



COMMUNITY
connectivity program

Coventry

Main Street, Daly Road to Town Hall – Road Safety Audit

June 30, 2016



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Acknowledgements:

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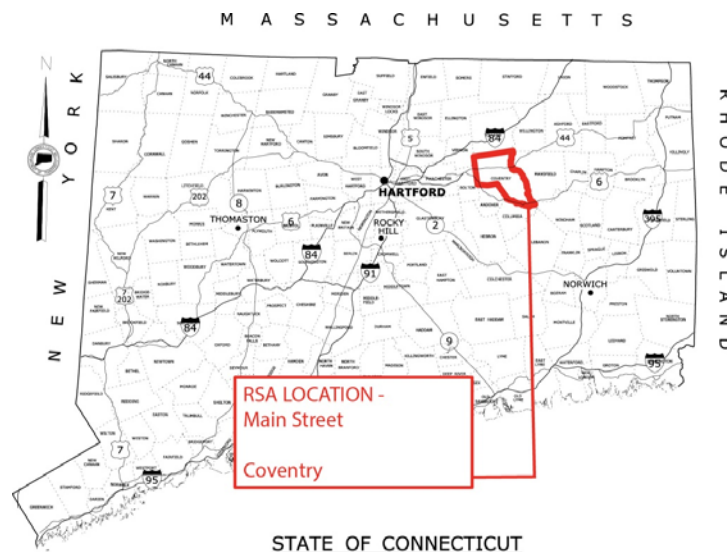
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The Connecticut Department of Transportation (CTDOT) is undertaking a Community Connectivity Program that focuses on improving the state's transportation network for all users, with an emphasis on bicyclists and pedestrians. A major component of this 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 the Coventry (Main Street) RSA

The Town of Coventry submitted an application to complete an RSA along Main Street from Daly Road to the Town Hall to improve safety for pedestrians and bicyclists. The town's goal is to provide pedestrian access around the entire perimeter of Coventry Lake via sidewalks, and the segment between Daly Road and the Town Hall is the remaining segment to be studied. The segment would connect Lisicke Beach with the municipal complex that includes the Town Hall, Middle and High Schools, and Board of Education Building and further connects with other sidewalks that extend to Coventry village via Main Street.

The Town of Coventry application contained information on traffic volumes, crash data, and mapping of the intersection. The application and supporting documentation are included in Appendix A.

1.1 Location

The site is the segment of Main Street (Route 31) between Daly Road and the Municipal Complex in the Town of Coventry (Figure 1). The Main Street Average Daily Traffic (ADT) is 8,200 vehicles per day (vpd). These are significant volumes of traffic for a rural state highway to process. Figure 2 shows the regional context of the study area.



Figure 1. Main Street, Coventry

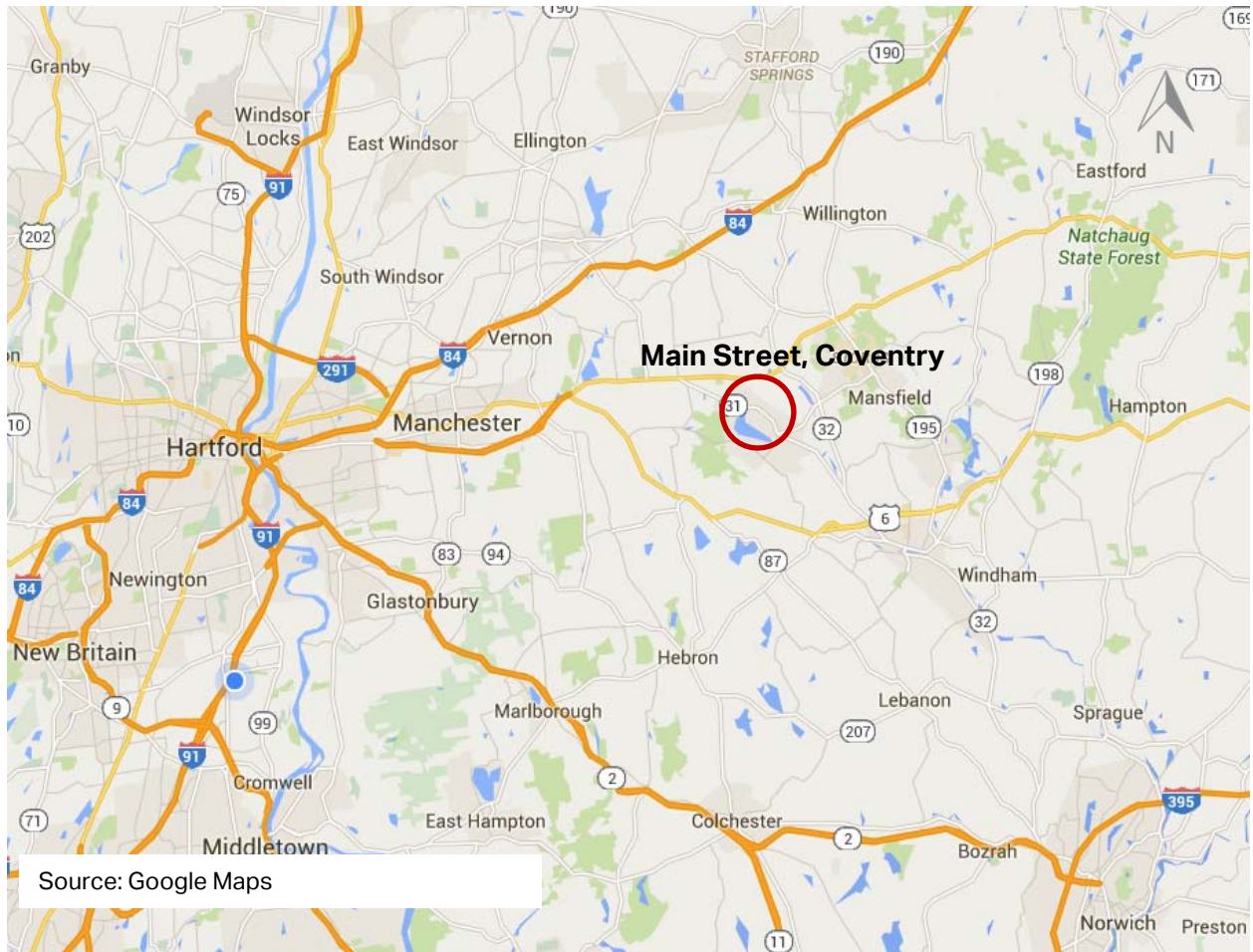


Figure 2. Main Street, Coventry Regional Context

2 Pre-Audit Assessment

2.1 Pre-Audit Information

As noted previously, traffic volumes are significant at this location. Crash history shows clusters at the Ripley Hill Road intersection. This intersection has poor sight lines and is also the main access point to the high school. The peak crash rates occurred in the morning and the late afternoon, the times correspond to school arrival and dismissal times. Over half of the crashes occurred at night, indicating potential visibility and lighting issues. Many of the crashes happened when the roadway conditions were not optimal (snow/slush or wet). The grade of the roadway combined with vertical and horizontal sight line constraints can be a factor of vehicles driving off the road in inclement weather conditions. Tables 1 and 2 summarize crash severity and crash type for 2012-2014 in the audit study area. Figure 3 shows locations of crashes in 2015.

