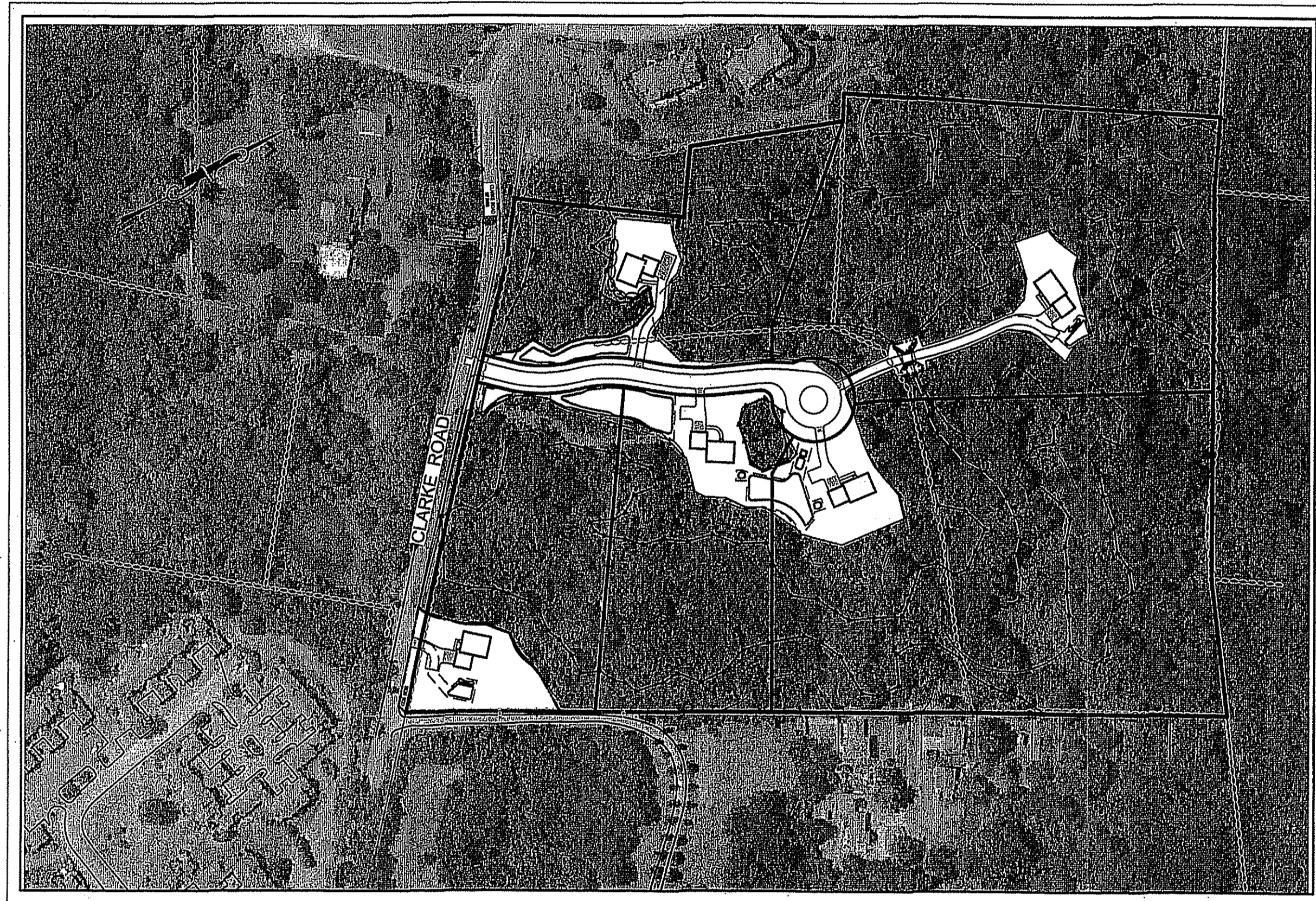


CONSTRUCTION DRAWINGS

FOR:

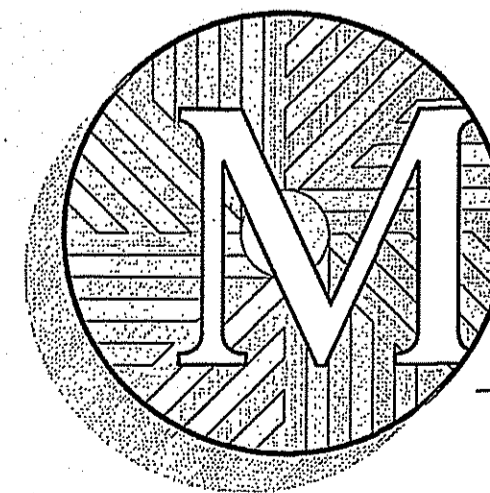
CLARKE ROAD SUBDIVISION

ASSESSOR'S PLAT V, LOT 27
CLARKE ROAD
NARRAGANSETT, RI



AERIAL IMAGE
SCALE: 1"=150'

PREPARED FOR:
SKYCAP, LLC
PREPARED BY:



MILLSTONE ENGINEERING, P.C.
CIVIL ENGINEERING • LAND PLANNING

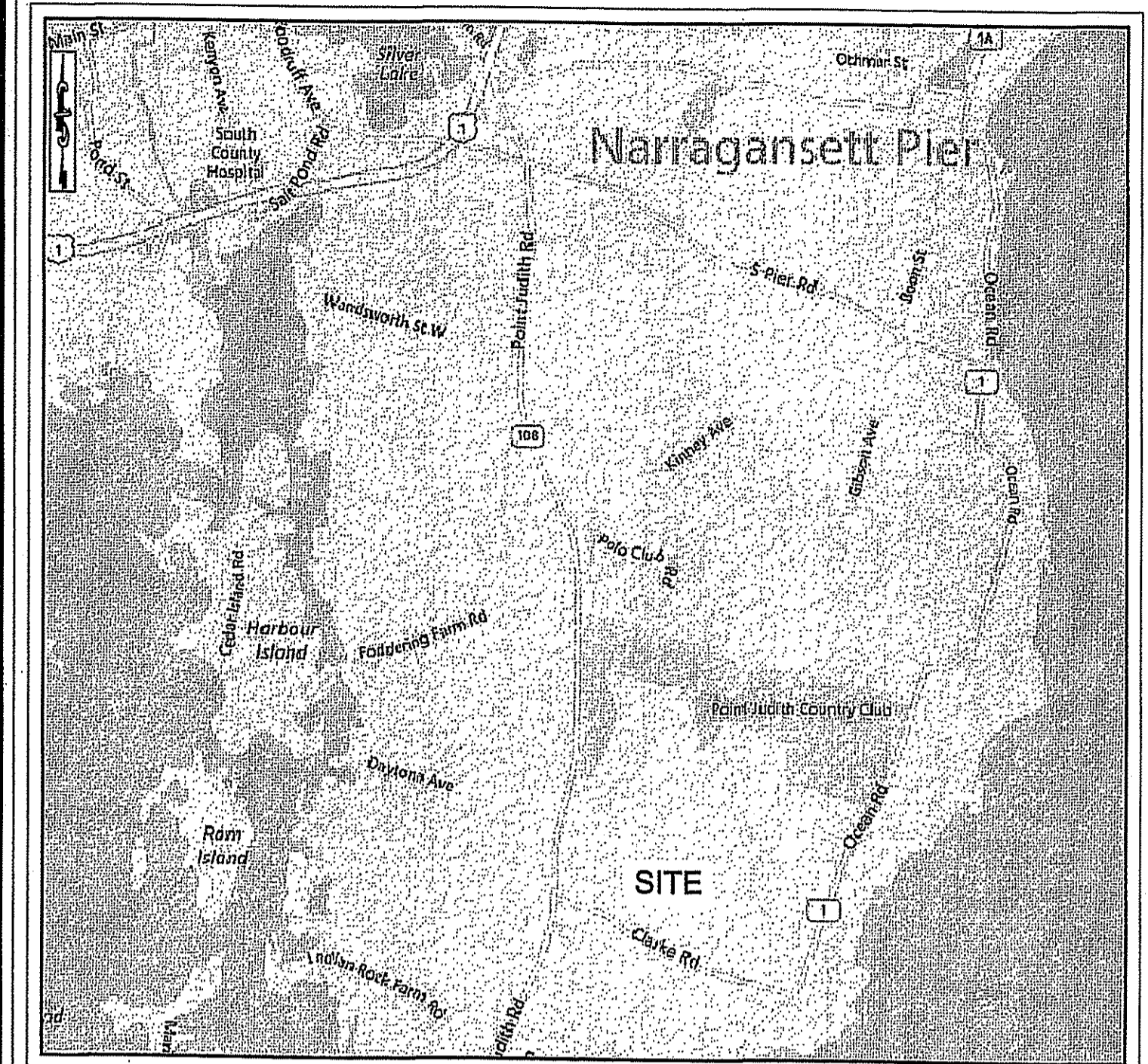
250 Centerville Road, Building E-12
Warwick, Rhode Island 02886 p. (401) 921-3344 f. (401) 921-3303
www.MillstoneEng.com

MARCH 2017

REVISION 1: JULY 19, 2017

REFERENCES:
1. AERIAL PHOTOGRAPH TAKEN FROM GOOGLE EARTH.
2. LOCUS MAP FROM WWW.BING.COM.

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LOCUS
NOT TO SCALE

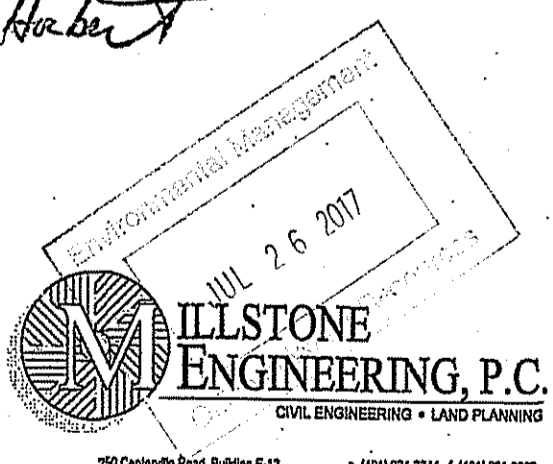
TABLE OF CONTENTS:

SHEET	DESCRIPTION	REVISED
1	COVER SHEET	7/19/2017
2	EXISTING CONDITIONS PLAN	7/19/2017
3	MINOR SUBDIVISION PLAN - 1	7/19/2017
4	MINOR SUBDIVISION PLAN - 2	7/19/2017
5	SITE LAYOUT PLAN - 1	7/19/2017
6	SITE LAYOUT PLAN - 2	7/19/2017
7	GRADING, DRAINAGE & UTILITY PLAN - 1	7/19/2017
8	GRADING, DRAINAGE & UTILITY PLAN - 2	7/19/2017
9	PLAN & PROFILE	7/19/2017
10	SOIL EROSION & SEDIMENT CONTROL PLAN	7/19/2017
11	NOTES & DETAILS	7/19/2017
12	DETAILS - 1	7/19/2017
13	DETAILS - 2	7/19/2017
14	DETAILS - 3	7/19/2017
15	DETAILS - 4	7/19/2017
16	DETAILS - 5	7/19/2017
17	WETLAND RESTORATION PLAN	

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 11 2017 FILE # 17-0174
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

James A. Herbert

CLARKE ROAD SUBDIVISION
A.P. V, LOT 27
CLARKE ROAD
NARRAGANSETT, RI

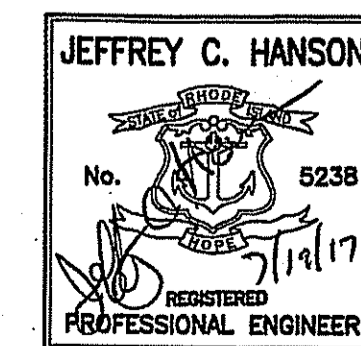


OWNER:
JOHN O. PASTORE, MD
2 CALUMET ROAD
WINCHESTER, MA 01890
(781) 570-9624

ENGINEER / SURVEYOR:
MILLSTONE ENGINEERING, P.C.
250 CENTERVILLE ROAD, BLDG. E-12
WARWICK, RI 02866
(401) 921-3344

APPLICANT:
SKYCAP, LLC
P.O. BOX 2340
STAMFORD, CT 06906
(917) 648-0484

ATTORNEY:
CALLAGHAN & CALLAGHAN
3 BROWN STREET
WICKFORD, RI 02852
(401) 294-4555



Drawn By: BJC

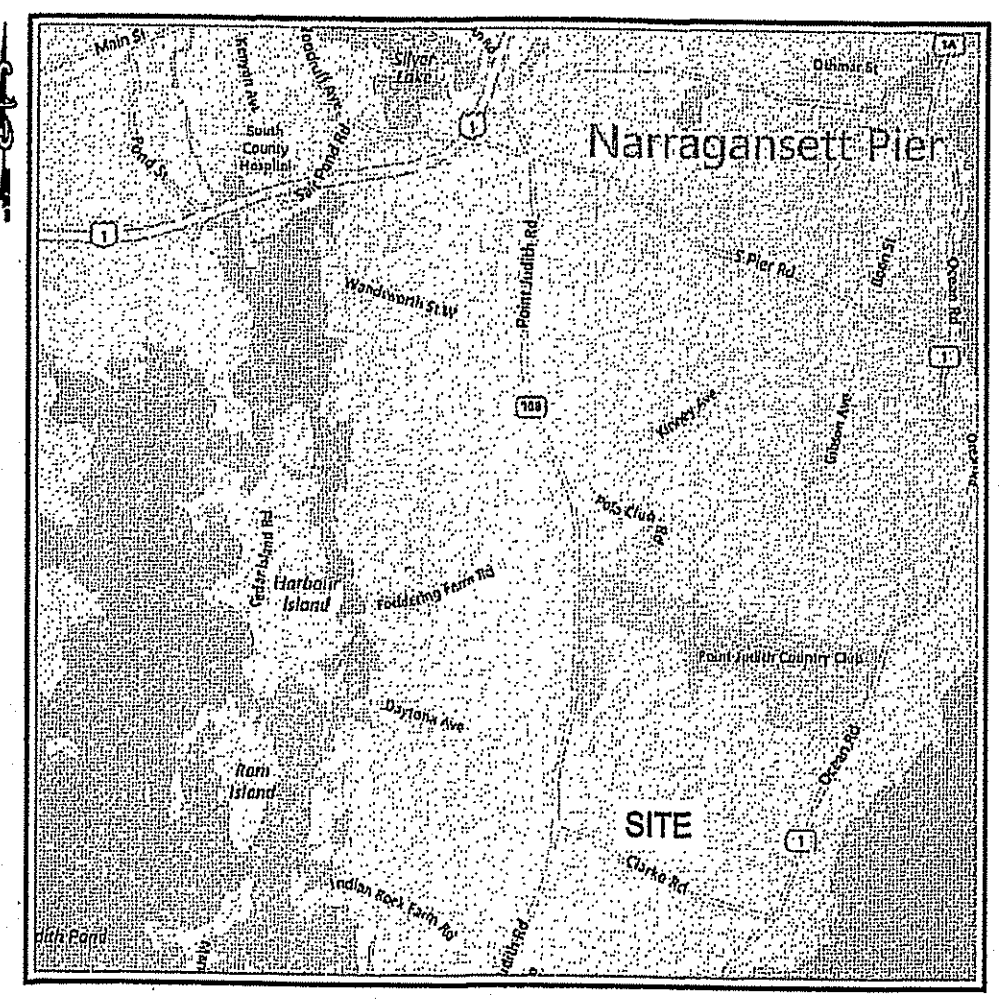
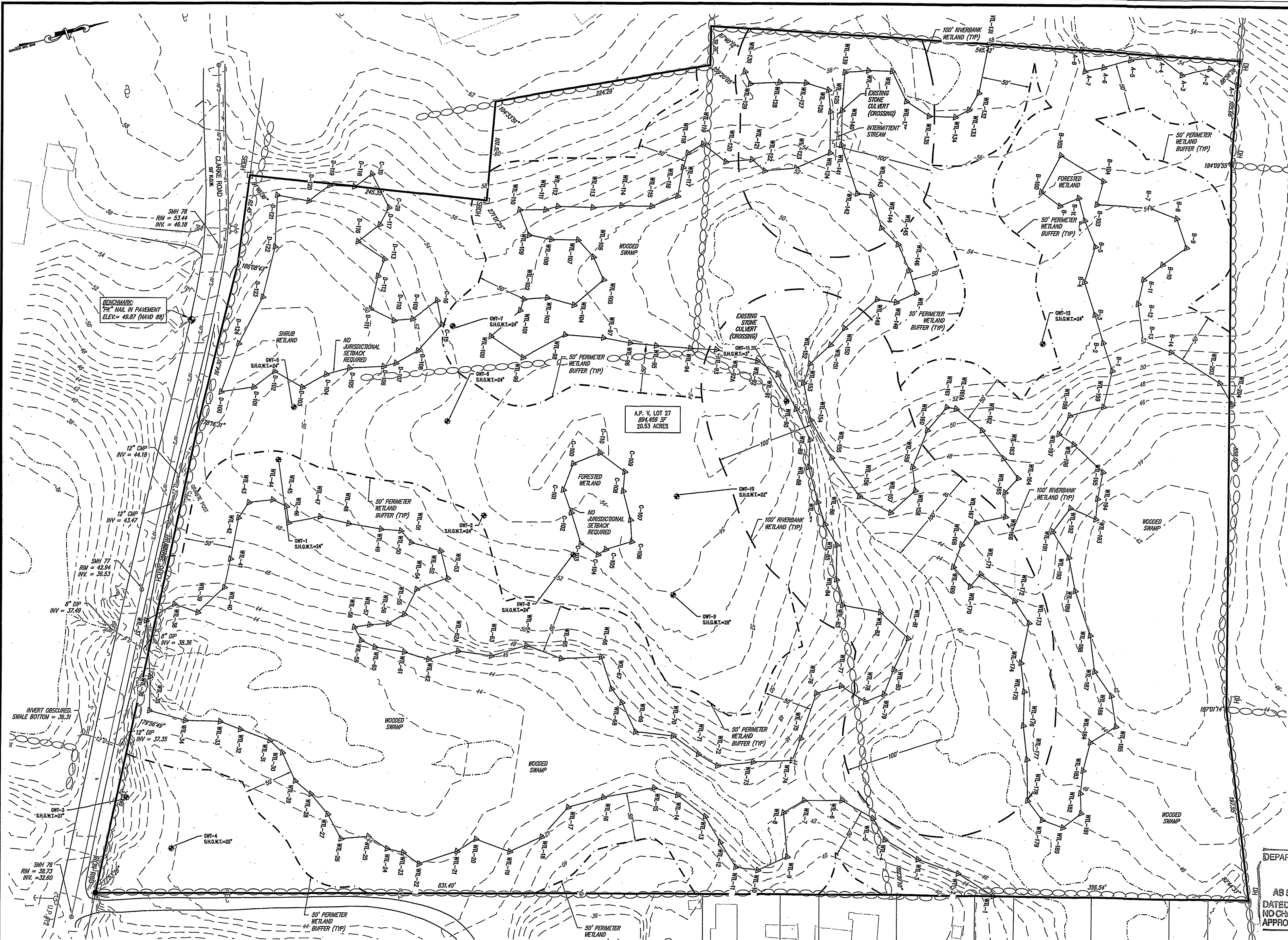
Checked By: JCH

Sheet

1

of 17

FILE NO.: 16.268.389



LOCATION MAP
NOT TO SCALE

LEGEND

- PROPERTY LINE
- WATER EDGE PER REF. 1
- 50' PERIMETER WETLAND
- 100' RIVERBANK
- (ASSF) AREA SUBJECT TO STORM FLOODING
- - - EXISTING CONTOUR
- OUT PATH
- EXISTING UTILITY POLES
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING SEWER MANHOLE
- EXISTING SIGN
- EXISTING STONEWALL
- ▲ WETLAND FLAG
- STONE BOUND
- DRILL HOLE

REFERENCE:

1. TOPOGRAPHY AND PLANIMETRICS FROM PLAN BY CHAS. H. SELLS, INC. ENTITLED: "NARRAGANSETT, RHODE ISLAND; CHECKPLOT - TITLE NO. F20, DATED APRIL 30, 2002 AS FLOWN ON MARCH 24, 2001.

FLOOD ZONE

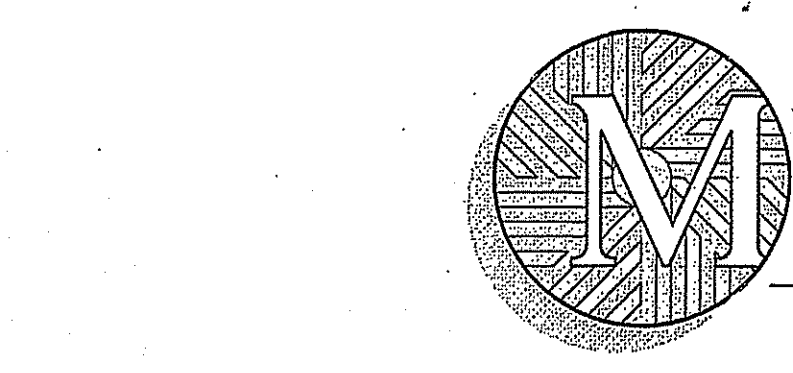
THE SITE LIES IN "ZONE X" - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR WASHINGTON COUNTY, RHODE ISLAND (ALL JURISDICTIONS) PANEL 213 OF 366, MAP NUMBER 44009020213, MAP REVISED OCTOBER 16, 2013.

NOTES:

1. ELEVATION AND CONTOURS SHOWN REFER TO NAVD 88 DATUM.
2. WETLANDS DELINEATED BY THE GIFFORD DESIGN GROUP, INC. AND FIELD LOCATED BY MILLSTONE ENGINEERING ON OCTOBER 15 - 27, 2014 AND MAY 6, 2015.
3. FRESHWATER WETLANDS VERIFIED BY THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM), REFERENCE FILE NUMBER 14-0216.

EXISTING CONDITIONS PLAN

CLARKE ROAD SUBDIVISION
ASSESSOR'S PLAT V, LOT 27
CLARKE ROAD
SITUATED IN
NARRAGANSETT, RI
PREPARED FOR
SKYCAP, LLC
PREPARED BY
MILLSTONE
ENGINEERING, P.C.
CIVIL ENGINEERING • LAND PLANNING



CERTIFICATION:

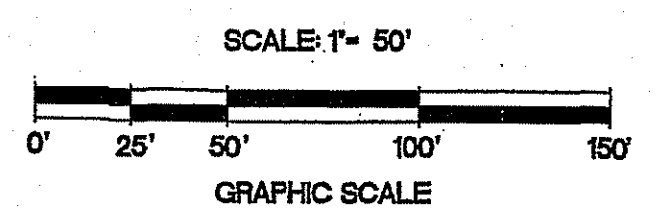
THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

TYPE OF SURVEY:
COMPREHENSIVE BOUNDARY SURVEY I
DATA ACCUMULATION SURVEY III

PURPOSE OF THE SURVEY:
TO PROVIDE AN ACCURATE PROPERTY LINE AND EXISTING CONDITIONS SURVEY PLAN.

BY *TH Kinder*
PROFESSIONAL LAND SURVEYOR LIC.# 1974 COA.# A-534 DATE 7/19/2017

NO.	DATE	REVISION
1	7/19/17	RIDEM COMMENTS



250 Centerville Road, Building E-12
Warwick, Rhode Island 02886 p. (401) 921-3344 f. (401) 921-3303
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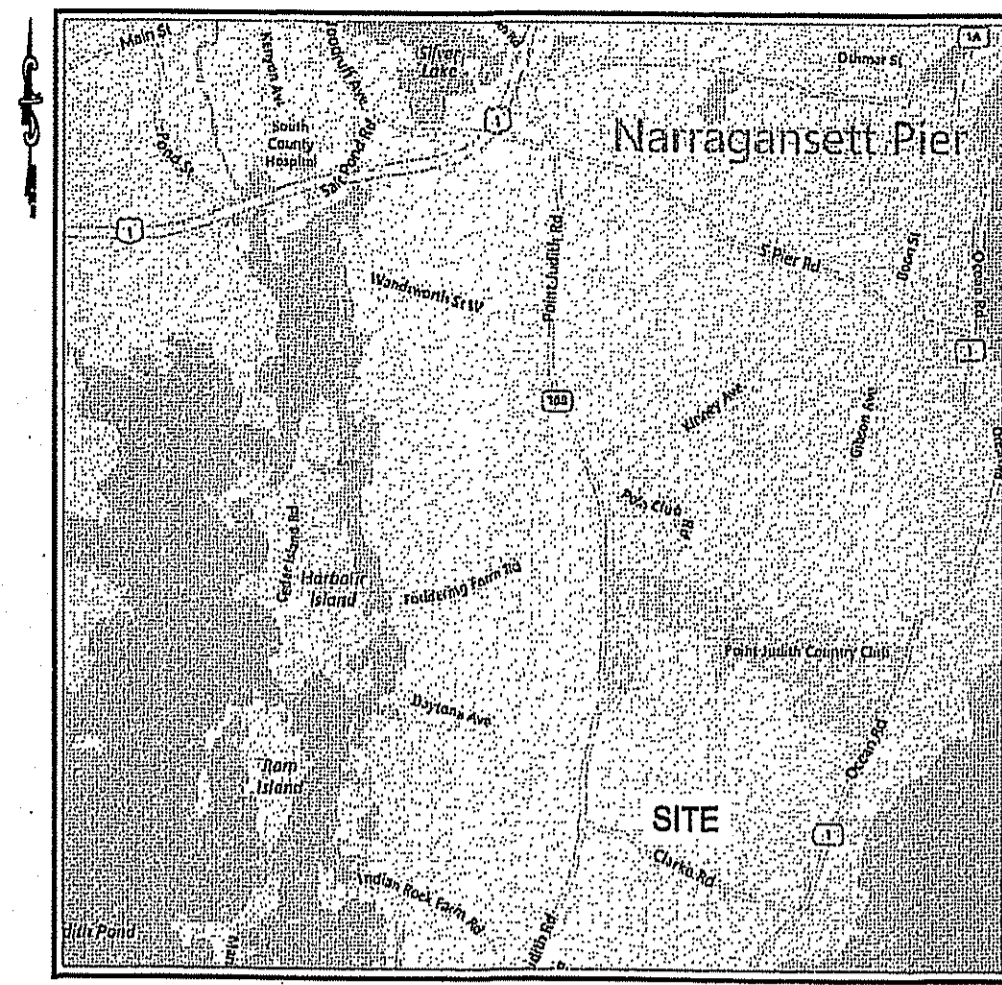
MARCH 2017
SHEET 2 OF 17

FILE NO.: 16.268.389

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CURVE TABLE

CURVE	DELTA (Δ)	RADIUS (R)	ARC LENGTH (L)	TANGENT (T)
C1	28°24'36"	180.00'	89.25'	45.56'
C2	24°59'15"	220.00'	95.94'	48.75'
C3	4°00'59"	980.00'	68.70'	34.63'
C4	12°38'06"	180.00'	39.69'	19.93'
C5	5°43'15"	220.00'	21.87'	10.99'
C6	4°48'13"	220.00'	18.51'	9.26'
C7	29°55'35"	15.00'	7.83'	4.01'
C8	121°05'39"	60.00'	126.81'	106.25'
C9	113°29'35"	60.00'	118.85'	91.50'
C10	58°35'28"	60.00'	62.40'	34.36'
C11	94°47'34"	15.00'	24.82'	16.31'
C12	12°38'06"	220.00'	48.52'	24.36'
C13	4°00'59"	1,020.00'	71.50'	35.77'
C14	4°17'03"	180.00'	13.46'	6.73'
C15	20°42'14"	180.00'	65.04'	32.88'
C16	28°24'36"	220.00'	109.09'	55.69'



LOCATION MAP
NOT TO SCALE

LEGEND

- PROPERTY LINE
- PROPOSED LOT LINE
- BUILDING SETBACK
- STONE BOUND
- DRILL HOLE

LOT AREA TABLE

PARCEL	AREA (SF)
LOT 1	113,355
LOT 2	113,431
LOT 3	109,315
LOT 4	285,086
LOT 5	244,450
RIGHT-OF-WAY	28,909
TOTAL	894,546
EXISTING LOT	894,546

STREET INDEX:

THIS PLAN SHALL BE INDEXED BY THE FOLLOWING STREET:
CLARKE ROAD

NO.	DATE	REVISION
1	7/19/17	RIDEM COMMENTS

MINOR SUBDIVISION PLAN - 1

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 11 2017 FILE # 17-077
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

CLARKE ROAD SUBDIVISION
ASSESSOR'S PLAT V, LOT 27
CLARKE ROAD

SITUATED IN
NARRAGANSETT, RI

PREPARED FOR:
SKYCAP, LLC

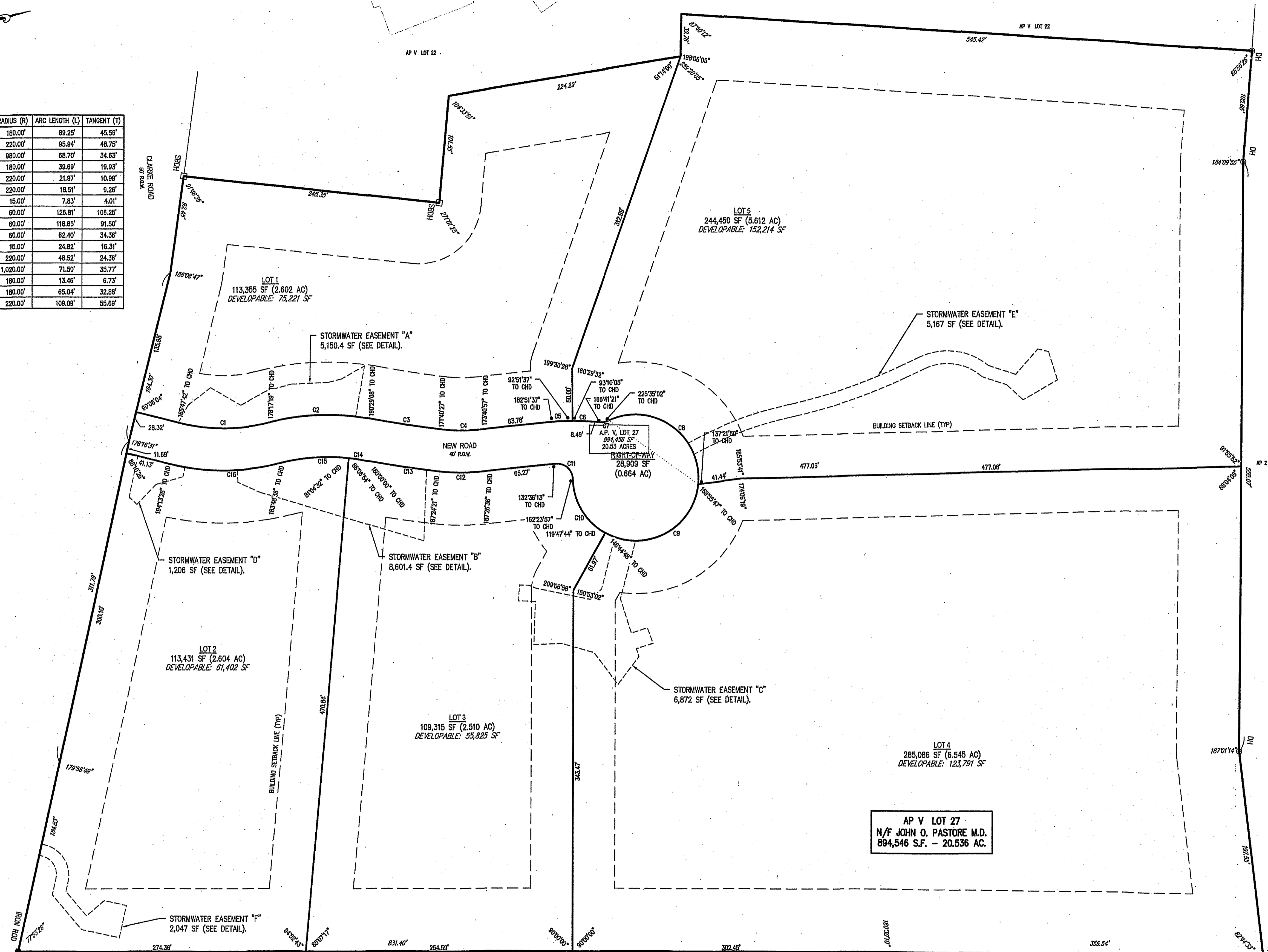
James A. Harber



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Warwick, Rhode Island 02886
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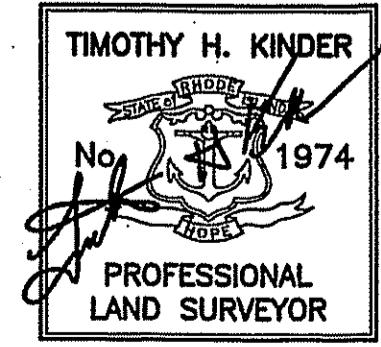
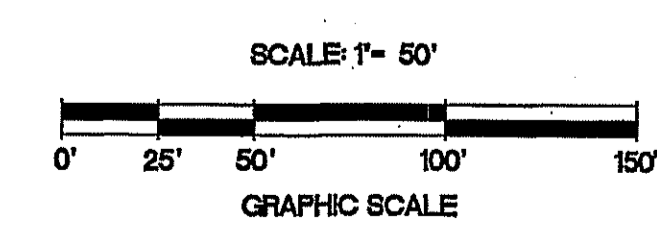
MARCH 2017
SHEET 9 OF 17

FILE NO.: 16.268.389



DIMENSIONAL REQUIREMENTS:

ZONE: R-80: RESIDENTIAL DISTRICT	REQUIRED	PROPOSED				
		LOT 1	LOT 2	LOT 3	LOT 4	LOT 5
MINIMUM LOT SIZE (S.F.)	80,000	113,355	113,431	109,315	285,086	244,500
MINIMUM LOT WIDTH (FT.)	200	411	219	232	200	200
MINIMUM FRONT YARD (FT.)	50	≥50	≥50	≥50	≥50	≥50
MINIMUM REAR YARD (FT.)	60	≥60	≥60	≥60	≥60	≥60
MINIMUM SIDE YARD (FT.)	40	≥40	≥40	≥40	≥40	≥40
MAXIMUM LOT COVERAGE (%)	10	≤10	≤10	≤10	≤10	≤10
MAXIMUM BUILDING HEIGHT (FT.)	35	≤35	≤35	≤35	≤35	≤35



