

BROOKSIDE TERRACE

1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND

SEPTEMBER 5, 2018

REVISED: MARCH 18, 2018

ISSUED FOR RIDEM

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 18 2018 FILE # 19-0016
NO CHANGES ALLOWED WITHOUT PRE-APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management
MAR 25 2019
Office of Water Resources

Environmental Management
MAR 25 2019
Office of Water Resources

OWNER

Prepared For Owner/Applicant:



1264 Main Street
Waltham, MA 02451

President: Roberto Arista
Secretary: Marc Daigle

CONSULTANTS

Prepared By:



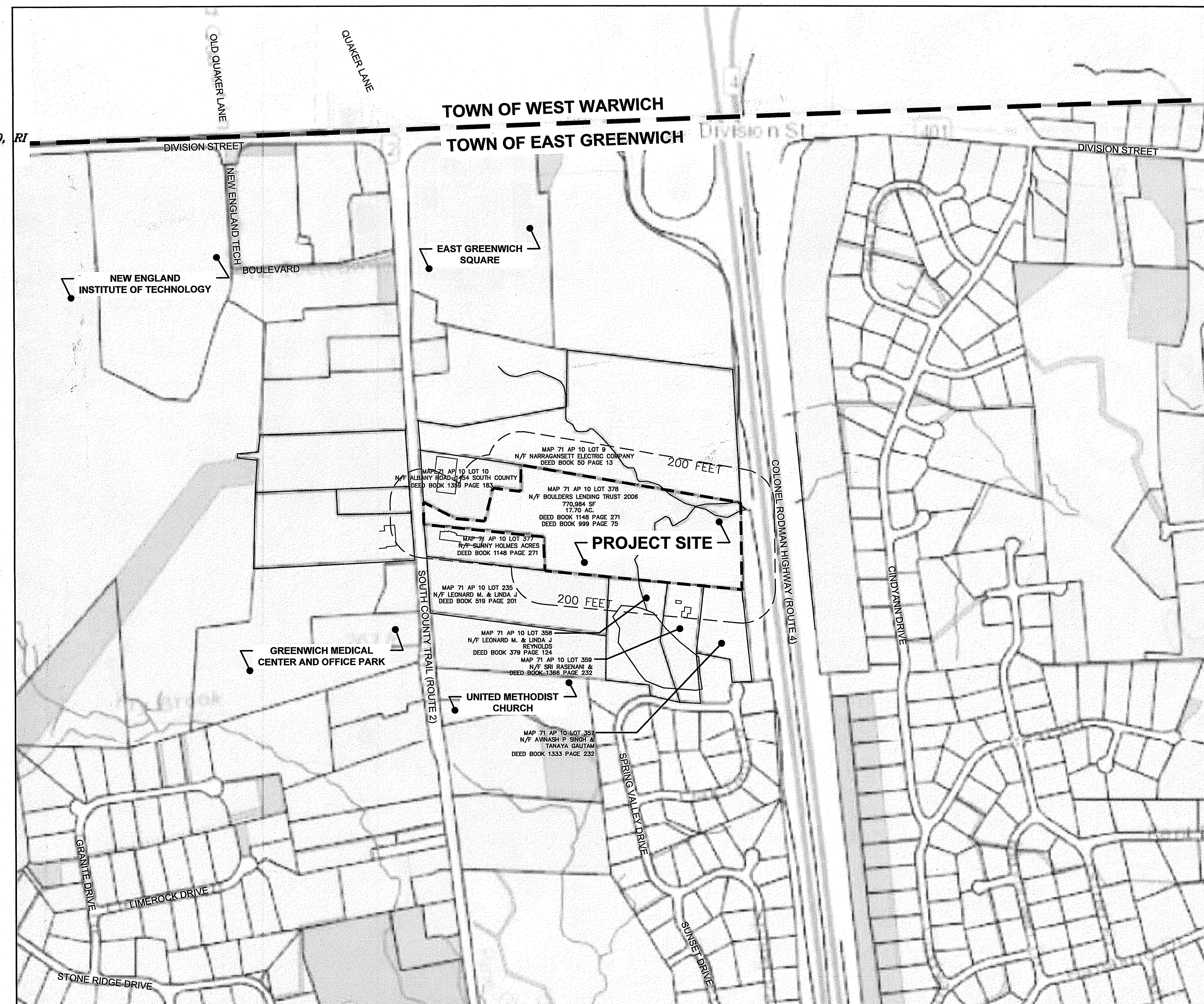
120 Hebron Avenue
Glastonbury, CT 06033
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(401) 231-0900

Ed Wojcik
architect, ltd
One Richmond Square
Providence, RI 02905
401-861-7139
Fax: 401-861-7165

LOCUS MAP



LIST OF DRAWINGS

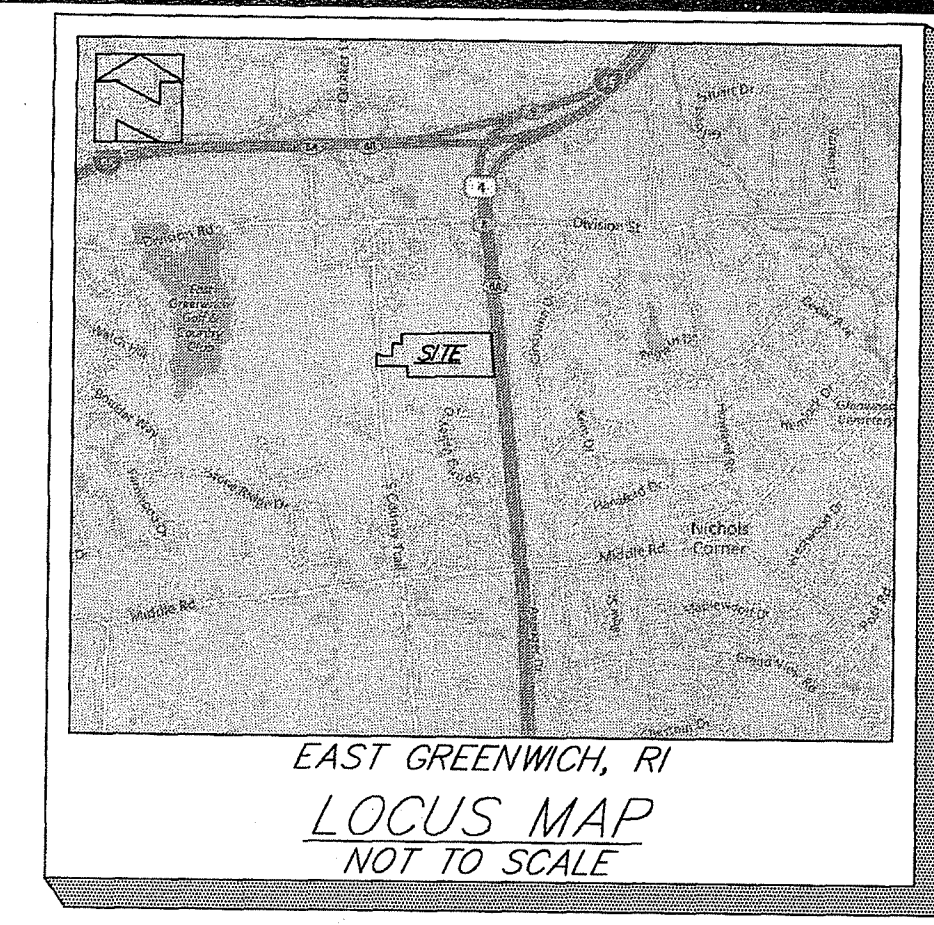
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|-------------|---|
| 1 OF 25 | TITLE SHEET |
| 2-3 OF 25 | SITE SURVEY |
| 4 OF 25 | OVERALL SITE PLAN |
| 5 OF 25 | SITE PREPARATION, SEDIMENTATION AND EROSION CONTROL PLAN |
| 6 OF 25 | SITE PREPARATION, SEDIMENTATION AND EROSION CONTROL NOTES |
| 7 OF 25 | PHASING PLAN |
| 8 OF 25 | LAYOUT AND MATERIALS PLAN |
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| 12 OF 25 | LANDSCAPE PLAN |
| 13 OF 25 | LANDSCAPE NOTES AND SCHEDULE |
| 14 OF 25 | LANDSCAPE DETAILS |
| 15-24 OF 25 | SITE DETAILS |
| 24 OF 25 | SEASONAL HIGH GROUNDWATER PLAN |

REFERENCE PLANS:

1. "ADMINISTRATIVE SUBDIVISION PLAN 1480 SOUTH COUNTY TRAIL ASSESSOR'S PLAT 10 D, LOTS 377 & 378 EAST GREENWICH, RHODE ISLAND APPLICANTS: SUNNY HOLME ACRES, LLC C/O JUSTINE JOHNSON 1480 SOUTH COUNTY TRAIL EAST GREENWICH, RI 02818 - BOULDERS LENDING TRUST C/O GMR, LLP 376 BOYLSTON STREET BOSTON MA 02116 SHEET 1 OF 1" BY DIPRETE ENGINEERING TWO STAFFORD COURT CRANSTON, RI 02920 PLAT CARD 874
2. RHODE ISLAND HIGHWAY PLAT 287
3. "MINOR SUBDIVISION OF LAND OF EVELYN G. PROULX ASSESSOR'S PLAT 10 D LOT 10 SOUTH COUNTY TRAIL EAST GREENWICH, RHODE ISLAND PREPARED FOR BUTLER BUSINESS REALTY SPECIALISTS, INC. SCALE: 1" = 80' DATE: FEBRUARY 9, 1998" BY SCITUATE SURVEYS, INC. PLAT CARD 638
4. "ADMINISTRATIVE SUBDIVISION OF LAND OF RMG MANAGEMENT, INC. ASSESSOR'S PLAT 10 D LOTS 377 & 378 SOUTH COUNTY TRAIL EAST GREENWICH, RHODE ISLAND SCALE: 1" = 80' DATE: FEBRUARY 24, 2000" BY SCITUATE SURVEYS, INC. PLAT CARD 668

NOTES:

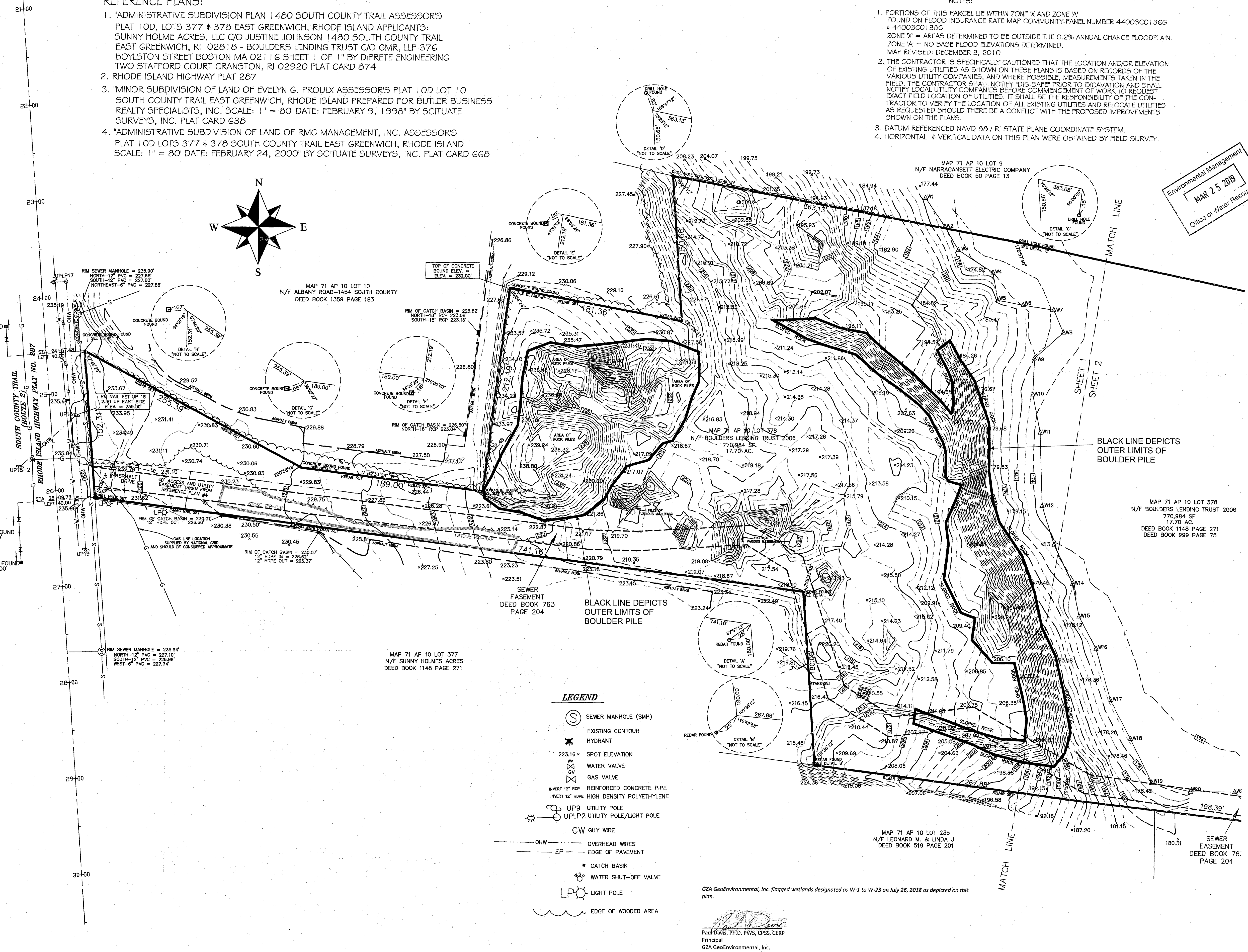
1. PORTIONS OF THIS PARCEL LIE WITHIN ZONE 'X' AND ZONE 'A' FOUND ON FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 44003001366 & 44003001366
ZONE 'X' = AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
ZONE 'A' = NO BASE FLOOD ELEVATIONS DETERMINED.
MAP REVISED: DECEMBER 3, 2010
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE CONTRACTOR SHALL NOTIFY "DIG-SAFE" PRIOR TO EXCAVATION AND SHALL NOTIFY LOCAL UTILITY COMPANIES BEFORE COMMENCEMENT OF WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND RELOCATE UTILITIES AS REQUESTED SHOULD THERE BE A CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. DATUM REFERENCED NAVD 88 / RI STATE PLANE COORDINATE SYSTEM.
4. HORIZONTAL & VERTICAL DATA ON THIS PLAN WERE OBTAINED BY FIELD SURVEY.



ZONING: PLANNED DEVELOPMENT

MIN. LOT SIZE = 5-ACRES
MIN. FRONTAGE = 150 FT.
MIN. FRONT SETBACK = 50 FT.
MIN. SIDE SETBACK = 40 FT.
MIN. REAR SETBACK = 40 FT.
(SEE REGULATIONS FOR ADDITIONAL INF..)

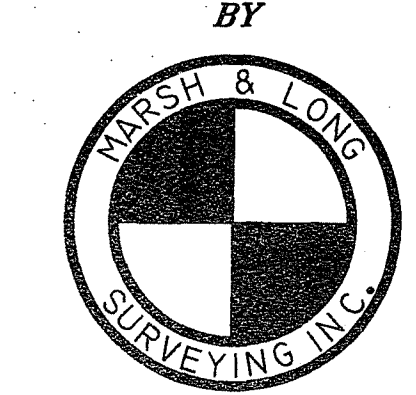
Environmental Management
MAR 25 2019
Office of Water Resources



- LEGEND**
- SEWER MANHOLE (SMH)
 - EXISTING CONTOUR
 - HYDRANT
 - SPOT ELEVATION
 - WATER VALVE
 - GAS VALVE
 - INVERT 12" RCP REINFORCED CONCRETE PIPE
 - INVERT 12" HDPE HIGH DENSITY POLYETHYLENE
 - UPLP9 UTILITY POLE
 - UPLP2 UTILITY POLE/LIGHT POLE
 - GW GUY WIRE
 - OHW OVERHEAD WIRES
 - EP EDGE OF PAVEMENT
 - CATCH BASIN
 - WATER SHUT-OFF VALVE
 - LPO LIGHT POLE
 - EDGE OF WOODED AREA

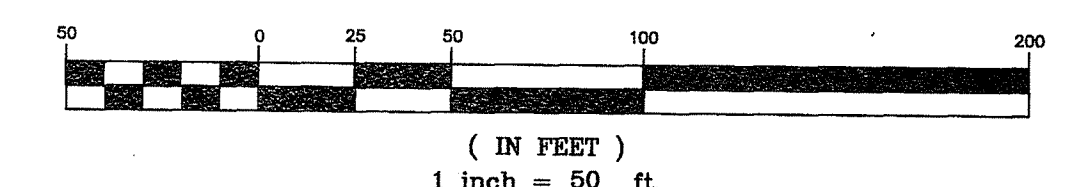
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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EAST GREENWICH, RI
PLAN OF LAND
PREPARED FOR
ALFRED BENESCH & COMPANY
SURVEY OF
AP 10 LOT 378
SOUTH COUNTY TRAIL
AUGUST 14, 2018



450 GEO. WASH. HWY. SMITHFIELD, RI
(401) 231-0900
SHEET 1 OF 2

GRAPHIC SCALE

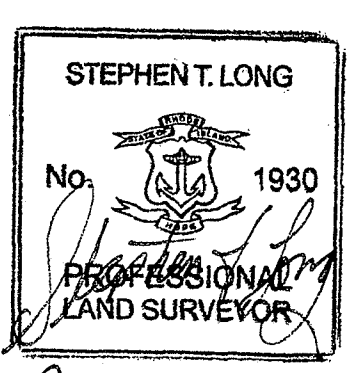


NO.	DATE	DESCRIPTION	BY
1.	8/21/18	1' CONTOURS	MCL
2.	9/20/18	ADD SEWER EASEMENT'S	MCL
		REVISE ACCESS EASEMENT	

THIS PLAN TO BE INDEXED BY THE FOLLOWING:
SOUTH COUNTY TRAIL

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 STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS, EFFECTIVE, JANUARY 2016. THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THIS PLAN IS AS FOLLOWS:
EXISTING CONDITIONS - PLAN OF LAND
LIMITED CONTENT BOUNDARY SURVEY - MEASUREMENT SPECIFICATION - 1 (CLASS IV REAR UNDEVELOPABLE PORTION)
TOPOGRAPHIC SURVEY ACCURACY 1-2 (14 REAR UNDEVELOPABLE PORTION)

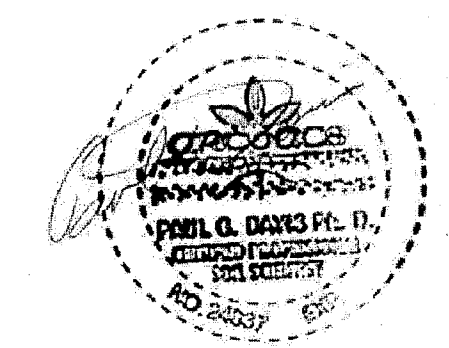
BY: *Stephen T. Long*
STEPHEN T. LONG NO. 1930
C.O.A. LS-A538



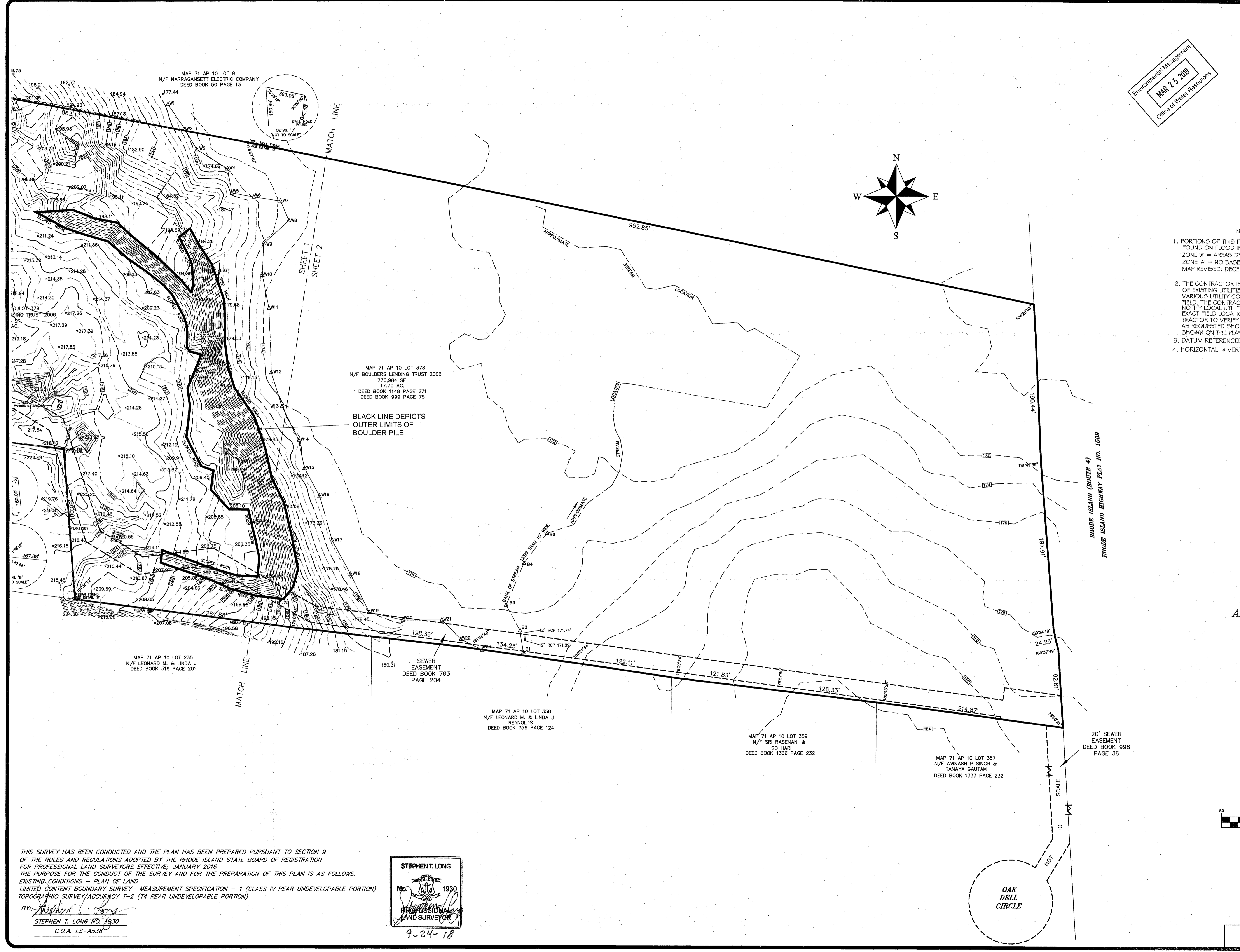
9-24-18

GZA GeoEnvironmental, Inc. flagged wetlands designated as W-1 to W-23 on July 26, 2018 as depicted on this plan.

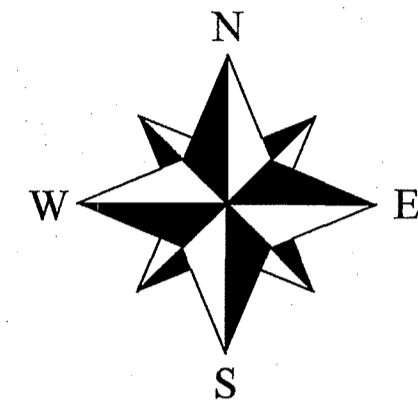
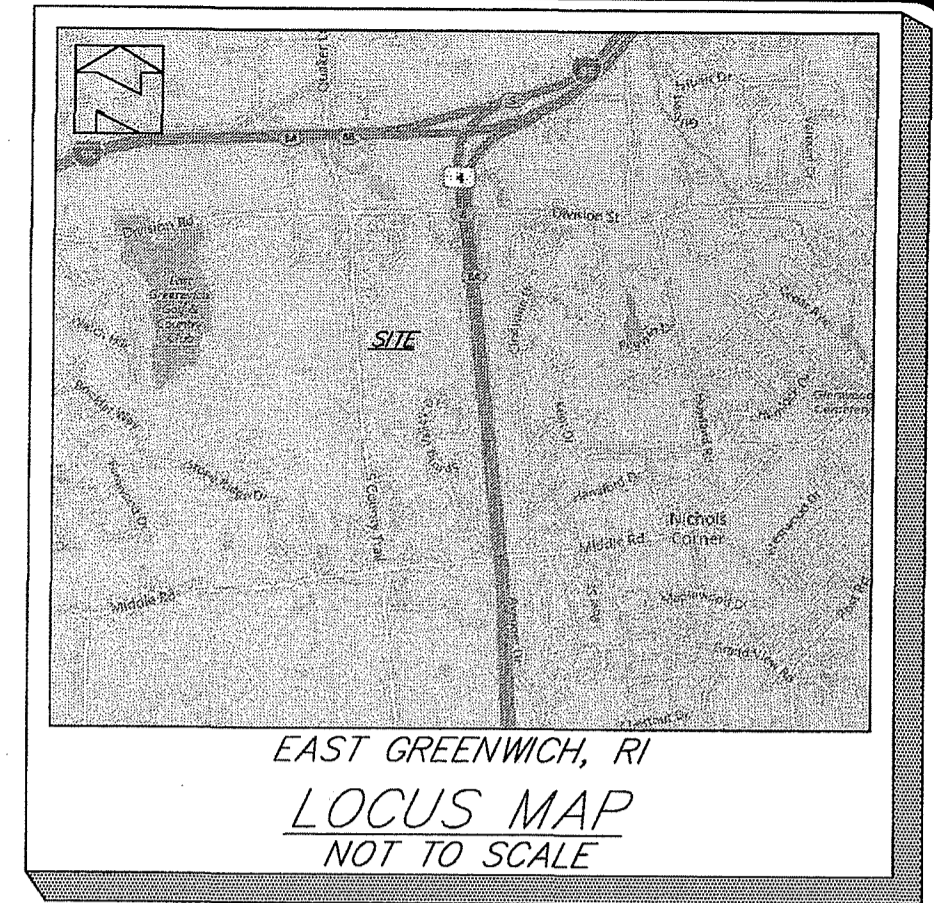
Paul Davis
Paul Davis, Ph.D. PWS, CPSS, CERP
Principal
GZA GeoEnvironmental, Inc.



G:\CARLSON PROJECTS\2018\180625\COUNTY\TR1\1806251\CONTOUR.dwg, 9/24/2018 11:09:00 AM, KIP 770K



Environmental Management
MAR 2 2018
 Office of Water Resources



- NOTES:
1. PORTIONS OF THIS PARCEL LIE WITHIN ZONE 'X' AND ZONE 'A' FOUND ON FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 44003C01386G. ZONE 'X' = AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. ZONE 'A' = NO BASE FLOOD ELEVATIONS DETERMINED. MAP REVISED: DECEMBER 3, 2010
 2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE CONTRACTOR SHALL NOTIFY "DIG-SAFE" PRIOR TO EXCAVATION AND SHALL NOTIFY LOCAL UTILITY COMPANIES BEFORE COMMENCEMENT OF WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND RELOCATE UTILITIES AS REQUESTED SHOULD THERE BE A CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
 3. DATUM REFERENCED NAVD 83 / RI STATE PLANE COORDINATE SYSTEM.
 4. HORIZONTAL & VERTICAL DATA ON THIS PLAN WERE OBTAINED BY FIELD SURVEY.

MAP 71 AP 10 LOT 378
 N/F BOULDERS LENDING TRUST 2006
 770,984 SF
 17.79 AC.
 DEED BOOK 1148 PAGE 271
 DEED BOOK 999 PAGE 75

BLACK LINE DEPICTS
 OUTER LIMITS OF
 BOULDER PILE

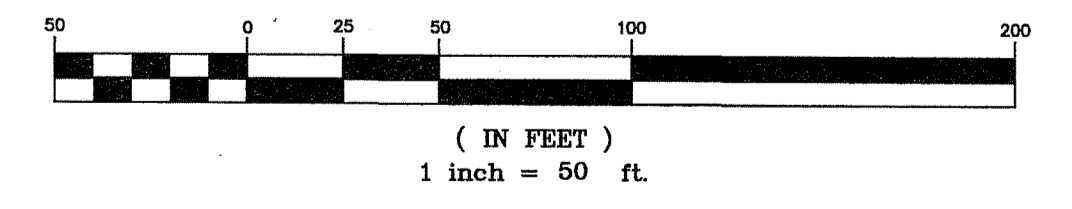
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EAST GREENWICH, RI
PLAN OF LAND
 PREPARED FOR
ALFRED BENESCH & COMPANY
 SURVEY OF
 AP 10 LOT 378
 SOUTH COUNTY TRAIL
AUGUST 14, 2018



450 GEO. WASH. HWY. SMITHFIELD, RI
 (401) 231-0900
 SHEET 2 OF 2

GRAPHIC SCALE



NO.	DATE	DESCRIPTION	BY
1.	8/21/18	1' CONTOURS	MCL
2.	9/20/18	ADD SEWER EASEMENT'S REVISE ACCESS EASEMENT	MCL

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 EXISTING CONDITIONS - PLAN OF LAND
 LIMITED CONTENT BOUNDARY SURVEY - MEASUREMENT SPECIFICATION - 1 (CLASS IV REAR UNDEVELOPABLE PORTION)
 TOPOGRAPHIC SURVEY/ACCURACY T-2 (T4 REAR UNDEVELOPABLE PORTION)

BY: *Stephen T. Long*
 STEPHEN T. LONG No. 1930
 C.O.A. LS-A53B

STEPHEN T. LONG
 No. 1930
 PROFESSIONAL
 LAND SURVEYOR
 9-24-18

MAP 71 AP 10 LOT 359
 N/F LEONARD M. & LINDA J
 REYNOLDS
 DEED BOOK 379 PAGE 124

MAP 71 AP 10 LOT 359
 N/F SRI RASENANI &
 SO HARI
 DEED BOOK 1366 PAGE 232

MAP 71 AP 10 LOT 357
 N/F AVNASH P SINGH &
 TANAYA GAUTAM
 DEED BOOK 1333 PAGE 232

20' SEWER EASEMENT
 DEED BOOK 998
 PAGE 36

OAK
 DELL
 CIRCLE

G:\CARLSON PROJECTS\2018\1806\ES\COUNTY\TR180621\FCONTOUTR.dwg, 9/24/2018 11:04:24 AM, KIP 770K

LAYOUT AND MATERIALS NOTES:

- CONTRACTOR SHALL NOTIFY "DIG SAFE" AT 811 AND VERIFY UTILITY MARK-OUT WITH THE OWNER PRIOR TO THE INITIATION OF ANY SITE DISTURBANCE.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFICATION OF THE LOCATION AND NATURE OF ALL SUBSURFACE UTILITIES AT THE PROJECT WHICH MAY BE AFFECTED BY THE WORK. COORDINATE WITH RESPECTIVE UTILITY OWNERS AND PERFORM VERIFICATION OF TYPE, LOCATION, AND INVERTS AS REQUIRED.
- THE LOCATIONS OF EXISTING SITE FEATURES AS SHOWN HAVE BEEN OBTAINED FROM MAPS, SURVEYS, FIELD INSPECTIONS, AND OTHER AVAILABLE INFORMATION. THEY MUST BE CONSIDERED APPROXIMATE BOTH TO LOCATION, SIZE, AND AS-BUILT CONDITION AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL FIELD CONDITIONS.
- THIS DRAWING IS INTENDED TO DEPICT THE LOCATION, LAYOUT, AND MATERIALS OF CONSTRUCTION AND IS INTENDED TO BE USED IN CONJUNCTION WITH APPLICABLE SPECIFICATION SECTIONS.
- IMPLEMENTING WORKER SAFETY AND/OR HEALTH PROTOCOLS THAT ADDRESS COMPLIANCE WITH RULES, LAWS, AND REGULATIONS PERTAINING TO CONSTRUCTION SAFETY AND/OR THE POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE-SPECIFIC PHYSICAL OR CHEMICAL HAZARDS IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL CURBING IS CONCRETE CURB UNLESS OTHERWISE INDICATED. WHERE CURBING ABUTS A CONCRETE RAMP, IT SHALL BE MONOLITHIC PER APPLICABLE DETAILS. WHERE CURBING ABUTS DUMPSTER PAD, IT SHALL BE FLUSH.
- CONSTRUCTION AND CONTROL JOINTS: SIDEWALK REINFORCEMENT SHALL NOT CONTINUE THROUGH CONSTRUCTION JOINTS. AT CONTROL JOINTS CUT REINFORCEMENT WIRES.
- ALL NON-ACCESSIBLE PARKING SPACES ARE 9' X 18' EXCEPT COMPACT SPACES WHICH ARE 8' X 18' AND LABELED "COMPACT" ON THE PLANS. VERIFY OVERALL LAYOUT DIMENSIONS BASED ON THESE DIMENSIONS AND THE NUMBER OF SPACES INDICATED. FIELD-ADJUST OVERALL LAYOUT DIMENSION IN CONCERT WITH THE ENGINEER IF REQUIRED.
- ALL SIDEWALK THAT IS INTERIOR TO THE SITE SHALL BE BITUMINOUS CONCRETE UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFICATION OF THE LOCATION AND NATURE OF ALL SUBSURFACE UTILITIES AT THE PROJECT WHICH MAY BE AFFECTED BY THE WORK. COORDINATE WITH RESPECTIVE UTILITY OWNERS AND PERFORM VERIFICATION OF TYPE, LOCATION, AND INVERTS AS REQUIRED.
- IMPLEMENTING WORKER SAFETY AND/OR HEALTH PROTOCOLS THAT ADDRESS COMPLIANCE WITH RULES, LAWS, AND REGULATIONS PERTAINING TO CONSTRUCTION SAFETY AND/OR THE POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE-SPECIFIC PHYSICAL OR CHEMICAL HAZARDS IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL WORK TO BE DONE WITHIN THE STATE RIGHT OF WAY (ROW) SHALL CONFORM TO THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED AUGUST 2013 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS 1988 EDITION WITH ALL REVISIONS.
- ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2009, INCLUDING ALL REVISIONS.

DRAINAGE MAINTENANCE SCHEDULES:

DETERMIN BASIN/LEVEL SPREADER/SEDIMENT FOREBAY MAINTENANCE SCHEDULE	MAINTENANCE MEASURE	ACTIVITY	SCHEDULE
1		<ul style="list-style-type: none"> INSPECT FOR DAMAGE NOTE SIGNS OF HYDROCARBON BUILDUP, AND REMOVE IF DETECTED MONITOR FOR SEDIMENT ACCUMULATION EXAMINE TO ENSURE THAT INLET AND OUTLET DEVICES ARE FREE OF DEBRIS AND OPERATION 	ANNUAL INSPECTION
2		<ul style="list-style-type: none"> REPAIR UNDERCUT OR ERODED AREAS 	AS-NEEDED MAINTENANCE
3		<ul style="list-style-type: none"> CLEAN AND REMOVE DEBRIS FROM INLET AND OUTLET STRUCTURES MOW SIDES AND BOTTOM SEEDMIX 	SPRING AND FALL
4		<ul style="list-style-type: none"> REMOVE SEDIMENT WHEN THE RAIN GARDEN FOREBAY VOLUME HAS BEEN SIGNIFICANTLY REDUCED OR WHEN SIGNIFICANT ALGAL GROWTH IS OBSERVED 	10-YEAR MAINTENANCE

GRADING AND DRAINAGE NOTES:

- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY AND ALL DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- THE LOCATIONS OF EXISTING SITE FEATURES AS SHOWN HAVE BEEN OBTAINED FROM MAPS, SURVEYS, FIELD INSPECTIONS, AND OTHER AVAILABLE INFORMATION. THEY MUST BE CONSIDERED APPROXIMATE BOTH TO LOCATION, SIZE, AND AS-BUILT CONDITION AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL FIELD CONDITIONS.
- THE DIMENSIONS SHOWN ON THE PLANS, INCLUDING THE INTENDED DIMENSIONS OF THE WORK, MAY VARY FROM ACTUAL EXISTING CONDITIONS IN THE FIELD. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASUREMENTS TO VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS AS WELL AS OTHER DIMENSIONS HE MAY DEEM APPROPRIATE TO FACILITATE THE COMPLETION OF THE WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- UNLESS OTHERWISE INDICATED, ALL DISTURBED AREAS SHALL BE RESTORED WITH SIX (6) INCHES OF LOAM, SEEDED, FERTILIZED, AND MULCHED. PROVIDE ADDITIONAL EROSION CONTROLS AS REQUIRED.
- COMPLY WITH RHODE ISLAND BUILDING CODE FOR ALL SITE CONSTRUCTION, INCLUDING HANDICAPPED ACCESSIBILITY.
- THE CROSS-SLOPE OF ALL SIDEWALKS AND WALKWAYS SHALL BE LESS THAN 1V:50H (2.00%). UNLESS OTHERWISE INDICATED, THE MAXIMUM RUNNING SLOPE OF ALL SIDEWALKS AND WALKWAYS SHALL BE LESS THAN 1V:20H (5%). VERIFY GRADES AND SLOPES PRIOR TO CONCRETE PLACEMENT. REPORT DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- ENGAGE A RHODE ISLAND LICENSED LAND SURVEYOR TO PERFORM LAND-SURVEYING SERVICES REQUIRED, INCLUDING, BUT NOT LIMITED TO VERIFICATION AND LAYOUT OF BASELINES, PROPOSED IMPROVEMENTS, DIMENSIONS AND ELEVATIONS. REPORT DISCREPANCIES TO THE ENGINEER.
- PROPOSED GRADES INDICATE DESIGN INTENT. VERIFY ELEVATIONS AND MAKE ADJUSTMENTS TO MEET FIELD CONDITIONS. DO NOT PROCEED WITH ANY ADJUSTMENT OR FIELD MODIFICATION UNTIL APPROVED BY THE ENGINEER.
- GRADE TRANSITION BETWEEN TOPOGRAPHIC LINES AND SPOT GRADES SHALL BE UNIFORM UNLESS OTHERWISE INDICATED.
- MAXIMUM LANDSCAPE SLOPES SHALL BE 3(H):1(V) UNLESS OTHERWISE INDICATED. SLOPES IN EXCESS OF 3:1 SHALL BE REINFORCED WITH AN EROSION CONTROL FABRIC OR EXISTING ON-SITE BOULDERS THAT ARE RE-USED.
- ALL DRAINAGE PIPE SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE), UNLESS OTHERWISE INDICATED. SEE SPECIFICATIONS. ALL PROPOSED DRAINAGE PIPE UNDER ROADWAY WITH LESS THAN TWO (2) FEET OF COVER SHALL BE CLASS V RCP.
- ALL ROOF LEADERS SHALL BE 12" HDPE.
- THE TOPS, RIMS, FRAMES, GRATES, AND COVERS (AS APPLICABLE) OF ALL UTILITY STRUCTURES THAT ARE TO REMAIN SHALL BE ADJUSTED TO MATCH FINAL GRADE IN A FLUSH CONDITION. ALL NEW UTILITY STRUCTURES SHALL BE INSTALLED WITH TOPS, RIMS, FRAMES, GRATES, AND COVERS (AS APPLICABLE) TO FINAL GRADE IN A FLUSH CONDITION.
- AT THE CONCLUSION OF THE WORK, CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT MATERIAL FROM ALL PORTIONS OF THE STORM DRAINAGE SYSTEM.
- THE PROPOSED RAIN GARDENS, SEDIMENT FOREBAYS, AND WATER QUALITY SWALES SHALL NOT BE USED AS SNOW STORAGE AREAS.

CATCH BASIN MAINTENANCE SCHEDULE	MAINTENANCE MEASURE	ACTIVITY	SCHEDULE
1		<ul style="list-style-type: none"> INSPECT AND CLEAN WHEN THE SUMP IS HALF FULL OF SILT AND/OR DEBRIS 	SEMI-ANNUALLY

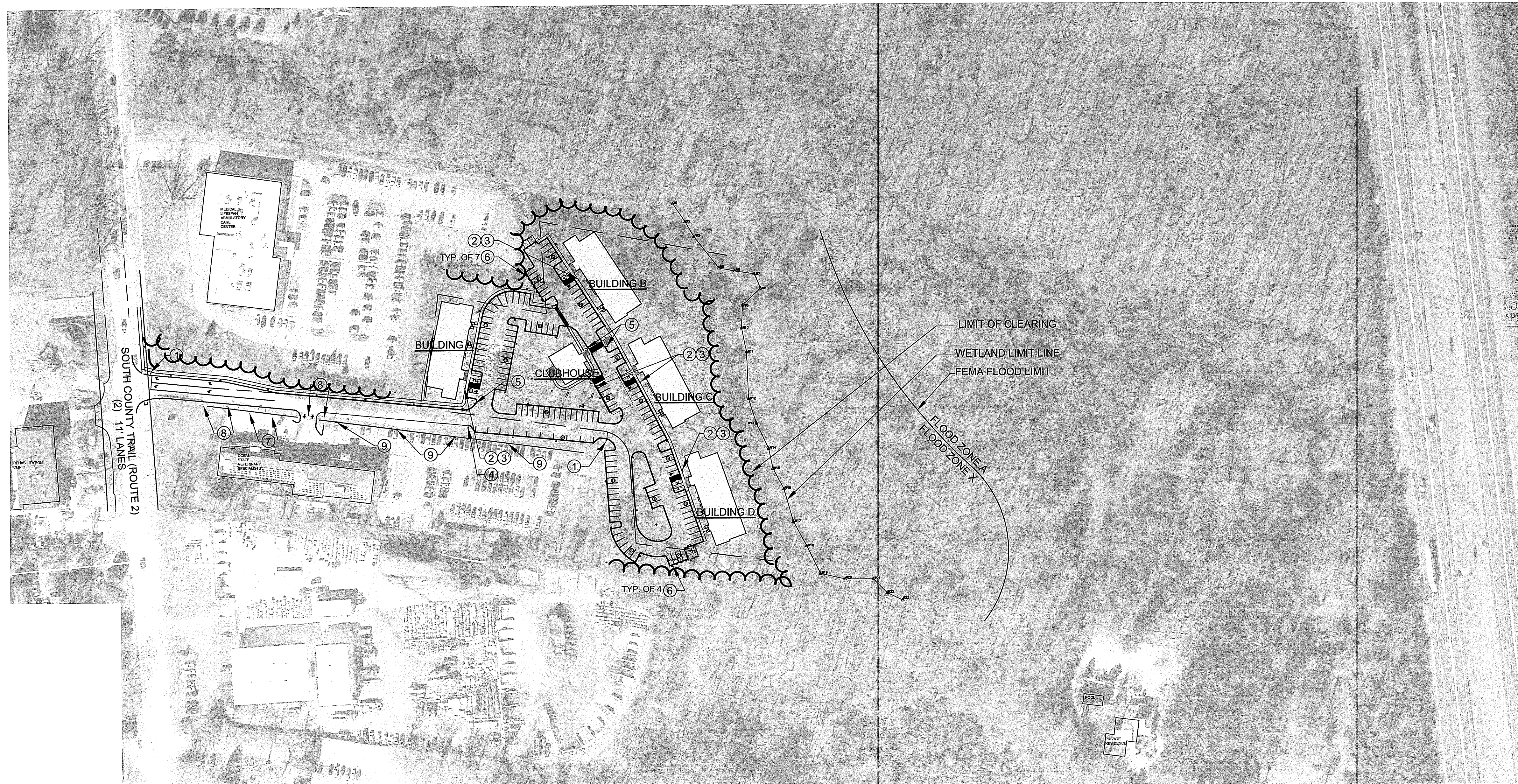
LEVEL SPREADERS	MAINTENANCE MEASURE	ACTIVITY	SCHEDULE
1		<ul style="list-style-type: none"> INSPECT FOR SEDIMENT AND LITTER REMOVE SEDIMENT, LITTER, LEAVES AND OTHER BUILDUP WITHIN THE LEVEL SPREADER 	SEMI-ANNUALLY

OUTLET PROTECTION	MAINTENANCE MEASURE	ACTIVITY	SCHEDULE
1		<ul style="list-style-type: none"> INSPECT FOR SEDIMENT AND DEBRIS BUILDUP AND REMOVE AS NECESSARY ENSURE STRUCTURAL INTEGRITY OF RIP RAP HAS NOT BEEN COMPROMISED BY DISCHARGE REPAIR OR REPLACE RIP RAP AS NECESSARY 	SEMI-ANNUALLY

SIGN TABLE

SIGN #	MUTCD # (IF APPLICABLE)	SIGN
1	R1-1	
2	R7-8	
3	R7-8A NA	
4	R10-15L	
5	R1-2	
6	SMALL CARS ONLY SIGN	
7	R6-1(R)	
8	51-1	
9		

- NOTES:
- ALL SIGNS SHALL CONFORM TO RIDOT STANDARD SPECIFICATIONS MANUAL SECTION M.16.
 - SIGNS TO BE SUPPORTED ON BREAKAWAY SIGN POST AND LAID OUT IN ACCORDANCE WITH THE DETAILS.



BUILDING ZONING TABLE

ZONE: R-6 ZONE WITH PLANNED DEVELOPMENT (PD) OVERLAY

USE: MULTIFAMILY DWELLING (PERMITTED USE BY RIGHT)

ITEM	REQUIREMENTS (PER PD)	PROPOSED
MIN. LOT AREA	5 ACRES	17.7 ACRES
MIN. LOT FRONTAGE	150 FT	152 FT (UNCHANGED)
FRONT YARD SETBACK	50 FT	47 FT (SEE NOTE BELOW)
SIDE YARD SETBACK	40 FT	40.5 FT
REAR YARD SETBACK	40 FT	923 FT
MAX. STRUCTURE COVERAGE	30%	4.4%
MAX. PAVEMENT COVERAGE	50%	11.3%
TOTAL LOT COVERAGE	N/A	16% IMPERVIOUS
MAX. STRUCTURE HEIGHT	35 FT	
MAX. ACCESSORY STRUCTURE HEIGHT	15 FT	

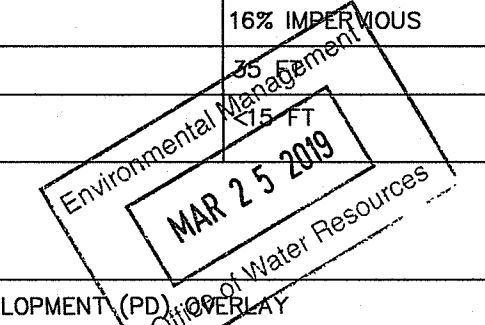
PARKING ZONING TABLE

ZONE: R-6 ZONE WITH PLANNED DEVELOPMENT (PD) OVERLAY

USE: MULTIFAMILY DWELLING (MAJOR LAND DEVELOPMENT)

ITEM	REQUIREMENTS (PER PD)	PROPOSED
MIN. PARKING SPACES	96 UNIT x 1.5 SPACES/UNIT = 144	136 REGULAR AND PARALLEL 11 COMPACT = 147
MIN. PARKING SPACE DIMS. (NON-ADA SPACES)	9FT x 18FT (REGULAR) 9FT x 20FT (PARALLEL) 8FT x 18FT (COMPACT)	9FT x 18FT (REGULAR) 9FT x 22FT (PARALLEL) 8FT x 18FT (COMPACT)
aisle width (at 90° parking)	25FT	25FT
FRONT YARD SETBACK	25FT	550FT
SIDE YARD SETBACK	10FT	10FT
REAR YARD SETBACK	15FT	997FT
MIN. LANDSCAPE AREA	20% OF PARKING AREA	28.2%
MIN. # OF TREES PER SPACE	1 TREE PER 15 SPACES	1 TREE PER ±8 SPACES
MIN. # OF SHRUBS PER ISLAND	10	10 MIN. (TYPICALLY MORE)

*LENGTH OF ROAD (MAIN ENTRANCE DRIVE) = 800 FT



Applicant:

Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-833-8341

Prepared for:

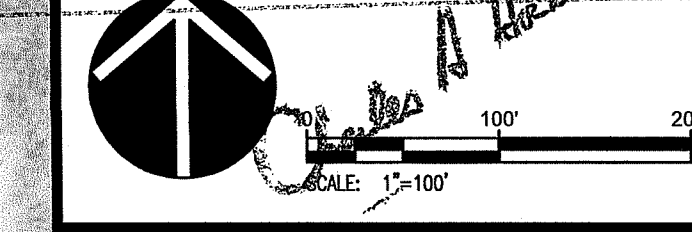
1264 Main Street
Waltham, MA 02451

President: Roberto Arista
Secretary: Marc Daigle

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
MAP 71 AP 10 LOT 378

DATE:	REVISION:
09/26/18	STAFF COMMENTS
10/10/18	RESPONSE TO COMMENTS
11/13/18	STAFF COMMENTS
01/10/19	RESPONSE TO COMMENTS
02/1/19	RESPONSE TO COMMENTS
03/18/19	RESPONSE TO RIDEM COMMENTS/AGREEMENT

OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
APR 18 2019 FILE # 19-0016



WILLIAM G. WALTER
No. 12234
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROJECT NO.: 70483.00 DRAWN BY: JPE, JHL
SCALE: 1" = 100' CHECKED BY: WW
DATE: 09.05.2018

OVERALL SITE PLAN

TEMPORARY SEDIMENT TRAP SIZING TABLE			
TRAP ID	CONTRIBUTING AREA	REQUIRED VOLUME	TST DIMENSIONS
TST-1	2.9 ACRES	389 CY	70' x 40' x 4'

**SITE PREPARATION
SEDIMENTATION AND EROSION CONTROL LEGEND**

- PROPERTY LINE
- - - SETBACK LINE
- - - SILT FENCE
- STRAW BALES
- TEMP DRAINAGE SWALE
- ☐ CATCH BASIN FILTER INSERT (SILT SACK)
- ☐ CONSTRUCTION ENTRANCE
- ☐ TEMPORARY STOCKPILE LOCATION
- ☐ TEMPORARY SEDIMENT TRAP
- ☐ TEMPORARY CONCRETE WASHOUT
- ☐ EROSION CONTROL BLANKET

Environmental Management
MAR 25 2019
Office of Water Resources

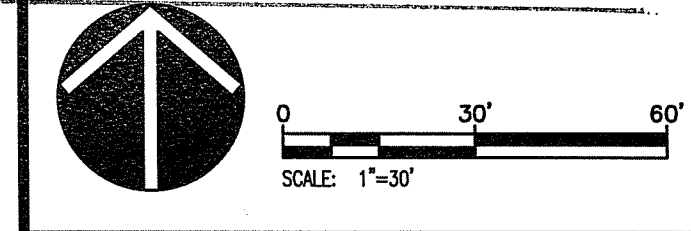
Applicant:
benesch
Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:
DAKOTA PARTNERS
1264 Main Street
Walham, MA 02451
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**BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND**
MAP 71 AP 10 LOT 378

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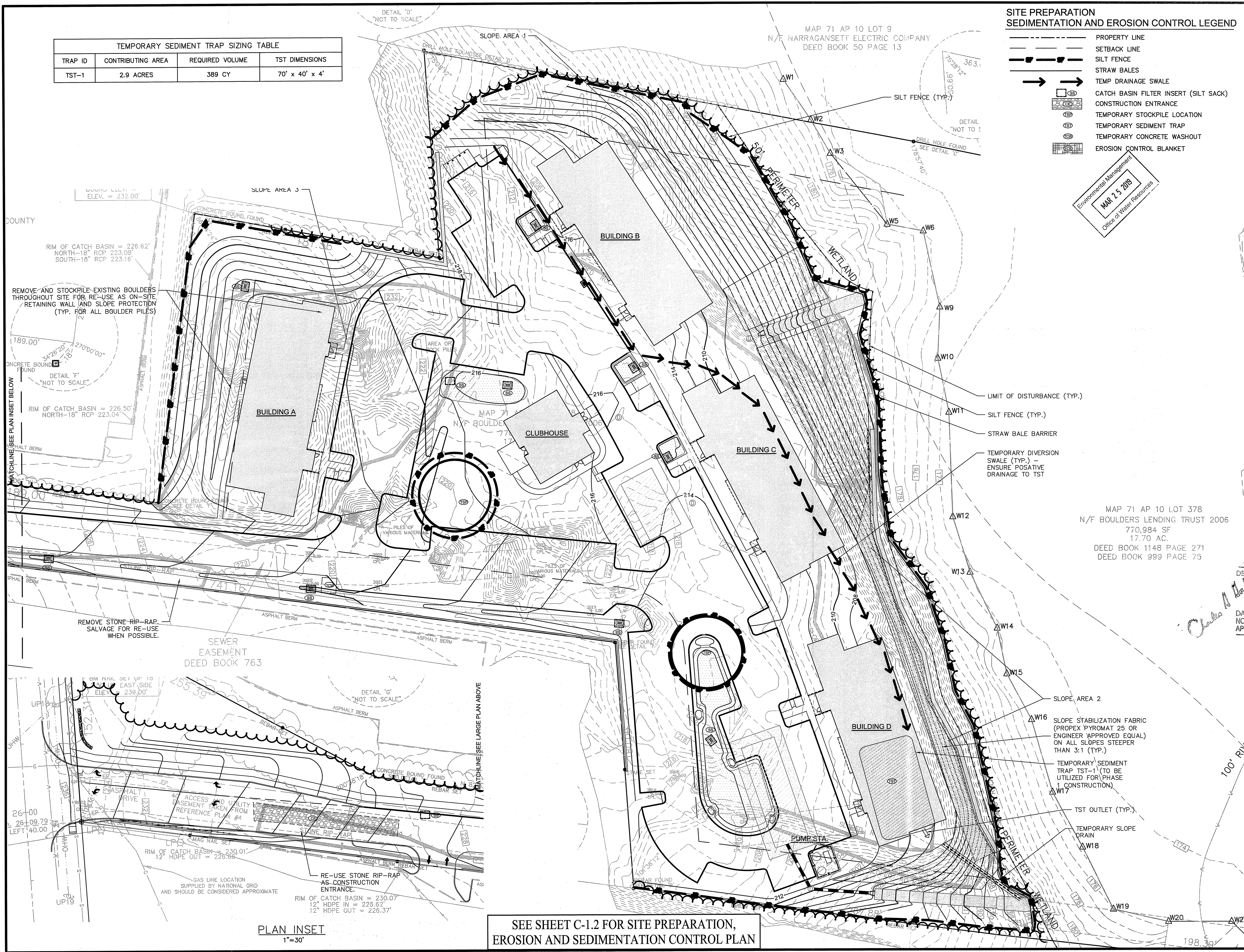
OFFICE OF WATER RESOURCES
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE



WILLIAM G. WALTER
No. 12234
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROJECT NO.: 70483.00 DRAWN BY: JPE, JHL
SCALE: 1" = 30' CHECKED BY: WW
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**SITE PREPARATION,
SEDIMENTATION
AND EROSION
CONTROL PLAN**
DRAWING:
SHEET 5 OF 25



REMOVE AND STOCKPILE EXISTING BOULDERS THROUGHOUT SITE FOR RE-USE AS ON-SITE RETAINING WALL AND SLOPE PROTECTION (TYP. FOR ALL BOULDER PILES)

RIM OF CATCH BASIN = 226.62'
NORTH-18" RCP 223.05'
SOUTH-18" RCP 223.16'

RIM OF CATCH BASIN = 226.50'
NORTH-18" RCP 223.04'

REMOVE STONE RIP-RAP. SALVAGE FOR RE-USE WHEN POSSIBLE.

