

#4

FINANCE DEPARTMENT

Memo

July 12, 2022

Mr. Rob Brule
First Selectman
Town of Waterford
15 Rope Ferry Road
Waterford, CT 06385

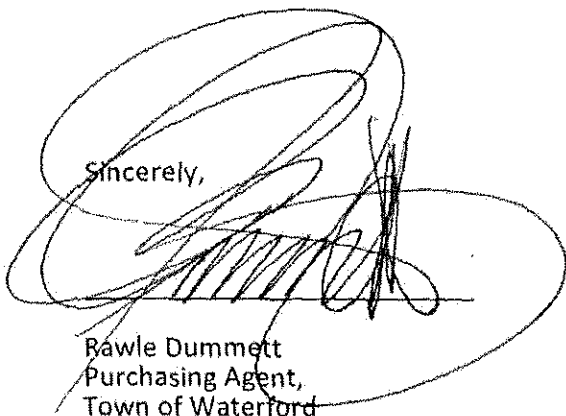
Re: Bid Award – BID#22-113 On-Call Civil Engineering and Surveyor Services

Dear Mr. Brule,

On February 24, 2022, Dan Matheson and I opened bids for the above-mentioned project with the attached results.

After a series of reviews, the Purchasing Agent on behalf of the Public Works and Planning Departments recommends the contract for this project be awarded to the most qualified bidders Barton and Loguidice LLC., Lenard Engineering Inc. and SLR Consulting Inc.

Sincerely,



Rawle Dummett
Purchasing Agent,
Town of Waterford

concerning bid awards, attending pre-construction meetings, reviewing shop drawings and assisting with project management during the construction phase.

- Provide surveys and engineering plans in PDF and CAD formats as directed by the Town.
- Provide the Town with all project calculations, supporting information, photographs, correspondence or other materials associated with project development.

All 13 firms were qualified. The departments of Public Works and Planning and Development reviewed the submissions and reduced the 13 to 4 firms, two that have been On-Call Consultants to the Town and have projects that are ongoing and two new firms that have in house staff services that staff felt would be required on future projects.

Staff conducted virtual interviews with the two new firms. Based on the submittals provided by the firms and the virtual interviews, the departments of Public Works and Planning and Development is recommending that the Town enter into a contract with three firms. With the current high work loads of engineering firms, it would be to our advantage to be able to solicit from a larger pool of talent. Since there is no guarantee to the amount of work assigned to any one firm, there is no cost to the Town in having three firms on-call.

Therefore, the departments of Public Works and Planning and Development recommends the following three firms be awarded the On-Call Civil Engineering and Survey Services:

- Barton and Loguidice LLC, Glastonbury CT
- Lenard Engineering Inc., Glastonbury, CT
- SLR Cheshire, CT

Request for Qualifications

On-Call Civil Engineering and Surveyor Services

Solicitation 22-113
Town of Waterford, CT



■ February 24, 2022



Lenard Engineering, Inc.
Civil, Environmental & Hydrogeological Consultants

Civil Engineering Capabilities

Lenard Engineering, Inc. offers the following wide range of services in the civil engineering and site design field:

Roadway & Sidewalk Design

- Parking Lot
- Feasibility & Economic Studies
- Conceptual Designs
- Route Selection
- Horizontal & Vertical Alignments
- Drainage Improvements
- Comprehensive Improvements
- Pavement Design, Thickness Design
- Foundation Design
- Town Wide Road Programs
- Milling & Replacing Pavements
- Materials Evaluation & Selection Studies
- State & Federal Funding Programs

Traffic Engineering

- Internal Traffic Circulation
- Parking Design
- Sightline Analysis

Stormwater & Drainage Engineering

- Hydrological Studies
- Hydraulic Analysis
- Stormwater Treatment
- Stormwater Runoff Handling
- Comprehensive Drainage Plans
- Detention Basins
- Erosion Protection

Structural Engineering

- Bridge & Culvert Design
- Retaining Wall Design
- Foundation Design
- Geotechnical Engineering
- Building Frame Design
(Steel, Reinforced Concrete, Wood)
- Earthen Structure Design
- Tower & Sign Mast Design

Land-Use Permitting

- Local Wetland Permitting
- State and Federal Wetland Permitting
- Local and State Erosion Control Permitting

Water System Planning & Design

- Water Supply Plans
- Aquifer Mapping
- Storage Tank Design
- Distribution System Design
- Water System Modeling
- Treatment System Design

Wastewater System Evaluation & Design

- Infiltration/Inflow Analyses
- Sewer System Evaluation Surveys
- Hydraulic Analyses
- Physical Surveys & Inspections
- TV Inspections & Smoke Testing
- System Capacity Analyses
- Flow Monitoring & Sampling
- Sanitary Sewer Design
- Pump Station & Force Main Design

Septic System Design

- Soil Testing
- Sanitary System Design
- Local & State Permitting
- Construction Stake-Out & Inspection

Site Design & Landscape Architecture

- Site Layout & Design
- Landscaping Plans
- Lighting Plan Development
- Athletic & Recreation Facility Design
- Park & Open Space Design

Other Services

- Solid Waste Management
- Geographic Information Systems
- Surveying



Lenard Engineering, Inc.

Company Experience

During the past decade, LEI has served numerous towns and cities across Connecticut, as well as state agencies and institutions. In eastern Connecticut, for example, recent projects include those in the towns of Bolton, Bozrah, Canterbury, Colchester, Glastonbury, Killingly, Salem, Tolland and Waterford; the Connecticut Departments of Environmental Protection and Economic and Community Development; Naval Submarine Base New London; and the University of Connecticut. The following paragraphs provide examples of LEI's company experience.

A. Roadway Reconstruction

For the past thirty years our firm has been involved with municipal highway reconstruction. Our projects have included the realignment and regrading of three miles of rural highways to intersection improvements, and storm drainage improvements. The scope of work included the preparation of master plans, roadway maintenance schedules and construction of new roads and appurtenant work. We provided engineering services from project conception through construction, construction administration and inspection.

B. Bridge Design

As shown in our project experience, LEI has completed numerous bridge inspections, evaluations and replacement design assignments, including many town-owned structures under the state and federal Local Bridge Programs. We have designed over fifty municipal highway bridges which included a wide variety of structures. Among these bridges were single and multiple spans, and various compositions including steel/concrete, timber and prestressed concrete structures.

C. Site & Subdivision Design & Review

LEI's civil and site engineering group has planned, permitted and designed site and subdivision plans for private developers, towns and institutions throughout Connecticut, Massachusetts, and Rhode Island. In the process, the firm has gained invaluable insight into the local plan review process. In addition, the firm has served as an on-call plan review consultant for local planning and zoning commissions and inland wetlands commissions. LEI is presently providing on-call review services for the towns of Bozrah, New Hartford, and Stafford.

D. Water Main and Sewer Design

For the past seven years, for example, LEI has been an on-call civil engineering consultant for the University of Connecticut. During this time, the firm has designed significant upgrades to the university's domestic water and high-pressure fire distribution systems, including over five miles of water mains, from 6" to 20" in diameter, at numerous locations across campus.

Similarly, LEI is the on-call wastewater consultant for the Town of Winchester where the firm has designed over 50,000 LF of new water mains, and 4,000 LF of gravity sanitary sewer and force main, associated with two wastewater pumping station projects. LEI has also designed numerous sewer extension projects in Winchester. LEI is also presently an on-call water consultant for the cities of Meriden and New Britain.



Leonard Engineering, Inc.

Company Experience (continued)

I. Electrical Design

Similarly, LEI uses a combination of in-house personnel and subconsultants for the design of electrical systems.

J. Structural Design

LEI's structural engineers prepare evaluations of and designs for bridge repairs and replacements, retaining walls, roof reconstructions, and special structures which include factory cranes, elevator shafts, storage tanks, parking garages, flag poles, hanging partition walls, and commercial signs.

K. Survey

LEI's survey and mapping support group is headed by Kevin DaRos, LS. We routinely complete all surveying and mapping for a wide range of utility projects which reduces our costs and increases our productivity.



14. Police Station ADA Entryway Architectural Improvements – Retained architect to prepare Contract Document for bidding of new entryway improvements (Public Works)

15. EPA Risk Assessment and Emergency Response Plans- Prepared EPA mandated documents for Water System (Utilities)

16. Fargo Tank Inspection and Recoating Specifications- Conducted updated tank inspection, preparing contract documents for water tank recoating using ARPA funds (Utilities)

17. Pleasure Beach Property Boundary Survey and Monumentation- Deed research, A-2 boundary survey and monument placement (Parks and Rec).

18. Old Colchester Road and Bloomingdale Road Emergency Bridge Inspections- Structural inspections and recommendations following Storm IDA (Selectman, Public Works)

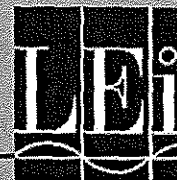
19. Norman Road and Vivian Road Roadway and Sidewalk Replacement Designs- Survey, roadway and sidewalk reconstruction design plans and specifications, cost estimates (Public Works)

20. Concrete Sidewalk Replacement on Norman, Summer, William and David Streets - Survey, sidewalk reconstruction design plans and specifications, cost estimates (Public Works)

21. Standard Concrete Curb Repairs- Various locations – Prepare construction details and specifications for concrete curb replacement (Public Works)

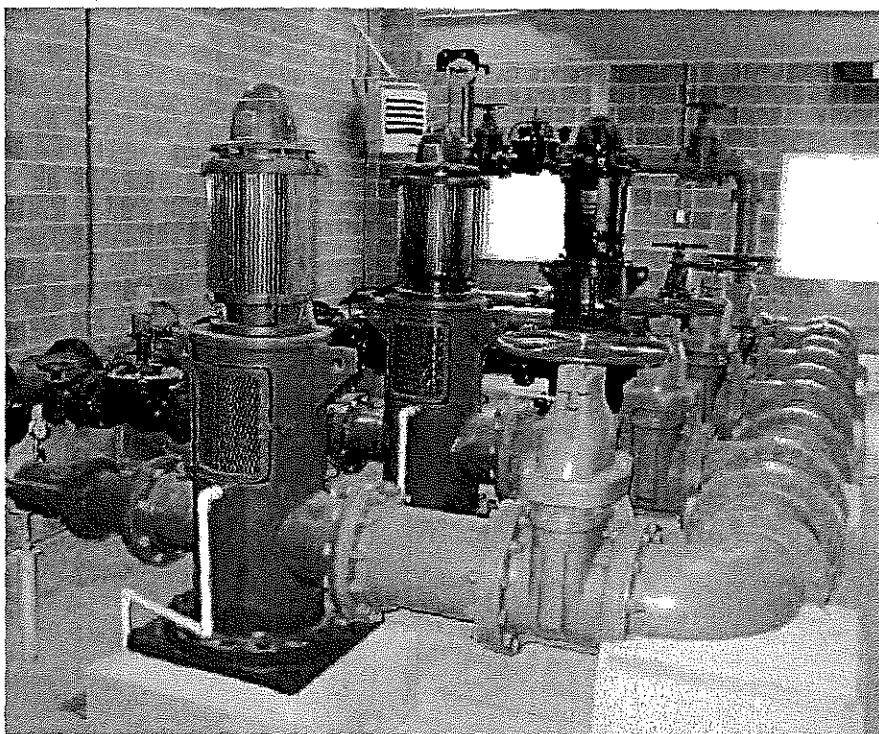


NEW WATER PUMP STATION



Water Pump Station and Distribution System Improvements Town of Waterford Utility Commission Waterford, Connecticut

The Quaker Hill water booster pump station, part of a \$ 3.2 million system improvement project, provides improved water pressure and fire protection to northern Waterford. The station was constructed on a small parcel adjacent to the Town's wastewater pump station, thus minimizing site costs.



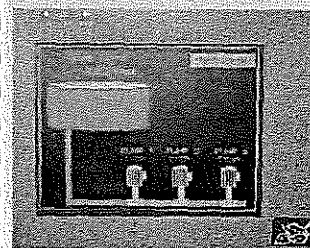
The station's three pumps (expandable to four) are rated for a combined 2,500 GPM and transfer water from a low service zone into a new mid-elevation service zone that has suffered from areas of low pressure and substandard fire flows. A new state-of-the-art telemetry system was installed which automatically controls pump operation and monitors tank level, distribution system pressures, and alerts system operators of alarm conditions.

Approximately 3,000 LF of new 12- and 16-inch water mains were installed to connect the station to key areas of the distribution system which require the increased flows and pressures.



Project Summary:

- Three pumps rated for a combined 2,500 GPM
- Transfer water from a low service zone to new mid-elevation service zone
- Telemetry system provides automatic control
- Approximately 3,000 LF of new 12- and 16-inch water mains to connect station
- Construction cost: \$1.0 million
- Completed: August 2007

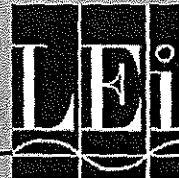


Reference:

Neftali Soto, PE
Chief Engineer
Town of Waterford Utility
Commission
(860) 444-5886

Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological
Consultants

WATER TANK MAINTENANCE



Vauxhall Street Water Tank Tank Maintenance Specifications Waterford, Connecticut

The Town of Waterford's Utility Commission is responsible for the maintenance of their distribution system, including two elevated spheroid storage tanks. The town retained Lenard Engineering, Inc. (LEI) to assist them with developing contract documents for the repainting of this tank.

LEI worked closely with the town to develop technical specifications for the re-coating of this 300,000-gallon tank. Because the tank was initially coated with lead based paint, a detailed lead abatement and sampling program was incorporated into the specifications.



LEI also obtained a DEEP general permit for the disposal of Water Treatment Wastewater which was necessary to discharge the disinfected tank water to the sanitary sewer system.



This maintenance work was conducted during the Spring of 2003.

Contact:

Waterford Utilities Commission
(860) 444-5886

Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological
Consultants

Web Site: 2.35.28

Town of Goshen - On-Call Engineering

Project 1 - Pavement Management

LEI prepared a 10-year capital improvement plan for the Town's 76 miles of paved roadways. LEI rated the roads using the PASER system, developed maintenance and rehabilitation strategies, developed cost estimates, developed deterioration curves for the various roadway conditions, and developed a 10-year strategy and funding plan. The work was performed in 2014.

Project 2 - West Street Drainage Improvements

The Town retained LEI to design drainage improvements for a larger pavement rehabilitation project on West Street. LEI prepared drainage calculations and provided the Town with instructions for culvert sizes, swale geometry, and swale lining. The Town completed the drainage improvements with in-house forces in advance of pavement rehabilitation by separate contractor. The project is currently ongoing and will be completed in 2017.

Project 3 - Shelbourne Drive Gulley Restoration

LEI designed stabilization improvements for a 200-foot long by 10-foot deep eroded gulley on steep terrain in the Woodridge Lake development. LEI prepared drainage calculations and sized riprap channel lining for the improvements. We also prepared construction plans, profiles, cross sections, details, technical specifications, and a construction cost estimate for the project. The project was successfully constructed in 2015.

Project 4 - Pavement Rehabilitation on Milton Road

The Town retained LEI to prepare pavement design, construction drawings, special provisions, cost estimates, and design reports for 2,700 feet of pavement rehabilitation on Milton Road. The project is being funded under the Connecticut Department of Transportation's Local Rural Major/Minor Collector Program. The project is currently in the design process. Construction is scheduled for the summer of 2018.

Contact: Robert Valentine, First Selectman

Town of Goshen

42A North Street

Goshen, Ct 06756

1stselectman@goshenct.gov

860-491-2308 ext. 221



Lenard Engineering, Inc.

Uconn - Storrs Campus - On-Call Engineering

LEI has been providing engineering services to the University since the 1990's. Work has included surveying, mapping, civil engineering, water system, storm drainage, culvert designs, structural evaluations, and related projects.

Project 1 - Fenton Wellfield Access Road Culvert Design

LEI is in process of preparing design plans, easement mapping and permits for a bridge replacement project on the access road to one of the University's two wellfields. An existing 4' span bridge is undersized and in poor structural condition, and will be replaced by a much larger box culvert. LEI completed surveying in the vicinity of the bridge, the upstream and downstream channels, and along the access roadway. LEI analyzed the channel and culvert hydraulic opening, and is in process of designing proposed culvert, roadway and channel replacements. Local, state and federal stream and wetland permits will be completed. Project is ongoing.

Contact: Chuck Brome, Project Manager
University of Connecticut
Storrs, CT
860-486-7102

Project 2 - Parking Lot Evaluations and Preliminary Designs

LEI completed an evaluation of 13 separate parking areas within the University, including soil borings, laboratory testing, and conceptual improvement designs. Study was completed in June 2017.

Contact: Vincent Miller, Project Manager
University of Connecticut
Storrs, CT
978-882-2013

Project 3 - Emergency Surveying and Environmental Capping Design

LEI was asked to complete an expedited survey for a structure which recently burned down, and complete a grading plan for a paved bituminous cap above the area.

Contact: Vincent Miller, Project Manager
University of Connecticut
Storrs, CT
978-882-2013

Town of Cornwall - On-Call Engineering Services

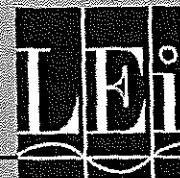
LEI has served as the Town of Cornwall on-call engineering consultant since 2015. Assignments include a wide range of projects such as review of land use applications, design of road improvements, design of bridge improvements, resolution of drainage problems, and various other engineering services.

Contact: Mr. Gordon Ridgway, First Selectman
Town of Cornwall
P.O. Box 97
Cornwall, CT 06753



Lenard Engineering,
Inc.