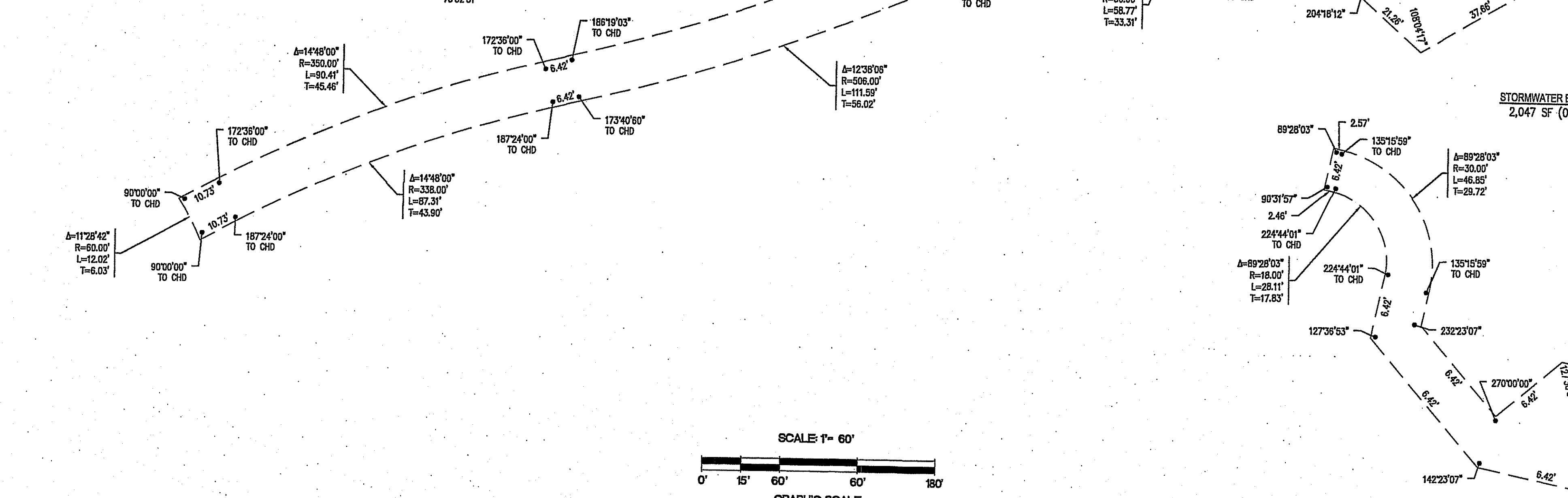
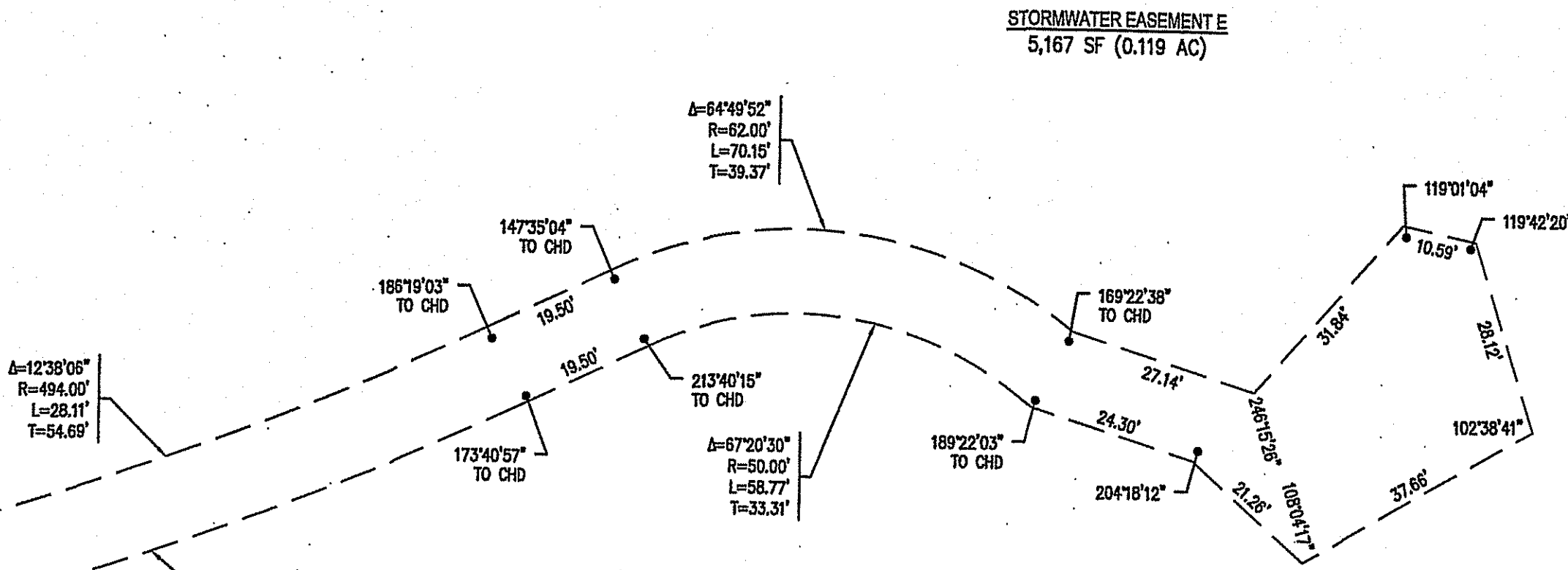
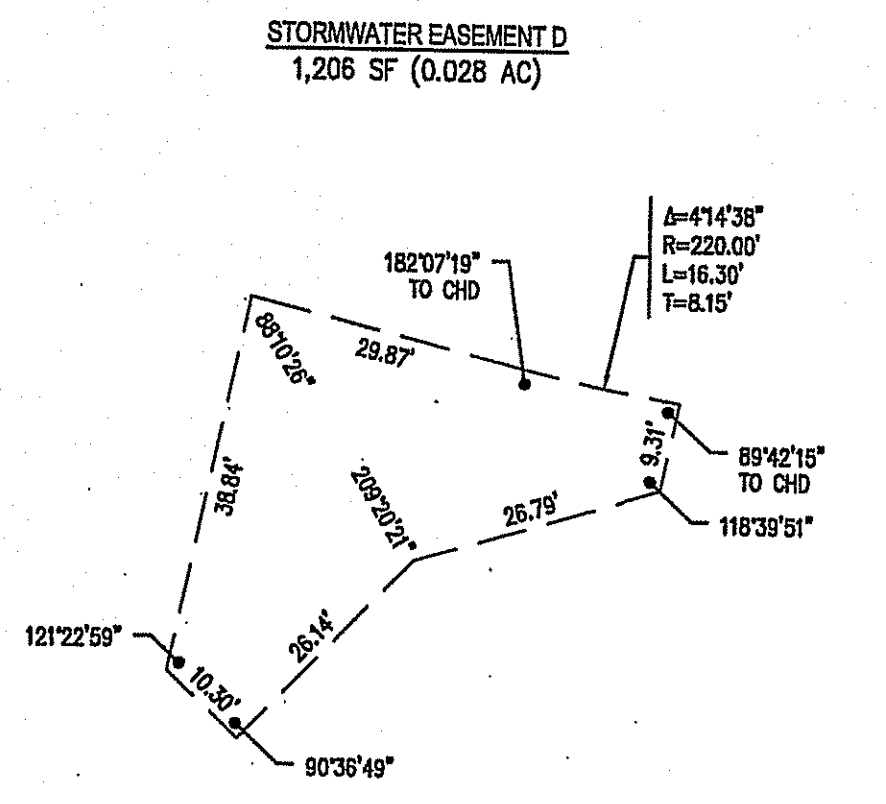
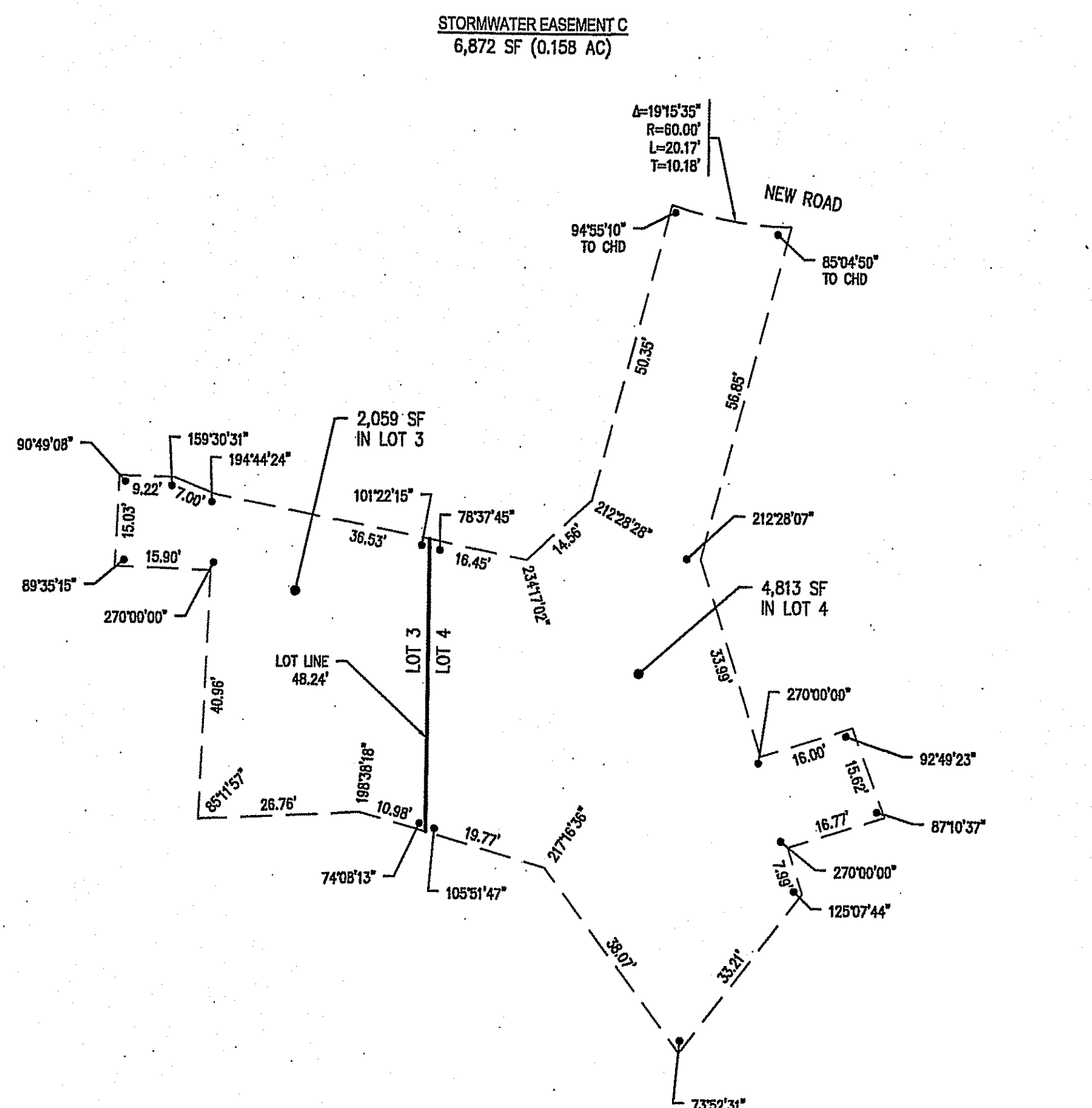
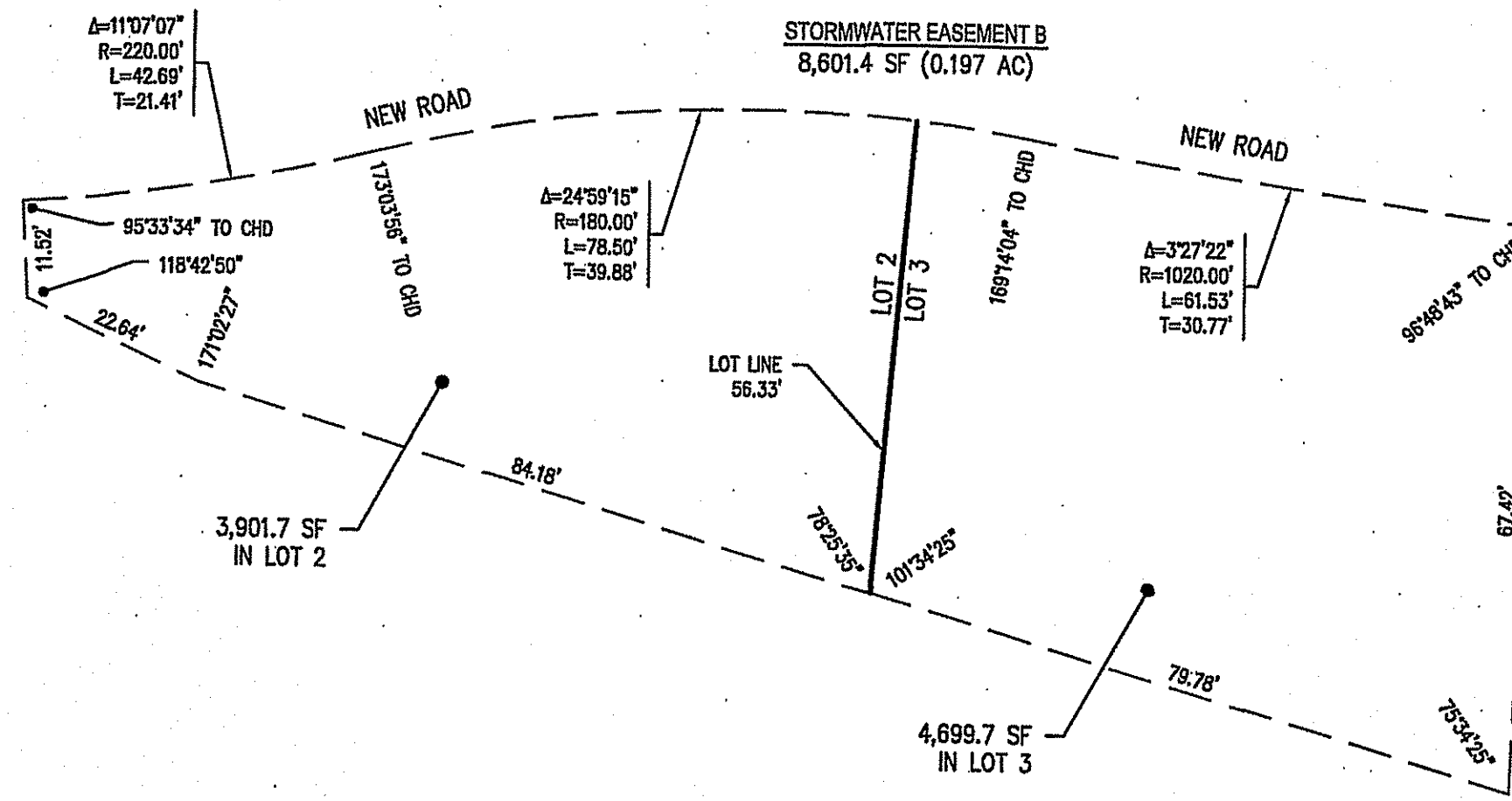
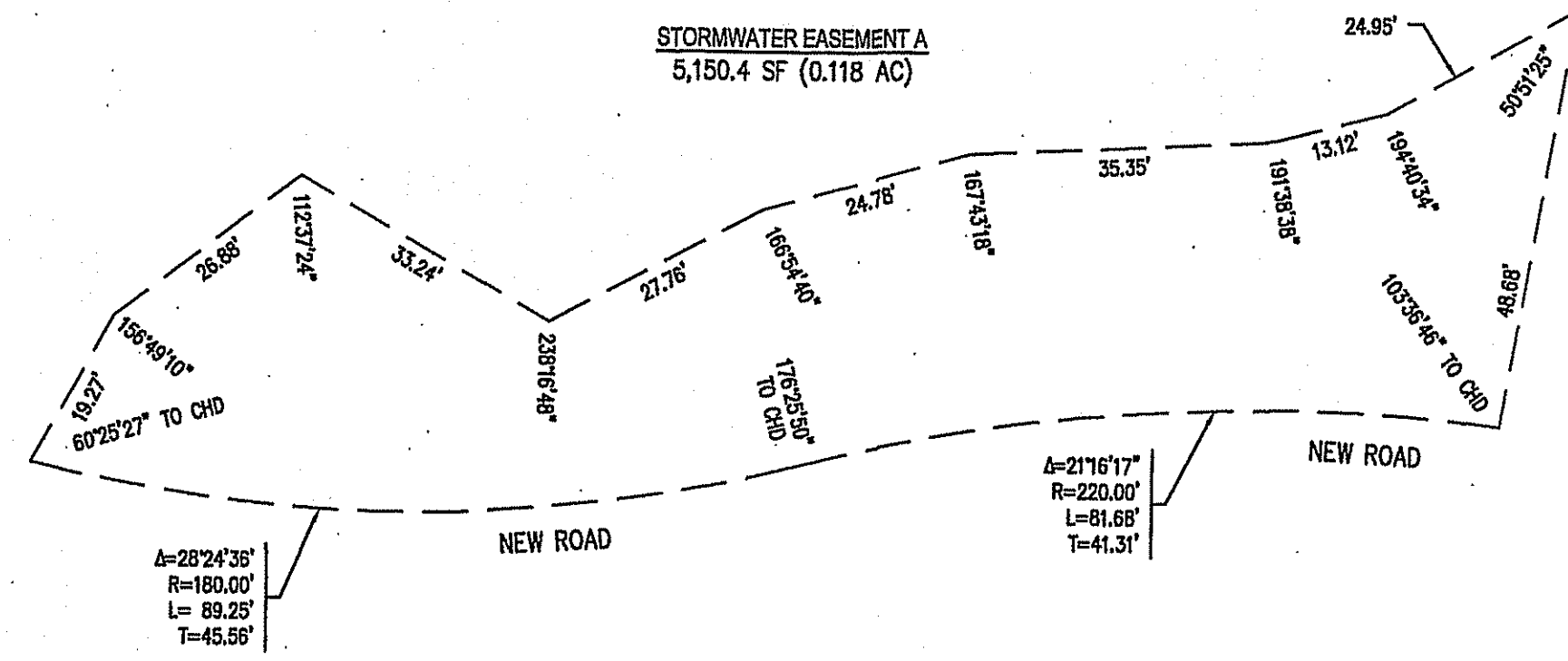
CERTIFICATION:

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

TYPE OF SURVEY:
COMPREHENSIVE BOUNDARY SURVEY |
PURPOSE OF THE SURVEY:
TO PROVIDE AN ACCURATE PROPERTY LINE AND SUBDIVISION PLAN.

BY *James A. Harber*
PROFESSIONAL LAND SURVEYOR LIC.# 1974 COA.# A-534
DATE 7/19/2017

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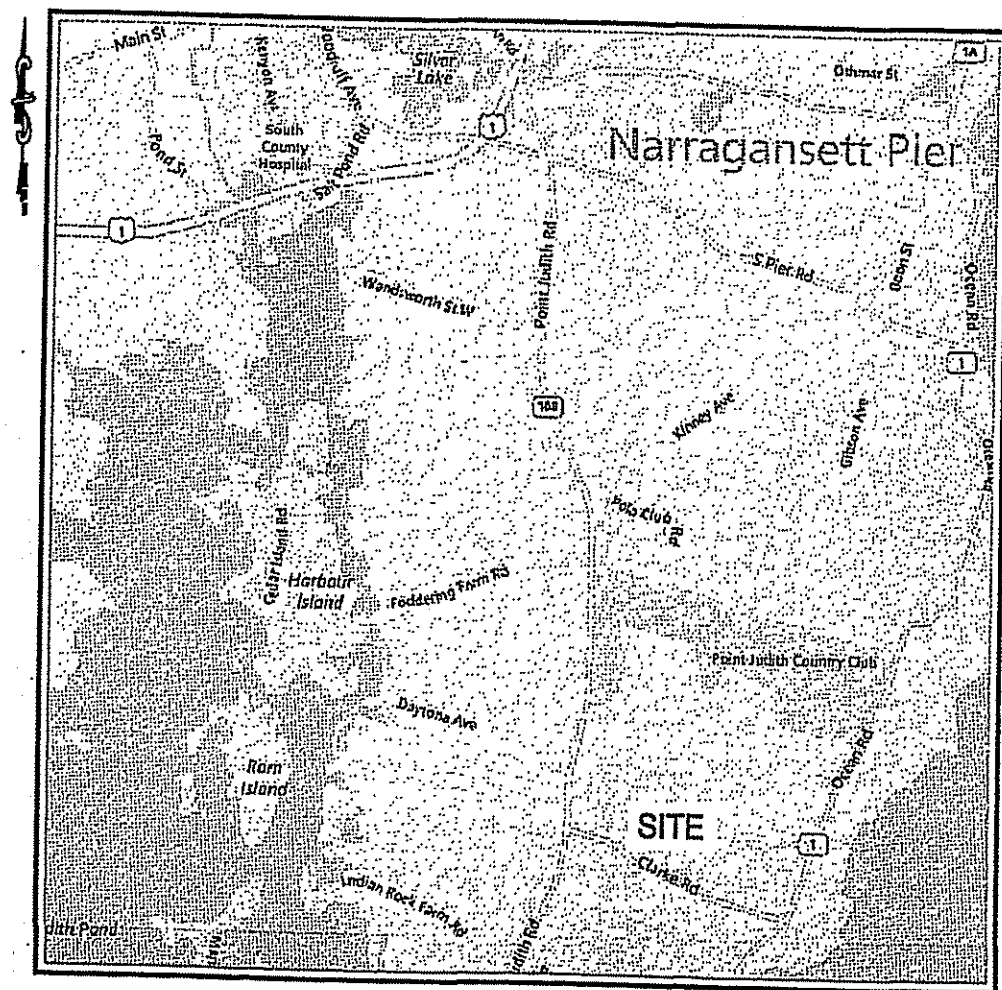


LEGEND

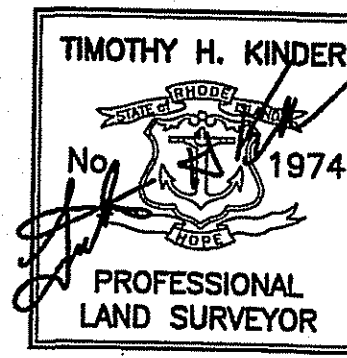
- PROPERTY LINE
- PROPOSED LOT LINE
- PROPOSED EASEMENT

STREET INDEX:

THIS PLAN SHALL BE INDEXED BY THE FOLLOWING STREET:
CLARKE ROAD



LOCATION MAP
NOT TO SCALE



CERTIFICATION:

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

TYPE OF SURVEY:
COMPREHENSIVE BOUNDARY SURVEY I
PURPOSE OF THE SURVEY:
TO PROVIDE AN ACCURATE PROPERTY LINE AND SUBDIVISION PLAN.

BY *[Signature]*
PROFESSIONAL LAND SURVEYOR LIC.# 1974 COA.# A-534 DATE 7/19/2017

NO.	DATE	REVISION
1	7/19/17	RIDEM COMMENTS

MINOR SUBDIVISION PLAN - 2
CLARKE ROAD SUBDIVISION
ASSESSOR'S PLAT V, LOT 27
CLARKE ROAD

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 11 2017 FILE # 17-0174
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

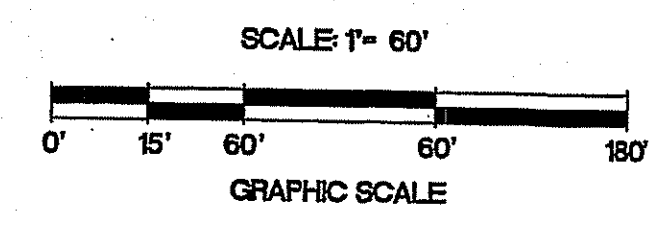
SITUATED IN
NARRAGANSETT, RI
PREPARED FOR
SKYCAP, LLC



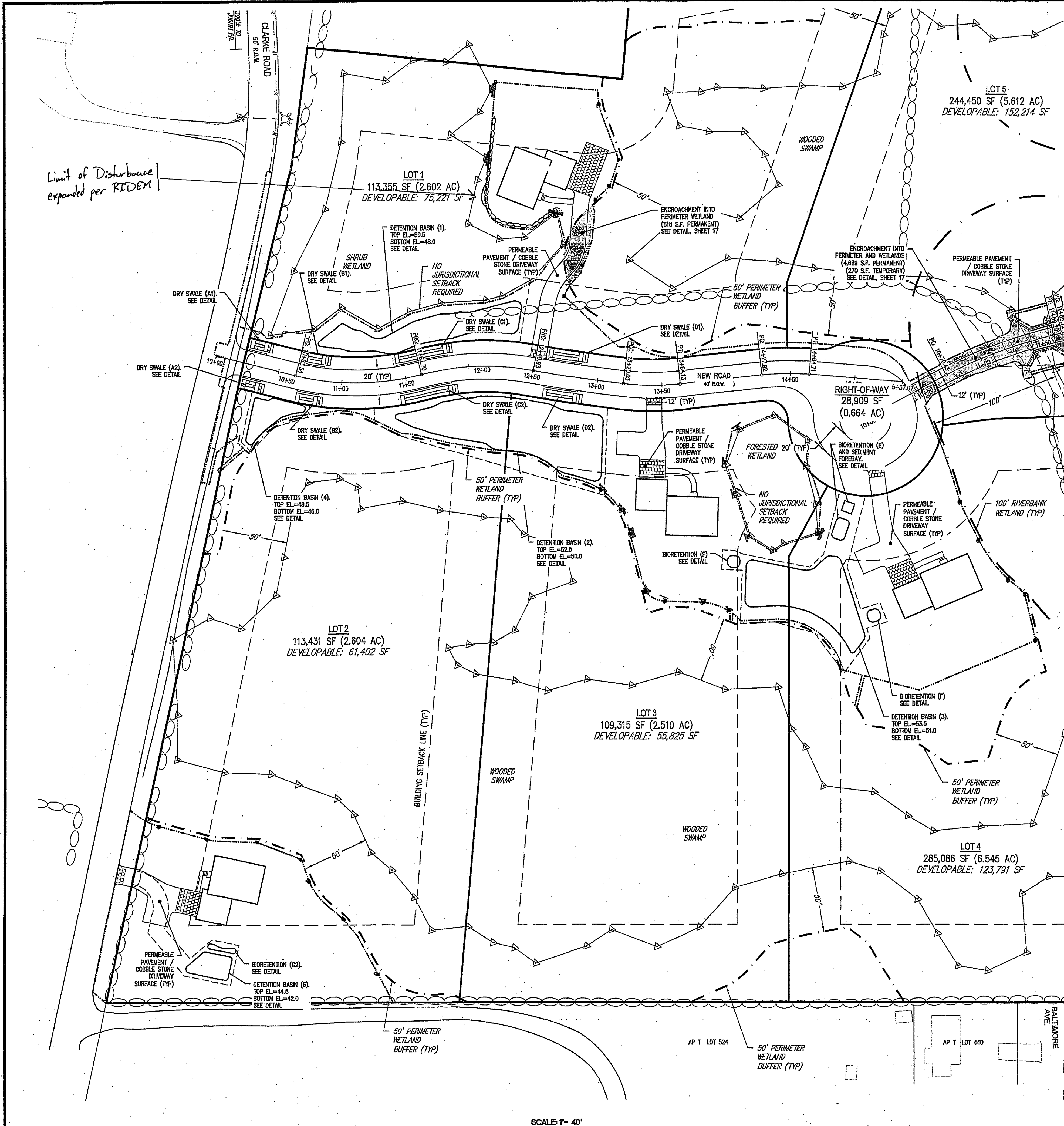
250 Centerville Road, Building E-12
Warwick, Rhode Island 02886
p. (401) 921-3344 f. (401) 921-3303
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MARCH 2017
SHEET 4 OF 17

FILE NO.: 16.268.389



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LEGEND

—	LOT LINE	—+—+—	PR. ROADWAY STATIONING
- - -	PR. PROPERTY LINE	—	PR. EDGE OF PAVEMENT
—	ABUTTING LOT LINE	—	PR. STORMWATER FACILITY
- - -	PR. BUILDING SETBACK LINE	—	PR. DRY SWALE
- - -	PR. EASEMENT LINE	—	PR. RETAINING WALL
—	WETLAND EDGE AND FLAG	—	PR. LIMIT OF DISTURBANCE
- - -	50' PERIMETER WETLAND	—	PR. BUFFER MARKER
- - -	100' RIVERBANK WETLAND	—	PR. WETLAND ENCROACHMENT
○ ○ ○	EXISTING STONE WALL	—	PR. BUILDING

Buffer Zone Markers added and marked for clarity per RIDEM. No alterations permitted beyond these markers.

MATCH LINE - SHEET 6

REFERENCE:

- TOPOGRAPHY AND PLANIMETRICS FROM PLAN BY CHAS. H. SELLS INC. ENTITLED: "NARRAGANSETT, RHODE ISLAND: CHECKPLOT - TITLE NO. F20, DATED APRIL 30, 2002 AS FLOWN ON MARCH 24, 2001.

FLOOD ZONE

THE SITE LIES IN "ZONE X" - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR WASHINGTON COUNTY, RHODE ISLAND (ALL JURISDICTIONS) PANEL 213 OF 368, MAP NUMBER 44009C0213J, MAP REVISED OCTOBER 16, 2013.

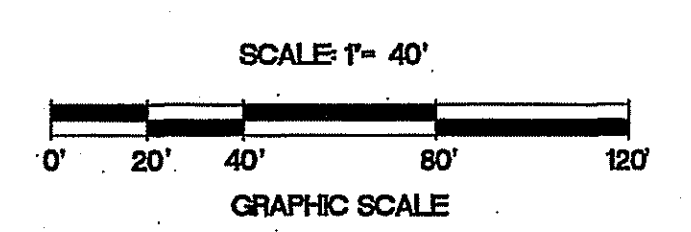
NOTES:

- WETLANDS DELINEATED BY THE GIFFORD DESIGN GROUP, INC. AND FIELD LOCATED BY MILLSTONE ENGINEERING ON OCTOBER 15 - 27, 2014 AND MAY 8, 2015.
- FRESHWATER WETLANDS VERIFIED BY THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM). REFERENCE FILE NUMBER 14-0218.
- DENSITY CALCULATION:

894,546 S.F. (LOT AREA)
 - 397,836 S.F. (AREA WETLANDS)
 BUILDABLE AREA = 496,710 S.F.
 AREA R.O.W. = 0.15 * BUILDABLE AREA
 AREA R.O.W. = 0.15 * (496,710 S.F.) = 74,506.5 S.F.
 TOTAL BUILDABLE AREA = 496,710 S.F.
 - 74,506.5 S.F. (AREA R.O.W.)
 BUILDABLE AREA = 422,203.5 S.F.
 DENSITY = (422,203.5 S.F.) / (80,000 S.F.)
 DENSITY = 5.27, SAY 5 LOTS

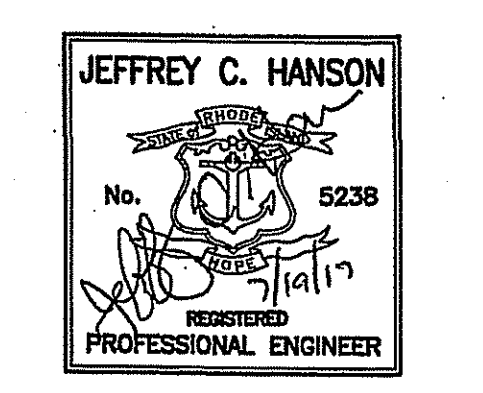
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL.
 DATED SEP 11 2017 FILE # 17-027
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

James A. Herbert



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NO.	DATE	REVISION
1	7/19/17	JRIDEM COMMENTS



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 Warwick, Rhode Island 02886

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SITE LAYOUT PLAN - 1

CLARKE ROAD SUBDIVISION

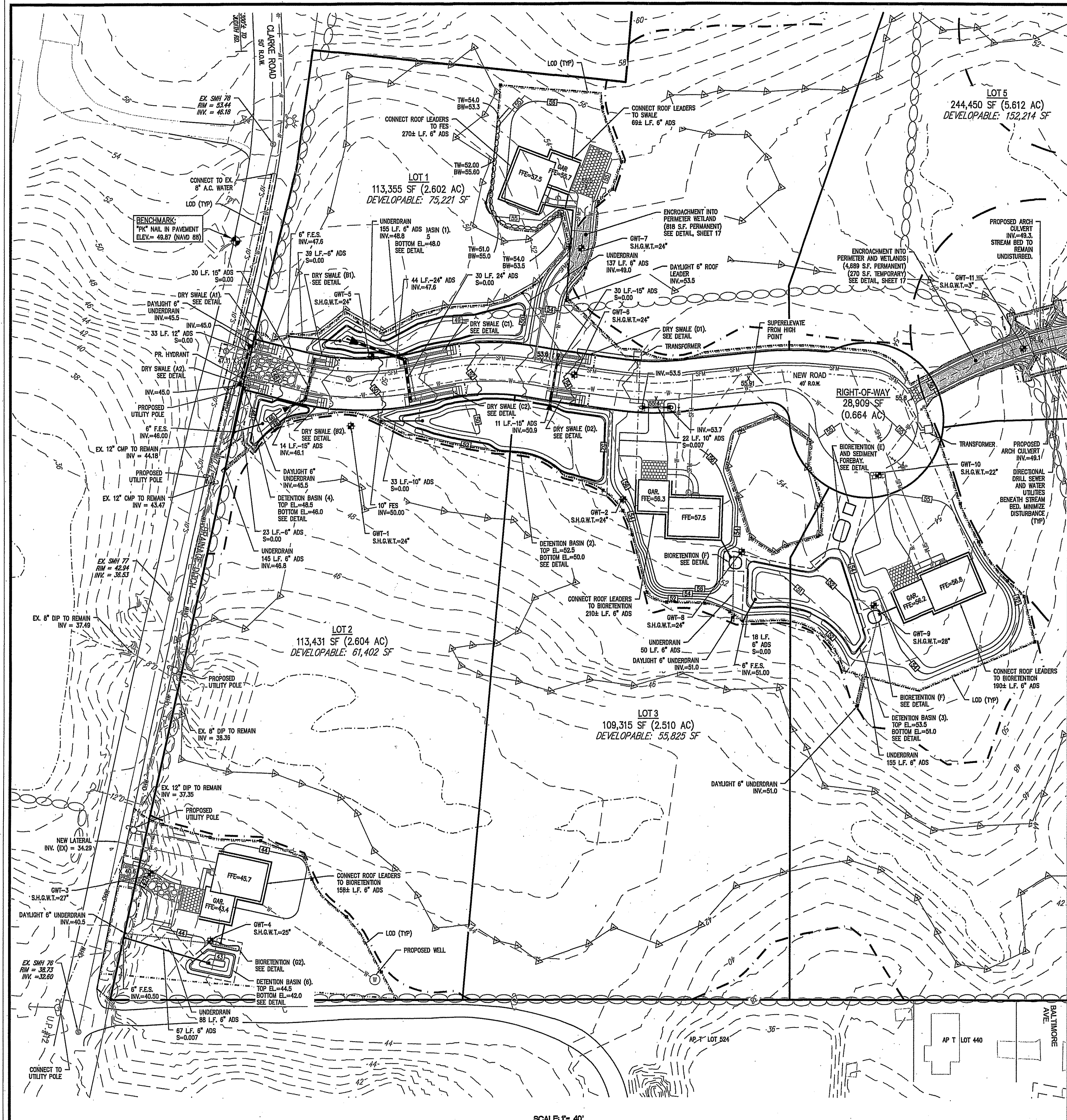
A.P.V, LOT 27 CLARKE ROAD NARRAGANSETT, RI

PREPARED FOR:
SKYCAP, LLC

1" = 40'
MARCH 2017

Drawn By: **BJC**
 Checked By: **JCH**
 Sheet: **5** of 17

FILE NO: 16.268.389



LEGEND

—	LOT LINE	—	PR. EDGE OF PAVEMENT
—	PR. PROPERTY LINE	—	PR. CONTOUR
—	ABUTTING LOT LINE	X 55.5	PR. SPOT ELEVATION
—	PR. BUILDING SETBACK LINE	TW=54.00 BW=54.00	TOP WALL/BOTTOM WALL
—	PR. EASEMENT LINE	—	PR. DRAIN LINE
—	EX. WATER EDGE PER REF. 2	—	PR. STORMWATER FACILITY
WTL-70	WETLAND FLAG	—	PR. DRY SWALE
—	EDGE OF FRESHWATER WETLAND	—	PR. UTILITY POLE
—	50' PERIMETER WETLAND	—	PR. OVERHEAD WIRE
—	100' RIVERBANK WETLAND	—	PR. CONDUIT
—	EX. CONTOUR	—	PR. WATER LINE
—	EX. DRAIN LINE	—	PR. HYDRANT
—	EX. UTILITY POLE	—	PR. WATER VALVE
—	EX. WATER LINE	—	PR. SEWER LINE
—	EX. HYDRANT	—	PR. SEWER FORCE MAIN
—	EX. WATER VALVE	—	PR. SEWER MANHOLE
—	EX. SEWER LINE	—	PR. E-PUMP
—	EX. SEWER MANHOLE	—	PR. RETAINING WALL
—	EXISTING STONE WALL	—	PR. LIMIT OF DISTURBANCE
—		—	PR. BUFFER MARKER
—		—	PR. EROSION CONTROL
—		—	PR. WETLAND ENCROACHMENT
—		—	PR. BUILDING

REFERENCE:

- TOPOGRAPHY AND PLANIMETRICS FROM PLAN BY CHAS. H. SELLS INC. ENTITLED: "NARRAGANSETT, RHODE ISLAND: CHECKPLOT - TITLE NO. F20, DATED APRIL 30, 2002 AS FLOWN ON MARCH 24, 2001.

FLOOD ZONE

THE SITE LIES IN "ZONE X" - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR WASHINGTON COUNTY, RHODE ISLAND (ALL JURISDICTIONS) PANEL 213 OF 368, MAP NUMBER 44009C02134, MAP REVISED OCTOBER 16, 2013.

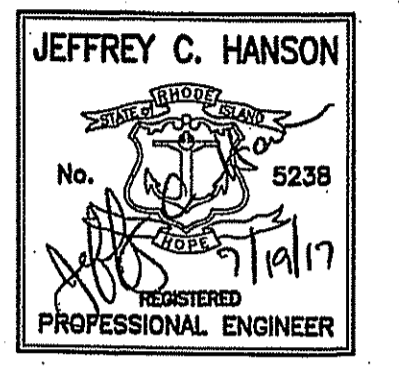
NOTES:

- ELEVATION AND CONTOURS SHOWN REFER TO NAVD 88 DATUM.
- WETLANDS DELINEATED BY THE GIFFORD DESIGN GROUP, INC. AND FIELD LOCATED BY MILLSTONE ENGINEERING ON OCTOBER 15 - 27, 2014 AND MAY 8, 2015.
- FRESHWATER WETLANDS VERIFIED BY THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM). REFERENCE FILE NUMBER 14-0218.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 11 2017 FILE # 17-0174
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

James A. Hanson

NO.	DATE	REVISION
1	7/19/17	RIDEM COMMENTS



MILLSTONE ENGINEERING, P.C.
CIVIL ENGINEERING • LAND PLANNING
260 Cranville Road, Building E-2
Warwick, Rhode Island 02886
P. (401) 924-3444 F. (401) 921-3303
www.millstoneeng.com

GRADING, DRAINAGE & UTILITY PLAN - 1

CLARKE ROAD SUBDIVISION

A.P.V., LOT 27
CLARKE ROAD
NARRAGANSETT, RI

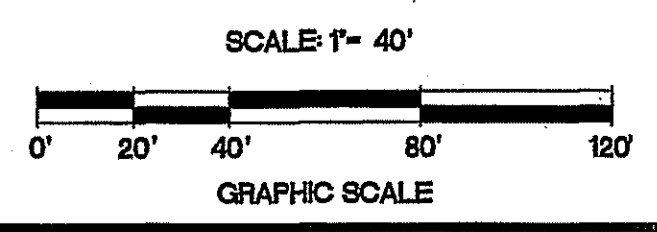
PREPARED FOR:
SKYCAP, LLC

1" = 40'
MARCH 2017

Drawn By: BJC
Checked By: JCH
Sheet: 7

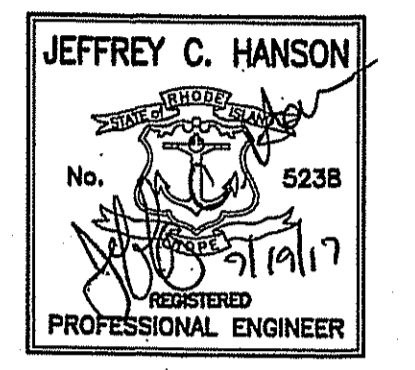
of 17

FILE NO.: 16.268.389



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NO.	DATE	REVISION
1	7/19/17	RIDEM COMMENTS



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PLAN & PROFILE

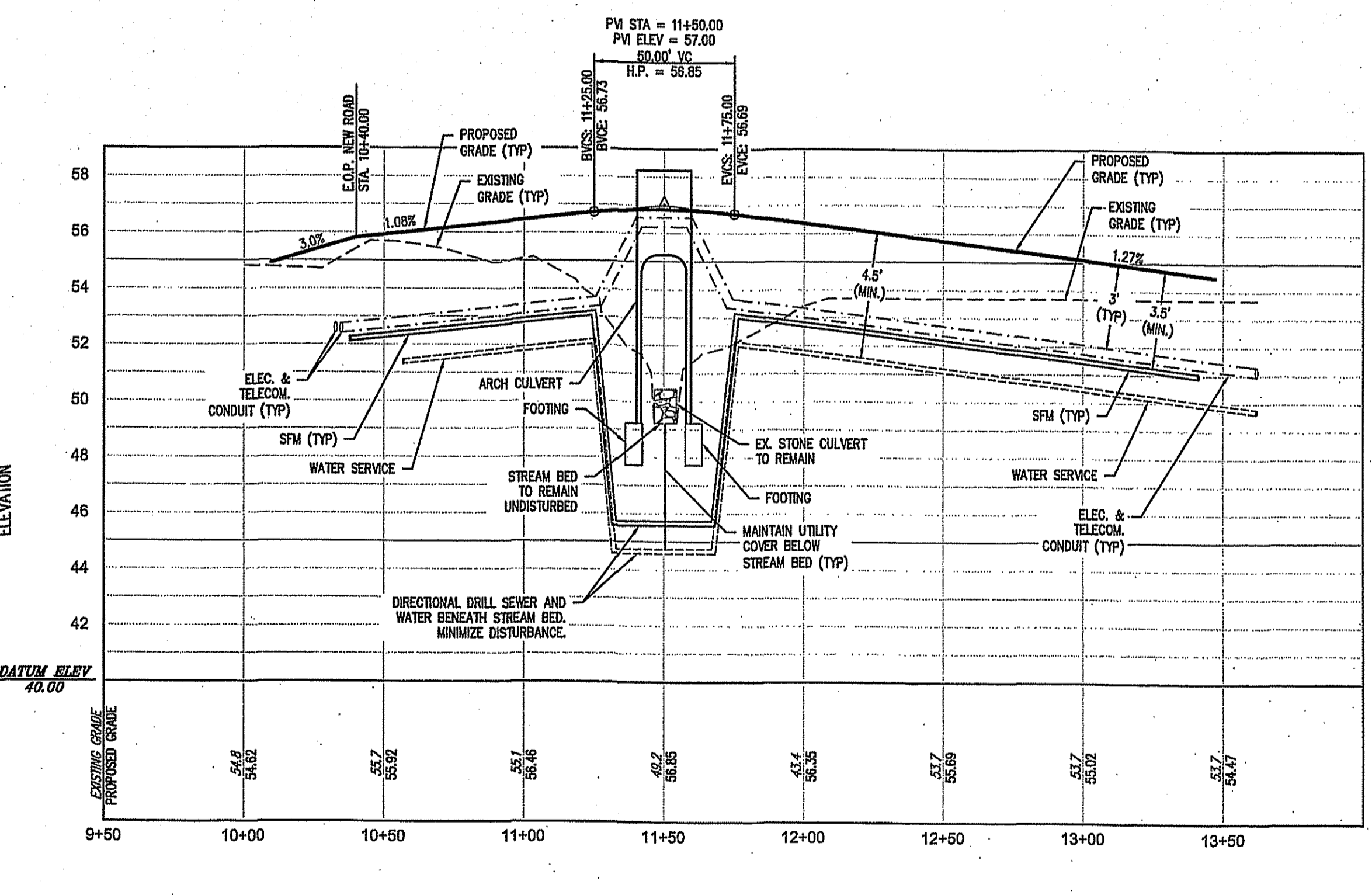
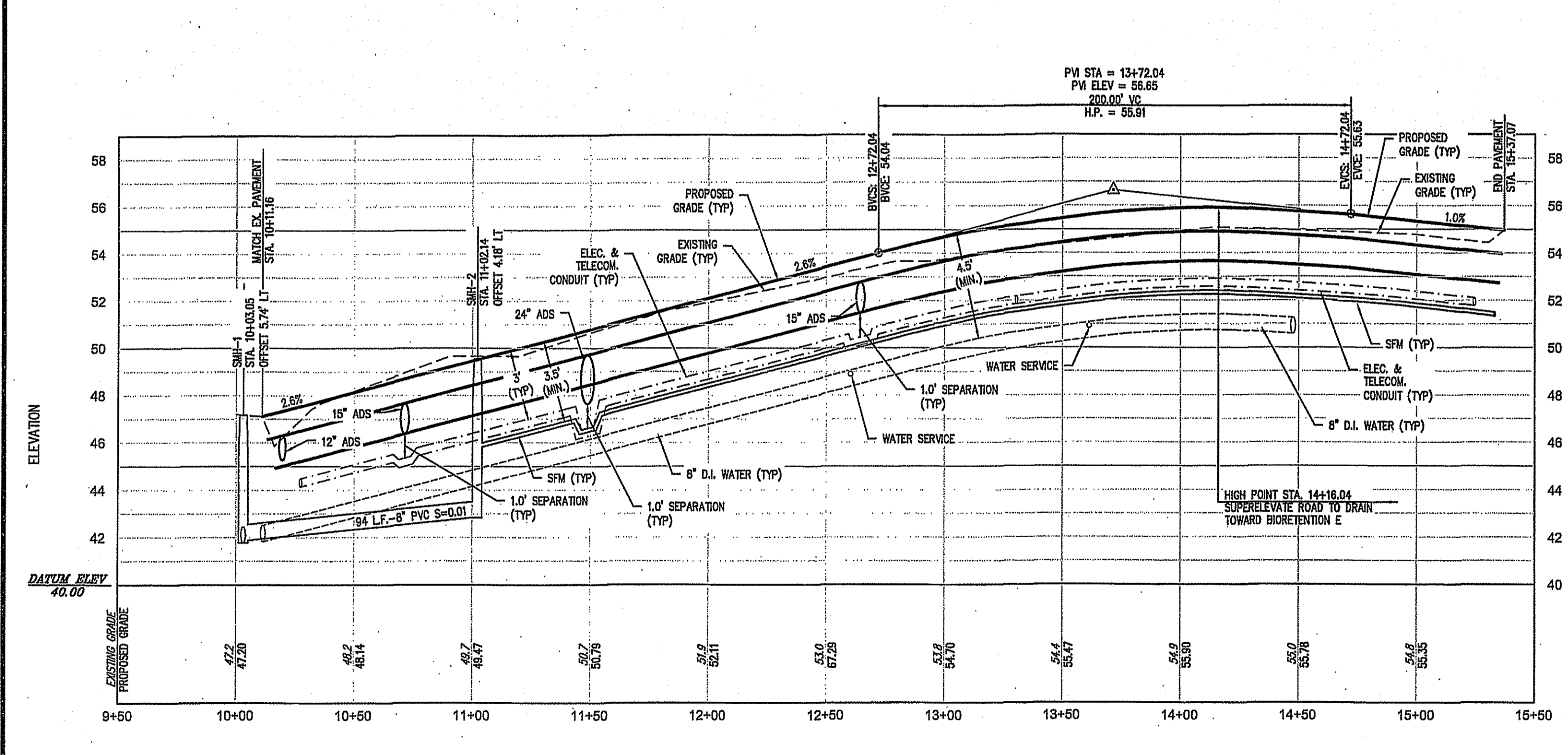
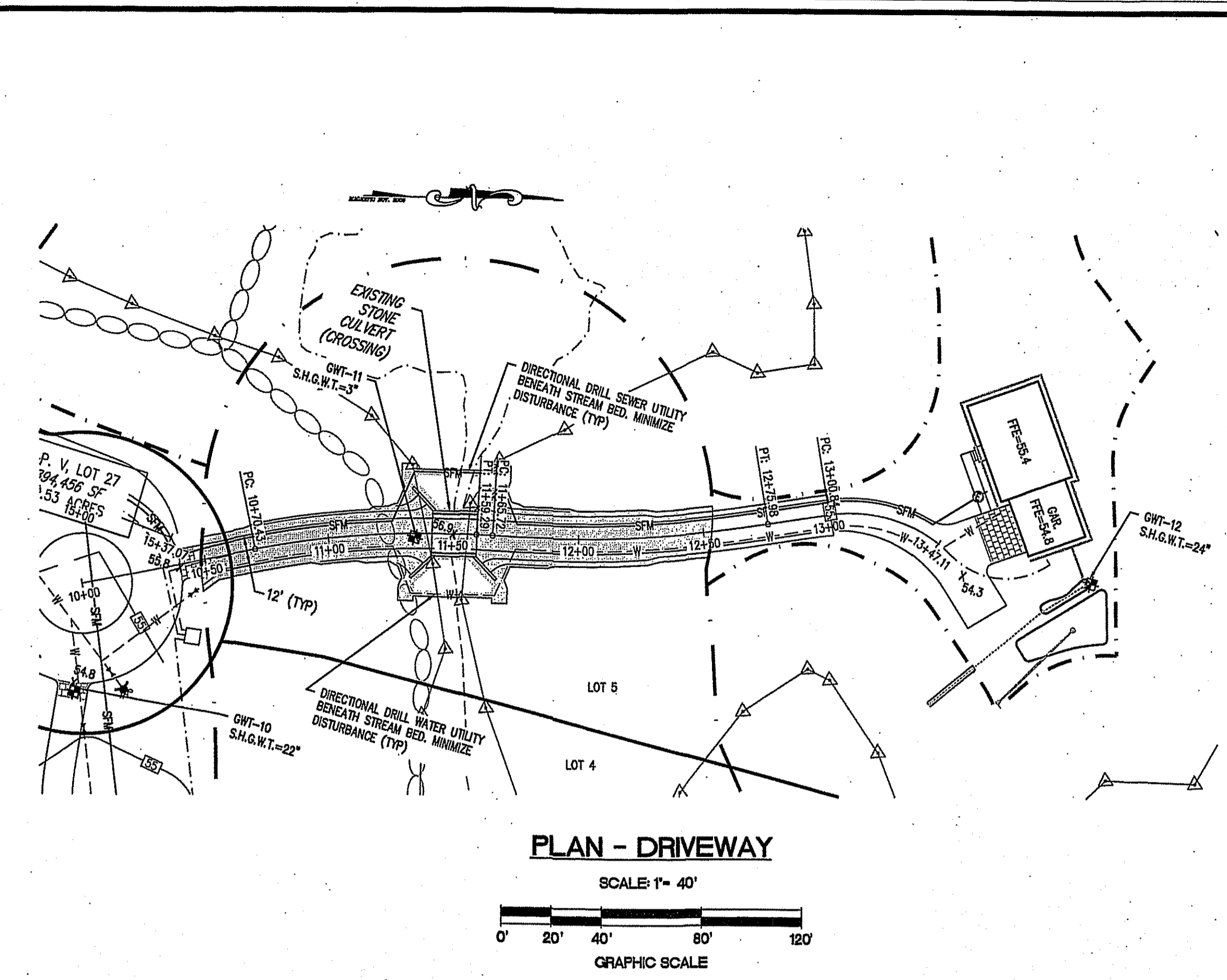
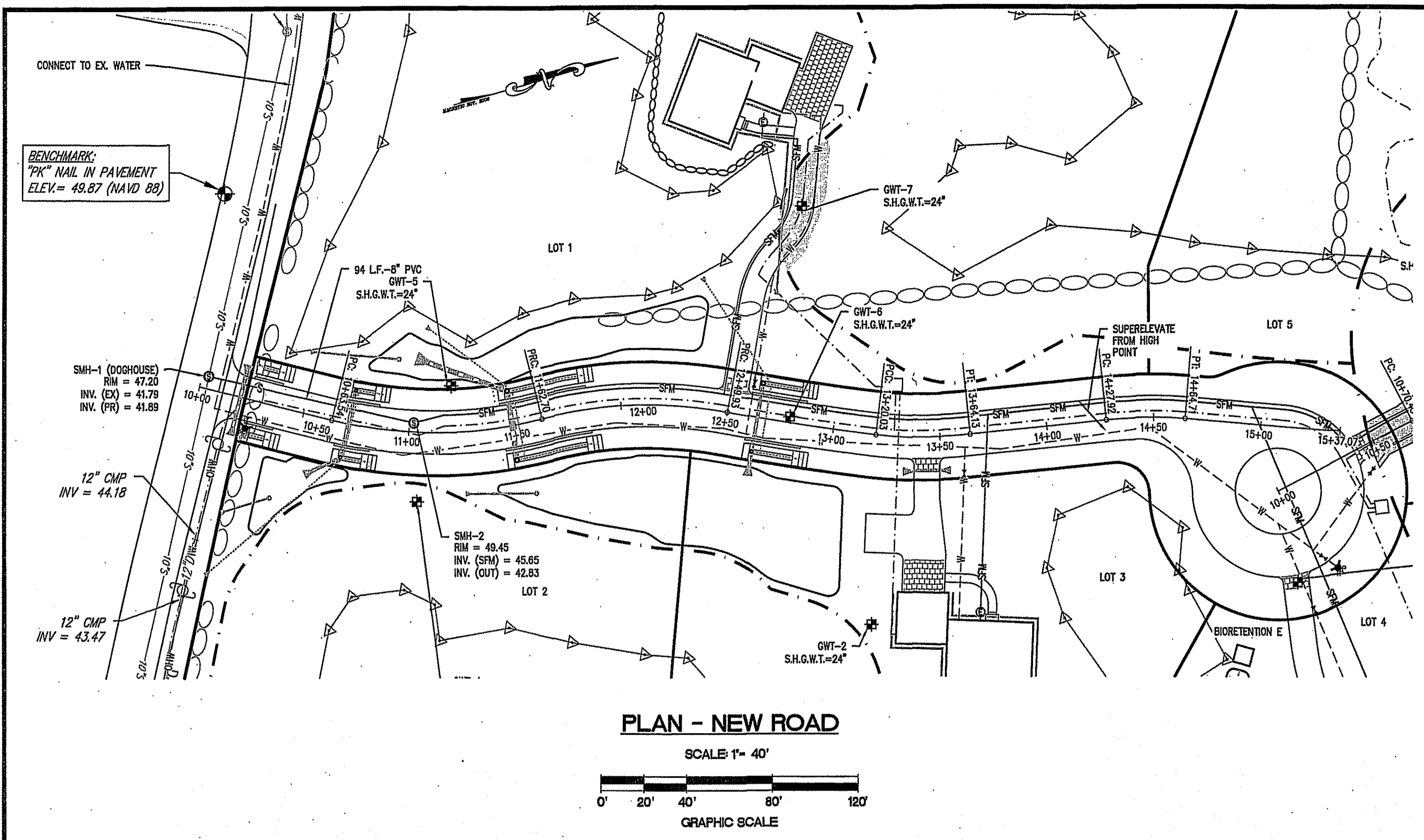
CLARKE ROAD SUBDIVISION

