

# QUALIFICATIONS

CHAPTER 40B PROJECT  
1180 GREAT PLAIN AVENUE  
NEEDHAM, MA

## QUALIFICATIONS

GCG Associates, Inc. is a multi-disciplined civil engineering firm with our main office in Wilmington, Massachusetts. In 1986, GCG Associates, Inc. was established as an independent engineering firm to provide planning, design, and construction services for civil, structural, sanitary, and environmental engineering projects for public and private clients.

The project team for GCG Associates, Inc. brings over seventy-five years of diversified experience in civil engineering. The project team has successfully completed projects including impact studies, feasibility studies, detailed design plans, and construction management for the whole spectrum of civil works. The project team has performed design, construction administration and observation for many projects funded by state and federal funds for various municipalities in Massachusetts. GCG Associates offers the in-house capability to provide the required personnel and support resources necessary to assist clients in all types of projects to meet their individual needs.

GCG Associates is supported by a staff of eighteen specialized talented engineers, designers, technicians, computer programmers, construction inspectors, resident engineers, and surveyors to provide high quality products in the area of design and construction management. We have structural and geotechnical experience in the design of underground structures, tanks, retaining walls, bridges, and buildings.

Our reports are factual and to the point. We will answer the questions you want answered and, in the process, develop approaches that enable you to implement cost-effective programs. We always strive to be totally responsive to the specific needs of the client. We have the latest in computer aided design systems to produce designs accurately and efficiently. With the CIVIL 3D we can integrate surveys, aerial mapping, architectural design, and utilities into one system to produce a coordinated set of design drawings.

Our civil engineers are experienced in the study and design of water, sewer, and drainage systems, and transportation projects. We are staffed with surveyors, construction inspectors, and resident engineers who insure that the final product meets the client's needs. We have coupled our individual talents to maximize the usefulness of our product while minimizing the overall cost of our services.

GCG Associates, Inc. carries all the necessary business, liability, automobile, workers compensation, and professional liability insurance to protect our clients' interests. A sample list of projects funded by CDBG which GCG has provided engineering services for are as follows.

PROJECT TEAM



## PROJECT TEAM



MICHAEL CARTER, P.E.



JAMES COE

The project team for the project would consist of the following people supplemented by additional staff as required.

NAME	PROJECT ROLE	REGISTRATION
Michael J. Carter, P.E.	President, Project Manager	35907
James Coe	Senior Project Engineer	
Havelock Purseglove, P.L.S.	Project Surveyor	

1. *Project Administration:* Mr. Michael Carter, the owner of the company, will act as the overall coordinator of the project. Mr. Carter will be the primary contact with the Town. Mr. Carter has performed the design for numerous private development projects. The secondary contacts will be Mr. James Coe. GCG Associates always has two contract individuals to ensure quick responses to our clients should one contact person not be available. One of these individuals would attend all meetings with officials and coordination of permitting.

2. *Project Design:* Mr. Carter would be administering the project during the design phase. Mr. James Coe who has been an employee of GCG Associates for over 25 years would be the primary person for the design while using other staff engineers to assist in meeting the grant schedule.

This project team is currently working together on a variety of different type of civil engineering projects.

RESUMES





# MIKE CARTER | PROJECT MANAGER


*Registered Professional Engineer Massachusetts, New Hampshire, and Vermont.*

*Registered Professional Land Surveyor, Massachusetts*

## CONTACT



 84 Main St  
Wilmington, MA

 978 - 657 - 9714  
ext. 211

## EXPERIENCE SUMMARY

Michael Carter formed the company in 1986 and is currently president. Mr. Carter project experience includes 35 plus years of residential, commercial and municipal experience in the design of many development, infrastructure projects and wastewater treatment facilities. Some of his work is as follows. Mr. Carter has been with GCG associates since its inception and has survey as project manager on all projects contained herein and many others not listed in this proposal. Mr. Carter has been responsible for over fifty housing authority projects since 1996 which include site improvement projects, sewer projects, treatment plants, drainage improvements, and many miscellaneous projects for housing authorities in Massachusetts.

## EDUCATION



**Merrimack College**  
Bachelor of Science  
Civil Engineer Major

**Affiliations**  
ASCE, BSCE, AWWA

## PROJECT EXPERIENCE

### Chapter 40B and Residential Development:

Mr. Carter has prepared design and development packages for over 100 various types of development projects over the past 35 years. The design includes conceptual layouts, final design plans and construction documents. Offsite improvements have been included in these permitted projects.

