalk should be moved further up towards South Main Street to improve visibility of pedestrian and for motorists, and to mitigate motorists inching up on/over crosswalk.
8. Steep sidewalk section should be addressed including a level landing area. Need to consider handrail for wheelchair users if not re-graded.
9. Crosswalk signal may not be properly timed and appears too short.
10. Many students come down this hill during half days
11. Difficult to cross at school dismissal
12. Flooding
13. Geometry seem problematic for southbound rights and there is missing curbing this area.
14. Remove unnecessary signs to reduce visual clutter

Figure 2 - Existing Issues and Needs (Section 2)



1. Too many curb cuts exist here for access management
2. Suggest adding an additional pedestrian crosswalk here
3. Exit out of Planet Fitness is confusing and not signed properly. The signal also confusingly stays red with no pedestrian phase when MSS/Depot Hill Rd pedestrian phase is on.
4. Steep up and down sidewalks (sidewalk mogul effect) – suggest leveling sidewalks across driveways
5. Trees need to be pruned
6. Sidewalk needed for people to walk to the library from Main St South
7. Poverty Road is dangerous – consider making it “no right turn on red” and splitting the side street in order to reduce high vehicle crash rate.
8. This intersection is very dangerous due to topography, vegetation and lack of pedestrian safety amenities. Vegetation obscures visibility for pedestrians to see down Oak Tree Road.
9. Vegetation overgrowth
10. Flooding area
11. Consider implementing gateway treatment with landscaping and signage as a feature at the entrance into Main Street South
12. Intersection is difficult to cross with lack of ramps, crosswalk angles, and signalization – suggest repainting crosswalks and implementing a full countdown pedestrian signal here
13. Lack of sidewalk connections to Heritage Road
14. Narrow one lane bridge to northwest of here feels unsafe while walking

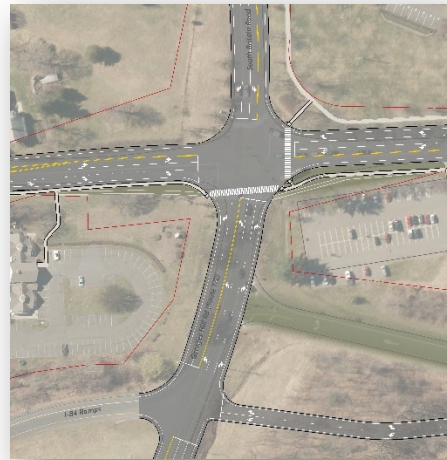
Figure 3 - Existing Issues and Needs (Section 3)

4. RECOMMENDED IMPROVEMENTS

Conceptual renderings were created across the Main Street South study area to illustrate and describe safety improvements that have been developed. These recommendations are proposed based on standard industry practice, review of the past local studies and crash history (Section 2), insight gained from the walking audit and public input (Section 3), and federal information on safety benefits associated with these types of proposed safety improvements (Section 6). Other elements are also recommended that would further enhance the aesthetic and walkability of the streetscaped pedestrian environment. The following is a summary of the recommended non-motorist safety improvements for Main Street South with thumbnail images, which are also fully illustrated as larger prints at the end of this section.

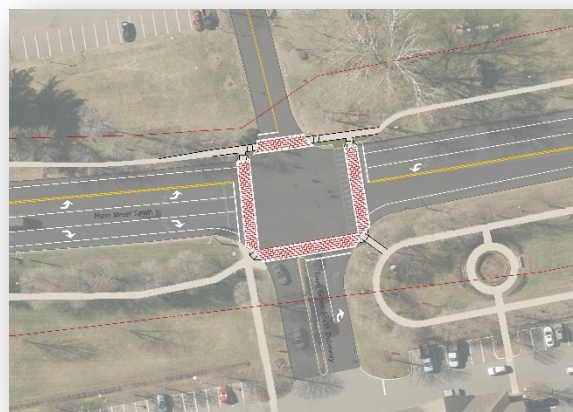
Main Street South at South Britain Road (Figure 4)

- CTDOT state-project 130-0173 is expected to add new pedestrian crosswalks on the north and east sides of the road along with new curb ramps, and add new sidewalks
- Town of Southbury should work with CTDOT to ensure that countdown pedestrian signals (with an exclusive pedestrian signal phase) are included in the design of State-project 130-0173 for the new crosswalks
- Other elements:
 - Install sidewalk connection to Maggie McFly's



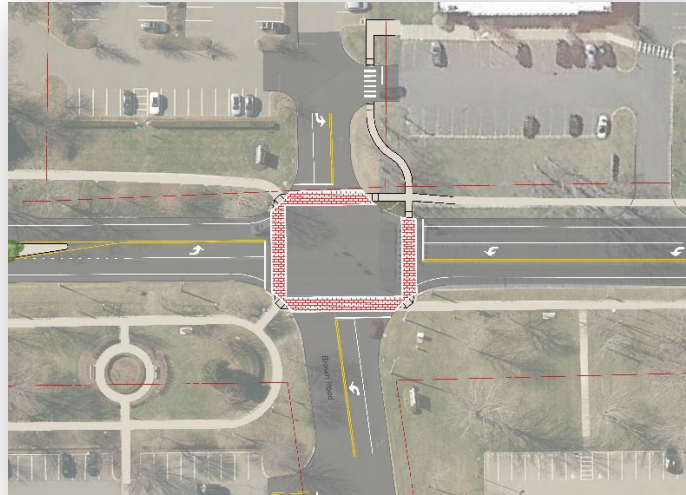
Main Street South at The Southbury Green Driveway (Figure 5)

- Install countdown pedestrian signals (with an exclusive pedestrian signal phase) for pedestrian crossings
- Install decorative or high-visibility crosswalks for all legs of the intersection
- Other elements:
 - Consider additional green space
 - Improve drainage in low lying areas
 - Add dog litter stations
 - Pedestrian oriented wayfinding signs
 - Trim low hanging branches



Main Street South at Brown Road (Figure 6)

- Install countdown pedestrian signals (with exclusive pedestrian signal phase) for crossings
- Install decorative or high-visibility crosswalks for all legs of the intersection
- Add new concrete sidewalk approaches as necessary
- Install landscaped raised median to east and west (streetscape enhancement and traffic calming)
- Fix sidewalk in poor condition
- Other elements:
 - Add stop bar on leg opposite Brown Road



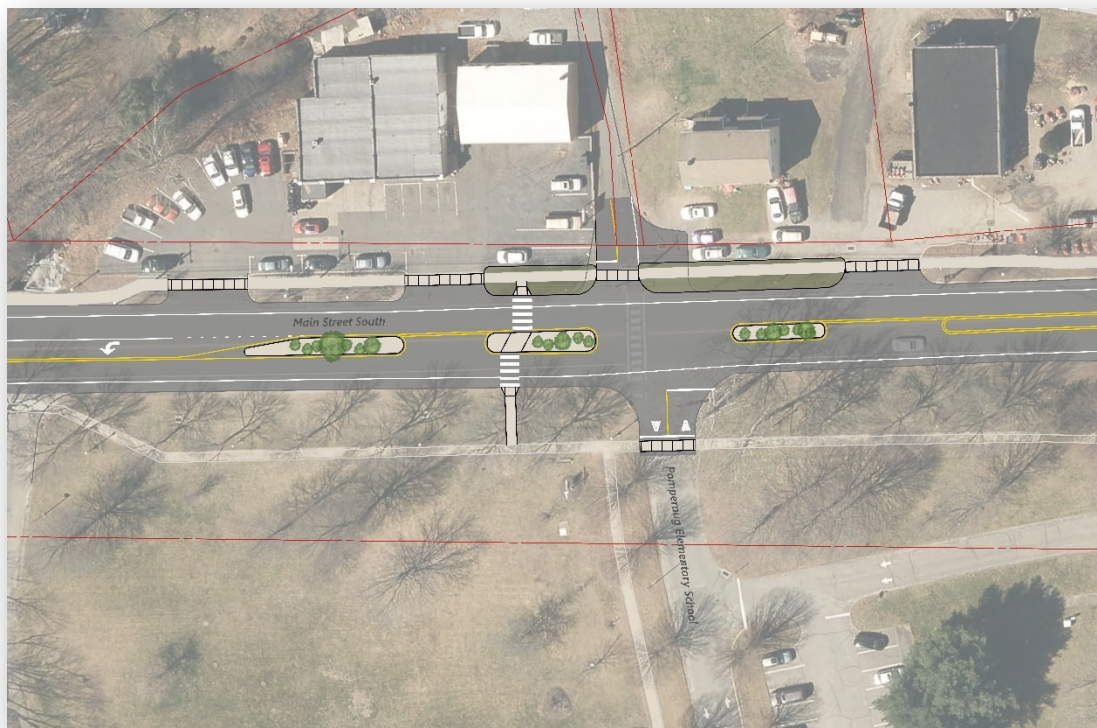
Main Street South at Southbury Village Square (Figure 7)

- Add staggered mid-block crosswalk near the gazebo along with Rectangular Rapid Flashing Beacon (RRFB) (or Pedestrian Hybrid Beacon (PHB)/HAWK beacon) and landscaped (low-height vegetation) raised medians as both a pedestrian safety improvement and a traffic calming measure, as well as aesthetic enhancement
- Other elements:
 - Add street trees in esplanade between sidewalk and Main Street South (with separation from proposed mid-block crossing to ensure pedestrian visibility)



Main Street South at Pomperaug Elementary School (Figure 8)

- Add staggered mid-block crosswalk near school driveway (to replace existing crosswalk) along with Rectangular Rapid Flashing Beacon (RRFB) (or Pedestrian Hybrid Beacon (PHB)/HAWK beacon) and landscaped (low-height vegetation) raised medians
- Consolidate driveways (access management) on west side of Main Street South
- Add painted median on Main Street South to north of school driveway
- Provide raised/level pedestrian sidewalks across driveways
- Other elements:
 - Consider widening of the bridge deck to address sidewalk alignment
 - Improve drainage in low lying areas

