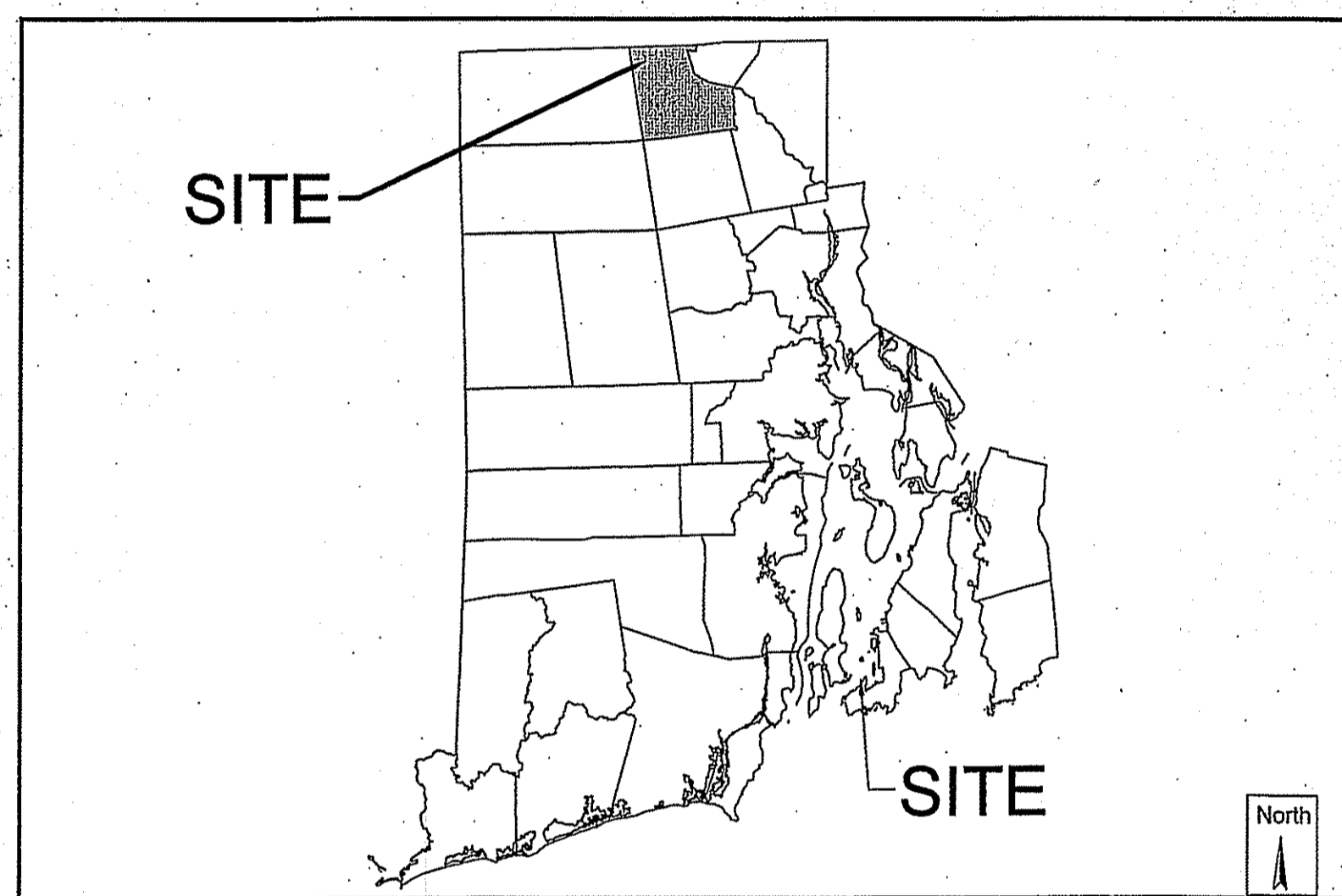
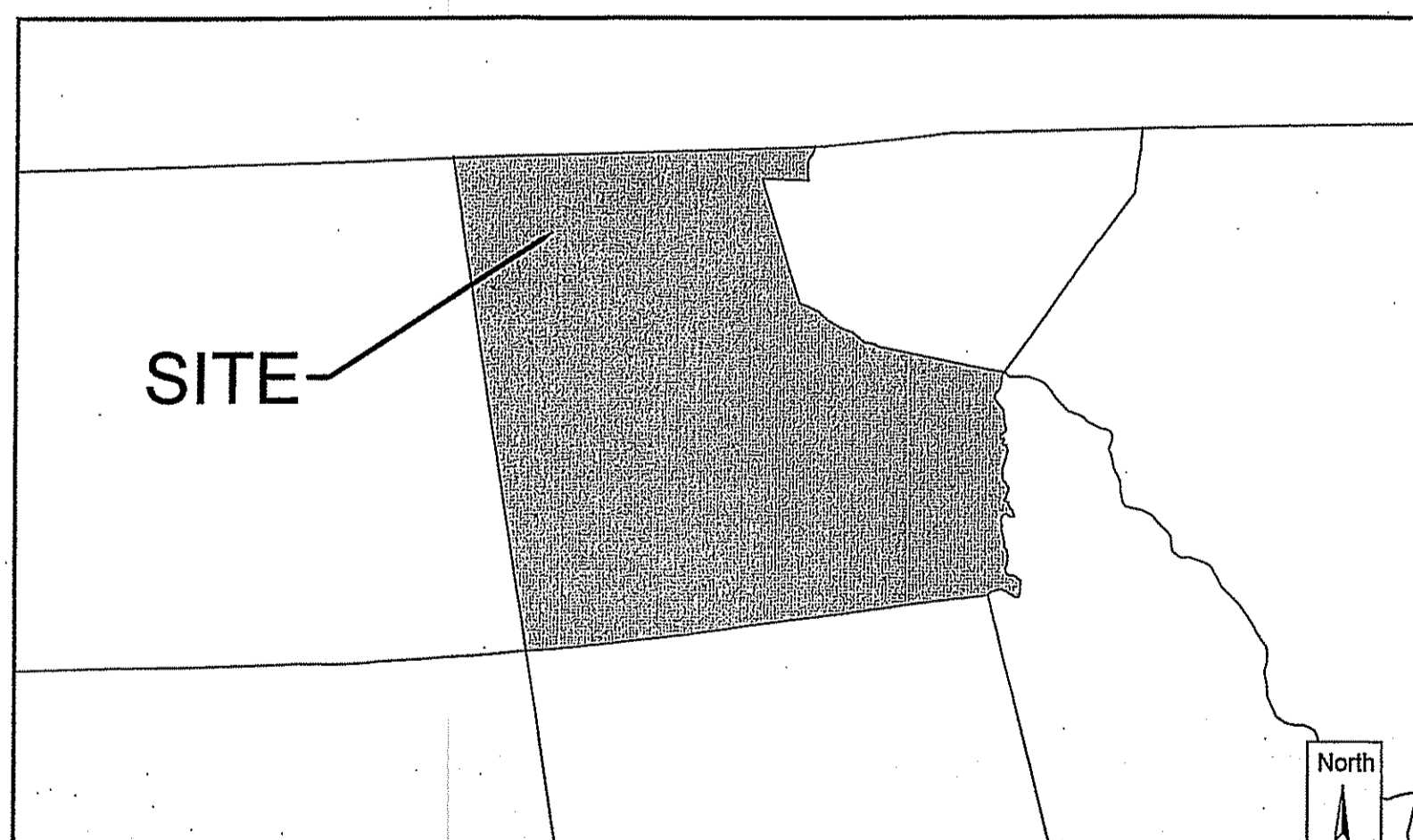


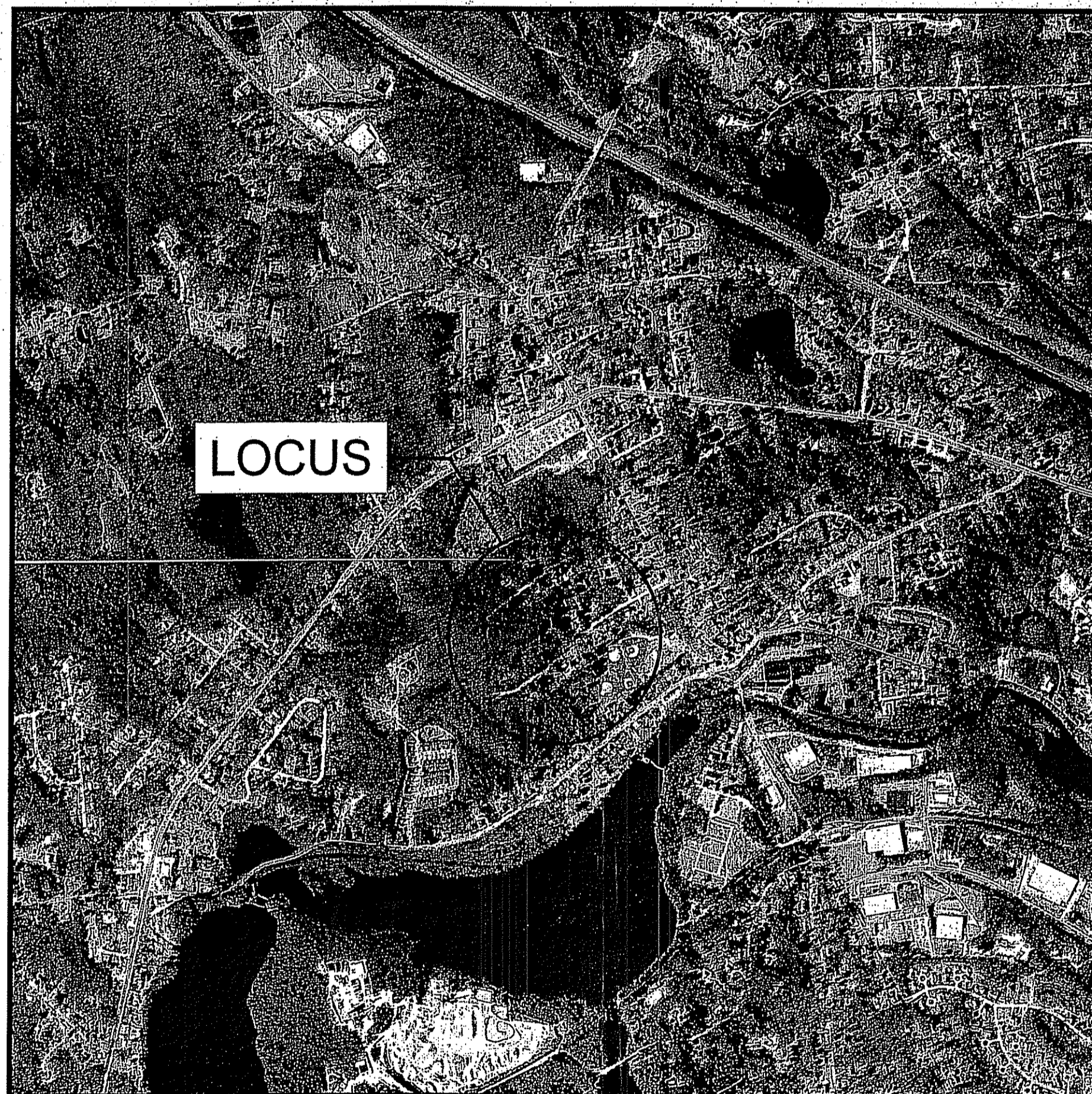
SEWER EXTENSION PARKVIEW DRIVE & EDWARDS AVENUE NORTH SMITHFIELD, RHODE ISLAND OCTOBER 2017



RHODE ISLAND
Graphic Scale
0 50000
SCALE IN FEET
1:50000



TOWN
Graphic Scale
0 5000
SCALE IN FEET
1:5000



VICINITY MAP
Graphic Scale
1-inch = 1000-feet

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	NOTES AND DETAILS
3	EXISTING CONDITIONS (1)
4	EXISTING CONDITIONS (2)
5	EXISTING CONDITIONS (3)
6	OVERALL SEWER PLAN
7	SEWER PROFILE (1)
8	SEWER PROFILE (2)
9	SEWER PROFILE (3)
10	SEWER PROFILE (4)
11	SEWER PROFILE (5)
12	DETAILS

GENERAL NOTES:

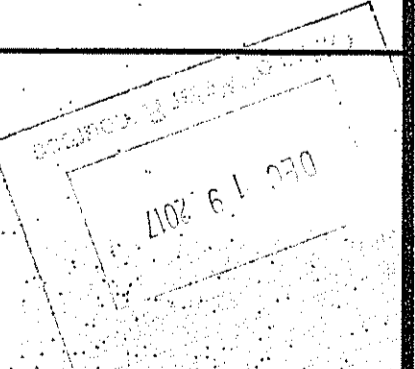
- THIS PLAN SET IS FOR PERMITTING ONLY AND NOT FOR CONSTRUCTION. ANY CHANGES ALLOWED WITHOUT PRIOR APPROVAL. APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 8 2018 FILE # 17-0207

John A. Harte

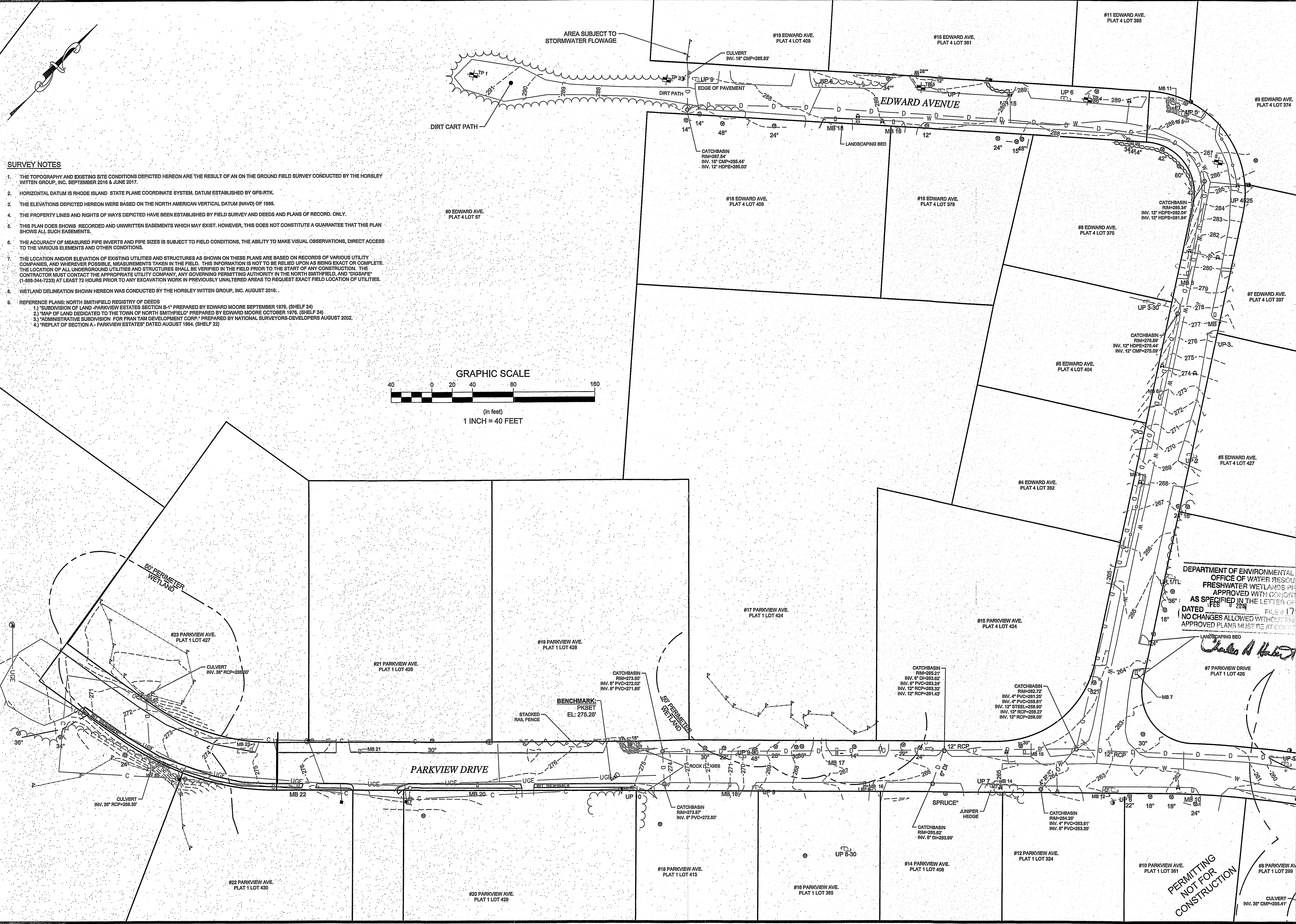
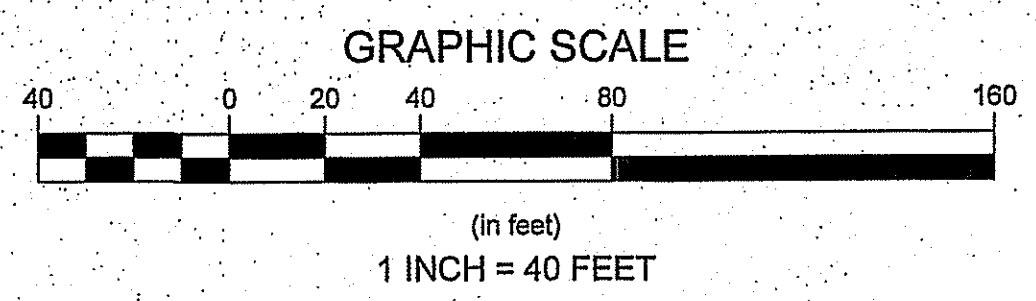
Plan Set:		SEWER EXTENSION PARKVIEW DRIVE & EDWARDS AVENUE NORTH SMITHFIELD, RHODE ISLAND	
Prepared For:		NORTH SMITHFIELD SEWER COMMISSION NORTH SMITHFIELD, RI	
Prepared By:		Horsley Witten Group, Inc. Sustainable Environmental Solutions www.horsleywitten.com	
Headquarters 60 Route 6A Sandwich, MA 02563 (508) 833-6600 voice (508) 833-3150 fax	294 Washington Street Suite 801 Boston, MA 02108 (857) 263-8193 voice (617) 574-4799 fax	55 Dorrance Street Suite 403 Providence, RI 02906 (401) 272-1717 voice (401) 439-6368 fax	30 Green Street Newburyport, MA 01850 (978) 499-0601 voice (978) 499-0602 fax
Date Issued: OCTOBER 2017	Registration: FAT PIU LEE No. 7984 PROFESSIONAL ENGINEER (CIVIL) 145217	Revisions	Project Number: 17087
Designed By: JEH	Drawn By: JEH	Checked By: FPLRC	Sheet Number: 1 of 12
Drawing Number: C-1			

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last modified: 12/14/17 printed: 12/14/17 by jh H:\Projects\2015\15084_north_smithfield-engineering support\Drawings\15084_EX.dwg

- SURVEY NOTES**
- THE TOPOGRAPHY AND EXISTING SITE CONDITIONS DEPICTED HEREON ARE THE RESULT OF AN ON THE GROUND FIELD SURVEY CONDUCTED BY THE HORSLEY WITTEN GROUP, INC. SEPTEMBER 2016 & JUNE 2017.
 - HORIZONTAL DATUM IS RHODE ISLAND STATE PLANE COORDINATE SYSTEM. DATUM ESTABLISHED BY GPS-RTK.
 - THE ELEVATIONS DEPICTED HEREON WERE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.
 - THE PROPERTY LINES AND RIGHTS OF WAYS DEPICTED HAVE BEEN ESTABLISHED BY FIELD SURVEY AND DEEDS AND PLANS OF RECORD. ONLY.
 - THIS PLAN DOES SHOWS RECORDED AND UNWRITTEN EASEMENTS WHICH MAY EXIST. HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE THAT THIS PLAN SHOWS ALL SUCH EASEMENTS.
 - THE ACCURACY OF MEASURED PIPE INVERTS AND PIPE SIZES IS SUBJECT TO FIELD CONDITIONS, THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS AND OTHER CONDITIONS.
 - THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE NORTH SMITHFIELD, AND "DIGSAFE" (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK IN PREVIOUSLY UNALTERED AREAS TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
 - WETLAND DELINEATION SHOWN HEREON WAS CONDUCTED BY THE HORSLEY WITTEN GROUP, INC. AUGUST 2016.
 - REFERENCE PLANS, NORTH SMITHFIELD REGISTRY OF DEEDS
 - SUBDIVISION OF LAND - PARKVIEW ESTATES SECTION B-1* PREPARED BY EDWARD MOORE SEPTEMBER 1976. (SHELF 24)
 - MAP OF LAND DEDICATED TO THE TOWN OF NORTH SMITHFIELD* PREPARED BY EDWARD MOORE OCTOBER 1976. (SHELF 24)
 - ADMINISTRATIVE SUBDIVISION FOR FRAM TAM DEVELOPMENT CORP.* PREPARED BY NATIONAL SURVEYORS-DEVELOPERS AUGUST 2002.
 - REPLAT OF SECTION A - PARKVIEW ESTATES* DATED AUGUST 1954. (SHELF 22)



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Revisions	Date	By	Appr.	Description

Horsley Witten Group, Inc.
Sustainable Environmental Solutions
www.horsleywitten.com
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508-833-3750 fax

Checked By: JEH
Drawn By: JEH
Designed By: JEH
Date: OCTOBER 2017

SEWER EXTENSION
PARKVIEW DRIVE & EDWARDS AVENUE
EDWARDS AVENUE
NORTH SMITHFIELD, RHODE ISLAND
EXISTING CONDITIONS (1)

DEPARTMENT OF ENVIRONMENTAL
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PERMIT
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF
DATE FEB 17 2017
NO CHANGES ALLOWED WITHOUT THE
APPROVED PLANS MUST BE AT COMPLETION

Charles A. Harte

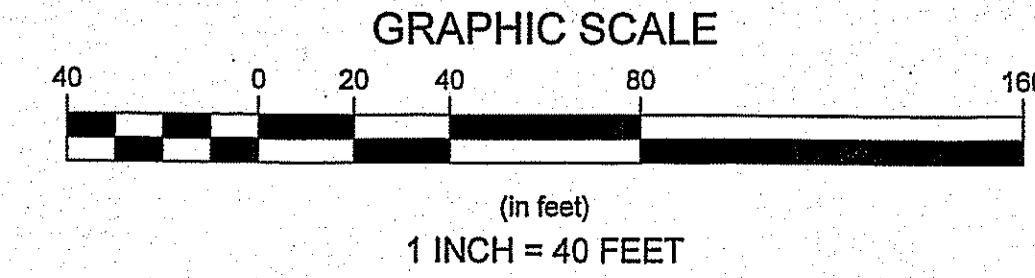
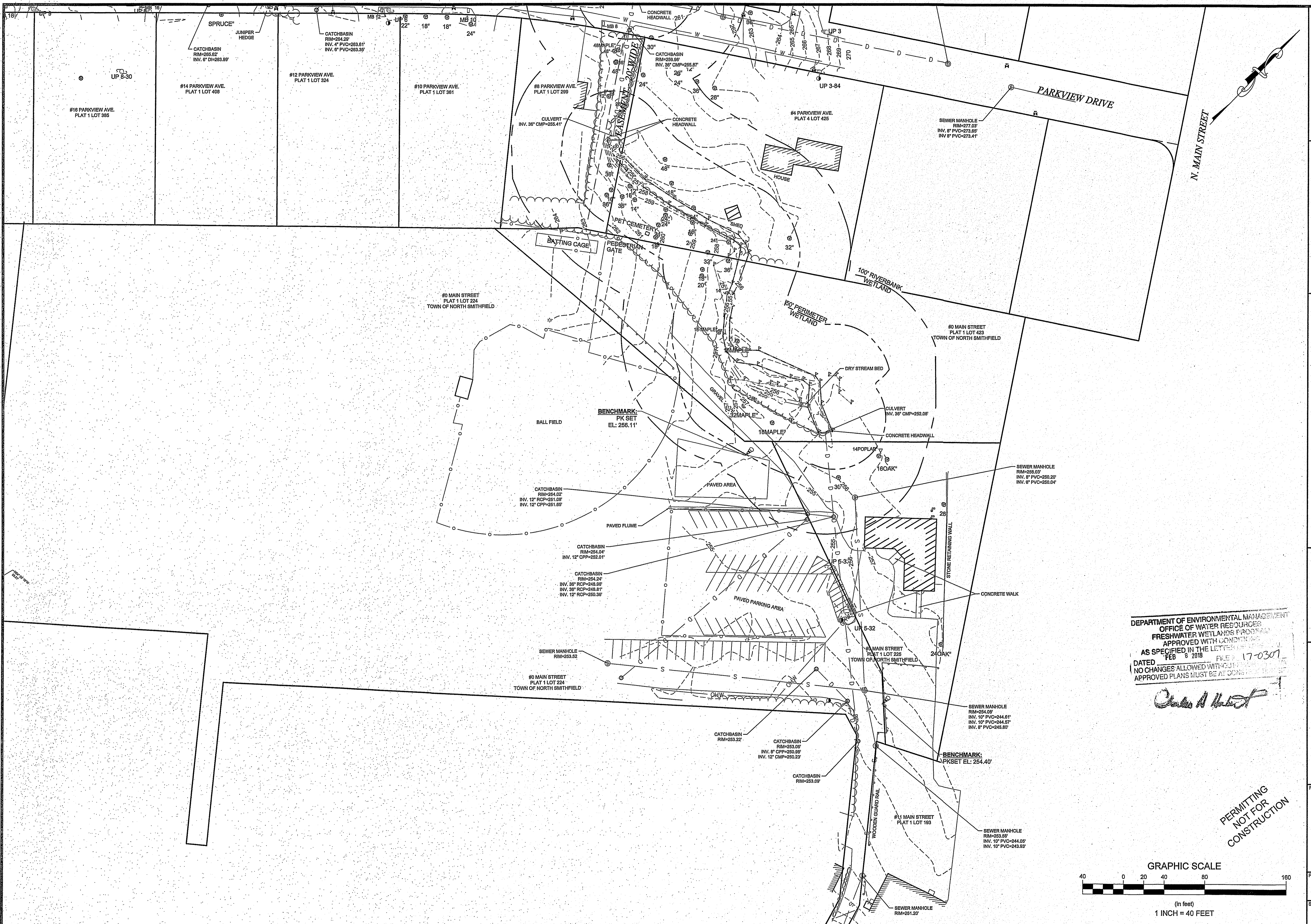
North Smithfield
SEWER COMMISSION
NORTH SMITHFIELD, RI
Phone: 401-671-2200
Fax: 401-671-2200

