

PHASE I - ENVIRONMENTAL SITE ASSESSMENT

Mattabassett Regionalization Project Middletown Sewage Pumping Station and Force Main Proposed Force Main Corridor Middletown and Cromwell, Connecticut

Prepared for:

City of Middletown
82 Berlin Street
Middletown, Connecticut 06457

Prepared by:



Maguire Group Inc.
2080 Silas Deane Highway
Rocky Hill, Connecticut 06067

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TABLE OF CONTENTS

	Page Number
1.0 INTRODUCTION.....	1
1.1 Purpose and Scope.....	1
2.0 SITE LOCATION AND DESCRIPTION.....	3
2.1 Site Location and Description.....	3
2.2 Environmental Setting.....	4
2.2.1 Hydrology.....	4
2.2.2 Geology.....	6
3.0 SITE HISTORY.....	8
3.1 Existing and Former Land Use.....	8
3.2 Sanborn Fire Insurance Maps.....	9
3.3 Historical Topographic Maps.....	9
3.4 Historical City Directories.....	10
3.5 Aerial Photography.....	10
4.0 REGULATORY FILE SEARCH.....	11
5.0 INITIAL SITE SURVEY.....	16
6.0 PRELIMINARY CONCEPTUAL SITE MODEL.....	17
7.0 CONCLUSIONS AND RECOMMENDATIONS.....	17
8.0 LIMITATIONS.....	18

FIGURES

Figure 1 - Location Plan.....	2
Figures 2 to 13 – Phase I Environmental Site Assessment – Site Plan	

TABLES

Table 1 – Site Assessment Corridor Property Information	
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APPENDICES

APPENDIX A – Initial Site Survey Photos

APPENDIX B – CTDEEP Information, EDR Reports, City Directories, Sanborn, USGS and Aerial Topography Maps (Volumes 2, 3 and 4)

1.0 INTRODUCTION

Maguire Group Inc. (Maguire) has been retained by the City of Middletown to prepare a Phase I Environmental Site Assessment (ESA) of the proposed Force Main Corridor as part of the Mattabassett Regionalization Project – Middletown Sewage Pumping Station and Force Main Project. The proposed Force Main Corridor starts at the existing Sewage Treatment Plant located on River Road in Middletown, Connecticut and continues north along the Route 9 and railroad Right of Ways (ROWs) and ends at the Mattabassett District Treatment Plant located at 245 Main Street in Cromwell, Connecticut (See Figure 1 – Force Main Corridor Location Plan).

1.1 Purpose and Scope

The purpose of the Phase I ESA is to assess the relative environmental risk associated with current and former land uses in the vicinity of proposed Force Main Corridor, and to determine the need for further evaluation. The environmental risks pertain to the potential presence of hazardous substances or other contaminated materials within the site assessment corridor and potential impacts to proposed construction.

The Phase I ESA has been prepared in accordance with ASTM E 1527-05 Standard Practice for Environmental Site Assessments: Phase I ESA Process and the Connecticut Department of Energy and Environmental Protection (CTDEEP) Site Characterization Guidance Document (SCGD).

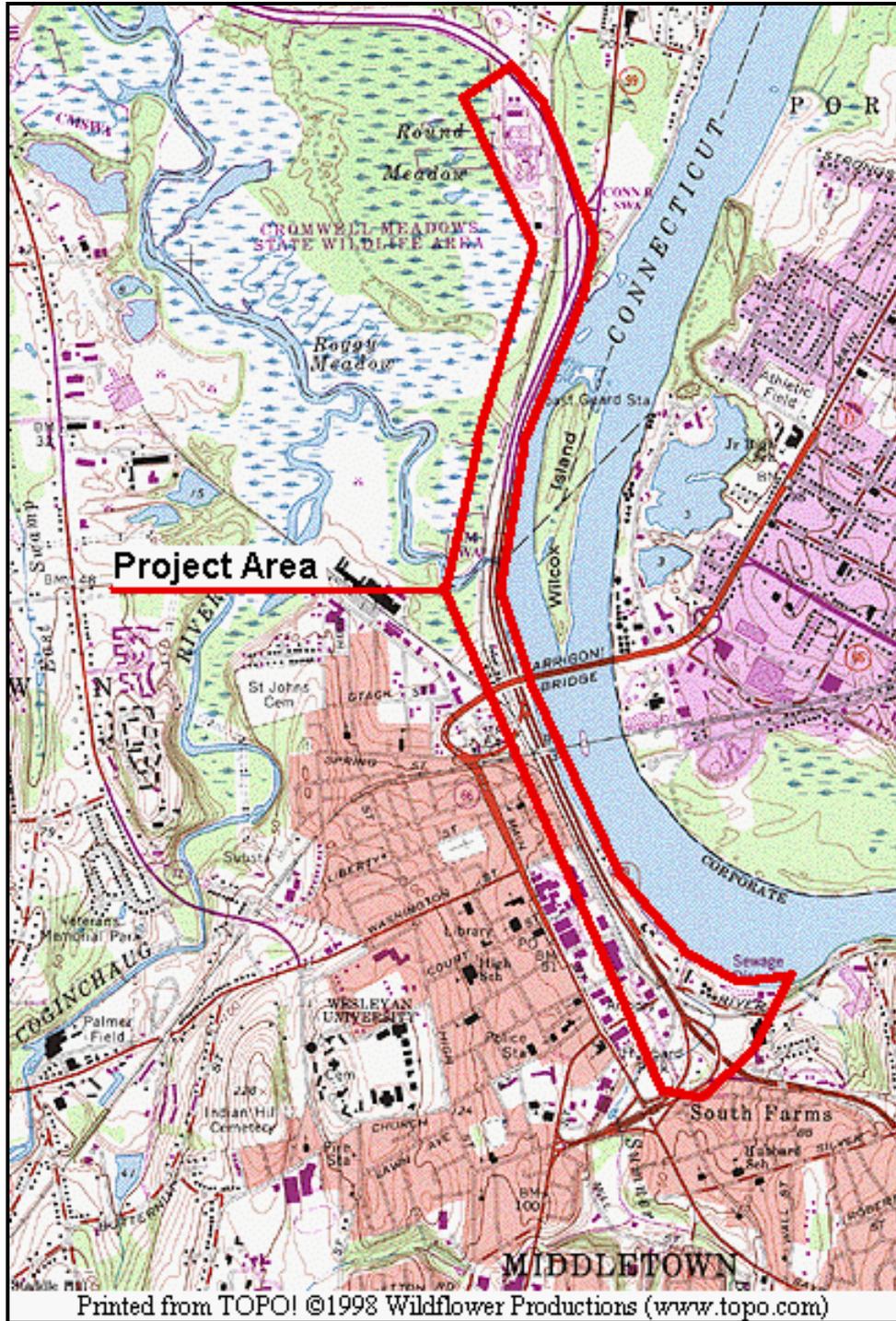


FIGURE 1 – LOCATION PLAN
Proposed Force Main Corridor
Middletown and Cromwell, Connecticut

2.0 SITE LOCATION AND DESCRIPTION

2.1 Site Location and Description

As part of the Mattabassett Regionalization Project, a gravity sewer is proposed to be constructed from the existing treatment plant on River Road to the proposed pump station at 34 East Main Street in Middletown and then a force main will be constructed from the pump station to the Mattabassett District Wastewater Treatment Plant (WWTP) in Cromwell. Several alignments for the proposed force main are being considered within DeKoven Drive and the railroad and Route 9 right of ways (ROWs). The exact alignment has yet to be determined as of the writing of this report. The corridor of land encompassed by this study extends to those properties abutting the proposed force main corridor as shown on Figures 2 through 13 at the end of this report.

