






**STANDARD EROSION AND SEDIMENT CONTROL NOTES**

1. THE PERMITTEE SHALL NOTIFY THE DEPARTMENT OF PERMITTING SERVICES (DPS) FORTY-EIGHT (48) HOURS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AND, UNLESS WAIVED BY THE DEPARTMENT, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING BETWEEN THEM OR THEIR REPRESENTATIVE, THEIR ENGINEER AND AN AUTHORIZED REPRESENTATIVE OF THE DEPARTMENT.
2. THE PERMITTEE MUST OBTAIN INSPECTION AND APPROVAL BY DPS AT THE FOLLOWING POINTS:
  - A. AT THE REQUIRED PRE-CONSTRUCTION MEETING.
  - B. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES AND PRIOR TO ANY OTHER LAND DISTURBING ACTIVITY.
  - C. DURING THE INSTALLATION OF A SEDIMENT BASIN OR STORMWATER MANAGEMENT STRUCTURE AT THE REQUIRED INSPECTION POINTS (SEE INSPECTION CHECKLIST ON PLAN). NOTIFICATION PRIOR TO COMMENCING CONSTRUCTION IS MANDATORY.
  - D. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE(S).
  - E. PRIOR TO FINAL ACCEPTANCE.
3. THE PERMITTEE SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE, SHALL HAVE THEM INSPECTED AND APPROVED BY THE DEPARTMENT PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES, SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES, AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM THE DEPARTMENT.
4. THE PERMITTEE SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSED PUBLIC THOROUGHFARE(S). ALL MATERIALS DEPOSITED ONTO PUBLIC THOROUGHFARE(S) SHALL BE REMOVED IMMEDIATELY.
5. THE PERMITTEE SHALL INSPECT PERIODICALLY AND MAINTAIN CONTINUOUSLY IN EFFECTIVE OPERATING CONDITION, ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIME AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM THE DEPARTMENT. THE PERMITTEE IS RESPONSIBLE FOR IMMEDIATELY REPAIRING OR REPLACING ANY SEDIMENT CONTROL MEASURES WHICH HAVE BEEN DAMAGED OR REMOVED BY THE PERMITTEE OR ANY OTHER PERSON.
6. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
  - A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3H:1V), AND
  - B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
7. THE PERMITTEE SHALL APPLY SOD, SEED, AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS WITHIN SEVEN (7) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED ON THAT AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. ACTIVE CONSTRUCTION AREAS SUCH AS BORROW OR STOCKPILE AREAS, ROADWAY IMPROVEMENTS, AND AREAS WITHIN FIFTY (50) FEET OF A BUILDING UNDER CONSTRUCTION MAY BE EXEMPT FROM THIS REQUIREMENT, PROVIDED THAT EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED AND MAINTAINED TO PROTECT THOSE AREAS.
8. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES, THE PERMITTEE SHALL STABILIZE ALL CONTRIBUTORY DISTURBED AREAS WITH REQUIRED SOIL AMENDMENTS AND TOPSOIL, USING SOD OR AN APPROVED PERMANENT SEED MIXTURE AND AN APPROVED ANCHORED MULCH. WOOD FIBER MULCH MAY ONLY BE USED IN SEEDING SEASON WHEN THE SLOPE DOES NOT EXCEED 10% AND GRADING HAS BEEN DONE TO PROMOTE SHEET FLOW DRAINAGE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON SHALL BE PERMANENTLY STABILIZED WITHIN SEVEN (7) CALENDAR DAYS OF ESTABLISHMENT. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS OF NOVEMBER THROUGH FEBRUARY, AND PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, AN APPROVED TEMPORARY SEED AND STRAW ANCHORED MULCH SHALL BE APPLIED TO DISTURBED AREAS. THE FINAL PERMANENT STABILIZATION OF SUCH PROPERTY SHALL BE COMPLETED PRIOR TO THE FOLLOWING APRIL 15.
9. THE SITE PERMIT, WORK, MATERIALS, APPROVED SC/SM PLANS, AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY DULY AUTHORIZED OFFICIALS OF MONTGOMERY COUNTY.
10. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO LOWER THE WATER DOWN SLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. MECHANICAL DEVICES MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.
11. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITHIN 3 CALENDAR DAYS OF ESTABLISHMENT WITH SOD OR SEED WITH AN APPROVED EROSION CONTROL MATTING OR BY OTHER APPROVED STABILIZATION MEASURES.
12. SEDIMENT CONTROL DEVICES SHALL BE REMOVED, WITH PERMISSION OF THE DEPARTMENT, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.
13. NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3H:1V WILL BE PERMITTED IN LAWN MAINTENANCE AREAS OR ON RESIDENTIAL LOTS. A SLOPE GRADIENT OF UP TO 2H:1V WILL BE PERMITTED IN NON-MAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN WITH A LOW-MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENT STEEPER THAN 2H:1V WILL NOT BE PERMITTED WITH VEGETATIVE STABILIZATION.
14. THE PERMITTEE SHALL INSTALL A SPLASHBLOCK AT THE BOTTOM OF EACH DOWNSPOUT UNLESS THE DOWNSPOUT IS CONNECTED BY A DRAIN LINE TO AN ACCEPTABLE OUTLET.
15. FOR FINISHED GRADING, THE PERMITTEE SHALL PROVIDE ADEQUATE GRADIENTS SO AS TO PREVENT WATER FROM STANDING ON THE SURFACE OF LAWNS MORE THAN TWENTY-FOUR (24) HOURS AFTER THE END OF A RAINFALL, EXCEPT IN DESIGNATED DRAINAGE COURSES AND SWALE FLOW AREAS, WHICH MAY DRAIN AS LONG AS FORTY-EIGHT (48) HOURS AFTER THE END OF A RAINFALL.
16. SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN 20 FEET OF A BUILDING WHICH IS EXISTING OR UNDER CONSTRUCTION. NO BUILDING MAY BE CONSTRUCTED WITHIN 20 FEET OF A SEDIMENT TRAP OR BASIN.
17. ALL INLETS IN NON-SUMP AREAS SHALL HAVE ASPHALT BERMS INSTALLED AT THE TIME OF BASE PAVING ESTABLISHMENT.
18. THE SEDIMENT CONTROL INSPECTOR HAS THE OPTION OF REQUIRING ADDITIONAL SEDIMENT CONTROL MEASURES, AS DEEMED NECESSARY.
19. ALL TRAP ELEVATIONS ARE RELATIVE TO THE OUTLET ELEVATION, WHICH MUST BE ON EXISTING UNDISTURBED GROUND.
20. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
21. SEDIMENT TRAP(S)/BASIN(S) SHALL BE CLEANED OUT AND RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO THE POINT OF ONE-HALF (1/2) THE WET STORAGE DEPTH OF THE TRAP/BASIN (1/4 THE WET STORAGE DEPTH FOR ST-III) OR WHEN REQUIRED BY THE SEDIMENT CONTROL INSPECTOR.
22. SEDIMENT REMOVED FROM TRAPS/BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN.
23. ALL SEDIMENT BASINS AND TRAPS MUST BE SURROUNDED WITH A WELDED WIRE SAFETY FENCE. THE FENCE MUST BE AT LEAST 42 INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN 8 FEET, HAVE MESH OPENINGS NO GREATER THE TWO INCHES IN WIDTH AND FOUR INCHES IN HEIGHT, WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.
24. NO EXCAVATION IN THE AREAS OF EXISTING UTILITIES IS PERMITTED UNLESS THEIR LOCATION HAS BEEN DETERMINED. CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK.
25. OFF-SITE SPOIL OR BORROW AREAS MUST HAVE PRIOR APPROVAL BY DPS.
26. SEDIMENT TRAP/BASIN DEWATERING FOR CLEANOUT OR REPAIR MAY ONLY BE DONE WITH THE DPS INSPECTOR'S PERMISSION. THE INSPECTOR MUST APPROVE THE DEWATERING METHOD FOR EACH APPLICATION. THE FOLLOWING METHODS MAY BE CONSIDERED:
  - A. PUMP DISCHARGE MAY BE DIRECTED TO ANOTHER ON-SITE SEDIMENT TRAP OR BASIN, PROVIDED IT IS OF SUFFICIENT VOLUME AND THE PUMP INTAKE IS FLOATED TO PREVENT AGITATION OR SUCTION OF DEPOSITED SEDIMENTS; OR
  - B. THE PUMP INTAKE MAY UTILIZE A REMOVABLE PUMPING STATION AND MUST DISCHARGE INTO AN UNDISTURBED AREA THROUGH A NON-EROSIVE OUTLET; OR
  - C. THE PUMP INTAKE MAY BE FLOATED AND DISCHARGE INTO A DIRT BAG (12 OZ. NON-WOVEN FABRIC), OR APPROVED EQUIVALENT, LOCATED IN AN UNDISTURBED BUFFER AREA.
27. THE PERMITTEE MUST NOTIFY THE DEPARTMENT OF ALL UTILITY CONSTRUCTION ACTIVITIES WITHIN THE PERMITTED LIMITS OF DISTURBANCE PRIOR TO THE COMMENCEMENT OF THOSE ACTIVITIES.
28. TOPSOIL MUST BE APPLIED TO ALL PERVIOUS AREAS WITHIN THE LIMITS OF DISTURBANCE PRIOR TO PERMANENT STABILIZATION IN ACCORDANCE WITH MDE "STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS".

**REMEMBER:** DEWATERING OPERATION AND METHOD MUST HAVE PRIOR APPROVAL BY THE DPS INSPECTOR.

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	DRAWN BY: SMB	BY	
	CHECKED BY: LJO / GAT		
	PROJECT MANAGER: M.J.G		
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.			
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>EROSION AND SEDIMENT CONTROL NOTES</b>			
 EA Engineering, Science, and Technology, Inc., PBC Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000			
DATE: JULY 2020			
PROJECT NUMBER: 1564601			
<b>G-003</b>			
SHEET: 3 OF 144			

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**GENERAL NOTES**

1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109.
3. FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-003.
4. FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
5. DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS, SEE DRAWING C-501.
6. FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
7. FOR DEMOLITION DETAILS, SEE DRAWING C-504.
8. FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
9. FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
10. FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
11. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
12. FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
13. FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.

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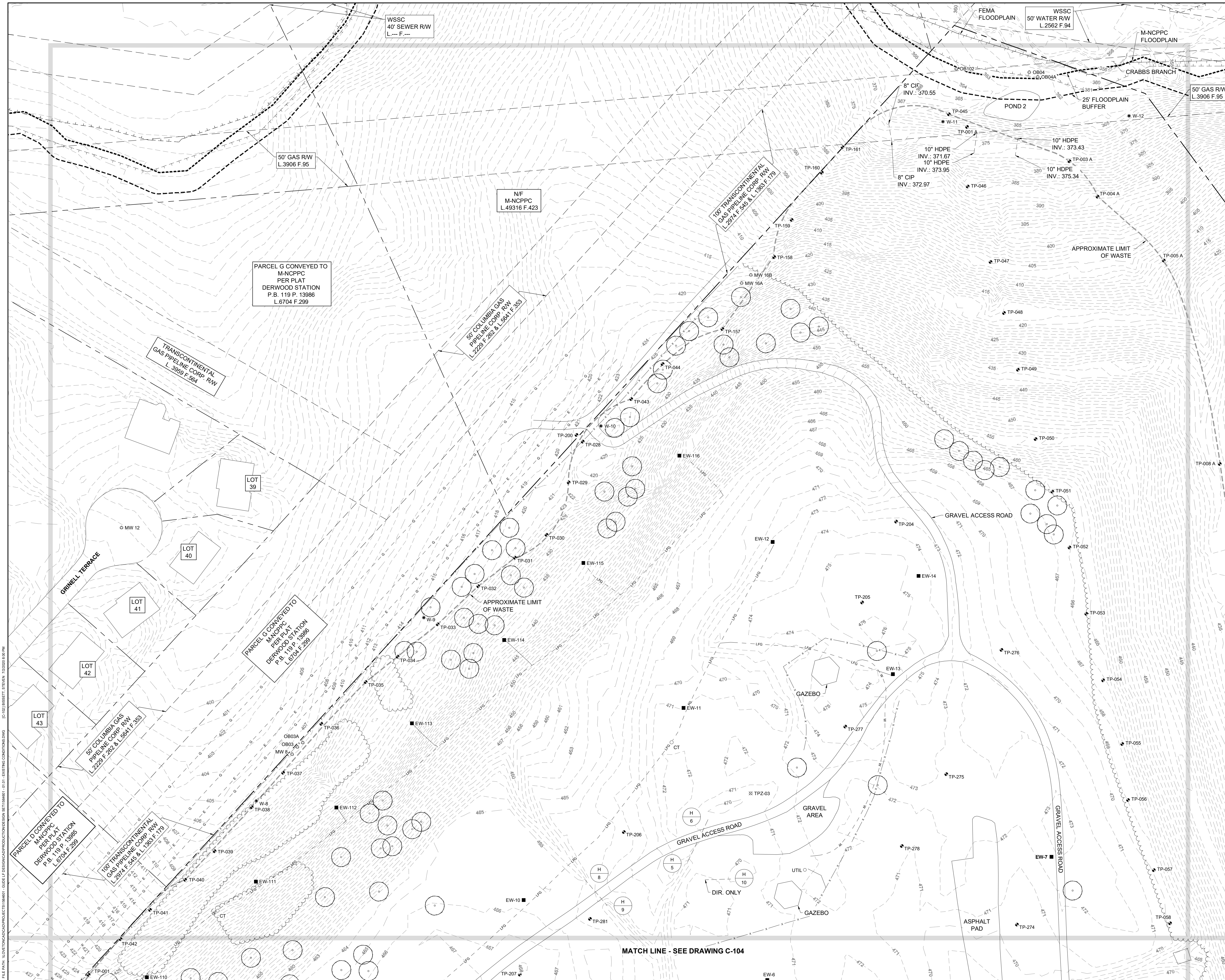
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**EXISTING CONDITIONS PLAN - KEY SHEET**

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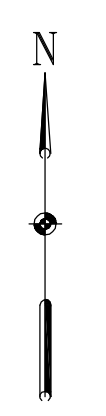
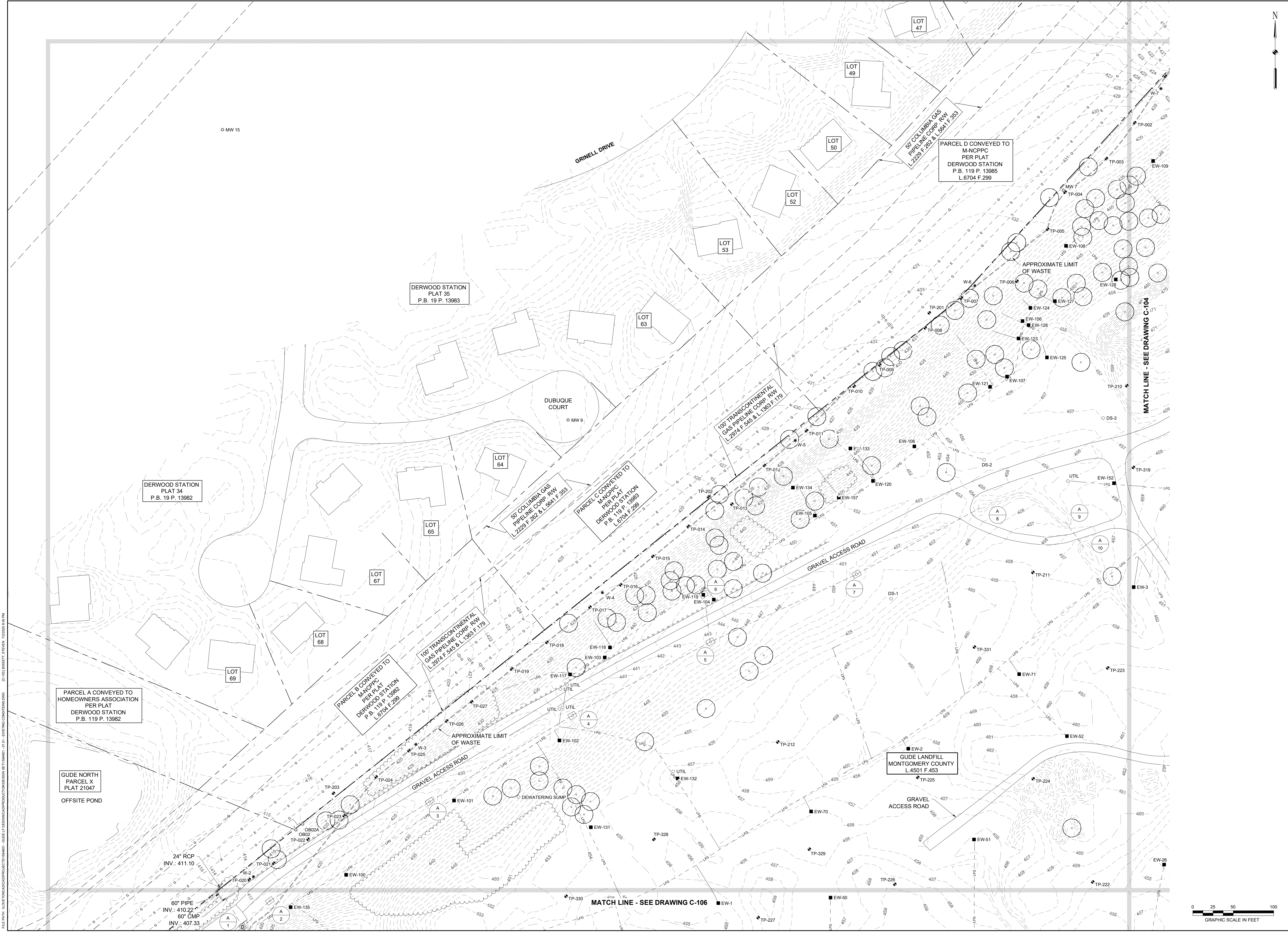
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MATCH LINE - SEE DRAWING C-104

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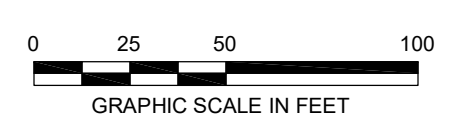
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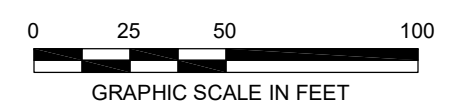
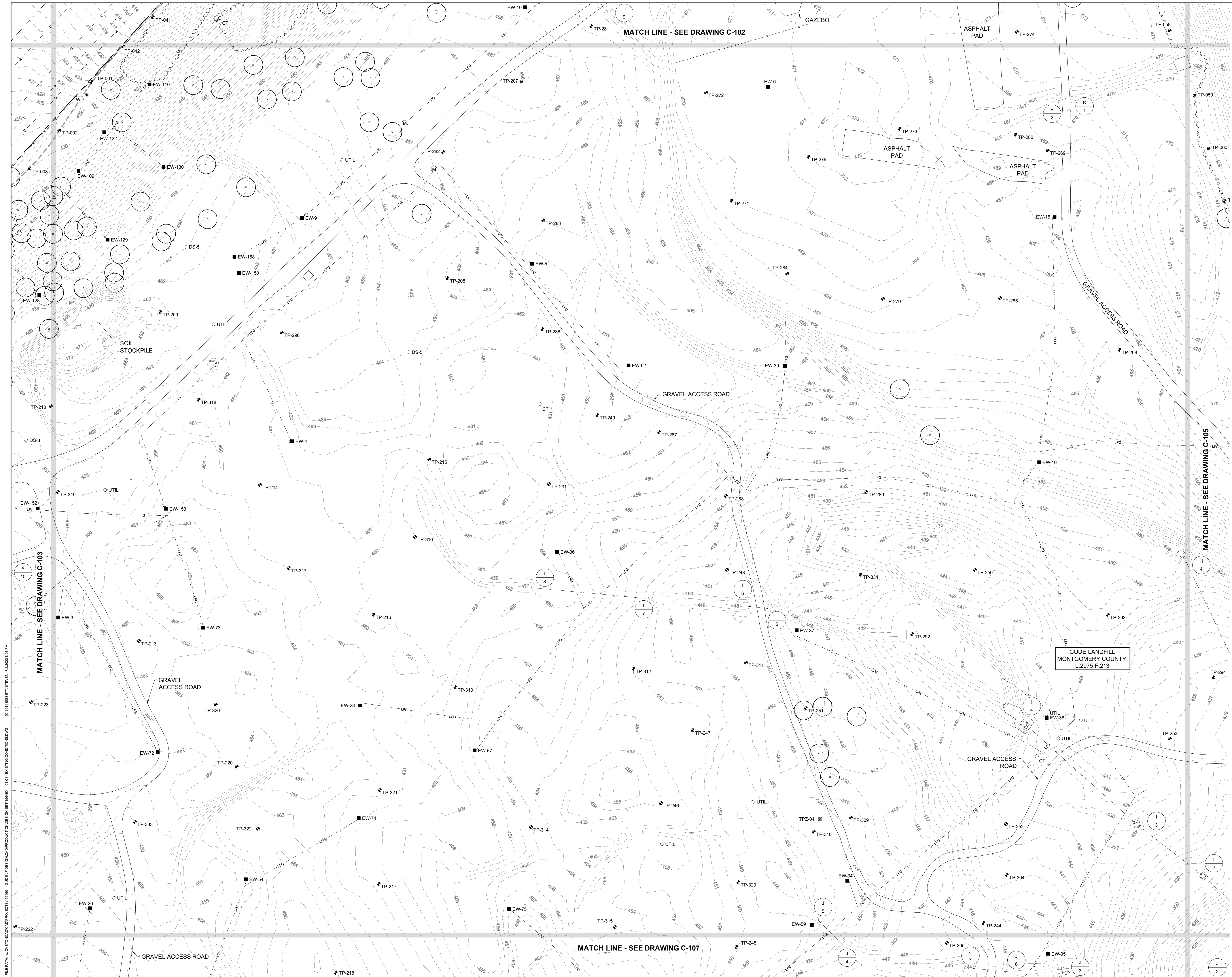
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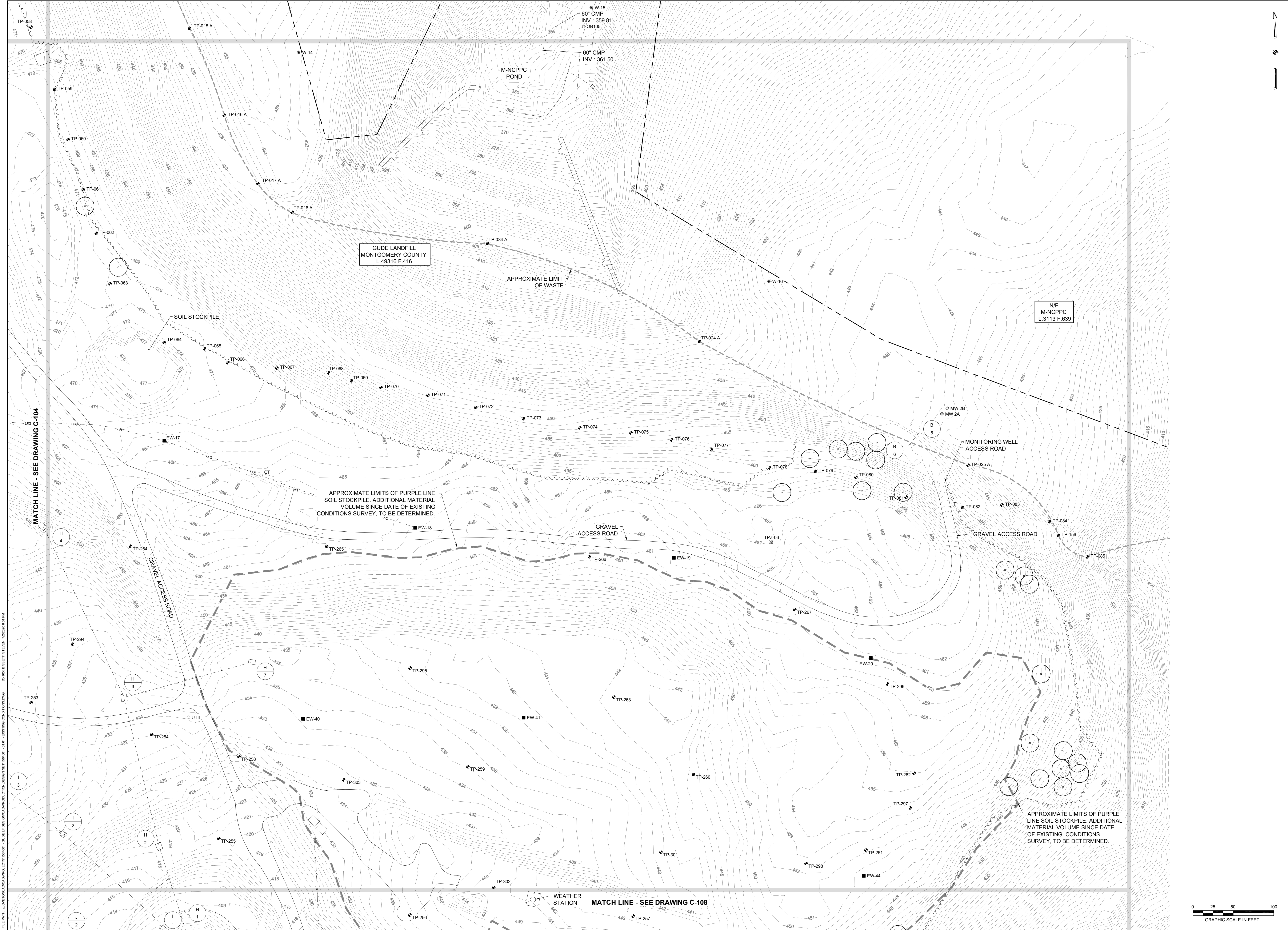
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<p><b>EXISTING CONDITIONS PLAN</b></p>					
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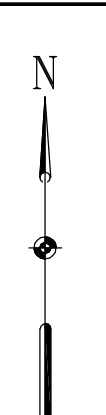
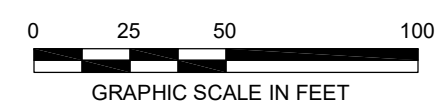
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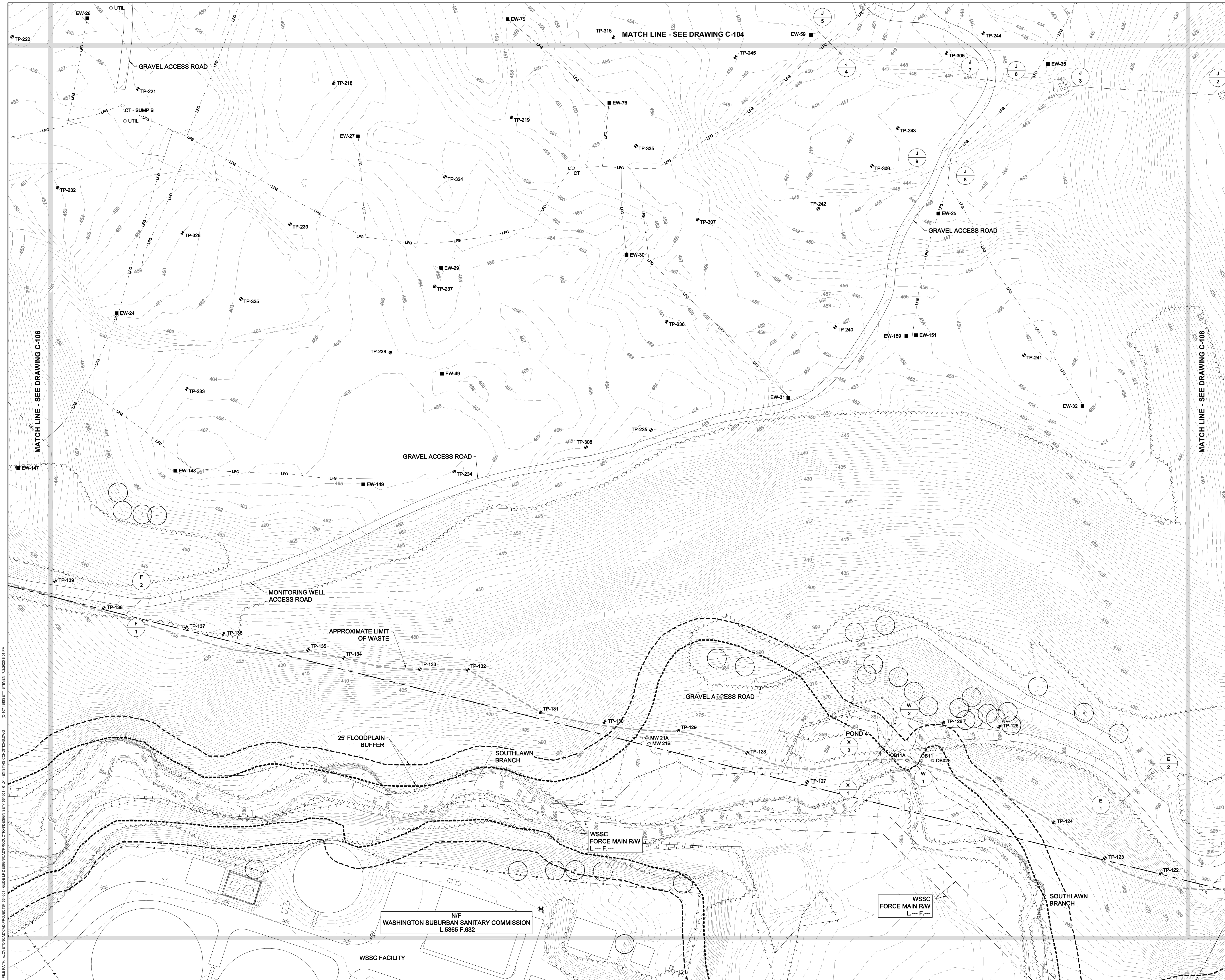




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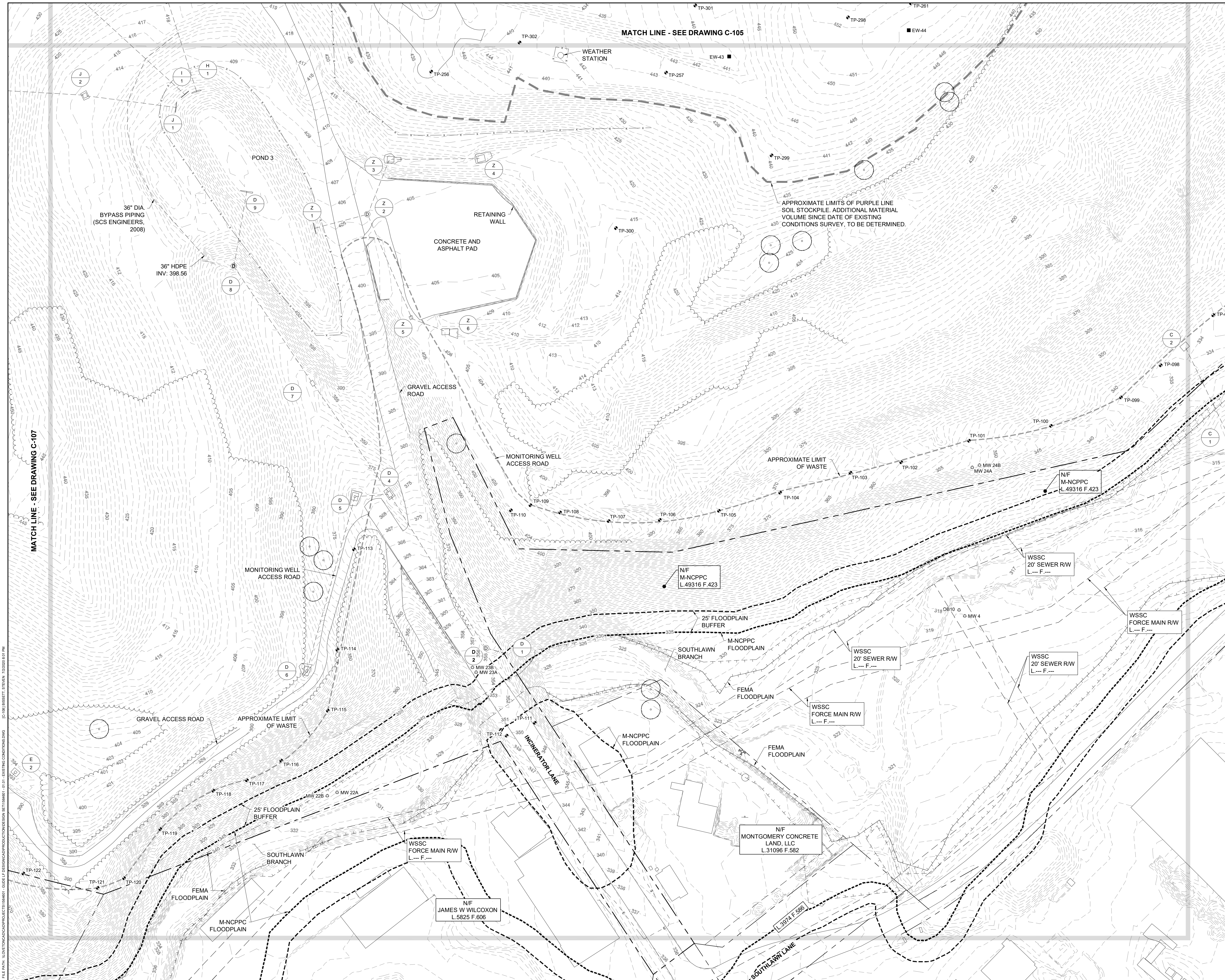
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EXISTING STORMDRAIN STRUCTURE TABLE							
STRUCTURE NAME	RIM ELEVATION	PIPE SIZE AND MATERIAL	INVERT IN	FROM STRUCTURE	INVERT OUT	TO STRUCTURE	ALSO KNOWN AS
A1	415.78	24" STEEL	410.19	A2			A1A (EA)
		60" CMP	407.82	FROM NW	407.78	TO SE	
A2	415.66	18"/24" STEEL	412.17	A3	411.39	A1	A1 (EA)
A3	426.16	18" STEEL	422.12	A4	421.19	A2	A2 (EA)
A4	433.49	21"/18" STEEL	429.64	A5	428.56	A3	A3 (EA)
A5	442.50	18" CPP	438.90	A6			A4 (EA)
		21" CPP/21" STEEL	439.16	A7	438.07	A4	
A6	442.40	18" CPP			437.84	A5	A6 (EA)
A7	451.57	21" CPP	447.82	A8?	447.15	A5	A5 (EA)
A8		21" HDPE			450.84	A7	
A9		15" HDPE		A10	451.76		
A10		15" HDPE	452.10			A9	
B5		12" RCP		B6	443.96		C5 (EA)
B6		12" RCP	445.28			B5	C6 (EA)
C1		18" HDPE		C2	275.52		
C2		18" HDPE	327.54			C1	
D1		42" RCP		D2	348.20		
D2	356.54	42" RCP	349.03	D4	348.50	D1	
D4	369.58	18" HDPE	363.82	D5			
		42" RCP	363.70	D7			
		42" RCP			359.38	D2	
D5	369.47	18" HDPE	364.73	D6	364.35	D4	
D6	390.05	18" HDPE			385.61	D5	
D7	378.62	36" RCP	372.68	D8			
		42" RCP			369.35	D4	
D8	392.12	30" RCP	385.66	D9			
		36" RCP			380.62	D7	
D9		30" RCP	388.52			D8	
E1		18" HDPE		E2	375.79		
E2	391.73	18" HDPE			386.56	E1	
F1		15" CMP		F2	436.41		
F2		15" CMP	437.13			F1	
H1		24" HDPE		H2	399.71		
H2	418.35	24" HDPE	413.50	H3	413.04	H1	
H3	433.49	18" RCP	429.85	H7			
		24" RCP	429.57	H4	429.17	H2	
H4	447.49	24" RCP			443.53	H3	
H5		15" RCP		H6	468.24		H8 (EA)
H6		15" RCP	469.03			H5	H9 (EA)
H7	432.35	18" RCP			432.35	H3	H5 (EA)
H8		12" CMP		H9	464.01		H7 (EA)
H9		12" CMP	464.86			H8	H6 (EA)
H10		15" CMP	469.69			TO SW	
I1		24" HDPE		I2	399.74		
I2	428.85	24" HDPE	422.69	I3	422.33	I1	
I3	436.69	24" HDPE	429.33	I4	429.07	I2	
I4	436.82	24" HDPE			431.04	I3	
I5		24" HDPE		I6	446.04		
I6		24" HDPE	447.31			I5	
I7		24" HDPE		I8	449.53		I9 (EA)
I8		24" HDPE	456.31			I7	I10 (EA)
J1		24" HDPE		J2	399.45		
J2	413.42	24" HDPE	410.10	J3	408.59	J1	
J3	439.38	24" HDPE			433.87	J2	
J4		24" HDPE		J5	446.97		J7 (EA)
J5		24" HDPE	448.26			J4	J8 (EA)
J6		24" HDPE		J7	441.62		J4 (EA)
J7		24" HDPE	443.33			J6	J5 (EA)
J8		24" HDPE		J9	441.74		J9 (EA)
J9		24" HDPE	442.57			J8	J10 (EA)
K1		30" HDPE		K2	400.25		
K2	414.84	18" HDPE	410.39	P1			
		30" HDPE	409.10	K3	408.65	K1	
K3	428.72	30" HDPE	424.51	K4	422.06	K2	
K4	448.31	30" HDPE			444.48	K3	
L1		24" HDPE		L2	449.83		
L2		24" HDPE	452.30			L1	
P1	436.04	18" HDPE	433.30	P2	432.34	K2	
P2	446.63	18" HDPE			443.31	P1	
R1		8" HDPE		R2	466.23		R2 (EA)
R2		8" HDPE	466.74			R1	R1 (EA)
W1		18" CMP		W2	353.74		
W2		18" CMP	363.48			W1	
X1		12" CMP		X2	356.30		SED BASIN B OUTLET (EA)
X2		12" CMP	358.30			X1	SED BASIN B RISER (EA)
Z1		24" HDPE		Z2	397.77		S1 (EA)
Z2	405.23	24" HDPE	398.63	Z3	398.49	Z1	Z4B (EA)
		24" HDPE	398.68	Z5			
Z3	413.19	18" HDPE	409.05	Z4			Z4 (EA)
		24" HDPE			406.20	Z2	
Z4	413.49	18" HDPE			409.23	Z3	Z3 (EA)
Z5	403.98	18" HDPE	400.54	Z6			Z1 (EA)
		24" HDPE			400.08	Z2	
Z6	405.26	18" HDPE			402.73	Z5	Z2 (EA)

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEY / SMB	NO.	DATE
DRAWN BY:	SMB	BY:	DESCRIPTION
CHECKED BY:	LJO / GAT	DATE:	
PROJECT MANAGER:	MJG		
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020			
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>EXISTING CONDITIONS PLAN</b>			
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000		DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-109</b> SHEET: 12 OF 144	

90% DESIGN PLANS - NOT FOR CONSTRUCTION

**BENCH SCHEDULE**

ID	Phase (s)	Maximum Drainage Area (AC.)	Length (Feet)	1' Deep Bench Width (feet)	Q10 (cfs)	V10 (fps)	Flow Depth (feet)	Treatment
Bench 1	S-I / F-I	2.65	718	10	7.16	3.06	0.6	ECM
Bench 2	S-I / S-II / F-I	0.68	873	10	2.14	2.28	0.4	ECM
Bench 3	S-II / S-III / F-1 / F-II	0.77	520	10	2.06	2.59	0.4	ECM
Bench 4	S-IV / F-VI	18.76	418	20	44.35	4.87	0.9	TRM
Bench 5	S-IV / F-III	1.49	365	10	5.61	3.32	0.5	ECM
Bench 6	S-V / F-III	1.15	312	10	4.33	3.15	0.5	ECM

**Temporary Gabion Outlet Structure Schedule**

ID	Phase	Drainage Area (AC.)	Volume Required	Volume Provided	Channel Bottom Elevation	Weir Elevation
TGOS S-I-1	S-I	0.92	1,656	1,781	426	428
TGOS S-I-2	S-I	0.52	936	3,390	427	429
TGOS S-I-3	S-I	1.15	2,070	2,465	465	468
TGOS S-I-4	S-I	0.69	1,242	6,912	453	455
TGOS S-I-5	S-I	0.77	1,386	4,935	432	434
TGOS S-I-6	S-I	1.49	2,682	7,785	465	467
TGOS S-I-7	S-I	1.42	2,556	2,560	467	469
TGOS S-I-8	S-I	1.34	2,412	2,798	468	470
TGOS S-II-1	S-II	0.58	1,044	3,206	438	440
TGOS S-II-2	S-II	1.31	2,358	4,753	459	461
TGOS S-II-3	S-II	0.91	1,638	2,414	452	454
TGOS S-II-4	S-II	0.54	972	5,400	434	436
TGOS S-II-5	S-II	1.07	1,926	2,664	466.5	467.5
TGOS S-II-6	S-II	2.25	4,050	4,500	459.5	462
TGOS S-III-1	S-III	0.44	792	4,538	451	454
TGOS S-III-2	S-III	1.46	2,628	3,371	451	454
TGOS S-III-3	S-III	1.5	2,700	2,850	463.5	464.8
TGOS S-IV-1	S-IV	1.49	2,682	2,888	450	452
TGOS S-I-15	S-VII	1.15	2,070	3,019	451	452.5

**Temporary Stone Outlet Structure Schedule**

ID	Phase	Drainage Area (AC.)	Volume Required	Volume Provided	Channel Bottom Elevation	Weir Elevation
TSOS S-I-1	S-I	0.19	342	1,013	450	451
TSOS S-II-1	S-II	0.46	828	1,018	463	464.5
TSOS S-V-1	S-V	0.33	594	1,525	450	451

**PIPE SLOPE DRAIN SCHEDULE**

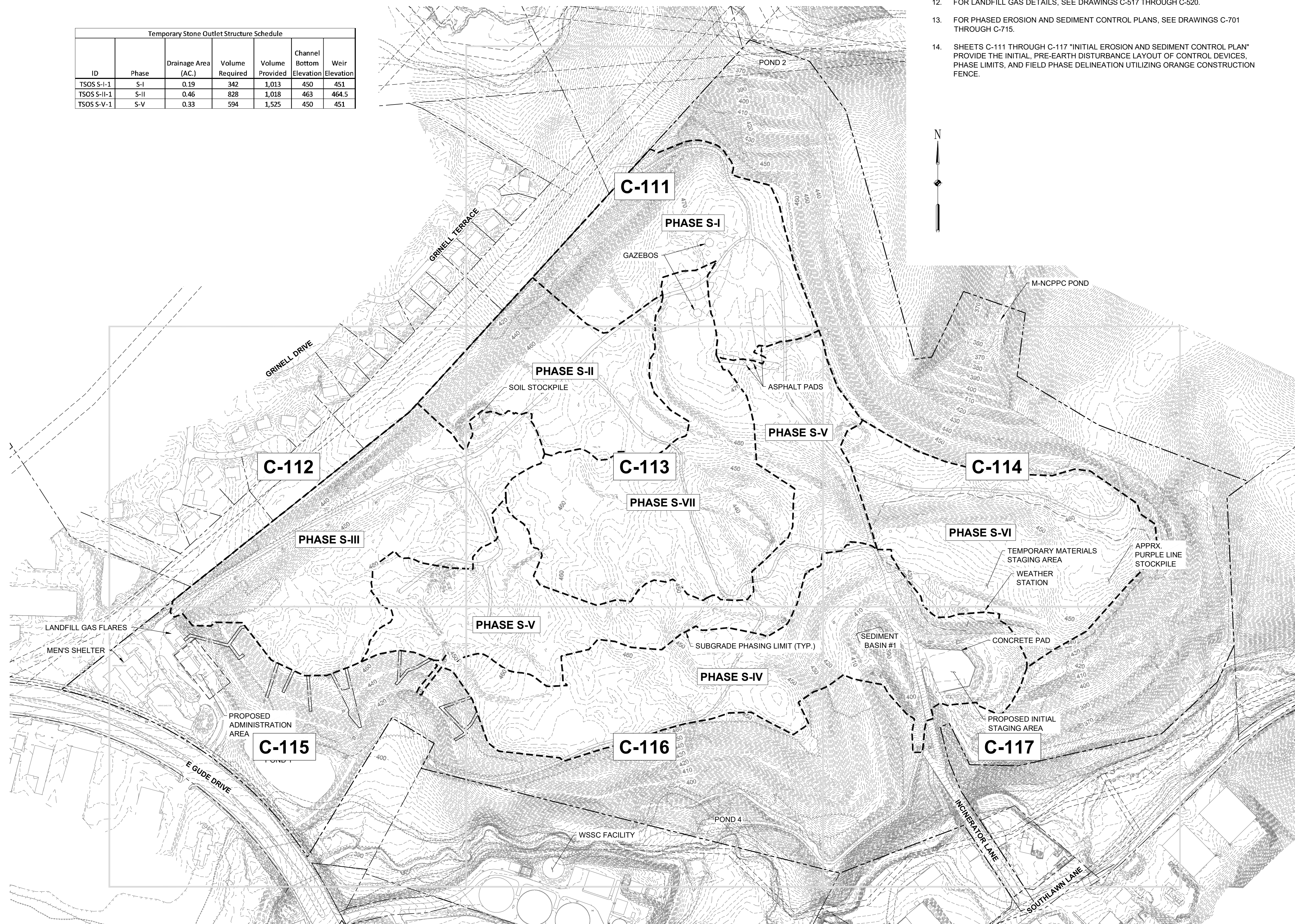
ID	Phase	Drainage Area (AC.)	Pipe Size (inch)
PSD S-I-1	S-I	1.15	18
PSD S-I-2	S-I	0.68	18
PSD S-I-3	S-I	0.77	18
PSD S-I-4	S-II	1.49	18
PSD S-II-1	S-II	0.58	18
PSD S-II-2	S-II	1.31	18
PSD S-II-3	S-II	0.92	18
PSD S-III-1	S-III	0.44	12
PSD S-III-2	S-III	1.46	18

**EARTH DIKE SCHEDULE**

ID	Phase	Drainage Area (AC.)	Maximum Slope	Clear / Dirty Water	Class
ED S-I-1	S-I	0.57	2.0%	Dirty	A-1
ED S-I-2	S-I	0.57	2.0%	Dirty	A-1
ED S-I-3	S-I	1.49	1.0%	Dirty	A-1
ED S-I-4	S-I	1.49	3.3%	Dirty	A-2
ED S-II-1	S-II	1.31	5.0%	Dirty	A-2
ED S-II-2	S-II	0.92	8.3%	Dirty	A-2
ED S-II-3	S-II	0.86	1.8%	Dirty	A-1
ED S-II-4	S-II	0.36	2.2%	Dirty	A-2
ED S-II-5	S-II	0.23	3.8%	Dirty	A-2
ED S-II-6	S-II	0.1	1.0%	Dirty	A-1
ED S-II-7	S-II	0.24	8.3%	Dirty	A-2
ED S-II-8	S-II	0.25	3.3%	Dirty	A-2
ED S-III-1	S-III	0.23	8.3%	Dirty	A-2
ED S-III-2	S-III	0.23	3.3%	Dirty	A-2
ED S-III-3	S-III	0.55	5.6%	Dirty	A-2
ED S-III-4	S-III	0.1	4.3%	Dirty	A-2
ED S-III-5	S-III	0.26	2.1%	Dirty	A-1
ED S-III-6	S-III	0.26	2.1%	Dirty	A-1
ED S-IV-1	S-IV	4.02	4.9%	Clear/Dirty	A-2
ED S-IV-2	S-IV	1.95	9.1%	Clear	A-2
ED S-IV-3	S-IV	0.34	3.3%	Clear	A-2
ED S-IV-4	S-IV	0.17	1.0%	Clear	A-2
ED S-IV-5	S-IV	1.16	7.7%	Clear	A-2
ED S-IV-6	S-IV	0.62	15.4%	Clear	A-3
ED S-IV-7	S-IV	0.82	10.0%	Clear	A-2
ED S-V-1	S-V	1.16	8.3%	Clear	A-2
ED S-V-2	S-V	0.36	4.6%	Clear	A-2
ED S-V-3	S-V	0.12	5.0%	Dirty	A-2
ED S-V-4	S-V	0.61	8.3%	Clear	A-2
ED S-V-5	S-V	0.05	1.0%	Clear	A-2
ED S-V-6	S-V	0.25	9.5%	Clear	A-2
ED S-V-7	S-V	0.05	10.0%	Clear	A-2
ED S-VI-1	S-VI	1.46	8.7%	Dirty	A-2
ED S-VII-1	S-VII	0.72	5.9%	Clear	A-2
ED S-VII-2	S-VII	0.43	2.0%	Clear	A-2
ED S-VII-3	S-VII	0.16	1.0%	Clear	A-2
ED S-VII-4	S-VII	0.29	3.7%	Clear	A-2
ED S-VII-5	S-VII	0.17	1.0%	Clear	A-2
ED S-VII-6	S-VII	0.29	7.6%	Clear	A-2
ED S-VII-7	S-VII	0.74	2.7%	Clear	A-2
ED S-VII-8	S-VII	0.85	2.9%	Clear	A-2
ED S-VII-9	S-VII	0.82	3.8%	Dirty	A-2
ED S-VII-10	S-VII	0.32	2.8%	Dirty	A-2
ED S-VII-11	S-VII	1.48	4.0%	Dirty	A-2

**GENERAL NOTES**

- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109.
- FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
- DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS, SEE DRAWING C-501.
- FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
- FOR DEMOLITION DETAILS, SEE DRAWING C-504.
- FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
- FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
- FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
- FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
- FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.
- SHEETS C-111 THROUGH C-117 "INITIAL EROSION AND SEDIMENT CONTROL PLAN" PROVIDE THE INITIAL, PRE-EARTH DISTURBANCE LAYOUT OF CONTROL DEVICES, PHASE LIMITS, AND FIELD PHASE DELINEATION UTILIZING ORANGE CONSTRUCTION FENCE.



REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION		SEAL	
DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB
CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJM

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

GUIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND

INITIAL EROSION AND SEDIMENT CONTROL PLAN - KEY SHEET

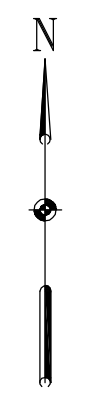
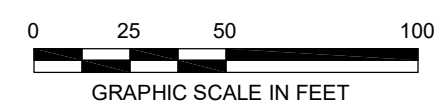
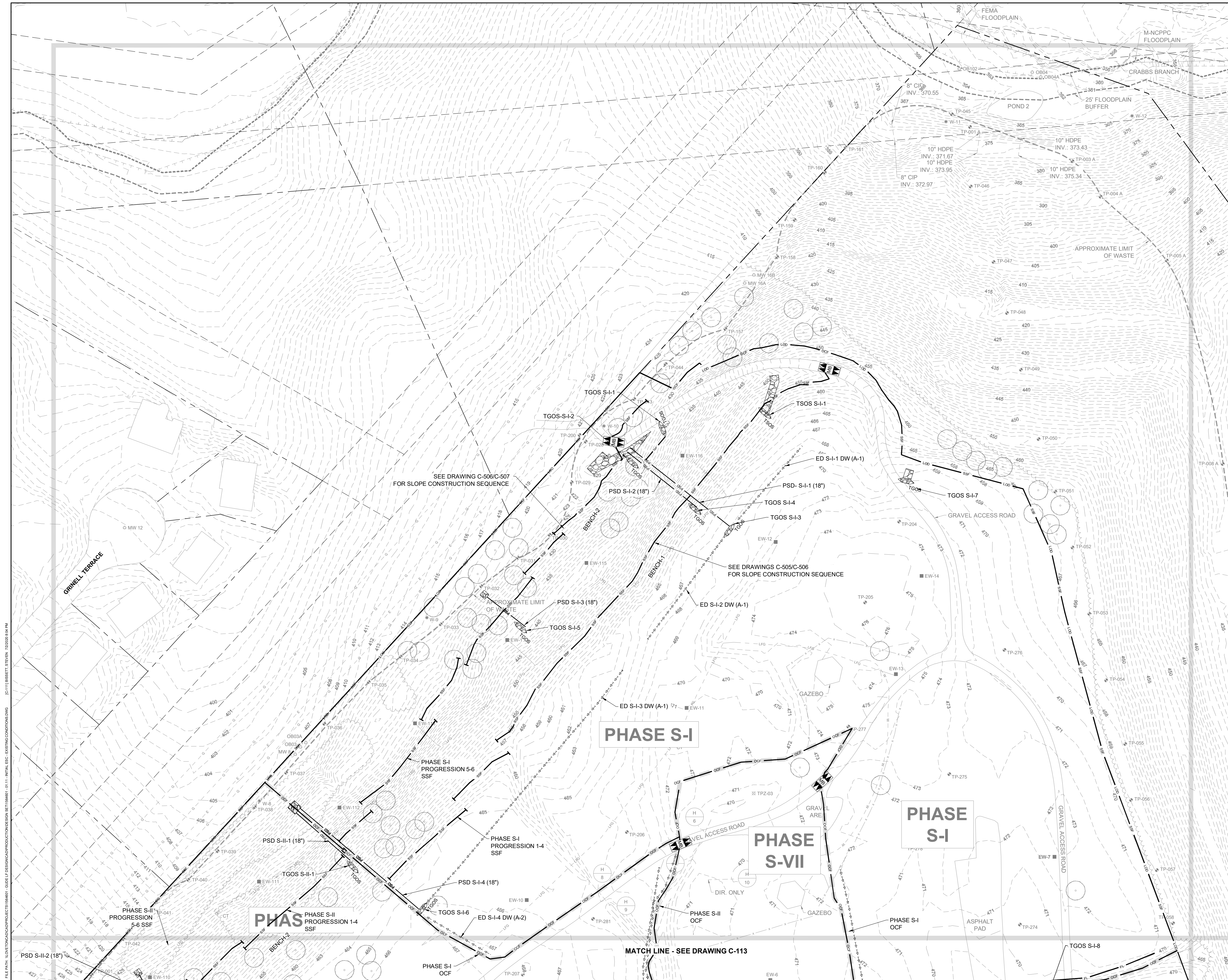
**EA**  
 EA Engineering, Science, and Technology, Inc., PBC  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601

**C-110**  
 SHEET: 13 OF 144

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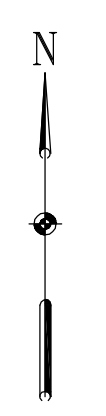
90% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 4 OF 48



SEAL	DESIGN INFORMATION		REVISIONS	DESCRIPTION
	DESIGNED BY:	DATE:		
SEAL	KEY / SMB	BY:	NO.	DATE
	DRAWN BY:			
SEAL	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.				
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND				
<b>INITIAL EROSION AND SEDIMENT CONTROL PLAN</b>				
<b>EA</b> <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000				
DATE: JULY 2020				
PROJECT NUMBER: 1564601				
<b>C-111</b> SHEET: 14 OF 144				

90% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 5 OF 48

FILE PATH: I:\07\10\20\20\PROJECTS\156461 - GSE E.P. DESIGN\CONSTRUCTION\DESIGN\156461 - 01 15 - INITIAL E.P. DRAWING\CONSTRUCTION.DWG 15:13:15 BISHETT, STEVEN 7/20/20 10:44 PM



REVISIONS		DESCRIPTION
NO.	DATE	BY

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DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

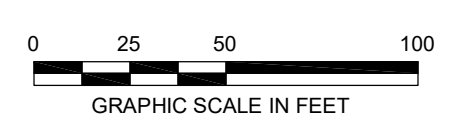
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

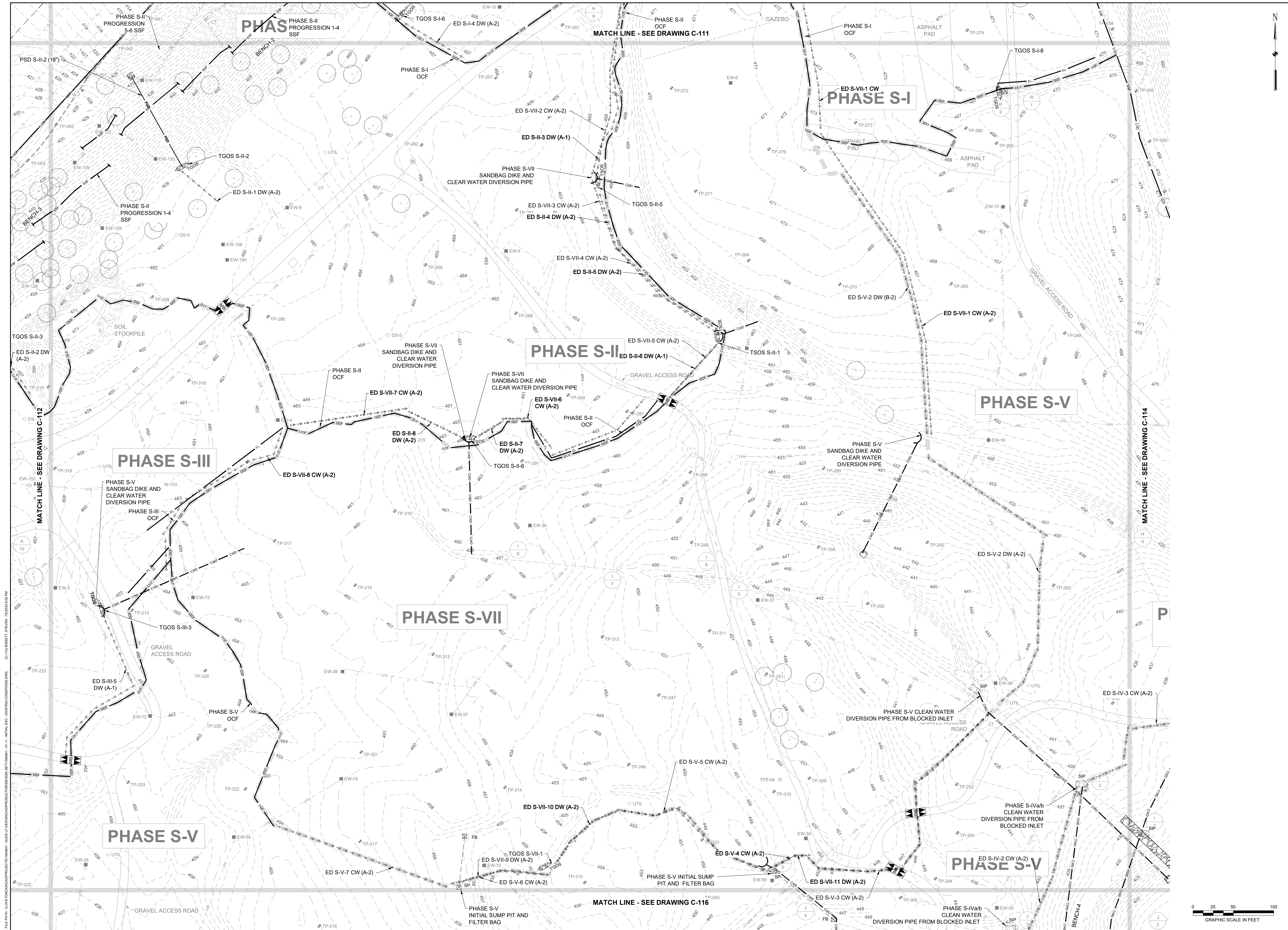
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

**INITIAL EROSION AND SEDIMENT CONTROL PLAN**

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

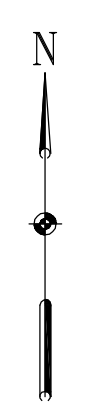
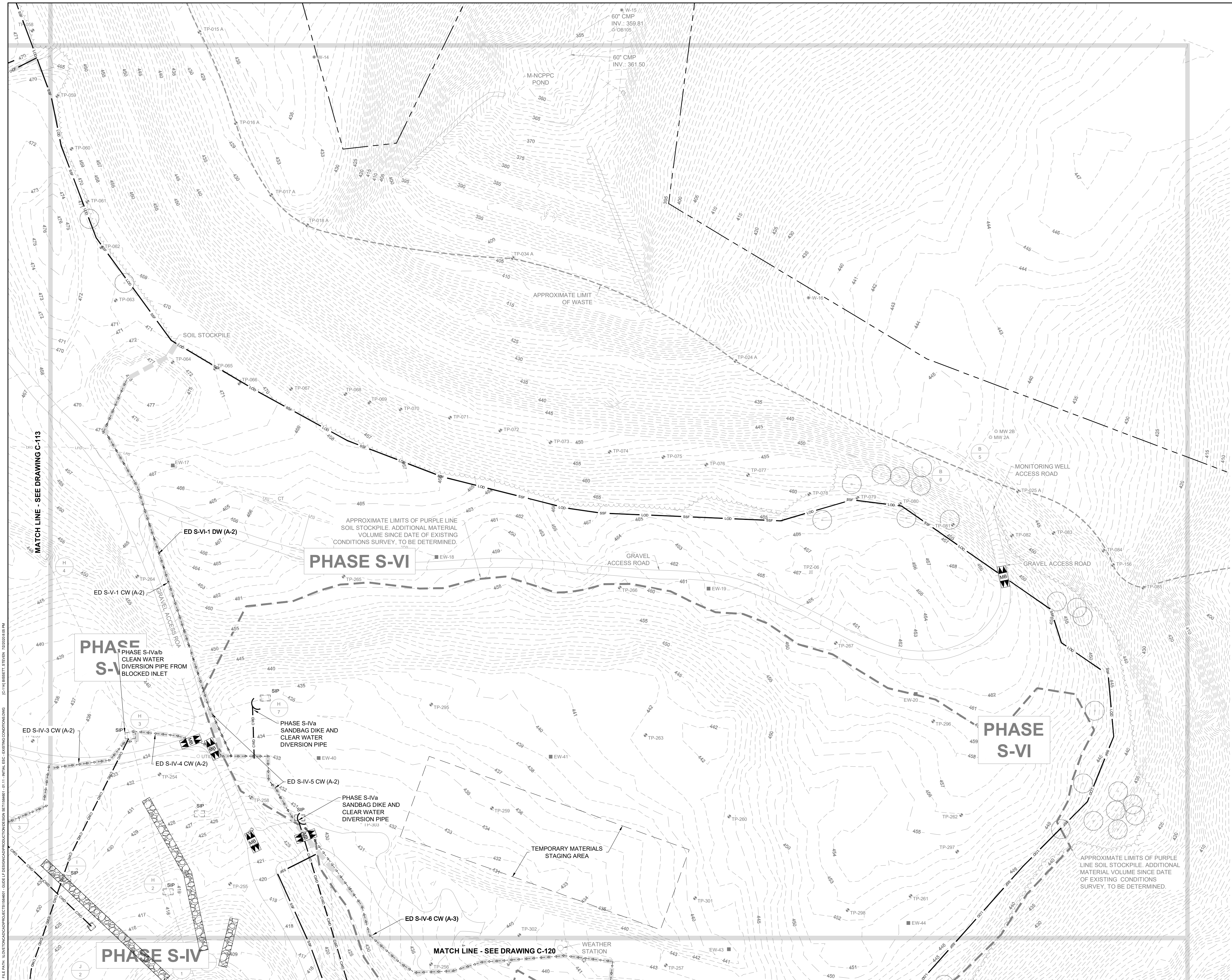
DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-112**  
 SHEET: 15 OF 144





REVISIONS	DESCRIPTION
	NO. DATE BY
DESIGN INFORMATION	DESIGNED BY: KEF / SMB
	DRAWN BY: SMB
SEAL	CHECKED BY: LJO / GAT
	PROJECT MANAGER: MAG
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.	
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>INITIAL EROSION AND SEDIMENT CONTROL PLAN</b>	
DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-113</b> SHEET: 16 OF 144	





REVISIONS		DESCRIPTION
NO.	DATE	BY
DESIGN INFORMATION		
DESIGNED BY:	KEF / SMB	
DRAWN BY:	SMB	
CHECKED BY:	LJO / GAT	
PROJECT MANAGER:	MJG	

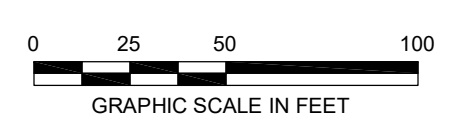
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

SEAL

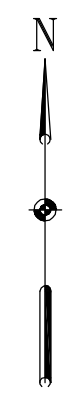
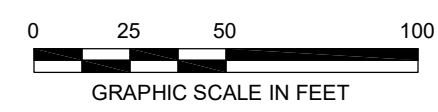
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**INITIAL EROSION AND SEDIMENT CONTROL PLAN**

**EA**  
**Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-114**  
 SHEET: 17 OF 144



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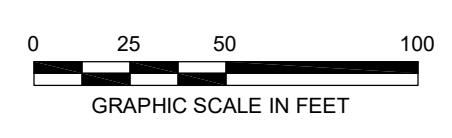
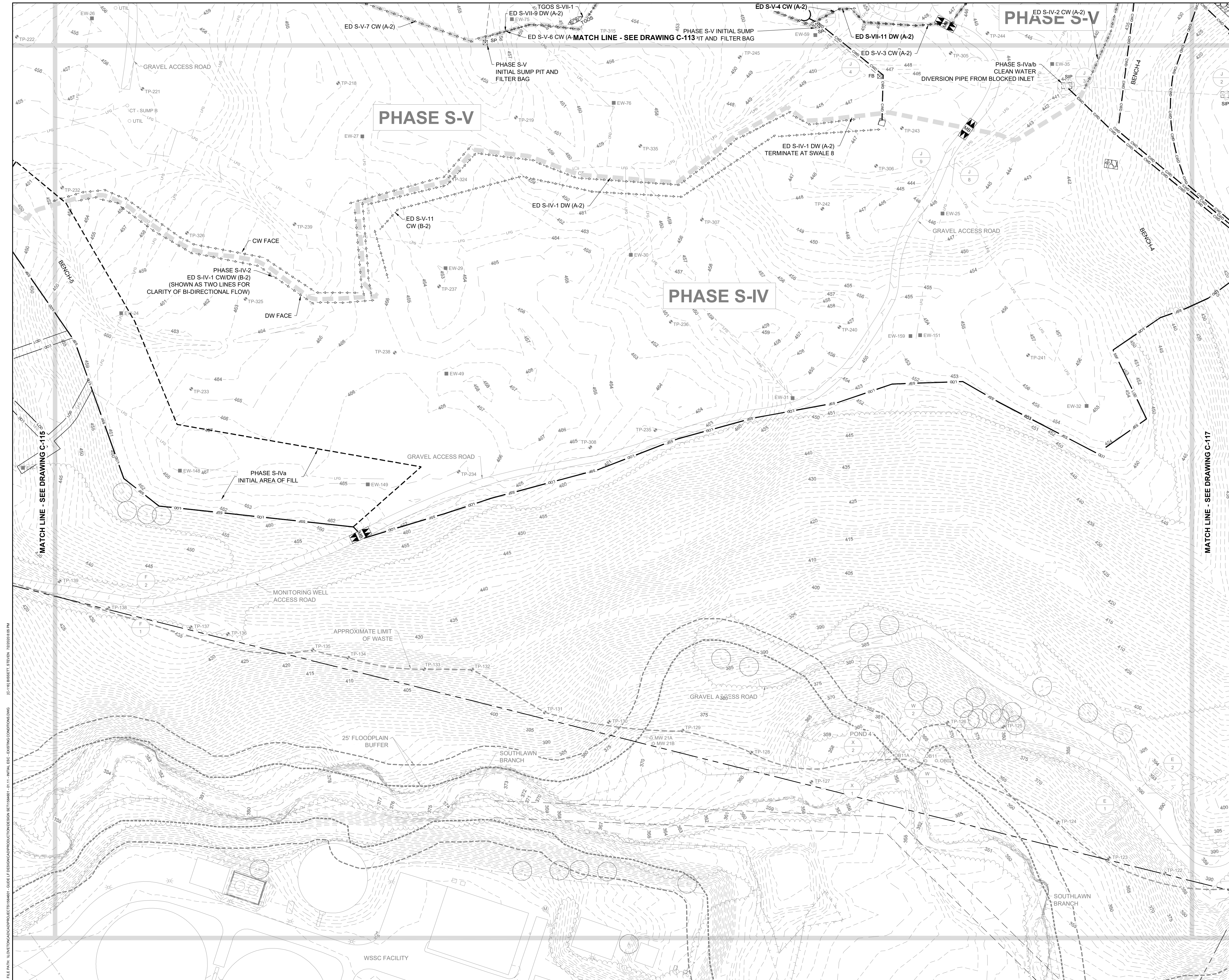
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

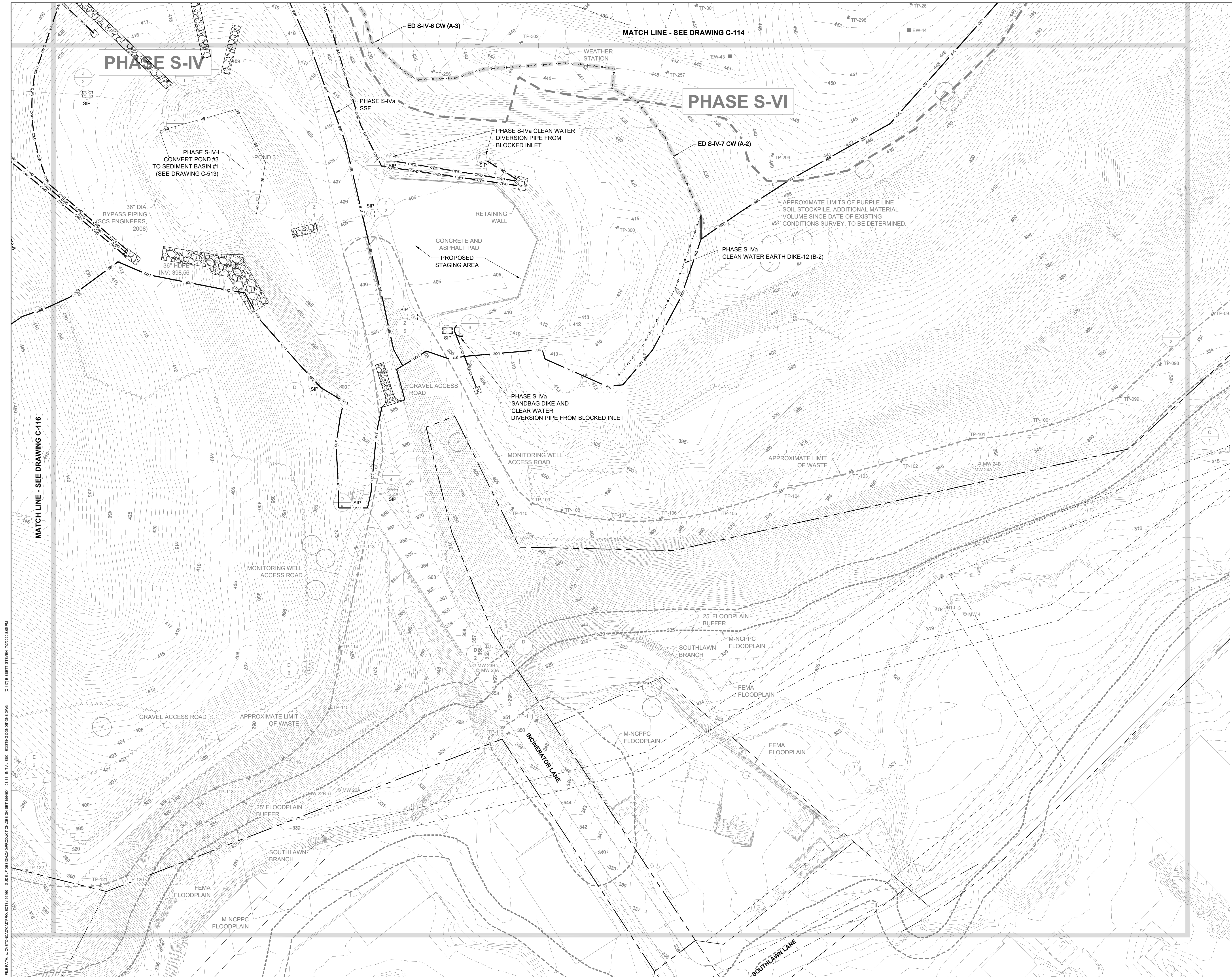
**INITIAL EROSION AND SEDIMENT CONTROL PLAN**

DATE: JULY 2020  
 PROJECT NUMBER: 1564601

**C-115**  
 SHEET: 18 OF 144



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	DRAWN BY: SMB				
	CHECKED BY: LJO/GAT				
	PROJECT MANAGER: MJG				
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020					
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>INITIAL EROSION AND SEDIMENT CONTROL PLAN</b>					
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000					
DATE: JULY 2020					
PROJECT NUMBER: 1564601					
<b>C-116</b>					
SHEET: 19 OF 144					



FILE PATH: \\MONTGOMERY\PROJECTS\156461 - 2015 - INITIAL EROSION AND SEDIMENT CONTROL PLAN - 20200818.05.PLA

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

**INITIAL EROSION AND SEDIMENT CONTROL PLAN**

90% DESIGN PLANS - NOT FOR CONSTRUCTION

**EA Engineering, Science, and Technology, Inc., PBC**

Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-117**  
 SHEET: 20 OF 144

NO.	DATE	BY	REVISIONS	DESCRIPTION

DESIGNED BY:	KEF / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG
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PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.

SEAL

FILE PATH: \\BORTON\GIS\PROJECTS\156461 - G02 - DEMOLITION AND EXCAVATION - KEY SHEET.DWG 12/14/2020 8:07 PM



**DEMOLITION AND EXCAVATION NOTES**

UNLESS OTHERWISE NOTED IN THE KEYNOTES BELOW, ITEMS WITHIN THE LOD SHOWN HEREON ARE INTENDED TO BE REMOVED OR DEMOLISHED. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO: ACCESS ROADS, BUILDINGS, PAVEMENT, CONCRETE, UTILITIES, TREES, AND FENCING. PERIMETER FENCING ALONG THE NORTHWEST PROPERTY LINES WILL NOT BE REMOVED AND REPLACED UNTIL THE FINAL PHASE OF CONSTRUCTION.

STORM DRAIN STRUCTURES AND PIPING WITHIN THE LIMIT OF WASTE EXCAVATION SHALL BE REMOVED OR DEMOLISHED. STORM DRAIN STRUCTURES AND PIPING WITHIN THE LOD BUT OUTSIDE OF THE LIMIT OF WASTE EXCAVATION SHALL BE ABANDONED IN PLACE WITH FLOWABLE FILL.

LETTERED WASTE EXCAVATION AREAS DENOTE THE APPROXIMATE LIMITS OF WASTE TO BE EXCAVATED. FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505, C-506, AND C-507.

① ITEM TO REMAIN

**GENERAL NOTES**

- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109.
- FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
- DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS, SEE DRAWING C-501.
- FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
- FOR DEMOLITION DETAILS, SEE DRAWING C-504.
- FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
- FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
- FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
- FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
- FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.
- SHEETS C-111 THROUGH C-117 "INITIAL EROSION AND SEDIMENT CONTROL PLAN" PROVIDE THE INITIAL, PRE-EARTH DISTURBANCE LAYOUT OF CONTROL DEVICES, PHASE LIMITS, AND FIELD PHASE DELINEATION UTILIZING ORANGE CONSTRUCTION FENCE.



REVISIONS		DESCRIPTION
NO.	DATE	BY

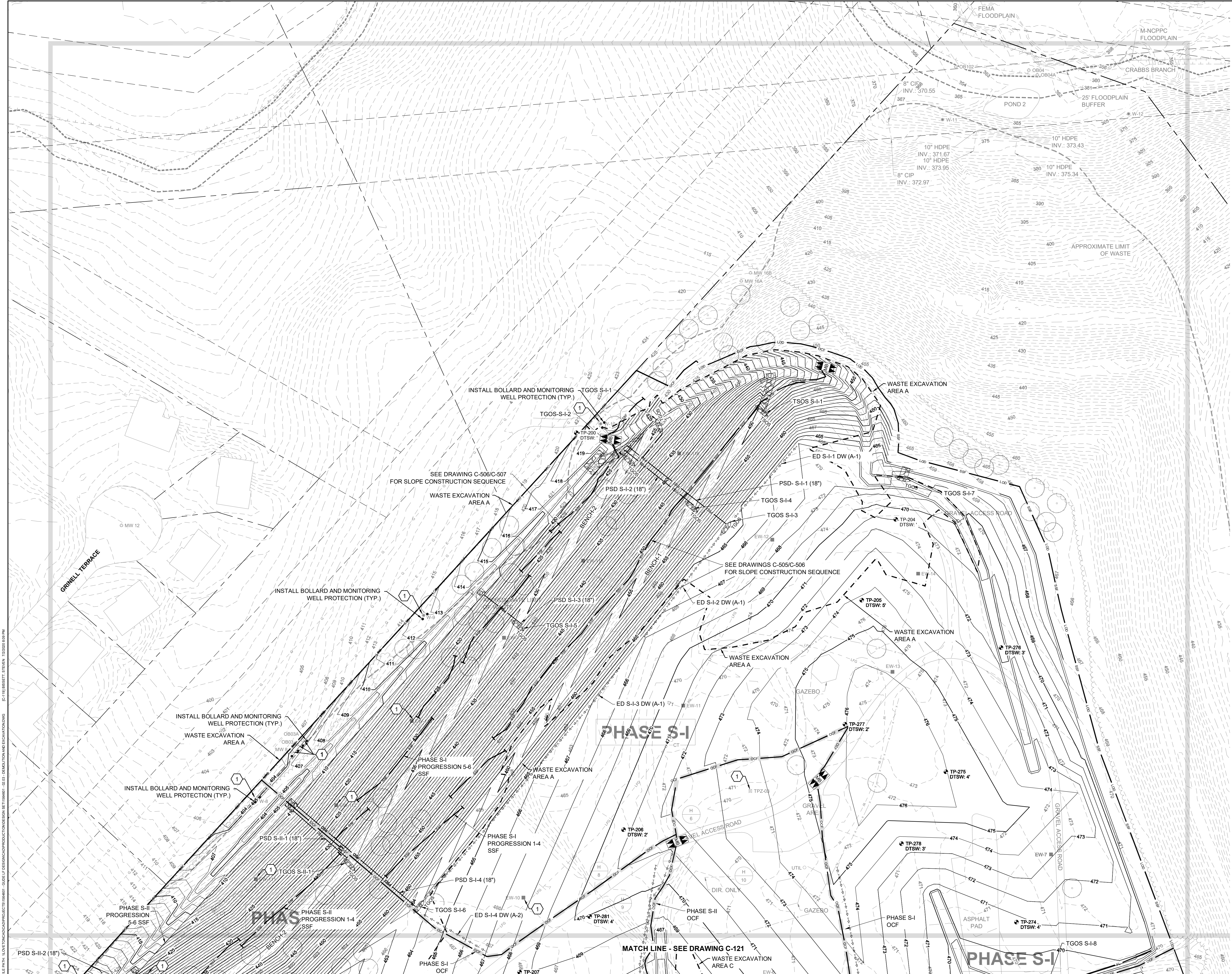
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DESIGNED BY:	KEF / SMB	PROJECT MANAGER:	MJG		
DRAWN BY:	SMB	CHECKED BY:	LJO / GAT		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

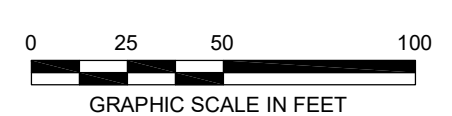
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**DEMOLITION AND REGRADED WASTE PLAN - KEY SHEET**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

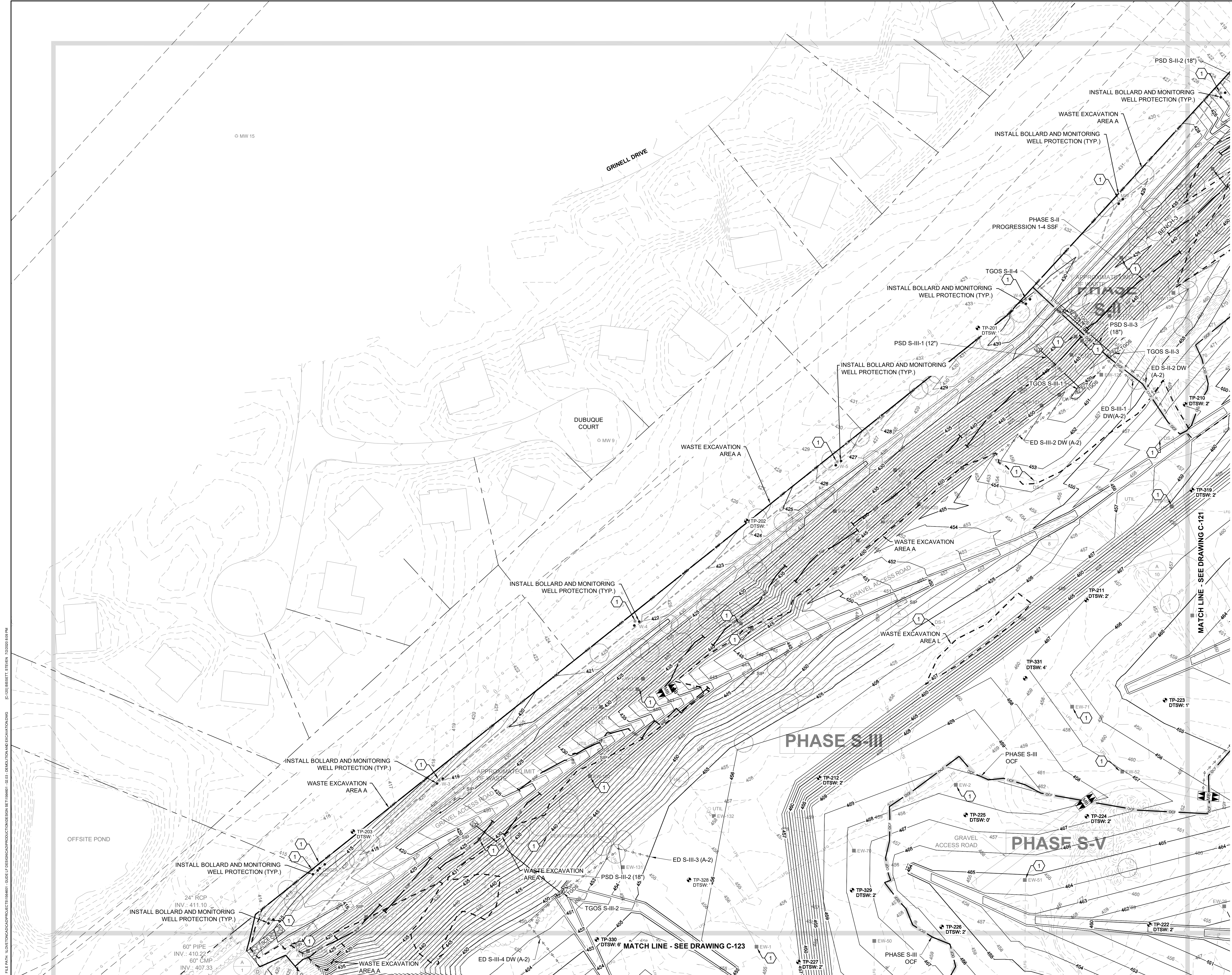
90% DESIGN PLANS - NOT FOR CONSTRUCTION



REVISIONS	NO.	DATE	BY	DESCRIPTION
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	CHECKED BY:	LJO / GAT		
	PROJECT MANAGER:	MJG		
SEAL	PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020			
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND				
<b>DEMOLITION AND REGRADED WASTE PLAN</b>				
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000				
DATE: JULY 2020				
PROJECT NUMBER: 1564601				
<b>C-119</b> SHEET: 22 OF 144				



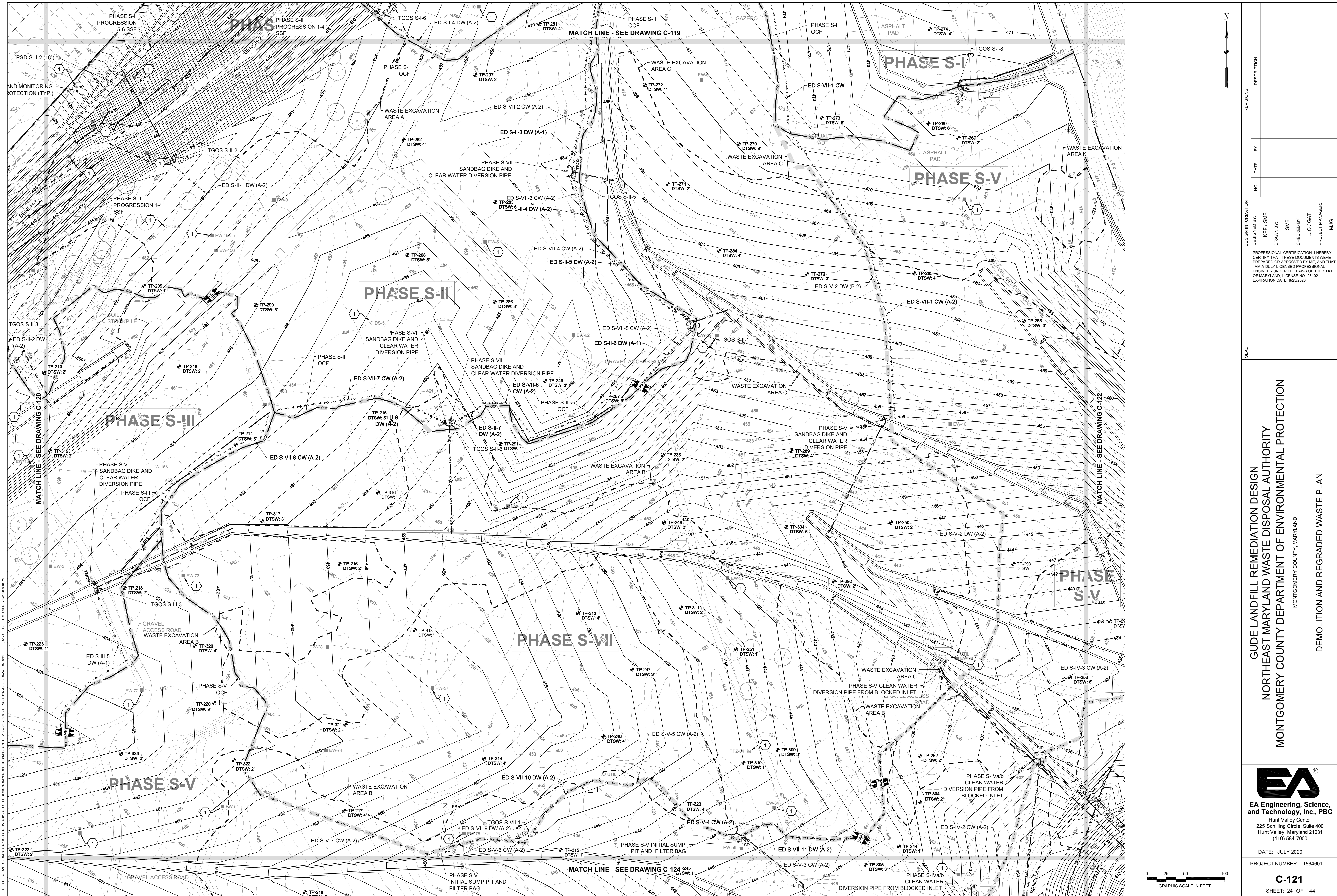
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PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.					
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> <small>MONTGOMERY COUNTY, MARYLAND</small> <b>DEMOLITION AND REGRADED WASTE PLAN</b>					
<b>EA Engineering, Science, and Technology, Inc., PBC</b> <small>Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</small>					
DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-120</b> SHEET: 23 OF 144					

90% DESIGN PLANS - NOT FOR CONSTRUCTION

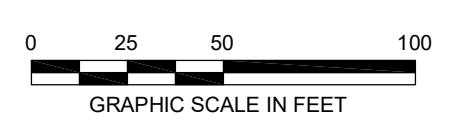


**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**DEMOLITION AND REGRADED WASTE PLAN**

  
**EA Engineering, Science, and Technology, Inc. PBC**  
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 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

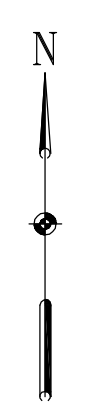
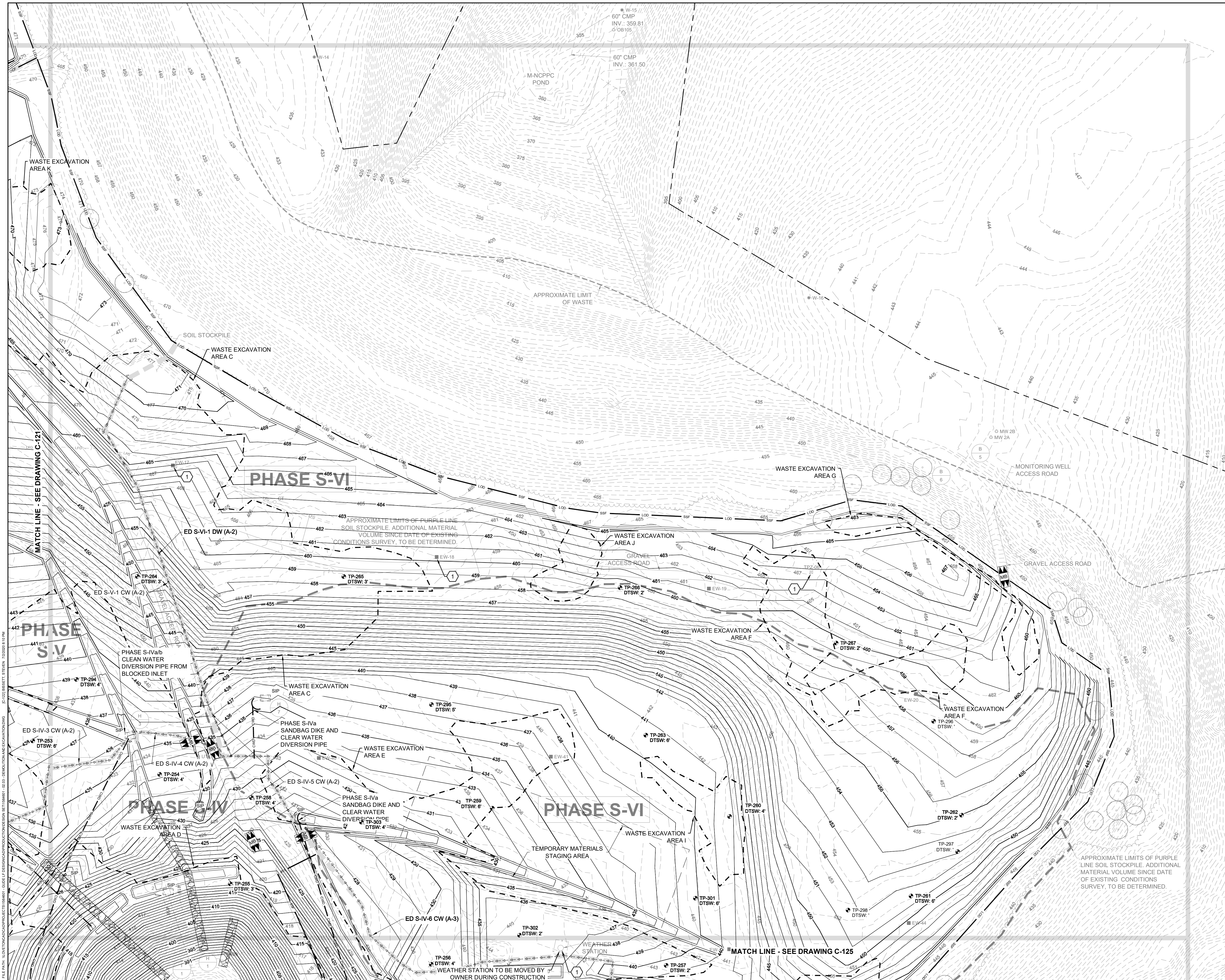
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**C-121**  
 SHEET: 24 OF 144

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DRAWN BY:	SMB	BY:	DESCRIPTION
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		
<small>PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020</small>			



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NO.	DATE	BY

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

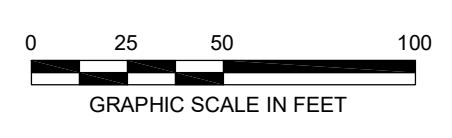
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SEAL

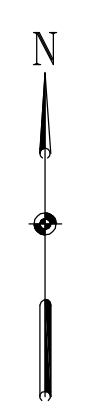
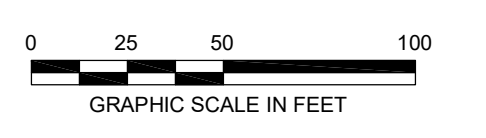
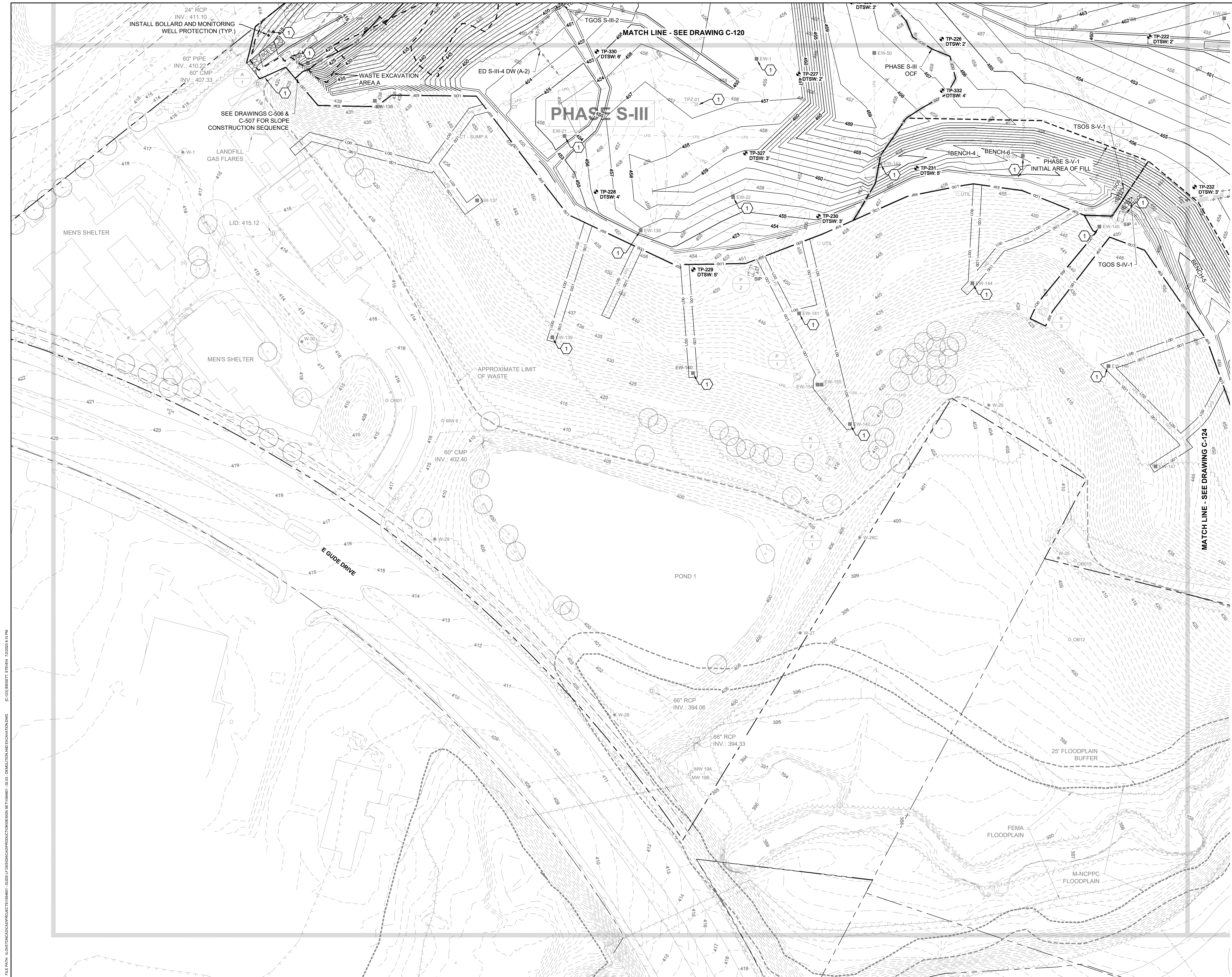
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**DEMOLITION AND REGRADED WASTE PLAN**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-122**  
 SHEET: 25 OF 144



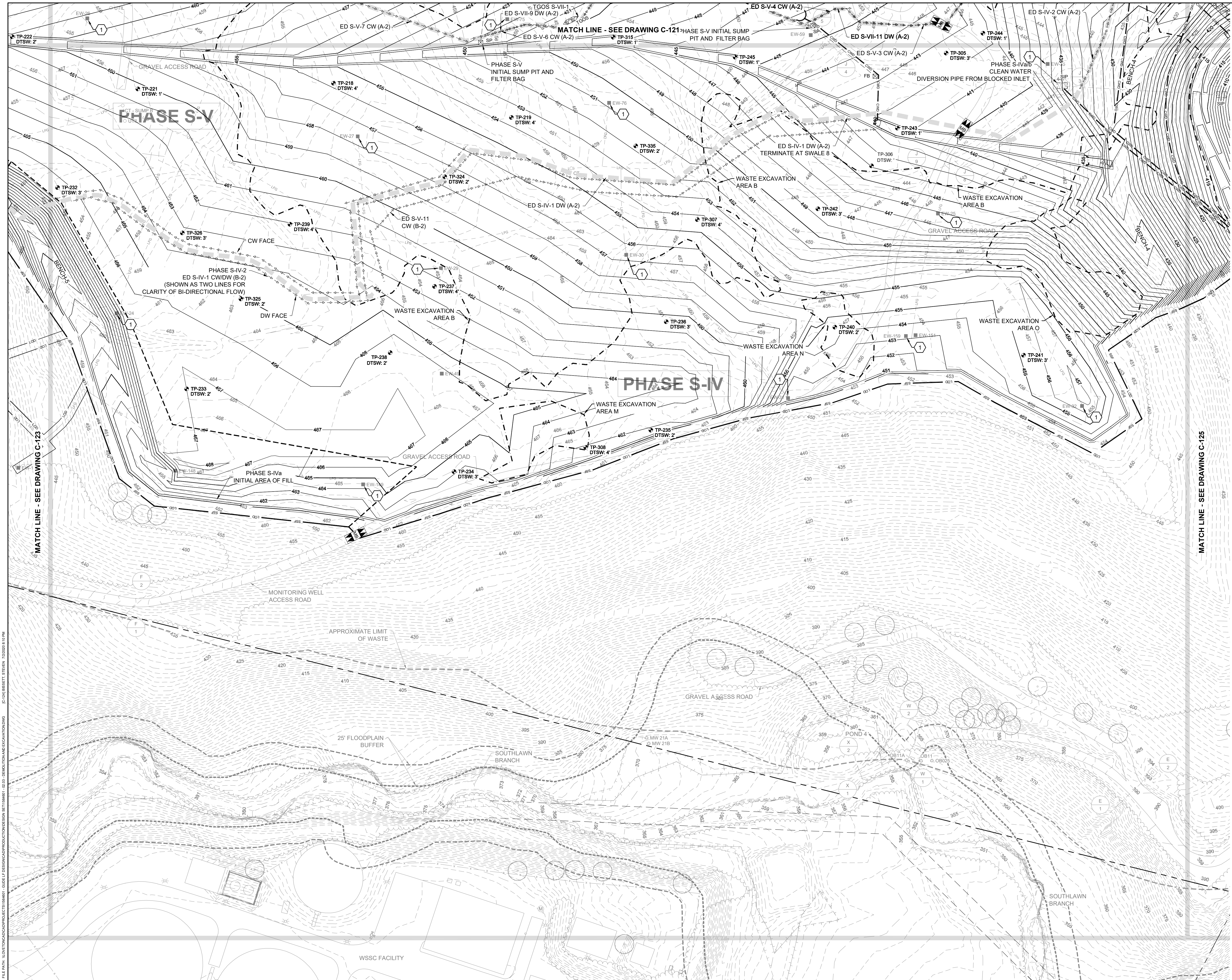
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PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.				
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>DEMOLITION AND REGRADED WASTE PLAN</b>				
<b>EA</b> <b>Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000				
DATE: JULY 2020				
PROJECT NUMBER: 1564601				
<b>C-123</b> SHEET: 26 OF 144				

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90% DESIGN PLANS - NOT FOR CONSTRUCTION



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DRAWN BY:	SMB	BY	DESCRIPTION
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PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402. EXPIRATION DATE: 6/25/2020

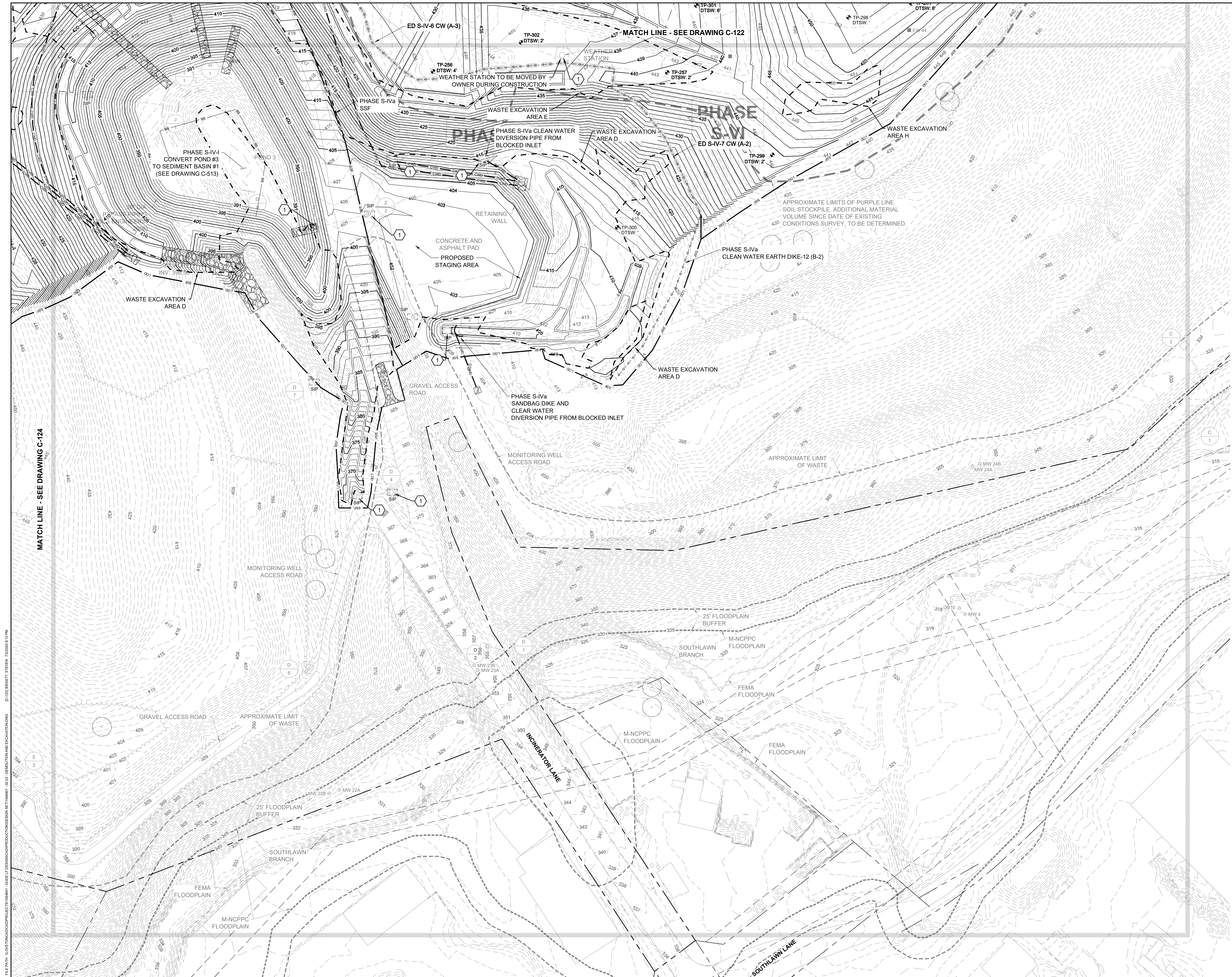
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**DEMOLITION AND REGRADED WASTE PLAN**

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**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
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 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-124**  
 SHEET: 27 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION



MATCH LINE - SEE DRAWING C-124

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REVISIONS		DESCRIPTION	
NO.	DATE	BY	


  

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		CHECKED BY:	LJO / GAT
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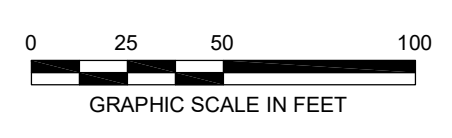
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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND

**DEMOLITION AND REGRADED WASTE PLAN**

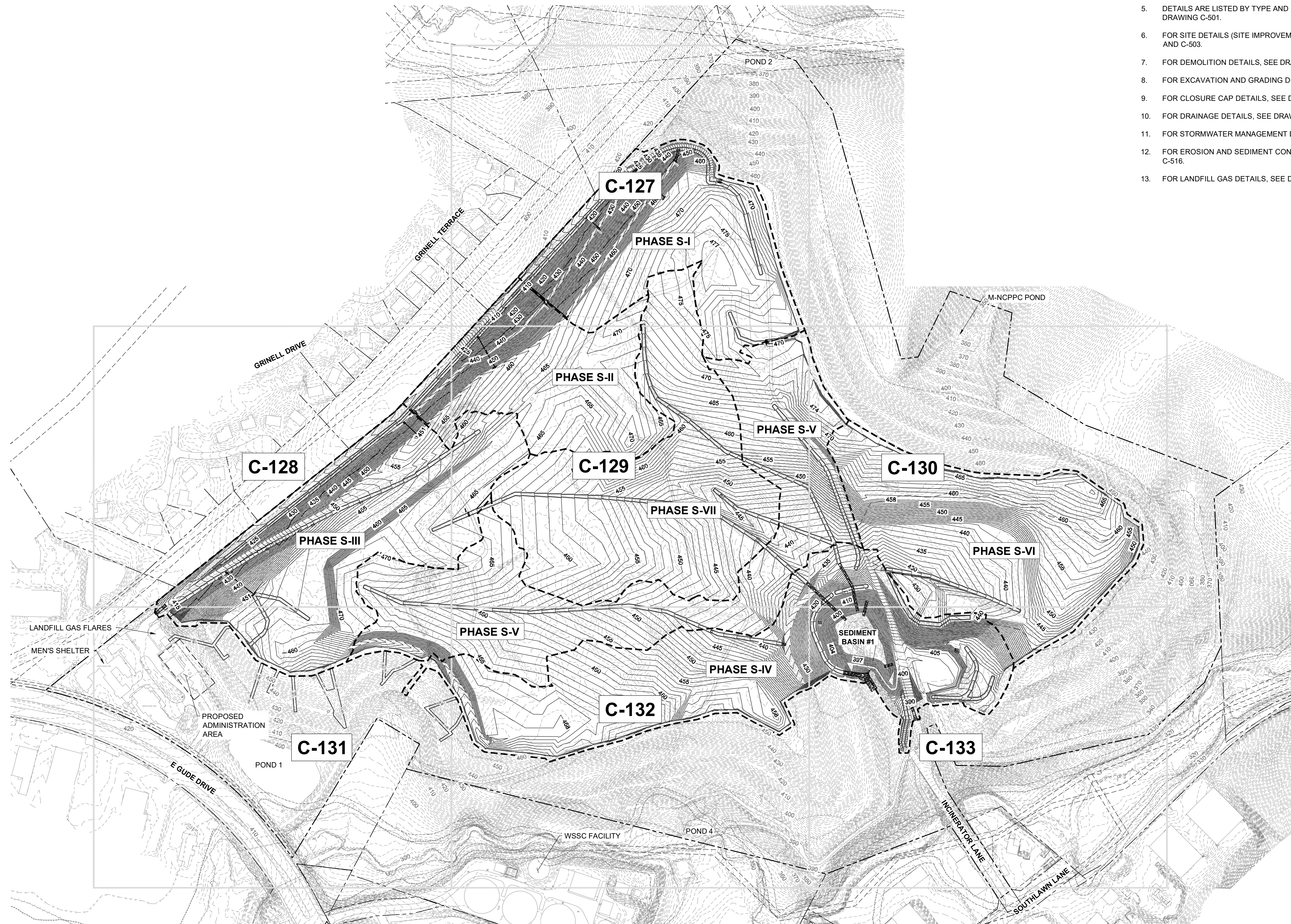
  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-125**  
 SHEET: 28 OF 144



90% DESIGN PLANS - NOT FOR CONSTRUCTION

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**GENERAL NOTES**

1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-111.
3. FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-003.
4. FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
5. DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS ON DRAWING C-501.
6. FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.), SEE DRAWINGS C-502 AND C-503.
7. FOR DEMOLITION DETAILS, SEE DRAWING C-504.
8. FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505, C-506, AND C-507.
9. FOR CLOSURE CAP DETAILS, SEE DRAWINGS C-508 AND C-509.
10. FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 AND C-511.
11. FOR STORMWATER MANAGEMENT DETAILS, SEE DRAWINGS C-512 AND C-513.
12. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514, C-515, AND C-516.
13. FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517, C-518, C-519, AND C-520.

REVISIONS		DESCRIPTION
NO.	DATE	BY

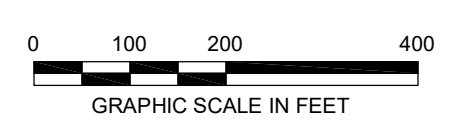
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DRAWN BY:	SMB	CHECKED BY:	LJO / GAT		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**SUBGRADE GRADING PLAN - KEY SHEET**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-126**  
 SHEET: 29 OF 144



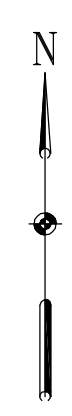
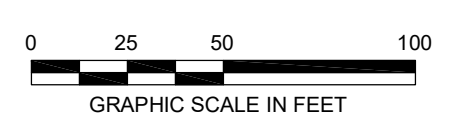
90% DESIGN PLANS - NOT FOR CONSTRUCTION



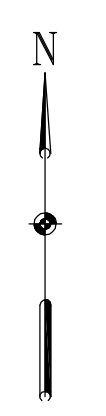
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					MJG	
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020						
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>SUBGRADE GRADING PLAN</b>						
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000						
DATE: JULY 2020						
PROJECT NUMBER: 1564601						
<b>C-127</b> SHEET: 30 OF 144						

90% DESIGN PLANS - NOT FOR CONSTRUCTION

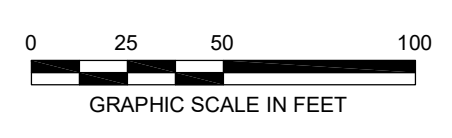
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MATCH LINE - SEE DRAWING C-129

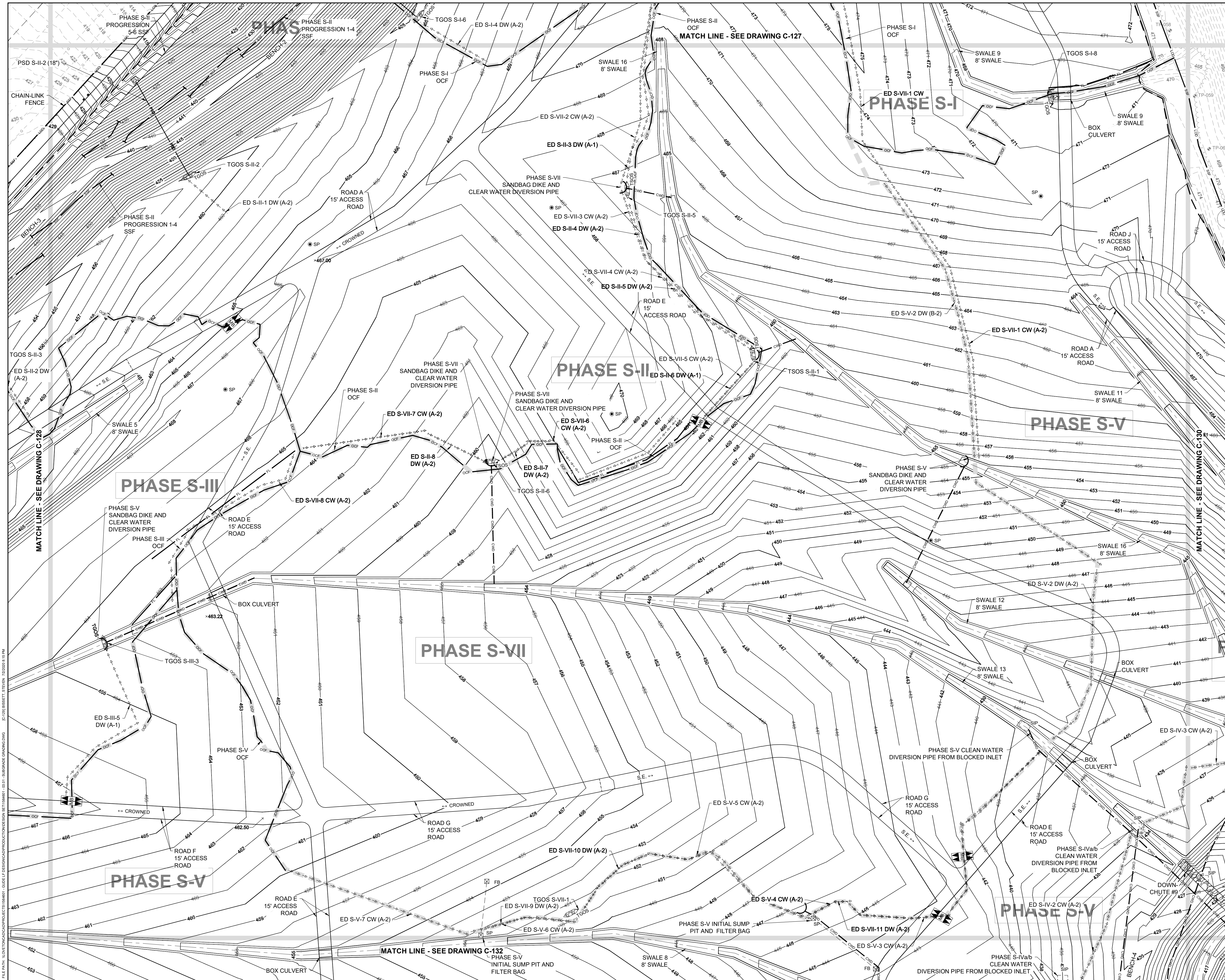


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NO.	DATE	BY			
DESIGNED BY:	KEF / SMB				
DRAWN BY:	SMB				
CHECKED BY:	LJO / GAT				
PROJECT MANAGER:	MJG				
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020					
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> <small>MONTGOMERY COUNTY, MARYLAND</small> <b>SUBGRADE GRADING PLAN</b>					
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> <small>Hunt Valley Center            225 Schilling Circle, Suite 400            Hunt Valley, Maryland 21031            (410) 584-7000</small>					
DATE: JULY 2020					
PROJECT NUMBER: 1564601					
<b>C-128</b> SHEET: 31 OF 144					



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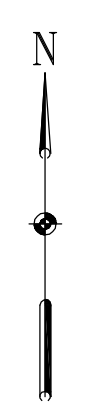
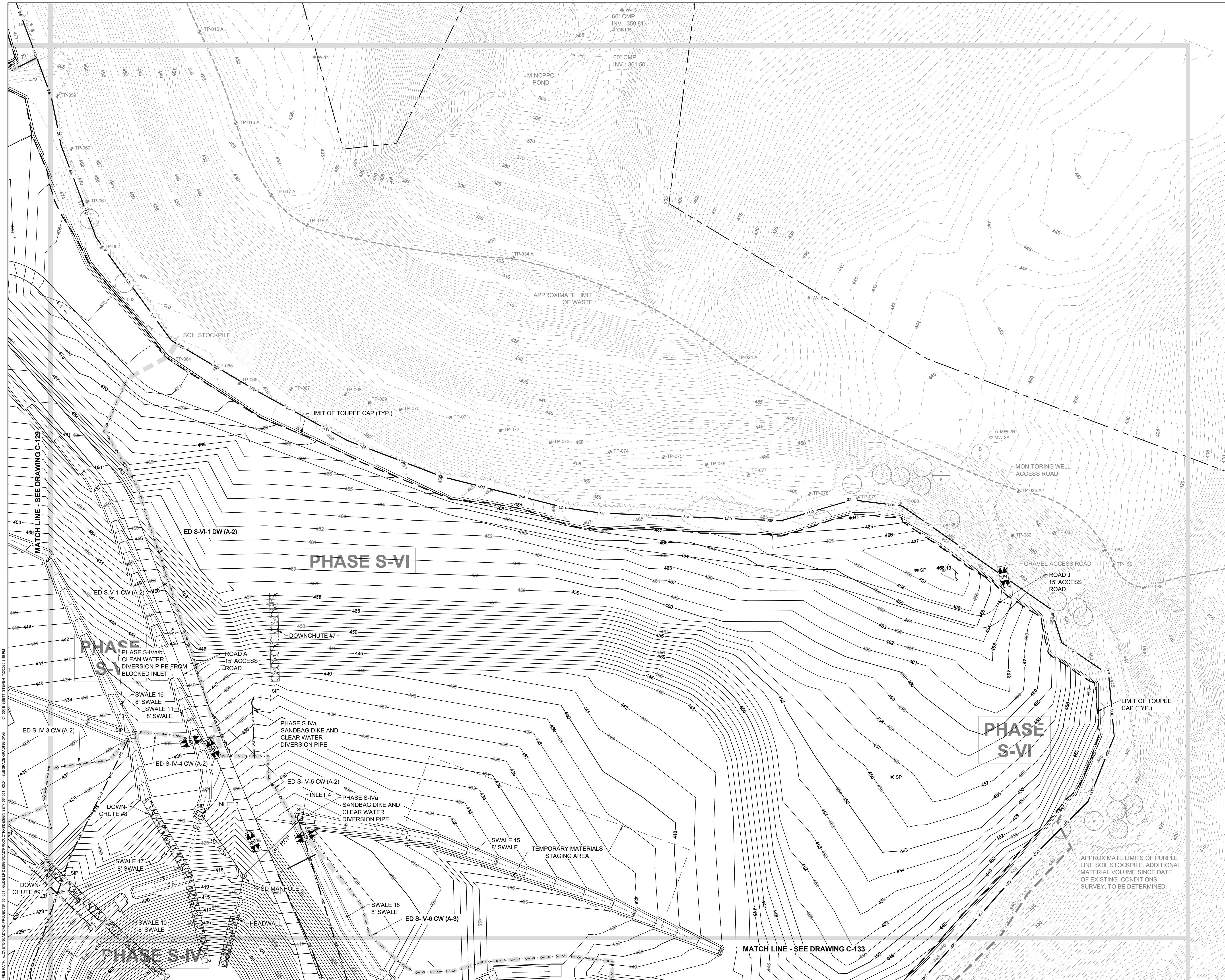
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	PROJECT MANAGER:	MJG		
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<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>SUBGRADE GRADING PLAN</b>				
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000				
DATE: JULY 2020				
PROJECT NUMBER: 1564601				
<b>C-129</b> SHEET: 32 OF 144				

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CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

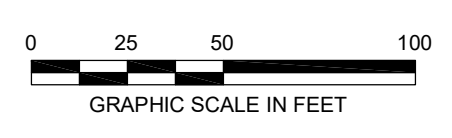
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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**SUBGRADE GRADING PLAN**

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DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-130**  
 SHEET: 33 OF 144



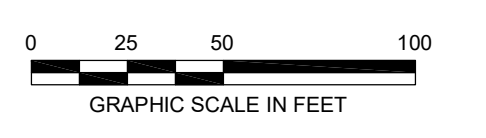
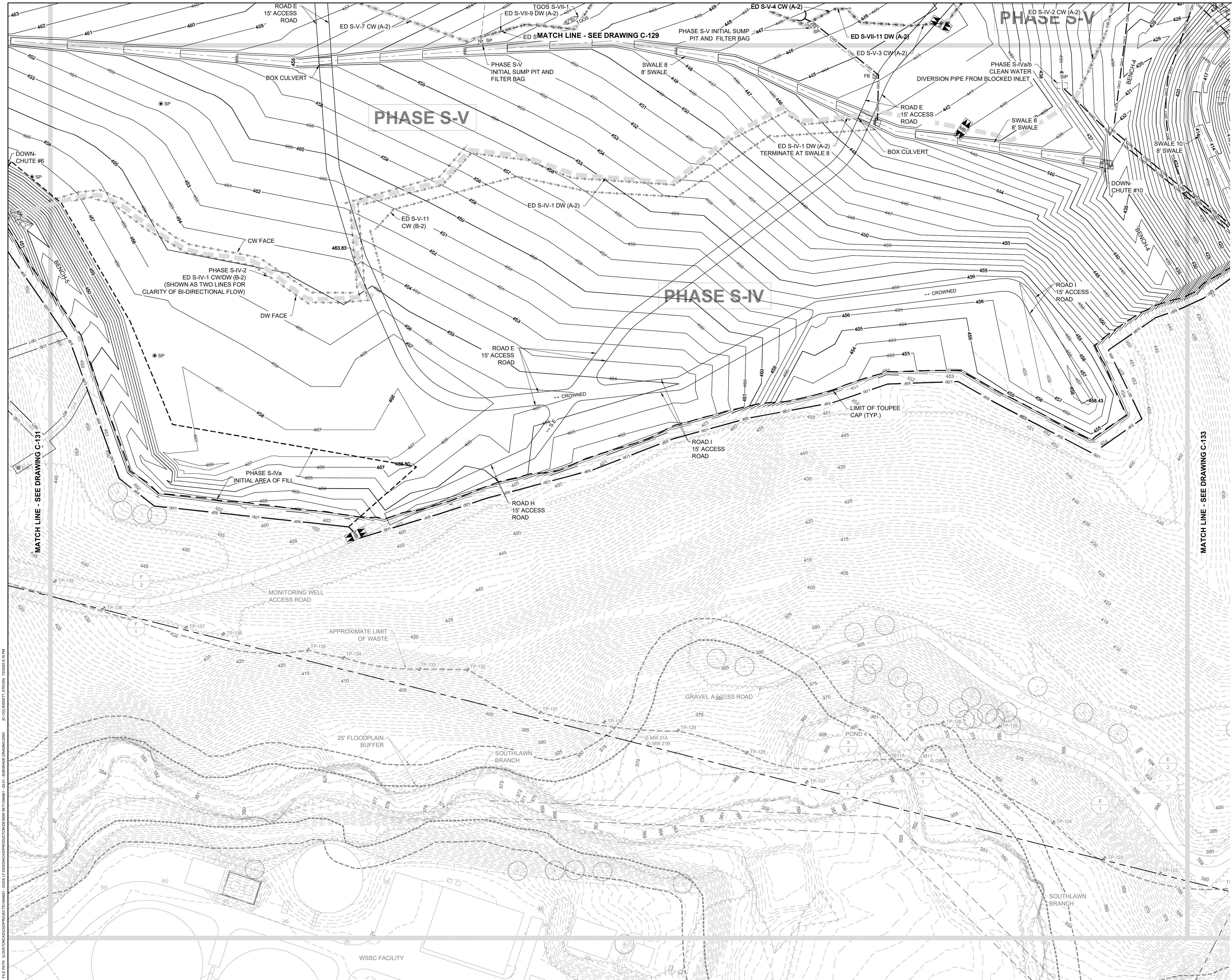
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		PROJECT MANAGER:	MJG				
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<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>SUBGRADE GRADING PLAN</b>							
<b>C-131</b> SHEET: 34 OF 144							

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REVISIONS		DESCRIPTION
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DESIGN INFORMATION		DESIGNED BY:	KEF / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020									

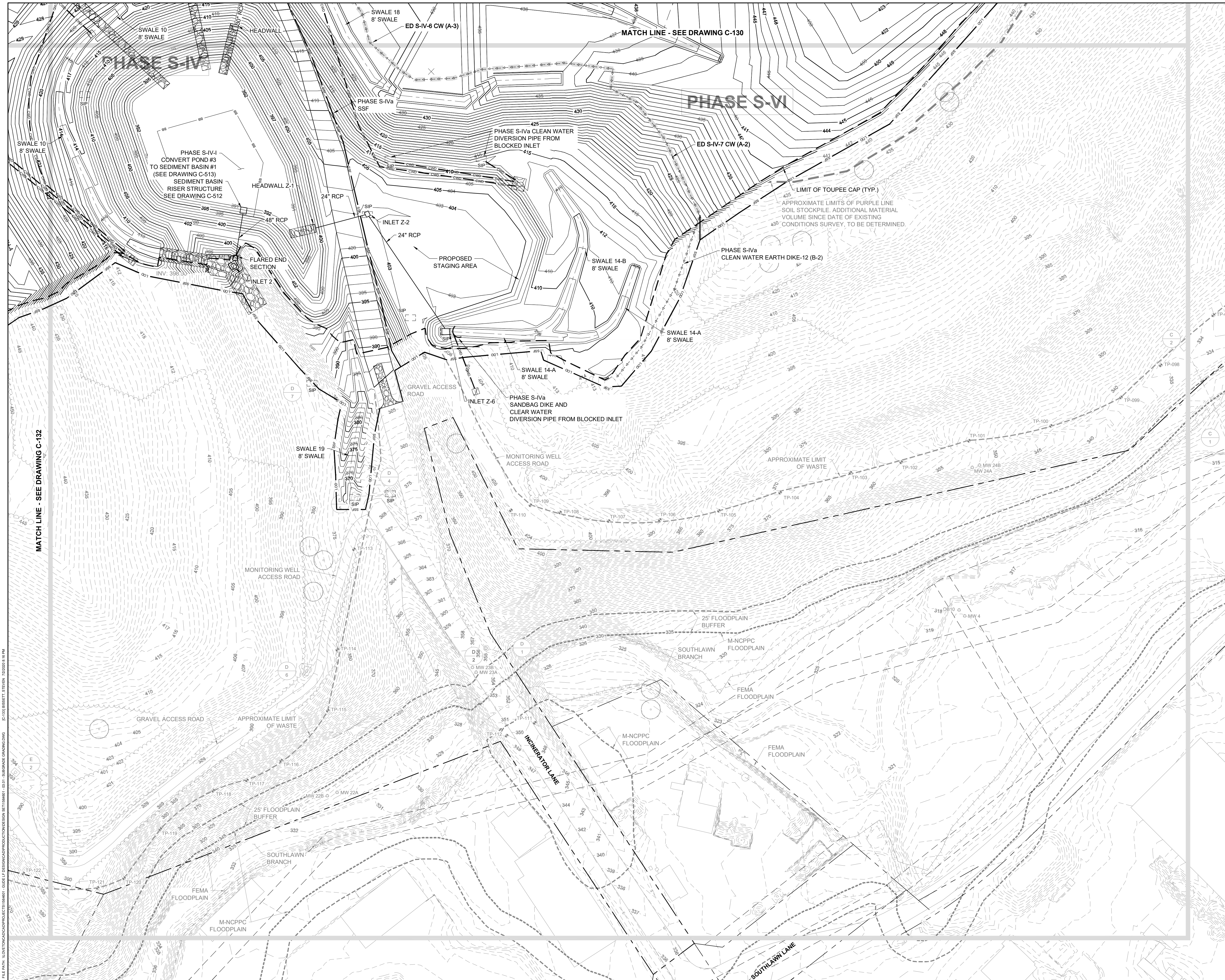
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**SUBGRADE GRADING PLAN**

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DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-132**  
 SHEET: 35 OF 144

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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
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MONTGOMERY COUNTY, MARYLAND  
**SUBGRADE GRADING PLAN**

  
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DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-133**  
 SHEET: 36 OF 144

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DESCRIPTION
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PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

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**BENCH SCHEDULE**

ID	Phase (s)	Maximum Drainage Area (Ac.)	Length (Feet)	1' Deep Bench Width (feet)	Q10 (cfs)	V10 (fps)	Flow Depth (feet)	Treatment
Bench 1	S-I / F-I	2.65	718	10	7.16	3.06	0.6	ECM
Bench 2	S-I / S-II / F-I	0.68	873	10	2.14	2.28	0.4	ECM
Bench 3	S-II / S-III / F-1 / F-II	0.77	520	10	2.06	2.59	0.4	ECM
Bench 4	S-IV / F-VI	18.76	418	20	44.35	4.87	0.9	TRM
Bench 5	S-IV / F-III	1.49	365	10	5.61	3.32	0.5	ECM
Bench 6	S-V / F-III	1.15	312	10	4.33	3.15	0.5	ECM

**EARTH DIKE SCHEDULE**

ID	Phase	Drainage Area (Ac.)	Maximum Slope	Clear / Dirty Water	Class
ED F-I-1	F-I	0.1	9.00%	Dirty	A-2
ED F-I-2	F-I	0.52	2.70%	Dirty	A-2
ED F-I-3	F-I	0.56	2.70%	Dirty	A-2
ED F-II-1	F-II	0.7	7.10%	Dirty	A-2
ED F-II-2	F-II	0.26	1.00%	Dirty	A-1

**PIPE SLOPE DRAIN SCHEDULE**

ID	Phase	Drainage Area (Ac.)	Pipe Size (inch)
PSD F-I-1	F-I	1.29	18
PSD F-I-2	F-I	0.4	12
PSD F-II-1	F-II	0.33	12

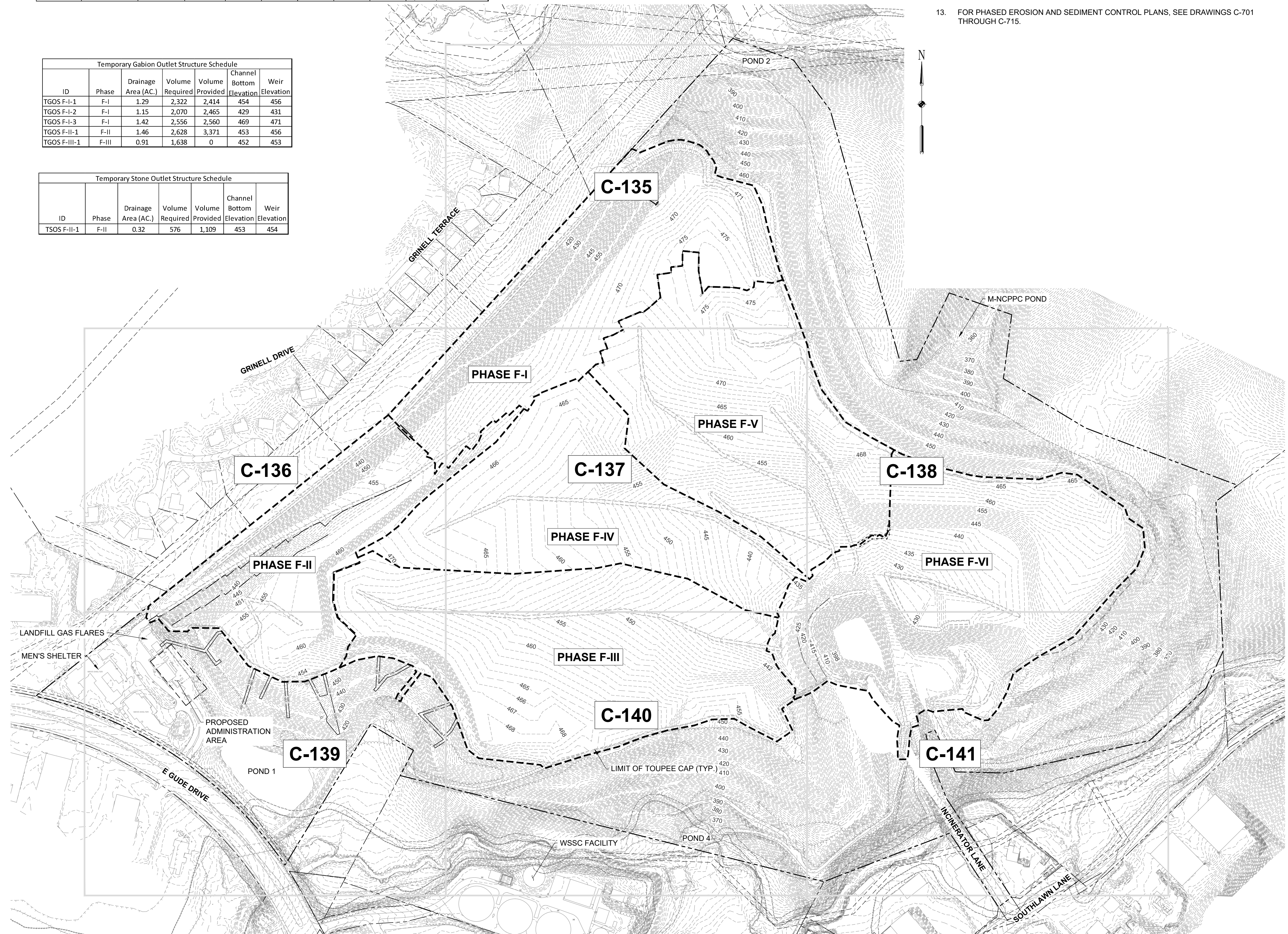
D-4-1 Rock Outlet Protection										
ID	Phase	Q10 (cfs)	V10 (fps)	d50 (ft)	Ls (ft)	W (ft)	T (in)	RipRap Class	Notes	
ROP-1	Final	11.41	5.4	0.3	6	6.5	19	Class I	Outlet Pipe NW Slope Facility - end of Swale 3	
ROP-2	Final	11.41	5.4	0.3	6	6.5	19	Class I	Outlet Pipe NW Slope Facility - end of Swale 3	
ROP-3	Final	2.28	3.88	0.2	6	6.5	19	Class I	Outlet Pipe NW Slope Facility - end of Swale 2	
ROP-4	Final	2.28	3.88	0.2	6	6.5	19	Class I	Outlet Pipe NW Slope Facility - end of Swale 2	
ROP-5	Final	38.2	7.81	0.6	16	18.5	19	Class I	Headwall-Pond 3	
ROP-6	Final	12.06	6.24	0.55	13	18	19	Class I	Headwall-Pond 3; 2 Stormdrain	
ROP-7	Temporary E&S Phase	104.7	10.03	0.85	26	30	32	Class II	Pond 3 E&S Principle Spillway @ Inlet 2	
ROP-8	Final	73.58	2.85	0.2	-	-	19	Class I	Spillway @ Ex. Pond 3	

Temporary Gabion Outlet Structure Schedule						
ID	Phase	Drainage Area (Ac.)	Volume Required	Volume Provided	Channel Bottom Elevation	Weir Elevation
TGOS F-I-1	F-I	1.29	2,322	2,414	454	456
TGOS F-I-2	F-I	1.15	2,070	2,465	429	431
TGOS F-I-3	F-I	1.42	2,556	2,560	469	471
TGOS F-II-1	F-II	1.46	2,628	3,371	453	456
TGOS F-III-1	F-III	0.91	1,638	0	452	453

Temporary Stone Outlet Structure Schedule						
ID	Phase	Drainage Area (Ac.)	Volume Required	Volume Provided	Channel Bottom Elevation	Weir Elevation
TSOS F-II-1	F-II	0.32	576	1,109	453	454

**GENERAL NOTES**

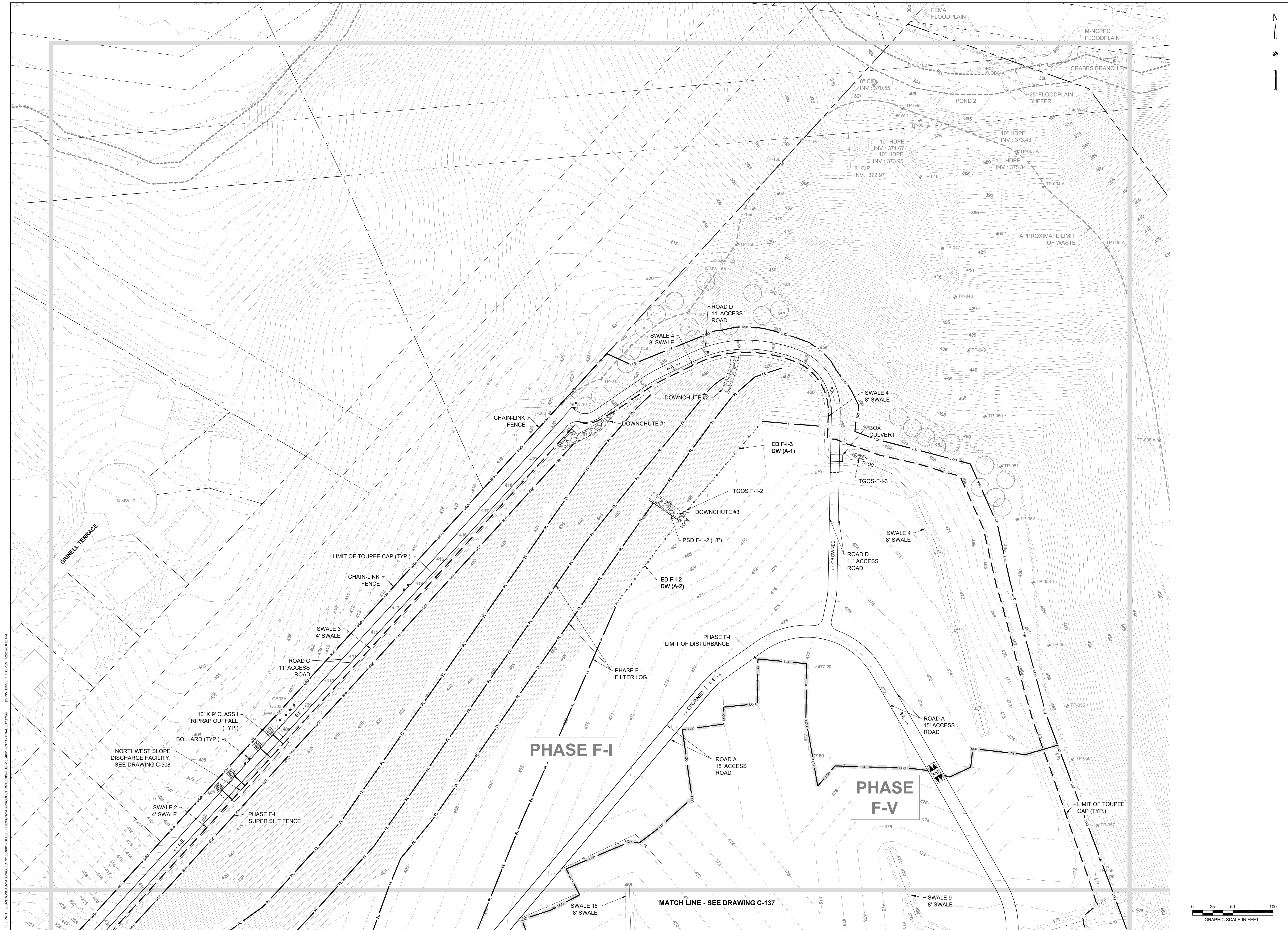
- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109.
- FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
- DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS, SEE DRAWING C-501.
- FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
- FOR DEMOLITION DETAILS, SEE DRAWING C-504.
- FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
- FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
- FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
- FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
- FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.




REVISIONS	DESCRIPTION								
BY	DATE	NO.	DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:
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GUDE LANDFILL REMEDIATION DESIGN NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION MONTGOMERY COUNTY, MARYLAND									
FINAL EROSION AND SEDIMENT CONTROL PLAN - KEY SHEET									
EA Engineering, Science, and Technology, Inc., PBC Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000									
DATE: JULY 2020 PROJECT NUMBER: 1564601									
<b>C-134</b> SHEET: 37 OF 144									

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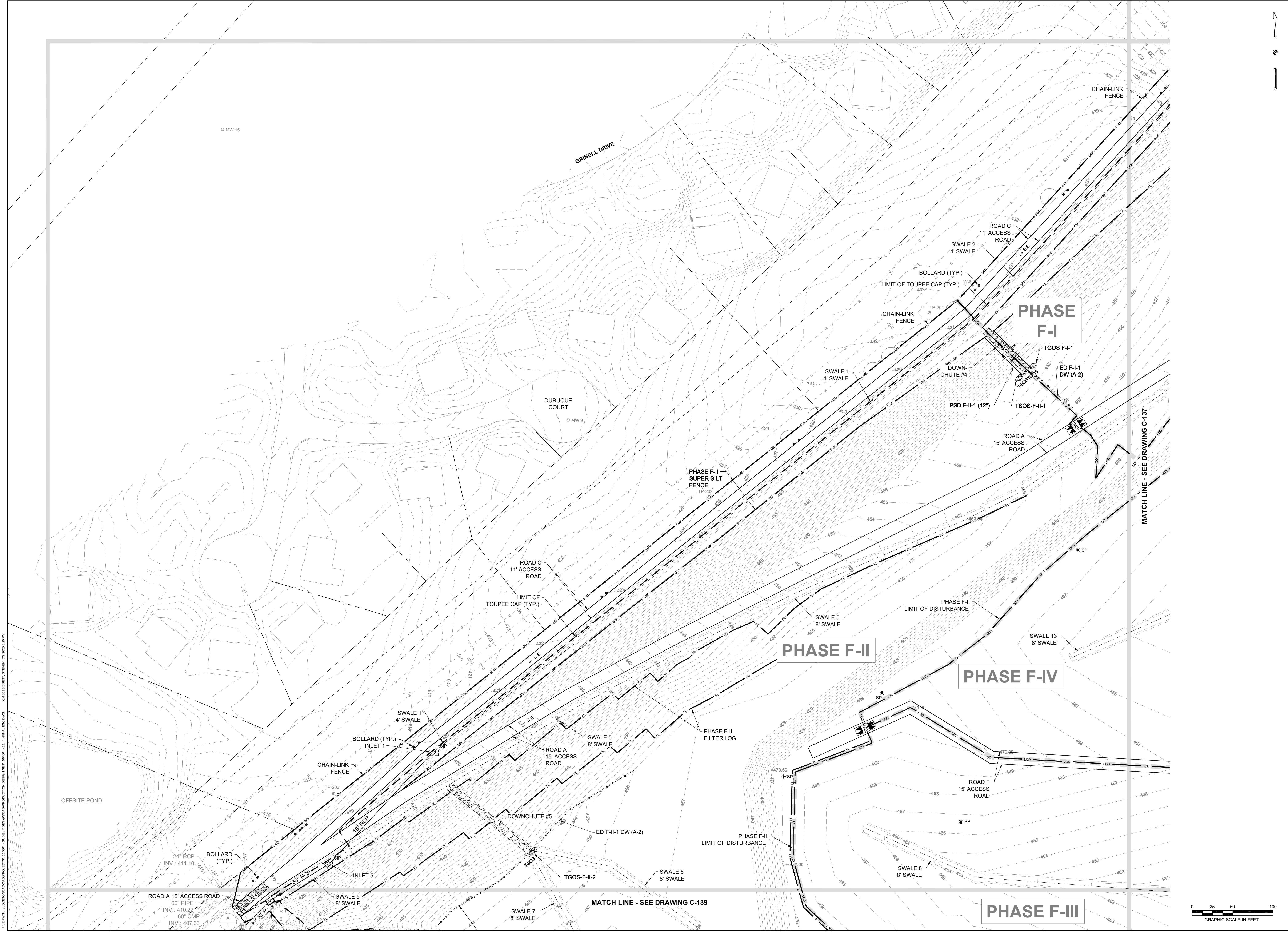
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<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> <small>MONTGOMERY COUNTY, MARYLAND</small>					
<b>FINAL EROSION AND SEDIMENT CONTROL PLAN</b>					
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DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-135</b> SHEET: 38 OF 144					

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SMB	M/JG
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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND

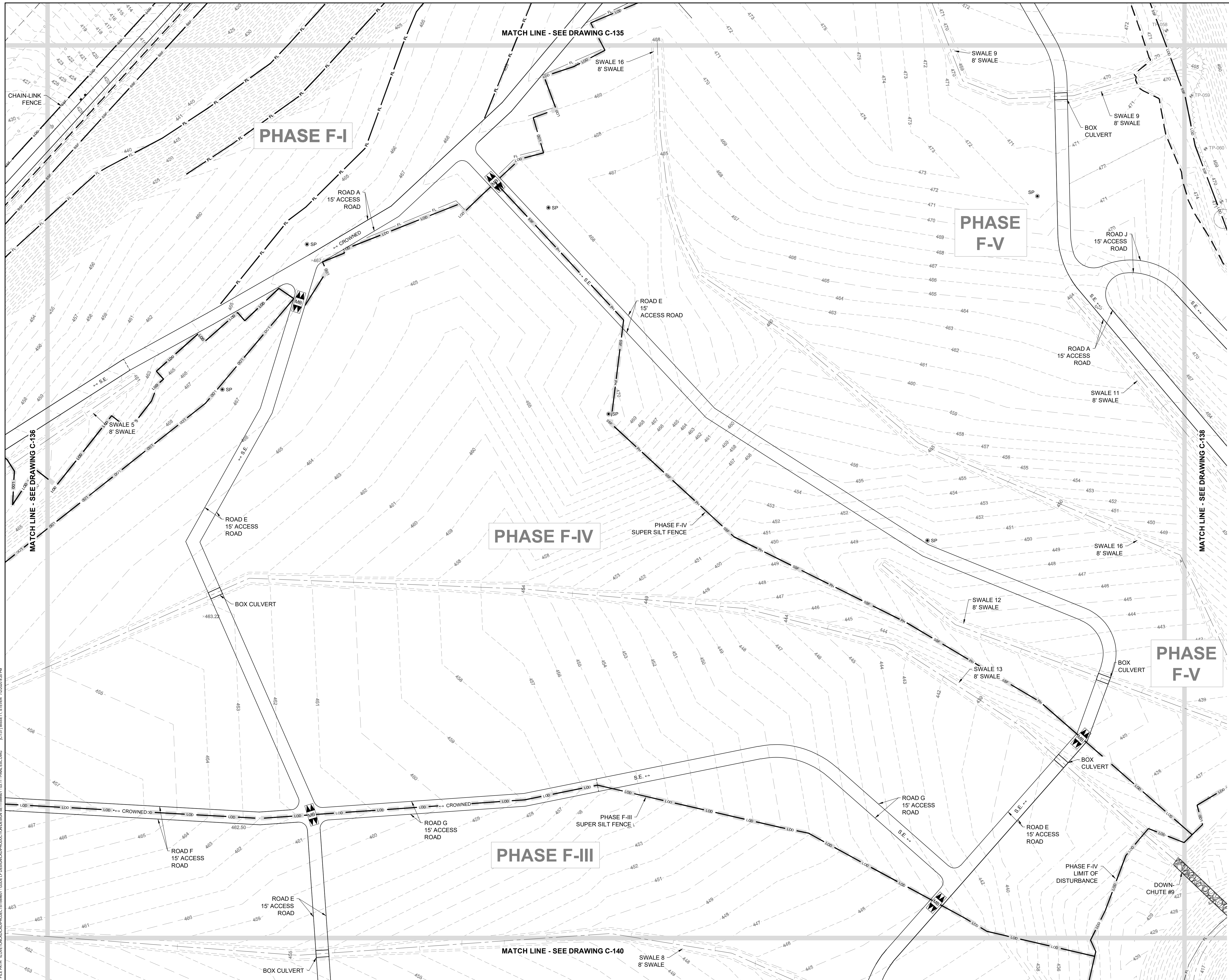
**FINAL EROSION AND SEDIMENT CONTROL PLAN**

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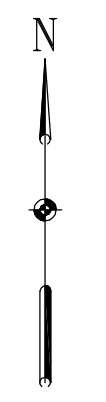
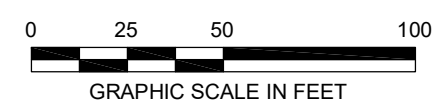
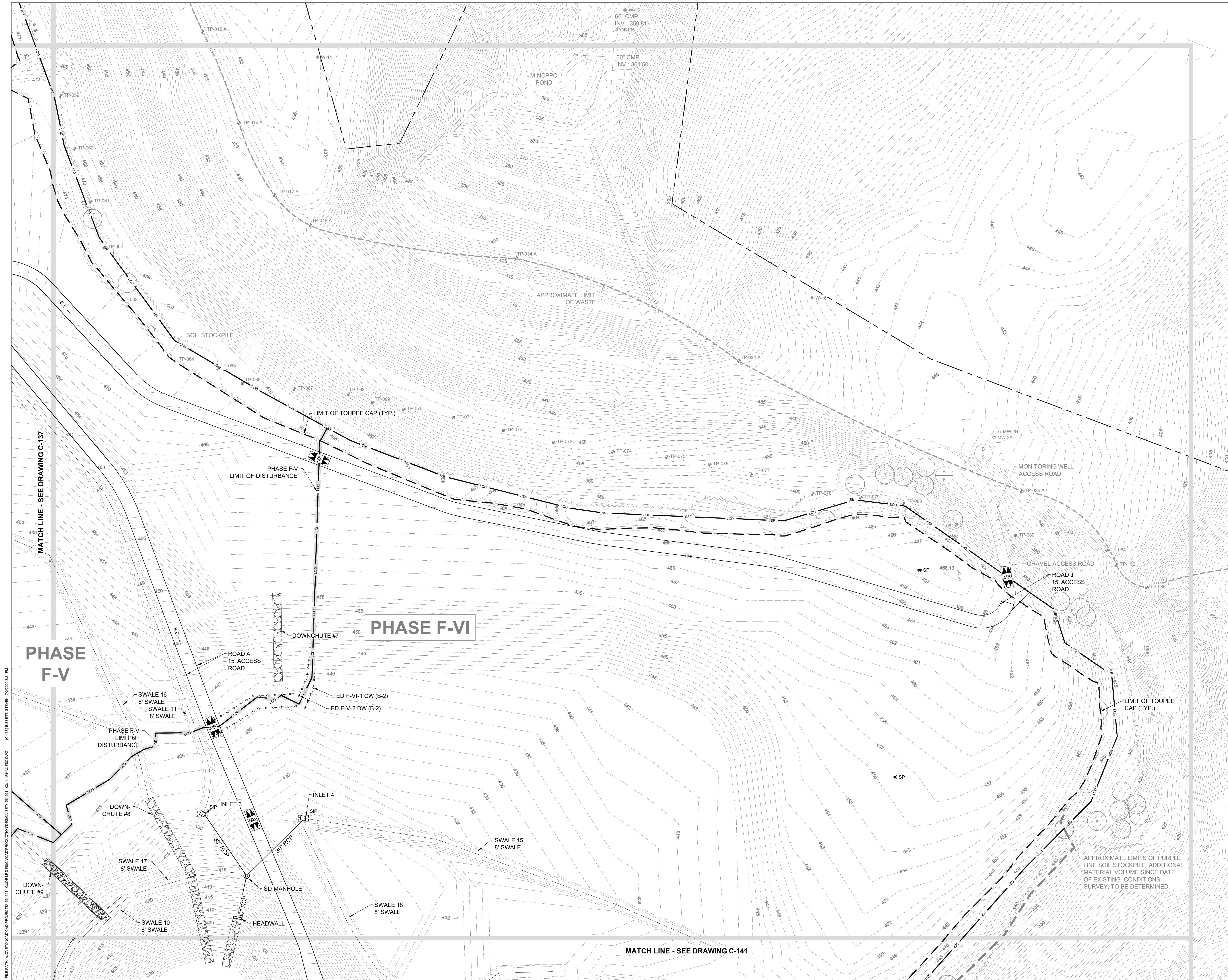
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SHEET: 39 OF 144	

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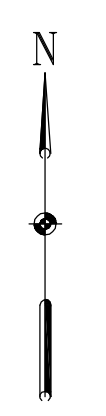


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 <b>EA Engineering, Science, and Technology, Inc., PBC</b> <small>Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</small>					
DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-137</b> SHEET: 40 OF 144					





SEAL	DESIGN INFORMATION	REVISIONS	
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<b>FINAL EROSION AND SEDIMENT CONTROL PLAN</b>			
<b>EA</b> <b>Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000			
DATE: JULY 2020			
PROJECT NUMBER: 1564601			
<b>C-138</b> SHEET: 41 OF 144			



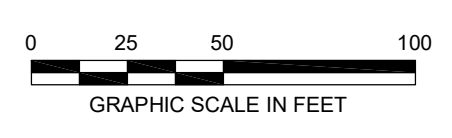
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PROJECT MANAGER:	MJG

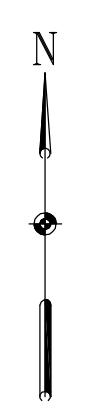
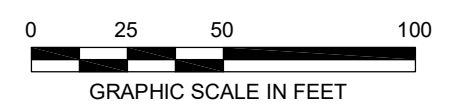
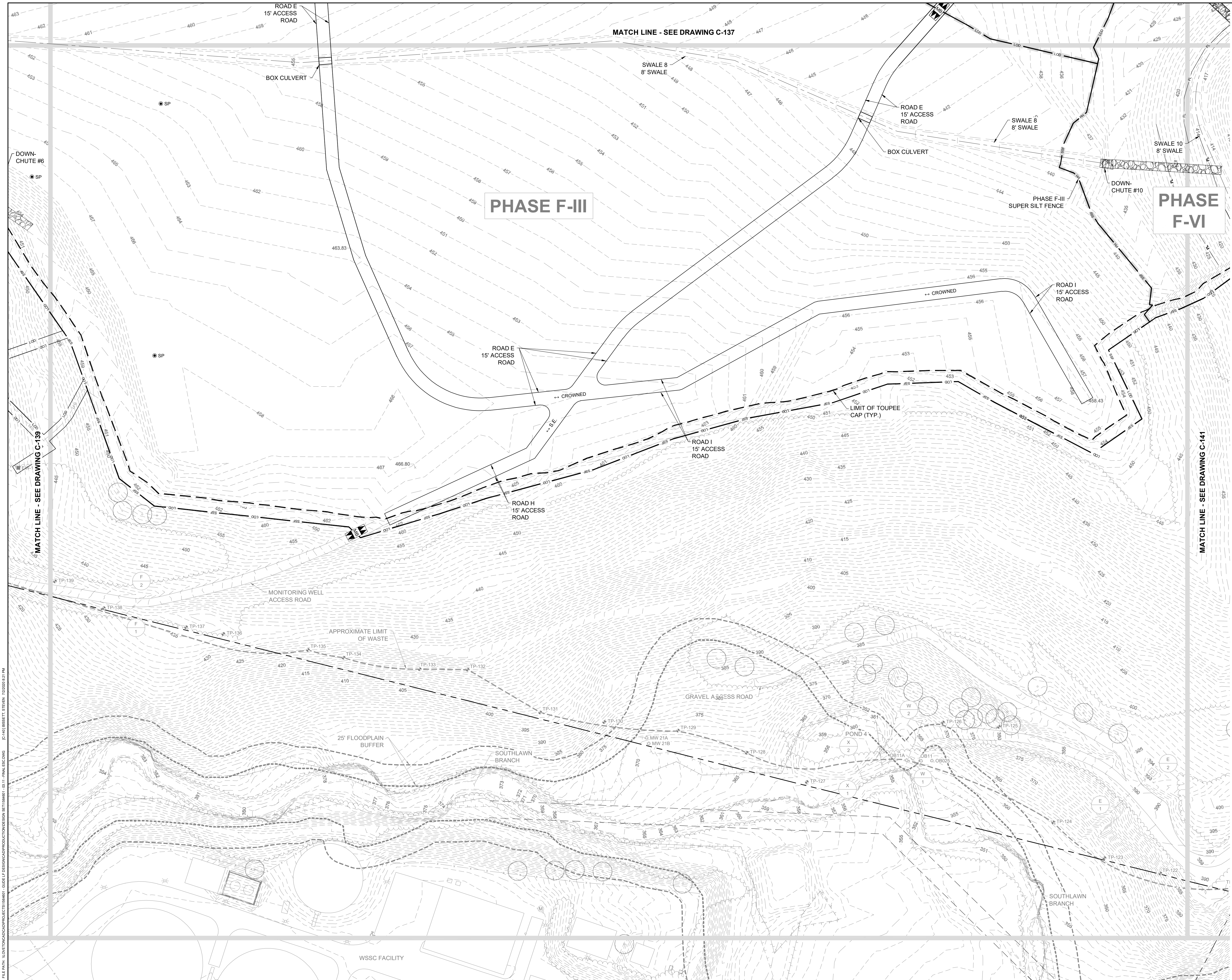
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**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**FINAL EROSION AND SEDIMENT CONTROL PLAN**

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-139**  
 SHEET: 42 OF 144



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REVISIONS		DESCRIPTION
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DESIGNED BY:	KEF / SMB
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CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

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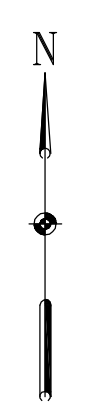
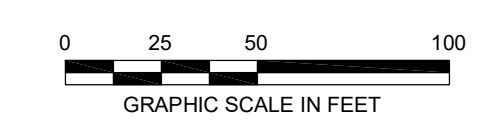
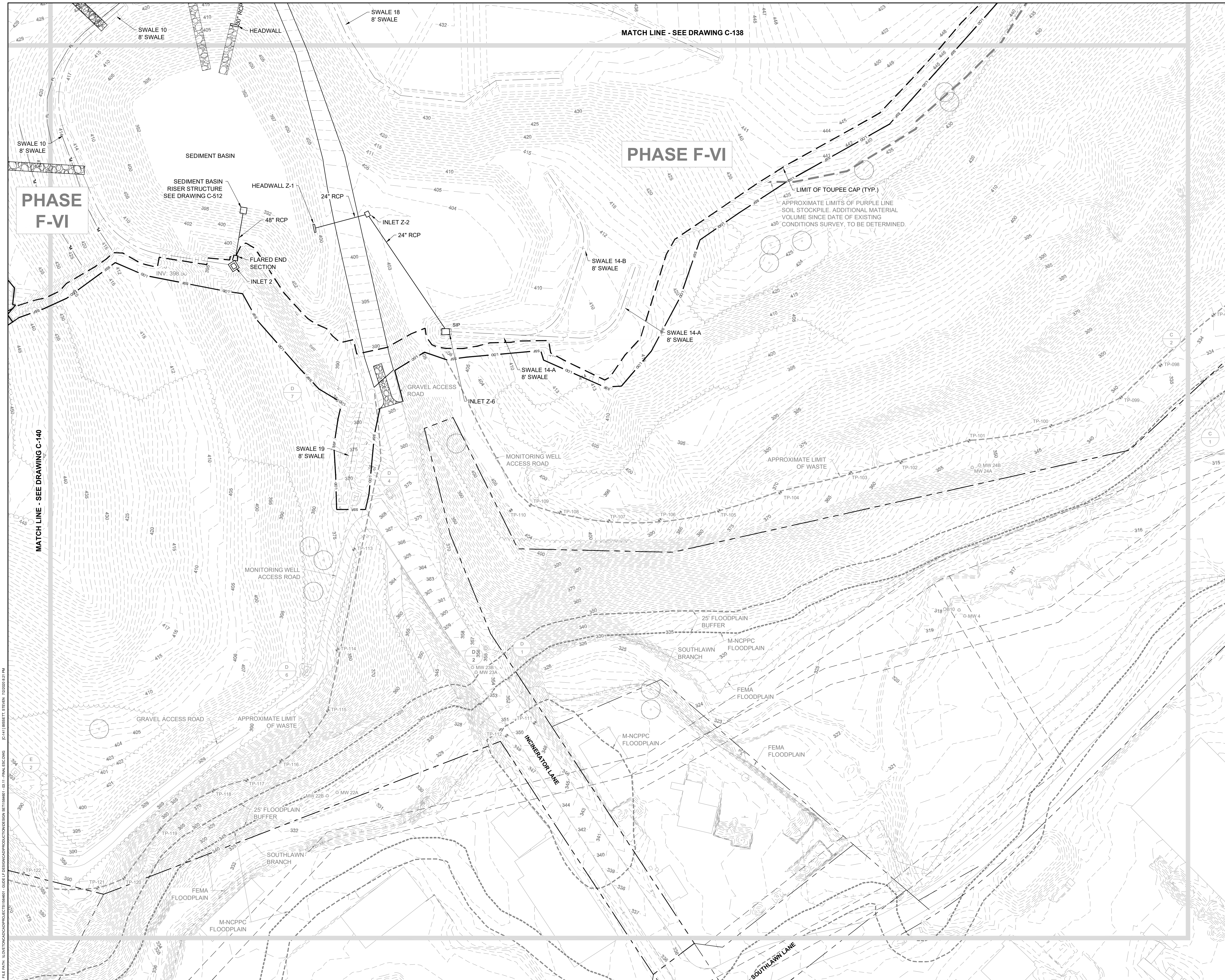
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**C-140**  
 SHEET: 43 OF 144

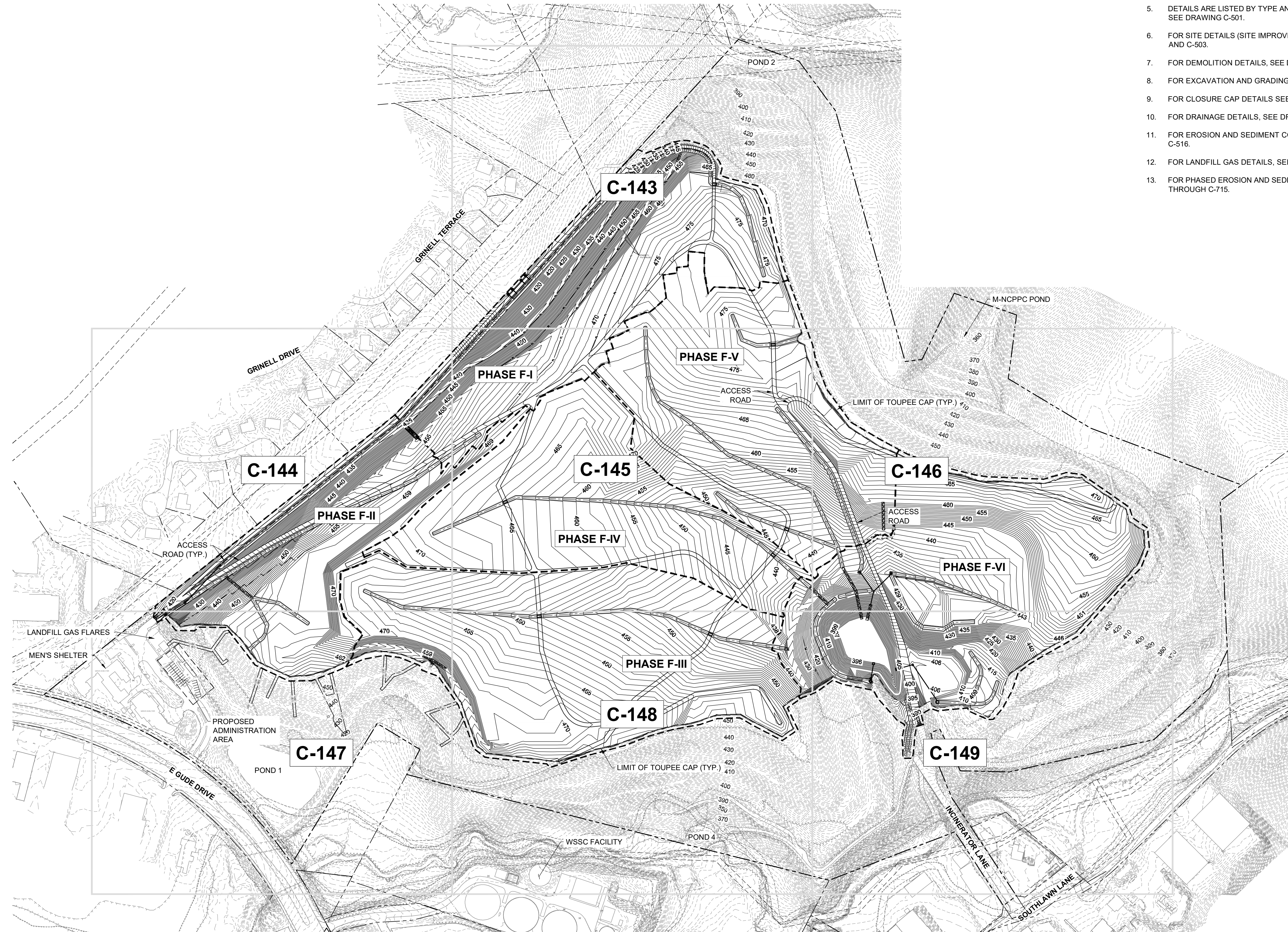
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90% DESIGN PLANS - NOT FOR CONSTRUCTION  
 SC/SWM SHEET 18 OF 48



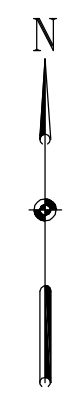
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CHECKED BY:		LJO / GAT	NO.	
PROJECT MANAGER:		MJG		
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020				
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND				
<b>FINAL EROSION AND SEDIMENT CONTROL PLAN</b>				
 EA Engineering, Science, and Technology, Inc., PBC Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000				
DATE: JULY 2020				
PROJECT NUMBER: 1564601				
<b>C-141</b> SHEET: 44 OF 144				

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**GENERAL NOTES**

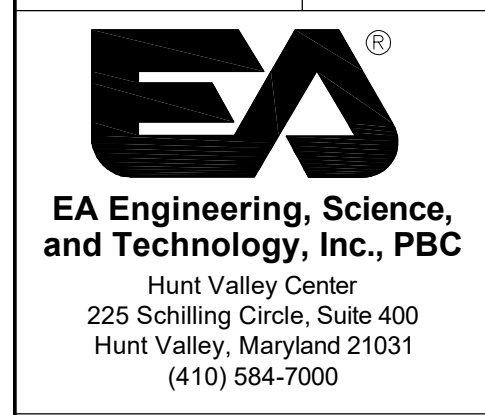
1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109.
3. FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-003.
4. FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
5. DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS, SEE DRAWING C-501.
6. FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
7. FOR DEMOLITION DETAILS, SEE DRAWING C-504.
8. FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
9. FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
10. FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
11. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
12. FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
13. FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.



