



SEQUENCE OF CONSTRUCTION

- 1. THE CONTRACTOR SHALL PREPARE, SUBMIT, ADDRESS COMMENTS, AND RECEIVE APPROVAL ON ALL PRE-CONSTRUCTION SUBMITTALS AS DEFINED IN SPECIFICATION SECTION 01 30 00, SUBMITTALS.
2. THE CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY FOR CONSTRUCTION AS DEFINED IN SPECIFICATION SECTION 01 11 00, SUMMARY OF WORK.
3. PRIOR TO CLEARING TREES, INSTALLING SEDIMENT CONTROL MEASURES, OR SITE GRADING, A PRECONSTRUCTION MEETING MUST BE CONDUCTED ON-SITE WITH THE MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES (MCDPS) SEDIMENT CONTROL INSPECTOR (240) 777-0311 (48 HOURS WRITTEN NOTICE) AND THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION (M-NCPPC) PLANNING DEPARTMENT (240) 777-0311 (48 HOURS WRITTEN NOTICE)...

- GG. IF CLOSURE CAP CONSTRUCTION/FINAL GRADING IS BEING PERFORMED AFTER COMPLETION OF PHASES S-I, S-II, AND S-III, CLEAR ALL TEMPORARY VEGETATION, MULCH, AND OTHER SURFACE TREATMENTS TO PREPARE SUBGRADE SURFACE FOR INSPECTION AND APPROVAL. COORDINATE WITH CME FOR MDE TO INSPECT AND APPROVE THE CLOSURE CAP SUBGRADE IN SUBAREAS AS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 01 40 00. MDE APPROVAL IS REQUIRED BEFORE PROCEEDING WITH CONSTRUCTION IN THE SUBAREA. THE CONTRACTOR SHALL INCLUDE SEVEN (7) CALENDAR DAYS IN THEIR SCHEDULE FOR MDE REVIEW AND APPROVAL.
HH. INSTALL GEOTEXTILE IN ACCORDANCE WITH SPECIFICATION SECTION 31 05 19 13, GEOTEXTILES.
II. INSTALL GEOMEMBRANE AND GEOCOMPOSITE IN ACCORDANCE WITH SPECIFICATION SECTION 31 05 19 16 AND SECTION 31 05 19 28. OR, IF SELECTED BY THE COUNTY, INSTALL THE ALTERNATE GEOSYNTHETIC CLOSURE CAP IN ACCORDANCE WITH SPECIFICATION SECTION 31 05 19 16. SURVEY SUBAREAS AS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 01 40 00. COORDINATE WITH CME FOR MDE TO INSPECT AND APPROVE THE GEOMEMBRANE AND GEOCOMPOSITE (SEPARATE INSPECTIONS) IN COMPLETED AREAS IN ACCORDANCE WITH SPECIFICATION SECTION 01 40 00. MDE APPROVAL IS REQUIRED BEFORE PROCEEDING WITH CONSTRUCTION IN THE SUBAREA. THE CONTRACTOR SHALL INCLUDE SEVEN (7) CALENDAR DAYS IN THEIR SCHEDULE FOR MDE INSPECTION AND APPROVAL OF THE GEOMEMBRANE AND THE GEOCOMPOSITE.

- 19. PHASE F-VI (FINAL GRADING PHASE VI) 19.9 ACRES:
AA. PERFORM STEPS "AA" THROUGH "NN" OF PHASE F-I WITH THE FOLLOWING CHANGES:
DD. INSTALL SEDIMENT CONTROL DEVICES FOR PHASE F-VI AS SHOWN ON DRAWING C-715(SC-18). FOLLOW DETAILED SEQUENCE OF CONSTRUCTION ON THAT SHEET.
GG. IF CLOSURE CAP CONSTRUCTION/FINAL GRADING IS BEING PERFORMED AFTER COMPLETION OF PHASES S-I, S-V, S-VI, AND S-VII, CLEAR ALL TEMPORARY VEGETATION, MULCH, AND OTHER SURFACE TREATMENTS TO PREPARE SUBGRADE SURFACE FOR INSPECTION AND APPROVAL. SURVEY THE SUBGRADE AND SUBMIT SURVEY RESULTS TO THE CME FOR SUBMISSION TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) AND COORDINATE WITH CME FOR MDE WALKTHROUGH IN ACCORDANCE WITH SPECIFICATION SECTION 01 40 00. MDE APPROVAL IS REQUIRED BEFORE PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR SHALL INCLUDE SEVEN (7) CALENDAR DAYS IN THEIR SCHEDULE FOR MDE REVIEW AND APPROVAL. STEP "MM" DOES NOT APPLY.

LANDFILL GAS COLLECTION SEQUENCE OF CONSTRUCTION

- GENERAL
1. THE GAS COLLECTION SYSTEM IS TO REMAIN ACTIVE DURING THE LIFE OF THE PROJECT. LANDFILL GAS EXTRACTION WELLS MAY BE VALVED OFF OR TEMPORARILY DISCONNECTED IN SUBAREAS OF A PHASE WHERE THE CONTRACTOR IS ACTIVELY WORKING.
2. PRIOR TO BEGINNING THE WORK, SUBMIT A GAS COLLECTION SYSTEM WORK PLAN TO THE CME FOR REVIEW AND APPROVAL FOR ALL PHASES OF THE PROJECT WHICH SHALL INCLUDE:
2.1 DETAILED SEQUENCE OF CONSTRUCTION FOR THE LANDFILL GAS COLLECTION SYSTEM, INCLUDING ANY REVISIONS TO THE RECOMMENDED SEQUENCE OF CONSTRUCTION PROVIDED.
2.2 METHODS TO MINIMIZE ODORS WHEN LANDFILL GAS WELLS ARE TO BE INACTIVE. THESE MAY BE SIMILAR OR THE SAME AS THOSE PROPOSED DURING WASTE EXCAVATION.
2.3 METHODS TO PROTECT EXTRACTION WELLS AND TEMPORARY PIPING DURING CONSTRUCTION.
2.4 MATERIALS FOR TEMPORARY PIPING AND CONNECTIONS.
SUBGRADE PHASES (S-I THROUGH S-VII)
1. INSTALL TEMPORARY ORANGE FENCING OR MARKERS AND SPRAY PAINT ABOVE GRADE PVC PIPE AROUND EXISTING LANDFILL GAS EXTRACTION WELLS PRIOR TO PERFORMING CLEARING AND GRUBBING ACTIVITIES (REFER TO THE SEQUENCE OF CONSTRUCTION ON DRAWING G-002).

ABBREVIATIONS table listing various terms and their corresponding symbols or codes, such as AC ACRES, APPRX APPROXIMATELY, ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS, BLDG BUILDING, etc.

Table listing various terms and their corresponding symbols or codes, such as NA NOT APPLICABLE, NAD 83 NORTH AMERICAN DATUM OF 1983, NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988, NF NOW OR FORMERLY, etc.

- GENERAL NOTES
1. REFER TO SPECIFICATION SECTION 01 11 00 FOR A SUMMARY OF WORK.
2. TOPOGRAPHY AND EXISTING CONDITIONS ARE BASED ON AERIAL PHOTOGRAPHY AND PHOTOGRAMMETRIC MAPPING WITH SUPPLEMENTAL FIELD SURVEYED INFORMATION AND WERE PROVIDED BY WALLACE MONTGOMERY AND ASSOCIATES, JULY 2018. THE HORIZONTAL CONTROL FOR THE PROJECT IS RELATIVE TO THE NORTH AMERICAN DATUM OF 1983 AND THE VERTICAL CONTROL IS RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
3. UTILITY DESIGNATION AND MAPPING USING ELECTROMAGNETIC AND GROUND-PENETRATING RADAR WAS PERFORMED BY MASTER LOGGERS OF BALTIMORE IN JUNE 2018. UTILITY INFORMATION IS FOR INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
4. PROPERTY BOUNDARIES AND OWNER INFORMATION ARE BASED ON A DRAWING ENTITLED "GUIDE LANDFILL - PROPERTY EXCHANGE WITH M-NCPPC" PREPARED BY C. JOHNSON & MALHOTRA, P.C., DATED 05/23/2012.
5. THE 100-YEAR FLOODPLAIN WAS OBTAINED FROM THE MONTGOMERY COUNTY PLANNING BOARD IN 2011.
6. THE LIMITS OF THE SOIL EXCAVATED DURING CONSTRUCTION OF THE WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY METRO "PURPLE LINE" ARE APPROXIMATE, AND THE TOPOGRAPHY DOES NOT REFLECT THE ELEVATIONS OF STOCKPILED MATERIAL.
7. GEOTECHNICAL TEST PITS WERE PERFORMED BY THE ROBERT B. BALTER COMPANY IN JULY 2018 TO IDENTIFY THE THICKNESS AND PROPERTIES OF THE EXISTING COVER SOIL. TEST PIT LOCATIONS AND DEPTH TO SOLID WASTE (DTSW) ARE INDICATED ON DRAWINGS ON C-124 THROUGH C-133. THE GEOTECHNICAL EVALUATION IS INCLUDED IN ATTACHMENT A OF THE PROJECT MANUAL.
8. RESTORATION OR REPAIR OF ANY DAMAGE TO UTILITIES NOT SCHEDULED TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
9. CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT OF WORK, DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS PRIOR TO AND DURING PROPOSED WORK. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGEMENT ENGINEER (CME) OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES NOTED BEFORE COMMENCING OR PROCEEDING WITH WORK.
10. DEVIATIONS OR CHANGES FROM THESE PLANS WILL NOT BE ALLOWED UNLESS APPROVED BY THE CME.
11. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE SITE THROUGHOUT THE PROJECT. CONTRACTOR SHALL AT ALL TIMES ADHERE TO THE CONDITIONS CONTAINED WITHIN THE PERMITS.
12. CONTRACTOR TO ADHERE TO ALL APPLICABLE OSHA REGULATIONS DURING EXCAVATION ACTIVITIES.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PERMIT MODIFICATIONS THAT ARE REQUIRED AS A RESULT OF A CONTRACTOR PROPOSED CHANGE IN SEQUENCE, LIMIT OF DISTURBANCE, DESIGN, OR APPROACH TO THE PROJECT.
14. CONTRACTOR SHALL NOT BLOCK INGRESS OR EGRESS TO MONITORING WELL ACCESS ROADS.

LEGEND

Legend table with columns for EXISTING and PROPOSED, listing symbols for various features like utility markings, manholes, valves, and boundaries.

LEGEND

Legend table with columns for EXISTING and PROPOSED, listing symbols for various features like site guard rail, gravel, steep slope areas, and various types of lines and markers.

Professional certification and seal area containing text: 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. 29402, EXPIRATION DATE: 8/25/2022. Includes EA Engineering, Science, and Technology, Inc., PBC logo and contact information.

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

FILE PATH: G:\PROJECTS\1564601 - CODES OF REGULATIONS\PRODUCTION\CONSTRUCTION SET\1564601 - 000 - TITLE DWG (CONSTRUCTION) - REVISED.dwg, PLOTTER: HP PLOTTER 2524 PCL

100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\164601 - GUIDE OF SEDIMENT CONTROL MEASURES SET\164601 - GUIDE - TITLE DWG (DATE: 08/18/2020) - REVISED - STEVEN L. J. WOODS (S: 2) P4

**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.

ALL AREAS DISTURBED OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST BE MINIMIZED AND STABILIZED IMMEDIATELY. MAINTENANCE MUST BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.
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 MCDPS 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 OR WHEN REQUIRED BY THE MCDPS 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, 72 HOURS PRIOR TO THE START OF WORK.
25. OFF-SITE SPOIL OR BORROW AREAS MUST HAVE PRIOR WRITTEN APPROVAL BY DPS.
26. SEDIMENT TRAP/BASIN DEWATERING FOR CLEANOUT OR REPAIR MAY ONLY BE DONE WITH THE MCDPS INSPECTOR'S WRITTEN PERMISSION. THE MCDPS 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.

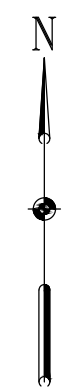
**REMEMBER:** DEWATERING OPERATION AND METHOD MUST HAVE PRIOR WRITTEN APPROVAL BY THE MCDPS INSPECTOR.
27. THE PERMITTEE MUST NOTIFY THE DEPARTMENT OF ALL UTILITY CONSTRUCTION ACTIVITIES WITHIN THE PERMITTED LIMITS OF DISTURBANCE PRIOR TO THE COMMENCEMENT OF THOSE ACTIVITIES.
28. TOPSOIL MUST BE APPLIED 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".

SEAL	DESIGN INFORMATION	REVISIONS	DESCRIPTION
	DESIGNED BY: KEF / SMB	NO.	
	DRAWN BY: SMB	DATE	
	CHECKED BY: LJO / GAT	BY	
	PROJECT MANAGER: M/JG		
<p>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: 8/25/2022</p>			
<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>EROSION AND SEDIMENT CONTROL NOTES</b></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: DECEMBER 2020			
PROJECT NUMBER: 1564601			
<b>G-003</b>			
SHEET: 3 OF 146			

SURVEY CONTROL COORDINATE TABLE				
POINT NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
31	524263.25	1274058.67	405.31	CONCRETE MONUMENT
100F	526997.70	1273392.13	361.83	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP
101F	526471.13	1272960.62	423.93	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP
103	524655.30	1274005.80	434.19	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP
200	524547.48	1274419.12	439.23	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP
202	525041.34	1274733.79	462.27	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP
500	524285.64	1273883.83	380.56	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP
501	524487.56	1273787.33	404.19	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP
502	524655.31	1273674.09	413.35	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP
503	525211.60	1274187.96	466.62	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP
504F	525574.57	1274204.77	381.61	WALLACE MONTGOMERY ASSOCIATES ROD AND CAP

**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 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

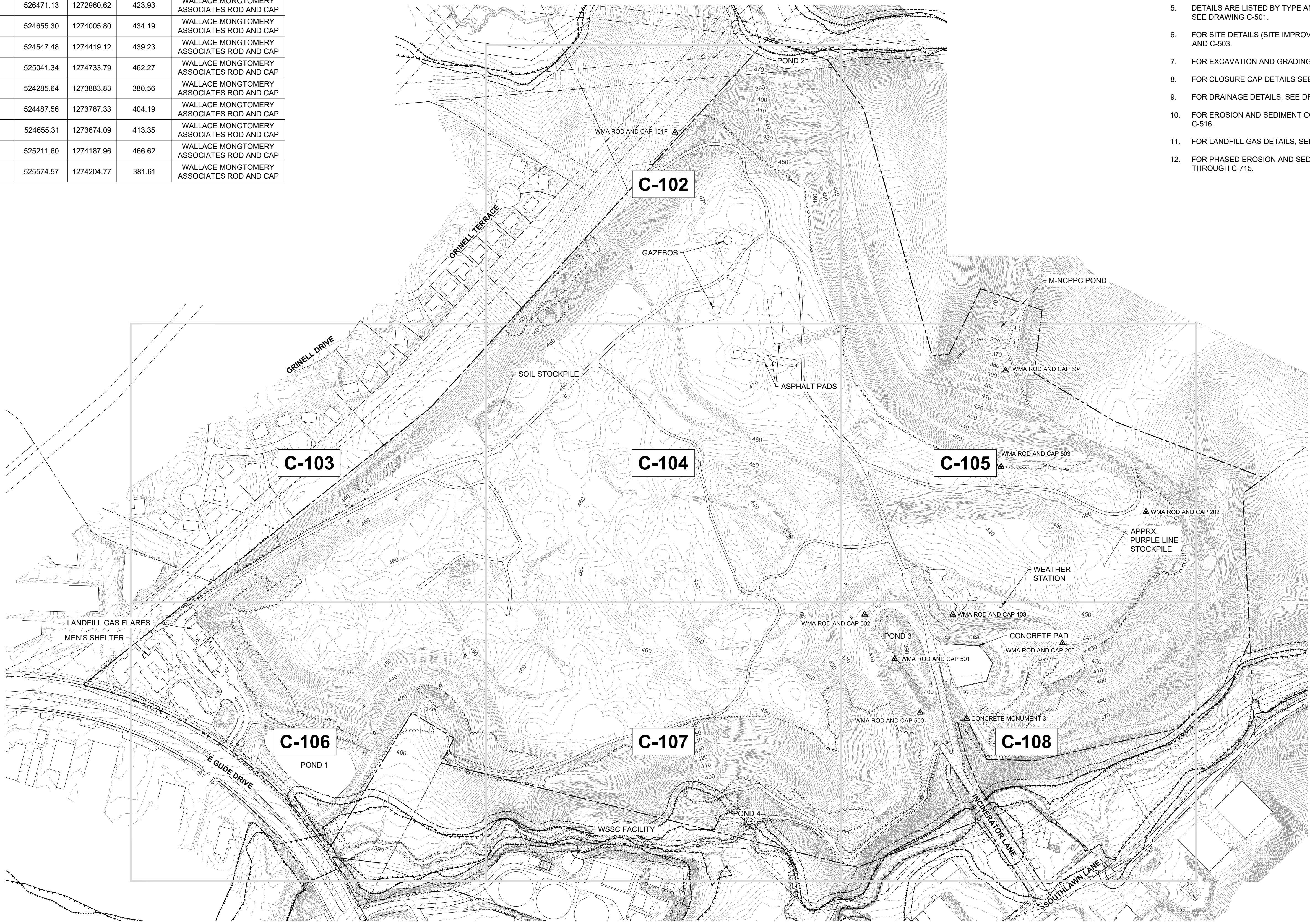
DESIGN INFORMATION					
DESIGNED BY:	KEF / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT

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: 8/25/2022

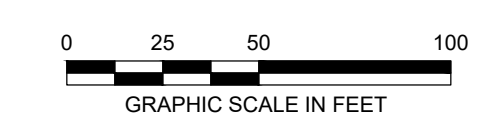
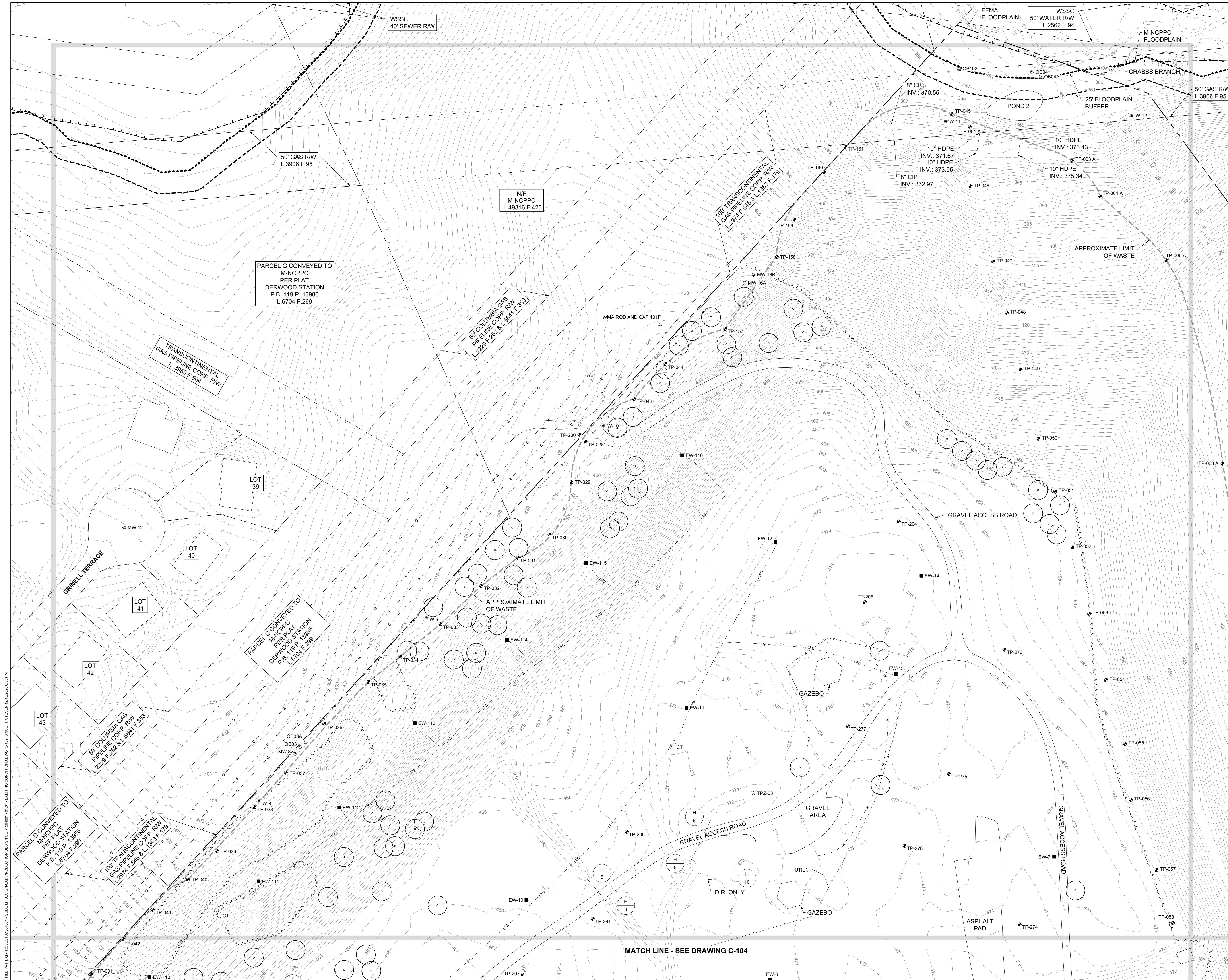
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**EXISTING CONDITIONS PLAN - KEY SHEET**

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-101**  
 SHEET: 4 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION



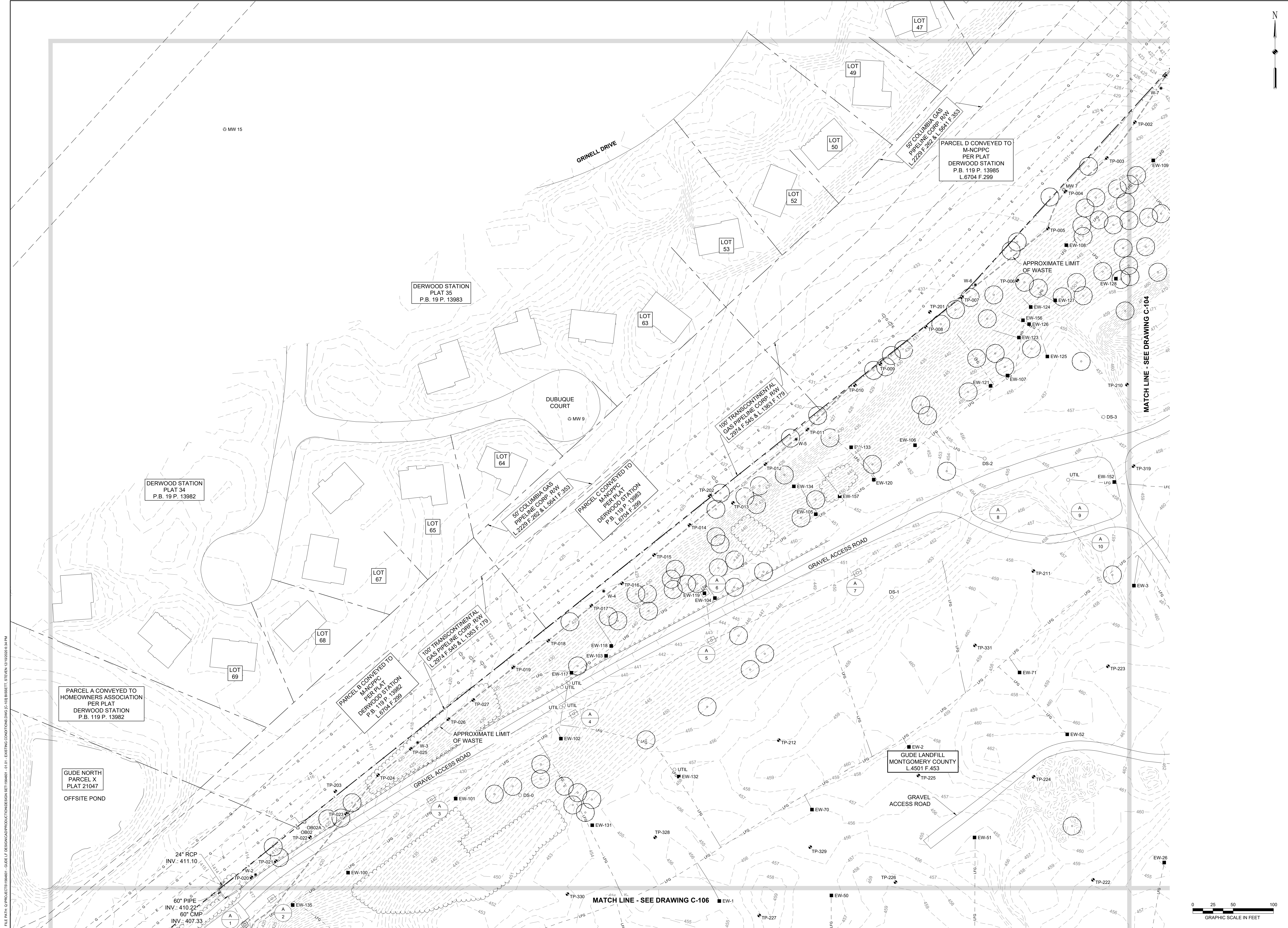
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MATCH LINE - SEE DRAWING C-104

REVISIONS	DESCRIPTION
BY	DATE
NO.	DATE
DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	M/JG
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SEAL	
<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: DECEMBER 2020	
PROJECT NUMBER: 1564601	
<b>C-102</b> SHEET: 5 OF 146	

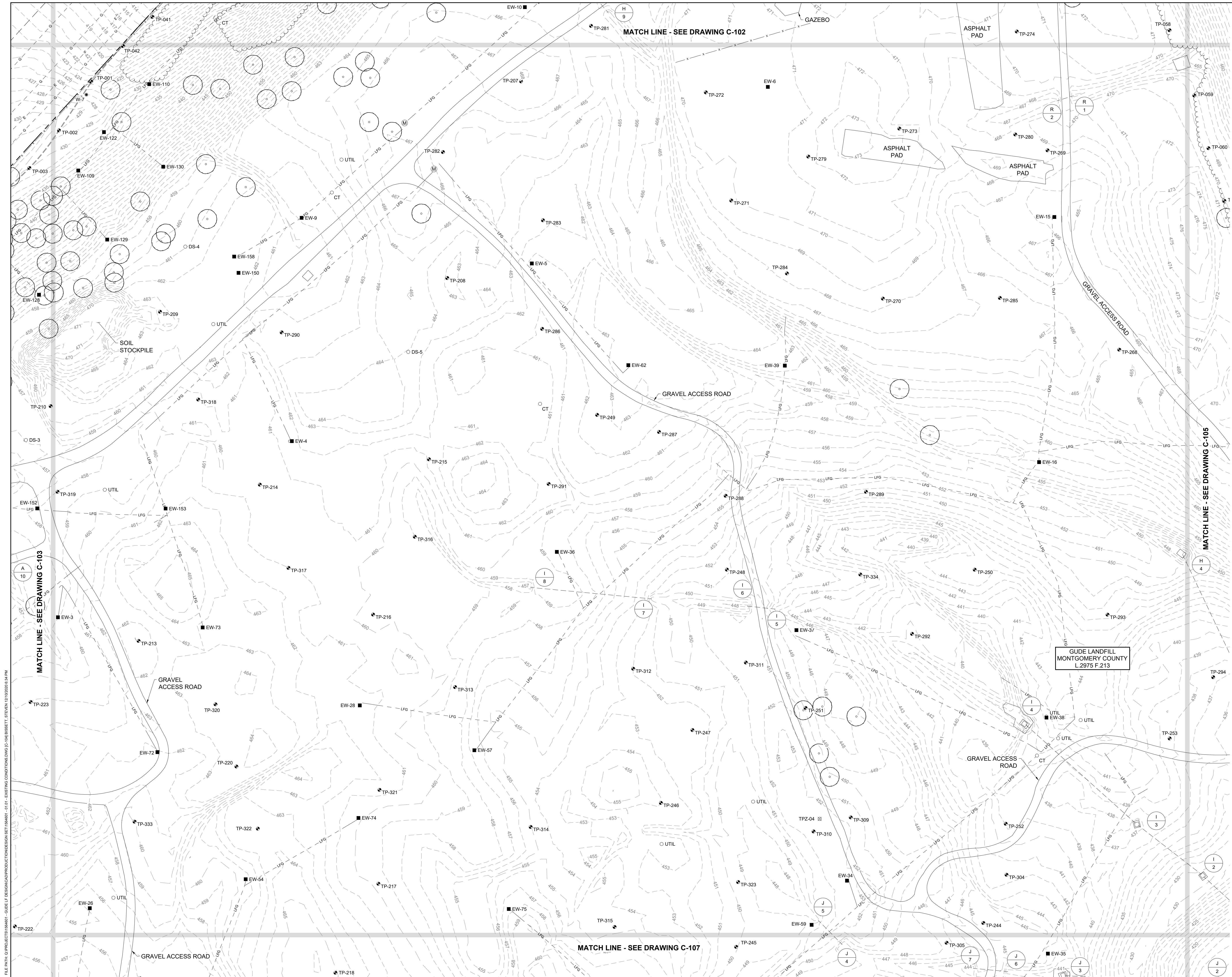
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				PROJECT MANAGER: MJG
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SEAL	<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> <small>MONTGOMERY COUNTY, MARYLAND</small> <b>EXISTING CONDITIONS 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: DECEMBER 2020				
PROJECT NUMBER: 1564601				
<b>C-103</b> SHEET: 6 OF 146				

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**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
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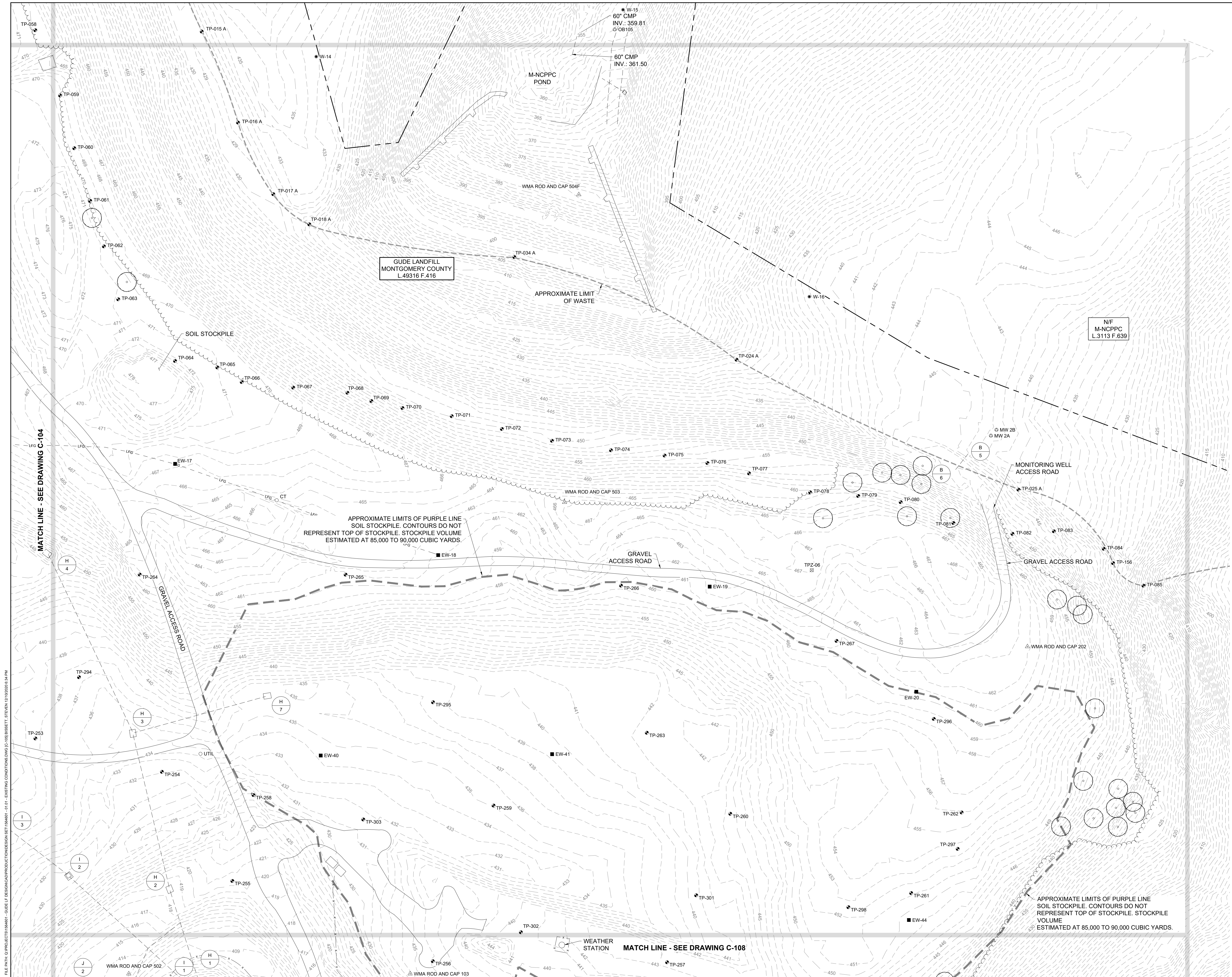
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DATE:	DECEMBER 2020
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<b>C-104</b>	
SHEET: 7 OF 146	



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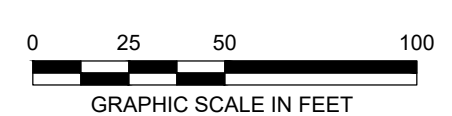
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
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**C-105**  
 SHEET: 8 OF 146

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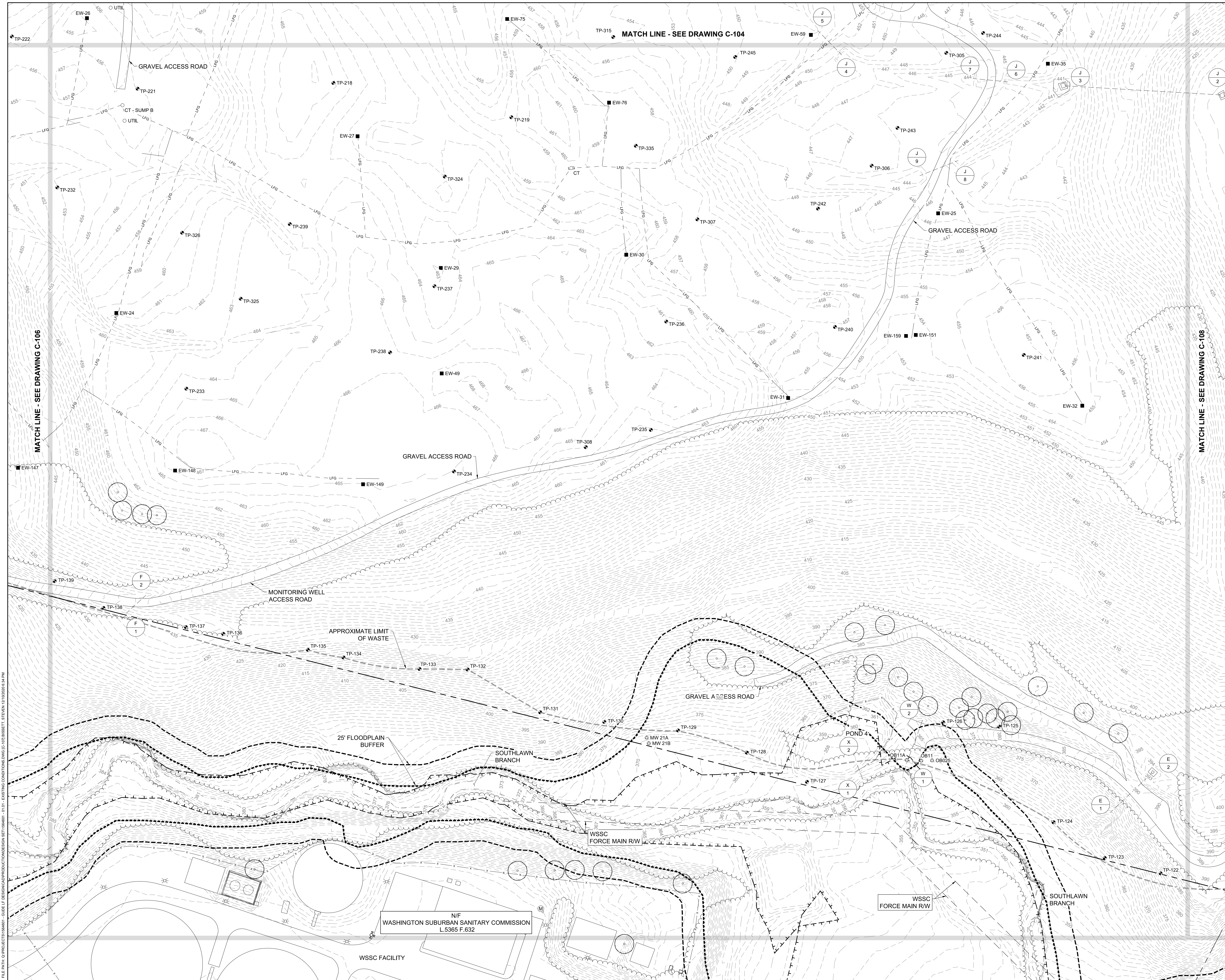


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<b>GUDE LANDFILL REMEDIATION DESIGN</b> NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION MONTGOMERY COUNTY, MARYLAND EXISTING CONDITIONS PLAN		<b>C-106</b> SHEET: 9 OF 146			
 <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000		DATE: DECEMBER 2020 PROJECT NUMBER: 1564601			



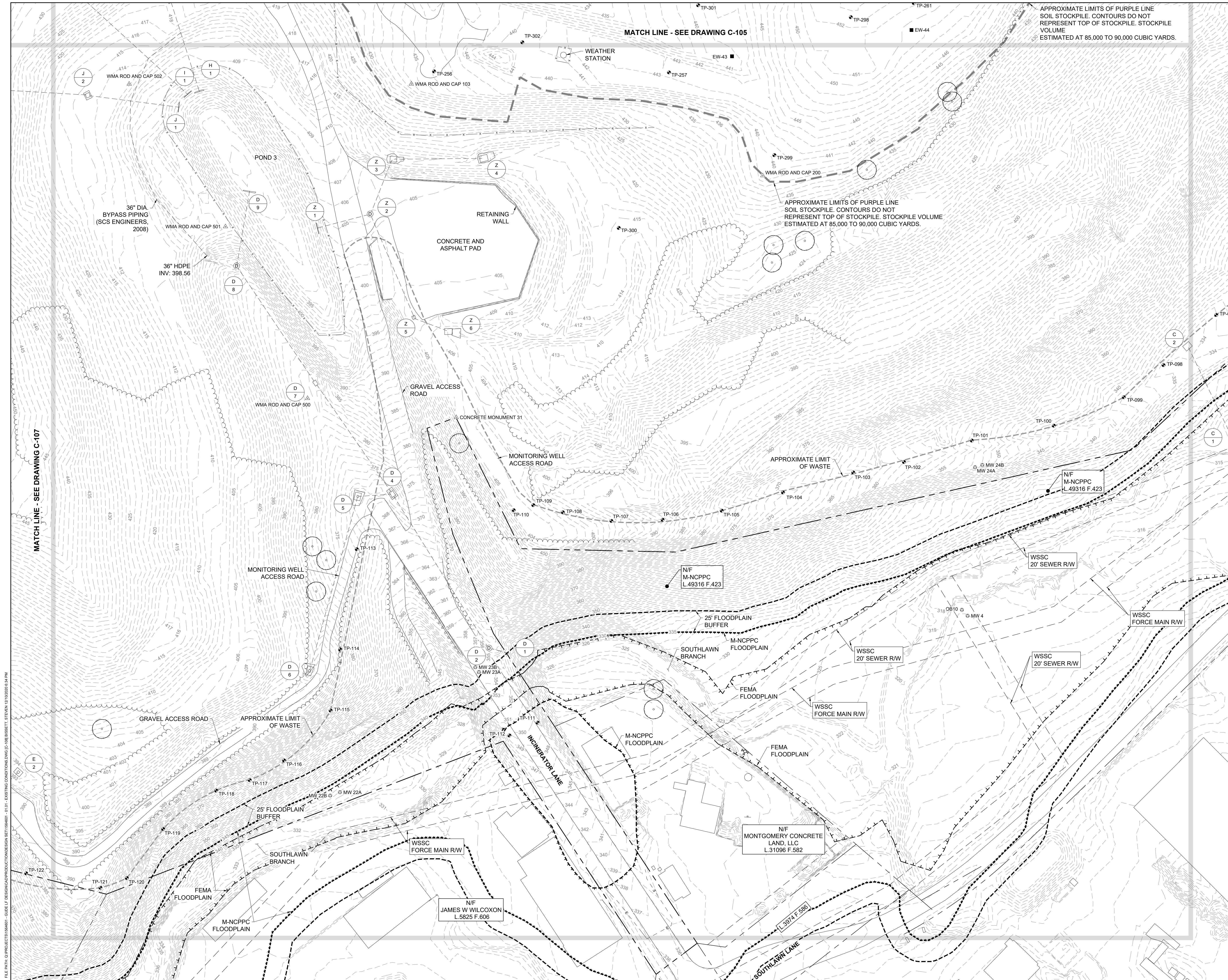
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		PROJECT MANAGER: MJG		
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<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>EXISTING CONDITIONS PLAN</b>				
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DATE: DECEMBER 2020 PROJECT NUMBER: 1564601 <b>C-107</b> SHEET: 10 OF 146				

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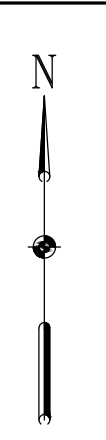


MATCH LINE - SEE DRAWING C-105

APPROXIMATE LIMITS OF PURPLE LINE SOIL STOCKPILE. CONTOURS DO NOT REPRESENT TOP OF STOCKPILE. STOCKPILE VOLUME ESTIMATED AT 85,000 TO 90,000 CUBIC YARDS.

APPROXIMATE LIMITS OF PURPLE LINE SOIL STOCKPILE. CONTOURS DO NOT REPRESENT TOP OF STOCKPILE. STOCKPILE VOLUME ESTIMATED AT 85,000 TO 90,000 CUBIC YARDS.

MATCH LINE - SEE DRAWING C-107



REVISIONS		DESCRIPTION
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		DRAWN BY:	SMB
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		PROJECT MANAGER:	MJG

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

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**C-108**  
 SHEET: 11 OF 146



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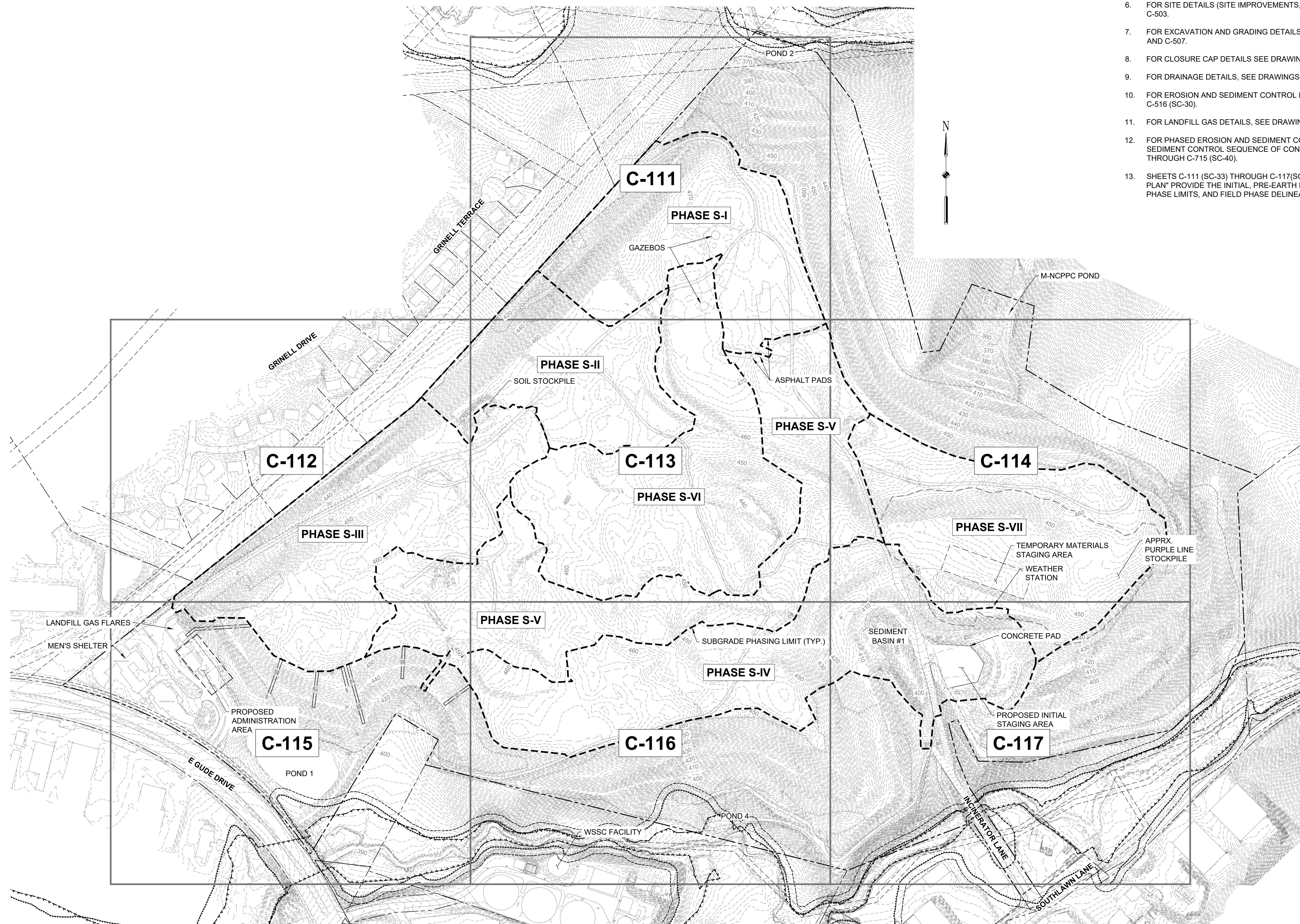
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EXISTING STORMDRAIN STRUCTURE TABLE							
STRUCTURE NAME	RIM ELEVATION	PIPE SIZE AND MATERIAL	INVERT IN	FROM STRUCTURE	INVERT OUT	TO STRUCTURE	ALSO KNOWN AS
A1	415.78	24" STEEL	410.19	A2			A1A (EA)
		60" CMP	407.82	FROM NW	407.78	TO SE	
A2	415.66	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)

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PROJECT MANAGER:	M/JG		
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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>EXISTING CONDITIONS PLAN - STORM DRAIN STRUCTURE SCHEDULE</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: DECEMBER 2020			
PROJECT NUMBER: 1564601			
<b>C-109</b>			
SHEET: 12 OF 146			

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**GENERAL NOTES**

- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-02).
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
- FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-02).
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-03).
- 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 EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 (SC-23), C-506 (SC-24), AND C-507.
- FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509 (SC-27).
- FOR DRAINAGE DETAILS, SEE DRAWINGS C-510, C-511, C-512 (SC-31), AND C-513 (SC-21).
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 (SC-28) THROUGH C-516 (SC-30).
- FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
- FOR PHASED EROSION AND SEDIMENT CONTROL PLANS AND DETAILED EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION, SEE DRAWINGS C-701 (SC-33) THROUGH C-715 (SC-40).
- SHEETS C-111 (SC-33) THROUGH C-117(SC-40) "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.

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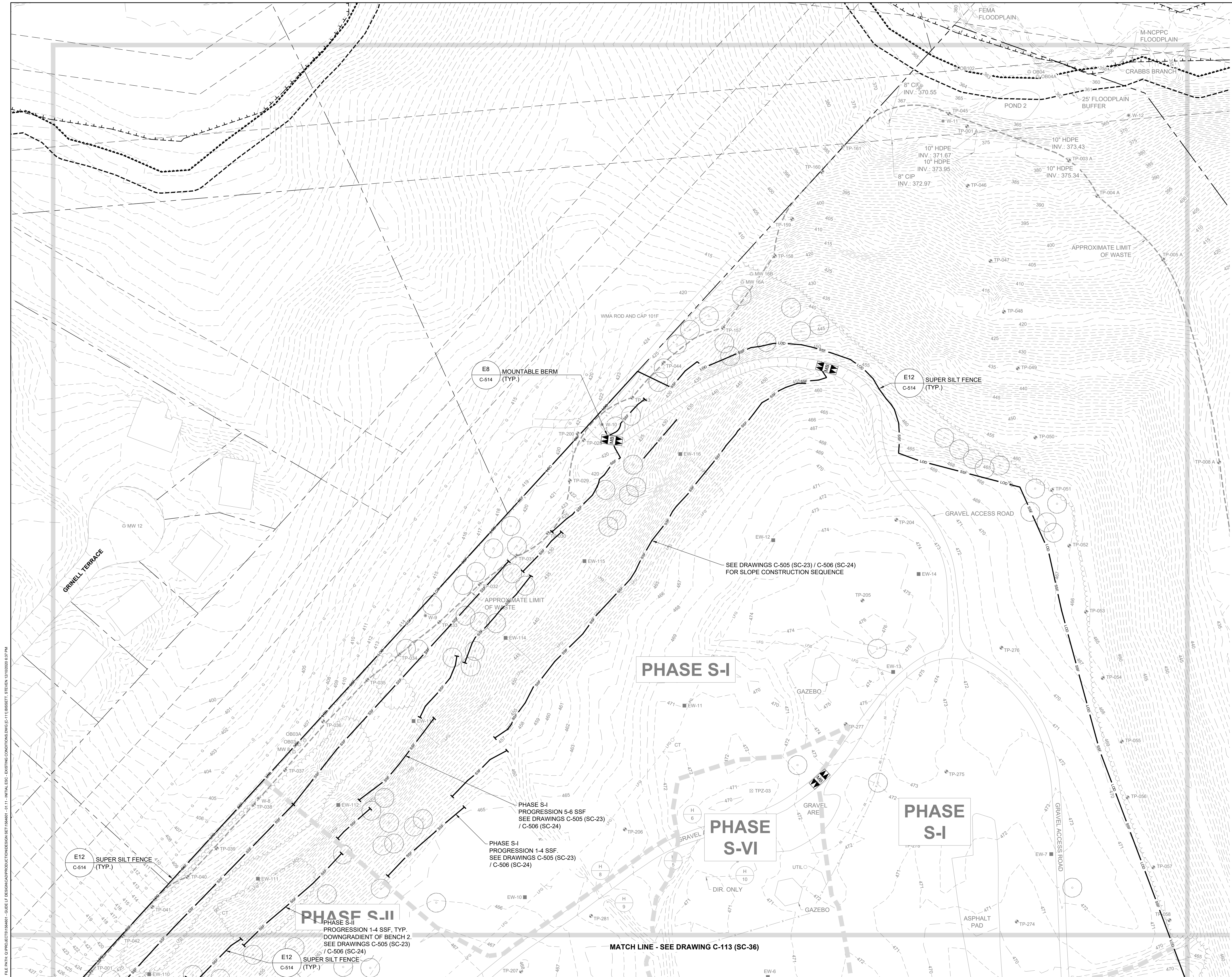
**INITIAL EROSION AND SEDIMENT CONTROL PLAN - KEY SHEET**

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DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

**C-110**  
 SHEET: 13 OF 146



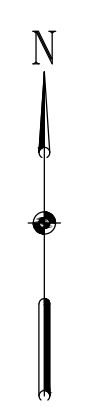
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BY	DATE																		
NO.	DATE																		
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DESIGNED BY:	KEF / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT														
			PROJECT MANAGER:																
			MJG																
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<p><b>INITIAL EROSION AND SEDIMENT CONTROL PLAN</b></p>																			
<p><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</p>																			
<p>DATE: DECEMBER 2020          PROJECT NUMBER: 1564601</p>																			
<p><b>C-111</b>          SHEET: 14 OF 146</p>																			

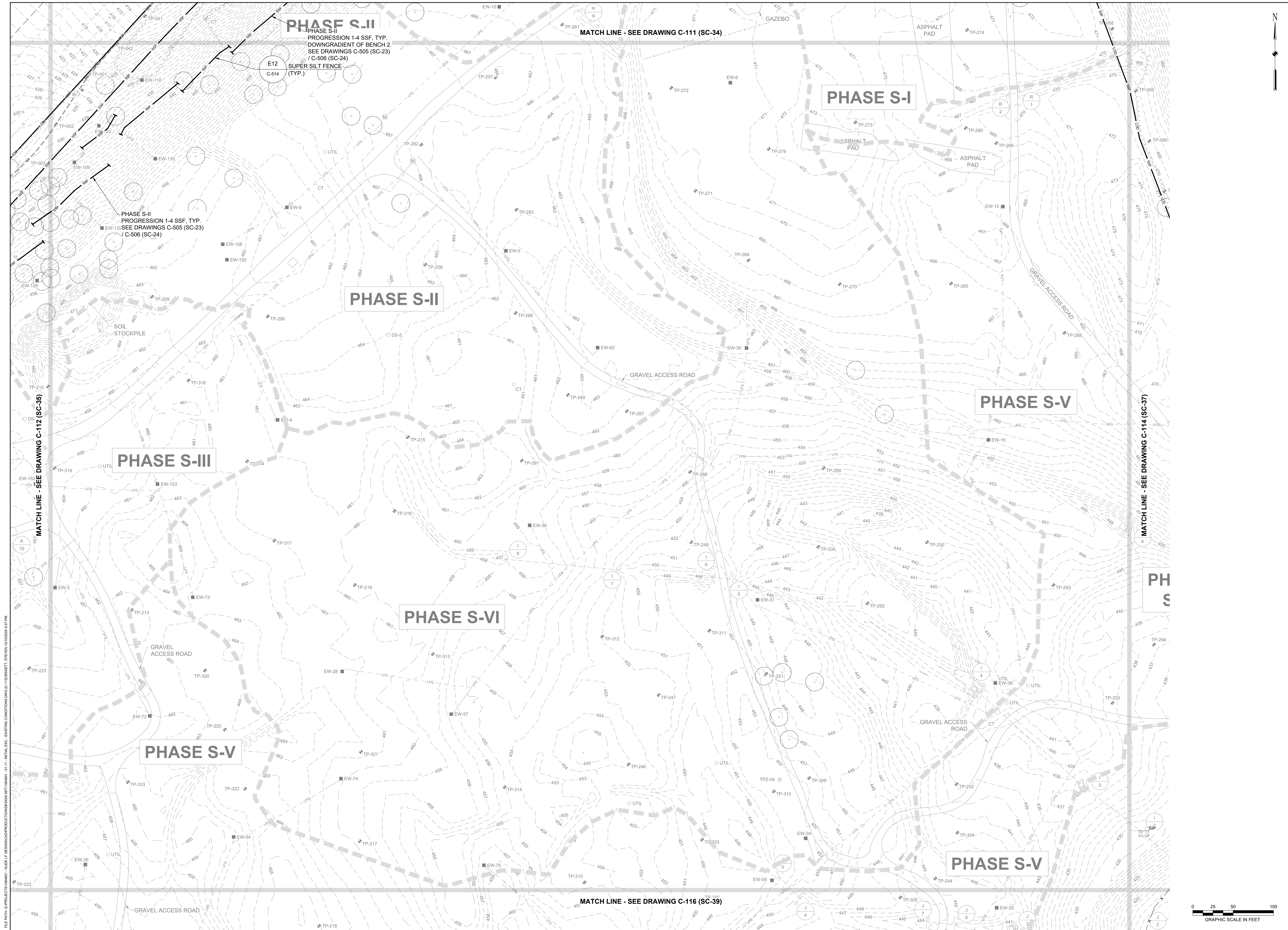
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<b>EA</b> <b>EA Engineering, Science, and Technology, Inc., PBC</b> Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000		<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>INITIAL EROSION AND SEDIMENT CONTROL PLAN</b>	
DATE: DECEMBER 2020 PROJECT NUMBER: 1564601		<b>C-112</b> SHEET: 15 OF 146	

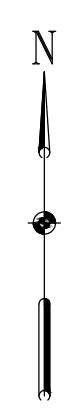
100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 35 OF 53



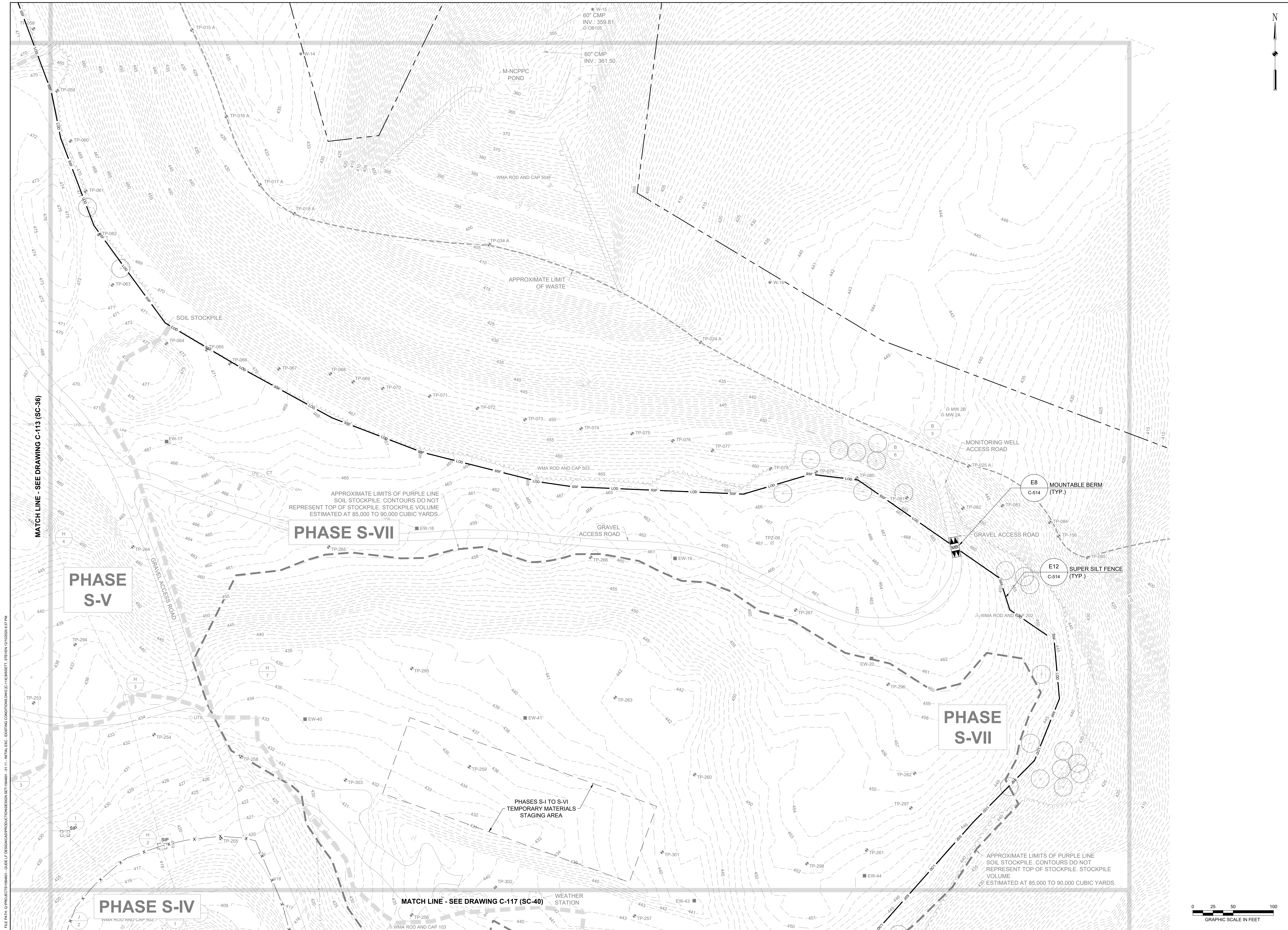
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PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022					
<b>GUIDE 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>INITIAL EROSION AND SEDIMENT CONTROL PLAN</b>					
<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>					
DATE: DECEMBER 2020 PROJECT NUMBER: 1564601					
<b>C-113</b> SHEET: 16 OF 146					

100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 36 OF 53

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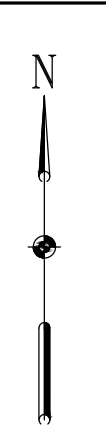
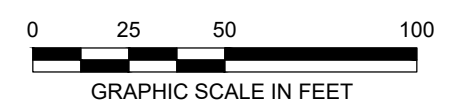