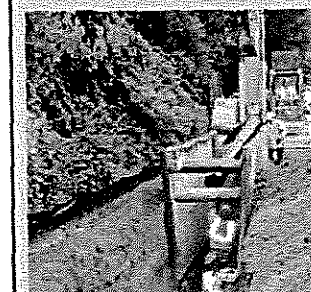
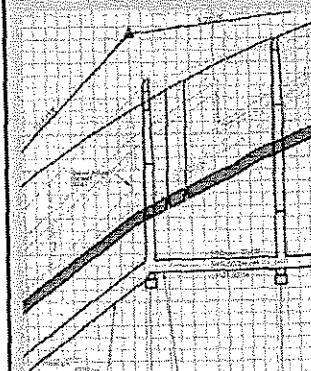
ON-CALL ENGINEERING SERVICES



On-Call Engineering Services Water and Sewer Commission Winchester, Connecticut

LEI has served as an on-call consultant to the Winchester Water and Sewer Commission since 2000. The following is a summary of some of LEI's key assignments for the Water and Sewer Commission over the past few years:

Project	Type of Service	Deliverables Provided
Inter-municipal Sewer Connection (2011)	Infrastructure Planning	• Capacity analysis for receiving sewers • Alternatives analysis • Conceptual low-pressure sewer design
Crystal Lake Dam (2012)	Design and Permitting	• Final design • Environmental permitting
Water Supply Plan Update (2007)	Water supply planning	• Update water supply plan • Develop scope and budget for capital improvement plans • Assist with developing audit procedures for water demand summaries
Dam Investigations (2008)	Dam inspection and preliminary design of improvements	• Dam safety investigations at two reservoirs • Preliminary design of improvements & cost estimating
Water Supply Safe Yield (2006)	Safe Yield calculations	• Revise 1993 safe-yield estimate by LEI to account for DEEP-suggested streamflow releases
Highland Ridge/Aurora Estates (2005-2008)	Peer review of water and sewer designs for large development projects	• Assist with coordination of conceptual design and State-level permitting issues • Comprehensive water modeling to evaluate impact • Peer review of final design plans
Water Main Extension for DOT Garage (2006-2008)	Peer review of DOT design	• Review DOT design plans to incorporate Town standards • Coordinate water main sizing • Assist with developer's agreement
Perch Rock Trail Pumping Station (2003-2006)	Sewage Pumping Station Replacement	• Sewershed evaluation • Preliminary & final design • Bidding services • Construction services
Pratt Street Sewer Extension (2003-2006)	Sanitary sewer extension	• Final design • Bidding services • Construction services



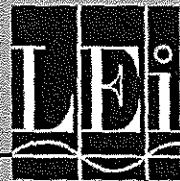
Reference:

Richard Nalette, Chairman
Water and Sewer Commission
338 Main Street
Winsted, CT 06098
(860) 307-3936

Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological
Consultants

06/12 Rev. 5.11.14

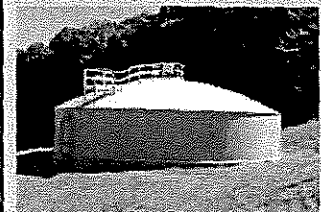
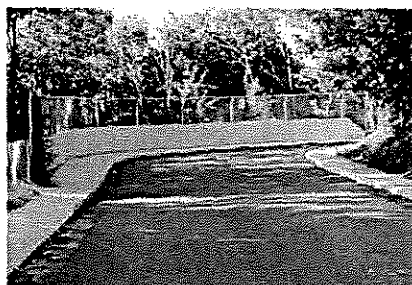
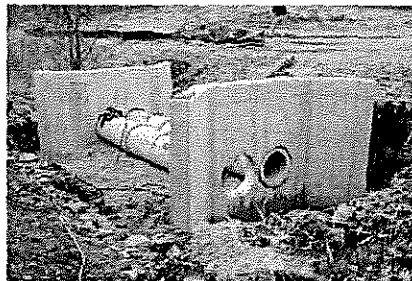
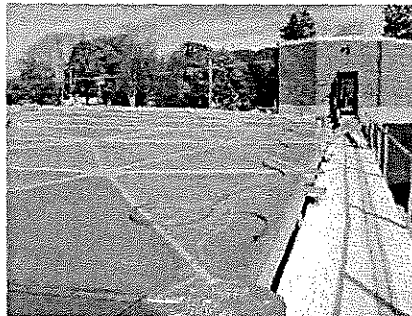
ON-CALL ENGINEERING SERVICES



On-Call Engineering Services City of Meriden Meriden, Connecticut

For over ten years, LEI has served as one of the City of Meriden's on-call engineering consultants. The City has utilized LEI on the following projects:

- Level A Aquifer Mapping (6 wellfields)
- Level A Aquifer Mapping Land Use Registration Program
- EPA Groundwater Rule Compliance Study
- Well field Liquid Chlorination Conversion Project (4 wellfields)
- Design, permitting and construction administration for Merimere Water Treatment Plant lagoon reconstruction
- Design and permitting for Elmere Water Treatment Plant lagoon reconstruction
- Rehabilitation Design of Water Main Crossing on Paddock Avenue Bridge over Berlin Turnpike
- Sewer Extension Design, Reservoir Avenue
- Downtown Hardscape Improvement Study, Colony and West Main Streets
- Johnson Hill Water Storage Tank Structural Evaluation
- Structural Evaluation of and Repairs for Mid-Town Parking Deck, Church Street
- Spill Prevention, Control and Countermeasures (SPCC) plans for the Bradley & Hubbard, Broad Brook, Elmere, Merimere and Parker Avenue facilities
- Linear Bike Trail, Phases II and III
- Prospect Street Retaining Wall Design



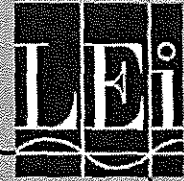
Reference:

Dennis Waz
Director of Public Utilities
City of Meriden
117 Parker Ave.
Meriden, Ct 06450
(203) 630-4256

Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological
Consultants

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ON-CALL ENGINEERING SERVICES



On-Call Engineering Services New Hartford, Connecticut

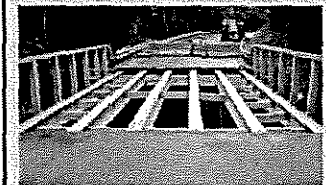
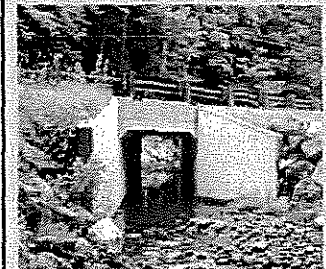
LEI has provided a wide range of on-call engineering services to the Town of New Hartford since 2006. Projects have involved peer review, planning, grant applications, survey, preliminary and final designs, land use and environmental permitting, cost estimates, bidding assistance, construction administration and inspection and project closeouts.

Project examples include:

- Site plan and subdivision reviews for Inland Wetlands and Planning and Zoning Commissions
- Revise Land Use Regulations to include Low Impact Development techniques
- Prepare Stormwater Pollution Prevention Plan for Public Works facilities on Antolini, Greenwoods and Industrial Park Roads
- Restoration plan for eroded embankment at Town's industrial park
- Structural evaluation and building repairs at Brodie Park
- Conceptual plan for Niles Road improvements under Local Road Accident Reduction Program
- Scour reduction plan for Gillette Road Bridge over Toppingford Brook
- Winchester Road Bridge repairs
- Structural evaluation for Bruning Road Bridge over North Brook
- Investigation into slope failure along Stedman Road
- West Hill Road culvert replacements
- Church Street parking improvements in Pine Meadow
- Bridge Street parking area design
- Preliminary sidewalk and crosswalk designs, Route 219 and Steele Road
- Preliminary intersection improvements and realignment, Route 44 and Central Avenue
- West Hill Road resurfacing project funded through state grants
- Conceptual design for Antolini Road Football Field
- Site plan for basketball court for Brodie Park
- Design and construction services for a new sand/salt storage facility
- Construction inspection on two new subdivision roads

Reference:

Daniel V. Jerram
First Selectman
Town of New Hartford, CT
(860) 379-3389



Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological
Consultants

MA16 Rev. 1/16/16

Town of Franklin – South Franklin Water and Sewer Extension Project

LEI provided surveying, design, USDA and DEEP funding assistance, and services during bidding and construction for this \$ 7.0 million dollar water and sewer extension project along Route 32 in Franklin, CT.

LEI surveyed the entire 8,000 foot route of the water and sewer, which included portions of New Park Avenue and State Route 32. LEI created base maps, and then completed final design plan and profile drawings, one sewer pump station design, as well as three sewer easement drawings. LEI assisted the Town in obtaining State Urban Action Grant Funding (\$5 million), with an additional \$5 million in USDA Rural Development Grants and Loans.

LEI provided Contract Administration as well as full time resident inspection, providing two inspectors for the majority of the project. The project was under construction between July 2019 through August 2020.

Contact: Charles Grant, First Selectman
Town of Franklin
7 Meetinghouse Road
Franklin, CT
(860) 642-6055

Town of Bozrah – 18,000 LF Sewer Extension Project

Similar to Franklin, LEI was selected by the QBS process to prepare shovel ready design plans, contract documents, permit applications, and grant / loan funding applications for future construction funding.

LEI prepared 90 % complete design plans, which indicated 18,000 LF of gravity sewers with four sewer pump stations will be required to serve the area. With these areas known, LEI proceeded to survey the sewer service area corridors, and created base maps for the area.

LEI is presently preparing USDA funding applications.

Contact: Bill Ballinger, Board of Selectmen
Town of Bozrah
1 River Road
Bozrah, CT 06334
Tel: (860) 608-4258

Town of Winchester – Main Street Enhancement, Phase 2

LEI provided survey, design, construction administration, and construction inspection services for Phase 2 of the Town of Winchester Main Street Enhancement project. The work included new sidewalks, a planted center median, new street lighting, drainage improvements, and restriping of the pavement. The \$1.05 Million project was completed in 2013.

Contact: Jim Rollins, Director of Public Works
Town of Winchester
189 Rowley Street
Winsted, CT 06098
Tel. (860) 379-4101
Fax. (860) 738-3509



Lenard Engineering,

Town of Watertown – Miscellaneous Bridge Projects

LEI designed one highway bridge, one park access road bridge, and one pedestrian bridge, and evaluated 22 existing road culverts and bridges for planning purposes in the Town over the course of the last 5 years. The scope of the design assignment included preparation of contract plans and technical specifications, assisting the Town in the bidding and contracting process, and construction related services like consultation, submittal and payment requisition review, and part time inspection.

Contact: Roy E. Cavanaugh, P.E., Director of Public Works
Town of Watertown Public Works Department
61 Echo Lake Road
Watertown, CT 06795
Cavanaugh@watertownct.org
860-945-5240

Town of Glastonbury – Pedestrian Bridge System

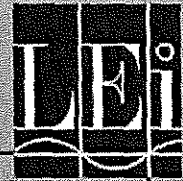
Substructure design and superstructure performance specification preparation for a 60 foot span prefabricated steel truss pedestrian bridge along William Street over Hubbard Brook. The scope also included construction related services like submittal review, consultation, and part-time inspection.

Contact: Stephen M. Braun P.E., Assistant Town Engineer
Town of Glastonbury
2155 Main Street
Glastonbury, CT 06033
Stephen.braun@glastonbury-ct.gov
860-652-7743



Lenard Engineering,

STORMWATER MANAGEMENT



Drainage Improvement Project Barkhamsted, Connecticut

In 2010, the Town of Barkhamsted, CT, secured a \$500,000 federal grant to restore a severely damaged stream channel and to improve a culvert and channel capacity along a tributary to the West Branch of the Farmington River in the historic village of Riverton. The grant was administered through the National Resource Conservation Service. Because this reach of the Farmington enjoys "Wild and Scenic" designation, the National Park Service served as a stakeholder, and provided input and oversight throughout the course of the project.



The eroding reaches of stream channel in Phases 1 and 3 of the project have gradients that exceed 20%, thus requiring a hard, immobile lining to forestall erosion. LEI developed an

innovative boulder cascade design that simulates the characteristics of natural, high-gradient channels. The system utilizes large, river and field stones for the channel framework and to create frequent steps in the channel floor. The stone voids are filled with cobbles and bank-run gravel. In areas above normal high water, the stone voids are filled with topsoil, seeded with conservation mix, and planted with native shrubbery.

The subject tributary now flows under the Old Riverton Inn via an ancient stone tunnel. During flooding episodes, the tunnel capacity is exceeded, leading to flooding of the Inn, and erosion damage to the Inn's parking lot and sewage disposal system. Phase 2 of the project will improve flood conveyance capacity by constructing a new 60-inch diameter RCP bypass storm sewer around Inn. Channel capacity and lining improvements are necessary at the approach and a new outfall is required at the Farmington River.

LEI prepared designs and secured necessary local, state, and federal land-use permits for all three phases during 2011 and 2012. Connecticut DEEP permits included 401 Water Quality Certifications for all three phases and an individual Diversion Permit for Phase 2. Federal authorizations were granted via Category 2 of the Connecticut Programmatic General Permit. Phase 1 of the project was constructed during the summer of 2012. The Town intends to seek further state and federal grants to assist in the funding of Phases 2 and 3.

The Town used a federal grant to design and obtain permits for three phases of work and to construct Phase 1:

Phase 1:

Boulder cascade channel improvements & slip line a 60" ACCMP culvert
\$350,000

Phase 2:

Construct a 60" diameter RCP bypass storm sewer around the Old Riverton Inn, approach channel improvements, and a new outfall at the Farmington River
\$600,000

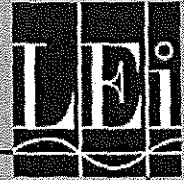
Phase 3:

Boulder cascade channel improvements and gulley restoration
\$800,000

Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological
Consultants

01/08/2015, 1:00:10

STREET IMPROVEMENTS



Main Street Enhancement Project Winsted, Connecticut

LEI provided complete survey, design, permitting, and construction services for the Phase 2 of Main Street Enhancement in Winsted,



Connecticut. The project included several pedestrian safety and aesthetic improvements to the downtown area, including:

- Replacement of sidewalks on the north side of the road with new concrete sidewalks with a stenciled brick pattern.
- Installation of new sidewalks on the south side of the road where none existed. These sidewalks also have a stenciled brick pattern.
- Installation of a center median with landscaping pavers and planting beds.
- New line striping and signage to replace worn striping and to allow the realignment required by the new median.
- Drainage improvements as required to accommodate the new sidewalk.
- Decorative lighting to replace the large cobra-head style lights.

The project required staged construction due to the heavy traffic volume on Main Street (State Route 44). The project also required careful coordination with local merchants and town officials to minimize the impact to local businesses. As with any urban area, the work site was congested with utilities and LEI was required to react quickly when issues arose, such as encountering an abandoned gasoline underground storage tank, utility lines that were not properly marked, and other unforeseen discoveries.

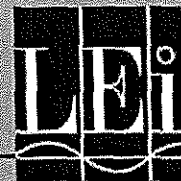


The \$1.05 million project was constructed in 2013. The town paid 20% of the cost and the remaining 80% was provided through federal funding administered by the Connecticut Department of Transportation.

Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological
Consultants

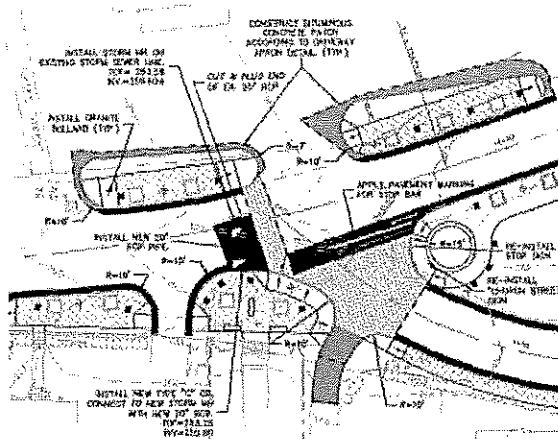
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SMALL TOWN ECONOMIC ASSISTANCE PROGRAM (STEAP) GRANT PROJECTS



The Small Town Economic Assistance Program (STEAP) funds economic development, community conservation and quality of life projects for Connecticut municipalities that are ineligible to receive Urban Action bonds. The program is administered by the Office of Policy and Management. The following are examples of STEAP projects recently completed by LEI:

Main Street and Church Street Streetscape Improvements, Voluntown, CT (2007) — LEI, working as a sub-consultant to Ferrero-Hixon Associates, helped re-design approximately 4,200 feet of roadway and sidewalk in the downtown section of Voluntown. LEI prepared survey plans, attended community meetings, prepared design plans and details for roadways, regrading, storm drainage and site restoration. Construction cost: \$200,000.



Church and Bridge Street Parking Lot Expansion, New Hartford, CT (2010) — LEI prepared design plans and permits for the re-construction and enlargement of an existing parking area in the New Hartford Town Center. Construction cost: \$249,000.



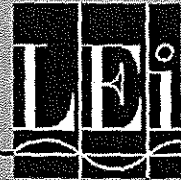
Projects Eligible for STEAP Funds Include:

- Economic development projects such as (a) constructing or rehabilitating commercial, industrial, or mixed-use structures and (b) constructing, reconstructing, or repairing roads access ways, and other site improvements;
- Recreation and solid waste disposal projects;
- Social service-related projects, including day care centers, elderly centers, domestic violence and emergency homeless shelters, multi purpose human resource centers, and food distribution facilities;
- Housing projects;
- Pilot historic preservation and redevelopment programs that leverage private funds; and
- Other kinds of development projects involving economic & community development, transportation, environmental protection, public safety, children and families and social service programs.

Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological Consultants

MTB-319-15

SMALL TOWN ECONOMIC ASSISTANCE PROGRAM (STEAP) GRANT PROJECTS

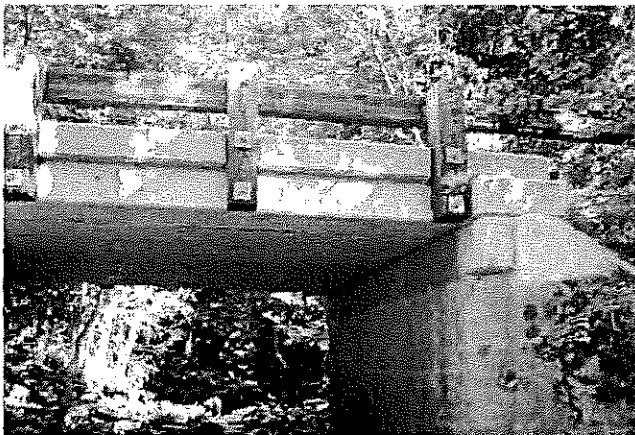


The Small Town Economic Assistance Program (STEAP) funds economic development, community conservation and quality of life projects for Connecticut municipalities that are ineligible to receive Urban Action bonds. The program is administered by the Office of Policy and Management. The following are examples of STEAP projects recently completed by LEI:

Caulkinstown Reservoir Dam Repair, Sharon, CT (2010) — LEI prepared the design, acquired local, state and federal permits, and oversaw construction of improvements to the Caulkinstown Reservoir Dam. The project involved reservoir dredging, removal and replacement of a gate house and principal spillway, regrading of the dam embankment, reconstruction of a dike, reconstruction of the low-level outlet, and replacement of a raw water main leading from the reservoir to the water filtration plant pumping station. Construction cost: \$332,000.