A.P.V., LOT 27
 CLARKE ROAD
 NARRAGANSETT, RI

PREPARED FOR:
 SKYCAP, LLC

SCALE: AS NOTED
 MARCH 2017

Drawn By: BJC
 Checked By: JCH
 Sheet



NEW ROAD PROFILE
 STA. 10+00 TO STA. 15+37.07
 SCALE: HORIZ. 1"=40'
 VERT. 1"=4'

LEGEND

—	LOT LINE	—	8" D EX. DRAIN LINE	—	PR. EDGE OF PAVEMENT	—	PR. WATER VALVE
—	PR. PROPERTY LINE	—	U.P.#12 EX. UTILITY POLE	—	PR. DRAIN LINE	—	PR. SEWER LINE
—	ABUTTING LOT LINE	—	— EX. WATER LINE	—	PR. STORMWATER FACILITY	—	PR. SEWER FORCE MAIN
—	PR. BUILDING SETBACK LINE	—	— EX. HYDRANT	—	PR. DRY SWALE	—	PR. UTILITY POLE
—	PR. EASEMENT LINE	—	— EX. WATER VALVE	—	PR. UTILITY POLE	—	PR. E-ONE PUMP
—	EX. WATER EDGE PER REF. 2	—	— EX. SEWER LINE	—	PR. OVERHEAD WIRE	—	PR. RETAINING WALL
—	WETLAND FLAG AND EDGE	—	— EX. SEWER MANHOLE	—	PR. CONDUIT	—	PR. LIMIT OF DISTURBANCE
—	50' PERIMETER WETLAND	—	— EXISTING STONE WALL	—	PR. WATER LINE	—	PR. EROSION CONTROL
—	100' RIVERBANK WETLAND	—	— PR. ROADWAY STATIONING	—	PR. HYDRANT	—	PR. WETLAND ENCROACHMENT

DRIVEWAY PROFILE
 STA. 10+00 TO STA. 13+47.11
 SCALE: HORIZ. 1"=40'
 VERT. 1"=4'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED SEP 11 2017 FILE # 17-0.77
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Jules A. Herbert

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CONSTRUCTION SEQUENCE / NARRATIVE

- OBTAIN APPLICABLE PERMITS.
- NOTIFY ALL APPROPRIATE STATE, REGIONAL AND TOWN DEPARTMENTS PRIOR TO THE START OF CONSTRUCTION.
- BEGIN CONSTRUCTION.
- CONSTRUCT RI STD 9.9.0 CONSTRUCTION ACCESS.
- INSTALL SILT FENCE / STAKED HAYBALE LINE / SILT SOCK.
- CORDON OFF AREAS WHERE INFILTRATION PRACTICES ARE PROPOSED (i.e. BIORETENTION AREAS) TO ENSURE NO VEHICLE TRAFFIC WILL COMPACT THESE AREAS PRIOR TO BMP CONSTRUCTION PROCEDURES COMMENCE.
- R&D EXISTING PAVEMENT (IF REQUIRED).
- CLEAN, GRUB, AND STOCKPILE TOPSOIL (IF REQUIRED).
- CONSTRUCT RETAINING WALLS (IF REQUIRED).
- EXCAVATE / PLACE COMPACTED FILL IN ACCORDANCE WITH THE GRADING PLAN.
- INSTALL PROPOSED UTILITIES, WORK DOWNSTREAM TO UPSTREAM ON STORMWATER SYSTEMS. DO NOT ALLOW INFLOW UNTIL BMPs ARE FULLY STABILIZED. PLACE INLET AND OUTLET PROTECTION WHERE REQUIRED.
- FINE GRADE, SPREAD TOPSOIL, SEED AND STABILIZE EXPOSED EARTH WITHIN AND AROUND BMPs.
- SAWCUT, PATCH AND REPAIR ROADWAYS AT UTILITY TIE-IN LOCATIONS.
- INSTALL PERVIOUS PAVEMENT ROADWAY & BEGIN BUILDING CONSTRUCTION.
- FINE GRADE, SPREAD TOPSOIL, SEED AND STABILIZE EXPOSED EARTH IN REMAINING DISTURBED AREAS.
- CLEAN / FLUSH STORM DRAINAGE SYSTEM.
- ONCE SEEDS GERMINATE AND EARTH IS STABILIZED, REMOVE SILT FENCE / HAYBALE/SILT SOCK LINE AND INLET PROTECTION.
- END CONSTRUCTION.

SEDIMENTATION CONTROL PROGRAM:

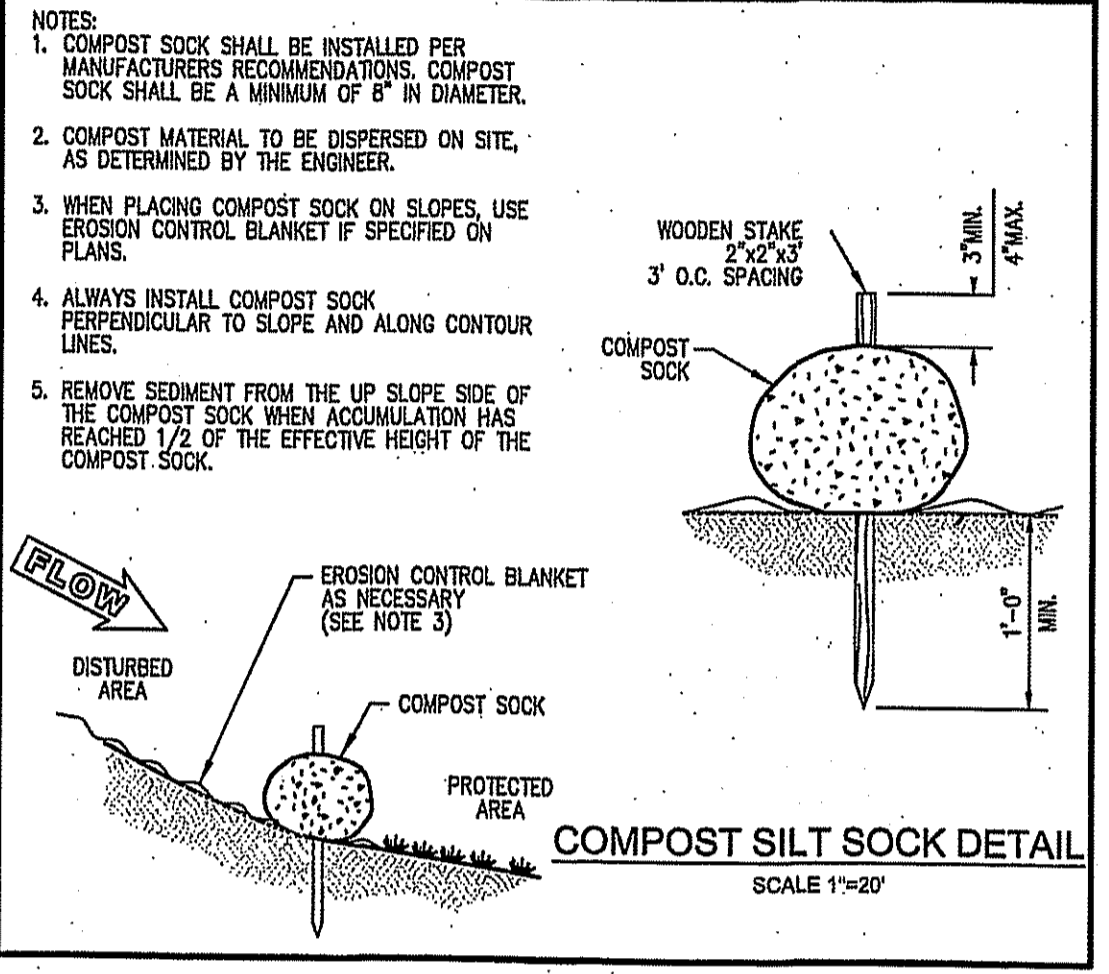
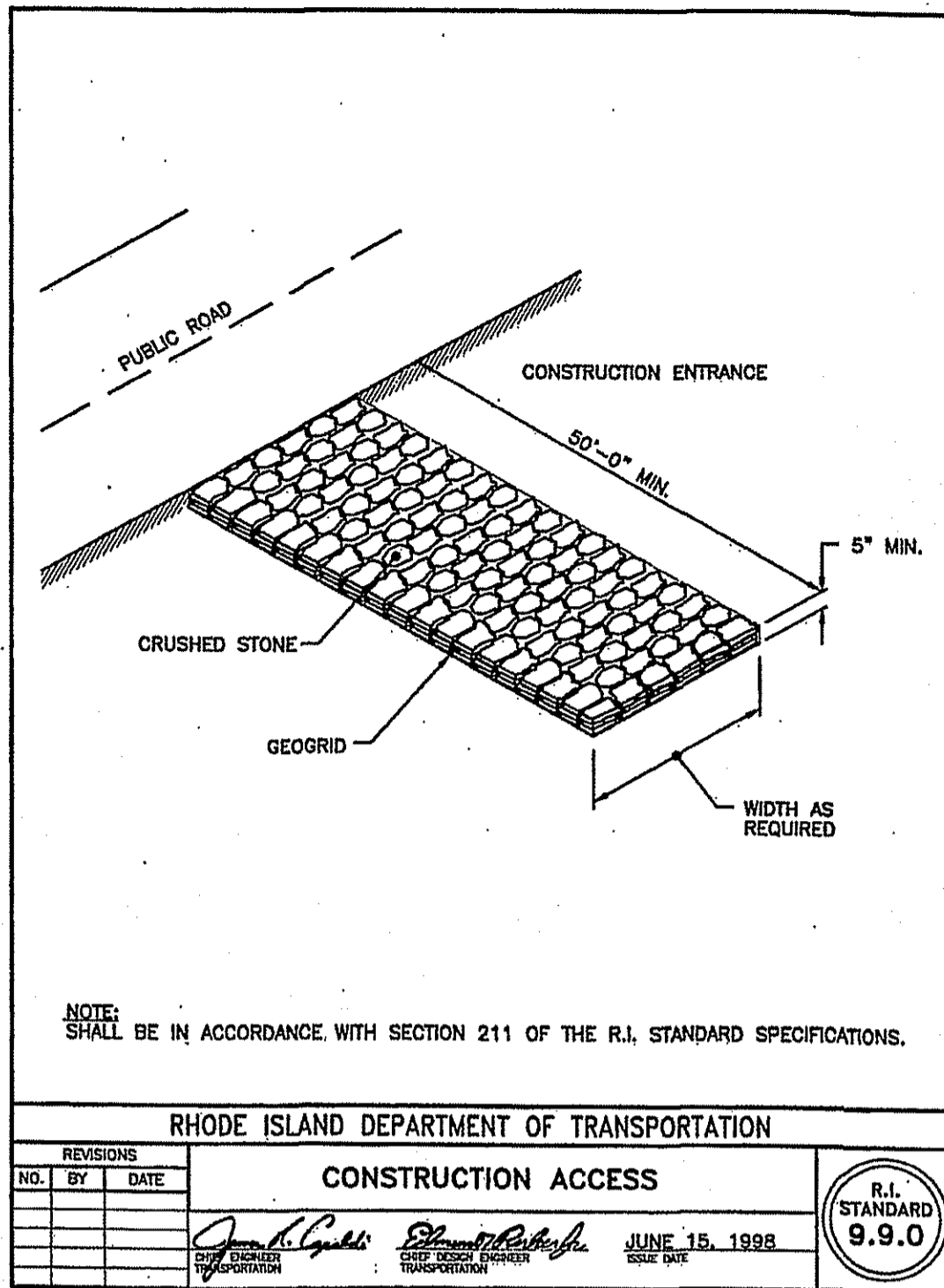
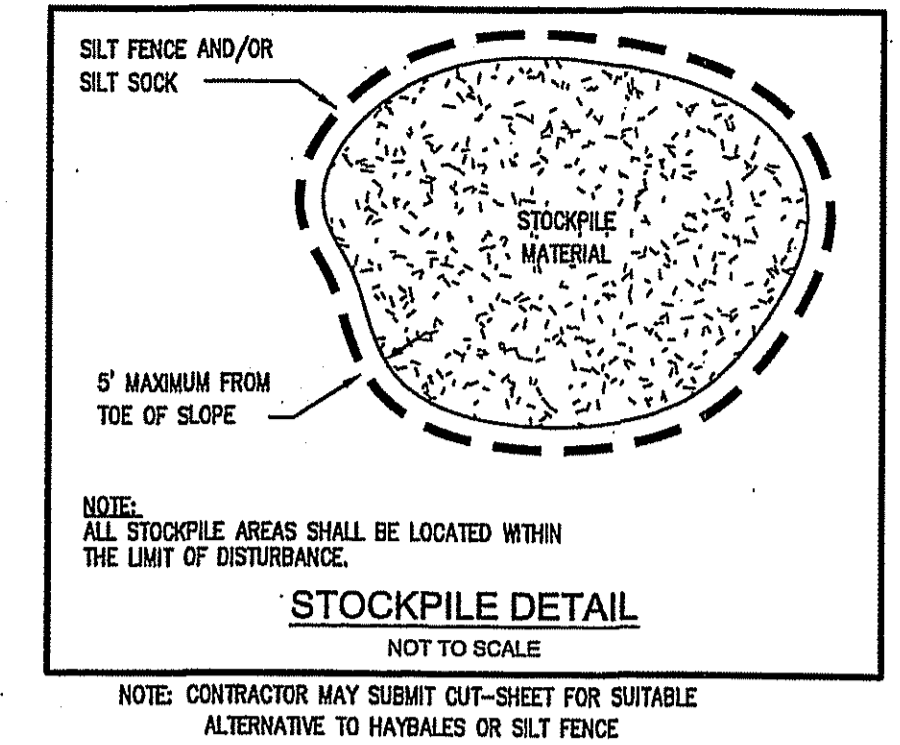
- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING DOWNSTREAM WATERCOURSES AND STORMWATER DRAINAGE SYSTEMS.
- DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUN-OFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
- SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
- CARE SHALL BE TAKEN SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECTED TO STORMWATER FLOWAGE.
- SEDIMENTATION TRAPS SHALL BE PROVIDED AT ALL DRAINAGE STRUCTURES DURING CONSTRUCTION.
- EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AT THE SITE PRIOR TO THE START OF CONSTRUCTION AND BE PROPERLY MAINTAINED UNTIL ALL DISTURBED AREAS ARE STABILIZED INCLUDING:
 - THE INSTALLATION OF A CONTINUOUS LINE OF SILT SOCKS, STAKED HAYBALES, OR SILT FENCE IN ALL LOCATIONS SHOWN ON THE APPROVED SITE PLANS AND WHERE OTHERWISE NECESSARY TO PREVENT SEDIMENTS FROM ENTERING DOWNSTREAM WATERCOURSES AND STORMWATER DRAINAGE SYSTEMS.
 - ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH APPROVED GROUND COVER PRIOR TO THE COMPLETION OF THE PROJECT. AREAS EXPOSED FOR EXTENDED PERIODS ARE TO BE COMPLETELY COVERED WITH SPREAD HAY MULCH.
 - CATCH BASINS SHALL BE PROTECTED WITH HAYBALE FILTERS THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED. SUMPS ARE TO BE CLEANED IMMEDIATELY FOLLOWING INSTALLATION OF PERMANENT PAVEMENT.
 - OUTFALLS SHALL BE PROTECTED BY HAYBALE FILTERS UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH APPROVED GROUND COVER.
 - ALL CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
- THE LIMITS OF ALL CLEARING, GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE SHALL REMAIN TOTALLY UNDISTURBED.

EROSION CONTROL AND SOIL STABILIZATION PROGRAM:

- DEVELOPED SLOPES SHALL NOT BE LEFT EXPOSED FOR MORE THAN 14 DAYS.
- TEMPORARY TREATMENTS SHALL CONSIST OF HAY, STRAW, FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 2000 LBS/ACRE.
- ALL HAYBALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS, RIP-RAP OR APPROVED GROUND COVER IS ESTABLISHED.
- THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH RHODE ISLAND STANDARD SPECIFICATION M.18.02.
- THE SEED MIX SHALL BE INOCULATED WITHIN 24-HOURS BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
- THE DESIGN MIX UTILIZED IN ALL DISTURBED AREAS TO BE SEEDING SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	% BY WEIGHT
CREeping RED FESCUE	70
ASTORIA BENTGRASS	5
BIRDFOOT TREFEOL	15
PERENNIAL RYEGRASS	10
APPLICATION RATE	100 LBS/ACRE

 LIMING AND FERTILIZING AS REQUIRED TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS.
- THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR, AND SHALL DO SO AT NO ADDITIONAL EXPENSE.
- THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1ST THROUGH OCTOBER 15TH.
- STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN FIFTEEN (15) DAYS OF FINAL GRADING.
- STOCKPILES OF TOPSOIL AND EARTH MATERIALS SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN THIRTY PERCENT (30%), SHALL ALSO BE SEEDED AND/OR STABILIZED AND SHALL BE COMPLETELY ENCLOSED WITH STAKED HAY BALES AND/OR SILT FENCE (SEE DETAIL).
- ON BOTH STEEP AND LONG SLOPES, CONSIDERATION SHOULD BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.
- TREES TO BE RETAINED SHALL BE FENCED OR ROPED OFF TO PROTECT THEM FROM CONSTRUCTION EQUIPMENT.
- ALL PROPOSED PLANTINGS AND PLACEMENT OF RIP-RAP MUST BE ACCOMPLISHED AS EARLY AS POSSIBLE UPON COMPLETION OF GRADING AND CONSTRUCTION, AND AT LEAST PRIOR TO ANY ON-SITE OCCUPANCY.
- ALL PROPOSED PLANTINGS MUST BE MAINTAINED BY THE RESPONSIBLE PARTY TO ENSURE SURVIVAL.
- SHOULD ANY OR ALL OF THE PROPOSED PLANTS FAIL TO SURVIVE AT LEAST ONE (1) FULL GROWING SEASON FROM THE TIME THEY HAVE BEEN PLANTED, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR REPLACING AND MAINTAINING THE SAME PLANT SPECIES FOR ONE (1) ADDITIONAL GROWING SEASON.
- ALL DISTURBED AREAS MUST BE SEEDING, PLANTED OR RIP-RAPPED WITHIN THE CONSTRUCTION SEASON.
- TEMPORARY SEEDING MUST BE COMPLETED WITHIN ONE (1) MONTH AFTER DISTURBANCE.
- ALL DISTURBED AREAS MUST BE PERMANENTLY SEEDING, PLANTED OR RIP-RAPPED BEFORE OCTOBER 1ST, IF NOT THEY MUST BE TEMPORARILY SEEDING.



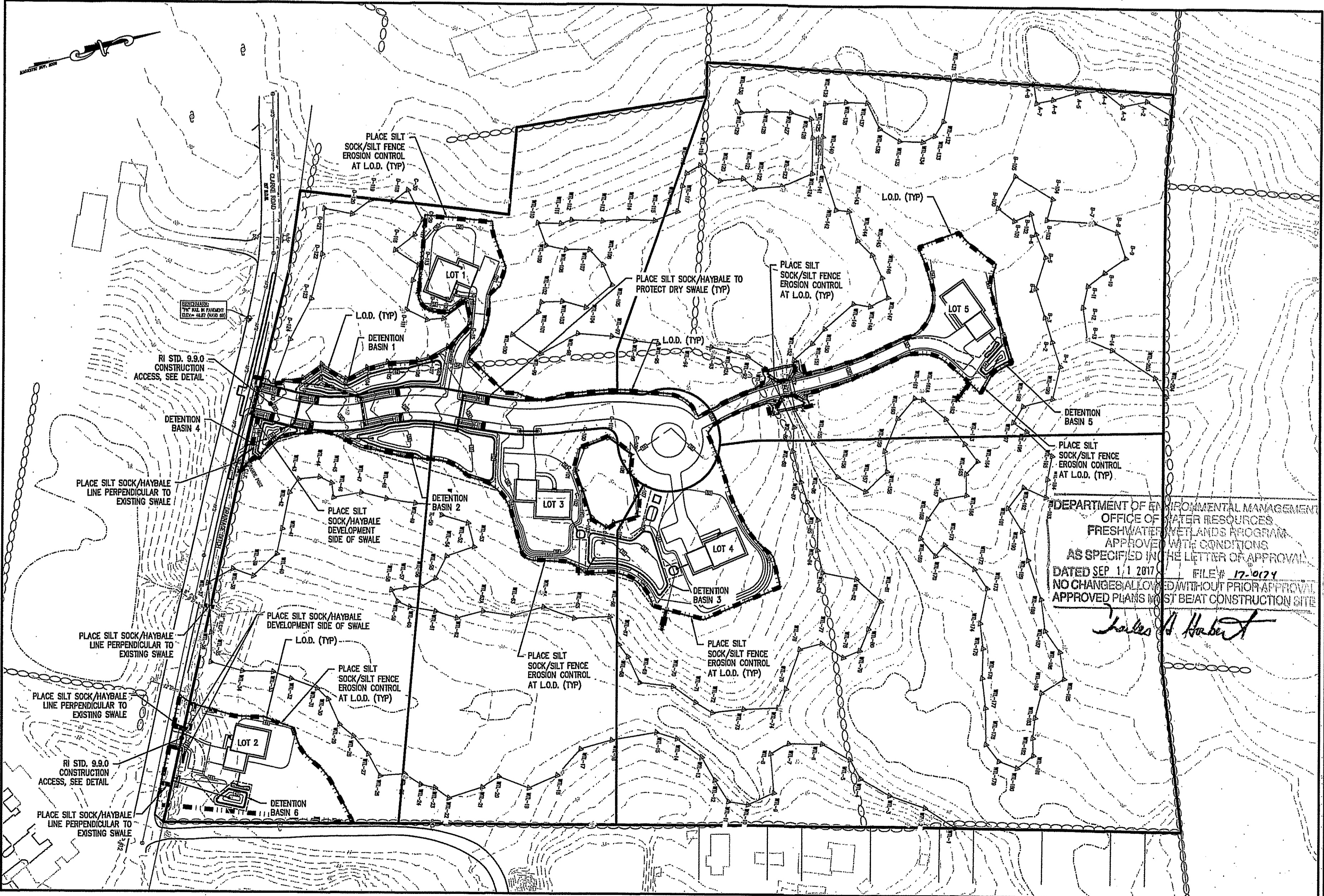
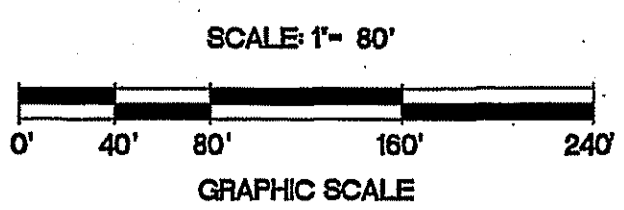
OWNER:
JOHN G. PASTORE, MD
2 CALUMET ROAD
WINCHESTER, MA 01890
(781) 570-3024

APPLICANT:
SKYCAP, LLC
P.O. BOX 2340
STAMFORD, CT 06906
(917) 648-0484

LEGEND

—	LOT LINE	—+—+—	PR. ROADWAY STATIONING
—	PR. PROPERTY LINE	—+—+—	PR. EDGE OF PAVEMENT
—	ABUTTING LOT LINE	—+—+—	PR. CONTOUR
—	PR. BUILDING SETBACK LINE	—+—+—	PR. DRAIN LINE
—	PR. EASEMENT LINE	—+—+—	PR. STORMWATER FACILITY
—	EX. WATER EDGE PER REF. 2	—+—+—	PR. DRY SWALE
WTL-70 Δ	WETLAND FLAG	—+—+—	PR. UTILITY POLE
—	EDGE OF FRESHWATER WETLAND	—+—+—	PR. OVERHEAD WIRE
—	50' PERIMETER WETLAND	—+—+—	PR. CONDUIT
—	100' RIVERBANK WETLAND	—+—+—	PR. WATER LINE
—46—	EX. CONTOUR	—+—+—	PR. HYDRANT
—8'D—	EX. DRAIN LINE	—+—+—	PR. WATER VALVE
—U.P.#12—	EX. UTILITY POLE	—+—+—	PR. SEWER LINE
—W—	EX. WATER LINE	—+—+—	PR. SEWER FORCE MAIN
—H—	EX. HYDRANT	—+—+—	PR. SEWER MANHOLE
—V—	EX. WATER VALVE	—+—+—	PR. E-ONE PUMP
—S—	EX. SEWER LINE	—+—+—	PR. RETAINING WALL
—M—	EX. SEWER MANHOLE	—+—+—	PR. LIMIT OF DISTURBANCE
—	EXISTING STONE WALL	—+—+—	PR. EROSION CONTROL
		—+—+—	PR. WETLAND ENCROACHMENT
		—+—+—	PR. BUILDING

PLAN VIEW



NO.	DATE	REVISION
1	7/19/17	TRIDEM COMMENTS

JEFFREY C. HANSON
No. 5238
REGISTERED PROFESSIONAL ENGINEER

ILLSTONE ENGINEERING, P.C.
CIVIL ENGINEERING • LAND PLANNING
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P. (401) 921-3344 F. (401) 921-3303
www.illstoneeng.com

SOIL EROSION & SEDIMENT CONTROL PLAN

CLARKE ROAD SUBDIVISION

A.P.V, LOT 27
CLARKE ROAD
NARRAGANSETT, RI

PREPARED FOR:
SKYCAP, LLC

SCALE: AS NOTED
MARCH 2017

Drawn By: BJC
Checked By: JCH
Sheet 10 of 17

FILE NO.: 16.268.389

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GENERAL NOTES:

- THE MOST CURRENT EDITION OF THE STATE OF RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE AND THE RHODE ISLAND STANDARD DETAILS CONSTRUCTION ARE MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO. THE CURRENT VERSION OF THE STANDARD SPECIFICATIONS MAY BE OBTAINED AT THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION, DIVISION OF PUBLIC WORKS. IN ADDITION, THE TOWN OF NARRAGANSETT STANDARD SPECIFICATIONS ARE MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO.
- ALL REQUIRED SITE IMPROVEMENTS SHALL BE INSPECTED BY THE TOWN ENGINEER TO ENSURE SATISFACTORY COMPLETION. IN NO CASE SHALL THE INSTALLATION OF ANY IMPROVEMENTS BE STARTED UNTIL PRIOR NOTIFICATION IS GIVEN TO THE TOWN ENGINEER. AT LEAST A 48-HOUR NOTICE SHALL BE GIVEN TO THE TOWN ENGINEER PRIOR TO ANY SUCH START OF CONSTRUCTION. A FINAL INSPECTION OF ALL SITE IMPROVEMENTS, UTILITIES AND GRADING WILL BE MADE TO DETERMINE WHETHER THE WORK IS SATISFACTORY AND IN SUBSTANTIAL AGREEMENT WITH THE APPROVED FINAL CONSTRUCTION DRAWING AND THE TOWN SPECIFICATIONS.
- LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL CHECK AND VERIFY LOCATIONS OF ALL EXISTING UTILITIES BOTH UNDERGROUND AND OVERHEAD. ANY DAMAGE TO EXISTING UTILITIES AS SHOWN OR NOT SHOWN ON THE PLANS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. COSTS OF SUCH DAMAGE SHALL BE BORNE BY THE CONTRACTOR. NO EXCAVATION SHALL BE DONE UNTIL ALL INVOLVED UTILITY COMPANIES ARE NOTIFIED 72-HOURS IN ADVANCE. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY DIG-SAFE (1-888-344-7233) A MINIMUM OF 72 WORKING HOURS, EXCLUDING WEEKENDS AND HOLIDAYS, PRIOR TO THE START OF ANY EXCAVATION AND/OR BLASTING WORK. THE NAME OF THE COMPANY PERFORMING THE EXCAVATION AND/OR BLASTING WORK MUST BE SUPPLIED TO DIG-SAFE, IF IT IS DIFFERENT FROM THE CALLER.
- IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN ANY AND ALL PERMITS REQUIRED BY THE STATE OF RHODE ISLAND, FEDERAL GOVERNMENT, AND THE TOWN OF NARRAGANSETT PRIOR TO COMMENCING ANY WORK.
- CONTRACTOR TO EXCAVATE TEST PITS TO CONFIRM LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
- STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED NEAR WATERWAYS, WETLAND, OR ADJACENT TO DRAINAGE STRUCTURES.
- ALL MATERIAL FOR FILL SHALL BE CLEAN AND FREE OF MATTER WHICH COULD POLLUTE ANY DOWN STREAM WATERCOURSE.
- FILL MATERIAL SHALL BE COMPACTED IN ONE FOOT (MAXIMUM) LIFTS TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D-1557 (MODIFIED PROCTOR TEST).
- THE SITE LIES IN "ZONE X" - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR WASHINGTON COUNTY, RHODE ISLAND (ALL JURISDICTIONS) PANEL 213 OF 366, MAP NUMBER 4400S02134, MAP REVISED OCTOBER 16, 2015.
- VERTICAL DATUM: NAVD 1988.
- WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FINISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE, AND THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS AS NECESSARY TO COMPLETE THE PROJECT, ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND ACCEPTABLE TO THE ENGINEER.
- CONTRACTOR SHALL RECORD AND PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE WITH TOWN OF NARRAGANSETT UTILITY REQUIREMENTS FOR ALL NEW INFRASTRUCTURE.

BMP CONSTRUCTION SEQUENCES:

- GENERAL:**
GREAT CARE SHALL BE GIVEN TO THE AREAS WHERE STRUCTURES WHICH REQUIRE INFILTRATION AND A MECHANISM FOR STORMWATER TREATMENT AND/OR DISPOSAL ARE PROPOSED PRIOR TO THEIR CONSTRUCTION. NO INFILTRATION STRUCTURE SHALL BE CONSTRUCTED NOR ACCEPT RUNOFF UNTIL ALL UP-GRADIENT AREAS OF THE WATERSHED HAVE BEEN BUILT AND FULLY STABILIZED SO AS TO HAVE NO POTENTIAL FOR SEDIMENT OR SILT DEPOSITION. ALSO, ONCE THE ENTIRE SITE IS STABILIZED ALL SECO MEASURES SHALL BE REMOVED.
- THE DESIGN SEED MIX FOR ALL PERMANENT STORMWATER BASINS SHALL BE COMPRISED OF THE FOLLOWING AND PLANTED IN A MINIMUM OF A 6" DEPTH OF SANDY LOAM FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS:
- | TYPE | % BY WEIGHT |
|---------------------|-------------|
| CREeping RED FESCUE | 70 |
| KENTUCKY BLUEGRASS | 15 |
| TALL FESCUE | 15 |
- APPLICATION RATE 100 LBS/ACRE
LIMING AND FERTILIZING AS REQUIRED TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS.
- BIORETENTION SOIL MIXTURE SHALL CONSIST OF A USDA LOAMY SAND OR SANDY LOAM CLASSIFICATION AND MEET THE FOLLOWING GRADUATION:
- | |
|------------------------------------|
| SAND - 63 to 87% |
| SILT - 8 to 12% |
| CLAY - 0 to 2% |
| ORGANIC (LEAF COMPOST) - 23 to 25% |
- GRASED FILTER STRIP (A.B.C.O.):**
1. EXCAVATE TO THE LINES AND GRADES OF THE DESIGN
2. LOAM AND SEED ACCORDINGLY WITH PERMANENT SEED MIXTURE
- PEASTONE TRENCH (A.B.C.O.):**
1. EXCAVATE TRENCH TO THE LINES AND GRADES OF THE DESIGN
2. FILL TRENCH WITH 3/8" PEASTONE AGGREGATE
- SEDIMENT FOREBAY (A.B.C.O.):**
1. EXCAVATE TO THE LINES AND GRADES OF THE DESIGN.
2. LOAM AND SEED ACCORDINGLY WITH PERMANENT SEED MIXTURE
- DRY SWALE (A.B.C.O.):**
1. EXCAVATE TO THE LINES AND GRADES OF THE DESIGN.
2. INSTALL UNDERDRAIN SYSTEM PER DETAIL.
3. ROTOTILL THE BOTTOM 6" OF SUBSOIL.
4. INSTALL 6" OF BIO-RETENTION SAND AND ROTOTILL TO MIX INTO THE SUBSOIL INTERFACE.
5. INSTALL REMAINDER OF BIO-RETENTION SOIL.
6. INSTALL RIPRAP SPILLWAY.
7. LOAM AND SEED ACCORDINGLY WITH PERMANENT SEED MIXTURE
- BIORETENTION (E.F.G.):**
1. EXCAVATE TO THE LINES AND GRADES OF THE DESIGN
2. INSTALL FILTER FABRIC
3. INSTALL BIORETENTION SOIL
4. INSTALL RIPRAP SPILLWAY
5. INSTALL PLANTINGS PER PLAN
- DETENTION BASIN:**
1. EXCAVATE TO THE LINES AND GRADES OF THE DESIGN.
2. INSTALL RIPRAP SPILLWAY & LEVEL SPREADER
3. LOAM AND SEED ACCORDINGLY WITH PERMANENT SEED MIXTURE

CONSTRUCTION MAINTENANCE:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE AND REPAIR TO ALL DRAINAGE STRUCTURES AND RELATED APPURTENANCES ON THE SITE DURING CONSTRUCTION AND FOR A MAXIMUM OF ONE (1) YEAR FOLLOWING COMPLETION OF CONSTRUCTION, AT WHICH TIME THE DRAINAGE STRUCTURES AND APPURTENANCES ARE TO BE ACCEPTED BY THE ENGINEER AND THE OWNER, AS FOLLOWS:
- ALL CATCH BASINS AND STORM DRAIN PIPES SHALL BE CLEANED OF SEDIMENT. STORMWATER BASINS SHALL BE CLEANED OF SEDIMENT TO THE DESIGN GRADES INDICATED ON THE CONSTRUCTION DRAWINGS.
 - INSPECTION OF THE BASINS AND ALL INLET AND OUTLET STRUCTURES SHALL BE PERFORMED ON A WEEKLY BASIS, PREFERABLY DURING A STORM EVENT TO INSPECT FOR PROPER FUNCTIONING OF THE FACILITY.
 - GRASSES MUST BE PLANTED AROUND AND WITHIN THE STORMWATER BASIN IMMEDIATELY FOLLOWING CONSTRUCTION TO STABILIZE THE SLOPES AND PREVENT EROSION.
 - SEDIMENTS SHALL BE REMOVED FROM DRAINAGE STRUCTURES AND THE STORMWATER BASINS IMMEDIATELY FOLLOWING SITE STABILIZATION AND DURING THE FIRST (NITIAL) YEAR OF OPERATION.
 - ALL COSTS INCURRED FOR MAINTENANCE, CLEANING, AND INSPECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR DURING CONSTRUCTION AND THE PROPERTY OWNER UPON ACCEPTANCE.
 - ANY INADVERTENT OR DELIBERATE DISCHARGE OF WASTE OIL OR ANY OTHER POLLUTANT TO THE STORMWATER DISPOSAL SYSTEM REQUIRES IMMEDIATE NOTIFICATION OF THE RIDEM.
 - ALL TRASH AND LITTER AND OTHER DEBRIS SHALL BE REMOVED FROM ANY STORMWATER FACILITY DAILY, INCLUDING INLET AND OUTLET STRUCTURES.
 - REPAIRS OR REPLACEMENT OF INLET/OUTLET STRUCTURES, RIP-RAP CHANNELS, FENCES, OR OTHER ELEMENTS OF THE FACILITY DURING CONSTRUCTION SHALL BE DONE WITHIN 30 DAYS OF DEFICIENCY REPORTS.
 - PAVEMENT SWEEPING SHALL BE PERFORMED UPON COMPLETION OF THE PROJECT.
 - WATER SHALL BE USED TO MOISTEN EXPOSED SOIL SURFACES PERIODICALLY. AN ADEQUATE AMOUNT SHOULD BE USED TO CONTROL DUST.

POLLUTION PREVENTION PLAN:

- GENERAL:**
LONG-TERM MANAGEMENT OF THE POLLUTION PREVENTION PLAN SHALL BE THE RESPONSIBILITY OF THE APPLICANT.
- APPLICANT: SKYCAP, LLC
P.O. BOX 2340
STAMFORD, CT 06906
(917) 648-0484
- THE CONTRACTOR SHALL MANAGE THE POLLUTION PREVENTION PLAN DURING THE CONSTRUCTION PROCESS.
- CONTRACTOR: TBD (DEFAULTS TO OWNER UNTIL HOMEOWNERS ASSOCIATION HAS BEEN CREATED)
- SOLID WASTE CONTAINMENT:**
1. TRASH RACKS WHERE PRACTICAL SHALL BE INSTALLED AND MAINTAINED ON ALL INLET STRUCTURES WITHIN THE DRAINAGE SYSTEM.
- SNOW DISPOSAL AND DEICING:**
1. SAND AND DEICING MATERIALS SHALL BE STORED UNDER COVER ON OR OFF SITE TO PREVENT EXPOSURE TO STORMWATER.
2. SNOW REMOVAL SHALL BE PERFORMED IN ACCORDANCE WITH RIDEM'S SNOW DISPOSAL POLICY.
- DRIVEWAY AND PARKING LOT SEALANTS:**
1. ONLY ASPHALT BASED SEALANTS ARE ALLOWED, NO COAL-TAR BASED SEALANTS SHALL BE USED ON THIS SITE.
- HAZARDOUS MATERIALS CONTAINMENT:**
1. NO HAZARDOUS MATERIALS SHALL BE STORED OUTSIDE TO AVOID EXPOSURE TO STORMWATER.
- LANDSCAPE MANAGEMENT:**
1. GRASS CLIPPINGS FROM LAWN CARE PROCEDURES PERFORMED IN AND AROUND THE STORMWATER FACILITY MUST BE COLLECTED.
2. GENERAL LAWN HEIGHTS (EXCLUDING STORMWATER BASINS) ON SITE SHALL BE KEPT AT A 2-3" HEIGHT.
3. FERTILIZER AND WATERING DEMANDS SHOULD BE HAVE PROFESSIONAL OVERSIGHT AND BOTH USES MINIMIZED TO THE MAXIMUM EXTENT PRACTICAL.