The majority of the site assessment corridor is located in Middletown with a small portion of the corridor located in Cromwell. The Connecticut River runs parallel to the eastern boundary of the site assessment corridor and the Mattabesset River, also known as the Sebethe River, crosses the site assessment corridor north of the Arrigoni Bridge, which connects Middletown and Portland. The Mattabesset River forms the boundary between Middletown and Cromwell and the Cromwell Meadows State Wildlife Area, a 455-acre wildlife preserve, is located at the town boundary. State Route 9 and the Providence and Worcester Railroad, formerly the Connecticut Central Railroad, are located within the site assessment corridor and follow the Connecticut River through Middletown into Cromwell. The southern portion of the site assessment corridor lies in the urban center of Middletown, which is largely a mixture of industrial and commercial areas with some smaller residential areas. The site assessment corridor then leaves the urban area and enters the transportation corridor along State Route 9 and the railroad. Industrial and commercial uses and open space surround State Route 9 and the railroad in this area of the site assessment corridor. In the northern portion of the site assessment corridor, a large undeveloped natural area exists to the west and the Connecticut River lies to the east of State Route 9 and the railroad.

2.2 Environmental Setting

2.2.1 Hydrology

The CTDEEP's "Water Quality Classifications Map," dated February 25, 2011 for Middletown, Connecticut depicts the groundwater quality within the site assessment corridor south of the Mattabesset River in Middletown as Class "GB." The "GB" groundwater classification indicates that the groundwater is within an urbanized area of intense industrial activity where a public water supply source is available. The groundwater may not be suitable for human consumption due to waste discharges, spills or leaks of chemicals, or land use impacts. North of the Mattabesset River in the Round and Boggy Meadows, the groundwater has a classification of "GA." The "GA" groundwater classification indicates that groundwater is designated for existing private and potential public or private supplies of water suitable for drinking without treatment and is the baseflow for hydraulically connected surface water bodies. According to the CTDEEP map, the groundwater around the Mattabessett WWTP is classified "GB."

The majority of the site assessment corridor is located within the Connecticut River and Sumner Brook Drainage Basins within the Connecticut Main Stem Regional Drainage Basin within the Connecticut Major Drainage Basin. The portion of the site assessment corridor north of the Mattabesset River is located within the Mattabesset River Drainage Basin within the Mattabesset Regional Drainage Basin within the Connecticut Major Drainage Basin. Four (4) surface water bodies, Sumner Brook, Connecticut River, Mattabesset River and an unnamed stream, are located within the site assessment corridor.

Sumner Brook is located in the southern portion of the site assessment corridor, north of the proposed pump station site. Sumner Brook is classified a Class "B" surface water body according to the CTDEEP's "Water Quality Classifications Map", dated February

25, 2011 for Middletown, Connecticut. The Class “B” designation indicates that the surface water quality does not meet water quality criteria for one or more of the following uses: recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation.

The Connecticut River is located adjacent to the eastern boundary of the site assessment corridor and is classified a Class “SB” surface water body by CTDEEP. The Class “SB” designation indicates that the surface water quality is known to be tidally influenced and does not meet water quality criteria for one or more of the following uses: recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation.

The Mattabeset River is located within the northern portion of the site assessment corridor adjacent to Boggy and Round Meadows. The Mattabeset River is classified a Class “B” surface water body according to the CTDEEP’s “Water Quality Classifications Map,” dated February 25, 2011 for Middletown, Connecticut. The Class “B” designation indicates that the surface water quality does not meet water quality criteria for one or more of the following uses: recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation.

The unnamed stream is located in the northern portion of the site assessment corridor and flows from Cromwell Pond into the Mattabeset River. The unnamed stream is classified a Class “A” surface water body by the CTDEEP. The Class “A” designation indicates that the surface water quality meets water quality criteria for the following uses: potential drinking water supply, fish and wildlife habitat, recreational use, agricultural and industrial supply and other legitimate uses including navigation.

There are a number of floodplain areas located within the project area that are associated

with the Connecticut River to varying degrees. In the southern portion of the project area, the 100-year floodplain is located adjacent to the existing Middletown River Road sewage treatment plant. There are no floodplains within the DeKoven Drive section of the site assessment corridor. North of the Arrigoni Bridge, there are floodplains associated with the Connecticut and Mattabeset Rivers within the project area.

2.2.2 Geology

Topography within the site assessment corridor is characterized by urban areas, large floodplains and steep man-made banks. In the built portions of the project area, extensive manipulation of the original topographic features has occurred, including excavation and filling. The ROW of both Route 9 and the railroad line have been extensively filled within the Connecticut River Floodplain in the past. As a result steep banks exist along both Route 9 and the railroad corridor. Elevations vary little within the project area from approximately 20 feet to 25 feet from south to north, respectively.

The CTDEEP's "Surficial Materials Map" for Middletown indicates that the soils underlying the Site are postglacial deposits composed of Alluvium overlying undifferentiated Coarse deposits consisting of sand and gravel and Artificial Fill. The Bedrock Geological Map of Connecticut, compiled by John Rodgers in 1985, indicates that the bedrock unit underlying the Site is the Portland Arkose, which is described as a reddish-brown arkose (brownstone). The Soil Survey of Middlesex County, Connecticut (February 1979) indicates that the majority of the land surrounding Route 9 and the railroad is Urban Land. North of this Urban Land soil unit, the soil is a Udorthents-Urban Land Complex. Farther north the soils include the Rumney (Rippowam), Podunk (Pootatuck), Saco, and Sudbury Soil Series. To the west, the Cromwell Meadows State Wildlife Area is predominately the Carlisle Muck Soil Series.

Urban Land consists of mainly buildings, paved roads and parking lots. Udorthents-Urban Land Complexes include soils that have been disturbed by cutting or filling and areas that are covered by buildings and pavement. This soil is composed of 60%

Udorthents, 30% Urban Land, and 10% other soils. The complex is a predominately coarse textured soil material that is moderately well to excessively drained.

Rumney and Podunk fine sandy loams are both found on floodplains. They are nearly level and have seasonally high water tables. Rumney is poorly drained and Podunk is moderately well drained. Saco silt loam is very poorly drained soil found on low floodplains of streams and rivers. It is formed in alluvial sediments derived mainly from gneiss, schist, and granite. Sudbury sandy loam is moderately well drained. It is formed in slight depressions of broad outwash terraces and narrow stream valleys. Like Saco soils, Sudbury sandy loam is derived primarily from gneiss, schist, and granite. Carlisle muck is poorly drained organic soil that is found in low depressions of outwash terraces and glacial till plains.

The bedrock geology of the project area is composed of Portland Arkose. Portland Arkose is a reddish brown sedimentary rock. It is medium to coarse grained and typically contains quartz, feldspar, and rock fragments.

3.0 SITE HISTORY

3.1 Existing and Former Land Use

The present land use of the properties within the site assessment corridor was evaluated based upon information gathered by the initial site survey, municipal land records, and current city directories. Land use within the project area consists of industrial, commercial, municipal, residential and undeveloped land. Table 1 at the end of this report contains the list of parcels within the site assessment corridor including current owner and property description.

The southern portion of the site assessment corridor lies in the urban center of Middletown, which is largely a mixture of industrial and commercial areas with some smaller residential areas. The site assessment corridor extends to the north and enters the transportation corridor along State Route 9 and the railroad. Industrial and commercial uses and open space surround State Route 9 and the railroad in this area of the site assessment corridor. In the northern portion of the site assessment corridor, a large undeveloped natural area exists to the west and the Connecticut River lies to the east of State Route 9 and the railroad.

