

# SITE DEVELOPMENT PLANS

## FOR

# FEARING HILL ROAD SOLAR PROJECT

LOCATED AT  
91 AND 101 FEARING HILL ROAD  
WAREHAM, MASSACHUSETTS 02578

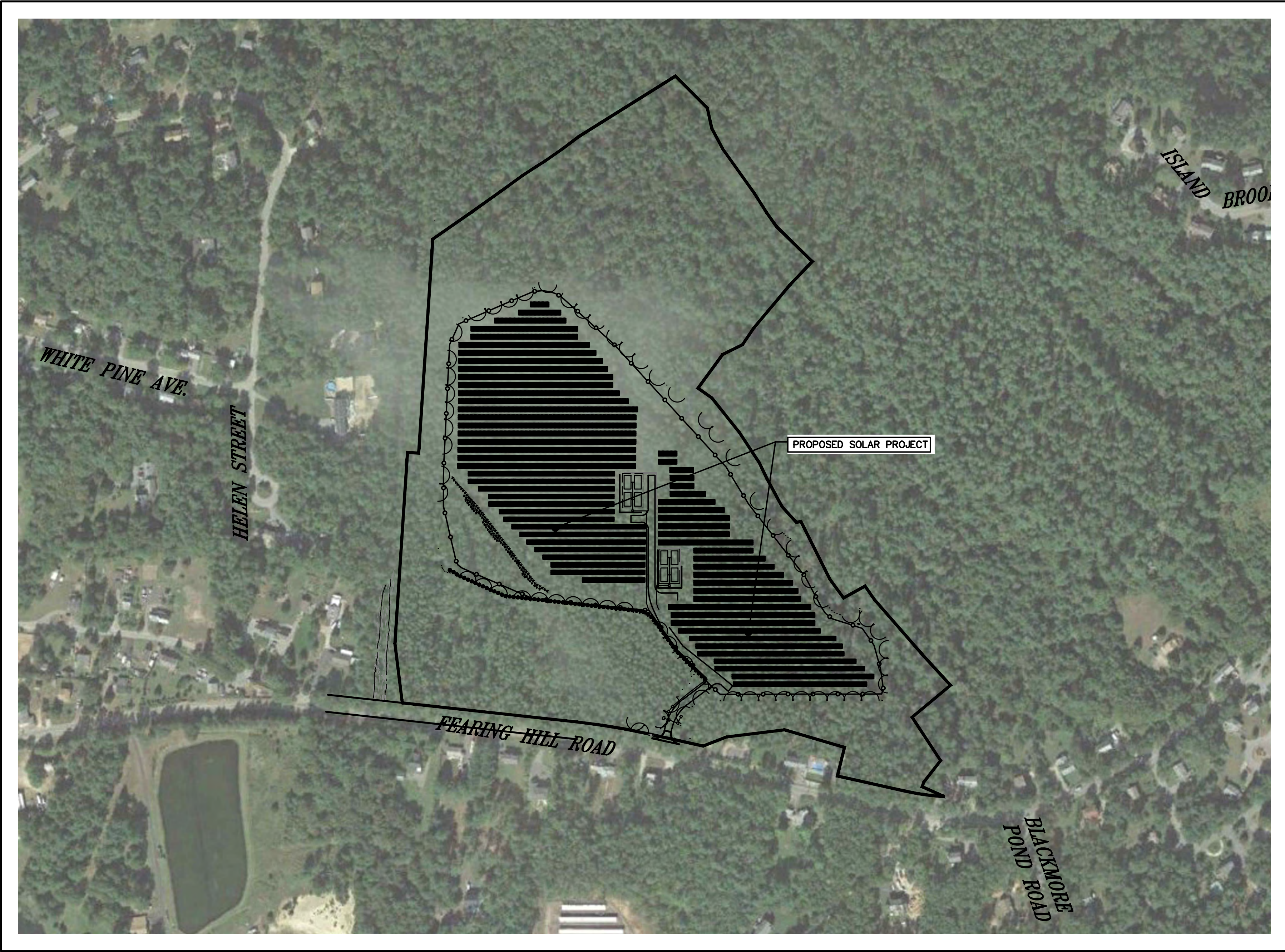
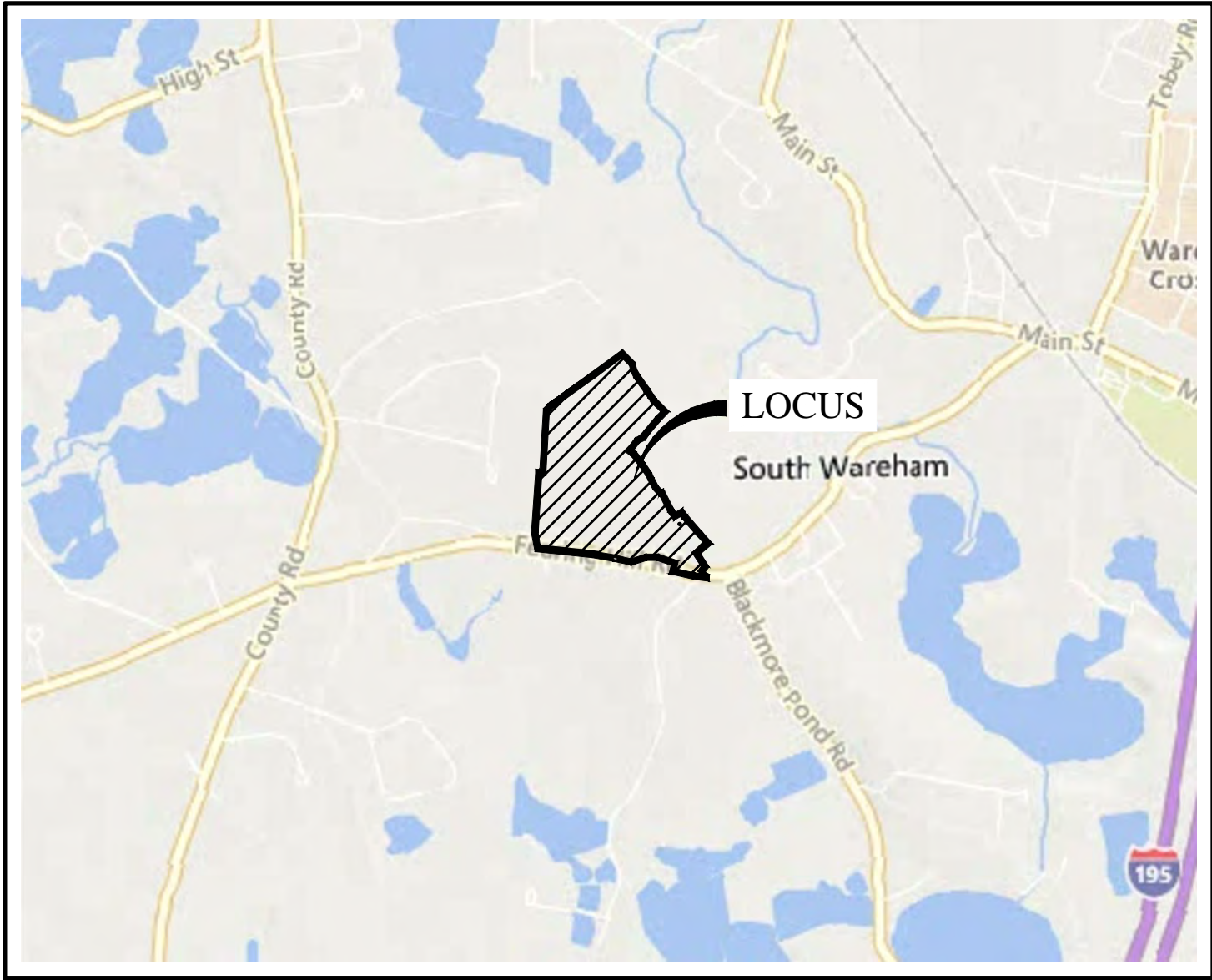
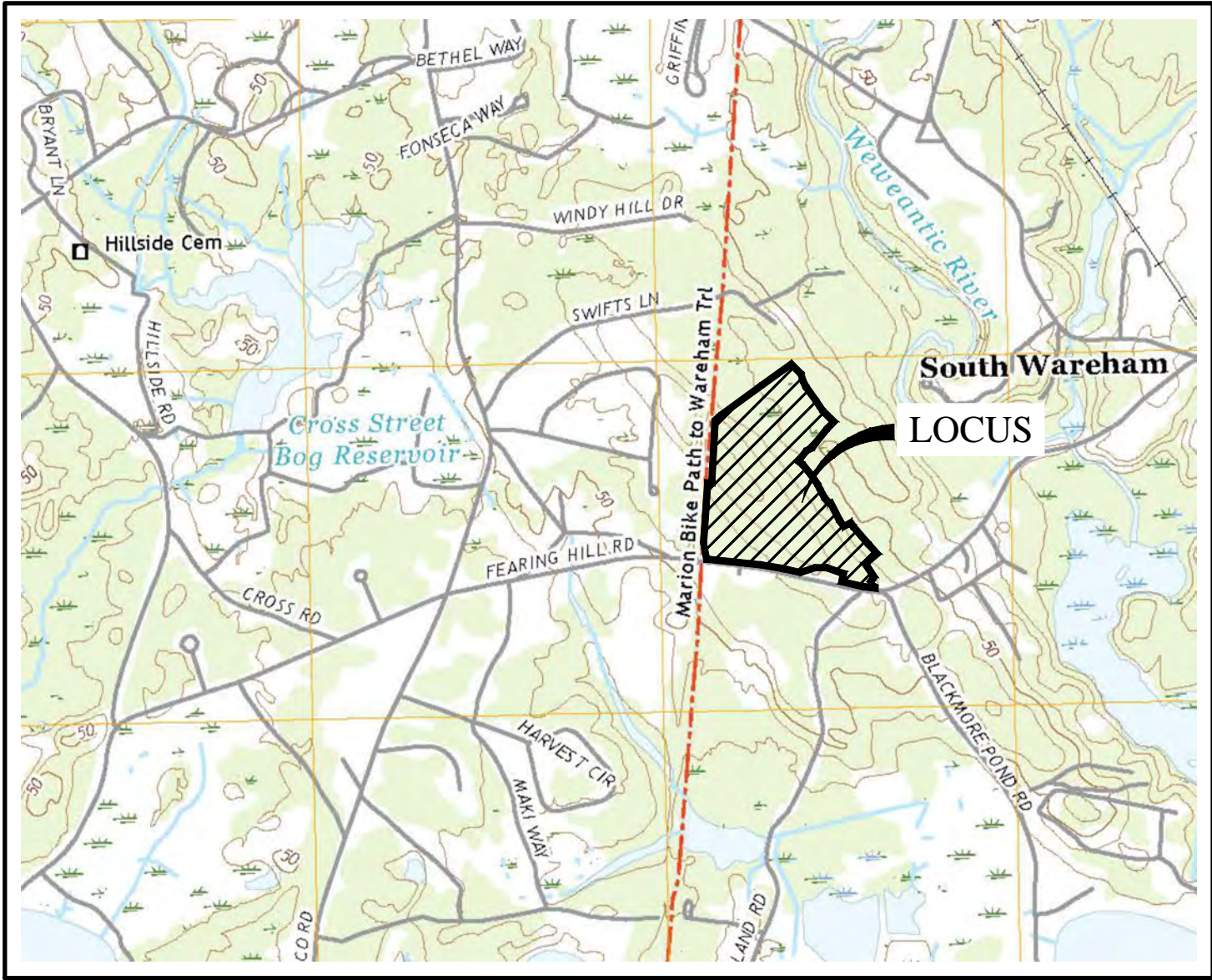
DATE: MAY 17, 2021

REVISED: SEPTEMBER 9, 2021 PER TOWN REVIEW COMMENTS (SHEET 3 ONLY)

REVISED: JUNE 14, 2022 PER TOWN REVIEW COMMENTS AND HYDROGEOLOGICAL REPORT

REVISED: JULY 26, 2022 PER ADDITIONAL HYDROGEOLOGICAL COMMENTS AND TOWN ENGINEER REVIEW LETTER

REVISED: SEPTEMBER 29, 2022 PER ADDITIONAL HYDROGEOLOGICAL COMMENTS AND TOWN ENGINEER COMMENTS



OVERALL LOCATION PLAN  
SCALE: 1" = 200'

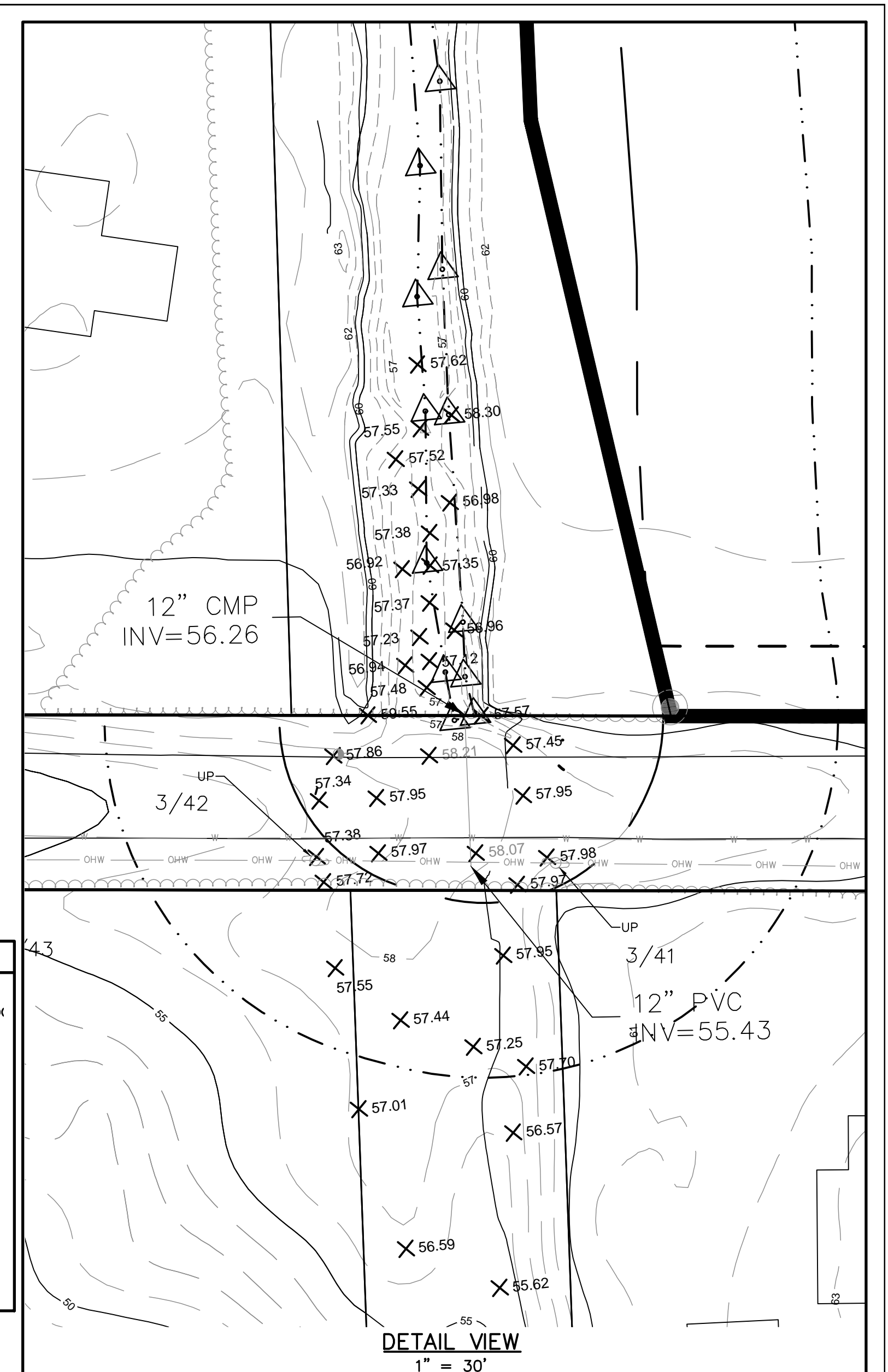
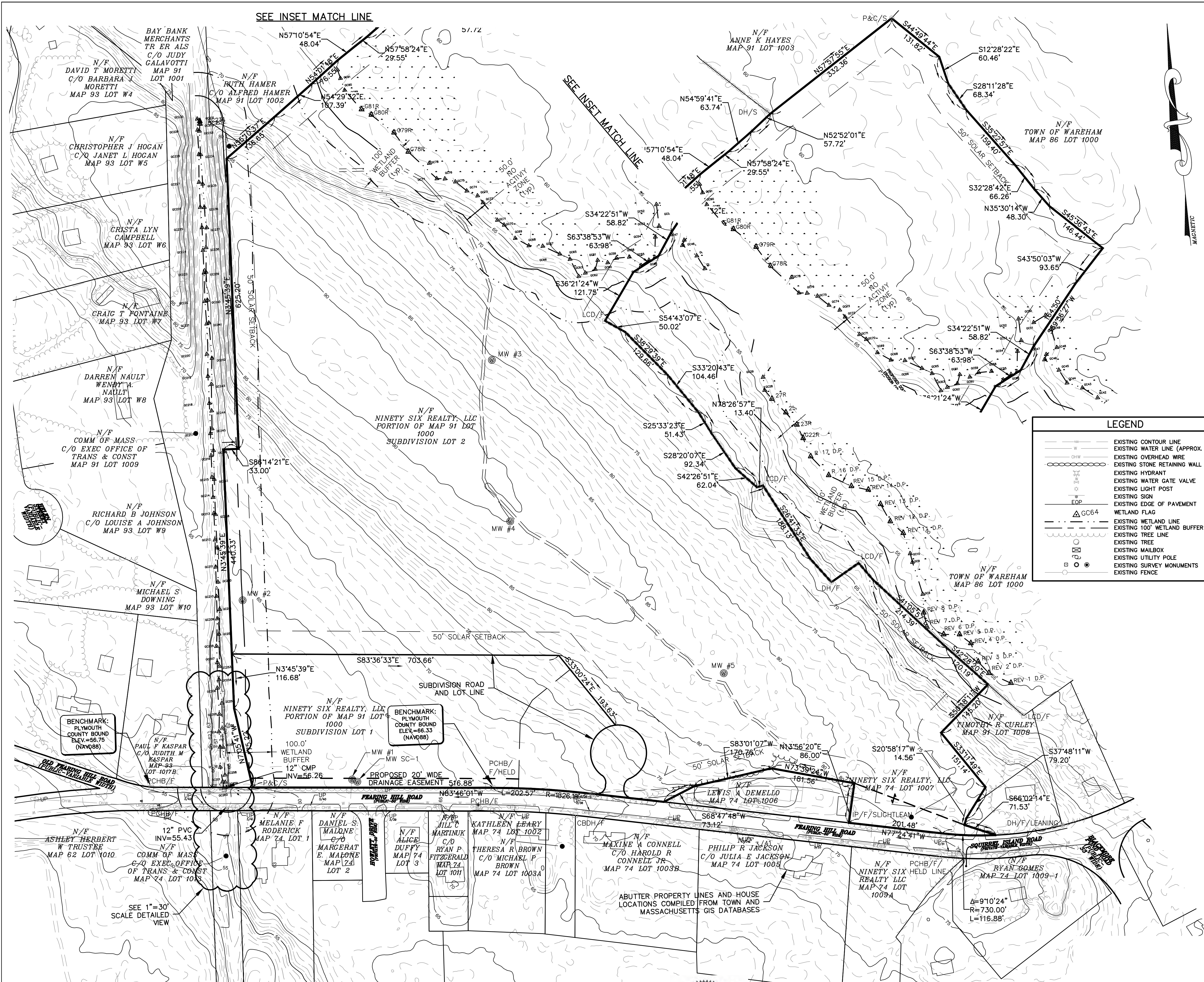
INDEX OF PLANS		
SHEET NO.	TITLE	SCALE
1	COVER SHEET	1" = 200'
2	OVERALL EXISTING CONDITIONS PLAN	1" = 100'
3	OVERALL SITE DEVELOPMENT PLAN	1" = 120'
4	SITE DEVELOPMENT PLAN	1" = 40'
5	SITE DEVELOPMENT PLAN	1" = 40'
6	SITE DEVELOPMENT PLAN	1" = 40'
7	DETAIL PLAN	N.T.S.
8	DETAIL PLAN	N.T.S.
9	CONSTRUCTION PHASING AND EROSION CONTROL PLAN	1" = 60'