SEWER EASEMENT DEED BOOK 763

RE-USE STONE RIP-RAP AS CONSTRUCTION ENTRANCE.

RIM OF CATCH BASIN = 230.01'
12" HDPE OUT = 226.66'

RIM OF CATCH BASIN = 230.07'
12" HDPE IN = 226.62'
12" HDPE OUT = 226.37'

PLAN INSET
1"=30'

SEE SHEET C-1.2 FOR SITE PREPARATION,
EROSION AND SEDIMENTATION CONTROL PLAN

SITE PREPARATION NOTES:

- CONTRACTOR SHALL NOTIFY "DIG SAFE" (811) AND VERIFY UTILITY MARK-OUT WITH THE OWNER PRIOR TO THE INITIATION OF ANY SITE DISTURBANCE.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFICATION OF THE LOCATION AND NATURE OF ALL SUBSURFACE UTILITIES AT THE PROJECT WHICH MAY BE AFFECTED BY THE WORK. COORDINATE WITH RESPECTIVE UTILITY OWNERS AND PERFORM VERIFICATION OF TYPE, LOCATION, AND INVERTS AS REQUIRED.
- ALL EXISTING NON-NATURAL IMPROVEMENTS ONSITE, INCLUDING, BUT NOT LIMITED TO PAVEMENT, FOUNDATIONS, RUBBLE, AND DUMPED MATERIAL SHALL BE DEMOLISHED AND REMOVED FROM SITE.
- PROTECT ALL IMPROVEMENTS NOT INCLUDED WITHIN THE LIMITS OF WORK. ANY IMPROVEMENT WHICH IS DAMAGED SHALL BE REPAIRED OR REPLACED IN-KIND TO THE OWNER'S SATISFACTION.
- DURING DEMOLITION, PROTECT ALL ADJACENT CURBING, SIDEWALKS, RAMPS, ABOVE-GRADE AND BELOW-GRADE UTILITIES, DRAINAGE STRUCTURES, LIGHT BASES, AND OTHER IMPROVEMENTS POTENTIALLY AFFECTED BY THE WORK. CLEARLY DELINEATE THE LIMITS OF WORK AND MARK, BARRICADE, OR OTHERWISE IDENTIFY THOSE IMPROVEMENTS THAT ARE TO BE PROTECTED AND/OR AVOIDED. ANY IMPROVEMENT WHICH IS DAMAGED SHALL BE REPAIRED OR REPLACED IN-KIND TO THE OWNER'S SATISFACTION.
- CUT & CAP ALL EXISTING UTILITY HOUSE CONNECTIONS AT THE ROW. CONFIRM WITH THE APPROPRIATE UTILITY.
- THE LOCATIONS OF EXISTING SITE FEATURES AS SHOWN HAVE BEEN OBTAINED FROM MAPS, SURVEYS, FIELD INSPECTIONS, AND OTHER AVAILABLE INFORMATION. THEY MUST BE CONSIDERED APPROXIMATE BOTH TO LOCATION, SIZE, AND AS-BUILT CONDITION AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL FIELD CONDITIONS.
- THE DIMENSIONS SHOWN ON THE PLANS, INCLUDING THE INTENDED DIMENSIONS OF THE WORK, MAY VARY FROM ACTUAL EXISTING CONDITIONS IN THE FIELD. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASUREMENTS TO VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS AS WELL AS OTHER DIMENSIONS HE MAY DEEM APPROPRIATE TO FACILITATE THE COMPLETION OF THE WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- IMPLEMENTING WORKER SAFETY AND/OR HEALTH PROTOCOLS THAT ADDRESS COMPLIANCE WITH RULES, LAWS, AND REGULATIONS PERTAINING TO CONSTRUCTION SAFETY AND/OR THE POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE-SPECIFIC PHYSICAL OR CHEMICAL HAZARDS IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- PRIOR TO THE TERMINATION, ABANDONMENT, OR REMOVAL OF ANY UTILITY, VERIFY THAT APPLICABLE NOTIFICATIONS HAVE BEEN MADE TO THE UTILITY OWNER/OPERATOR AND THAT THE UTILITY HAS BEEN PROPERLY TERMINATED, CAPPED, OR PLUGGED AS REQUIRED.
- PROVIDE PAVEMENT SAWCUT AT THE EDGE OF EACH PAVEMENT REMOVAL AREA TO ESTABLISH A CLEAN EDGE WHERE NEW WORK WILL MEET EXISTING PAVEMENT. SAWCUT SHALL BE A MINIMUM OF 12 INCHES FROM EDGE OF PAVEMENT REMOVAL.
- UNLESS OTHERWISE INDICATED, ALL DISTURBED AREAS SHALL BE RESTORED WITH SIX (6) INCHES OF PLANTING SOIL, SEEDED, FERTILIZED, AND MULCHED. THE EXISTING TOPSOIL SHALL BE REUSED, PER THE FOLLOWING SEQUENCE:
 - STRIP AND STOCKPILE.
 - SCREEN TO REMOVE STONES AND OTHER NON-SOIL PARTICLES.
 - TEST PER THE SPECIFICATIONS.
 - AMEND WITH COMPOST AND NUTRIENTS PER THE SPECIFICATIONS, BASED ON TESTING RESULTS.
 - PLACE AND COMPACT PER THE SPECIFICATIONS. TAKE GREAT CARE TO NOT OVERCOMPACT LANDSCAPE AREAS, ESPECIALLY RAIN GARDENS AND WATER QUALITY SWALES.

TEMPORARY E&S MEASURES MAINTENANCE SCHEDULE

E&S MEASURE	MAINTENANCE MEASURES	SCHEDULE
FILTER INSERTS IN DRAINAGE SYSTEM	CLEAN CATCH BASIN GRATE, REMOVE SEDIMENT/DEBRIS FROM FILTER INSERTS	WEEKLY & WITHIN 24 HOURS AFTER STORM GENERATING A DISCHARGE OF 0.25 IN
HAY BALES/ SILT FENCE BARRIER	REPAIR/REPLACE WHEN FAILURE OBSERVED, REMOVE SILT WHEN ACCUMULATION REACHES APPROX. HALF HEIGHT OF BARRIER	WEEKLY & WITHIN 24 HOURS AFTER STORM GENERATING A DISCHARGE OF 0.25 IN
TARP TEMPORARY STOCKPILES	ENSURE TARP IS SECURED OVER STOCKPILE AT THE END OF EACH DAY	DAILY
CONSTRUCTION ENTRANCE	SWEEP PAVED ROADWAY ADJACENT TO SITE ENTRANCE AS NECESSARY, REFRESH STONE AS NECESSARY, REMOVE SILTED GRAVEL	WEEKLY
MOISTEN EXPOSED SOILS	PERIODICALLY MOISTEN EXPOSED SOIL SURFACES WITH WATER ON UNPAVED TRAVELWAYS AND KEEP TRAVELWAYS DAMP	DAILY
TEMPORARY SEDIMENT TRAPS	CHECK AND REPAIR STONE OUTLET, CLEAN WHEN HALF FULL OF SEDIMENT (DEWATER IF NECESSARY), RESTORE TRAP TO ORIGINAL DIMENSIONS	WEEKLY & WITHIN 24 HOURS AFTER STORM GENERATING A DISCHARGE OF 0.25 IN
TEMPORARY DIVERSION SWALES	REPAIR DAMAGED AREAS WITHIN 24 HRS. OF OBSERVED FAILURE	WEEKLY & WITHIN 24 HOURS AFTER STORM GENERATING A DISCHARGE OF 0.25 IN - INSPECT DAILY WHEN CONSTRUCTION ACTIVITIES ARE IN CLOSE PROXIMITY

EROSION AND SEDIMENT CONTROL NOTES:

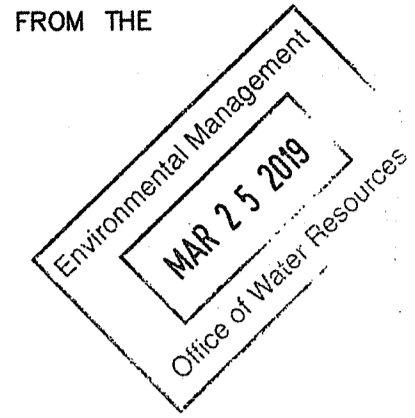
- THIS PLAN IS FOR EROSION AND SEDIMENTATION (E&S) CONTROL ONLY. SEE OTHER PLANS FOR THE SCOPE OF CONSTRUCTION WORK.
- IT IS ANTICIPATED THAT CONSTRUCTION WILL OCCUR BETWEEN APRIL 2019 AND APRIL 2020 AND FINAL STABILIZATION WILL BE COMPLETE BY NOVEMBER 2020.
- THE MEASURES SPECIFIED HEREON ARE THE MINIMUM REQUIREMENTS FOR E&S CONTROL AND ARE SHOWN IN GENERAL SIZE AND LOCATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL E&S CONTROL MEASURES ARE CONFIGURED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION OF SOILS AND PREVENT THE TRANSPORT OF SEDIMENTS AND OTHER POLLUTANTS TO ANY RESOURCE AREAS. PROVIDE ADDITIONAL E&S MEASURES AS REQUIRED TO CONTROL EROSION AND SILTATION THROUGHOUT THE DURATION OF THE CONSTRUCTION AS CONDITIONS DICTATE AND/OR AS DIRECTED BY THE OWNER OR THE ENGINEER.
- MONITOR AND INSPECT ALL E&S MEASURES IN AN ONGOING MANNER THROUGHOUT THE WORK AND TAKE CORRECTIVE MEASURES, AS REQUIRED, TO MINIMIZE EROSION OF SOILS AND PREVENT THE TRANSPORT OF SEDIMENTS AND OTHER POLLUTANTS TO ANY RESOURCE AREAS. EROSION CONTROL MEASURES MUST BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT WHICH GENERATES AT LEAST 0.25 INCHES OF RAINFALL PER 24 HOUR PERIOD AND/OR AFTER A SIGNIFICANT AMOUNT OF RUNOFF.
- IF PROBLEMS WITH THE EROSION CONTROL MEASURE ARE DISCOVERED DURING THE INSPECTIONS, THEY MUST BE FIXED. IF THE ISSUE DOES NOT REQUIRE SIGNIFICANT REPAIR OR REPLACEMENT, IT SHALL BE CORRECTED BY THE CLOSE OF THE NEXT WORKDAY. IF SIGNIFICANT REPAIR OR REPLACEMENT IS REQUIRED, IT SHALL BE CORRECTED BY NO LATER THAN SEVEN (7) CALENDAR DAYS FROM THE TIME OF DISCOVERY.
- ANY EROSION AND SEDIMENTATION MEASURE IMPLEMENTED BEYOND THAT SHOWN HEREON SHALL CONFORM TO APPLICABLE SECTIONS OF THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, REV 2014."
- STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER THE FORMATION OF THE PILE. SIDE SLOPES SHALL BE NO STEEPER THAN 2:1. ALL STOCKPILES SHALL BE PROTECTED FROM STORMWATER RUN-ON USING A TEMPORARY PERIMETER SEDIMENT BARRIER (BERMS, DIKES, FIBER ROLLS, SILT FENCE, GRAVEL BAGS, STRAW BALES, ETC.), WHICH SHALL BE PLACED APPROXIMATELY 10 FEET FROM THE TOE OF THE SLOPE.
- PROVIDE TEMPORARY SEEDING WITH MULCH ON ALL EXPOSED SOIL AREAS WHERE WORK WILL BE SUSPENDED FOR LONGER THAN 30 DAYS. APPLY SEED AND MULCH WITHIN THE FIRST 7 DAYS OF SUSPENDING WORK. WHEN SEEDING IS NOT POSSIBLE DUE TO SEASONAL WEATHER CONDITIONS OR OTHER FACTORS, PROVIDE TEMPORARY STRUCTURAL SOIL PROTECTION SUCH AS MULCH, WOODCHIPS, EROSION CONTROL MATTING, OR COMPOST.
- ALL TEMPORARY SLOPES IN EXCESS OF 3 (HORIZONTAL) TO 1 (VERTICAL) SHALL BE STABILIZED WITH EROSION CONTROL MATTING OR APPROVED EQUIVALENT.
- NO RUNOFF SHALL BE ALLOWED TO ENTER ANY STORMWATER SYSTEM OR EXIT THE SITE PRIOR TO TREATMENT FOR SEDIMENT REMOVAL.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN CONSTRUCTION SITE AND SHALL NOT ALLOW THE ACCUMULATION OF RUBBISH OR CONSTRUCTION DEBRIS. ALL TRASH SHALL BE CLEANED ON A DAILY BASIS AND THE SITE SHALL BE LEFT IN A NEAT CONDITION AT THE END OF EACH WORK DAY.
- TAKE ALL NECESSARY PRECAUTIONS TO AVOID THE SPILLAGE OF FUEL OR OTHER POLLUTANTS AND ADHERE TO ALL APPLICABLE POLICIES AND REGULATIONS RELATED TO SPILL PREVENTION, CONTROL, AND RESPONSE.
- FOR DUST CONTROL, PERIODICALLY MOISTEN EXPOSED SOIL SURFACES WITH WATER AND MAINTAIN ADEQUATE MOISTURE LEVELS.
- SWEEP ADJACENT ROADWAYS IF MUD OR SOIL IS TRACKED ON TO THEM, OR AS DIRECTED BY THE ENGINEER. SHOULD THE CONSTRUCTION ENTRANCE FAIL TO PREVENT THE TRACKING OF SOILS OR SEDIMENT OFF OF THE PROJECT SITE, A WASHING RACK SHALL BE INSTALLED ALONG WITH APPROPRIATE MEASURES TO COLLECT RESULTING WASTEWATER.
- CONCRETE WASHOUTS SHALL BE UTILIZED, AS NECESSARY, TO REDUCE THE DISCHARGE OF POLLUTANTS TO STORMWATER FROM CONCRETE WASTE. CONCRETE WASHOUTS SHALL BE LOCATED AT LEAST 50 FEET FROM SENSITIVE AREAS, AND IN AREAS FOR CONVENIENT ACCESS. WHEN THE FACILITIES ARE NO LONGER REQUIRED, THE HARDENED CONCRETE, SLURRIES AND LIQUIDS SHALL BE REMOVED AND PROPERLY DISPOSED OF, OFFSITE.
- FUELING AND WASHING OF CONSTRUCTION VEHICLES SHALL BE LOCATED AT LEAST 150 FEET FROM THE WETLAND AREA. WASHING SHALL ONLY INCLUDE WATER AND NOT DETERGENTS.
- THE TEMPORARY SEDIMENT TRAPS (TST) SHALL BE CONSTRUCTED & DECONSTRUCTED AS FOLLOWS:
 - IT SHALL BE FOUR (4) FEET DEEP.
 - AFTER THE SITE IS SUBSTANTIALLY STABILIZED, THE TST SHALL BE FILLED AND THE AREA OF, AND AROUND, THE TST SHALL BE RESTORED TO FINISH GRADES.
 - ANY DAMAGE DUE TO SLOPES BY THE CONSTRUCTION EQUIPMENT SHALL BE REPAIRED.
- THE CONTRACTOR IS REQUIRED TO OBTAIN A SOIL EROSION CONTROL PERMIT PRIOR TO ANY SITE CONSTRUCTION OR ALTERATION.

SUGGESTED CONSTRUCTION SEQUENCE:

- CONDUCT A PRE-CONSTRUCTION MEETING WITH THE DPOW, OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION ACTIVITY. (REQUIRED BY TOWN.)
- INSTALL CONSTRUCTION ENTRANCE(S) AND PLACE CATCH BASIN FILTER INSERTS IN EXISTING CATCH BASINS.
- INSTALL PERIMETER E&S CONTROLS AND REQUEST PRE-CONSTRUCTION INSPECTION FROM THE ENGINEER.
- STRIP TOPSOIL AND PLACE EROSION CONTROLS AS NECESSARY.
- PERFORM BULK EARTHWORK OPERATIONS.
- BEGIN CONSTRUCTION OF FOUNDATION.
- CONSTRUCT UTILITIES.
- BEGIN CONSTRUCTION OF BUILDING FOUNDATIONS.
- BOX OUT PARKING LOT WITH IMPORTED BASE MATERIALS.
- CONSTRUCT BOTTOM COURSE OF BITUMINOUS PAVEMENT.
- CONSTRUCT LANDSCAPING AND OTHER SITE AMENITIES.
- CONSTRUCT CURBING AND TOP COURSE OF BITUMINOUS PAVEMENT.
- AT THE CONCLUSION OF CONSTRUCTION, COMPLETE THE INSTALLATION OF POST-CONSTRUCTION SITE STABILIZATION MEASURES AS SHOWN ON THE DRAWINGS. IMPLEMENT FINAL CLOSEOUT CHECKLIST.

FINAL CLOSEOUT CHECKLIST:

- REMOVE ALL CONSTRUCTION DEBRIS AND TRASH.
- REMOVE TEMPORARY CONTROL MEASURES; REMOVE RESIDUAL SEDIMENT AS NECESSARY AND SEED/MULCH ANY BARE SPOTS; SOME CONTROL MEASURES THAT DECOMPOSE MAY BE LEFT IN PLACE.
- VERIFY SOIL DEPTH AND QUALITY.
- ENSURE THAT A UNIFORM ACCEPTABLE STAND OF TURF OR OTHER VEGETATION IS PRESENT FOR VEGETATED STABILIZATION MEASURES.
- REPAIR ANY REMAINING SIGNS OF EROSION.
- ENSURE THAT PERMANENT POST-CONSTRUCTION CONTROL MEASURES ARE IN PLACE, REPAIRED WHERE NECESSARY, AND OPERATIONAL. PROVIDE WRITTEN MAINTENANCE REQUIREMENTS FOR ALL POST-CONSTRUCTION CONTROL MEASURES TO THE APPROPRIATE PARTY.
- CHECK ALL DRAINAGE CONVEYANCES AND OUTLETS TO ENSURE THEY WERE INSTALLED CORRECTLY AND ARE OPERATIONAL. INSPECT INLET AREAS TO ENSURE COMPLETE STABILIZATION AND REMOVE ANY BRUSH OR DEBRIS THAT COULD CLOG INLETS. ENSURE BANKS AND DITCH BOTTOMS ARE WELL VEGETATED. RESEED BARE AREAS AND REPLACE ROCK THAT HAS BECOME DISLODGED.
- STABILIZE ANY AREAS WHERE RUNOFF FLOWS MIGHT CONVERGE OR HIGH VELOCITY FLOWS ARE EXPECTED.
- ENSURE SUBCONTRACTORS HAVE REPAIRED THEIR WORK AREAS BEFORE FINAL CLOSEOUT.
- NOTIFY APPROPRIATE STATE AND LOCAL PERMITTING AGENCIES THAT THE SITE IS PROPERLY STABILIZED AND CONSTRUCTION ACTIVITIES THAT DISTURB OR EXPOSE SOLS HAVE CEASED.



Applicant:



Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:



1264 Main Street
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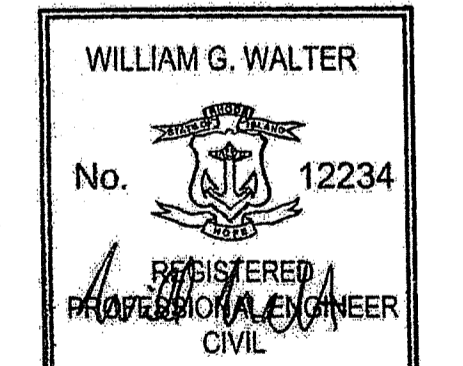
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BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
MAP 71 AP 10 LOT 378

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Charles A. Walter



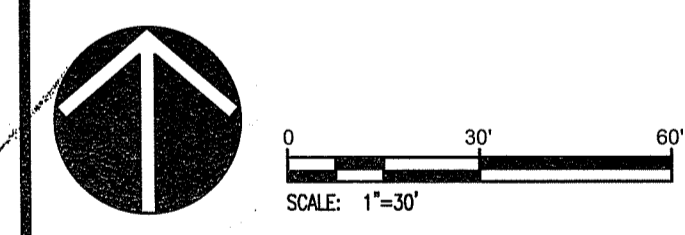
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SITE PREPARATION, SEDIMENTATION AND EROSION CONTROL NOTES

DRAWING:
SHEET 6 OF 25

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

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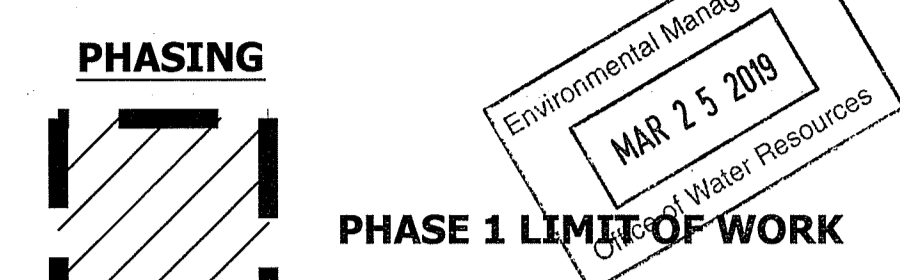
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PHASING PLAN

MAP 71 AP 10 LOT 9
 N/F NARRAGANSETT ELECTRIC COMPANY
 DEED BOOK 50 PAGE 13

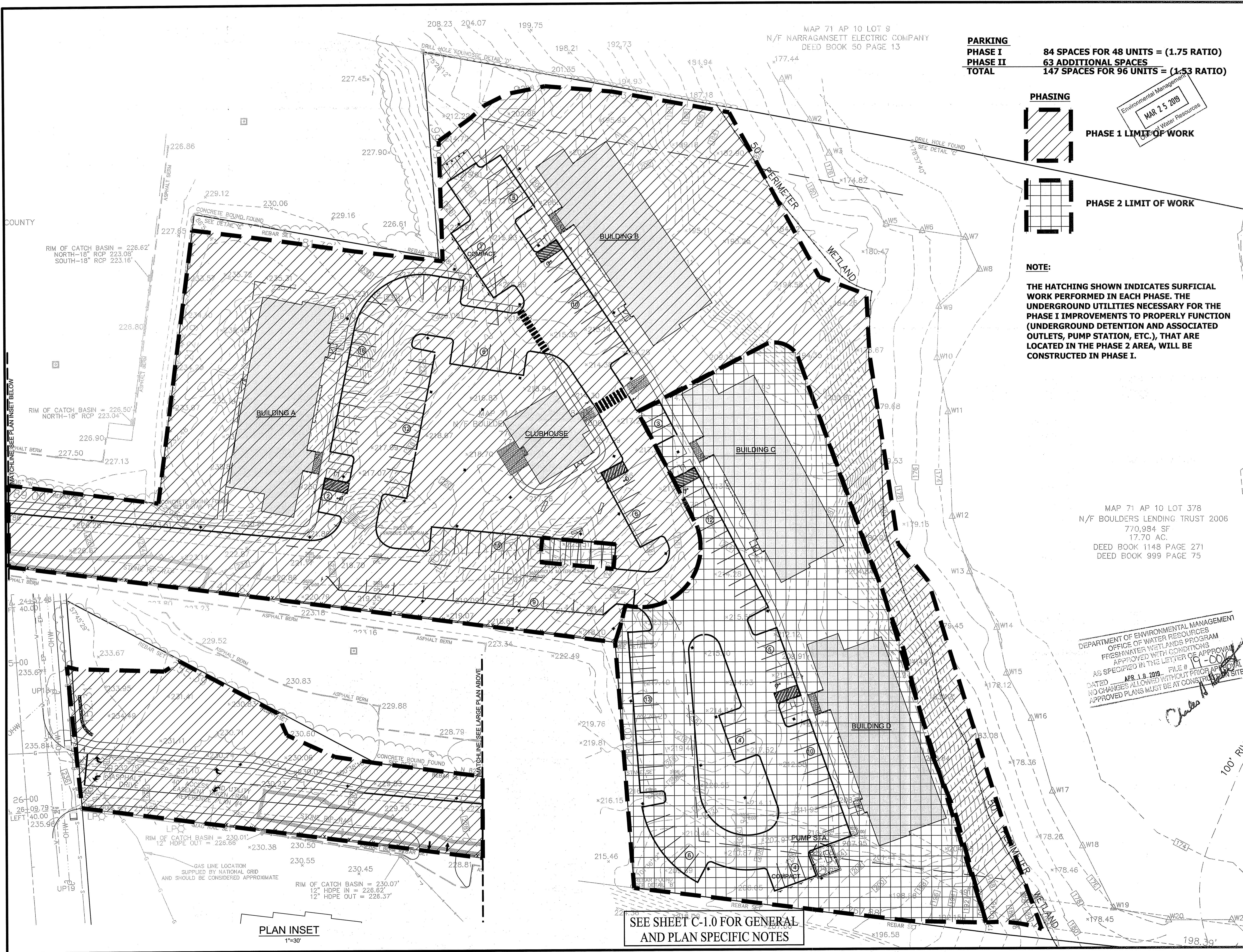
PARKING
PHASE I 84 SPACES FOR 48 UNITS = (1.75 RATIO)
PHASE II 63 ADDITIONAL SPACES
TOTAL 147 SPACES FOR 96 UNITS = (1.53 RATIO)



NOTE:
 THE HATCHING SHOWN INDICATES SURFICIAL WORK PERFORMED IN EACH PHASE. THE UNDERGROUND UTILITIES NECESSARY FOR THE PHASE I IMPROVEMENTS TO PROPERLY FUNCTION (UNDERGROUND DETENTION AND ASSOCIATED OUTLETS, PUMP STATION, ETC.), THAT ARE LOCATED IN THE PHASE 2 AREA, WILL BE CONSTRUCTED IN PHASE I.

MAP 71 AP 10 LOT 378
 N/F BOULDERS LENDING TRUST 2006
 770,984 SF
 17.70 AC.
 DEED BOOK 1148 PAGE 271
 DEED BOOK 999 PAGE 75

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RIM OF CATCH BASIN = 226.50'
 NORTH-18" RCP 223.04'

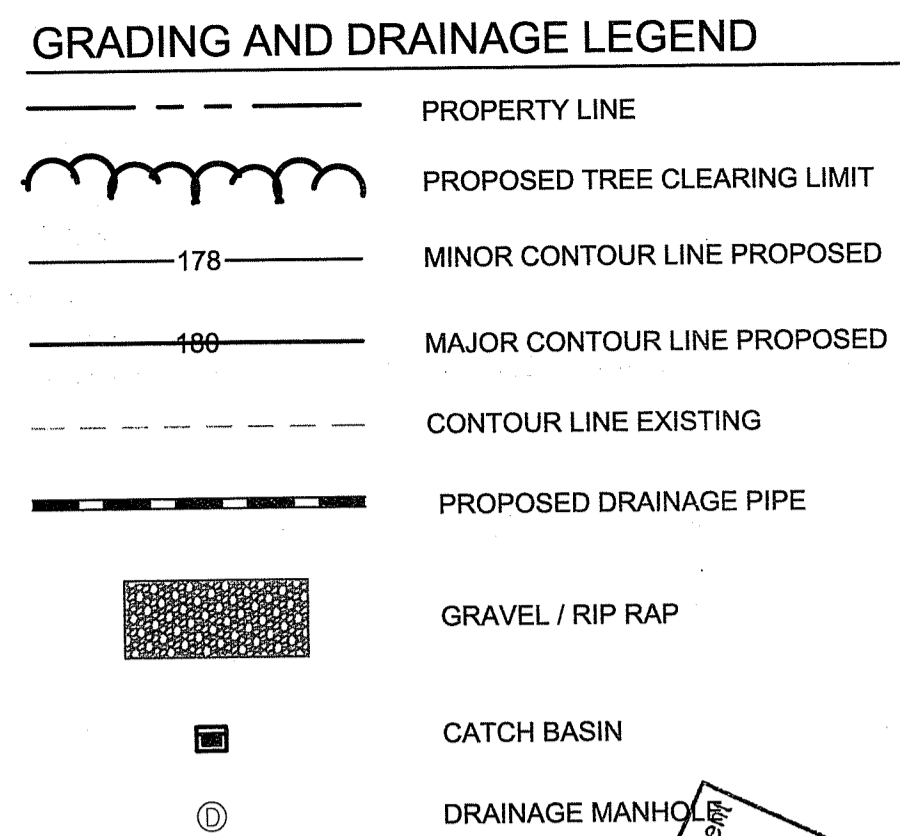
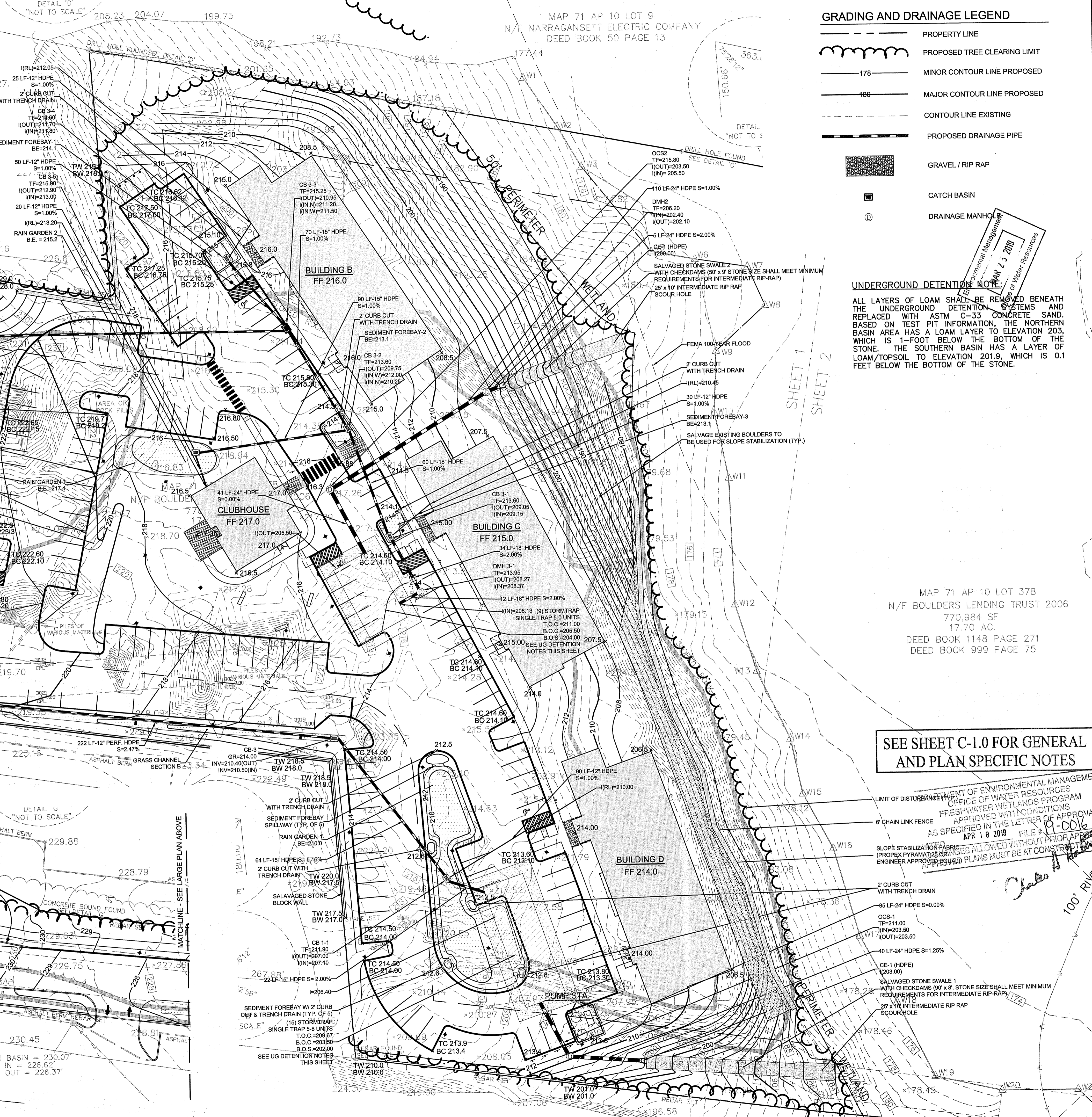
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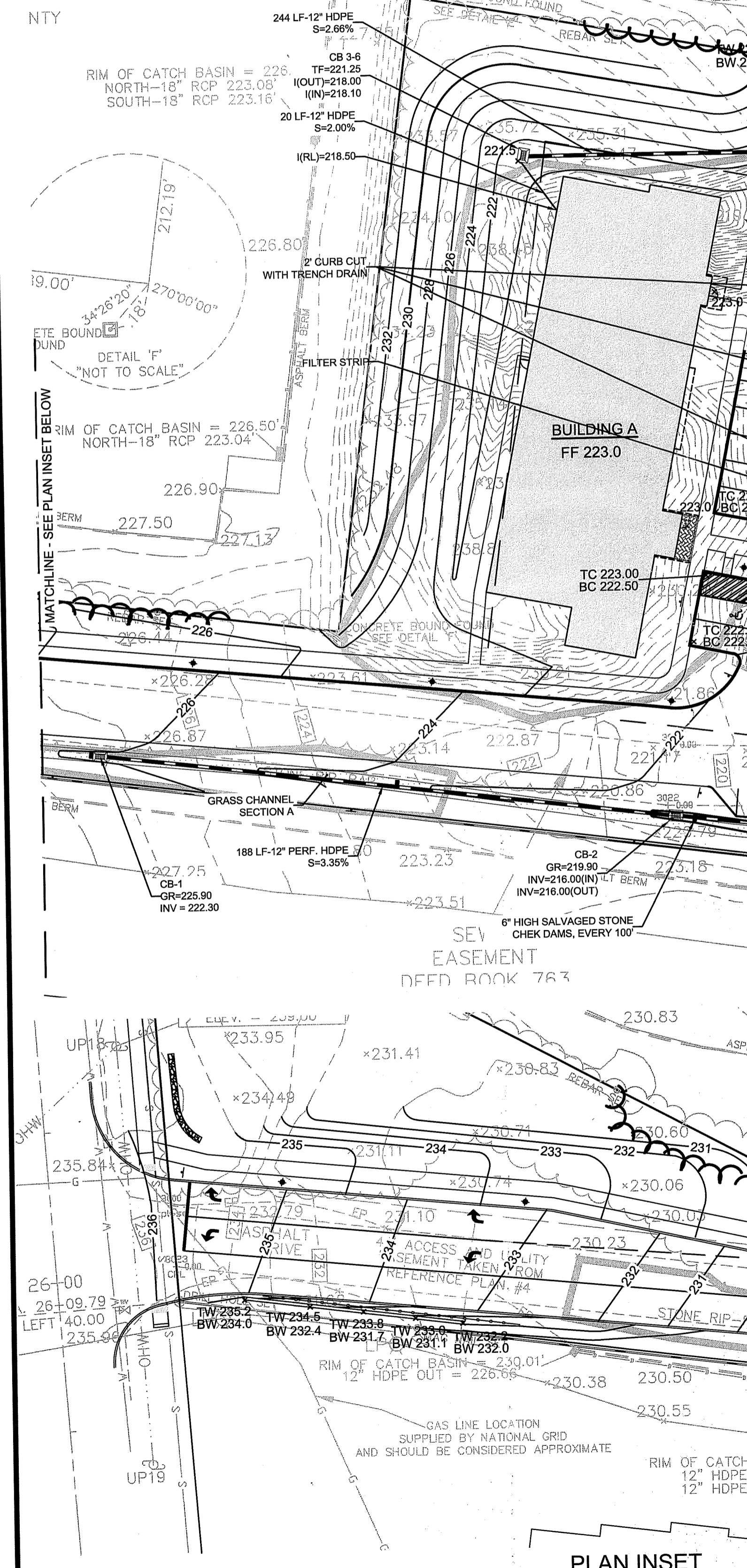
SEE SHEET C-1.0 FOR GENERAL
 AND PLAN SPECIFIC NOTES

PLAN INSET
 1" = 30'

MAINTENANCE MEASURE	ACTIVITY	SCHEDULE
1	<ul style="list-style-type: none"> INSPECT FOR DAMAGE NOTE SIGNS OF HYDROCARBON BUILDUP, AND REMOVE IF DETECTED MONITOR FOR SEDIMENT ACCUMULATION EXAMINE TO ENSURE THAT INLET AND OUTLET DEVICES ARE FREE OF DEBRIS AND OPERATION 	ANNUAL INSPECTION
2	<ul style="list-style-type: none"> REPAIR UNDERCUT OR ERODED AREAS 	AS-NEEDED MAINTENANCE
3	<ul style="list-style-type: none"> CLEAN AND REMOVE DEBRIS FROM INLET AND OUTLET STRUCTURES MOW SIDES AND BOTTOM SEEDMIX 	SPRING AND FALL
4	<ul style="list-style-type: none"> REMOVE SEDIMENT WHEN THE VOLUME HAS BEEN SIGNIFICANTLY REDUCED OR WHEN SIGNIFICANT ALGAL GROWTH IS OBSERVED 	10-YEAR MAINTENANCE
5	<ul style="list-style-type: none"> INSPECT AND CLEAN WHEN THE SUMP IS HALF FULL OF SILT AND/OR DEBRIS 	SEMI-ANNUALLY
6	<ul style="list-style-type: none"> INSPECT FOR SEDIMENT AND DEBRIS BUILDUP AND REMOVE AS NECESSARY ENSURE STRUCTURAL INTEGRITY OF RIP RAP HAS NOT BEEN COMPROMISED BY DISCHARGE REPAIR OR REPLACE RIP RAP AS NECESSARY 	SEMI-ANNUALLY



UNDERGROUND DETENTION NOTE:
ALL LAYERS OF LOAM SHALL BE REMOVED BENEATH THE UNDERGROUND DETENTION SYSTEMS AND REPLACED WITH ASTM C-33 CONCRETE SAND. BASED ON TEST PIT INFORMATION, THE NORTHERN BASIN AREA HAS A LOAM LAYER TO ELEVATION 203, WHICH IS 1-FOOT BELOW THE BOTTOM OF THE STONE. THE SOUTHERN BASIN HAS A LAYER OF LOAM/TOPSOIL TO ELEVATION 201.9, WHICH IS 0.1 FEET BELOW THE BOTTOM OF THE STONE.



Applicant:

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BROOKSIDE TERRACE

1470 SOUTH COUNTY TRAIL

EAST GREENWICH, RHODE ISLAND

MAP 71 AP 10 LOT 378

DATE	REVISION
09/26/18	STAFF COMMENTS
10/10/18	RESPONSE TO COMMENTS
11/13/18	STAFF COMMENTS
01/10/19	RESPONSE TO COMMENTS
02/11/19	RESPONSE TO COMMENTS
03/18/19	RESPONSE TO RIDEM COMMENTS

STATEMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
APR 18 2019 FILE # 19-0016

SLOPE STABILIZATION FABRIC (PROPEX PYRAMAT) IS ALLOWED WITHOUT PRIOR APPROVAL AS LONG AS EROSION CONTROL PLANS MUST BE AT CONSTRUCTION

WILLIAM G. WALTER
No. 12234
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROJECT NO.: 70483.00 DRAWN BY: JPE, JHL
SCALE: 1" = 30' CHECKED BY: WW
DATE: 09.05.2018

GRADING AND DRAINAGE PLAN

DRAWING:
SHEET 9 OF 25

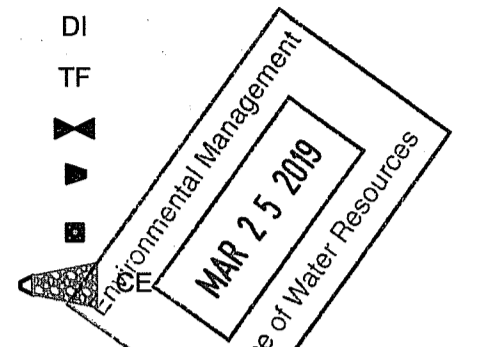
MAP 71 AP 10 LOT 9
N/E NARRAGANSETT ELECTRIC COMPANY
DEED BOOK 50 PAGE 13

LEGEND

- DRAINAGE PIPE
- NATURAL GAS PIPE
- UG ELECTRICAL CONDUIT
- WATER LINE
- FIRE LINE
- SEWER LINE
- SEWER FORCE MAIN
- SEWER MANWAY
- UNDERGROUND
- INVERT
- DUCTILE IRON
- TOP OF FRAME
- GATE VALVE
- THRUST BLOCK
- AREA DRAIN
- CULVERT END WRIP RAP OUTLET

UTILITY NOTES

- GENERAL**
- THIS SITE PLAN IS NOT A SUBSTITUTE FOR A UTILITY PERMIT APPLICATION AND AS SUCH THE APPROVAL OF THIS SITE PLAN DOES NOT CONSTITUTE APPROVAL OF ANY UTILITY WORK, SHOWN OR UN-SHOWN IN THE STATE ROW
 - ALL WORK TO BE DONE WITHIN THE STATE RIGHT OF WAY (ROW) SHALL CONFORM TO THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED AUGUST 2013 WITH ALL REVISIONS AND APPENDIX STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS 1998 EDITION WITH ALL REVISIONS.
 - ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2009, INCLUDING ALL REVISIONS.
- SANITARY SEWER (EAST GREENWICH)**
- ALL SANITARY SEWER WORK TO COMPLY WITH LOCAL STANDARDS AND SPECIFICATIONS.
 - ALL SANITARY LATERALS ARE TO BE 6" SDR-35 WITH A MIN. PITCH OF 1% AND 3.5 FT OF COVER UNLESS OTHERWISE NOTED.
 - ALL SANITARY LATERALS ARE TO HAVE INTERNAL CLEANOUTS OR A CLEANOUT WITHIN 10 FT OF BUILDING FOOTPRINT.
 - ALL SANITARY MAINS ARE TO BE MINIMUM 8" SDR-35 WITH A MIN. PITCH OF 0.5% AND 3.5 FT OF COVER UNLESS OTHERWISE NOTED.
 - LOCATION OF SANITARY LATERALS AT BUILDING TO BE COORDINATED WITH MECHANICAL DRAWINGS.
 - CONTRACTOR SHALL TELEVISIVELY INSPECT THE SANITARY PIPE TO DETERMINE THE EXACT LOCATION OF THE EXISTING SANITARY LATERAL OF 1470 SOUTH COUNTY TRAIL. THE EXISTING LATERAL SHALL BE REMOVED AND REPLACED WITH A DOGHOUSE MANHOLE OVER THE EXISTING SANITARY PIPE, WITH A NEW FORCE MAIN CONNECTION.
 - IF EXISTING LATERAL EXISTS, A TAPPING SLEEVE IS NOT NECESSARY. CONNECT TO EXISTING LATERAL.
- WATER SERVICE (KENT COUNTY WATER AUTHORITY)**
- ALL WATER SERVICE WORK TO COMPLY WITH KENT COUNTY WATER AUTHORITY STANDARDS AND SPECIFICATIONS.
 - ALL WATER MAINS ARE TO BE 8" D.I. WITH 5 FT OF COVER UNLESS OTHERWISE NOTED.
 - ALL DOMESTIC WATER SERVICES ARE TO BE 4" D.I. WITH 5 FT OF COVER UNLESS OTHERWISE NOTED.
 - ALL FIRE SERVICES ARE TO BE 6" D.I. WITH 5 FT OF COVER UNLESS OTHERWISE NOTED.
 - ALL WATER MAINS AND SERVICES ARE TO BE A MIN. 10 FT FROM ANY SANITARY SERVICE (UNLESS SHELVED IN THE SAME TRENCH) AND A MINIMUM OF 24" OF VERTICAL CLEARANCE FROM ANY OTHER UTILITY LINE.
 - LOCATION OF WATER SERVICES AT BUILDINGS TO BE COORDINATED WITH MECHANICAL DRAWINGS.
- GAS SERVICE (NATIONAL GRID)**
- ALL GAS SERVICES ARE TO CONFORM TO THE MOST CURRENT GAS COMPANY STANDARDS AND REGULATIONS.
 - FINAL DESIGN TO BE COORDINATED WITH NATIONAL GRID.
 - METER LOCATIONS TO BE COORDINATED WITH MECHANICAL DRAWINGS.
- ELECTRICAL SERVICES (NATIONAL GRID)**
- ALL ELECTRICAL SERVICES ARE TO CONFORM TO CURRENT ELECTRICAL COMPANY STANDARDS AND REGULATIONS.
 - FINAL DESIGN TO BE COORDINATED WITH NATIONAL GRID.
 - METER LOCATIONS TO BE COORDINATED WITH MECHANICAL DRAWINGS.
- COMMUNICATION SERVICES**
- ALL TELEPHONE SERVICES ARE TO CONFORM TO LOCAL AUTHORITIES MOST CURRENT STANDARDS AND REGULATIONS.
 - FINAL DESIGN TO BE COORDINATED WITH LOCAL AUTHORITIES.
 - SERVICE LOCATIONS TO BE COORDINATED WITH MECHANICAL DRAWINGS.

