COMMUNITY
connectivity program

Winchester

Downtown: Main Street, Bridge Street, Rowley Street and Willow Street

Winchester – Road Safety Audit

August 10, 2016

CONNECTICUT DEPARTMENT OF TRANSPORTATION

AECOM

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COMMUNITY
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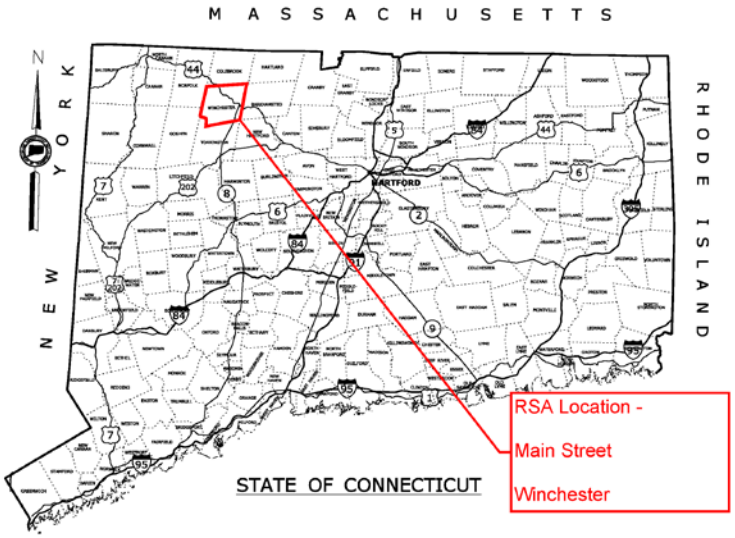
The Connecticut Department of Transportation (CTDOT) is undertaking a Community Connectivity Program that focuses on improving the state's transportation network for all users, with an emphasis on bicyclists and pedestrians. A major component of this program is conducting Road Safety Audits (RSA's) at selected locations. An RSA is a formal safety assessment of the existing conditions of walking and biking routes and is intended to identify the issues that may discourage or prevent walking and bicycling. It is a qualitative review by an independent team experienced in traffic, pedestrian, and bicycle operations and design that considers the safety of all road users and proactively assesses mitigation measures to improve the safe operation of the facility by reducing the potential crash risk frequency or severity.

The RSA team is made up of CTDOT staff, municipal officials and staff, enforcement agents, AECOM staff, and community leaders. An RSA Team is established for each municipality based on the requirements of the individual location. They assess and review factors that can promote or obstruct safe walking and bicycling routes. These factors include traffic volumes and speeds, topography, presence or absence of bicycle lanes or sidewalks, and social influences.

Each RSA was conducted using RSA protocols published by the FHWA. For details on this program, please refer to www.ctconnectivity.com. Prior to the site visit, area topography and land use characteristics are examined using available mapping and imagery. Potential sight distance issues, sidewalk locations, on-street and off-street parking, and bicycle facilities are also investigated using available resources. The site visit includes a "Pre-Audit" meeting, the "Field Audit" itself, and a "Post-Audit" meeting to discuss the field observations and formulate recommendations. This procedure is discussed in the following sections.



1 Introduction to Main Street, Winchester RSA

The Town of Winchester submitted an application to complete an RSA on Main Street to improve safety for pedestrians and bicyclists travelling in the Downtown area. The Downtown is linear in nature, and is centered around Main Street (US Route 44). Main Street extends for over two miles and experiences high traffic volumes and speeds, with pedestrians often crossing mid-block without crosswalks. There are limited pedestrian and bicycle facilities. This has resulted in concerns for pedestrians and cyclists travelling through this area including the need to provide safe and convenient connections to other routes. The study area has many small businesses, the Town Hall, Stop and Shop, Northwest Connecticut Community College and future medical facilities. In addition, the corridor has several old mills that range from 10,000 to 100,000 square feet, with some planned to be redeveloped into mixed-use centers. The Town has applied for grants to extend the Sue Grossman Trail into the center of Town.

The Town of Winchester's application contained information on traffic volumes, crash data, and mapping of the corridor. The application and supporting documentation are included in Appendix A.

1.1 Location

The RSA study area includes the section of Main Street/South Main Street (US Route 44) between the YMCA on the west and the Stop and Shop on the east; Bridge Street between Main and Prospect Streets; Willow Street; and Rowley Street north of Willow Street (Figure 1). The Average Daily Traffic (ADT) on Main Street ranges between 10,800 vehicles per day (vpd) and 15,400 vpd. ADT along South Main Street ranges between 18,600 vpd and 22,000 vpd. ADT on Rowley Street near Main Street is 4,200 vpd. Main Street/South Main Street has a functional classification of Principal Arterial (Other). This section of roadway contains a significant number of driveways, adding complexity to walking and bicycling maneuvers through the area. Figure 2 shows the regional context of the study area.

Figure 1. Main Street/South Main Street (US Route 44), Winchester

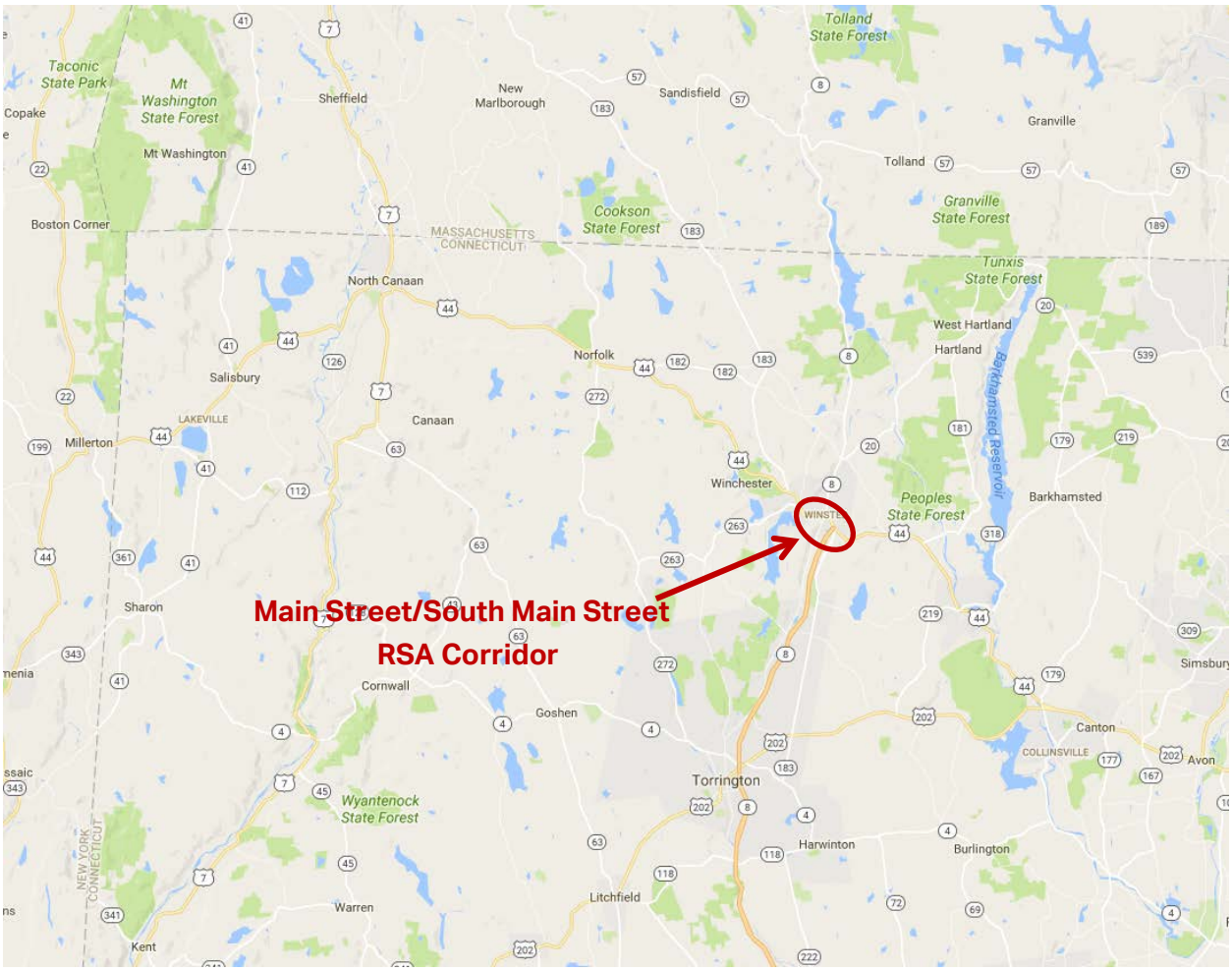


Figure 2. Study Area – Regional Context

2 Pre-audit Assessment

2.1 Pre-audit Information

As noted above, traffic volumes are significant along this corridor. This is primarily because Route 44 is the only major east/west facility in the area and it runs through the Downtown area. As a result, this portion of Main Street carries traffic to and through the town from other areas.

Between 2012 and 2014 there were 310 crashes in the RSA Area. The majority of crashes reported in this area resulted in property damage (86%) only; however 42 crashes did result in injuries (Table 1). There were four crashes involving bicyclists. One resulted in an injury and three resulted in property damage. There were two crashes involving pedestrians, both resulting in an injury. The crash types reported were primarily rear-end collisions and

sideswipe-same direction collisions, accounting for 35% and 18% of all crashes, respectively. A total of 20 crashes involved parked vehicles (Table 2).

Figure 3 displays crashes that occurred in this area during 2015. The crash history for year 2015 shows an even distribution of crashes along Main Street/South Main Street with significant clusters of crashes at these intersections: Main Street and Rowley Street, South Main Street and Whiting Street, and South Main Street and Route 8 northbound and southbound.

Severity Type	Number of Accidents	
Property Damage Only	268	86%
Injury (No fatality)	42	14%
Total	310	

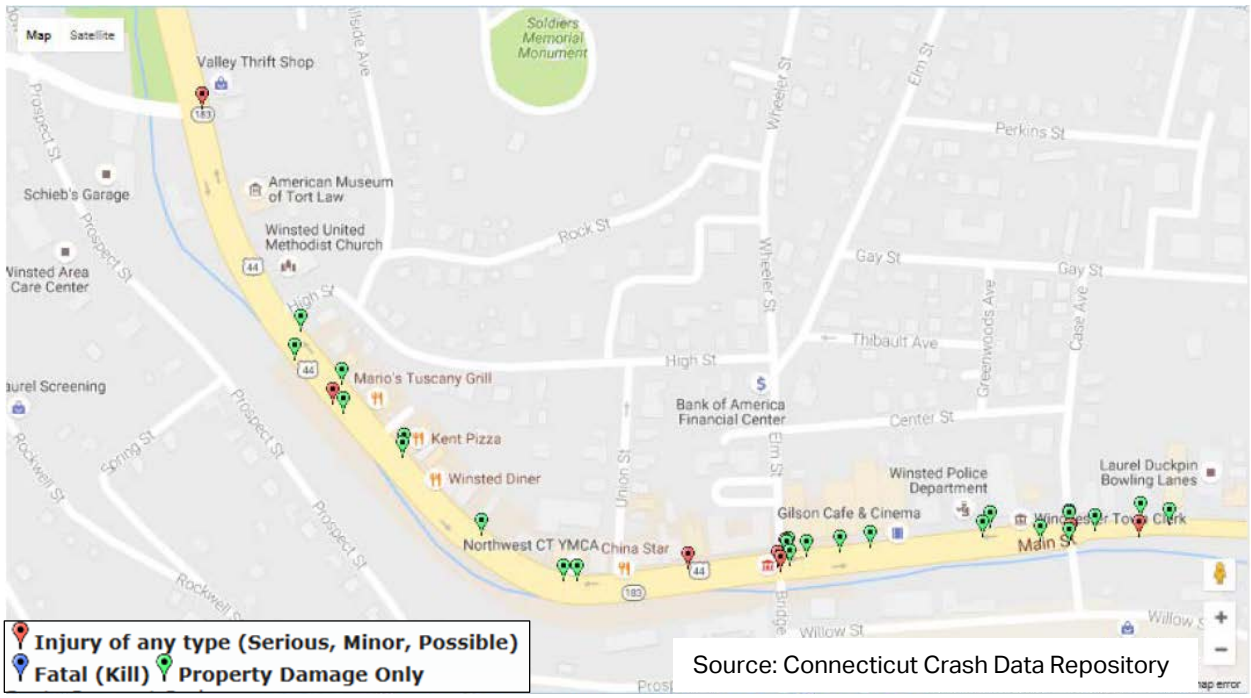
Table 1. Crash Severity 2012-2014

Source: UConn Connecticut Crash Data Repository

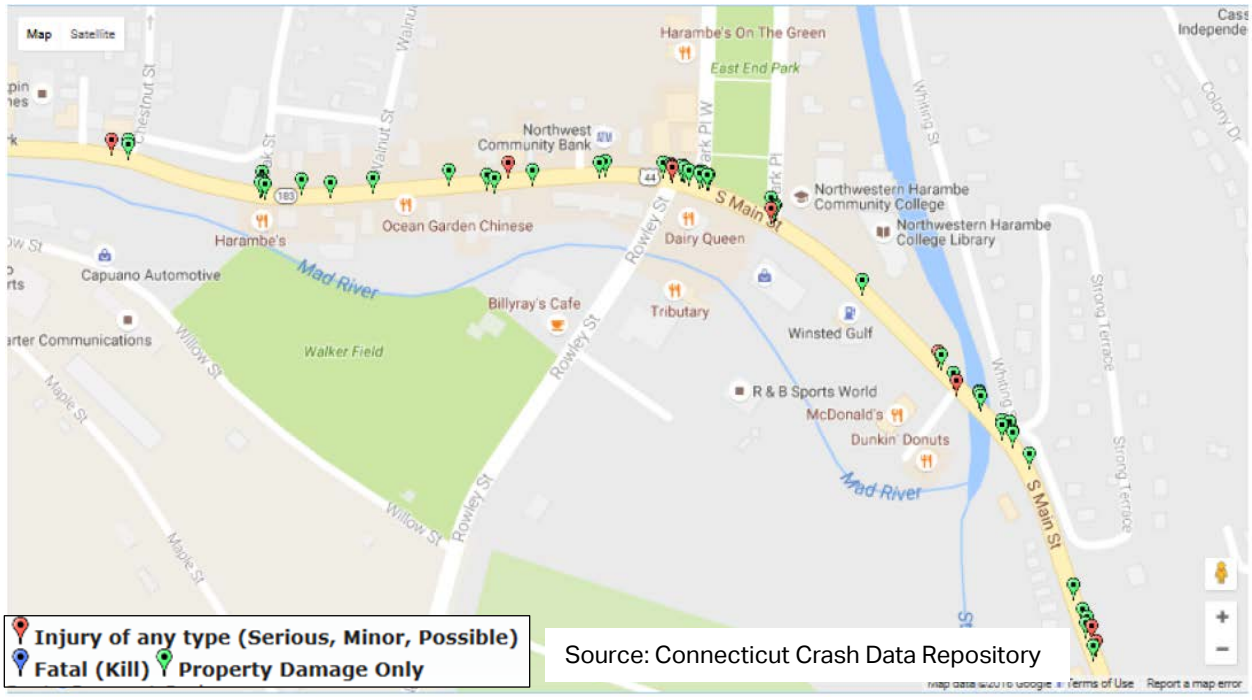
Manner of Crash / Collision Impact	Number of Accidents	
Unknown	4	1%
Sideswipe-Same Direction	57	18%
Rear-end	107	35%
Turning-Intersecting Paths	34	11%
Turning-Opposite Direction	22	7%
Fixed Object	25	8%
Backing	9	3%
Angle	6	2%
Turning-Same Direction	14	5%
Moving Object	2	1%
Parking	20	6%
Pedestrian	2	1%
Overturn	2	1%
Head-on	3	1%
Sideswipe-Opposite Direction	3	1%
Miscellaneous- Non Collision	0	0%
Total	310	

Table 2. Crash Type 2012-2014

Source: UConn Connecticut Crash Data Repository



Source: Connecticut Crash Data Repository



Source: Connecticut Crash Data Repository

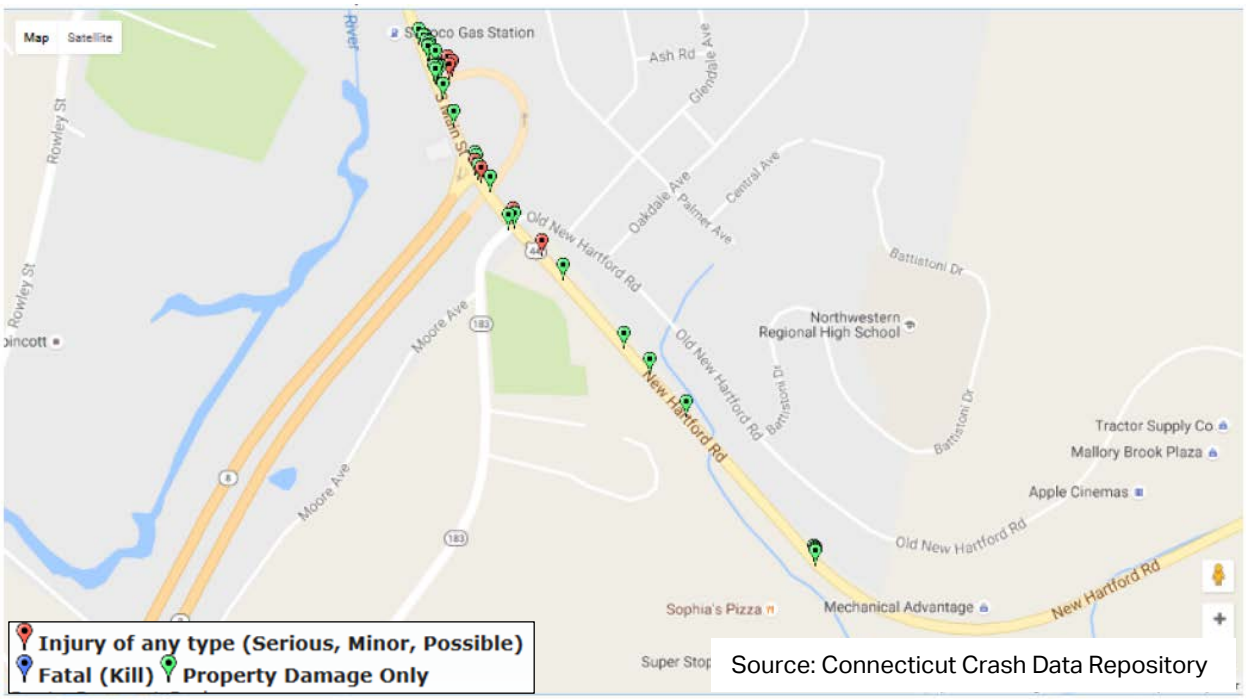


Figure 3. Crashes that Occurred in 2015 (Connecticut Crash Data Repository)

Main Street (Route 44) from YMCA to Chestnut Street has two 11 foot wide travel lanes in each direction separated by a 10-foot wide raised median that is used for left turn bays at major intersections. Main Street tapers to one lane in each direction between Chestnut Street and Oak Street. Sidewalks vary from 4.5 to 13 feet wide and shoulders vary from 9 to 11 feet wide. There are several pedestrian crossings across Main Street, and on-street parking is provided on both sides. The posted speed limit on Main Street is 30 mph. Several businesses are located on the north side of Main Street.