Severity Type	Number of Accidents	
Property Damage Only	19	86%
Injury (No fatality)	3	14%
Fatality	0	0%
Total	22	

Table 1. Crash Severity 2012-2014

Source: UConn Connecticut Crash Data Repository

Manner of Crash / Collision Impact	Number of Accidents	
Unknown	0	0%
Sideswipe-Same Direction	1	5%
Rear-end	3	14%
Turning-Intersecting Paths	3	14%
Turning-Opposite Direction	0	0%
Fixed Object	5	23%
Backing	0	0%
Angle	0	0%
Turning-Same Direction	1	5%
Moving Object	8	36%
Parking	0	0%
Pedestrian	0	0%
Overturn	0	0%
Head-on	1	5%
Sideswipe-Opposite Direction	0	0%
Miscellaneous- Non Collision	0	0%
Total	22	

Table 2. Crash Type 2012-2014

Source: UConn Connecticut Crash Data Repository

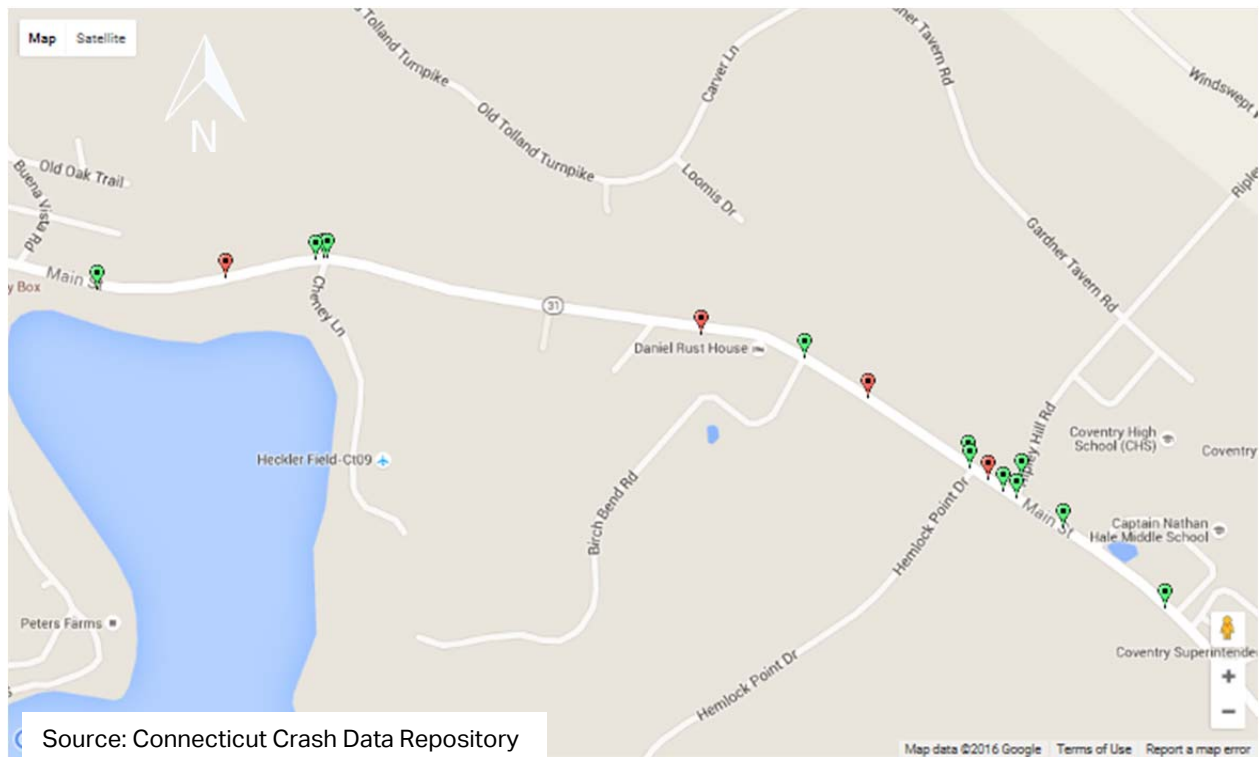


Figure 3. Crashes that Occurred in 2015 (Connecticut Crash Data Repository)

There are sidewalks on the north side of Main Street east of the Municipal Complex (Figure 4). The sidewalk is planned to be extended to Ripley Hill Road in the summer of 2016. The sidewalks are 5.5 feet in width, with a snow shelf or buffer from the roadway traffic. Sidewalks are generally asphalt, with concrete across the driveways. There are two crosswalks across Main Street - one on the west side of Ripley Hill Road and the other between the driveways for the Municipal Complex and Captain Nathan Hale Middle School. As part of the Safe Routes to School study improvements, the crosswalk at Ripley Hill Road will be relocated to the east side of the intersection and the other crosswalk will be removed.

Approaching Wangumbaug Lake there is a series of pedestrian crossing signs in both directions. The side slopes adjacent to Main Street in the vicinity of Wangumbaug Lake are steep.

Main Street (Route 31) is a state owned and maintained facility that runs in an east/west direction. It is a two lane road with 12-foot lanes and shoulder markings. An inventory of existing conditions along the roadway can be found in Table 3.

Coventry - Main Street Street Inventory

From	To	Distance	Width	Sidewalk				Curb	Shoulder	Ramps	
				Side	Type	Width	Condition			Exist	Compliant
Daly Road	Ripley Hill Road	0.9 miles	1 lane	North	No	N/A	N/A	Asphalt	1'-3'	N/A	N/A
			1 lane	South	No	N/A	N/A	Asphalt	1'-3'	N/A	N/A
Ripley Hill Road	Town Hall	0.3 miles	1 lane	North	Asphalt	5'5"	Good	Asphalt	3'-6'	Yes	No
			1 lane	South	No	N/A	N/A	Asphalt	3'-4'	N/A	N/A

*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 Efforts

A number of best practices have already been applied to this corridor. In 2010 a Safe Routes to School Audit was conducted for the middle school, which produced a study with several recommendations. Coventry has begun to implement the recommendations, including constructing a sidewalk from Root Road to the school with plans to extend it to Ripley Hill Road in the summer of 2016. The town has also recently been the recipient of several grants to improve drainage on local roads and extend and improve sidewalks to create a loop around Wangumbaug Lake.

2.3 Pre-Audit Meeting

The RSA was conducted on June 30, 2016. The Pre-Audit meeting was held at 8:00 AM in the Town Hall located at 1712 Main Street in Coventry.

The RSA Team was comprised of staff from CTDOT and AECOM, and representatives from several Coventry departments and organizations including the Engineering Department, Police Department, Department of Public Works and the Planning Department. The complete list of attendees can be found in Appendix B. Materials distributed to the RSA Team, including the agenda, audit checklist, ADT counts, crash data and road geometrics, can be found in Appendix C.

The initial study area terminus was Lisicke beach on the west end. At the request of the town the RSA Team agreed to extend the study area further west to Daly Road (one-third mile). The town is interested in providing a new sidewalk along Route 31 to Daly Road.

RSA Team members from Coventry presented relevant information for the audit, including:

- Coventry has been looking into sidewalks and bike paths for the past 10 years. They had received a \$1.2 Million dollar grant, but the town's direction had changed and they lost the grant. Recently there has been a change in the town council and the town has been actively pursuing funding to build sidewalks.
- The town recently installed sidewalks, as part of a Safe Routes to School project, from Root Road to the middle school and town hall. This summer the sidewalk will be extended west to Ripley Hill Road.
- Coventry has applied for and received numerous grants (STEAP, LOTCIP, and Main Street Investment Fund) to improve drainage on local roads and install sidewalks.
- The town is working with CTDOT to receive I-84 turn back funds to accommodate the Coventry village transportation improvements.
- Coventry's goal is to install sidewalk on all streets around the lake with connections to the schools and library.
- Traffic enforcement is concentrated on high accident roads such as Route 31. All engineering design for sidewalks is done by the town engineer.

- There are several terrain issues along Route 31 that are concerns for a new sidewalk including, culverts, historical homes, ledge, and steep grades.
- Route 31 is a busy corridor.
- Around Wangumbaug Lake there are many homes.
- Hemlock Point has several students who walk to school via Hemlock Point Drive.
- Coventry is working to install a healthy community initiative emphasizing walking and biking.
- The Plan of Conservation and Development (POCD) outlines connecting the commercial centers, recreational area and high density residential areas with walking trails where possible.
- The Conservation Commission is developing a bike plan.
- Coventry received a Safe Routes to School grant to conduct a full study and is in the process of implementing many of the recommendations. One improvement is to relocate the crosswalk on Hemlock Point to the other side and eliminate the mid-block crosswalk on Route 31. There is no lighting proposed for either crosswalk.
- Truck volume is growing on Route 31. It is estimated that approximately 8-10% of traffic is from heavy vehicles.
- In the morning sun glare becomes an issue for eastbound motorists.
- Many crashes are not reported during snow and ice events.
- There is a passing zone on Route 31 in front of the Municipal Complex.
- Route 31 is in poor condition and cracking, where is it on the VIP list?
- There is gutter line puddling on Route 31 in flat sections.
- Grades on Route 31 produce sheet flow off of the road edge.
- School buses stop along Main Street to pick up/drop off students. Busing is provided for all students, very few bike or walk. Some students walk in the road.
- Coventry has requested CTDOT to install a traffic signal at Route 31/Ripley Hill Road. The evaluation indicated that the MUTCD warrants were not met.
- Sight distance on Route 31 at Ripley Hill Road is restricted by vertical and horizontal curves.
- The town has a LED speed sign that collects active speed and volume data.
- Thermoplastic roadway markings are used in the village district.
- Cycling activity is growing along Route 31, and there are a lot of regional cyclists.
- Daly Road needs shoulder striping and share the road signs.
- A lot of speeding tickets are issued on Route 31. Motorists pick up speed coming down the hill at Lisicke Beach. Speeds are generally around 45 mph on Route 31, with upper speeds around 65 mph.
- What is the 85 percentile speed on Route 31?
- There is a narrow grass strip on the south side of Route 31 but it is not mowed. The state is supposed to perform all maintenance along Route 31.