### Peer Review:

Mr. Carter provides peer review services for 40B Projects, Subdivision Projects, and commercial developments in the Towns of Millis, Ashland and Fairhaven.

### Francis Street Reconstruction Improvement Project – Fairhaven, Massachusetts

Prepared the engineering report and drawings required for the award of the Community Development Block Grant used to fund the project. The report consisted of an evaluation the existing roadway infrastructure condition according to DHCD requirements, recommended proposed roadway infrastructure improvements, detailed construction cost estimates and schedule. After the award of the grant, the design and construction of approximately 700 linear feet of new sanitary sewer, 1,500 linear feet of new storm water drainage and 1,200 linear feet of road reconstruction. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

### Pembroke Housing Authority – Sewage Disposal System Project

Responsible for providing surveying and engineering design services for the improvements to the Pembroke Housing Authority's Kilcommon Drive Development. The scope of services included an existing conditions survey, schematic design and report, permitting with the local conservation commission, preparation of contract documents and plans, and bidding of the project. The project included the assessment of the existing on-site sewage disposal system and providing a solution to effectively upgrade the existing system with a Title V compliant subsurface septic system. The overall improvements included replacement of the existing failed septic system, construction and design of ADA compliant sidewalks, drainage system improvements, utility line relocation, pavement reclamation and reconstruction, landscaping and grading. The cost to construct the recommended site improvements was approximately \$250,000 over two separate phases.

### Sharon Housing Authority – Hixon Farm Road – Septic/Site Improvement Project

Mr. Carter provided engineering services for the design of improvements to the Hixon Farm Road Elderly Housing Authority site, which included a schematic design, preparation of contract documents and plans, bidding and construction administration of the project. The existing sewage disposal system had failed and required replacement. The design involved the approval of the proposed system from the DEP due to the size exceeding 10,000 gpd. The new sewage disposal system included the design of an innovative alternative method of treatment to meet the site restrictions. In addition to addressing the sewage disposal system failure, the entire site was redesigned to address pavement failure issues related to the roadways and sidewalks. The cost to construct the recommended improvements was approximately \$750,000.

### Avon Housing Authority – Fellowship Circle – Site Improvements

Mr. Carter provided engineering services for the design of improvements to the Fellowship Circle Elderly Housing Authority site, which included a schematic design, preparation of contract documents and plans, bidding the project. The parking areas and walkways had deteriorated to the point, which the pavement had failed and needed to be repaired. The improvements included reconstruction of all on site sidewalks, reclamation of the pavement areas including roadways and parking lots, curb replacement and design of ADA compliant walkways. The cost to construct the recommended site improvements would be approximately \$87,750.00 for sidewalks alone and \$141,200.00 for improvements to the roadway and parking areas.

### Bellingham Housing Authority – Wrentham Manor

Responsible for engineering services for the review of design of site improvements for the Wrentham Manor Development, which included the final design, preparation of contract documents and plans, and bidding the project. The project included roadway and parking area overlay paving, sidewalk reconstruction, and modification of building down spouts to alleviate drainage issues, and construction of concrete pads and cedar fence enclosures for trash receptacles.

### Boston Housing Authority – Trip Hazard Project

Mr. Carter provided engineering services in 2007-2010 for the design of improvements to the seven different Boston Housing Authority sites, which included a schematic design, preparation of contract documents and plans, bidding the project. The project included the assessment of existing tripping hazards at each site and providing a solution to eliminate the hazard. The improvements included reconstruction of onsite sidewalks, reclamation of the pavement areas including roadways and parking lots, curb replacement, railing replacements, and design of ADA compliant walkways. The cost to construct the recommended site improvements is approximately \$1,900,000.

***Mr. Carter concurrently provided engineering services in 2011-2013 for the design of improvements to an authority wide Tripping Hazards project which included five major developments and twenty-two scattered sites throughout the BHA. Design for these sites included similar responsibilities and additionally provided assessment and design for ornamental and landscaping features on all various sites.***

#### Boston Housing Authority – Groveland Drainage Improvement Project

Mr. Carter provided engineering services for the design of site improvements to the Groveland Development, which included a schematic design, preparation of contract documents and plans, bidding the project. The project involved addressing drainage and grading issue at the site. The cost to construct the recommended site improvements is approximately \$30,000.