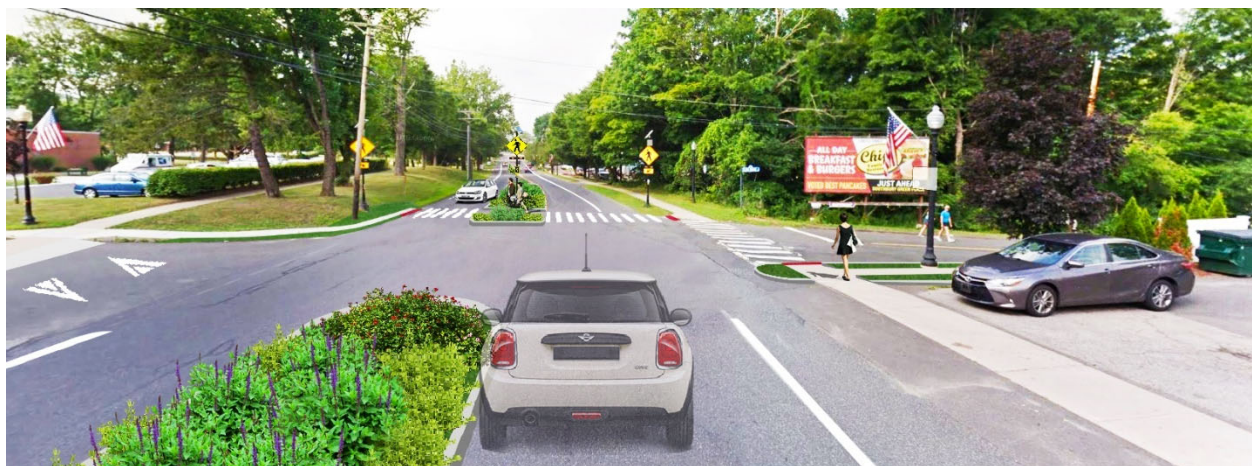


Main Street South at Flood Bridge Road (Figure 9)

- Add staggered mid-block crosswalk (to replace existing crosswalk) along with Rectangular Rapid Flashing Beacon (RRFB) (or Pedestrian Hybrid Beacon (PHB)/HAWK beacon) and landscaped (low-height vegetation) raised medians (in place of the existing left turn lanes) as both a pedestrian safety improvement and a traffic calming measure, as well as aesthetic enhancement
- Add sidewalk on north side of Flood Bridge Road
- Provide raised/level pedestrian sidewalks across driveways
- Add painted median to north and south of intersection



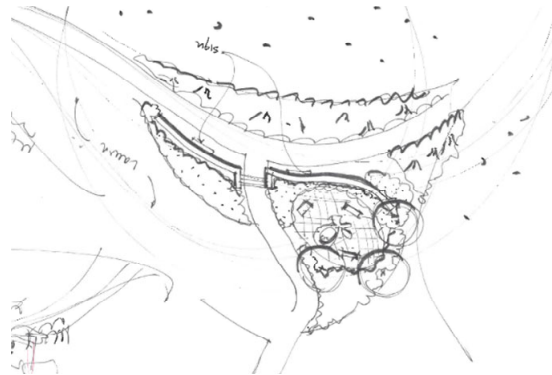
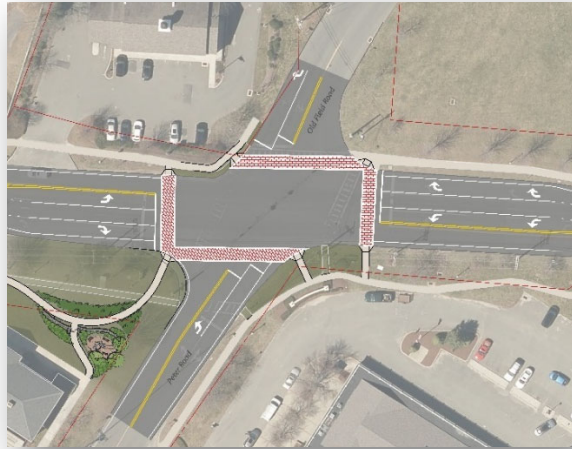
Existing



Rendering

Main Street South at Peter Road/Old Field Road (Figure 10)

- Install countdown pedestrian signals for pedestrian crossings
- Install decorative or high-visibility crosswalks for all legs of the intersection
- Add new concrete sidewalk approaches as necessary
- Move crosswalk closer to intersection on Peter Road
- to improve visibility of pedestrians and for motorists, as well as to mitigate motorists inching up on/over crosswalk.
- Regrade sidewalk on south corner to lessen steepness
- Consider adding a mid-block crossing on Peter Road near the middle school
- Other elements:
 - Consider adding new plaza/greenspace by the Police Station as part of sidewalk regrade project



Concept Sketch – Possible New Plaza/Memorial Park



Rendering

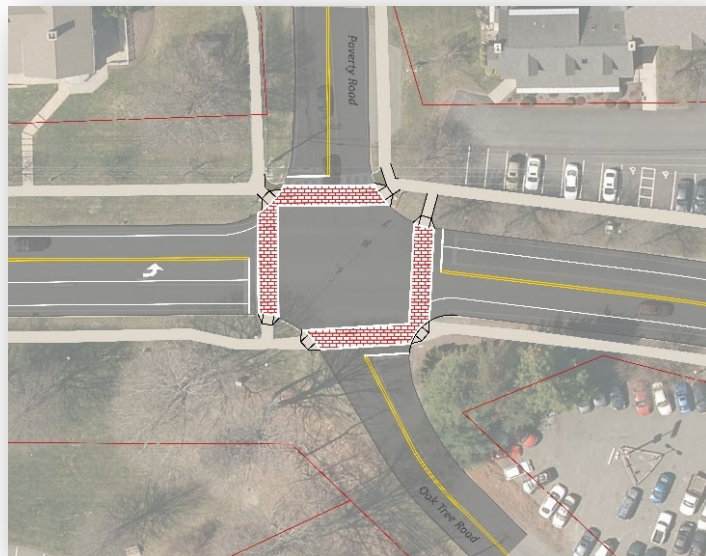
Main Street South at Depot Hill Road (Figure 11)

- Install countdown pedestrian signals for pedestrian crossings
- Install decorative or high-visibility crosswalks for all legs of the intersection
- Add new concrete sidewalk approaches as necessary
- Consolidate driveways (access management) and narrow curb cut widths on west side of Main Street South
- Provide raised/level pedestrian sidewalks across driveways
- Other elements:
 - Install No Left Turn sign for northbound vehicles on Main Street South attempting to enter Planet Fitness exit signal
 - Walkway could be installed within parking lot of Planet Fitness/HH Stone & Sons



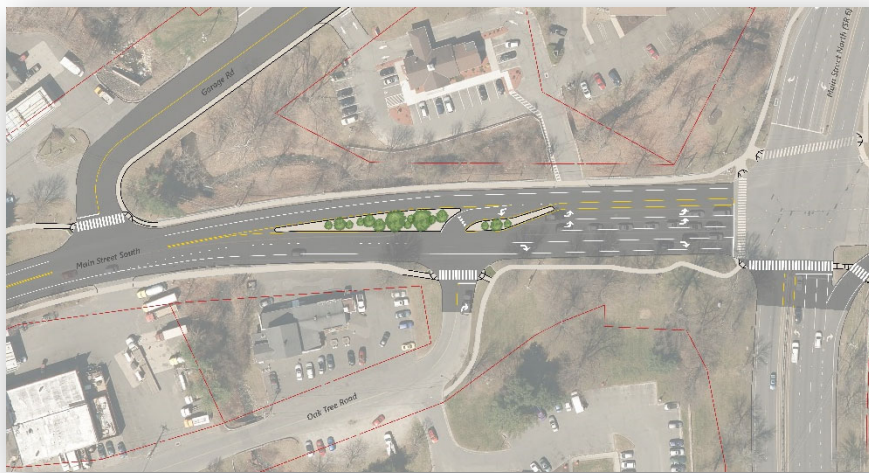
Main Street South at Poverty Road (Figure 12)

- Install countdown pedestrian signals for pedestrian crossings
- Install decorative or high-visibility crosswalks for all legs of the intersection
- Install No-Right-Turn-On-Red signage for Oak Tree Road and Poverty Road approaches
- Create split traffic signal phasing for the Oak Tree Road and Poverty Road approaches
- Trim vegetation on corners (particularly the east corner) to improve visibility



Main Street South at Oak Tree Road and U.S. Route 6/Route 67 (Figure 13)

- Install sidewalk on north side of Garage Road
- Add landscaped (low-height vegetation) raised median on Main Street South at Oak Tree Road (north junction) for access management turn restrictions
- Town of Southbury should work with CTDOT to have countdown pedestrian signals (with an exclusive pedestrian signal phase) installed at intersection with U.S. Route 6, along with new pedestrian curb ramps
- Other elements:
 - Repaint faded crosswalk at Garage Road and at Oak Tree Road
 - Trim vegetation on east side of Main Street South
 - Add gateway signage into corridor



Poverty Road (Figure 14)

- Install sidewalk on north side of Poverty Road to connect to Southbury Library.



Corridor-wide Recommendations

- Narrow vehicle lanes to 11 feet as traffic calming measure, which secondarily increases width of shoulders for any bicyclists
- Widen sidewalks where less than 5 feet width
- Update pedestrian curb ramps to install detectable warning surfaces and for general ADA compliance
- Evaluate traffic signal timings to consider a reduction to the cycle length and to improve general signal operations
- Develop maintenance plan for all town signals along Main Street South
- Add pedestrian lighting as necessary
- Create corridor-long multi-use (pedestrian and bicyclist) path

Further discussion and study necessary pertaining to consideration to provide a multi-use path along south side of the full Main Street South corridor:

This would entail widening the existing approximately 5-foot wide sidewalk to be 10 to 12 feet in width. While bicyclist mobility was not the primary component of this Pedestrian Safety Study, and considering the fact that that putting bike lanes on Main Street South was previously investigated but not approved by the Town, note that a shared-use path could provide safer and more accommodating infrastructure for recreational bicycle use in the center of Southbury. This would, for example, better accommodate children who do, or would like to, bicycle to school. A shared-use path would also be consistent with broader goals of the Streetscape Plan for Main Street South, particularly Recommendation 'C' which includes considering "a designated bicycle path along the outer edge of the Main Street South roadway [that] could help to encourage safe use of bicycles for travel." Moreover, the 2012 Southbury POCD surveyed people and found that 58% agreed that the Town should construct bikeways while only 30% disagreed. This included not only some desire for bikeways within the center of Southbury, but also connecting to the center and within other areas of town.

The sidewalk-level perspective shown below illustrates what a shared-use path could look like in front of the Pomperaug Elementary School, as an example. If the Town were to seek to advance a multi-use (pedestrian and bicycle) path forward toward eventual fruition, further study, development of concepts, and production of engineering plans would be necessary to determine how such a path would best be designed along mid-block segments and at/through intersections.