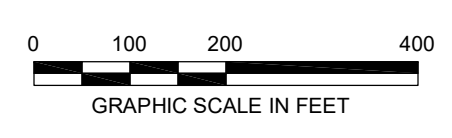
REVISIONS		DESCRIPTION
NO.	DATE	BY
DESIGN INFORMATION		
DESIGNED BY:	KEF / SMB	
DRAWN BY:	SMB	
CHECKED BY:	LJO / GAT	
PROJECT MANAGER:	MJG	

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

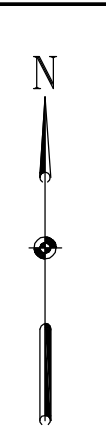
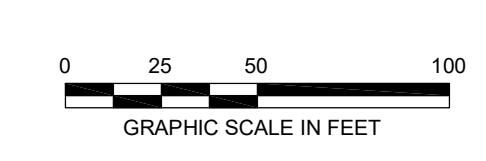
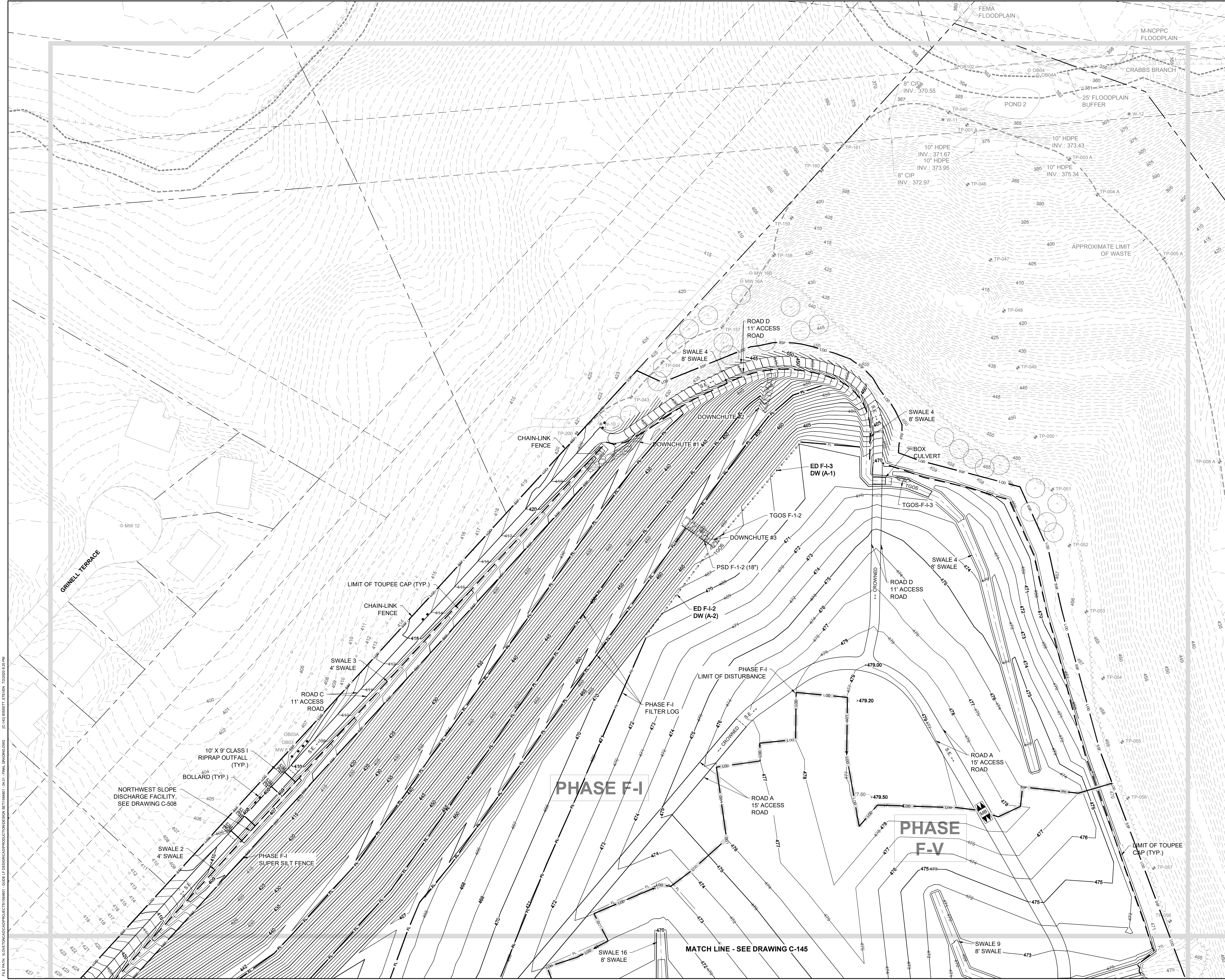
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**FINAL GRADING PLAN - KEY SHEET**



DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-142**  
 SHEET: 45 OF 144



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REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		DESIGNED BY:	KEY / SMB
DRAWN BY:		SMB	
CHECKED BY:		LJO / GAT	
PROJECT MANAGER:		MJG	

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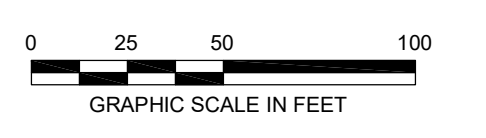
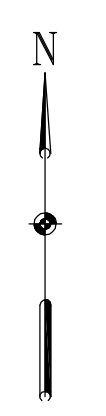
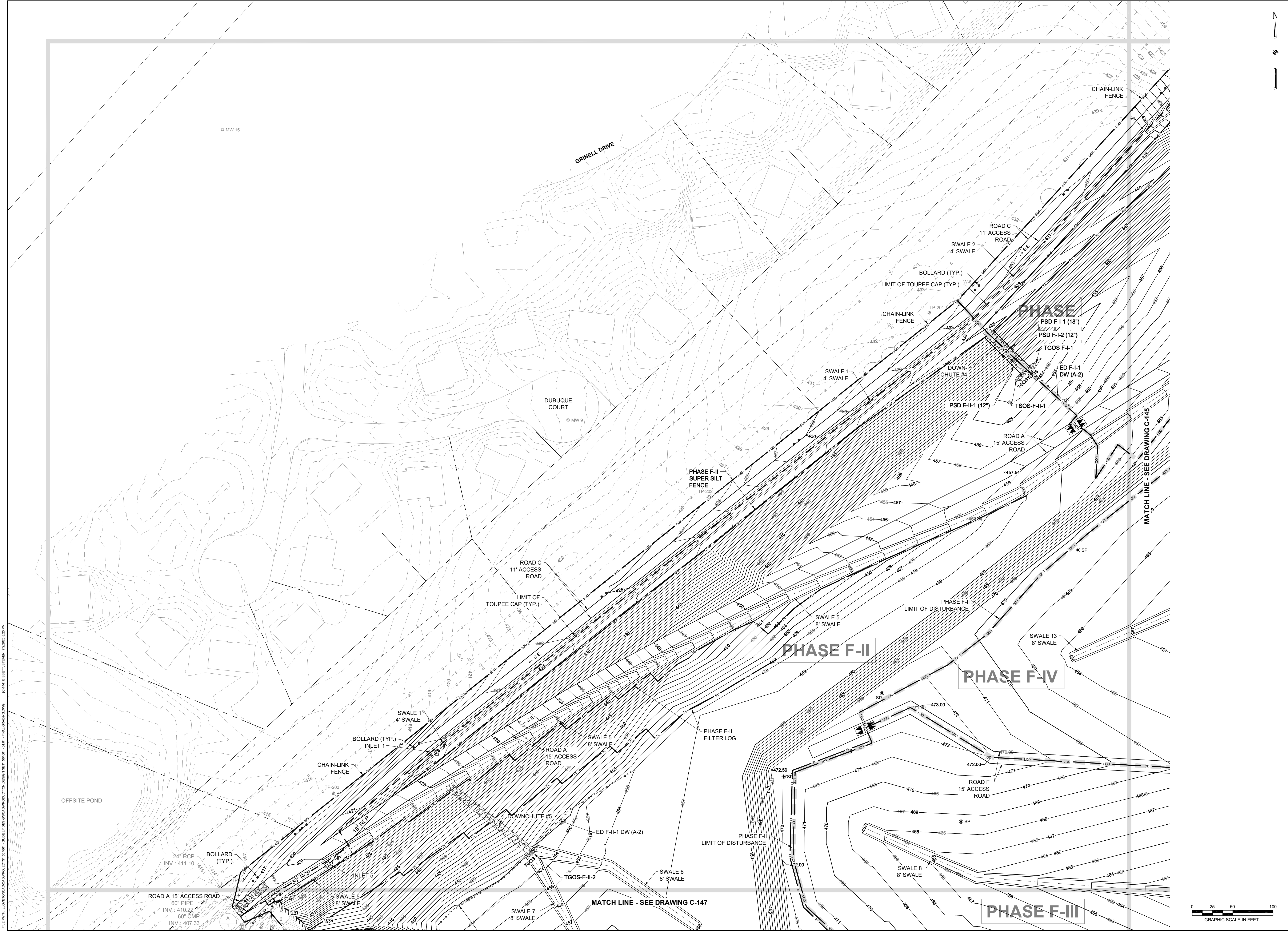
GUIDE LANDFILL REMEDIATION DESIGN NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION MONTGOMERY COUNTY, MARYLAND		FINAL GRADING PLAN
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<p>EA Engineering, Science, and Technology, Inc., PBC          Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</p>	DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-143</b> SHEET: 46 OF 144
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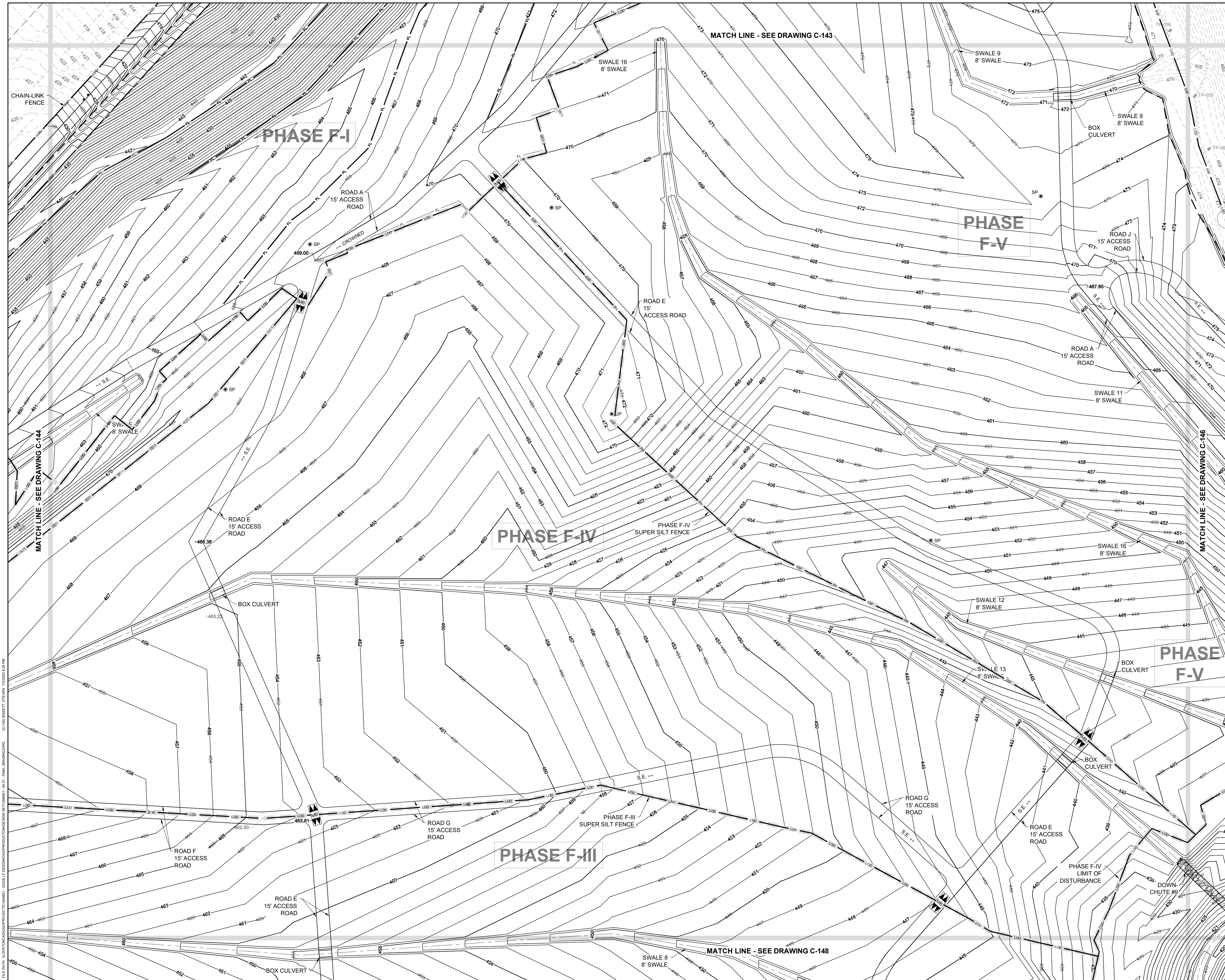
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SEAL		DESIGN INFORMATION	NO.	DATE	BY	DESCRIPTION
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		DRAWN BY: SMB				
		CHECKED BY: LJO / GAT				
		PROJECT MANAGER: MJG				
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020						
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> <small>MONTGOMERY COUNTY, MARYLAND</small> <b>FINAL GRADING PLAN</b>						
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> <small>Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</small>						
DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-144</b> SHEET: 47 OF 144						

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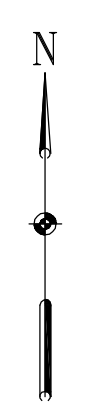
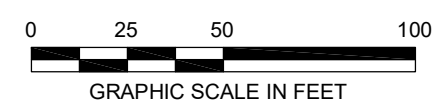
90% DESIGN PLANS - NOT FOR CONSTRUCTION



SEAL	DESIGN INFORMATION	NO.	DATE	BY	DESCRIPTION
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PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020					
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>FINAL GRADING PLAN</b>					
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000					
DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-145</b> SHEET: 48 OF 144					

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DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DATE
DRAWN BY:	SMB	BY:	
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**FINAL GRADING PLAN**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-146**  
 SHEET: 49 OF 144

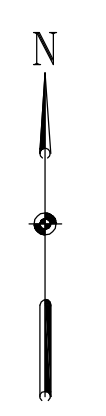
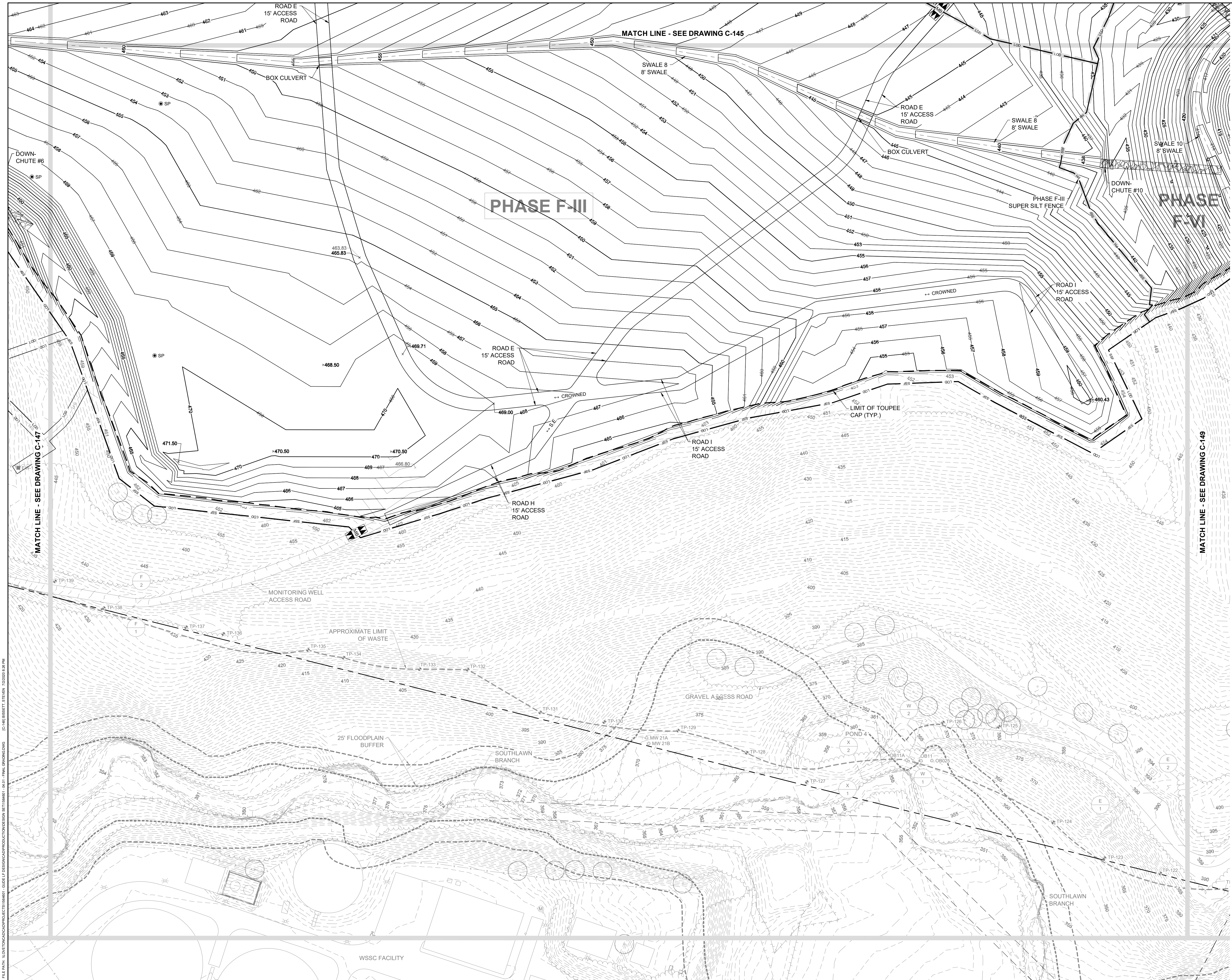
90% DESIGN PLANS - NOT FOR CONSTRUCTION



SEAL	DESIGN INFORMATION	DESIGNED BY: KEF / SMB	PROJECT MANAGER: MJG
	DRAWN BY: SMB	CHECKED BY: LJO / GAT	
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020			
REVISIONS NO. DATE BY DESCRIPTION			
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>FINAL GRADING PLAN</b>			
<b>EA</b> <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000			
DATE: JULY 2020			
PROJECT NUMBER: 1564601			
<b>C-147</b> SHEET: 50 OF 144			

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 (S) JEFFREY STEVEN 7/20/20 8:28 AM

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REVISIONS		DESCRIPTION
NO.	DATE	BY


  

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

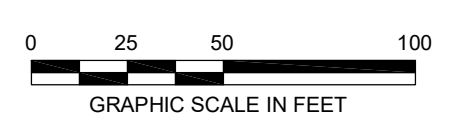
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**FINAL GRADING PLAN**

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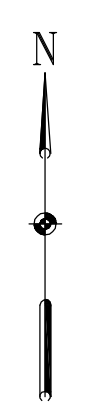
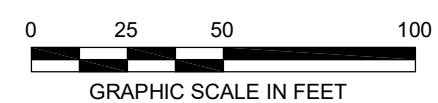
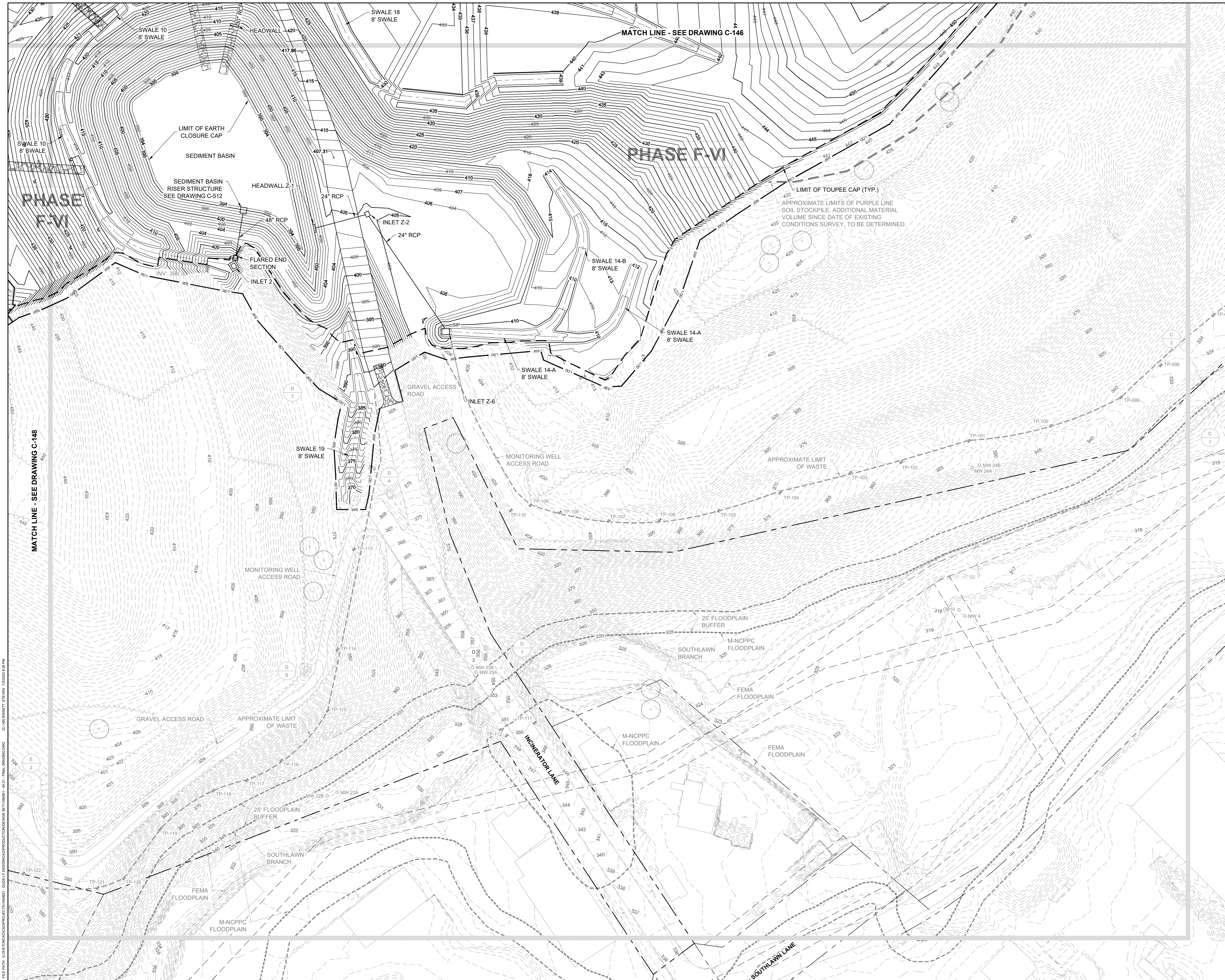
  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-148**  
 SHEET: 51 OF 144



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 (SMB) JEREMY STEVENSON 7/20/20 2:58 PM

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REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND		<b>FINAL GRADING PLAN</b>
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<p><b>EA Engineering, Science, and Technology, Inc., PBC</b>          Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</p>	DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-149</b> SHEET: 52 OF 144
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90% DESIGN PLANS - NOT FOR CONSTRUCTION

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DRAINAGE AREA	PATH	FLOW TYPE	N	LENGTH (FT)	SLOPE (FT/FT)	Tc (HR)
1A	A TO B	SHEET FLOW	0.24	100	0.018	0.250
	B TO C	SHALLOW CONCENTRATED	UNPAVED	1122	0.022	0.130
	C TO D	CHANNEL		668	0.050	0.012
1B	A TO B	SHEET FLOW	0.24	100	0.044	0.175
	B TO C	SHALLOW CONCENTRATED	UNPAVED	1234	0.050	0.095
	C TO D	CHANNEL		89	0.0320	0.0020
2	A TO B	SHEET FLOW	0.24	100	0.024	0.223
	B TO C	SHALLOW CONCENTRATED	UNPAVED	521	0.025	0.056
	C TO D	CHANNEL		576	0.076	0.007
3	A TO B	SHEET FLOW	0.24	100	0.020	0.240
	B TO C	SHALLOW CONCENTRATED	UNPAVED	272	0.016	0.037
	C TO D	SHALLOW CONCENTRATED	UNPAVED	158	0.248	0.005
4	A TO B	SHEET FLOW	0.24	100	0.009	0.330
	B TO C	SHALLOW CONCENTRATED	UNPAVED	1020	0.110	0.053
	A TO B	SHEET FLOW	0.24	100	0.035	0.192
5	B TO C	SHALLOW CONCENTRATED	UNPAVED	311	0.016	0.042
	C TO D	CHANNEL		1222	0.148	0.029
	A TO B	SHEET FLOW	0.24	100	0.049	0.168
6	B TO C	SHALLOW CONCENTRATED	UNPAVED	616	0.238	0.022
	A TO B	SHEET FLOW	0.24	100	0.068	0.147
	B TO C	SHALLOW CONCENTRATED	UNPAVED	694	0.246	0.024
7	C TO D	CHANNEL		120	0.410	0.002
	A TO B	SHEET FLOW	0.24	100	0.028	0.210
	B TO C	SHALLOW CONCENTRATED	UNPAVED	485	0.181	0.020
8	C TO D	CHANNEL		40	0.013	0.002
	D TO E	CHANNEL		230	0.0675	0.002
	A TO B	SHEET FLOW	0.24	100	0.026	0.216
9	B TO C	SHALLOW CONCENTRATED	UNPAVED	586	0.222	0.021
	A TO B	SHEET FLOW	0.24	100	0.016	0.263
	B TO C	SHALLOW CONCENTRATED	UNPAVED	83	0.066	0.006
10	C TO D	CHANNEL		249	0.091	0.038
	D TO E	CHANNEL		31	0.023	0.002
	A TO B	SHEET FLOW	0.24	100	0.043	0.015
11	B TO C	SHALLOW CONCENTRATED	UNPAVED	237	0.010	0.032
	A TO B	SHEET	0.24	100	0.083	0.136
	B TO C	SHALLOW CONCENTRATED	UNPAVED	124	0.218	0.005
12	C TO D	CHANNEL		115	0.138	0.014



DRAINAGE AREA	PEAK FLOW (CFS)		
	2-YR STORM	10-YR STORM	100-YR STORM
1A	39.86	81.52	173.52
1B	21.64	43.20	90.22
2	35.82	72.89	155.01
3	14.99	30.51	64.81
4	8.88	18.91	41.56
5	20.41	43.24	94.76
6	19.81	42.70	94.54
7	8.02	16.92	36.76
8	5.03	10.43	22.44
9	9.90	20.94	45.84
10	1.85	3.77	8.00
11	1.00	1.76	3.31
12	0.7100	1.4700	3.14

DESIGN INFORMATION

REVISIONS

DESIGNED BY:

KEY / SMB

DRAWN BY:

SMB

CHECKED BY:

LJO / GAT

PROJECT MANAGER:

M/JG

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.

SEAL

DATE

BY

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

**DRAINAGE AREA MAP - EXISTING CONDITIONS**

DATE: JULY 2020

PROJECT NUMBER: 1564601

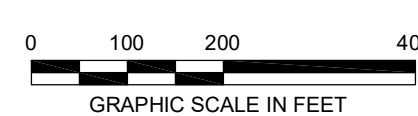
C-150

SHEET: 53 OF 144

FILE PATH: I:\MONTGOMERY\PROJECTS\1564601 - GUIDE L.F. REMEDIATION\CONSTRUCTION\20170401 - 2021 - DRAINAGE AREA MAP.DWG

90% DESIGN PLANS - NOT FOR CONSTRUCTION

SC/SWM SHEET 20 OF 48



DRAINAGE AREA	PATH	FLOW TYPE	N	LENGTH (FT)	SLOPE (FT/FT)	Tc (HR)
1A	A TO B	SHEET FLOW	0.24	100	0.012	0.295
	B TO C	SHALLOW CONCENTRATED	UNPAVED	369	0.038	0.033
	C TO D	CHANNEL	0.24	900	0.030	0.035
	E TO F			418	0.030	0.008
1B	A TO B	SHEET	0.24	100	0.015	0.269
	B TO C	SHALLOW CONCENTRATED	UNPAVED	300	0.025	0.033
	C TO D	CHANNEL	0.24	1260	0.030	0.021
	D TO E			169	0.129	0.002
2	A TO B	SHEET	0.24	100	0.035	0.192
	B TO C	SHALLOW CONCENTRATED	UNPAVED	752	0.020	0.092
	C TO D	CHANNEL	0.24	861	0.010	0.058
	D TO E			1680	0.016	0.044
3	A TO B	SHEET FLOW	0.24	100	0.240	0.190
	B TO C	SHALLOW CONCENTRATED	UNPAVED	794	0.050	0.094
	C TO D	CHANNEL	0.24	172	0.030	0.003
	D TO E			517	0.030	0.015
4	A TO B	SHEET FLOW	0.24	100	0.089	0.132
	B TO C	SHALLOW CONCENTRATED	UNPAVED	952	0.110	0.049
	C TO D	CHANNEL	0.24	35	0.066	0.002
	D TO E			383	0.005	0.235
5	A TO B	SHEET FLOW	0.24	100	0.216	0.019
	B TO C	SHALLOW CONCENTRATED	UNPAVED	961	0.063	0.152
	C TO D	CHANNEL	0.24	616	0.238	0.022
	D TO E			100	0.095	0.129
6	A TO B	SHEET FLOW	0.24	100	0.246	0.019
	B TO C	SHALLOW CONCENTRATED	UNPAVED	550	0.246	0.019
	C TO D	CHANNEL	0.24	120	0.410	0.002
	D TO E			100	0.124	0.116
7	A TO B	SHEET FLOW	0.24	100	0.181	0.018
	B TO C	SHALLOW CONCENTRATED	UNPAVED	434	0.181	0.018
	C TO D	CHANNEL	0.24	40	0.013	0.005
	D TO E			230	0.068	0.002
8	A TO B	SHEET FLOW	0.24	100	0.029	0.207
	B TO C	SHALLOW CONCENTRATED	UNPAVED	586	0.222	0.021
	C TO D	CHANNEL	0.24	100	0.062	0.153
	D TO E			100	0.062	0.153
9	A TO B	SHEET FLOW	0.24	100	0.100	0.002
	B TO C	SHALLOW CONCENTRATED	UNPAVED	30	0.100	0.002
	C TO D	CHANNEL	0.24	249	0.091	0.038
	D TO E			31	0.023	0.002
10	A TO B	SHEET FLOW	0.24	100	0.011	0.012
	B TO C	SHALLOW CONCENTRATED	UNPAVED	128	0.025	0.005
	C TO D	CHANNEL	0.24	100	0.083	0.136
	D TO E			100	0.083	0.136
11	A TO B	SHEET FLOW	0.24	100	0.218	0.005
	B TO C	SHALLOW CONCENTRATED	UNPAVED	124	0.218	0.005
	C TO D	CHANNEL	0.24	115	0.138	0.014
	D TO E			115	0.138	0.014
12	A TO B	SHEET FLOW	0.24	100	0.138	0.014
	B TO C	SHALLOW CONCENTRATED	UNPAVED	115	0.138	0.014
	C TO D	CHANNEL	0.24	115	0.138	0.014
	D TO E			115	0.138	0.014



DRAINAGE AREA	PEAK FLOW (CFS)		
	2-YR STORM	10-YR STORM	100-YR STORM
1A	36.99	75.59	161.02
1B	36.73	73.58	153.87
2	23.83	48.63	103.62
3	12.81	25.62	53.63
4	11.00	23.18	50.48
5	16.07	34.24	75.38
6	20.46	44.01	97.24
7	8.48	17.84	38.72
8	6.72	13.56	28.53
9	11.16	23.14	49.63
10	1.24	2.50	5.28
11	0.93	1.66	3.17
12	0.71	1.47	3.14

DESIGNED BY: KEF / SMB  
 DRAWN BY: SMB  
 CHECKED BY: LJO / GAT  
 PROJECT MANAGER: MJG

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.

REVISIONS

NO.	DATE	BY	DESCRIPTION

SEAL

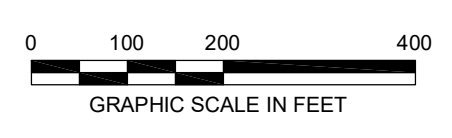
GUIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND

DRAINAGE AREA MAP - PROPOSED CONDITIONS

EA Engineering, Science, and Technology, Inc., PBC  
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 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601

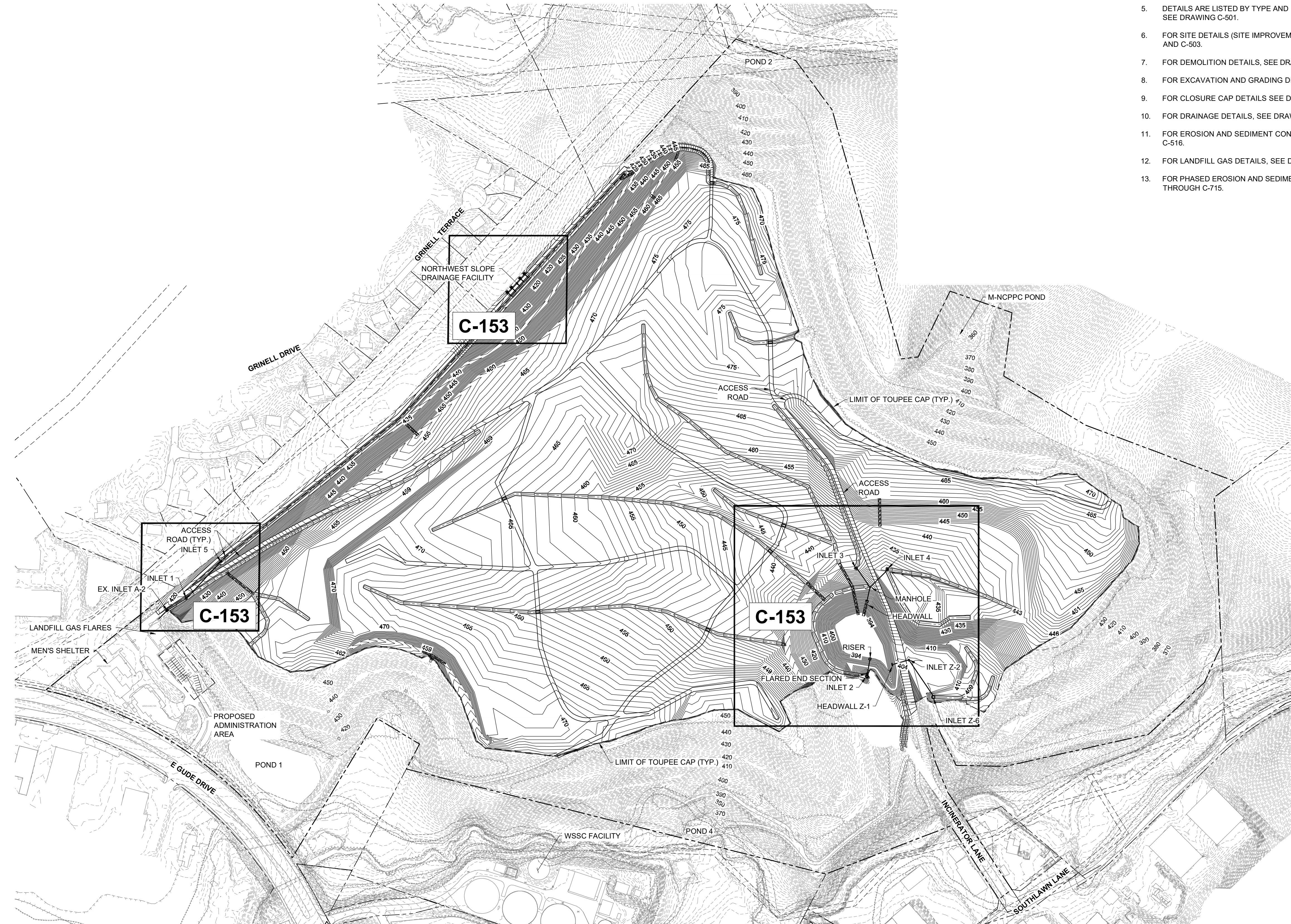
C-151  
 SHEET: 54 OF 144



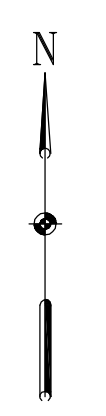
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90% DESIGN PLANS - NOT FOR CONSTRUCTION SCISWM SHEET 21 OF 48

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- GENERAL NOTES**
- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
  - FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109.
  - FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-003.
  - FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
  - DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS, SEE DRAWING C-501.
  - FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
  - FOR DEMOLITION DETAILS, SEE DRAWING C-504.
  - FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
  - FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
  - FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
  - FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
  - FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
  - FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.



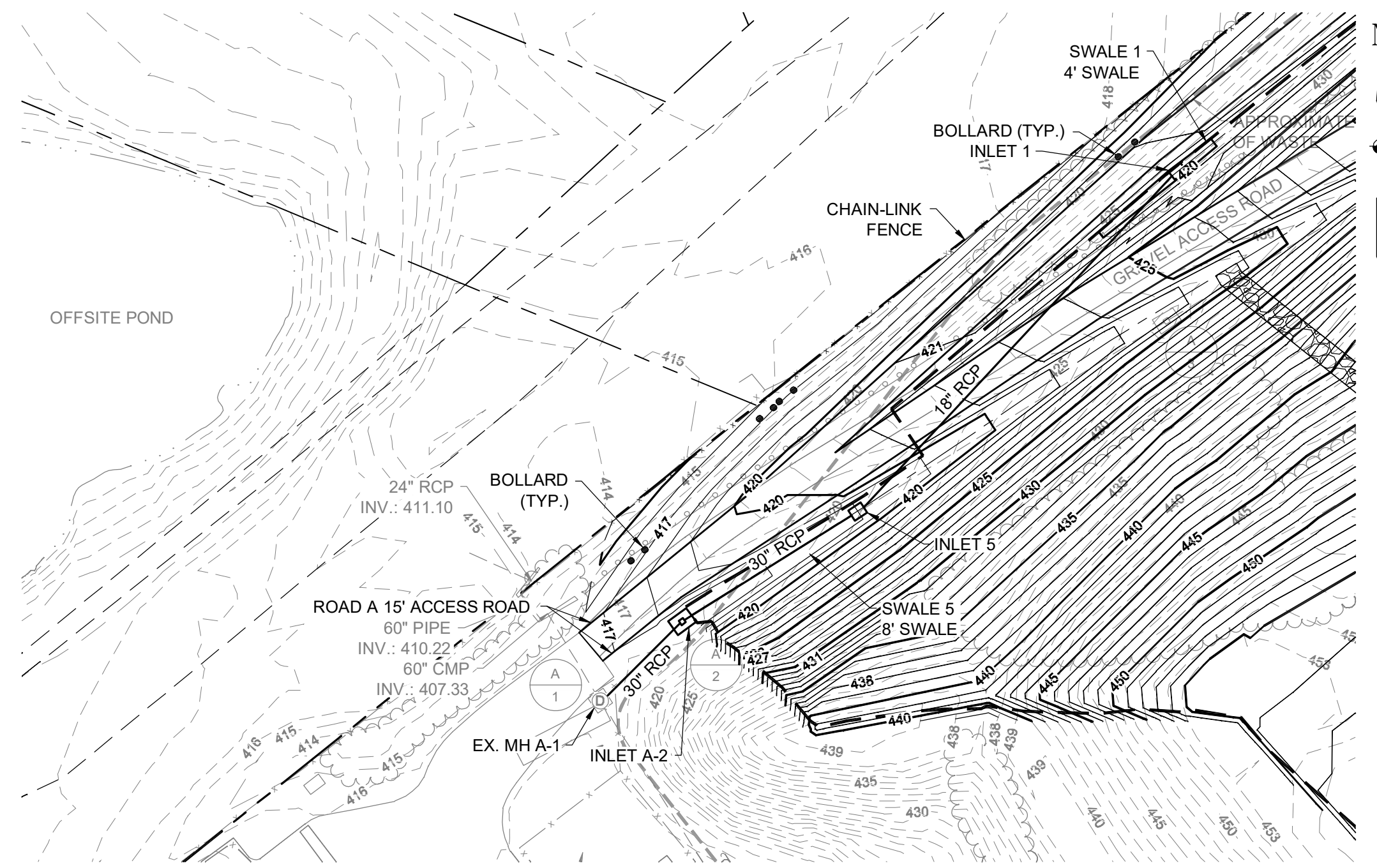
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NO.	DATE	BY
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DESIGNED BY:	KEF / SMB	
DRAWN BY:	SMB	
CHECKED BY:	LJO / GAT	
PROJECT MANAGER:	MJG	

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

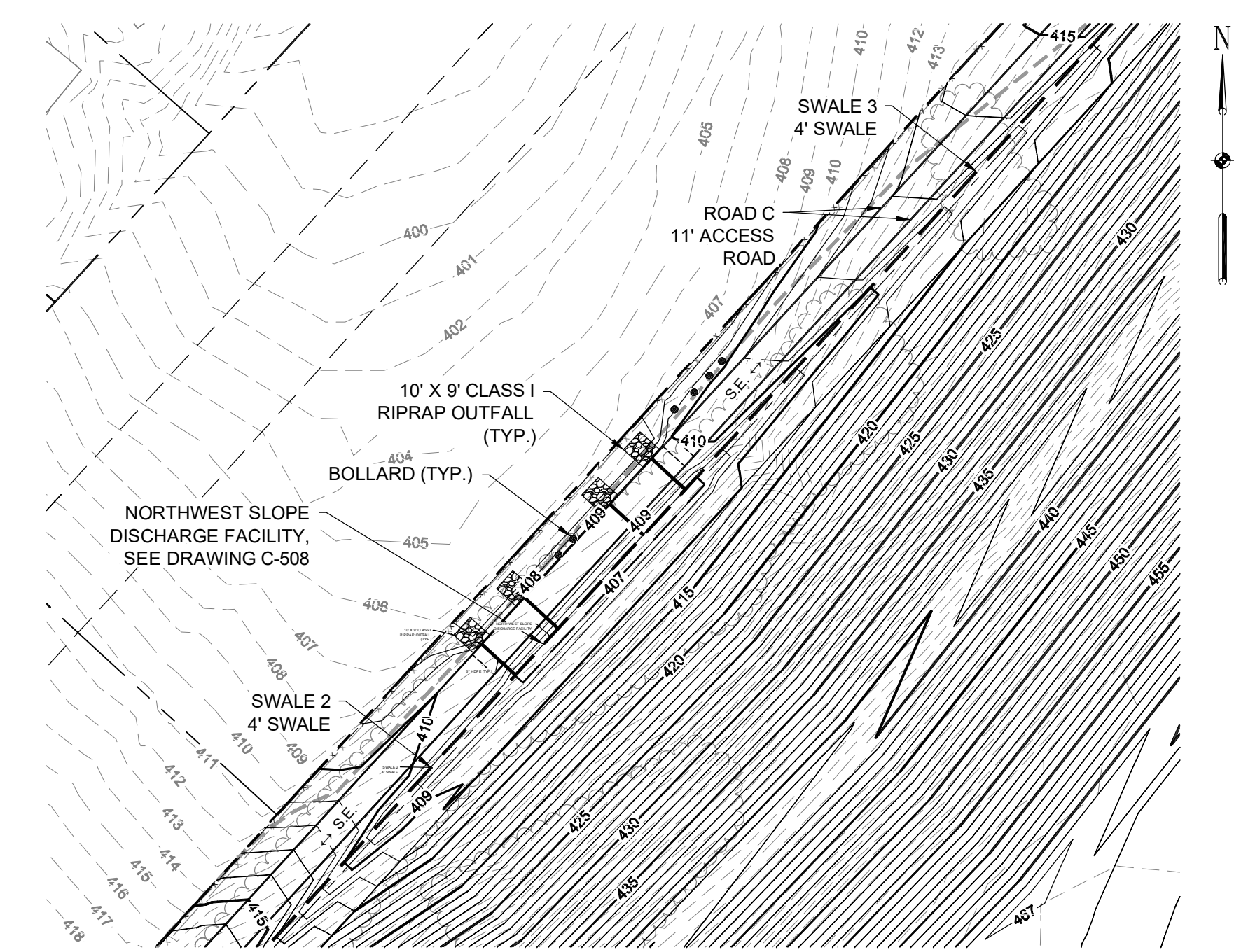
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**STORM DRAIN PLAN - KEY SHEET**

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 DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-152**  
 SHEET: 55 OF 144





**STORM DRAIN PLAN - EX. A-2 TO I-1**  
SCALE: NOT TO SCALE



**STORM DRAIN PLAN - NORTHWEST SLOPE DISCHARGE FACILITY**  
SCALE: NOT TO SCALE



**STORM DRAIN PLAN - I-2 TO RISER, HEADWALL TO I-3, AND MANHOLE TO I-4**  
SCALE: NOT TO SCALE

- NOTES:**
- FOR PROFILES, SEE DRAWING C-154.
  - POND 3 TO BE LINED WITH EARTH CLOSURE CAP. REFER TO THE DRAWING ON C-508.
  - FOR RISER STRUCTURE DETAIL, SEE DRAWING C-512.

REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG
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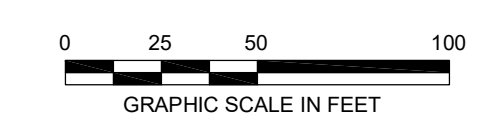
SEAL

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**STORM DRAIN PLANS**

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 225 Schilling Circle, Suite 400  
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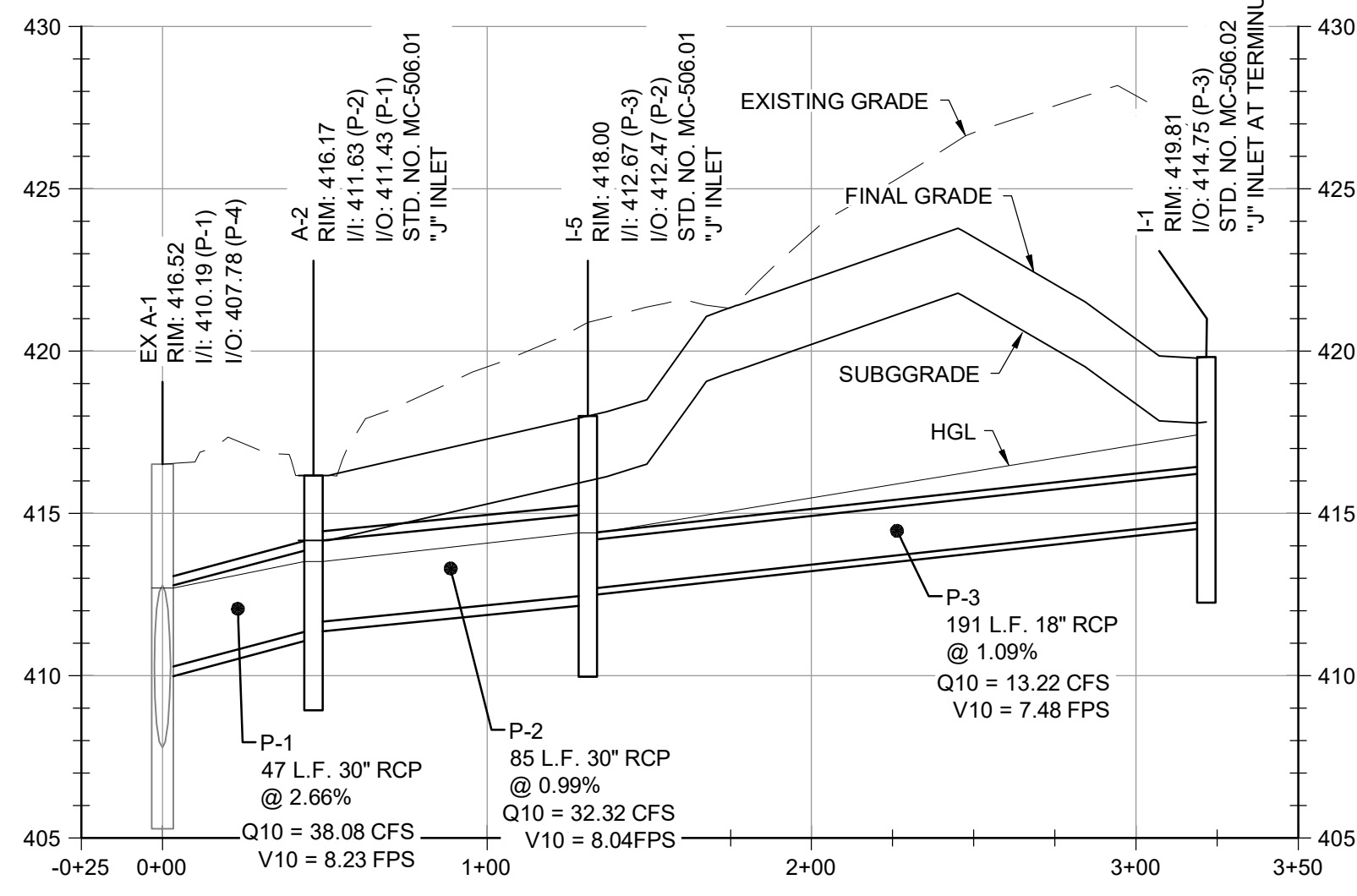
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PROJECT NUMBER: 1564601

**C-153**  
SHEET: 56 OF 144

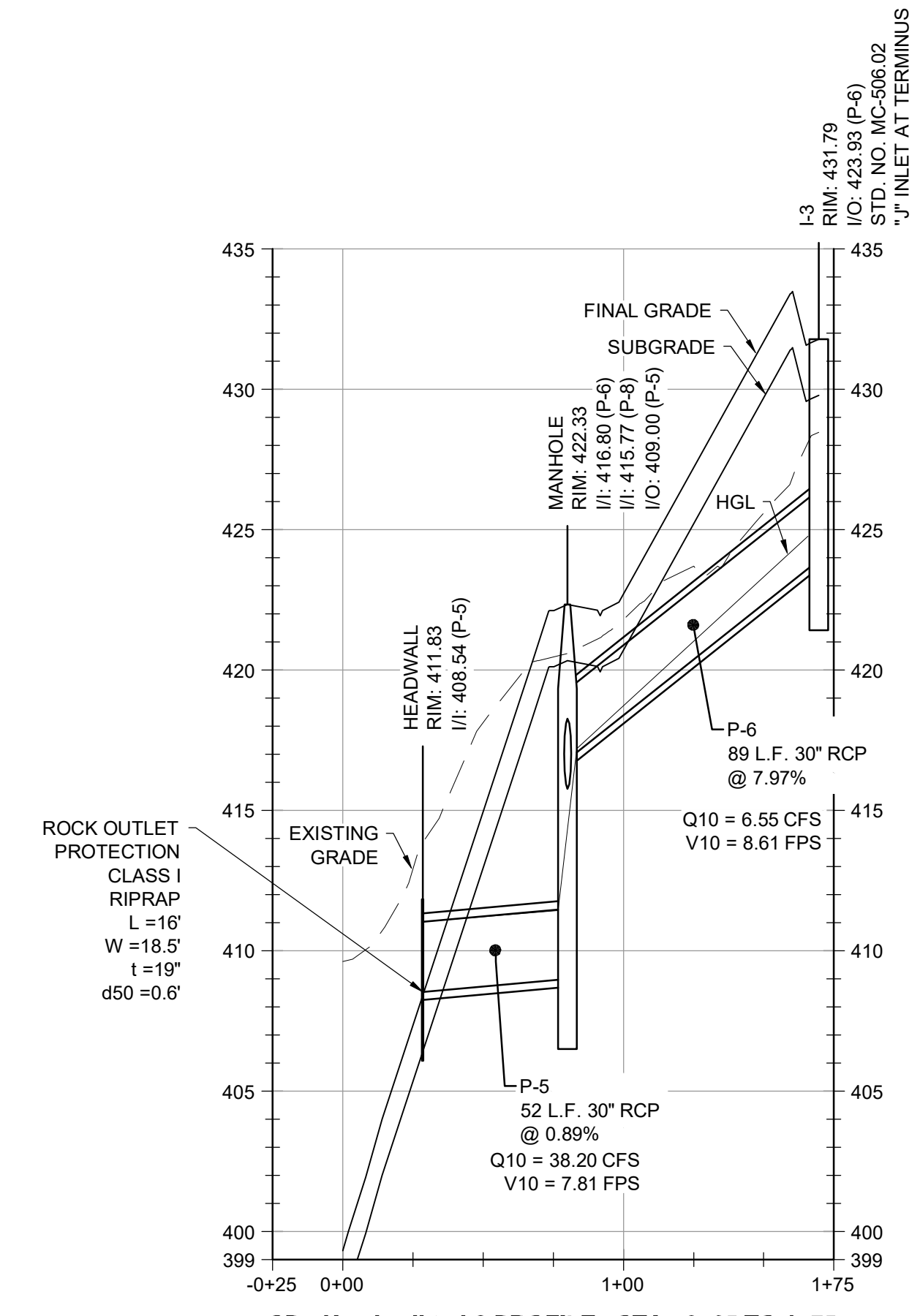


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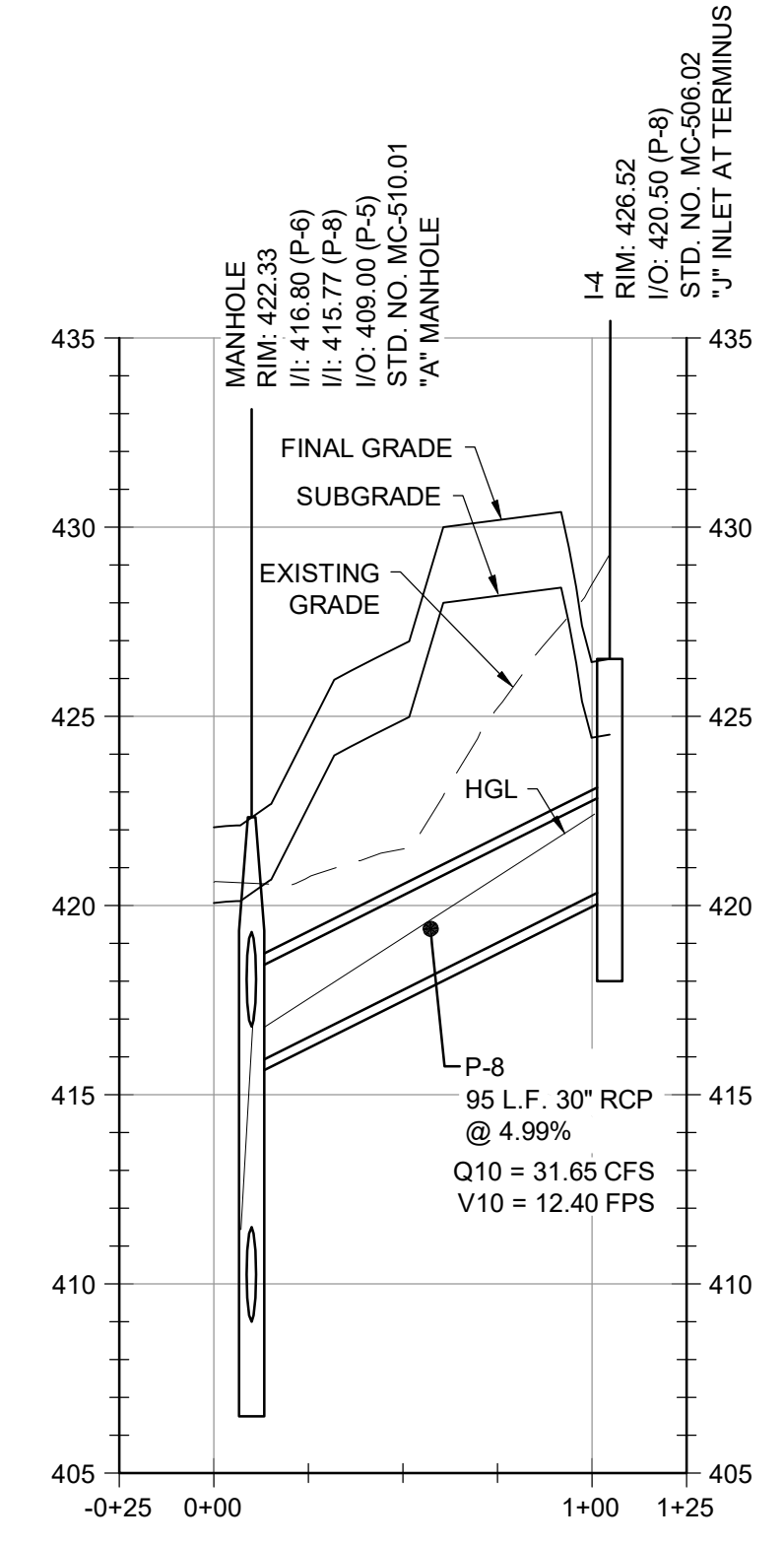




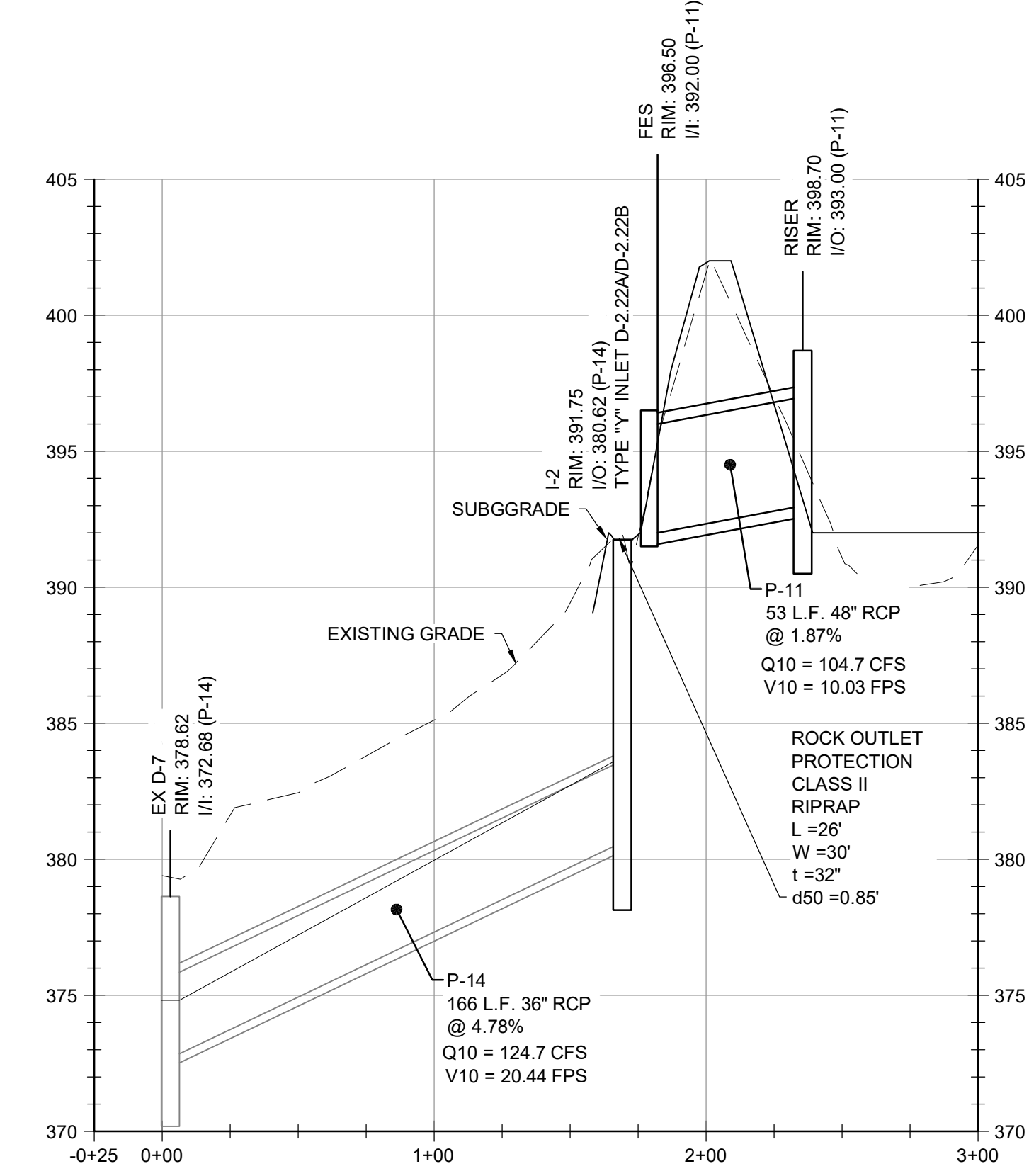
**SD - Ex A-1 to I-1 PROFILE - STA. -0+25 TO 3+50**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



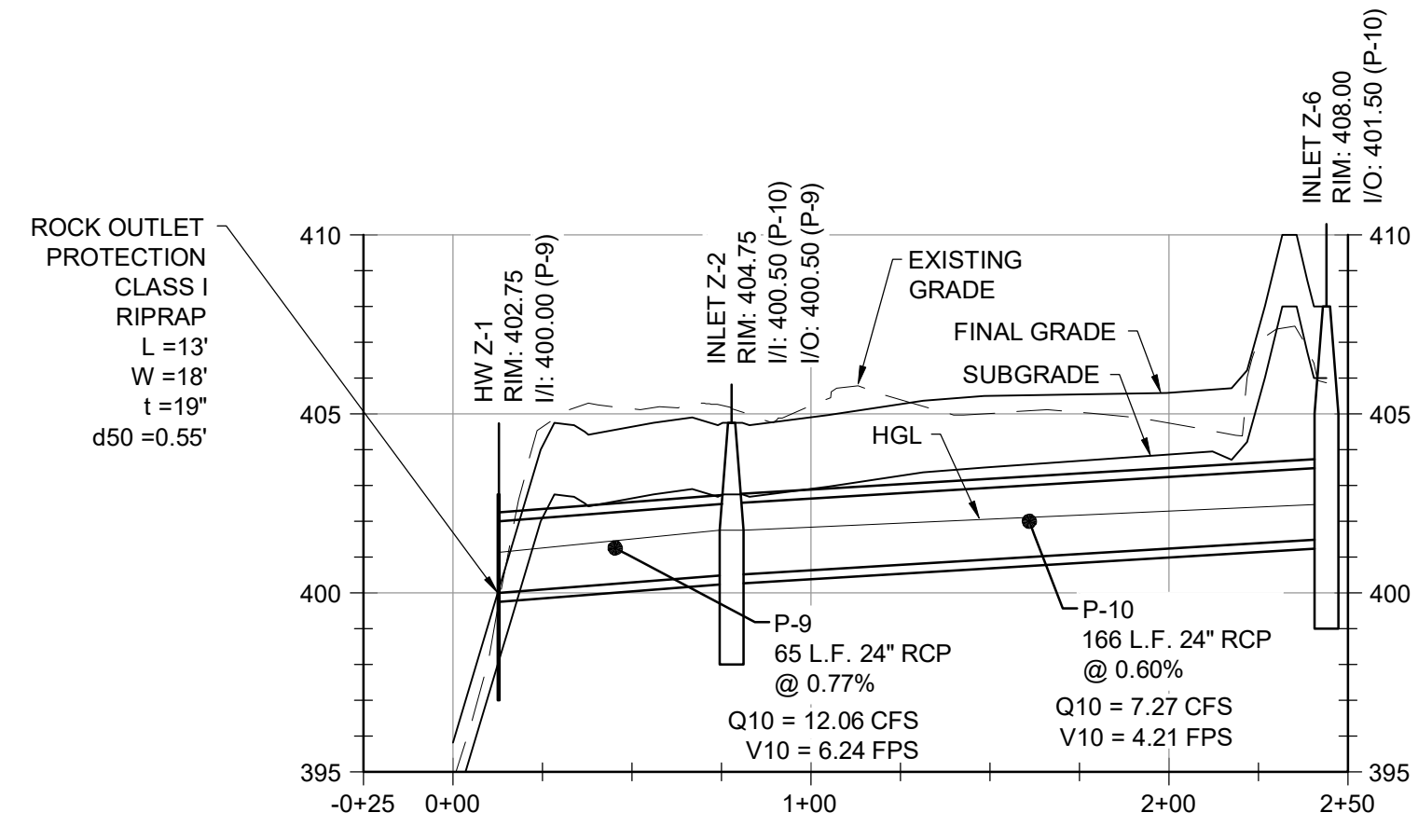
**SD - Headwall to I-3 PROFILE - STA. -0+25 TO 1+75**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**SD - Manhole to I-4 PROFILE - STA. -0+25 TO 1+25**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**SD - D-7 to Riser PROFILE - STA. -0+25 TO 3+00**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



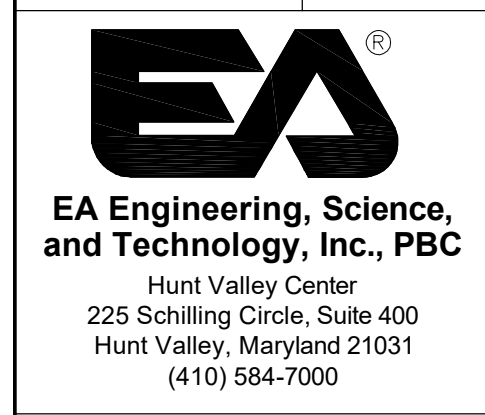
**SD - HW Z-1 TO I-2-6 PROFILE - STA. -0+25 TO 2+50**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'

STRUCTURE TABLE		
STRUCTURE NAME:	NORTHING	EASTING
I-2	524441.40	1273800.38
I-4	524842.17	1273878.23
HW Z-1	524485.63	1273894.58
INLET Z-2	524502.49	1273957.44
INLET Z-6	524364.43	1274049.66
FES	524454.06	1273802.79
Riser	524506.70	1273811.84
HEADWALL	524724.04	1273800.94
MANHOLE	524774.43	1273811.93
I-3	524847.22	1273760.01
A-2	524687.85	1271184.38
I-5	524732.75	1271255.98
I-1	524871.60	1271386.44
EX A-1	524655.49	1271150.90

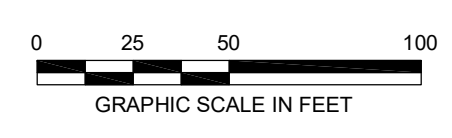
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DRAWN BY:	SMB	BY:	
CHECKED BY:	LJO / GAT	NO. <td>DATE</td>	DATE
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

GUIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 STORM DRAIN PROFILES



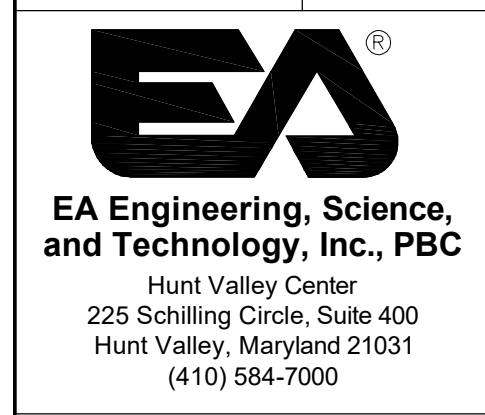
DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-154**  
 SHEET: 56 OF 144



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DATE: JULY 2020  
PROJECT NUMBER: 1564601

**C-155**  
SHEET: 58 OF 144

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**STORM DRAIN PROFILES**

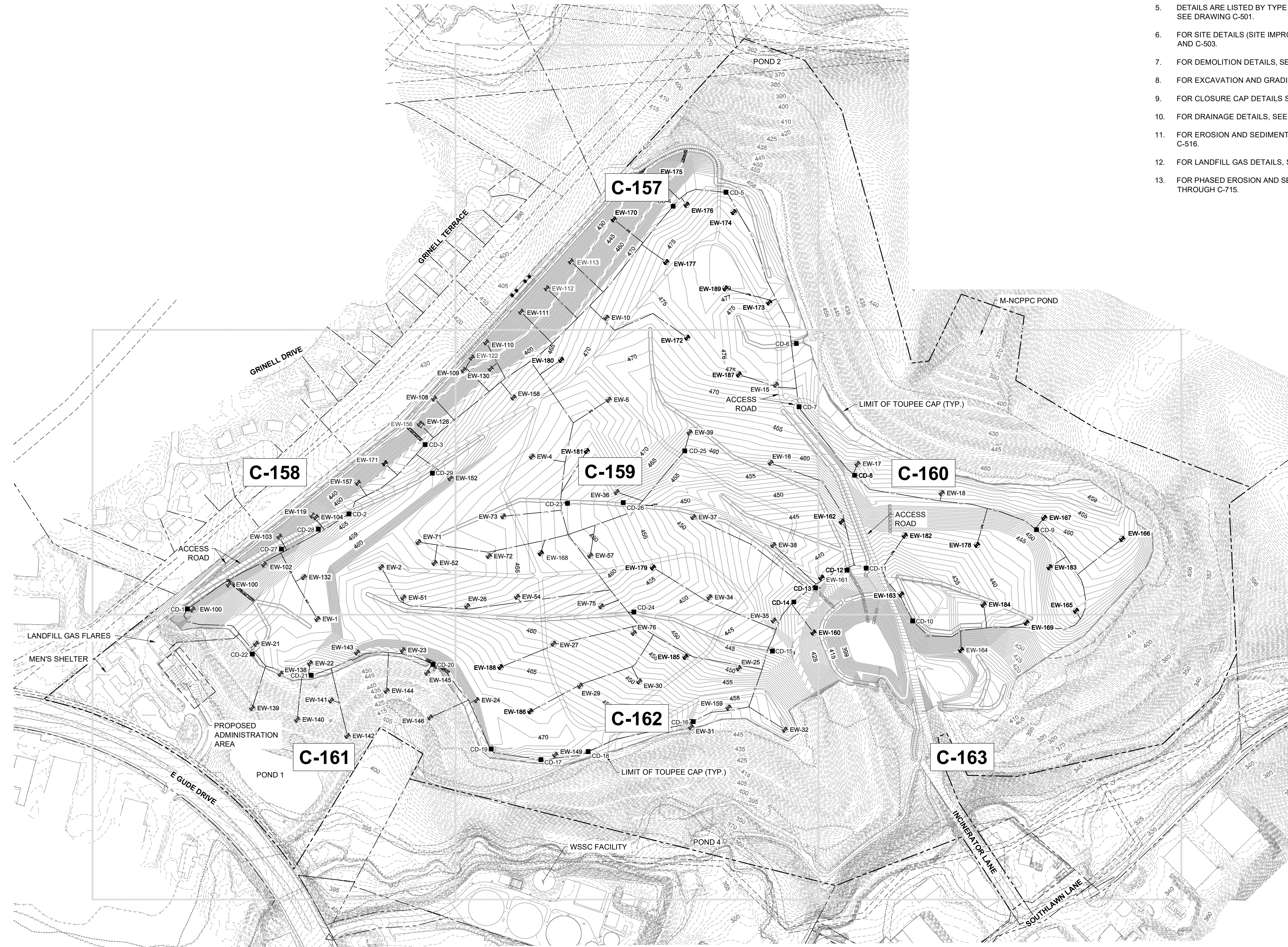
SEAL  
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

DESIGN INFORMATION  
DESIGNED BY: KEF / SMB  
DRAWN BY: SMB  
CHECKED BY: LJO / GAT  
PROJECT MANAGER: MJG

NO. DATE BY

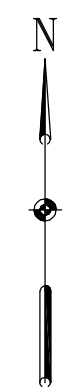
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DESCRIPTION

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**GENERAL NOTES**

1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109.
3. FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-003.
4. FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
5. DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS, SEE DRAWING C-501.
6. FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
7. FOR DEMOLITION DETAILS, SEE DRAWING C-504.
8. FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
9. FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
10. FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
11. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
12. FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
13. FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.



REVISIONS		DESCRIPTION
NO.	DATE	BY

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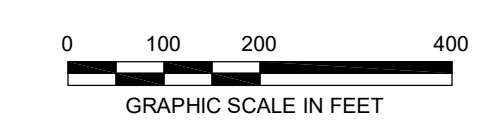
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

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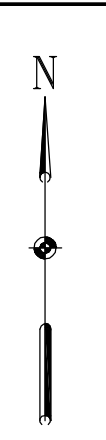
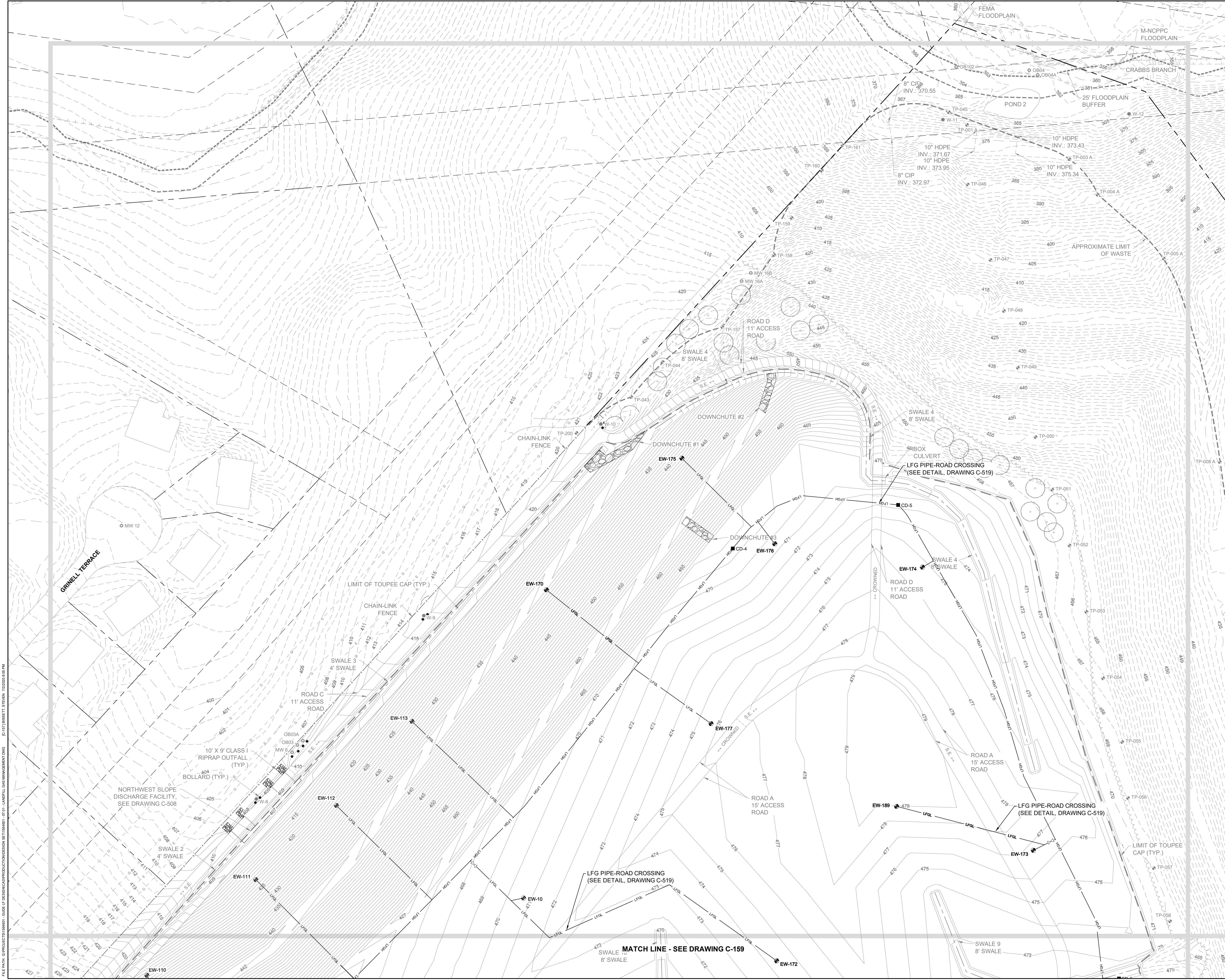
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**LANDFILL GAS MANAGEMENT PLAN - KEY SHEET**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-156**  
 SHEET: 59 OF 144



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REVISIONS		DESCRIPTION	
NO.	DATE	BY	

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DRAWN BY:	SMB			
CHECKED BY:	LJO / GAT			
PROJECT MANAGER:	MJG			

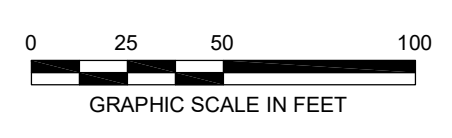
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.

SEAL

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**LANDFILL GAS MANAGEMENT PLAN**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

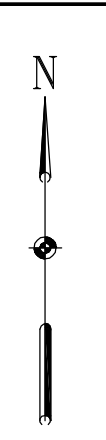
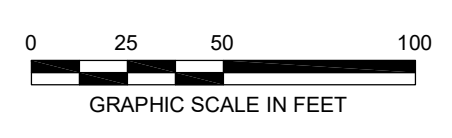
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**C-157**  
 SHEET: 60 OF 144



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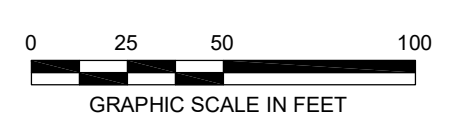
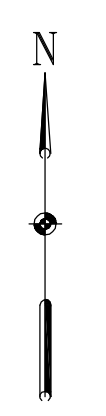
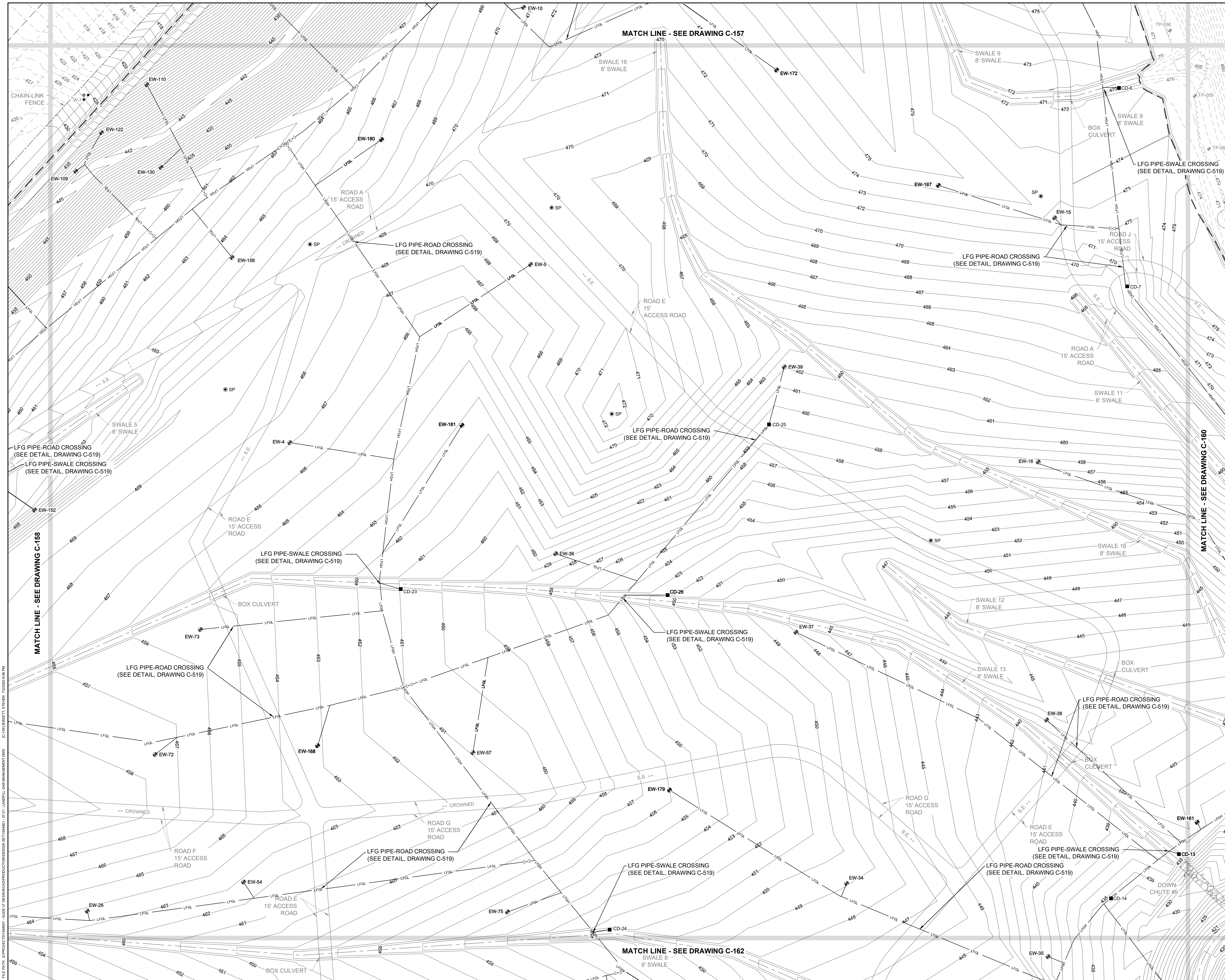
90% DESIGN PLANS - NOT FOR CONSTRUCTION

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PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020					
<p><b>GUIDE LANDFILL REMEDIATION DESIGN</b>  <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b>  <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b>  <small>MONTGOMERY COUNTY, MARYLAND</small></p> <p><b>LANDFILL GAS MANAGEMENT PLAN</b></p>					
<p><b>EA</b>  <b>EA Engineering, Science, and Technology, Inc., PBC</b>  <small>Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</small></p>					
<p>DATE: JULY 2020          PROJECT NUMBER: 1564601  <b>C-158</b>          SHEET: 61 OF 144</p>					

90% DESIGN PLANS - NOT FOR CONSTRUCTION



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		PROJECT MANAGER
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DRAWN BY:	SMB	
CHECKED BY:	LJO / GAT	

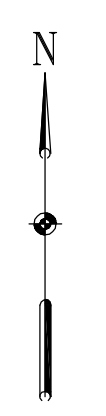
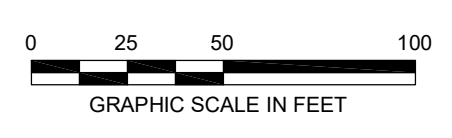
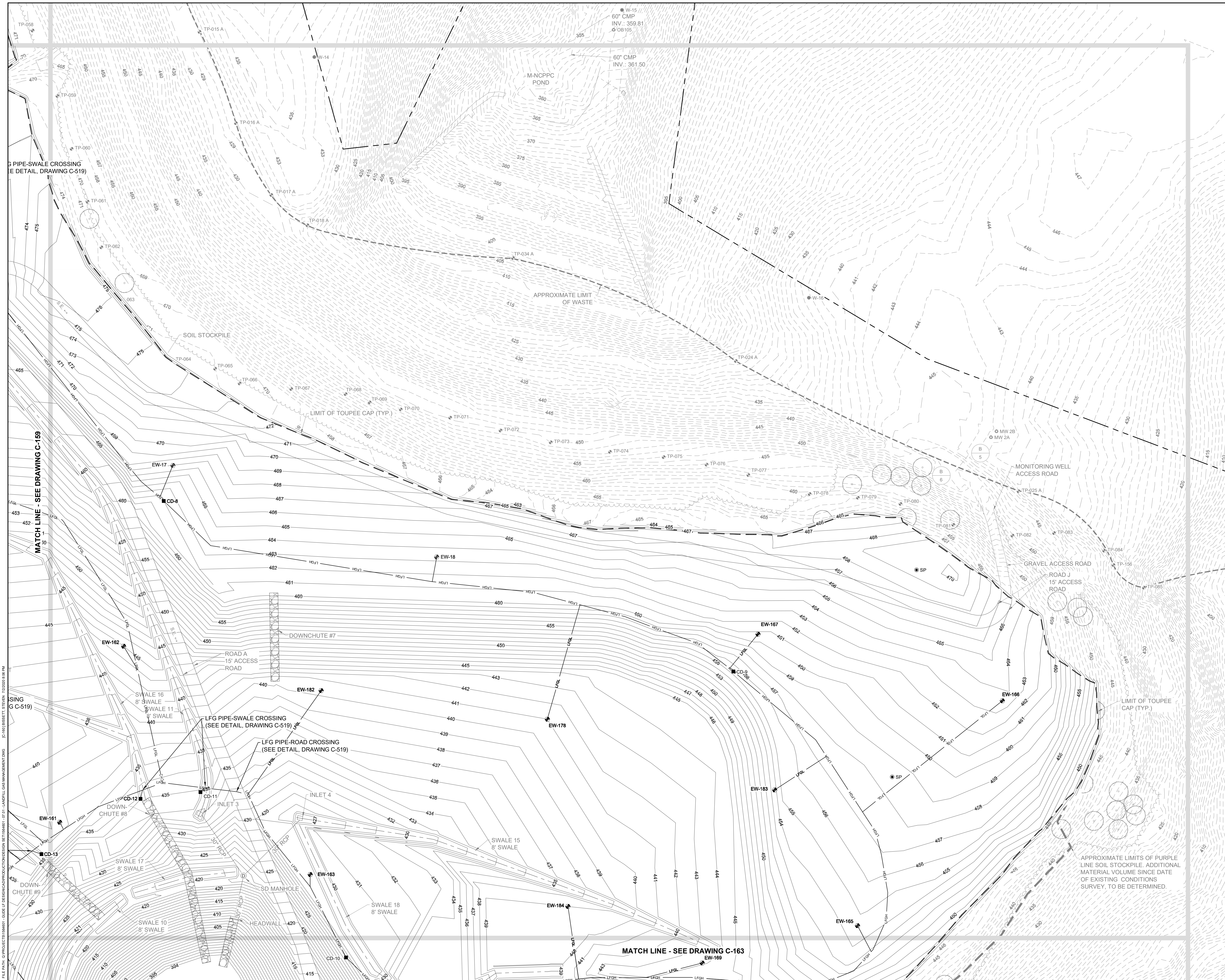
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**LANDFILL GAS MANAGEMENT PLAN**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-159**  
 SHEET: 62 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		PROJECT MANAGER
DESIGNED BY:	KEF / SMB	MJG
DRAWN BY:	SMB	
CHECKED BY:	LJO / GAT	

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**LANDFILL GAS MANAGEMENT PLAN**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-160**  
 SHEET: 63 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION

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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**LANDFILL GAS MANAGEMENT PLAN**

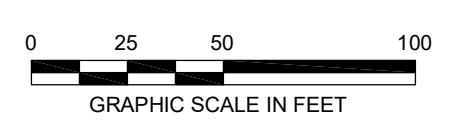
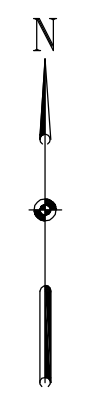
**EA**  
**EA Engineering, Science,**  
**and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-161**  
 SHEET: 64 OF 144

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DRAWN BY:	SMB	BY:	DESCRIPTION
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.			
SEAL			

90% DESIGN PLANS - NOT FOR CONSTRUCTION





REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGNED BY:	KEY / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

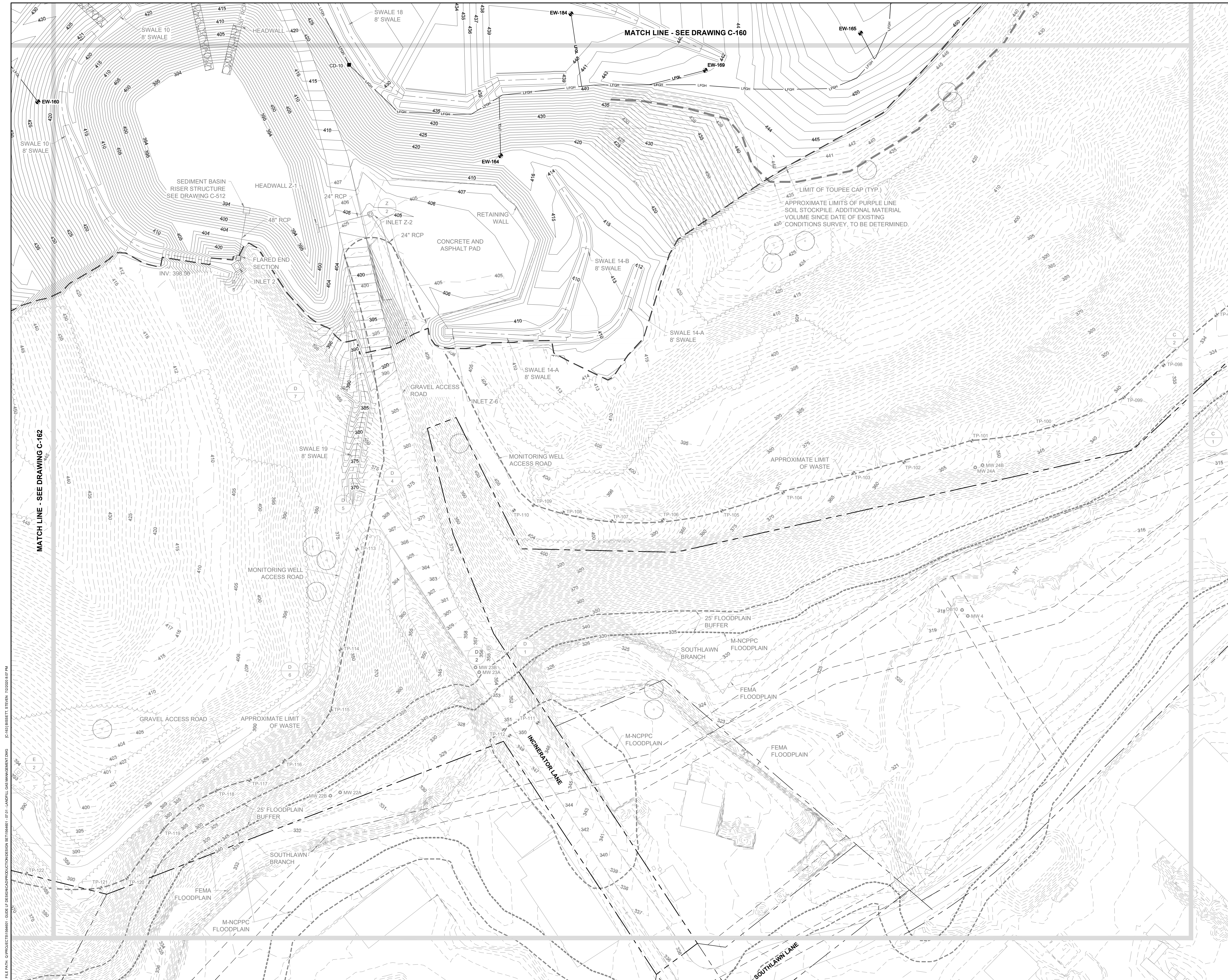
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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**LANDFILL GAS MANAGEMENT PLAN**


**EA Engineering, Science, and Technology, Inc., PBC**  
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 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-162**  
 SHEET: 65 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION

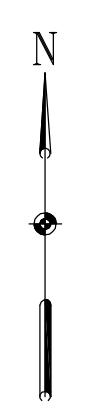


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<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> <small>MONTGOMERY COUNTY, MARYLAND</small>		<b>LANDFILL GAS MANAGEMENT PLAN</b>																			
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> <small>Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</small>		<b>90% DESIGN PLANS - NOT FOR CONSTRUCTION</b>																			
DATE: JULY 2020 PROJECT NUMBER: 1564601		<b>C-163</b> <small>SHEET: 66 OF 144</small>																			
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PROJECT MANAGER:	MJG																				
REVISIONS																					
NO.	DESCRIPTION																				



- GENERAL NOTES**
- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
  - FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109.
  - FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
  - FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
  - DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS, SEE DRAWING C-501.
  - FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
  - FOR DEMOLITION DETAILS, SEE DRAWING C-504.
  - FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
  - FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
  - FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
  - FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
  - FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
  - FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:
								MJG

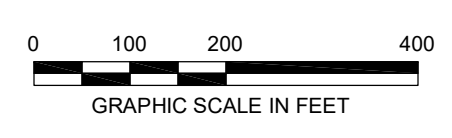
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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PLAN - KEY SHEET**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
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 Hunt Valley, Maryland 21031  
 (410) 584-7000

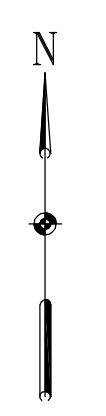
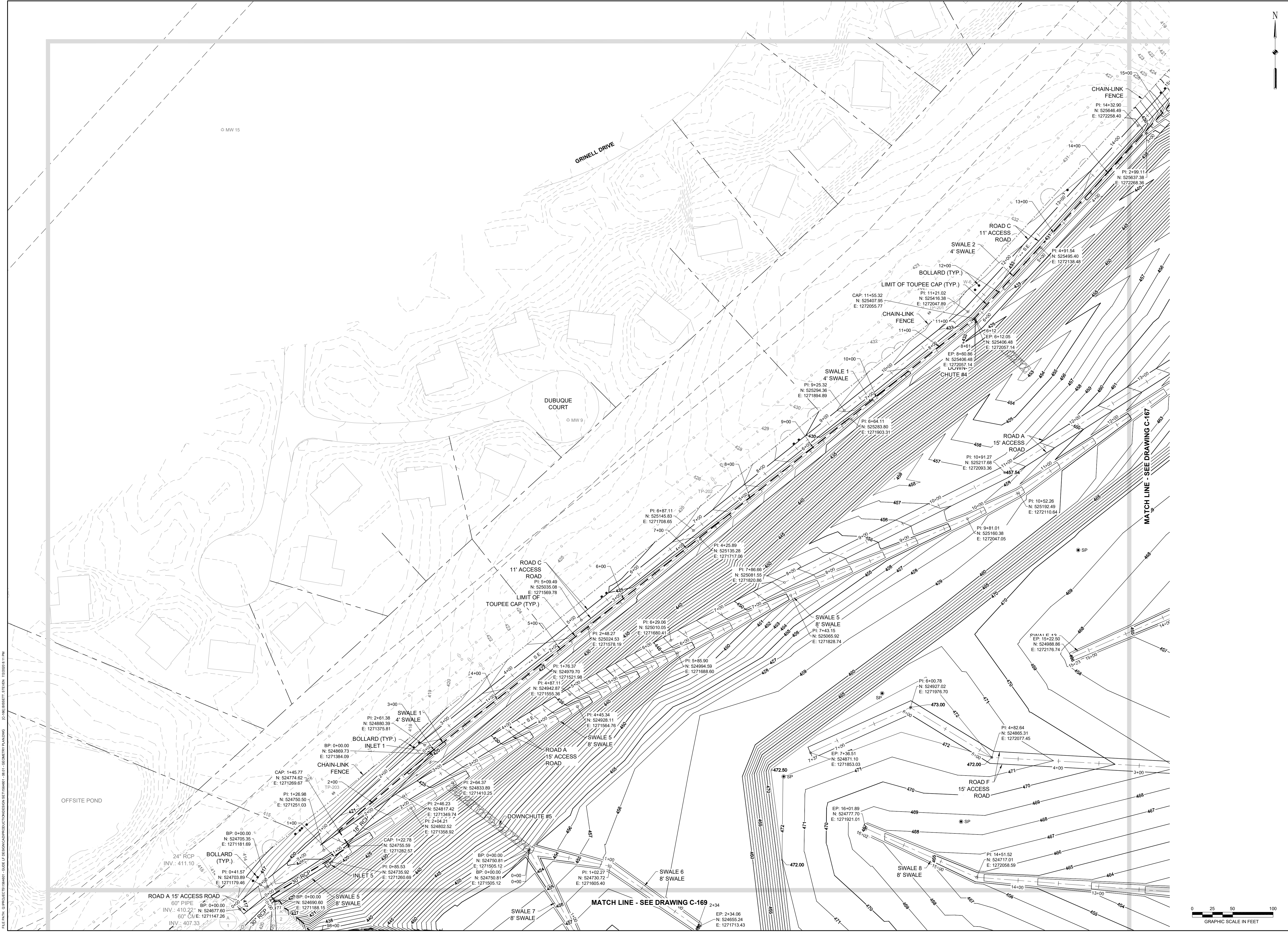
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 PROJECT NUMBER: 1564601  
**C-164**  
 SHEET: 67 OF 144



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 PLOT BY: J. BISHOP

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REVISIONS		DESCRIPTION	
NO.	DATE	BY	

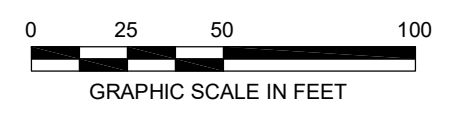
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DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	MJG

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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PLAN**

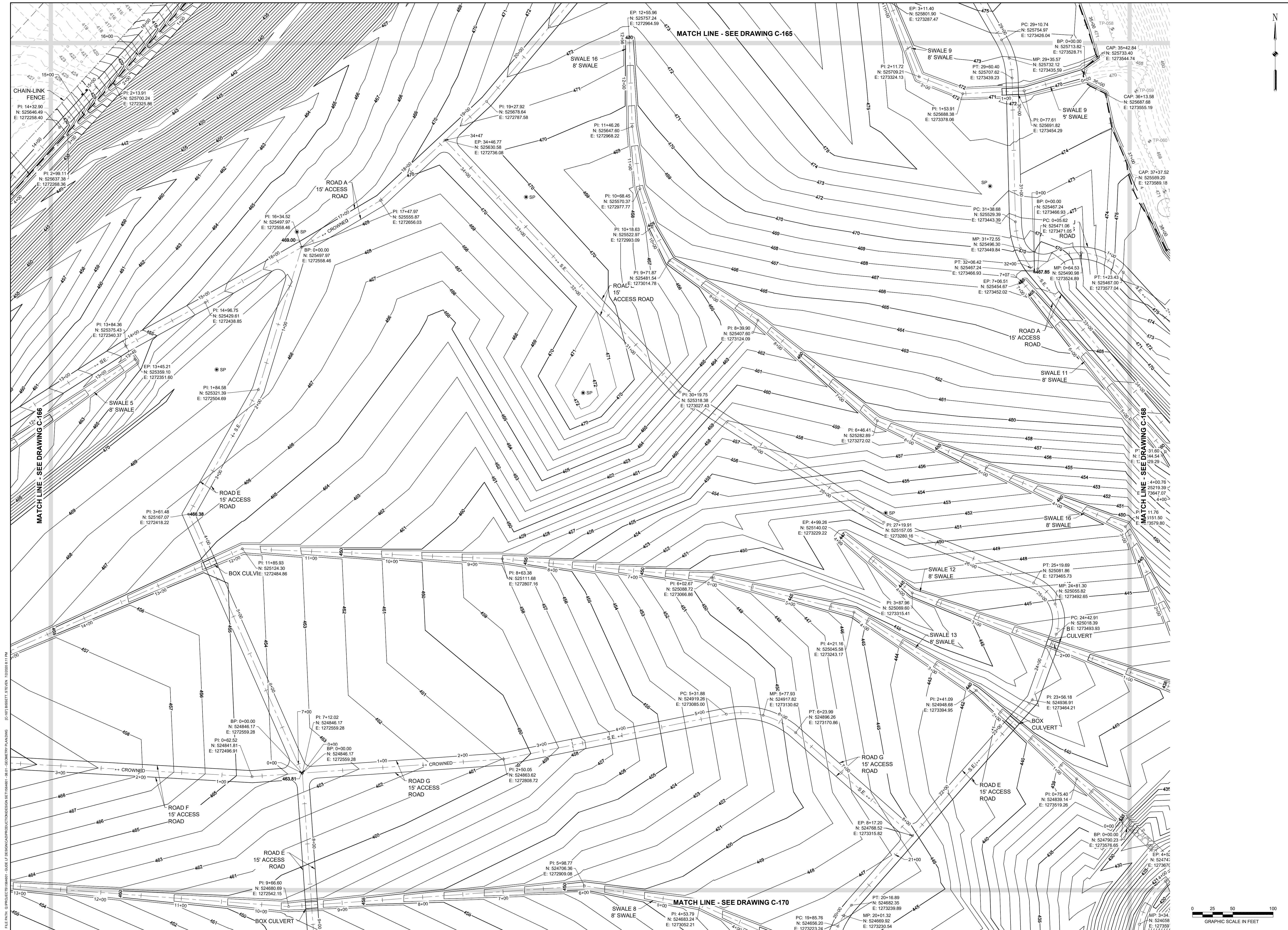
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 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-166**  
 SHEET: 69 OF 144



FILE PATH: C:\PROJECTS\1564601\DESIGN\1564601-0817-GEOMETRY PLAN.DWG (C:\MSOFT\BENTLEY\STEVEN\_7/25/2020 8:11 PM)

90% DESIGN PLANS - NOT FOR CONSTRUCTION



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REVISIONS	NO.	DATE	BY	DESCRIPTION			

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

**GEOMETRY PLAN**

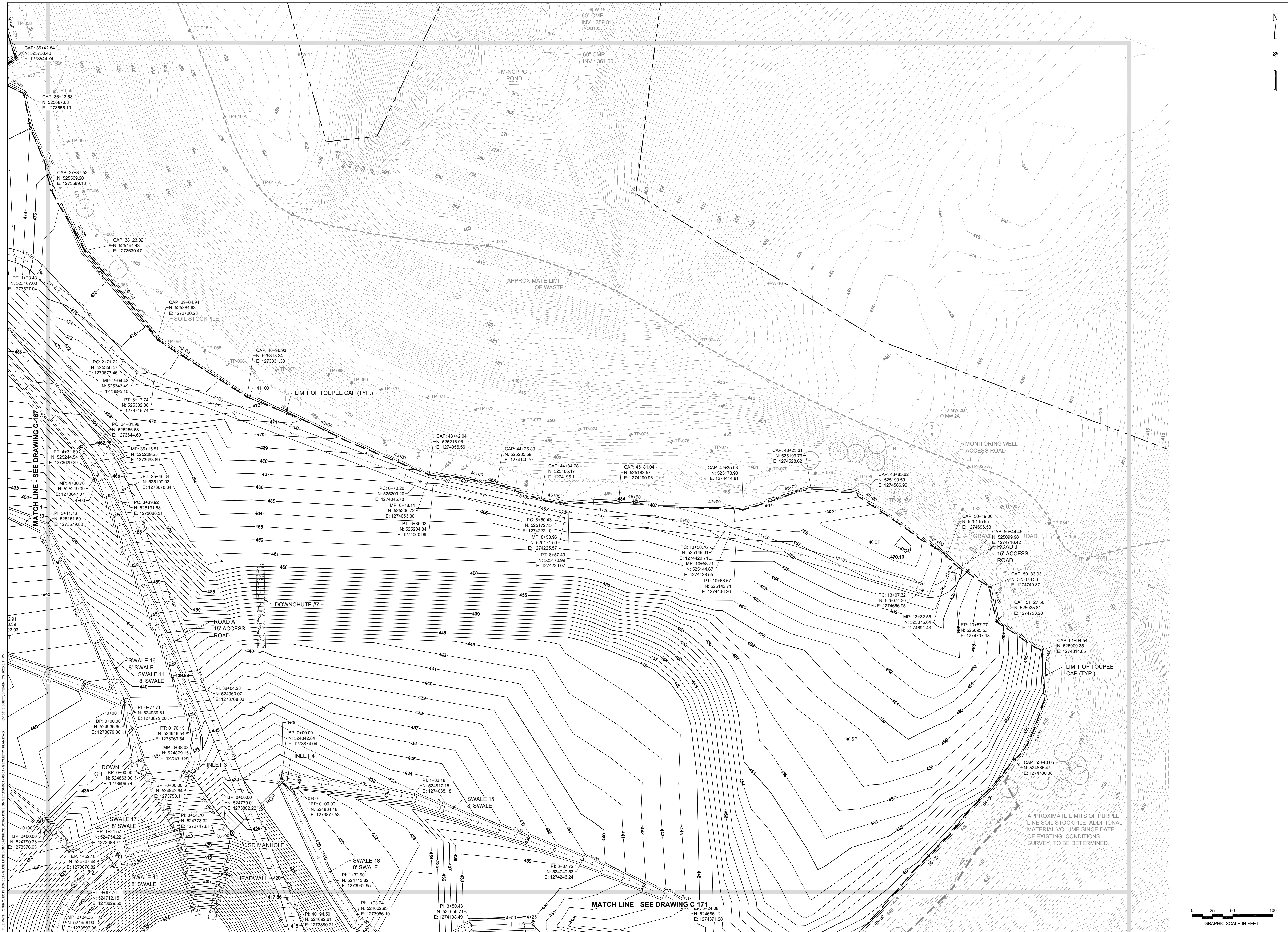
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DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-167**  
 SHEET: 70 OF 144

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90% DESIGN PLANS - NOT FOR CONSTRUCTION



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION					
DESIGNED BY:	KEF / SMB				
DRAWN BY:	SMB				
CHECKED BY:	LJO / GAT				
PROJECT MANAGER:	MJG				

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

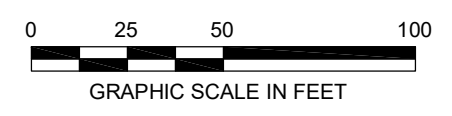
**GEOMETRY PLAN**

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DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-168**  
 SHEET: 71 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		DESIGNED BY:	KEY / SMB
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PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PLAN**

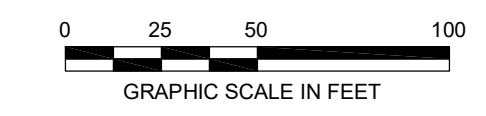
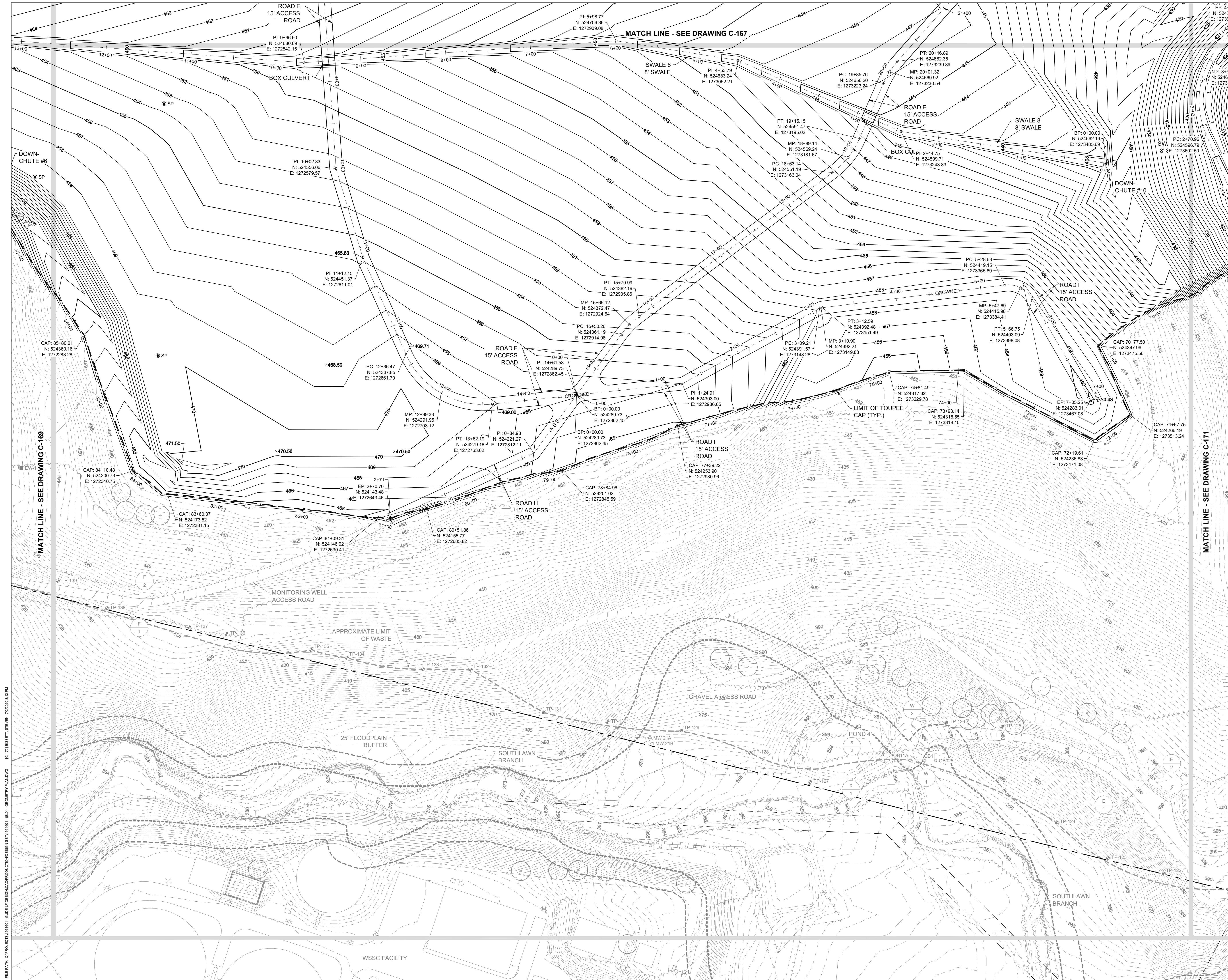
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-169**  
 SHEET: 72 OF 144

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90% DESIGN PLANS - NOT FOR CONSTRUCTION





REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGNED BY:	KEF/SMB
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CHECKED BY:	LJO/GAT
PROJECT MANAGER:	MJG

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

SEAL

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

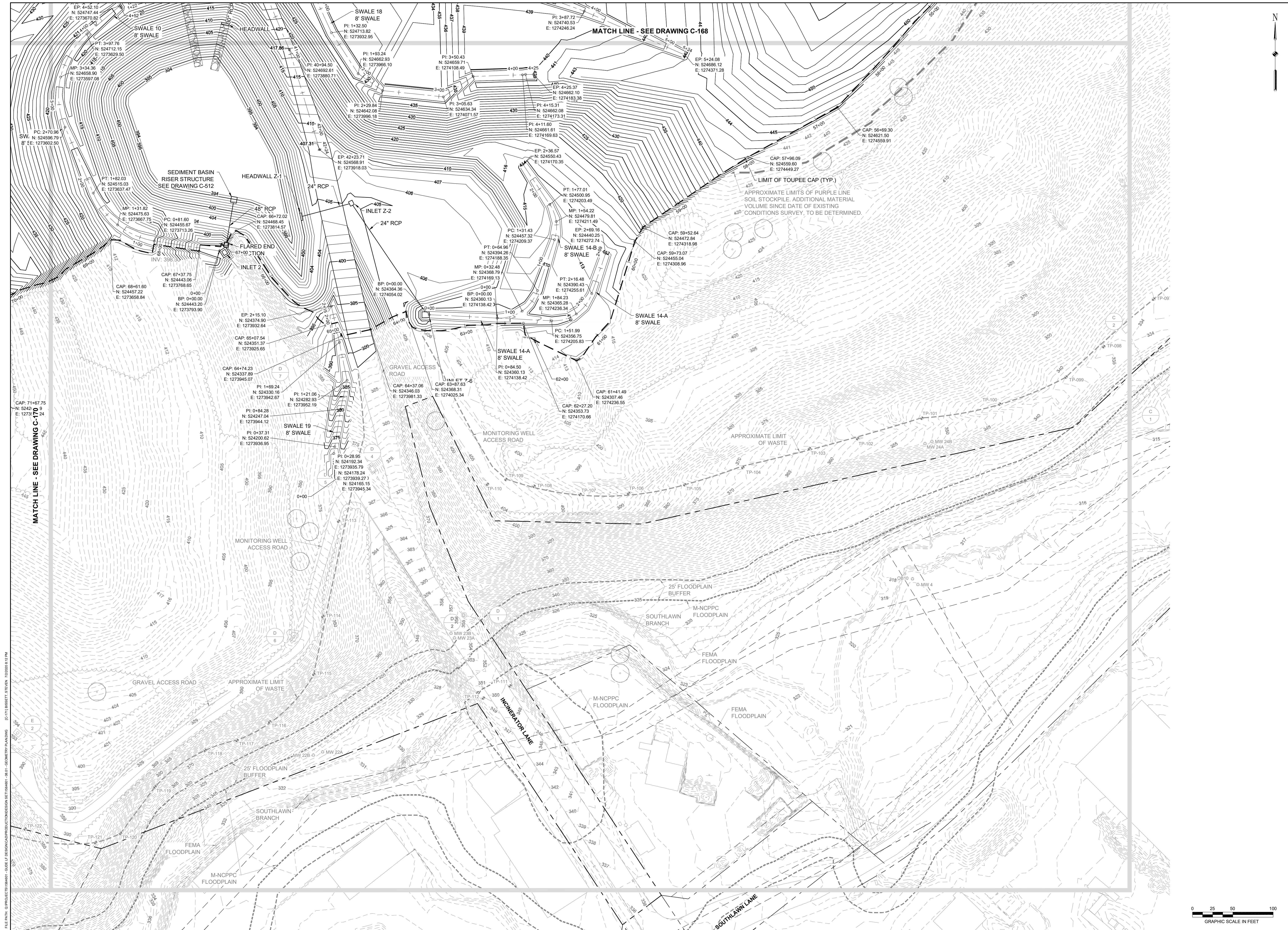
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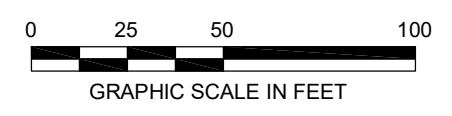
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**C-170**  
 SHEET: 73 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION



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HUNT VALLEY CENTER 225 SCHILLING CIRCLE, SUITE 400 HUNT VALLEY, MARYLAND 21031 (410) 584-7000							
DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-171</b> SHEET: 74 OF 144							



90% DESIGN PLANS - NOT FOR CONSTRUCTION

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DATE: JULY 2020  
PROJECT NUMBER: 1564601

**C-172**  
SHEET: 75 OF 144

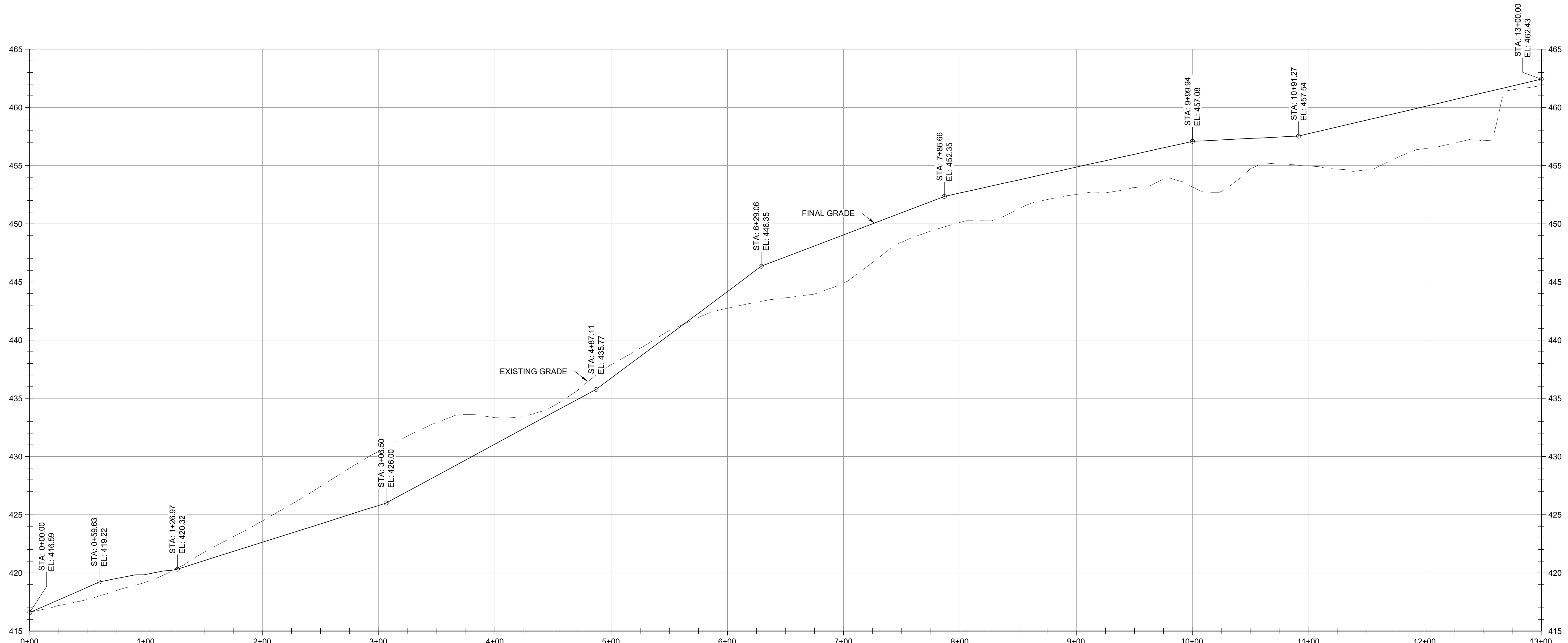
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**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PLAN - DATA TABLES**

SEAL  
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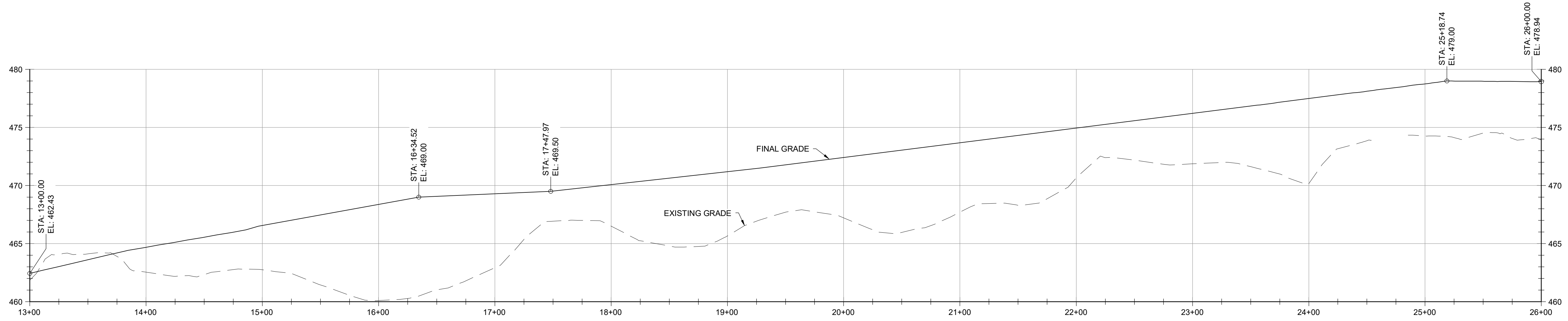
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DRAWN BY: SMB  
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NO. DATE BY

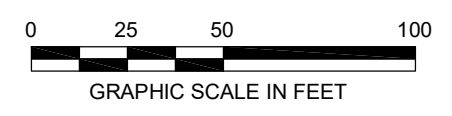
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DESCRIPTION



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**RD - A PROFILE - STA. 13+00 TO 26+00**  
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DESIGN INFORMATION		REVISIONS	
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CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

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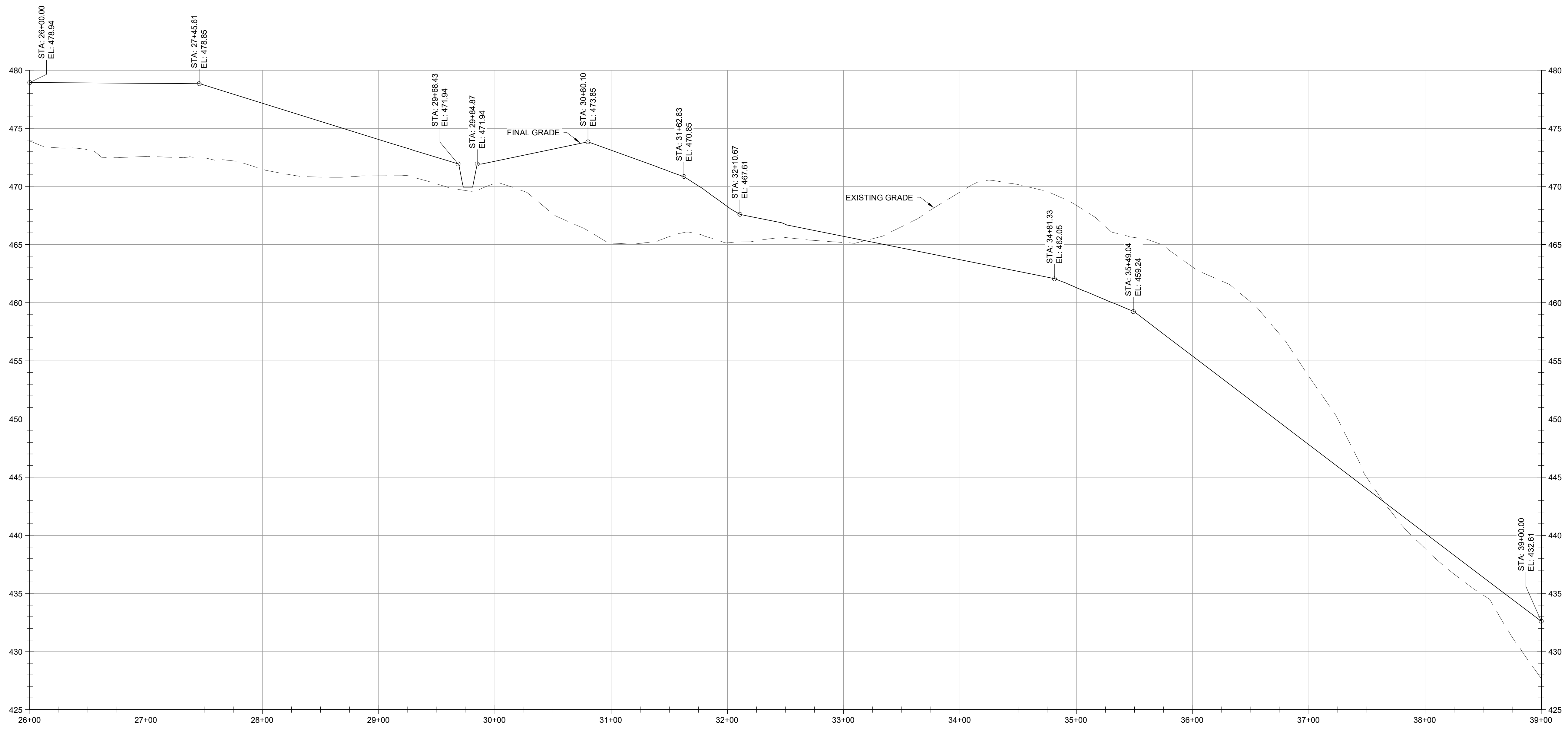
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**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - ROAD**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

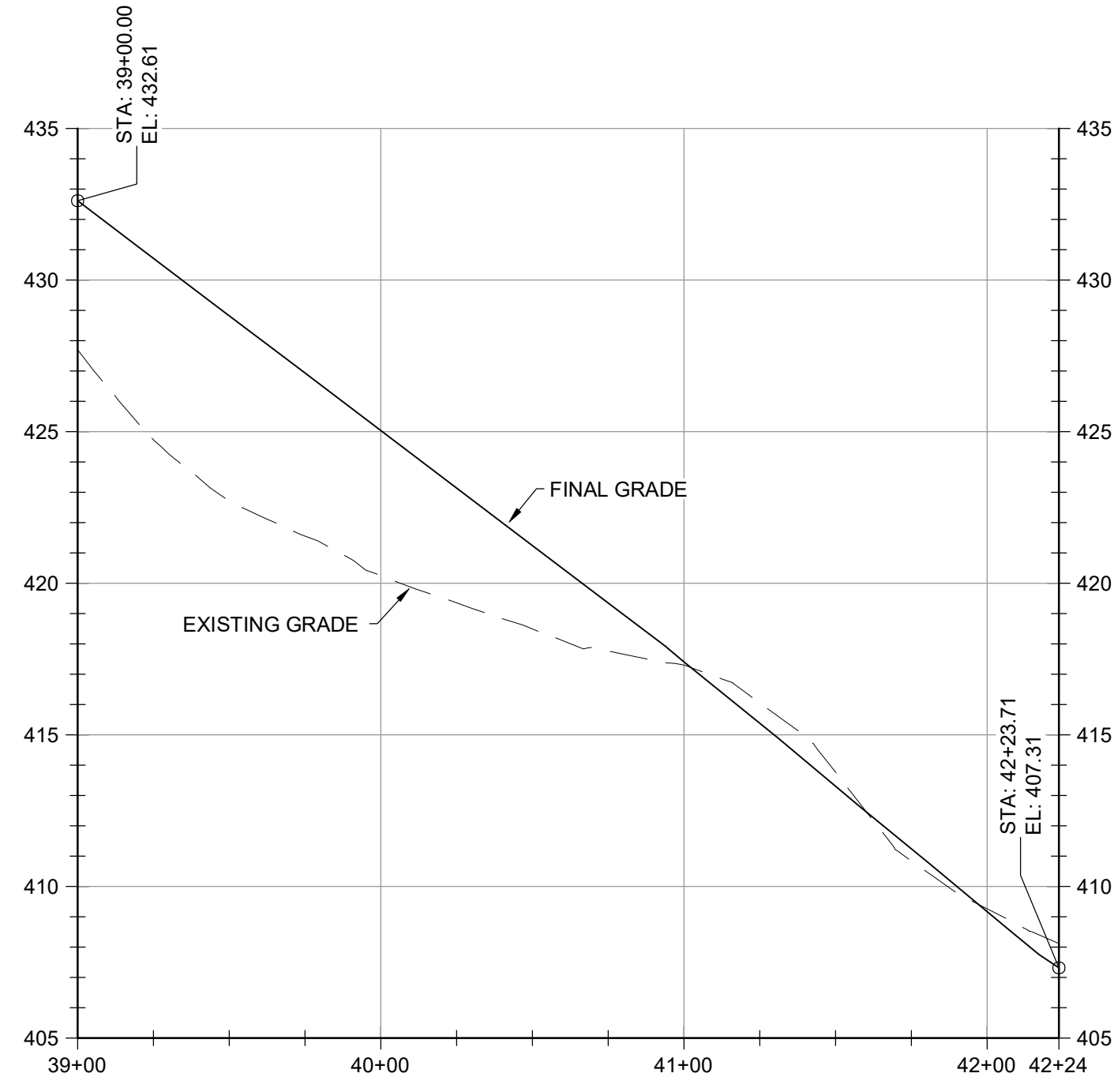
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 SHEET: 68 OF 144

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90% DESIGN PLANS - NOT FOR CONSTRUCTION



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DESIGN INFORMATION		REVISIONS	
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DRAWN BY:	SMB	DATE	BY
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

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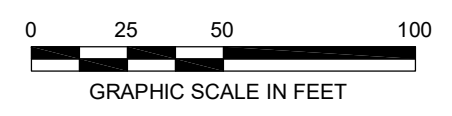
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**GUIDE LANDFILL REMEDIATION DESIGN**  
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**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - ROAD**

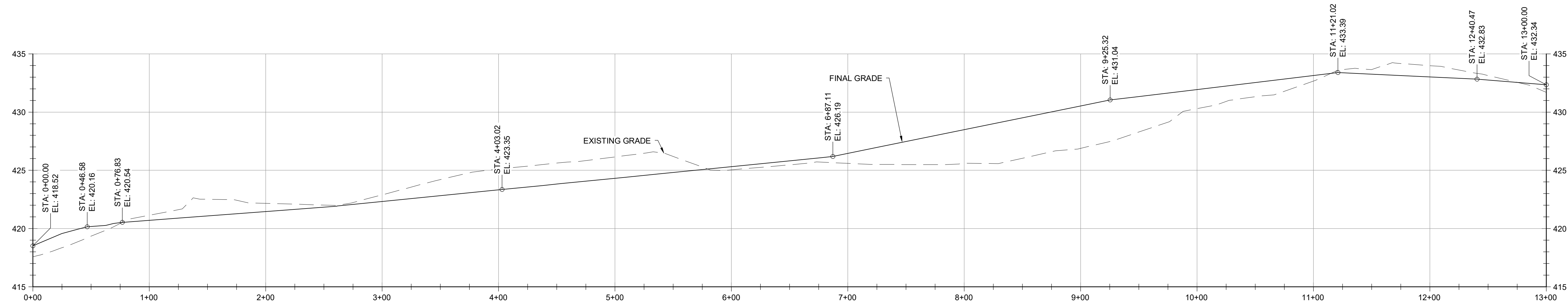
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
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DATE: JULY 2020  
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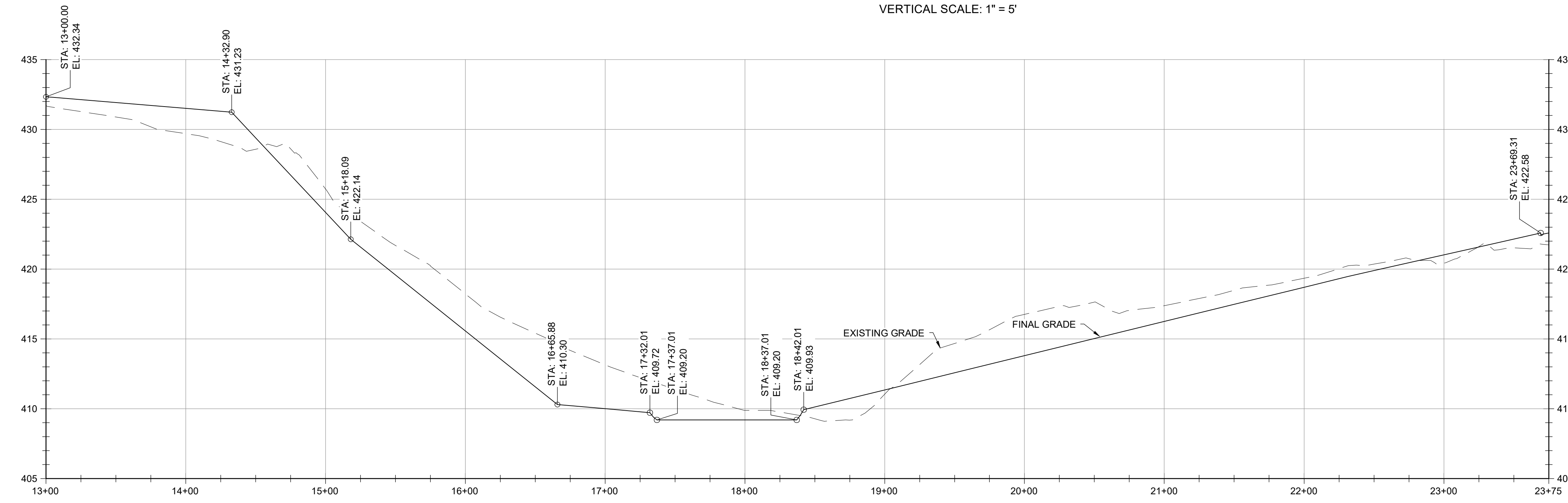
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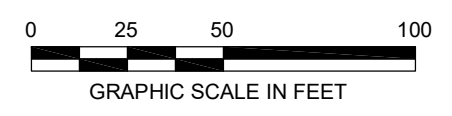
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**RD - C PROFILE - STA. 13+00 TO 23+75**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DATE
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CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

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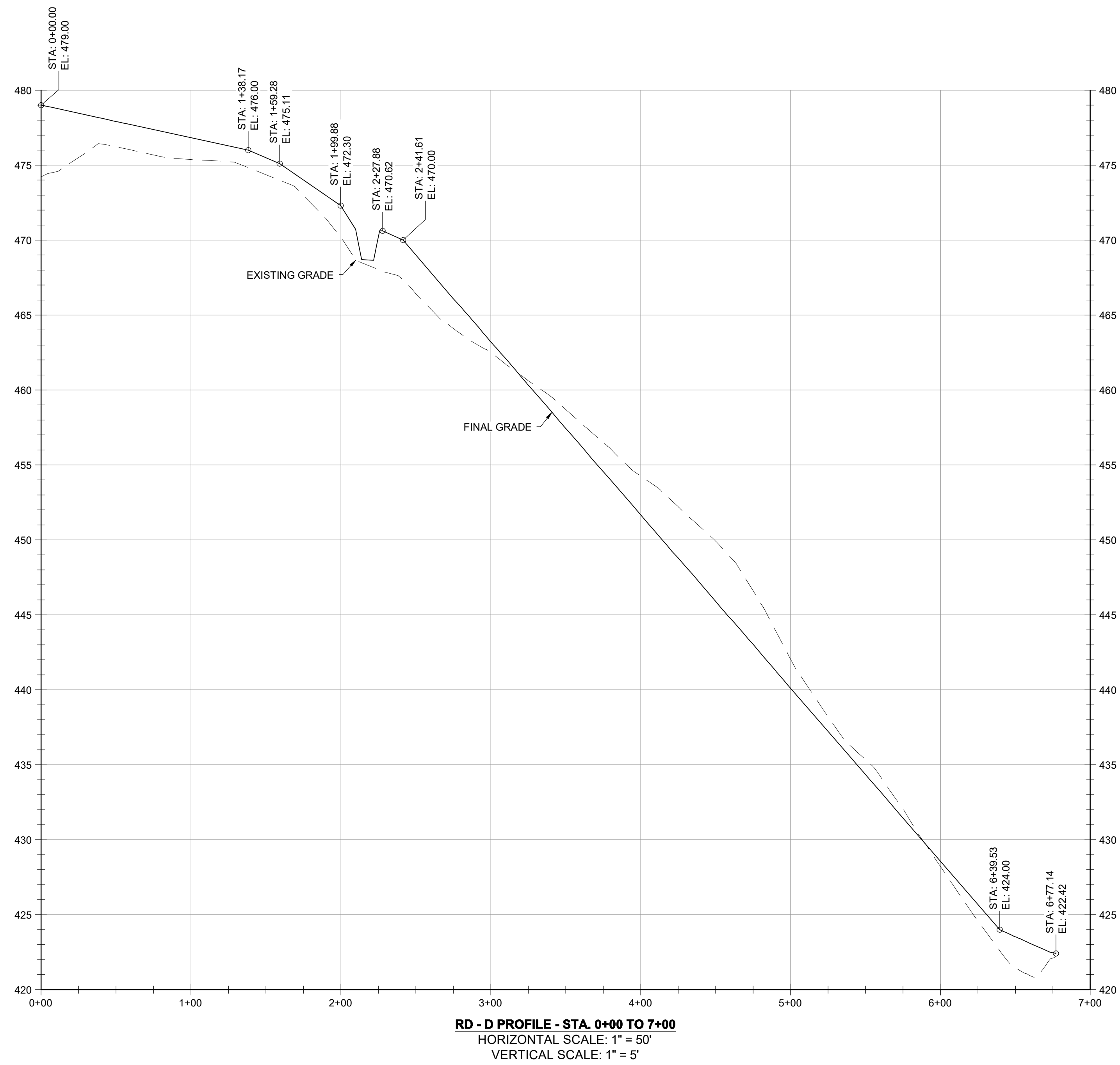
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - ROAD**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

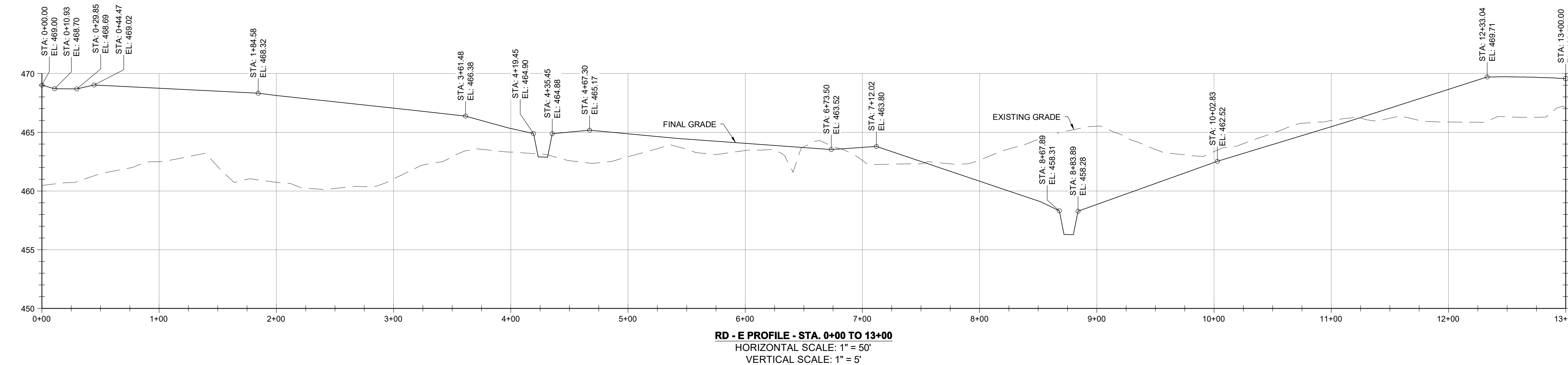
DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-203**  
 SHEET: 78 OF 144

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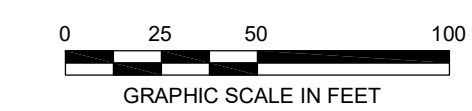
90% DESIGN PLANS - NOT FOR CONSTRUCTION



**RD - D PROFILE - STA. 0+00 TO 7+00**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**RD - E PROFILE - STA. 0+00 TO 13+00**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DATE
DRAWN BY:	SMB	BY	DESCRIPTION
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - ROAD**

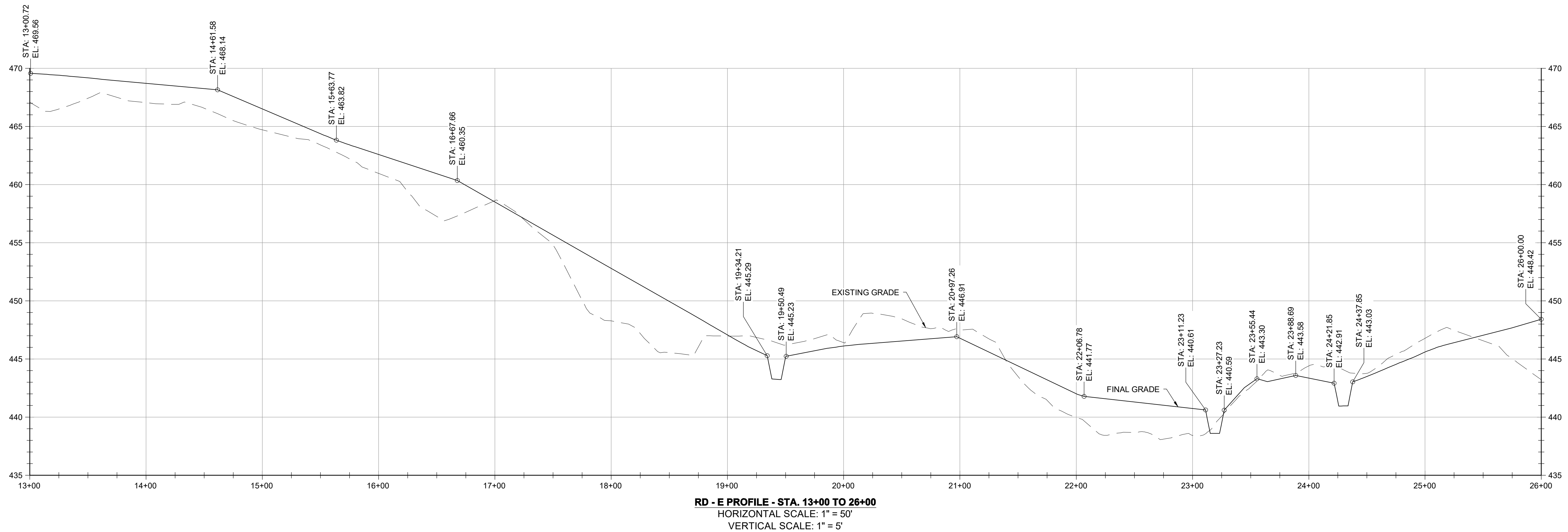
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-204**  
 SHEET: 79 OF 144