- Old Tolland Turnpike was rerouted and no longer ties into Route 31, but the town still owns the right-of-way. There is a large neighborhood north of this area and creating a pedestrian path along this corridor could create connections to the schools and Lisicke Beach.
- A sidewalk on the south the side of Route 31 would have the least terrain impact.
- The town does not require developments to install sidewalks.

3 RSA Assessment

3.1 Field Audit Observations

- The building at the corner of Daly Road and Route 31 is mostly vacant and for sale. It has potential to be redeveloped as a destination for residents.
- There are approximately 90 residences on Daly Road.
- Daly Road does not have any sidewalks.
- The intersection of Route 31/Daly Road has a flashing yellow beacon for Route 31 (both directions) and flashing red for Daly Road.
- The roadway width for Daily Road is 32 feet near the Route 31 intersection.
- Vehicles on Route 31 appear to be exceeding the posted limit of 35 mph.
- Route 31 travel lanes average 12 feet wide. The shoulders range from less than 1 foot up to over 6 feet in certain locations but average 3 feet.
- Route 31 pavement condition is poor; the road has several cracks and heaves in the winter due to frost (Figure 5).
- The shoulder striping is faded, particularly along the south side of Route 31.



Figure 5. Poor Roadway Condition on Route 31



Figure 6. Non-bicycle Friendly Catch Basin Grates

- There are a variety of catch basin grate styles, approximately half are the older non-bike friendly type (Figure 6).
- Overhanging branches block many of the traffic control signs along Route 31 (Figure 7).
- Several catch basins were observed to be clogged or covered by debris. They need to be cleaned out.
- Coventry installs sidewalks that are 5.5 feet wide in order to plow them using a small tractor. All sidewalks need to have a snow shelf.
- There are new school bus signs on Route 31 west of Lisicke beach.
- Coventry has agreed to plow all new sidewalks installed along Route 31 between Daily Road and the municipal complex.
- The utility poles are along the north side of the road (Route 31) until Hemlock Point Drive where they switch to the south side of the road.
- The south side of Route 31 would better accommodate a sidewalk, there is a better side shelf and minimal slope issues (Figure 8).
- Residents are sensitive to sidewalks and access. Providing access to existing uses must be maintained with sidewalk installation.
- In certain locations installing the sidewalk would require lifting driveways 8 or 9 inches or depressing the sidewalk for residences along Lake Wangumbaug.
- The pedestrian signs approaching Lisicke Beach are not informative to motorists (Figure 9). Each direction has three signs (MUTCD sign 11-2), with



Figure 7. Sign Blocked by Vegetation



Figure 8. South Side of Route 31



Figure 9. Pedestrian Signage MUTCD sign 11-2

the last sign having "END" under it. There are no beginning signs.

- Thick vegetation is on the utility pole in front of Waterfronts Heights Association across from Buena Vista Road.
- Right-of-way may need to be acquired from the Waterfront Heights Association in order to fit in a new sidewalk. There is a guard rail here due to steep side slopes on the south side of the road.
- The curb cut easement for boat access to Lisicke beach must be maintained (Figure 10).
- There are several mature trees just west of the Lisicke Beach entrance that may have to be removed to install a new sidewalk.
- The "Civil War Canal" pit area is unsafe. Drainage issues from the road have resulted in the collapse of the steel beam holding the grates up. The head wall to the culvert is in poor condition. Both the culvert under the road and the culvert leading to Wangumbaug Lake need to be cleaned out. The water is not filtered or cleaned before entering the lake (Figure 11).
- During inclement weather vehicles have difficulty negotiating the curve leading to Lisicke Beach (at the intersection with Cheney Lane, when heading west) due to the grade of the roadway. The road is super elevated. There is also rutting in the road at this location from heavy vehicles.
- The guard rail constructed in front of the basketball courts is not crash rated.
- The side slope on the north side of Route 31 is steep.
- There are farm rock walls along most of the south side of Route 31; in certain locations they have



Figure 10. Curb cut Easement to Lisicke Beach must be Maintained

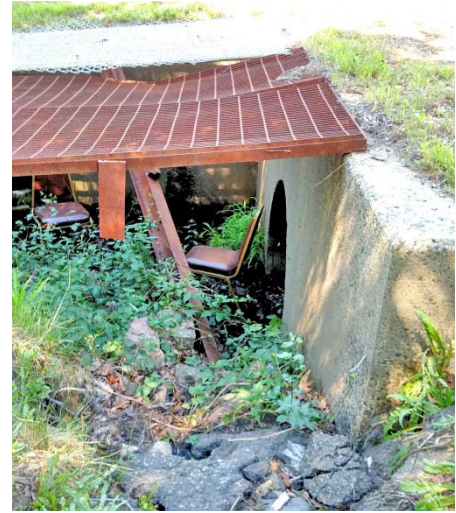


Figure 11. Civil War Canal Pit Area



Figure 12. Broken Curbing at Winterberry Lane

been buried. These rock walls follow the property lines.

- In the vicinity of Winterberry Lane the curbing is broken in several places (Figure 12).
- The soil is several inches below the backside of the curb at several locations along Route 31 between Cheney Lane and Hemlock Point Drive (Figure 13).
- Old Tolland Turnpike formerly continued onto Route 31. The town still owns the right-of-way and all concrete has been removed. Trees and vegetation have begun to take over the area and growth is approximately 10 years old. There are rock walls that mark the roadway boundary (Figure 14). This area connects to several neighborhoods to the north. Repurposing the right-of-way as a trail would require maintenance and a mid-block crosswalk to connect to the proposed sidewalk. Mid-block crosswalks on state highways are not desirable by CTDOT. This crossing may also lack proper sight distance.
- There are illegal signs in the right-of-way in front of the Daniel Rust House.
- The right-of-way in front of the Daniel Rust House is narrow. To install a new sidewalk the rock wall may need to be moved and rebuilt (Figure 15).
- The hand hole for telephone at the corner of Birch Bend Road is broken (Figure 16).
- Just east of the Daniel Rust House there are slope issues on both sides of the road. This is a result of previous construction which lowered the road. Retaining walls and landscaped fences may be needed if a sidewalk is installed.
- Utility poles on the south side, past Hemlock Point Drive, are set back several feet from the roadway.



Figure 13. Soil Below Curb Line



Figure 14. Old Tolland Turnpike Rockwall



Figure 15. Narrow Right-of-Way at Rust House

- The crosswalk at Ripley Hill Road is faded.
- The shoulder is wide, over 6 feet, on Route 31 eastbound in front of the Jesse Root House.
- There are sight line constraints at Ripley Hill Road. Vehicles must pull far past the stop bar onto Route 31.
- There is no officially designated school zone on Route 31.



Figure 16. Broken Hand Hole

3.2 Post-Audit Workshop - Key Issues

- A new sidewalk would be better suited on the south side of Route 31. If asphalt sidewalks were used a bio barrier would need to be installed to minimize cracking due to vegetation growth.
- Ripley Hill Road at Route 31 has poor sight distance and when school lets out experiences significant traffic congestion and queuing. The intersection needs to be redesigned. Possible solutions include a traffic signal or roundabout. To install a traffic signal it would need to meet at least one of the traffic signal warrants.
- There are several traffic signs which are blocked by vegetation. CTDOT is responsible for tree trimming and mowing along Route 31.
- The roadway is in poor condition and in need of repaving and possible full depth reconstruction. It is not currently on the state's VIP list for paving.
- The possibility of centerline rumble strips was discussed. The CTDOT criteria for rumble strips is:
 - Travel speed 35 mph or greater,
 - ADT at least 2,000,
 - Pavement is in good condition and repaved within the last three years,
 - There is at least 13 feet from the centerline to the edge of pavement, and
 - The length of the proposed centerline rumble strips is at least one (1) mile.