The former land use of the properties within the site assessment corridor was evaluated based upon historic information gathered during the Phase I ESA. Former land uses included coal, gas and power companies adjacent to the Connecticut River. The railroad line has historically been within the site assessment corridor since the late 1800's. Land uses within the corridor have historically included a mixture of residential, commercial and industrial uses.

3.2 Sanborn Fire Insurance Maps

Sanborn Fire Insurance Maps (Sanborn Maps) for the years 1884, 1889, 1895, 1901, 1913, 1924, 1950, and 1979 for the site assessment corridor were reviewed as part of this Phase I ESA. The 1884 through 1913 Sanborn Maps show the railroad line and scattered residential housing north of Washington Street along what is currently the right-of-ways for State Route 9 and the Providence and Worcester Railroad, formerly the Central Connecticut Railroad. The 1924 Sanborn Map shows several shops being constructed within this section of the corridor. The 1907 to 1924 Sanborn Maps show the Middletown Coal Co., Middletown Gas Co., Hubbard Motors, Connecticut Power Co. Substation, Middletown Yacht Club and Palmer Spinning Co. buildings along Water Street, currently Harbor Drive, adjacent to the Connecticut River. On the 1950 Sanborn Map only the coal company, substation and yacht club (labeled “vacant”) buildings remain. The 1979 Sanborn Map shows the substation building labeled Middletown Park & Rec., the vacant yacht club building and Acheson Drive, current State Route 9. The coal company building is no longer shown on the 1979 Sanborn Map. The 1950 Sanborn Map shows Sumner Road intersecting with Union Street in the area of what is currently called DeKoven Drive. A 310,000 cubic foot gas holder, gas ball, garage and gas booster pump are shown on a parcel off Sumner Street with the owner listed as Connecticut Light & Power Co. The 1979 Sanborn Map shows the Middlesex County Building, currently the Municipal Office Building, and the DeKoven Community Center, currently the Rockfall Foundation, located off DeKoven Drive.

3.3 Historical Topographic Maps

Historical Topographic Maps (Topographic Maps) for the years 1893, 1906, 1952, 1965, 1972, 1984, and 1992 were reviewed for Middletown and Cromwell as part this Phase I ESA of the site assessment corridor. The 1893 and 1906 Topographic Maps show the railroad constructed and a roadway running parallel to the railroad and Connecticut River. The center of Middletown is developed and Sumner Brook is shown toward the south portion of the site assessment corridor. The 1952 Topographic Map shows State

Routes 9 along the Connecticut River and the Arrigoni Bridge. The 1965 Topographic Map shows the proposed location of State Route 9 through Cromwell north of Round Meadow. The 1972 Topographic Map shows the beginning construction of the Mattabassett WWTP. The 1984 Topographic Map shows the Middletown River Road sewage treatment plan and the Mattabassett WWTP. The 1992 Topographic Map shows additional construction at the Mattabassett WWTP.

3.4 Historical City Directories

Historical City Directories for the years 1963, 1970, 1978 and 1990 were reviewed for Middletown and Cromwell as part of this Phase I ESA of the site assessment corridor. The City Directories indicate that the uses within the site assessment corridor have included coal, gas and power generation along the Connecticut River and a railroad line has historically been within the site assessment corridor since the late 1800's. Land uses within the corridor have historically included a mixture of residential, commercial and industrial uses.

3.5 Aerial Photography

Aerial Photography for the years 1941, 1959, 1963, 1972, 1974, 1980, 1985, 1990, 1997, 2005, 2006, and 2008 were reviewed for Middletown and Cromwell as part of this Phase I ESA of the site assessment corridor. A review of the aerial photography show the development of the site assessment corridor to its present mixture of residential, commercial and industrial uses and as a transportation corridor which includes State Route 9 and the Providence and Worcester Railroad.

4.0 REGULATORY FILE SEARCH

An environmental records review was conducted for selected information from the United States Environmental Protection Agency (USEPA) and the Connecticut Department of Energy and Environmental Protection (CTDEEP). In addition, an environmental database search was requested for the site assessment corridor from Environmental Data Resources, Inc. (EDR). A copy of the results of the EDR report is enclosed as Appendix B in this report. The following environmental record sources were reviewed as part of this Phase I ESA for the Site:

- Federal NPL List
- Federal CERCLIS List
- Federal RCRA TSD Facilities List
- Federal RCRA Generators List
- Federal RCRA Non-Generators List
- CTDEEP Inventory of Hazardous Waste Sites
- CTDEEP Underground Storage Tank Database
- CTDEEP Leaking Underground Storage Tank List
- CTDEEP Permits & Wastewater Discharge Sources
- CTDEEP Property Transfer Filings Database
- CTDEEP Administrative Orders Database
- CTDEEP Oil & Chemical Spills – 1990 to Present
- CTDEEP Manifest Database
- Brownfields Inventory

The properties within the site assessment corridor were not listed on the Federal NPL List, Federal RCRA TSD Facilities List, and CTDEEP Leaking Underground Storage Tank (LUST) List, CTDEEP Property Transfer Filings Database, and CTDEEP Administrative Orders Database. However, properties within the site assessment corridor were listed on the Federal RCRA Generators List, Federal CERCLIS List, Federal Non-Generators List, CTDEEP Inventory of Hazardous Waste Sites, CTDEEP Underground Storage Tanks (UST) Database, CTDEEP Permits & Wastewater Discharge Sources, CTDEEP Oil & Chemical Spills reports, CTDEEP Manifest Database, and the Brownfields Inventory. The following summarizes the information found regarding properties within the site assessment corridor:

Federal RCRA Generators List**245 South Main Street, Cromwell – The Mattabassett District – CTR000005595**

The Mattabassett District Water Pollution Control Facility (WPCF) located at 245 South Main Street in Cromwell is registered as a RCRA Large Quantity Generator (LQG) of hazardous waste, EPA ID CTR000005595, with the EPA. A copy of the Generator Summary Report obtained from CTDEEP is included in Appendix B.

Federal CERCLIS List

The Federal CERCLIS List contains sites, which are either proposed to be on or are on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL. The following site within the site assessment corridor is contained on the Federal CERCLIS List:

50 Walnut Street, Middletown – Omo Manufacturing – CTD062199369

The property located at 50 Walnut Street is listed as Omo Manufacturing with a CERCLIS EPA ID of CTD062199369. Previous occupants of the site included Jem Wire Products, which produced industrial waste solvents and flammable liquids requiring disposal.

Federal RCRA Non-Generators List

A review of the Federal RCRA Non-Generators list revealed the following property within the site assessment corridor:

DeKoven Drive & College Street, Middletown – Sears Roebuck & Co.

The property was reported to the EPA as a non-generator of hazardous waste in September 1989.

CTDEEP Inventory of Hazardous Waste Sites**50 Walnut Street, Middletown – Omo Manufacturing – CTD062199369**

The property located at 50 Walnut Street in Middletown is listed on the CTDEEP's Inventory of Hazardous Waste Sites.

CTDEEP Underground Storage Tank Database

The following properties within the site assessment corridor have registered underground storage tanks (USTs) and are listed in CTDEEP's UST database:

40 Union Street, Middletown – Middletown Plate Glass

- Two (2) 1,000-gallon gasoline USTs were permanently closed in September 1994 by removal from the ground.

99 Union Street, Middletown - YMCA

- 5,000-gallon heating oil UST was permanently closed in April 1989 by removal from the ground.
- 2,500-gallon FRP heating oil UST installed in 1989 currently in use.