River Road Bridge Reconstruction, Roxbury, CT (2005) — LEI conducted preliminary engineering studies, preliminary and final designs, permitting with the state and municipal regulatory agencies, bidding and contractor selection and construction inspection. The bridge is located along River Road over the Little Jack Brook, approximately 700 feet upstream from its confluence with the Shepaug River. Construction cost: \$140,000

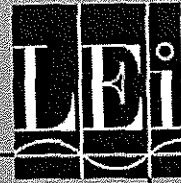


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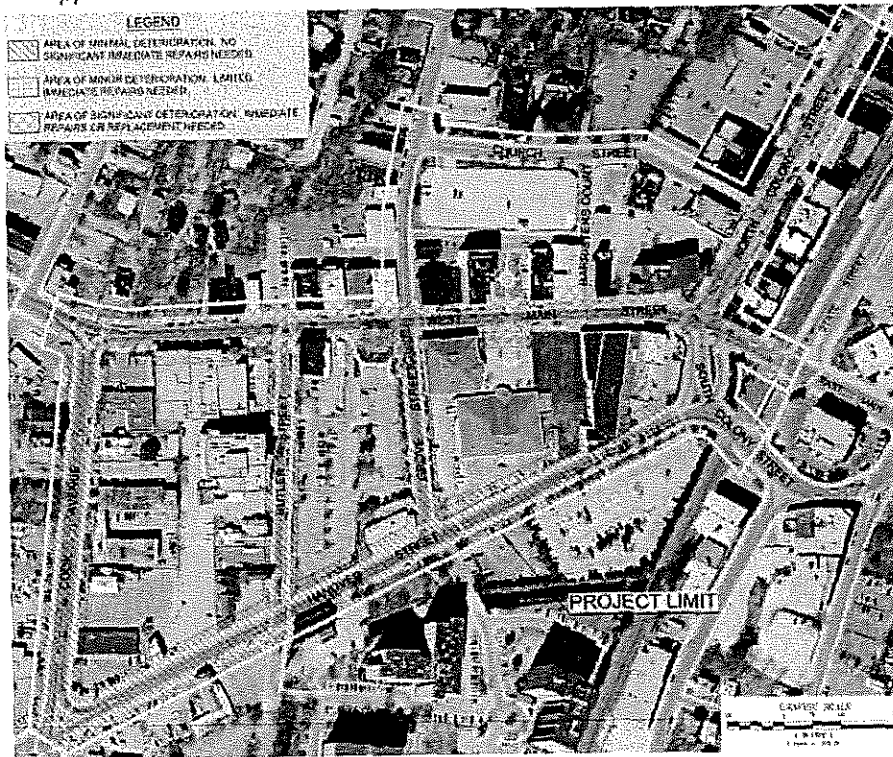
Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological
Consultants

STREETSCAPE & PEDESTRIAN ACCESS IMPROVEMENTS



Streetscape Rehabilitation and Pedestrian Access Improvements Downtown Area Meriden, Connecticut

LEI prepared a report describing cost-effective improvements to rehabilitate streetscape elements in downtown Meriden. Designed and constructed in the early 1990s, the original streetscape project included drainage, curbing, sidewalks, crosswalks, street trees, lighting, and traffic control features such as signals and bump-outs. Several of these elements had withstood the test of time, but others posed maintenance problems and had deteriorated to the point that they detracted from the appearance of the downtown area and threatened pedestrian safety.



The primary areas of concern were the bump-outs, crosswalks, tree grates, curbing, and sidewalks. Street trees and brick crosswalks were provided primarily along West Main and Colony Streets. The remaining streets consisted primarily of concrete sidewalks with varying score joints as design elements, concrete curbing, and painted crosswalks. West Main Street, Colony Street and Barristers Court had granite curbing with a combination of concrete and brick pavers which had crumbled over time.

Short-term recommendations addressed immediate repairs to eliminate hazards for pedestrians and maintenance crews.

Long-term recommendations focused on replacing streetscape features with alternative construction materials that offered the same visual appeal but were more in concert with established maintenance practices.

LEI prepared cost estimates for all recommended improvements.

Lenard Engineering, Inc.
Civil, Environmental and Hydrogeological
Consultants

Project Understanding- On-call Engineering and Surveying (continued)

During construction, LEI provides construction administration services including submittal review, pay requisition review, attending periodic job meetings, and providing qualified engineers and certified inspectors as requested.

Additional Services – LEI's Environmental Services division is available to assist the Town with any surface water, groundwater or soil contamination event. One of our specialties is underground storage tank removals, contaminant sampling, and if needed remedial action design and operation. We have three mobile treatment trailers available for pump and treat operations.

LEI routinely collaborates with a variety of outside engineers and contractors, who we can bring in to provide specialized expertise. Two examples of this were bringing in a marine engineering specialist to assist with the DEEP Coastal permitting for the Thames River Dock removal contract, and bringing in an Architect to help design an ADA compliant entry at the Police station.

In conclusion, over the past 50 years LEI has developed a good reputation by assisting our Municipal clients with a wide variety of their engineering needs. We look forward to the opportunity to continuing our work in the Town of Waterford.



Kevin DaRos, L.S.

Land Surveyor / CADD Manager

EDUCATION:

Wentworth College of Technology
B.S. Civil Engineering Technology,
1973

REGISTRATION:

Connecticut Licensed Land Surveyor,
1984

AFFILIATIONS:

Connecticut Association of Land
Surveyors, President 2010–2012

EXPERIENCE:

Mr. DaRos has directed a wide spectrum of survey projects ranging from rural boundary surveys to suburban development projects to urban construction projects. He has been involved with boundary plans, topographic plans, site plans, utility construction plans and related easement mapping. His experience extends from the initial title research through the field execution, to the final mapping of the project. He has extensive experience with ground control for large scale aerial mapping projects. Mr. DaRos has supervised a wide variety of construction projects, including subdivisions, road reconstruction projects and industrial/commercial sites.

Mr. DaRos was previously survey manager for Design Professionals, Inc., of South Windsor, Connecticut, a 25-employee civil engineering/land surveying firm. Responsibilities included supervision of three full-time survey field crews, reduction and plotting of field notes, base map generation using AutoCAD/DCA computer software, final map plotting and construction stake out.

Mr. DaRos was also Chief Surveyor for Palmberg and Russo of Bloomfield, Connecticut. Duties included boundary, topographic, aerial, mortgage and engineering surveys for the development of site plans, drainage and road reconstruction and sanitary sewer construction projects.

With over twenty years of experience in the field of surveying/engineering, Mr. DaRos is well prepared to supplement the engineering needs of Lenard Engineering, Inc., and provide clients with complete surveying services.



Todd Parsons, P.E.

Civil Engineer

EDUCATION:

University of Connecticut
B.S. Civil Engineering, 1985

REGISTRATION:

Registered Professional Engineer in
Connecticut
New York

EXPERIENCE:

Mr. Parsons is the manager and a principal engineer in the Winsted office of Lenard Engineering, Inc. Mr. Parsons' experience includes a broad range of civil design and administration of projects, including road design, storm water management, site planning, subdivisions, septic systems, dams, utility systems, and land-use permitting.

Mr. Parsons has significant experience working with municipal, private sector, and institutional clients to prepare plans and specifications and to perform contract administration for a wide variety of construction projects. Mr. Parsons also has extensive experience administering land-use permits through local, state and federal agencies. Past assignments include:

- Design of water service, sanitary sewer service and stormwater management for a 430,000 SF retail facility in Canton
- Analysis and design for a large-scale on-site wastewater renovation system for a private school in Lakeville
- Site planning for a 32-unit apartment complex for the Winchester Housing Authority
- Construction oversight of privately developed subdivision roads in New Hartford, Connecticut
- Preparation of design-build performance documents for public works facilities for Hartland, Washington, and New Hartford
- Design and permitting of a large box culvert replacement for an aging bridge in New Hartford
- Stormwater management plans for public works facilities in Hartland, Sharon, Salisbury, New Hartford, and Goshen
- Sanitary sewer design for the Town of Winchester
- Peer review of land-use applications for Towns of Sharon, Kent, Winchester, New Hartford, Goshen, and Barkhamsted
- Bridge restoration, Maple Hollow Road over Nepaug New Hartford
- Preliminary engineering report and environmental report for Crystal Lake Dam improvements for USDA funding.

In addition to his tenure at Lenard Engineering, Inc., Mr. Parsons was a Project Manager at Conklin & Soroka, Inc. in Cheshire, Connecticut.



Mark R. Temple, L.E.P.

Principal Hydrogeologist

EDUCATION:

University of Connecticut

Graduate Study-Hydrogeology
1986-1988

Southern Connecticut State University
B.S. Earth Science (Geology),
1979

REGISTRATIONS:

Licensed Environmental Professional
Connecticut

AFFILIATIONS:

National Water Well Association

Association of Groundwater

Scientists and Engineers

Connecticut Groundwater Association,

Past Director & Treasurer

Environmental Professionals' Organiza-
tion of CT, Founding Director

PUBLICATIONS:

"Detection of Subsurface Gasoline
Contamination in New England
Glaciated Terrain Using Soil Gas
Surveying," NWWA, Sept., 1988.

"Soil Gas Surveying for Subsurface
Gasoline Contamination Using Total
Organic Vapor Detecting Instru-
ments; Part I: Theory and Labora-
tory Experimentation," Groundwa-
ter Monitoring Review, 1990.

"Soil Gas Surveying for Subsurface
Gasoline Contamination Using Total
Organic Vapor Detecting Instru-
ments; Part II: Field Experimenta-
tion," Groundwater Monitoring
Review, 1990.

EXPERIENCE:

Mr. Temple is President of Lenard Engineering, Inc. as well as the firm's Principal Hydrogeologist. Mr. Temple has nearly 40 years of experience in geophysical, geological, water supply, environmental and land-use consulting. Prior to joining LEI, he worked for seven years as a petroleum exploration geophysicist in a number of the world's major oil producing basins including the Middle East and North Africa. Upon joining LEI in 1988, Mr. Temple founded the environmental group and supervised its growth into one of the largest divisions within the company.

Water Supply Development

Mr. Temple has wide-ranging experience conducting water supply evaluations throughout New England. His experience includes new source development, well screen design, pump testing, and numeric modeling. During his tenure with LEI, Mr. Temple worked closely with LEI's Water Supply Division on dozens of projects involving Connecticut Diversion Permits and Level 'A' Aquifer Mapping.

Environmental Engineering

Besides his corporate responsibilities, Mr. Temple continues to head the company's environmental division where he has supervised the completion of hundreds of Phase I, Phase II and Phase III environmental site assessments. Mr. Temple's experience also includes dozens of successful remedial designs using a variety of technologies including in-situ chemical oxidation (Fenton's chemistry, persulfate, calcium peroxide and percarbonate), as well as enhanced bioremediation using aerobic and anaerobic stimulants (oxygen and sulfate).

Mr. Temple continues to specialize in the investigation, remediation and closure of a wide variety of petroleum-hydrocarbon contaminated sites from single gasoline stations through large complex bulk storage terminals. Mr. Temple has advised clients during the purchase and sale of more than 100 gasoline stations.

Mr. Temple also continues to provide a variety of consulting services to petroleum marketer's especially underground storage tank system compliance obligations and risk evaluations.



James E. DeSellier, P.E.

Civil Engineer / Construction Observation

EXPERIENCE (continued):

- Lead Inspector on \$ 1.5 million water main and electrical / telecom duct bank project in utility intense area University of Connecticut, Storrs, CT. Work included repaving of North Eagleville Road (State owned), as well as extensive sidewalk, driveway and parking area restoration. Oversaw the work of up to five crews working simultaneously.
- Lead Contract Administrator and part time inspector on \$ 2.7 million Brookfield water main, bridge crossing and water pump station project, Brookfield, CT. Extensive interaction in obtaining DOT approvals for the installation of new water mains on State owned bridges.
- Lead Inspector on 2000 LF water main project, Route 32, Willington, CT. Most of the project involved work in the Route 32 corridor, including pavement and sidewalk restorations in state right-of-way.
- Lead Contract Administrator and Inspector on Horizontal Directional Drilling project, where a new 8" water main was installed beneath I-84 in Tolland.
- Performed Contract Administration and part-time inspection on numerous smaller civil, water, sewer, and pumping station construction projects.

Previously, with Hatch Mott MacDonald Group, Inc. (HMM), He worked as an Engineering Technician for five years. He was a consultant to Tennessee Gas Pipeline (TGP) and Iroquois Gas Transmission Systems (IGTS). He designed high pressure transcontinental natural gas pipelines metering and regulating facilities, performed stress calculation for road crossings, and reviewed blast calculation for TGP. He also worked in pipeline compliance for IGTS reviewing the affect of population density on high pressure gas lines and reviewed developer plans to mitigate their impact on over the gas lines and easements.





Lenard Engineering, Inc.

Civil, Environmental and Hydrogeological Consultants

Hourly Billing Rates

<i>Classification</i>	<i>2022</i>
Senior Principal Engineer	187.00
Principal Engineer	182.00
Project Manager/Engineer	158.00
Senior Project Engineer	137.00
Project Engineer	124.00
Licensed Land Surveyor	122.00
Civil Engineer	107.00
Environmental Engineer	105.00
Principal Hydrogeologist	187.00
Senior Environmental Scientist	135.00
Project Manager/Hydrogeologist	122.00
Project Geologist	102.00
Hydrogeologist	112.00
Senior Technician	112.00
Field Technician	95.00
Field Technician I	90.00
Senior Administrative Assistant	66.00
Administrative Assistant	62.00

FIFTEEN ROPE FERRY ROAD



WATERFORD, CT 06385-2886

COMPLETE AND RETURN

Bid #: 22-113

Bid TITLE: On-Call Engineering and Surveyor Services

NON-CONFLICT AFFIDAVIT OF RESPONDENTS

No Elected or Appointed Official, SBC member or other officer or employee or person whose salary is payable in whole or in part from the Town of Waterford, nor any immediate family member thereof, is directly or indirectly interested in the Bid/Proposal, or in the supplies, materials, equipment, work or labor to which it relates, or in any profits thereof.

The undersigned further certifies that this statement is executed for the purpose of inducing the Town of Waterford to consider the statement of qualifications submitted herein.

State of Connecticut S.S.

County of Hartford

Subscribed and sworn before me this 03rd day of February 2022.

Legal Name of Respondent: James E. Ericson

Business Name: Lenard Engineering, Inc.

Business Address: 2210 Main Street

Glastonbury, CT 06033

J. Ericson Vice President
Signature and Title of Person

Vedawattie Carroll
By

VEDIAWATTIE CARROLL
Notary Public, State of Connecticut
My Commission Expires 05/31/2023

My Commission Expires: _____

Notary Public Date: 2/23/22

AFFIRMATIVE ACTION STATEMENT

NOTE: IF YOUR COMPANY HAS LESS THAN 10 EMPLOYEES, OR HAS COMPLETED THIS SAME FORM WITHIN 1 YEAR, YOU MAY DISREGARD THE FOLLOWING EQUAL EMPLOYMENT/AFFIRMATIVE ACTION SECTION, EXCEPT AS NOTED.

OR: (1) The number of employees 20

(2) Completed this form within one year Yes X No

FOR SEALED BIDS: If your company has completed this form within one year please forward a photocopy of the initial form with your Proposal. If significant changes have taken place within the past year, please update the information on this form.

REQUIREMENT Any vendor/bidder seeking to do business with the Town of Waterford must, upon request, supply the Town with any information concerning the Affirmative Action/Equal Employment practices of the vendor/bidder, which the Town and/or Commission deems necessary in fulfilling its charge. Failure to supply such information, when requested, will result in the termination of any further transactions between the vendor/bidder and the Town of Waterford.

COMPANY NAME AND ADDRESS

Lenard Engineering, Inc. - 2210 Main Street, Glastonbury, CT 06033

TYPE OF BUSINESS

Civil Engineering and Land Surveying

TYPE OF ORGANIZATION

X Corporation Partnership Individual

If unit filing this application is not the above-named company, give the name, address and telephone number of reporting unit. (Branch, agent, representative)

AFFIRMATIVE ACTION/EQUAL EMPLOYMENT ACTIVITIES

FIFTEEN ROPE FERRY ROAD



WATERFORD, CT 06385-2886

Town of Waterford
Board of Selectmen
Request for Qualifications On-Call Civil Engineering and Surveyor Services
RFQ #22-113

PLEASE ATTACH THIS FORM TO THE FRONT YOUR SUBMISSION PACKETS.

SLR Consulting, Inc. 99 Realty Drive, Cheshire, CT 06410

VENDOR NAME AND ADDRESS

Kwesi Brown, PE, PTOE, Principal in Charge

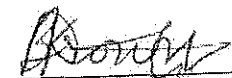
PRINTED NAME AND TITLE OF VENDOR'S AGENT

(203) 271-1773, Kabrown@slrconsulting.com

PHONE AND FACSIMILE NUMBERS, E-MAIL ADDRESS

I Kwesi Brown, PE, PTOE, Principal in Charge of the
Name Position

above named firm hereby submit the following bid in accordance with Town of Waterford specifications.



SIGNATURE

2/11/2022

DATE

Hourly Rates \$ Please see attached hourly fee rates in section 4

Hourly Rates \$ _____

Hourly Rates \$ _____

Hourly Rates \$ _____

CONTENTS

LETTER OF INTEREST

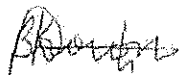
- 1.0 BACKGROUND OF FIRM AND RELEVANT EXPERIENCE
- 2.0 UNDERSTANDING OF SERVICES
- 3.0 ORGANIZATIONAL OVERVIEW AND RESUMES
- 4.0 HOURLY RATES
- 5.0 REFERENCES
- 6.0 REQUIRED FORMS

staffing requirements. Mr. Brown is deeply committed to quality assurance and client satisfaction in pursuit of success on every assignment. Mr. Brown is authorized to commit the company to this on-call list and can be contacted at kabrown@slrconsulting.com or (203) 271-1773 Ext. 2277.

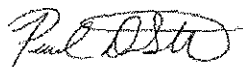
- A Project Manager having 14 years of service with the firm, **Paul DeStefano, PE**, is a Senior Transportation Engineer specializing in municipal road design, including pavement rehabilitation (full-depth reconstruction/reclamation/mill and overlay) and streetscape/complete streets improvements. Mr. DeStefano has extensive experience in project and client management, and managing on-call contracts with various municipalities. A considerable amount of his work is dedicated to project management, horizontal and vertical roadway layout, constructability reviews, geometric and safety improvements, implementation of ADA-accessible corridors, construction staging and maintenance and protection of traffic. He also has significant experience with other aspects of design including storm drainage, signing and pavement markings, cost estimating, specification writing, preparation of project manuals and construction documents. Furthermore, Mr. DeStefano offers a background in surveying and construction inspection. Mr. DeStefano will be the main point of contact regarding questions and clarifications and can be reached at pdestefano@slrconsulting.com or (203) 271-1773 Ext. 2295.
- In 2020 Milone & MacBroom, Inc. was pleased to join SLR International Corporation. SLR has tremendous strength in the environmental realm and acquired Milone & MacBroom, Inc., in part, to help grow within the Transportation, Infrastructure, and Built Environment realms – with a heightened focus on sustainable design solutions, climate adaptation, and preparing for what the future holds in terms of smart mobility. The merging of our two companies affords us a unique opportunity to blend our joint talents and expertise in a manner that benefits both firms, our combined staff, and our clients. Our core values and shared vision continue to center around integrity, excitement, pride in our work, and our commitment to you.

We look forward to the opportunity to further our relationship with the Town by providing on-call services for engineering and support services for the various Town Departments. We are excited to evolve with you over the coming years and pursue success on all collaborated endeavors. Thank you for your consideration of our qualifications. Please do not hesitate to contact us with any questions that you may have.

SLR International Corporation



Kwesi Brown, PE, PTOE
Principal-in-Charge



Paul DeStefano, PE
Project Manager

FIRM OVERVIEW

In the United States, SLR International Corporation (SLR) has over 400 employees located throughout 39 offices. Our team represents a broad and diverse range of technical and environmental capabilities. SLR's professionals offer a blend of experience incorporating engineers, geologists, planners, remediation specialists, regulatory and compliance specialists, and environmental scientists.