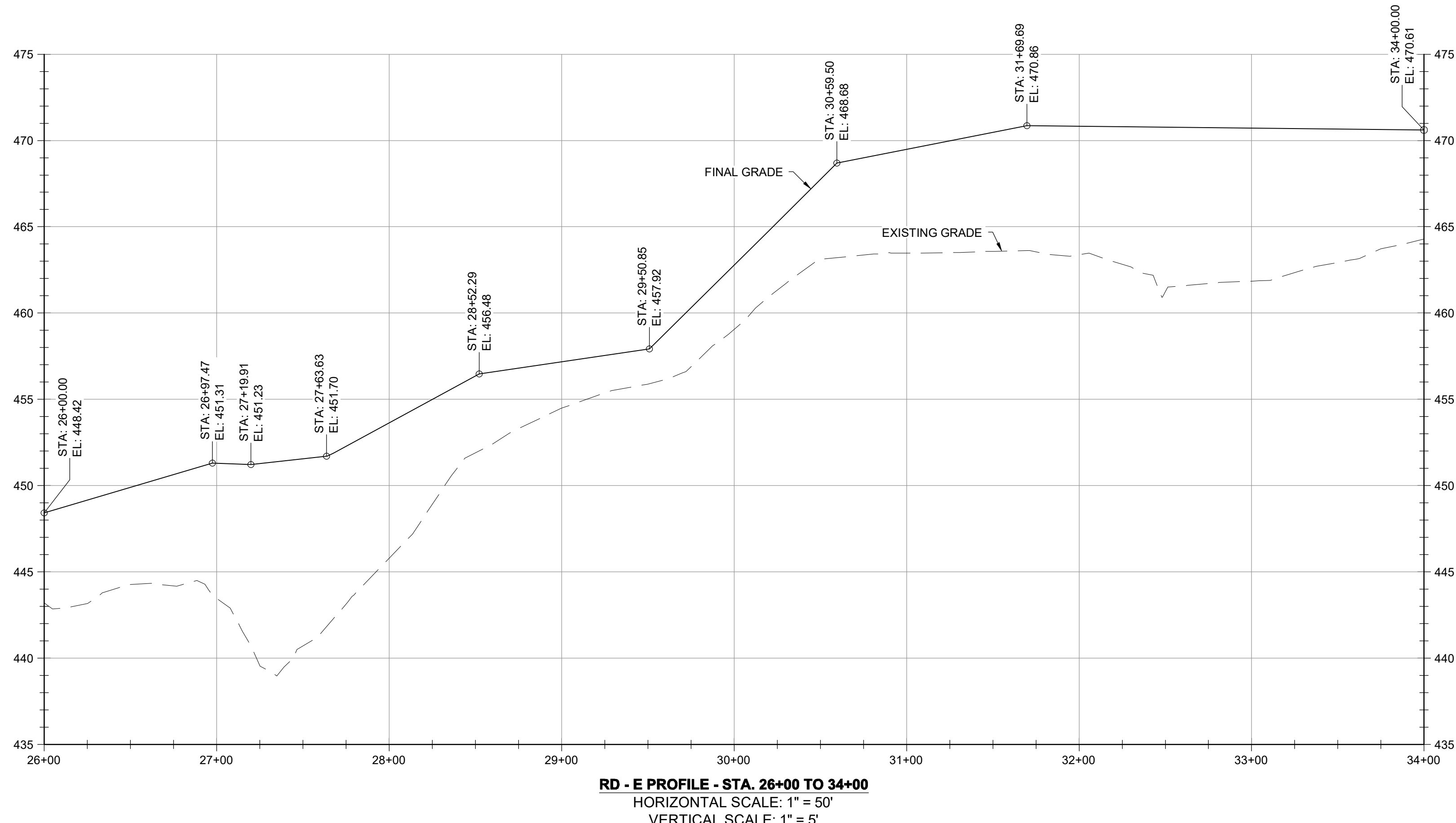
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90% DESIGN PLANS - NOT FOR CONSTRUCTION

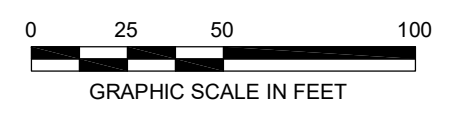
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**RD - E PROFILE - STA. 13+00 TO 26+00**  
HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



**RD - E PROFILE - STA. 26+00 TO 34+00**  
HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DESCRIPTION
DRAWN BY:	SMB	DATE	BY
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

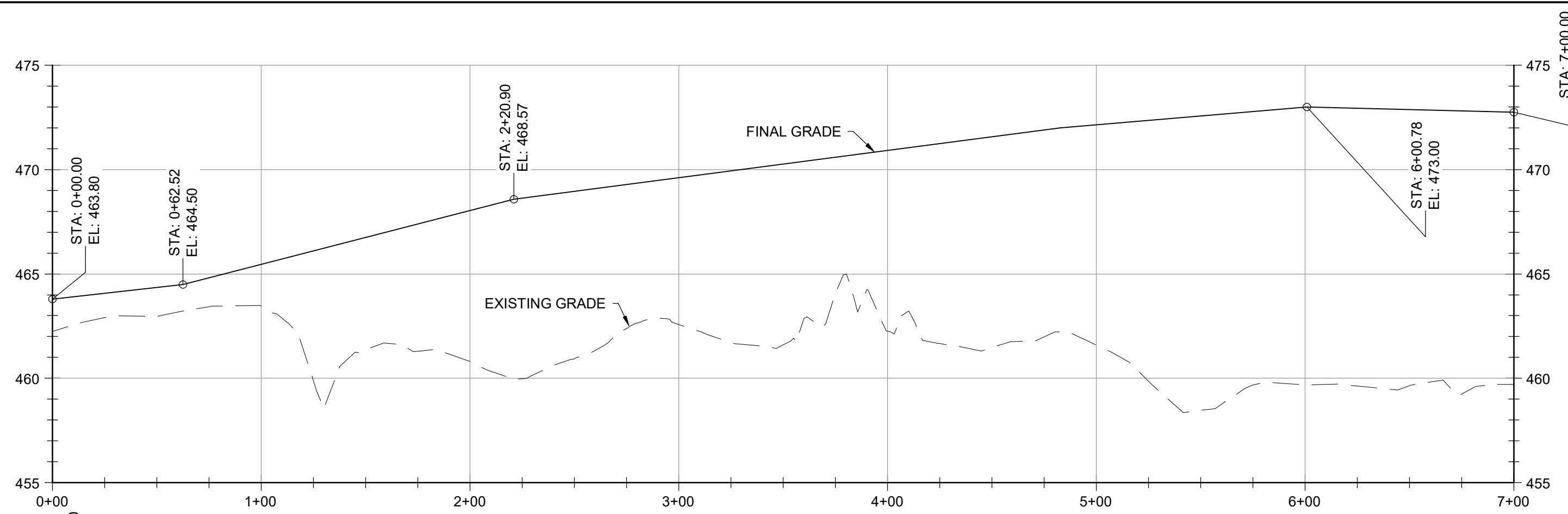
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - ROAD**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

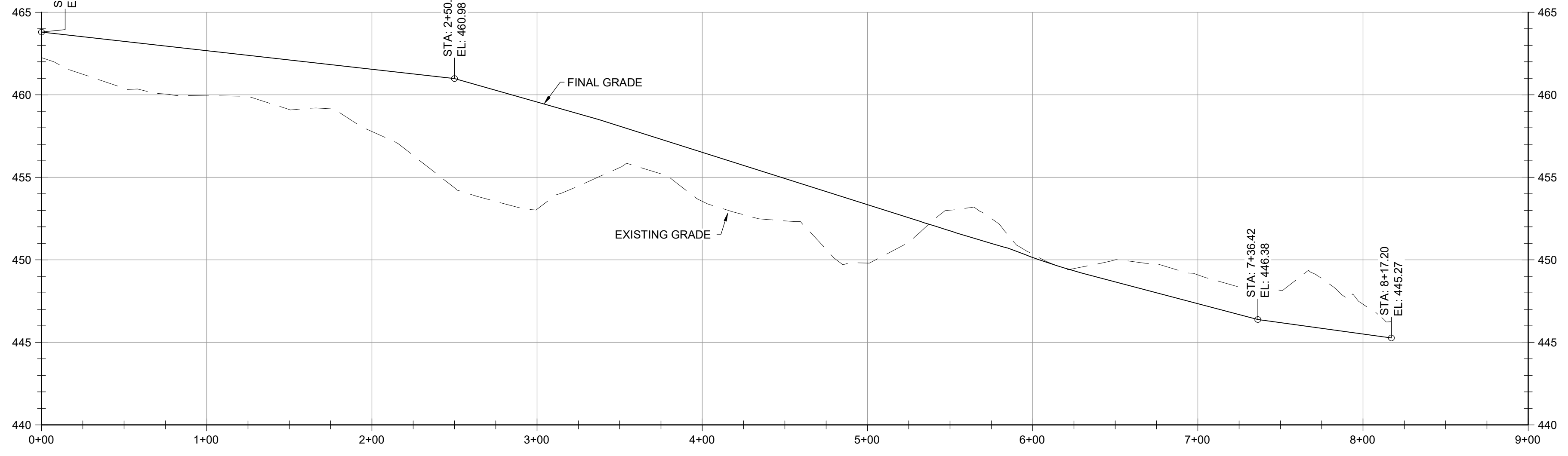
DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-205**  
 SHEET: 80 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION

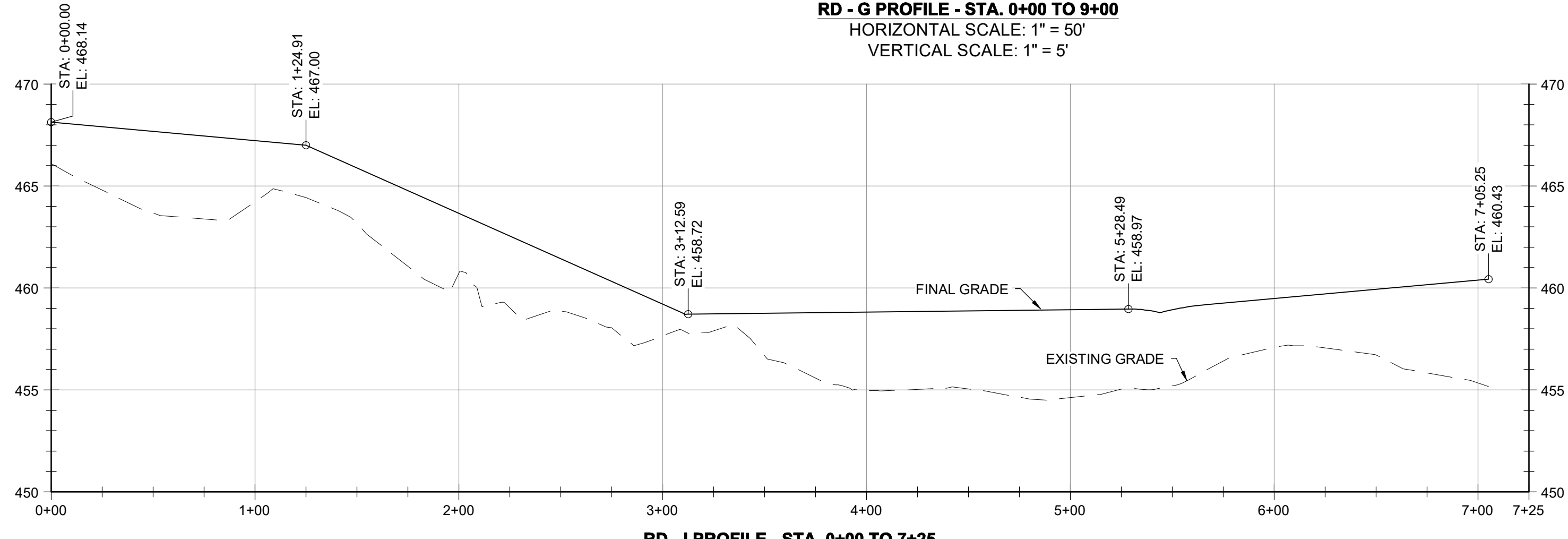




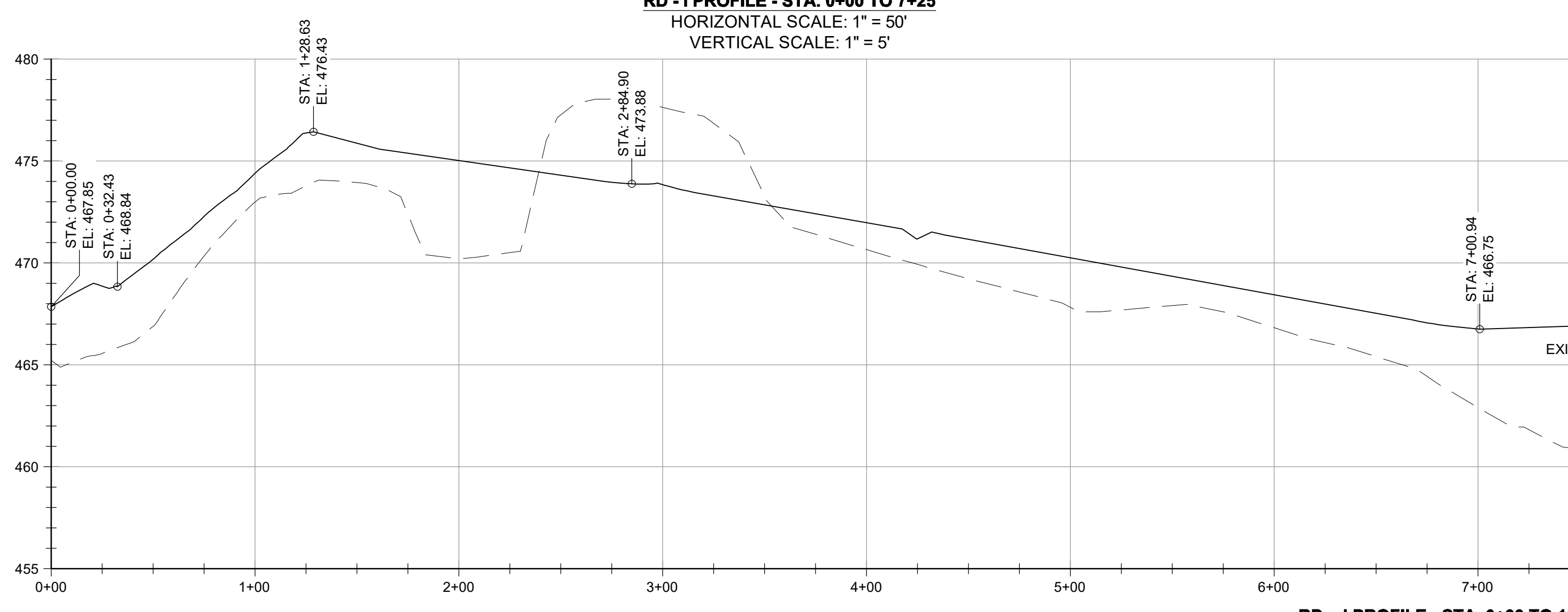
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 VERTICAL SCALE: 1" = 5'



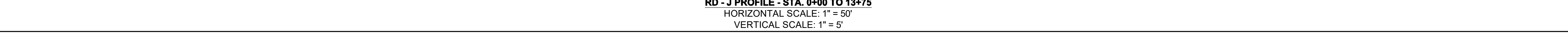
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 VERTICAL SCALE: 1" = 5'



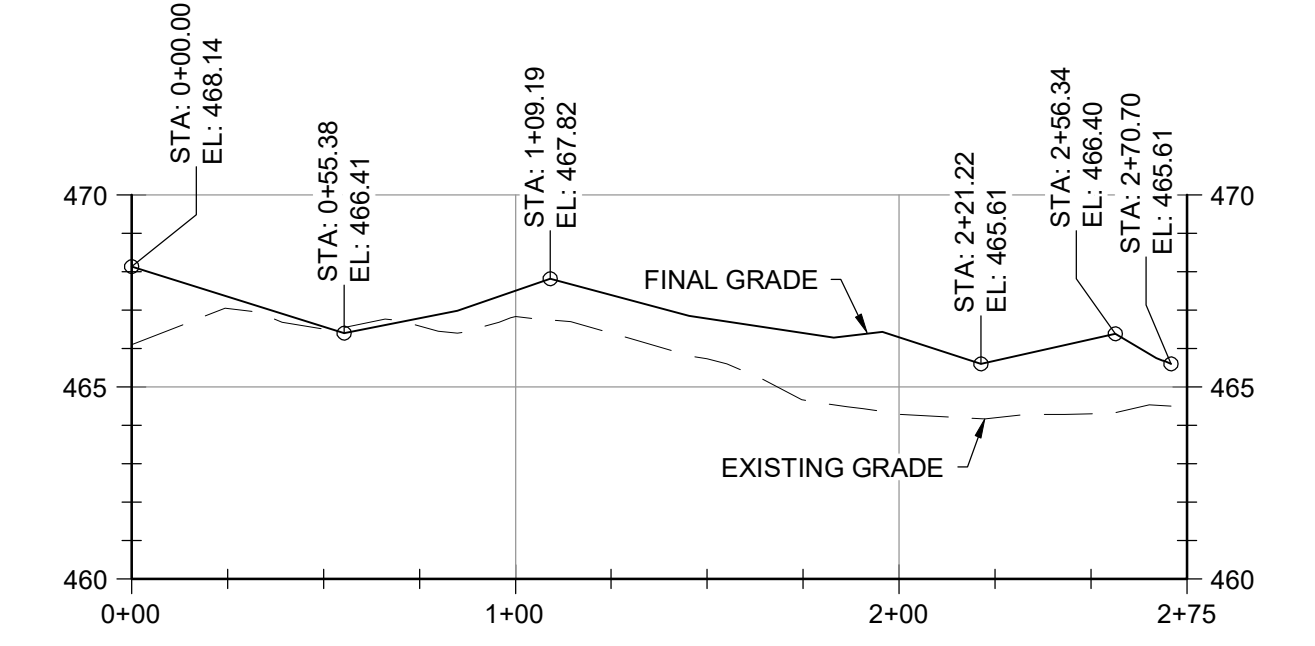
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 VERTICAL SCALE: 1" = 5'



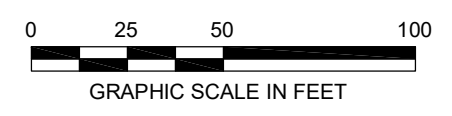
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 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**RD - J PROFILE - STA. 0+00 TO 13+75**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**RD - K PROFILE - STA. 0+00 TO 2+75**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	M/JG

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

SEAL

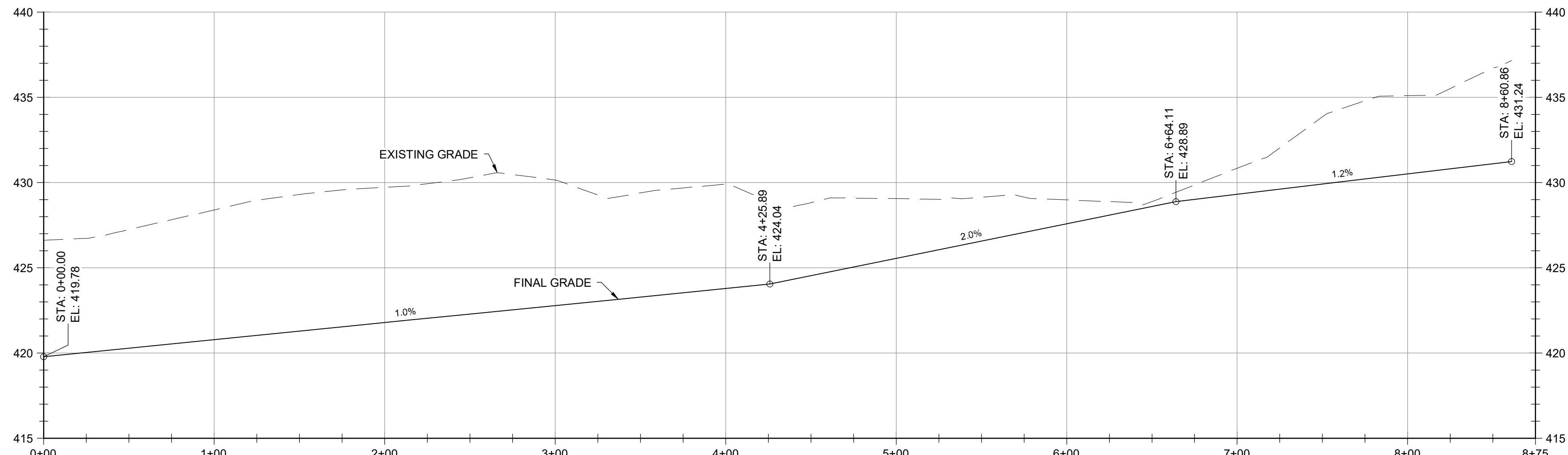
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - ROAD**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

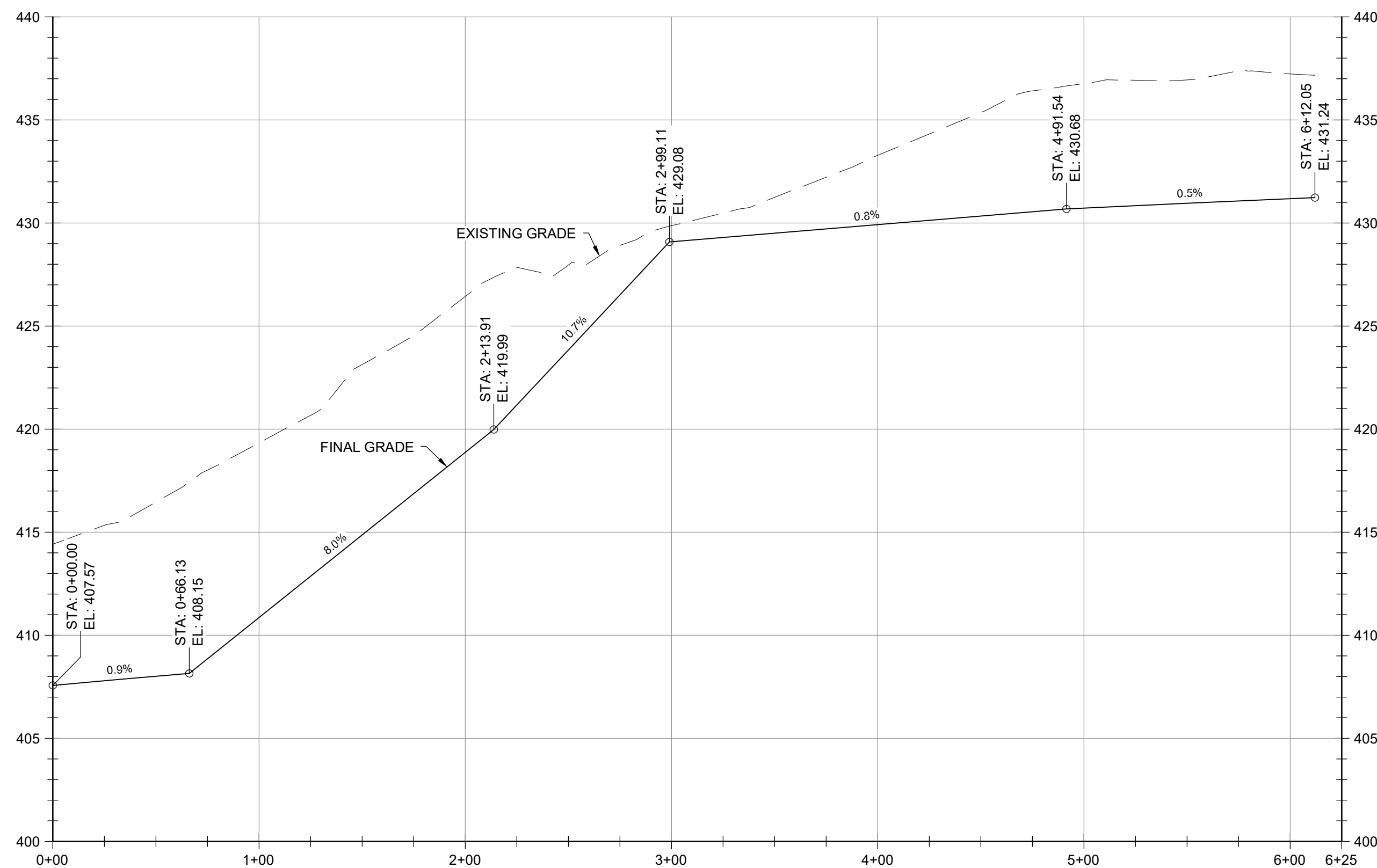
DATE: JULY 2020  
 PROJECT NUMBER: 1564601

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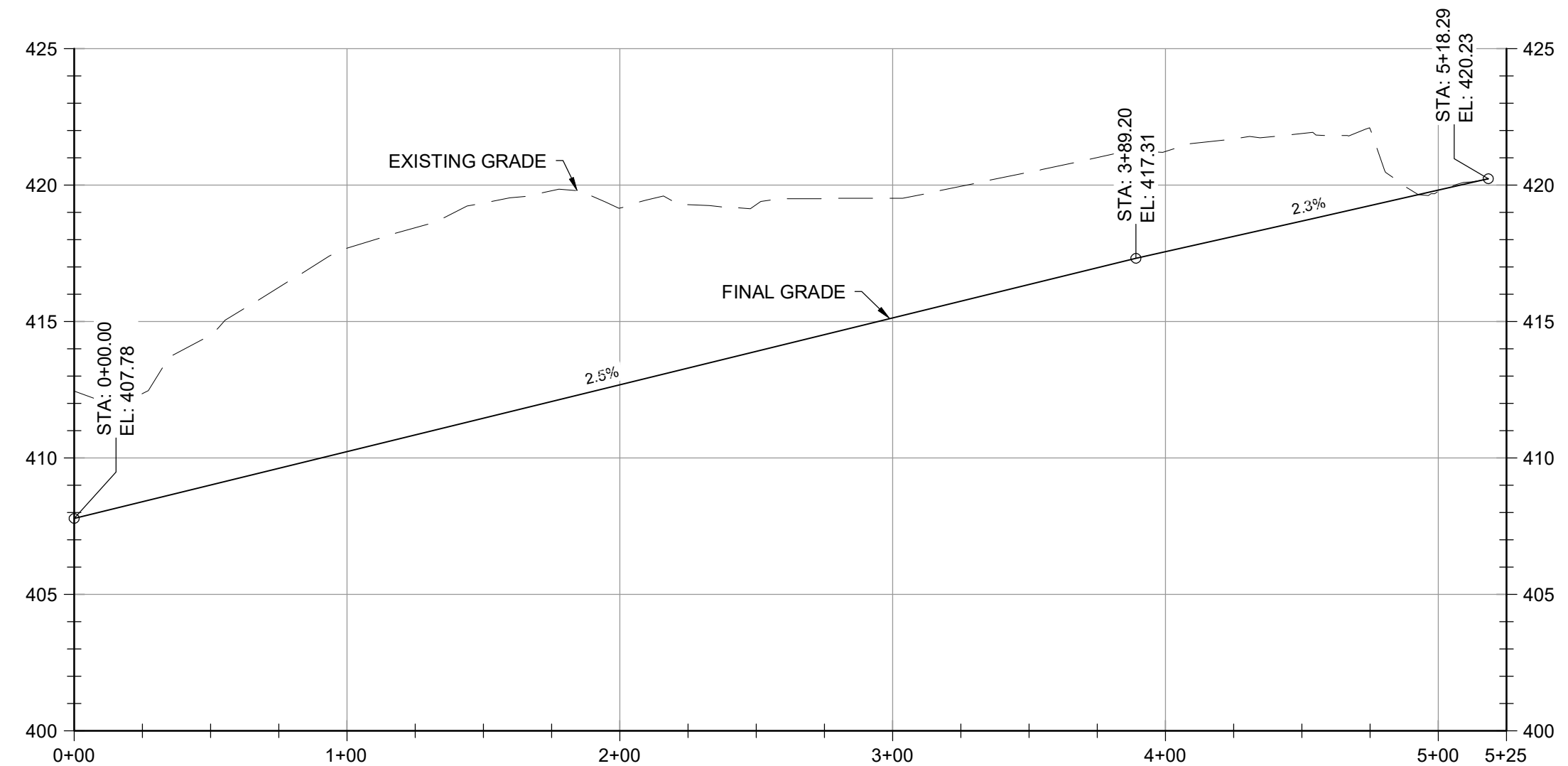
90% DESIGN PLANS - NOT FOR CONSTRUCTION



**SWALE - 1 PROFILE - STA. 0+00 TO 8+75**  
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 VERTICAL SCALE: 1" = 5'

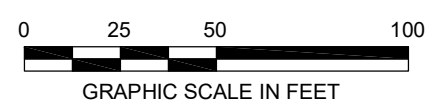


**SWALE - 2 PROFILE - STA. 0+00 TO 6+25**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**SWALE - 3 PROFILE - STA. 0+00 TO 5+25**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'

SWALE SCHEDULE							
ID	MAXIMUM DRAINAGE AREA	LENGTH	2' DEEP SWALE	Q10 (CFS)	V10 (FPS)	FLOW DEPTH	TREATMENT
SWALE 1	5.28	SEE PROFILE	4	13.22	3.32	0.73	ECM
SWALE 2	1.18	SEE PROFILE	4	4.56	3.88	0.26	ECM
SWALE 3	1.20	SEE PROFILE	4	22.82	5.40	0.77	TRM
SWALE 4	5.77	SEE PROFILE	8	18.51	7.17	0.30	TRM
SWALE 4A	1.36	SEE PROFILE	8	3.86	2.08	0.22	ECM
SWALE 5	6.94	SEE PROFILE	8	24.05	4.44	0.59	TRM
SWALE 6	0.75	SEE PROFILE	8	2.07	1.46	0.17	ECM
SWALE 7	0.16	SEE PROFILE	8	0.46	1.14	0.05	ECM
SWALE 8	15.55	SEE PROFILE	8	39.95	4.78	0.86	TRM
SWALE 9	0.63	SEE PROFILE	8	4.87	1.96	0.29	ECM
SWALE 9A	1.58	SEE PROFILE	8	7.16	2.28	0.36	ECM
SWALE 10	3.46	SEE PROFILE	8	92.57	7.28	1.16	TRM
SWALE 11	2.36	SEE PROFILE	8	6.55	2.73	0.28	ECM
SWALE 12	3.31	SEE PROFILE	8	9.54	3.13	0.35	ECM
SWALE 13	14.35	SEE PROFILE	8	41.10	5.08	0.74	TRM
SWALE 14	0.11	SEE PROFILE	8	1.61	1.29	0.15	ECM
SWALE 14A	0.44	SEE PROFILE	8	5.26	2.58	0.24	ECM
SWALE 14B	1.55	SEE PROFILE	8	7.27	2.32	0.36	ECM
SWALE 15	9.03	SEE PROFILE	8	31.58	5.32	0.64	TRM
SWALE 16	7.70	SEE PROFILE	8	27.50	4.63	0.64	TRM
SWALE 17	0.90	SEE PROFILE	8	30.90	3.80	0.84	TRM
SWALE 18	0.89	SEE PROFILE	8	2.63	1.29	0.24	ECM
SWALE 19	0.15	SEE PROFILE	8	0.54	0.66	0.10	ECM



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DATE
DRAWN BY:	SMB	BY:	
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

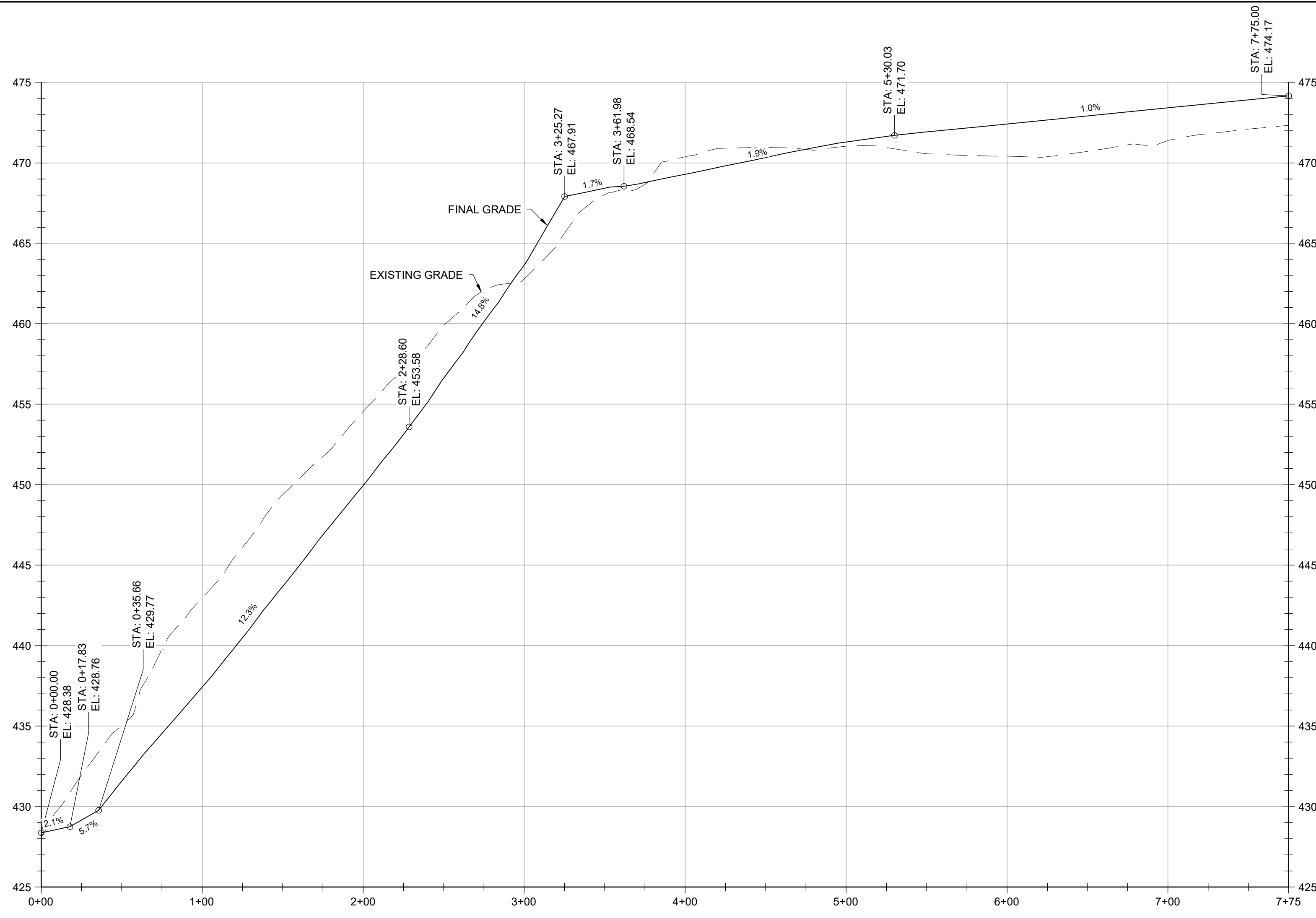
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - SWALE**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

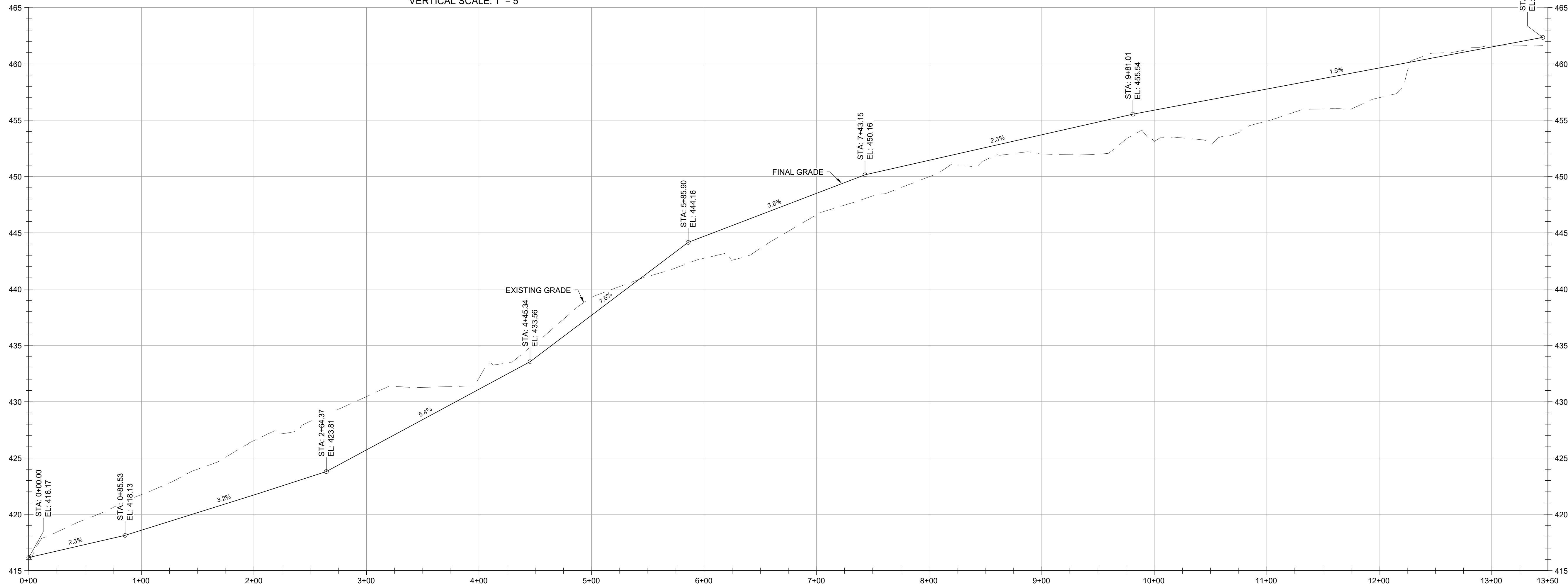
DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-207**  
 SHEET: 82 OF 144

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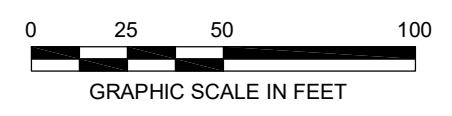
90% DESIGN PLANS - NOT FOR CONSTRUCTION



**SWALE - 4 PROFILE - STA. 0+00 TO 7+75**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**SWALE - 5 PROFILE - STA. 0+00 TO 13+50**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DESCRIPTION
DRAWN BY:	SMB	DATE	BY
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

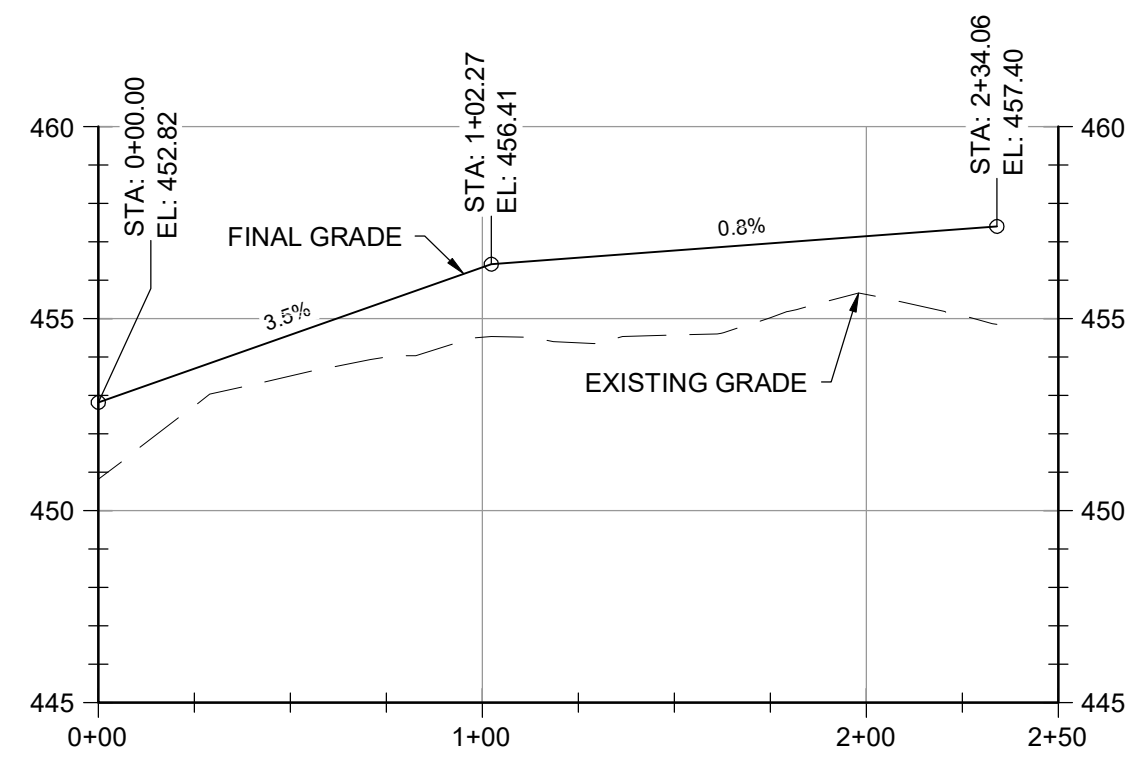
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - SWALE**

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 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

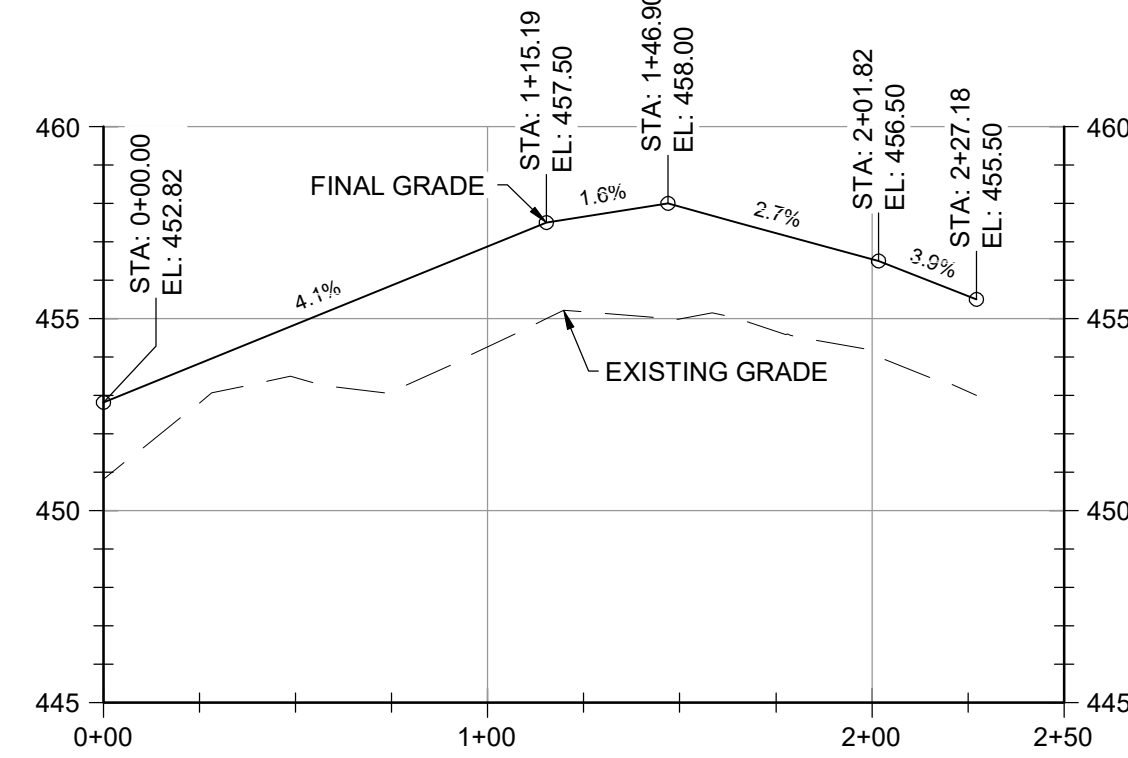
DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-208**  
 SHEET: 83 OF 144

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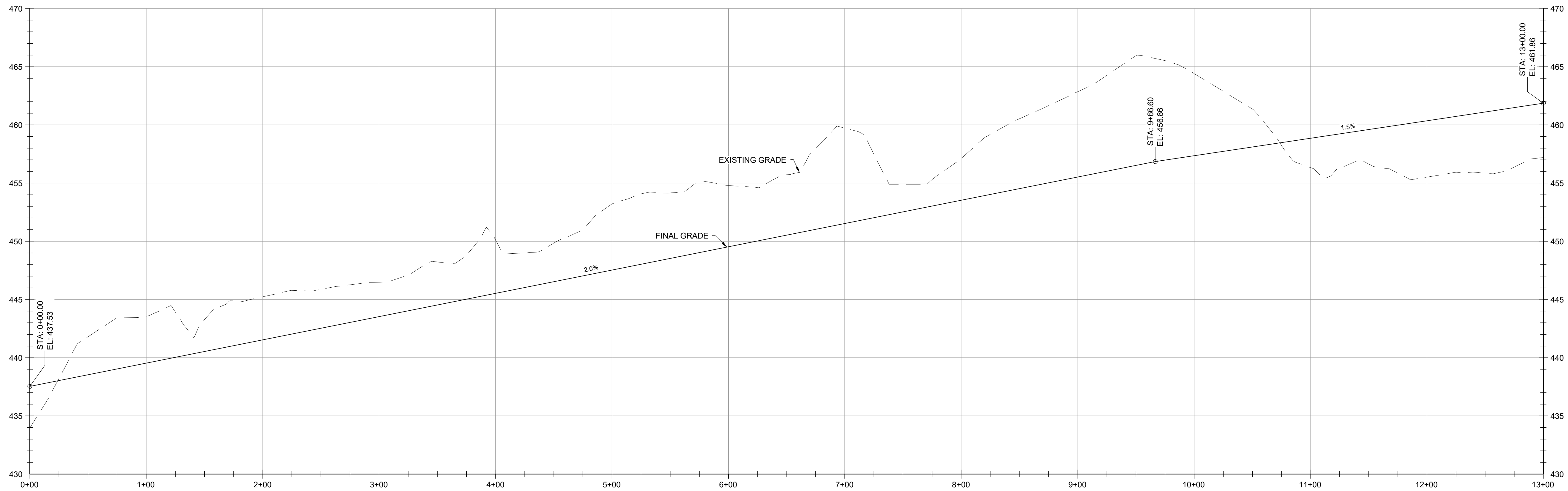
90% DESIGN PLANS - NOT FOR CONSTRUCTION



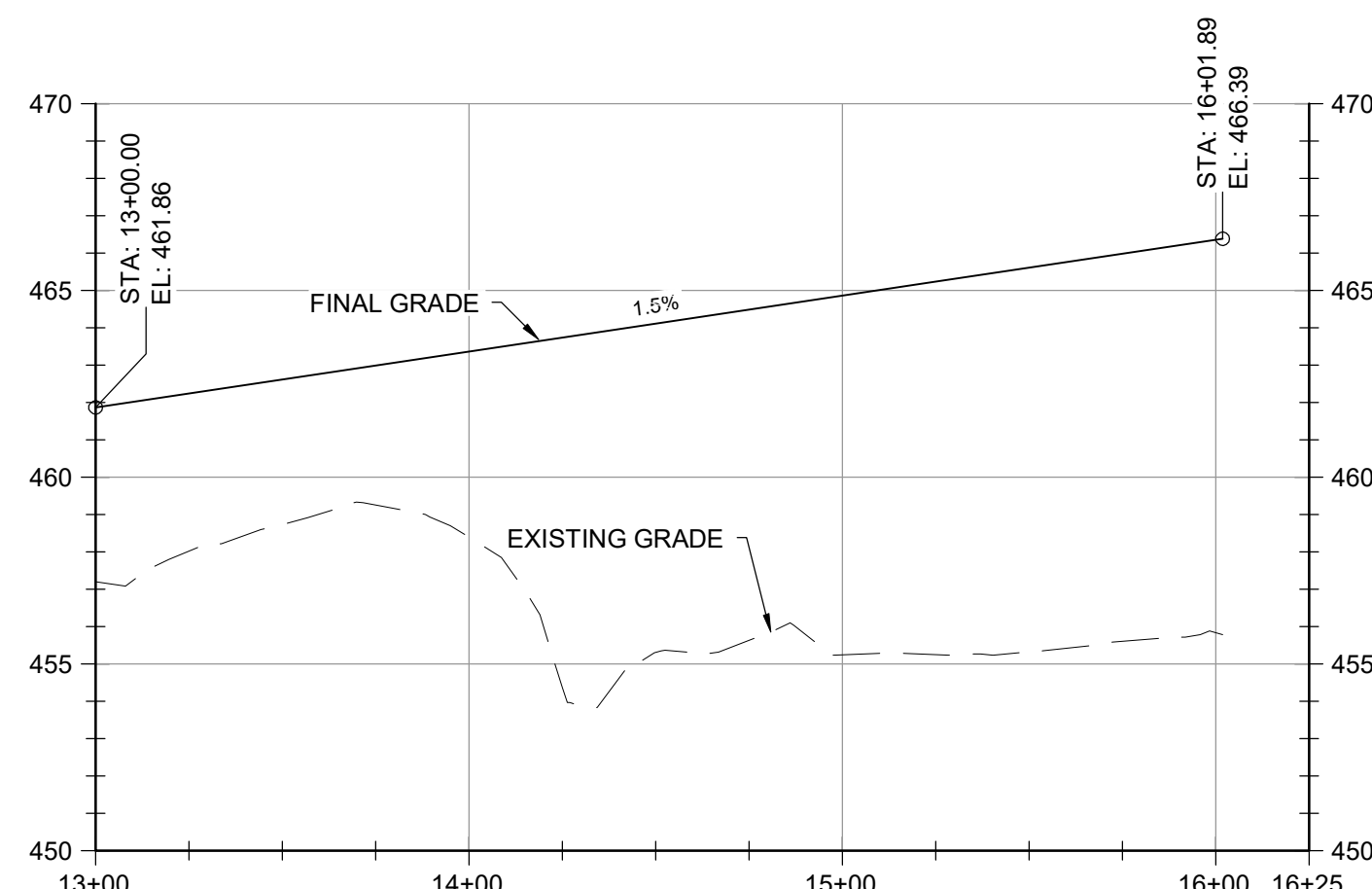
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 VERTICAL SCALE: 1" = 5'



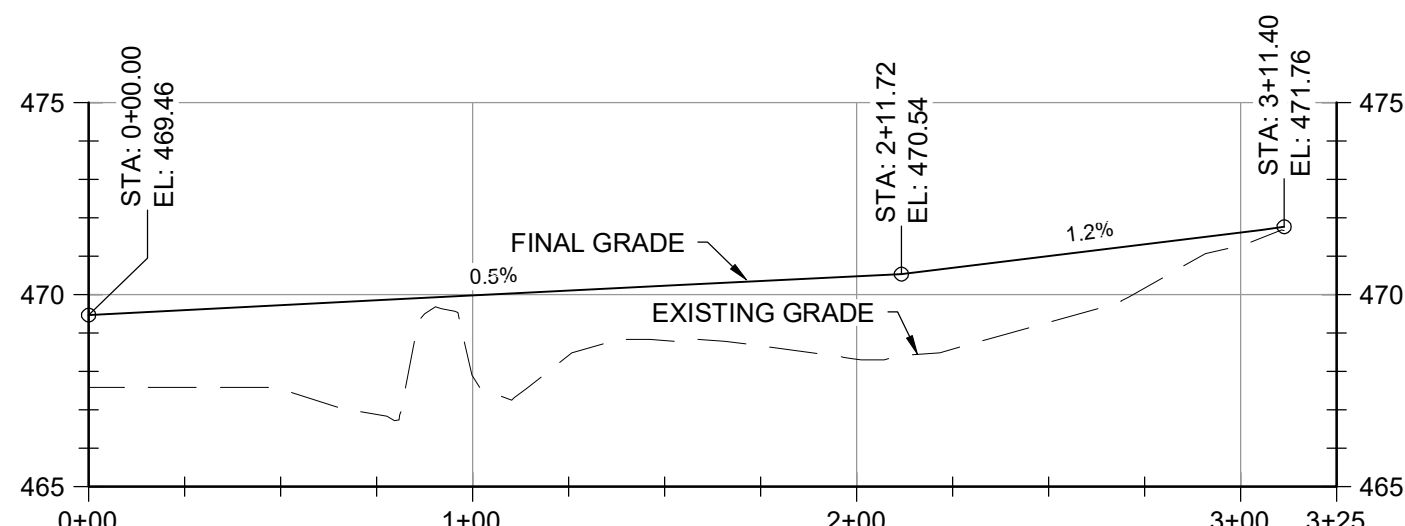
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 VERTICAL SCALE: 1" = 5'



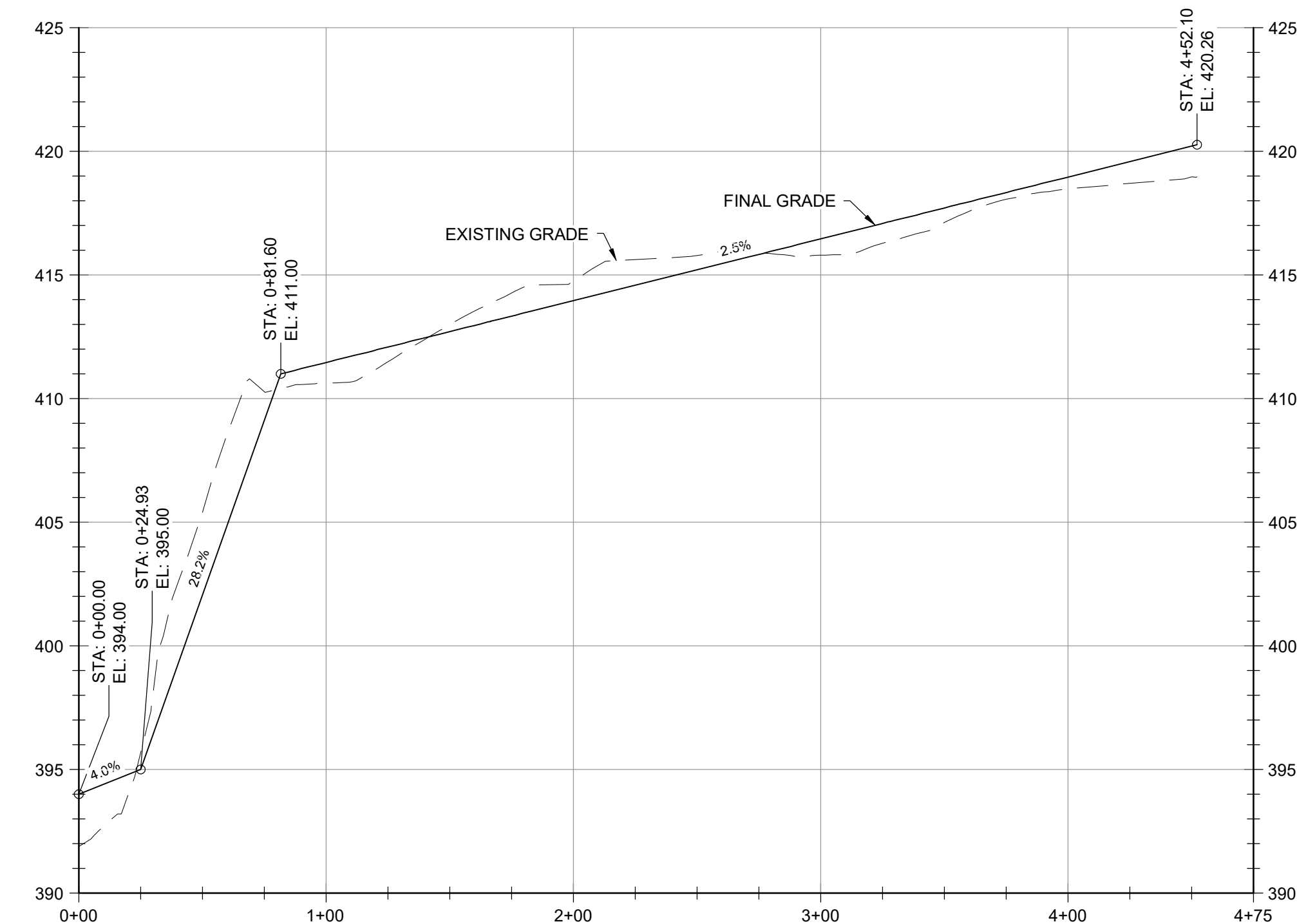
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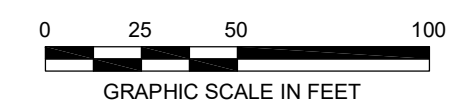
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 VERTICAL SCALE: 1" = 5'



**SWALE - 9 PROFILE - STA. 0+00 TO 3+25**  
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 VERTICAL SCALE: 1" = 5'



**SWALE - 10 PROFILE - STA. 0+00 TO 4+75**  
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 VERTICAL SCALE: 1" = 5'



FILE PATH: G:\PROJECTS\156461 - GUYTON LANDFILL REMEDIATION DESIGN - 0815 - GEOMETRY PROFILES.DWG (S:\MIDWEST\STEVEN\_7/2020) 8/15/20

NO.	DATE	BY	DESCRIPTION

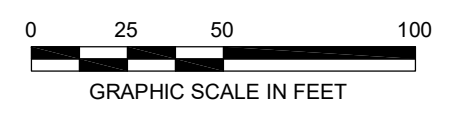
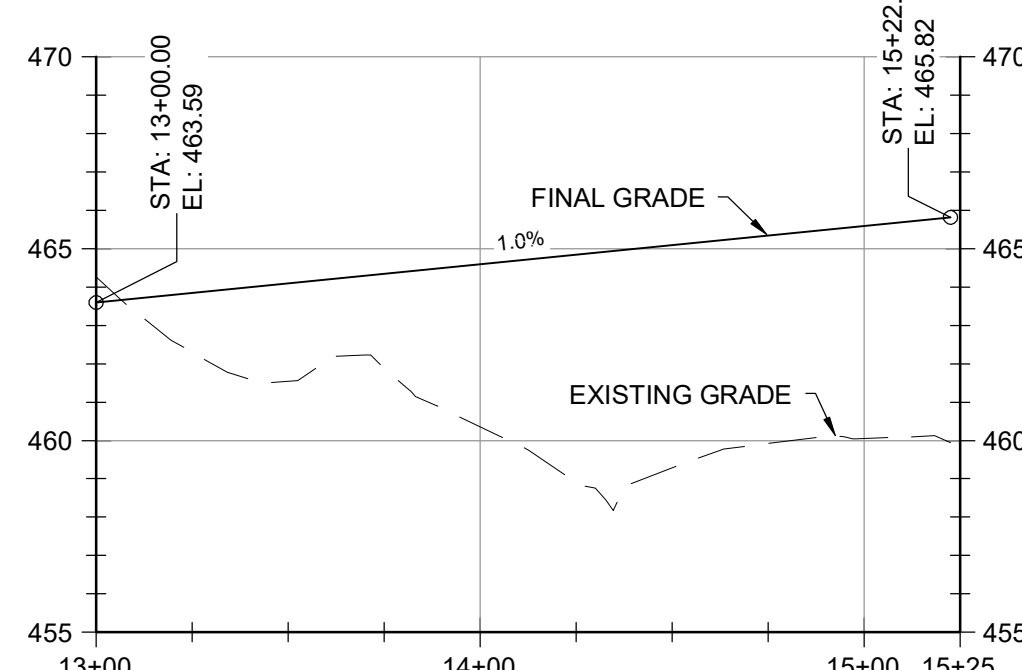
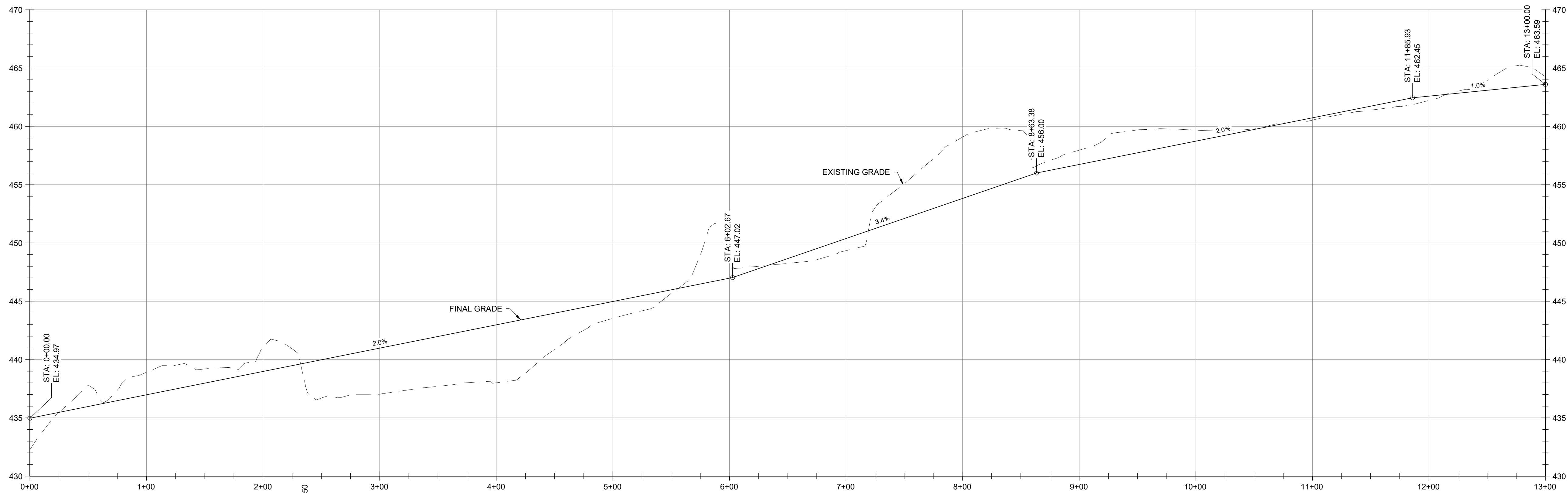
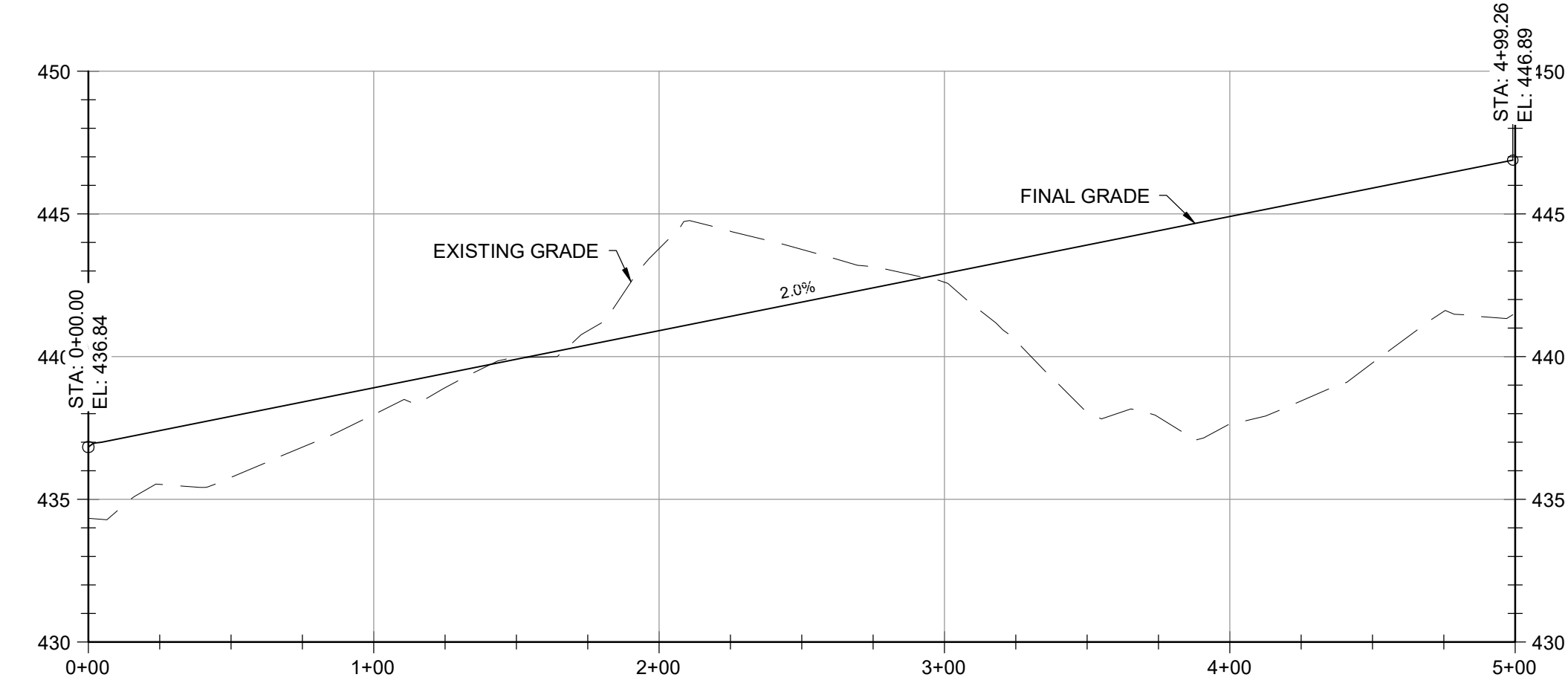
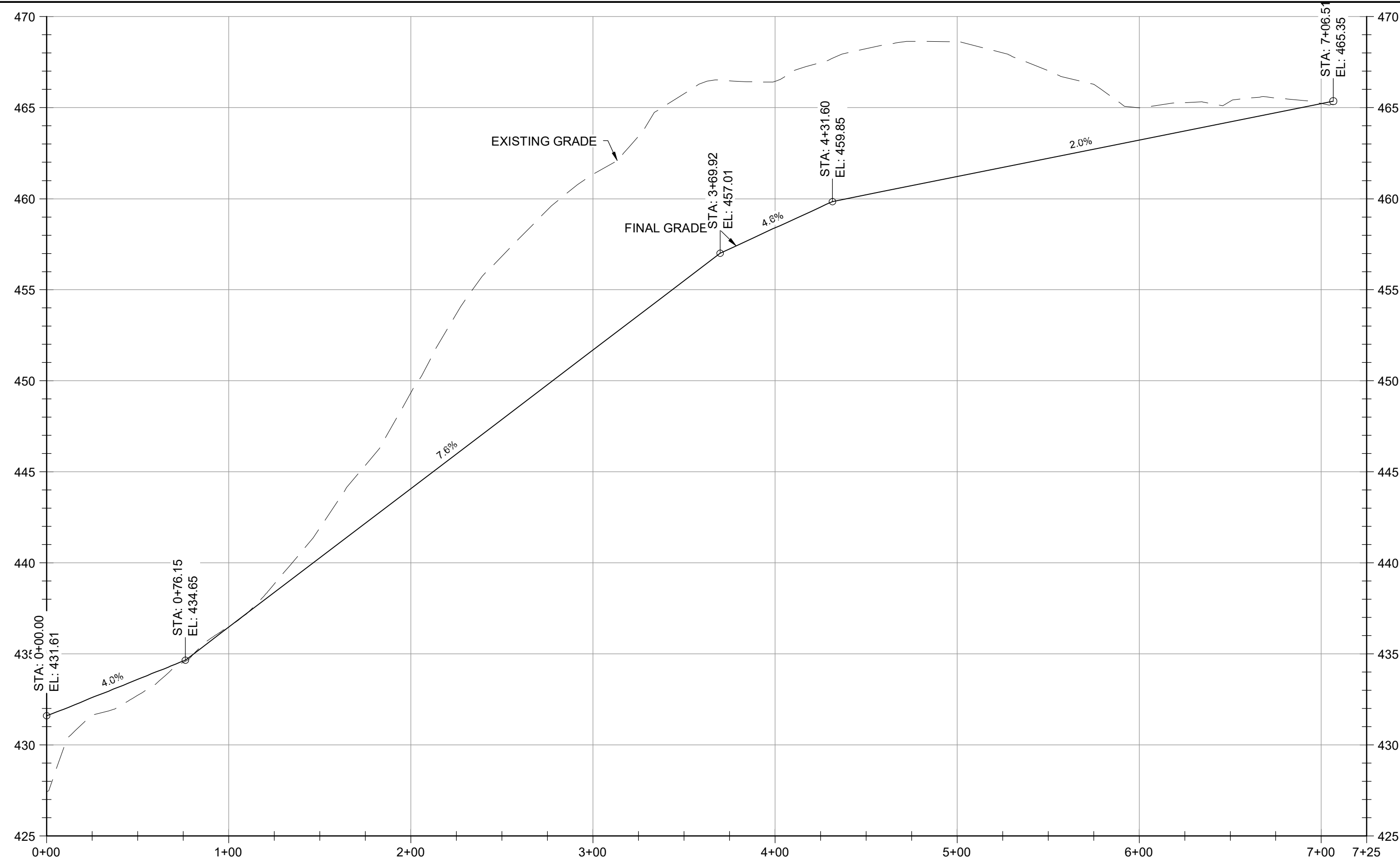
DESIGNED BY: KEF / SMB  
 DRAWN BY: SMB  
 CHECKED BY: LJO / GAT  
 PROJECT MANAGER: MJG

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - SWALE**

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-209**  
 SHEET: 84 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION	
DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.

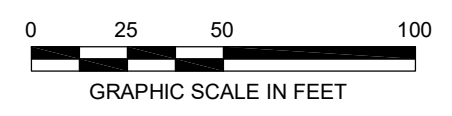
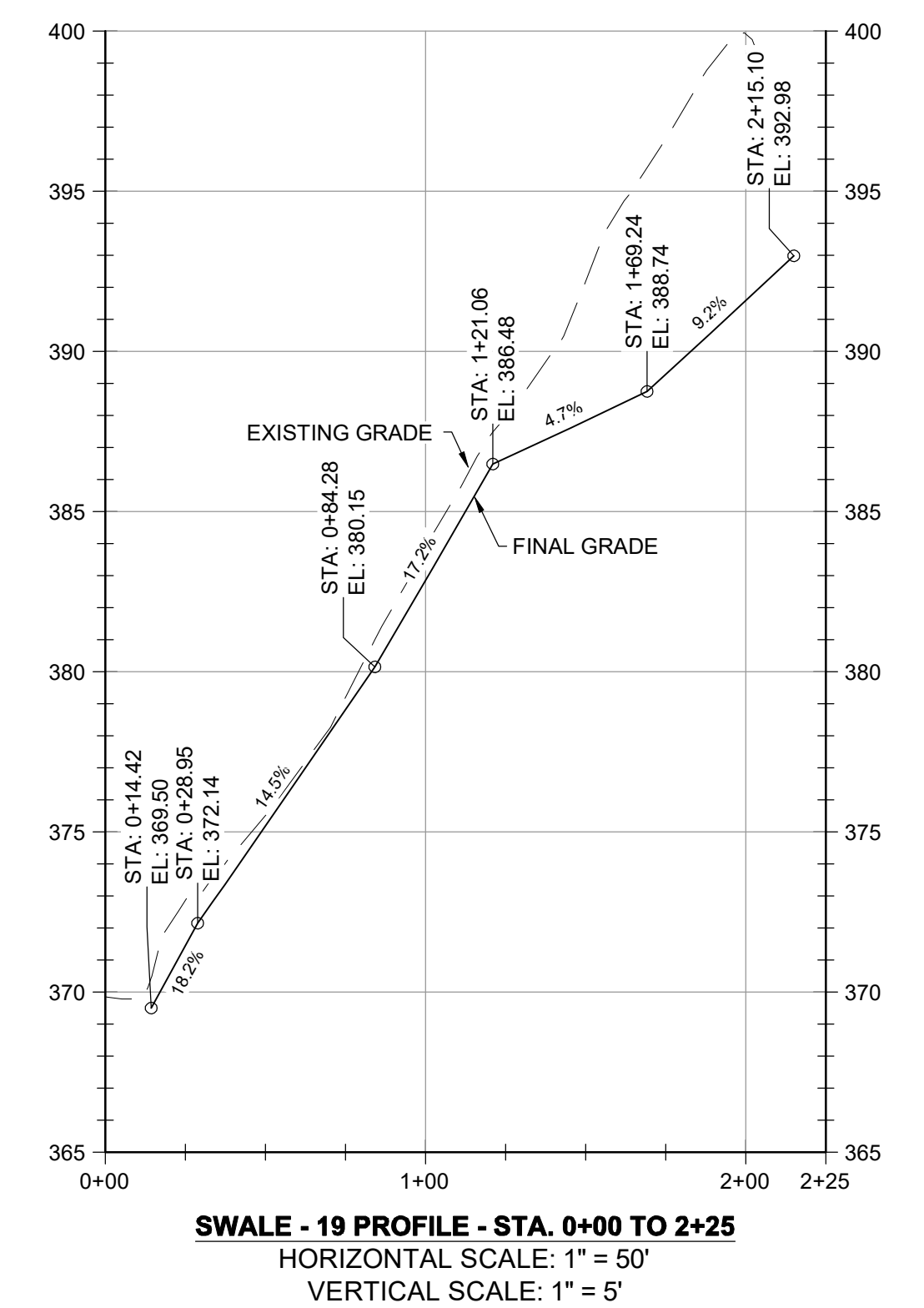
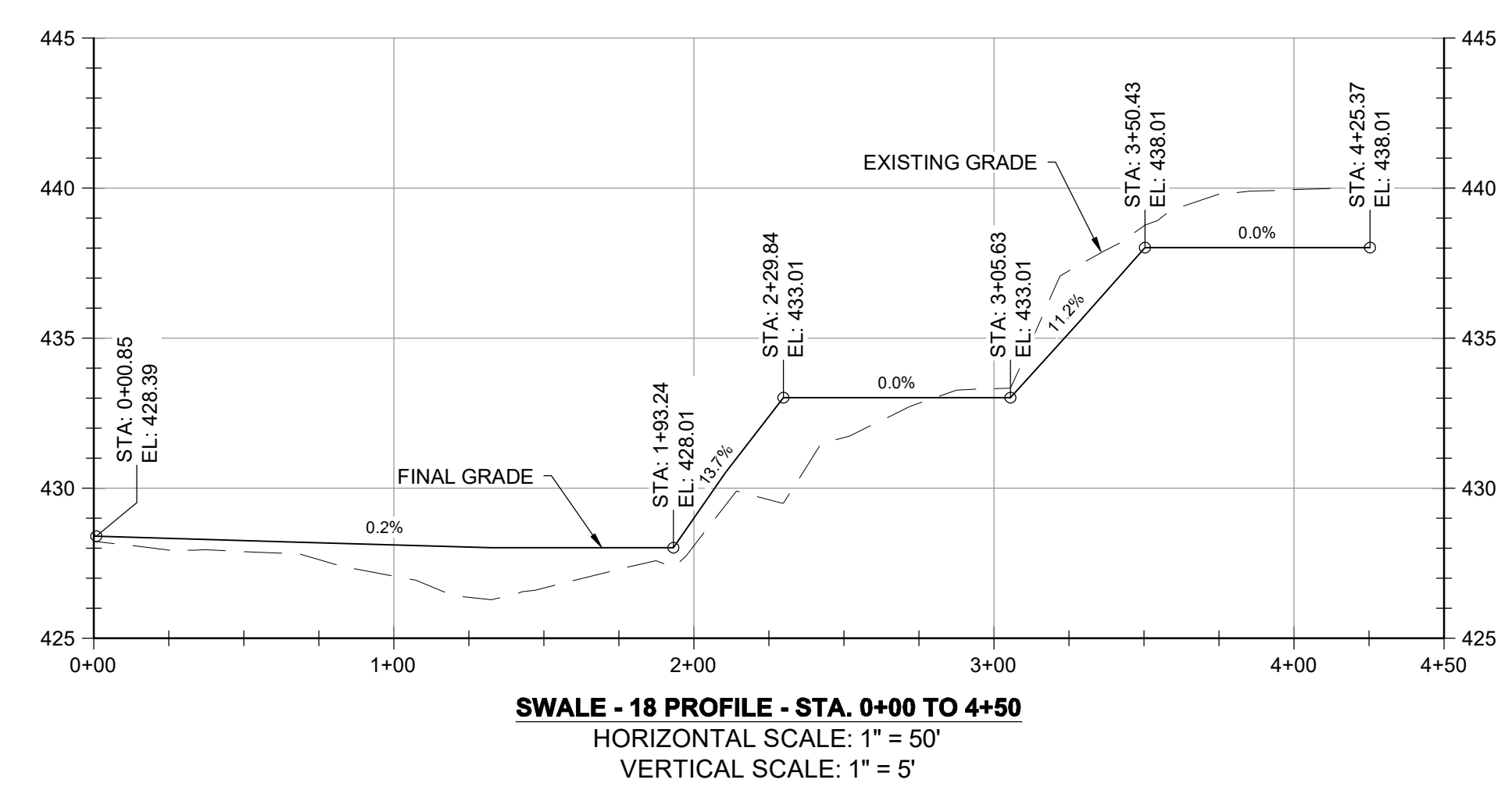
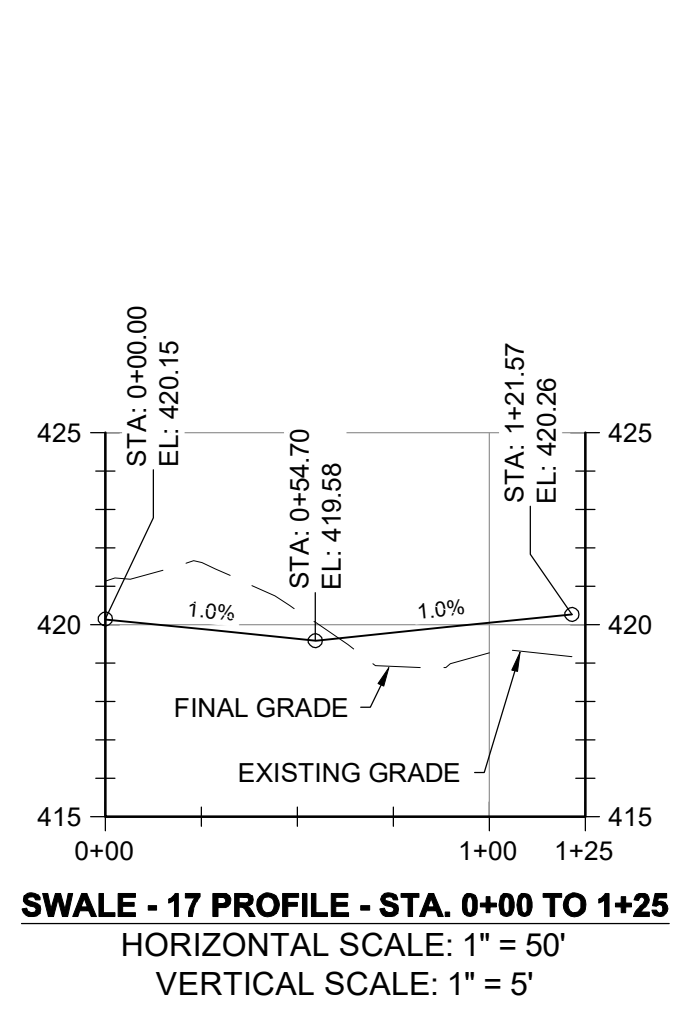
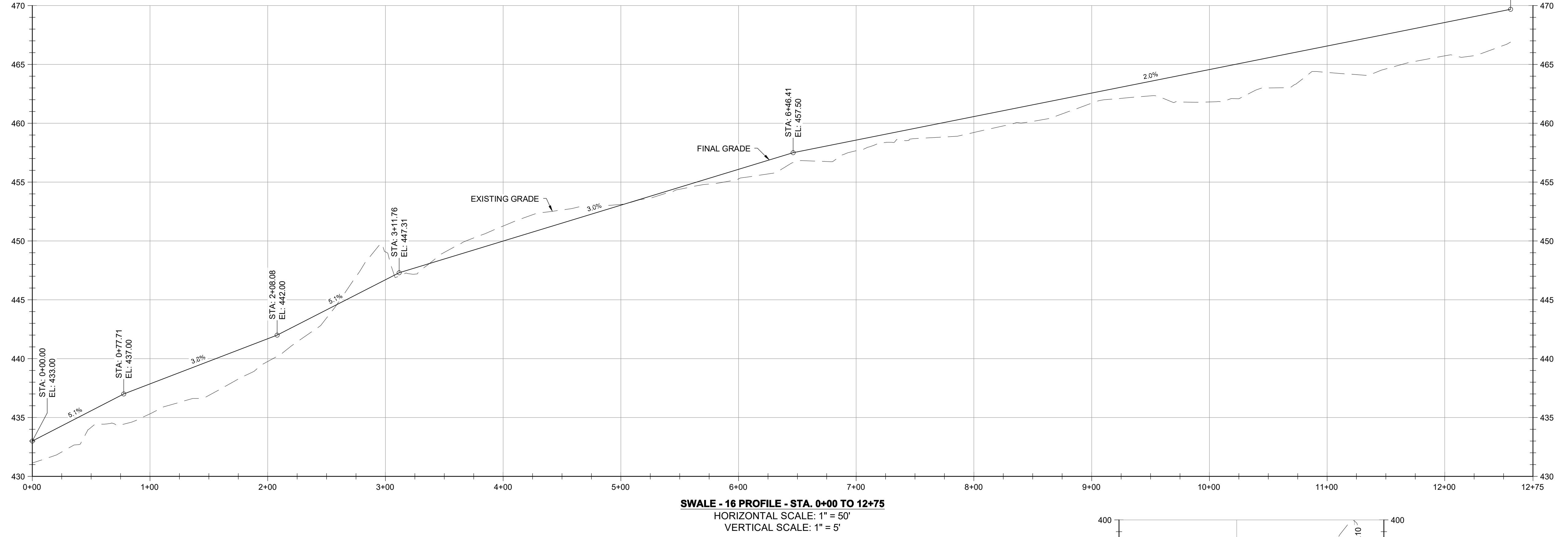
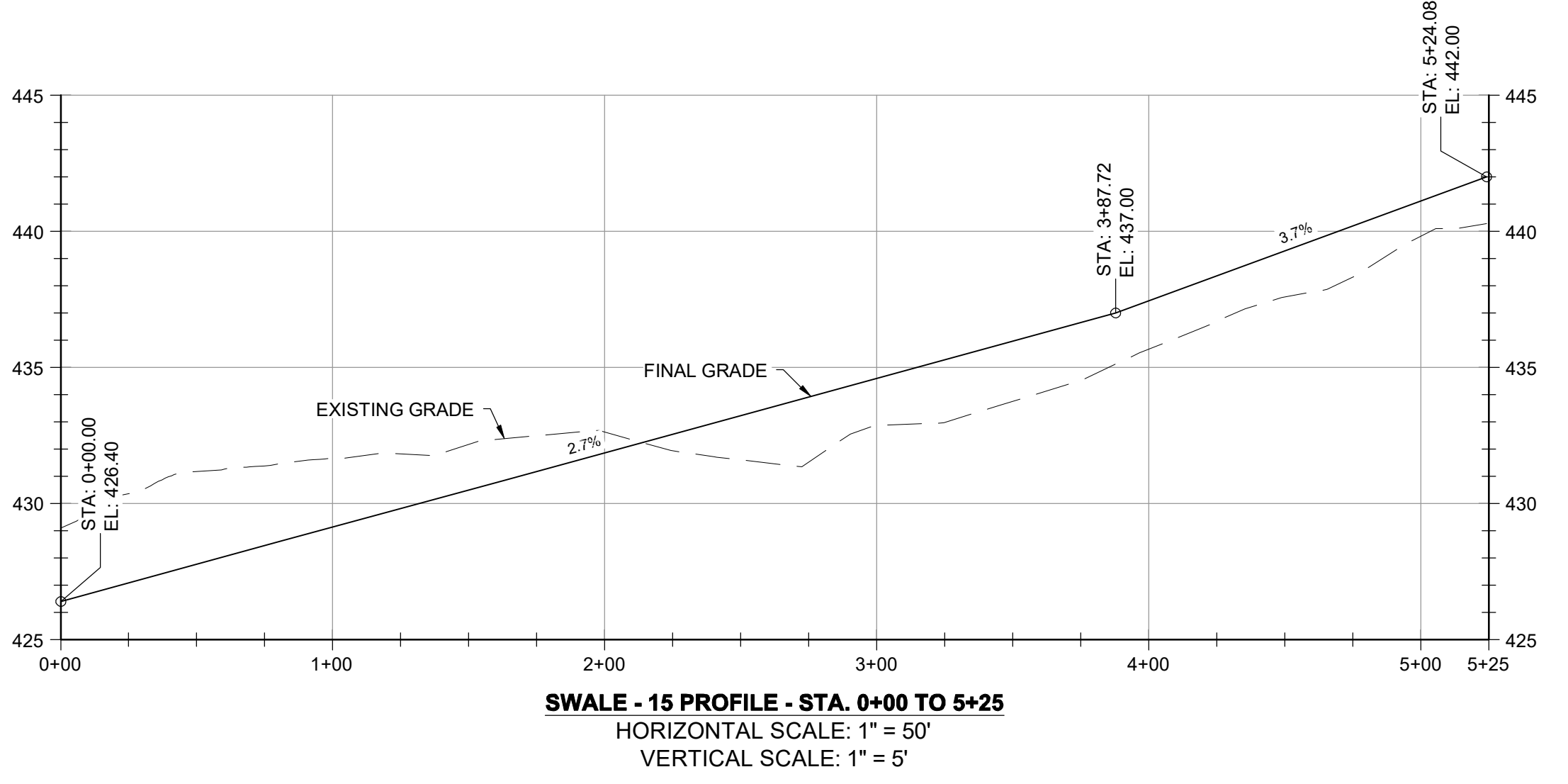
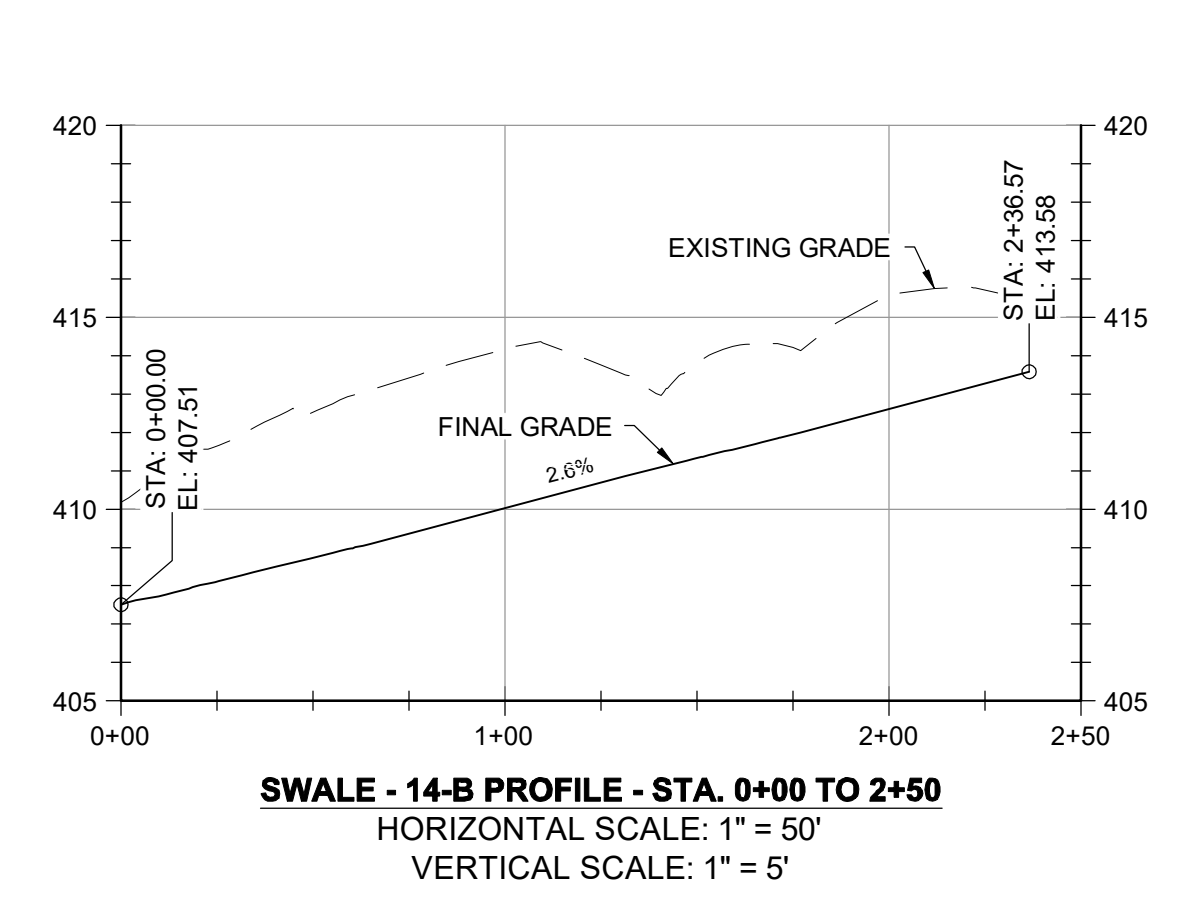
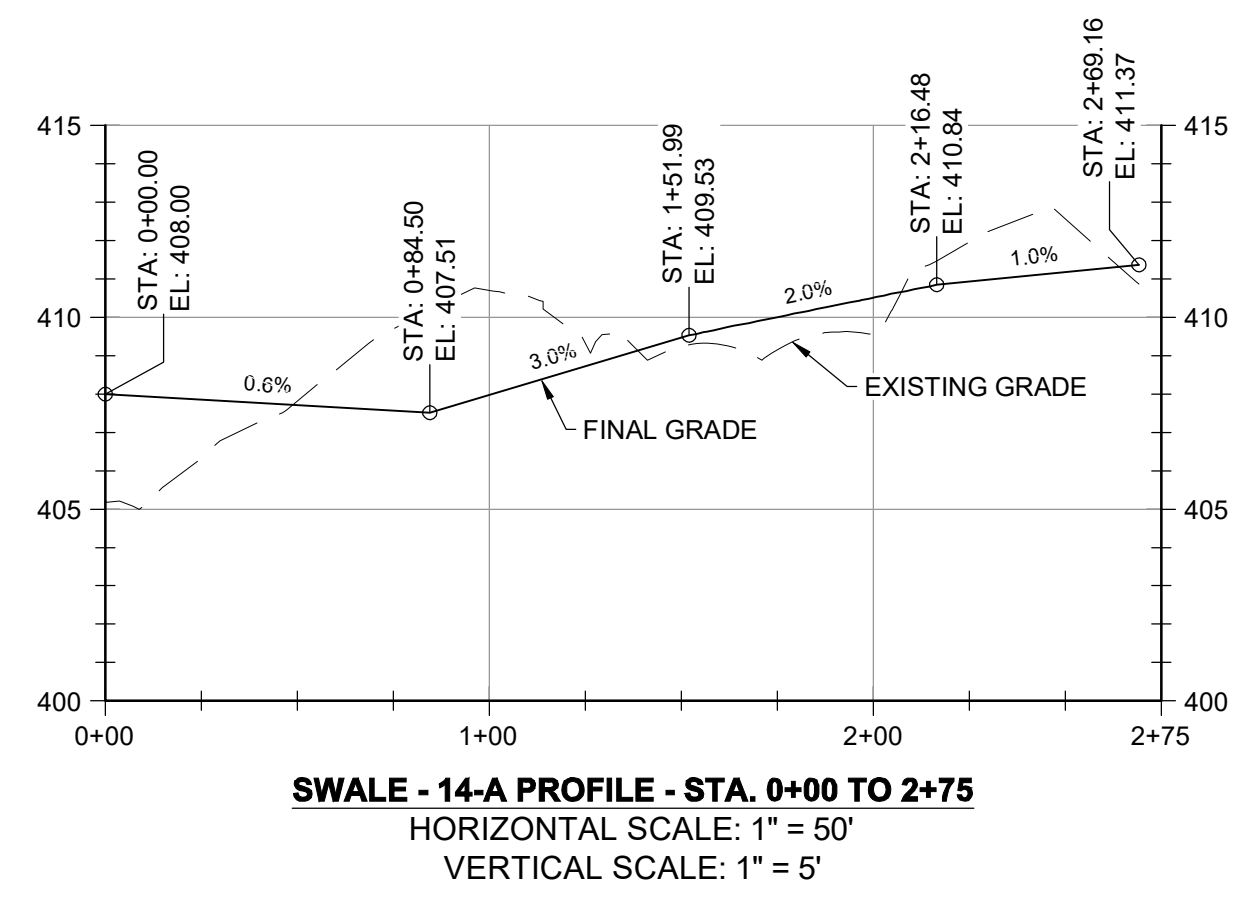
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - SWALE**

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-210**  
 SHEET: 85 OF 144

FILE PATH: G:\PROJECTS\1564601 - GSE\1564601-0815-GEOMETRY\PROFILES\DWG 1564601-0815-GEOMETRY.PLOT.DWG (SHEET) SHEET: 85 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DESCRIPTION
DRAWN BY:	SMB	DATE	BY
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - SWALE**

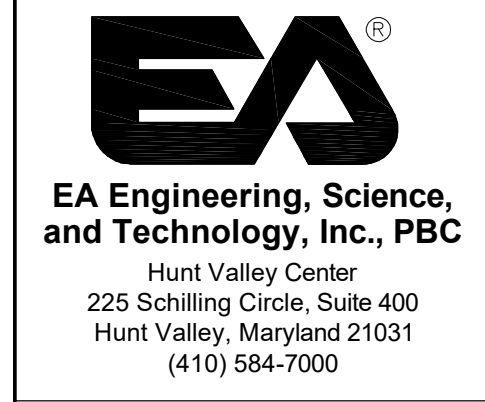
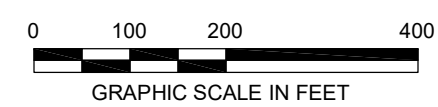
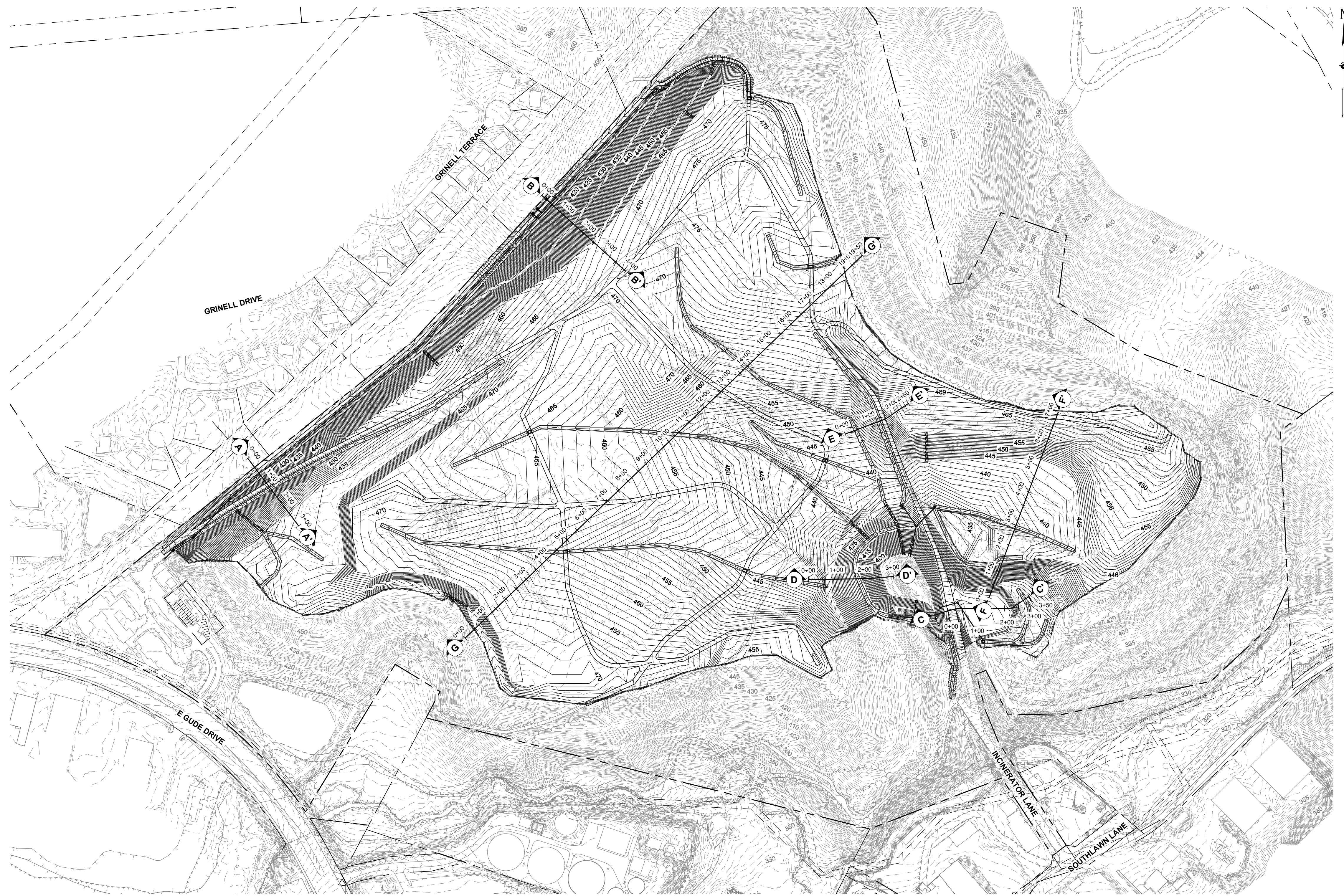
EA Engineering, Science, and Technology, Inc., PBC  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-211**  
 SHEET: 86 OF 144

FILE PATH: G:\PROJECTS\1564601 - GATE 17 - SWALE GEOMETRY PROFILES.DWG (C-211) SHEET: 86 OF 144 DATE: 7/20/20 8:54 PM

90% DESIGN PLANS - NOT FOR CONSTRUCTION

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DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-301**  
 SHEET: 87 OF 144

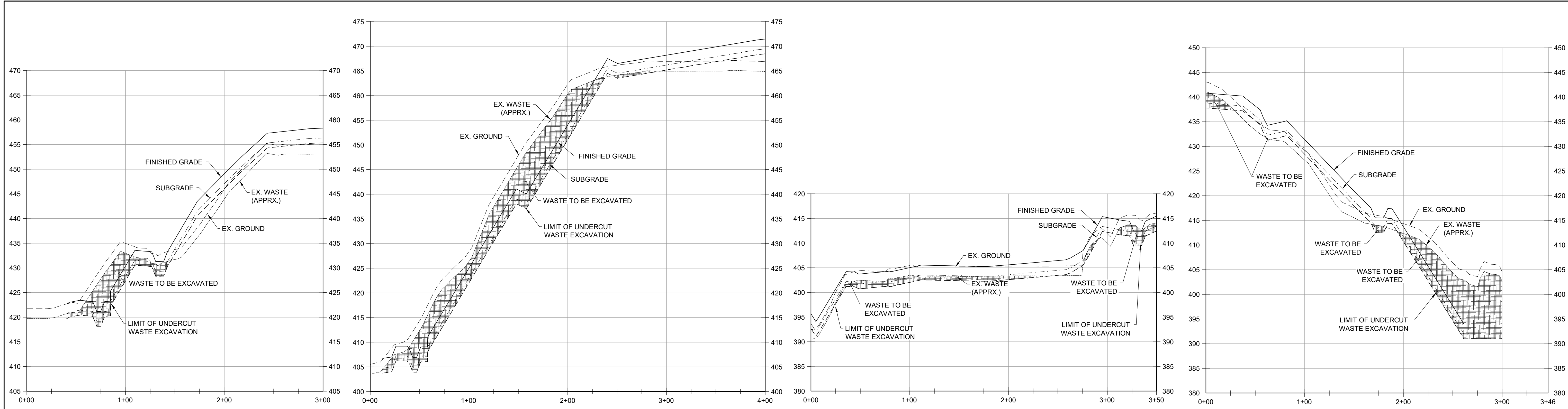
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**SITE CROSS SECTIONS - KEY SHEET**

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

NO.	DATE	BY	DESCRIPTION

90% DESIGN PLANS - NOT FOR CONSTRUCTION

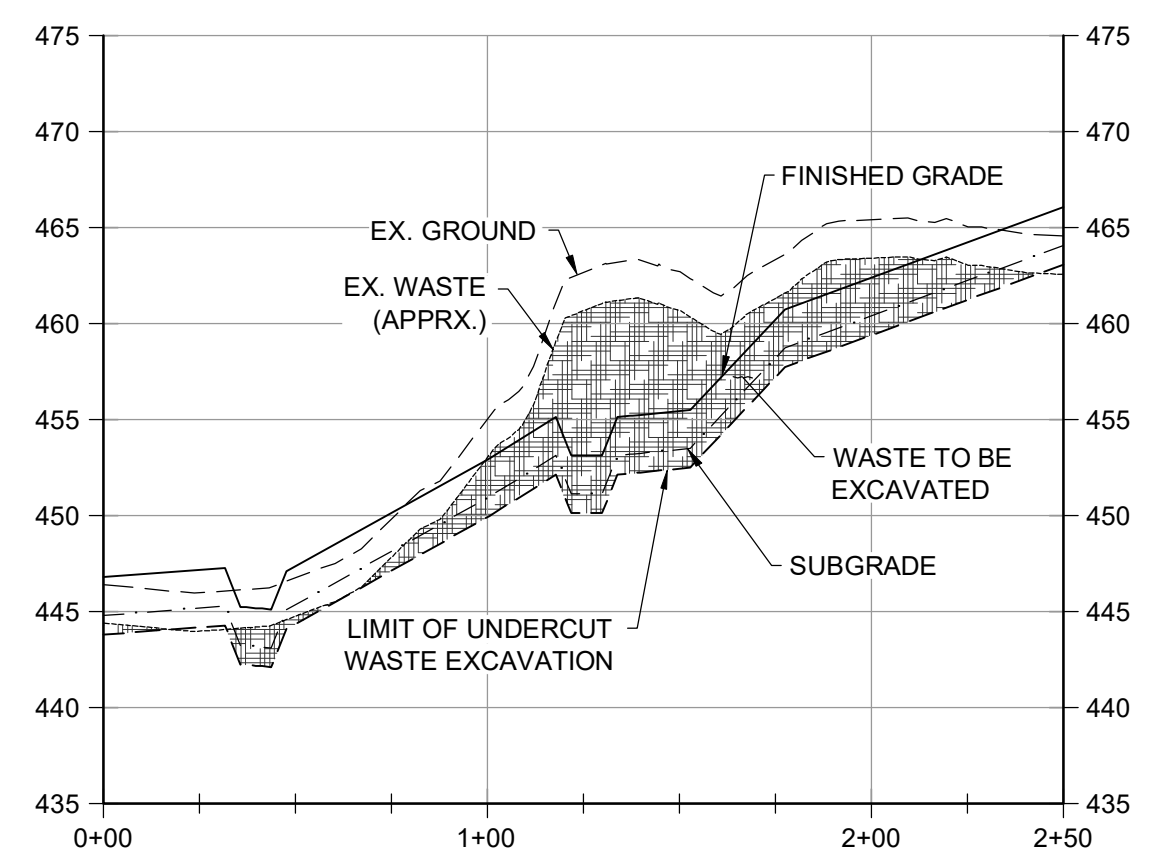


**NORTHWEST SLOPE SECTION A-A'**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'

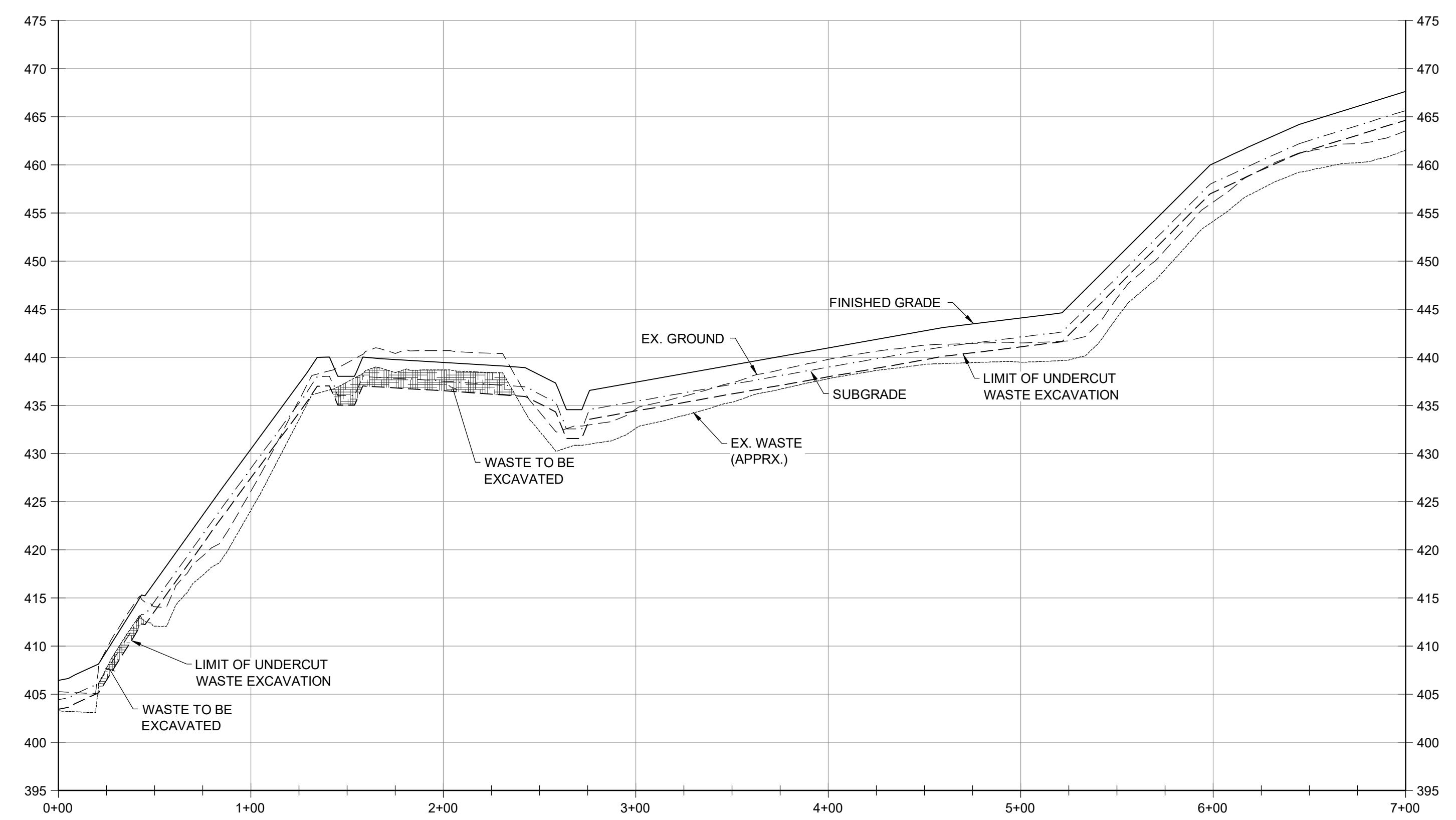
**NORTHWEST SLOPE SECTION B-B'**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'

**ENTRANCE ROAD SECTION C-C'**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'

**ENTRANCE ROAD SECTION D-D'**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'



**ACCESS ROAD SECTION E-E'**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'



**EASTERN AREA SECTION F-F'**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'

NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

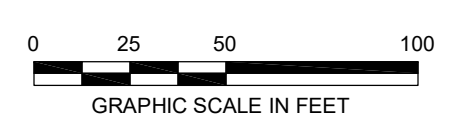
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**SITE CROSS SECTIONS**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601

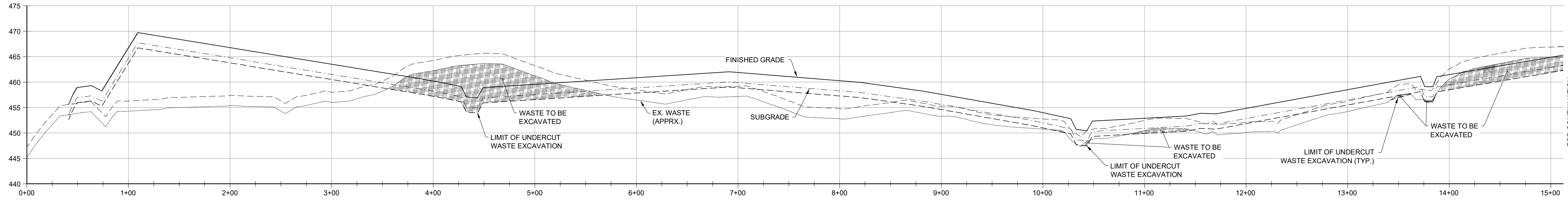
**C-302**  
 SHEET: 88 OF 144



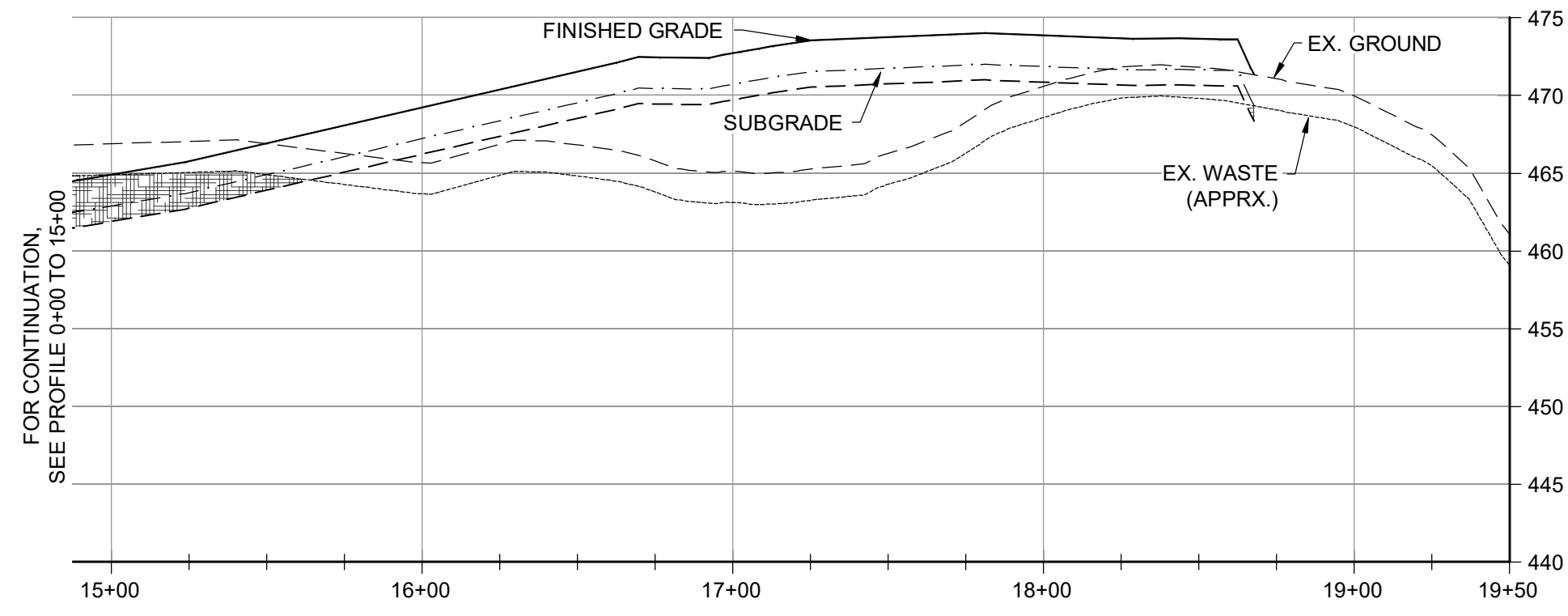
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90% DESIGN PLANS - NOT FOR CONSTRUCTION

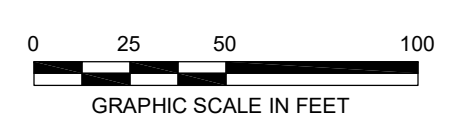




**SITE SECTION G-G' (0+00 - 15+00)**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'



**SITE SECTION G-G' (15+00 - 19+50)**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'



NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**SITE CROSS SECTIONS**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-303**  
 SHEET: 89 OF 144

FILE PATH: G:\PROJECTS\1564601 - GATE 17 REPAIR\CONSTRUCTION\DESIGN\SET\1564601 - 0819 - SITE CROSS SECTIONS.dwg PLOT DATE: 7/20/20 11:17 AM

90% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: C:\PROJECTS\1564601 - GATE 12 REVISIONS\CONSTRUCTION\DESIGN\1564601 - GATE 12 CROSS SECTIONS.dwg PLOT: 1564601 - GATE 12 CROSS SECTIONS.dwg 7/20/20 11:14 AM

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DATE: JULY 2020  
PROJECT NUMBER: 1564601

**C-304**  
SHEET: 90 OF 144

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**SITE CROSS SECTIONS**

SEAL  
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

DESIGNED BY:	KEY / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

NO.	DATE	BY	DESCRIPTION

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90% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: C:\PROJECTS\1564601 - GIBBY LP DEBRIS/CONSTRUCTION/DETAILS/90% SUBMITTAL - 1515 - DETAIL.DWG (C-501) 11/27/2020 10:25:00 AM

**SITE DETAILS INDEX**

DRAWING NO.	DETAIL
C-502	CHAIN-LINK FENCE BRACE & ROD DETAIL
C-502	CHAIN-LINK FENCE DETAIL
C-502	DOUBLE SWING GATE DETAIL
C-502	EXTENSION ARM DETAILS
C-502	PERSONNEL GATE DETAIL
C-503	BASE OF NORTHWEST SLOPE ACCESS ROAD DETAIL
C-503	GRAVEL ROAD SECTION - CROWNED
C-503	GRAVEL ROAD SECTION - SUPERELEVATED
C-503	MONITORING WELL PROTECTION DETAIL
C-503	TYPICAL BOLLARD DETAIL
C-503	TEMPORARY PIEZOMETER EXTENSION DETAIL

**DEMOLITION DETAILS INDEX**

DRAWING NO.	DETAIL
	THIS DRAWING NOT INCLUDED IN 90% SUBMITTAL

**EXCAVATION/GRADING DETAILS INDEX**

DRAWING NO.	DETAIL
C-505	EXISTING COVER SOIL REMOVAL DETAIL
C-505	EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL
C-506	SIDE SLOPE EXCAVATION DETAIL
C-506	SIDE SLOPE EXCAVATION DETAIL - PLAN VIEW
C-507	EXCAVATION/GRADING DETAILS
C-507	SETTLEMENT PLATE

**CLOSURE CAP DETAILS INDEX**

DRAWING NO.	DETAIL
C-508	EARTH CLOSURE CAP SECTION
C-508	GEOSYNTHETIC CLOSURE CAP SECTION - ALTERNATE
C-508	GEOSYNTHETIC CLOSURE CAP SECTION - BASE BID
C-508	NORTHWEST SLOPE DETAIL
C-508	NORTHWEST SLOPE DISCHARGE FACILITY DETAIL
C-509	GABION DOWNCHUTE
C-509	GABION DOWNCHUTE SECTION
C-509	GEOSYNTHETIC CLOSURE CAP SECTION THROUGH BENCH
C-509	GEOSYNTHETIC CLOSURE CAP SECTION TIE-IN TO SWALE
C-510	GEOMEMBRANE LINER TO CONCRETE STRUCTURE DETAIL
C-510	PIPE BOOT DETAIL

**DRAINAGE DETAILS INDEX**

DRAWING NO.	DETAIL
C-510	"A" MANHOLE DETAIL
C-510	"J" INLET DETAIL
C-510	MANHOLE AND INLET STEPS DETAIL
C-510	STORM DRAIN PIPE TRENCH AND BEDDING DETAIL
C-510	TYPE "Y" INLET DETAIL
C-511	BOX CULVERT DETAIL
C-512	POND 3 - RISER STRUCTURE DETAIL
C-512	TYPICAL REINFORCING AROUND CIRCULAR OPENING
C-512	TYPICAL REINFORCING AROUND ORIFICE OPENING
C-513	SEDIMENT BASIN - SUBGRADE CONDITION
C-513	SEDIMENT BASIN - SECTIONS
C-513	BASIN SPILLWAY - FINAL CONSTRUCTION CONDITION

**EROSION AND SEDIMENT CONTROLS DETAILS INDEX**

DRAWING NO.	DETAIL
C-514	STABILIZED CONSTRUCTION ENTRANCE
C-514	TEMPORARY SOIL STABILIZATION MATTING DITCH OR CHANNEL APPLICATION
C-514	TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION
C-514	PERMANENT SOIL STABILIZATION MATTING DITCH OR CHANNEL APPLICATION
C-514	PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION
C-514	EARTH DIKE
C-514	CLEAR WATER DIVERSION PIPE
C-514	MOUNTABLE BERM
C-514	PIPE SLOPE DRAIN
C-514	RIPRAP INFLOW PROTECTION
C-514	ROCK OUTLET PROTECTION II
C-514	SUPER SILT FENCE
C-514	CLEAR WATER PIPE THROUGH SILT FENCE/SUPER SILT FENCE
C-514	FILTER LOG
C-515	TEMPORARY STONE OUTLET STRUCTURE
C-515	TEMPORARY GABION OUTLET STRUCTURE
C-515	STANDARD INLET PROTECTION
C-515	SUMP PIT
C-515	FILTER BAG
C-515	TYPICAL METAL ANTI SEEP COLLAR
C-515	BAFFLE BOARD
C-515	ONSITE CONCRETE WASHOUT STRUCTURE
C-515	MONTGOMERY COUNTY STANDARD DEWATERING DEVICE
C-516	MDE STANDARDS AND SPECIFICATIONS
C-516	SEEDING SUMMARY

**LANDFILL GAS DETAILS INDEX**


DRAWING NO.	DETAIL
C-517	EXISTING LANDFILL GAS EXTRACTION WELL ABANDONMENT
C-517	EXISTING LANDFILL GAS EXTRACTION WELL MODIFICATION - EXTEND
C-517	EXISTING LANDFILL GAS EXTRACTION WELL MODIFICATION - SHORTEN
C-517	EXISTING REMOTE LANDFILL GAS EXTRACTION WELL ABANDONMENT
C-517	GRAVEL PAD
C-517	LANDFILL GAS WELLHEAD
C-517	PROPOSED LANDFILL GAS EXTRACTION WELL
C-517	REMOTE LANDFILL GAS WELLHEAD
C-518	CONDENSATE DRAIN
C-518	EXTRACTION WELL LOCATIONS AT BENCHES
C-518	EXISTING DEWATERING SUMP MODIFICATION - EXTEND
C-518	GAS COLLECTION PIPING FLANGE CONNECTION DETAIL
C-518	LANDFILL GAS HEADER ISOLATION VALVE
C-518	LATERAL CONNECTION
C-518	LLDPE CLOSURE LINER PENETRATION DETAIL
C-518	PIPING TRENCH DETAIL (OUTSIDE LANDFILL CAP)
C-518	PIPING TRENCH DETAIL (WITHIN LANDFILL)
C-519	LANDFILL GAS PIPE SWALE CROSSING
C-519	LANDFILL GAS PIPE ROAD CROSSING
C-520	EXISTING LANDFILL GAS EXTRACTION WELLS TO BE ABANDONED
C-520	EXISTING LANDFILL GAS EXTRACTION WELLS TO BE MODIFIED
C-520	EXISTING REMOTE LANDFILL GAS EXTRACTION WELLS TO BE MODIFIED
C-520	PROPOSED LANDFILL GAS EXTRACTION WELLS
C-520	PROPOSED REMOTE LANDFILL GAS EXTRACTION WELLS

REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION					
DESIGNED BY:	KEF / SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG
DRAWN BY:	SMB				

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

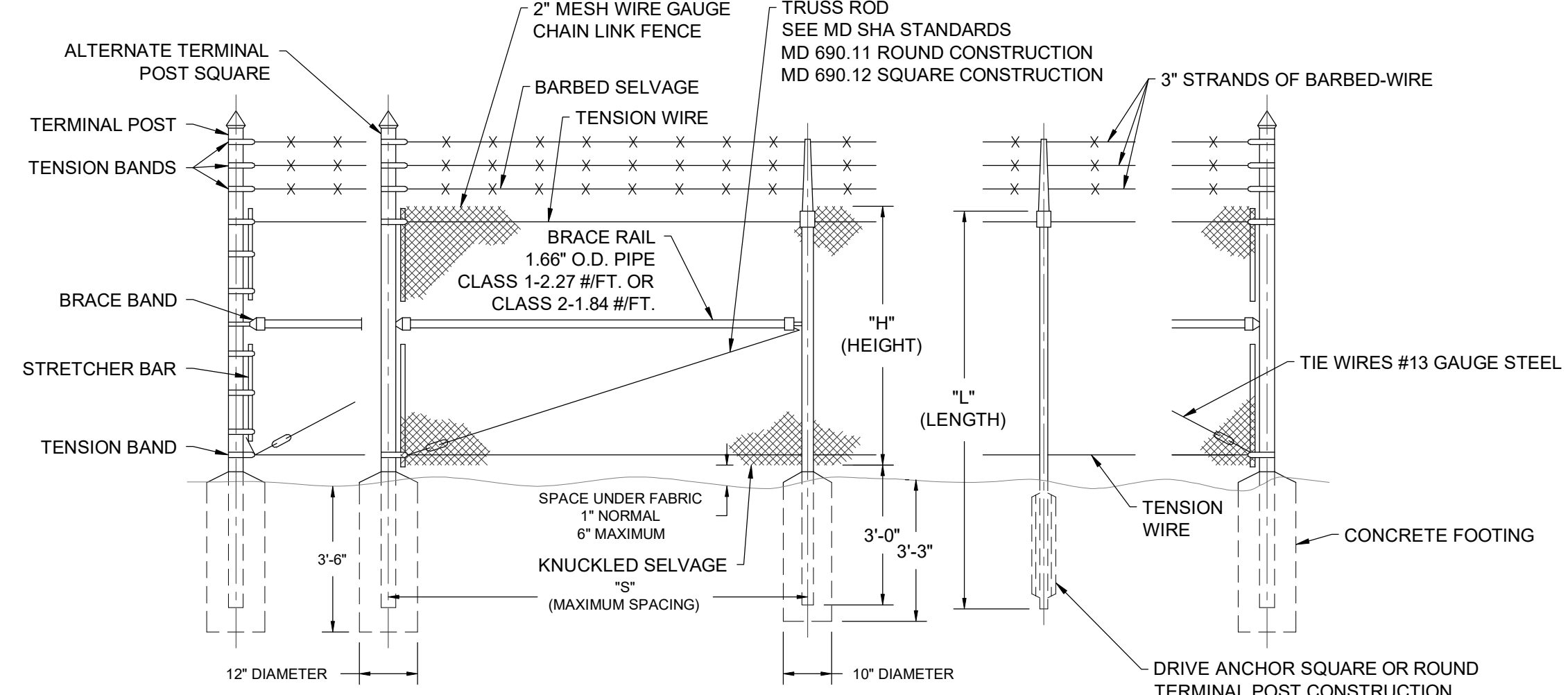
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**DETAIL INDEX SHEET**



**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-501**  
 SHEET: 91 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION

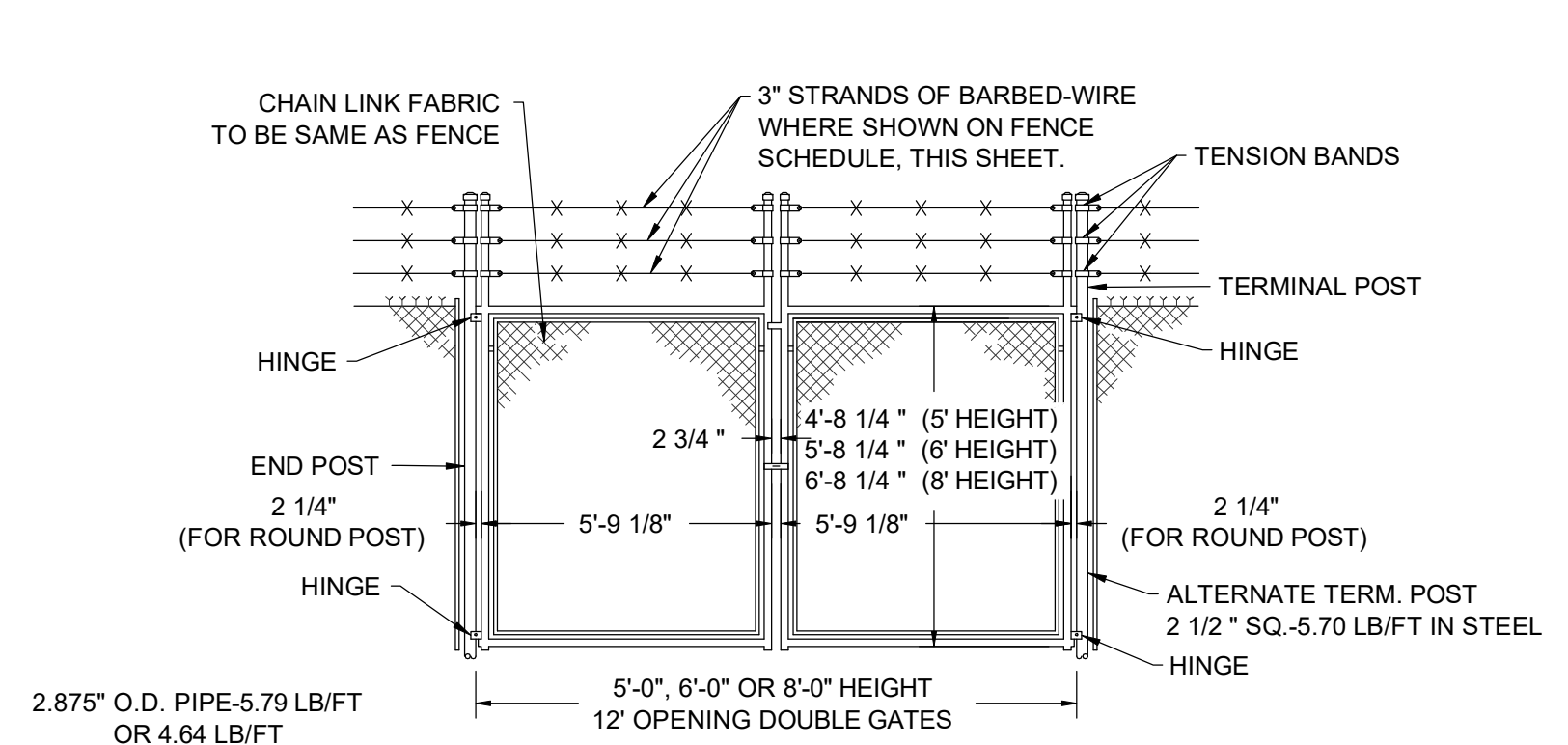


"H" HEIGHT OF FENCE	5'-0" RURAL	6'-0"	8'-0"
"S" POST SPACING/INCL. CAP	12'-0"	10'-0"	10'-0"
"L" LENGTH INCL. CAP	7'-8" MIN.	8'-8" MIN.	10'-8"
LINE POSTS			
ROUND-CLASS 1	1.90" O.D. @ 2.72 LB/FT	2.375" O.D. @ 3.65 LB/FT	2.375" O.D. @ 3.65 LB/FT
ROUND-CLASS 2	1.90" O.D. @ 2.28 LB/FT	2.375" O.D. @ 3.12 LB/FT	2.375" O.D. @ 3.12 LB/FT
H-BEAM-STEEL	2.25"x1.17" @ 3.26 LB/FT	2.25"x1.17" @ 3.26 LB/FT	2.25"x1.17" @ 3.26 LB/FT
H-BEAM-ALUM.	2.25"x1.95" @ 1.25 LB/FT	2.25"x1.95" @ 1.25 LB/FT	2.25"x1.95" @ 1.25 LB/FT
C-POST-STEEL	2.25"x1.77" @ 2.73 LB/FT	2.25"x1.77" @ 2.73 LB/FT	2.25"x1.77" @ 2.73 LB/FT
TERM. POSTS			
ROUND-CLASS 1	2.375" O.D. @ 3.65 LB/FT	2.875" O.D. @ 5.79 LB/FT	2.875" O.D. @ 5.79 LB/FT
ROUND-CLASS 2	2.375" O.D. @ 3.12 LB/FT	2.875" O.D. @ 4.64 LB/FT	2.875" O.D. @ 4.64 LB/FT
SQUARE-ALT.	2.50" SQ. @ 5.70 LB/FT	2.50" SQ. @ 5.70 LB/FT	2.50" SQ. @ 5.70 LB/FT

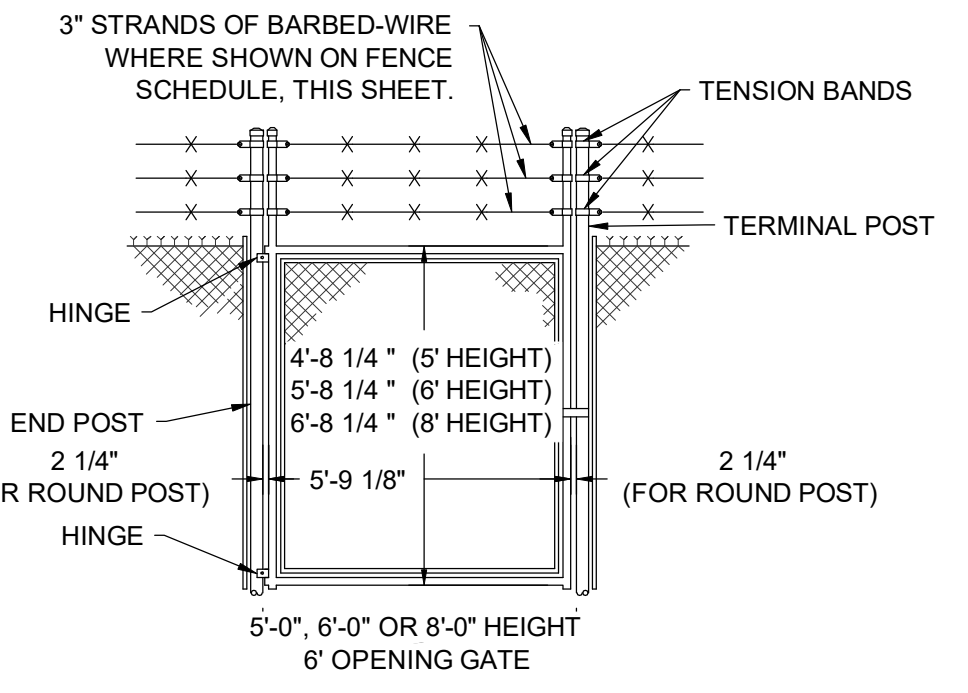
**CHAIN-LINK FENCE DETAIL**  
NOT TO SCALE

**NOTES:**

1. BASED ON MD SHA STANDARD DETAIL NO. MD 690.01.
2. ALL ROUND LINE POSTS TO BE CAPPED WITH LOOP CAPS. TENSION WIRE TO RUN THROUGH LOOPS. CAPS TO BE FASTENED TO ALL TERMINAL POSTS WITH TENSION BANDS.
3. FASTEN FABRIC TO TENSION WIRE WITH HOG RINGS @ 18" C/C. HOG RINGS TO BE 12 1/2 GAUGE GALVANIZED STEEL WIRE.
4. MATERIALS TO MEET REQUIREMENTS OF AASHTO M 181.
5. REFER TO MD SHA STANDARD SPECIFICATION 914.01 WHEN VINYL IS SPECIFIED.
6. THE COLOR OF THE COATING SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS.



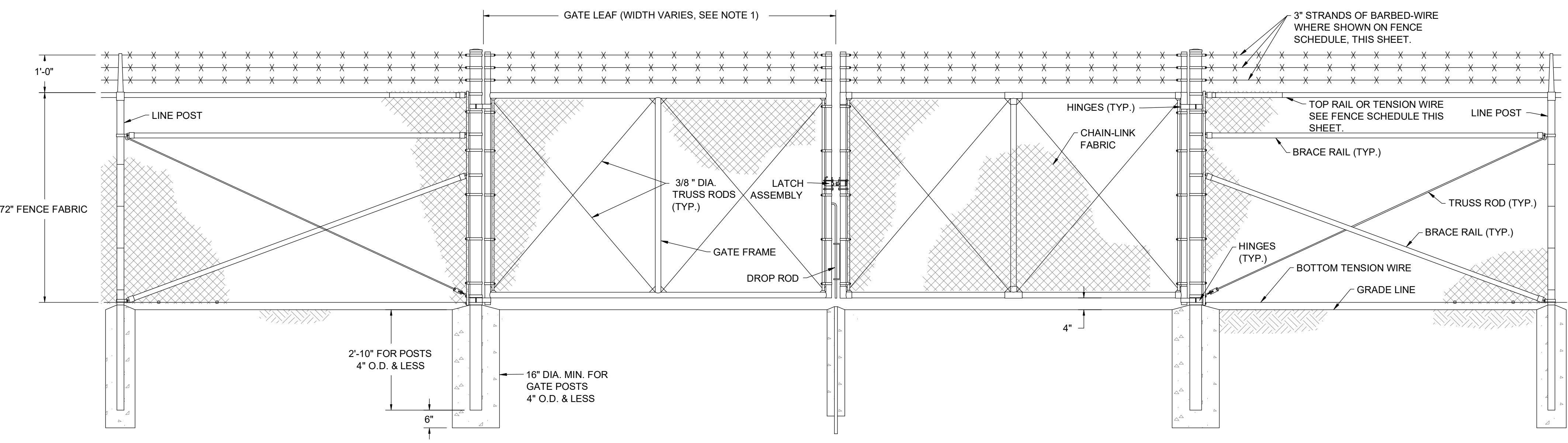
**GATE FRAME**  
1.90" O.D. PIPE-2.72 LB/FT OR 2.28 LB/FT



**PERSONNEL GATE DETAIL**  
NOT TO SCALE

**NOTE:**

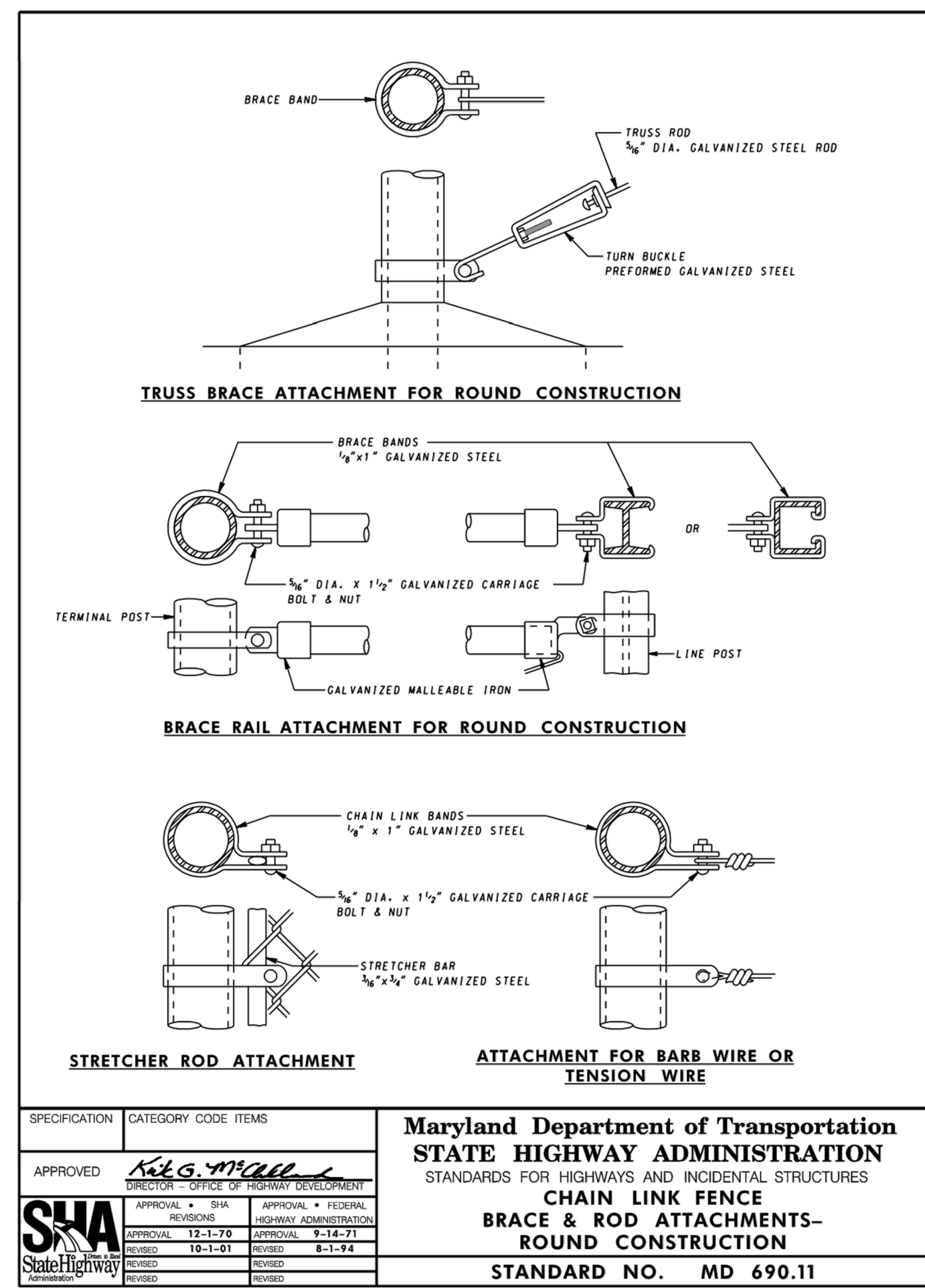
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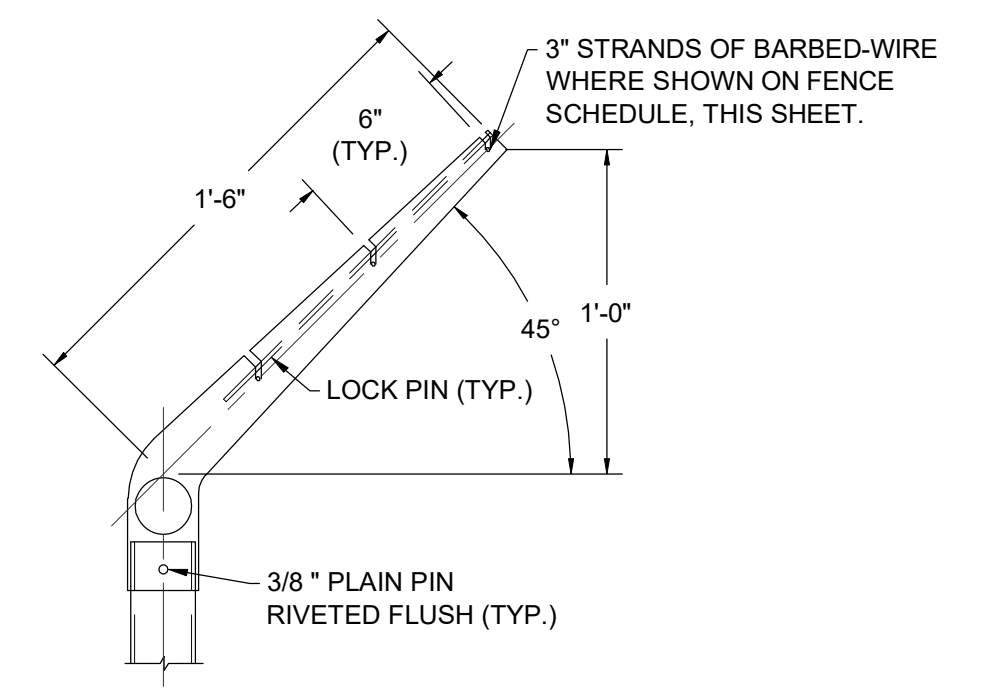
**DOUBLE SWING GATE DETAIL**  
NOT TO SCALE

**NOTE:**

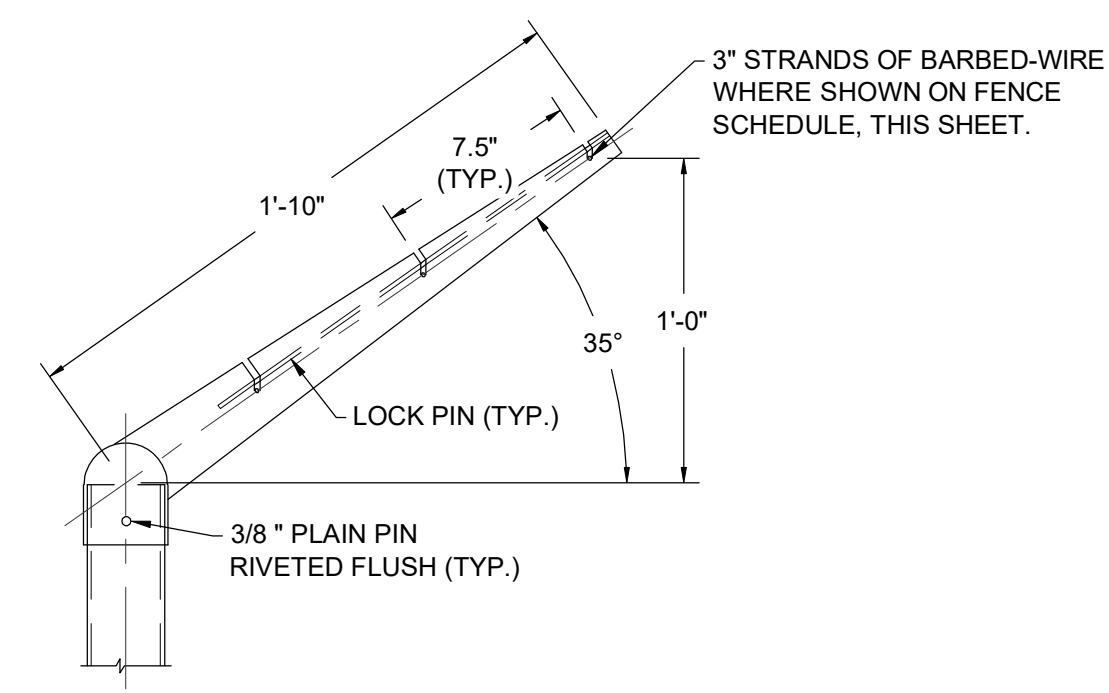
1. A GATE LEAF SCHEDULE WILL BE INCLUDED IN FUTURE DESIGN SUBMITTALS.



**CHAIN-LINK FENCE BRACE & ROD DETAIL**  
NOT TO SCALE



**LINE POST**



**CORNER POST**

**EXTENSION ARM DETAILS**  
NOT TO SCALE

SPECIFICATION	CATEGORY CODE ITEMS	<b>Maryland Department of Transportation</b> <b>STATE HIGHWAY ADMINISTRATION</b> STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES <b>CHAIN LINK FENCE</b> <b>BRACE &amp; ROD ATTACHMENTS-ROUND CONSTRUCTION</b> <b>STANDARD NO. MD 690.11</b>
APPROVED	<i>[Signature]</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL - STA.	APPROVAL - FEDERAL	
REVISIONS	REVISIONS	
DESIGNED BY	KEY / S.M.B.	PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020
NO.	DATE	
DESIGN INFORMATION	CHECKED BY	
BY	PROJECT MANAGER	
NO.	DATE	
DESIGNED BY	KEY / S.M.B.	
NO.	DATE	
DESIGN INFORMATION	CHECKED BY	
BY	PROJECT MANAGER	
NO.	DATE	
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NO.	DATE	
DESIGN INFORMATION	CHECKED BY	
BY	PROJECT MANAGER	
NO.	DATE	

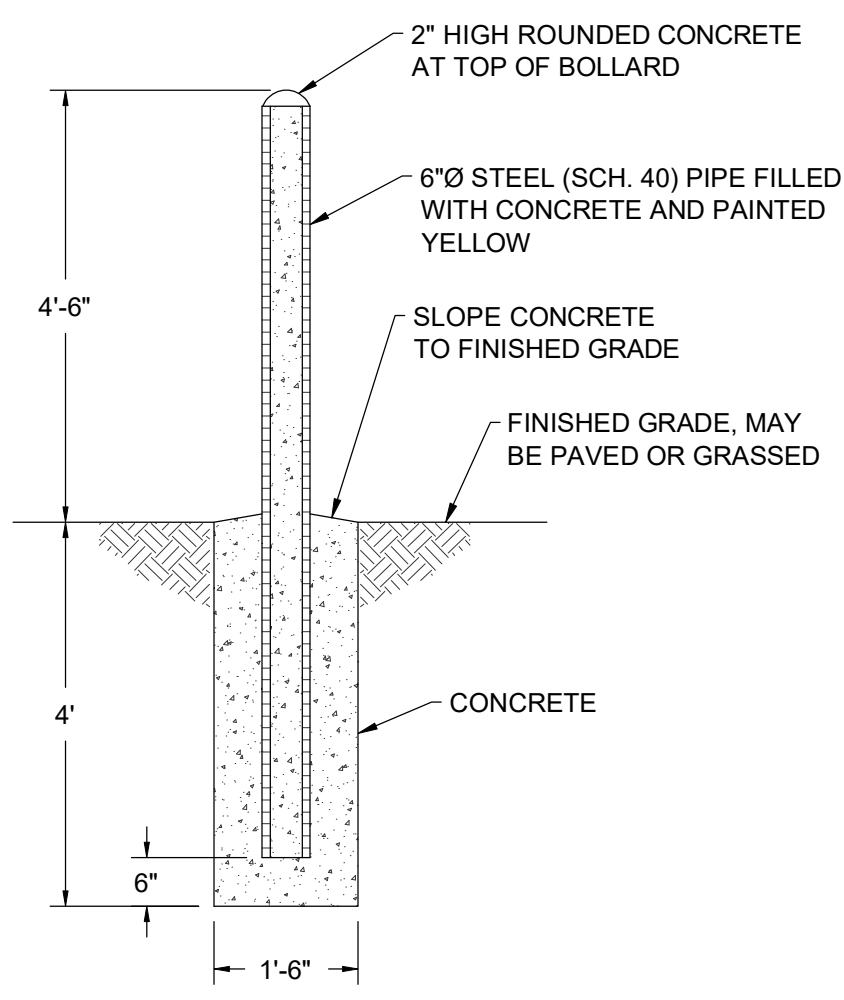
GUYE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
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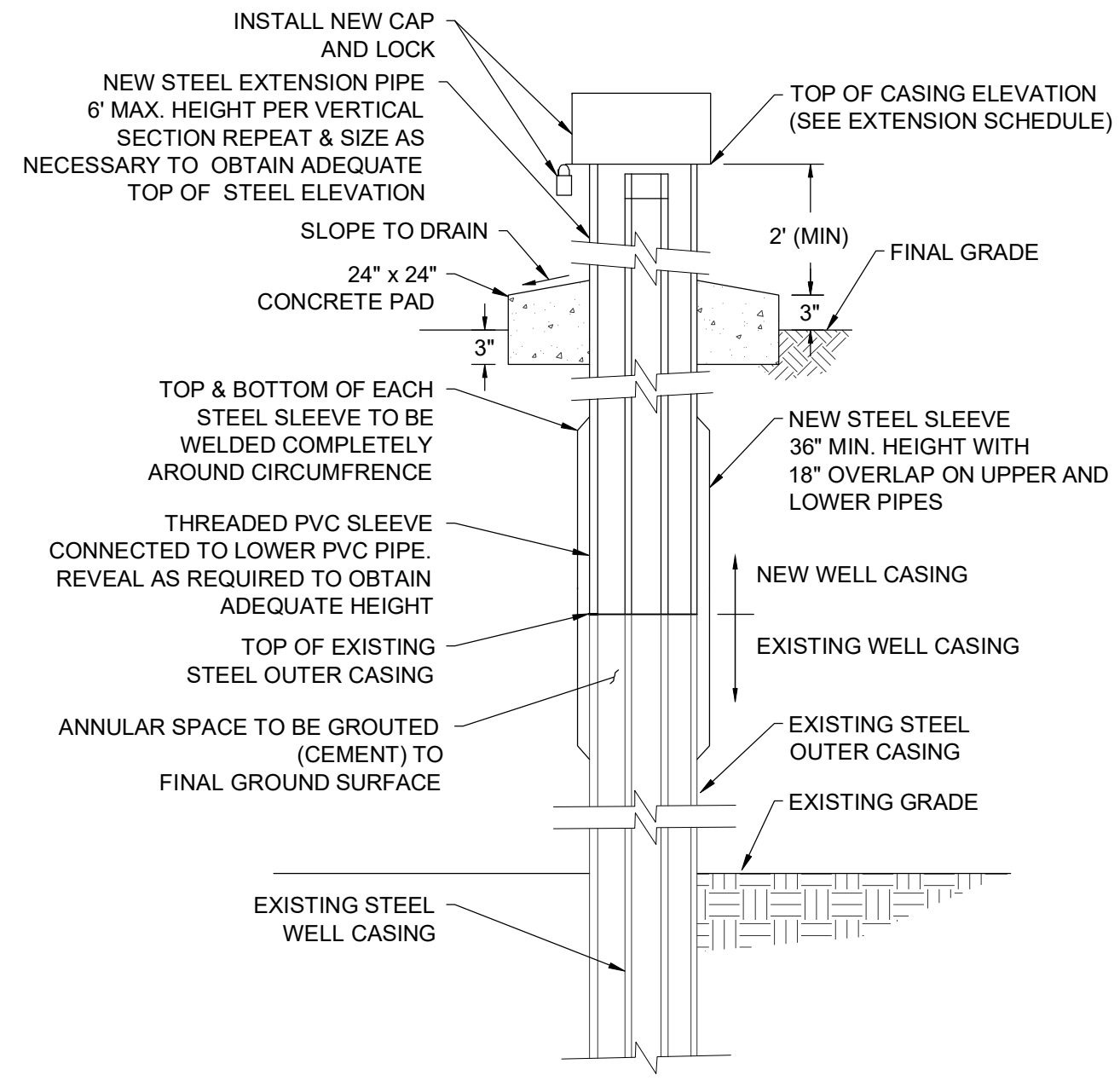
DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-502**  
 SHEET: 92 OF 144

SITE DETAILS

90% DESIGN PLANS - NOT FOR CONSTRUCTION



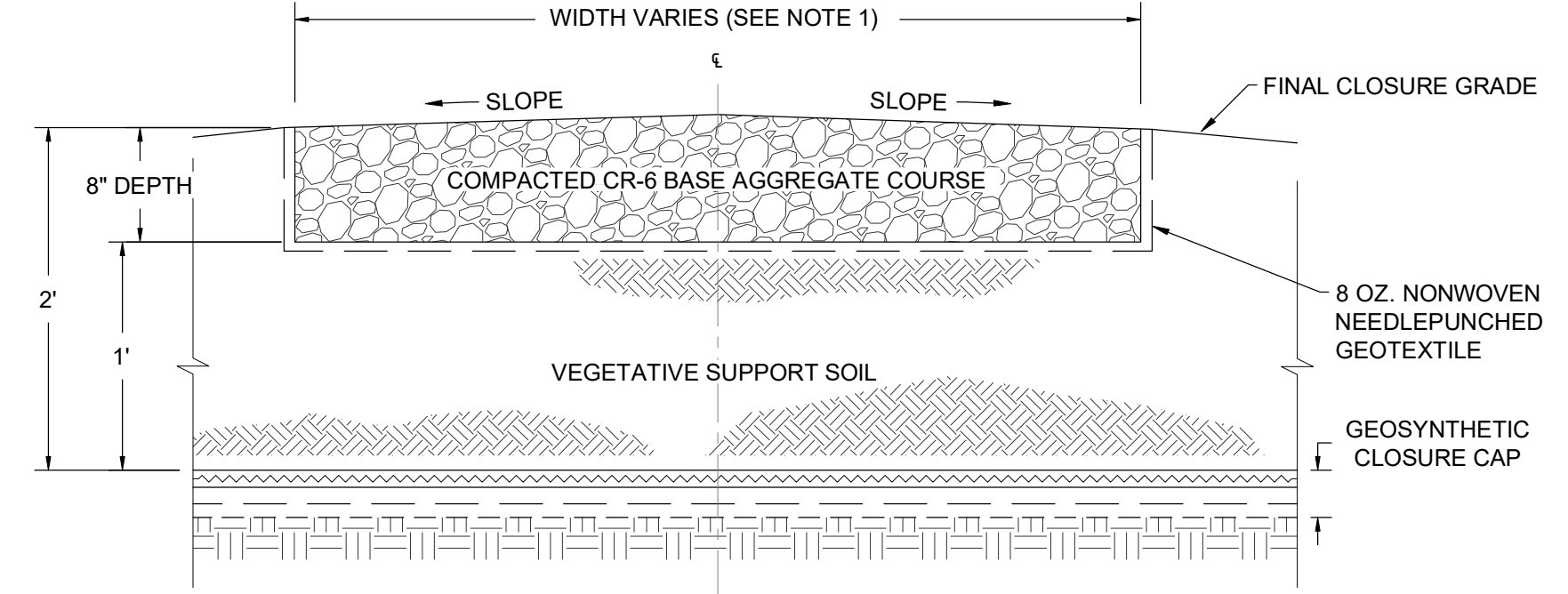
**TYPICAL BOLLARD DETAIL**  
NOT TO SCALE



**TEMPORARY PIEZOMETER EXTENSION DETAIL**  
NOT TO SCALE

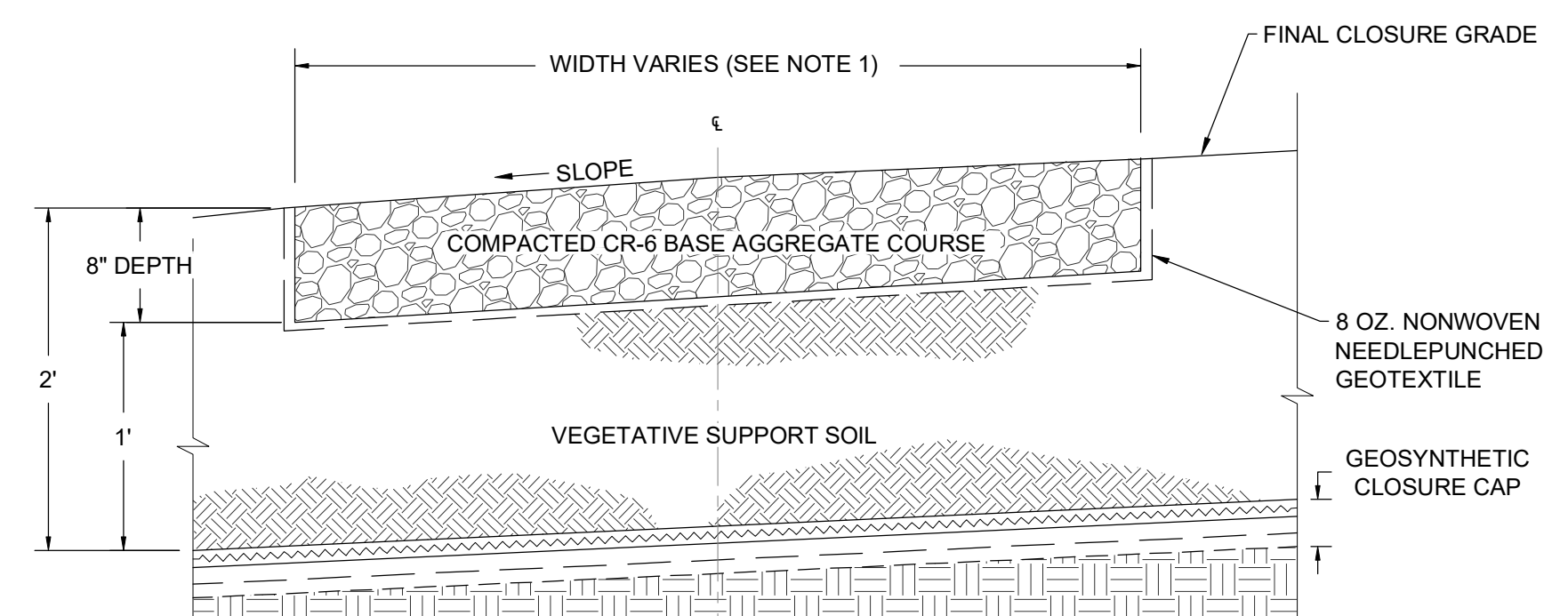
- NOTE:**
- CONTRACTOR SHALL PROVIDE APPROPRIATE THERMAL PROTECTION AROUND THE PVC CASING DURING ALL WELDING OPERATIONS.