#### Boston Housing Authority – MLD Development and Holgate Development

Mr. Carter provided engineering services for the design of parking lot improvements to the MLK development and the Holgate development, which included a schematic design, preparation of contract documents and plans, bidding the project. The project involved addressing designing parking lot improvements and addressing drainage issues. The parking lots were reclaimed, paved, drainage was added as deemed necessary and handicap access and parking was provided in compliance with ADA and MAAB requirements. The cost to construct the recommended site improvements is approximately \$90,000.

#### New Bedford Housing Authority – Sidewalk Improvement Project

Mr. Carter provided engineering services for the design of improvements to two site for the new Bedford Housing Authority, which included a schematic design, preparation of contract documents and plans, bidding and construction administration of the project. The project involved design of replacement sidewalks, stairs, and railings for the two sites. The cost to construct the recommended improvements was approximately \$750,000.

#### Braintree Housing Authority – Heritage Lane – Site Improvement And Drainage/Sump Pump Project

Mr. Carter provided engineering services for the design of improvements to the Heritage Lane Elderly Housing Authority site, which included a schematic design, preparation of contract documents and plans, bidding and construction administration of the project. The first phase of the project included a study to evaluate the conditions of the existing drainage system pipes and issues regarding water in the crawl spaces. The recommendations from the study involved replacing some parts of the underground drainage system and installing sump pumps with underdrains in the crawl spaces. The project was designed to address these drainage issues and eliminate the water issues in the basements. The underdrains and sump pumps collected the water in the basements and discharged into the existing drainage system. The cost to construct the recommended improvements was approximately \$135,000.

#### Chelsea Housing Authority – Site Improvements

Responsible for providing engineering services for the design of improvements to the Prattville Apartments Development, owned and operated by the Chelsea Housing Authority. The scope of work included a schematic design, schematic report, preparation of contract documents and plans, and bidding of the project. The project included the assessment of existing tripping hazards and providing a solution to eliminate the hazards throughout the development. The improvements included reconstruction of onsite sidewalks, reclamation of the pavement areas including roadways and parking lots, curb replacement, railing replacements, rehabilitation of onsite stairways and walls, grading, landscaping and the design of ADA compliant walkways. The cost to construct the recommended site improvements was approximately \$200,000.

#### Cohasset Housing Authority – Harborview Walkway And Deck Repair

Responsible for engineering services for the design of walkway and deck repairs for the Harborview Development, which included design, preparation of contract documents, and bidding the project. The project included removal of existing wood decking, installation of new cellular PVC decking, replacement of joists, and other incidental work. The cost to construct the recommended site improvements was \$10,000.



### Gloucester Housing Authority – Roadway Improvements

Responsible for providing engineering services for the design of improvements to two sites for the Gloucester Housing Authority, which included a schematic design, schematic report, preparation of contract documents and plans, bidding and construction administration of the project. The project included the assessment of existing driveways and parking facilities and providing a solution to reconstruct the drive areas throughout each development. The improvements included reconstruction of onsite sidewalks, reclamation of the pavement areas including roadways and parking areas, curb replacement, rehabilitation of onsite stairways and walls, grading, landscaping and the design of ADA compliant walkways. The cost to construct the recommended site improvements was approximately \$260,000.

### Medford Housing Authority – Site Improvement / Trip Hazard Project

Responsible for providing engineering services for the design of improvements to the La Prise Village site, owned and operated by the City of Medford Housing Authority. The scope of work included a schematic design, schematic report, preparation of contract documents and plans, and bidding of the project. The project included the assessment of existing tripping hazards and providing a solution to eliminate the hazards throughout the development. The improvements included reconstruction of onsite sidewalks, reclamation of the pavement areas including roadways and parking lots, curb replacement, railing replacements, bulkhead replacements, rehabilitation of onsite stairways and walls, rehabilitation of the onsite maintenance facility, grading, landscaping and the design of ADA compliant walkways. The cost to construct the recommended site improvements was approximately \$1,500,000.

### Salem Housing Authority – Rainbow Terrace – Drainage/Sump Pump Project

Mr. Carter provided engineering services for the design of improvements to the Rainbow Terrace Family Housing Authority site, which included a schematic design, preparation of contract documents and plans, bidding and construction administration of the project. The existing site is flat and drainage created flooding in basements. The basements flooded on a regular basis and were used by the residents of the site. The design involved reconstructed the basement floors with a sloped concrete floor, which would direct any flooding toward the underdrain systems installed under the floor. A sump pump was installed in the basement, which pumped the water away from the buildings and connected to the existing drainage system. The grades around the outside of the building were modified to create a positive drainage situation so water flowed away from the buildings from the roof gutters. The cost to construct the recommended improvements was approximately \$410,000.