**OWNER:**  
NINETY SIX REALTY LLC  
246 SOUTH MEADOW ROAD,  
GATE 4, HANGER NW8  
PLYMOUTH, MA 02360  
BOOK 54648 PAGE 68  
BOOK 40960 PAGE 290  
508-847-5548

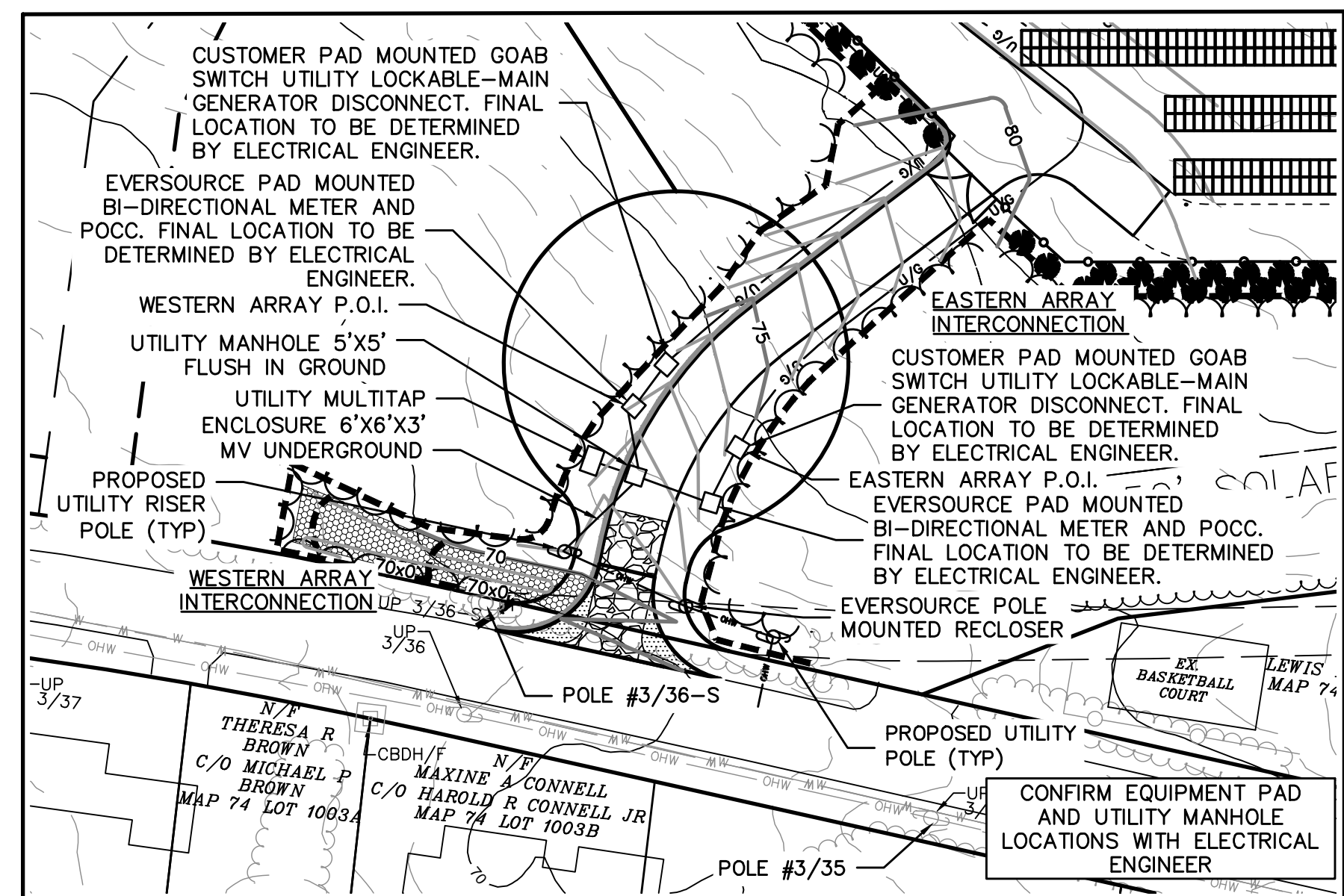
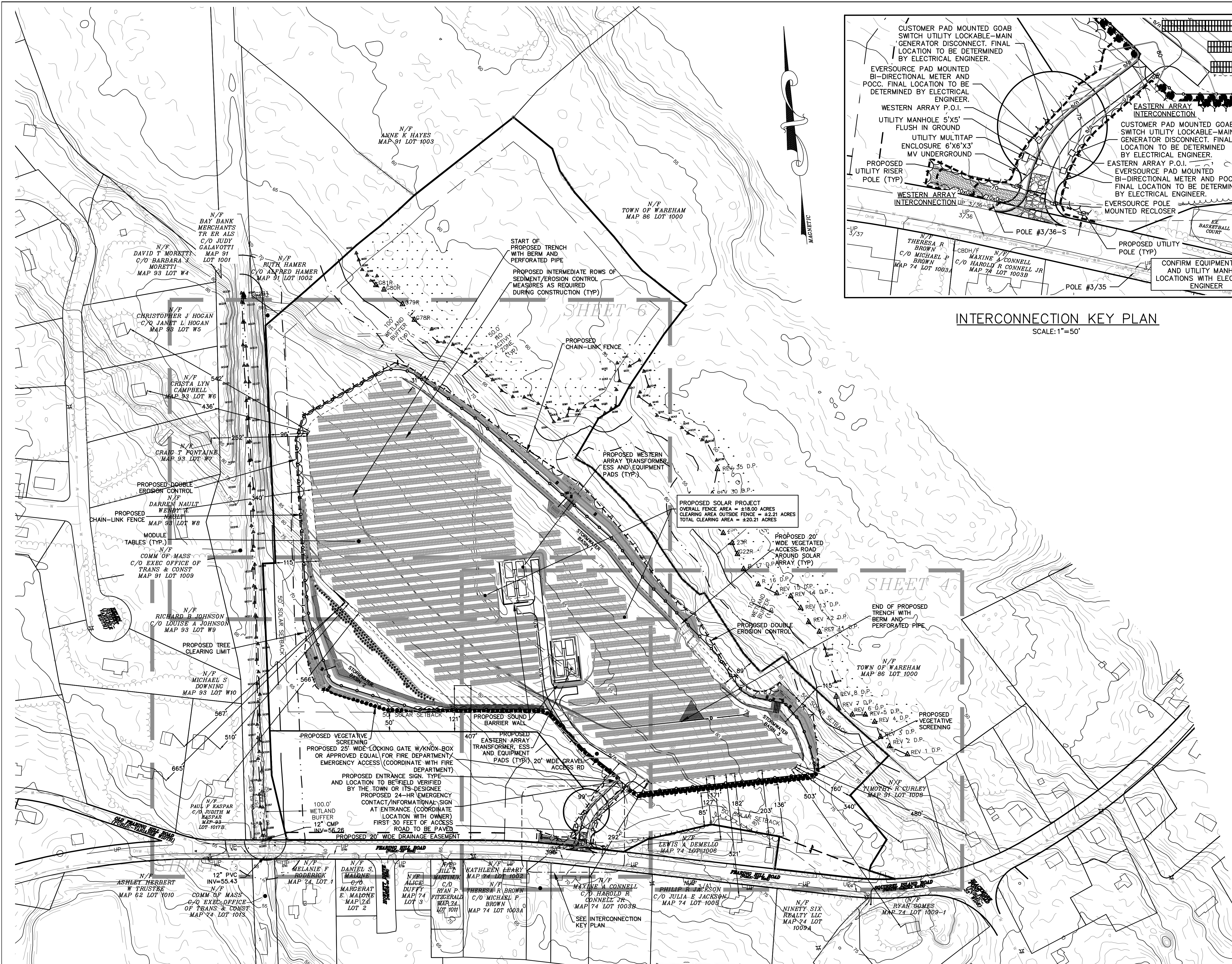
**APPLICANT:**  
WAREHAM MA 3, LLC  
100 SUMMIT LAKE DRIVE, SUITE 210  
VALHALLA, NY 10595  
(978) 888-4088

**ENGINEER:**  
**Atlantic**  
DESIGN ENGINEERS, INC.  
P.O. Box 1051, Sandwich, MA 02563  
PHONE NUMBER: (508) 888-9282





- GENERAL NOTES:**
- OWNER OF RECORD:  
NINETY SIX REALTY LLC  
246 SOUTH MEADOW ROAD,  
GATE 4, HANGER NW8  
PLYMOUTH, MA 02360  
BOOK 54648 PAGE 68  
BOOK 40960 PAGE 290
  - THE SUBJECT PROPERTIES ARE IDENTIFIED AS LOTS 1000 & 1007, ON THE TOWN OF WAREHAM ASSESSOR MAP 91 & 74, RESPECTIVELY. TOTAL LAND AREA IS APPROXIMATELY 44± ACRES.
  - BASED UPON A REVIEW OF THE TOWN OF WAREHAM ZONING MAP AND PROPERTY CARDS, THE SUBJECT PROPERTIES LIE WITHIN AN RESIDENTIAL-60 (R-60) DISTRICT.
  - THE PROPERTY LINES SHOWN HEREON, ARE BASED ON PLANS AND DEEDS OF RECORD AND A FIELD SURVEY BY ATLANTIC DESIGN ENGINEERS AND ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD83).
  - EXISTING CONDITIONS DEPICTED HEREON ARE BASED FIELD SURVEY BY ATLANTIC DESIGN ENGINEERS IN MARCH 2021 AND MAY 2022.
  - THE PROPERTY LIES WITHIN A FLOOD ZONE X (AREA OF MINIMAL FLOOD HAZARD) BASED UPON A REVIEW OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 25023C0469J, DATED JULY 17, 2012.
  - WETLAND RESOURCE AREAS SHOWN HEREON ARE BASED UPON DELINEATION BY GODDARD CONSULTING IN MARCH 2021 AND FIELD LOCATED BY ATLANTIC DESIGN ENGINEERS IN MARCH 2021.
  - THE PROPERTY IS NOT LOCATED WITHIN A ZONE II OR AN INTERIM WELLHEAD PROTECTION AREA BASED UPON A REVIEW OF THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM AND TOWN ZONING MAP.
  - THE SITE IS NOT LOCATED WITHIN AN ESTIMATED HABITAT OF RARE WILDLIFE AND/OR A PRIORITY HABITAT OF RARE SPECIES BASED UPON A REVIEW OF THE NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM MAPS OBSERVED ON THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM.
  - THE PROPERTY DOES NOT LIE WITHIN AN AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) BASED UPON A REVIEW OF THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM.



LEGEND	
	EXISTING CONTOUR LINE
	EXISTING WATER LINE (APPROX. LOCA)
	EXISTING OVERHEAD WIRE
	EXISTING STONE RETAINING WALL
	EXISTING HYDRANT
	EXISTING WATER GATE VALVE
	EXISTING LIGHT POST
	EXISTING SIGN
	EXISTING EDGE OF PAVEMENT
	WETLAND FLAG
	EXISTING WETLAND LINE
	EXISTING 100' WETLAND BUFFER
	EXISTING TREE LINE
	EXISTING TREE
	EXISTING MAILBOX
	EXISTING UTILITY POLE
	EXISTING SURVEY MONUMENTS
	EXISTING FENCE
	PROPOSED FENCE LINE
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED OVERHEAD WIRE
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED LIMIT OF TREE CLEARING
	PROPOSED LIMIT OF EROSION CONTROL
	PROPOSED UTILITY POLE
	PROPOSED CHECK DAM
	PROPOSED CATCH BASIN
	PROPOSED DRAIN LINE
	PROPOSED DRAIN MANHOLE

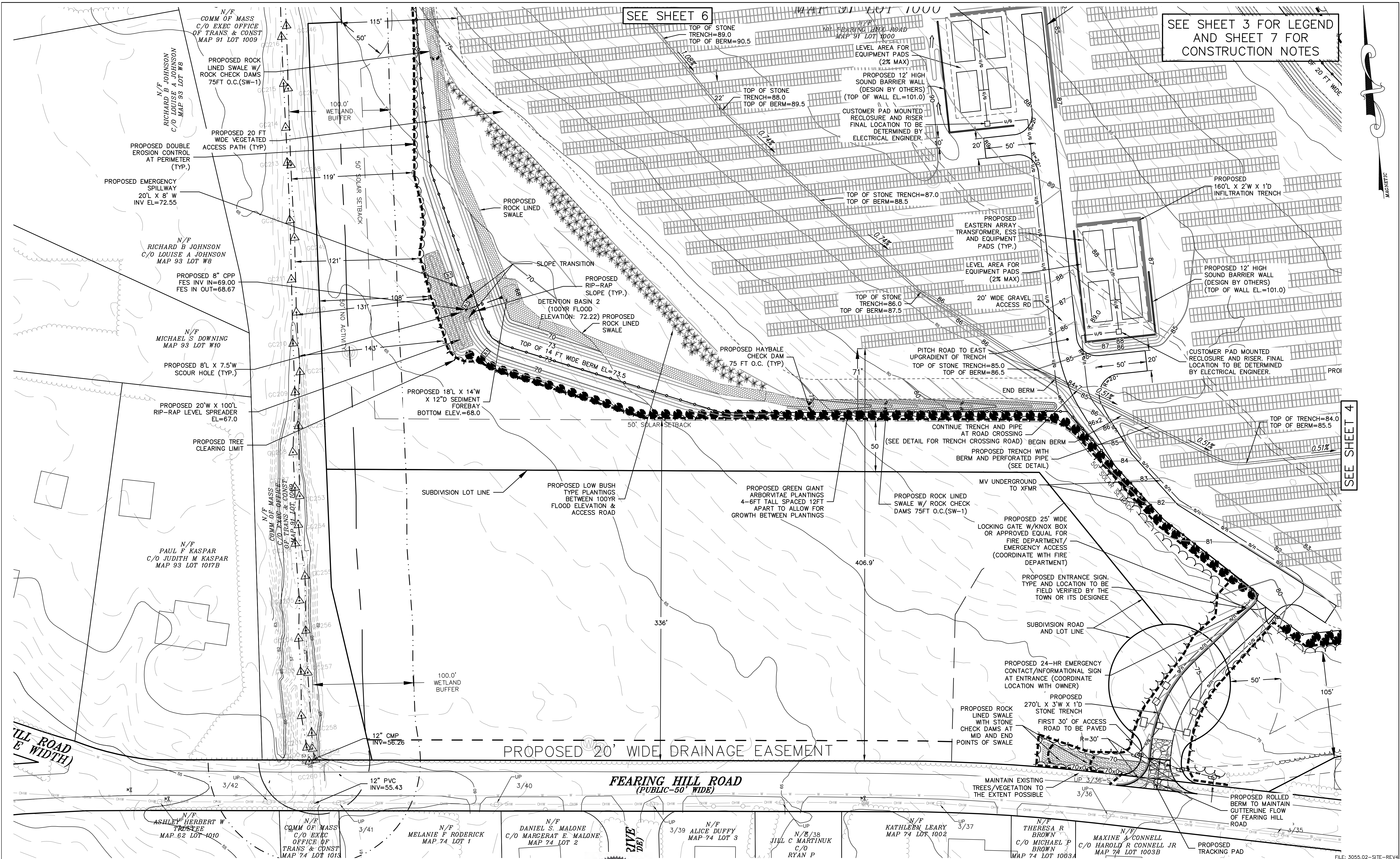
ZONING REQUIREMENTS		
TOWN OF WAREHAM ZONING BYLAWS, OCTOBER, 2019		
RESIDENTIAL 60 (R60)		
	REQUIRED <sup>(2)</sup>	PROPOSED <sup>(2)</sup>
MINIMUM LOT SIZE	60,000 SF	1,707,526 SF
MINIMUM LOT FRONTAGE	180 FEET	211 FEET
MINIMUM YARDS:		
FRONT YARD	20 FEET <sup>(1)</sup>	99 FEET <sup>(4)</sup>
SIDE YARD	10 FEET <sup>(1)</sup>	96 FEET <sup>(4)</sup>
REAR YARD	10 FEET <sup>(1)</sup>	89 FEET <sup>(4)</sup>
DISTANCE OF ANY STRUCTURE FROM A RESIDENTIAL DISTRICT	50 FEET	171 FEET <sup>(4)</sup>
MAXIMUM BUILDING HEIGHT	35 FEET	<35 FEET
MAXIMUM % OF LOT COVERED BY BUILDINGS	NR	NR
MAXIMUM % OF LOT COVERED BY IMPERVIOUS AREA	NR	NR

SOLAR ENERGY GENERATION FACILITIES SECTION 590		
	REQUIRED	PROPOSED
MINIMUM YARDS		
FRONT:	50 FEET	50 FEET <sup>(3)</sup>
SIDE:	50 FEET	50 FEET <sup>(3)</sup>
REAR:	50 FEET	50 FEET <sup>(3)</sup>
MINIMUM LOT SIZE:	3 ACRES	±39.2 ACRES

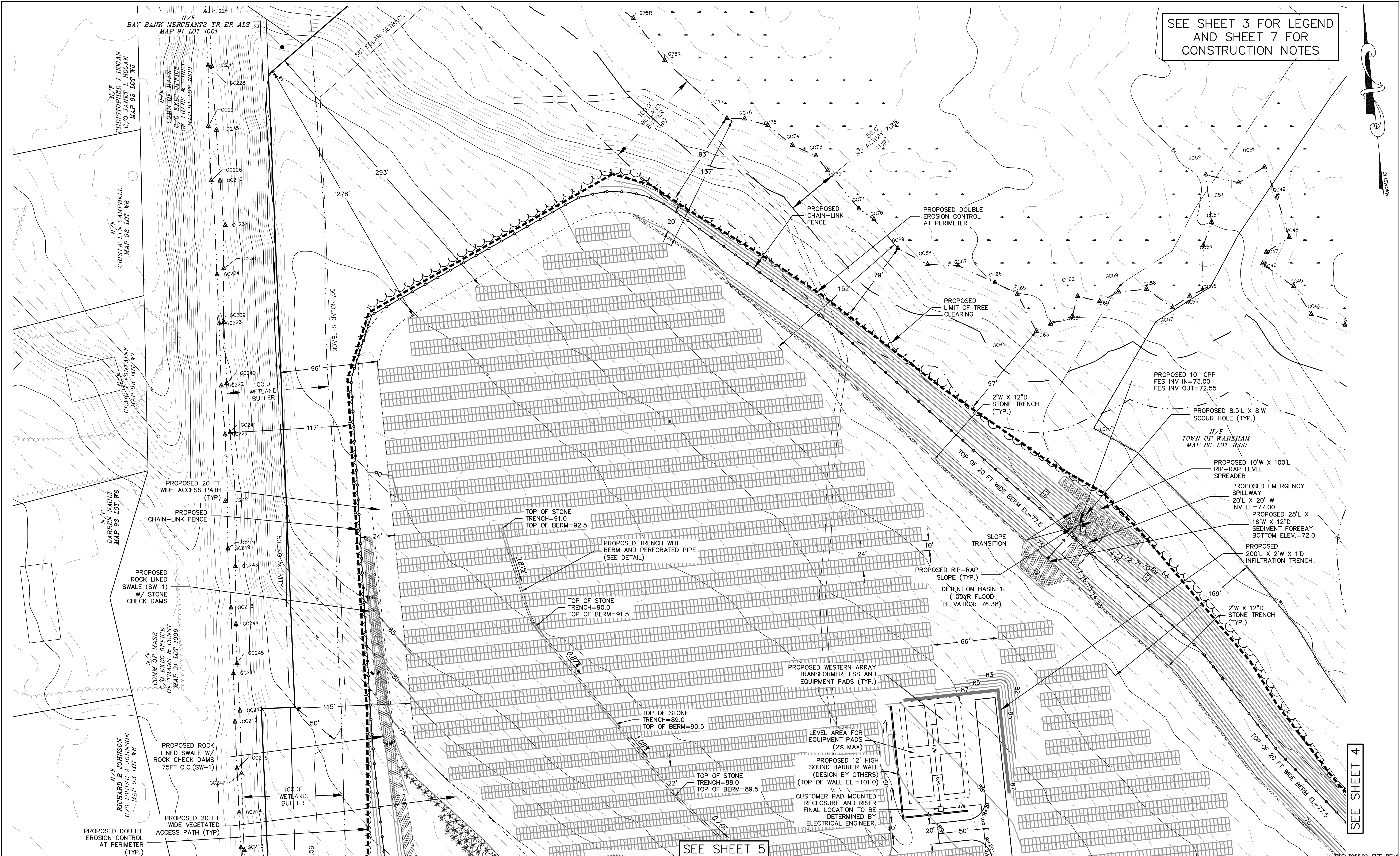
- (1) MINIMUM YARD DEPTHS SHALL BE IN ACCORDANCE WITH ARTICLE 6 OF THE TOWN OF WAREHAM ZONING BY-LAW; PROVIDED, HOWEVER, THAT WHERE THE LOT ABUTS OR IS ACROSS THE STREET FROM A RESIDENTIAL DISTRICT OR RESIDENTIAL DEVELOPMENT, THE YARD SETBACK FOR ALL STRUCTURES, INCLUDING FENCING AND VEGETATED BUFFER, SHALL NOT BE LESS THAN 50 FEET.
- (2) DENSITY AND DIMENSIONAL REGULATIONS ARE BASED OFF NONRESIDENTIAL USE WITHIN THE RESIDENTIAL 60 DISTRICT.
- (3) MEASURED TO THE LIMIT OF CLEARING
- (4) MEASURED TO PANELS