Survey Provided By:
Horsley Witten Group, Inc.
90 Route 6A, JH1.1
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E-mail: info@hwgroup.com

DANIEL MACKENZIE
No. 2512
PROFESSIONAL LAND SURVEYOR

Project Number: 17087
Sheet: 3 of 12
Sheet Number: C-3

last modified: 12/14/17 - p:\m\12141717 - jh - H:\Projects\2015\15084_north_smithfield_engineering_support\Drawings\15084_EX.dwg



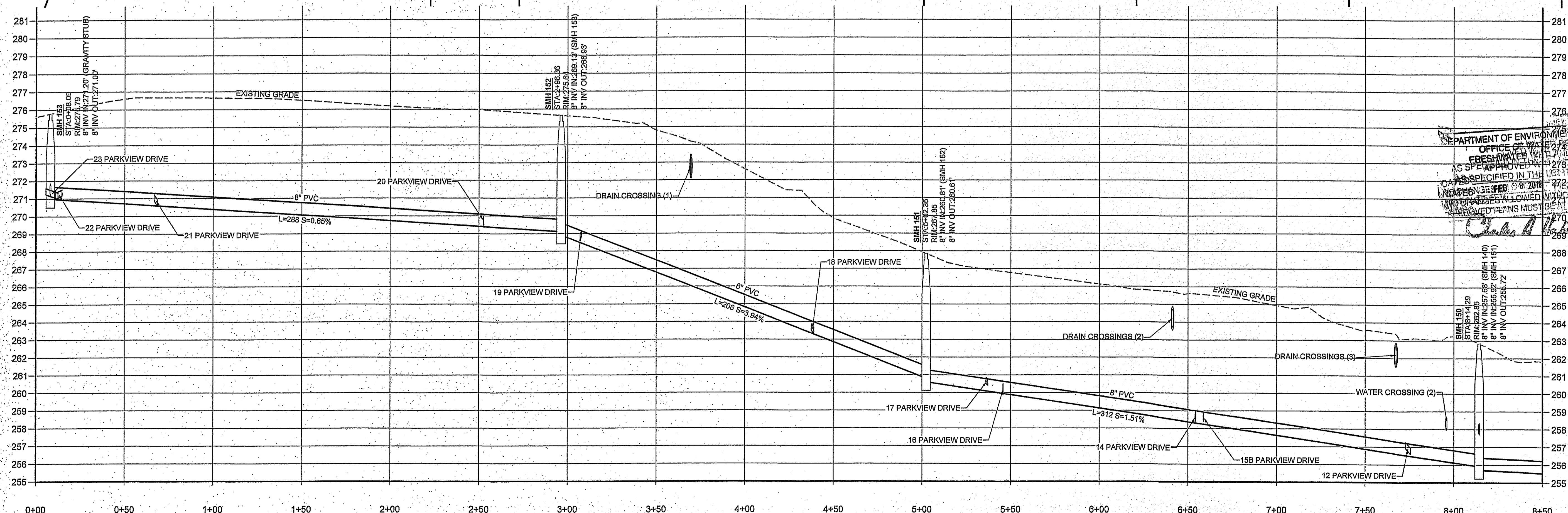
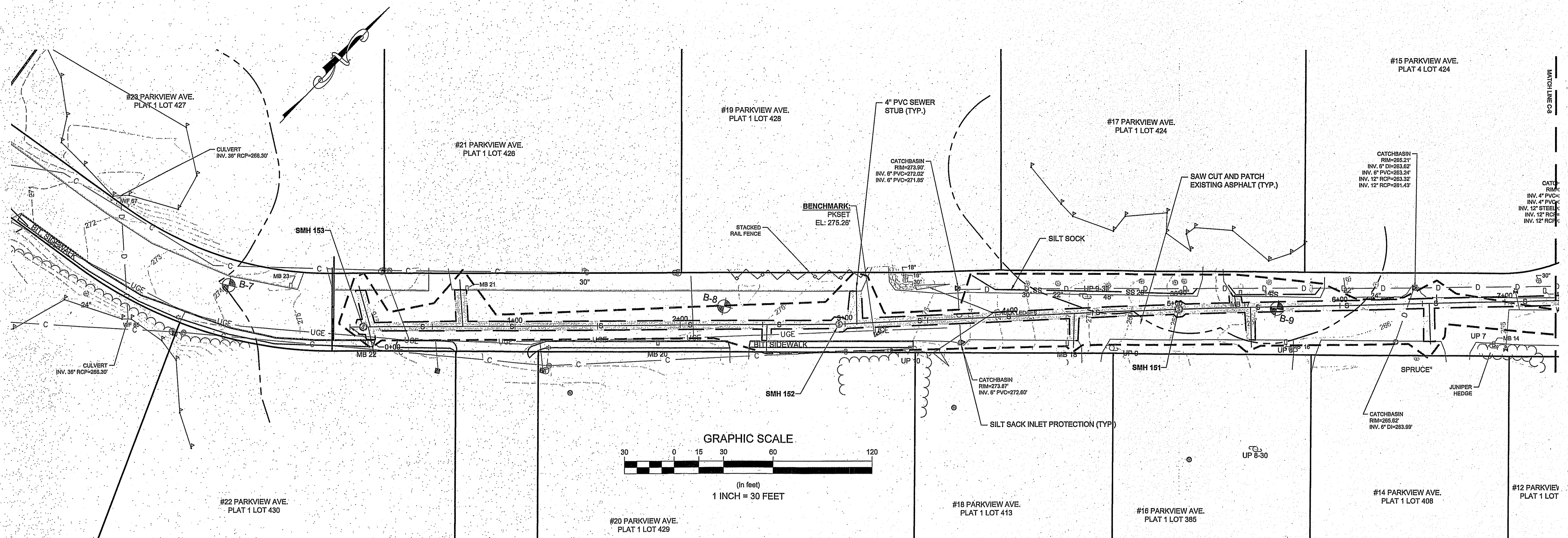
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER DATED
 FEB 8 2018 FILE # 17-0307
 DATED
 NO CHANGES ALLOWED WITHOUT APPROVED PLANS MUST BE AT OWNERS RISK

Charles A. Hackett

<p> SEWER EXTENSION PARKVIEW DRIVE & EDWARDS AVENUE EDWARD AVENUE NORTH SMITHFIELD, RHODE ISLAND EXISTING CONDITIONS (2) </p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"> Horsley Witten Group, Inc. Sustainable Environmental Solutions www.horsleywitten.com Sandwich, MA 02563 508-833-6600 voice 508-833-3150 fax </td> <td style="font-size: 8px;"> Date: OCTOBER 2017 Drawn By: JEN Checked By: JPL/UC Date: By: Page: Description </td> </tr> </table>	 Horsley Witten Group, Inc. Sustainable Environmental Solutions www.horsleywitten.com Sandwich, MA 02563 508-833-6600 voice 508-833-3150 fax	Date: OCTOBER 2017 Drawn By: JEN Checked By: JPL/UC Date: By: Page: Description
 Horsley Witten Group, Inc. Sustainable Environmental Solutions www.horsleywitten.com Sandwich, MA 02563 508-833-6600 voice 508-833-3150 fax	Date: OCTOBER 2017 Drawn By: JEN Checked By: JPL/UC Date: By: Page: Description		
<p> Prepared For: NORTH SMITHFIELD SEWER COMMISSION NORTH SMITHFIELD, RI Phone: 401-767-2200 Fax: </p>	<p> Survey Provided By: Horsley Witten Group, Inc. 90 Route 6A, Unit 1 Sandwich, MA 02563 Phone: (508) 833-6600 Fax: (508) 833-3150 Dated: SEPT. 2016 </p>		
<p> Registration: DANIEL MACKENZIE No. 2512 PROFESSIONAL LAND SURVEYOR </p>	<p> Project Number: 17087 Sheet: 4 of 12 Sheet Number: C-4 </p>		

Last modified: 12/12/17 printed: 12/14/17 by jh H:\Projects\2015\15084 north smithfield-engineering support\Drawings\15084 WWW.dwg



PARKVIEW DRIVE SEWER PROFILE
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 2'

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Revisions	Date	By	Appr.	Description
1				
2				
3				
4				
5				

Checked By: JPH/JC
 Drawn By: JPH
 Designed By: JPH
 Date: OCTOBER 2017

Horsley Witten Group, Inc.
 Sustainable Environmental Solutions
 www.horsleywitten.com
 90 Route 6A
 Sandwich, MA 02563
 Phone: (508) 833-8800
 Fax: (508) 833-3180

Plan Set:
**SEWER EXTENSION
 PARKVIEW DRIVE & EDWARDS AVENUE
 NORTH SMITHFIELD, RHODE ISLAND**
 Plan Title:
SEWER PROFILE (3)

Prepared For:
**NORTH SMITHFIELD
 SEWER COMMISSION
 NORTH SMITHFIELD, RI
 Phone: 401-787-2200
 Fax:**