Existing



Rendering

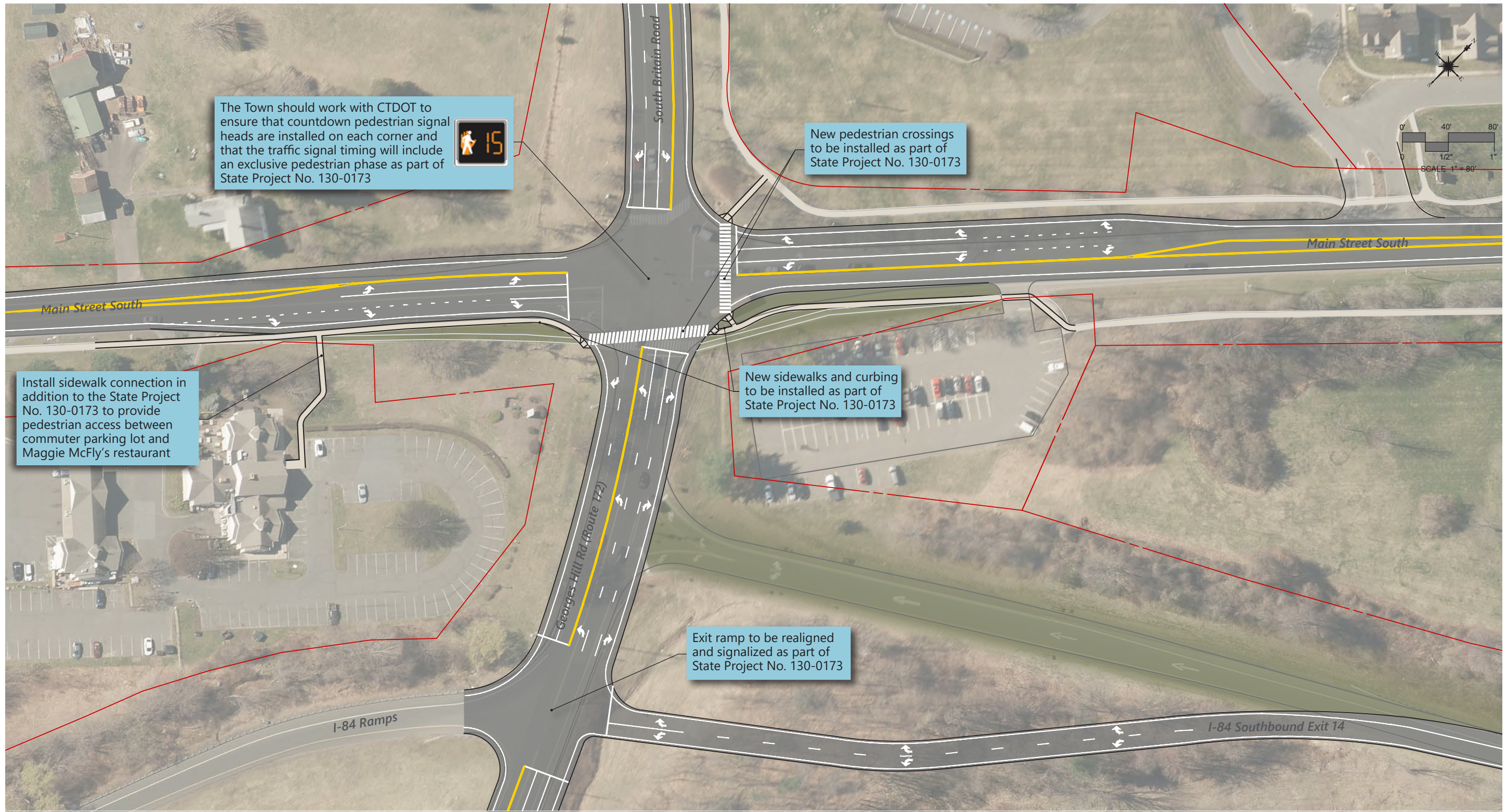


Figure 4 - Recommended Improvements at Main Street South and South Britain Road

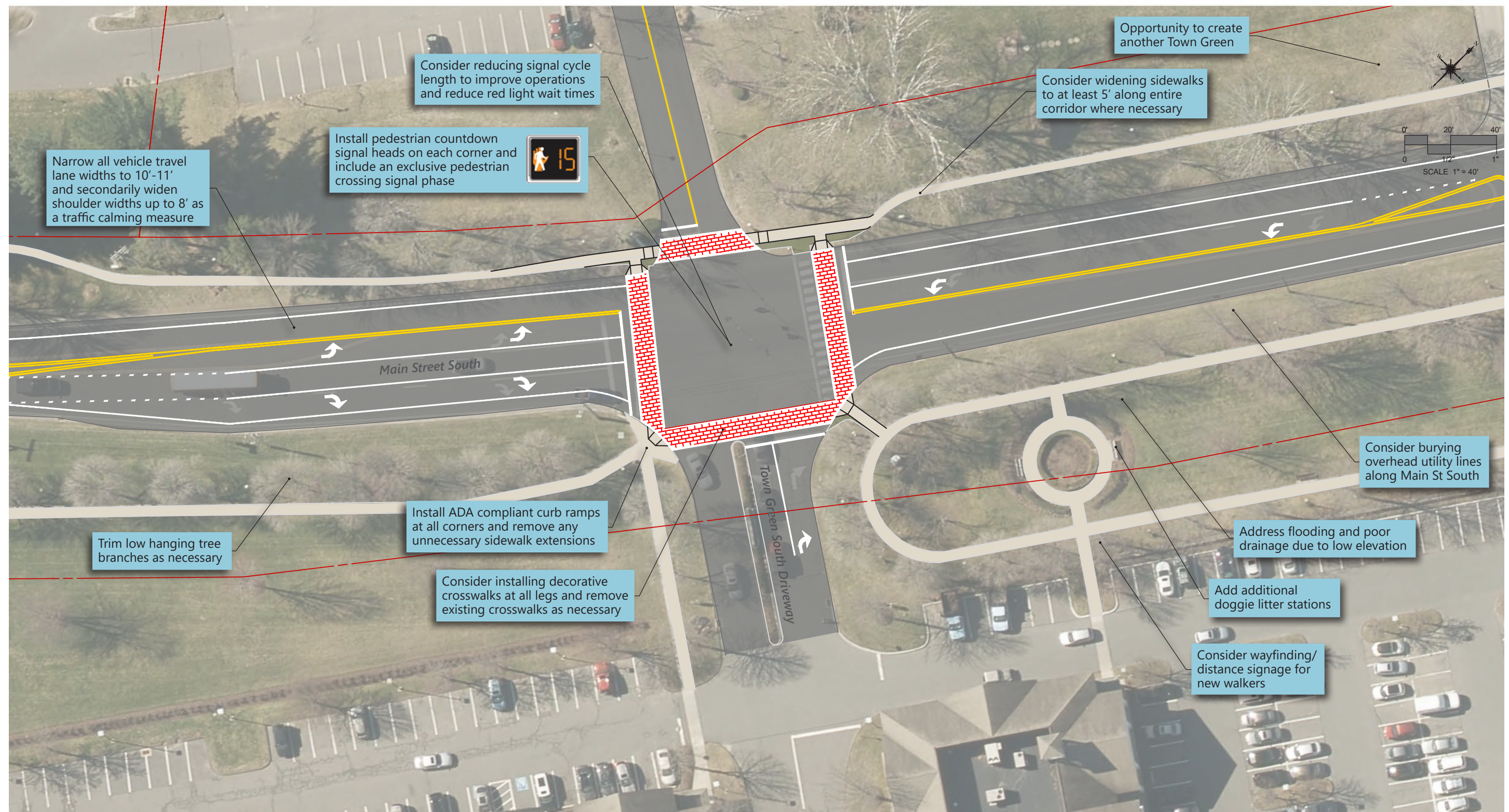


Figure 5 - Recommended Improvements at Main Street South and The Southbury Green Driveway

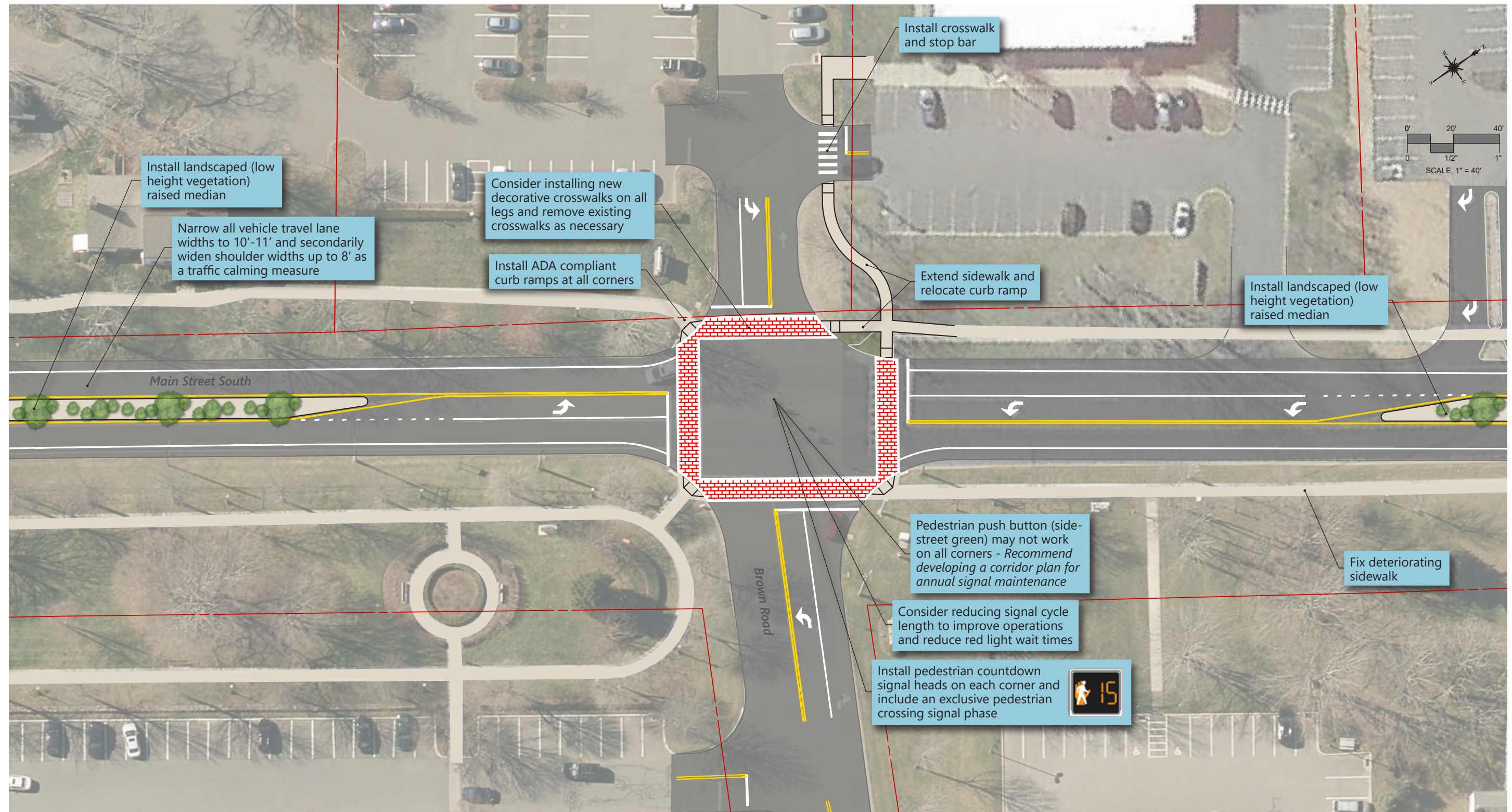


Figure 6 - Recommended Improvements at Main Street South and Brown Road



Figure 7 - Recommended Improvements at Main Street South and Southbury Village Square