245 DeKoven Drive, Middletown – Middletown Municipal Building

- 10,000-gallon steel heating oil UST installed in 1978 currently in use.

CTDEEP Permits & Wastewater Discharge Sources (PWDS)

100 River Road, Middletown - Middletown Water Company Sewage Treatment Plant

The Middletown Water Company Sewage Treatment Plant located at 100 River Road in Middletown has an active wastewater discharge Permit Number 4000075 issued by the CTDEEP.

245 South Main Street, Cromwell – The Mattabassett District – CT0100307

The Mattabassett District Waste Pollution Control Facility (WPCF) located at 245 South Main Street in Cromwell has a NPDES Permit No. CT0100307 issued by the CTDEEP.

CTDEEP Oil & Chemical Spills – 1990 to Present

Numerous oil and chemical spills have been reported at various locations within the site assessment corridor. Some of the spills reported occurred at sites within the corridor and may present a risk and are summarized below. Copies of the spills reports obtained from the CTDEEP are included in Appendix B of this report:

245 South Main Street, Cromwell – The Mattabassett District WPCF

- Numerous spills of raw sewage have been reported for The Mattabassett District WPCF site and all the spill reports have been closed.
- 2/16/2001 - A release of less than one (1) gallon of gasoline was reported dripping from a cracked valve on a 550-gallon above ground storage tank (AST). The spill was contained by pads and the valve was repaired and the report was closed.
- 5/16/2000 – A release of mercury to the ground surface was reported and a contractor, ESA, was hired to remove the material and the report was closed.

- 6/18/2002 – A release of 25-gallons of sludge was reported on the railyard loading area. The area was cleaned by the sewer company and the report was closed.

Main Street and Route 9, Cromwell

- 11/12/2001 – A release of 2-gallons of gasoline was reported leaking from a car. The area was sanded and the report was closed.
- 11/28/2002 – A release of 5-gallons of gasoline was reported as the result of a two(2) car motor vehicle accident. The area was sanded and the report was closed.

St. Johns Street and Portland Street, Middletown

- 1/16/2000 – A release of approximately 5-gallons of diesel fuel was reported to the ground surface. Speedy dry was applied to the area and the report was closed.

50 Walnut Street, Middletown

- 1/2/2002 – A release of 50-gallons of petroleum and water was reported to have been released to a floor drain inside the building. The spill report was closed.

100 River Road, Middletown – Middletown Sewage Treatment Plant

- Numerous spills of raw sewage have been reported for Middletown Sewage Treatment Plant site and all the spill reports have been closed.

47 Rapallo Avenue, Middletown – Nehemiah Housing Co.

- 1/29/2008 – An in-ground #2 fuel oil tank failure was reported for the apartment building located at 47 Rapallo Avenue. A tank contractor, ESI, was contracted and the spill report was closed.

Main Street Extension and Rt. 17 Connector

- 1/9/2010 – A spill of less than 5-gallons of motor vehicle fluids was reported due to a motor vehicle accident. The spill report was closed.

Lower Washington Street by Mellili Plaza

- 10/31/2010 – A spill of 2-gallons of gasoline was reported due to a car fire. The runoff mixed with gasoline entered the storm drain. The spill report was closed.

River Road Substation

- 10/2/2001 – A spill of less than 1-gallon of transformer oil was reported. The material was tested for PCBs and cleaned up by CL&P personnel. The spill report was closed.

Arrigoni Bridge

- 10/16/2000 – A spill of 50-gallons of gasoline to the ground surface due to a fuel tank failure was reported. The fire department foamed the bridge and the spill report was closed.

CTDEEP Manifest Database

A review of the CTDEEP Manifest Database revealed the following properties within the site assessment corridor as having generated and transported hazardous waste from their facility at least one time in the past:

Middletown

- 60 DeKoven Drive – Personal Autocare Services Center
- 40 Union Street – Middletown Plate Glass
- 25 Green Street – Nehemiah Housing Development Co.
- 111 Bridge Street – City of Middletown
- 8 Rapallo Avenue – Central Connecticut Railroad
- 19 St. Johns Square – St. Johns Church
- 35 Green Street – City of Middletown Housing
- 52 Walnut Street – City of Middletown
- 50 Walnut Street – Jem Wire Products, Inc.
- 245 Dekoven Drive – City of Middletown

Cromwell

- 245 South Main Street – The Mattabassett District WPCF

Brownfields Inventory

A review of the Brownfields Inventory list from the Connecticut Brownfields Redevelopment Authority revealed the following site within the site assessment corridor on the list:

50 Walnut Street – Omo Manufacturing – CTD062199369

The property located at 50 Walnut Street is listed in the Brownfields Inventory as the Marino Property.

5.0 INITIAL SITE SURVEY

An initial site survey of the site assessment corridor was conducted on December 8, 2011 by Jane Witherell of Maguire Group Inc. An initial site survey involves obtaining all pertinent information regarding the subject parcels available by site inspection from the public right-of-way. Direct access to the private parcels is typically not available. For this reason, the inspection is limited to characteristics of the property that are visible from the property line, and all areas of environmental concern may not be identified. For example, underground storage tanks or the remote storage of chemicals may not be readily identifiable. Environmental observations of note are summarized below for the site assessment corridor and photos are included in Appendix A of this report.

The site assessment corridor followed the proposed alignments for the gravity sewer and force main to connect the existing Middletown Sewage Treatment Plant to the Mattabassett District Treatment Facility. The exact alignment for the gravity sewer and force main has yet to be determined, but will be located within the site assessment corridor evaluated as part of the Phase I ESA. Properties along the local roadways within the site assessment corridor include restaurants, retail stores, a movie theatre, municipal building, court house, residential homes and apartments, cemetery and church, automotive service shop, glass repair shop, and vacant land. State Route 9 and the Providence and Worcester Railroad, formerly the Central Connecticut Railroad, are also located within the site assessment corridor. The Providence and Worcester Railroad has a fueling facility with above ground storage tanks (ASTs) located at 8 Rapallo Avenue within the site assessment corridor. Propane ASTs were also observed adjacent to the railroad line at the entrance to the Mattabassett District Treatment Facility. No other environmental observations were noted during the initial site survey.

6.0 PRELIMINARY CONCEPTUAL SITE MODEL

Identification of current and historic land use formed the basis for a determination of the relative risk of environmental contamination associated with each parcel within the site assessment corridor. Each parcel within the project limits was evaluated to determine if it had a low, moderate or high risk of being impacted by a release of hazardous substances or other contaminants that may impact the proposed force main construction.

Based on the results of the Phase I ESA a Preliminary Conceptual Site Model (CSM) was developed which identified six (6) Potential Areas of Concern (PAOCs) within the site assessment corridor. The PAOCs are properties within the site assessment corridor where releases of Contaminants of Concern (COCs) may have occurred and which may impact the proposed force main construction.

PAOC #	Description	COCs
1	Middletown River Road Sewage Treatment Plant	ETPH, VOCs, PAHs and metals
2	East Main Street Pump Station (A Separate Phase I ESA has been conducted at this Site)	ETPH, VOCs, PAHs and metals
3	Providence and Worcester Railroad, formerly Central Connecticut Railroad Right of Way	ETPH, VOCs, PAHs and metals
4	State Route 9 Highway Right of Way	Metals
5	The Mattabassett District Treatment Plant	ETPH, VOCs, PAHs and metals
6	50 Walnut Street, Middletown	Solvents, ETPH, VOCs, and metals

7.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the Phase I ESA identified six (6) PAOCs within the site assessment corridor where “releases” of COCs may have occurred which may impact the proposed construction activities for the project. Maguire recommends that a Phase II Environmental Site Investigation (ESI) be conducted in all areas of anticipated intrusive construction activities within the PAOCs identified within the site assessment corridor to determine if “releases” have occurred within these areas and to determine the potential impacts to the proposed construction and worker health & safety.