Main Street becomes South Main Street (Route 44) east of Rowley Street/Park Place West, where it becomes two lanes in each direction through Park Street, and then two westbound travel lanes and one eastbound travel lane to the Route 8 interchange. It then tapers to a single lane in each direction for the remainder of the RSA study area. Travel lanes vary from 10 to 15 feet wide. Turn lanes are provided at major intersections. Sidewalks are continuous on the south side and intermittent on the north side, and vary from four 4 to 5.5 feet wide as far as the Route 8 interchange. There are no sidewalks east of that point. Shoulders are provided on both sides and vary from one to nine feet wide, and there are no pedestrian crossings on South Main Street. The posted speed limit is 30 mph. There are restaurants, gas stations, commercial businesses, some residential properties and the Joyner Learning Center along South Main Street.

Route 44 is known as New Hartford Road east of the Route 8 interchange. New Hartford Road has one 12-foot wide travel lane in the each direction, with shoulders provided on both sides,

varying from one to 12.5 feet wide. The posted speed limit is 40 mph and turn lanes are provided at major intersections. There are no sidewalks and pedestrian crossings along New Hartford Road. The Stop and Shop shopping center is located on the south side of New Hartford Road.

Bridge Street is a two-way 43-foot wide road with no shoulders or lane markings. Sidewalks are three to five-feet wide in the northbound direction and five to nine-feet wide in southbound direction. There are no pedestrian crossings, except at Main Street. On-street parking is prohibited.

Willow Street is a two-way road (32 to 45.5 feet wide) with no shoulders or lane markings. Sidewalks (four feet wide) are provided on the north side only. Pedestrian crosswalks are provided in the vicinity of Walker Field. On-street parking is provided in some sections of Willow Street.

Rowley Street has an 11-foot wide travel lane, four-foot wide sidewalk and three-foot wide shoulders in each direction. On-street parking is prohibited on both sides. A pedestrian crosswalk is provided in the vicinity of Walker Field providing a connection to the playground and fields on the east side of Rowley Street. Superior Plus Energy Services, located on the west side of Rowley Street, has wide driveways without crosswalks. The posted speed limit is 30 mph.

The intersection of Main Street and Union Street is an uncontrolled T-intersection. Union Street is one-way northbound with one departure lane. Pedestrian crosswalks are provided across the east leg of Main Street and across Union Street. Sidewalks are provided on all approaches.

The intersection of Main Street, Bridge Street and Elm Street is a four-way signalized intersection with pedestrian crosswalks and sidewalks on all approaches.

The intersection of Bridge Street and Willow Street is a three-way intersection. The Bridge Street approaches are not controlled and the Willow Street approach is stop controlled. Pedestrian crossings are not provided. Sidewalks are provided on all approaches.

The intersection of Bridge Street, Prospect Street and Depot Street is a four-way intersection. The Bridge Street approaches are not controlled and the Prospect and Depot Streets approaches are stop controlled. Pedestrian crossings and sidewalks are not provided. A driveway for a mill building is located at the northwest corner of the intersection.

The intersection of Willow Street, Rowley Street and Cemetery Driveway is a four-way intersection. The Willow Street approach is stop controlled. A pedestrian crossing is provided across the Willow Street approach west of parking lot driveway. Sidewalks are

provided on the north side of Willow Street; on both sides of Rowley Street north of Willow Street; and on the east side of Rowley Street south of Willow Street.

The intersection of Main Street/South Main Street, Rowley Street and Park Place West is an off-set four-way signalized intersection. Pedestrian crossings are provided across the west leg of Main Street, Rowley Street and Park Place West. Park Place West is one-way southbound with two approach lanes. The stop bar and crosswalk on Park Place West are set far back from the intersection. Sidewalks are provided on all approaches.

The intersection of South Main Street, New Hartford Road, Torringford Street (Route 183) and Old New Hartford Road is a four-way signalized intersection. Pedestrian crosswalks are provided across New Hartford Road and on Torringford Street. Sidewalks are provided along the south side of South Main Street and along the east side of Torringford Street.

The intersection of South Main Street and Stop and Shop driveway is a signalized T-intersection. There are no pedestrian crosswalks or sidewalks at this intersection. The Stop and Shop driveway is a two-way driveway with no shoulders.

Roadway geometrics and traffic volumes for the study roadway are shown in Figure 4 and described in Table 3.

Figure 4. Main Street/South Main Street Road Geometrics

Winchester – Main Street/ South Main Street (Route 44)

Street Inventory

Street	Direction	Lanes	Ave. Lane Width	Sidewalk			Curb	Parking	Shoulder	Ramps	
				Type	Width	Condition*				Exist	Complaint
Main Street (YMCA to Chestnut St)	EB	2	11’	Concrete & Brick	4.5’	Good	Granite	Yes	9’	Yes	No
	WB	2	11’	Concrete & Brick	6’/13’	Good	Granite	Yes	9’	Yes	No
Main Street (Chestnut St to Park Place West)	EB	1	11’/22’	Concrete	4.5’	Fair	Granite	Yes	9’	Yes	No
	WB	1/2	11’	Concrete	9’	Good	Granite	Yes	8’/11’	Yes	No
S. Main Street (Park Place West to Whiting St)	EB	1/2	15’	Concrete	5.5’	Fair	Granite	No	7.5’	Yes	No
	WB	2	10’	Concrete	5.5’	Fair	Granite	No	1’	Yes	No
S. Main Street (Whiting St to Torringford St)	EB	1/2	11.5’	Concrete	4’/5’	Fair	Granite	No	1’/9’	No	N/A
	WB	2	11.5’	None	N/A	N/A	Granite	No	1’	No	N/A
New Hartford Road	EB	1	12’	None	N/A	N/A	Yes	No	1’/9’	No	N/A
	WB	1	12’	None	N/A	N/A	No	No	1’/12.5’	None	N/A
Bridge Street	NB	1	43’	Concrete	3’/5’	Fair	Granite	No	None	Yes	None
	SB	1		Concrete	5’/9’	Poor	Granite	No	None	Yes	None
Willow Street	EB	1	32’-45.7’	None	N/A	N/A	No	Yes	None	None	N/A
	WB	1		Concrete	4’	Good	Concrete	Yes	None	Yes	Yes
Rowley Street	NB	1	11’	Asphalt	4’	Good	Asphalt	No	3’	Yes	No
	SB	1	11’	Asphalt	4’	Good	Asphalt	No	3’	Yes	No

***CONDITION – “Good” is Serviceable Condition that meets current design standards. “Fair” is generally serviceable, but may need minor repairs, or may not completely align with current design standards. “Poor” is not serviceable, and generally inadequate for continued long-term use.**

Table 3. Street Inventory

2.2 Prior Successful Effort

The Town has applied for grant funding to extend the Sue Grossman trail from Rowley Street into the Downtown. It would like to eventually extend the trail further west to the schools, Highland Lake and the Mad River dam area. A significant amount of public and private funding is being invested in the town that will encourage more visitors to the Main Street area. Planned developments include:

- Veterinary Technology and Allied Health Program Building (24,000 square feet) at Northwest CT Community College.
- Medical office building (20,000 square feet) operated by Hartford Hospital and American Mural Project building near this location.
- Several mill buildings (10,000-100,000 square feet) to be re-developed into mixed-use centers, including at the northwest corner of Bridge Street/Prospect Street/Depot Street.

The Northwest Hills Council of Governments (NHCOG) is currently performing a regional study, which includes Winchester.

The CTDOT is upgrading signal detection equipment at several intersections along Route 44.

A water/sewer project is planned along Main Street.

The Town is working on a rezoning plan.

2.3 Pre-Audit Meeting

The RSA was conducted on August 10, 2016. The Pre-Audit meeting was held at 8:30 AM in the Town Hall located at 338 Main Street in Winchester.

The RSA Team was comprised of staff from AECOM, staff from CTDOT, and representatives from several Winchester departments including the Mayor, Town Manager, Planning, Police, Public Works, Economic Development Commission, and Winsted Trails. The complete list of attendees can be found in Appendix B.

Several items were presented for general information prior to conducting the Audit in the field:

- The Town would like the study area to focus on Route 44 by the YMCA and the loop of Route 44, Bridge Street, Willow Street and Rowley Street, including the five-way intersection on Bridge Street.
- Rowley Street: Sue Grossman Trail (joint grant with Torrington) will be extended to skate park with new grant (non-motorized transportation grant). Construction expected next summer. Expected to be used by commuters. Hoping to extend connections to elementary school and Highland Lake.

- Town is considering options for making Willow Street one-way with additional parking and a sidewalk for trail continuation.
- The sidewalk on the south side of Route 44 currently ends at Route 183 (Torringford Street). The Town wants to continue the sidewalk east of Route 183 to Stop and Shop with plans to eventually continue further east to Barkhamsted and Canton.
    - People currently walk on the side of the road to Stop and Shop.
    - Wetlands may restrict ability to construct a sidewalk.
    - Already very wide road so there may be the possibility of a road diet to make room for sidewalks.
- There is senior housing in the area.
- NWCT Transit runs five trips per day between 9:00 AM and 2:30 PM. There is a senior dial-a-ride service.
- Five or six years ago there was a fatality at YMCA (curve with limited sightline and no crosswalk).
- On-street parking is highly utilized.
- Road design (three-four lanes plus parking) through downtown encourages motorists to speed.
- The choke point for traffic is where Route 44 westbound changes from two lanes to one lane west of Rowley Street.
- Pedestrians do not use crosswalks if they are not within a convenient distance of them.
- Bicyclists:
    - No bicycle facilities.
    - Ride with traffic on Main Street.
    - Riders from Winsted Trails.
    - Children ride on sidewalk because they feel uncomfortable in roadway.
    - The Town has not yet completed a complete streets or a bike/pedestrian plan.
- The Town is working on a rezoning plan.
- The Town would like to explore options of reducing Main Street to one lane of travel in each direction and providing angled parking or a dedicated bike lane.
- Motorists drive 45 mph, not posted 30 mph.
- Police Department looking to purchase speed trailer.
- NHCOG is currently performing a regional study which includes Winchester.
- Other signalized intersections on Route 44 are being upgraded by CTDOT with new detection equipment.
- New Henny Penny development planned on east side of Route 8 near Stop and Shop:
    - Will be required to build sidewalk in front of their business.
    - Connection could be made to Stop and Shop and a crosswalk installed.
- Intersection of Routes 44 and 183 does not have a dedicated exclusive pedestrian phase.

- Children walk downtown from high school on Route 44 without a sidewalk.
- Town ordinance prohibits bikes and skateboards on sidewalk, but it is not enforced.
- Several residents use motorized scooters and sometimes do not use sidewalk and ride in shoulder.
- Handicap ramps are aligned incorrectly.
- There are no handicap ramps at Main Street and Walnut Street.
- Snow is maintained by Town on Main Street.
    - Sidewalk connection to Stop and Shop would have to be Town maintained.
- A water/sewer project is planned along Main Street. This could be coordinated with complete streets improvements.
- The Northwestern Connecticut Community College (NWCCC) and medical center are planning new projects.
- The intersection of Rowley Street/Park Place West is an off-set four-way intersection that experiences congestion and where there are conflicts between side street traffic. One option may be to split the traffic phases.
- The issue of providing parking in the back of Main Street businesses was discussed. Most people do not have difficulty finding parking on the street.
- If the Downtown area were more inviting people would walk and bike more. It was noted that some residents on Main Street do not have off-street parking spaces.
- The Town would like to see the Sue Grossman Trail extended west to the Mad River Dam area with a parking lot so people could walk from the dam to downtown.

<u>Meeting Material Presented:</u>

- Traffic:
    - Lower volumes on west end of Main Street corridor.
    - Higher volumes near NWCCC and Route 8.
    - Traffic volumes higher in summer with tourist traffic and lower in winter.
- Crashes:
    - Many curb cuts along Main Street could be contributing to crashes.
    - Clusters at intersections.
    - Four crashes with bikes and two with pedestrians.
    - High number of parking crashes.
        - People pulling in and out of parallel parking on a high speed road.
    - Crashes concentrated in PM peak and spread throughout daytime hours.
- Mixed opinions on whether there is enough parking for Main Street.
- Once Main Street is made more inviting to pedestrians then you may see people willing to walk further to destinations.

3 RSA Assessment

3.1 Field Audit Observations

Union Street and YMCA

- Handicap ramp missing detectable warning strip.
- Located on a sharp curve with limited sight distance (Figure 5).
- Due to vehicle speeds and sight distance constraints a midblock crosswalk would not be recommended, may give pedestrians a false sense of security. A flashing beacon and advance signage would be needed as a minimum for a crosswalk at this location, in addition to reducing to one lane as part of a road diet.
- Pedestrian crossed midblock here during the audit (Figure 6).

Figure 5. Sharp Curve with Limited Sight Distance on Union Street

<u>Crosswalk across from Union Street:</u>

- Pedestrian crossing sign is mounted too low and not new retro-reflective type (Figure 7).
- Yield (shark tooth) lines.
- Long crossing distance.

Figure 6. Pedestrian Crossing Main Street near YMCA

<u>Sidewalk on south side of Main Street:</u>

- Benches and trees in vicinity of Union Street crosswalk.
- Sidewalk narrows moving east and is interrupted by street signs and lights in some spots.

Main Street/Bridge Street/Elm Street Intersection

- No detectable warning strips.
- Handicap ramps aligned at 45 degree angle and not with crosswalks.
- Deteriorating sidewalk on southwest corner (Figure 8).
- Pedestrian button needs repair.

Figure 7. Pedestrian Crossing Sign on Union Street

Bridge Street

- Broken, uneven sidewalk (Figure 9).

Figure 8. Deteriorating Sidewalk on Southwest Corner of Main Street/Bridge Street

Bridge Street/Prospect Street/Depot Street Intersection

- Depot Street is missing a stop sign.
- Low traffic volume street.
- No curbing on driveway at corner of Bridge and Prospect Street.
- No crosswalks (Figure 10).
- Southbound Bridge Street approach has a very steep grade (Figure 10).
- Wide turn radius on northwest corner which encourages motorists to make right turns at high speed.
- Driveway to mill building located at northwest corner. New occupants expected in fall, owner supportive of measures to improve intersection.
- Tightening the intersection and a roundabout/traffic circle are options to consider

Figure 9. Poor Sidewalk Condition on Bridge looking North at Main Street

Figure 10. Prospect Street looking West at Bridge Street

Willow Street and Bridge Street Intersection

- Crosswalk on Willow Street has no handicap ramp landing (Figure 11).