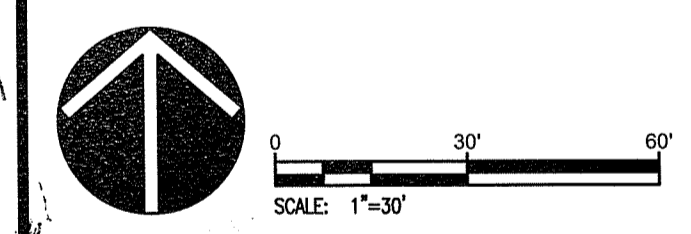


Applicant:
benesch
Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:
DAKOTA PARTNERS
1264 Main Street
Waltham, MA 02451
President: Roberto Arista
Secretary: Marc Daigle

**BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND**
MAP 71 AP 10 LOT 378

DATE	REVISION
09/26/18	STAFF COMMENTS
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11/13/18	STAFF COMMENTS
01/10/19	RESPONSE TO COMMENTS
02/1/19	RESPONSE TO COMMENTS
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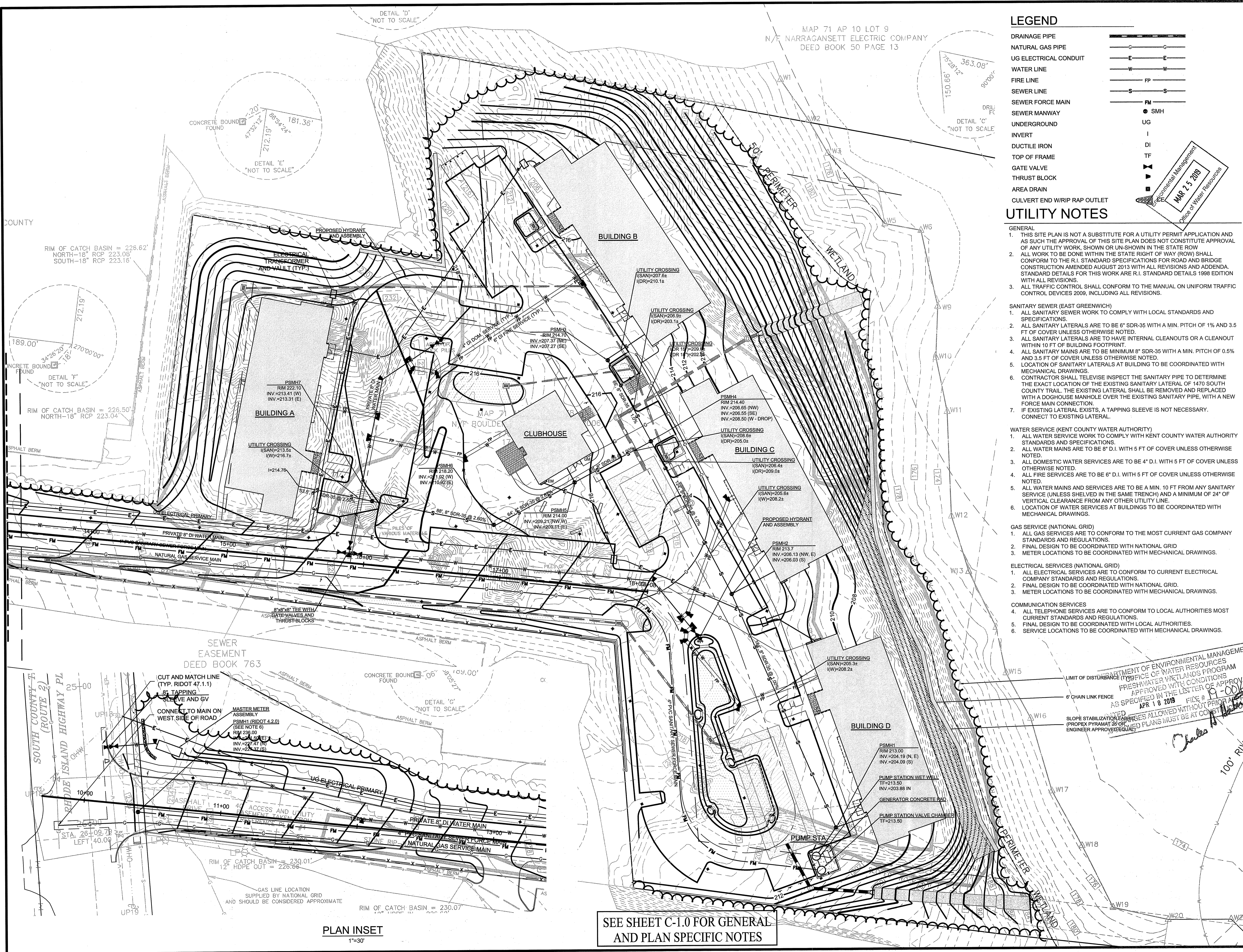
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
APR 18 2019 FILE # 19-001
SLOPE STABILIZATION FABRICS ALLOWED WITHOUT PRIOR APPROVAL
(PROFEX PYRAMAT 25 GPM PER MINUTE PER SQUARE FOOT)
ENGINEER APPROVED

WILLIAM G. WALTER
No. 12234
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROJECT NO.: 70483.00 DRAWN BY: JPE, JHL
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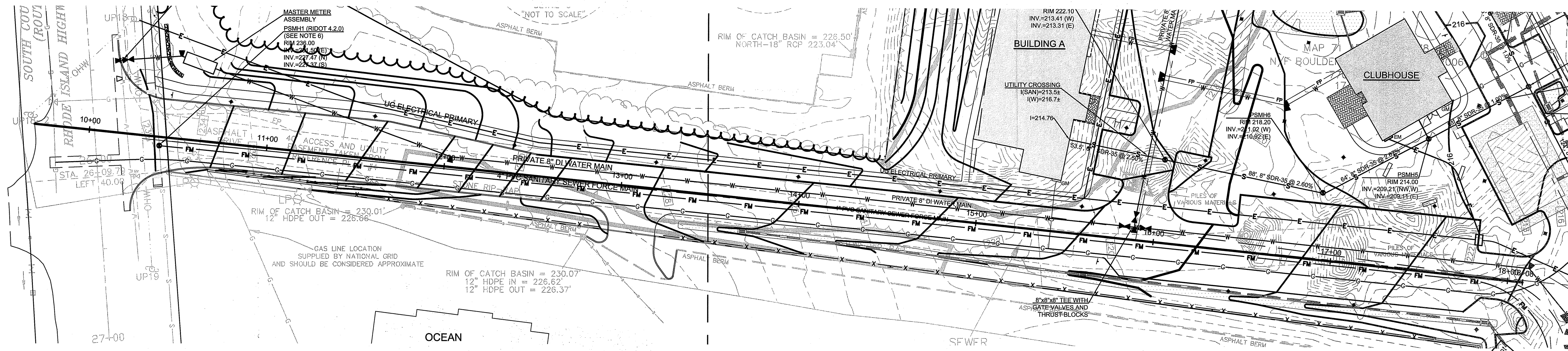
UTILITY PLAN

DRAWING:
SHEET 10 OF 25

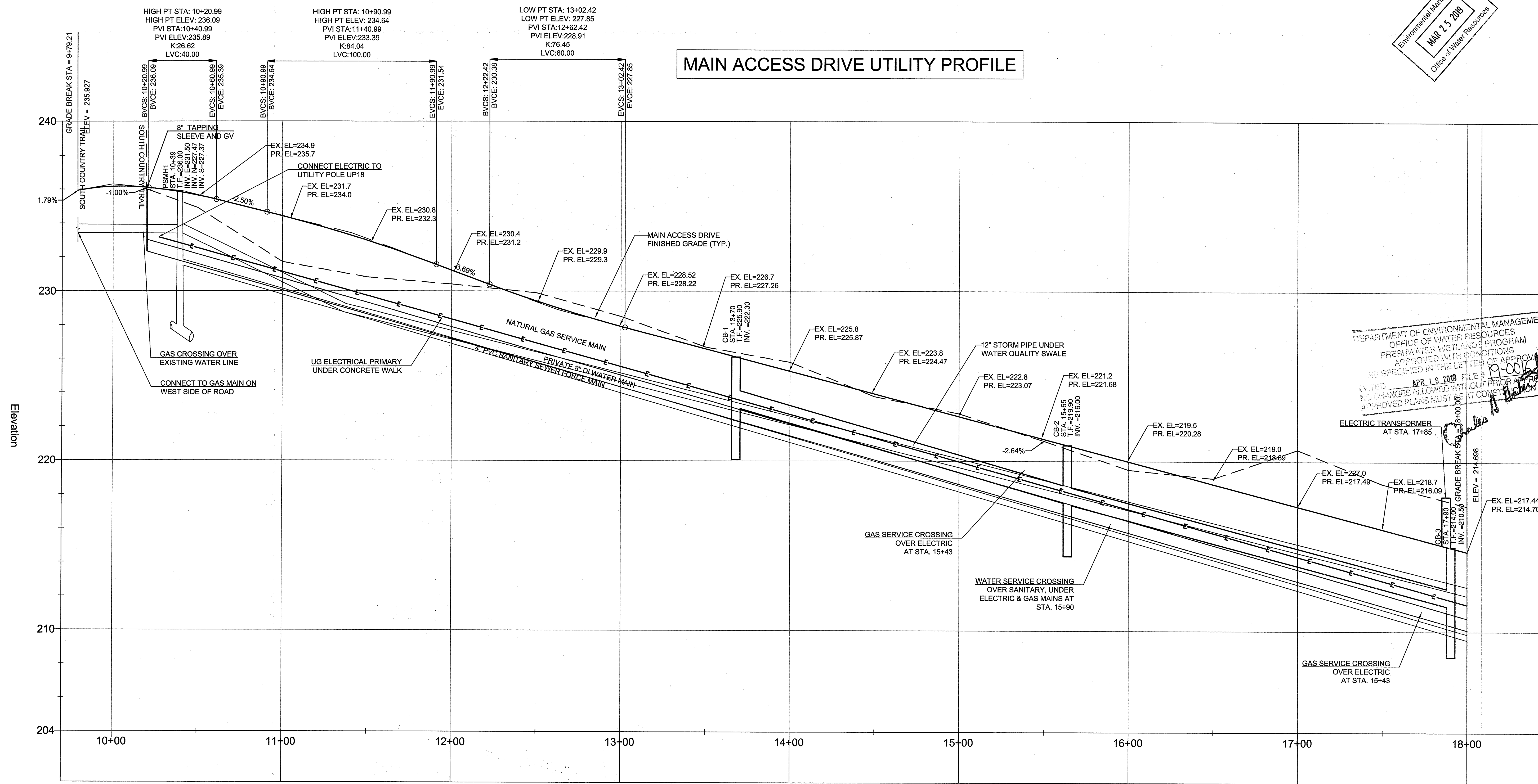


SEE SHEET C-1.0 FOR GENERAL AND PLAN SPECIFIC NOTES

PLAN INSET
1"=30'



MAIN ACCESS DRIVE UTILITY PROFILE



Environmental Management
 MAP 2.5.2018
 Office of Water Resources

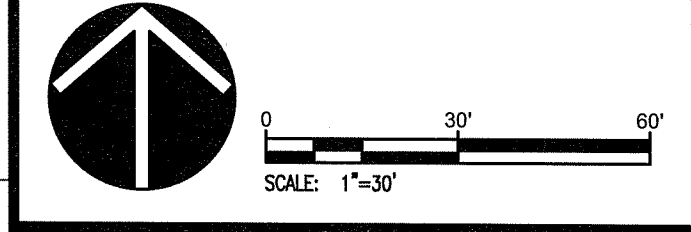
Applicant:
 Alfred Benesch & Company
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 Glastonbury, Connecticut 06033
 860-633-8341

Prepared for:
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 1264 Main Street
 Waltham, MA 02451
 President: Roberto Arista
 Secretary: Marc Daigle

BROOKSIDE TERRACE
1470 SOUTH COUNTRY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

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03/16/19	RESPONSE TO RIDEM COMMENTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED APR 18 2019 FILE # 19-001
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE



WILLIAM G. WALTER
 No. 12234
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

PROJECT NO: 70483.00 DRAWN BY: JFE, JHL
 SCALE: 1" = 30' CHECKED BY: WW
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UTILITY PLAN AND PROFILE (MAIN ACCESS ONLY)

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

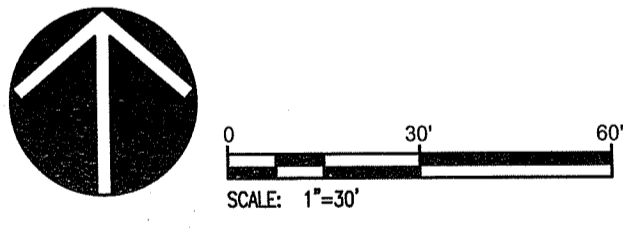
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LANDSCAPE LEGEND

- PROPERTY LINE
- PROPOSED TREES
- PROPOSED SHRUBS
- PROPOSED TREE CLEARING LIMIT
- PROPOSED SNOW STORAGE AREA

Environmental Management
MAR 25 2019
 Office of Water Resources

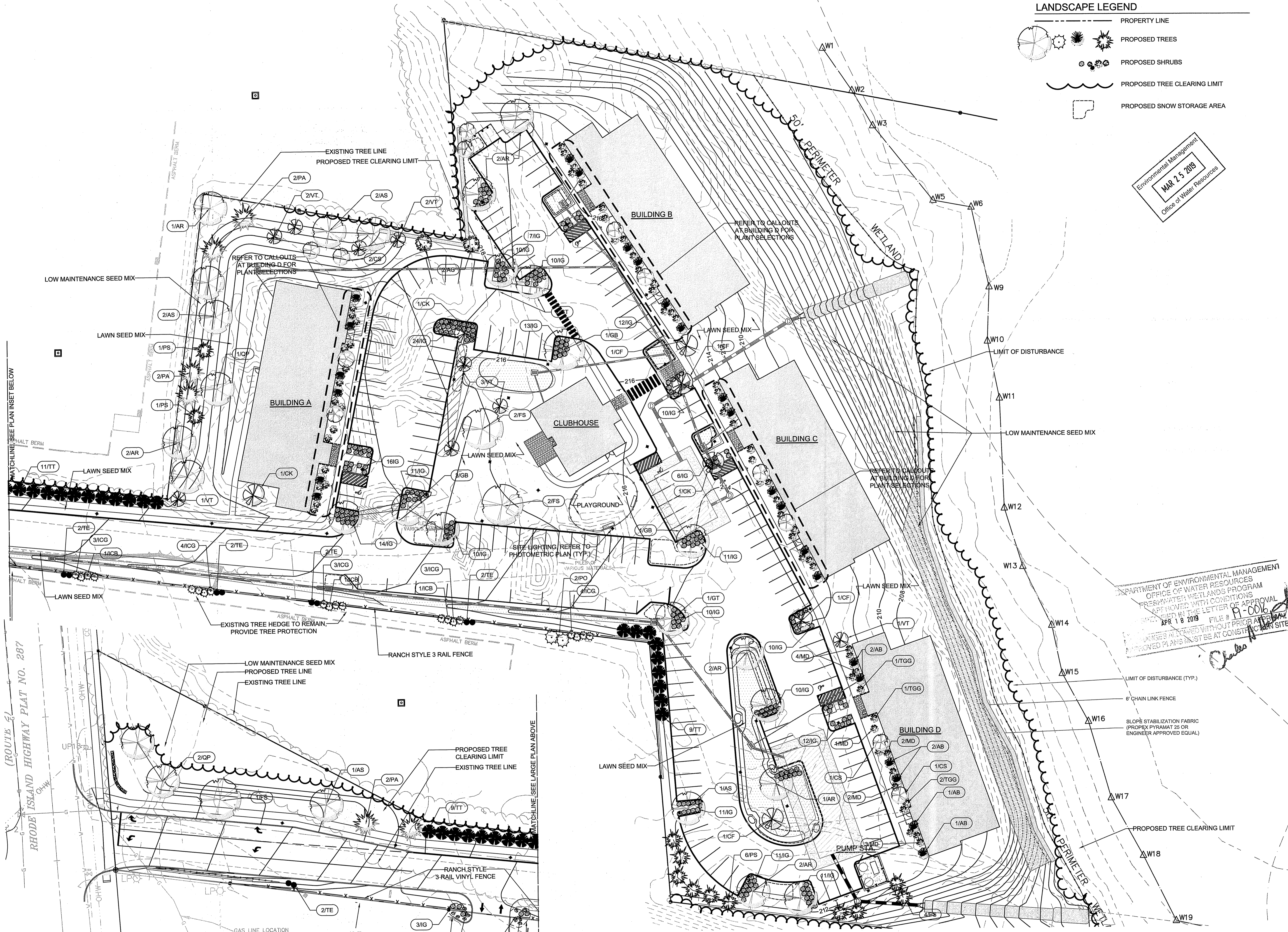
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SHOWN IN THE LETTER OF APPROVAL
 APR 18 2019 FILE # P-0016
 WORKS MUST BE AT CONSTRUCTION SITE



PROJECT NO.: 70483.00 DRAWN BY: JFE, JHL
 SCALE: 1" = 30' CHECKED BY: WW
 DATE: 09.05.2018

LANDSCAPE PLAN

SEE SHEET C-1.0 FOR GENERAL NOTES, SEE SHEET C-4.2 FOR LANDSCAPE NOTES AND SCHEDULE



GAS LINE LOCATION SUPPLIED BY NATIONAL GRID AND SHOULD BE CONSIDERED APPROXIMATE
 43.5'
 39.5'
PLAN INSET
 1"=30'

ROUTE 52
 RHODE ISLAND HIGHWAY PLAT NO. 287

MATCHLINE SEE LARGE PLAN ABOVE

MATCHLINE SEE PLAN INSET BELOW

LANDSCAPE NOTES

1. THE LANDSCAPE PLAN AND LANDSCAPE DETAIL SHEET ARE FOR LANDSCAPING INFORMATION ONLY. REFER TO OTHER DRAWINGS FOR ALL OTHER INFORMATION.
2. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE. PRIOR TO DIGGING AND INSTALLATION OF PLANT MATERIAL, THE CONTRACTOR SHALL CONTACT "DIG SAFE" 72 HOURS BEFORE COMMENCEMENT OF WORK AT (888)344-7233 AND VERIFY ALL UTILITY SYSTEM LOCATIONS.
3. THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO UTILITY LOCATIONS AND SITE CONDITIONS. THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS FOR THE REVIEW, ADJUSTMENT, AND APPROVAL BY OWNER OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.
4. THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF ONE YEAR OR JUNE 1ST OF THE YEAR FOLLOWING INSTALLATION, WHICHEVER IS LONGER, AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY OWNER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. PLANT MATERIAL REPLACEMENTS SHALL BE GUARANTEED FOR ONE FULL YEAR FROM DATE OF REPLACEMENT. REPLACEMENT PLANTS SHALL BE THE SAME AS SPECIFIED FOR THE ORIGINAL PLANTING. REPLACEMENTS SHALL BE MADE AS MANY TIMES AS NECESSARY TO ENSURE HEALTHY PLANTS. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL THE END OF THE GUARANTEE PERIOD.
5. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 200 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT.
6. PLANTS SHALL HAVE TAGS THAT IDENTIFY PLANT GENUS, SPECIES, CULTIVAR (IF APPLICABLE), PLANT COMMON NAME, NAME OF SOURCE NURSERY, AND SIZE OF PLANT FOR REVIEW OF OWNER OR LANDSCAPE ARCHITECT.
7. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER OR LANDSCAPE ARCHITECT.
8. FINAL GRADES SHALL BLEND SMOOTHLY WITH EXISTING GRADES, AND TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED.
9. ALL TREE AND SHRUB MASSINGS SHALL BE MULCHED TO A DEPTH OF 3". ANNUAL AND PERENNIAL BEDS SHALL BE MULCHED TO A DEPTH OF 2". MULCH SHALL BE UNCOLORED TRIPLE-SHREDDED HARDWOOD BARK MULCH, AGED AT LEAST 6 MONTHS.
10. IF TREE STAKING IS PROPOSED, TREE STAKING MUST BE COMPLETED THE SAME DAY AS THE TREE IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED PER DETAIL.
11. LANDSCAPE PLANTING AREAS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, DEAD OR DYING PLANT MATERIAL, BLASTED ROCK, STONES GREATER THAN 1" IN DIAMETER, AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT SHALL BE REMOVED FROM AREAS TO BE LANDSCAPED AS REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS.
12. PLANTING SOIL:

DEPTH: PLANTING SOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 6" OR AS NOTED IN THE LANDSCAPE DETAILS.
SOURCE: PLANTING SOIL MAY CONSIST OF EXISTING ON-SITE SOILS, AMENDED ON-SITE SOILS, IMPORTED SOILS, OR A COMBINATION THEREOF.

TESTING: CONTRACTOR SHALL SUBMIT (2) SOIL SAMPLES PER SOIL STOCKPILE TO A CERTIFIED TESTING LABORATORY TO DETERMINE ACIDITY, ORGANIC CONTENT, MECHANICAL ANALYSIS, AVAILABLE NUTRIENTS (N,P,K,Ca,Mg,S,Fe,Mn,Zn,Cu,B,Al,Pb) AND NECESSARY AMENDMENTS TO SOIL. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS TO THE OWNER OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. TEST RESULTS SHALL RECOMMEND AMENDMENTS THAT WILL ALTER THE SOIL CHARACTERISTICS SUCH THAT THE CHARACTERISTICS DESCRIBED BELOW ARE ACHIEVED AND THE SPECIFIED PLANTS (CONTRACTOR TO PROVIDE LIST TO TESTING LABORATORY) WILL ACHIEVE PROPER GROWTH THAT IS NEITHER DEFICIENT NOR EXCESSIVE. THE CONTRACTOR SHALL INCORPORATE THESE AMENDMENTS AT NO INCREASE IN CONTRACT PRICE.

- CHARACTERISTICS: PLANTING SOIL SHALL MEET THE FOLLOWING CRITERIA:
- A. NOT TO CONTAIN MATERIALS HARMFUL TO PLANT LIFE, TO BE CLEAN, FERTILE, FRIABLE, AND WELL DRAINING. ALL PLANTING SOIL SHALL BE FREE OF ANY SUBSOIL EARTH CLODS, SODS, STONES OVER 1" IN ANY DIMENSION, STICKS, ROOTS, WEEDS, LITTER AND OTHER DELETERIOUS MATERIAL.
 - B. PLANTING SOIL SHALL BE UNIFORM IN QUALITY AND TEXTURE.
 - C. PLANTING SOIL SHALL HAVE THE FOLLOWING OPTIMUM RANGES UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.

ORGANIC CONTENT	3% - 6% FOR LAWN OR GRASS AREAS.
	4% - 6% FOR TREE AND SHRUB PLANTERS.
	8% - 15% FOR RETENTION OR DETENTION BASINS.
(BY LOSS OF IGNITION AT 375 C METHOD OF TESTING)	
PH	6.0 - 7.3
 - D. NUTRIENT LEVELS SHALL BE ACHIEVED BY THE CONTRACTOR'S ADDITION OF AMENDMENTS TO THE PLANTING SOIL TO MEET THE OPTIMUM NUTRIENT LEVELS SPECIFIED IN THE TESTING LABORATORY REPORT FOR EACH OF PLANTS TO BE INSTALLED.
 - E. PLANTING SOIL SHALL BE COMPACTED TO A SURFACE PENETRATION RESISTANCE OF 75-125 LBS/SQ.IN.
 - F. PLANTING SOIL MAY BE TREATED FOR WEEDS WITH PRE-EMERGENT OR POST-EMERGENT HERBICIDE, AS NEEDED AND AS APPROPRIATE FOR THE APPLICATION SEASON OR LOCATION, OR ELIMINATE GROWTH OF UNWANTED PLANT MATERIAL. APPLY HERBICIDES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. HERBICIDE APPLICATOR MUST BE LICENSED IN THE STATE OF RHODE ISLAND, AND PERFORM APPLICATIONS IN ACCORDANCE WITH LOCAL REQUIREMENTS, PERMITTING STIPULATIONS, AND ANY OTHER RESTRICTIONS INCLUDING AND IN EXCESS OF STATE AND FEDERAL REGULATIONS.
 - G. PLANTING SOIL SHALL MEET THE USDA SOILS TEXTURAL PERCENTAGES OF SAND, SILT, AND CLAY FOR FOLLOWING CLASSIFICATIONS:
 - LOAM
 - SANDY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS NOT LESS THAN 5%
 - SANDY CLAY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS LESS THAN 28%
 - H. BIORETENTION SOILS: SOIL TO BE INSTALLED IN RETENTION BASINS, PONDS, OR OTHER STORMWATER MANAGEMENT ENVIRONS SHALL MEET THE ABOVE DESCRIBED CHARACTERISTICS AND AS FOLLOWS:
 - SOIL SHALL NOT CONTAIN MORE THAN 20% CLAY AND LESS THAN 40% SILT.
 - SOIL SHALL HAVE AN INFILTRATION RATE BETWEEN 1/2" AND 3" PER HOUR.
 - I. MODIFICATION TO THE PLANTING SOIL CHARACTERISTICS DESCRIBED ABOVE MAY BE SUBMITTED FOR APPROVAL BY THE LANDSCAPE ARCHITECT. CONTRACTOR MUST DEMONSTRATE PROPOSED CHARACTERISTICS ARE EQUAL TO OR SUPERIOR TO THE SPECIFIED CHARACTERISTICS WITH RESPECT TO SUPPORTING PLANT GROWTH, AND STORMWATER MANAGEMENT.

12. PLANTING AMENDMENTS: APPLY FERTILIZER AND OTHER AMENDMENTS AS RECOMMENDED FOR EACH PLANTING AREA BY SOIL ANALYSIS. APPLY AMENDMENTS IN A MANNER CONSISTENT WITH MANUFACTURER'S RECOMMENDATIONS. ANY ORGANIC AMENDMENTS SHALL HAVE A pH BETWEEN 4.5 AND 5.5 UNLESS OTHERWISE RECOMMENDED.

13. PLANT REQUIREMENTS: ALL PLANTS SHALL CONFORM IN SIZE AND GRADE TO THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1 (LATEST EDITION). ALL PLANTS SHALL MEET THE ADDITIONAL REQUIREMENTS SET FORTH BELOW AND IN WRITTEN SPECIFICATIONS AS APPLICABLE. ALL TREES AND SHRUBS SHALL HAVE BEEN GROWN AT A COMMERCIAL NURSERY WITHIN 200 MILES OF THE PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. THEY SHALL BE HEALTHY, SYMMETRICAL, EVENLY AND DENSELY BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF BARK INJURY, DISEASE, AND INSECT PESTS. ALL TREES SHALL HAVE A STRAIGHT TRUNK WITH A SINGLE MAIN LEADER UNLESS OTHERWISE CHARACTERISTIC OF THE SPECIES OR VARIETY. THE OWNER OR LANDSCAPE ARCHITECT WILL ALLOW SUBSTITUTIONS ONLY UPON WRITTEN APPROVAL. SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED MAY BE USED IF APPROVED, BUT THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL OVERSTORY TREES PLANTED ALONG PARKING AREAS, SIDEWALKS AND PEDESTRIAN ACCESSES SHALL NOT BRANCH BELOW 7' FEET IF THE TREE CALIPER IS 3" INCHES OR GREATER. ALL PLANT MATERIALS ARE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE. THE CONTRACTOR SHALL COORDINATE SOURCE VISITS WITH THE LANDSCAPE ARCHITECT AND SHALL ACCOMPANY THE OWNER AND/OR LANDSCAPE ARCHITECT FOR ALL INSPECTIONS. CERTIFICATES OF COMPLIANCE WITH SPECIFICATIONS ARE REQUIRED FOR ALL PLANTS.

14. INSPECTION AND REVIEW: ALL PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE OR PLACE OF GROWTH. THE CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE ARCHITECT ON A SCHEDULE FOR SOURCE VISITS AND ACCOMPANY THE OWNER OR LANDSCAPE ARCHITECT FOR ALL SOURCE INSPECTIONS. CERTIFICATES OF COMPLIANCE ARE REQUIRED FOR ALL PLANT MATERIALS. PHOTOGRAPHS MUST BE PROVIDED IN QUANTITY AND PHOTOGRAPHIC REVIEW OF PLANT MATERIAL IS ACCEPTABLE IF APPROVED BY LANDSCAPE ARCHITECT. PHOTOGRAPHS MUST BE PROVIDED IN QUANTITY AND VARIETY TO ALLOW LANDSCAPE ARCHITECT SUFFICIENT INFORMATION TO MAKE A REASONABLE DETERMINATION AS TO THE PLANTS' QUALITY. OWNER AND LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT PLANT MATERIAL DELIVERED TO THE SITE BUT PREVIOUSLY ACCEPTED IF DAMAGED OR NOT PROPERLY MAINTAINED DURING THE DELIVERY PROCESS.

15. PLANTING SEASONS (UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT)

	SPRING	FALL
EVERGREEN TREES AND SHRUBS	APRIL 1 TO JUNE 1	SEPTEMBER 1 TO NOVEMBER 1
DECIDUOUS TREES AND SHRUBS	APRIL 1 TO JUNE 1	SEPTEMBER 15 TO NOVEMBER 15
GROUNDCOVERS	APRIL 1 TO JUNE 1	SEPTEMBER 1 TO NOVEMBER 1
PERENNIALS	MAY 15 TO JUNE 1	SEPTEMBER 1 TO NOVEMBER 1
BULBS	N/A	SEPTEMBER 15 TO NOVEMBER 15
SEED MIXES	PER MANUFACTURER'S RECOMMENDATIONS OR AS LISTED IN SEED MIX NOTES	

16. SEEDING MIXTURES: REFER TO SEED MIX NOTES. SEEDING AREA SHALL BE ACCEPTED WHEN SEED AREA ACHIEVES 85% COVERAGE.

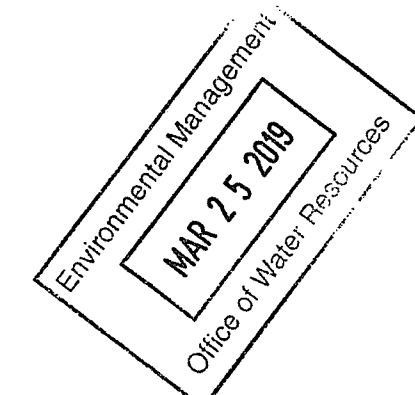
17. ALL SLOPES STEEPER THAN 3:1 RECEIVING A SEED MIX SHALL BE COVERED WITH AN EROSION CONTROL BLANKET OF STRAW FIBER AND BIODEGRADABLE OR PHOTODEGRADABLE NETTING.

18. UNLESS OTHERWISE NOTED IN DRAWING SET, NEW TREELINES SHALL EQUAL CLEARING AND GRUBBING LIMIT FOR CONSTRUCTION.

19. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL BE SEEDDED WITH THE CONSERVATION SEED MIX UNLESS FORMERLY LAWN AREAS OR AREAS IMMEDIATELY ADJACENT TO EXISTING LAWN AREAS.

SEED MIX NOTES

- A. LAWN SEED MIX - LOFTS SEED COMPANY OR APPROVED EQUAL LOCATIONS - ADJACENT TO DRIVEWAYS, PARKING AREAS, PARKING ISLANDS, AND BUILDINGS, NOT OTHERWISE MULCHED AS DEFINED BY THE LANDSCAPE DETAILS.
70% TALL FESCUE - FESTUCA ARUNDINACEA
30% CREEPING RED FESCUE - FESTUCA RUBRA
SEEDING RATE: 5 LBS PER 1,000 S.F. (ADD 10% TO QUANTITY IF HYDROSEED.)
SEEDING DATES: AUGUST 15 - OCTOBER 1 AND APRIL 15 - JUNE 30 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.
- B. LOW MAINTENANCE SEED MIX - NEW ENGLAND CONSERVATION/WILDLIFE MIX
NEW ENGLAND WETLAND PLANTS INC. OR APPROVED EQUAL LOCATIONS - ALL AREAS NOT SEEDDED WITH LAWN SEED MIX.
SPECIES: VIRGINIA WILD RYE, (ELYMUS VIRGINICUS), LITTLE BLUESTEM, (SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM, (ANDROPOGON GERARDII), CREEPING RED FESCUE, (FESTUCA RUBRA), SWITCH GRASS, (PANICUM VIRGATUM), PARTRIDGE PEA, (CHAMAECRISTA FASCICULATA), DEER TONGUE, (PANICUM CLANDESTINUM), INDIAN GRASS, (SORGHASTRUM NUTANS), OX EYE SUNFLOWER, (HELIOPSIS HELIANTHOIDES), COMMON MILKWEED, (ASCLEPIAS SYRACA), SPOTTED JOE PYE WEED, (EUPATORIUM MACULATUM), GRASS LEAVED GOLDENROD, (EUTHAMIA GRAMINIFOLIA), BLUE VERVAIN, (VERBENA HASTATA), NEW ENGLAND ASTER, (ASTER NOVAE-ANGLIAE), EARLY GOLDENROD, (SOLIDAGO JUNCEA).
APPLICATION RATE: 25 LBS/ ACRE (1 LB PER 1,750 SF)
SEEDING DATES: AUGUST 15 - OCTOBER 1 AND APRIL 15 - JUNE 30 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.
- C. WETLAND SEED MIX - NEW ENGLAND WETMIX (WETLAND SEED MIX)
NEW ENGLAND WETLAND PLANTS INC. OR APPROVED EQUAL LOCATIONS - DETENTION BASIN.
SPECIES: FOX SEDGE(CAREX VULPINOIDEA), LURID SEDGE, (CAREX LURIDA), BLUNT BROOM SEDGE, (CAREX SCOPARIA), SENSITIVE FERN (ONOCLEA SENSIBILIS), BLUE VERVAIN, (VERBENA HASTATA), HOP SEDGE, (CAREX LUPULINA), GREEN BULRUSH, (SCIRPUS ATROVIRENS), NODDING BUR MARIGOLD, (GIDENS GER-NUA), BRISTLY SEDGE, (CAREX COMOSA), FRINGED SEDGE, (CAREX CRINITA), AMERICAN MANNAGRASS, (GLYCERIA GRANDIS), WOOL GRASS, (SCIRPUS CYPERINUS), SOFT RUSH, (JUNCUS EFFUSUS), SPOTTED JOE PYE WEED, (EUPATORIUM MACULATUM), BONESET, (EUPATORIUM PERFOLIATUM), MUD PLANTAIN, (ALISMA SUBCORDATUM), NEW ENGLAND ASTER, (ASTER NOVAE-ANGLIAE), RATTLESNAKE GRASS, (GLYCERIA CANADENSIS), PURPLESTEM ASTER (ASTER PUMICEUS), SOFT STEM BULRUSH, (SCIRPUS VALIDUS), BLUEFLAG (IRIS VERSICOLOR), SWAMP MILKWEED, (ASCLEPIAS INCARNATA), MONKEY FLOWER, (MIMULUS RINGENS).APPLICATION RATE: 20 LBS/ACRE AT STORMWATER PONDS
SEEDING DATES: AUGUST 15 - OCTOBER 1 AND APRIL 15 - JUNE 30 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.



Applicant:
benesch
Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:
DAKOTA PARTNERS
1264 Main Street
Waltham, MA 02451
President: Roberto Arista
Secretary: Marc Daigle

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
MAP 71 AP 10 LOT 378

LANDSCAPE SCHEDULE

NO	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	ROOT	COMMENT
DECIDUOUS TREES						
6	AS	Acer saccharum 'Green Mountain'	Green Mountain Maple	2.5" - 3" CAL	B&B or Cont.	Single-Stem. Uniform, Well-developed
10	AR	Acer rubrum 'October Glory'	October Glory Red Maple	2.5" - 3" CAL	B&B or Cont.	Single-Stem. Uniform, Well-developed
4	GT	Gleditsia triacanthos var. inermis	Thornless Honeylocust	2.5" - 3" CAL	B&B or Cont.	Single-Stem. Uniform, Well-developed
3	CF	Cornus florida 'Cherokee Princess'	White Flowering Dogwood	2.5" - 3" CAL	B&B or Cont.	Single-Stem. Uniform, Well-developed
3	CK	Cornus kousa 'Autumn Rose'	Autumn Rose Dogwood	2.5" - 3" CAL	B&B or Cont.	Single-Stem. Uniform, Well-developed
3	FS	Fagus sylvatica	Weeping European Beech	2.5" - 3" CAL	B&B or Cont.	Multi-Stem, Select Weeping Variety
5	GB	Ginkgo biloba 'Princeton Sentry' (MALE)	Princeton Sentry Maidenhair Tree	2.5" - 3" CAL	B&B or Cont.	Single-Stem. Uniform, Well-developed
3	QP	Quercus palustris	Pin Oak	2.5" - 3" CAL	B & B	Single-Stem. Uniform, Well-developed
EVERGREEN TREES						
6	PA	Picea abies	Norway Spruce	7'-8' HT.	B&B or Cont.	Uniform, Well-developed
3	PG	Picea glauca	White Spruce	7'-8' HT.	B&B or Cont.	Uniform, Well-developed
2	PO	Picea orientalis	Oriental Spruce	7'-8' HT.	B&B or Cont.	Uniform, Well-developed
12	PS	Pinus strobus	White Pine	8'-10' HT.	B&B or Cont.	Uniform, Well-developed
10	TE	Thuja occidentalis 'Emerald Green'	Emerald Green Arborvitae	7'-8' HT.	B&B or Cont.	Uniform, Well-developed
29	TT	Thuja occidentalis 'Techny'	Techny Arborvitae	7'-8' HT.	B&B or Cont.	Uniform, Well-developed
SHRUBS						
24	AB	Aronia arbutifolia 'Brilliantissima'	Red Chokeberry	42"-48" HT.	CONT.	Multi-Stem, Uniform, Well-developed
10	CS	Cornus sericea	Redoiser Dogwood	36"-48" HT.	CONT.	Multi-Stem, Uniform, Well-developed
254	IG	Ilex glabra 'Compacta'	Compact Inkberry	24" HT.	CONT.	Multi-Stem, Uniform, Well-developed
3	ICB	Ilex x meserveae 'China Boy'	China Boy Merserve Holly	30" HT.	B & B	Uniform, Well-developed
17	ICG	Ilex x meserveae 'China Girl'	China Girl Merserve Holly	30" HT.	B & B	Uniform, Well-developed
48	MD	Microbiota decussata	Russian Arborvitae	18" - 24" Spread	CONT.	Multi-Stem, Uniform, Well-developed
16	TGG	Thuja occidentalis 'Golden Globe'	Golden Globe Arborvitae	24" HT.	CONT.	Multi-Stem, Uniform, Well-developed
9	VT	Viburnum plicatum var. tomentosum	Doublefile Viburnum	5'-6" HT.	CONT.	Multi-Stem, Uniform, Well-developed

NOTES:
1) CULTIVARS FOR PLANTS IDENTIFIED ABOVE AS STRAIGHT SPECIES MAY BE PROPOSED IF THE CULTIVAR EXHIBITS THE VISUAL AND CULTURAL CHARACTERISTICS TYPICAL OR SUPERIOR TO THE STRAIGHT SPECIES. BEFORE CHANGES OR SUBSTITUTIONS CAN BE MADE DUE TO UNAVAILABILITY OF PLANT MATERIAL, SUBMIT SATISFACTORY EVIDENCE THAT THE CONTRACTOR HAS ADVERTISED FOR A ONE MONTH PERIOD IN A TRADE JOURNAL SUCH AS THE "AMERICAN NURSERYMAN", (TEL. 312-427-7339 AND FAX: 312-427-7346), WITH NO RESPONSE, OR HAS UNDERTAKEN OTHER METHODS OF LOCATING PLANT MATERIAL ACCEPTABLE TO THE LANDSCAPE ARCHITECT OR ENGINEER. ALL SUBSTITUTIONS MUST RECEIVE APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO SITE.

- 2) PROVIDE AND INSTALL ALL PLANTS SHOWN ON THE PLANTING PLAN DRAWINGS; THE QUANTITIES IN THE PLANT LIST ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. IF DISCREPANCIES OCCUR, THE LARGER QUANTITY SHALL APPLY.
- 3) IF THERE IS A DISCREPANCY BETWEEN BOTANICAL AND COMMON NAME, BOTANICAL NAME PREVAILS.
- 4) PROPOSED TREE CALIPER IS MEASURE 6" ABOVE ROOT BALL.

MAINTENANCE REQUIREMENTS:
1. ALL SPECIFIED PLANTS REQUIRE ARE ADAPTED TO THE STATE OF RHODE ISLAND CLIMATE AND SPECIFIC PROPOSED SITE CONDITIONS. MINIMAL MAINTENANCE OF PROPOSED PLANTINGS IS REQUIRED.
2. REFER TO LANDSCAPE NOTES FOR PLANT WARRANTY AND MAINTENANCE REQUIREMENTS DURING ESTABLISHMENT.

DATE	REVISION:
09/26/18	STAFF COMMENTS
10/10/18	RESPONSE TO COMMENTS
11/13/18	STAFF COMMENTS
01/10/19	RESPONSE TO COMMENTS
02/1/19	RESPONSE TO COMMENTS
03/18/19	RESPONSE TO RIDEM COMMENTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
APR 18 2018 FILE # 19-0016
ALL CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT NO: 70483.00 DRAWN BY: JPE, JHL
SCALE: 1" = 30'
DATE: 09.05.2018 CHECKED BY: WW

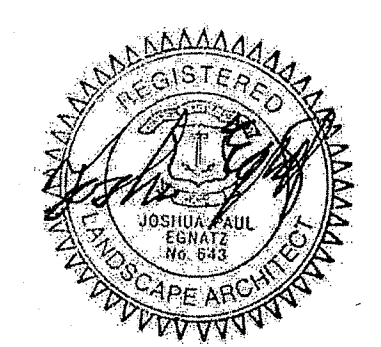
LANDSCAPE NOTES AND SCHEDULE

Environmental Management
 Office of Water Resources
 MAR 25 2019

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

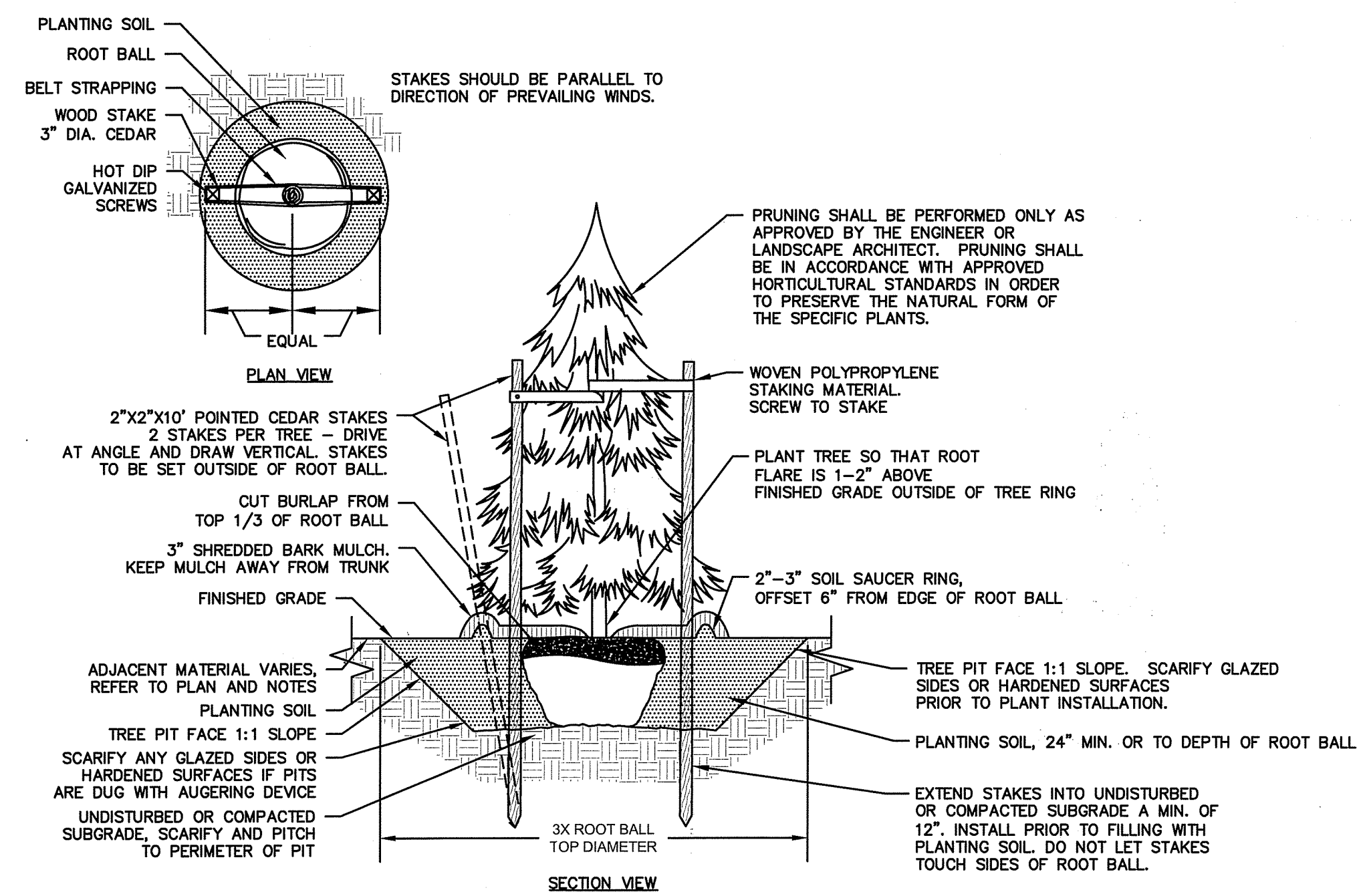
DATE	REVISION
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11/13/18	STAFF COMMENTS
01/10/19	RESPONSE TO COMMENTS
02/1/19	RESPONSE TO COMMENTS
03/18/19	RESPONSE TO RIDEW COMMENTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED APR 18 2019 FILE # 19-004
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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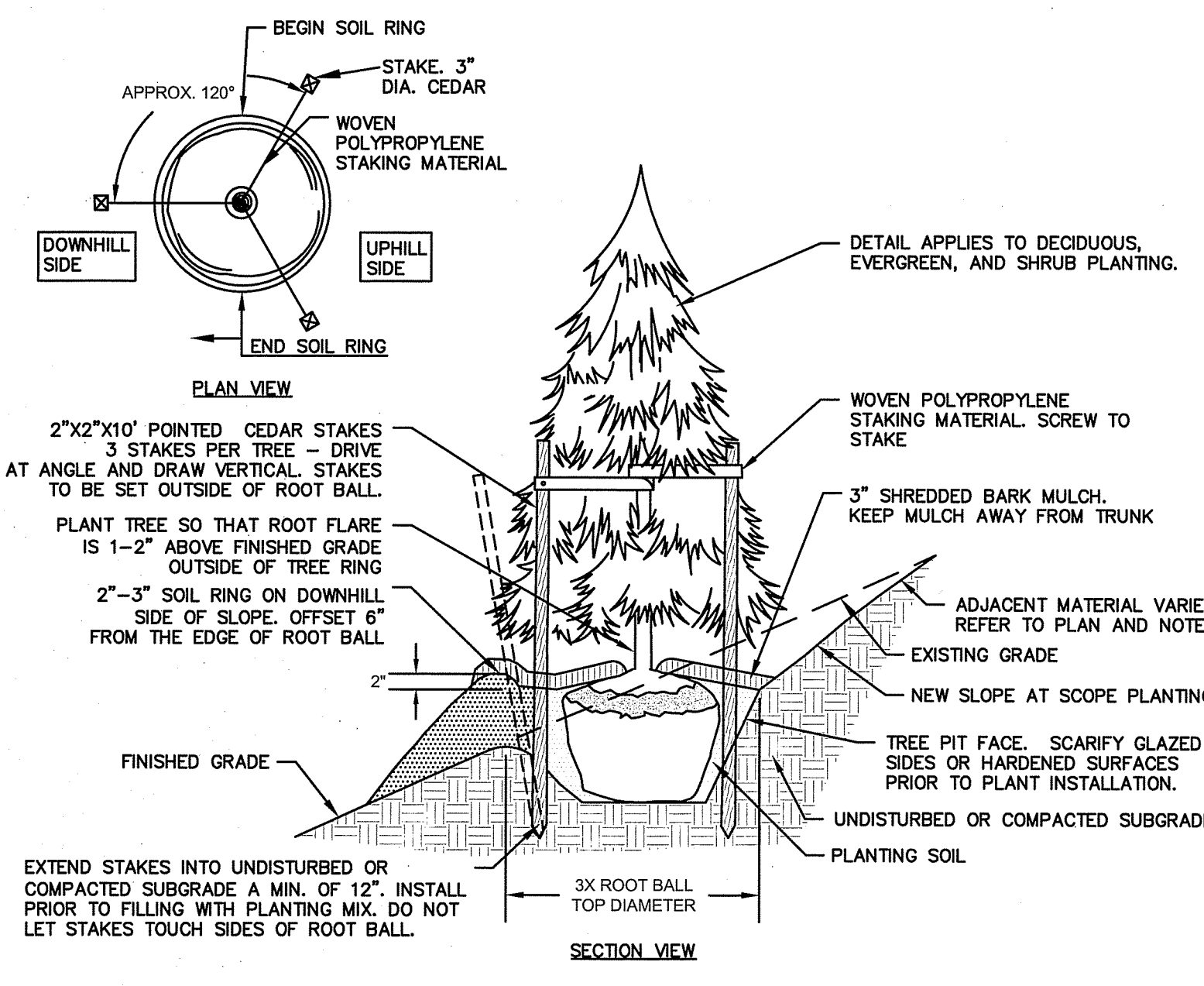


PROJECT NO: 70483.00
 SCALE: 1" = 30'
 DATE: 09.05.2018
 DRAWN BY: JFE, JHL
 CHECKED BY: WW

LANDSCAPE DETAILS

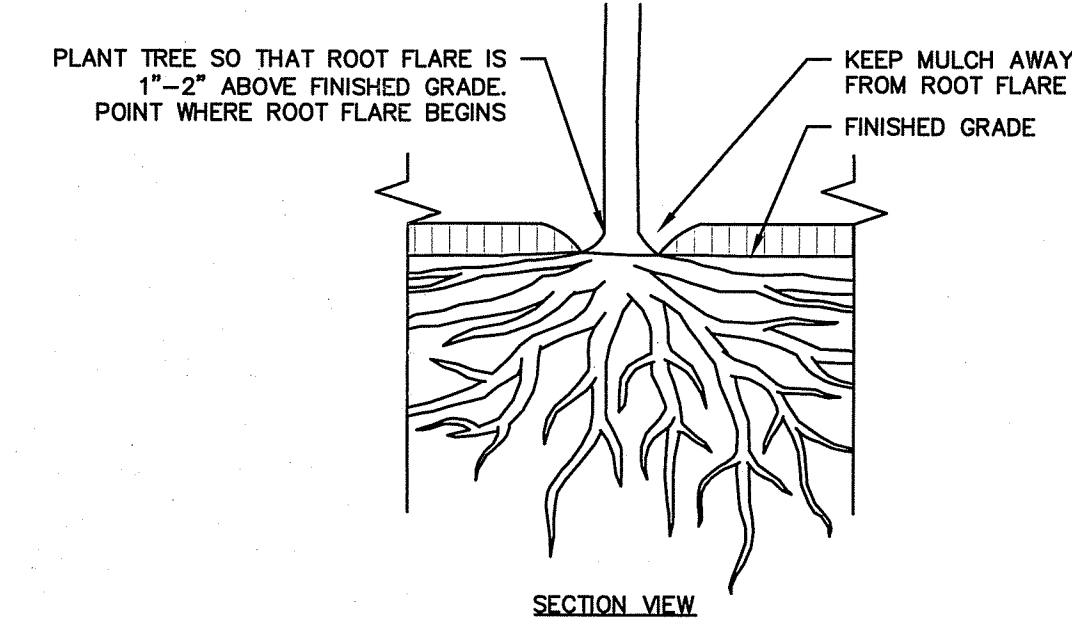
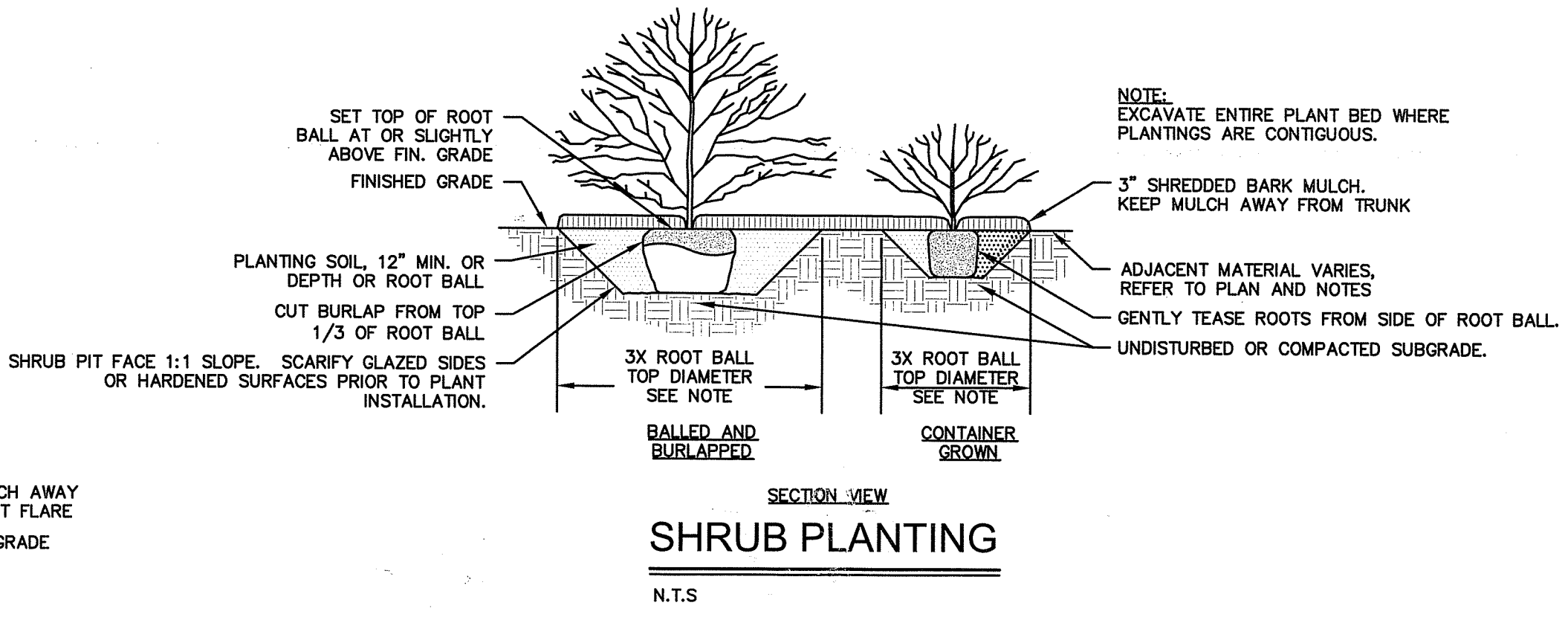
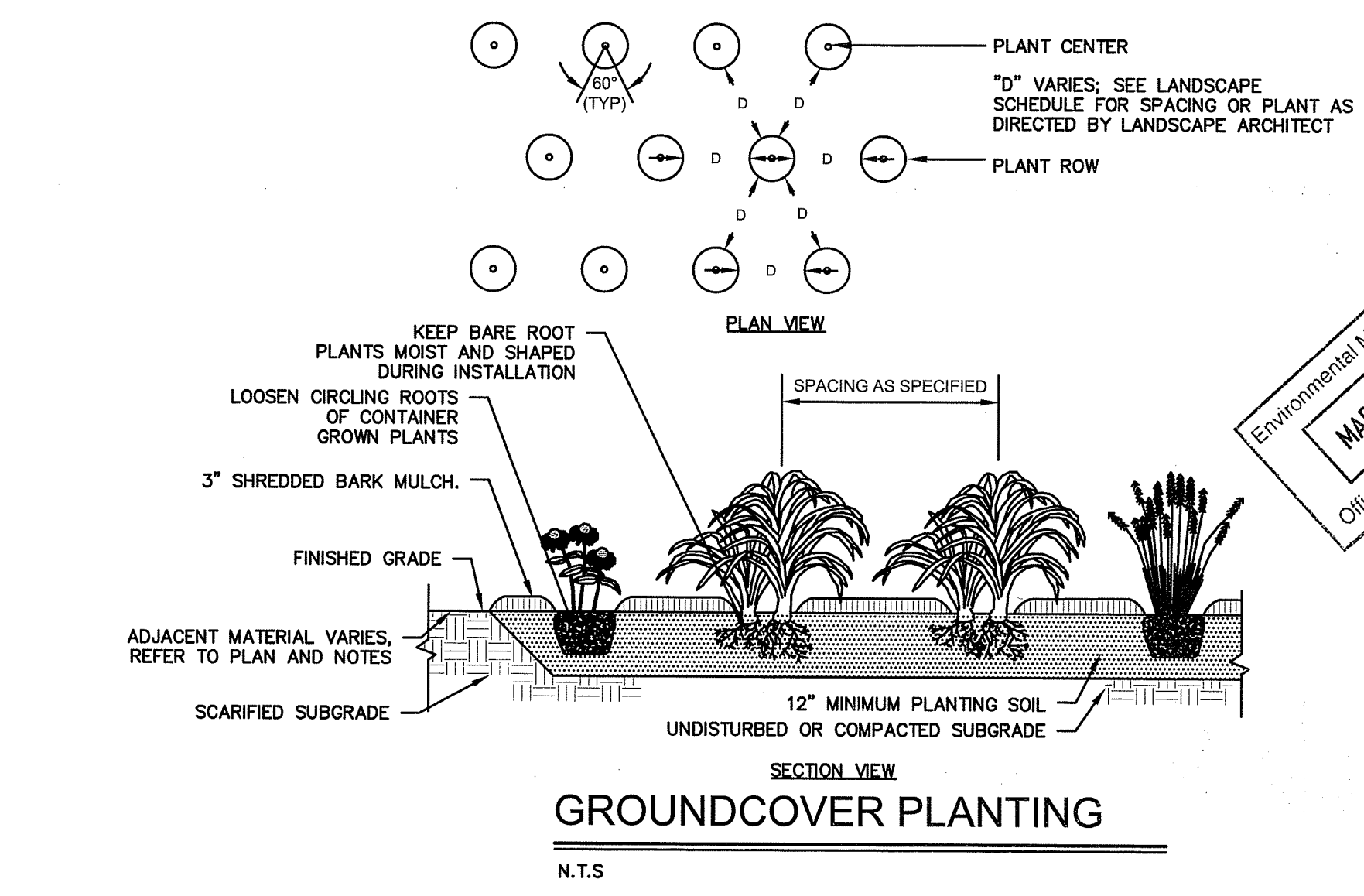


- NOTES:
- STAKING FOR TREES ON 4:1 SLOPES OR LESS TO BE PERFORMED AT CONTRACTOR'S DISCRETION.
 - WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
 - BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL - SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC OR HAS BEEN TREATED WITH ANTI-DESSICANT, COMPLETELY REMOVE IT FROM ROOT BALL.