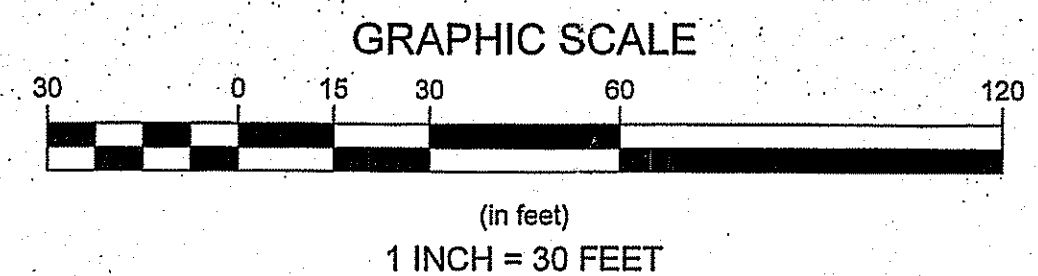
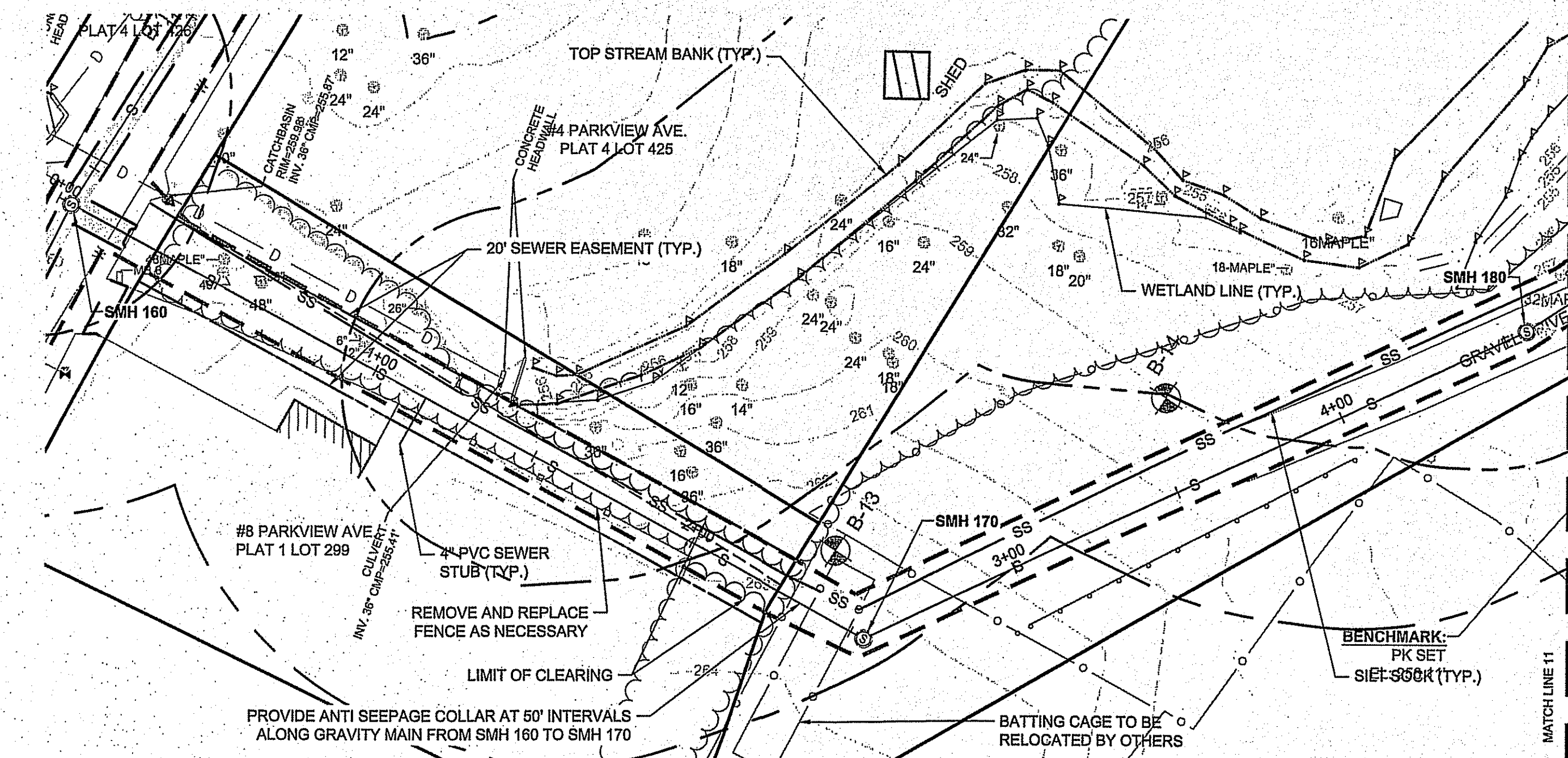
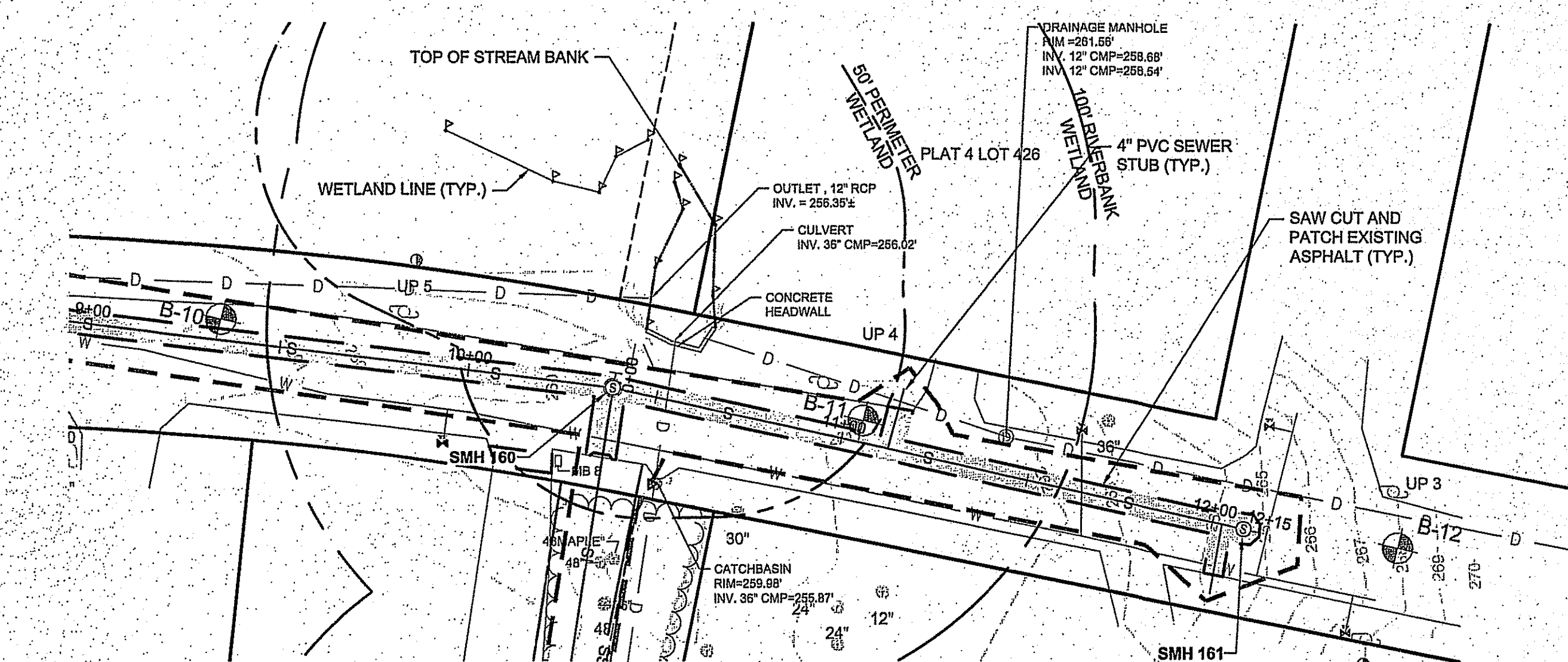
Survey Provided By:
Horsley Witten Group, Inc.
 90 Route 6A, Unit 1
 Sandwich, MA 02563
 Phone: (508) 833-8800
 Fax: (508) 833-3180
 Date: SEPT. 2016

Registration:

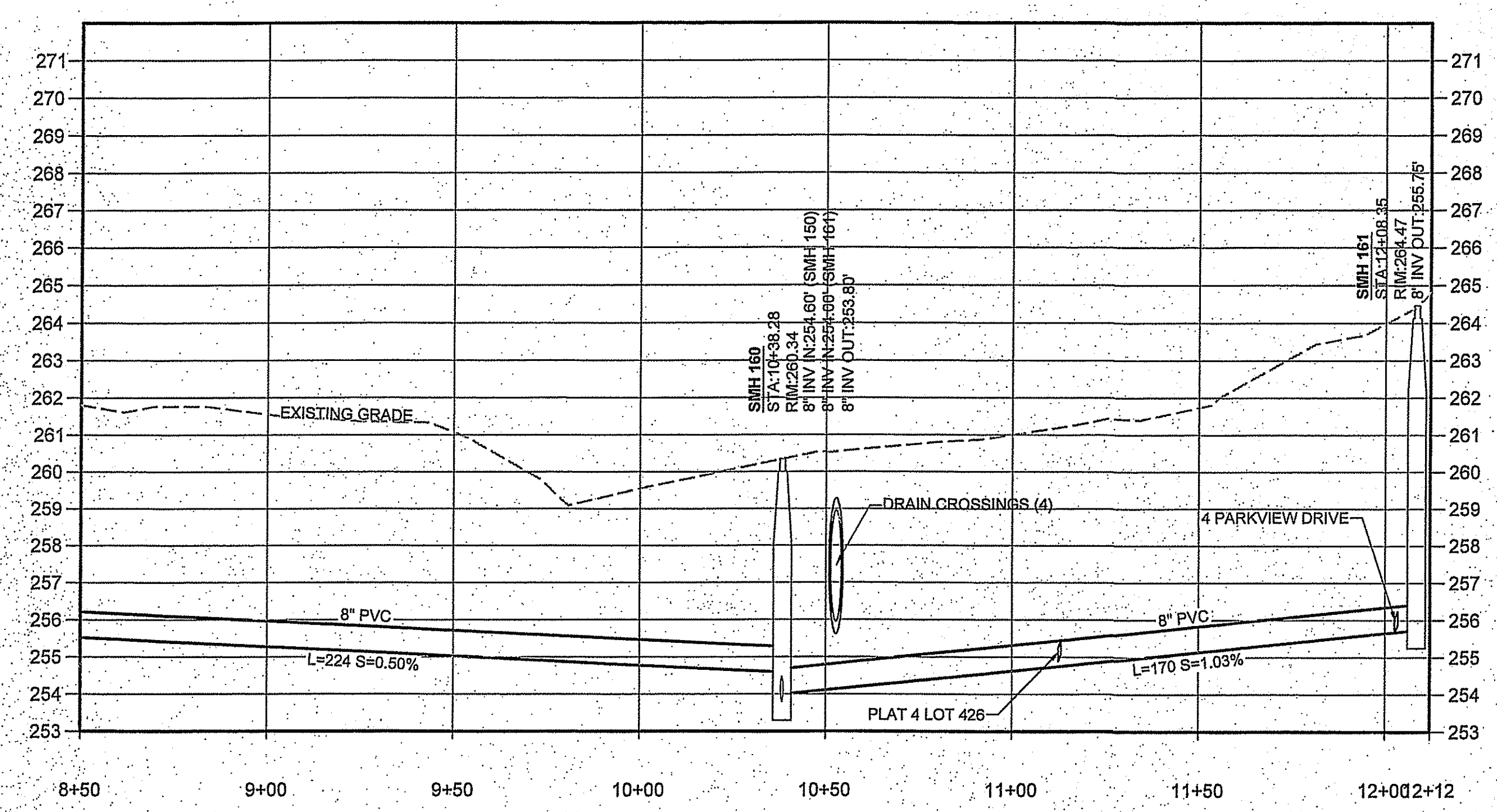
FAT PI U LEE
 No. 7984
 PROFESSIONAL ENGINEER
 (CIVIL) 12/21/17