Figure 11. Crosswalk across Willow Street at Bridge Street

Willow Street:

- 45.5 feet wide (includes on-street parking).
- No striping, no shoulder.
- Inconsistent sidewalks.
- No sidewalks on west end of Willow Street (Figure 12). Sidewalk on north side on east segment.
- Deteriorated curb (Figure 13).
- Mid-block crosswalk between the park and parking lot.
    - Crosswalk with stop signs on Willow Street and pedestrian bollard.
    - Pedestrian crossing sign mounted too low and under stop sign. Not retro-reflective.
    - Stop signs at this crossing between the park and parking lot.
    - Only has a ramp on the north side, which is lacking pedestrian detectable warning strip.
    - Crosswalk ends in driveway on south side, no detectable warning strip on north side (Figure 14).
- "Stop ahead" sign mounted low and partially blocked by branches.
- Town would like to redevelop this area with consideration given to closing Willow Street and converting to parking or a making a one-way street.

Figure 12. Willow Street on West end looking East

Figure 13. Broken Concrete Curb on North Side of Willow Street

Figure 14. Willow Street looking East at Mid-block Crosswalk

Willow Street at Rowley Street:

- Crosswalk at parking lot near corner of Willow Street and Rowley Street (Figure 15). No detectable strip on south side.
    - One ADA compliant ramp.
    - Set back from intersection.
    - Bicyclists do not stop crossing Willow Street coming out of skate park.
- Multi-use trail will come out by the wall at the entrance to the cemetery.

Figure 15. Crosswalk on Willow Street at Skate Park

    - Trail is planned to cross at the Rowley Street northbound approach next to the cemetery driveway.
- The sightlines are restricted due to the crest for northbound Rowley Street vehicles approaching Willow Street and the cemetery driveway (Figure 16).
- Wide turn radius at Willow Street approach.

Figure 16. Rowley Street Southbound Approach (in background) to Willow Street

Rowley Street (between Willow Street and Route 44):

- Existing sidewalk bituminous is 4 feet wide on both sides.
- There should be room to widen the sidewalk to 10-12 feet on the west side to include it as an extension of the multi-use trail (Figure 17).
- Mid-block crosswalk between parks does not have ADA ramps (Figure 18).
    - Has pedestrian crossing signs (not retro-reflective).
    - Yield lines painted.
- Very long driveway to cross without sidewalk at Superior Plus Energy Services.
- Portions of the sidewalk are uneven by bridge over Mad River (Figure 19).
- Utility pole in middle of sidewalk (just north of Mad River bridge).
- Sidewalk on east side ends at bridge, does not continue through Dairy Queen Driveway to Route 44.

Figure 17. Sidewalk on Rowley Street North of Willow Street looking North

Figure 18. Mid-block Crosswalk on Rowley Street between Parks

Intersection of Rowley Street and Route 44:

- Main Street westbound west of Rowley Street drops from two lanes to one lane.
- Utility/span pole located at southeast corner at crosswalk.
- ADA compliant ramps on southwest corner of intersection.
- No detectable warning strips at ramps.

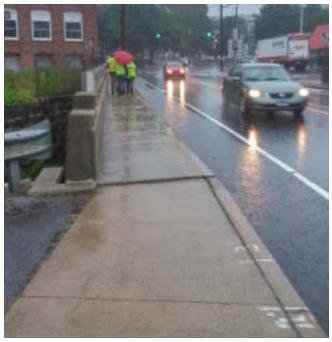


Figure 19. Uneven Sidewalk on Rowley Street looking North at Bridge over Mad River

- Crosswalks located across Rowley Street and west leg of Route 44.
- Poor drainage on southwest corner. Lack of curb allows water to flow onto sidewalk (Figure 20).

Figure 20. Water Running on sidewalk at Southwest Corner of Main Street/Rowley Street

3.2 Post Audit Workshop - Key Issues

1. Sidewalk on the south side of Route 44 does not extend east beyond Route 183.
2. Route 44 provides three or four lanes in the Downtown area which encourages high vehicle travel speeds and requires pedestrians to cross multiple lanes, often mid-block without crosswalks.
3. Several intersections no do not have ADA compliant handicap ramps or they are misaligned.
4. Several pedestrian crosswalk signs are old and mounted below seven feet.
5. There are currently no bicycle facilities on Route 44.
6. Several intersections have safety and/or operational issues including Route 44/Rowley Street (westbound lane drop) and Route 44/Route 183 (lack of exclusive pedestrian signal phase).
7. Motorist sight distance is restricted on Route 44 at the YMCA due to the horizontal curve.

8. Several residents use motorized scooters and sometimes do not use sidewalk and ride in shoulder.

9. The intersection of Bridge Street/Prospect Street/Depot Street has no crossings and wide radius which encourages high speeds for turning vehicles.

10. There is the potential to either close Willow Street to provide parking or convert to one way.

11. The multi-use trail is planned to cross at the Rowley Street northbound approach next to the cemetery driveway. The sight distance is restricted due to the crest for northbound Rowley Street vehicles approaching Willow Street and the cemetery driveway.

12. Large turn radius on Willow Street at Rowley Street encourages high speed vehicle turns.

13. The sidewalk on the west side of Rowley Street can be considered to convert to a multi-use trail. There is potential to route the trail behind the ball fields and continue west parallel to the Mad River.

4 Recommendations

From the discussions during the Post-Audit meeting, the RSA team compiled a set of recommendations that are divided into short-term, mid-term, and long-term categories. For the purposes of the RSA, **Short-term** is understood to mean modifications that can be expected to be completed very quickly, perhaps within six months, and certainly in less than a year if funding is available. These include relatively low-cost alternatives, such as striping and signing, and items that do not require additional study, design, or investigation (such as right-of way acquisition). **Mid-term** recommendations may be more costly and require establishment of a funding source, or they may need some additional study or design in order to be accomplished. Nonetheless, they are relatively quick turn-around items, and should not require significant lengths of time before they can be implemented. Generally, they should be completed within a window of eighteen months to two years if funding is available. **Long-term** improvements are those that require substantial study and engineering, and may require significant funding mechanisms and/or right-of-way acquisition. These projects generally fall into a horizon of two or more years when funding is available.

4.1 Short Term

1. Town to coordinate with proposed Henny Penny development near Stop and Shop to require that sidewalks are constructed. This should be designed to connect with a future sidewalk on Route 44 to Stop and Shop.
2. Local Traffic Authority (LTA) to request the CTDOT to help perform an evaluation of the following locations:
    a. Consideration of an exclusive pedestrian phase at Route 44/Route 183.
    b. Consideration of splitting the signal phases on Rowley Street and Park Place West at Main Street to eliminate vehicle conflicts caused by the off-set intersection alignment.
    c. Improving merging operation of traffic on Main Street west of Rowley Street by providing a new lane drop sign on Main Street westbound before the lane drop, lane pavement markings, and shifting yellow center line north to reduce merge area and better delineate travel lanes.
3. Local Traffic Authority (LTA) to request the CTDOT to assist with the coordination to provide pedestrian handicap ramps at locations along Route 44 including:
    a. Walnut Street.
    b. Union Street.
    c. Bridge Street/Elm Street.
    d. Rowley Street ramps and curbing.
    e. Other locations as needed.
4. Local Traffic Authority (LTA) to request the CTDOT to assist with the coordination to upgrade pedestrian signs to new retro-reflectivity standard and raise signs currently below seven feet at locations along Route 44 (including Union Street).
5. Local Traffic Authority (LTA) to request the CTDOT to assist with the coordination to repair the pedestrian button at Main Street/Bridge Street/Elm Street (Figure 21).
6. Local Traffic Authority (LTA) to request the CTDOT to assist with the coordination to identify where Route 44 is on the Vendor In-Place schedule for repaving.
7. The Town can make the following improvements:
    a. Consider installing a stop sign on the Depot Street approach to Bridge Street.
    b. Provide new retro-reflective signs, raise the height of signs, trim vegetation at mid-block crosswalk on Willow Street.
    c. Consider advance intersection ahead signs on Rowley Street northbound approaching Willow Street (Figure 22).
    d. Consider striping sharrows on Willow Street (Figure 23).

8. Town to coordinate with property owner on the southwest corner of Bridge Street and Prospect Street to provide improvements in the short term such as crosswalks, curbing and bollards/stantions to reduce the wide turn radius (longer term measures are discussed below).

Figure 21. Pedestrian Push Button

Figure 22. Intersection Ahead Sign

Figure 23. Sharrow

Figure 24 depicts some of these recommendations.

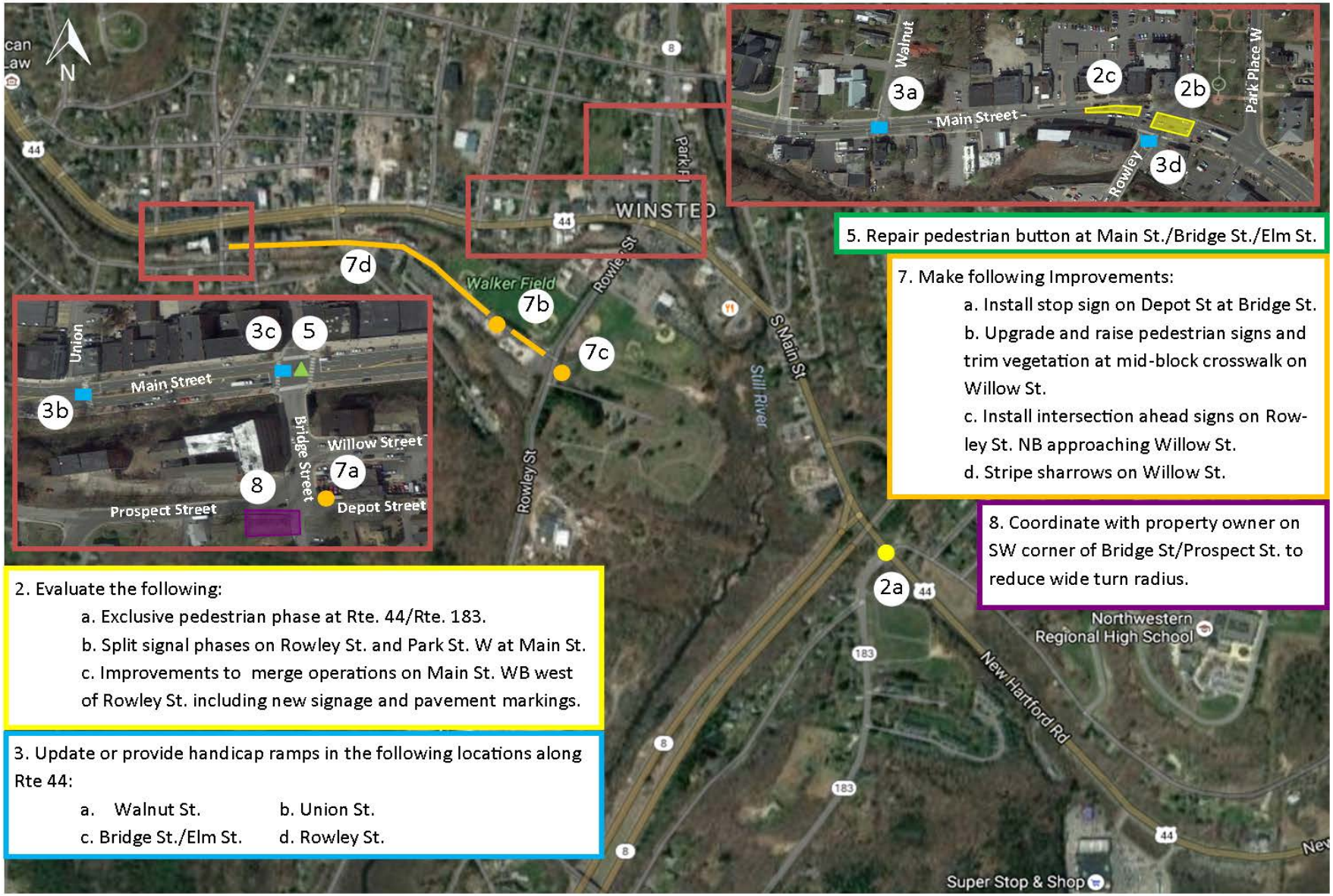


Figure 24. Short Term Recommendations Map

4.2 Medium Term

1. Town may develop a pedestrian and bicycle plan to in coordination with NHCOG guide operations and safety improvements. The plan should include the following areas:

    a. Options for maximizing utility of Willow Street. Options may include converting to one-way travel; new sidewalk on west end to Bridge Street, providing an extension of the Sue Grossman trail; and providing parking.
    b. Plan to extend sidewalk on New Hartford Road (Route 44) east of Route 183 to Stop and Shop. Coordinate with residential and commercial property owners abutting Route 44 and proposed developments to preserve right of way.
    c. Road Diet and Complete Street options for Main Street/South Main Street that may include one travel lane and providing dedicated bike lanes and/or angle parking.
    d. Potential for a mid-block pedestrian crosswalk at the YMCA including option for rectangular rapid flashing beacon in conjunction with road diet option in c above.
    e. Widening sidewalk on the west side of Rowley Street north of Willow Street as an extension of Sue Grossman Tail. Option to extend trail on Willow Street or in back of Walker Field along Mad River. Option to extend Sue Grossman Trail further west to connect with school, Mad River Dam are and Highland Lake.
2. Town may develop a Complete Streets Policy.
3. The Town to conduct a parking study in the Downtown area to quantify parking supply, demand and utilization by day of week and time.
4. Town to repair/provide the following pedestrian facilities.
    a. Sidewalk on west side of Bridge Street south of Main Street.
    b. Provide handicap ramps at Bridge Street/Willow Street.
    c. Provide landing and handicap ramp on south side of mid-block crosswalk on Willow Street at Walker Field.
    d. Provide detectable warning strip on south side of Crosswalk on Willow Street at Skate park and upgrade pedestrian signs (Figure 25).
    e. Provide handicap ramps at crosswalk on Rowley Street north of Willow Street.
    f. Repair uneven sidewalk on the west side Rowley Street at Mad River bridge.
    g. Continue sidewalk on the east side of Rowley Street between the Mad River bridge and South Main Street across the Dairy Queen driveway.
    h. Consider rectangular rapid flashing beacon (RRFB) for crosswalk on Rowley Street north of Willow Street (Figure 26).

5. Town to develop options at the intersection of Bridge Street/Prospect Street/Depot Street to tighten the intersection to shorten pedestrian crossing distance and reduce vehicle turning speeds. Options may include curb extensions and a roundabout.

Figure 27 depicts some of the recommendations along Main Street.

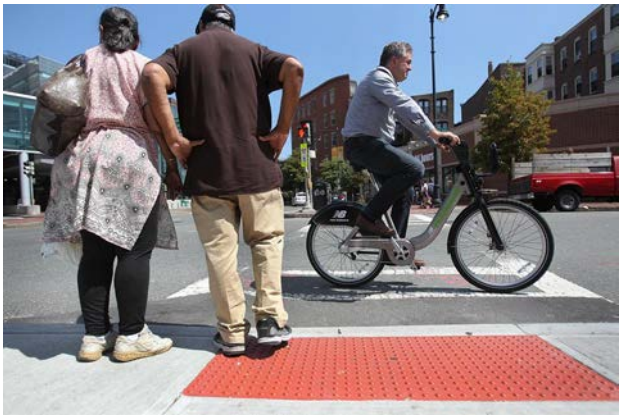


Figure 25. Detectable Warning Strip

Figure 26. Rectangular Rapid Flashing Beacon

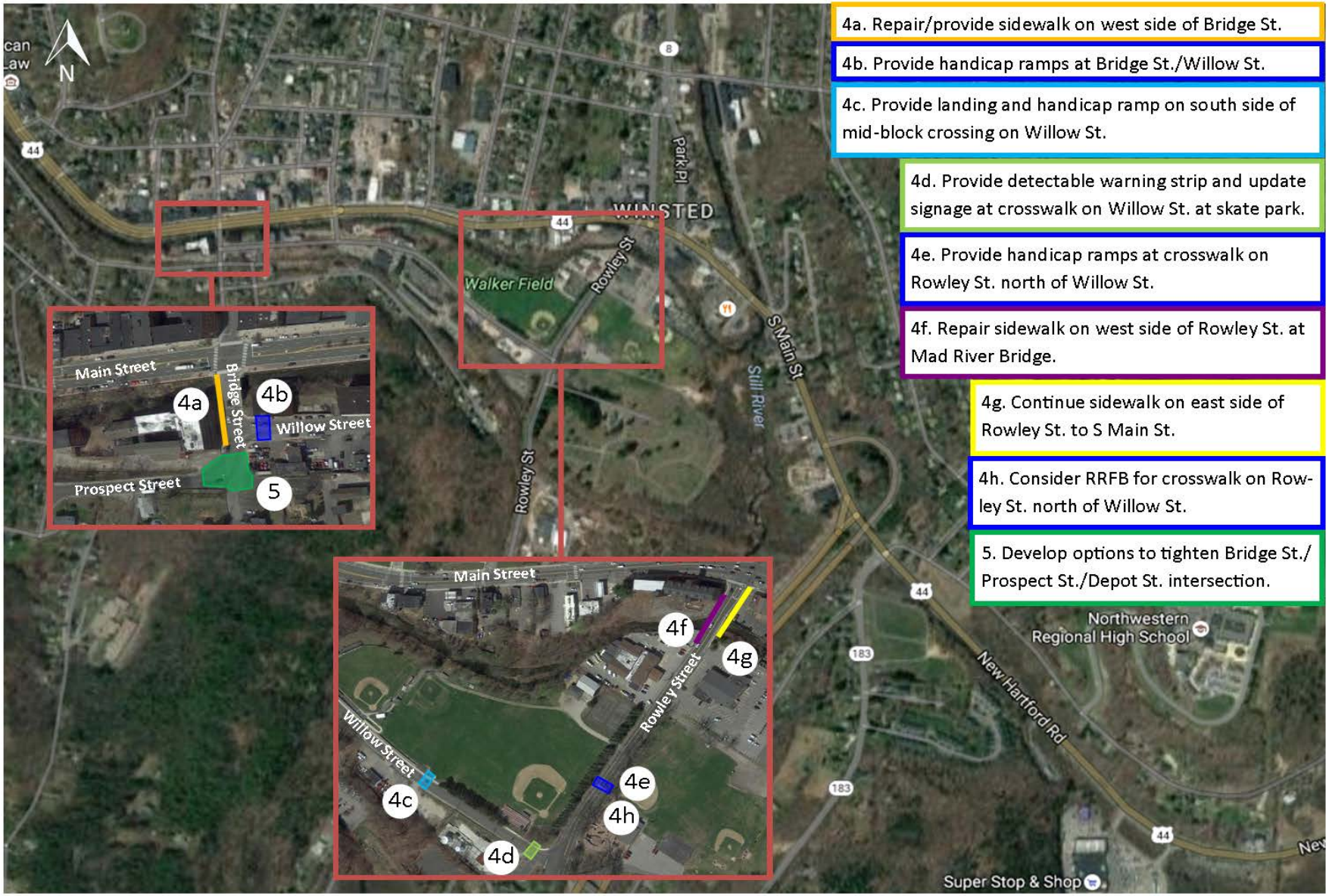


Figure 27. Medium Term Recommendations Map

4.3 Long Term

1. Town to consider extending curbs at Willow Street/Rowley Street to slow speeds of turning vehicles (Figure 28).
2. Fund and construct pedestrian and bicycle improvements at the following locations:
    a. Willow Street reuse.
    b. New sidewalk on Route 44 east of Route 183 to Stop and Shop.
    c. Road Diet and Complete Streets improvements for Main Street in Downtown area.
    d. Extension of Sue Grossman trail west of Rowley Street.
    e. Improvements at Bridge Street/Prospect Street/Depot Street.