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L/O / GAT	PROJECT MANAGER:			
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<p><b>GUIDE LANDFILL REMEDIATION DESIGN</b>  <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b>  <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b>          MONTGOMERY COUNTY, MARYLAND</p> <p><b>INITIAL EROSION AND SEDIMENT CONTROL PLAN</b></p>				
<p><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</p>				
DATE: DECEMBER 2020				
PROJECT NUMBER: 1564601				
<p><b>C-114</b>          SHEET: 17 OF 146</p>				



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REVISIONS	
NO.	DESCRIPTION

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CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

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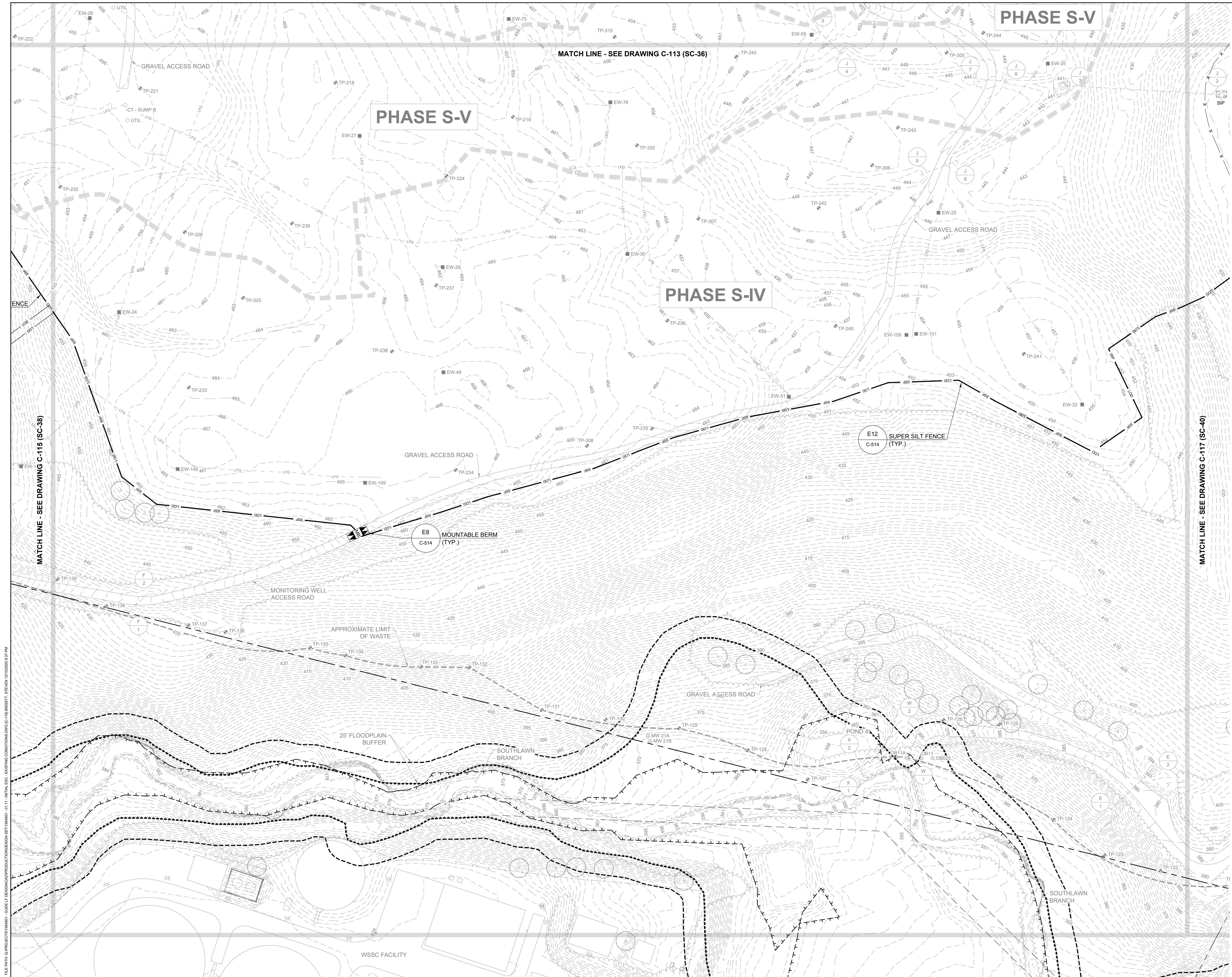
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**INITIAL EROSION AND SEDIMENT CONTROL PLAN**

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DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-115**  
 SHEET: 18 OF 146

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PHASE S-V

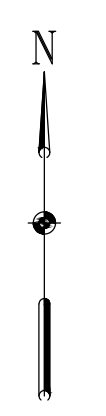
PHASE S-V

PHASE S-IV

MATCH LINE - SEE DRAWING C-113 (SC-36)

MATCH LINE - SEE DRAWING C-115 (SC-38)

MATCH LINE - SEE DRAWING C-117 (SC-40)



REVISIONS		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: 8/25/2022

SEAL

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

INITIAL EROSION AND SEDIMENT CONTROL PLAN

100% DESIGN PLANS - NOT FOR CONSTRUCTION

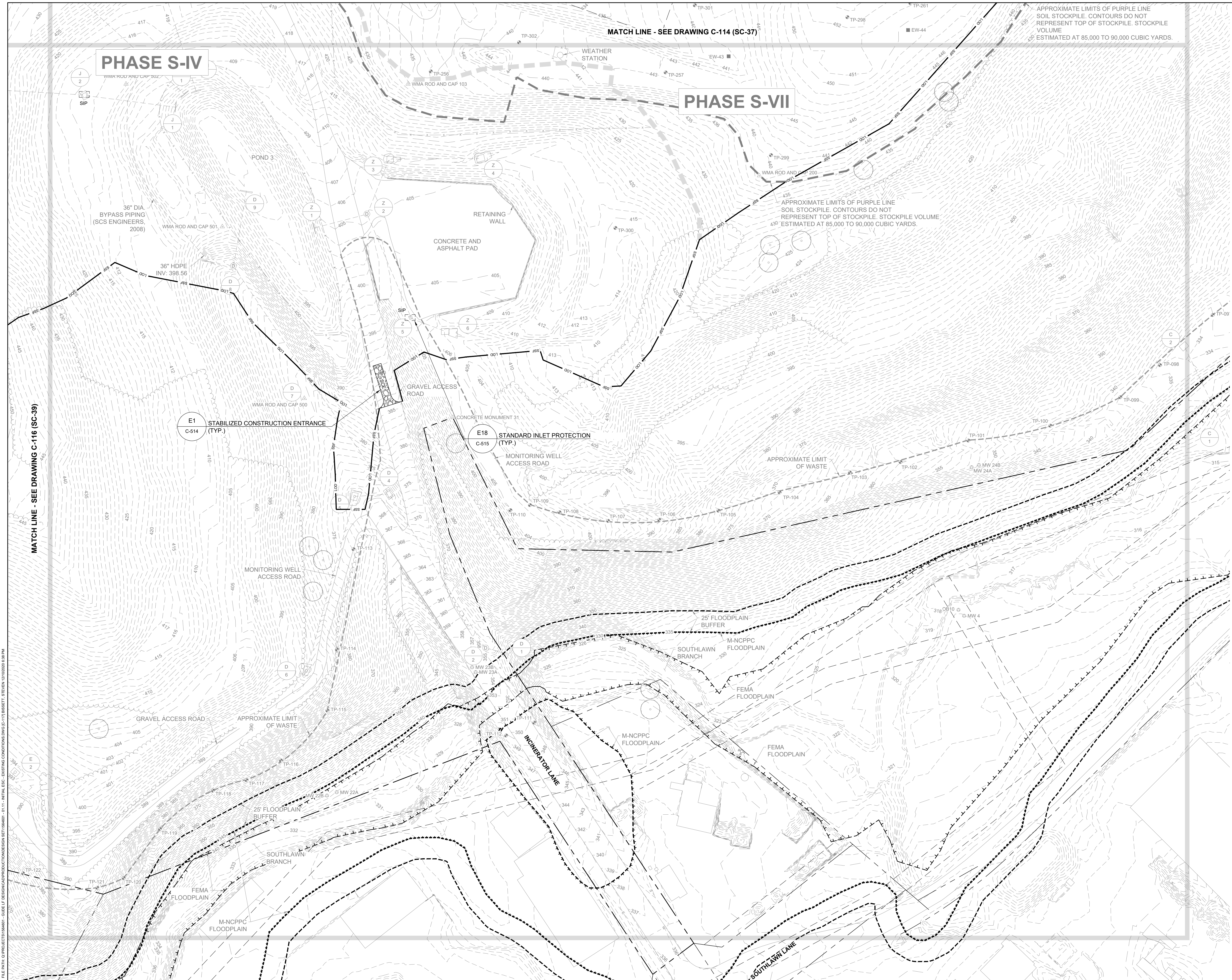
SC/SWM SHEET 39 OF 53

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DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-116**  
 SHEET: 19 OF 146

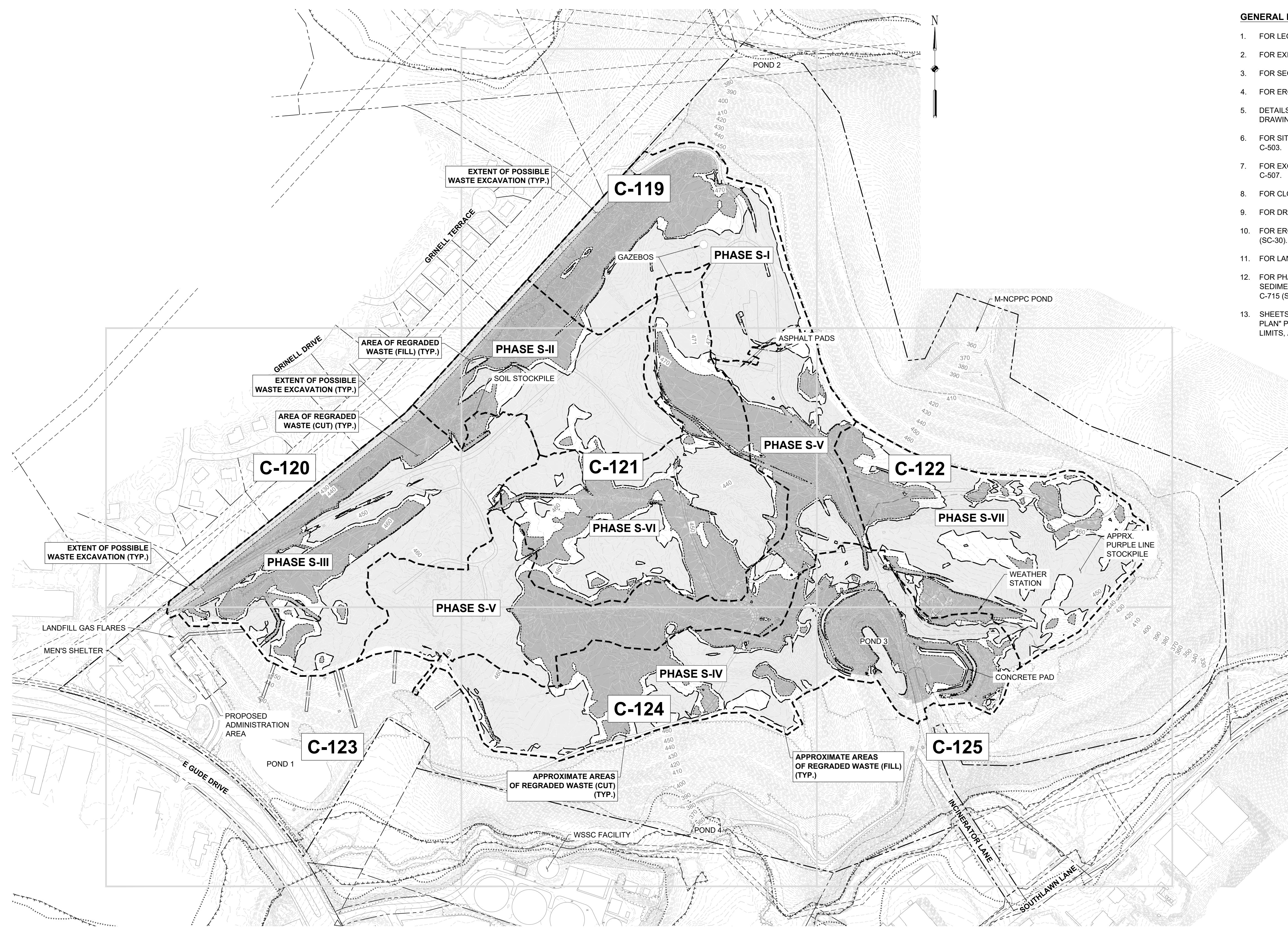
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REVISIONS	DESCRIPTION
	BY
DESIGN INFORMATION	DATE
	NO.
DESIGNED BY:	KEF / SMB
	DRAWN BY:
	SMB
	CHECKED BY:
	LJO / GAT
PROJECT MANAGER:	MJG
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022	
SEAL	
<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: DECEMBER 2020	
PROJECT NUMBER: 1564601	
<b>C-117</b> SHEET: 20 OF 146	



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**DEMOLITION AND EXCAVATION NOTES**

1. 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.
2. 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.
3. FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 AND C-506.
4. EXTENT AND DEPTH OF WASTE AT THE BASE OF THE NORTHWEST SLOPE VARIES. THERE IS POTENTIAL FOR WASTE EXCAVATION IN THIS AREA.
5. DOWNCHUTE GRADING IS APPROXIMATE AND FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR SHALL CONSTRUCT DOWNCHUTES IN THE FIELD BASED ON THE PROVIDED DETAILS.

① ITEM TO REMAIN

**GENERAL NOTES**


1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-02).
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
3. FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-02).
4. FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-03).
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 EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 (SC-23), C-506(SC-24), AND C-507.
8. FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509 (SC-27).
9. FOR DRAINAGE DETAILS, SEE DRAWINGS C-510, C-511, C-512 (SC-31), AND C-513 (SC-21).
10. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 (SC-28) THROUGH C-516 (SC-30).
11. FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
12. FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, AND A DETAILED EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION, SEE DRAWINGS C-701 (SC-33) THROUGH C-715 (SC-40).
13. SHEETS C-111 (SC-33) THROUGH C-117 (SC-40) "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.

NO.	DATE	BY	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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

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

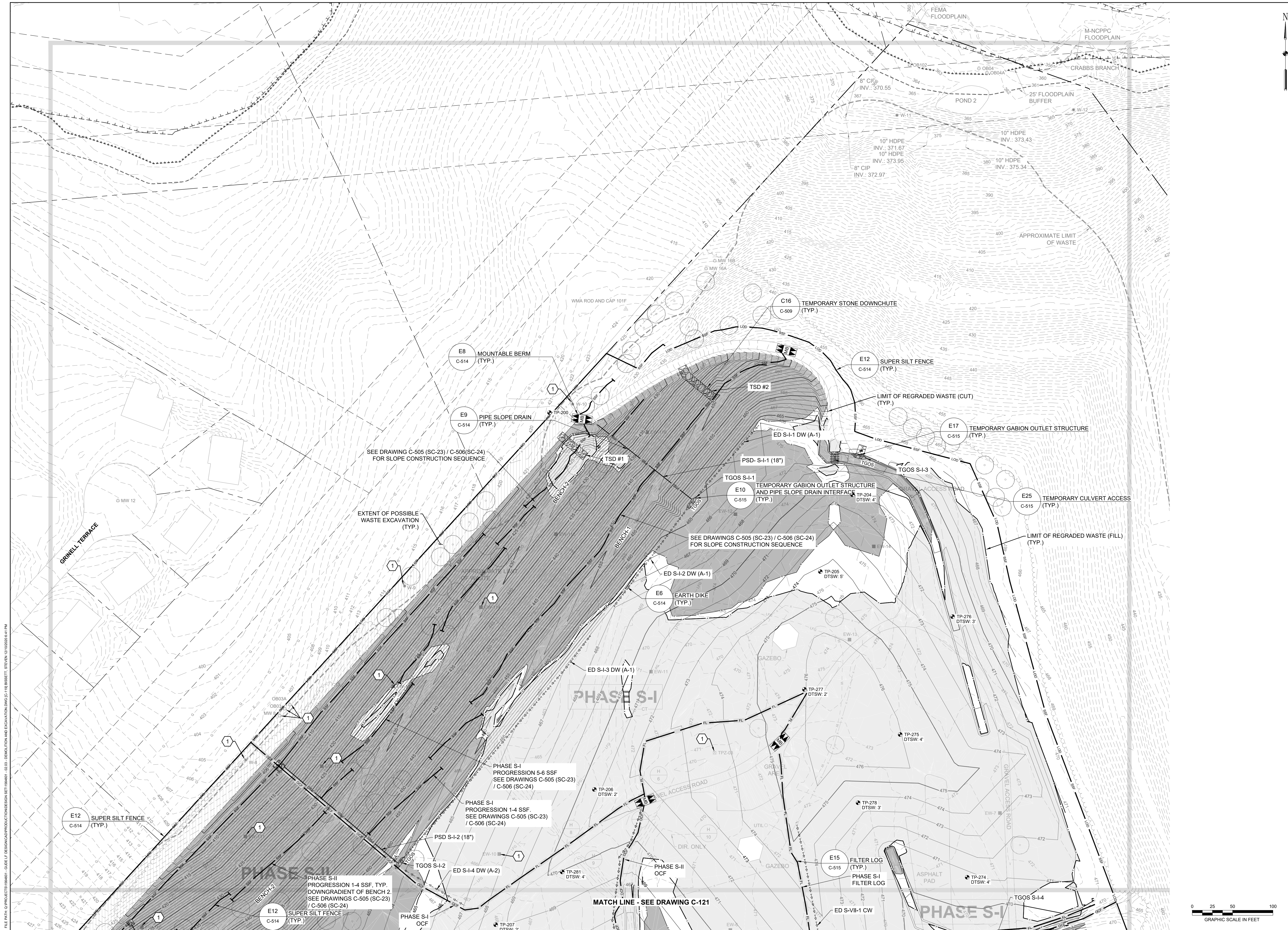


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DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**C-118**  
SHEET: 21 OF 146

DESCRIPTION	EXISTING	PROPOSED
EXTENT OF POSSIBLE WASTE EXCAVATION		
LIMIT OF REGRADED WASTE (CUT)		
LIMIT OF REGRADED WASTE (FILL)		



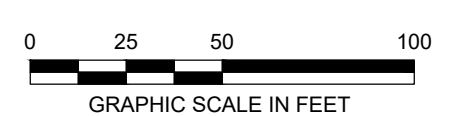
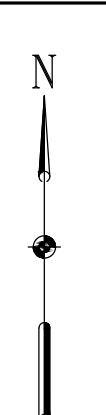
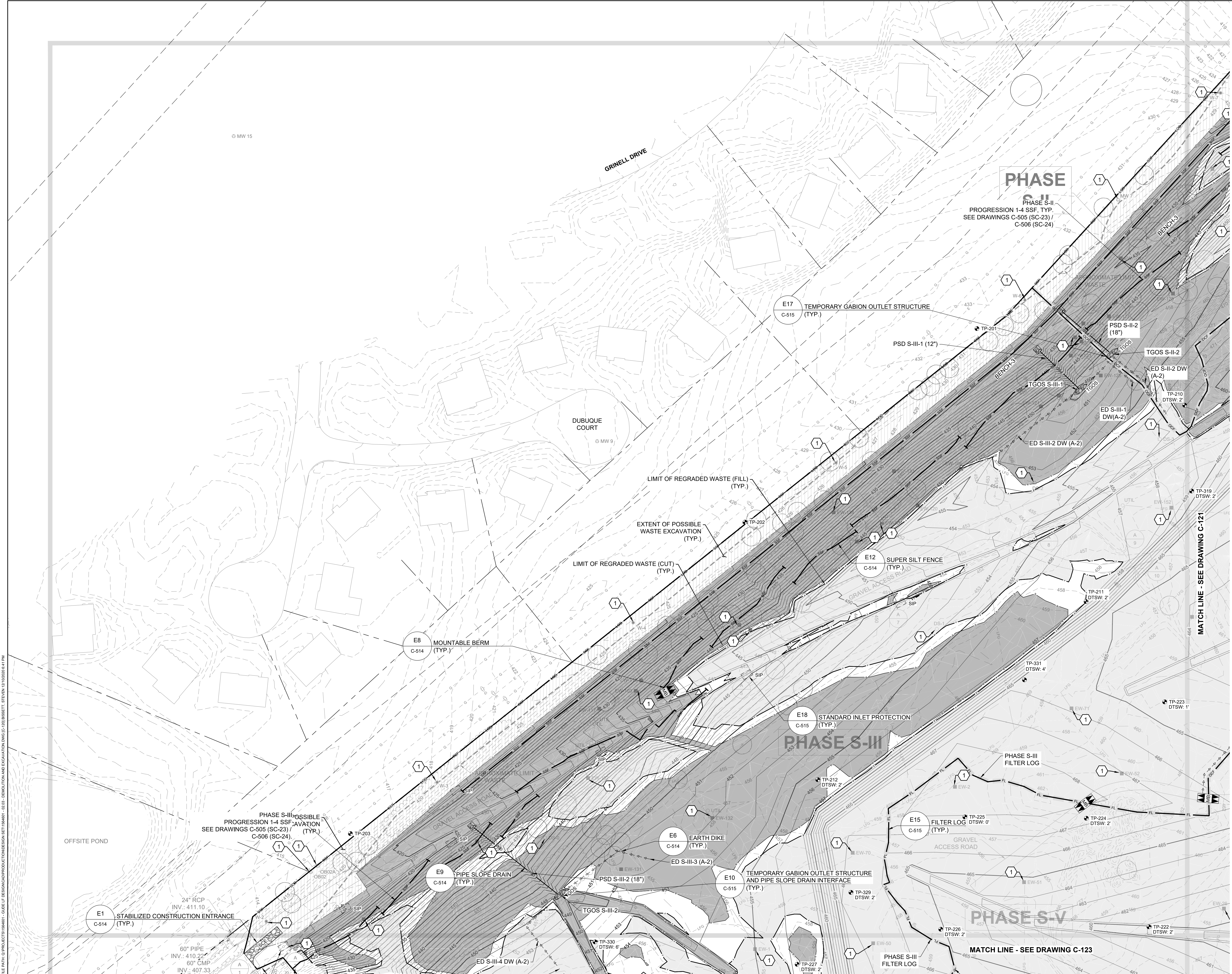


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DRAWN BY:	SMB			
CHECKED BY:	LJO / GAT			
PROJECT MANAGER:	MJG			
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022				
SEAL	<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: DECEMBER 2020				
PROJECT NUMBER: 1564601				
<b>C-119</b>				
SHEET: 22 OF 146				

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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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022					
<p><b>GUIDE LANDFILL REMEDIATION DESIGN</b>  <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b>  <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b>          MONTGOMERY COUNTY, MARYLAND</p> <p><b>DEMOLITION AND REGRADED WASTE PLAN</b></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: DECEMBER 2020					
PROJECT NUMBER: 1564601					
<b>C-120</b>					
SHEET: 23 OF 146					

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REVISIONS		DESCRIPTION
NO.	DATE	BY

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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**

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 (410) 584-7000

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

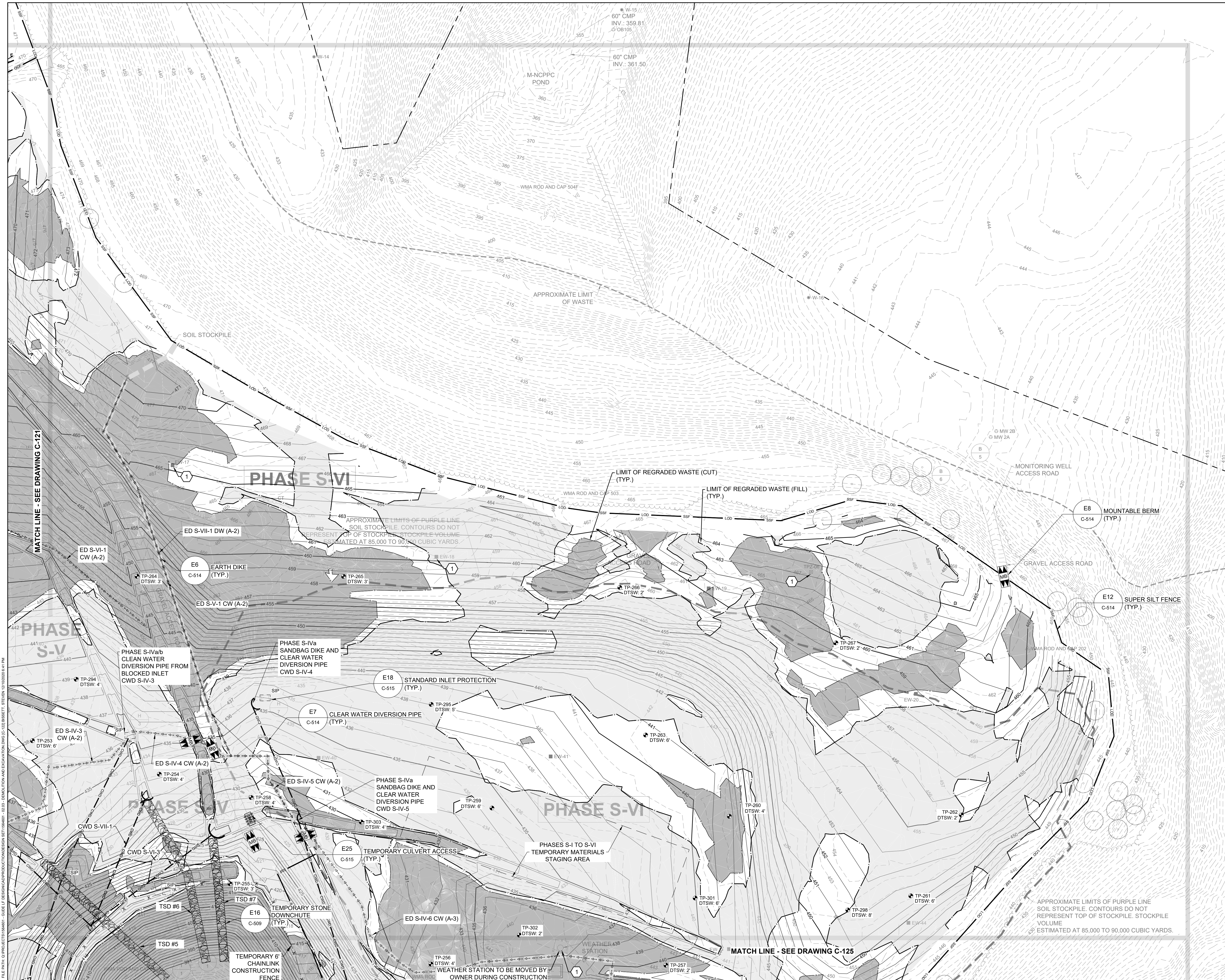
**C-121**  
 SHEET: 24 OF 146



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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

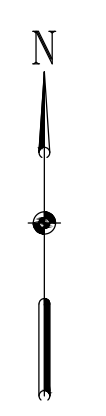
**DEMOLITION AND REGRADED WASTE PLAN**

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DATE:	DECEMBER 2020
PROJECT NUMBER:	1564601
<b>C-122</b>	
SHEET: 25 OF 146	

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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> <small>MONTGOMERY COUNTY, MARYLAND</small>	
<b>DEMOLITION AND REGRADED WASTE PLAN</b>	

DATE:	DECEMBER 2020
PROJECT NUMBER:	1564601
<b>C-123</b> SHEET: 26 OF 146	

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REVISIONS  
DESCRIPTION

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NO. DATE BY

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

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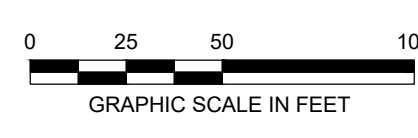
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2022

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

DEMOLITION AND REGRADED WASTE PLAN

**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: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**C-124**  
SHEET: 27 OF 146

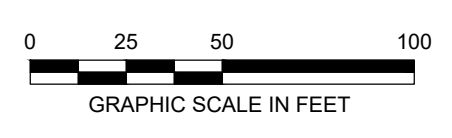


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100% DESIGN PLANS - NOT FOR CONSTRUCTION



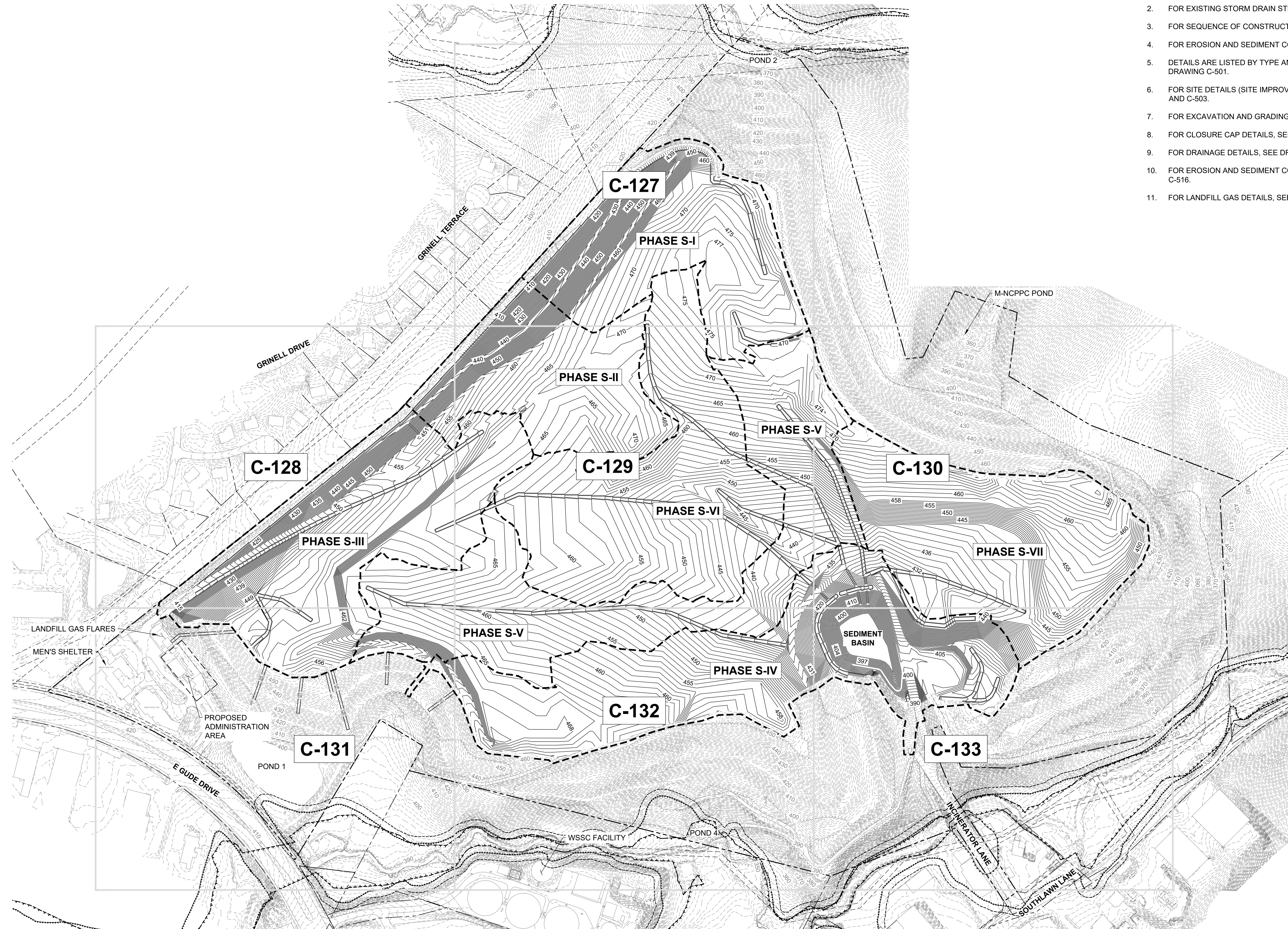
REVISIONS		DESCRIPTION
NO.	DATE	BY
DESIGN INFORMATION		DESIGNED BY:
KEY / SMB	DRAWN BY:	SMB
CHECKED BY:	LJO / GAT	PROJECT MANAGER:
M/JG		
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022		
<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>		
DATE: DECEMBER 2020 PROJECT NUMBER: 1564601		
<b>C-125</b> SHEET: 28 OF 146		



FILE PATH: G:\PROJECTS\1564601 - GUIDE OF DEMOLITION AND EXCAVATION\1564601-GUIDE OF DEMOLITION AND EXCAVATION.DWG (C-125) SHEET: 28 OF 146 (2020-12-04 10:24:34 AM)

100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\164601 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\164601 - SUBGRADE GRADING - KEY SHEET.DWG (C:\00\BIBBETT - SITE\164601\164601-01-2020-164601.dwg)



**SUBGRADE GRADING NOTE**

1. DOWNCHUTE GRADING IS APPROXIMATE AND FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR SHALL CONSTRUCT DOWNCHUTES IN THE FIELD BASED ON THE PROVIDED DETAILS.

**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 ON DRAWING C-501.
- FOR SITE DETAILS (SITE IMPROVEMENTS, FENCE, ROADS, ETC.), SEE DRAWINGS C-502 AND C-503.
- 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.

REVISIONS		DESCRIPTION
NO.	DATE	BY

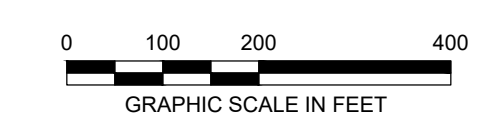
DESIGN INFORMATION		DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG

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: 8/25/2022

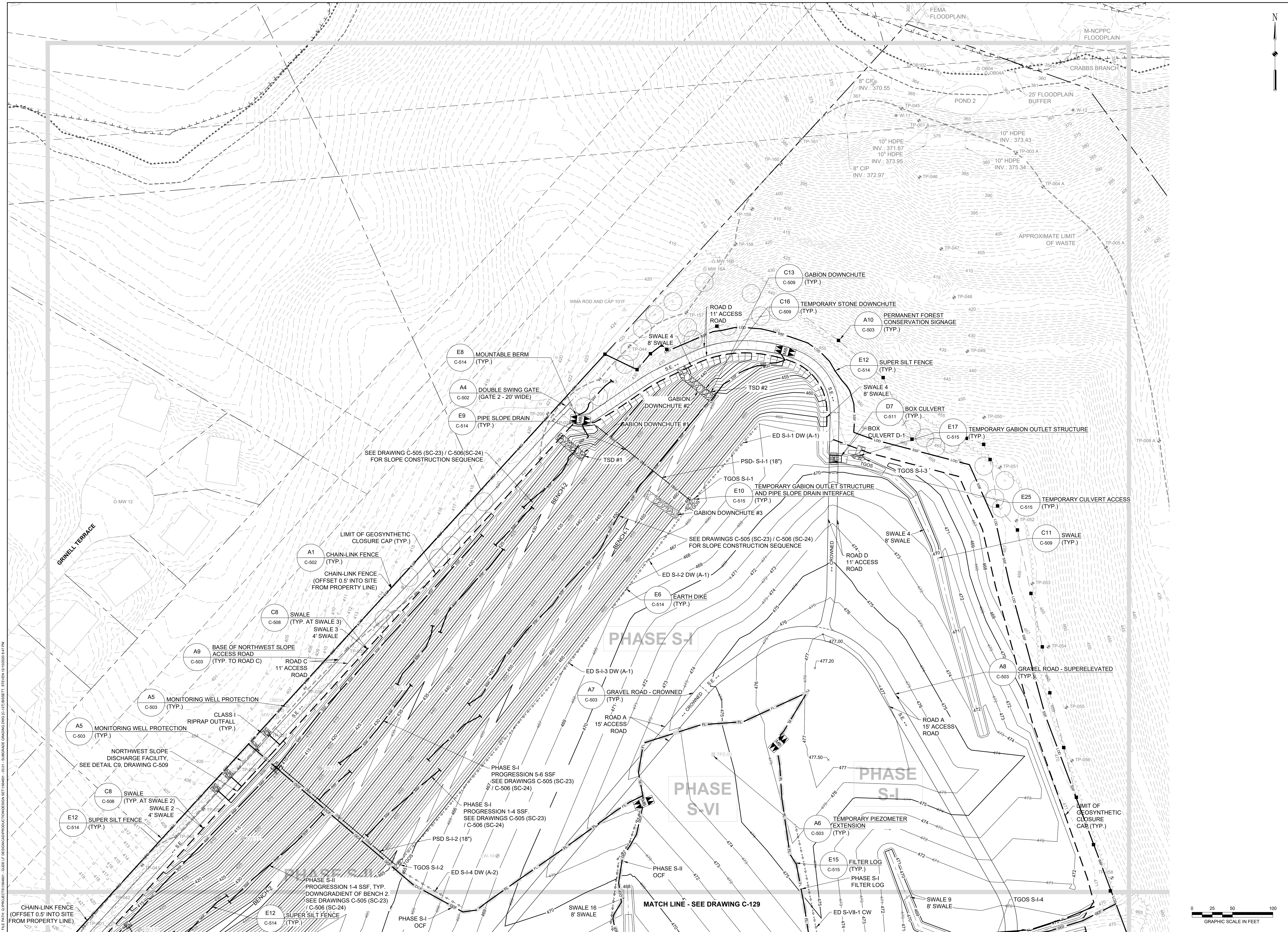
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**SUBGRADE GRADING PLAN - KEY SHEET**

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-126**  
 SHEET: 29 OF 146



100% DESIGN PLANS - NOT FOR CONSTRUCTION



REVISIONS	DESCRIPTION
NO.	DATE
BY	BY
DESIGNED BY:	PROJECT MANAGER:
KEY / SMB	M/JG
DRAWN BY:	PROJECT MANAGER:
SMB	PROJECT MANAGER:
CHECKED BY:	PROJECT MANAGER:
LJO / GAT	PROJECT MANAGER:
PROJECT MANAGER:	PROJECT MANAGER:
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: 8/25/2022	
SEAL	SEAL

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

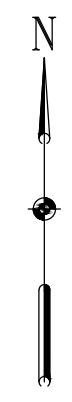
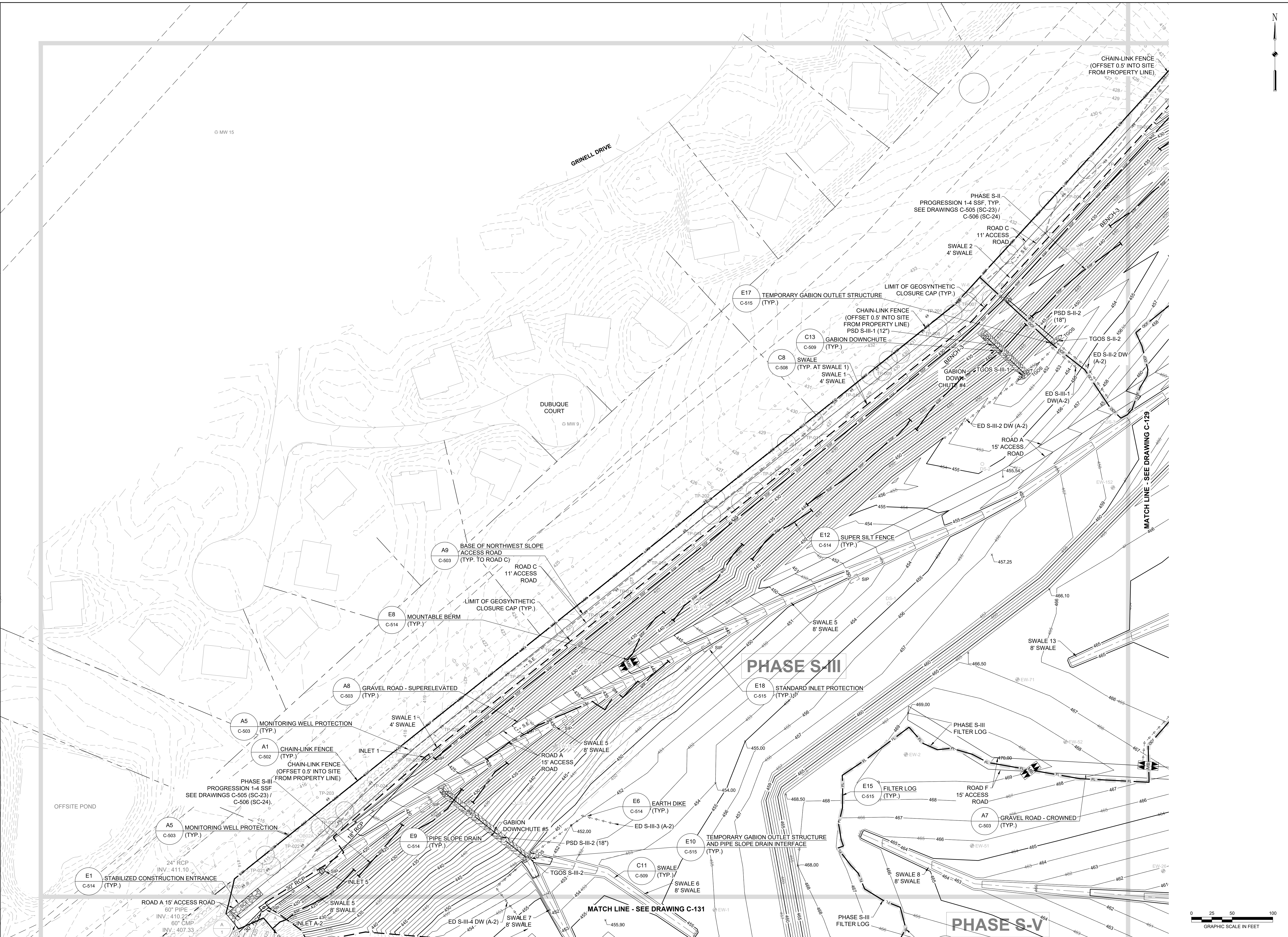
**SUBGRADE GRADING PLAN**

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-127**  
 SHEET: 30 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

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

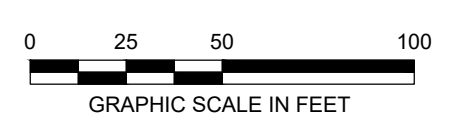
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

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

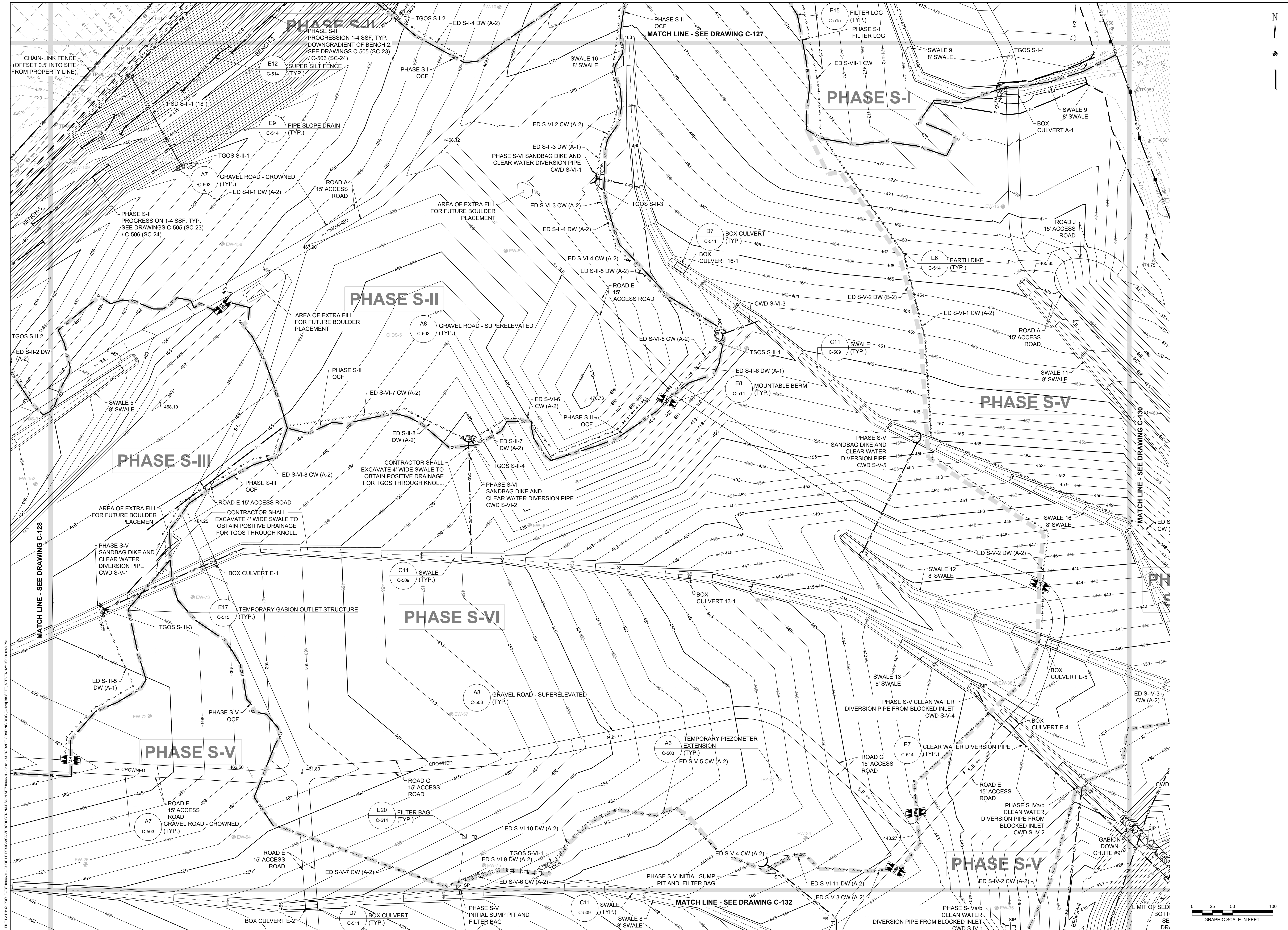
**SUBGRADE GRADING PLAN**

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-128**  
 SHEET: 31 OF 146



100% DESIGN PLANS - NOT FOR CONSTRUCTION



REVISIONS	DESCRIPTION
BY	
DATE	
NO.	

DESIGNED BY:	KEF / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MAG
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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: 8/25/2022

**GUIDE LANDFILL REMEDIATION DESIGN**

**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**

**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**

MONTGOMERY COUNTY, MARYLAND

**SUBGRADE GRADING PLAN**

DATE: DECEMBER 2020

PROJECT NUMBER: 1564601

**C-129**

SHEET: 32 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION





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: 8/25/2022

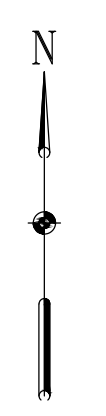
SEAL

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**SUBGRADE 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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-130**  
 SHEET: 33 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION



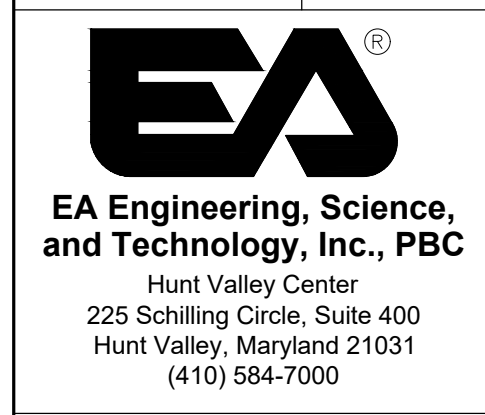
NO.	DATE	BY	DESCRIPTION

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: 8/25/2022

SEAL

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

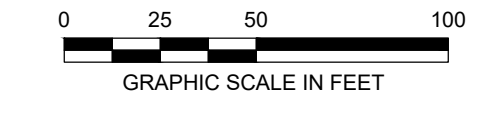
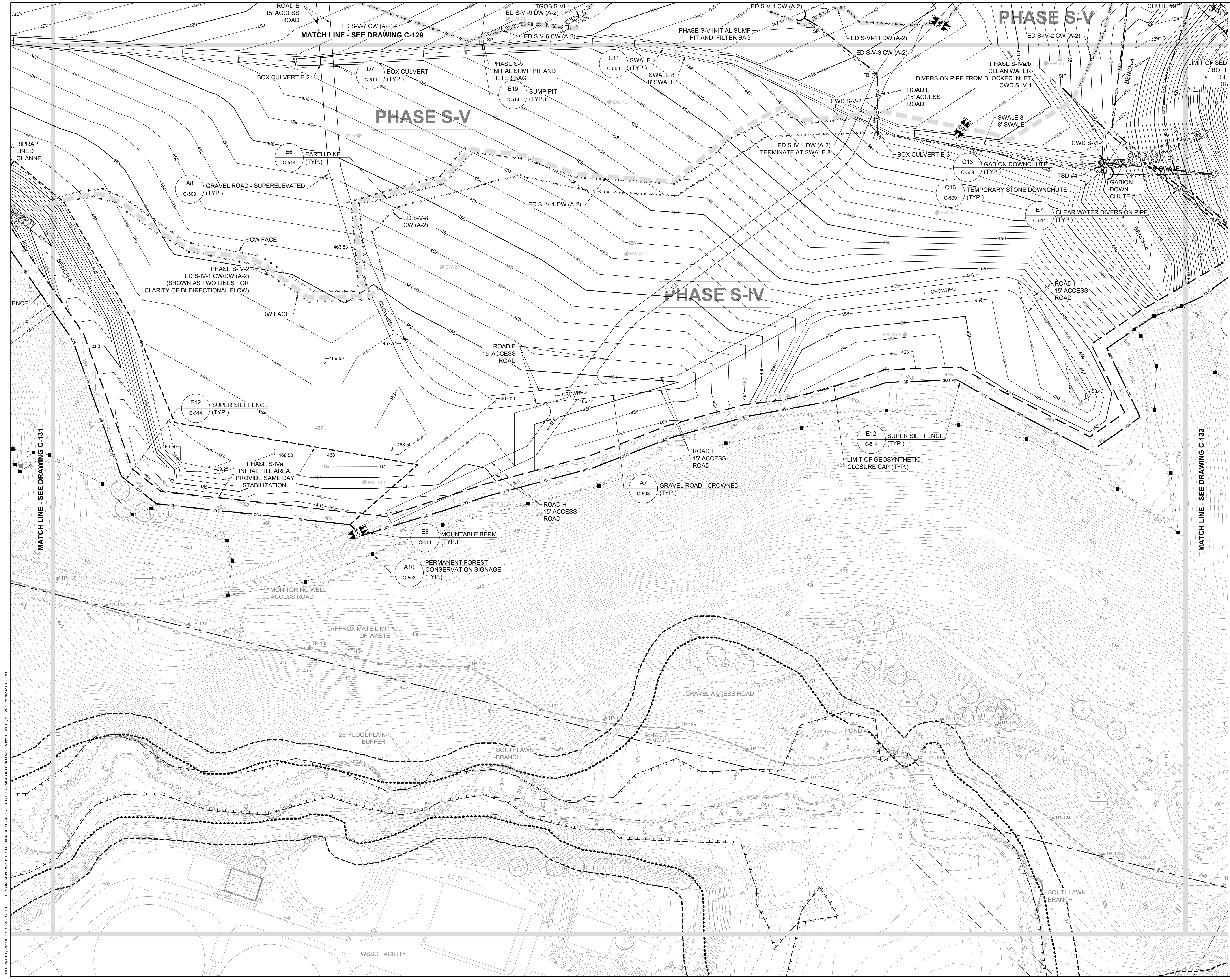


DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-131**  
 SHEET: 34 OF 146



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100% DESIGN PLANS - NOT FOR CONSTRUCTION



NO.	DATE	BY	DESCRIPTION

DESIGN INFORMATION			
DESIGNED BY:	KEY / SMB		
DRAWN BY:	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: 8/25/2022

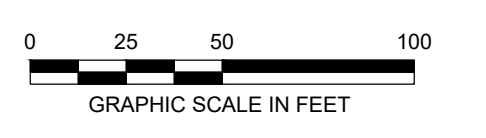
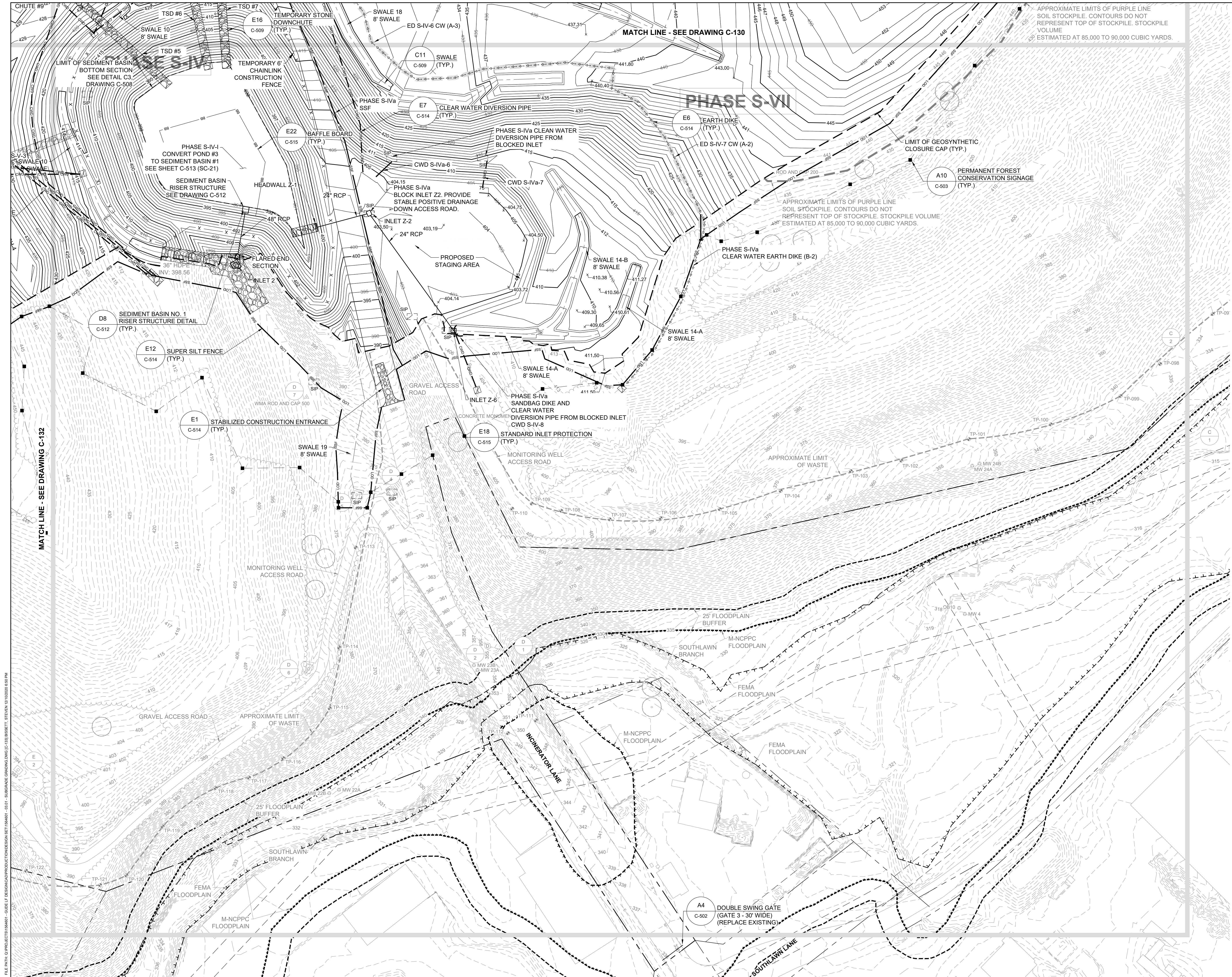
SEAL

GUIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 SUBGRADE 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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-132**  
 SHEET: 35 OF 146

100% 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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

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

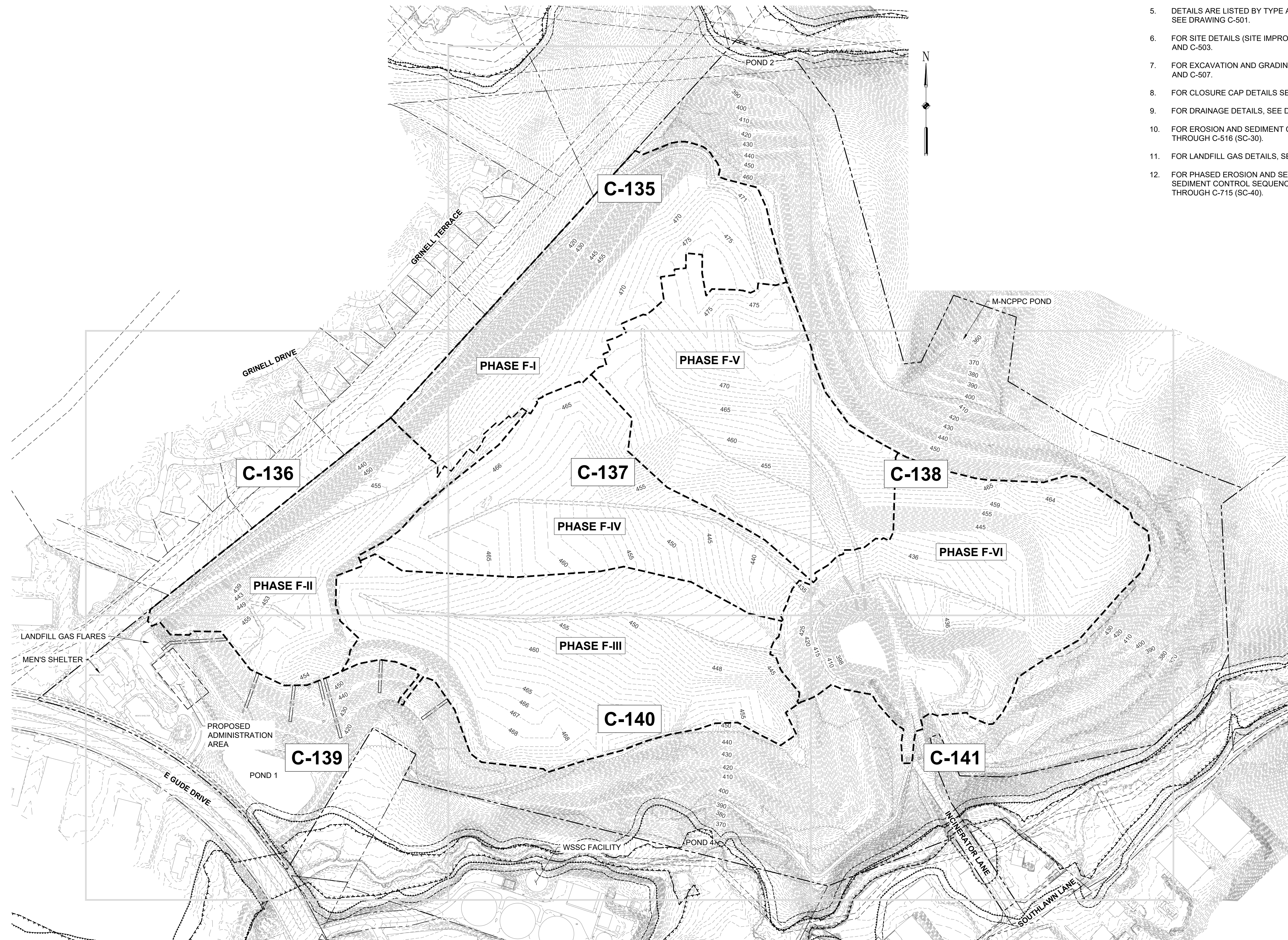
**SUBGRADE GRADING PLAN**

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-133**  
 SHEET: 36 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\164601 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\164601 - 03 15 - FINAL EDC - KEY SHEET.DWG (C:\LIBERTY\STEVEN\15102003.03.DWG)



**FINAL EROSION AND SEDIMENT CONTROL NOTE**

1. DOWNCHUTE GRADING IS APPROXIMATE AND FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR SHALL CONSTRUCT DOWNCHUTES IN THE FIELD BASED ON THE PROVIDED DETAILS.

**GENERAL NOTES**

1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-02).
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
3. FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-02).
4. FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-03).
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 EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 (SC-23), C-506 (SC-24) AND C-507.
8. FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509 (SC-27).
9. FOR DRAINAGE DETAILS, SEE DRAWINGS C-510, C-511, C-512 (SC-31), AND C-513 (SC-21).
10. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 (SC-28) THROUGH C-516 (SC-30).
11. FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
12. FOR PHASED EROSION AND SEDIMENT CONTROL PLANS AND DETAILED EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION, SEE DRAWINGS C-701 (SC-33) THROUGH C-715 (SC-40).

REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

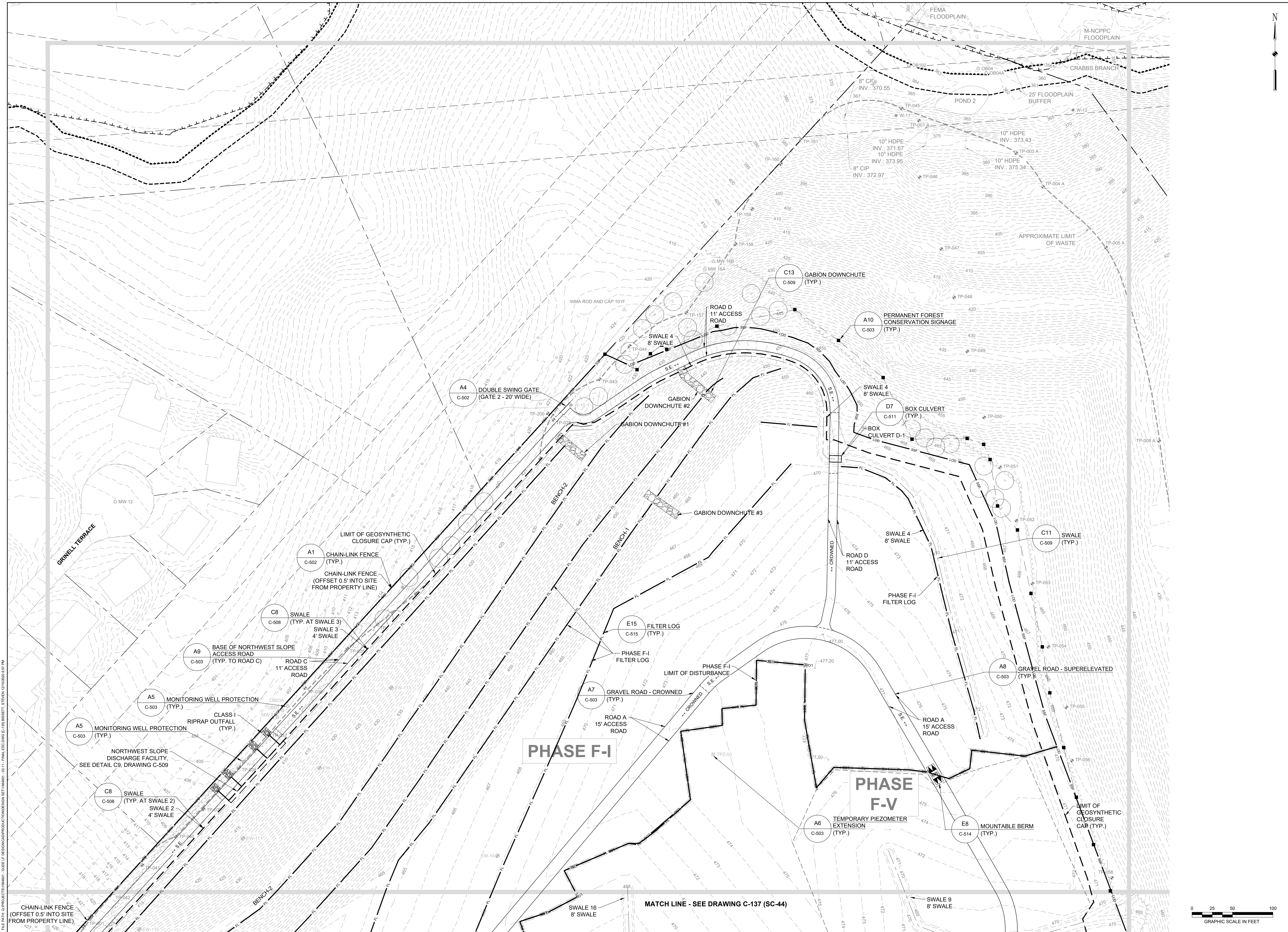
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**FINAL EROSION AND SEDIMENT CONTROL PLAN - KEY SHEET**

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-134**  
 SHEET: 37 OF 146



100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 41 OF 53



FILE DATA: G:\PROJECTS\164601 - GUIDELINE REMEDIATION DESIGN\164601 - SC-11 - FINAL EROSION CONTROL PLAN.dwg, 12/15/2020 4:47 PM  
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REVISIONS	DESCRIPTION

DESIGN INFORMATION	NO.	DATE	BY	DESCRIPTION
DESIGNED BY:				
KEY / SMB				
DRAWN BY:				
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 FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2022

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

**FINAL EROSION AND SEDIMENT CONTROL PLAN**

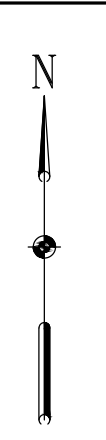
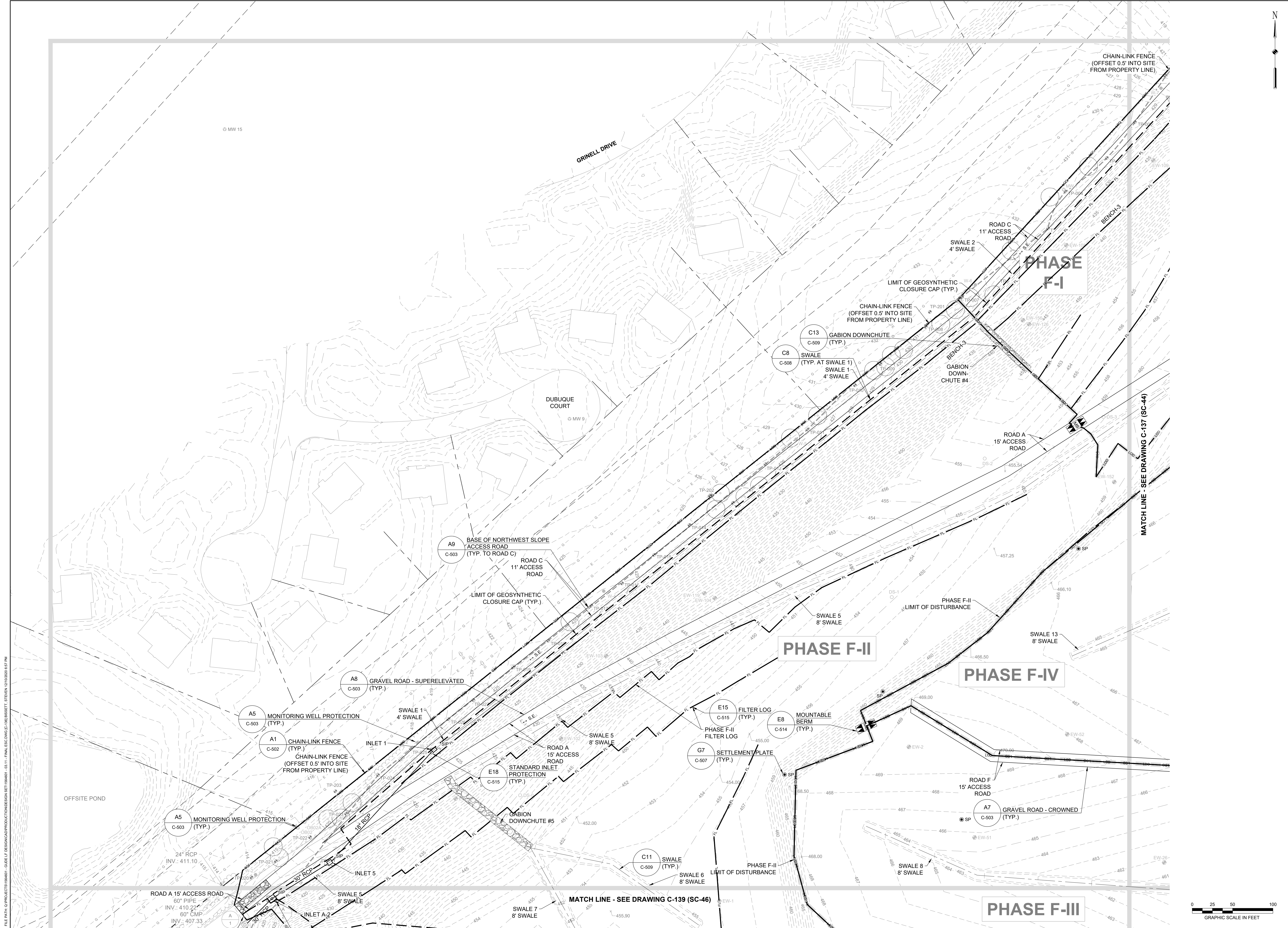
  

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: DECEMBER 2020	PROJECT NUMBER: 1564601
<b>C-135</b>	
SHEET: 38 OF 146	

100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 42 OF 53



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEY / 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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

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

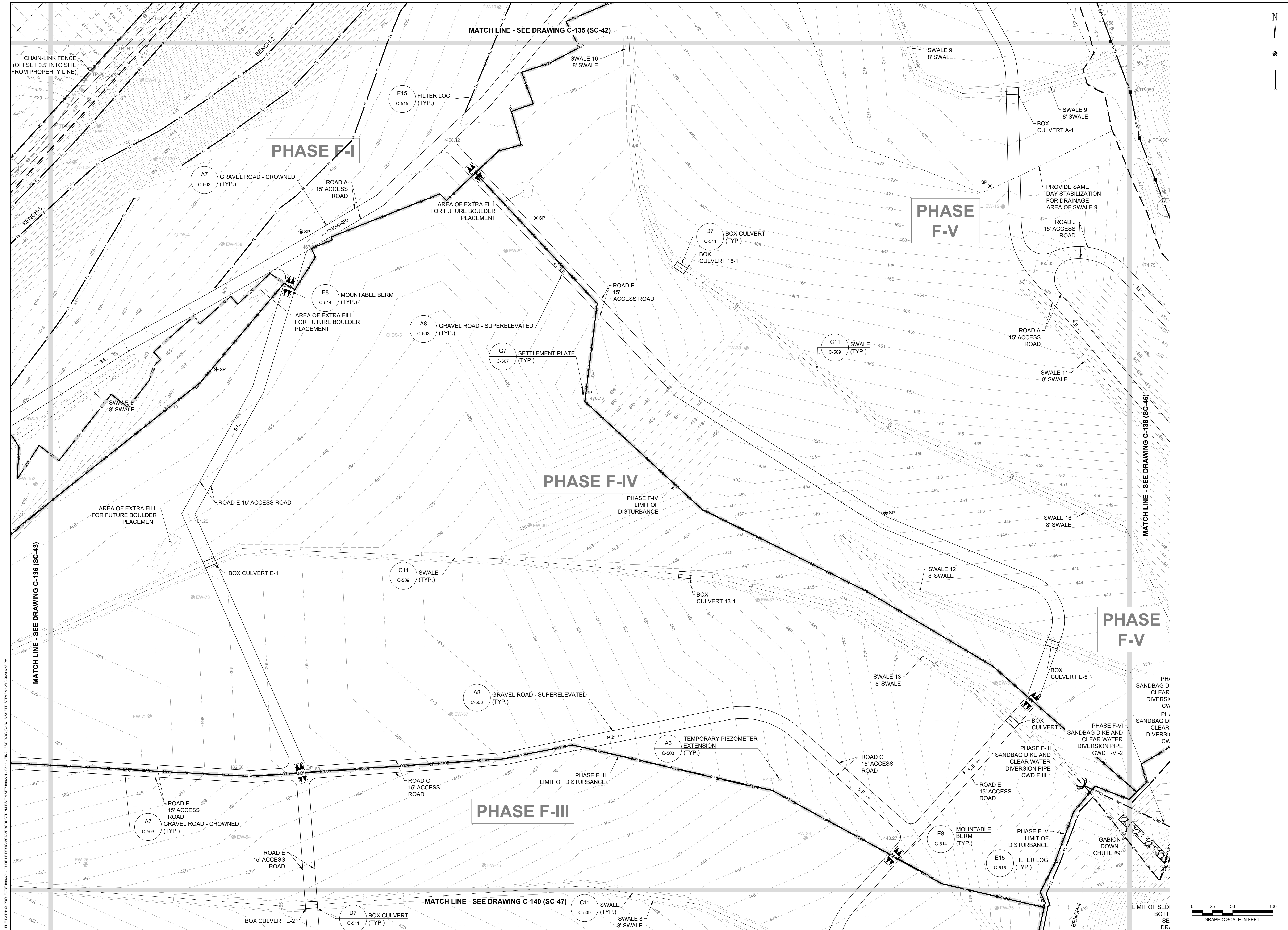
**FINAL EROSION AND SEDIMENT CONTROL PLAN**

**C-136**  
 SHEET: 39 OF 146

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\1564601 - GUIDE OF DESIGN\PRODUCTION\DESIGN\SC-136-FINAL\SC-136-FINAL.DWG (C:\MSR\BIBBETT.ETX\1564601\1564601.FW)



REVISIONS		DESCRIPTION	
NO.	DATE	BY	

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

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: 8/25/2022

SEAL

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

SC/SWM SHEET 44 OF 53

100% DESIGN PLANS - NOT FOR CONSTRUCTION

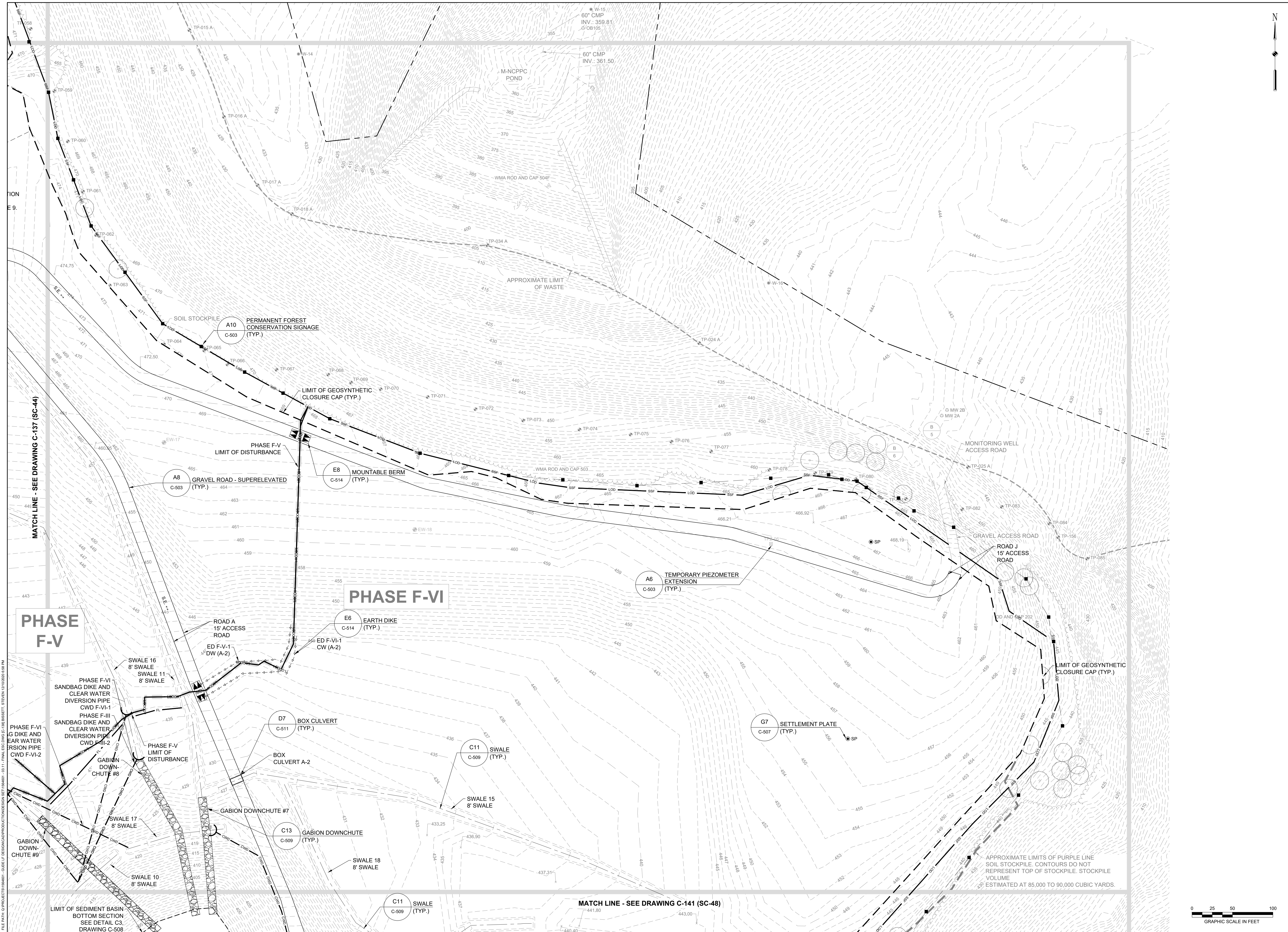
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601

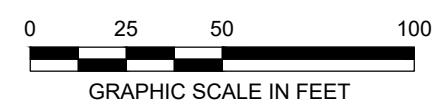
**C-137**  
 SHEET: 40 OF 146







REVISIONS	NO.	DATE	BY	DESCRIPTION
DESIGN INFORMATION				
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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: 8/25/2022				
SEAL	<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>			
 <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: DECEMBER 2020				
PROJECT NUMBER: 1564601				
<b>C-138</b> SHEET: 41 OF 146				



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: 8/25/2022

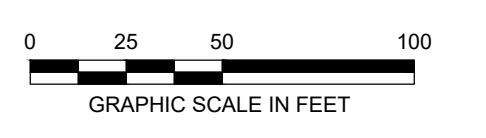
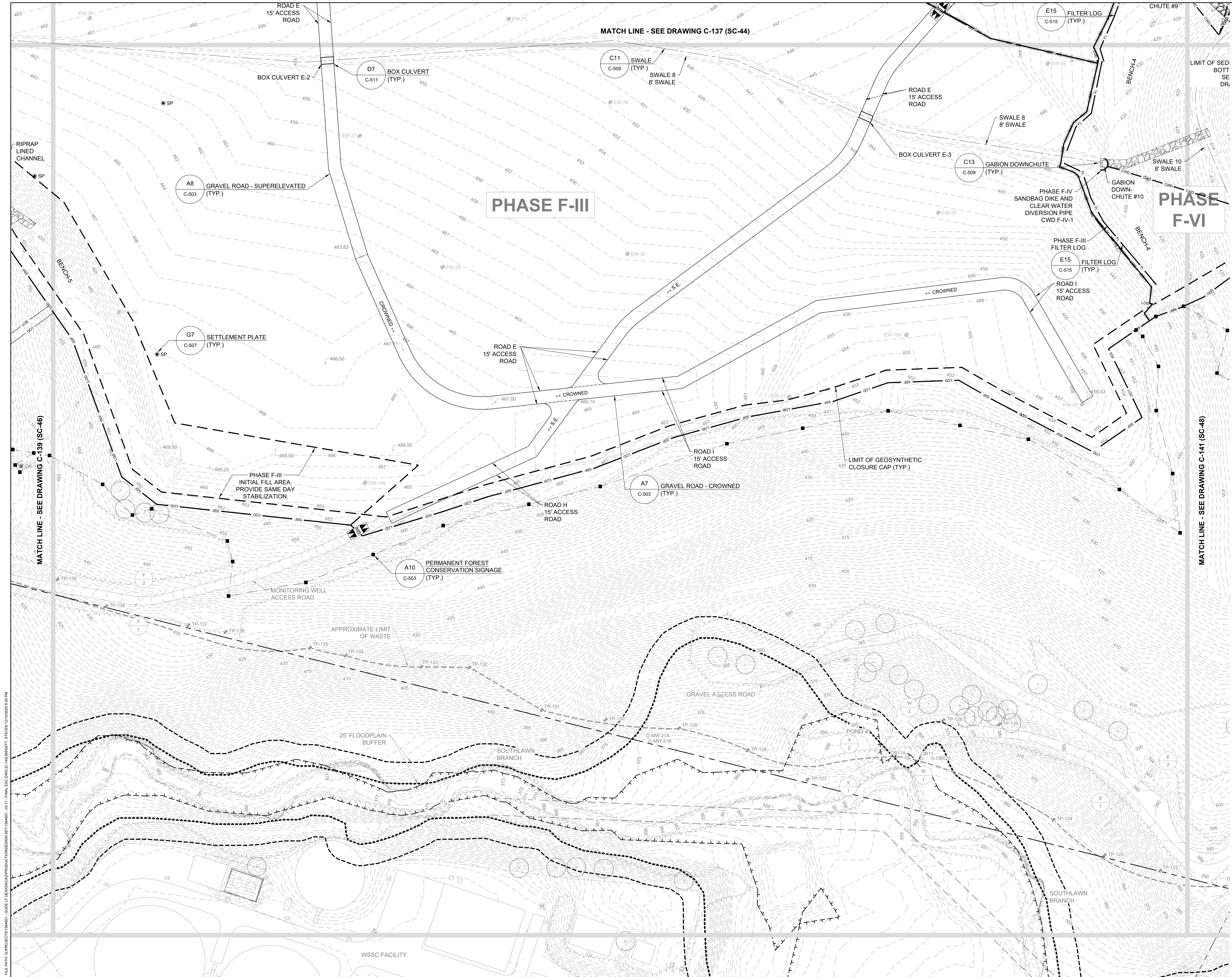
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<b>FINAL EROSION AND SEDIMENT CONTROL PLAN</b>	

DATE:	DECEMBER 2020
PROJECT NUMBER:	1564601
<b>C-139</b>	SHEET: 42 OF 146

FILE PATH: G:\PROJECTS\1564601 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\1564601 - 03.11 - FINAL EROSION CONTROL PLAN.DWG (C:\MSOFT\ERVEN\12/10/2020 4:09 PM)

100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 46 OF 53



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: 8/25/2022

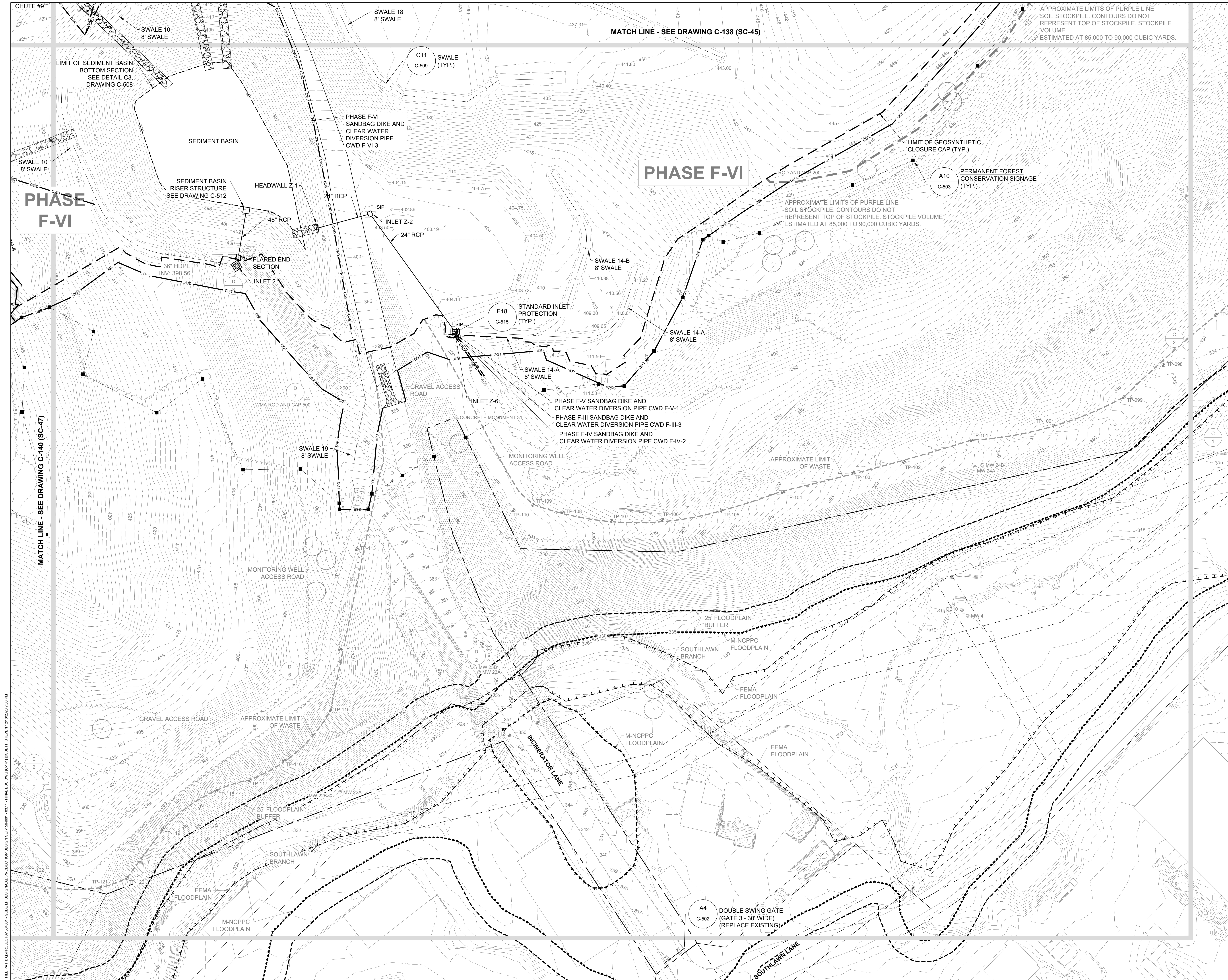
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**FINAL EROSION AND SEDIMENT CONTROL PLAN**

SC/SWM SHEET 47 OF 53

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

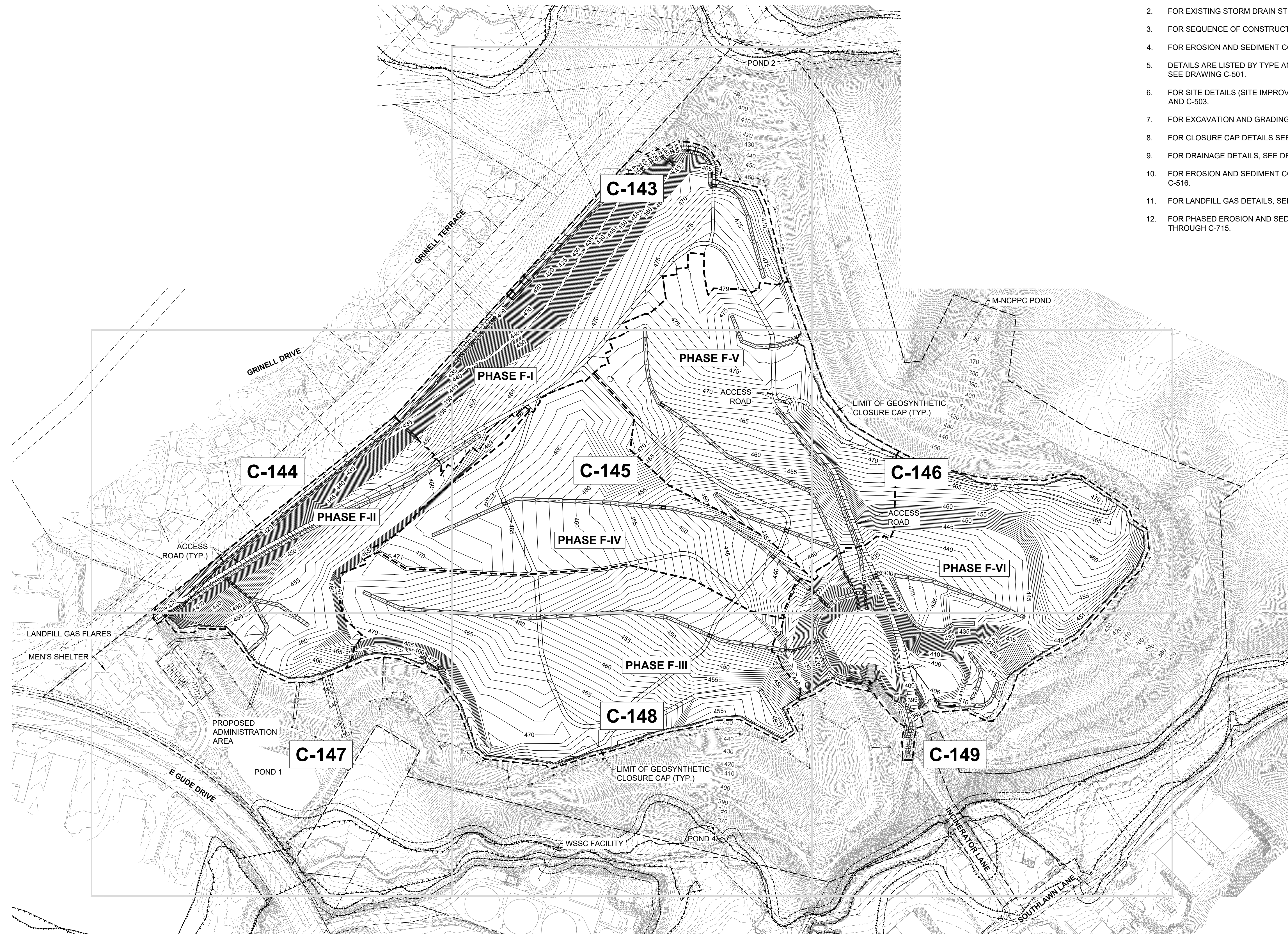
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-140**  
 SHEET: 43 OF 146

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NO.	DATE	BY	DESCRIPTION						
<p>DESIGN INFORMATION</p> <table border="1"> <tr> <td>DESIGNED BY:</td> <td>KEF / SMB</td> </tr> <tr> <td>DRAWN BY:</td> <td>SMB</td> </tr> <tr> <td>CHECKED BY:</td> <td>LJO / GAT</td> </tr> <tr> <td>PROJECT MANAGER:</td> <td>MJG</td> </tr> </table>		DESIGNED BY:	KEF / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG
DESIGNED BY:	KEF / SMB								
DRAWN BY:	SMB								
CHECKED BY:	LJO / GAT								
PROJECT MANAGER:	MJG								
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<p>SEAL</p>									
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<p>FINAL EROSION AND SEDIMENT CONTROL PLAN</p>									
<p>100% DESIGN PLANS - NOT FOR CONSTRUCTION</p>									
<p>SC/SWM SHEET 48 OF 53</p>									
<p>EA Engineering, Science, and Technology, Inc., PBC Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000</p>									
<p>DATE: DECEMBER 2020 PROJECT NUMBER: 1564601</p>									
<p><b>C-141</b> SHEET: 44 OF 146</p>									

FILE PATH: G:\PROJECTS\1564601 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\1564601 - 04-05 - FINAL GRADING - KEY SHEET.DWG (C:\421\BIBBETT\REVISED\1564601-04-05-FINAL GRADING - KEY SHEET.DWG) 12/22/2020 7:02 PM

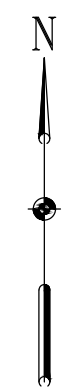


**FINAL GRADING NOTE**

1. DOWNCHUTE GRADING IS APPROXIMATE AND FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR SHALL CONSTRUCT DOWNCHUTES IN THE FIELD BASED ON THE PROVIDED DETAILS.

**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 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	

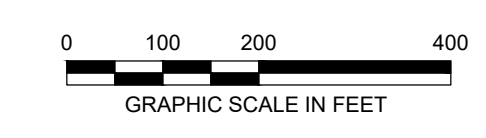
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KEY / SMB	DRAWN BY:	SMB	LJO / GAT	M/JG			

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: 8/25/2022

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

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-142**  
 SHEET: 45 OF 146



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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  
**FINAL GRADING PLAN**

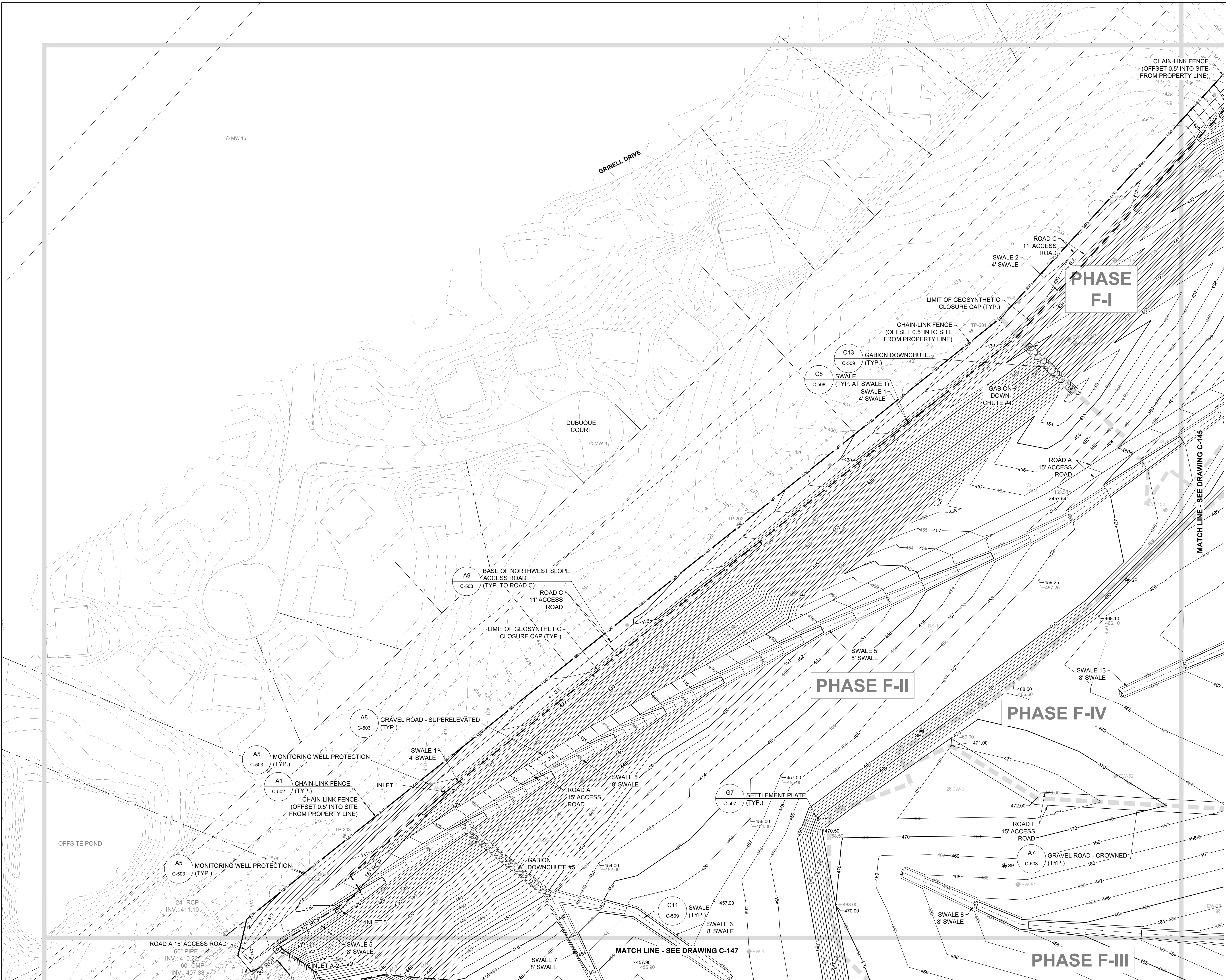
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DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-143**  
 SHEET: 46 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

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REVISIONS		DESCRIPTION	
NO.	DATE	BY	

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

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SEAL

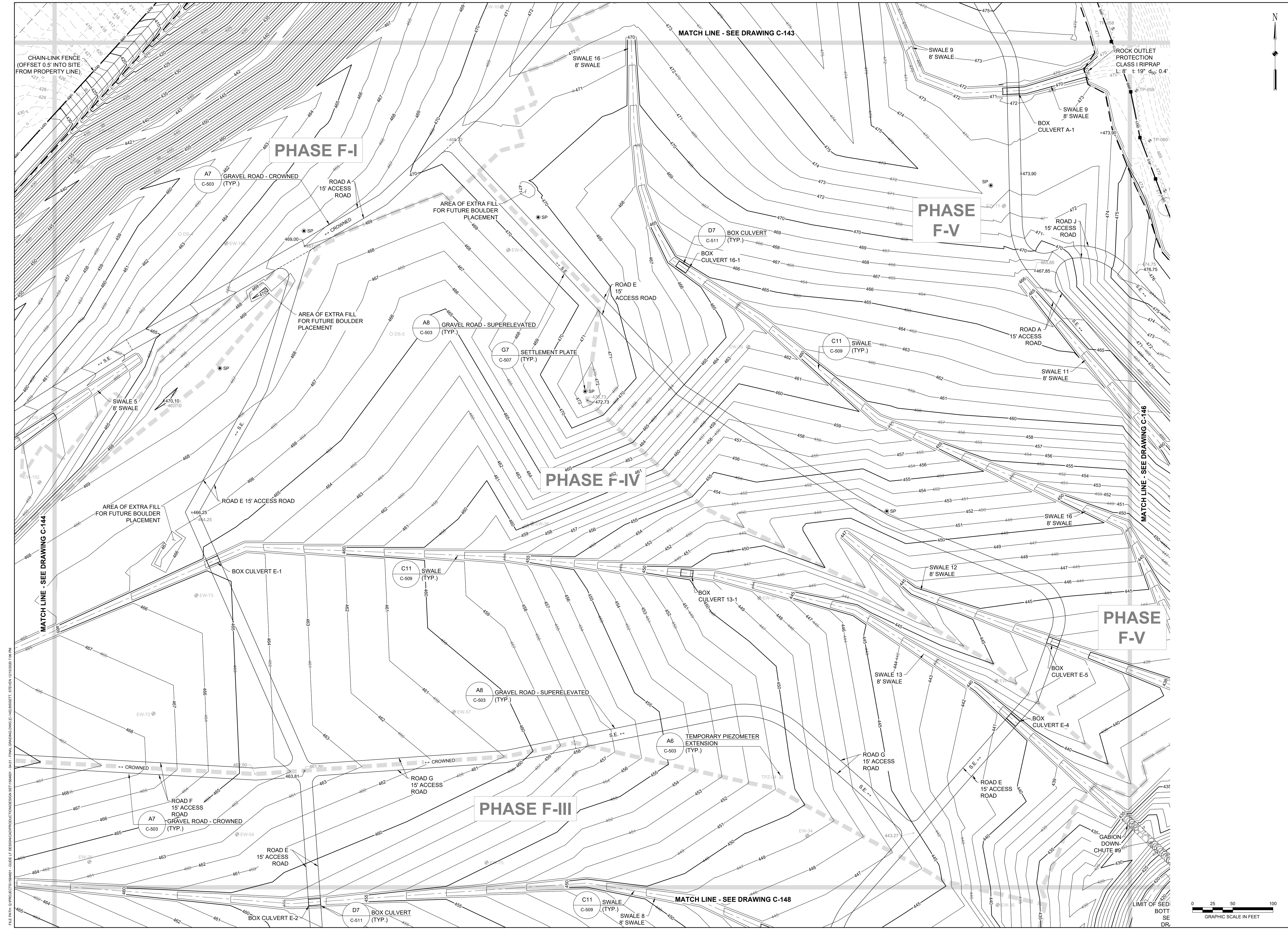
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 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 FINAL GRADING PLAN

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DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-144**  
 SHEET: 47 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION



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REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		DESIGNED BY:	KEY / SMB	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: 8/25/2022

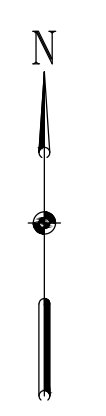
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
MONTGOMERY COUNTY, MARYLAND  
**FINAL GRADING PLAN**

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-145**  
 SHEET: 48 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION



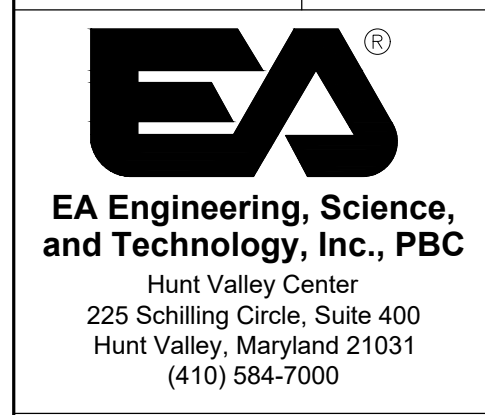


DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DATE
DRAWN BY:	SMB	BY	
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

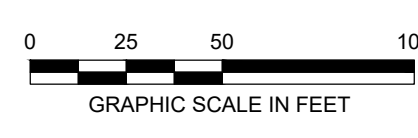
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SEAL

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



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



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100% DESIGN PLANS - NOT FOR CONSTRUCTION



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NO.	DATE	BY

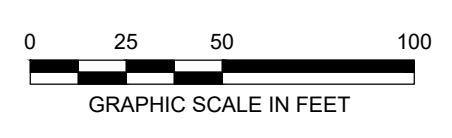
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DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

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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**

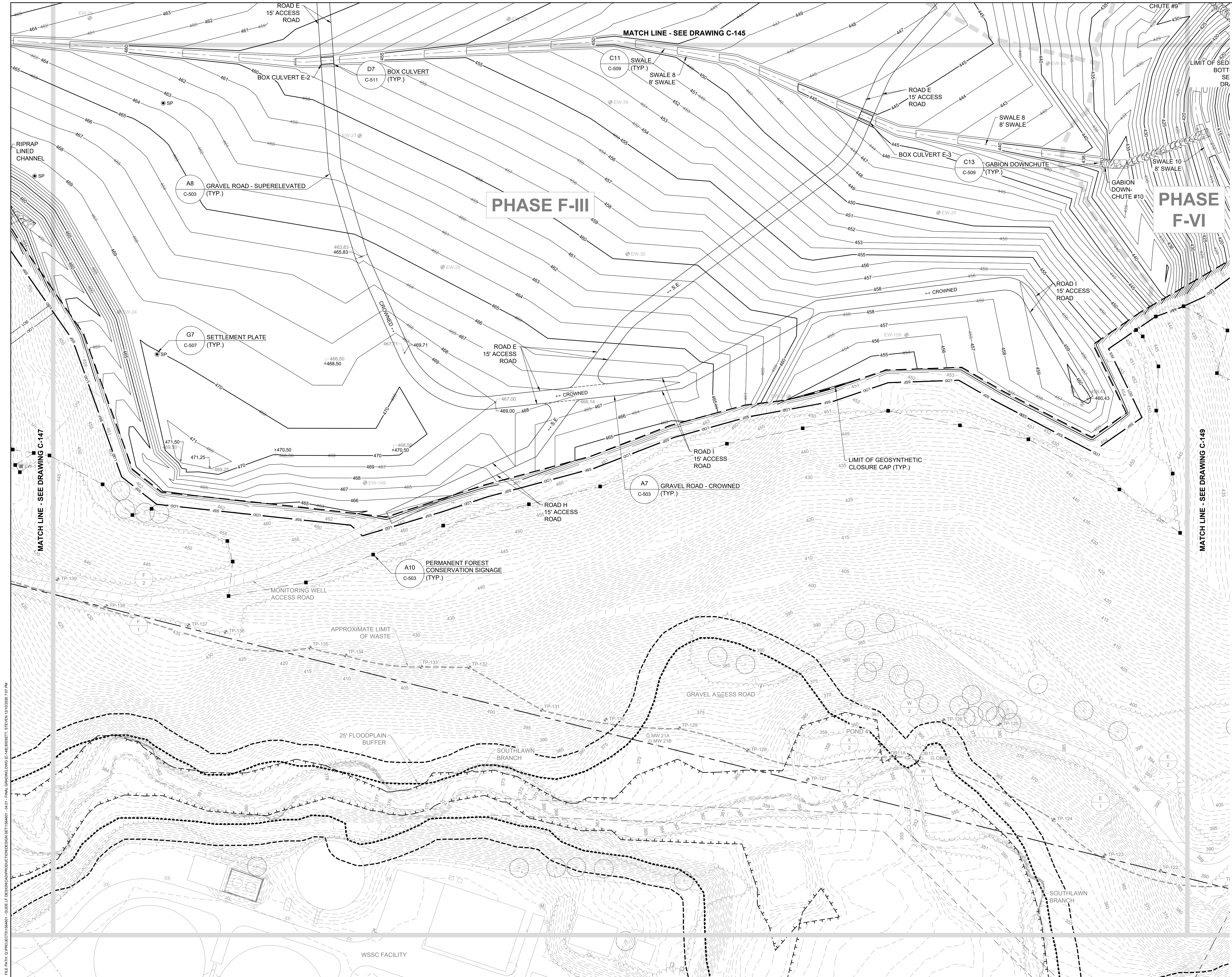
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-147**  
 SHEET: 50 OF 146

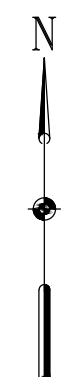


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100% DESIGN PLANS - NOT FOR CONSTRUCTION



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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: 8/25/2022

SEAL

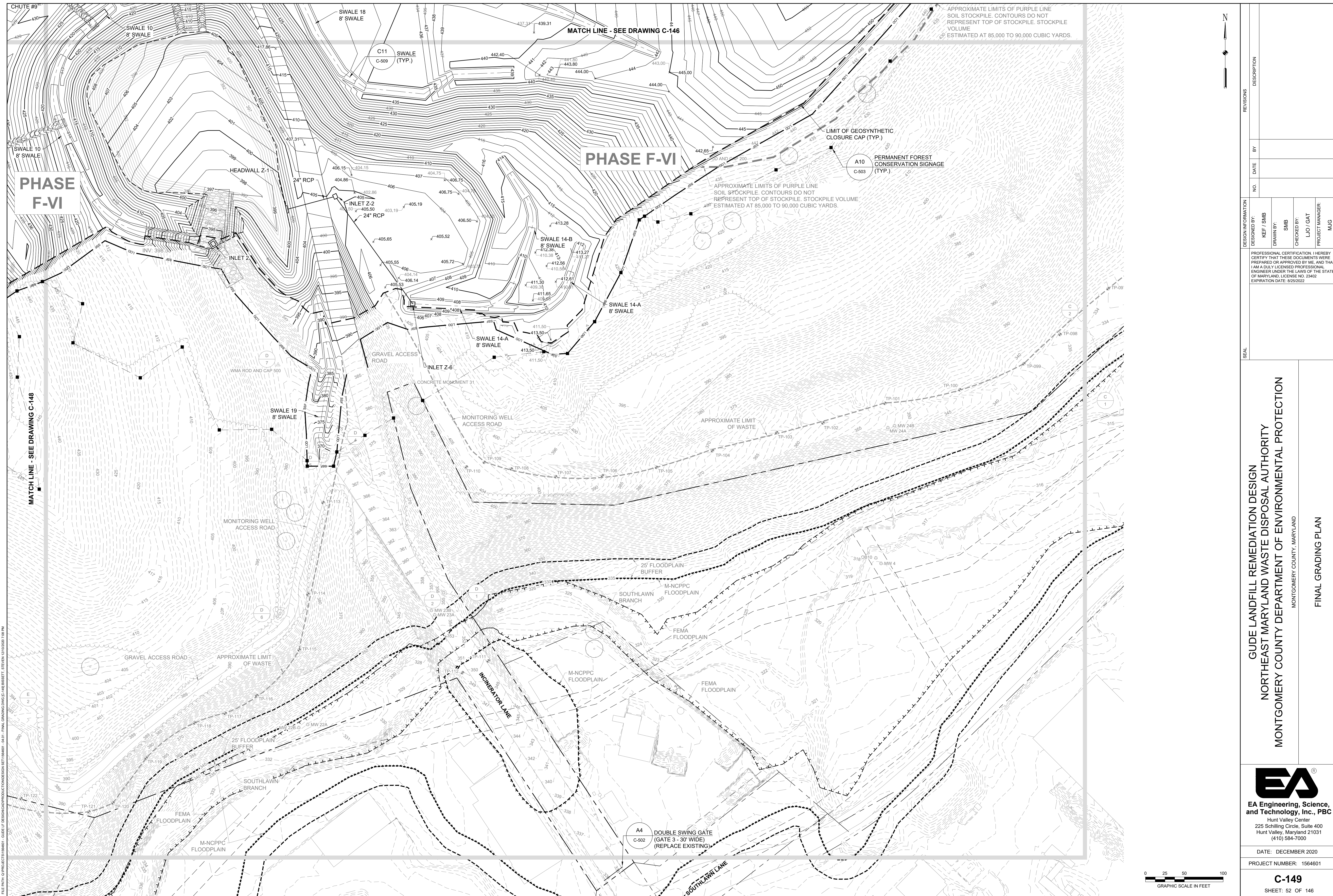
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**FINAL GRADING PLAN**

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DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-148**  
 SHEET: 51 OF 146



100% DESIGN PLANS - NOT FOR CONSTRUCTION

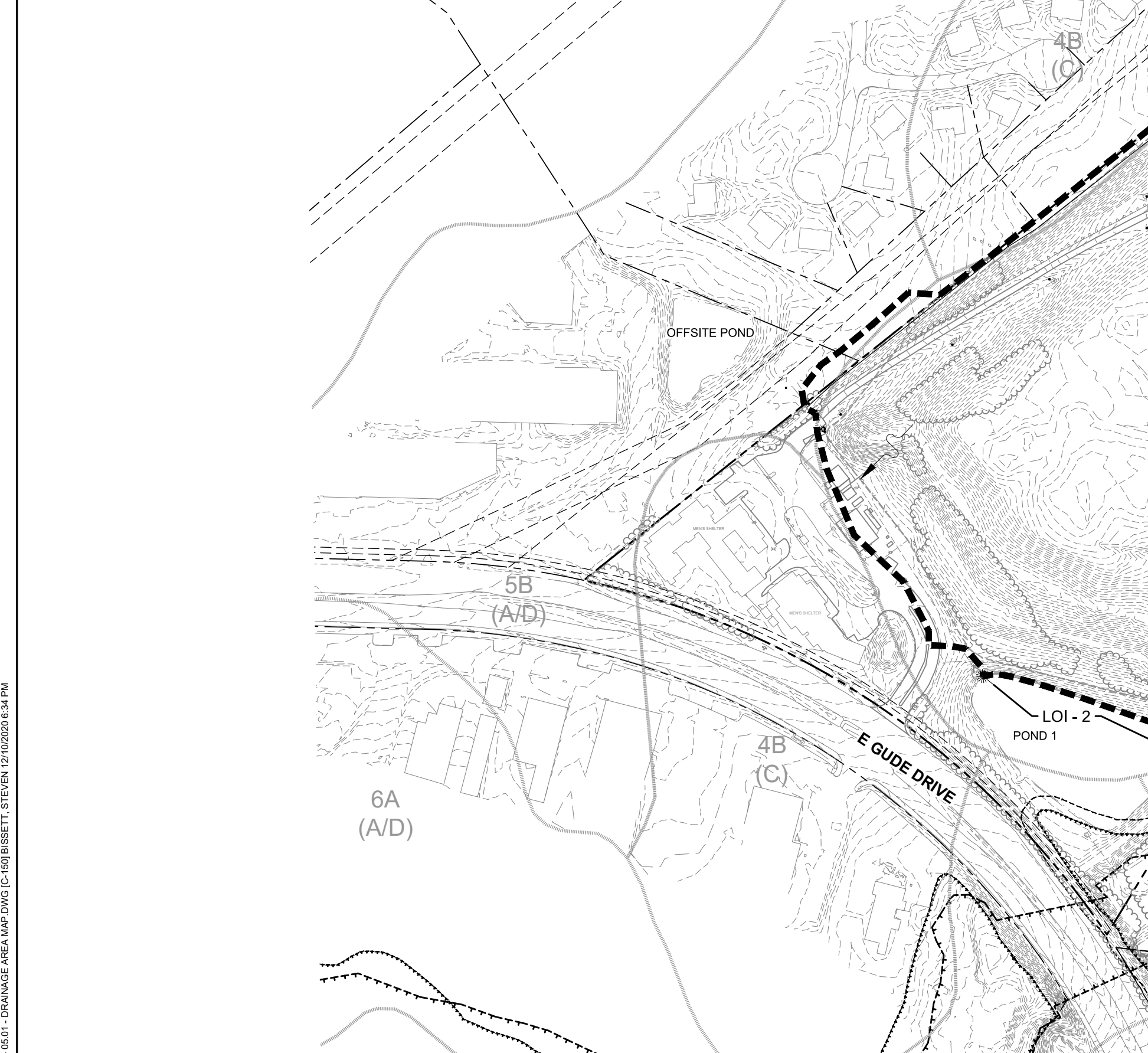


REVISIONS	DESCRIPTION
DESIGN INFORMATION	DESIGNED BY: KEF / SMB DRAWN BY: SMB CHECKED BY: LJO / GAT PROJECT MANAGER: MJG
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<b>GUIDE LANDFILL REMEDIATION DESIGN</b> <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b> <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> MONTGOMERY COUNTY, MARYLAND <b>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: DECEMBER 2020 PROJECT NUMBER: 1564601 <b>C-149</b> SHEET: 52 OF 146	

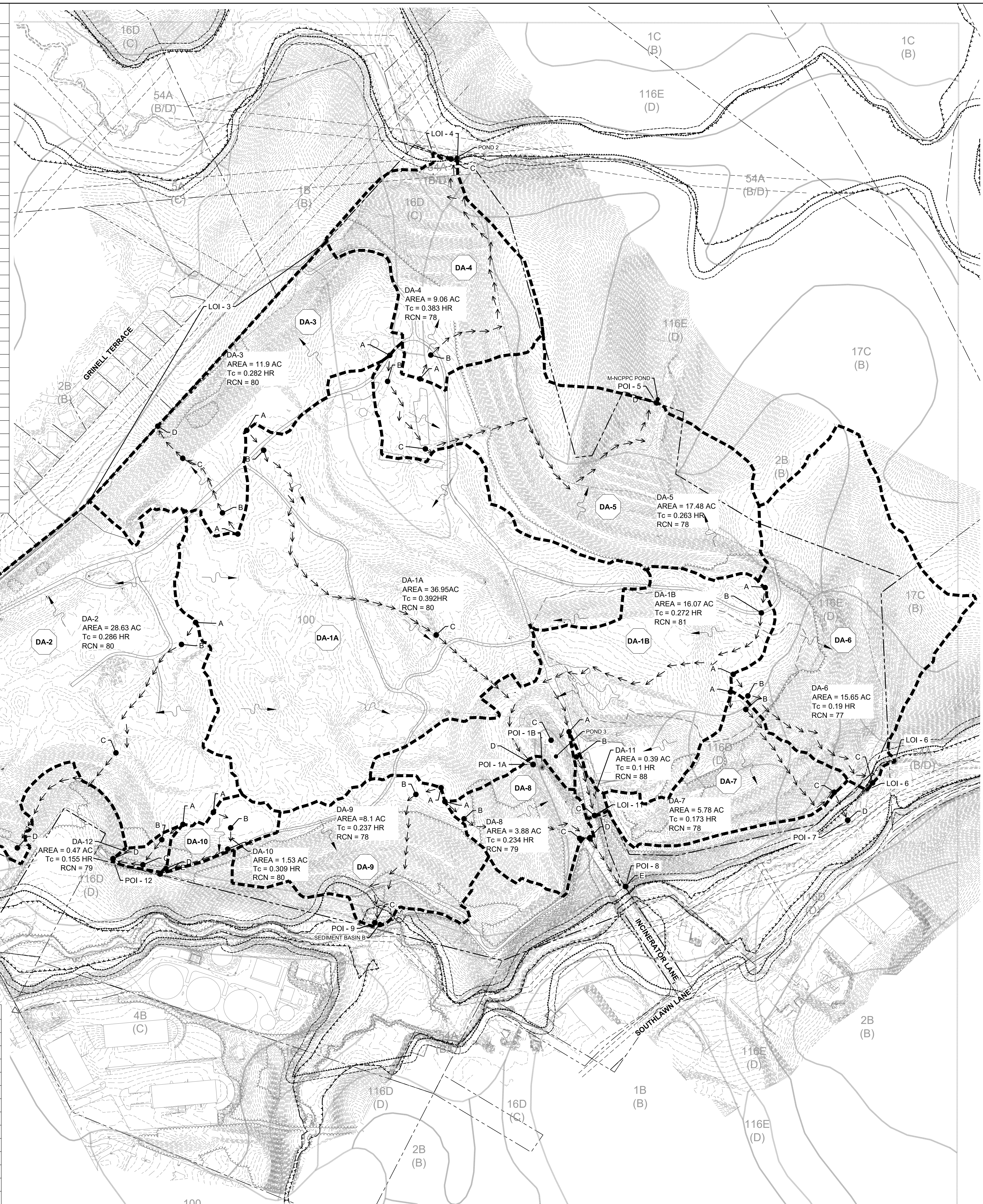
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100% DESIGN PLANS - NOT FOR CONSTRUCTION

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		688	0.050	0.012
1B	A TO B	SHEET	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	0.71	1.47	3.14



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	BY
DRAWN BY:	SMB	DATE	
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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**DRAINAGE AREA MAP - EXISTING CONDITIONS**  
 SCISWM SHEET 19 OF 53

**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000  
 DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-150**  
 SHEET: 53 OF 146

FILE PATH: G:\PROJECTS\1564601 - GUIDE OF LANDFILL REMEDIATION DESIGN\1564601 - DRAINAGE AREA MAP.DWG (C:\MSOFT\AUTO\2010\DRAWING\1564601.DWG)

DRAINAGE AREA	PATH	FLOW TYPE	N	LENGTH (FT)	SLOPE (FT/FT)	Tc (HR)
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	B TO C	SHALLOW CONCENTRATED	UNPAVED	422	0.020	0.051
	C TO D	CHANNEL	UNPAVED	900	0.030	0.035
	D TO E			217	0.025	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	UNPAVED	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	UNPAVED	861	0.010	0.058
	D TO E			1680	0.016	0.044
3	A TO B	SHEET FLOW	0.24	100	0.036	0.190
	B TO C	SHALLOW CONCENTRATED	UNPAVED	794	0.021	0.094
	C TO D	CHANNEL	UNPAVED	172	0.930	0.003
	D TO E			517	0.024	0.015
4	A TO B	SHEET FLOW	0.24	62	0.106	0.084
	B TO C	SHALLOW CONCENTRATED	UNPAVED	929	0.110	0.048
	C TO D	CHANNEL	UNPAVED	35	0.066	0.002
	D TO E			383	0.005	0.235
5	A TO B	SHEET FLOW	0.24	100	0.044	0.175
	B TO C	SHALLOW CONCENTRATED	UNPAVED	35	0.066	0.002
	C TO D	CHANNEL	UNPAVED	961	0.216	0.019
	D TO E			100	0.063	0.152
6	A TO B	SHEET FLOW	0.24	100	0.063	0.152
	B TO C	SHALLOW CONCENTRATED	UNPAVED	616	0.238	0.022
	C TO D	CHANNEL	UNPAVED	100	0.095	0.129
	D TO E			550	0.246	0.019
7	A TO B	SHEET FLOW	0.24	100	0.124	0.116
	B TO C	SHALLOW CONCENTRATED	UNPAVED	434	0.181	0.018
	C TO D	CHANNEL	UNPAVED	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	UNPAVED	66	0.075	0.101
	D TO E			30	0.100	0.002
9	A TO B	SHEET FLOW	0.24	66	0.075	0.101
	B TO C	SHALLOW CONCENTRATED	UNPAVED	30	0.100	0.002
	C TO D	CHANNEL	UNPAVED	249	0.091	0.038
	D TO E			31	0.023	0.002
10	A TO B	SHEET FLOW	0.24	100	0.077	0.012
	B TO C	SHALLOW CONCENTRATED	UNPAVED	198	0.107	0.008
	C TO D	CHANNEL	UNPAVED	45	0.160	0.055
	D TO E			124	0.218	0.005
11	A TO B	SHEET	0.24	45	0.160	0.055
	B TO C	SHALLOW CONCENTRATED	UNPAVED	124	0.218	0.005
	C TO D	CHANNEL	UNPAVED	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	36.80	75.11	159.79
1B	34.47	70.34	149.37
2	24.42	49.82	106.16
3	12.87	25.74	53.87
4	12.23	25.63	55.55
5	16.25	34.62	76.21
6	20.50	44.10	97.44
7	8.48	17.84	38.72
8	6.83	13.80	29.02
9	11.04	22.90	45.11
10	1.47	2.96	6.23
11	1.36	2.42	4.62
12	0.78	1.59	3.38



DESIGN INFORMATION

REVISIONS

NO.	DATE	BY	DESCRIPTION

DESIGNED BY: KEF / 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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

SEAL

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

**DRAINAGE AREA MAP - PROPOSED CONDITIONS**

SCISWM SHEET 20 OF 53

DATE: DECEMBER 2020

PROJECT NUMBER: 1564601

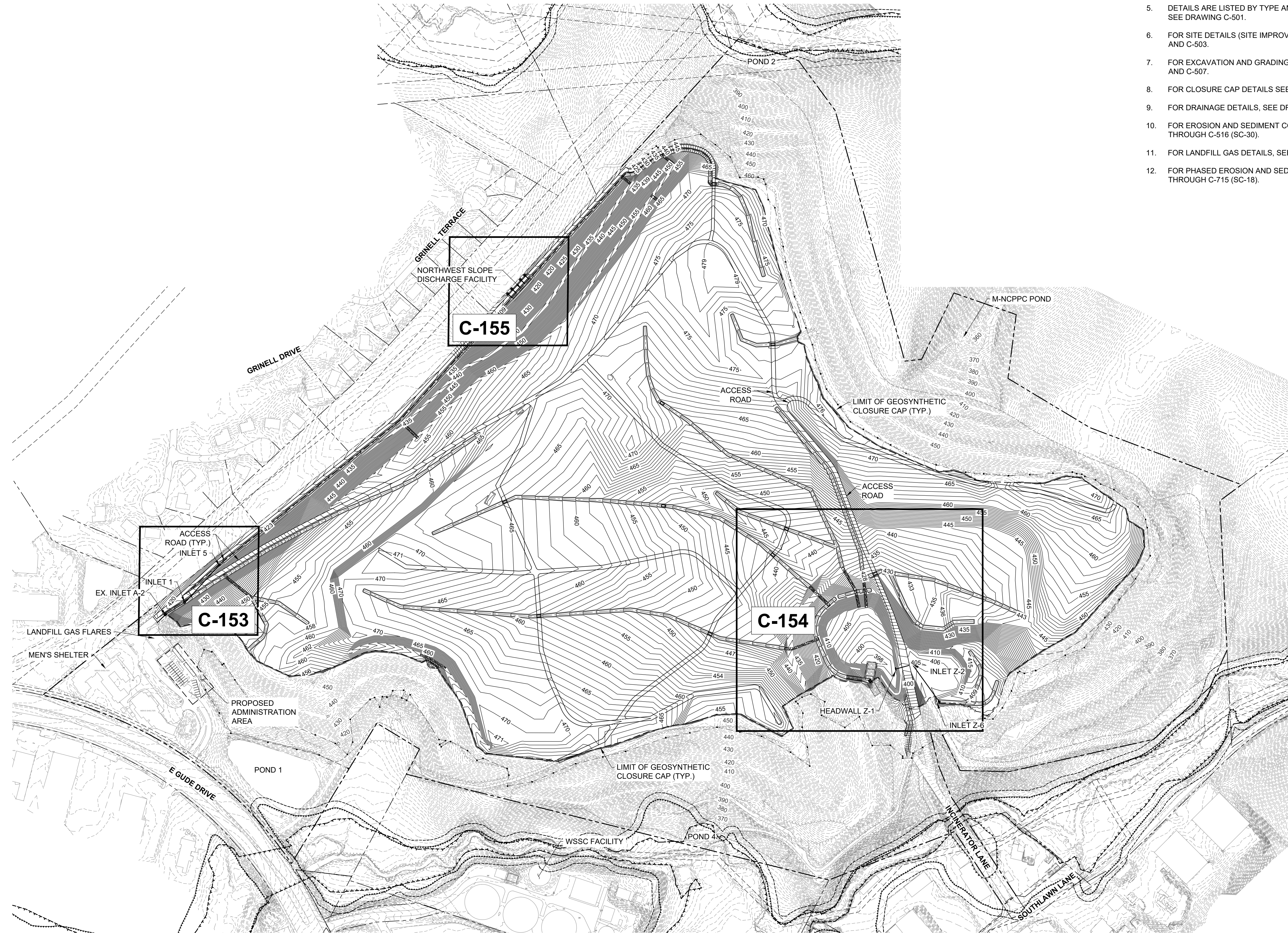
EA Engineering, Science, and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

**C-151**

SHEET: 54 OF 146

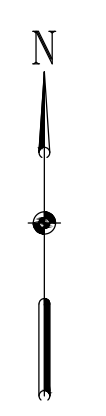
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**GENERAL NOTES**

1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-02).
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
3. FOR SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-02).
4. FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-03).
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 EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 (SC-23), C-506 (SC-24), AND C-507.
8. FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509 (SC-27).
9. FOR DRAINAGE DETAILS, SEE DRAWINGS C-510, C-511, C-512 (SC-31), AND C-513 (SC-21).
10. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 (SC-26) THROUGH C-516 (SC-30).
11. FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
12. FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 (SC-4) THROUGH C-715 (SC-18).