LONG-TERM MAINTENANCE SCHEDULE (O&M):


- GENERAL FOR ALL BMP'S:**
- A LEGALLY BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT SHALL BE EXECUTED BETWEEN THE FACILITY OWNER AND THE RESPONSIBLE AUTHORITY TO ENSURE THE FOLLOWING:
 - SEDIMENT SHALL BE CLEANED OUT OF THE SEDIMENT FOREBAY WHEN IT ACCUMULATES TO A DEPTH OF MORE THAN 1/2 THE DESIGN DEPTH. VEGETATION WITHIN THE SEDIMENT FOREBAY SHALL BE LIMITED TO A HEIGHT OF 18 INCHES. THE SEDIMENT CHAMBER OUTLET DEVICES SHALL BE CLEANED/REPAIRED WHEN DRAINDOWN EXCEEDS 36 HOURS. TRASH AND DEBRIS SHALL BE REMOVED AS NECESSARY.
 - SILT/SEDIMENT SHALL BE REMOVED FROM THE BIORETENTION AREAS WHEN THE ACCUMULATION EXCEEDS ONE INCH. WHEN THE FILTERING CAPACITY OF THE FILTER DIMINISHES SUBSTANTIALLY (I.E. WHEN WATER POUNDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 48 HOURS), THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH MATERIAL. THE REMOVED SEDIMENTS SHALL BE DISPOSED IN AN ACCEPTABLE MANNER AT AN APPROVED AND PERMITTED LOCATION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE AND REPAIR TO ALL DRAINAGE STRUCTURES AND RELATED APPURTENANCES ON THE SITE DURING CONSTRUCTION AND FOR A MAXIMUM OF ONE (1) YEAR FOLLOWING COMPLETION OF CONSTRUCTION, AT WHICH TIME THE DRAINAGE STRUCTURES AND APPURTENANCES ARE ACCEPTED BY THE ENGINEER AND THE OWNER.
 - FOLLOWING ACCEPTANCE, THE LONG-TERM MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE APPLICANT UNTIL IT IS DEEDED TO ANOTHER RESPONSIBLE ENTITY.
 - ALL COSTS INCURRED FOR MAINTENANCE, CLEANING, AND INSPECTION ARE THE RESPONSIBILITY OF THE PROPERTY APPLICANT AND/OR RESPONSIBLE PARTY. IN CERTAIN CASES, THE APPROPRIATE DEM PROGRAM MAY REQUIRE DOCUMENTATION OF MAINTENANCE.
 - INSPECTION OF THE BMP'S AND ALL INLET AND OUTLET STRUCTURES SHALL BE PERFORMED AFTER STORMS EQUAL TO OR GREATER THAN THE 1-YEAR, 24-HOUR TYPE III STORM (2.6" EVENT) AND AT LEAST ONCE ANNUALLY, PREFERABLY DURING A STORM EVENT TO INSPECT FOR PROPER FUNCTIONING OF THE FACILITY. DURING THE FIRST 6 MONTHS OF OPERATION OF THE STORMWATER FACILITY, BMP'S SHALL BE INSPECTED AT LEAST DURING THE FIRST TWO PRECIPITATION EVENTS OF AT LEAST 1.0 INCH OF RAINFALL.
 - ANY INADVERTENT OR DELIBERATE DISCHARGE OF WASTE OIL OR ANY OTHER POLLUTANT TO THE STORMWATER DISPOSAL SYSTEM REQUIRES IMMEDIATE NOTIFICATION OF THE DEM OIL POLLUTION CONTROL PROGRAM AT 222-2284, AS PER OIL POLLUTION CONTROL REGULATIONS. DURING NON-WORKING HOURS, NOTIFICATION OF SPILLS CAN BE MADE TO THE DEM DIVISION OF ENFORCEMENT AT 222-3070, THE 24-HOUR EMERGENCY RESPONSE PHONE NUMBER.
 - ALL TRASH, LITTER AND OTHER DEBRIS SHALL BE REMOVED FROM ANY STORMWATER FACILITY INCLUDING INLET AND OUTLET STRUCTURES. THIS MUST BE ACCOMPLISHED AT LEAST TWICE PER YEAR, PREFERABLY IN THE SPRING AND FALL.
 - REPAIRS OR REPLACEMENT OF INLET/OUTLET STRUCTURES, RIP-RAP CHANNELS, FENCES, OR OTHER ELEMENTS OF THE FACILITY SHALL BE COMPLETED WITHIN 30 DAYS OF DEFICIENCY REPORTS. IF AN EMERGENCY SITUATION IS IMMINENT THEN REPAIR/REPLACEMENT MUST BE COMPLETED IMMEDIATELY.
- PEASTONE TRENCH AND SEDIMENT FOREBAY O&M:**
- THE SLOPES SHOULD BE INSPECTED FOR EROSION AND GULLING
 - STONE SHOULD BE REINFORCED IF EROSION IS PRESENT AT OUTFALLS OR IF IT HAS BEEN COMPROMISED
 - INSPECT ALL STRUCTURAL COMPONENTS SUCH AS TRASH RACKS, ACCESS GATES, VALVES, PIPES, WEIRS, WALLS, ORIFICE STRUCTURES AND SPILLWAY STRUCTURES FOR DEFECTS AND ANY MUST BE REPAIRED IMMEDIATELY
 - INSPECT FOR SEDIMENT ACCUMULATION AND IT SHOULD BE REMOVED IF IT REACHES 6" OR 25% OF THE STORAGE VOLUME
 - NO GRASSES TO MAINTAIN A 4-6" STRONG STAND OF TURF AND MOW IMMEDIATELY SHOULD IT REACH 10". ALL CLIPPINGS SHALL BE COLLECTED AND DISPOSED OF PROPERLY
 - NO WOODY GROWTH SHOULD EVER BE ALLOWED TO REMAIN IN AND AROUND THE FOREBAYS
 - AREAS OF EROSION OR DISTURBANCE SHALL BE RE-ESTABLISHED IMMEDIATELY
 - INLETS AND OUTLETS SHALL BE CLEARED OF DEBRIS AS NEEDED
- BIORETENTION, DRY SWALE, AND DETENTION BASIN O&M:**
- THE SURFACE SHALL BE INSPECTED FOR DEBRIS AND TRASH
 - CLEAN OUT SHALL BE PERFORMED BY HAND
 - IF STANDING WATER IS OBSERVED FOR MORE THAN 48 HRS AFTER A RAIN EVENT THE TOP 6" SHOULD BE ROTOTILLED AND ANY COMPACTED SEDIMENTS BROKEN UP / REMOVED
 - THE SLOPES SHOULD BE INSPECTED FOR EROSION AND GULLING
 - PLANTINGS SHOULD BE CHECKED FOR GOOD HEALTH AND PRUNED IN FALL
 - NO GRASSES TO MAINTAIN A 4-6" STRONG STAND OF TURF AND MOW IMMEDIATELY SHOULD IT REACH 10". ALL CLIPPINGS SHALL BE COLLECTED AND DISPOSED OF PROPERLY
 - NO WOODY GROWTH SHOULD EVER BE ALLOWED TO REMAIN IN AND AROUND THE FACILITY OTHER THAN WHAT WAS PLANTED FOR TREATMENT PROCESSES.
 - FOR BIORETENTION AREAS, PRUNING OR REPLACEMENT OF WOODY VEGETATION SHOULD OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED. SEPARATION OF HERBACEOUS VEGETATION ROOTSTOCK SHOULD OCCUR WHEN OVER-CROWDING IS OBSERVED, OR APPROXIMATELY ONCE EVERY 3 YEARS, IF AT LEAST 50 PERCENT VEGETATION COVERAGE IS NOT ESTABLISHED AFTER TWO YEARS. A REINFORCEMENT PLANTING SHOULD BE PERFORMED. THE MULCH LAYER SHOULD BE REPLISHED (TO THE ORIGINAL DESIGN DEPTH) EVERY OTHER YEAR, AS DIRECTED BY INSPECTION REPORTS. THE PREVIOUS MULCH LAYER SHOULD BE REMOVED, AND PROPERLY DISPOSED OF, OR ROTOTILLED INTO THE SOIL SURFACE.
 - AREAS OF EROSION OR DISTURBANCE SHALL BE RE-ESTABLISHED IMMEDIATELY. MINOR SOIL EROSION GULLIES SHOULD BE REPAIRED WHEN THEY OCCUR.
- SWILWAYS:**
- THE SIDE SLOPES SHOULD BE INSPECTED FOR EROSION AND GULLING
 - WEIR SHOULD BE INSPECTED FOR SETTLEMENT AND CORRECTED IMMEDIATELY IF FOUND
 - NO GRASSES TO MAINTAIN A 4-6" STRONG STAND OF TURF AND MOW IMMEDIATELY SHOULD IT REACH 10". ALL CLIPPINGS SHALL BE COLLECTED AND DISPOSED OF PROPERLY
 - NO WOODY GROWTH SHALL BE ALLOWED TO REMAIN IN AND AROUND THE WEIRS
 - AREAS OF EROSION OR DISTURBANCE SHALL BE RE-ESTABLISHED IMMEDIATELY
 - INLETS AND OUTLETS SHALL BE CLEARED OF DEBRIS AS NEEDED
- PUBLIC SAFETY FEATURES:**
- ALL OF THE PROPOSED BMP'S ARE LESS THAN 2.5' DEEP, THEREFORE NO FENCING IS REQUIRED.
 - ALL STAND PIPES SHALL BE FITTED WITH A CAP/WIRE RACK TO PREVENT ENTRY.

SEWER NOTES:


- ALL SANITARY SEWER CONSTRUCTION SHALL BE IN COMPLETE CONFORMANCE WITH THE STANDARD SANITARY SEWER REQUIREMENTS OF THE TOWN OF NARRAGANSETT.
- ALL GRAVITY SEWER PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATION D3034, SDR 35.
- WATER OR LOW PRESSURE AIR TESTING SHALL BE CONDUCTED TO ASSURE LEAKAGE DOES NOT EXCEED 10 GALLONS/DAY/INCH DIAMETER/MILE OF PIPE. (GRAVITY).
- ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS VALVES, PIPES, PUMPS, GUIDE RAILS, WAULTS, HATCHES AND CONTROLS SHALL BE SUBMITTED TO THE TOWN OF NARRAGANSETT AND THE ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
- CONTRACTOR SHALL PROVIDE OWNER WITH AS-BUILT PLANS AND ELECTRONIC DATA OF SEWER SYSTEM WHEN REQUIRED BY LOCAL ORDINANCE.

WATER NOTES:

- THE TOWN OF NARRAGANSETT REQUIREMENTS FOR SERVICE AND MAIN INSTALLATION ARE MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO.
- ALL DISTRIBUTION SYSTEM PIPING AND FITTINGS SHALL BE PER THE TOWN OF NARRAGANSETT REQUIREMENTS.
- COATINGS USED FOR BOTH PIPES AND FITTINGS SHALL BE APPROVED FOR WATER SERVICE BY THE AMERICAN WATER WORKS ASSOCIATION AND THE ENVIRONMENTAL PROTECTION AGENCY. COATINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C104/A21.4.
- ANY INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL BE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, TOWN OF NARRAGANSETT RECOMMENDATIONS, AWWA STANDARDS AND GOVERNMENTAL REQUIREMENTS.
- CONSTRUCTION SHALL INCLUDE ALL PIPE JOINTS, BENDS, TEES, FITTINGS, THRUST BLOCKS, GATE VALVES, GATE BOXES AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE PROPOSED SYSTEM.
- CONCRETE THRUST, ANCHOR OR BEARING BLOCKS SHALL BE INSTALLED IN LOCATIONS INDICATED AND AT ALL BENDS, FITTINGS, FLUJES, ETC. AS A THRUST BLOCK CANNOT BE PLACED AGAINST UNDISTURBED EARTH, A REACTION BLOCK SUBSTITUTE SHALL BE DESIGNED AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
- LEAKAGE TESTS AND THE CHLORINATION OF THE WATER DISTRIBUTION SYSTEM SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE TO AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, TOWN OF NARRAGANSETT REQUIREMENTS AND GOVERNMENTAL AGENCIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FEES ASSOCIATED WITH SAID TESTING.
- ALL GATE VALVES, FITTINGS, PIPE, JOINTS, ETC., SHALL BE DESIGNED FOR A CONSTANT WORKING PRESSURE OF NO LESS THAN 150 PSI.
- WATER PIPE SHALL TYPICALLY BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM SEWER PIPE AND AT A DEPTH OF COVER EQUAL TO 4'-6".
- ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS GATE VALVES, PIPE, THRUST BLOCKS, FITTINGS, AIR RELEASE ASSEMBLIES, CASTINGS, ETC., SHALL BE SUBMITTED TO THE TOWN OF NARRAGANSETT AND THE ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
- BEDDING FOR WATER UTILITY SHALL BE TYPE V AWWA BEDDING.
- THE CONTRACTOR SHALL NOTIFY THE TOWN OF NARRAGANSETT TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK ASSOCIATED WITH THE WATER DISTRIBUTION SYSTEM.
- A WATER METER SHALL BE INSTALLED IN EACH INDIVIDUAL USER UPON CONNECTION TO THE TOWN OF NARRAGANSETT'S DISTRIBUTION SYSTEM.
- WASTE CHLORINATION WATER USED TO DISINFECT THE POTABLE WATER SYSTEM SHALL BE DE-CHLORINATED PRIOR TO BEING DISCHARGED OVER LAND, AWAY FROM ANY STATE REGULATED FRESHWATER WETLANDS. POTENTIAL EROSION FROM SAND DISCHARGE SHALL BE CONTROLLED WITH A STRAWBALE CHECK.
- WATER LINE SHALL BE SEALED AT THE END OF EVERY WORK DAY WITH A SUITABLE CAP OR PLUG CONFIGURATION TO PREVENT DIRT AND/OR GROUNDWATER FROM ENTERING THE MAIN.
- SERVICE CONNECTIONS SHALL BE PER THE TOWN OF NARRAGANSETT'S REQUIREMENTS FOR SERVICE AND MAIN INSTALLATION.
- CONTRACTOR SHALL PROVIDE OWNER WITH AS-BUILT PLANS AND ELECTRONIC DATA OF WATER SYSTEM WHEN REQUIRED BY LOCAL ORDINANCE.



Department of Environmental Management
Division of Water Resources (OWR)



SEWER LINE/WATER LINE SEPARATION POLICY FOR DESIGN OF SANITARY SEWERS

A. Lateral placement of sewers and water lines¹

Sewers shall be laid at least 10 feet horizontally from any existing or proposed water line. The distance shall be measured edge-to-edge. There is no minimum vertical separation required provided the 10 foot horizontal separation is maintained. Structures, other than pipelines or conduits, through which sanitary wastewater flows such as, but not limited to, manholes, valve vaults, meter pits and pump station wet wells shall also be constructed at least 10 feet horizontally from any existing or proposed water line, measured edge-to-edge.

In cases where it is not possible to maintain a 10 foot horizontal separation, the OWR may allow deviation on a case-by-case basis, if supported by data from the design engineer. Such deviation may allow installation of the sewer pipelines and/or structures closer to a water line, provided that:

- The sewer pipeline and/or structures and water line are laid in separate trenches, or
- The sewer pipeline and/or structures and water line may be installed in the same trench with the water line placed on a bench of undisturbed earth, and
- In either case, the crown of the sewer pipeline shall be at least 18 inches below the invert of the water line.

In situations where it is impossible to obtain proper horizontal and vertical separation as stipulated above, the following protection shall be provided:

- Encasement of the sewer pipeline in concrete (min. 6 inch thickness) or a carrier pipe for at least 10 feet either side of the area not complying with the minimum horizontal and vertical separation, or
- The design and construction of the sewer pipeline must meet the requirements applicable to water lines (any AWWA-approved material for potable water conveyance), and pressure tested in accordance with AWWA specifications, or
- In instances of conflict with sanitary wastewater structures mentioned above, relocate the water line to achieve either a 10 foot horizontal or 18 inch vertical separation.

B. Sewers crossing water lines

Sewers crossing over water lines should be avoided, but if conditions warrant this situation, then adequate structural support shall be provided for the sewer to maintain line and grade. Sewers crossing under water lines shall be laid to provide a minimum vertical separation of 18 inches between the invert of the water line and the crown of the sewer. Relocation of an existing water line may be necessary to achieve this vertical separation. Relocated water lines shall be constructed of an AWWA-approved material for potable water conveyance and designed for the required water service pressure for a distance of 10 feet on each side of the crossing, measured perpendicular to the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water line joints.

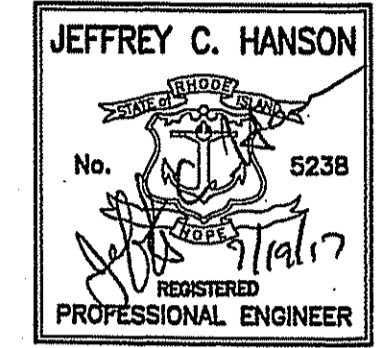
Where conditions prevent lateral or vertical separation from being maintained, the sewer shall be constructed of an AWWA-approved material for potable water conveyance for a distance of 10 feet on each side of the crossing, measured perpendicular to the water line and pressure tested in accordance with AWWA specifications, or

- Either the water line or the sewer may be encased in concrete (min. 6 inch thickness) or a carrier pipe for a distance of 10 feet on each side of the crossing, measured perpendicular to the water line. The carrier pipe shall be designed and constructed of materials which are satisfactory to the OWR, or
- Any other methods, if supported by data from the design engineer, which ensure adequate watertightness and are satisfactory to the OWR.

¹ Water lines shall be defined as any conduits or pipelines that convey potable water.

10/96 (rev. 5/01)

NO.	DATE	REVISION
1	7/19/17	RIDEM COMMENTS



**ILLSTONE
ENGINEERING, P.C.**

CIVIL ENGINEERING • LAND PLANNING

250 Centerville Road, Building E-12
Warwick, Rhode Island 02886

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www.illstoneeng.com

NOTES & DETAILS

**CLARKE ROAD
SUBDIVISION**

A.P.V, LOT 27
**CLARKE ROAD
NARRAGANSETT, RI**

PREPARED FOR:
SKYCAP, LLC

**SCALE: AS NOTED
MARCH 2017**

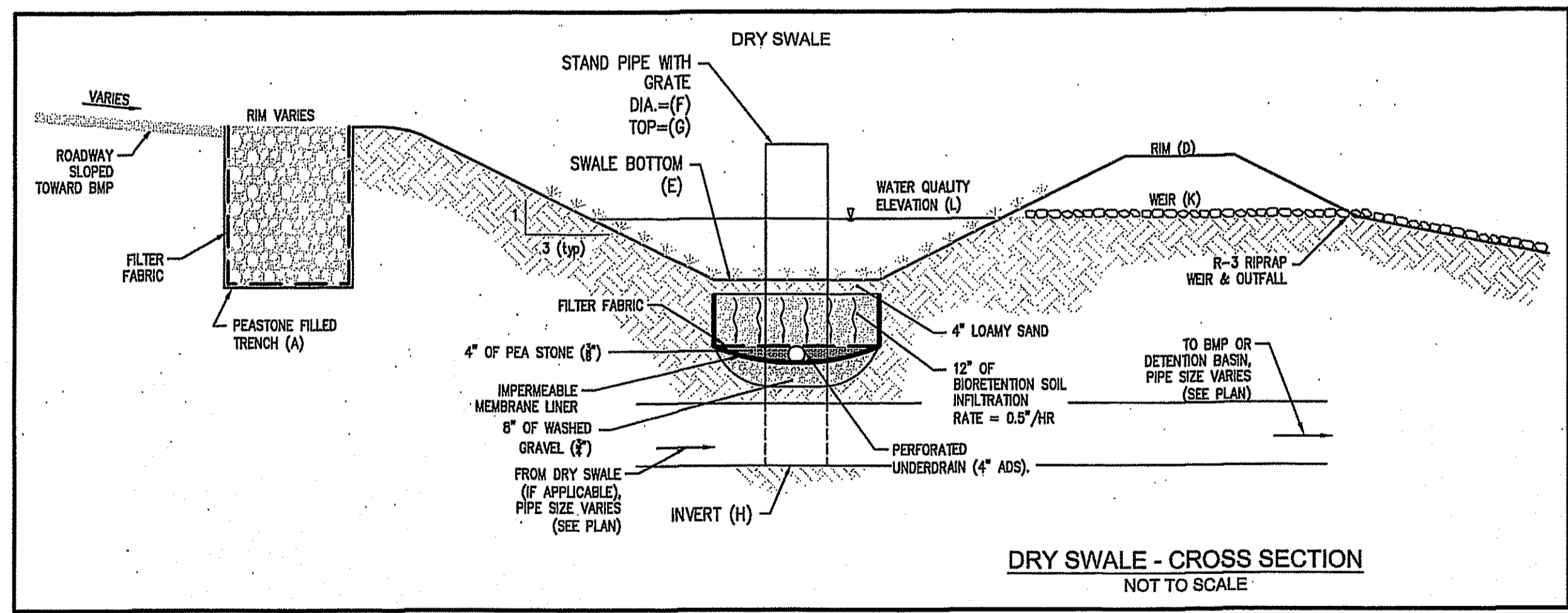
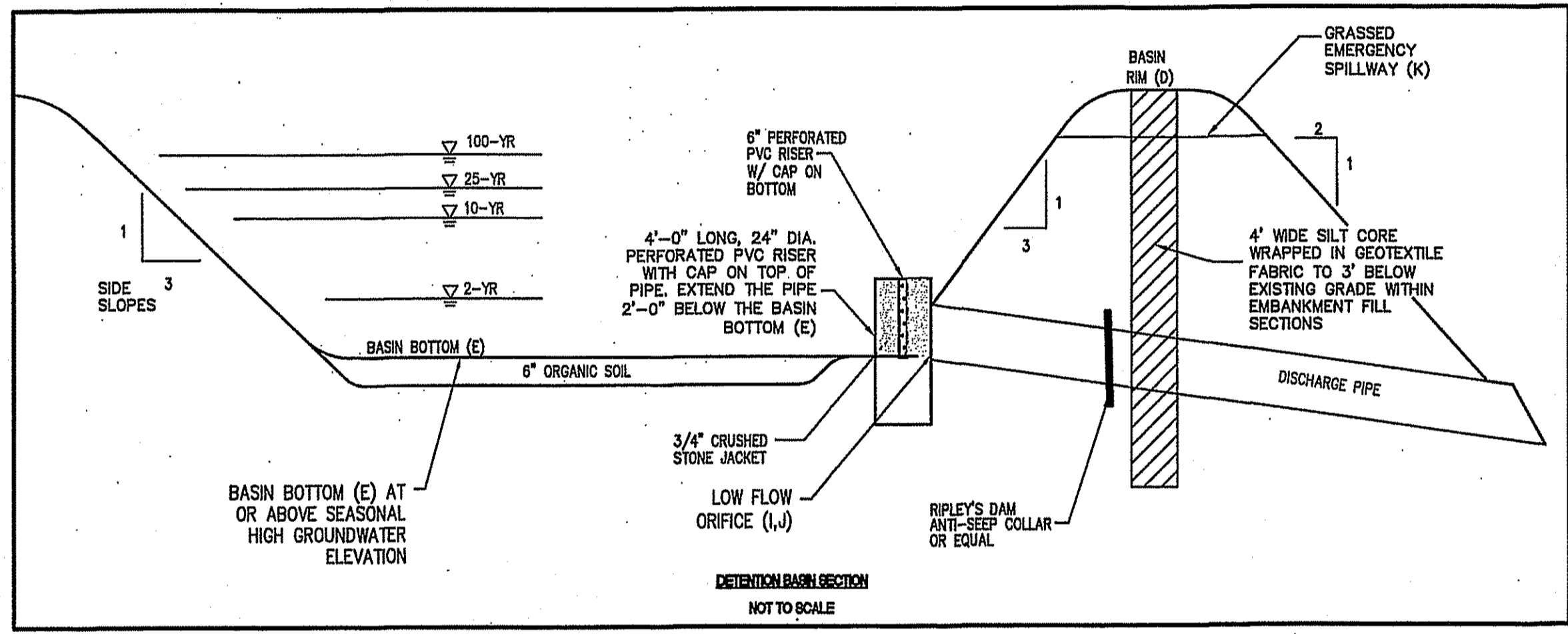
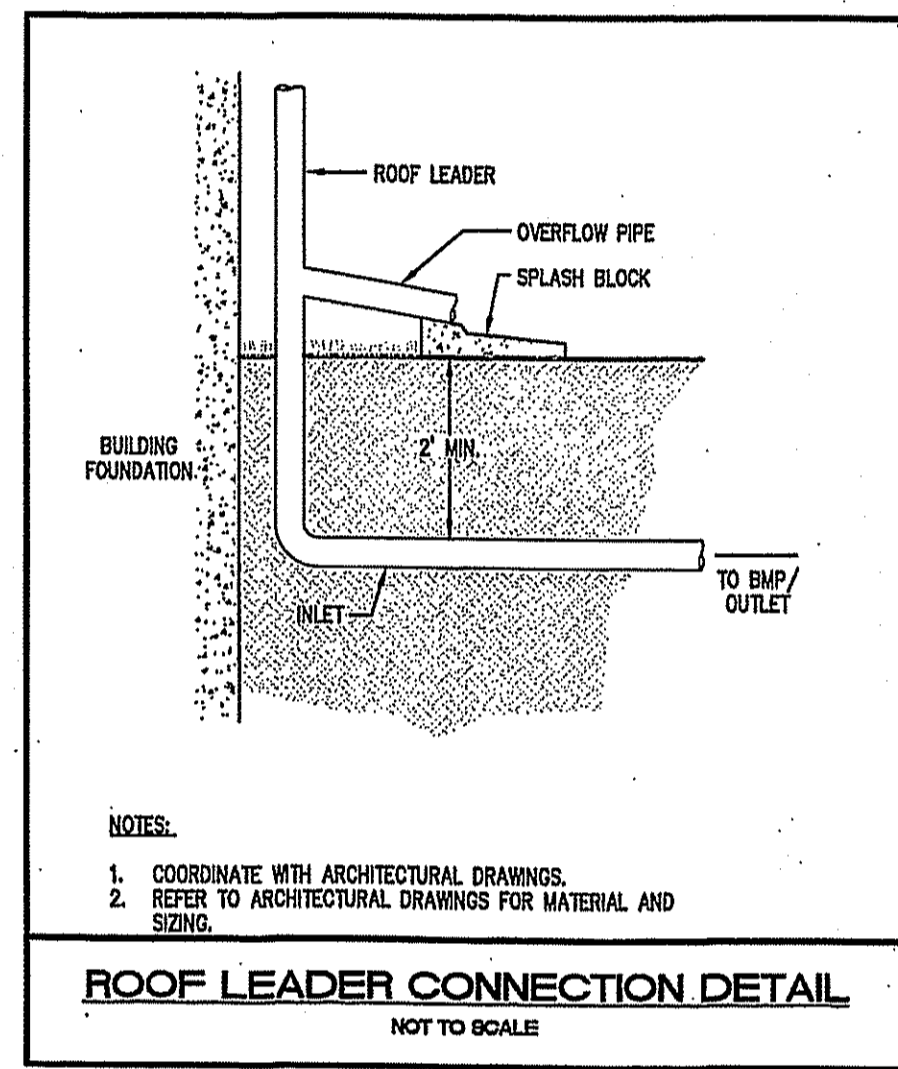
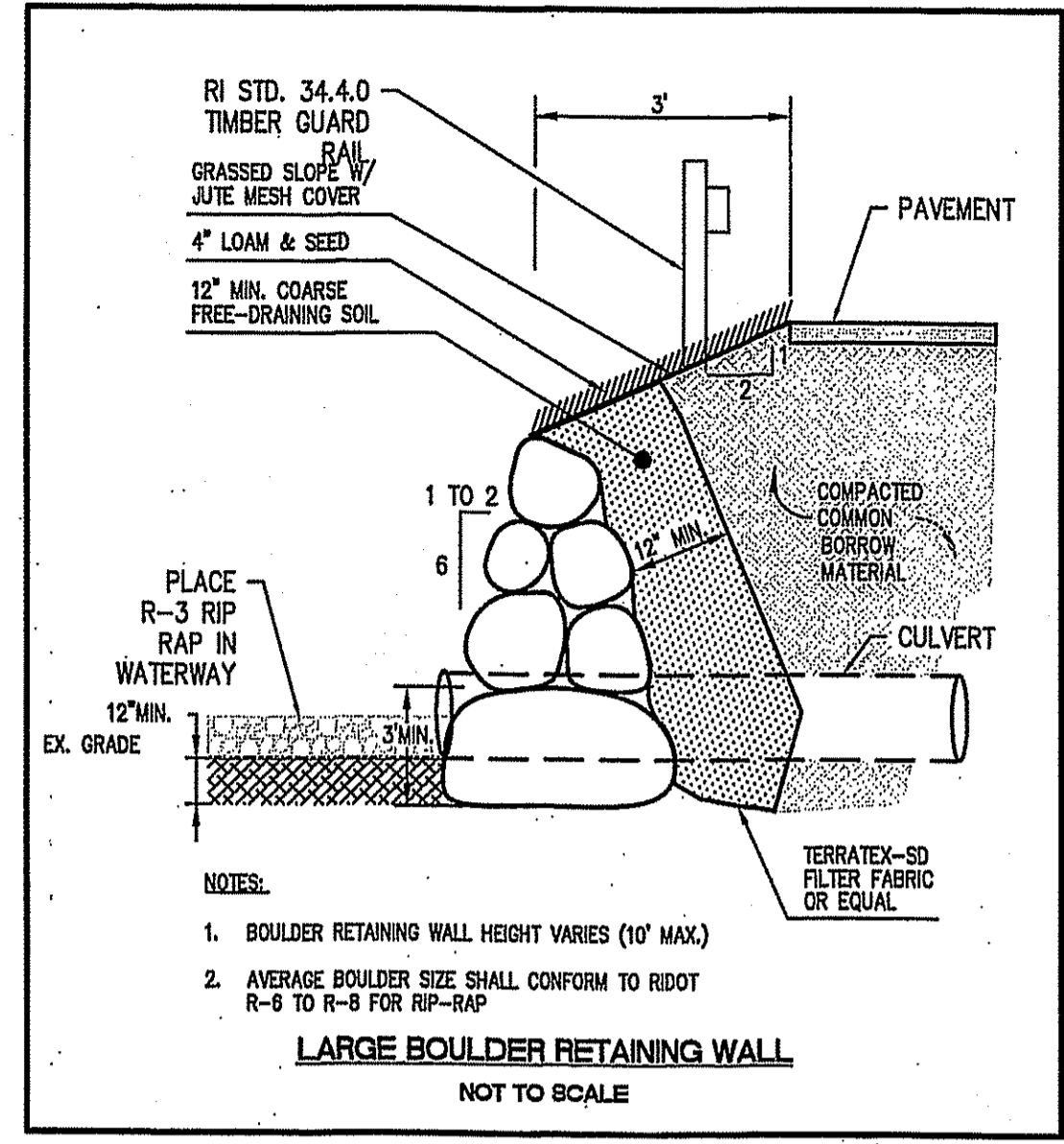
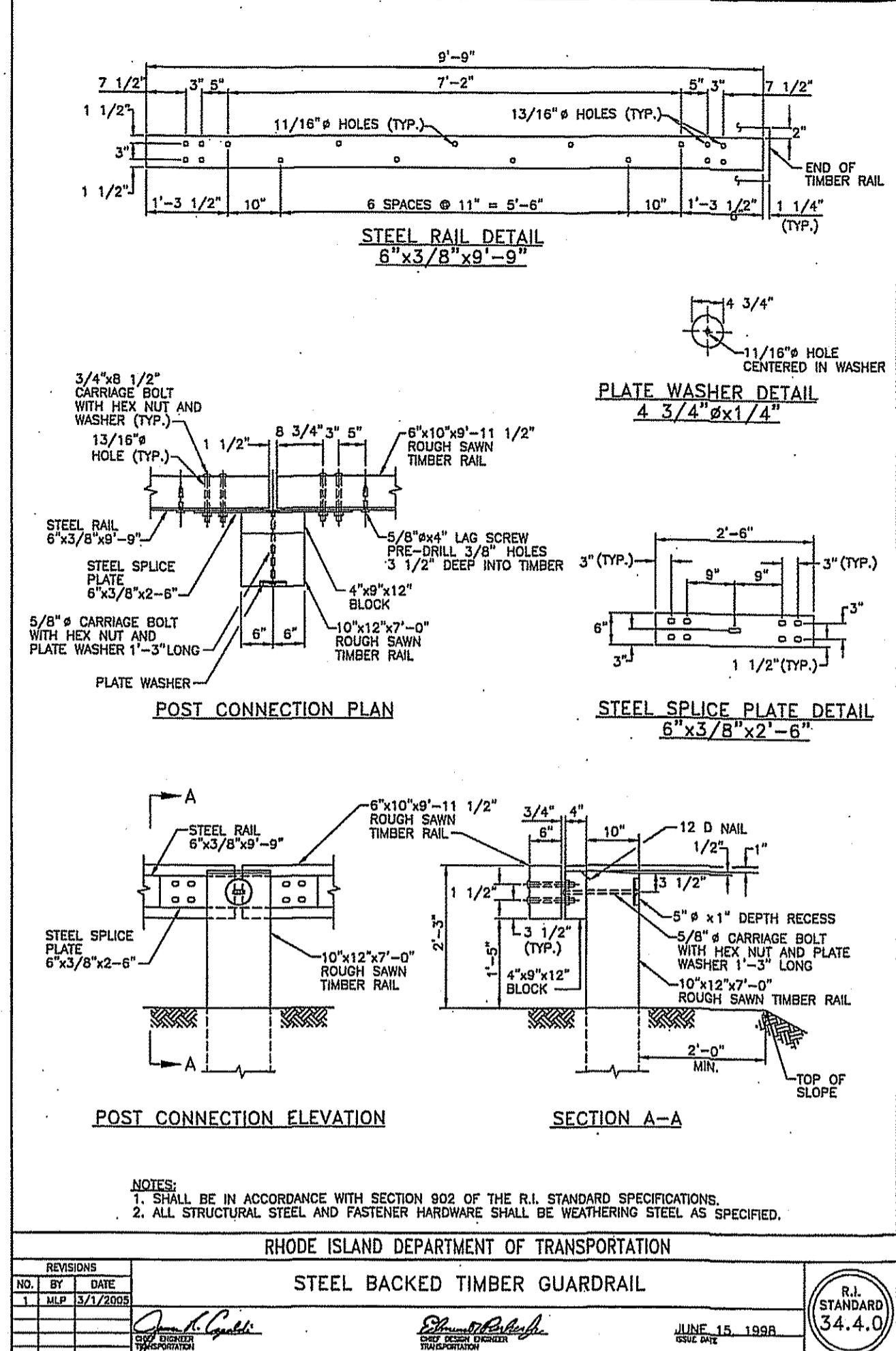
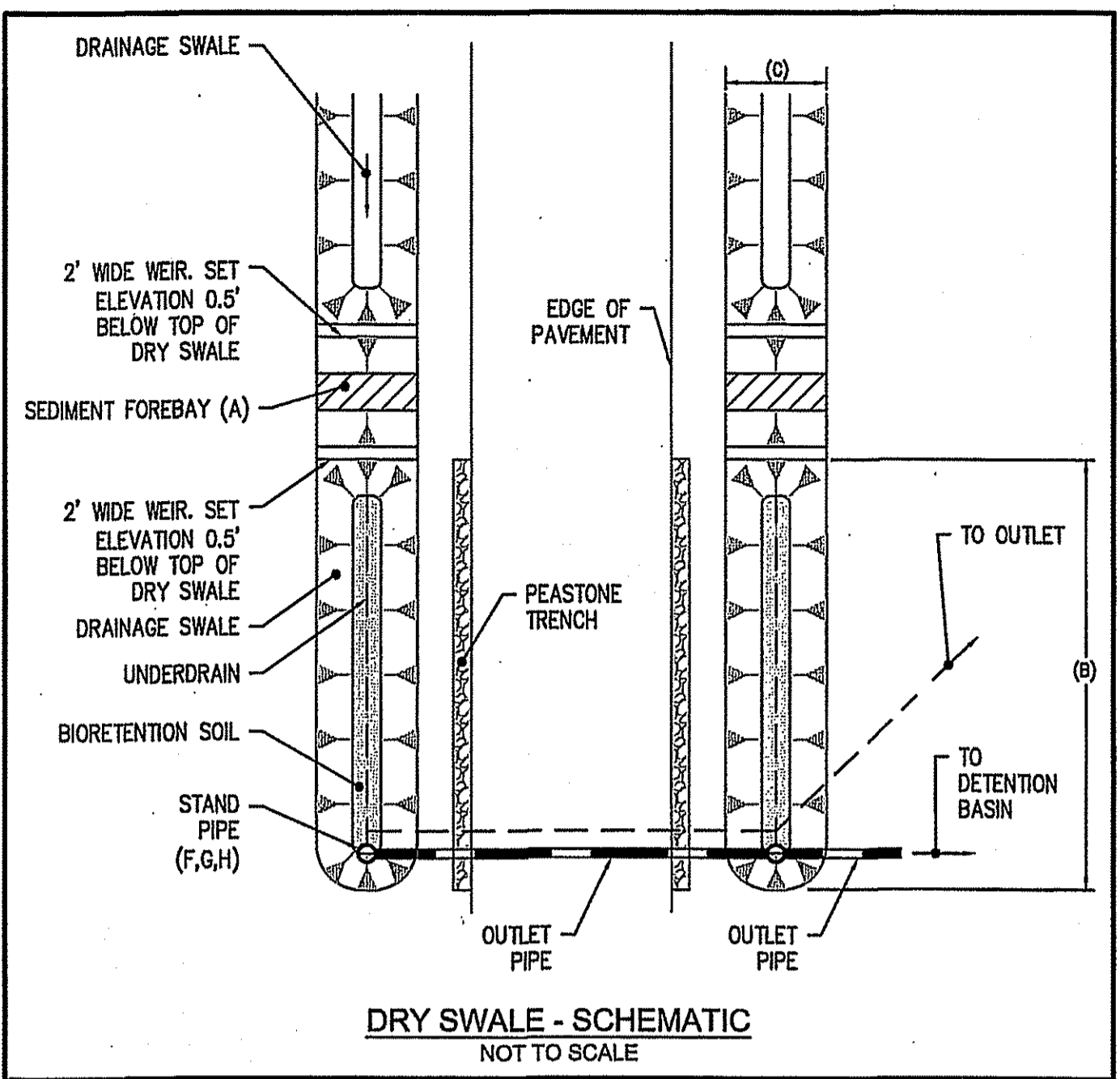
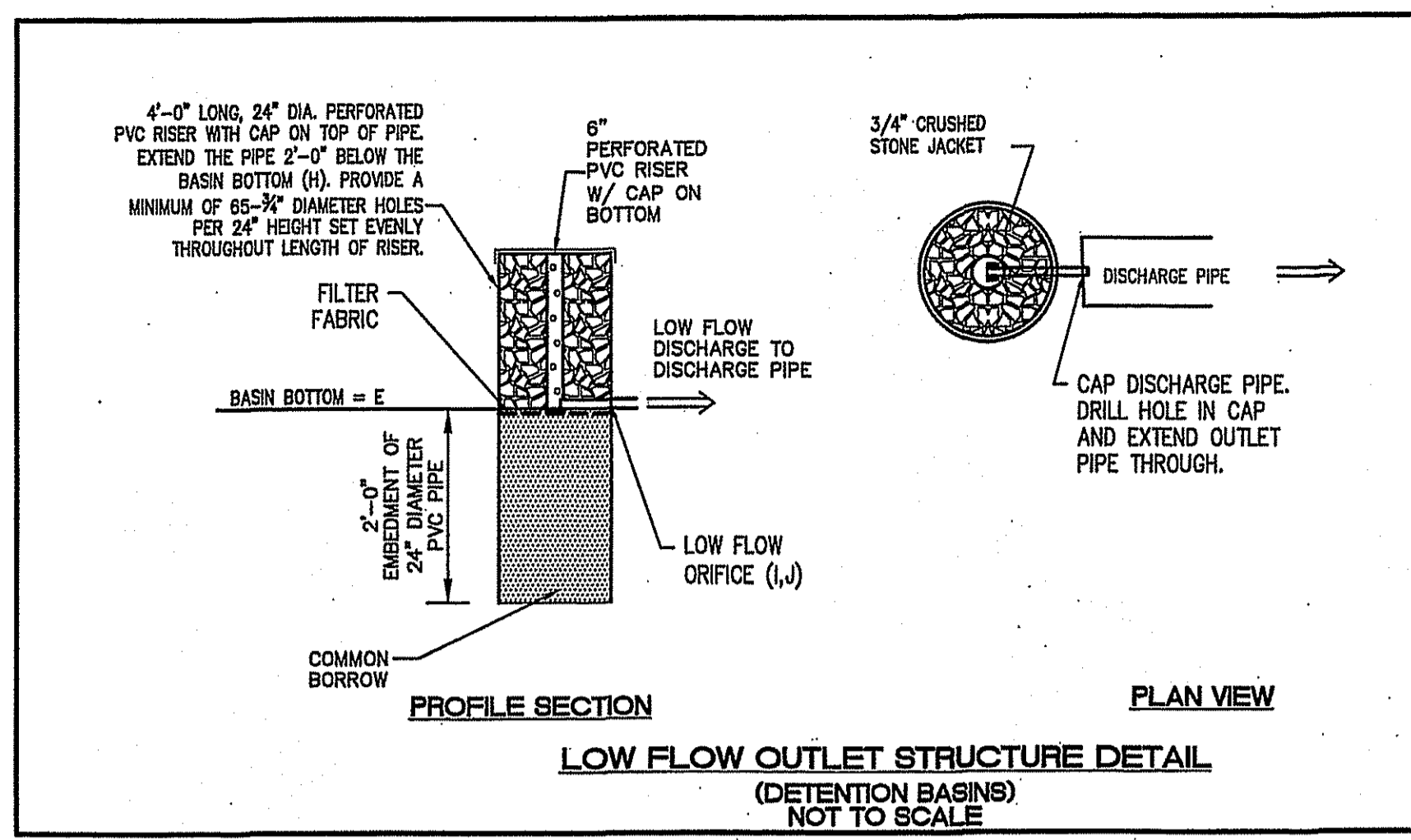
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL

DATED: SEP 11 2017 FILE # 17-0171
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

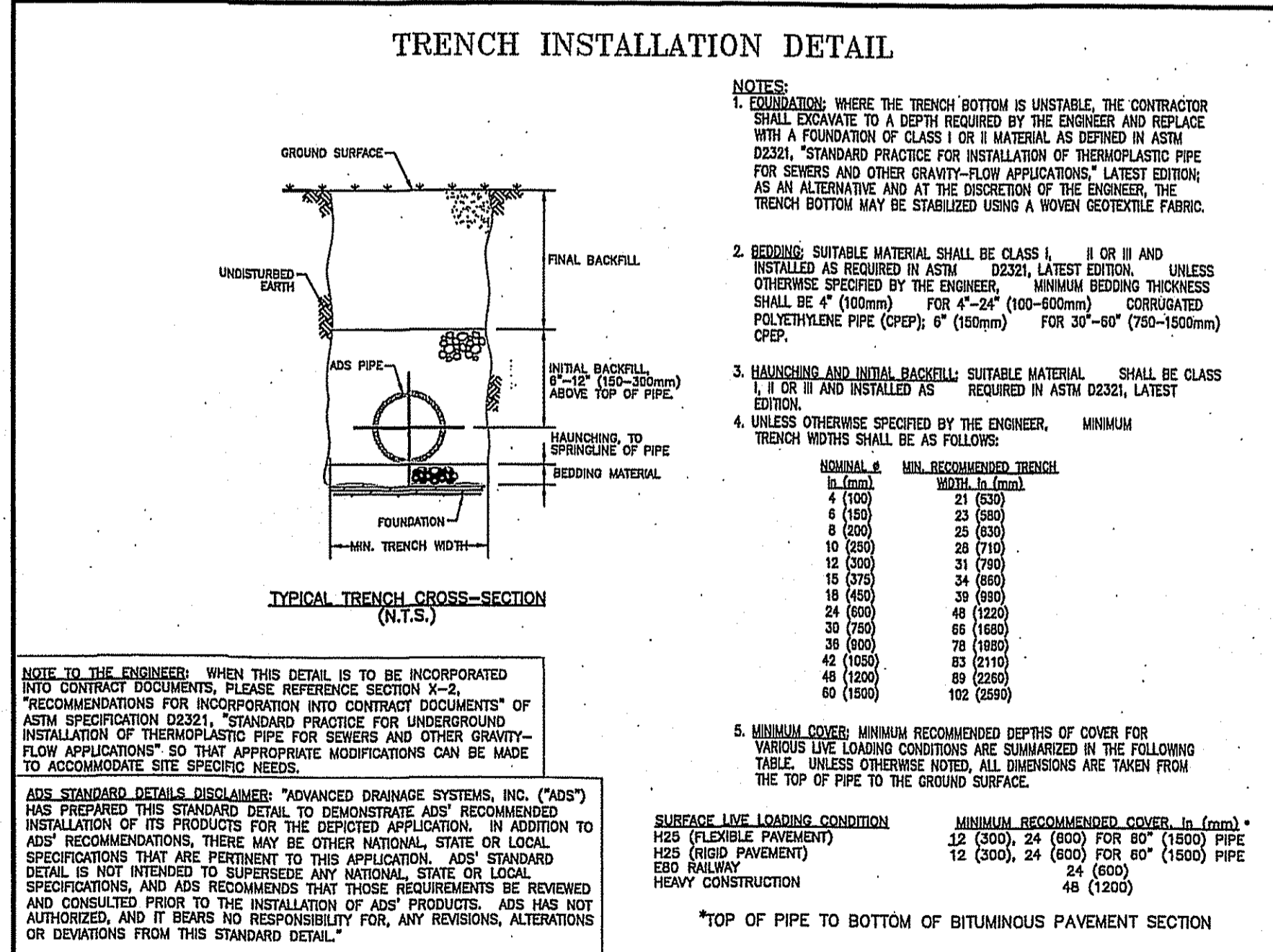
James A. Harbert

Drawn By: BJC
Checked By: JCH
Sheet: 11 of 17

FILE NO.: 16.268.389



- NOTES:
- REFER TO APPENDIX F OF THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, DECEMBER 2010; GUIDANCE ON BMP CONSTRUCTION SPECIFICATIONS FOR SPECIFICATIONS OF MATERIALS TO BE USED IN CONSTRUCTING THE BMP'S.
 - CONSTRUCTION VEHICLES SHALL NOT BE ALLOWED TO DRIVE OVER THE BMP'S DURING CONSTRUCTION. IF THE AREA BECOMES COMPACTED, SOIL MUST BE SUITABLY AMENDED, TILLED, AND REVEGETATED ONCE CONSTRUCTION IS COMPLETE TO RESTORE INFILTRATION CAPACITY.