TEMPORARY PIEZOMETER EXTENSION SCHEDULE						
PIEZOMETER ID	NORTHING	EASTING	EXISTING TOP OF CASING ELEVATION (FT.)	EXISTING GROUND SURFACE ELEVATION (FT.)	FINISHED GRADE ELEVATION (FT.)	TOP OF PROPOSED CASING ELEVATION (FT.)
TPZ-1	524631.169	1271668.086	459.871	457.67	459.82	462.82
TPZ-3	525921.229	1273070.686	472.632	470.93	476.61	479.61
TPZ-4	524838.026	1273151.317	456.029	453.92	450.59	453.59
TPZ-6	525131.750	1274479.523	468.587	467.82	466.75	469.75



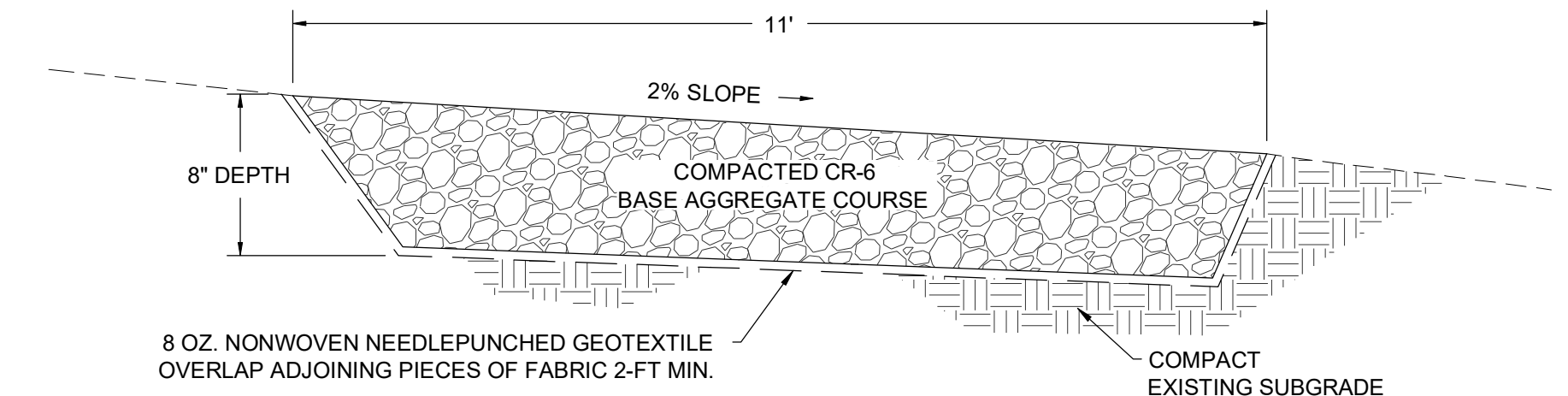
**GRAVEL ROAD SECTION - CROWNED**  
NOT TO SCALE

- NOTE:**
- ROAD WIDTH SHALL MATCH GRADING SHOWN ON PLANS.



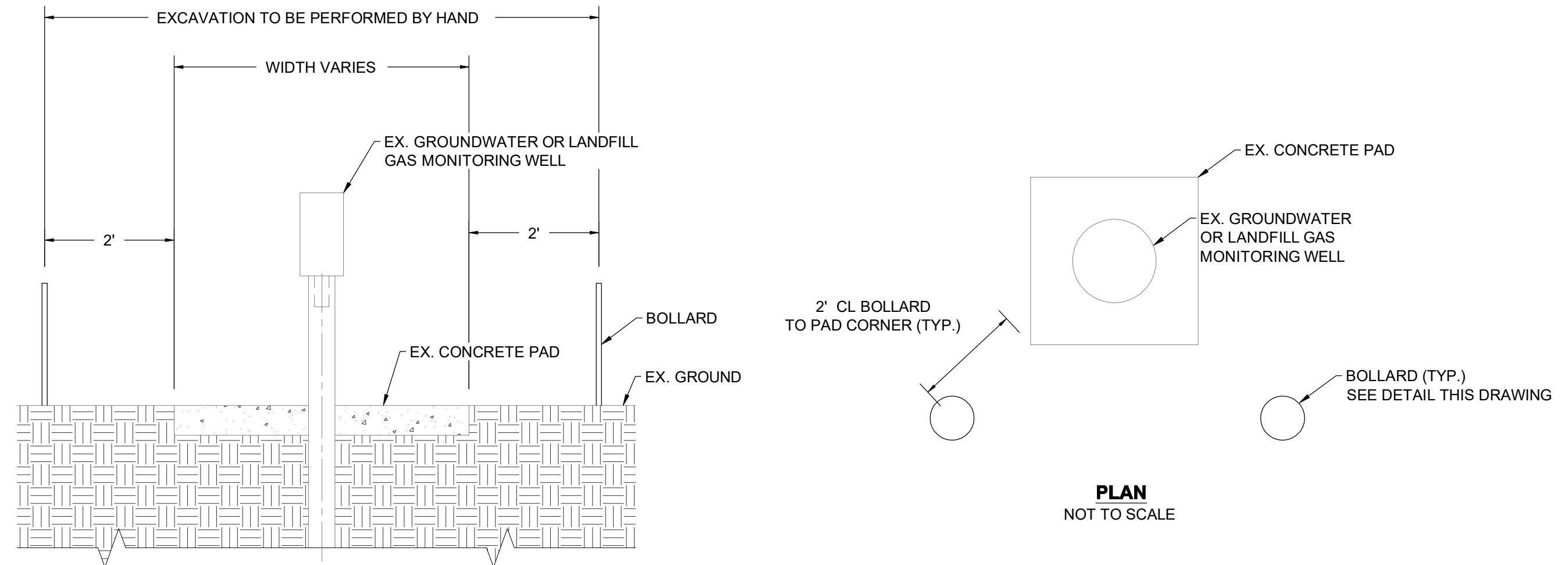
**GRAVEL ROAD SECTION - SUPERELEVATED**  
NOT TO SCALE

- NOTE:**
- ROAD WIDTH SHALL MATCH GRADING SHOWN ON PLANS.



**BASE OF NORTHWEST SLOPE ACCESS ROAD DETAIL**  
NOT TO SCALE

- NOTE:**
- PROVIDE POSITIVE DRAINAGE ACROSS ROAD SURFACE TO DOWN GRADIENT AREAS.



**MONITORING WELL PROTECTION DETAIL**  
NOT TO SCALE

- NOTES:**
- INSTALL BOLLARDS AROUND THE EXISTING MONITORING WELL AT A DISTANCE OF 2-FT FROM THE EXISTING CONCRETE PAD. HAND DIG TO PERFORM EXCAVATION IN THIS AREA.
  - BOLLARD ARE ONLY TO BE INSTALLED ON THE INTERIOR LANDFILL SIDE OF THE WELLS.

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

SITE DETAILS

**EA**  
EA Engineering, Science, and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

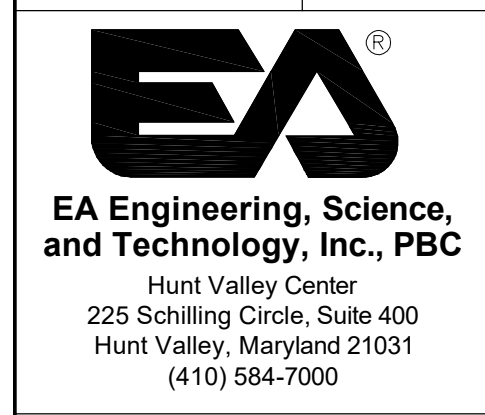
DATE: JULY 2020  
PROJECT NUMBER: 1564601  
**C-503**  
SHEET: 93 OF 144

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90% DESIGN PLANS - NOT FOR CONSTRUCTION

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**THIS SHEET INTENTIONALLY LEFT BLANK - 90% DESIGN**



DATE: JULY 2020  
PROJECT NUMBER: 1564601

**C-504**  
SHEET: 94 OF 144

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**DEMOLITION DETAILS**

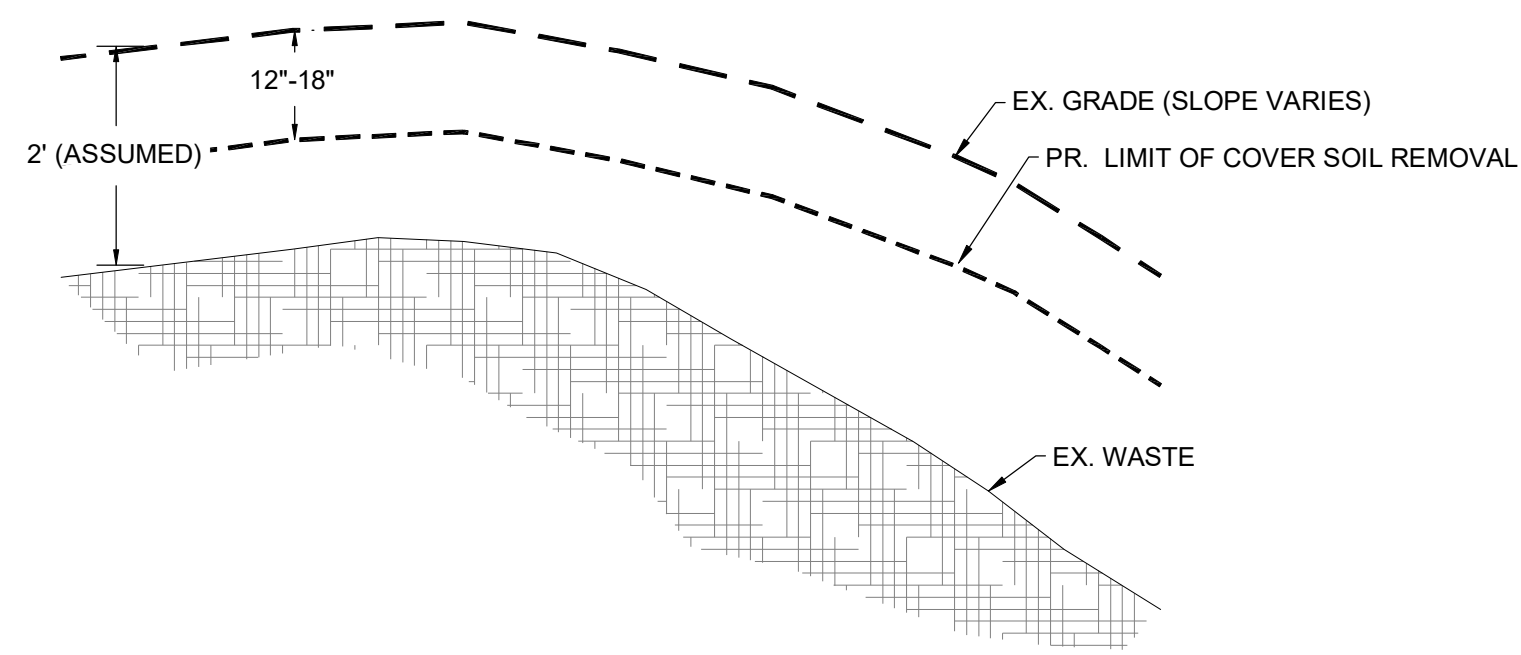
SEAL  
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020

DESIGN INFORMATION  
DESIGNED BY: KEF / SMB  
DRAWN BY: SMB  
CHECKED BY: LJO / GAT  
PROJECT MANAGER: MJG

NO. DATE BY

REVISIONS  
DESCRIPTION

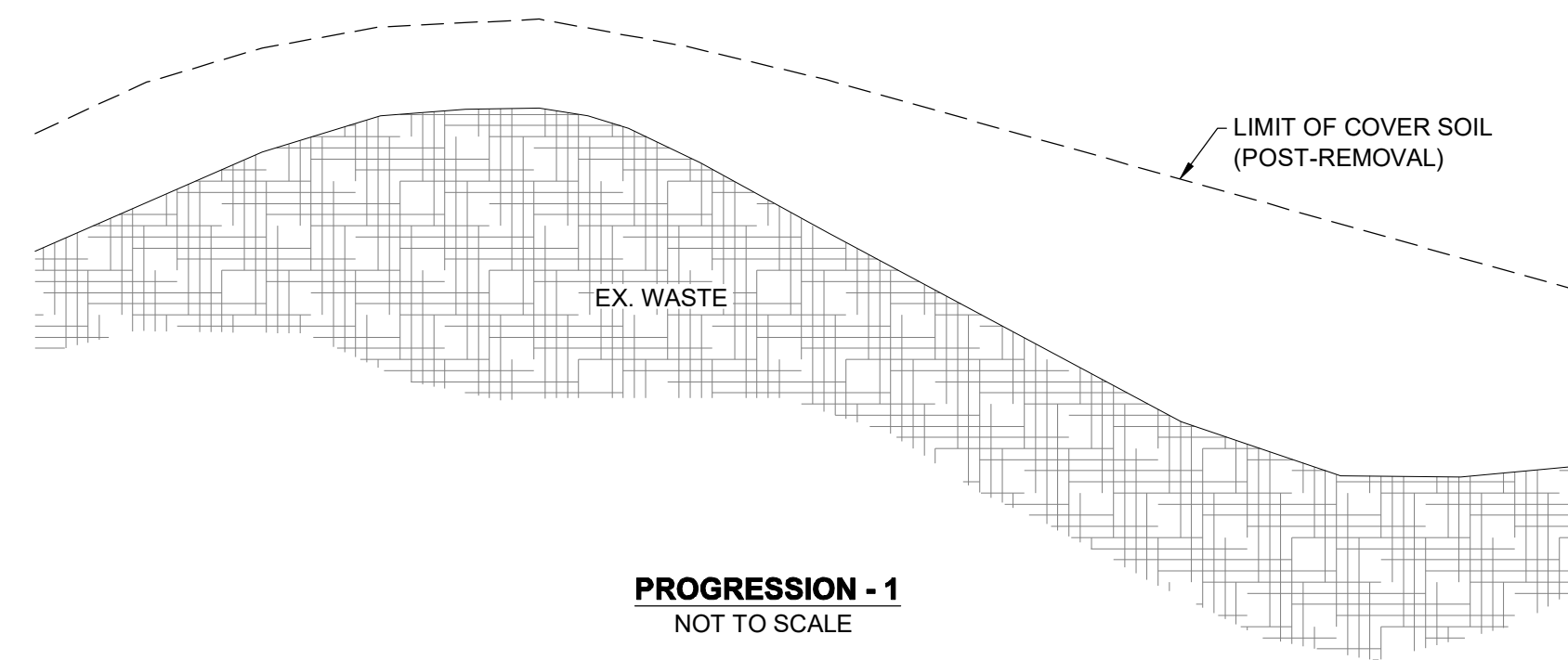
90% DESIGN PLANS - NOT FOR CONSTRUCTION



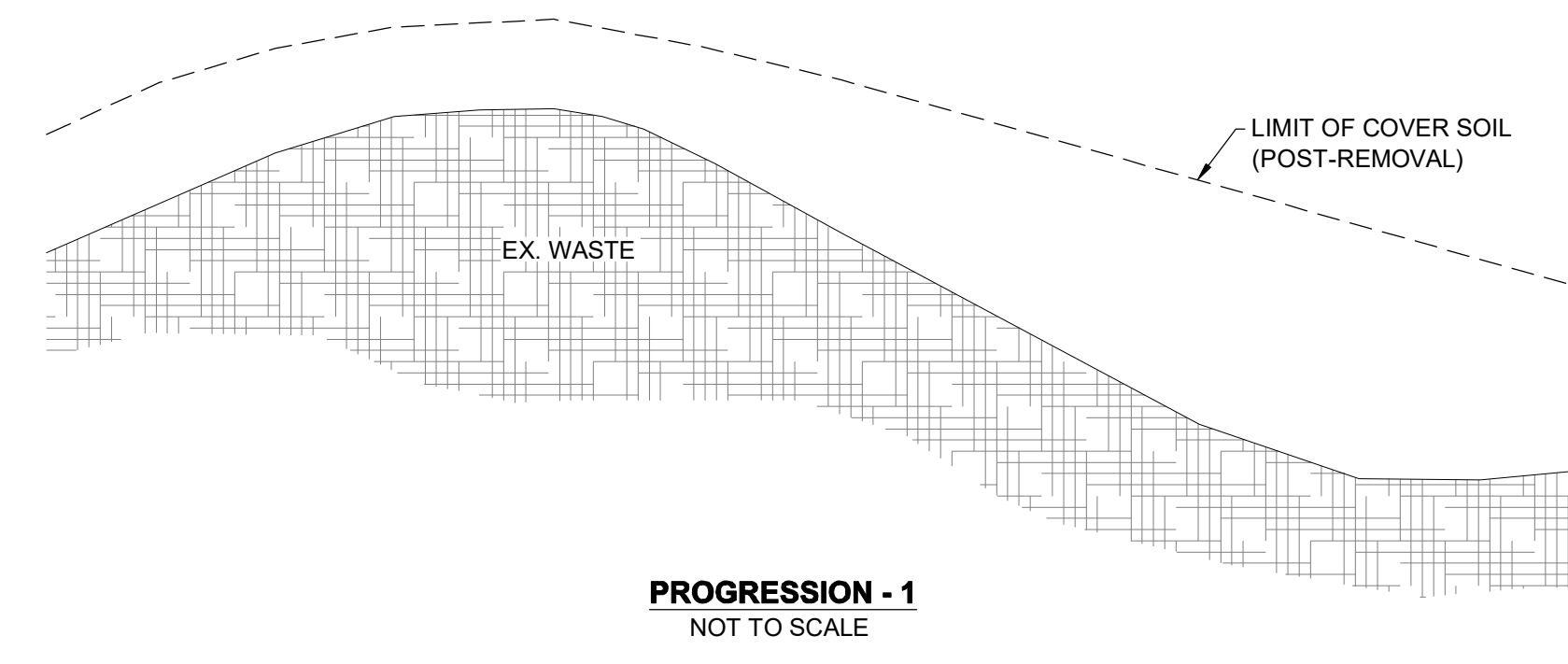
**EXISTING COVER SOIL REMOVAL DETAIL**  
NOT TO SCALE

**NOTES:**

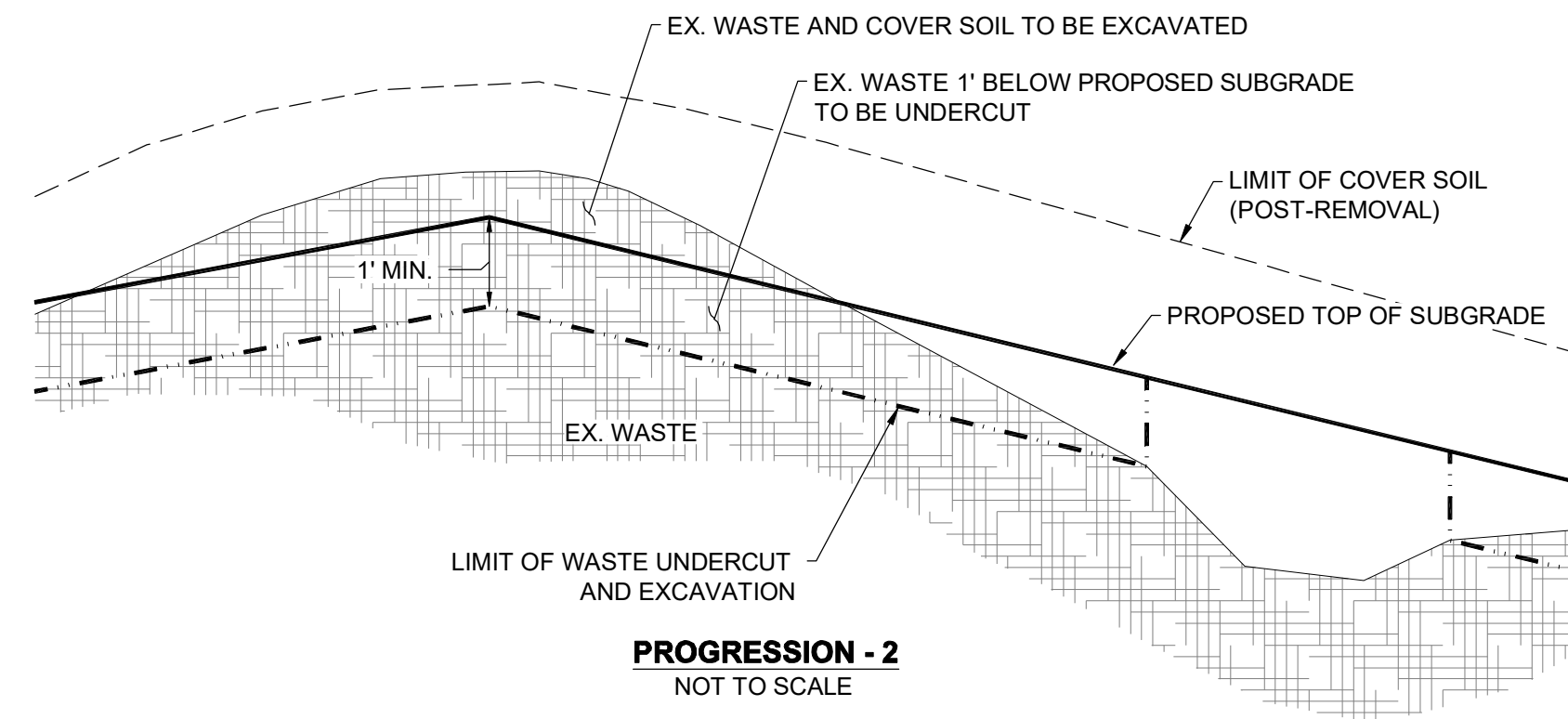
- EXISTING COVER SOIL THICKNESS IS GENERALLY 2 FEET. TEST PIT INFORMATION CAN BE FOUND IN APPENDIX A OF SPECIFICATION 31-05-15.
- REMOVE 12"-18" OF EXISTING COVER SOIL AND STOCKPILE FOR FUTURE USE AS SUBGRADE MATERIAL.
- NO WASTE MAY BE PRESENT IN STOCKPILED MATERIAL. WOODY VEGETATION/ROOTS MUST BE REMOVED.
- IF NO WASTE IS ENCOUNTERED AT A DEPTH OF 18" CONTRACTOR MAY DIG DEEPER UNTIL WASTE IS OBSERVED. VISUAL INSPECTION WILL BE REQUIRED TO DETERMINE PRESENCE OF WASTE.



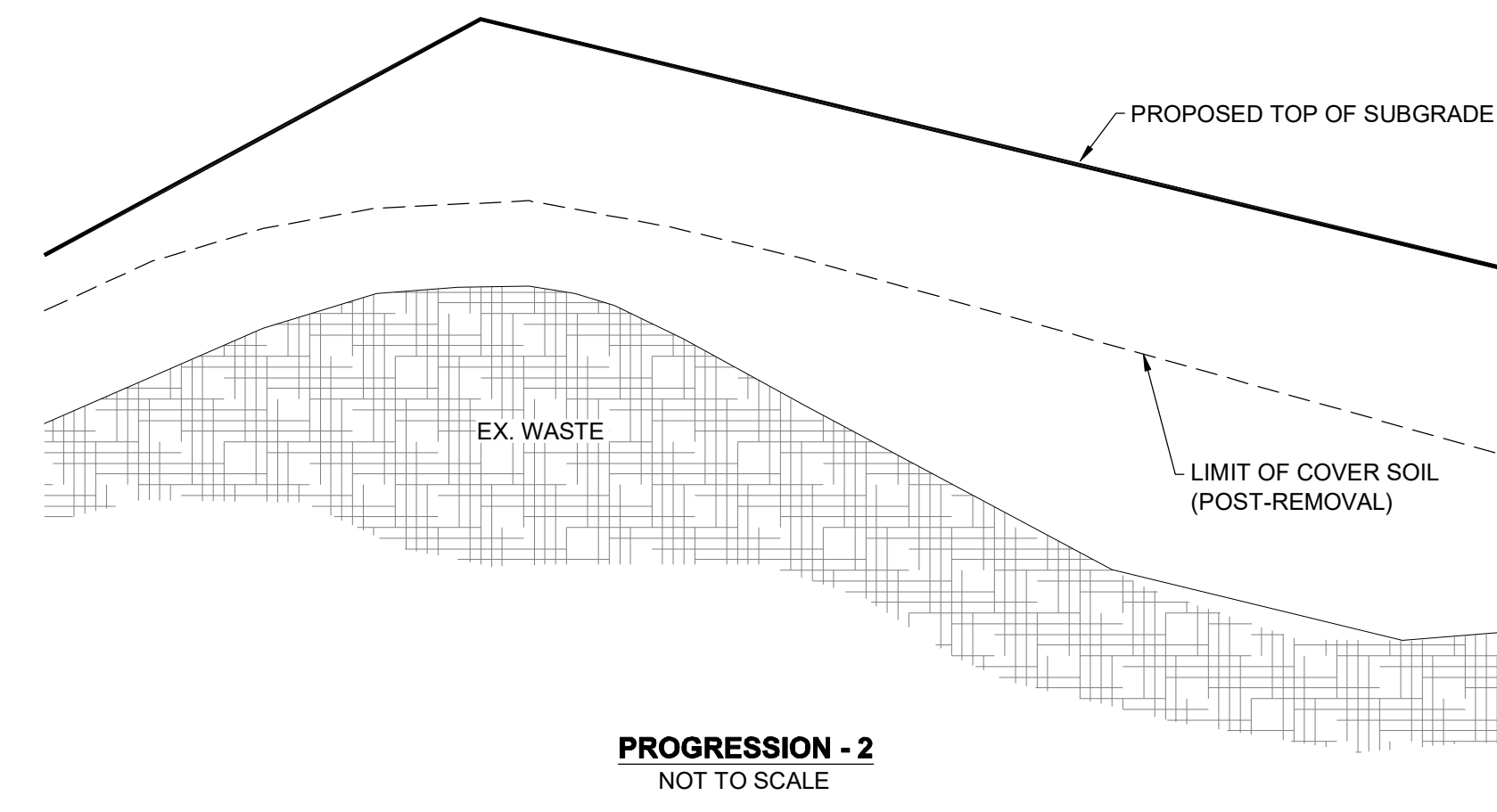
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NOT TO SCALE



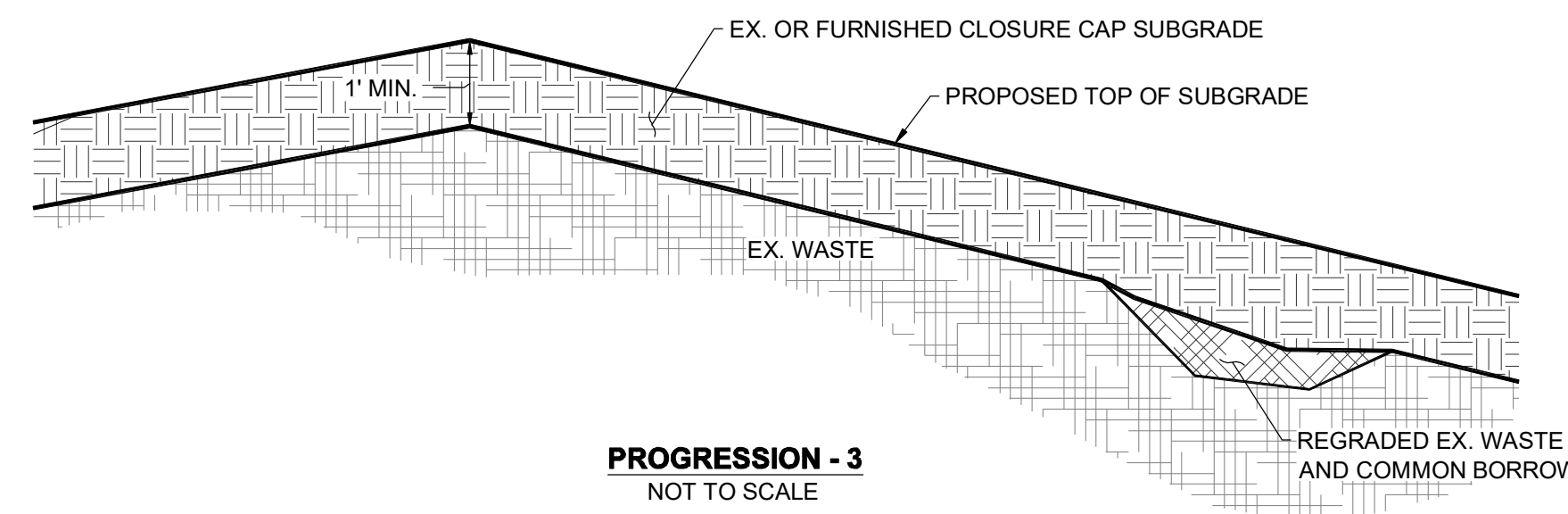
**PROGRESSION - 1**  
NOT TO SCALE



**PROGRESSION - 2**  
NOT TO SCALE

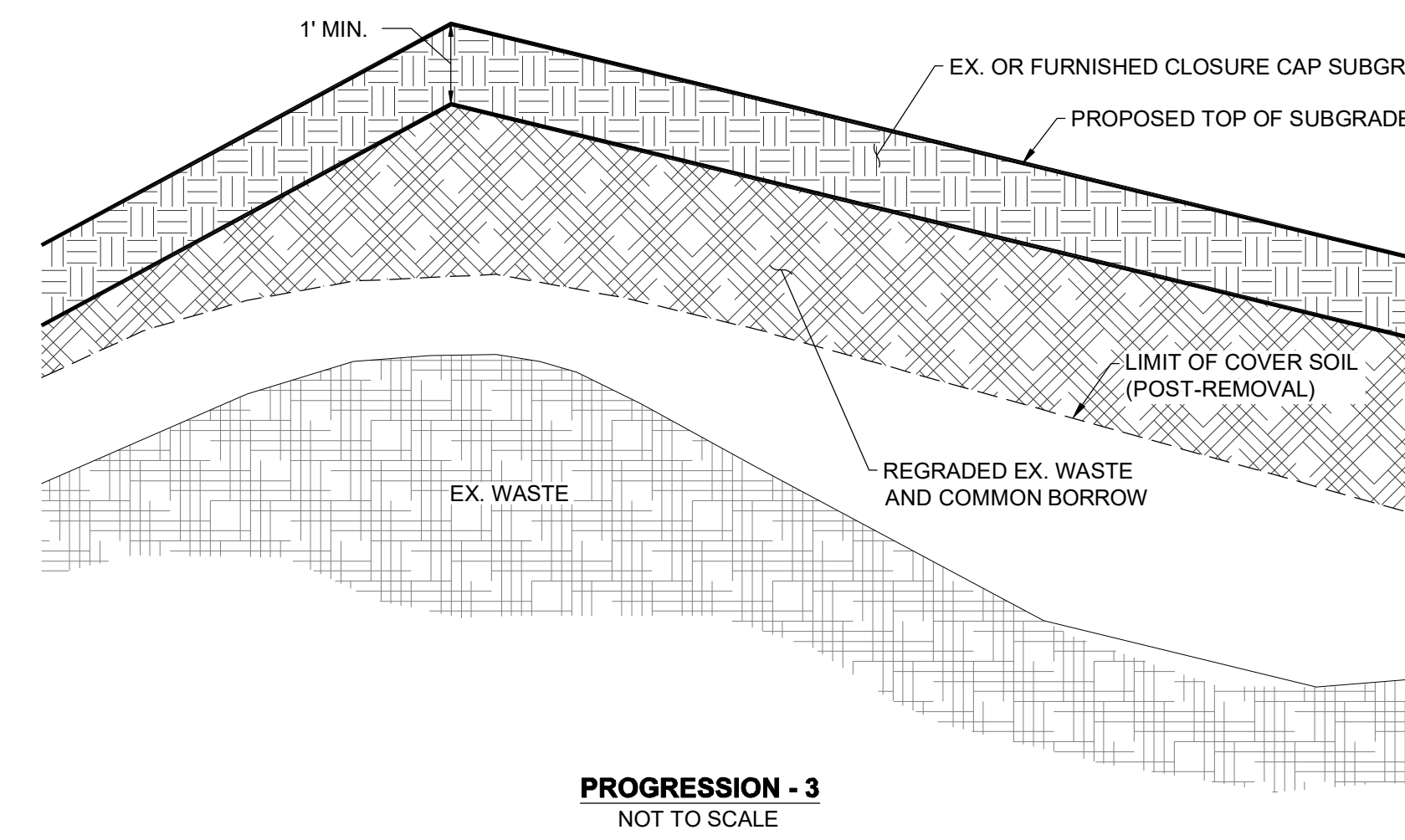


**PROGRESSION - 2**  
NOT TO SCALE



**PROGRESSION - 3**  
NOT TO SCALE

**EXISTING WASTE EXCAVATION AND RELOCATION, AND SUBGRADE CONSTRUCTION DETAIL**  
NOT TO SCALE



**PROGRESSION - 3**  
NOT TO SCALE

**EXISTING WASTE PLACEMENT AND SUBGRADE CONSTRUCTION DETAIL**  
NOT TO SCALE

**NOTES:**

- EXCAVATED WASTE MUST REMAIN ON PROPERTY DURING ALL CONSTRUCTION ACTIVITIES.
- EXCAVATED WASTE MUST BE COVERED WITH A TARP OR 6" SOIL EACH DAY. REFER TO SPECIFICATION SECTION 31 05 15.
- A MINIMUM OF 1 FT CLOSURE CAP SUBGRADE IS REQUIRED OVER THE WASTE. CLOSURE CAP SUBGRADE SOIL SHALL BE PLACED IN MAXIMUM 8-INCH LIFTS.
- THE CLOSURE CAP SUBGRADE SHALL BE COMPACTED BY 4 PASSES OF A D6 DOZER OR EQUIVALENT.
- HAZARDOUS OR UNUSUAL WASTE MAY BE ENCOUNTERED. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGEMENT ENGINEER AND REFER TO SPECIFICATION SECTION 02 61 13.
- THE CONTRACTOR SHALL MONITOR METHANE DURING CONSTRUCTION AND STOP WORK IF LEVELS REACH ACTION LEVELS DOCUMENTED IN THE CONTRACTOR'S AIR MONITORING PROGRAM (SPECIFICATION SECTION 01 45 00).
- LEACHATE MAY BE ENCOUNTERED DURING WASTE EXCAVATION. CONTRACTOR SHALL DIRECT LEACHATE DRAINAGE BACK INTO THE LANDFILL.
- NO EXCAVATED WASTE MAY BE PLACED OR TRANSPORTED OVER FINISHED SUBGRADE.
- SOIL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONTRACT DRAWINGS, TO PROVIDE A STABLE BASE FOR THE GEOSYNTHETICS. THE SURFACE SHALL PROVIDE A SMOOTH, FIRM, UNYIELDING FOUNDATION FOR THE GEOSYNTHETICS, WITH NO SUDDEN, SHARP, OR ABRUPT CHANGES OR BREAKS IN GRADE. NO STANDING WATER OR EXCESSIVE MOISTURE SHALL BE ALLOWED.
- NO PROTRUDING STONES OR OTHER DEBRIS SHALL BE ON THE SUBGRADE SURFACE. CONSTRUCTION EQUIPMENT TIRE OR TRACK DEFORMATION BENEATH THE PROPOSED LINER SYSTEM SHALL NOT EXCEED 1 INCH IN DEPTH.

REVISIONS

DESCRIPTION

NO.

DATE

BY

DESIGN INFORMATION

DESIGNED BY:

KEF / SMB

DRAWN BY:

SMB

CHECKED BY:

LJO / GAT

PROJECT MANAGER:

MJG

SEAL

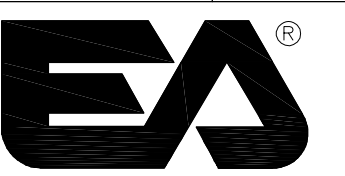
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

EXCAVATION/GRADING DETAILS

SC/SWM SHEET 26 OF 48

90% DESIGN PLANS - NOT FOR CONSTRUCTION



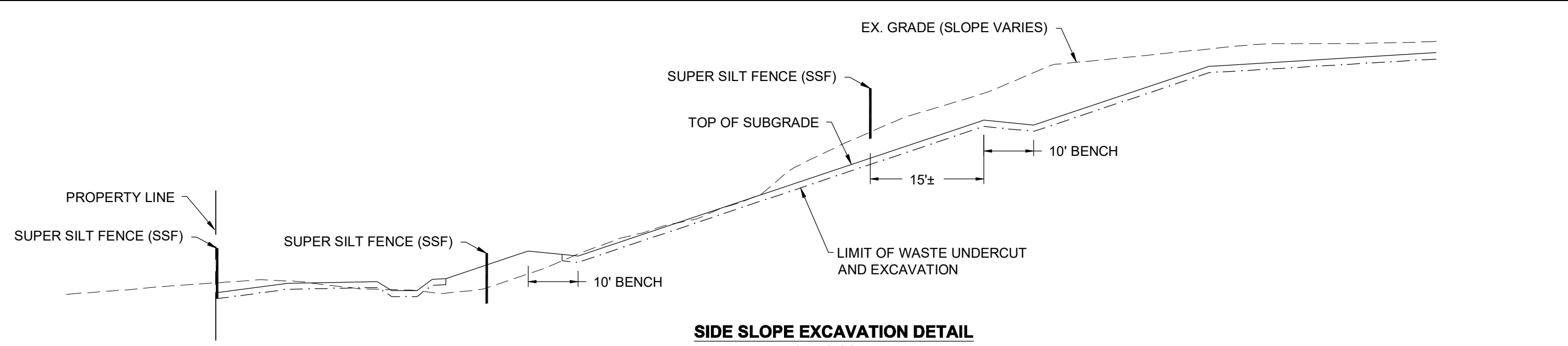
**EA Engineering, Science, and Technology, Inc., PBC**  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JULY 2020

PROJECT NUMBER: 1564601

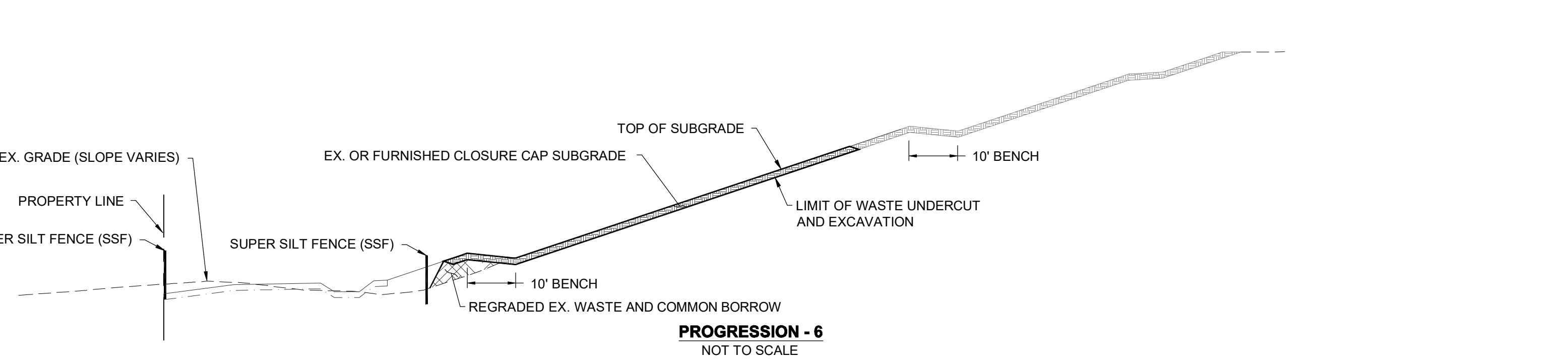
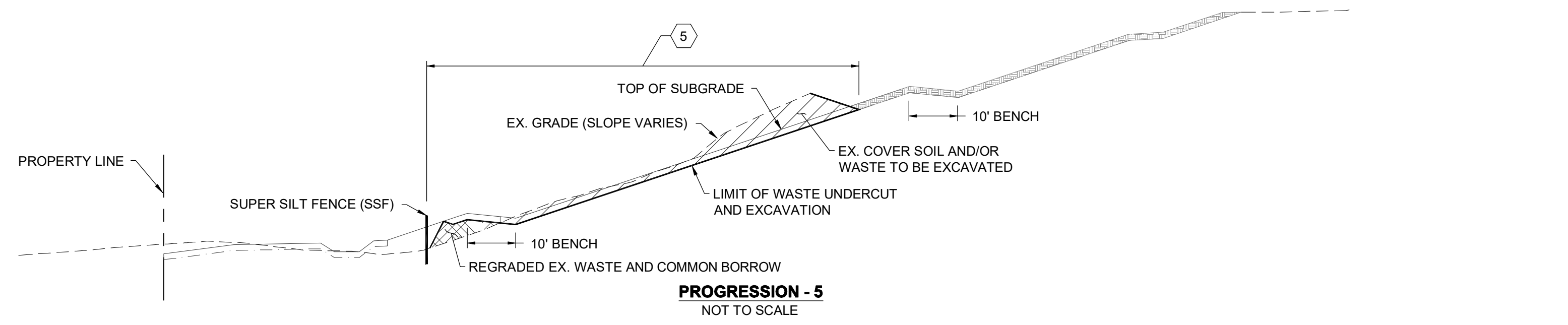
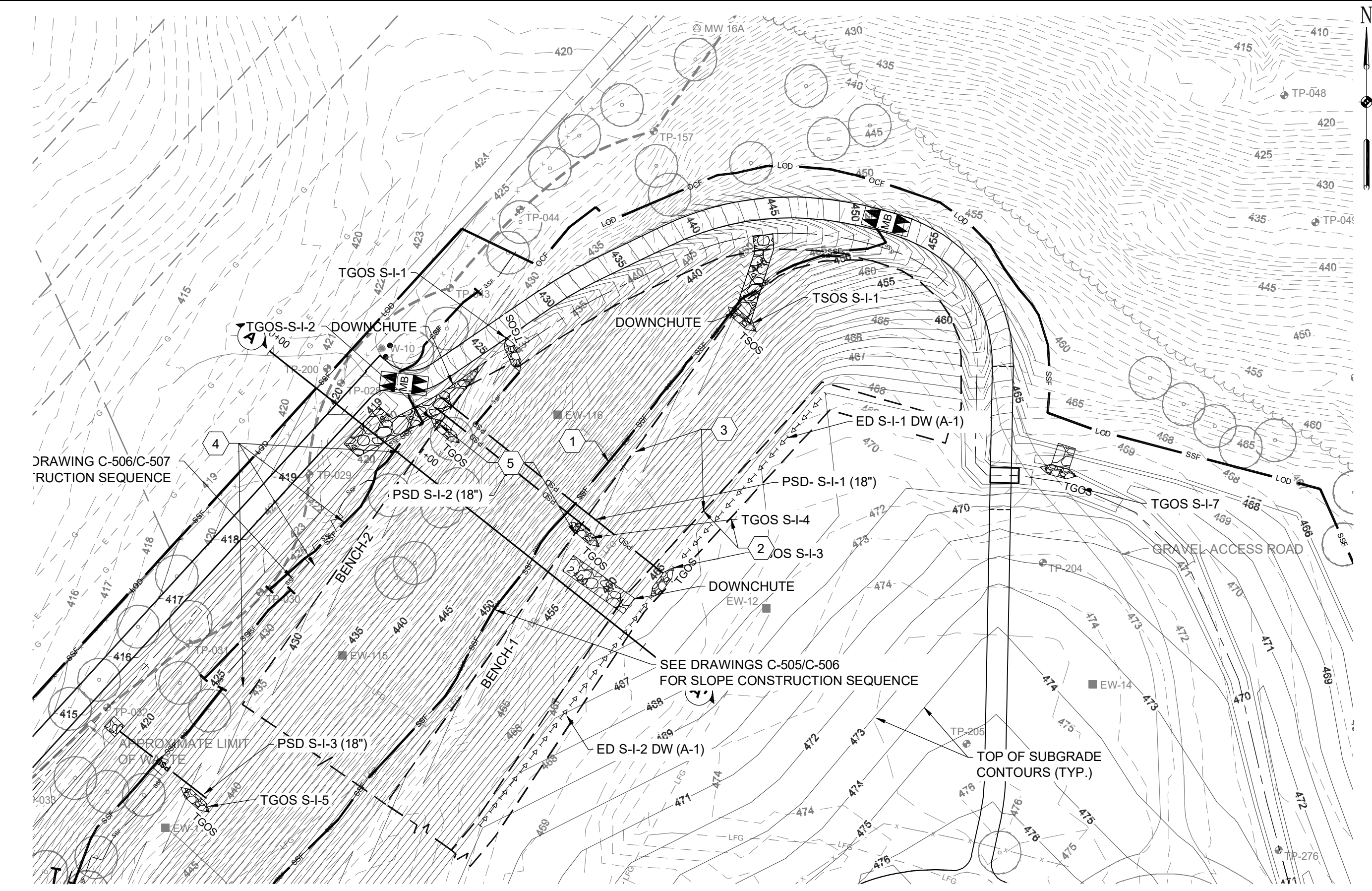
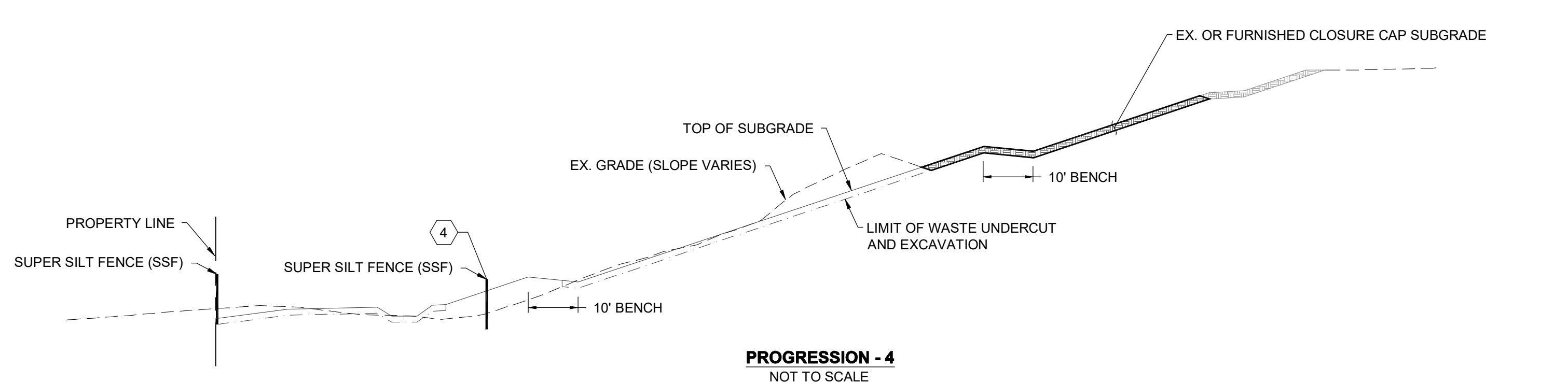
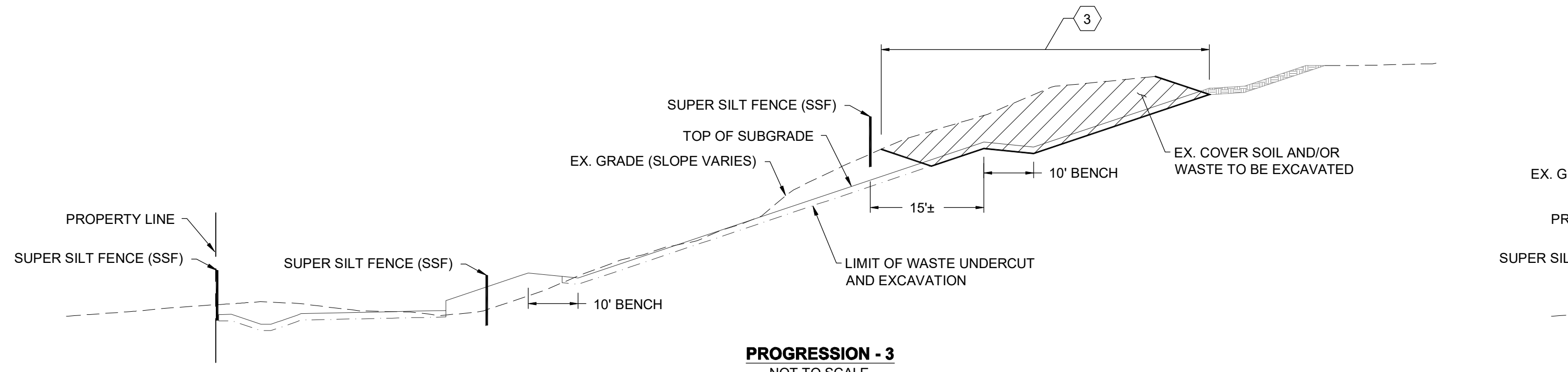
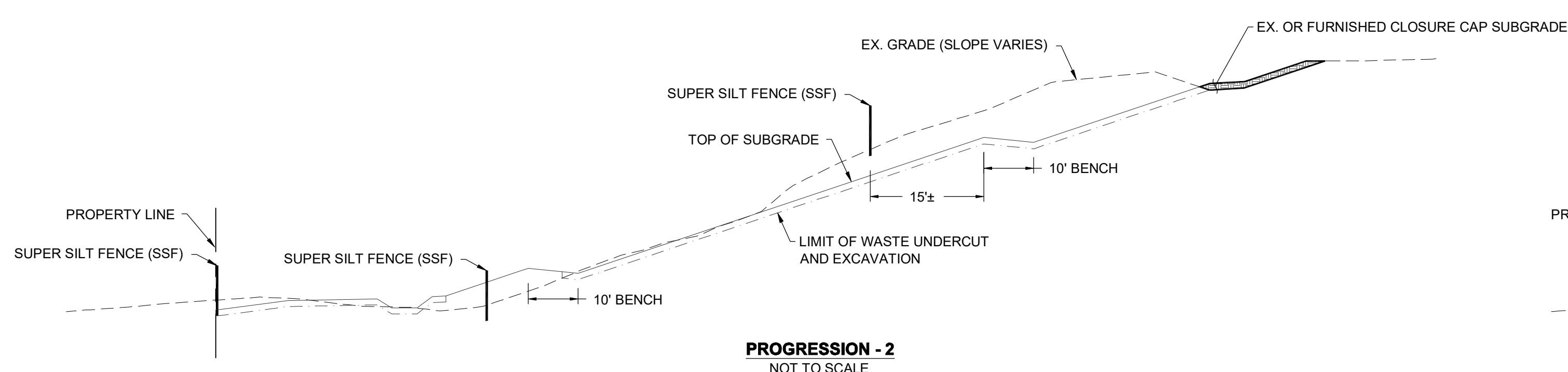
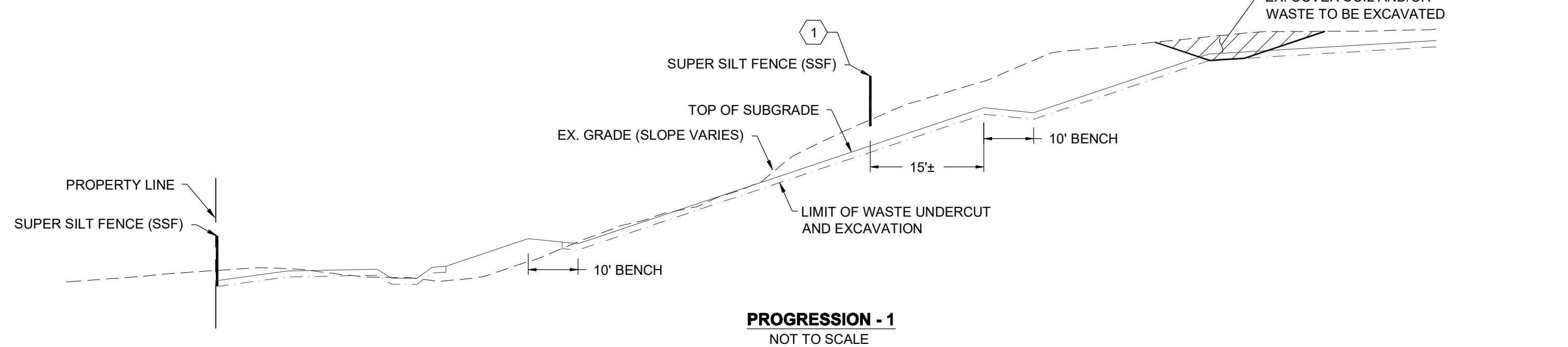
**C-505**

SHEET: 95 OF 144



**NOTES:**

1. INSTALL SUPER SILT FENCE BEFORE EXCAVATION BEGINS.
2. BEGIN EXCAVATION AT THE TOP OF THE SLOPE AND PROGRESS DOWN THE SLOPE, BASED ON THE SEQUENCE SHOWN ON DRAWING C-507.
3. MAINTAIN SUMP CONDITIONS TO PROMOTE LEACHATE DRAINAGE BACK INTO THE LANDFILL.
4. PLACE CLOSURE CAP SUBGRADE OVER THE REGRADED EX. WASTE AND COVER SOIL AS EXCAVATION PROGRESSES. REFER TO EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505.
5. COVER ALL EXPOSED WASTE AT THE END OF EACH DAY AND PRIOR TO STORM EVENTS TO ELIMINATE POTENTIAL FOR LEACHATE RUNOFF.



NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	KEY / SMB	PROJECT MANAGER:
DRAWN BY:	SMB	M/JG
CHECKED BY:	LJO / GAT	

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**EXCAVATION/GRADING DETAILS**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

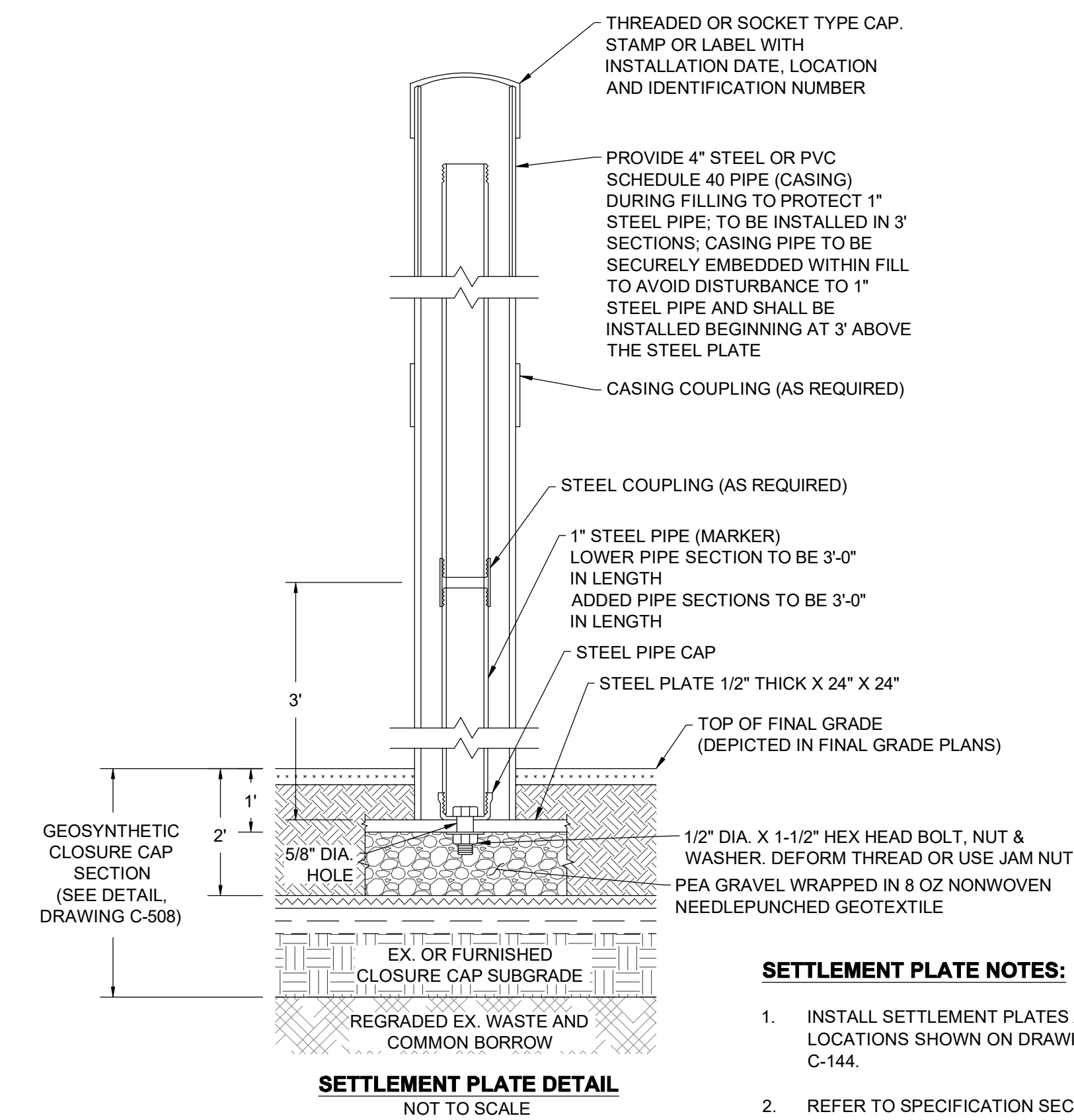
DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-506**  
 SHEET: 96 OF 144

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 (C:\PROJECTS\1564601 - GUIDE FOR EXCAVATION/GRADING DETAILS\1564601 - 90% DESIGN\1564601 - 90% DESIGN.dwg)

90% DESIGN PLANS - NOT FOR CONSTRUCTION  
 SC/SWM SHEET 27 OF 48



FILE PATH: C:\PROJECTS\1564601 - GIBBY LP DESIGN\CONSTRUCTION\DETAILS\1564601 - 10.10 - EXCAVATION.dwg (C:\PROJECTS\1564601 - GIBBY LP DESIGN\CONSTRUCTION\DETAILS\1564601 - 10.10 - EXCAVATION.dwg) 7/25/2020 10:14 PM

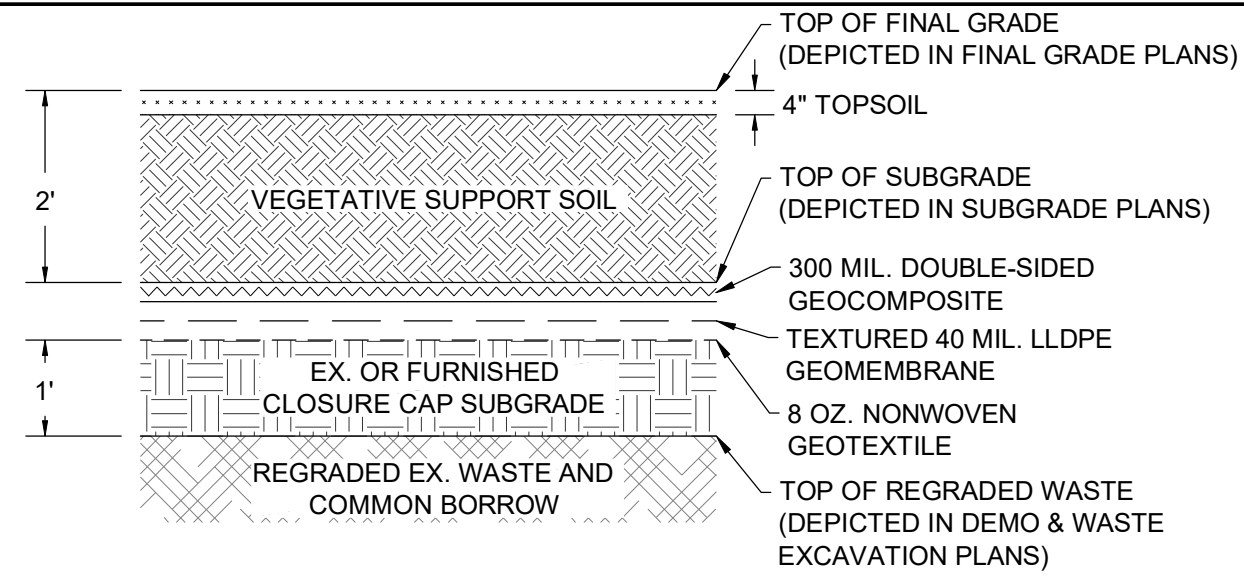


**SETTLEMENT PLATE NOTES:**

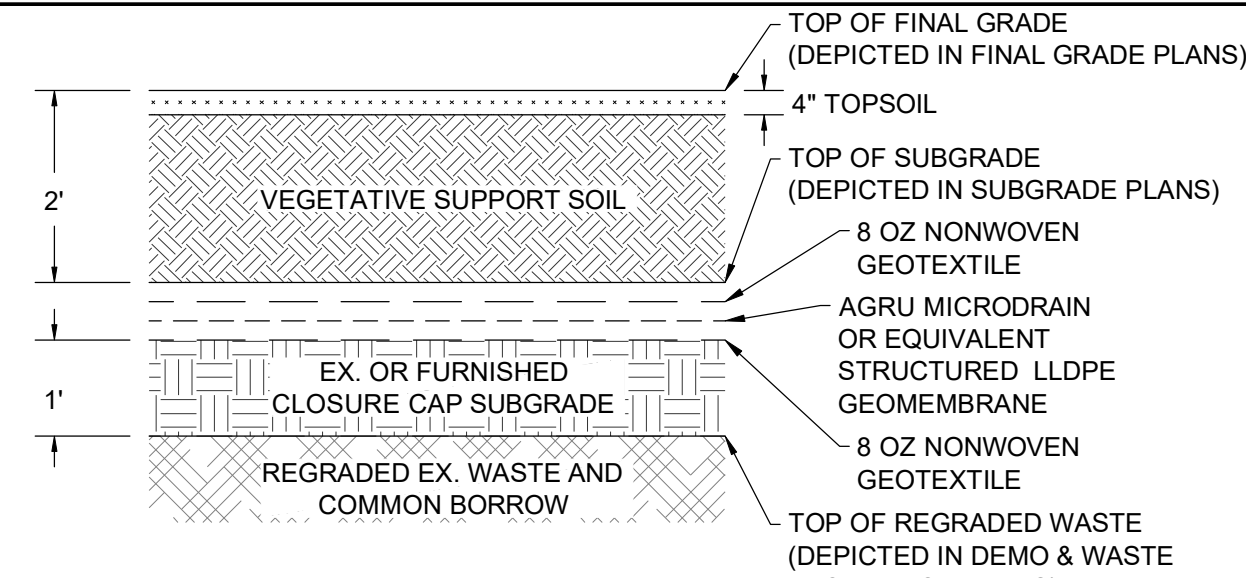
1. INSTALL SETTLEMENT PLATES AT THE LOCATIONS SHOWN ON DRAWINGS C-135 TO C-144.
2. REFER TO SPECIFICATION SECTION 31 09 13 FOR SETTLEMENT PLATE INSTALLATION AND MONITORING INSTRUCTIONS.
3. A DETAIL FOR LINER PENETRATION WILL BE ADDED IN FUTURE DESIGN SUBMITTALS.

**SETTLEMENT PLATE DETAIL**  
NOT TO SCALE

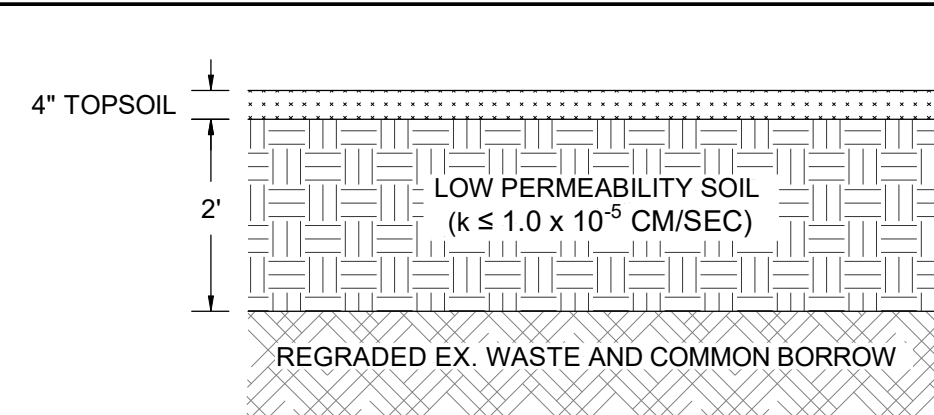
SEAL	<p><b>GUIDE LANDFILL REMEDIATION DESIGN</b>  <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b>  <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b>  <small>MONTGOMERY COUNTY, MARYLAND</small></p> <p style="text-align: center;"><b>EXCAVATION/GRADING DETAILS</b></p>	REVISIONS	
		NO.	DATE
		BY	
		NO.	DATE
		BY	
DESIGN INFORMATION	DESIGNED BY: KEF / SMB DRAWN BY: SMB CHECKED BY: LJO / GAT PROJECT MANAGER: MJG	NO.	DATE
SEAL	PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020	NO.	DATE
		BY	
		NO.	DATE
		BY	
	 <p><b>EA Engineering, Science, and Technology, Inc., PBC</b>                  Hunt Valley Center                  225 Schilling Circle, Suite 400                  Hunt Valley, Maryland 21031                  (410) 584-7000</p>	NO.	DATE
		BY	
		NO.	DATE
		BY	
	DATE: JULY 2020	NO.	DATE
	PROJECT NUMBER: 1564601	NO.	DATE
	<b>C-507</b>	NO.	DATE
	SHEET: 97 OF 144	NO.	DATE



**GEOSYNTHETIC CLOSURE CAP SECTION - BASE BID**  
NOT TO SCALE

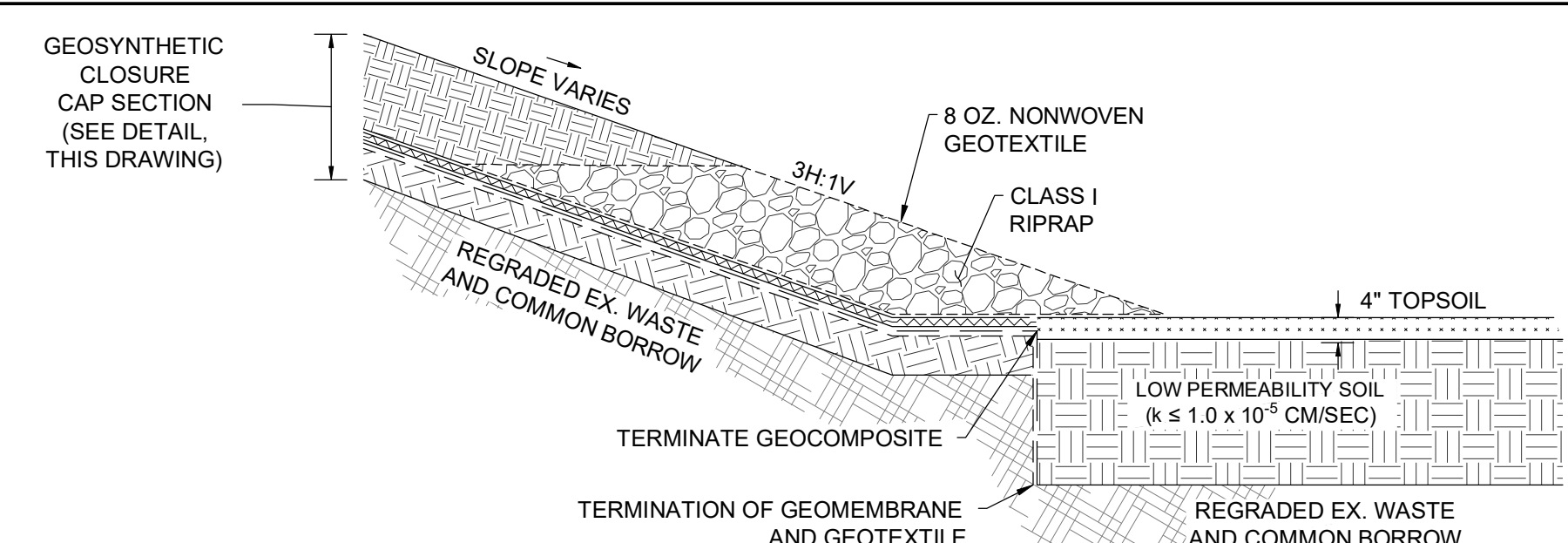


**GEOSYNTHETIC CLOSURE CAP SECTION - ALTERNATE**  
NOT TO SCALE

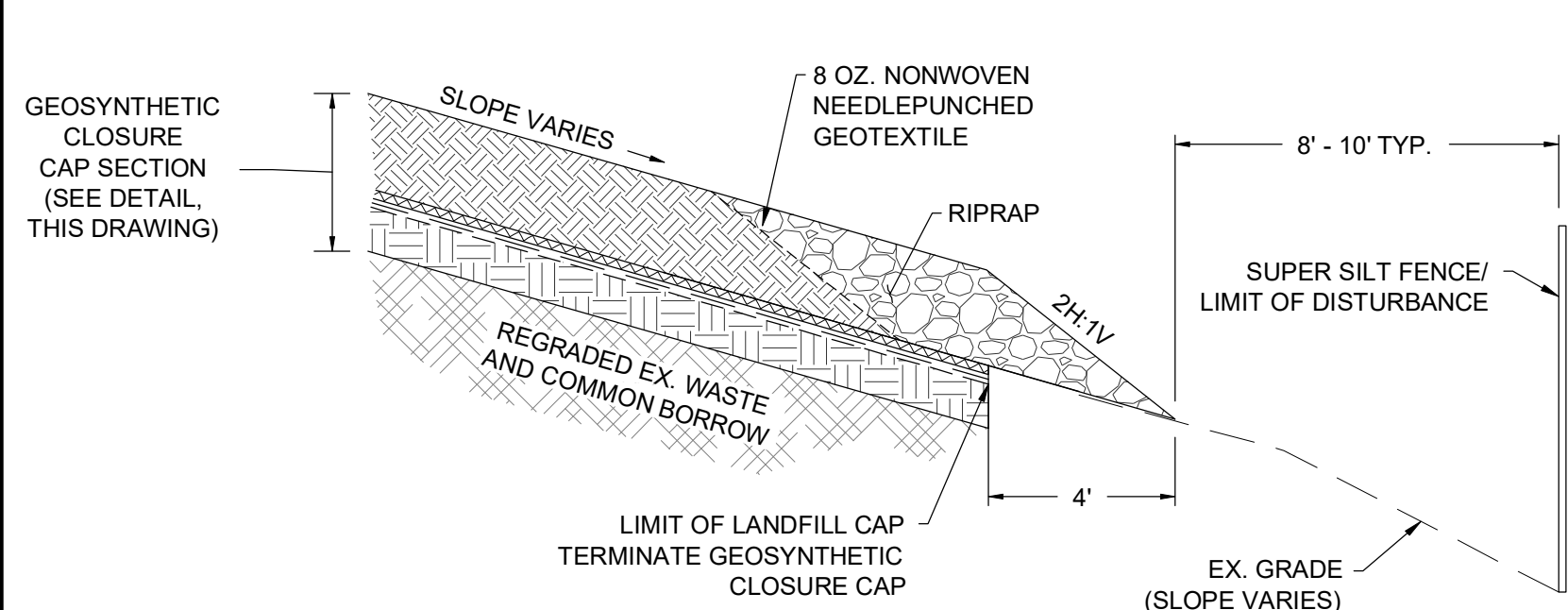


**EARTH CLOSURE CAP SECTION**  
NOT TO SCALE

**NOTE:**  
1. THIS DETAIL APPLIES TO POND 3.

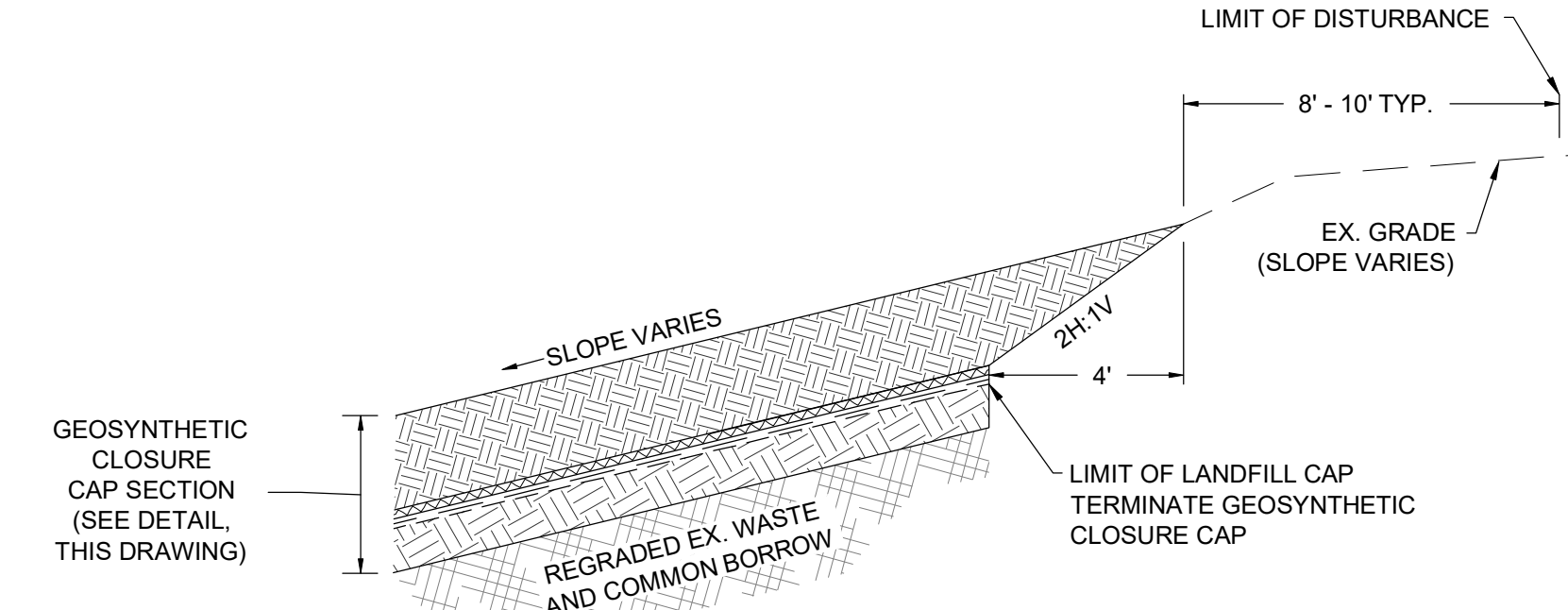


**GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (POND 3 CONDITION)**  
NOT TO SCALE



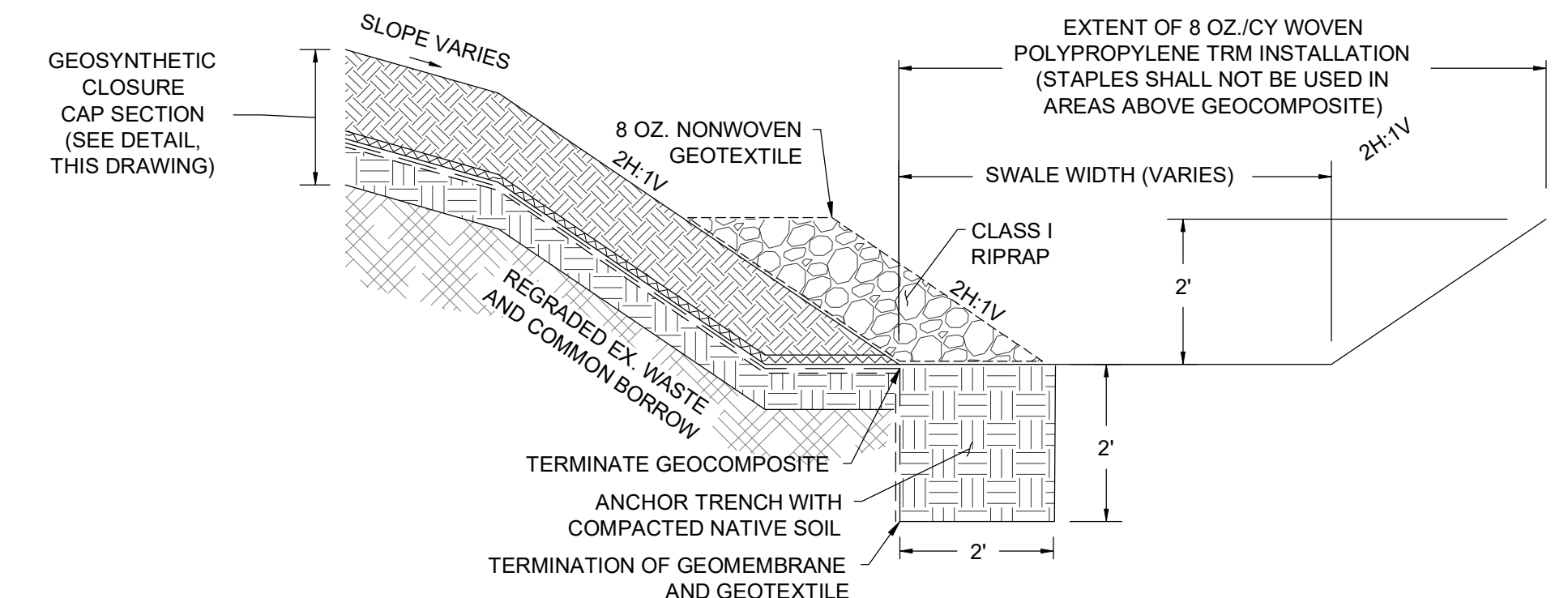
**GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (TYPICAL CONDITION)**  
NOT TO SCALE

**NOTE:**  
1. REFER TO CAP TERMINATION SCHEDULE FOR LOCATION(S) OF WHERE THIS CONDITION APPLIES.



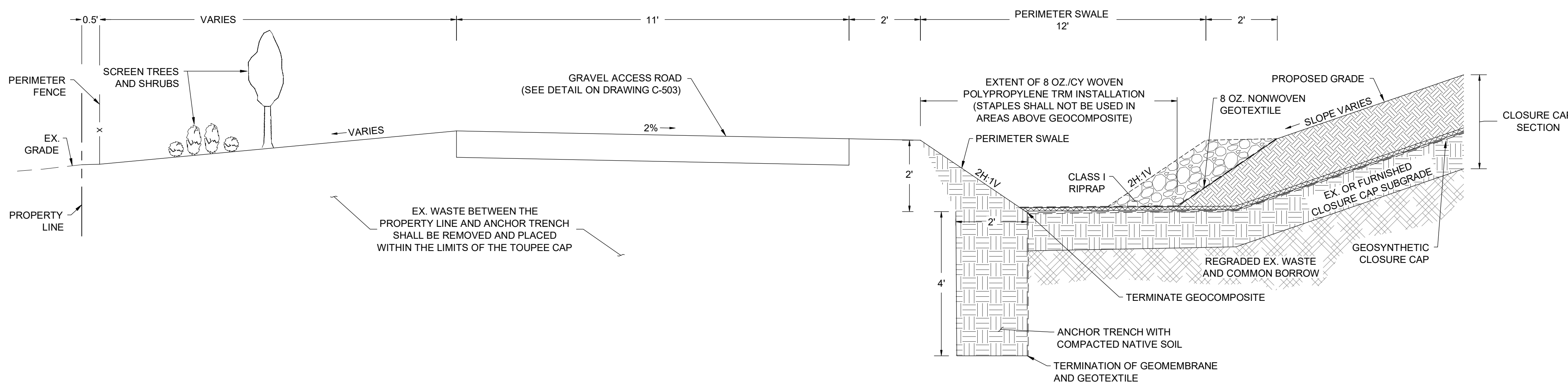
**GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (UPHILL PERIMETER CONDITION)**  
NOT TO SCALE

**NOTE:**  
1. REFER TO CAP TERMINATION SCHEDULE FOR LOCATION(S) OF WHERE THIS CONDITION APPLIES.

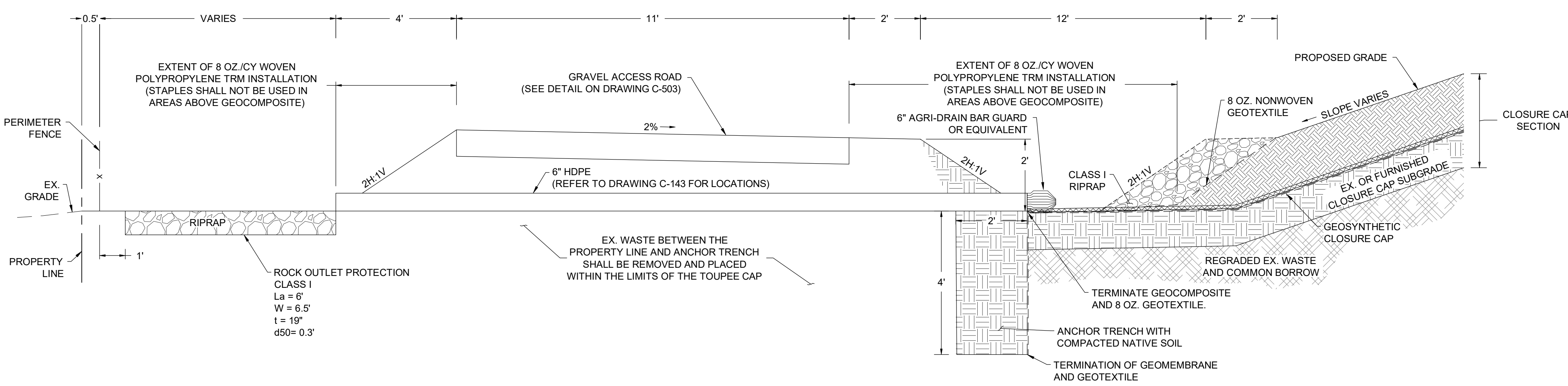


**GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (SWALE CONDITION)**  
NOT TO SCALE

**NOTE:**  
1. REFER TO CAP TERMINATION SCHEDULE FOR LOCATION(S) OF WHERE THIS CONDITION APPLIES.



**NORTHWEST SLOPE DETAIL**  
NOT TO SCALE



**NORTHWEST SLOPE DISCHARGE FACILITY DETAIL**  
NOT TO SCALE

CAP TERMINATION SCHEDULE			
START STATION	END STATION	TERMINATION TYPE	DETAIL DRAWING
0+00	1+22.78	SWALE CONDITION	C-508
1+22.78	2+94.65	TYPICAL CONDITION	C-508
2+94.65	17+67.18	NORTHWEST SLOPE CONDITION	C-508
17+67.18	18+77.21	NORTHWEST SLOPE DISCHARGE FACILITY CONDITION	C-508
18+77.21	24+07.71	NORTHWEST SLOPE CONDITION	C-508
24+07.71	28+17.31	SWALE CONDITION	C-508
28+17.25	59+66.07	TYPICAL CONDITION	C-508
59+66.07	62+12.38	UPHILL PERIMETER CONDITION	C-508
62+12.38	67+00	TYPICAL CONDITION	C-508
67+00	68+00	SWALE CONDITION	C-508
68+00	98+76.83	TYPICAL CONDITION	C-508

REVISIONS	DESCRIPTION
BY	
DATE	
NO.	
DESIGN INFORMATION	
DESIGNED BY:	KEF/SMB
DRAWN BY:	SMB
CHECKED BY:	LJO/GAT
PROJECT MANAGER:	MJG
SEAL	

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND

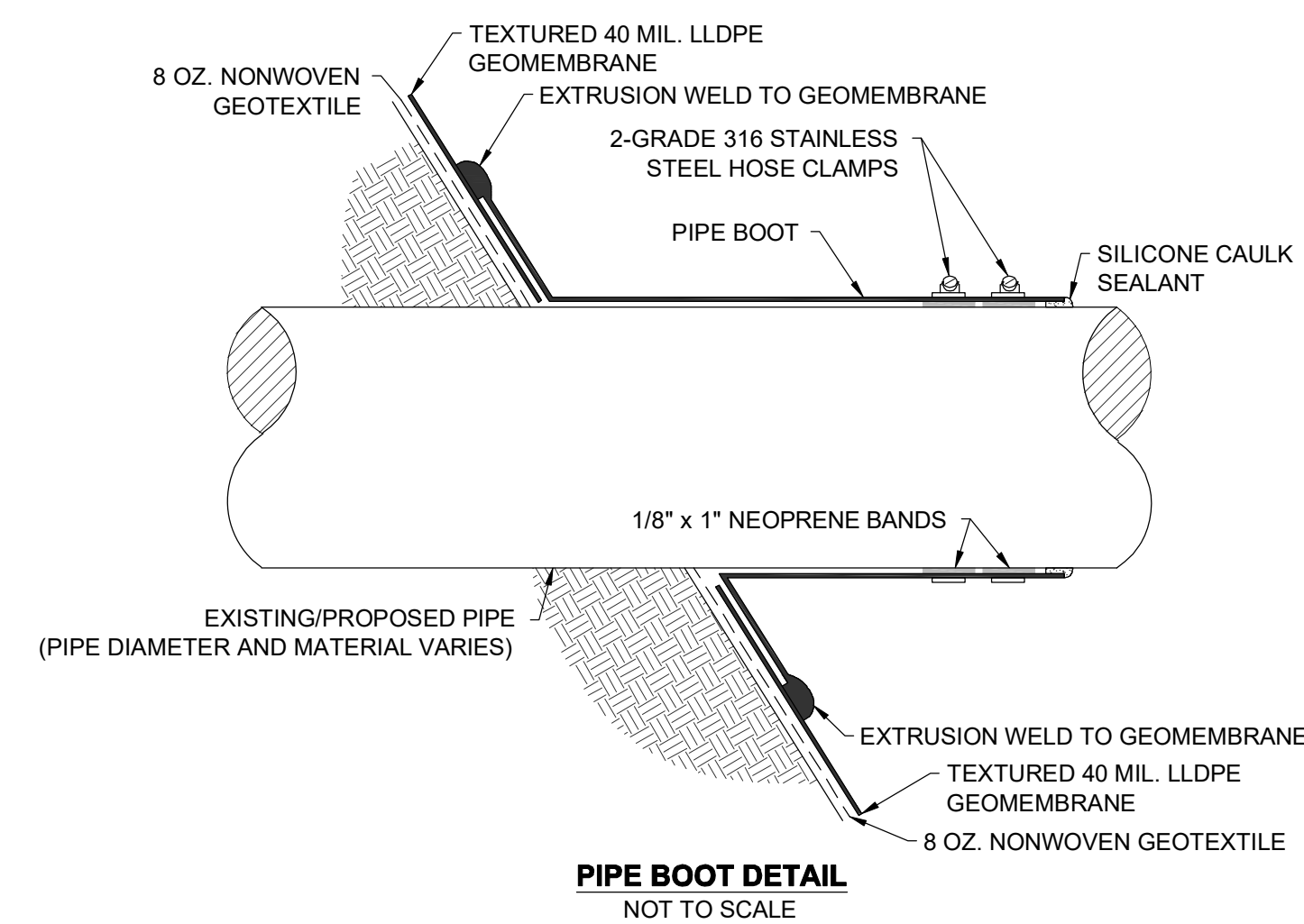
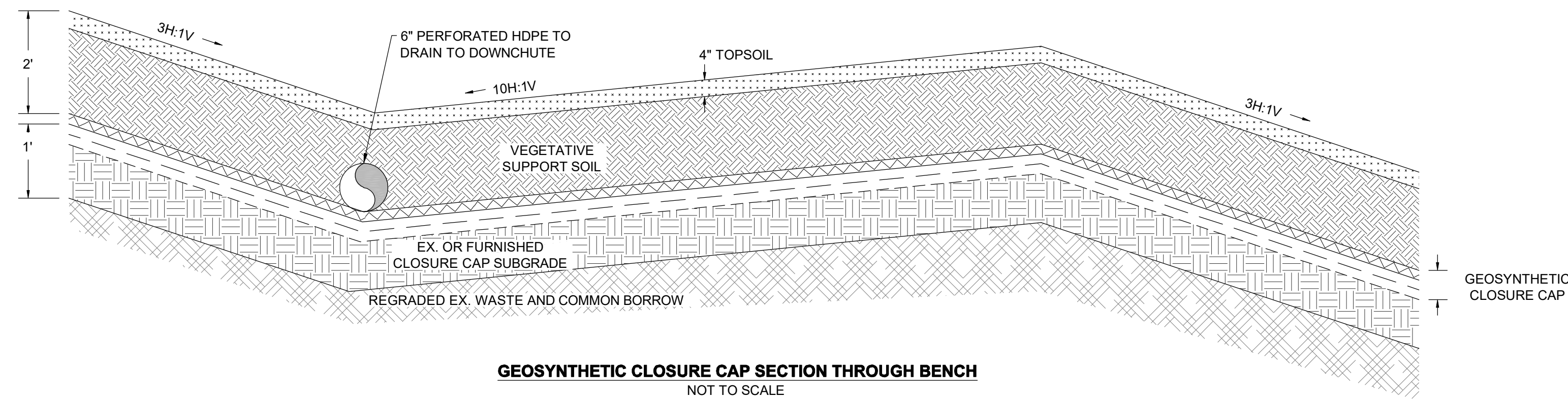
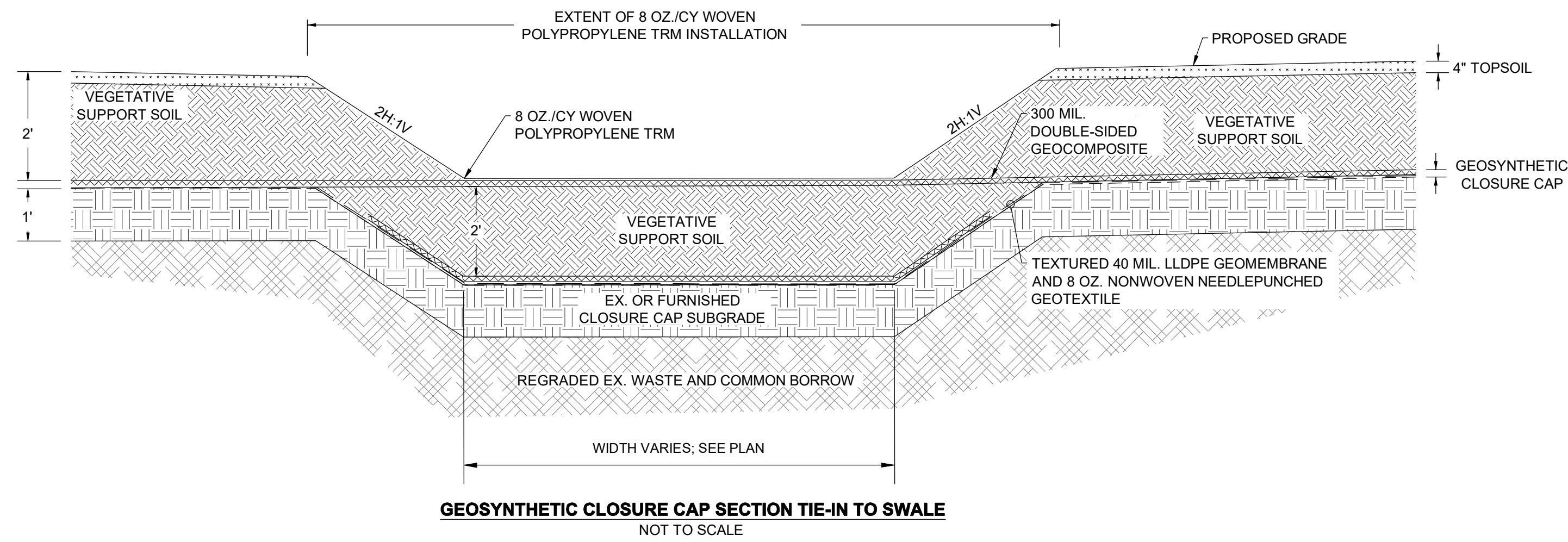
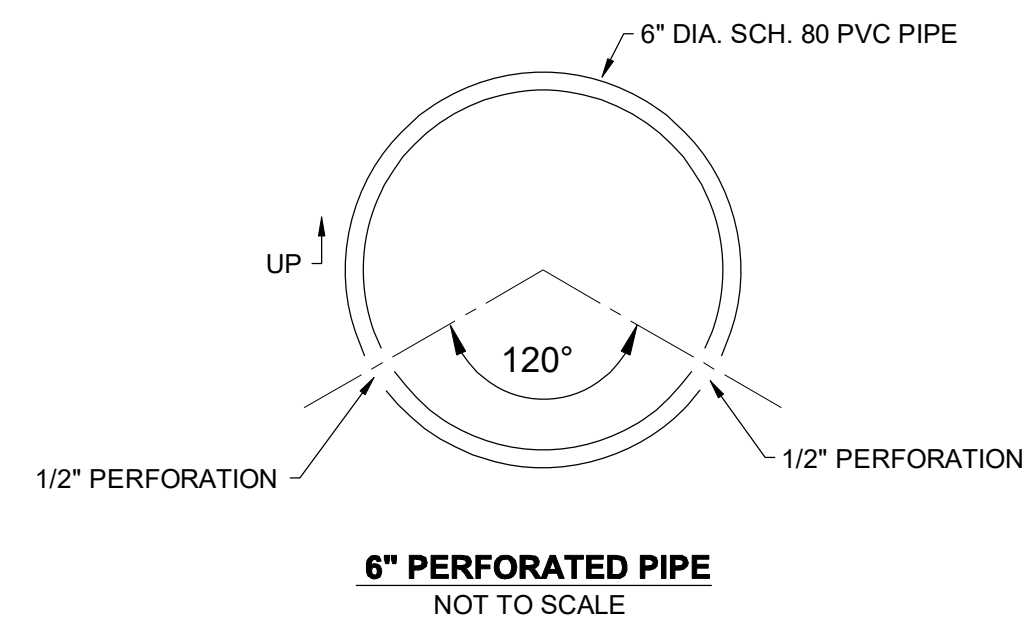
**CLOSURE CAP DETAILS**

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

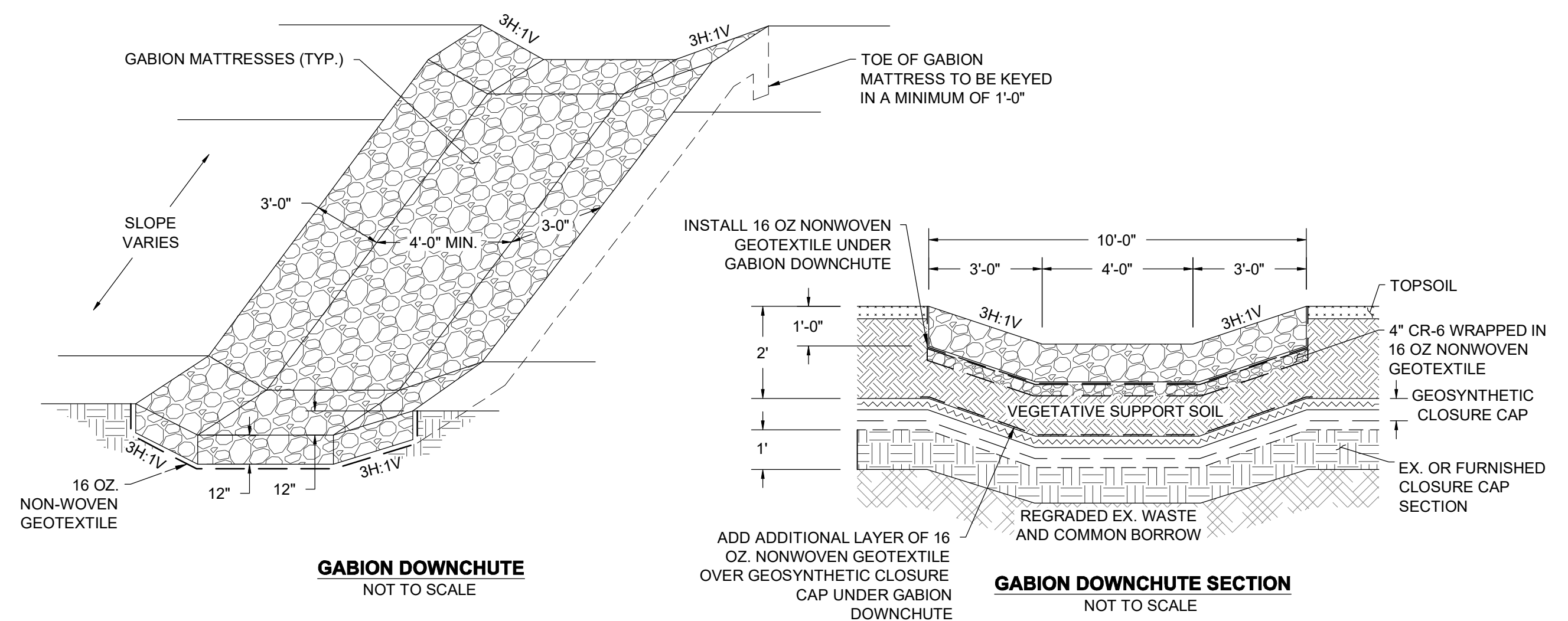
DATE: JULY 2020  
PROJECT NUMBER: 1564601  
**C-508**  
SHEET: 98 OF 144

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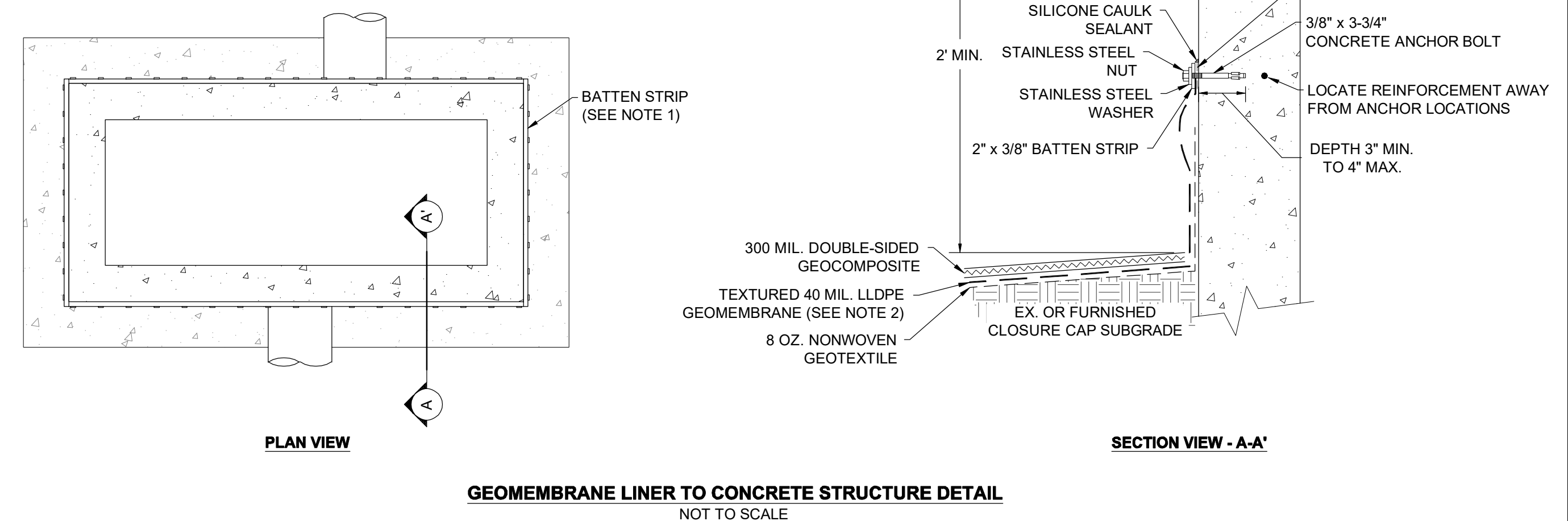
90% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 29 OF 48



NOTE:  
1. PIPE BOOT SHALL BE INSTALLED ON ALL EXISTING AND PROPOSED PIPES PENETRATING THE GEOMEMBRANE LINER.



NOTE:  
1. ALL DOWN CHUTES SHALL BE 4' BOTTOM WIDTH, EXCEPT DOWN CHUTE 9.



NOTES:  
1. BATTEN STRIPS TO CONNECT TO SD JUNCTION BOX USING STAINLESS STEEL BOLTS SPACED AT 6" ON-CENTER.  
2. CONTRACTOR TO PROVIDE EXCESS MATERIAL NEAR BATTEN STRIP TO MINIMIZE STRESS DURING BACKFILL.

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG
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PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

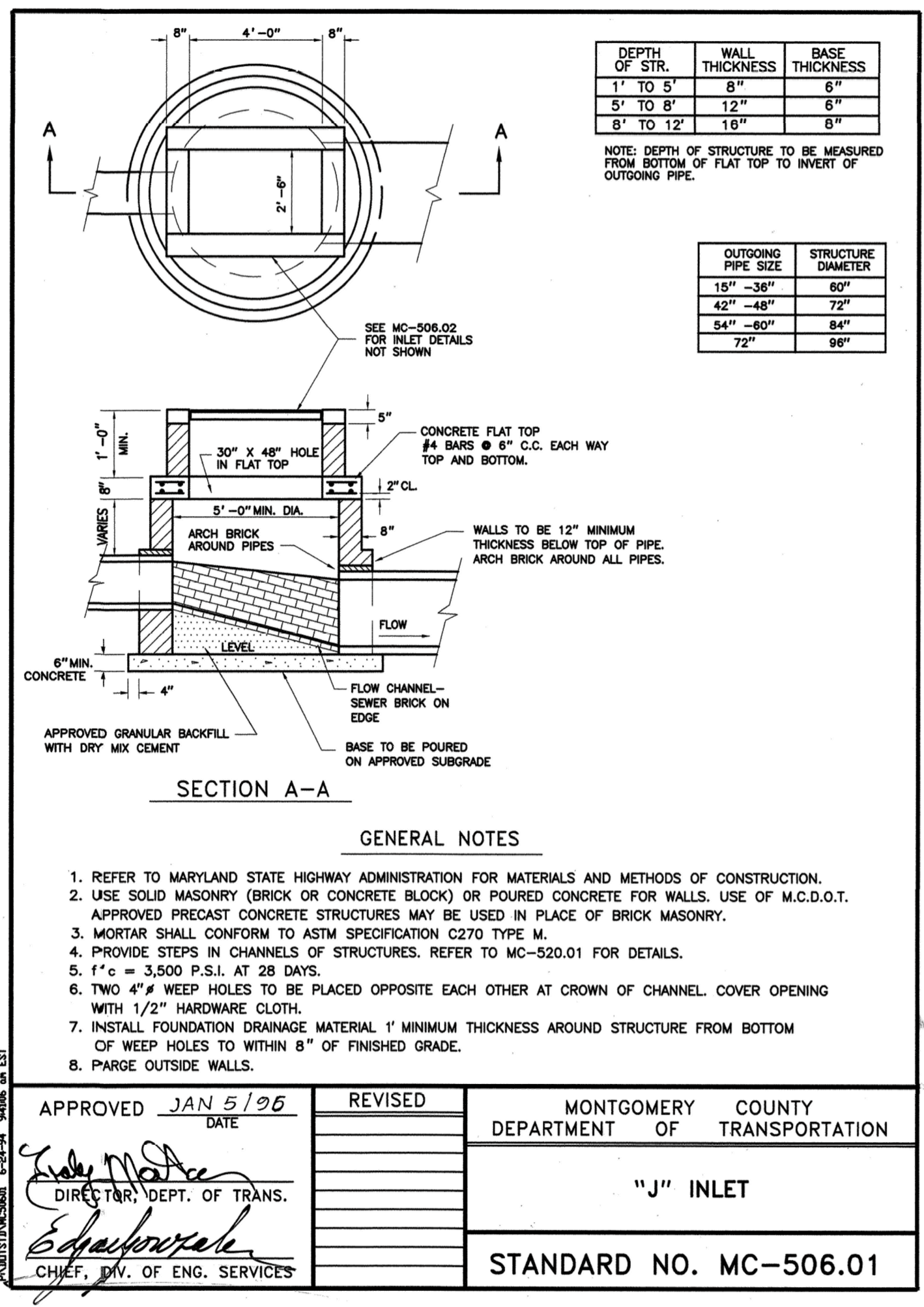
CLOSURE CAP DETAILS

**EA**  
EA Engineering, Science, and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JULY 2020  
PROJECT NUMBER: 1564601  
**C-509**  
SHEET: 99 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION



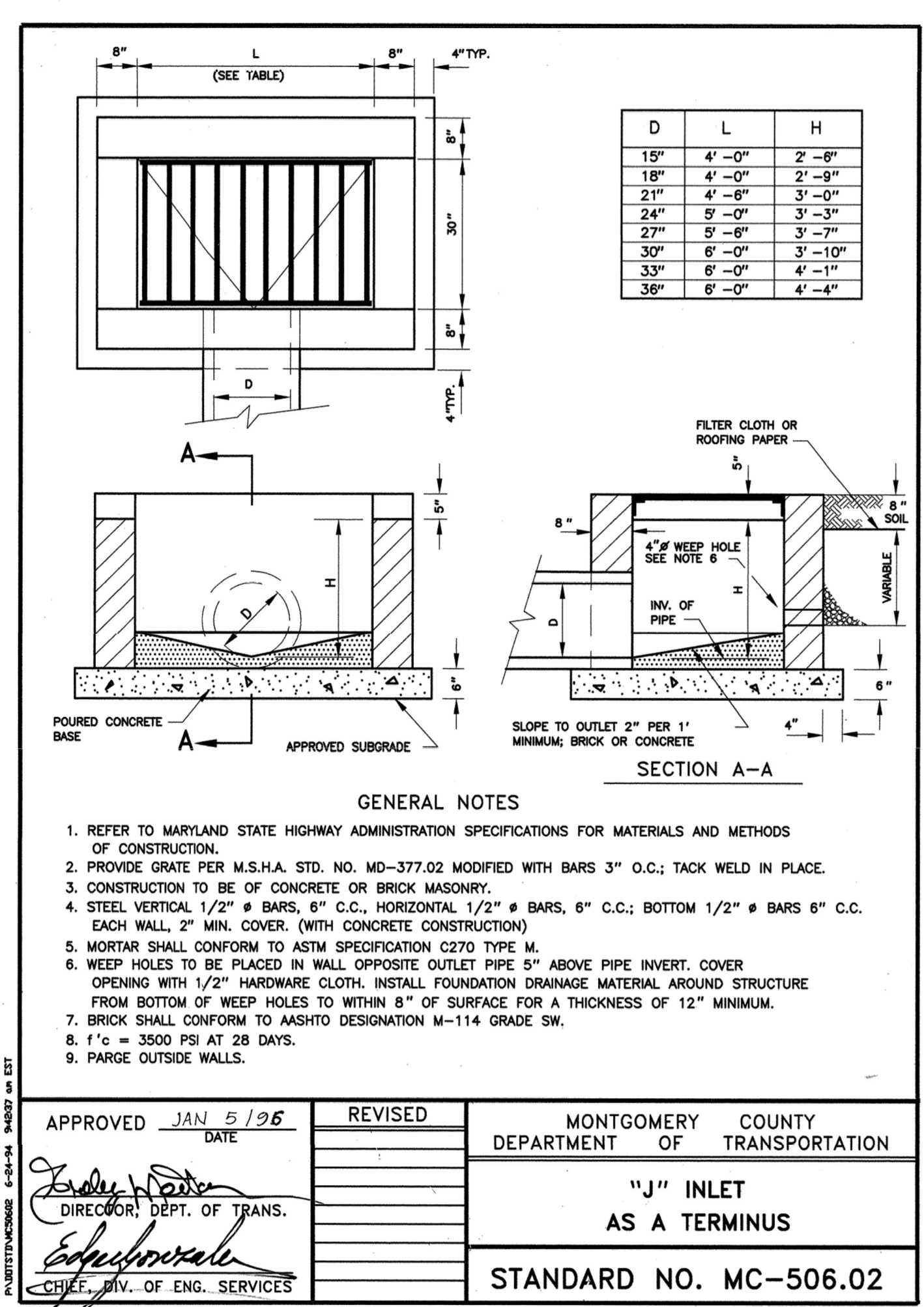
DEPTH OF STR.	WALL THICKNESS	BASE THICKNESS
1' TO 5'	8"	6"
5' TO 8'	12"	6"
8' TO 12'	16"	8"

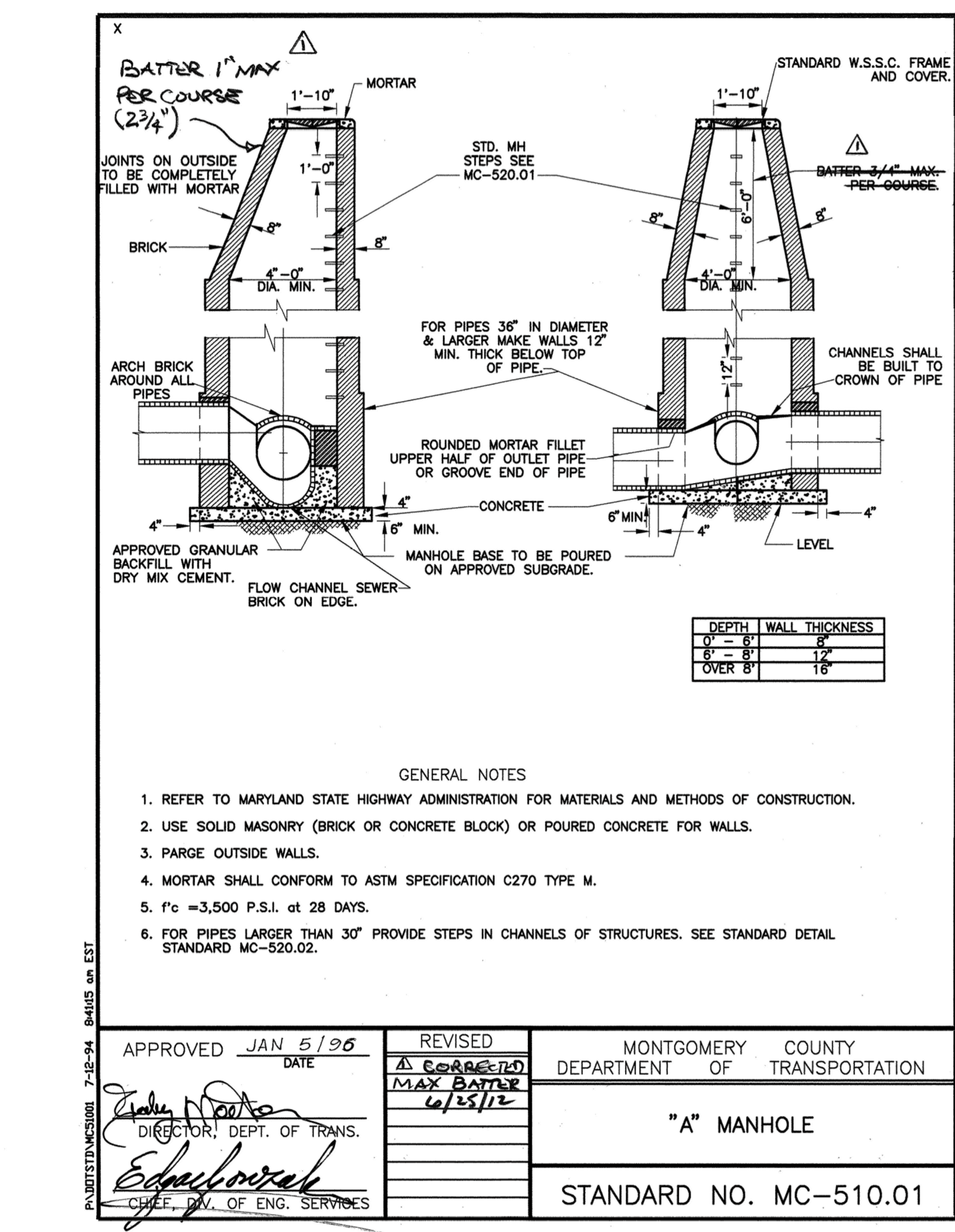
OUTGOING PIPE SIZE	STRUCTURE DIAMETER
18" - 24"	60"
42" - 48"	72"
54" - 60"	84"
72"	96"

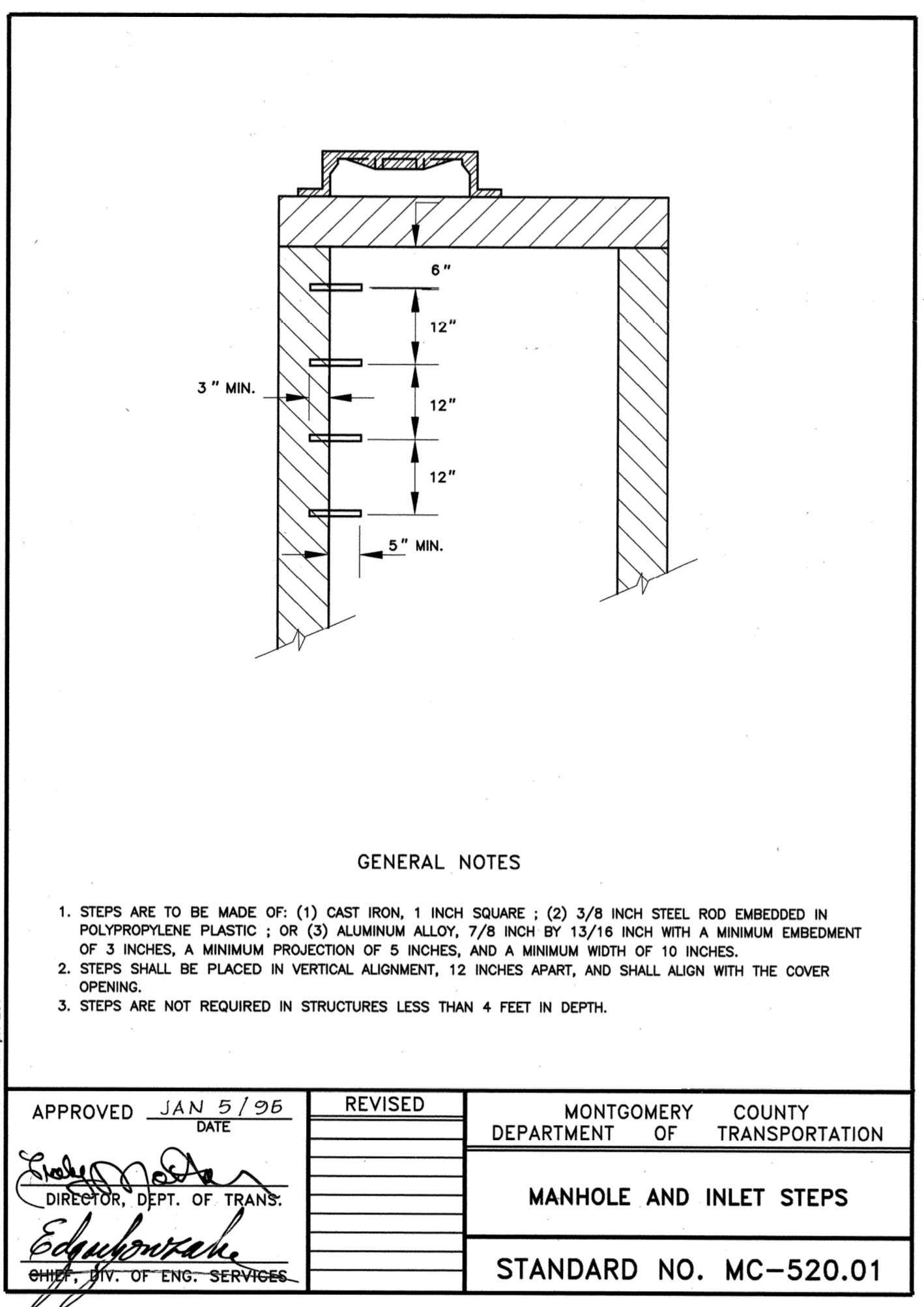
APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Ed Schuchman</i> DIRECTOR, DEPT. OF TRANS.		"J" INLET
<i>Ed Schuchman</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-506.01



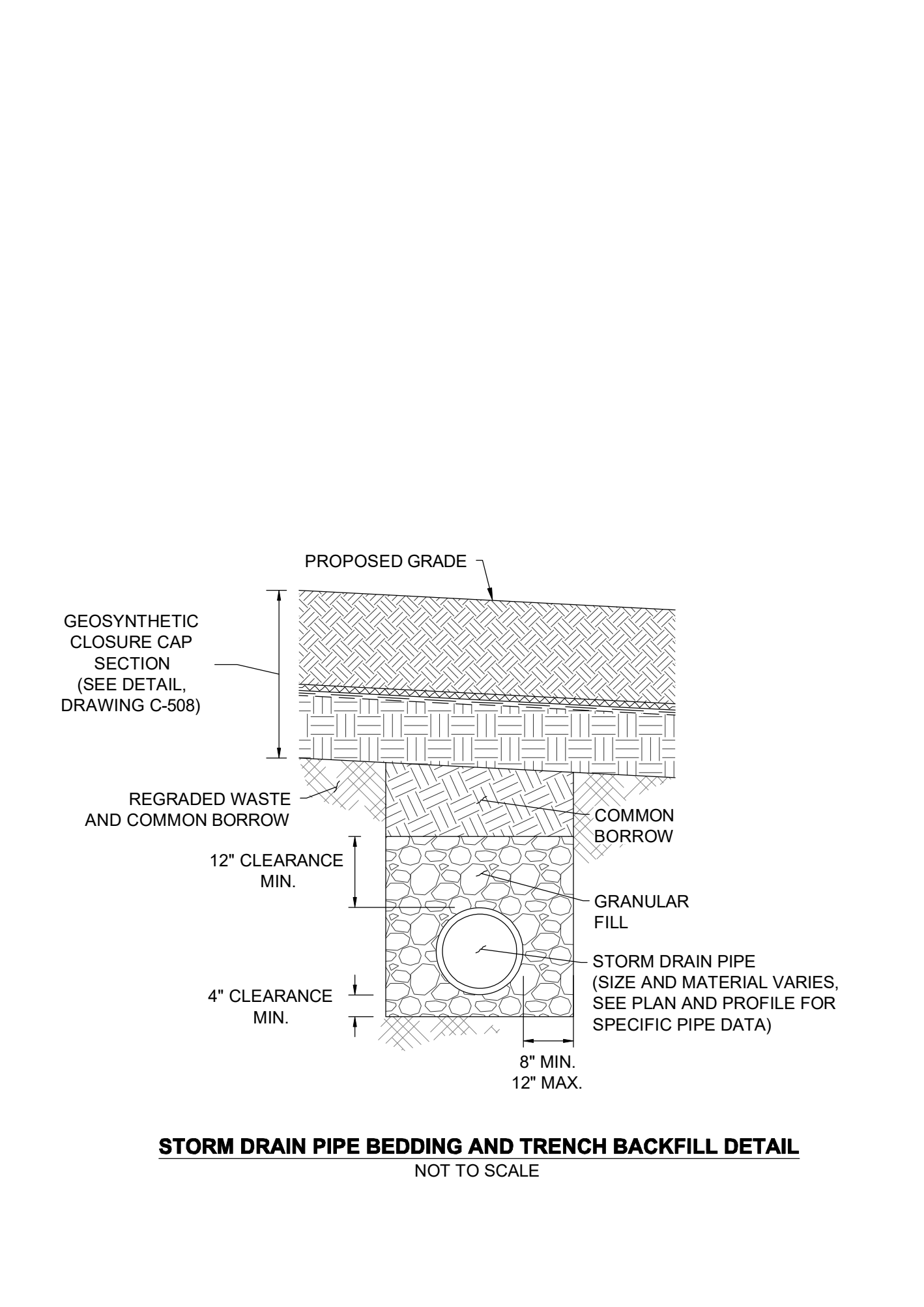
APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Ed Schuchman</i> DIRECTOR, DEPT. OF TRANS.		"J" INLET AS A TERMINUS
<i>Ed Schuchman</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-506.02



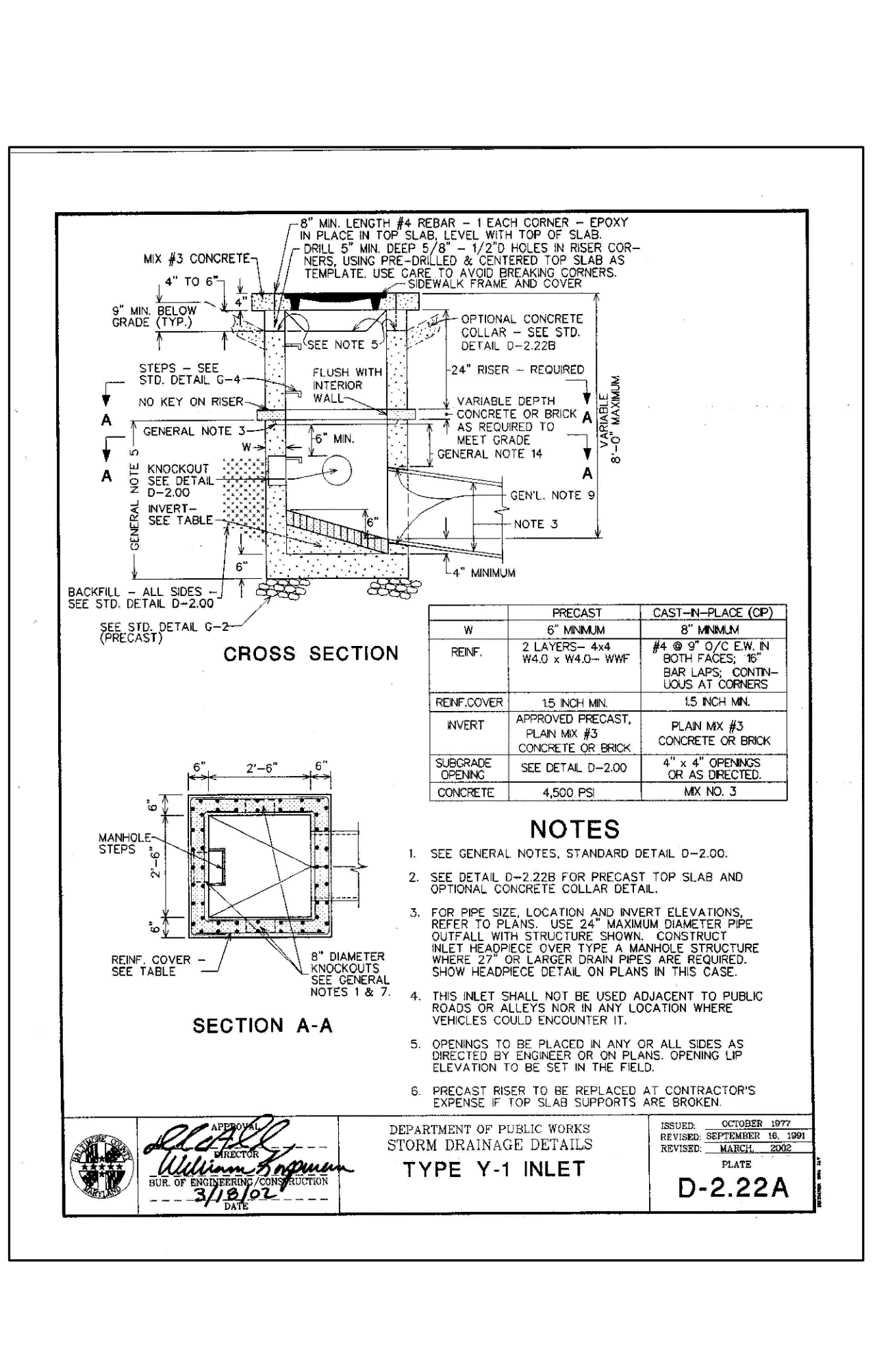
APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Ed Schuchman</i> DIRECTOR, DEPT. OF TRANS.	<u>REVISION 10/12/12</u>	"A" MANHOLE
<i>Ed Schuchman</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-510.01



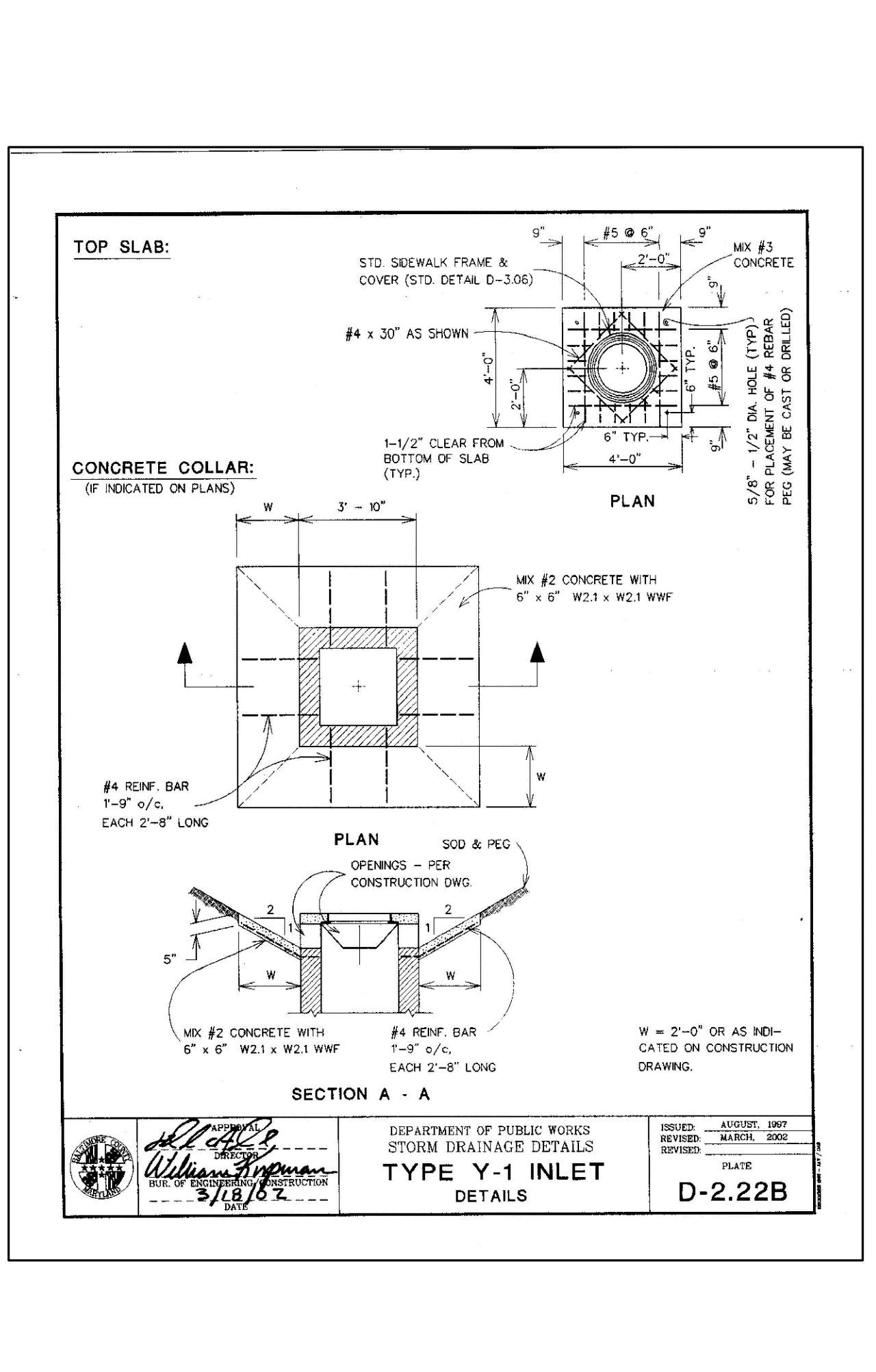
APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Ed Schuchman</i> DIRECTOR, DEPT. OF TRANS.		MANHOLE AND INLET STEPS
<i>Ed Schuchman</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-520.01



APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Ed Schuchman</i> DIRECTOR, DEPT. OF TRANS.		STORM DRAIN PIPE BEDDING AND TRENCH BACKFILL DETAIL
<i>Ed Schuchman</i> CHIEF, DIV. OF ENG. SERVICES		NOT TO SCALE



APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Ed Schuchman</i> DIRECTOR, DEPT. OF TRANS.		TYPE Y-1 INLET
<i>Ed Schuchman</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. D-2.22A



APPROVED <u>JAN 5/96</u> DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
<i>Ed Schuchman</i> DIRECTOR, DEPT. OF TRANS.		TYPE Y-1 INLET DETAILS
<i>Ed Schuchman</i> CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. D-2.22B

GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION

MONTGOMERY COUNTY, MARYLAND

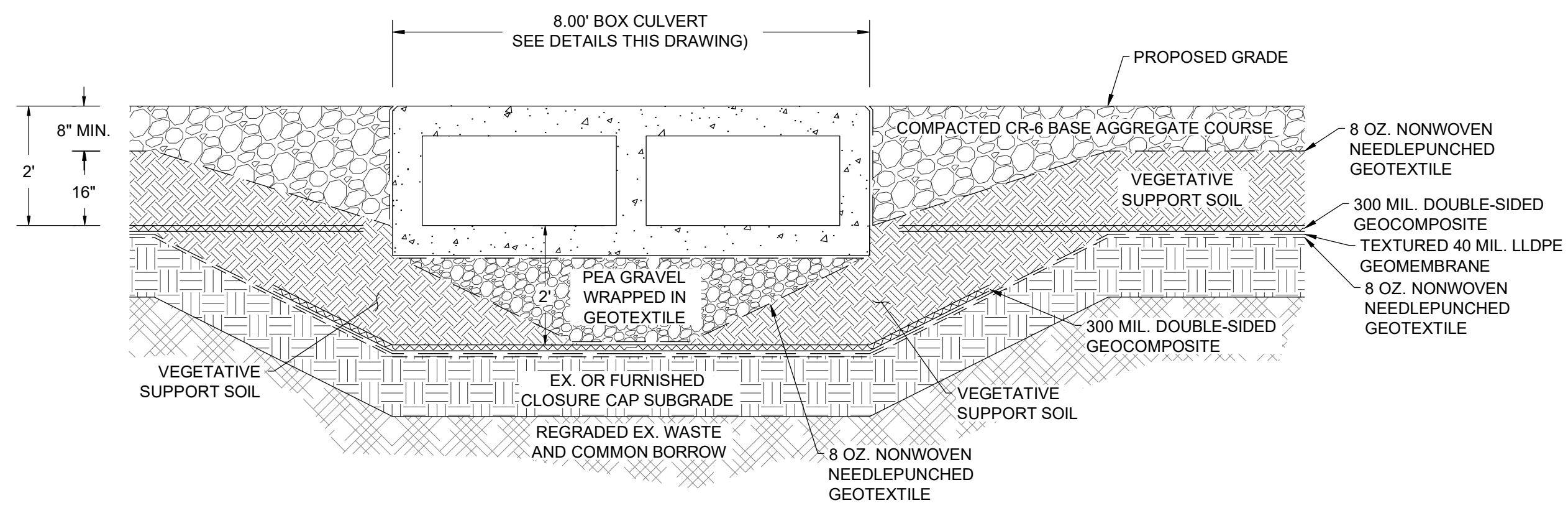
DRAINAGE DETAILS

90% DESIGN PLANS - NOT FOR CONSTRUCTION

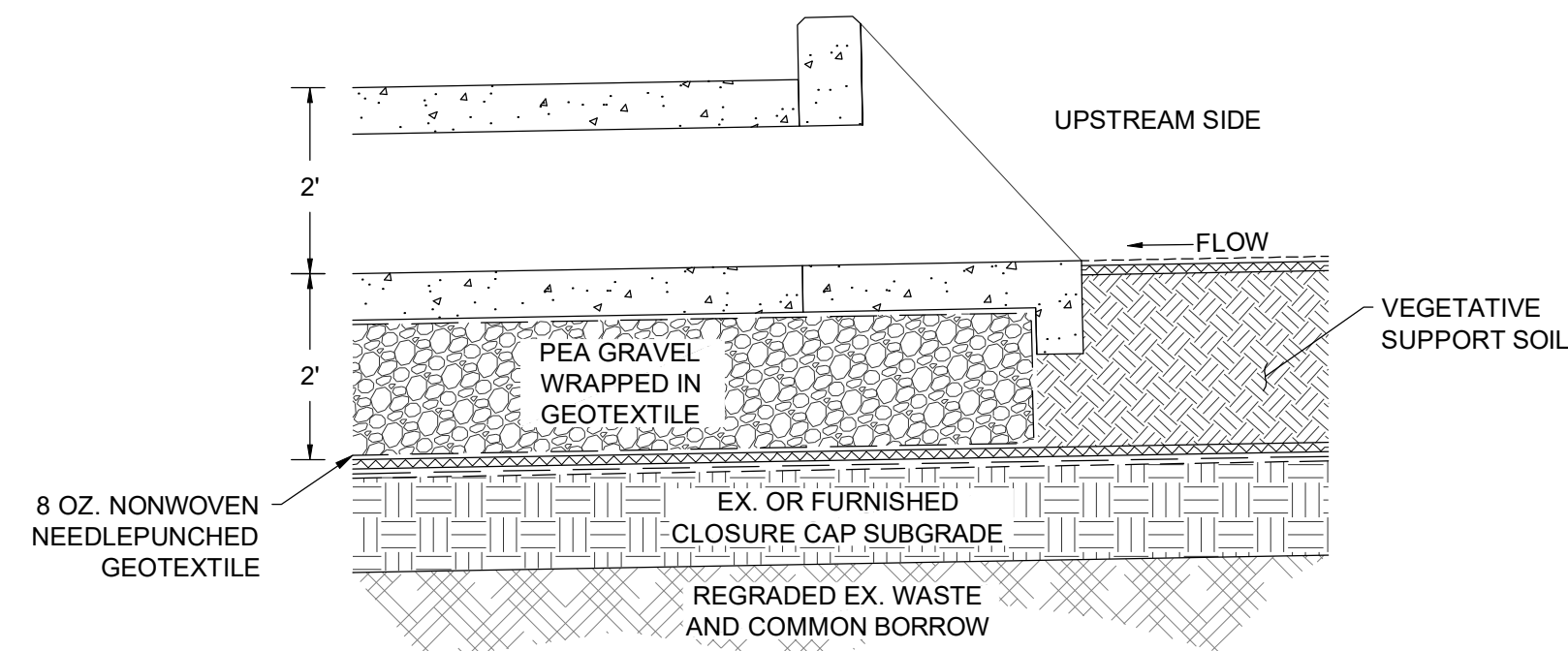
DESIGNED BY: KEF/SMB	DESIGNED BY: KEF/SMB	DESIGNED BY: KEF/SMB	DESIGNED BY: KEF/SMB	DESIGNED BY: KEF/SMB
DRAWN BY: SMB	DRAWN BY: SMB	DRAWN BY: SMB	DRAWN BY: SMB	DRAWN BY: SMB
CHECKED BY: LJO/GAT	CHECKED BY: LJO/GAT	CHECKED BY: LJO/GAT	CHECKED BY: LJO/GAT	CHECKED BY: LJO/GAT
PROJECT MANAGER: MJG	PROJECT MANAGER: MJG	PROJECT MANAGER: MJG	PROJECT MANAGER: MJG	PROJECT MANAGER: MJG

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.

DATE: JULY 2020  
PROJECT NUMBER: 1564601  
**C-510**  
SHEET: 100 OF 144



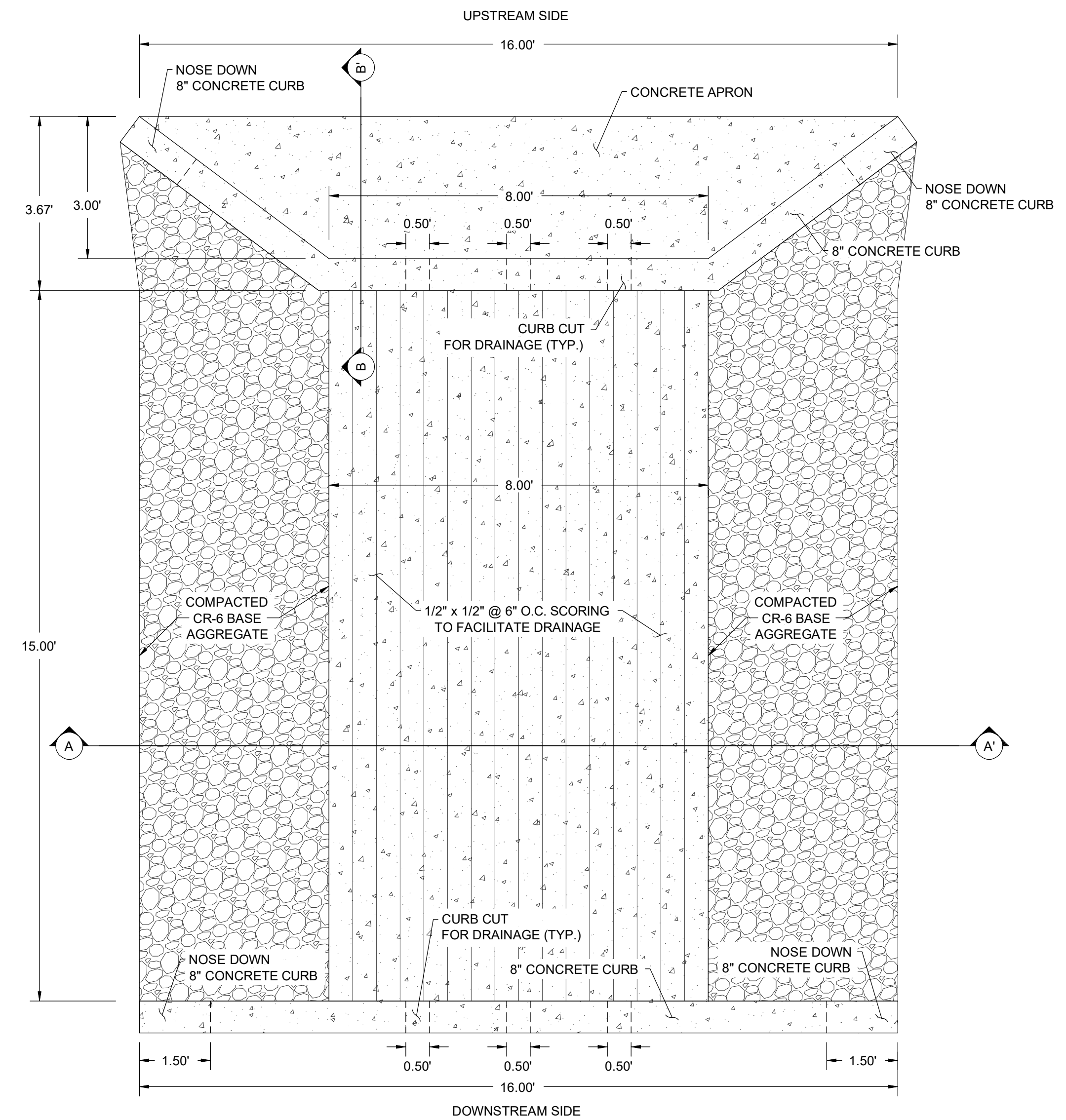
**BOX CULVERT - CUT SECTION A-A'**  
NOT TO SCALE



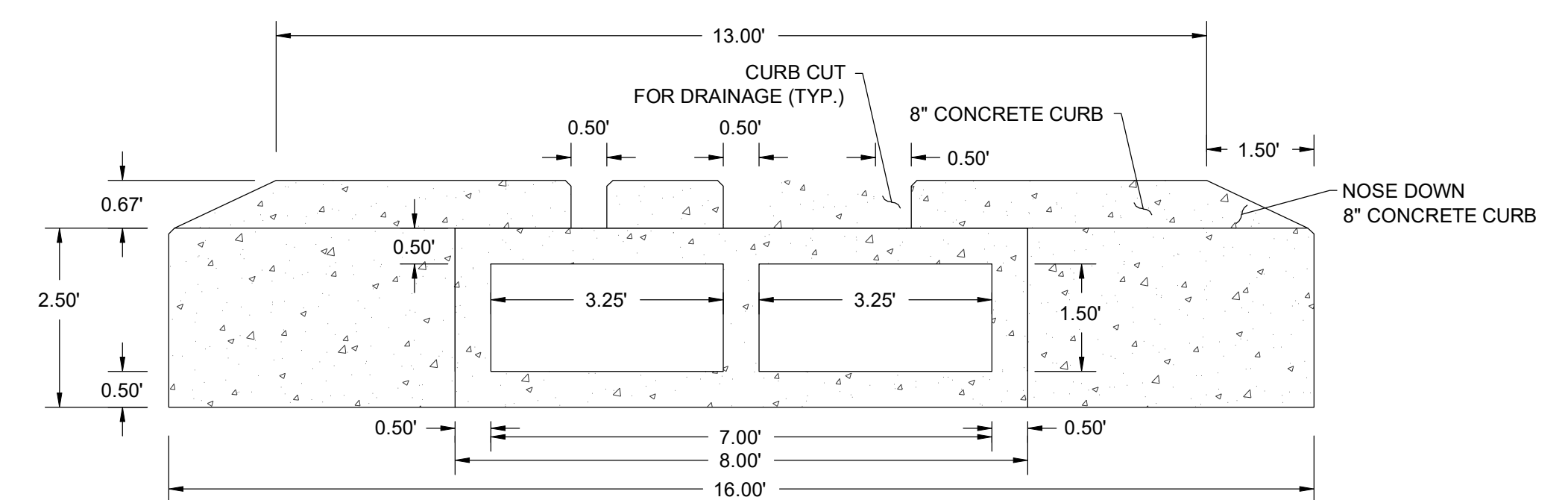
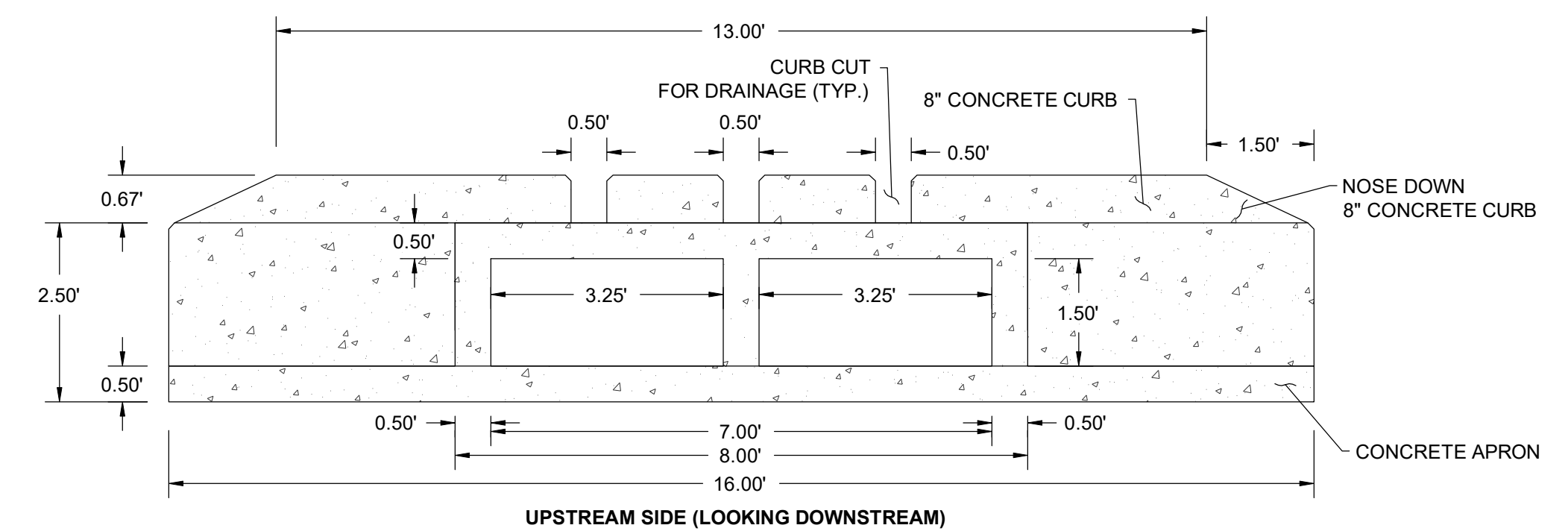
**BOX CULVERT - CUT SECTION B-B'**  
NOT TO SCALE

**BOX CULVERT STRUCTURAL NOTES**

1. BOX CULVERT STRUCTURES SHALL BE PRECAST. CONCRETE WORK SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 33 31 00 - STORMWATER PIPING AND APPURTENANCES.
2. REINFORCING STEEL SHALL CONFORM TO ASTM DESIGNATION A-615, GRADE 60.
3. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS WHEN SPLICED, EXCEPT AS NOTED.
4. EXPOSED CORNERS SHALL BE CHAMFERED 3/4" x 3/4", UNLESS OTHERWISE NOTED.
5. ALL PIPE SLEEVES, DOWELS, AND OTHER PENETRATIONS, SHALL BE PLACED BEFORE CONCRETE IS POURED.
6. MINIMUM CONCRETE COVER FOR ALL REINFORCING IS 3 INCHES. PROVIDE MINIMUM 3 INCHES OF CONCRETE COVER AT BASE AND SIDES OF STRUCTURE IN CONTACT AGAINST SUBBASE AGGREGATE LAYER AND/OR EARTH.