8.0 LIMITATIONS

All work products and reports provided by Maguire Group Inc. in conjunction with the performance of this Phase I ESA are subject to the following limitations: The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client.

In preparing this report, Maguire has relied upon information provided by State and local officials and information and representations made by other parties referenced therein, and on information contained in the files of State and/or local agencies made available to Maguire at the time of the site assessment. To the extent that such files are missing, incomplete, or not provided to Maguire, Maguire is not responsible. Although there may have been some degree of overlap in the information provided by these various sources, Maguire did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment. On-site and/or off-site storage tanks and other oil or hazardous material vessels have been described based upon available records and observations.

This report has been prepared for the sole and exclusive use of the City of Middletown. No other warranty, expressed or implied, is made.

Prepared by:



Jane Witherell, PE, LEP, CHMM
Principal Engineer

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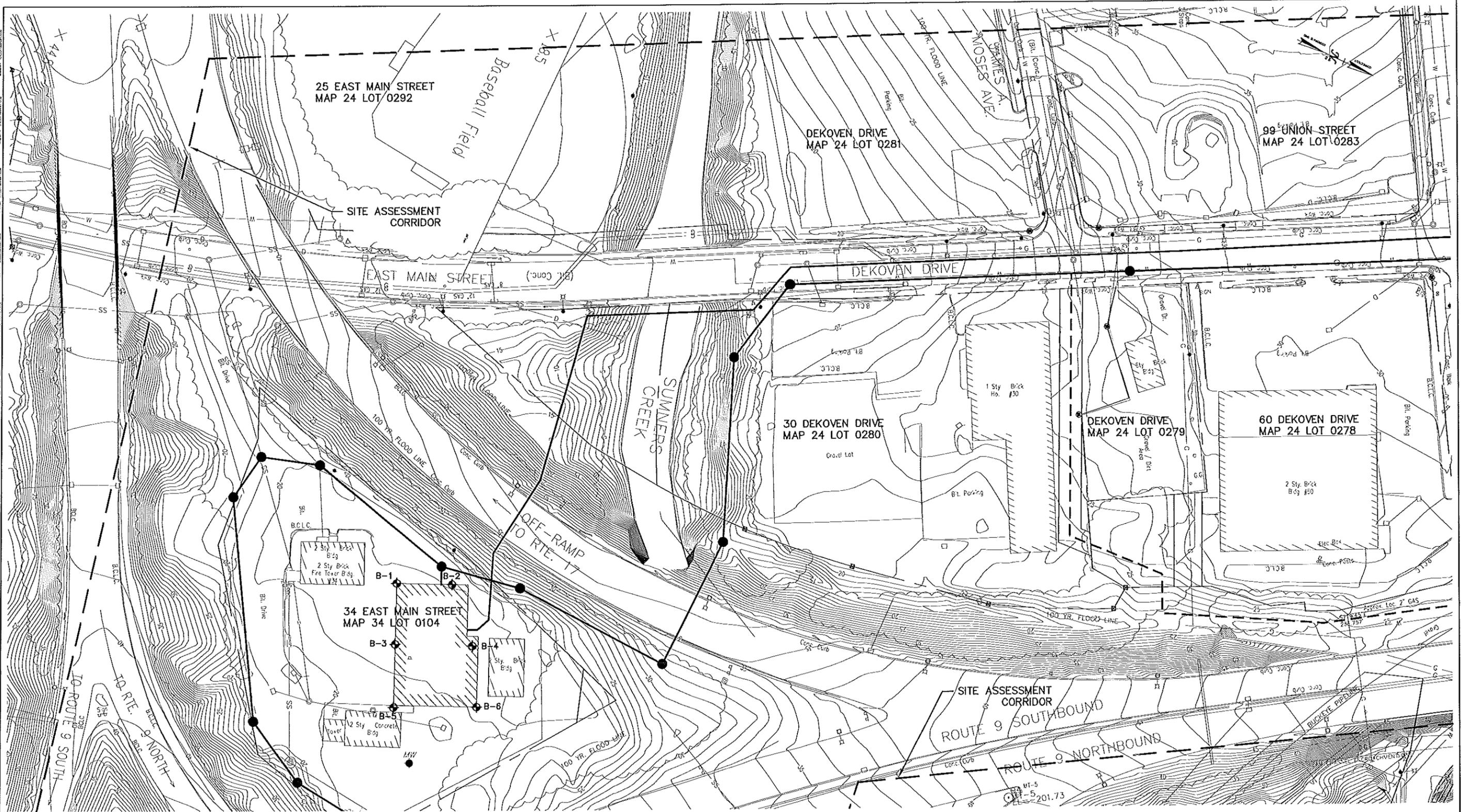
Reviewed by:



David R. Stock, P.E.
Project Manager/V.P.

FIGURES

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 DRAWN BY: MJB
 CHECKED BY: JAW
 DATE: 11/15/11
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 MATTABASSETT REGIONALIZATION PROJECT
 MIDDLETOWN, CONNECTICUT
 SEWAGE FORCE MAIN
 PHASE 1 ENVIRONMENTAL SITE ASSESSMENT
 FIG-3



PLAN TITLE
 1" = 80'
 0 40' 80' 120'

Maguire Group Inc.
 Architects/Engineers/Planners
 2080 Silas Deane Highway
 Rocky Hill, Connecticut 06067

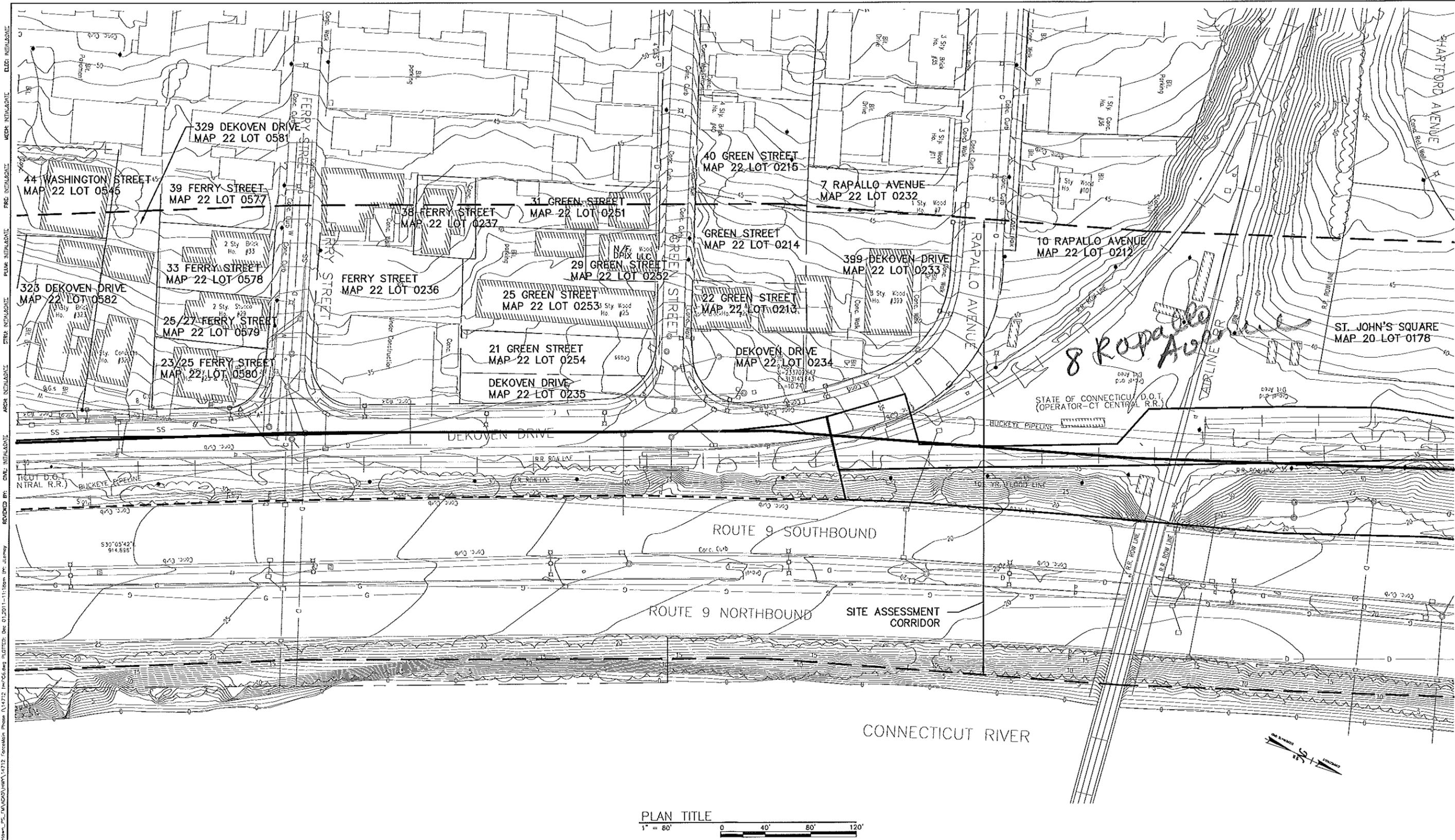
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 CHK'D BY: JAW
 DATE: NOVEMBER 2011
 SCALE: AS NOTED