SEE SHEET 7 FOR  
CONSTRUCTION NOTES





SEE SHEET 3 FOR LEGEND  
AND SHEET 7 FOR  
CONSTRUCTION NOTES



SEE SHEET 4

SEE SHEET 5

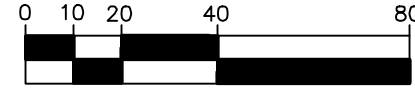


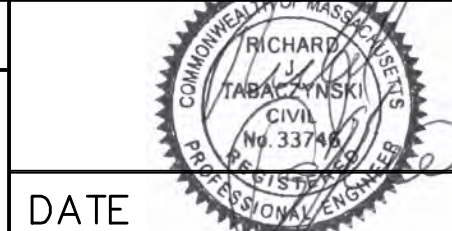
DESIGN ENGINEERS, INC.  
P.O. Box 1051, Sandwich, MA 02563 (508) 888 - 9282

Designed by :	
Drawn by :	
Checked by :	
Survey chg. by :	
Approved by :	

SCALE

SCALE 1" = 40'



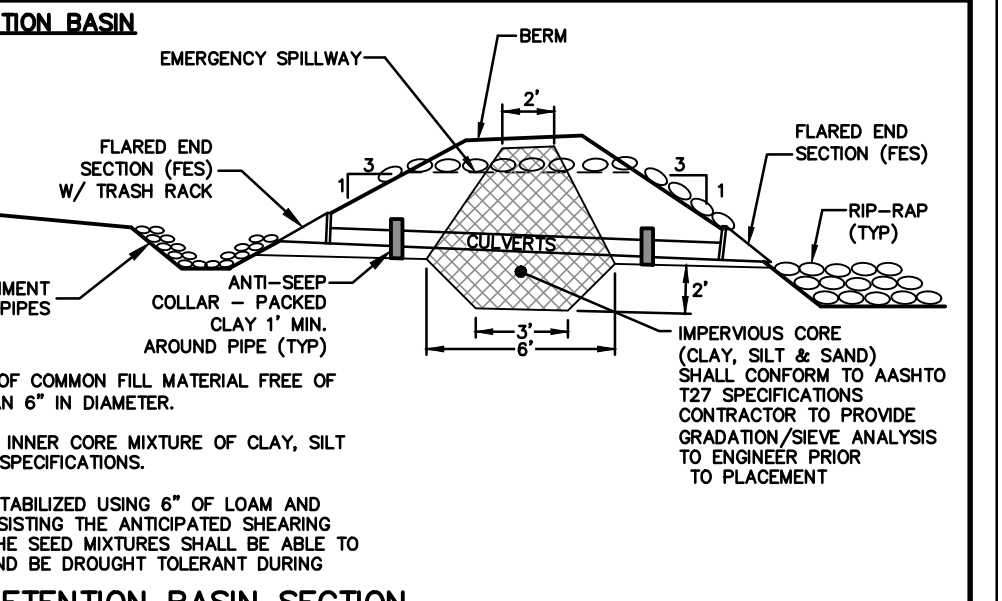
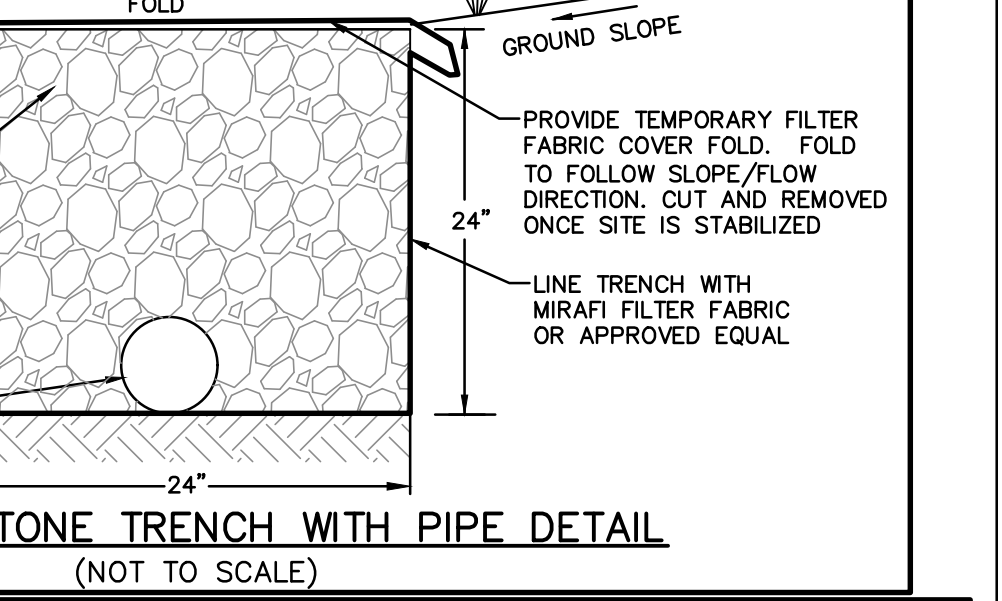