SLR has completed projects worldwide and continues to expand, serving a wide range of local, national, and international clientele including municipalities (ports, cities, counties, and utilities), industries (solid waste, wood products, chemical, oil and gas, waste management, and mining), and professional service sectors such as commercial real estate, capital finance, attorneys, and insurance.

SLR International Corporation's parent is SLR Global Limited.

The firm's US headquarters is located at the following address:

22118 20th Avenue Southeast, Suite G202
Bothell, WA 98021

The address of the office through which this project would be managed is as follows:

99 Realty Drive
Cheshire, CT 06410

The firm also has offices in Glastonbury and New Haven, Connecticut.

The principal contact for this submittal is Paul DeStefano, PE, Senior Transportation Engineer. He can be reached at (203) 271-1773 or pdestefano@slrconsulting.com and works at the above Cheshire, CT, office address.

SLR International Corporation is a corporation incorporated in the state of Washington and licensed to do business in Connecticut.



CIVIL ENGINEERING

➔ Providing sustainable, creative and efficient engineering solutions for our built communities



The Civil Engineering Department has been committed to providing comprehensive site development services from concept to construction. Site planning and infrastructure design represent the merging of the Civil Engineering and Landscape Architecture disciplines. By understanding a site's natural resources and their inherent characteristics and functions, our design professionals seek to blend creatively our client's development program within the framework of the site's opportunities and constraints. Whether it is residential, commercial, industrial, municipal, or institutional project, SLR provides a full range of professional services assisting our clients from concept development to project completion.

SERVICES

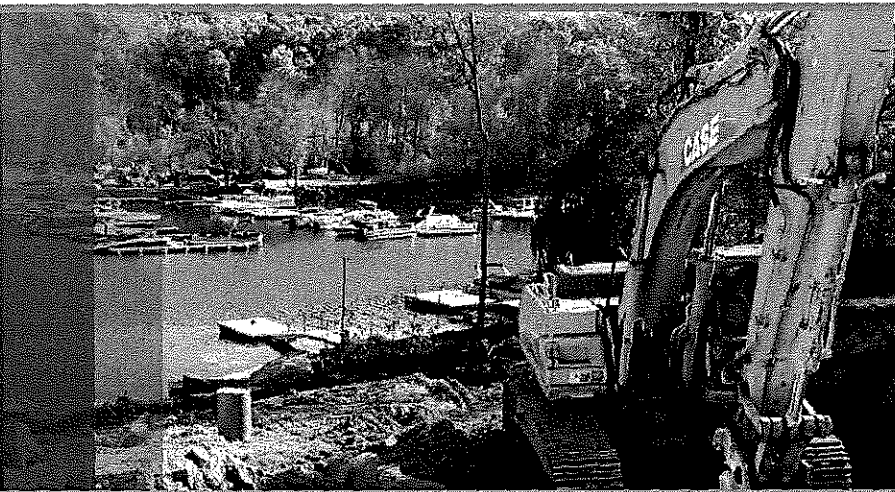
- Site Analysis & Selection
- Master Planning
- Site Design & Engineering
- Infrastructure & Utilities
- Water Supply Systems
- Sanitary Sewer Systems
- Land Use Permitting
- Construction Documents & Specifications
- Cost Estimating
- LEED
- Erosion Control
- Hydraulic Analysis
- Stormwater Management
- Project Management
- Low Impact Development Techniques

HOW SLR CAN HELP

We are committed to working with our clients to realize their vision from concept to construction. Our collaborative design teams are unique to each project and strive to balance site constraints, environmental quality, costs, and development goals. We are experienced at navigating the ever-changing challenges facing today's projects and understand the importance of creating partnerships with our clients and regulatory agencies.

GEOTECHNICAL ENGINEERING

→ Critical knowledge of earth's behavior and ensuring a solid foundation



Geotechnical engineering is critical for understanding the earth on which a project will be constructed. A lack of information regarding soil conditions can lead to an unforeseen rise in project costs. SLR provides geotechnical engineering to successfully accomplish the most difficult and complex engineering projects. Our firm has the depth and breadth to investigate and analyze projects of all sizes and types for private, local, state, and federal clients. Our unique approach to early discipline collaboration provides our clients an inherent value to their projects.

SERVICES

- Geotechnical Investigations
- Slope Stability (including rock slope)
- Waterfront Improvements
- Retaining Wall Evaluation & Design
- Temporary Support of Excavations
- Pavement Evaluations & Design
- Dam Inspection & Design
- Shallow & Deep Foundations
- Parking Garage, Building & Bridge Foundations
- Athletic Field Subdrainage Solutions
- Underpinning
- Dewatering Design
- Ground Improvement
- Seismic Analysis
- Blasting Specifications & Inspection
- Permitting
- Construction Observation
- Peer Review Services

HOW SLR CAN HELP

Our firm has the experience and capacity to investigate soil conditions and analyze its behavior for projects of all types and sizes in the private, local, state, and federal sectors. Our geotechnical services support and complement civil engineering, structural engineering, landscape architecture, water resources, environmental science, planning, and transportation disciplines.

LANDSCAPE ARCHITECTURE

→ Landscape architecture is a combination of artistic principles & technical design



The landscape architects at SLR work collaboratively to apply artistic principles and technical design standards to enhance the built environment and preserve the natural landscape. Through careful analysis of the inherent functions of the natural landscape and the programmatic needs of our clients, the firm's landscape architects collaborate with engineers, planners, and scientists to develop context-sensitive design solutions. These solutions are planned and designed to ensure respect for the surrounding landforms, the environment, and our client's needs and budgets.

SERVICES

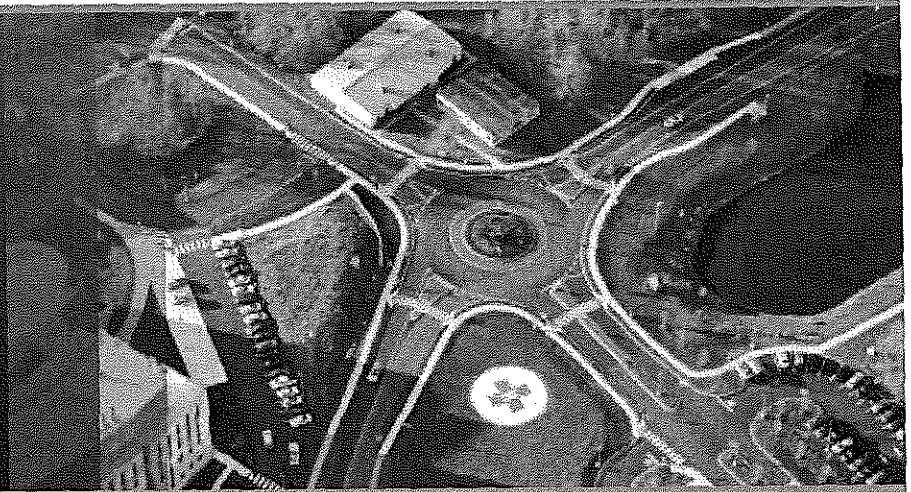
- Commercial, Educational, Retail, Residential, and Industrial Site Layout
- Feasibility Study/Master Planning
- Site Planning through Construction Documentation
- Urban Planning & Design
- Complete Streets
- Athletic Fields & Sports Facilities

HOW SLR CAN HELP

Our design work ranges from municipal parks, to residential communities, to new schools, to commercial and warehousing facilities. The variety in our client base has provided us with a broad range of exposure to unique design projects ranging from environmental restorations, renewable energy projects, and city-wide signage and wayfinding plans. Our team of professionals, as well as our superior quality of product, have led us to receive national recognition for our work.

TRANSPORTATION ENGINEERING

 Innovative approaches
& cutting-edge
technology



Whether overcoming traffic congestion in an urban corridor through innovative intelligent transportation system solutions, designing new roadways or bridges, or evaluating roadway safety for bicyclists and pedestrians, our transportation engineers work together with our clients and the community to develop sustainable designs that meet the needs of the traveling public and improve the environment.

SERVICES

- Highway & Interchange Planning
- Corridor Management Planning & Design
- Bicycle-Pedestrian Friendly Planning & Design
- "Complete Streets" Design
- "Green Streets" Design
- Bridge Design & Inspection
- Traffic Signal & Communication Systems
- Intelligent Transportation Systems
- Pavement Management
- Drainage Systems
- Value Engineering

HOW SLR CAN HELP

SLR offers a broad range of services in the area of transportation engineering and design. Our transportation engineering staff has a stellar reputation in the industry and have worked on many successful public and private sector projects. Our goal on every project is to enhance mobility for all travel modes without compromising safety or adversely impacting the environment. Whether widening a highway, enhancing operations along a signalized corridor, or rehabilitating a historic bridge, we achieve success by engaging project stakeholders and partnering with regulatory agencies, ensuring compatibility among transportation facilities, the surrounding environment, and the community. We provide expertise in several areas including, highway design, interchange planning and design, bridge design, rehabilitation and replacements, bicycle-pedestrian facility planning and design, adaptive traffic signals, transportation communication systems, and intelligent transportation systems.

WATER RESOURCE ENGINEERING

→ Environmentally sensitive engineering design



SLR is recognized throughout the country for its leadership and innovation in the field of water resource engineering. As consultants to local, state, and federal government as well as non-profit organizations and private clients, our engineers and scientists marry the principles of engineering, biology, hydrogeology, and earth sciences to develop environmentally sensitive project designs.

We take pride in our ability to develop solutions that work in harmony with the site, whether it located in the midst of a highly developed urban environment, an active industrial operation, or in remote areas surrounded by high quality ecological habitat.

SERVICES

- Watershed Planning
- Stormwater Management
- Hydrologic & Hydraulic Analysis and Modeling
- Steady & Unsteady HEC-RAS Modeling
- Flood Assessment & Mitigation Design
- Post Disaster Assistance
- Floodplain Restoration
- FEMA CLOMRs and LOMRs
- Community Rating Systems
- River Management & Natural Channel Design
- River & Stream Restoration & Design
- Streambank Stabilization Assessment & Design
- Geomorphic Based Design
- Fishway & Bypass Channel Design
- Aquatic Organism Passage Assessment & Design
- Dam Removal Design
- Sediment Transport Analysis
- Sediment Characterization, Management & Disposal
- Scour Analysis
- Coastal & Inland Resiliency Design
- Living Shoreline Design
- Dam Inspection & Design
- Construction Engineering & Inspection
- Lake & Pond Restoration

HOW SLR CAN HELP

We have long considered it important to not only understand but respect the environmental regulations that govern our work. We understand that a design is only good if it can be permitted and constructed. Therefore, embedded within our practice is a team with extensive expertise in resource assessment, impact analysis, regulatory permitting, and construction. Many of our designs mimic nature, and a reflection of collaboration among fluvial geomorphologists, engineers, and landscape architects. For projects requiring "hard" solutions, we draw upon the expertise of our structural and geotechnical engineers.

ON-CALL SERVICES

SLR

On-Call Engineering Services

Enfield, CT

CLIENT

Town of Enfield
Enfield, CT

The firm has provided on-call engineering services to the Town of Enfield since 2010. A sampling of projects completed under this on-call contract include:



- **Enfield Roads Reconstruction:** Designed 18 roadways funded under a \$20 million bond package and provided full-time construction administration services. The project assignment included roadway reconstruction and paving, sidewalk and intersection improvements, and incidental work such as resetting structures, pavement markings, and maintenance and protection of traffic.
- **Freshwater Pond Streetscape Improvements:** Provided survey, design, and regulatory permitting for approximately 1,400 feet of streetscape improvements including removal and reconstruction of existing multi-use trail, implementation of root protection, installation of ornamental lighting and provision of park benches, trash receptacles, and other amenities.
- **Armed Services Memorial Design Concept Planning:** Performed feasibility study and design of a memorial at two locations on the town green, with services including the development of two alternate memorial concepts, a conceptual site plan and conceptual memorial sketches (including elevations, thumbnail perspectives, etc.).
- **Former CT Valley Oil Property Pre-acquisition Due Diligence Investigations:** Conducted a Phase I Environmental Site Assessment (ESA) for the parcel located at 325 Hazard Avenue in Enfield, Connecticut. The Phase I identified areas of potential environmental concern associated with past land usage. Milone & MacBroom recommended and performed a Phase II Environmental Site Assessment that involved the collection of soil and groundwater samples from the areas of potential environmental concern. The results were communicated to the Town of Enfield on an expedited basis.
- **Shannon Drive/Kelly Drive Drainage:** Completed design and permitting activities associated with a project originally initiated by Town Engineering. Project included development of contract documents for construction of a stone access road and proposed drainage structures, piping, and a riprap channel to mitigate existing erosion.

On-Call Engineering Services

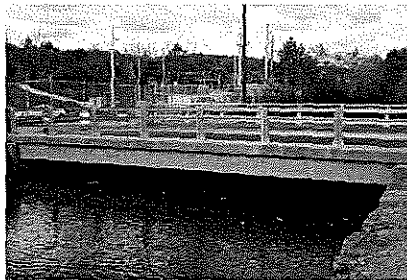
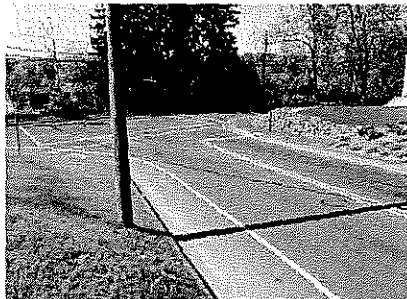
Derby, CT

CLIENT

City of Derby
Derby, CT

Services Provided

- Survey
- Engineering
- Environmental
- Landscape Architecture
- Planning
- Construction Administration



Technical support services provided under this contract include all facets of municipal engineering. Our services are integrated with the various city departments and land use commissions, especially the Office of the Mayor, Office of Economic and Community Development, Department of Public Works, Building and Zoning Enforcement Department, Planning & Zoning Commission, and the Inland Wetlands Agency. Assignments include:

Roadway, Utility, & Infrastructure Analysis & Design

- Pavement rehabilitation analysis & horizontal & vertical geometric improvements
- Structural design, assessment, & inspection including bridges/culverts
- Sanitary sewer rehabilitation & replacement
- Hydrologic & hydraulic storm water analysis

Public Recreation & Park Facilities

- Citywide recreation facility analyses including parks & open spaces
- Athletic fields, pedestrian/greenway trails, facility upgrades

Environmental Permitting & Compliance

- Municipal stormwater sampling & reporting
- Regulatory permitting for municipal & economic development projects
- Wetland delineation, assessment, & restoration

Floodplain Management

- Analysis of flood control protection system & assistance with Army Corps of Engineers, FEMA compliance & coordination under National Flood Insurance Program

Capital Improvement Planning

- Grant application assistance with state & federal funding programs
- Technical assistance and support with redevelopment initiatives

Land Use Planning & Technical Assistance

- Planning & Zoning

General Municipal Engineering Assistance

- Property investigations, topographic/boundary survey, erosion control inspections

Construction Inspection

- Roadway, drainage, utility, recreation, demolition
- Private, municipal, state, & federally funded projects

Danbury Traffic Signals

Danbury, CT

CLIENT

City of Danbury
Danbury, CT

Services Provided

- Traffic Engineering
- Construction Inspection



SLR began working with the City of Danbury in 1998 to enhance and expand their existing traffic signal system. This project was largely state and federally funded and included more than 50 signals in the central Danbury area.

Our work included manual turning movement counts and updates and revisions to the traffic control signal plans to provide modern traffic controllers and systems coordination. Detailed communications plans were developed as were provisions for emergency vehicle preemption systems. Construction was completed with SLR providing consultation and field inspections on an as-needed basis.

SLR maintains a positive and ongoing relationship with the City's Traffic Authority and Engineering department through our on-call traffic engineering contract with the City as well as a number of municipal and private development projects. More recent projects that have been completed as part of our on call contract include:

- The design and construction of a new traffic signal at the intersection of Fifth Avenue and Osborne Street in vicinity of the Western CT State University campus;
- The design and construction of traffic signal upgrades and geometric improvements at the intersection of Kennedy Avenue at Elm Street; and
- The design and construction of traffic signal upgrades and geometric improvements at the intersection of Old Ridgebury Road at Reserve Road.



UConn West Hartford Campus Conceptual Site Development Analysis

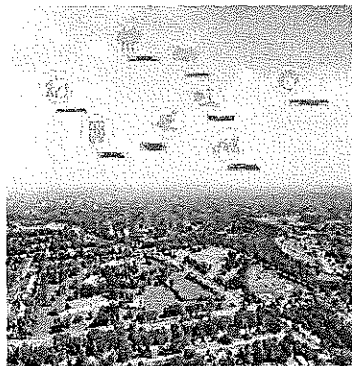
West Hartford, CT

CLIENT

Town of West Hartford
West Hartford, CT

Services Provided

- Environmental Assessment
- Civil Engineering
- Landscape Architecture
- Public Outreach
- Capital Planning



SLR prepared a document that summarizes one step in a series of evaluations the Town of West Hartford has conducted to determine the condition and feasibility of the University of Connecticut's Greater Hartford Campus property for future municipal use. SLR collaborated with town officials and representatives from Planning, Engineering, Public Works, Facilities, Leisure Services, and Board of Education to begin to understand municipal needs that could be met by purchasing and utilizing the campus property.

A series of conceptual "test fits" were conducted to evaluate a range of municipal uses, residential development, and recreational and athletic opportunities on the site. Residential development was examined in terms of what could fit the site that also adheres to the town's zoning regulations, the surrounding character of the neighborhood, and current and projected housing types that would be successful. Recreational opportunities were examined to analyze where both active and passive activities best fit the site while at the same time engaging the site's natural features to improve access, ecology, and habitat.

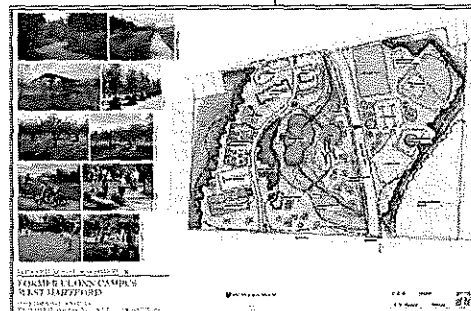
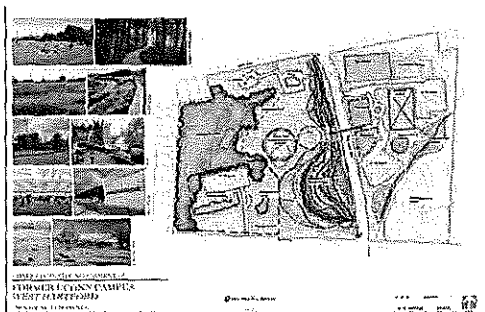
The conceptual images of the site that follow do not have to stand alone as a single concept in their entirety. Each conceptual element shown can be taken and fit together with others from alternate graphics. The conceptual sketches are a first step to help guide future discussions with the community as to the potential of the property.