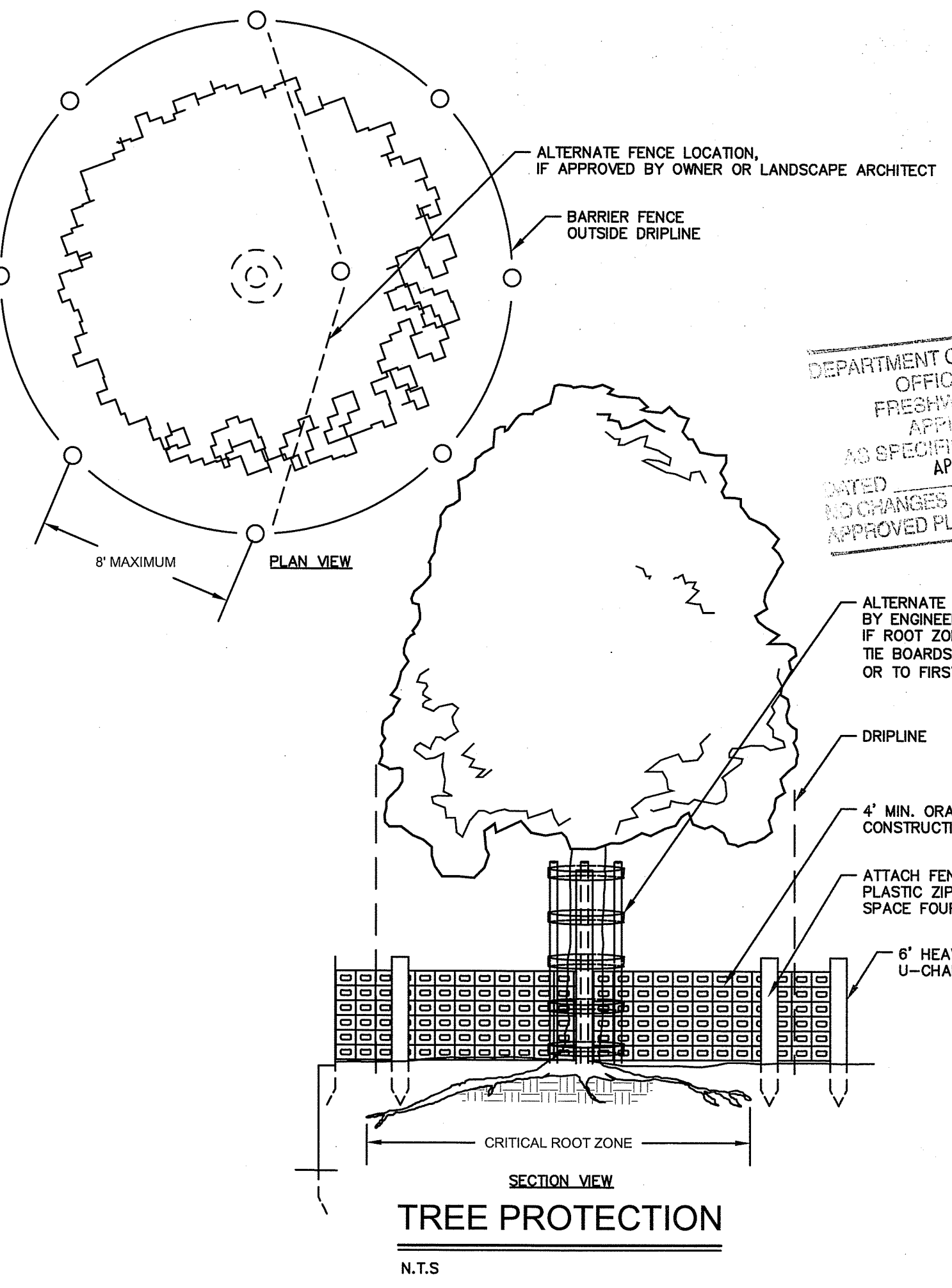


- NOTES:
- TREES AT SLOPES 4:1 OR GREATER MUST BE STAKED. THIS DETAIL SHALL APPLY TO TREE PLANTING ON 4H:1V SLOPES OR STEEPER UNLESS OTHERWISE DIRECTED BY OWNER OR OWNER'S REPRESENTATIVE.
 - WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
 - BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL - SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC, OR HAS BEEN TREATED WITH ANTI-DESSICANT, COMPLETELY REMOVE IT FROM ROOT BALL.

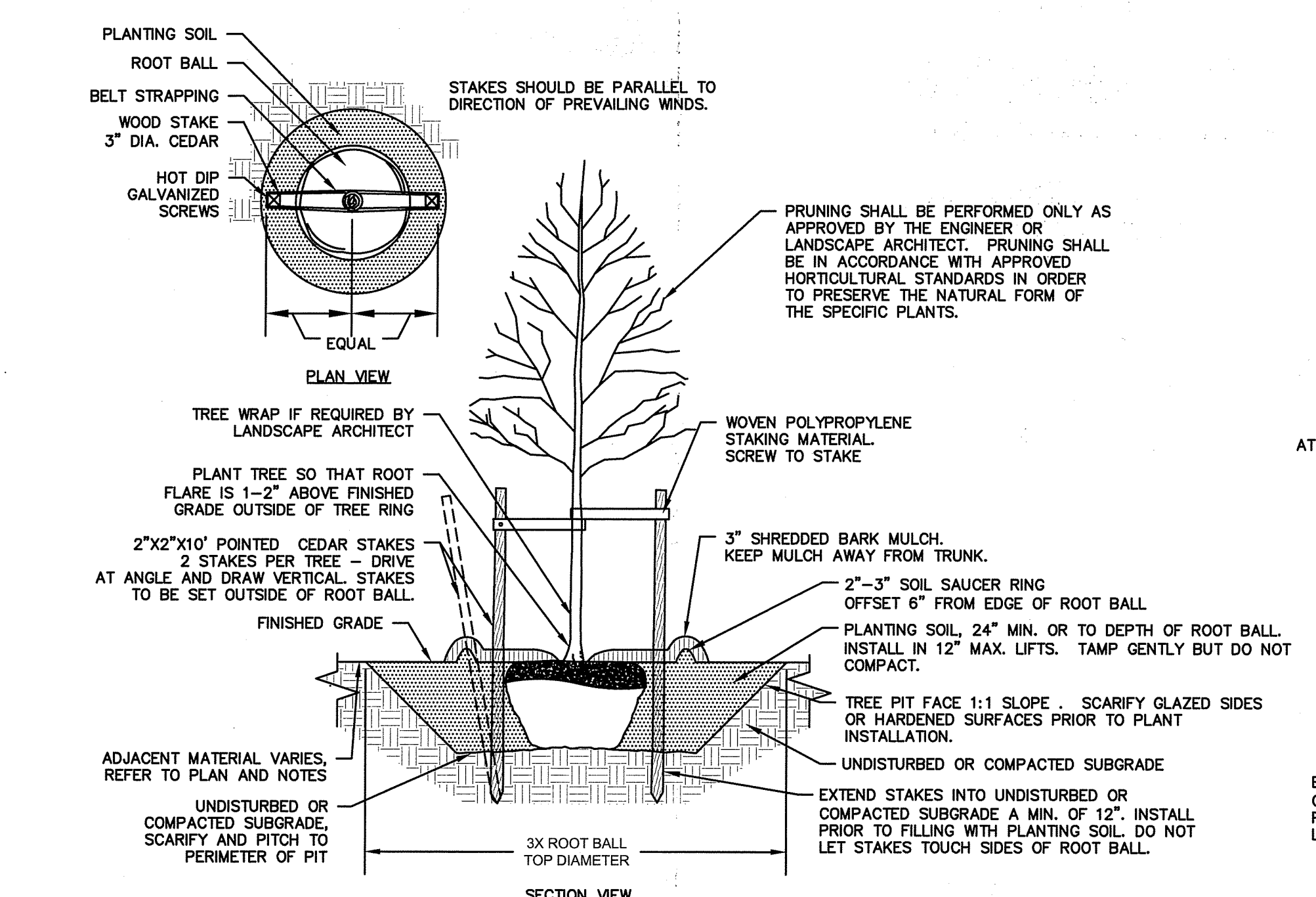
SLOPE PLANTING
 N.T.S.



ROOT FLARE DIAGRAM
 N.T.S.

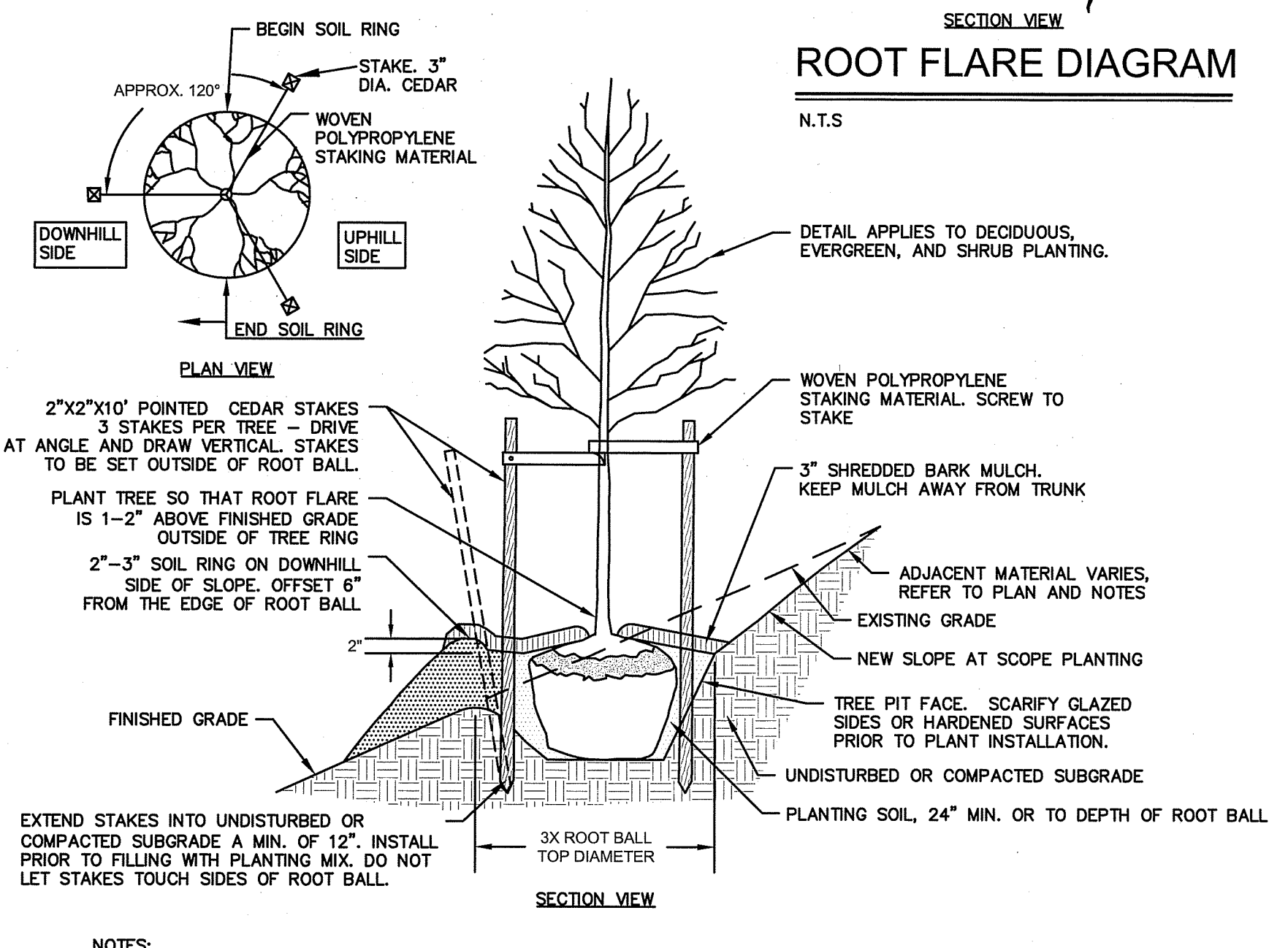


TREE PROTECTION
 N.T.S.



- NOTES:
- STAKING FOR TREES ON SLOPES SHALLOWER THAN 4:1 OR LESS THAN 3" CALIPER TO BE PERFORMED AT CONTRACTOR'S DISCRETION.
 - WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
 - BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL - SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC OR HAS BEEN TREATED WITH ANTI-DESSICANT, COMPLETELY REMOVE IT FROM ROOT BALL.

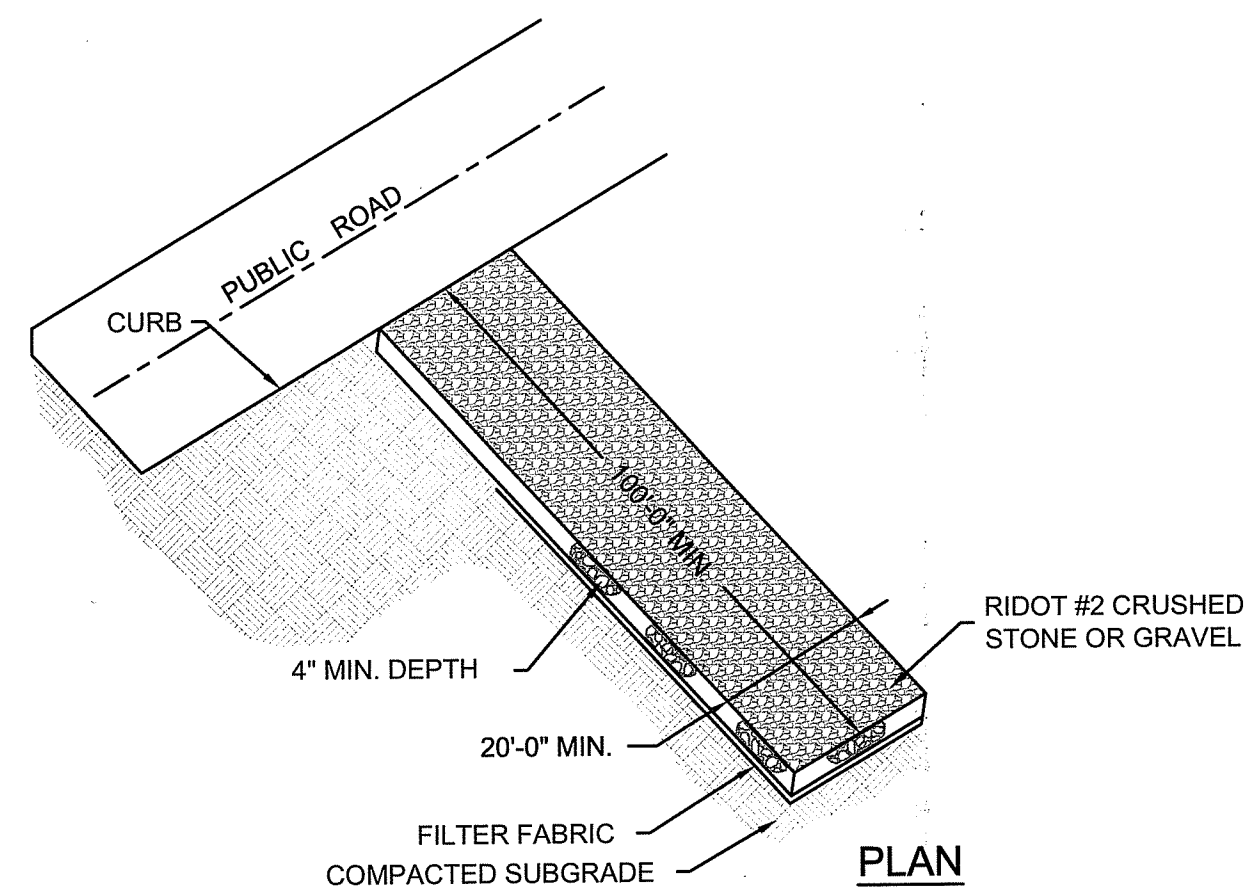
DECIDUOUS TREE PLANTING
 N.T.S.



- NOTES:
- TREES AT SLOPES 4:1 OR GREATER MUST BE STAKED. THIS DETAIL SHALL APPLY TO TREE PLANTING ON 4H:1V SLOPES OR STEEPER UNLESS OTHERWISE DIRECTED BY OWNER OR OWNER'S REPRESENTATIVE.
 - WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
 - BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL - SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC, OR HAS BEEN TREATED WITH ANTI-DESSICANT, COMPLETELY REMOVE IT FROM ROOT BALL.

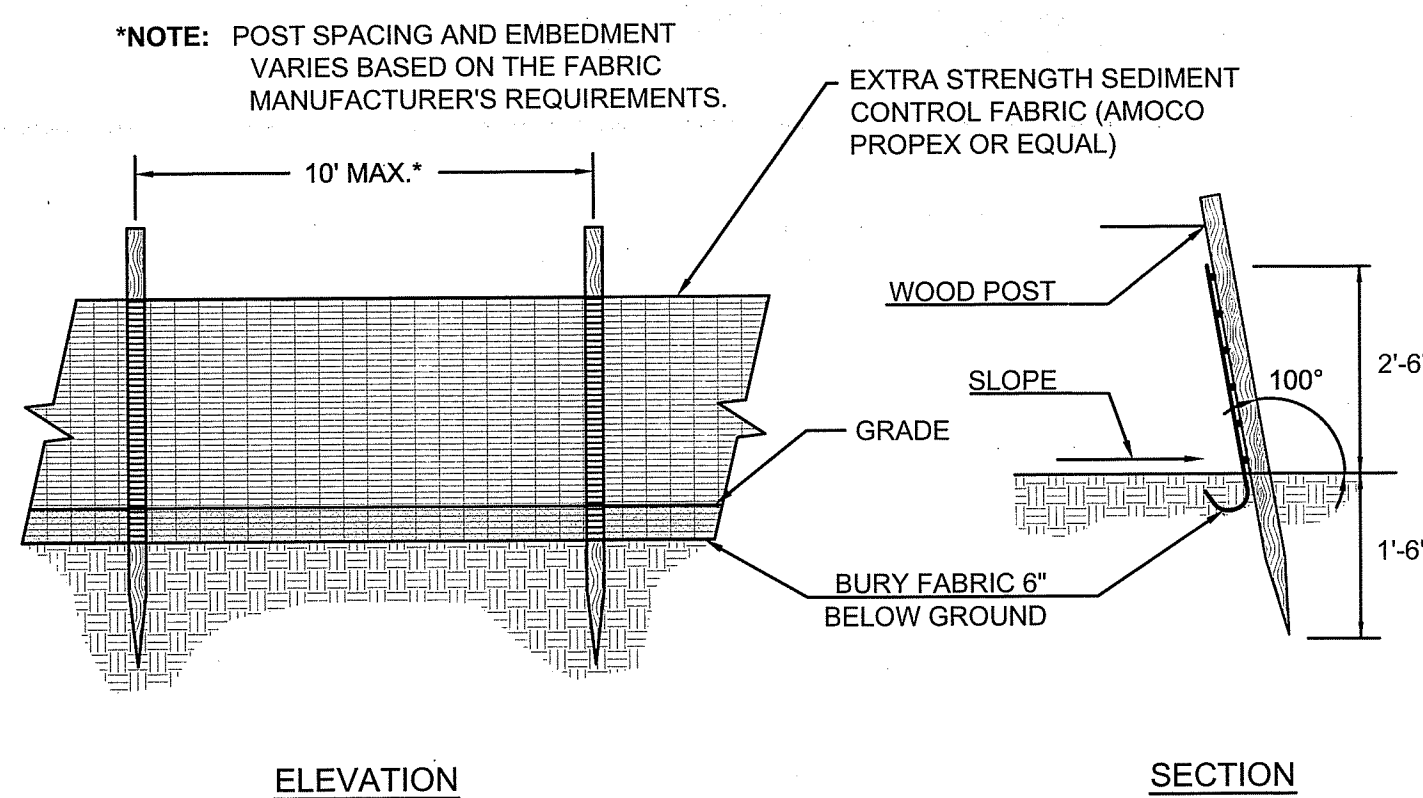
SLOPE PLANTING
 N.T.S.

SEE SHEET C-1.0 FOR GENERAL NOTES, SEE SHEET C-4.2 FOR LANDSCAPE NOTES AND SCHEDULE



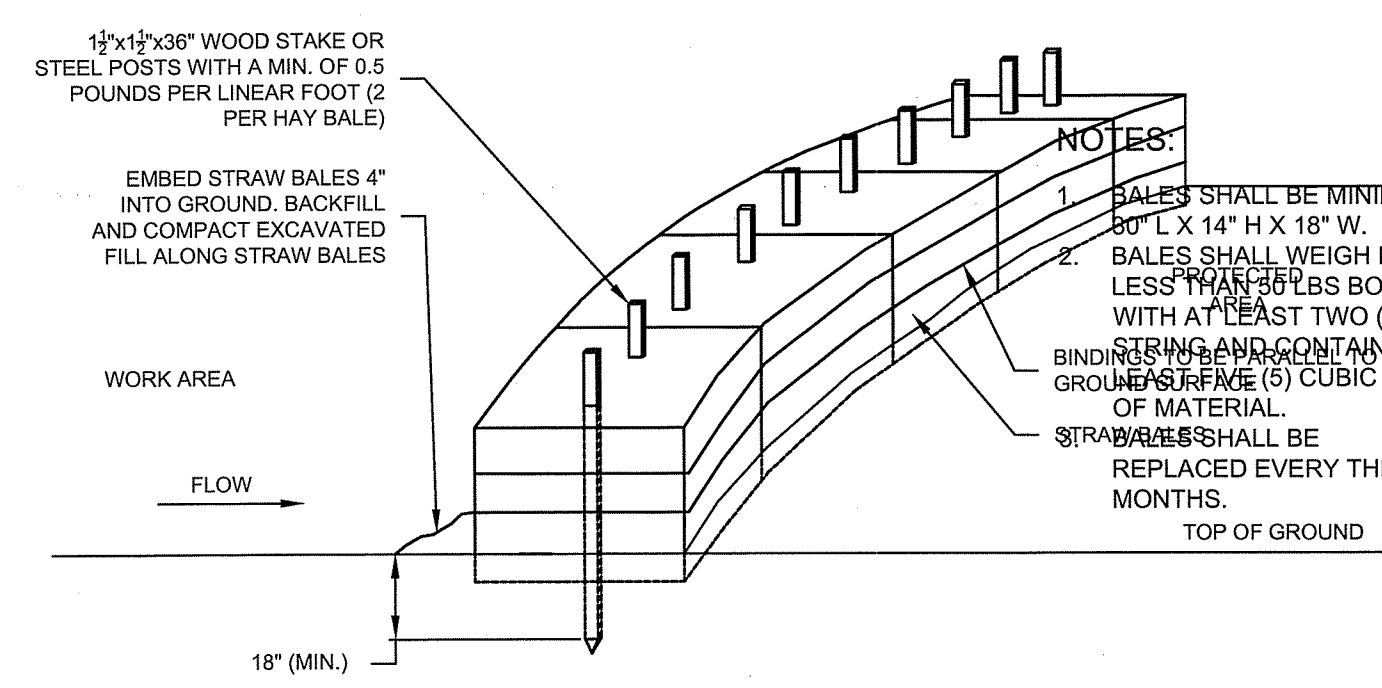
CONSTRUCTION ENTRANCE

SCALE: NONE



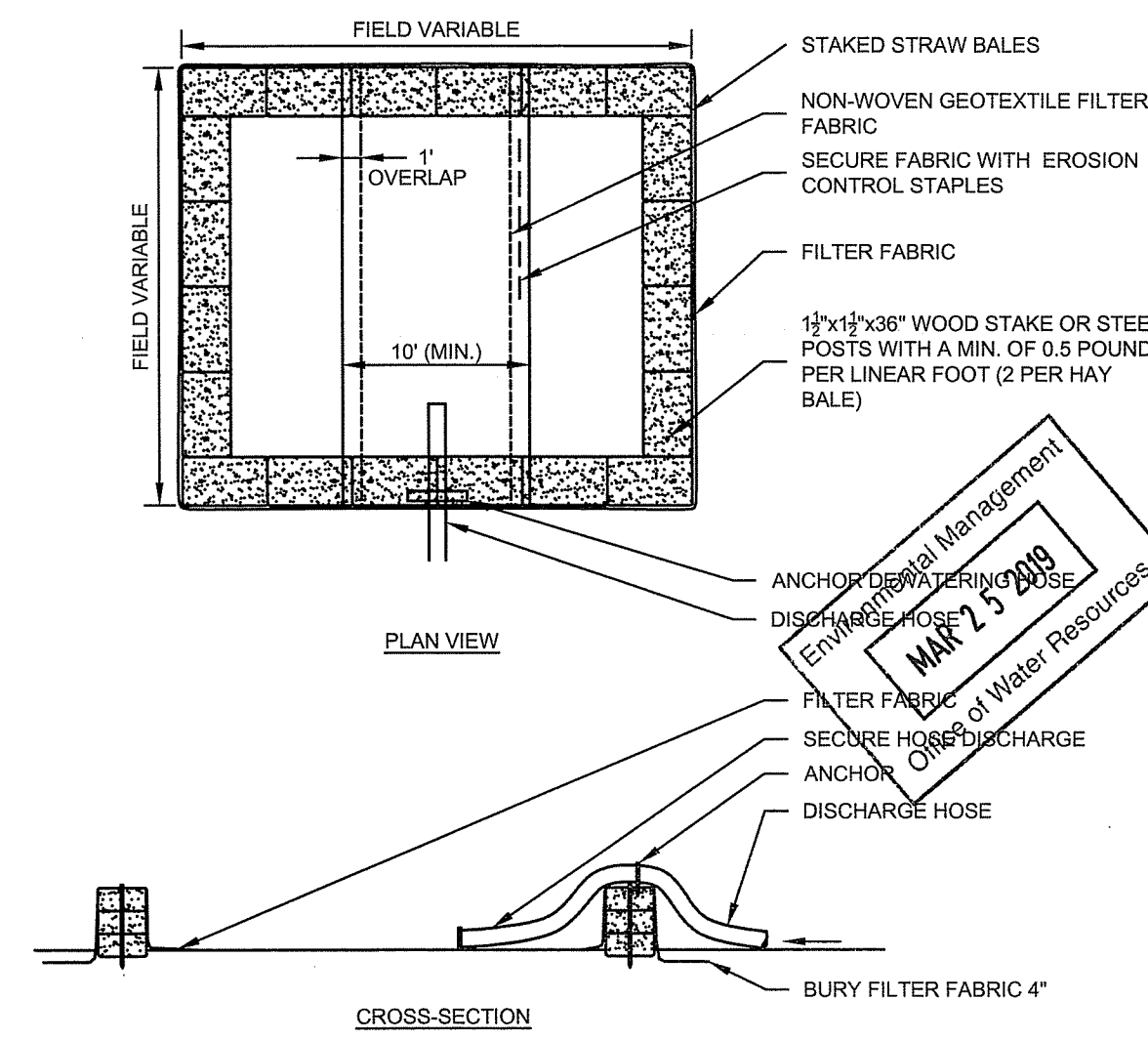
SILT FENCE BARRIER

SCALE: NONE



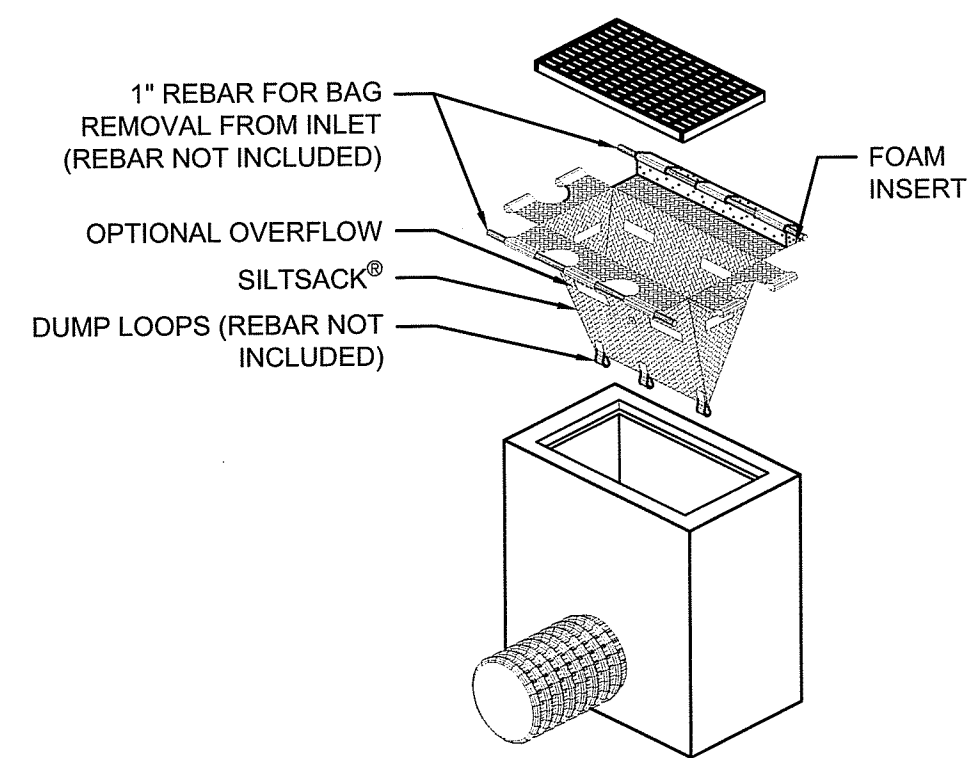
STRAW BALE BARRIER

SCALE: NONE



DEWATERING HAY BALE BASIN

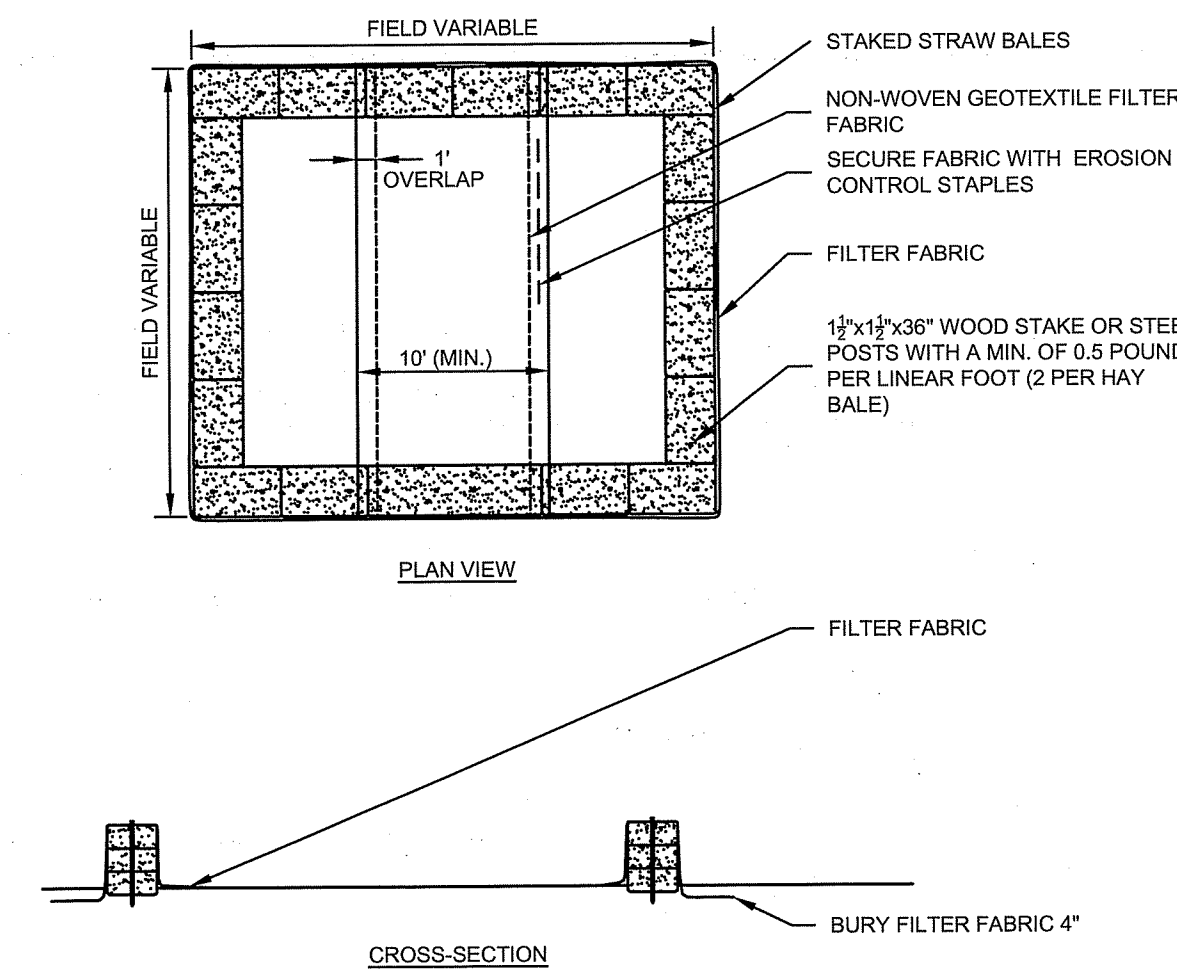
SCALE: NONE



- NOTES:**
- UTILIZE 'SILTSACK' SEDIMENT CONTROL DEVICE, TERRAFIX GEOSYNTHETICS INC. OR ENGINEER APPROVED EQUAL.
 - INSTALL AND MAINTAIN IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

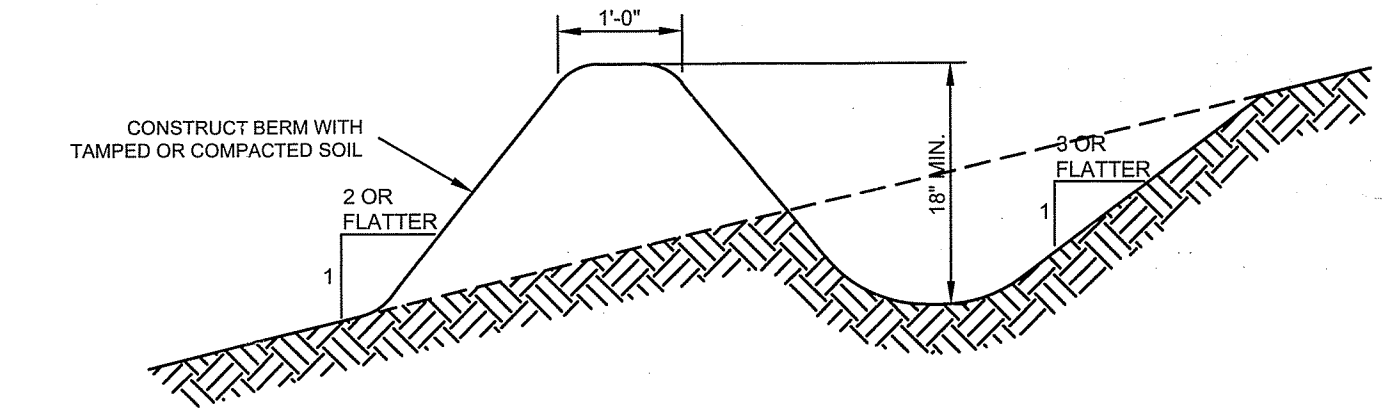
SILT SACK (SS)

SCALE: NONE



TEMPORARY CONCRETE WASHOUT AREA

SCALE: NONE

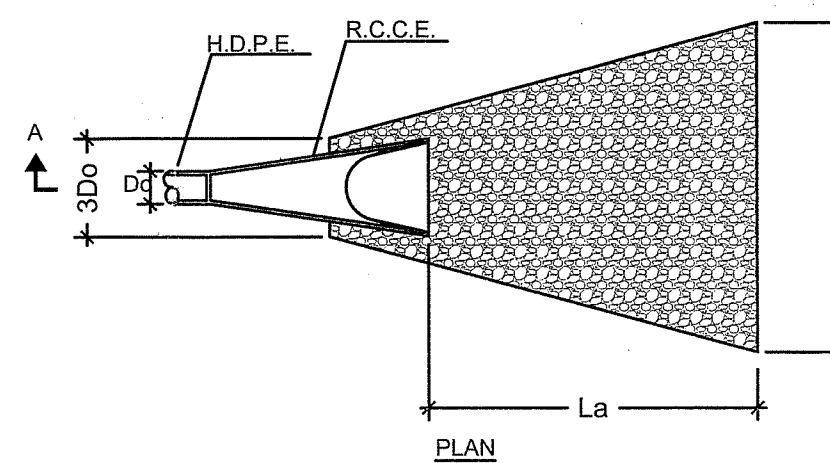


TEMPORARY DIVERSION SWALE

SCALE: NONE

OUTLET	Do (ft)	La (ft)	W (ft)	D50 (in)
1	1.5	22	14	12
2	1.5	19	13	12
3	2	25	31	12

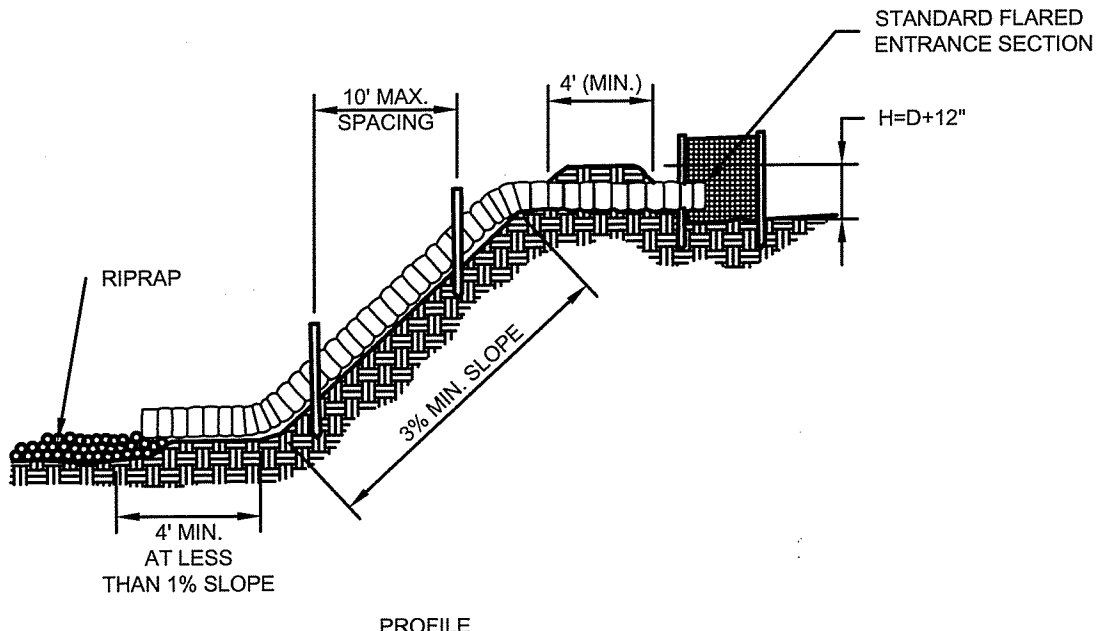
*D50 = Median Stone Diameter



RIP RAP OUTLET PROTECTION

SCALE: NONE

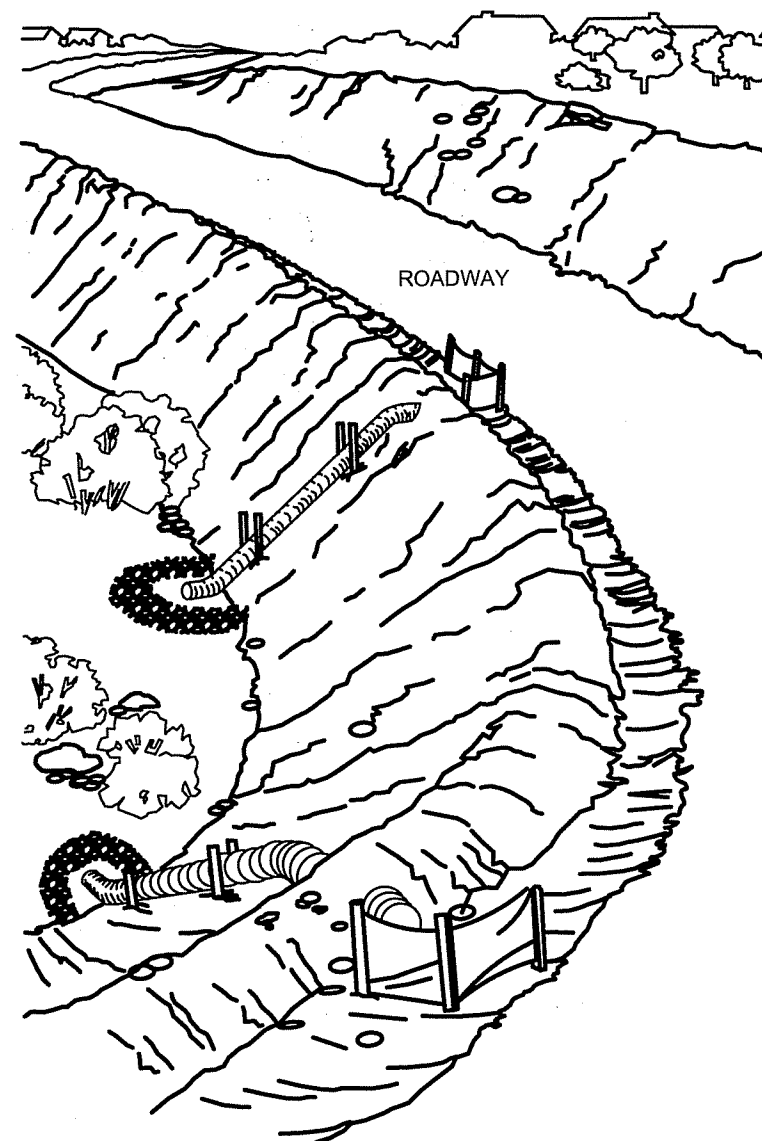
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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FILE # 19-0016
APR 18 2019



- GENERAL NOTES**
- THE PIPE SLOPE DRAIN SHALL HAVE A SLOPE OF 3% OR STEEPER.
 - TOP OF THE EARTH DIKE OVER THE INLET PIPE AND ALL DIKE CARRYING WATER TO THE PIPE SHALL BE AT LEAST (1) ONE FOOT HIGHER THAN THE TOP OF THE PIPE.
 - ADD 0.3 FOOT TO DIKE HEIGHT FOR SETTLEMENT.
 - SOIL AROUND AND UNDER THE SLOPE PIPE SHALL BE HAND TEMPERED IN 4-INCH LIFTS.
 - THE PIPE SHALL BE PLASTIC OR CORRUGATED METAL PIPE WITH WATER TIGHT 12-INCH WIDE CONNECTING BANDS OR FLANGE CONNECTIONS.
 - PIPE ANCHORS TO BE PLACED AT 10-FOOT MAXIMUM SPACING.
 - RIPRAP TO BE (6) SIX INCHES IN A LAYER AT LEAST 12 INCHES THICKNESS AND PRESSED INTO THE SOIL.
 - PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

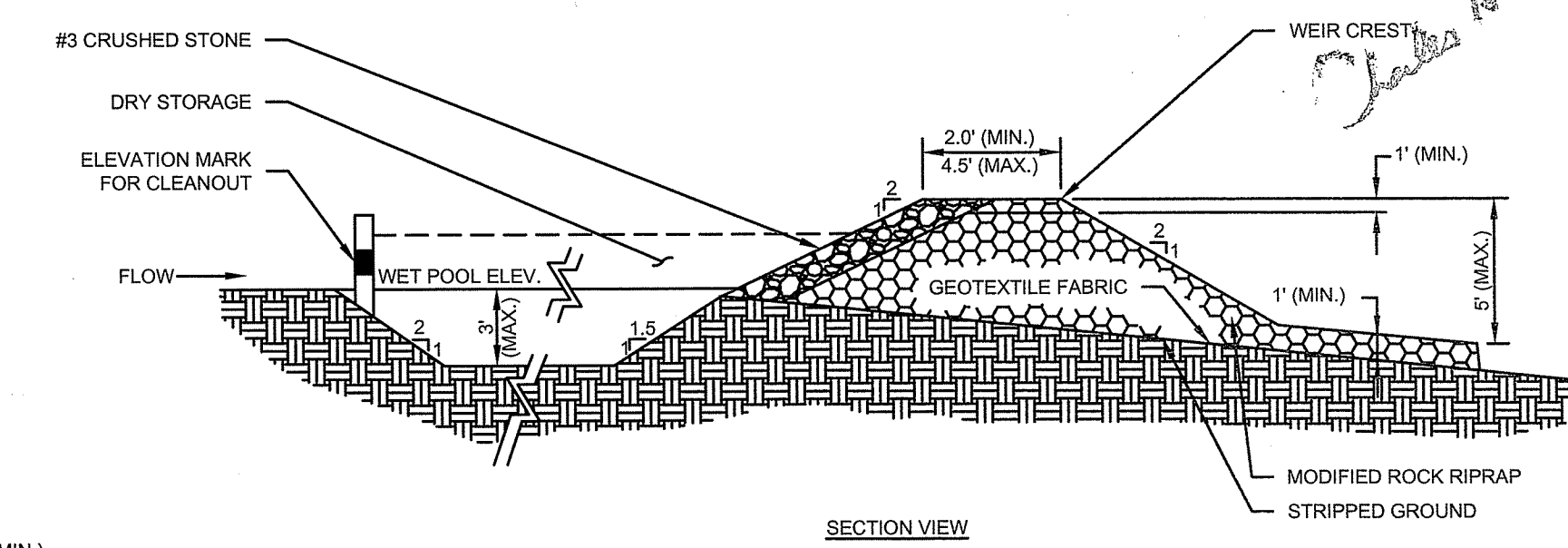
TEMPORARY PIPE SLOPE DRAIN

SCALE: NONE



TEMPORARY SEDIMENT TRAP

SCALE: NONE



- GENERAL NOTES**
- STABILIZE EARTHEN EMBANKMENT BY SEEDING OR PROVIDE STONE SLOPE PROTECTION IMMEDIATELY AFTER INSTALLATION.
 - NON-OVERFLOW PORTIONS AND ABUTMENTS OF TEMPORARY SEDIMENT TRAPS MAY BE CONSTRUCTED OF COMPACTED EARTH/FILL.

Applicant:
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Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:
DAKOTA PARTNERS
1284 Main Street
Waltham, MA 02451
President: Roberto Arista
Secretary: Marc Daigle

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
MAP 71 AP 10 LOT 378

DATE:	REVISION:
09/26/18	STAFF COMMENTS
10/10/18	RESPONSE TO COMMENTS
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01/10/19	RESPONSE TO COMMENTS
02/1/19	RESPONSE TO COMMENTS
03/18/19	RESPONSE TO RIDEM COMMENTS

WILLIAM G. WALTER
No. 12234
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROJECT NO: 70483.00 DRAWN BY: JFE, JHL
SCALE: CHECKED BY: MW
DATE: 09.05.2018

SITE DETAILS

Environmental Management
 MAY 2 5 2019
 Office of Water Resources

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

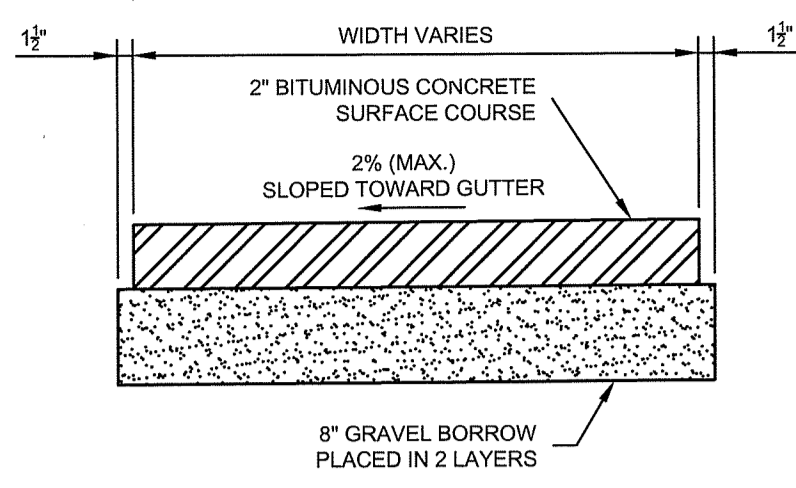
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03/16/19	RESPONSE TO RIDEM COMMENTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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 APR 18 2019 FILE # 19-006
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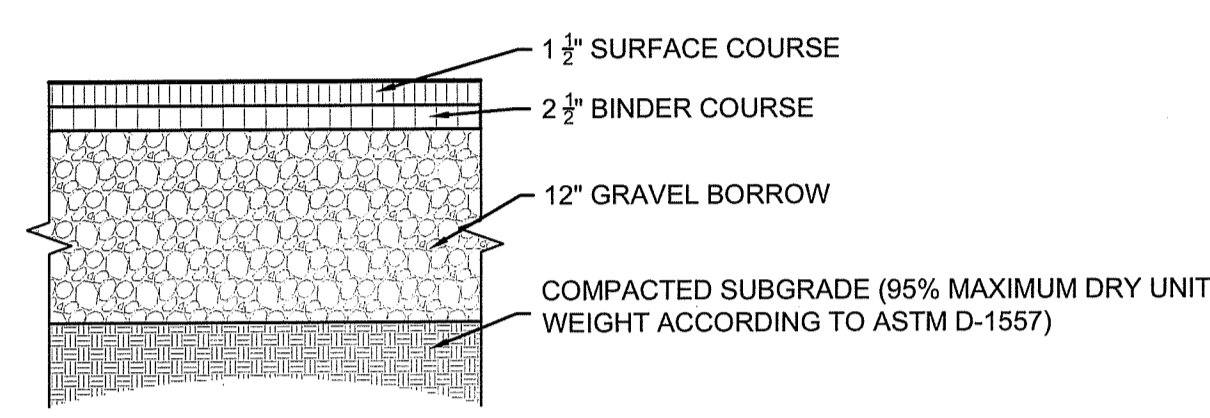
WILLIAM G. WALTER
 No. 12234
 REGISTERED PROFESSIONAL ENGINEER
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PROJECT NO.: 70483.00 DRAWN BY: JFE, JHL
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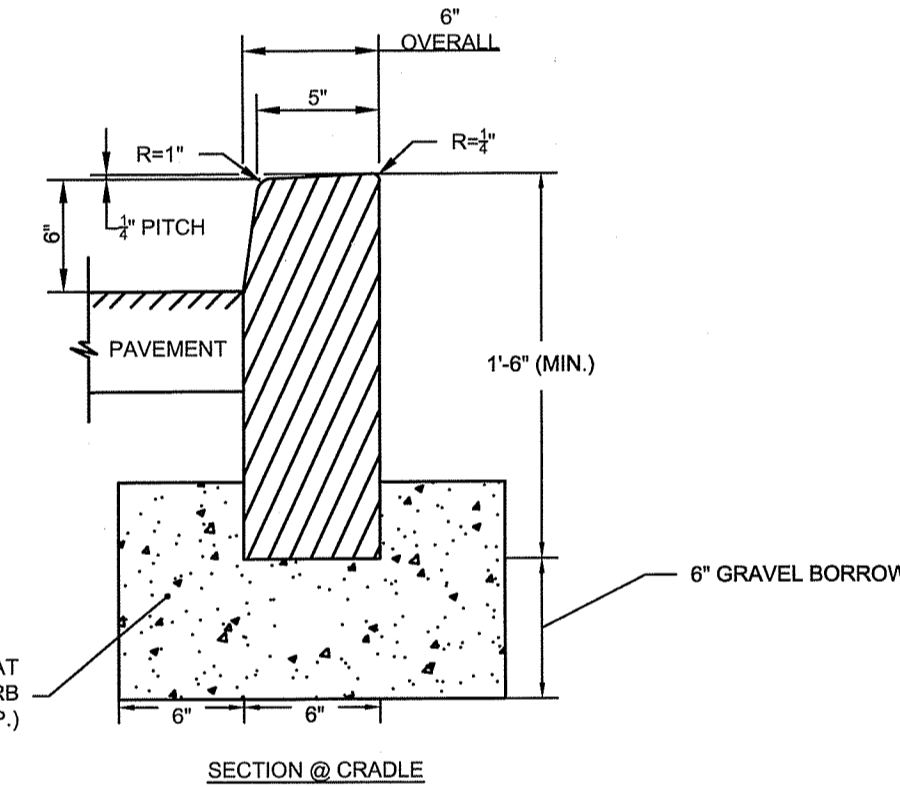
SITE DETAILS



BITUMINOUS CONCRETE SIDEWALK
 SCALE: NONE

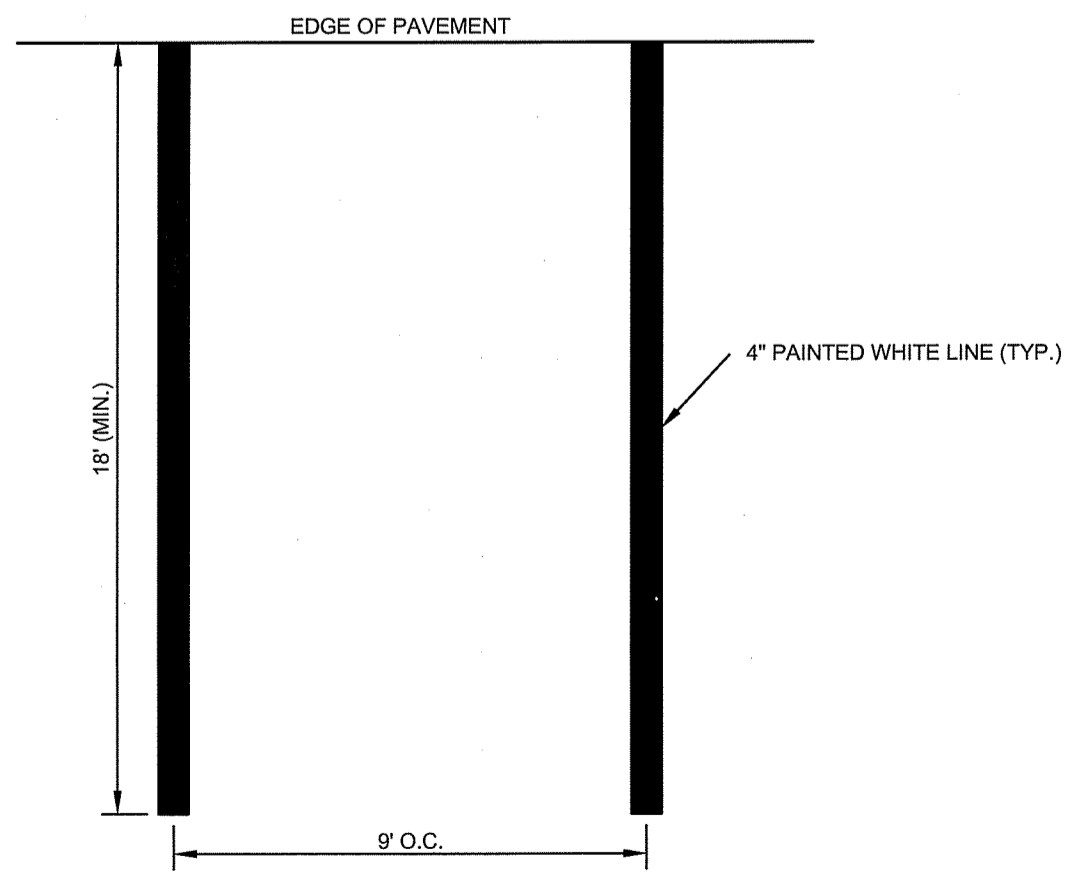


BITUMINOUS CONCRETE PAVEMENT SECTION
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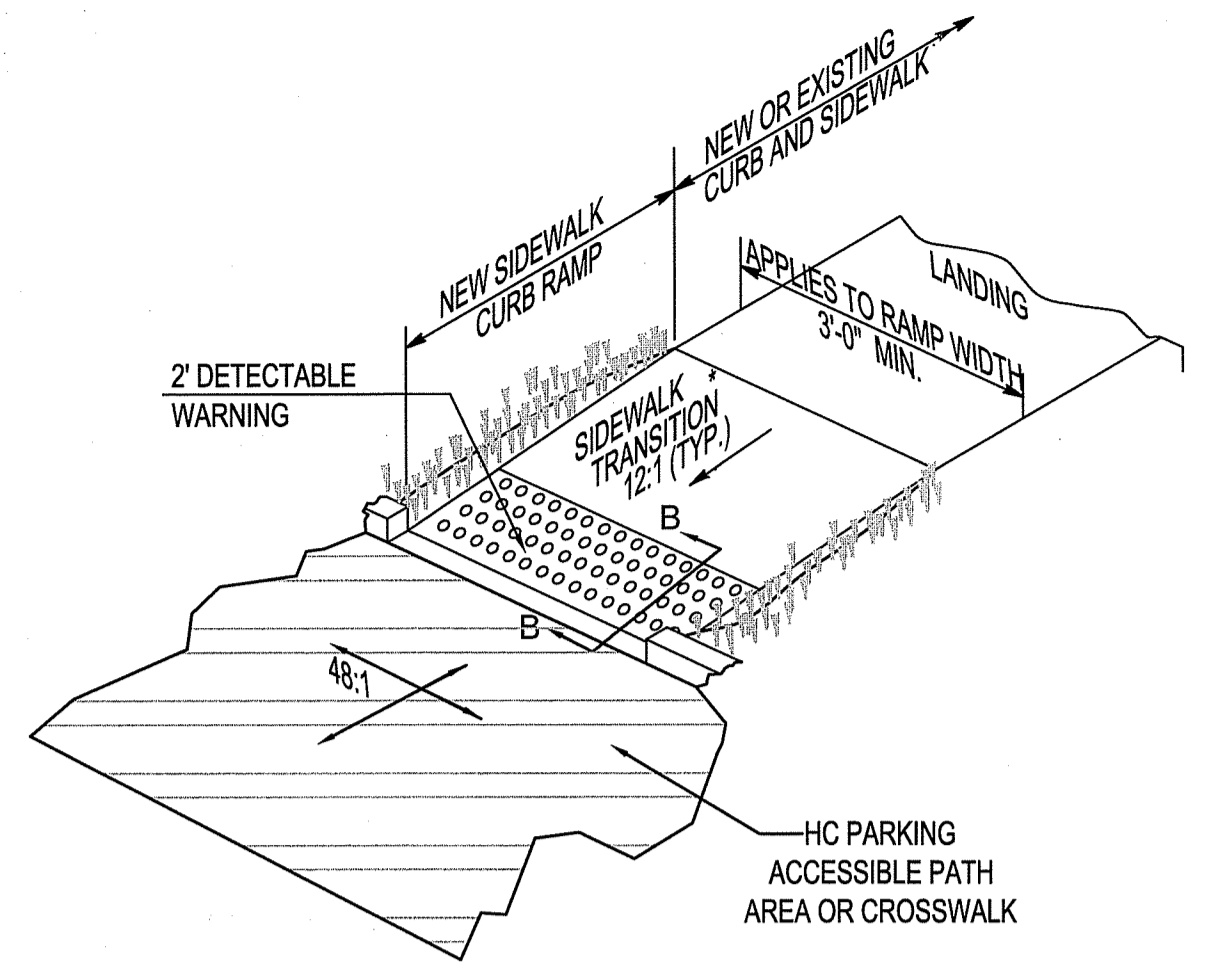


- NOTES:
- CURB LENGTHS SHALL CORRESPOND TO THE CONCRETE SIDEWALK TILE LENGTH, IF APPLICABLE. 1/2" EXPANSION JOINTS SHALL SEPARATE CURB SECTIONS.
 - SEE "TYPICAL CONCRETE CURB ELEVATION" DETAIL FOR CURB ELEVATION.