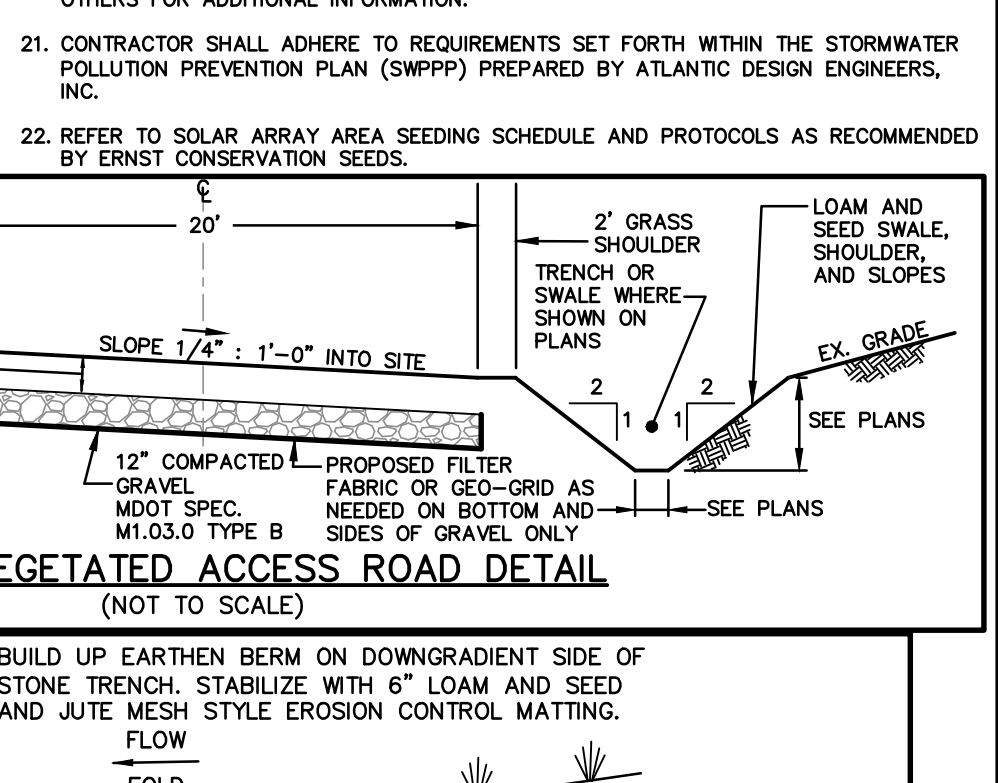
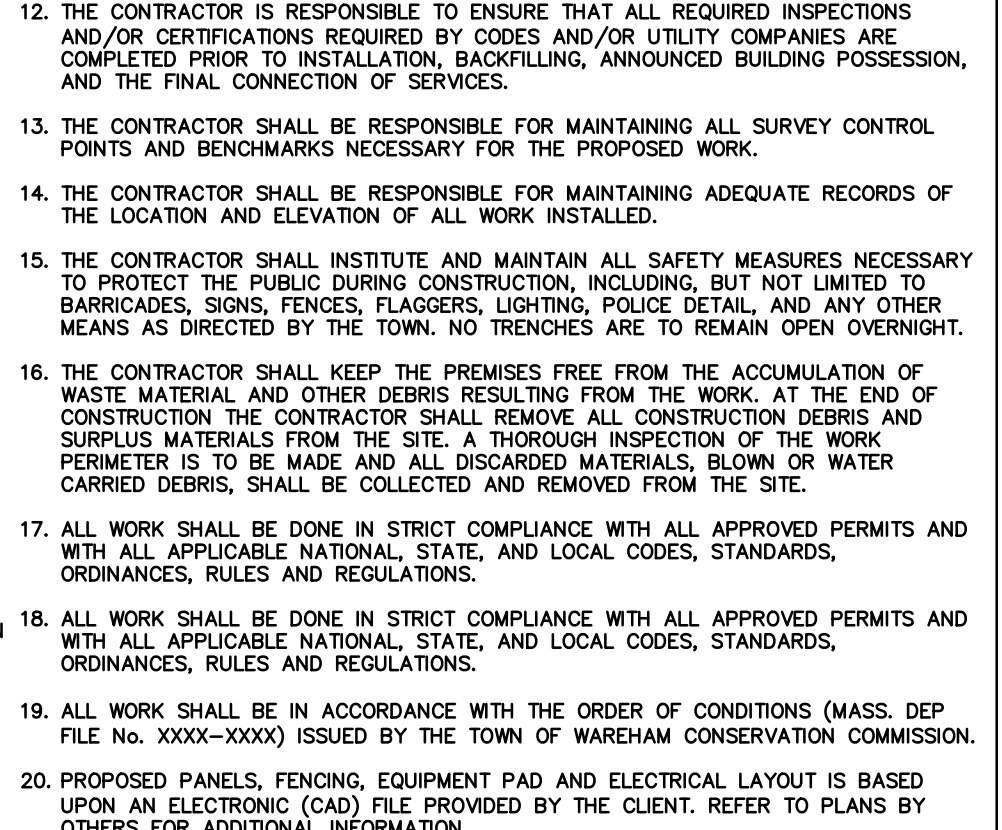
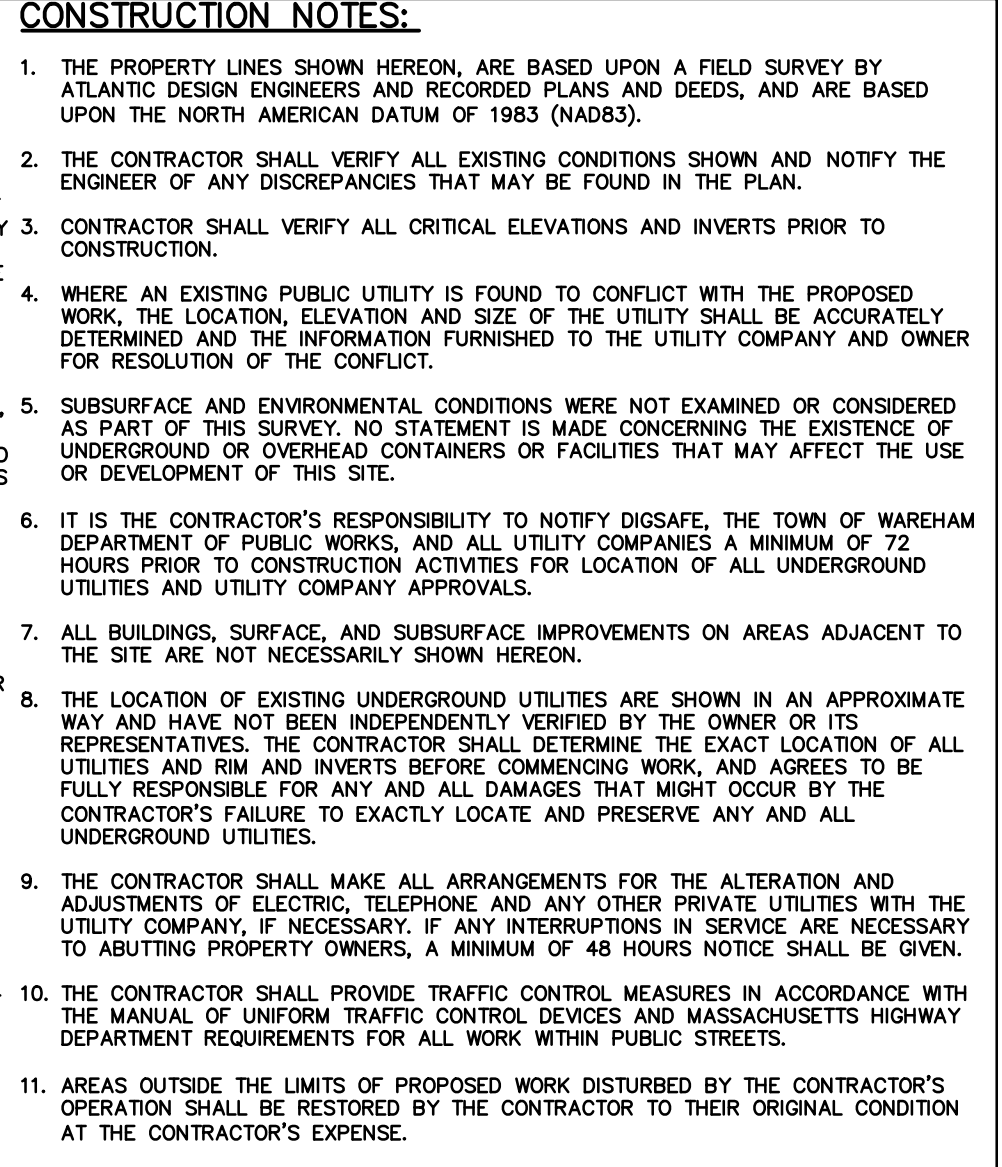
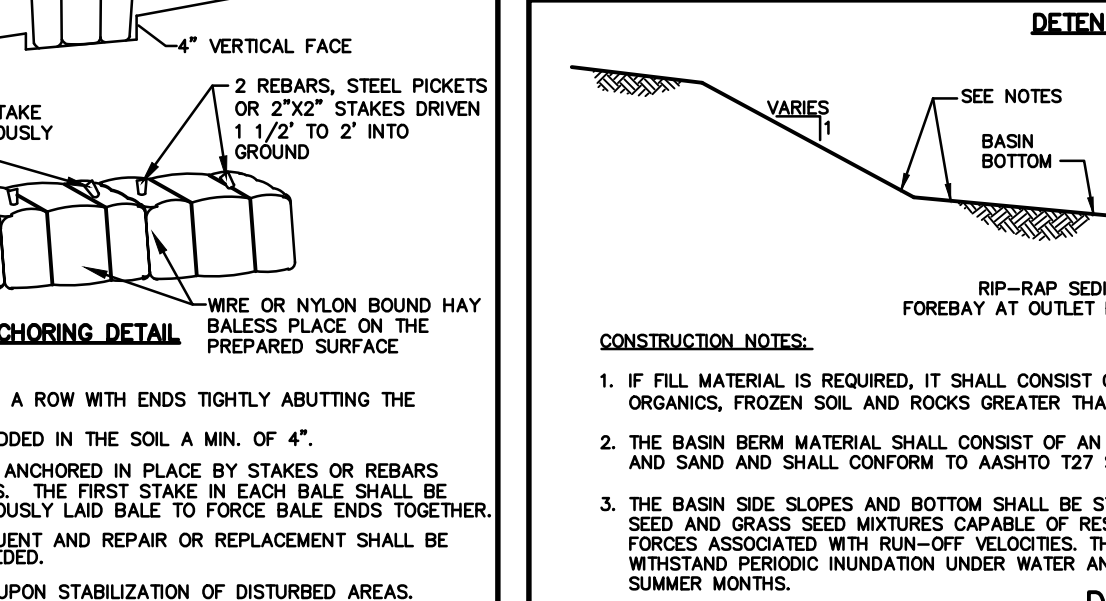
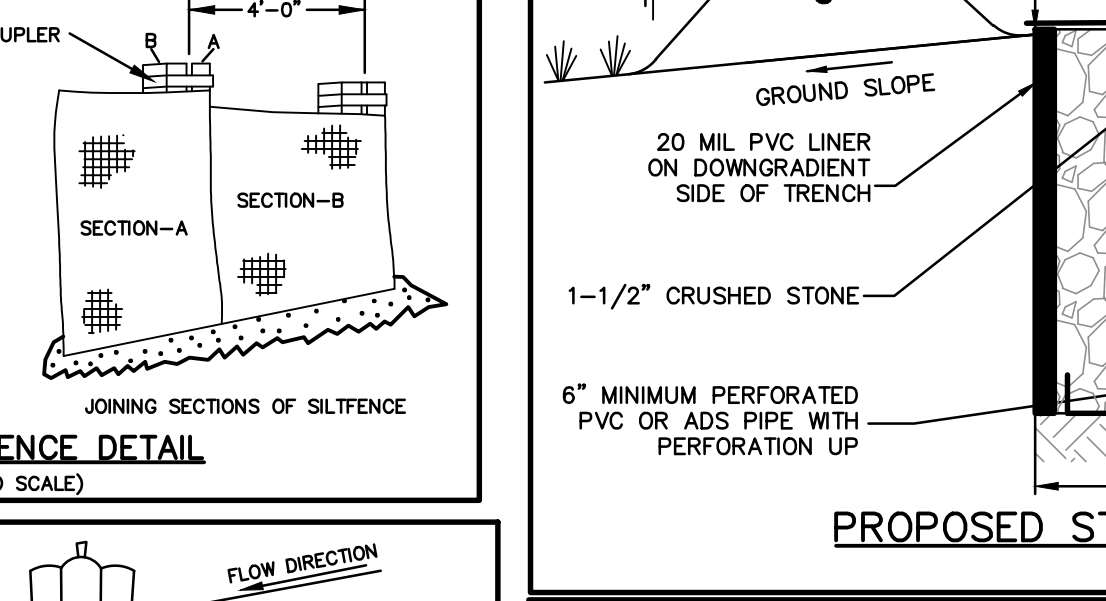
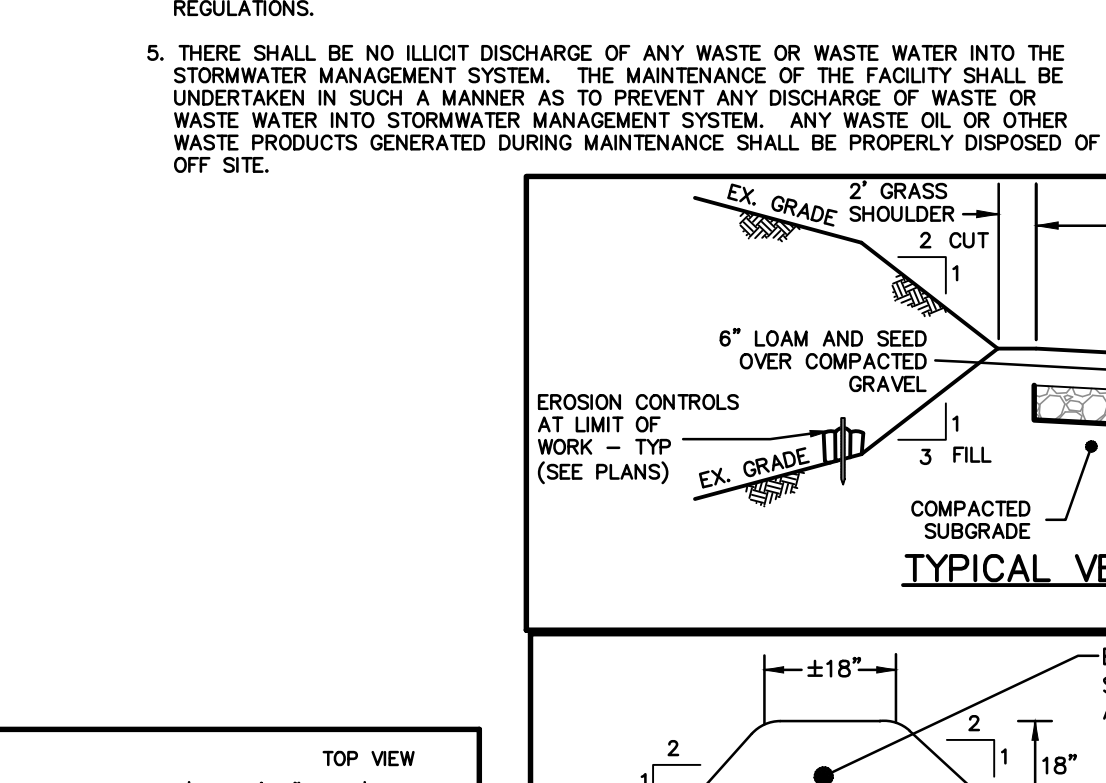
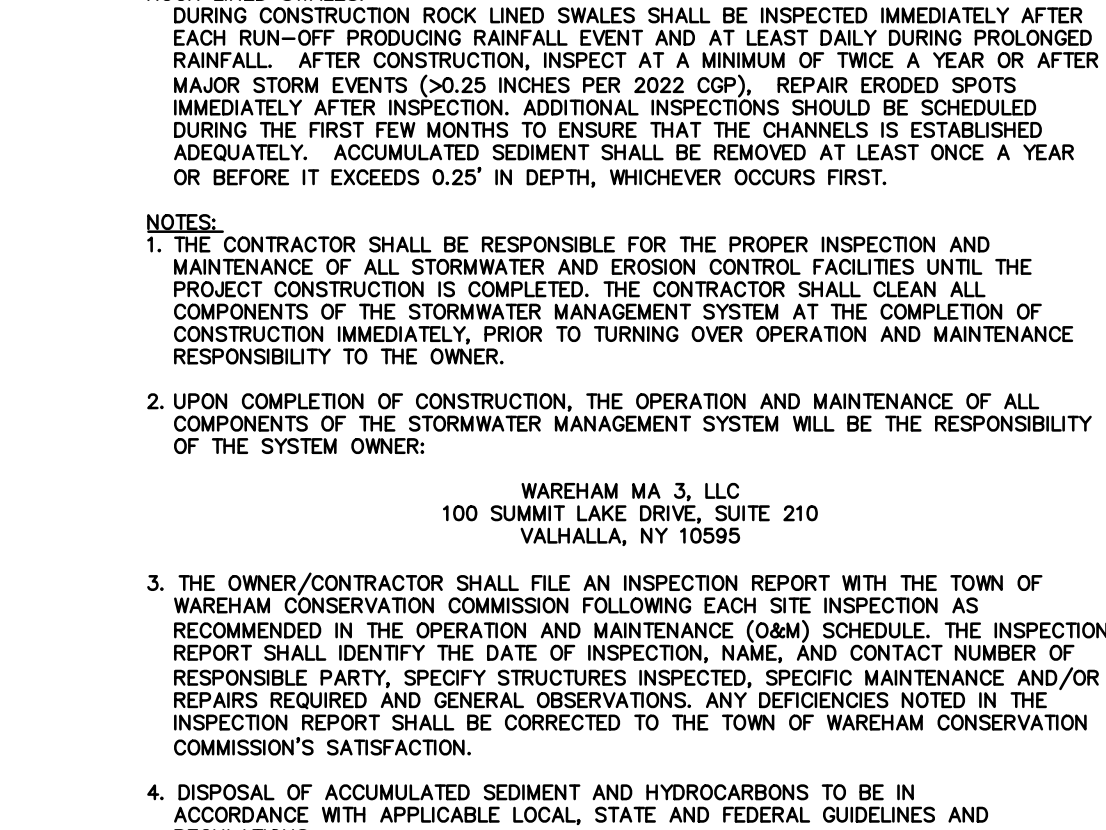
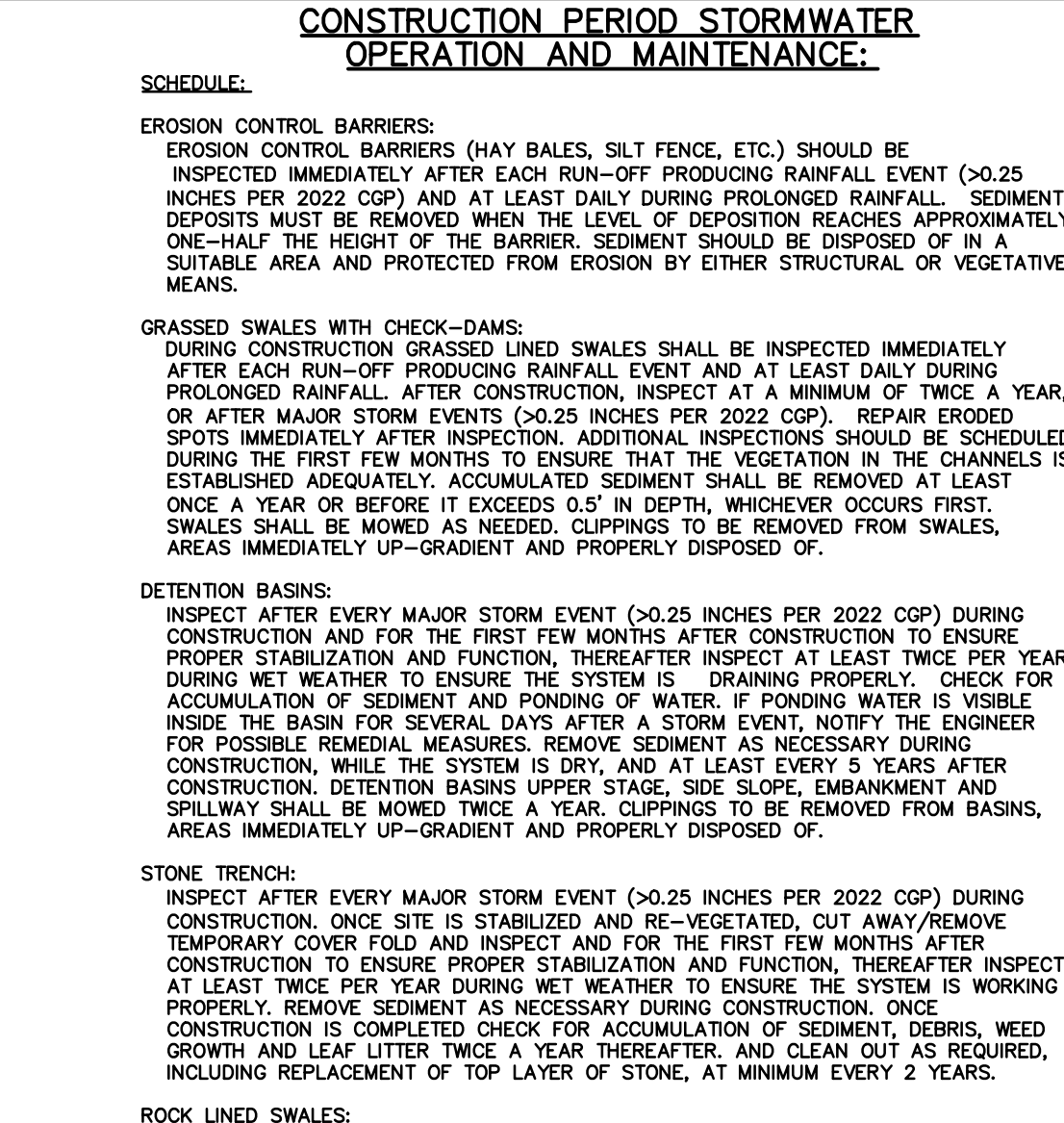
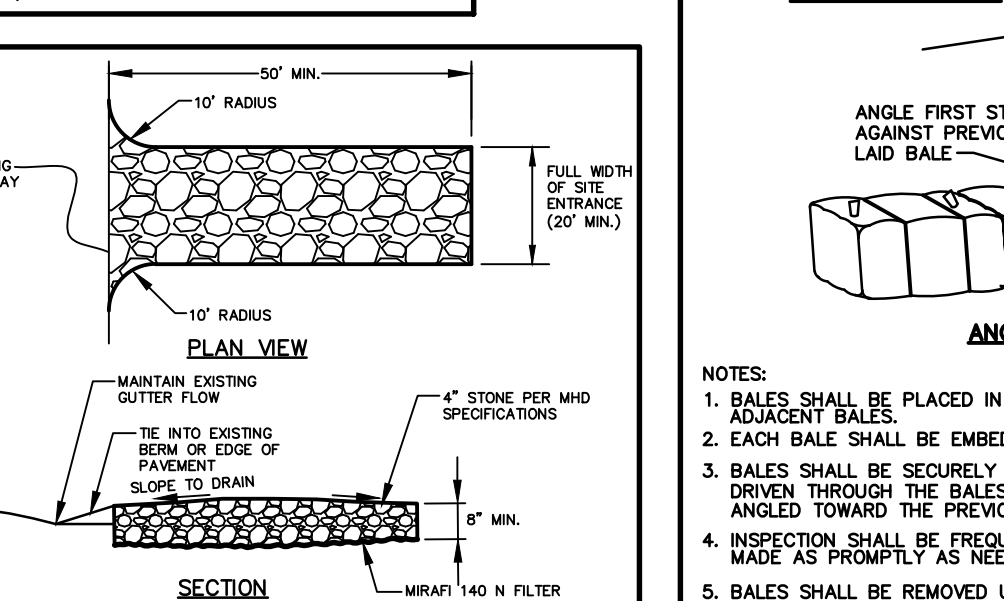
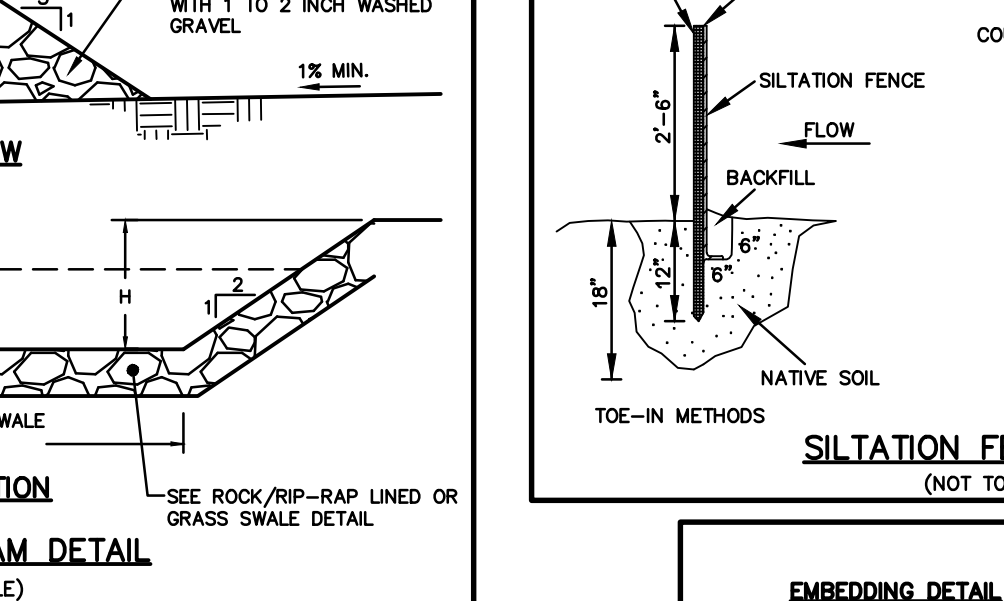
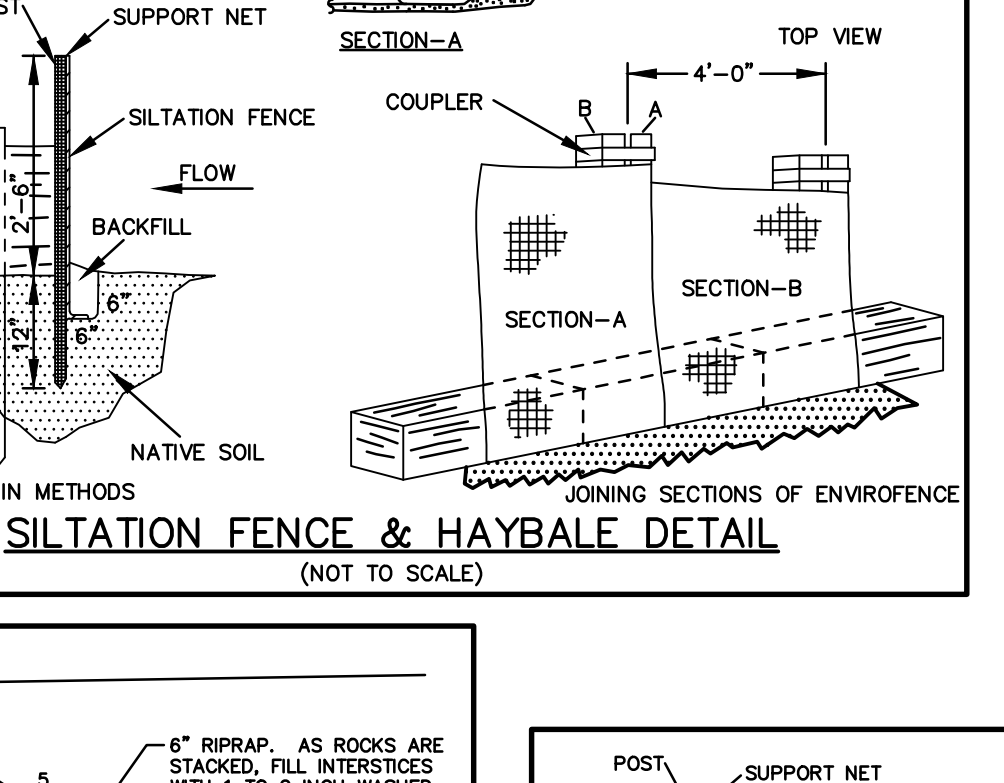