### Somerville Housing Authority – Site And Roadway Improvements

Responsible for providing engineering services for the design of improvements to Clarendon Hill Development for the Somerville Housing Authority, which included a schematic design, schematic report, preparation of contract documents and plans, bidding and construction administration of the project. The project included the assessment of existing driveway and parking facilities and providing a solution to reconstruct the drive areas throughout each development. Mr. Silva provided the Somerville Housing Authority with alternative designs to reconstruct the existing main driveway entrance. The improvements included reconstruction of onsite sidewalks, reclamation of the pavement areas including roadways and parking areas, curb replacement, rehabilitation of onsite stairways and walls, grading, landscaping and the design of ADA compliant walkways. The cost to construct the recommended site improvements was approximately \$260,000.

### Wilmington Housing Authority – Virginia Road – Septic Replacement

Mr. Carter provided engineering services for the design of the sewage disposal system replacement to three of the existing single-family homes located on Virginia Road. The designs included a schematic design, preparation of contract documents and plans, bidding and construction administration of the project. The existing septic system field had failed and required pumping on a regular basis. GCG performed soil testing, and design of the replacement system through three separate projects over a period of five years. The cost to construct the recommended improvements was approximately \$40,000 per site.

## Water Main and Infrastructure Improvements — Clinton, Ma

Responsible for the design of the full depth reconstruction of 1,500 linear feet of Grove Street in the Town of Clinton, MA. The project required modification of a portion of the vertical alignment of the existing roadway to improve drainage on the roadway, drainage structure improvements, water main replacement, and improvement of safety features of the roadway. Existing guard rails were removed and replaced. Closed drainage systems were evaluated and repaired or reconstructed to ensure proper operation. Portions of the existing water system were also replaced. Project responsibilities include existing conditions topographic survey, design plan preparation, permitting through the local Conservation Commission, and the Department of Environmental Protection, and preparation of contract documents to be used in the public bid process.

## Sewer Projects -- Millis, Ma

Responsible for the design of 16,000 feet of gravity sewer for the extension of sewer system in Town areas A, B, and E. Mr. Carter was in charge of the design of the sewers and pumping stations. Developed plans and specifications for bidding the project. Rerouted existing sewage flows to alleviate excess flows entering an over taxed sewage pump station.

## Sewer Project — Billerica, Ma

Responsible for the construction of 8 miles of gravity sewer in Billerica, MA, with several wetlands crossings. Mr. Carter was in charge of the resident inspection staff and construction managers. The construction administration responsibilities included observing day to day construction to assure contract document requirements are met. Overall planning of the construction process and procedures were Mr. Carter's responsibilities, also.

## Sewer Projects — Rochester, NH

Responsible for the design of over 15 miles of sewers, 12 pumping stations (50 gpm to 2300 gpm) for the City of Rochester. Prepared contract documents and specifications for each of the 14 projects over a 5-year period. Assisted the City in bidding the projects and construction.

## Roadway Improvements, Green Street – Fairhaven, Massachusetts

Responsible for preparation of engineering plans and profiles, design of approximately 660 linear feet of new gravity sewer, approximately 700 linear feet of closed drainage systems, and 1,000 linear feet of road and associated sidewalk reconstruction, including a segment of horizontal realignment, for the Town of Fairhaven.

## Union Street Roadway — Hanover, Ma

Responsible for the design of the full depth reconstruction of 5300 feet of Union Street and 3600 feet of Pleasant Street in Hanover, MA. The project involved vertical and horizontal realignment of the streets to improve safety features. Design of closed drainage systems for roads, cross-sections, water main design, sidewalk, and curbing. Intersection improvements at various cross streets.

## Millbrook Roadway Project — Wayland, Ma

Responsible for the design of the full depth reconstruction of 2600 feet of Millbrook Road in Wayland, MA. The project involved vertical and horizontal realignment of Millbrook Road to improve safety features. Design of closed drainage systems, cross-sections, removal of railroad crossing, Glen Road intersection improvements, and curbing. Permitting for wetlands, and flood plain crossing.

## Infrastructure — Orange, Ma

Design and Construction services for the South Main Street Sewer project, Orange, MA, which included the design of 1600 linear feet of 15" gravity sewer and 2400 linear feet of 12" water main relay. The project required the development of contract documents and full-time inspection services.