Project Number: 17087
 Sheet: 9 of 12
 Sheet Number: C-9

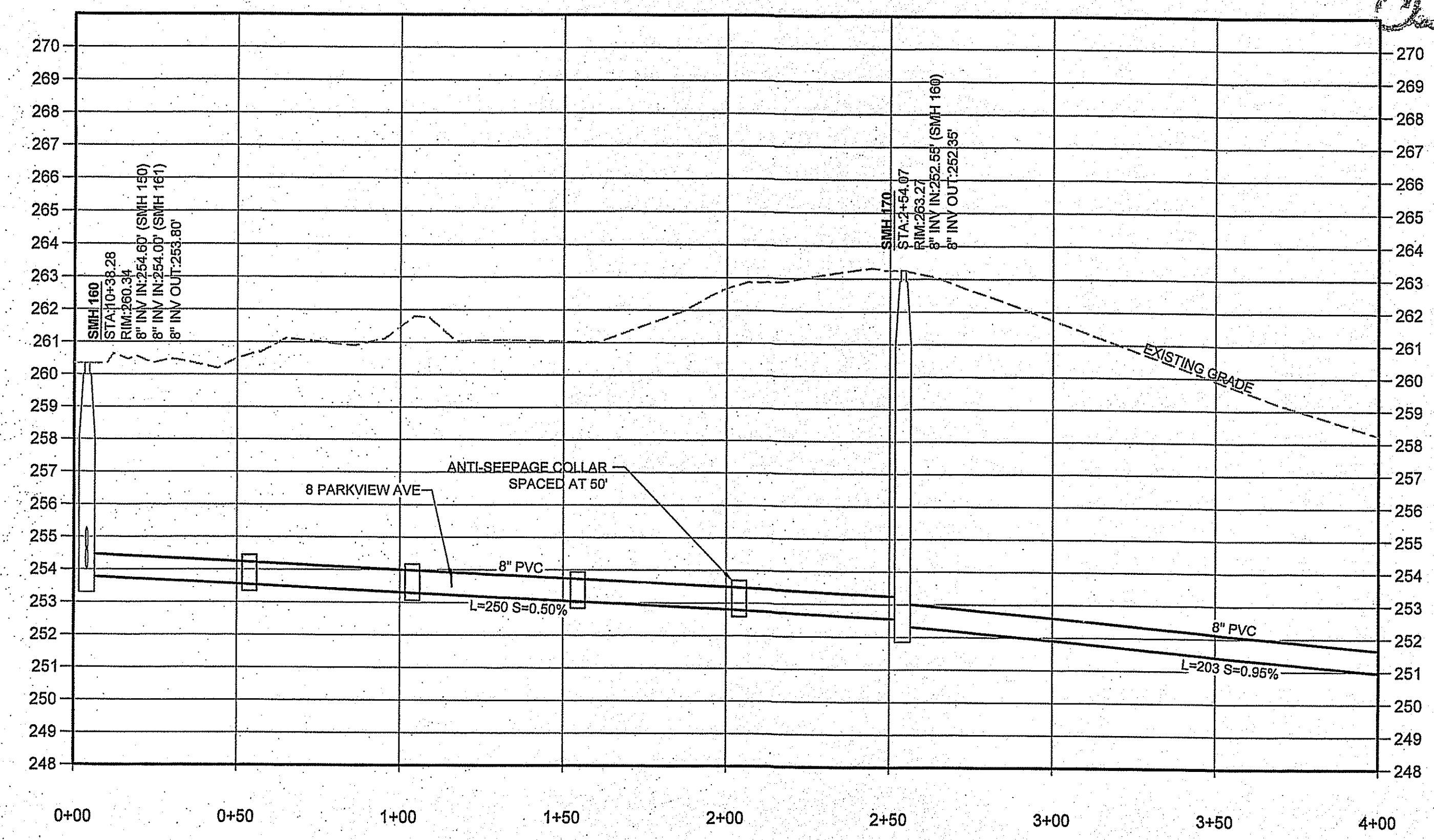
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH COMMENTS
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DATED FEB 8 2016 FILE # 17-0307
NO CHANGES ALLOWED WITHOUT THE
APPROVED PLANS HEREON



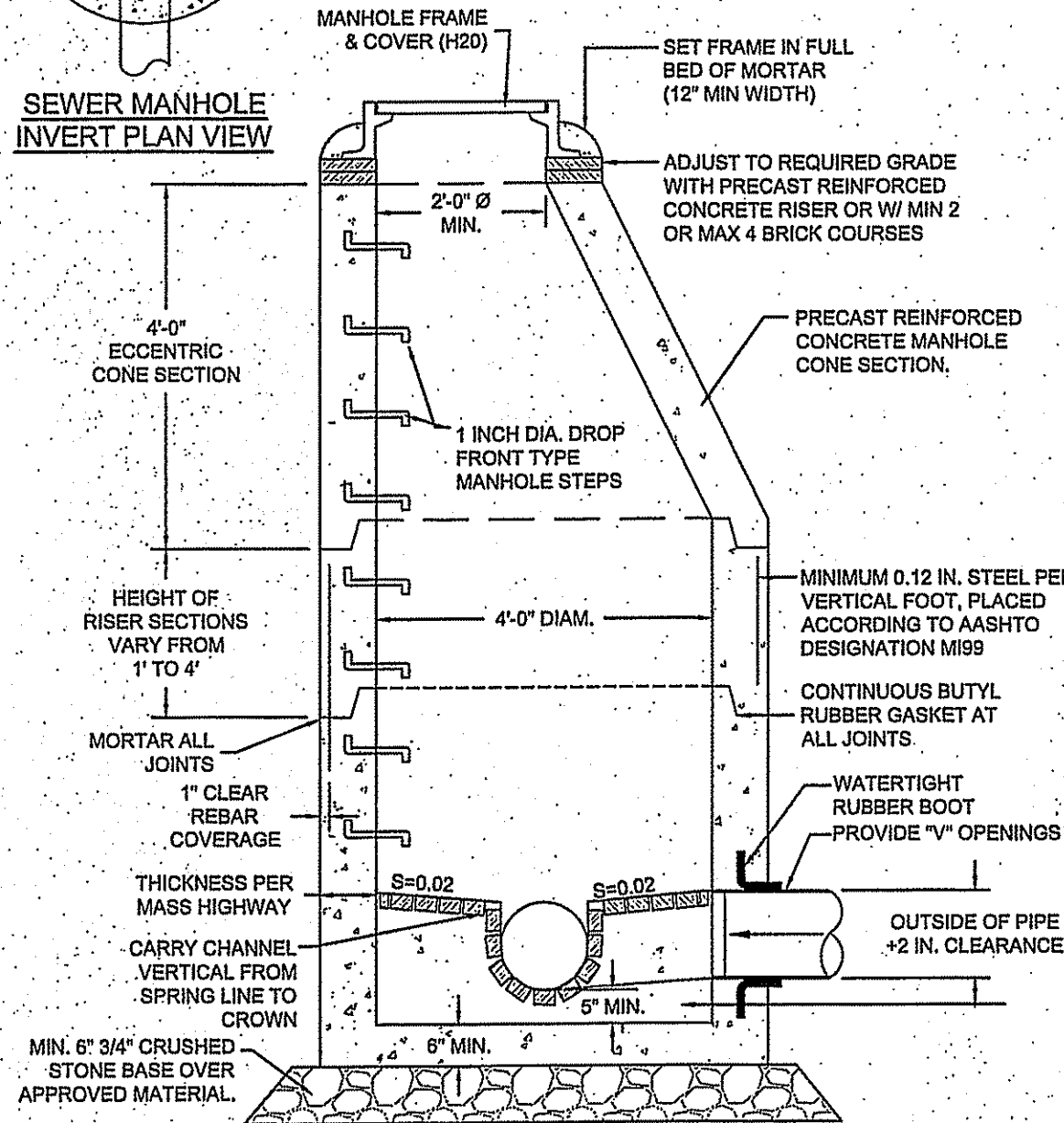
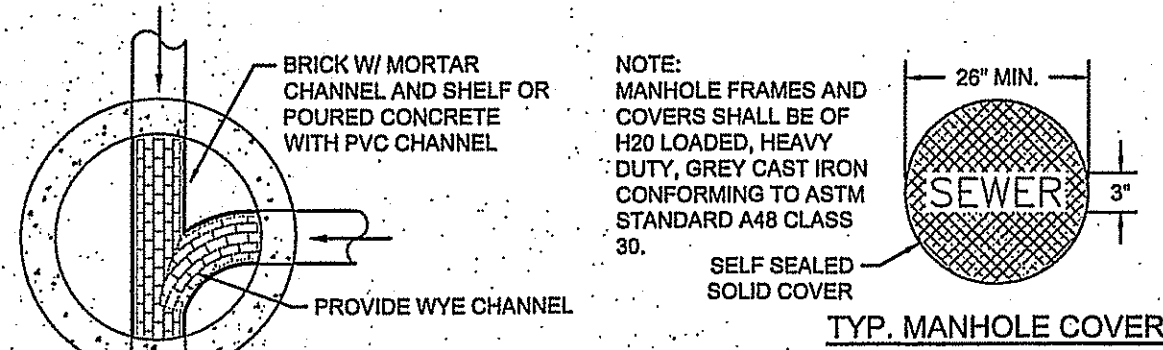
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HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



