

GrowthPoint

Southern Rhode Island Growth Reinforcement Project

West Warwick, Warwick, and East Greenwich, Rhode Island

PREPARED FOR

The Narragansett Electric Company
d/b/a National Grid
280 Melrose Street
Providence, RI 02907

PREPARED BY

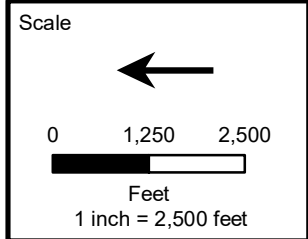
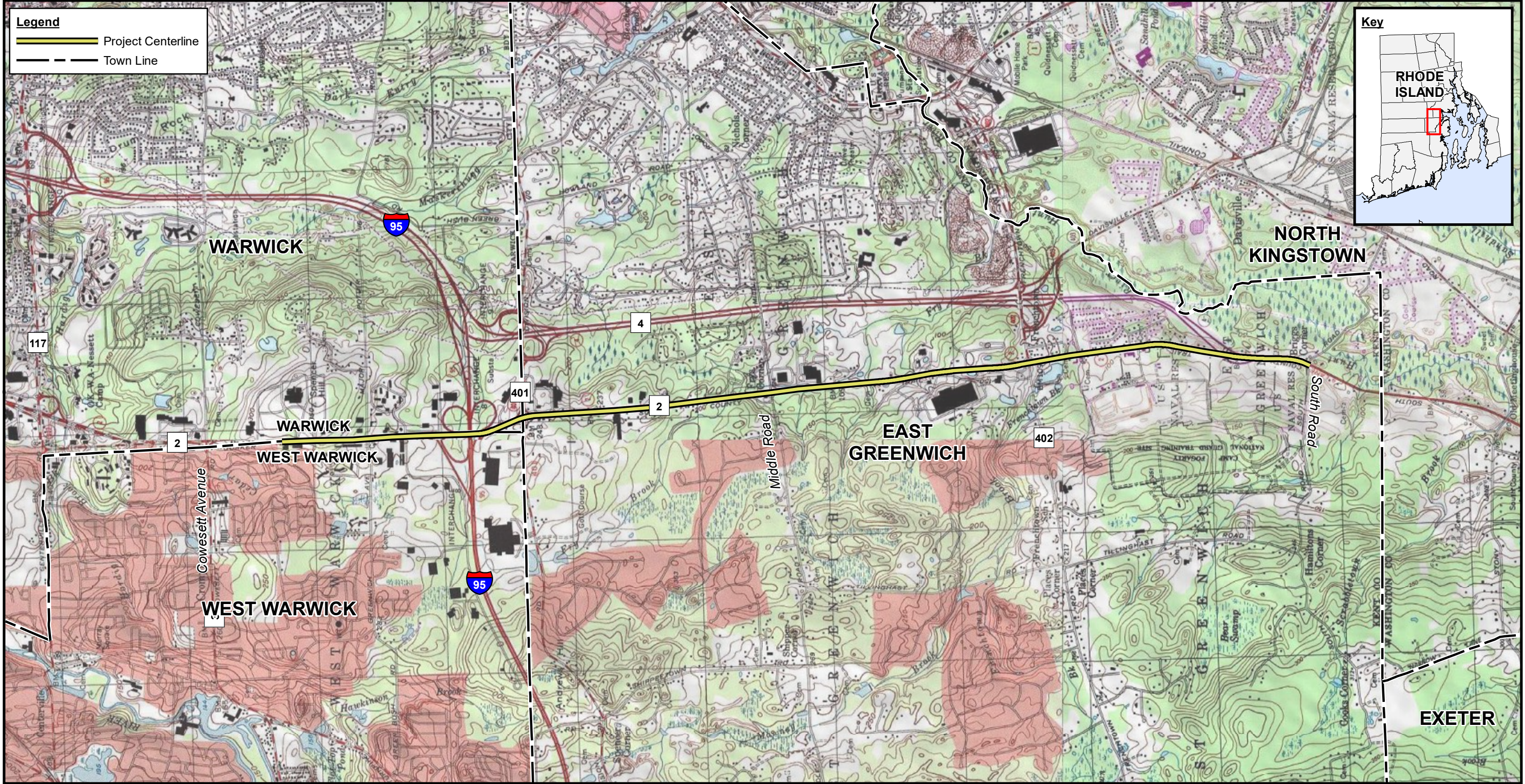


1 Cedar Street, Suite 400
Providence, RI 02903
401.272.8100

NOVEMBER 2018

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GROWTHPOINT SOUTHERN RHODE ISLAND GROWTH REINFORCEMENT PROJECT

COWESETT AVENUE TO SOUTH ROAD

WEST WARWICK, WARWICK AND EAST GREENWICH

Site Location Map

Figure 1-1

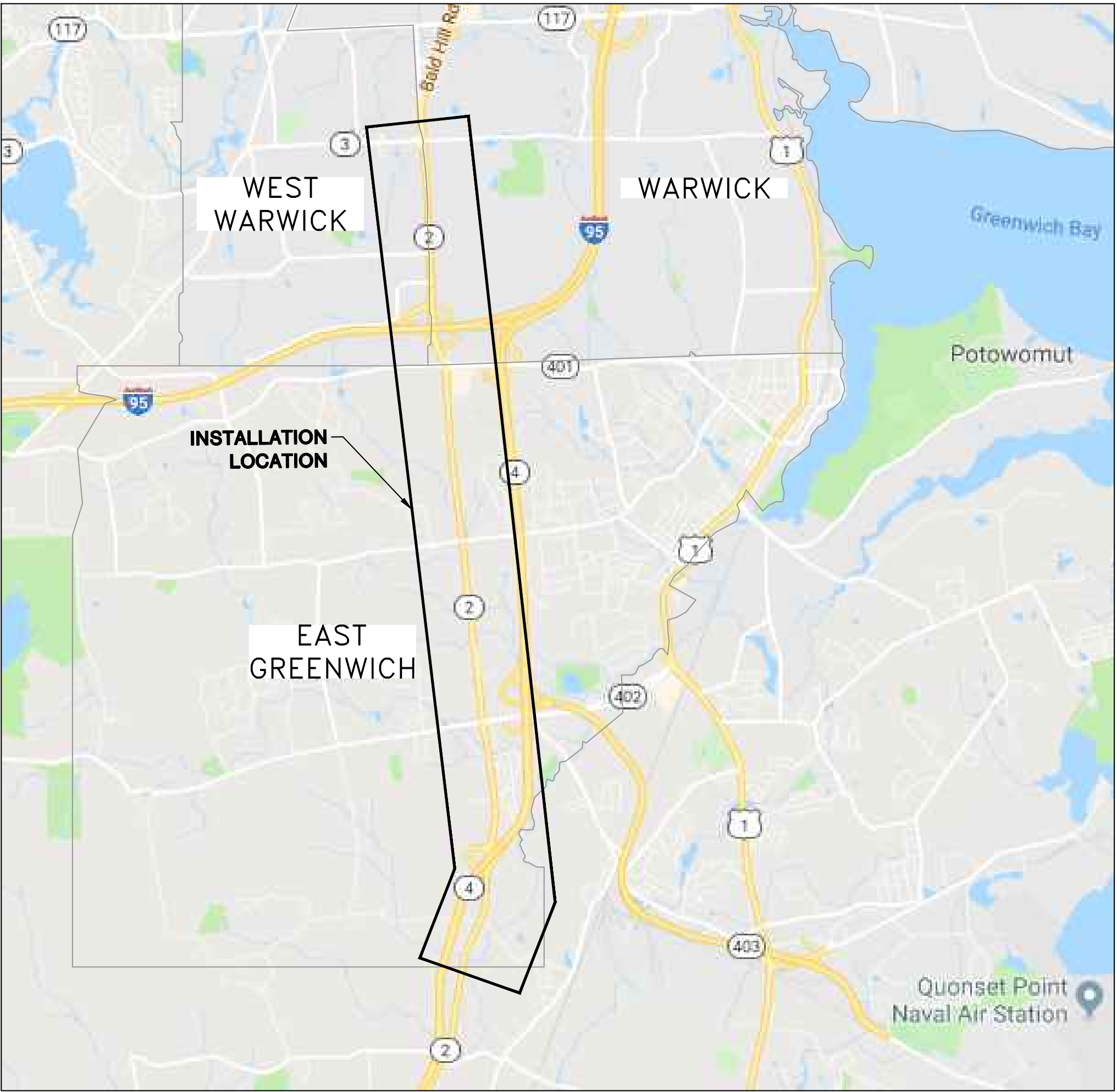
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USGS Base: 2013 National
Geographic Society

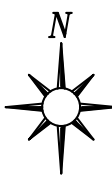
Accessed: September 2018



NATIONAL GRID
W.O. NO.: 90000188303
20" MAIN EXTENSION - 200 PSIG
PERMITTING PLAN
QUAKER LANE TO S. COUNTY TRAIL
WEST WARWICK, WARWICK AND EAST GREENWICH, RI

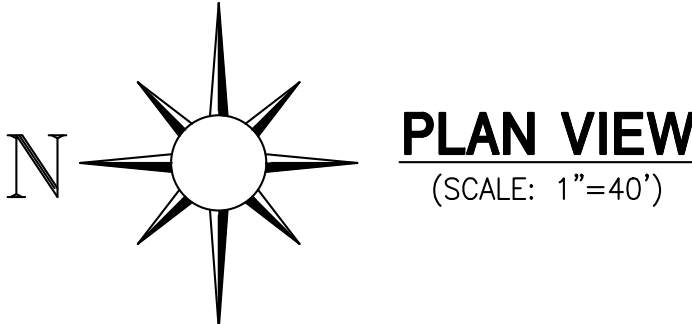
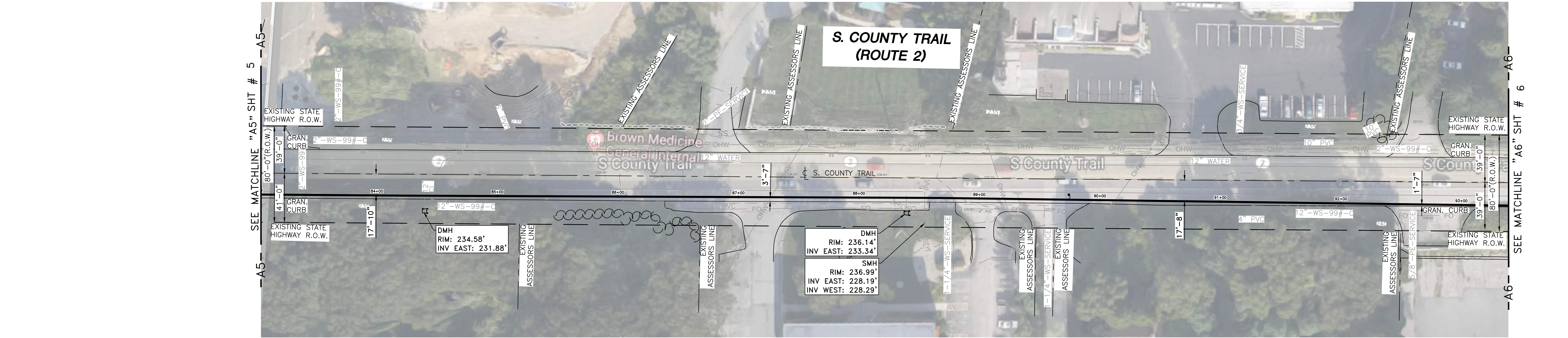
INSTALLATION FOOTAGE BY TOWN	
WARWICK	860'
WEST WARWICK	5540'
EAST GREENWICH	20210'