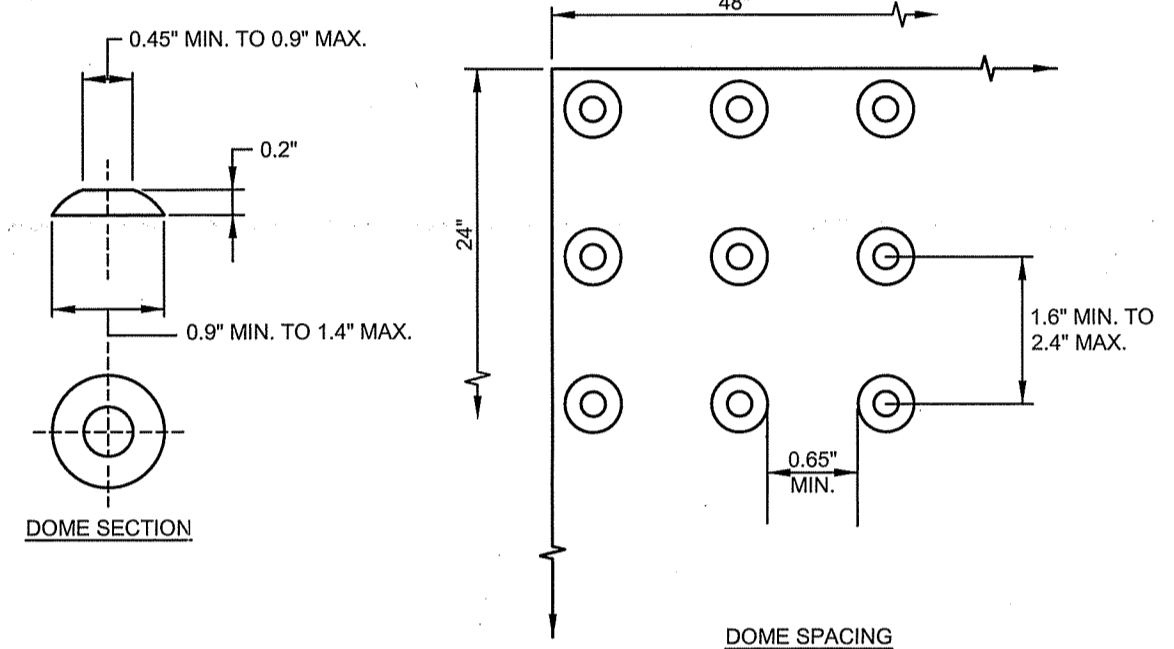
CONCRETE CURBING
 SCALE: NONE



STANDARD PAINTED PARKING MARKINGS
 SCALE: NONE



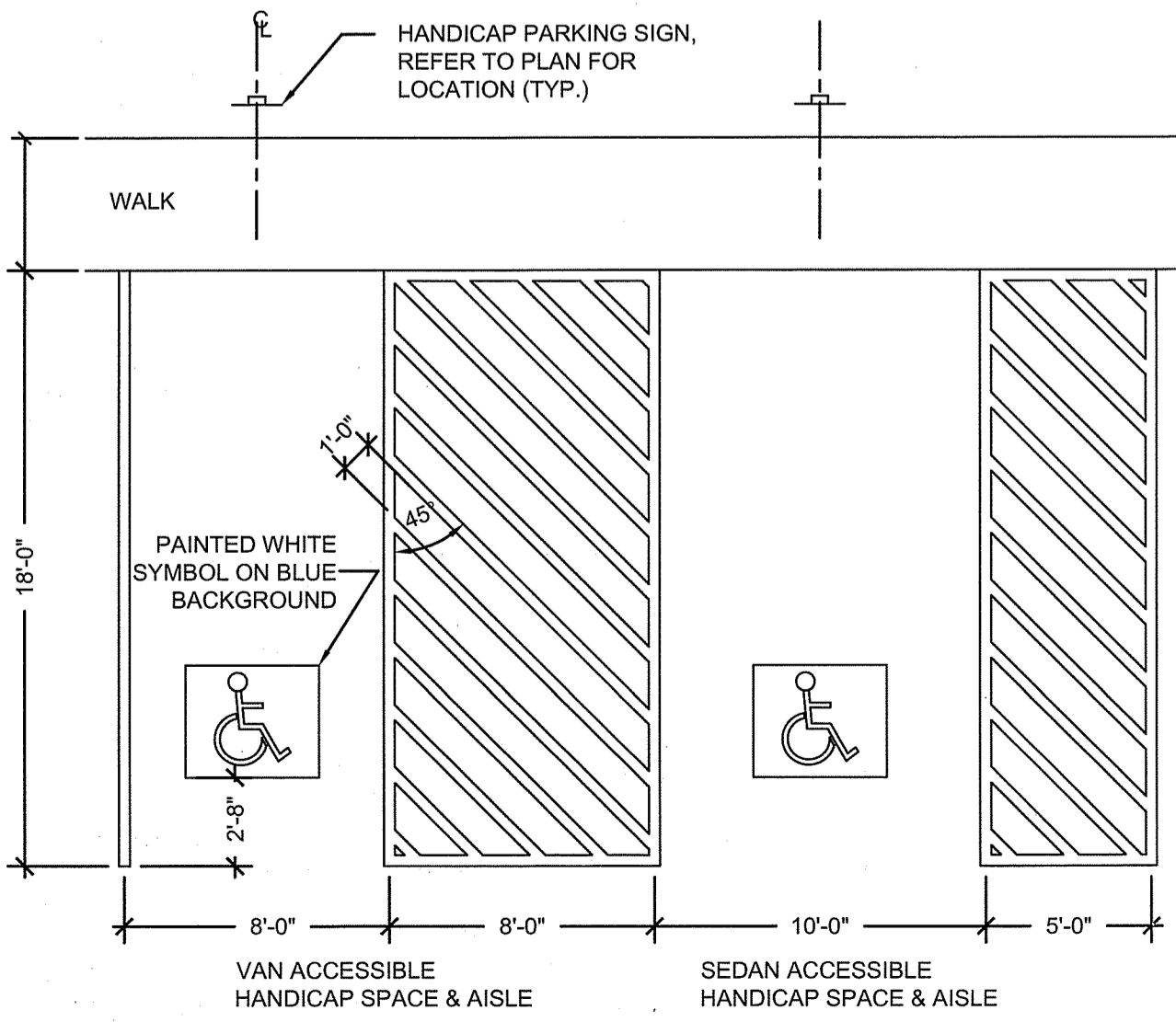
PERPENDICULAR SIDEWALK RAMP (TYPE 1)
 SCALE: NONE



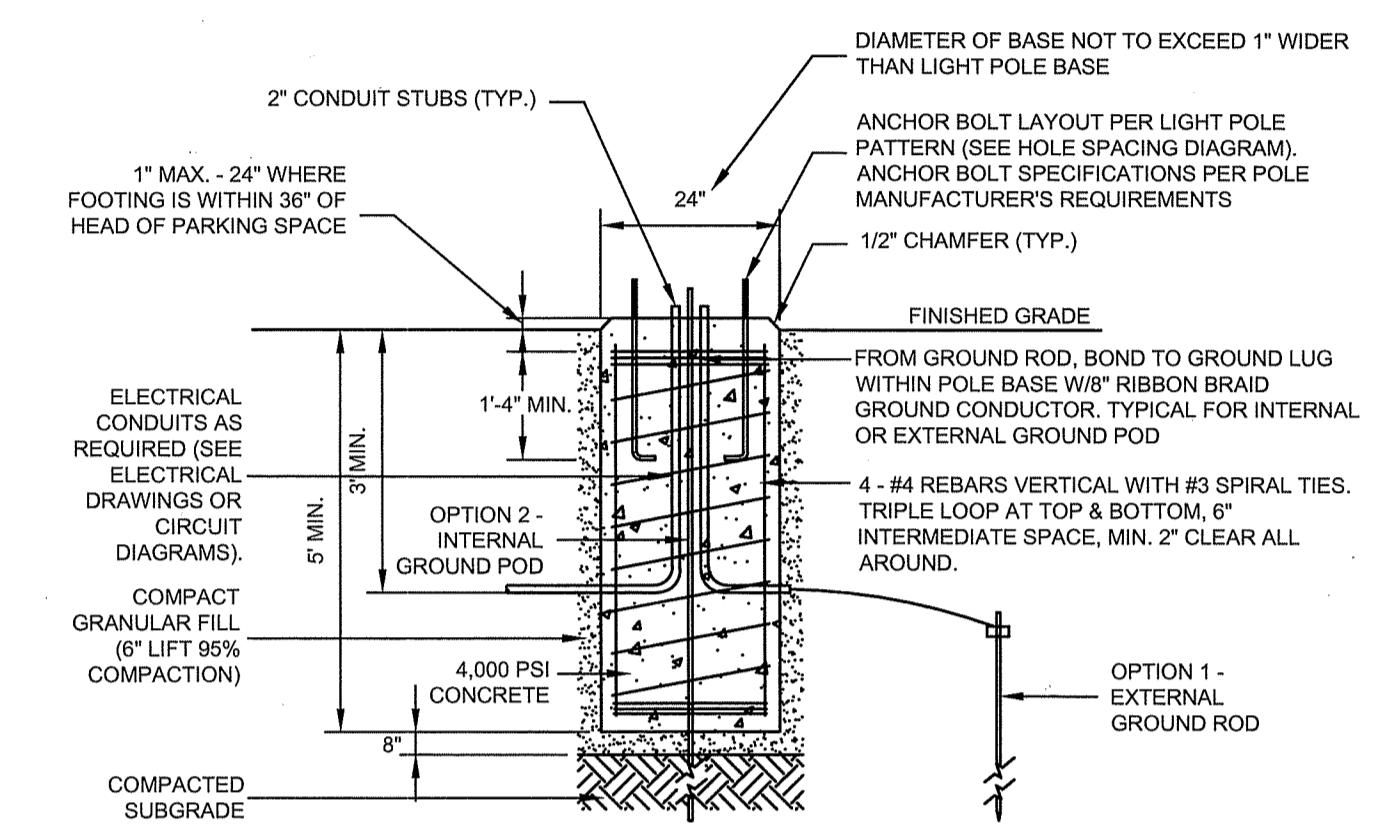
DETECTABLE WARNING
 SCALE: NONE

- NOTES:
- MAXIMUM SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE SIDEWALK RAMP OR ACCESSIBLE ROUTE SHOULD NOT EXCEED 20:1.
 - CARE SHALL BE TAKEN TO ASSURE UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND ABRUPT GRADE CHANGES.
 - ALL RAMPS SHALL BE CONSTRUCTED OF CONCRETE.
 - SIDEWALK RAMPS SHALL HAVE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP. THE SURFACE ALONG ACCESSIBLE ROUTES SHALL BE STABLE, FIRM AND SLIP RESISTANT IN COMPLIANCE WITH ADA ACCESSIBILITY GUIDELINES SECTION 4.5.
 - EXPANSION JOINTS IN CONCRETE SHALL MATCH THOSE IN ADJACENT SIDEWALKS BUT IN NO CASE SHALL THE SPACING BETWEEN EXPANSION JOINTS EXCEED 12' UNLESS OTHERWISE NOTED.
 - TRANSITION TO FULL HEIGHT CURB. INSTALL STONE CURBING IF ADJACENT CURBING IS STONE. INSTALL CONCRETE CURBING IF ADJACENT CURBING IS CONCRETE OR BITUMINOUS.
 - INSTALL THE EDGE OF THE DETECTABLE WARNING STRIP 6 INCHES FROM THE EDGE OF ROAD.
 - TO PERMIT WHEELCHAIR WHEELS TO ROLL BETWEEN DOMES OF THE DETECTABLE WARNING STRIPS, ALIGN DOMES ON A SQUARE GRID, IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - FOR PARALLEL CURB RAMPS, A MIN. 4' X 4' LEVEL LANDING SHALL BE PROVIDED AT THE TOP OF CURB RAMP. WHERE THE LEVEL LANDING IS RESTRICTED AT THE BACK OF SIDEWALK THE LEVEL LANDING SHALL BE 4'X5' WITH THE 5' DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.

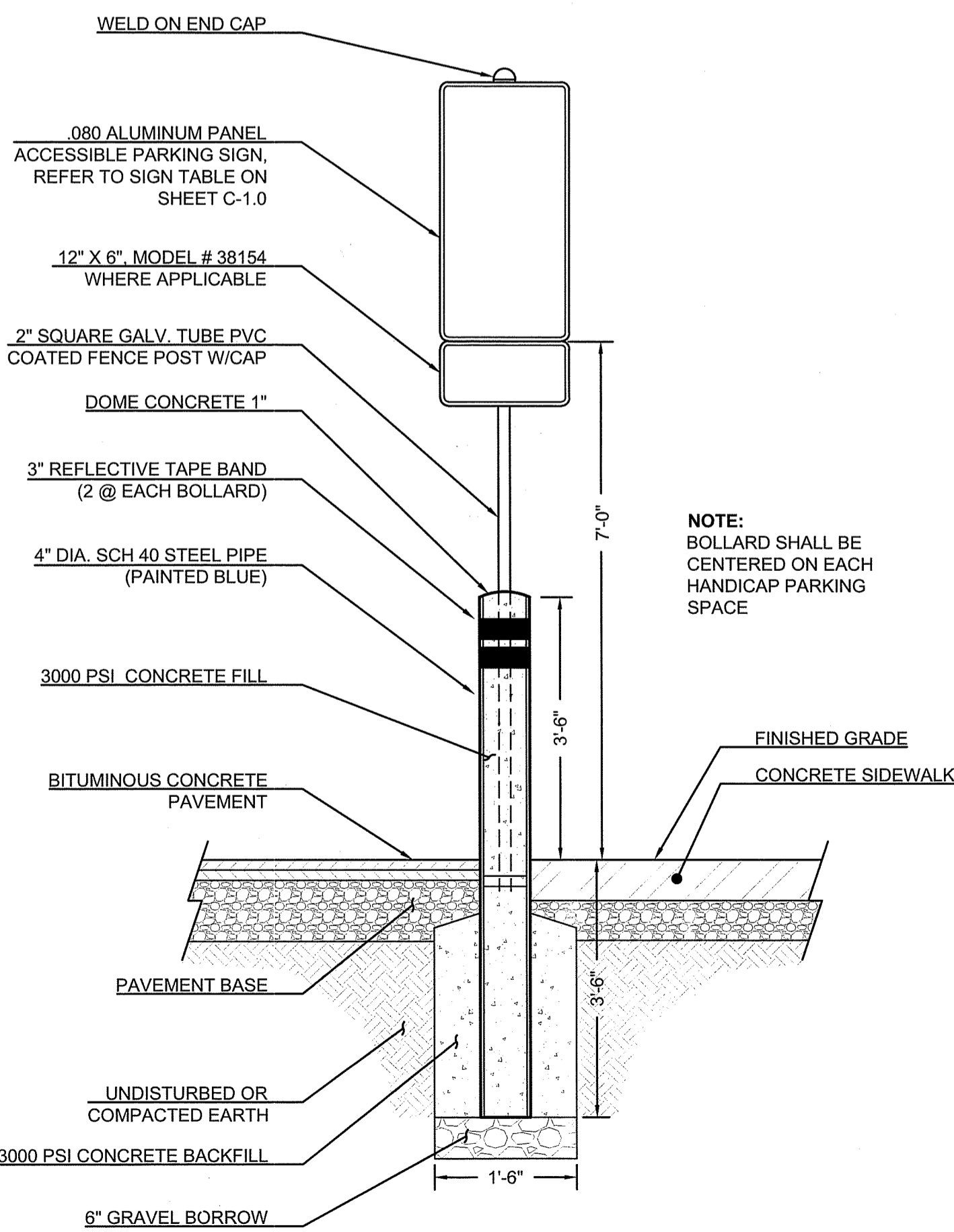
SIDEWALK RAMP NOTES
 SCALE: NONE



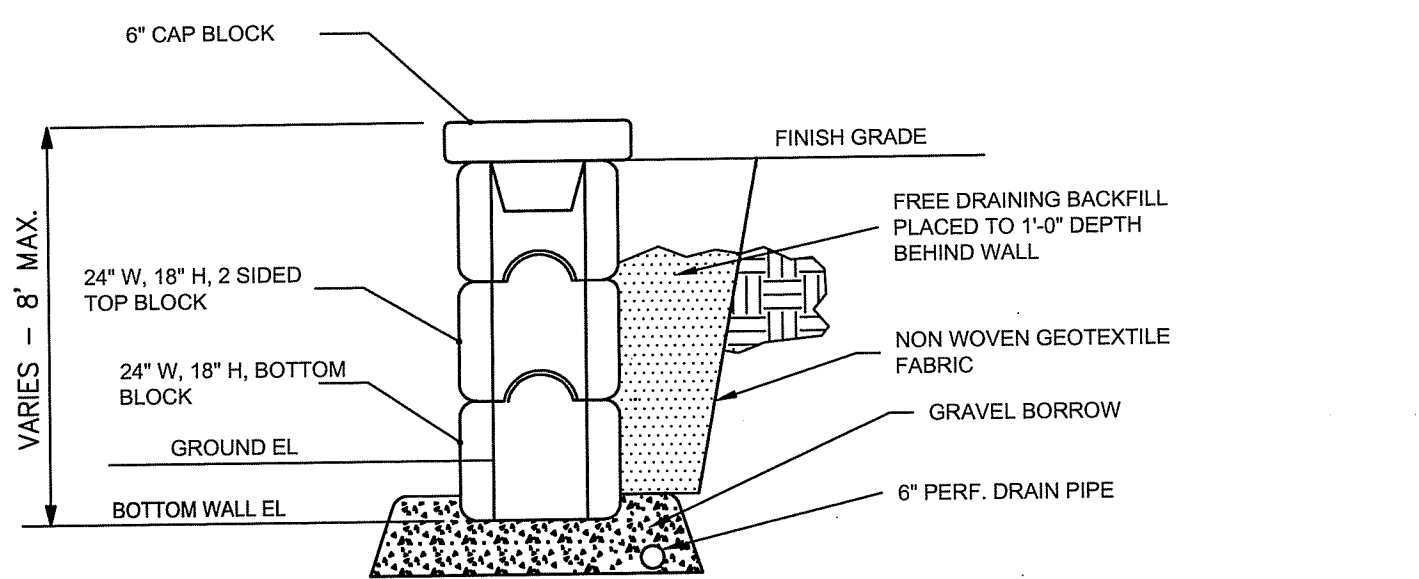
TYPICAL HANDICAP PARKING LAYOUT
 SCALE: NONE



LIGHT POLE BASE
 SCALE: NONE

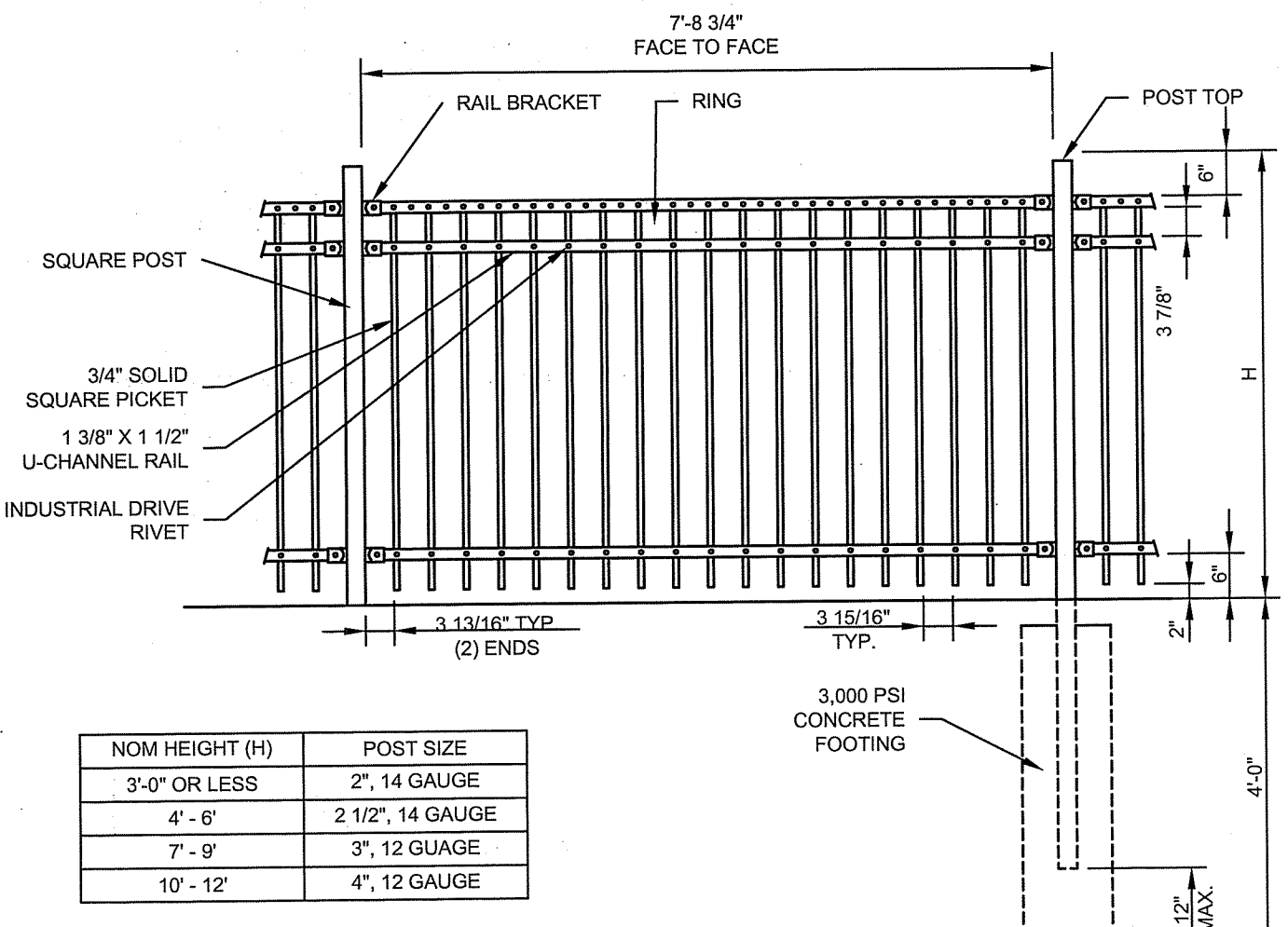


BOLLARD MOUNTED SIGNAGE POST
 SCALE: NONE



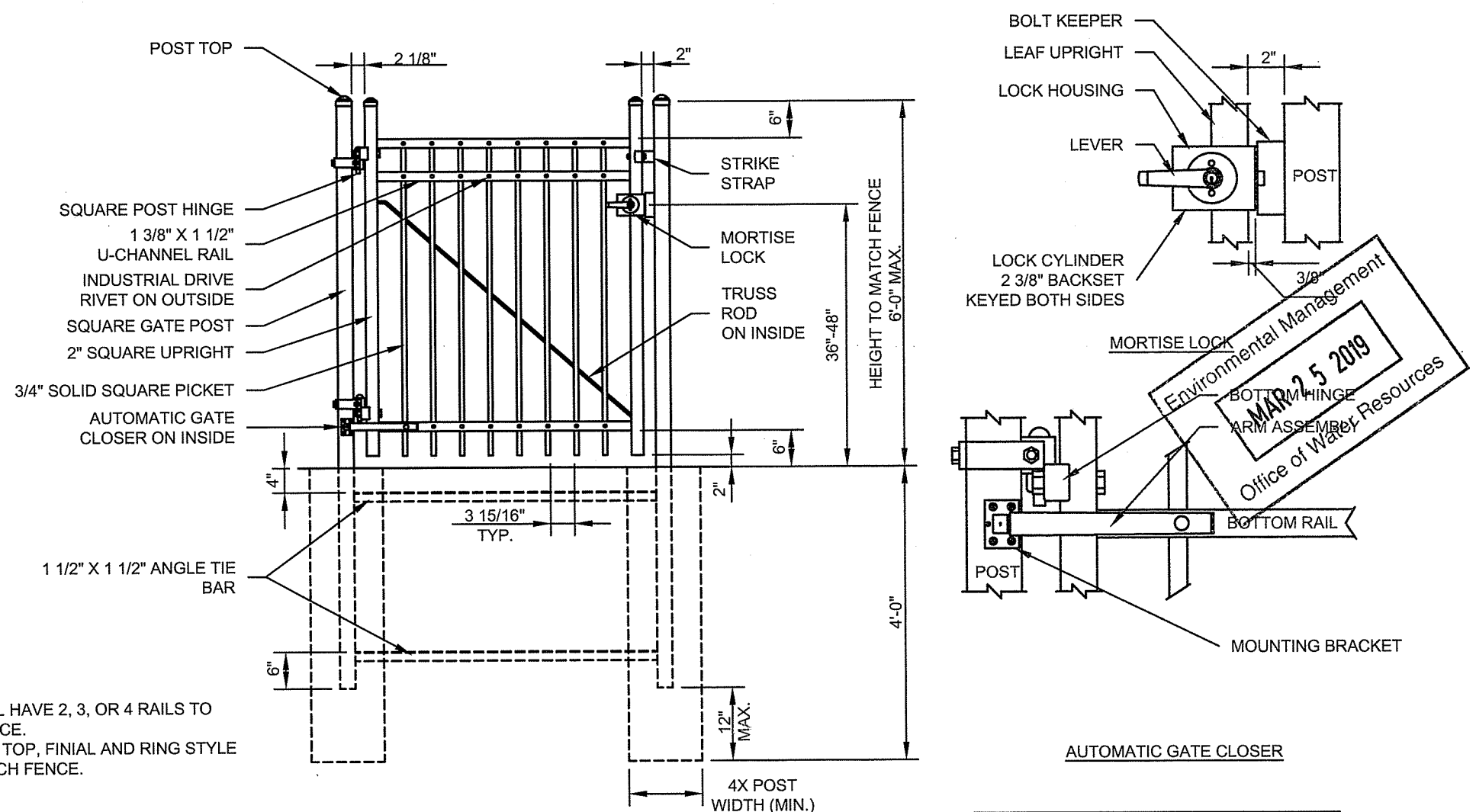
- NOTES**
1. MODULAR BLOCK WALL SHALL BE REDI-ROCK PRODUCT LINE, COBBLESTONE FACE MOLD OR APPROVED EQUAL.
 2. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 3. A LEVELING PAD OF 3/4" CRUSHED STONE, 8" DEEP AND EXTENDING AT LEAST 12" BEYOND THE FRONT AND THE BACK OF THE BASE BLOCK, SHALL BE INSTALLED. A SURFACE TREATMENT OF TWO (2) COATS OF CHEMTEC ONE CONCRETE DENSIFIER SHALL BE APPLIED PER THE MANUFACTURER'S RECOMMENDATION. A MINIMUM SOIL BEARING CAPACITY OF 3000 PSF IS REQUIRED BENEATH THE LEVELING PAD.

MODULAR BLOCK RETAINING WALL
SCALE: NONE



NOM HEIGHT (H)	POST SIZE
3'-0" OR LESS	2", 14 GAUGE
4'-6"	2 1/2", 14 GAUGE
7'-9"	3", 12 GAUGE
10'-12"	4", 12 GAUGE

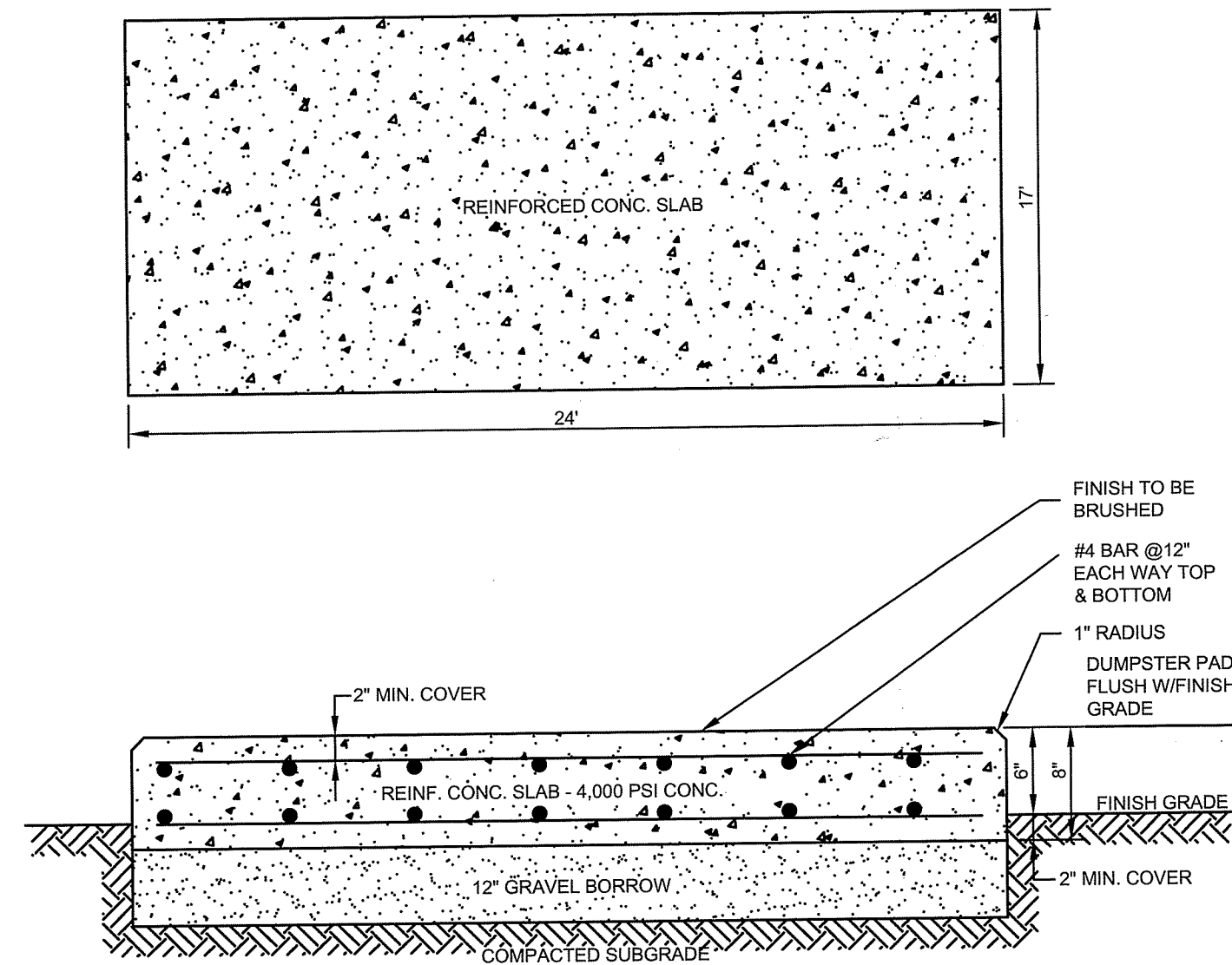
ORNAMENTAL FENCE
SCALE: NONE



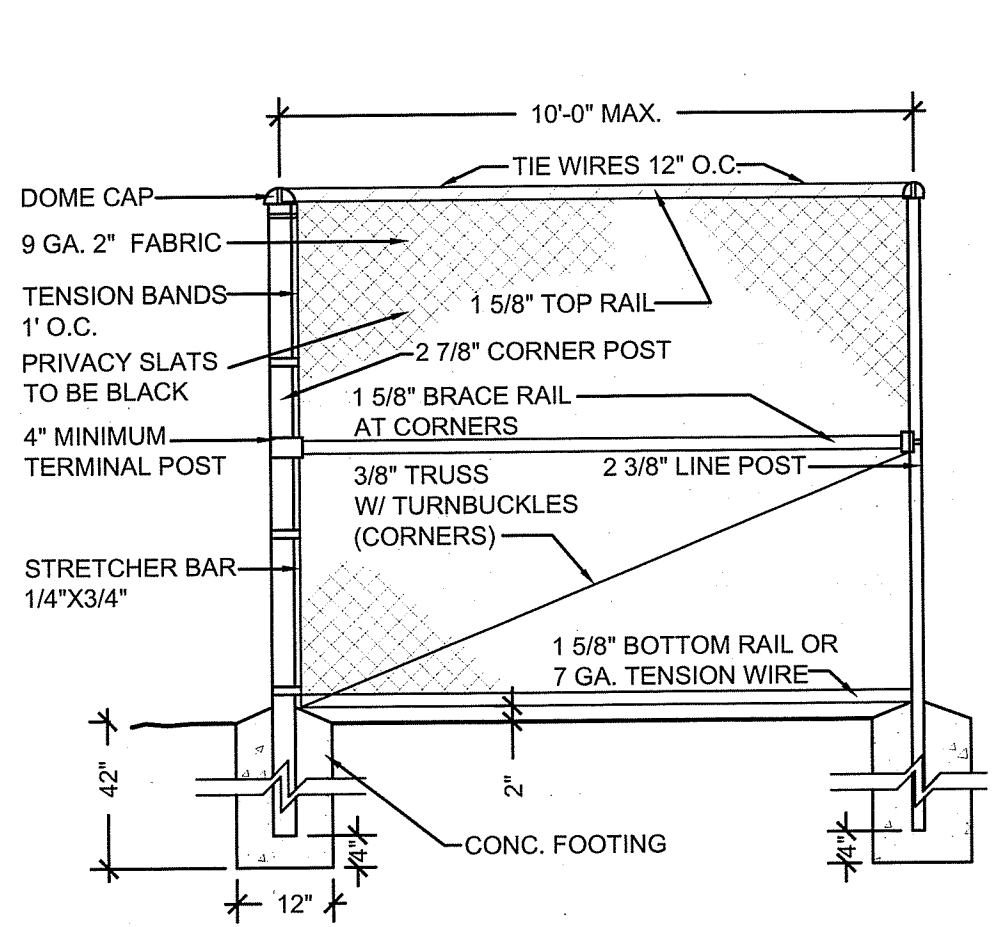
- NOTES**
1. GATE SHALL HAVE 2, 3, OR 4 RAILS TO MATCH FENCE.
 2. GATE POST TOP, FINIAL AND RING STYLE SHALL MATCH FENCE.

ORNAMENTAL IRON GATE - SINGLE
SCALE: NONE
FSN-110-CT

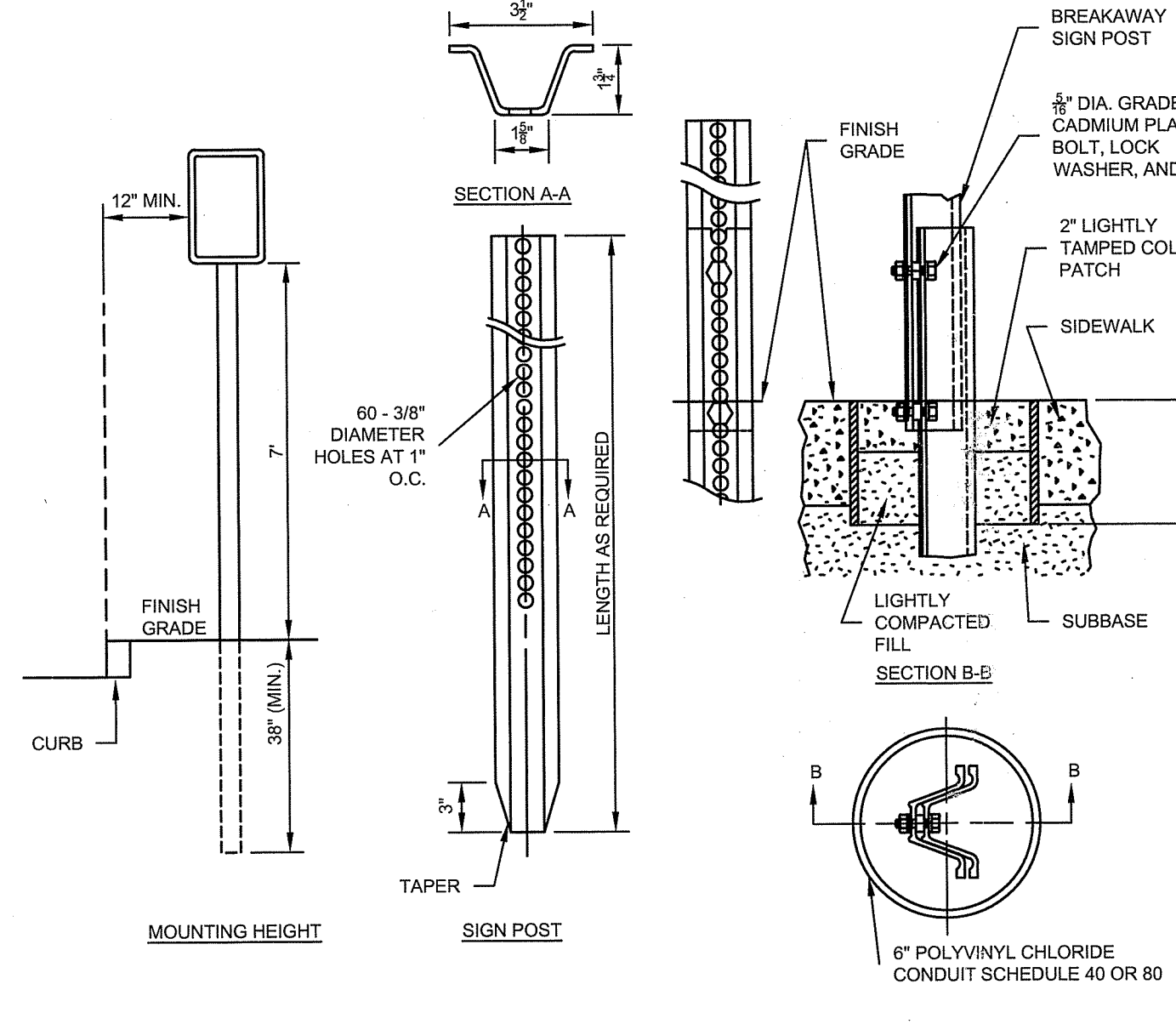
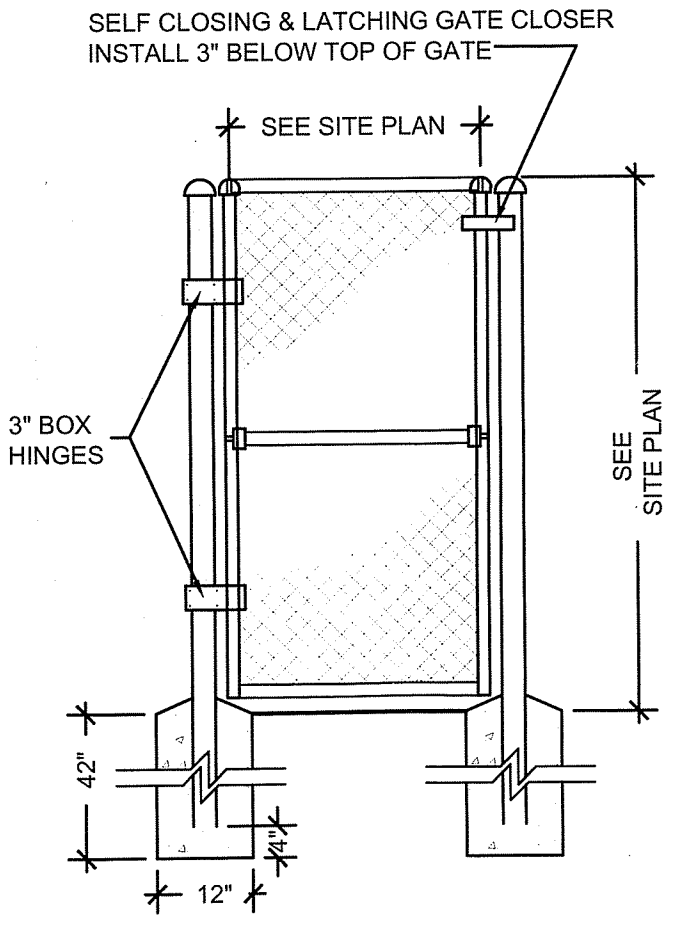
NOM. LEAF WIDTH	POST SIZE
3' - 4'	3"
4' - 8'	4"
8' - 12'	6"



REINFORCED CONCRETE PAD
SCALE: NONE

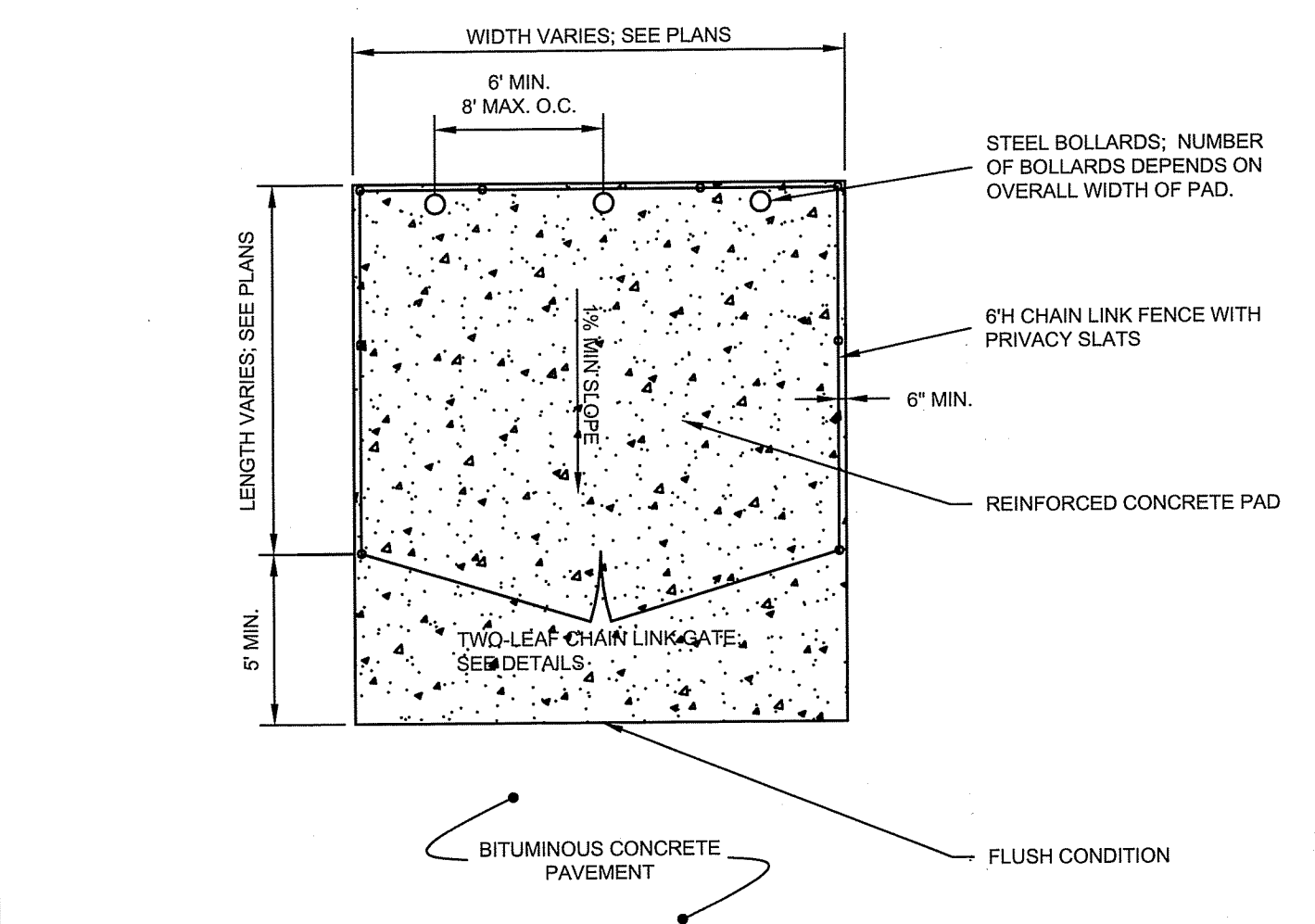


CHAIN LINK FENCE & GATE
SCALE: NONE
THERMALLY FUSED PVC COATING

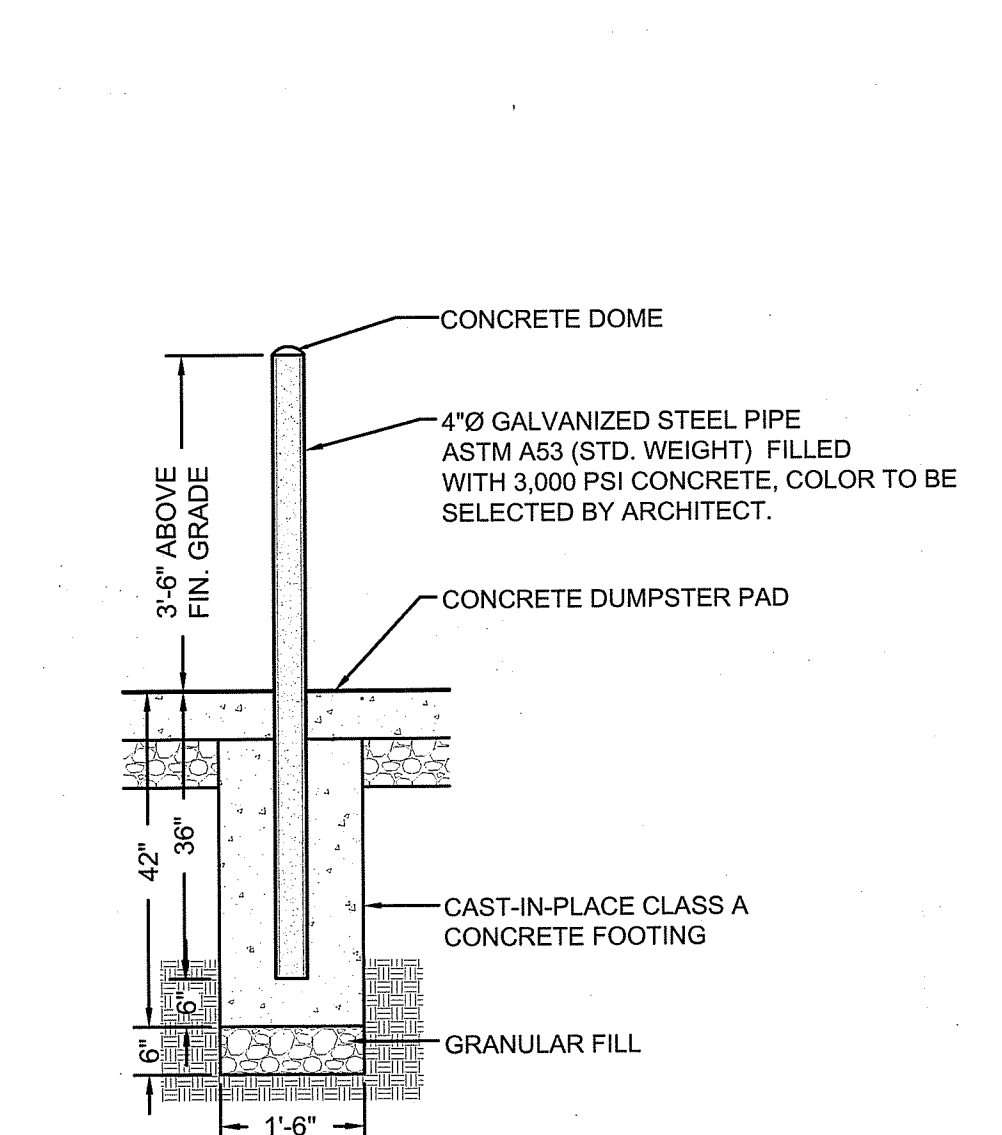


TYPICAL SIGN SUPPORT - BREAKAWAY
SCALE: NONE

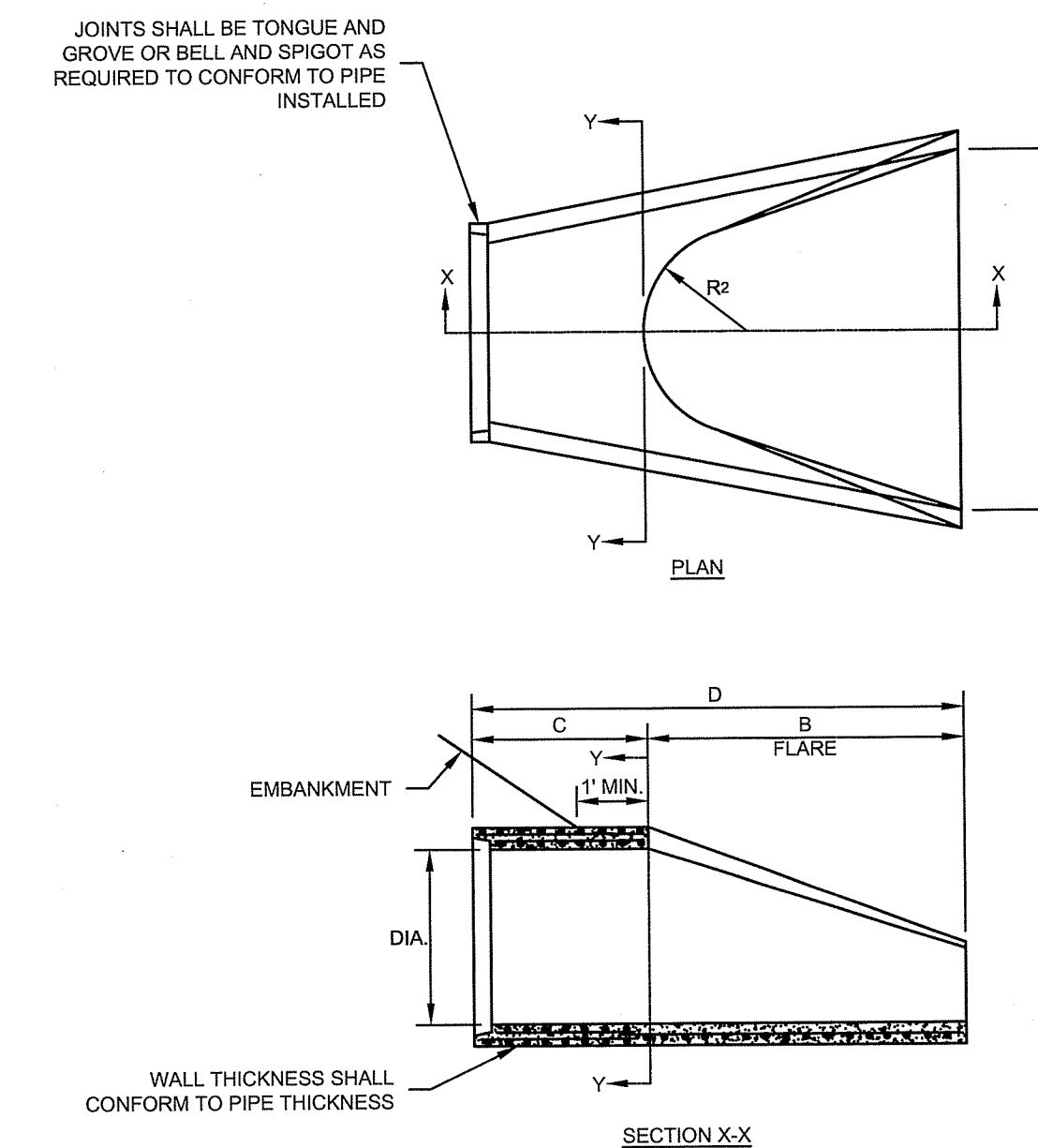
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DUMPSTER PAD
SCALE: NONE