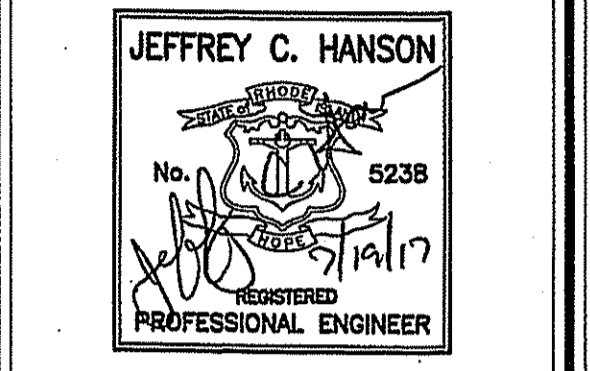


STRUCTURE TABLE

STRUCTURAL BMP	BMP TYPE	PRETREATMENT (A)		BMP SIZE		BMP ELEVATION		S.H.G.W.T. (ELEV)	DIAMETER (IN) (F)	STAND PIPE		LOW FLOW ORIFICE		WATER QUALITY ELEV (L)	WATER ELEVATION				
		PEASTONE TRENCH	FOREBAY	LENGTH (FT) (B)	WIDTH (FT) (C)	TOP (ELEV) (D)	BOTTOM (ELEV) (E)			TOP (ELEV) (G)	INVERT (ELEV) (H)	SIZE (IN) (I)	INVERT (ELEV) (J)		LENGTH (FT)	INVERT (ELEV)	2-YR	10-YR	25-YR
A1	DRY SWALE	1'W X 1'D X 13.5'L	2'W X 2'D X 2'L	7.5	2.0	47.1	46.1	45.0	N/A	N/A	N/A	N/A	2.0	47.00	46.56	47.02	47.04	47.05	47.07
A2	DRY SWALE	1'W X 1'D X 13.5'L	2'W X 2'D X 2'L	7.5	2.0	47.1	46.1	45.0	N/A	N/A	N/A	N/A	2.0	47.00	46.56	47.02	47.04	47.05	47.07
B1	DRY SWALE	1'W X 1'D X 17'L	2'W X 2'D X 2'L	11.0	2.0	48.5	47.5	46.4	15	48.25	46.25	N/A	N/A	N/A	48.13	48.23	48.26	48.28	48.31
B2	DRY SWALE	1'W X 1'D X 17'L	2'W X 2'D X 2'L	11.0	2.0	48.5	47.5	46.0	15	48.25	46.25	N/A	N/A	N/A	48.13	48.23	48.26	48.28	48.31
C1	DRY SWALE	1'W X 1'D X 41'L	2'W X 2'D X 5'L	35.0	2.0	50.6	49.6	48.6	24	50.35	47.60	N/A	N/A	50.35	49.94	50.41	50.45	50.48	50.52
C2	DRY SWALE	1'W X 1'D X 41'L	2'W X 2'D X 5'L	35.0	2.0	50.6	49.6	48.7	24	50.35	47.60	N/A	N/A	49.94	50.41	50.45	50.48	50.52	
D1	DRY SWALE	1'W X 1'D X 26'L	2'W X 2'D X 3'L	20.0	2.0	53.6	52.6	50.9	15	53.35	50.60	N/A	N/A	N/A	53.12	53.40	53.43	53.45	53.49
D2	DRY SWALE	1'W X 1'D X 26'L	2'W X 2'D X 3'L	20.0	2.0	53.6	52.6	51.3	15	53.35	50.60	N/A	N/A	53.12	53.40	53.43	53.45	53.49	
1	DETENTION BASIN	N/A	N/A	N/A	N/A	N/A	N/A	50.5	48.0	47.6	N/A	N/A	2	48.0	50.00	N/A	49.98	50.03	50.14
2	DETENTION BASIN	N/A	N/A	N/A	N/A	N/A	N/A	52.5	50.0	50.0	N/A	N/A	2	50.0	50.00	N/A	50.57	51.08	51.31
3	DETENTION BASIN	N/A	N/A	N/A	N/A	N/A	N/A	53.5	51.0	51.0	N/A	N/A	2	51.0	53.00	N/A	52.15	52.80	53.05
4	DETENTION BASIN	N/A	N/A	N/A	N/A	N/A	N/A	48.5	46.0	46.0	N/A	N/A	2	46.0	48.00	N/A	46.88	47.33	47.65
5	DETENTION BASIN	N/A	N/A	N/A	N/A	N/A	N/A	53.5	51.0	51.0	N/A	N/A	2	51.0	53.00	N/A	52.24	52.63	52.93
6	DETENTION BASIN	N/A	N/A	N/A	N/A	N/A	N/A	44.5	42.0	42.0	N/A	N/A	2	42.0	44.00	N/A	43.60	43.92	44.05

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 11 2012 FILE # 17-017
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

NO.	DATE	REVISION
1	7/19/17	RIDEM COMMENTS

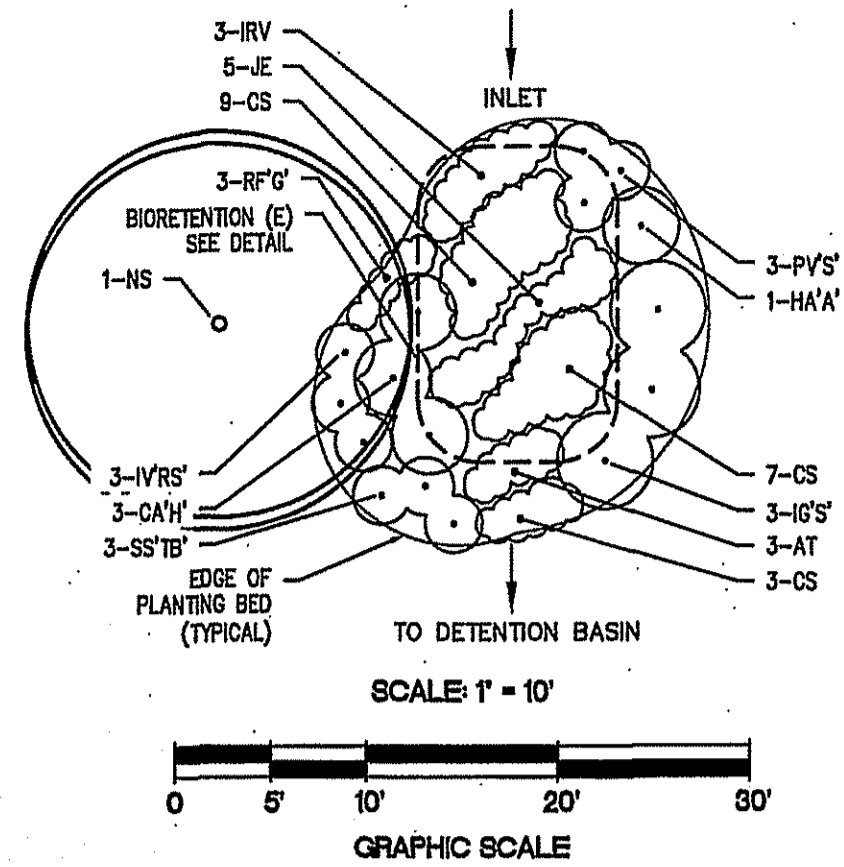


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DETAILS - 1
CLARKE ROAD SUBDIVISION
A.P.V., LOT 27
CLARKE ROAD
NARRAGANSETT, RI
PREPARED FOR:
SKYCAP, LLC
SCALE: AS NOTED
MARCH 2017

Drawn By: BJC
Checked By: JCH
Sheet 12 of 17
FILE NO.: 16.268.389

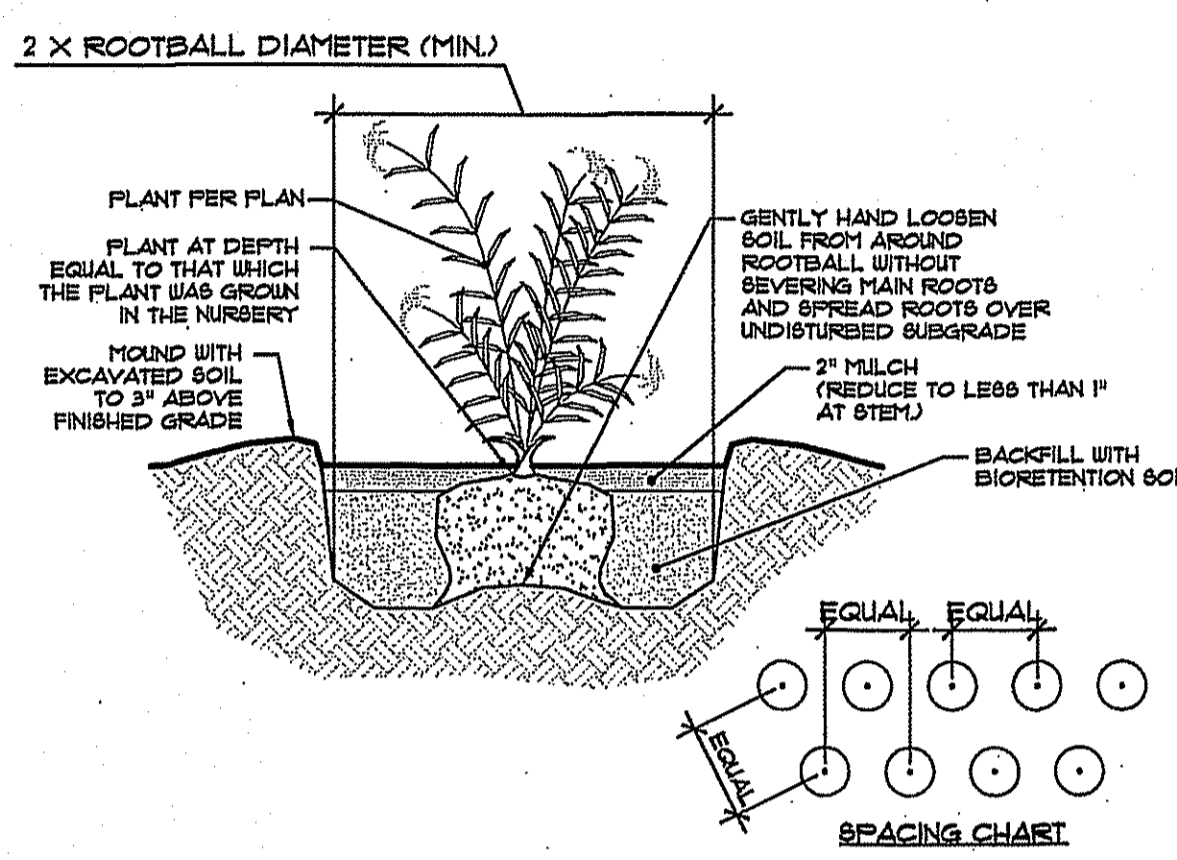
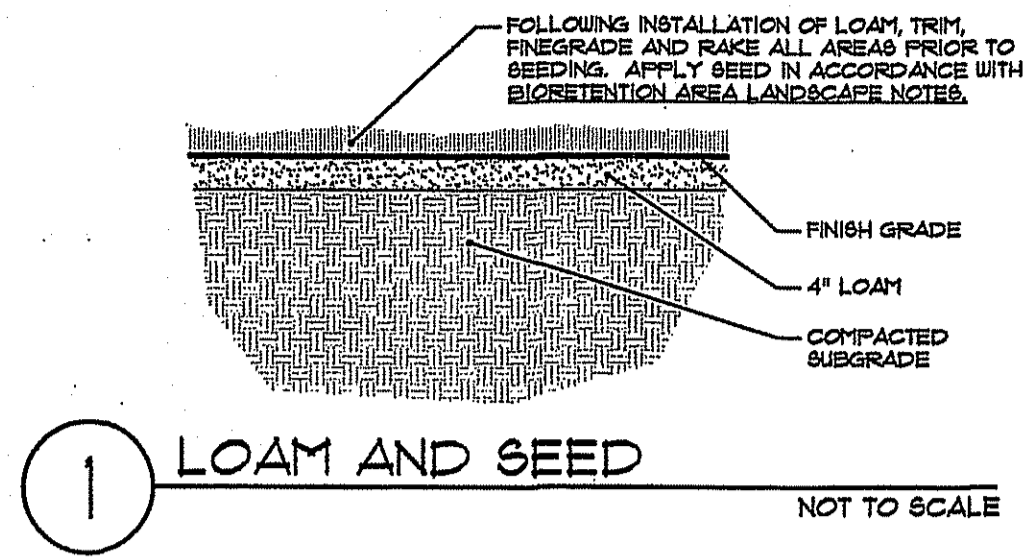
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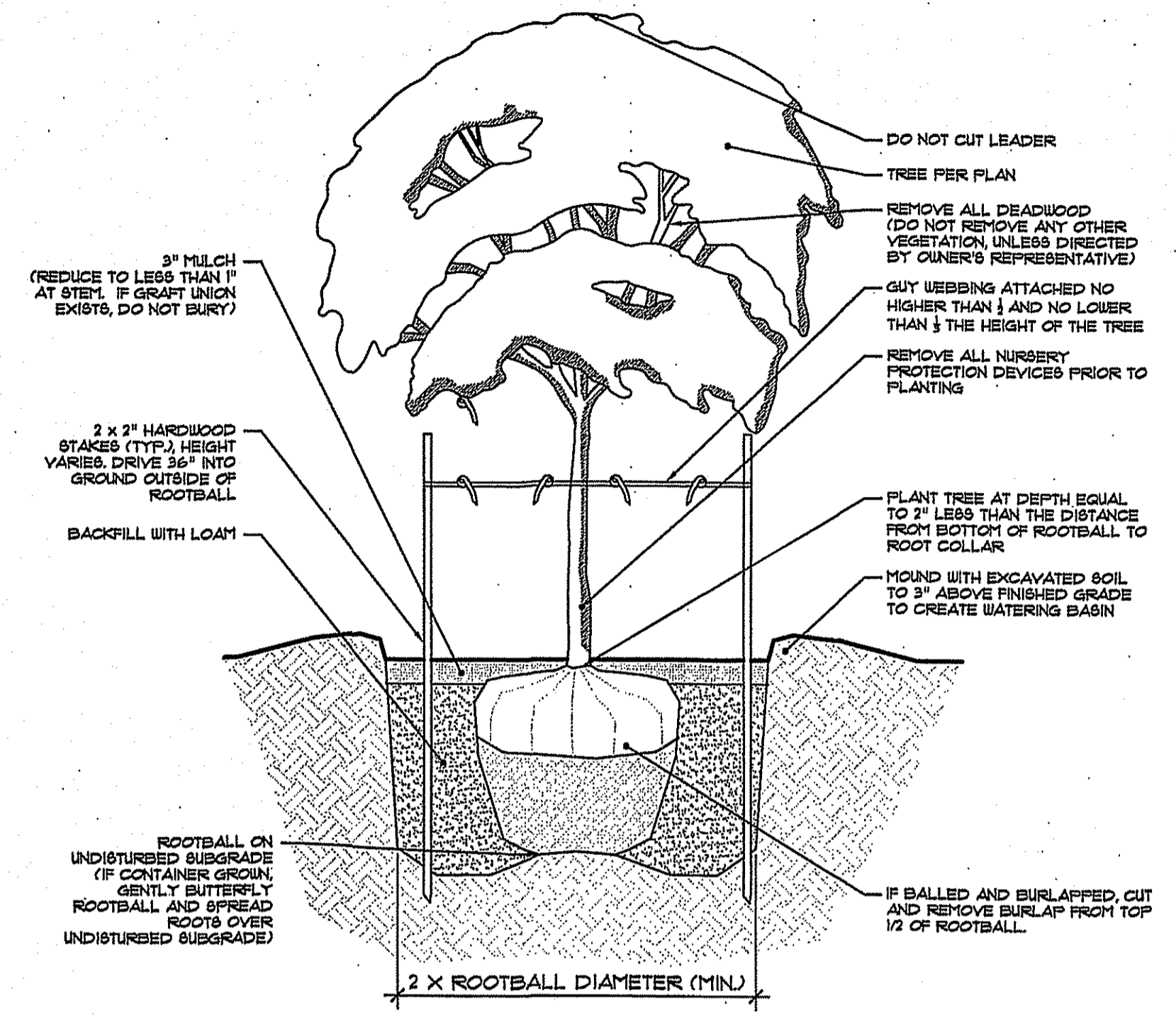
BIORETENTION (E) PLANTING DETAIL

BIORETENTION (E) PLANT SCHEDULE:

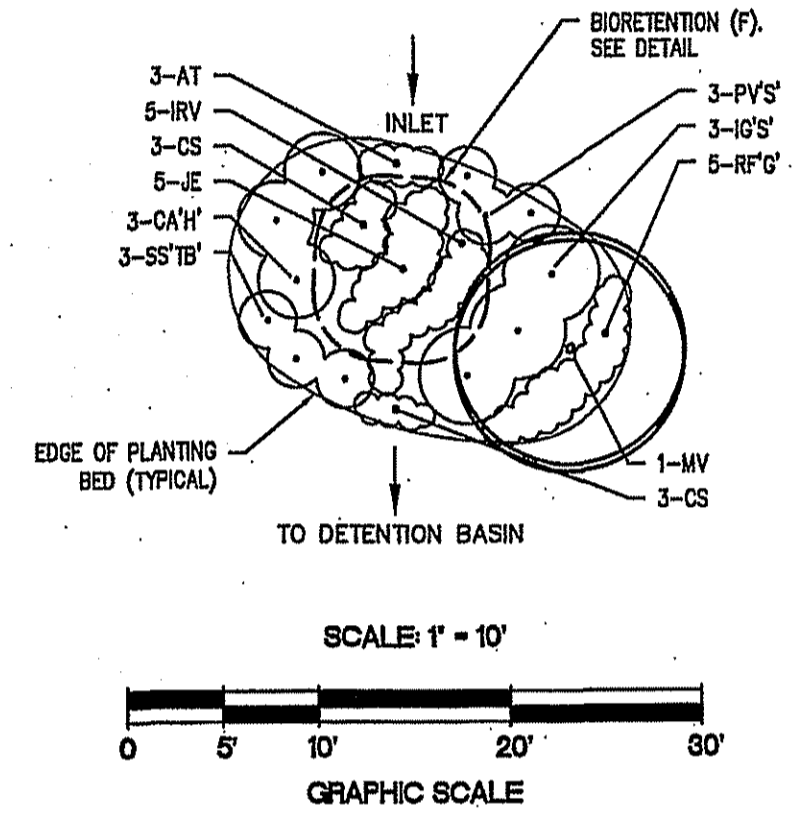
KEY	Scientific Name Common Name	QTY	Size Comment	Spacing
AT	Asclepias tuberosa Butterfly Weed	3	2" Plugs Flats	24" O.C.
CA'H	Clethra alnifolia 'Hummingbird' Compact Summersweet	3	#3 (3 Gal.) Container	As Shown
CS	Carex stricta Tussock Sedge	19	2" Plug Flats	24" O.C.
HA'A	Hydrangea arborescens 'Abetwo' Incrediball Smooth Hydrangea	1	#3 (3 Gal.) Container	As Shown
IG'S	Ilex glabra 'Shamrock' Compact Inkberry	3	#3 (3 Gal.) Container	As Shown
IVRS	Ilex verticillata 'Red Sprite' Red Sprite Compact Winterberry	3	#3 (3 Gal.) Container	As Shown
IRV	Iris versicolor Blue Flag Iris	3	2" Plug Flats	30" O.C.
JE	Juncus effusus Soft Rush	5	2" Plug Flats	30" O.C.
NS	Nyssa sylvatica Tupelo	1	#7 (7 Gal.) Container	As Shown
PV'S	Panicum virgatum 'Shenandoah' Red Flower Switchgrass	3	#1 (1 Gal.) Container	As Shown
RF'G	Rudbeckia fulgida 'Goldsturm' Black-Eyed Susan	3	#1 (1 Gal.) Container	24" O.C.
SS'IB	Schizachyrium scoparium 'The Blues' The Blues Little Bluestem	3	#1 (1 Gal.) Container	As Shown



PERENNIAL/GROUNDCOVER PLANTING DETAIL



TREE PLANTING DETAIL



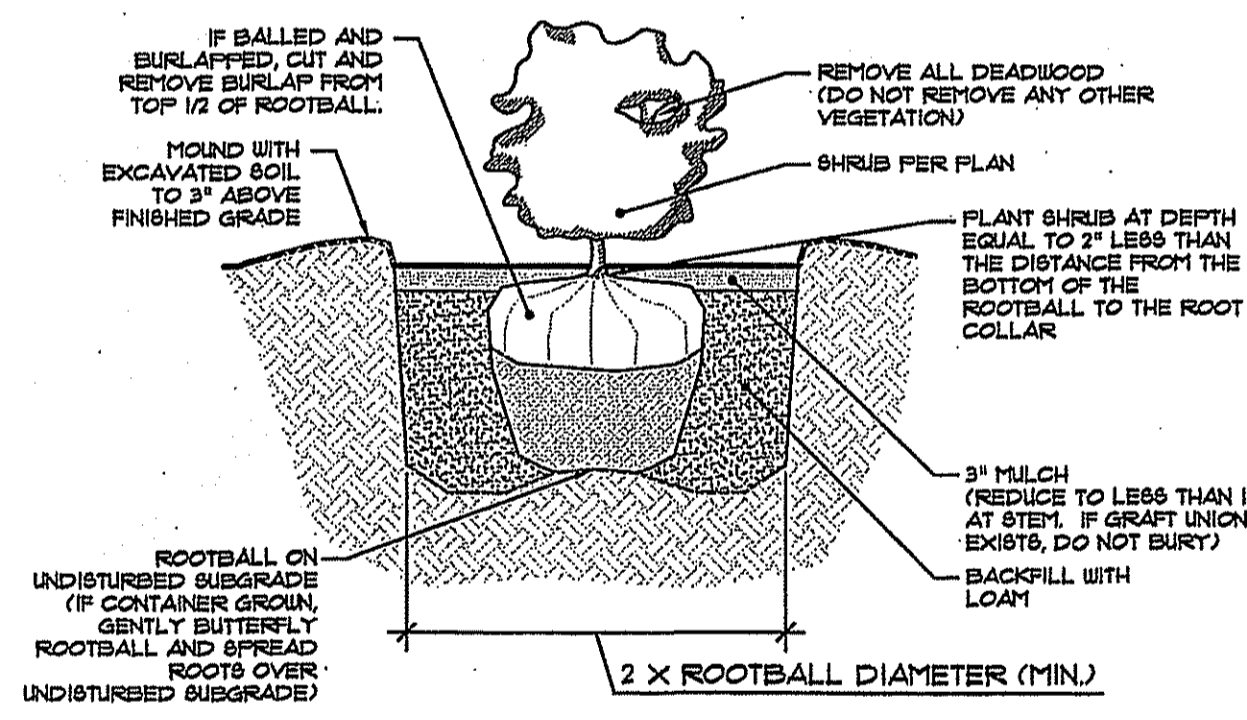
BIORETENTION (F) PLANTING DETAIL

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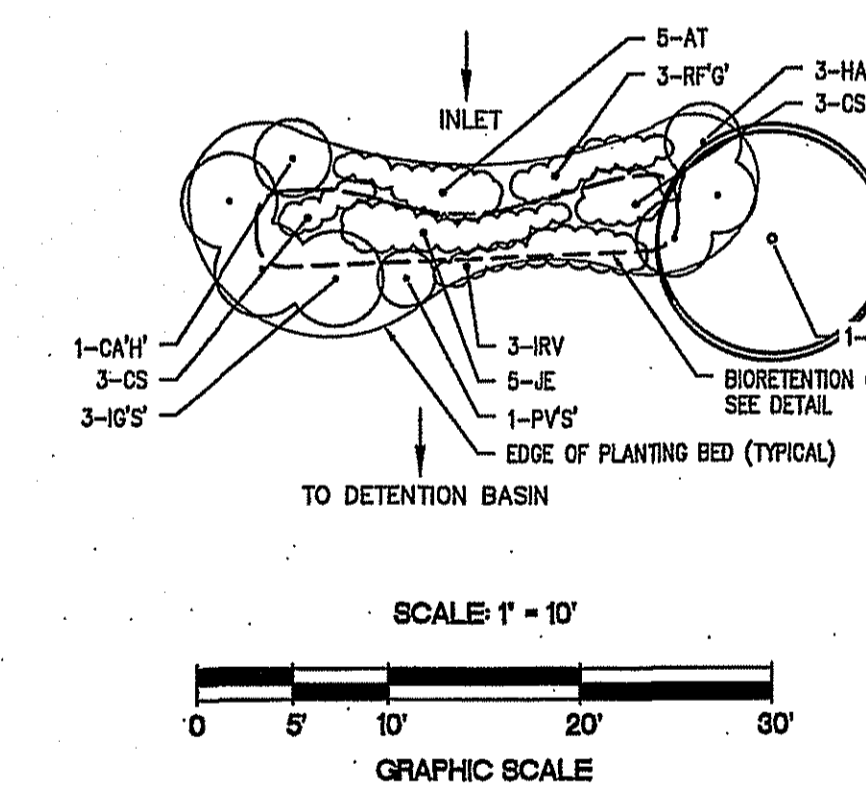
KEY	Scientific Name Common Name	QTY	Size Comment	Spacing
AT	Asclepias tuberosa Butterfly Weed	3	2" Plugs Flats	24" O.C.
CA'H	Clethra alnifolia 'Hummingbird' Compact Summersweet	3	#3 (3 Gal.) Container	As Shown
CS	Carex stricta Tussock Sedge	6	2" Plug Flats	24" O.C.
IG'S	Ilex glabra 'Shamrock' Compact Inkberry	3	#3 (3 Gal.) Container	As Shown
IRV	Iris versicolor Blue Flag Iris	5	2" Plug Flats	30" O.C.
JE	Juncus effusus Soft Rush	5	2" Plug Flats	30" O.C.
MV	Magnolia virginiana Sweetbay Magnolia	1	#7 (7 Gal.) Container	As Shown
PV'S	Panicum virgatum 'Shenandoah' Red Flower Switchgrass	3	#1 (1 Gal.) Container	As Shown
RF'G	Rudbeckia fulgida 'Goldsturm' Black-Eyed Susan	3	#1 (1 Gal.) Container	24" O.C.
SS'IB	Schizachyrium scoparium 'The Blues' The Blues Little Bluestem	3	#1 (1 Gal.) Container	As Shown

BIORETENTION (G) PLANT SCHEDULE:

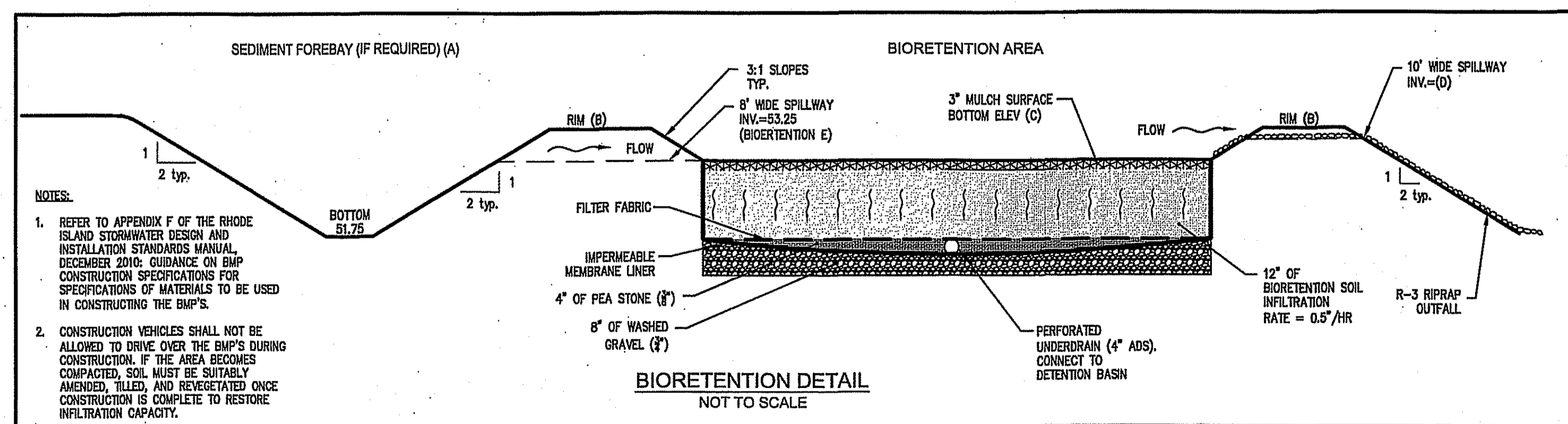
KEY	Scientific Name Common Name	QTY	Size Comment	Spacing
AT	Asclepias tuberosa Butterfly Weed	5	2" Plugs Flats	24" O.C.
CA'H	Clethra alnifolia 'Hummingbird' Compact Summersweet	1	#3 (3 Gal.) Container	As Shown
CC	Cercis canadensis Eastern Redbud	1	#7 (7 Gal.) Container	As Shown
CS	Carex stricta Tussock Sedge	6	2" Plug Flats	24" O.C.
IG'S	Ilex glabra 'Shamrock' Compact Inkberry	3	#3 (3 Gal.) Container	As Shown
HA'A	Hydrangea arborescens 'Abetwo' Incrediball Smooth Hydrangea	3	#3 (3 Gal.) Container	As Shown
IRV	Iris versicolor Blue Flag Iris	3	2" Plug Flats	30" O.C.
JE	Juncus effusus Soft Rush	5	2" Plug Flats	30" O.C.
PV'S	Panicum virgatum 'Shenandoah' Red Flower Switchgrass	1	#1 (1 Gal.) Container	As Shown
RF'G	Rudbeckia fulgida 'Goldsturm' Black-Eyed Susan	3	#1 (1 Gal.) Container	24" O.C.



SHRUB PLANTING DETAIL



BIORETENTION (G) PLANTING DETAIL



STRUCTURAL	BMP	BMP TYPE	PRETREATMENT (A)		BMP SIZE		S.H.G.W.T. (ELEV.)	WIER		WATER QUALITY (ELEV.) (E)	WATER ELEVATION				
			PEASTONE TRENCH	FOREBAY	LENGTH (FT)	WIDTH (FT)		TOP (ELEV.) (B)	BOTTOM (ELEV.) (C)		LENGTH (FT)	INVERT (ELEV.) (D)	2-YR	10-YR	25-YR
E	BIORETENTION	N/A	8'W X 2'0 X 8'L	16.5'-/-	10.5'-/-	54.8	53.1	10.0	54.30	54	54.50	54.56	54.56	54.56	54.56
F	BIORETENTION	N/A	N/A	9.5'-/-	3'-/-	54.7	53.5	10.0	53.50	53.49	53.54	53.55	53.56	53.57	
G1	BIORETENTION	N/A	N/A	22'-/-	3'-/-	53.7	52.5	10.0	53.50	53.42	53.54	53.56	53.56	53.57	
G2	BIORETENTION	N/A	N/A	22'-/-	3'-/-	44.75	43.5	10.0	44.50	44.42	44.54	44.56	44.56	44.57	

BIORETENTION AREA LANDSCAPE NOTES:

- THE CONTRACTOR SHALL INSTALL ALL PLANT MATERIAL IN CONFORMANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AND THE CURRENT PLANTING PROCEDURES ESTABLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION, FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PLANT MATERIAL SHALL MEET THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION, FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN, STANDARDS FOR NURSERY STOCK, LATEST EDITION, AND ITS AMENDMENTS. PLANT ONLY DURING SEASONS NORMAL TO THE PARTICULAR VARIETY.
- SPECIFIED PLANT VARIETIES, QUANTITIES, AND SIZES ARE SUBJECT TO AVAILABILITY AT TIME OF ORDERING AND INSTALLATION. ALL PLANT SUBSTITUTIONS AND/OR CHANGES IN PLANT LOCATION OR SIZE MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE.
- ALL PLANTINGS SHALL BE SIZED IN ACCORDANCE WITH THE SIZES INDICATED ON THE PLANT SCHEDULE, UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFF-SITE LOCATION, UNLESS OTHERWISE INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS, AND SHALL OBTAIN ALL NECESSARY PERMITS FOR THE PROJECT.
- CONTRACTOR SHALL PROVIDE A ONE (1) YEAR WARRANTY ON ALL NEW PLANTINGS. SHOULD NEW PLANT MATERIAL DIE (OR DECLINE TO THE POINT WHERE PLANT IS EXPECTED TO DIE) WITHIN THIS WARRANTY PERIOD (OTHER THAN DUE TO NATURAL FACTORS, NATURAL DISASTER, OR NEGLIGENCE), CONTRACTOR SHALL REMOVE THE PLANT AND REPLACE SAID PLANT MATERIAL WITH NEW PLANTINGS IN ACCORDANCE WITH THE SIZE AND VARIETY SPECIFIED. ALL REPLACEMENT PLANT MATERIAL SHALL CARRY A NEW ONE (1) YEAR WARRANTY STARTING FROM THE DATE OF REPLACEMENT.
- FINAL LOCATIONS OF ALL NEW PLANTINGS SHALL BE ADJUSTED AS NECESSARY BASED ON FINAL AS-BUILT LOCATIONS OF ALL NEW AND EXISTING UTILITIES AND OTHER SITE IMPROVEMENTS.
- BIORETENTION SOIL SHALL BE AS NOTED IN ENGINEER'S DETAILS AND SPECIFICATIONS. IT SHALL BE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, STUMPS, ROOTS, LIMBS OF SOIL, TREE LIMBS, TRASH, CONSTRUCTION DEBRIS, OR OTHER OBJECTIONABLE MATERIAL, INCLUDING NOXIOUS WEEDS AND SEEDS.
- THOROUGHLY WATER ALL PLANTS WHEN 2/3 OF BACKFILL HAS BEEN PLACED TO ENSURE ALL AIR POCKETS ARE REMOVED. FIRMLY TAMP SOIL AROUND PLANT. ENSURE PROPER WATERING OF PLANT MATERIAL UNTIL ESTABLISHMENT.
- PRUNE ALL PLANT MATERIAL TO REMOVE ANY AND ALL DEADWOOD.
- ALL PLANTING MATERIAL SHALL BE PRUNED IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES, AND IN SUCH A MANNER AS TO MAINTAIN THE NATURAL FORM OF THE PLANT. PRUNING SHALL BE COMPLETED UTILIZING ONLY CLEAN SHARP TOOLS. USE OF AXES FOR PRUNING IS UNACCEPTABLE.
- MULCH: ALL PLANTINGS SHALL BE MULCHED AS INDICATED ON DETAIL DRAWINGS. PLANTINGS INSTALLED IN CLUSTERS, OR WITHIN PLANTING BEES SHALL BE MULCHED AS SUCH. INSTALLING MULCH THROUGHOUT THE ENTIRE PLANTING BED. MULCH TO BE 3" MAXIMUM, OR AS OTHERWISE NOTED, IN DEPTH AND REDUCED TO LESS THAN 1" AT ROOT FLARE OF EACH PLANT.
- MULCH SHALL BE WELL SHREDED AND WELL-AGED (STOCKPILED FOR APPROXIMATELY 6 MONTHS) DIFFERENT IN COLOR AND FREE OF OTHER MATERIALS, SUCH AS WEED SEEDS, SOIL, ROOTS, ETC. MULCH COMPRISED OF BARK CHIPS AND/OR NON-AGED WOOD CHIPS WILL NOT BE ACCEPTABLE.
- MULCH SHALL BE REPLISHED EVERY OTHER YEAR AS NEEDED FOLLOWING INSPECTION OF BASINS.
- LOAM AND SEED:
- LOAM AND SEED ALL DISTURBED AREAS NOT OTHERWISE SPECIFIED FOR PLANTING. ALL NEW LAWN AREAS SUBJECT TO EROSION SHALL BE STABILIZED UTILIZING LUTE MESH OR APPROVED EQUAL.
- LOAM UTILIZED FOR DETENTION BASINS AND OTHER LAWN AREAS SHALL BE IN ACCORDANCE WITH ENGINEER'S SPECIFICATIONS AND DETAILS.
- SEED MIX UTILIZED IN DETENTION BASINS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND COASTAL RESOURCES MANAGEMENT COUNCIL, STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, AS AMENDED, AND AS NOTED IN ENGINEER'S SPECIFICATIONS AND DETAILS.
- UNLESS OTHERWISE SPECIFIED ON ENGINEER'S PLANS, SEED MIX UTILIZED FOR SEDIMENT FOREBAYS (OR OTHER DISTURBED PORTIONS OF THE SITE NOT SPECIFIED TO RECEIVE OTHER SOIL STABILIZATION MEASURES), SHALL BE SIMILAR TO 'Endophyte Enhanced Mix' AS AVAILABLE THROUGH ALLEN'S SEED, EXETER, RI, OR EQUAL DROUGHT TOLERANT, DEEP-ROOTING GRASS SEED, CONTAINING A MINIMUM OF 50% BY WEIGHT OF TURF-TYPE TALL FESCUE.
- IF INSTALLING SEED UTILIZING HYDROSEEDER DEVICE, PROVIDE FIBER MULCH AND FERTILIZER MIX.
- IF BROADCAST SEEDING, TOPDRESS WITH 2" OF STRAW MULCH, FOLLOWING SPREADING OF SEED.