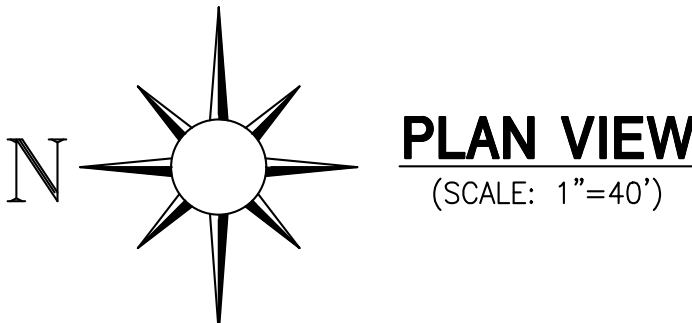
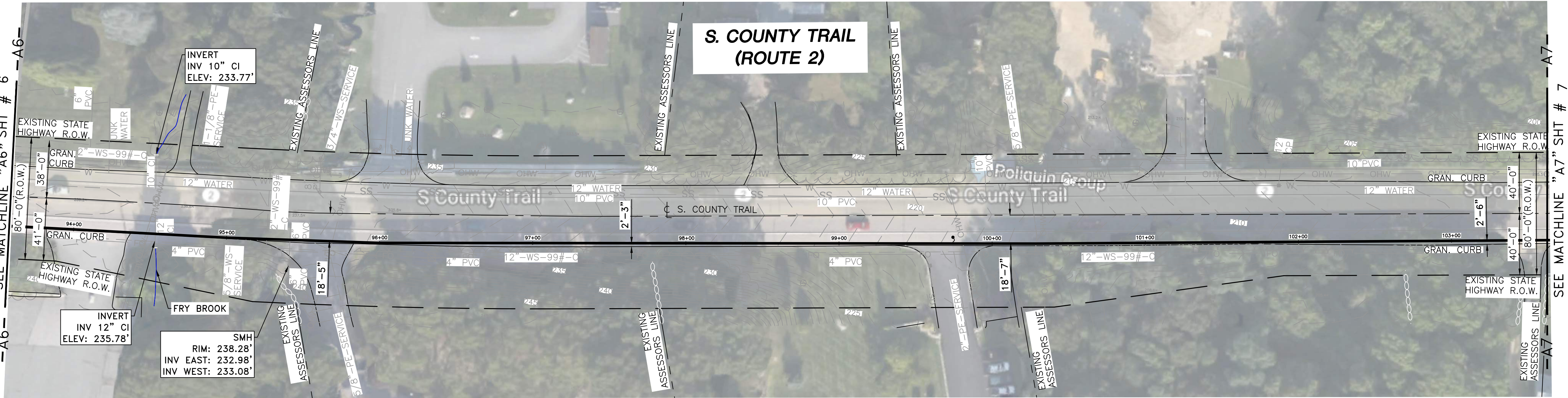
 **LOCATION MAP**
WEST WARWICK, RI
WARWICK, RI
EAST GREENWICH, RI
(NOT TO SCALE)



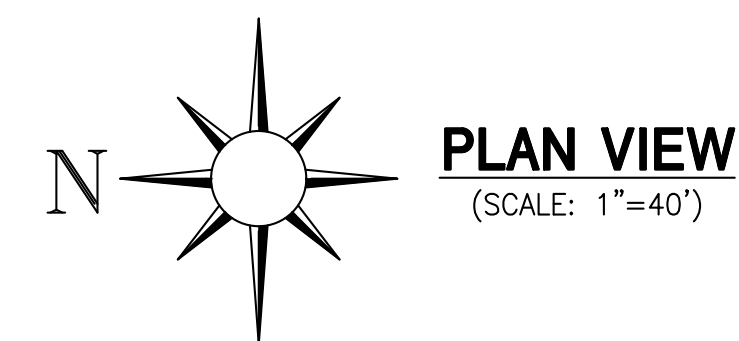
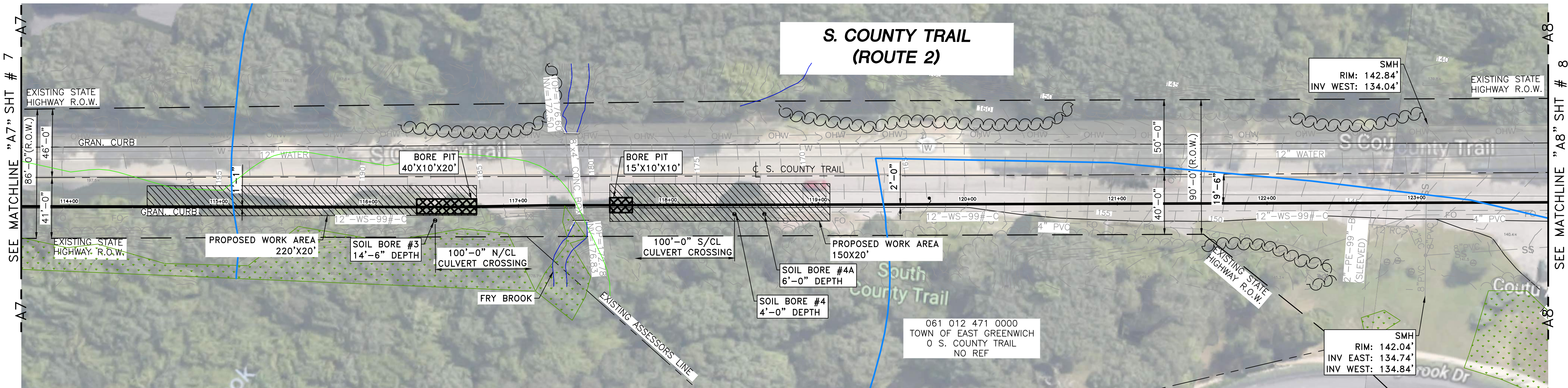
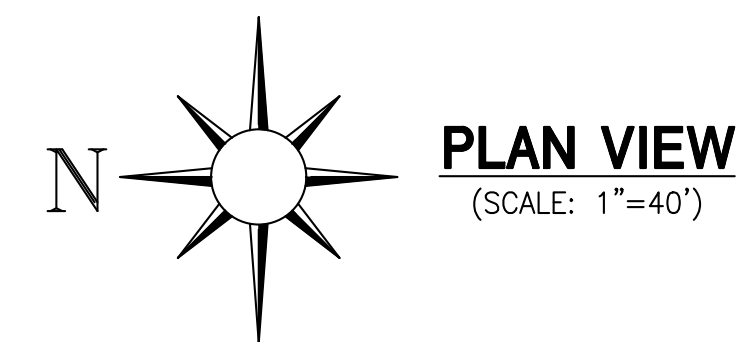
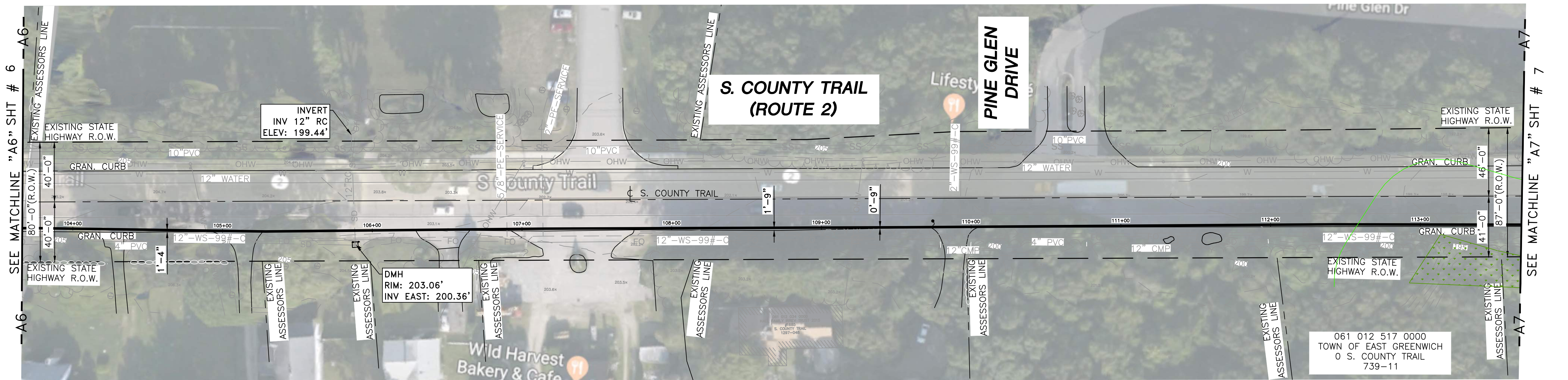
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															DRAWING NO. P-SRI-90000188303		
			REVISIONS							SCALE: NOT TO SCALE	DRAWN BY: VANESSA MALLOY	DATE: 11/13/2018	CORROSION: -	APPROVED BY: -	ENGINEER: -		



LEGEND	
	TEST STATION
	END CAP
	TDW FITTING
	VALVE - GENERAL
	REDUCER
	WELD END INSULATOR
	DETENTION BASIN
	WETLAND
	AREA OF POTENTIALLY IMPACTED SOIL AND/OR GROUNDWATER
	PROPOSED WORK AREA FOR TRENCHLESS EXCAVATION
	BORE PITS
	STREAM LINE
	50' PERIMETER WETLAND
	100' RIVERBANK WETLAND
	200' RIVERBANK WETLAND
	EXISTING PAVEMENT MARKINGS
	EXISTING BRIDGE
	RETAINING WALL
	STONE RETAINING WALL
	EXISTING ASSESSORS LINE
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	EXISTING TOWN HIGHWAY R.O.W.
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	EXISTING FIBER OPTIC LINE
	EXISTING WATER MAIN
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING GAS MAIN (99# SYSTEM)
	ABANDONED GAS MAIN
	PROPOSED GAS MAIN (HDD)
	PROPOSED GAS MAIN
	SOIL BORE