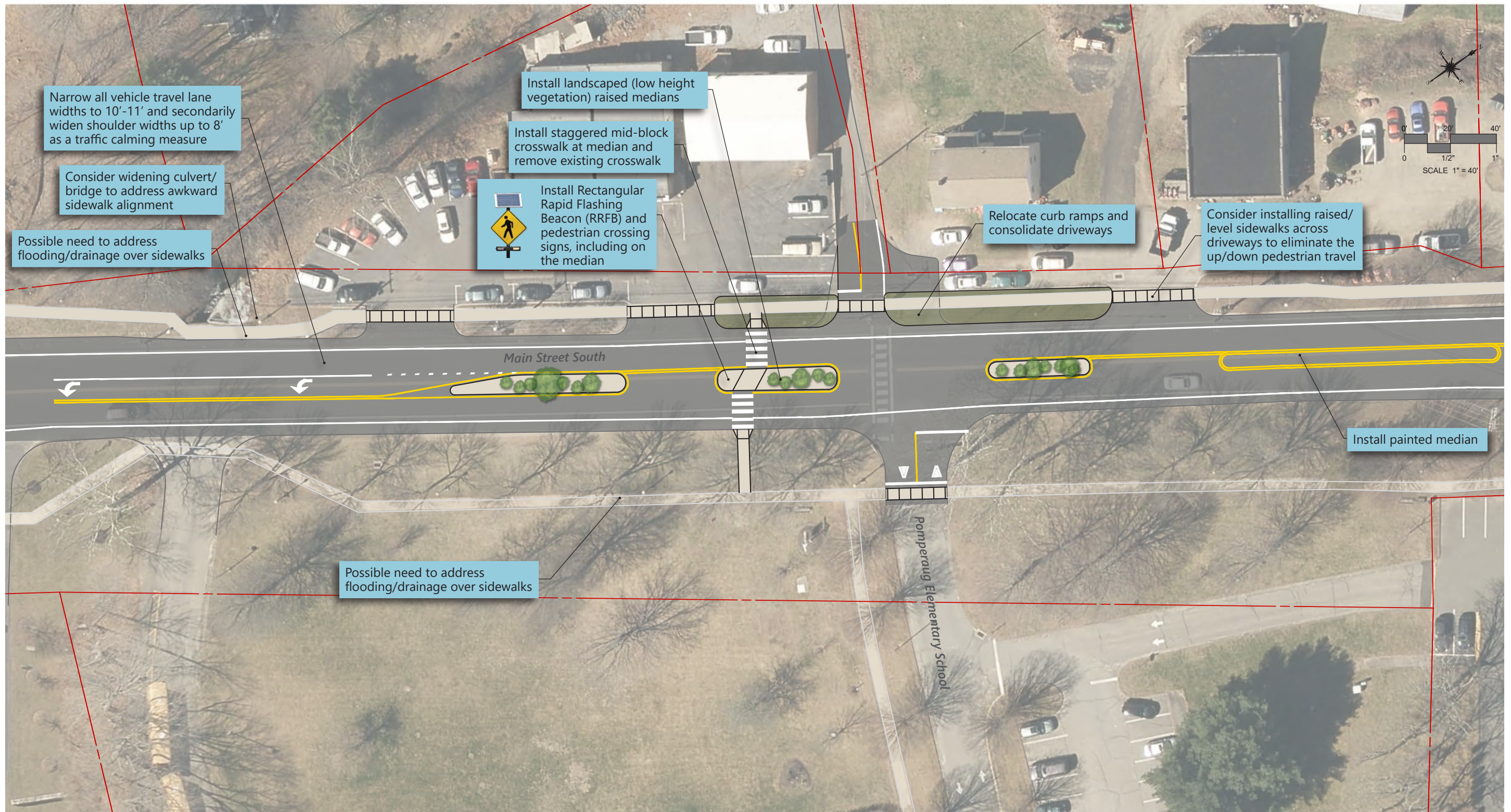


Figure 8 - Recommended Improvements at Main Street South and Pomperaug Elementary School