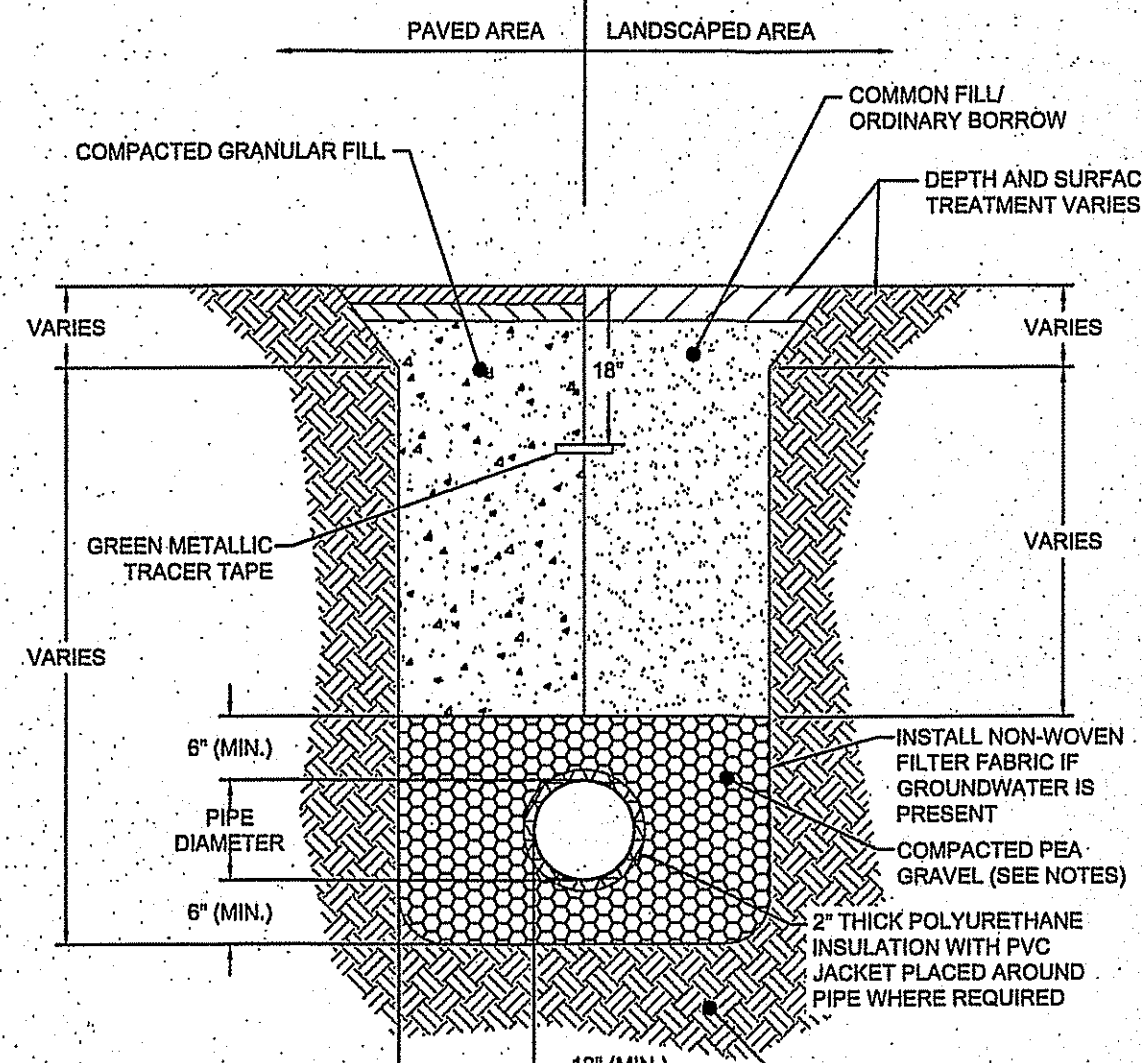
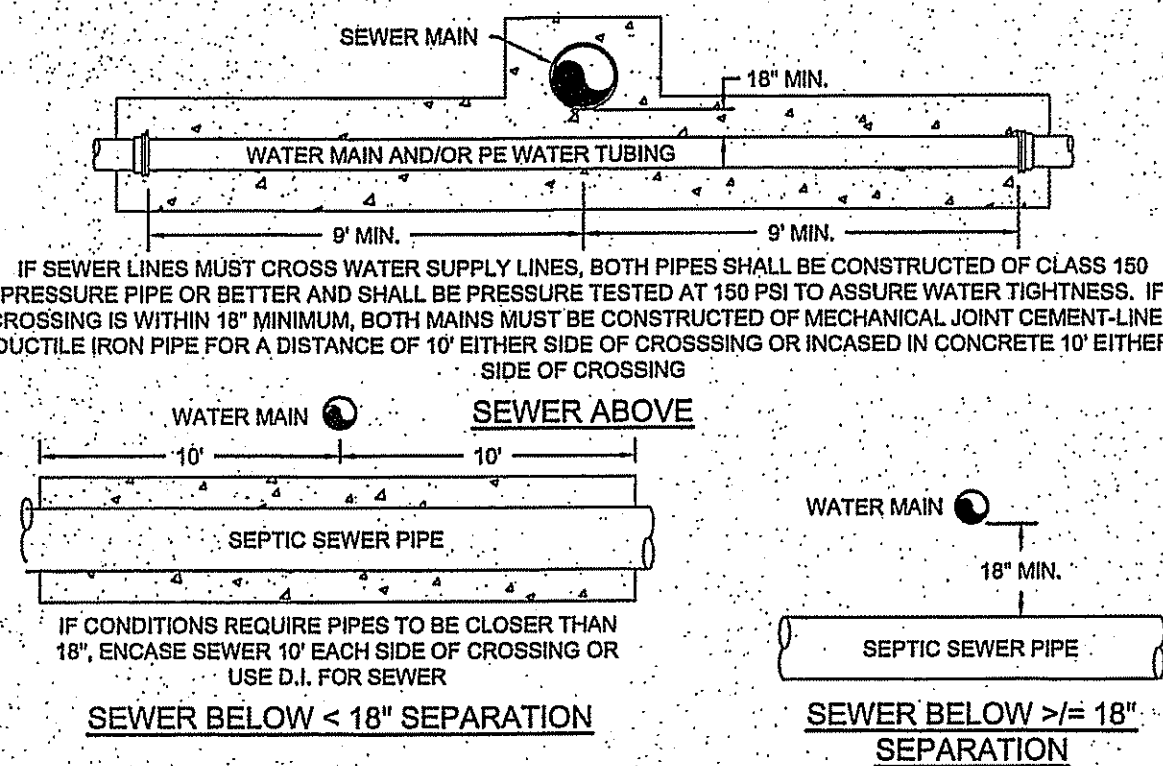
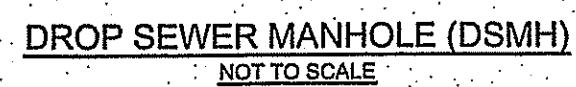
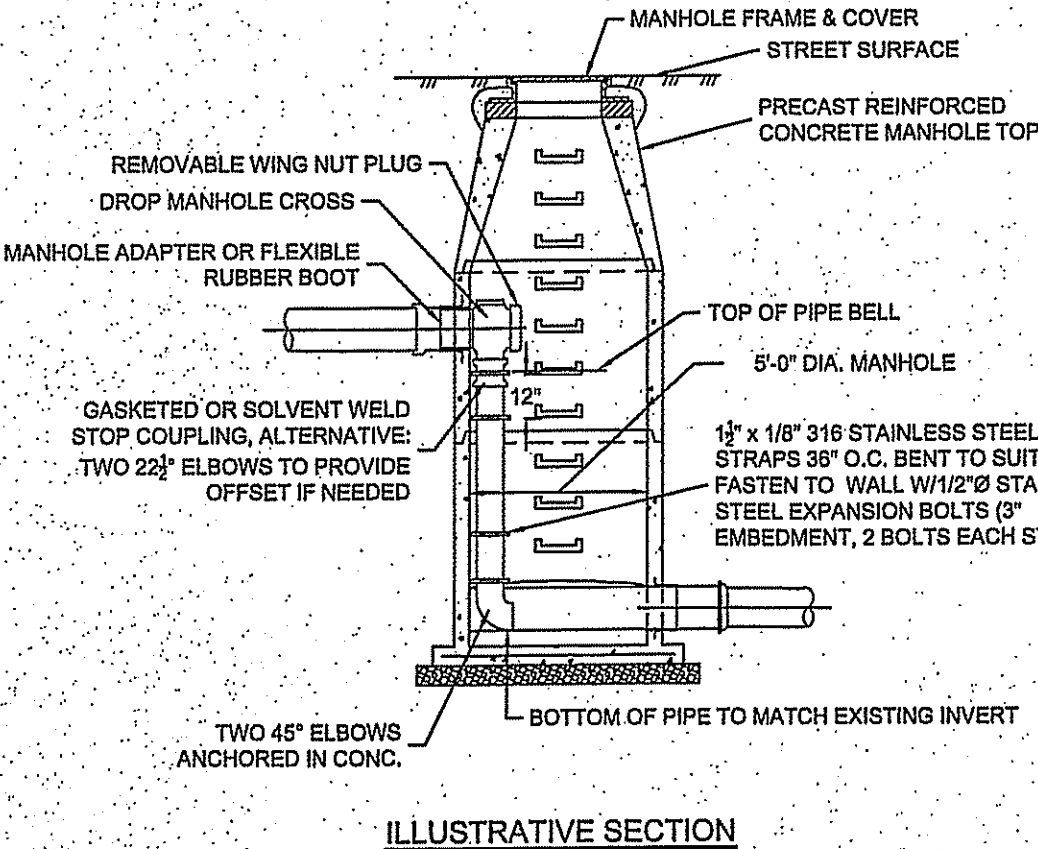
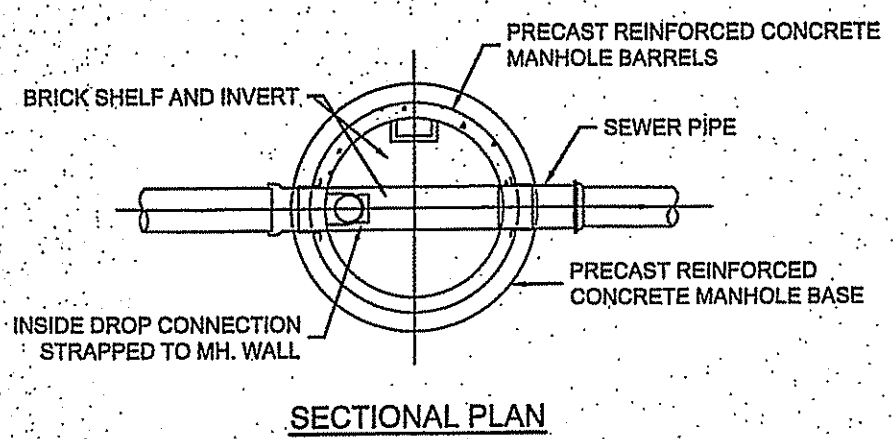
OVER LAND SEWER PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

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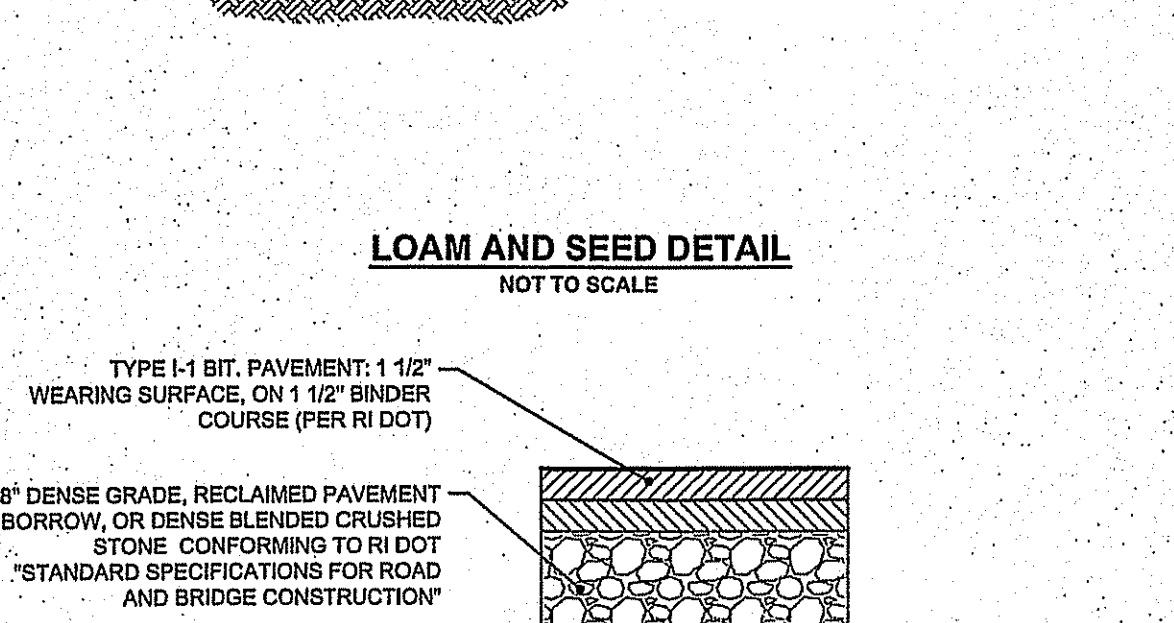
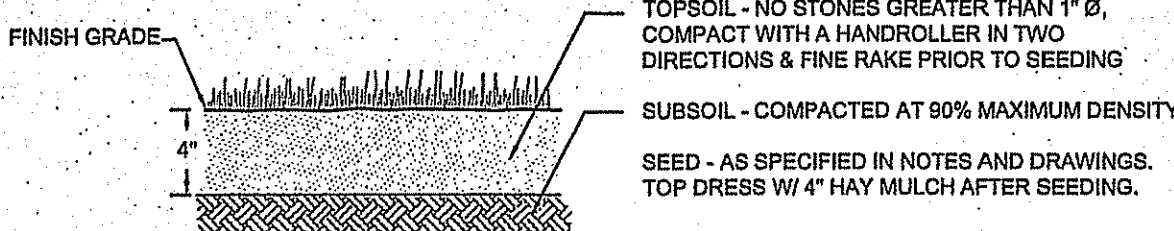
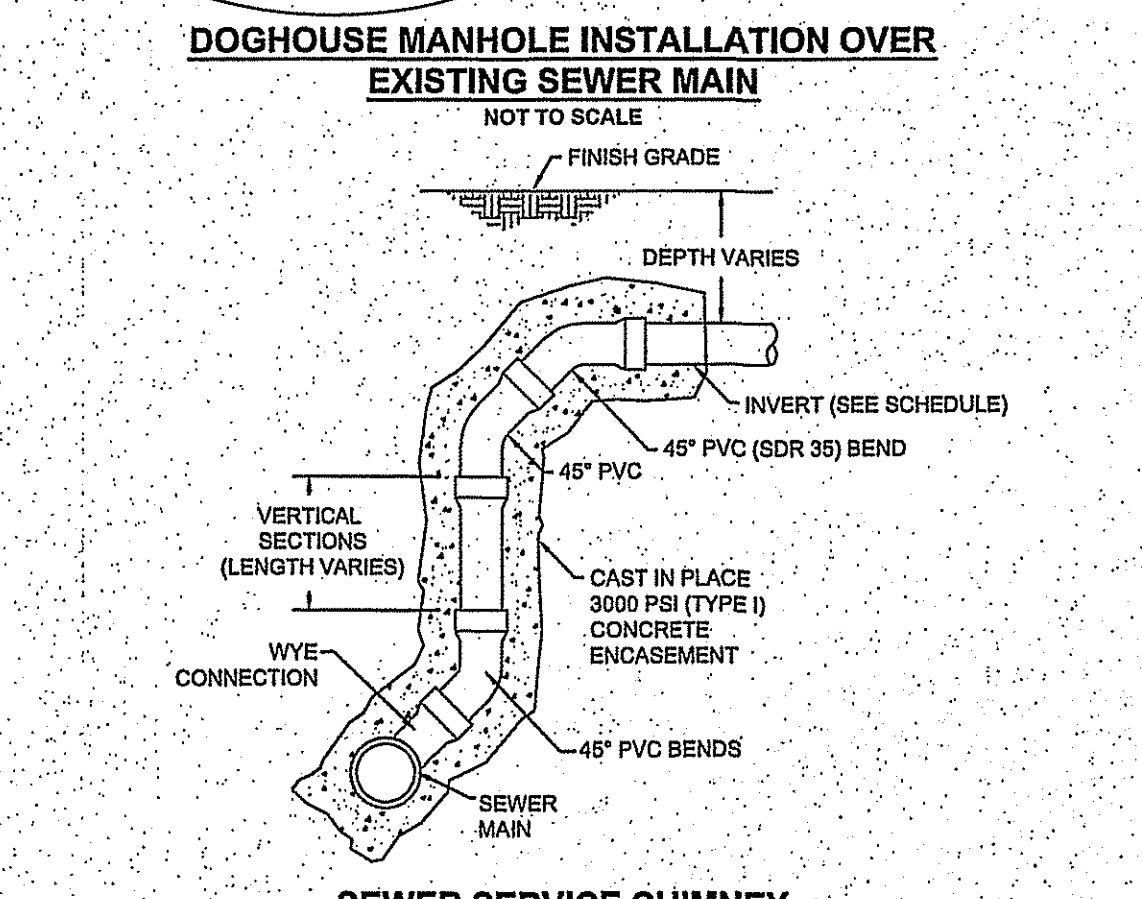
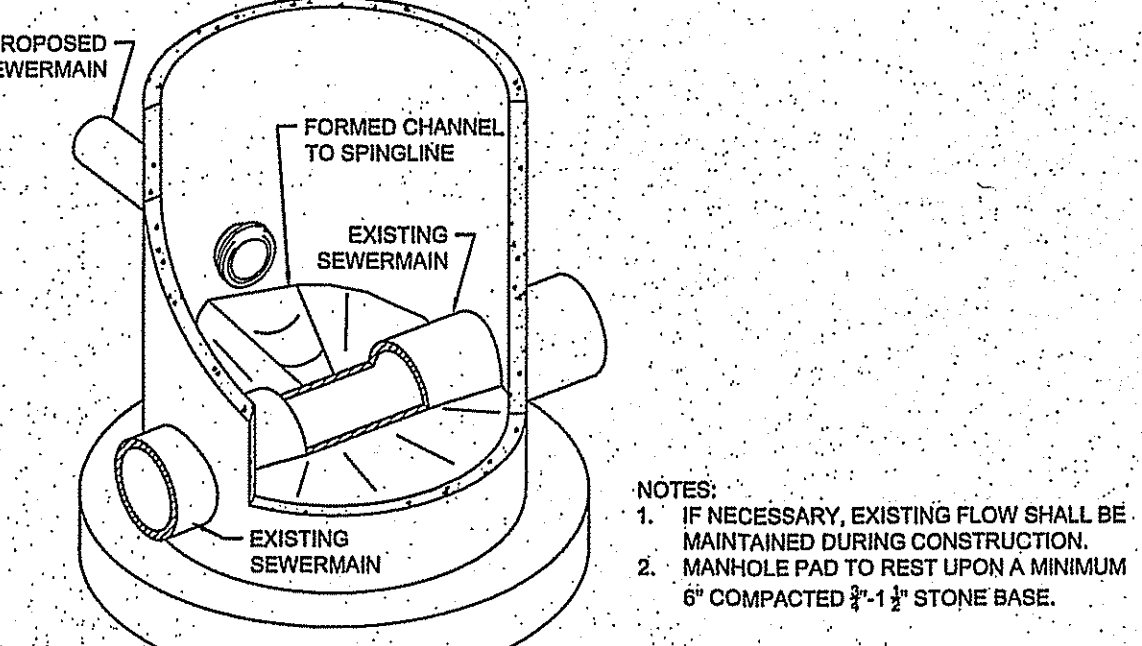
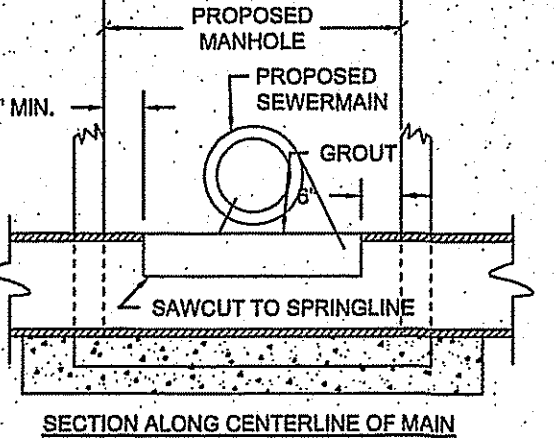
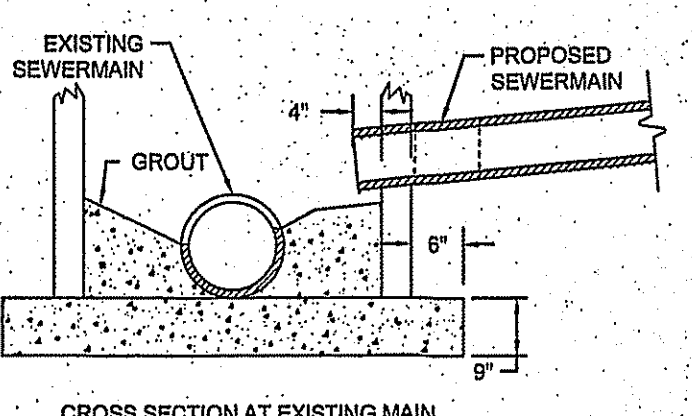
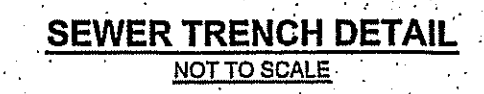
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Rev.	By	Date	Description																				
<p>Drawn By: JEH Checked By: PPL/RC Date: OCTOBER 2017</p>	<p>Designed By: JEH</p>	<p>Project Number: 17087 Sheet: 10 of 12</p>	<p>Registration: FAT PIU LEE No. 7984 Professional Engineer (Civil) 12/3/17</p>																				