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Charles A. Herbert

Kevin M. Alverson
LANDSCAPE ARCHITECTURE
360 Annaquatucket Road 401.338.0044
Wickford, RI 02852 KevinMAlversonLA.com

LANDSCAPE PLANTING ONLY

NO.	DATE	REVISION
1	7/19/17	RIDEM COMMENTS

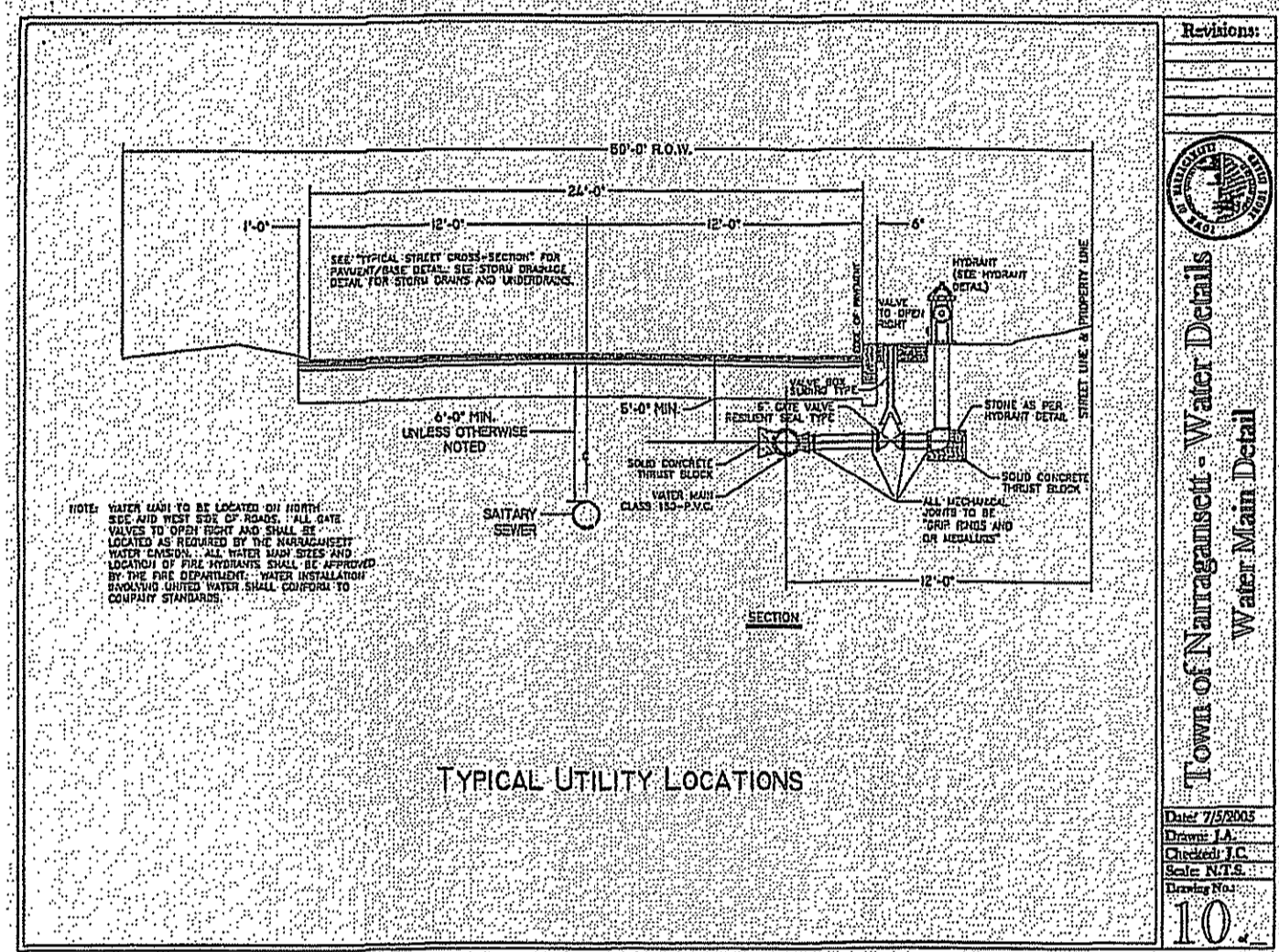
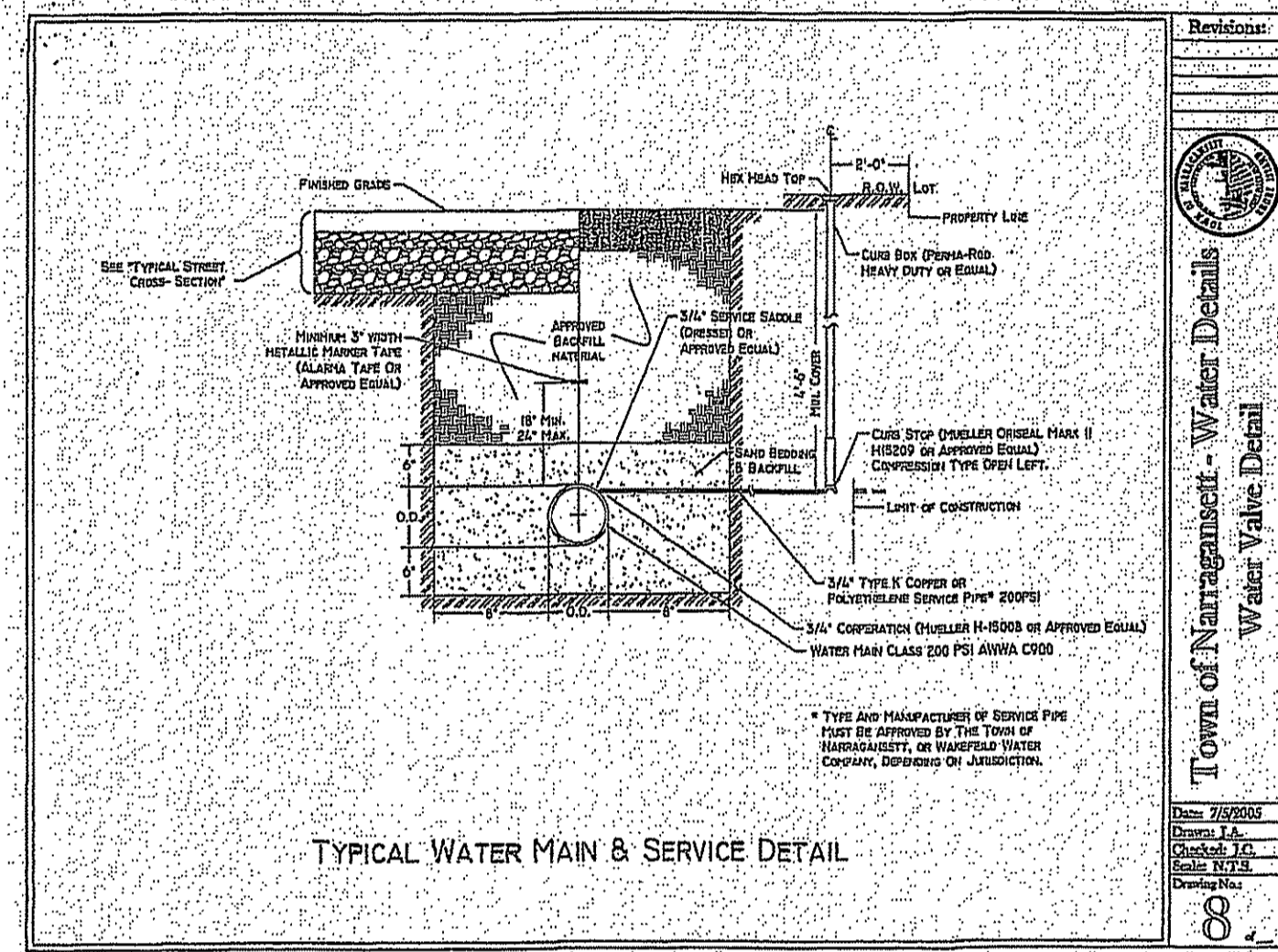
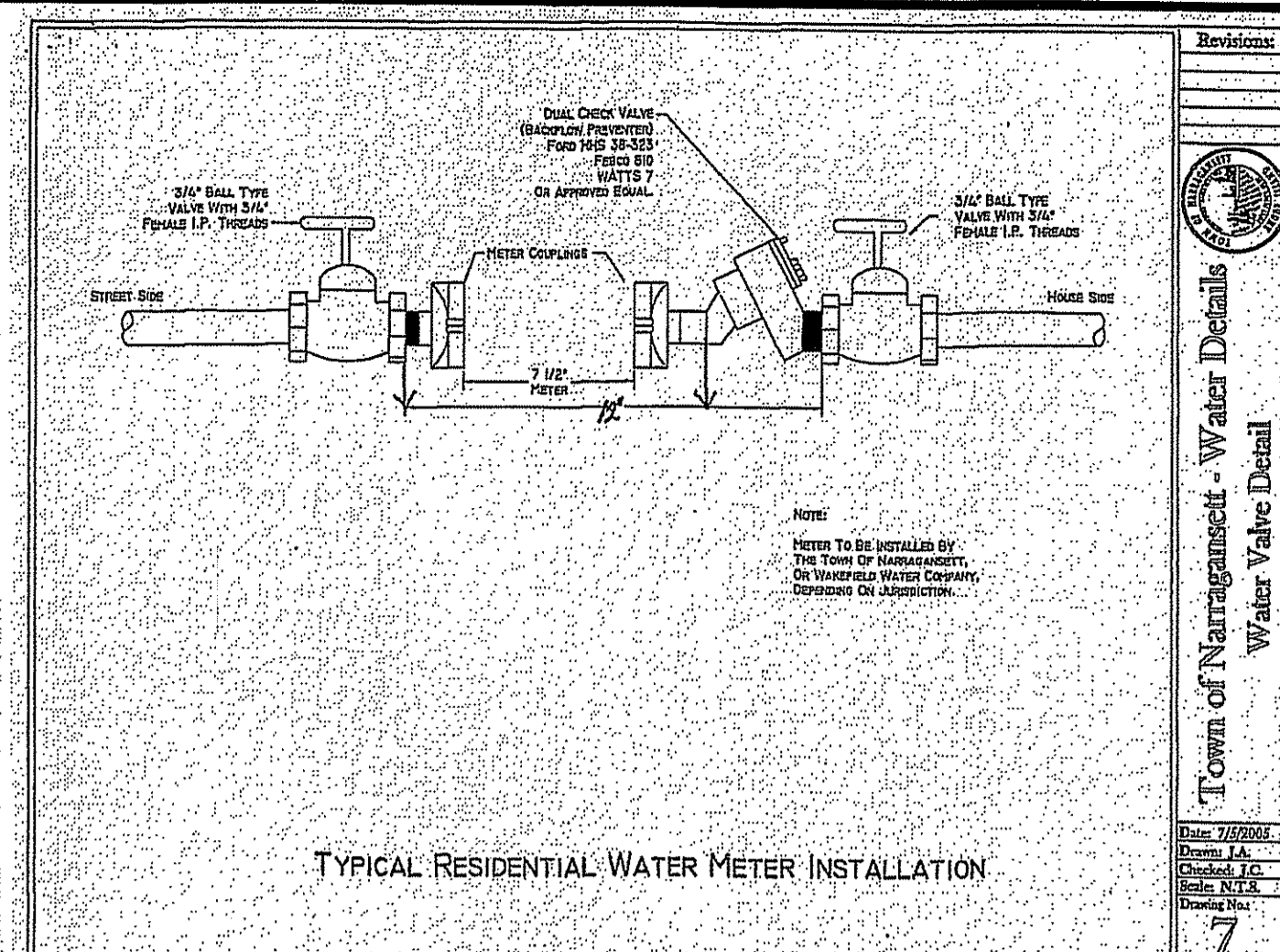
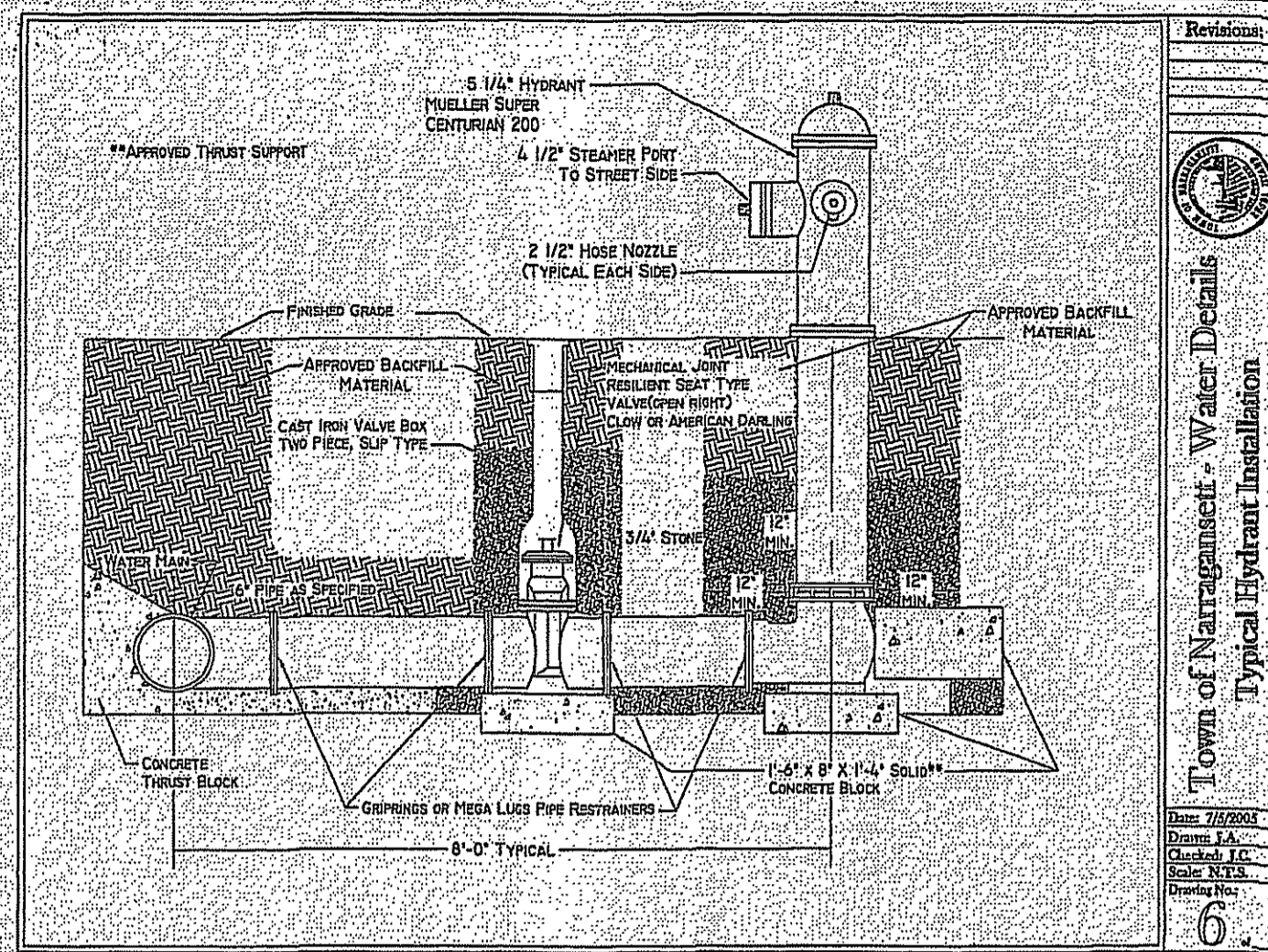
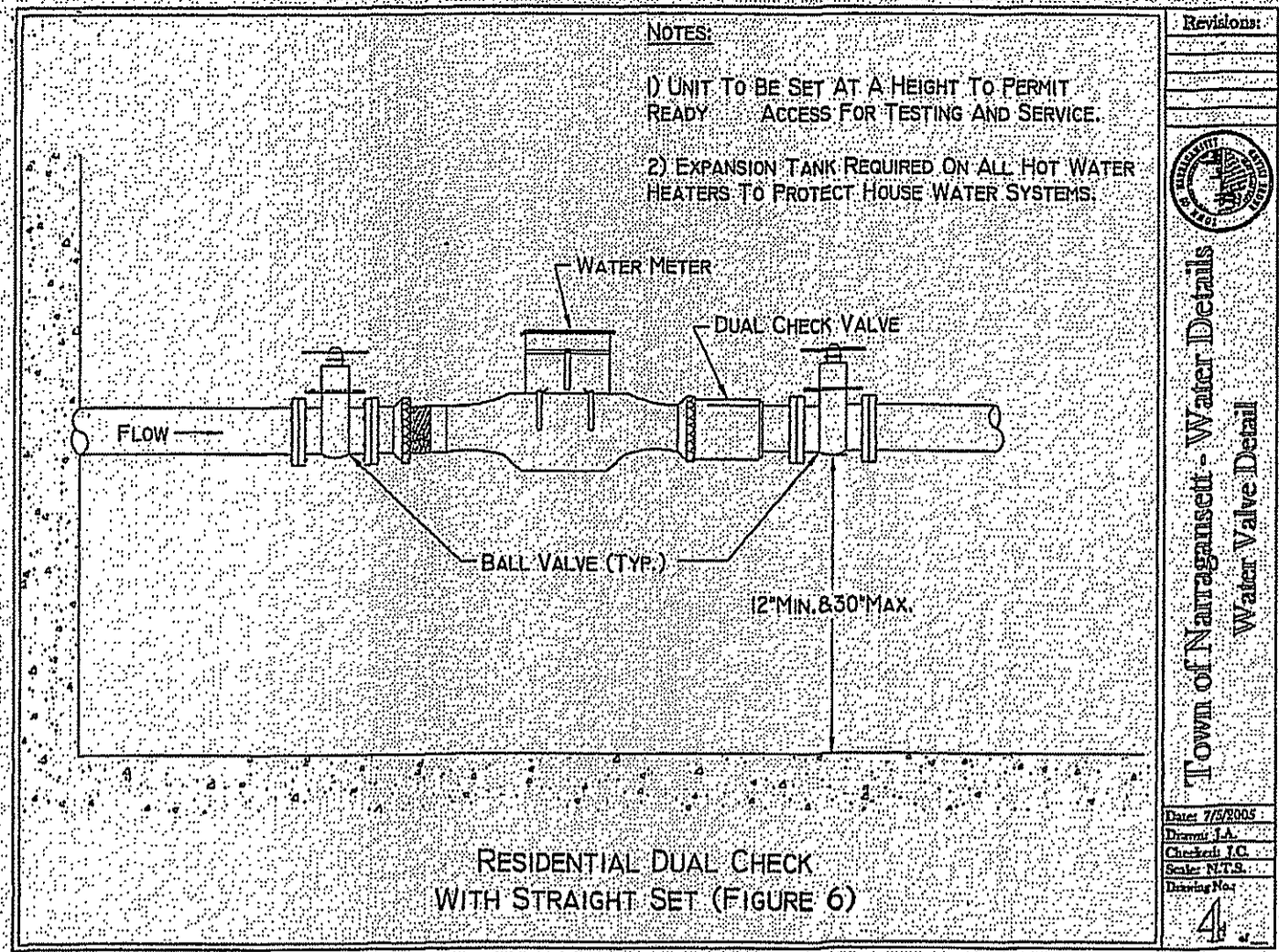
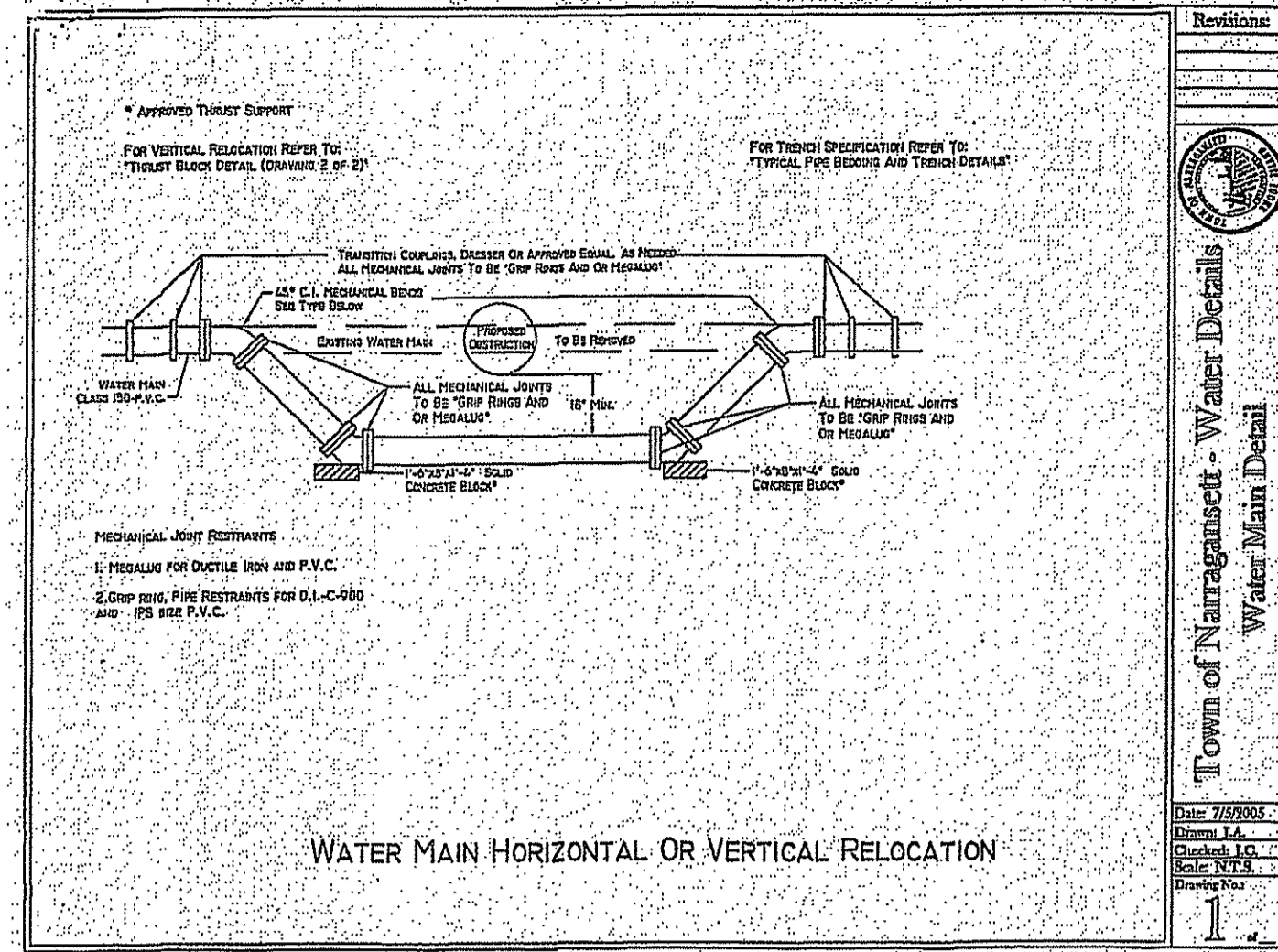
JEFFREY C. HANSON
No. 5238
REGISTERED PROFESSIONAL ENGINEER

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DETAILS - 2
CLARKE ROAD
SUBDIVISION

A.P.V., LOT 27
CLARKE ROAD
NARRAGANSETT, RI
PREPARED FOR:
SKYCAP, LLC
SCALE: AS NOTED
MARCH 2017

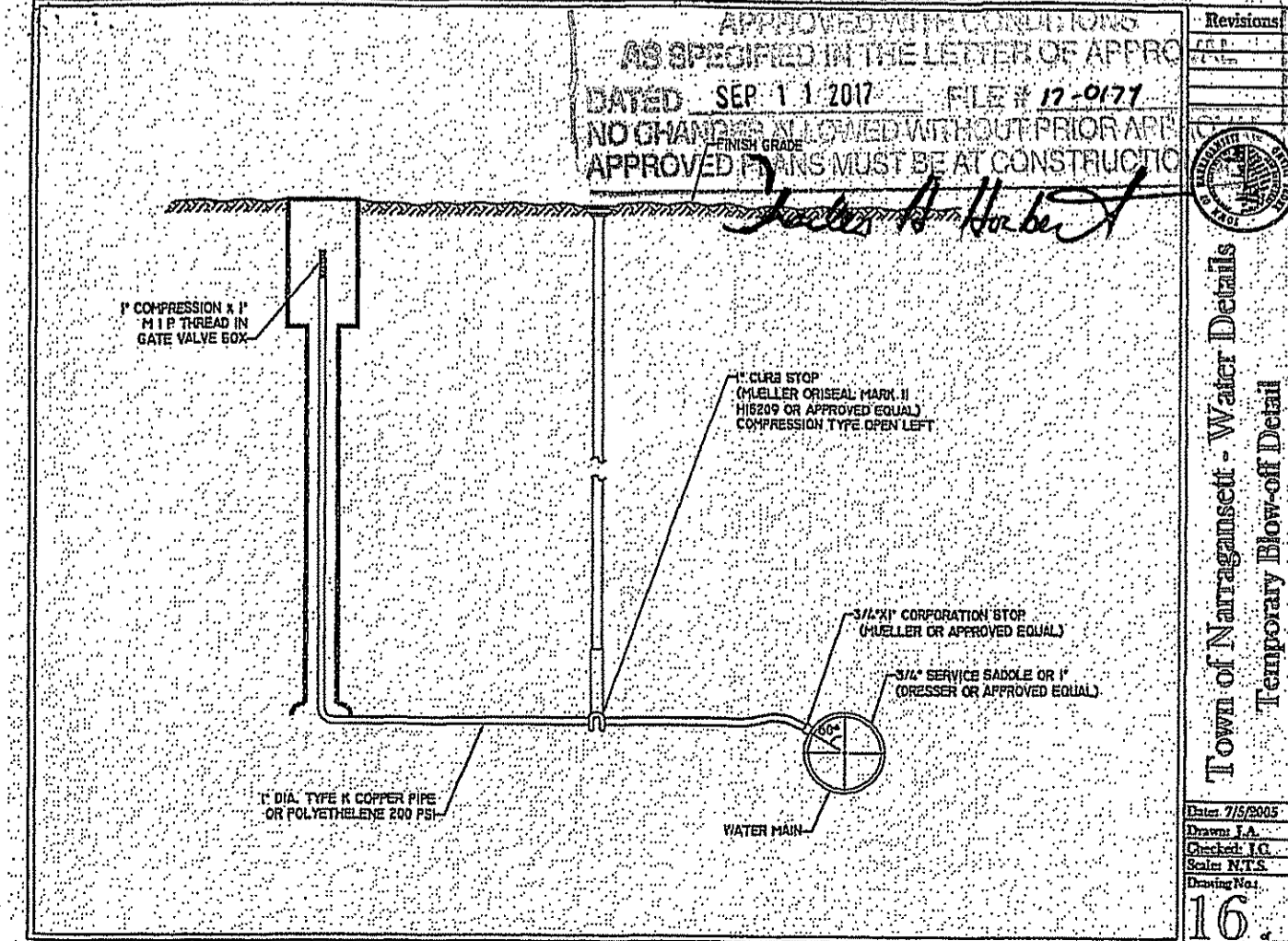
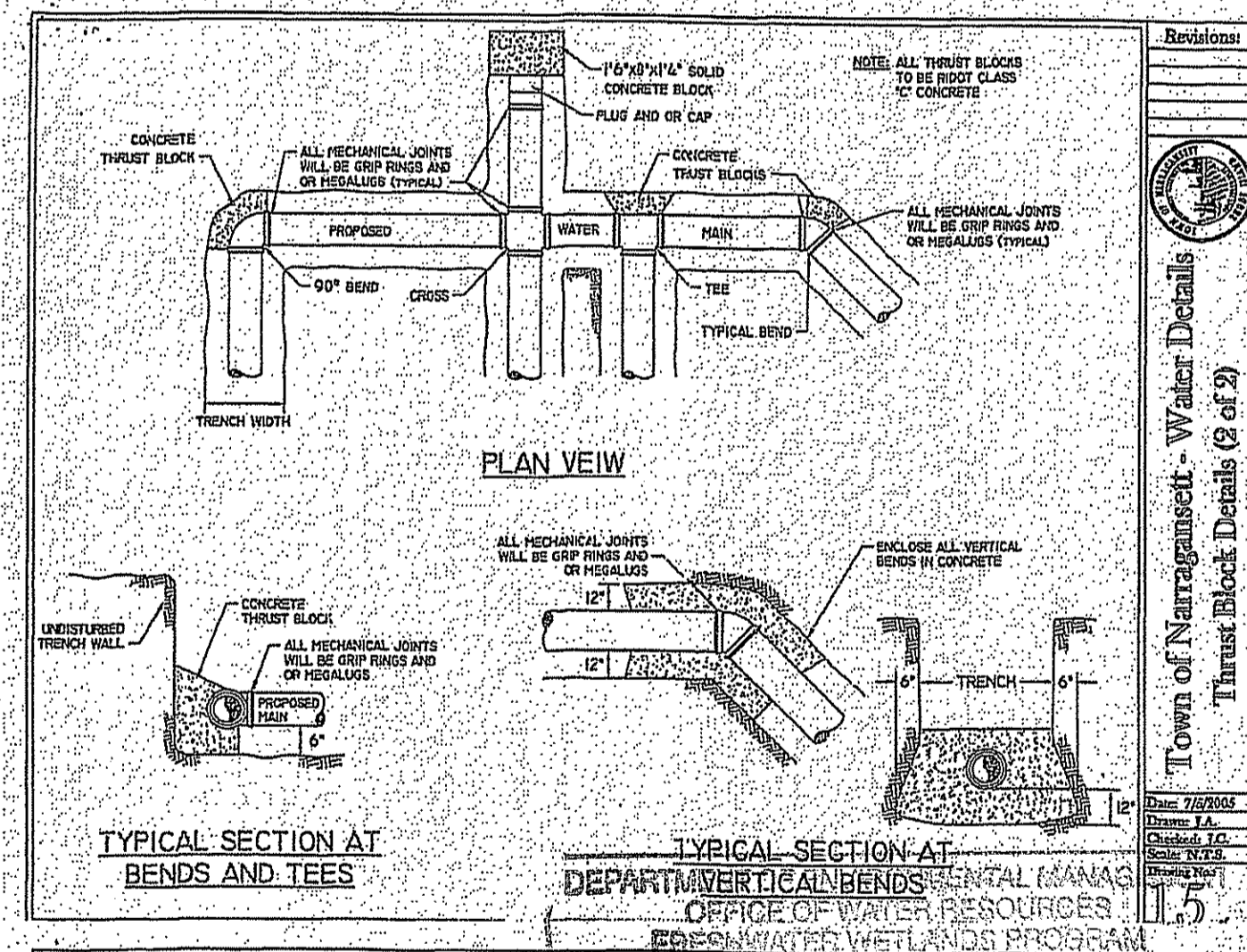
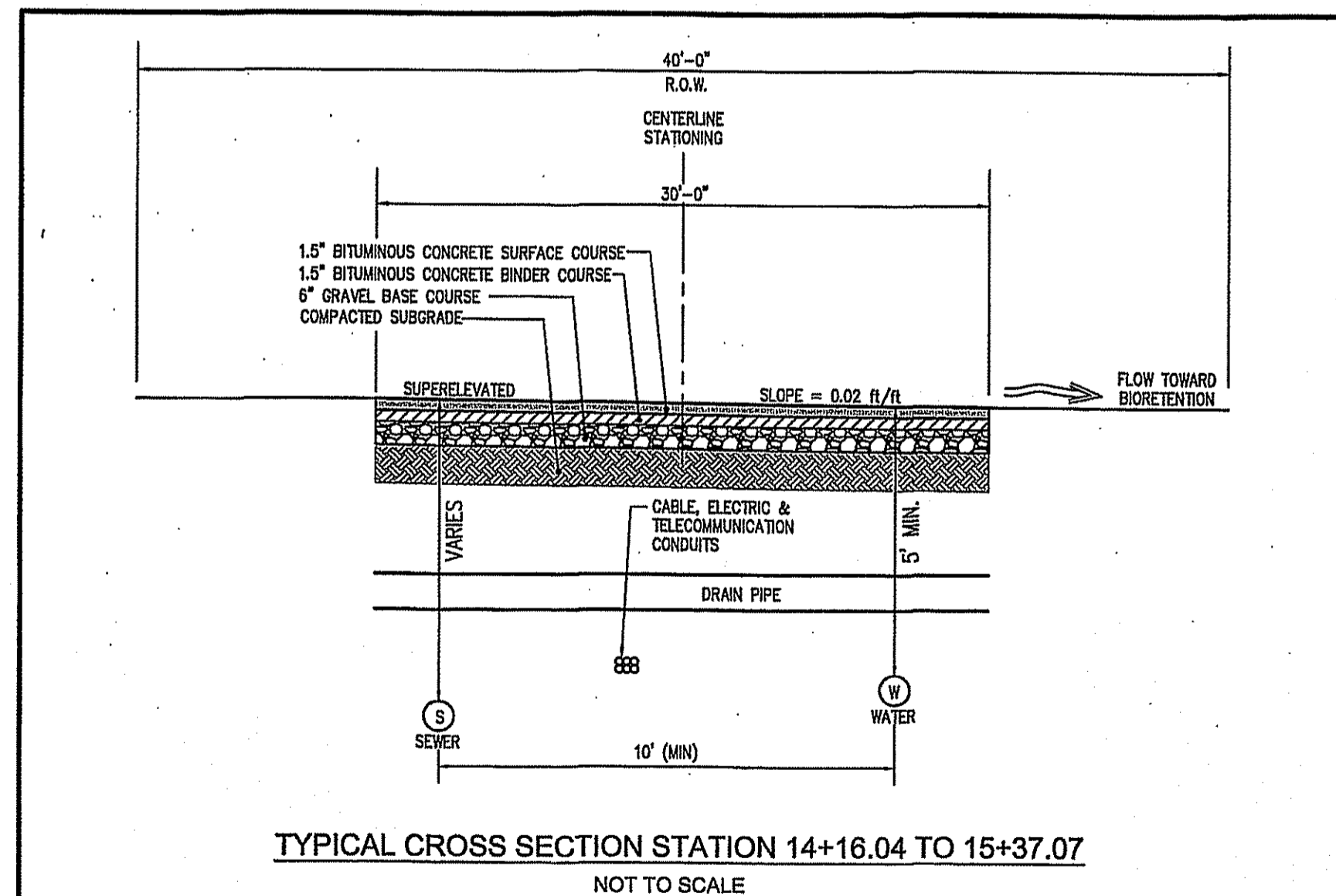
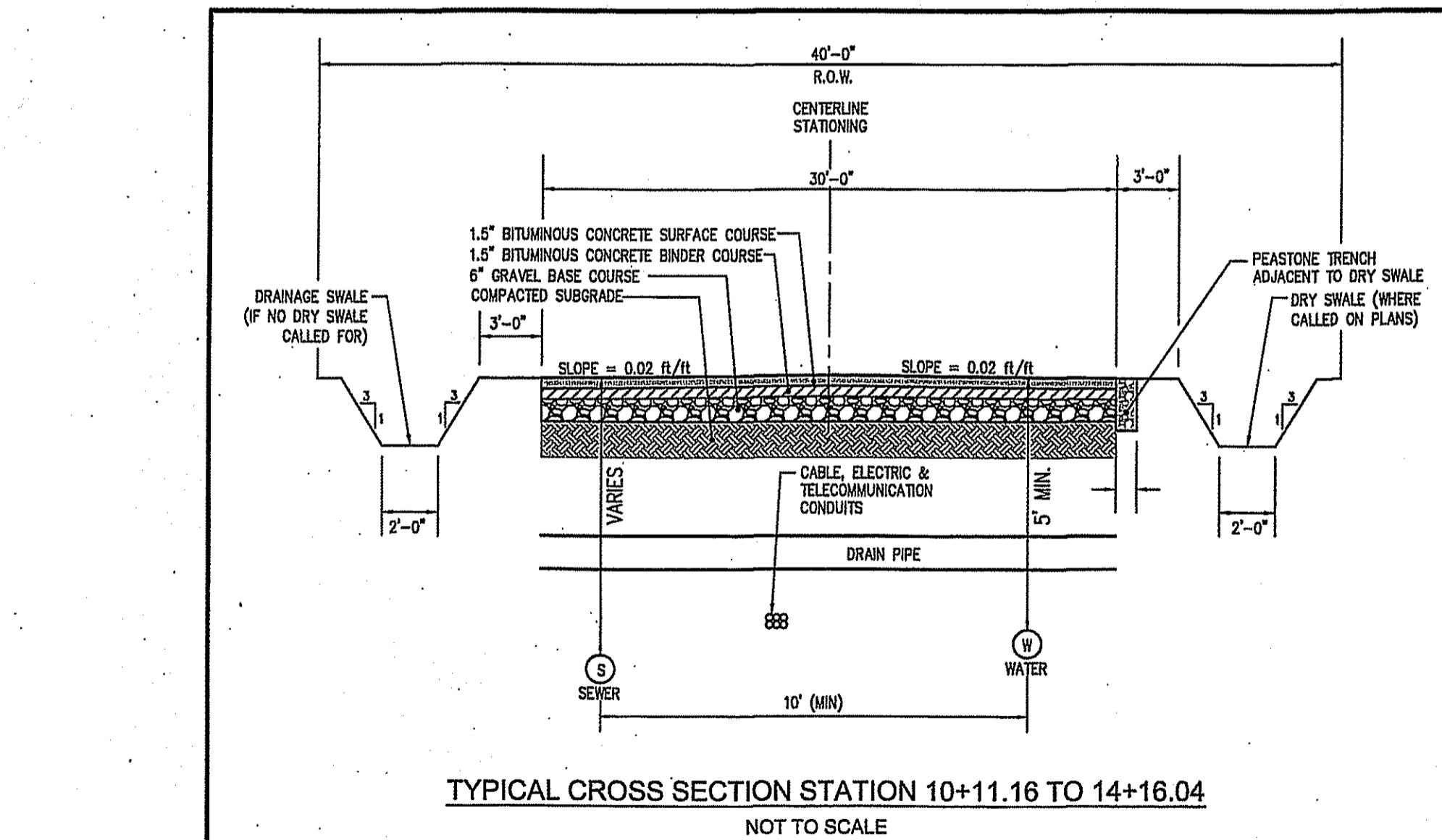
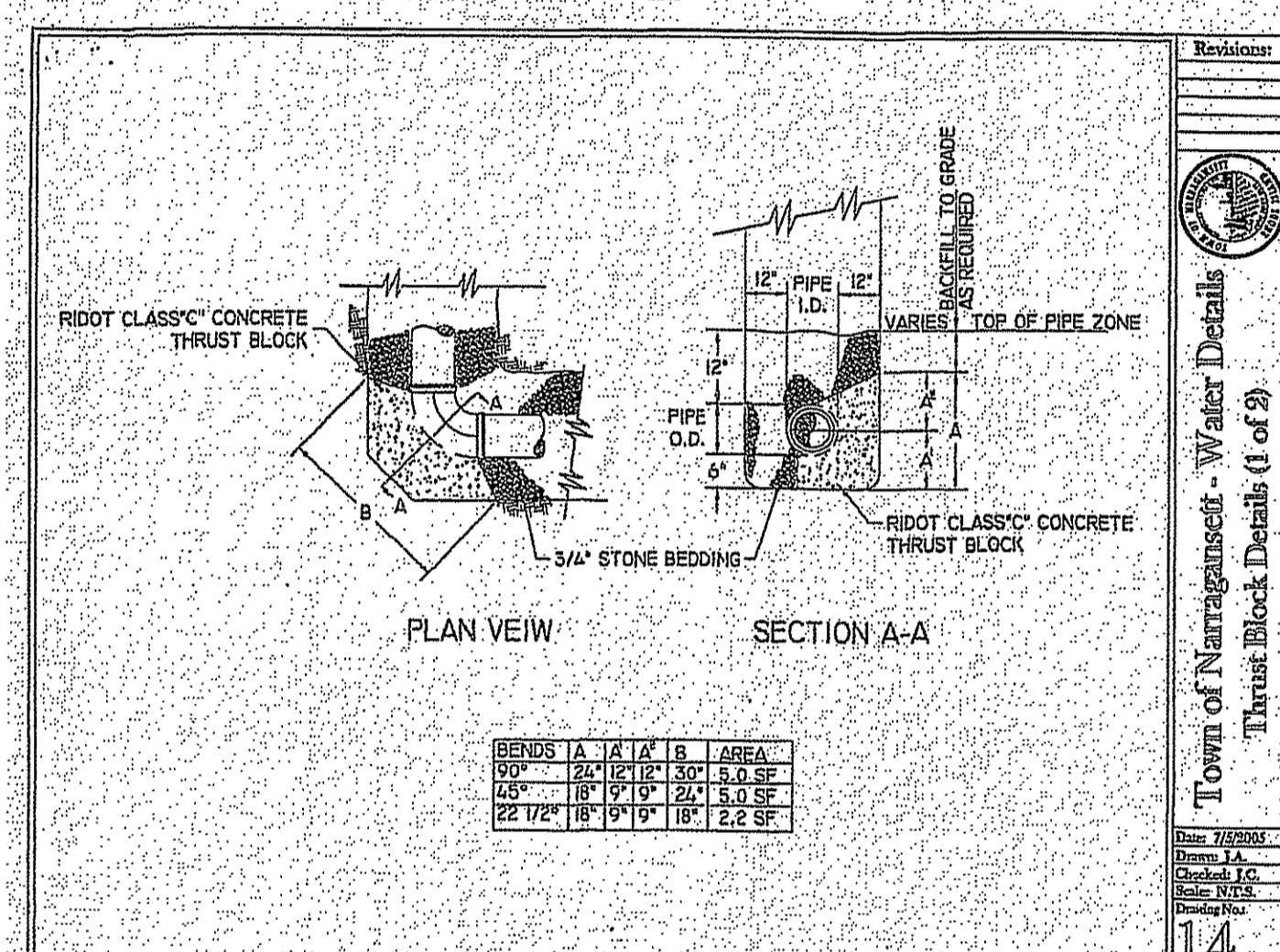
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Checked By: JCH, KMA
Sheet 13 of 17
FILE NO.: 16.268.389



TYPICAL REACTION BLOCKING DETAIL

PIPE SIZE (IN)	TOTAL AREA (SQ. FT.)	AREA OF BLOCK (SQ. FT.)	REINFORCING BARS (NO.)	REINFORCING BARS (SIZE)
4"	5,800	1.5	2	1.0
6"	10,800	2.7	3	1.0
8"	17,200	4.0	4	1.0
10"	25,700	5.6	5	1.0
12"	35,000	8.0	6	1.0

Revisions:
 1. 7/20/08
 2. 10/1/08
 3. 10/1/08



NO.	DATE	REVISION
1	7/20/07	RIDEM COMMENTS

JEFFREY C. HANSON
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 JUL 26 2007
 PROFESSIONAL ENGINEER

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DETAILS - 3
CLARKE ROAD SUBDIVISION