Figure 29 depicts some of these recommendations.

Figure 28. Curb Extension

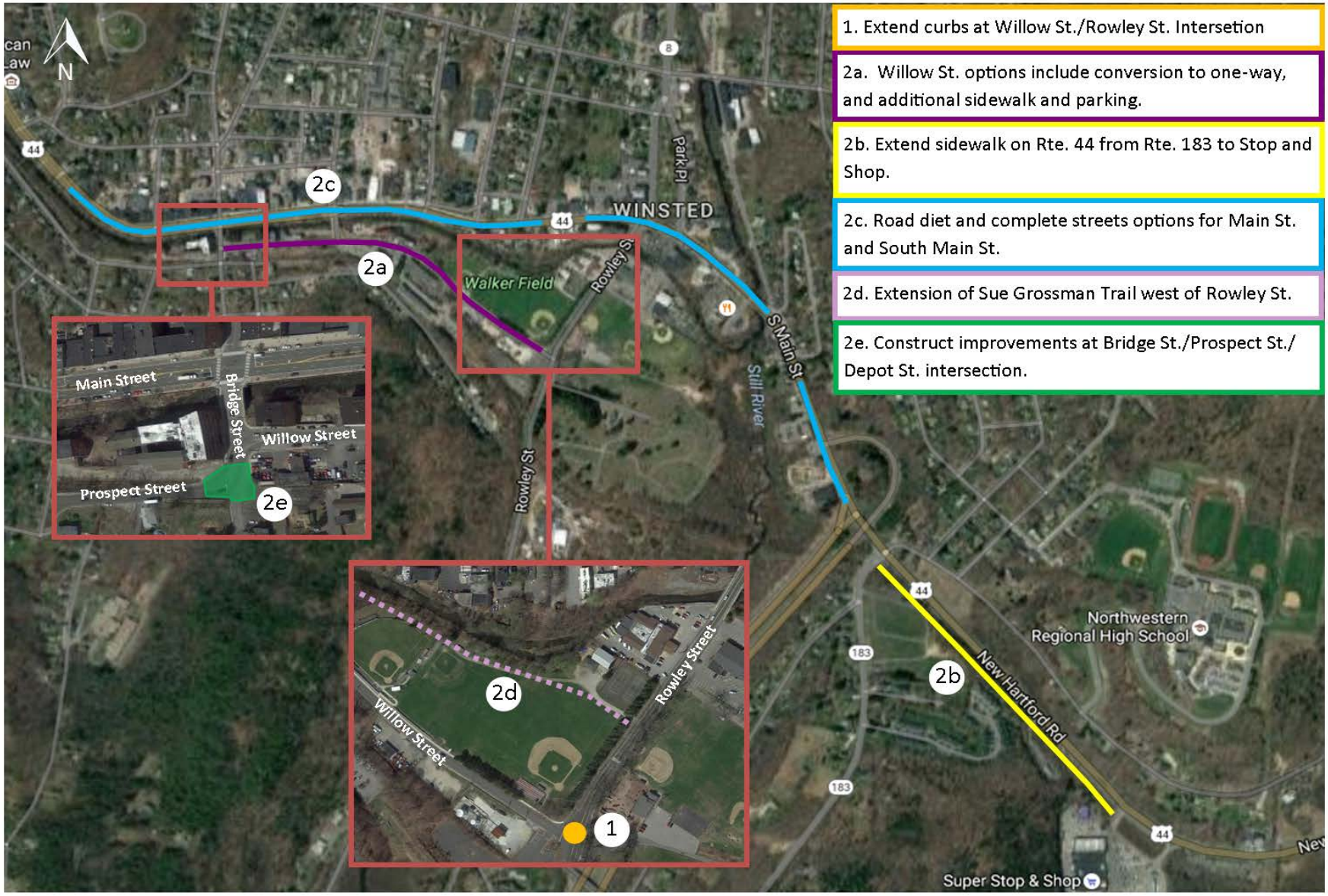


Figure 29. Long Term Recommendations Map

4.4 Summary

This report documents the observations, discussions and recommendations developed during the successful completion of the Town of Winchester RSA. It provides Winchester with an outlined strategy to improve the transportation network for all road users on Main Street/South Main Street (US Route 44) between the YMCA on the west and the Stop and Shop on the east; Bridge Street between Main and Prospect Streets; Willow Street; and Rowley Street north of Willow Street, particularly focusing on pedestrians and cyclists. Moving forward, Winchester may use this report to prepare strategies for funding and implementing the improvements, and as a tool to plan for including these recommendations into future development along Main Street/South Main Street (US Route 44).

COMMUNITY
connectivity program

Appendix A

CONNECTICUT DEPARTMENT OF TRANSPORTATION

AECOM
Built to deliver a better world

Welcome to the Community Connectivity Program Application

Please fill in the following information to provide the Audit team leaders with a comprehensive description of the area contained in this application.

1. Applicant contact information

Name	Steven Sadlowski
Title	Director of Planning and Community Development
Email Address	ssadlowski@townofwinchester.org
Telephone Number	(860) 387-3127

2. Location information

Address	338 Main Street
Description	Town Hall
City / Town	Winsted, CT 06098

3. Roadway type
(Please select all that apply)

- [x] **State road**
- [ ] **Local road**
- [ ] **Private Road**
- [ ] **Other (please specify)**

4. Zoning
(Please select all that apply)

- [ ] **Industrial**
- [ ] **Residential**
- [ ] **Commercial**
- [x] **Mixed Use**
- [ ] **Retail**
- [ ] **N/A (not applicable)**
- [ ] **Other (please specify)**

5. Approximate mile radius around the location

Greater than a ½ mile

Other (Please Specify)

6. Community Sites
(Please select all that apply)

- [x] **Community Centers**
- [x] **Business Districts**
- [ ] **Restaurant/Bar Districts**
- [x] **Churches**
- [ ] **Housing Complexes**
- [x] **Proximity to Schools**
- [x] **Tourist Locations (examples – Casino, Malls, Parks, Aquarium, etc...)**
- [ ] **N/A (not applicable)**
- [ ] **Other (please specify)**

7. Employment Facilities
(Retail, Industrial, etc...)

- [x] **Yes**
- [ ] **No**

If Yes please describe (please specify)

Many small businesses, Town Hall, several currently vacant mills, Stop and Shop, Northwest CT Community College, future medical center.

8. Educational facilities
(Please select all that apply)

- [ ] **Public, Parochial, Private Schools (more than 1 school within a ½ mile)**
- [x] **University / Community Colleges**
- [ ] **N/A (not applicable)**
- [ ] **Other (please specify)**

9. Transit facilities
(Please select all that apply)

- [ ] **Bus**
- [ ] **Rail**
- [ ] **Ferry**
- [ ] **Airport**
- [x] **Park and Ride Lot**
- [ ] **N/A (not applicable)**
- [ ] **Other (please specify)**

10. Safety Concerns
(Please select all that apply)

- [x] **Traffic (volumes & speed)**
- [ ] **Collisions**
- [x] **Sidewalks**
- [x] **Traffic Signals**
- [x] **Traffic Signs**
- [ ] **Parking Restrictions / Additions**
- [ ] **Drainage**
- [ ] **ADA Accommodations**
- [ ] **Agricultural & Live Stock crossing**
- [ ] **Maintenance issues (cutting grass, leaves, snow removal)**
- [ ] **N/A (not applicable)**
- [ ] **Other (please specify)**

11. Are there any past, current or future transportation/economic development projects near this location (i.e. Federal, State or local projects)?

Yes

If Yes please describe and list all projects.

24.7 million dollar, 24,000 square foot New Veterinary Technology and Allied Health Program building at Northwest CT Community Colege under construction

New 20,000 square foot medical office building possibly run by Hartford Hospital approved

American Mural Project building project near this location

Several old mills 10-100K square feet, to be re-developed into mixed use centers

12. Environmental Concerns:

Brownfield

If Yes please describe and list.

There are brownfields within the general area, but not necessarily within the bounds of this project..

13. Please explain why this location should be considered for an RSA

Millions of dollars of public and private funding is being invested in Winsted that will bring many more visitors to the Main Street area. In addition, grants have been applied for to extend the Sue Grossman trail into the center of Town, which will, when completed, bring in many users of this popular rails-to-trails site into our Town.

There are some definite deficiencies in the safety systems for bicyclist and pedestrians in this general area that need to be addressed to minimize the risk of injury to these new visitors and to make the downtown area more inviting to visitors.

14. Are there plans to expand the area?
(Transportation Oriented Development, Economic Development, housing, etc...)

Yes

As stated, several larger projects have either started, or are on the verge of starting along this corridor. The Town is placing a very high priority on revitalizing all of our Downtown, especially Main Street, and we believe this will lead to more development in the near future.

15. Any other pertinent information that is unique to this location?

Yes

The long, linear shape of our downtown / Main Street is rather unique. Most towns have a central business area that is more or less circular or square, emanating out from a center. We have one main road, which is set up against the Mad River, which frames our development pattern. All our businesses are on the north side of the road, and this linear Town center goes on for over two miles. Being so spread out and lop-sided (or one-sided), one has to travel a longer distance to cover the same number of businesses, making safe and convenient pedestrian and cyclist routes all that more important.

Thank you for completing the Community Connectivity application.

Please click on the "submit button" below and include the following attachments

1. Location map (google, GIS) **(Required)**
2. Collision data (If available)
3. Traffic data (ADT or VMT) (If available)
4. Pedestrian/bicycle data (If available)

Submit Application

COMMUNITY
connectivity program

Appendix B

Built to deliver a better world

Road Safety Audit

Town: Winchester
RSA Location: Main Street between Lake Street and Ledgebrook Shopping Plaza
Meeting Location: Winchester Town Hall
Address: 338 Main St, Winchester, CT 06098
Date: 8/10/2016
Time: 8:30AM

Participating Audit Team Members

Audit Team Member	Agency/Organization
Rista Malanca	Winsted Trails
Steven Sadlowski	Town Planner
Phillip Allen	EDC/Winsted Trails
Peter Delouis	Police Department
Bob Geiger	Town Manager
Jim Rollins	DPW
Candy Perez	Mayor
Jeffrey Maxtutis	AECOM
Lorenzo Varone	AECOM

COMMUNITY
connectivity program

Appendix C

Built to deliver a better world

Road Safety Audit – Winchester

Meeting Location: Winchester Town Hall
Address: 338 Main Street
Date: 8/10/2016
Time: 8:30

Agenda

Type of Meeting: **Road Safety Audit – Pedestrian Safety**

Attendees: **Invited Participants to Comprise a Multidisciplinary Team**

Please Bring: **Thoughts and Enthusiasm!!**

8:30 AM **Welcome and Introductions**

- Purpose and Goals
- Agenda

8:45 AM **Pre-Audit**

- Definition of Study Area
- Review Site Specific Data:
  - Average Daily Traffic
  - Crash Data
  - Geometrics
- Issues
- Safety Procedures

10:00 AM **Audit**

- Visit Site
- As a group, identify areas for improvements

12:00 PM **Post-Audit Discussion / Completion of RSA**

- Discussion observations and finalize findings
- Discuss potential improvements and final recommendations
- Next Steps

2:30 PM **Adjourn for the Day – but the RSA has not ended**

Instruction for Participants:

- Before attending the RSA, participants are encouraged to observe the intersection and complete/consider elements on the RSA Prompt List with a focus on safety.
- All participants will be actively involved in the process throughout. Participants are encouraged to come with thoughts and ideas, but are reminded that the synergy that develops and respect for others' opinions are key elements to the success of the overall RSA process.
- After the RSA meeting, participants will be asked to comment and respond to the document materials to assure it is reflective of the RSA completed by the multidisciplinary team.

Audit Checklist

Pedestrians and Bicycles	Comment

Pedestrian Crossings
• Sufficient time to cross (signal)
• Signage
• Pavement Markings
• Detectable warning devices (signal)
• Adequate sight distance
• Wheelchair accessible ramps
  o Grades
  o Orientation
  o Tactile Warning Strips
• Pedestrian refuge at islands
• Other	

Pedestrian Facilities
• Sidewalk
  o Width
  o Grade
  o Materials/Condition
  o Drainage
  o Buffer
• Pedestrian lighting
• Pedestrian amenities (benches, trash receptacles)
• Other	

Bicycles • Bicycle facilities/design • Separation from traffic • Conflicts with on-street parking • Pedestrian Conflicts • Bicycle signal detection • Visibility • Roadway speed limit • Bicycle signage/markings • Shared Lane Width • Shoulder condition/width • Traffic volume • Heavy vehicles • Pavement condition • Other	

Roadway & Vehicles	
• Speed-related issues o Alignment; o Driver compliance with speed limits o Sight distance adequacy o Safe passing opportunities	
• Geometry o Road width (lanes, shoulders, medians); o Access points; o Drainage o Tapers and lane shifts o Roadside clear zone /slopes o Guide rails / protection systems	

• Intersections o Geometrics o Sight Distance o Traffic control devices o Safe storage for turning vehicles o Capacity Issues	

• Pavement
  o Pavement Condition (excessive roughness or rutting, potholes, loose material)
  o Edge drop-offs
  o Drainage issues
• Lighting Adequacy	

• Signing
  • Correct use of signing
  • Clear Message
  • Good placement for visibility
  • Adequate retroreflectivity
  • Proper support	

• Signals
  o Proper visibility
  o Proper operation
  o Efficient operation
  o Safe placement of equipment
  o Proper sight distance
  o Adequate capacity	

• Pavement Markings
  o Correct and consistent with MUTCD
  o Adequate visibility
  o Condition
  o Edgelines provided	

• Miscellaneous
  o Weather conditions impact on design features.
  o Snow storage	

Winsted Pedestrian / Cyclist Hot Spots

Community Connectivity Program
Areas of Special Concern

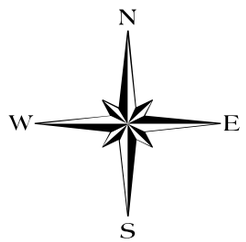
Main Street
Review crossings for safety

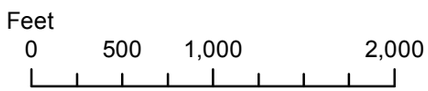
NCCC to Stop and Shop
Lack of sidewalks - explore options