CONCEPTUAL SITE DEVELOPMENT ANALYSIS FORMER UCONN CAMPUS, WEST HARTFORD



PROJECT STATS:

Parcel Size: 55 acres
Zone: R-10
Current Use: Educational Campus, Parking, Youth Athletics
Surrounding Uses: Residential, Educational Campus
Buildings: 5 on site
Wetlands: Present
Watercourses: 2 unnamed tributaries, St. Joseph Brook
Terrain: Gently rolling to flat open space with tree clusters and wooded perimeter
Special Features: Specimen oak tree, Pond, Flood plain
Distance to Local Attractions: <1/2 mile to University of St. Joseph
1 mile to Bishop's Corner
1 mile to Blue Back Square



SLR

Harbor Point and Yale & Towne Development

Stamford, CT

CLIENT

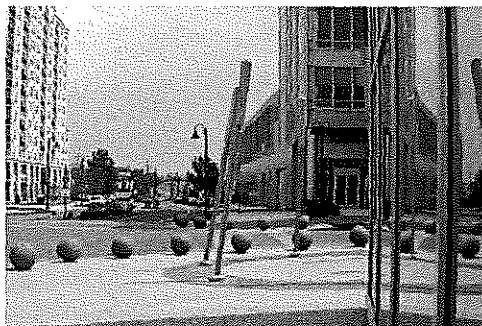
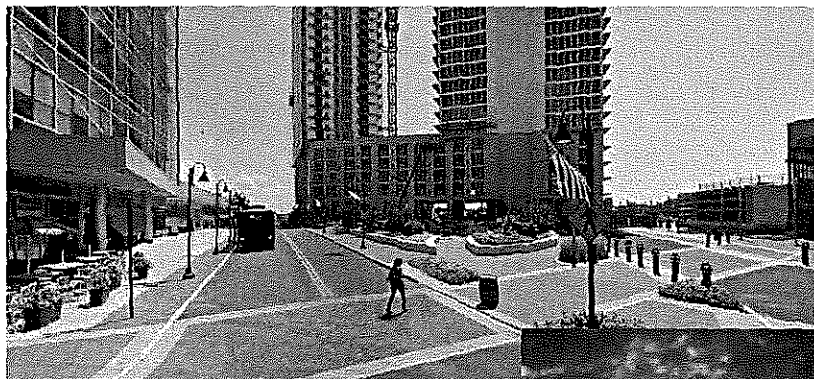
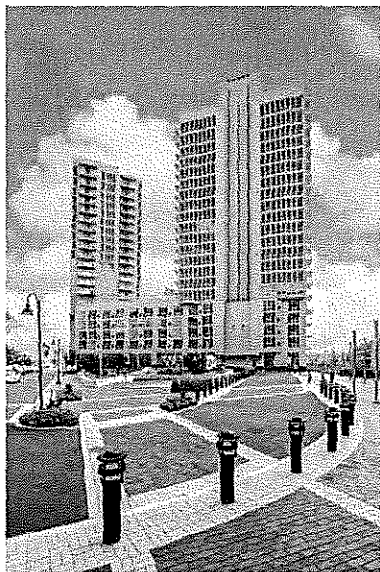
Building and Land Technology (BLT)
Stamford, CT

Services Provided

- Civil Engineering/Site Design
- Landscape Architecture
- Roadway Design
- Traffic Engineering
- Transportation Planning
- Permitting
- Utility Engineering
- Stormwater Management
- Construction Administration
- Public Outreach

SLR provided multidisciplinary services for one of the largest development projects on the East Coast. The project includes six million square feet of mixed-use development: 85 percent residential (4,000 residential units); 15 percent commercial, including office buildings, a grocery store, a waterfront hotel, restaurants and a full-service marina; more than 11 acres of parks and public space; a community school; and publicly accessible waterfront access. The project is located on the former Pitney Bowes, Admiral's Wharf, and Yale & Towne industrial properties adjacent to the Stamford Railroad Station. Work for this \$3.5 billion project included:

- Layout of buildings, parking, roads, walls and streetscapes
- Analysis of existing and projected future demands at 21 intersections in and around the site
- Design of storm sewers and stormwater management facilities
- Design of all site utilities including an extension of the sanitary sewer and water mains, as well as other on-site utilities such as telephone, cable, electric, and gas
- Design of urban parks and public spaces
- Environmental remediation
- Site planning for three parking structures at Harbor Point and two parking structures for the residential facilities



SLR

TRANSPORTATION PLANNING

SLR 

Green Manor North, Pine Grove Avenue & Tanglewood Road Rehabilitation

Enfield, CT

CLIENT

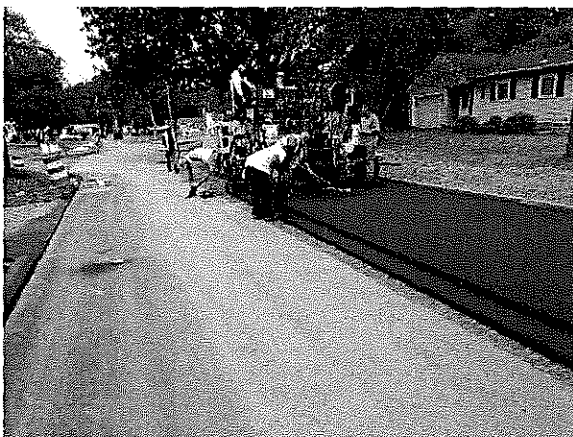
Town of Enfield
Enfield, CT

Services Provided

- Geotechnical Engineering
- Survey
- Roadway Design
- Permitting
- Public Outreach
- Construction Phase Services

SLR was retained by the Town of Enfield in 2017 to provide survey, design, permitting and construction phase services for the reconstruction of approximately 2.5 miles of residential streets in the Green Manor North neighborhood and Tanglewood Road and Pine Grove Avenue neighborhoods. These full-depth pavement reconstruction projects included the reconstruction and installation of new sidewalks, new driveway aprons, road diet improvements for traffic calming along with minor geometric changes, and storm drainage system improvements.

SLR conducted public workshop meetings for the purpose of soliciting public comment on drainage, safety, and other issues prior to putting pencil to paper for design. This proactive engagement was well received by the community, and the stakeholders reacted favorably to being included as part of the due diligence effort. The firm developed and administered a subsurface investigation program including borings on a roughly 500-foot interval to ascertain subsurface conditions. In addition, the design team administered a CCTV drainage system inspection program. The results of both programs were evaluated and served to guide the design. Working closely with the Town, stakeholders and the Contractor through design and construction, the project was successfully completed by the beginning of 2019. The project was funded under a local Road Bond Referendum package.



Reconstruction of Prospect Hill Road - Phase 2 (LOTICIP)

Windsor, CT

CLIENT

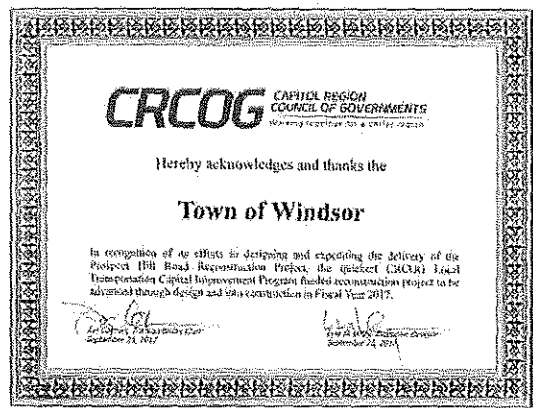
Town of Windsor
Windsor, CT

Services Provided

- Utility Coordination
- Survey
- Highway Design
- Structural Engineering
- Traffic Engineering
- Landscape Architecture
- Permitting
- Public Outreach
- Construction Administration & Inspection

In 2015, SLR was retained by the Town of Windsor to provide engineering services for the design of the second phase of the reconstruction of Prospect Hill Road, which is approximately 2,400 linear feet from the intersection of Harvest Lane east to the westerly limits of the first phase, which was designed by SLR and constructed using STP-Urban funding under CTDOT Project no. 164-233. The second phase of the project is utilizing funding administered by the Capital Region Council of Governments (CRCOG) under the state's Local Transportation Capital Improvement Program (LOTICIP). The design of the project continues the full-depth reconstruction, widening, traffic calming, geometric, safety, sidewalk, drainage, and other improvements established under Phase 1 with an estimated construction cost of \$2,000,000. SLR assisted the town with a proactive public involvement and rights of way acquisition program and helped to coordinate an advanced utility relocation phase of the project prior to the formal roadway reconstruction. SLR completed design of the project and provided full time construction inspection services. The project was completed in 2018.

CRCOG has presented the Town of Windsor with an acknowledgment of the delivery of this project as the quickest CRCOG LOTICIP funded reconstruction project to advance through design and into construction in 2017.



Granby Street Pavement Rehabilitation (LOTICIP)

Bloomfield, CT

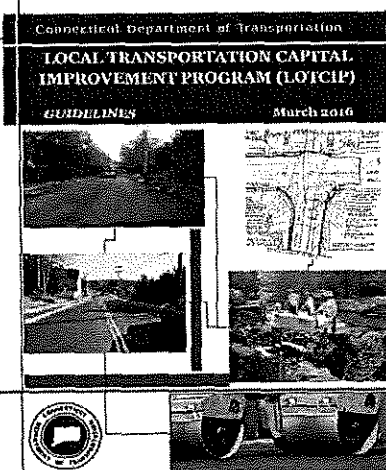
CLIENT

Town of Bloomfield
Bloomfield, CT

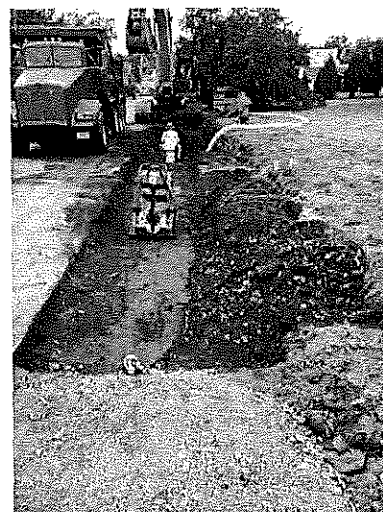
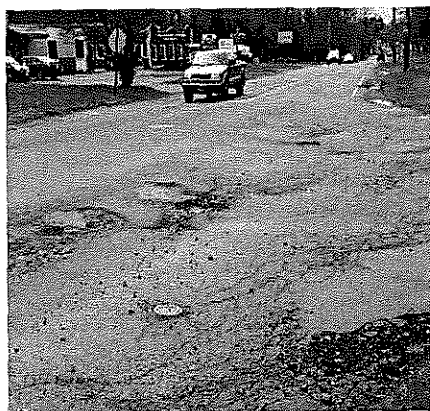
LOTICIP No. L011-0001

Services Provided

- Survey
- Engineering
- Permitting
- Subsurface Investigation Services
- Construction Engineering & Inspection



SLR provided survey, design, permitting and subsurface investigation services for the rehabilitation of approximately 3,800 linear feet of Granby Street which begins at the municipal border with Hartford and continues north to Cottage Grove Road (Route 218). The project originally included just the mill and overlay of the existing pavement with isolated areas of pavement reclamation. During the early stage of the project the Town identified significant deterioration of their existing 1955 corrugated metal drainage piping system which had begun to cause areas of pavement failure along the gutter line. Subsequently, the Town successfully petitioned DOT through the Central CT Regional Council of Governments for additional LOTICIP funding through the CTDOT and retained SLR to design improvements to the existing drainage system in conjunction with the pavement rehabilitation design. The firm reviewed soils information furnished by the town's subcontractor and developed alternative pavement sections using the CTDOT's pavement calculator. Coordination with CTDOT was necessary where the improvements intersect the state-owned Cottage Grove Road, requiring upgrades to the intersection for accessibility at pedestrian ramps and for replacement of traffic signal loop detectors. SLR provided construction engineering and inspection services for the rehabilitation and construction was completed in 2019.



West Main Street (Route 1) and West Avenue Intersection Improvements

Stamford, CT

CLIENT

City of Stamford
Stamford, CT

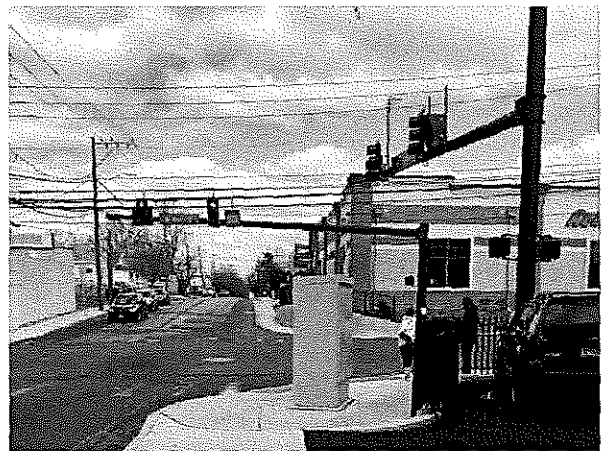
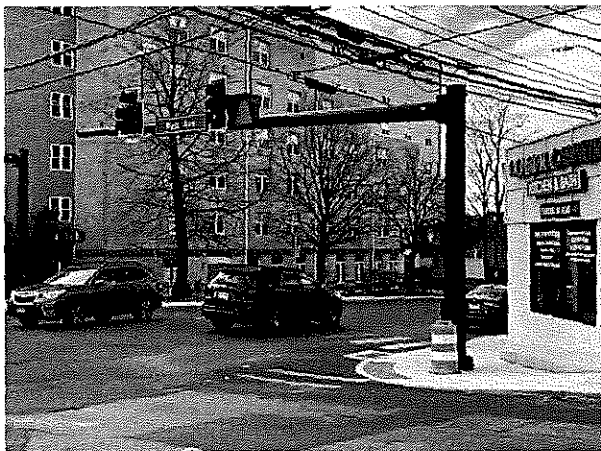
Services Provided

- Traffic Engineering
- Transportation Planning
- Landscape Architecture
- Construction Administration and Inspection
- Public Outreach

LOTICIP Project No. L135-002

SLR completed engineering design and provided construction inspection services in the City of Stamford for traffic and safety improvements at the intersection of West Main Street (Route 1) and West Avenue in Stamford, Connecticut. This project is a funded under CTDOT's Local Transportation Capital Improvement Program (LOTICIP) and will address issues at the intersection including traffic congestion, substandard roadway geometrics, sightline obstructions, and substandard pedestrian facilities.

Traffic counts for existing weekday morning and afternoon peak hours were conducted while future traffic projections were undertaken utilizing growth rates provided by the CTDOT. Traffic models of existing and future conditions were developed and intersection level of service analyses completed. The design included an upgrade of the existing traffic signal, signal timing revisions, turn lanes, improved roadway geometry, retaining walls, sidewalks and crosswalks, landscaping, and illumination. Improvements were refined through coordination with the City, CTDOT, and community participation. SLR performed full-time resident inspection services.



CMAQ Glenville Road Corridor Improvements

Greenwich, CT

CLIENT

Town of Greenwich
Greenwich, CT

Services Provided

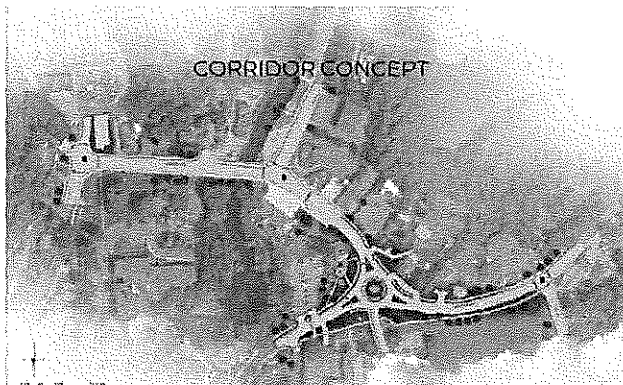
- Traffic Engineering
- Traffic Signals & Signal Systems Design
- ADA Design
- Roadway Design
- Procurement Services
- Construction Administration
- Systems Integrations & Oversight

State Project No. 056-315

SLR is currently serving as prime consultant on this \$5 million corridor improvement project. This project entails the design and preparation of contract documents by SLR for traffic signal optimization and geometric improvements on the segment of Glenville Road from Glenville Street to Weaver Street in Greenwich.

The Glenville Road project corridor is approximately 1,500 linear feet in length, beginning at the intersection of Glenville Road at Glenville Street (signalized) at the western terminus, continuing east and passing through Riversville Road (signalized) and Pemberwick Road (unsignalized), and terminating at Weaver Street (signalized). Glenville Road is classified as an urban minor arterial and carries approximately 10,000 vehicles daily.

The project includes traffic optimization, installation of four new traffic signals, bicycle and pedestrian upgrades as well as signing and pavement marking improvements at the signalized intersections of Glenville Road at Glenville Street, Riversville Road, and Weaver Street. Additionally, geometric improvements including a potential roundabout are being implemented at three intersections to alleviate queuing, improve overall traffic operations, and increase pedestrian safety. The geometric improvements are based on a design speed of 30 miles per hour and adhere to AASHTO guidelines for minimum radius, cross slopes, vertical grades and sight distance. Lighting and streetscape improvements will also be implemented along the corridor.