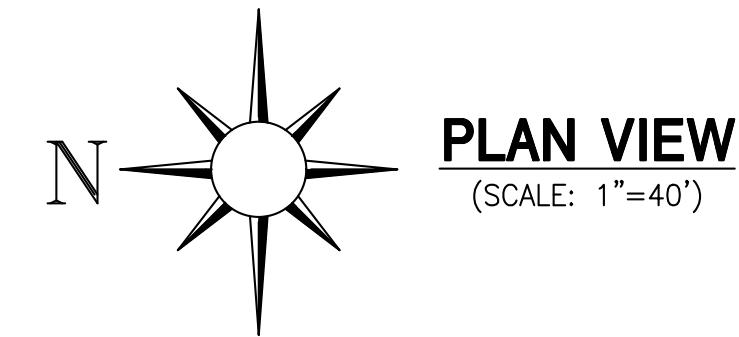
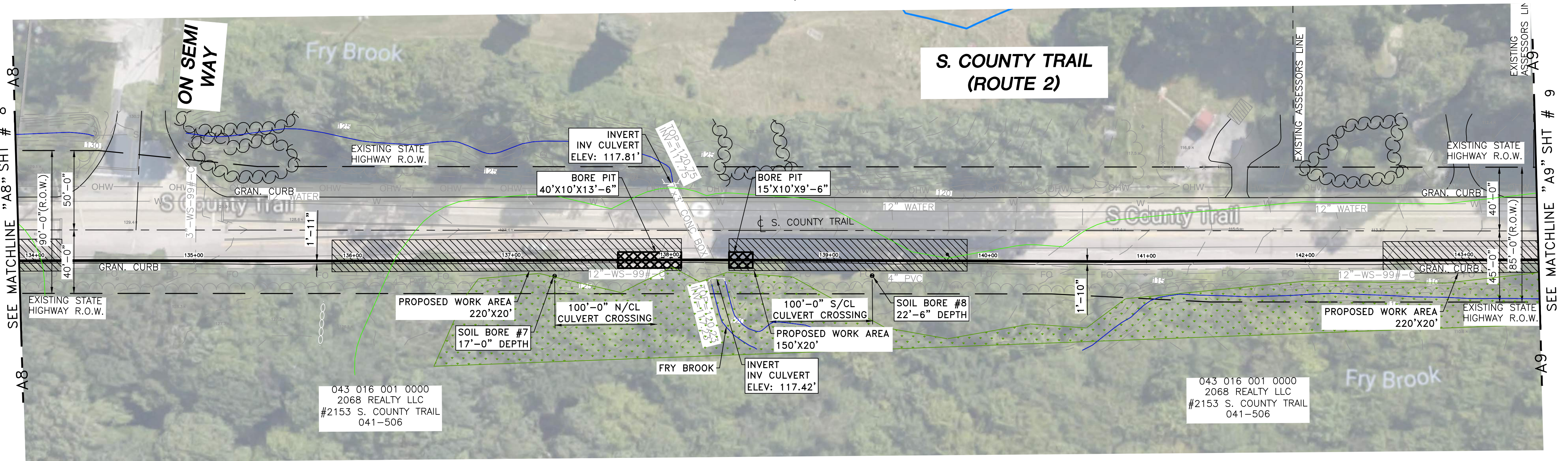
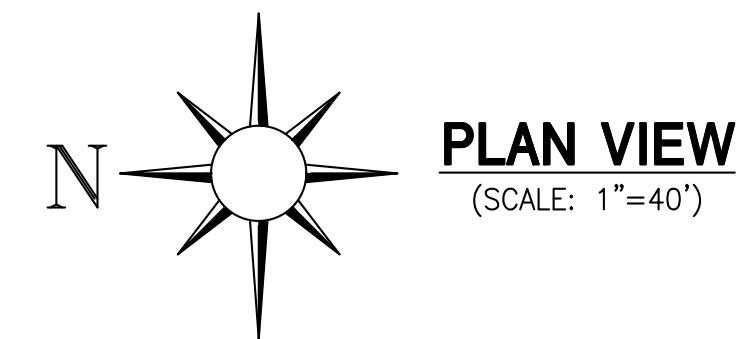
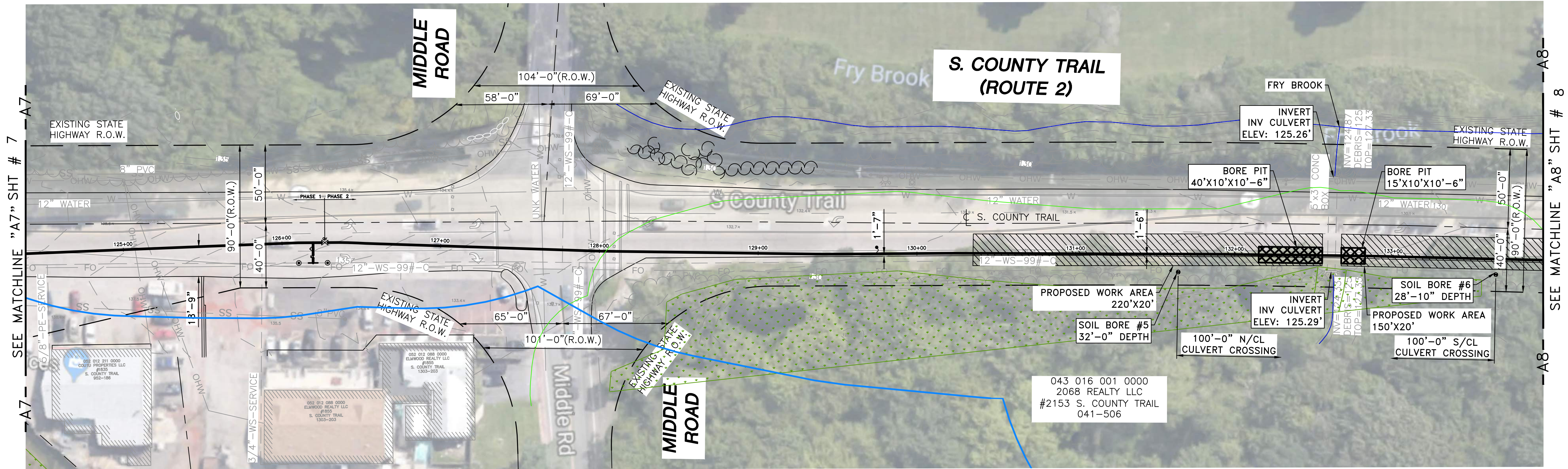


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 28100 TORCH PARKWAY, STE. 400 WARRENVILLE, IL 60555 TEL. 630-353-4000 FAX 630-353-7777 WWW.ENENGINEERING.COM								DRAWING NO. P-SRI-90000188303								
SIGNATURE			LICENSE EXPIRATION:			REVISIONS				SCALE: 1"=40'	DRAWN BY: VANESSA MALLOY	DATE: 11/13/2018	CORROSION: -	APPROVED BY: -	ENGINEER: -	



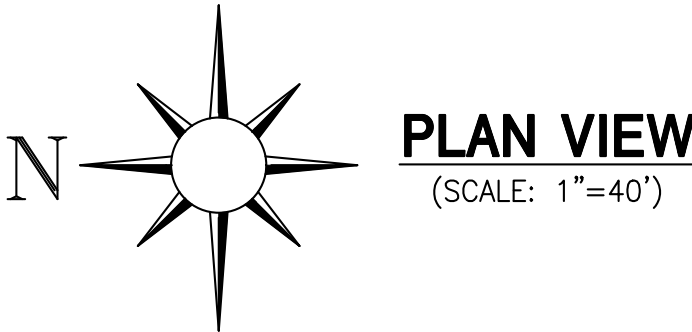
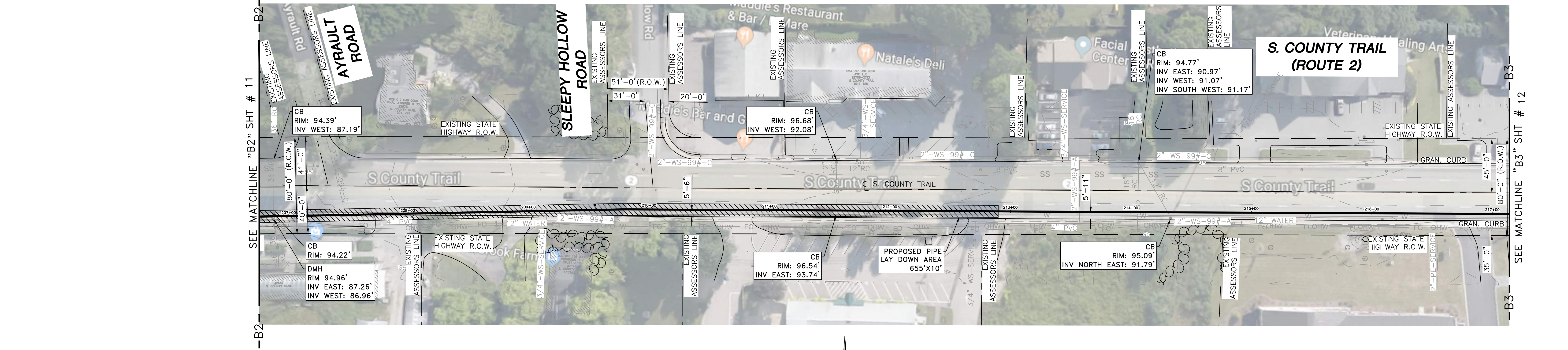
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SCALE: 1"=40'		DRAWN BY: VANESSA MALLOY		DATE: 11/13/2018		CORROSION: -		APPROVED BY: -		ENGINEER: -					

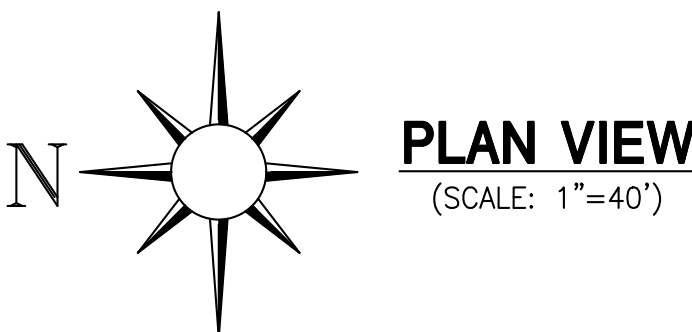
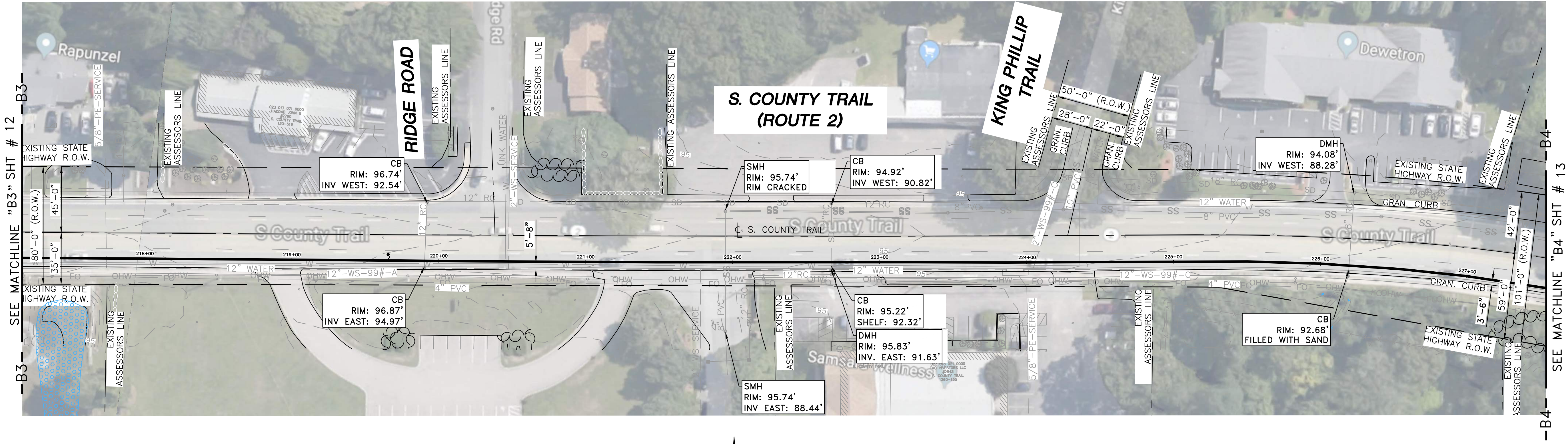