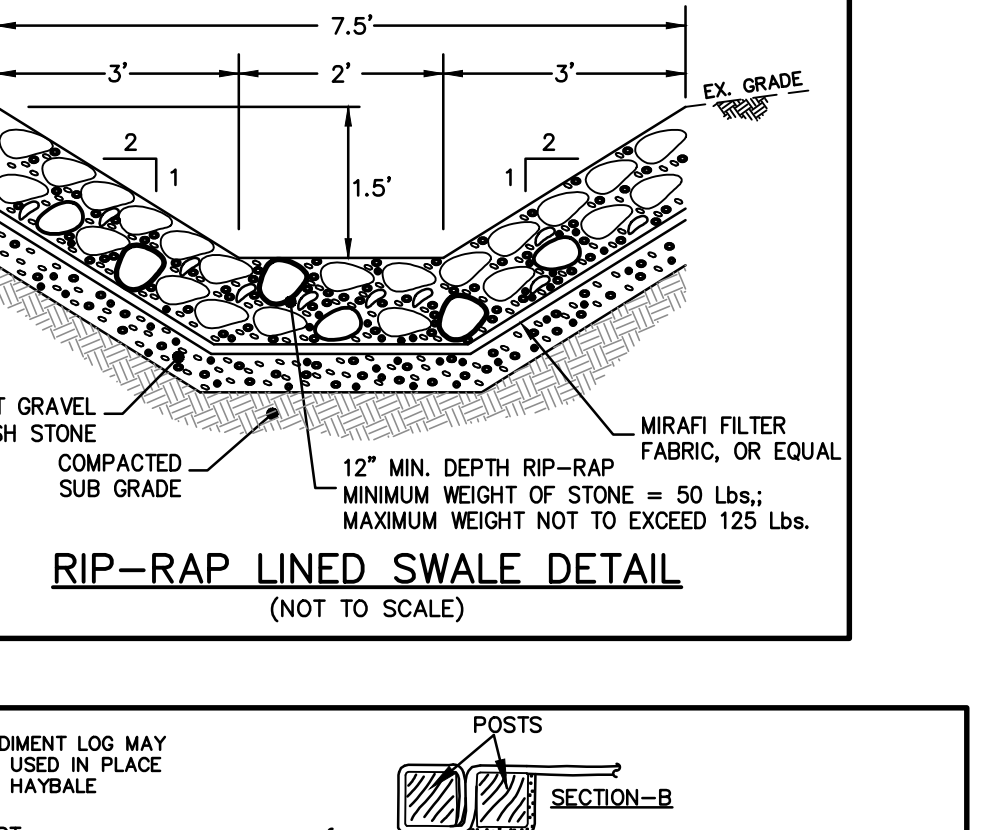
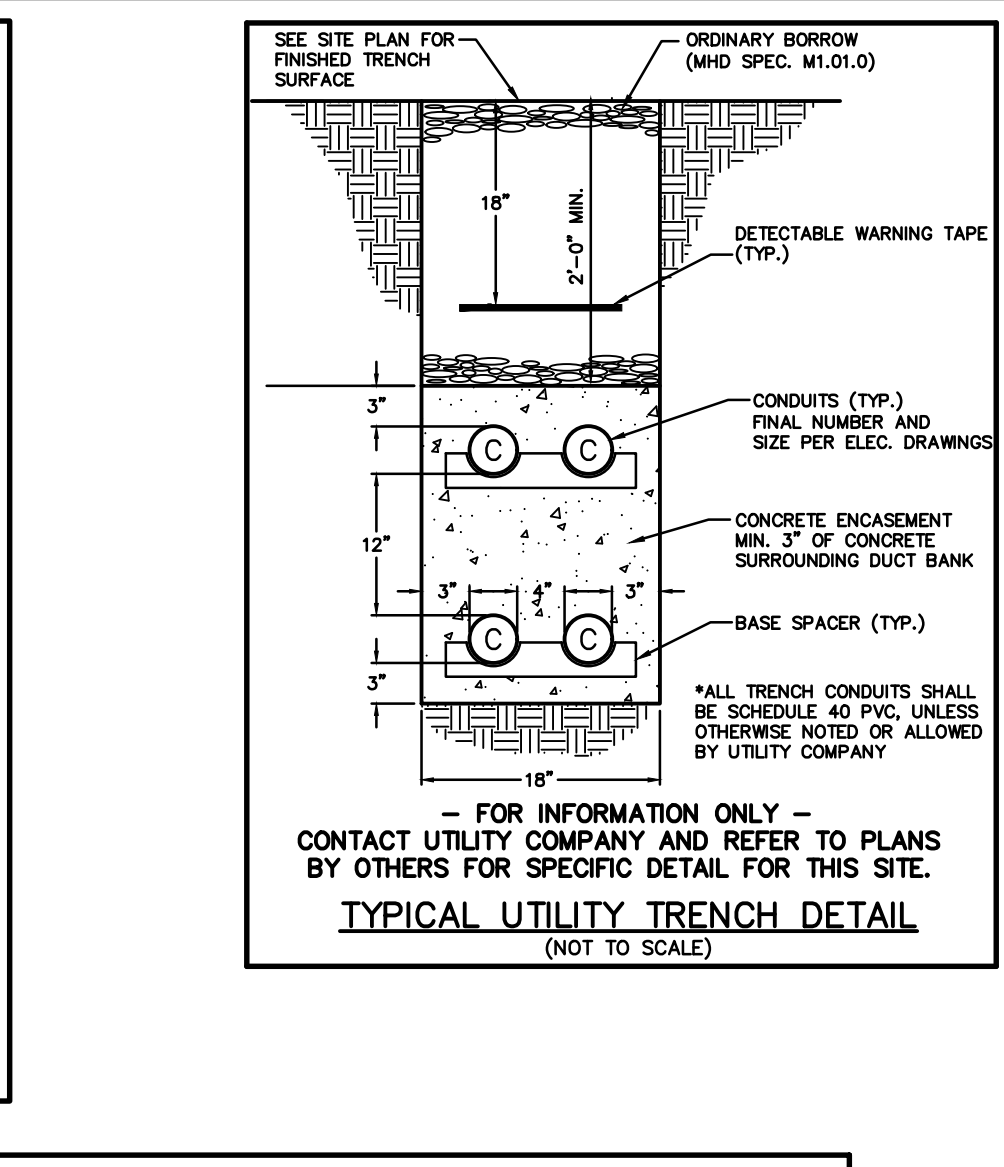
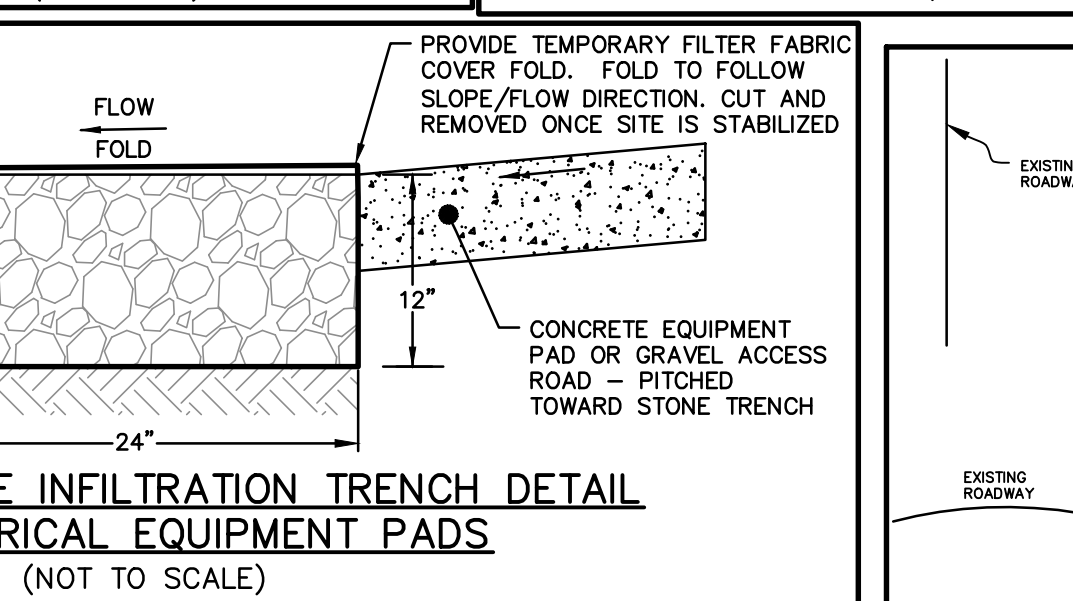
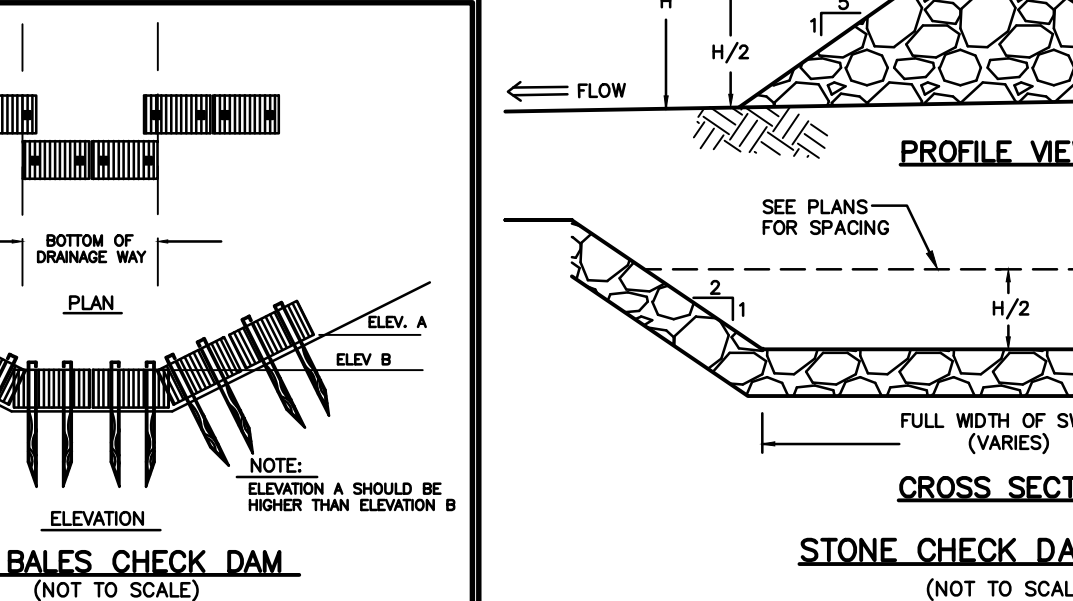
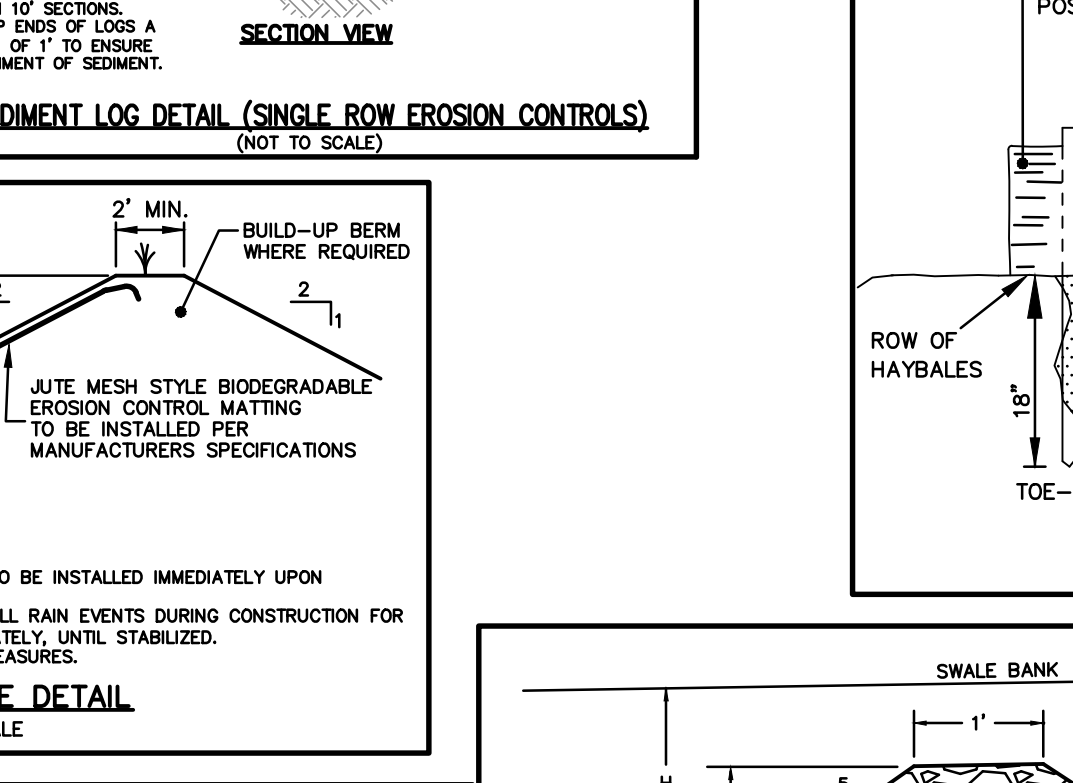
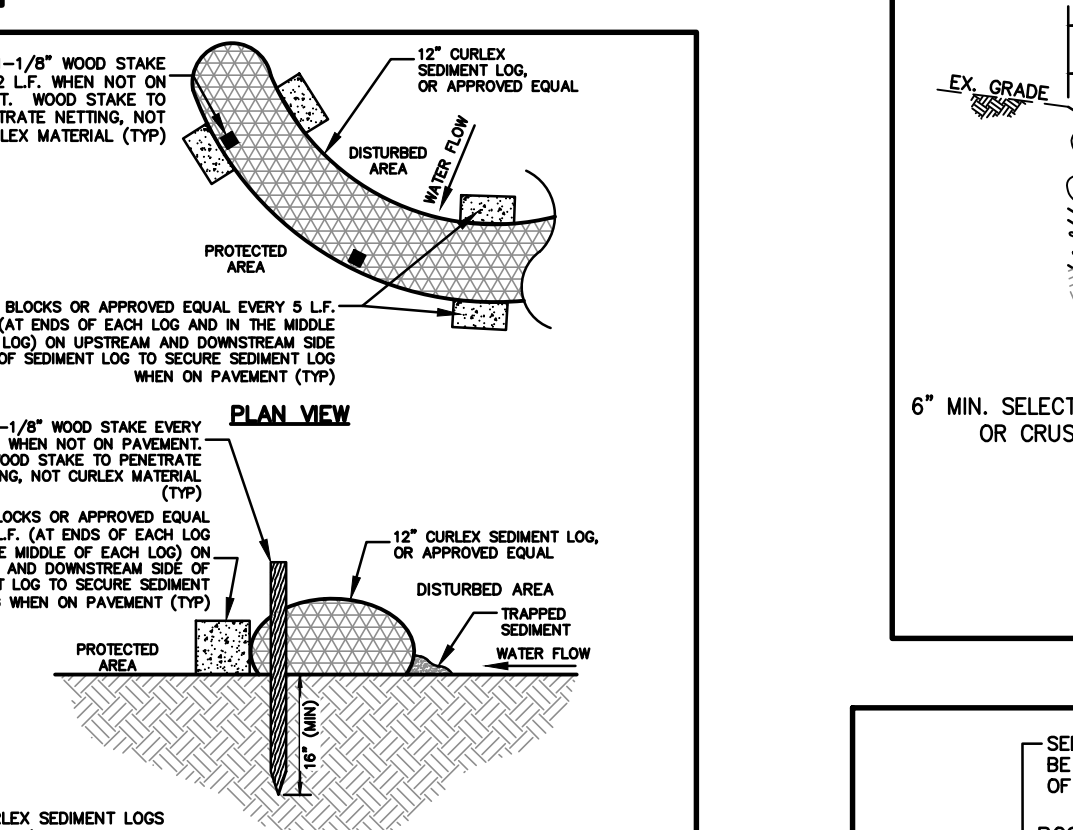
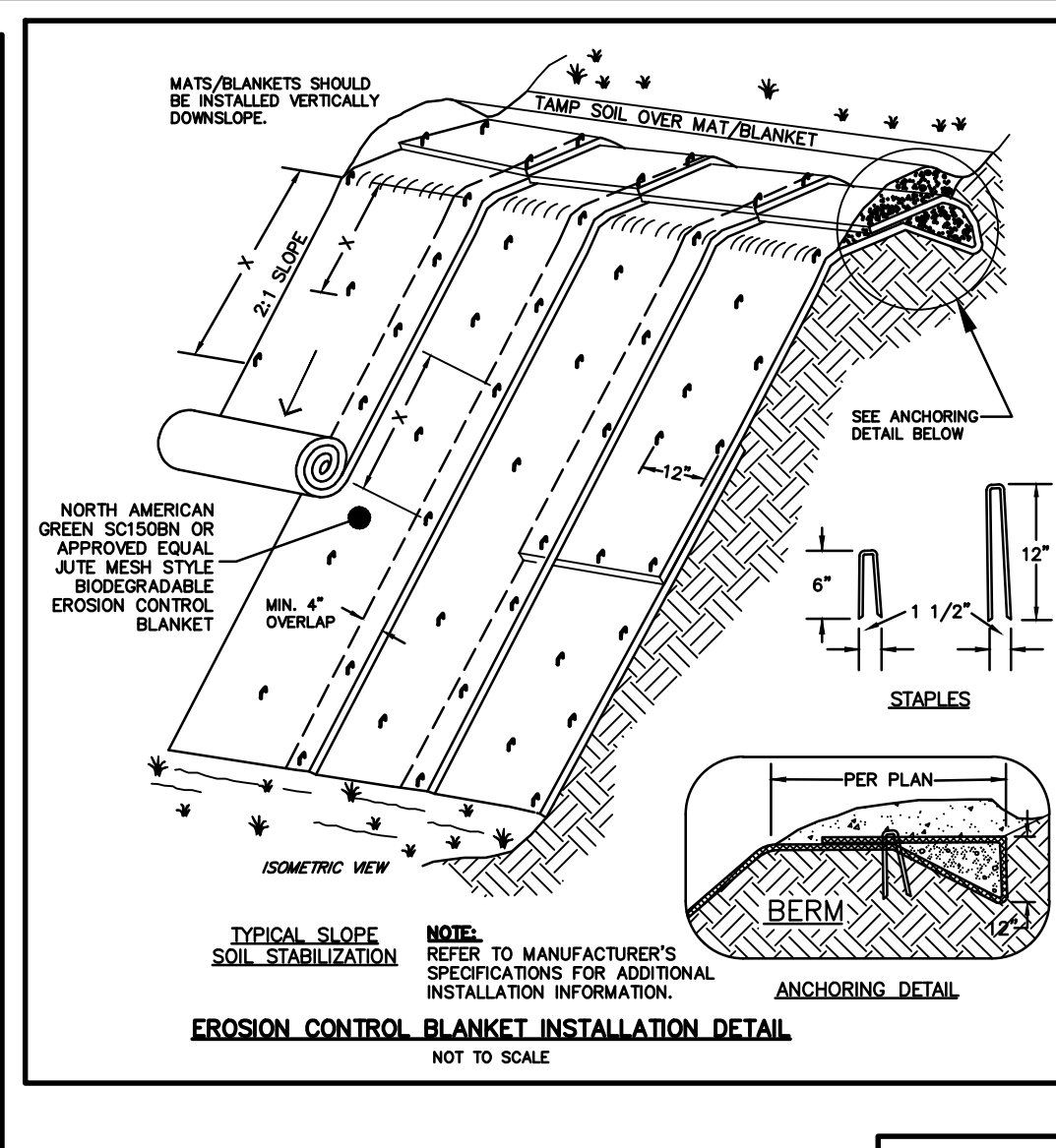
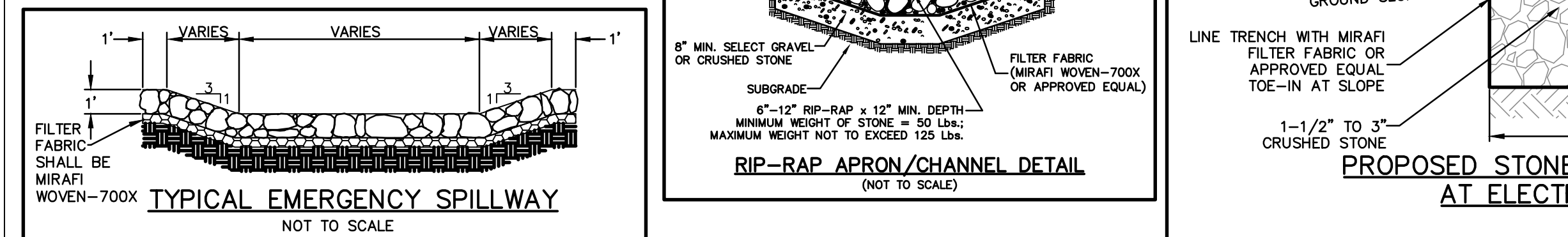
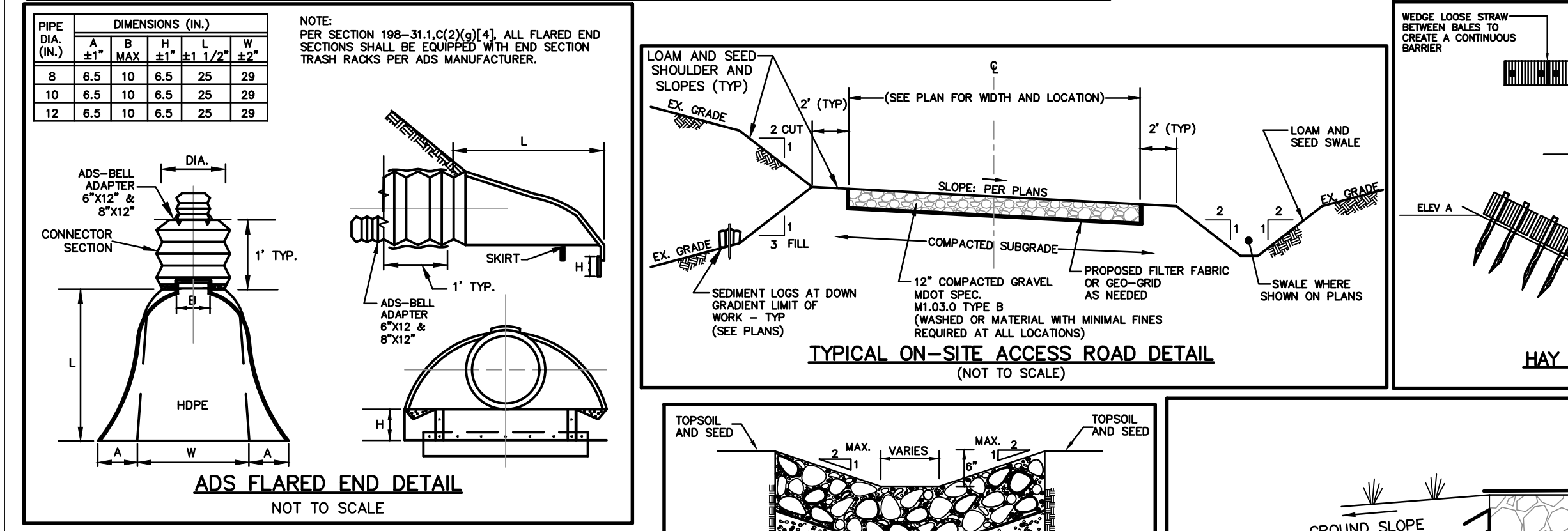
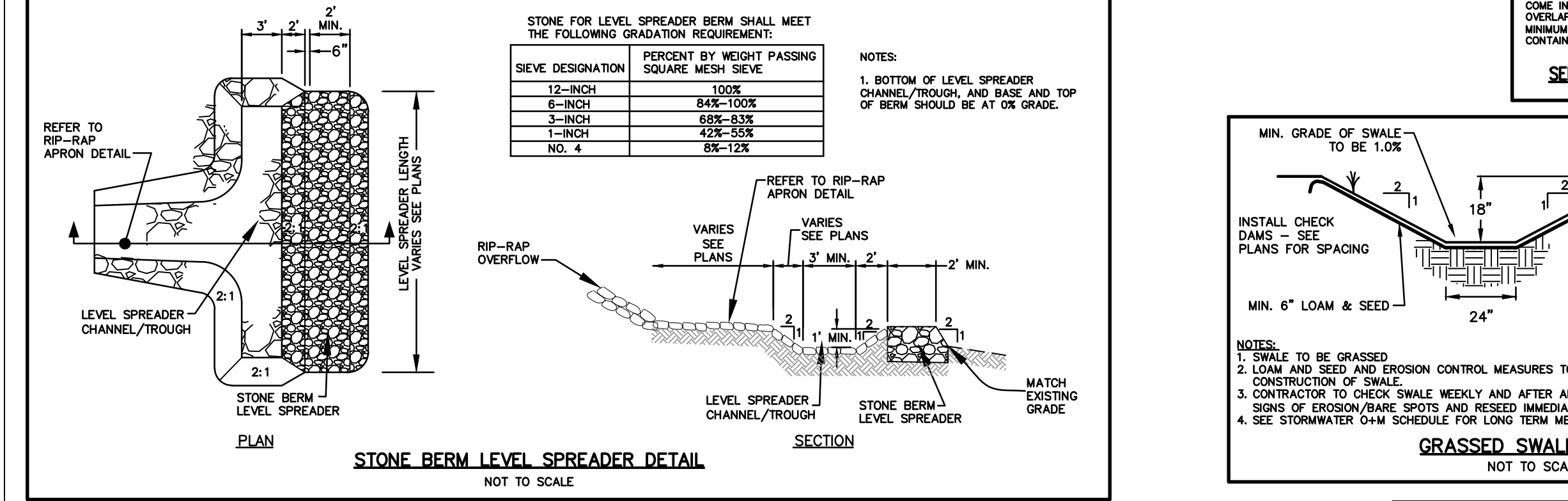
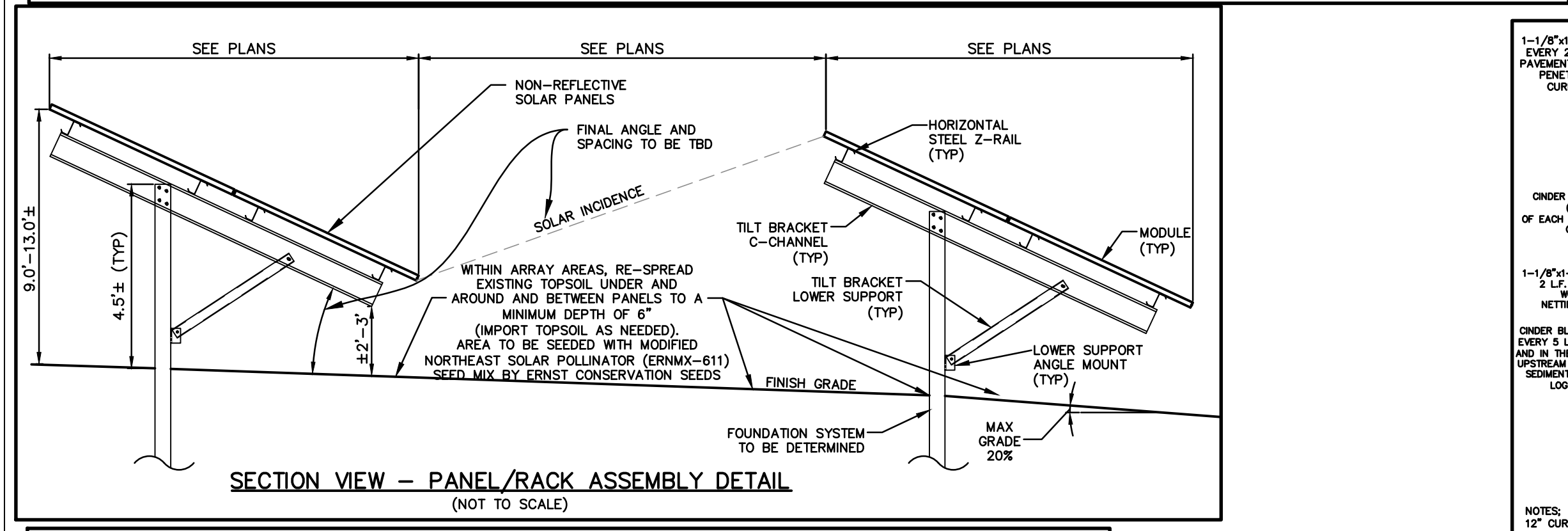
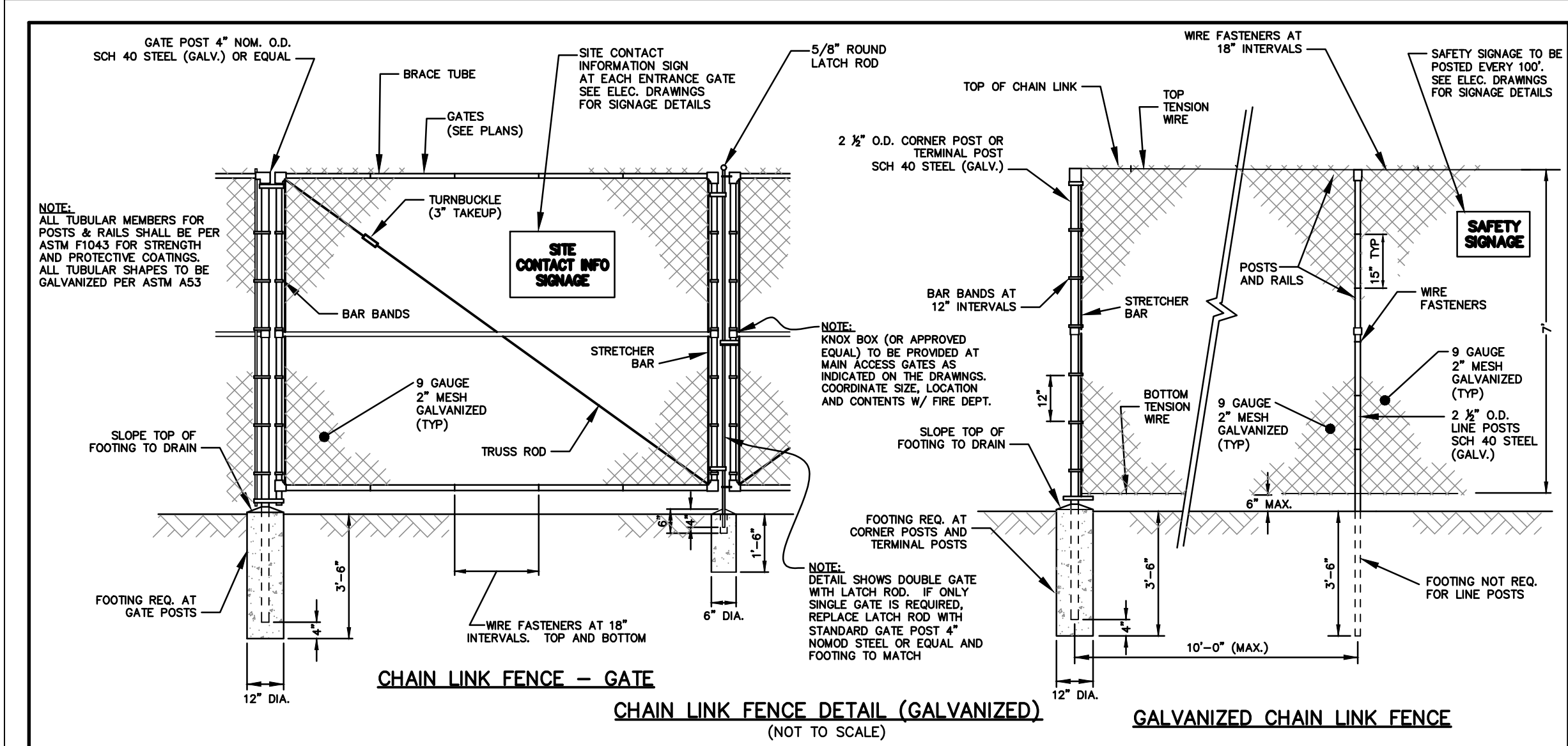