#### Drainage Improvements, Various Streets — Lexington, Ma

Responsible for the design of the drainage improvements along approximately 700 feet of Frances Road, 1,800 feet of Shade Street, and 100 feet of Walnut Street in Lexington, MA. The project required preliminary design of modification of a portion of the vertical alignment of the existing roadways to improve drainage on the roadway, final design of drainage improvements involving remodeling of existing drainage structures, removal of existing drainage structures and drainage pipe, installation of new drainage structures and drainage piping, utility test pits, utility relocation as required, temporary and permanent trench paving, and installation of erosion controls. Project responsibilities include existing conditions plan preparation, design plan preparation, and preparation of contract documents to be used in the public bid process.

#### Utilities And Reconstruction, Ashcroft Road — Medford, Ma

Responsible for the design of the full depth reconstruction of 1,800 linear feet of roadway of Ashcroft Road in the City of Medford, MA. The project required adjustments to the vertical roadway alignments in order to eliminate drainage issues, ADA sidewalk compliance issues, and to provide an adequate curb reveal. Existing sidewalks were removed and replaced with ADA and MAAB compliant sidewalks and curb cut ramps. Closed drainage systems and sewer systems were evaluated and repaired or reconstructed to ensure proper operation.

Portions of the existing water system were also replaced. Project responsibilities include sign plan preparation, generation of construction specifications and project coordination with the City.

#### Bow Street Sewer Project — Millis, Ma

Design and construction services for the Bow Street sewer Project, Millis, MA, which included the design of 2400 linear feet of 8" gravity sewer. Design plans were prepared with construction details to allow the proper connection to existing sewer facilities. Easement negotiations were required with several property owners.

#### Farm Street Sewer Project — Millis, Ma

Project Manager for the 13,000 linear feet Farm Street Sewer Project (8", 10", and 12"), Millis, MA. Responsibilities included design coordination, bidding coordination and award. Throughout the construction process biweekly meetings were held to assist in the planning of the project and to troubleshoot any problems associated with local residents.

#### Harvard Water Supply

The Harvard water supply and distribution system project consisted of the design of 100 gpm private bedrock well with 400 feet of feeder main to the proposed pump house which in turn controls and distributes water to approximately 2000 feet of ductile iron distribution. Design services included the preparation of contract plans, contract documents and specifications for the submersible well pump assembly with controls, hydro pneumatic storage tanks and associated pipes, valves and appurtenances located in the pump house; also sized and laid out all the water distribution facilities and obtained all necessary permits.

#### Rochester Neck Road

Responsible for the design of the Rochester Neck Road Reconstruction project. The project consisted of improving the geometric layout and profile of the existing road, extending the water and sewer system, utility relocations, drainage improvements, widening of a state highway to allow for turning lanes, and preparing specifications.

#### Whitehall Road Grade Crossing — Rochester, Ma

Responsible for the design of the Whitehall Road Grade Crossing project for the City of Rochester. The project consisted of demolition of an existing bridge, reconstruction of Whitehall Road and other side streets, design of a new road profile, relocation of a stream, drainage design, and grade crossing with Boston & Maine Railroad preparation of construction drawings and specifications.

#### Centennial Park — Peabody, Ma

Project responsibility for the design of infrastructure, utilities, landscaping, and roadway improvements for an abandoned section of Route 128 in Peabody, MA. Work included the sizing, design and layout of water, sewers, drains, electrical, gas, cable, and alarm systems; street lighting; landscaping improvements; and roadway reconstruction.

#### Route 38 Water Main Project — Tewksbury, Ma

Design of water system improvements for the Town of Tewksbury, MA. The project involved the design of 16,000 feet of 20-inch transmission main within a state highway right of way (Route 38); cross connections to existing system, river crossing, evaluation of existing water system, Army Corp permits, wetlands permit and State DPW permit. It also involved preparing contract documents and construction drawings for the improvements. Provided construction administration services including, bidding, evaluation of bids, review of payment requisitions, weekly meetings, and coordination of project scheduling.

#### Uxbridge Water System — Uxbridge, Ma

Project responsibilities for the design of a High Service Area in Uxbridge Massachusetts, which consisted of the design of a 1500 GPM booster pump station and distribution system which included approximately 8000 feet of 12 inch water main and appurtenances with a future connection for a 1 MG elevated storage tank. The design also included a standby generator, controls, instrumentation and the pump station building Uxbridge Water Supply, Uxbridge, Massachusetts: Design and project management of a Phase I feasibility study for the development of a 1500 gpm water supply. Responsibilities included the preliminary design of the 4-pump water supply system with 250,000-gallon storage facility, preliminary layout of 7700 feet of 14-inch ductile iron water main and coordination with the Mass. Water Management Act.