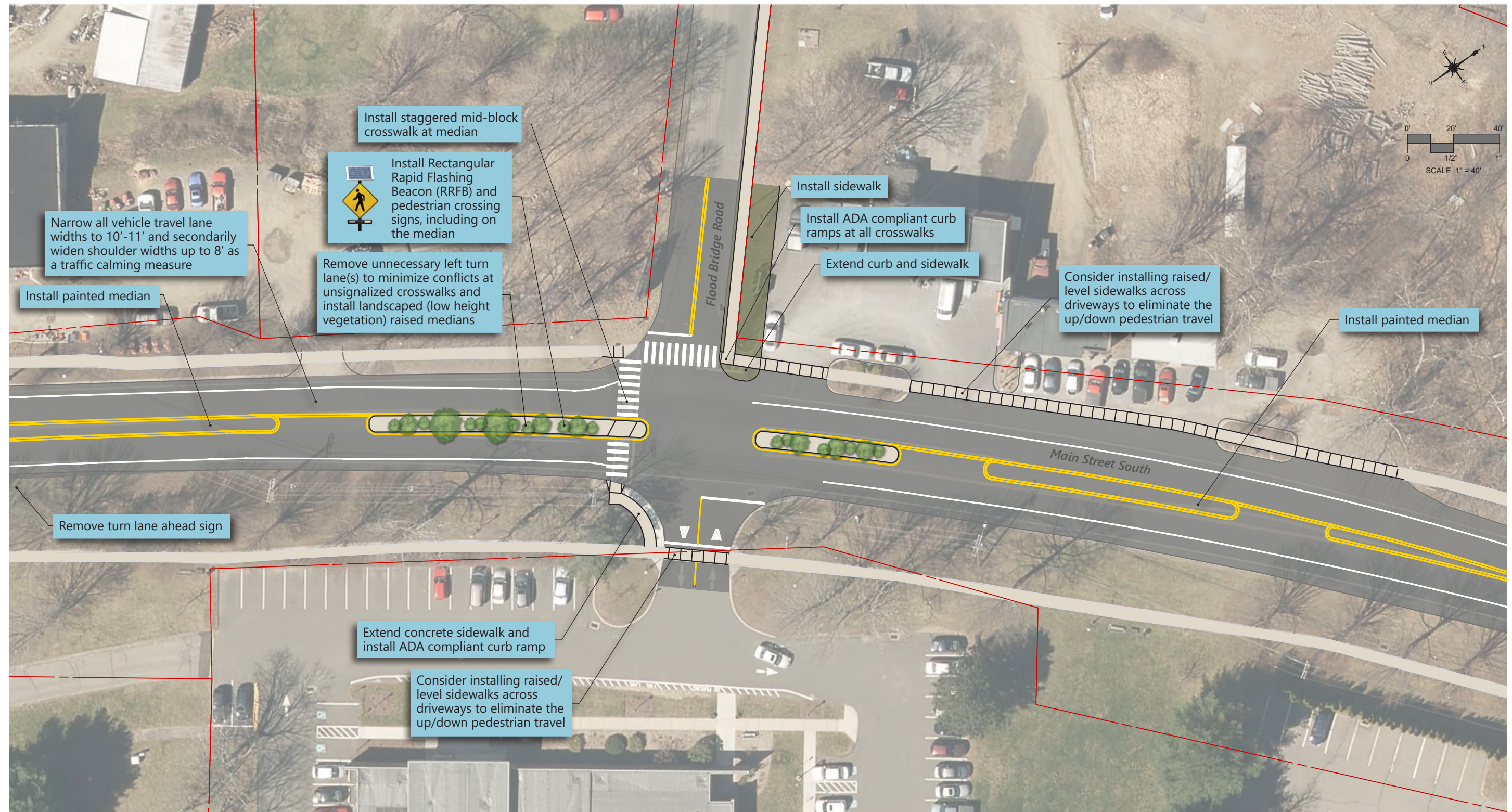


Figure 9 - Recommended Improvements at Main Street South and Flood Bridge Road

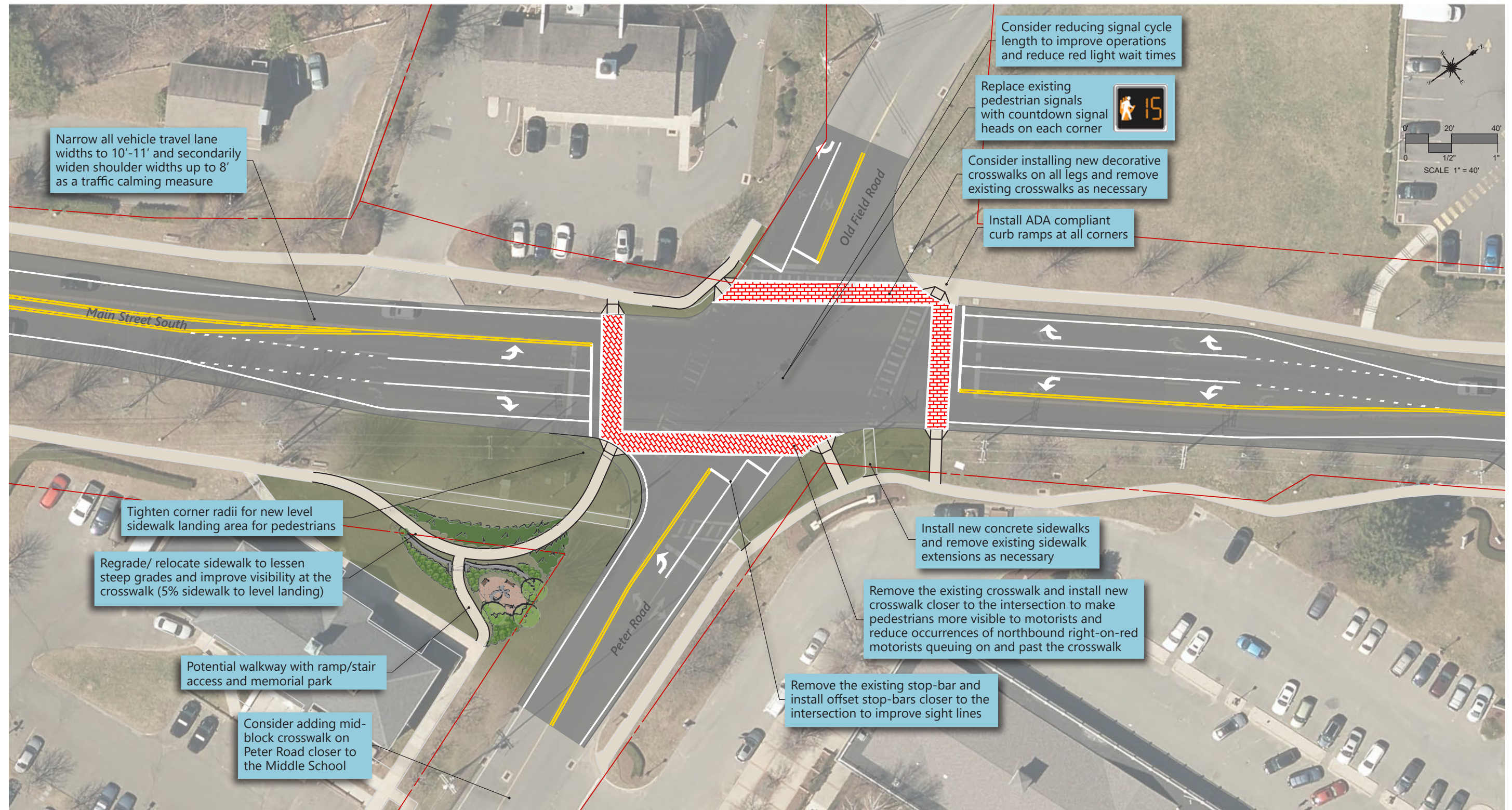


Figure 10 - Recommended Improvements at Main Street South and Peter Road/Old Field Road