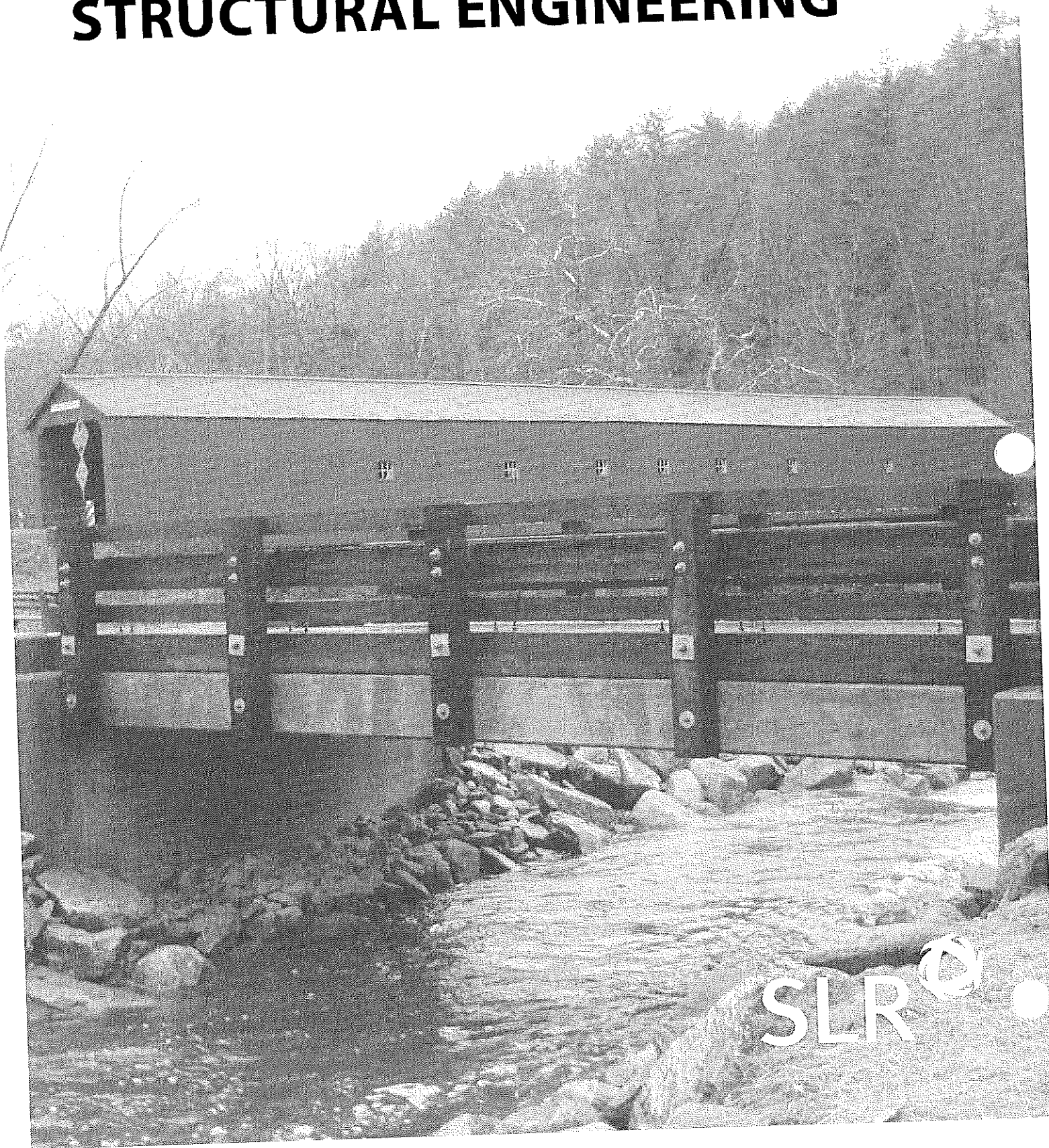


The project is currently in final design and is being designed under the Connecticut Department of Transportation's (CTDOT) Traffic Control Signal Design Manual, May 2017 edition, and Highway Design Manual, 2003 edition; the Town of Greenwich (the Town) Roadway Design Manual; and American Association of State Highway and Transportation Officials' (AASHTO) Guide for the Development of Bicycle Facilities, 1999 edition, and Manual of Uniform Traffic Control Devices (MUTCD), 2012 edition. CTDOT's Standard Specifications Form 817 and related supplements will apply for the construction of this

project, supplemented by Town requirements when applicable. This project also involves an update of the Systems Engineering Analysis Form (SEAFORM) in line with federal requirements for Congestion Mitigation and Air Quality (CMAQ)-funded projects.



STRUCTURAL ENGINEERING



West Johnson Avenue Bridge over Ten Mile River

Cheshire, CT

CLIENT

Town of Cheshire
Cheshire, CT

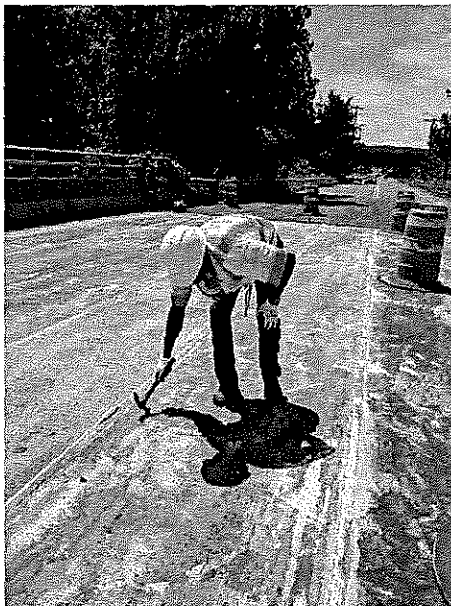
Services Provided

- Survey
- Bridge Design
- Environmental Permitting
- Construction Administration
- Construction Inspection

Following a Connecticut Department of Transportation (CTDOT) recommendation to restrict loads across the bridge, SLR was contracted by the Town of Cheshire to inspect the West Johnson Avenue bridge over Ten Mile River and provide recommendations for rehabilitation of the structure. The bridge had recently been flagged due to failure of the prestressed concrete box beam structure post-tensioning system which had failed and reduced the capacity of the bridge.

Following the removal of the bituminous concrete overlay, the project team inspected the beams and found a number of deteriorated areas and widespread failure of the longitudinal joints. Due to these conditions and the high volume of truck traffic on the bridge, it was recommended the superstructure be replaced. SLR prepared an alternatives assessment and preliminary cost estimate to assist the Town in applying for and securing funding through the State Local Bridge Program.

Once funding has been secured, SLR performed design services for the replacement of the superstructure. The new structure consists of prestressed concrete box beams with a reinforced concrete deck to provide additional protection to the longitudinal joints and increase durability under heavy truck loading. In addition to the bridge design, SLR designed a utility attachment system for the future expansion of a water main across the bridge. SLR was also responsible for survey and environmental permitting and provided part-time construction inspection.



Vineyard Road Bridge over Burlington Brook

Burlington, CT

CLIENT

Town of Burlington
Burlington, CT

Services Provided

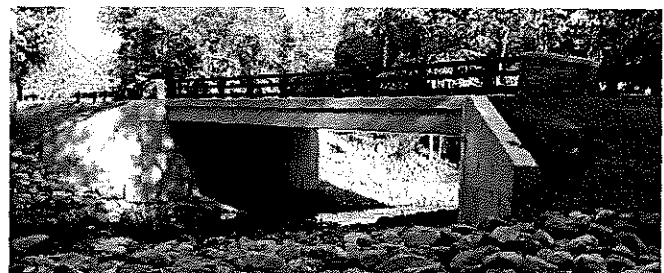
- Survey
- Bridge Design
- Hydrologic & Hydraulic Analysis
- Scour Analysis
- Wetland Delineation
- Permitting
- Public Outreach
- Construction Administration & Inspection

State Project No. 20-106-FLBP

SLR was retained by the Town of Burlington for the design of a bridge replacement at Vineyard Road over Burlington Brook. The design conforms to CTDOT and federal standards. The existing bridge, constructed in 1954, was a single 52-foot span with a superstructure consisting of steel stringers with a cast-in-place concrete deck. The sufficiency rating for the bridge had fallen below 50% due to the poor condition of the steel stringers caused by significant water intrusion through the bridge deck. The bridge width was 22 feet curb-to-curb with concrete curb and steel posts with cable guiderail along each fascia. The bridge superstructure was supported on concrete abutments.

The firm provided survey; hydrologic, hydraulic, and scour analyses; wetland delineation; local, state, and Federal permitting; and roadway engineering and structural engineering services. We also conducted public informational meetings, utility coordination, and coordination of geotechnical services. The firm provided full-time resident construction inspection services for this Federal Local Bridge Program project.

A bridge type study was completed that considered environmental impacts and structure longevity along with construction costs, duration, and future maintenance costs. The study showed that a full bridge replacement using prestressed deck unit superstructure supported on reinforced concrete abutments was the most cost-effective solution. Stream bank stabilization upstream of the bridge was also included in the project to address substantial undercutting of the upstream bank and to prevent future erosion of the bank. Vineyard Road was closed during construction due to low traffic volumes and short detour. Final design was completed in the summer of 2015. During construction, the design team worked hand-in-hand with the inspection team to redesign railings "on the fly" based on changing technical requirements imposed by FHWA. The construction was completed in the fall of 2017.



Marion Avenue Bridge over Humiston Brook

Southington, CT

CLIENT

Town of Southington
Southington, CT

Services Provided

- Survey
- Bridge Design
- Hydrologic & Hydraulic Analysis
- Environmental Permitting
- Wetland Delineation
- Scour Analysis
- Public Outreach
- Construction Administration
- Construction Inspection



(LOTICIP Project No. L131-0003)

Under contract to the Town of Southington, SLR is currently providing survey and design services for replacement of the Marion Avenue Bridge over Humiston Brook. The construction project is 100% CTDOT-funded. Constructed in 1930 and widened in 1970, the 30-foot long, 16-foot span by 26-foot wide bridge is comprised of an 18-inch thick reinforced concrete deck and steel girders supported by dry-stacked stone masonry abutments. The bridge has an obsolete metal bridge railing system that has failed. The roadway served is a two-lane (one lane in each direction) collector connecting state arterial routes. The most recent inspection report adjusted the bridge condition from fair to poor, with the substructure noted to be in serious condition. The steel girders exhibit heavy rust and delamination of bottom flanges. Both abutments exhibit full-height vertical cracks indicative of settlement issues. A buried water main immediately upstream; the roadway serving as a commuter route; and the bridge being in very close proximity to three residential driveways, constructability and staging is a critical design component. The proximity of driveways further complicates the project whereby sight lines will be inhibited by standard parapet and railing installations. The design calls for relocation of driveways, and associated property impacts, in conjunction with lengthening the structure to the extent possible in order to push the parapet and railing systems as far away from the travel way as possible for enhanced sight lines. After evaluating alternatives including 4-sided concrete box culvert, prestressed concrete deck units on concrete abutments and a precast concrete arch culvert, we recommended a 16-foot x 8'-foot 4-sided box culvert. The culvert was selected for speed of construction and scour resistance. The culvert bottom is to be designed with a staggered concrete baffle arrangement in order to retain substrate for a natural bottom for the support of fish passage. The project will use Accelerated Bridge Construction techniques for installation over a long weekend. This approach was selected due to the roadway being a commuter route and due to the narrow width of the road and difficulty in staged construction. SLR conducted borings for foundation design; developed hydraulic modeling to verify capacity and conformance with NFIP requirements; conducted public outreach and stakeholder meetings; and is in the process of preparing right-of-way maps and state/local/federal permit applications. The bridge will pass the 100 year design flow of 480 cfs with adequate freeboard. The project was advertised for construction in 2020.

Bridge Replacement at Dart Hill Road over Hockanum River

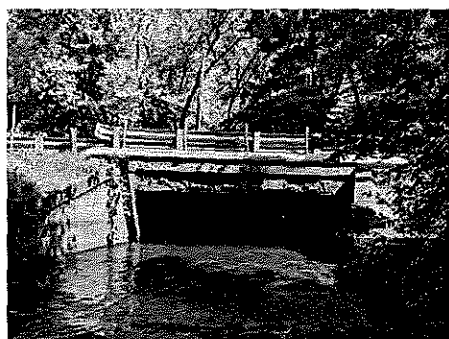
Vernon, CT

CLIENT

Town of Vernon
Vernon, CT

Services Provided

- Survey
- Bridge Design
- Hydrologic & Hydraulic Analysis
- Environmental Permitting
- Wetland Delineation
- Construction Administration
- Construction Inspection



Existing Conditions

(LOTICIP Project No. L146-0002)

The Town of Vernon hired SLR for design and permitting for replacement of the Dart Hill Road bridge over Hockanum River. The bridge was constructed in 1932 and consists of a single 20-foot simple span with a concrete slab superstructure. The curb-to-curb width of the bridge is 23 feet 6 inches with a concrete curb with steel pipe railing system along both fascia. The superstructure is supported by two concrete abutments with flared wingwalls to retain the roadway slope. There is also a separate pedestrian bridge adjacent to the upstream side of the bridge that is used to connect the sidewalks on either side of the river. Due to the poor condition of the pedestrian bridge, emergency repairs were recently undertaken by the town to perpetuate its use. The repair also reduced the walkway width to only 3 feet. The sidewalks and pedestrian bridge are used daily by students of the nearby Skinner Road School. Based on the poor condition of the concrete superstructure and deterioration of the abutments, the bridge will be replaced.

The bridge will be replaced under the Connecticut Department of Transportation (CTDOT) Local Transportation Capital Improvement Program (LOTICIP), which will cover 100% of the construction costs while the town will be responsible for the design costs. The estimated construction cost included in the LOTICIP application is \$2,014,800 plus contingencies. The design will accommodate the town's desire for enhanced pedestrian mobility and safety in conjunction with the Safe Routes to Schools sidewalk project also designed by SLR.

The design team conducted topographic and right-of-way survey and performed detailed hydraulic analyses given the watercourse has a FEMA floodplain and the bridge is subject to overtopping. Our designers prepared a Structure Type Study which considered waterway adequacy as a key selection criteria for the Preferred Alternative. Preliminary plans and estimate were developed for a replacement structure comprised of 4'-0" x 2'-0" Prestressed Concrete Deck Units on cast-in-place concrete abutments which can possibly be precast in order to accelerate the work. The bridge span will be essentially doubled at 40-feet clear in order to convey the 100 year design flow. Widening of the bridge for sidewalks will occur on the downstream side, as shifting the parapet further downstream will provide needed Stopping Sight Distance for the easterly approach due to the bridge being located just off a broad horizontal curve. Given the close proximity to Skinner Elementary School, the bridge work will have to be carefully coordinated with the Board of Education in order to minimize impacts to school buses and walking students.

The firm administered a drilled boring program to ascertain subsurface conditions and our geotechnical engineers recommend foundation design parameters. Our Soil Scientists identified and delineated wetlands within the project area and will prepare applications for state, local and Federal regulatory agencies; our environmental team having input in the type study and preparing stream channel restoration details. The project is slated for 2021 advertising for construction. SLR will provide full-time resident engineer inspection during construction.

Regional Framework for Coastal Resilience

South Central, CT

CLIENT

South Central Regional Council of Governments

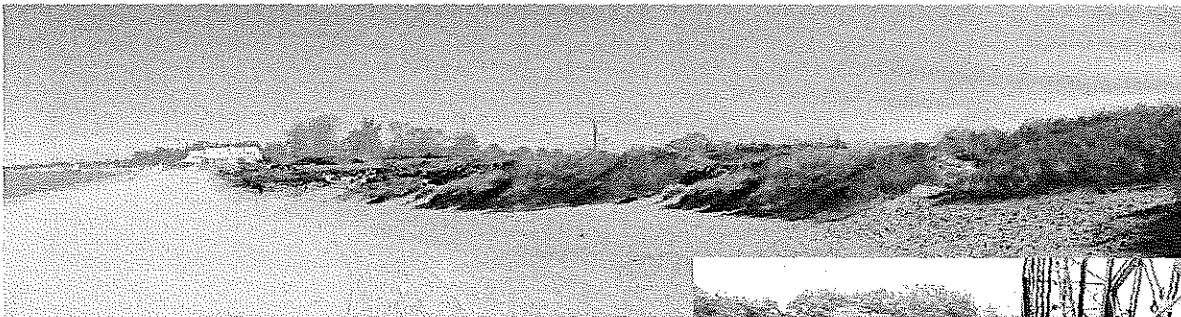
Services Provided

- Coastal Resiliency
- Conceptual Designs
- GIS

SLR Consulting was retained by the South Central Regional Council of Governments (with guidance from The Nature Conservancy and the Connecticut Metropolitan Council of Governments [former Greater Bridgeport Regional Council]). This ambitious project included a planning phase that involved gathering potential coastal resilience projects from 10 municipalities and development of a GIS database for decision support; and a design phase that resulted in conceptual designs for one coastal resilience project per town. Because the funding source is the National Fish and Wildlife Foundation (NFWF), only green and hybrid shoreline designs were advanced to the design stage. Sketches of potential coastal resilience projects in Madison and Branford are depicted below. A screen shot of the GIS database is depicted beneath the sketches in the lower left.



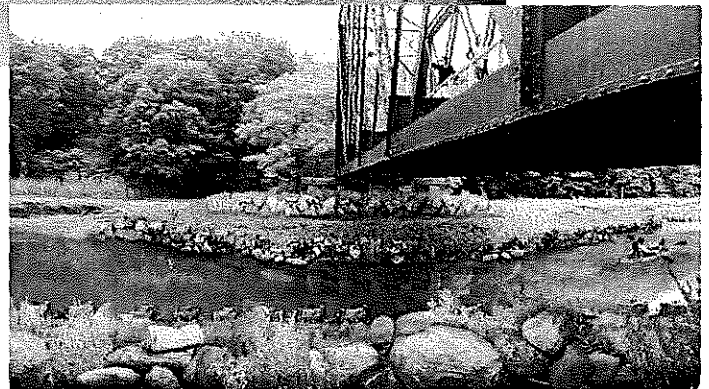
Existing Conditions



Proposed dune shoreline solution



Portion of ArcGIS Database Resiliency Projects



Proposed Bridge Abutment Protection using Oyster Castles

Rentschler Field Wetland Mitigation & Invasive Species Control

East Hartford, CT

CLIENT

State of Connecticut
Office of Policy & Management

Services Provided

- Wetland Delineation & Assessment
- Permitting

The State Office of Policy and Management (OPM) retained SLR to assist in the preparation of environmental permit applications associated with the firm's design for expansion of their current parking facilities located at Rentschler Field Stadium. The project involved culverting watercourses and new storm drain discharges associated with construction of parking facilities partly within the 100-year floodplain of unnamed tributary of Tewderpot Brook. SLR assisted in the preparation of Connecticut Department of Energy and Environmental Protection (DEEP) 401 Water Quality Certificate, Inland Wetlands, and Flood Management Certification permit applications. In addition to state permits, a United States Army Corps of Engineers 404 Individual Permit application was also prepared. We also provided final design plans.

As part of the permit application, OPM was required to mitigate for proposed wetland impacts associated with the expansion of their parking facilities. The selected wetland mitigation included restoration of a heavily infested (common reed (*Phragmites australis*)) 2-acre emergent marsh and scrub shrub wetland system near the new parking facility.



SLR developed a detailed invasive species management plan that was approved by both the Army Corps and CT DEEP and has primary responsibility for oversight of its implementation for a period of 3 years. Follow-up inspections will continue for a period of 5 to 7 years following to ascertain success. The regulatory agencies actually embraced the parking lot design as it incorporated an innovative solution utilizing fiber reinforced turf parking in lieu of asphalt or gravel. This green design provided for

natural infiltration of runoff into on-site sandy soils for the majority of the new 6,500 parking spaces. Runoff from paved areas was treated with water quality ponds; all such design improvements being pitched as part of the overall impact mitigation strategy.

East Hartford Brownfield Assessment Grant Program

East Hartford, CT

CLIENT

Town of East Hartford
East Hartford, CT

Services Provided

- ACRES Database
- EPA Property Approval Forms
- Phase I Assessments
- Phase II Assessments
- QAPP
- Asbestos Hazardous Building Materials Assessment

SLR has successfully completed work under an EPA Brownfield Assessment Grant program for the Town of East Hartford. SLR collaborated with the town over a two year period conducting several Phase I and Phase II environmental investigations as well as several Hazardous Building Material surveys. We provided technical assistance in updating the ACRES database, coordinating site access and obtained approval for each phase of the individual projects through the EPA.

As a result of SLR's responsiveness and technical expertise, the Town was successful in leveraging additional funding sources to continue environmental activities on some of the properties resulting in successful blight removal and redevelopment of impaired properties.