MATTABASSETT REGIONALIZATION PROJECT
MIDDLETOWN, CONNECTICUT

SEWAGE FORCE MAIN
 PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

FIG-3



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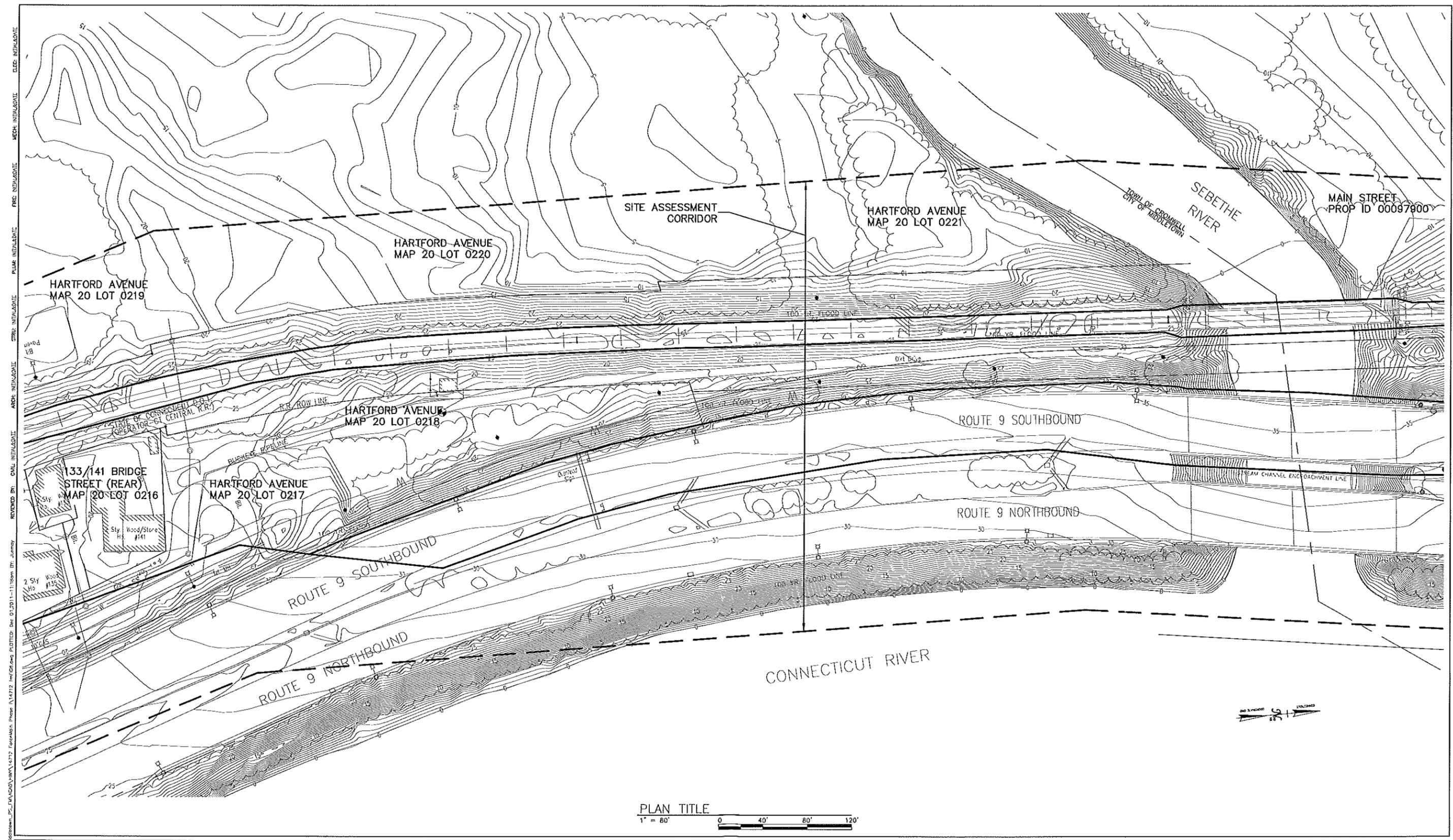
Maguire Group Inc.
 Architects/Engineers/Planners
 2080 Silas Deane Highway
 Rocky Hill, Connecticut 06067

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DATE:	NOVEMBER 2011
SCALE:	AS NOTED

MATTABASSETT REGIONALIZATION PROJECT
MIDDLETOWN, CONNECTICUT
 SEWAGE FORCE MAIN
 PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