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		PROJECT MANAGER
DESIGNED BY:	KEF / SMB	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: 8/25/2022

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

**STORM DRAIN PLAN - KEY SHEET**

SC/SWM SHEET 49 OF 53

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

**C-152**  
 SHEET: 55 OF 146



100% DESIGN PLANS - NOT FOR CONSTRUCTION



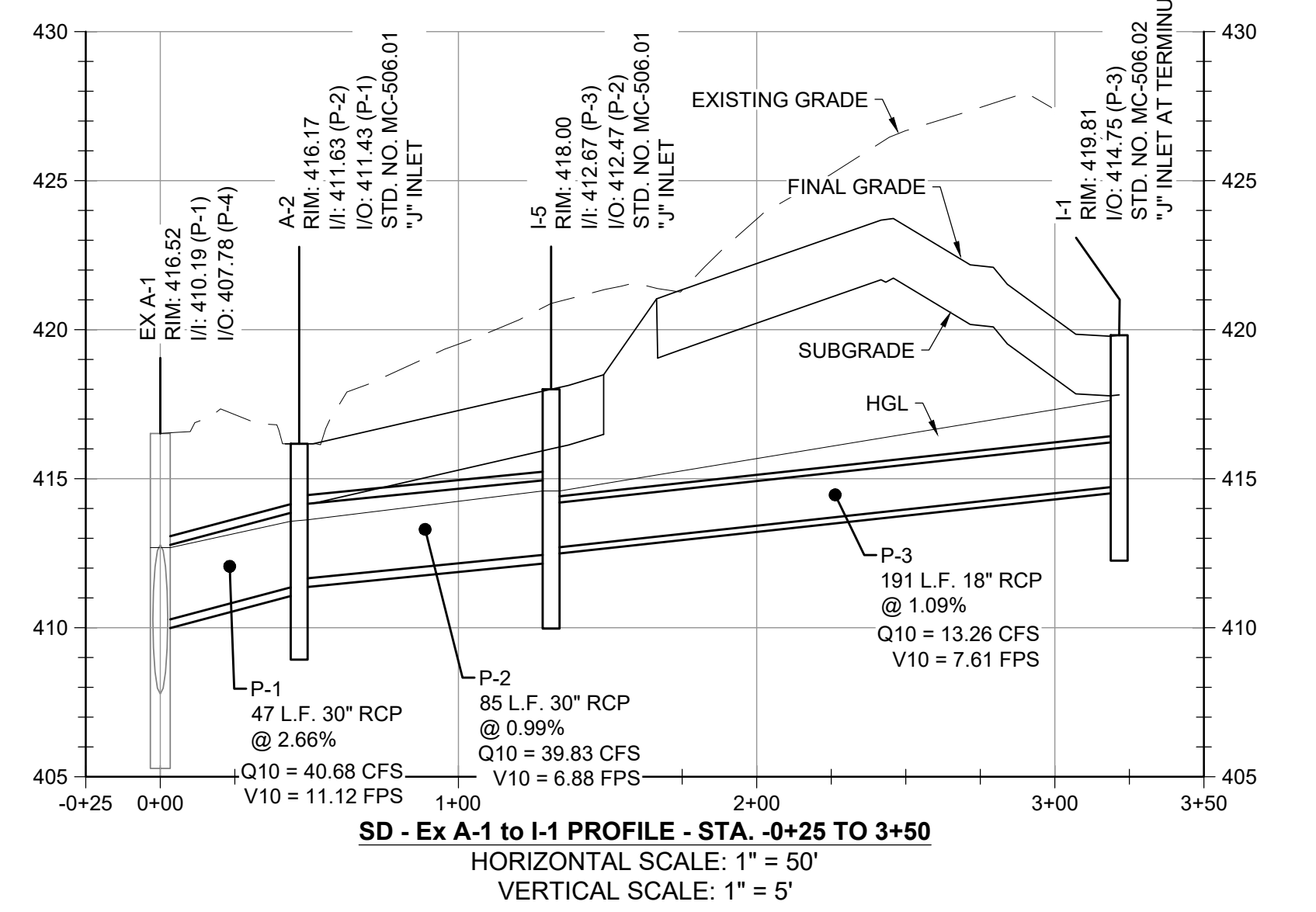
STRUCTURE TABLE		
STRUCTURE NAME:	NORTHING	EASTING
INLET Z-2	524502.49	1273957.44
INLET Z-6	524364.21	1274057.02
FES	524454.06	1273802.79
Riser	524506.70	1273811.84
I-2	524441.40	1273800.38
HW Z-1	524485.63	1273894.58
EX A-1	524655.49	1271150.90
A-2	524687.85	1271184.38
I-5	524732.75	1271255.98
I-1	524872.48	1271385.49

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: 8/25/2022

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

**STORM DRAIN PLAN AND PROFILE - EX. A-1 TO I-1**



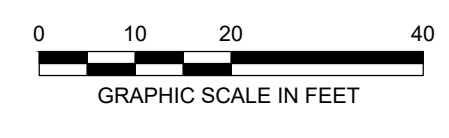
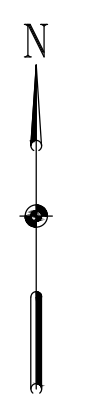
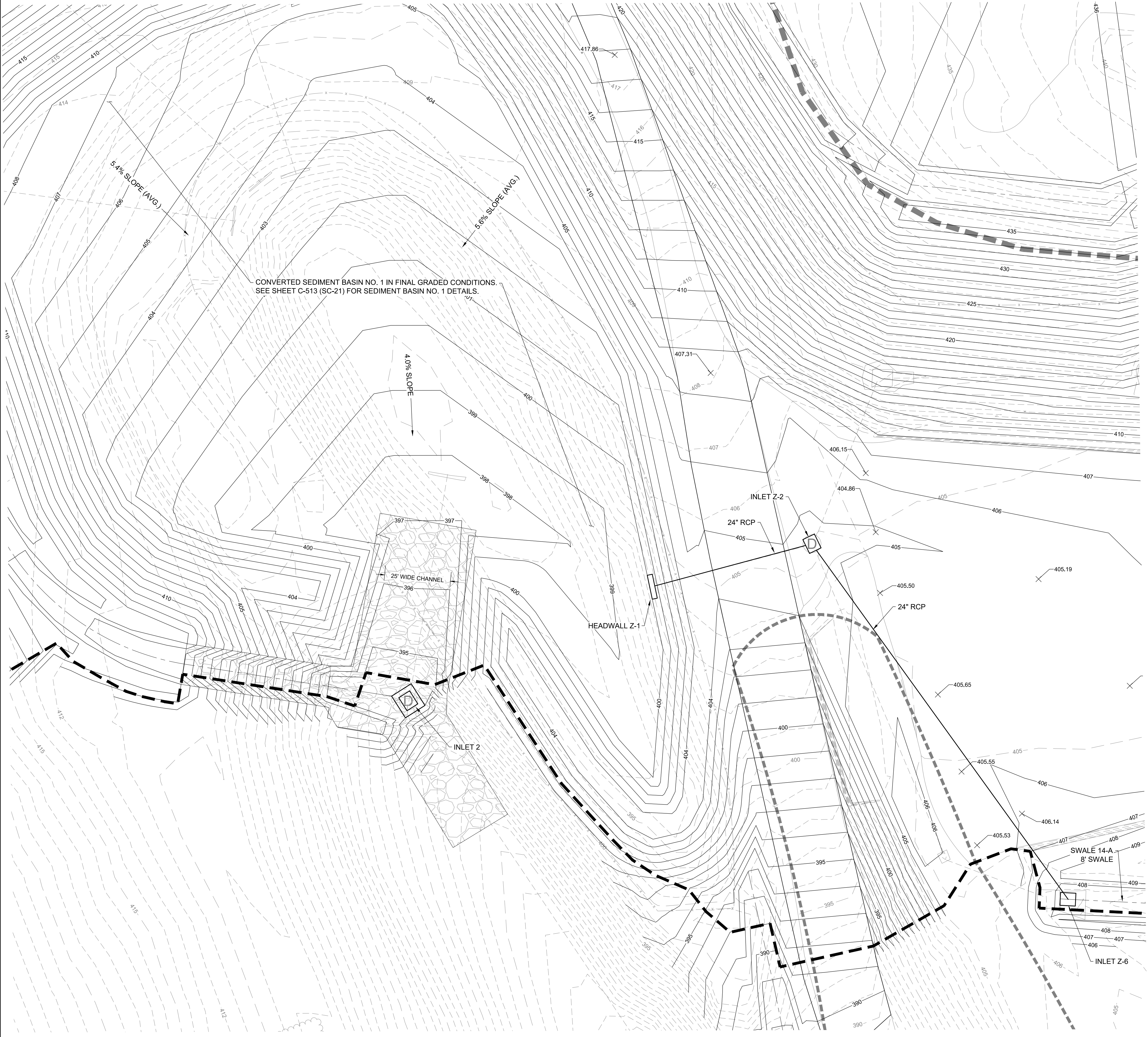
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-153**  
 SHEET: 56 OF 146

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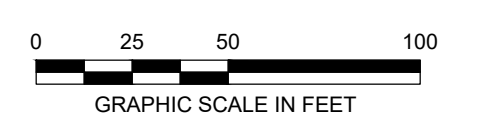
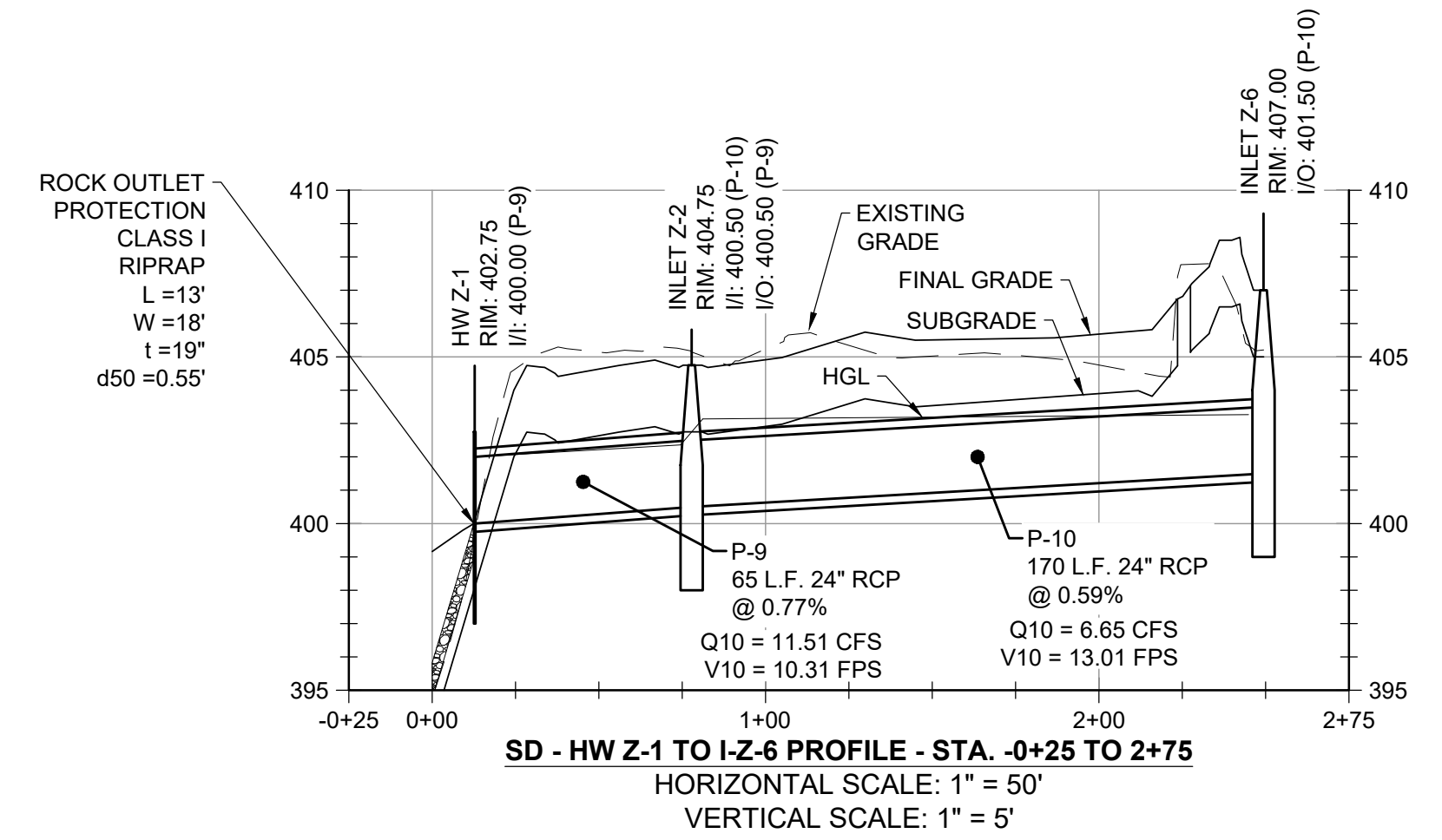
100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 50 OF 53



STRUCTURE TABLE		
STRUCTURE NAME:	NORTHING	EASTING
INLET Z-2	524502.49	1273957.44
INLET Z-6	524364.21	1274057.02
FES	524454.06	1273802.79
Riser	524506.70	1273811.84
I-2	524441.40	1273800.38
HW Z-1	524485.63	1273894.58
EX A-1	524655.49	1271150.90
A-2	524687.85	1271184.38
I-5	524732.75	1271255.98
I-1	524872.48	1271385.49



**STORM DRAIN PLAN - I-2 TO RISER, HEADWALL Z-1 TO INLET Z-6**  
SCALE: 1" = 20'



NO.	DATE	BY	DESCRIPTION

DESIGNED BY:	CHK / SMB	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: 8/25/2022

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

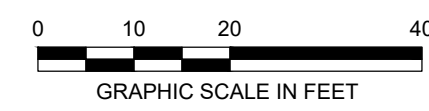
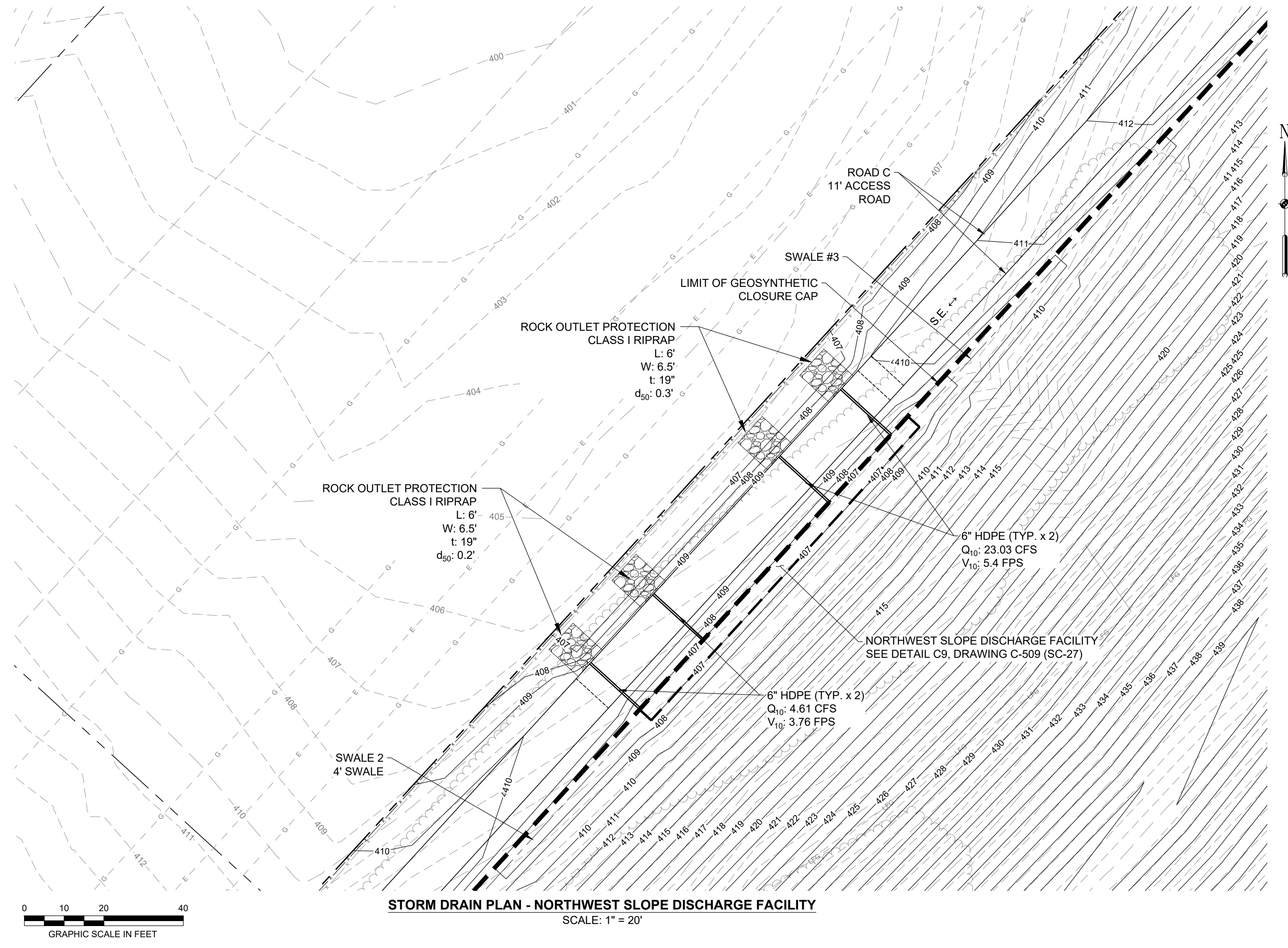
**STORM DRAIN PLAN AND PROFILE - HEADWALL Z-1 TO INLET Z-6**

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

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**C-154**  
SHEET: 57 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

SCISWM SHEET 51 OF 53



**STORM DRAIN PLAN - NORTHWEST SLOPE DISCHARGE FACILITY**  
SCALE: 1" = 20'

**GENERAL NOTES**

- SEE SHEET C-134 (SC-41) FOR SCHEDULE OF ROCK OUTLET PROTECTION
- SEE SHEET C-509 (SC-27) FOR SECTION VIEW OF THE NORTHWEST SLOPE DISCHARGE FACILITY.

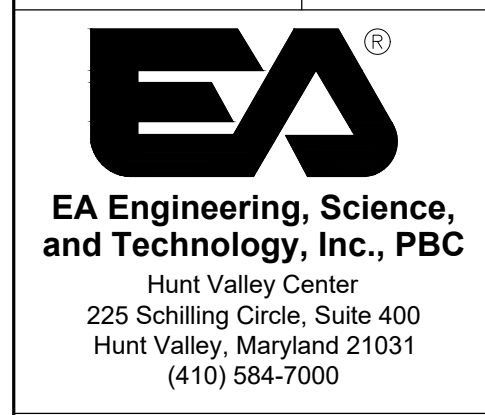
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DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DESCRIPTION
DRAWN BY:	SMB	DATE	BY
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

SEAL

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**STORM DRAIN PLAN - NORTHWEST SLOPE DISCHARGE FACILITY**

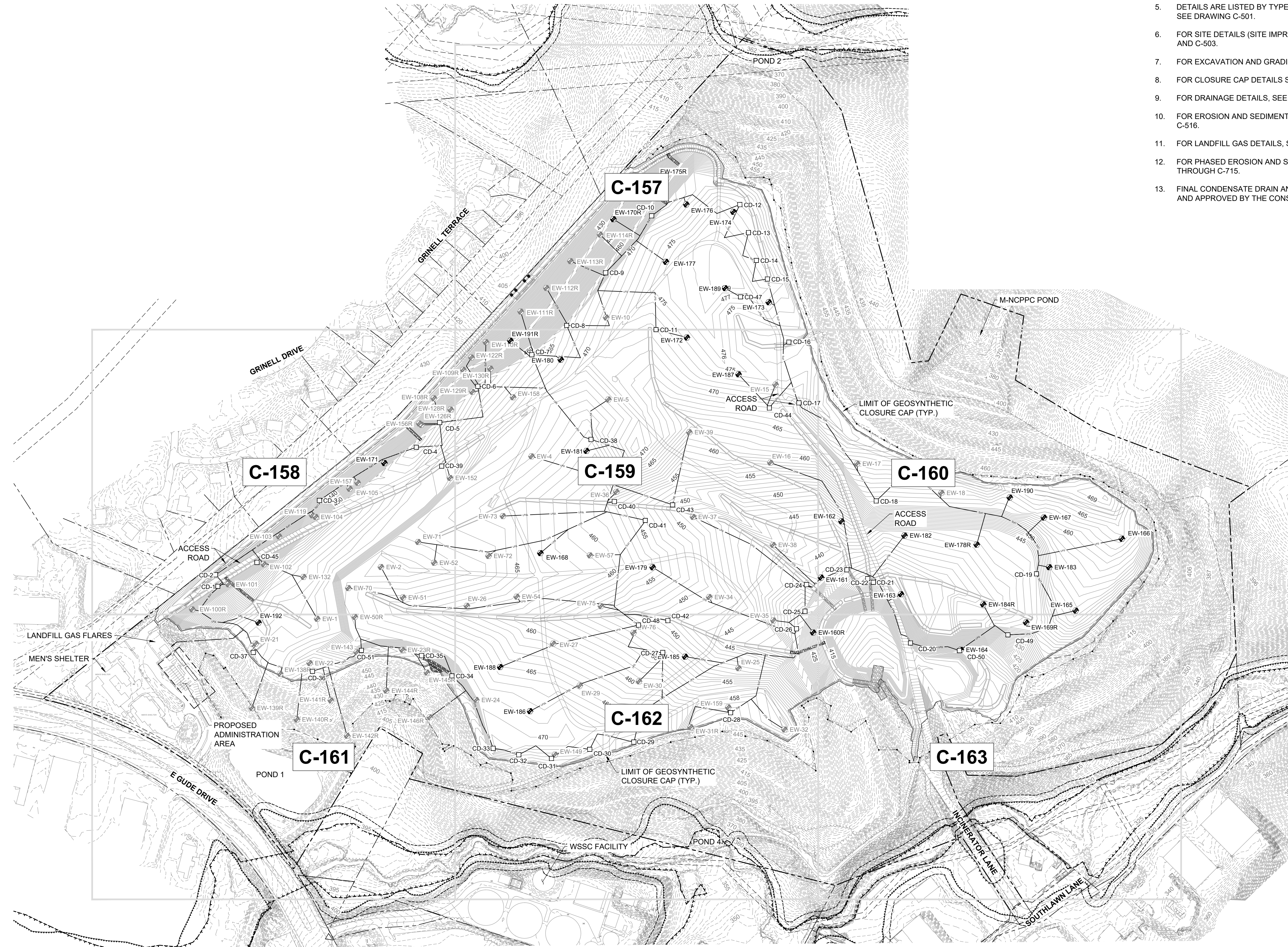


DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601

**C-155**  
SHEET: 58 OF 146

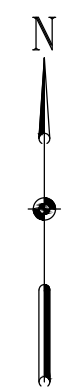
100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 52 OF 53

FILE PATH: G:\PROJECTS\156461 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\156461 - 07.05 - LANDFILL GAS MANAGEMENT - KEY SHEET.DWG (P.16) REVISION: 156461-07.05-2020-08.04



**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-002.
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 EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
8. FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
9. FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
10. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
11. FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
12. FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.
13. FINAL CONDENSATE DRAIN AND LANDFILL GAS PIPE LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE CONSTRUCTION MANAGEMENT ENGINEER IN THE FIELD.



REVISIONS		DESCRIPTION	
NO.	DATE	BY	

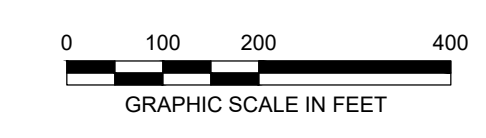
DESIGNED BY:	KEY / SMB	DRAWN BY:	SMB	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG
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PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

**GUIDE LANDFILL REMEDIATION DESIGN**  
**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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-156**  
 SHEET: 59 OF 146



100% 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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

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

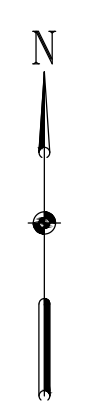
  

**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-157**  
 SHEET: 60 OF 146

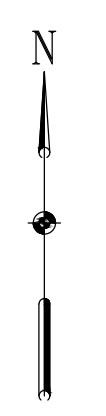
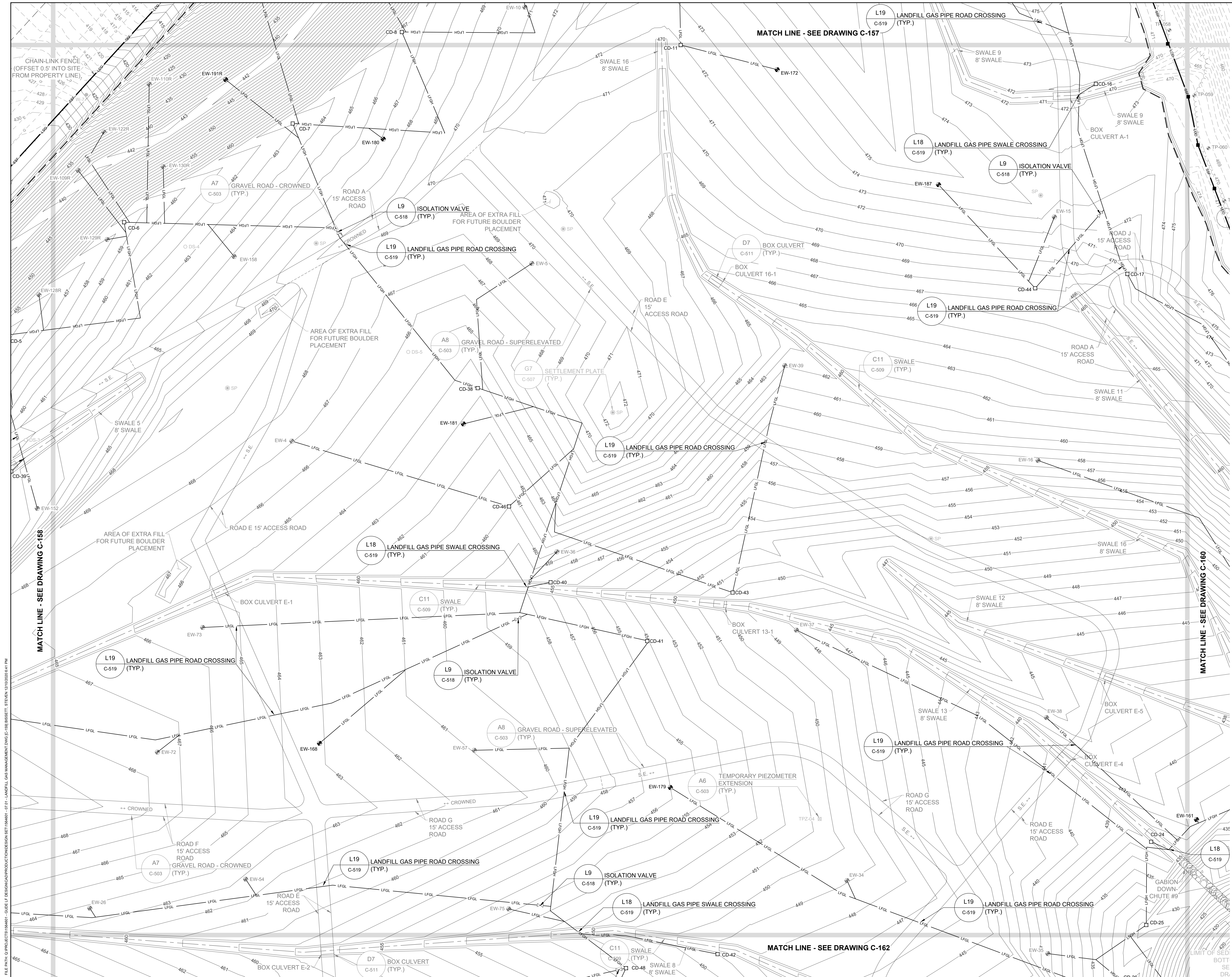
100% DESIGN PLANS - NOT FOR CONSTRUCTION

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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: 8/25/2022			
<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>LANDFILL GAS MANAGEMENT PLAN</b>	
<b>C-158</b> SHEET: 61 OF 146			

100% DESIGN PLANS - NOT FOR CONSTRUCTION



REVISIONS		DESCRIPTION
NO.	DATE	BY

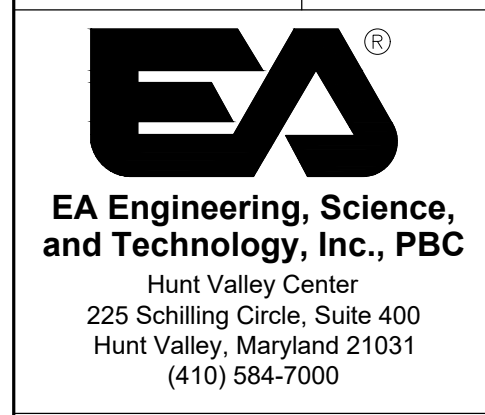
  

DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

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: 8/25/2022

SEAL

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



DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-159**  
 SHEET: 62 OF 146



FILE PATH: G:\PROJECTS\1564601 - GUIDE OF REMEDIATION DESIGN\CONSTRUCTION SET\1564601 - 07-01 - LANDFILL GAS MANAGEMENT PLAN - C-159 (SHEET) - 12/15/2020 14:47 PM

100% DESIGN PLANS - NOT FOR CONSTRUCTION



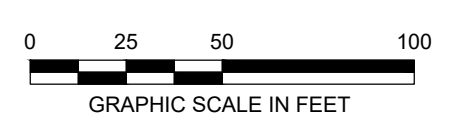
REVISIONS	NO.	DATE	BY	DESCRIPTION
DESIGN INFORMATION	DESIGNED BY:	KEF / SMB	DRAWN BY:	SMB
	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	MJG
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022				
SEAL	<p style="margin: 0;"><b>GUIDE LANDFILL REMEDIATION DESIGN</b></p> <p style="margin: 0;"><b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b></p> <p style="margin: 0;"><b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b></p> <p style="margin: 0; font-size: 8px;">MONTGOMERY COUNTY, MARYLAND</p> <p style="margin: 0;"><b>LANDFILL GAS MANAGEMENT PLAN</b></p>			
<p style="margin: 0; font-size: 8px;">EA Engineering, Science, and Technology, Inc., PBC Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000</p>				
DATE: DECEMBER 2020				
PROJECT NUMBER: 1564601				
<b>C-160</b>				
SHEET: 63 OF 146				

100% DESIGN PLANS - NOT FOR CONSTRUCTION

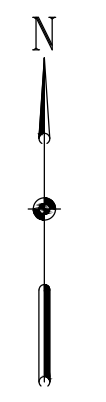
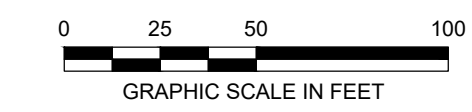
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MATCH LINE - SEE DRAWING C-159

MATCH LINE - SEE DRAWING C-163



FILE PATH: G:\PROJECTS\156461 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\156461 - 02.DWG - LANDFILL GAS MANAGEMENT PLAN (C-161) (ISSUED: 12/20/2024) 4:17 PM



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: 8/25/2022

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

**LANDFILL GAS MANAGEMENT PLAN**

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-161**  
 SHEET: 64 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION



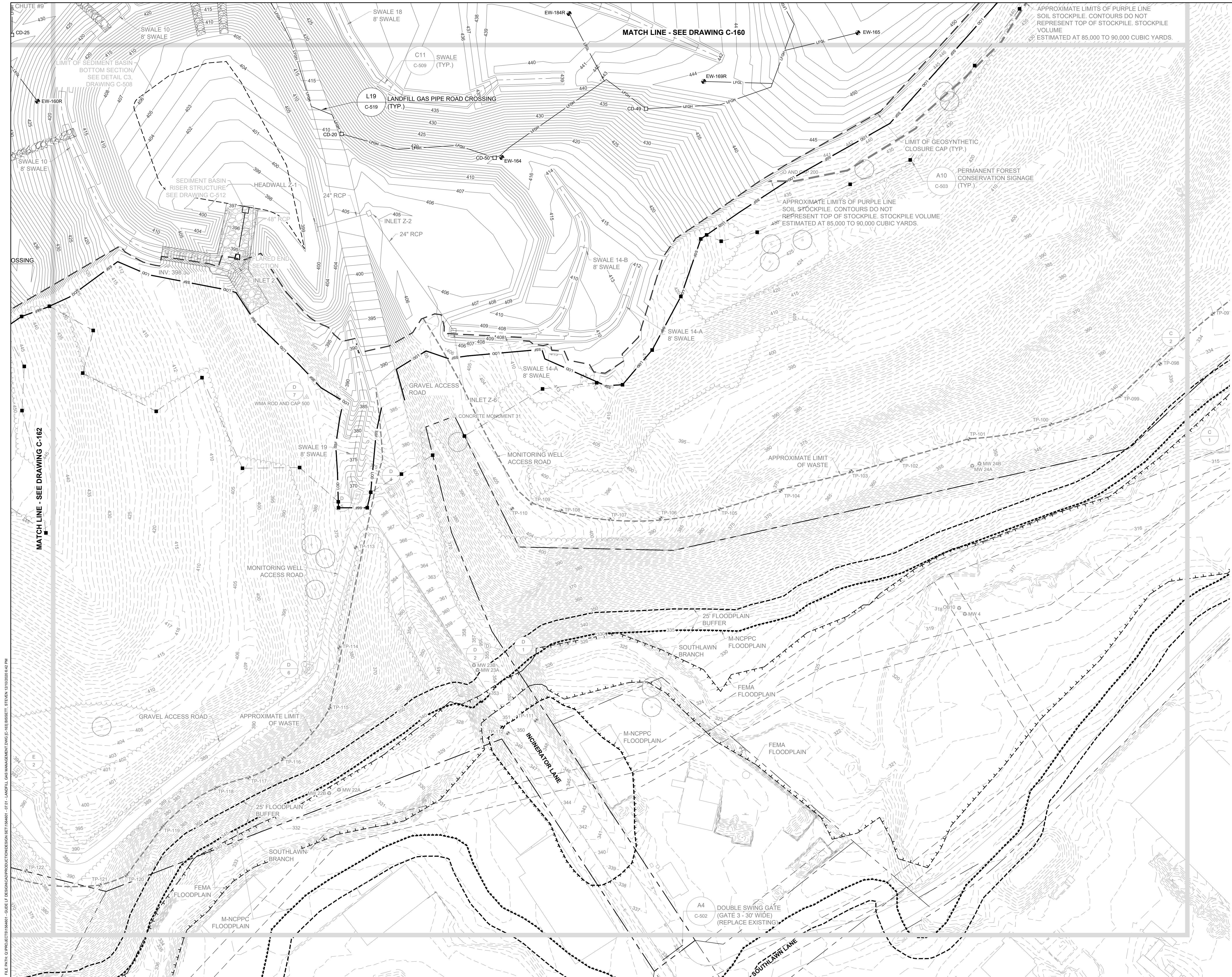


REVISIONS	DESCRIPTION
	BY
DESIGN INFORMATION	DATE
	NO.
DESIGNED BY:	KEF / SMB
DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG
SEAL	<p>PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022</p>
<p><b>GUIDE LANDFILL REMEDIATION DESIGN</b>  <b>NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY</b>  <b>MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</b>          MONTGOMERY COUNTY, MARYLAND</p>	
<p><b>LANDFILL GAS MANAGEMENT PLAN</b></p>	
<p><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</p>	
DATE: DECEMBER 2020	
PROJECT NUMBER: 1564601	
<p><b>C-162</b>          SHEET: 65 OF 146</p>	



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100% DESIGN PLANS - NOT FOR CONSTRUCTION



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<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: DECEMBER 2020</p>	
<p>PROJECT NUMBER: 1564601</p>	
<p><b>C-163</b>          SHEET: 66 OF 146</p>	

DESIGN INFORMATION

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

REVISIONS

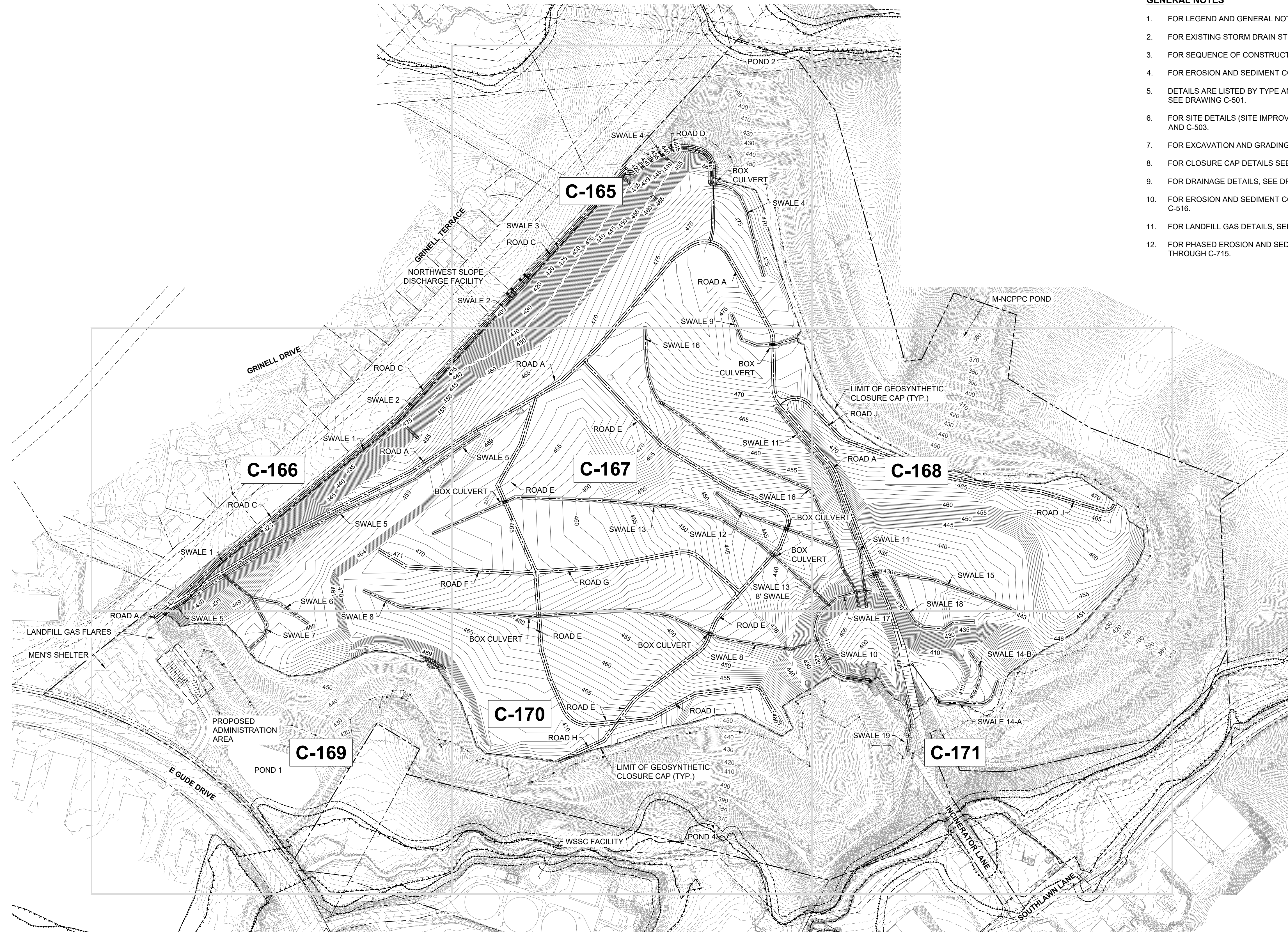
NO.	DATE	BY	DESCRIPTION

SEAL

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

100% DESIGN PLANS - NOT FOR CONSTRUCTION

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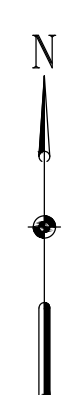


**GEOMETRY PLAN NOTE**

1. GEOMETRY PLAN CONTOURS, ELEVATIONS AND PROFILE DATA REFERS TO THE FINAL GRADING.
2. DOWNCHUTE GRADING IS APPROXIMATE AND FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR SHALL CONSTRUCT DOWNCHUTES IN THE FIELD BASED ON THE PROVIDED DETAILS.

**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-002.
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 EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 THROUGH C-507.
8. FOR CLOSURE CAP DETAILS SEE DRAWINGS C-508 AND C-509.
9. FOR DRAINAGE DETAILS, SEE DRAWINGS C-510 THROUGH C-513.
10. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514 THROUGH C-516.
11. FOR LANDFILL GAS DETAILS, SEE DRAWINGS C-517 THROUGH C-520.
12. FOR PHASED EROSION AND SEDIMENT CONTROL PLANS, SEE DRAWINGS C-701 THROUGH C-715.



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		KEY / SMB	DESIGNED BY:
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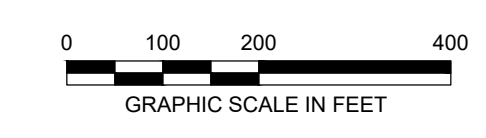
SEAL

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

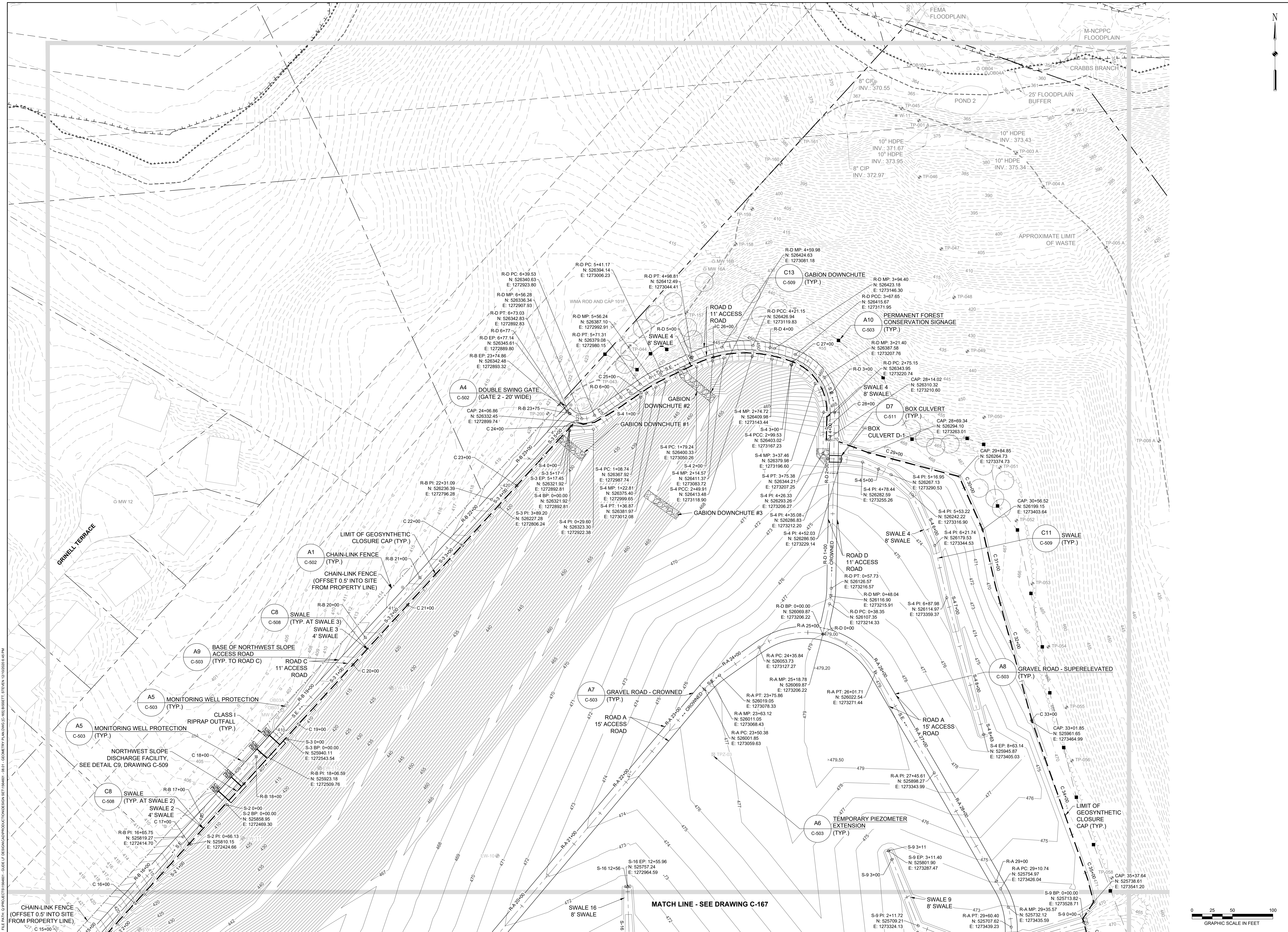
EA Engineering, Science, and Technology, Inc., PBC  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
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DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

**C-164**  
 SHEET: 67 OF 146



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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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

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

MONTGOMERY COUNTY, MARYLAND

**GEOMETRY PLAN**

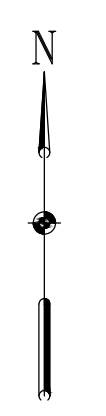
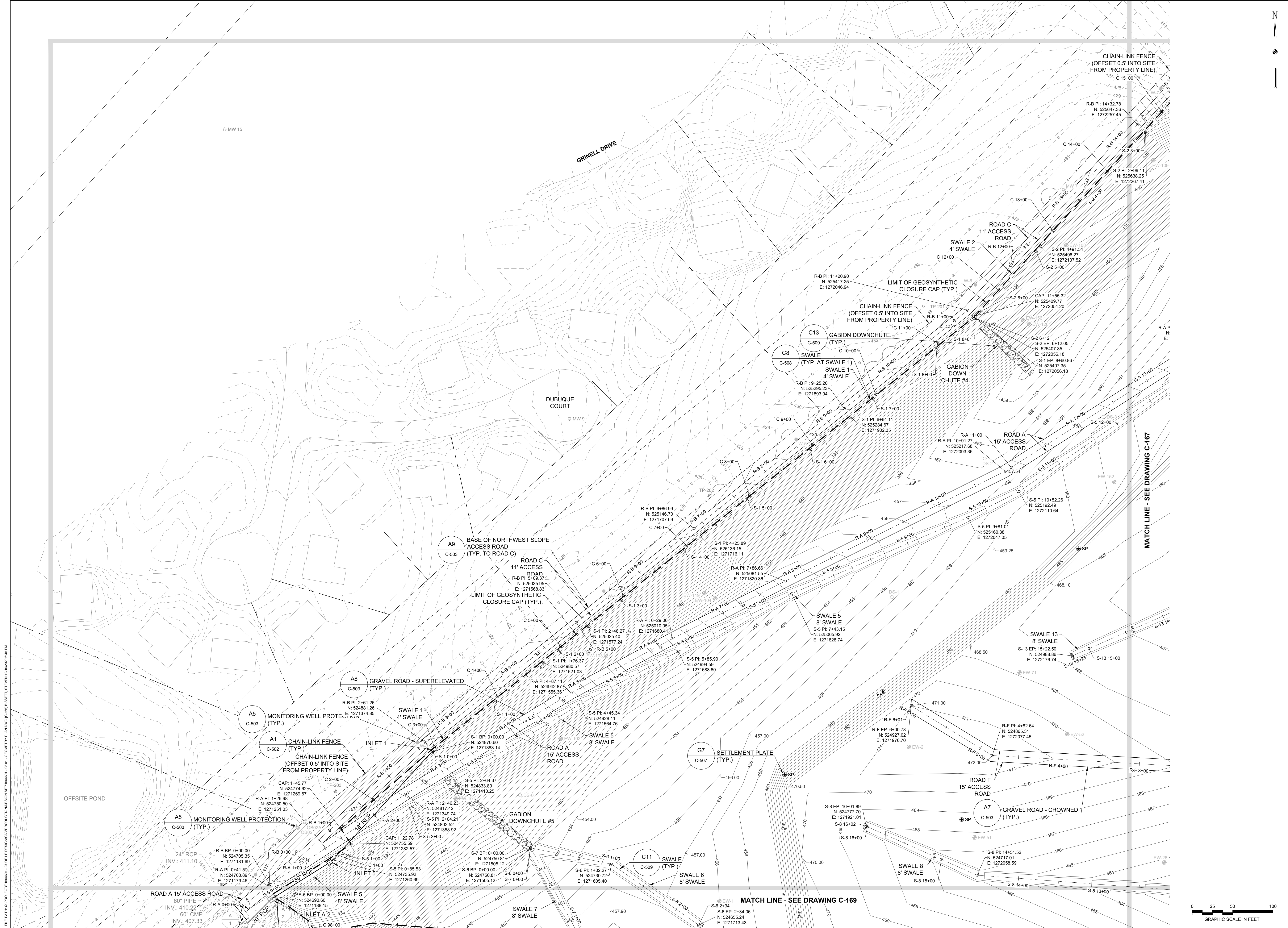
  

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DATE: DECEMBER 2020	PROJECT NUMBER: 1564601
<b>C-165</b>	
SHEET: 66 OF 146	

100% DESIGN PLANS - NOT FOR CONSTRUCTION



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

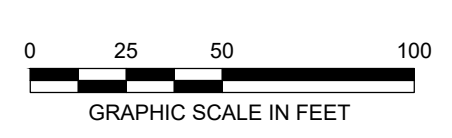
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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PLAN**

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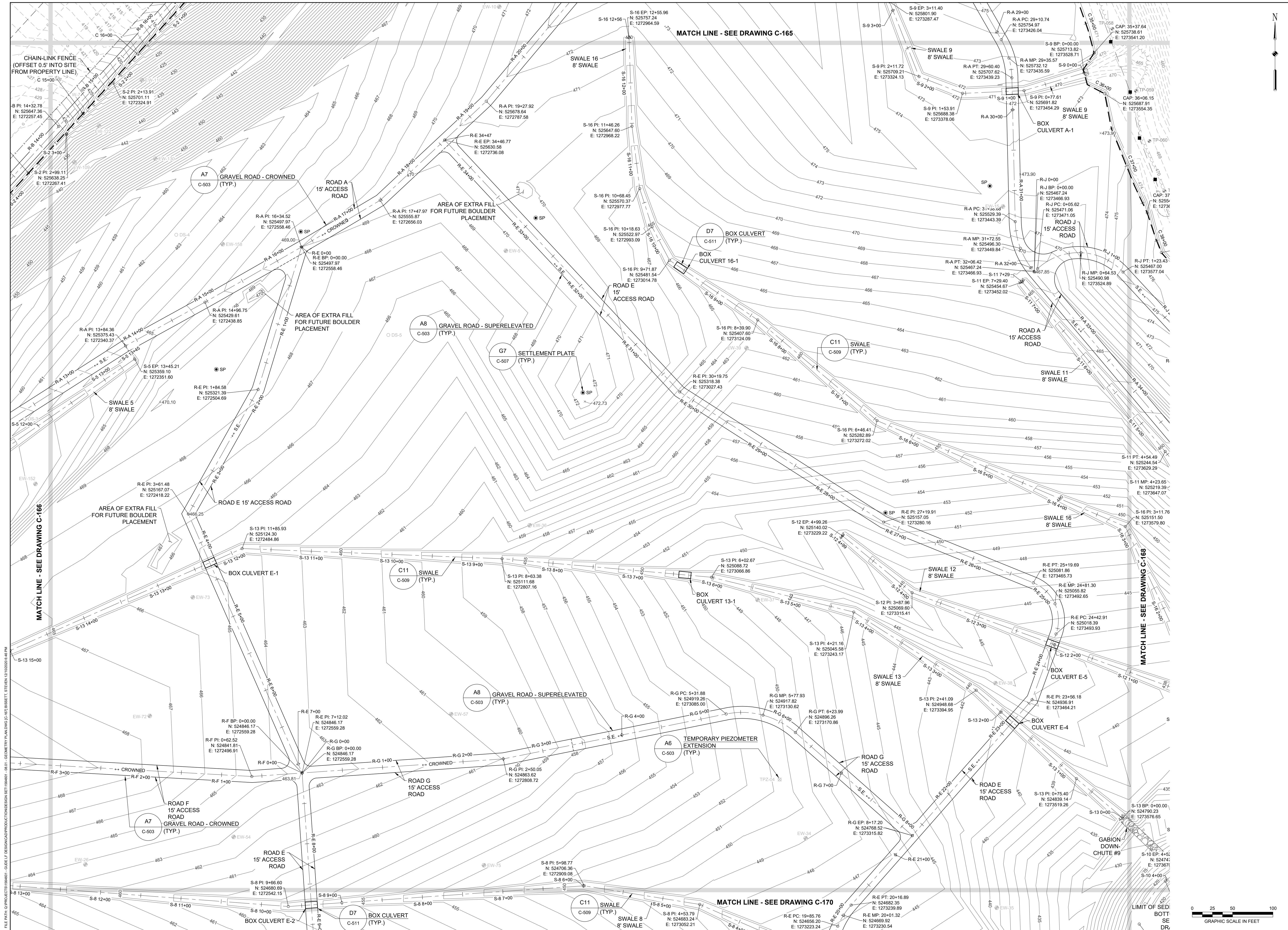
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-166**  
 SHEET: 69 OF 146



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REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		DESIGNED BY:	KEY / S/M/B	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: 8/25/2022.

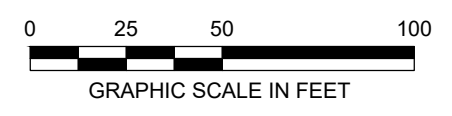
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

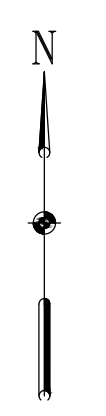
**GEOMETRY PLAN**

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-167**  
 SHEET: 70 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION





REVISIONS		DESCRIPTION
NO.	DATE	BY

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

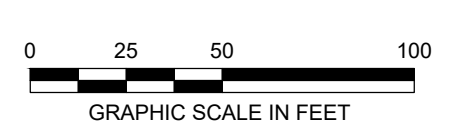
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**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

**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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-168**  
 SHEET: 71 OF 146



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NO.	DATE	BY	

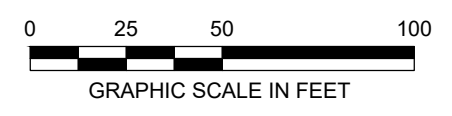
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DRAWN BY:	SMB	PROJECT MANAGER:	MJG

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: 8/25/2022

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

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 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
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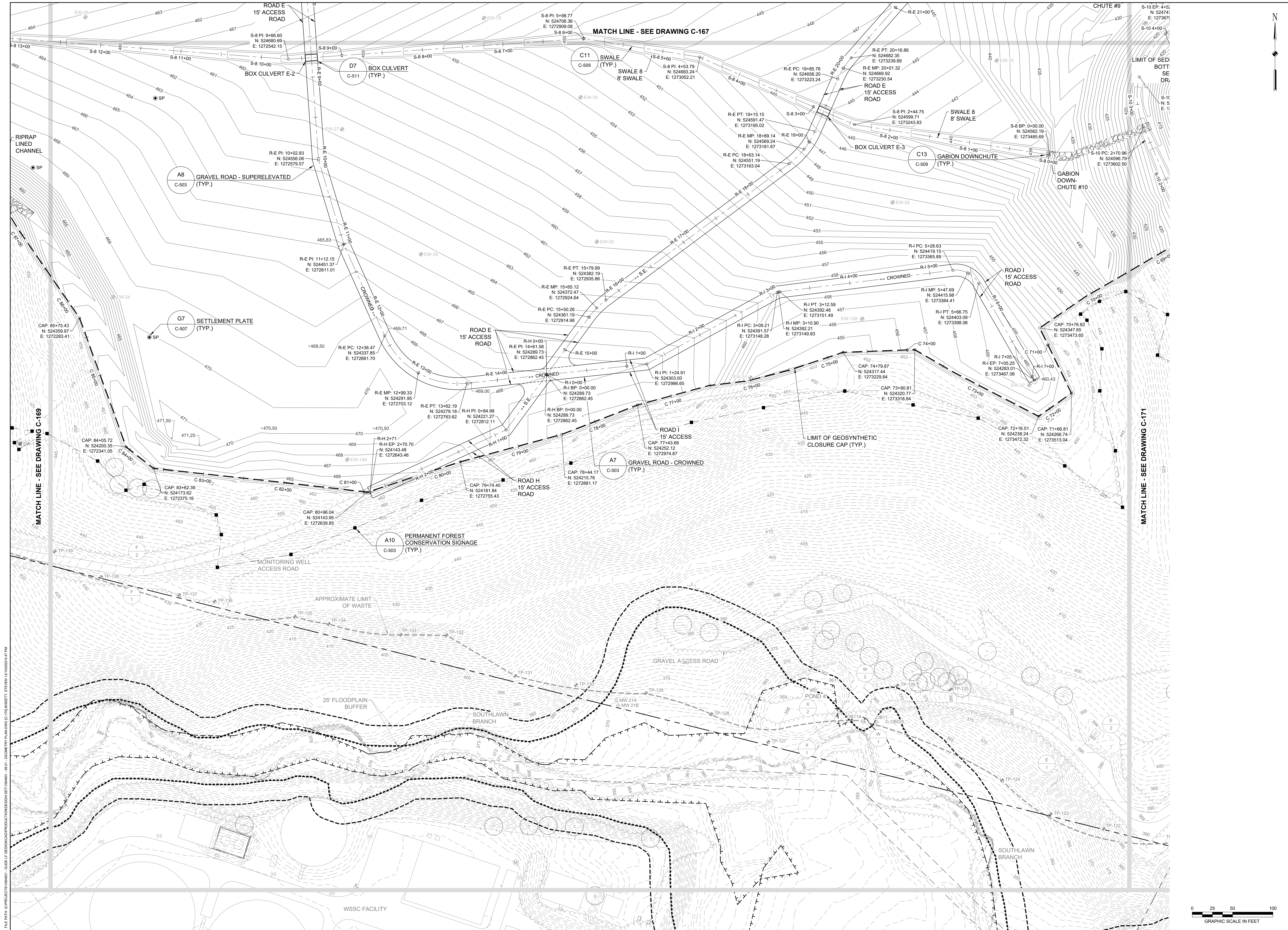
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-169**  
 SHEET: 72 OF 146



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REVISIONS		DESCRIPTION	
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DESIGN INFORMATION		DESIGNED BY:		CHECKED BY:		PROJECT MANAGER:	
KEY / SMB	DRAWN BY:	SMB	LJO / GAT	M/JG			

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: 8/25/2022.