- The corridor does not have a consistent width, the shoulders vary greatly.
- The crosswalk on Route 31 at Ripley Hill Road is being moved to the other side as part of the Safe Routes to School improvements.
- The “Civil War Canal” drainage pit on the south side of Route 31 near Lisicke beach is failing and is an attractive nuisance.

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 years or more when funding is available.

4.1 Short Term

1. Town to contact telephone provider to repair the broken telephone handhole at the corner of Route 31/Birch Bend Road.
2. Town to work with landowners to remove illegal signs (Figure 17).
3. Town to establish policies that inform the community that biking is allowed on sidewalks. Current state legislation allows biking on sidewalks unless the town states otherwise.
4. Town with CTDOT to discuss the “Civil War Canal” pit area and roles and responsibilities for repairing and improving it.
5. State to replace outdated signs with the current standards that are retroreflective (Figure 18).
6. Install “Share the Road” signs (Figure 19).
7. Contact Eversource to clear the vegetation off the utility poles and wires.
8. Contact CTDOT to perform routine maintenance on Route 31 of the following:
 - a. Clean out catch basins
 - b. Trim trees (Figure 20)

- c. Mowing of recovery area
- 9. Repair broken curbing along Route 31.
- 10. Town to create a plan for pedestrians and bicycles that can be included in the plan of Conservation and Development
- 11. Collect speed data, including the 85th percentile, at Lisicke Beach, the approach to Ripley Hill Road and the location of the old access point for Old Tolland Turnpike on Route 31.
- 12. Maintain the vegetation on the closed section of Old Tolland Turnpike.
- 13. Repair curb where reveal is 2 inches or greater.
- 14. Request to CTDOT that a school zone be established in front of the middle school.
- 15. Evaluate the need for additional street lighting at the relocated crosswalk on Ripley Hill Road as part of the Safe Routes to School project.
- 16. Paint stop bars on the Ripley Hill Road approach to Route 31.
- 17. Work with CTDOT District 2 Maintenance to understand how the VIP lists works and how it is developed in order to determine where Route 31 one is on the list.

Figure 21 depicts these short term recommendations.



Figure 17. Remove Illegal Signs



Figure 18. Replace Sign with Retroreflective Ones



Figure 19. Example of Share the Road Sign



Figure 20. Vegetation That Needs Trimming



Figure 21. Short Term Recommendations

4.2 Medium Term

1. Replace non bicycle friendly catch basins (Figure 22).
2. CTDOT to repave Route 31 with possible full depth reconstruction and consider:
 - a. Restripe 11 foot travel lanes and wider shoulder lanes
 - b. Install centerline rumble strips (Figure 23).
 - c. Widen the roadway to provide consistent shoulder widths.
3. Request CTDOT perform a signal warrant study for the intersection of Route 31 and Ripley Hill Road and evaluate the potential for a roundabout.
4. Request CTDOT evaluate the need for passing zones on Route 31 in the study area.

Figure 24 depicts these recommendations.



Figure 22. Bike Friendly Catch Basin



Figure 23. Example of Center Line Rumble Strips

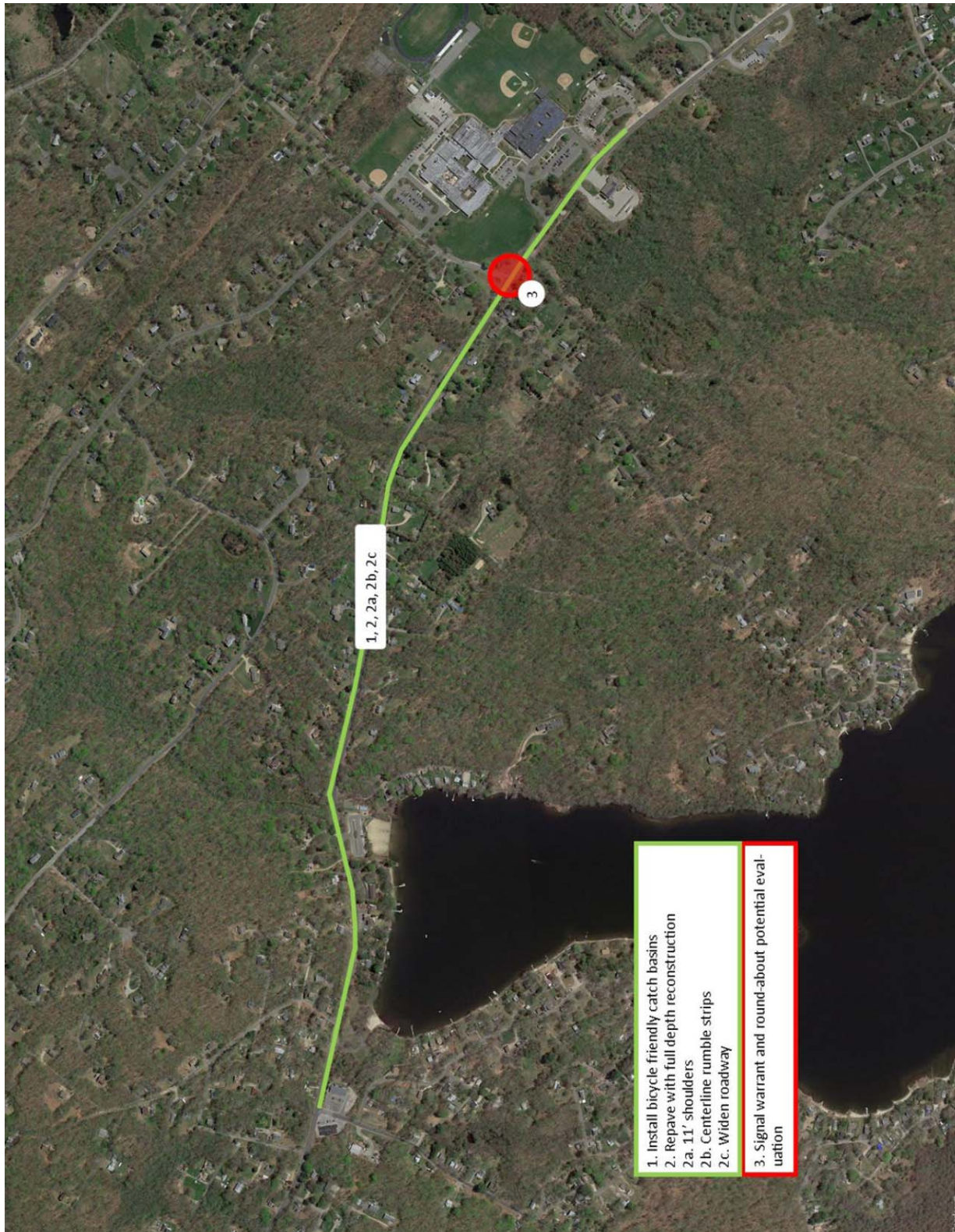


Figure 24. Mid Term Recommendations

4.3 Long Term

1. Install sidewalks along the south side of Route 31 from Daly Road to Ripley Hill Road that are 5.5 feet wide with 4 foot shoulder and drainage (curtain drains) as needed. Coordinate with private property owners to maintain access.
2. Lower the grade on Route 31 to improve sight lines.
3. Reconstruct the intersection of Ripley Hill Road and Route 31 to improve sight lines and safety.
4. Create a pedestrian path along Old Tolland Turnpike and evaluate a mid-block crosswalk on Route 31 to connect to the sidewalks on the south side of Route 31.

Figure 25 depicts these recommendations.



Figure 25. Long Term Recommendations

4.4 Summary

This report outlines the observations, discussions and recommendations developed during the RSA. It documents the successful completion of the Town of Coventry RSA and provides Coventry with an outlined strategy to improve the transportation along Main Street for all road users at, particularly focusing on pedestrians and cyclists. Moving forward, Coventry 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.