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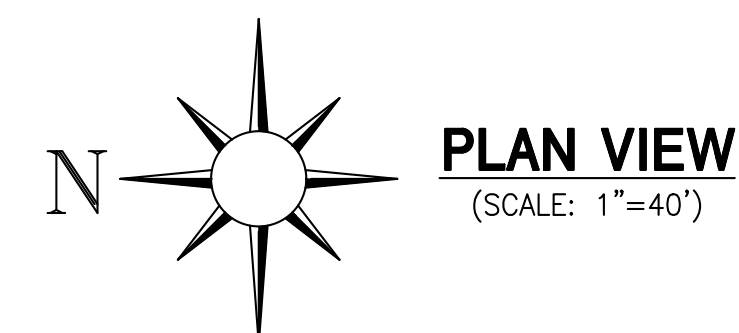
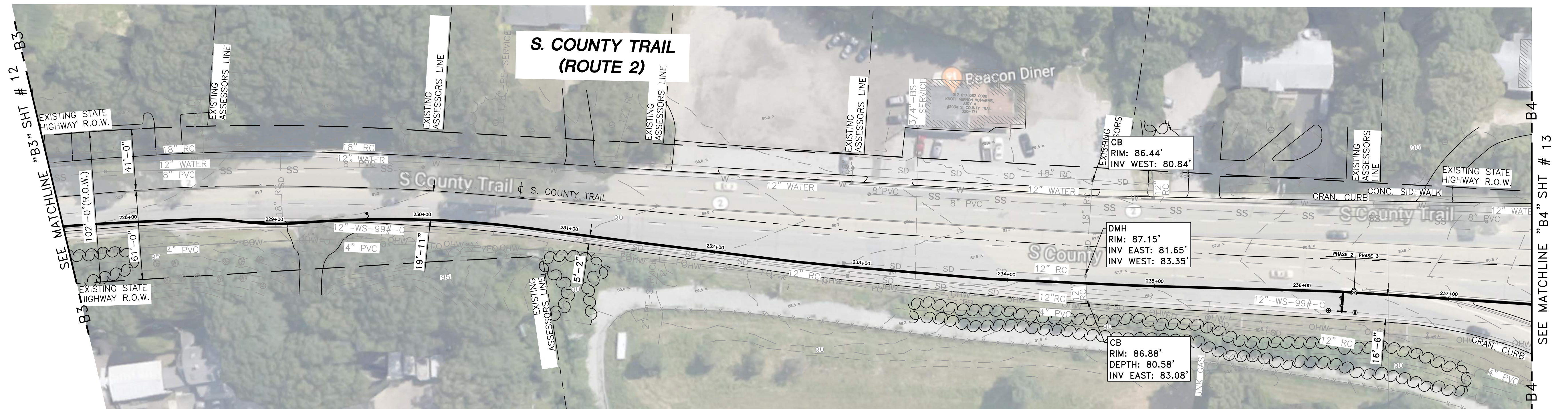
SEALED BY:	SEALED ON:	PREPARED BY:							nationalgrid 40 Sylvan Road Waltham, Massachusetts 02451	FIGURE 2-1 20" MAIN EXTENSION - 200 PSIG PERMITTING PLAN QUAKER LANE TO S COUNTY TRAIL WEST WARWICK, WARWICK AND EAST GREENWICH, RI						SHEET 8 OF 15						
		ENEngineering 28100 TORCH PARKWAY, STE. 400 WARRENVILLE, IL 60555 TEL. 630-353-4000 FAX 630-353-7777 WWW.ENENGINEERING.COM								DRAWING NO. P-SRI-90000188303												
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											1"=40'		VANESSA MALLOY		11/13/2018		-		-		-	
			REVISIONS																			



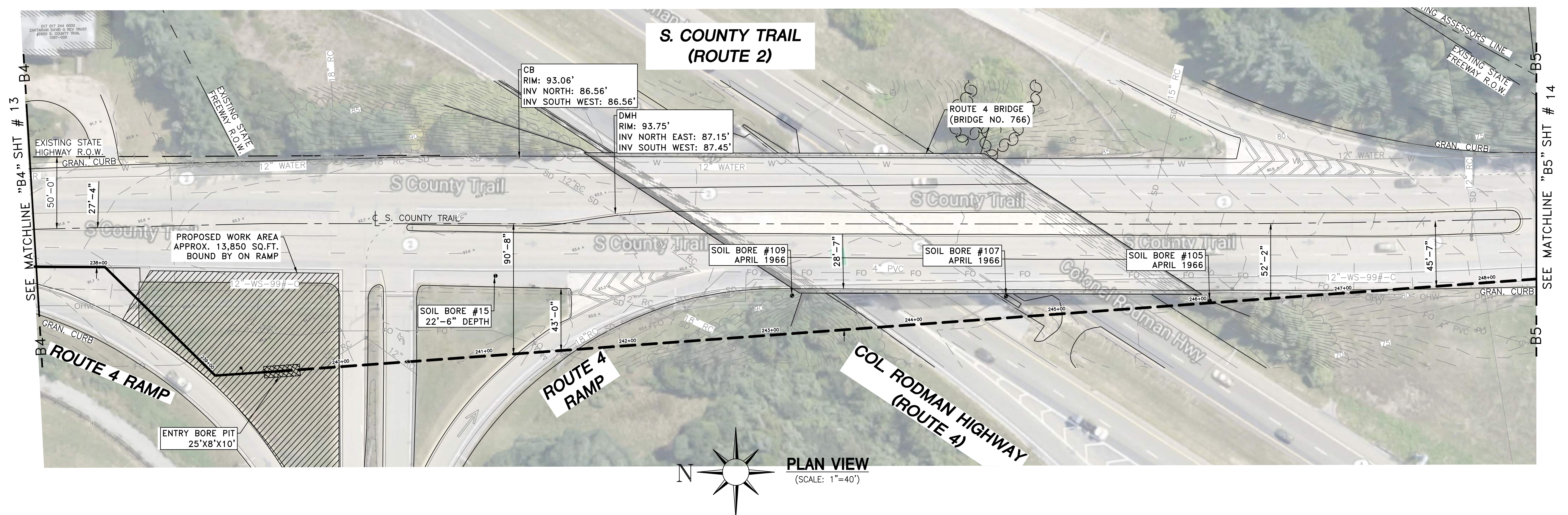
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	PROPOSED GAS MAIN
	SOIL BORE



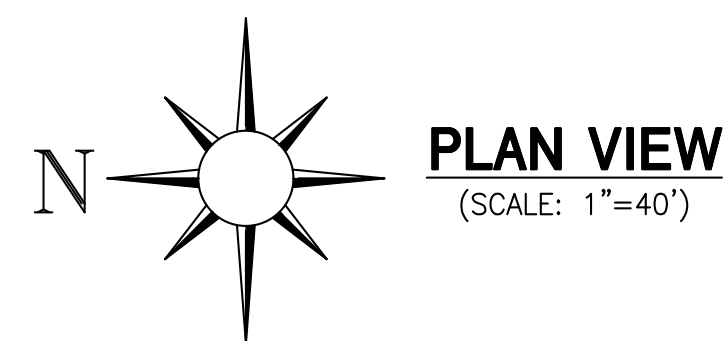
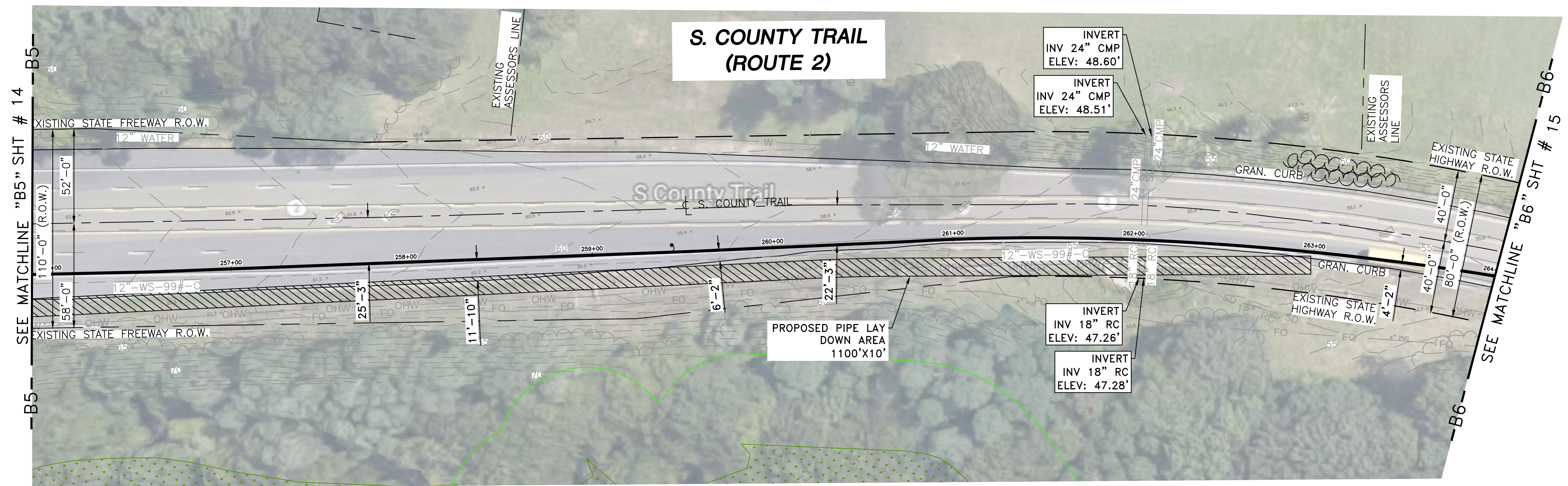
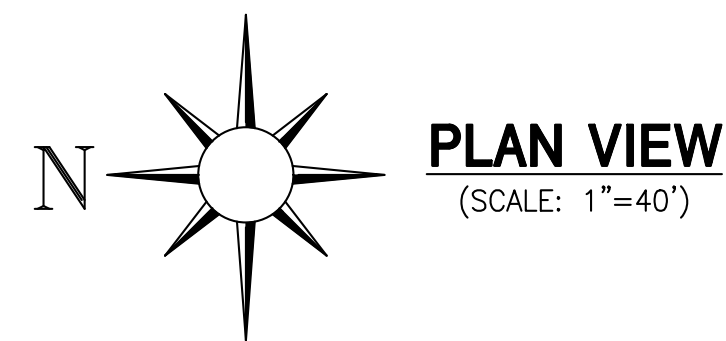
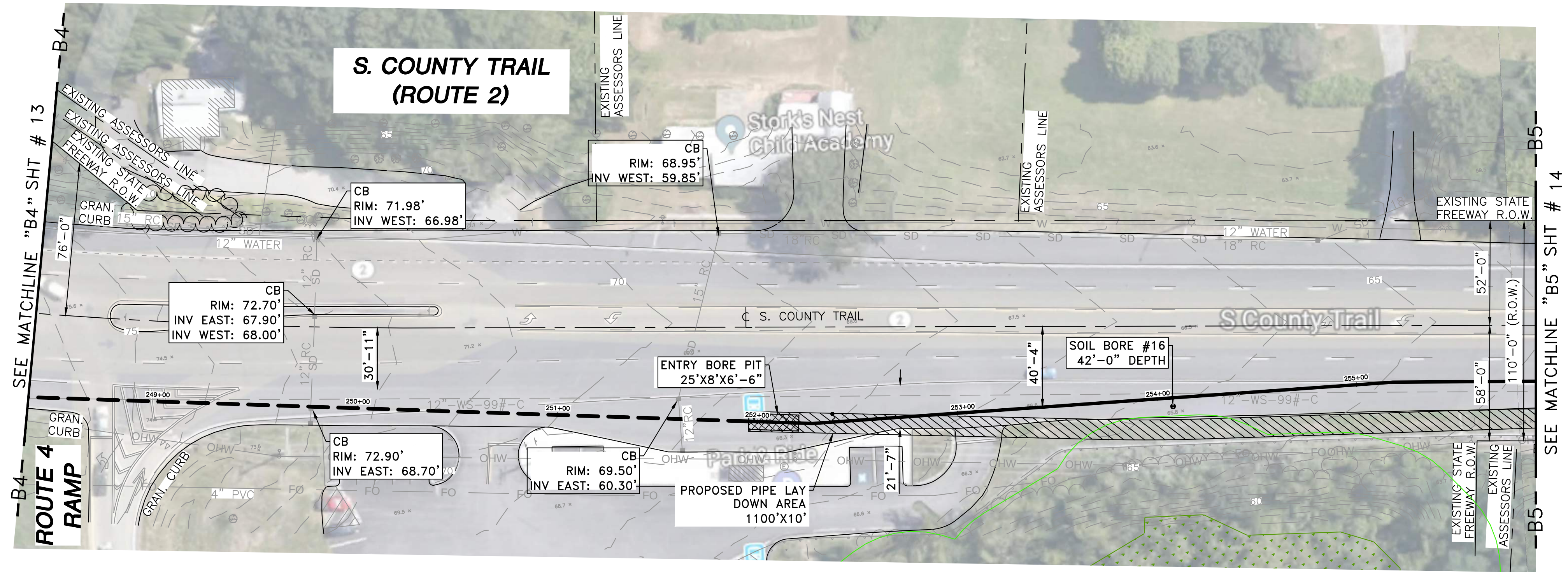
SEALED BY:	SEALED ON:	PREPARED BY:						nationalgrid 40 Sylvan Road Waltham, Massachusetts 02451	FIGURE 2-1 20" MAIN EXTENSION - 200 PSIG PERMITTING PLAN QUAKER LANE TO S COUNTY TRAIL WEST WARWICK, WARWICK AND EAST GREENWICH, RI					SHEET 12 OF 15		
SIGNATURE		LICENSE EXPIRATION:		28100 TORCH PARKWAY, STE. 400 WARRENVILLE, IL. 60555 TEL. 630-353-4000 FAX 630-353-7777 WWW.ENENGINEERING.COM		REVISIONS					DRAWING NO. P-SRI-90000188303					
											SCALE: 1"=40'	DRAWN BY: VANESSA MALLOY	DATE: 11/13/2018	CORROSION: -	APPROVED BY:	ENGINEER:



LEGEND	
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	SOIL BORE



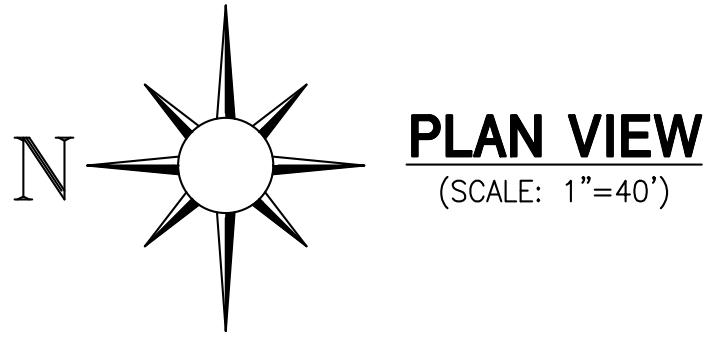
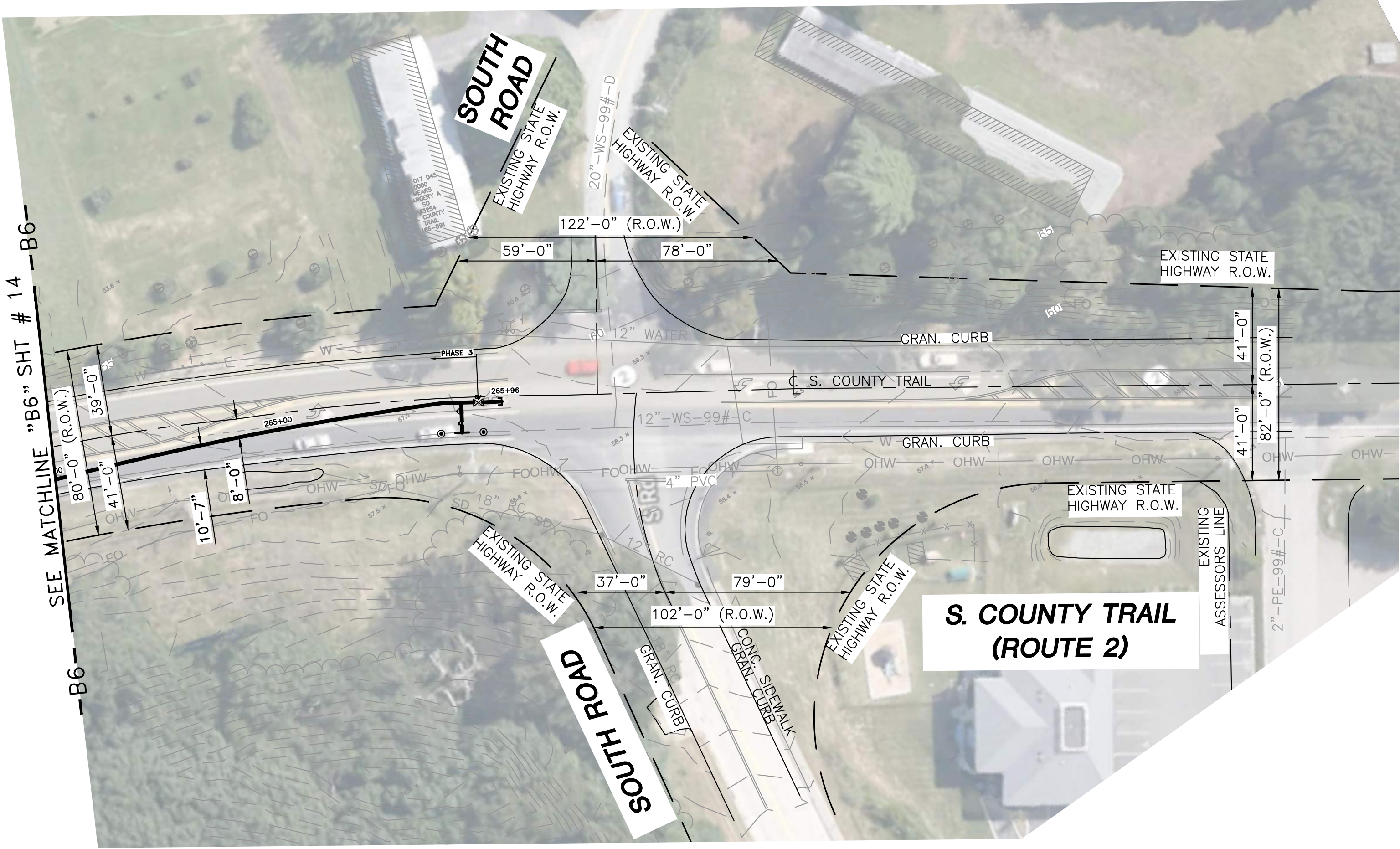
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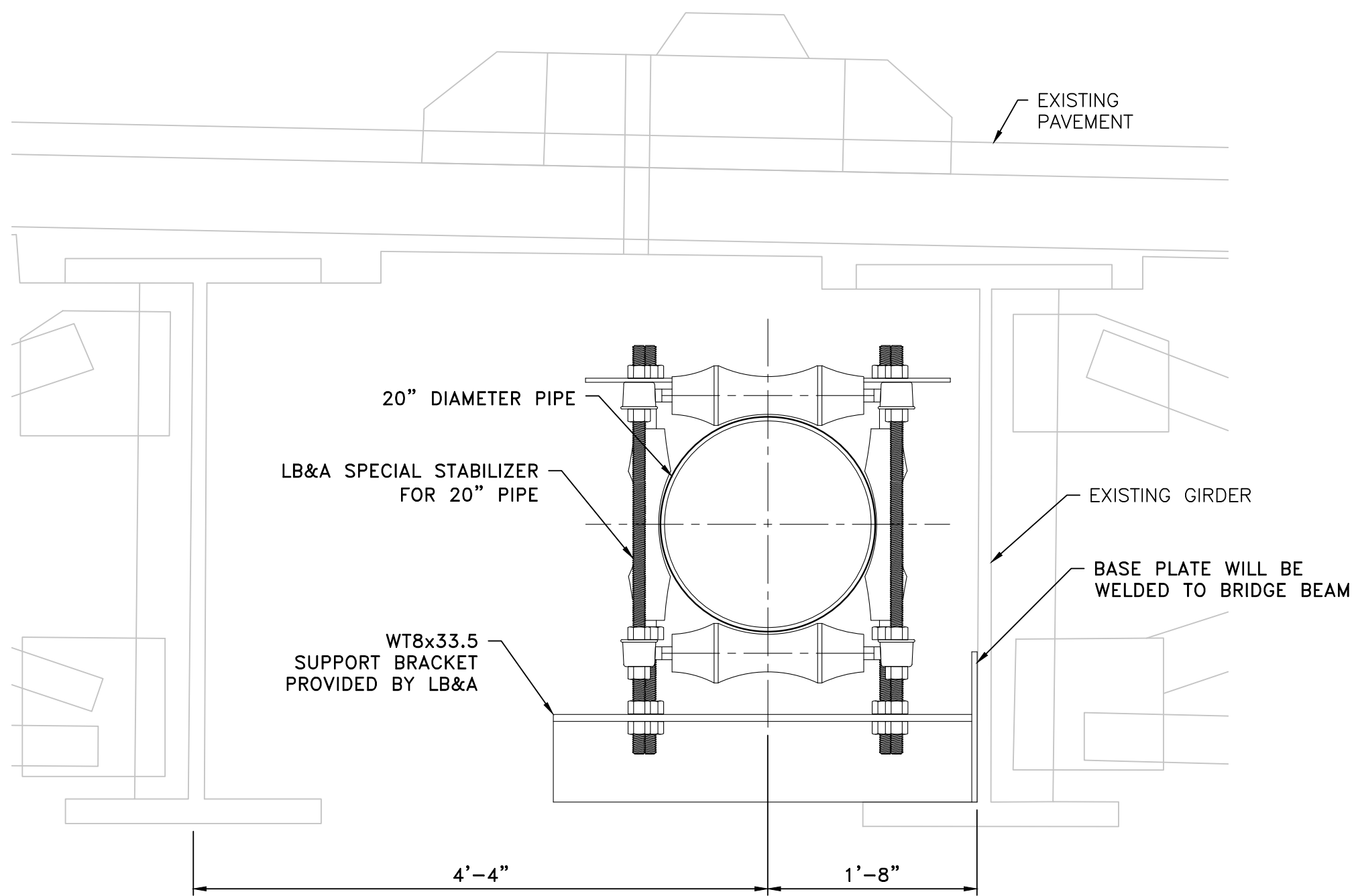
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			NO.	DESCRIPTION	DATE	DR.BY	CK.BY	APP.BY	SCALE: 1"=40'	DRAWN BY: VANESSA MALLOY	DATE: 11/13/2018	CORROSION: -	APPROVED BY: -	ENGINEER: -