NO.	BY	DATE	REVISION
4	NJC	9/29/22	PER ADDITIONAL HYDROGEO COMMENTS & TOWN ENGINEER COMMENTS
3	NJC	7/26/22	PER ADDITIONAL HYDROGEO COMMENTS & TOWN ENGINEER LETTER
2	NJC	6/14/22	PER TOWN COMMENTS AND HYDROGEO REPORT
1	NJC	9/9/21	PER TOWN COMMENTS (SHEET 3 ONLY)

PREPARED FOR  
WAREHAM MA 3, LLC  
100 SUMMIT LAKE DRIVE, SUITE 210  
VALHALLA, NY 10595

SITE DEVELOPMENT PLAN  
FOR  
FEARING HILL ROAD SOLAR PROJECT  
WAREHAM, MASSACHUSETTS 02576  
MAY 17, 2021

Sheet 6 of 9  
JOB NUMBER 3055.02



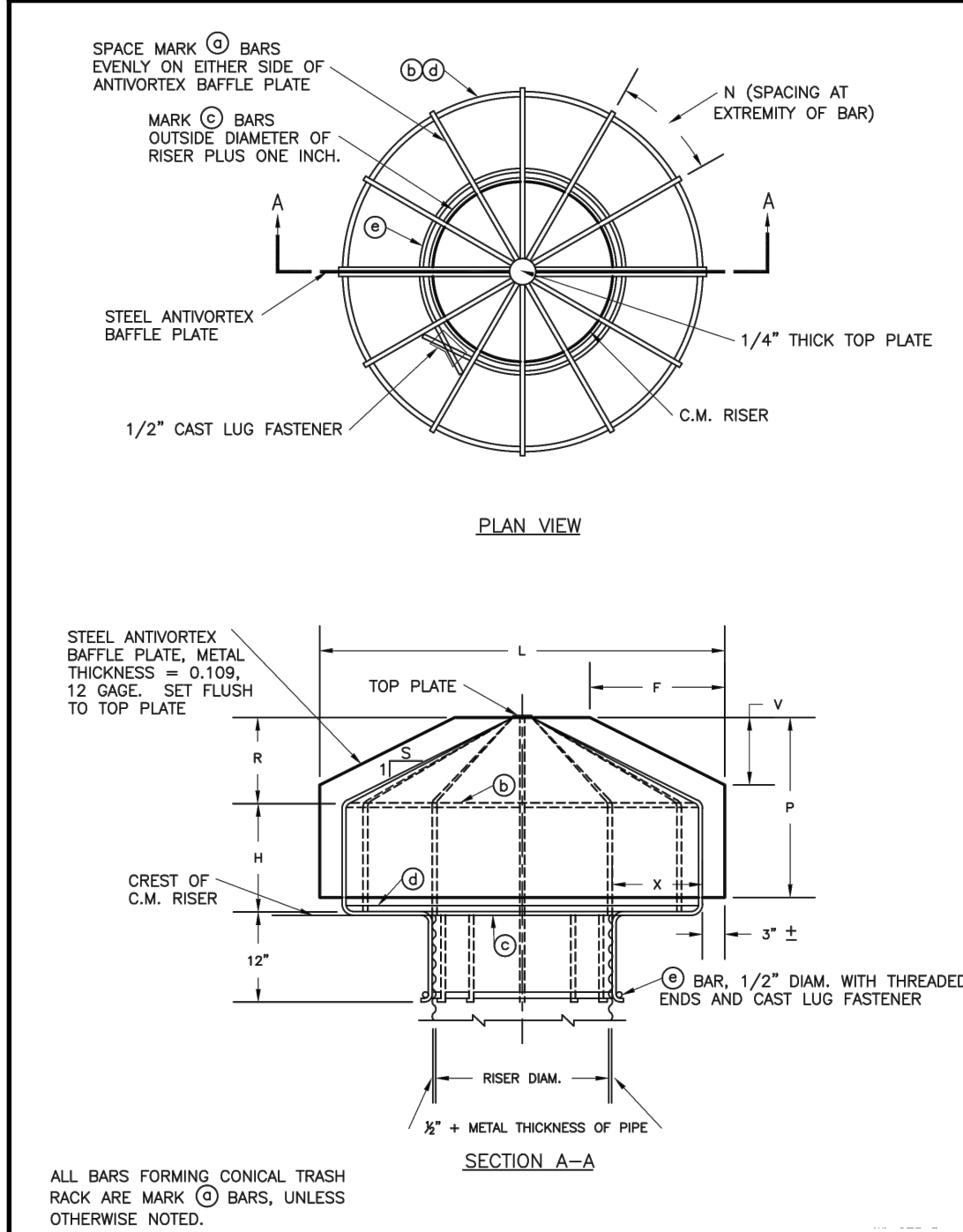
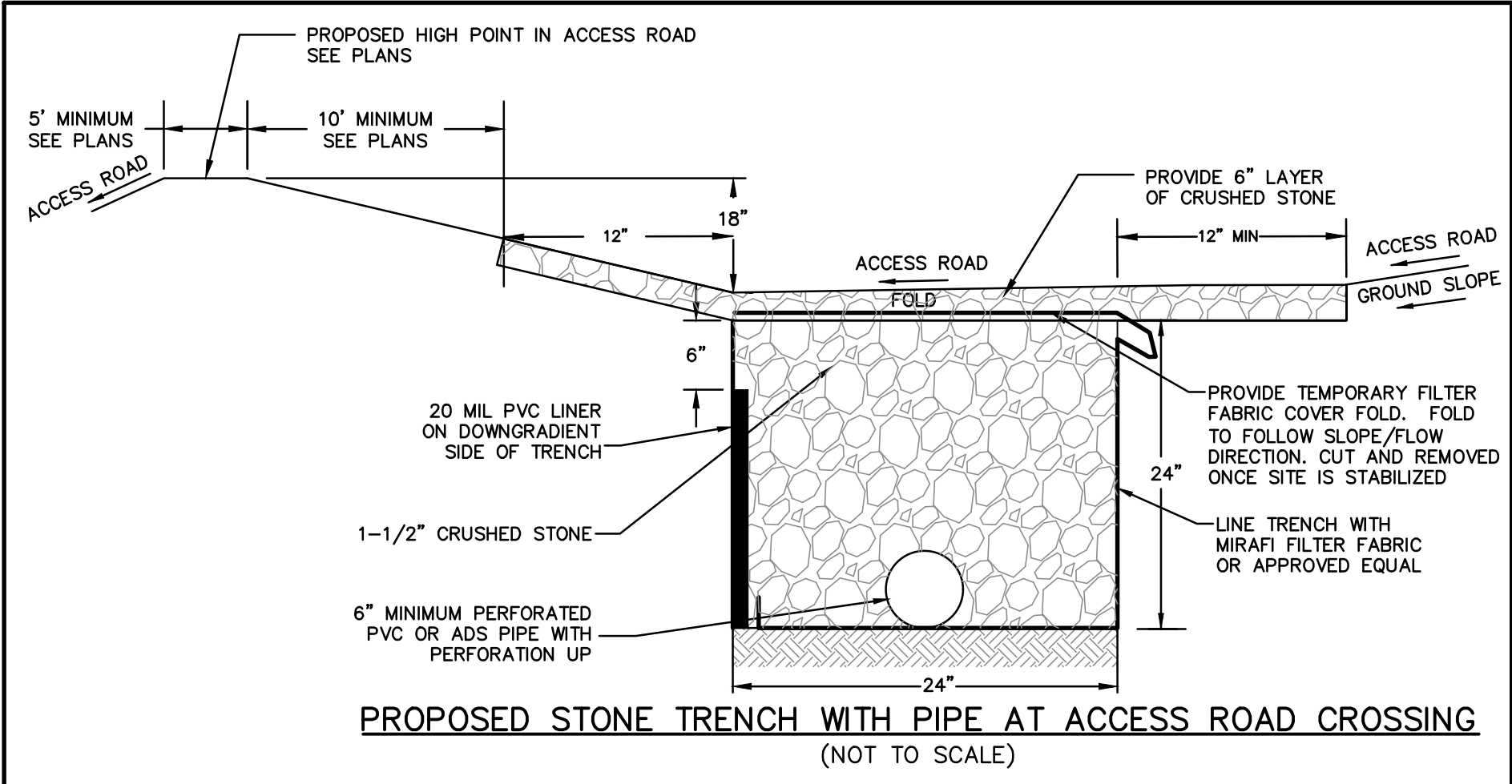
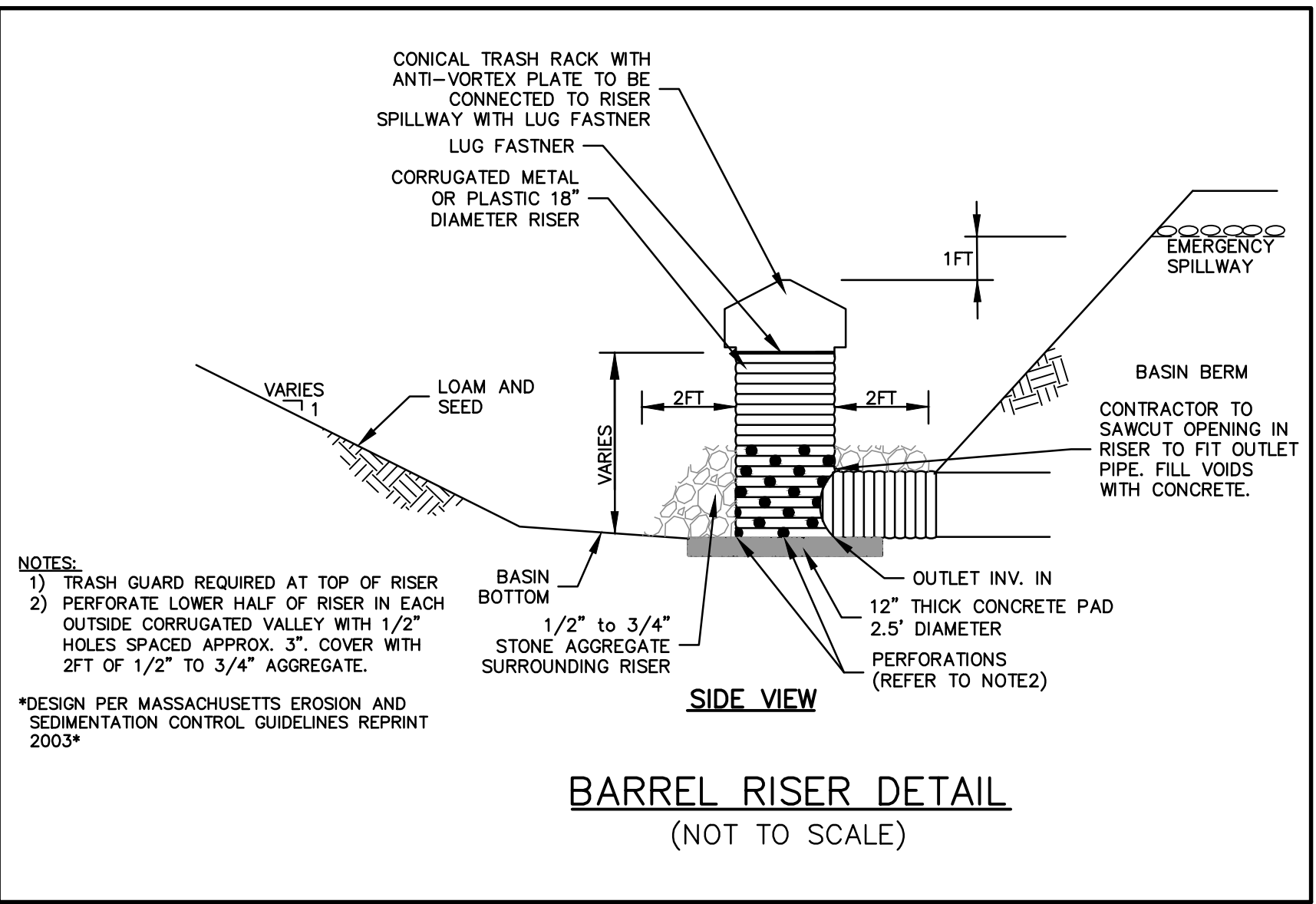
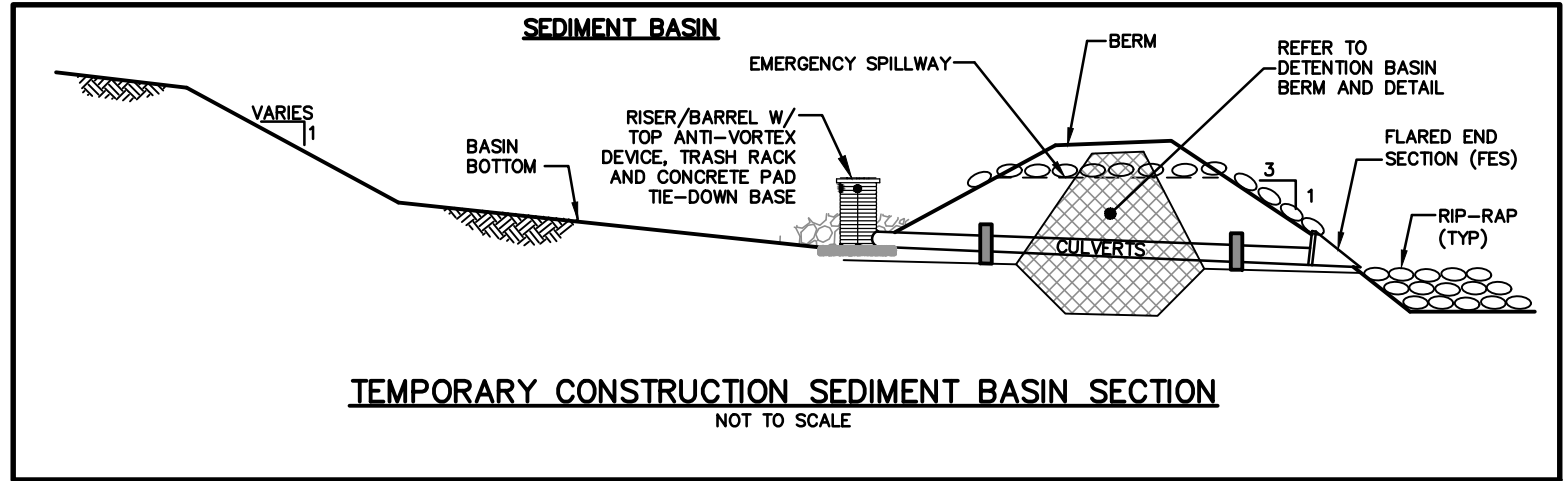
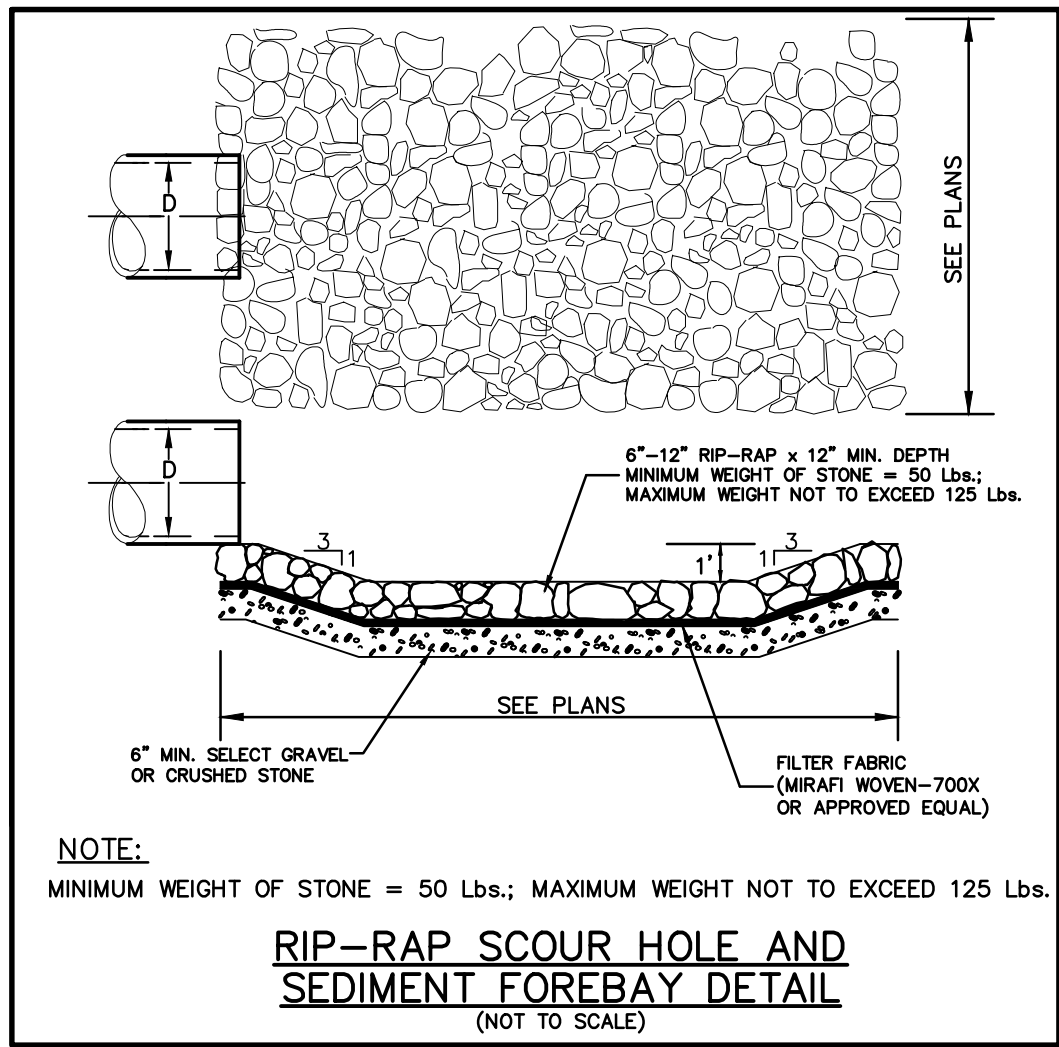
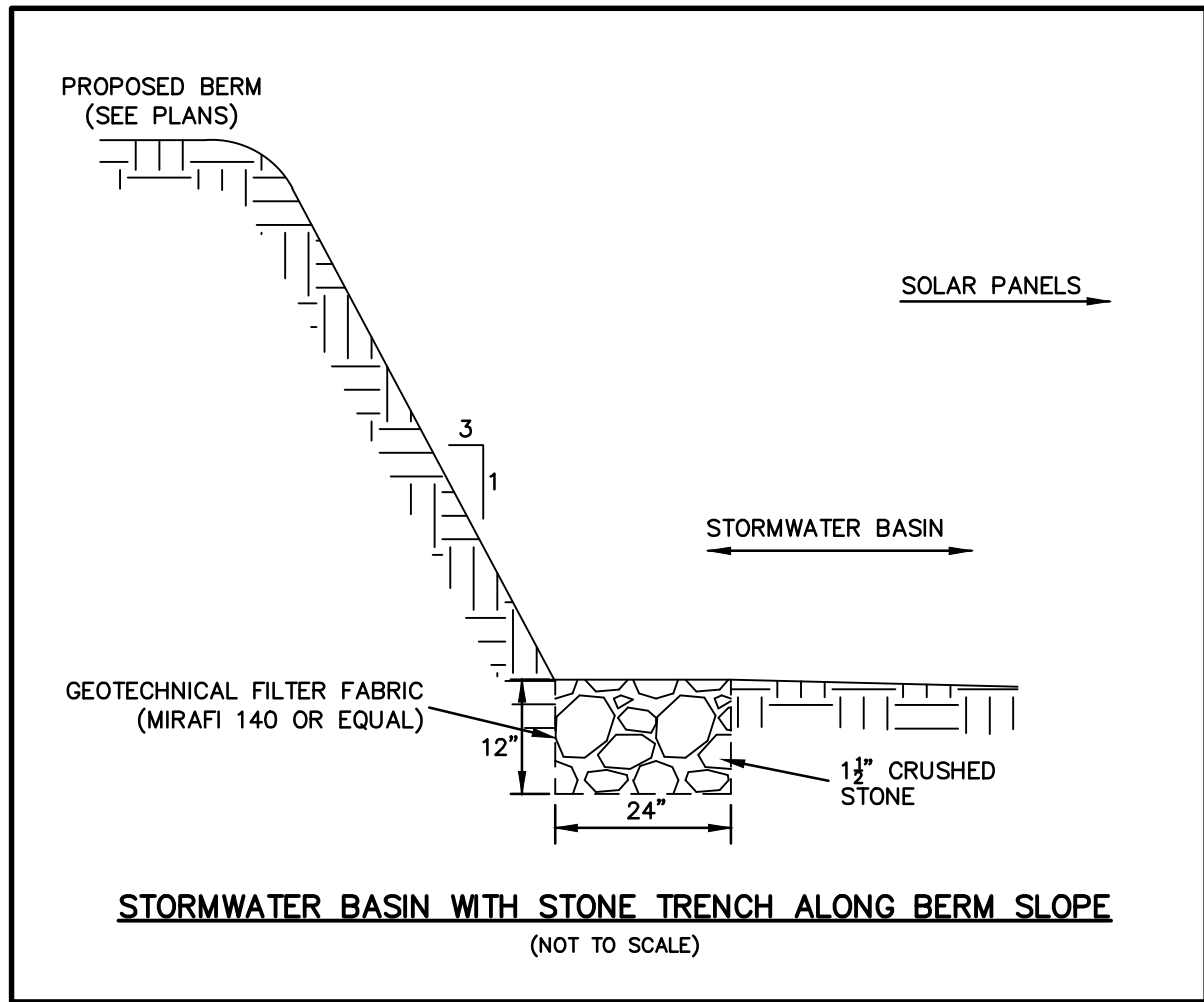
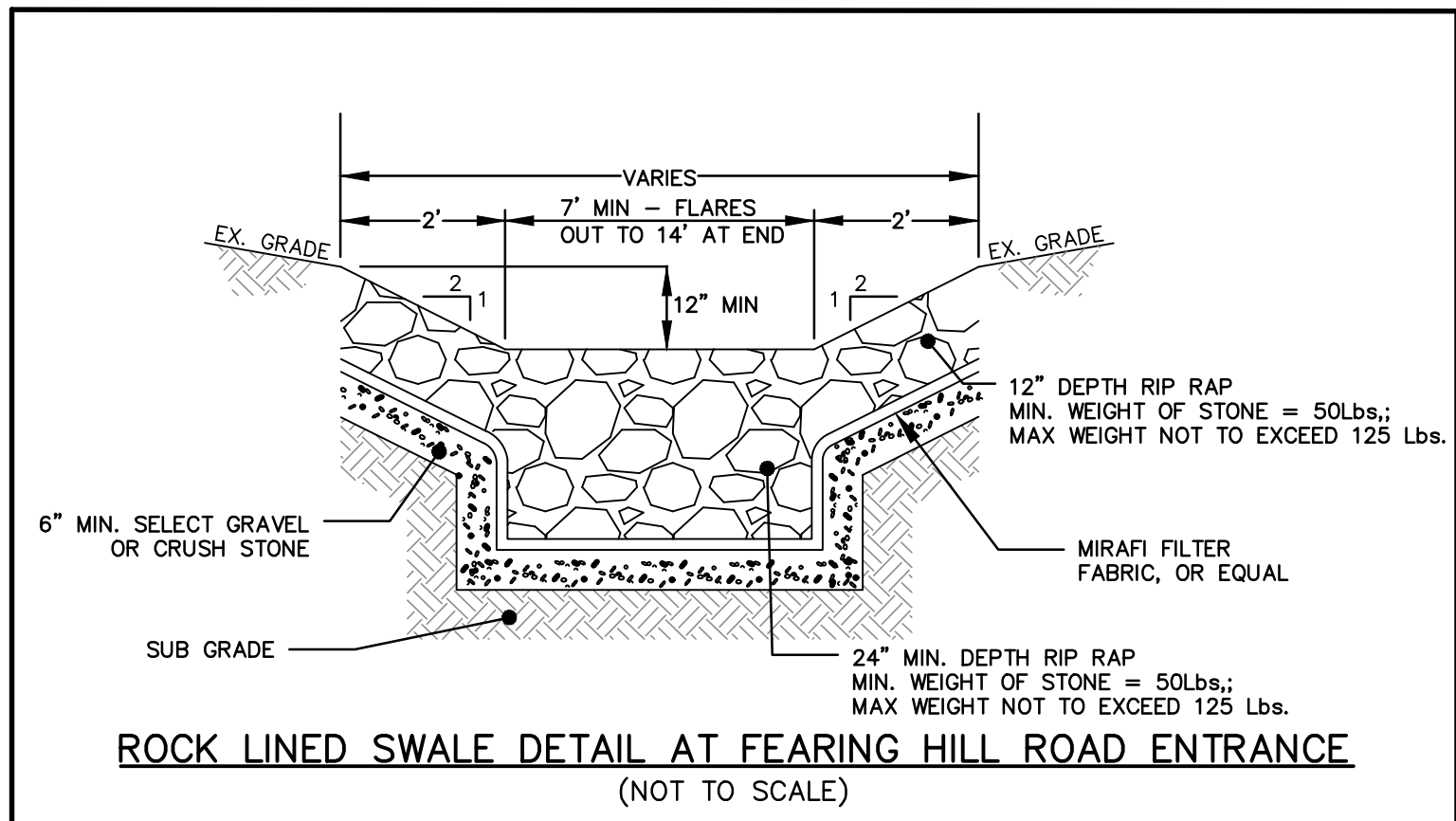
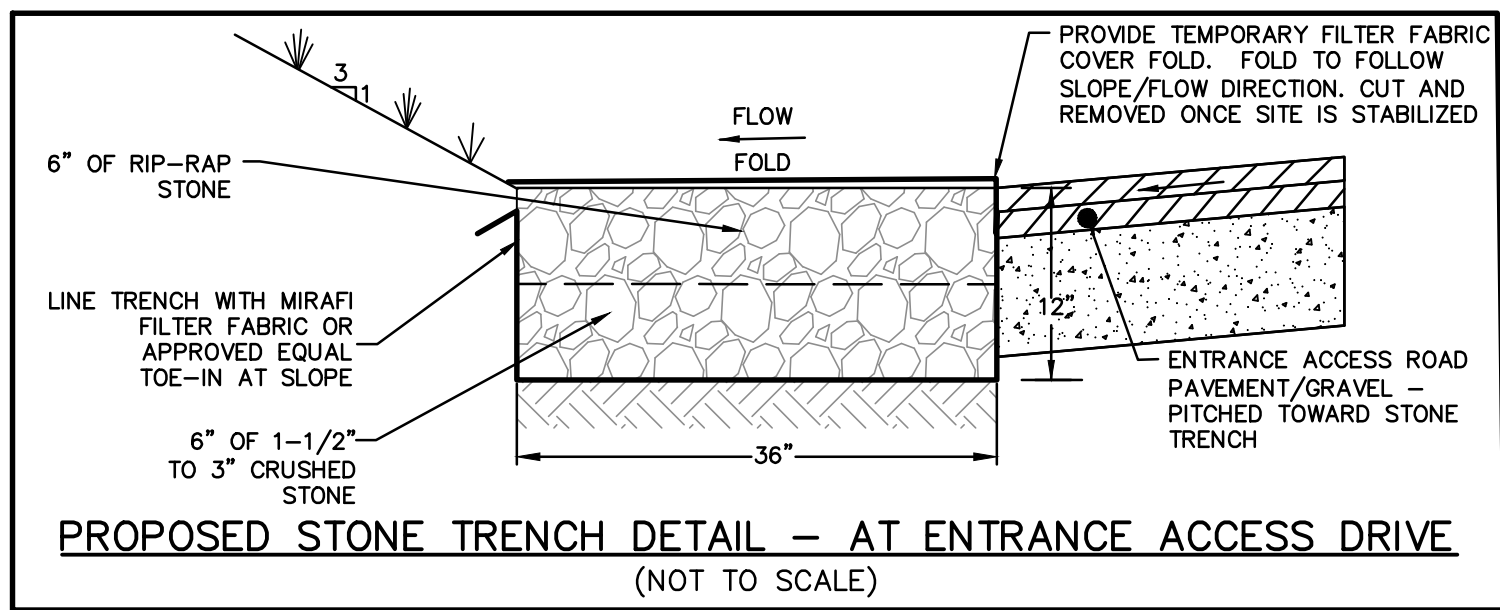
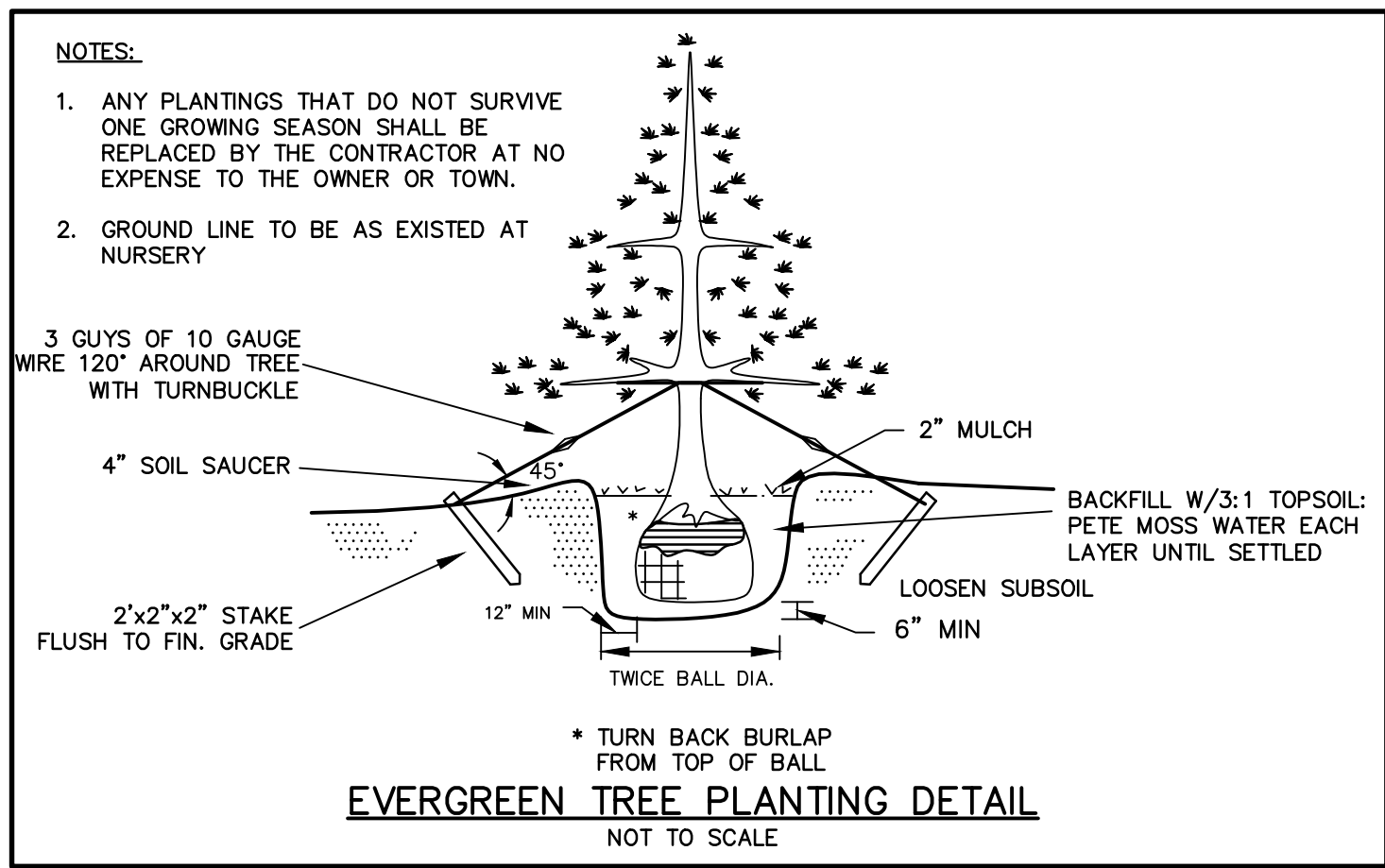
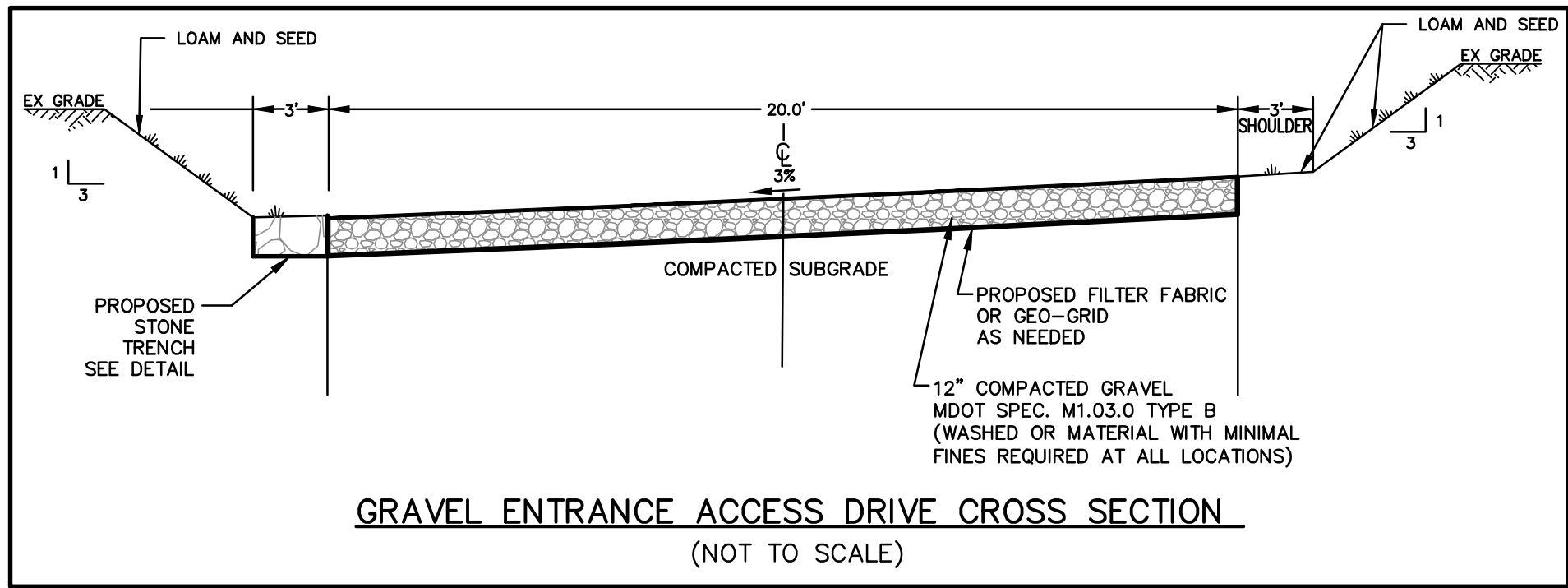
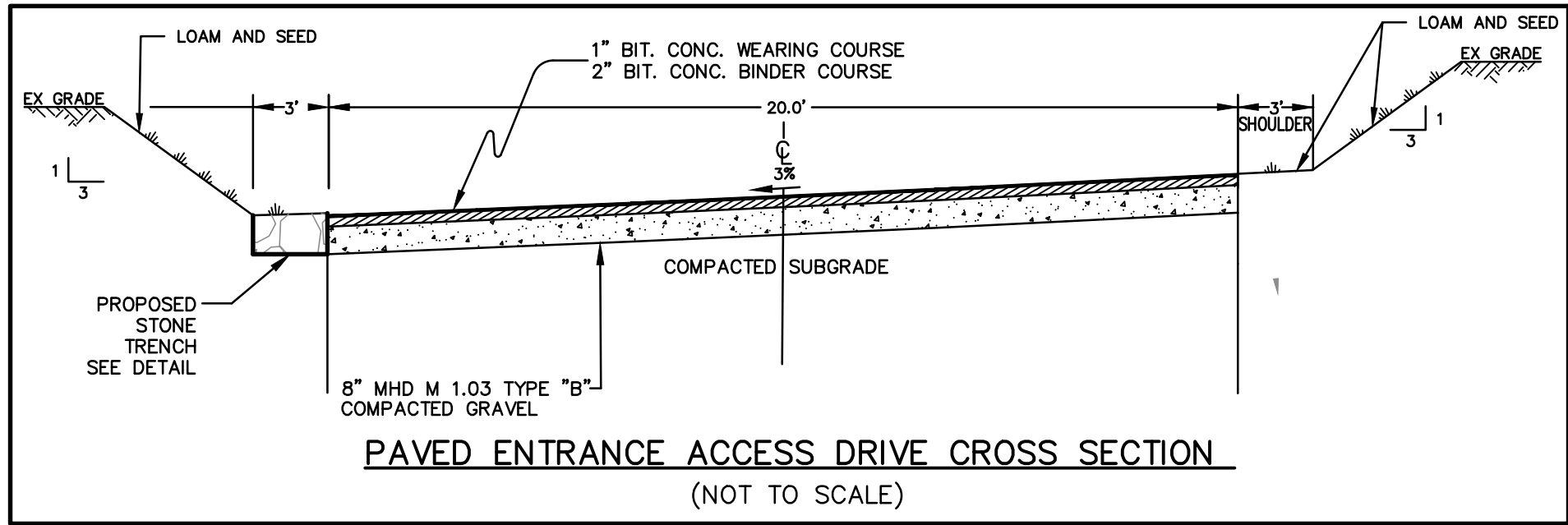
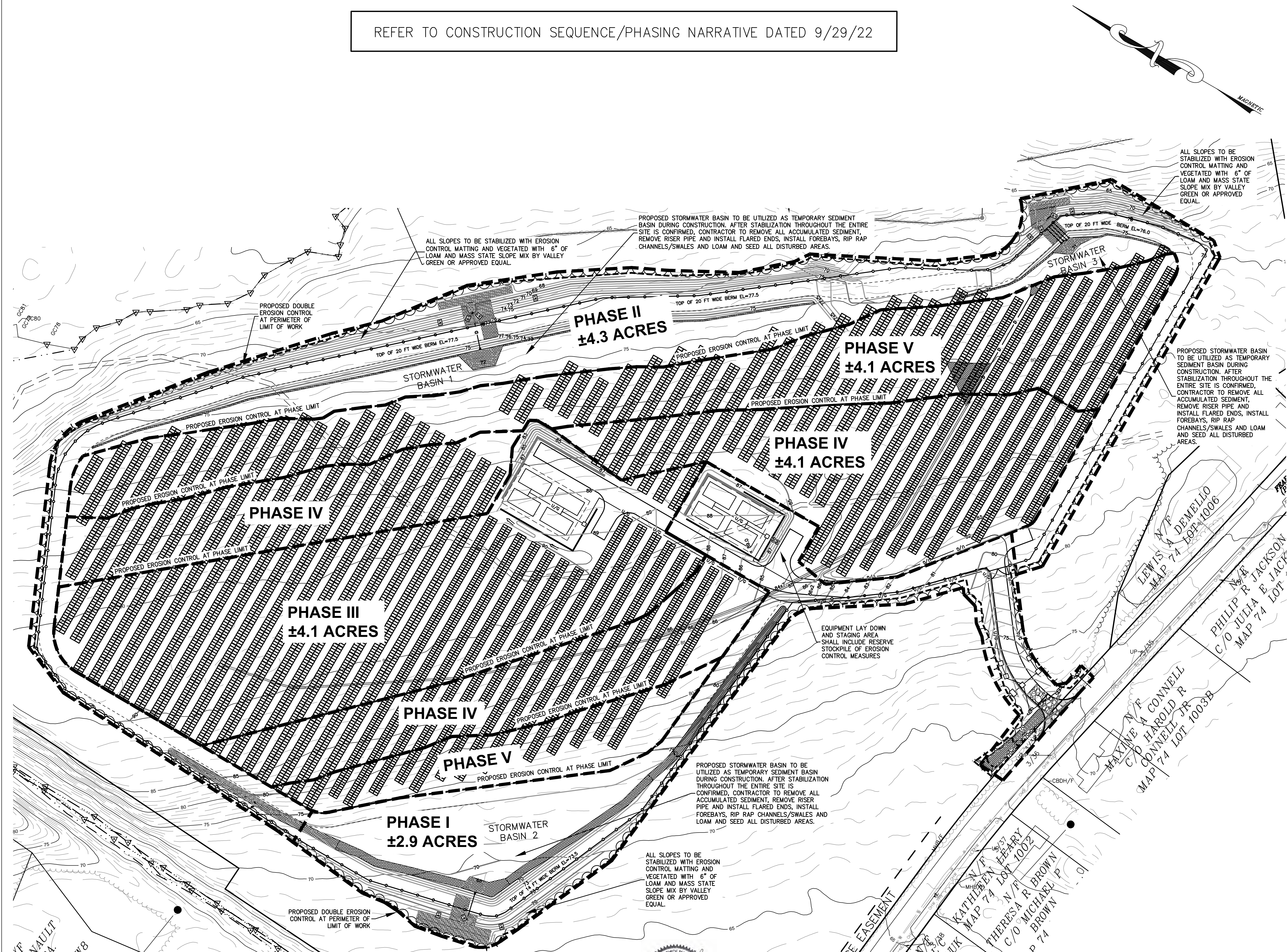