SLR's project team of environmental professionals and community planners worked closely with out counterparts at the Town of East Hartford to facilitate the reuse of blighted properties by potential developers. These types of properties included:

- Dry-cleaner
- Former service station and restaurant
- Vacant apartment building
- Former theater
- Vacant residential
- Former commercial property
- Abandoned municipal facility

Our work with the Town stands as a tremendous example of the timely and efficient use of available funding to achieve a beneficial outcome for the Town and the community.



Beacon Falls Roads Pavement Rehabilitation

Beacon Falls, CT

CLIENT

Town of Beacon Falls
Beacon Falls, CT

Services Provided

- Geotechnical Engineering
- Subsurface Exploration

SLR performed subsurface exploration and laboratory testing programs for roadway pavement rehabilitation of 13 streets in the town of Beacon Falls, Connecticut, with a total roadway length of 27,000 linear feet. The subsurface exploration program consisted of 84 test borings extended up to 5 feet below existing grades. Coordination with the town, existing utility plans, local utility companies, the boring subcontractor, and SLR's health and safety department, resulted in a safe subsurface exploration program. Our scope of services included characterizing the subsurface conditions at the site, performing geotechnical engineering analyses, and providing geotechnical design and construction recommendations for the project. Eight gradation analyses were performed on representative samples of the subgrade soils beneath the existing pavement to confirm field classifications and evaluate frost susceptibility.

SLR's analysis included summarizing the existing pavement thicknesses by street, placing them into one of three categories based on pavement thickness and subgrade conditions, and evaluating each category for reclaiming. A geotechnical report was prepared recommending reclaiming depths per category and new pavement thicknesses. Using the laboratory gradation tests and visual soil sample classifications, SLR recommended reclamation depths to establish a properly proportioned mixture of asphalt and subgrade materials to create the new base course material. Further recommendations on compaction requirements were also provided.



Groton, CT

SLAM Collaborative, Inc.
Glastonbury, CT

- Geotechnical Investigation

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GIS & PLANNING

DOWNTOWN SHELTON

HOUSATONIC RIVER

DOV
D

108

110

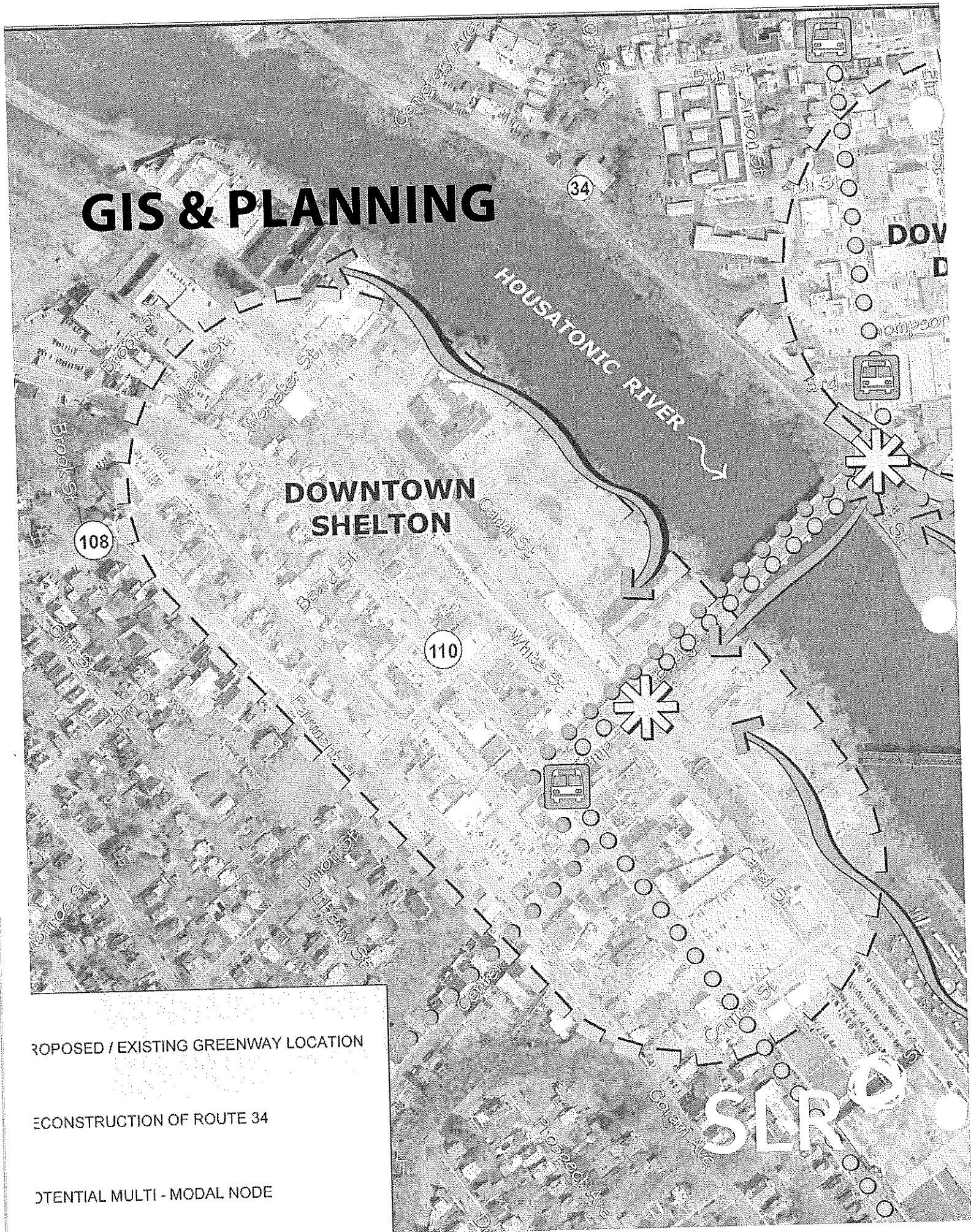
34

PROPOSED / EXISTING GREENWAY LOCATION

RECONSTRUCTION OF ROUTE 34

POTENTIAL MULTI-MODAL NODE

SLR



Resilient Connecticut

State of Connecticut

CLIENT

Connecticut Institute for Resilience and
Climate Adaptation

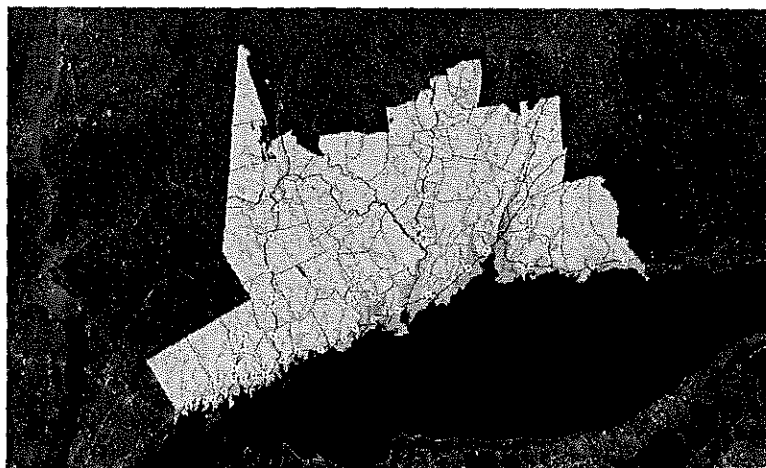
Services Provided

- Resiliency Planning
- Geographic Information Systems Analysis
- Public Engagement

CIRCA retained MMI/SLR to execute the consultant services associated with the *Resilient Connecticut* program. *Resilient Connecticut* is a unique effort by the State of Connecticut to conduct a regional vulnerability assessment and develop pilot projects that can be used to adapt communities to the effects of climate change such as frequent flooding and excessive heat. The program is geared toward responsible, resilient transit-oriented development (TOD) that connects zones of shared risk via resilient corridors such as roads, rail, and public transit.

MMI/SLR was responsible for executing an engagement process targeted at municipalities and Councils of Governments (COGs). Engagement included meetings, workshops, webinars, and an ESRI Story Map. The project included the following technical tasks:

- Compile and geocode numerous types of spatial data
- Develop social vulnerability index (SVI) mapping
- Complete climate change vulnerability assessments for heat, floods, and wind across 51 municipalities in New Haven County and Fairfield County gridded into 10-acre cells
- Delineate zones of shared risk in 33 municipalities in New Haven County and Fairfield County with TOD potential
- Describe opportunities for TOD and affordable housing
- Transform challenges into areas of adaptation opportunities in the 33 municipalities with TOD potential
- Recommend 20 pilot projects with regional interest or regional significance that can help make TOD more resilient, connect to resilient corridors, and provide a means to adapt zones of shared risk over the long term



SLR

South Green Redevelopment Plan

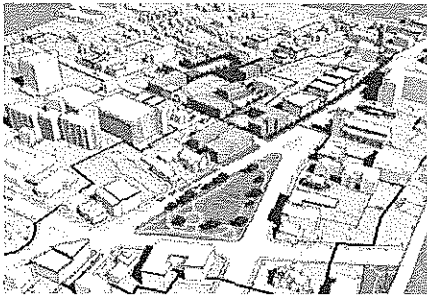
Hartford, CT

CLIENT

Capital Region Development Authority
Hartford, CT

Services Provided

- Services Provided
- Planning
- Public Outreach
- Land Use Assessment
- Zoning
- Transportation Planning
- Site Design



The Park Street Gateway is centered on the intersection of Park Street and Main Street in the City of Hartford and serves as an important gateway between Downtown and the Frog Hollow and South Green neighborhoods. Currently flanked by two vacant lots and the underutilized Barnard Park, the Capital Region Development Authority tasked SLR with creating urban design concepts that would turn the project area into an attractive neighborhood gateway. SLR's interdisciplinary urban design team worked closely with stakeholders to develop a project vision and create design concepts to achieve that vision.

The visioning process involved a close collaboration between SLR, the Capital Region Development Authority, and local stakeholder groups including the Spanish American Merchants Association (SAMA), Hartford Hospital, property owners, and the City of Hartford Planning Department. Understanding the importance of blending new development into the existing urban fabric, the visioning process resulted in a two design themes: incorporating Spanish-influenced into the design elements and public space on Park Street – an homage to the vibrant Latino community in the Frog Hollow neighborhood; and incorporating traditional design elements into Main Street that respect and complement existing historic structures. To assist in the visioning process, SLR reviewed previous redevelopment plans and concepts, and conducted assessments of existing land use patterns, zoning, historic districts, parking availability, and transportation infrastructure.

The project team prepared three urban design plans which included a variety of treatments for infill development, public plazas, neighborhood gateways, and parking. In addition the project team documented the property assembly, land acquisition, and zoning changes needed to support each design. Understanding the integral relationship between land use and the transportation system, the concepts also proposed a variety of complete-streets retrofits to that would improve access for pedestrians, bicyclists, and transit riders and support the new land uses proposed in the Plan.

East Main Street, South Main Street and Bank Street Reconstruction and Streetscape Improvements (LOTICIP)

Waterbury, CT

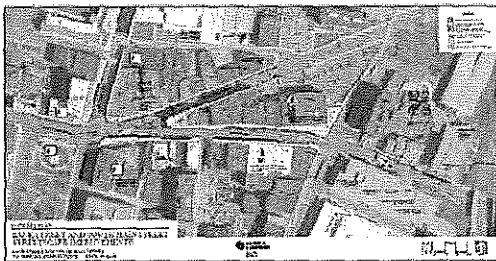
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Waterbury Development Corporation
Waterbury, CT

Services Provided

- Survey & Mapping
- Civil Engineering/Site Design
- Utilities/Infrastructure Design
- Planning
- Traffic Engineering
- Signal Design
- Landscape Architecture
- Construction Administration

SLR was engaged by the Waterbury Development Corporation (WDC) for LOTICIP application assistance and design of East Main Street, South Main Street, and Bank Street Reconstruction and Streetscape Improvements. The project involves improvements to East Main Street from North Main Street to North Elm Street for a distance of approximately 1,100 linear feet; South Main Street from East Main Street to Scovill Street, a distance of approximately 700 linear feet; Bank Street from Exchange Place to the I-84 overpass, a distance of approximately 1,300 linear feet; and a short segment of North Main Street along the easterly side of the roadway and proceeding approximately 250 linear feet north to 40 North Main Street. The anticipated work is to upgrade the physical condition of these roadway corridors and provide for a streetscape that will improve the character and visual appeal in support of continued revitalization efforts. The work will include rehabilitation and/or replacement of existing sanitary sewers and water supply systems, minor storm drain system upgrades, rehabilitation of roadway surfaces including partial-depth reconstruction, and reconstruction of sidewalks and curbs. Streetscape design elements include paver amenity strips along the back of the curbs, new decorative crosswalks and accessible sidewalk ramps with pedestrian signal and signage upgrades, special pavement treatments to delineate on-street parking, new decorative period-style pedestrian level illumination, landscaping, a new bus shelter, and street furniture.



SLR, in conjunction with WDC, has recently completed and submitted a revised LOTICIP application to NVCOG for the improvements mentioned above, as well as final design plans for the East Main Street portion of the project to the WDC. It is estimated the roadway and streetscape improvements will cost approximately \$7,300,000.



New Milford River Trail

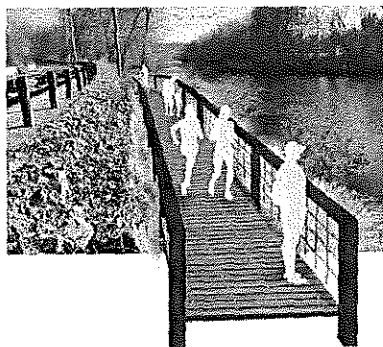
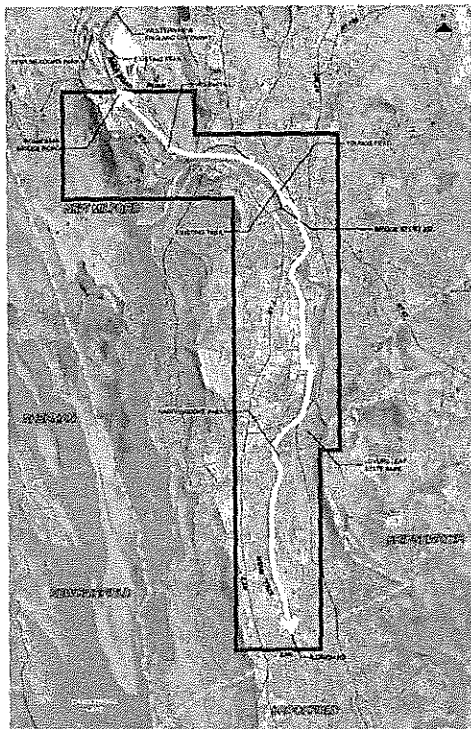
New Milford, CT

CLIENT

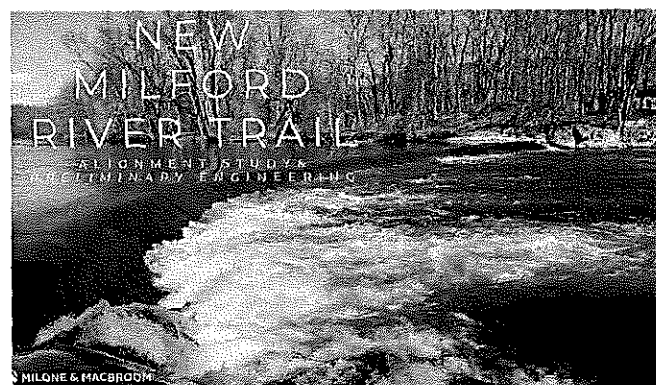
Town of New Milford
New Milford, CT

Services Provided

- Master Planning
- Greenway Planning
- Feasibility Study



SLR prepared a Preliminary Engineering Study for the development of the townwide New Milford River Trail and bikeway system. The 7-mile route is planned from the Brookfield town line to Boardman Bridge following the Housatonic River corridor, connecting several town parks and open space areas and providing linkages to the downtown. Major challenges included finding a cost-effective way of crossing the Housatonic River, constructing a multiuse path in a floodplain, understanding archeological impacts, impacts on property owners, and working adjacent to the Housatonic Railroad. The planning and design included wetland identification and evaluation, archeologic and historic resources, wetland systems, riverine resources, and the development of site-sensitive design concepts through a series of town meetings and design workshops. SLR environmental planners worked hand-in-hand with the firm's landscape architects and engineers to arrive at a design that successfully integrates the trail into the natural environment. Goals and objectives for minimizing impacts, celebrating local history, and embracing the natural qualities of the corridor for river-oriented user experience were factored in during design. Much of the trail lies within or adjacent to FEMA regulated floodway and/or floodplain of the Housatonic River, and the design team developed impact mitigation strategies to blend flood impacts with opportunities for improving the quality of adjacent wetlands and animal habitat. Plans for a significant interpretive signage program are considered important to the long-term success of the river trail. Phasing the work in logical trail sections with documentation of associated costs and regulatory permit requirements were part of the final study report approved by the New Milford Town Council.



SLR

West Main Street Streetscape Improvements

Cheshire, CT

CLIENT

Town of Cheshire
Cheshire, CT

West Main Street (Route 68/70) is a major arterial thruway bisecting the Town of Cheshire with residential and commercial properties adjacent to the roadway. Through a grant awarded by the Connecticut Department of Economic and Community Development, the Town retained SLR to design approximately \$1 million in streetscape improvements along +/- 2,500 linear feet of West Main Street.

Services Provided

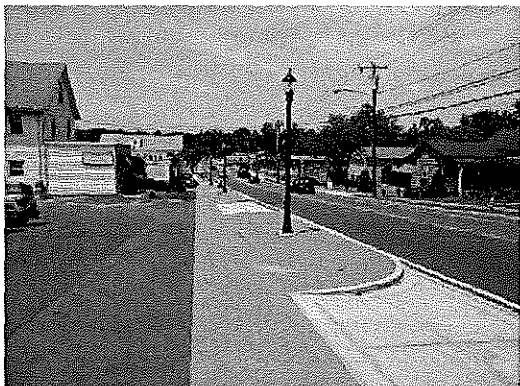
- Survey
- Transportation Planning
- Traffic Engineering
- Construction Administration
- Landscape Architecture
- CTDOT Permitting

The area chosen for improvement is a bustling village business area with high traffic volume that includes residential, business, and light industrial facilities. Highly populated residential neighborhoods are in close proximity to the village area and the commercial properties within the project area include restaurants, gas stations, lumber yards, retail shops, and offices. Many of the properties have multiple curb cuts and shared parking areas.

The streetscape improvements have been effective in beautifying the village area and making the roadway more pedestrian friendly. SLR identified access to business properties that could consolidate curb cuts and still maintain proper access and turning movements. Working



closely with the Town, property owners, utility companies, and the Connecticut Department of Transportation, the firm performed a field survey and prepared plans to provide landscaping and install paver sidewalks, scored concrete aprons, granite curbing, benches, planters, and pedestrian scale lighting, and curb cut modifications. SLR provided bid assistance and construction administration services for the project. The firm also worked closely to coordinate streetscape improvements with Connecticut Department of Transportation engineers on a companion project to replace a failed roadway culvert in the village center and on the construction of an island of refuge on West Main Street for the extension of the Farmington Canal Greenway.