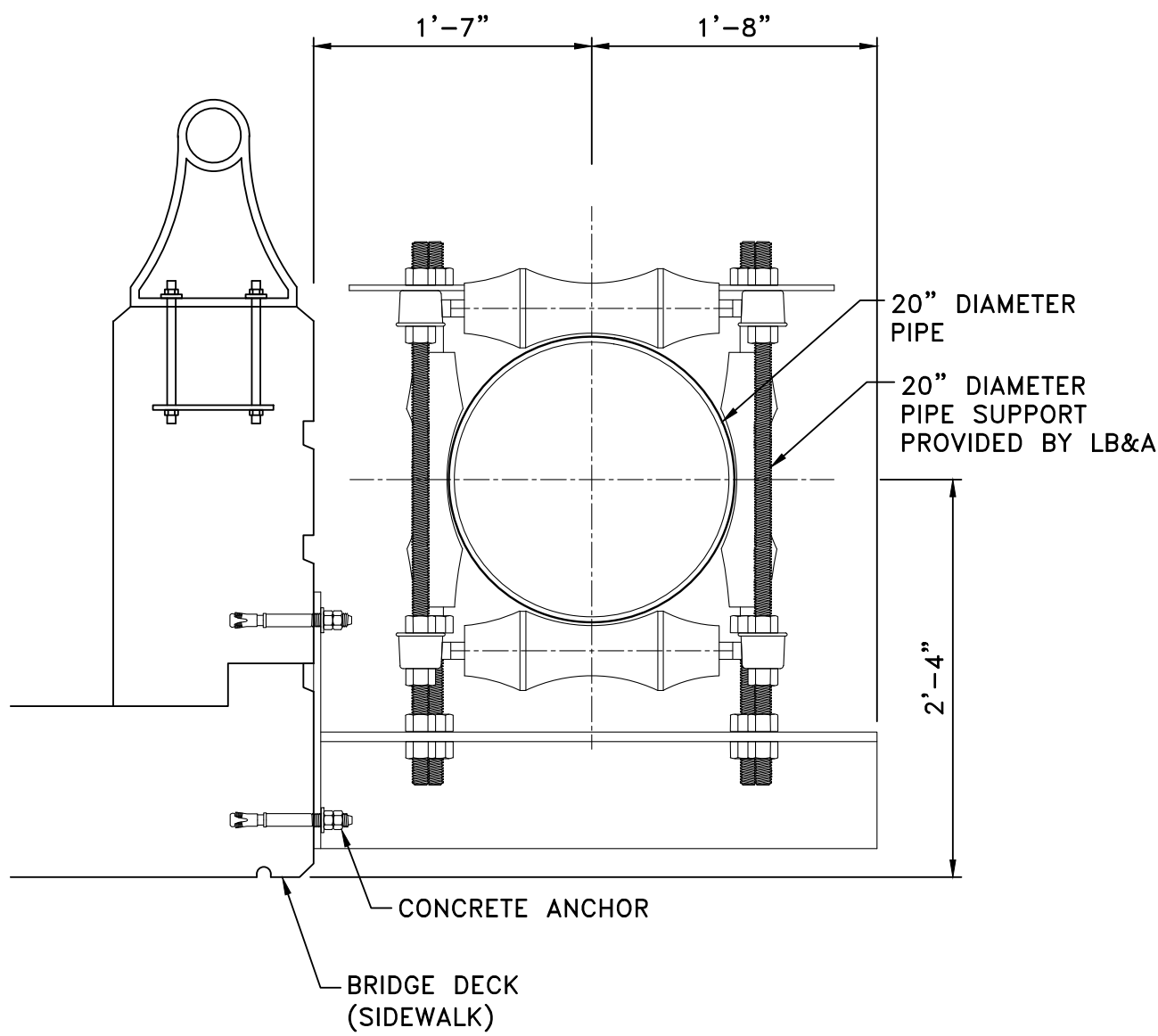
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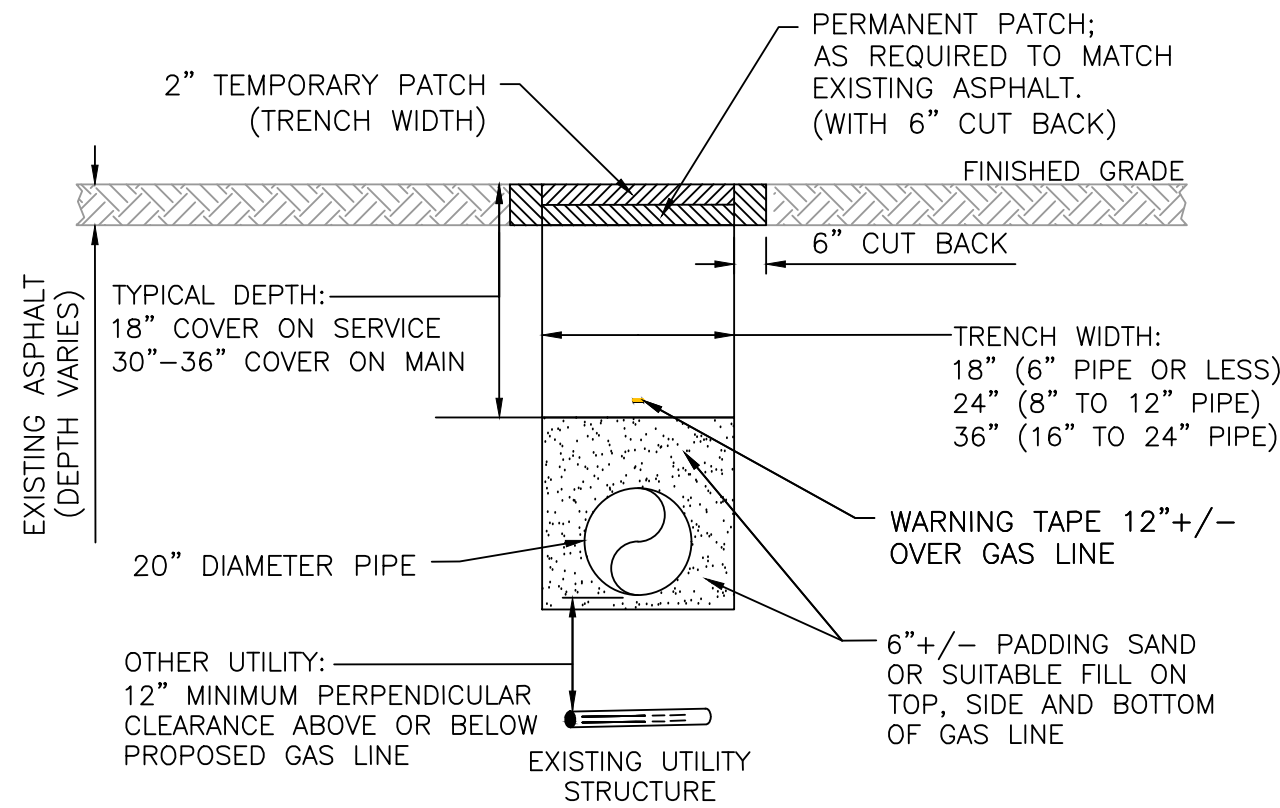
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ROUTE 4 BRIDGE CROSS SECTION
(SCALE: 1"=1')
(TYP. OF 25)

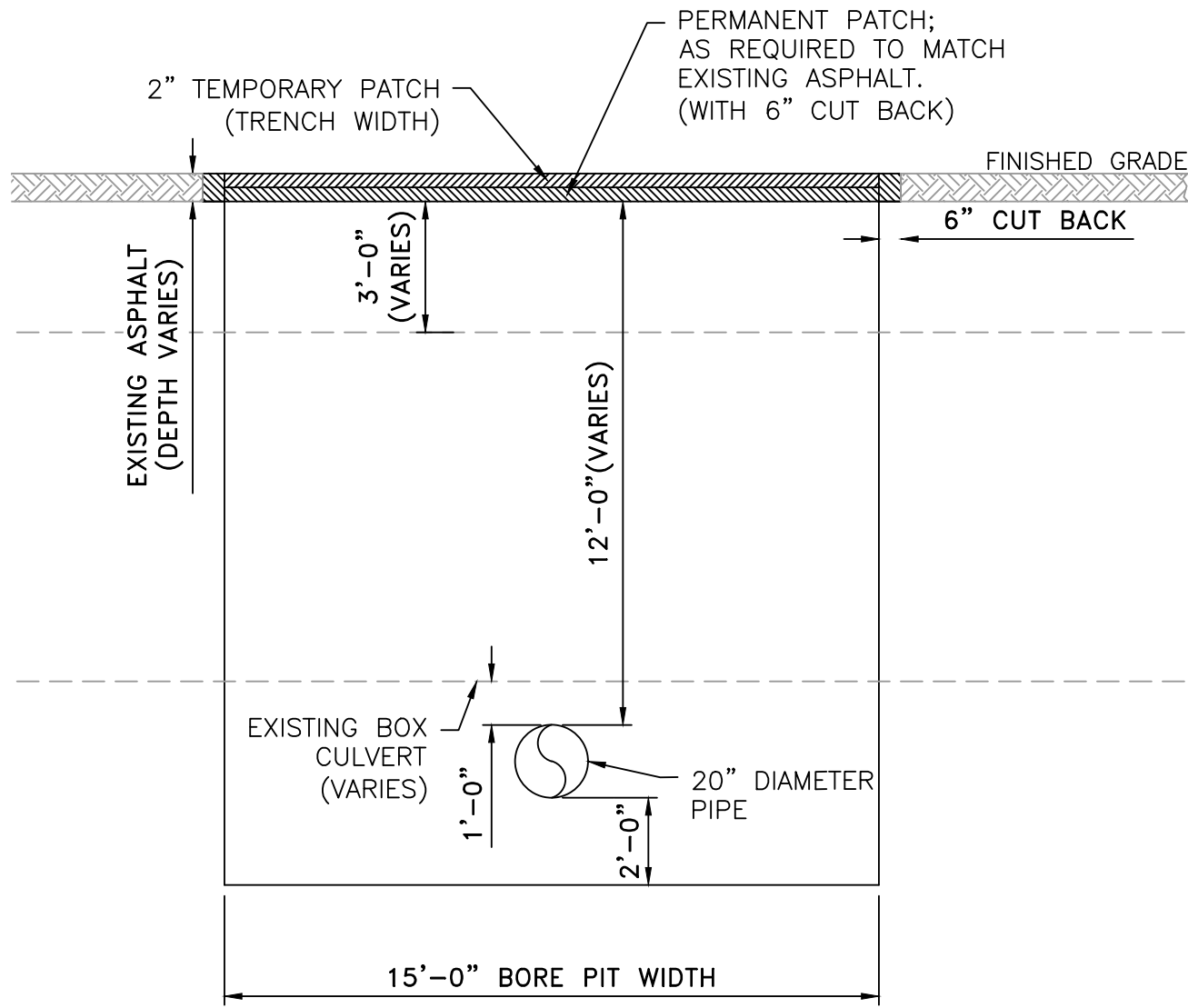


MEADOWBROOK BRIDGE CROSS SECTION
(SCALE: 1"=1')
(TYP. OF 4)



NOTE:
TYPICAL TRENCH DETAIL SUBJECT TO
CHANGE BASED ON RIDOT REQUIREMENTS.

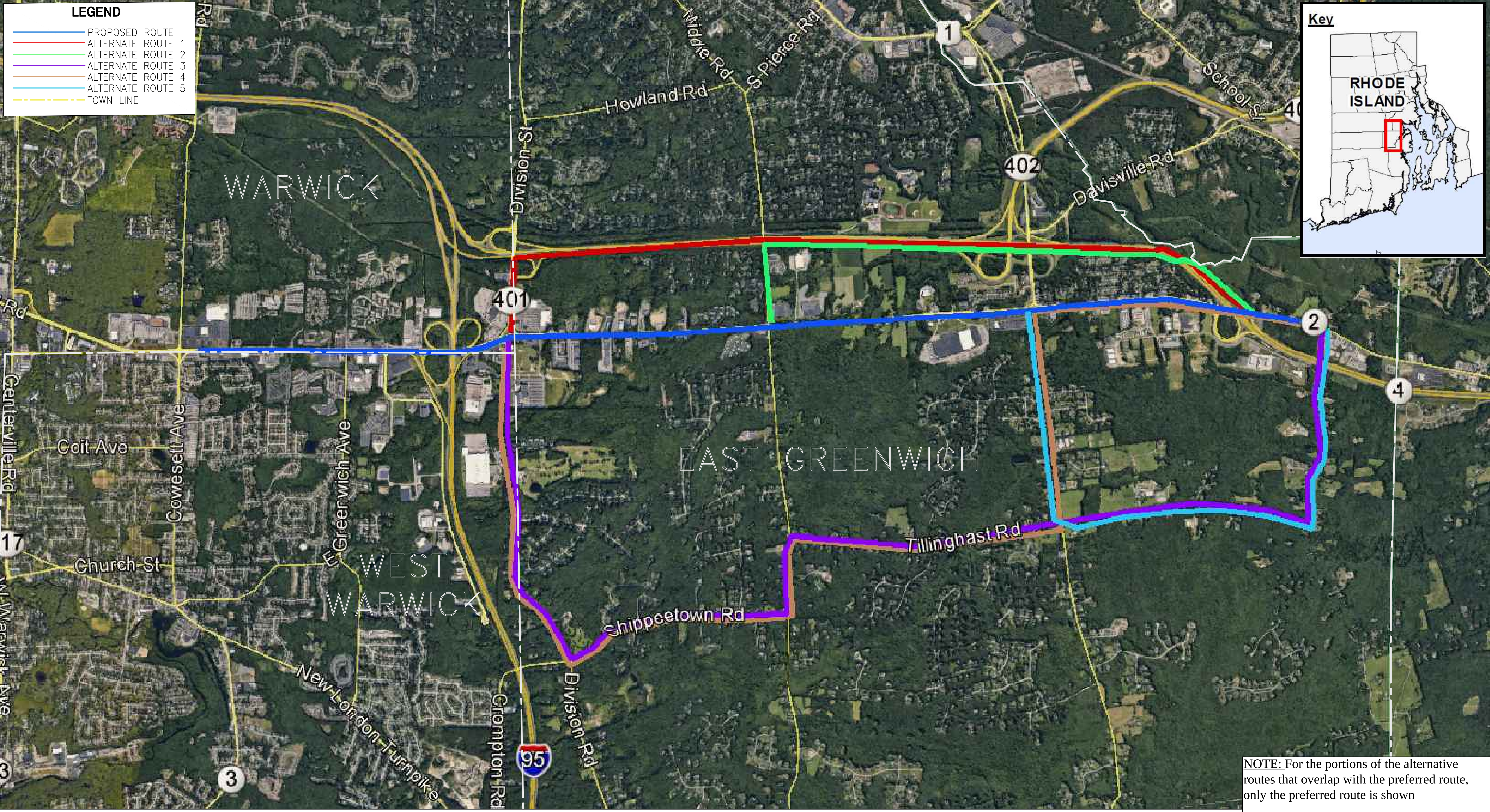
OPEN CUT TRENCH CROSS SECTION
(SCALE: 1"=3')