**BOX CULVERT DETAIL - PLAN VIEW**  
NOT TO SCALE

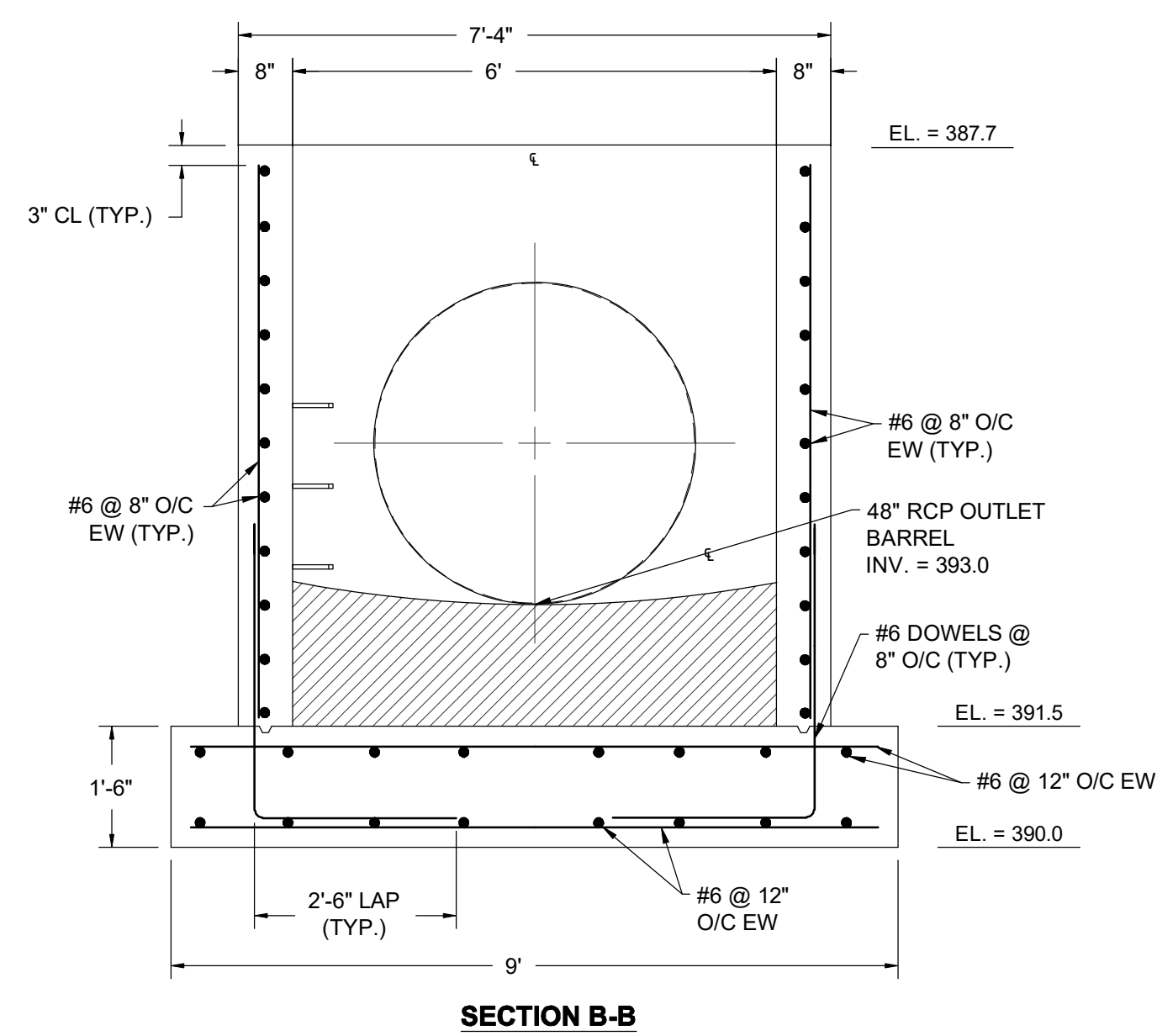
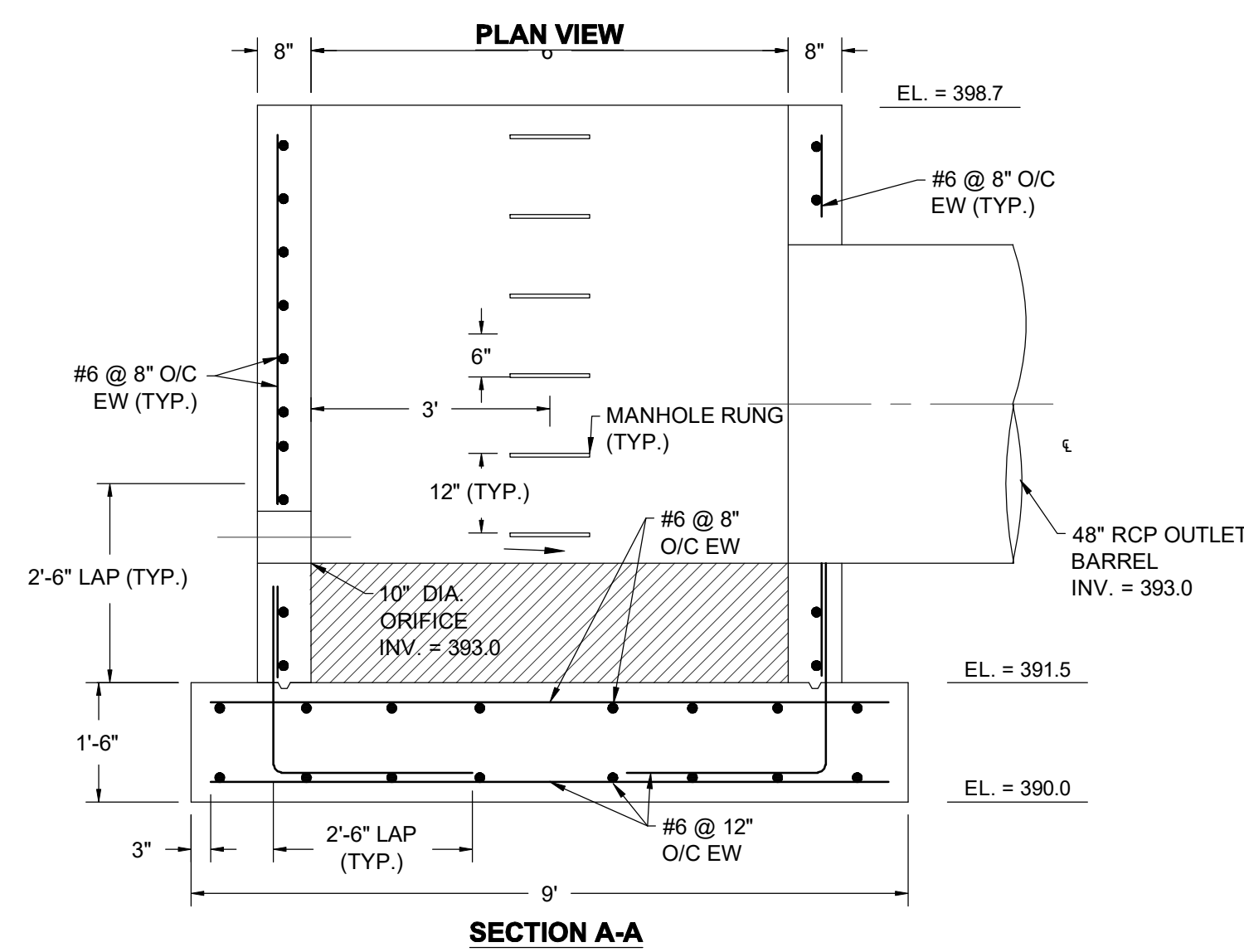
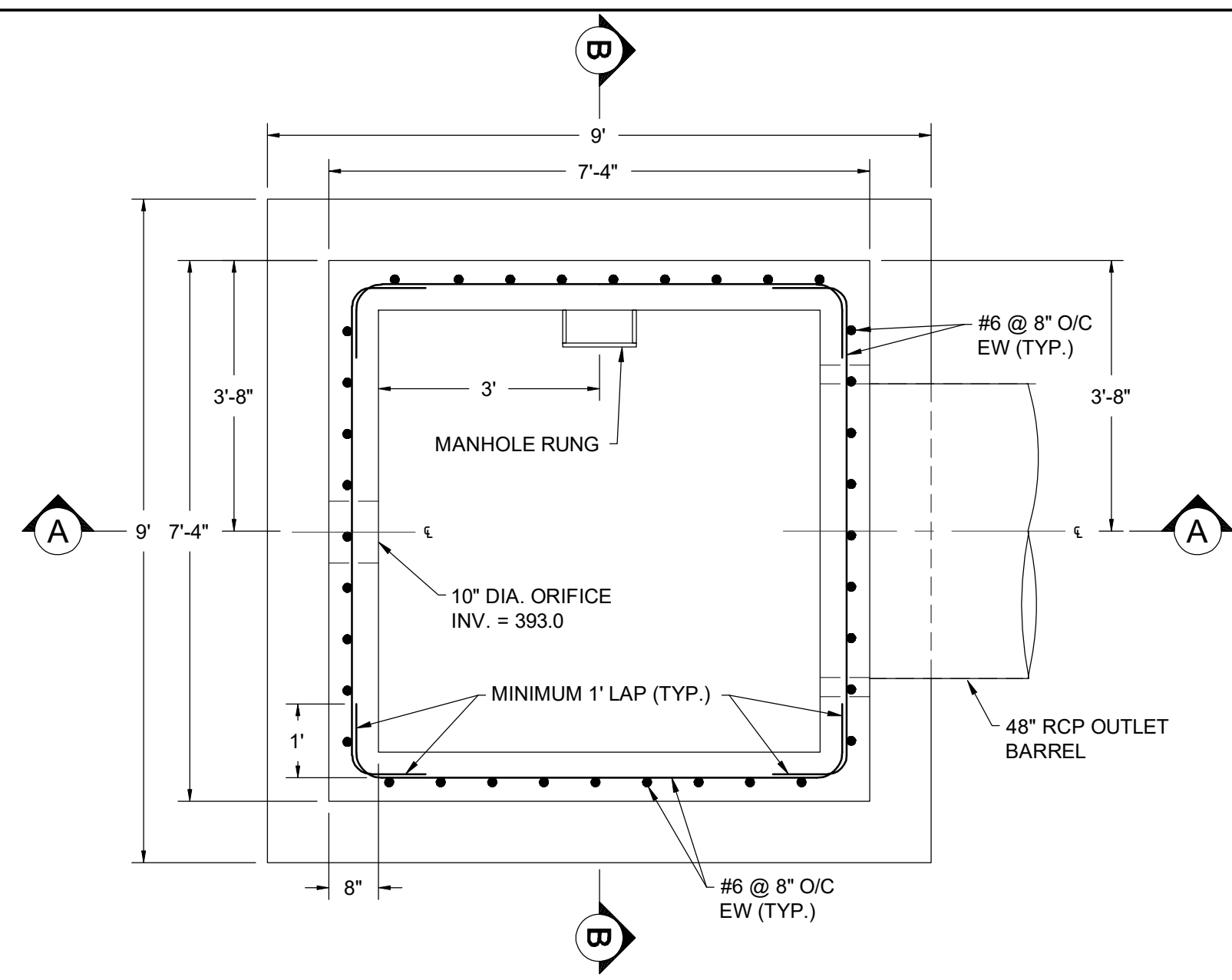


**BOX CULVERT DETAIL - ELEVATION VIEWS**  
NOT TO SCALE

REVISIONS	DESCRIPTION
BY	
DATE	
NO.	
DESIGN INFORMATION	DESIGNED BY: KEF / SMB
	DRAWN BY: SMB
	CHECKED BY: LJO / GAT
	PROJECT MANAGER: MJG
SEAL	PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.
<p>GUIDE LANDFILL REMEDIATION DESIGN NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION MONTGOMERY COUNTY, MARYLAND</p>	
<p>DRAINAGE DETAILS</p>	
<p><b>EA</b> EA Engineering, Science, and Technology, Inc., PBC Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000</p>	
DATE: JULY 2020	
PROJECT NUMBER: 1564601	
<p><b>C-511</b> SHEET: 101 OF 144</p>	

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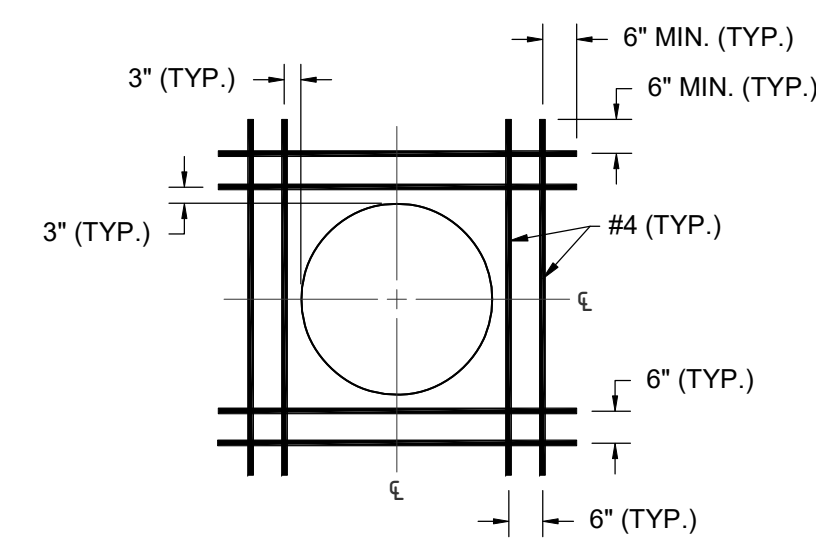
90% DESIGN PLANS - NOT FOR CONSTRUCTION



**SEDIMENT BASIN NO. 1 - RISER STRUCTURE DETAIL**  
SCALE 1" = 2'

**NOTES:**

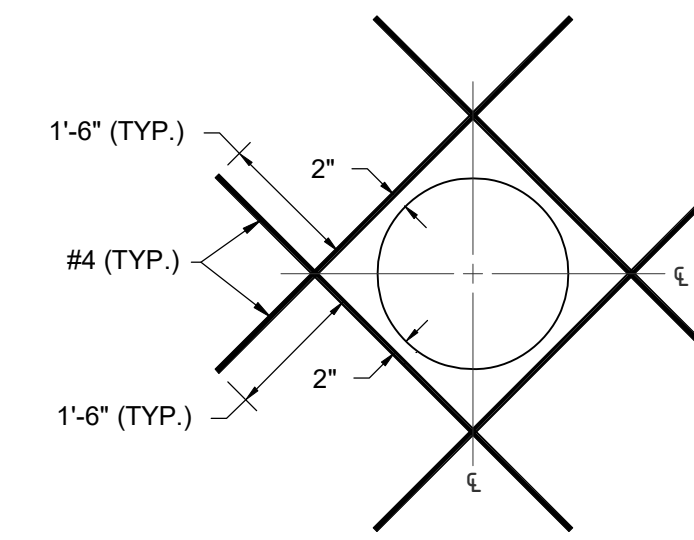
- RISER STRUCTURE SHALL BE CAST-IN-PLACE CONCRETE AND SHALL ADHERE TO SECTION 305 OF MD SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS. STRUCTURAL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS.
- LADDER RUNGS TO BE IN ACCORDANCE WITH MONTGOMERY COUNTY STANDARD DETAIL MC-620.01.
- ALL REINFORCING SHALL BE ASTM A-615 GRADE 60.
- PROVIDE 3/4" CHAMFER TO ALL EXPOSED EDGES OF CONCRETE.
- DIAGONAL REINFORCEMENT AROUND ORIFICE OPENING SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL 4 - TYPICAL REINFORCING AROUND CIRCULAR OPENING ON DRAWING C-512.
- ELEVATIONS AND OPENING SIZES WILL BE DETERMINED FOR FUTURE DESIGN SUBMITTALS.



**TYPICAL REINFORCING AROUND CIRCULAR OPENING**  
NOT TO SCALE

**NOTES:**

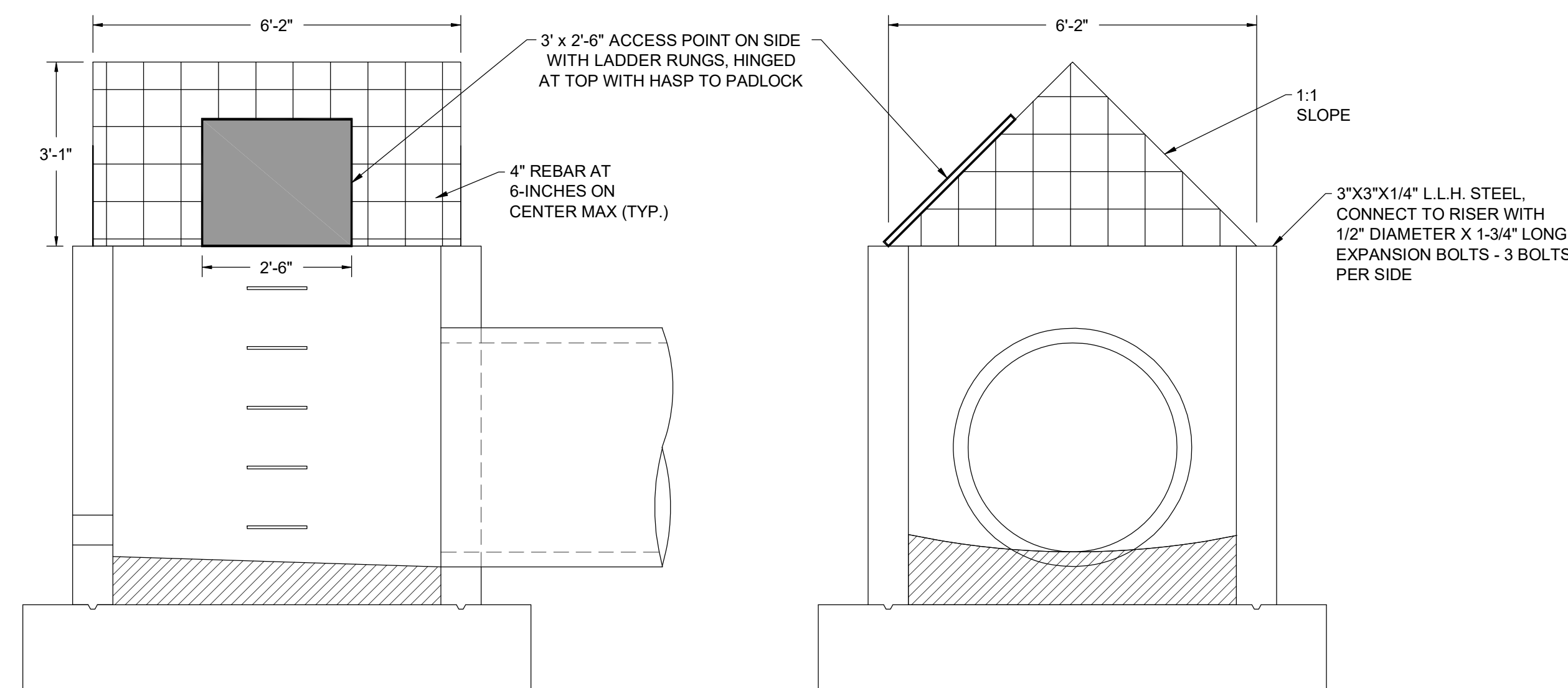
- ANY REINFORCING INTERRUPTED BY OPENINGS SHALL BE CARRIED TO WITHIN 3" OF THE OPENING. REINFORCING SO INTERRUPTED SHALL BE PLACED ON EITHER SIDE OF THE OPENING.
- PLACE SUPPLEMENTAL HORIZONTAL AND VERTICAL REINFORCEMENT TO FRAME EACH OPENING. MAINTAIN A MINIMUM 3 INCH COVER OF CONCRETE BETWEEN OPENINGS AND REINFORCEMENT.
- REDUCE LENGTH OF REINFORCEMENT PROJECTION AS NECESSARY TO MAINTAIN A MINIMUM 2 INCHES OF CONCRETE COVER OVER REINFORCEMENT.



**TYPICAL REINFORCING AROUND ORIFICE OPENING**  
NOT TO SCALE

**NOTES:**

- MAINTAIN A MINIMUM OF 3" OF CONCRETE COVER FOR SURFACES IN CONTACT WITH EARTH, AND A MINIMUM OF 2" CONCRETE COVER ELSEWHERE.
- REDUCE LENGTH OF REINFORCEMENT PROJECTION AS NECESSARY TO MAINTAIN A MINIMUM 2 INCHES OF CONCRETE COVER OVER REINFORCEMENT.



**TRASH RACK DETAIL**  
SCALE 1" = 2'

**NOTES:**

- ANY REINFORCING INTERRUPTED BY OPENINGS SHALL BE CARRIED TO WITHIN 3" OF THE OPENING. REINFORCING SO INTERRUPTED SHALL BE PLACED ON EITHER SIDE OF THE OPENING.
- PLACE SUPPLEMENTAL HORIZONTAL AND VERTICAL REINFORCEMENT TO FRAME EACH OPENING. MAINTAIN A MINIMUM 3 INCH COVER OF CONCRETE BETWEEN OPENINGS AND REINFORCEMENT.
- REDUCE LENGTH OF REINFORCEMENT PROJECTION AS NECESSARY TO MAINTAIN A MINIMUM 2 INCHES OF CONCRETE COVER OVER REINFORCEMENT.

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

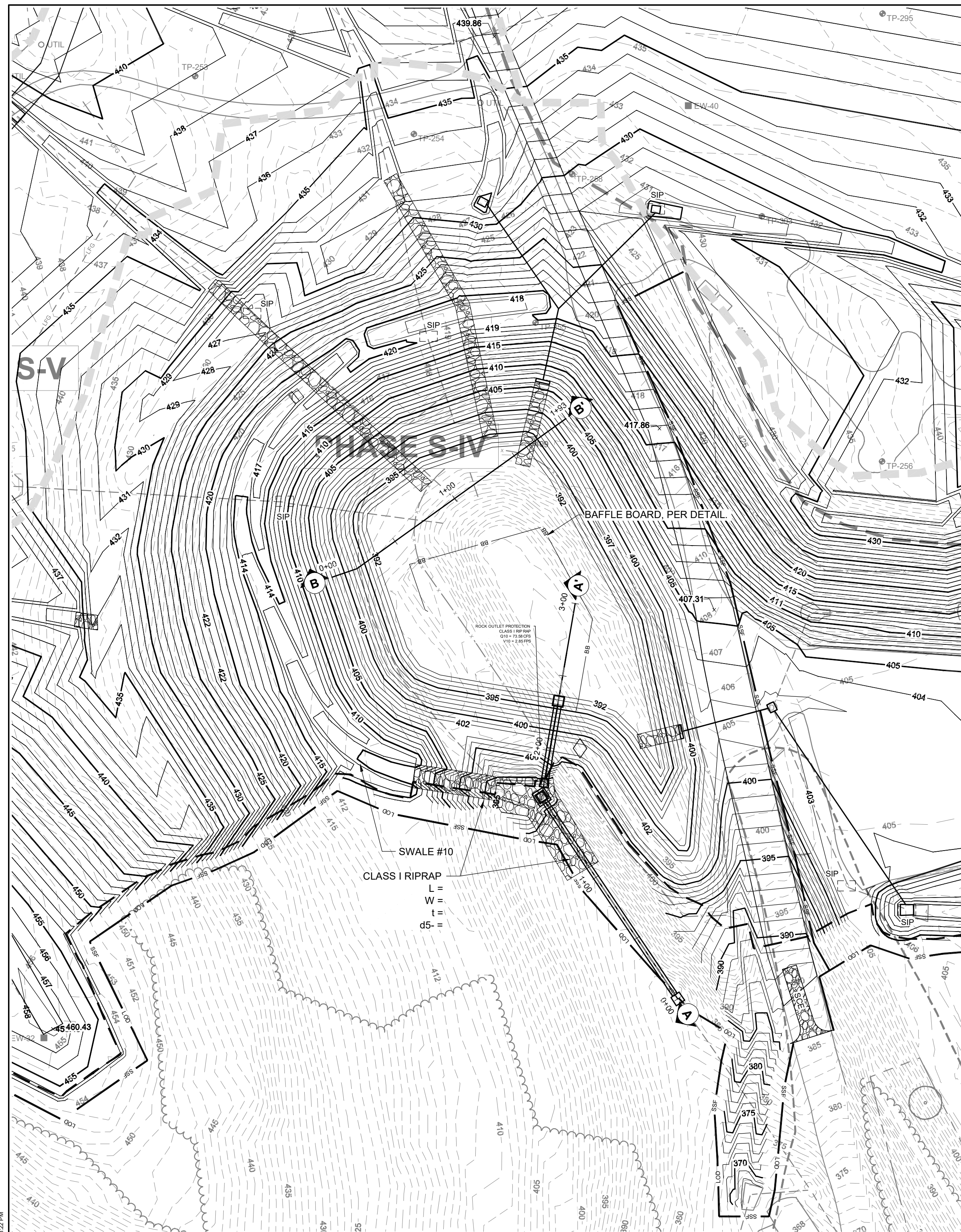
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**RISER DETAILS**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

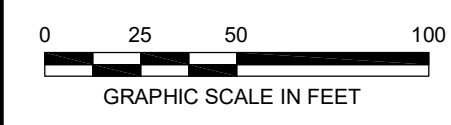
DATE: JULY 2020  
PROJECT NUMBER: 1564601  
**C-512**  
SHEET: 102 OF 144

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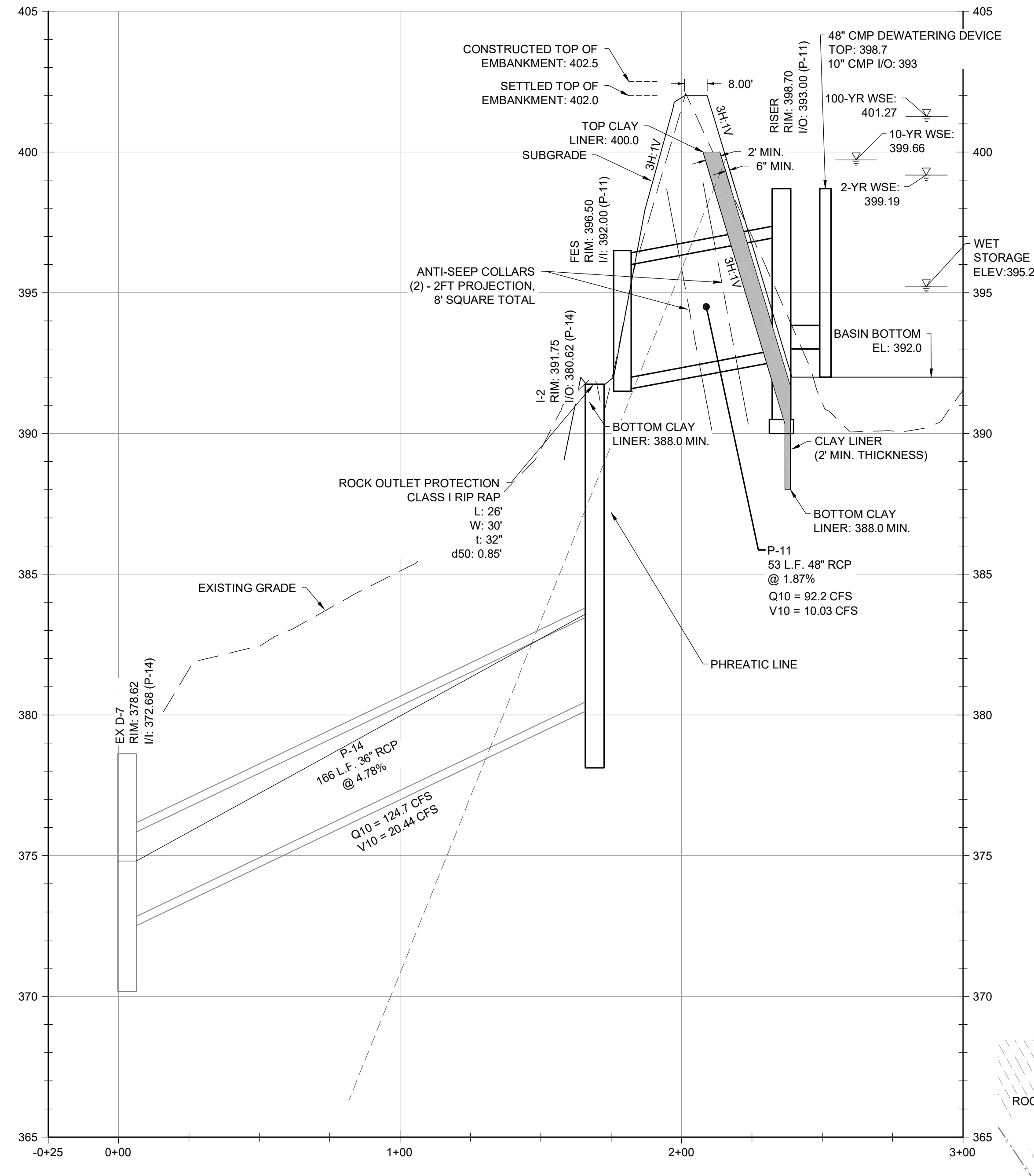
90% DESIGN PLANS - NOT FOR CONSTRUCTION



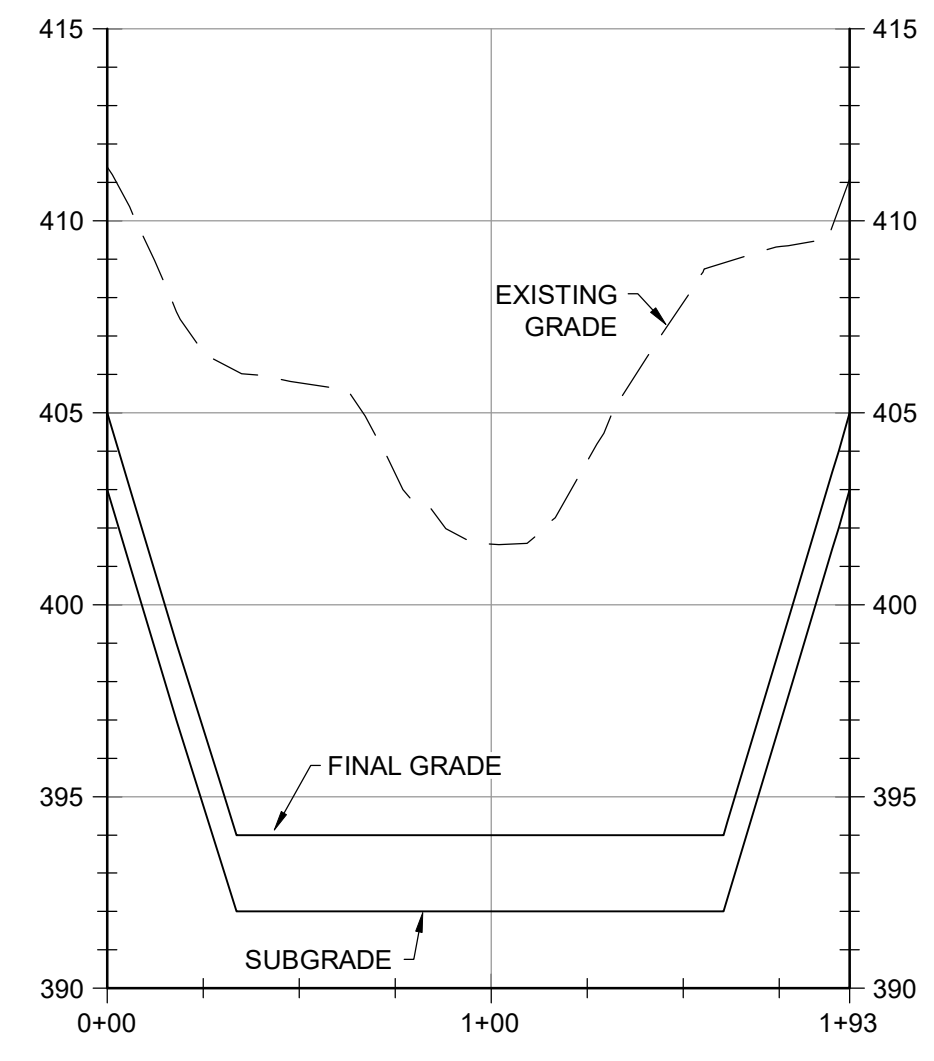
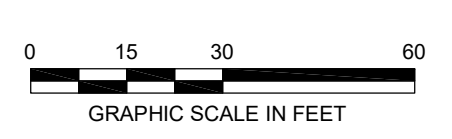
**SEDIMENT BASIN SEQUENCE OF CONSTRUCTION - SUBGRADE CONDITION PLAN VIEW**  
SCALE: 1" = 50'



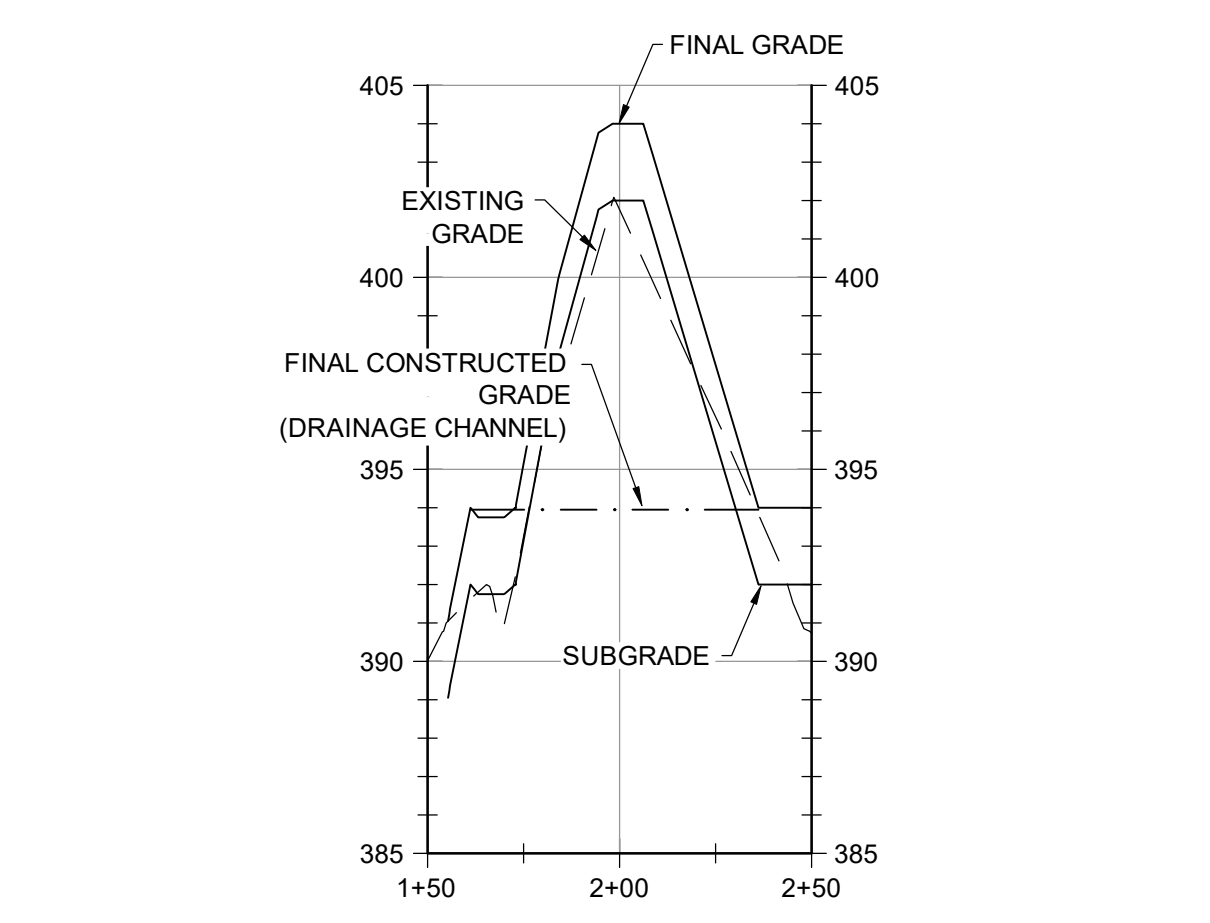
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SEDIMENT BASIN NO. 1	44.8	80,640	83,379	80,640	117,808	393.7



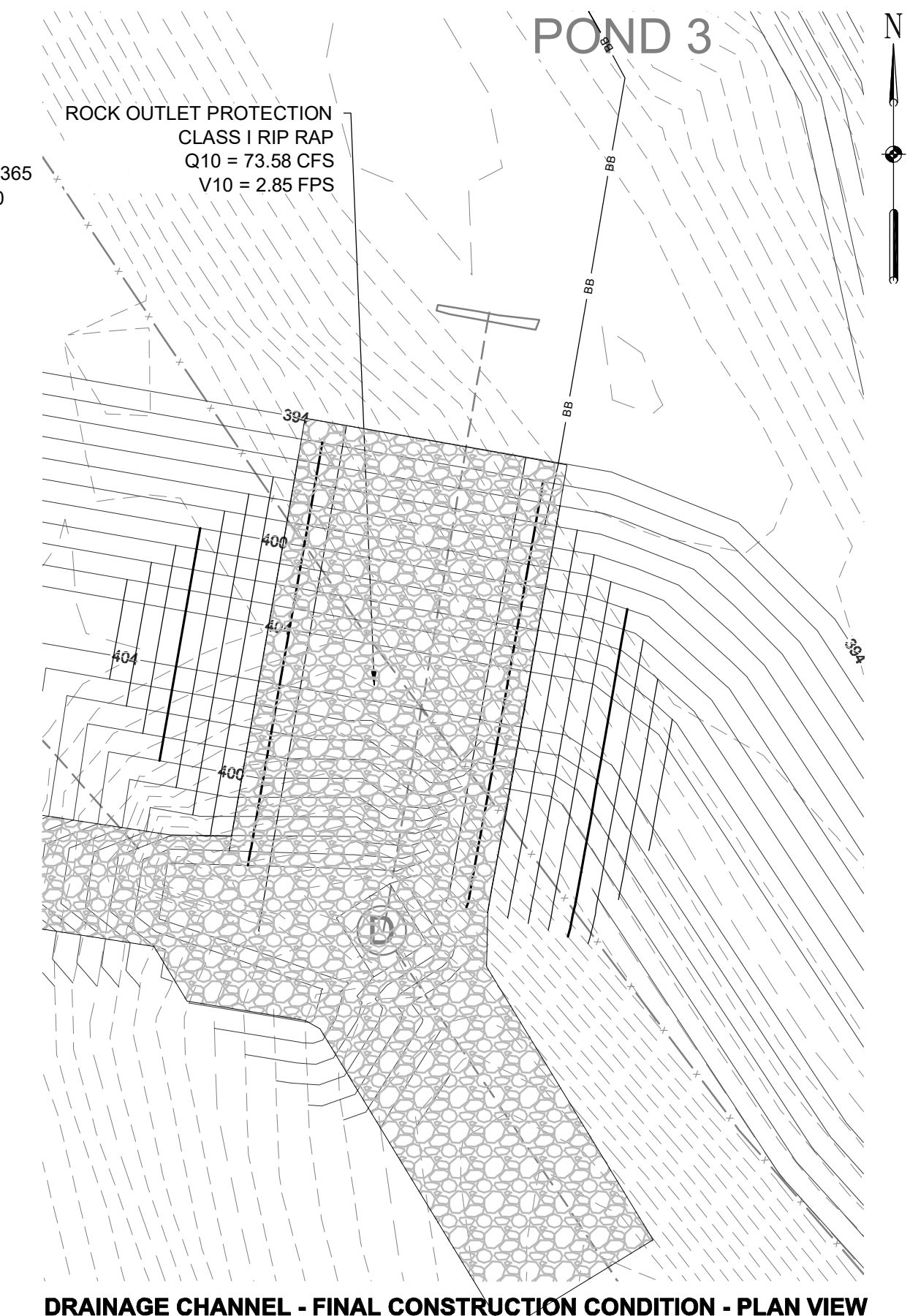
**SEDIMENT BASIN #1 - SECTION A-A'**  
HORIZONTAL SCALE: 1" = 30'  
VERTICAL SCALE: 1" = 3'



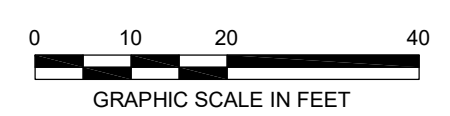
**SEDIMENT BASIN #1 - SECTION C-C'**  
HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



**DRAINAGE CHANNEL - FINAL CONSTRUCTION CONDITION - SECTION A-A'**  
HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



**DRAINAGE CHANNEL - FINAL CONSTRUCTION CONDITION - PLAN VIEW**  
SCALE: 1" = 20'



REVISIONS		DESCRIPTION	
NO.	DATE	BY	

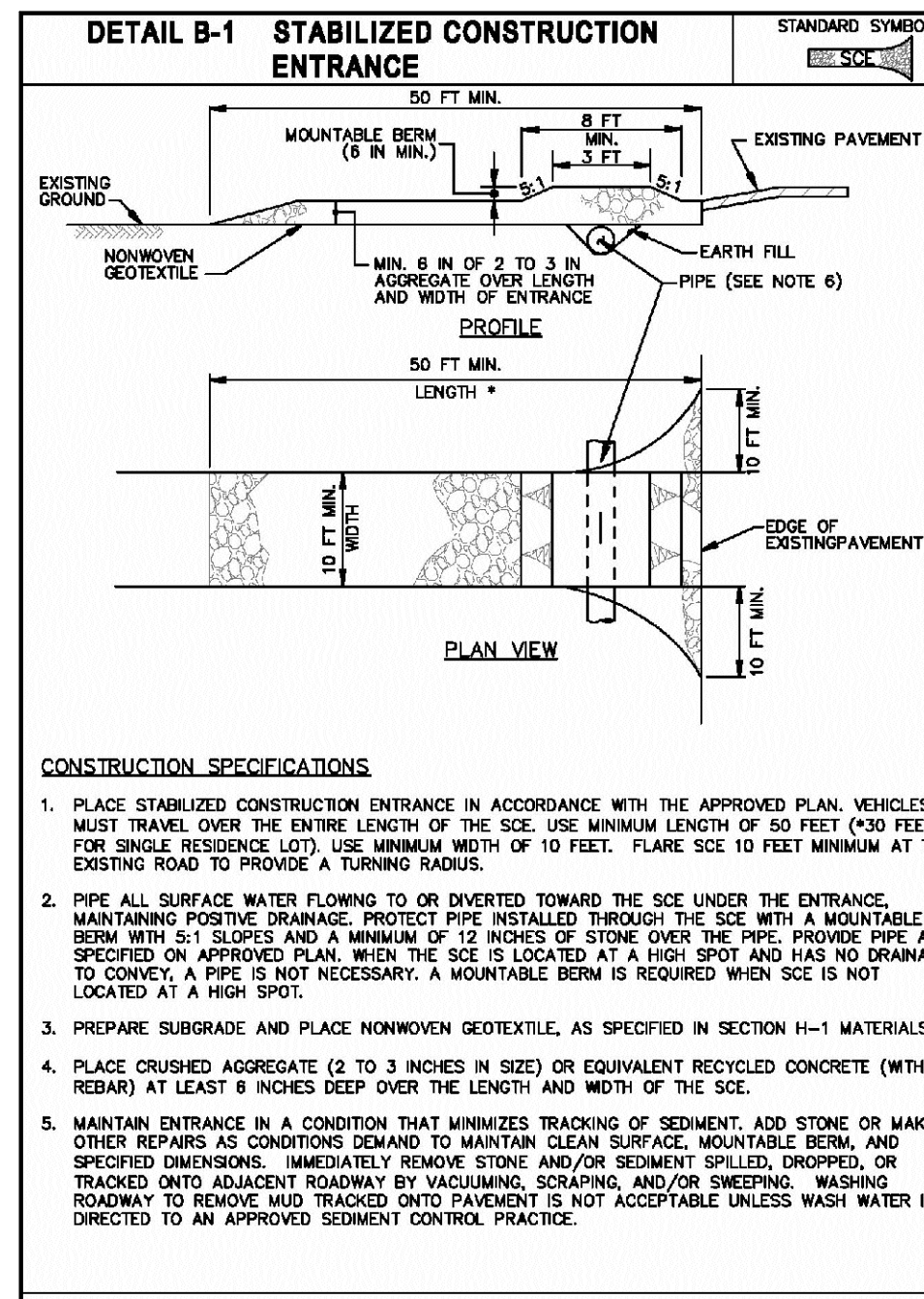
DESIGN INFORMATION		DESIGNED BY:		DRAWN BY:		CHECKED BY:		PROJECT MANAGER:	

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

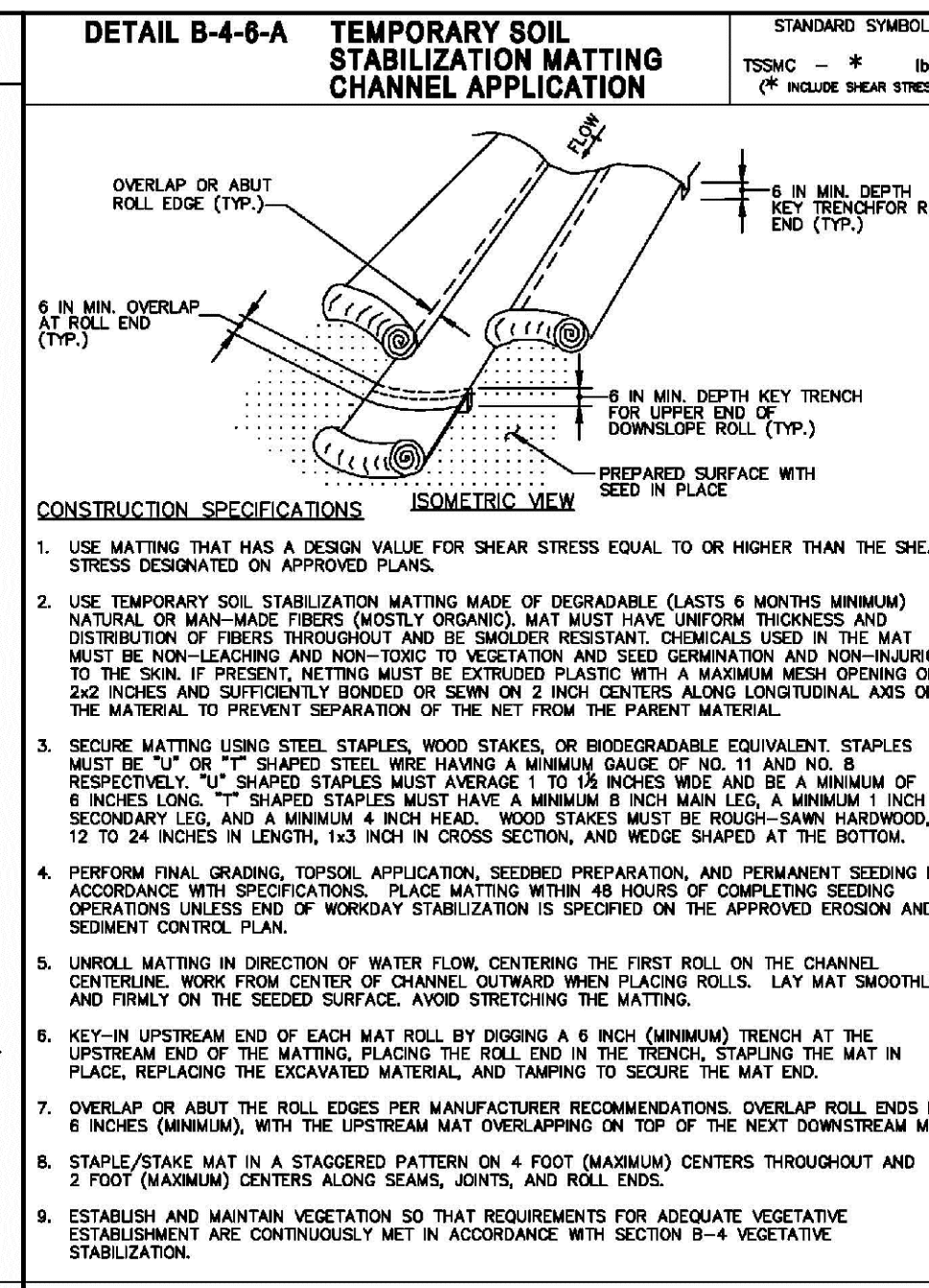
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**DRAINAGE DETAILS**

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-513**  
 SHEET: 103 OF 144

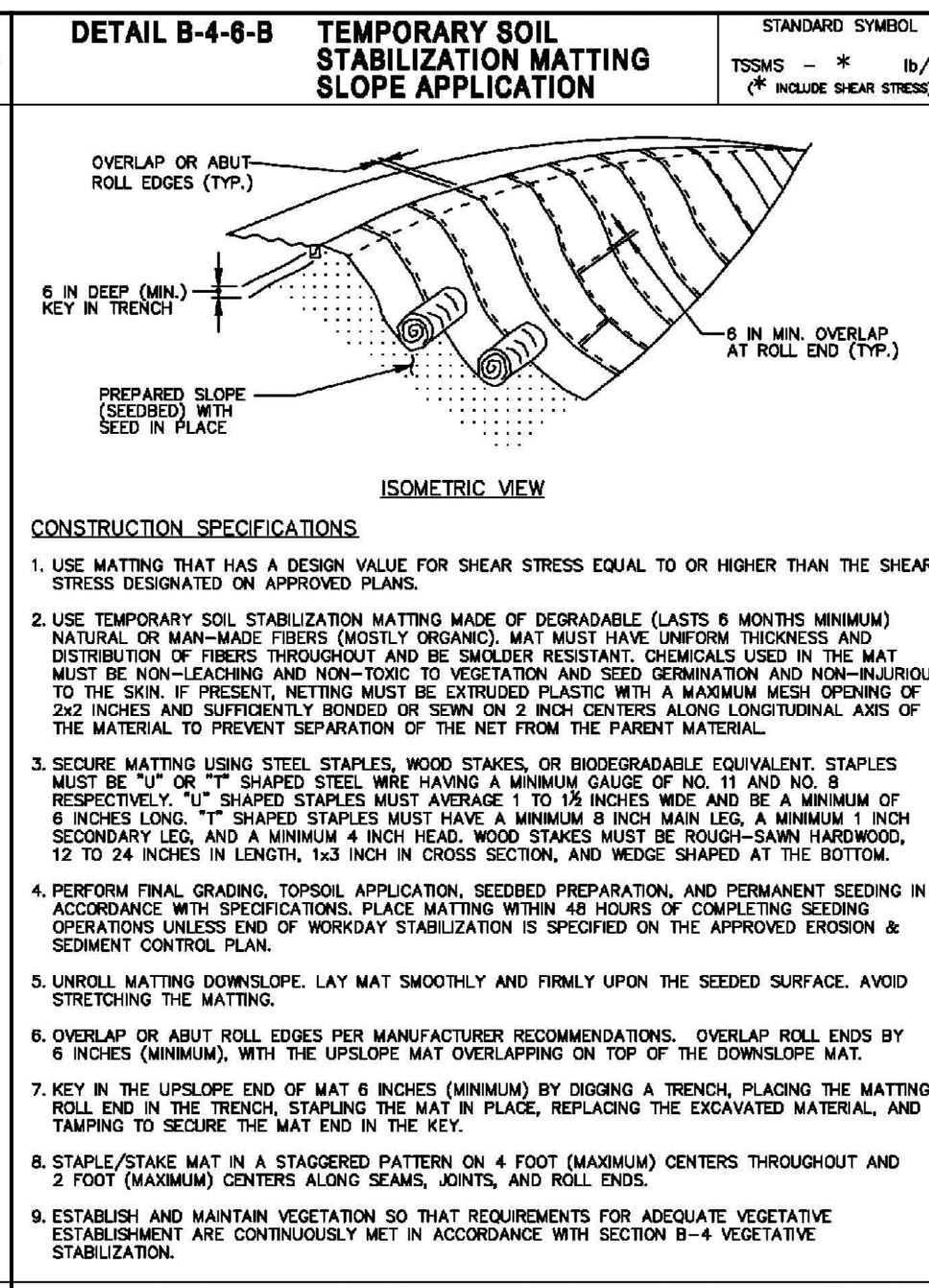
90% DESIGN PLANS - NOT FOR CONSTRUCTION



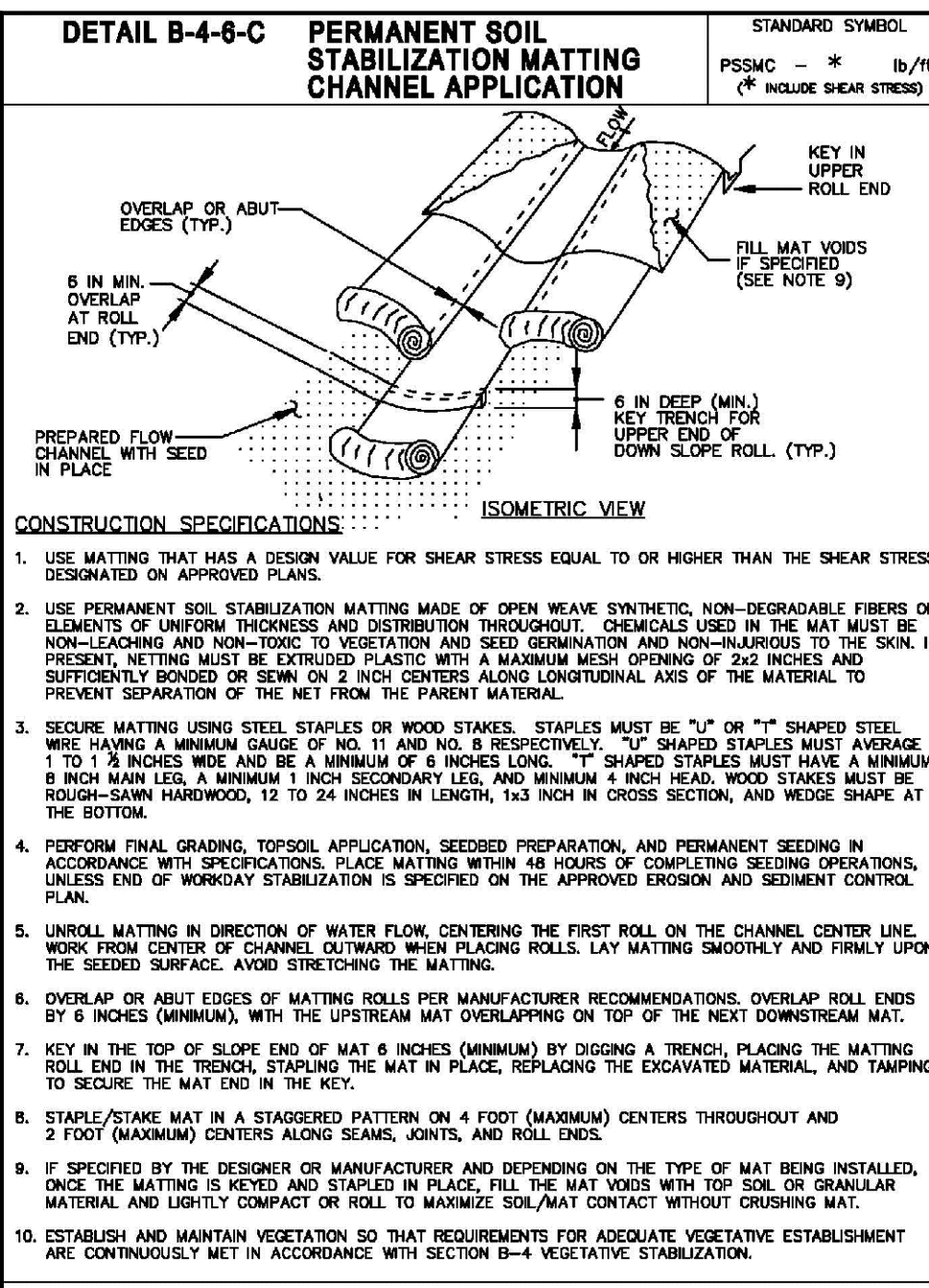
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011	MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE 2011



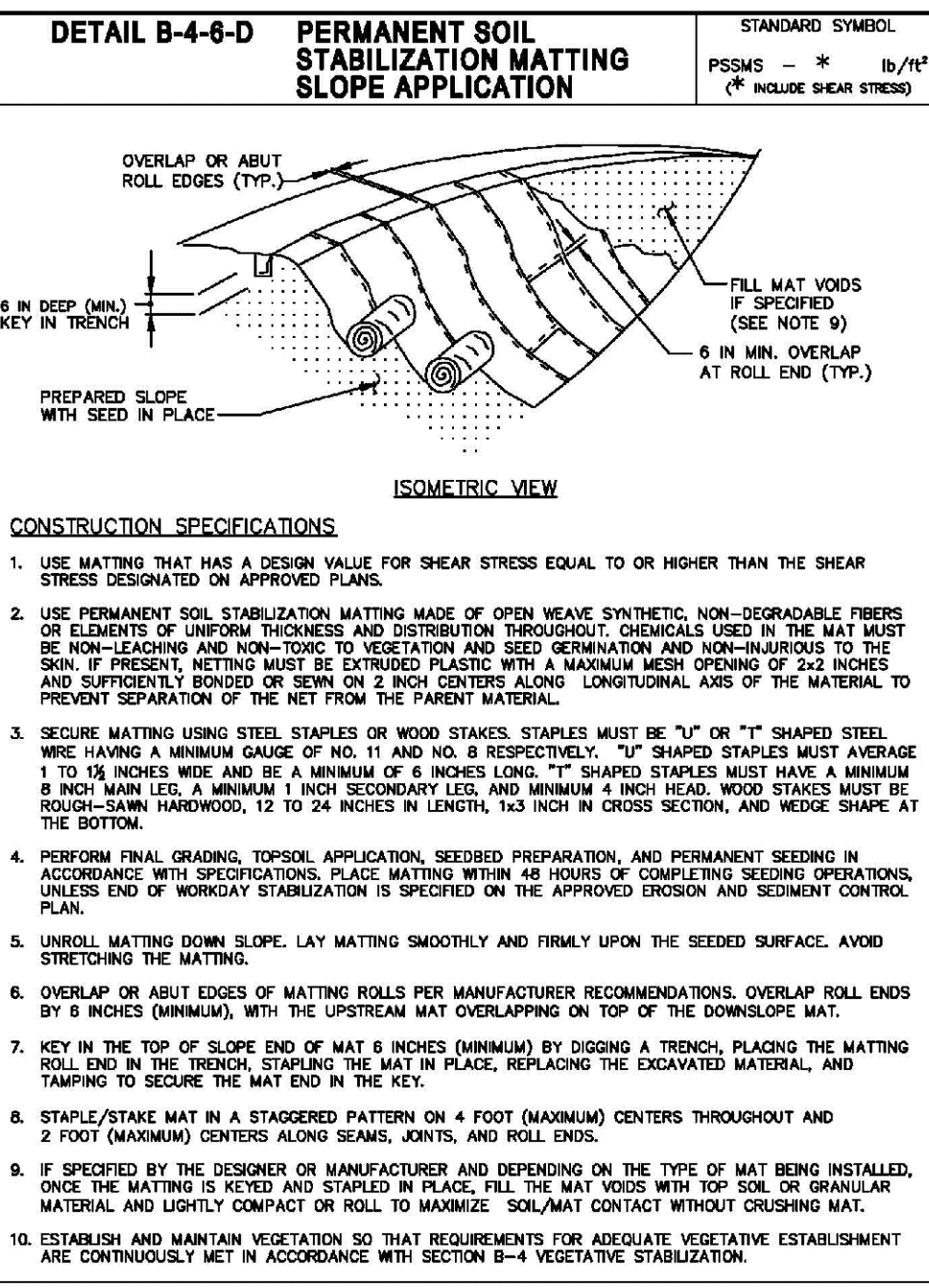
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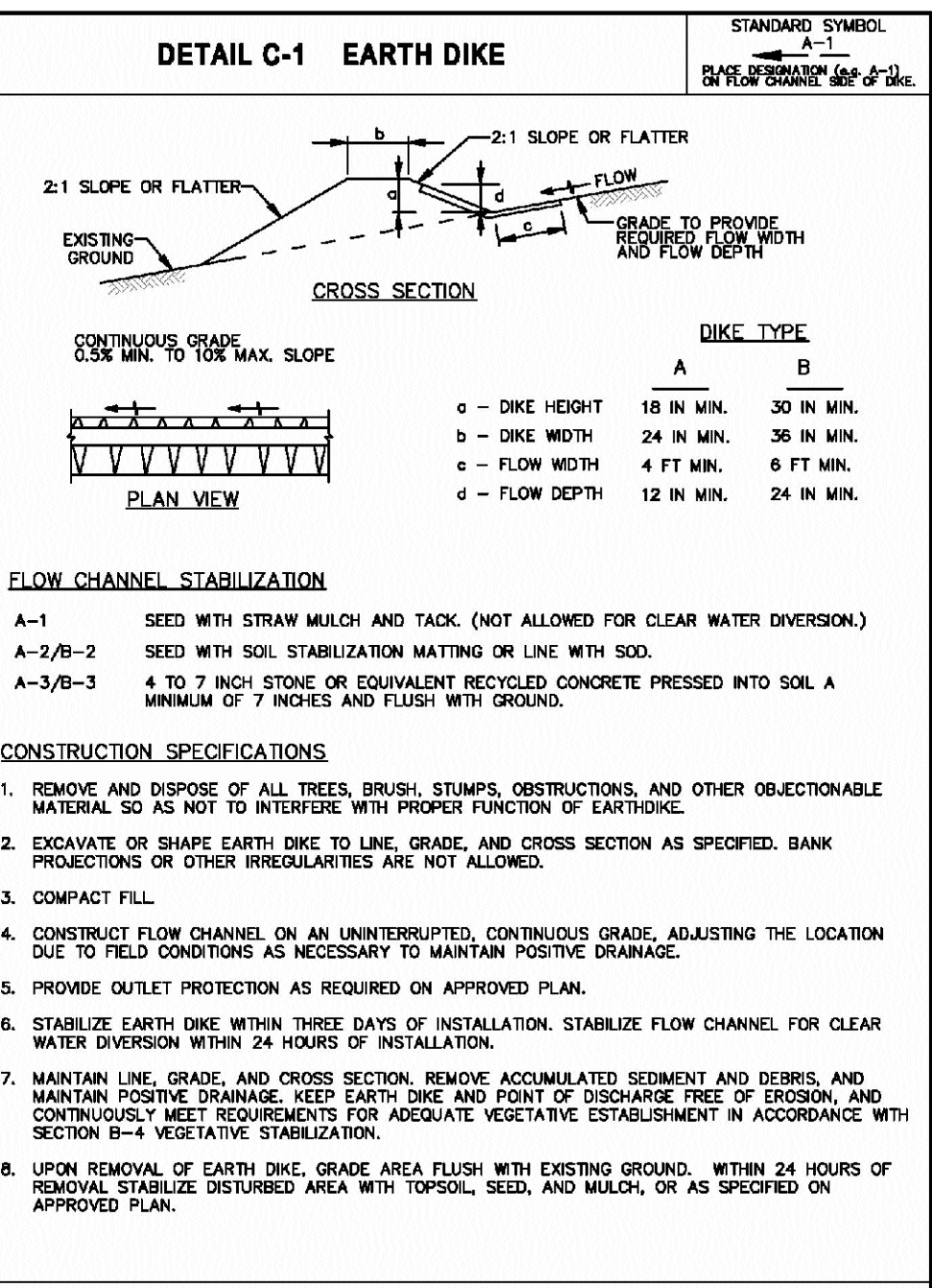
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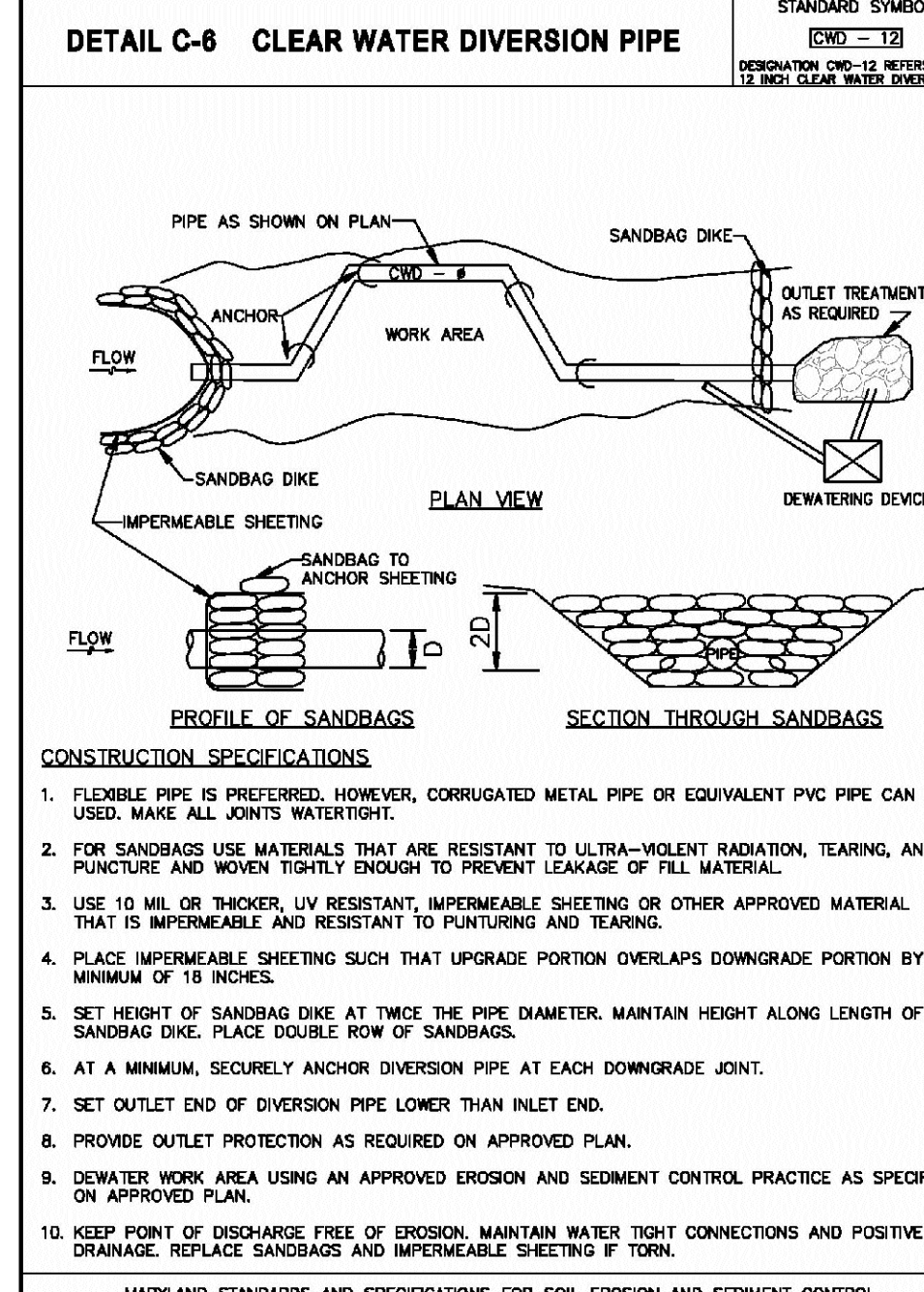
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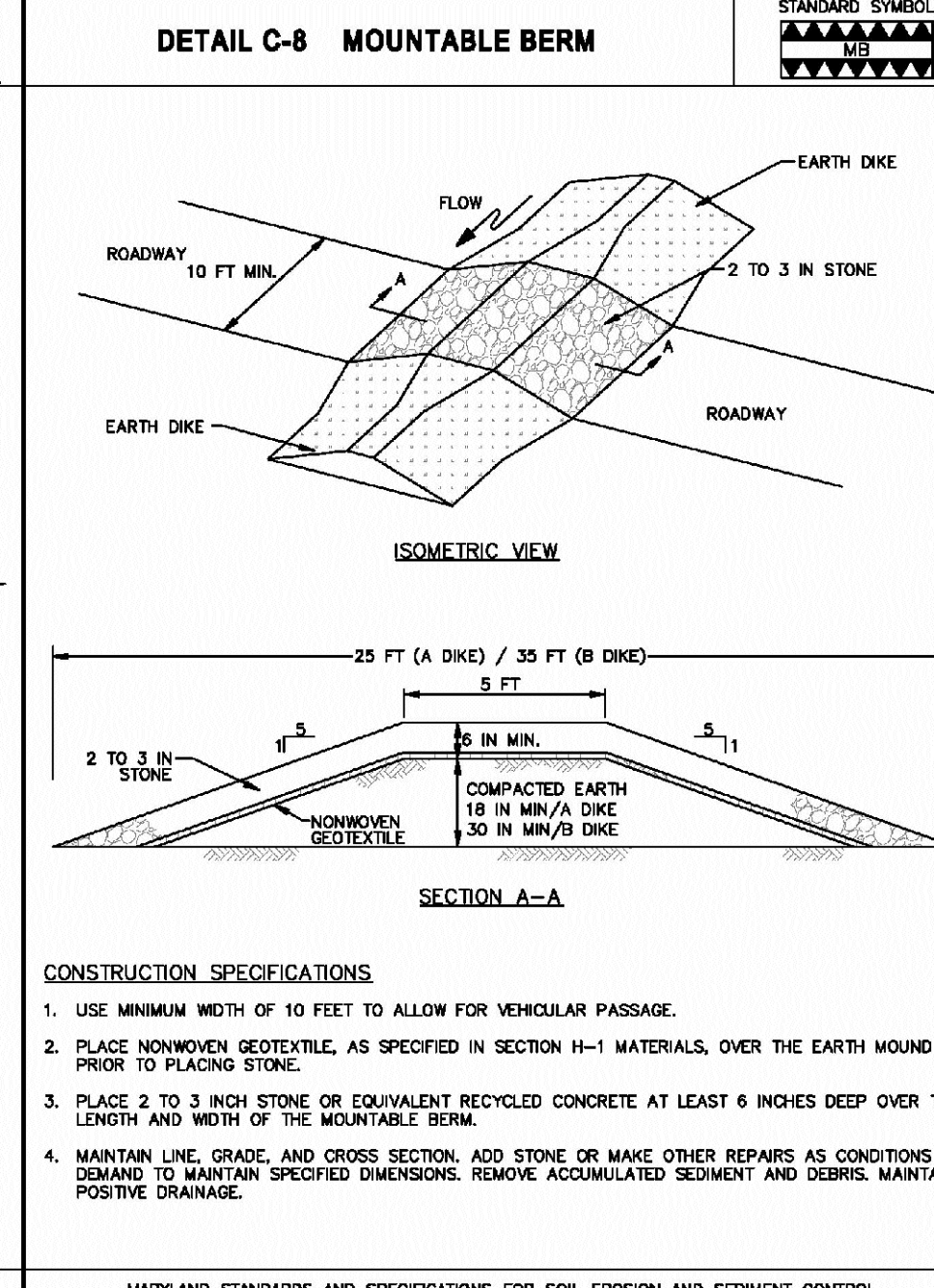
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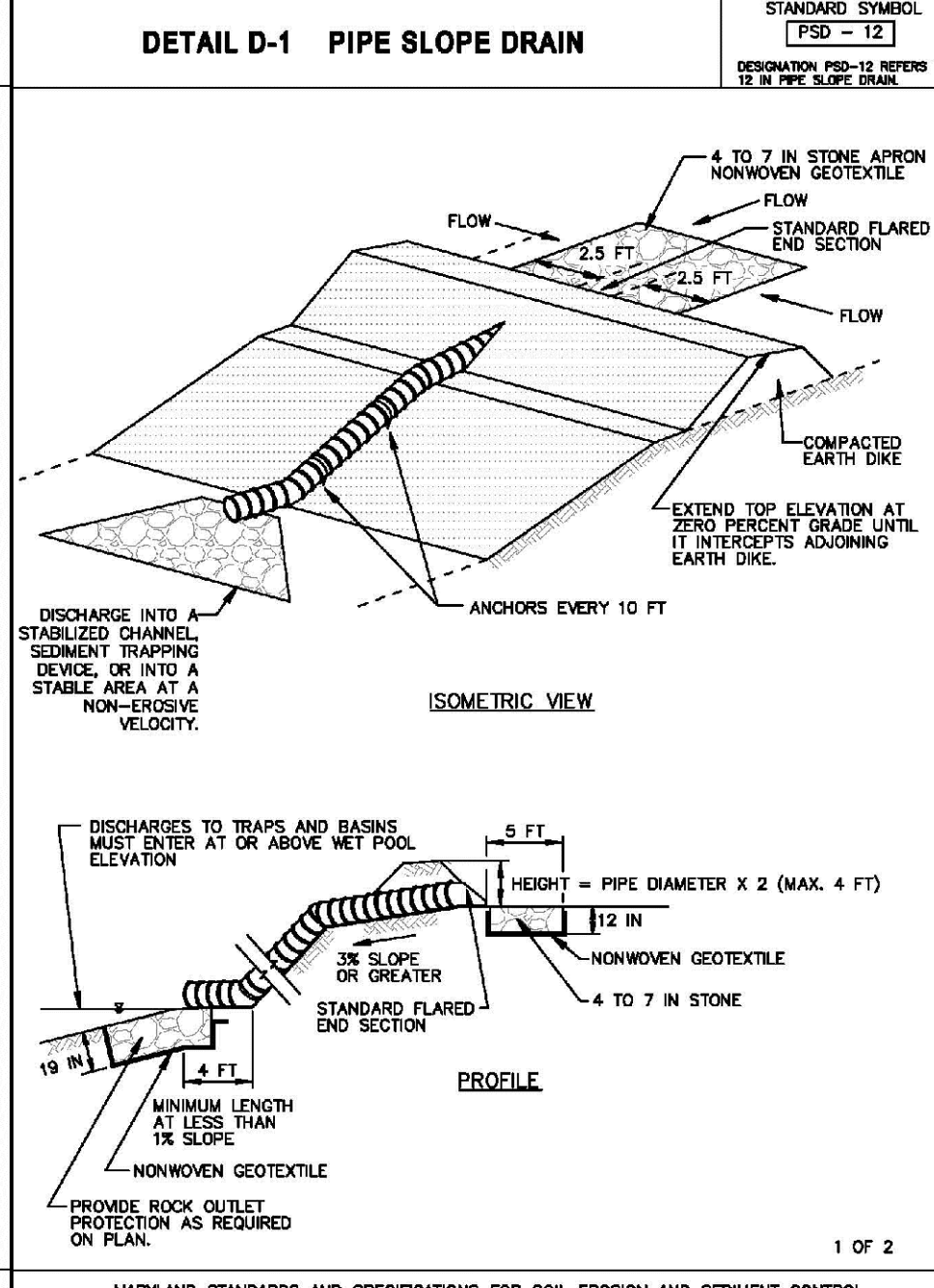
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U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011	MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE 2011



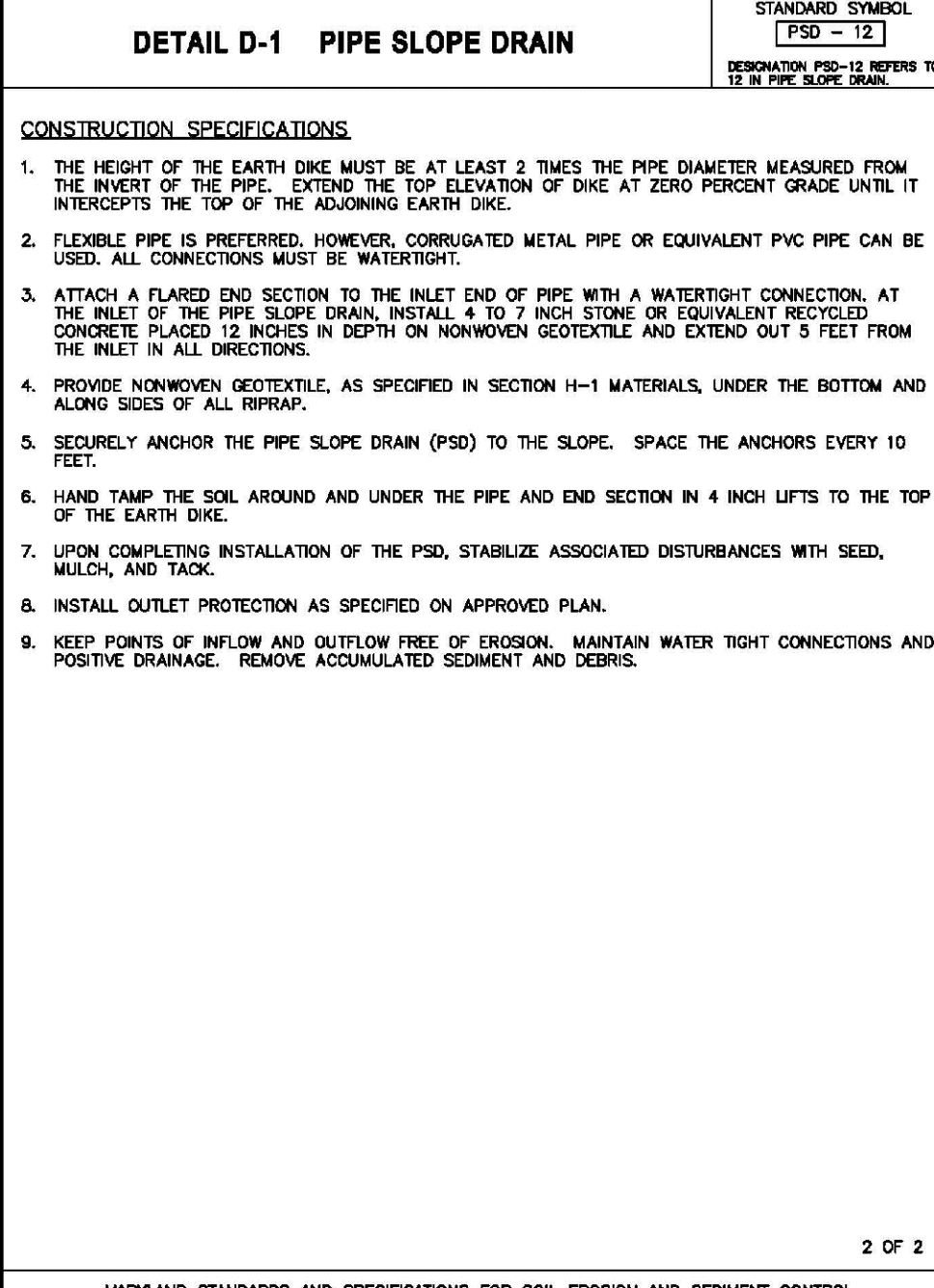
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U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011	MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE 2011



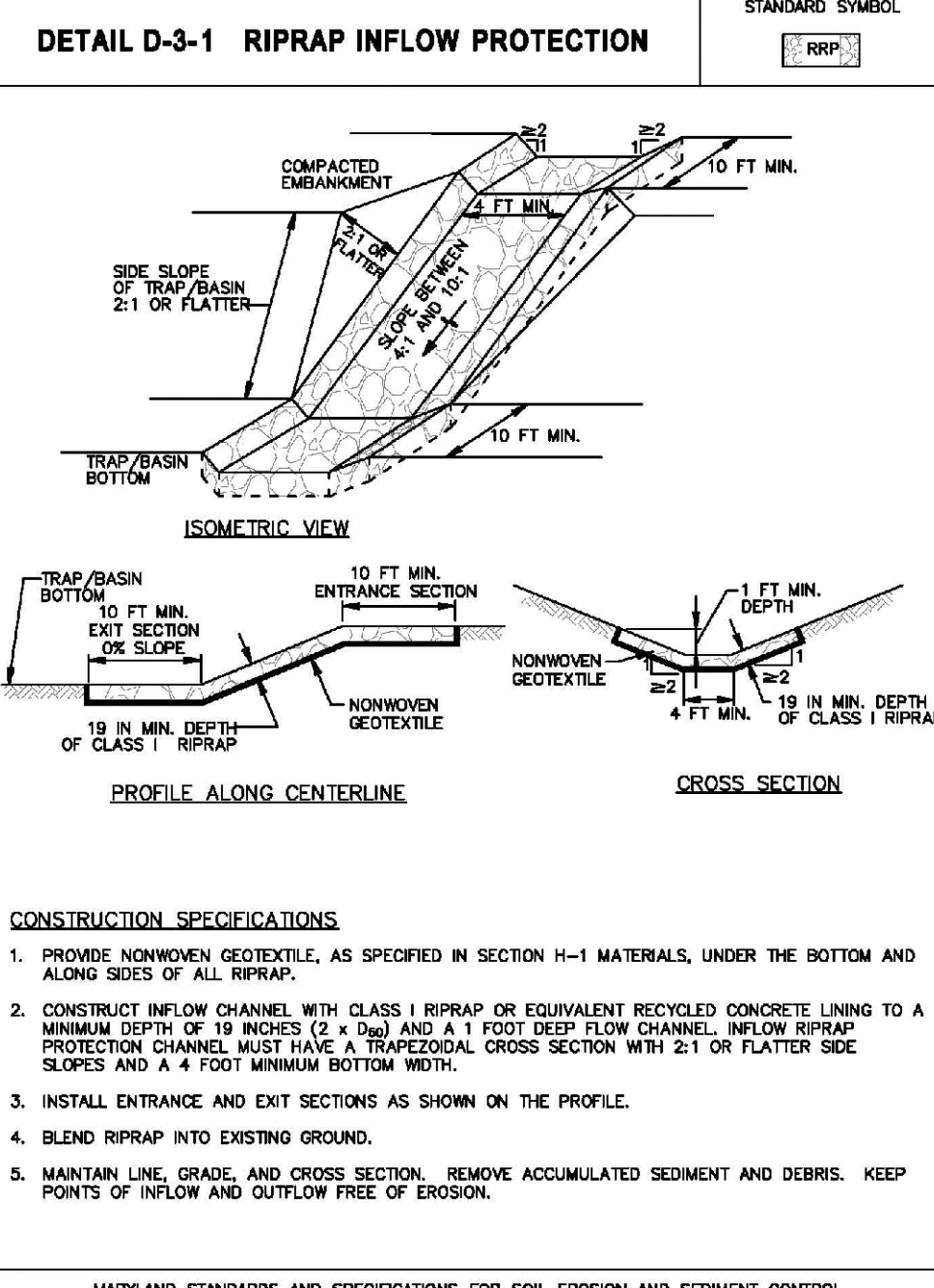
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U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011	MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE 2011



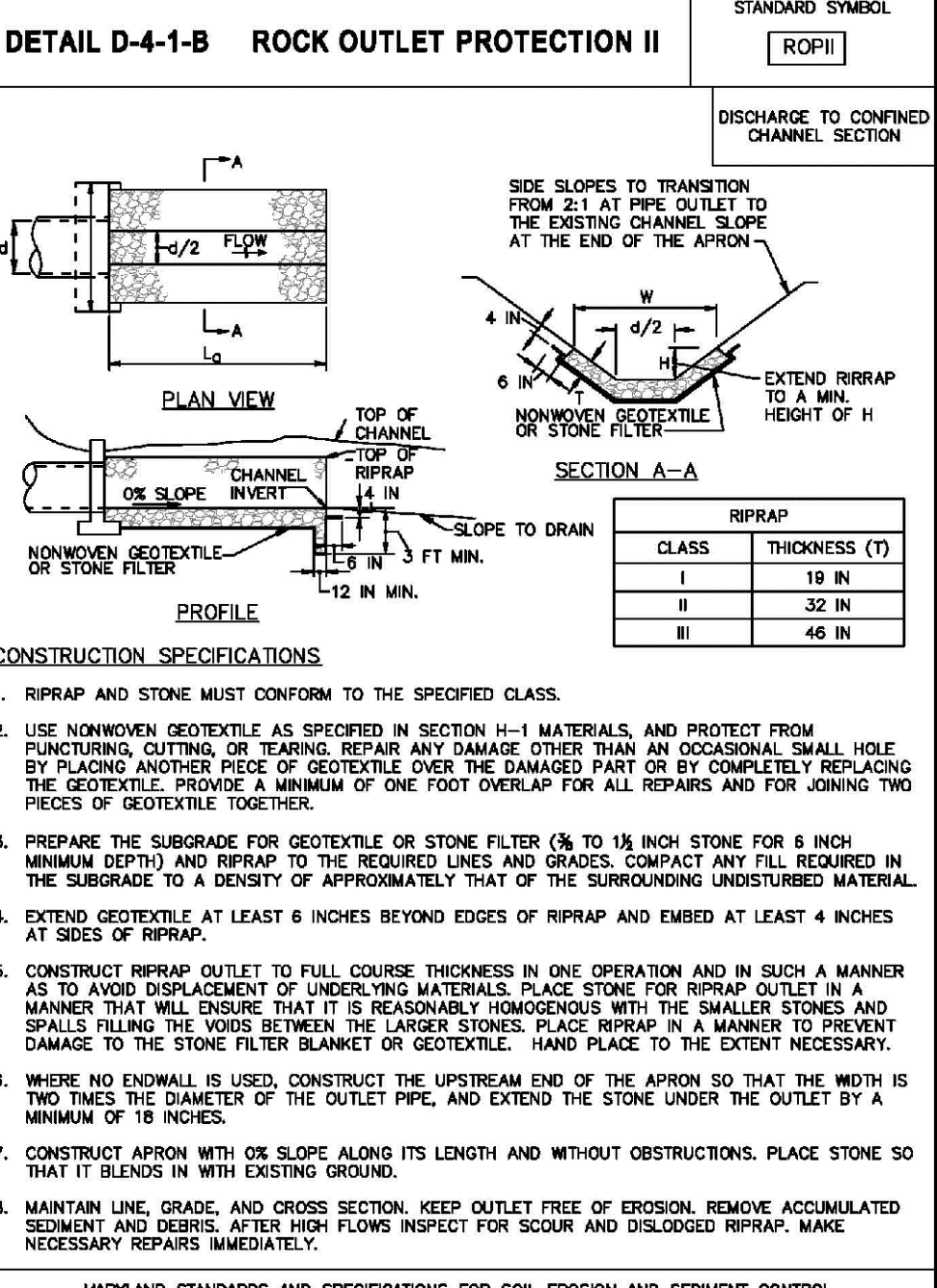
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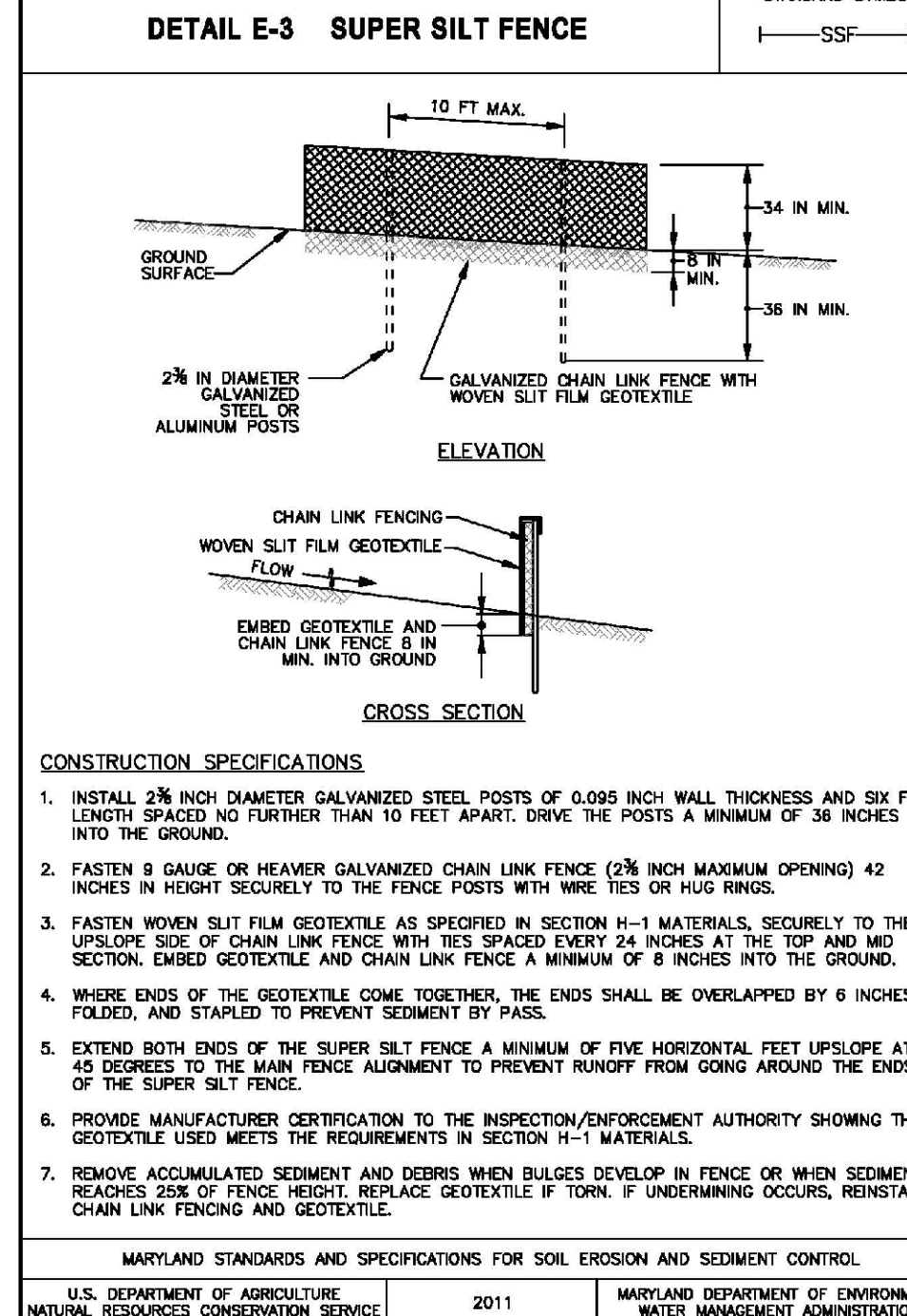
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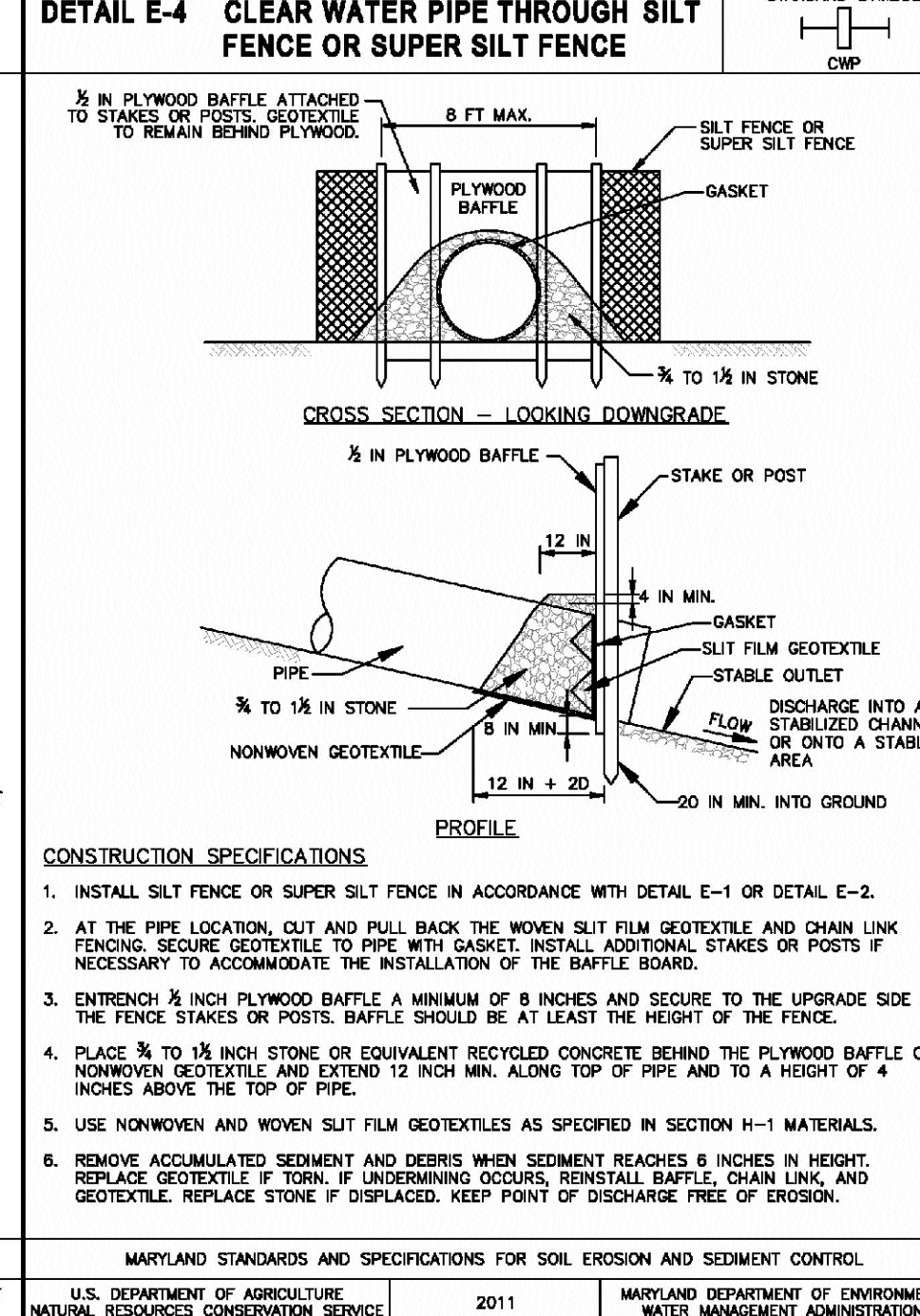
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U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011	MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE 2011



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U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011	MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE 2011



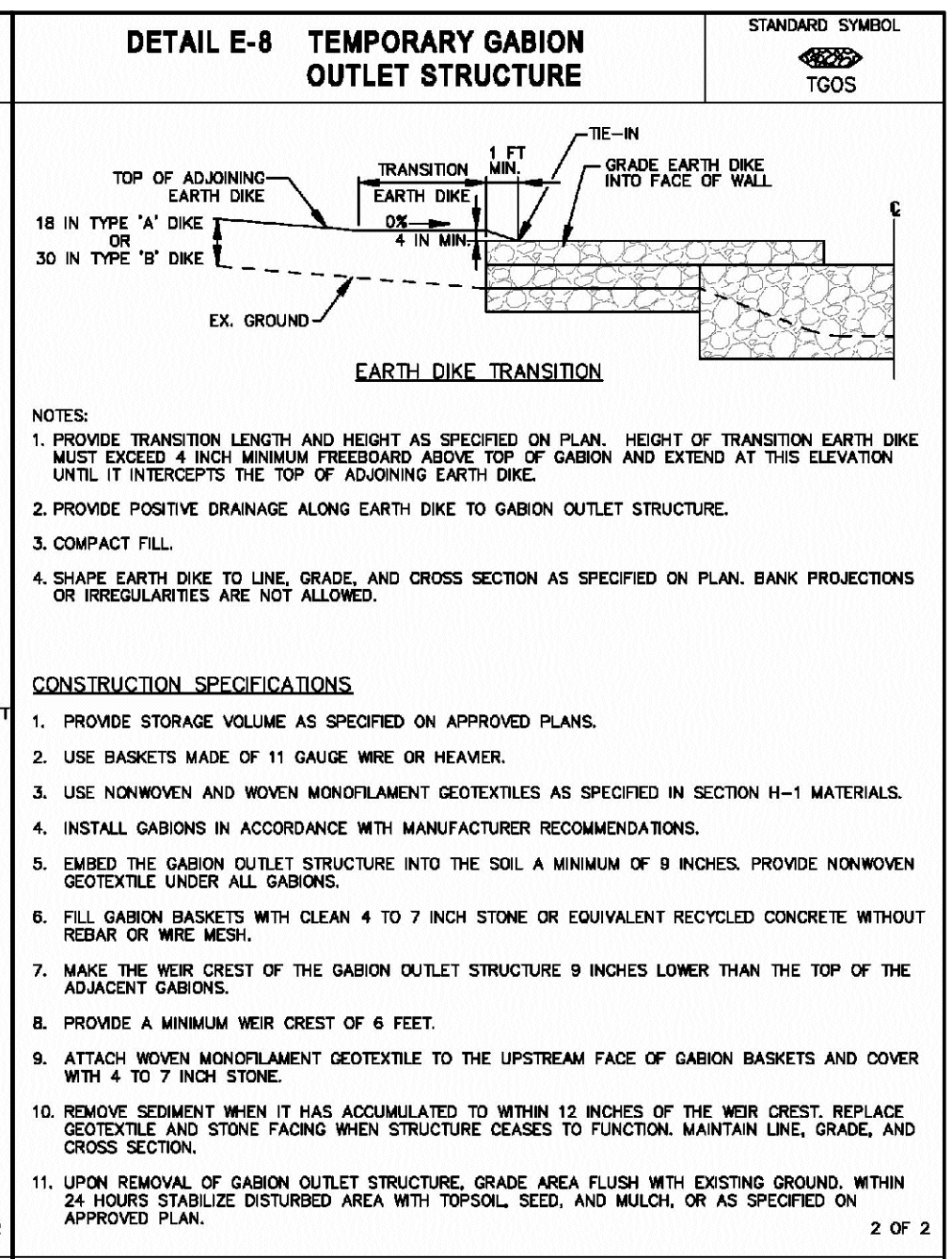
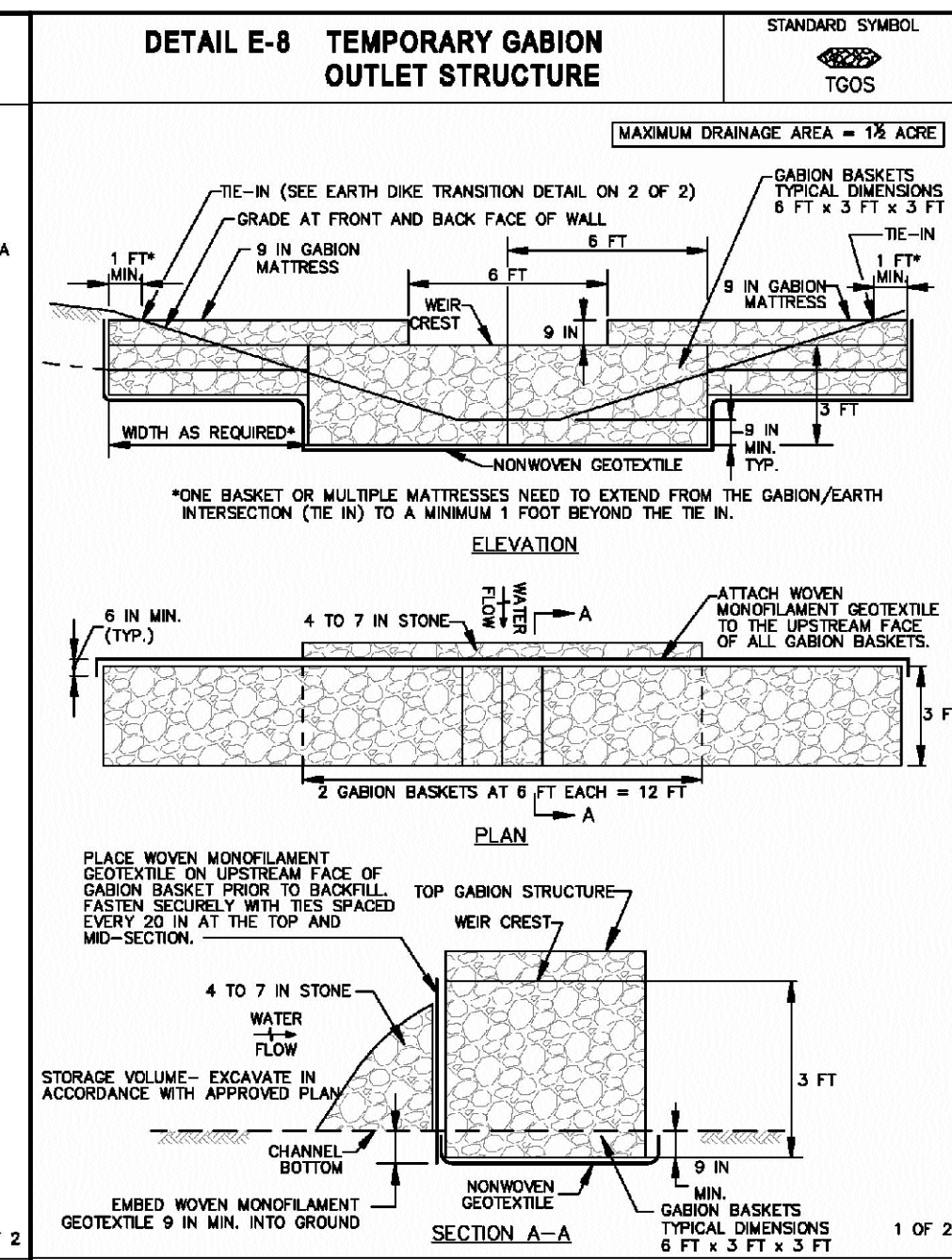
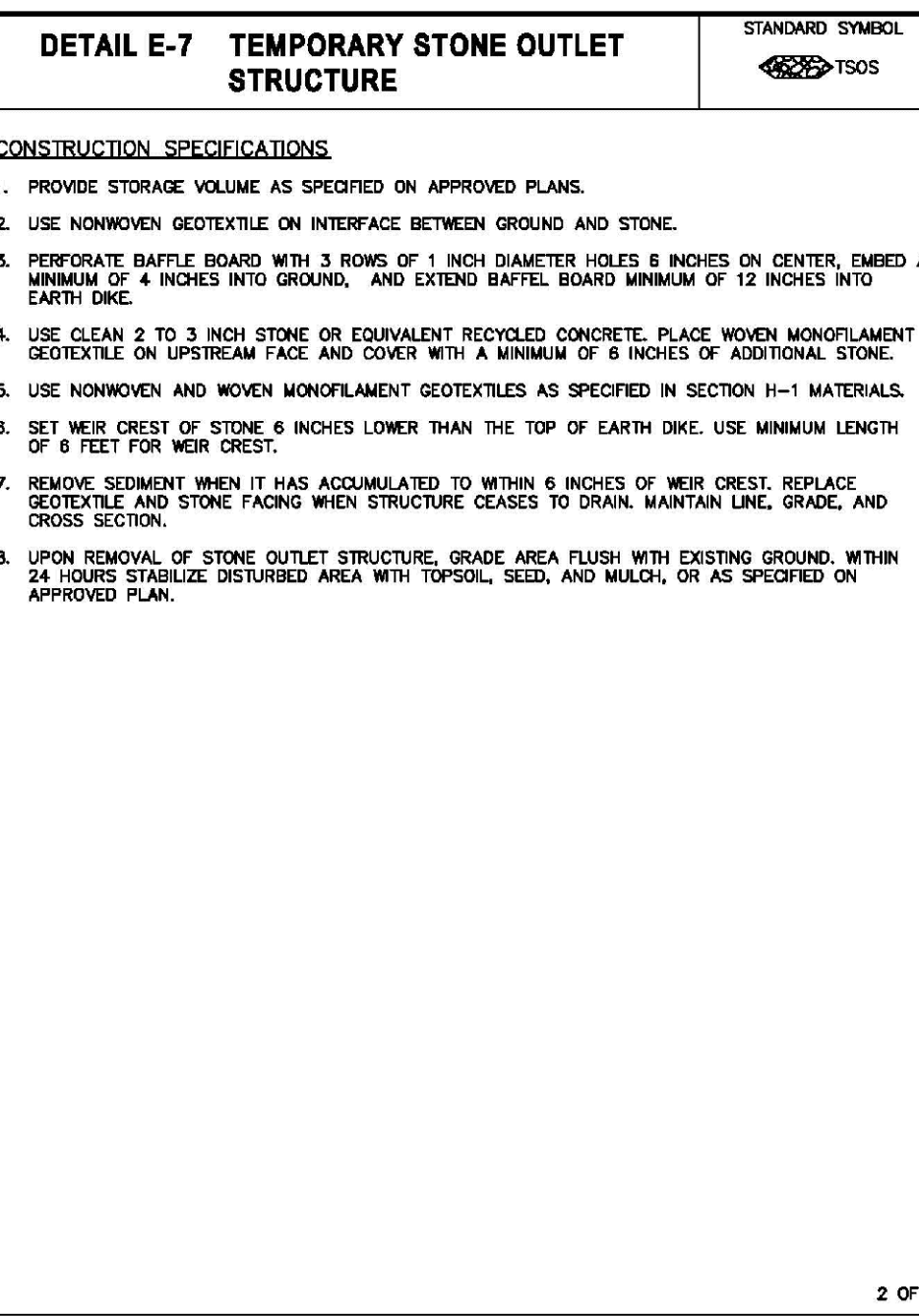
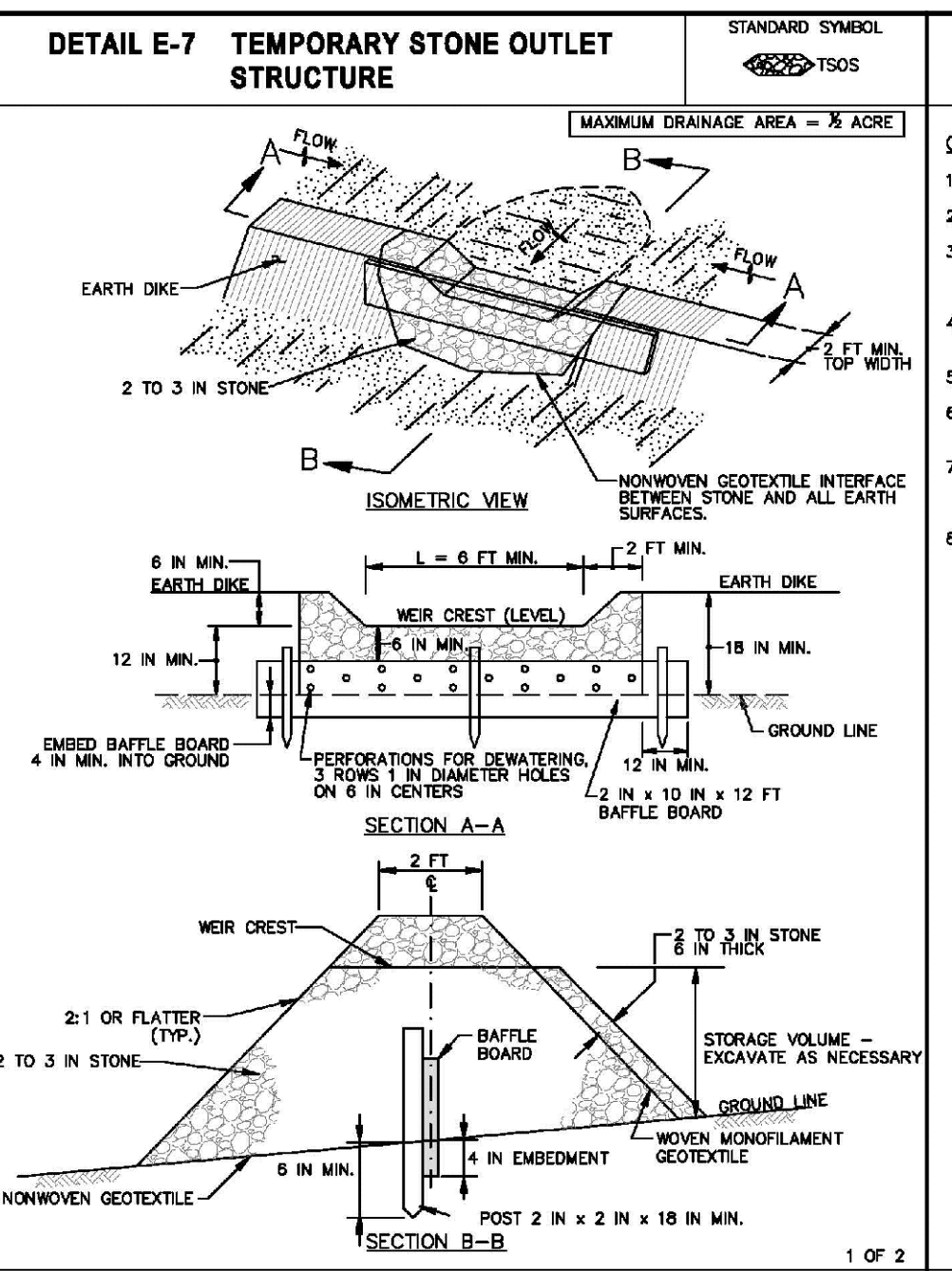
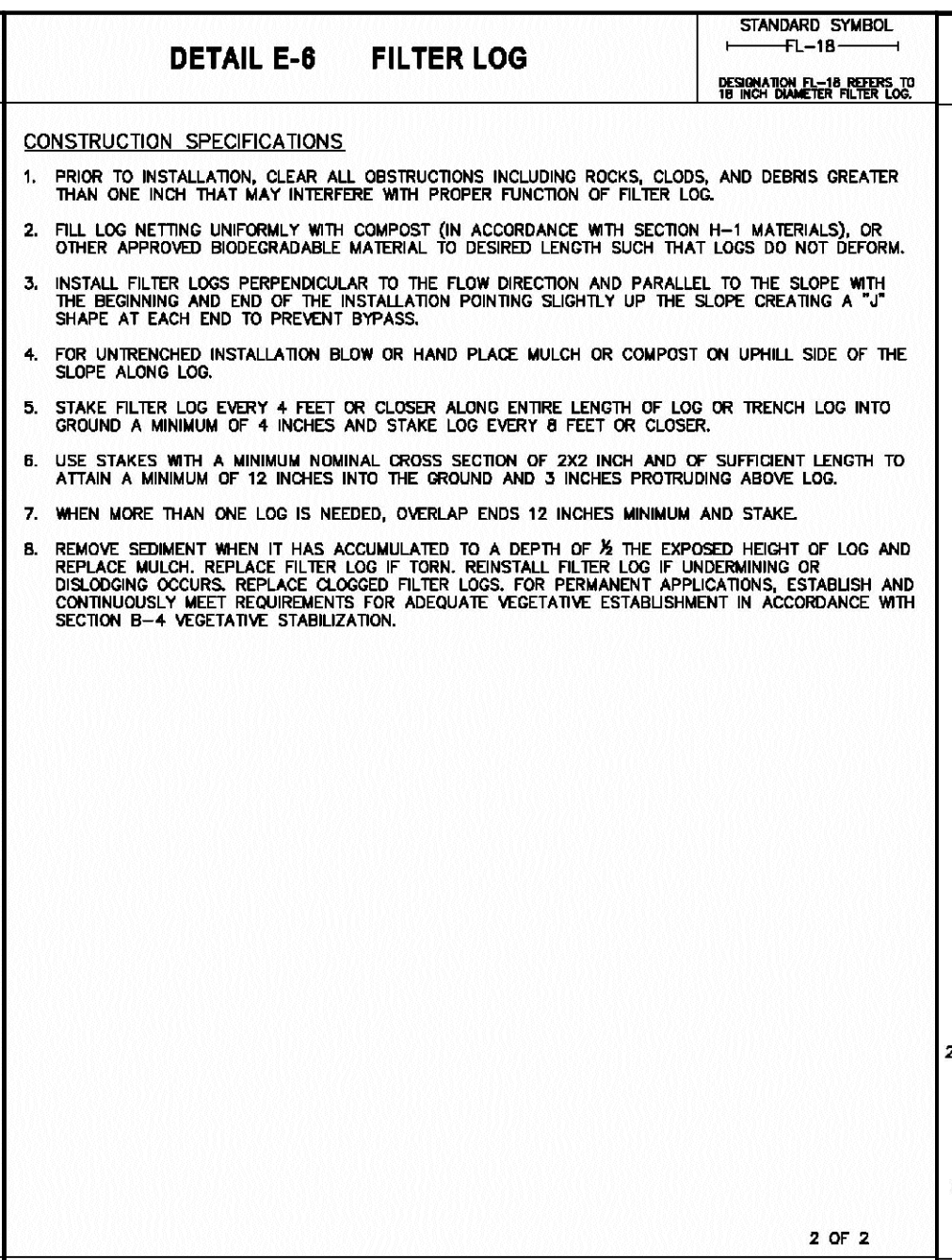
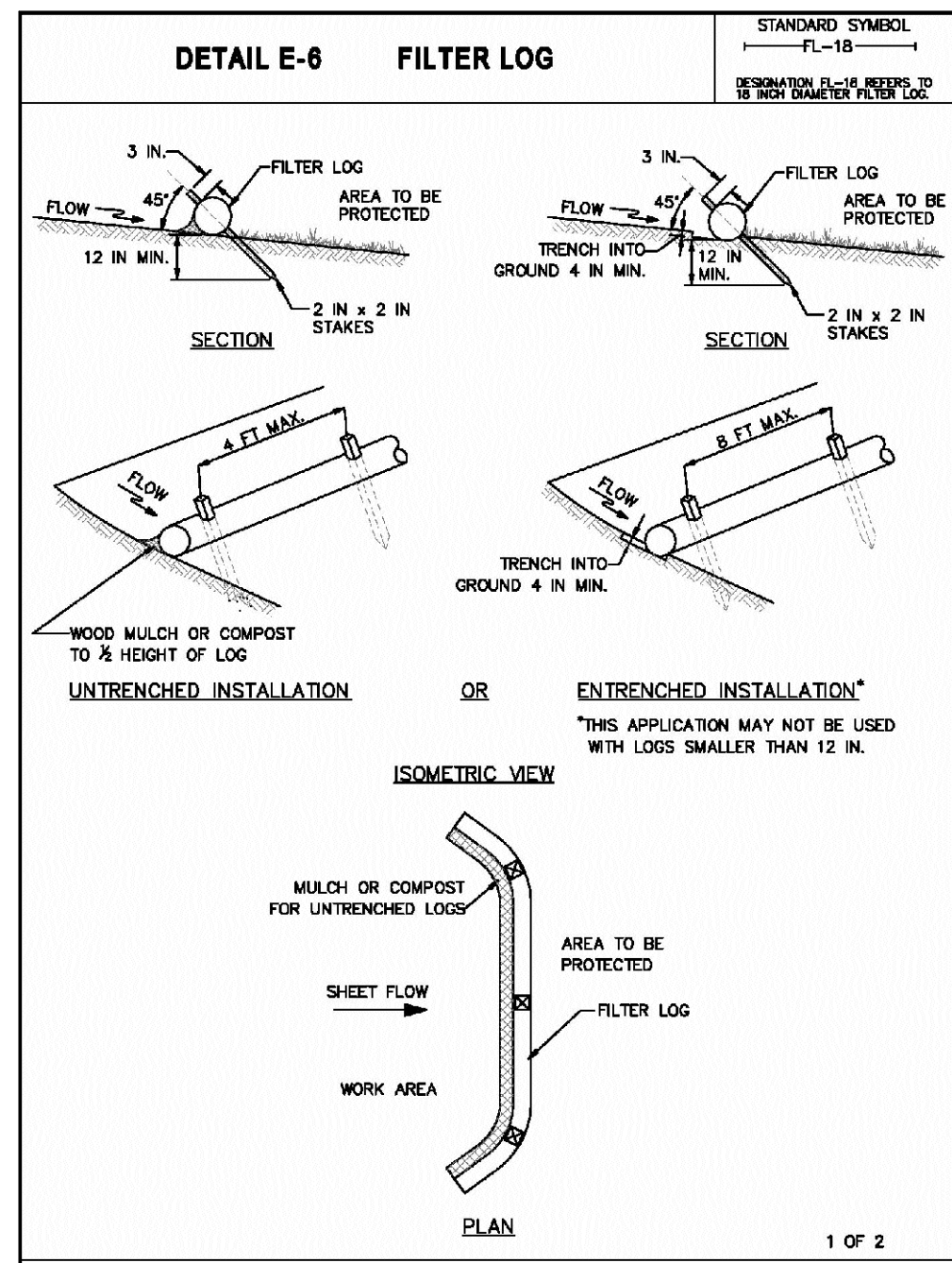
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U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 2011	MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE 2011



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90% DESIGN PLANS - NOT FOR CONSTRUCTION  
 MONTGOMERY COUNTY, MARYLAND  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 GUIDELINE REMEDIATION DESIGN  
 EROSION AND SEDIMENT CONTROL DETAILS  
 PROJECT NUMBER: 1564601  
 DATE: JULY 2020  
 SHEET: 104 OF 144  
 EA Engineering, Science, and Technology, Inc., PBC  
 Hunt Valley Center  
 225 Shopping Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000





MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.  
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, 2011

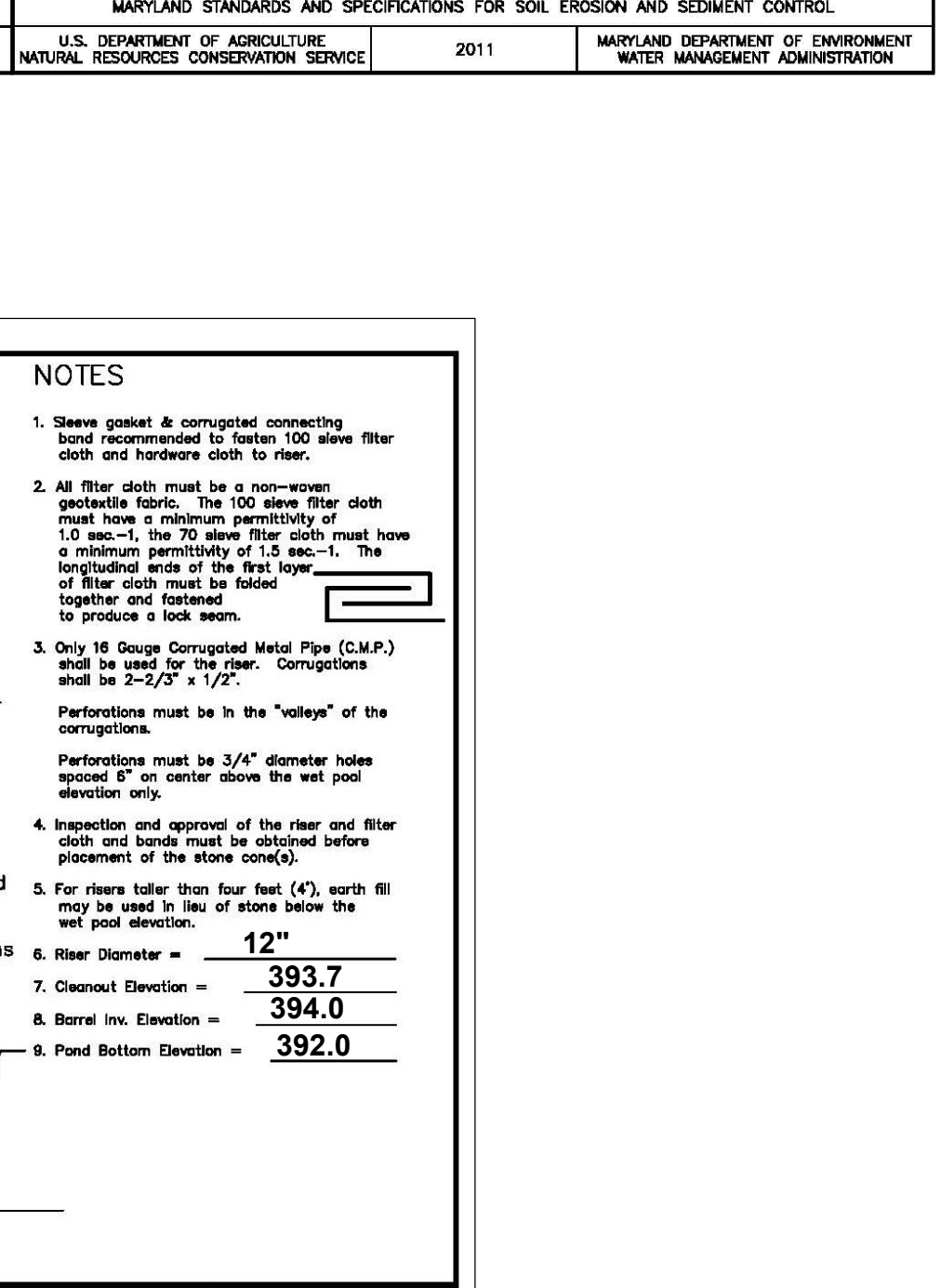
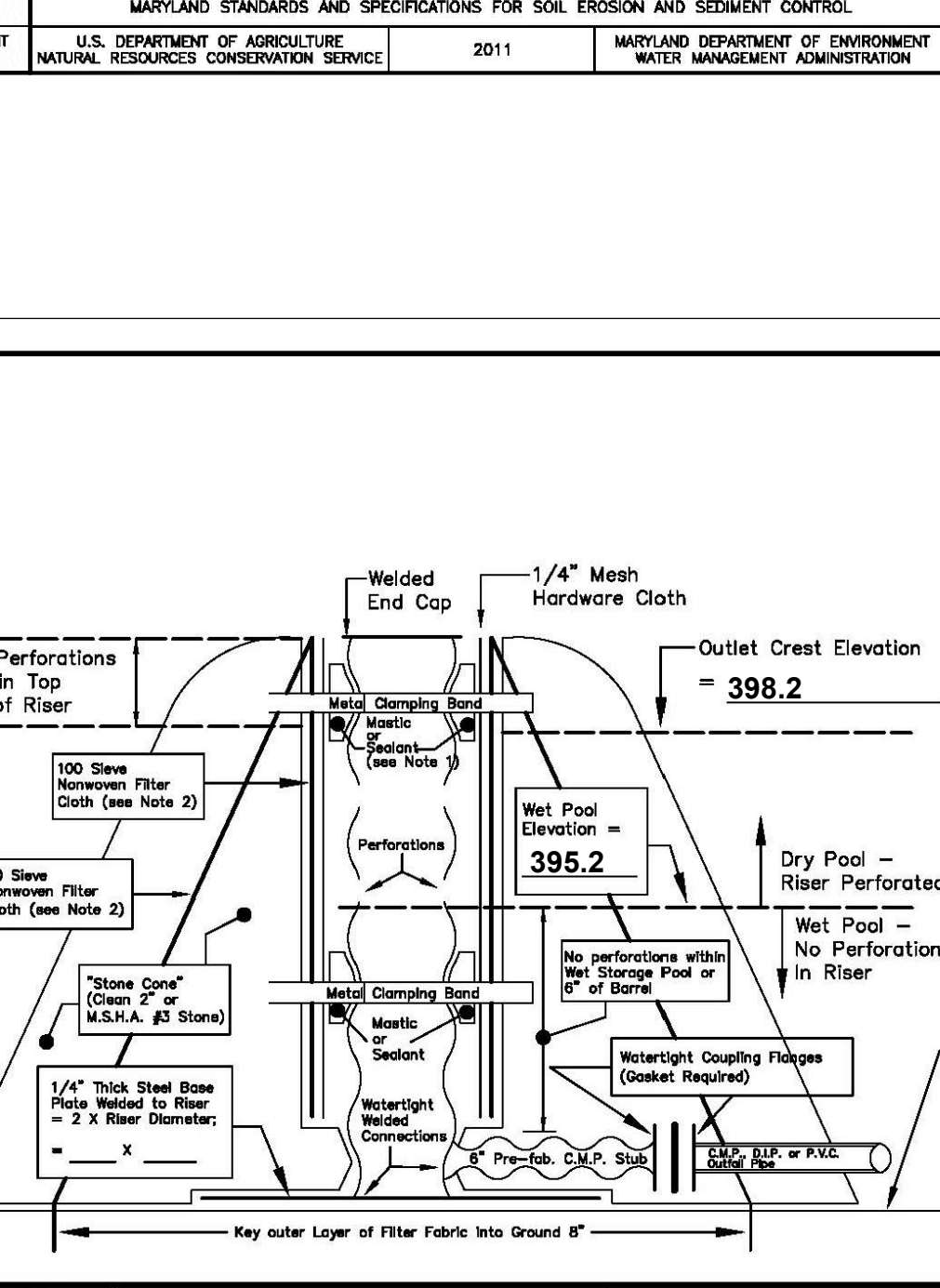
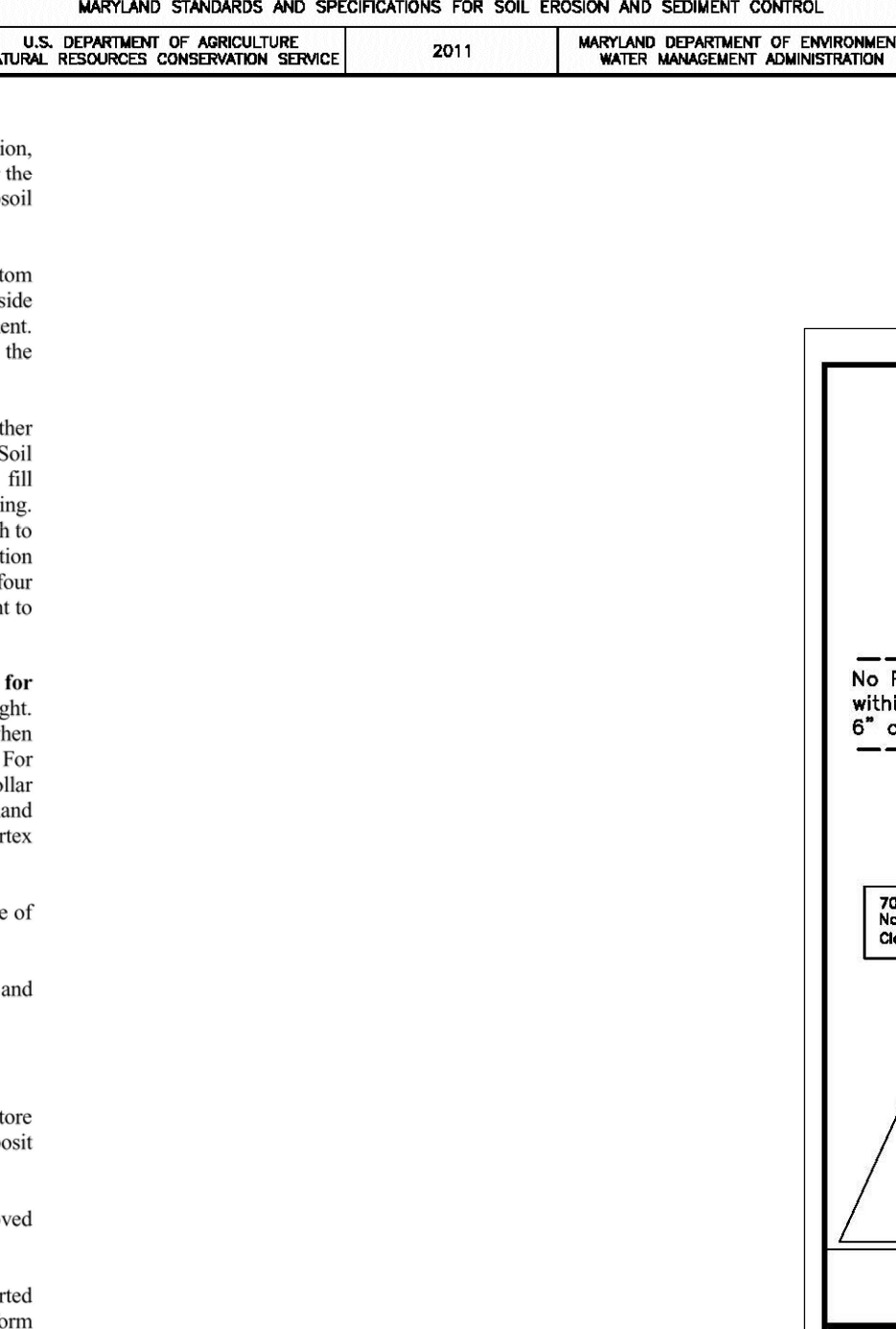
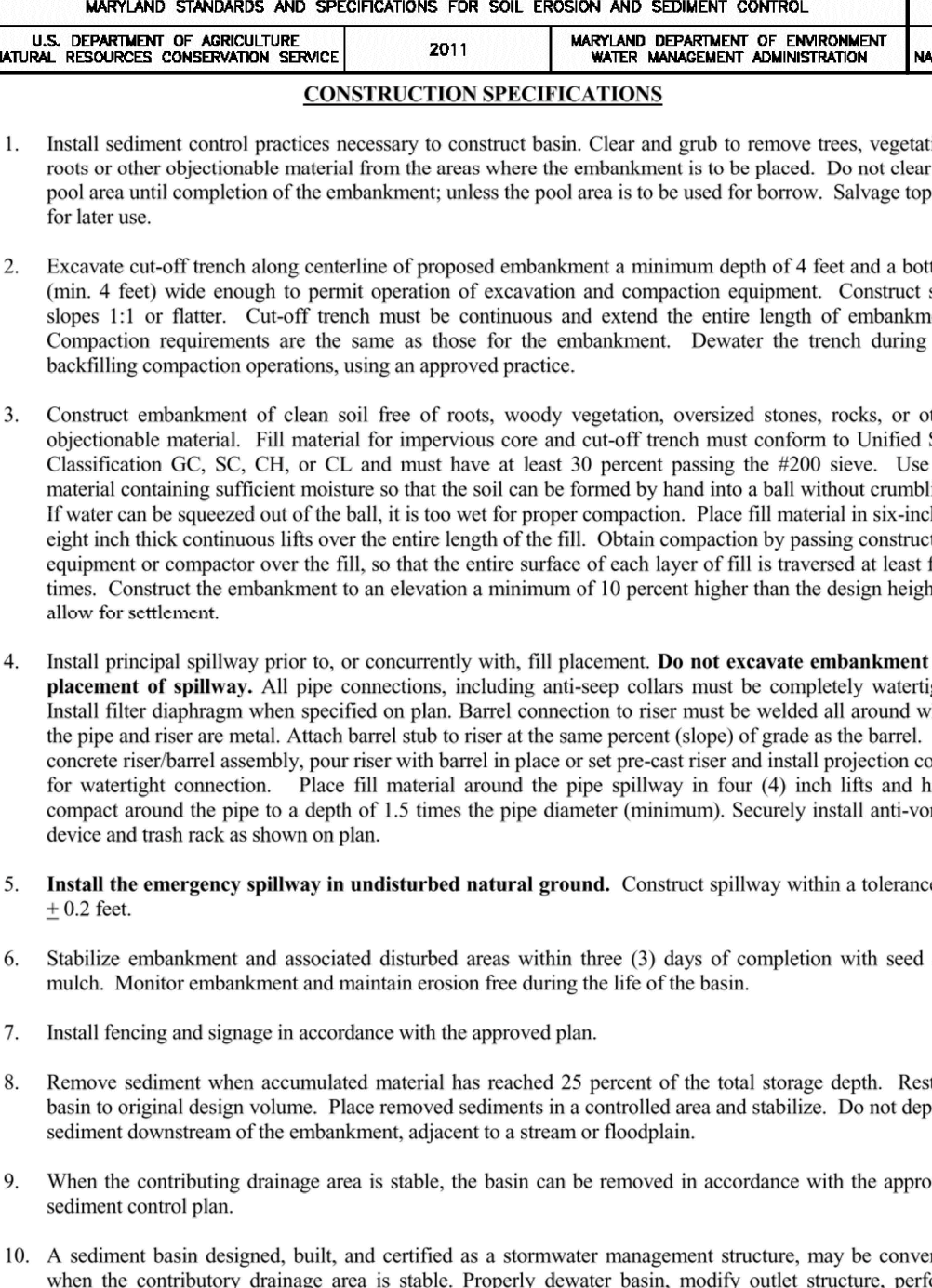
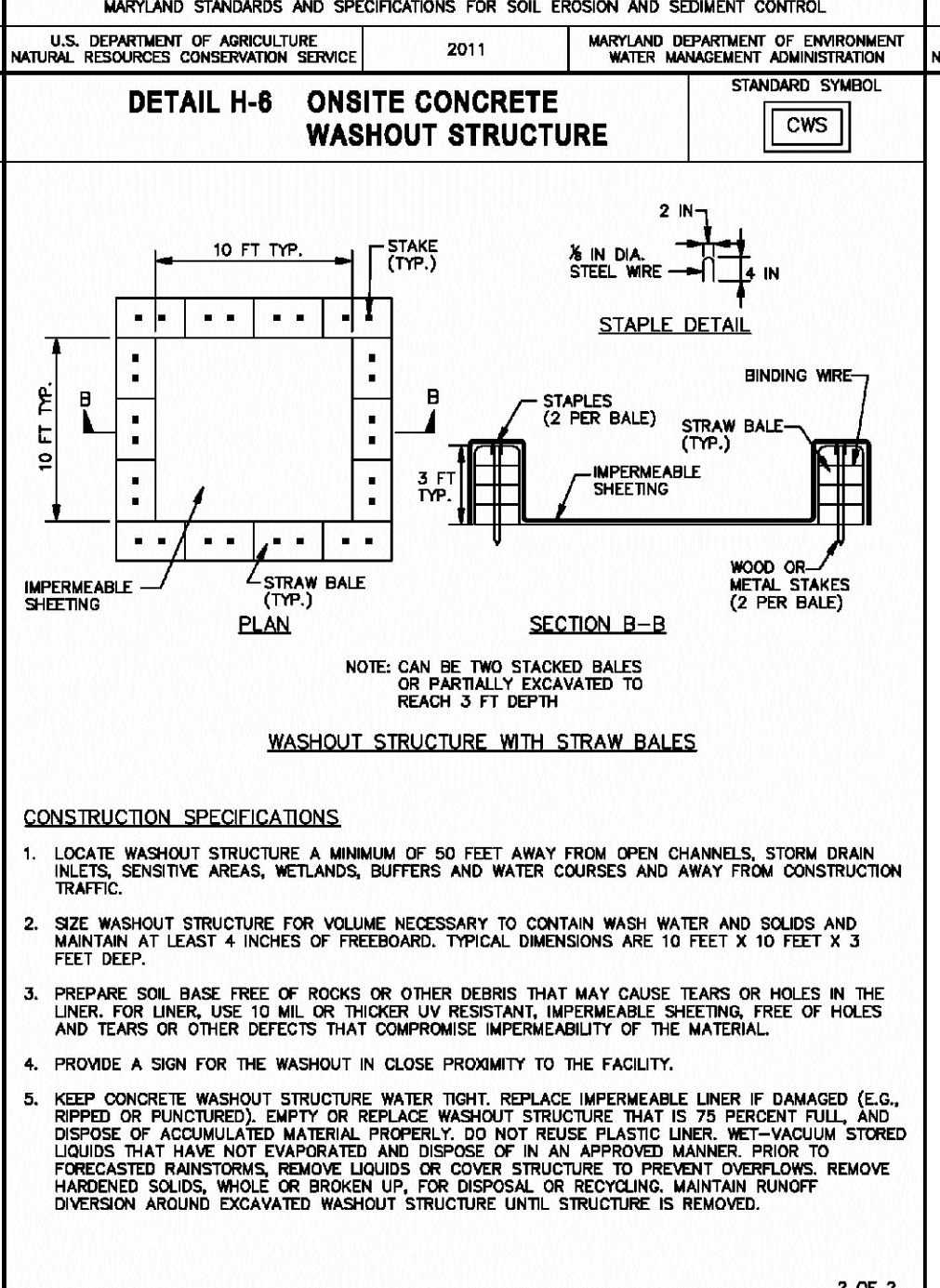
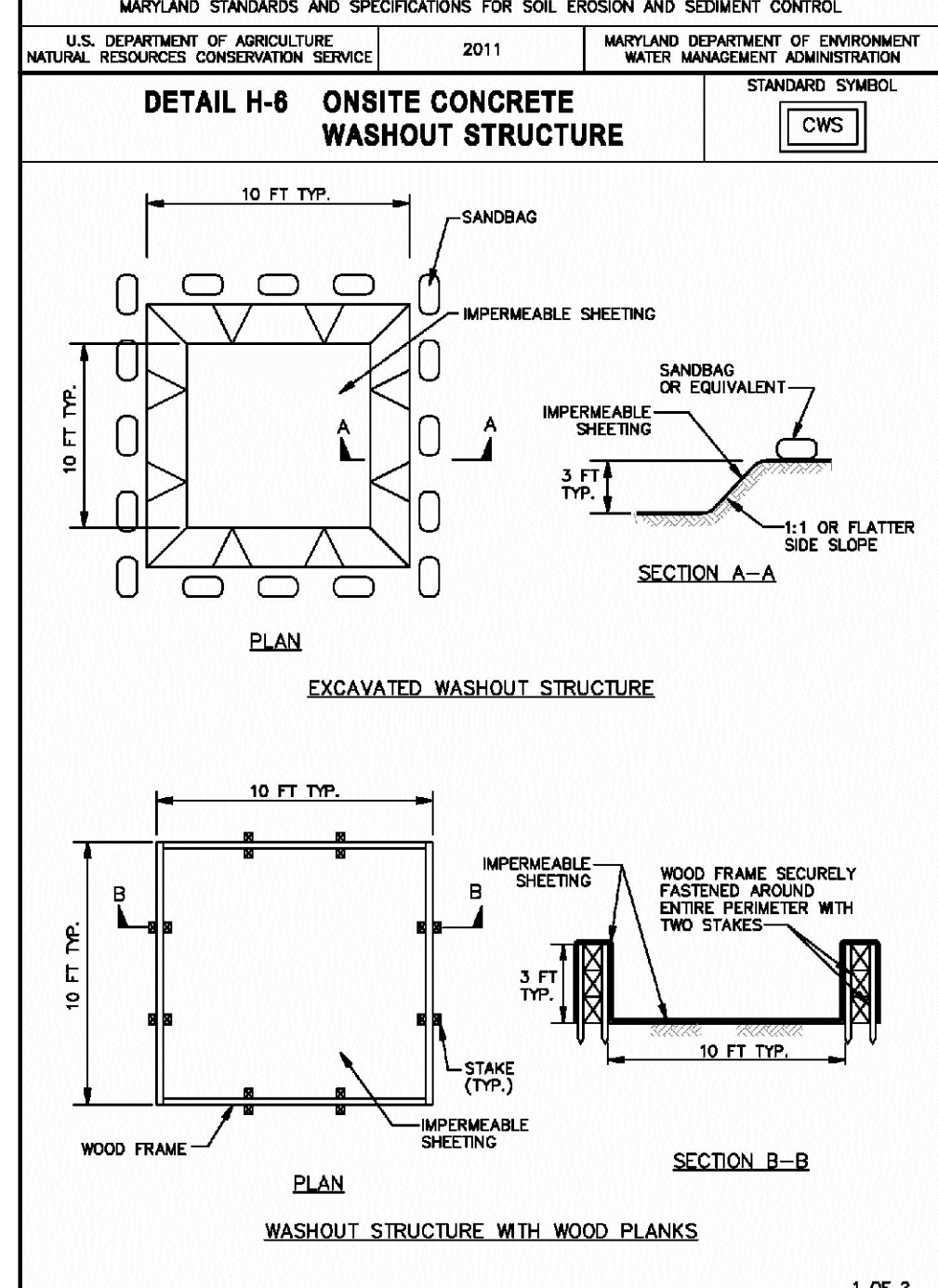
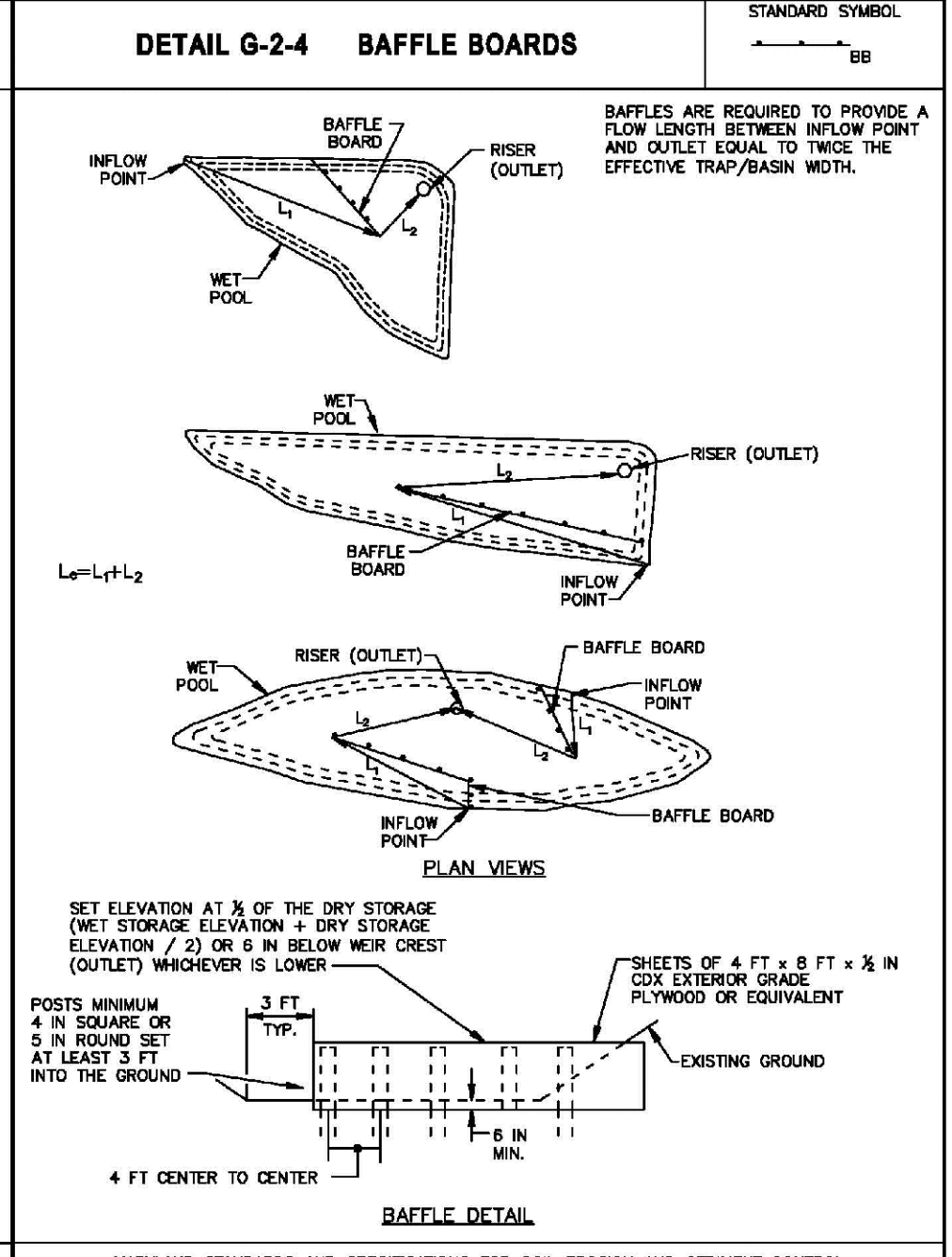
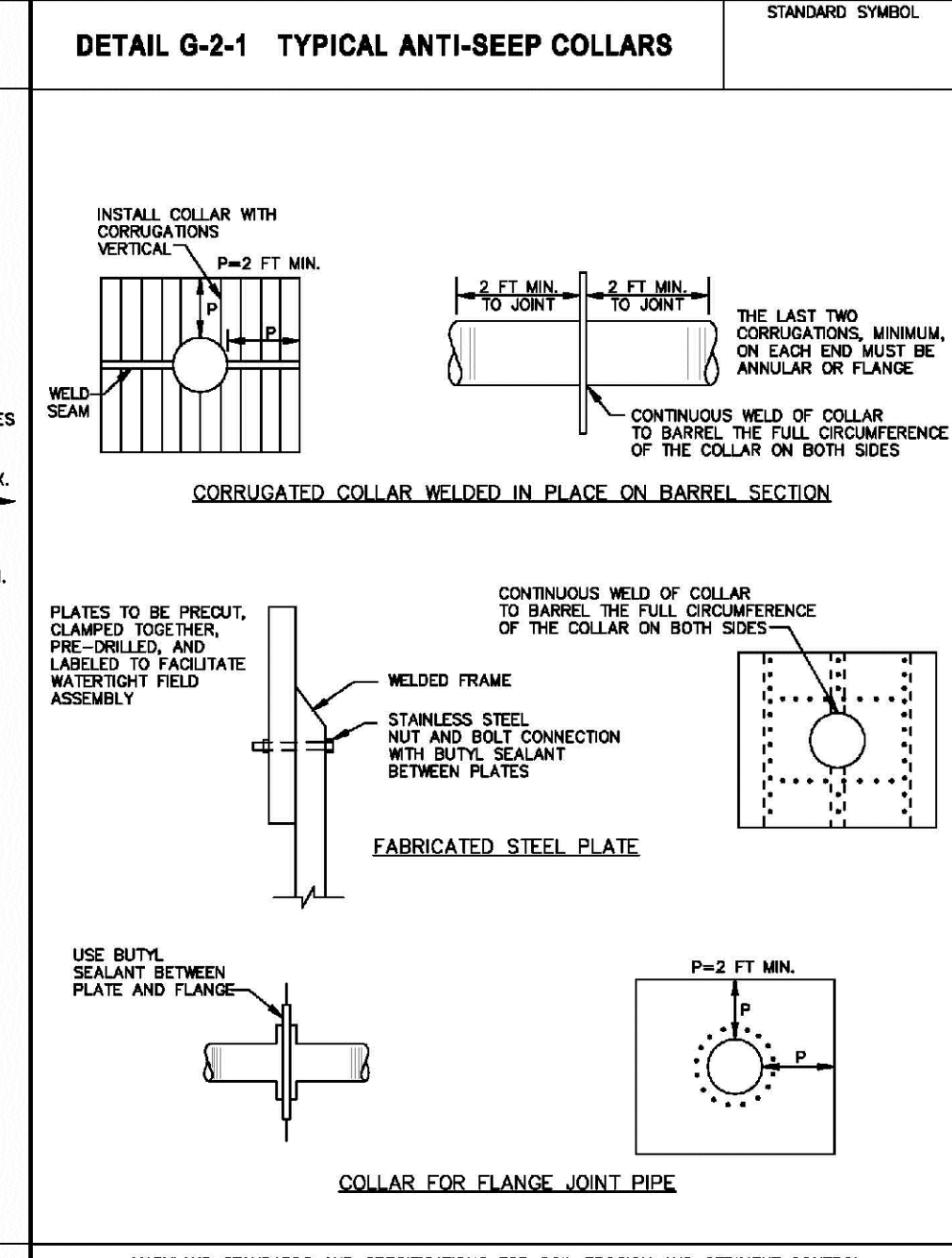
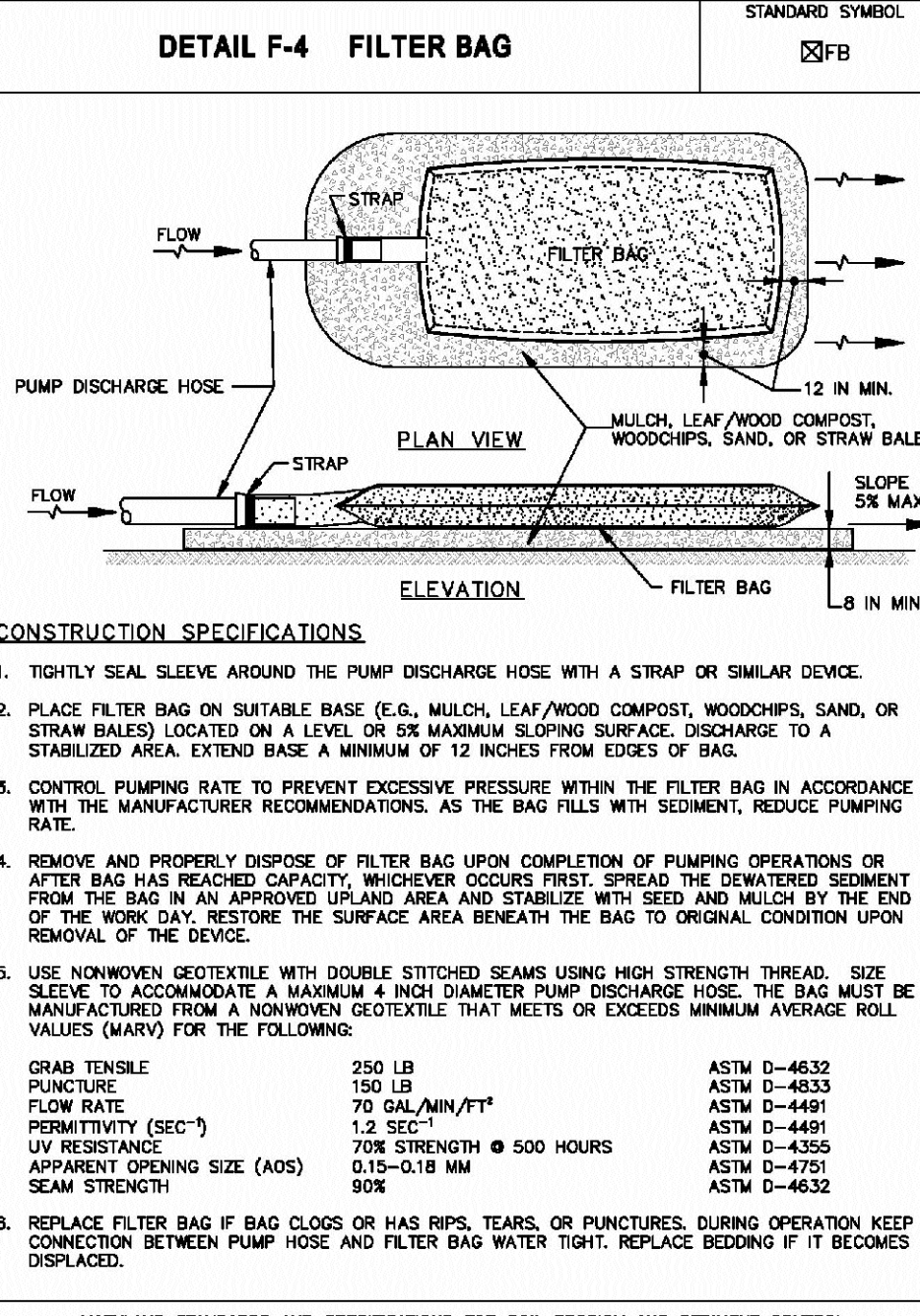
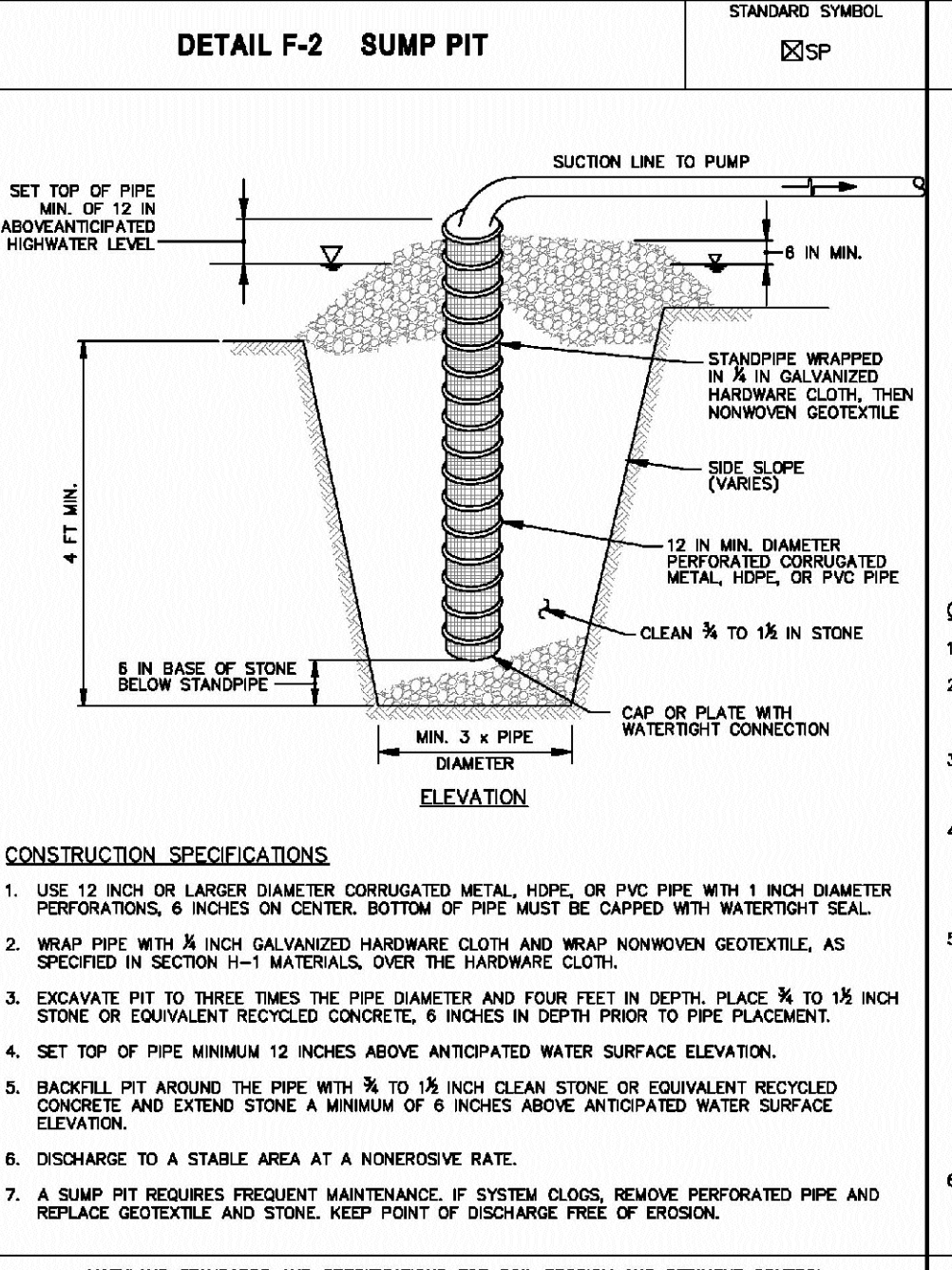
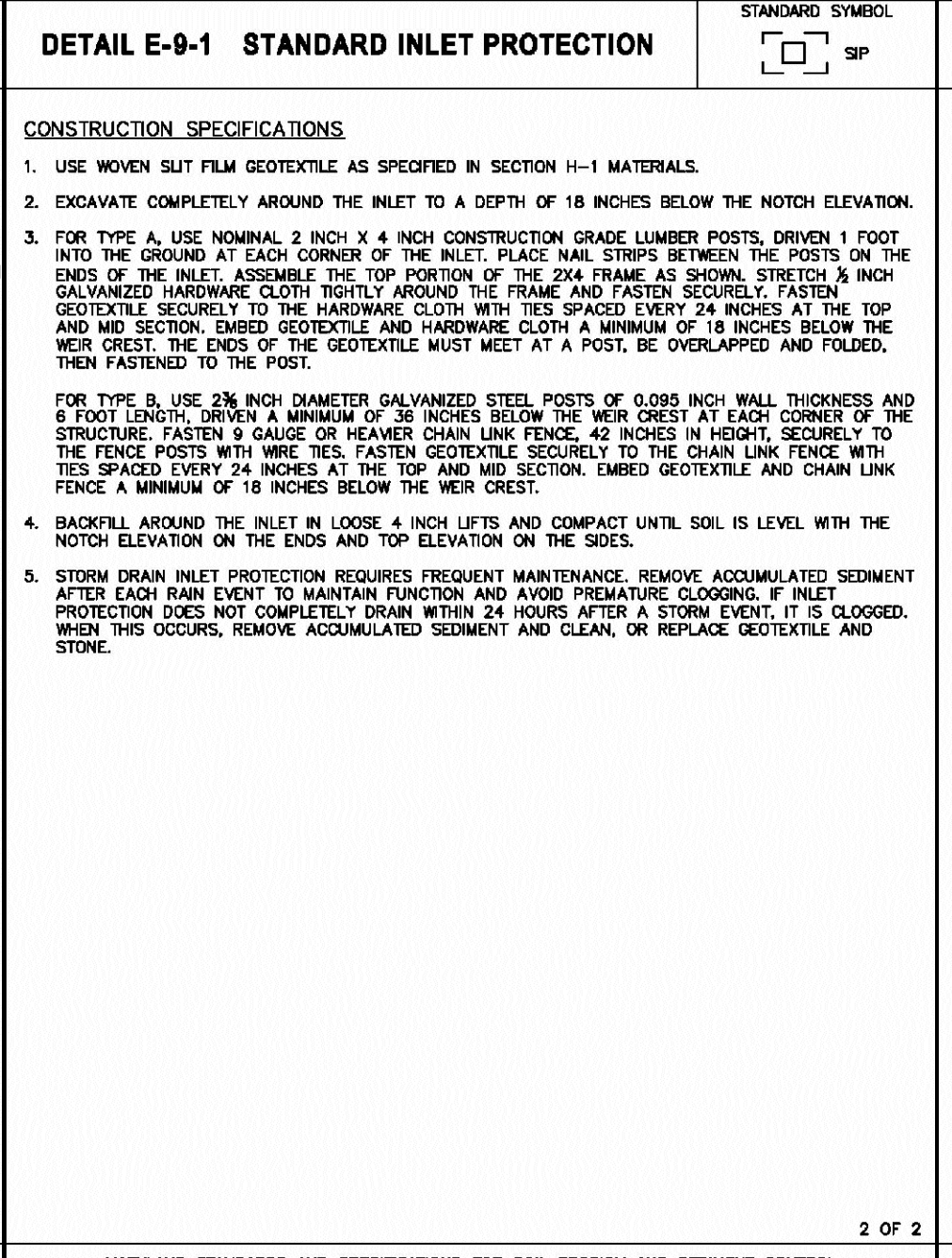
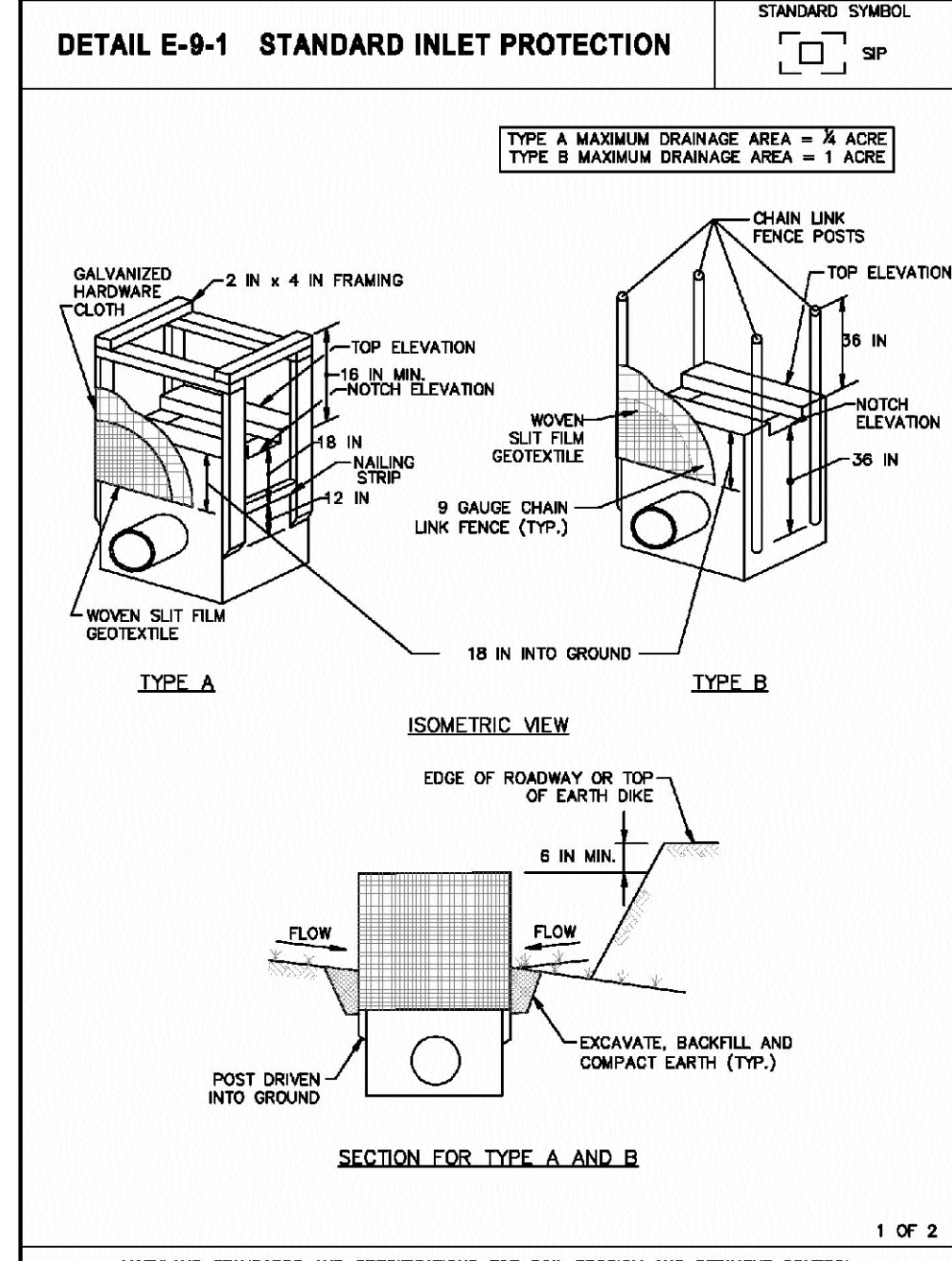
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U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, 2011

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U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, 2011

DESIGNED BY: KEF/SMB  
DRAWN BY: SMB  
CHECKED BY: LJO/GAT  
PROJECT MANAGER: MJG

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.