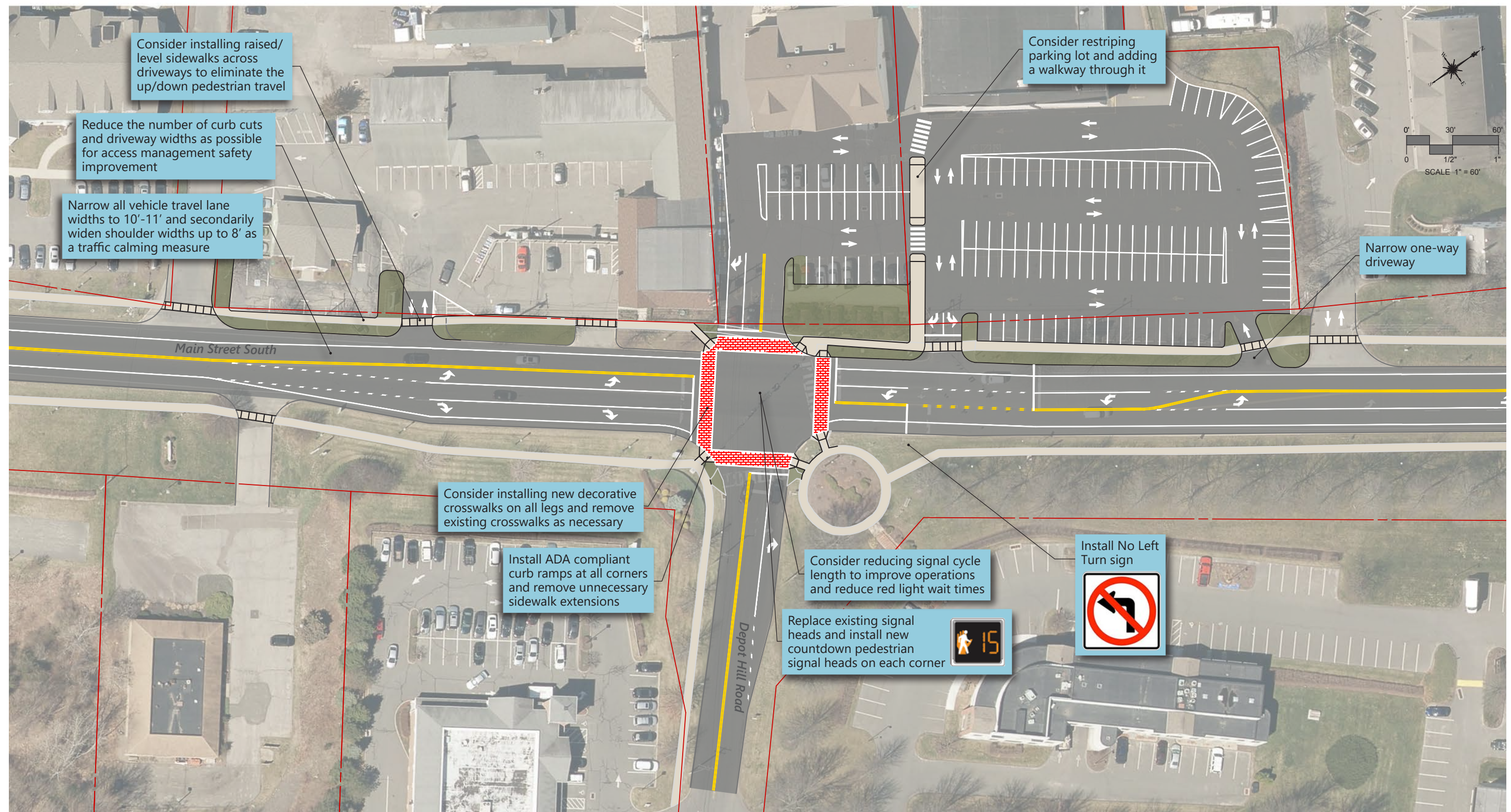


Figure 11 - Recommended Improvements at Main Street South and Depot Hill Road

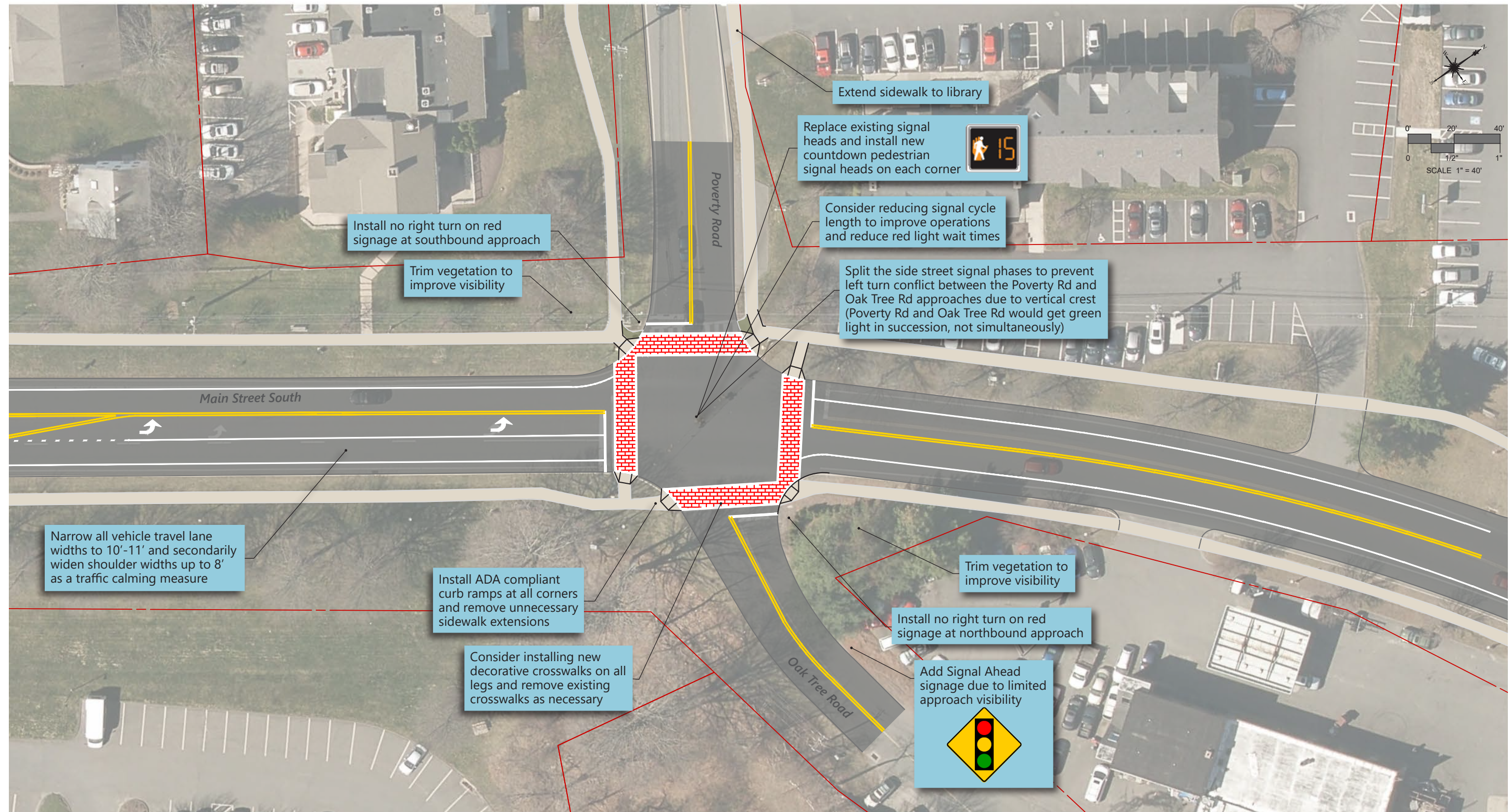


Figure 12 - Recommended Improvements at Main Street South and Poverty Road

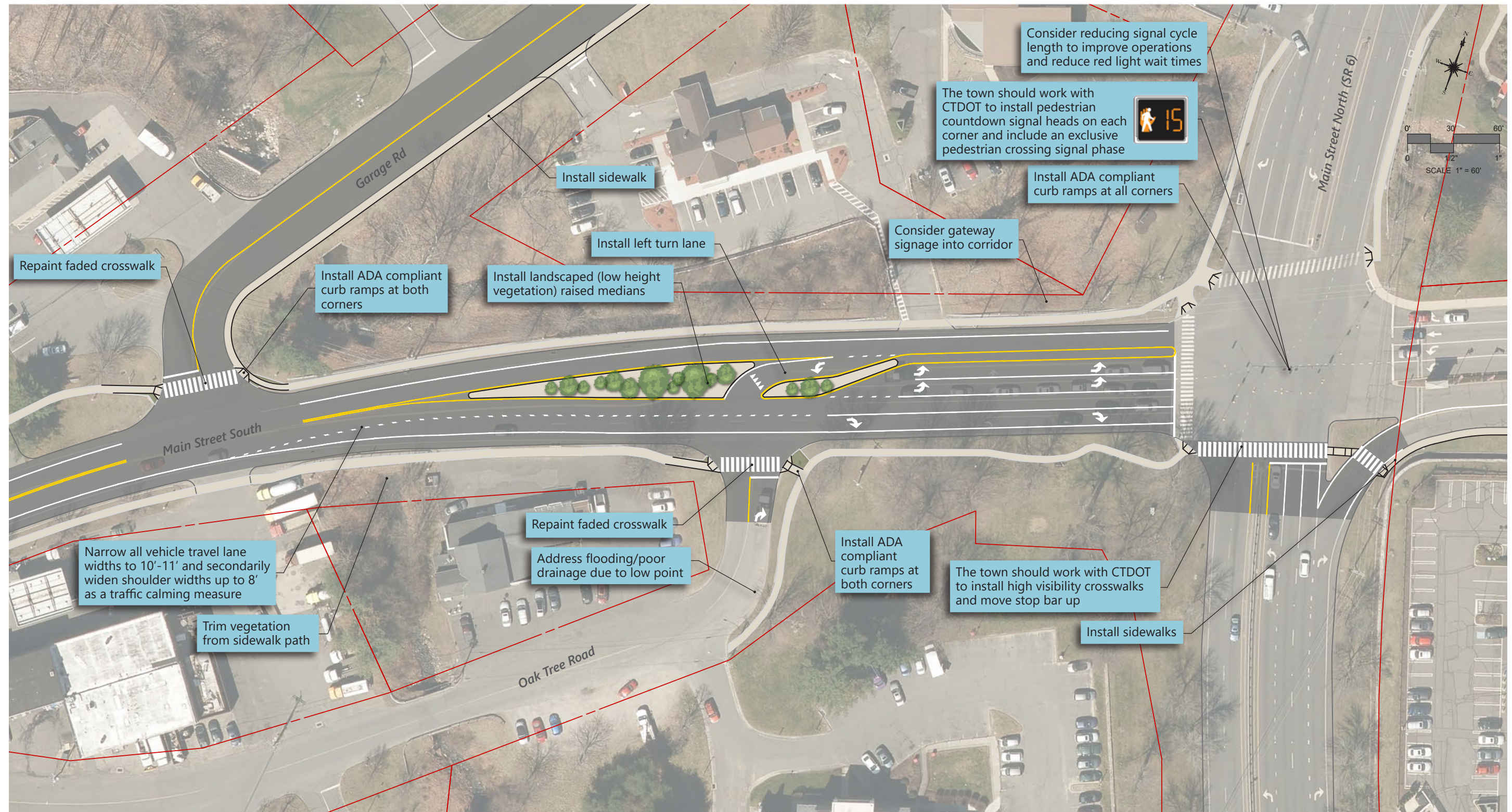


Figure 13 - Recommended Improvements at Main Street South at Oak Tree Road and U.S. Route 6/Route 67



Figure 14 - Recommended Improvements at Poverty Road

5. PRELIMINARY COST ESTIMATES

Planning-level construction cost estimates¹ were generated for the proposed improvements based on the concept plans provided in the Appendix. Note that the costs shown below are summaries and that the more detailed preliminary cost estimates can also be found in the Appendix. The costs below are organized by the separate concept figure number, and summarize the main recommended improvements shown per separate concept.

Main Street South at South Britain Road (Figure 4)

State project expected to be predominantly funded through CTDOT

Non State Project Elements:

Sidewalk connection to restaurant (Funded by Town or property owner) \$9,000

Main Street South at The South Green (Figure 5)

Key Elements:

Countdown pedestrian signals for pedestrian crossings

Decorative crosswalks for all legs of the intersection

Other Elements:

Improve drainage in low lying area(s)

Sidewalk improvements

Sub-Total \$230,000

Main Street South at Brown Road (Figure 6)

Key Elements:

Countdown pedestrian signals for pedestrian crossings

Decorative crosswalks for all legs of the intersection

Landscaped raised median

Other Elements:

Sidewalk improvements

Sub-Total \$520,000

¹ Note that these planning-level cost estimates do not include fees associated with full engineering consultant design services, which could preliminarily be estimated at an additional 10% of construction costs if performed by a private-sector consultant.

Main Street South at Village Square (Figure 7)

Key Elements:

Mid-Block Crossing near Village Square gazebo with Rectangular Rapid Flashing Beacon (RRFB)

Landscaped raised median/pedestrian refuge island

Sub-Total \$230,000

Main Street South at Pomperaug Elementary School (Figure 8)

Key Elements:

Mid-Block Crossing near school driveway with RRFB

Landscaped raised medians/pedestrian refuge island

Consolidate driveways on west side of Main Street South (access management)

Widen culvert/bridge deck on Main Street South over brook

Other Elements:

Improve drainage

Raised/Level sidewalks across driveways

Sub-Total \$440,000

Main Street South at Flood Bridge Road (Figure 9)

Key Elements:

Mid-Block Crossing near Flood Bridge Road and Senior Center with RRFB

Landscaped raised medians/pedestrian refuge island

Install sidewalk on north side of Flood Bridge Road

Other Elements:

Raised/Level sidewalks across driveways

Sub-Total \$270,000

Main Street South at Peter Road/Old Field Road (Figure 10)

Key Elements:

Countdown pedestrian signals for pedestrian crossings

Decorative crosswalks for all legs of the intersection, including moving crosswalk and stop-bars on Peter Road closer to intersection

Sidewalk improvements, including regrade sidewalk adjacent to Police Station to reduce steepness

New plaza/greenspace by Police Station

Other Elements:

Mid-block crosswalk on Peter Road closer to middle school

Sub-Total \$610,000

Main Street South at Depot Hill Road (Figure 11)

Key Elements:

Countdown pedestrian signals for pedestrian crossings

Decorative crosswalks for all legs of the intersection

Consolidate driveways on west side of Main Street South (access management)

Other Elements:

Raised/Level sidewalks across driveways

Other sidewalk/walkway improvements

Sub-Total \$370,000

Main Street South at Poverty Road (Figure 12)

Key Elements:

Countdown pedestrian signals for pedestrian crossings

Decorative crosswalks for all legs of the intersection

Revise traffic signal phasing for split side streets phasing

Other Elements:

Install advisory signage on side street approaches (No Turn on Red, Signal Ahead)

Sub-Total \$200,000

Main Street South at Oak Tree Road and U.S. Route 6/Route 67 (Figure 13)

Key Elements:

Countdown pedestrian signals for pedestrian crossings at U.S. Route 6/Route 67 signal

Install sidewalk on north side of Garage Road

Landscaped raised median between Garage Road and U.S. Route 6/Route 67

Other Elements:

Improve drainage

Sub-Total \$540,000

Poverty Road (Figure 14)

Install sidewalk on Poverty Road from Main Street South to Southbury Library

Sub-Total \$170,000

Capital Grand Total Cost (rounded) \$ 3,600,000 ²

² Does not include state project for Route 172 at/in vicinity of Main Street South.

Again, please note that these cost estimates are preliminary and the grand total would be the cost to implement the vast majority, if not all, of the work shown on the Improvement Concept Plans. Not every single recommended improvement may necessarily need to be done. For instance, widening the culvert bridge to improve the sidewalk alignment on the west side of Main Street South between Village Square and Pomperaug Elementary School may not be a cost-effective use of funds. Likewise for a new plaza/park next to the Police Station. The estimated cost for specific items can be found in the Appendix. It is likely that final costs will change from those shown above/in the Appendix as part of fine-tuning and final engineering. It is also possible that certain costs could be lowered depending on the type of materials used, variations in the design (e.g. installing/reinstalling painted crosswalks instead of installing decorative crosswalks), whether or not certain improvements are installed, whether or not some work is completed by the Town as opposed to through a hired contractor, and so on. Lastly, costs associated with the following potential corridor-wide items listed below are not included in the above.

Corridor-wide Recommendations Not Included Above

- Evaluate traffic signal timings to consider adjustments including reduced cycle lengths
- Maintenance plan for Main Street South signals and pedestrian beacons
- Additional lighting along corridor
- Additional strategically placed street furniture and/or streetscape elements
- Multi-use (pedestrian and bicyclist) path

*Costs subject
to
further study*

6. SAFETY BENEFITS OF RECOMMENDED IMPROVEMENTS

It is important to consider how modifying aspects of Main Street South could improve safety. Statistical data from the Federal Highway Administration (FHWA)^{3 4 5} indicates that certain roadway changes and improvements, referred to as countermeasures, can improve safety. The following is a summary of several of the recommended pedestrian safety improvements for/adjacent to Main Street South and the degree of safety benefit, as reported by the FHWA, that could generally be anticipated from such countermeasures.