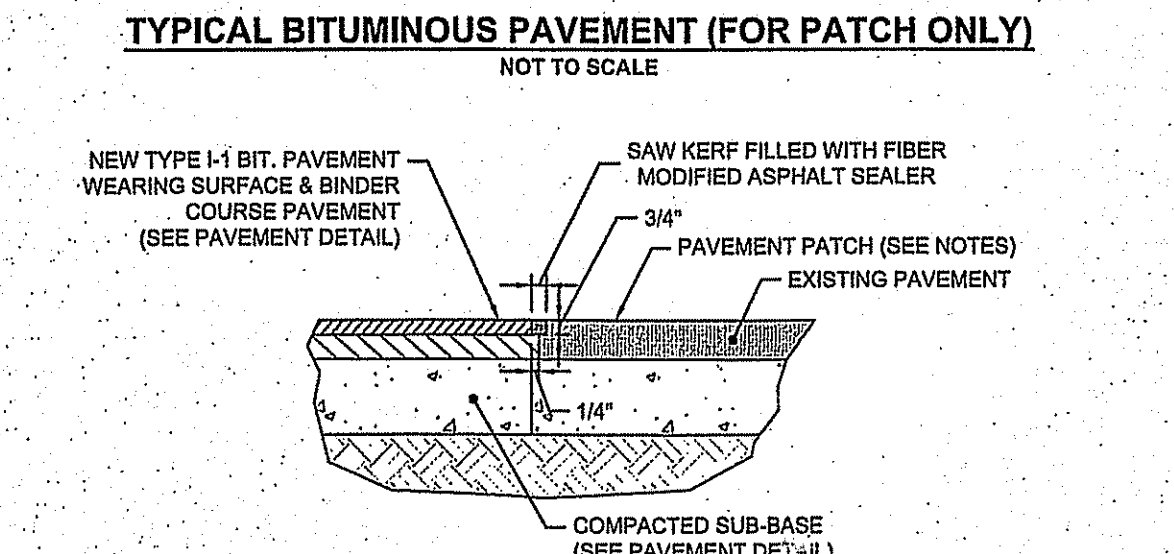
NOTE: SEE STANDARD SEWER MANHOLE DETAIL FOR ADDITIONAL INFORMATION.