TABLE OF DIMENSIONS AND QUANTITIES													
③ BARS 5/8" DIAMETER													
H	R	X	Y	S	O	TOTAL LENGTH	NO. REQ'D	N	L	P	F	V	
INCHES	INCHES	INCHES	INCHES		INCHES			INCHES	INCHES	INCHES	INCHES	INCHES	
18" DIAMETER CORRUGATED METAL RISER													
9	14-1/8	6	14-1/8	1	20	4'	10	11-7/16	3'	21	8	8	
21" DIAMETER CORRUGATED METAL RISER													
12	9-1/4	9	18-1/2	2	20-5/8	4'	6-5/8"	12	12-3/8	4'	18	12	6
24" DIAMETER CORRUGATED METAL RISER													
15	11-3/8	12	22-3/4	2	25-3/8	5'	5-3/8"	12	14-13/16	4'-6"	24	18	9
30" DIAMETER CORRUGATED METAL RISER													
18	9-1/2	15	28-1/2	3	30	6' 4"	14	15-13/16	6'	24	21	7	
36" DIAMETER CORRUGATED METAL RISER													
21	12-1/2	21	37-5/8	3	39-1/2	7'10-1/2"	16	17-5/16	7'-6"	30	30	10	

TABLE OF DIMENSIONS AND QUANTITIES													
③ BARS 5/8" DIAMETER				④ BARS 5/8" DIAMETER				⑤ BARS 5/8" DIAMETER				TOP PLATE	
NO.	r	LENGTH	REQ'D	NO.	r	LENGTH	REQ'D	NO.	r	LENGTH	REQ'D	DIAM.	
INCHES	INCHES	INCHES		INCHES	INCHES	INCHES		INCHES	INCHES	INCHES		INCHES	
18" DIAMETER CORRUGATED METAL RISER													
2	14-5/16	46	1	10	62-10	1	14-5/16	92	1	10-1/4	73	3	
21" DIAMETER CORRUGATED METAL RISER													
2	18-13/16	60	1	11-1/2	72-1/4	1	18-13/16	120	1	11-3/4	82-1/2	3-1/2	
24" DIAMETER CORRUGATED METAL RISER													
2	23-5/16	74	1	13	81-8	1	23-5/16	148	1	13-1/4	91-1/2	3-1/2	
30" DIAMETER CORRUGATED METAL RISER													
2	29-5/16	93	1	16	100-1/2	1	29-5/16	186	1	16-1/4	111	4	
36" DIAMETER CORRUGATED METAL RISER													
2	38-3/8	121-1/2	1	19	119-5	1	38-3/8	243	1	19-1/4	129	4	

CONICAL TRASH RACK W/ ANTI-VORTEX PLATE DETAIL (NOT TO SCALE)

REFER TO CONSTRUCTION SEQUENCE/PHASING NARRATIVE DATED 9/29/22



EROSION CONTROL NOTES:

1. PRIOR TO COMMENCING SITE WORK OR EARTHWORK OPERATIONS, INSTALL EROSION CONTROL BARRIERS AND MAINTAIN THROUGHOUT CONSTRUCTION.
2. ALL EROSION CONTROL MEASURES SHALL MEET ALL FEDERAL STATE AND LOCAL REQUIREMENTS, SPECIFICALLY THE 2022 ANTIMOUNT POLLUTANT DISCHARGE ELIMINATION WETLANDS AND PERMIT DISCHARGE FROM CONSTRUCTION ACTIVITIES (2022 CONSTRUCTION GENERAL PERMIT) AND THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION EROSION AND SEDIMENT CONTROL GUIDELINES.
3. ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION (BT MINIMUM OF LOAM).
4. ALL MATERIALS AND STOCKPILES SHALL BE STORED ON LEVEL AREAS OUTSIDE TEMPORARY FLOOD ZONING AREAS. BUFFER AREAS SHALL BE MAINTAINED. ALL STOCKPILES SHALL BE SURROUNDED BY HAY BALES, SHALL HAVE SIDE SLOPES NO STEEPER THAN SIX TO ONE, SHALL BE STABILIZED OR STABILIZED IF LEFT UNDISTURBED FOR TWO WEEKS OR MORE.
5. SEDIMENTATION CONTROL DEVICES AND EROSION CONTROL BARRIERS SHALL BE INSPECTED WEEKLY AND MAINTAINED AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION AND PROMPTLY AFTER EACH RAINFALL.
6. ANY SLOPE STEEPER THAN A 3:1 SHALL BE EQUIPPED WITH JUTE MESH STYLE BIODEGRADABLE SLOPE STABILIZATION FABRIC OR JUTE MESH STYLE BIODEGRADABLE EROSION CONTROL MATTING.
7. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTITUTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER AND/OR THE TOWN.
8. THE CONTRACTOR MUST REPAIR OR RE-SEED ANY AREAS THAT DO NOT DEVELOP WITHIN A PERIOD OF ONE YEAR AT NO ADDITIONAL EXPENSE TO THE OWNER.
9. MATERIAL STOCKPILES SHALL NOT BE LOCATED WITHIN THE PATH OF EXISTING OR PROPOSED WATERCOURSES (BOTH TEMPORARY OR PERMANENT) OR THOSE AREAS SUBJECT TO EROSION OR SEDIMENT CONTROL GUIDELINES.
10. SEDIMENT CONTROL DEVICES AND EROSION CONTROL BARRIERS MAY BE REMOVED ONLY AFTER THE SITE HAS BEEN STABILIZED AND RE-VEGETATED PER ESTABLISHED STANDARDS.
11. ALL DISTURBED OR EXPOSED AREAS SUBJECT TO EROSION, WHICH REMAIN DISTURBED BUT INACTIVE FOR AT LEAST THIRTY DAYS, SHALL RECEIVE TEMPORARY SEEDING AND EROSION CONTROL MEASURES TO MEET MASSACHUSETTS AND SEDIMENT CONTROL GUIDELINES. IN ALL CASES, STABILIZATION MEASURES SHALL BE IMPLEMENTED AS SOON AS POSSIBLE IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES.
12. EARTHWORK ACTIVITY ON THE SITE SHALL BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED AWAY FROM ABUTTING STRUCTURES, PROPERTY, ETC.
13. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES ADDITIONAL HAY BALES AND EXTRA SILTATION FENCING FOR INSTALLATION AT THE DIRECTION OF THE ENGINEERS OR THE TOWN TO MITIGATE ANY EMERGENCY CONTROL.
14. REFER TO CONSTRUCTION DETAILS FOR ADDITIONAL EROSION CONTROL MEASURES.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION CONTROL MEASURES AS THE PROJECT PROGRESSES AND THE SITE DRAINAGE CONDITIONS CHANGE.
16. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED SOIL. EFFORTS SHALL BE MADE TO LIMIT THE TIME OF EXPOSURE OF DISTURBED AREAS.

DUST CONTROL NOTES:

1. THE CONTRACTOR SHALL TAKE STEPS TO MINIMIZE THE AMOUNT OF DUST GENERATED ON THE SITE AND ENSURE THE SITE IS IN CONFORMANCE WITH THE DEP AIR POLLUTION CONTROL REGULATIONS 310 CMR 7.09.
2. DUST CONTROL MEASURES SHOULD BE IMPLEMENTED AS NEEDED DURING ALL SITE GRADING ACTIVITIES AND PARTICULARLY DURING WINDY CONDITIONS.
3. WATER SHALL BE APPLIED UNTIL THE SURFACE IS WET AND REPEAT AS NEEDED. WATER SHALL BE APPLIED AT RATES SO THAT RUNOFF, CHANNELING, OR EROSION DOES NOT OCCUR.
4. OTHER POTENTIAL WETTING AND/OR DUST CONTROL AGENTS MAY BE PROPOSED FOR USE BY THE CONTRACTOR AND MUST BE APPROVED BY THE TOWN PRIOR TO USE ON SITE.
5. WHEEL AND TRUCK WASHES SHALL BE USED AT SITE EGRESS AS NEEDED.
6. ALL TRUCKS LEAVING THE SITE WHICH HAVE BEEN LOADED WITH SOIL OR DUST-PRODUCING MATERIAL SHALL BE TARPED IN ACCORDANCE WITH APPLICABLE REGULATIONS.
7. ALL PAVED SURFACES AND ROADWAYS (WITHIN 500 FEET OF THE SITE) ON WHICH EQUIPMENT AND TRUCK TRAFFIC ENTER AND LEAVE THE CONSTRUCTION AREA SHALL BE SWEEP AND/OR WATERED AS NEEDED.
8. WIND SCREENS, WIND FENCES, SILT FENCE OR SIMILAR BARRIERS SHALL BE IMPLEMENTED AS NEEDED AND PLACED AT INTERVALS OF ABOUT 10 TO 15 TIMES THE BARRIER HEIGHT.
9. ALL CLEARING, GRADING, EARTHMOVING, AND EXCAVATING ACTIVITIES SHALL BE SUSPENDED DURING PERIODS OF SUSTAINED STRONG WINDS (HOURLY AVERAGE WIND SPEEDS OF 25 MPH OR GREATER).

## STABILIZATION DEADLINES

(IN ACCORDANCE WITH THE EPA 2022 CONSTRUCTION GENERAL PERMIT)

- INITIATE THE INSTALLATION OF STABILIZATION MEASURES IMMEDIATELY IN ANY AREAS OF EXPOSED SOIL WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS; AND
  - COMPLETE THE INSTALLATION OF STABILIZATION MEASURES AS SOON AS PRACTICABLE, BUT NO LATER THAN 14 CALENDAR DAYS AFTER STABILIZATION HAS BEEN INITIATED.
- IF DISTURBANCE IS MORE THAN 5 ACRES AT A TIME:
- COMPLETE THE INSTALLATION OF STABILIZATION MEASURES AS SOON AS PRACTICABLE, BUT NO LATER THAN SEVEN (7) CALENDAR DAYS AFTER STABILIZATION HAS BEEN INITIATED.