#### Common Street Bridge Crossing — Walpole, Ma

Design of water system improvements for the Town of Walpole, MA. Project involved design of a 12-inch water main crossing the Common Street Bridge, connection of the water main to the existing bridge, structural evaluation and rating of the bridge, obtaining state permits or placement of water main on state owned bridge.

#### Dennis Housing Authority – Sewage Disposal System Project

Responsible for providing surveying and engineering design services for the improvements to the Dennis Housing Authority's Center Street Development. The scope of services included an existing conditions survey, schematic design and report, permitting with the local conservation commission, preparation of contract documents and plans, and bidding of the project. The project included the assessment of the existing on-site sewage disposal system and providing a solution to effectively upgrade the existing system with a Title V compliant subsurface septic system. The overall improvements included replacement of the existing failed septic system, construction and design of ADA compliant sidewalks, drainage system improvements, utility line relocation, landscaping and grading. Mr. Carter has designed three separate sewage disposal system projects for the Dennis Housing Authority at their various sites.



# JAMES COE |

SENIOR DESIGNER

## CONTACT



84 Main St  
Wilmington, MA

978 - 657 - 9714  
ext. 203

## EXPERIENCE SUMMARY

James Coe has been with GCG Associates, Inc. for over 25 years. Prior to joining GCG Associates, Inc., Mr. Coe was a Roadway and Utility Superintendent with over 10 years construction experience and was responsible for the construction a number of subdivision and utility projects. His responsibilities included daily scheduling of materials and workers, coordination of subcontractors, survey and operating heavy equipment as needed. Since joining GCG Associates, Inc. in 1993, Mr. Coe has had the opportunity to become involved in a significant amount of municipal and private projects. Project experience includes design, survey, administration, construction, and rehabilitation of pump stations, sanitary sewers, water systems, drainage systems, stormwater management facilities, site grading, road and sidewalk construction and reconstruction. Many projects require the preparation of feasibility studies, master plans, budget and construction estimates, assembly of contract documents, which consist of specifications and plans for public bidding and construction. Mr. Coe has gained a significant amount of experience working on projects with Municipalities, State Housing Authorities and the Department of Housing and Community Development (DHCD) from the design through the construction.

## PROJECT EXPERIENCE

### Green Street Roadway Improvement Project –Phase I – Fairhaven, Massachusetts

Design and reconstruction of approximately 1,200 feet of a section of Green Street in Fairhaven, MA. The project involved vertical and horizontal realignment of the streets to ensure proper surface drainage and improve safety features. The project consisted of the design of closed drainage systems, pavement design, curbing, cross-sections and construction details, design of ADA compliant sidewalks, and landscaping. The scope of work also required the improvement to various intersections at multiple cross streets. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

### Francis Street Reconstruction Improvement Project – Fairhaven, Massachusetts

Prepared the engineering report and drawings required for the award of the Community Development Block Grant used to fund the project. The report consisted of an evaluation the existing roadway infrastructure condition according to DHCD requirements, recommended proposed roadway infrastructure improvements, detailed construction cost estimates and schedule. After the award of the grant, the design and construction of approximately 700 linear feet of new sanitary sewer, 1,500 linear feet of new storm water drainage and 1,200 linear feet of road reconstruction. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

#### Park Street and Sproat Street Reconstruction Improvement Project – Middleborough, Massachusetts

Prepared the engineering report and drawings required for the award of the Community Development Block Grant used to fund the project. The report consisted of an evaluation the existing roadway infrastructure condition according to DHCD requirements, recommended proposed roadway infrastructure improvements, detailed construction cost estimates and schedule. After the award of the grant, the design and construction of approximately 400 linear feet of road reconstruction for the Town of Middleborough. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/ construction conflicts.

#### Elliot Lane Reconstruction Improvement Project – Fairhaven, Massachusetts

Prepared the engineering report and drawings required for the award of the Community Development Block Grant used to fund the project. The report consisted of an evaluation the existing roadway infrastructure condition according to DHCD requirements, recommended proposed roadway infrastructure improvements, detailed construction cost estimates and schedule. After the award of the grant, the design and construction of approximately 200 linear feet of water main and 200 linear feet of road reconstruction for the Town of Fairhaven. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design construction conflicts.