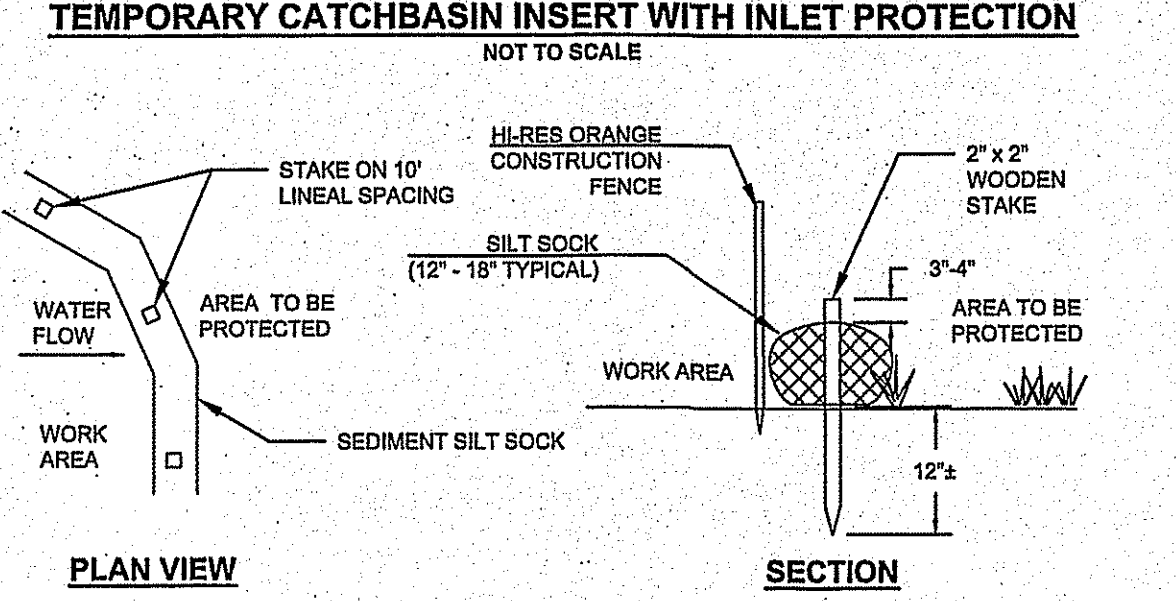
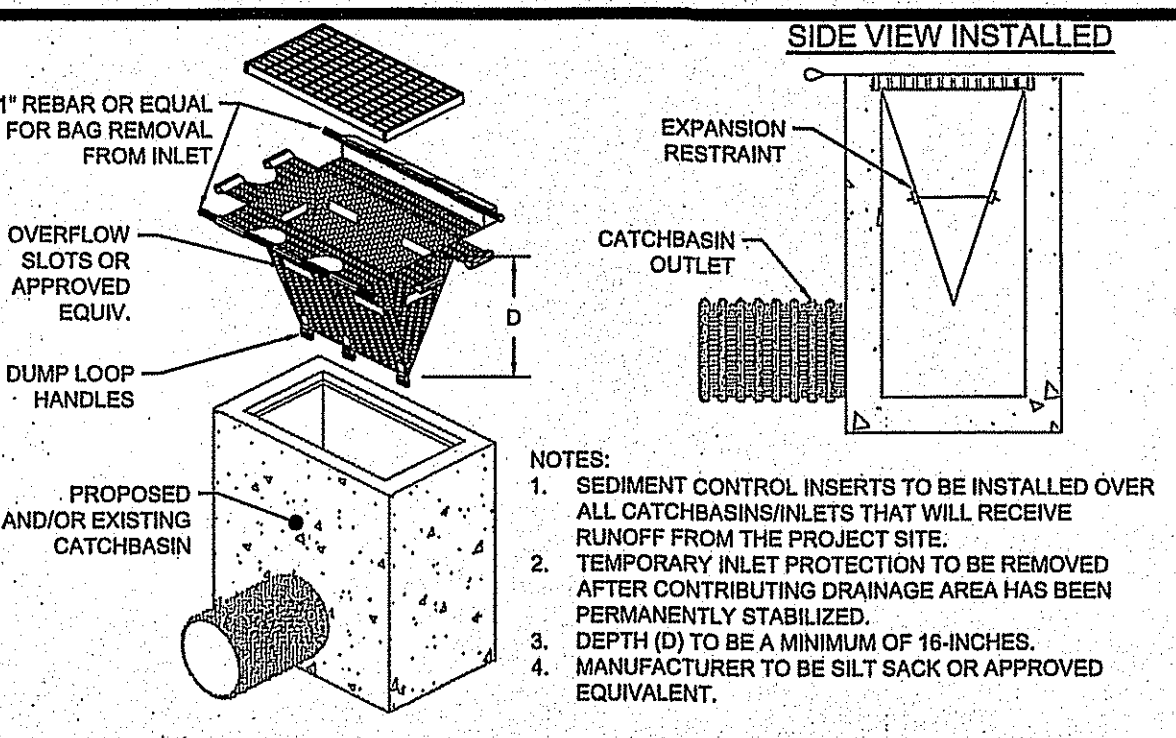
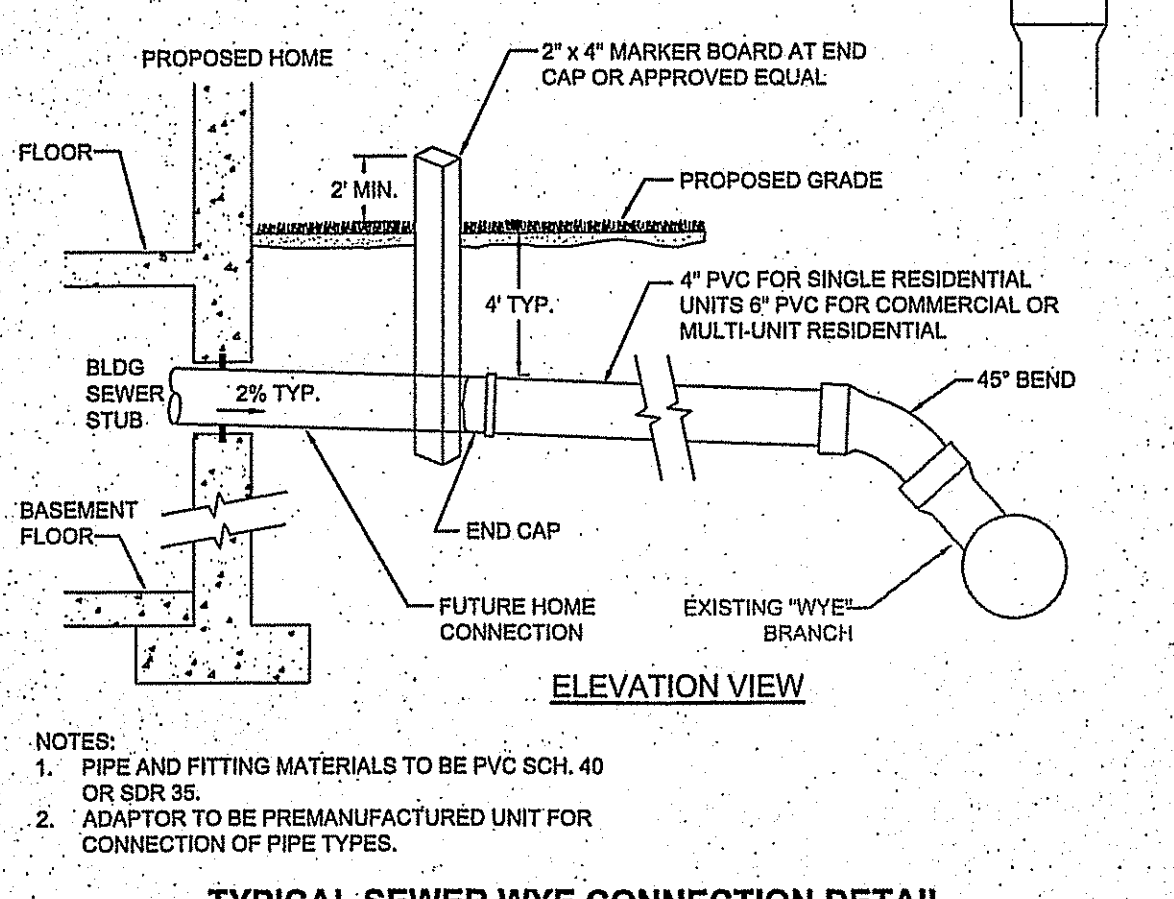
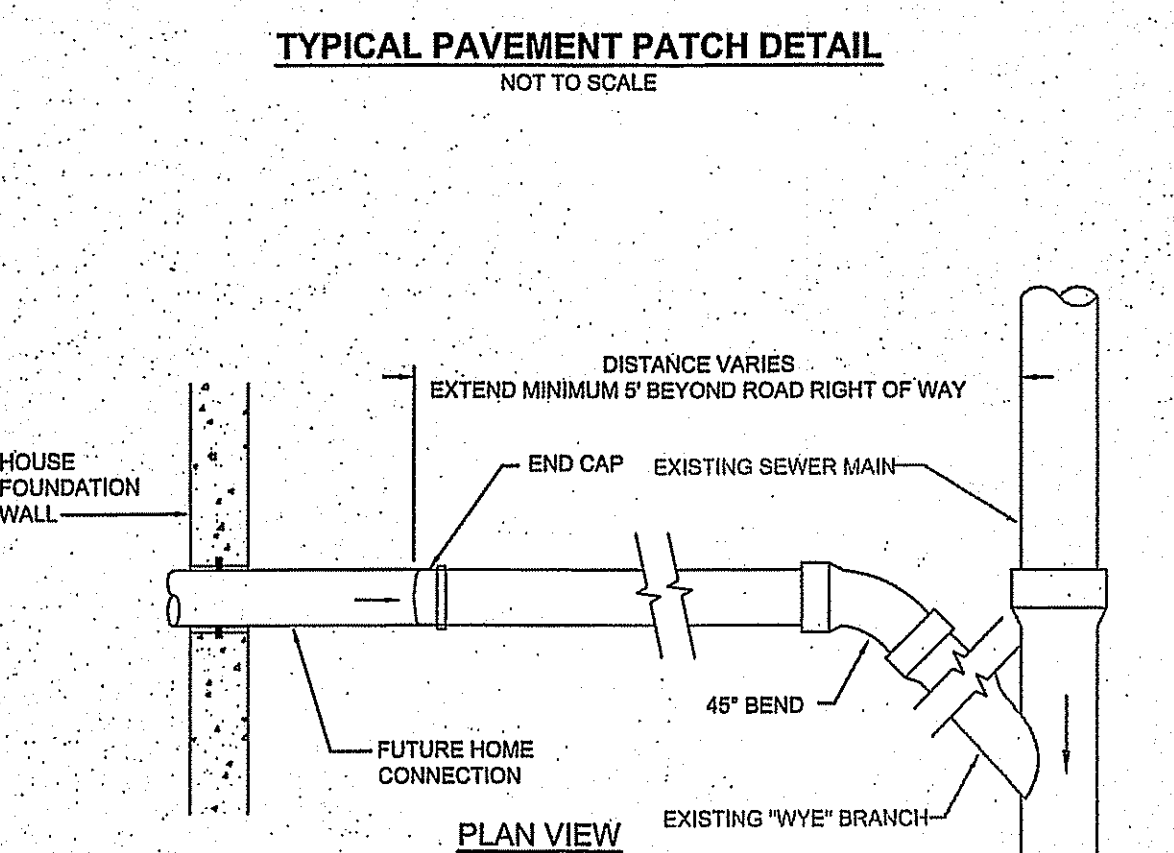
- NOTES:
- GRAVITY SEWER AND FORCE MAIN SHALL BE INSULATED WHEN VERTICAL OR HORIZONTAL SOIL COVER IS LESS THAN 4 FEET AND WHERE SHOWN ON PLANS.
 - BACKFILL PLACED IN UTILITY TRENCHES INCLUDING DISTURBED AREAS SURROUNDING UTILITY TRENCHES SHALL BE PLACED AND COMPACTED IN 12" (MAX) VERTICAL LIFTS.
 - TRACER TAPE FOR NON-FERROUS PIPE SHALL BE CONSTRUCTED OF A METALLIC CORE BONDED TO PLASTIC LAYERS. THE METALLIC TRACER TAPE SHALL BE A MINIMUM 5mm THICK AND MUST BE LOCATABLE AT A DEPTH OF 18 INCHES WITH ORDINARY PIPE LOCATORS.
 - PEA GRAVEL SHALL CONSIST OF CLEAN, HARD, ROUND PARTICLES OF GRAVEL MEETING THE FOLLOWING:
- | SIEVE SIZE | PERCENT PASSING |
|------------|-----------------|
| 3/8" | 85-95 |
| NO. 4 | 5-15 |
| NO. 8 | 0-2 |
- CONTRACTOR SHALL ACHIEVE 95% COMPACTION FOR THE BEDDING. TRENCH BACKFILL UNDER ROADWAYS SHALL BE COMPACTED TO 95%.



- GENERAL NOTES:
- SUB-GRADE (EXISTING MATERIAL) SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE AND/OR COARSE SAND, FREE FROM LOAM AND CLAY TO A DEPTH NOT LESS THAN 4-FT BELOW THE FINISH PAVEMENT SURFACE. EXCAVATE SANDY/LOAMY AND/OR LOAMY-SAND TOPSOIL MATERIAL FROM ALL PAVED AREAS PRIOR TO SUB-BASE INSTALLATION.
 - PLACE SUB-BASE IN MAXIMUM 8" LIFTS (COMPACTED TO 95%).
 - COMPACT SUB-GRADE FILL TO 95% COMPACTION.
 - SEE SITE LAYOUT PLAN FOR PAVEMENT WIDTH AND LOCATION.
 - SEE GRADING PLANS FOR PAVEMENT SLOPE AND CROSS SLOPE.
 - SWEEP CLEAN THE EXISTING BINDER COURSE SURFACE PRIOR TO INSTALLING THE WEARING COURSE BY A STREET SWEEPING MACHINE. APPLY A TACK COAT PER SPECIFICATIONS.



- NOTES:
- EXISTING BITUMINOUS PAVEMENT SHALL BE REMOVED TO A CLEAN STRAIGHT EDGE VIA SAW CUTTING. THE SAW CUT SHALL BE COMPLETED PERPENDICULAR TO THE ROADWAY/SIDEWALK.
 - PRIOR TO INSTALLING THE WEARING COURSE THE EXISTING VERTICAL PAVEMENT SURFACE SHALL BE SWEEP COMPLETELY CLEAN.
 - AFTER PROPER COMPACTION (SEE PAVEMENT DETAIL) SAW CUT NEW PAVEMENT ABUTMENT 3/4" DEEP AND FILL WITH FIBER MODIFIED ASPHALT SEALER AS SHOWN.



- NOTES:
- SILT SOCK MANUFACTURER TO BE SILT SOXX OR ENGINEER APPROVED EQUIV.
 - ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.
 - SEDIMENT SILT SOCK TO BE FILLED WITH LEAF COMPOST AND/OR WOODY MULCH PER MANUFACTURER'S REQUIREMENTS.
 - FOLLOWING CONSTRUCTION AND SITE STABILIZATION, COMPOST MATERIAL TO BE REMOVED OR DISPERSED ON SITE, AS APPROVED BY THE ENGINEER.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLAND PERMITTING
APPROVED WITH COMMENTS
AS SPECIFIED IN THE LETTER
FILE # 17-0307
DATED 10/17/2017
NO CHANGES ALLOWED WITHOUT PERMITTING
APPROVED PLANS MUST BE AT CONSISTENT WITH THIS PERMIT
Charles A. Harte

Revisions	Date	By	Checked By

Horsley Witten Group, Inc.
Sustainable Environmental Solutions
www.horsleywitten.com
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Sandwich, MA 02563
Phone: (508) 833-6600
508-833-3750 fax

Date: OCTOBER 2017
Designed By: JEH
Drawn By: JEH
Checked By: FTJ/JFC

SEWER EXTENSION
PARKVIEW DRIVE & EDWARDS AVENUE
NORTH SMITHFIELD, RHODE ISLAND

Plan Title: DETAILS

Prepared For:
NORTH SMITHFIELD
SEWER COMMISSION
NORTH SMITHFIELD, RI
Phone: 401-787-2200
Fax: -

Sewer Provided By:
Horsley Witten Group, Inc.
90 Route 6A Unit 1
Sandwich, MA 02563
Phone: (508) 833-6600
Fax: (508) 833-3750
Date: SEPT. 2016

FAT PIU LEE
No. 7984
Professional Engineer
(CIVIL) 10/17/17

Project Number: 17087
Sheet: 12 of 12
Sheet Number: C-12

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last modified: 11/06/17 printed: 12/14/17 by jh H:\Projects\2015\15084 North Smithfield\Engineering Support\Drawings\15084 DE.dwg