COMMUNITY
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Appendix A



AECOM
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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

Title

Email Address

Telephone Number

2. Location information

Address

Description

City / Town

3. Roadway type
(Please select all that apply)

State road

Local road

Private Road

Other (please specify)

4. Zoning
(Please select all that apply)

Industrial

Residential

Commercial

Mixed Use

Retail

N/A (not applicable)

Other (please specify)

Audit area connects with sidewalks that lead to other community destinations

5. Approximate mile radius around the location

Greater than a 1/2 mile

Other (Please Specify)

Approximately .72 miles along linear route

6. Community Sites
(Please select all that apply)

Community Centers

Business Districts

Restaurant/Bar Districts

Churches

Housing Complexes

Proximity to Schools

Tourist Locations (examples – Casino, Malls, Parks, Aquarium, etc...)

N/A (not applicable)

Other (please specify)

Audit area connects with sidewalks that lead to other community destinations

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

Yes

No

If Yes please describe (please specify)

The Town Hall, Middle - High Schools, Board of Education, Police Department

8. Educational facilities

(Please select all that apply)

Public, Parochial, Private Schools (more than 1 school within a ½ mile)

University / Community Colleges

N/A (not applicable)

Other (please specify)

Middle and High Schools and Board of Education Building

9. Transit facilities

(Please select all that apply)

Bus

Rail

Ferry

Airport

Park and Ride Lot

N/A (not applicable)

Other (please specify)

10. Safety Concerns
(Please select all that apply)

Traffic (volumes & speed)

Collisions

Sidewalks

Traffic Signals

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)

Road geometry, width, site line, possible cross walk, pedestrian safety

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.

A Safe Routes to School Project was completed in 2015 that provided the opportunity to construct sidewalks connecting the terminus of existing sidewalks near the intersection of Main Street and Root Road northerly along Main Street to the the Middle and High School complex.

The Town will be constructing a small extension of the sidewalks along Main Street to reach the intersection of Ripley Hill Road.

The Town recently performed significant improvements to Lisicke Beach to enhance the recreational amenities at the location. Over time, the Town has constructed rest room facilities, parking enhancements, playscape installation, pavilion improvements, basketball court improvements to better serve the community's recreational needs and serve as a community destination.

12. Environmental Concerns:

Waterway (rivers, lakes, ocean, etc...)

If Yes please describe and list.

The terminus of the audit area is at Lisicke Beach which is a Town owned facility at the northerly end of Coventry Lake. There are a couple small wetlands pockets along Main Street that would be potentially peripheral to the audit area. It is not anticipated that there will be significant wetlands impacts with the creation of infrastructure to support pedestrians.

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

The Town has executed significant public infrastructure projects over the last few years to enhance the pedestrian accessibility from the Historic South Coventry Village in a northerly direction along Main Street to the municipal complex. The Village is a mixed-use commercial center which contains many services and businesses. The municipal complex is located a short distance away from the Village and includes the Town Hall, Middle and High Schools, Board of Education Building. The route along Main Street also includes a day care facility, Police Department, church, and senior housing. All of the uses along this segment have been enhanced by the installation of the sidewalks along their frontages.

The Town has had significant interest in connecting the municipal complex with Lisicke Beach, which is another significant community destination. Lisicke Beach contains many recreational amenities that support the community's needs, including, a lakeside beach, basketball court, playscape, and pavilion.

The goal is to examine the linear route along Main Street in order to facilitate plans to establish further pedestrian linkages between significant community destinations and centers. Ultimately, the Town's goal is to provide pedestrian access around the entire perimeter of Coventry Lake via existing sidewalks, proposed sidewalk extensions and dedicated laneways along existing Town roads. There is a significant population surrounding Coventry Lake that reside in the many Lake Associations and neighborhoods. This large population would benefit from the pedestrian linkages that the Town wishes to establish.

The Town is a proponent and supporter of alternative methods of transportation and strongly believes that there should be adequate pedestrian access and facilities to connect the various community destinations and centers where appropriate. Although there are often challenges that a rural community must face in order to achieve this goal, the Town has taken large steps in taking advantage of grant funding and leveraging municipal projects to facilitate this.

14. Are there plans to expand the area?

(Transportation Oriented Development, Economic Development, housing, etc...)

Yes

The State of CT Dept. of Transportation will be initiating a two year project to perform significant transportation improvements in the Historic Coventry Village that will significantly enhance the pedestrian access and safety in the Village. The Village is a short distance to the south of the audit area which is a significant mixed use commercial center in town. The Town has also leveraged other grant funds to provide for further extensions of sidewalks to reach the southern part of the Village as well. The State's project includes sidewalks, streetscape amenities - benches, period street lighting, banner poles, textured pedestrian crosswalks and other traffic calming measures.

The Town will be implementing further pedestrian linkages to neighborhoods on the southerly end of Coventry Lake in 2016. A grant was obtained in order to install sidewalks that will connect the sidewalks that are to be constructed as part of the State of CT DOT project mentioned above. This project provides for additional infrastructure that enhances the pedestrian experience a short distance from the audit area and expands the benefits of the existing and planned improvements.

The Town is currently examining the establishment of dedicated pedestrian and biking laneways on Daly Road, which is a road that intersects Main Street just north of Lisicke Beach. Improvements on Daly Road would connect existing sidewalks on South Street, which intersects with Daly Road.

All of the abovementioned improvements provide supporting infrastructure in and around one of the Town's significant commercial centers which provides for economic development in the community. The physical enhancements that are being implemented, planned and visioned for the future will enhance the Town's economic development opportunities.

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

Yes

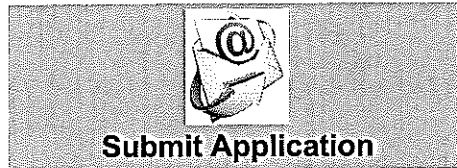
The Town has found that since the sidewalk extensions from Coventry Village have been constructed over the past few years there has been a significant increase in pedestrian activity. In fact, it has caused for pedestrians who live in surrounding neighborhoods to travel on town road shoulders to gain access to the sidewalks that have been installed, which leads them to other destinations or allows them to have a safe location off street to walk.

Due to the variety of uses and population density in the vicinity of the audit area, it causes for a critical mass of individuals who can benefit from the infrastructure. The Middle and High School population, senior housing and municipal complex are all users of the sidewalks and pedestrian linkages that will certainly benefit from the planning of potential extensions to the existing network.

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)