DATE: JULY 2020  
PROJECT NUMBER: 1564601  
SCALE: NONE

EA Engineering, Science, and Technology, Inc., PBC  
Hunt Valley Center, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JULY 2020  
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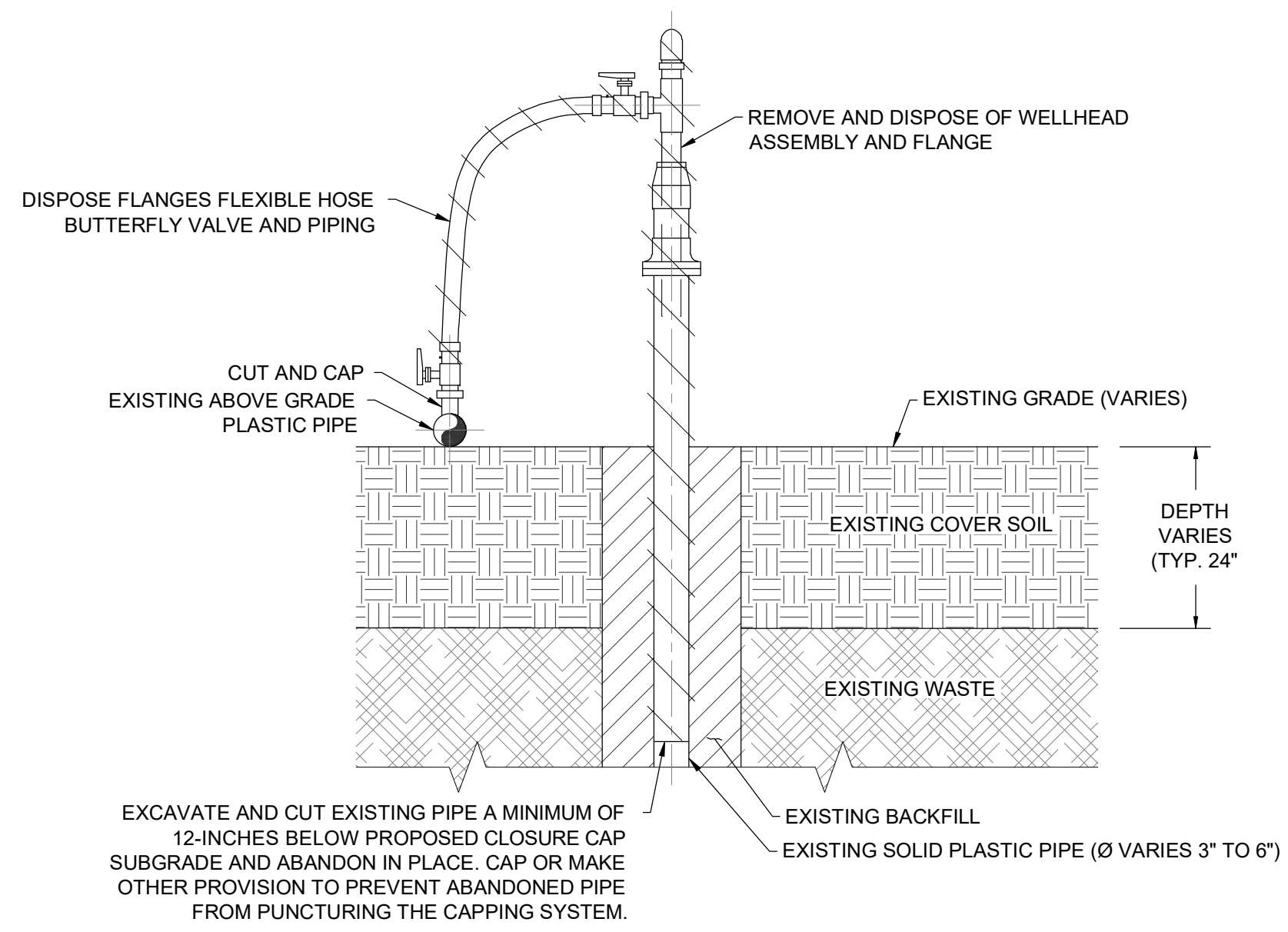
C-515  
SHEET: 105 OF 144

90% DESIGN PLANS - NOT FOR CONSTRUCTION

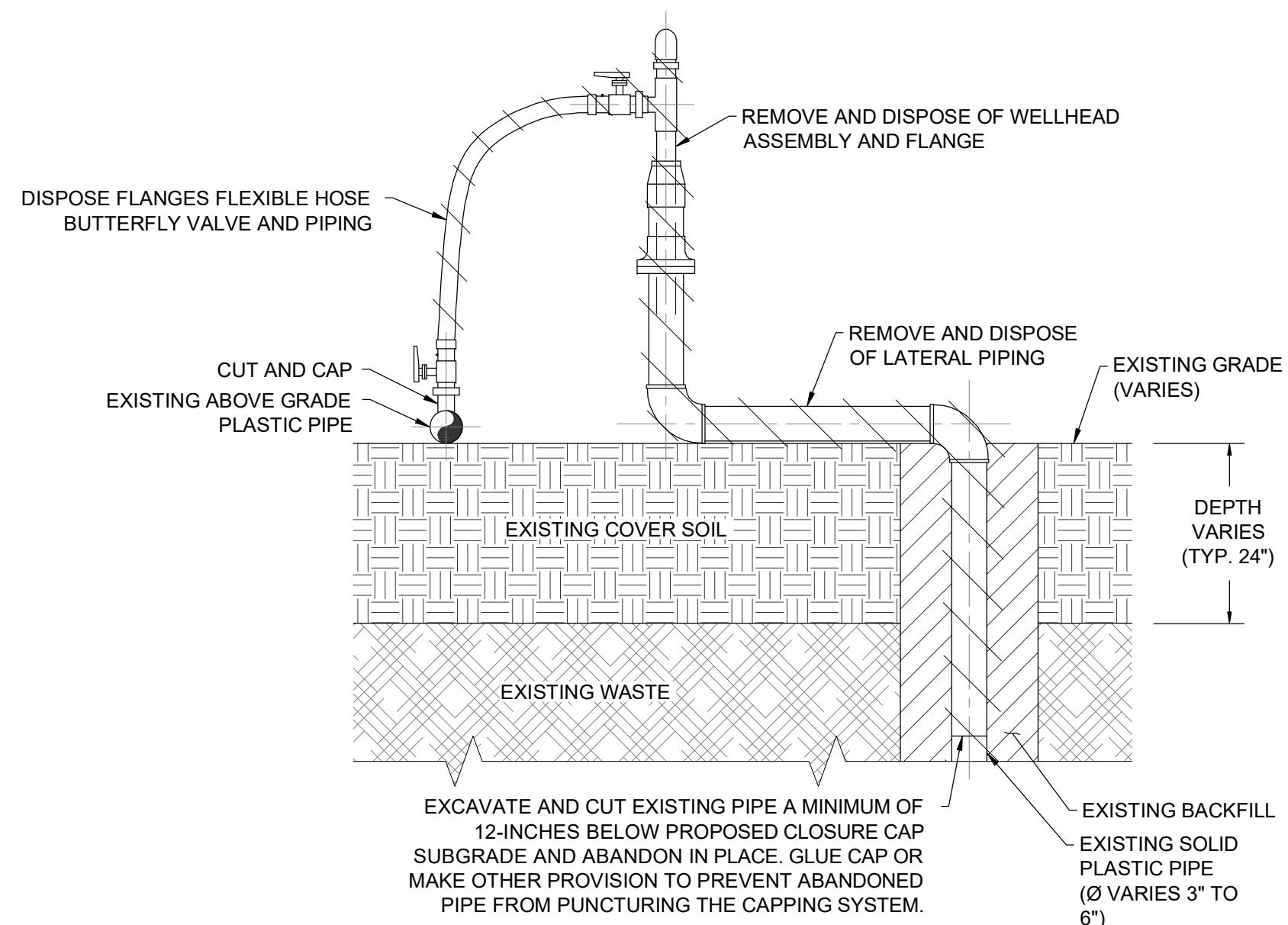
GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

EROSION AND SEDIMENT CONTROL DETAILS  
SC/SWM SHEET 31 OF 48

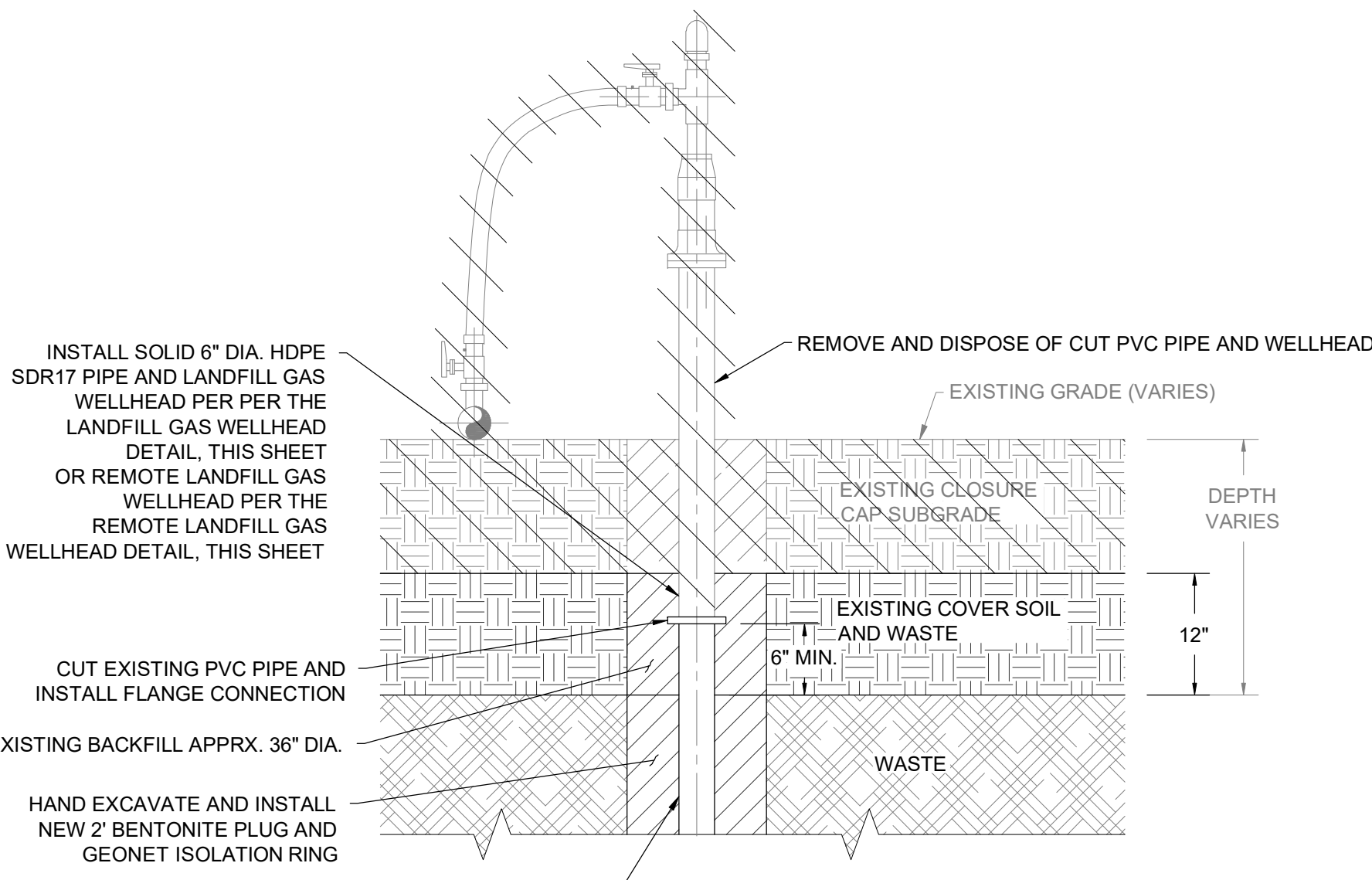




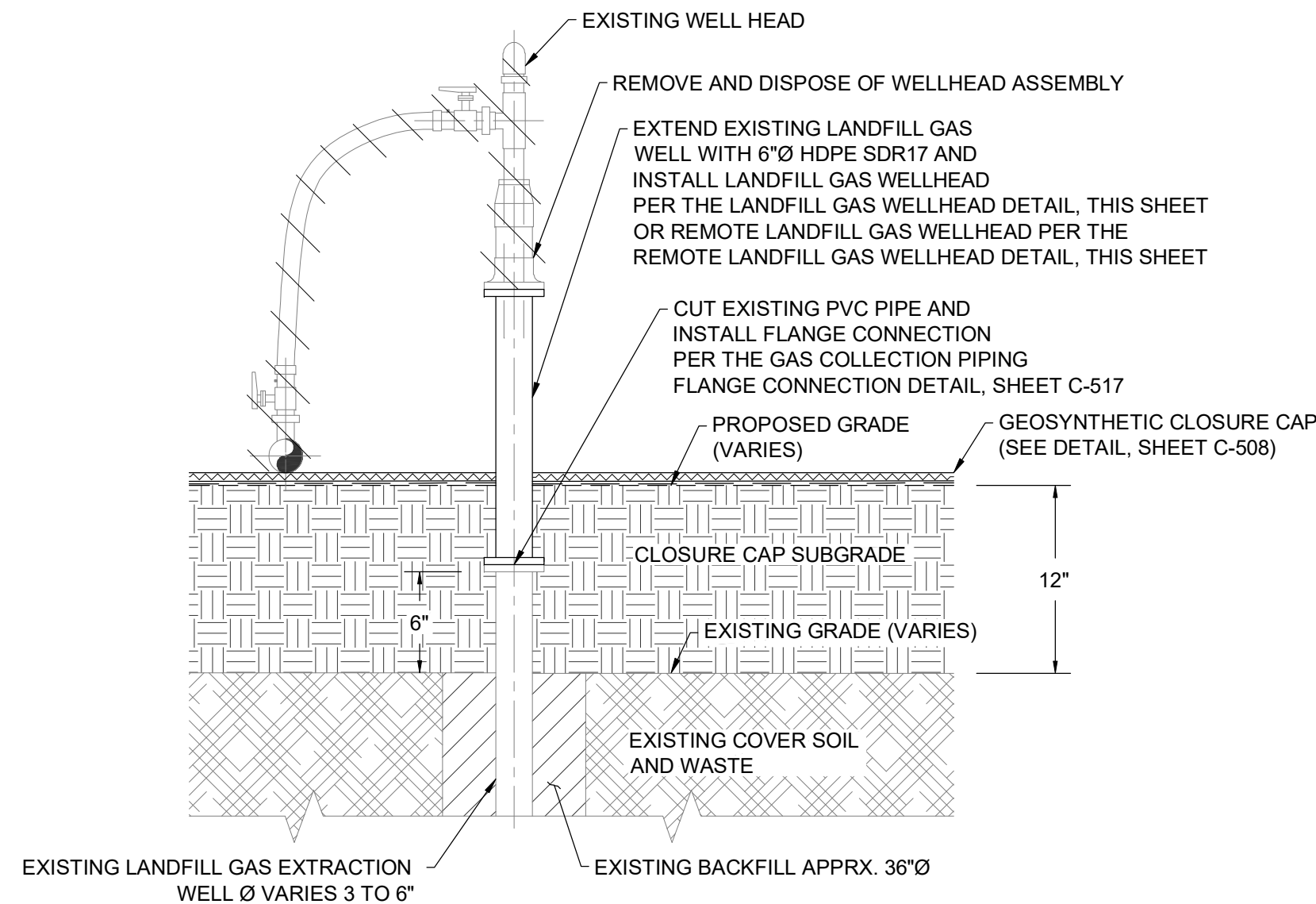
**EXISTING LANDFILL GAS EXTRACTION WELL ABANDONMENT**  
NOT TO SCALE



**EXISTING REMOTE LANDFILL GAS EXTRACTION WELL ABANDONMENT**  
NOT TO SCALE



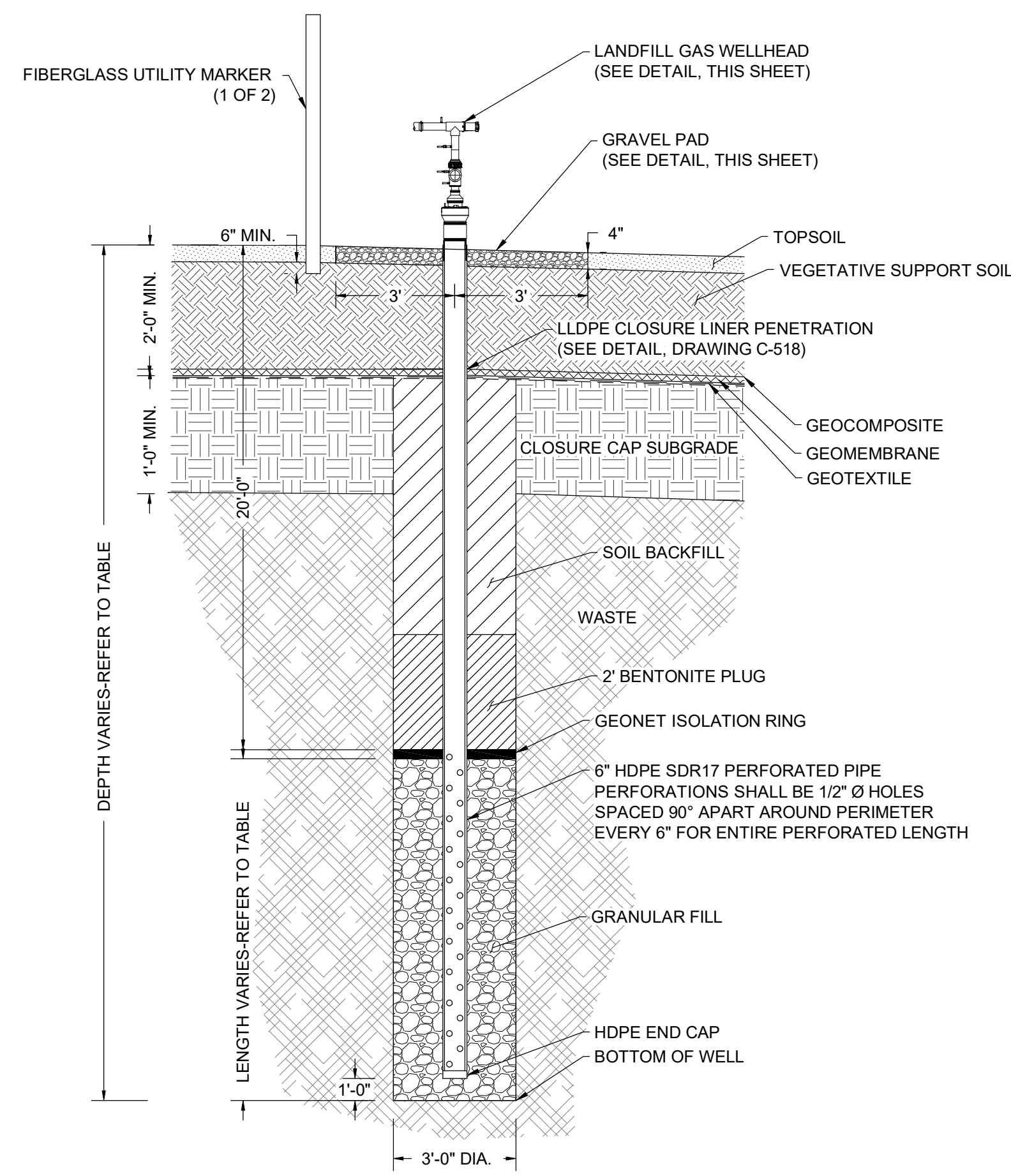
**EXISTING LANDFILL GAS EXTRACTION WELL MODIFICATION - SHORTEN**  
NOT TO SCALE



**EXISTING LANDFILL GAS EXTRACTION WELL MODIFICATION - EXTEND**  
NOT TO SCALE

**NOTES:**

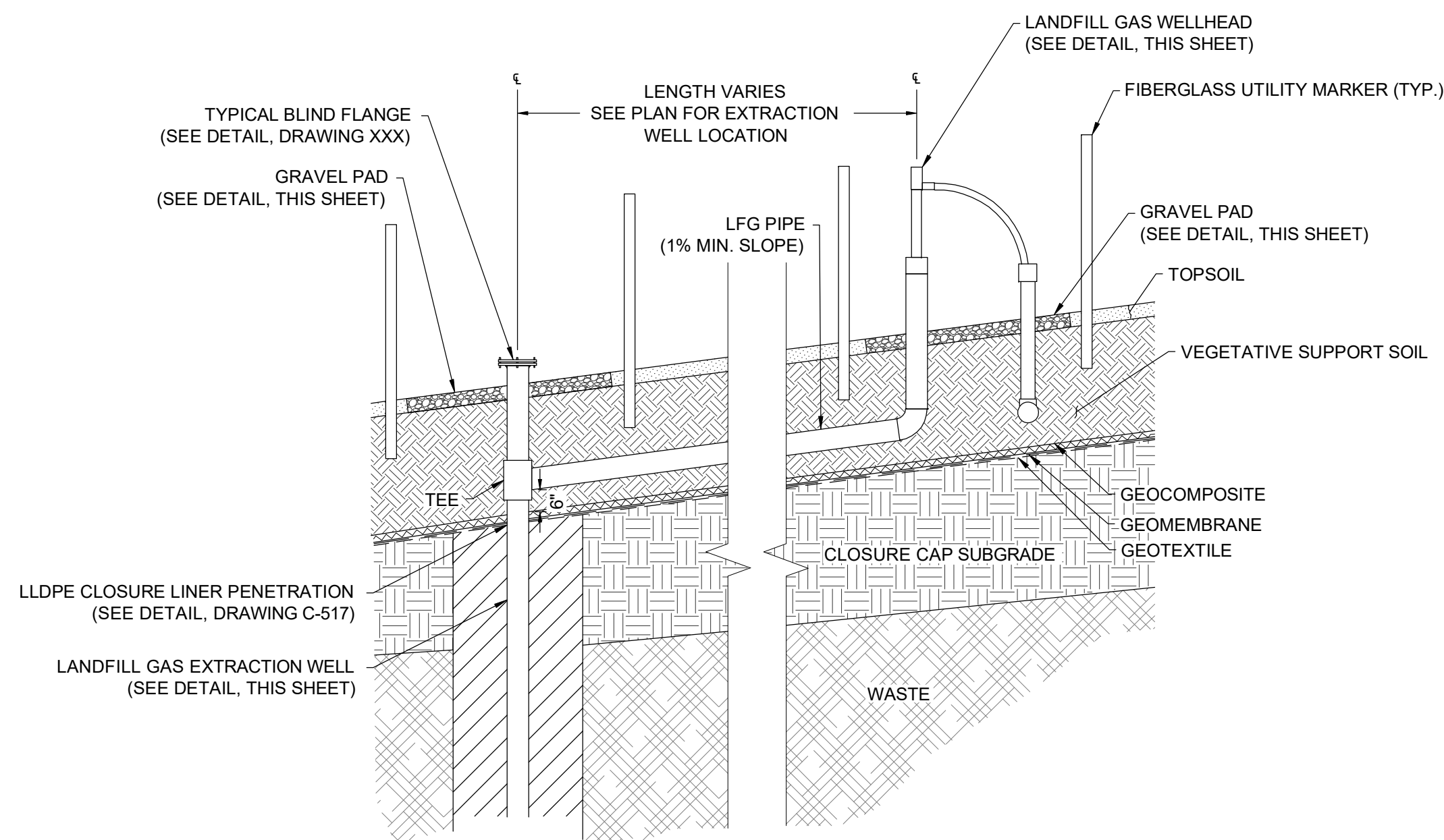
1. BACKFILL WITHIN 5-FT OF LANDFILL GAS EXTRACTION WELL TO BE PERFORMED BY HAND.
2. PLACE BACKFILL SOIL BY HAND IN MAXIMUM 8-IN LIFTS AND MECHANICALLY TAMP.
3. CONTINUE TO PLACE BACKFILL IN LIFTS AND COMPACT UNTIL FINAL SUBGRADE ELEVATION IS ACHIEVED.
4. VEGETATIVE SUPPORT SOIL AND TOPSOIL NOT SHOWN FOR CLARITY.



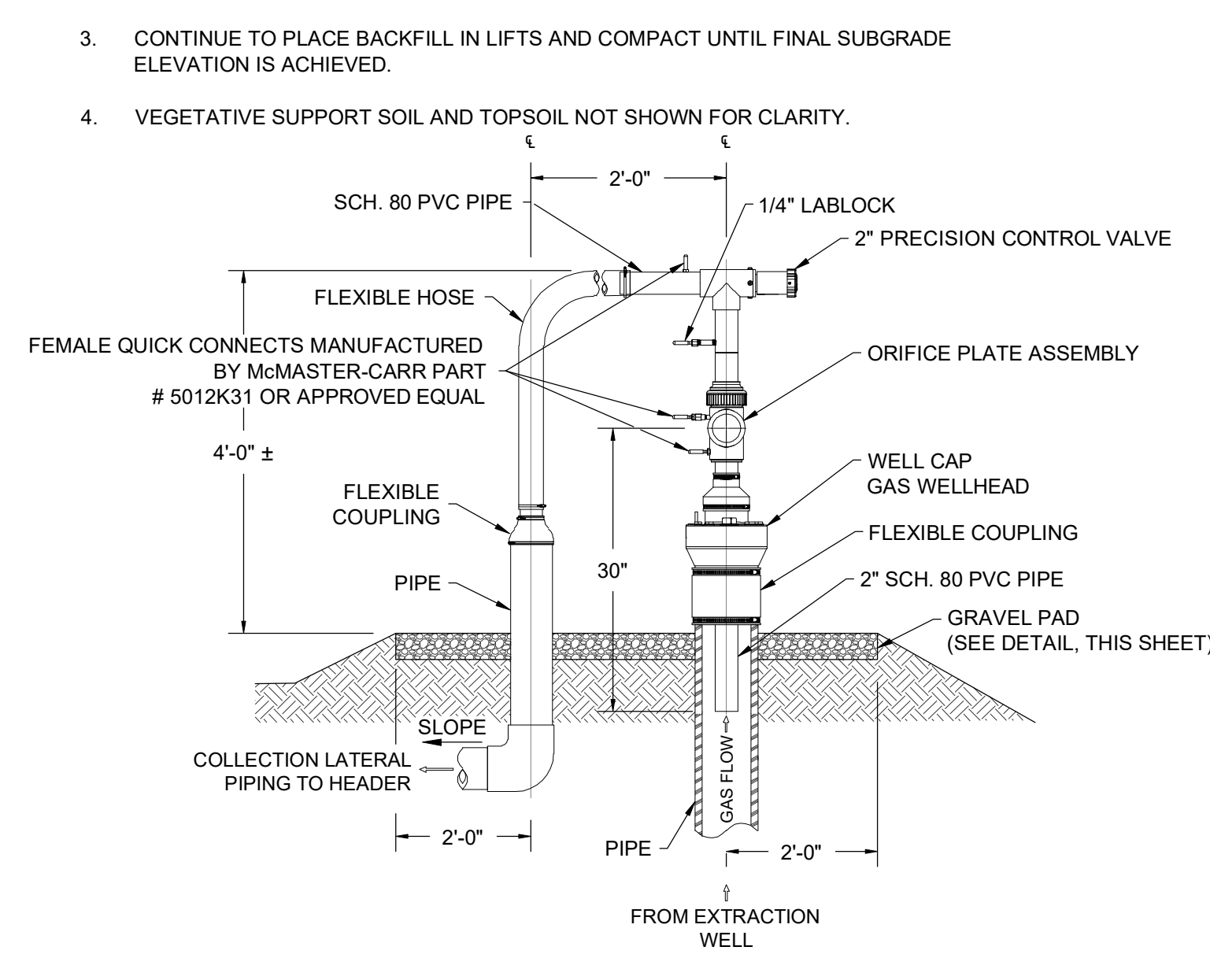
**PROPOSED LANDFILL GAS EXTRACTION WELL**  
NOT TO SCALE

**INSTALLATION NOTES:**

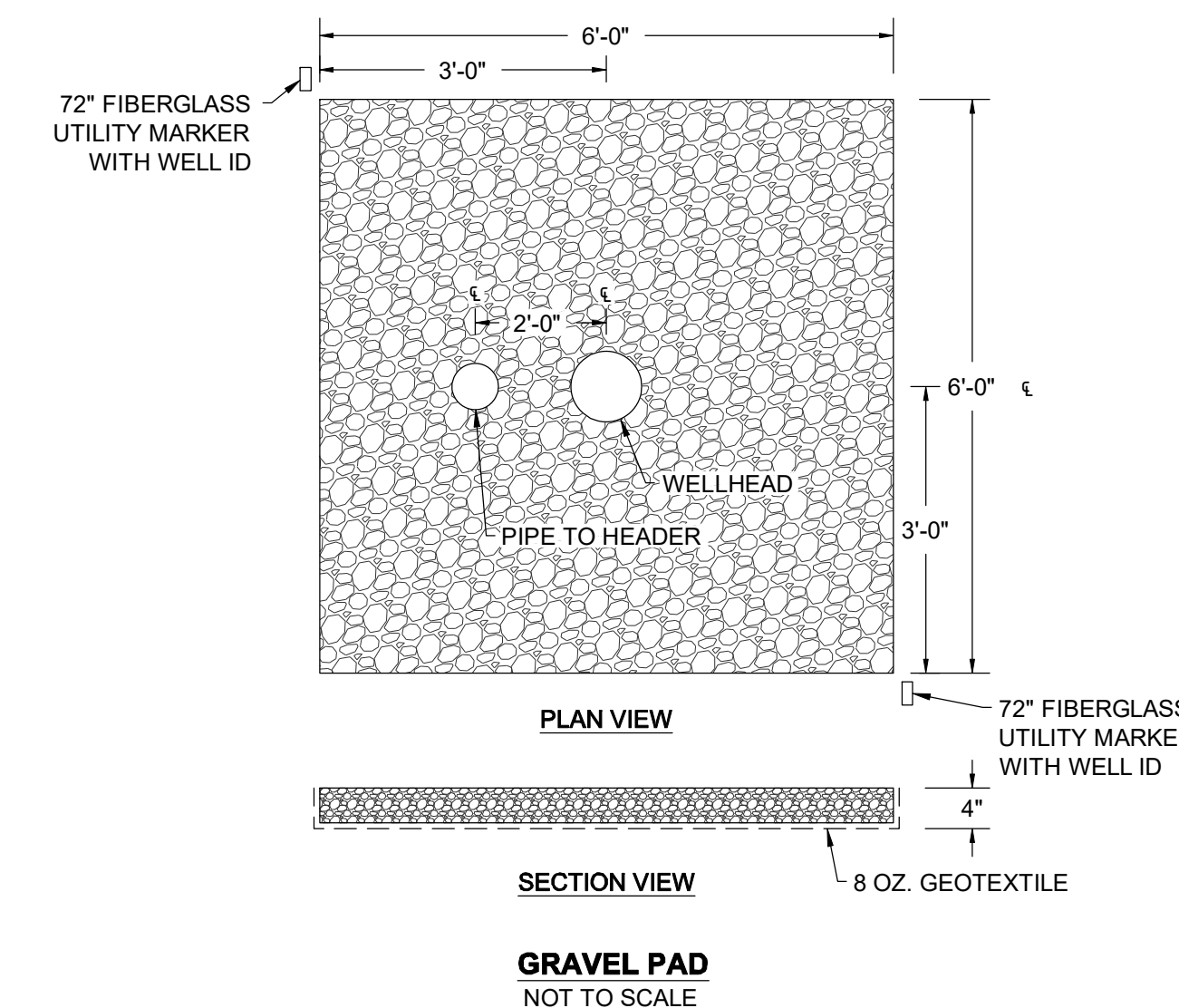
1. REFER TO WELLHEAD MANUFACTURER'S INSTALLATION AND OPERATION MANUAL. READ INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING ASSEMBLY AND INSTALLATION OF WELL CASING.
2. WELLHEAD CASING DRILLING DEPTH TO BE DETERMINED BASED ON LFG EXTRACTION WELL SCHEDULE, FIELD CONDITIONS AND THE CONSTRUCTION MANAGEMENT ENGINEER'S DIRECTION.
3. WELLHEAD AND FLOW MEASUREMENT TUBE ASSEMBLY SHALL BE COMPATIBLE WITH CES-LANDTEC GEM-500, GEM-2000, AND GEM-5000 (LANDFILL GAS INSTRUMENTS).
4. WELLHEAD SHALL BE RATED FOR A FLOW RANGE OF 0-50 SCFM.
5. LATERAL PIPING MAY BE SUPPORTED BY GROUND SURFACE, BERMED EARTH, OR AS SPECIFIED IN PLANS.
6. FOR FLEXIBLE CONNECTIONS TO PIPE USE ONLY STAINLESS STEEL V-BAND CLAMPS.
7. DRAWING SHOWS TYPICAL CONNECTION TO A 90° ELBOW. ACTUAL CONNECTION MAY BE TO A TEE OR COUPLING.
8. WARNING: DO NOT CUT THE FLOW MEASUREMENT TUBE ASSEMBLY. FAILURE TO HEED THIS WARNING WILL RESULT IN A DAMAGED OR INOPERATIVE WELLHEAD AND VOID THE WARRANTY.
9. ALLOW SUFFICIENT SLACK IN FLEX. HOSE FOR PIPING EXPANSION AND CONTRACTION. AN EXTRA 12" IS RECOMMENDED.
10. SUPPLY BRASS ID TAG WITH NUMBER AS DESIGNATED ON CONTRACT DRAWINGS.
11. GEONET ISOLATION RING SHALL FIT SNUG TO EXTRACTION WELL TO PROVIDE SEPARATION BETWEEN STONE AND BENTONITE PLUG.
12. 72" MARKER POST SHALL HAVE WELL ID. TWO PLACED AT EACH WELL AT OPPOSITE CORNERS.



**REMOTE LANDFILL GAS WELLHEAD**  
NOT TO SCALE



**LANDFILL GAS WELLHEAD**  
NOT TO SCALE



**GRAVEL PAD**  
NOT TO SCALE

**NOTE:**

1. GRAVEL PAD TO BE CENTERED ON SINGLE PENETRATIONS.

REVISIONS		DESCRIPTION	
NO.	DATE	BY	
DESIGNED BY:	KEF / SMB		
DRAWN BY:	SMB		
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

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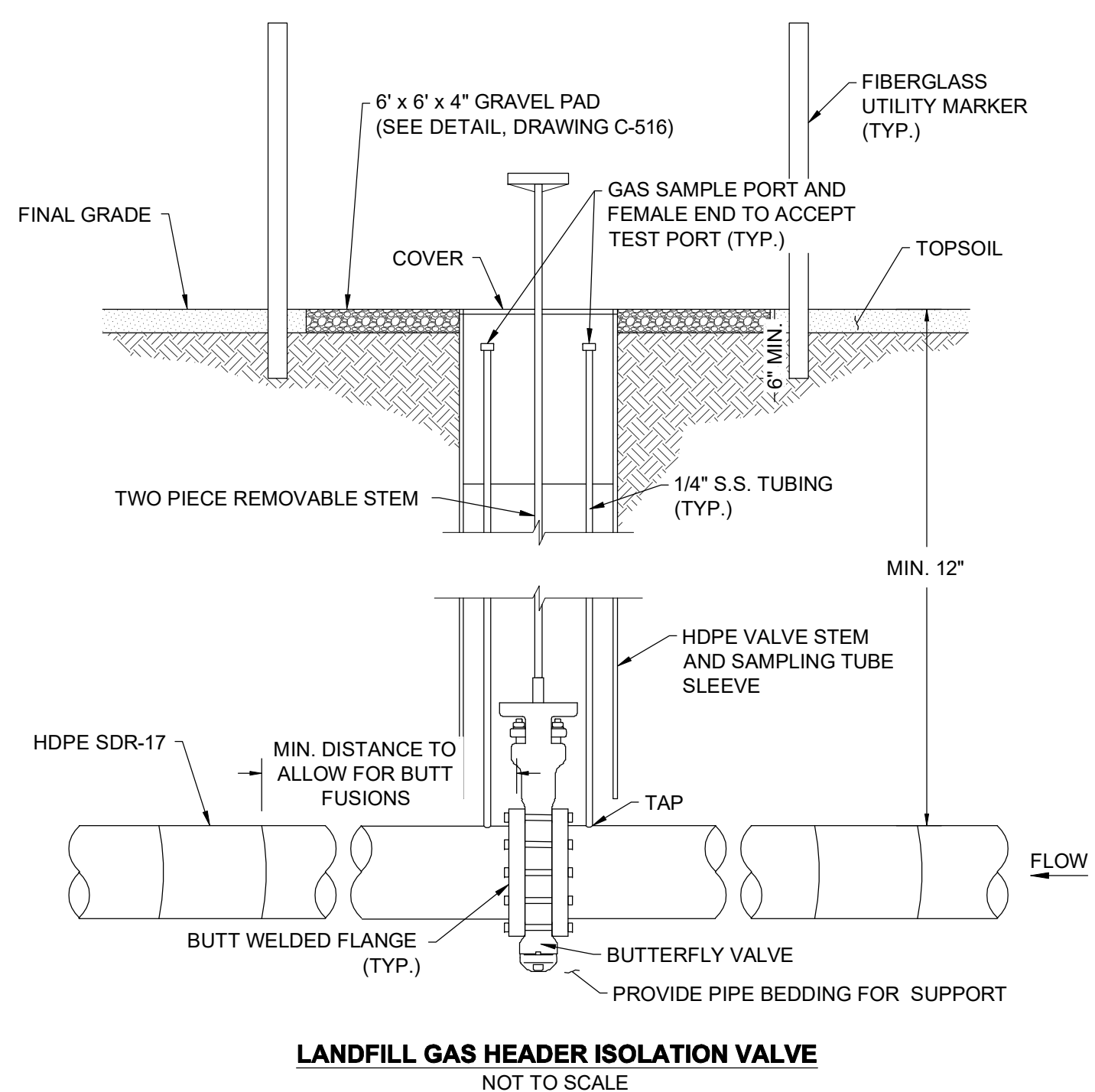
GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

LANDFILL GAS DETAILS

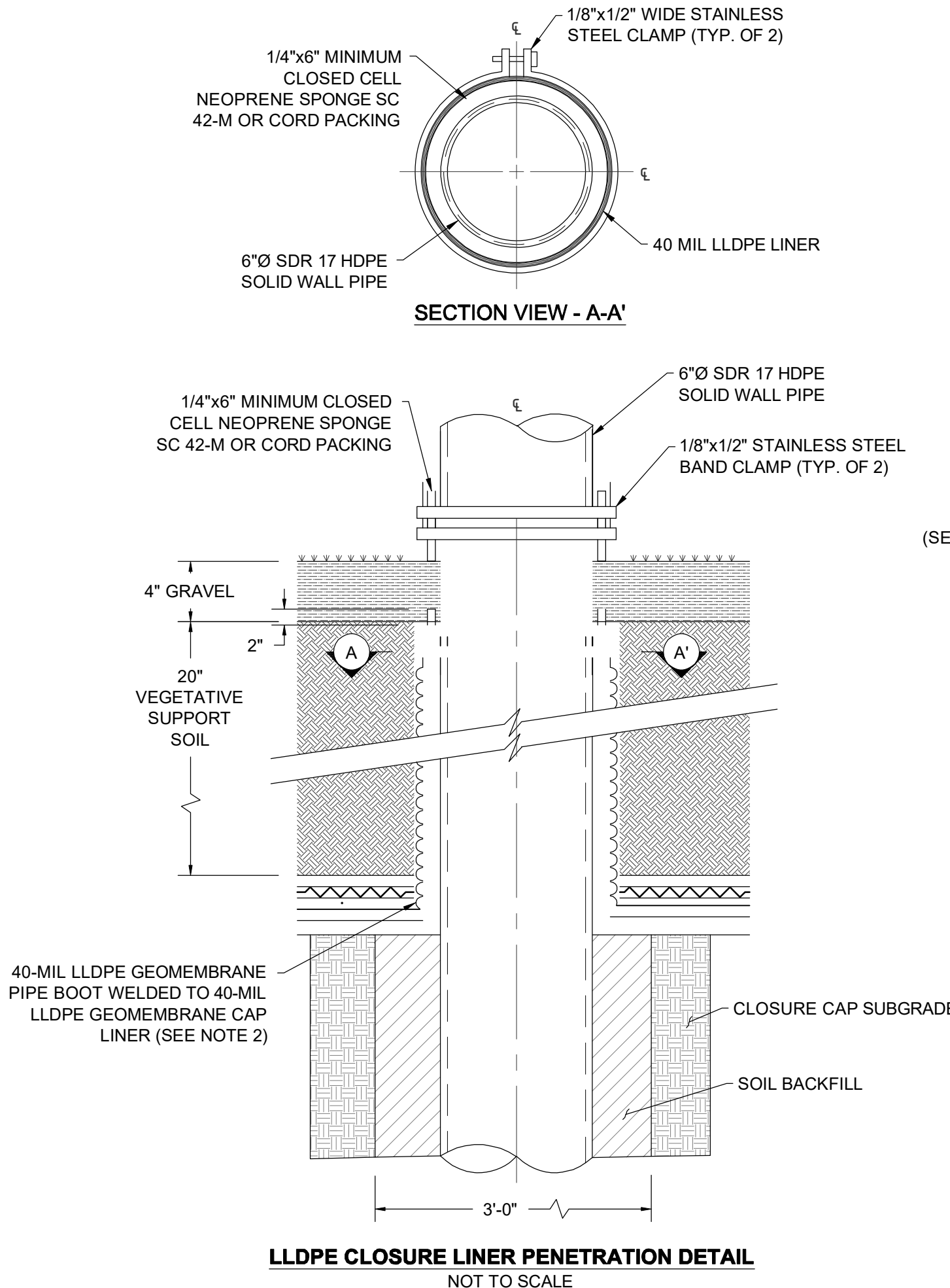
DATE: JULY 2020  
PROJECT NUMBER: 1564601

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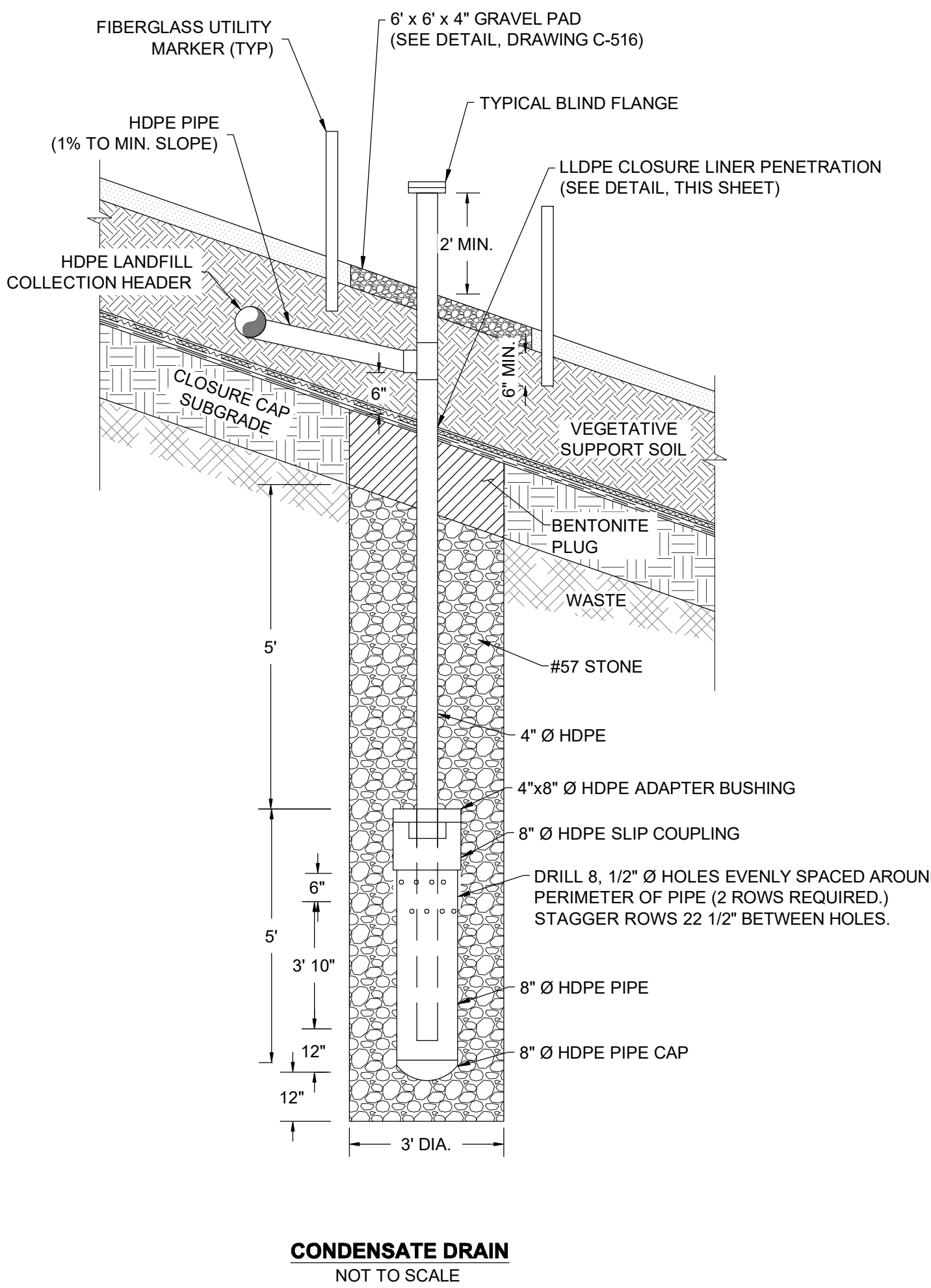
90% DESIGN PLANS - NOT FOR CONSTRUCTION



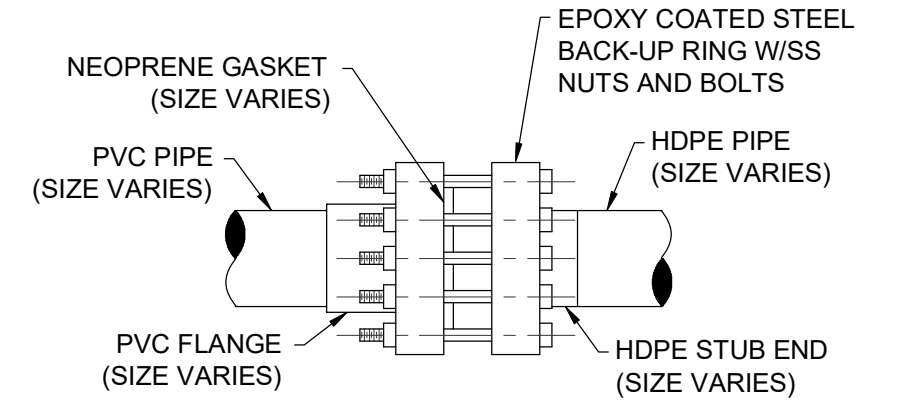
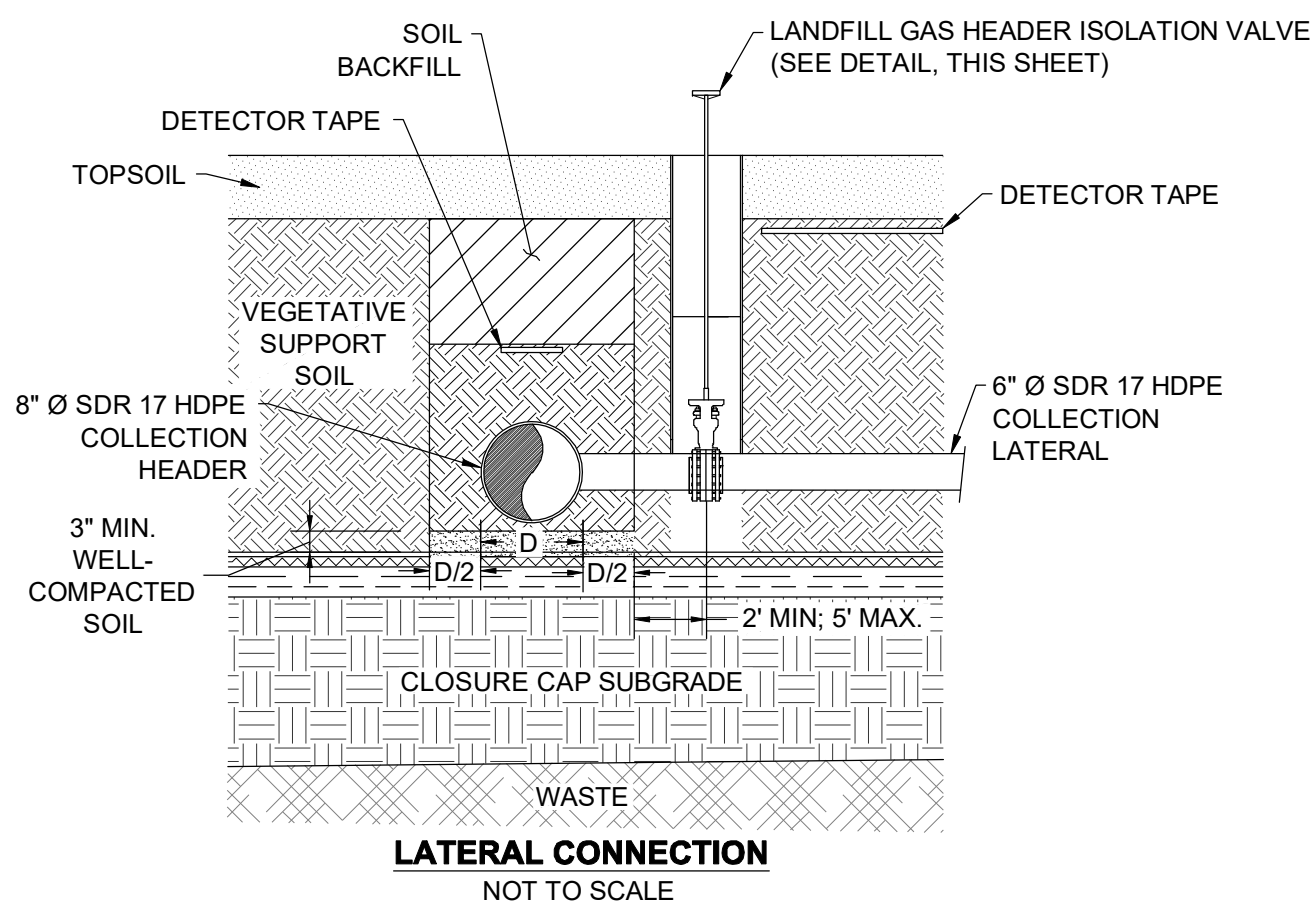
- NOTES:**
- BURIED VALVES SHALL USE STAINLESS STEEL HARDWARE WITH ANTISEIZE COMPOUND AND BE WRAPPED IN POLYETHYLENE SHEETING PRIOR TO BACKFILLING.
  - VALVES SHALL HAVE PERMANENT (NOT PAINTED) OPEN/CLOSE POSITION INDICATOR ON VALVE HANDLE.



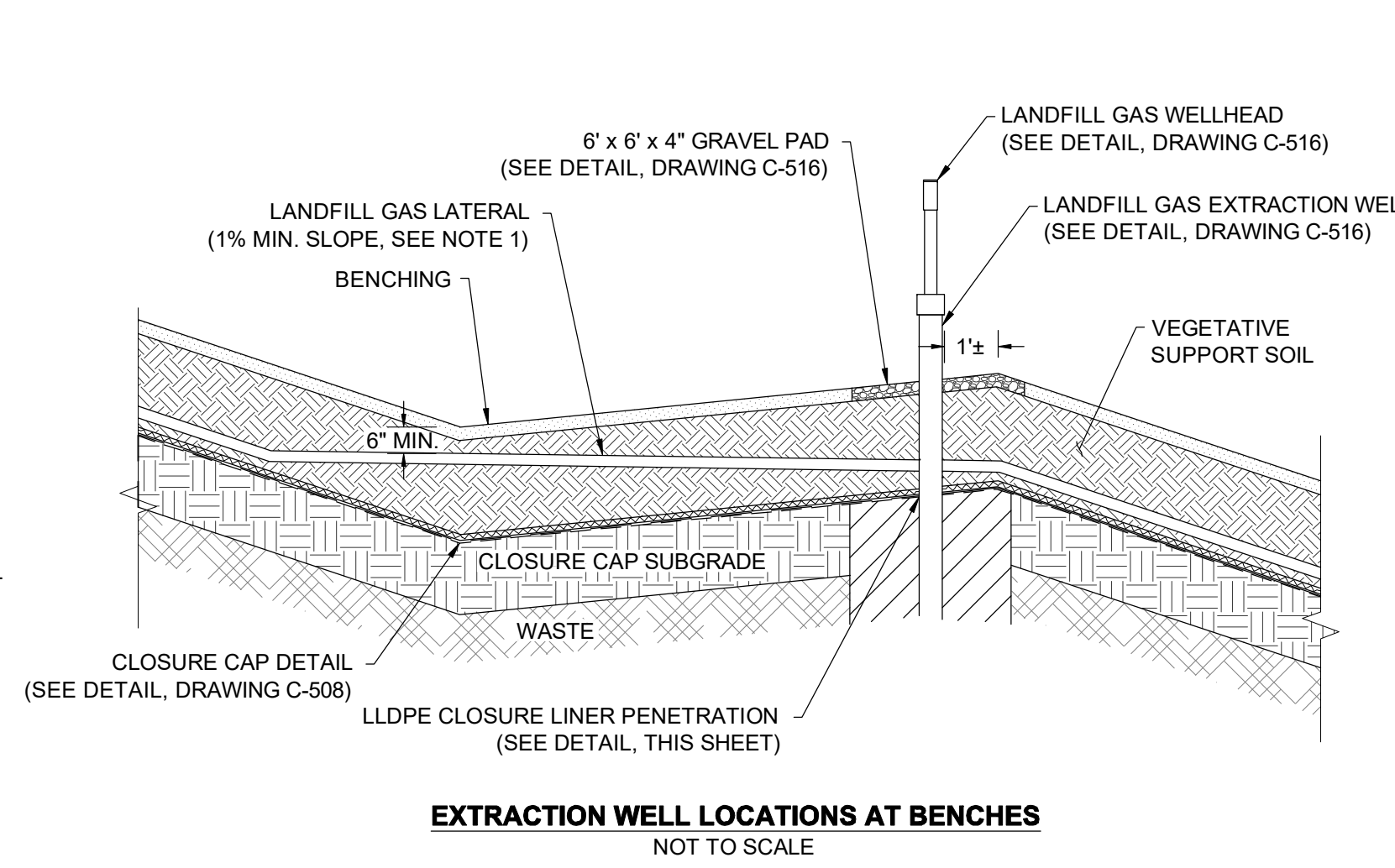
- NOTE:**
- THIS DETAIL IS TYPICAL FOR ALL 6"Ø SDR 17 HDPE PIPE PENETRATIONS.
  - A MINIMUM 1'-0" OF EXCESS SLACK BETWEEN CLAMPS AND WELD SHALL BE PROVIDED.



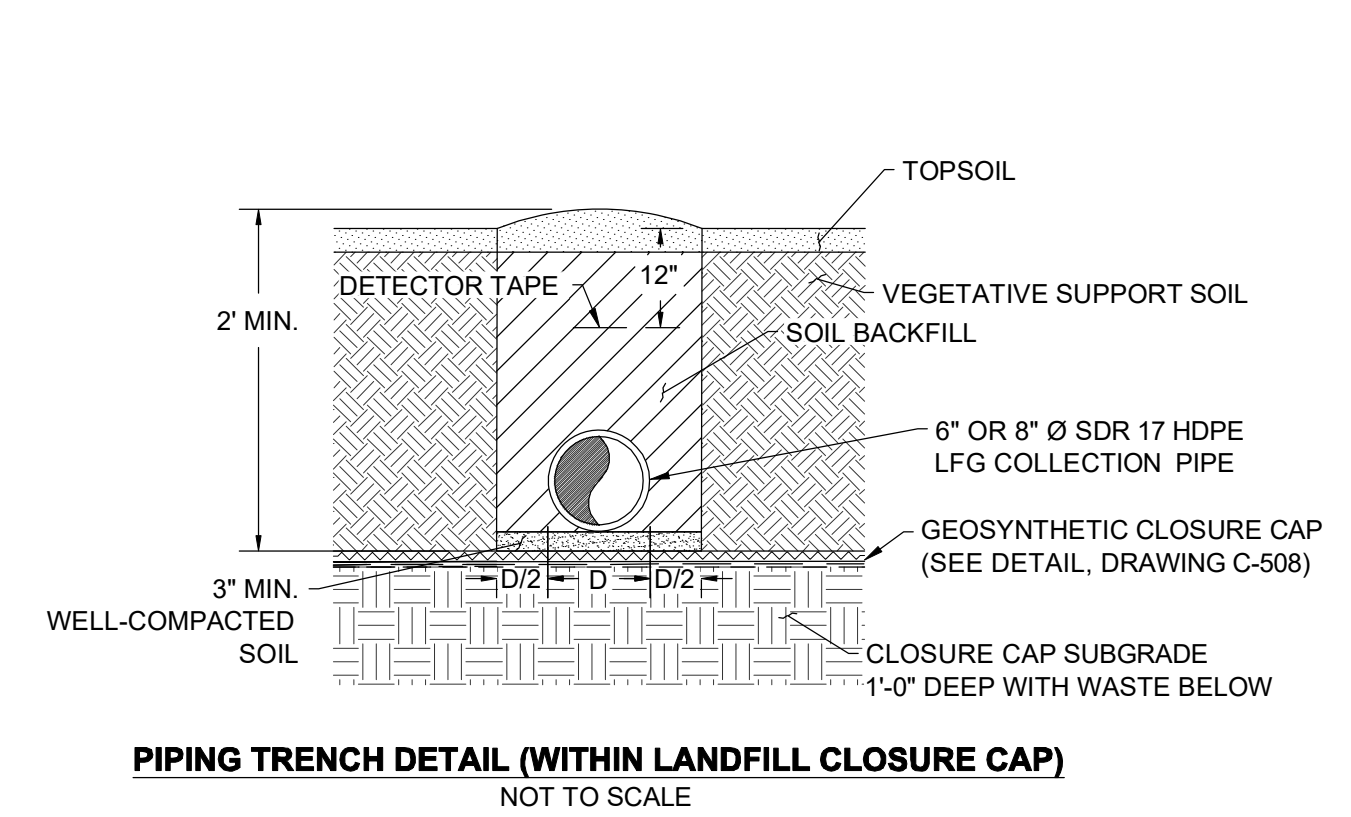
- NOTE:**
- CONTRACTOR SHALL FILL 8" HDPE PIPE WITH WATER.



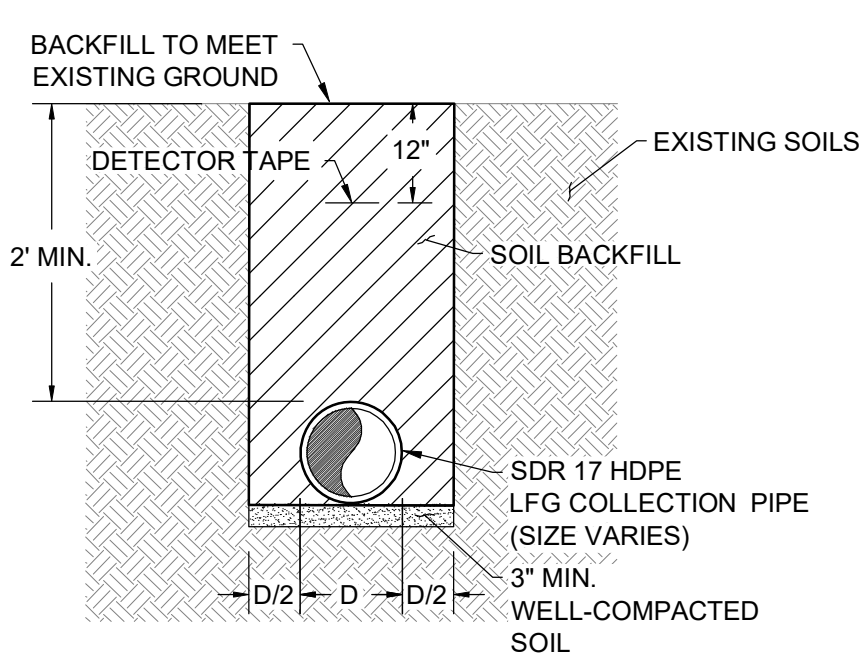
- NOTE:**
- CONNECTION DETAIL IS TYPICAL OF ALL GAS PIPELINE CONNECTIONS WHERE INDICATED.



- NOTE:**
- CONTRACTOR SHALL ADJUST BURIAL DEPTH ACROSS BENCHES TO MAINTAIN 1.0% MINIMUM SLOPE WITHIN LANDFILL GAS COLLECTION SYSTEM.



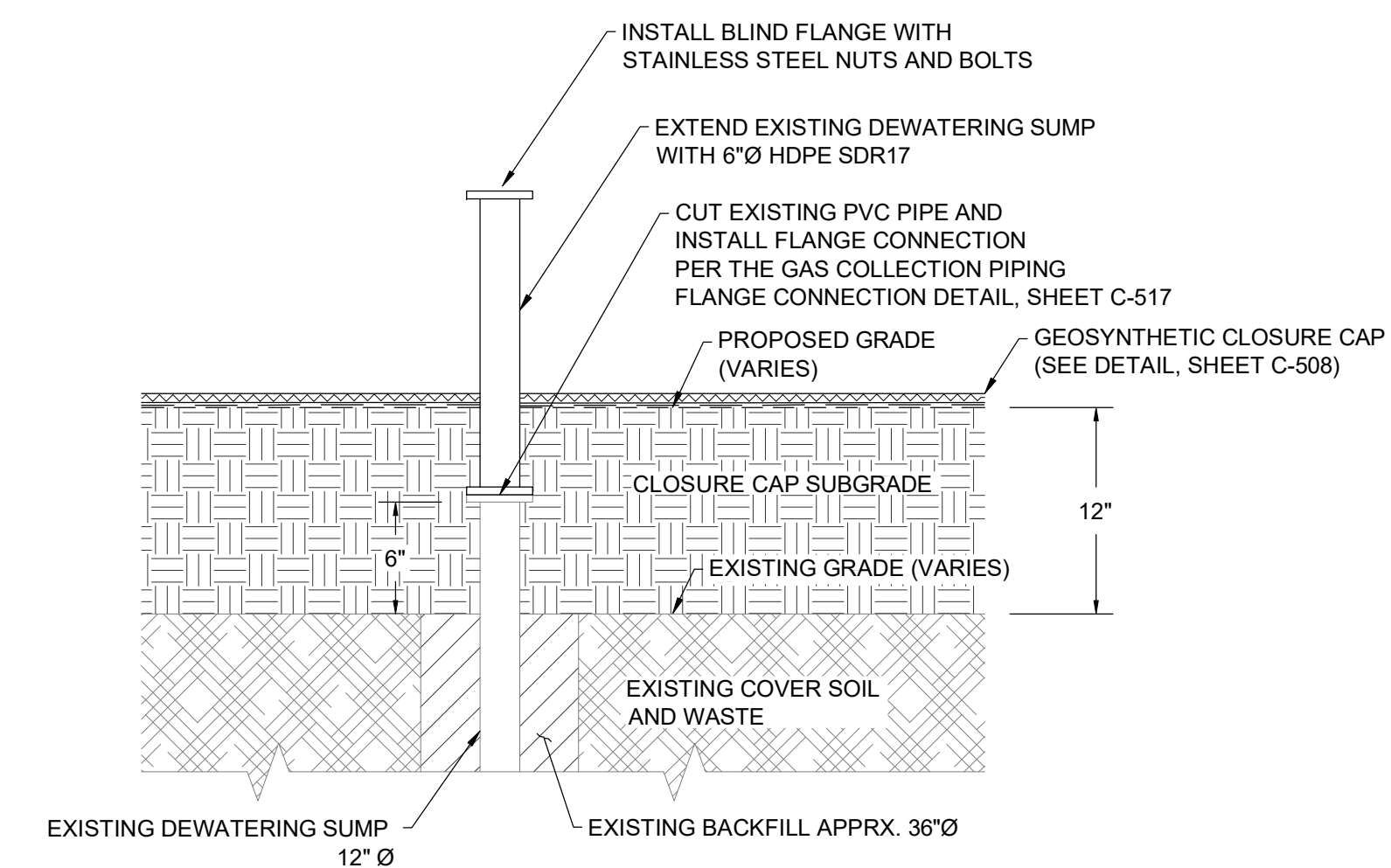
- NOTE:**
- PLACE MINIMUM 12" LIFT OVER PIPE PRIOR TO COMPACTION



- SOIL BACKFILL SHALL BE PLACED IN 12-INCH LIFTS.

EXISTING DEWATERING SUMPS TO BE EXTENDED					
DEWATERING SUMP ID	NORTHING	EASTING	EXISTING GROUND SURFACE ELEVATION (FT.)	FINISHED GRADE ELEVATION (FT.)	Δ (FINISHED - EXISTING)
DS-0	NA	NA	NA	NA	NA
DS-1	525047.88	1271945.71	455.29	458.76	3.47
DS-2	525242.02	1272059.07	455.98	456.34	0.36
DS-3	525295.89	1272221.67	457.23	461.00	3.77
DS-4	525516.63	1272404.54	460.86	462.34	1.48
DS-5	525386.80	1272672.42	463.72	465.61	1.89

NOTE: ELEVATIONS ARE ESTIMATED BASED ON AERIAL SURVEY AND SHALL BE VERIFIED BY THE CONTRACTOR.



- NOTES:**
- BACKFILL WITHIN 5-FT OF DEWATERING SUMP TO BE PERFORMED BY HAND.
  - PLACE BACKFILL SOIL BY HAND IN MAXIMUM 8-IN LIFTS AND MECHANICALLY TAMP.
  - CONTINUE TO PLACE BACKFILL IN LIFTS AND COMPACT UNTIL FINAL SUBGRADE ELEVATION IS ACHIEVED.
  - VEGETATIVE SUPPORT SOIL AND TOPSOIL NOT SHOWN FOR CLARITY.

PROPOSED CONDENSATE DRAIN SCHEDULE					
CONDENSATE DRAIN ID	NORTHING	EASTING	FINAL GRADE ELEVATION (FT)	BOTTOM ELEVATION OF CONDENSATE DRAIN (FT)	
CD-1	524722.07	1271259.16	420.91	407.91	
CD-2	525074.14	1271857.13	450.82	437.82	
CD-3	525328.24	1272135.55	454.38	441.38	
CD-4	526206.97	1273049.78	468.53	455.53	
CD-5	526258.17	1273244.05	472.67	459.67	
CD-6	525701.01	1273503.83	469.98	456.98	
CD-7	525467.45	1273513.55	469.69	456.69	
CD-8	525221.98	1273714.48	462.00	449.00	
CD-9	525020.16	1274384.94	455.56	442.56	
CD-10	524678.18	1273932.35	427.96	414.96	
CD-11	524872.79	1273761.11	434.00	421.00	
CD-12	524876.26	1273693.21	433.70	420.70	
CD-13	524803.65	1273562.81	435.35	422.35	
CD-14	524747.78	1273494.46	434.69	421.69	
CD-15	524566.62	1273415.39	440.14	427.14	
CD-16	524306.87	1273123.37	455.87	442.87	
CD-17	524166.56	1272561.86	465.54	452.54	
CD-18	524196.46	1272735.97	466.76	453.76	
CD-19	524206.00	1272378.56	465.84	452.84	
CD-20	524519.90	1272160.42	451.85	438.85	
CD-21	524477.59	1271716.31	456.06	443.06	
CD-22	524569.08	1271504.15	455.84	442.84	
CD-23	525111.51	1272659.16	459.46	446.96	
CD-24	524707.61	1272885.29	449.98	436.98	
CD-25	525305.07	1273092.20	459.00	446.00	
CD-26	525114.54	1272865.65	456.00	443.00	
CD-27	524943.18	1271606.20	438.00	425.00	
CD-28	525015.98	1271742.29	447.00	434.00	
CD-29	525223.14	1272162.00	458.00	445.00	

REVISIONS  
 DESCRIPTION  
 BY  
 DATE  
 NO.

DESIGN INFORMATION  
 DESIGNED BY: KEF / SMB  
 DRAWN BY: SMB  
 CHECKED BY: LJO / GAT  
 PROJECT MANAGER: MJG

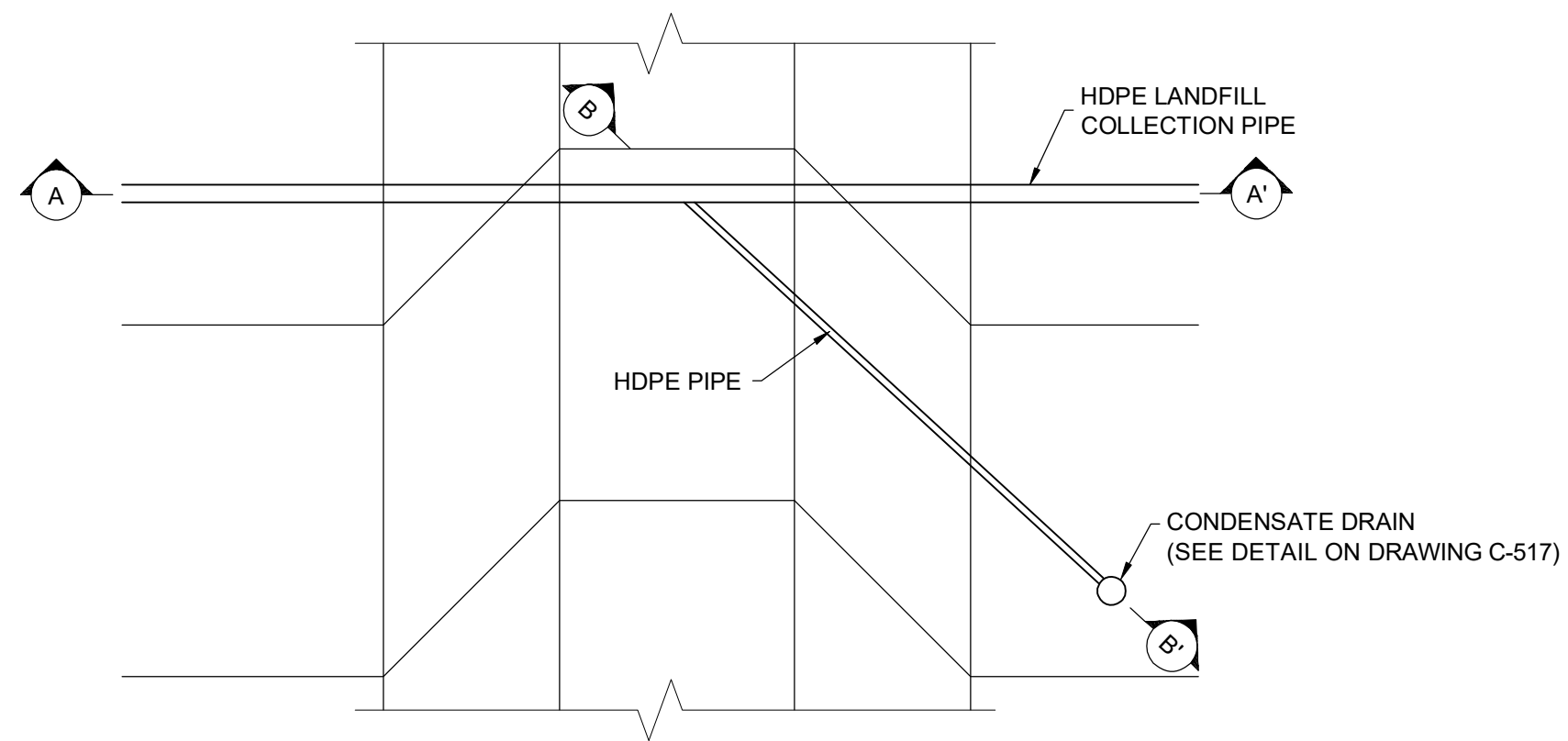
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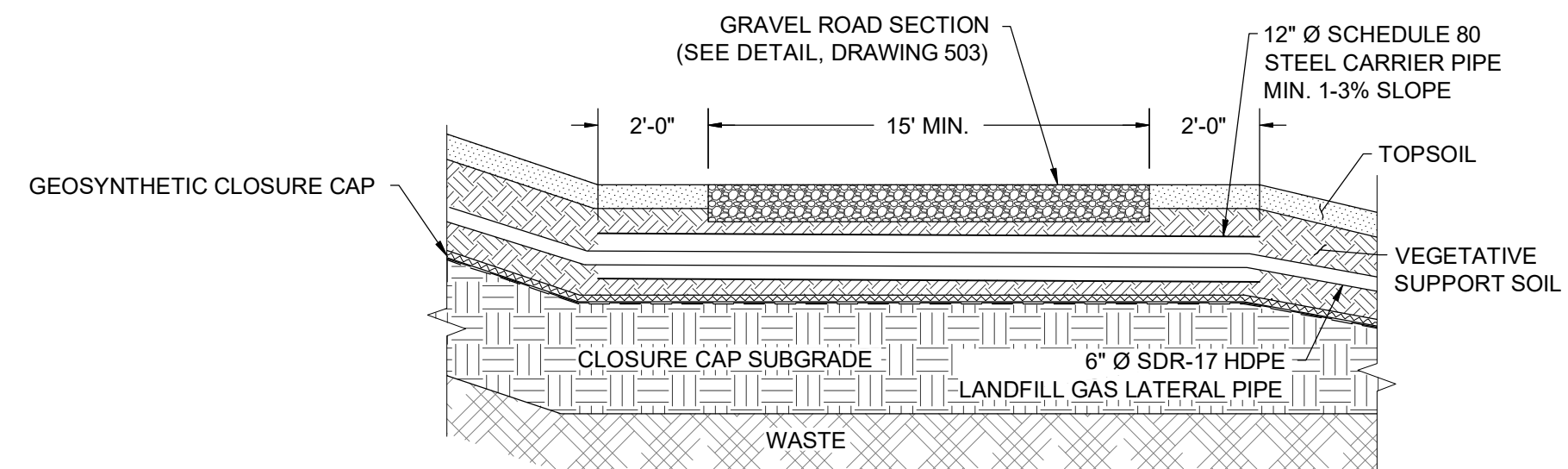
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 MONTGOMERY COUNTY, MARYLAND  
 LANDFILL GAS DETAILS

DATE: JULY 2020  
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**C-518**  
 SHEET: 108 OF 144

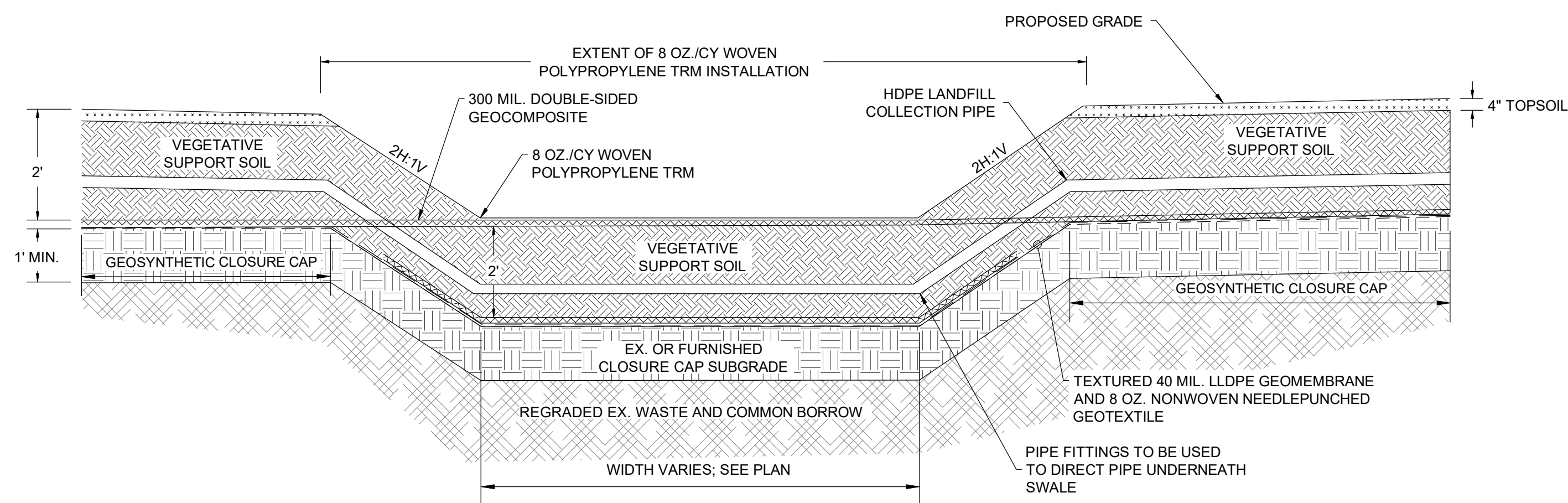
90% DESIGN PLANS - NOT FOR CONSTRUCTION



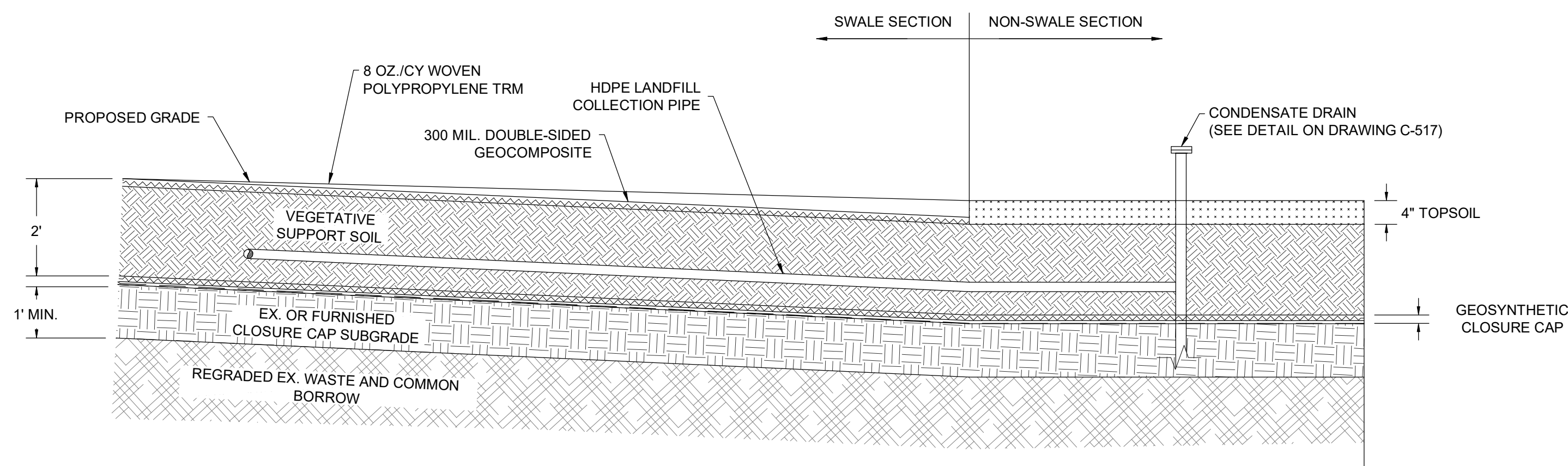
PLAN VIEW



LANDFILL GAS PIPE ROAD CROSSING  
NOT TO SCALE



SECTION A-A'



SECTION B-B'

LANDFILL GAS PIPE SWALE CROSSING  
NOT TO SCALE

NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

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LANDFILL GAS DETAILS

EA Engineering, Science, and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JULY 2020  
PROJECT NUMBER: 1564601  
**C-519**  
SHEET: 109 OF 144

FILE PATH: C:\PROJECTS\1564601 - GSEB LP DESIGN\CONSTRUCTION\DESIGN\SET\1564601 - 1010 - DETAILS.DWG (C-519) (ISSUED) (2/27/20) 7/25/2020 10:22 AM

90% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\166661 - GIBBY - 17252020.DWG DATE: 17/05/2020 09:22:34

Table with 9 columns: SERIAL, WELL ID, NORTHING, EASTING, EXISTING ELEVATION (FT), FINAL ELEVATION (FT), Δ (FINISHED-EXISTING), SHORTEN / EXTEND, TOTAL DEPTH FROM EG (FT). Rows 1-48.

EXISTING REMOTE LANDFILL GAS EXTRACTION WELLS TO BE MODIFIED

Table with 9 columns: SERIAL, WELL ID, NORTHING, EASTING, EXISTING ELEVATION (FT), FINAL ELEVATION (FT), Δ (FINISHED-EXISTING), SHORTEN / EXTEND, TOTAL DEPTH FROM EG (FT). Rows 49-66.

- NOTES: 1. DIAMETER OF THE WELL CASING VARIES BETWEEN 3 IN AND 4 IN. 2. EXISTING EXTRACTION WELL INFORMATION IS FROM AVAILABLE DOCUMENTATION AND MAY NOT MATCH ACTUAL CONDITION. 3. ELEVATIONS ARE ESTIMATED BASED ON AERIAL SURVEY AND SHALL BE VERIFIED BY THE CONTRACTOR. 4. EXISTING LANDFILL GAS WELLS OUTSIDE OF THE LANDFILL CAP WILL BE MODIFIED. 5. LANDFILL GAS EXTRACTION WELLS WITH AN "" SHALL BE MODIFIED TO INCLUDE AN INTERIOR PUMP FOR DEWATERING.

Table with 9 columns: SERIAL, WELL ID, NORTHING, EASTING, EXISTING GRADE (FT), FINAL GRADE (FT), APPRX. WELL DEPTH (FT) FROM FINAL GRADE, APPRX. PERFORATED PIPE LENGTH (FT), APPRX. WELL BOTTOM ELEVATION (FT). Rows 1-22.

PROPOSED REMOTE LANDFILL GAS EXTRACTION WELLS

Table with 9 columns: SERIAL, WELL ID, NORTHING, EASTING, EXISTING GRADE (FT), FINAL GRADE (FT), APPRX. WELL DEPTH (FT) FROM FINAL GRADE, APPRX. PERFORATED PIPE LENGTH (FT), APPRX. WELL BOTTOM ELEVATION (FT). Rows 23-30.

- NOTES: 1. CONTRACTOR TO SURVEY AND CONFIRM EXISTING CONDITIONS ELEVATIONS AND PROVIDE SURVEY RESULTS FOR ENGINEER REVIEW AND APPROVAL, PRIOR TO LFG EXTRACTION WELL INSTALLATION.

EXISTING LANDFILL GAS EXTRACTION WELLS TO BE ABANDONED

Table with 6 columns: SERIAL, WELL ID, NORTHING, EASTING, EXISTING ELEVATION (FT), TOTAL DEPTH FROM EG (FT). Rows 1-40.

EXISTING LANDFILL GAS EXTRACTION WELLS TO BE ABANDONED

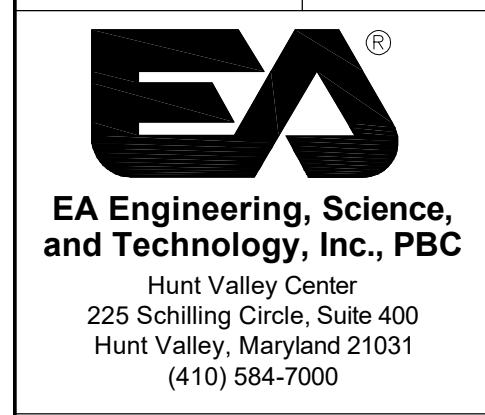
Table with 6 columns: SERIAL, WELL ID, NORTHING, EASTING, EXISTING ELEVATION (FT), TOTAL DEPTH FROM EG (FT). Rows 41-43.

EXISTING REMOTE LANDFILL GAS EXTRACTION WELLS TO BE ABANDONED

Table with 6 columns: SERIAL, WELL ID, NORTHING, EASTING, EXISTING ELEVATION (FT), TOTAL DEPTH FROM EG (FT). Rows 44-49.

- NOTES: 1. DIAMETER OF THE WELL CASING VARIES BETWEEN 3 IN AND 4 IN. 2. EXISTING EXTRACTION WELL INFORMATION IS FROM AVAILABLE DOCUMENTATION AND MAY NOT MATCH ACTUAL CONDITION. 3. ELEVATIONS ARE ESTIMATED BASED ON AERIAL SURVEY AND SHALL BE VERIFIED BY THE CONTRACTOR. 4. NA STANDS FOR NOT AVAILABLE.

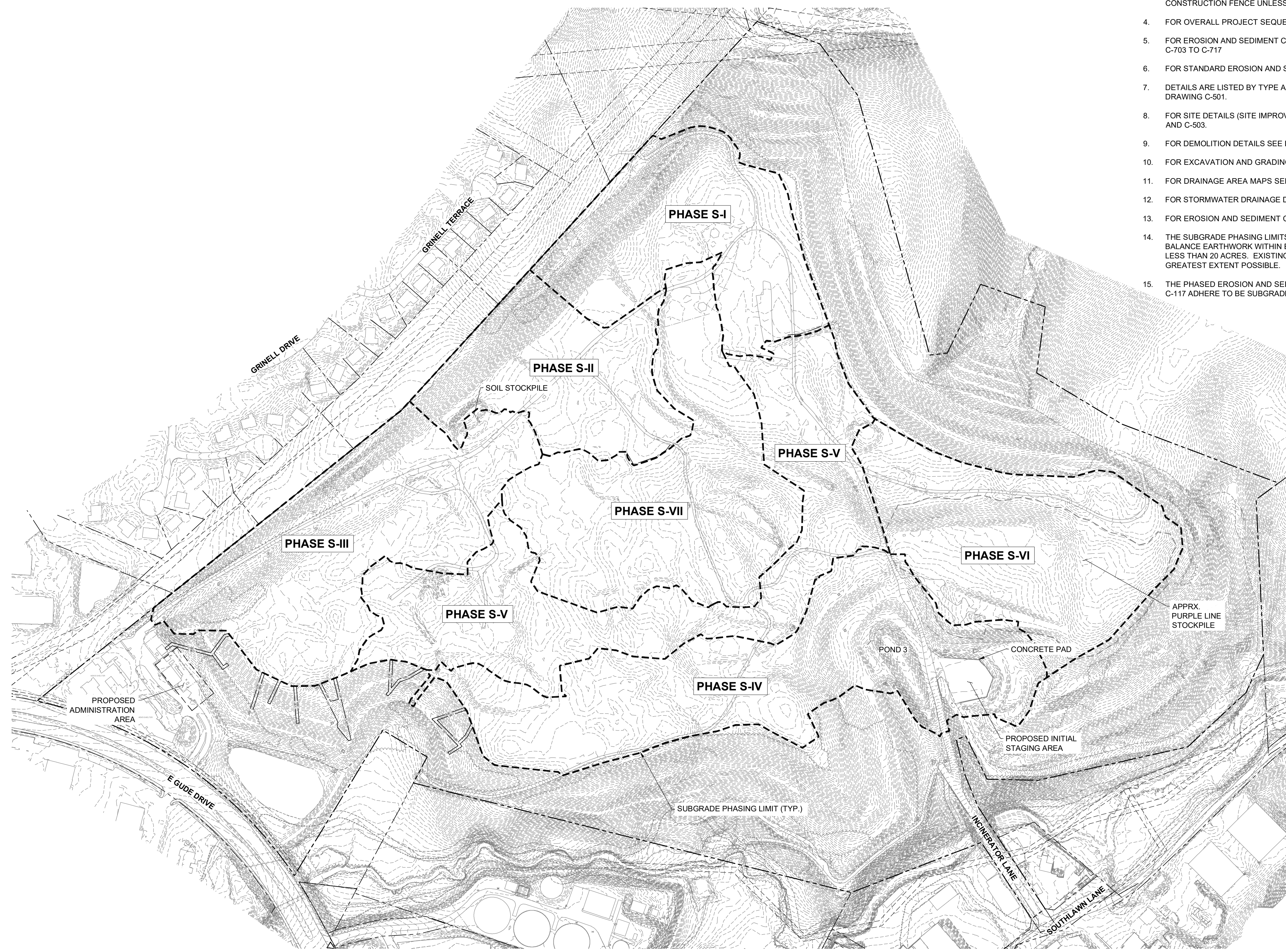
GUIDE LANDFILL REMEDIATION DESIGN
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND
LANDFILL GAS DETAILS



Hunt Valley Center
225 Schilling Circle, Suite 400
Hunt Valley, Maryland 21031
(410) 584-7000
DATE: JULY 2020
PROJECT NUMBER: 1564601
C-520
SHEET: 110 OF 144

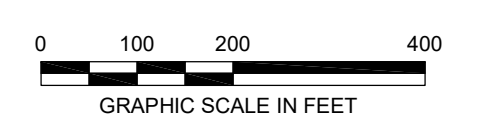
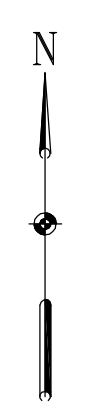
90% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: C:\PROJECTS\1564601 - GSEB LP DESIGN\CONSTRUCTION\DESIGN\SETUP\1564601 - 11.SW - EDC - S PHASE KEY SHEET.DWG (C:\D:\LIBERTY\STEVEN\_7/22/2020 8:58 PM)



**GENERAL NOTES**

- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-111.
- ALL SUBGRADE PHASING LIMITS (S-#) ARE TO BE DELINEATED BY ORANGE CONSTRUCTION FENCE UNLESS OTHERWISE SHOWN.
- FOR OVERALL PROJECT SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
- FOR EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION, SEE SHEETS C-703 TO C-717
- FOR STANDARD EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
- DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS ON DRAWING C-501.
- FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
- FOR DEMOLITION DETAILS SEE DRAWING C-504.
- FOR EXCAVATION AND GRADING DETAILS SEE DRAWINGS C-505, C-506, AND C-507.
- FOR DRAINAGE AREA MAPS SEE DRAWINGS C-510 AND C-511.
- FOR STORMWATER DRAINAGE DETAILS SEE DRAWINGS C-512 AND C-513.
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 AND C-515.
- THE SUBGRADE PHASING LIMITS SHOWN HEREON HAVE BEEN ESTABLISHED TO BALANCE EARTHWORK WITHIN EACH PHASE WHILE MAINTAINING A GRADING UNIT OF LESS THAN 20 ACRES. EXISTING DRAINAGE DIVIDES HAVE BEEN MAINTAINED TO THE GREATEST EXTENT POSSIBLE.
- THE PHASED EROSION AND SEDIMENT CONTROLS SHOWN IN DRAWINGS C-703 TO C-717 ADHERE TO BE SUBGRADE PHASING PLAN.



REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION				
DESIGNED BY:	KEY / SMB	DRAWN BY:	CHECKED BY:	PROJECT MANAGER:

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

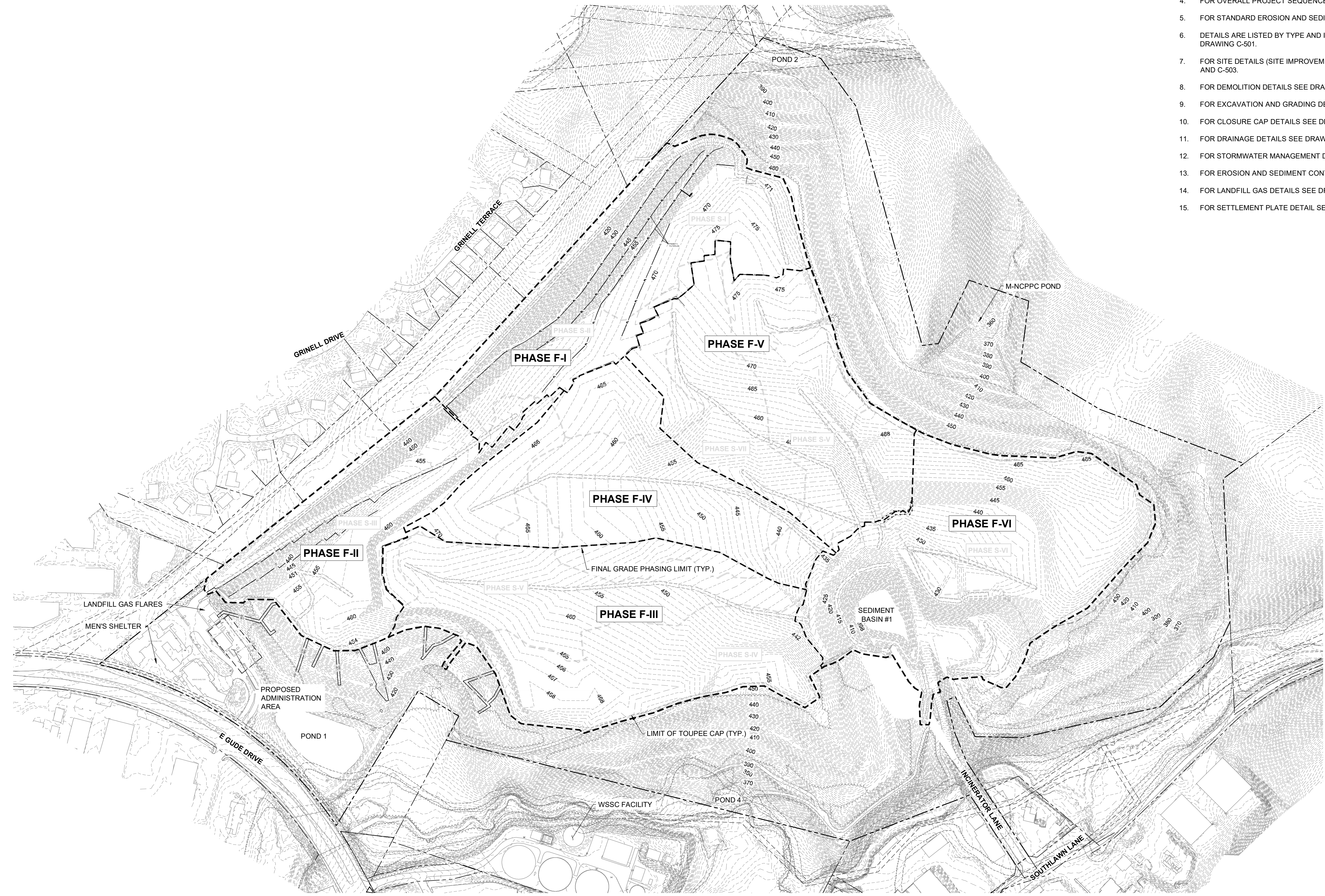
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND

**S PHASE - PHASED EROSION AND SEDIMENT CONTROL PLAN - KEY SHEET**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

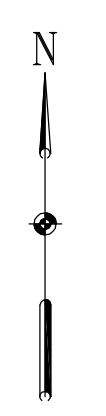
DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-701**  
 SHEET: 111 OF 144

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**GENERAL NOTES**

1. FOR GENERAL NOTES AND LEGEND, SEE DRAWING G-002.
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-111.
3. ALL FINAL GRADE PHASING LIMITS (F-#) ARE TO BE SUPER SILT FENCE.
4. FOR OVERALL PROJECT SEQUENCE OF CONSTRUCTION, SEE DRAWING G-003.
5. FOR STANDARD EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
6. DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS ON DRAWING C-501.
7. FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
8. FOR DEMOLITION DETAILS SEE DRAWING C-504.
9. FOR EXCAVATION AND GRADING DETAILS SEE DRAWINGS C-505, C-506, AND C-507.
10. FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
11. FOR DRAINAGE DETAILS SEE DRAWINGS C-510 AND C-511.
12. FOR STORMWATER MANAGEMENT DETAILS SEE DRAWINGS C-512 AND C-513.
13. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 AND C-515.
14. FOR LANDFILL GAS DETAILS SEE DRAWINGS C-516, C-517, C-518, AND C-519.
15. FOR SETTLEMENT PLATE DETAIL SEE DRAWING C-507.



REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION				
DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:

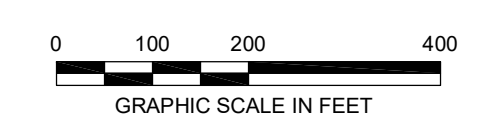
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.

SEAL

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**F PHASE - PHASES EROSION AND SEDIMENT CONTROL PLAN - KEY SHEET**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-702**  
 SHEET: 112 OF 144





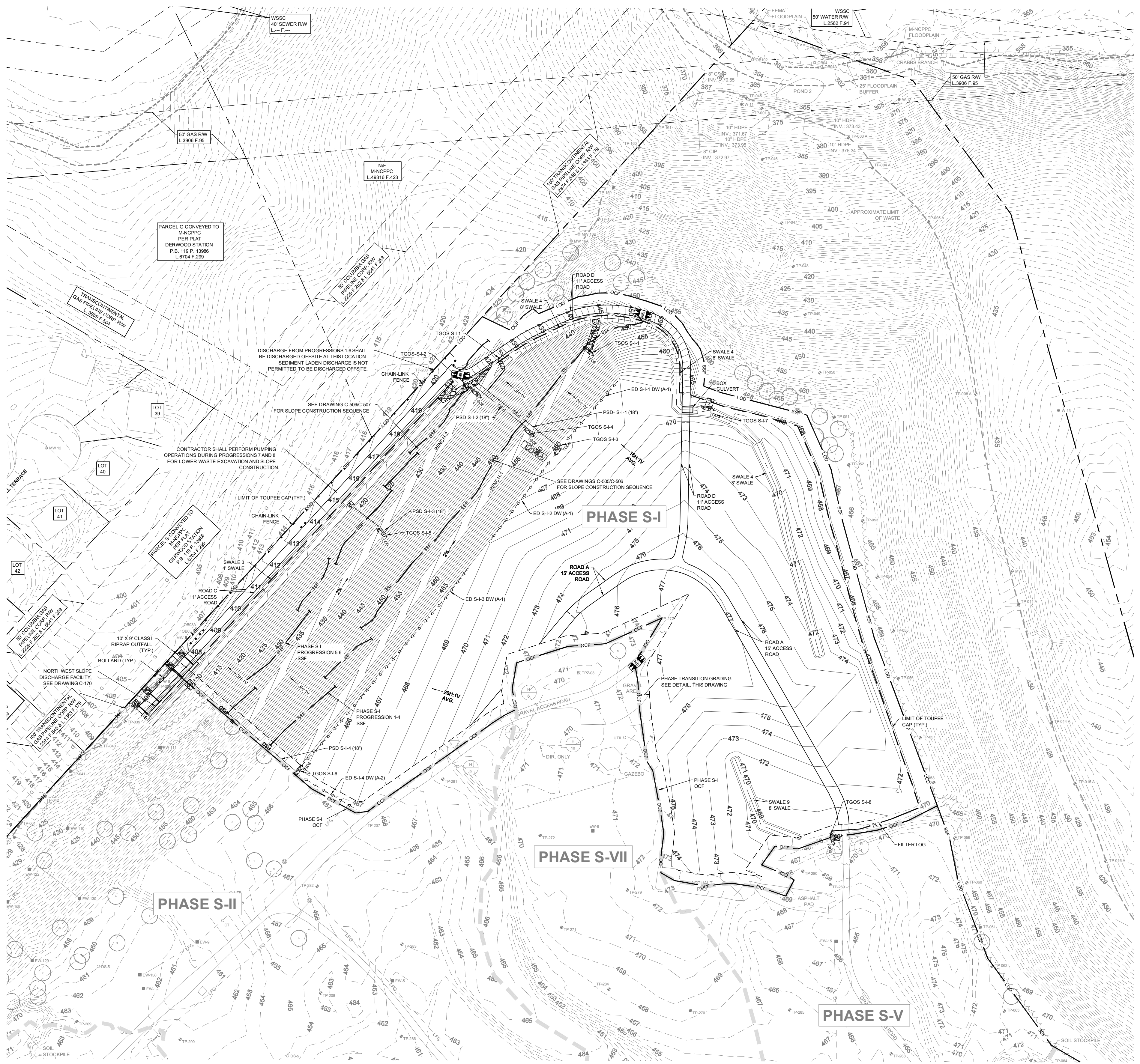
**GENERAL NOTES**

- PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
- REFER TO SHEETS C-110 TO C-117 FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO SHEET C-134 TO C-141 FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS

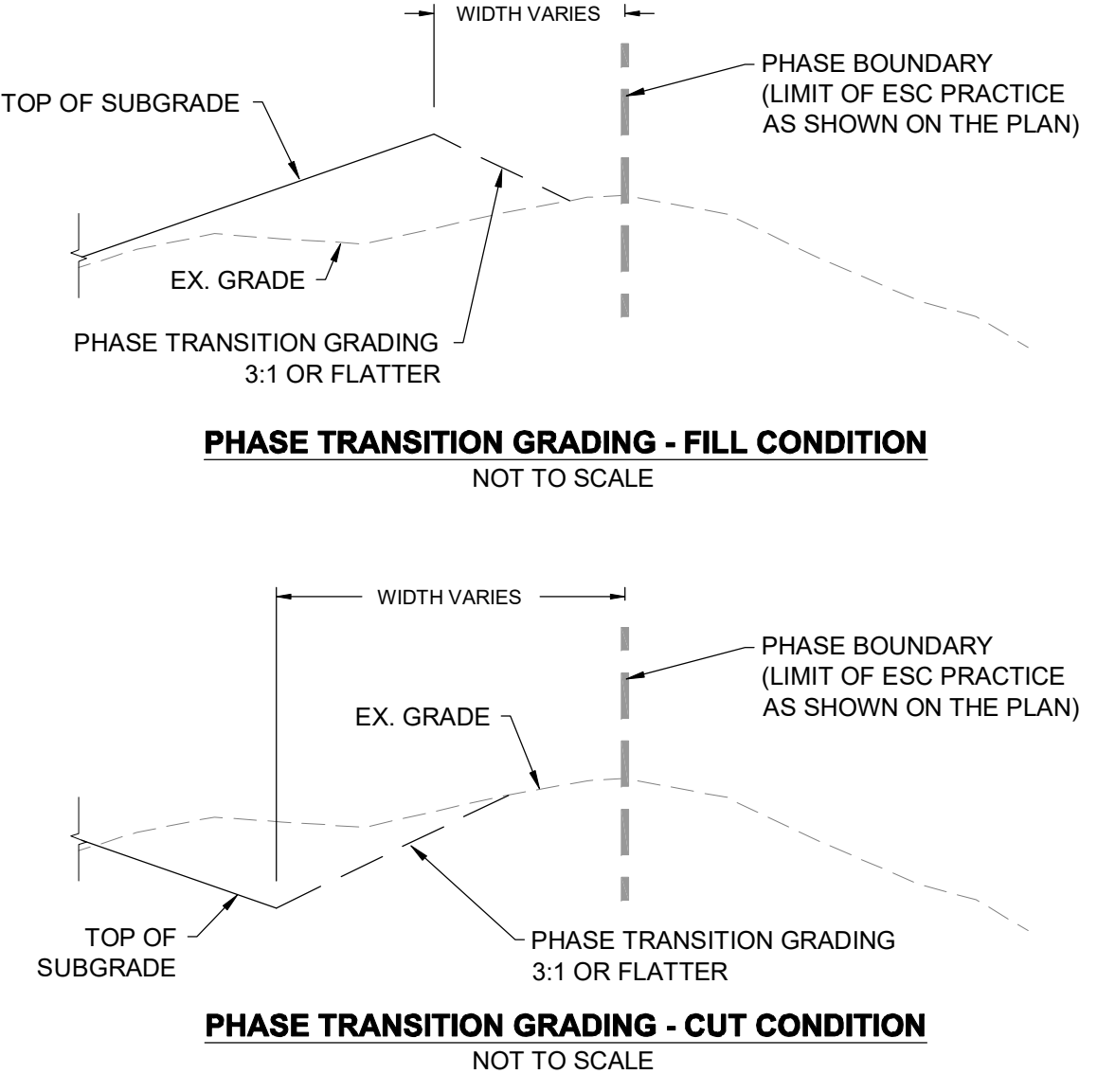
**PHASE S-I EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

REFER TO SHEET G-002 FOR THE OVERALL PROJECT SEQUENCE OF CONSTRUCTION. ITEMS PRESENTED BELOW ARE SPECIFIC TO THE INSTALLATION AND IMPLEMENTATION OF EROSION AND SEDIMENT CONTROLS FOR PHASE S-I ONLY.

1. INSTALL ORANGE CONSTRUCTION FENCING, PERIMETER SEDIMENT CONTROL DEVICES, AND SUPER SILT FENCE ON THE NORTHWEST FACE FOR THE SLOPE EXCAVATION PROGRESSIONS FOR PHASE S-I AS SHOWN ON SHEETS C-110 TO C-117.
2. ONCE THE PERIMETER SEDIMENT CONTROL DEVICES ARE INSTALLED AND APPROVED BY THE CME, OBTAIN WRITTEN APPROVAL FROM THE MCDPS INSPECTOR AND PROVIDE A COPY TO THE CME BEFORE PROCEEDING WITH ANY ADDITIONAL CLEARING, GRUBBING, OR GRADING.
3. CLEAR EXISTING TREES, SHRUBS, AND TALL GRASSES. THE CONTRACTOR SHALL MOW EXISTING GRASS TO A HEIGHT OF 1 INCH OR LESS. VEGETATIVE DEBRIS MUST BE DISPOSED OFFSITE.
4. INSTALL TGOSS S-I-1 AND DOWNCUTE AT THE TOE OF SLOPE.
5. ROUGH GRADE ROAD D AND SWALE 4 TO BOX CULVERT.
6. INSTALL BOX CULVERT, TGOSS S-I-7 AND S-I-8. COMPLETE ROUGH GRADING OF ROAD D AND SWALE 4.
7. COMMENCE REMOVAL AND STOCKPILE OF EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS).
8. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS). CONTRACTOR TO PRIORITIZE EXCAVATION AND PLACEMENT ACTIVITIES STARTING AT UPGRADIENT LOCATIONS AND LOCATIONS WITH STRUCTURAL EROSION AND SEDIMENT CONTROL DEVICES.
9. WHEN PERFORMING CONSTRUCTION ACTIVITIES ON THE SIDE SLOPES, FOLLOW THE PROCEDURES AND PROGRESSION OUTLINED IN THE SIDE SLOPE EXCAVATION DETAIL ON DRAWING C-506. TGOSS AND TSOS SHALL BE INSTALLED WITHIN THE SUMP CONDITION WITHIN AND ADJACENT TO BENCHES.
  - 9.1. PROGRESSION 1 AND 2: MAINTAIN SUPER SILT FENCE ON SLOPE. CONSTRUCT TGOSS S-I-3 AND TGOSS S-I-6 WITH ASSOCIATED EARTH DIKES, AND PIPE SLOPE DRAINS. SEDIMENT CONTROL DEVICES ALONG THE TOP OF THE PHASE SHALL REMAIN IN PLACE UNTIL FINAL GRADING PHASE.
  - 9.2. PROGRESSION 3 AND 4: COMMENCE SIDE SLOPE EXCAVATION WORKING DOWNHILL. WHEN BENCH 1 IS REACHED, INSTALL TGOSS S-I-1 AND DOWNCUTE. BEGIN BENCH-1 CONSTRUCTION. AS CONSTRUCTION OF BENCH 1 PROGRESSES, INSTALL TGOSS S-I-4. ONCE PROGRESSION STEPS ARE COMPLETED AND STABILIZED, PROGRESSION 1-4 SUPER SILT FENCE SHALL BE REMOVED WITH THE APPROVAL OF THE DPS INSPECTOR.
  - 9.3. PROGRESSION 5-6: COMMENCE SIDE SLOPE EXCAVATION WORKING DOWNHILL. WHEN BENCH 2 IS REACHED, INSTALL S-I-2. BEGIN BENCH-2 CONSTRUCTION. AS CONSTRUCTION OF BENCH 2 PROGRESSES, INSTALL TGOSS S-I-5 AND PIPE SLOPE DRAIN. ONCE PROGRESSION STEPS ARE COMPLETED AND STABILIZED, PROGRESSION 5-6 SUPER SILT FENCE SHALL BE REMOVED WITH THE APPROVAL OF THE DPS INSPECTOR.
  - 9.4. PROGRESSION 7-8: INSTALL SUPER SILT FENCE AT TOE OF SLOPE. COORDINATE LOCATION WITH FINAL EROSION AND SEDIMENT CONTROL PLANS. PERFORM SLOPE CONSTRUCTION PER DETAIL C-506. PERFORM PUMPING OPERATIONS AS NEEDED TO PREVENT THE RELEASE OF SEDIMENT FROM THE SITE.
10. CONSTRUCT NORTHWEST DISCHARGE FACILITY. PROVIDE GRAVEL ATOP END OF PIPE TO FILTER SEDIMENT FROM DISCHARGING OFFSITE. SEE DETAIL ON SHEET C-508.
11. ROUGH GRADE ACCESS ROAD C AND SWALE 3. PROVIDE SAME DAY STABILIZATION OF SWALE.



**PHASE S-I - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'



REVISIONS		DESCRIPTION
NO.	DATE	BY

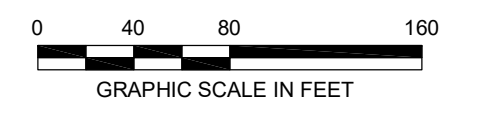
  

DESIGN INFORMATION		DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020									

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**PHASE S-I - EROSION AND SEDIMENT CONTROL PLAN**

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-703**  
 SHEET: 113 OF 144



FILE PATH: G:\PROJECTS\1564601 - GDEP\25\SCS\CONSTRUCTION\DESIGN\SETUP\0401 - 1113 - ESC - PHAS I.DWG 7/25/20 10:09 AM

90% DESIGN PLANS - NOT FOR CONSTRUCTION SCSWMM SHEET 35 OF 48

**GENERAL NOTES**

- PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
- REFER TO SHEETS C-110 TO C-117 FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO SHEET C-134 TO C-141 FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS

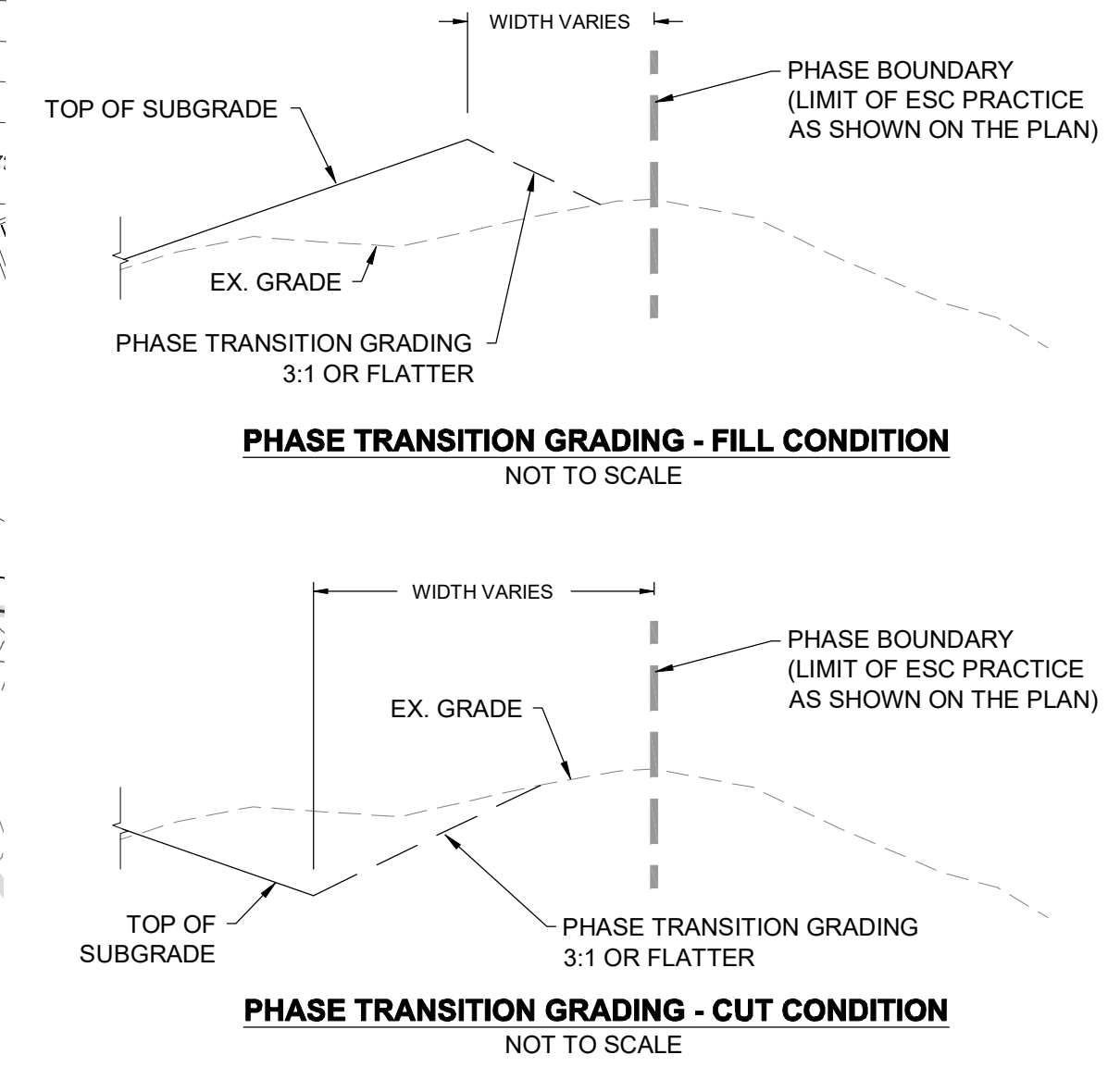
**PHASE S-II EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

REFER TO SHEET G-002 FOR THE OVERALL PROJECT SEQUENCE OF CONSTRUCTION. ITEMS PRESENTED BELOW ARE SPECIFIC TO THE INSTALLATION AND IMPLEMENTATION OF EROSION AND SEDIMENT CONTROLS FOR PHASE S-II ONLY.

1. INSTALL ORANGE CONSTRUCTION FENCING AT PHASE BOUNDARY AND SUPER SILT FENCE ON THE NORTHWEST FACE PER THE INITIAL EROSION AND SEDIMENT CONTROL PLAN SHEETS C-110 TO C-117.
2. ONCE THE NORTHWEST SLOPE SUPER SILT FENCE IS INSTALLED AND APPROVED BY THE CME, OBTAIN WRITTEN APPROVAL FROM THE MCDPS INSPECTOR AND PROVIDE A COPY TO THE CME BEFORE PROCEEDING WITH ANY ADDITIONAL CLEARING, GRUBBING, OR GRADING.
3. CLEAR EXISTING TREES, SHRUBS, AND TALL GRASSES. THE CONTRACTOR SHALL MOW EXISTING GRASS TO A HEIGHT OF 1 INCH OR LESS. VEGETATIVE DEBRIS MUST BE DISPOSED OFFSITE.
4. INSTALL TGOS S-II-5, S-II-1, S-II-6 ALONG THE EASTERN PERIMETER OF THE SITE WITH THEIR RESPECTIVE EARTH DIKE DIVERSIONS.
5. COMMENCE REMOVAL AND STOCKPILING OF EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS). PRIORITIZE EXCAVATION AND PLACEMENT ACTIVITIES STARTING AT UPGRADIENT LOCATIONS AND LOCATIONS WITH STRUCTURAL EROSION AND SEDIMENT CONTROL DEVICES.
6. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
7. WHEN PERFORMING CONSTRUCTION ACTIVITIES ON THE SIDE SLOPES, FOLLOW THE PROCEDURES AND PROGRESSION OUTLINED IN THE SIDE SLOPE EXCAVATION DETAIL ON DRAWING C-506. TGOS SHALL BE INSTALLED WITHIN THE SUMP CONDITION WITHIN THE BENCHES.
  - 7.1. PROGRESSION 1 AND 2: MAINTAIN SUPER SILT FENCE ON SLOPE. CONSTRUCT TGOS S-II-2 AND TGOS S-II-3 WITH ASSOCIATED EARTH DIKES AND PIPE SLOPE DRAINS.
  - 7.2. PROGRESSION 3 AND 4: COMMENCE SIDE SLOPE EXCAVATION WORKING DOWNHILL. WHEN BENCH 2 IS REACHED, INSTALL TGOS S-II-1 AND PSD-II-1. CONTINUE WITH BENCH CONSTRUCTION TOWARDS THE WESTERN LIMIT OF THE PHASE. ONCE PROGRESSION STEPS ARE COMPLETED AND STABILIZED, THE NORTHWEST SLOPE SUPER SILT FENCE SHALL BE REMOVED WITH THE APPROVAL OF THE DPS INSPECTOR.
  - 7.3. PROGRESSION 5 AND 6: PERFORM SLOPE CONSTRUCTION PER DETAIL C-506. PERFORM PUMPING OPERATIONS AS NEEDED TO PREVENT THE RELEASE OF SEDIMENT FROM THE SITE.
8. ROUGH GRADE ROAD C AND SWALE 2.



**PHASE S-II - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		DESIGNED BY:	KEY / SMB	PROJECT MANAGER:
NO.	DATE			

DESIGN INFORMATION		DESIGNED BY:	KEY / SMB	PROJECT MANAGER:
NO.	DATE			

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

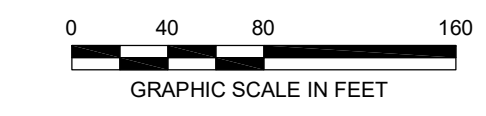
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND

**PHASE S-II - EROSION AND SEDIMENT CONTROL PLAN**

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JULY 2020  
PROJECT NUMBER: 1564601  
**C-704**  
SHEET: 114 OF 144



FILE PATH: G:\PROJECTS\1564601 - GSE\1564601\CONSTRUCTION\DESIGN\SET\1564601\_1112\_ERS\_C-704.rvt DATE: 7/20/2020 11:24 AM

90% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 36 OF 48

**GENERAL NOTES**

- PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
- REFER TO SHEETS C-110 TO C-117 FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO SHEET C-134 TO C-141 FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS

**PHASE S-II EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

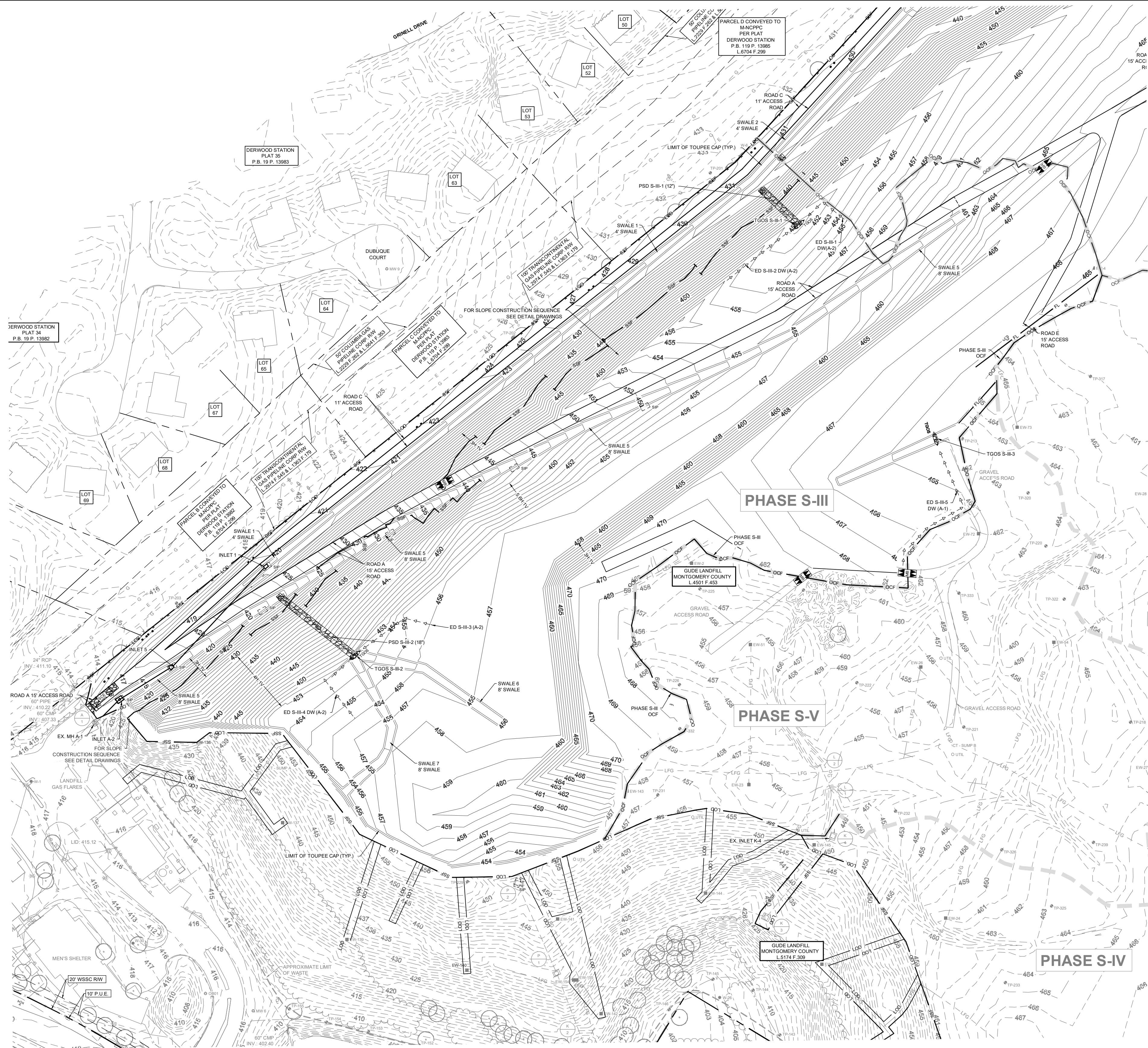
1. INSTALL ORANGE CONSTRUCTION FENCING, PERIMETER SEDIMENT CONTROL DEVICES, INLET PROTECTION, AND SUPER SILT FENCE ON THE NORTHWEST FACE FOR THE SLOPE EXCAVATION PROGRESSIONS FOR PHASE S-II AS SHOWN ON THIS SHEET.
2. ONCE THE PERIMETER SEDIMENT CONTROL DEVICES ARE INSTALLED AND APPROVED BY THE CME, OBTAIN WRITTEN APPROVAL FROM THE MCDPS INSPECTOR AND PROVIDE A COPY TO THE CME BEFORE PROCEEDING WITH ANY ADDITIONAL CLEARING, GRUBBING, OR GRADING.
3. CLEAR EXISTING TREES, SHRUBS, AND TALL GRASSES. THE CONTRACTOR SHALL MOW EXISTING GRASS TO A HEIGHT OF 1 INCH OR LESS. VEGETATIVE DEBRIS MUST BE DISPOSED OFFSITE.
4. INSTALL TGOSS S-II-3 AND S-II-2 WITH ASSOCIATED EARTH BERM AND/OR PIPE SLOPE DRAINS.

**STAGE 1 - NORTH OF ROAD A**

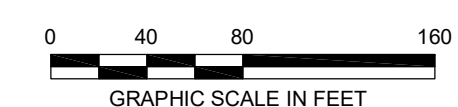
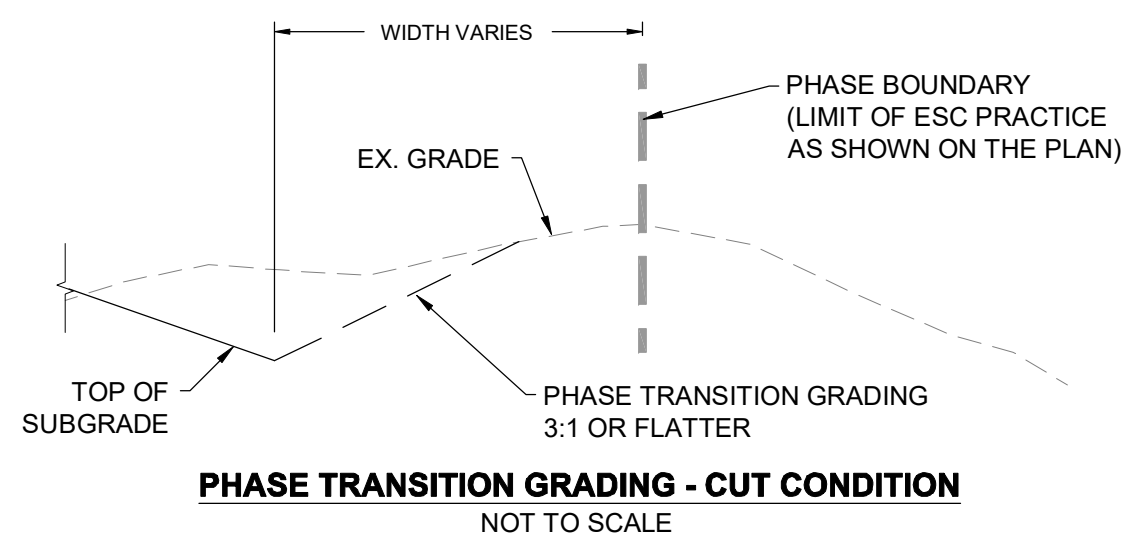
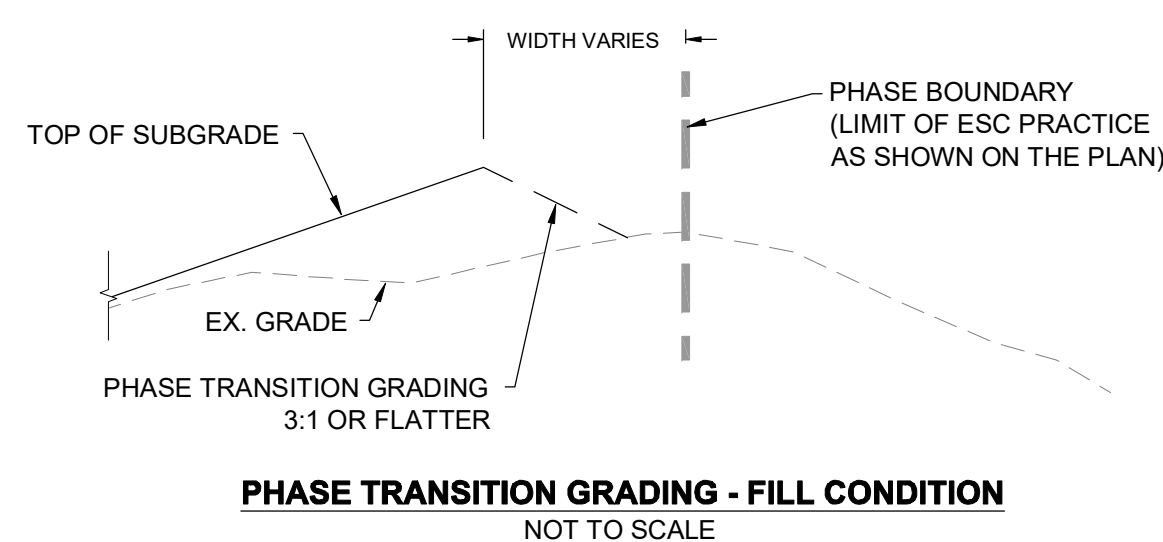
5. COMMENCE PHASE S-II CONSTRUCTION FROM PHASE S-II.
6. ROUGH GRADE THE EASTERN UPGRADIENT PORTION OF ROAD A AND SWALE 5 TO THE MOUNTABLE BERM AT ROAD MID-POINT. MAINTAIN SUMP CONDITIONS WITHIN SWALE 5 AS CONSTRUCTION PROGRESSES DOWNSLOPE. PERFORM PUMPING OPERATIONS AS NEEDED TO DEWATER SUMP WITHIN SWALE.
7. COMMENCE GRADING OPERATIONS ON THE NORTHWEST SIDE OF ROAD A.
8. REMOVAL AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS).
9. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
10. LIMIT WASTE PLACEMENT TO THE EASTERN SIDE OF PHASE S-III.
11. WHEN PERFORMING CONSTRUCTION ACTIVITIES ON THE SIDE SLOPES, FOLLOW THE PROCEDURES AND PROGRESSION OUTLINED IN THE SIDE SLOPE EXCAVATION DETAIL ON DRAWING C-506.
- 11.1. PROGRESSION 1 AND 2: MAINTAIN SUPER SILT FENCE ON SLOPE. PERFORM EXCAVATION AND PLACEMENT ON UPGRADIENT LAND.
- 11.2. PROGRESSION 3 AND 4: CONSTRUCT TGOSS S-II-1 AND ASSOCIATED EARTH BERMS AND PIPE SLOPE DRAIN. ONCE INSTALLED AND STABILIZED, REMOVE SUPER SILT FENCE ON NORTHWEST SLOPE. PERFORM SLOPE CONSTRUCTION PER DETAIL ON SHEET C-506. PERFORM PUMPING OPERATIONS AS NEEDED TO PREVENT THE RELEASE OF SEDIMENT FROM THE SITE WHEN PERFORMING WASTE EXCAVATION AT TOE OF SLOPE.
12. ROUGH GRADE THE SECTION OF ROAD C AND SWALE 2.

**STAGE 2 - SOUTH OF ROAD A**

13. ONCE THE NORTH SIDE OF ROAD A IS COMPLETED, COMMENCE CONSTRUCTION ON THE SOUTHWEST PORTION OF ROAD A.
14. VISUALLY INSPECT SUPER SILT FENCE ON THE NORTHWEST SLOPE AND MAINTAIN AS NEEDED. REMOVED ACCUMULATED SEDIMENT FROM TGOSS S-II-2.
15. REMOVAL AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS).
16. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
- 16.1. PROGRESSION 1 AND 2: MAINTAIN SUPER SILT FENCE ON SLOPE AND PERFORM EXCAVATION AND PLACEMENT OF WASTE ON UPGRADIENT LAND.
- 16.2. PROGRESSION 3 AND 4: COMMENCE SIDE SLOPE EXCAVATION WORKING DOWNHILL. PRIOR TO REACHING THE SILT FENCE, AND WHILE WITHIN A SUMPED CONDITION, PERFORM STABILIZATION OF UPGRADIENT SLOPE. ONCE STABILIZED, REMOVE THE DOWNGRADIENT SUPER SILT FENCE. COMPLETE REMAINING WASTE EXCAVATION.
- 16.3. DEMOLISH EXISTING STORM DRAINAGE FEATURES AND INSTALL INLETS A-2, 5, AND 1 AND ASSOCIATED PIPING. PROVIDE INLET PROTECTION.
17. COMPLETE ROUGH GRADING OF ROADS A AND C, AND SWALES 1 AND 5.



**PHASE S-III - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'



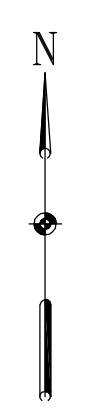
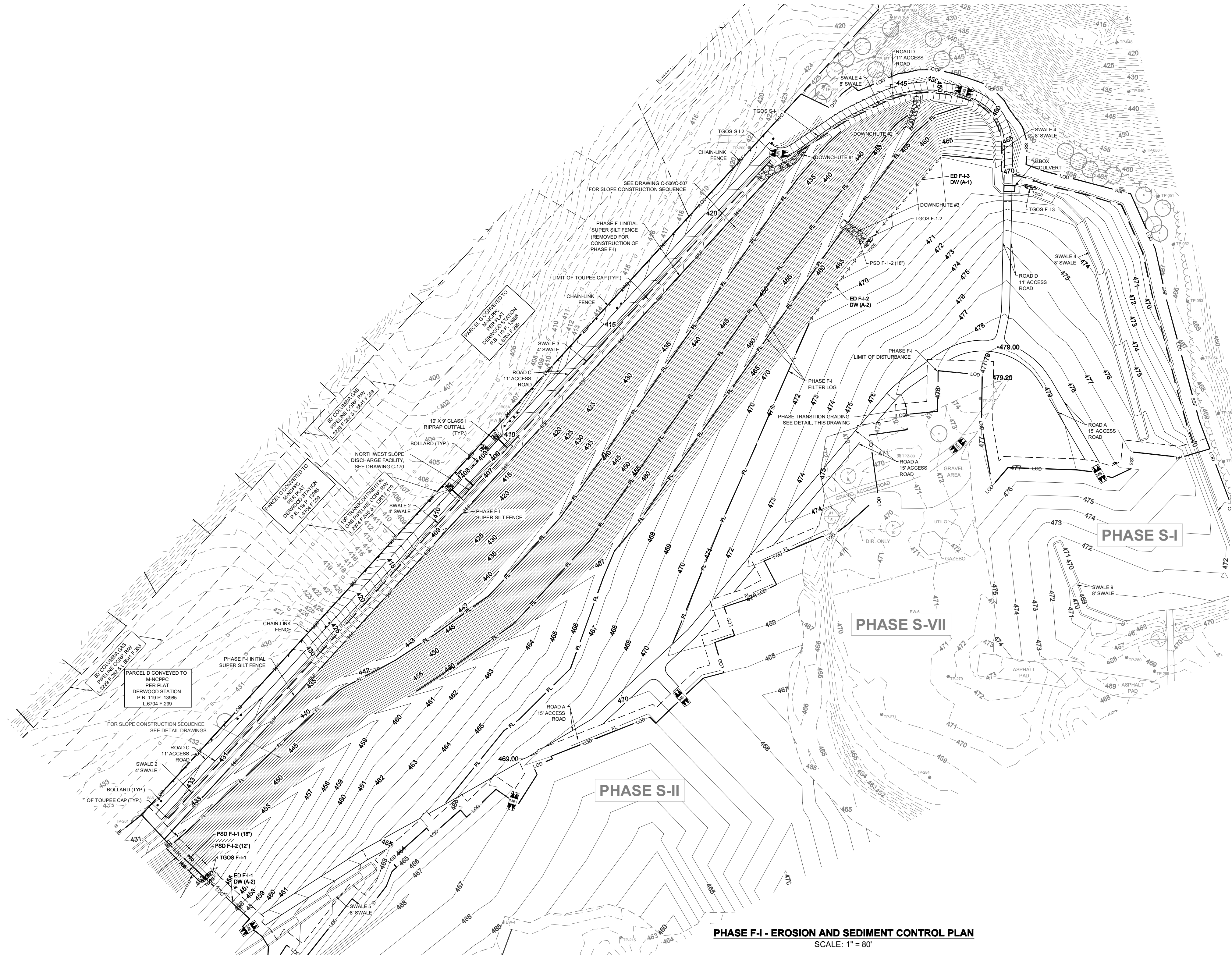
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	DRAWN BY:	SMB	
SEAL	CHECKED BY:	LJO / GAT	DESCRIPTION
	PROJECT MANAGER:	M/JG	DATE
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020			NO.
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND			BY
<b>PHASE S-III - EROSION AND SEDIMENT CONTROL PLAN</b>			DATE
90% DESIGN PLANS - NOT FOR CONSTRUCTION			NO.
<b>C-705</b> SHEET: 115 OF 144			NO.

**GENERAL NOTES**

- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-111.
- ALL SUBGRADE PHASING LIMITS (S-#) ARE TO BE DELINEATED BY ORANGE CONSTRUCTION FENCE UNLESS OTHERWISE SHOWN.
- FOR OVERALL PROJECT SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
- DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS ON DRAWING C-501.
- FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
- FOR DEMOLITION DETAILS SEE DRAWING C-504.
- FOR EXCAVATION AND GRADING DETAILS SEE DRAWINGS C-505, C-506, AND C-507.
- FOR DRAINAGE AREA MAPS SEE DRAWINGS C-510 AND C-511.
- FOR STORMWATER DRAINAGE DETAILS SEE DRAWINGS C-512 AND C-513.
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 AND C-515.
- THE PROPOSED GRADING SHOWN REFLECTS THE FINAL ELEVATIONS AND FEATURES.

**PHASE F-I EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

- PERFORM A VISUAL CHECK OF ALL EXISTING EROSION AND SEDIMENT CONTROL DEVICES AND PERFORM MAINTENANCE AS NEEDED TO REPLACE SECTION OF SILT FENCE THAT ARE IN DISREPAIR.
- CLEAR AND GRUB TO THE LIMIT OF PHASE F-I.
- FINAL GRADE ACCESS ROAD C AND SWALE 3. INSTALL TRM WITHIN THE SWALE.
- INSTALL GEOSYNTHETIC LINER MATERIAL FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
- INSTALL PIPE SLOPE DRAINS TO PROVIDE CONTROLLED DRAINAGE FROM THE TOP OF SLOPE.
- PLACE COVER SOIL MATERIAL STARTING AT THE TOE OF SLOPE TO FIRST BENCH CONSTRUCTING GABION DOWNCHUTES PER FINAL GRADING SHEETS C-143 TO C-149 AS PLACEMENT OF SOIL PROGRESSES UPSLOPE.
- CONSTRUCT BENCH AND INSTALL TRM. INSTALL FILTER LOG AT EDGE OF BENCH PRIOR TO CONTINUING THE INSTALLATION OF COVER SOIL UPSLOPE.
- CONTINUE PLACEMENT OF COVER SOIL, INSTALLING FILTER LOG AT DEFINED LOCATIONS ALONG SLOPE.
- AT TOP OF SLOPES, INSTALL TGOS F-I-1, F-I-2 AND F-I-3, AND EARTH DIKES AS SHOWN.
- CONTINUE THE PLACEMENT OF COVER SOIL TO UPPER LIMITS OF THE PHASE.
- PROVIDE PERMANENT STABILIZATION AS FINAL GRADE IS ACHIEVED.
- ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE INSPECTION, REMOVE INTERNAL PHASE DEVICES.



REVISIONS		DESCRIPTION
NO.	DATE	BY

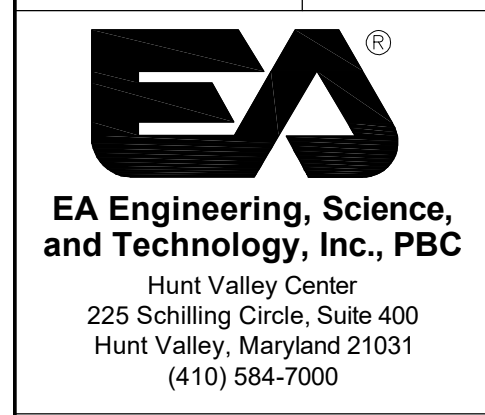
  

DESIGNED BY:	KEY / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

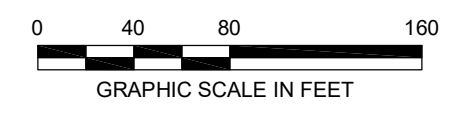
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GUIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND

PHASE F-I - EROSION AND SEDIMENT CONTROL PLAN



DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-706**  
 SHEET: 116 OF 144



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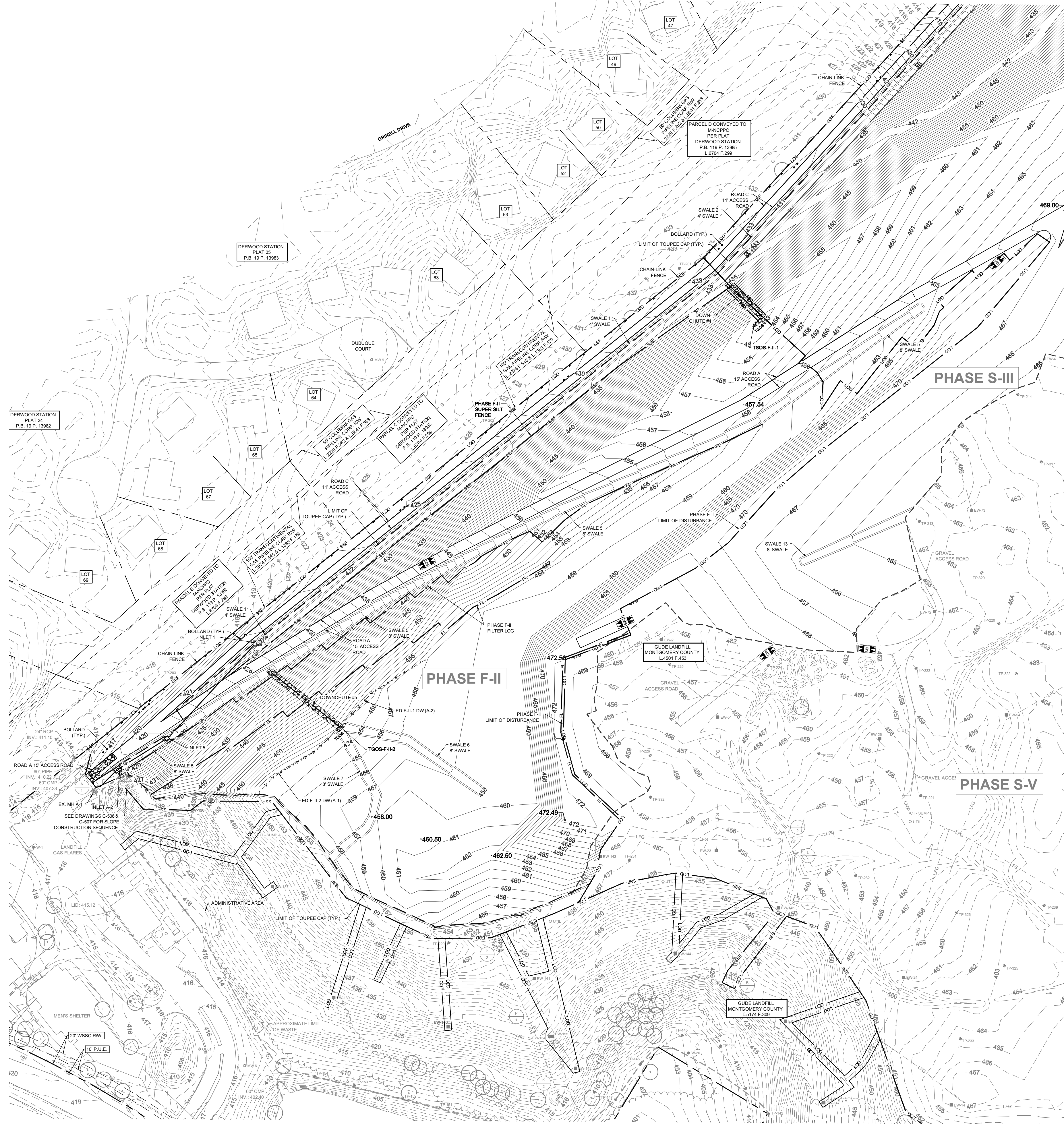
90% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 38 OF 48

**GENERAL NOTES**

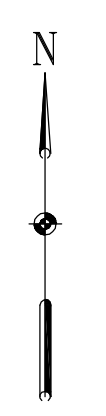
- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-111.
- ALL SUBGRADE PHASING LIMITS (S-#) ARE TO BE DELINEATED BY ORANGE CONSTRUCTION FENCE UNLESS OTHERWISE SHOWN.
- FOR OVERALL PROJECT SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
- DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS ON DRAWING C-501.
- FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
- FOR DEMOLITION DETAILS SEE DRAWING C-504.
- FOR EXCAVATION AND GRADING DETAILS SEE DRAWINGS C-505, C-506, AND C-507.
- FOR DRAINAGE AREA MAPS SEE DRAWINGS C-510 AND C-511.
- FOR STORMWATER DRAINAGE DETAILS SEE DRAWINGS C-512 AND C-513.
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 AND C-515.
- THE PROPOSED GRADING SHOWN REFLECTS THE FINAL ELEVATIONS AND FEATURES.

**PHASE F-II EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

- PERFORM A VISUAL CHECK OF ALL EXISTING EROSION AND SEDIMENT CONTROL DEVICES AND PERFORM MAINTENANCE AS NEEDED.
- CLEAR AND GRUB TO THE LIMIT OF PHASE F-II.
- FINAL GRADE ACCESS ROAD C AND SWALE 3.
- INSTALL GEOSYNTHETIC LINER MATERIAL FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
- INSTALL TRM WITHIN SWALE 3.
- INSTALL PIPE SLOPE DRAINS TO PROVIDE CONTROLLED DRAINAGE FROM THE TOP OF SLOPE.
- PLACE COVER SOIL MATERIAL STARTING AT THE TOE OF SLOPE TO INTERSECTION WITH SWALE 5 SOUTHWEST OF ROAD A OR TOP OF SLOPE CHANNEL NORTHEAST OF ROAD A.
- INSTALL TRM WITHIN SWALE 5 AND GABION DOWNCHUTES AS PLACEMENT OF COVER SOIL IS ADVANCED.
- CONTINUE PLACEMENT OF COVER SOIL INSTALLING FILTER LOG AT DEFINED LOCATIONS ALONG SLOPE.
- AT TOP OF SLOPE, INSTALL TGOS F-II-1 AND F-II-2 AND EARTH DIKES DRAIN AS SHOWN PRIOR TO CONTINUE UPSLOPE.
- CONTINUE THE PLACEMENT OF COVER SOIL TO UPPER LIMITS OF THE PHASE.
- PROVIDE PERMANENT STABILIZATION AS FINAL GRADE IS ACHIEVED.
- ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE INSPECTION, REMOVE INTERNAL PHASE DEVICES.