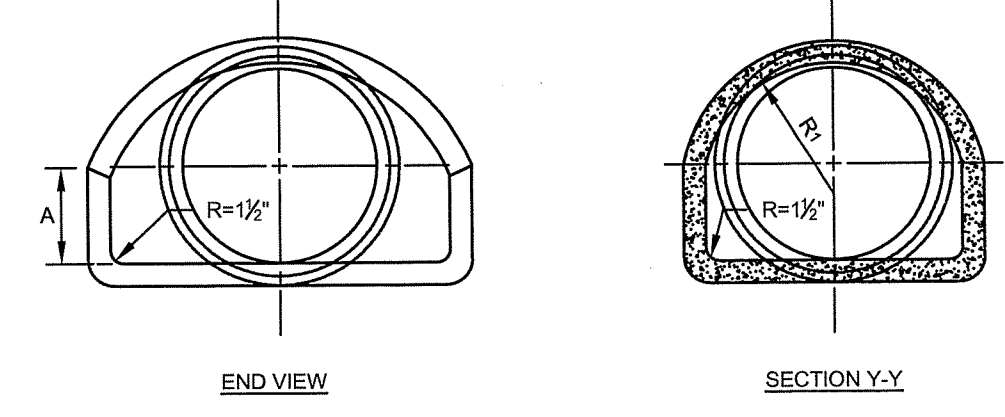


4" STEEL BOLLARD
SCALE: NONE



REINFORCED CONCRETE CULVERT END
SCALE: NONE

DIMENSIONS FOR REINFORCED CONCRETE CULVERT END								FLARE REINFORCEMENT		
DIA.	A	B	C	D	E	F	R ₁	R ₂	MIN. AREA OF LONG. STEEL SQ. IN. PER FT.	AREA OF TRANS. STEEL SQ. IN. PER FT.
12"	4"	2'-0"	4'-0 1/2"	6'-0 1/2"	2'-0"	1'-7 3/4"	10 1/2"	9"	0.048	0.048
15"	6"	2'-3"	3'-10"	6'-1"	2'-6"	2'-0 3/4"	1'-0 3/4"	11"	0.054	0.054
18"	9"	2'-3"	3'-10"	6'-1"	3'-0"	2'-5"	1'-3 1/2"	1'-0"	0.060	0.060
21"	9"	2'-11"	3'-2"	6'-1"	3'-6"	2'-7 1/2"	1'-4"	1'-1"	0.066	0.066
24"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	2'-9 1/2"	1'-4 3/4"	1'-2"	0.072	0.072
30"	1'-0"	4'-6"	1'-7 3/4"	6'-1 1/2"	5'-0"	3'-1"	1'-6 1/2"	1'-3"	0.084	0.084
36"	1'-3"	5'-3"	2'-10 1/2"	8'-1 1/2"	6'-0"	3'-11 3/4"	2'-0 3/4"	1'-8"	0.096	0.096
42"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	4'-5 1/2"	2'-3 1/2"	1'-10"	0.108	0.108
48"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	4'-8 1/2"	2'-4 1/2"	1'-10"	0.120	0.120
54"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	5'-5 1/2"	2'-9 1/2"	2'-0"	0.132	0.132
60"	2'-9"	5'-0"	3'-3"	8'-3"	8'-0"	6'-0 1/2"	3'-0 1/2"	2'-0"	0.144	0.144



Applicant:
benesch
Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:
DAKOTA PARTNERS
1264 Main Street
Waltham, MA 02451
President: Roberto Arista
Secretary: Marc Daigle

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
MAP 71 AP 10 LOT 378

DATE	REVISION
09/26/18	STAFF COMMENTS
10/10/18	RESPONSE TO COMMENTS
11/13/18	STAFF COMMENTS
01/10/19	RESPONSE TO COMMENTS
02/11/19	RESPONSE TO COMMENTS
03/18/19	RESPONSE TO RIDEM COMMENTS

WILLIAM G. WALTER
No. 12234
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROJECT NO.: 70483.00
SCALE: DATE: 09.05.2018
DRAWN BY: JPE, JHL
CHECKED BY: WW

SITE DETAILS
DRAWING:
SHEET 17 OF 25

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

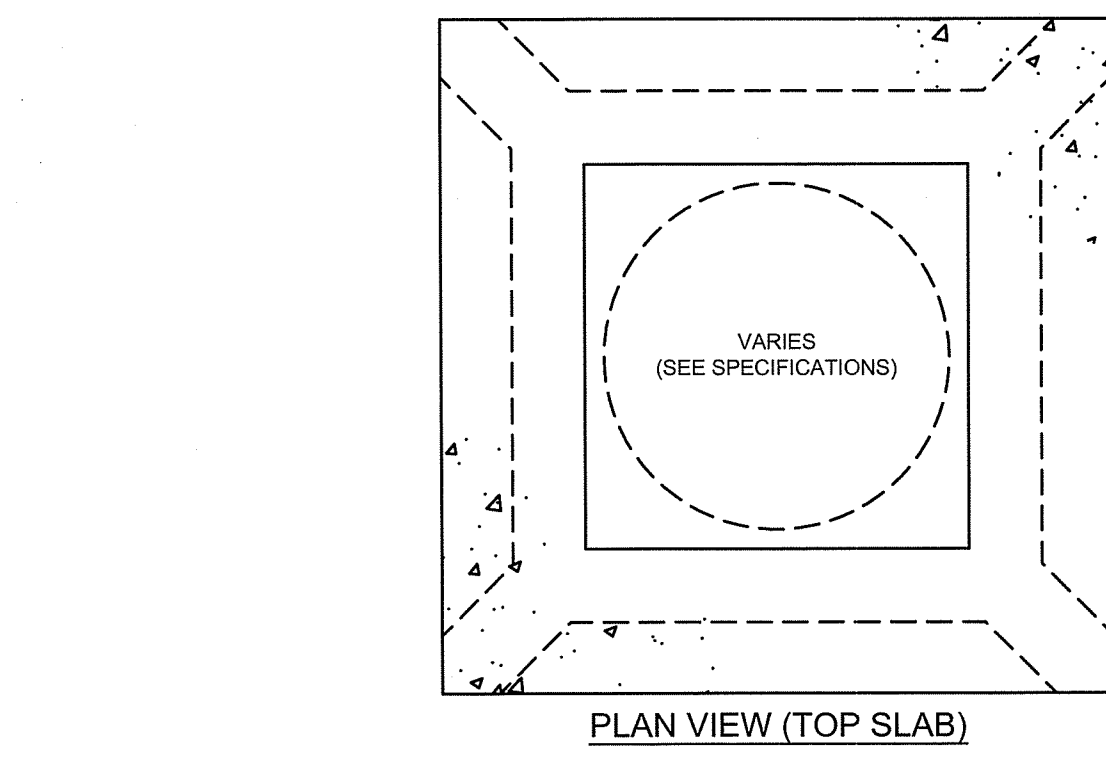
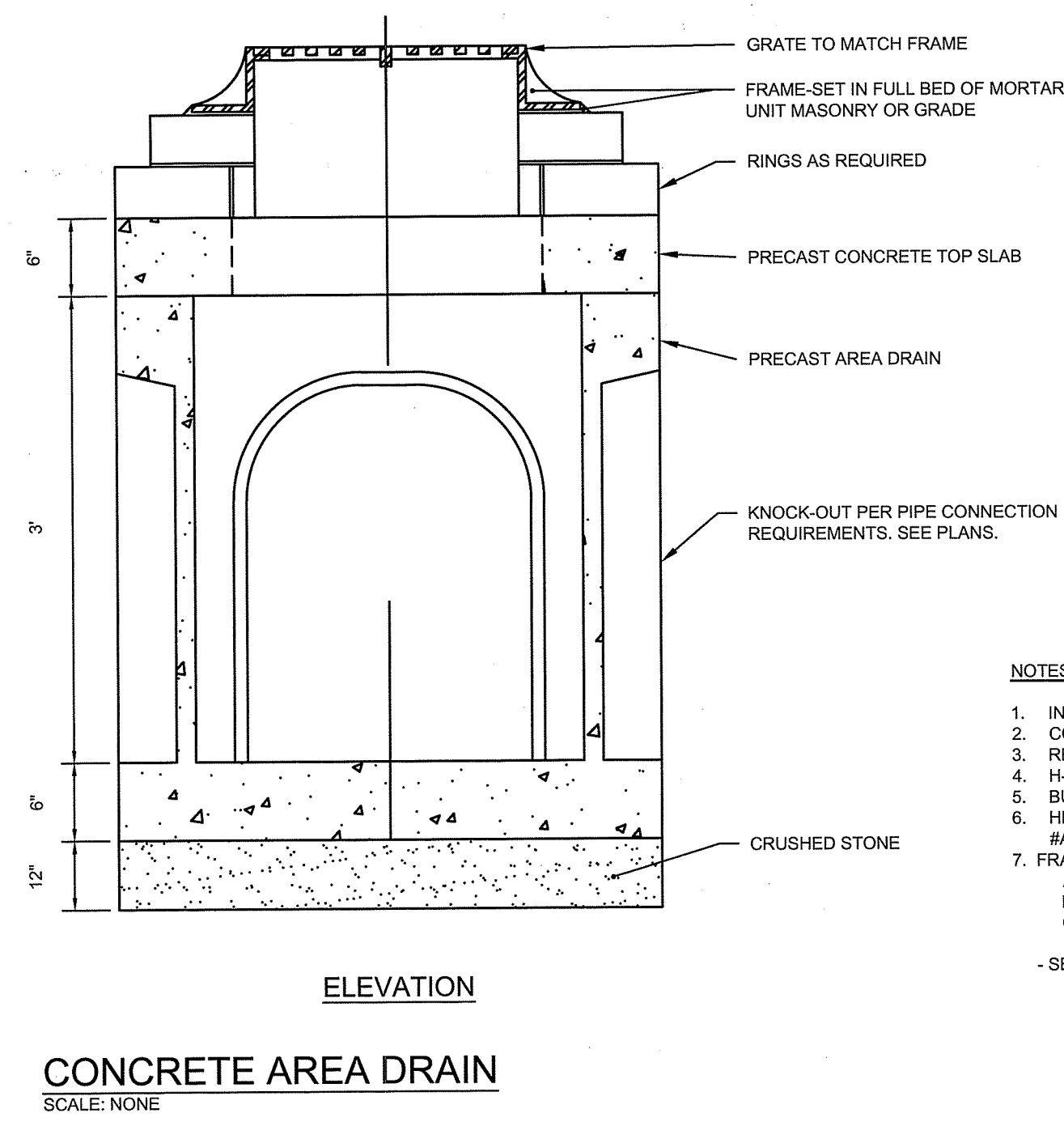
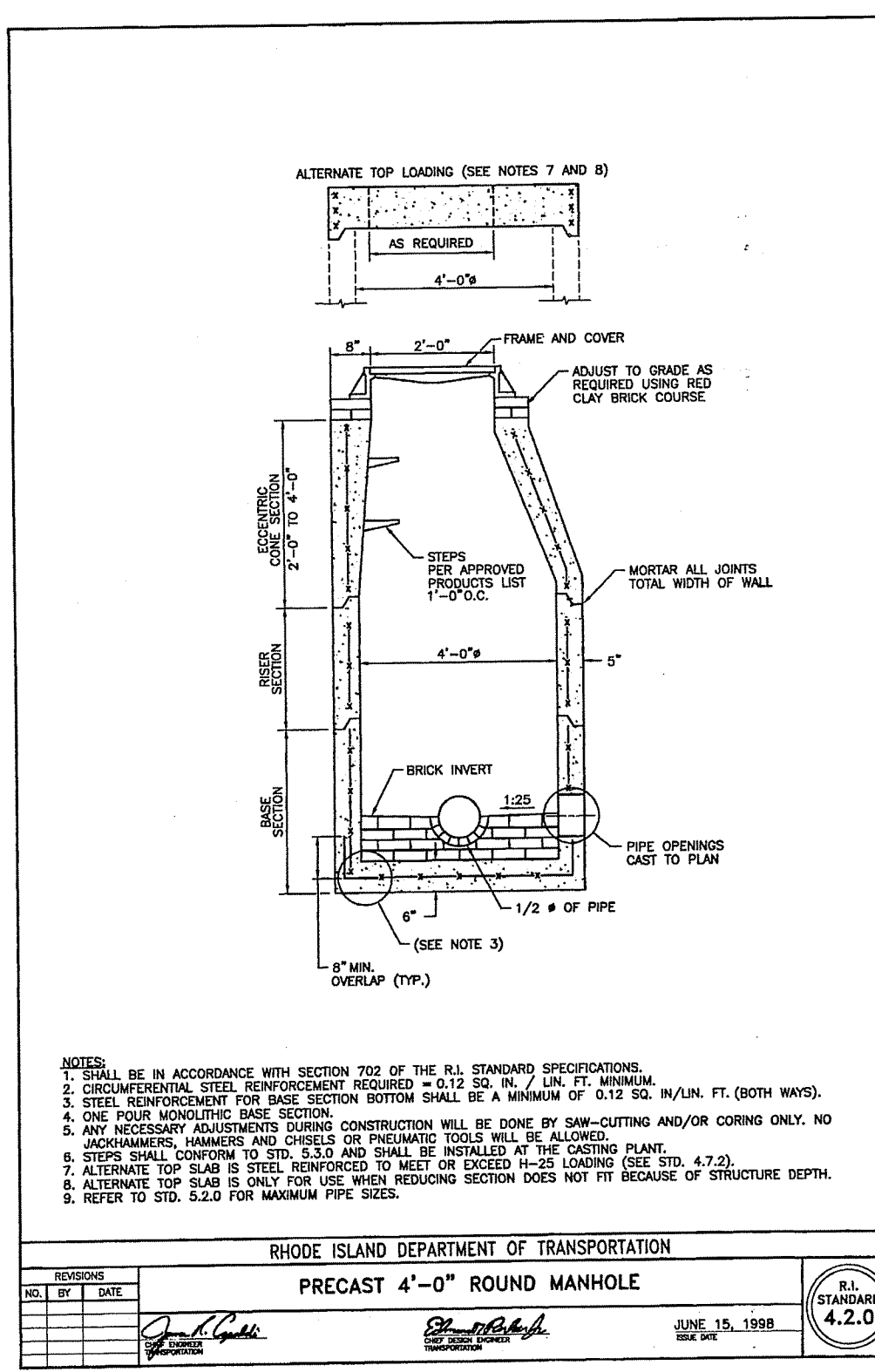
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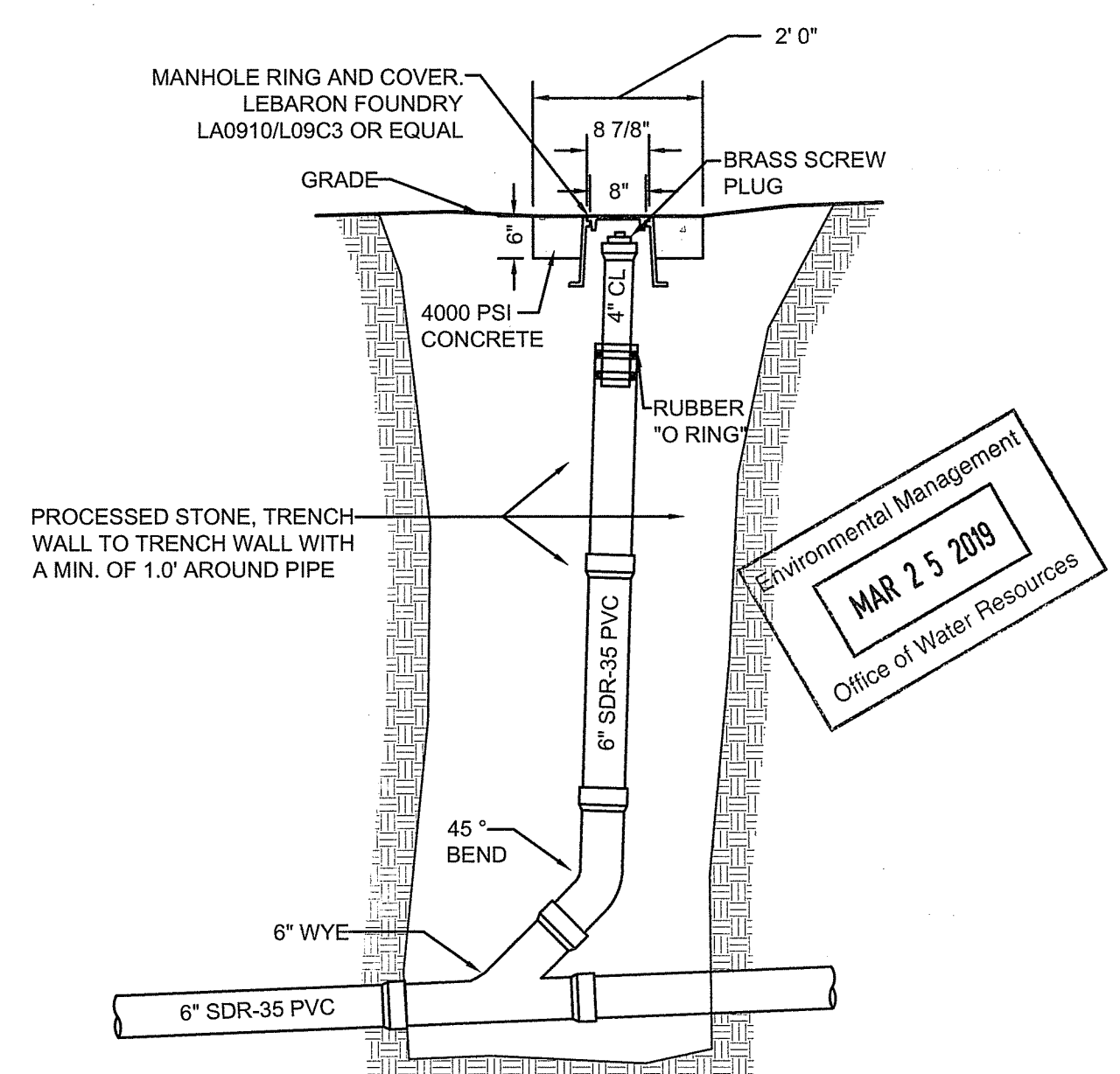
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PROJECT NO.: 70483.00 DRAWN BY: JPE, JHL
 SCALE: CHECKED BY: WW
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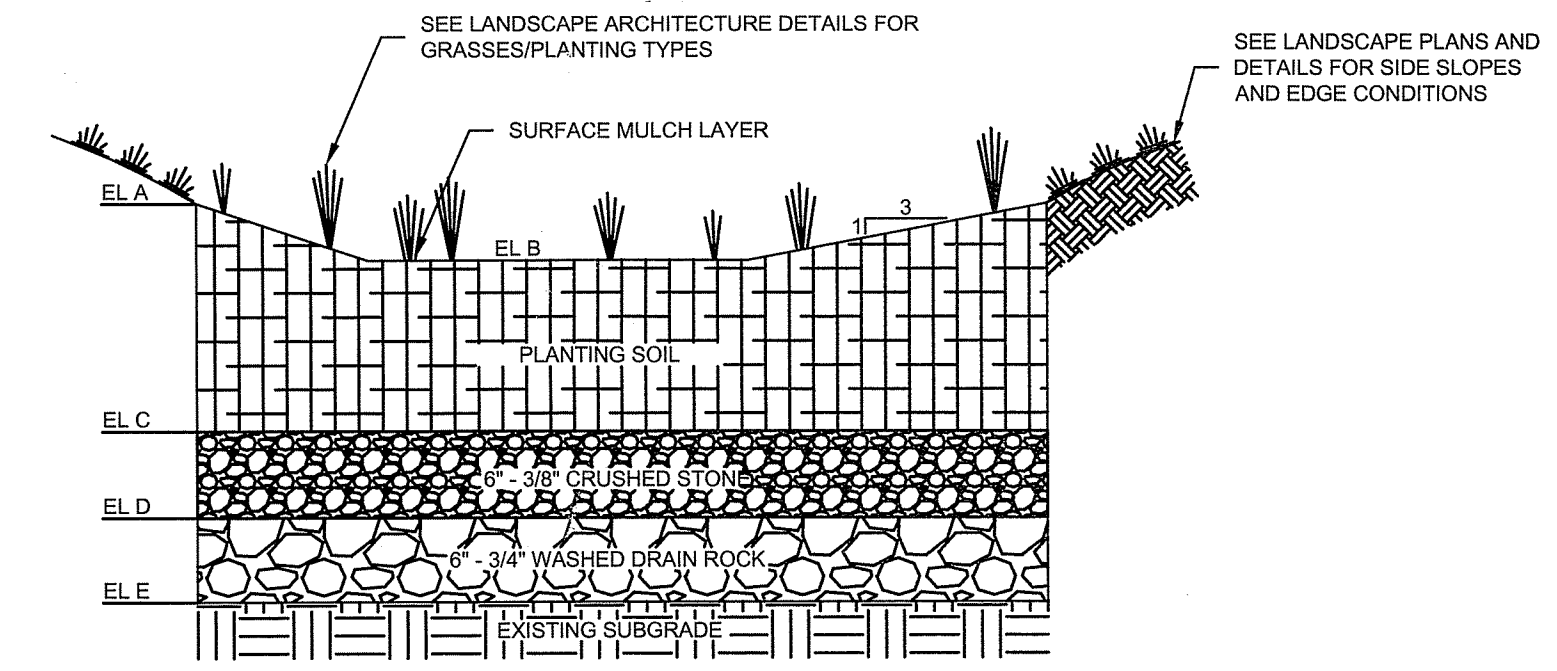
SITE DETAILS



- NOTES:
 1. INLET SHALL BE 30"x30" CONCRETE AREA DRAIN, AS MANUFACTURED BY ARROW CONCRETE, OR ENGINEER APPROVED EQUAL.
 2. CONCRETE STRENGTH SHALL BE 4000 PSI AT 28 DAYS.
 3. REINFORCING STEEL - ASTM 615 AND A82 OR A185 SPECIFICATIONS.
 4. H-20 DESIGN LOADING PER AASHTO HS-20-44.
 5. BUTYL RUBBER JOINT SEALANT - ASTM C990-91.
 6. HEIGHT OF DRAIN BOX SHALL BE 3" (MODEL #ADBK03) UNLESS DEPTH OF INVERT PIPE OUT REQUIRES THE USE OF 4" DRAIN BOX (MODEL #ADBK04).
 7. FRAME AND GRATE PAIR SHALL BE ONE OF THE FOLLOWING:
 A. STANDARD GRATE SHALL BE NEENAH INLET FRAME/GRATE R-2570 OR ENGINEER APPROVED EQUAL.
 B. ADA STANDARD GRATE SHALL BE NEENAH INLET FRAME/GRATE R-2569 OR ENGINEER APPROVED EQUAL.
 C. STANDARD BEEHIVE GRATE SHALL BE NEENAH INLET FRAME/BEEHIVE GRATE R-2564 OR ENGINEER APPROVED EQUAL.
- SEE DRAWINGS FOR SPECIFIC LOCATIONS OF TYPE SELECTED.

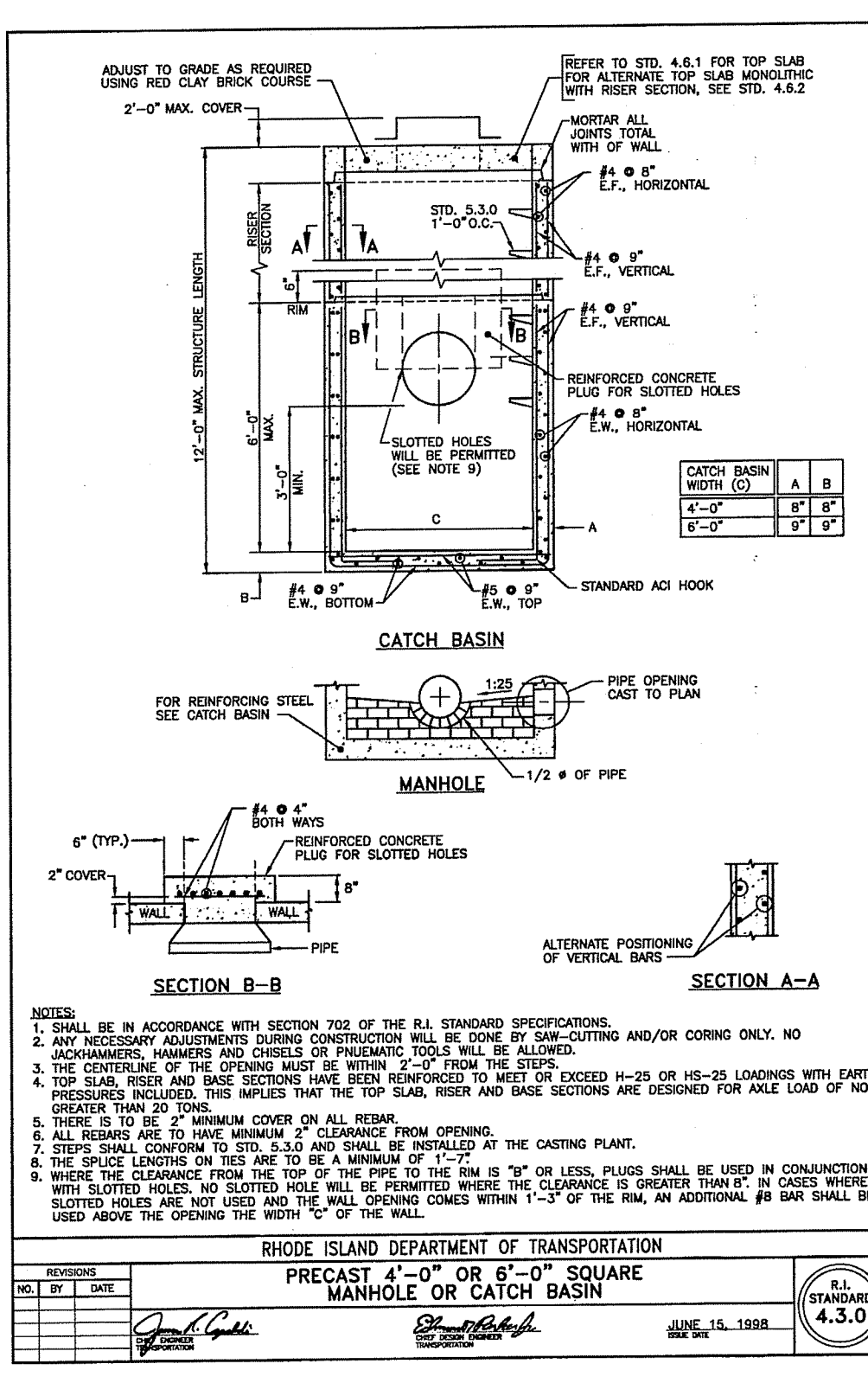
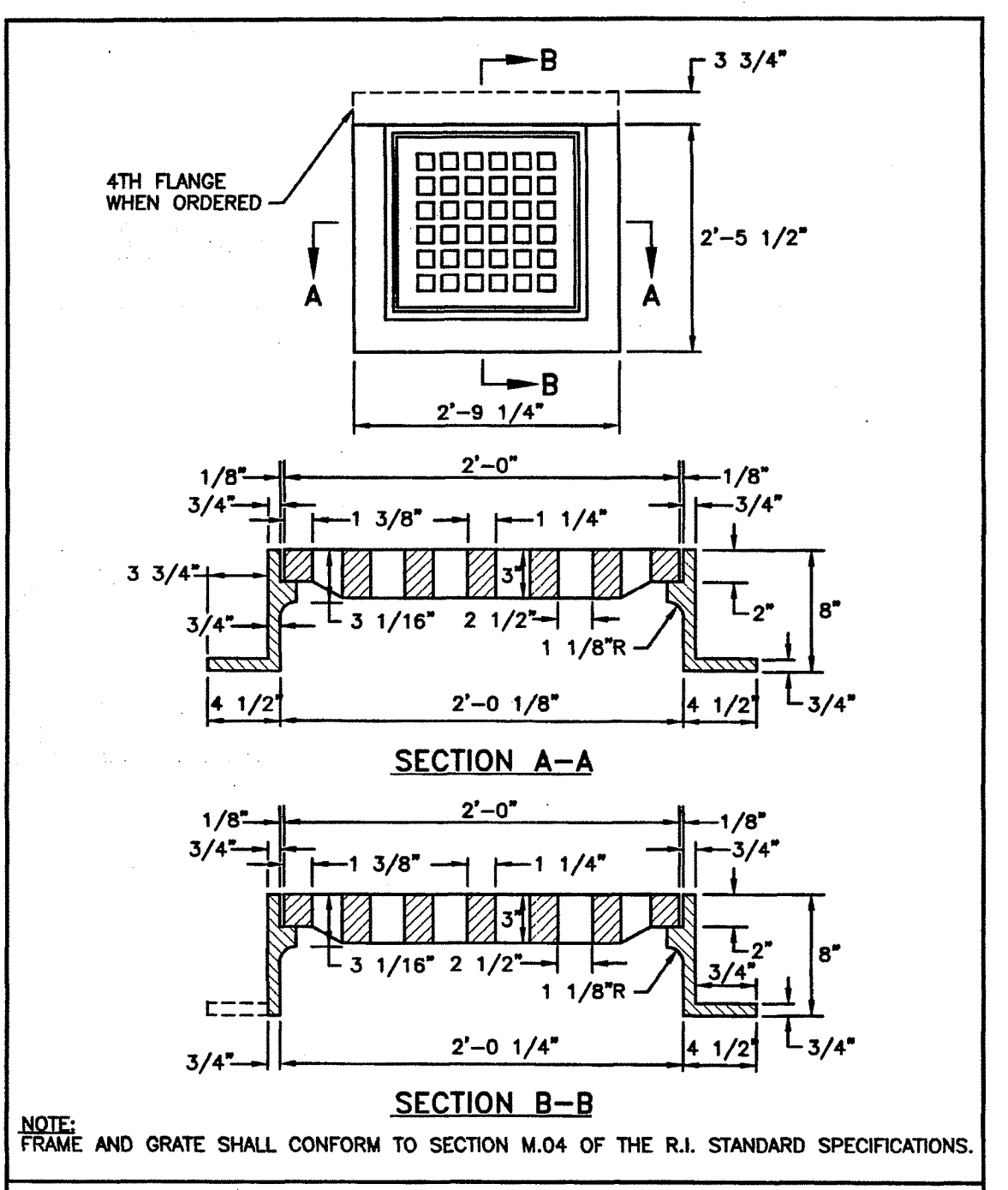
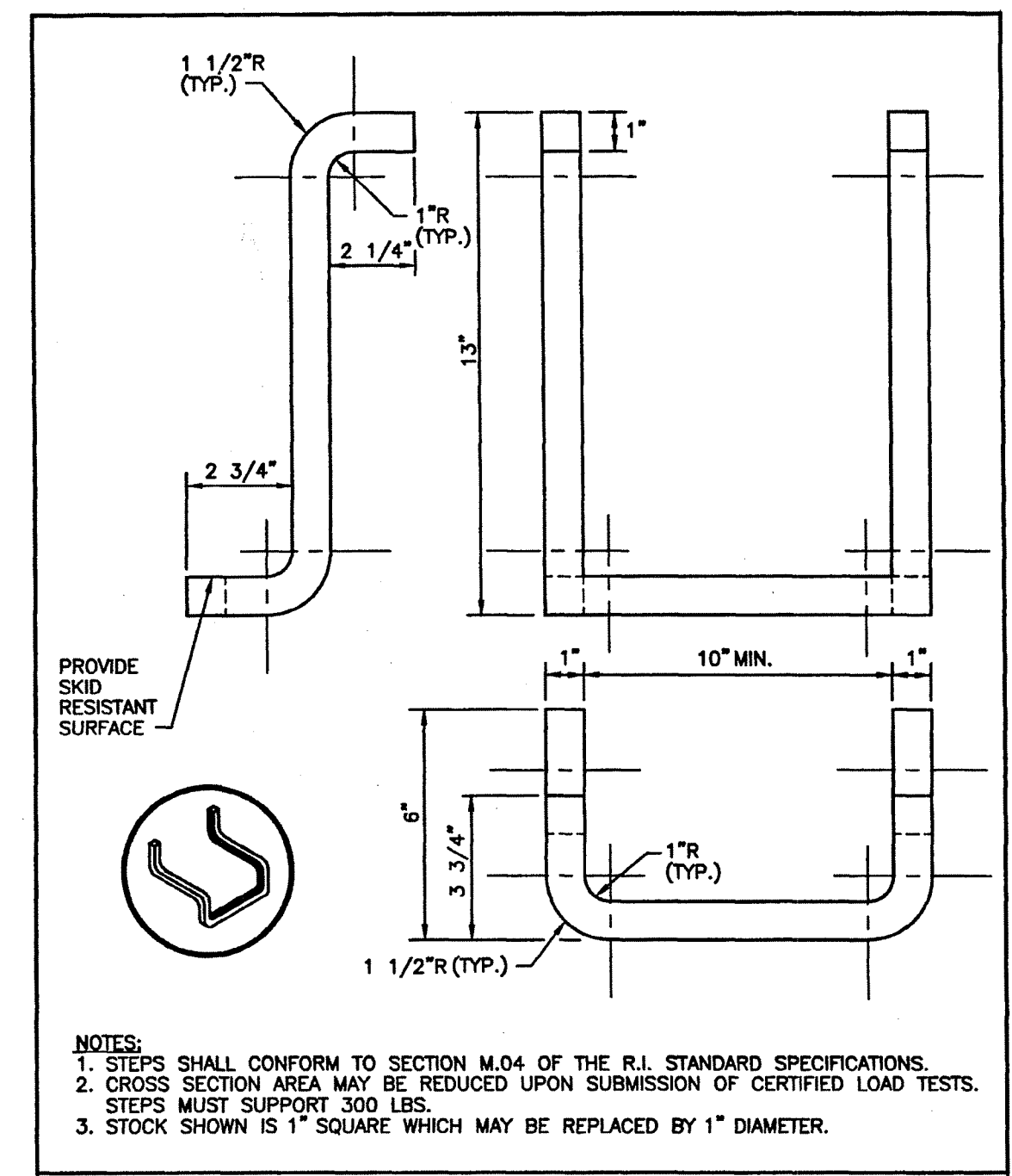
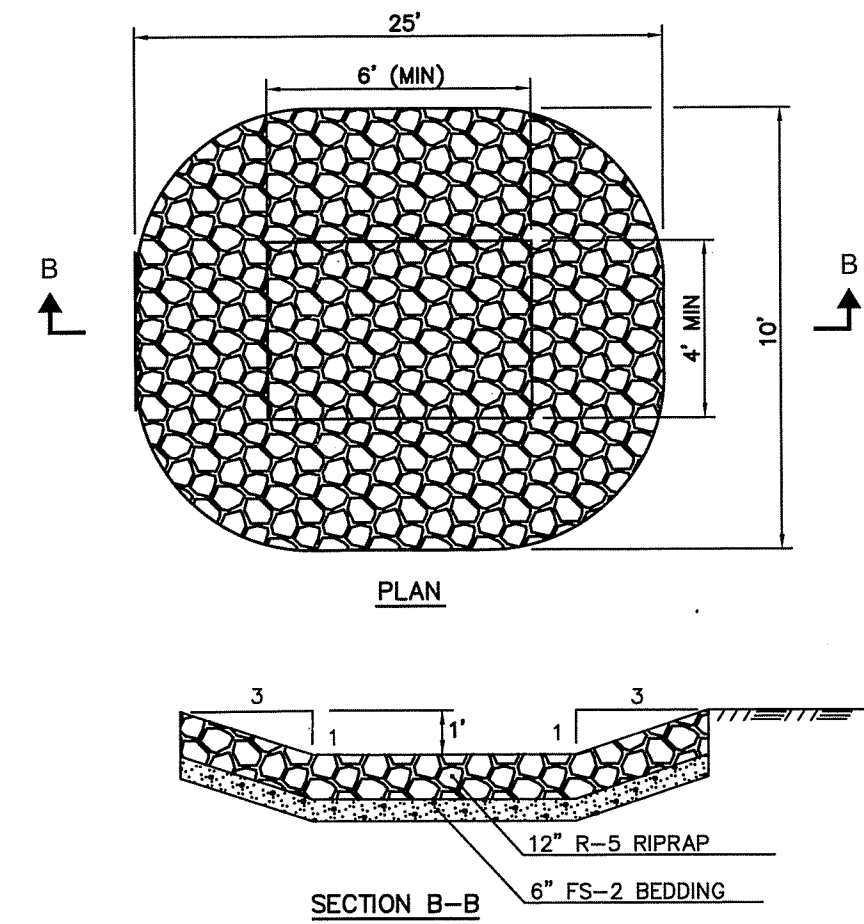
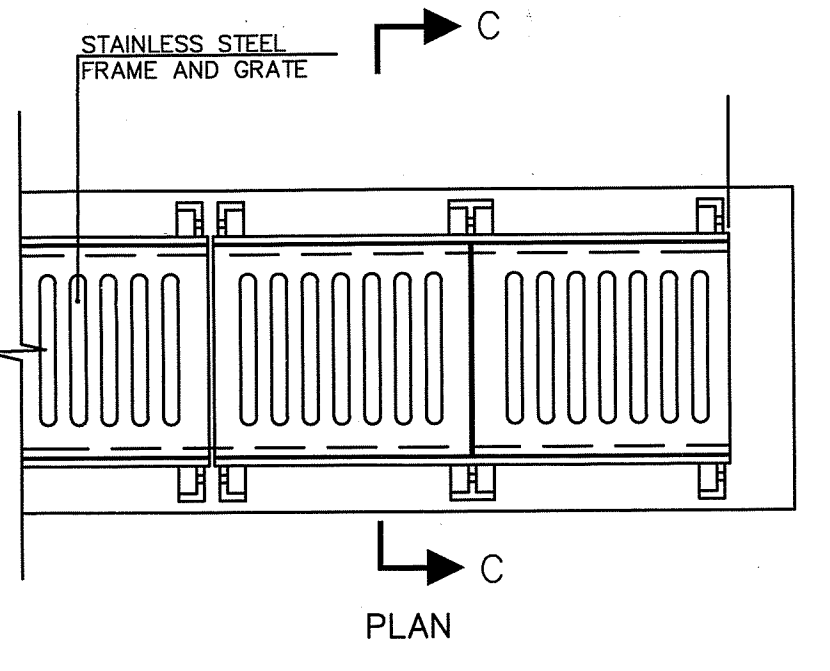
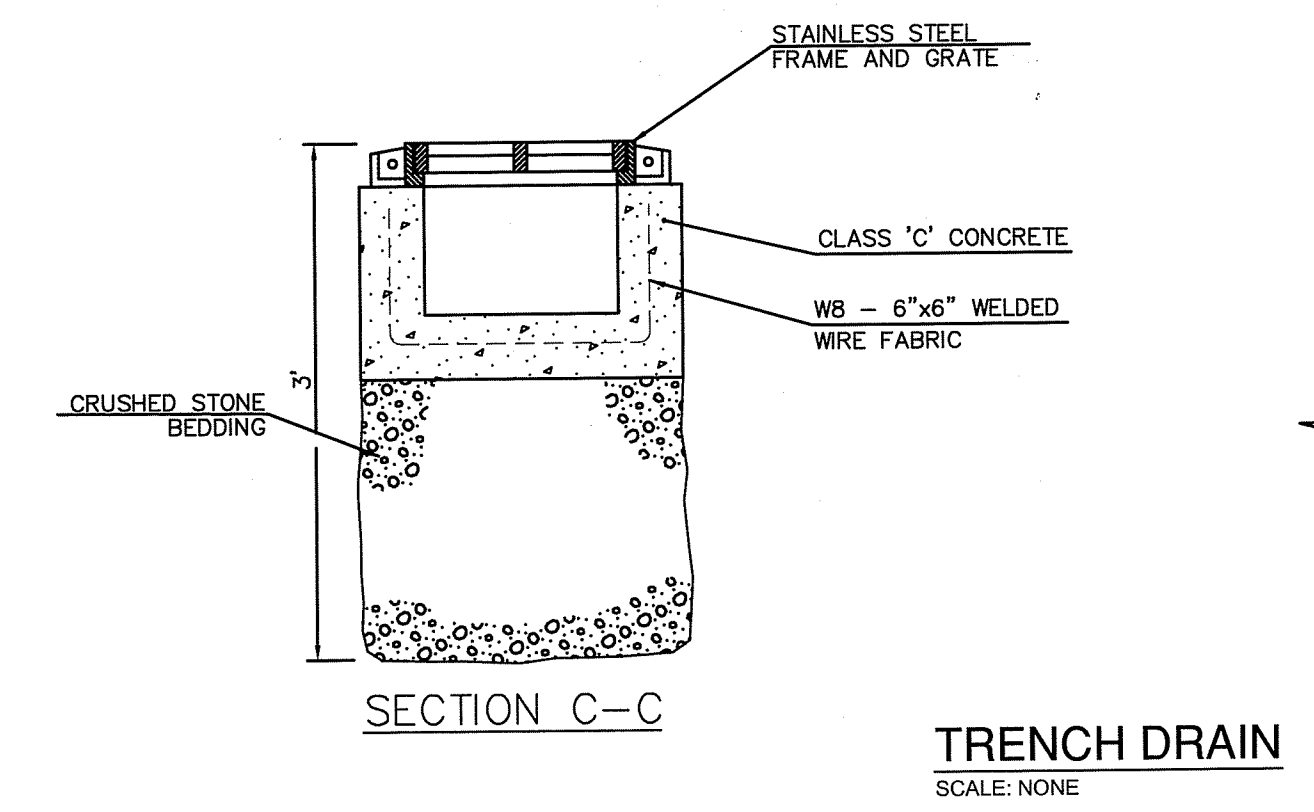
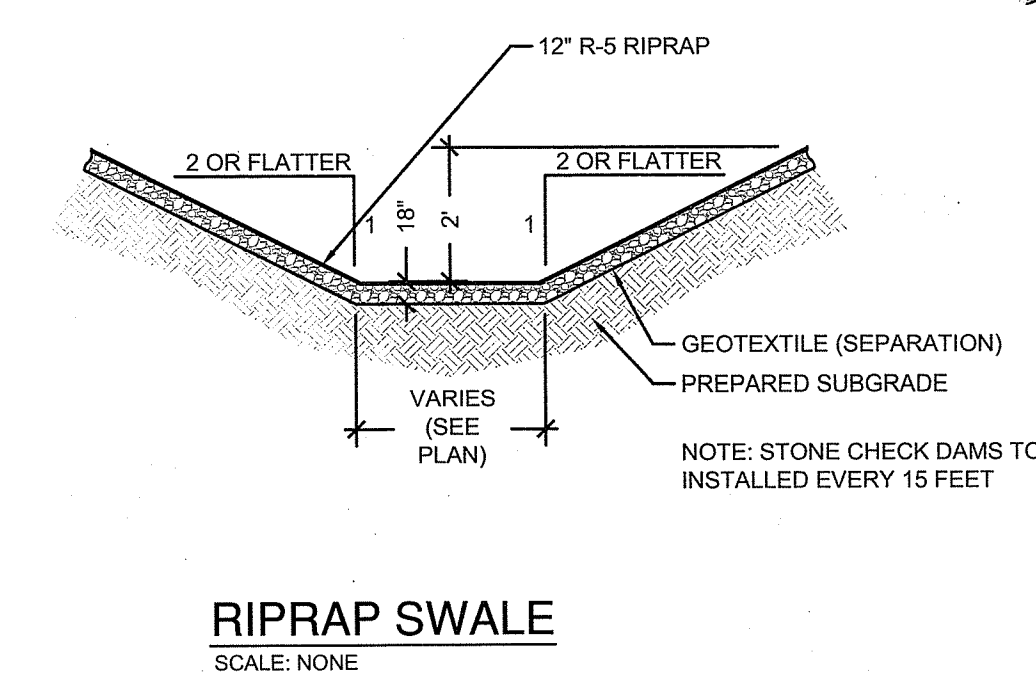


RAIN GARDEN ID	EL A	EL B	EL C	EL D	EL E
RG-1	216.2	215.2	213.2	212.7	212.2
RG-2	212.5	210.0	208.0	207.5	207.0
SFB-1	215.1	214.1	212.1	211.6	211.1
SFB-2	214.3	213.1	211.1	210.6	210.1
SFB-3	214.1	213.1	211.1	210.6	210.1



- NOTES:
 1. PER 250-RICR-150-10-8.23 D4, SOILS SHALL CONSIST OF UNITED STATES DEPARTMENT OF AGRICULTURE LOAMY SAND TO SANDY LOAM CLASSIFICATION AND MEET THE FOLLOWING GRADATION: SAND 85-88%, SILT 8-12%, CLAY 0-2%, AND ORGANIC MATTER (IN THE FORM OF LEAF COMPOST) 3-5%
 2. INSTALL TOPSOIL IN A MANNER THAT ENSURES ADEQUATE INFILTRATION. PLACE IN TWO EQUAL LIFTS.
 3. LIFTS SHOULD NOT BE COMPACTED, BUT RATHER PLACED IN A MANNER TO REDUCE EXCESSIVE EROSION OR SETTLEMENT. LIFTS MAY BE LIGHTLY WATERED TO ENCOURAGE NATURAL COMPACTION OR, IF NECESSARY, ROLLED WITH WATER-FILLED LANDSCAPE ROLLER. SLIGHTLY OVERFILL THE FACILITY ABOVE PROPOSED FINISHED GRADE TO ACCOMMODATE NATURAL SETTLEMENT.
 4. SEASONAL HIGH GROUNDWATER TABLE IS GREATER THAN 20' BELOW ELEVATION A

RAIN GARDEN / SEDIMENT FOREBAY
 SCALE: NONE



RHODE ISLAND DEPARTMENT OF TRANSPORTATION
 REVISIONS
 NO. BY DATE
 JUNE 15, 1998
 R.I. STANDARD 6.3.0

RHODE ISLAND DEPARTMENT OF TRANSPORTATION
 REVISIONS
 NO. BY DATE
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BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