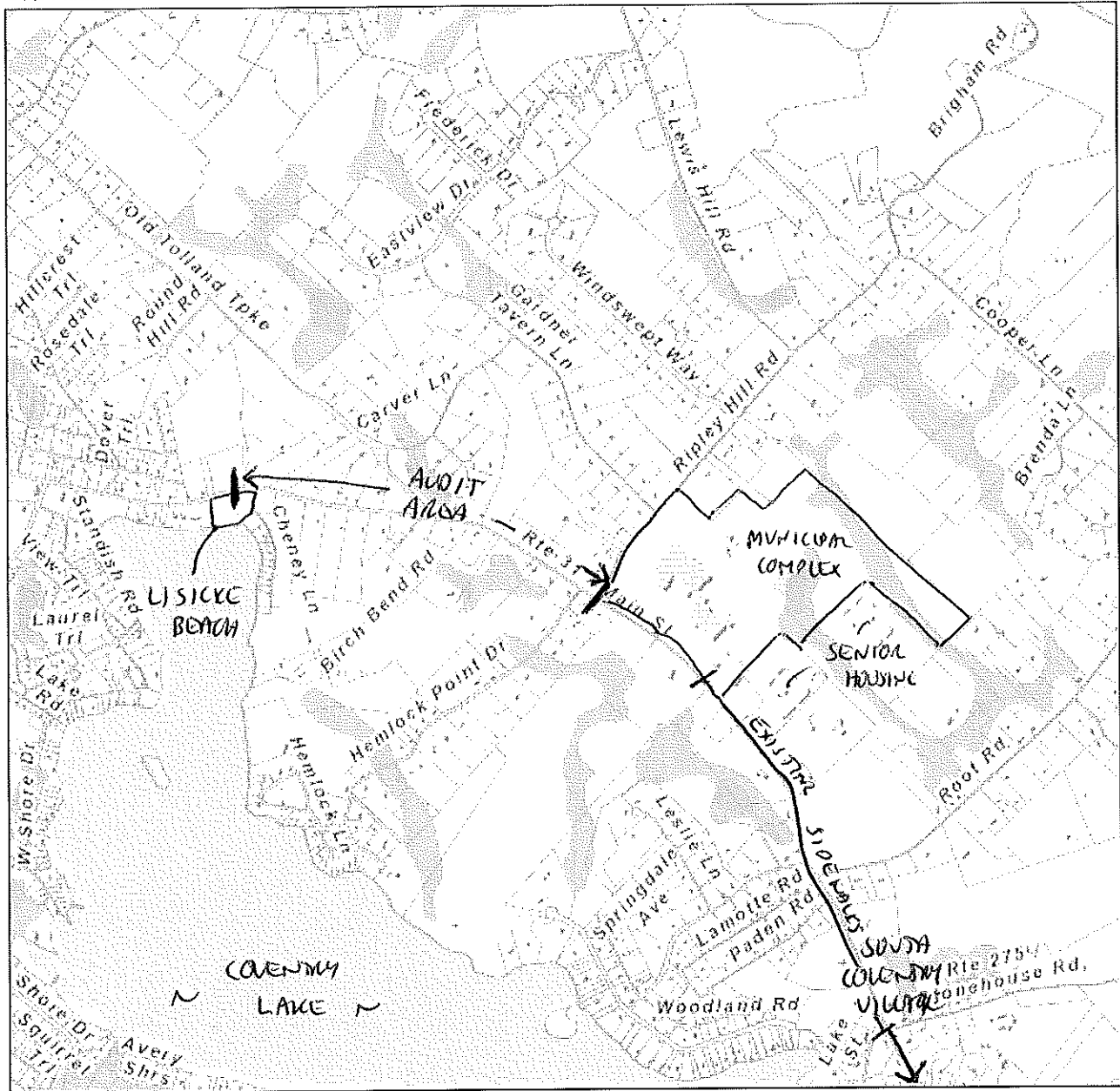
Town of Coventry



Geographic Information System (GIS)

RSA AUDIT AREA - STATE RTE 31 (ALA MAIN STREET)

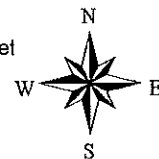
Date Printed: 2/25/2016



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Coventry and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 1500 feet





COMMUNITY
connectivity program

Appendix B



AECOM
Built to deliver a better world



Road Safety Audit

Town: Coventry
RSA Location: Along State RTE 31 between Town Hall and Lisicke Beach
Meeting Location: Coventry Town Hall Annex
Address: 1712 Main Street
Date: 6/30/2016
Time: 8:30 AM

Participating Audit Team Members

Audit Team Member	Agency/Organization
Jeff Maxtutis	Aecom
Mark Palmer	Coventry Police
Patrick Zapatka	CTDOT
Krystal Oldread	Aecom
Todd Penney	Town of Coventry
Mason Pesrome	Town of Coventry
Eric M. Trott	Town of Coventry
Jon Elsosser	Town of Coventry



COMMUNITY
connectivity program

Appendix C



AECOM
Built to deliver a better world



Road Safety Audit – Coventry

Meeting Location: Coventry Town Hall Annex
Address: 1712 Main Street
Date: 6/30/2016
Time: 8:30 AM

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
<p>Pedestrian Crossings</p> <ul style="list-style-type: none">• Sufficient time to cross (signal)• Signage• Pavement Markings• Detectable warning devices (signal)• Adequate sight distance• Wheelchair accessible ramps<ul style="list-style-type: none">○ Grades○ Orientation○ Tactile Warning Strips• Pedestrian refuge at islands• Other	
<p>Pedestrian Facilities</p> <ul style="list-style-type: none">• Sidewalk<ul style="list-style-type: none">○ Width○ Grade○ Materials/Condition○ Drainage○ Buffer• Pedestrian lighting• Pedestrian amenities (benches, trash receptacles)• Other	



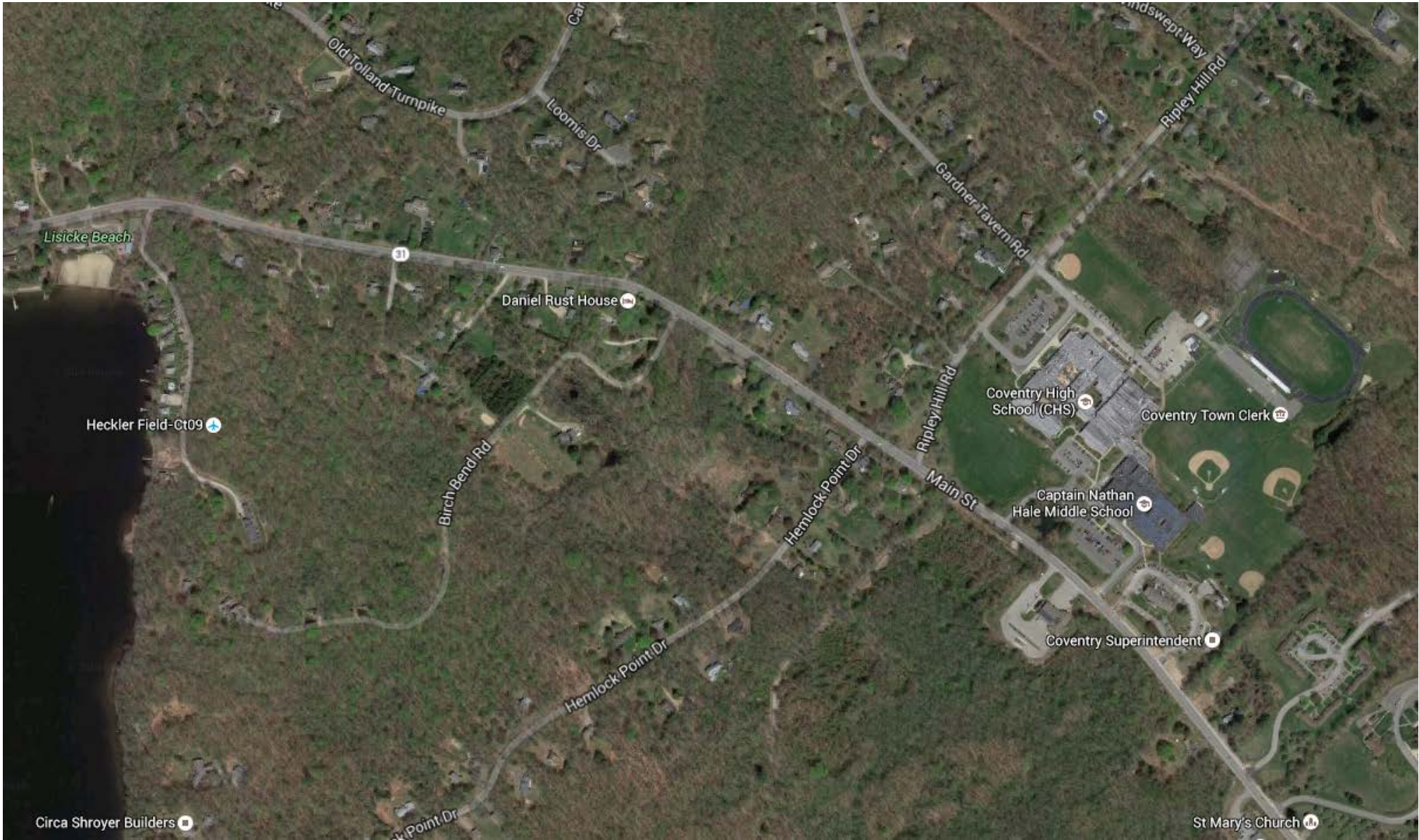
Bicycles <ul style="list-style-type: none">• Bicycle facilities/design• Separation from traffic• Conflicts with on-street parking• Pedestrian Conflicts• Bicycle signal detection• Visibility• Roadway speed limit• Bicycle signage/markings• Shared Lane Width• Shoulder condition/width• Traffic volume• Heavy vehicles• Pavement condition• Other	
--	--