**PHASE F-II - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'



REVISIONS		DESCRIPTION
NO.	DATE	BY

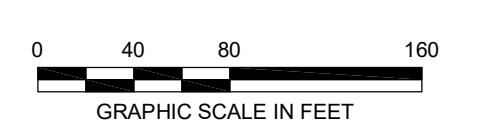
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DESIGNED BY:	KEF / SMB	PROJECT MANAGER	M/JG
DRAWN BY:	SMB		
CHECKED BY:	LJO / GAT		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**PHASE F-II - EROSION AND SEDIMENT CONTROL PLAN**

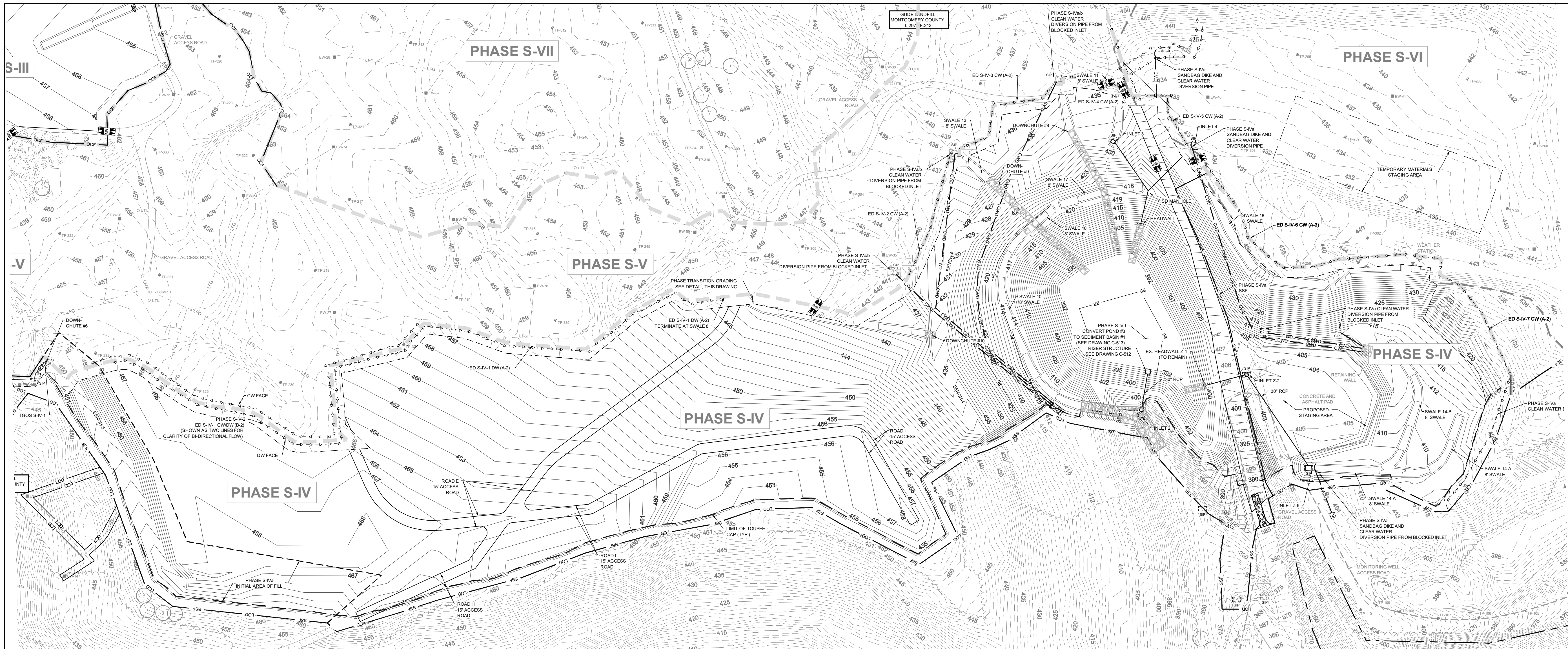
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JULY 2020  
 PROJECT NUMBER: 1564601  
**C-707**  
 SHEET: 117 OF 144



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 PLOT BY: BILLY B. STUBBS

90% DESIGN PLANS - NOT FOR CONSTRUCTION  
 SC/SWM SHEET 39 OF 48



**PHASE S-IV - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'

**GENERAL NOTES**

- PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
- REFER TO SHEETS C-110 TO C-117 FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO SHEET C-134 TO C-141 FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS

**PHASE S-IV EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

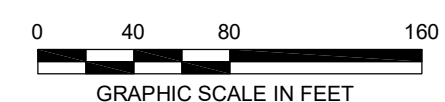
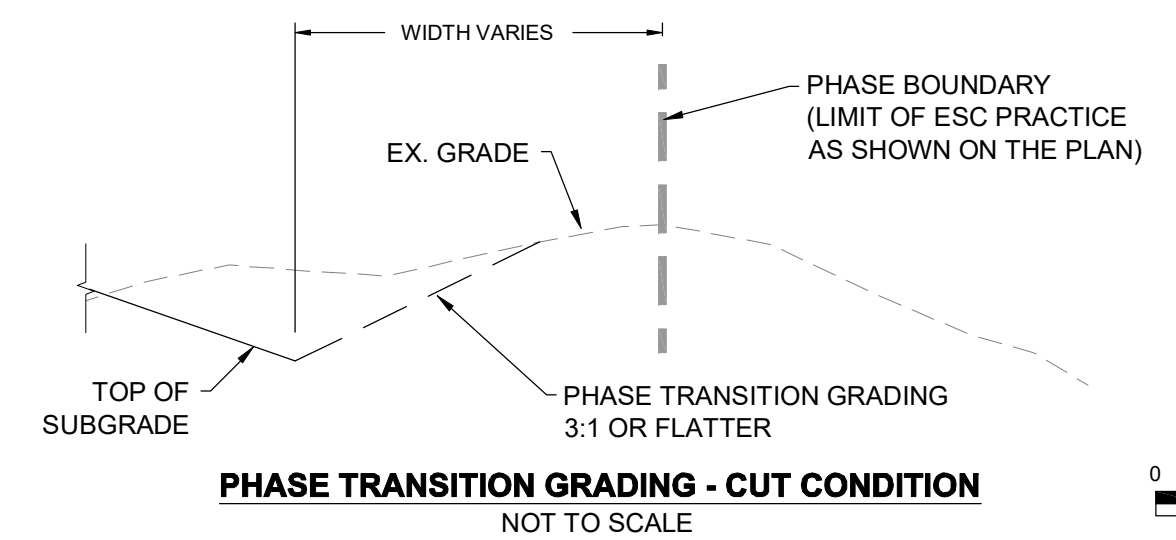
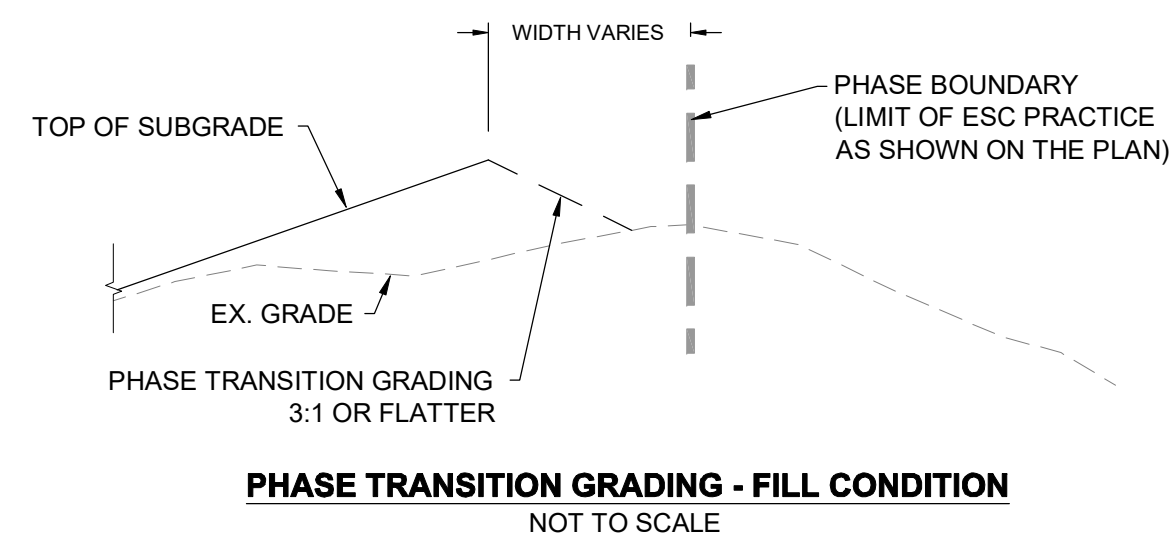
PHASE S-IV IS A TWO STAGE PROGRESSION WITH EROSION AND SEDIMENT CONTROLS FOR STAGE 1 (CONTROLS NOTED AS S-IV-1) FOR THE CONVERSION OF POND #3 TO SEDIMENT BASIN #1, AND STAGE 2 (CONTROLS NOTED AS S-IV-2) FOR PERFORMING THE WASTE RELOCATION AND SUBGRADE GRADING.

**STAGE 1 (S-IV-1) - CONVERSION OF POND #3 TO SEDIMENT BASIN #1 TO ELEVATION 405.**

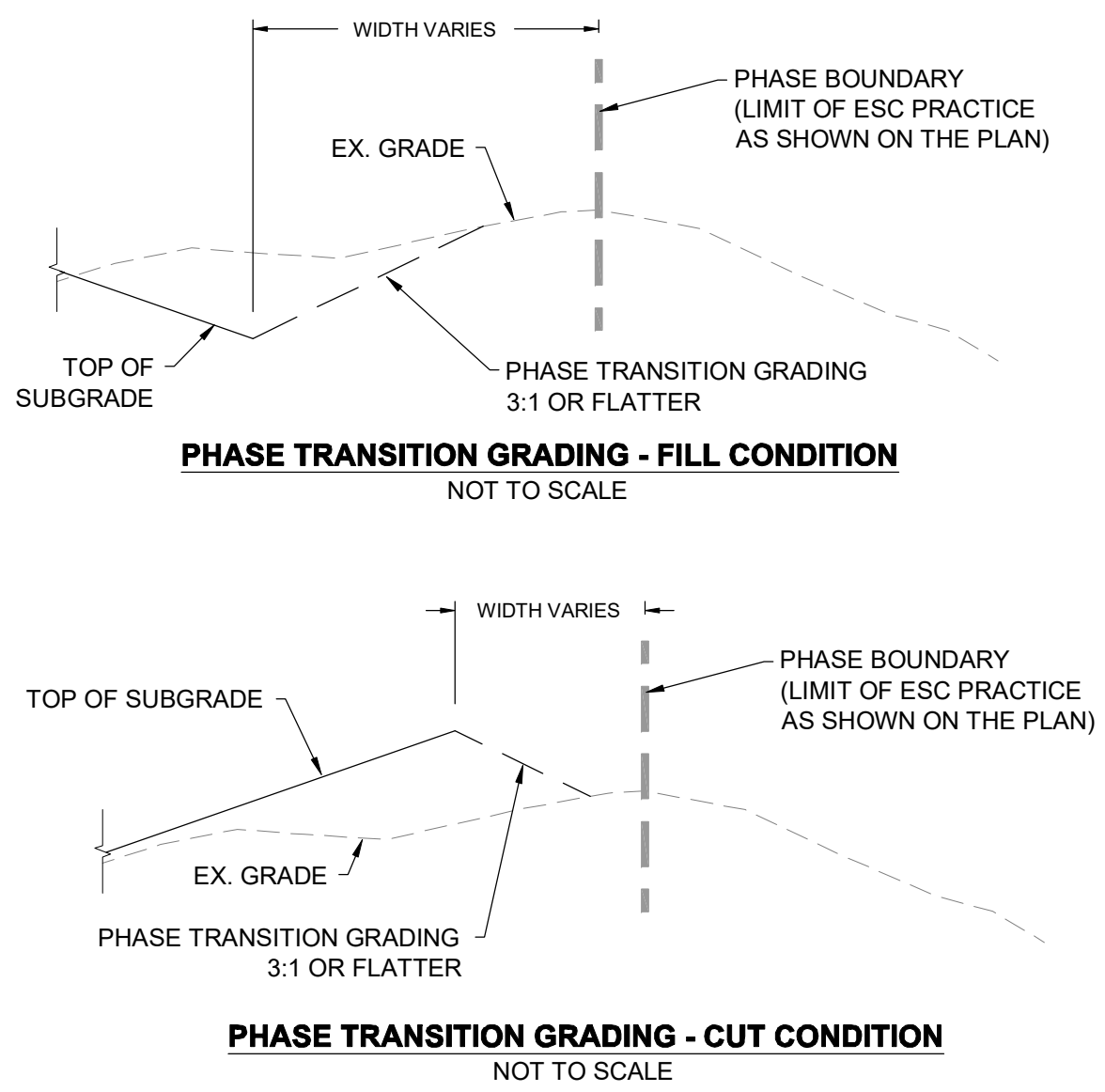
1. INSTALL TGOSS S-IV-1 WITHIN THE INITIAL FILL AREA.
2. REMOVE FLOW DIRECTED TO EXISTING POND #3 THAT WILL BE CONVERTED TO SEDIMENT BASIN #1. BLOCK INLETS J-3, I-3, H-3, H-7, AND Z-2 AS SPECIFIED ON THE PLANS. INSTALL SANDBAG DIKES, EARTH BERMS, AND CLEARWATER DIVERSION PIPES. PROVIDE RIPRAP AT THE DISCHARGE LOCATION OF EACH PIPE.
3. CONTRACTOR SHALL MONITOR POND #3 DURING THE FIRST STORM EVENT TO VERIFY ADEQUATE FLOW BLOCKAGE AND DIVERSION TO PERMIT THE CONVERSION OF POND #3 TO SEDIMENT BASIN #1.
4. WITH THE APPROVAL OF THE INSPECTOR, BEGIN CONVERSION OF POND #3 TO SEDIMENT BASIN #1.
- 4.1. SETUP BYPASS PUMPING FOR POND #3.
- 4.2. BLOCK THE OUTLET PIPE OF POND #3 WITH SANDBAGS, PLYWOOD SHEETING, OR CONCRETE FILL.
- 4.3. STARTING ALONG THE SOUTHERN SECTION, PERFORM ROUGH GRADING OF FACILITY TO ESTABLISH EMBANKMENT AND OUTFALL OF FACILITY.
- 4.4. REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505.
- 4.5. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505.
- 4.6. PLACE EXCAVATED MATERIAL WITHIN POND #3 FILL AREA.
- 4.7. ONCE POND #3 FILL AREA IS COMPLETE, PLACE EXCAVATED MATERIAL WITHIN INITIAL FILL AREA 1 ALONG THE WESTERN LIMIT OF THE PHASE CONTINUING TOWARDS THE EAST AFTER FILL AREA 1 IS COMPLETED. TGOSS S-IV-1 SHALL PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE IN THE SOUTHWEST CORNER OF PHASE S-IV.
- 4.8. REMOVE/DEMOLISH/ABANDON EXISTING STORM PIPING AS ENCOUNTERED AND AS SHOWN ON THE PLANS.
- 4.9. EXCAVATE SEDIMENT BASIN NO. 1 EMBANKMENT TO INSTALL THE CUTOFF TRENCH.
- 4.10. INSTALL PIPE BARREL, RIPRAP OUTLET PROTECTION, ANTI-SEEP COLLAR, RISER STRUCTURE, AND DRAW DOWN DEVICE.
- 4.11. INSTALL THE REMAINDER OF THE EMBANKMENT INCLUSIVE OF IMPERVIOUS CORE.
- 4.12. PERFORM ROUGH GRADING AND REMOVAL OF EXISTING STORM DRAINAGE PIPING FOR THE REMAINDER OF THE NORTHERN SECTION OF THE BASIN. INSTALL SWALE 10 AND 17 INSTALLING STORM DRAINAGE, HEADWALL OF INLET 3 AND INLET 4. PROVIDE RIPRAP OUTLET PROTECTION AT HEADWALL.
5. VEGETATION MUST BE ESTABLISHED BEFORE STAGE 1 IS CONSIDERED COMPLETE. ONCE THE VEGETATION IS ESTABLISHED AND APPROVED BY THE CME, OBTAIN WRITTEN APPROVAL FROM THE MCDPS INSPECTOR AND PROVIDE A COPY TO THE CME FOR ACCEPTANCE OF THE SEDIMENT BASIN.

**STAGE 2 (S-IV-2) - PHASE IV MASS GRADING AND SUBGRADE PREPARATION**

6. UPON APPROVAL OF THE SEDIMENT BASIN, PROCEED WITH WASTE EXCAVATION AND MASS GRADING FOR THE REMAINDER OF THE BASIN. MAINTAIN CLEAR WATER DIVERSIONS FOR OUT-OF-PHASE RUNOFF.
7. REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 31 05 15 (NOT SHOWN IN PLANS). LIMITED TO AREAS WEST OF INCINERATOR LANE.
8. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 02 61 13 (NOT SHOWN ON THESE PLANS). LIMITED TO THE AREAS WEST OF INCINERATOR LANE.
9. PROVIDE SAME DAY STABILIZATION OF SWALE 17 AND SWALE 10. WITH THE APPROVAL OF THE INSPECTOR, CLEAR WATER DIVERSION PIPING MAY BE REDIRECTED TO SWALE 10. ONLY CLEAR WATER SHALL BE DIRECTED TO SWALE 10.
10. PERFORM INSTALLATION OF INLET 3 AND INLET 4 AND DOWNSTREAM PIPING INTO SEDIMENT BASIN #1. PROVIDE INLET PROTECTION AND ROCK OUTLET PROTECTION.
11. INSTALL INLET Z-2 AND Z-6 AND ASSOCIATED PIPING INTO SEDIMENT BASIN #1. PROVIDE INLET PROTECTION AND ROCK OUTLET PROTECTION.
12. PERFORM COVER SOIL REMOVAL AND WASTE RELOCATION OF PHASE IV TO THE EAST OF THE INCINERATOR LANE. REMOVING CLEAR WATER DIVERSIONS AS GRADING PROGRESSES TO FORCE DISCHARGE FROM DISTURBED AREAS INTO SEDIMENT BASIN #1.
13. DEMOLISH EXISTING INLET STRUCTURES WITHIN PORTION OF PHASE IV ADJACENT TO THE STAGING AREA.
14. COMPLETE SUBGRADE AND PROVIDE STABILIZATION.



SEAL	DESIGN INFORMATION	DESIGNED BY: KEF/SMB	PROJECT MANAGER: M/JG
	DESIGNED BY: KEF/SMB	PROJECT MANAGER: M/JG	
REVISIONS	NO.	DATE	DESCRIPTION
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.			
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND			
<b>PHASE S-IV - EROSION AND SEDIMENT CONTROL PLAN</b>			
DATE: JULY 2020 PROJECT NUMBER: 1564601 <b>C-708</b> SHEET: 118 OF 144			



**PHASE S-V - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'

**GENERAL NOTES**

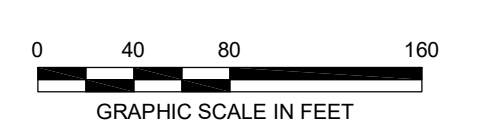
- PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
- REFER TO SHEETS C-110 TO C-117 FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO SHEET C-134 TO C-141 FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS

**PHASE S-V EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

PHASE S-V IS PRESENTED AS A TWO STAGE CONSTRUCTION PROGRESSION DUE TO THE LINEAR LAYOUT OF THE PHASE. THE STAGES ARE DELINEATED BY SWALE 13 AS:

- STAGE 1**
1. INSTALL PHASE PERIMETER CONTROLS: MOUNTABLE BERMS, INLET PROTECTION, AND EARTH DIKES
  2. ESTABLISH CLEAN WATER DIVERSION PIPE FOR BLOCKED INLET I-4 TO SWALE 10.
  3. CLEAR EXISTING TREES, SHRUBS, AND TALL GRASSES. THE CONTRACTOR SHALL MOW EXISTING GRASS TO A HEIGHT OF 1 INCH OR LESS. VEGETATIVE DEBRIS MUST BE DISPOSED OFFSITE.
  5. REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS) FOR SECTION EAST OF SWALE 13.
  6. INSTALL SWALES 12 AND 13 FROM PHASE S-V LIMIT TO PHASE S-VII LIMIT INCLUDING THE INSTALLATION OF BOX CULVERT. PROVIDE SWALE STABILIZATION PER THE PLANS.
  7. CONTINUE TOWARDS THE NORTHEAST PERFORMING STOCKPILING OF COVER SOIL AND PERFORMING WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
  8. INSTALL SWALE 16 FROM PHASE S-IV LIMIT TO PHASE S-VII LIMIT. PROVIDE SWALE STABILIZATION PER THE PLANS.
  9. ONCE SWALES 12, 13, AND 16 ARE STABILIZED, CLEAR WATER DIVERSIONS MAY BE REMOVED TO ALLOW OUT-OF-PHASE RUNOFF TO DISCHARGE INTO THE SWALES.
  10. CONTINUE WITH SOIL COVER REMOVAL AND WASTE EXCAVATION AND RELOCATION TO THE NORTH AND EASTERN LIMITS OF PHASE S-V INSTALLING SWALE 11 FROM PHASE S-IV TO ITS END AS CONSTRUCTION PROGRESSES.

- STAGE 2**
1. INSTALL PHASE PERIMETER CONTROLS: MOUNTABLE BERMS, SUMP PIT AND FILTER BAGS, EARTH DIKES, AND TIGOS S-V-1.
  2. CLEAR EXISTING TREES, SHRUBS, AND TALL GRASSES. THE CONTRACTOR SHALL MOW EXISTING GRASS TO A HEIGHT OF 1 INCH OR LESS. VEGETATIVE DEBRIS MUST BE DISPOSED OFFSITE.
  3. REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS) COMMENCING AT SWALE 13 AND CONTINUING WEST.
  6. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
  7. ONCE SUBGRADE IS ESTABLISHED AND STABILIZED BETWEEN SWALE 13 AND THE CLEAR WATER DIVERSION PIPE (APPROXIMATE ELEVATION 446), INSTALL THE CLEAR WATER DIVERSION PIPE.
  6. CONTINUE WITH COVER SOIL REMOVAL AND WASTE EXCAVATION TO THE WESTERN LIMITS OF THE PHASING INCLUDING THE INSTALLATION OF SWALE 8. PROVIDE STABILIZATION PER THE PLANS.
  7. PLACE WASTE MATERIAL WITHIN THE INITIAL AREA OF FILL LOCATED ALONG THE WESTERN LIMIT OF THE PHASE. TIGOS S-V-1 WITHIN THE INITIAL AREA OF FILL SHALL PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE IN THE SOUTHWEST CORNER OF PHASE S-V.
  8. COMPLETE PHASE S-V AND PROVIDE TEMPORARY STABILIZATION.



DESIGN INFORMATION	DESIGNED BY:	KEF/SMB		
	DRAWN BY:	SMB		
REVISIONS	NO.	DATE	BY	DESCRIPTION
SEAL	CHECKED BY:	LJO/GAT	PROJECT MANAGER:	MJG
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020				
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND				
<b>PHASE S-V - EROSION AND SEDIMENT CONTROL PLAN</b>				
EA <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000				
DATE: JULY 2020				
PROJECT NUMBER: 1564601				
<b>C-709</b>				
SHEET: 119 OF 144				

FILE PATH: G:\PROJECTS\1564601 - 1117 - ESC - PH S-V.DWG  
 C:\PLOT\BIBBETT.DWTWEN 7/20/20 8:10:04 AM

90% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 41 OF 48



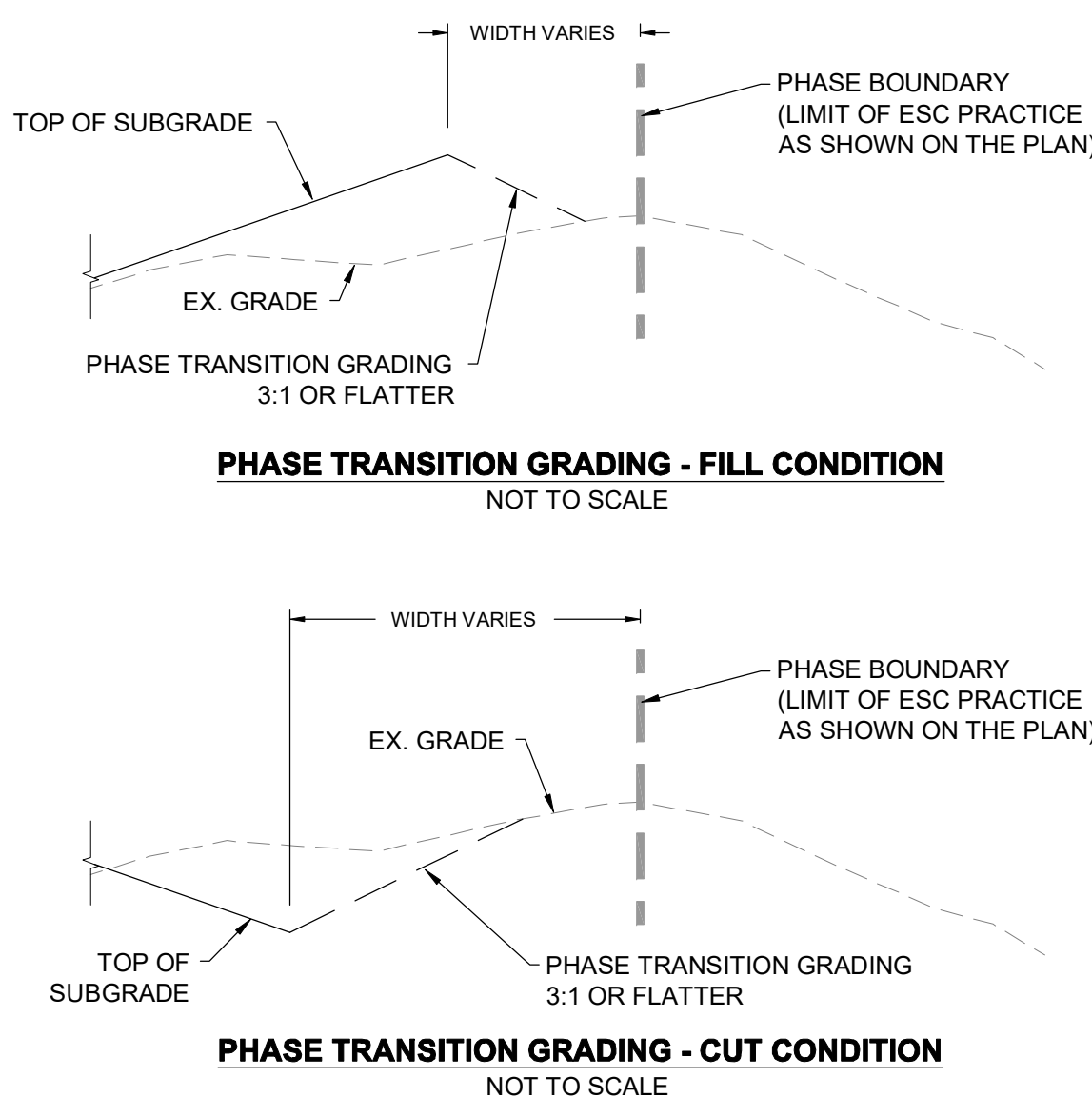


**GENERAL NOTES**

- PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
- REFER TO SHEETS C-110 TO C-117 FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO SHEET G-002 FOR THE OVERALL PROJECT SEQUENCE OF CONSTRUCTION. ITEMS PRESENTED BELOW ARE SPECIFIC TO THE INSTALLATION AND IMPLEMENTATION OF EROSION AND SEDIMENT CONTROLS FOR PHASE S-IV ONLY.
- REFER TO SHEET C-134 TO C-141 FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS

**PHASE S-VII EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

- INSTALL PHASE PERIMETER CONTROLS: INLET PROTECTION, EARTH DIKES, AND TGS S-VII-1.
- CLEAR EXISTING TREES, SHRUBS, AND TALL GRASSES. THE CONTRACTOR SHALL MOW EXISTING GRASS TO A HEIGHT OF 1 INCH OR LESS. VEGETATIVE DEBRIS MUST BE DISPOSED OFFSITE.
- COMMENCE GRADING OPERATIONS STARTING FROM DOWNGRADIENT AREAS AND PROCEEDING UPGRADIENT.
- REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS).
- PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
- INSTALL SWALES 12, 13, AND 16 AS GRADING PROGRESSES. PROVIDE STABILIZATION PER THE PLANS.
- INSTALL CLEAR WATER DIVERSION PIPES FROM PHASE S-II TO SWALE 16 ONCE GRADING HAS PROGRESSED ADJACENT TO ITS EXISTING DISCHARGE POINT.
- INSTALL CLEAR WATER DIVERSION PIPE FROM PHASE S-III TO SWALE 13 ONCE GRADING HAS PROGRESSED ADJACENT TO ITS EXISTING DISCHARGE POINT.
- COMPLETE PHASE S-VII AND PROVIDE STABILIZATION.



**PHASE S-VII - EROSION AND SEDIMENT CONTROL PLAN**

SCALE: 1" = 80'

FILE PATH: C:\PROJECTS\9090\9090 - GISE\9090\9090\DESIGN\SET\105001 - 1119 - ESC - PHAS S-VII.DWG (2/21/2020 10:34 AM) (2/21/2020 10:34 AM)

REVISIONS	NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	M/JG

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020

**GUIDE LANDFILL REMEDIATION DESIGN**

**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**

**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**

MONTGOMERY COUNTY, MARYLAND

**PHASE S-VII - EROSION AND SEDIMENT CONTROL PLAN**

**EA Engineering, Science, and Technology, Inc., PBC**

Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JULY 2020	PROJECT NUMBER: 1564601
<b>C-711</b>	
SHEET: 121 OF 144	

**GENERAL NOTES**

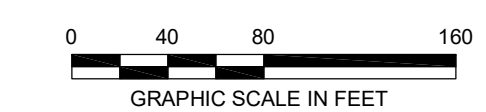
1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-111.
3. ALL SUBGRADE PHASING LIMITS (S-#) ARE TO BE DELINEATED BY ORANGE CONSTRUCTION FENCE UNLESS OTHERWISE SHOWN.
4. FOR OVERALL PROJECT SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
5. FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
6. DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS ON DRAWING C-501.
7. FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
8. FOR DEMOLITION DETAILS SEE DRAWING C-504.
9. FOR EXCAVATION AND GRADING DETAILS SEE DRAWINGS C-505, C-506, AND C-507.
10. FOR DRAINAGE AREA MAPS SEE DRAWINGS C-510 AND C-511.
11. FOR STORMWATER DRAINAGE DETAILS SEE DRAWINGS C-512 AND C-513.
12. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 AND C-515.
13. THE PROPOSED GRADING SHOWN REFLECTS THE FINAL ELEVATIONS AND FEATURES.

**PHASE F-II EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

1. PERFORM A VISUAL CHECK OF ALL EXISTING EROSION AND SEDIMENT CONTROL DEVICES AND PERFORM MAINTENANCE AS NEEDED.
2. CLEAR AND GRUB TO THE LIMIT OF PHASE F-II.
3. INSTALL GEOSYNTHETIC LINER MATERIAL FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
4. INSTALL TGOS F-II-1. INSTALL DOWNCHUTE #6. PLACE COVER SOIL MATERIAL WITHIN INITIAL FILL AREA. PROVIDE PERMANENT STABILIZATION.
5. PLACE COVER SOIL MATERIAL STARTING AT THE TOP OF SLOPE FOR THE REMAINDER OF THE PHASE.
6. AS CONSTRUCTION PROGRESSES, PROVIDE ECM/TRM WITHIN THE SWALE.
7. PROVIDE PERMANENT STABILIZATION AS FINAL GRADE IS ACHIEVED.
8. ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE INSPECTOR, REMOVE INTERNAL PHASE DEVICES.



**PHASE F-II - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'



FILE PATH: C:\PROJECTS\9090\9090.DWG DATE: 07/20/2020 11:59:55 AM USER: JMC

SEAL	DESIGN INFORMATION		DESIGNER BY:	DESCRIPTION
	KEY / SMB	DATE	DATE	BY
	DRAWN BY:	NO.	NO.	NO.
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020		PROJECT MANAGER:		
MONTGOMERY COUNTY, MARYLAND		M/JG		
<p><b>GUIDE LANDFILL REMEDIATION DESIGN</b>  <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b>  <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b></p>				
<p>PHASE F-III - EROSION AND SEDIMENT CONTROL PLAN</p>				
<p><b>EA Engineering, Science, and Technology, Inc., PBC</b>          Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</p>				
DATE: JULY 2020				
PROJECT NUMBER: 1564601				
<b>C-712</b>				
SHEET: 122 OF 144				

**GENERAL NOTES**

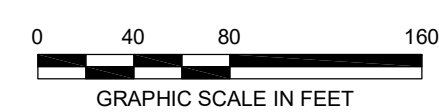
- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-111.
- ALL SUBGRADE PHASING LIMITS (S-#) ARE TO BE DELINEATED BY ORANGE CONSTRUCTION FENCE UNLESS OTHERWISE SHOWN.
- FOR OVERALL PROJECT SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
- DETAILS ARE LISTED BY TYPE AND INDEXED TO THE APPROPRIATE DETAIL SHEETS ON DRAWING C-501.
- FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
- FOR DEMOLITION DETAILS SEE DRAWING C-504.
- FOR EXCAVATION AND GRADING DETAILS SEE DRAWINGS C-505, C-506, AND C-507.
- FOR DRAINAGE AREA MAPS SEE DRAWINGS C-510 AND C-511.
- FOR STORMWATER DRAINAGE DETAILS SEE DRAWINGS C-512 AND C-513.
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 AND C-515.
- THE PROPOSED GRADING SHOWN REFLECTS THE FINAL ELEVATIONS AND FEATURES.

**PHASE F-IV EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

- PERFORM A VISUAL CHECK OF ALL EXISTING EROSION AND SEDIMENT CONTROL DEVICES AND PERFORM MAINTENANCE AS NEEDED.
- INSTALL GABION DOWNCHUTE AT END OF SWALE TO DISCHARGE INTO SWALE 10 IN ORDER TO BYPASS CLEAR WATER AROUND SEDIMENT BASIN NO. 1
- CLEAR AND GRUB TO THE LIMIT OF PHASE F-IV.
- INSTALL GEOSYNTHETIC LINER MATERIAL FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
- PLACE COVER SOIL MATERIAL STARTING AT THE TOP OF SLOPE.
- AS CONSTRUCTION PROGRESSES, PROVIDE ECM/TRM WITHIN THE SWALE.
- PROVIDE PERMANENT STABILIZATION AS FINAL GRADE IS ACHIEVED.
- ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE INSPECTOR, REMOVE INTERNAL PHASE DEVICES.



**PHASE F-IV - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'



FILE PATH: C:\PROJECTS\156461 - GIBB L.P. DESIGN\CONSTRUCTION\DESIGN\SET\156461\_11.17\_2020.dwg, 11:57:43 AM, 11/17/2020, 11:57:43 AM

REVISIONS	NO.	DATE	BY	DESCRIPTION
DESIGN INFORMATION	DESIGNED BY:	KEF/SMB		
	DRAWN BY:	SMB		
	CHECKED BY:	LJO/GAT		
	PROJECT MANAGER:	MJG		
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.				
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND				
<b>PHASE F-IV - EROSION AND SEDIMENT CONTROL PLAN</b>				
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000				
DATE: JULY 2020				
PROJECT NUMBER: 1564601				
<b>C-713</b>				
SHEET: 123 OF 144				

90% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 45 OF 48

**GENERAL NOTES**

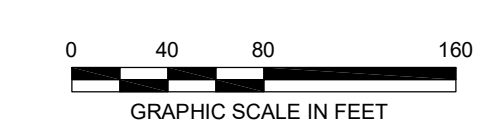
- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-111.
- ALL SUBGRADE PHASING LIMITS (S-#) ARE TO BE DELINEATED BY ORANGE CONSTRUCTION FENCE UNLESS OTHERWISE SHOWN.
- FOR OVERALL PROJECT SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002.
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
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- FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.) SEE DRAWINGS C-502 AND C-503.
- FOR DEMOLITION DETAILS SEE DRAWING C-504.
- FOR EXCAVATION AND GRADING DETAILS SEE DRAWINGS C-505, C-506, AND C-507.
- FOR DRAINAGE AREA MAPS SEE DRAWINGS C-510 AND C-511.
- FOR STORMWATER DRAINAGE DETAILS SEE DRAWINGS C-512 AND C-513.
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 AND C-515.
- THE PROPOSED GRADING SHOWN REFLECTS THE FINAL ELEVATIONS AND FEATURES.

**PHASE F-V EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

- PERFORM A VISUAL CHECK OF ALL EXISTING EROSION AND SEDIMENT CONTROL DEVICES AND PERFORM MAINTENANCE AS NEEDED.
- INSTALL GABION DOWNCHUTE AT END OF SWALE 13 TO DISCHARGE INTO SWALE 10 IN ORDER TO BYPASS CLEAR WATER AROUND SEDIMENT BASIN NO. 1
- INSTALL ED F-V-1.
- CLEAR AND GRUB TO THE LIMIT OF PHASE F-V.
- INSTALL GEOSYNTHETIC LINER MATERIAL FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
- PLACE COVER SOIL MATERIAL STARTING AT THE TOP OF SLOPE.
- AS CONSTRUCTION PROGRESSES, PROVIDE ECM/TRM WITHIN THE SWALE.
- PROVIDE PERMANENT STABILIZATION AS FINAL GRADE IS ACHIEVED.
- ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE INSPECTOR, REMOVE INTERNAL PHASE DEVICES.



**PHASE F-V - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'



FILE PATH: C:\PROJECTS\156461\156461\_1152\_EDC\_PHA-F-V.DWG DATE: 11/22/2020 11:52:00 AM

REVISIONS	DESCRIPTION
BY	
DATE	
NO.	
DESIGN INFORMATION	
DESIGNED BY:	KEF/SMB
DRAWN BY:	SMB
CHECKED BY:	LJO/GAT
PROJECT MANAGER:	MJG
SEAL	
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2020	
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND	
<b>PHASE F-V - EROSION AND SEDIMENT CONTROL PLAN</b>	
EA Engineering, Science, and Technology, Inc., PBC Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000	
DATE: JULY 2020 PROJECT NUMBER: 1564601	
<b>C-714</b> SHEET: 124 OF 144	

90% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 46 OF 48

**GENERAL NOTES**

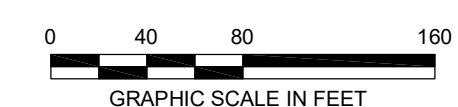
- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002.
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-111.
- ALL SUBGRADE PHASING LIMITS (S-#) ARE TO BE DELINEATED BY ORANGE CONSTRUCTION FENCE UNLESS OTHERWISE SHOWN.
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- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003.
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- FOR DEMOLITION DETAILS SEE DRAWING C-504.
- FOR EXCAVATION AND GRADING DETAILS SEE DRAWINGS C-505, C-506, AND C-507.
- FOR DRAINAGE AREA MAPS SEE DRAWINGS C-510 AND C-511.
- FOR STORMWATER DRAINAGE DETAILS SEE DRAWINGS C-512 AND C-513.
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 AND C-515.
- THE PROPOSED GRADING SHOWN REFLECTS THE FINAL ELEVATIONS AND FEATURES.

**PHASE F-VI EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

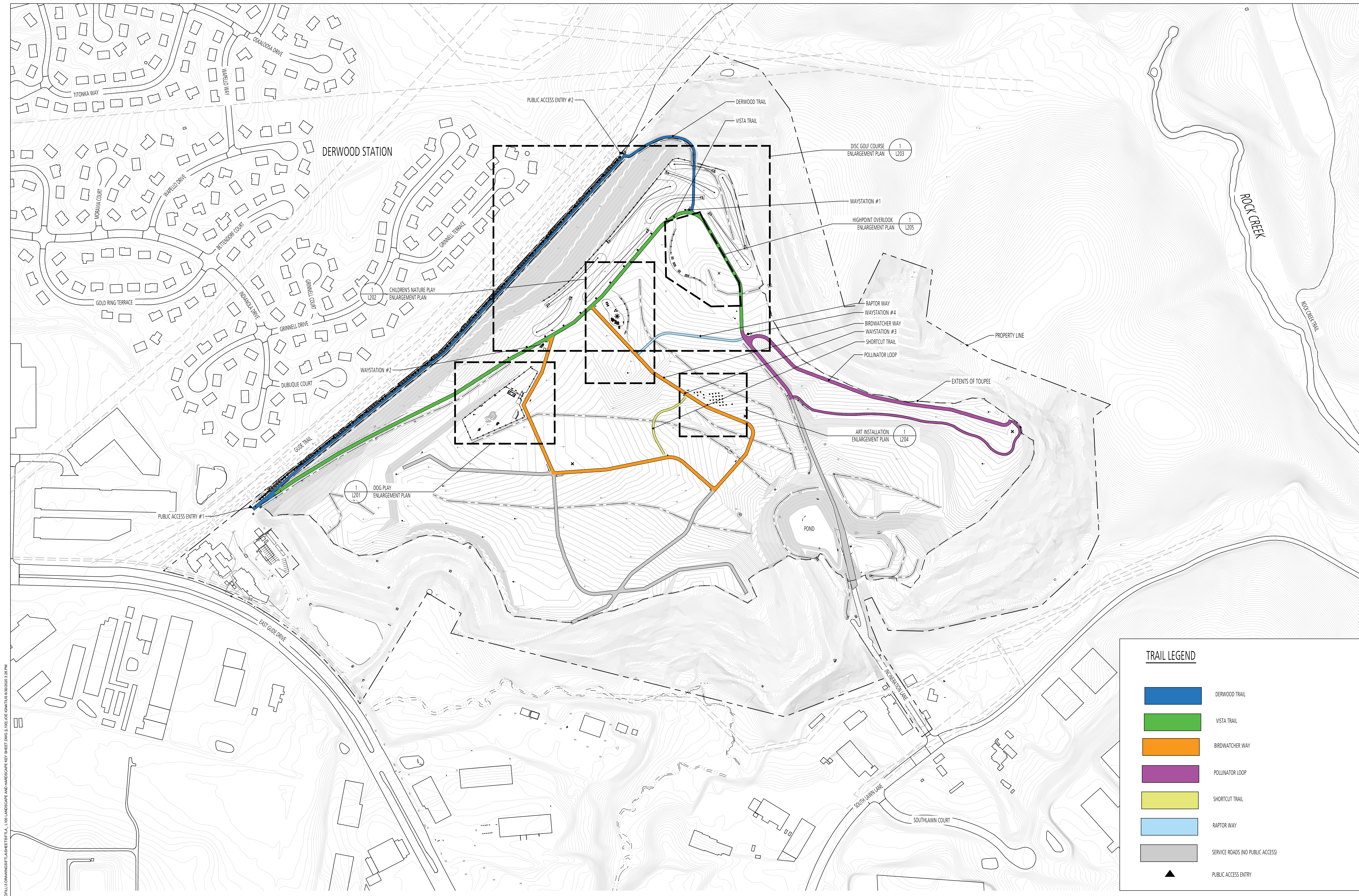
- PERFORM A VISUAL CHECK OF ALL EXISTING EROSION AND SEDIMENT CONTROL DEVICES AND PERFORM MAINTENANCE AS NEEDED.
- INSTALL PHASE F-VI CONTROLS: INLET PROTECTION AND EARTH DIKES PER THE PLAN.
- CLEAR EXISTING TREES, SHRUBS, AND TALL GRASSES. THE CONTRACTOR SHALL MOW EXISTING GRASS TO HEIGHT OF 1 INCH OR LESS. VEGETATIVE DEBRIS MUST BE DISPOSED OFFSITE.
- ESTABLISH AND/OR MAINTAIN THE CLEAR WATER BYPASS USING SWALE 10 FOR PHASE F-III AND F-IV.
- CLEAR AND GRUB TO THE LIMIT OF PHASE F-VI.
- INSTALL GEOSYNTHETIC LINER MATERIAL FROM TOP OF SLOPE TO BOTTOM OF SLOPE FOR AREAS TO THE EAST OF INCINERATOR LANE.
- PLACE COVER SOIL MATERIAL STARTING AT THE TOE OF SLOPE.
- AS CONSTRUCTION PROGRESSES, PROVIDE ECM/TRM WITHIN THE SWALE 14A, 14B, AND 15 AS SPECIFIED ON THE PLANS.
- PROVIDE PERMANENT STABILIZATION AS FINAL GRADE IS ACHIEVED FOR DISTURBED LANDS TO THE EAST OF INCINERATOR LANE.
- INSTALL GEOSYNTHETIC LINER MATERIAL WITHIN SWALE 17 AND TO ITS UPGRADIENT DRAINAGE AREA TO THE PHASE LIMITS. PLACE COVER SOIL FOR THIS SECTION OF LAND. PROVIDE SAME DAY STABILIZATION FOR SWALE 17.
- PROVIDE BYPASS PUMPING OPERATIONS OR PROVIDE PIPED DIVERSIONS FOR SWALE 16 AND SWALE 13. CONTINUE TO DISCHARGE SWALE 8 TO SWALE 10 FOR CLEAR WATER BYPASSING.
- INSTALL GEOSYNTHETIC LINER MATERIAL WITHIN SWALE 10 TO ITS INTERSECTION WITH DOWNCHUTE 10 (SWALE 8) AND PORTION OF THE UPGRADIENT DRAINAGE AREA. PLACE COVER SOIL FOR THIS SECTION OF LAND. PROVIDE SAME DAY STABILIZATION FOR THIS SECTION OF SWALE 10.
- PROVIDE MEANS OF BYPASS PUMPING OR DIVERSION PIPE FOR SWALE 8.
- INSTALL GEOSYNTHETIC LINER MATERIAL WITHIN THE REMAINDER OF SWALE 10 AND UPGRADIENT DRAINAGE AREA. PLACE COVER SOIL FOR THIS SECTION OF LAND. PROVIDE SAME DAY STABILIZATION FOR SWALE 10.
- WITH THE APPROVAL OF THE INSPECTOR, DRAIN SEDIMENT BASIN NO. 1 TO PERFORM FINAL GRADING AND CAPPING. PROVIDE BYPASS PUMPING ACCOMMODATIONS FOR UPGRADIENT CONVEYANCES TO PREVENT DAMAGE TO THE GEOSYNTHETIC LINER SYSTEM.
- ONCE FACILITY IS DRAINED, INSTALL GEOSYNTHETIC LINER MATERIAL ALONG THE NORTHERN HALF OF THE FACILITY. PLACE COVER SOILS AND STABILIZE. PLACE THE EARTH CLOSURE CAP ON THE NORTHERN HALF OF THE FLOOR. CONTINUE DEWATERING OPERATIONS IF NECESSARY.
- INSTALL GEOSYNTHETIC LINER MATERIAL ALONG THE SOUTHERN HALF OF THE FACILITY. PLACE COVER SOILS AND STABILIZE. PLACE THE EARTH CLOSURE CAP ON THE SOUTHERN HALF OF THE FLOOR.
- REMOVE DEWATERING DEVICES, RISER STRUCTURE, OUTFALL PIPING, AND EMBANKMENT AS SHOWN ON THE PLANS.
- MODIFY INLET 2 SIDE OPENINGS AS SHOWN ON THE PLANS.
- INSTALL THE REMAINDER OF THE GEOSYNTHETIC CLOSURE CAP AND PLACE COVER SOIL.
- PROVIDE PERMANENT STABILIZATION AND ROCK OUTLET PROTECTION AS SHOWN ON THE PLANS.



**PHASE F-VI - EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 80'

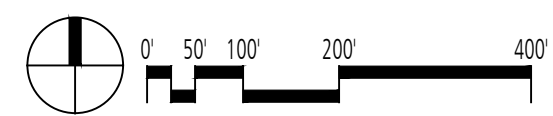


DESIGN INFORMATION	DESIGNED BY:	KEF/SMB	
	DRAWN BY:	SMB	
REVISIONS	NO.	DATE	DESCRIPTION
SEAL	CHECKED BY:	LJO/GAT	
	PROJECT MANAGER:	MJG	
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2020.			
<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND			
<b>PHASE F-VI - EROSION AND SEDIMENT CONTROL PLAN</b>			
<b>EA</b> <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000			
DATE: JULY 2020			
PROJECT NUMBER: 1564601			
<b>C-715</b>			
SHEET: 125 OF 144			



**TRAIL LEGEND**

- DERWOOD TRAIL
- VISTA TRAIL
- BIRDWATCHER WAY
- POLLINATOR LOOP
- SHORTCUT TRAIL
- RAPTOR WAY
- SERVICE ROADS (NO PUBLIC ACCESS)
- PUBLIC ACCESS ENTRY



**1** KEY SHEET  
PLAN

SCALE: 1" = 200'

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI	BY	DESCRIPTION
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 10993 EXPIRATION DATE: 07/26/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND

**LANDSCAPE PLAN - KEY SHEET**

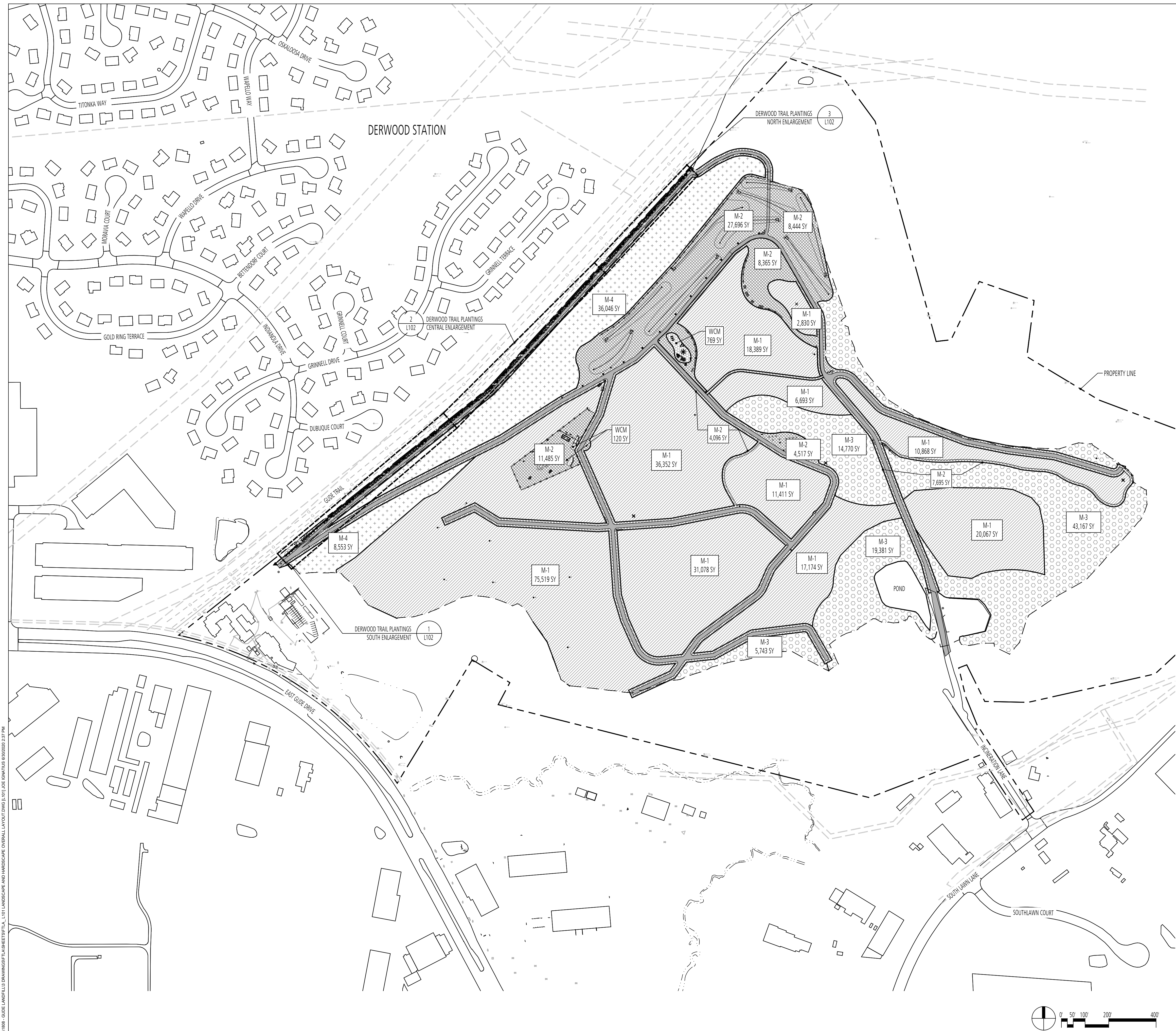
**FLOURA TEETER**  
landscape architects  
800 North Charles St. Ste. 300  
Baltimore, Maryland 21201  
Phone: 410.528.8395  
Fax: 410.528.8425

**EA**  
EA Engineering, Science,  
and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JUNE 2020  
PROJECT NUMBER: 1564601  
**L100**  
SHEET: 126 OF 144

FILE PATH: P:\P\PROJECTS\1888 - GIDE LANDFILL REMEDIATION\DESIGN\LANDSCAPE\KEY SHEET.DWG & 100 USE CHANGES 6/30/2020 2:08 PM

90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION



**LEGEND**

	MEADOW MIX #1
	MEADOW MIX #2
	MEADOW MIX #3
	MEADOW MIX #4
	WOOD CHIP MULCH

**PLANT SCHEDULE (THIS SHEET ONLY)**

KEY	QTY	NAME
<b>MEADOW SEED MIXES</b>		
M-1	230,381 SY	Meadow Mix #1
M-2	75,211 SY	Meadow Mix #2
M-3	83,061 SY	Meadow Mix #3
M-4	44,599 SY	Meadow Mix #4
WCM	889 SY	Wood Chip Mulch

**1** OVERALL LANDSCAPE PLAN  
PLAN

SCALE: 1" = 200'

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI	BY	DESCRIPTION
CHECKED BY:	MM		
PROJECT MANAGER:	M/JG		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

SEAL

GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

OVERALL LANDSCAPE PLAN

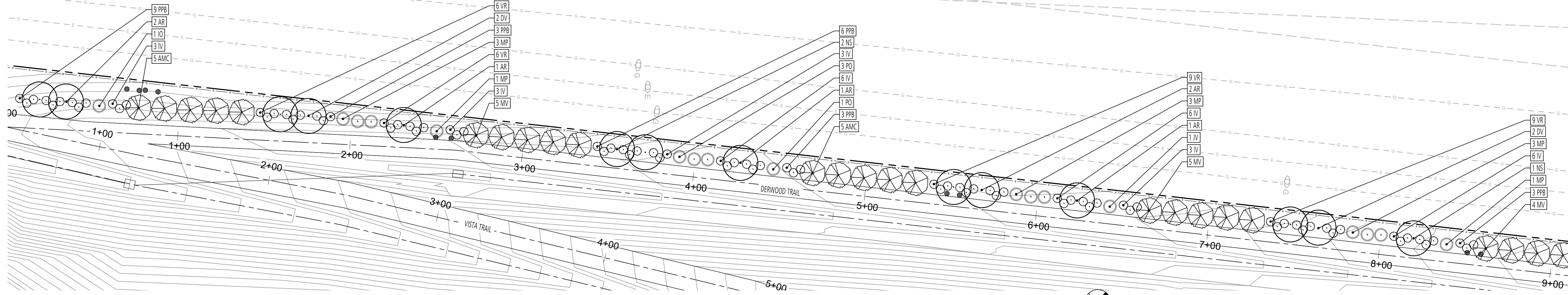
SC/SWM SHEET 48 OF 48

**FLOURA TEETER**  
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Phone: 410.528.8395  
Fax: 410.528.8425

**EA**  
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and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

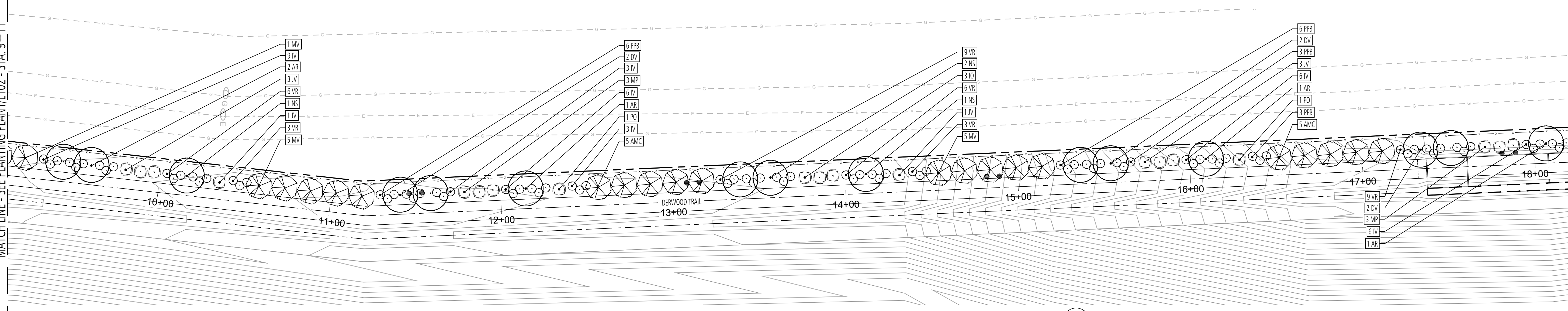
DATE: JUNE 2020  
PROJECT NUMBER: 1564601  
**L101**  
SHEET: 127 OF 144

FILE PATH: P:\PLT\PROJECTS\188 - GIDE LANDFILL DRAWINGS\PLANTING\GENERAL L101 OVERALL LANDSCAPE AND HARDSCAPE OVERALL LAYOUT.DWG (181) JCI (DATE: 06/03/2020 3:37 PM)



1 DERWOOD TRAIL PLANTING- NORTH ENLARGEMENT  
PLAN

SCALE: 1" = 30'

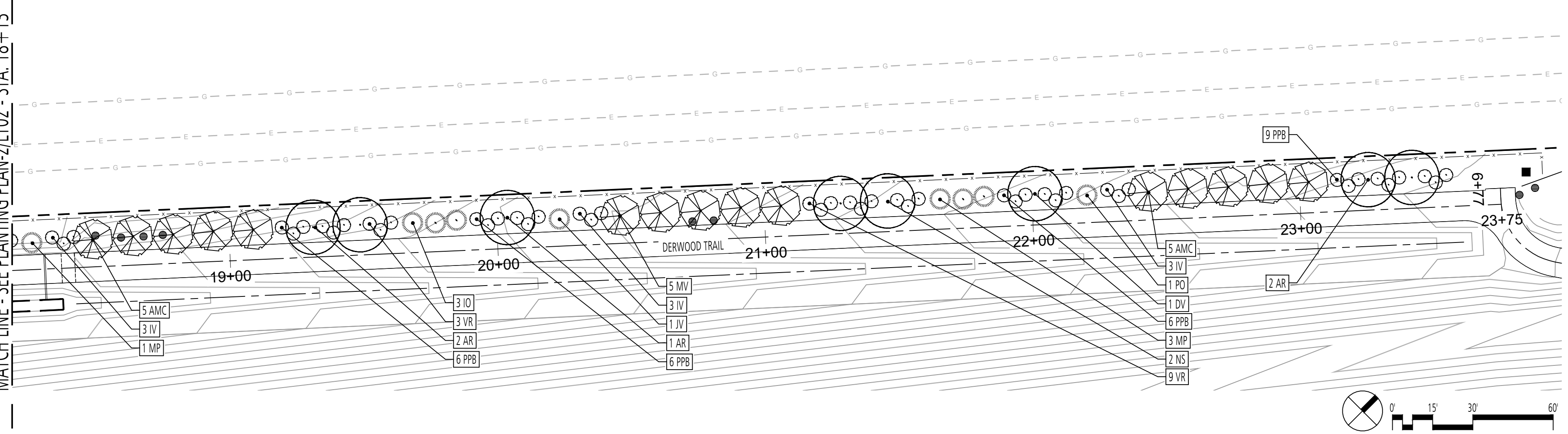


2 DERWOOD TRAIL PLANTING PLAN- CENTRAL ENLARGEMENT  
PLAN

SCALE: 1" = 30'

LEGEND

- CANOPY TREE
- UNDERSTORY TREE
- EVERGREEN TREE
- SHRUB



3 DERWOOD TRAIL PLANTING PLAN- SOUTH ENLARGEMENT  
PLAN

SCALE: 1" = 30'

PLANT SCHEDULE (THIS SHEET ONLY)

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
<b>CANOPY TREES</b>						
AR	17	<i>Acer x fremanii</i> 'Armstrong'	Armstrong Maple	2" Cal.	B&B	
DV	11	<i>Diospyros virginiana</i>	Common Persimmon	2" Cal.	B&B	
NS	9	<i>Nyssa sylvatica</i>	Black Gum	2" Cal.	B&B	
<b>UNDERSTORY TREES</b>						
AMC	30	<i>Amelanchier canadensis</i>	Canadian Serviceberry	2" Cal.	B&B	
MV	30	<i>Magnolia virginiana</i>	Sweetbay	2" Cal.	B&B	
<b>EVERGREEN TREES</b>						
IO	7	<i>Ilex opaca</i>	American Holly	8" Ht.	B&B	
JV	10	<i>Juniperus virginiana</i>	Eastern Redcedar	8" Ht.	B&B	
PO	7	<i>Picea omorika</i>	Serbian Spruce	8" Ht.	B&B	
<b>SHRUBS</b>						
IV	72	<i>Ilex verticillata</i>	Common Winterberry	36" Ht.	B&B/Cont.	Place 5' O.C.; 20% Male Pollinator Species
MP	21	<i>Morella pensylvanica</i>	Northern Bayberry	8" Ht.	B&B	
PPB	69	<i>Photinia pyrifolia</i> 'Brilliantissima'	Brilliantissima Red Chokeberry	36" Ht.	B&B/Cont.	Place 5' O.C.
VR	78	<i>Viburnum rhytidophyllum</i> 'Alleghany'	Alleghany Leatherleaf Viburnum	36" Ht.	B&B/Cont.	Place 5' O.C.

DESIGN INFORMATION	DESIGNED BY: MM	DRAWN BY: JCI	CHECKED BY: MM	PROJECT MANAGER: M/G
REVISIONS	NO.	DATE	BY	DESCRIPTION

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND  
DERWOOD TRAIL PLANTING PLANS

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Fax: 410.528.8425

**EA**  
Engineering, Science,  
and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JUNE 2020  
PROJECT NUMBER: 1564601  
**L102**  
SHEET: 128 OF 144

FILE PATH: P:\PLD\PROJECTS\1808 - GIDE LANDFILL REMEDIATION\PLANTING\PLANS\102 DERWOOD TRAIL PLANTING.DWG, L102 DERWOOD TRAIL PLANTING (1) (1).Dwg, 09/20/20 2:33 PM

90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION

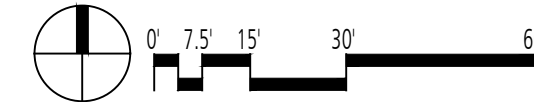


FILE PATH: P:\PLANS\PROJECTS\1888 - GIDE LANDFILL DOMESTIC FLUMING\SET\LA\_L201.DWG DATE: 06/20/2020 3:10 PM

1 DOG PLAY PLAN



SCALE: 1" = 30'-0"



CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		6/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		
C-7	ART INSTALLATION		2/L204
C-8	TIC TAC TOE		2/L304
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		2/L202
C-11	BALANCE STAR		3/L202
C-12	BOULDER		5/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		3-4/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300

PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	

SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
TM	TRAIL MARKER	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	1/L303, 3-6/L502
EP	EDUCATIONAL POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	6/L303, 1-6/L500, 1-6/L501
ISS	INFORMATION SIGN (SMALL)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	3/L303, 3-6/L502
DS	DIRECTIONAL SIGN POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	2/L303, 1-4/L504
ISL	INFORMATION SIGN (LARGE)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	8/L303, 2/L502
TP	DISC GOLF TEE POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	5/L301, 1/L502

MEADOW NOTES			
SYMBOL	MEADOW TYPE	NOTES	REFERENCE
M-1	MEADOW MIX #1	REFER TO SPECIFICATIONS	
M-2	MEADOW MIX #2	REFER TO SPECIFICATIONS	
M-3	MEADOW MIX #3	REFER TO SPECIFICATIONS	
M-4	MEADOW MIX #4	REFER TO SPECIFICATIONS	

**LEGEND**

- MEADOW MIX #1
- MEADOW MIX #2
- MEADOW MIX #3
- MEADOW MIX #4
- WOOD CHIP MULCH

DESIGN INFORMATION: NO. DATE BY DESCRIPTION  
 DESIGNED BY: MM  
 DRAWN BY: JCI  
 CHECKED BY: MM  
 PROJECT MANAGER: M/G

REVISIONS: NO. DATE BY DESCRIPTION

SEAL:

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

GIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 DOG PLAY ENLARGEMENT PLAN

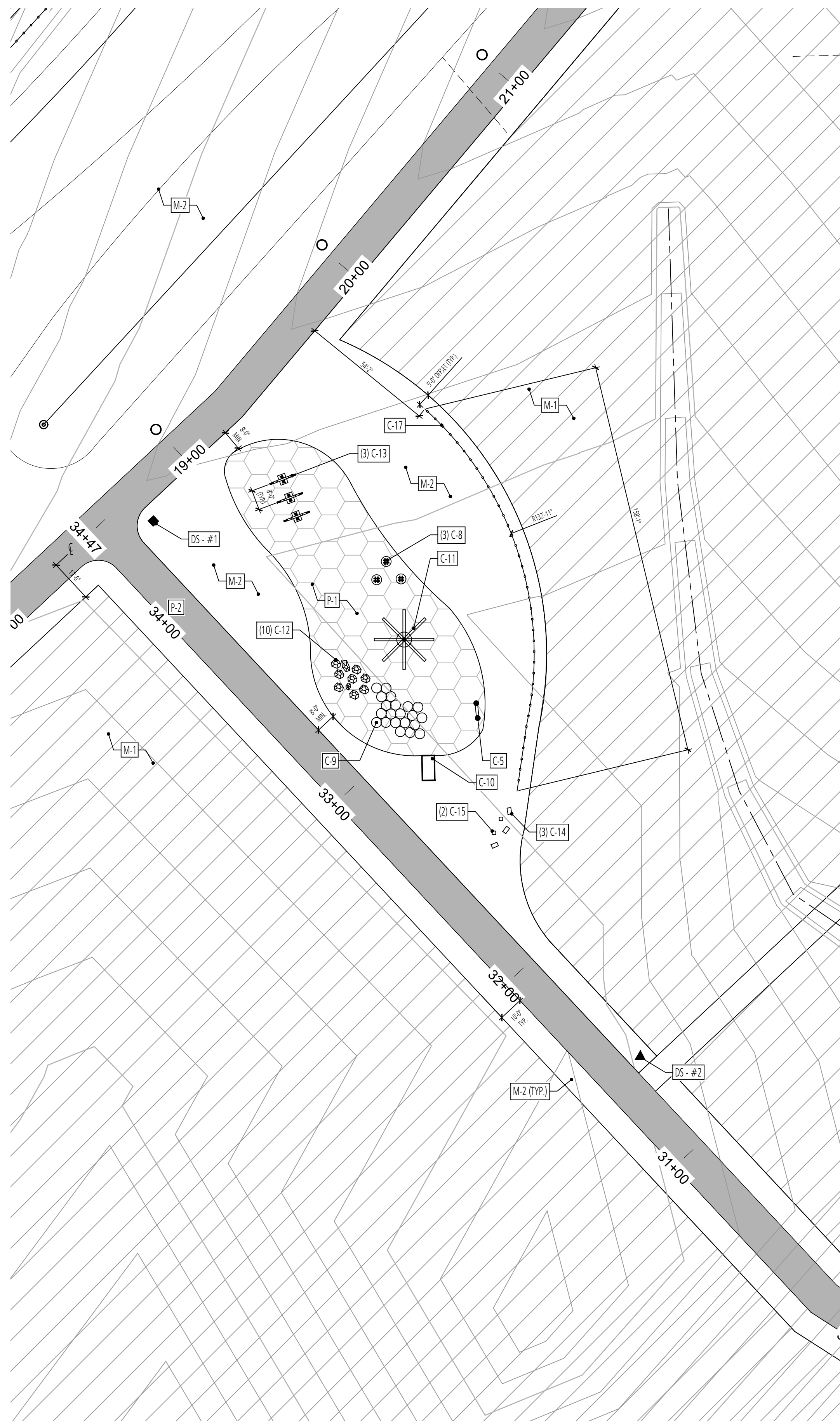
90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION

**FLOURA TEETER**  
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 800 North Charles St. Ste. 300  
 Baltimore, Maryland 21201  
 Phone: 410.528.8395  
 Fax: 410.528.8425

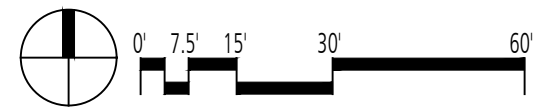
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JUNE 2020  
 PROJECT NUMBER: 1564601  
**L201**  
 SHEET: 129 OF 144

FILE PATH: P:\PLANS\PROJECTS\1886 - GIDE LANDFILL DRAWINGS\PLANS\REDESIGN\1886 CHILDREN'S NATURE PLAY ENLARGEMENT.DWG, USER: GWATKINS, 09/20/2020 1:37PM

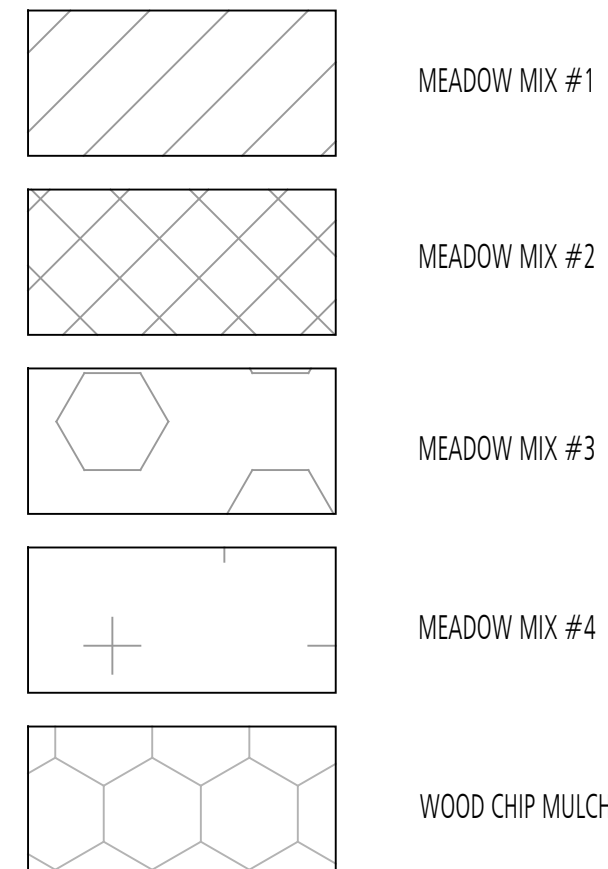


**1** CHILDREN'S NATURE PLAY  
PLAN



SCALE: 1" = 30'-0"

**LEGEND**

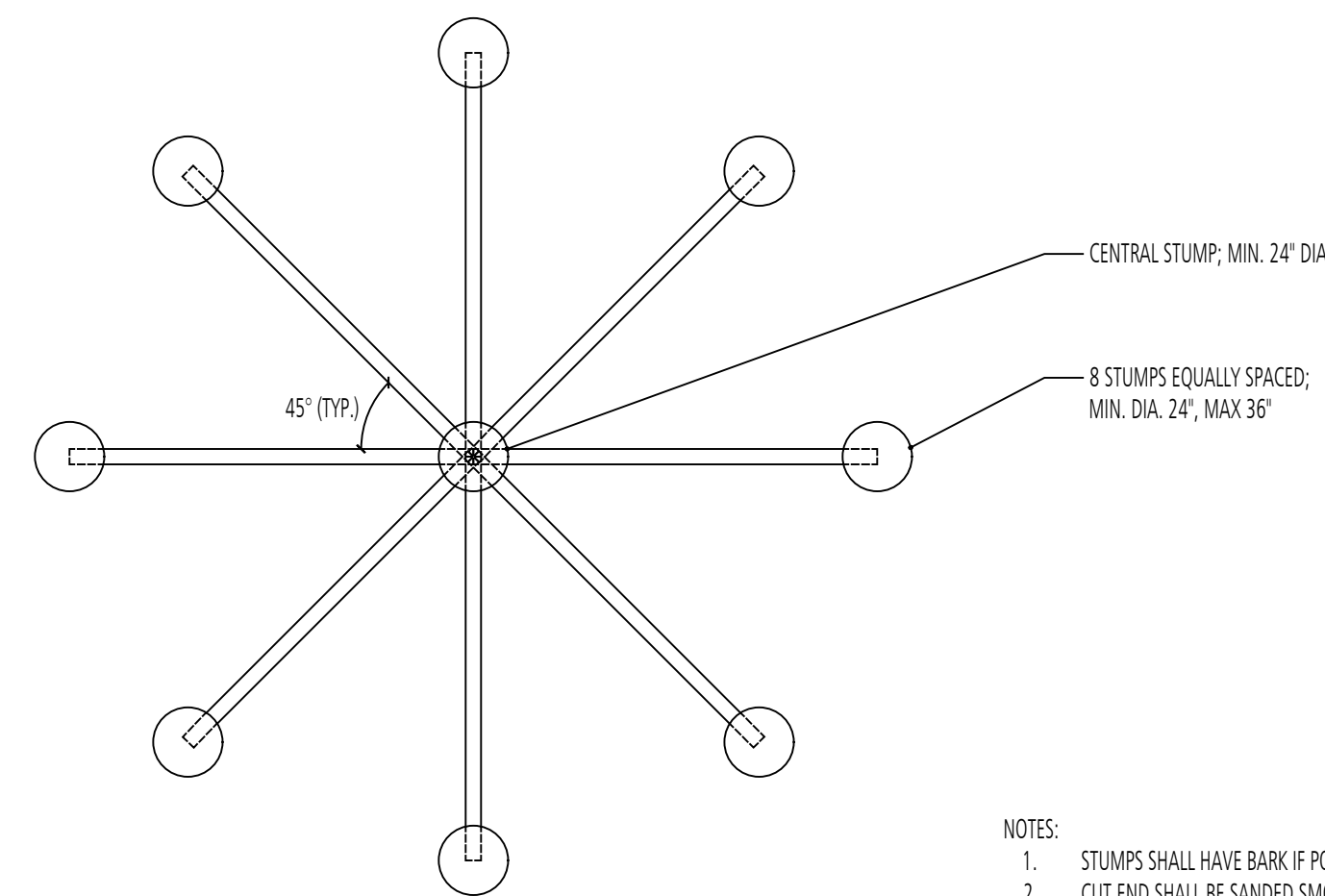


CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		6/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		
C-7	ART INSTALLATION		2/L204
C-8	TIC TAC TOE		2/L304
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		2/L202
C-11	BALANCE STAR		3/L202
C-12	BOULDER		5/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		3-4/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300

PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	

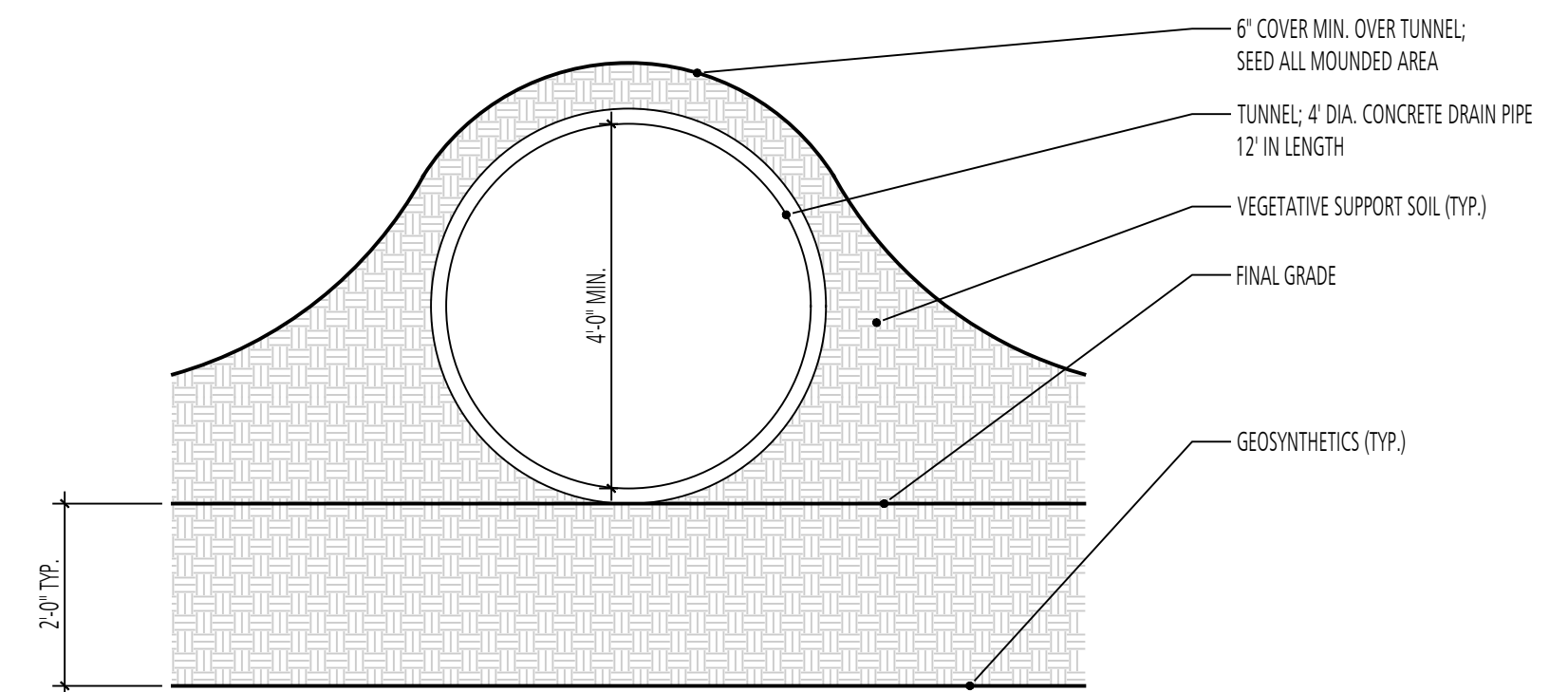
SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
TM	TRAIL MARKER	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	1/L303, 3-6/L502
EP	EDUCATIONAL POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	6/L303, 1-6/L500, 1-6/L501
ISS	INFORMATION SIGN (SMALL)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	3/L303, 3-6/L502
DS	DIRECTIONAL SIGN POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	2/L303, 1-4/L504
ISL	INFORMATION SIGN (LARGE)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	8/L303, 2/L502
TP	DISC GOLF TEE POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	5/L301, 1/L502

MEADOW NOTES			
SYMBOL	MEADOW TYPE	NOTES	REFERENCE
M-1	MEADOW MIX #1	REFER TO SPECIFICATIONS	
M-2	MEADOW MIX #2	REFER TO SPECIFICATIONS	
M-3	MEADOW MIX #3	REFER TO SPECIFICATIONS	
M-4	MEADOW MIX #4	REFER TO SPECIFICATIONS	

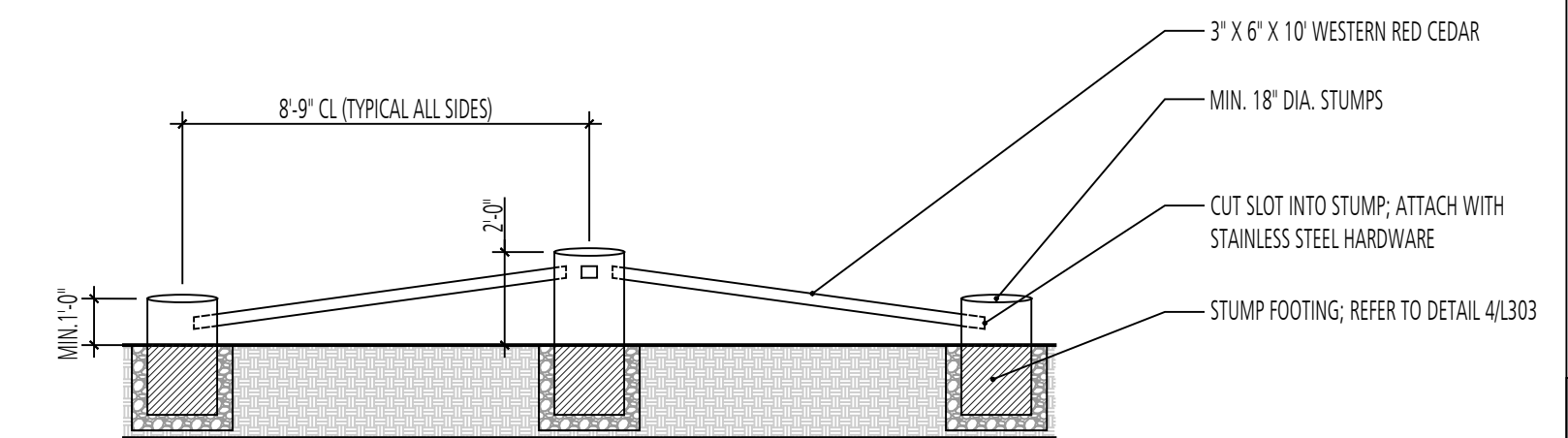


- NOTES:
1. STUMPS SHALL HAVE BARK IF POSSIBLE.
  2. CUT END SHALL BE SANDED SMOOTH AND SEALED.

**3** BALANCE STAR  
PLAN & SECTION



**2** TUNNEL  
SECTION  
SCALE: 1/2" = 1'-0"



SCALE: 1/4" = 1'-0"

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI		
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**CHILDREN'S NATURE PLAY ENLARGEMENT PLAN**

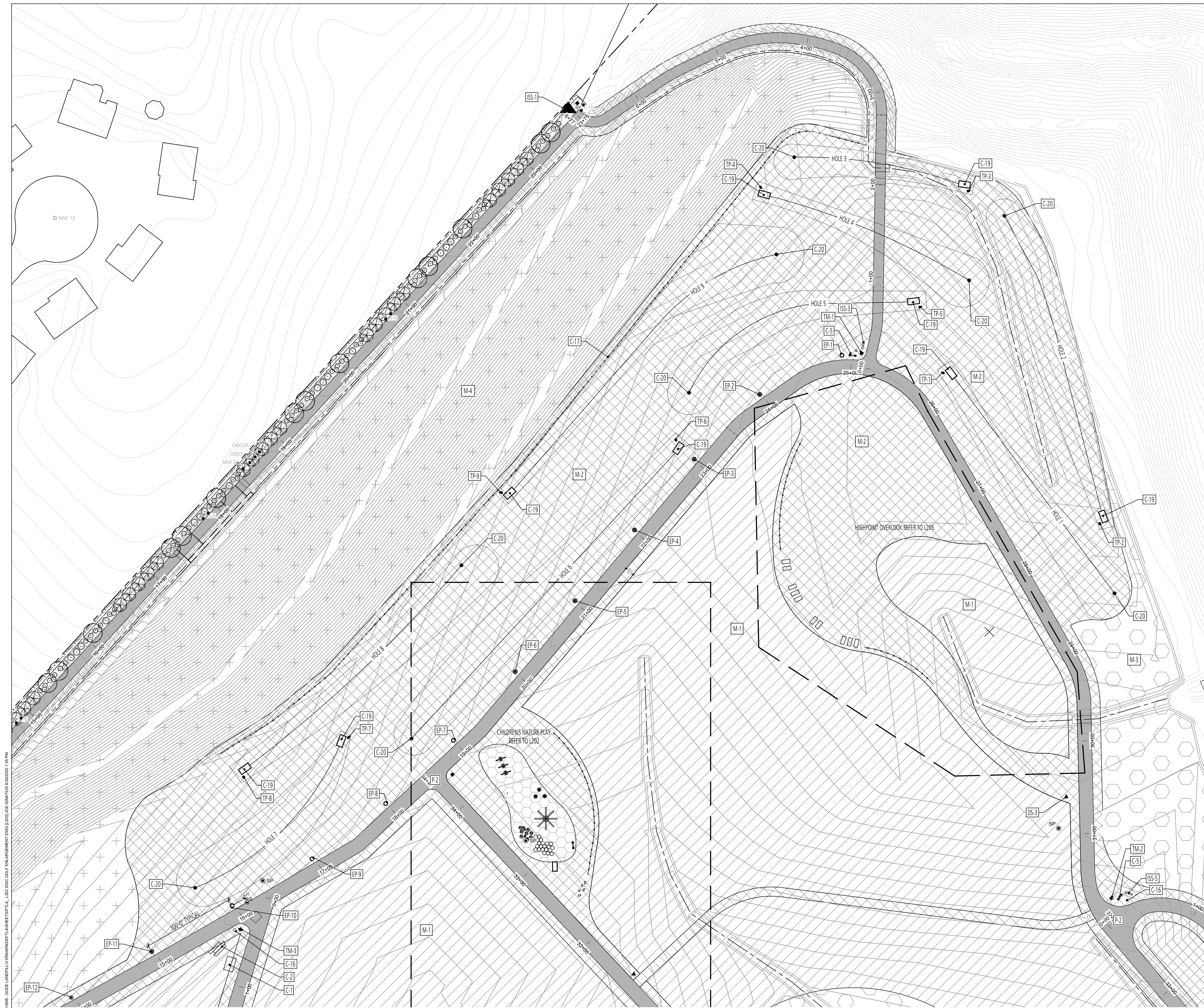
**FLOURA TEETER**  
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 800 North Charles St. Ste. 300  
 Baltimore, Maryland 21201  
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 Fax: 410.528.8425

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 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JUNE 2020  
 PROJECT NUMBER: 1564601

**L202**  
 SHEET: 130 OF 144

90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION



CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		6/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		
C-7	ART INSTALLATION		2/L204
C-8	TIC TAC TOE		2/L304
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		2/L202
C-11	BALANCE STAR		3/L202
C-12	BOULDER		5/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		3-4/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300

PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	

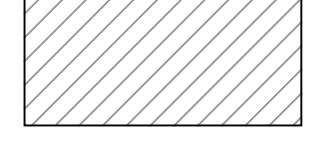
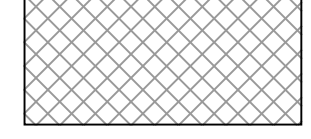
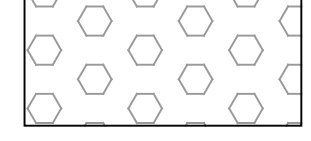

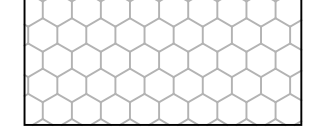




  

SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
TM	TRAIL MARKER	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	1/L303, 3-6/L502
EP	EDUCATIONAL POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	6/L303, 1-6/L500, 1-6/L501
ISS	INFORMATION SIGN (SMALL)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	3/L303, 3-6/L502
DS	DIRECTIONAL SIGN POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	2/L303, 1-4/L504
ISL	INFORMATION SIGN (LARGE)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	8/L303, 2/L502
TP	DISC GOLF TEE POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	5/L301, 1/L502


  

MEADOW NOTES			
SYMBOL	MEADOW TYPE	NOTES	REFERENCE
M-1	MEADOW MIX #1	REFER TO SPECIFICATIONS	
M-2	MEADOW MIX #2	REFER TO SPECIFICATIONS	
M-3	MEADOW MIX #3	REFER TO SPECIFICATIONS	
M-4	MEADOW MIX #4	REFER TO SPECIFICATIONS	

LEGEND

-  MEADOW MIX #1
-  MEADOW MIX #2
-  MEADOW MIX #3
-  MEADOW MIX #4
-  WOOD CHIP MULCH
-  CANOPY TREE
-  UNDERSTORY TREE
-  EVERGREEN TREE
-  SHRUB

1 DISC GOLF COURSE PLAN

SCALE: 1" = 40'-0" 

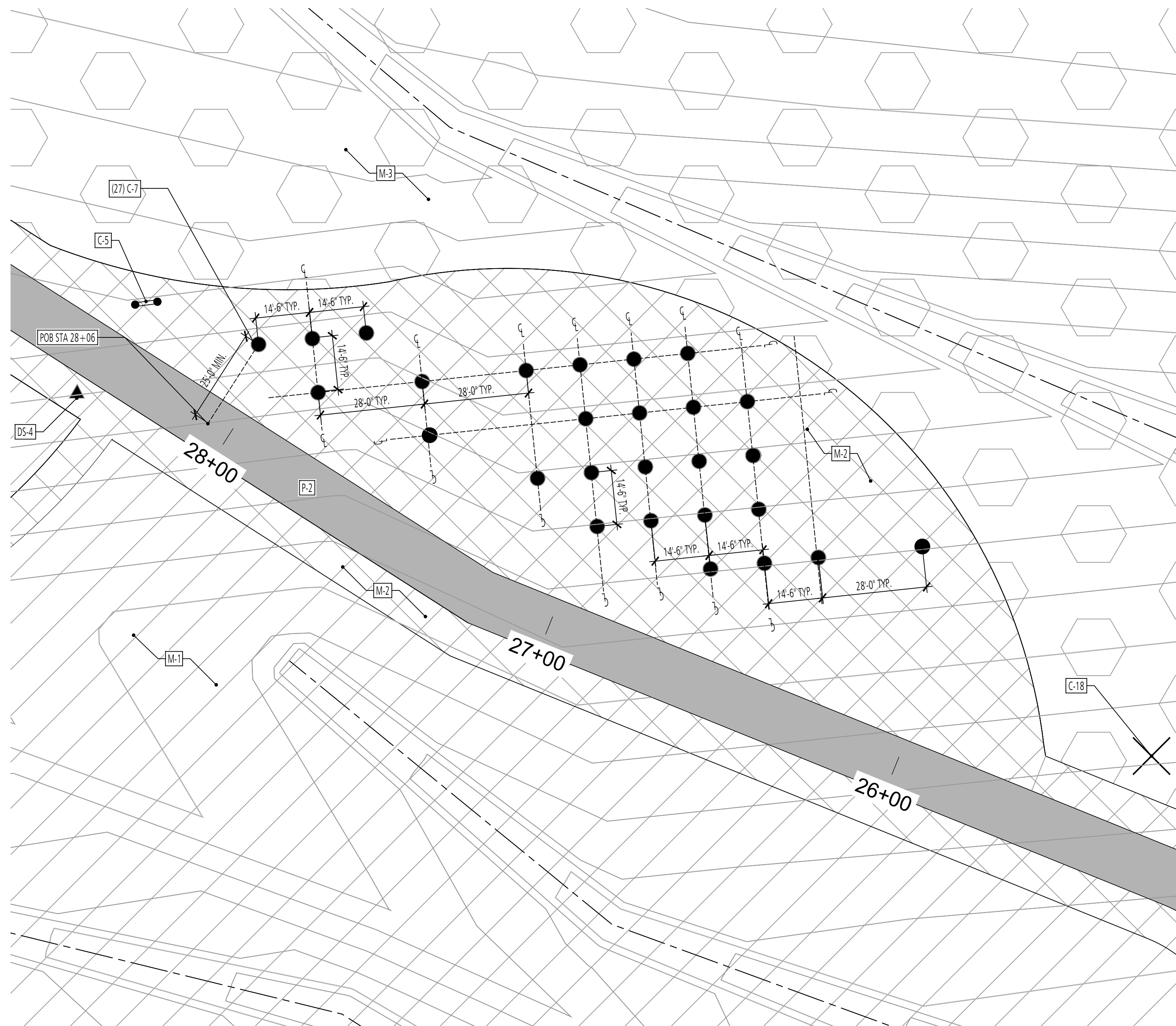
GUIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 DISC GOLF COURSE ENLARGEMENT PLAN

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 Fax: 410.528.8425

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JUNE 2020  
 PROJECT NUMBER: 1564601  
**L203**  
 SHEET: 131 OF 144

90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION



CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		6/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		
C-7	ART INSTALLATION		2/L204
C-8	TIC TAC TOE		2/L304
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		2/L202
C-11	BALANCE STAR		3/L202
C-12	BOULDER		5/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		3-4/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300

PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	

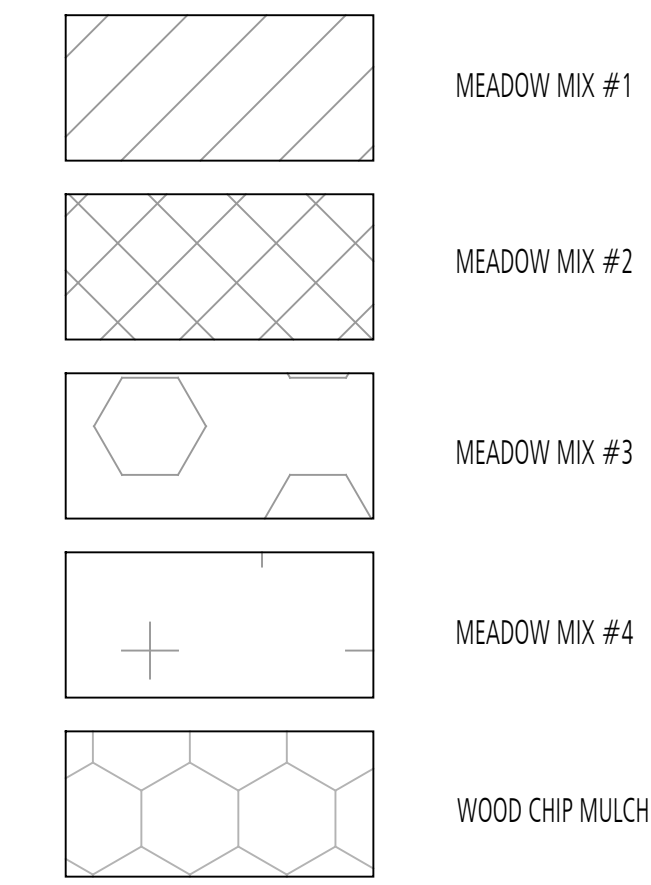
  

SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
TM	TRAIL MARKER	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	1/L303, 3-6/L502
EP	EDUCATIONAL POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	6/L303, 1-6/L500, 1-6/L501
ISS	INFORMATION SIGN (SMALL)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	3/L303, 3-6/L502
DS	DIRECTIONAL SIGN POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	2/L303, 1-4/L504
ISL	INFORMATION SIGN (LARGE)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	8/L303, 2/L502
TP	DISC GOLF TEE POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	5/L301, 1/L502

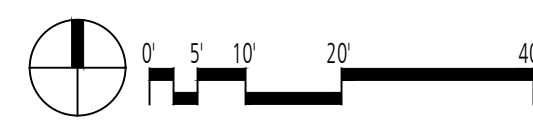
MEADOW NOTES			
SYMBOL	MEADOW TYPE	NOTES	REFERENCE
M-1	MEADOW MIX #1	REFER TO SPECIFICATIONS	
M-2	MEADOW MIX #2	REFER TO SPECIFICATIONS	
M-3	MEADOW MIX #3	REFER TO SPECIFICATIONS	
M-4	MEADOW MIX #4	REFER TO SPECIFICATIONS	

LEGEND

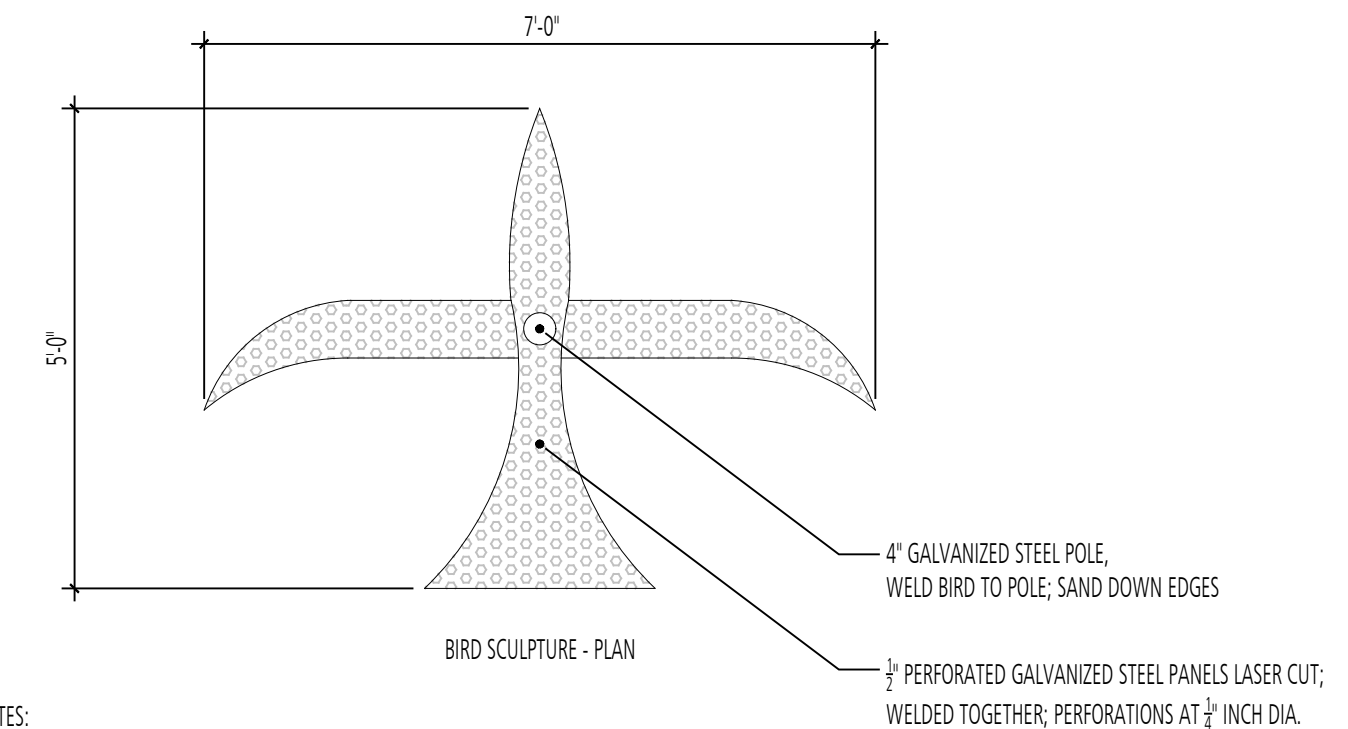
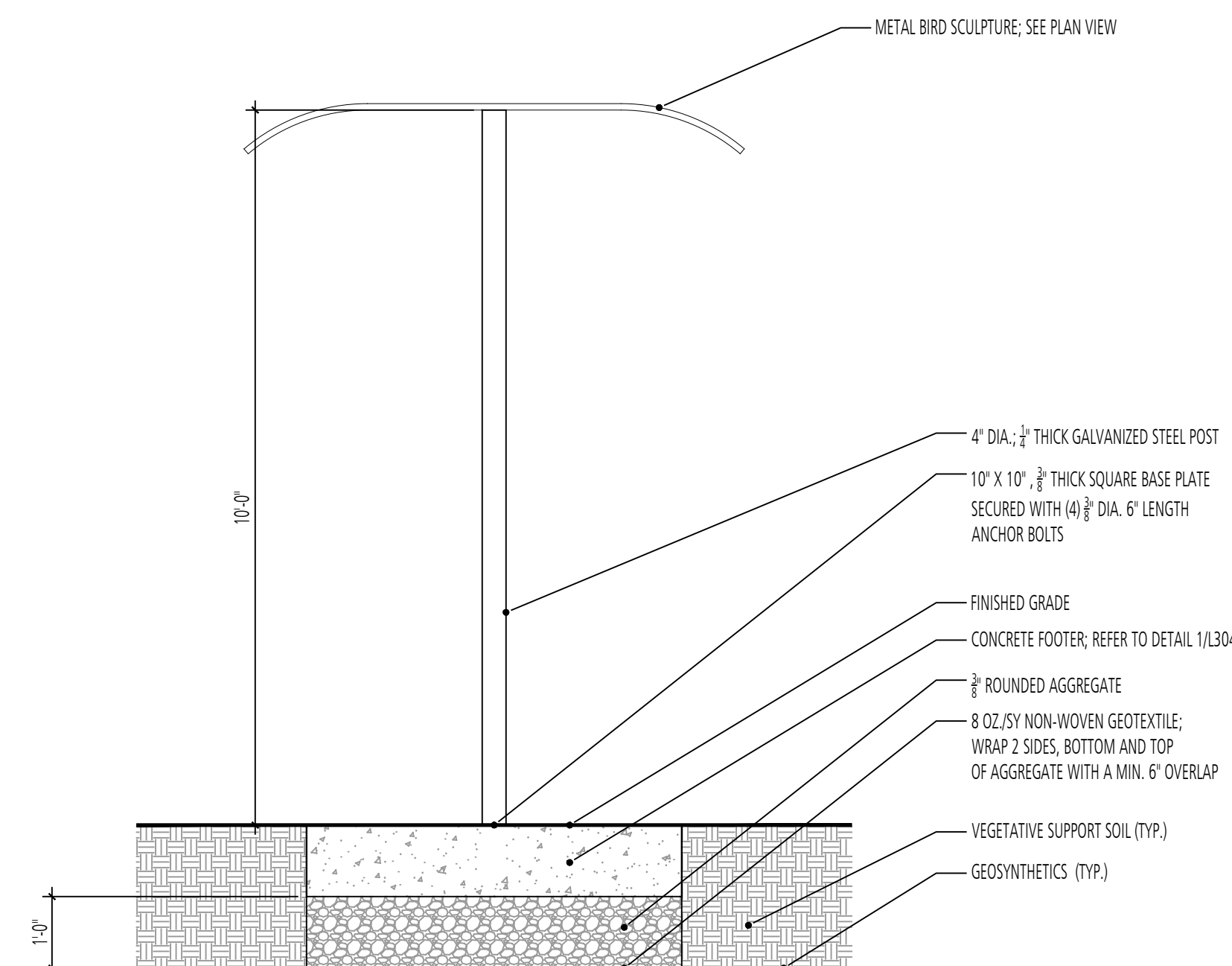


1 ART INSTALLATION PLAN

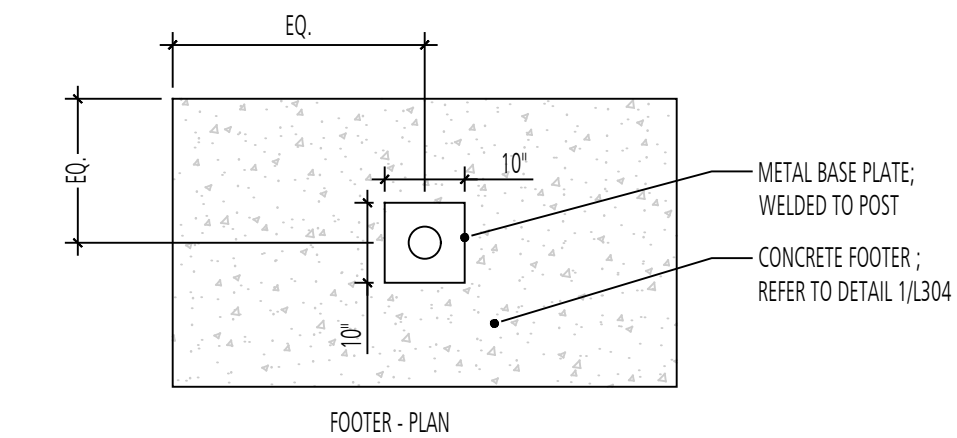
SCALE: 1" = 20'-0"



2 ART INSTALLATION SECTION & PLAN



NOTES:  
 1. POLE AND BIRD POWDER COAT RED FINISH.  
 2. ALL CONNECTIONS TO BE WELDED SMOOTH.  
 3. REFER TO PLAN FOR LOCATION AND QUANTITY.



SCALE: 1/2" = 1'-0"

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI		
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

GIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND

ART INSTALLATION ENLARGEMENT PLAN

**FLOURA TEETER**  
 landscape architects  
 800 North Charles St. Ste. 300  
 Baltimore, Maryland 21201  
 Phone: 410.528.8395  
 Fax: 410.528.8425

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

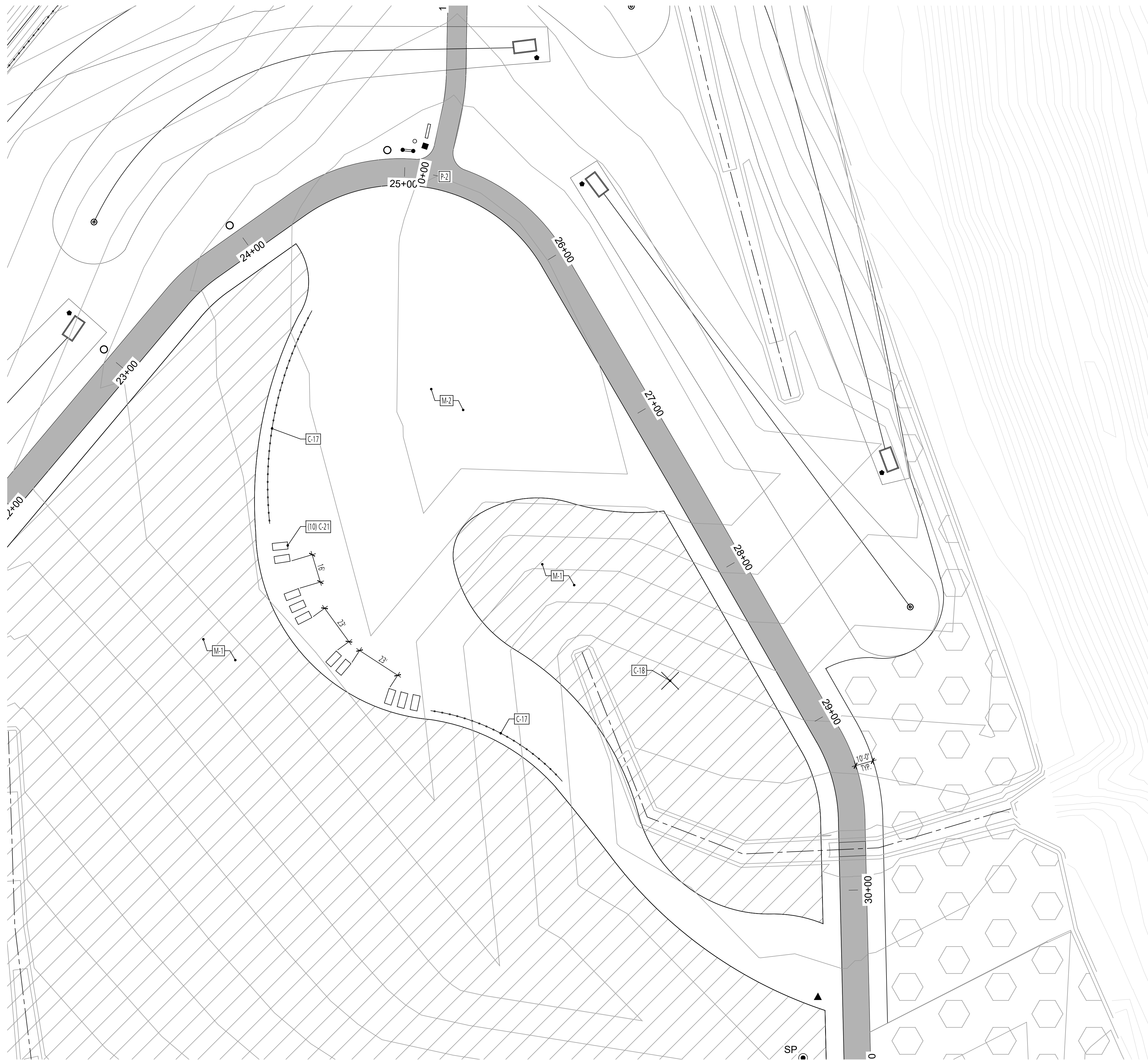
DATE: JUNE 2020  
 PROJECT NUMBER: 1564601

L204  
 SHEET: 132 OF 144

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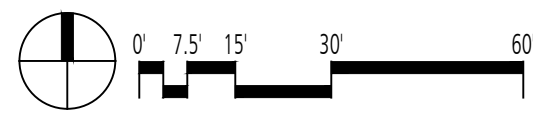
90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION

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**1 HIGHPOINT OVERLOOK**  
PLAN

SCALE: 1" = 30'-0"



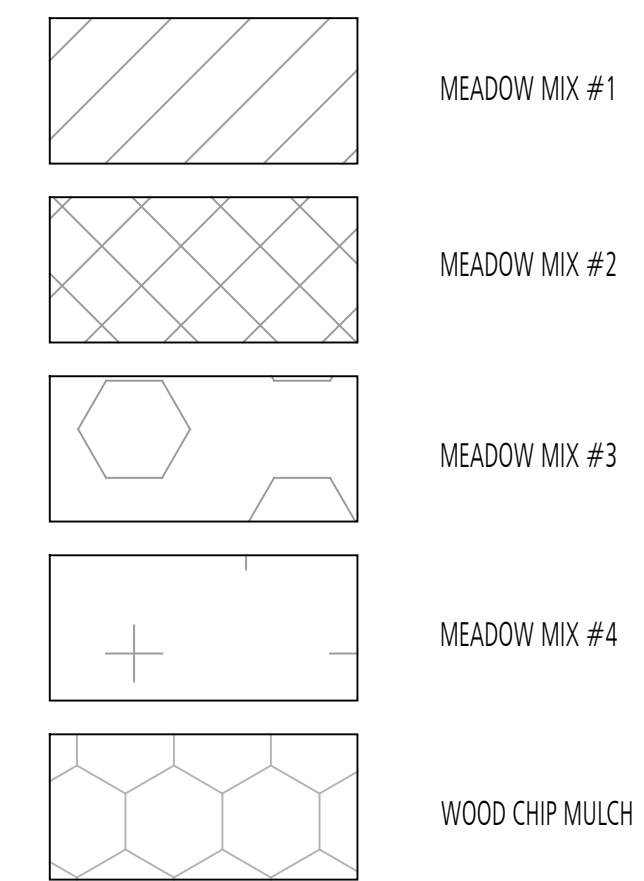
CONSTRUCTION NOTES			
SYMBOL	ITEM TYPE	NOTES	REFERENCE
C-1	WEATHER STATION		
C-2	TERRACED BOULDER SEATING		6/L302
C-3	DOG PLAY FENCE		1-2/L302
C-4	EARTH MOUND		
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		
C-7	ART INSTALLATION		2/L204
C-8	TIC TAC TOE		2/L304
C-9	STUMP CLIMB		4-5/L303
C-10	TUNNEL		2/L202
C-11	BALANCE STAR		3/L202
C-12	BOULDER		5/L302
C-13	TEETER TOTTER		9/L303
C-14	BUTTERFLY BOX		4/L300
C-15	MAGNIFYING LENS POST		2/L300
C-16	TRASH RECEPTACLE		5/L300
C-17	WOODEN GUARDRAIL		3-4/L302
C-18	OWL NESTING BOX		3/L300
C-19	DISC GOLF TEE BOX		1-3/L301
C-20	DISC GOLF BASKET TARGET		4/L301
C-21	SLOPED CHASE LOUNGE CHAIR		1/L300

PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	

SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
TM	TRAIL MARKER	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	1/L303, 3-6/L502
EP	EDUCATIONAL POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	6/L303, 1-6/L500, 1-6/L501
ISS	INFORMATION SIGN (SMALL)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	3/L303, 3-6/L502
DS	DIRECTIONAL SIGN POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	2/L303, 1-4/L504
ISL	INFORMATION SIGN (LARGE)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	8/L303, 2/L502
TP	DISC GOLF TEE POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	5/L301, 1/L502

MEADOW NOTES			
SYMBOL	MEADOW TYPE	NOTES	REFERENCE
M-1	MEADOW MIX #1	REFER TO SPECIFICATIONS	
M-2	MEADOW MIX #2	REFER TO SPECIFICATIONS	
M-3	MEADOW MIX #3	REFER TO SPECIFICATIONS	
M-4	MEADOW MIX #4	REFER TO SPECIFICATIONS	

**LEGEND**



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI	BY	DESCRIPTION
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

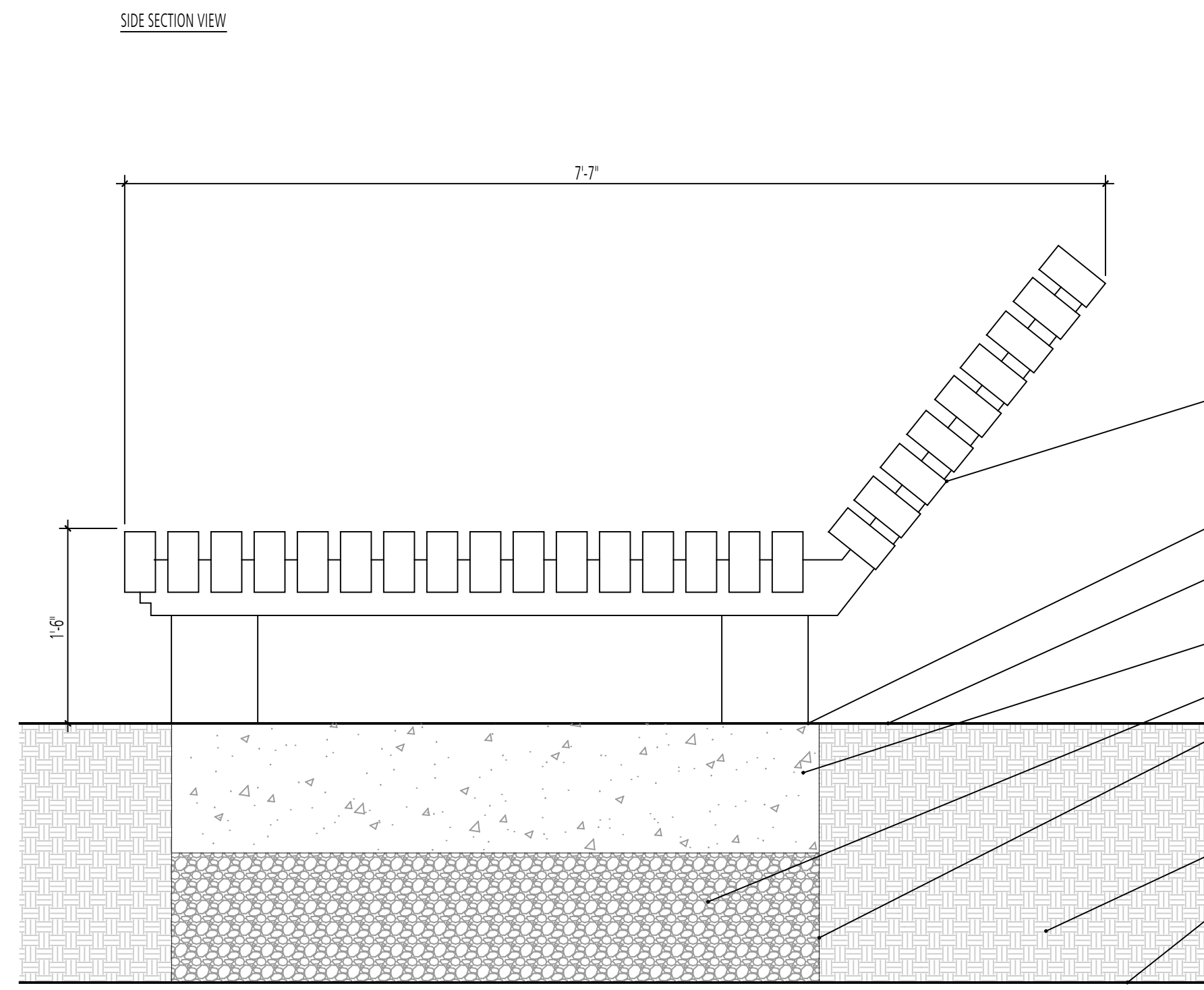
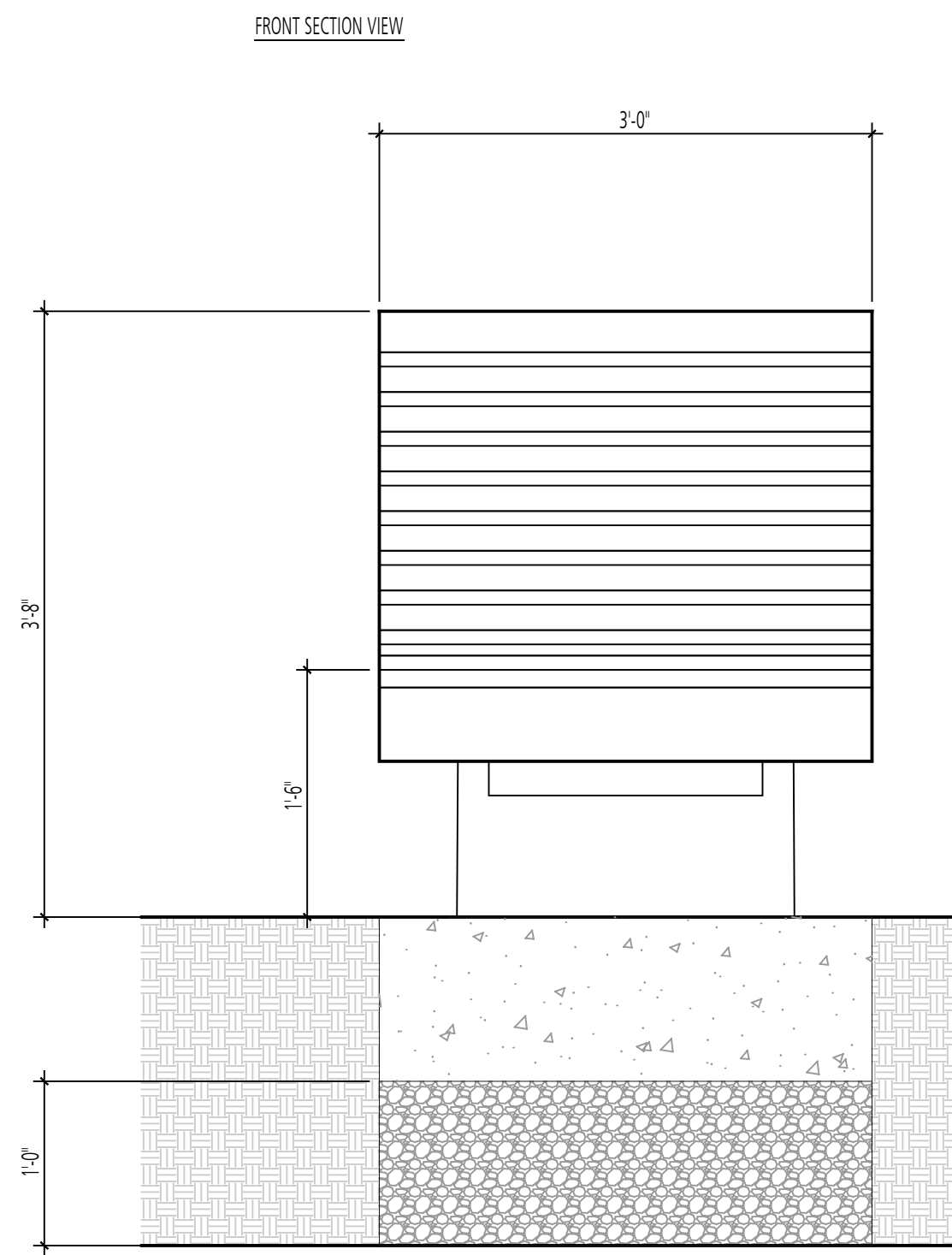
**GIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**HIGHPOINT OVERLOOK ENLARGEMENT PLAN**

**FLOURA TEETER**  
landscape architects  
800 North Charles St. Ste. 300  
Baltimore, Maryland 21201  
Phone: 410.528.8395  
Fax: 410.528.8425

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

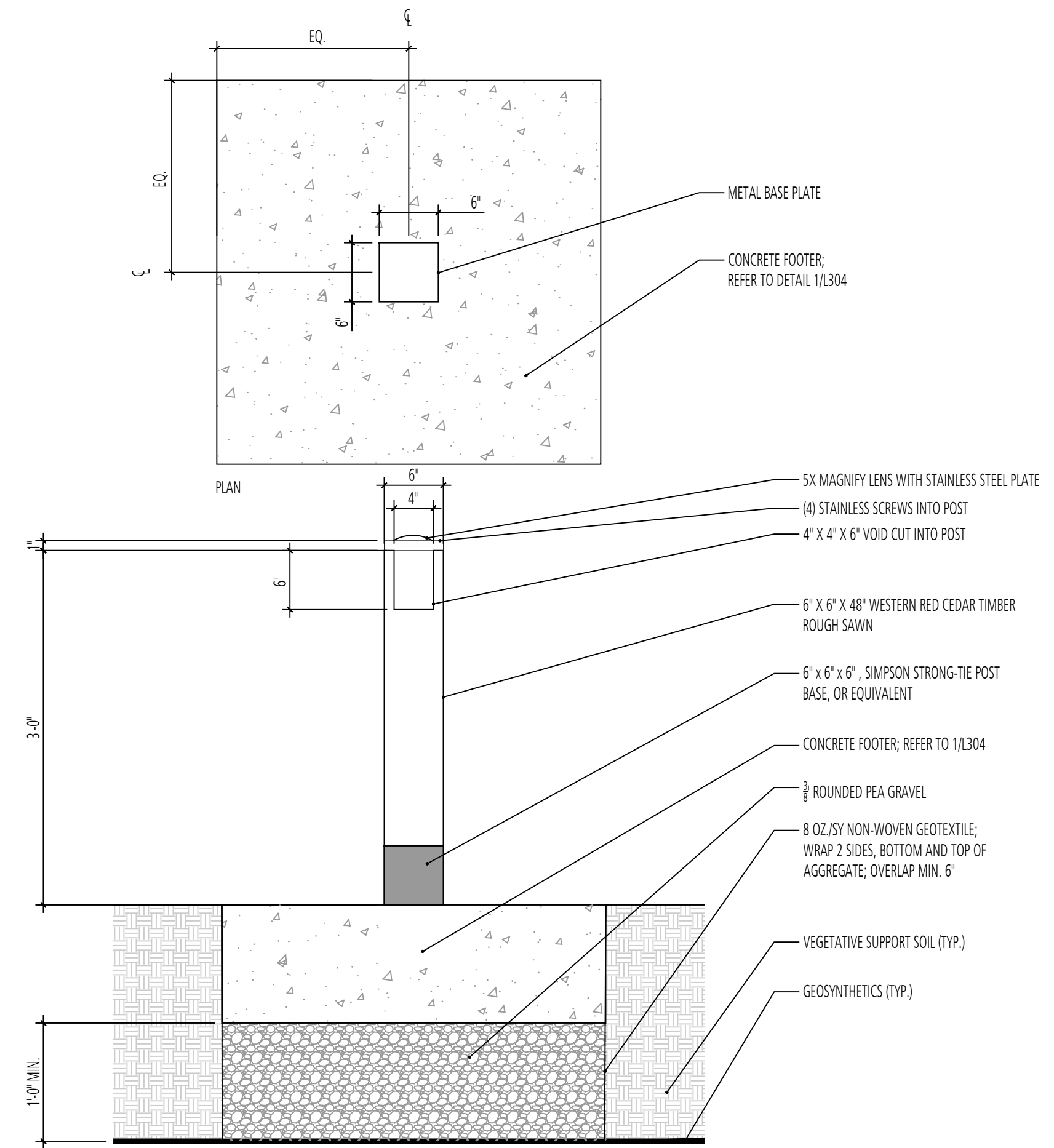
DATE: JUNE 2020  
PROJECT NUMBER: 1564601  
**L205**  
SHEET: 133 OF 144

90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION



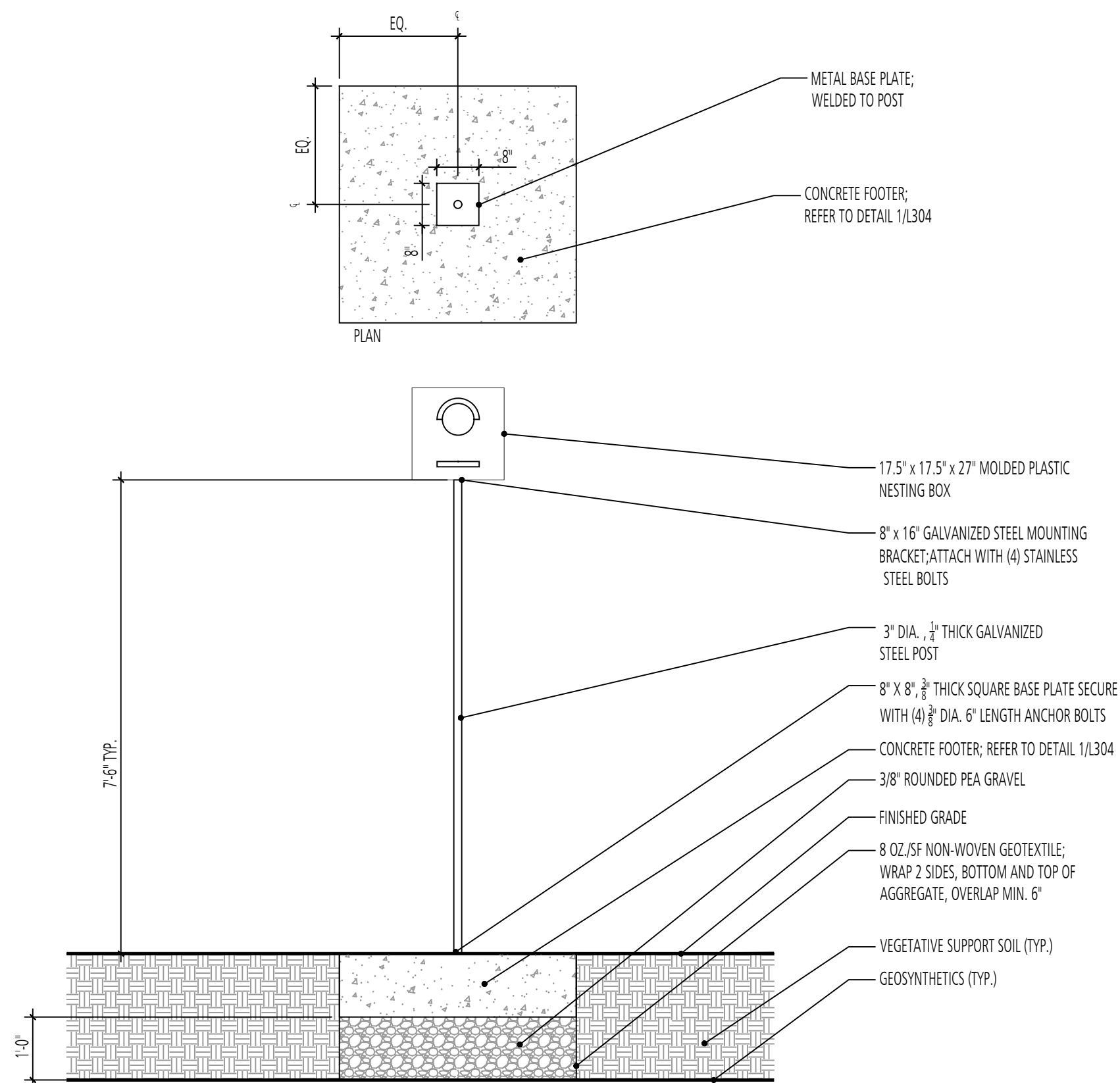
1 SLOPED CHAISE LOUNGE CHAIR  
PLAN & SECTION

SCALE: 1" = 1'-0"



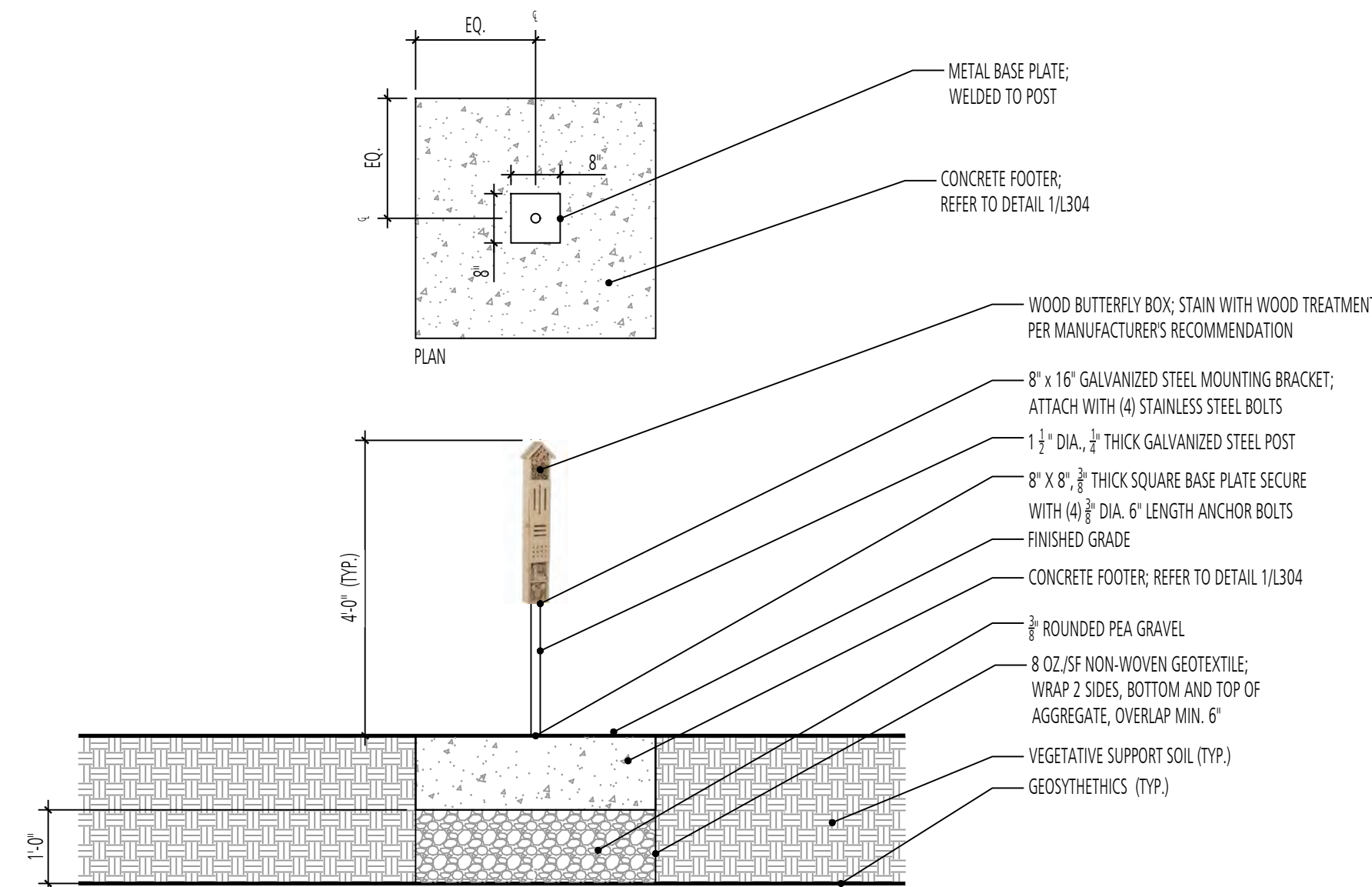
2 MAGNIFYING LENS POST  
SECTION

SCALE: 1" = 1'-0"



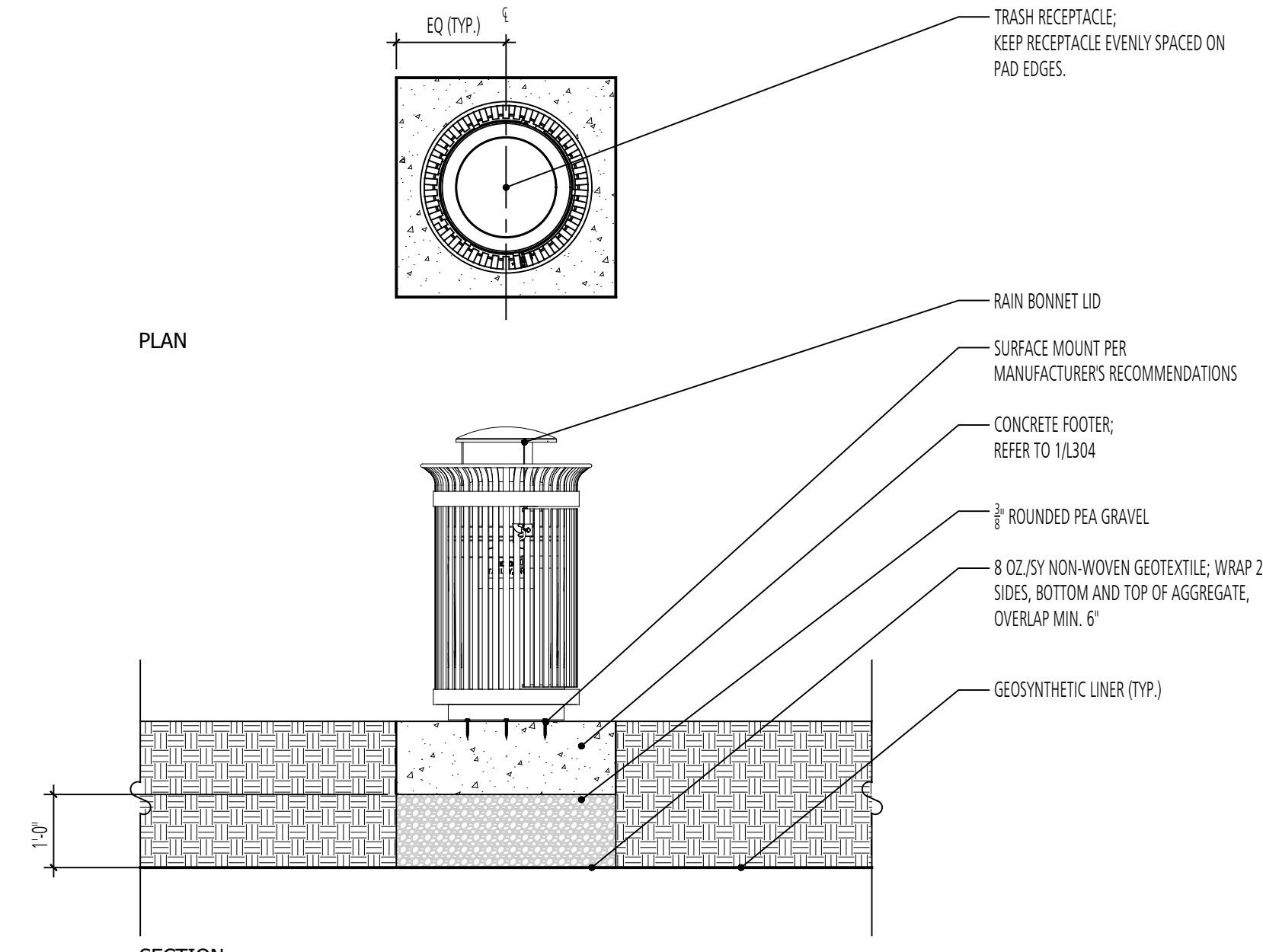
3 OWL NESTING BOX  
SECTION

SCALE: 1/2" = 1'-0"



4 BUTTERFLY BOX  
SECTION

SCALE: 1/2" = 1'-0"



5 TRASH RECEPTACLE  
SECTION

SCALE: 1/2" = 1'

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI	BY	DESCRIPTION
CHECKED BY:	MM		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

SITE DETAILS

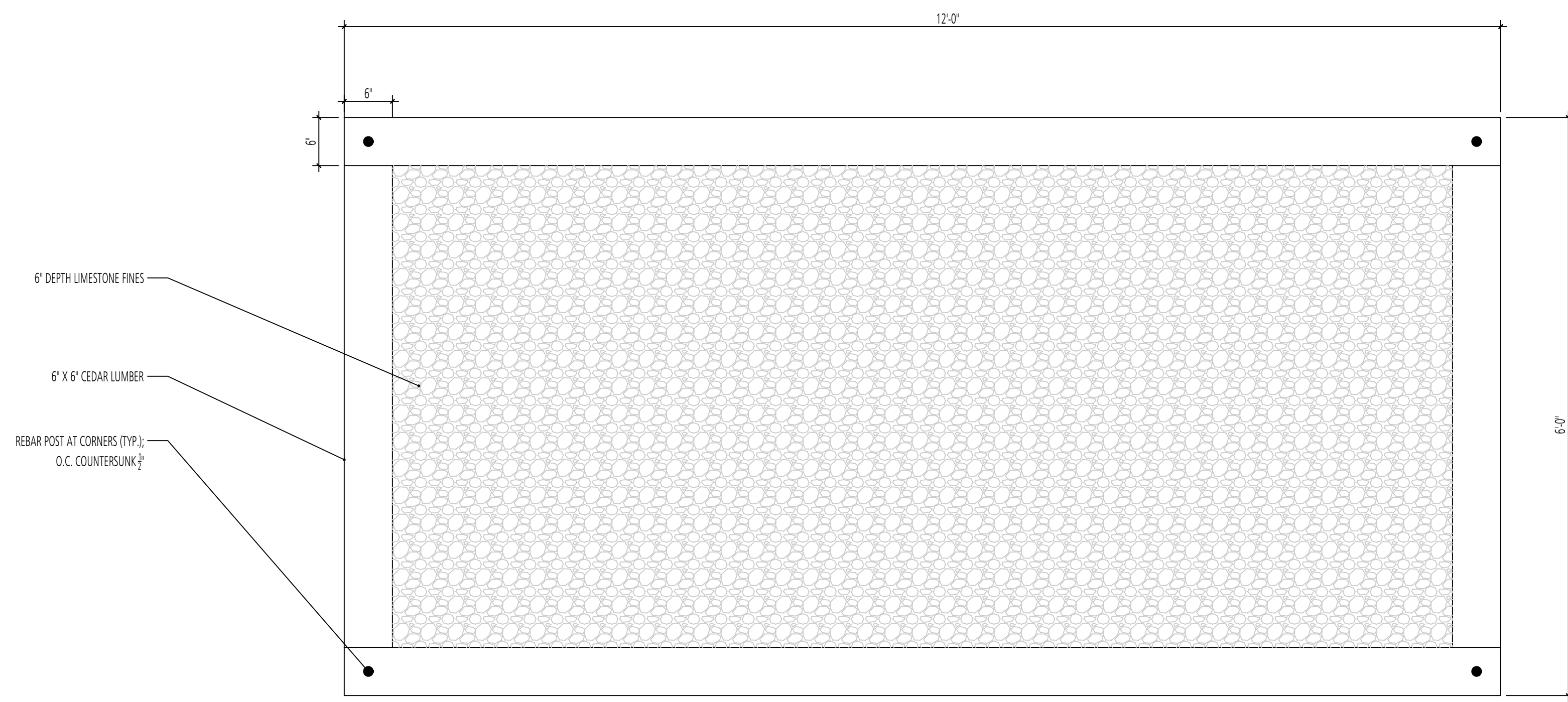
**FLOURA TEETER**  
landscape architects  
800 North Charles St. Ste. 300  
Baltimore, Maryland 21201  
Phone: 410.528.8395  
Fax: 410.528.8425

**EA**  
Engineering, Science,  
and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JUNE 2020  
PROJECT NUMBER: 1564601  
**L300**  
SHEET: 134 OF 144

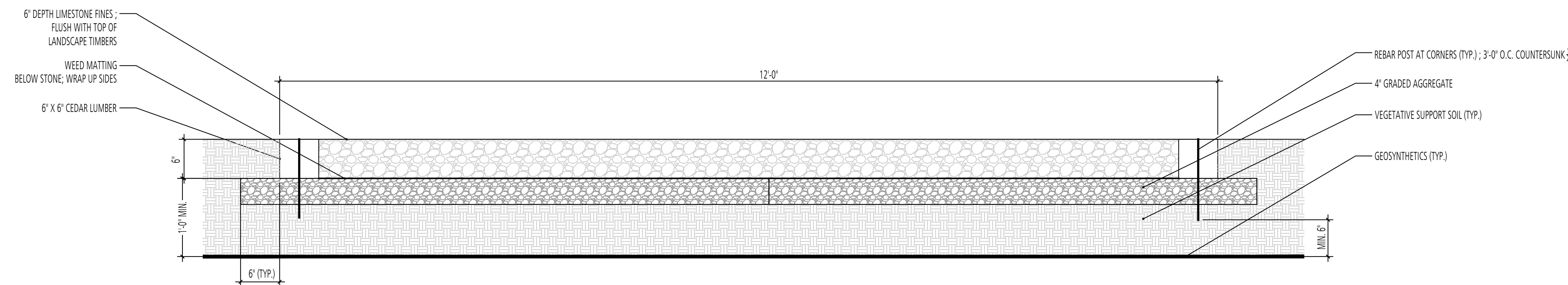
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90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION



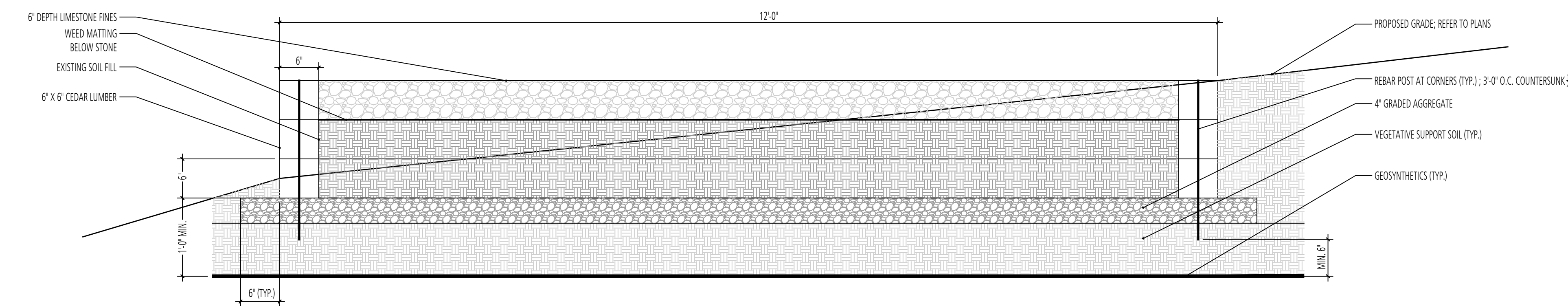
1 DISC GOLF TEE BOX  
PLAN

SCALE: 1"=1'-0"



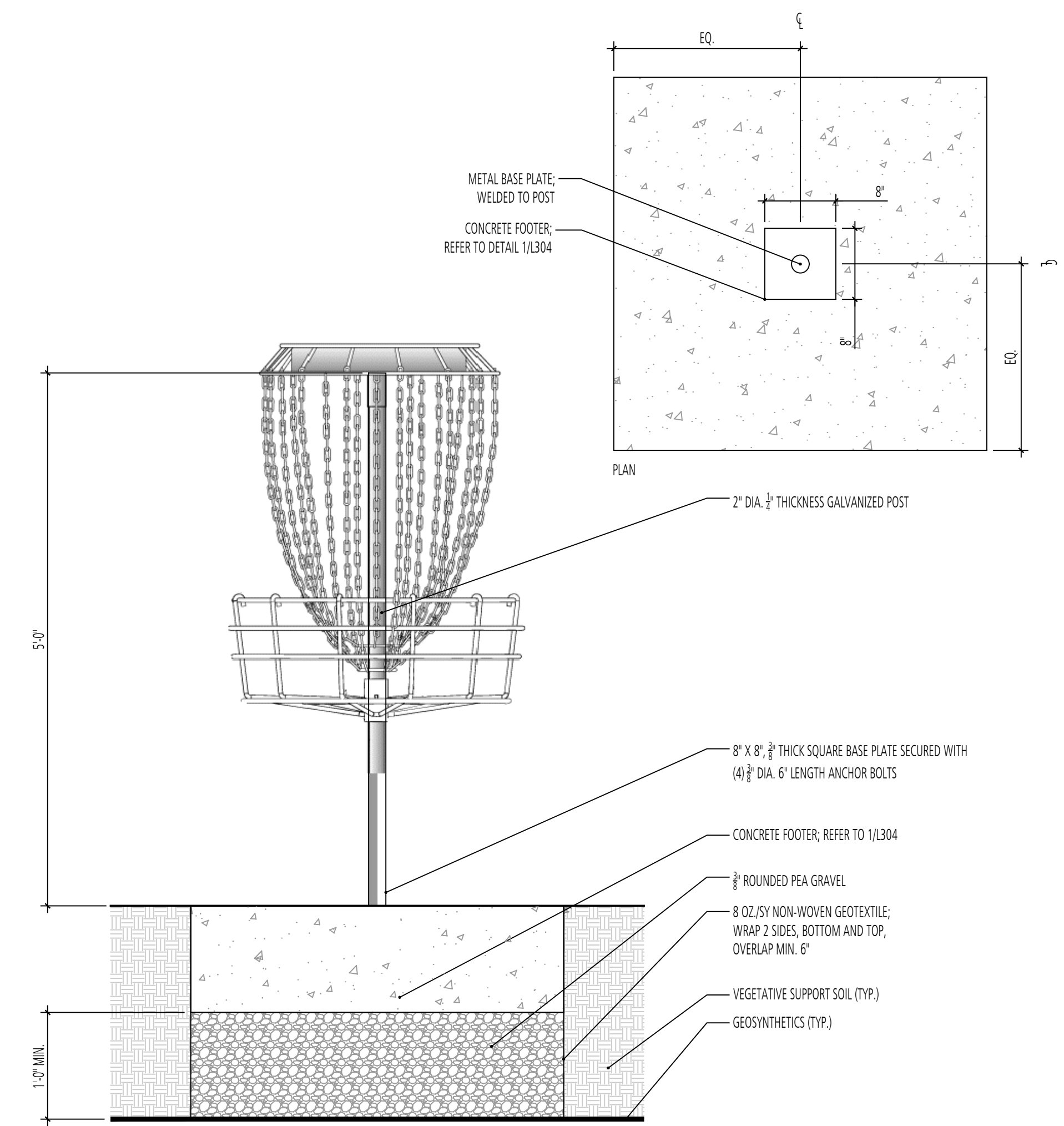
2 DISC GOLF TEE BOX - FLAT GRADE  
SECTION

SCALE: 1"=1'-0"



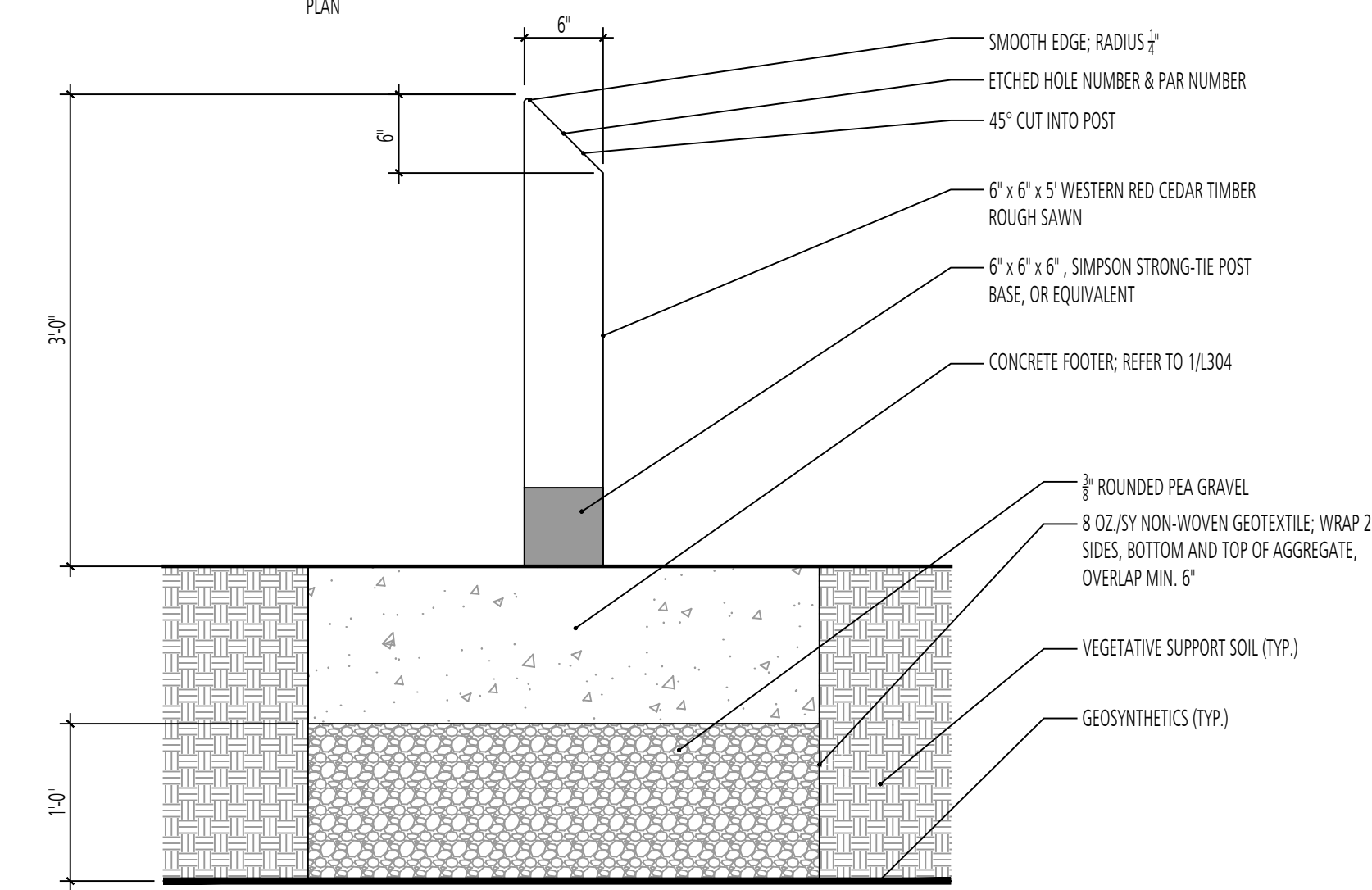
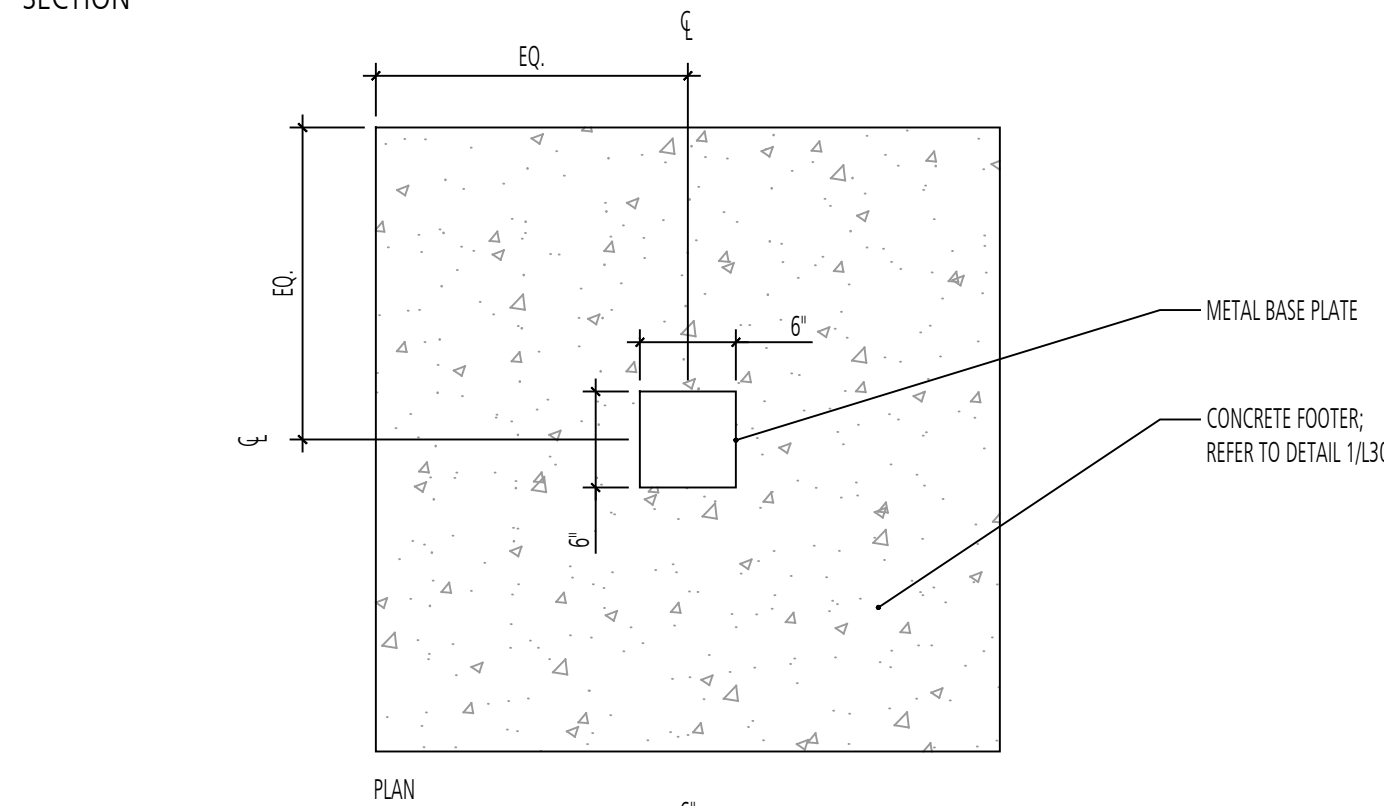
3 DISC GOLF TEE BOX - SLOPED GRADE  
SECTION

SCALE: 1"=1'-0"



4 DISC GOLF BASKET TARGET  
SECTION

SCALE: 1"=1'-0"



5 DISC GOLF TEE POST  
SECTION

SCALE: 1"=1'-0"

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI		
CHECKED BY:	MM		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

GIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

SITE DETAILS

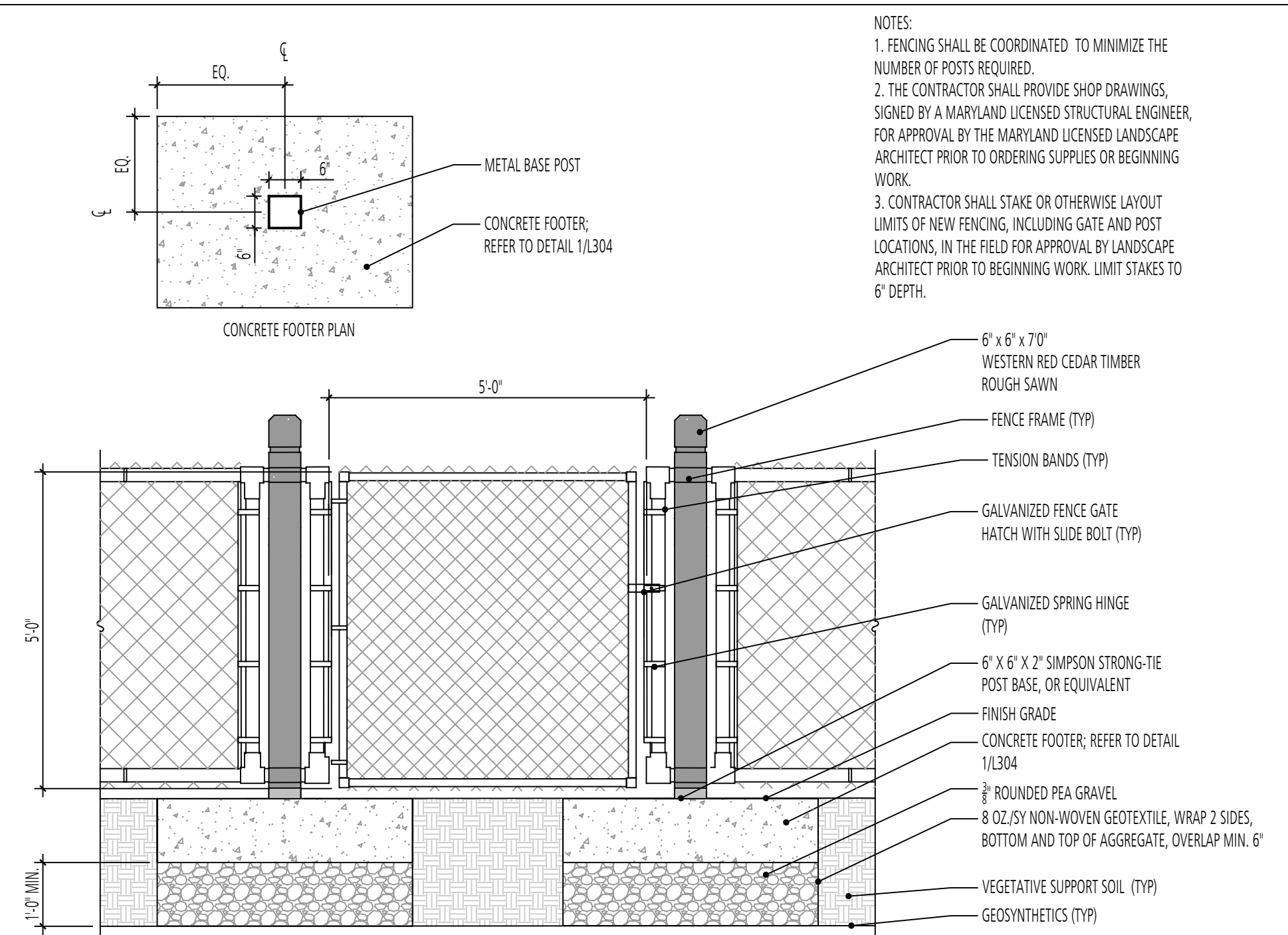
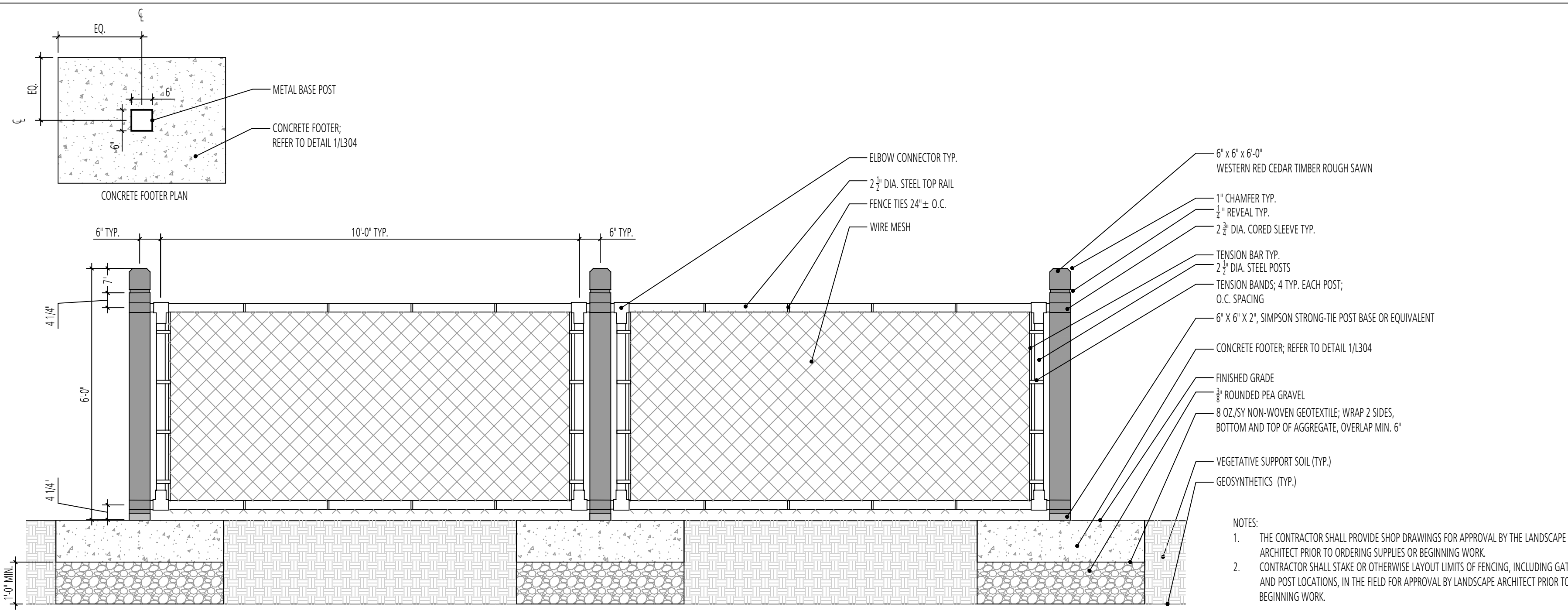
**FLOURA TEETER**  
landscape architects  
800 North Charles St. Ste. 300  
Baltimore, Maryland 21201  
Phone: 410.528.8395  
Fax: 410.528.8425

**EA**  
EA Engineering, Science,  
and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JUNE 2020  
PROJECT NUMBER: 1564601  
**L301**  
SHEET: 135 OF 144

FILE PATH: P:\PLANS\PROJECTS\1888 - GIDE LANDFILL REMEDIATION DESIGN\DETAILS\DISC GOLF TEE BOX (1/1304) 1/20/20

90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION



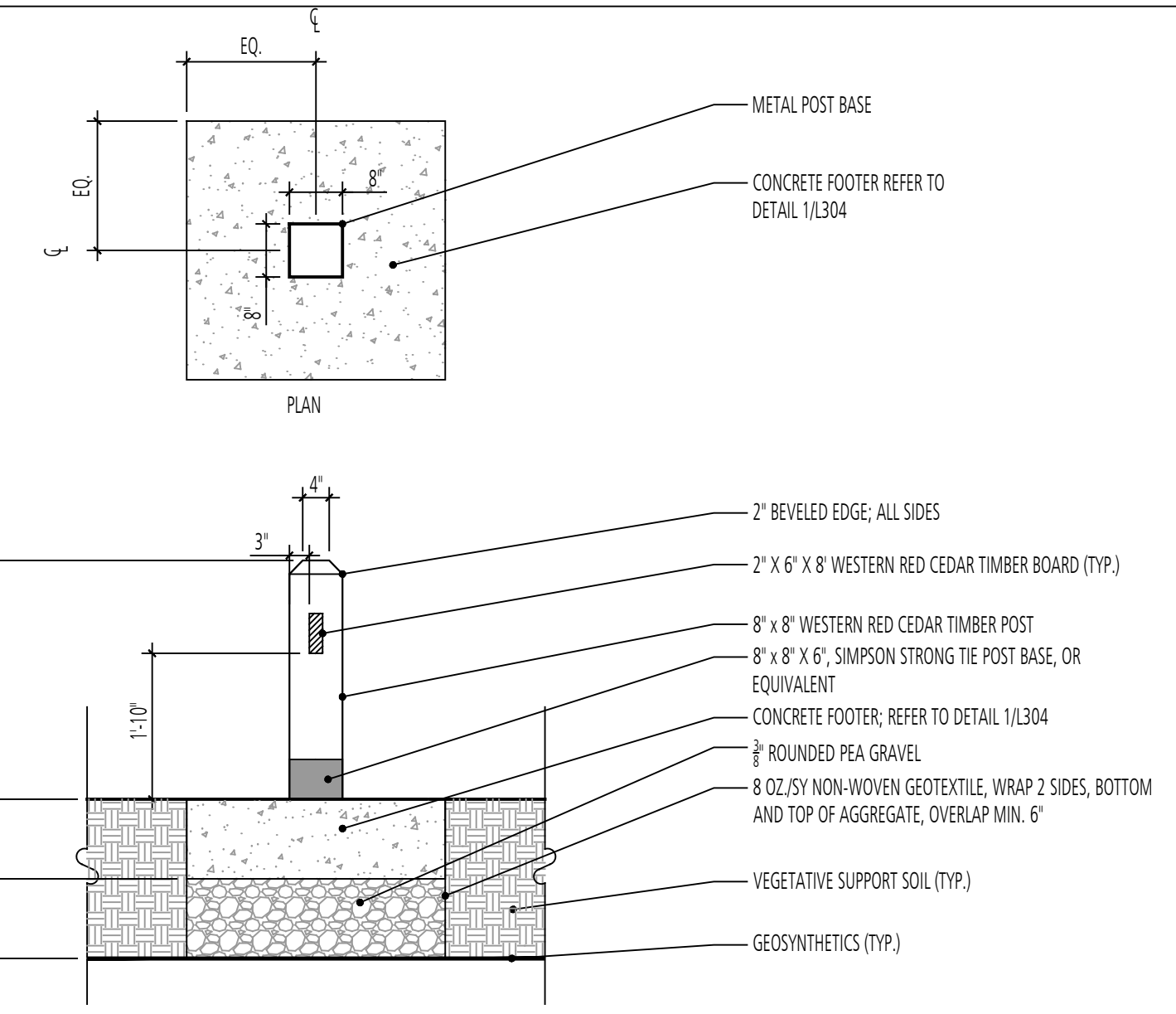
NOTES:  
 1. FENCING SHALL BE COORDINATED TO MINIMIZE THE NUMBER OF POSTS REQUIRED.  
 2. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, SIGNED BY A MARYLAND LICENSED STRUCTURAL ENGINEER, FOR APPROVAL BY THE MARYLAND LICENSED LANDSCAPE ARCHITECT PRIOR TO ORDERING SUPPLIES OR BEGINNING WORK.  
 3. CONTRACTOR SHALL STAKE OR OTHERWISE LAYOUT LIMITS OF NEW FENCING, INCLUDING GATE AND POST LOCATIONS, IN THE FIELD FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO BEGINNING WORK. LIMIT STAKES TO 6' DEPTH.