<p>GUIDE LANDFILL REMEDIATION DESIGN          NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY          MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION          MONTGOMERY COUNTY, MARYLAND</p>		<p>GEOMETRY PLAN</p>	
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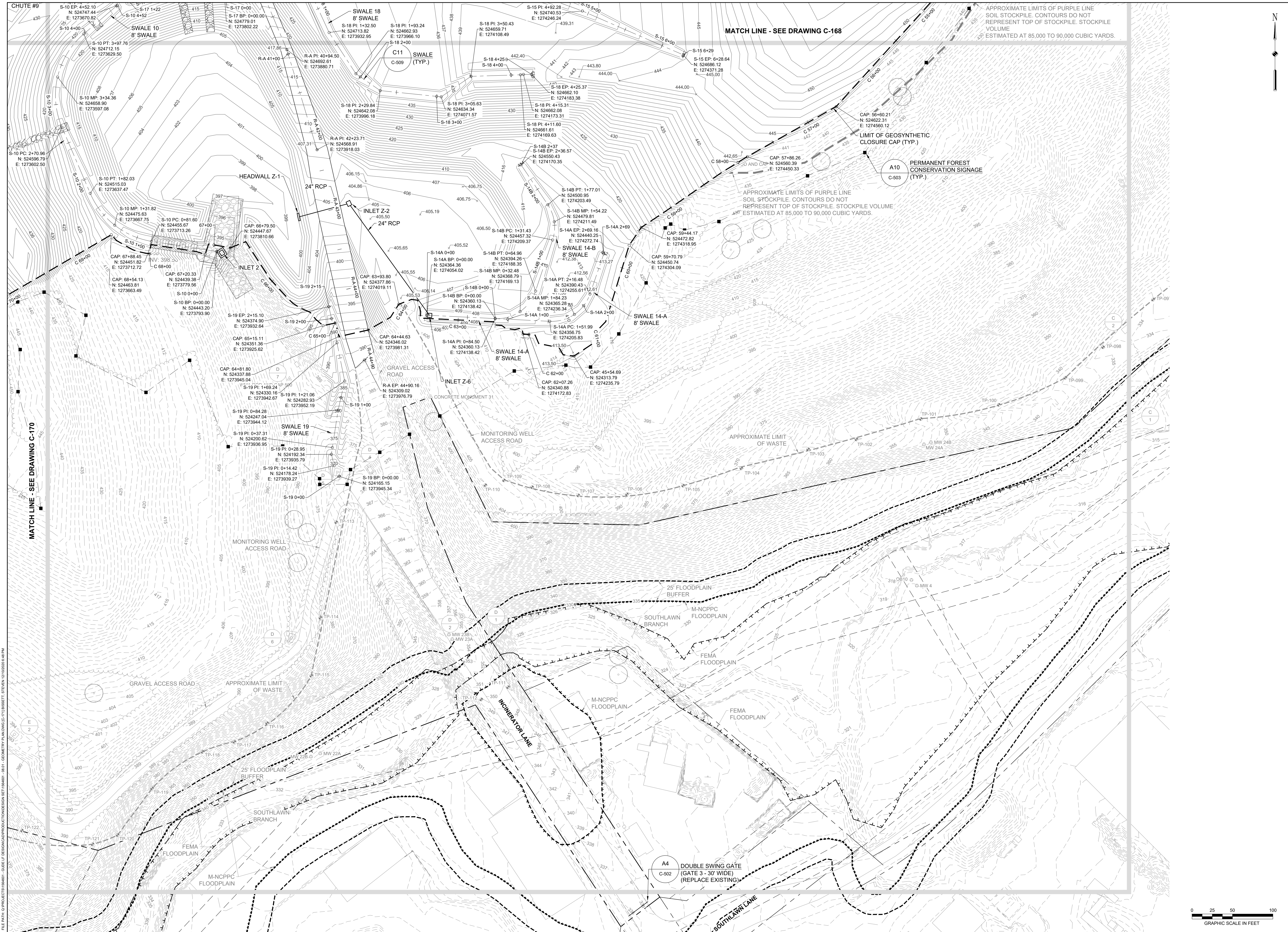
<p>EA Engineering, Science, and Technology, Inc., PBC          Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</p>	<p>DATE: DECEMBER 2020          PROJECT NUMBER: 1564601</p>
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**C-170**  
SHEET: 73 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

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REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION		DESIGNER	CHECKED BY	PROJECT MANAGER
KEY / SMB	DRAWN BY	SMB	LJO / GAT	M/JG

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: 8/25/2022

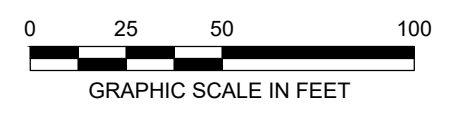
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND

**GEOMETRY PLAN**

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DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

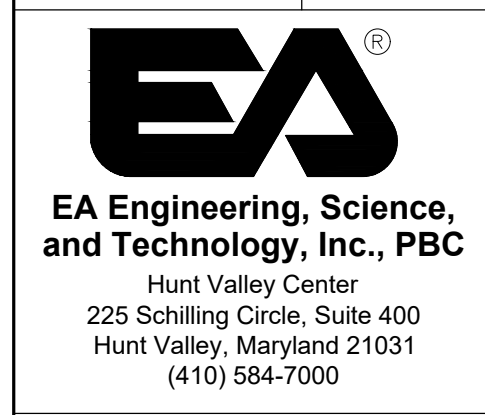
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 SHEET: 74 OF 146



100% DESIGN PLANS - NOT FOR CONSTRUCTION

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DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601

**C-172**  
SHEET: 75 OF 146

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

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: 8/25/2022

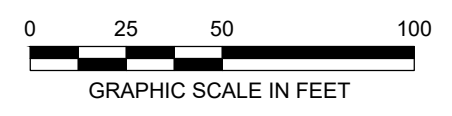
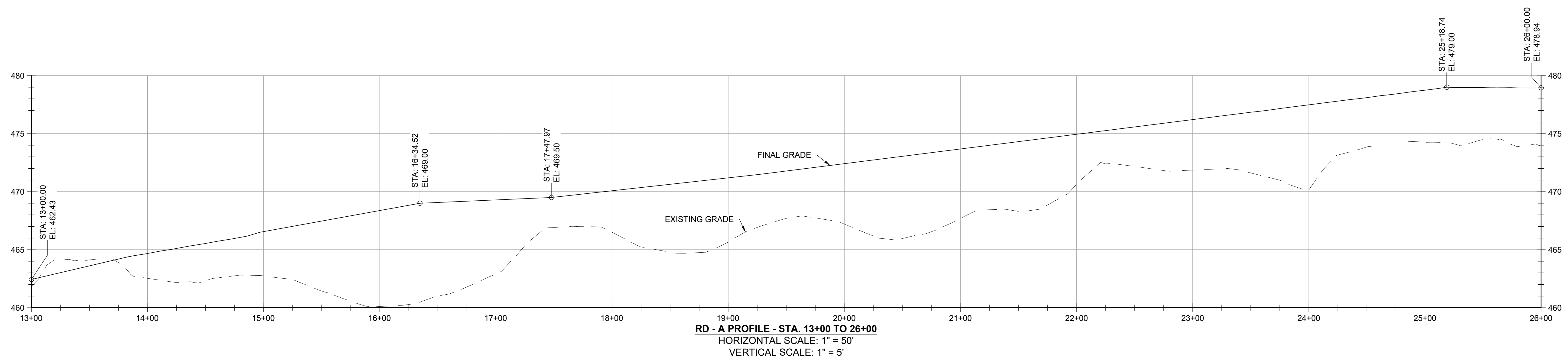
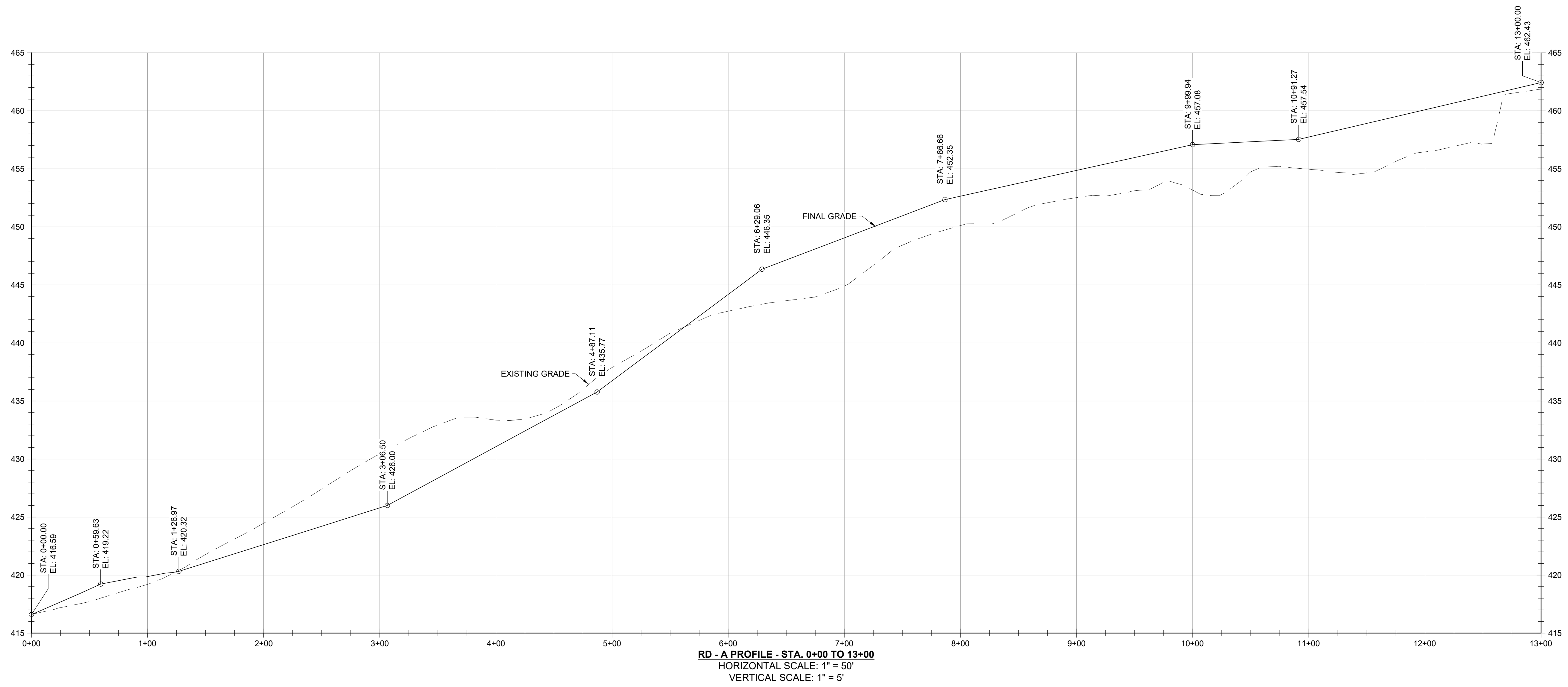
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PROJECT MANAGER: MJG

NO. DATE BY

REVISIONS DESCRIPTION

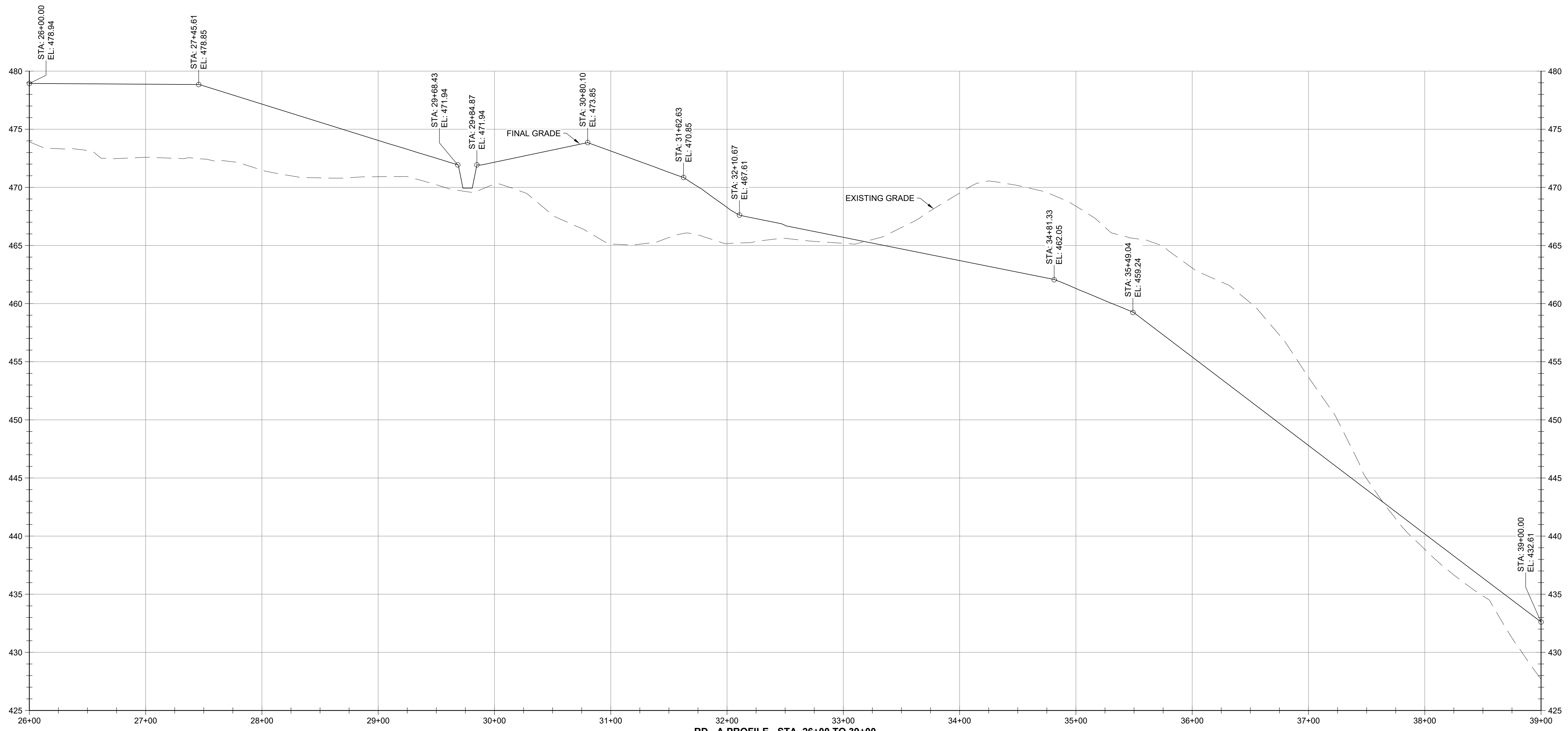
SEAL

100% DESIGN PLANS - NOT FOR CONSTRUCTION

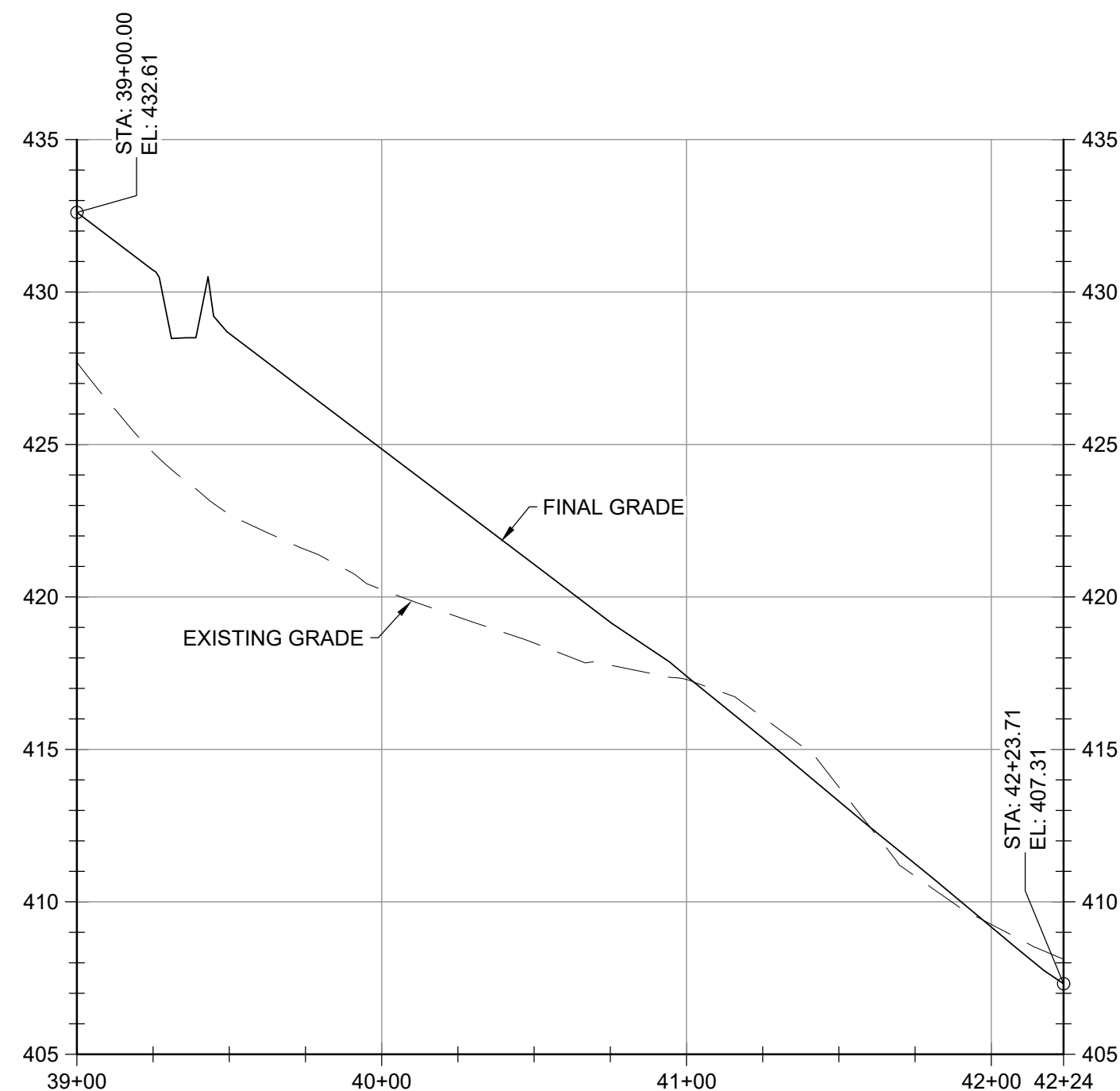


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<p><b>EA</b>  <b>EA Engineering, Science, and Technology, Inc., PBC</b>          Hunt Valley Center          225 Schilling Circle, Suite 400          Hunt Valley, Maryland 21031          (410) 584-7000</p>		<p>DATE: DECEMBER 2020          PROJECT NUMBER: 1564601  <b>C-201</b>          SHEET: 76 OF 146</p>	
<p>100% DESIGN PLANS - NOT FOR CONSTRUCTION</p>		<p>GEOMETRY PROFILES - ROAD</p>	
<p>MONTGOMERY COUNTY, MARYLAND</p>		<p>DESIGN INFORMATION</p>	
DESIGNED BY:	KEF / SMB	NO.	DESCRIPTION
DRAWN BY:	SMB	DATE	BY
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		
<p>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: 8/25/2022</p>			
<p>SEAL</p>			
<p>GUIDE LANDFILL REMEDIATION DESIGN          NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY          MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION</p>			

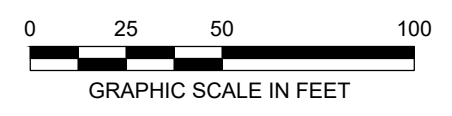


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 VERTICAL SCALE: 1" = 5'



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DESIGNED BY:	KEF / SMB	NO.	DESCRIPTION
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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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

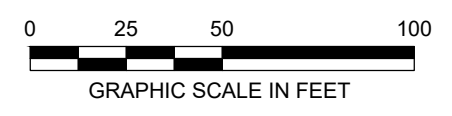
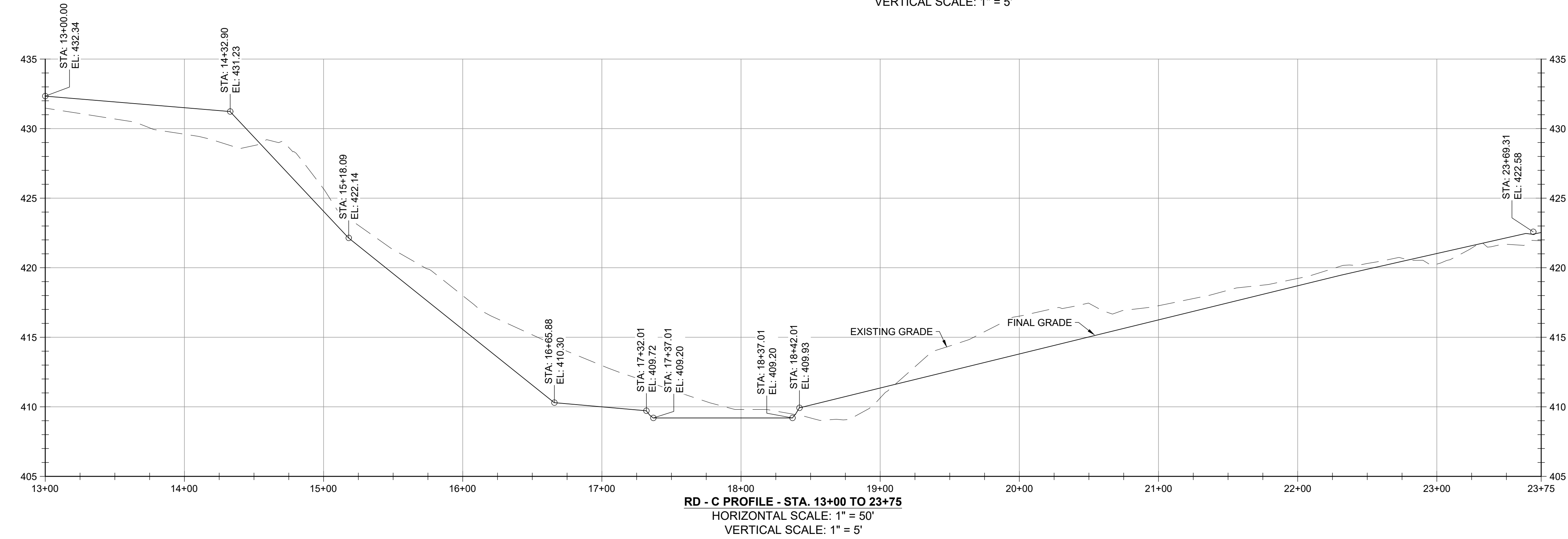
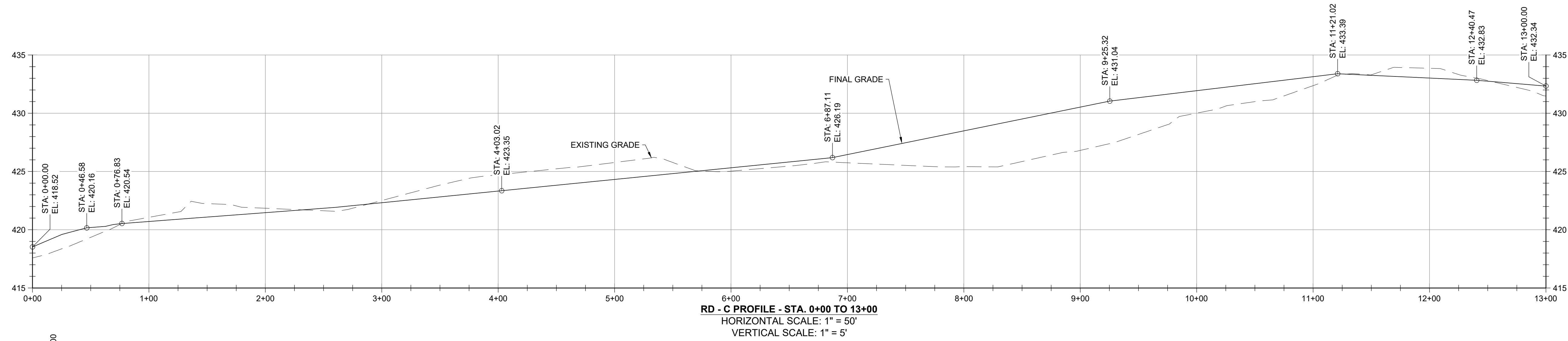
SEAL

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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-202**  
 SHEET: 77 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEY / 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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

SEAL

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

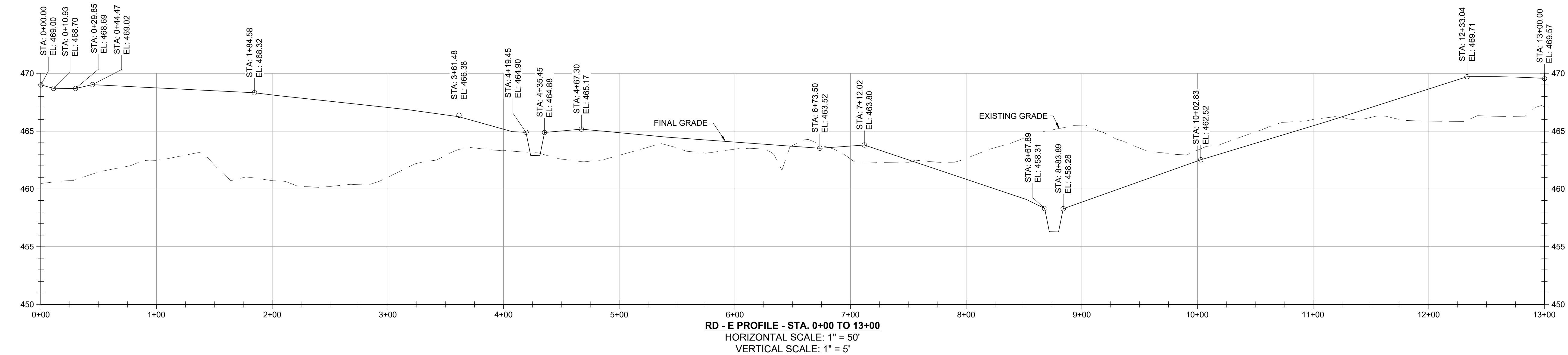
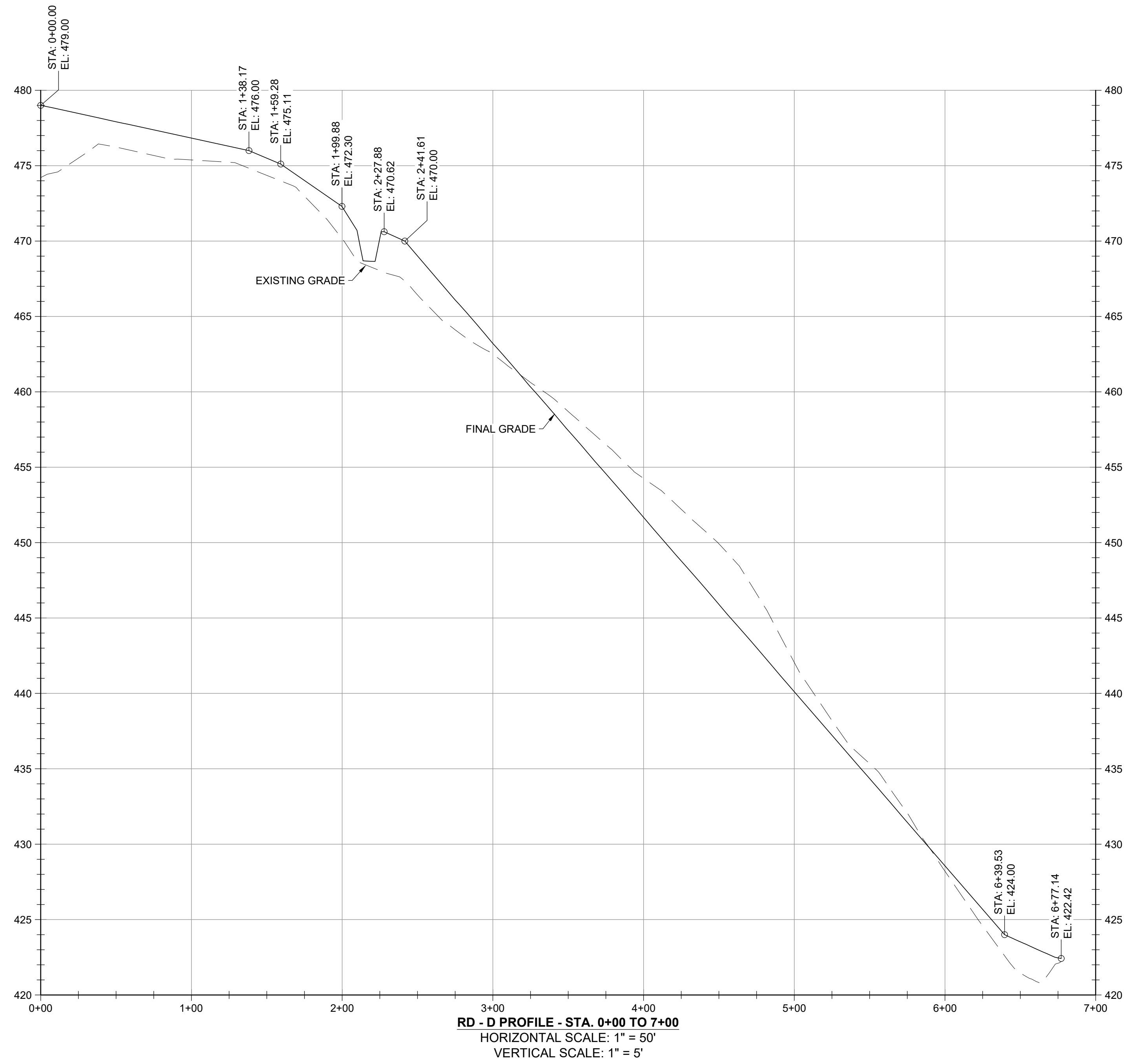
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

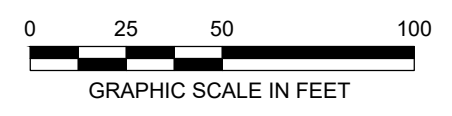
**C-203**  
 SHEET: 78 OF 146

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100% DESIGN PLANS - NOT FOR CONSTRUCTION



FILE PATH: G:\PROJECTS\156461 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\156461 - GIS - GEOMETRY PROFILES\RD - D AND E.DWG; DATE: 12/20/20 8:52 AM



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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402. EXPIRATION DATE: 8/25/2022.

SEAL

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

**GEOMETRY PROFILES - ROAD**

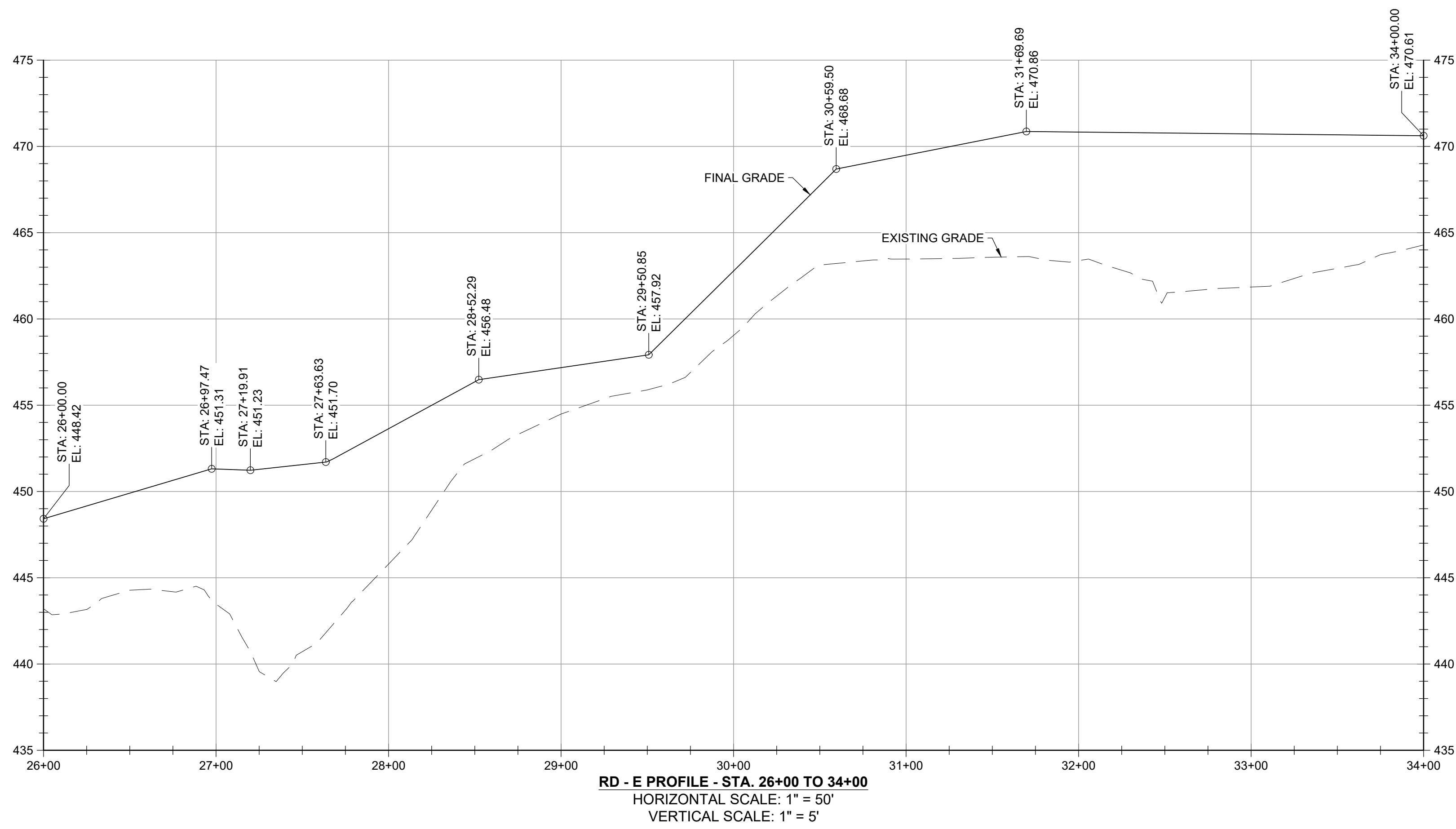
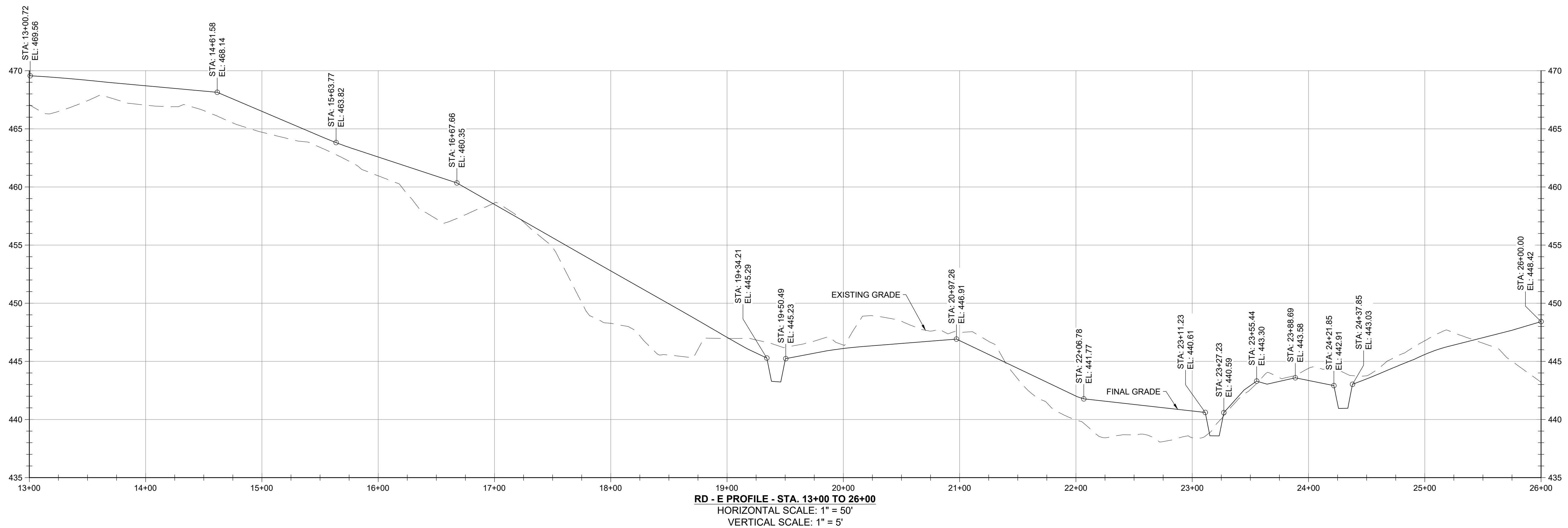
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

**C-204**  
 SHEET: 79 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

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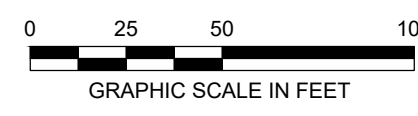
DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	DESCRIPTION
DRAWN BY:	SMB	DATE	BY
CHECKED BY:	LJO / GAT		
PROJECT MANAGER:	MJG		

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

**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

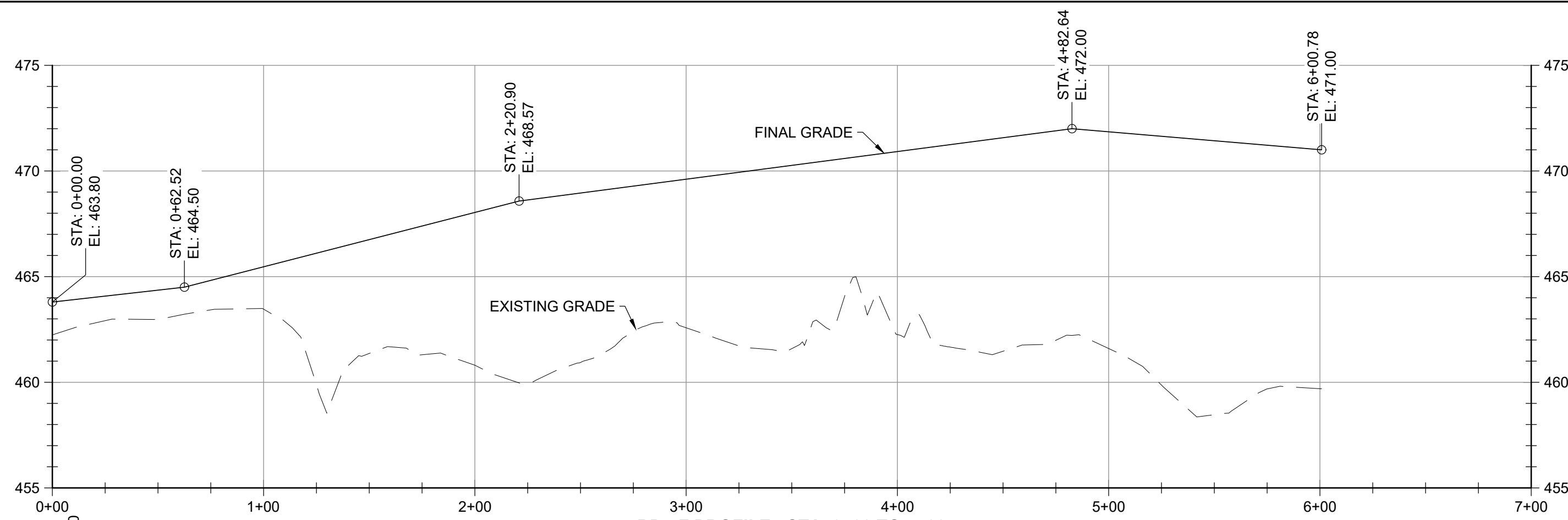
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-205**  
 SHEET: 80 OF 146



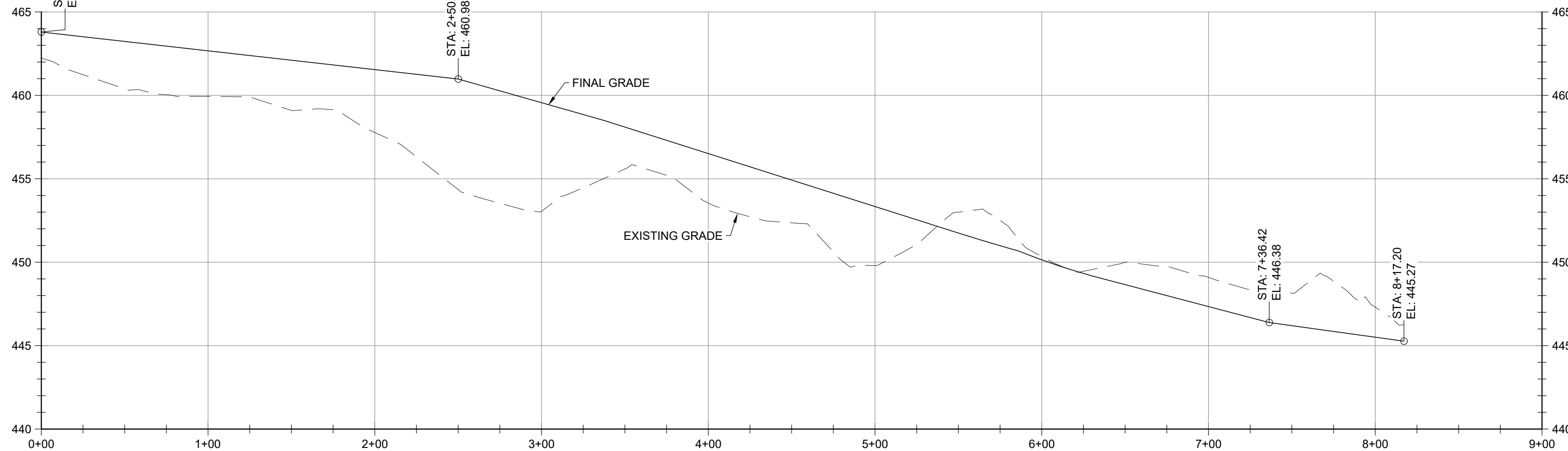
100% DESIGN PLANS - NOT FOR CONSTRUCTION



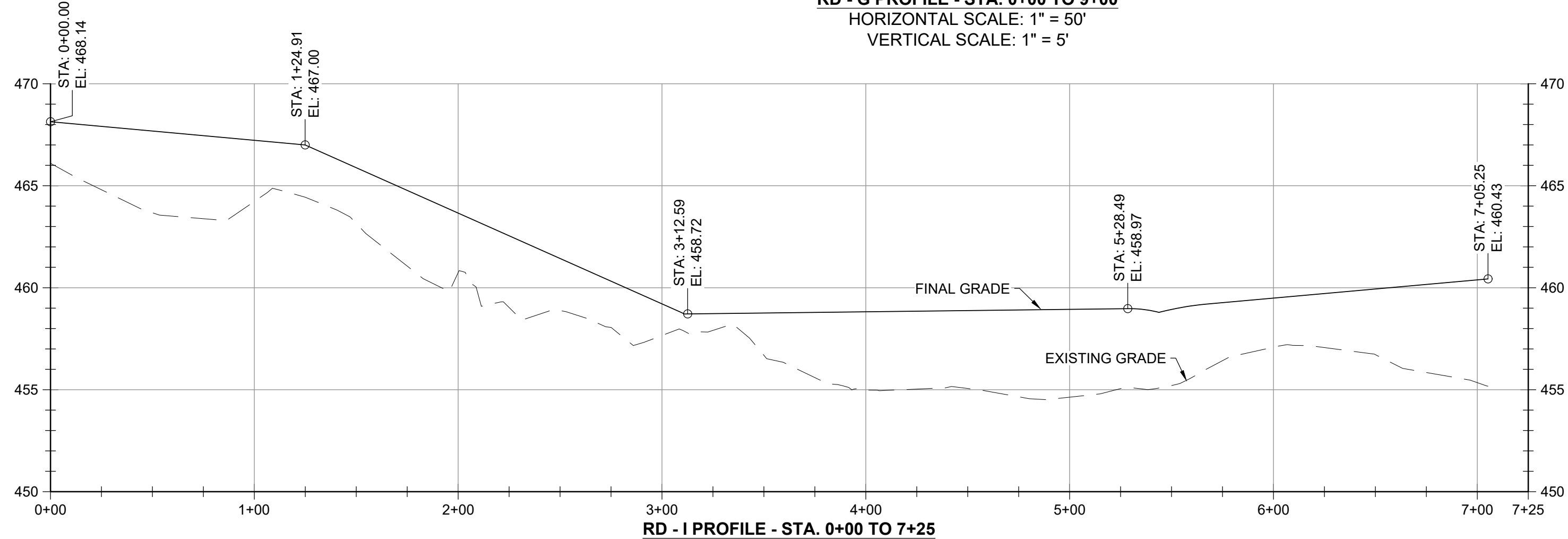
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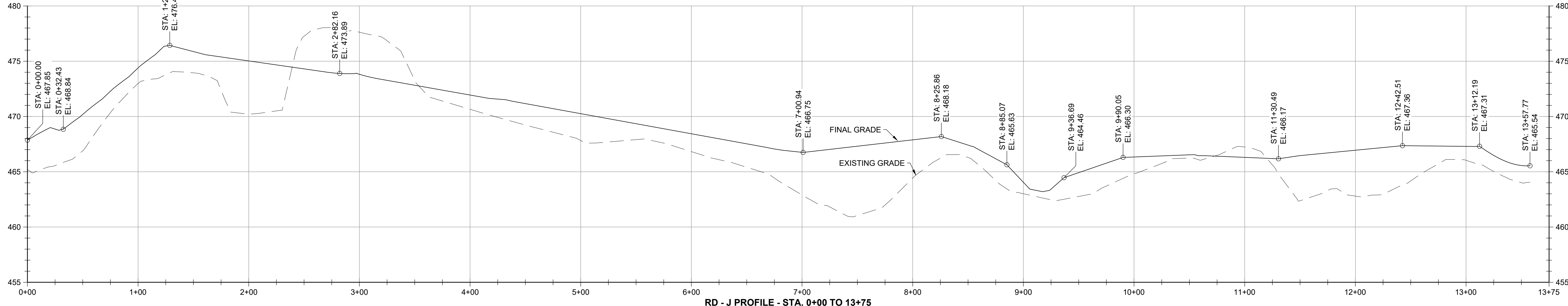
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HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



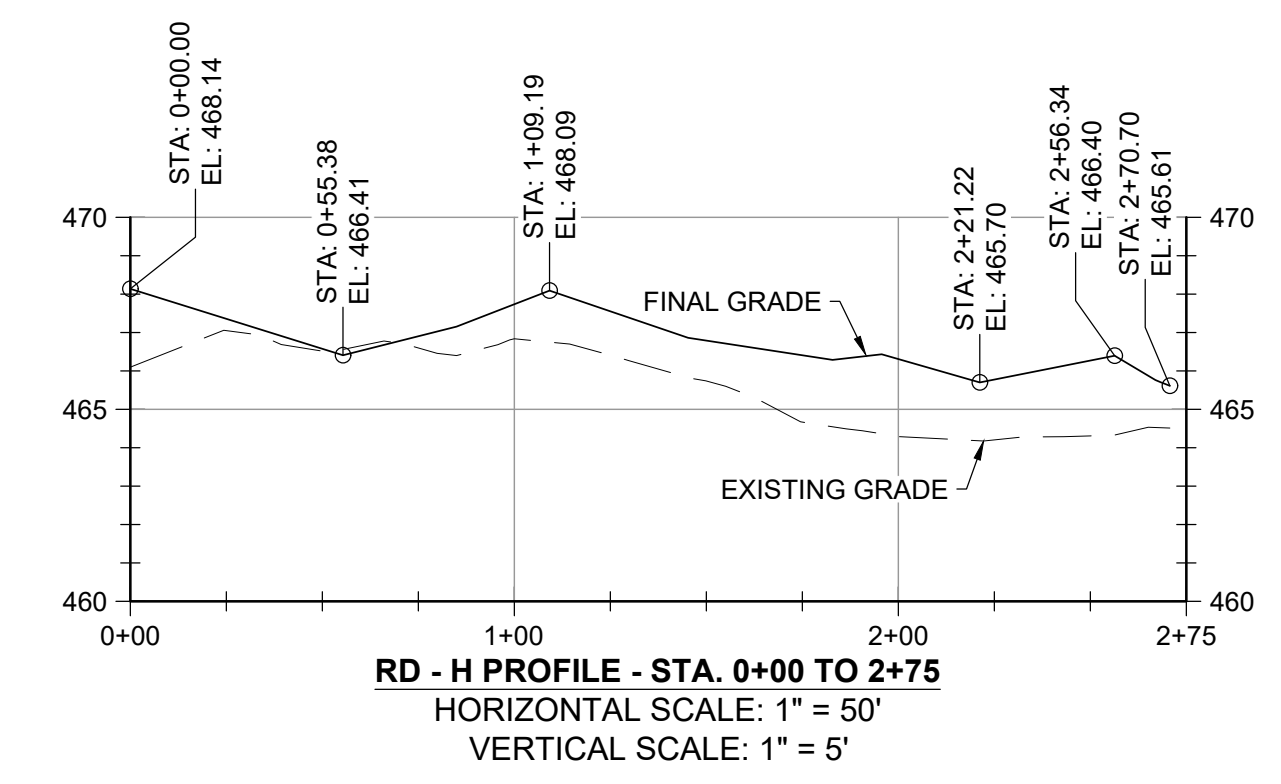
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VERTICAL SCALE: 1" = 5'



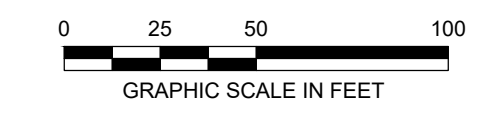
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HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



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



**RD - H 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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

SEAL

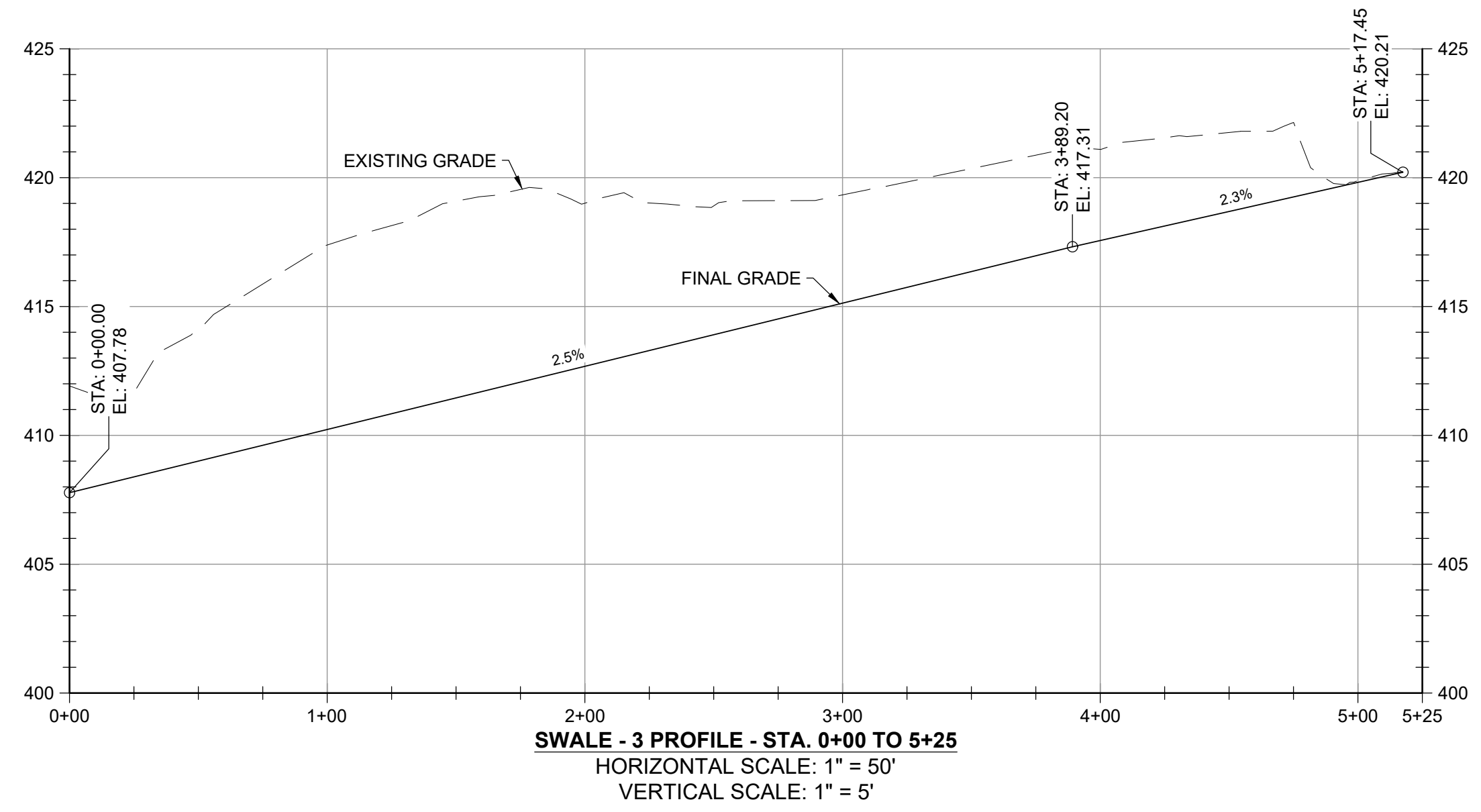
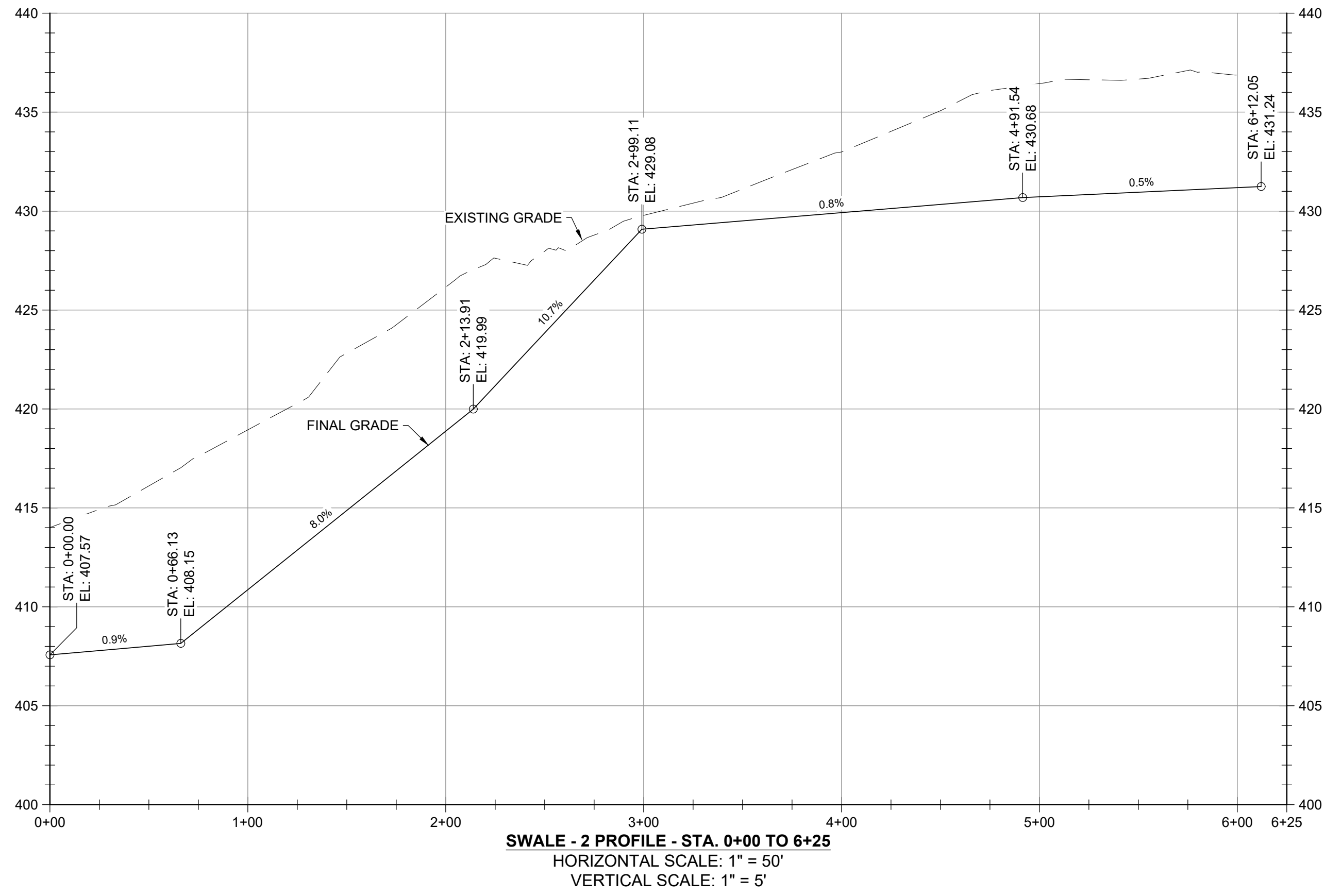
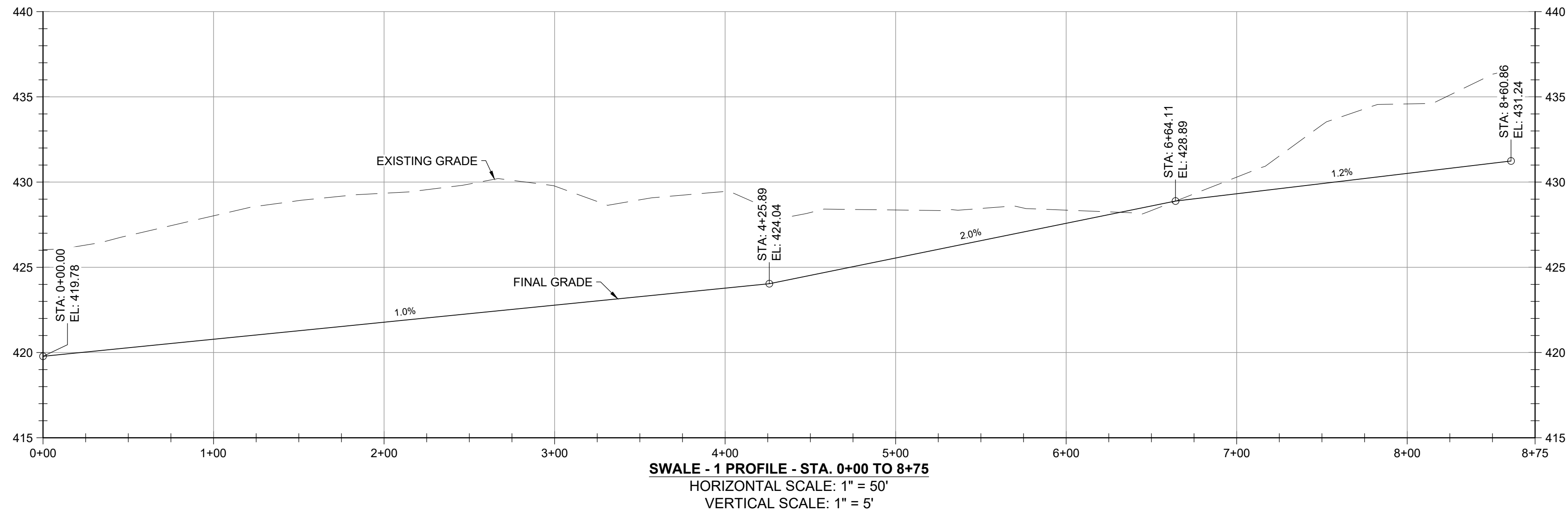
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - ROAD**