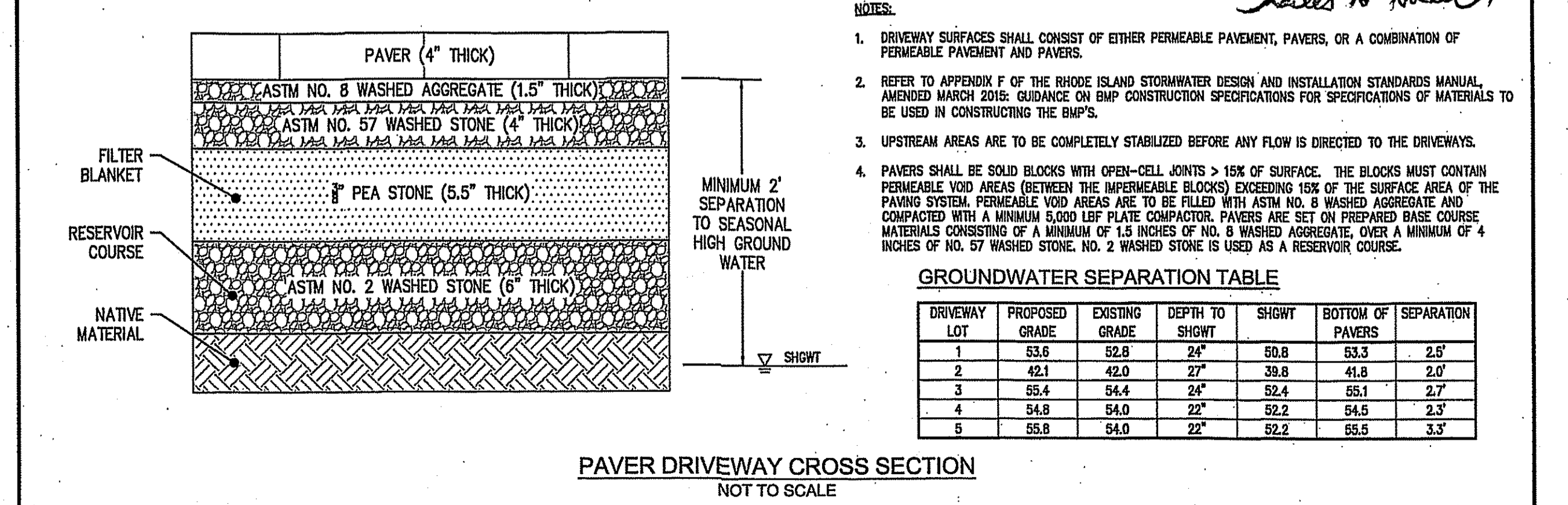
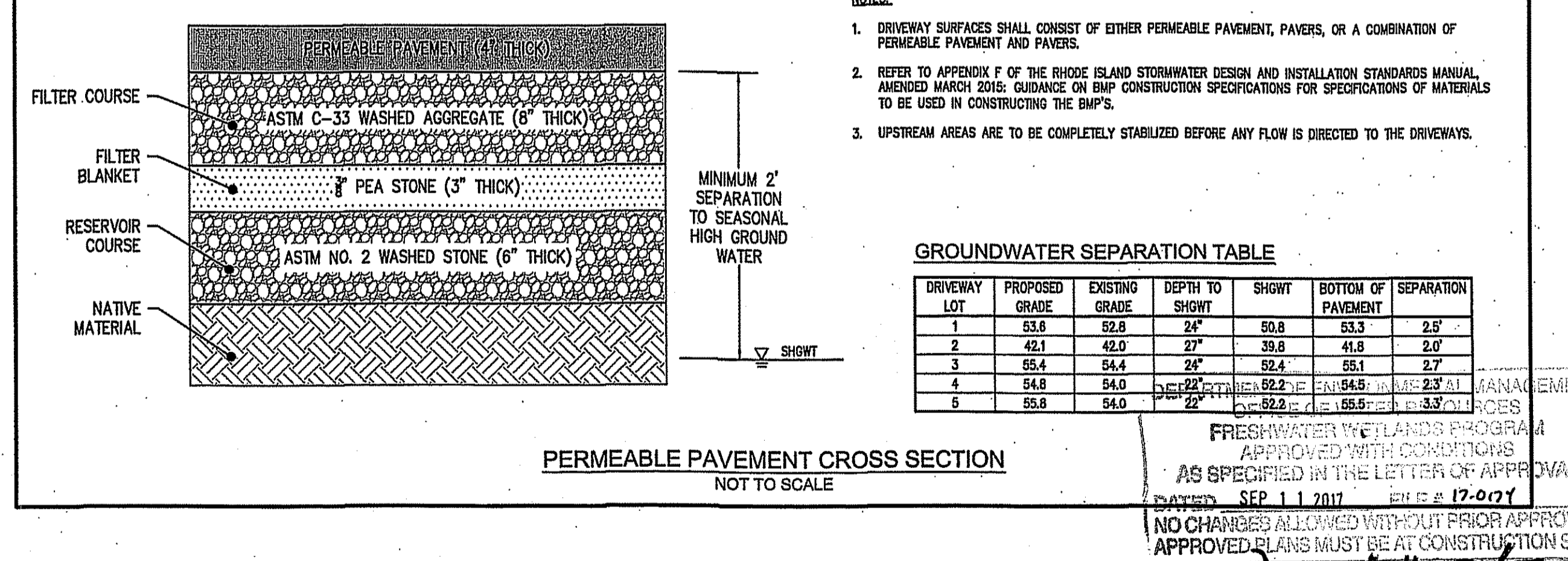
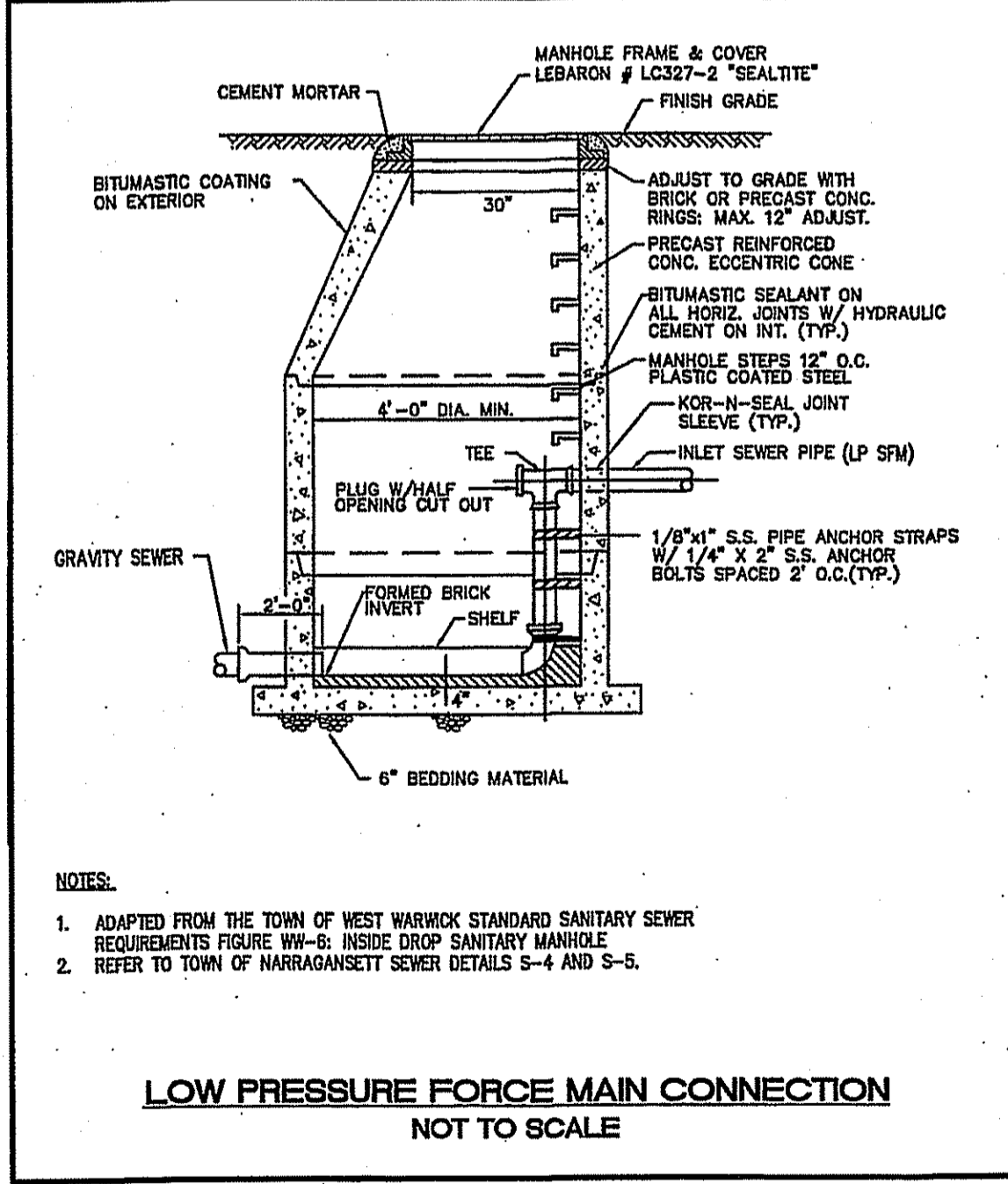
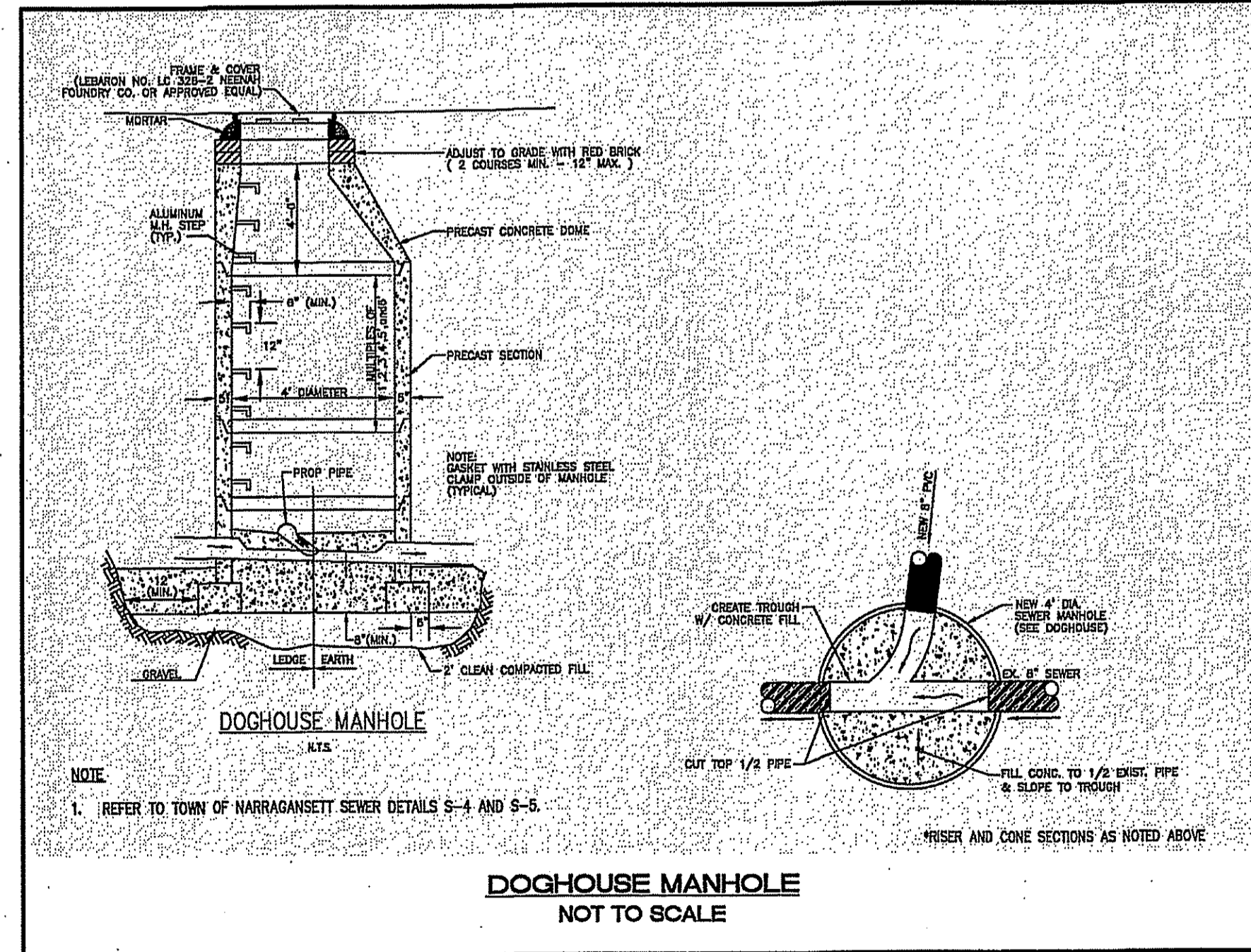
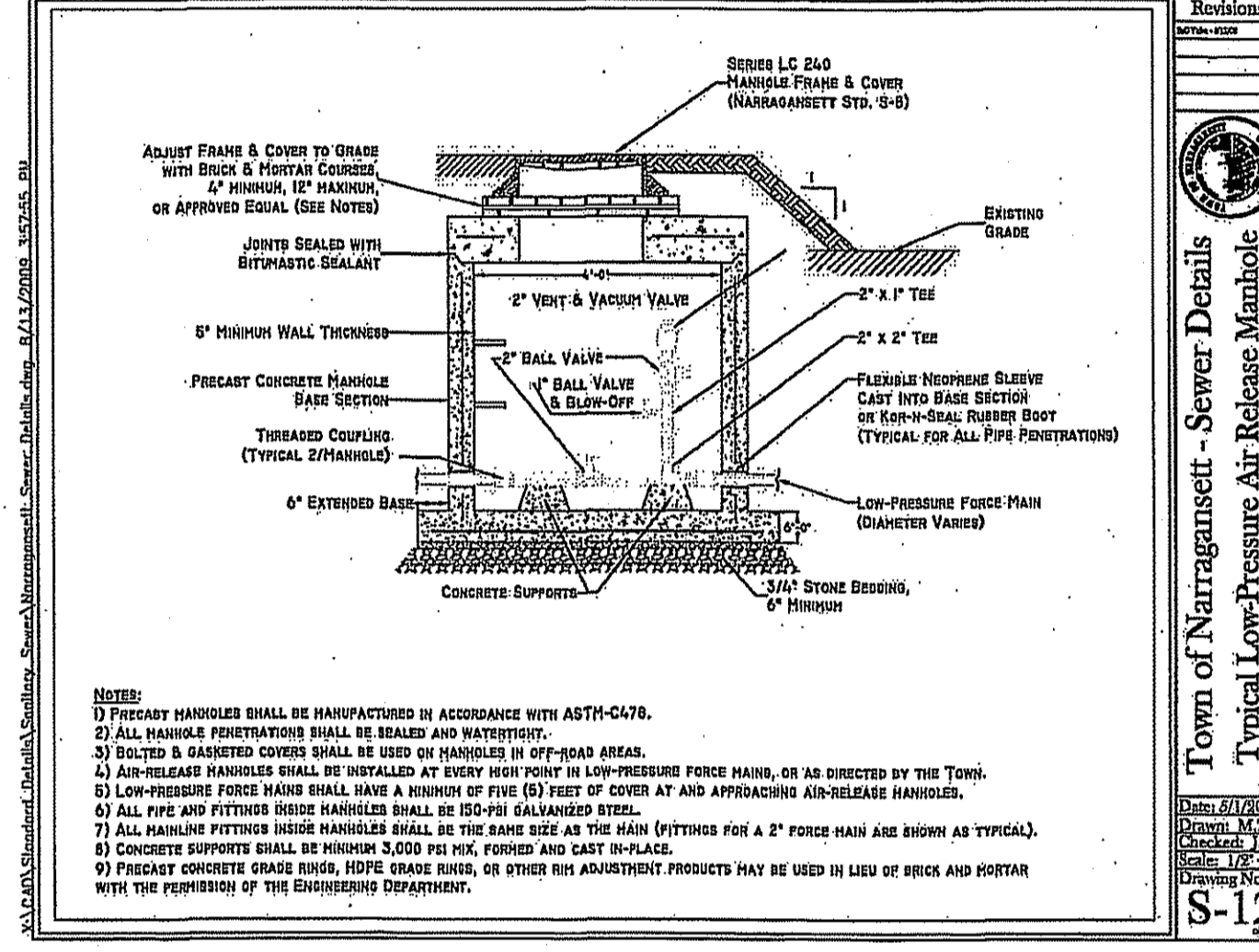
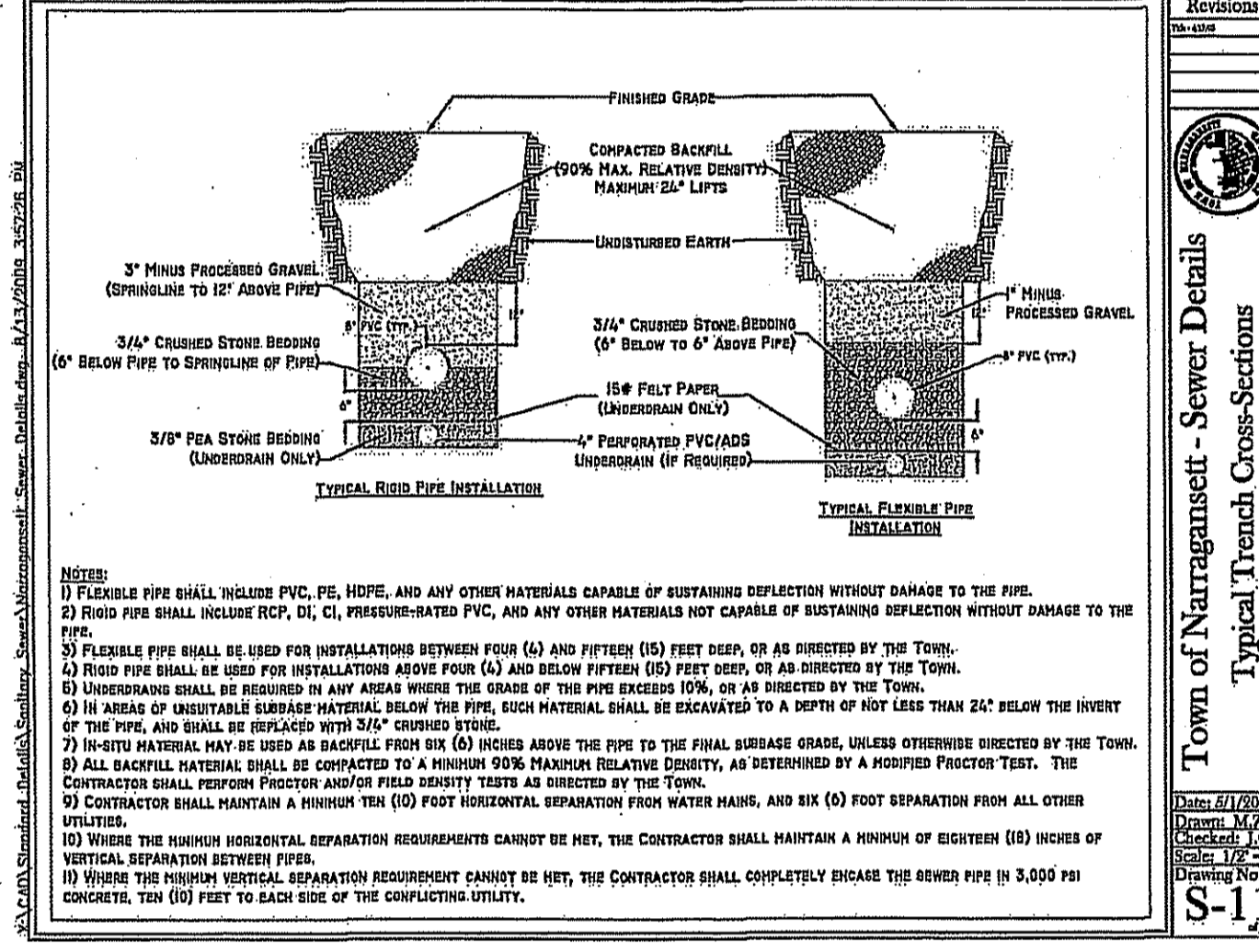
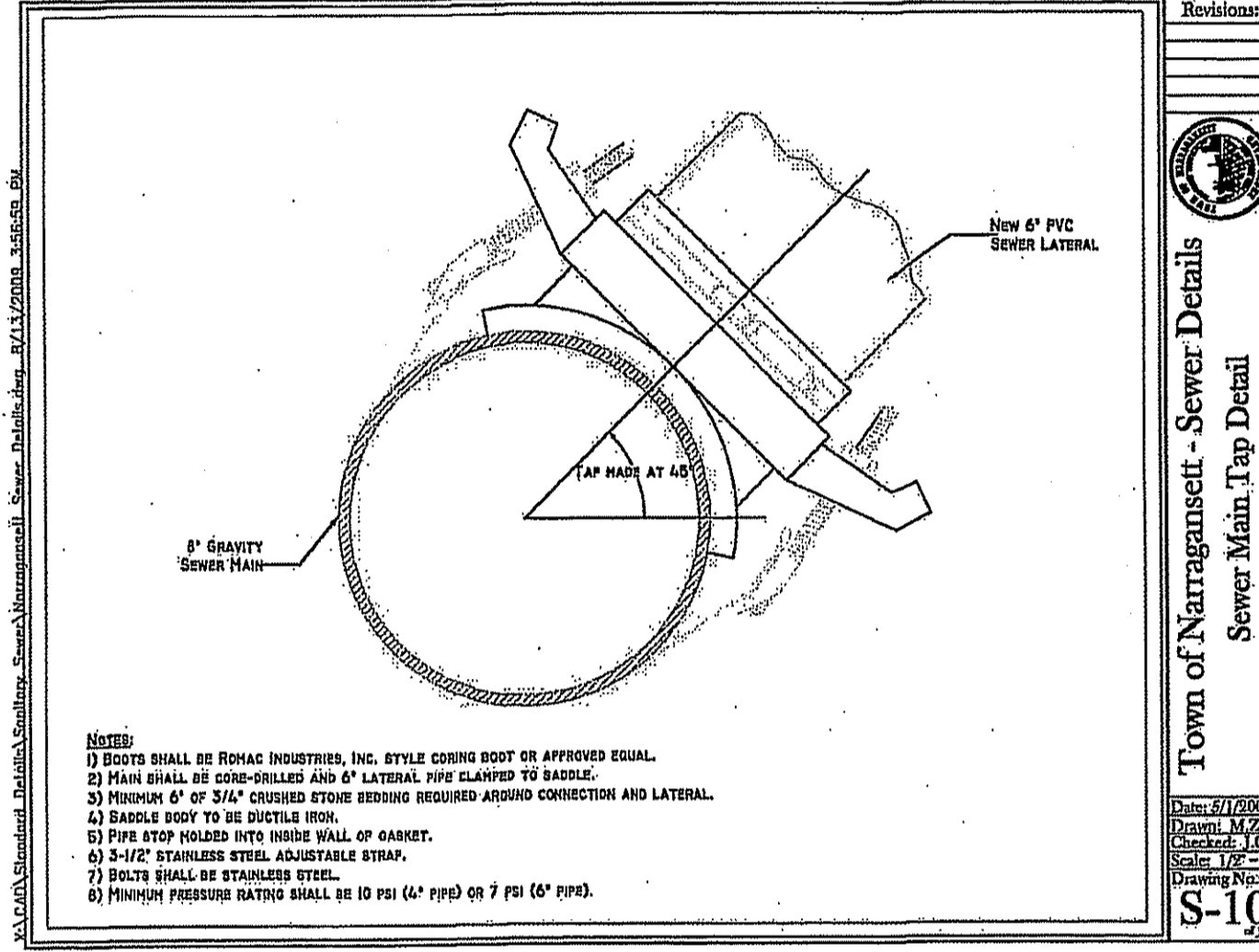
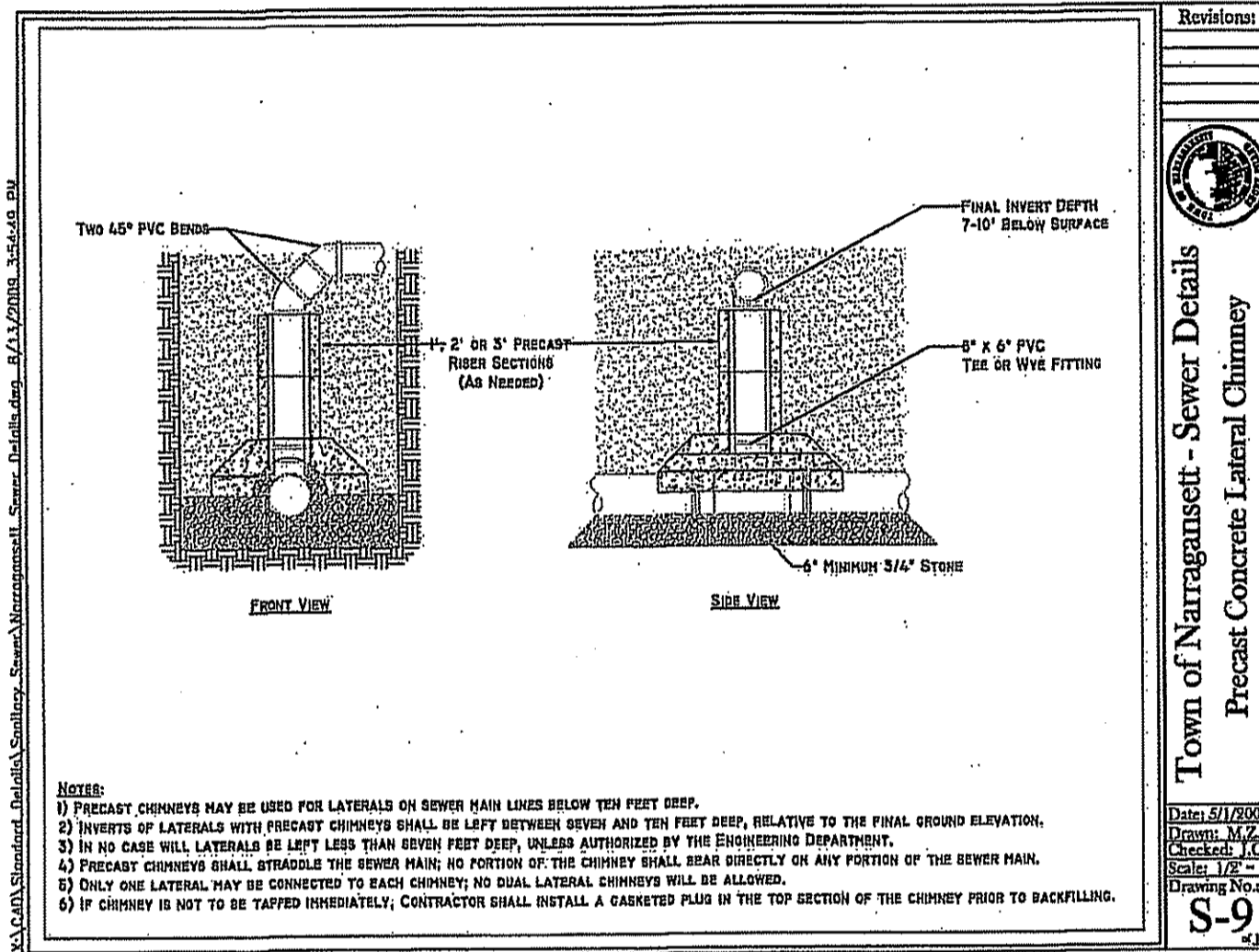
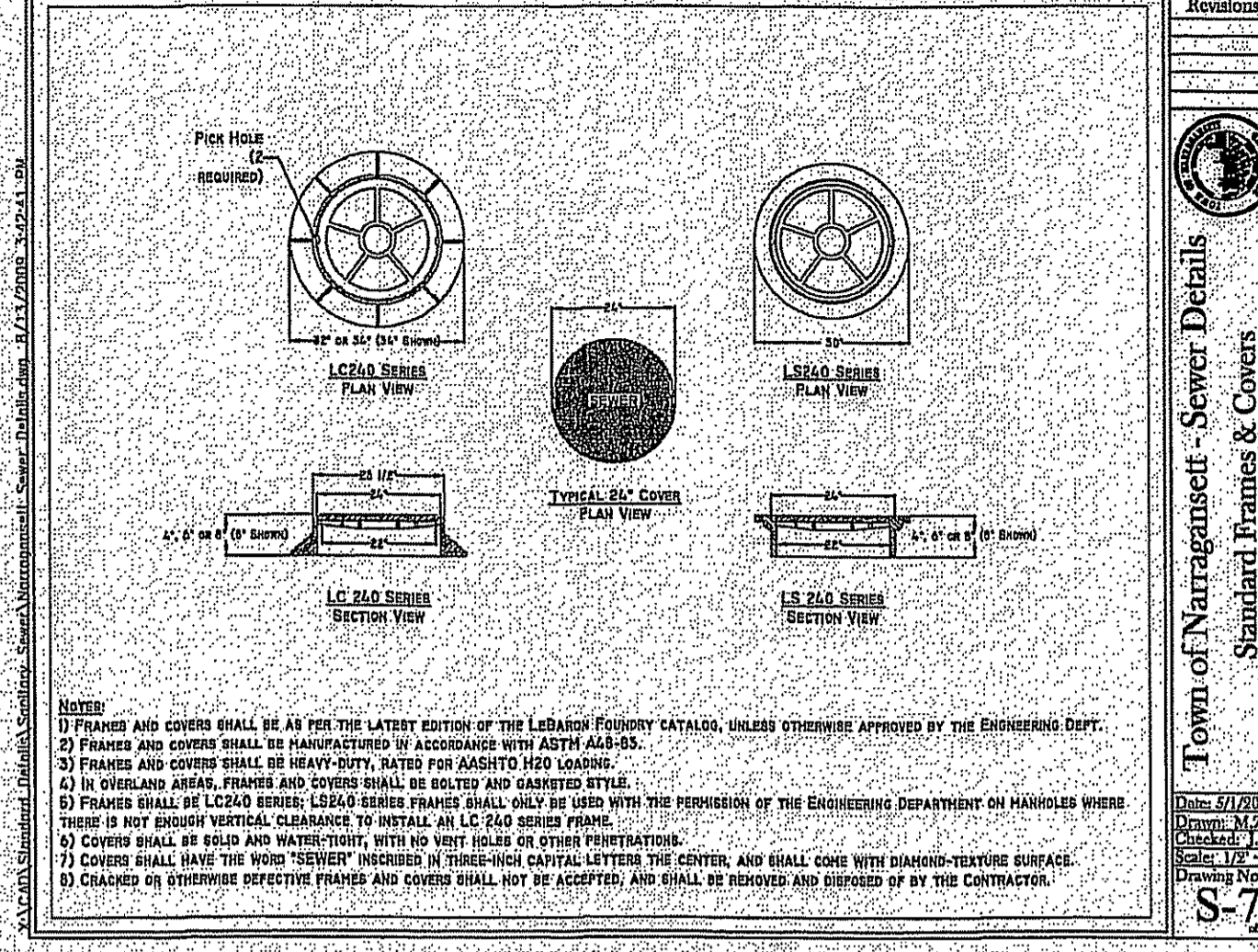
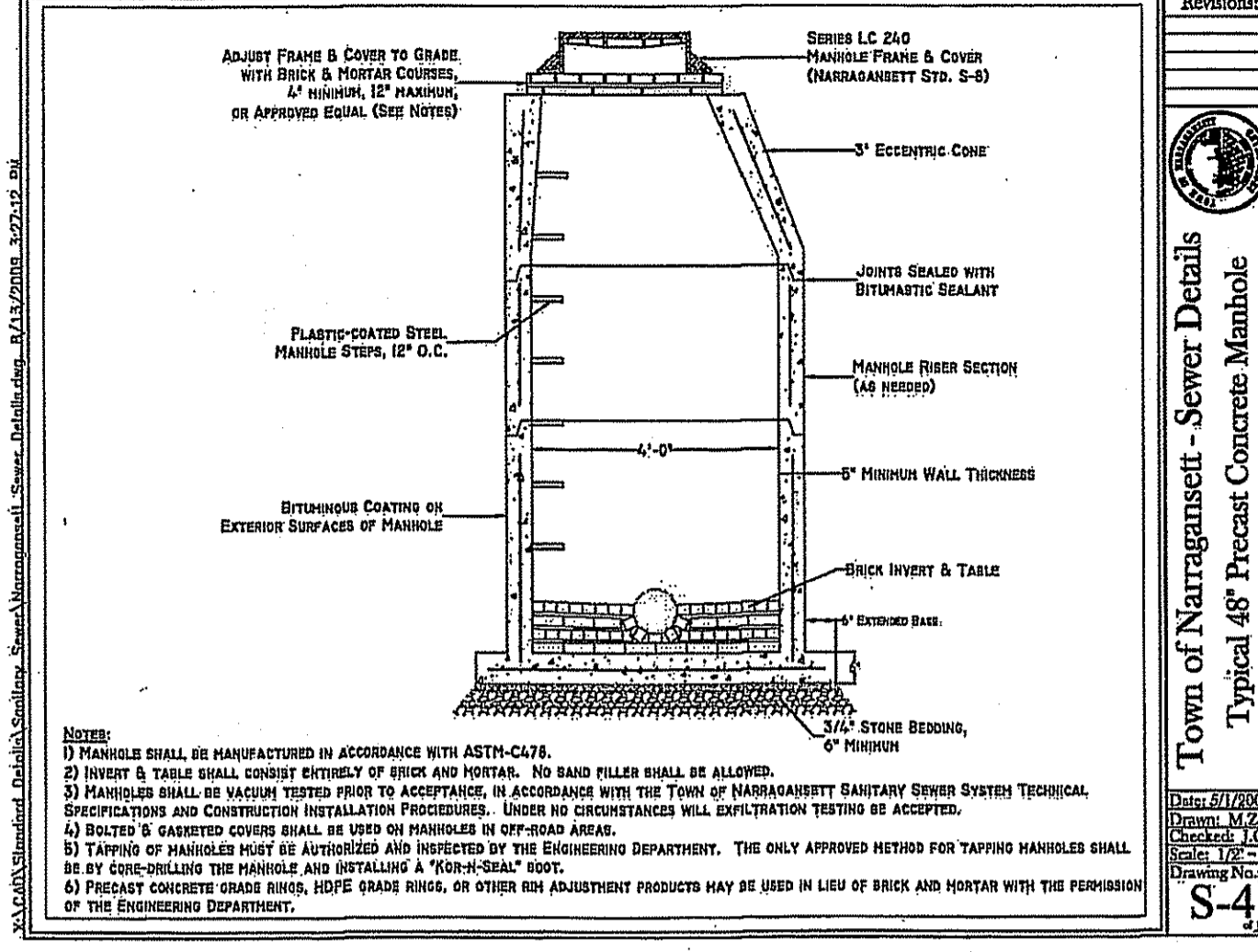
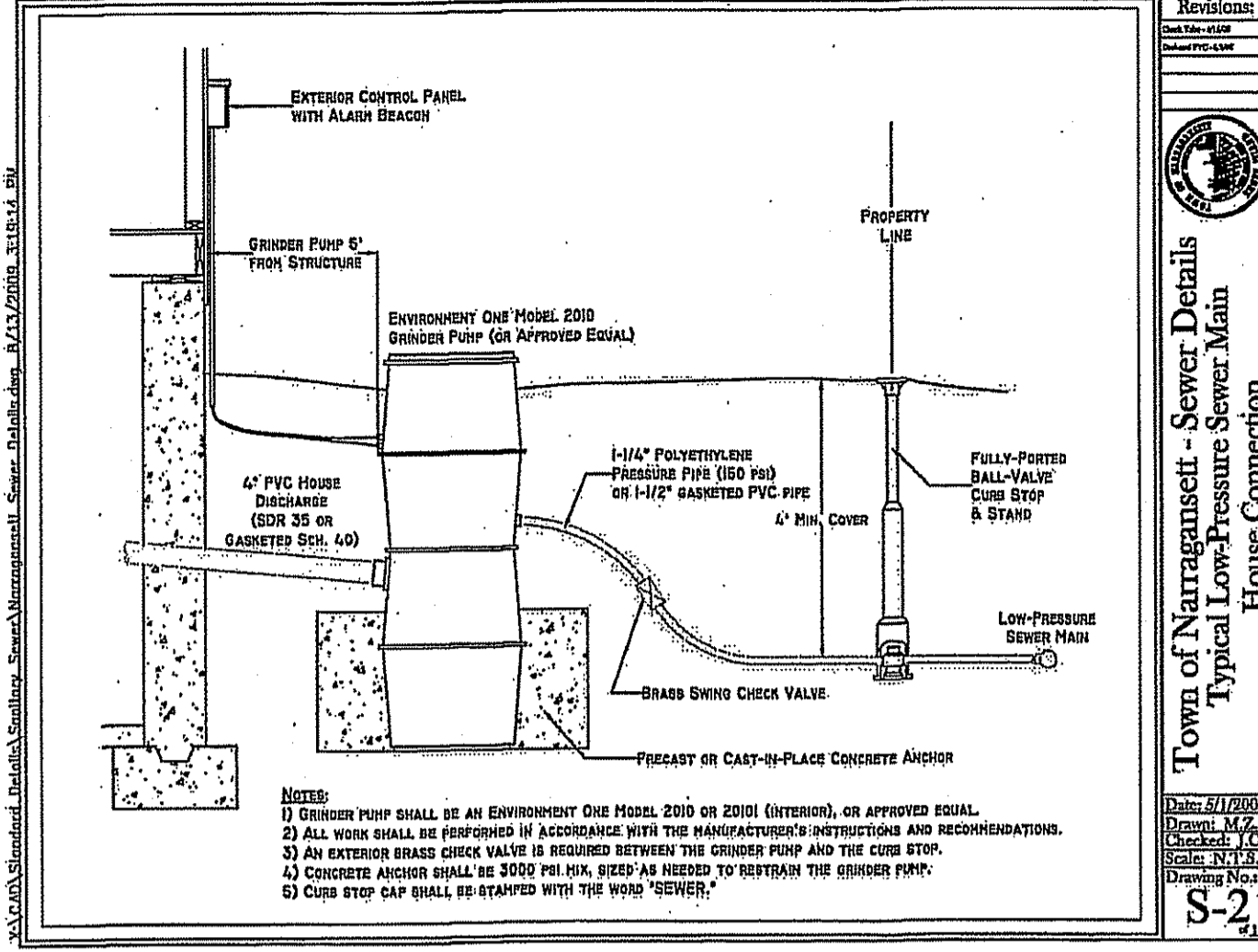
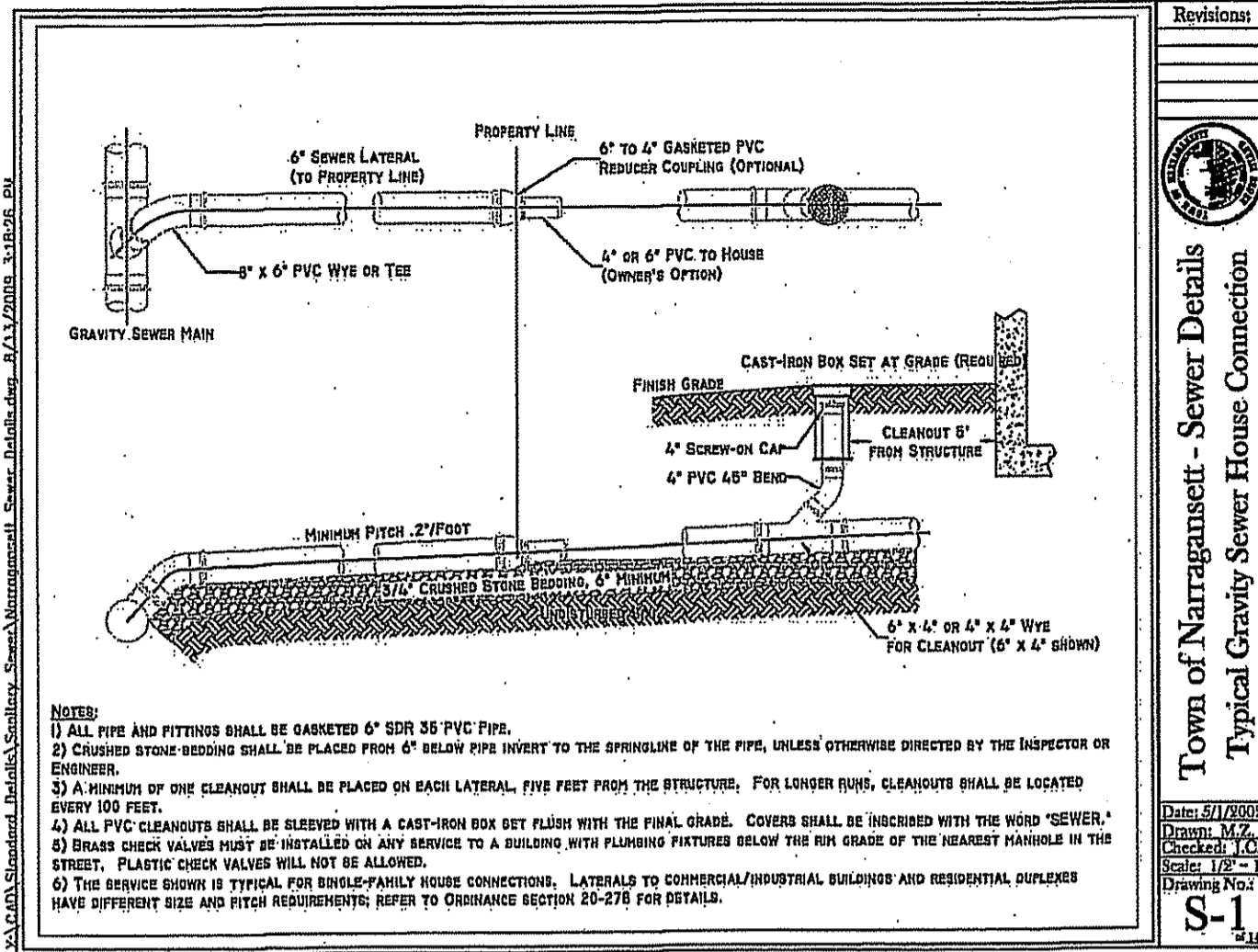
A.P.V., LOT 27
 CLARKE ROAD
 NARRAGANSETT, RI

PREPARED FOR:
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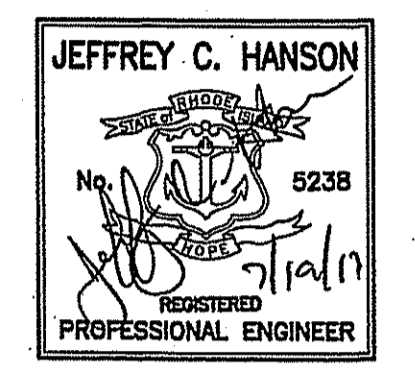
SCALE: AS NOTED
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 Sheet 14 of 17
 JUL 26 2007
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DETAILS - 4

CLARKE ROAD SUBDIVISION

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PREPARED FOR:
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 MARCH 2017