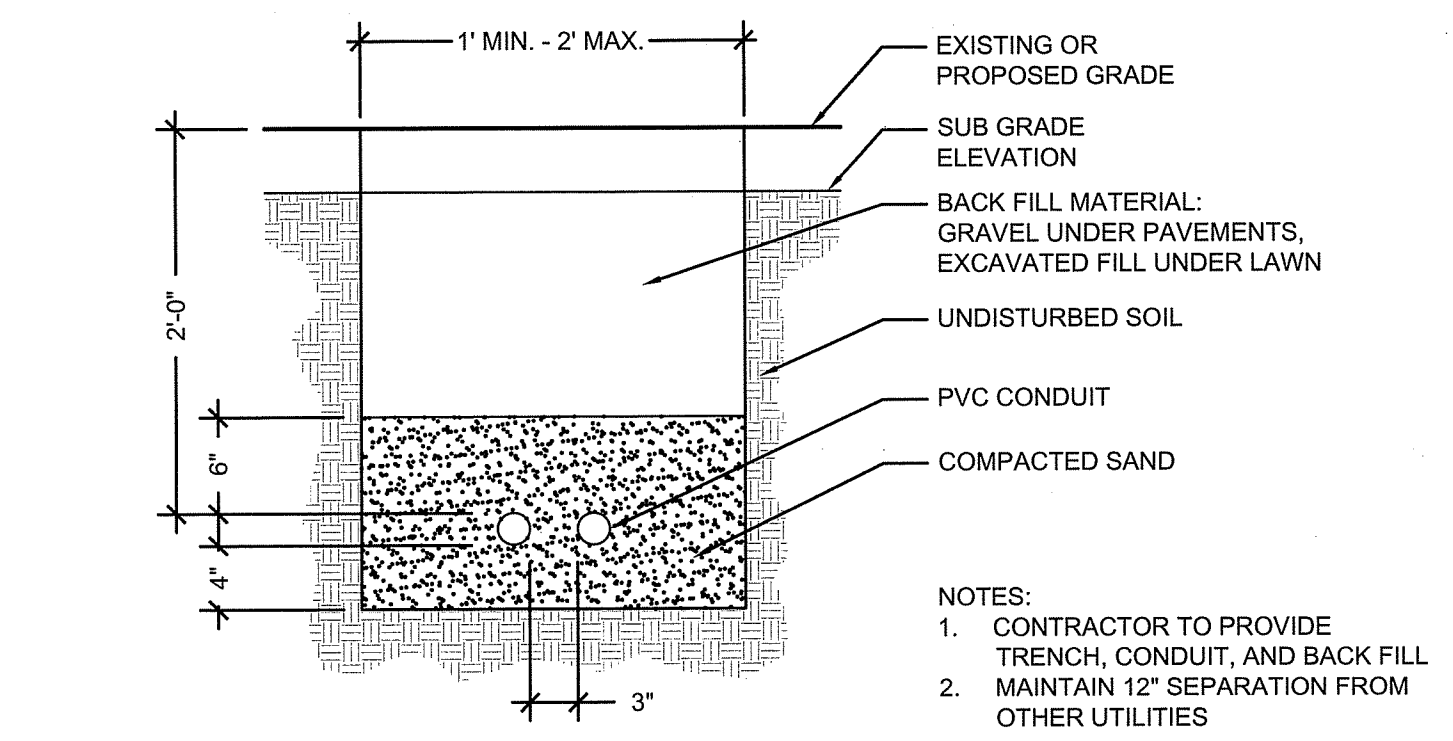
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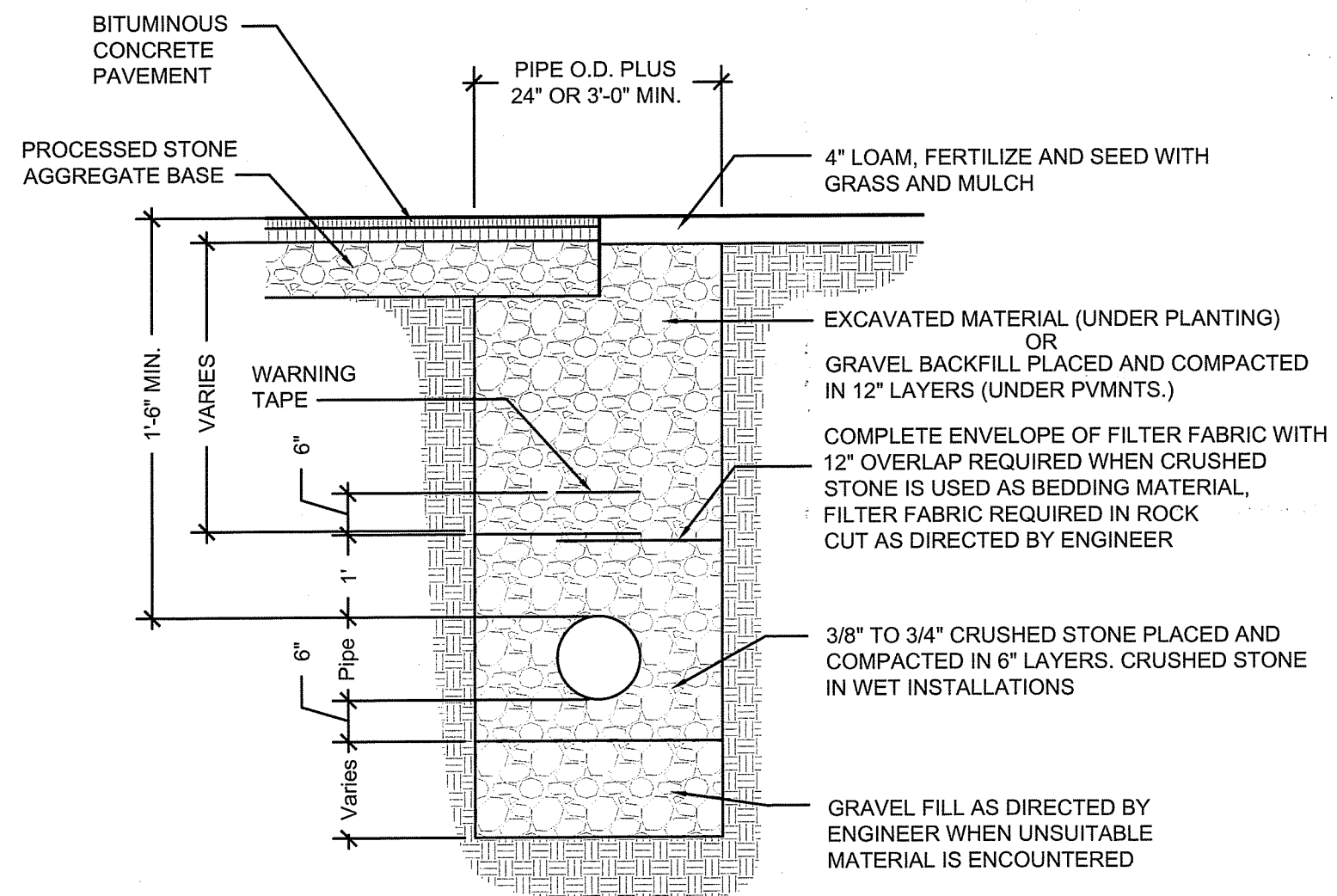
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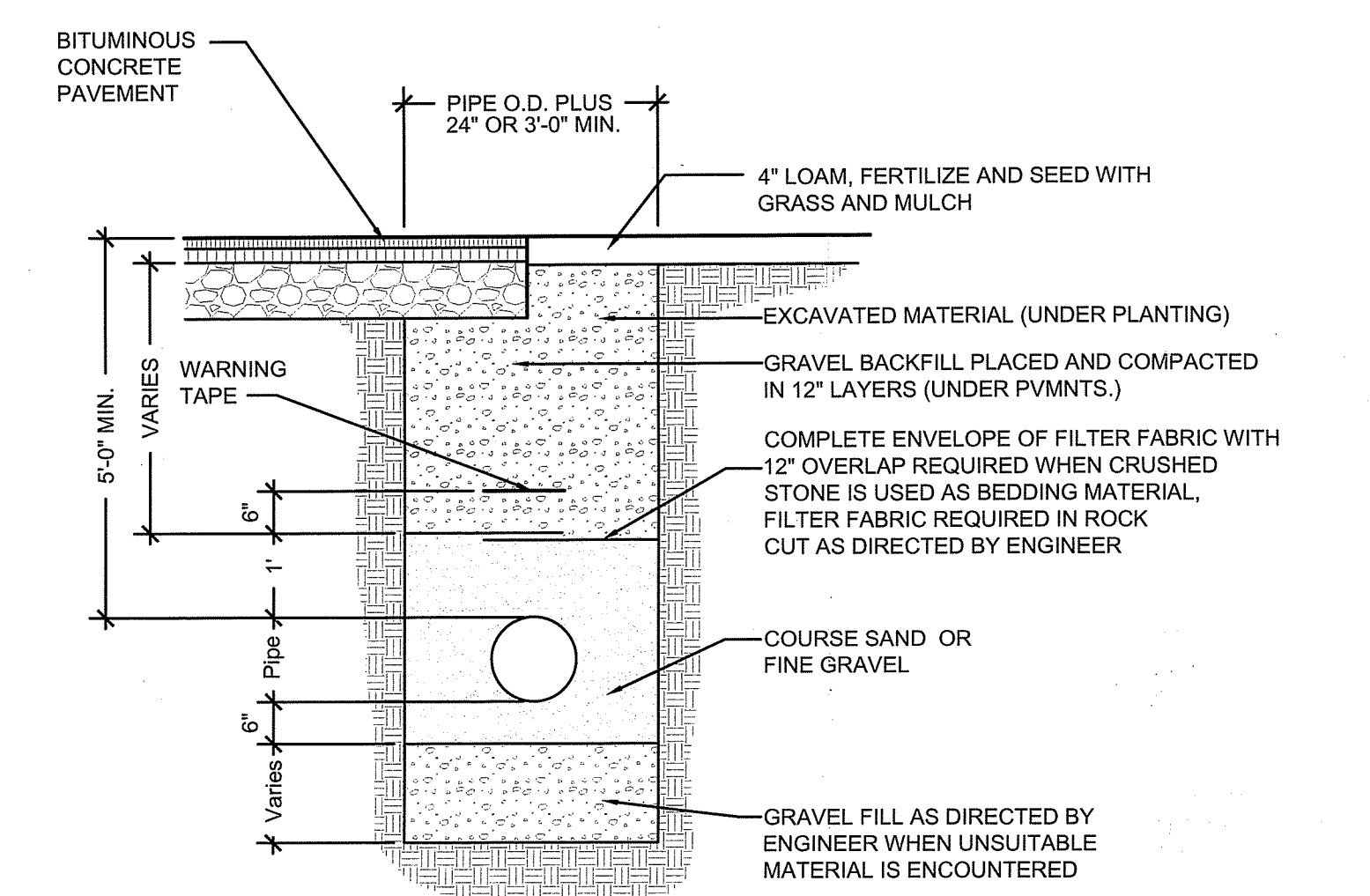
SITE DETAILS



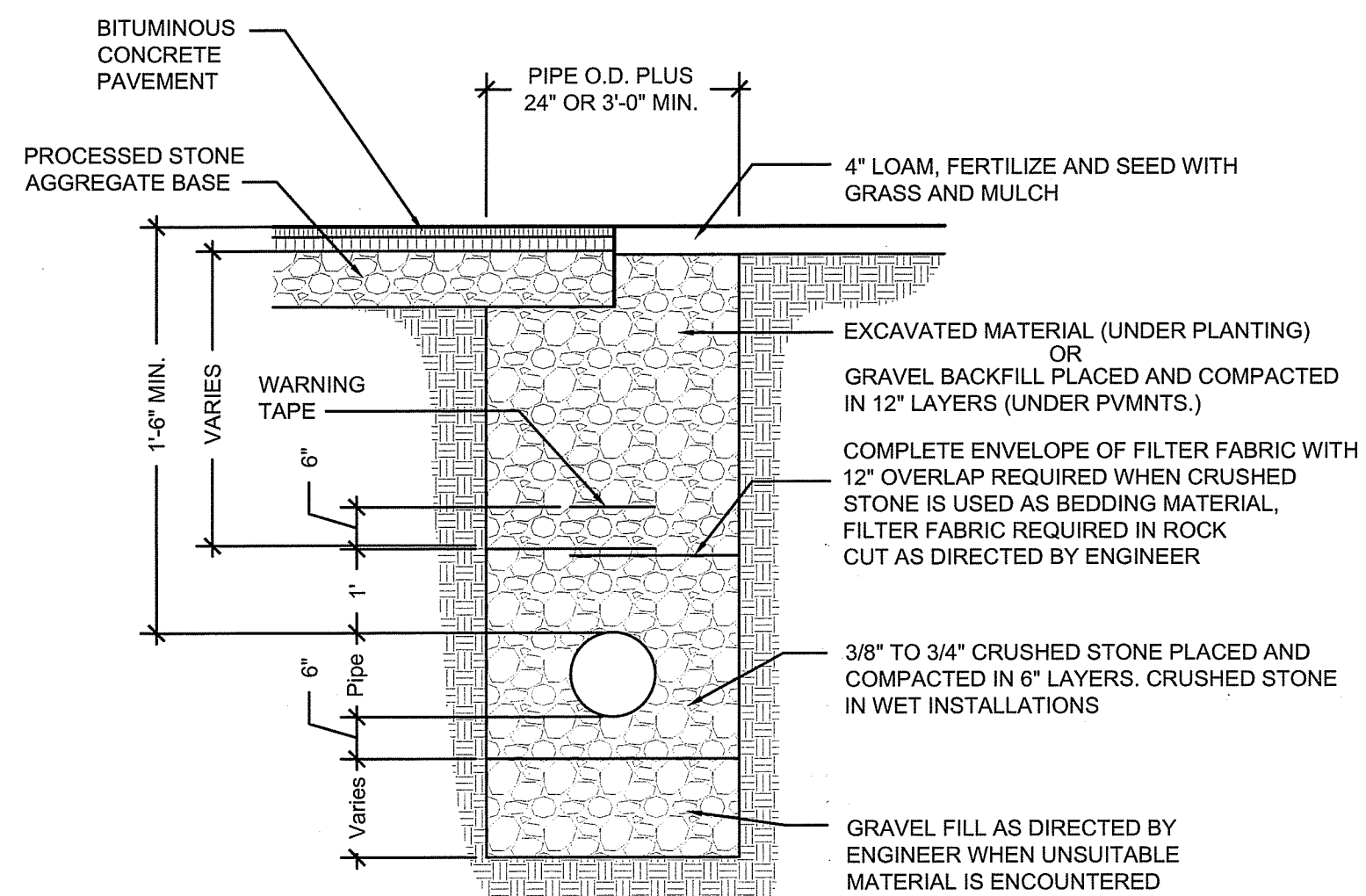
ELECTRICAL CONDUIT TRENCH
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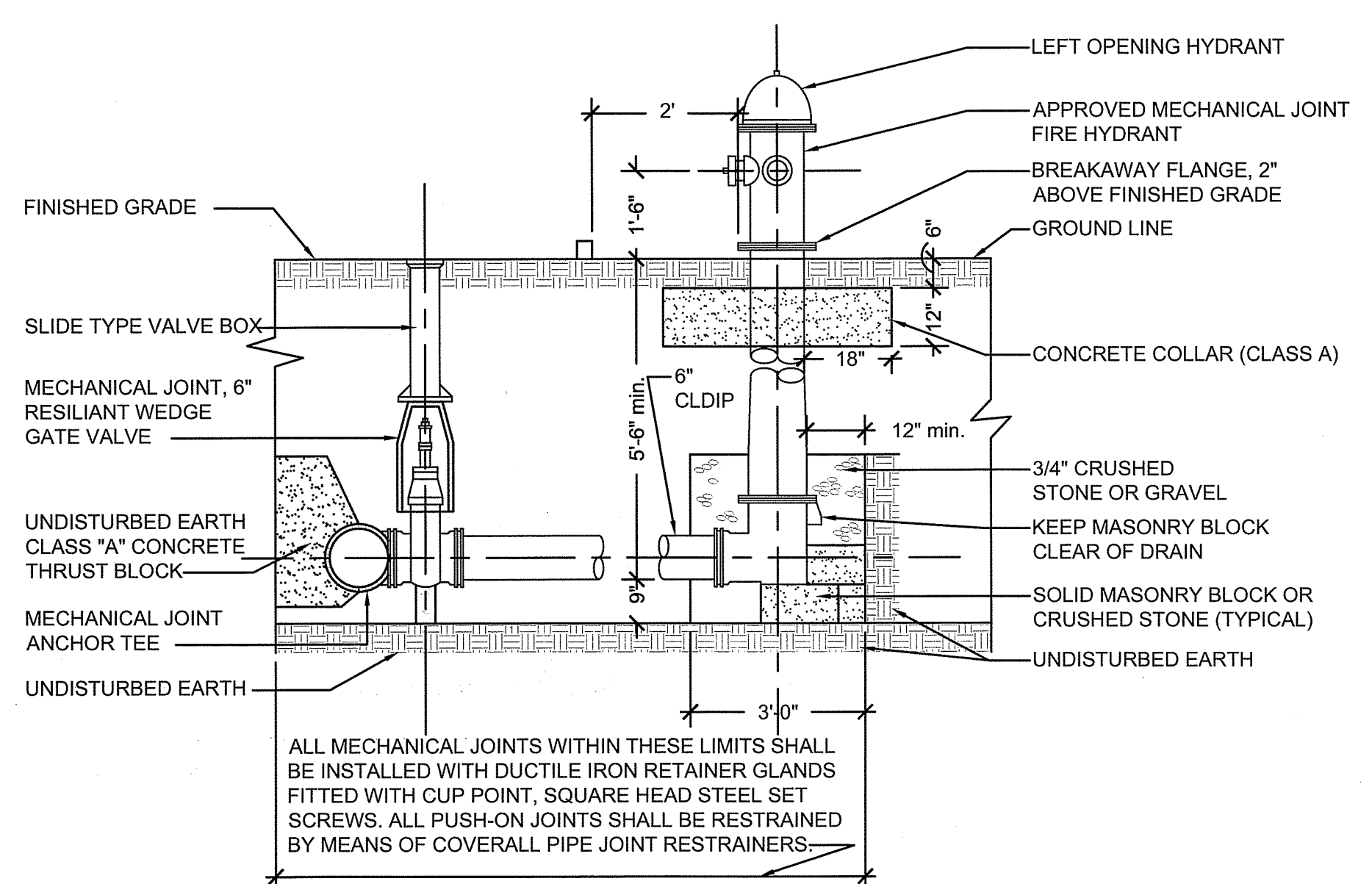
SANITARY TRENCH
 SCALE: NONE



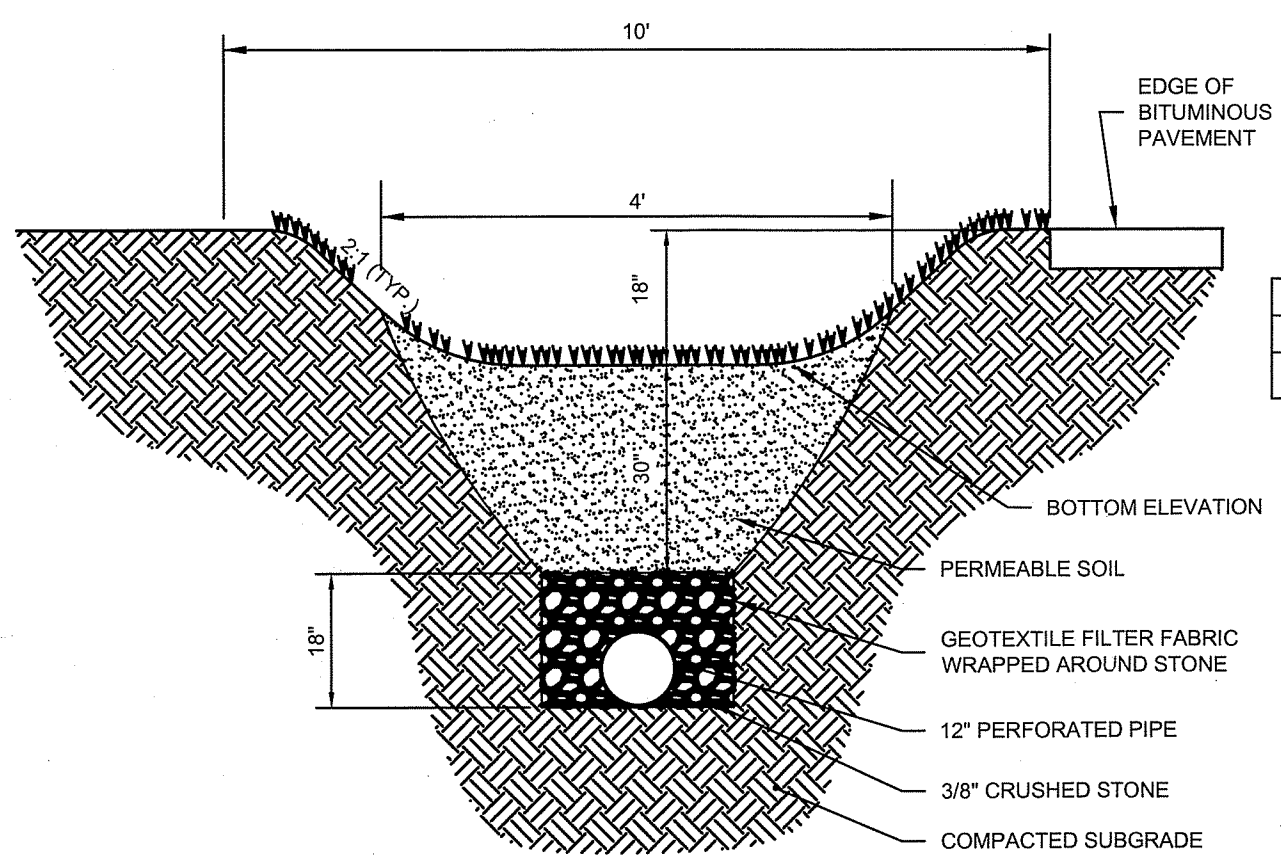
WATER TRENCH
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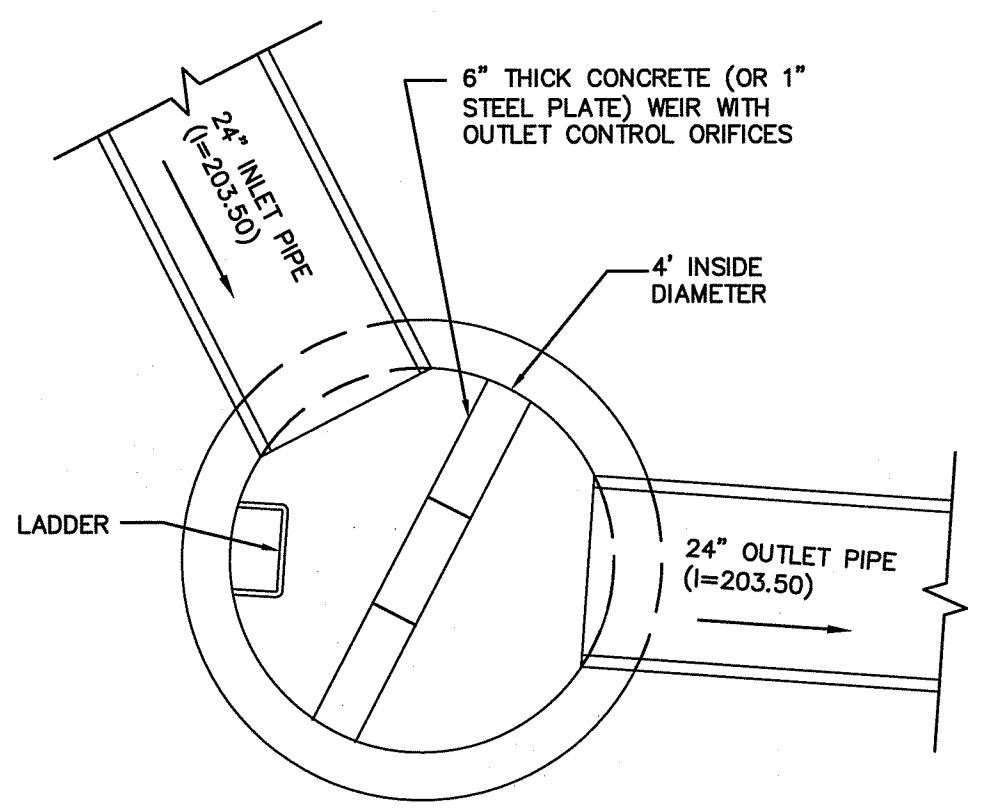
STORM TRENCH
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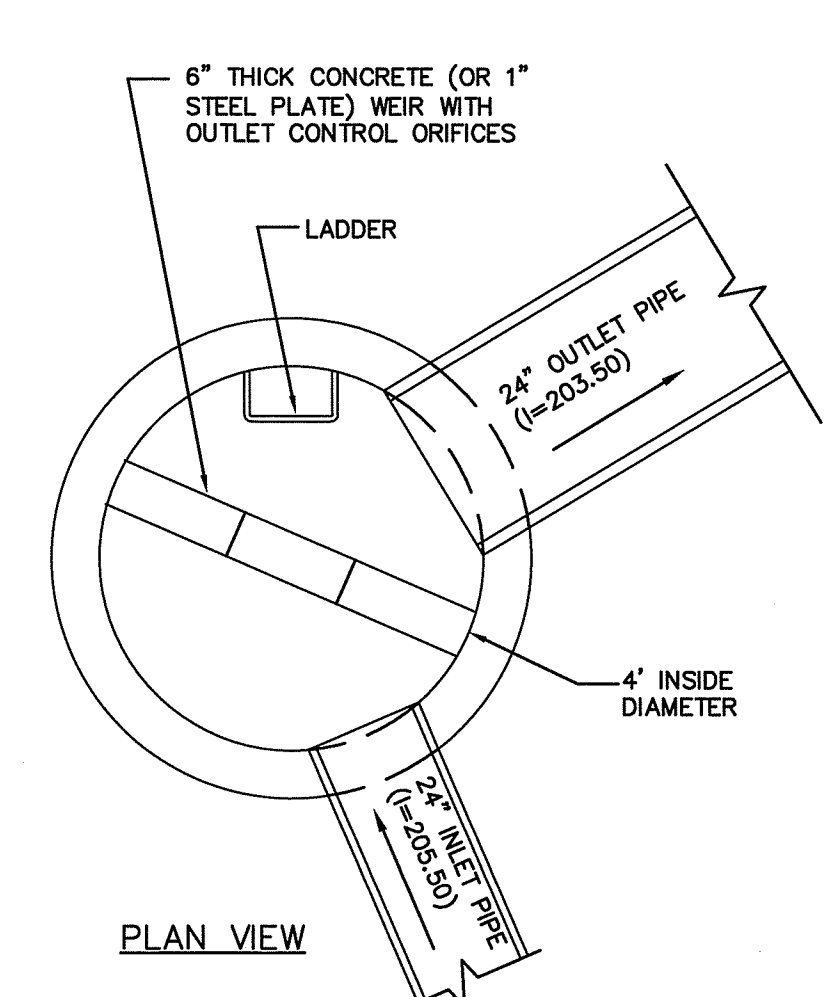
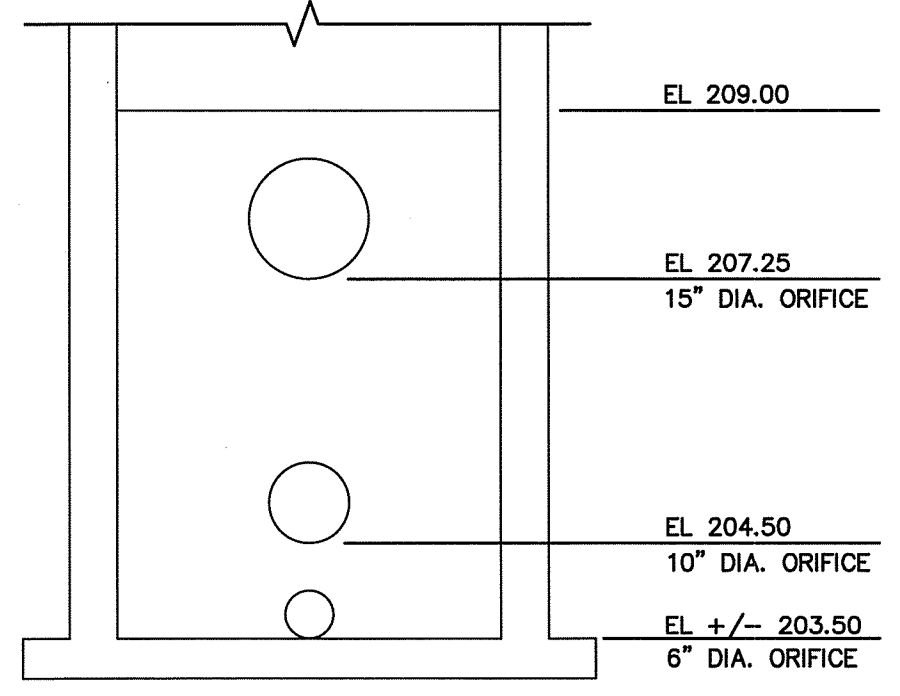
FIRE HYDRANT
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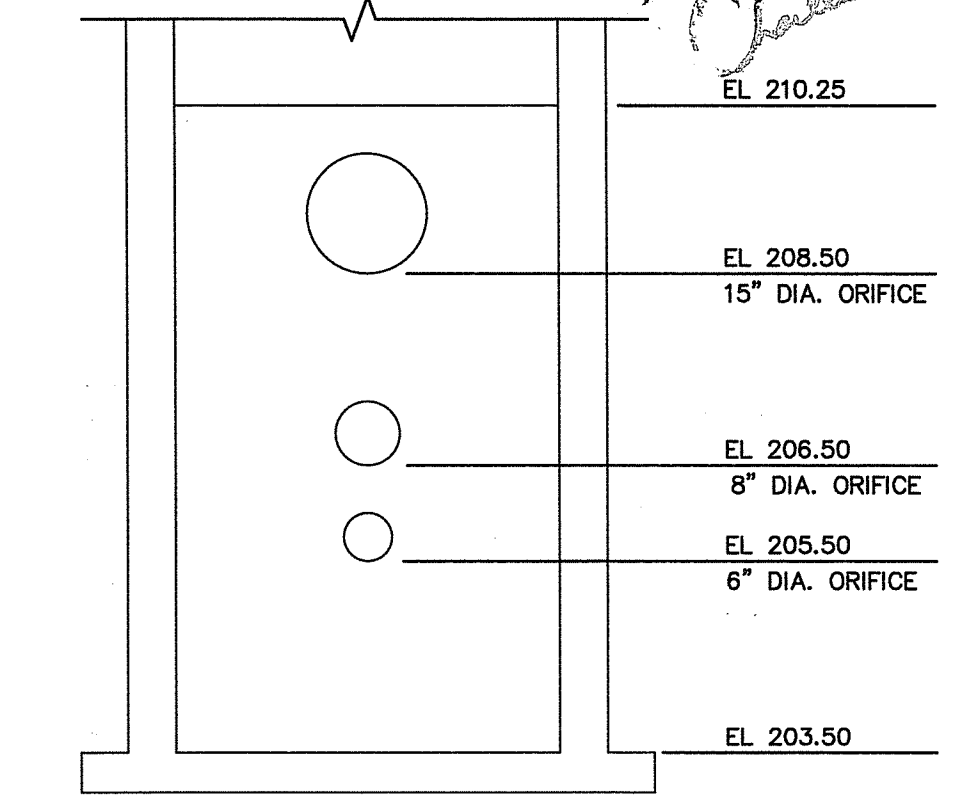
GRASS CHANNEL
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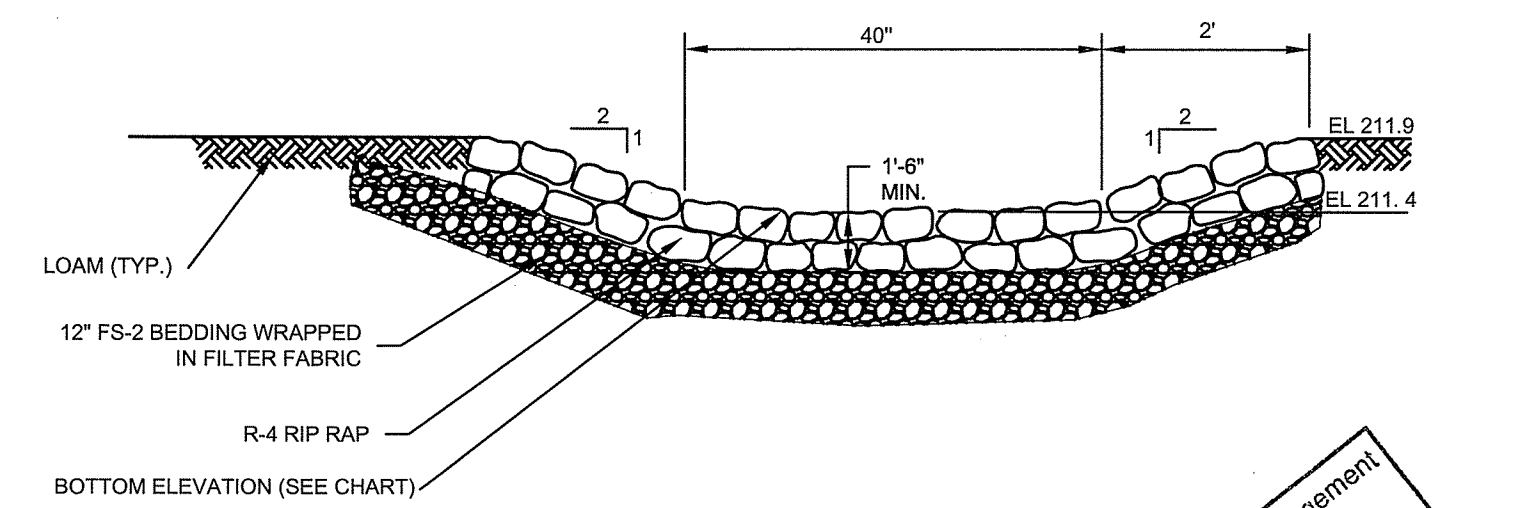
OUTLET CONTROL STRUCTURE - 1
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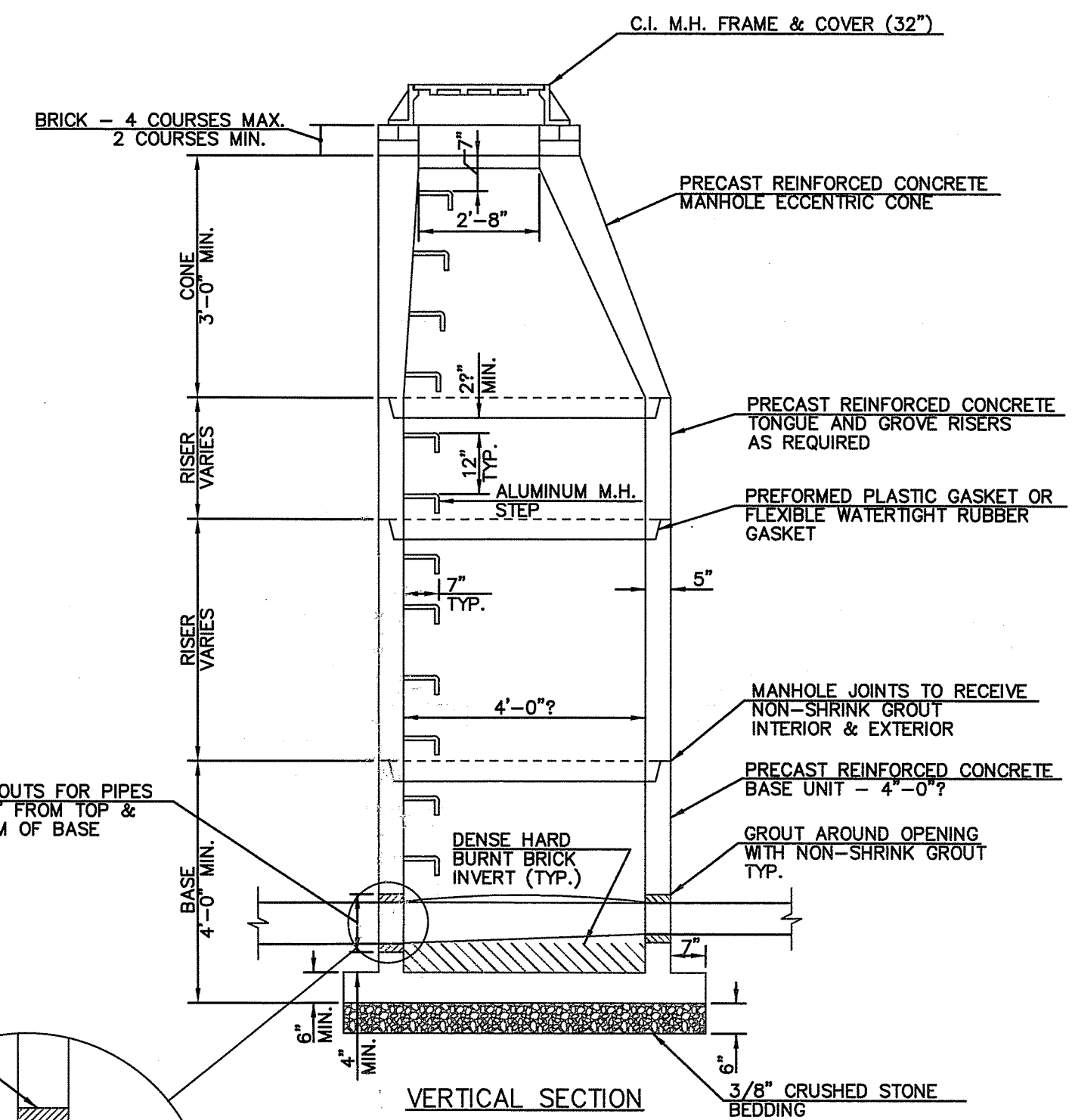
OUTLET CONTROL STRUCTURE - 2
 SCALE: NONE



SEDIMENT FOREBAY SPILLWAY
 SCALE: NONE



Environmental Management
 MAR 23 2019
 Office of Water Resources



SANITARY MANHOLE
 SCALE: NONE



BROOKSIDE TERRACE
 1470 SOUTH COUNTY TRAIL
 EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

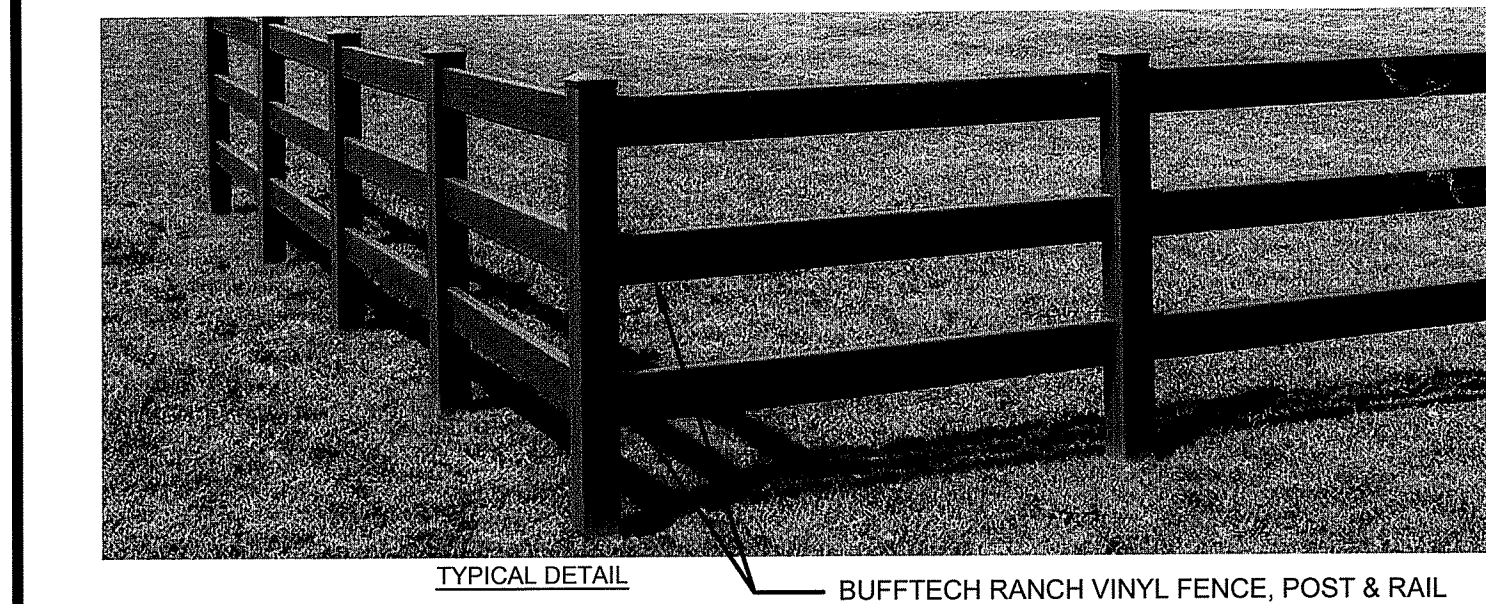
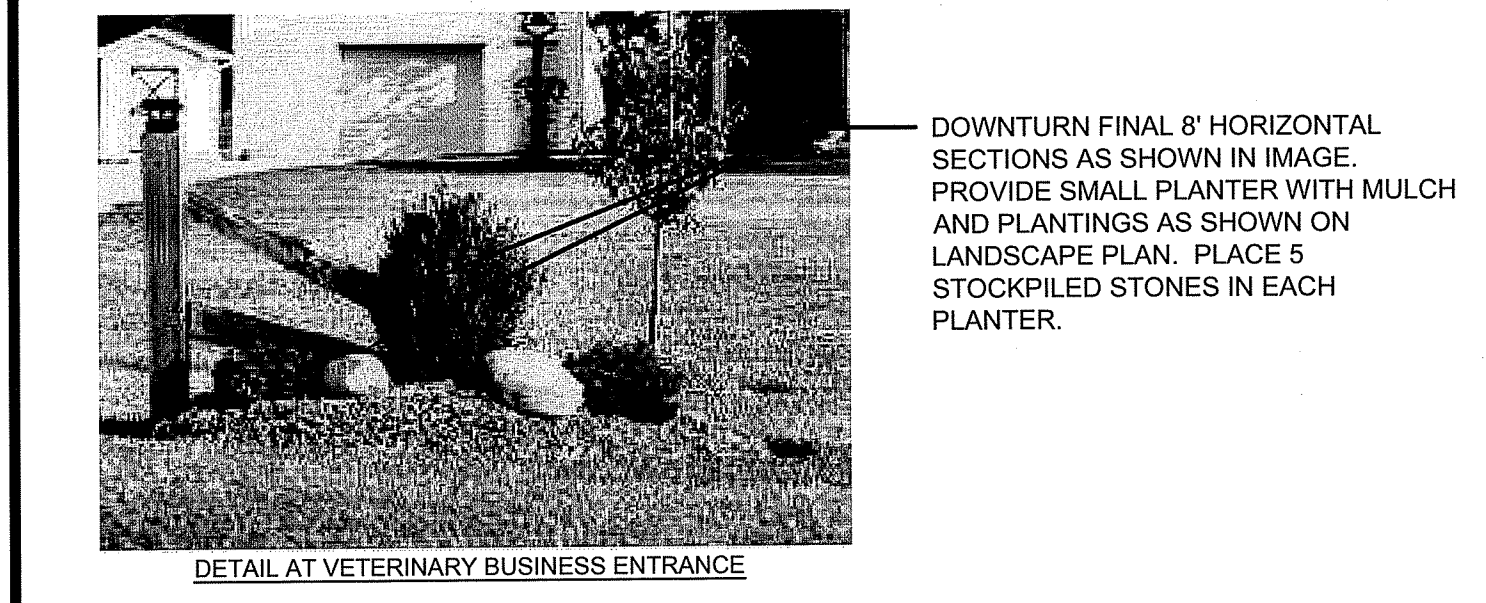
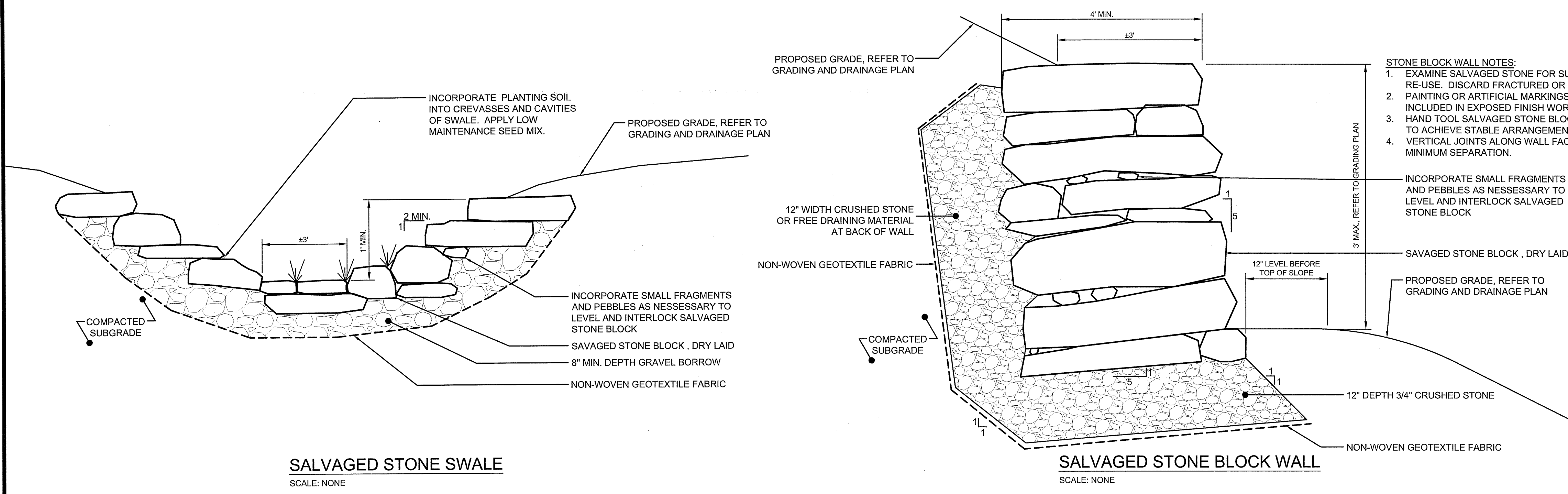
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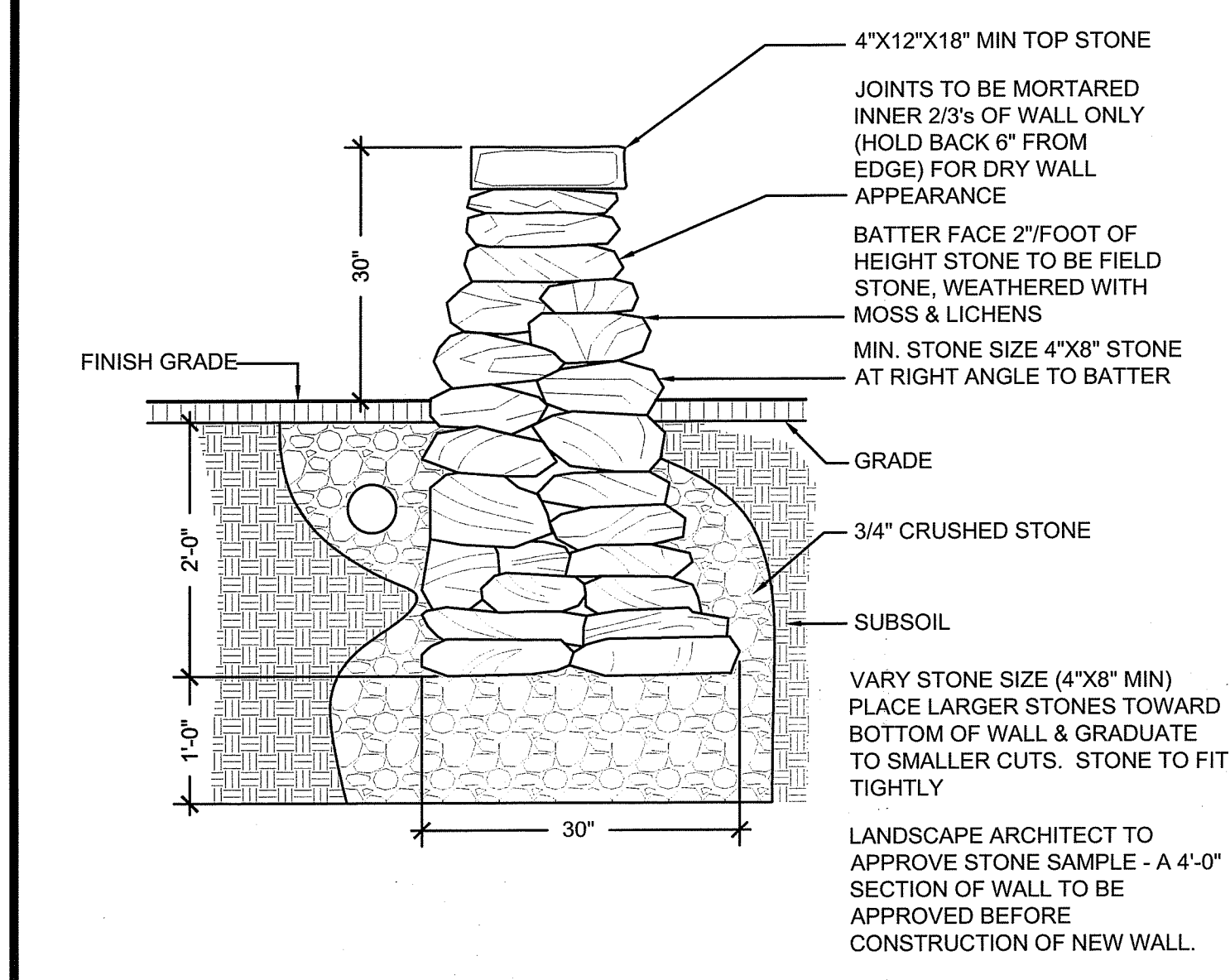
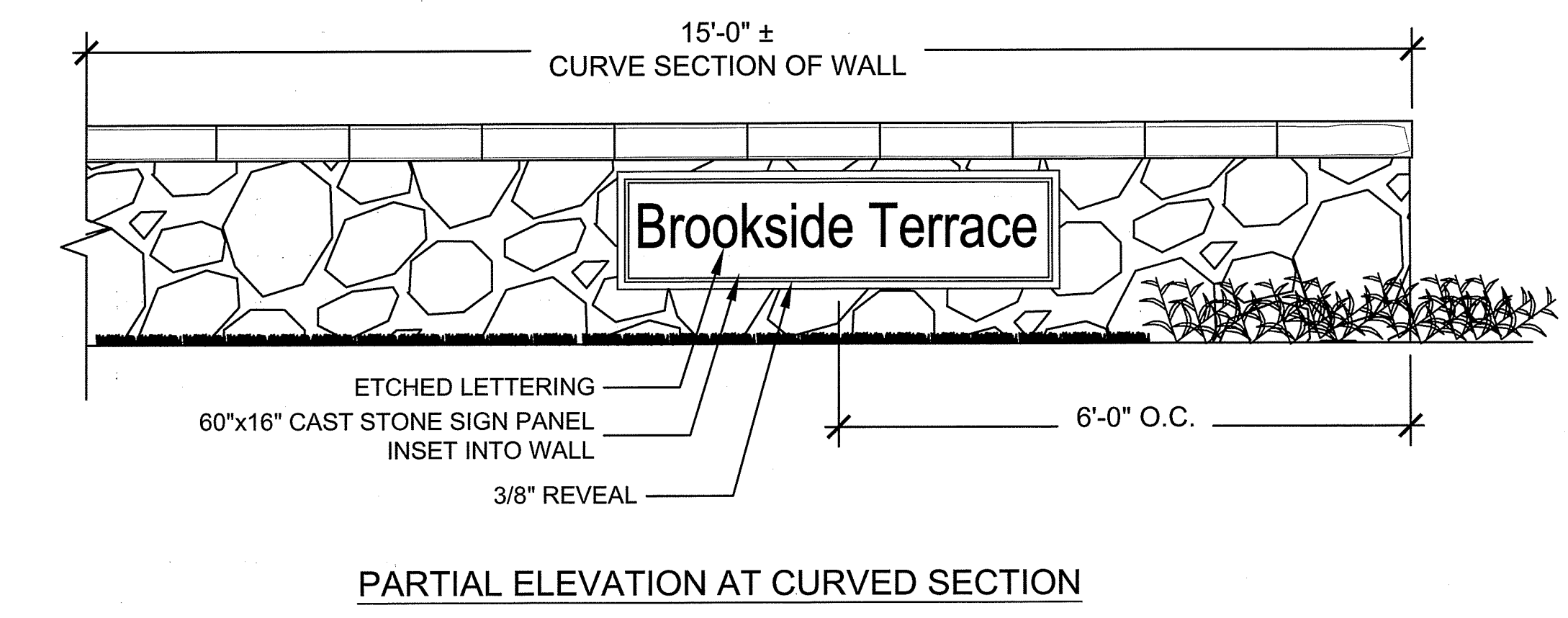
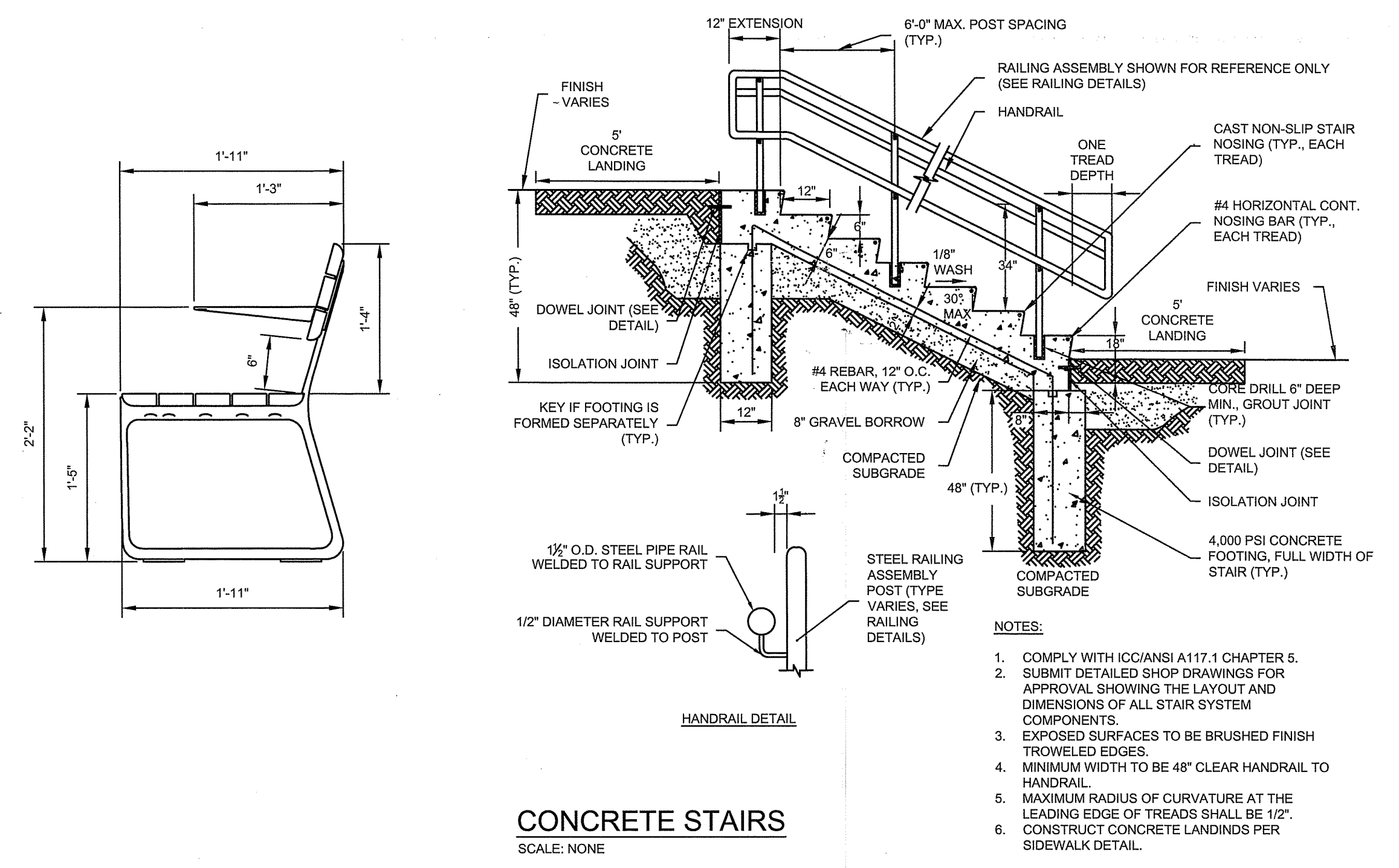
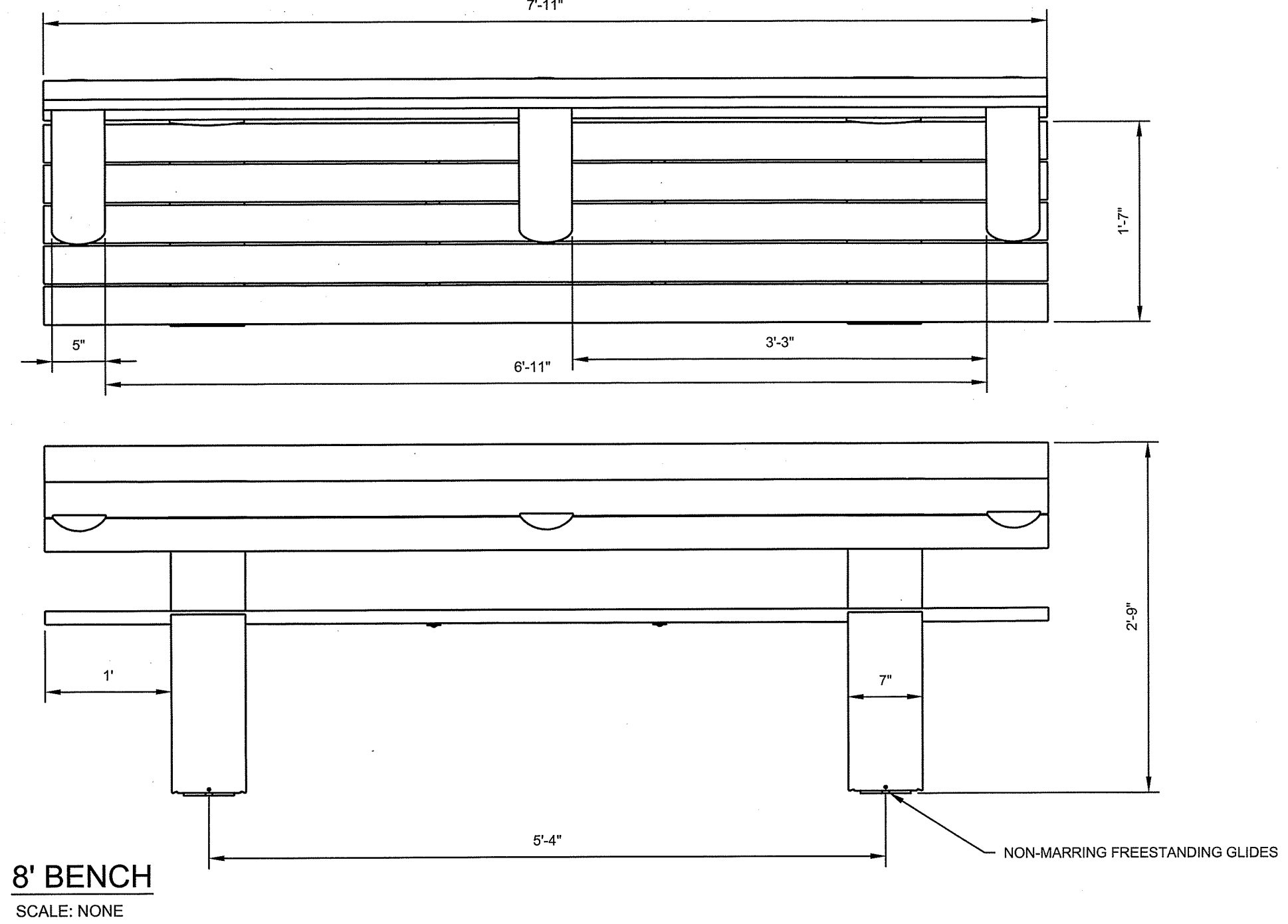
WILLIAM G. WALTER
 No. 12234
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