Skate Park
No traffic control for children using park

Bridge Street 5-Way
Very confusing intersection for pedestrians

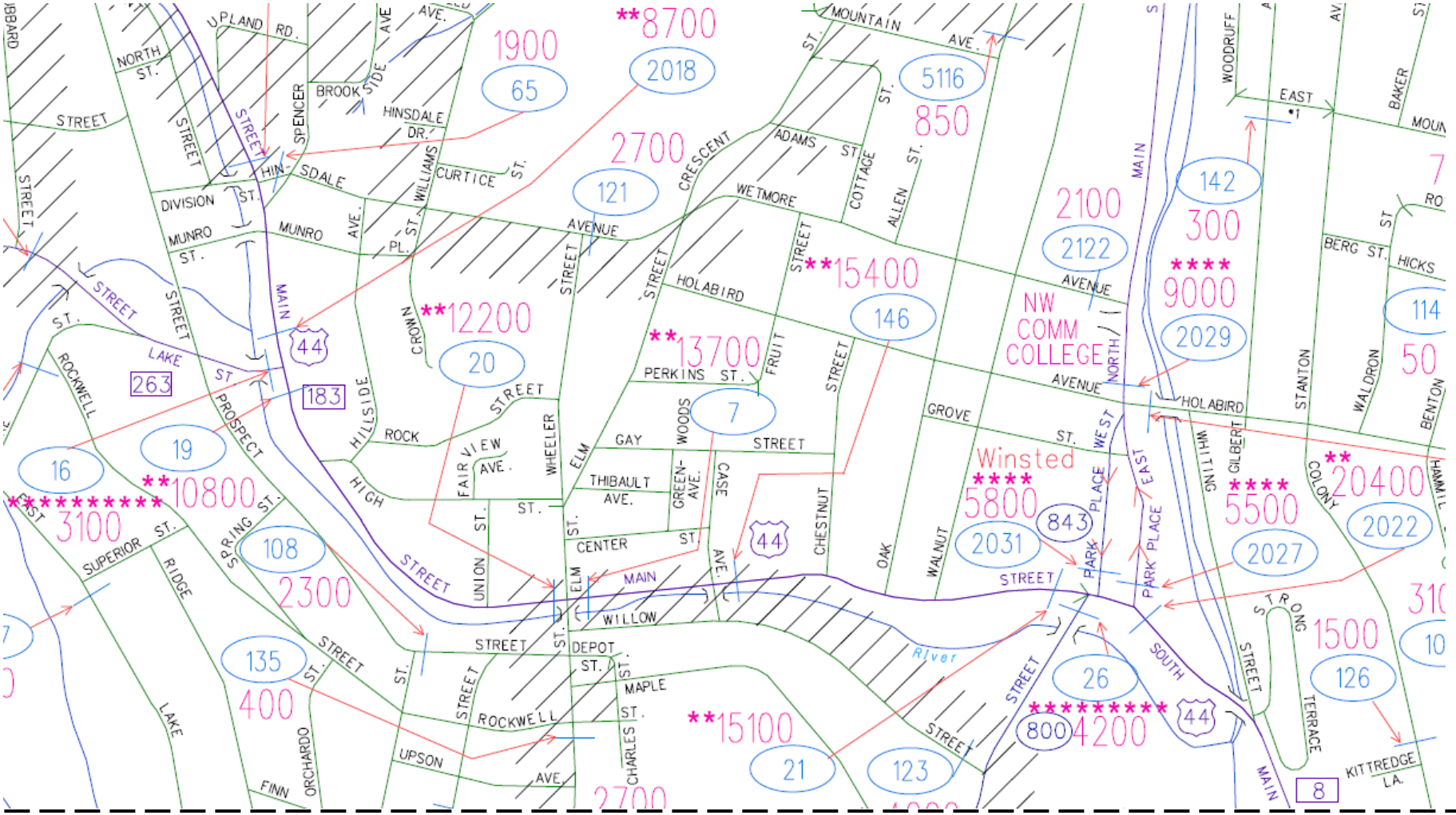
YMCA
Very popular destination - no traffic control



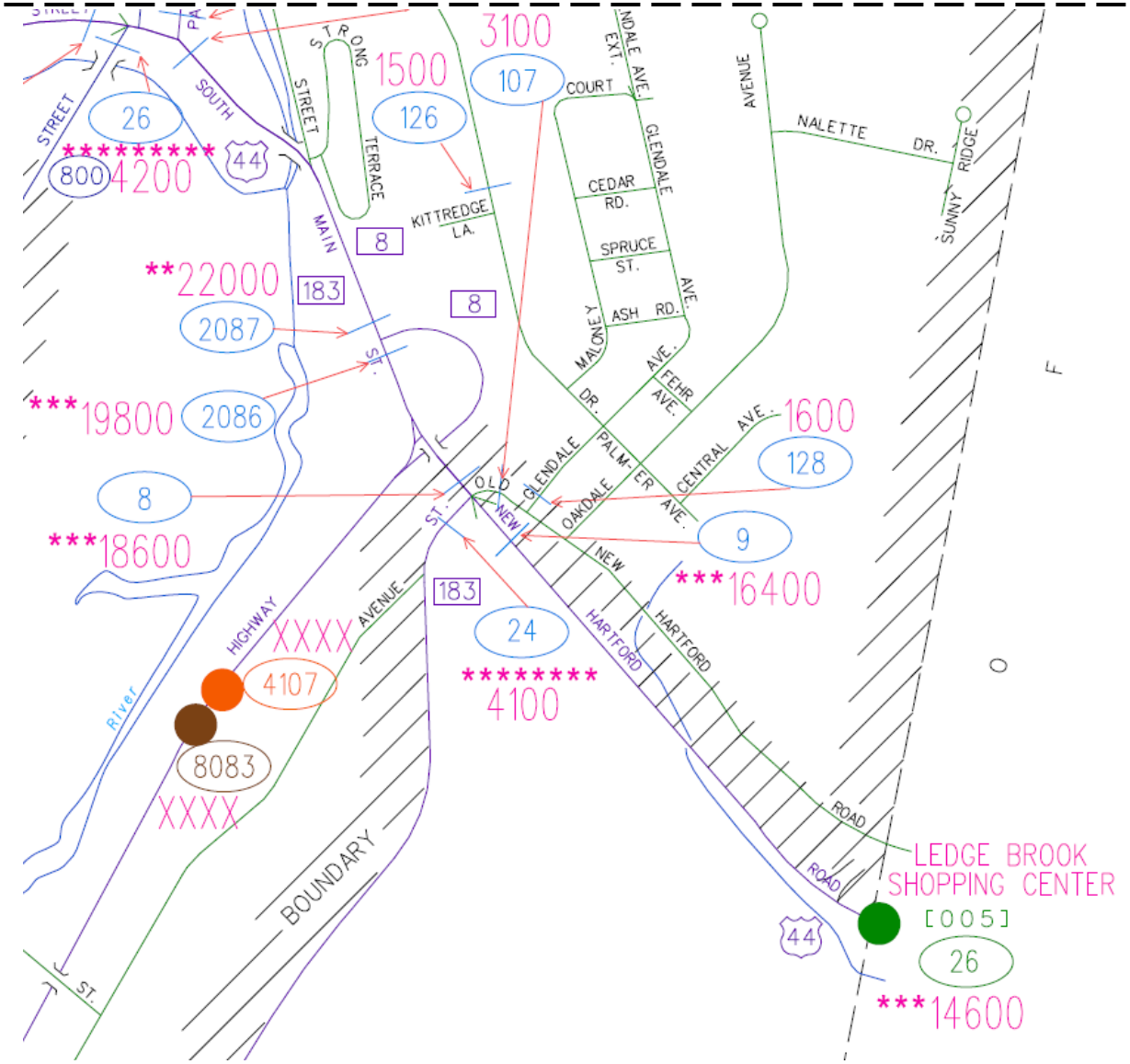


Map by Steven Sadlowski, AICP 2/12/16
Director of Planning and Community Development
From available sources - not a source document

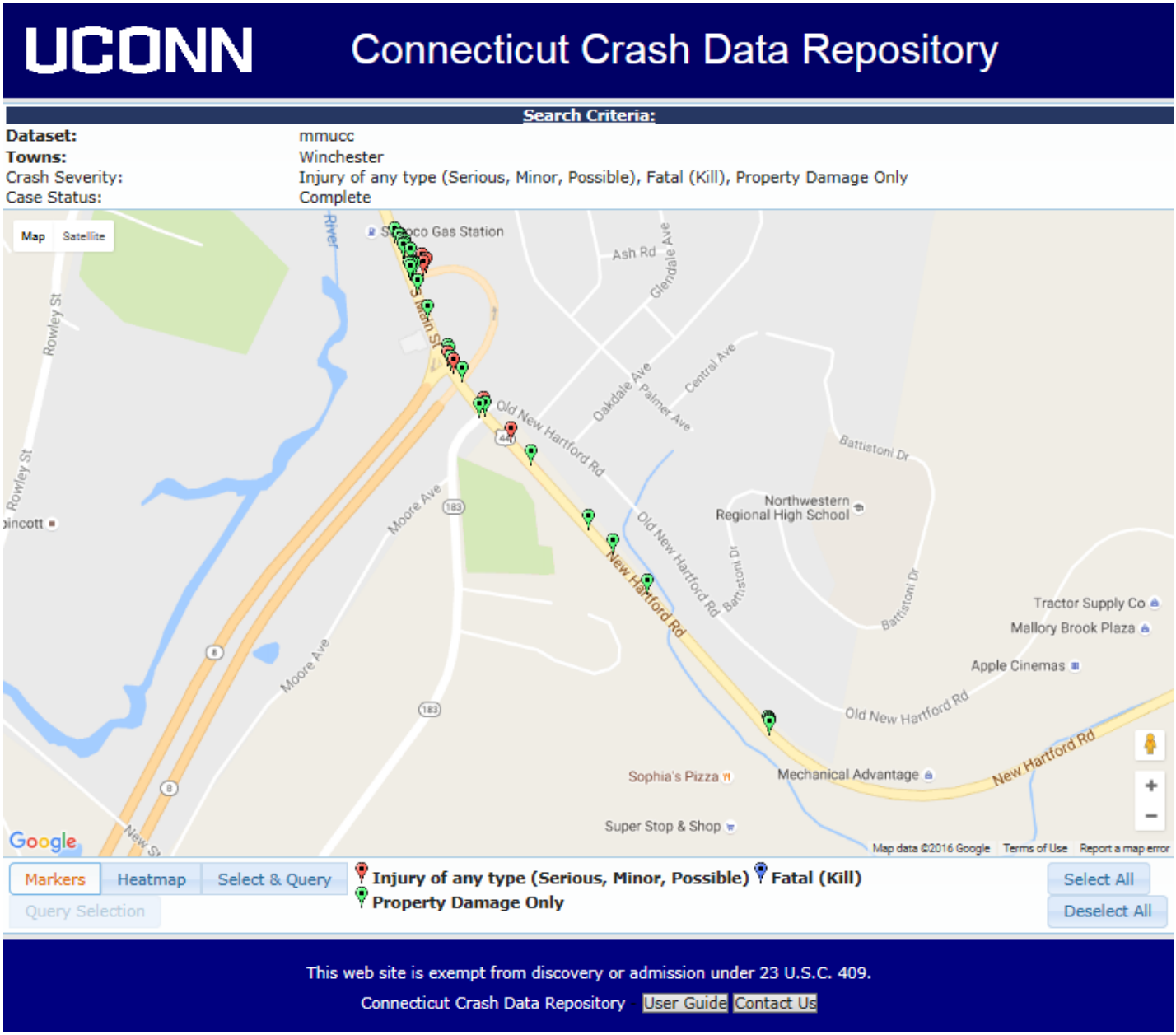
Average Daily Traffic (ADT)



Average Daily Traffic (ADT)



2015 Crashes

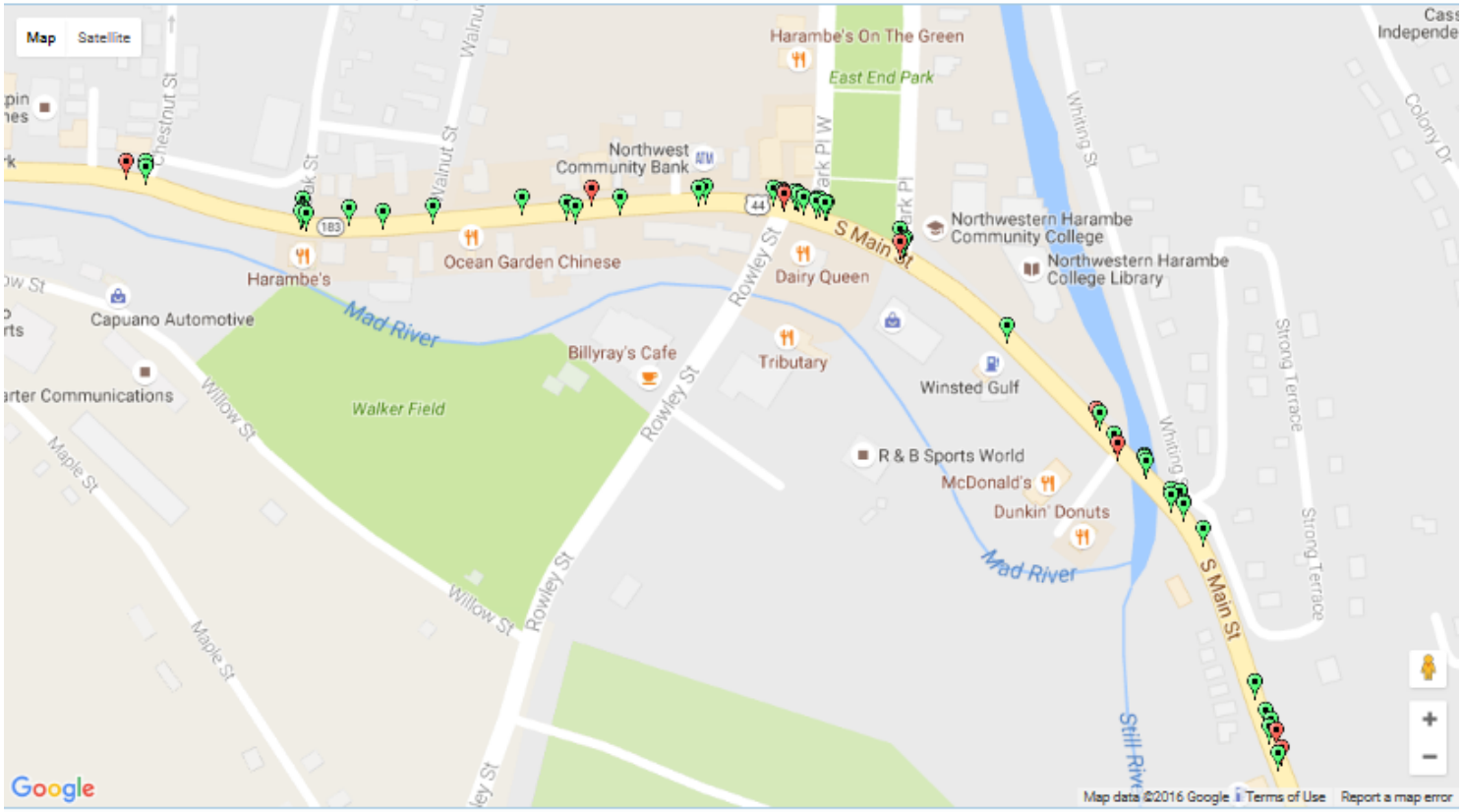


2015 Crashes

UCONN Connecticut Crash Data Repository

Search Criteria:

Dataset:	mmucc
Towns:	Winchester
Crash Severity:	Injury of any type (Serious, Minor, Possible), Fatal (Kill), Property Damage Only
Case Status:	Complete



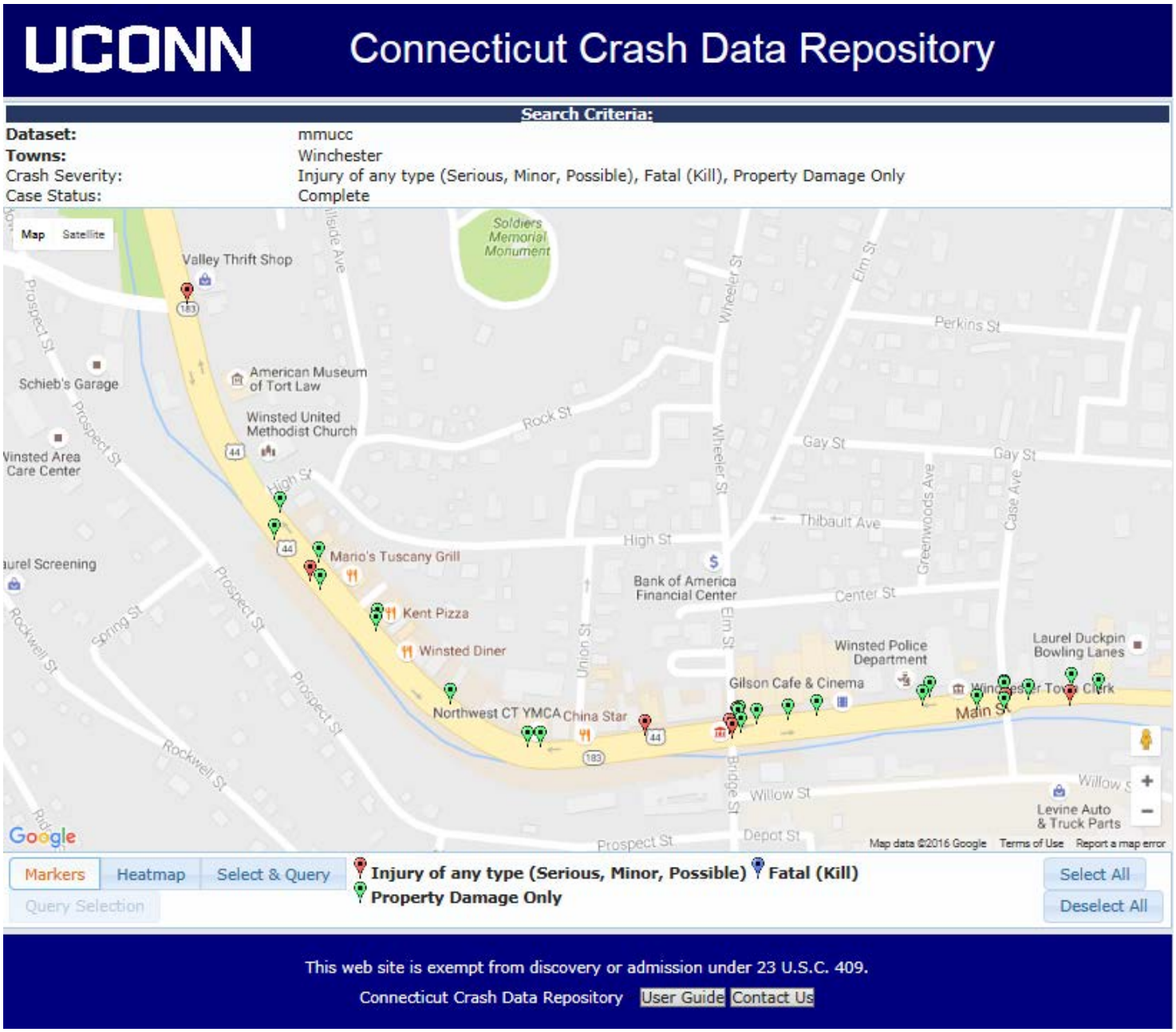
Markers | Heatmap | Select & Query | Query Selection

Injury of any type (Serious, Minor, Possible) **Fatal (Kill)**
Property Damage Only

Select All | Deselect All

Connecticut Crash Data Repository - User Guide Contact Us

2015 Crashes



Road Safety Audit – Winchester

Crash Summary

Data: 3 years (2012-2014)

4 crashes involved bicyclists. 1 resulted in an injury and 3 resulted in property damage only.