PROPOSED IMPROVEMENT	FHWA COUNTERMEASURE	FHWA SAFETY BENEFITS
Add Sidewalk where there is none today	Walkways	65-89% reduction in crashes involving pedestrians walking along roadways
Install Pedestrian Countdown Signal Heads where non-countdown pedestrian signals currently exist	Install Pedestrian Countdown Timer	55-70% reduction in pedestrian crashes
Install Exclusive Pedestrian Crossing Signal Phase where concurrent or side-street-green signal crossing currently exists for pedestrians	Implement 'Barnes Dance'	51% reduction in pedestrian crashes
Install Raised Medians/ Pedestrian Crossing Islands	Raised Medians/ Pedestrian Crossing Islands	46-56% reduction in pedestrian crashes
Install Pedestrian Beacon signal for crosswalk at midblock locations or at non-traffic-signal locations	Pedestrian Hybrid Beacon/HAWK beacons	55% reduction in pedestrian crashes
	Rectangular Rapid Flashing Beacon (RRFB)	36-47% reduction in pedestrian crashes
Consolidate Curb Cuts/ Median Turn Restriction(s)	Corridor Access Management	25-31% reduction in injury and fatal crashes
Install Off-road multi-use path	Install Shared Path	25% reduction in vehicle/bicyclist crashes
Widen shoulder (by narrowing vehicle lane)	Widen Shoulder	7% reduction in vehicle/bicyclist crashes for 1-foot wider shoulder, 13% reduction in vehicle/bicyclist crashes for 2-foot wider shoulder, etc.

³ <https://safety.fhwa.dot.gov/provencountermeasures/>

⁴ <https://safety.fhwa.dot.gov/provencountermeasures/fhwasa18029/fhwasa18029v2.pdf>

⁵ <http://www.cmfclearinghouse.org/>

7. NEXT STEPS

The goal of this study was to develop a set of recommendations to improve pedestrian safety along Main Street South and in the center of Southbury. The next steps will be for the Town to move these recommended improvements to implementation. This includes the prioritization of some improvements to be made before others, the allocation of/securing of funding to fully design and construct the improvements, the production of engineered construction plans for the different improvements, and the actual physical implementation of the improvements. For any individual roadway improvement or group of improvements, a combination of factors will come into play including the extent of Town funding that can be put toward making these improvements, the extent of funding that may need to be gained from outside sources, the success in gaining outside funding, the extent to which engineering and roadway improvements could be done 'in-house' by the Town, and so on.

Our suggested **prioritization** of the numerous recommended pedestrian/non-motorist safety improvements is to implement the improvements that have the highest potential for reducing crashes first. Based generally on the prior section of this report, *Safety Benefits of Recommended Improvements*, we suggest that the Town of Southbury:

- **First:** add sidewalks where there are none today
- **Second:** add exclusive pedestrian signal phasing and countdown signal heads to the traffic signals along Main Street South where there are currently only concurrent "side-street-green" pedestrian crossings. These include the intersections at Route 172 (work with CTDOT as part of State-project 130-0173 for this intersection), at Southbury Green, at Brown Street, and at U.S. Route 6 (work with CTDOT for this intersection)
- **Third (tied):** install pedestrian countdown signal heads at the traffic signals along Main Street South not mentioned above where there is already exclusive pedestrian signal phasing but with non-countdown signal heads. These include the intersections at Peter Road/Old Field Road, at Depot Hill Road, and at Poverty Road/Oak Tree Road.
- **Third (tied):** install raised median pedestrian refuge islands, with Rectangular Rapid Flashing Beacons (RRFB) on the median and sides of road (as necessary) (or install more expensive Pedestrian Hybrid Beacon (PHB)/HAWK beacons if desired), at the three unsignalized crosswalk locations shown on the concept plans. These include the location adjacent to Flood Bridge Road, adjacent to the Pomperaug Elementary School, and adjacent to the Village Square shopping plaza green.
- **Fifth:** implement access management along Main Street South as opportunities arise. This includes consolidating driveways/curb cuts, installing raised median turn restrictions, as well as installing level sidewalks across driveways/curb cuts
- **Sixth:** further consider and study the appropriateness of converting the southerly sidewalk along Main Street South into a shared-use pedestrian/bicycle path, as well as consider installing shared-use paths in other areas in town
- **Seventh:** restripe Main Street South with wider shoulders and 11-foot-wide vehicle lanes

Note that some improvements can be made as part of other primary efforts. The restriping of wider roadway shoulders, by restriping for 11-foot-wide vehicle lanes, could be done as part of the Town's regular roadway repaving. The next time Main Street South or a portion of it is repaved, instead of restriping with the same lane widths as before, restripe with 11-foot vehicle lanes and wider shoulders. The CTDOT standard vehicle lane width is 11-feet wide as of the last couple years. The Town should also work with property owners, particularly during the approval process of site development and redevelopment projects, to make access management/curb-cut consolidation improvements, install level sidewalks across curb cuts, and so on. Moreover, the inclusion of off-site pedestrian safety infrastructure improvements could be tied to planning and zoning approval of development projects.

A list of potential outside funding sources can be found on the FHWA website,⁶ as well as through potential State of Connecticut sources such as LOTCIP (Local Transportation Capital Improvement Program),⁷ LoCIP (Local Capital Improvement Program),⁹ and the Community Connectivity Grant Program.¹⁰ It is also possible that funding could be gained through private foundation sources.

Lastly, while we suggest that prioritization be given to making the improvements that are expected to have the highest safety potential, the aesthetic and streetscape-related improvements in this study should nonetheless be further reviewed for consideration. One such example of this would be to possibly install plaza/greenspace and additional streetscape elements such as adjacent to the police station. To further increase walkability and increase the number of places to walk to in general, Southbury should also consider and plan for opportunities in the future to strategically place infill development in areas such as around the Southbury Green. However the Town proceeds, we trust that this study provides a sound foundation to move forward in improving pedestrian and non-motorist safety and walkability along Main Street South and in the center area of Southbury.

⁶ https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.cfm

⁷ <https://nvcogct.gov/what-we-do/transportation-planning/lotcip/>

⁸ <https://portal.ct.gov/DOT/Office-of-Engineering/Highway-Design-Local-Roads---LOTICIP>

⁹ <https://portal.ct.gov/OPM/IGPP-MAIN/Grants/LoCIP/Local-Capital-Improvement-Program-LoCIP-HOME-PAGE>

¹⁰ <http://ctconnectivity.com/>

APPENDIX

MAIN STREET SOUTH
PEDESTRIAN SAFETY STUDY



Figure A1 - Recommended Improvements at Main Street South and Flood Bridge Road Perspective



Figure A2 - Recommended Improvements at Main Street South and Peter Road/Old Field Road Perspective

**ENGINEER'S OPINION OF CONSTRUCTION COSTS
MAIN STREET SOUTH PEDESTRIAN SAFETY STUDY
SOUTHBURY, CONNECTICUT
CONCEPTUAL DESIGN**
MM# 2097-28
May 2020

MSS at South Britain Road MSS at the South Green MSS at Brown Road MSS at Village Square MSS at Pomperaug School MSS at Flood Bridge Road MSS at peter/oldfield MSS at depot hill road MSS at Poverty Road MSS at Oak Tree Rd / U.S. Route 6 Poverty Road