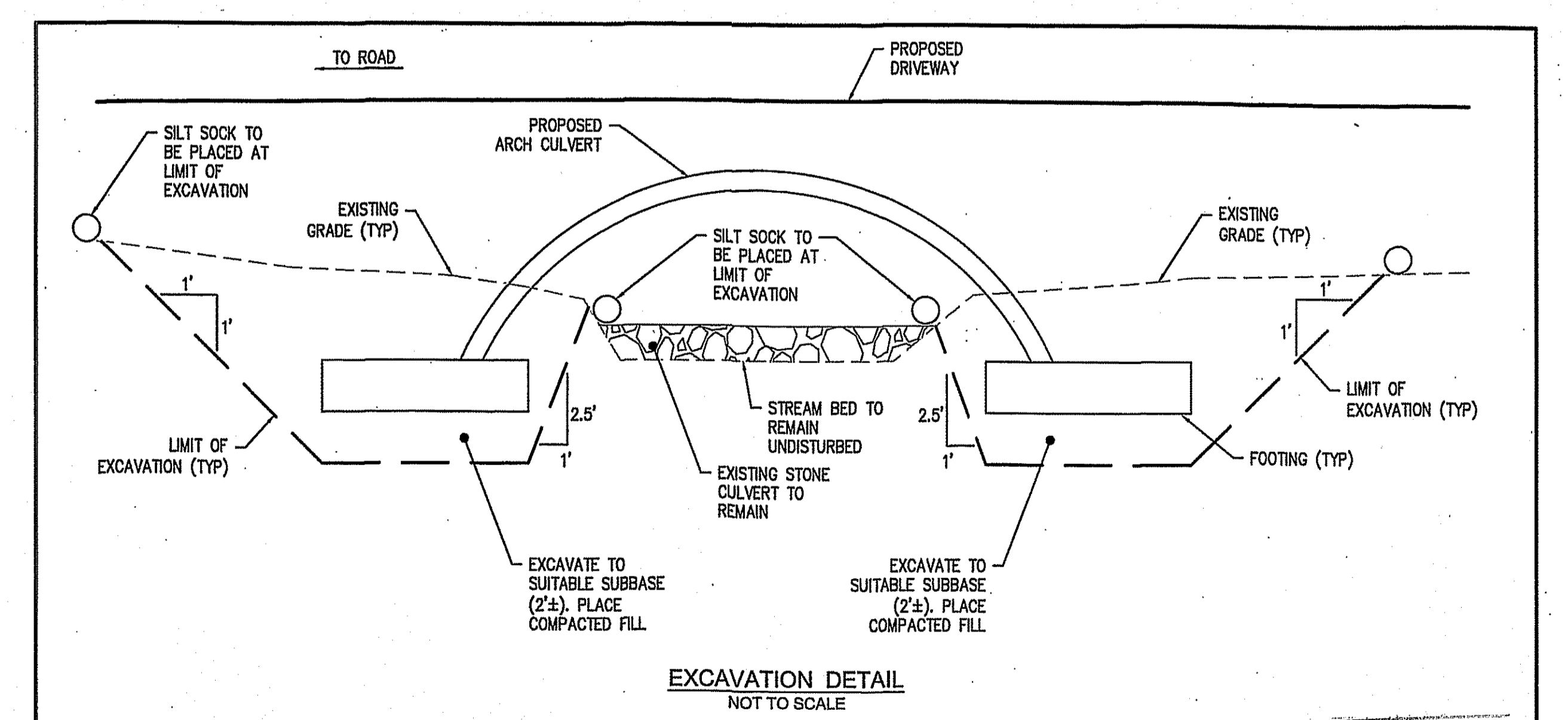
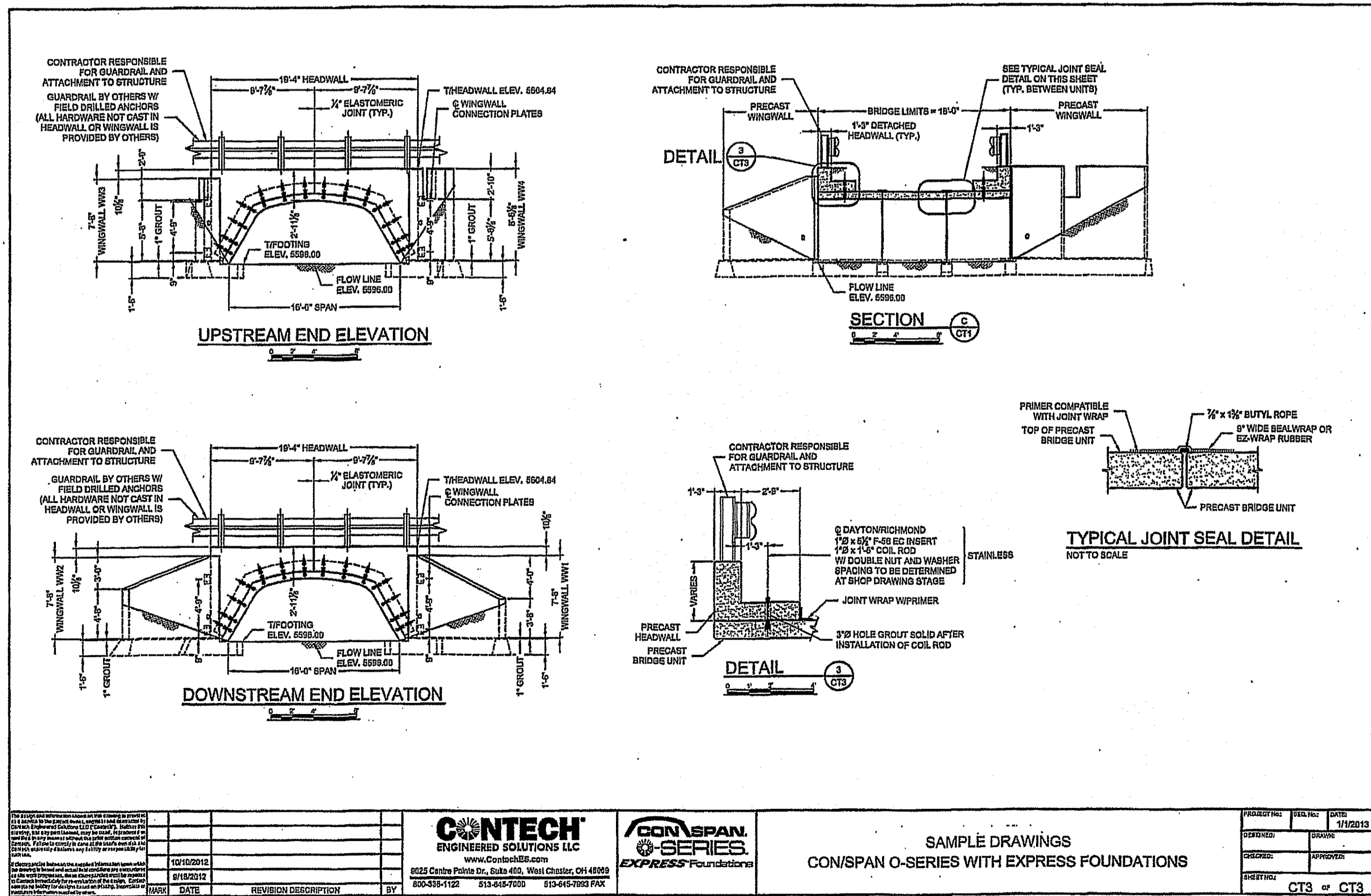
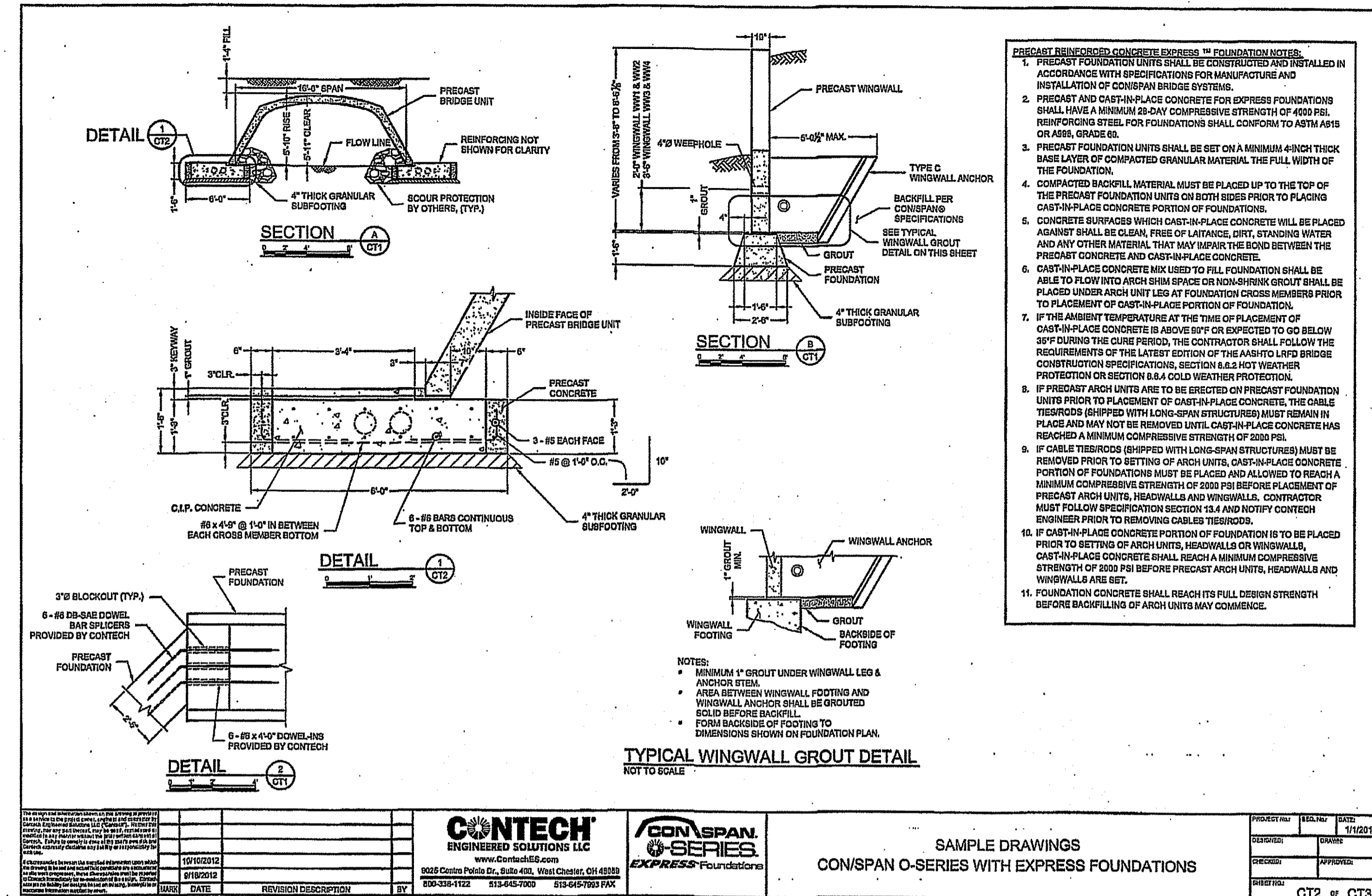
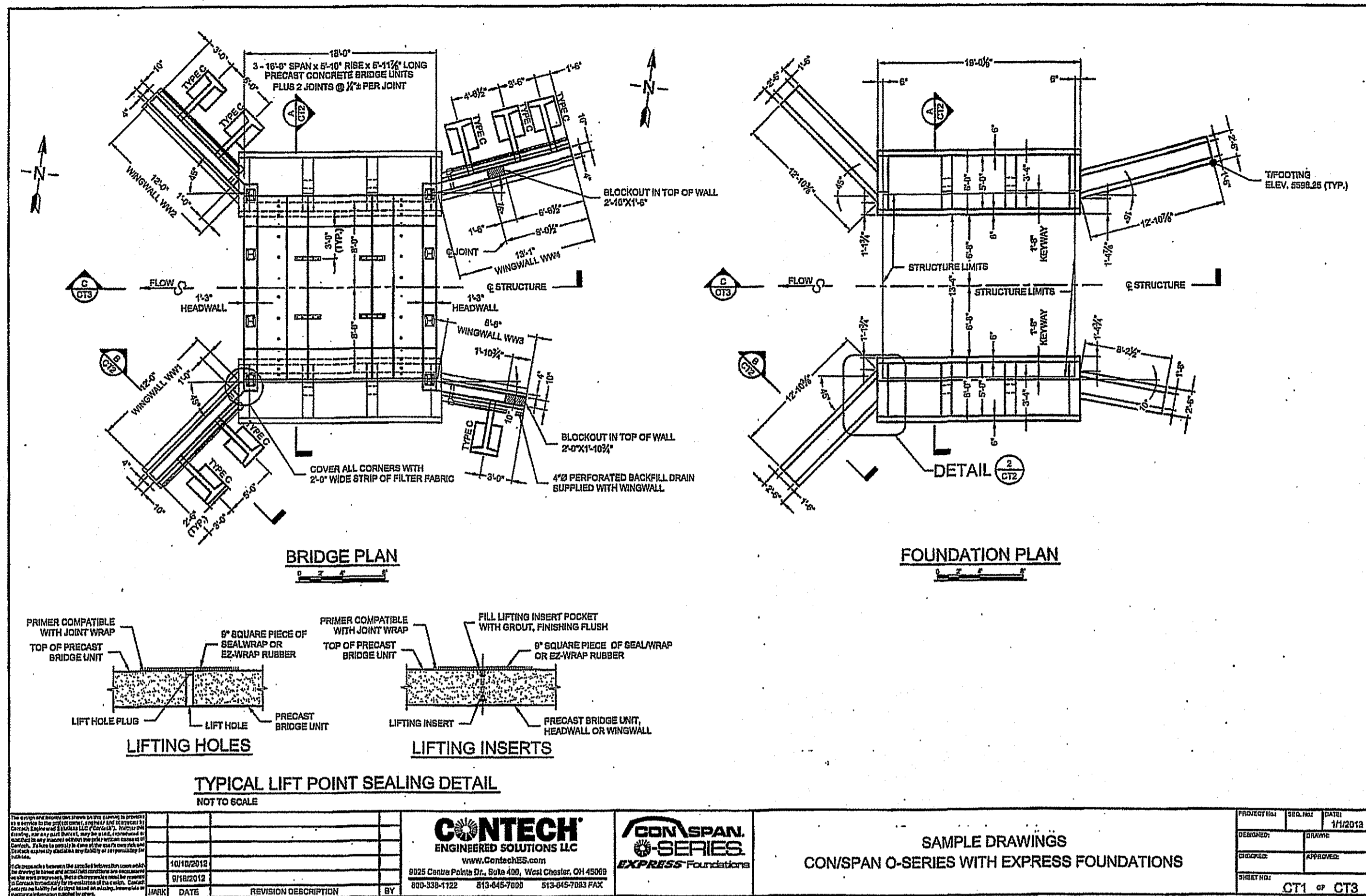
Drawn By: BJC
 Checked By: JCH

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FILE NO.: 16.268.389

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED SEP 11 2017 FILE # 17-0174
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

James A. Haber

NO.	DATE	REVISION

JEFFREY C. HANSON
 No. 5238
 10/19/17
 REGISTERED PROFESSIONAL ENGINEER

ILLSTONE ENGINEERING, P.C.
 CIVIL ENGINEERING • LAND PLANNING
 265 Cumberland Road, Building 52, Warwick, Rhode Island 02886
 P. (401) 921-3344 F. (401) 921-5303
 www.illstoneeng.com

DETAILS - 5

CLARKE ROAD SUBDIVISION

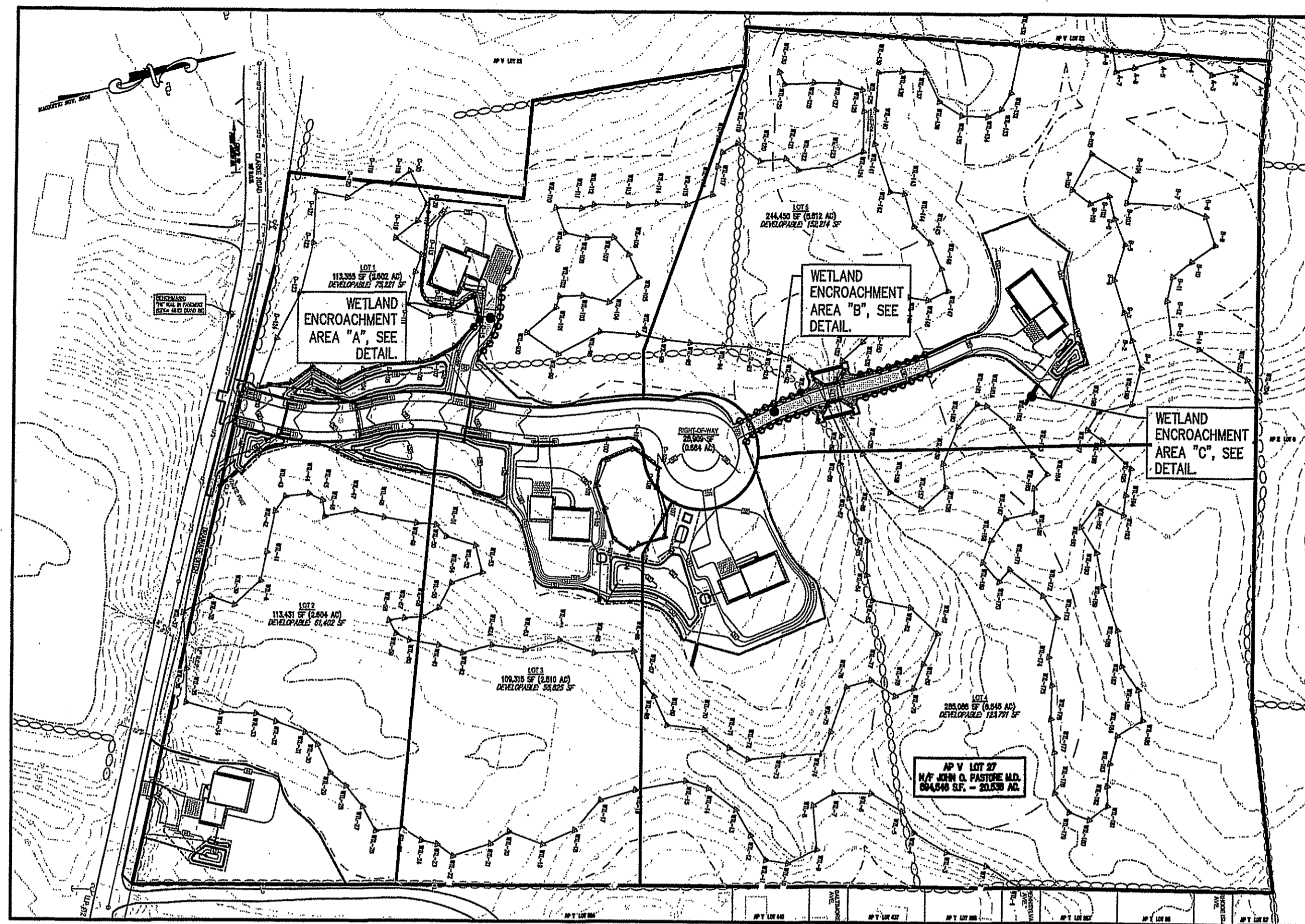
A.P.V., LOT 27
 CLARKE ROAD
 NARRAGANSETT, RI

PREPARED FOR:
 SKYCAP, LLC

SCALE: AS NOTED
 MARCH 2017

Drawn By: BJC
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PLAN VIEW

SCALE: 1" = 80'



LEGEND

—	LOT LINE	—+—	PR. ROADWAY STATIONING
—	PR. PROPERTY LINE	—+—	PR. EDGE OF PAVEMENT
—	ABUTTING LOT LINE	—+—	PR. CONTOUR
—	PR. BUILDING SETBACK LINE	—+—	PR. DRAIN LINE
—	PR. EASEMENT LINE	—+—	PR. STORMWATER FACILITY
—	EX. WATER EDGE PER REF. 2	—+—	PR. DRY SWALE
WTL-70	WETLAND FLAG	—+—	PR. UTILITY POLE
—	EDGE OF FRESHWATER WETLAND	—+—	PR. OVERHEAD WIRE
—	50' PERIMETER WETLAND	—+—	PR. CONDUIT
—	100' RIVERBANK WETLAND	—+—	PR. WATER LINE
—	EX. CONTOUR	—+—	PR. HYDRANT
—	EX. DRAIN LINE	—+—	PR. WATER VALVE
—	EX. UTILITY POLE	—+—	PR. SEWER LINE
—	EX. WATER LINE	—+—	PR. SEWER FORCE MAIN
—	EX. HYDRANT	—+—	PR. SEWER MANHOLE
—	EX. WATER VALVE	—+—	PR. E-ONE PUMP
—	EX. SEWER LINE	—+—	PR. RETAINING WALL
—	EX. SEWER MANHOLE	—+—	PR. LIMIT OF DISTURBANCE
—	EXISTING STONE WALL	—+—	PR. EROSION CONTROL
		—+—	PR. WETLAND ENCROACHMENT
		—+—	PR. BUILDING

MITIGATION NOTES:

1. ANY MATERIAL UTILIZED IN THIS PROJECT MUST BE FREE OF MATTER THAT COULD POLLUTE ANY FRESHWATER WETLAND.
2. DISTURBED AREAS SHALL BE COVERED WITH 4" OF PLANTABLE SOIL AND SEEDED WITH AN APPROPRIATE WILDLIFE CONSERVATION SEED MIX TO BE APPROVED BY THE ENGINEER.
3. AFTER SEEDING, A MAT OF SPREAD HAY MULCH SHALL BE PLACED TO PROVIDE SOIL STABILIZATION.
4. ANY PLANT THAT DOES NOT SURVIVE AT LEAST 1 FULL YEAR SHALL BE REPLACED.
5. NO FERTILIZERS SHALL BE APPLIED WITHIN THE WETLAND RESTORATION AREAS.

PLANTING NOTES:

THE FOLLOWING PLANTS SHALL BE INSTALLED WITHIN THE APPLICABLE PORTIONS OF THE 50-FOOT PERIMETER WETLAND AND 100-FOOT RIVERBANK WETLAND:

EVERGREEN TREE SCREEN

BALLED AND BURLAPPED OR TRANSPLANTED EVERGREEN TREE SPECIES MUST BE PLANTED IN A CONTINUOUS LINE, 10 FEET ON CENTER, 4-5 FEET TALL AFTER PLANTING, ALONG THE OUTER (LANDWARD) EDGE OF THE VEGETATED BUFFER AREA WHERE SHOWN ON THE PLAN. THE TREE SPECIES MUST INCLUDE AT LEAST 2 OF THE FOLLOWING SELECTIONS:

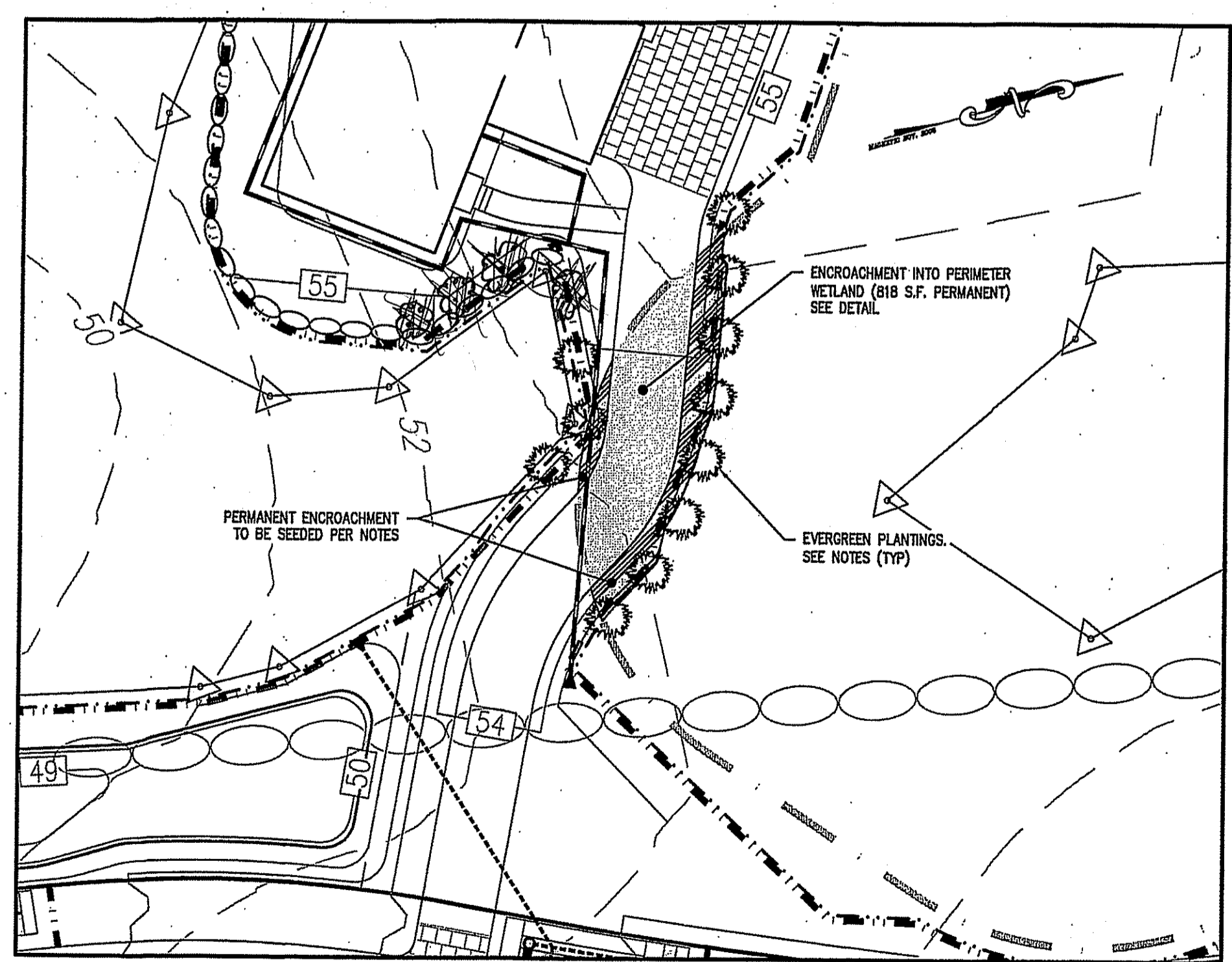
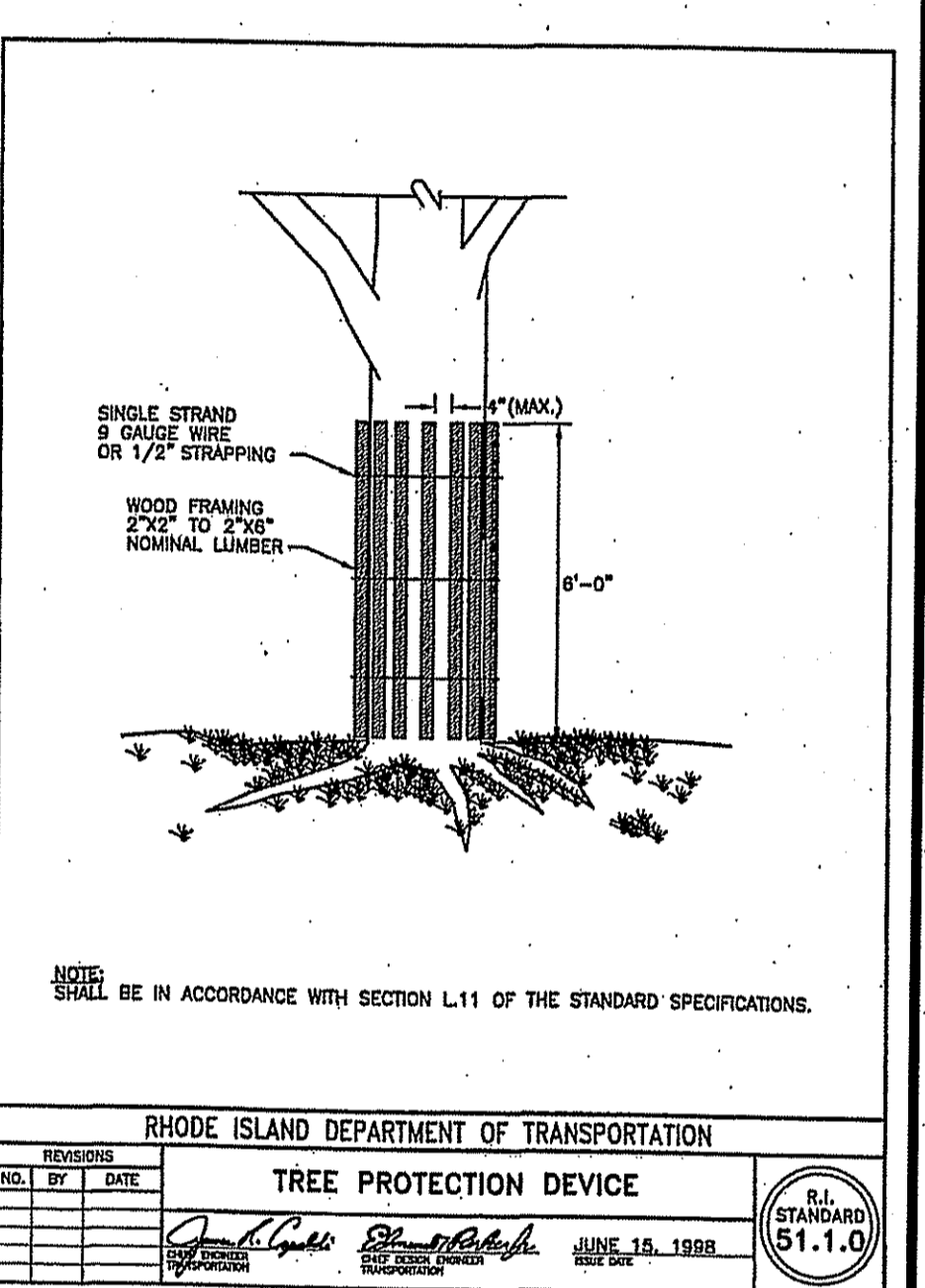
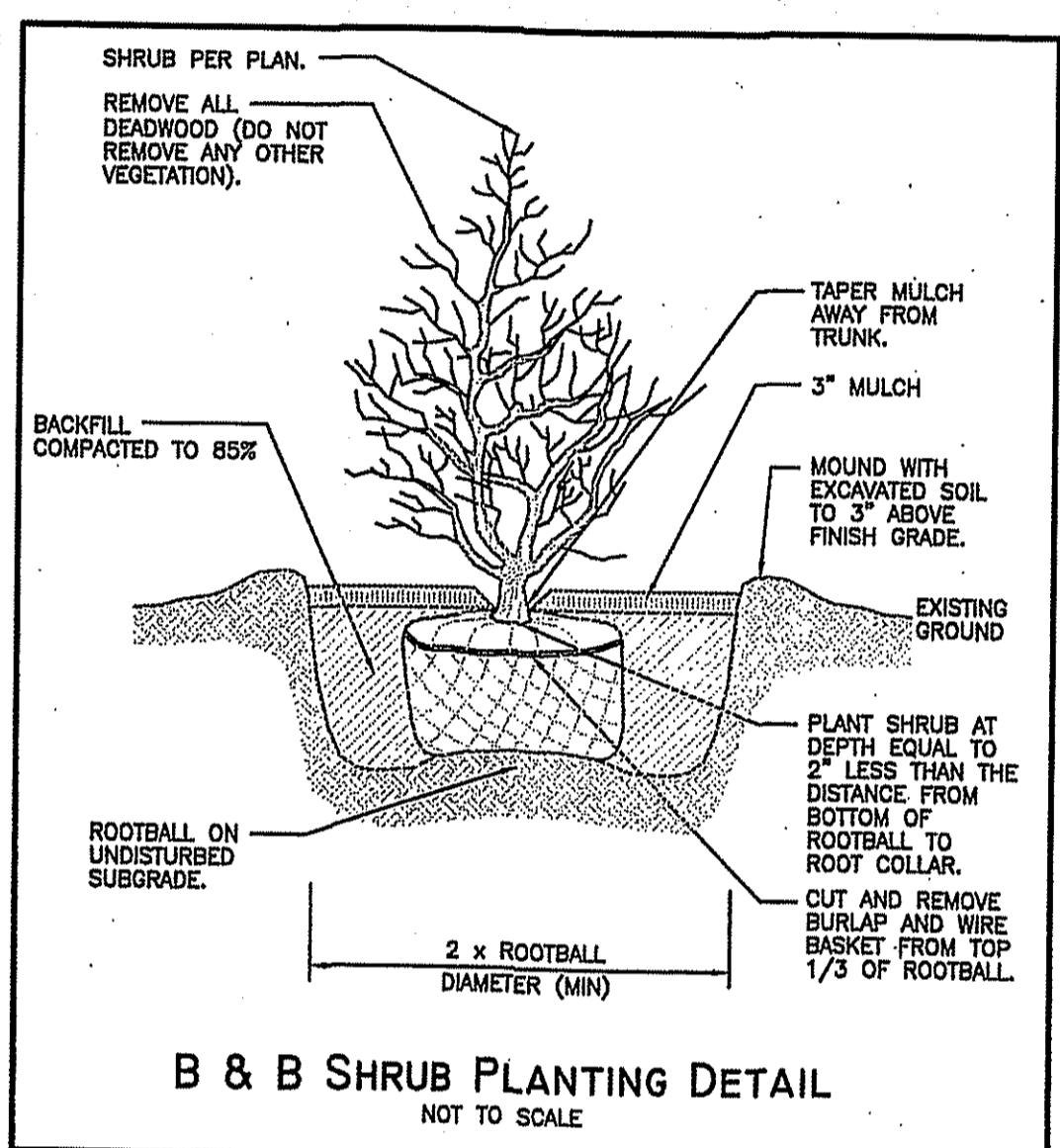
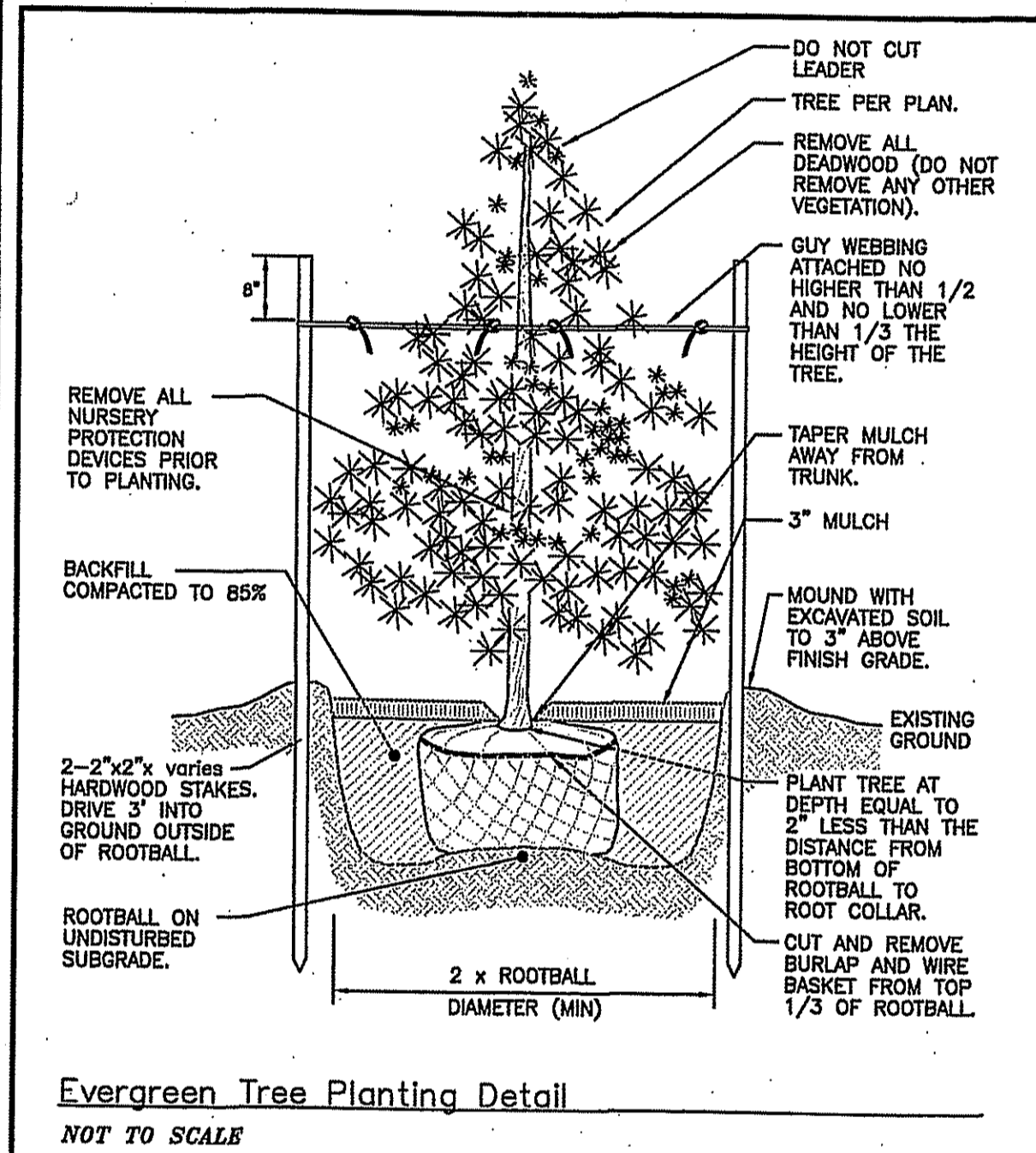
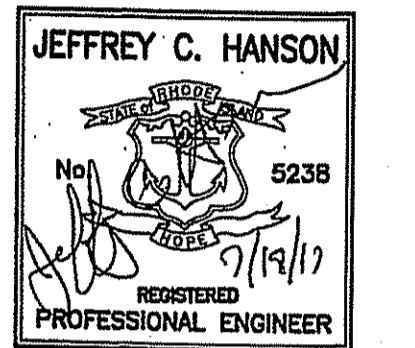
- NORTHERN WHITE CEDAR, THUJA OCCIDENTALIS
- WHITE PINE, PINUS STROBUS
- PITCH PINE, PINUS RIGIDA; AND/OR
- RED CEDAR, JUNIPERUS VIRGINIANA

EVERGREEN SHRUB SCREEN

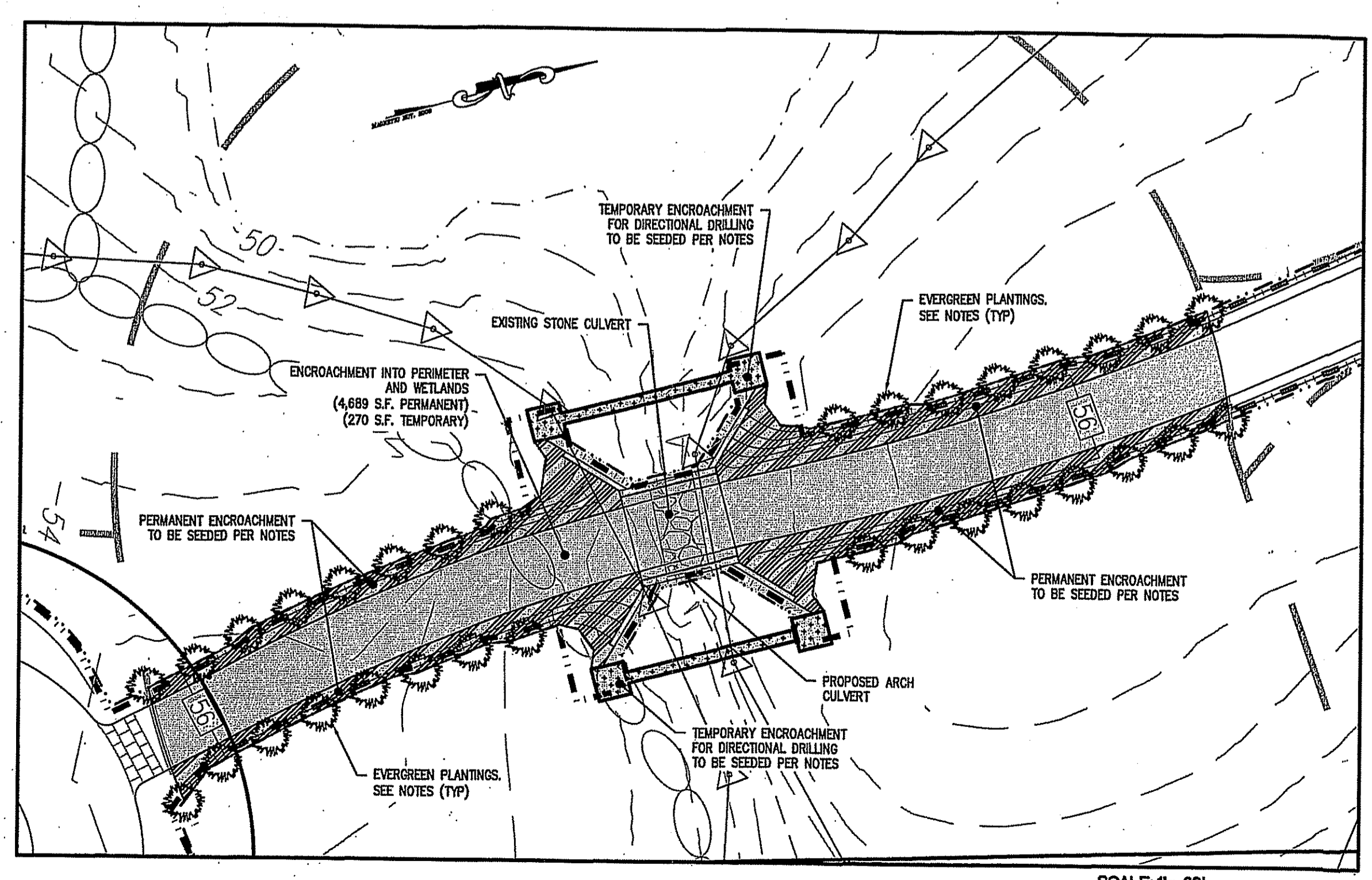
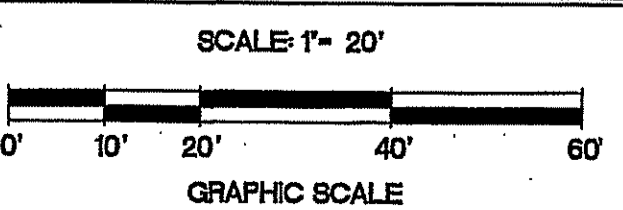
BALLED AND BURLAPPED OR TRANSPLANTED SHRUB SPECIES MUST BE PLANTED IN A CONTINUOUS LINE 5 FEET ON CENTER AT LEAST 3 FEET TALL AFTER PLANTING ON THE TOP OF SLOPE AND OTHER AREA EAST OF GARAGE WHERE SHOWN ON THE PLAN. SHRUB SPECIES MUST BE EITHER BAYBERRY OR INKBERRY OR A COMBINATION OF BOTH.

- BAYBERRY, MYRTICA PENNSYLVANICA AND/OR
- INKBERRY, ILEX GLABRA

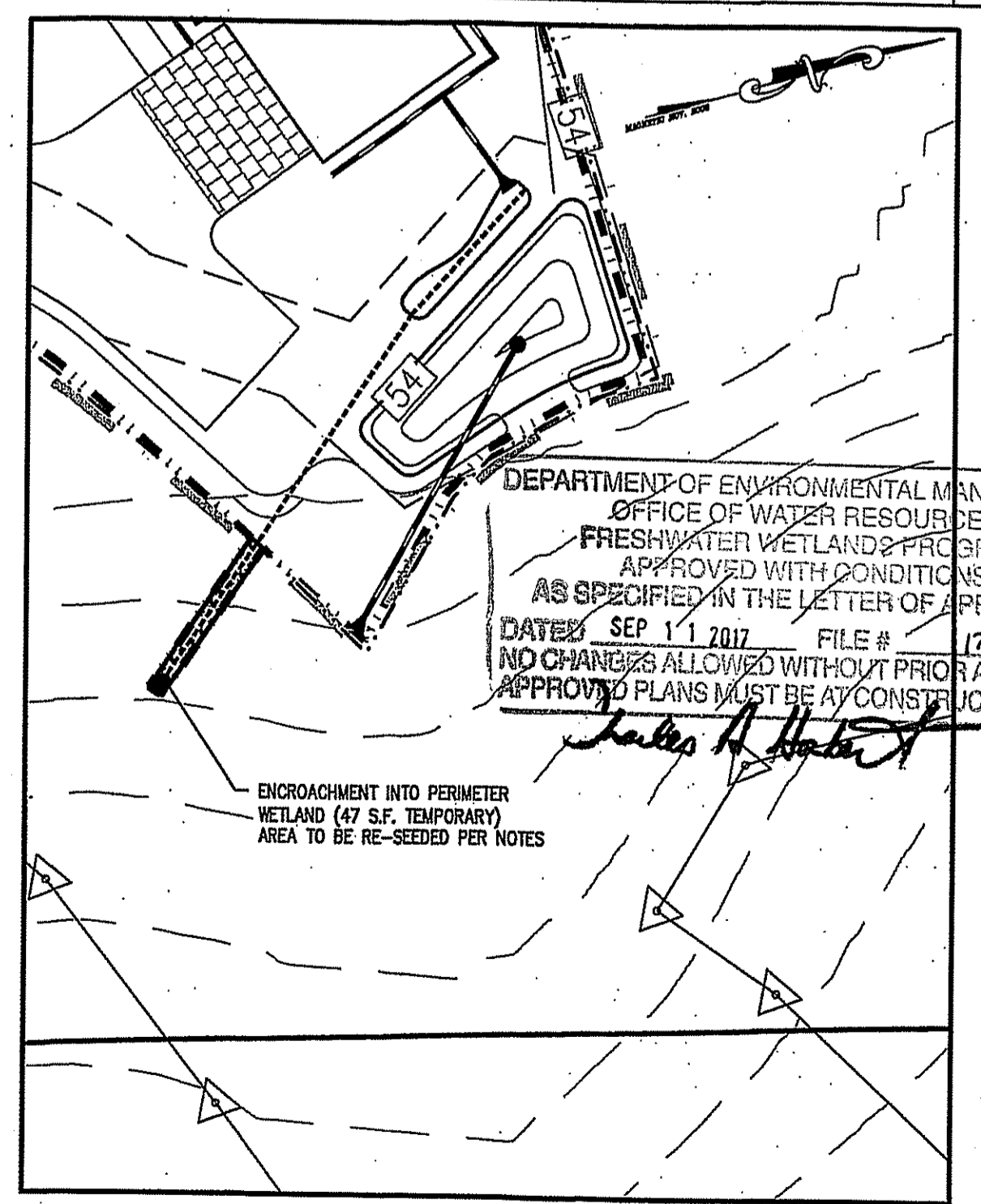
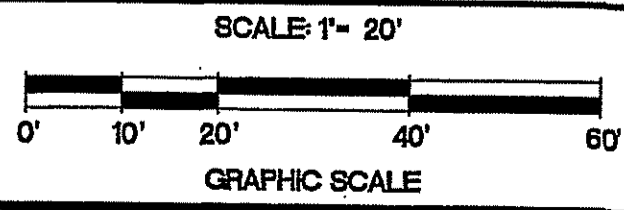
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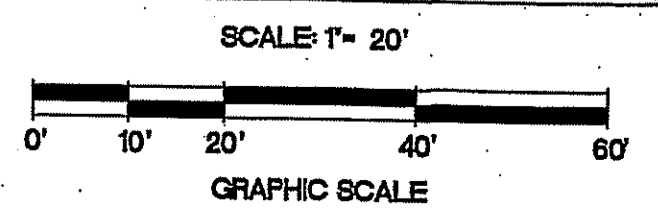
ENCROACHMENT AREA 'A' DETAIL



ENCROACHMENT AREA 'B' DETAIL



ENCROACHMENT AREA 'C' DETAIL



WETLAND RESTORATION PLAN

CLARKE ROAD SUBDIVISION

A.P.V., LOT 27
CLARKE ROAD
NARRAGANSETT, RI

PREPARED FOR:
SKYCAP, LLC

SCALE: AS NOTED
MARCH 2017

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Checked By: JCH
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