2 crashes involved pedestrians both resulting in an injury.

Severity Type	Number of Crashes	
Property Damage Only	268	86%
Injury (No fatality)	42	14%
Fatality	0	0%
Total	310	

Manner of Crash / Collision Impact	Number of Crashes	
Unknown	4	1%
Sideswipe-Same Direction	57	18%
Rear-end	107	35%
Turning-Intersecting Paths	34	11%
Turning-Opposite Direction	22	7%
Fixed Object	25	8%
Backing	9	3%
Angle	6	2%
Turning-Same Direction	14	5%
Moving Object	2	1%
Parking	20	6%
Pedestrian	2	1%
Overturn	2	1%
Head-on	3	1%
Sideswipe-Opposite Direction	3	1%
Miscellaneous- Non Collision	0	0%
Total	310	

Weather Condition	Number of Crashes	
Snow	20	6%
Rain	28	9%
No Adverse Condition	260	84%
Unknown	1	0%
Blowing Sand, Soil, Dirt or Snow	0	0%
Other	0	0%
Severe Crosswinds	0	0%
Sleet, Hail	1	0%
Total	310	

Light Condition	Number of Crashes	
Dark-Not Lighted	5	2%
Dark-Lighted	40	13%
Daylight	258	83%
Dusk	5	2%
Unknown	0	0%
Dawn	2	1%
Total	310	

Road Surface Condition	Number of Crashes	
Snow/Slush	18	6%
Wet	41	13%
Dry	247	80%
Unknown	1	0%
Ice	1	0%
Other	2	6%
Total	310	

Time		Number of Crashes	
0:00	**0:59**	2	1%
1:00	**1:59**	2	1%
2:00	**2:59**	0	0%
3:00	**3:59**	1	0%
4:00	**4:59**	3	1%
5:00	**5:59**	0	0%
6:00	**6:59**	8	3%
7:00	**7:59**	8	3%
8:00	**8:59**	11	4%
9:00	**9:59**	18	6%
10:00	**10:59**	19	6%
11:00	**11:59**	26	8%
12:00	**12:59**	28	9%
13:00	**13:59**	28	9%
14:00	**14:59**	19	6%
15:00	**15:59**	30	10%
16:00	**16:59**	26	8%
17:00	**17:59**	35	11%
18:00	**18:59**	14	5%
19:00	**19:59**	12	4%
20:00	**20:59**	10	3%
21:00	**21:59**	8	3%
22:00	**22:59**	1	0%
23:00	**23:59**	1	0%
Total		310	


N
Lake St
Main St
Prospect St
44
High St
YMCA
Union St
Elm St
Route 44
Case Ave
Main St
SPEED LIMIT 30
Chestnut St
Oak St
Walnut St
INSTALLATION AND REVISION OF TRAFFIC CONTROL SIGNALS AT SLOSSS LOCATIONS IN DISTRICT 4 FOR FY 2014. FAP# FOR (CN) 000R(843)
SPEED LIMIT 30
Park Pl W
Park Pl
Northwestern Community College
Whiting St
Strong Terr
S Main St
Bridge St
Rowley St
Skate Park
Substructure Concrete Repairs
SPEED LIMIT 30
Highway Illumination (Pre-Design)
8
183
SPEED LIMIT 40
44
Old New Hartford Rd
New Hartford Rd
Torrington St
Stop and Shop (driveway)
DRAFT
Legend
Sidewalk
Crosswalk
Stop Controlled Intersection
Pedestrian Crossing Sign
Signal Controlled Intersection
Area Under Construction
On-street Parking
Median
Bridge
One Way Street
Highway On/Off Ramp
Winchester - Main Street

Route 44, WINCHESTER

ROAD SAFETY ASSESSMENT PROGRAM. ONGOING WORK BY THE DIVISION OF TRAFFIC ENGINEERING

Legend

Feature 1

SIGNAL EQUIPMENTS WILL BE UPGRADED IN THE UPCOMING SIGNAL UPGRADE PROJECT. ALL AUDIBLE PEDESTRIAN BUTTONS TO BE REPLACED WITH ACCESIBLE PEDESTRIAN SIGNALS. CONSTRUCTION IS EXPECTED TO BE IN 2020

162-222

162-203

162-204

162-213

LTA REQUESTED TO EVALUATE CROSSWALK NEEDS AROUND THE WEST END PARK. REVIEW IS ONGOING.

SIGNAL EQUIPMENTS RECENTLY UPGRADED UNDER PROJECT NO. 174-360

162-208

MEDICAL BULDING EXPANSION ENCHROACHMENT PERMIT APPLICATION. SIGNAL TO BE REVISED TO HAVE A FULL ACCESS SIGNALIZED DRIVE ON WEST LEG AND AN UN-SIGNALIZED DRIVE NORTH OF THE INTERSECTION. REVIEW IS UNGOING

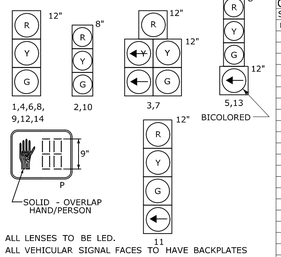
Mountain Ave
E Mountain Ave
Brook St
Hinsdale Dr
Williams Ave
Hinsdale Ave
Munro St
Crown St
Wheeler St
Fruit St
N Main St
Gilbert Ave
Royer St
Berg St
Hicks St
Stowe Rd No 1
263
Perkins St
Elm St
Grove St
Rock St
Gay St
Chestnut St
Oak St
Park Pl W
Benton St
Florence St
Holabird Ave
Hillside Ave
Thibault Ave
High St
Center St
Union St
Main St
Whiting St
Hamill Dr
Strong Terrace
Prospect St
Rockwell St
Charles St
Orchard St
Upson Ave
Finn St
Lewis St
Bridge St
Cherry St
Lovely St
Birdsall St
E Lake St
Hurlbut St
Pratt St
Rowley St
Maple St
Torrington Rd
44
Colony Dr
Cedar Rd
Spruce St
Ash Rd
Glendale Ave
Oakdale Ave
Palmer Ave
Central Ave
Nalette Dr
Battistoni Dr
183
Old New Hartford Rd
Torrington St
8
Google earth
© 2016 Google
2000 ft
N

	PRE-EMPTION 2					PRE-EMPTION 1	MOVEMENT DIAGRAM		PRE-EMPTION 1	
NTOR	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8		
	FLASH	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL
1	Y	G G G	G Y R	R R R	R R R	R R R	R R R	R R R	R R R	R R R
2	Y	R R R	G G G	R R R	G Y R	R R R	R R R	R R R	R R R	R R R
3	R	R R R	R R R	◀ R ◀Y R	R R R	R R R	R R R	G Y R	R R R	R R R
4	R	R R R	R R R	R R R	G Y R	R R R	R R R	R R R	R R R	R R R
5	Y	R R R	G G G	R R R	R R R	◀ G Y R	R R R	R R R	R R R	R R R
6	Y	G G G	G Y R	R R R	R R R	R R R	R R R	R R R	R R R	R R R
7	R	R R R	R R R	R R R	G Y R	R R R	R R R	◀ R ◀Y R	R R R	R R R
8	R	R R R	R R R	R R R	R R R	R R R	R R R	R R R	G Y R	R R R
9	Y	R R R	G Y R	R R R	R R R	R R R	R R R	R R R	R R R	R R R
10	Y	G G G	G G G	R R R	G G G	G Y R	R R R	R R R	R R R	R R R
11	R	R R R	R R R	◀ G Y R	R R R	R R R	R R R	R R R	R R R	R R R
12	R	R R R	R R R	G Y R	R R R	R R R	R R R	R R R	R R R	R R R
13		◀ G ◀Y G G	G G G	R R R	◀ G ◀Y G	G Y (1) R (1)	R R R	R R R	R R R	R R R
14	Y	R R R	G Y R	R R R	R R R	R R R	R R R	R R R	R R R	R R R
P	OFF	DW	◀ YIELD POINT				W/Ø DW			
MIN GRN		15	20	5	7	7	7 (3)	7	5	
WALK							20 (2)			
PED CLR							ACCESSIBLE PEDESTRIAN SIGNAL			
VEH EXT		2.5	1.0	2.0	7		2.0	1.0		
MAX 1		35	15	30			20	35		
MAX 2		45	20	23	7		29	32		
YELLOW		3.7	3.7	3	3	3.7	4	3	3	
RED		2.0	1.0	1.0	2	1.0	0	1.0	2	
ADD INIT										
MAX INIT							COUNTDOWN PEDESTRIAN SIGNAL			
TBR										
TTR										
MIN GAP										
MODE		ON/OMIT	MIN RECALL	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	
INT START			THIS PHASE							

ENERGY BY	STATE	ADDRESS #	
MAINT LEVEL	5	SERVICE POLE	CL&P 6564
UNMETERED SERVICE			

INTERSECTION # 162-213

SIGNAL FACES



ALL LENSES TO BE LED.
ALL VEHICULAR SIGNAL FACES TO HAVE BACKPLATES WITH YELLOW RETROREFLECTIVE BORDERS.
PEDESTAL MOUNTED FACE 7 TO HAVE TUNNEL VISORS.

PRE-EMPTION SETTINGS

	PRE-EMPT 1	PRE-EMPT 2
PRIORITY	NO	NO
DET. LOCK	YES	YES
DELAY	0	0
ALT. MIN. GRN	5	5
ALT. YELLOW	3	PARENT
ALT. RED	PARENT	PARENT
ALT. PED. CLR.	20	20
HOLD GREEN	15	15
HOLD YELLOW	3	3.7
HOLD RED	2.0	2.0
HOLD PHASE	4&7	1
EXIT PHASE	4&8	2
EXIT CALL	NONE	NONE

OFFICE RECORD

OSTA #N/A SM # N/A
SIGNAL REVISED :
UPGRADED TRAFFIC SIGNAL UNDER PROJECT 174-360

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION
DIVISION OF TRAFFIC ENGINEERING

TRAFFIC CONTROL SIGNAL

TOWN OF WINCHESTER
RTES. 44 & 183 (MAIN ST.) &
RTES. 44, 8 & 183 (S.MAIN ST.)
AT S.R.800 (ROWLEY STREET) &
S.R.843 (PARK PL. W.) & RTE 8 (PARK PL. E.)

REV #	TRAFFIC	DATE	ELECTRICAL	DATE
ENGINEER	GMG	8/13	ABB	10/13
DRAWN BY	JMF	8/13	MJC	10/13
CHECKED BY	DJV	12/14	PSF	10/13
SUBMITTED BY	EBL	12/14	LNC	11/14
APPROVED BY	Barbara B. Ricozzi		Tracy L Fogarty	
DATE	12-17-14		12-16-14	

CONSTRUCTION NOTES :

ALL TRAFFIC EQUIPMENT IS NEW EXCEPT AS NOTED.
EXISTING 16/12 PAIR, FIG. 8 AND COMMUNICATION CABLE CLOSURE TO REMAIN.
REPLACE EXISTING 2-16/6 CABLE FROM COMMUNICATION CABLE CLOSURE ADJACENT TO CL&P 2309 TO CONTROLLER.
STATE FORCES TO STAKE ALL R.O.W. PRIOR TO EXCAVATION.
(D) INSTALL TYPE 4e SIDEWALK RAMP. (E) INSTALL TYPE 4e SIDEWALK RAMP. (F) INSTALL TYPE 4g SIDEWALK RAMP.
(G) INSTALL TYPE 1 SIDEWALK RAMP. (J) INSTALL TYPE 2 SIDEWALK RAMP. (K) INSTALL SPAN POLE AT BACK EDGE OF CONCRETE WALK.
(L) INSTALL NEW PEDESTAL ADJACENT TO EXISTING PEDESTAL AND AT EDGE OF CONCRETE WALK.
(M) INSTALL SPAN POLE AT FRONT EDGE OF WALK.
(N) INSTALL NEW PEDESTAL FOUNDATION IN LOCATION OF EXISTING FOUNDATION. INSTALL 12' ALUMINUM PEDESTAL ON NEW PEDESTAL FOUNDATION
(Q) REPLACE EXISTING HANDHOLE.
(H) INSTALL STEEL HANDHOLE COVER, ALL OTHERS ARE CAST IRON COVERS.
ANY PROPOSED REVISIONS TO THE LOCATION OF THE APPURTENANCES SHOWN ON THE PLAN MUST BE SUBMITTED FOR REVIEW AND APPROVAL BY THE DIVISION OF TRAFFIC ENGINEERING PRIOR TO INSTALLATION.
THE LOCATION OF TRAFFIC SIGNAL EQUIPMENT WHEN IN OR ADJACENT TO SIDEWALKS SHALL BE VERIFIED PRIOR TO INSTALLATION TO PROVIDE A FREE PATH OF NOT LESS THAN 4 FEET. IF A MINIMUM 4 FOOT FREE PATH IS UNAVAILABLE NOTIFY THE ENGINEER AND CONTACT THE DIVISION OF TRAFFIC ENGINEERING.
INSTALL CONTROLLER FOUNDATION WITH CONCRETE PAD ADJACENT TO AND WITHIN R.O.W.
INSTALL STATE FURNISHED CONTROLLER ON TYPE IV FOUNDATION.
INSTALL LOOP DETECTORS CENTERED IN LANE AND 8' APART UNLESS OTHERWISE NOTED.
SERIES SPLICE SEGMANTED LOOPS PER LANE.
INSTALL AUXILIARY TERMINATION CABINET ON RIGHT SIDE OF CONTROLLER CABINET.
(R) EXTEND CONCRETE SIDEWALK TO PROVIDE 4 FOOT TRAVEL PATH IN FRONT OF SPAN POLE. (APPROIMATELY 30' X 4')
(W) INSTALL 30" X 30" HANDHOLE. ALL OTHERS TYPE II.
COORDINATE WITH UTILITY COMPANY REPRESENTATIVES LISTED IN THE SPECIAL PROVISION, 1.07 - LEGAL RELATIONS AND RESPONSIBILITIES.
REFER TO SPECIAL PROVISION SECTION 1.07 - LEGAL RELATIONS AND RESPONSIBILITIES FOR THE LIST OF UTILITY COMPANIES AND REPRESENTATIVES THE CONTRACTOR SHALL USE.
CL&P TO REPLACE CL&P POLE No. 21 WITH A 45' CLASS 2 POLE, ANCHOR AND GUY WITHIN STATE R.O.W., AND CHANGE VERTICAL PRIMARIES TO CROSS ARM.
SPAN ATTACHMENT ON CL&P No. 21 TO HAVE A MINIMUM CLEARANCE OF 12" BELOW SECONDARY & 40" ABOVE HIGHEST COMMUNICATIONS. REMOVE ALL ABANDONED TRAFFIC SIGNAL EQUIPMENT PER SPECIAL PROVISIONS.
COORDINATE THIS REVISION WITH CONNECTICUT D.O.T. SIGNAL LAB. CONTACT MR. DONALD ASSARD (860) 258-0346 OR MR. MARK ZAMPINI (860) 258-0349 AT LEAST 45 DAYS PRIOR TO REVISION.
ENSURE SUFFICIENT LOOP CABLE TO SPLICE D2A TO D2, D2C TO D2B, AND D2E TO D2D IN HANDHOLE (Q) AND D2F TO D2G IN HANDHOLE (P) CABLE BETWEEN (Q) AND (V) AND BETWEEN (P) AND (Z) TO BE PAID FOR UNDER ITEM #1113050.
PERFORM TEST PITS IN THE VICINITY OF 162-213-A AND 162-213-D TO DETERMINE ANY ABANDONED SUBSURFACE FOUNDATIONS.