#### Main Street and Park Avenue Reconstruction Improvement Project – Fairhaven, Massachusetts

Prepared the engineering report and drawings required for the award of the Community Development Block Grant used to fund the project. The report consisted of an evaluation the existing roadway infrastructure condition according to DHCD requirements, recommended proposed roadway infrastructure improvements, detailed construction cost estimates and schedule. After the award of the grant, the design and construction of approximately 400 linear feet of sanitary sewer, 400 linear feet of water main and 1,000 linear feet of road reconstruction for the Town of Fairhaven. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

#### Fort Street Roadway Improvement Project– Fairhaven, Massachusetts

Design and reconstruction of approximately 2,200 feet of full depth reconstruction of Fort Street in Fairhaven, MA. The project involved vertical and horizontal realignment of the streets to ensure proper surface drainage and improve safety features. The project consisted of the design of closed drainage systems, pavement design, curbing, cross-sections and construction details, design of ADA compliant sidewalks, and landscaping. The scope of work also required the improvement to various intersections at multiple cross streets. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

#### Spring Street Reconstruction Improvement Project – Fairhaven, Massachusetts

Prepared the engineering report and drawings required for the award of the Community Development Block Grant used to fund the project. The report consisted of an evaluation the existing roadway infrastructure condition according to DHCD requirements, recommended proposed roadway infrastructure improvements, detailed construction cost estimates and schedule. After the award of the grant, the design and construction of approximately 800 linear feet of new sanitary sewer, 1,100 linear feet of new storm water drainage and 1,000 linear feet of road reconstruction. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

#### Green Street Reconstruction Improvement Project – Fairhaven, Massachusetts

Prepared the engineering report and drawings required for the award of the Community Development Block Grant used to fund the project. The report consisted of an evaluation the existing roadway infrastructure condition according to DHCD requirements, recommended proposed roadway infrastructure improvements, detailed construction cost estimates and schedule. After the award of the grant, the design and construction of approximately 1,000 linear feet of new storm water drainage and 1,000 linear feet of road reconstruction. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

#### Main Street Reconstruction Improvement Project – Fairhaven, Massachusetts

Prepared the engineering report and drawings required for the award of the Community Development Block Grant used to fund the project. The report consisted of an evaluation the existing roadway infrastructure condition according to DHCD requirements, recommended proposed roadway infrastructure improvements, detailed construction cost estimates and schedule. After the award of the grant, the design and construction of approximately 500 linear feet of new storm water drainage and 1000 linear feet of road reconstruction for the Town of Fairhaven. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

#### Middle Street Phase 1 and 2 Reconstruction Improvement Project – Fairhaven, Massachusetts

Prepared the engineering reports and drawings required for the award of the Community Development Block Grants used to fund the projects. The report consisted of an evaluation the existing roadway infrastructure condition according to DHCD requirements, recommended proposed roadway infrastructure improvements, detailed construction cost estimates and schedule. After the award of the grant, the design and construction of approximately 1,000 linear feet of new water main, 1,100 linear feet of new stormwater drainage and 2,500 linear feet of road reconstruction for the Town of Fairhaven. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

### Bridge Street Reconstruction Improvement Project – Fairhaven, Massachusetts

Design and construction of approximately 1,000 linear feet of new stormwater drainage and 1,200 linear feet of road reconstruction for the Town of Fairhaven. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of construction activities to insure conformance

with the plans and specifications, and resolution of design/construction conflicts. Acorn

### Street Roadway Improvement Project – Millis, Massachusetts

Design and construction of approximately 2,000 linear feet of new stormwater drainage and 6,000 linear feet of road reconstruction for the Town of Millis. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

### Spring and Main Street Sewer Extension Project – Millis, Massachusetts

Design and construction of approximately 12,500 linear feet of new gravity sewer and 3,000 linear feet of road reconstruction for the Town of Millis. Project responsibility included initial ground survey, preparation of engineering drawings, sewer pump station plans and profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

### Massachusetts Avenue – Lexington, Massachusetts

Construction administration and observation for three separate contracts for sidewalk improvements on Massachusetts Ave from Clark Street to Waltham Street. Two of the projects involved removal and replacement of the existing concrete sidewalks with brick sidewalks and the third project was the replacement of concrete sidewalks and some minor drainage improvements to address flooding along Massachusetts Avenue and was responsible for observing construction, making field changes to comply with ADA requirements and processing pay requisitions.