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

**C-206**  
 SHEET: 81 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION



FILE PATH: G:\PROJECTS\1564601 - GUELFY DEBRIS\PRODUCTION\DESIGN SET\1564601 - SWALE - GEOMETRY PROFILES\DWG\C-207.DWG; PLOT: 12/15/2020 8:52 AM

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

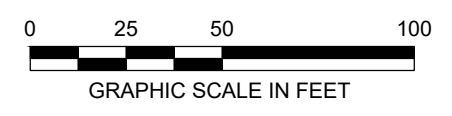
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

SEAL

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

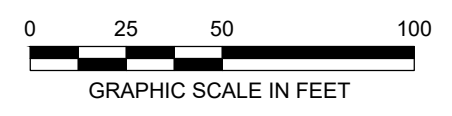
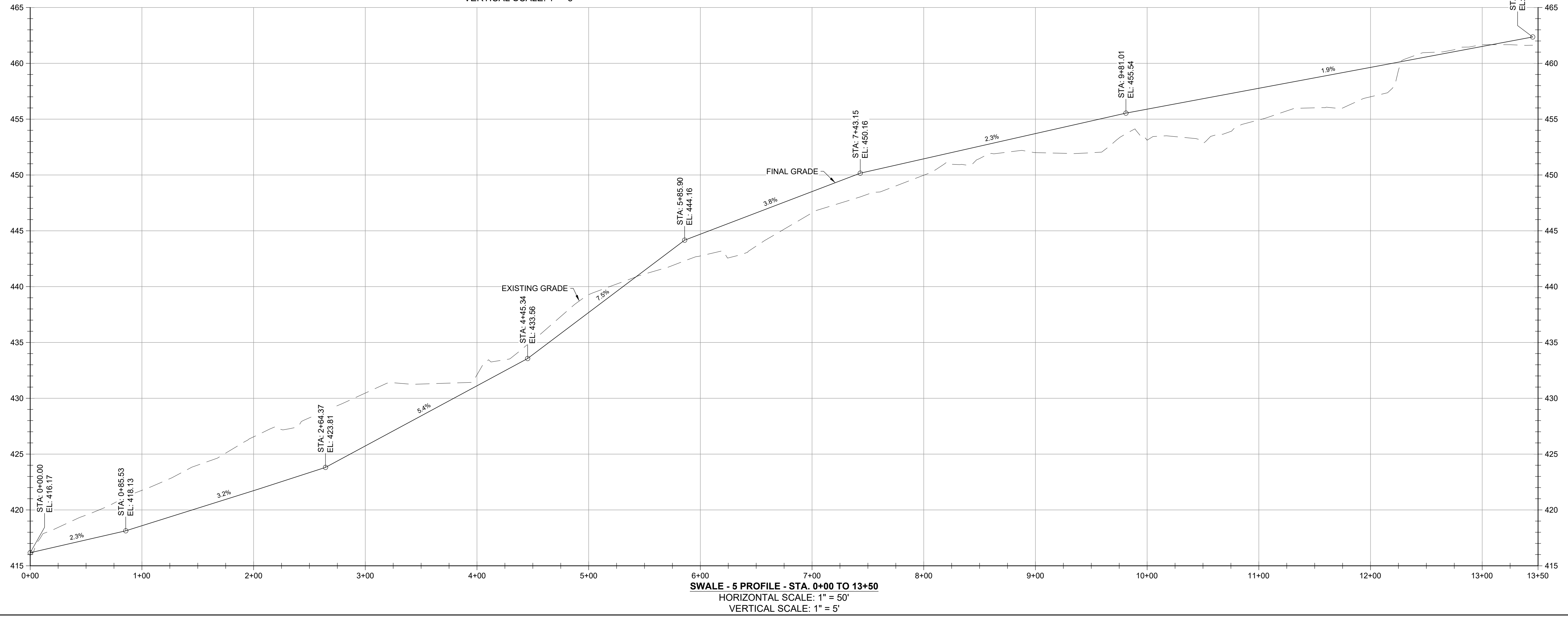
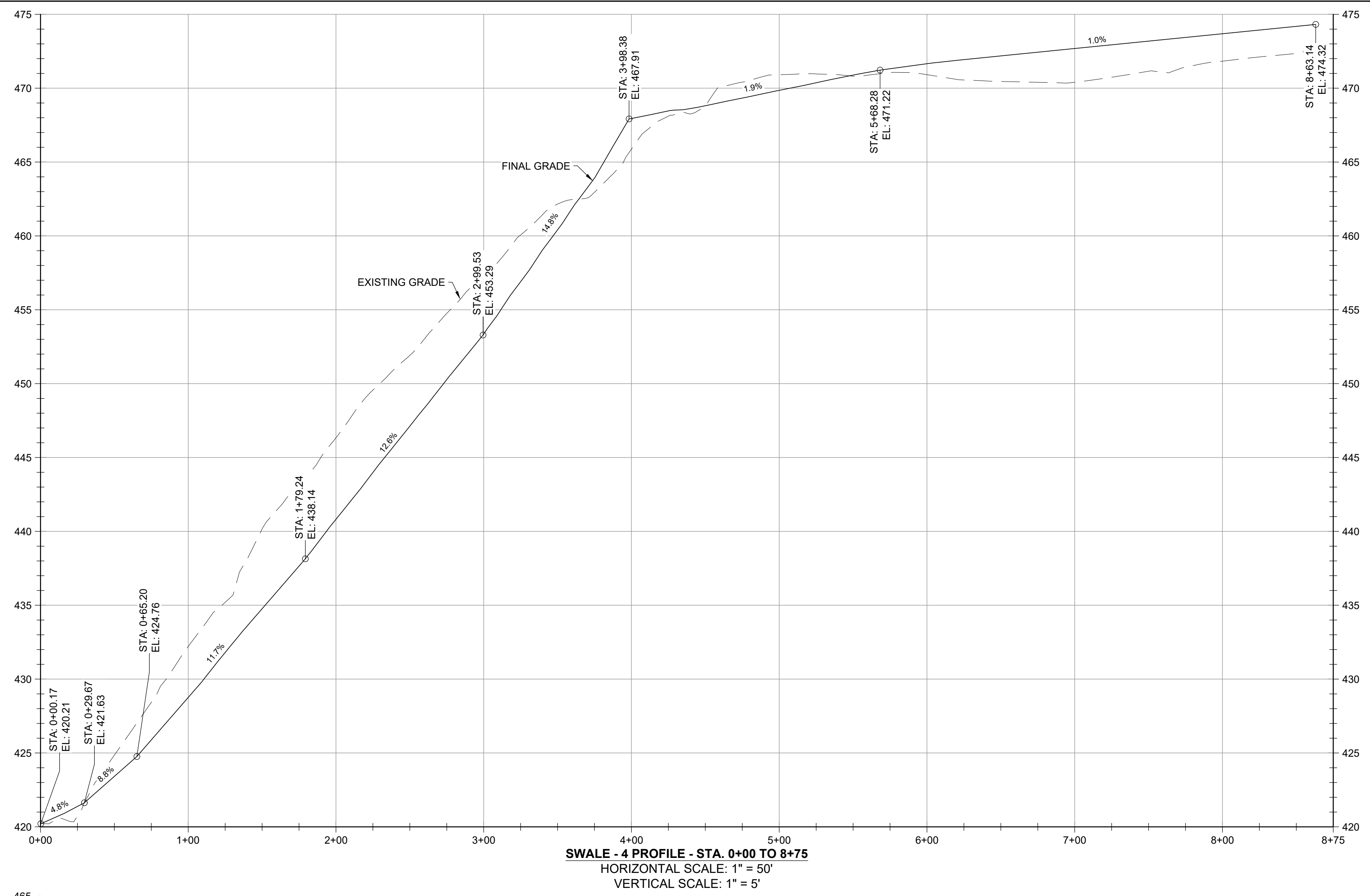
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-207**  
 SHEET: 82 OF 146



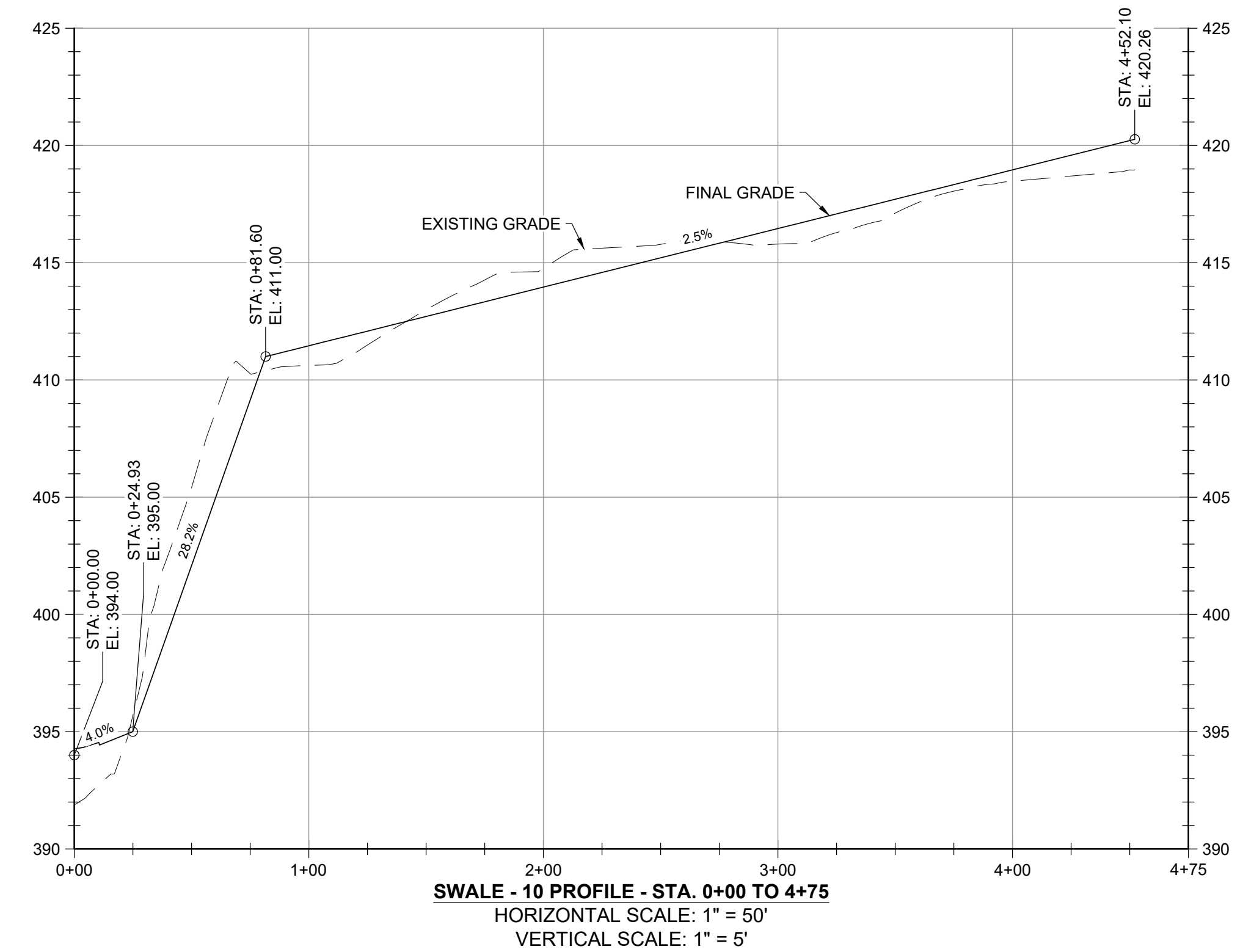
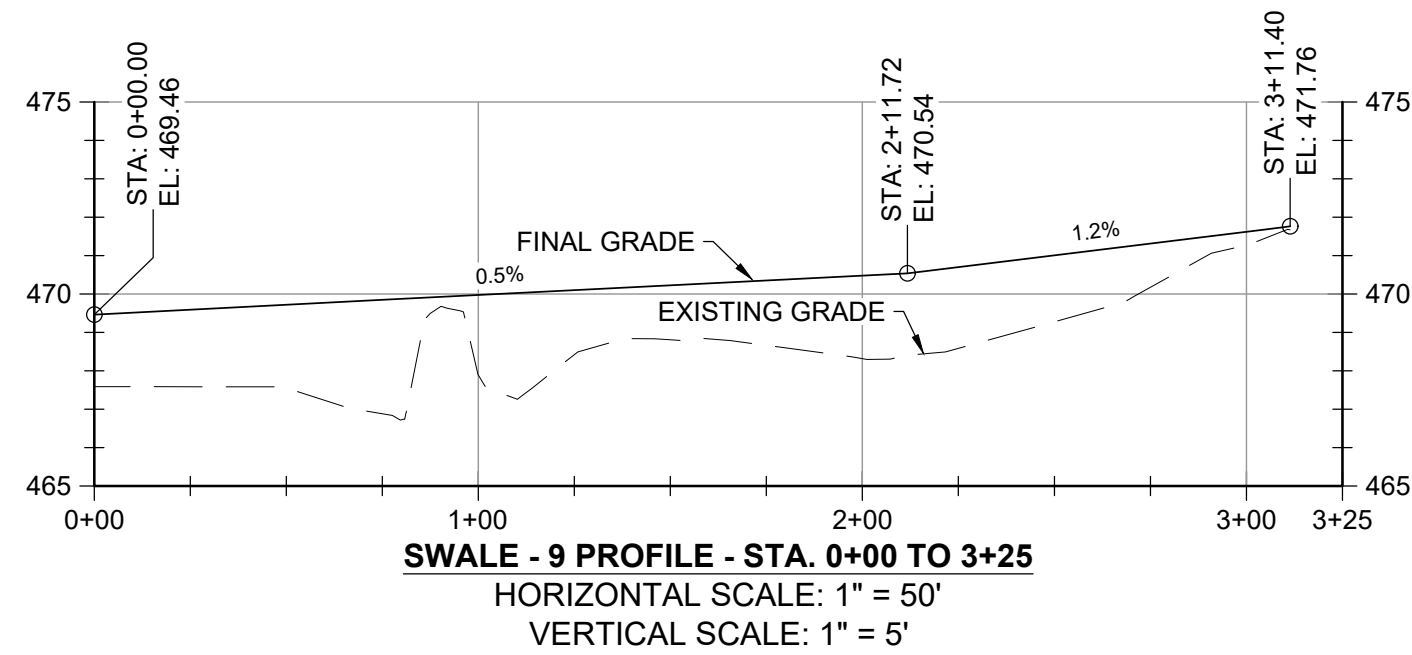
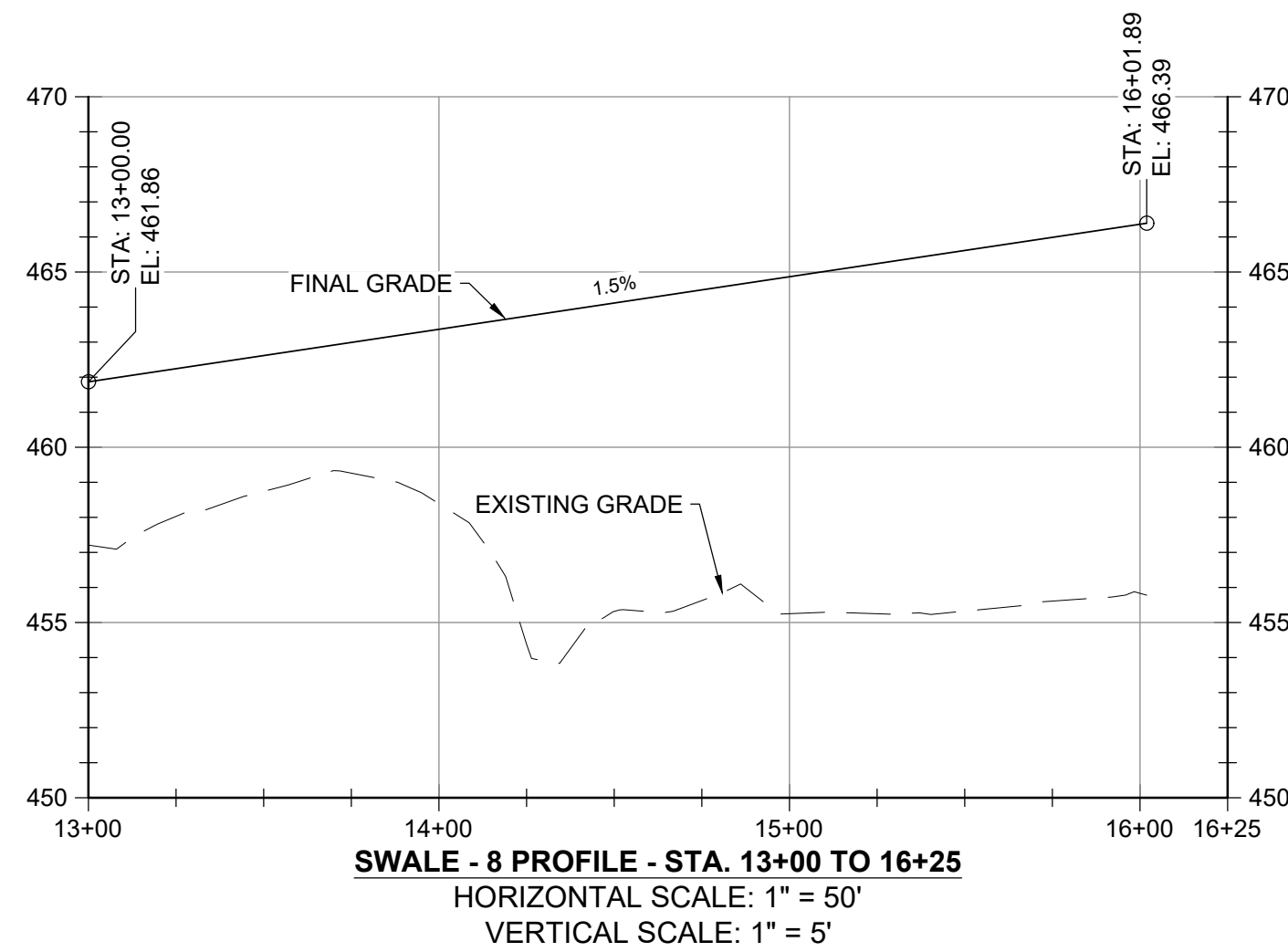
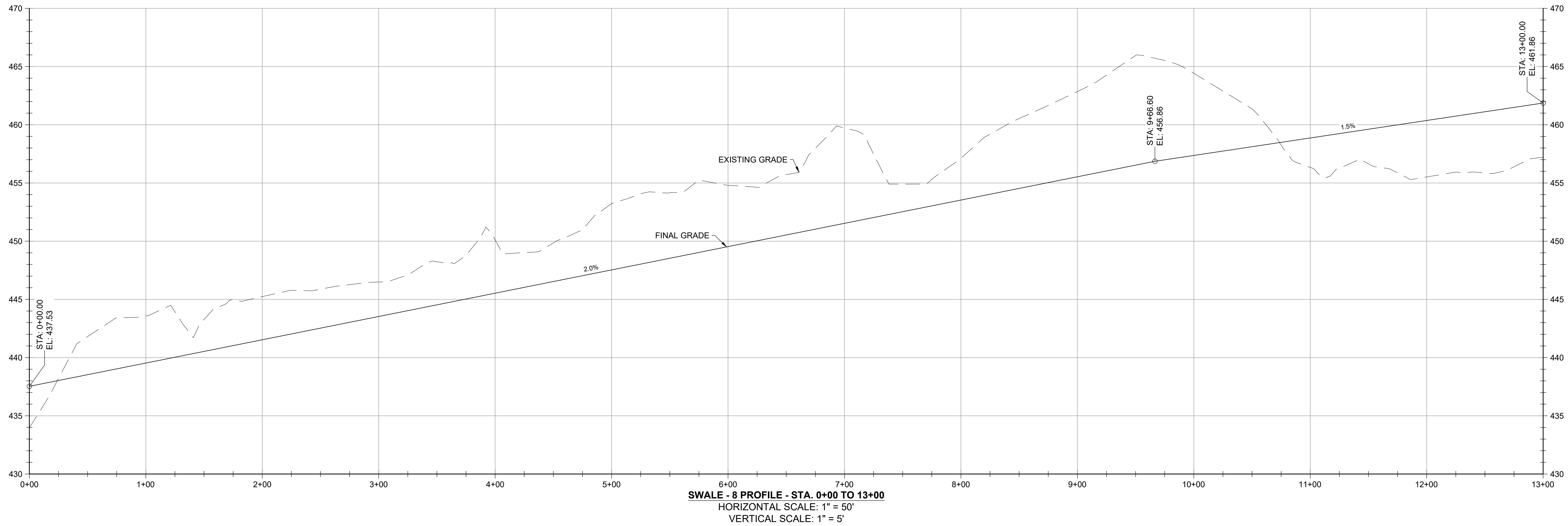
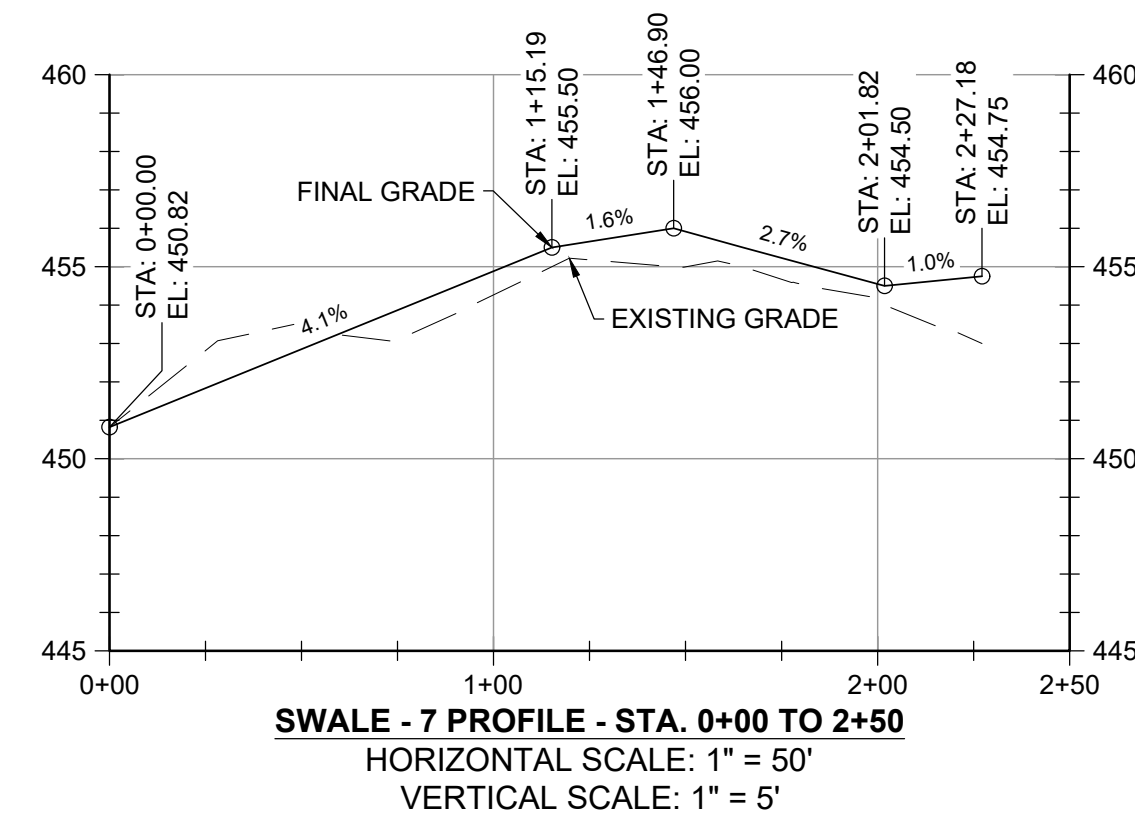
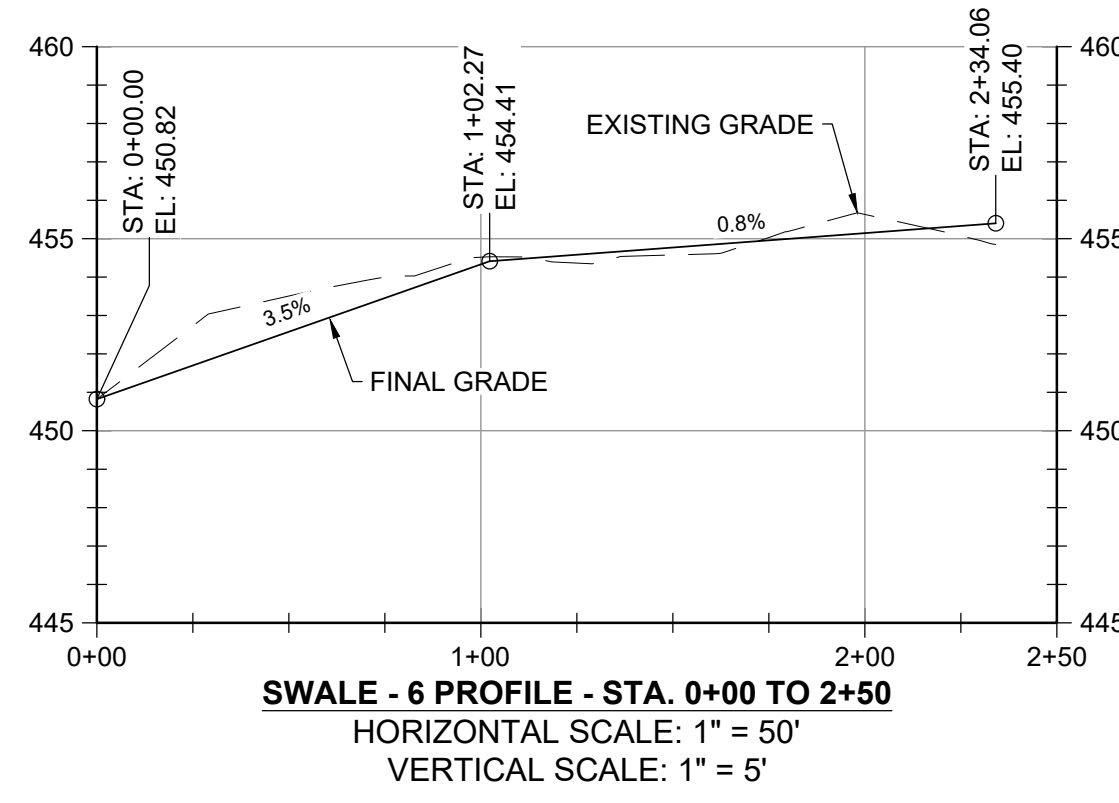
100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\16460 - GUIDE OF DESIGN\PRODUCTION\DESIGN\16460 - SWALE - GEOMETRY PROFILE\DWG\C-208.DWG (REVISED: 12/08/2020 4:53 PM)



SEAL		REVISIONS		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: 8/25/2022											
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: DECEMBER 2020											
PROJECT NUMBER: 1564601											
<b>C-208</b> SHEET: 83 OF 146											

100% DESIGN PLANS - NOT FOR CONSTRUCTION



FILE PATH: G:\PROJECTS\156461 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\156461 - SWALE - GEOMETRY PROFILES.DWG (3/28/2020 4:53 PM)

REVISIONS		DESCRIPTION
NO.	DATE	BY

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

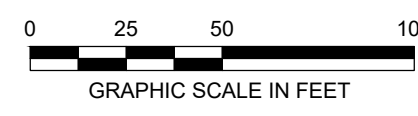
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

SEAL

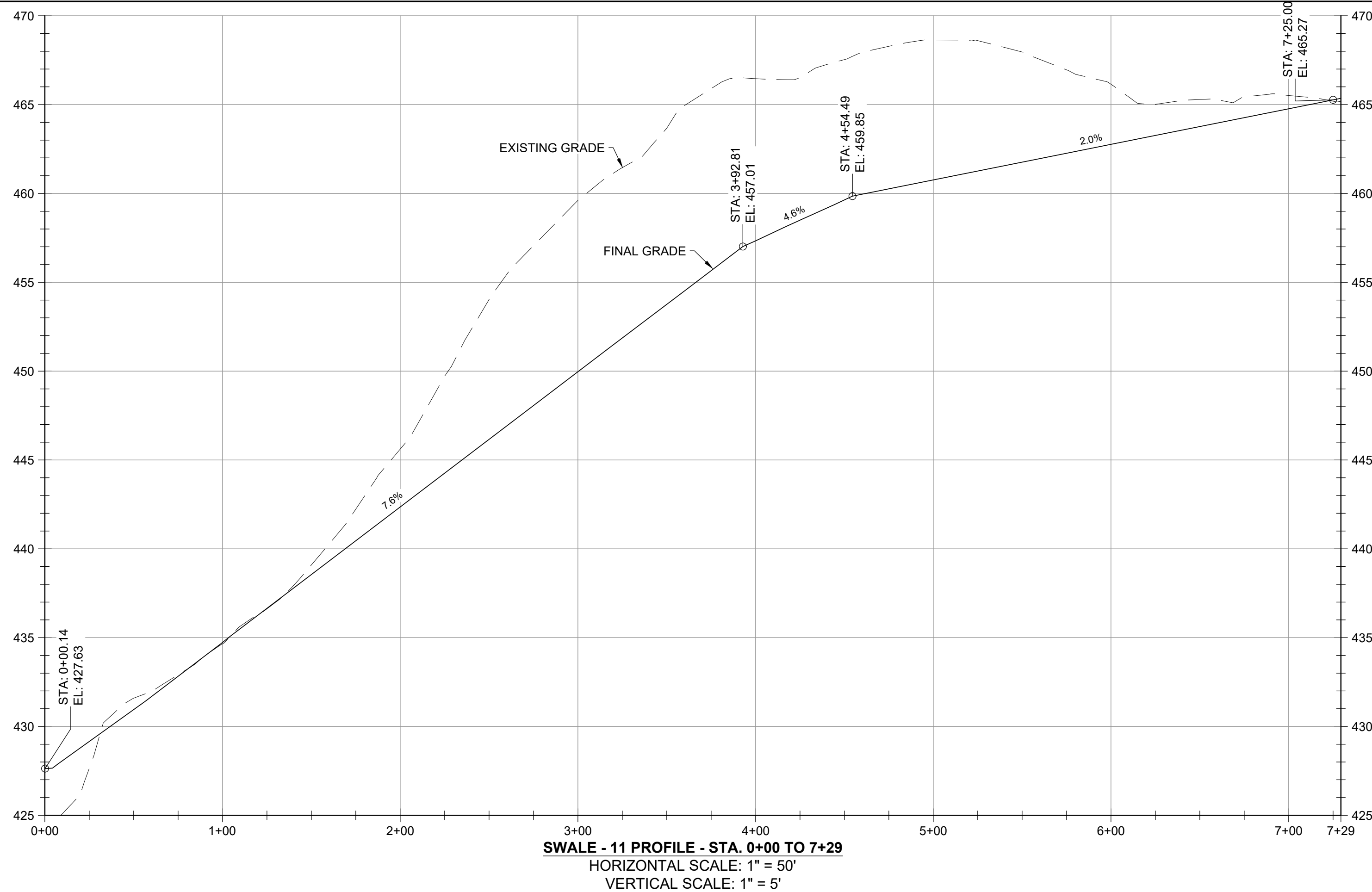
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - SWALE**

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

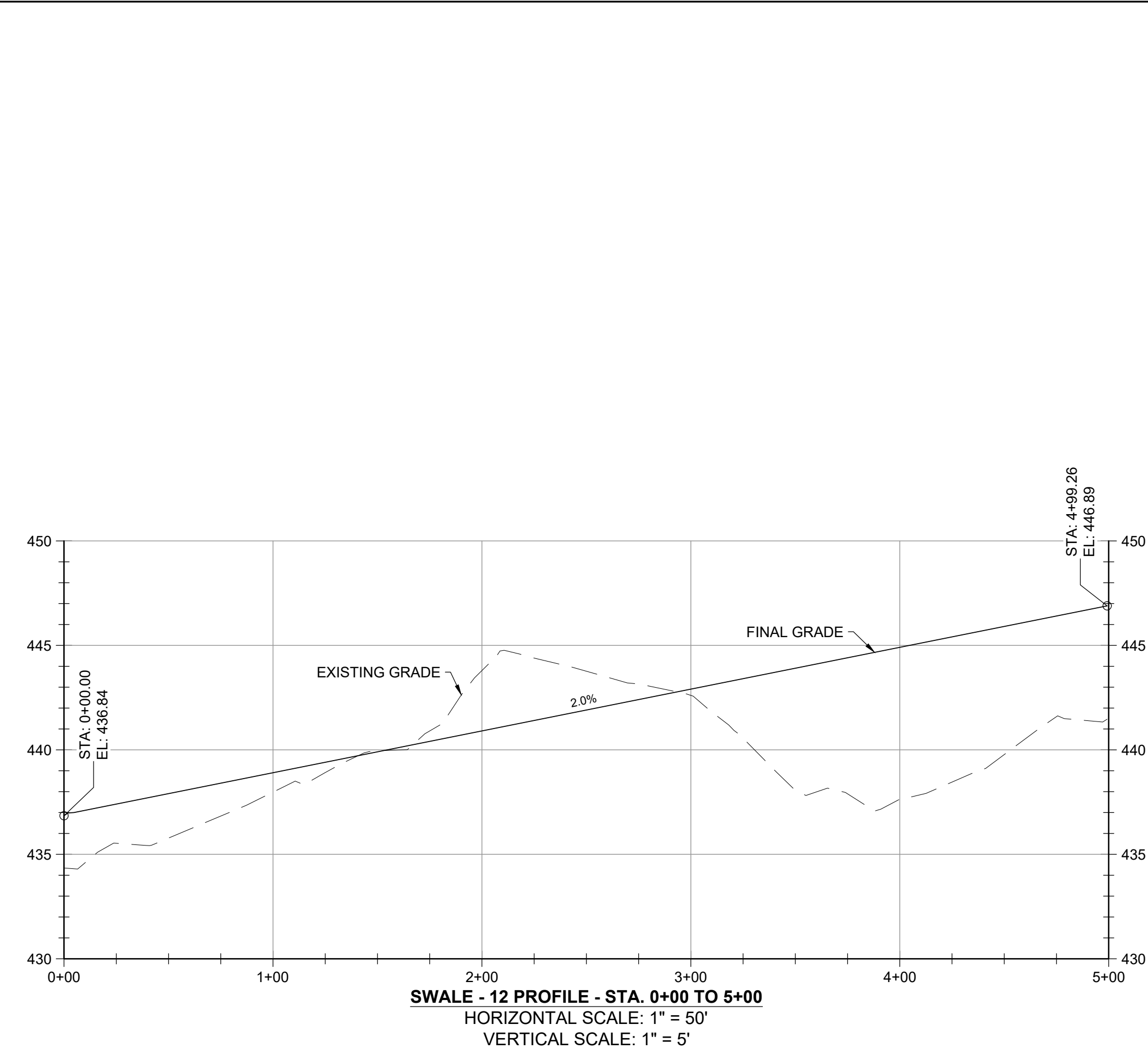
DATE: DECEMBER 2020  
 PROJECT NUMBER: 156461  
**C-209**  
 SHEET: 84 OF 146



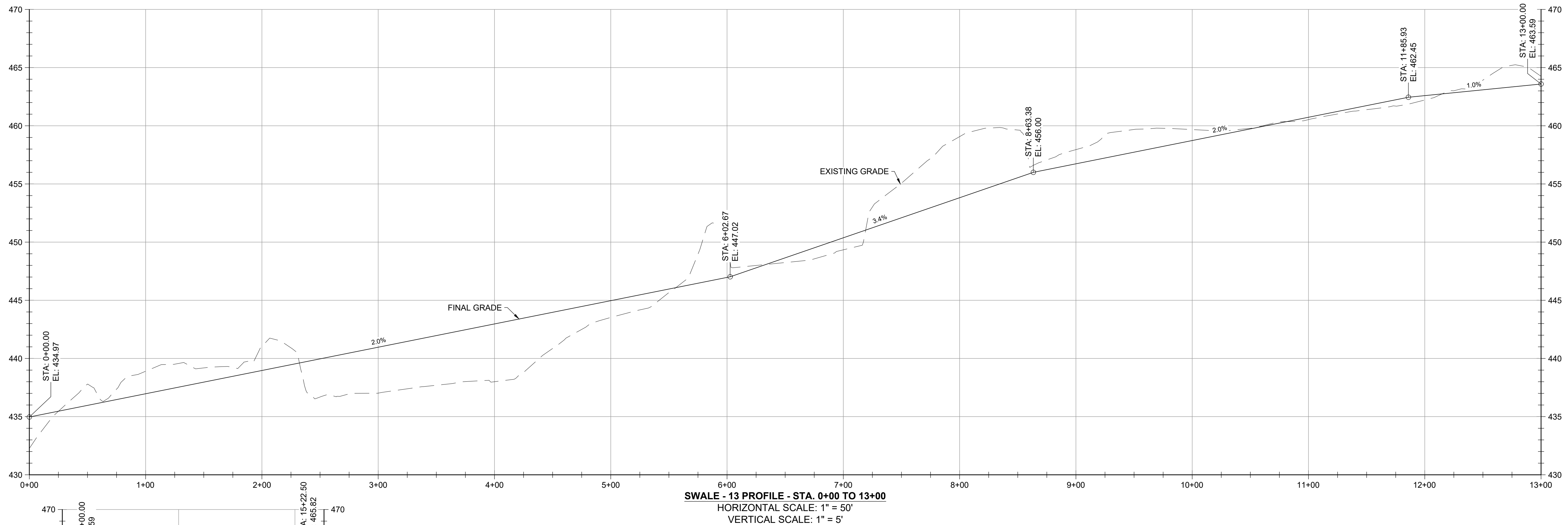
100% DESIGN PLANS - NOT FOR CONSTRUCTION



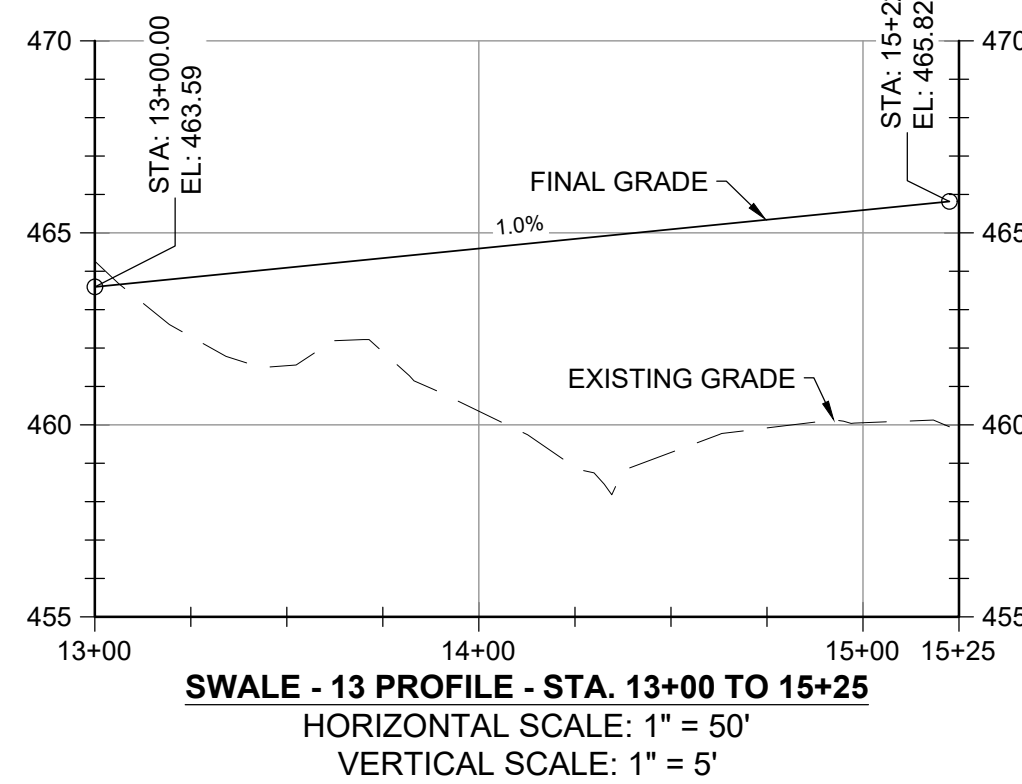
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VERTICAL SCALE: 1" = 5'



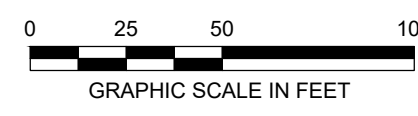
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VERTICAL SCALE: 1" = 5'



SWALE - 13 PROFILE - STA. 13+00 TO 15+25  
HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



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: 8/25/2022									

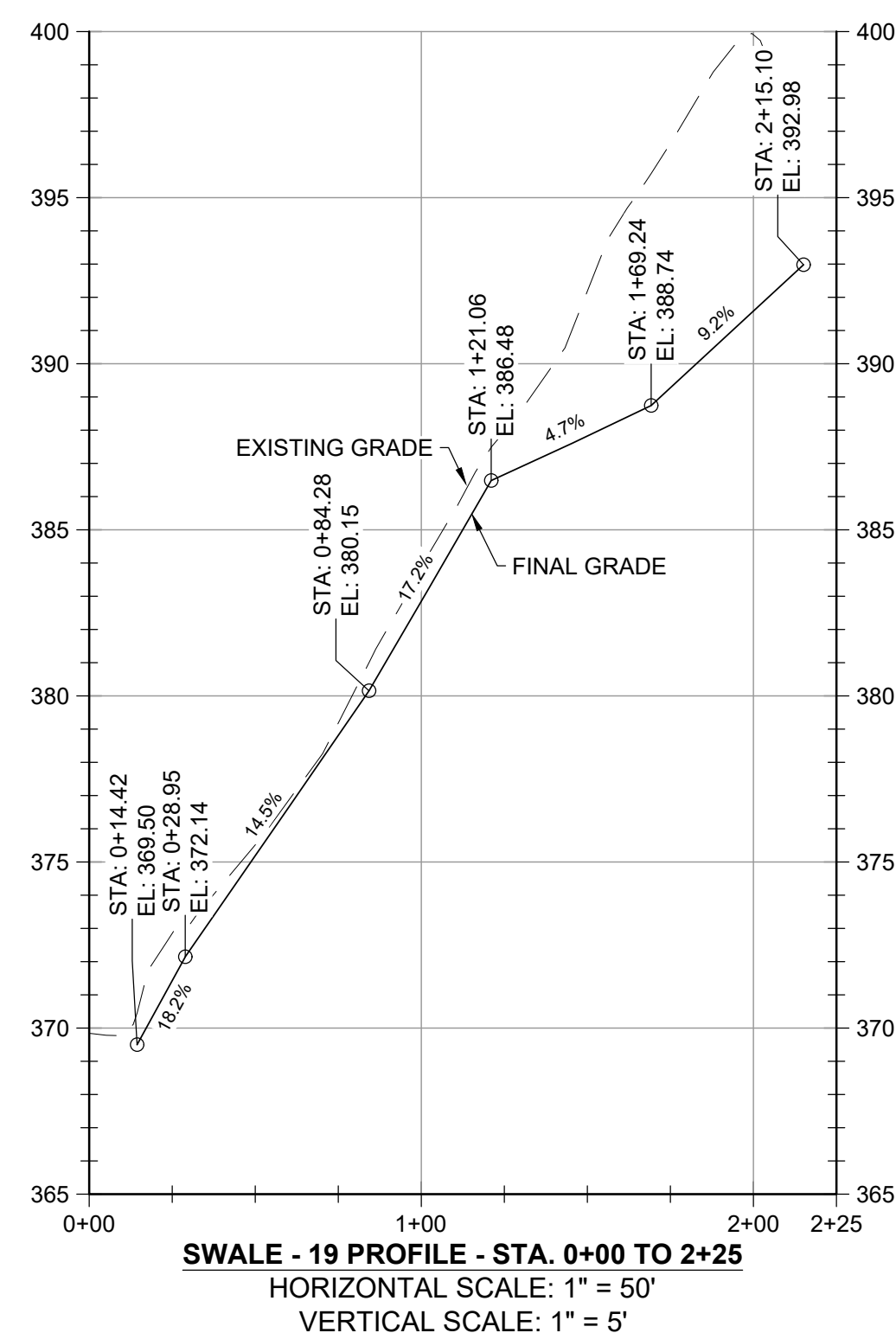
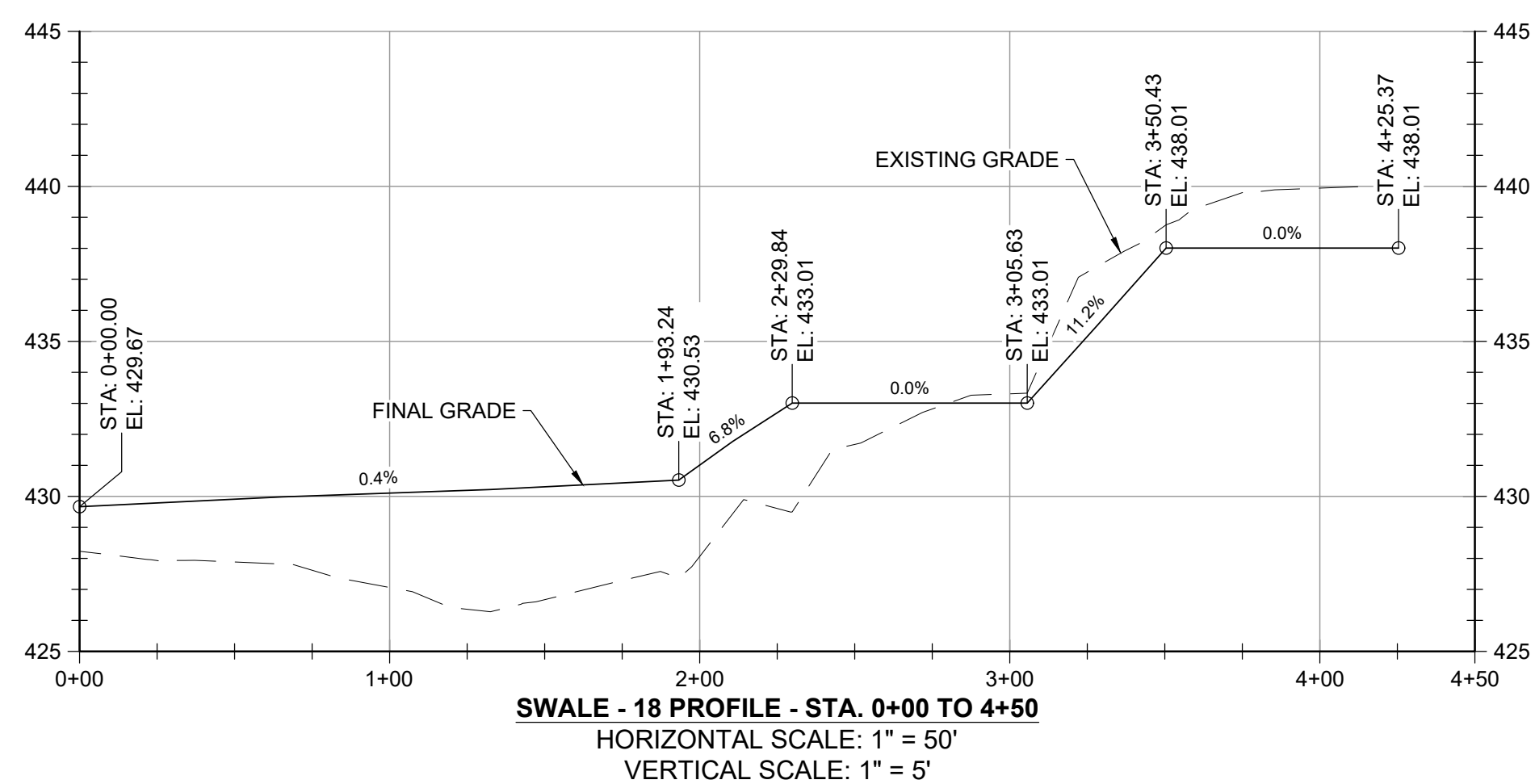
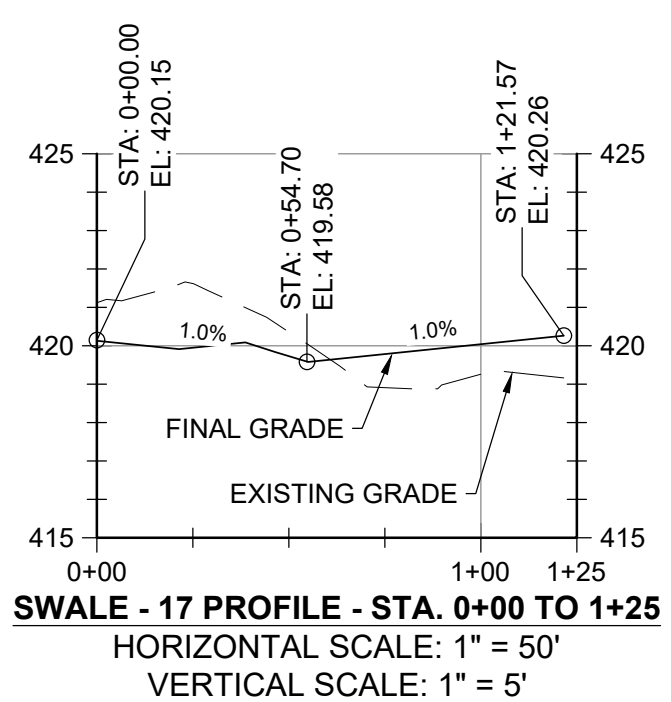
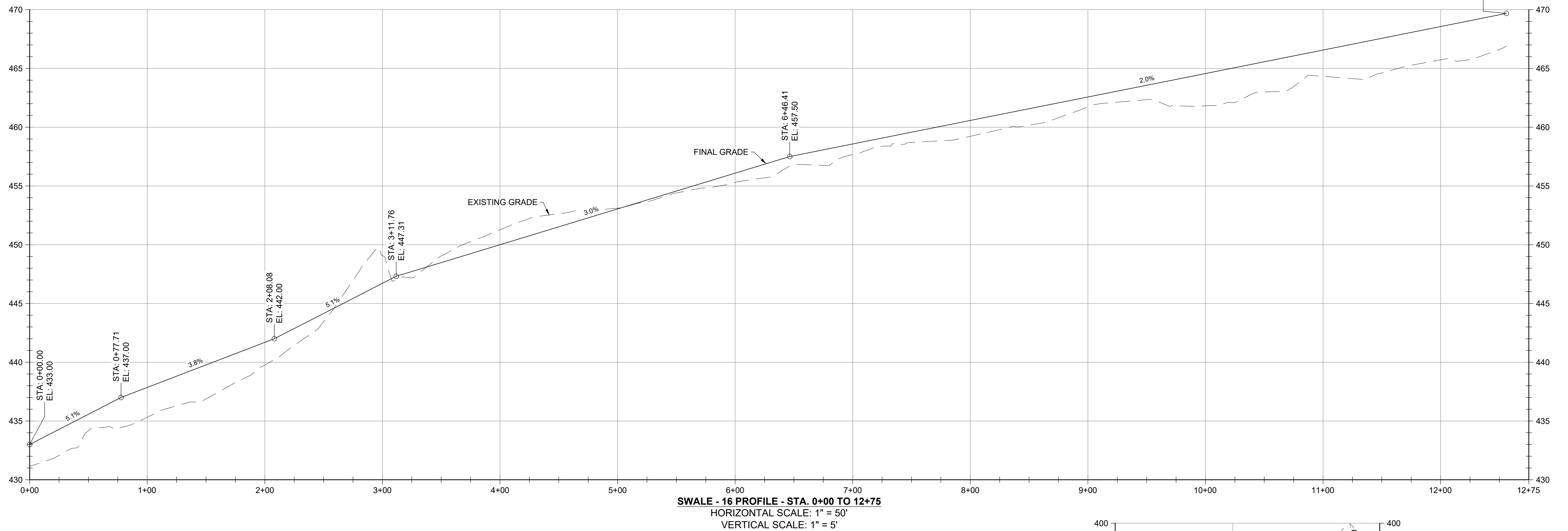
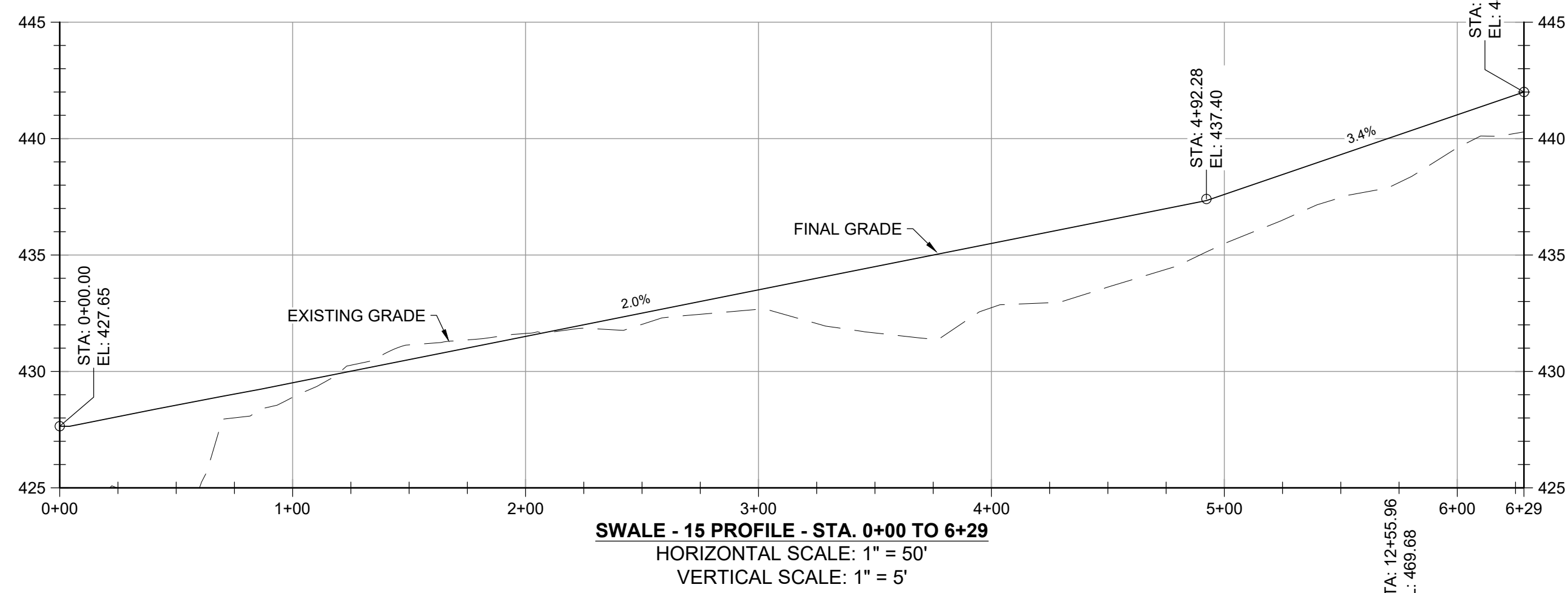
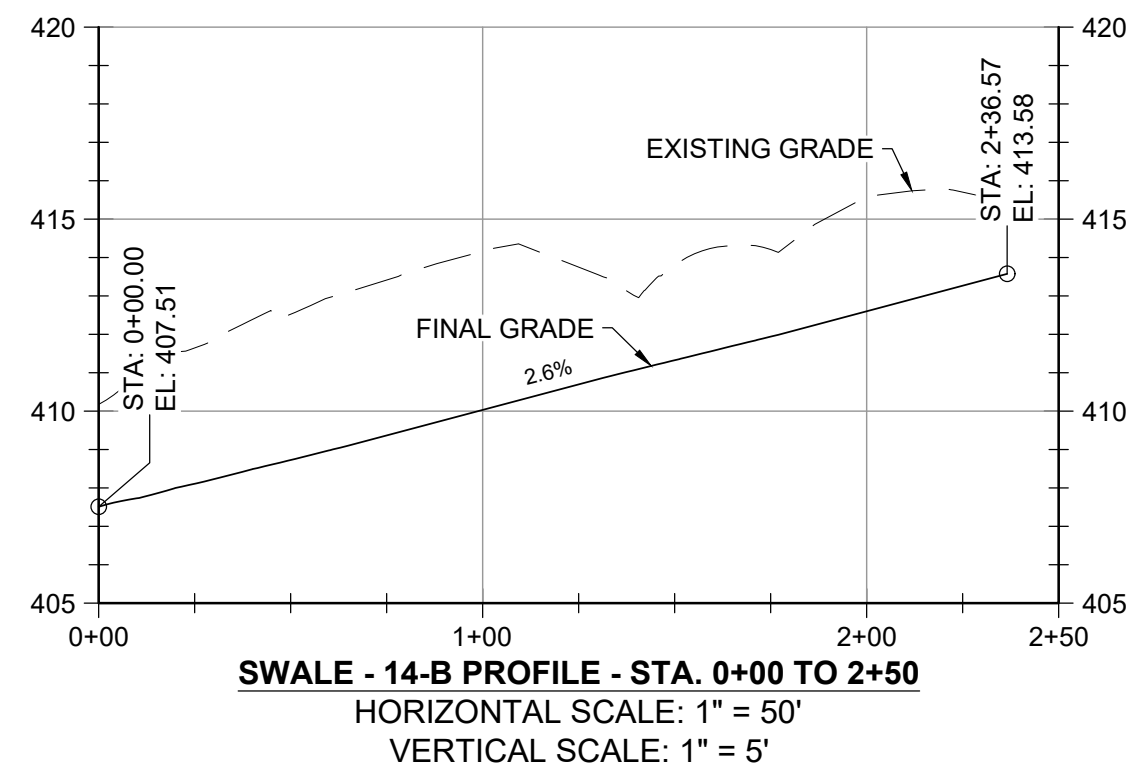
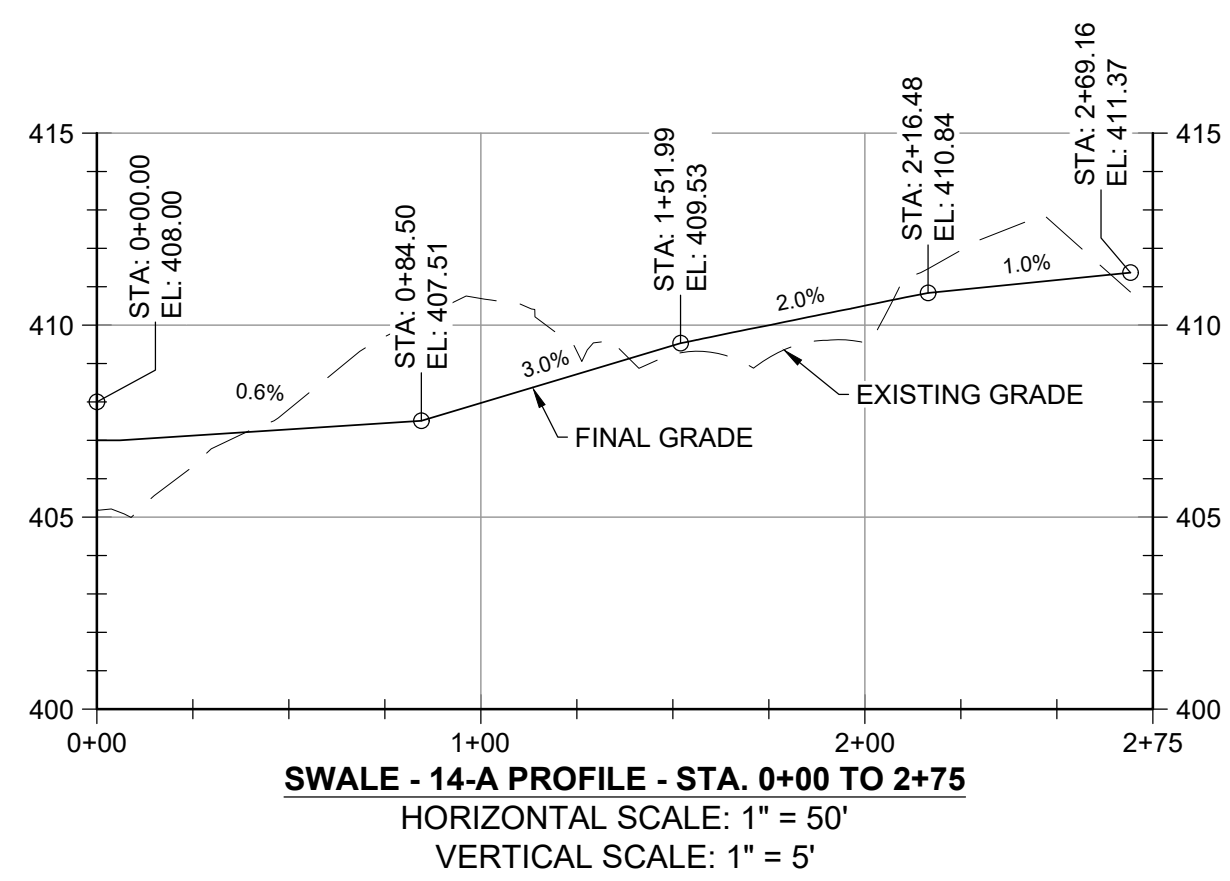
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - SWALE**