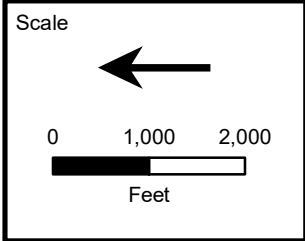
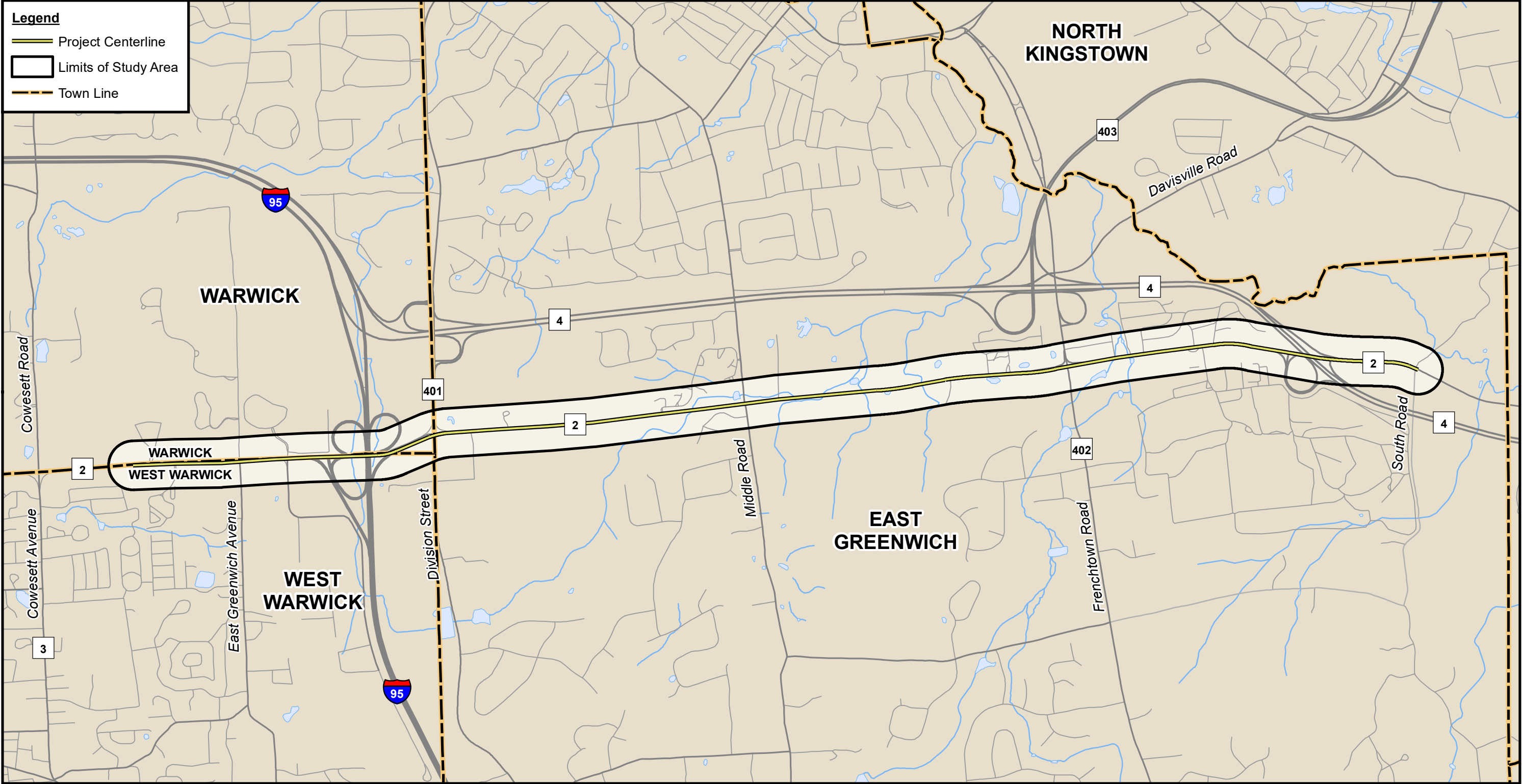


JACK AND BORE CROSS SECTION
(TYPICAL OF 6)
(SCALE: 1"=4')

**APPROVED FOR
BID**

SEALED BY:	SEALED ON:	PREPARED BY:							 40 Sylvan Road Waltham, Massachusetts 02451	FIGURE 3-1 20" MAIN EXTENSION - 200 PSIG PROPOSED CROSS SECTIONS QUAKER LANE AND S COUNTY TRAIL WEST WARWICK AND EAST GREENWICH, RI						SHEET 1 OF 1						
		 28100 TORCH PARKWAY, STE. 400 WARRENVILLE, IL 60555 TEL. 630-353-4000 FAX 630-353-7777 WWW.ENENGINEERING.COM														DRAWING NO. P-SRI-90000188303						
		LICENSE EXPIRATION:																				
SIGNATURE			REVISIONS									SCALE:		DRAWN BY:		DATE:		CORROSION:		APPROVED BY:		ENGINEER:
											NOT TO SCALE		V.MALLOY		09/06/18		-		-		DAVID LESSARD	



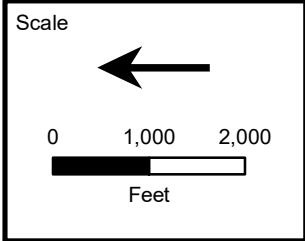
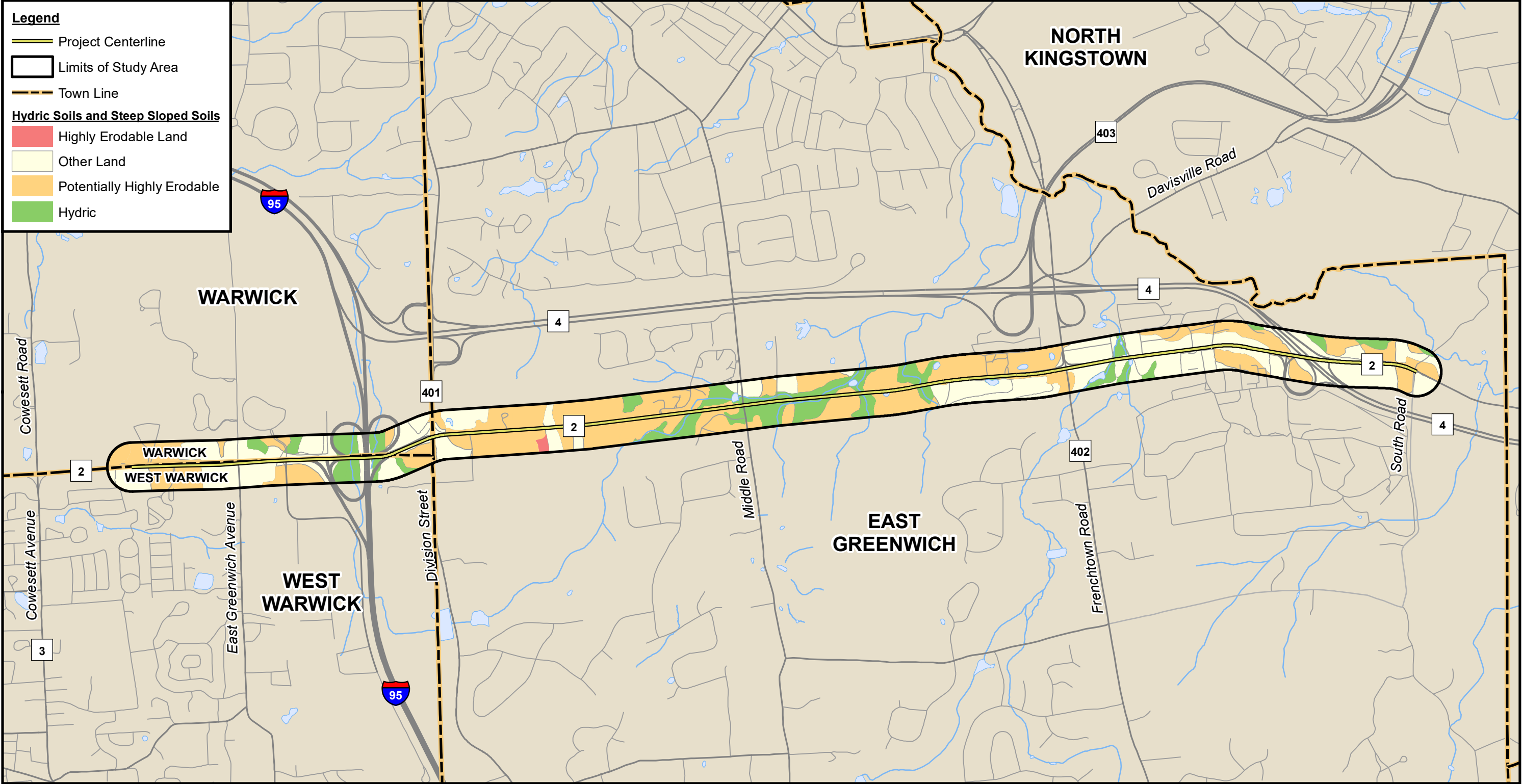


GROWTHPOINT SOUTHERN RHODE ISLAND GROWTH REINFORCEMENT PROJECT
COWESETT AVENUE TO SOUTH ROAD
WEST WARWICK, WARWICK AND EAST GREENWICH
Base Map
Figure 5-1

Source:
RIDOT Roads Data (2016)

Accessed: September 2018





GROWTHPOINT SOUTHERN RHODE ISLAND GROWTH REINFORCEMENT PROJECT
COWESETT AVENUE TO SOUTH ROAD
WEST WARWICK, WARWICK AND EAST GREENWICH
Soils Map
Figure 5-2

Source:
RIGIS Soils Data (2016)

Accessed: September 2018



Legend

— Project Centerline

▭ Limits of Study Area

- - - Town Line

Sole Source Aquifer Information

▨ Hunt-Annaquatucket/Pettaquamscutt (HAP)