Roadway & Vehicles	
<ul style="list-style-type: none">• Speed-related issues<ul style="list-style-type: none">○ Alignment;○ Driver compliance with speed limits○ Sight distance adequacy○ Safe passing opportunities	
<ul style="list-style-type: none">• Geometry<ul style="list-style-type: none">○ Road width (lanes, shoulders, medians);○ Access points;○ Drainage○ Tapers and lane shifts○ Roadside clear zone /slopes○ Guide rails / protection systems	

<ul style="list-style-type: none">• Intersections<ul style="list-style-type: none">○ Geometrics○ Sight Distance○ Traffic control devices○ Safe storage for turning vehicles○ Capacity Issues	
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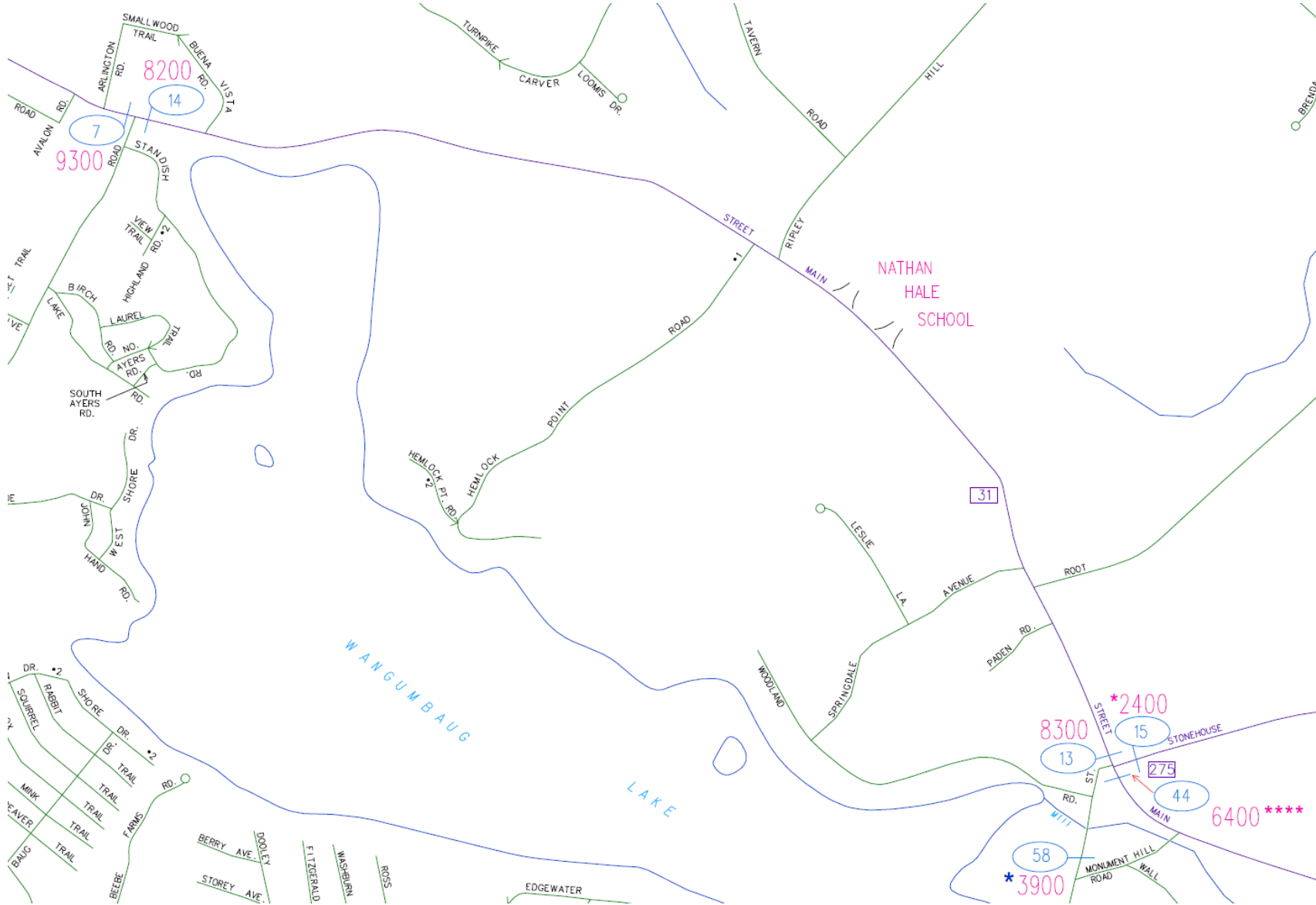
<ul style="list-style-type: none">• Pavement<ul style="list-style-type: none">○ Pavement Condition (excessive roughness or rutting, potholes, loose material)○ Edge drop-offs○ Drainage issues• Lighting Adequacy	
<ul style="list-style-type: none">• Signing<ul style="list-style-type: none">• Correct use of signing• Clear Message• Good placement for visibility• Adequate retroreflectivity• Proper support	
<ul style="list-style-type: none">• Signals<ul style="list-style-type: none">○ Proper visibility○ Proper operation○ Efficient operation○ Safe placement of equipment○ Proper sight distance○ Adequate capacity	
<ul style="list-style-type: none">• Pavement Markings<ul style="list-style-type: none">○ Correct and consistent with MUTCD○ Adequate visibility○ Condition○ Edgelines provided	
<ul style="list-style-type: none">• Miscellaneous<ul style="list-style-type: none">○ Weather conditions impact on design features.○ Snow storage	



Circa Shroyer Builders

St Mary's Church

Average Daily Traffic (ADT)



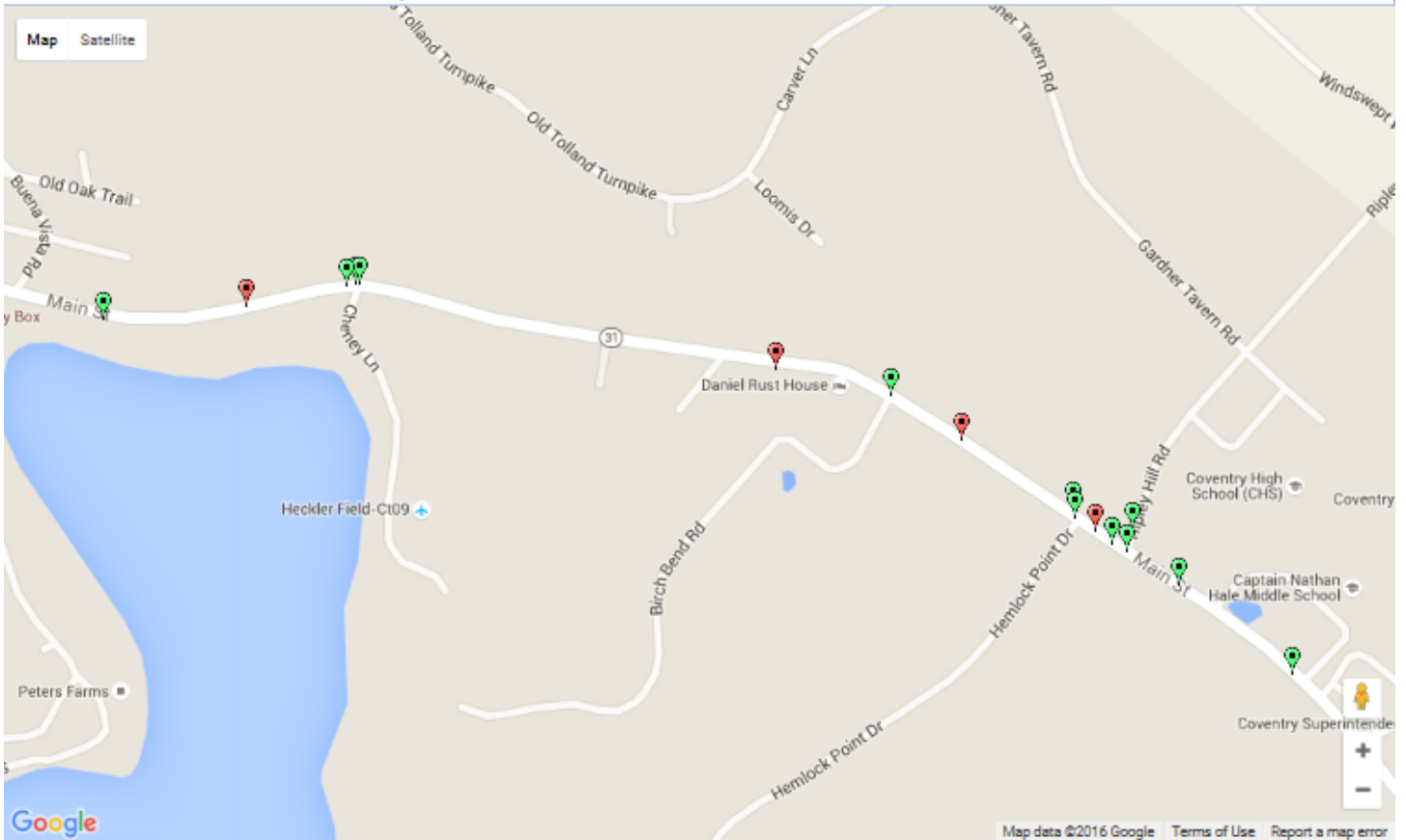
2015 Crashes

UConn

Connecticut Crash Data Repository

Search Criteria:

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



Markers

Heatmap

Select & Query

Injury of any type (Serious, Minor, Possible) Fatal (Kill)

Property Damage Only

Select All

Deselect All

This web site is exempt from discovery or admission under 23 U.S.C. 409.

Connecticut Crash Data Repository [User Guide](#) [Contact Us](#)



Road Safety Audit – Coventry

Crash Summary

Data: 3 years (2012-2014)

There were no crashes involving bicycles.

There was one crash involving a pedestrian which resulted in and injury.

Severity Type	Number of Crashes	
Property Damage Only	19	86%
Injury (No fatality)	3	14%
Fatality	0	0%
Total	22	

Manner of Crash / Collision Impact	Number of Crashes	
Unknown	0	0%
Sideswipe-Same Direction	1	5%
Rear-end	3	14%
Turning-Intersecting Paths	3	14%
Turning-Opposite Direction	0	0%
Fixed Object	5	23%
Backing	0	0%
Angle	0	0%
Turning-Same Direction	1	5%
Moving Object	8	36%
Parking	0	0%
Pedestrian	0	0%
Overturn	0	0%
Head-on	1	5%
Sideswipe-Opposite Direction	0	0%
Miscellaneous- Non Collision	0	0%
Total	22	



Weather Condition	Number of Crashes	
Snow	4	18%
Rain	2	9%
No Adverse Condition	15	68%
Unknown	0	0%
Blowing Sand, Soil, Dirt or Snow	0	0%
Other	0	0%
Severe Crosswinds	1	5%
Sleet, Hail	0	0%
Total	22	

Light Condition	Number of Crashes	
Dark-Not Lighted	5	23%
Dark-Lighted	7	32%
Daylight	8	36%
Dusk	1	5%
Unknown	0	0%
Dawn	1	5%
Total	22	

Road Surface Condition	Number of Crashes	
Snow/Slush	6	27%
Wet	5	23%
Dry	11	50%
Unknown	0	0%
Ice	0	0%
Other	0	0%
Total	22	









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

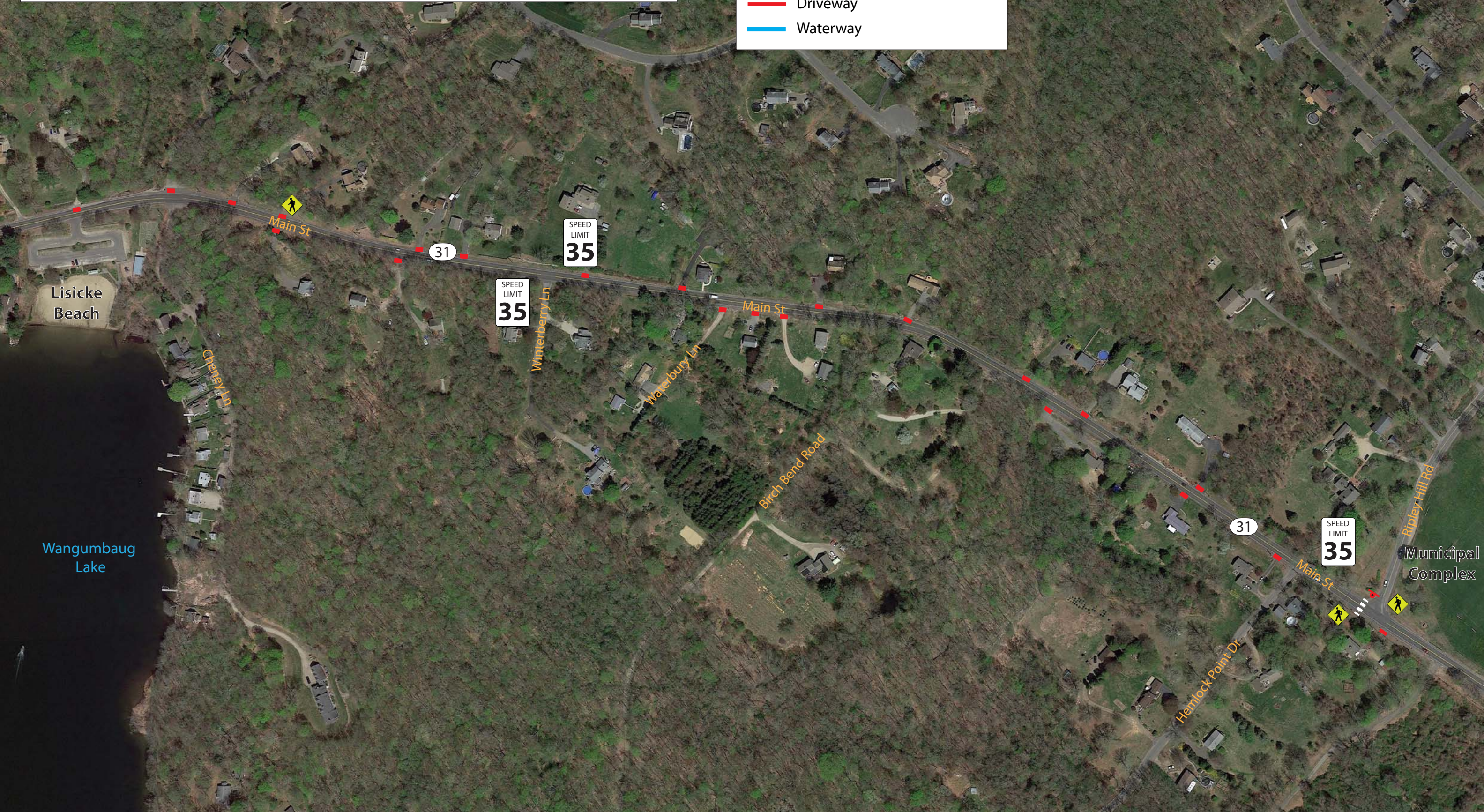
Coventry - Between Municipal Complex & Lisicke Beach

DRAFT



Legend

-  Sidewalks
-  Stop Controlled Intersection
-  Crosswalk
-  Active Pedestrian Crossing
-  Driveway
-  Waterway



Lisicke Beach

Wangumbaug Lake

Municipal Complex

Main St

31

SPEED LIMIT 35

SPEED LIMIT 35

Cheney Ln

Winterberry Ln

Waterbury Ln

Main St

Birch Bend Road

31

SPEED LIMIT 35

Main St

Hemlock Point Dr

Ripley Hill Rd



Road Safety Audit – Coventry

Fact Sheet

Functional Classification:

- Route 31 is classified as a Collector

ADT

- ADT on Route 31 is 8,300 – 9,300

Population and Employment Data (2014):

- Population: 12,434
- Employment: 1,445

Urbanized Area

- The section of Route 31 in the study area is in the Willimantic Urban Cluster

Demographics

- The statewide average percentage below the poverty line is 10.31%. There are no areas in Coventry that exceed the state's average.
- The statewide average percentage minority population is 30.53%. There are no areas in Coventry that exceed the state's average.

Air Quality

- Coventry's CIPP number 704
- Coventry is within the Greater CT Marginal Ozone Area
- Coventry is within a CO Attainment Area