### NStar Parking Lot Project – Lexington, Massachusetts

Design and construction of a 35-space parking lot for the Town of Lexington Engineering Department. Project responsibility included initial ground survey, preparation of engineering drawings, drainage plans and profiles and construction details, preparation of the construction cost estimates, specifications, and the resident engineer for the construction of the project. Responsibilities included providing part time construction inspection, maintaining a daily log of contract items, oversight of construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

### Lewis Street Neighborhood Roadway Improvement Project– Franklin, Massachusetts

Design and reconstruction of approximately of 5,000 feet of roadway on six streets in Franklin, MA. The project involved vertical and horizontal realignment of the streets to ensure proper surface drainage and improve safety features. The project consisted of the design of closed drainage systems, pavement design, curbing, cross-sections and construction details, design of ADA compliant sidewalks, and landscaping. The scope of work also required the improvement to various intersections at multiple cross streets. Project responsibility included initial ground survey, preparation of engineering drawings, profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.



### Forest Road Water Main Extension Project – Millis, Massachusetts

Design for the for the full depth reconstruction of 3,500 feet of Forest Road in Millis, MA. The project involved vertical and horizontal realignment of the streets to improve safety features and ensure proper surface drainage. The project involved the rehabilitation of existing drainage structures, replacement and the extension of an existing water main, cross-sections, construction details, and curbing. Responsibilities included providing part time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

### Area E Sewer Extension Project – Millis, Massachusetts

Design and construction of approximately 15,000 linear feet of new gravity sewer, 2,500 linear feet of water main replacement and road reconstruction for the Town of Millis. Project responsibility included initial ground survey, preparation of engineering drawings, sewer plans and profiles and construction details, preparation of the construction cost estimates, specifications and was the resident engineer for the construction of the project. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

### Clyde Brown School Parking Lot Project – Millis, Massachusetts

Design and construction of a 90-space parking lot for the Town of Millis DPW. Project responsibilities included initial ground survey, preparation of engineering drawings, drainage plans and profiles and construction details, preparation of the construction cost estimates and specifications and was the resident engineer for the construction of the project. Responsibilities included providing part time construction observation, maintaining a daily log of contract items, oversight of construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

### Resident Engineer – Wrentham, Massachusetts

Served as the Resident Engineer for the Town of Wrentham for a water main replacement and road reconstruction project. The project required the removal and replacement of approximately 7,000 linear feet of water main. Responsibilities included providing full time construction observation, Responsibilities included: oversight of construction activities to insure conformance with the plans and specifications, resolution of design/construction conflicts, served as the Town liaison between area residents and public officials, and overseeing the testing of utilities and roadway construction.

### Resident Engineer – Ashland, Massachusetts

Served as a resident engineer for the construction of water, sewer and drainage utilities and road construction in the Town of Ashland. This work consisted of monitoring the construction of ongoing residential subdivisions and associated off-site improvements at different stages of construction for the Planning Board and DPW. Responsibilities include: oversight of construction activities to insure conformance with the plans and specifications, resolution of design/ construction conflicts, served as the Town liaison between area residents and public officials, and overseeing the testing of utilities and roadway construction.

### Resident Engineer – Ashland, Massachusetts

Served as the Resident Engineer for the Town of Ashland for a sewer extension project. The project required the installation of approximately 30,000 linear feet of sewer main and 15,000 linear feet of water main replacement. Responsibilities included providing full time construction observation, Responsibilities included: oversight of everyday construction activities to insure conformance with the plans and specifications, resolution of design/construction conflicts, served as the Town liaison between area residents and public officials, and overseeing the testing of utilities and roadway construction.

#### Resident Representative – Billerica, Massachusetts

Served as a Construction Inspector for the construction of approximately 30,000 linear feet of new gravity sewer for the Town of Billerica. Responsibilities included: oversight of everyday construction activities to insure conformance with the plans and specifications, resolution of design/construction conflicts, served as the Town liaison between area residents and public officials, and overseeing the testing of utilities and roadway construction.

#### Resident Engineer – Millis, Massachusetts

Resident Engineer for the construction of approximately 3,000 linear feet of water main replacement and road reconstruction for the Town of Millis. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of construction activities to insure conformance with the plans and specifications, and resolution of design/construction conflicts.

#### Resident Engineer – Millis, Massachusetts

Resident Engineer for the construction of approximately 6,000 linear feet of water main replacement for the Town of Millis. Responsibilities included providing full time construction observation, maintaining a daily log of contract items, oversight of everyday construction activities to insure conformance with the plans and specifications, and resolution of design/ construction conflicts.