ITEM NO.	ITEM DESCRIPTION	UNIT	FIGURE 4			FIGURE 5			FIGURE 6			FIGURE 7			FIGURE 8			FIGURE 9			FIGURE 10			FIGURE 11			FIGURE 12			FIGURE 13			FIGURE 14		
			QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES	QTY	UNIT COST	AMOUNT IN FIGURES
020101	Clearing and Grubbing (±2%)	L.S.	1	\$ 4,000.00	\$4,000.00	1	\$ 4,000.00	\$4,000.00	1	\$ 8,000.00	\$8,000.00	1	\$ 4,000.00	\$4,000.00	1	\$ 7,000.00	\$7,000.00	1	\$ 4,000.00	\$4,000.00	1	\$ 9,000.00	\$9,000.00	1	\$ 6,000.00	\$6,000.00	1	\$ 3,000.00	\$3,000.00	1	\$ 8,000.00	\$8,000.00	1	\$ 3,000.00	\$3,000.00
020200	Removal of Ex. Pavement / Sidewalk	SF		\$ 1.00	\$0.00		\$ 1.00	\$0.00	6,300	\$ 1.00	\$6,300.00	2,800	\$ 1.00	\$2,800.00	1,800	\$ 1.00	\$1,800.00	1,100	\$ 1.00	\$1,100.00	1,200	\$ 1.00	\$1,200.00	2,500	\$ 1.00	\$2,500.00		\$ 1.00	\$0.00	160	\$ 1.00	\$160.00		\$ 1.00	\$0.00
020200	Raised Median Island (inc. plantings)	SF		\$ 10.00	\$0.00		\$ 10.00	\$0.00	6,300	\$ 10.00	\$63,000.00	2,800	\$ 10.00	\$28,000.00	1,350	\$ 10.00	\$13,500.00	1,300	\$ 10.00	\$13,000.00		\$ 10.00	\$0.00		\$ 10.00	\$0.00		\$ 10.00	\$0.00	4,100	\$ 10.00	\$41,000.00		\$ 10.00	\$0.00
081101	Concrete Curbing (inc. pavement repair)	LF		\$ 35.00	\$0.00		\$ 35.00	\$0.00	1,460	\$ 35.00	\$51,100.00	640	\$ 35.00	\$22,400.00	550	\$ 35.00	\$19,250.00	600	\$ 35.00	\$21,000.00	50	\$ 35.00	\$1,750.00	550	\$ 35.00	\$19,250.00		\$ 35.00	\$0.00	1,700	\$ 35.00	\$59,500.00	220	\$ 35.00	\$7,700.00
0921001	Concrete Sidewalk	SF	5,100	\$ 11.00	\$56,100.00	600	\$ 11.00	\$6,600.00	1,100	\$ 11.00	\$12,100.00	230	\$ 11.00	\$2,530.00	1,500	\$ 11.00	\$16,500.00	1,000	\$ 11.00	\$11,000.00	1,400	\$ 11.00	\$15,400.00	1,400	\$ 11.00	\$15,400.00	120	\$ 11.00	\$1,320.00	4,000	\$ 11.00	\$44,000.00	5,100	\$ 11.00	\$56,100.00
0921004A	8" Thick Concrete Sidewalk	SF		\$ 11.00	\$0.00		\$ 15.00	\$0.00		\$ 15.00	\$0.00		\$ 15.00	\$0.00	700	\$ 15.00	\$10,500.00	1,100	\$ 15.00	\$16,500.00		\$ 15.00	\$0.00	900	\$ 15.00	\$13,500.00		\$ 15.00	\$0.00	260	\$ 15.00	\$3,900.00	300	\$ 15.00	\$4,500.00
0921005	Concrete Sidewalk Ramp (inc. warning strip)	SF	200	\$ 16.00	\$3,200.00	350	\$ 16.00	\$5,600.00	400	\$ 16.00	\$6,400.00	130	\$ 16.00	\$2,080.00	220	\$ 16.00	\$3,520.00	220	\$ 16.00	\$3,520.00	600	\$ 16.00	\$9,600.00	470	\$ 16.00	\$7,520.00	400	\$ 16.00	\$6,400.00	760	\$ 16.00	\$12,160.00	220	\$ 16.00	\$3,520.00
	Decorative Crosswalk	SF		\$ 18.00	\$0.00	2,000	\$ 18.00	\$36,000.00	1,900	\$ 18.00	\$34,200.00		\$ 18.00	\$0.00		\$ 18.00	\$0.00		\$ 18.00	\$0.00	2,200	\$ 18.00	\$39,600.00	1,750	\$ 18.00	\$31,500.00	1,550	\$ 18.00	\$27,900.00		\$ 18.00	\$0.00		\$ 18.00	\$0.00
0922500	Bituminous Concrete Driveway (Commercial)	SY		\$ 45.00	\$0.00		\$ 45.00	\$0.00		\$ 45.00	\$0.00		\$ 45.00	\$0.00	220	\$ 45.00	\$9,900.00	150	\$ 45.00	\$6,750.00		\$ 45.00	\$0.00	400	\$ 45.00	\$18,000.00		\$ 45.00	\$0.00	30	\$ 45.00	\$1,350.00	120	\$ 45.00	\$5,400.00
0944000	Topsoil & Turf Establishment	SY	800	\$ 8.00	\$6,400.00	100	\$ 8.00	\$800.00	200	\$ 8.00	\$1,600.00	40	\$ 8.00	\$320.00	300	\$ 8.00	\$2,400.00	150	\$ 8.00	\$1,200.00	250	\$ 8.00	\$2,000.00	300	\$ 8.00	\$2,400.00	30	\$ 8.00	\$240.00	300	\$ 8.00	\$2,400.00	700	\$ 8.00	\$5,600.00
0970006	Trafficperson (Municipal Police Officer)	Est. Cost	1	\$ 15,000.00	\$15,000.00	1	\$ 8,000.00	\$8,000.00	1	\$ 40,000.00	\$40,000.00	1	\$ 20,000.00	\$20,000.00	1	\$ 30,000.00	\$30,000.00	1	\$ 40,000.00	\$40,000.00	1	\$ 20,000.00	\$20,000.00	1	\$ 20,000.00	\$20,000.00	1	\$ 10,000.00	\$10,000.00	1	\$ 40,000.00	\$40,000.00	1	\$ 8,000.00	\$8,000.00
0970007	Trafficperson (Uniformed Flagger)	Hr.	160	\$ 60.00	\$9,600.00	80	\$ 60.00	\$4,800.00	480	\$ 60.00	\$28,800.00	240	\$ 60.00	\$14,400.00	320	\$ 60.00	\$19,200.00	480	\$ 60.00	\$28,800.00	240	\$ 60.00	\$14,400.00	240	\$ 60.00	\$14,400.00	120	\$ 60.00	\$7,200.00	480	\$ 60.00	\$28,800.00	80	\$ 60.00	\$4,800.00
0971001A	Maintenance & Protection of Traffic (±3%)	L.S.	1	\$ 6,000.00	\$6,000.00	1	\$ 6,000.00	\$6,000.00	1	\$ 12,000.00	\$12,000.00	1	\$ 5,000.00	\$5,000.00	1	\$ 10,000.00	\$10,000.00	1	\$ 6,000.00	\$6,000.00	1	\$ 14,000.00	\$14,000.00	1	\$ 9,000.00	\$9,000.00	1	\$ 5,000.00	\$5,000.00	1	\$ 12,000.00	\$12,000.00	1	\$ 4,000.00	\$4,000.00
0975004	Mobilization and Project Closeout (±6.5%)	L.S.	1	\$ 13,000.00	\$13,000.00	1	\$ 11,000.00	\$11,000.00	1	\$ 25,000.00	\$25,000.00	1	\$ 11,000.00	\$11,000.00	1	\$ 21,000.00	\$21,000.00	1	\$ 13,000.00	\$13,000.00	1	\$ 30,000.00	\$30,000.00	1	\$ 18,000.00	\$18,000.00	1	\$ 10,000.00	\$10,000.00	1	\$ 26,000.00	\$26,000.00	1	\$ 8,000.00	\$8,000.00
0980001	Construction Staking (±1%)	L.S.	1	\$ 2,000.00	\$2,000.00	1	\$ 2,000.00	\$2,000.00	1	\$ 4,000.00	\$4,000.00	1	\$ 2,000.00	\$2,000.00	1	\$ 4,000.00	\$4,000.00	1	\$ 2,000.00	\$2,000.00	1	\$ 5,000.00	\$5,000.00	1	\$ 3,000.00	\$3,000.00	1	\$ 2,000.00	\$2,000.00	1	\$ 4,000.00	\$4,000.00	1	\$ 2,000.00	\$2,000.00
1117110A	Rectangular Rapid Flashing Beacon (RRFB) Type A	Ea.		\$ 12,500.00	\$ -		\$ 12,500.00	\$ -		\$ 12,500.00	\$ -	3	\$ 12,500.00	\$ 37,500.00	3	\$ 12,500.00	\$ 37,500.00	1	\$ 12,500.00	\$ 12,500.00		\$ 12,500.00	\$ -		\$ 12,500.00	\$ -		\$ 12,500.00	\$ -		\$ 12,500.00	\$ -		\$ 12,500.00	\$ -
1210101	4" White Epoxy Resin Pavement Markings	LF		\$ 0.50	\$0.00	3,250	\$ 0.50	\$1,625.00	2,000	\$ 0.50	\$1,000.00	1,250	\$ 0.50	\$625.00	1,500	\$ 0.50	\$750.00	2,500	\$ 0.50	\$1,250.00	4,250	\$ 0.50	\$2,125.00	4,250	\$ 0.50	\$2,125.00	1,500	\$ 0.50	\$750.00	2,400	\$ 0.50	\$1,200.00		\$ 0.50	\$0.00
1210102	4" Yellow Epoxy Resin Pavement Markings	LF		\$ 0.50	\$0.00	2,500	\$ 0.50	\$1,250.00	1,500	\$ 0.50	\$750.00	1,000	\$ 0.50	\$500.00	1,400	\$ 0.50	\$700.00	3,000	\$ 0.50	\$1,500.00	3,500	\$ 0.50	\$1,750.00	3,000	\$ 0.50	\$1,500.00	1,100	\$ 0.50	\$550.00	1,250	\$ 0.50	\$625.00	100	\$ 0.50	\$50.00
1210105	Epoxy Resin Pavement Markings, Symbols and Legends (crosswalk bars, etc)	SF	600	\$ 4.00	\$2,400.00	250	\$ 4.00	\$1,000.00	300	\$ 4.00	\$1,200.00	200	\$ 4.00	\$800.00	250	\$ 4.00	\$1,000.00	375	\$ 4.00	\$1,500.00	400	\$ 4.00	\$1,600.00	525	\$ 4.00	\$2,100.00	125	\$ 4.00	\$500.00	1,000	\$ 4.00	\$4,000.00	160	\$ 4.00	\$640.00
	Storm Drainage Modifications	L.S.		\$ -	\$0.00	1	\$ 8,000.00	\$8,000.00		\$ -	\$0.00		\$ -	\$0.00	1	\$ 15,000.00	\$15,000.00		\$ -	\$0.00		\$ -	\$0.00	1	\$ 15,000.00	\$15,000.00		\$ -	\$0.00	1	\$ 20,000.00	\$20,000.00		\$ -	\$0.00
	Culvert/Bridge Modifications/Pedestrian Bridge	L.S.		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00	1	\$ 75,000.00	\$75,000.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00
	Traffic Signal Modifications	L.S.	1	\$ 60,000.00	\$60,000.00	1	\$ 60,000.00	\$60,000.00	1	\$ 60,000.00	\$60,000.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00	1	\$ 50,000.00	\$50,000.00	1	\$ 50,000.00	\$50,000.00	1	\$ 60,000.00	\$60,000.00	1	\$ 60,000.00	\$60,000.00		\$ -	\$0.00
	Memorial Park Stairs/Wall/Landscaping	L.S.		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00	1	\$ 200,000.00	\$200,000.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00		\$ -	\$0.00
	Minor Items (25%)	L.S.	1	\$ 39,000.00	\$39,000.00	1	\$ 34,000.00	\$34,000.00	1	\$ 77,000.00	\$77,000.00	1	\$ 33,000.00	\$33,000.00	1	\$ 65,000.00	\$65,000.00	1	\$ 40,000.00	\$40,000.00	1	\$ 90,000.00	\$90,000.00	1	\$ 54,000.00	\$54,000.00	1	\$ 29,000.00	\$29,000.00	1	\$ 80,000.00	\$80,000.00	1	\$ 25,000.00	\$25,000.00
CONTRACT ITEMS TOTAL				\$216,700.00		\$190,675.00		\$432,450.00		\$186,955.00		\$363,520.00		\$224,620.00		\$507,425.00		\$305,195.00		\$163,860.00		\$449,895.00		\$138,310.00											
CONTINGENCIES (±10%)				\$21,700.00		\$19,100.00		\$43,300.00		\$18,700.00		\$36,400.00		\$22,500.00		\$50,800.00		\$30,600.00		\$16,400.00		\$45,000.00		\$13,900.00											
INCIDENTALS TO CONSTRUCTION (±10%)				\$21,700.00		\$19,100.00		\$43,300.00		\$18,700.00		\$36,400.00		\$22,500.00		\$50,800.00		\$30,600.00		\$16,400.00		\$45,000.00		\$13,900.00											
PROJECT TOTAL CONSTRUCTION COST				\$260,100.00		\$228,875.00		\$519,050.00		\$224,355.00		\$436,320.00		\$269,620.00		\$609,025.00		\$366,395.00		\$196,660.00		\$539,895.00		\$166,110.00											
PROJECT TOTAL CONSTRUCTION COST (ROUNDED)				\$270,000.00		\$230,000.00		\$520,000.00		\$230,000.00		\$440,000.00		\$270,000.00		\$610,000.00		\$370,000.00		\$200,000.00		\$540,000.00		\$170,000.00											

* Cost does not include all items within the larger CTDOF traffic/roadway state project 130-0173



SOUTHBURY, CONNECTICUT
MAY 2020