FIG-6

MARK	DATE	DESCRIPTION	BY	APP'D

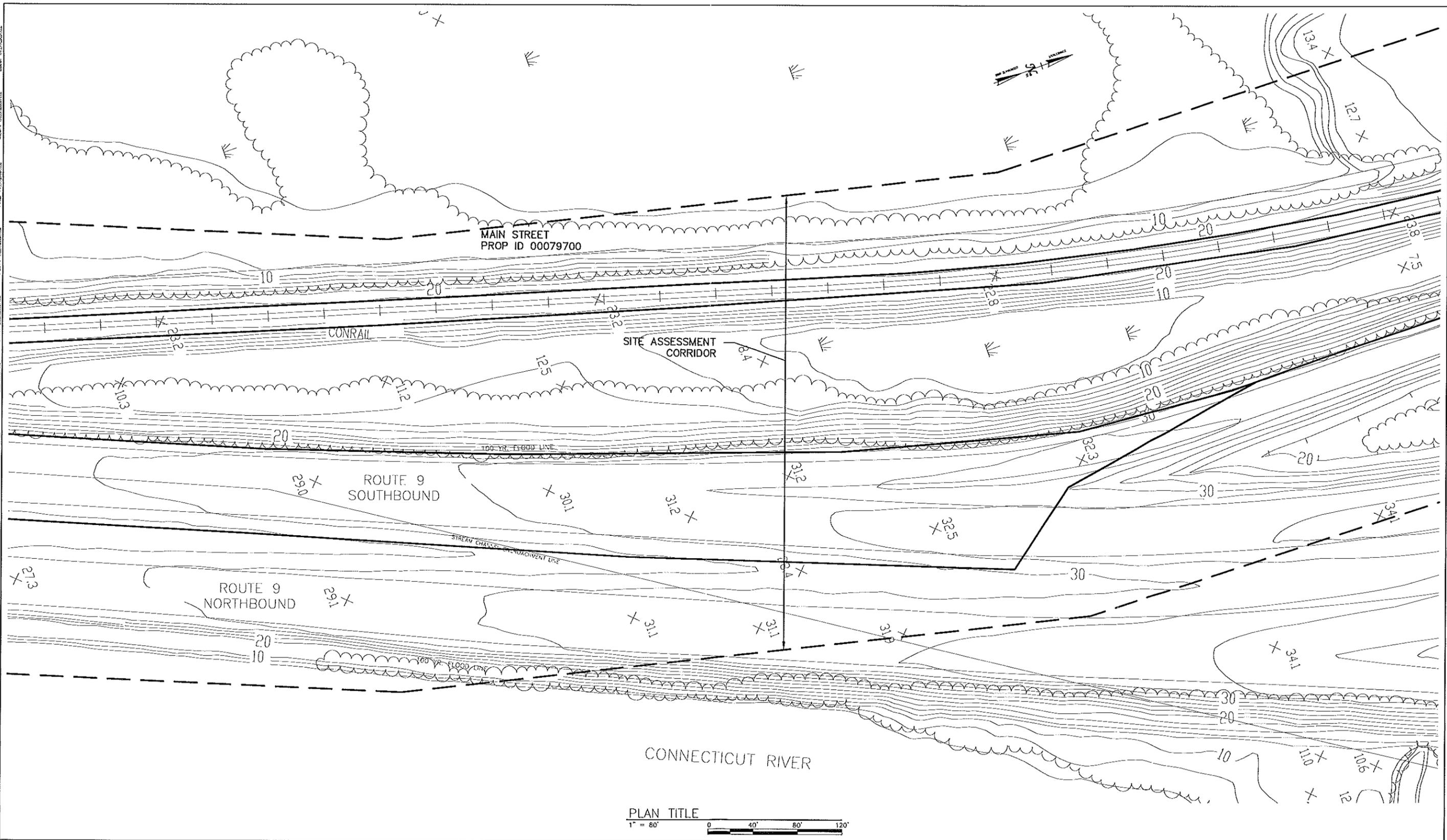


DRAWING FILE: C:\WORK\14712\01-14712.dwg
 DATE: 11/15/11
 PROJECT: 14712
 SHEET: 8 OF 10
 SCALE: 1" = 80'
 DRAWN BY: MJB
 CHECKED BY: JMW
 DESIGNED BY: JMW
 PROJECT NO.: 14712.01

PLAN TITLE
1" = 80'

 Maguire Group Inc. Architects/Engineers/Planners 2080 Silas Deane Highway Rocky Hill, Connecticut 06067	PROJECT NO.: 14712.01 DESIGNED BY: JMW DRAWN BY: MJB CHK'D BY: JMW DATE: NOVEMBER 2011 SCALE: AS NOTED	MATTABASSETT REGIONALIZATION PROJECT MIDDLETOWN, CONNECTICUT SEWAGE FORCE MAIN PHASE 1 ENVIRONMENTAL SITE ASSESSMENT	FIG-8													
	<table border="1"> <thead> <tr> <th>MARK</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> <th>APP'D</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	MARK		DATE	DESCRIPTION	BY	APP'D									
MARK	DATE	DESCRIPTION	BY	APP'D												

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 ARCH: INDICATOR
 STR: INDICATOR
 PLM: INDICATOR
 PRE: INDICATOR
 MCH: INDICATOR
 ELEC: INDICATOR



PLAN TITLE
 1" = 80'
 0 40' 80' 120'

					PROJECT NO.: 14712.01	MATTABASSETT REGIONALIZATION PROJECT MIDDLETOWN, CONNECTICUT	FIG-11
					DESIGNED BY: JDW		
					DRAWN BY: MJB		
					CHK'D BY:		
					DATE: NOVEMBER 2011	SEWAGE FORCE MAIN PHASE 1 ENVIRONMENTAL SITE ASSESSMENT	
					SCALE: AS NOTED		

Maguire Group Inc.
 Architects/Engineers/Planners
 2080 Silas Deane Highway
 Rocky Hill, Connecticut 06067