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-210**  
 SHEET: 85 OF 146

FILE PATH: G:\PROJECTS\1564601 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\1564601 - SWALE - GEOMETRY PROFILES\DWG\C-110.BIBBETT - STEVEN.DWG (2/10/2020 4:53 PM)

100% DESIGN PLANS - NOT FOR CONSTRUCTION



FILE PATH: G:\PROJECTS\164601 - GUIDE OF DESIGN\PRODUCTION\DESIGN\SET\164601 - SWALE - GEOMETRY PROFILE\DWG\C-211\BIBSETT - STEVEN.DWG(2024.05.09.08.45) PM

NO.	DATE	BY	DESCRIPTION

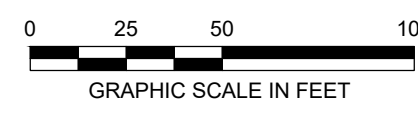
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DRAWN BY:	SMB
CHECKED BY:	LJO / GAT
PROJECT MANAGER:	MJG

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

SEAL

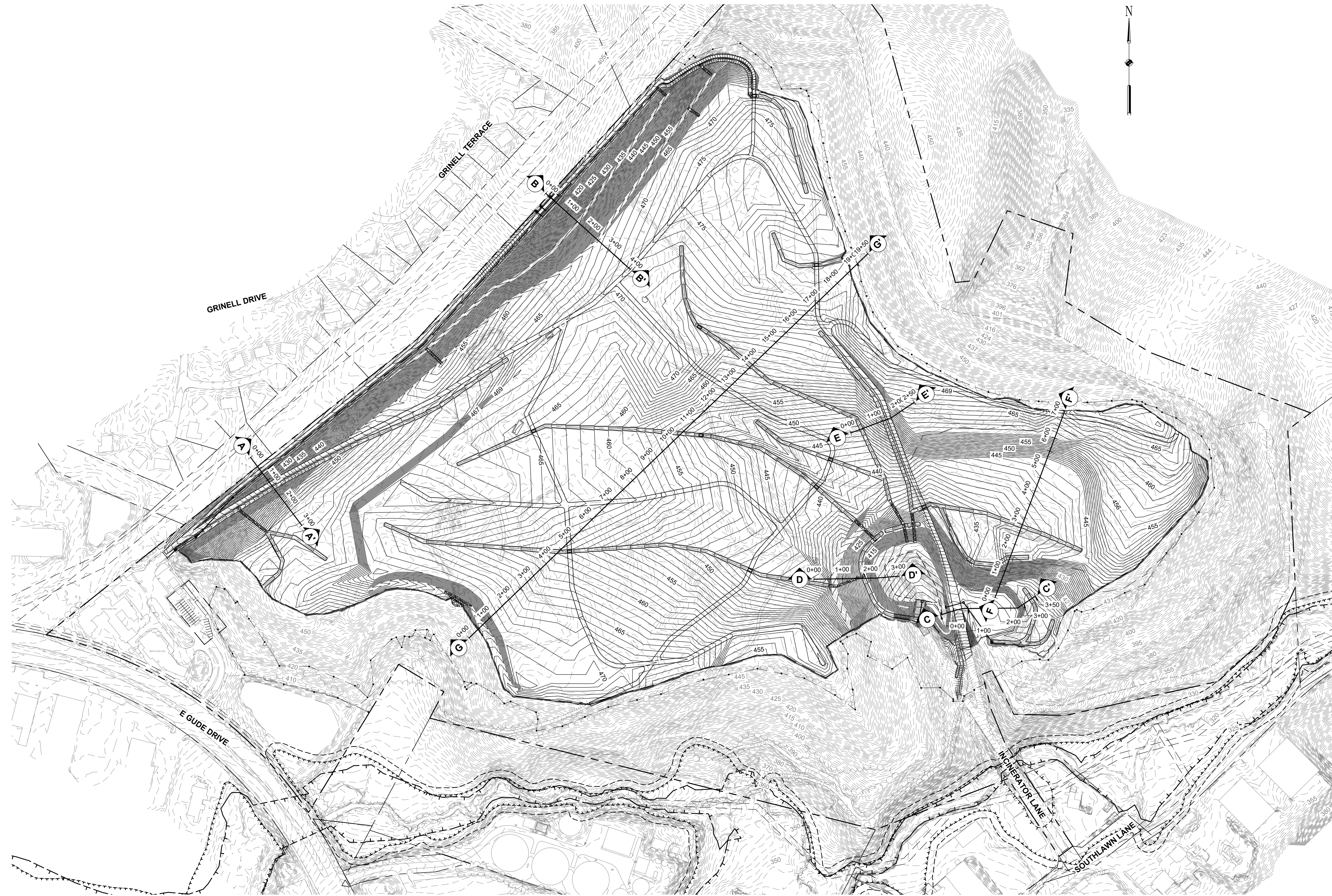
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**GEOMETRY PROFILES - SWALE**

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-211**  
 SHEET: 86 OF 146



100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\156461 - GUIDE OF DISPOSAL\PRODUCTION\DESIGN SET\156461 - 0000 - SITE CROSS SECTIONS.DWG (2:31) (SHEET: 07) (DATE: 12/03/2020 05:54 PM)



DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601

**C-301**  
SHEET: 87 OF 146

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

SITE CROSS SECTIONS - KEY SHEET

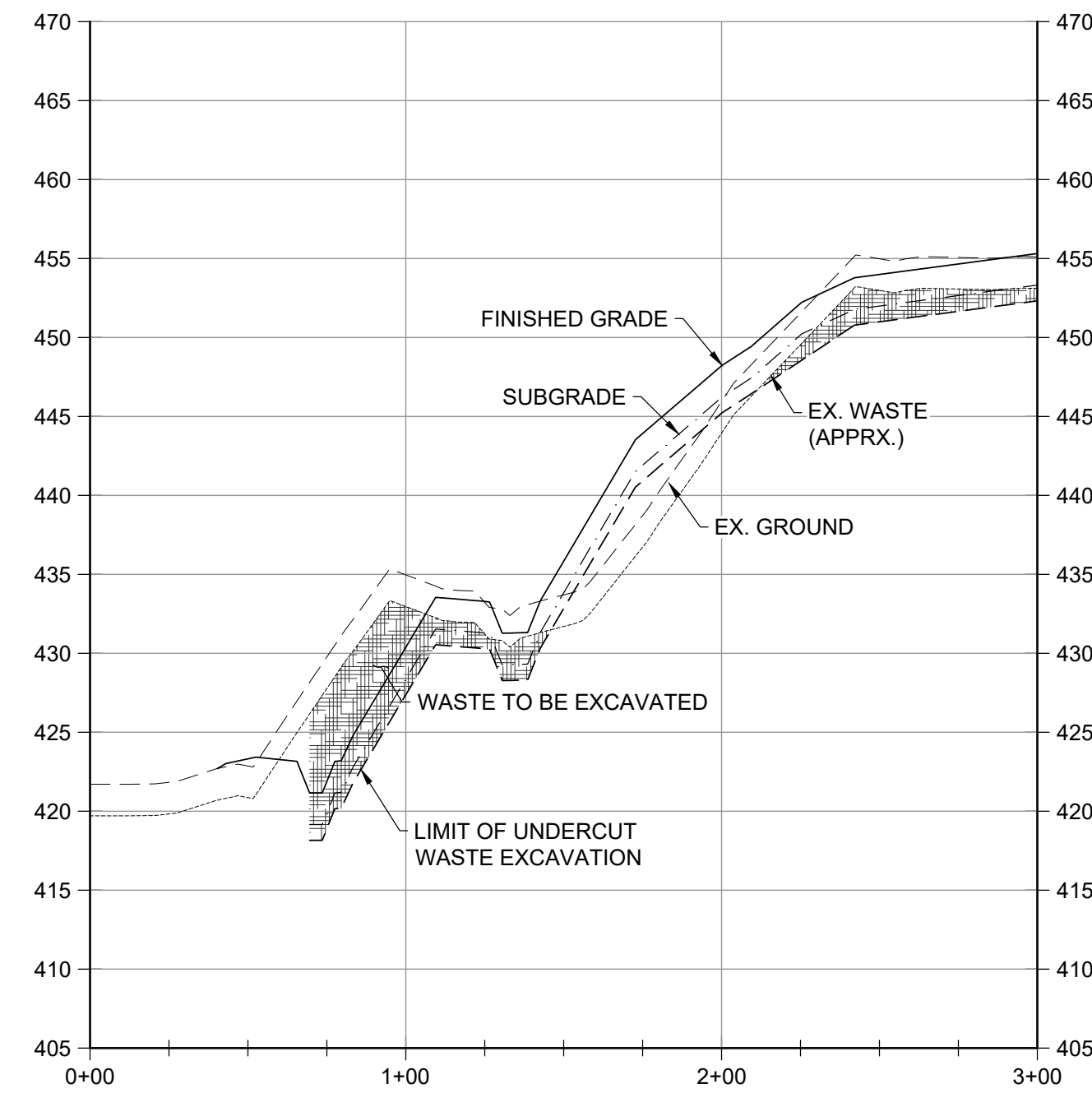
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

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

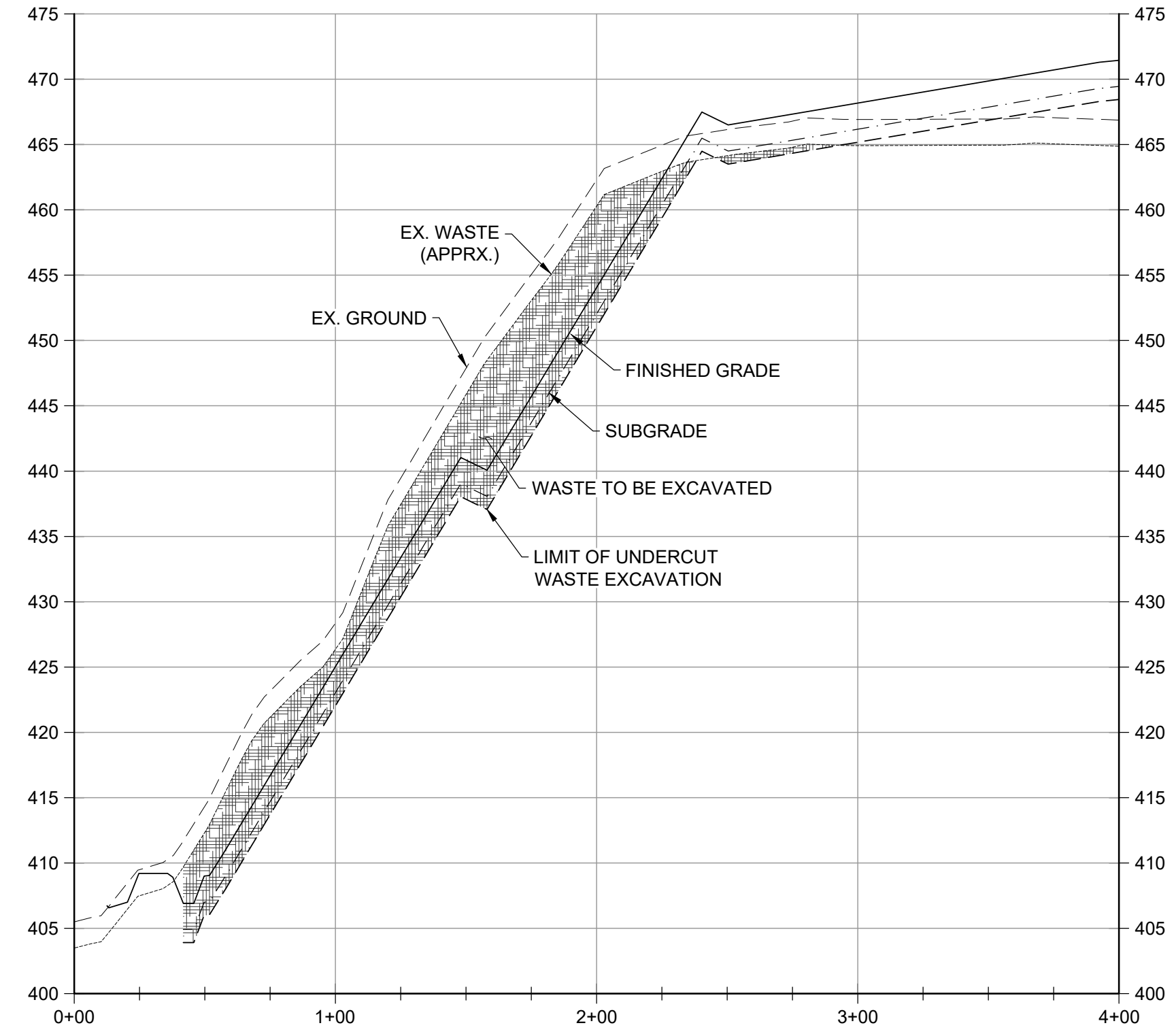
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SEAL

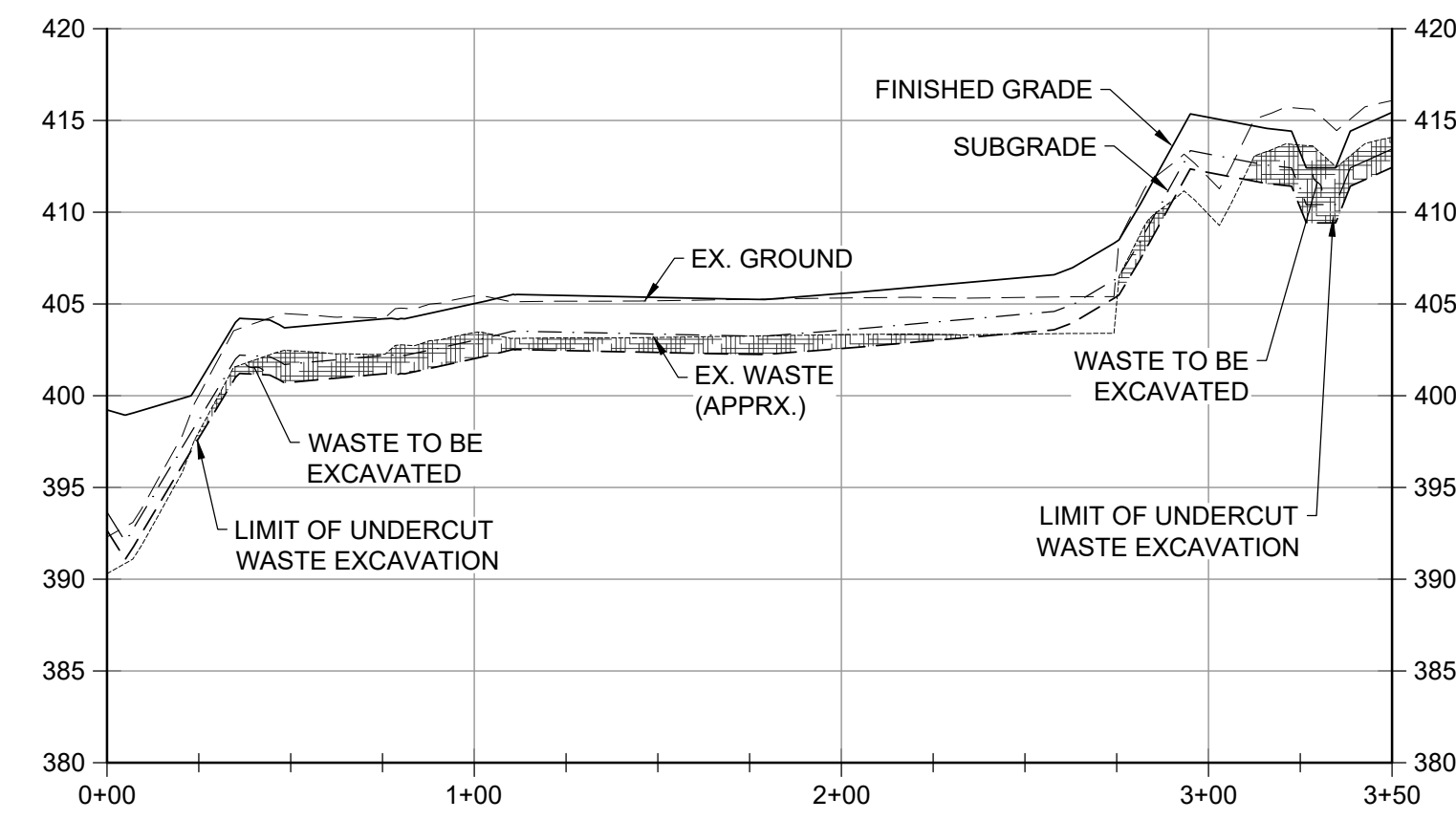
100% DESIGN PLANS - NOT FOR CONSTRUCTION



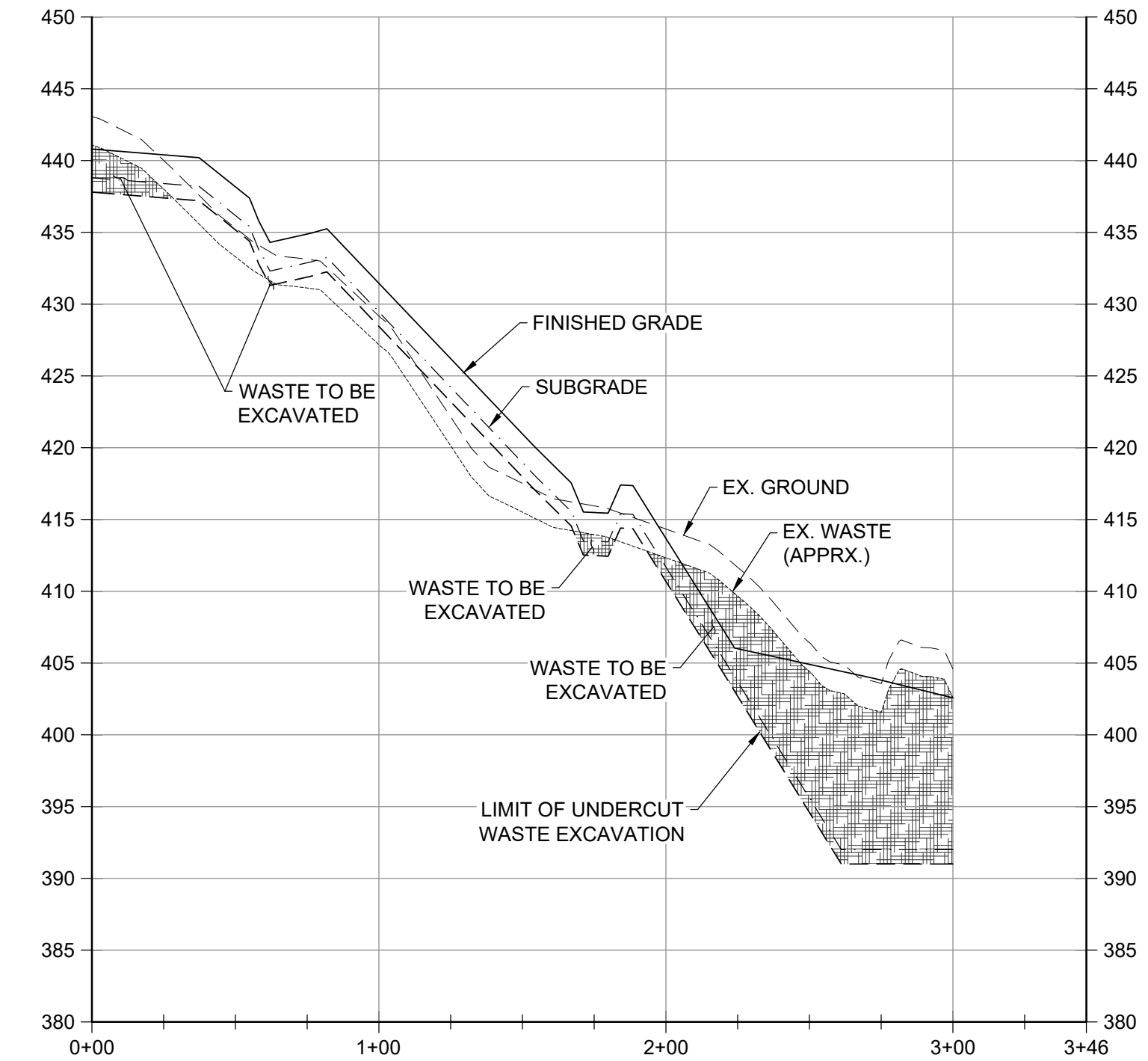
**NORTHWEST SLOPE SECTION A-A'**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'



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

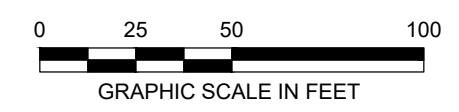


**ENTRANCE ROAD SECTION C-C'**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'



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

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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 FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

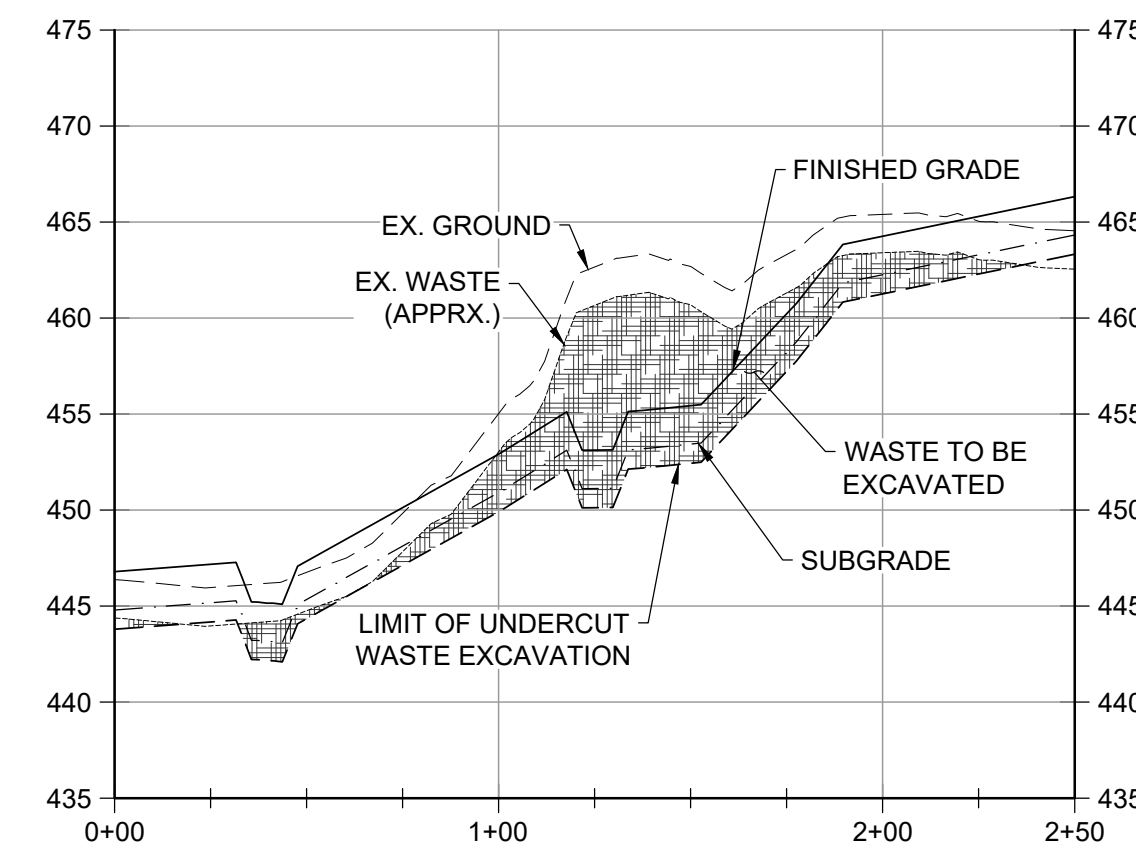
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**SITE CROSS SECTIONS**

  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000  
 DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-302**  
 SHEET: 88 OF 146

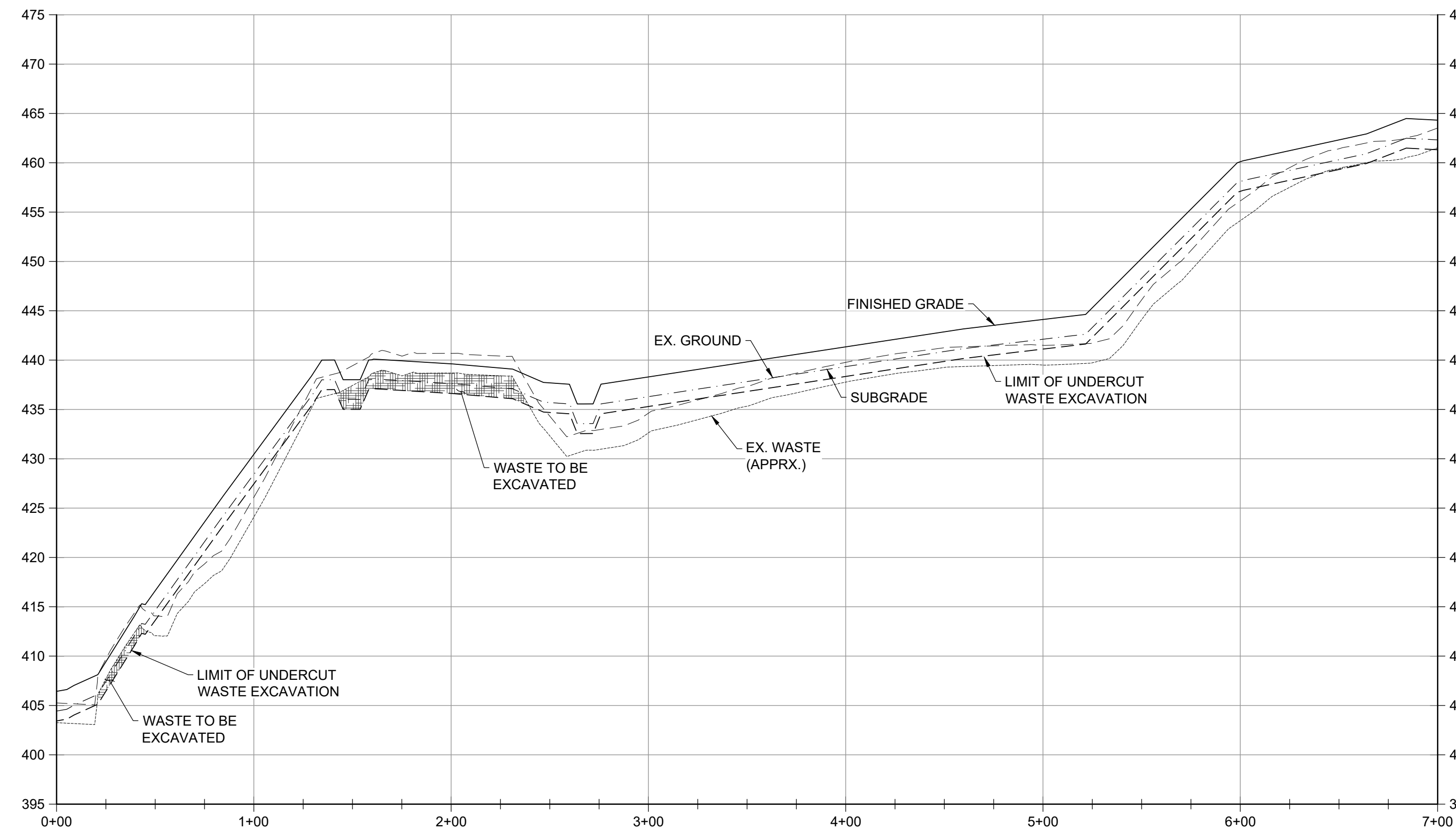
100% DESIGN PLANS - NOT FOR CONSTRUCTION



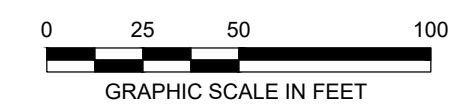
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**ACCESS ROAD SECTION E-E'**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 10'



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



DESIGN INFORMATION		REVISIONS	
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: 8/25/2022

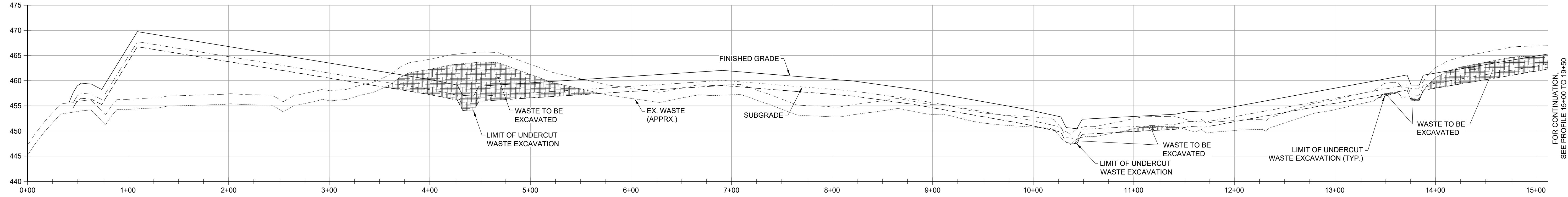
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**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**SITE CROSS SECTIONS**

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

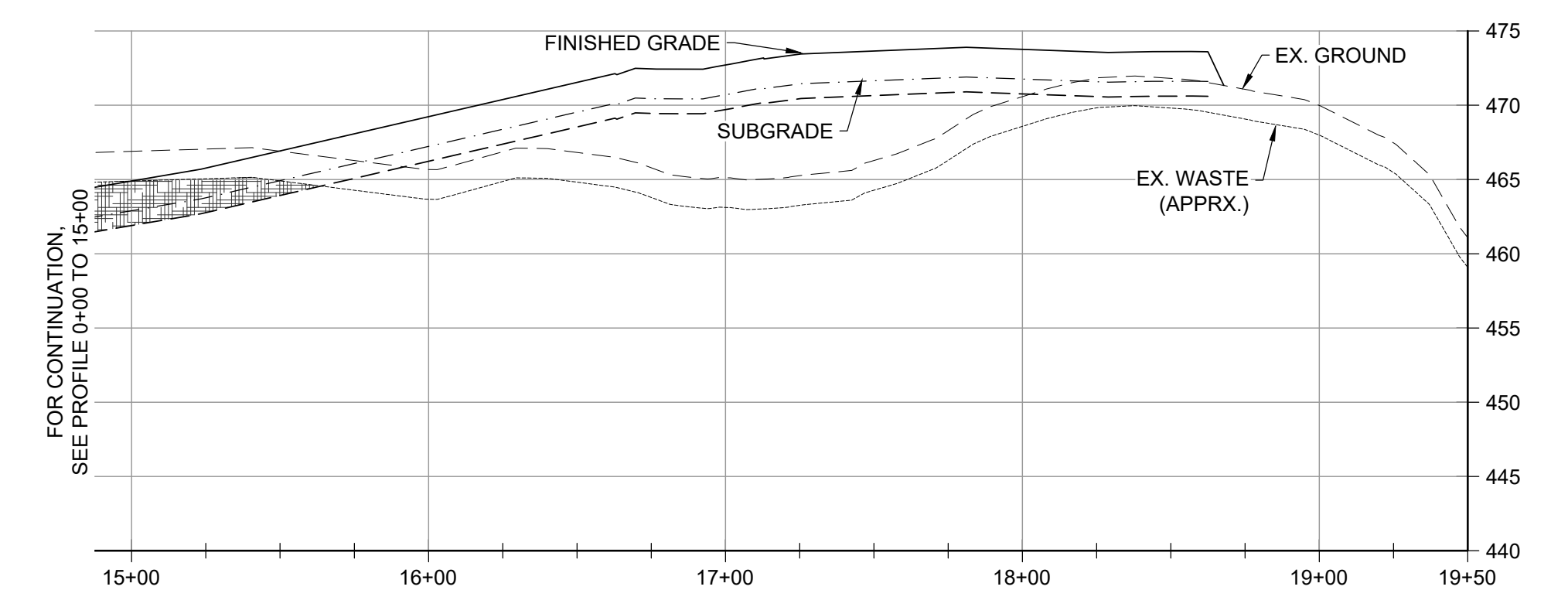
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-303**  
 SHEET: 89 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

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**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'



DESIGN INFORMATION		REVISIONS	
NO.	DATE	BY	DESCRIPTION

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  
**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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-304**  
 SHEET: 90 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\164601 - GUIDE OF REMEDIATION DESIGN\CONSTRUCTION\DETAILS - INDEX - DETAILS\INDEX (C-501) INDEX.DWG, 12/14/2020 4:54 PM

**SITE DETAILS INDEX**

DETAIL NO.	DRAWING NO.	DETAIL
A1	C-502	CHAIN-LINK FENCE DETAIL
A3	C-502	CHAIN-LINK FENCE BRACE & ROD DETAIL
A4	C-502	DOUBLE SWING GATE DETAIL
A5	C-503	MONITORING WELL PROTECTION DETAIL
A6	C-503	TEMPORARY PIEZOMETER EXTENSION DETAIL
A7	C-503	ACCESS ROAD SECTION - CROWNED
A8	C-503	ACCESS ROAD SECTION - SUPERELEVATED
A9	C-503	BASE OF NORTHWEST SLOPE ACCESS ROAD DETAIL
A10	C-503	PERMANENT FOREST CONSERVATION SIGNAGE
A11	C-503	BOLLARD DETAIL

**EXCAVATION/GRADING DETAILS INDEX**

DETAIL NO.	DRAWING NO.	DETAIL
G1	C-505	EXISTING COVER SOIL REMOVAL DETAIL
G2	C-505	EXISTING WASTE EXCAVATION AND RELOCATION, AND SUBGRADE CONSTRUCTION DETAIL
G4	C-506	SIDE SLOPE EXCAVATION DETAIL
G5	C-506	SIDE SLOPE EXCAVATION DETAIL - PLAN VIEW
G6	C-504	ADMINISTRATIVE AREA INSET
G7	C-507	SETTLEMENT PLATE

**CLOSURE CAP DETAILS INDEX**

DETAIL NO.	DRAWING NO.	DETAIL
C1	C-508	GEOSYNTHETIC CLOSURE CAP SECTION - BASE BID
C2	C-508	GEOSYNTHETIC CLOSURE CAP SECTION - ALTERNATE
C3	C-508	SEDIMENT BASIN BOTTOM SECTION
C4	C-508	GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (ROAD CONDITION)
C5	C-508	GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (TYPICAL CONDITION)
C6	C-508	GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (UPHILL PERIMETER CONDITION)
C7	C-508	GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (SWALE CONDITION)
C8	C-509	NORTHWEST SLOPE DETAIL
C9	C-509	NORTHWEST SLOPE DISCHARGE FACILITY DETAIL
C10	C-509	6" PERFORATED PIPE
C11	C-508	GEOSYNTHETIC CLOSURE CAP SECTION TIE-IN TO SWALE
C12	C-508	GEOSYNTHETIC CLOSURE CAP SECTION THROUGH BENCH
C13	C-509	GABION DOWNCHUTE
C14	C-509	PIPE BOOT DETAIL
C15	C-509	GEOMEMBRANE LINER TO CONCRETE STRUCTURE ATTACHMENT DETAIL
C16	C-509	TEMPORARY STONE DOWNCHUTE
C17	C-508	GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (SEDIMENT BASIN CLOSE-OUT)

**DRAINAGE DETAILS INDEX**

DETAIL NO.	DRAWING NO.	DETAIL
D1	C-510	"J" INLET DETAIL
D2	C-510	"J" INLET AS A TERMINUS DETAIL
D3	C-510	"A" MANHOLE DETAIL
D4	C-510	MANHOLE AND INLET STEPS DETAIL
D5	C-510	STORM DRAIN PIPE BEDDING AND TRENCH BACKFILL DETAIL
D6	C-510	TYPE "Y" INLET DETAIL
D7	C-511	BOX CULVERT DETAIL
D8	C-512	SEDIMENT BASIN NO. 1 - RISER STRUCTURE DETAIL
D9	C-512	TRASH RACK DETAIL
D10	C-512	TYPICAL REINFORCING AROUND CIRCULAR OPENING
D11	C-512	TYPICAL REINFORCING AROUND ORIFICE OPENING
D12	C-513	SEDIMENT BASIN SEQUENCE OF CONSTRUCTION - SUBGRADE CONDITION - PLAN VIEW
D13	C-513	DRAINAGE CHANNEL - FINAL CONSTRUCTION CONDITION - PLAN VIEW
D14	C-512	INLET DIVERSION

**EROSION AND SEDIMENT CONTROLS DETAILS INDEX**

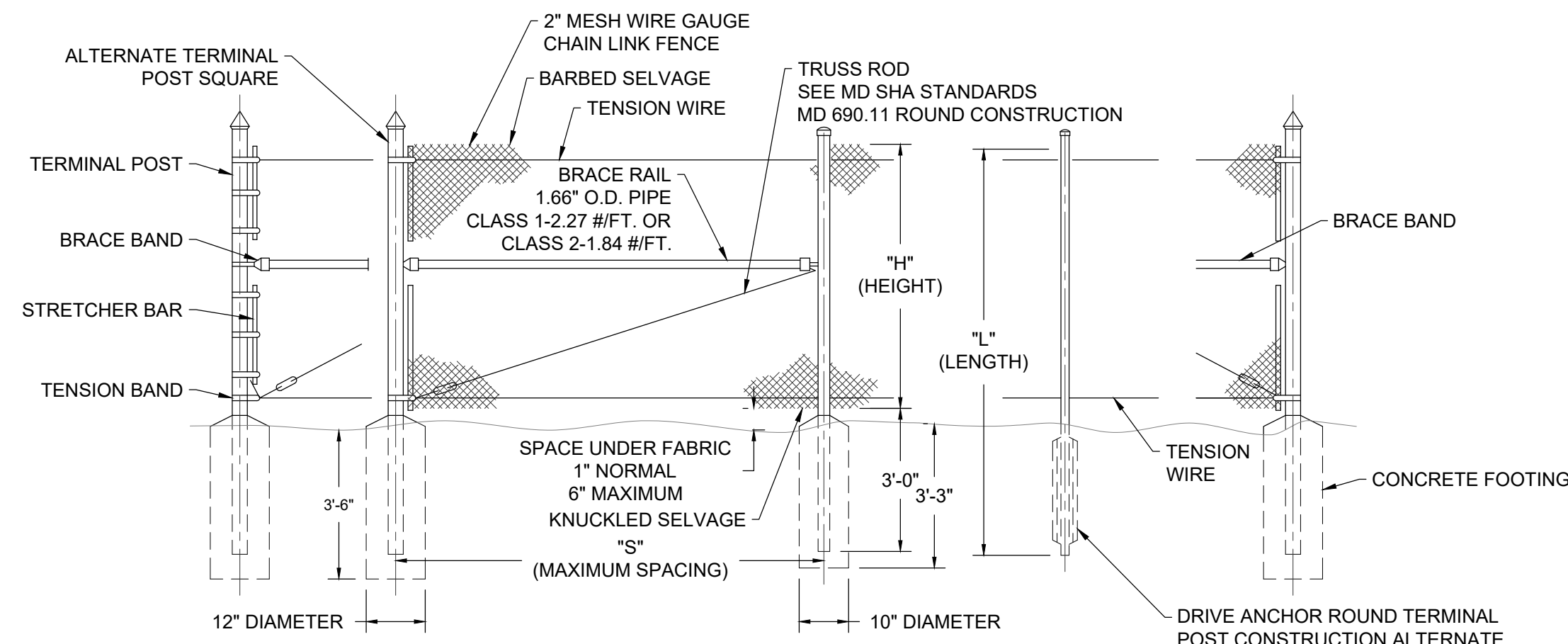
DETAIL NO.	DRAWING NO.	DETAIL
E1	C-514	STABILIZED CONSTRUCTION ENTRANCE
E2	C-514	TEMPORARY SOIL STABILIZATION MATTING DITCH OR CHANNEL APPLICATION
E3	C-514	TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION
E4	C-514	PERMANENT SOIL STABILIZATION MATTING DITCH OR CHANNEL APPLICATION
E5	C-514	PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION
E6	C-514	EARTH DIKE
E7	C-514	CLEAR WATER DIVERSION PIPE
E8	C-514	MOUNTABLE BERM
E9	C-514	PIPE SLOPE DRAIN
E10	C-514	TEMPORARY GABION OUTLET STRUCTURE AND PIPE SLOPE DRAIN INTERFACE DETAIL
E11	C-514	ROCK OUTLET PROTECTION II
E12	C-514	SUPER SILT FENCE
E13	C-514	CLEAR WATER PIPE THROUGH SILT FENCE/SUPER SILT FENCE
E14	C-514	BENCHING
E15	C-514	FILTER LOG
E16	C-515	TEMPORARY STONE OUTLET STRUCTURE
E17	C-515	TEMPORARY GABION OUTLET STRUCTURE
E18	C-515	STANDARD INLET PROTECTION
E19	C-515	SUMP PIT
E20	C-515	FILTER BAG
E21	C-515	TYPICAL ANTI SEEP COLLAR FOR RCP PIPE
E22	C-515	BAFFLE BOARD
E23	C-515	ONSITE CONCRETE WASHOUT STRUCTURE
E24	C-515	MONTGOMERY COUNTY STANDARD DEWATERING DEVICE
E25	C-515	TEMPORARY ACCESS CULVERT
E26	C-515	CONCRETE CRADLE FOR CONCRETE PIPE BARREL
E27	C-516	STOCKPILE DETAIL
	C-516	MDE STANDARDS AND SPECIFICATIONS
	C-516	SEEDING SUMMARY
	C-512	MDE TABLE G.6 - TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

**LANDFILL GAS DETAILS INDEX**

DETAIL NO.	DRAWING NO.	DETAIL
L1	C-517	EXISTING LANDFILL GAS EXTRACTION WELL ABANDONMENT
L2	C-517	EXISTING REMOTE LANDFILL GAS EXTRACTION WELL ABANDONMENT
L3	C-517	EXISTING LANDFILL GAS EXTRACTION WELL MODIFICATION - SHORTEN
L4	C-517	EXISTING LANDFILL GAS EXTRACTION WELL MODIFICATION - EXTEND
L5	C-517	PROPOSED LANDFILL GAS EXTRACTION WELL
L6	C-517	REMOTE LANDFILL GAS WELLHEAD
L7	C-517	LANDFILL GAS WELLHEAD
L8	C-518	GRAVEL PAD
L9	C-518	LANDFILL GAS HEADER ISOLATION VALVE
L10	C-518	LLDPE CLOSURE LINER PENETRATION DETAIL
L11	C-518	LANDFILL GAS LATERAL BENCH CROSSING
L12	C-518	PIPING TRENCH DETAIL (WITHIN LANDFILL CLOSURE CAP)
L13	C-518	PIPING TRENCH DETAIL (OUTSIDE LANDFILL CLOSURE CAP)
L14	C-518	CONDENSATE DRAIN
L15	C-518	LATERAL CONNECTION
L16	C-518	GAS COLLECTION PIPING FLANGE CONNECTION DETAIL
L17	C-519	EXISTING DEWATERING SUMP MODIFICATION - EXTEND
	C-518	PROPOSED CONDENSATE DRAIN SCHEDULE
L18	C-519	LANDFILL GAS PIPE SWALE CROSSING
L19	C-519	LANDFILL GAS PIPE ROAD CROSSING
L20	C-519	LANDFILL GAS HEADER TIE-IN DETAIL
	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
	C-520	EXISTING REMOTE LANDFILL GAS EXTRACTION WELLS TO BE ABANDONED

SEAL	DESIGN INFORMATION	REVISIONS	BY	DATE	NO.	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: 8/25/2022						
<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>DETAIL INDEX SHEET</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: DECEMBER 2020 PROJECT NUMBER: 1564601 <b>C-501</b> SHEET: 91 OF 146						

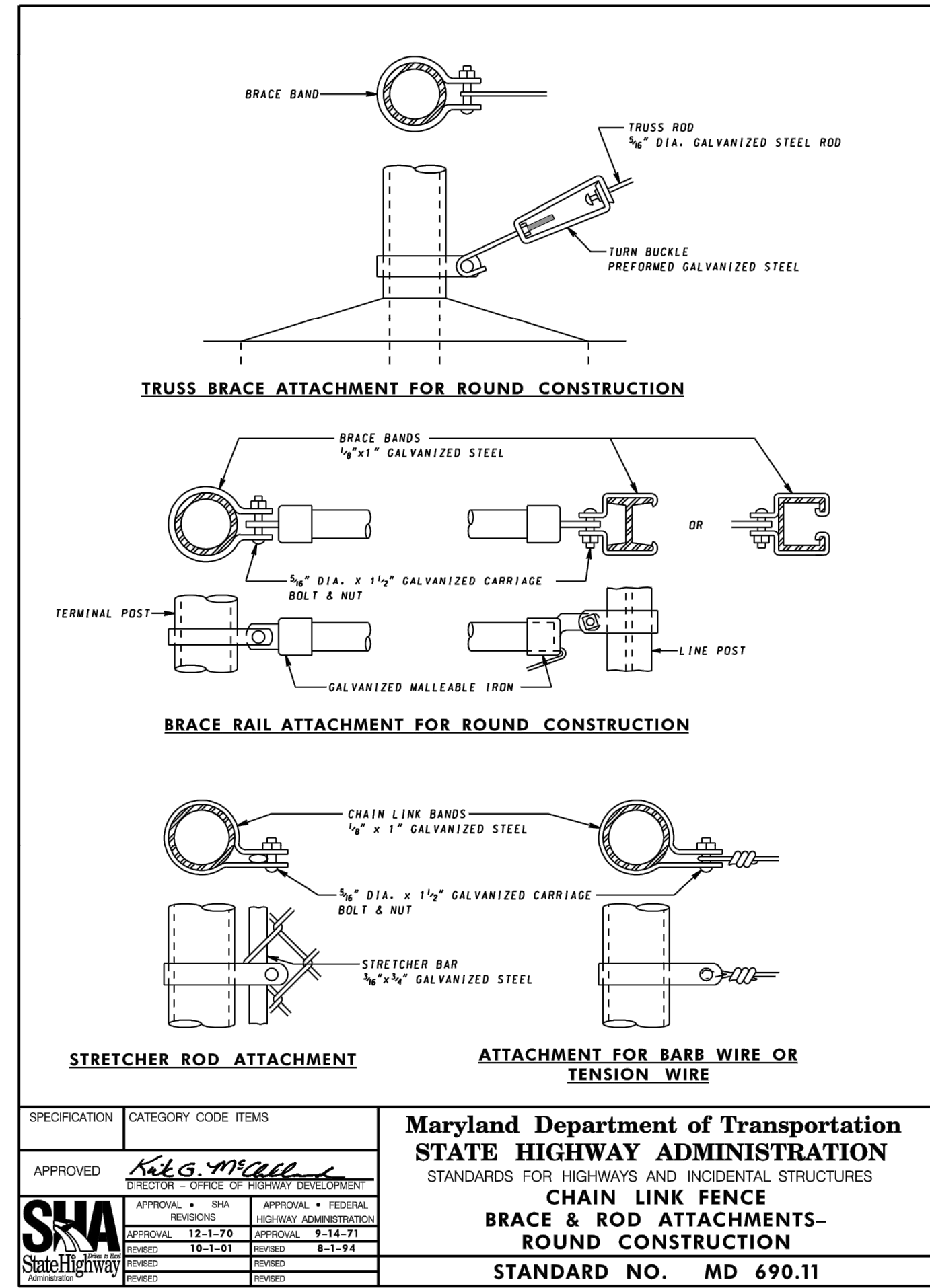
100% DESIGN PLANS - NOT FOR CONSTRUCTION



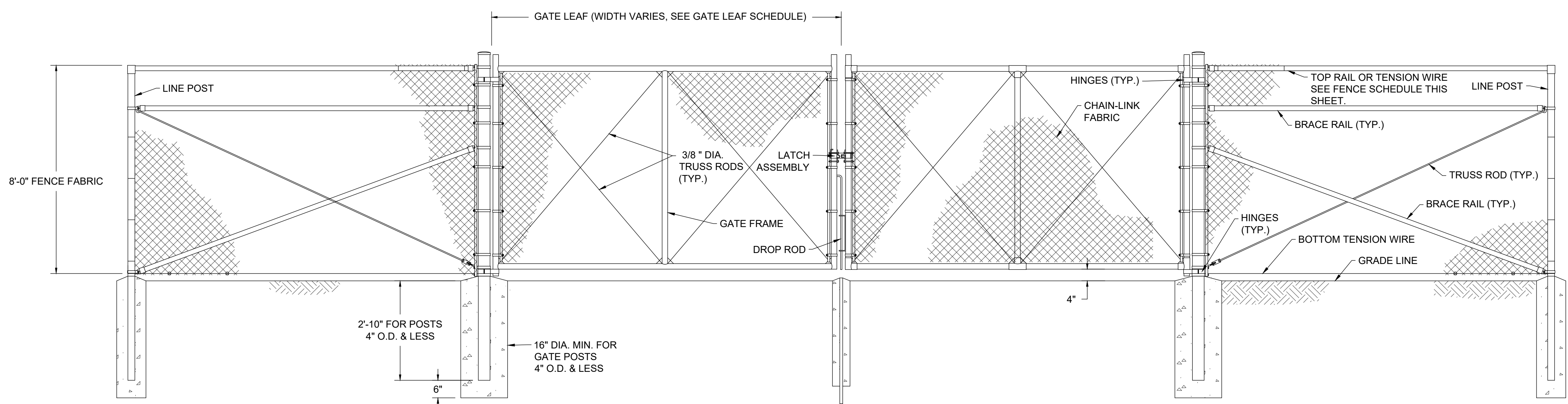
"H" HEIGHT OF FENCE		8'-0"
"L" POST SPACING MAX.		10'-0"
"L" LENGTH INCL. CAP.		10'-0"
LINE POSTS	ROUND-CLASS 1	2.375" O.D. @ 3.65 #/FT
	ROUND-CLASS 2	2.375" O.D. @ 3.12 #/FT
	H-BEAM-STEEL	2.25" x 1.17" @ 3.26 #/FT
	H-BEAM-ALUM.	2.25" x 1.90" @ 1.25 #/FT
TERM. POSTS	ROUND-CLASS 1	2.875" O.D. @ 5.78 #/FT
	ROUND-CLASS 2	2.875" O.D. @ 4.64 #/FT
	SQUARE-ALT.	2.50" SQ. @ 5.70 #/FT

**A1 CHAIN-LINK FENCE DETAIL**  
NOT TO SCALE

- NOTES:**
- BASED ON MD SHA STANDARD DETAIL NO. MD 690.01.
  - 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.
  - FASTEN FABRIC TO TENSION WIRE WITH HOG RINGS @ 18" C/C. HOG RINGS TO BE 12 1/2 GAUGE GALVANIZED STEEL WIRE.
  - MATERIALS TO MEET REQUIREMENTS OF AASHTO M 181.
  - THE COLOR OF THE COATING SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS.



**A3 CHAIN-LINK FENCE BRACE & ROD DETAIL**  
NOT TO SCALE



**A4 DOUBLE SWING GATE DETAIL**  
NOT TO SCALE

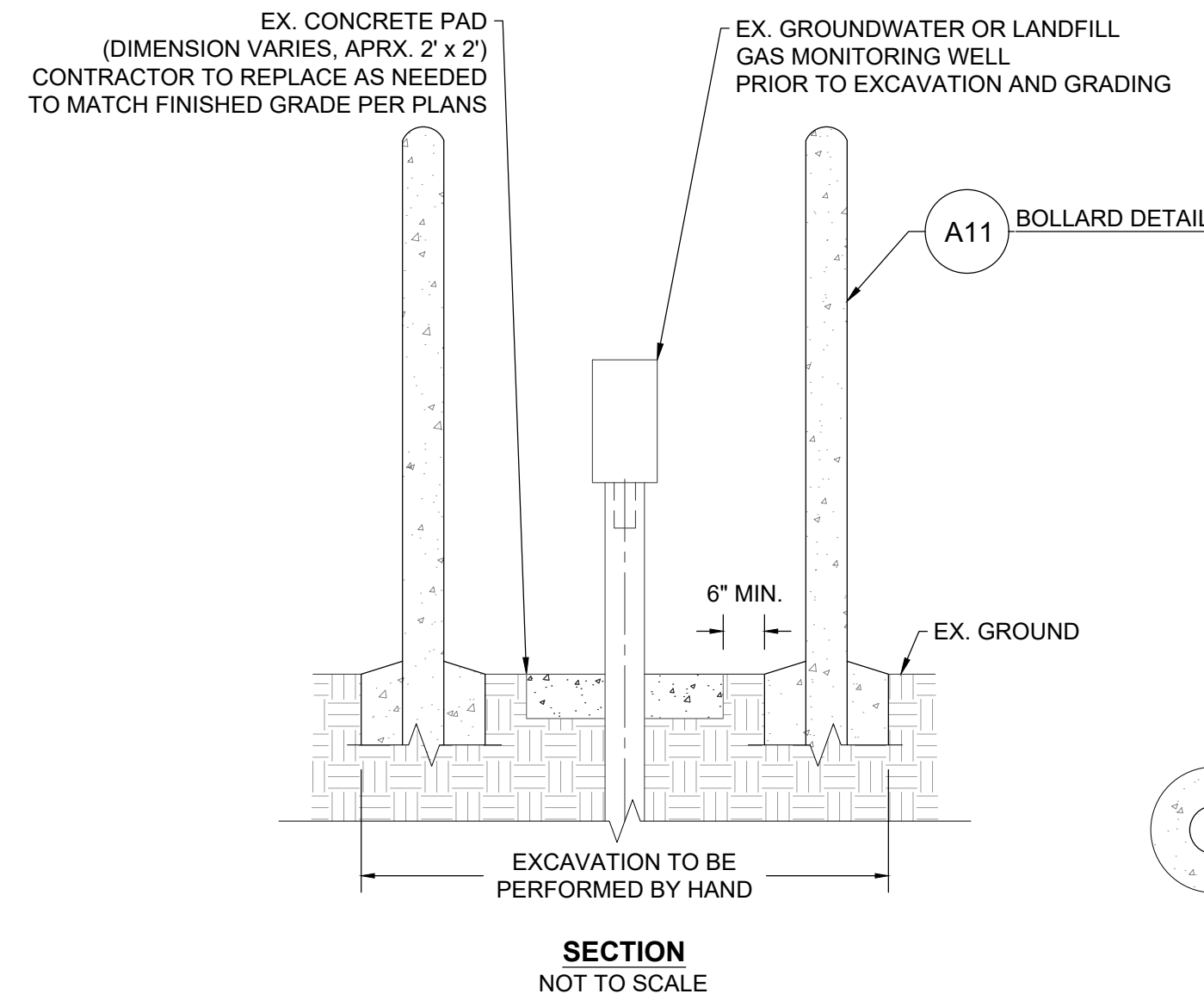
**GATE LEAF SCHEDULE**

GATE ID	GATE LEAF WIDTH (FT)	TOTAL GATE WIDTH (FT)
GATE 1	12'-6"	25'-0"
GATE 2	10'-0"	20'-0"
GATE 3	15'-0"	30'-0"

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 FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022
<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-</b> <b>ROUND CONSTRUCTION</b> <b>STANDARD NO. MD 690.11</b>	
<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>SITE DETAILS</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: DECEMBER 2020 PROJECT NUMBER: 1564601 <b>C-502</b> SHEET: 92 OF 146	

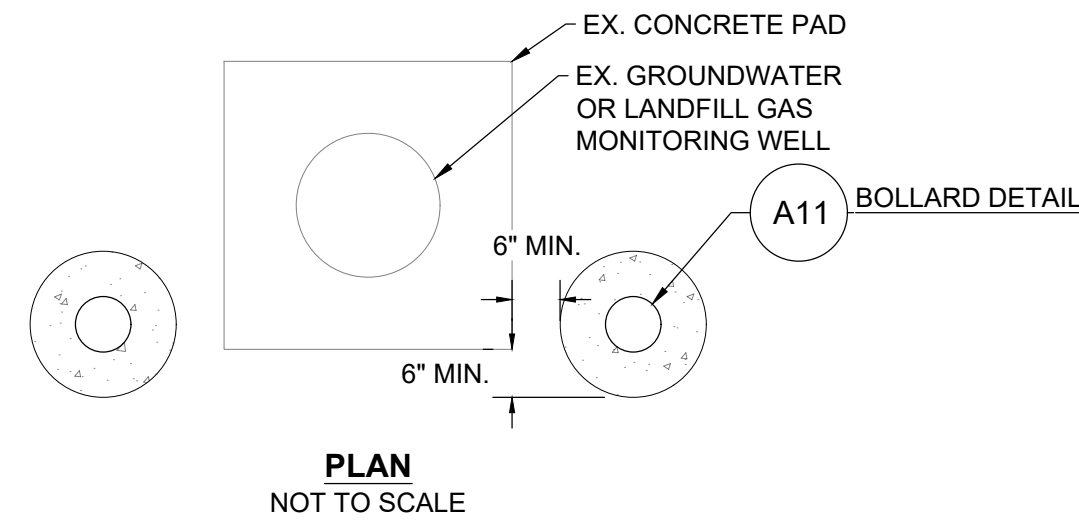
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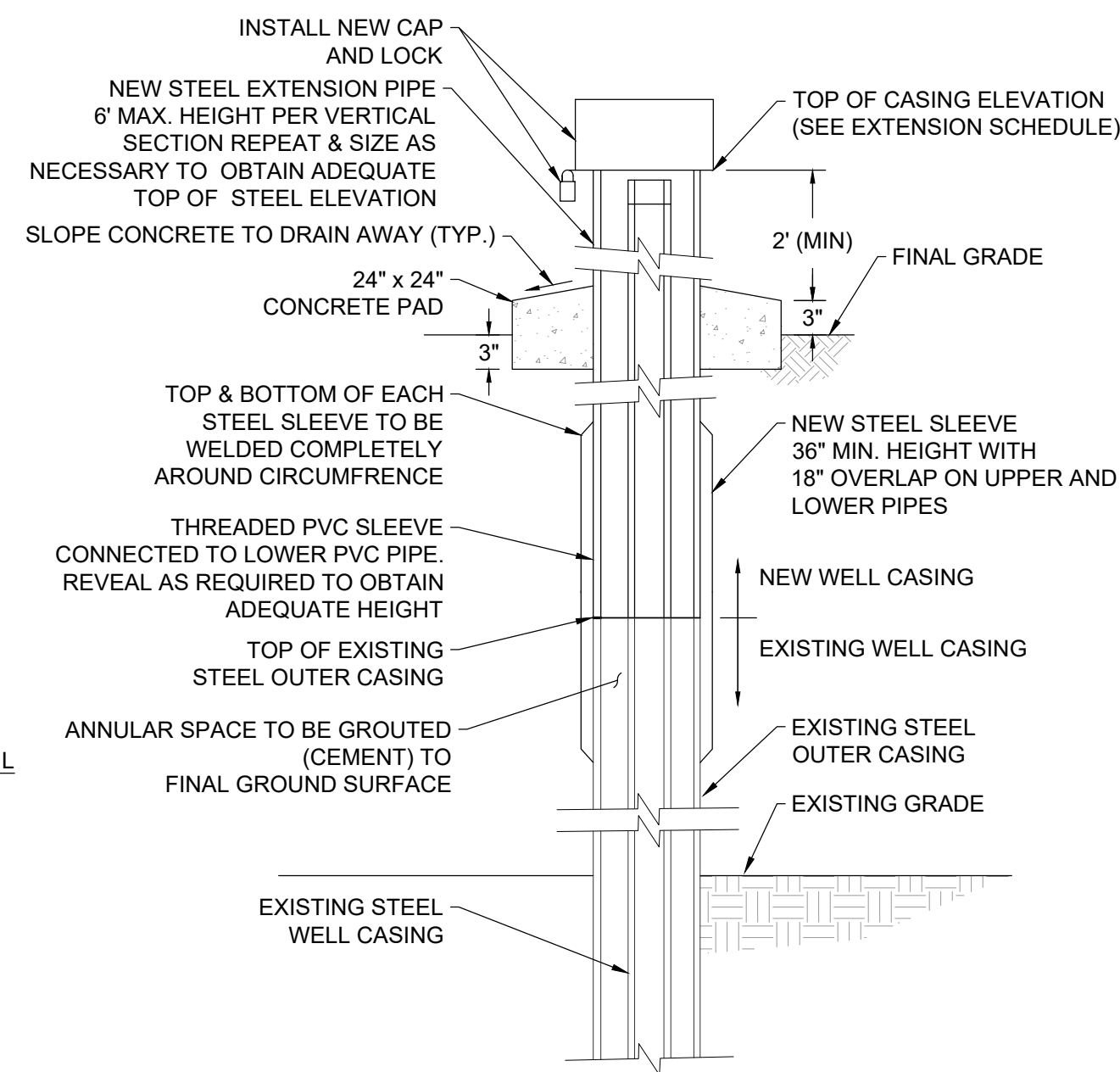


**NOTES:**

1. INSTALL BOLLARDS AROUND THE EXISTING MONITORING WELL AT MINIMUM A DISTANCE OF 6" FROM THE EXISTING CONCRETE PAD TO THE CONCRETE BOLLARD BASE. HAND DIG TO PERFORM EXCAVATION IN THIS AREA.
2. BOLLARDS ARE ONLY TO BE INSTALLED ON THE INTERIOR LANDFILL SIDE OF THE WELLS.