EMERGENCY PRE-EMPTION NOTES

RELOCATE AUXILIARY EQUIPMENT CABINET FROM EXISTING CONTROLLER CABINET TO LEFT SIDE OF NEW CONTROLLER CABINET.
RELOCATE EXISTING EMERGENCY PRE-EMPTION DETECTORS TO NEW SPAN. TEST PRE-EMPTION SYSTEM PRIOR TO AND AFTER RELOCATION IN ACCORDANCE WITH SPECIFICATIONS.
STATE FORCES TO INSTALL A SWITCH IN THE SIGNAL CABINET TO EFFECTIVELY DISCONNECT THE PRE-EMPTION EQUIPMENT FROM THE TRAFFIC SIGNAL CONTROLLER.
PRE-EMPTION DETECTOR LOCATIONS ARE FOR ILLUSTRATION ONLY. EXACT LOCATIONS SHALL BE DETERMINED BY THE MANUFACTURER OR HIS DESIGNATED REPRESENTATIVE. DETECTOR CABLES ARE TO BE INSTALLED CONTINUOUS BETWEEN EACH DETECTOR AND THE AUXILIARY EQUIPMENT CABINET.

CONTRACTOR TO :

- INSTALL ALL STOP BARS AS SHOWN.
- REMOVE STOP BAR ON ROUTE 44 AT PARK PLACE EAST.
- REMOVE CROSSWALK ON S.R.800.
- REMOVE CROSSWALK ON ROUTE 44 WEST OF PARK PLACE WEST.
- INSTALL ALL CROSSWALKS AS SHOWN ON THE PLAN, 8' WIDE 16" BARS AND 24" SPACES.
- INSTALL 2' SKIP 4' SPACE WHITE LANE LINE SKIPS THROUGH THE PARK PLACE EAST INTERSECTION AS SHOWN.
- INSTALL ALL 4" WIDE ,3' LONG, 9' SPACES WHITE DOTTED EXTENSION LINES AS SHOWN.
- INSTALL ALL PAVEMENT ARROWS AS SHOWN.

DETECTORS

IDENT	SIZE (WXL)	TURNS	MODE
D2, D2A D2B, D2C	6' x 6'	4	PRESENCE
D2D,D2E	6' x 6'	4	PRESENCE
D2F	6' x 6'	4	PRESENCE
D2G	12' x 6'	3	PRESENCE
D3	6' x 6'	3	PRESENCE
D3A	6' x 6'	3	PRESENCE
D3B	6' x 6'	3	6" DELAY
D4R	6' x 6'	3	PRESENCE
D7R	6' x 6'	3	PRESENCE
D8	6' x 6'	3	PRESENCE
D4	6' x 12' QUADRUPOLE	2	PRESENCE
D7	6' x 12' QUADRUPOLE	2	PRESENCE

PROGRAM

FUNCTION	T I M E	DAYS
FLASH	NONE	
MAX 1	ALL OTHER TIMES	
MAX 2	0700-0900	M-F
PATTERN 5	1500-1900	M-F
PATTERN 2	0800-1900	SAT
PATTERN 3	1000-1800	SUN
FREE	ALL OTHER TIMES	DAILY

COORDINATION TYPE - CLOSED LOOP

CYCLE	OFFSET SEC	OFFSET %	PHASE SPLITS Ø1	Ø2	Ø3	Ø4	SEC / % Ø5	Ø6	Ø7	Ø8
				33 15	32 10		15 32			
90"				37 16	36 11		16 36			
90"				33 15	32 10		15 32			
90"				37 16	36 11		16 36			
				33 15	32 10		15 32			
				37 16	36 11		16 36			

PERMIS PERIOD	Ø	SEC

SYSTEM LOC	TECHNICAL NOTES (CONTINUED ON PLAN SHEET)
MASTER	STANDARD OVERLAP SKIP FEATURES APPLY
162-213	(1) TO BE ◀—G IF PHASE 4 IS NEXT.
162-211	PHASES 3 & 7 TO DRIVE FACES 3 & 7 ◀—Y AND ◀—ONLY.
162-202	PHASES 4 & 8 TO DRIVE FACES 3 & 7 R, Y &G.
162-203	PHASES 4 & 8 TO BE PROGRAMMED FOR DUAL ENTRY.
162-204	PHASE 5 TO ALWAYS FOLLOW PHASE 2.
162-208	TIMINGS SHOWN INDICATE FREE OPERATION, ACTUAL PHASE SPLITS TO BE DETERMINED BY
162-212	COORDINATION PROGRAM.
162-220	PHASE SPLITS SHOWN REFLECT PRELIMINARY
5-202	COORDINATION DATA.
	PRE-EMPTION TO BE INOPERATIVE DURING
	FLASHING OPERATION.
	(2) COUNTDOWN ONLY DURING FLASHING CHANGE INTERVAL.

LEGEND:
R RED ◀R RED ARROW
Y YELLOW ◀Y YELLOW ARROW
G GREEN ◀— GREEN ARROW
FL. FLASHING Wø WALK/ PED. CLR
D.W. DON'T WALK

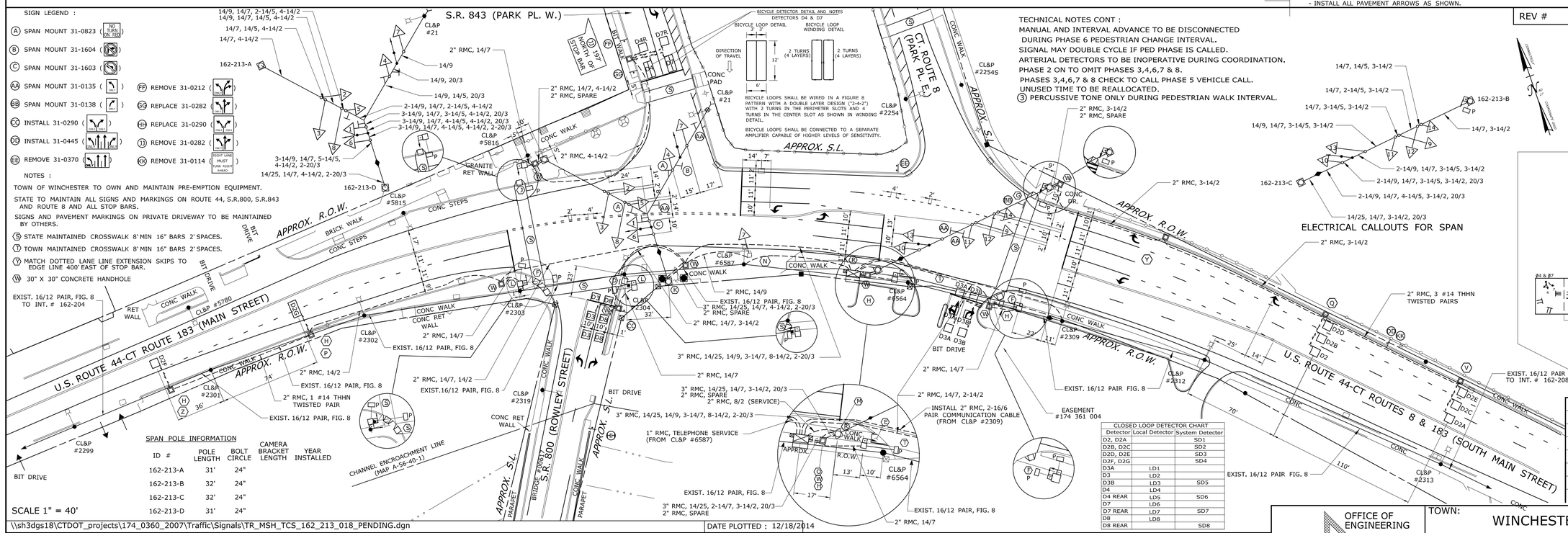
DIVISION OF TRAFFIC ENGINEERING

SIGN LEGEND :

(A) SPAN MOUNT 31-0823 (NO TURN ON RED)
(B) SPAN MOUNT 31-1604
(C) SPAN MOUNT 31-1603 (ONE WAY)
(AA) SPAN MOUNT 31-0135
(BB) SPAN MOUNT 31-0138
(CC) INSTALL 31-0290 (ONE WAY)
(DD) INSTALL 31-0445 (ONE WAY)
(EE) REMOVE 31-0370
(FF) REMOVE 31-0212
(GG) REPLACE 31-0282
(HH) REPLACE 31-0290
(JJ) REMOVE 31-0282
(KK) REMOVE 31-0114 (RIGHT LANE MUST TURN RIGHT AHEAD)

NOTES :

TOWN OF WINCHESTER TO OWN AND MAINTAIN PRE-EMPTION EQUIPMENT.
STATE TO MAINTAIN ALL SIGNS AND MARKINGS ON ROUTE 44, S.R.800, S.R.843 AND ROUTE 8 AND ALL STOP BARS.
SIGNS AND PAVEMENT MARKINGS ON PRIVATE DRIVEWAY TO BE MAINTAINED BY OTHERS.
(S) STATE MAINTAINED CROSSWALK 8' MIN 16" BARS 2' SPACES.
(T) TOWN MAINTAINED CROSSWALK 8' MIN 16" BARS 2' SPACES.
(V) MATCH DOTTED LANE LINE EXTENSION SKIPS TO EDGE LINE 400' EAST OF STOP BAR.
(W) 30" X 30" CONCRETE HANDHOLE



SPAN POLE INFORMATION

ID #	POLE LENGTH	BOLT CIRCLE	CAMERA BRACKET LENGTH	YEAR INSTALLED
162-213-A	31'	24"		
162-213-B	32'	24"		
162-213-C	32'	24"		
162-213-D	31'	24"		

CLOSED LOOP DETECTOR CHART

Detector	Local Detector	System Detector
D2, D2A		SD1
D2B, D2C		SD2
D2D, D2E		SD3
D2F, D2G		SD4
D3A	LD1	
D3	LD2	
D3B	LD3	SD5
D4	LD4	
D4 REAR	LD5	SD6
D7	LD6	
D7 REAR	LD7	SD7
D8	LD8	
D8 REAR		SD8

TECHNICAL NOTES CONT :
MANUAL AND INTERVAL ADVANCE TO BE DISCONNECTED DURING PHASE 6 PEDESTRIAN CHANGE INTERVAL.
SIGNAL MAY DOUBLE CYCLE IF PED PHASE IS CALLED.
ARTERIAL DETECTORS TO BE INOPERATIVE DURING COORDINATION.
PHASE 2 ON TO OMIT PHASES 3,4,6,7 & 8.
PHASES 3,4,6,7 & 8 CHECK TO CALL PHASE 5 VEHICLE CALL.
UNUSED TIME TO BE REALLOCATED.
(3) PERCUSSIVE TONE ONLY DURING PEDESTRIAN WALK INTERVAL.

REV #	INTERSECTION # 162-213

NO.	DATE	INIT.	DESCRIPTION
			REVISIONS

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DATE PLOTTED : 12/18/2014

- PROPOSED WOOD SPAN POLE
- EXISTING WOOD SPAN POLE
- PROPOSED STEEL SPAN POLE
- EXISTING STEEL SPAN POLE
- PROPOSED UTILITY POLE
- EXISTING UTILITY POLE
- PEDESTRIAN SIGNAL FACE
- TRAFFIC SIGNAL FACE
- DIRECTIONAL ARW. FOR PUSH BUTTON
- PEDESTRIAN PUSH BUTTON & SIGN
- PEDESTAL MOUNTING
- WIRELESS SENSOR
- WIRELESS RECEIVER
- WIRELESS TRANSMITTER
- PROPOSED CONTROLLER
- PROPOSED R.M.C. (RIGID METAL CONDUIT)
- EXISTING R.M.C. (RIGID METAL CONDUIT)
- DET. LEADS IN SAW CUT
- AUXILIARY TERMINATION CABINET
- AUXILIARY EQUIPMENT CABINET
- VIDEO DETECTOR
- OPTICAL DETECTOR
- SYSTEM DETECTOR
- EXISTING CONTROLLER
- PROPOSED HANDHOLE
- EXISTING HANDHOLE
- SIDEWALK RAMP
- SONIC DETECTOR
- GUY WIRE
- LOOP DETECTOR
- MAGNETIC DETECTOR
- CABLE CLOSURE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

TOWN OF WINCHESTER
RTES. 44 & 183 (MAIN ST.) &
RTES. 44, 8 & 183 (S.MAIN ST.)
AT S.R.800 (ROWLEY STREET) &
S.R.843 (PARK PL. W.) & RTE 8 (PARK PL. E.)

OFFICE OF ENGINEERING

TOWN: WINCHESTER

DRAWING TITLE: TRAFFIC CONTROL SIGNAL PLAN

PROJECT NO. 174-360
DRAWING NO. TCS-01
SHEET NO. 03.02

MOVEMENT DIAGRAM

	NTOR	PHASE 1	PHASE 2 PRE-EMPT 1	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	
	NONE		1, 2, 2		5, 5, 3, 4					
	FLASH	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL	GRN CL CL
FACE # 1	Y		G Y R		R R R					
FACE # 2	Y		G Y R		R R R					
FACE # 3	R		R R R		G Y R					
FACE # 4	R		R R R		G Y R					
FACE # 5	R		R R R		G Y R					
FACE # 6	R		R R R		G Y R					
			← YIELD PT							
INTERVALS: MIN GRN			15		9					
WALK					13					
PED CLR					1					
VEH EXT			5		2					
MAX 1			60		35					
MAX 2			30		25					
YELLOW			3.7		3.6					
RED			1.1		1					
ADD INIT										
MAX INIT										
TBR										
TTR										
MIN GAP										
MODE		OFF	MIN RECALL	OFF	NON-LOCK	OFF	OFF	OFF	OFF	OFF
INT START			THIS PHASE							

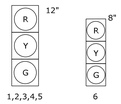
TECHNICAL NOTES

STANDARD OVERLAP SKIP FEATURES APPLY
TIMINGS SHOWN REFLECT FREE OPERATION. ACTUAL TIMINGS TO BE DETERMINED BY CLLC SYSTEM.
PRE-EMPTION TO BE INOPERATIVE DURING FLASHING OPERATION.

OFFICE RECORD

REV #	TIR # N/A	SM # N/A	SIGNAL REVISED:
ADDED NEW DRIVEWAY ACROSS FROM ROUTE 8 AND SIGNALIZED AS PART OF PHASE 4, INSTALLED LOOP DETECTORS FOR DRIVEWAY AND REPLACED ARTERY DETECTION. REVISED TIMINGS.			

SIGNAL FACES



ALL INDICATIONS TO HAVE LED LAMPS.

PRE-EMPTION SETTINGS

	PRE-EMPT 1
PRIORITY	NO
DET. LOCK	YES
DELAY	0
ALT. MIN. GRN	5
ALT. YELLOW	PARENT
ALT. RED	PARENT
ALT. PED. CLR.	0
HOLD GREEN	15
HOLD YELLOW	3.7
HOLD RED	1.1
HOLD PHASE	2
EXIT PHASE	2
EXIT CALL	4

CONSTRUCTION NOTES:

ALL MATERIAL AND CONSTRUCTION METHODS SHALL CONFORM TO THE FOLLOWING CURRENT CTDOT DOCUMENTS WHICH CAN BE ACCESSED ON THE CTDOT WEBSITE:

* STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION (FORM 816).
* SUPPLEMENTAL SPECIFICATIONS TO FORM 816.
* SPECIAL PROVISIONS TO FORM 816.
* STANDARD INSTALLATION AND GUIDE DETAIL SHEETS.

COORDINATE WITH UTILITY COMPANY REPRESENTATIVES LISTED IN THE SPECIAL PROVISION, 1.07 - LEGAL RELATIONS AND RESPONSIBILITIES.

ALL TRAFFIC SIGNAL EQUIPMENT IS EXISTING EXCEPT AS NOTED.

STAKE ALL R.O.W. PRIOR TO EXCAVATION.

THE LOCATION OF TRAFFIC SIGNAL FOUNDATIONS WHEN IN OR ADJACENT TO SIDEWALKS SHALL BE VERIFIED PRIOR TO INSTALLATION TO PROVIDE A FREE PATH OF NOT LESS THAN 4 FEET. IF A MINIMUM 4 FOOT FREE PATH IS UNAVAILABLE, NOTIFY THE ENGINEER AND CONTACT THE DIVISION OF TRAFFIC ENGINEERING.