1 DOG PLAY FENCE  
ELEVATION

SCALE: 1/2" = 1'-0"

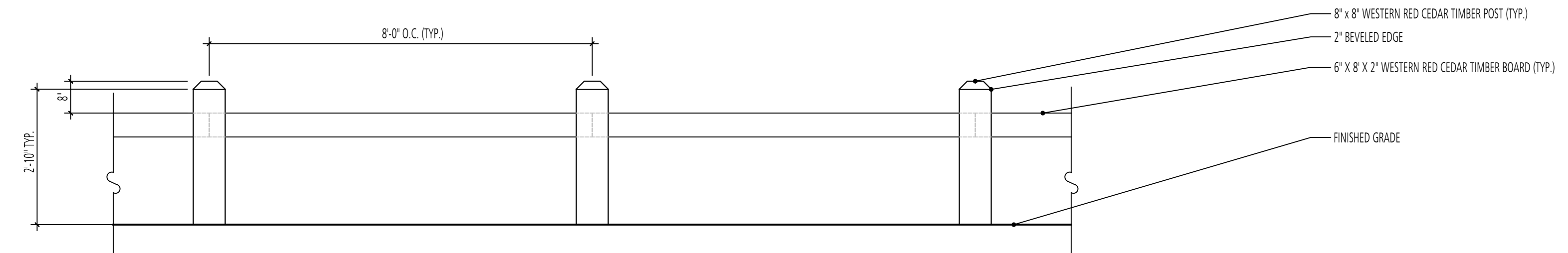
2 DOG PLAY SWING GATE  
ELEVATION

SCALE: 1/2" = 1'-0"



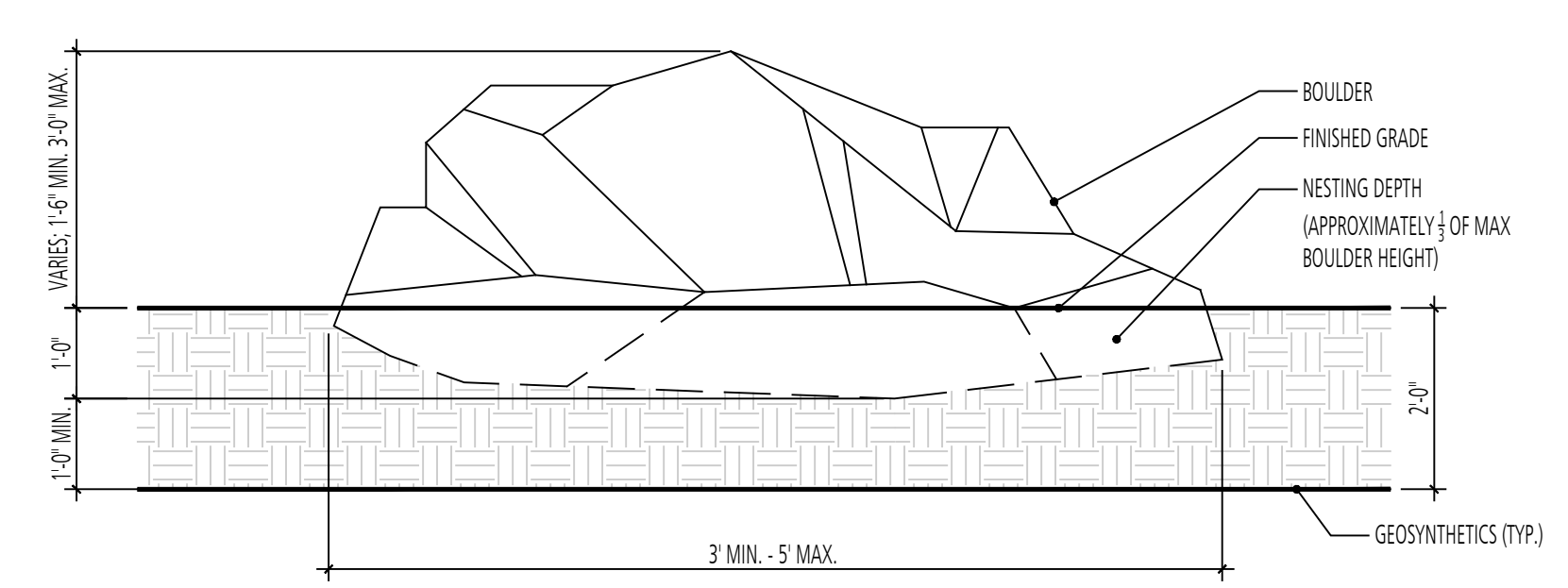
3 WOODEN GUARDRAIL  
SECTION

SCALE: 1/2" = 1'-0"



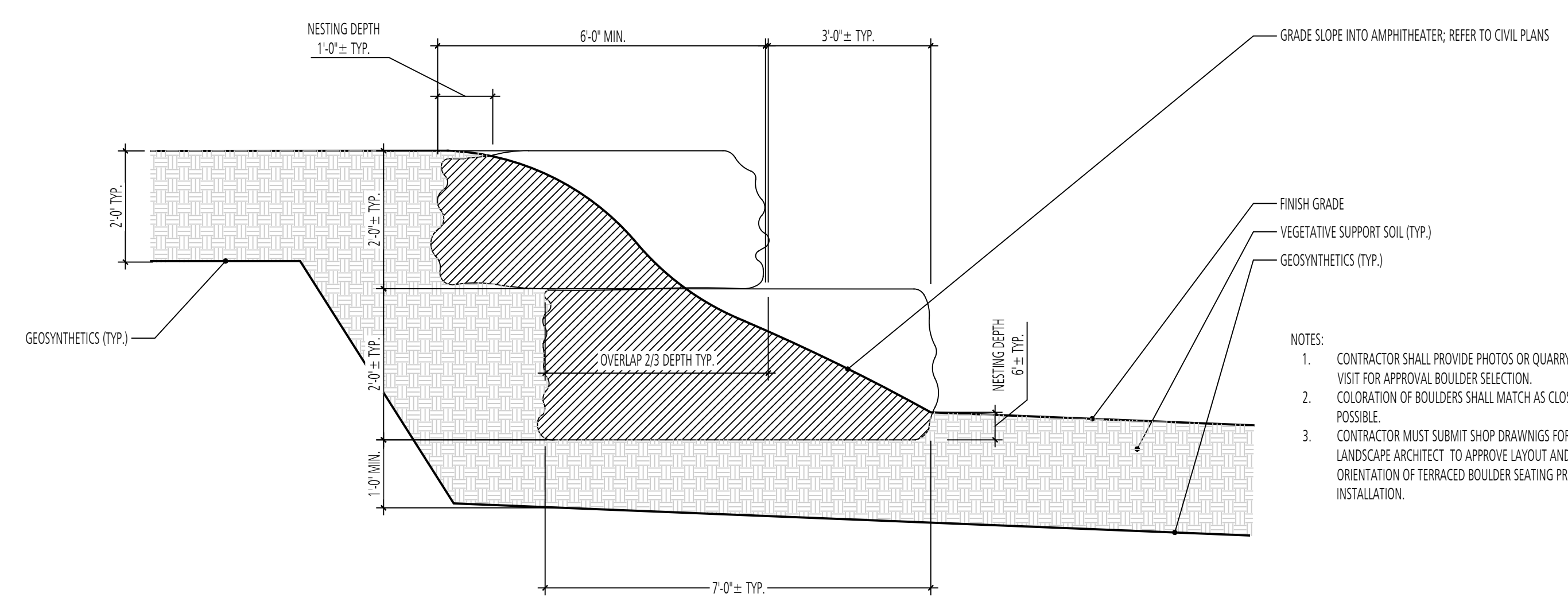
4 WOODEN GUARDRAIL  
ELEVATION

SCALE: 1/2" = 1'-0"



5 BOULDER  
SECTION

SCALE: 1/2" = 1'-0"



6 TERRACED BOULDER SEATING  
SECTION

SCALE: 1/2" = 1'-0"

NOTES:  
 1. CONTRACTOR SHALL PROVIDE PHOTOS OR QUARRY SITE VISIT FOR APPROVAL BOULDER SELECTION. COLORATION OF BOULDERS SHALL MATCH AS CLOSELY AS POSSIBLE.  
 2. CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR LANDSCAPE ARCHITECT TO APPROVE LAYOUT AND ORIENTATION OF TERRACED BOULDER SEATING PRIOR TO INSTALLATION.

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DESCRIPTION
DRAWN BY:	JCI	DATE	BY
CHECKED BY:	MM		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

MONTGOMERY COUNTY, MARYLAND

**SITE DETAILS**

**FLOURA TEETER**  
 landscape architects  
 800 North Charles St. Ste. 300  
 Baltimore, Maryland 21201  
 Phone: 410.528.8395  
 Fax: 410.528.8425

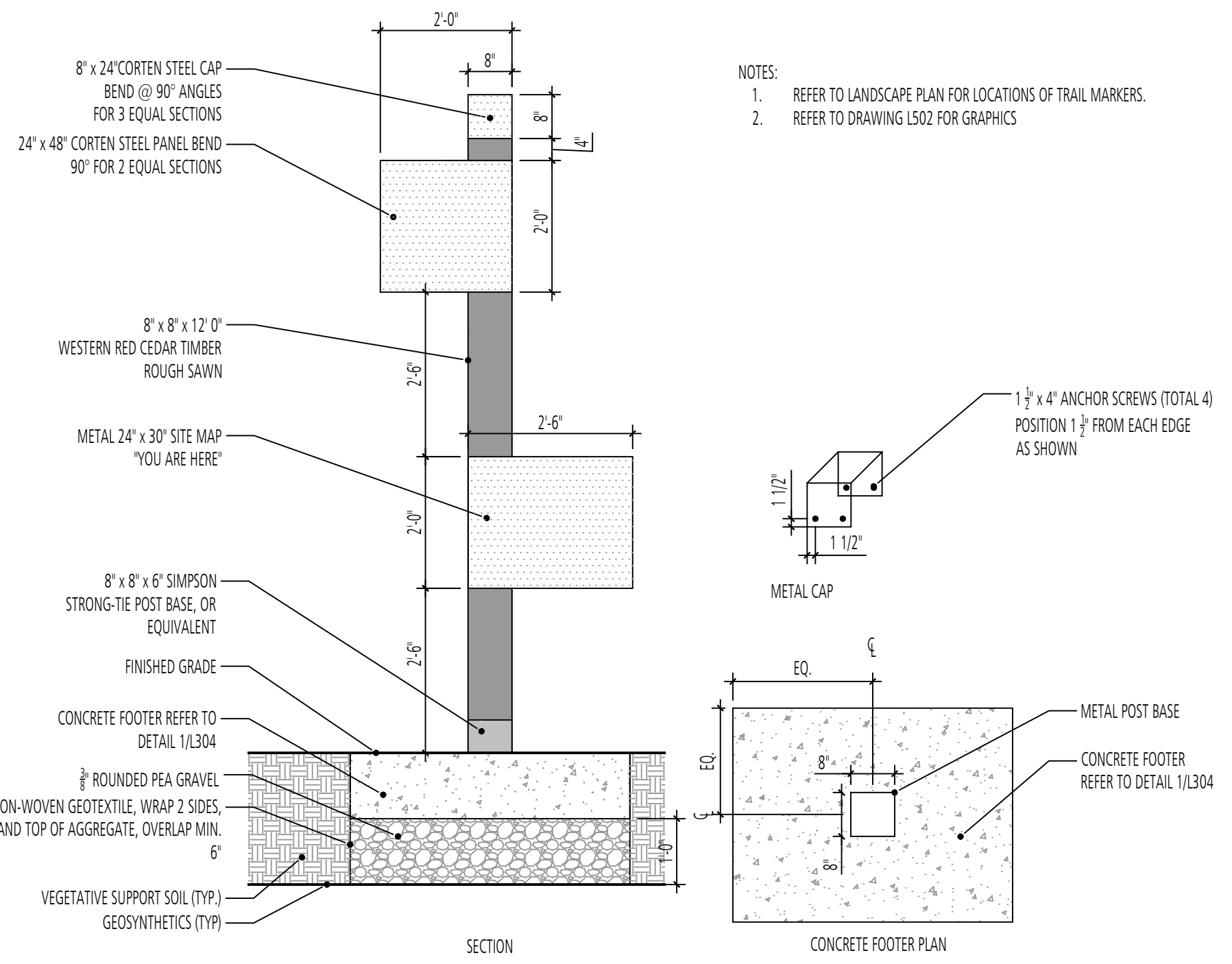
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JUNE 2020  
 PROJECT NUMBER: 1564601  
**L302**  
 SHEET: 136 OF 144

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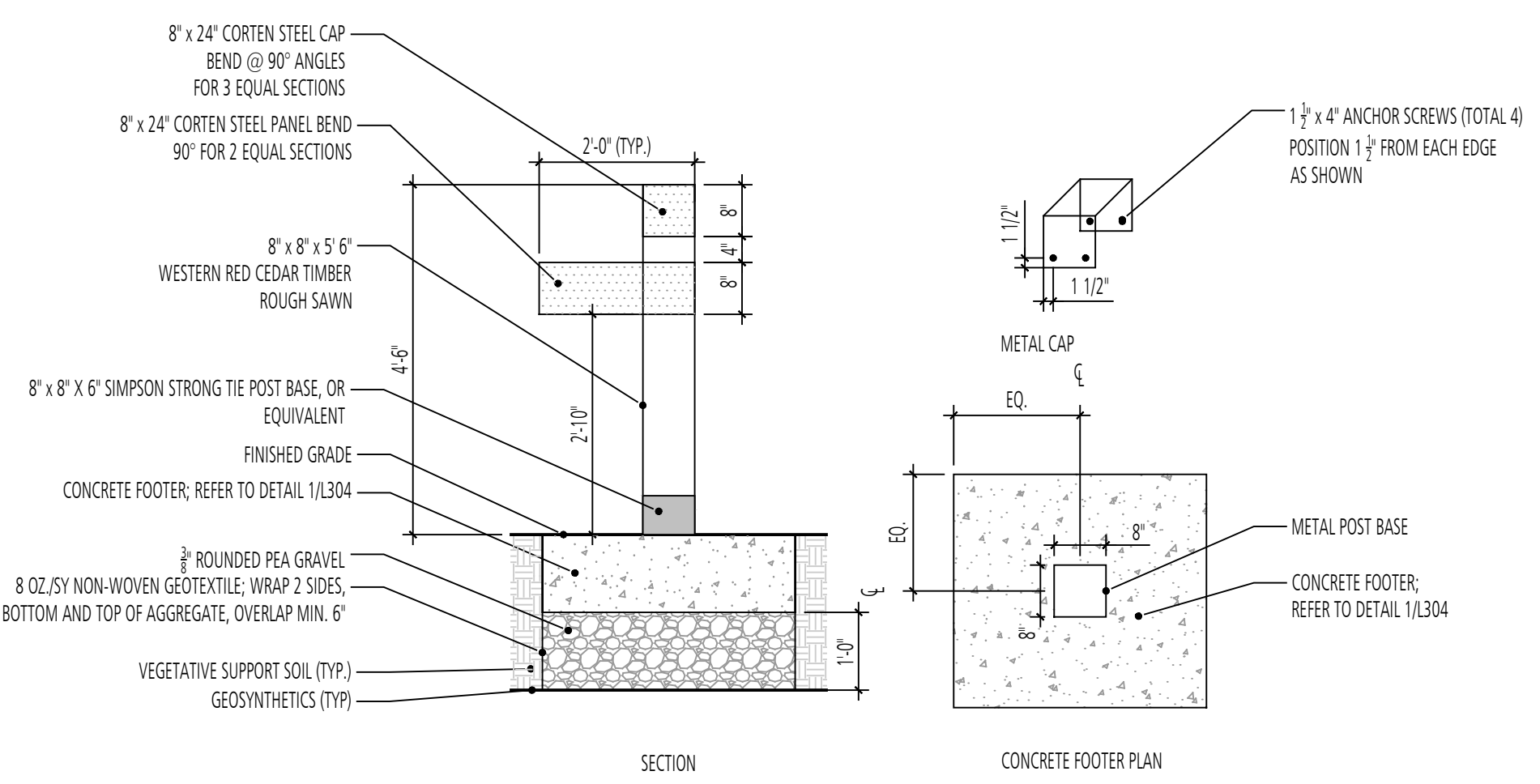
90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION





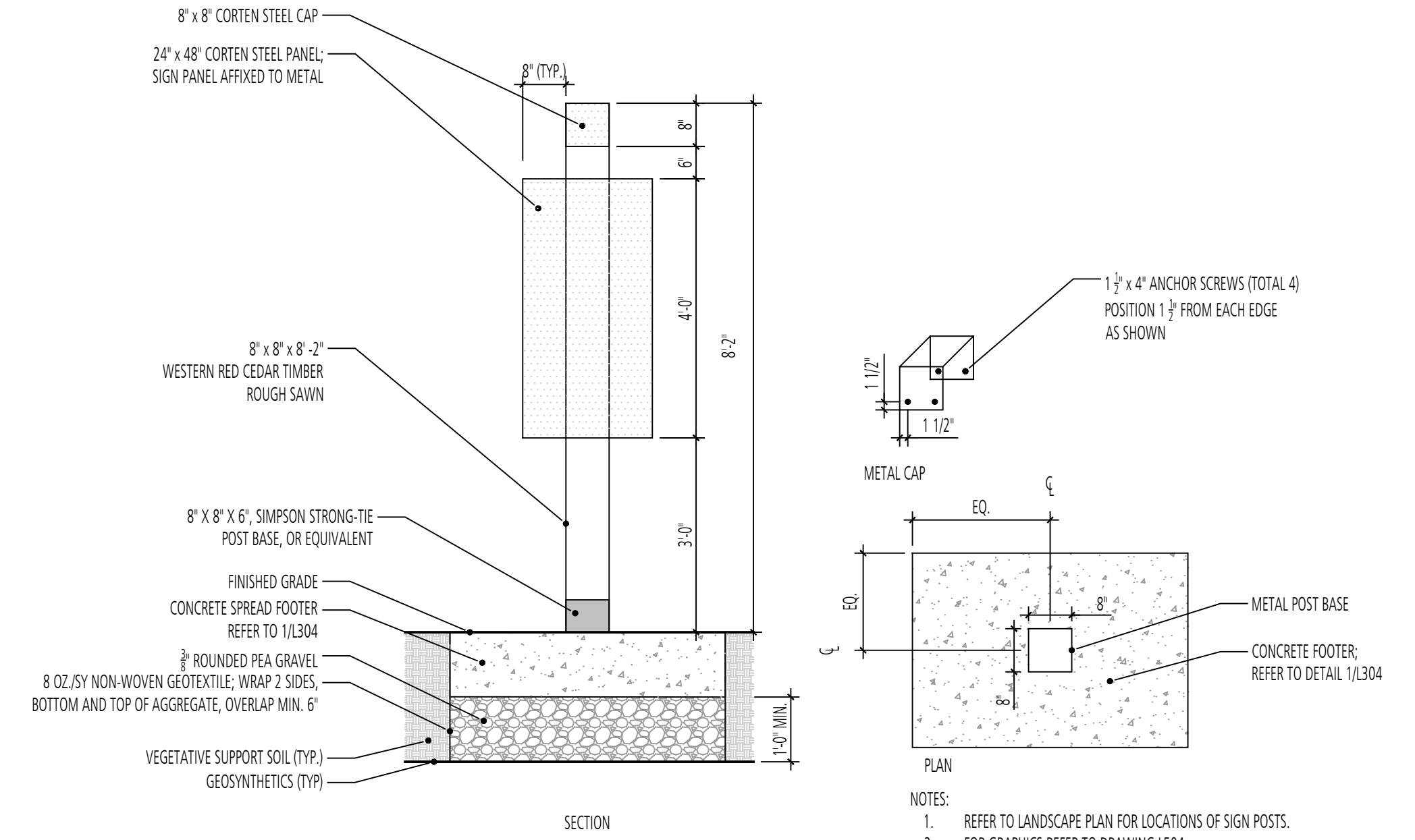
1 TRAIL MARKER  
SECTION

SCALE: 1/2" = 1'-0"



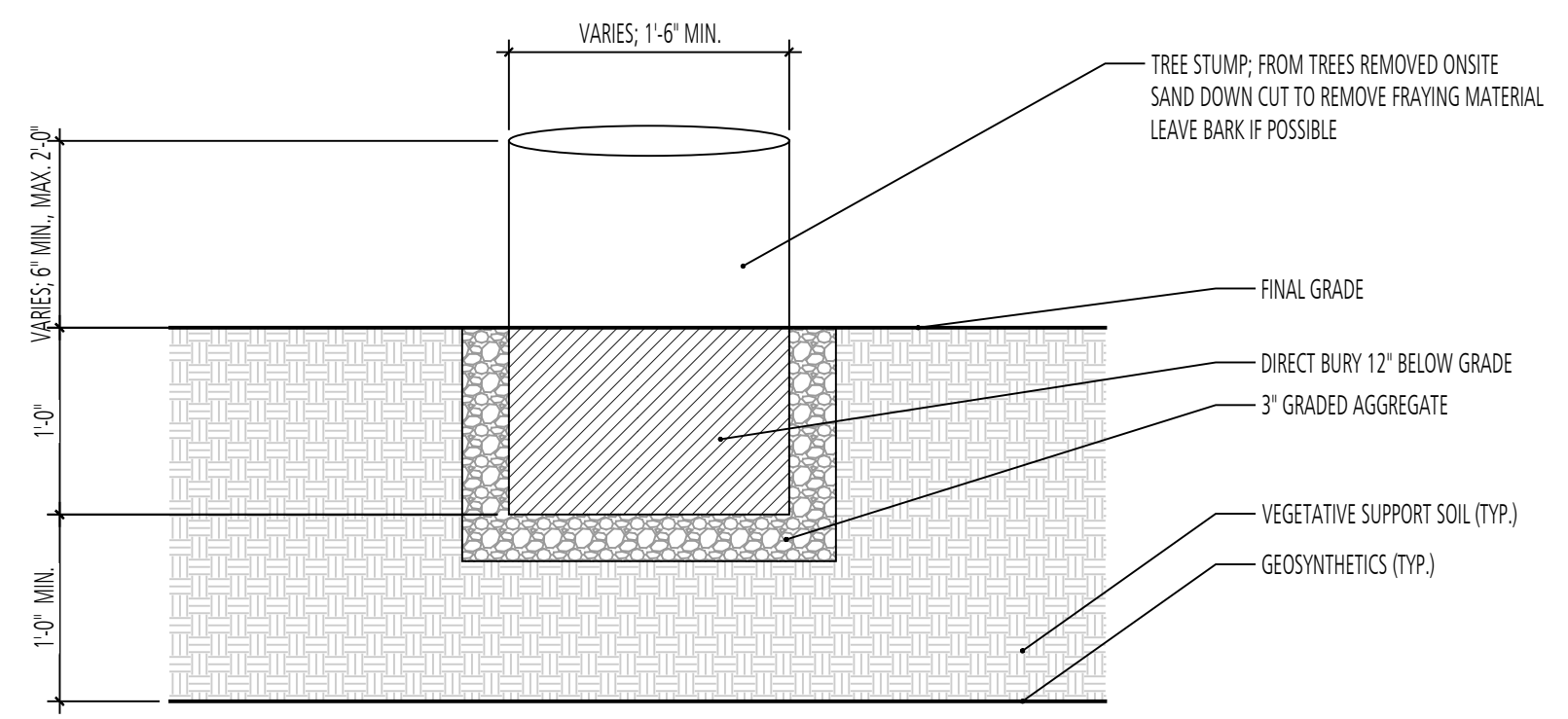
2 DIRECTIONAL SIGN POST  
SECTION & PLAN

SCALE: 1/2" = 1'-0"



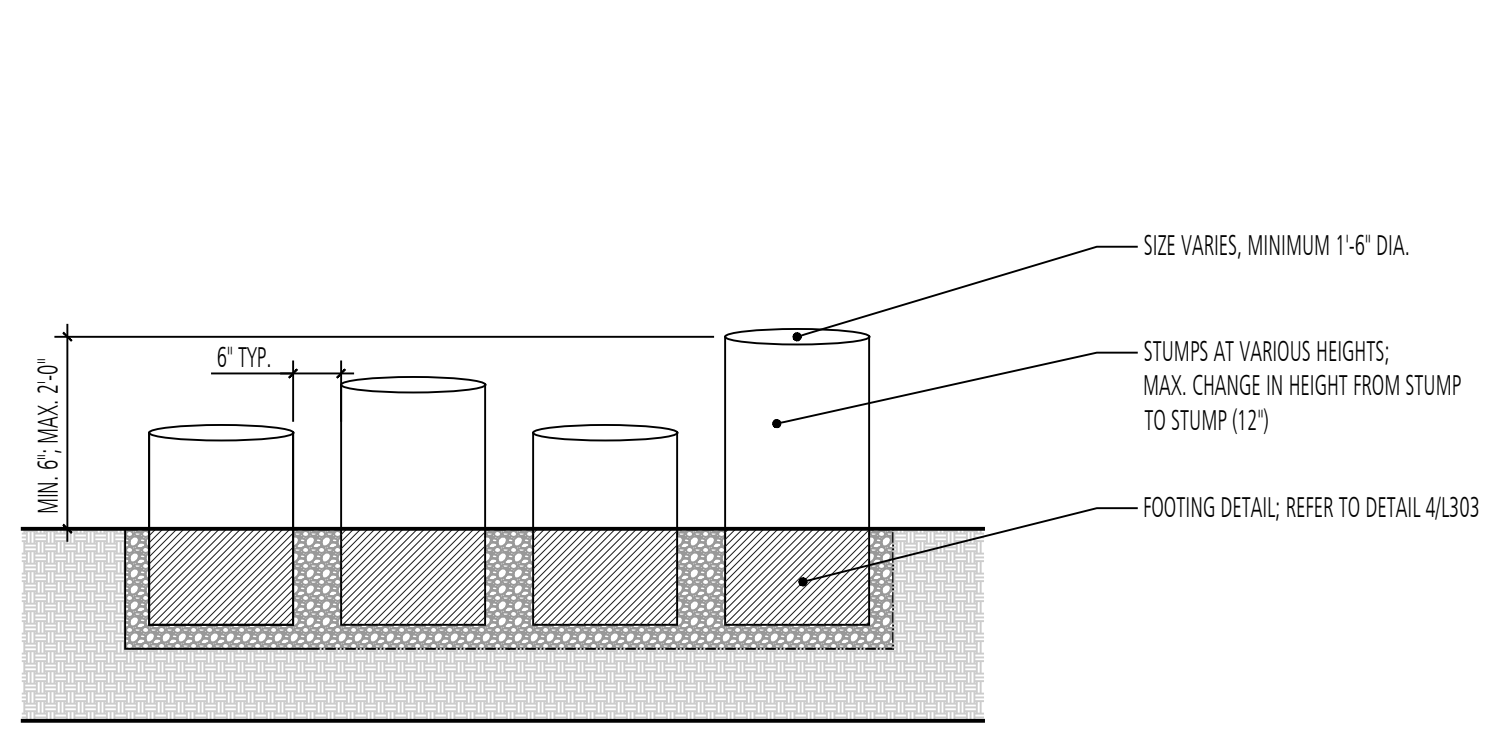
3 INFORMATION SIGN (SMALL)  
SECTION

SCALE: 1/2" = 1'-0"



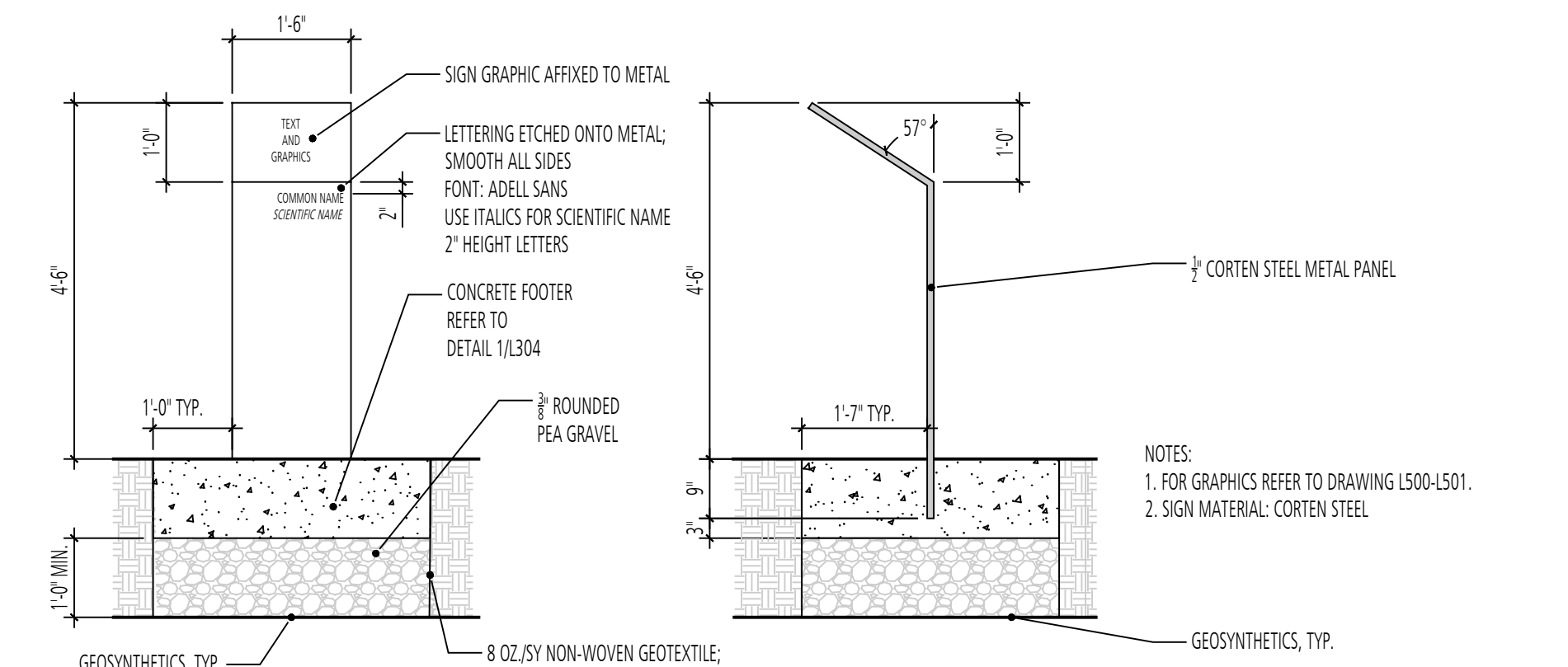
4 STUMP - FOOTER  
SECTION

SCALE: 1" = 1'-0"



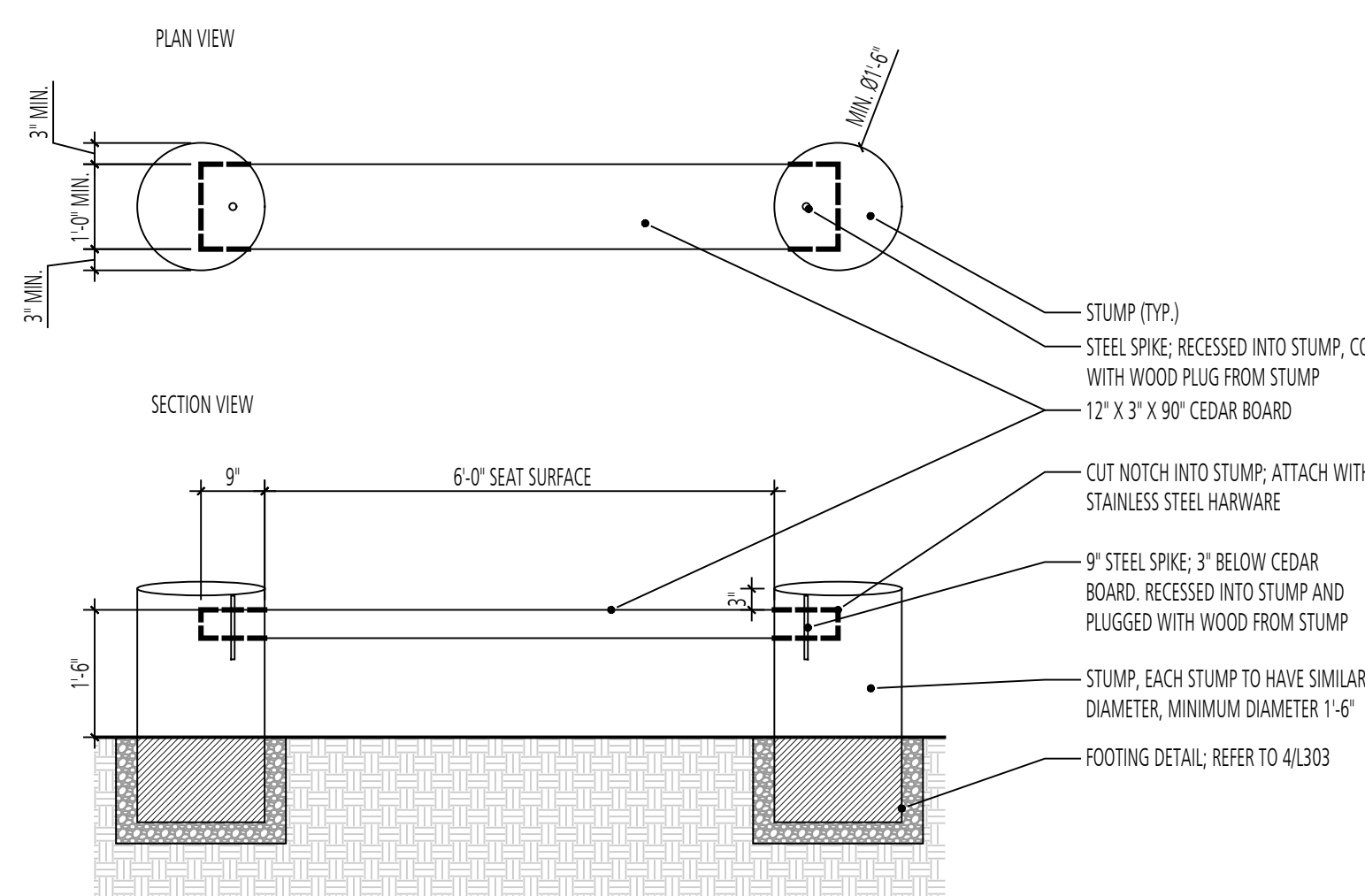
5 STUMP CLIMB  
SECTION

SCALE: 1/2" = 1'-0"



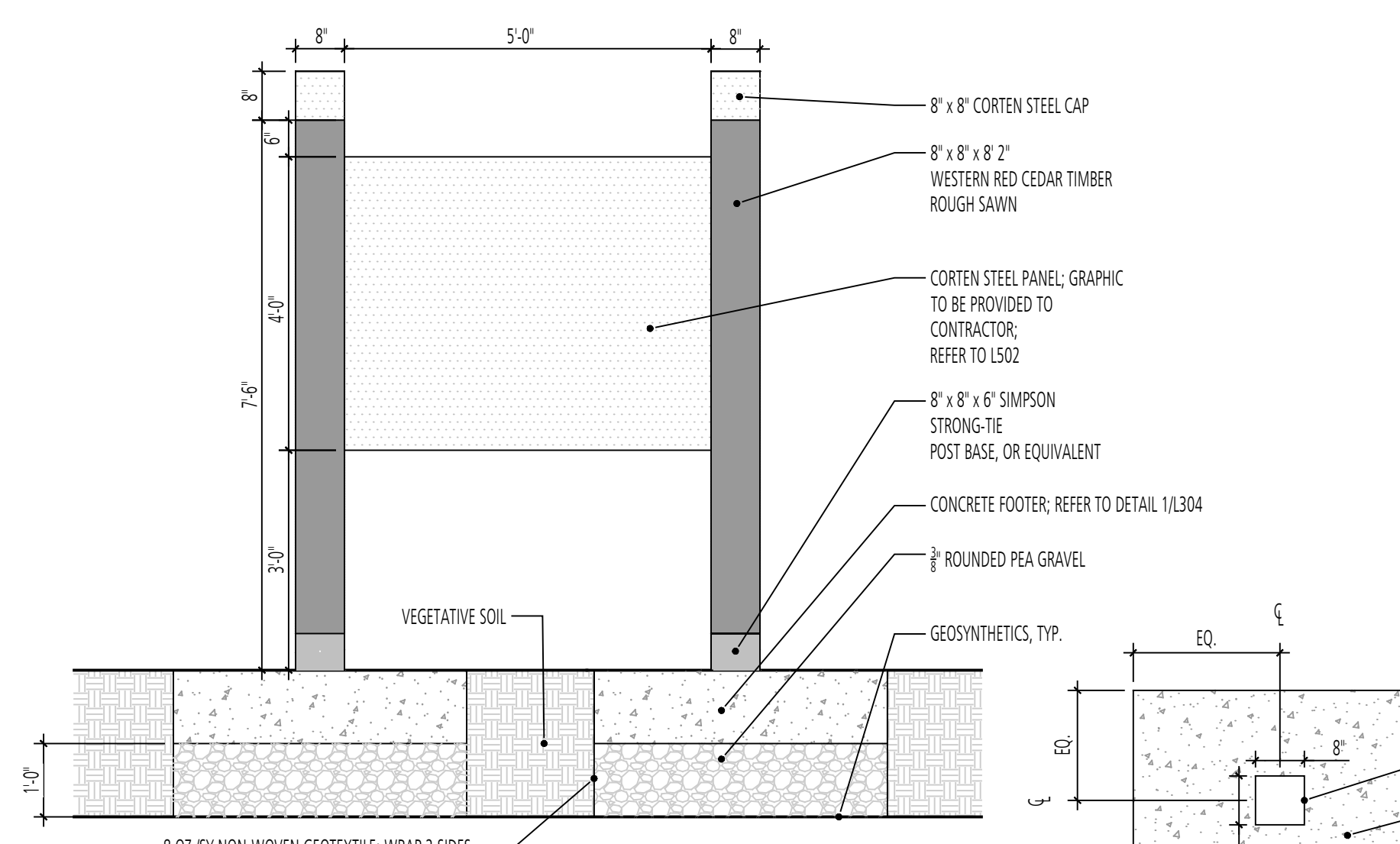
6 EDUCATIONAL POST  
SECTION

SCALE: 1/2" = 1'-0"



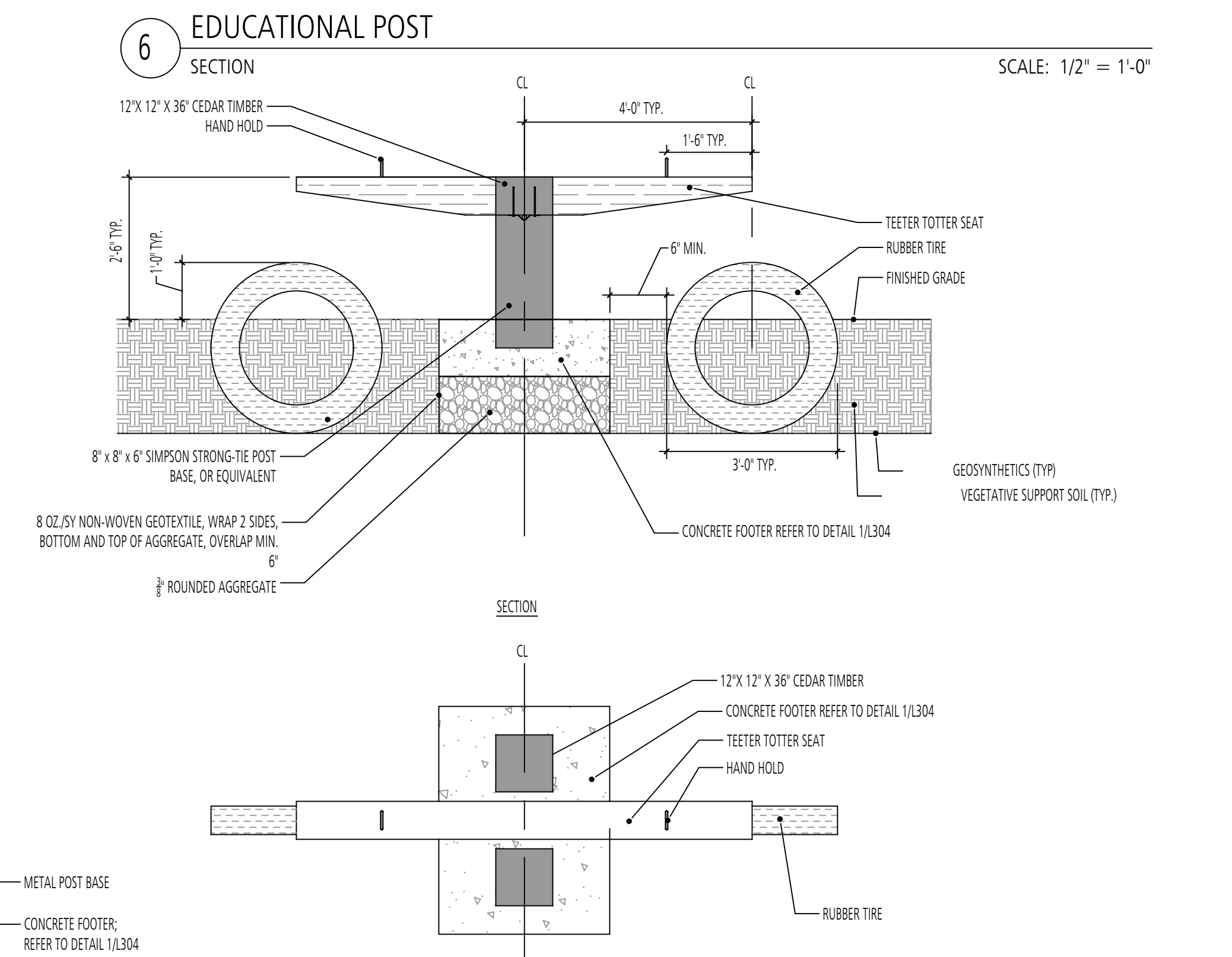
7 PARK BENCH  
PLAN & SECTION

SCALE: 1/2" = 1'-0"



8 INFORMATIONAL SIGN (LARGE)  
SECTION & PLAN

SCALE: 1/2" = 1'-0"



9 TEETER TOTTER  
PLAN AND SECTION

SCALE: 1/2" = 1'-0"

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION		DESIGNED BY:		MM	
DRAWN BY:		JCI		MM	
CHECKED BY:		MM		PROJECT MANAGER:	
M/G		M/G		M/G	
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 10993 EXPIRATION DATE: 07/26/2020					

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

SITE DETAILS

**FLOURA TEETER**  
 landscape architects  
 800 North Charles St. Ste. 300  
 Baltimore, Maryland 21201  
 Phone: 410.528.8395  
 Fax: 410.528.8425

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

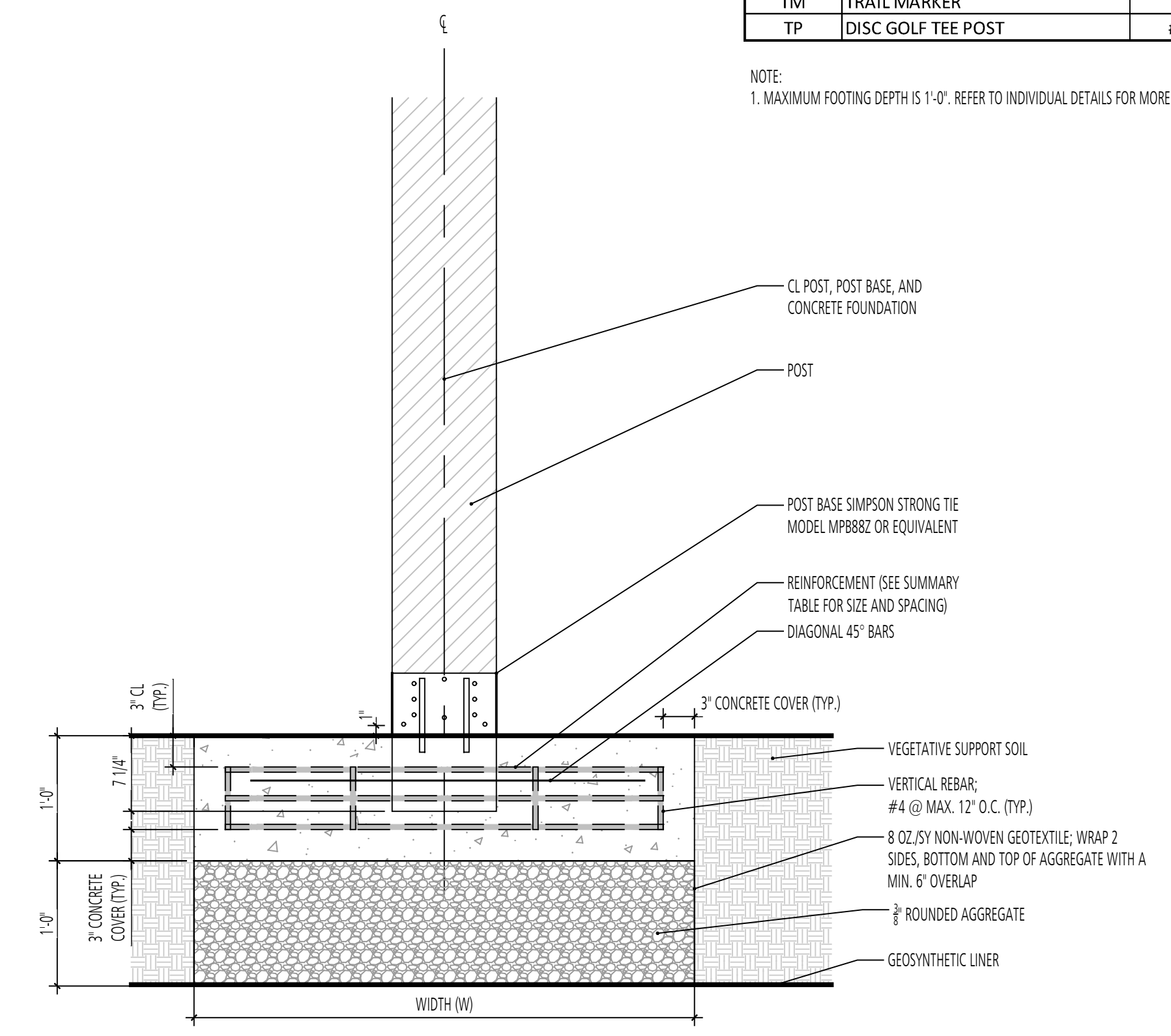
DATE: JUNE 2020  
 PROJECT NUMBER: 1564601  
**L303**  
 SHEET: 137 OF 144

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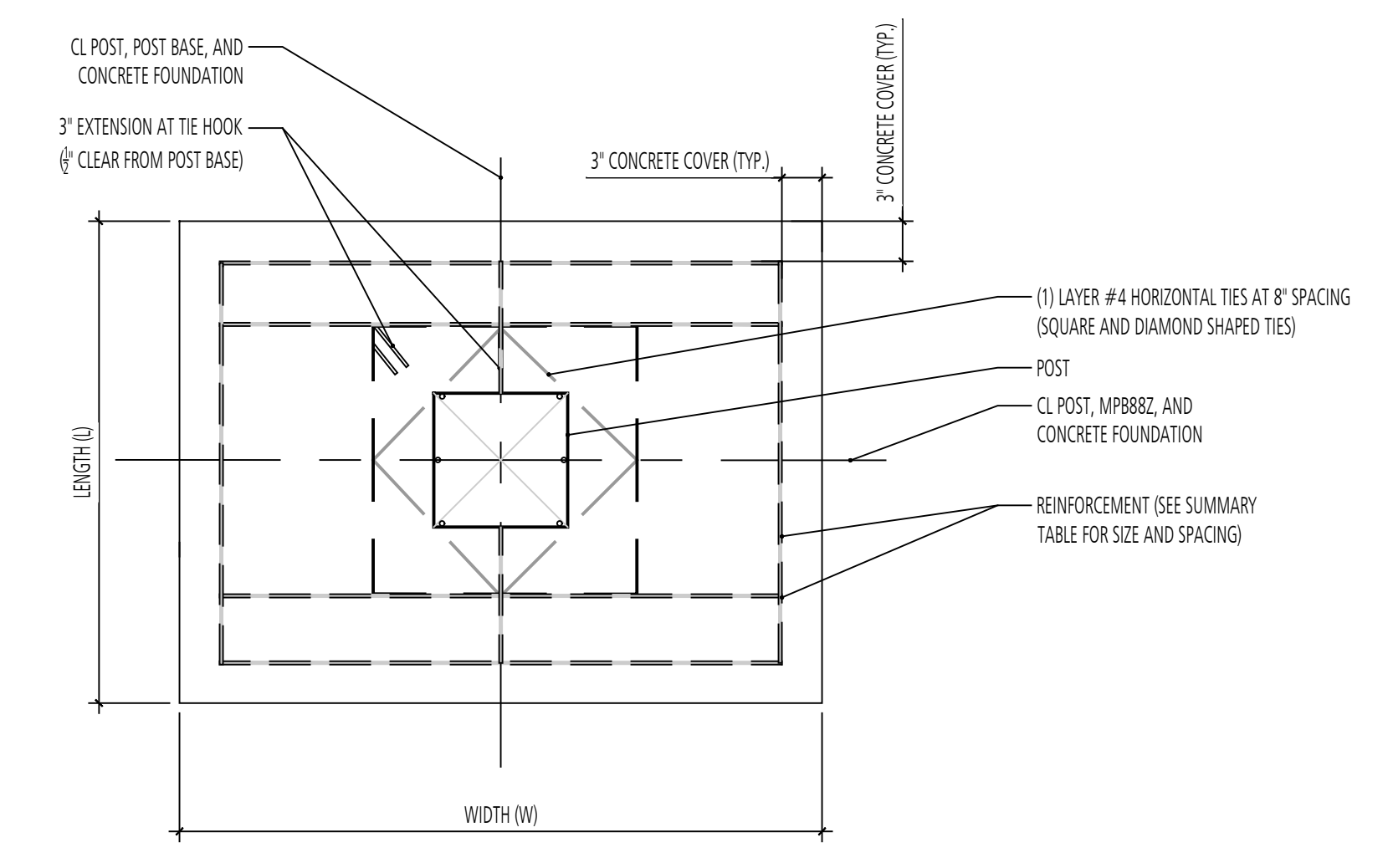
90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION

CONCRETE FOUNDATION DESIGN SUMMARY TABLE											
SYMBOL	FEATURE NAME	REINFORCING STEEL	FOUNDATION WIDTH (FEET) (W)	FOUNDATION LENGTH (FEET) (L)	CONCRETE VOLUME PER FOOTING (FT <sup>3</sup> )	FOOTING QUANTITY	TOTAL CONCRETE VOLUME (FT <sup>3</sup> )	AGGREGATE VOLUME PER FOOTING (FT <sup>3</sup> )	TOTAL AGGREGATE VOLUME (FT <sup>3</sup> )	GEOTEXTILE PER FOOTING (SF)	TOTAL GEOTEXTILE (SF)
C-3	DOG PLAY FENCE	#5 @ 12" O.C.	3.00	4.00	12.00	116	1392.00	12.00	1392.00	31.50	3654.00
C-6	SHADE STRUCTURE (1) 14' x 35'	#5 @ 12" O.C.	4.00	38.00	152.00	2	304.00	304.00	608.00	314.00	628.00
C-7	ART INSTALLATION	#5 @ 6" O.C.	3.00	5.25	15.75	30	473.00	15.75	472.50	39.00	1170.00
C-14	BUTTERFLY BOX	#5 @ 12" O.C.	3.25	3.25	10.56	3	32.00	10.56	31.69	29.25	87.75
C-15	MAGNIFYING LENS POST	#4 @ 12" O.C.	2.75	2.75	7.56	2	16.00	7.56	15.13	22.00	44.00
C-16	TRASH RECEPTACLE	#5 @ 12" O.C.	3.00	3.00	9.00	4	36.00	9.00	36.00	25.50	102.00
C-17	WOODEN GUARDRAIL	#4 @ 12" O.C.	3.00	3.00	9.00	203	1827.00	9.00	1827.00	25.50	5176.50
C-18	OWL NESTING BOX	#5 @ 10" O.C.	3.50	3.75	13.13	4	40.00	13.13	52.50	35.00	140.00
C-20	DISC GOLF BASKET TARGET	#5 @ 12" O.C.	3.50	3.50	12.25	9	111.00	12.25	110.25	33.25	299.25
C-21	SLOPED CHASE LOUNGE CHAIR	#5 @ 12" O.C.	3.00	5.00	15.00	10	150.00	15.00	150.00	37.50	375.00
DS	DIRECTIONAL SIGN POST	#5 @ 12" O.C.	3.00	3.25	9.75	5	49.00	9.75	48.75	27.00	135.00
EP	EDUCATIONAL POST	#5 @ 12" O.C.	3.25	3.50	11.38	12	126.00	11.38	136.50	30.88	370.50
ISL	INFORMATION SIGN (LARGE)	#5 @ 10" O.C.	3.00	4.00	12.00	6	120.00	12.00	72.00	31.50	189.00
ISS	INFORMATION SIGN (SMALL)	#5 @ 10" O.C.	3.00	4.25	12.75	1	64.00	12.75	12.75	33.00	33.00
TM	TRAIL MARKER	#5 @ 8" O.C.	3.25	4.25	13.81	4	83.00	13.81	55.25	35.75	143.00
TP	DISC GOLF TEE POST	#4 @ 12" O.C.	2.75	2.75	7.56	9	69.00	7.56	68.06	22.00	198.00

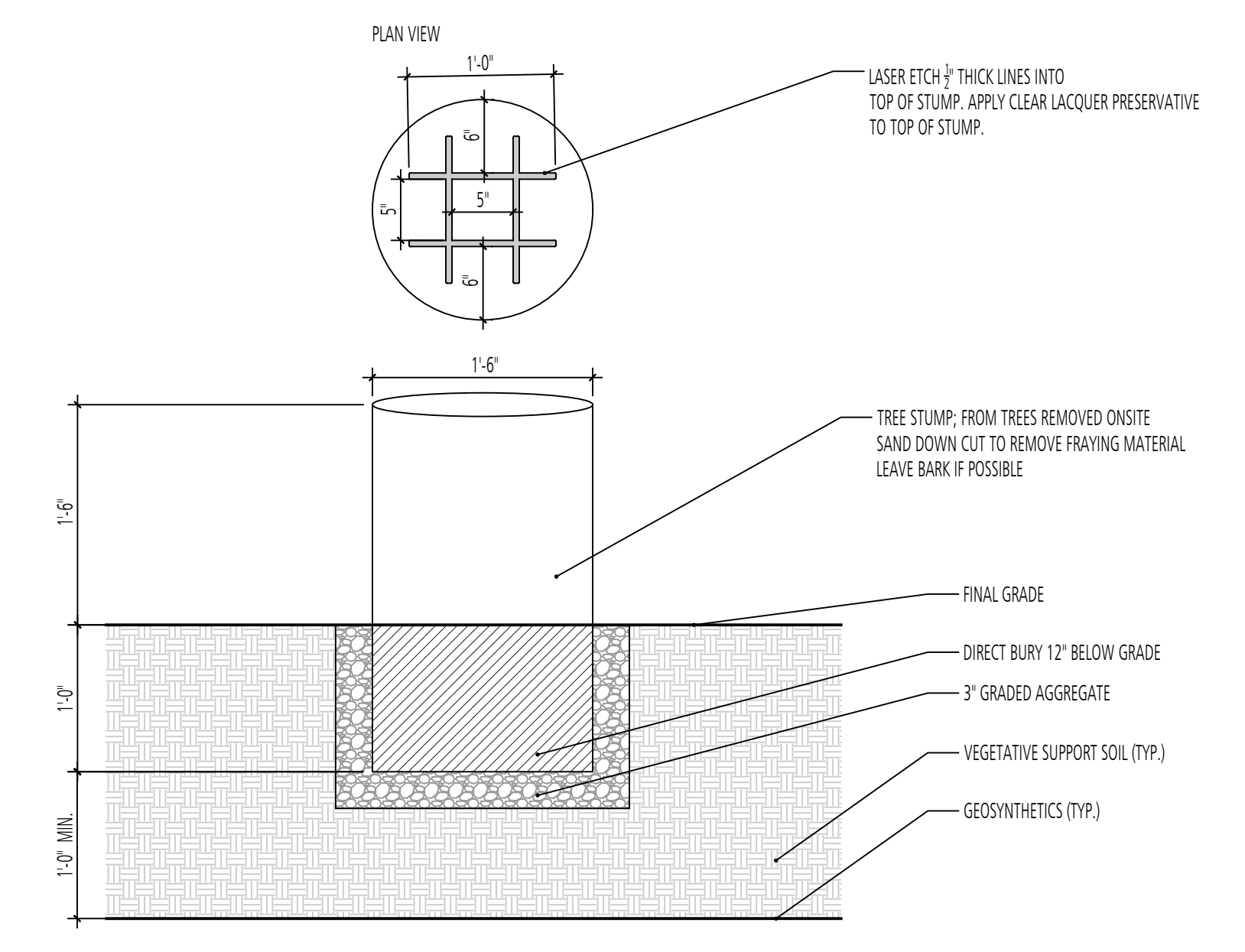
NOTE:  
1. MAXIMUM FOOTING DEPTH IS 1'-0". REFER TO INDIVIDUAL DETAILS FOR MORE INFORMATION.



1 TYPICAL REINFORCED CONCRETE FOUNDATION SECTION



2 TIC TAC TOE SECTION



SCALE: 1" = 1'-0"

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY: <td>JCI</td> <td></td> <td></td>	JCI		
CHECKED BY: <td>MM</td> <td></td> <td></td>	MM		
PROJECT MANAGER: <td>M/G</td> <td></td> <td></td>	M/G		

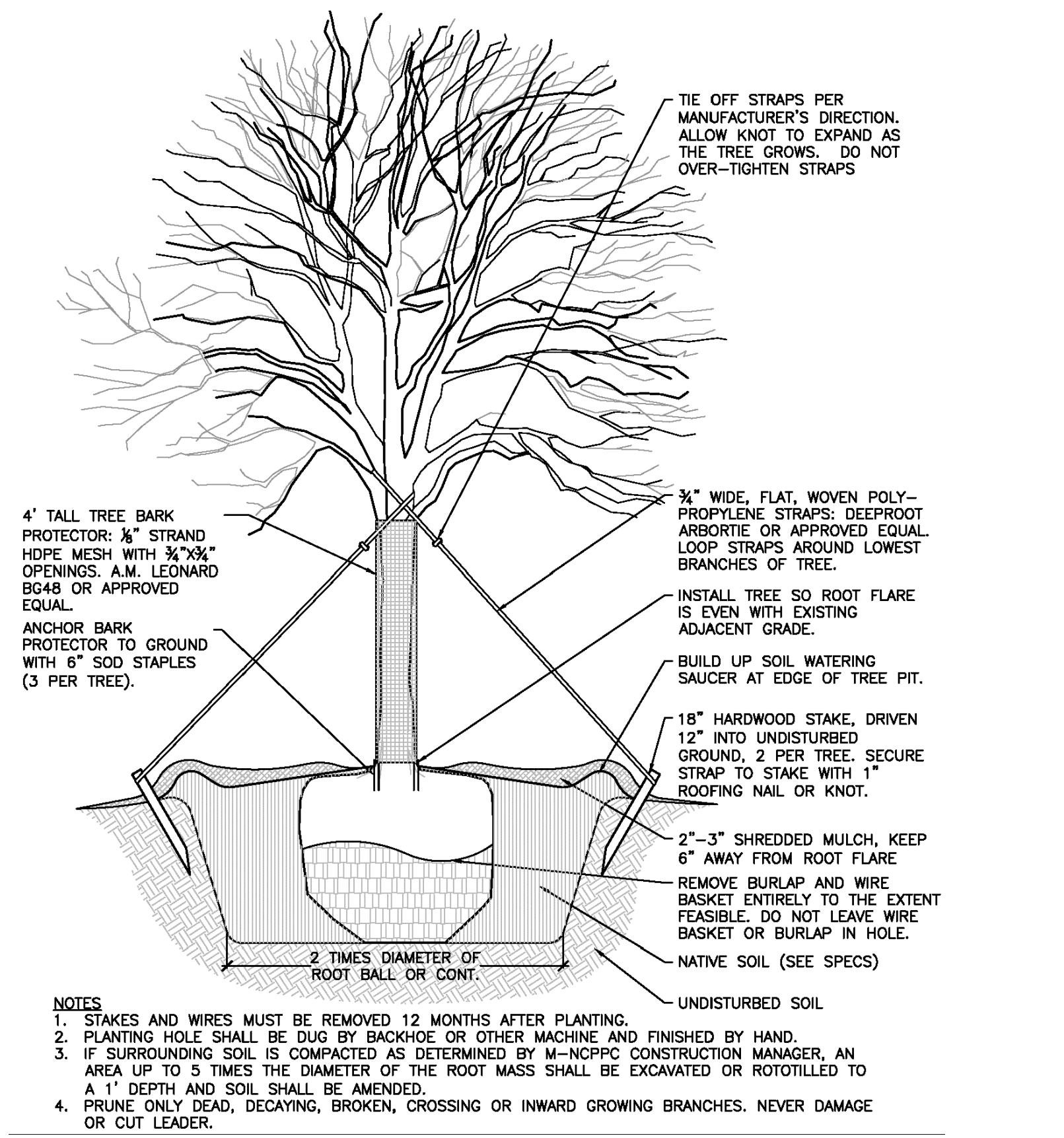
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

GUDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND  
SITE DETAILS

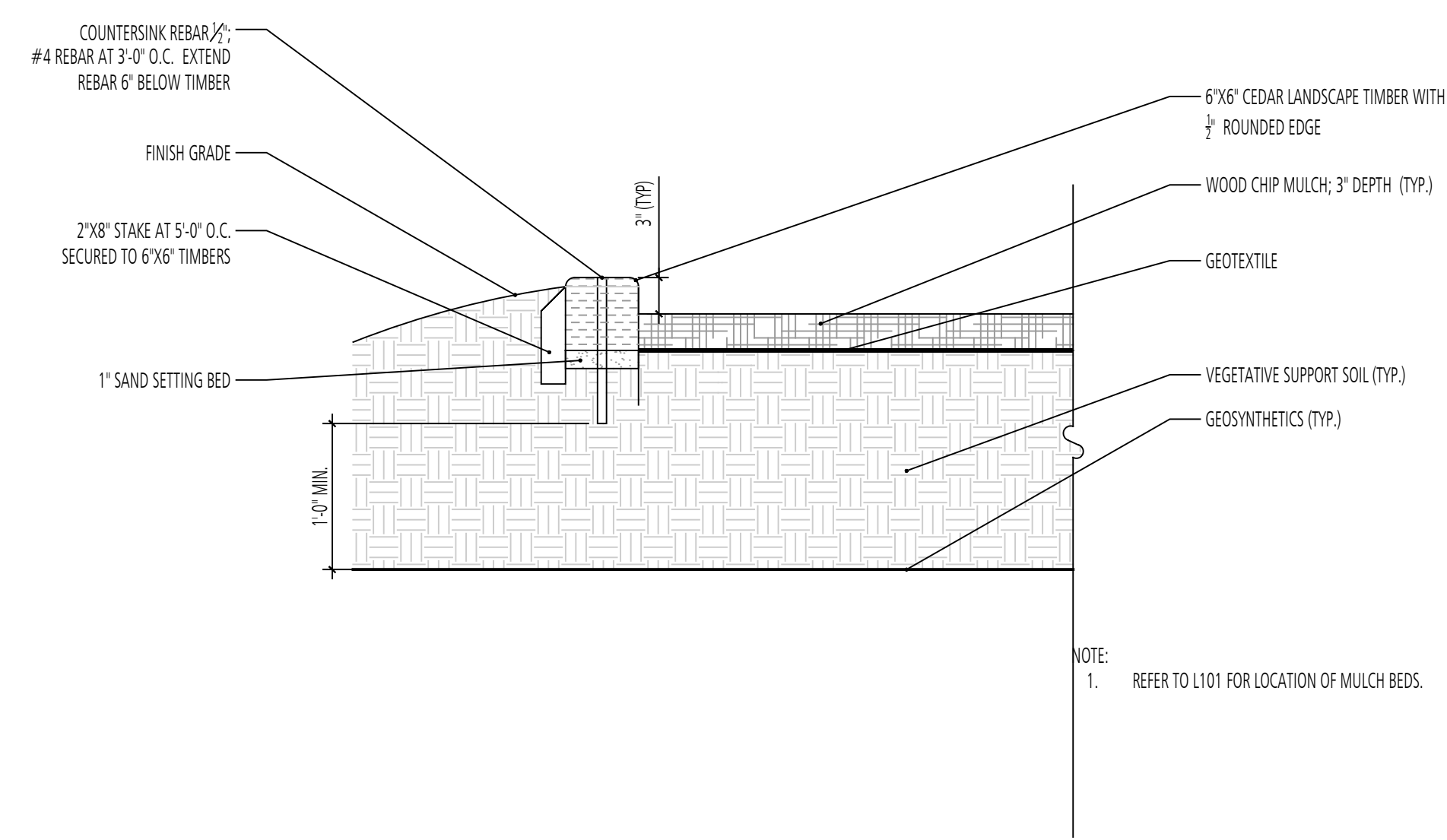
**FLOURA TEETER**  
landscape architects  
800 North Charles St. Ste. 300  
Baltimore, Maryland 21201  
Phone: 410.528.8395  
Fax: 410.528.8425

**EA**  
EA Engineering, Science,  
and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

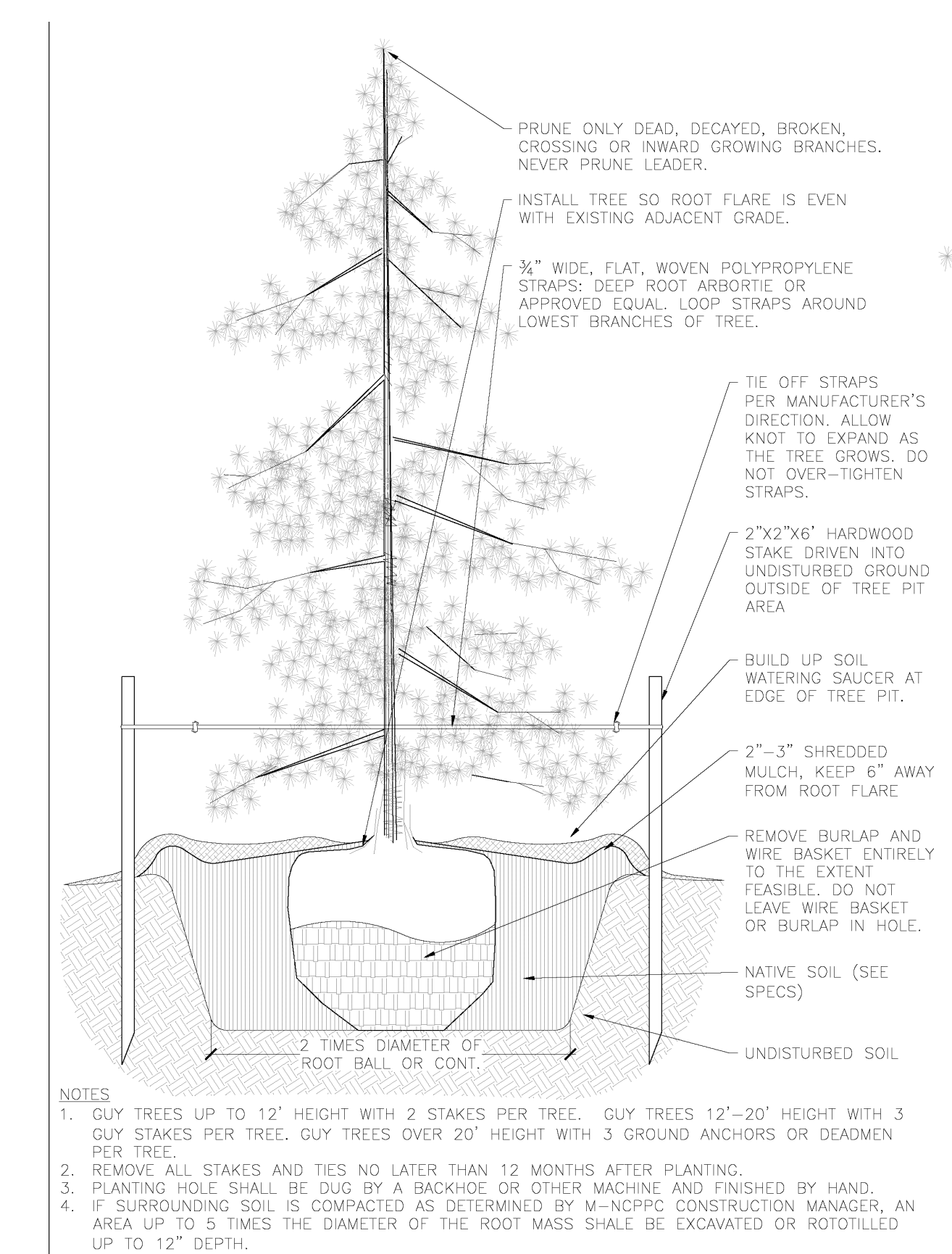
DATE: JUNE 2020  
PROJECT NUMBER: 1564601  
L304  
SHEET: 138 OF 144



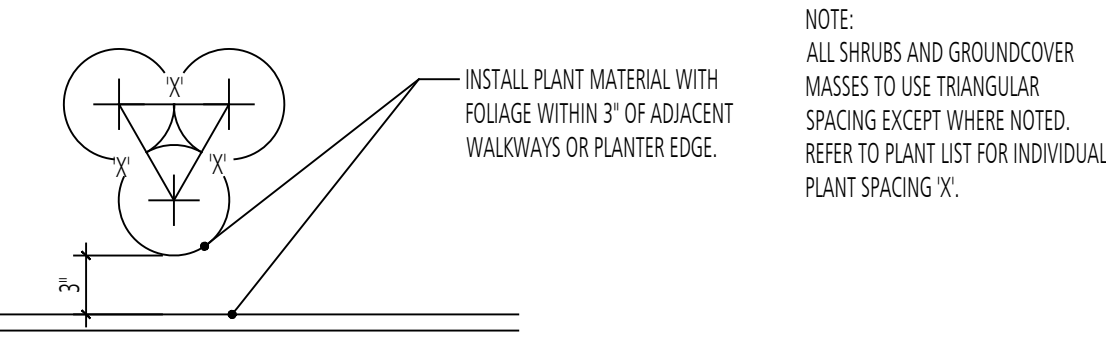
**1 TREE PLANTING**  
SECTION  
SCALE: 1/2" = 1'-0"



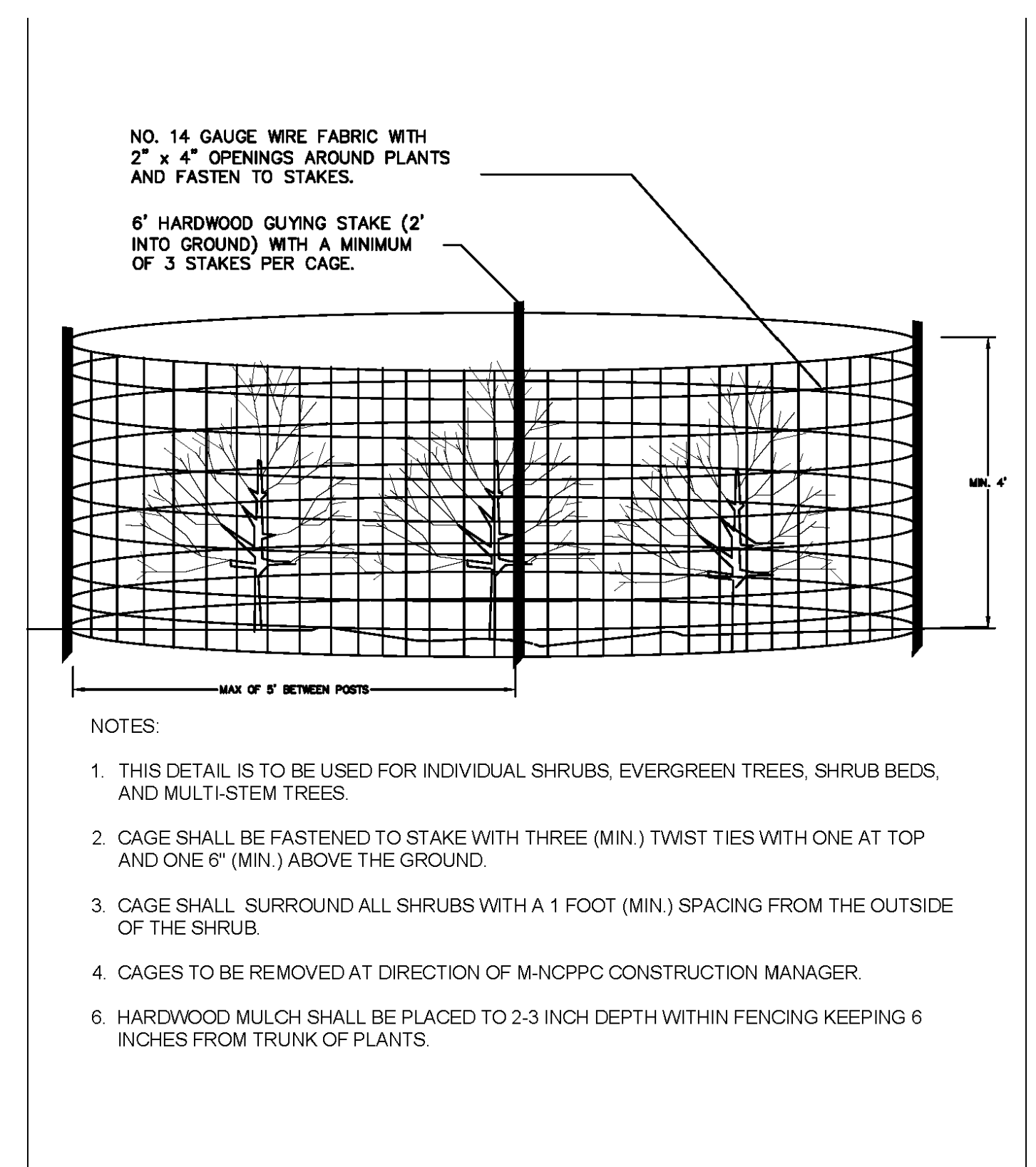
**2 MULCH BORDER**  
SECTION  
SCALE: 1" = 1'-0"



**3 EVERGREEN TREE PLANTING**  
SECTION  
SCALE: NTS



**4 SHRUB SPACING DETAIL**  
PLAN  
SCALE: 1/2" = 1'-0"



**5 DEER PROTECTION FENCING**  
SECTION  
SCALE: 1/2" = 1'-0"

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION				
DESIGNED BY:	MM			
DRAWN BY:	JCI			
CHECKED BY:	MM			
PROJECT MANAGER:	MJG			

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 10993 EXPIRATION DATE: 07/26/2020

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**PLANTING DETAILS**

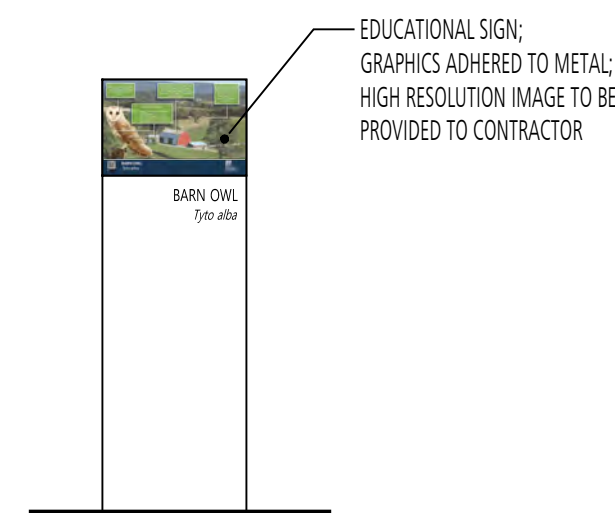
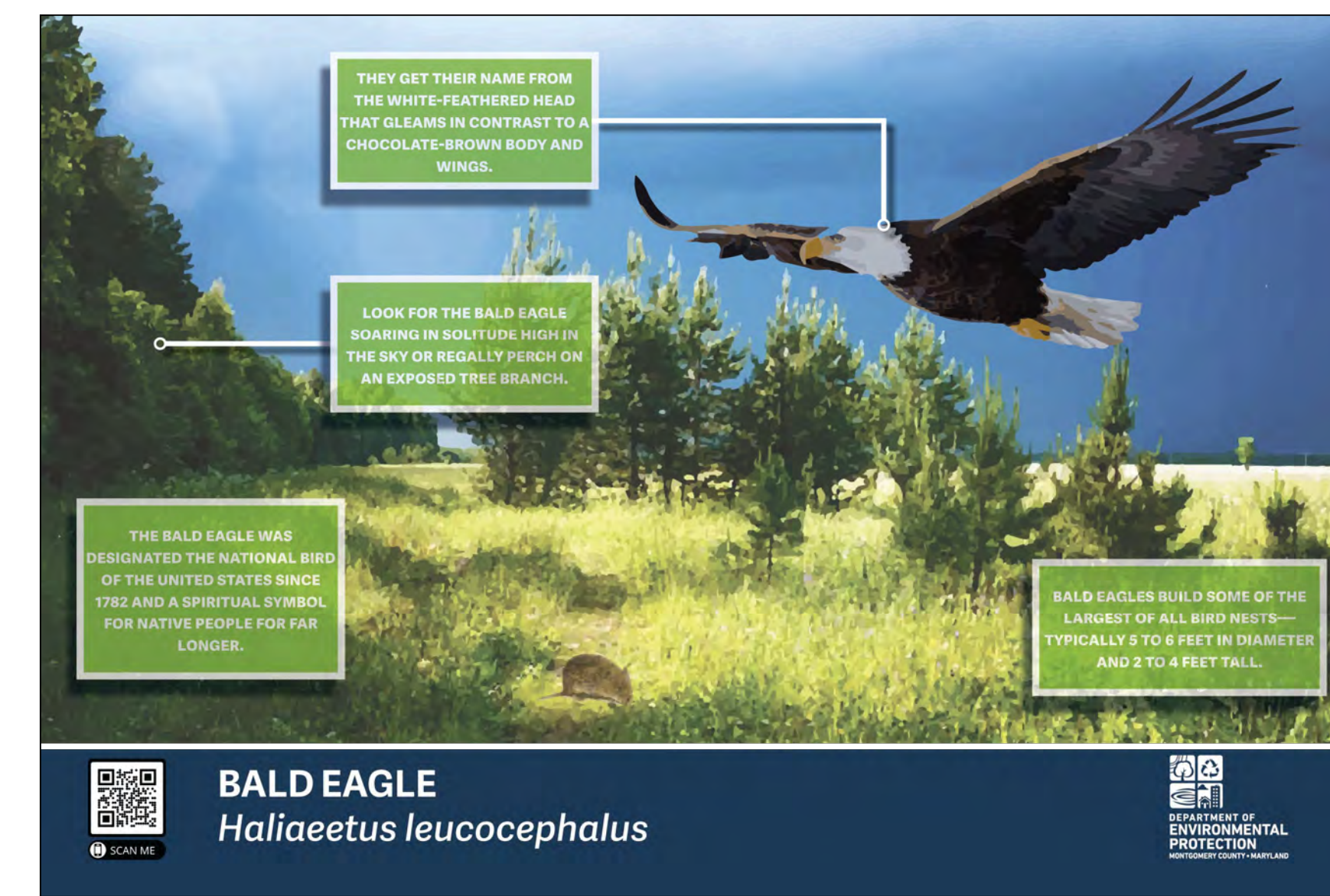
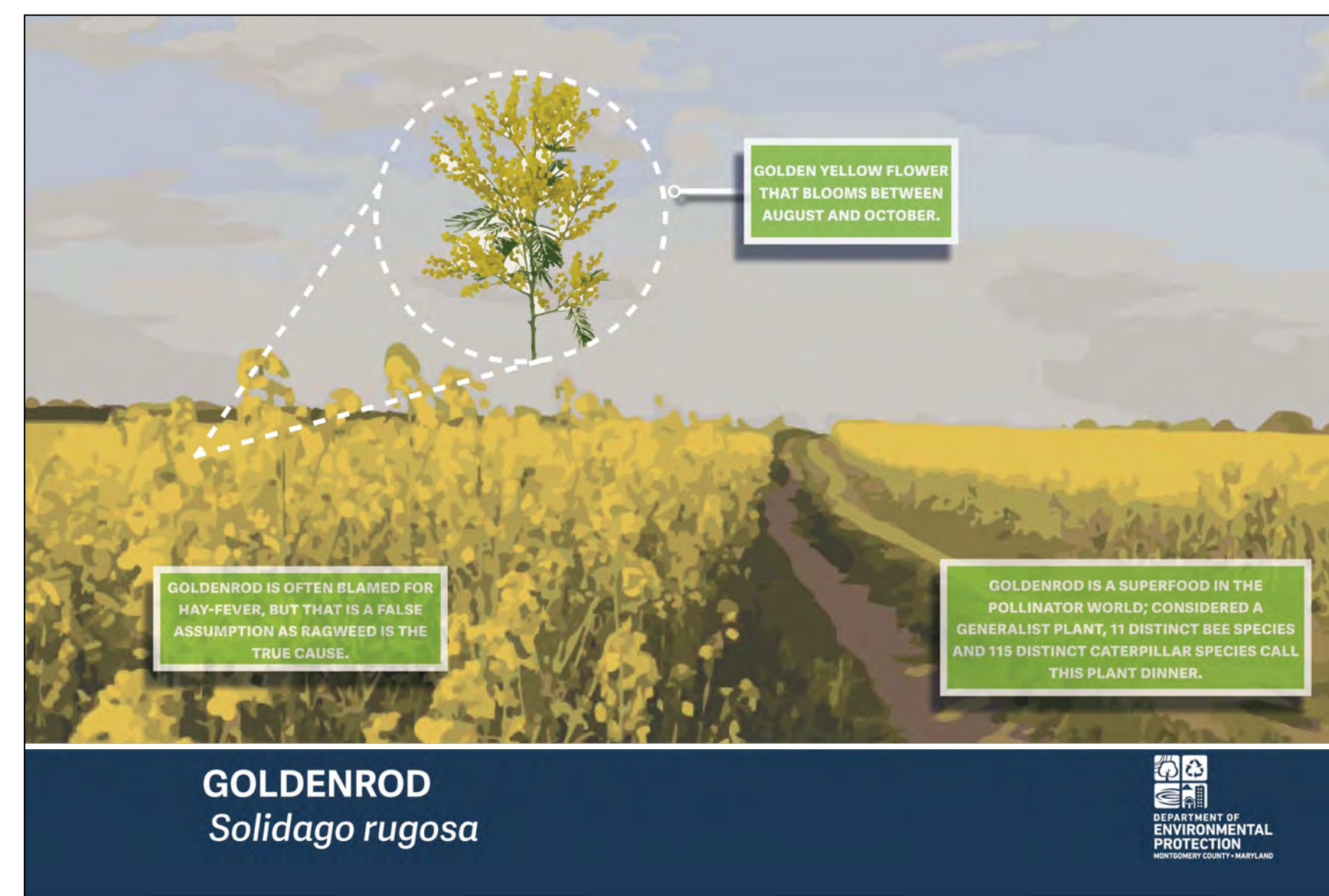
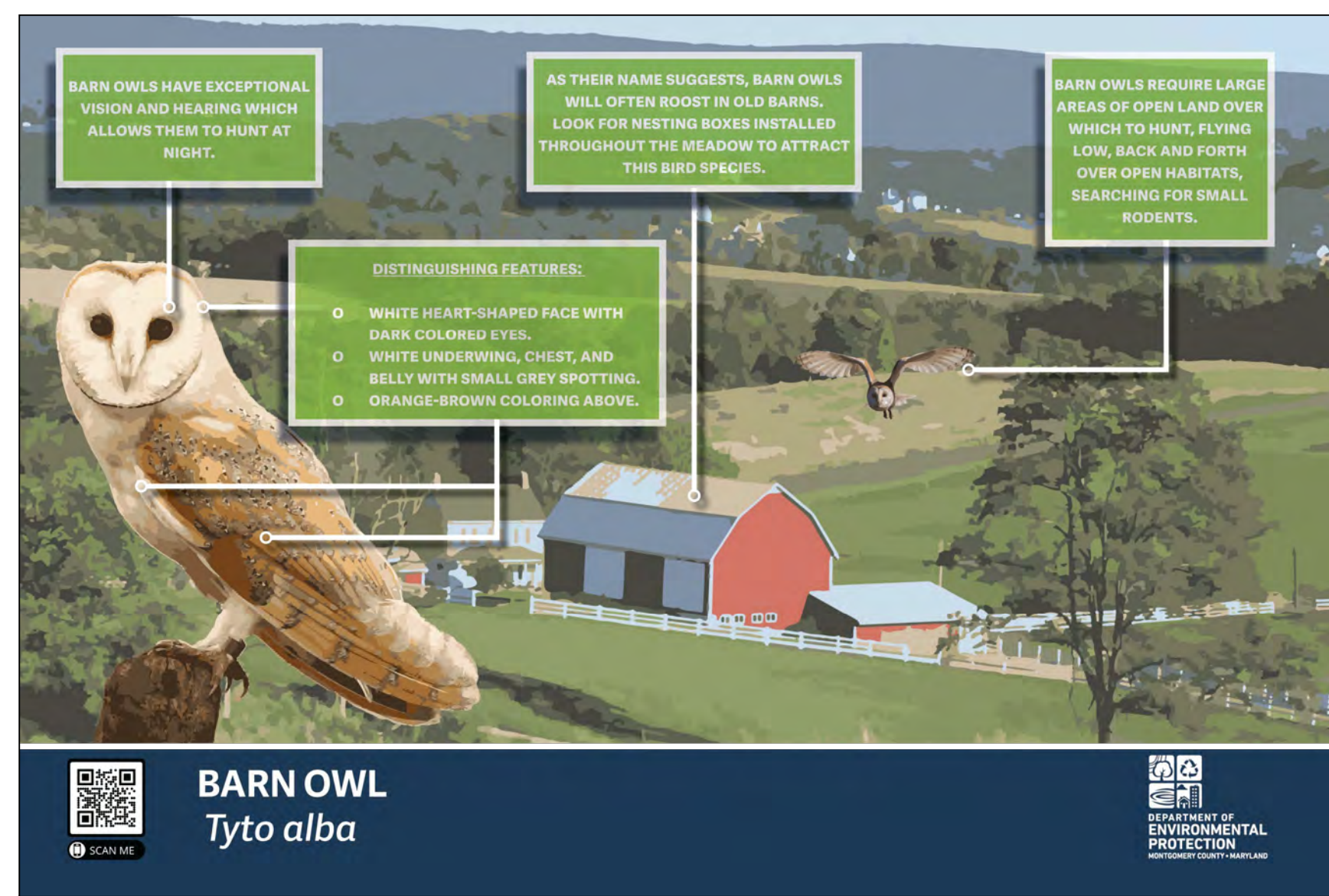
**FLOURA TEETER**  
landscape architects  
800 North Charles St. Ste. 300  
Baltimore, Maryland 21201  
Phone: 410.528.8395  
Fax: 410.528.8425

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: JUNE 2020  
PROJECT NUMBER: 1564601  
**L400**  
SHEET: 139 OF 144

FILE PATH: P:\PLANTING\1564601 - GIDE LANDFILL REMEDIATION DESIGN\PLANTING DETAILS\DWG\LANDSCAPE\1564601-141.DWG

90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION



NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

1 EDUCATIONAL POST #1 - BARN OWL  
EVEVATION

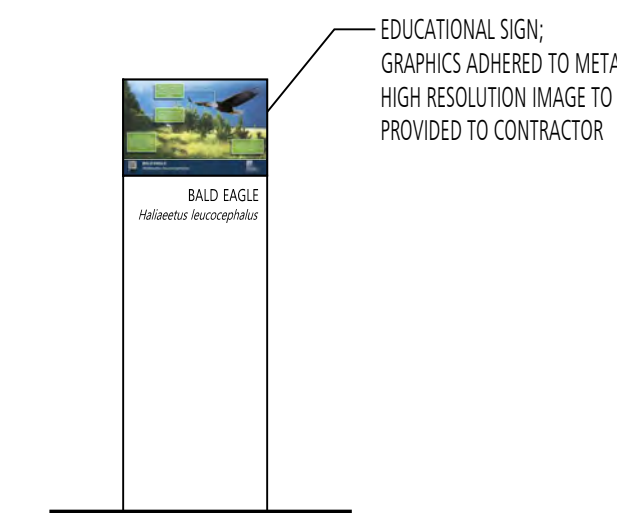
SCALE: 1/2" = 1'-0"



NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

2 EDUCATIONAL POST #2 - GOLDENROD  
EVEVATION

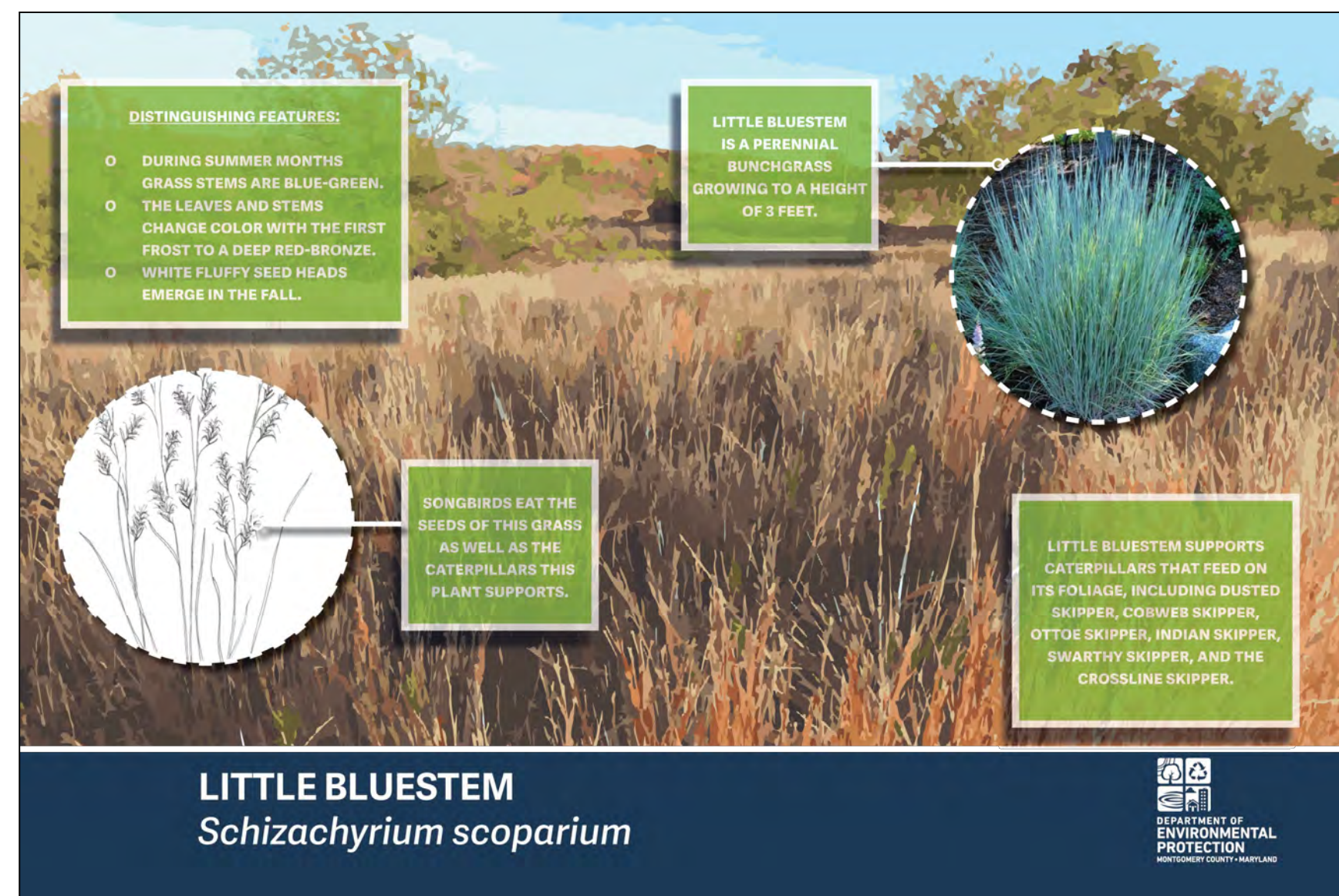
SCALE: 1/2" = 1'-0"



NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

3 EDUCATIONAL POST #3 - BALD EAGLE  
EVEVATION

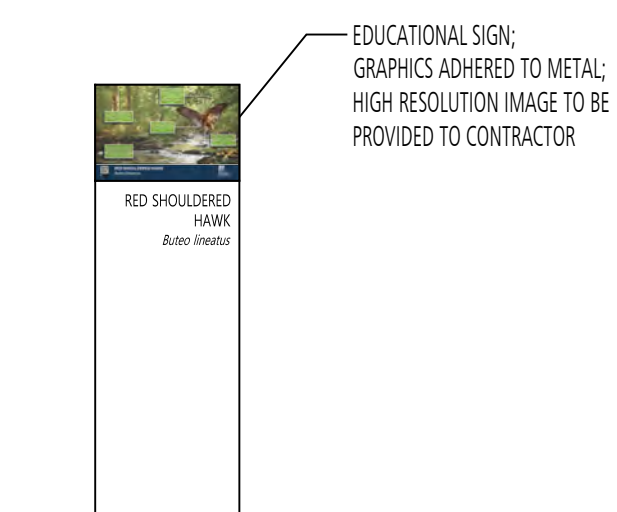
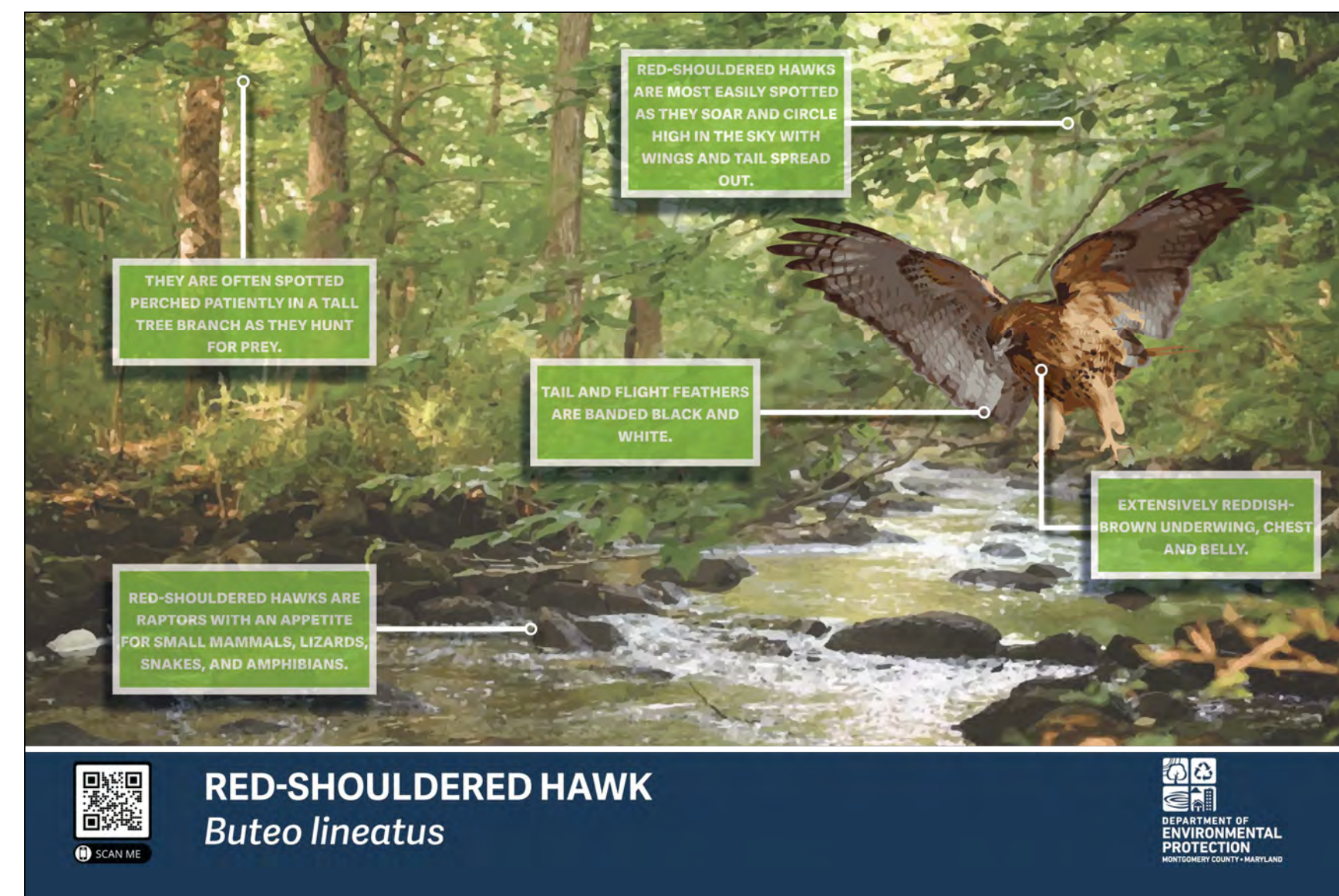
SCALE: 1/2" = 1'-0"



NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

4 EDUCATIONAL POST #4 - LITTLE BLUESTEM  
EVEVATION

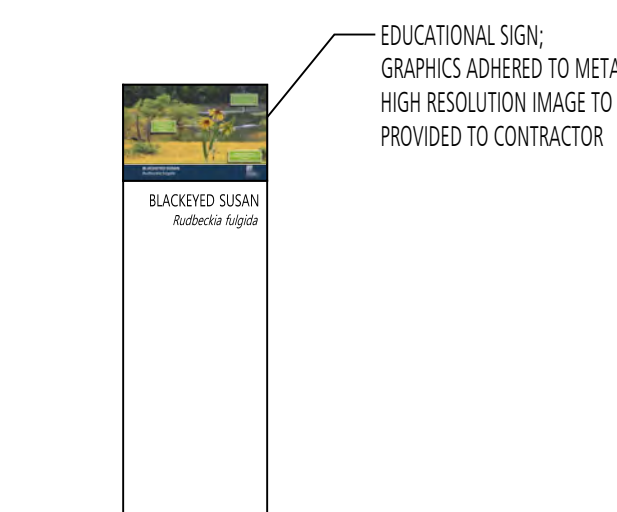
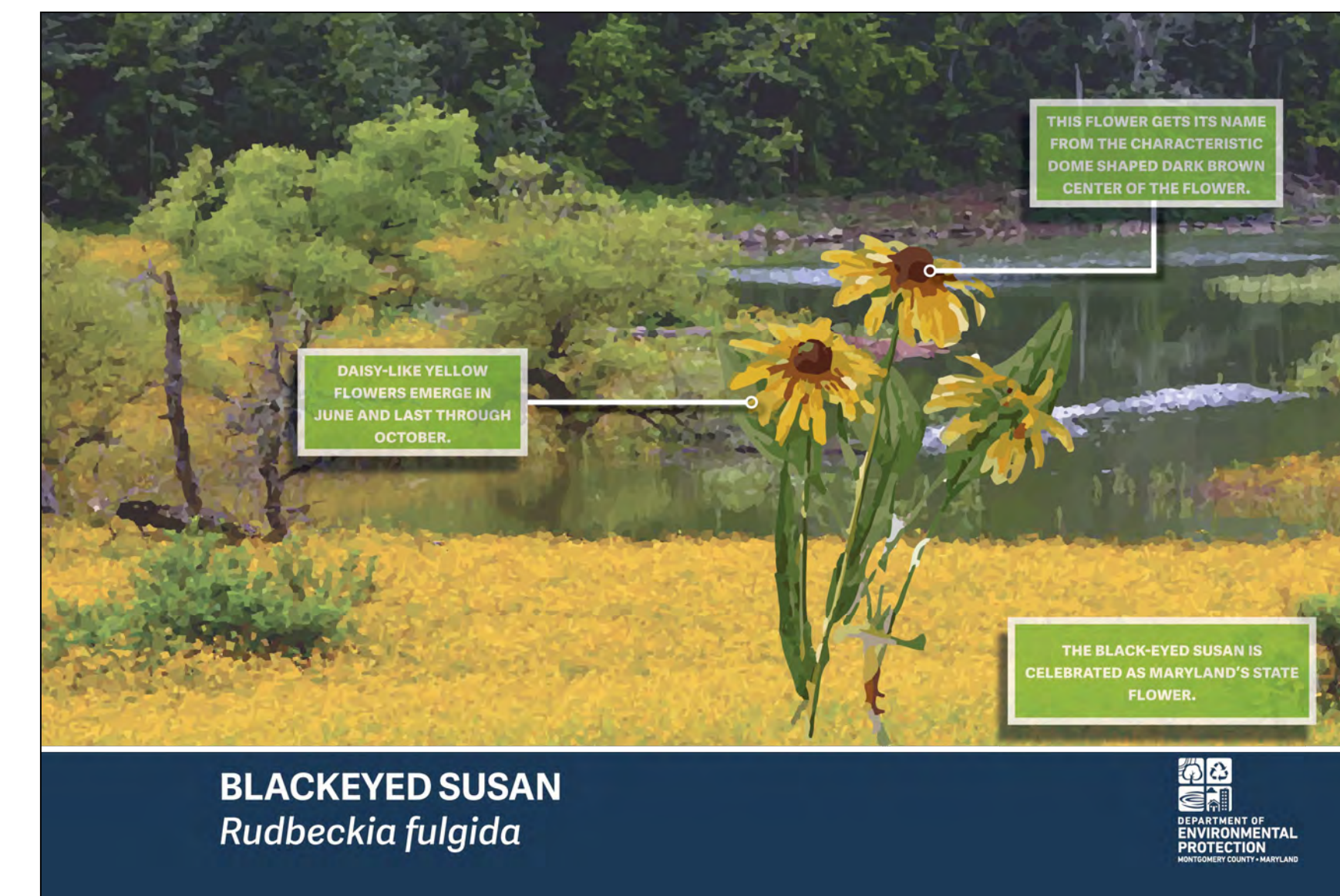
SCALE: 1/2" = 1'-0"



NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

5 EDUCATIONAL POST #5 - RED SHOULDERED HAWK  
EVEVATION

SCALE: 1/2" = 1'-0"



NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

6 EDUCATIONAL POST #6 - BLACKEYED SUSAN  
EVEVATION

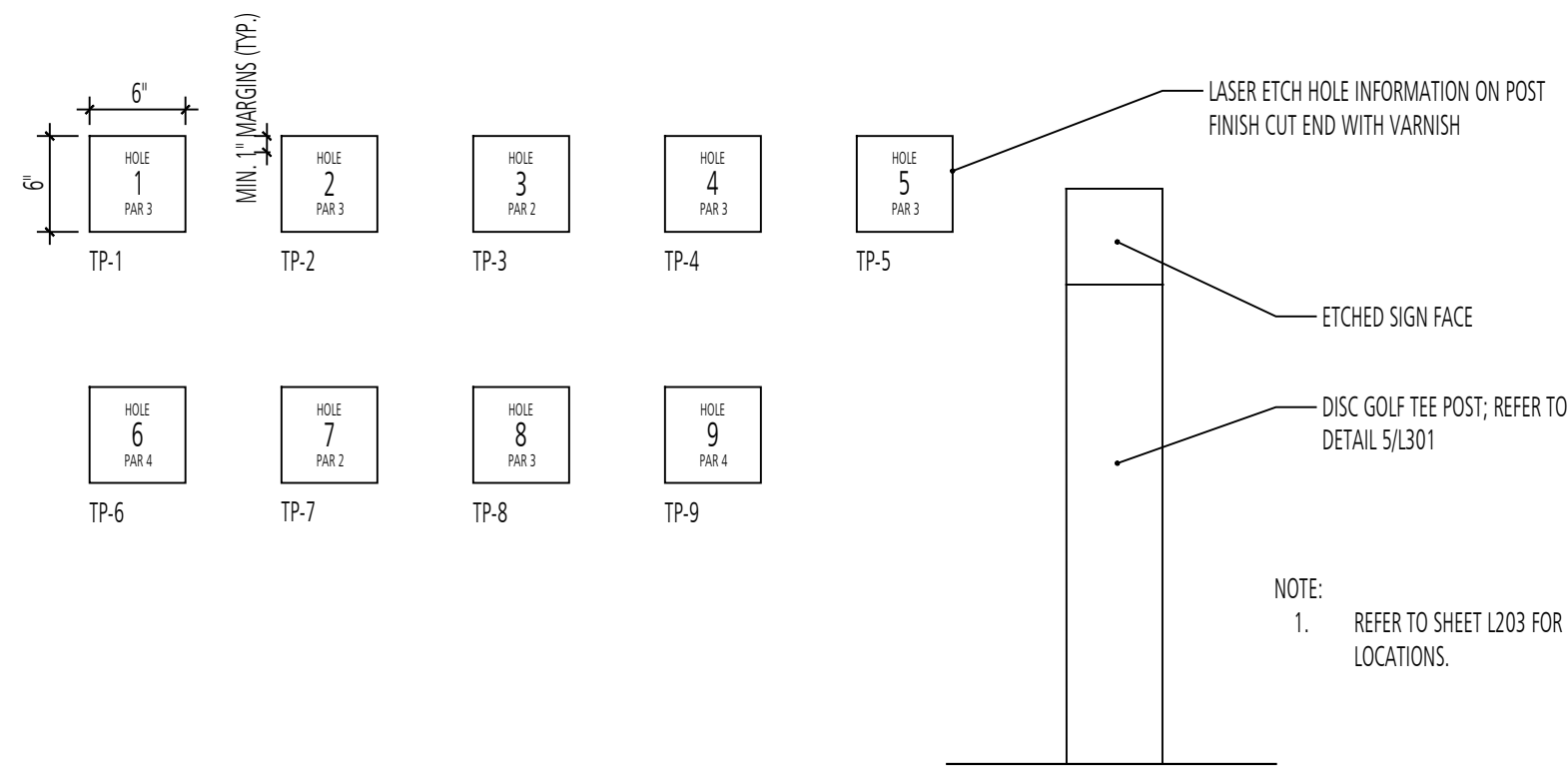
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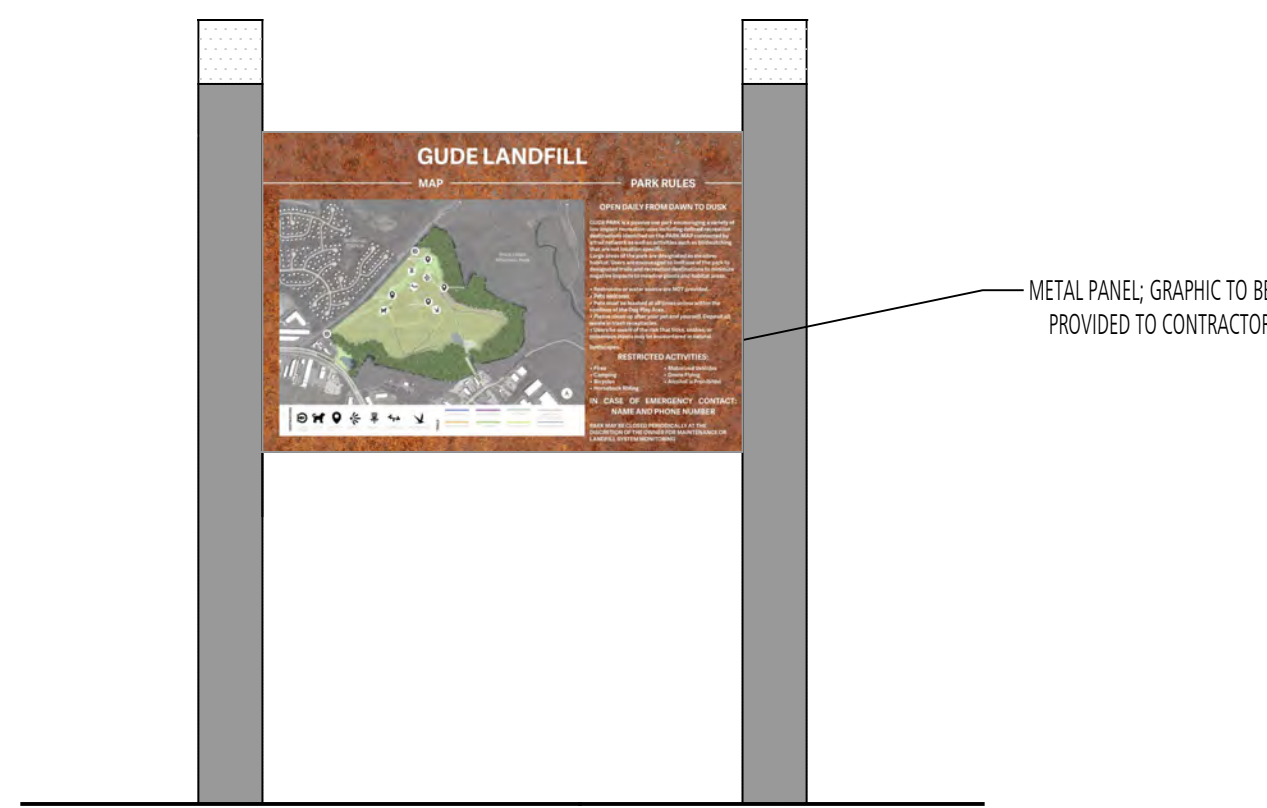
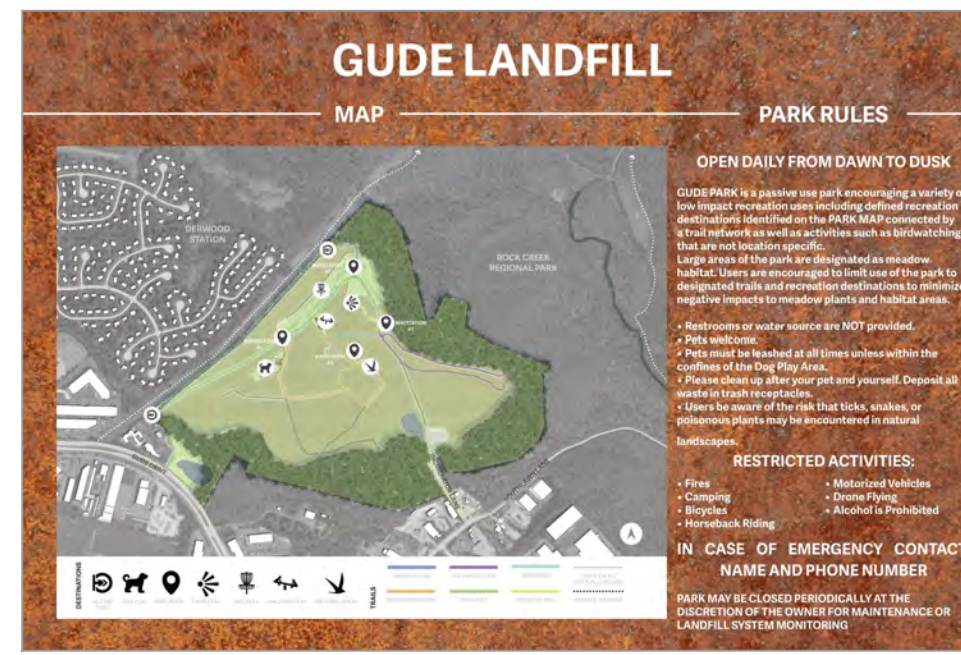
DESIGN INFORMATION	DESIGNED BY:	MM
	DRAWN BY:	JCI
REVISIONS	CHECKED BY:	MM
	PROJECT MANAGER:	M/G
NO.	DATE	DESCRIPTION
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020		
GIDE LANDFILL REMEDIATION DESIGN NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION <small>MONTGOMERY COUNTY, MARYLAND</small>		
EDUCATIONAL SIGNS - GRAPHICS		
<b>EA</b> <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000		
DATE: JUNE 2020		
PROJECT NUMBER: 1564601		
L500		
SHEET: 140 OF 144		

90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION

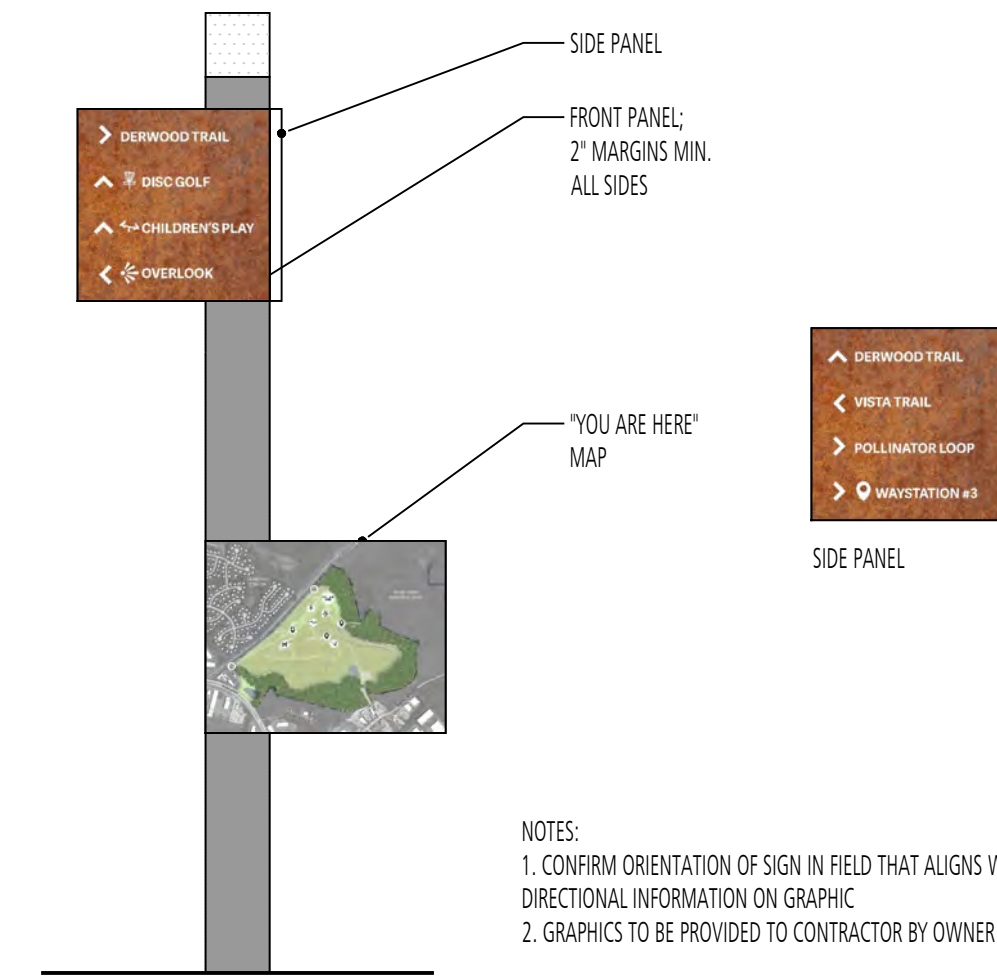




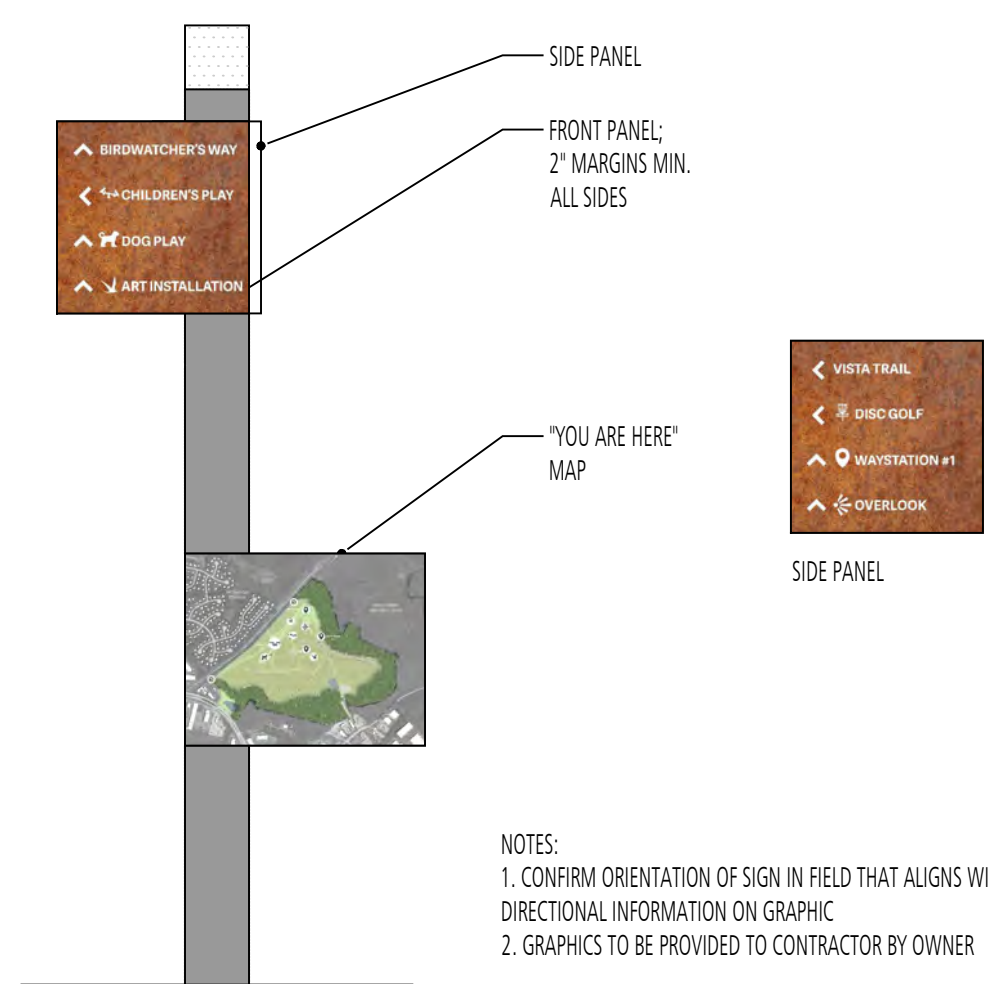
1 DISC GOLF TEE POST - GRAPHIC  
ELEVATION  
d-disc golf holes- graphic.dwg  
SCALE: 1" = 1'-0"



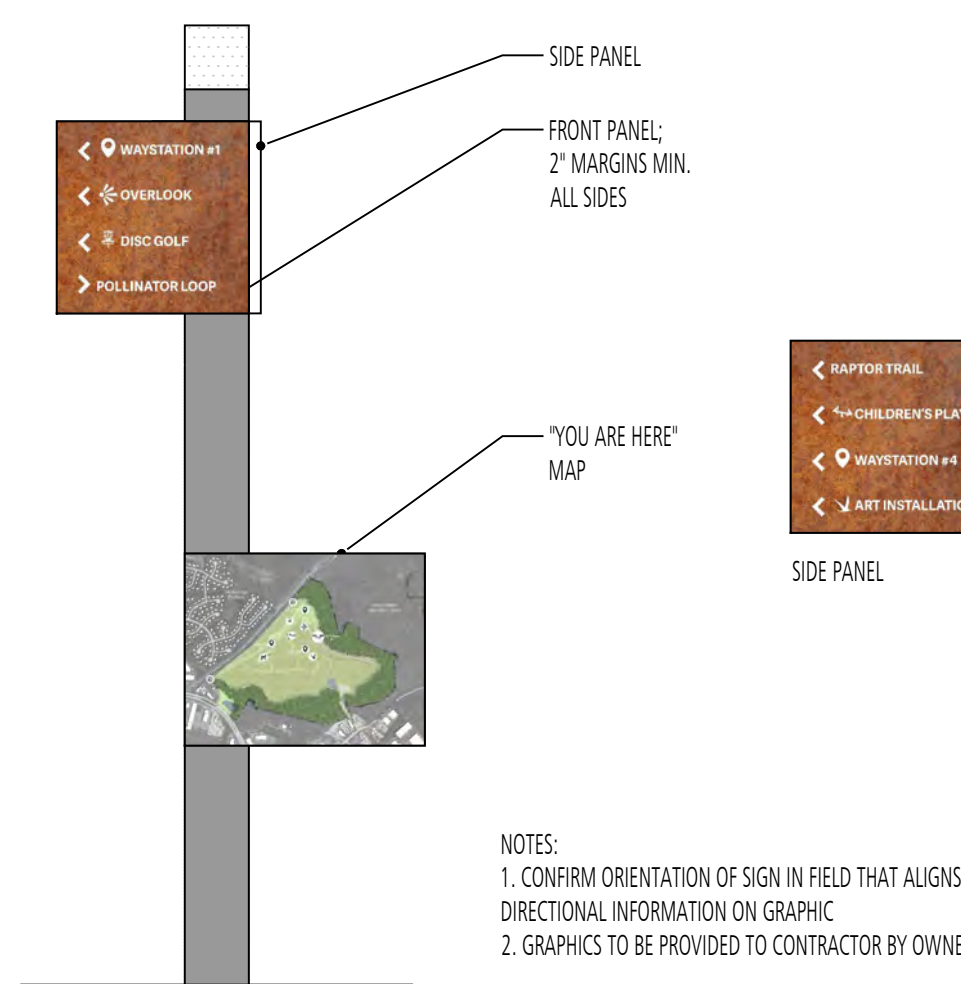
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ELEVATION  
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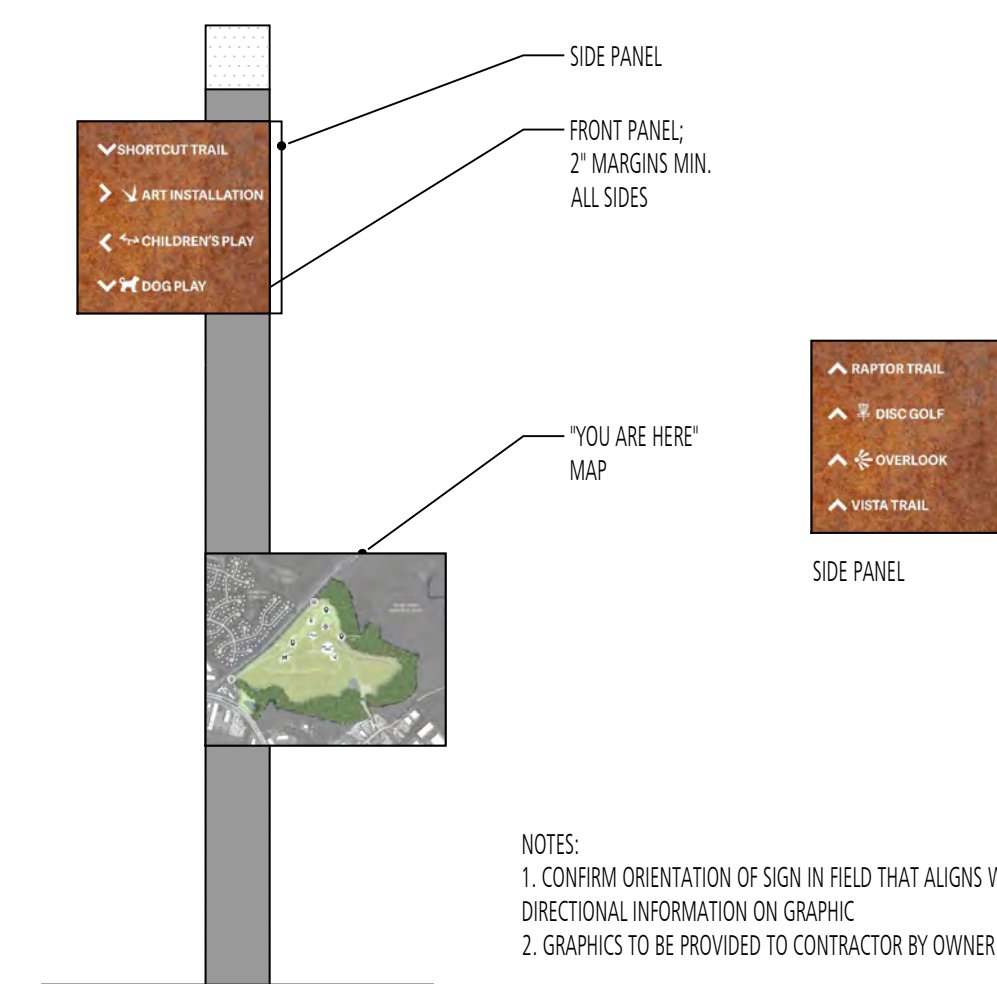
3 TRAIL MARKER #1  
ELEVATION  
SCALE: 1/2" = 1'-0"



4 TRAIL MARKER #2  
ELEVATION  
SCALE: 1/2" = 1'-0"



5 TRAIL MARKER #3  
ELEVATION  
SCALE: 1/2" = 1'-0"



6 TRAIL MARKER #4  
ELEVATION  
SCALE: 1/2" = 1'-0"

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI		
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2020

SEAL

GUDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

SIGNAGE GRAPHICS

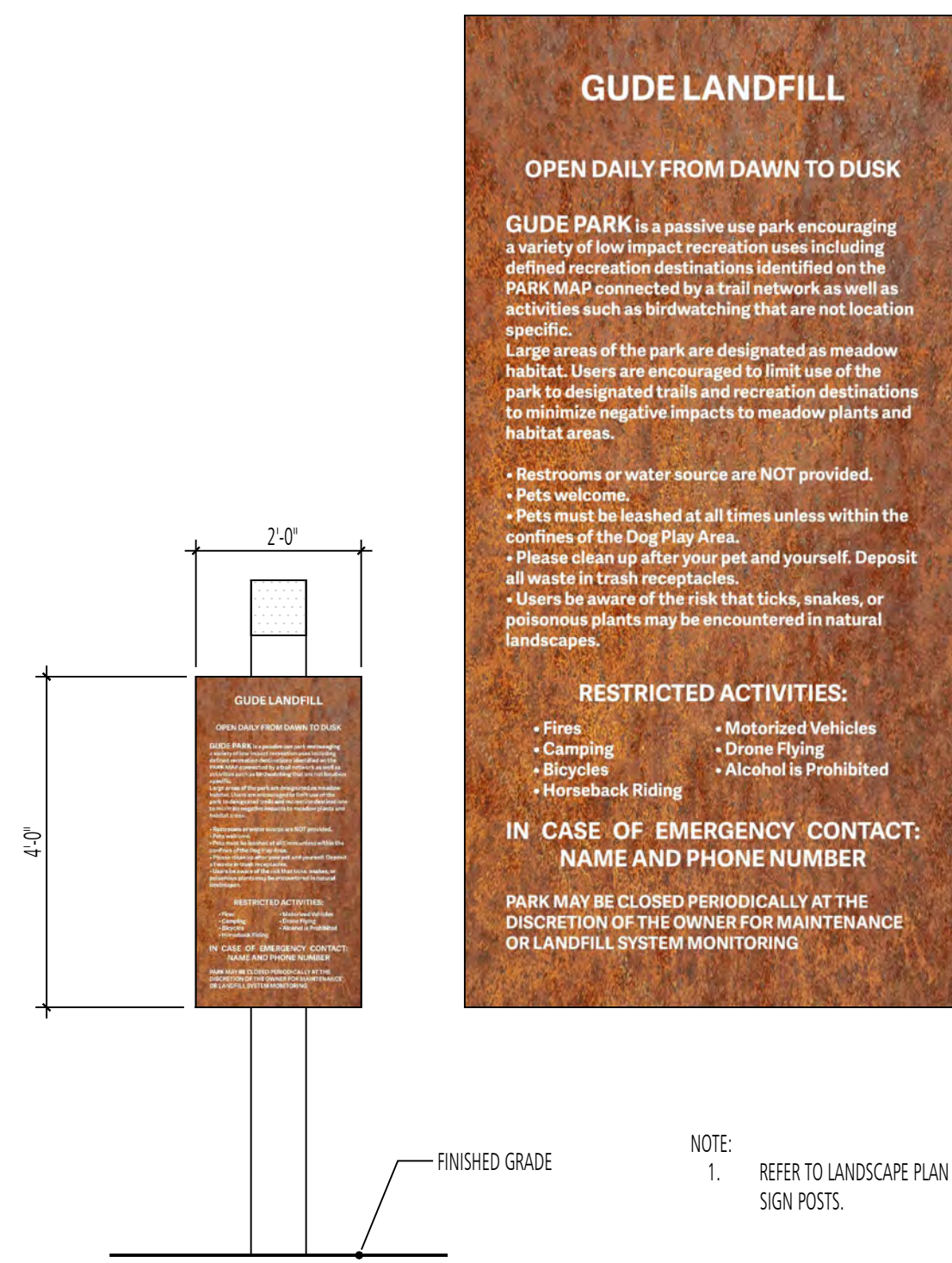
**FLOURA TEETER**  
landscape architects  
800 North Charles St. Ste. 300  
Baltimore, Maryland 21201  
Phone: 410.528.8395  
Fax: 410.528.8425

**EA**  
Engineering, Science,  
and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

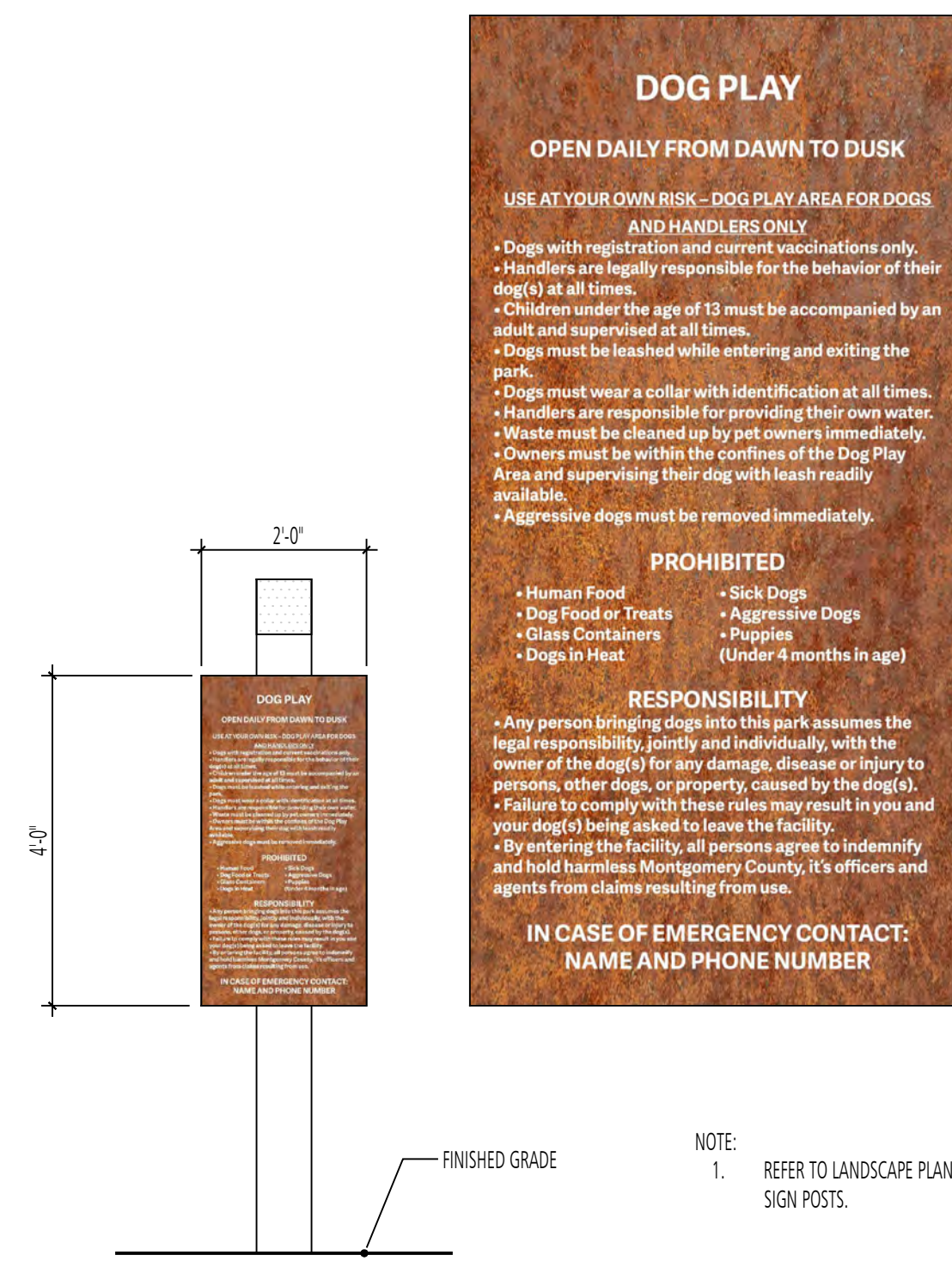
DATE: JUNE 2020  
PROJECT NUMBER: 1564601  
**L502**  
SHEET: 142 OF 144

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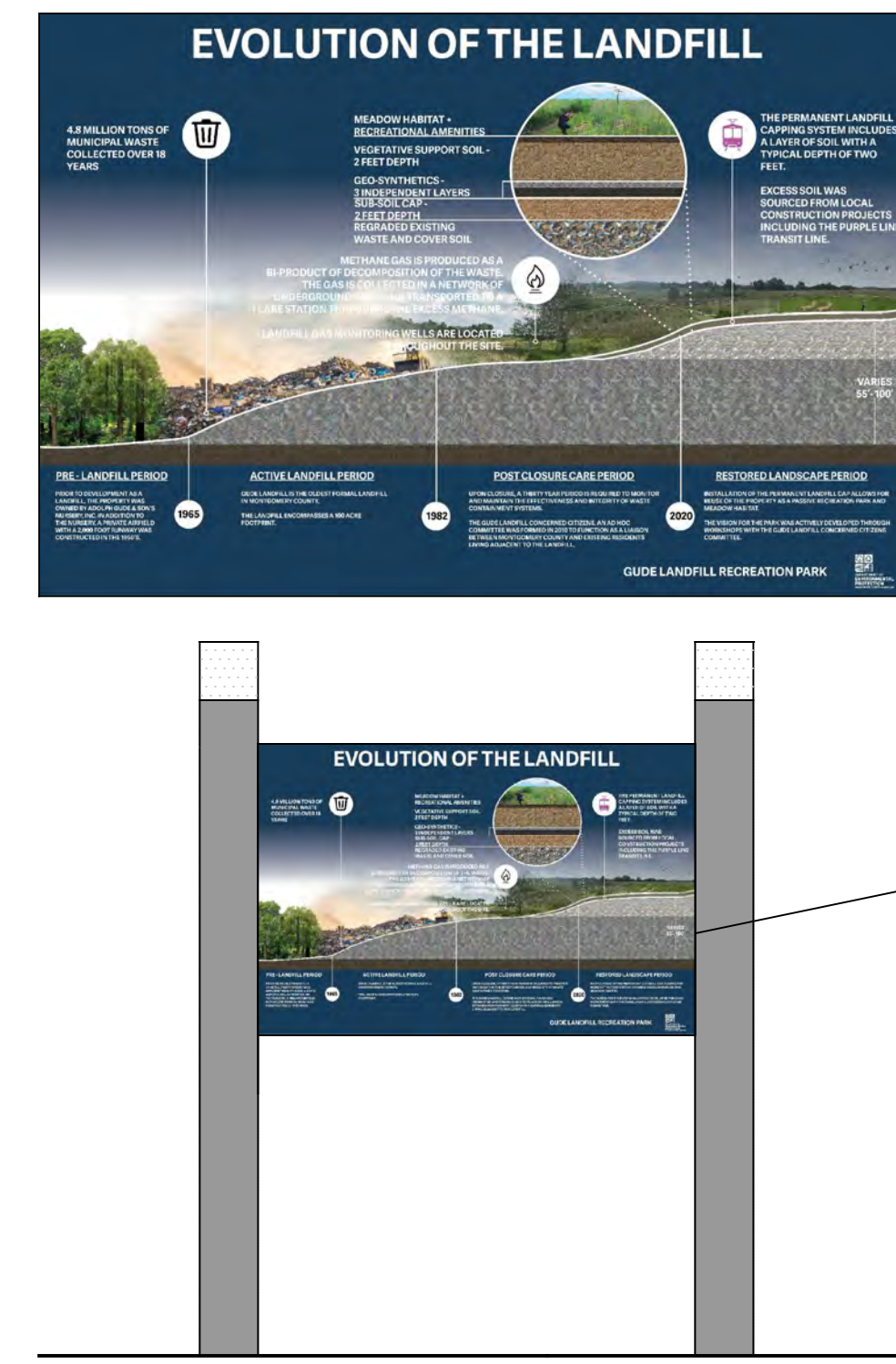
90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION



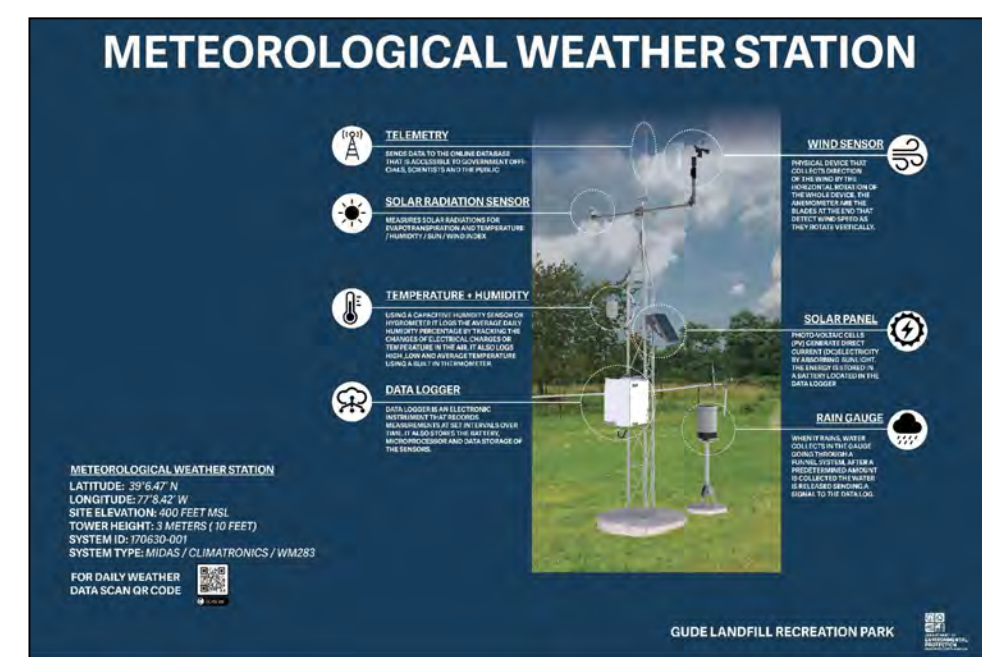
1 INFORMATION SIGN (SMALL) - #1+2  
ELEVATION SCALE: 1/2" = 1'-0"



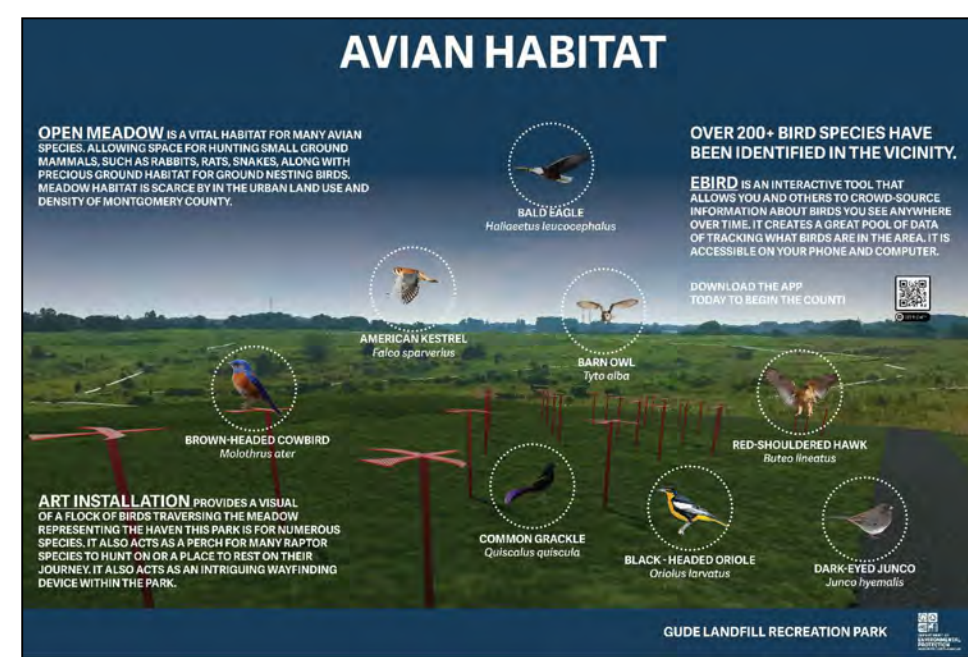
2 INFORMATION SIGN (SMALL) - #3  
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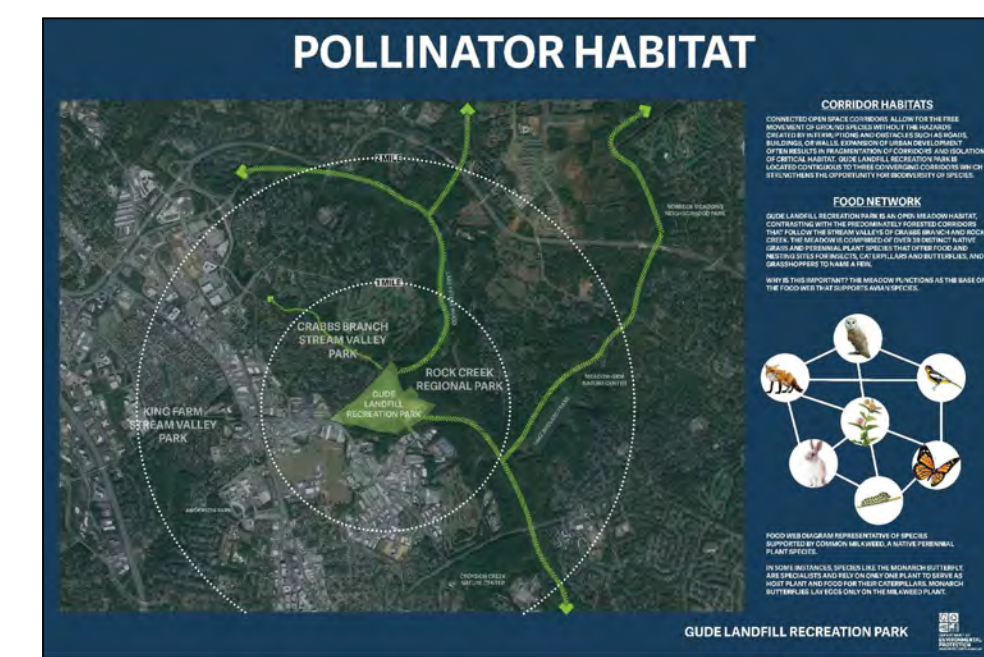
3 EDUCATIONAL SIGNAGE - WAYSTATION #1  
ELEVATION SCALE: 1/2" = 1'-0"



4 EDUCATIONAL SIGN - WAYSTATION #2  
ELEVATION SCALE: 1/2" = 1'-0"



5 EDUCATIONAL SIGN - WAYSTATION #3  
ELEVATION SCALE: 1/2" = 1'-0"



6 EDUCATIONAL SIGN - WAYSTATION #4  
ELEVATION SCALE: 1/2" = 1'-0"

DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	MM	NO.	DATE
DRAWN BY:	JCI	BY	DESCRIPTION
CHECKED BY:	MM		
PROJECT MANAGER:	M/G		
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 10993 EXPIRATION DATE: 07/26/2020			

GIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 SIGNAGE GRAPHICS

**FLOURA TEETER**  
 landscape architects  
 800 North Charles St. Ste. 300  
 Baltimore, Maryland 21201  
 Phone: 410.528.8395  
 Fax: 410.528.8425

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: JUNE 2020  
 PROJECT NUMBER: 1564601  
**L503**  
 SHEET: 143 OF 144

FILE PATH: P:\PUD PROJECTS\1808 - GIDE LANDFILL\DOMINGOS\FLORA TEETER\1564601 - L503 SIGNAGE DETAILS\DWG\L503\_SIGN\_GRAPHICS\_062020.dwg

90% REVISED DESIGN PLANS - NOT FOR CONSTRUCTION