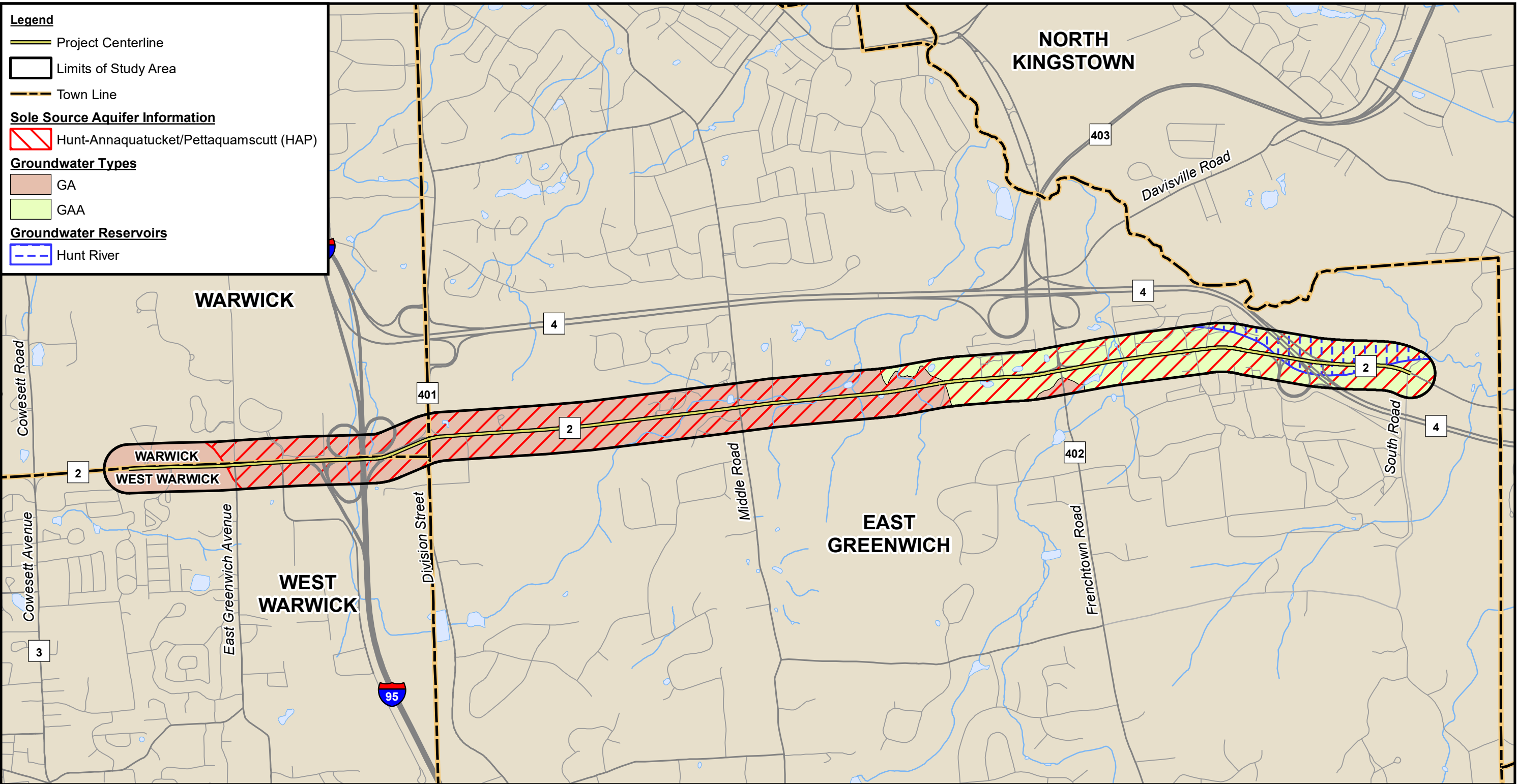
Groundwater Types

■ GA

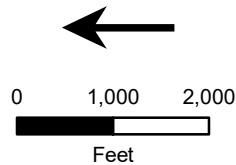
■ GAA

Groundwater Reservoirs

- - - Hunt River



Scale



GROWTHPOINT SOUTHERN RHODE ISLAND GROWTH REINFORCEMENT PROJECT

COWESETT AVENUE TO SOUTH ROAD

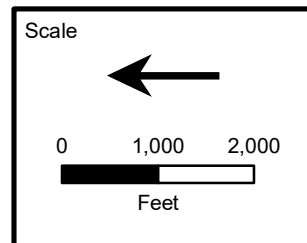
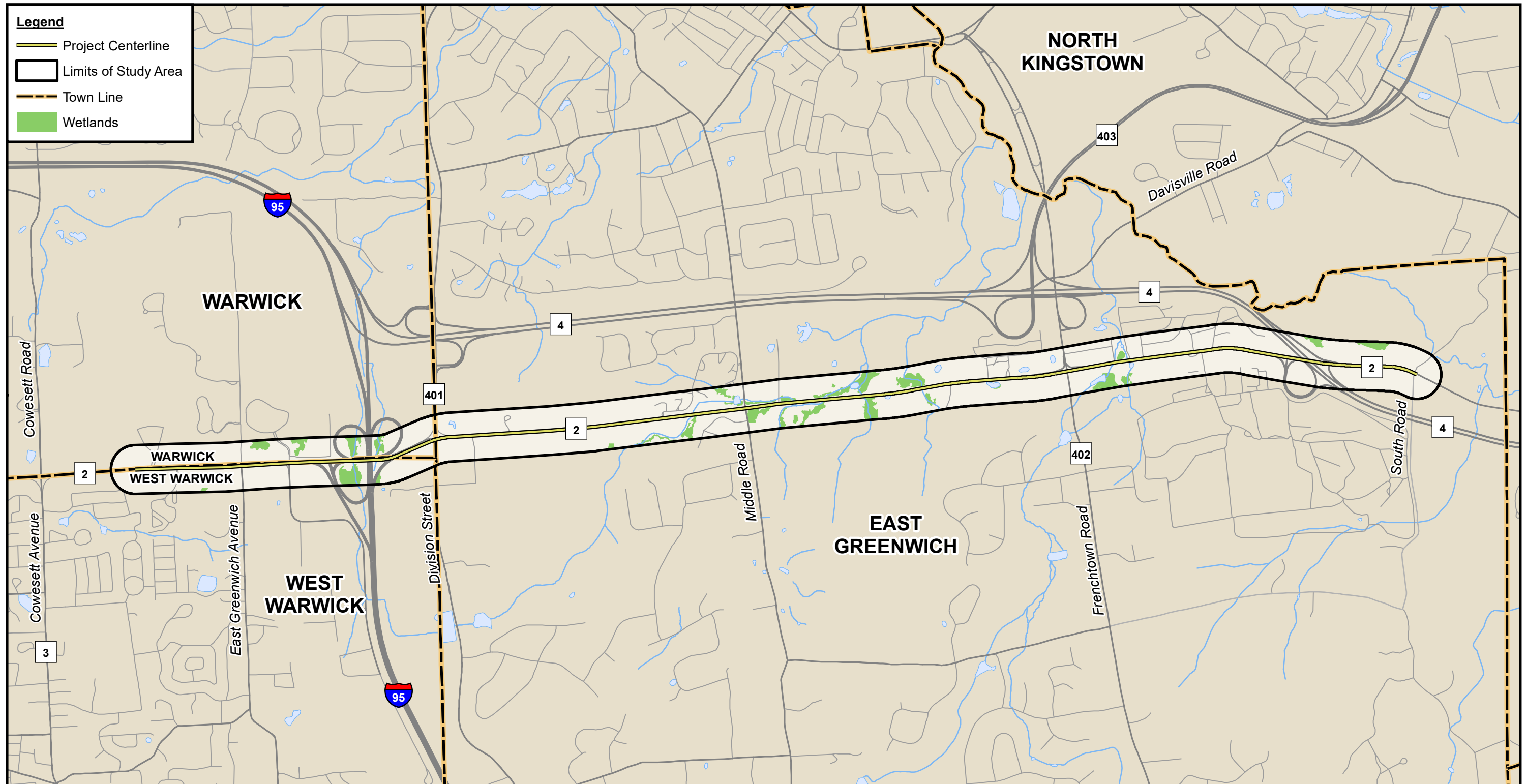
WEST WARWICK, WARWICK AND EAST GREENWICH

Surface and Groundwater Resources Map

Figure 5-3

Source:
RI GIS Sole Source Aquifer Data (2011)
RI GIS Groundwater Type Data (2012)
RI GIS Groundwater Reservoirs (2017)
Accessed: September 2018





GROWTHPOINT SOUTHERN RHODE ISLAND GROWTH REINFORCEMENT PROJECT
COWESETT AVENUE TO SOUTH ROAD

WEST WARWICK, WARWICK AND EAST GREENWICH

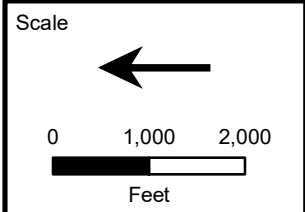
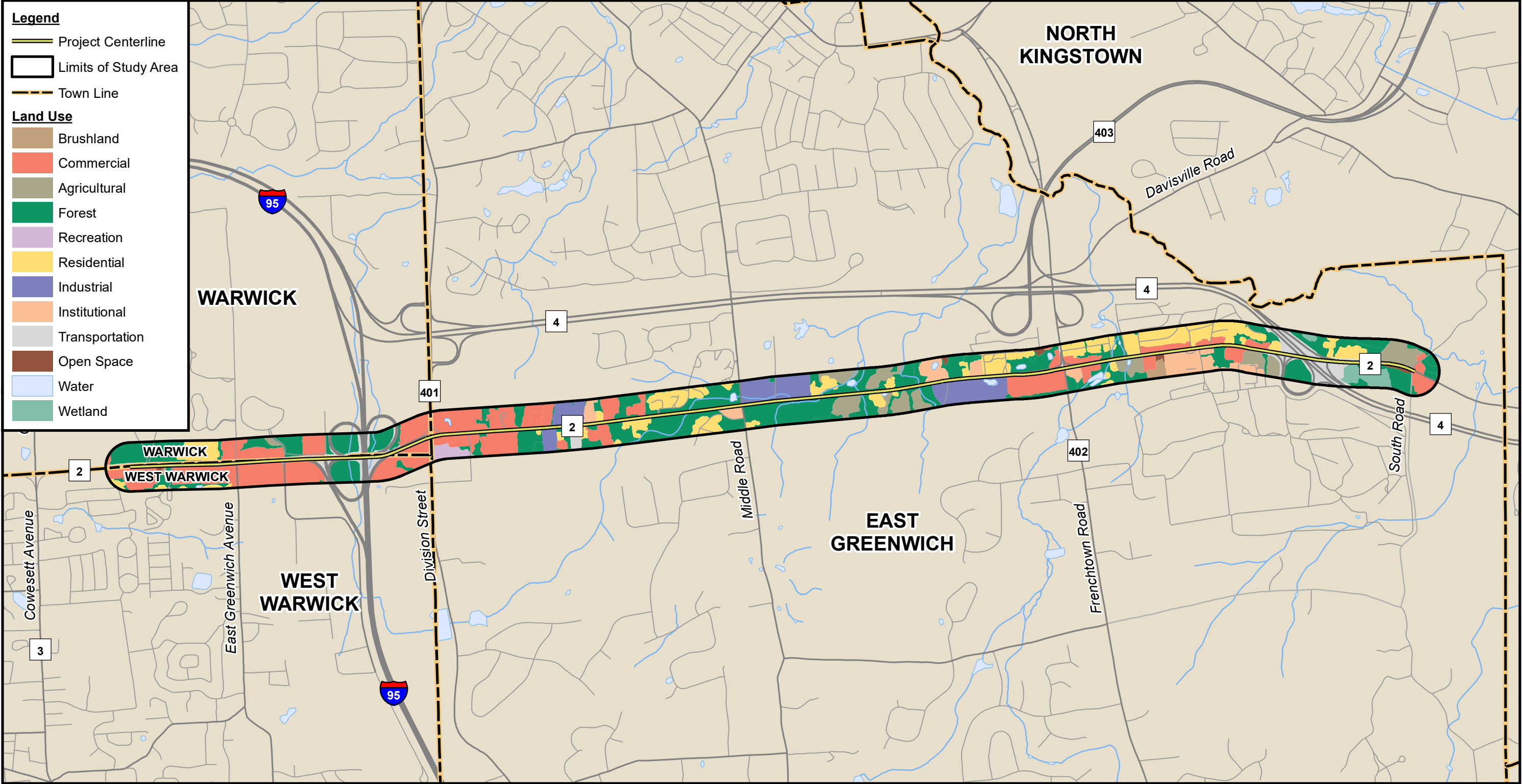
Wetlands Map

Figure 5-4

Source:
National Wetlands Inventory
Data (2014)

Accessed: September 2018





GROWTHPOINT SOUTHERN RHODE ISLAND GROWTH REINFORCEMENT PROJECT
COWESETT AVENUE TO SOUTH ROAD
WEST WARWICK, WARWICK AND EAST GREENWICH
Land Use Map
Figure 6-1

Source:
RIGIS Land Use Data (2011)
Accessed and Revised:
January 2018 Using URI EDC,
RIGIS Aerials

nationalgrid
vhb