ANY PROPOSED REVISIONS TO THE LOCATION OF THE APPURTENANCES SHOWN ON THE PLAN MUST BE SUBMITTED FOR REVIEW AND APPROVAL BY THE DIVISION OF TRAFFIC ENGINEERING PRIOR TO INSTALLATION.

PROVIDE NEW WIRE BACK TO CABLE CLOSURE FOR THE NEW SIGNAL HEADS.

REMOVE ALL ABANDONED TRAFFIC SIGNAL EQUIPMENT PER SPECIAL PROVISION.

ALL TRAFFIC SIGNAL LOOPS ARE EXISTING UNLESS OTHERWISE NOTED; CONTRACTOR TO VERIFY LOOPS ARE IN GOOD WORKING ORDER, IF NOT THEY SHALL BE REPLACED. D2, D2A, D2B AND D4B ARE NEW TRAFFIC SIGNAL LOOPS.

PROVIDE 11 NEW AMPLIFIERS.

ABANDON EXISTING TRAFFIC SIGNAL LOOP D2 LOCATED 240 FEET FROM STOP BAR AND INSTALL NEW TRAFFIC SIGNAL LOOPS D2 AND D2A AS SHOWN.

COORDINATE THIS REVISION WITH CONNECTICUT D.O.T. SIGNAL LAB. CONTACT MR. DON ASSARD AT (860) 258-0346 OR MR. MARK ZAMPINI AT (860) 258-0349 AT LEAST 48 HRS. PRIOR TO REVISION.

MODIFY EXISTING CONTROLLER TO ACCOMMODATE CHANGES SHOWN ON THE PLANS. PROVIDE 4 COPIES OF THE REVISED WIRING DIAGRAMS.

EMERGENCY PRE-EMPTION EQUIPMENT IS EXISTING AND SHALL REMAIN AS SHOWN ON THE PLANS.

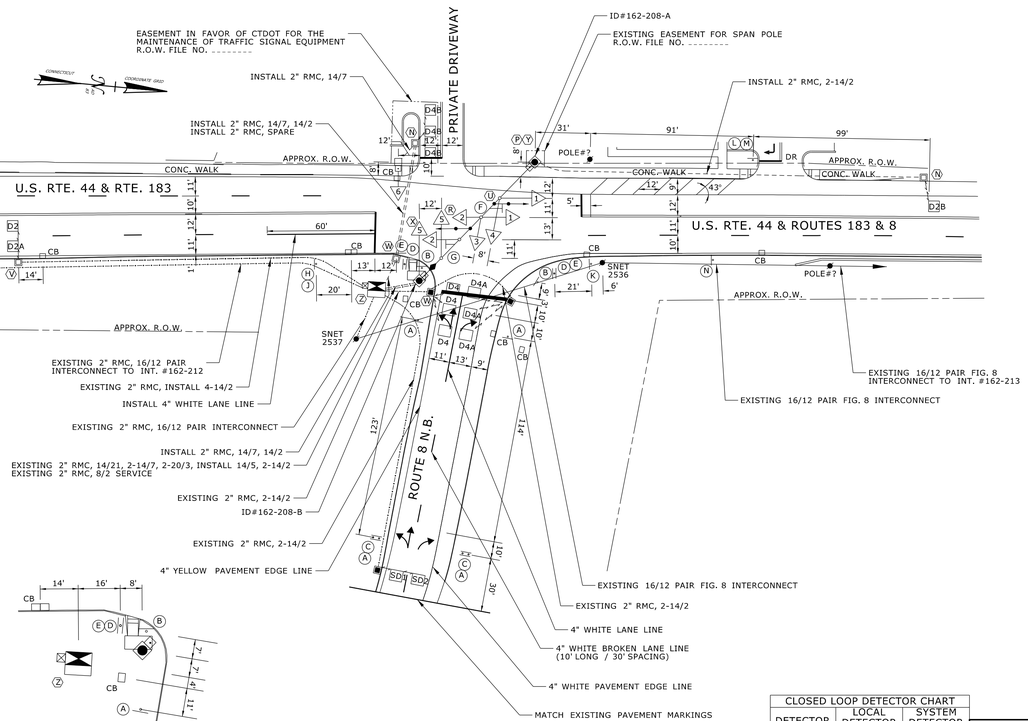
(N) INSTALL CAST IRON HANDHOLE COVER.
(R) INSTALL NEW SIGNAL HEAD 5 ON SPAN WIRE.
(U) REMOVE EXISTING 8 INCH SIGNAL HEAD FROM 3 WAY SIGNAL HEADS 1&4 CLUSTER
(V) LOCATE EXISTING RIGID METAL CONDUIT. EXTEND INTO NEW HANDHOLE.
(W) 30" X 30" HANDHOLE. ALL OTHERS TYPE II.
(X) INSTALL HEAD 5 ON SPAN POLE AT MOUNTING HEIGHT OF 10 FEET.
(Y) UTILIZE EXISTING SWEEP IN SPAN POLE FOUNDATION AND PROVIDE NEW 2" RMC AS SHOWN.
(Z) UTILIZE SPARE CONDUIT IN EXISTING CONTROLLER FOUNDATION.

CENTER LOOP DETECTORS IN LANE.

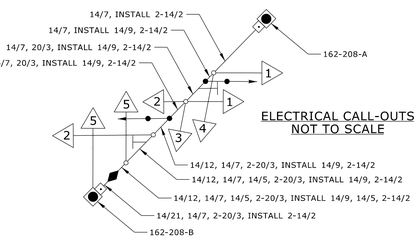
SERIES SPLICE SEGMENTED LOOPS PER LANE.

CLEAN EXISTING CONDUIT BETWEEN D2 & D2A LOOPS AND CONTROLLER. REFER TO SPECIAL PROVISION FOR ITEM #1008908A-CLEAN EXISTING CONDUIT.

DETECTORS				SYSTEM LOC	COORDINATION TYPE - CLOSED LOOP				
IDENT	SIZE	TURNS	MODE	MASTER	PROGRAM			OFFSET	
				162-213	FUNCTION	TIME	DAYS	CYCLE	SEC %
D2	6' x 6'	3	PRESENCE	162-202	FLASH	NONE			
D2A	6' x 6'	3	PRESENCE	162-204	MAX 1	ALL OTHER TIMES			
D2B	6' x 6'	3	PRESENCE	162-203	MAX 2	2200-0500	DAILY		
D4	6' x 6'	3	PRESENCE	162-208	CYCLE 1	ALL OTHER TIMES		75"	38 50
D4A	6' x 6'	3	5" DELAY	162-211	CYCLE 2	FUTURE			
D4B	6' x 6'	3	PRESENCE	162-212	CYCLE 3	FUTURE			
SD1	6' x 6'	3	PRESENCE	162-220	FREE	2200-0500	DAILY		
SD2	6' x 6'	3	PRESENCE	005-202					



SOUTHEAST CORNER DETAIL
NOT TO SCALE



ELECTRICAL CALL-OUTS
NOT TO SCALE

SIGN LEGEND

(A) INSTALL 31-0283 — ONLY
(B) EXISTING 31-1119 — DO NOT ENTER
(C) INSTALL 31-1122 — WRONG WAY
(D) EXISTING 31-1177 — ONE WAY
(E) EXISTING 31-1188 — ONE WAY
(F) SPAN MTD. 31-1603
(G) SPAN MTD. 31-1604
(H) EXISTING 31-1617
(J) EXISTING 31-1618 — NO RIGHT TURN
(K) EXISTING 31-5505 — SPEED LIMIT 30
(L) INSTALL 31-0552 — STOP
(M) INSTALL 31-0138 — ONLY
(N) INSTALL 31-1619

NOTES:

STATE TO MAINTAIN ALL SIGNS AND PAVEMENT MARKINGS AND ALL STOP BARS ON U.S. ROUTE 44, ROUTE 183, AND ROUTE 8. THE STOP BAR FOR THE ROUTE 8 OFF RAMP SHALL BE 24". ALL OTHERS SHALL BE 12".

SIGNS AND PAVEMENT MARKINGS ON PRIVATE DRIVEWAY SHALL BE MAINTAINED BY OTHERS.

PRE-EMPTION EQUIPMENT TO BE MAINTAINED BY THE TOWN OF WINSTED.

CONTRACTOR TO INSTALL NEW PAVEMENT MARKINGS AS SHOWN AND DIMENSION FOR THE ROUTE 8 OFF RAMP, NEW DRIVEWAY AND SINGLE WHITE LANE LINE ON NORTHBOUND APPROACH. ALL OTHER PAVEMENT MARKINGS ARE EXISTING AND DIMENSIONED FOR MAINTENANCE PURPOSES.

(P) EXISTING EASEMENT R.O.W. FILE NO. _____.

CONTRACTOR TO ERADICATE HATCH PAVEMENT MARKINGS IN FRONT OF PRIVATE RIGHT IN/RIGHT OUT DRIVEWAY.

SPAN POLE INFORMATION:

162-208A: HEIGHT 30', B.C. 20", LOAD AT YIELD 7800 LBS., INSTALLED 1995.
162-208B: HEIGHT 30', B.C. 20", LOAD AT YIELD 7800 LBS., INSTALLED 1995.

CLOSED LOOP DETECTOR CHART		
DETECTOR	LOCAL DETECTOR	SYSTEM DETECTOR
SD1	--	SD1
SD2	--	SD2
D2	LD3	SD3
D2A	LD4	SD4
D2B	LD5	SD5
D4	LD6	--
D4A	LD7	--
D4B	LD8	--

	TRAFFIC	DATE	ELECTRICAL	DATE
ENGINEER				
DRAWN BY	MILONE & MACBROOM®	7/8/2015		
CHECKED BY				
SUBMITTED BY				
APPROVED BY				
APPROVED DATE				

REV # INTERSECTION #162-208

ENERGY BY - STATE	ADDRESS #
MAINT LEVEL - 5	SERVICE POLE - SNET 253
	UNMETERED SERVICE

NO.	DATE	REVISION DESCRIPTION

LEGEND:
R RED
Y YELLOW
G GREEN
◄R RED ARROW
◄Y YELLOW ARROW
◄G GREEN ARROW
WØ WALK/ PED. CLR
D.W. DON'T WALK
FL. FLASHING

PROPOSED WOOD SPAN POLE
EXISTING WOOD SPAN POLE
PROPOSED STEEL SPAN POLE
EXISTING STEEL SPAN POLE
PROPOSED UTILITY POLE
EXISTING UTILITY POLE
PEDESTAL MOUNTING
PEDESTRIAN PUSH BUTTON & SIGN
DIRECTIONAL ARW. FOR PUSH BUTTON

TRAFFIC SIGNAL FACE
PEDESTRIAN SIGNAL FACE
DET. LEADS IN SAW CUT
PROPOSED RMC (RIGID METAL CONDUIT)
EXISTING RMC (RIGID METAL CONDUIT)
AUXILIARY TERMINATION CABINET
AUXILIARY EQUIPMENT CABINET
VIDEO DETECTION ZONE

PROPOSED CONTROLLER
EXISTING CONTROLLER
LOOP DETECTOR
SD SYSTEM DETECTOR
MAGNETIC DETECTOR
OPTICAL DETECTOR
VIDEO DETECTOR
AUDIO DETECTOR

SIDEWALK RAMP
CABLE CLOSURE
WIRELESS SENSOR
WIRELESS RECEIVER
WIRELESS TRANSMITTER
GUY WIRE
PROPOSED HANDHOLE
EXISTING HANDHOLE

DATE PLOTTED : 8/18/2015 W:\Design\5624-01-DE\CAD\WN-TCS-1.DGN

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

U.S. RTE. 44 & RTE. 183 AT RTE. 8 NORTHBOUND

SCALE 1" = 40'

TOWN: TOWN OF WINCHESTER

DRAWING TITLE: TRAFFIC CONTROL SIGNAL PLAN

PROJECT NO. XXXX-XXXX
DRAWING NO. TCS-01
SHEET NO.

Post-Audit Discussion Guide

Safety Issues

- Confirmation of safety issues identified during walking audit

Potential Countermeasures

- Short Term recommendations

- Medium Term recommendations

- Long Term recommendations

Next Steps

- Discussion regarding responsibilities for implementing the countermeasures (including funding)

Road Safety Audit – Winchester

Fact Sheet

Functional Classification:

- Main Street is classified as a Principal Arterial (Other)
- South Main Street is classified as a Principal Arterial (Other)
- New Hartford Road is classified as a Principal Arterial (Other)

ADT

- ADT on Main Street is 10,800 – 15,400
- ADT on South Main Street is 19,800 – 22,000
- ADT on New Hartford Road is 14,600 – 18,600

Population and Employment Data (2014):

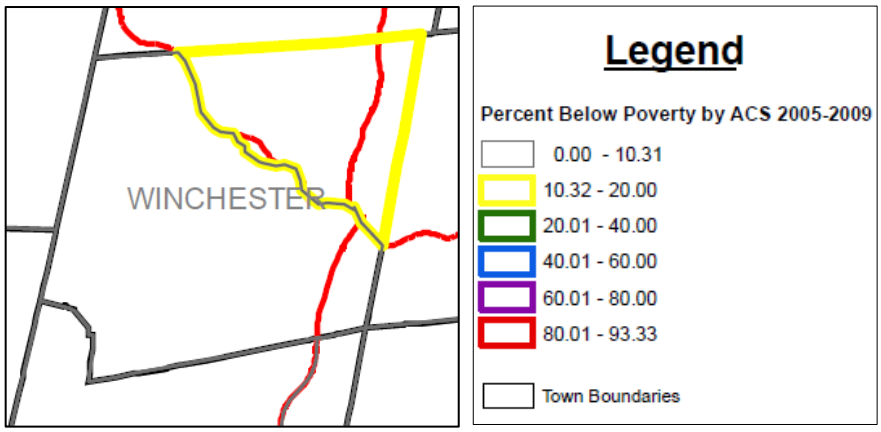
- Population: 11,189
- Employment: 3,380

Urbanized Area

- The study area is located within the Torrington Urban Cluster

Demographics

- The statewide average percentage below the poverty line is 10.31%. Within the vicinity of Main Street up to 20% of residents are below the poverty line



- The statewide average percentage minority population is 30.53%. There are no areas in Winchester that exceed the state's average.

Air Quality

- Winchester's CIPP number 325
- Winchester is within the Greater CT Marginal Ozone Area
- Winchester is within a CO Attainment Area

COMMUNITY
connectivity program

Appendix D

AECOM
Built to deliver a better world

Jannat, Khadiza N.

From: Lindeberg, Erika B.
Sent: Wednesday, October 21, 2015 7:35 AM
To: 'William T. Fitzgerald'
Subject: RE: Crosswalks

Hello Chief Fitzgerald:

Our office will review your request for crosswalks at the locations noted below. We will contact you to discuss further as needed during our investigation.

Erika

Erika B. Lindeberg, P.E.
Transportation Supervising Engineer
Connecticut Department of Transportation
Division of Traffic Engineering
2800 Berlin Turnpike
Newington, CT 06131-7546
Tel: (860) 594-3486
Fax: (860) 594-3376
Erika.Lindeberg@ct.gov

From: William T. Fitzgerald [mailto:PoliceChief@townofwinchester.org]
Sent: Friday, October 16, 2015 8:44 AM
To: Lindeberg, Erika B.
Cc: Town Manager; DPW Director
Subject: Crosswalks

Ms. Lindeberg;

I am requesting that the DOT evaluate the need to have crosswalks installed on Park Street RT 8 adjacent to a park and Northwest Community College. I have pasted comments from a resident with corresponding photos to illustrate the need for crosswalks as this road is heavily traveled by large vehicles and transports making pedestrians crossing the street highly dangerous and sometimes impossible. As the Winchester Police Chief and local traffic authority endorses the implementation of crosswalks.

"The need for crosswalks around the East End Park and you asked me to send you some direct information. This email and its attachment of photos are following that discussion.
The issue of my concern is that walkways in the park that have handicapped access, do not lead to crosswalks at the East side of the park, the West side of the park, and at the north end of the park. Additionally, where these East and West side park entries are, there is nothing indicating no parking. You will see in the attached photos cars blocking some of these entries. At the North end there is no safe walkway either to the East side or the West side sidewalks. Safe access to and from the park is hampered by the lack of appropriate crosswalks. Since this is both a safety issue and a

handicapped access issue, I believe something needs to be done to address no parking at the accesses and securing the safe crosswalks accesses.

Jack Bourque
78 Crown Street
Winsted
860-605-8638 mobile”

If you have any questions or concerns, please feel free to call me. Thank you for any assistance in this matter.

Respectfully Submitted,

William T. Fitzgerald, Jr.
Chief of Police
Winchester Police Department
Town of Winchester- City of Winsted
338 Main Street
Winsted, Connecticut 06098
Tel#:(860) 379-2721
Fax#: (860) 738-6957
Email: policechief@townofwinchester.org

COMMUNITY
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Appendix E

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STOP