PROJECT NO.: 70483.00 DRAWN BY: JFE, JHL
 SCALE: CHECKED BY: WW
 DATE: 09.05.2018

SITE DETAILS



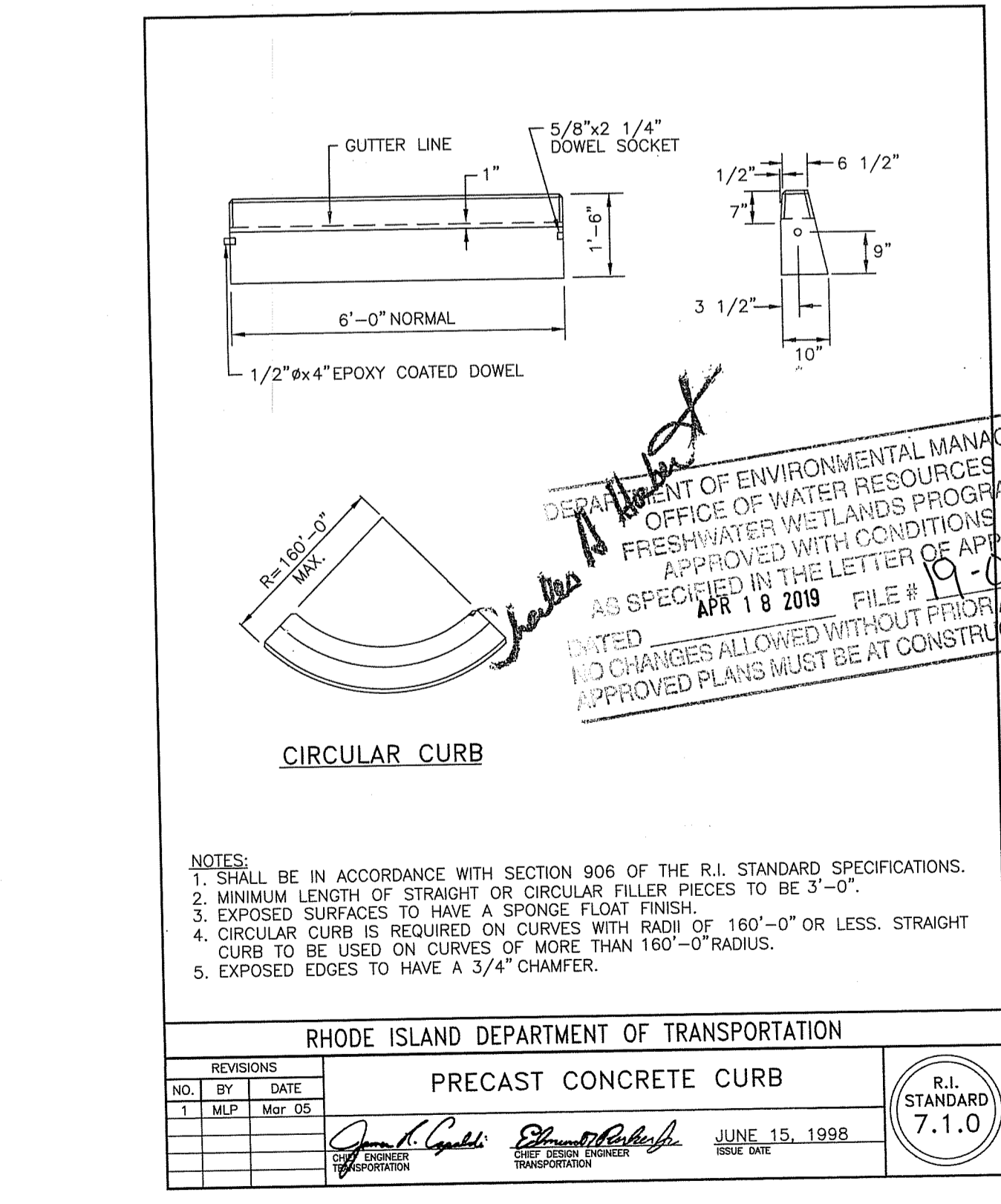
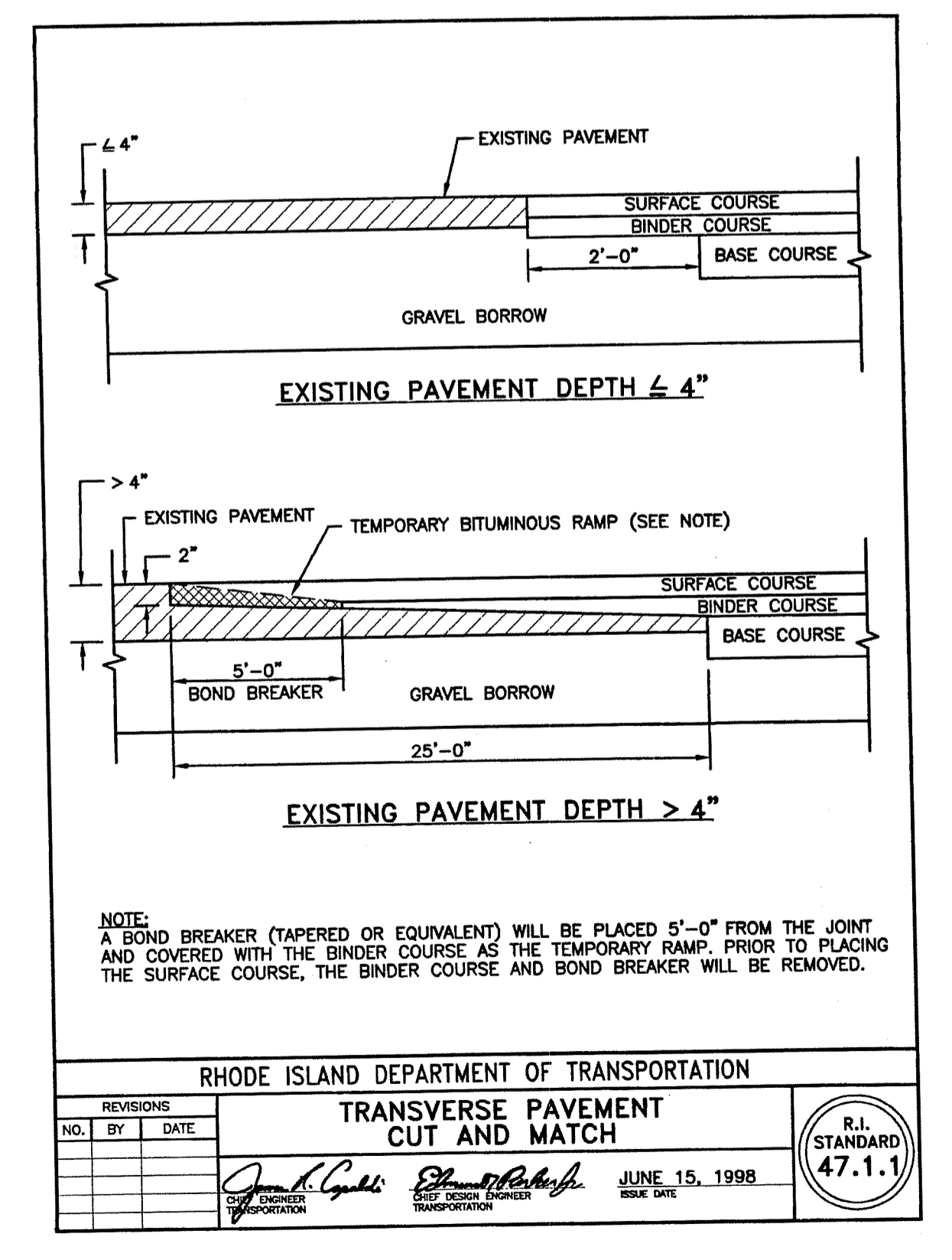
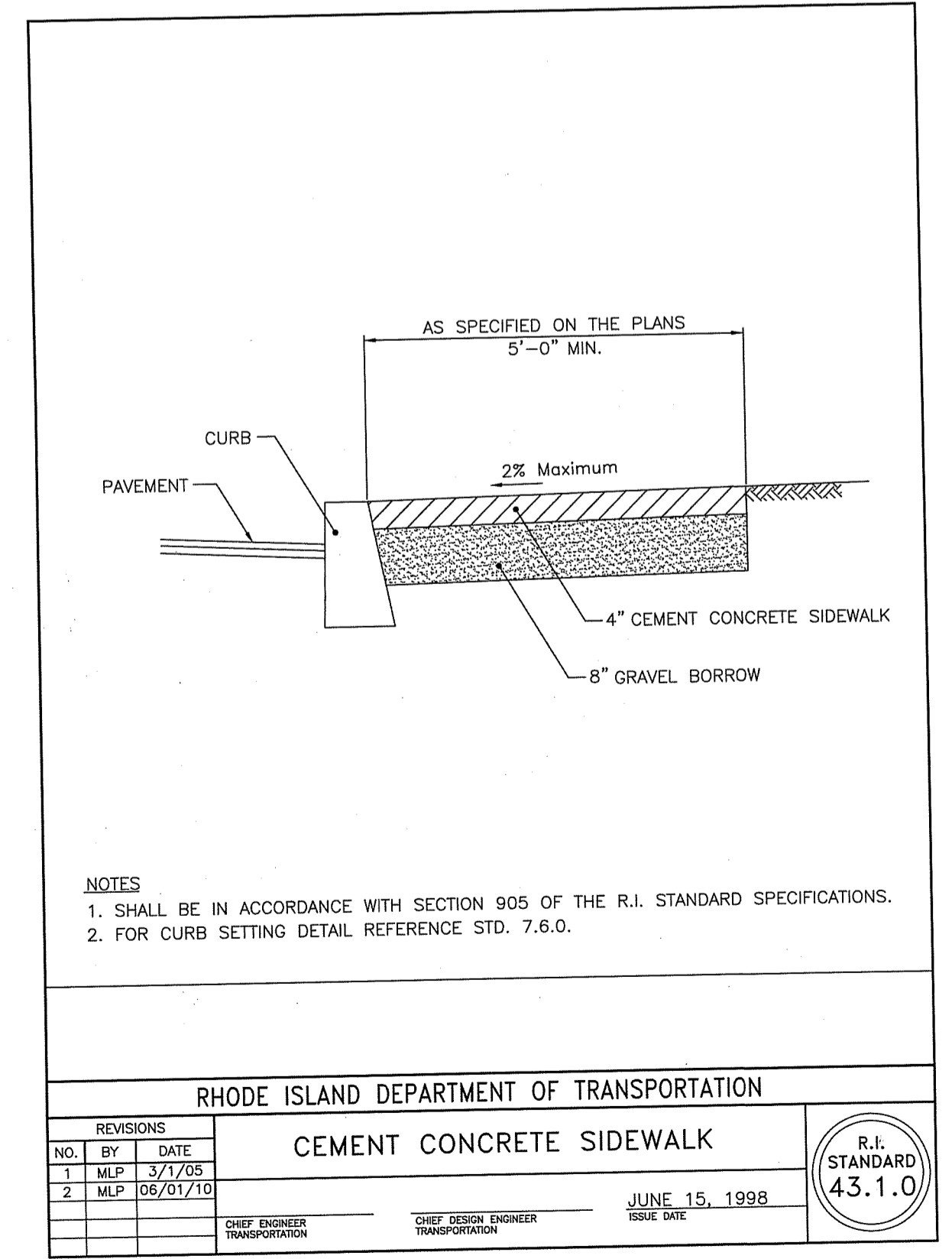
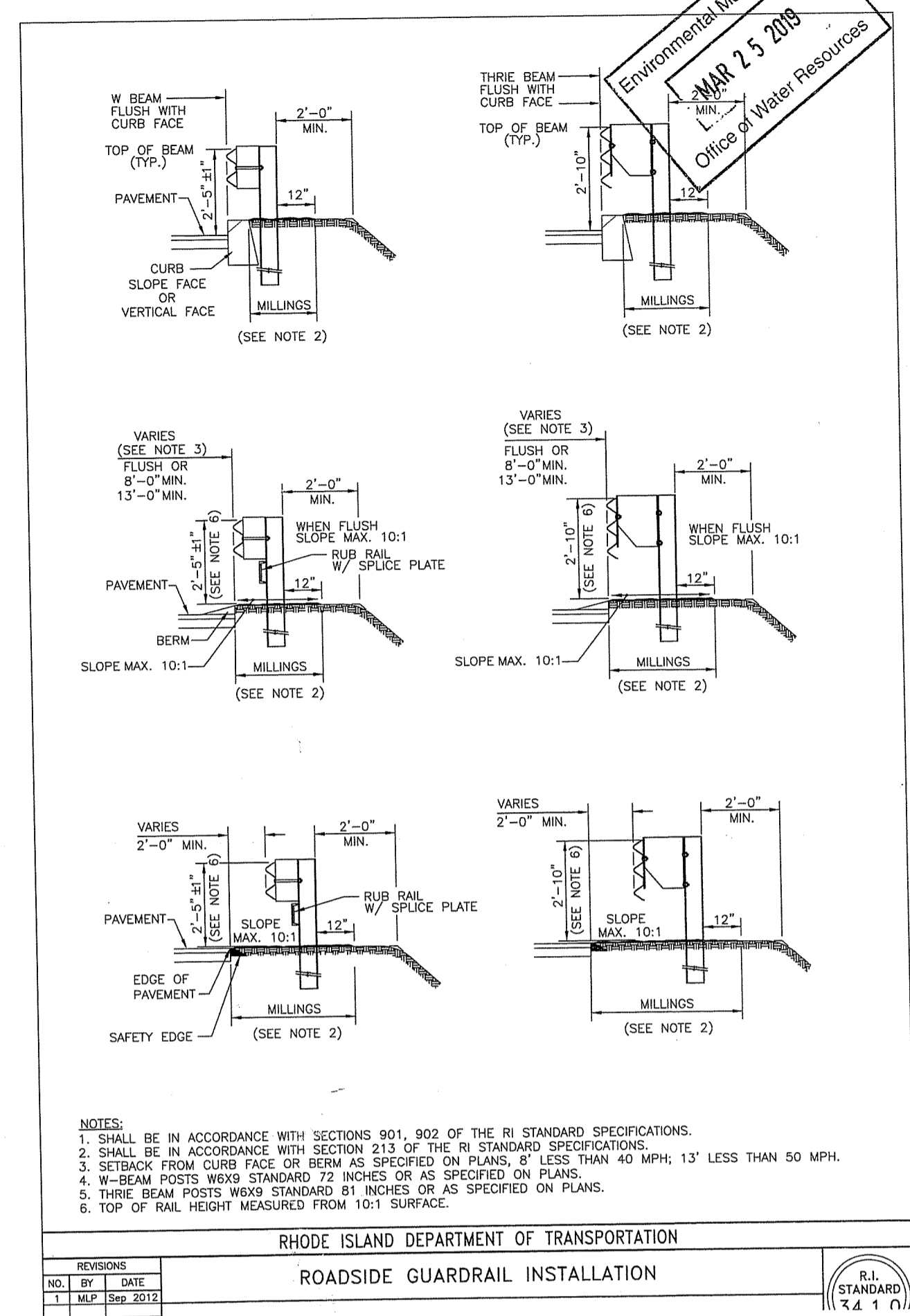
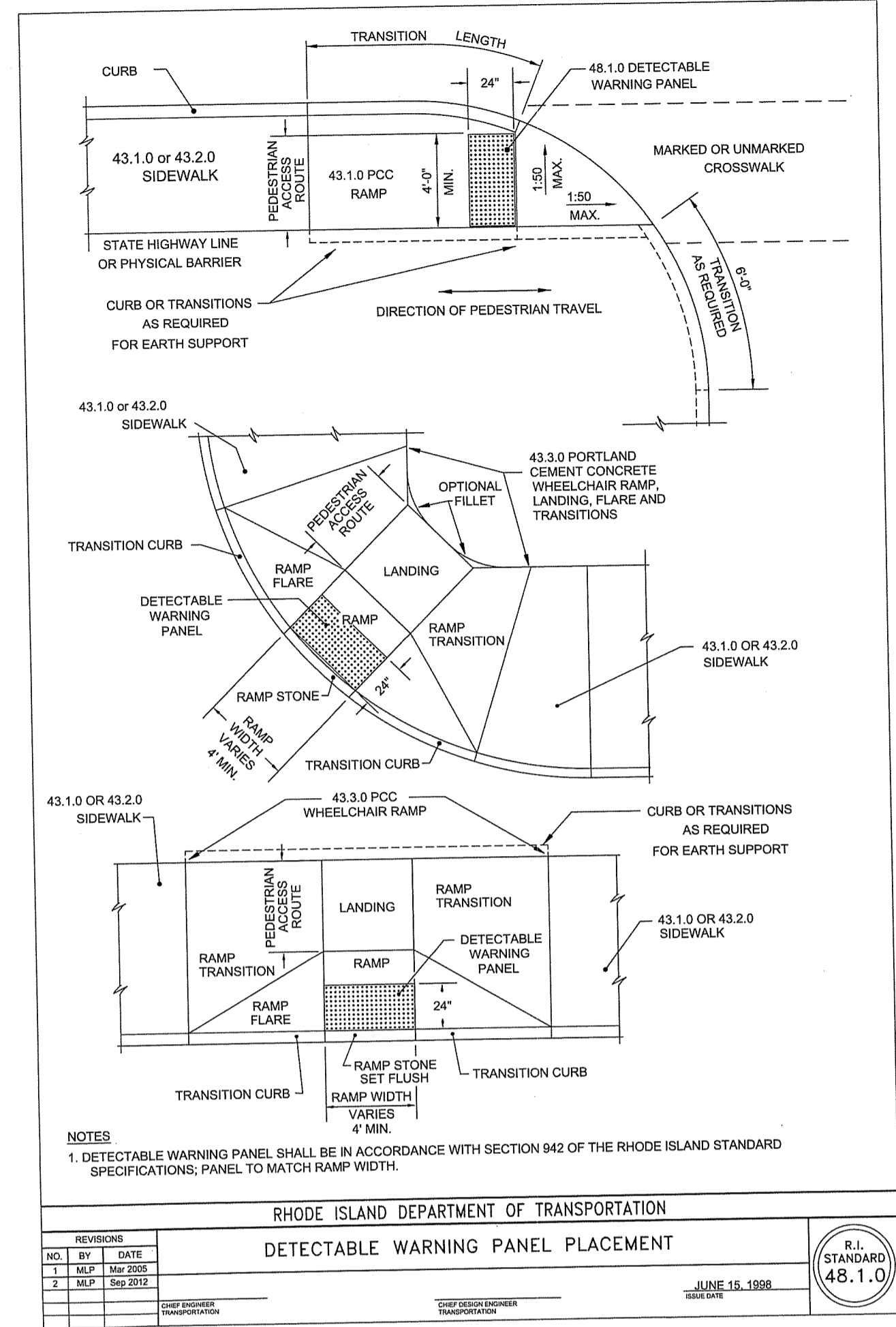
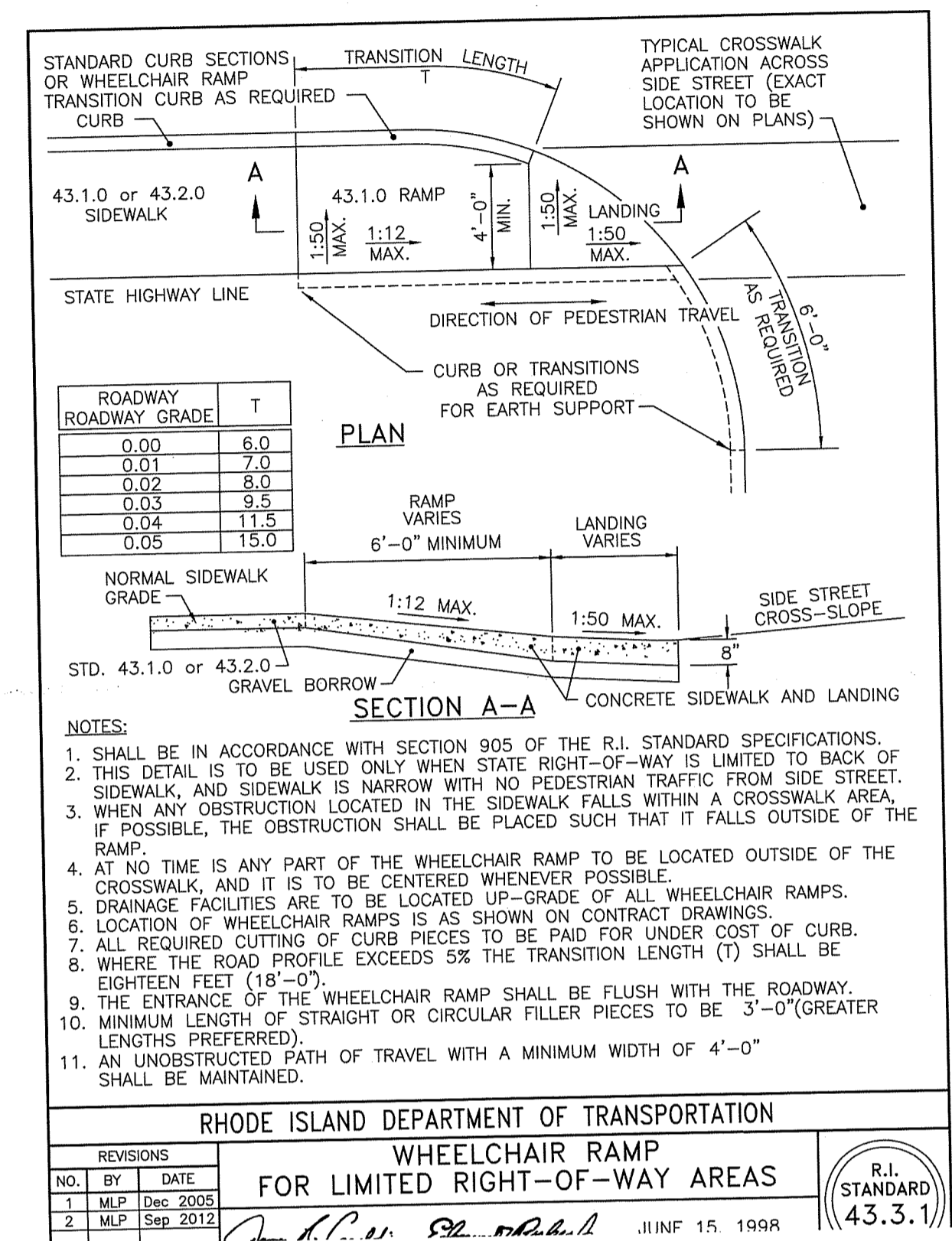
BUFFTECH RANCH 3 RAIL VINYL FENCE
 SCALE: NONE



STONE WALL
 SCALE: NONE

SITE ENTRANCE SIGN IN STONE ENTRANCE WALL
 SCALE: NONE

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378



DATE	REVISION
09/26/18	STAFF COMMENTS
10/10/18	RESPONSE TO COMMENTS
11/13/18	STAFF COMMENTS
01/10/19	RESPONSE TO COMMENTS
02/1/19	RESPONSE TO COMMENTS
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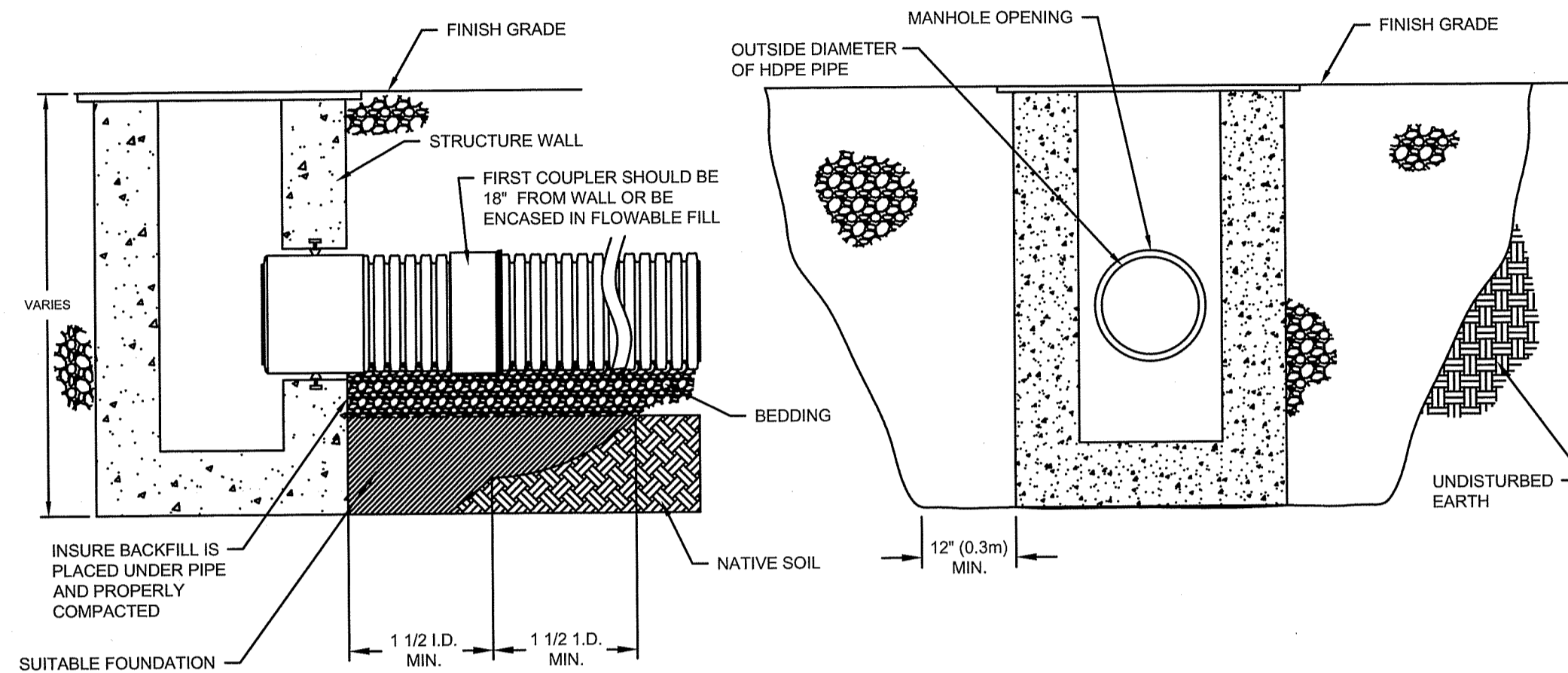
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 APR 18 2019 FILE # 19-0016
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

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Environmental Management
MAR 25 2018
 Office of Water Resources



- NOTES:
1. MAXIMUM INSERTION ANGLE SHALL NOT EXCEED REQUIREMENTS AS SPECIFIED BY THE MANUFACTURER.
 2. PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST INSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.

RIDOT HMA Matrix

	Old Designation ¹	New Designation ¹	Typical Lift Thickness ²				Typical Use	Differences/Similarities
			Inches		Millimeters			
	Marshall	Class NMA5	Min.	Max.	Min.	Max.		
Dense Base Courses	Base Modified Base ³	Class 19	2.25	4	57	102	Base or other underlying layers. Preferred mix for lifts greater than or equal to 2.25"	Asphalt contents and gradation are similar. Allowable RAP contents are same. Asphalt grades are similar (non-polymer modified)
	Modified Binder ² Bridge Binder ²	Class 12.5	2	3	51	76	Surface, Base or other underlying layers. Base for Bikepaths, Patching, Utilities, Waterways	Asphalt contents and gradation are nearly the same. Asphalt grades are similar (non-polymer modified). Polymer/rubber modified binder may be used for surface courses.
Dense Surface Courses	Class I-1	Class 9.5	1.5	2.25	38	57	Surface, Bridges, Sidewalks, Leveling, Patching, Utilities, Waterways, Misc.	Asphalt contents and gradation are similar. Polymer/rubber modified binder may be used for surface courses and should always be used for bridge decks.
	Class I-2	Class 4.75	0.75	1.25	19	32	Surface, Surface for Bikepaths, Leveling, Patching, Utilities, Waterways, Misc.	No Marshall comparison.
Special Courses & Others	Modified Friction ⁴ Ramp Friction	Friction (FC)	1.25		32		Primary/Interstate Surface	Currently a Marshall Design, will change to a hybrid design
		PPEST	1		25		Pavement Preservation Overlay	Hybrid design with similar results to Marshall.
		SMA	Varies with NMA5				Base and/or Surface	

HMA = Hot Mix Asphalt, NMA5 = Nominal Maximum Aggregate Size, FC = Friction Course, PPEST = Paver Placed Elastomeric Surface Treatment, SMA = Stone Matrix Asphalt

Notes:

1. New designations shall be used.
2. The term "binder" should only be used to mean liquid asphalt. The term "modified" will refer to the polymer/rubber modification of binder. Other additives for binder will be referred to in the specification (i.e. WMA, anti-stripping, etc.). Polymer/rubber modified binders will require more effort for compaction in the field, especially when the temperature differential between mixing and ambient temperatures is greatest.
3. Minimum lift thickness may be calculated as 3 times the NMA5, but 4 times the NMA5 is recommended. For example: Superpave 12.5mm, 4 x 12.5mm = 50 mm or 2 inches as a lift thickness (this rule excludes special courses). In general, using more lifts will provide for a smoother pavement and the largest NMA5 should be used for each lift.
4. "Class" will refer to dense HMA courses. "Class" is followed by a number representing the NMA5 of the mix in millimeters.

Ver 1.6 1/13

HDPE STORM CONNECTION TO STORMTRAP UNITS
 SCALE: NONE

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

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STORMTRAP INSTALLATION SPECIFICATIONS

- STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D1585 STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES. THE FOLLOWING ADDITIONAL AND/OR EXCEPTIONS SHALL APPLY TO DETAIL THE MODULE.
- IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADAPTED AND/OR EXCEPTIONS ARE USED TO DETAIL THE MODULE.
- THE AGGREGATE FOUNDATION HAS BEEN DESIGNED BASED ON THE FOLLOWING ASSUMPTIONS. THESE ASSUMPTIONS WILL BE VERIFIED BY A GEOTECHNICAL ENGINEER WHICH WILL NEED TO BE EMPLOYED BY THE OWNER.
 - A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED BY THE OWNER TO EVALUATE A SOURCE OF FINE AGGREGATES THAT WILL BE USED TO PROVIDE ASSISTANCE IN INSTALLING THE EXISTING SOIL CONDITIONS BELOW THE PROPOSED ENGINEERED STONE FOUNDATION. IF A STONE FOUNDATION DESIGN IS TO BE USED, THE GRAIN SIZE OF THE STONE WILL NEED TO MEET OR EXCEED ALLOWABLE CAPACITY. IF THIS IS NOT POSSIBLE, THE STONE FOUNDATION MAY NOT BE AN OPTION FOR THIS LOCATION.
 - A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED BY THE OWNER TO EVALUATE A SOURCE OF FINE AGGREGATES THAT WILL BE USED TO PROVIDE ASSISTANCE IN INSTALLING THE EXISTING SOIL CONDITIONS BELOW THE PROPOSED ENGINEERED STONE FOUNDATION. IF A STONE FOUNDATION DESIGN IS TO BE USED, THE GRAIN SIZE OF THE STONE WILL NEED TO MEET OR EXCEED ALLOWABLE CAPACITY. IF THIS IS NOT POSSIBLE, THE STONE FOUNDATION MAY NOT BE AN OPTION FOR THIS LOCATION.
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- THE CONTRACTOR SHALL REMOVE ANY AND ALL EXISTING OR COLLAPSIBLE SOILS AT THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER.
- THE AGGREGATE FOUNDATION SHALL BE INSTALLED SUCH THAT THE AGGREGATE EXTENDS A MINIMUM OF 2'-0" PAST THE OUTSIDE OF THE SYSTEM (SEE DETAIL 1).
- THE AGGREGATE SHALL BE COMPACTED USING A VIBRATING ROLLER WITH 15% FULL DYNAMIC FORCE APPLIED TO ACHIEVE A FINISH SURFACE.
- OSB, DRY AND CONTACT THE TOP OF THE SURFACE SOILS TO 10% OF THE STANDARD DRY DENSITY AND 110% OPTIMUM MOISTURE CONTENT.
- AGGREGATE SHALL BE GRADED WITHIN +/- 1" OF THE GRADE SHOWN ON THE PLANS.
- MINIMUM SOIL BEARING CAPACITY LISTED ON SHEET 1.0 SHALL BE VERIFIED IN FIELD BY OTHERS.
- THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACING BETWEEN ADJACENT MODULES DOES NOT EXCEED 7' (SEE DETAIL 2). IF THE SPACING EXCEEDS 7', THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTER PACE TO LINE AND GRADE TO MEET THE SPACE INTO SPECIFICATION.
- STORMTRAP MODULES ARE NOT WATER-TIGHT. IF A WATER-TIGHT SOLUTION IS REQUIRED, CONTACT STORMTRAP FOR RECOMMENDATIONS. THE WATER-TIGHT APPLICATION IS TO BE PROVIDED AND IMPLEMENTED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SELECTED WATER-TIGHT SOLUTION PERFORMS AS SPECIFIED BY THE MANUFACTURER.
- ALL EXTERIOR JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 8" WIDE HIGH FORMED, CO-D-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDING TO A WOVEN, HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM F1921 AND SHALL BE INTEGRATED WITH PAPER SEALANT AS APPROVED BY STORMTRAP (SEE DETAIL 3 & 4). THE JOINT WRAP DOES NOT PROVIDE A WATER-TIGHT SEAL. THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SOFT AND SOIL TIGHT SYSTEM. THE AGGREGATE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:
 - USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE THE JOINT WRAP IS TO BE APPLIED.
 - A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.
 - IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.
 - IF THE STORMTRAP MODULES IS DAMAGED IN ANY WAY FROM, DURING, OR AFTER INSTALL, STORMTRAP MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND TO DETERMINE WHETHER OR NOT THE MODULES WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED IS THE CONTRACTOR'S RESPONSIBILITY.
- STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.

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GLASTONBURY, CT
860-633-8341

PROJECT INFORMATION:
BROOKSIDE TERRACE
SOUTH BASIN
EAST GREENWICH, RI
CURRENT ISSUE DATE:
11/27/2018

ISSUED FOR:
PRELIMINARY

REV. DATE: ISSUED FOR: (OWN BY)

SCALE: NTS

SHEET TITLE:
SINGLETRAP
INSTALLATION
SPECIFICATIONS

SHEET NUMBER:
3.0

END PANEL ERECTION/INSTALLATION NOTES

- END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
- PANELS SHALL BE INSTALLED IN A LINE OF PARALLEL DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).
- CONNECTION HOOKS SHALL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO EXISTING STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
- ONCE CONNECTION HOOK IS ATTACHED, LIFTING CUTCHES MAY BE REMOVED.
- JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).

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3.1

STORMTRAP ZONE INSTALLATION SPECIFICATIONS/PROCEDURES

ZONE	ZONE DESCRIPTION	REMARKS
ZONE 1	FOUNDATION AGGREGATE	1/2" (3) STONE AGGREGATE 1/2" (3) STONE AGGREGATE 1/2" (3) STONE AGGREGATE
ZONE 2	BACKFILL	UNIMPACTED SOIL CLASSIFICATION UNIMPACTED SOIL CLASSIFICATION
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 12" MAX

APPROVED ZONE 2 BACKFILL OPTIONS

OPTION	REMARKS
STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF WASHED, CLEAN AND FREE DRAINING ANGULAR MATERIAL. THE SIZE OF THE STONE SHALL BE 1/2" (3) TO 1 1/2" (3) WITH A MAXIMUM OF 10% PASSING THE #4 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL BY USING GEOTEXTILE ALONG THE PERIMETER OF THE BACKFILL OVER THE 4" (103) AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
SAND	WASHED FINE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 0.075% PASSING FOR SIEVE NO. 200 AND 100% PASSING FOR SIEVE NO. 40. THE SAND SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOTEXTILE ALONG THE PERIMETER OF THE SAND BACKFILL.
CONCRETE AGGREGATE	CLEAN, FREE DRAINING OVERSIZED CONCRETE AGGREGATE SHALL BE USED AS BACKFILL FOR STORMTRAP MODULES. THE SIZE OF THE MATERIAL SHALL HAVE 100% PASSING THE # 4 SIEVE WITH 0.075% PASSING FOR SIEVE NO. 200. THE MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOTEXTILE ALONG THE PERIMETER OF THE SAND BACKFILL.
ROAD PAVEMENT	STORM AGGREGATE 100% PASSING THE 1/2" (12.5) SIEVE WITH LESS THAN 10% PASSING THE #4 SIEVE (ASTM SIZE # 40). GEOTEXTILE IS NOT REQUIRED FOR THIS BACKFILL OPTION.

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BACKFILL
SPECIFICATIONS

SHEET NUMBER:
4.0

RECOMMENDED ACCESS OPENING SPECIFICATION

- A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM ARE 2'-0" IN DIAMETER. ACCESS OPENINGS SHALL BE INSTALLED IN FIELD OF PARALLEL DIRECTLY ADJACENT TO OPEN END OF THE STORMTRAP MODULE UNLESS OTHERWISE SPECIFIED. ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE UNLESS OTHERWISE SPECIFIED.
- PLASTIC COATED STEEL STEPS PRODUCED BY A.I.A. INDUSTRIES THAT MEET THE APPROVED DESIGN AND THE DETAILS ARE REQUIRED TO BE USED. ACCESS OPENINGS SHALL BE INSTALLED AT LEAST 1'-0" OF CLEARANCE FROM THE END OF THE STORMTRAP MODULE UNLESS OTHERWISE SPECIFIED. ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE UNLESS OTHERWISE SPECIFIED.
- STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
- STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS OR PLACEMENT OF STEPS AS ATTACHED.
- ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MINIMUM REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND EGRESS.
- USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2' TO USE PRECAST BARS, OR CODE INSPECTIONS PROVIDED BY OTHERS.

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RECOMMENDED
PIPE / ACCESS
OPENING
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SHEET NUMBER:
5.0

RECOMMENDED PIPE OPENING SPECIFICATION

- MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE SHALL BE NO LESS THAN 1'-0".
- MINIMUM OPENING SIZE TO BE DETERMINED BY THE MODULE HEIGHT. REFERRED OPENING SIZE IS 0 3/4" OR LESS. ANY OPENING NEEDED THAT DOES NOT FIT THIS OUTLINE SHALL BE BROUGHT TO THE ATTENTION OF STORMTRAP FOR DESIGN.
- CONNECTING PIPES SHALL BE INSTALLED WITH A 1" CONCRETE COLLAR, AND AN AGGREGATE CRADLE FOR AT LEAST ONE PIPE LENGTH (SEE PIPE CONNECTION DETAIL). A STRUCTURAL GRADE CONCRETE AND 3" AGGREGATE CRADLE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI SHALL BE USED.
- THE ANGLE SPACE BETWEEN THE PIPE AND THE WALL SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

RECOMMENDED PIPE INSTALLATION INSTRUCTIONS

- CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
- IF PIPE IS CUT, CARE SHOULD BE TAKEN TO AVOID NO SHARP EDGES. LEVEL AND SUBGRADE TO MEET THE PIPE.
- ADJUST CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANCUARY PRODUCT SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR LOCAL MUNICIPAL CODE REQUIREMENTS.

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SPASH PAD &
GEOWEB DETAILS

SHEET NUMBER:
6.0

STORMTRAP ZONE INSTALLATION SPECIFICATIONS/PROCEDURES

- THE FILL PLACED AROUND THE STORMTRAP MODULES MUST DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL BE PLACED IN A LINE OF PARALLEL DIRECTLY ADJACENT TO OPEN END OF THE STORMTRAP MODULE UNLESS OTHERWISE SPECIFIED. ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE UNLESS OTHERWISE SPECIFIED.
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MODULE TYPES

SHEET NUMBER:
7.0

Applicant:

Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:

1264 Main Street
Walham, MA 02451

President: Roberto Arista
Secretary: Marc Daigle

BROOKSIDE TERRACE

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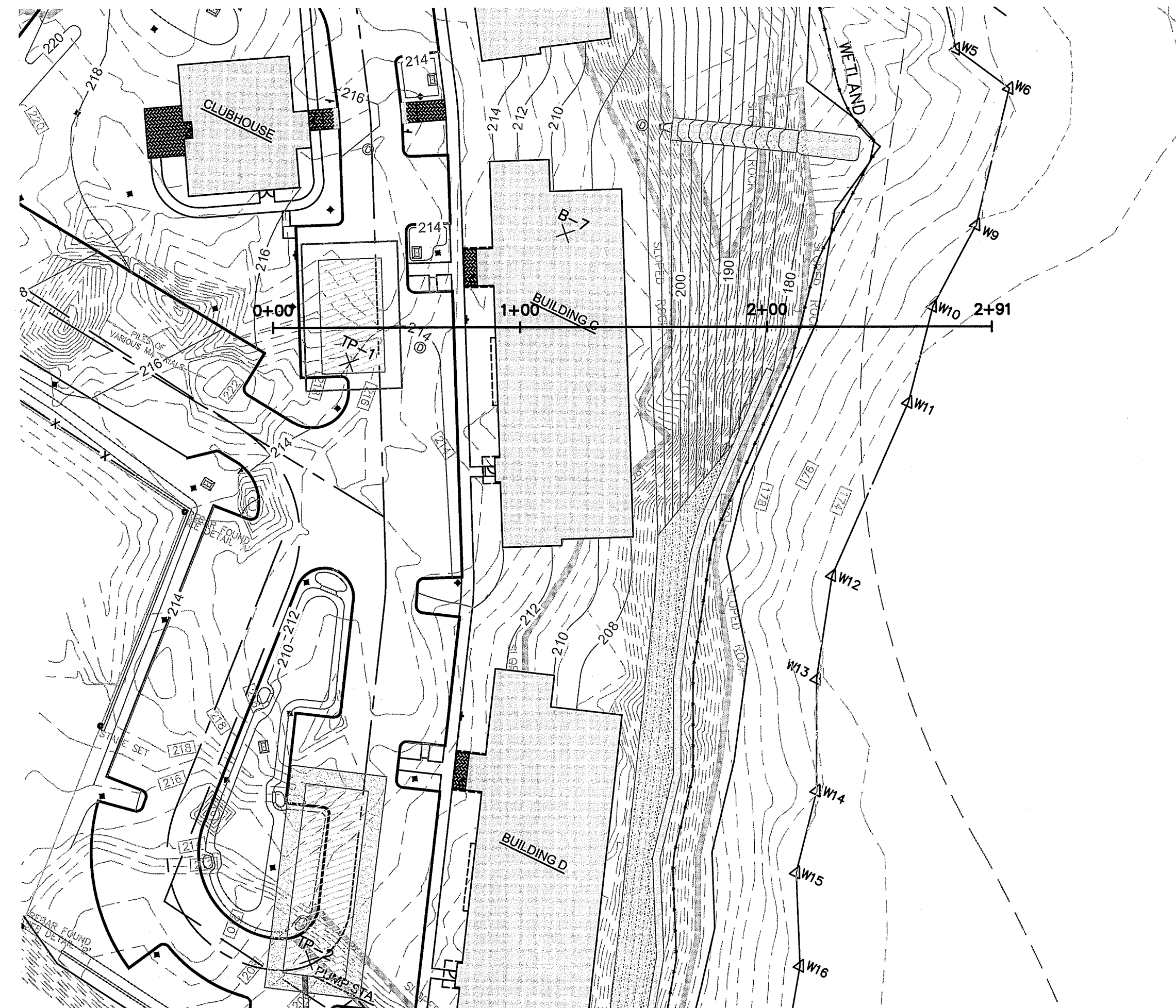
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AS SPECIFIED IN THE LETTER OF APPROVAL

APR 18 2019 FILE # 19-002

NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT NO.: 70483.00 DRAWN BY: JPE, JHL
SCALE: CHECKED BY: WW
DATE: 09.05.2018

SITE DETAILS



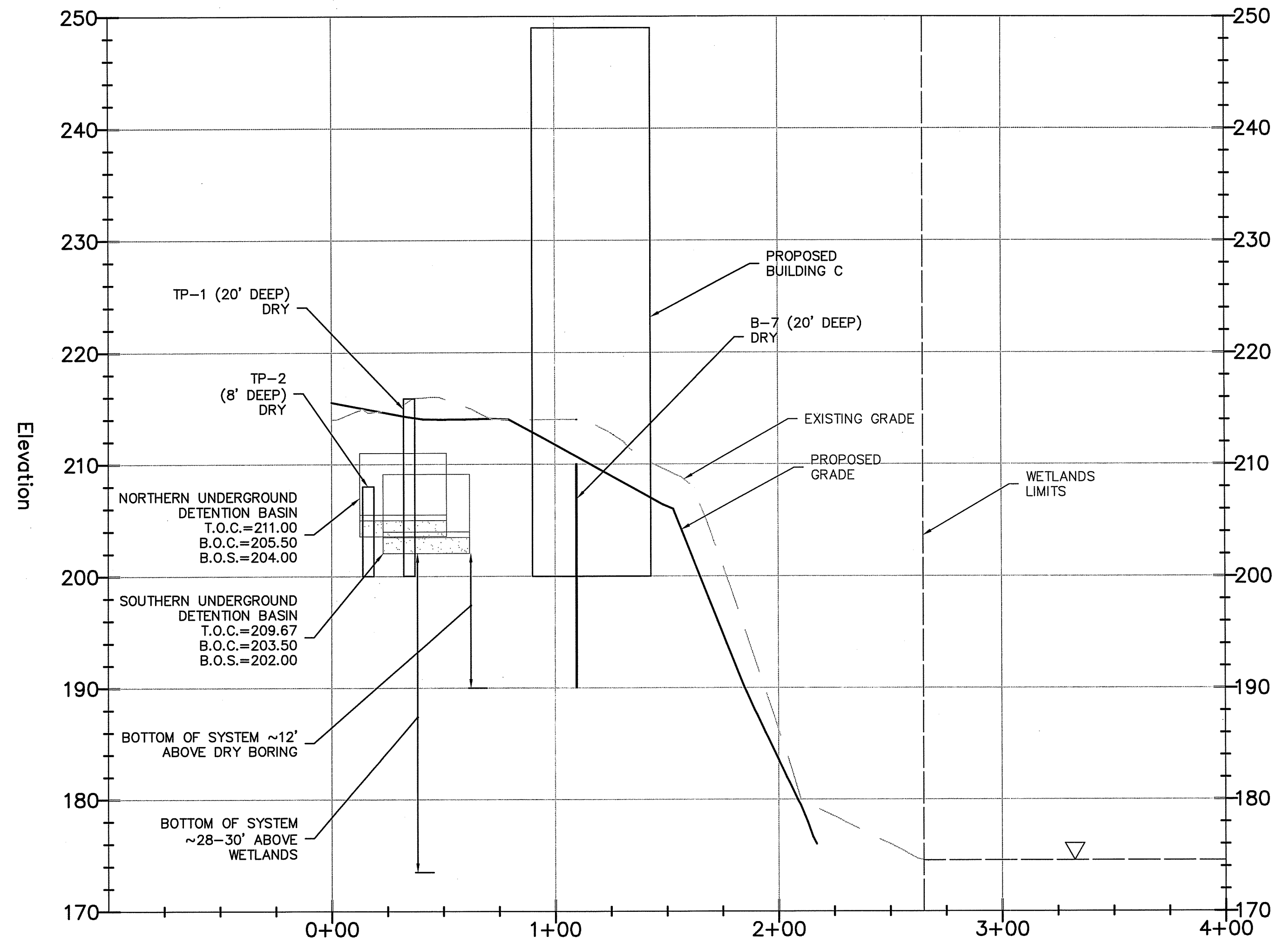
Environmental Management
MAR 25 2019
 Office of Water Resources

Applicant:
benesch
 Alfred Benesch & Company
 120 Hebron Avenue
 Glastonbury, Connecticut 06033
 860-633-8341

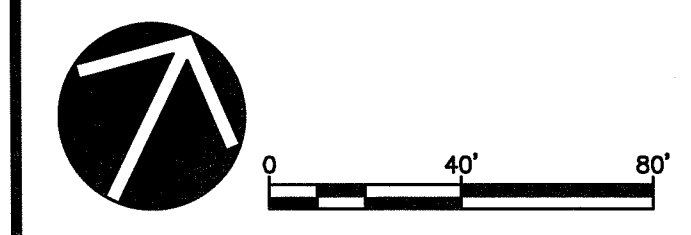
Prepared for:
DAKOTA PARTNERS
 1264 Main Street
 Waltham, MA 02451
 President: Roberto Arista
 Secretary: Marc Daigle

BROOKSIDE TERRACE
1470 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND
 MAP 71 AP 10 LOT 378

DATE:	REVISION:
09/26/18	STAFF COMMENTS
10/10/18	RESPONSE TO COMMENTS
11/13/18	STAFF COMMENTS
01/10/19	RESPONSE TO COMMENTS
02/1/19	RESPONSE TO COMMENTS
03/16/19	RESPONSE TO RIDEM COMMENTS



Julia Albert
 DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED **APR 18 2019** FILE # **19-0016**
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE



WILLIAM G. WALTER
 No. 12234
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

PROJECT NO.: 70483.00 DRAWN BY: JFE, JHL
 SCALE: H: 1" = 40' V: 1" = 8' CHECKED BY: WW
 DATE: 09.05.2018

**SEASONAL
 HIGH
 GROUNDWATER
 PLAN**

DRAWING:
 SHEET 25 OF 25