All three phases of construction were complete by 2012.

Bartholomew Road Water Booster Pump Station

Middletown, CT

CLIENT

City of Middletown
Middletown, CT

Services Provided

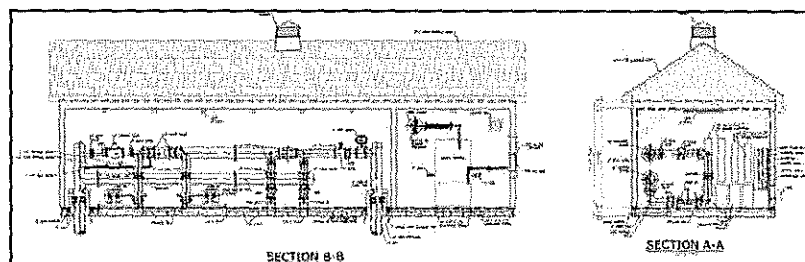
- Hydraulic Analysis
- Engineering
- Site Design
- Permitting
- Construction Administration

SLR was retained by the City of Middletown Water & Sewer Department to perform planning, design, and construction-related services for a new water booster pump station on Bartholomew Road to serve the Randolph Road Super High Service Area.

The City had been using a portable, trailer mounted pump unit to transfer water from a lower pressure zone to augment the flows and pressures in the upper Randolph Road Super High Service Area. This upper zone has anticipated future growth, which necessitates a larger pump station.

SLR worked closely with the City to establish the required domestic water and fire flow demands for the pressure zone. The new pump station was designed for an average day water demand of 300 gpm, a maximum day demand of 510 gpm, and a minimum fire flow of 1,500 gpm at 20 psi at all fire hydrants in the system. The domestic water supply serving residential, commercial, and college buildings operates at a pressure range from 25 psi at a few outlying residences to 147 psi nearest the pump station due to elevation differences across the zone.

The pump station was designed with 4 pumps with variable frequency drives, which provides greater efficiency and operational flexibility: two duty pumps and two high flow pumps to meet fire demand. The pump station was designed with an emergency generator, SCADA controls integration into the City's SCADA system, flow metering, gantry crane, and a water sample station to periodically test the water quality. The building also included HVAC, lighting, and security systems. The exterior finish of the pump station was designed to integrate with the rural nature of the surrounding neighborhood. The water booster pump station was designed as a pre-manufactured system and went out to bid in July 2013.



UConn Gurleyville & Horsebarn Hill Pump Stations

Storrs, CT

CLIENT

University of Connecticut
Storrs, CT

Services Provided

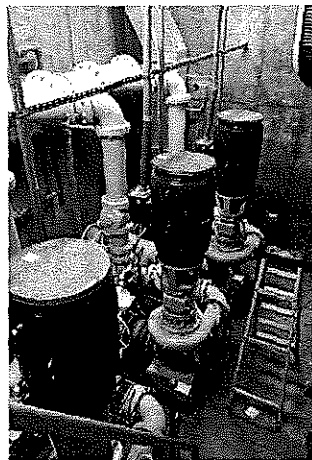
- Pump Station Design
- Hydraulic Analysis
- Landscape Design
- State Road Restoration
- Inspection

SLR was retained by the University of Connecticut to design upgrades to Gurleyville Road (GR) and Horsebarn Hill (HBH) pump stations, the largest serving the campus and neighboring areas. The scope included evaluation of station conditions, and complex hydraulic analysis for a common force main shared by both stations, while anticipating greater future flows, future replacement of the existing force main with a larger line, and pump selections that work under both present and future hydraulic conditions. The project was later divided into 2 construction contracts.

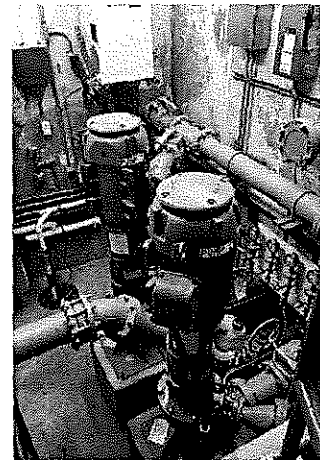
The firm designed full upgrades to completely renovate both facilities, including Code/compliance updates, station power, emergency power, variable speed drives, increased pumping capacity, instrumentation, control and telemetry systems reporting to the campus Water Pollution Control Plant via UConn fiber optic network. GR pump station upgrades included expansion of active wetwells and installation of precast structures with headworks and metering equipment. The sewer main on Route 195 was upgraded to serve downtown Storrs, and planned UConn expansion in the sewershed, and the road restored, including extensive shoulder landscaping. The Horsebarn Hill pump station, which is presently in the construction phase, features chopper pumps, precast concrete structures, and an addition to the building to house electrical and control equipment to address present Code issues.



Gurleyville Road Pump Station

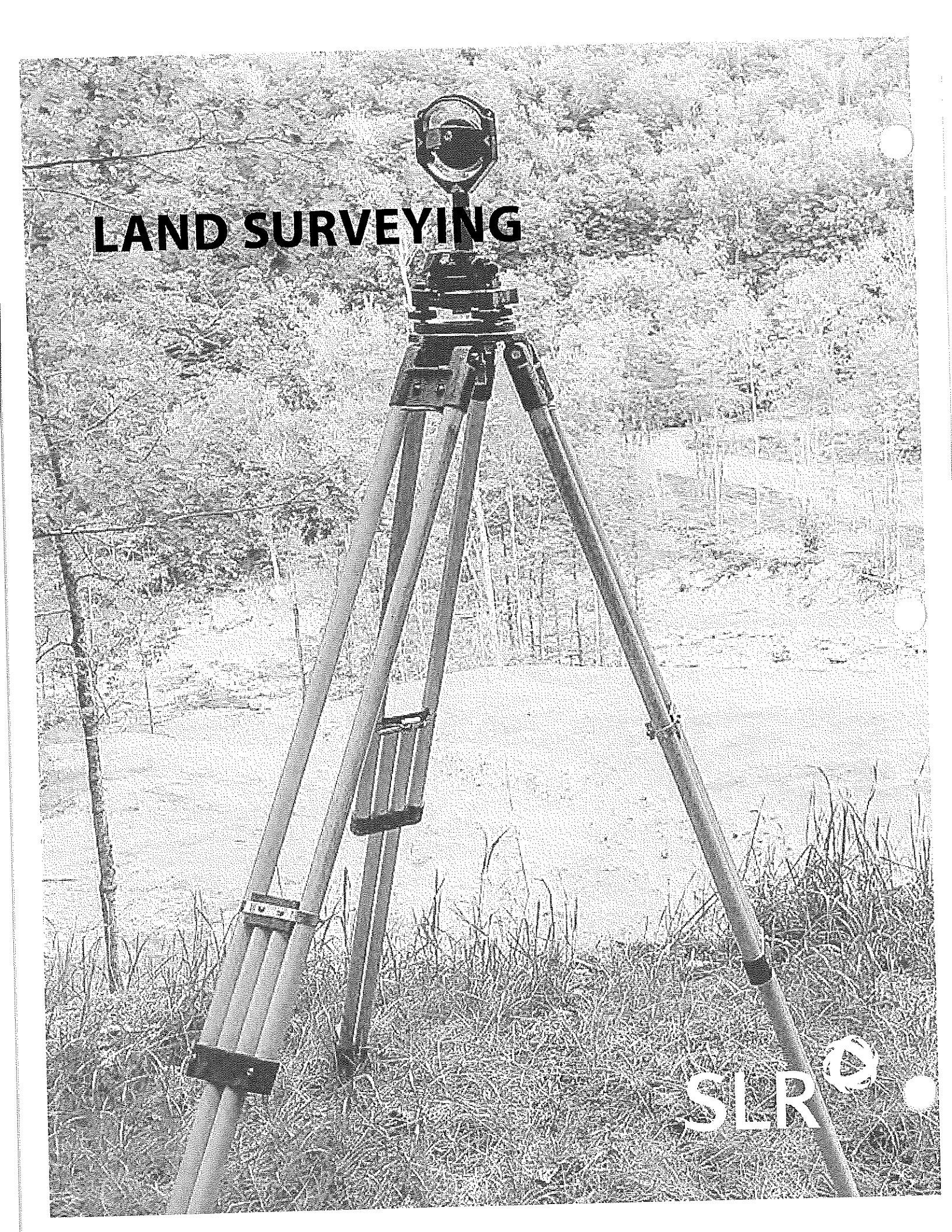


Gurleyville Road Pump Station



Horsebarn Hill Road Pump Station

LAND SURVEYING

A black and white photograph of a surveying instrument, likely a theodolite or level, mounted on a tripod. The tripod is set up in a grassy field with trees in the background. The instrument has a circular lens or viewfinder at the top. The text "LAND SURVEYING" is overlaid in large, bold, black capital letters across the upper part of the image.

SLR

Enfield Surveying Services

Enfield, CT

CLIENT

Town of Enfield
Enfield, CT

Services Provided

Survey

This project includes the reconstruction of approximately 10,320 feet of roads within the Green Manor North subdivision development, including Brett Lane, Brewster Road, Hale Road, Hunter Lane, Marion Place, Morgan Place, Rogers Lane, and Sherman Road.

This includes a topographic and location survey (horizontal: A-2; vertical: T-2). The limits of the survey are generally 75 feet wide centered on the existing roadways. Ground survey is to include significant topographic features requiring detail, including but not limited to touchdown limits, existing drives, buildings and stairs, utility appurtenances, visible right-of-way line/property line evidence, sidewalks, curbs, major trees/bushes, retaining walls, drainage facilities, fences, signs, mailboxes, etc., generally within the roadway right-of-way (ROW). Survey information will be obtained for each driveway apron at the gutter line, ROW line, and at the garage finished floor where applicable. Control points and benchmarks will be established.

SLR determines top of frame, invert and sump elevations, flow direction, and pipe sizes and types on storm drainage within the survey limits, as well as determines top-of-frame elevations for all sanitary sewer structures within survey limits.

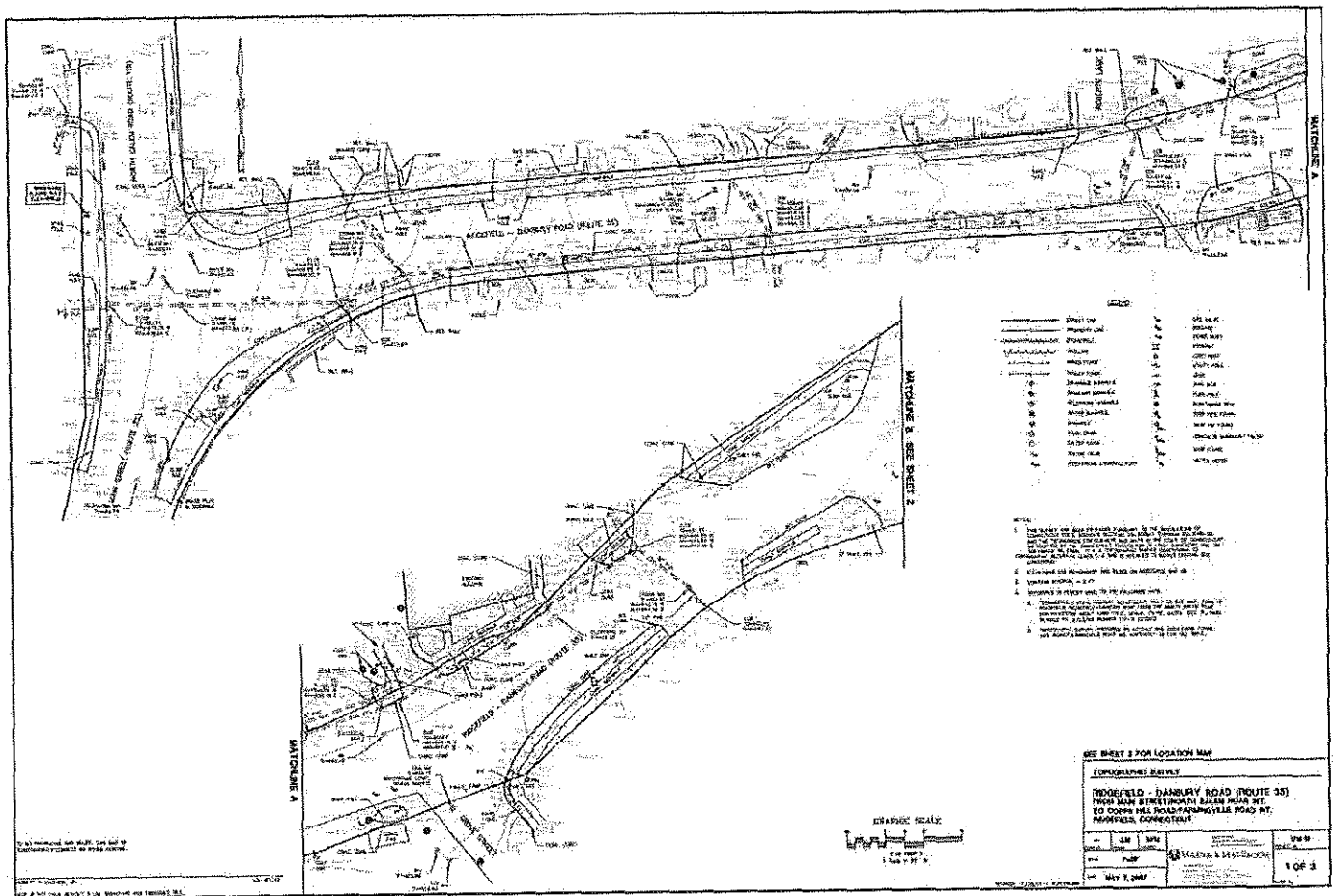


Ridgefield, CT

Town of Ridgefield
Ridgefield, CT

Survey

SLR was selected by the Town of Ridgefield to prepare a Topographic Survey for the design of Phase I Streetscape Improvements. The project included concrete sidewalk construction and the installation of ornamental pedestrian lighting and street trees. There were no appreciable changes to the existing curb line; however, access management was achieved through elimination and narrowing of driveways at key locations. Improvements were not intended to significantly impact existing drainage patterns. The overall work took place on Danbury Road from: the Main Street (Route 35) and North Salem Road (Route 116) intersection approximately 3,300 feet north to Farmingville Road.



Enfield On-Call Roads Program

Enfield, CT

CLIENT

Town of Enfield
Enfield, CT

Services Provided

- Construction Administration & Inspection

SLR provided construction administration and inspection services to the Town of Enfield through its On-Call Roads Program since 2010. On these fast-paced construction projects, our services included:

- Monitoring the construction activity for compliance with the contract documents,
- Maintaining project records and correspondence,
- Performing onsite material testing,
- Computing item quantities and generating payment applications,
- Preparing change orders with supporting documentation,
- Coordinating daily with residents and business owners.

Projects include the following:

Roadway Reconstruction for 1-D1 & 1-D2 Projects | Enfield, CT

The project included full depth roadway reconstruction, drainage improvements, sidewalk installation, and curbing replacement on 10 neighborhood streets. Approximately 1.8 miles of roadway and approximately 1.05 miles of roadway were reconstructed under the 1-D1 and 1-D2 projects respectively.



Fletcher – Still Roadway Reconstruction (Project #16-4) | Enfield, CT

The project included full depth reconstruction of approximately 2.7 miles of roadway, guiderail installation, drainage improvements, driveway reconstructions, and curbing replacement. The project also involved railroad crossings and utility relocations.

West Main Street (Route 1) and West Avenue Intersection Improvements

Stamford, CT

CLIENT

City of Stamford
Stamford, CT

LOTICIP Project No. 135-002

Services Provided

- Construction Administration & Inspection

SLR is providing construction administration and inspection services for a traffic and safety improvements project at the intersection of West Main Street (Route 1) and West Avenue in Stamford, Connecticut. The project improvements consist of upgrades to the existing traffic signal, signal timing revisions, the addition of turn lanes, roadway geometry improvements, the construction of retaining walls, sidewalks and crosswalks, landscaping, and new illumination. This project is a funded under the Local Transportation Capital Improvement Program (LOTICIP). The construction inspector is responsible for ensuring compliance with the plans and specifications, record keeping, and material testing; including concrete and nuclear density testing.



Dublin Hill Bridge Replacement over Ponset Brook

Haddam, CT

CLIENT

Town of Haddam
Haddam, CT

State Project No. 60-161 / Federal Project No. 6060(005)

SLR provided construction inspection services for the replacement of Bridge No. 04682, the Dublin Hill Road Bridge over Ponset Brook in Haddam, Connecticut.

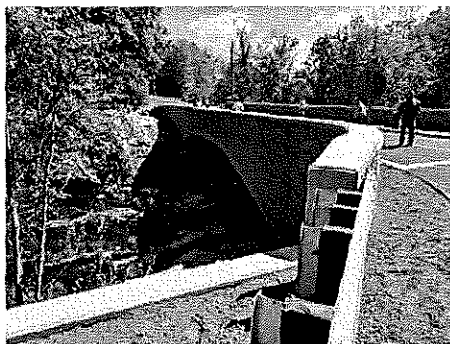
Services Provided

• Construction Administration &
Inspection

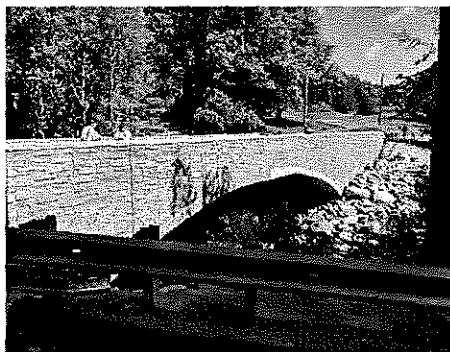
The project consisted of the removal of the existing two-span structure carrying Dublin Hill Road over Ponset Brook and replacement with a concrete arch. The existing structure consisted of two spans, 30 & 32' with precast concrete box beams reinforced concrete slabs supported by a stone masonry pier and stone masonry abutments. Overhead utilities required temporary relocation for the project including services to adjacent properties.



The new structure is a precast concrete arch system on reinforced cast-in-place abutments founded on ledge. The span has been increased to 84 feet. The project included cast-in-place footing and wingwalls at each corner with heights of 20' from the footing. A form liner was used to create a stone façade on all exposed sections of concrete. The overall project included new drainage, membrane waterproofing, and full depth pavement replacement.



The project was constructed in stages and included water handling and in stream water features to promote fish habitat. Slopes were armored with riprap for scour and erosion prevention. A temporary intermunicipal detour was utilized during construction requiring extensive coordination with the adjacent town, schools and emergency services.



SLR performed inspection and record keeping in accordance with CTDOT policies and procedures. The project was funded under the Federal Local Bridge Program using the Pilot Program for 100% Design Funding.