MARK	DATE	DESCRIPTION	BY	APP'D

TABLES

**TABLE 1 - SITE ASSESSMENT CORRIDOR
PROPERTY INFORMATION - MIDDLETOWN**

PROPERTY LOCATION		ASSESORS INFO.		PROPERTY OWNER	PROPERTY DESCRIPTION
NO.	STREET	MAP	LOT		
50	WALNUT STREET	33	0070	RLO PROPERTIES INC.	Omo Manufacturing
---	RIVER ROAD	33	0010	CITY OF MIDDLETOWN	WPCP
---	RIVER ROAD	33	0009	CITY OF MIDDLETOWN	
34	E. MAIN STREET	34	0104	CITY OF MIDDLETOWN	Sewage Pump Station
25	E. MAIN STREET	24	0292	CITY OF MIDDLETOWN	
---	DEKOVEN DRIVE	24	0281	YMCA	YMCA parking
99	UNION STREET	24	0283	YMCA	YMCA
30	DEKOVEN DRIVE	24	0280	BYRNE, ROBERT P.	Connecticut Rental Centers, Inc.
---	DEKOVEN DRIVE	24	0279	YANKEE GAS SERVICE	Yankee gas
60	DEKOVEN DRIVE	24	0278	KLUTCH LLC	Personal Autocare Services Center
111	DEKOVEN DRIVE	24	0275	VARIOUS CONDO OWNERS	102 Condo Units
130	MAIN STREET	24	0245	METRO SQUARE LLC	Metro Square Plaza
195	DEKOVEN DRIVE	22	0703	ADT REALTY LLC	
40	UNION STREET	24	0277	REDFORD, PHILIP H. JR.	Middletown Plate Glass
100	DEKOVEN DRIVE	24	0276	MYLCHREEST, JOSEPH H. INC.	Midstate Regional Planning
195	DEKOVEN DRIVE	22	0703	ADT REALTY LLC	Attention to Detail Store
1	COURT STREET	22	0701	STATE STREET BANK & TRUST	Courthouse
245	DEKOVEN DRIVE	22	0586	CITY OF MIDDLETOWN	Municipal Building
---	DEKOVEN DRIVE	22	0585	CITY OF MIDDLETOWN	Municipal Building
27	WASHINGTON STREET	22	0614	ROCKFALL FOUNDATION INC	The Rockfall Foundation
36	WASHINGTON STREET	22	0544	DPIX LLC	Dentist Office
44	WASHINGTON STREET	22	0545	TINE, DIANE F.	Two Family Residence
---	DEKOVEN DRIVE	22	0584	UNKNOWN OWNER	
19	CHERRY STREET	22	0583	FORTUNA, RICHARD	Two Family Residence
---	HARBOR DRIVE	22	0704	CITY OF MIDDLETOWN	Harbor Park
---	HARBOR DRIVE	22	0705	CITY OF MIDDLETOWN	Harbor Park
323	DEKOVEN DRIVE	22	0582	VECCHITTO, ANNA ET AL	Multi Family Residence
329	DEKOVEN DRIVE	22	0581	KOLENOVIC, EMIN & SENADA	Multi Family Residence
23/25	FERRY STREET	22	0580	VECCHITTO, ANNA ET AL	Multi Family Residence
25/27	FERRY STREET	22	0579	NEHEMIAH HOUSING CORP.	Multi Family Residence
33	FERRY STREET	22	0578	COMMUNITY HEALTH CENTER	Medical Offices
39	FERRY STREET	22	0577	MESSINA, LOUIS J. TR	Two Family Residence
---	FERRY STREET	22	0236	FERRY STREET LLC	Multi Family Residence
38	FERRY STREET	22	0237	NEHEMIAH HOUSING CORP.	Multi Family Residence
---	DEKOVEN DRIVE	22	0235	CITY OF MIDDLETOWN	Vacant Lot
21	GREEN STREET	22	0254	CITY OF MIDDLETOWN	Vacant Lot
25	GREEN STREET	22	0253	NEHEMIAH HOUSING CORP.	Multi Family Residence
29	GREEN STREET	22	0252	DPIX LLC	Multi Family Residence
31	GREEN STREET	22	0251	FEDERAL NATIONAL MORTGAGE ASSOC	Three Family Residence
---	DEKOVEN DRIVE	22	0234	CITY OF MIDDLETOWN	
22	GREEN STREET	22	0213	FITZPATRIC, GRADY W.	Multi Family Residence
---	GREEN STREET	22	0214	FITZPATRIC, GRADY W.	Vacant Lot
40	GREEN STREET	22	0215	FITZPATRIC, GRADY W.	Multi Family Residence
399	DEKOVEN DRIVE	22	0233	SAMBAT, ROBERT F. & LAVINIA N.	Multi Family Residence
7	RAPALLO AVENUE	22	0232	POSITIVE SOLUTIONS INC.	Manufacturers
8	RAPALLO AVENUE			State of Connecticut	Central Connecticut Railroad
10	RAPALLO AVENUE	22	0212	STERRY, JOHN B. JR.	Fox-Becker Granite Co.
---	ST. JOHN'S SQUARE	20	0178	CITY OF MIDDLETOWN	Cemetery
33	ST. JOHN'S SQUARE	20	0177	ST JOHN'S CHURCH CORP.	Church
55	BRIDGE STREET SOUTH	20	0176	SMITH, JONATHAN C. & AMANDA E.	Two Family Residence
59	BRIDGE STREET SOUTH	20	0175	MCDANIEL, WARREN C.	
63	BRIDGE STREET SOUTH	20	0174	PERRY, JACEK W.	Two Family Residence
7	PORTLAND STREET	20	0173	TREMBLAY, MICHAEL R.	Residence
10	PORTLAND STREET	20	0179	PRYOR, MICHAEL N.	Two Family Residence

TABLE 1 - SITE ASSESSMENT CORRIDOR					
PROPERTY INFORMATION - MIDDLETOWN					
PROPERTY LOCATION		ASSESORS INFO.			
NO.	STREET	MAP	LOT	PROPERTY OWNER	PROPERTY DESCRIPTION
13	PORTLAND STREET	20	0172	PORTLAND STREET RECLAMATION LLC	Multi Family Residence
14	PORTLAND STREET	20	0180	SALAFIA, ANTOINETTE V. & PHILLIP A.	Three Family Residence
---	??	20	0230	UNKNOWN OWNER	
77	MILLER STREET (REAR)	20	0229	ALWIN PROPERTIES LLC	Two Family Residence
79	MILLER STREET (REAR)	20	0228	ALWIN PROPERTIES LLC	Two Family Residence
15	MILLER STREET	20	0190	EVANS, PETER C. SR. & JOYCE A.	Residence
17	MILLER STREET	20	0191	JONES, THERESA, KEITH, MAURICE & LISA M.	Residence
19	MILLER STREET	20	0192	TURNER, ERENCE P.	Residence
18	MILLER STREET	20	0197	CITY OF MIDDLETOWN	Vacant Lot
---	MILLER STREET	20	0198	CITY OF MIDDLETOWN	Vacant Lot
22	MILLER STREET	20	0199	CITY OF MIDDLETOWN	Vacant Lot
---	??	20	0208	UNKNOWN OWNER	
103	BRIDGE STREET	20	0207	LILJEDAHL, JOANNE T.	Three Family Residence
109	BRIDGE STREET	20	0206	DUETSCHKE BANK NATIONAL TRUST CO.	Residence
111	BRIDGE STREET	20	0205	CITY OF MIDDLETOWN	Two Family Residence
115	BRIDGE STREET	20	0204	CITY OF MIDDLETOWN	
---	HARTFORD AVENUE	20	0209	CITY OF MIDDLETOWN	Three Bay Garage
12	MILLER STREET	20	0210	CITY OF MIDDLETOWN	
121	BRIDGE STREET	20	0211	CITY OF MIDDLETOWN	Vacant Lot
125	BRIDGE STREET	20	0212	MARDJEKAI, JULIE	Three Family Residence
127	BRIDGE STREET	20	0213	DALESSANDRO, SALVATORE & MARDI HANSON	Residence
129	BRIDGE STREET	20	0214	DALESSANDRO, SALVATORE & MARDI HANSON	Residence
135	BRIDGE STREET	20	0215	SEALY GARDENS LLC	Three Family Residence
141	BRIDGE STREET	20	0216	ALFREDO'S RIVERSIDE RESTAURANT INC.	Restaurant
---	HARTFORD AVENUE	20	0217	CITY OF MIDDLETOWN	Vacant Lot
---	HARTFORD AVENUE	20	0218	CITY OF MIDDLETOWN	Vacant Lot
---	HARTFORD AVENUE	20	0219	CITY OF MIDDLETOWN	Vacant Land
---	HARTFORD AVENUE	20	0220	CITY OF MIDDLETOWN	Vacant Land
---	HARTFORD AVENUE	20	0221	CITY OF MIDDLETOWN	Vacant Land

**TABLE 1 - SITE ASSESSMENT CORRIDOR
PROPERTY INFORMATION - CROMWELL**

PROPERTY LOCATION		ASSESORS INFO.		PROPERTY OWNER	PROPERTY DESCRIPTION
NO.	STREET	MAP			
245	MAIN STREET	00308900		MATTABASSETT DISTRICT	Water Treatment Plant
---	MAIN STREET	00308800		MATTABASSETT DISTRICT	Water Treatment Plant
225	MAIN STREET	00445800		MATTABASSETT DISTRICT	Water Treatment Plant
201	MAIN STREET	00015800		S&S PARTNERS INC.	Commercial Improvements
---	MAIN STREET	00308600		MATTABASSETT DISTRICT	Vacant Land
---	MAIN STREET	00097900		STATE OF CONNECTICUT	Vacant Land

APPENDICES

APPENDIX A
Initial Site Survey Photos



Photo 1 – Site Assessment Corridor Looking North toward Cromwell



Photo 2 – Highway and Railroad Right of Ways Looking West at railroad fueling area



Photo 3 – Site Assessment Corridor under Arrigoni Bridge



Photo 4 – Site Assessment Corridor North of Arrigoni Bridge looking west at residential area



Photo 5 – Mattabassett District Treatment Plan Entrance



Photo 6 – Site Assessment Corridor looking South from Cromwell

**APPENDIX B (Volumes 2, 3 and 4)
CTDEEP Information, EDR Reports,
City Directories, Sanborn, USGS and
Aerial Topography Maps**