**A5 MONITORING WELL PROTECTION DETAIL**  
NOT TO SCALE

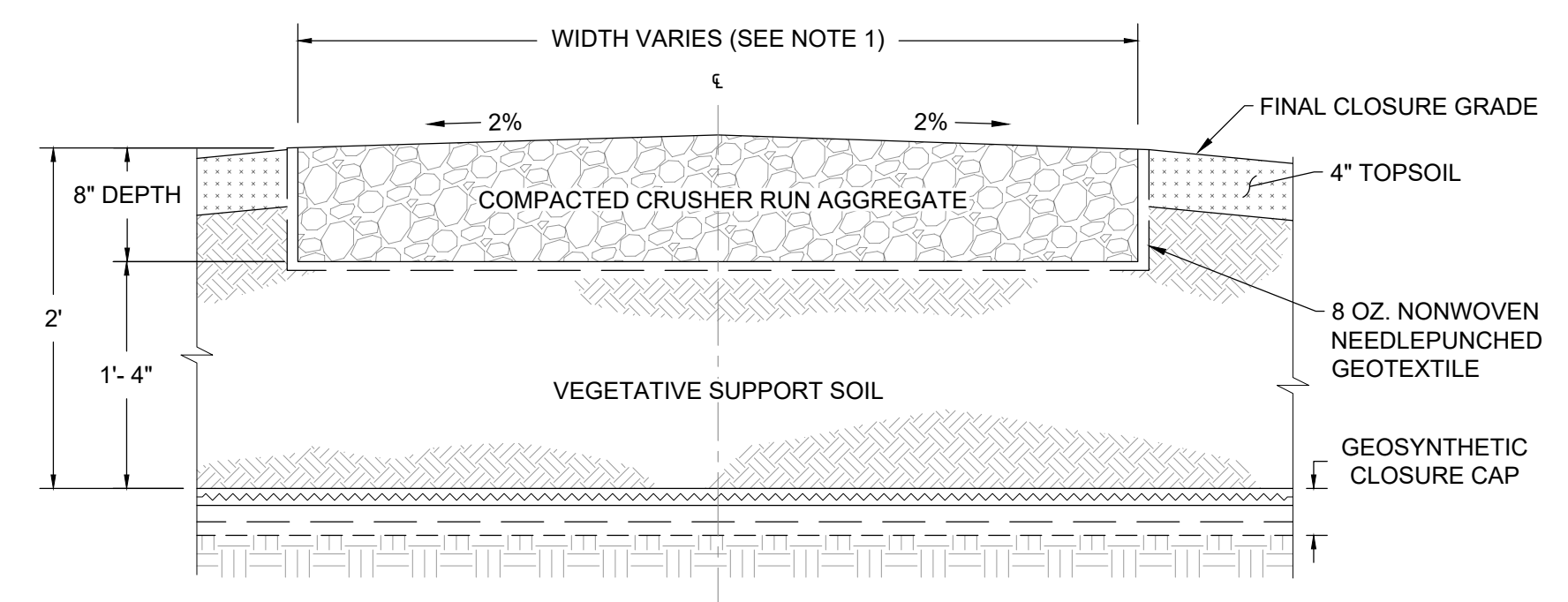


**NOTE:**

1. CONTRACTOR SHALL PROVIDE APPROPRIATE THERMAL PROTECTION AROUND THE PVC CASING DURING ALL WELDING OPERATIONS.

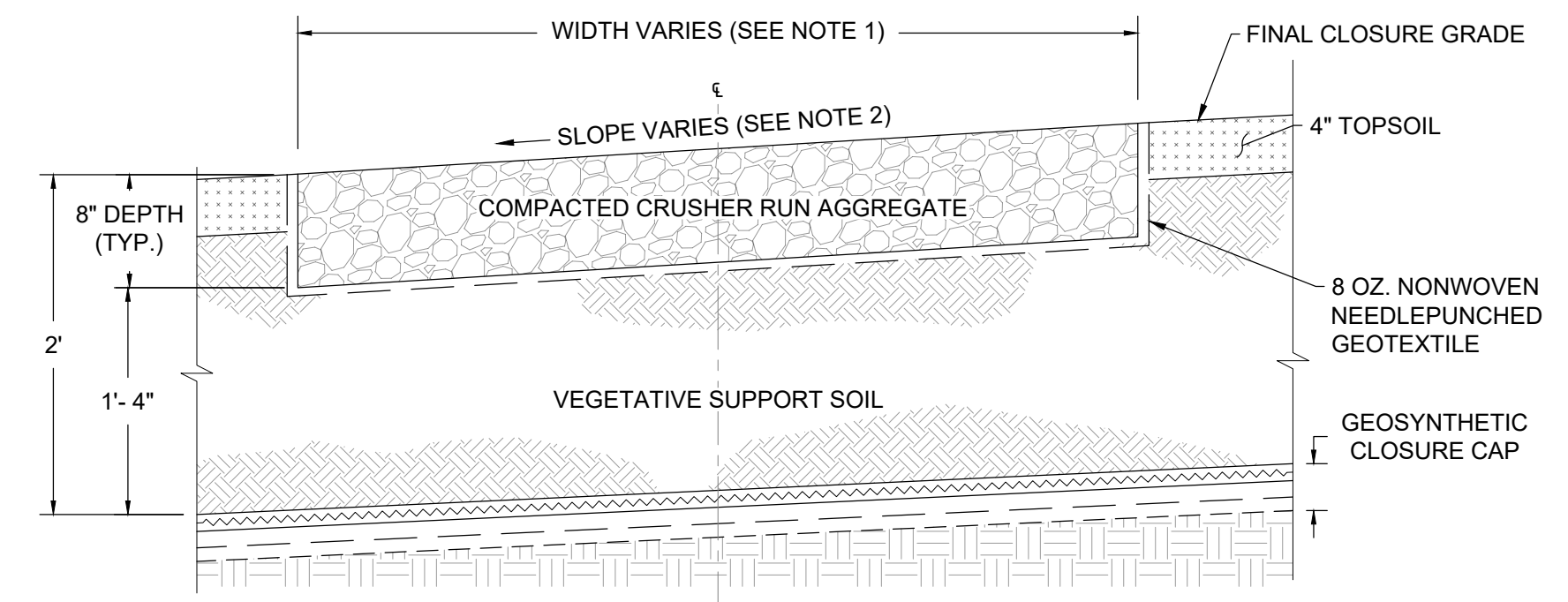
**TEMPORARY PIEZOMETER EXTENSION SCHEDULE**

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-01	524631.169	1271668.086	459.871	457.67	459.82	462.82
TPZ-03	525921.229	1273070.686	472.632	470.93	476.61	479.61
TPZ-04	524838.026	1273151.317	456.029	453.92	450.59	453.59
TPZ-06	525131.750	1274479.523	468.587	467.82	466.75	469.75



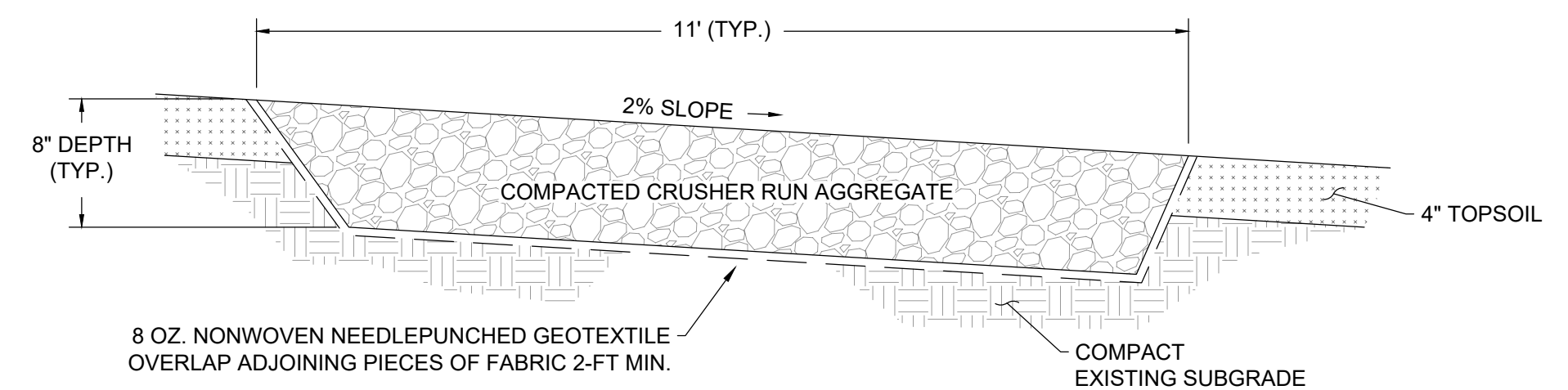
**NOTE:**

1. ROAD WIDTH SHALL MATCH GRADING SHOWN ON PLANS.



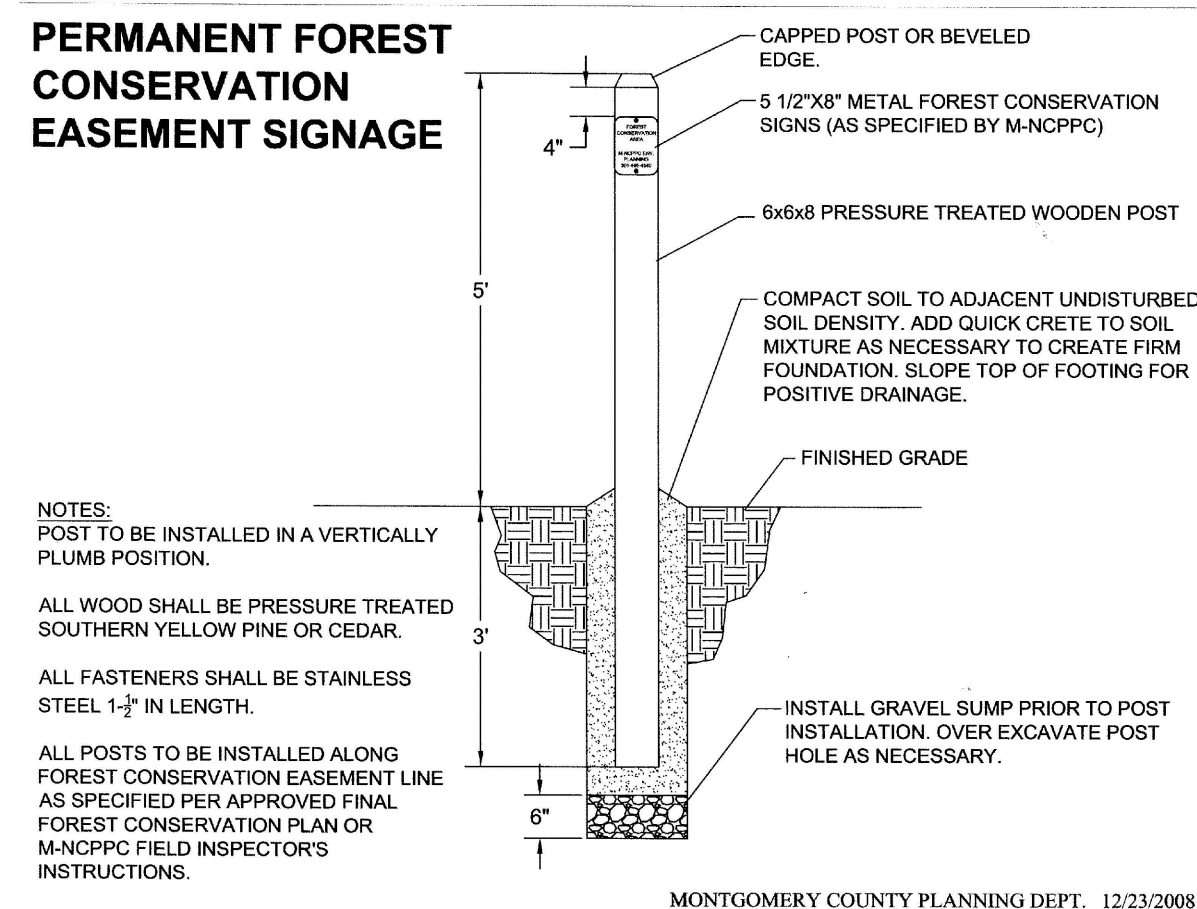
**NOTE:**

1. ROAD WIDTH SHALL MATCH GRADING SHOWN ON PLANS.
2. CROSS-SLOPE ON ROAD SHALL MATCH GRADING SHOWN ON PLANS.



**NOTE:**

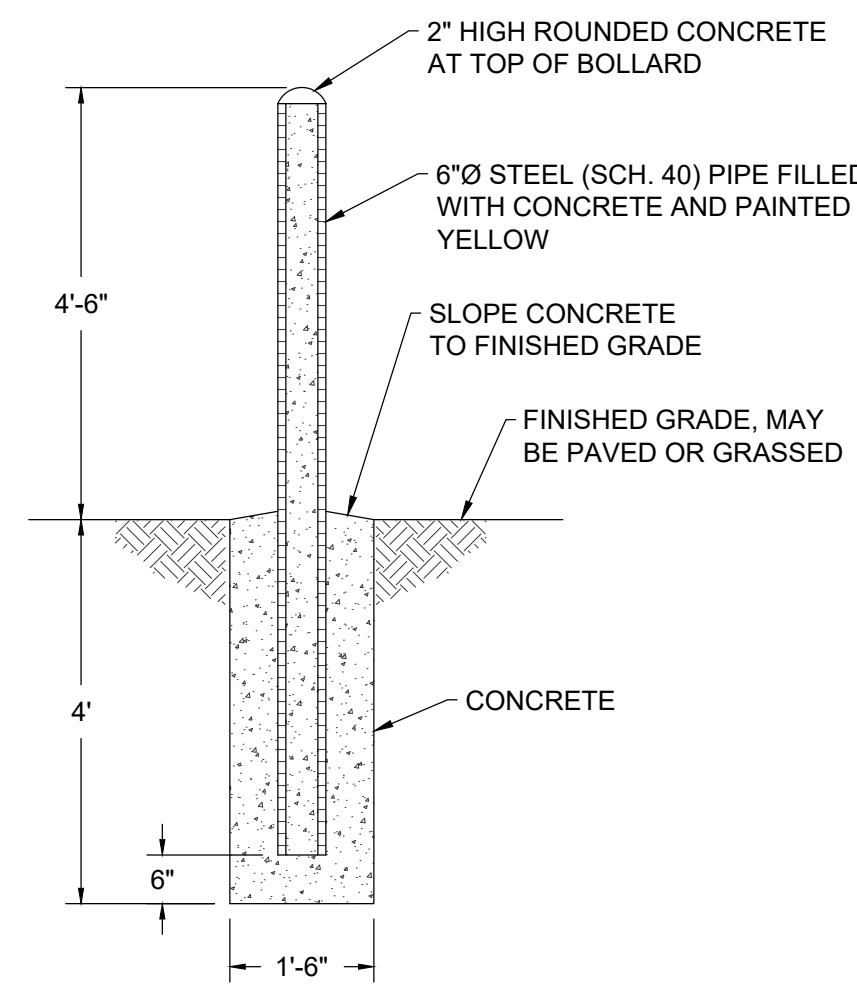
1. PROVIDE POSITIVE DRAINAGE ACROSS ROAD SURFACE TO DOWN GRADIENT AREAS.



**NOTES:**  
POST TO BE INSTALLED IN A VERTICALLY PLUMB POSITION.  
ALL WOOD SHALL BE PRESSURE TREATED SOUTHERN YELLOW PINE OR CEDAR.  
ALL FASTENERS SHALL BE STAINLESS STEEL 1/2" IN LENGTH.  
ALL POSTS TO BE INSTALLED ALONG FOREST CONSERVATION EASEMENT LINE AS SPECIFIED PER APPROVED FINAL FOREST CONSERVATION PLAN OR MDCPPIC FIELD INSPECTOR'S INSTRUCTIONS.

MONTGOMERY COUNTY PLANNING DEPT. 12/23/2008

**A10 PERMANENT FOREST CONSERVATION SIGNAGE**  
NOT TO SCALE



**A11 BOLLARD DETAIL**  
NOT TO SCALE

REVISIONS		DESCRIPTION
BY		
DATE		
NO.		

DESIGN INFORMATION		KEY / SMB	SMB	LJO / GAT	M/JG
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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

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

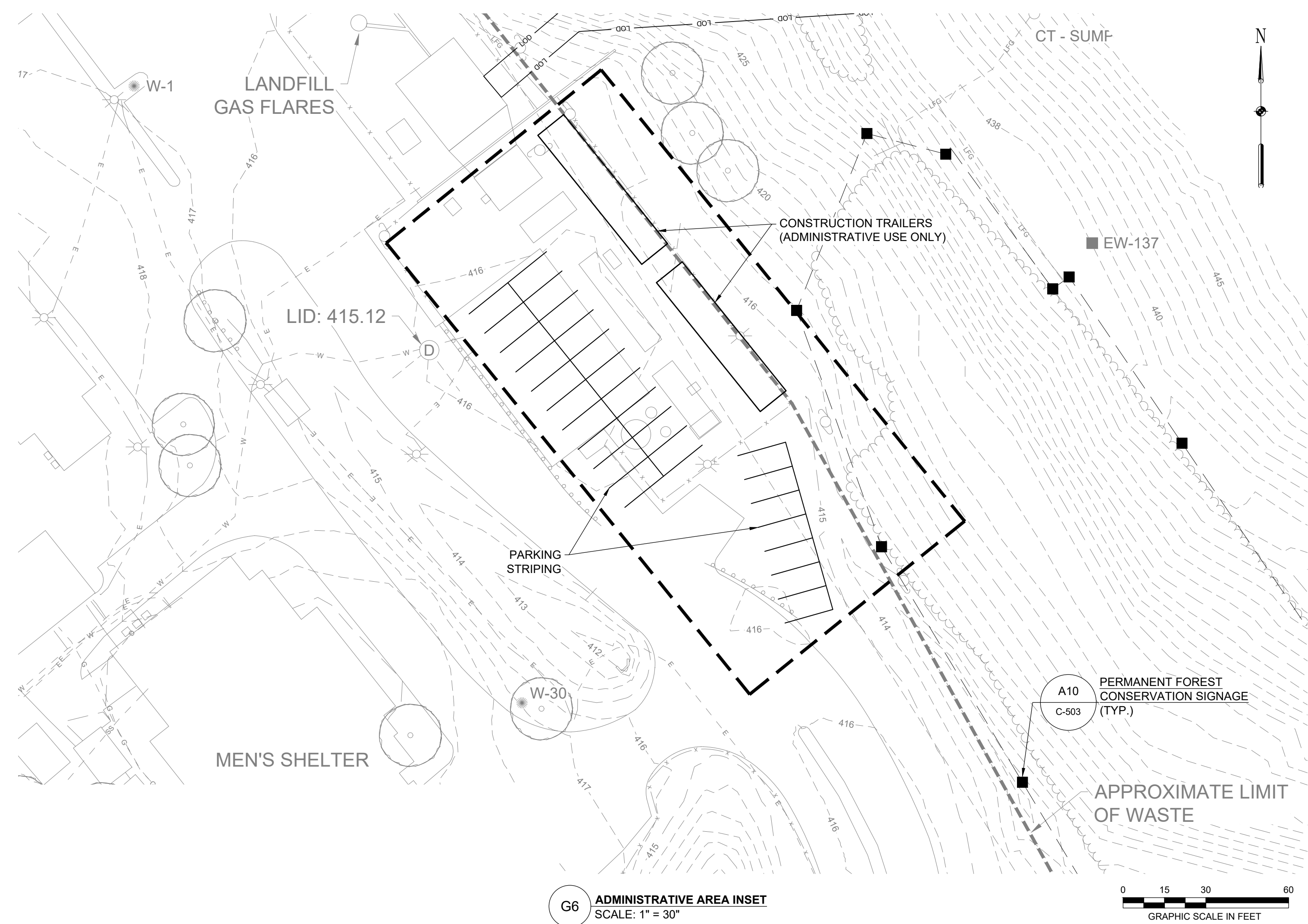
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

**C-503**  
 SHEET: 93 OF 146

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100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\1564601 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\1564601 - 100% - DETAILS\DWG (S-04) ISSUED.rvt, REVIEW: 12/10/2020 8:44 AM

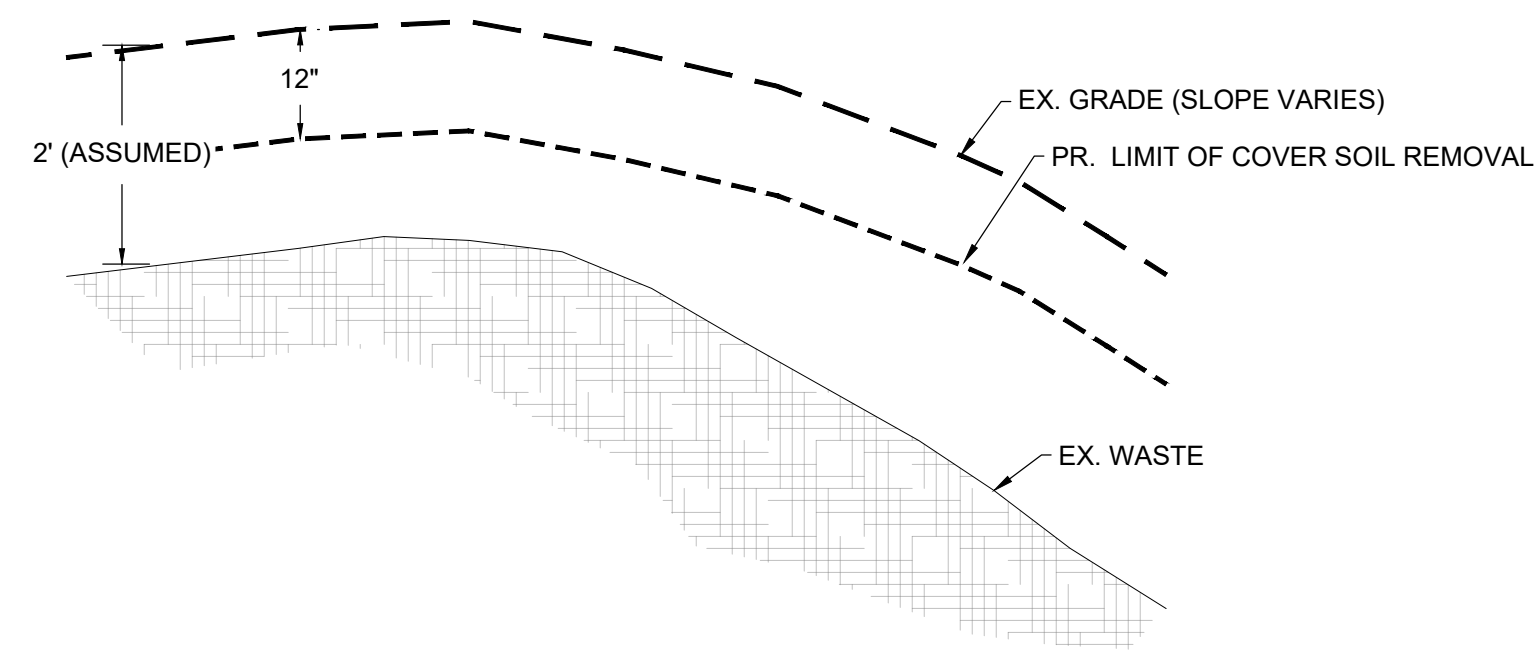


G6 ADMINISTRATIVE AREA INSET  
SCALE: 1" = 30'

- NOTES:**
1. THE FORMER LANDFILL GAS TO ENERGY FACILITY, STORAGE CONTAINER, PRETREATMENT BUILDING, AND GENERATORS WILL BE DEMOLISHED OR REMOVED PRIOR TO THIS PROJECT.
  2. NO EARTH MOVING EQUIPMENT MAY BE STORED AT THE ADMINISTRATIVE AREA.

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 FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022			
SEAL <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		<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>ADMINISTRATION AREA INSET</b>	
DATE: DECEMBER 2020		PROJECT NUMBER: 1564601	
<b>C-504</b>		SHEET: 94 OF 146	

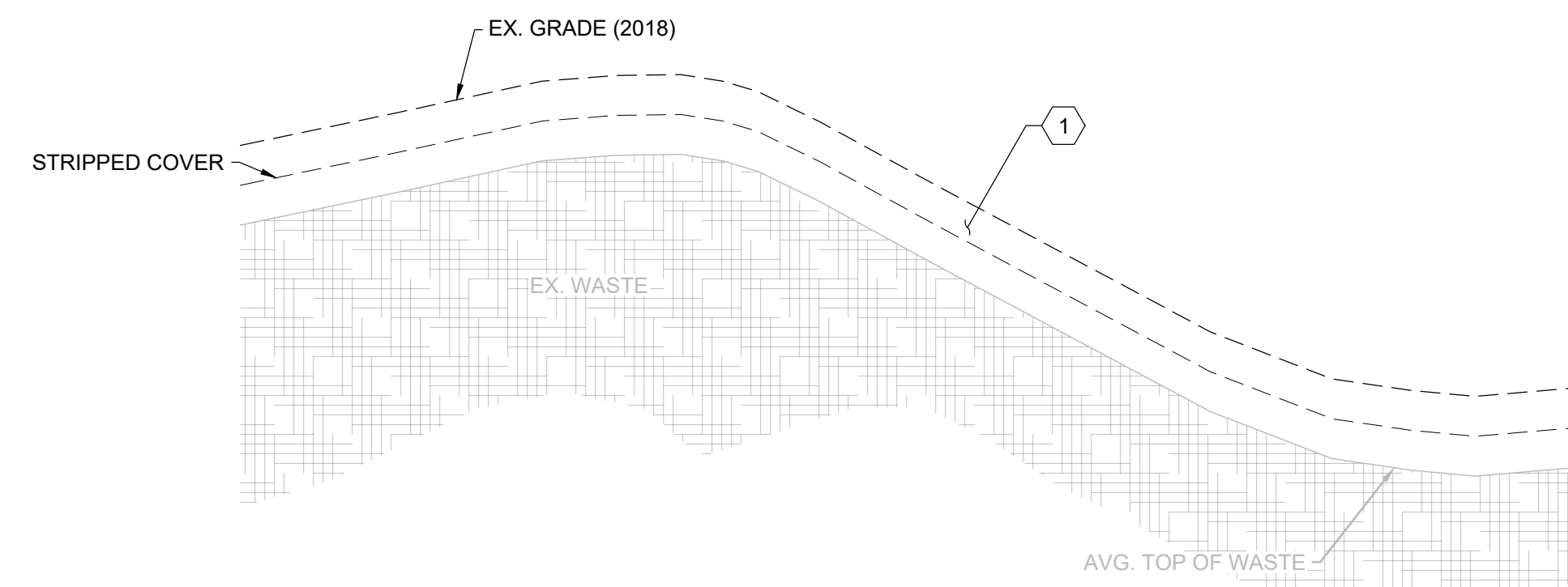
100% DESIGN PLANS - NOT FOR CONSTRUCTION



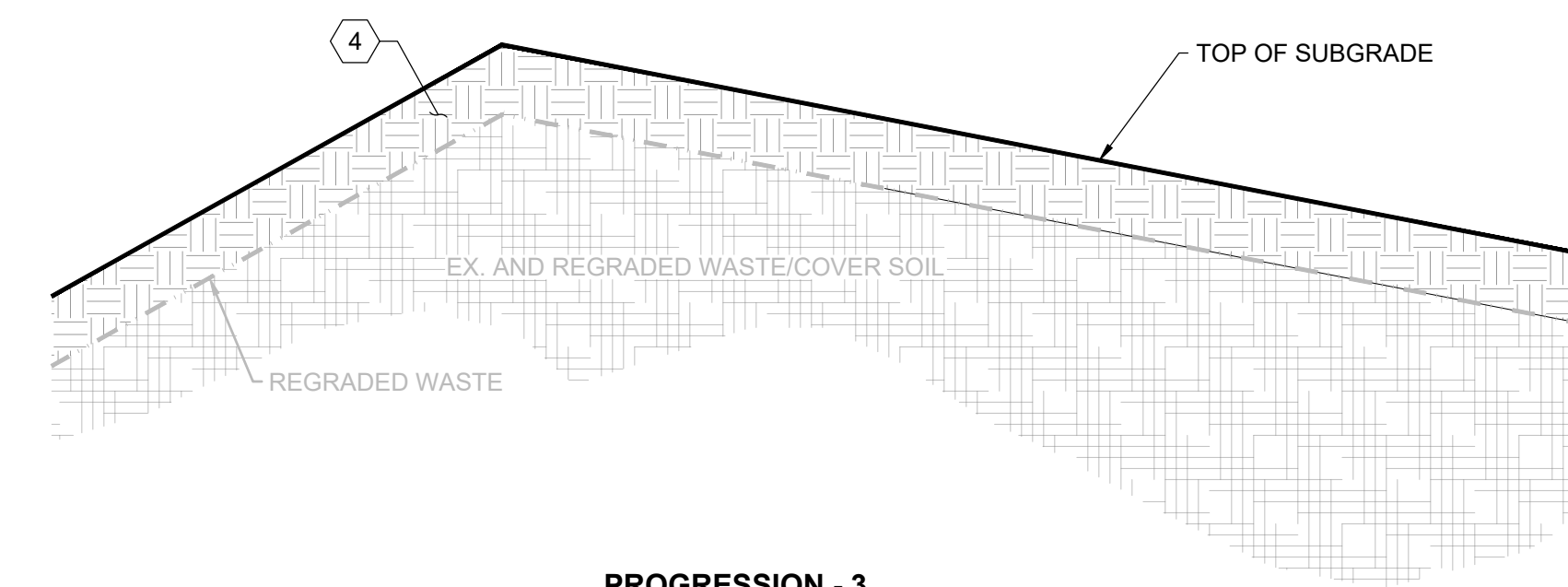
**G1** EXISTING COVER SOIL REMOVAL DETAIL  
NOT TO SCALE

**NOTES:**

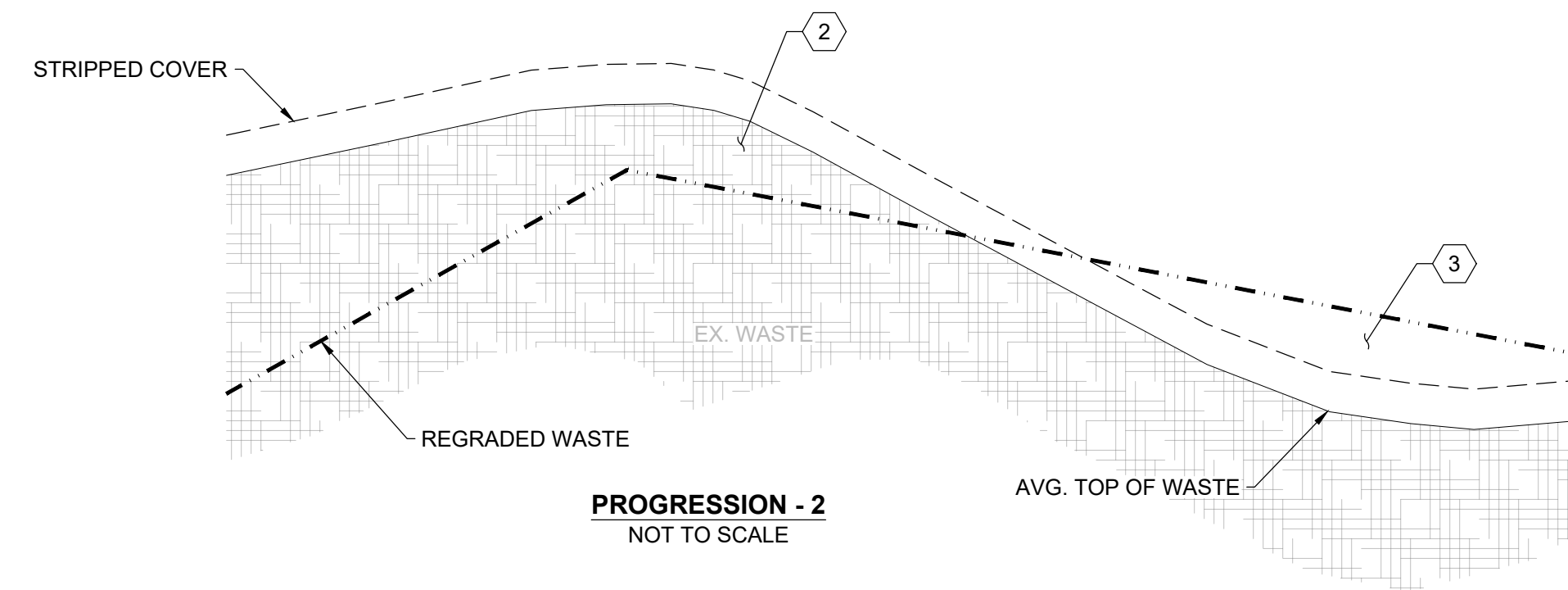
- EXISTING COVER SOIL THICKNESS IS GENERALLY 2 FEET. TEST PIT INFORMATION CAN BE FOUND IN APPENDIX A OF THE PROJECT MANUAL.
- REMOVE 12" OF EXISTING COVER SOIL AND STOCKPILE FOR FUTURE USE AS SUBGRADE MATERIAL.
- NO WASTE MAY BE PRESENT IN STOCKPILED MATERIAL. WOODY VEGETATION/ROOTS MUST BE REMOVED.



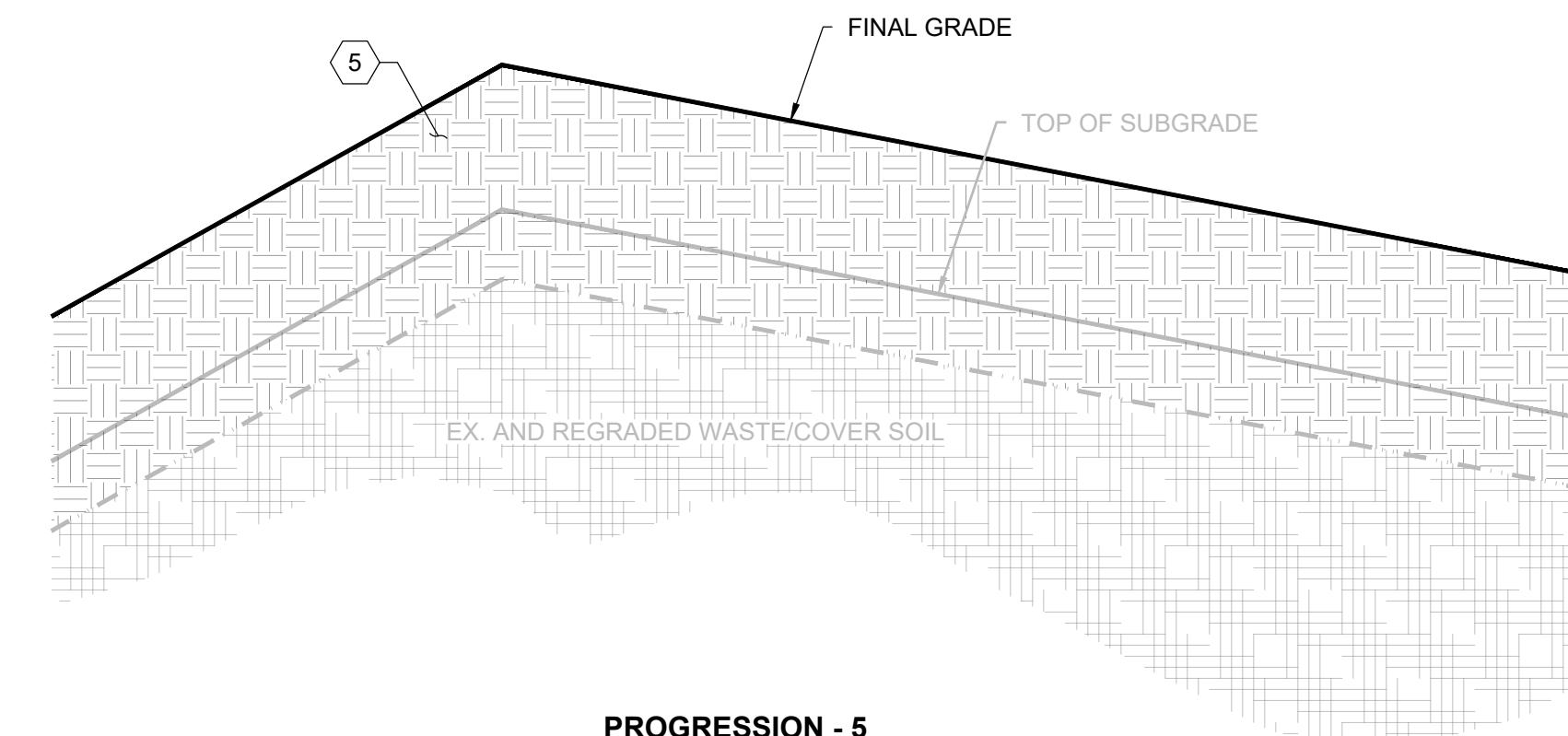
**PROGRESSION - 1**  
NOT TO SCALE



**PROGRESSION - 3**  
NOT TO SCALE



**PROGRESSION - 2**  
NOT TO SCALE



**PROGRESSION - 5**  
NOT TO SCALE

**G2** EXISTING WASTE EXCAVATION AND RELOCATION, AND SUBGRADE CONSTRUCTION DETAIL  
NOT TO SCALE

**NOTES:**

- REMOVE 12" OF EXISTING COVER SOIL AND STOCKPILE FOR FUTURE USE.
- EXCAVATE EXISTING WASTE AND REMAINING COVER SOIL, REFER TO SPECIFICATION SECTION 02 61 13.13.
- PLACE AND COMPACT WASTE, REFER TO SPECIFICATION SECTION 02 61 13.13.
- PLACE AND COMPACT CLOSURE CAP SUBGRADE, REFER TO SPECIFICATION SECTION 31 05 15.
- PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL, REFER TO SPECIFICATION SECTION 31 05 15.
- 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 02 61 13.13.
- A MINIMUM OF 1 FT CLOSURE CAP SUBGRADE IS REQUIRED OVER THE WASTE.
- HAZARDOUS OR UNUSUAL WASTE MAY BE ENCOUNTERED. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGEMENT ENGINEER AND REFER TO SPECIFICATION SECTION 02 61 13.13.
- 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.
- 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.

FILE PATH: G:\PROJECTS\156461 - GUIDE OF DESIGN\CONSTRUCTION\DESIGN SET\156461 - 100% - DETAILS\156461-05-001-DETAILS.DWG (SCALE: 1/8"=1'-0") (DATE: 12/10/2020 8:44 AM)

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: 8/25/2022

SEAL

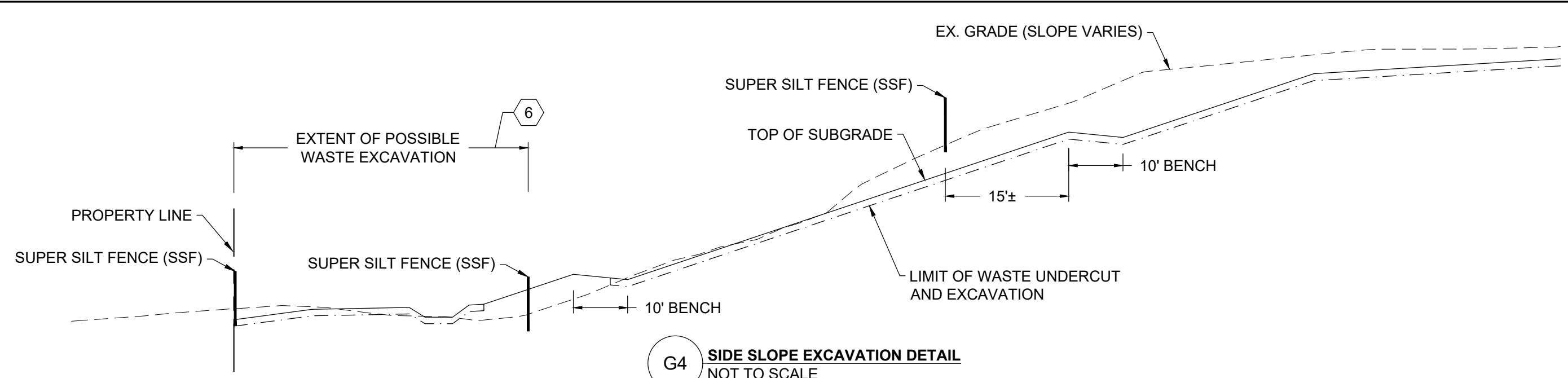
GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND  
EXCAVATION/GRADING DETAILS

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

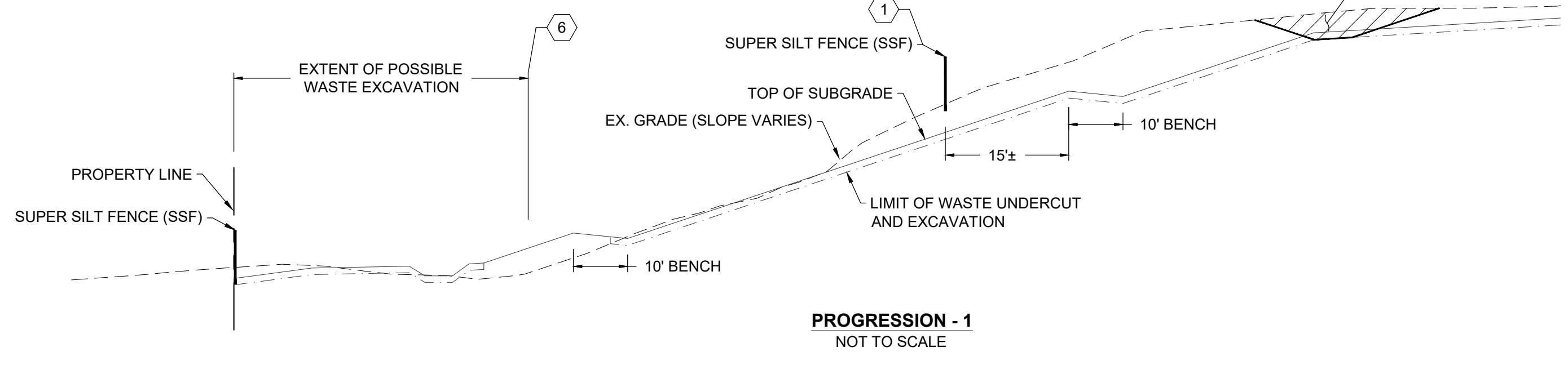
  

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**C-505**  
SHEET: 95 OF 146

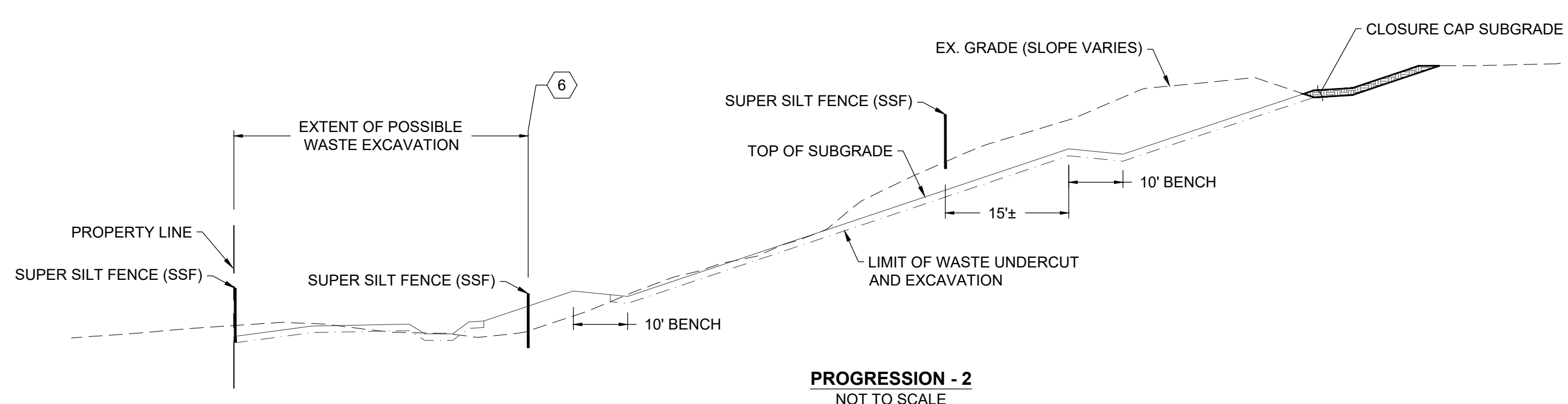


**NOTES:**

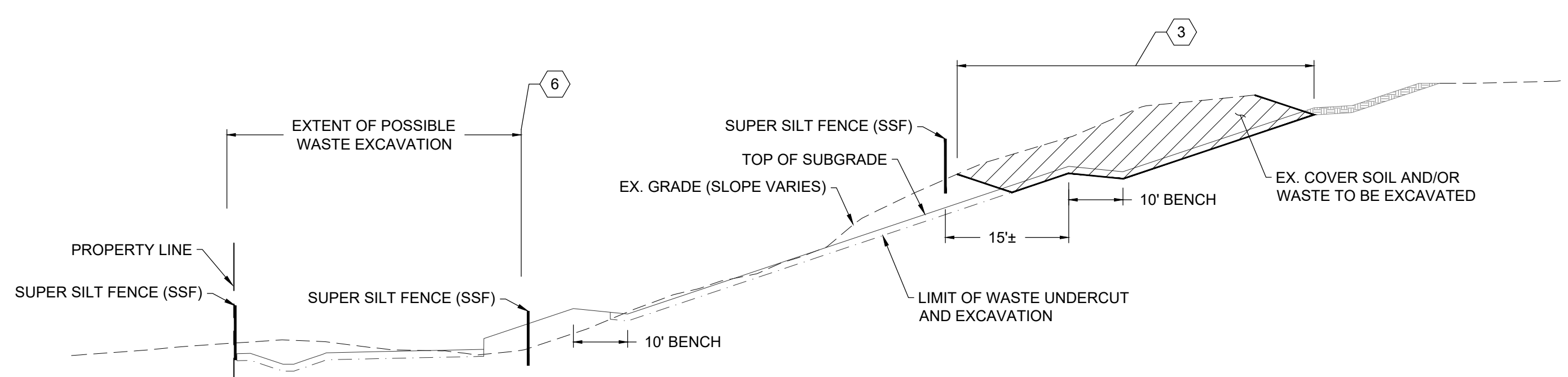
1. INSTALL SUPER SILT FENCE BEFORE EXCAVATION BEGINS.
2. BEGIN EXCAVATION AT THE TOP OF THE SLOPE AND PROGRESS DOWN THE SLOPE.
3. MAINTAIN SUMP CONDITIONS TO PROMOTE LEACHATE DRAINAGE BACK INTO THE LANDFILL.
4. PLACE CLOSURE CAP SUBGRADE OVER THE REGRADED EX. WASTE AND COVER SOIL AS EXCAVATION PROGRESSES. 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.
6. EXTENT AND DEPTH OF WASTE AT THE BASE OF THE NORTHWEST SLOPE VARIES. THERE IS POTENTIAL FOR WASTE EXCAVATION IN THIS AREA.



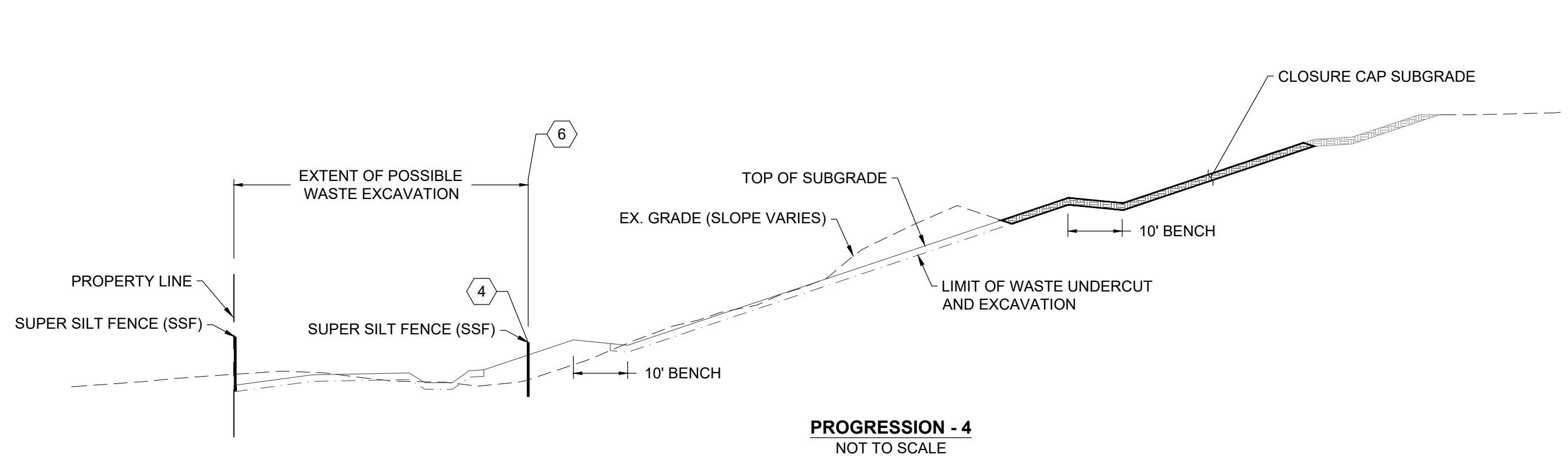
**PROGRESSION - 1**  
NOT TO SCALE



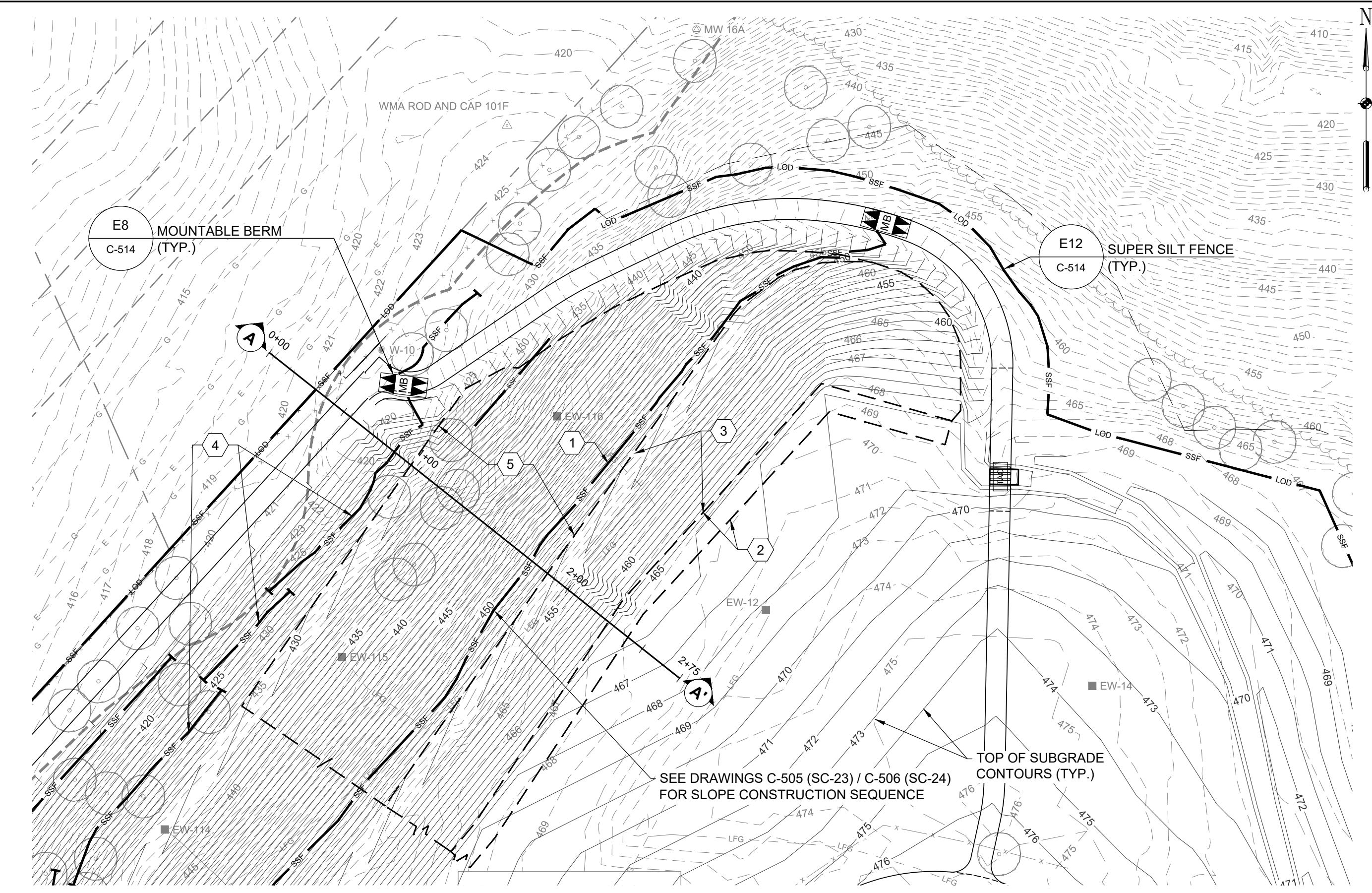
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NOT TO SCALE



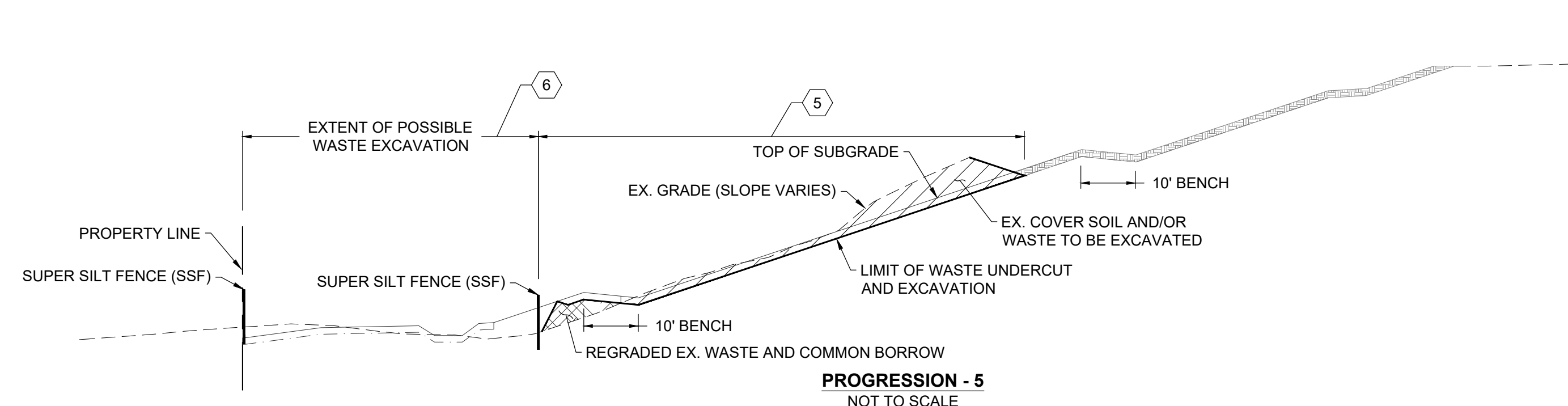
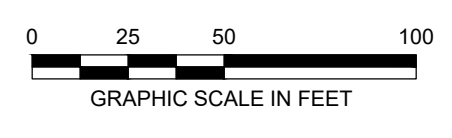
**PROGRESSION - 3**  
NOT TO SCALE



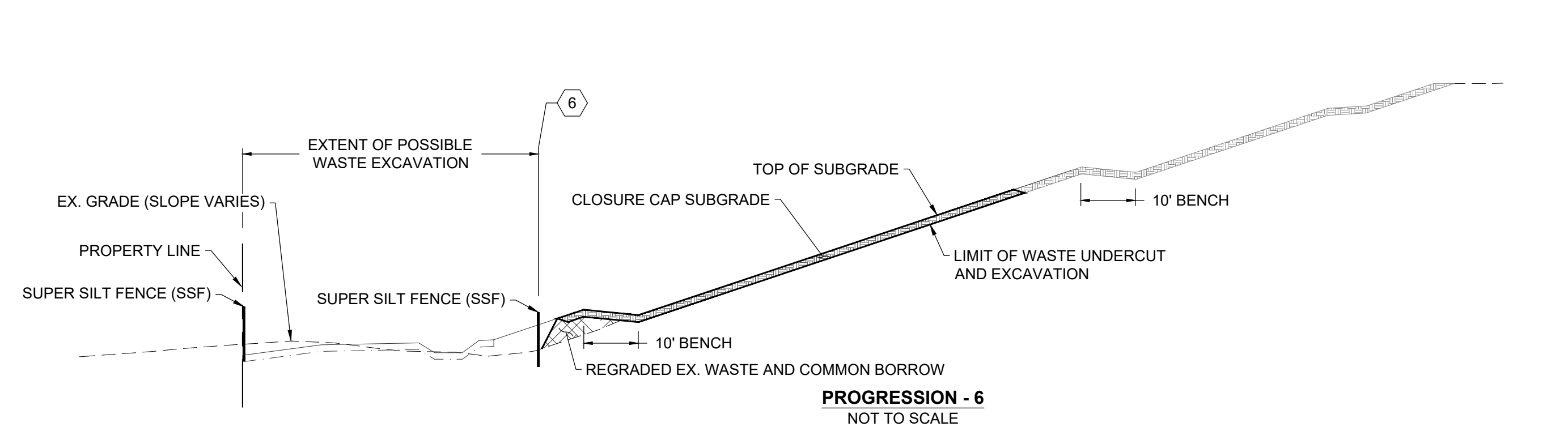
**PROGRESSION - 4**  
NOT TO SCALE



**G5 SIDE SLOPE EXCAVATION DETAIL - PLAN VIEW**  
SCALE: 1" = 50'



**PROGRESSION - 5**  
NOT TO SCALE



**PROGRESSION - 6**  
NOT TO SCALE

REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION	
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  
**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

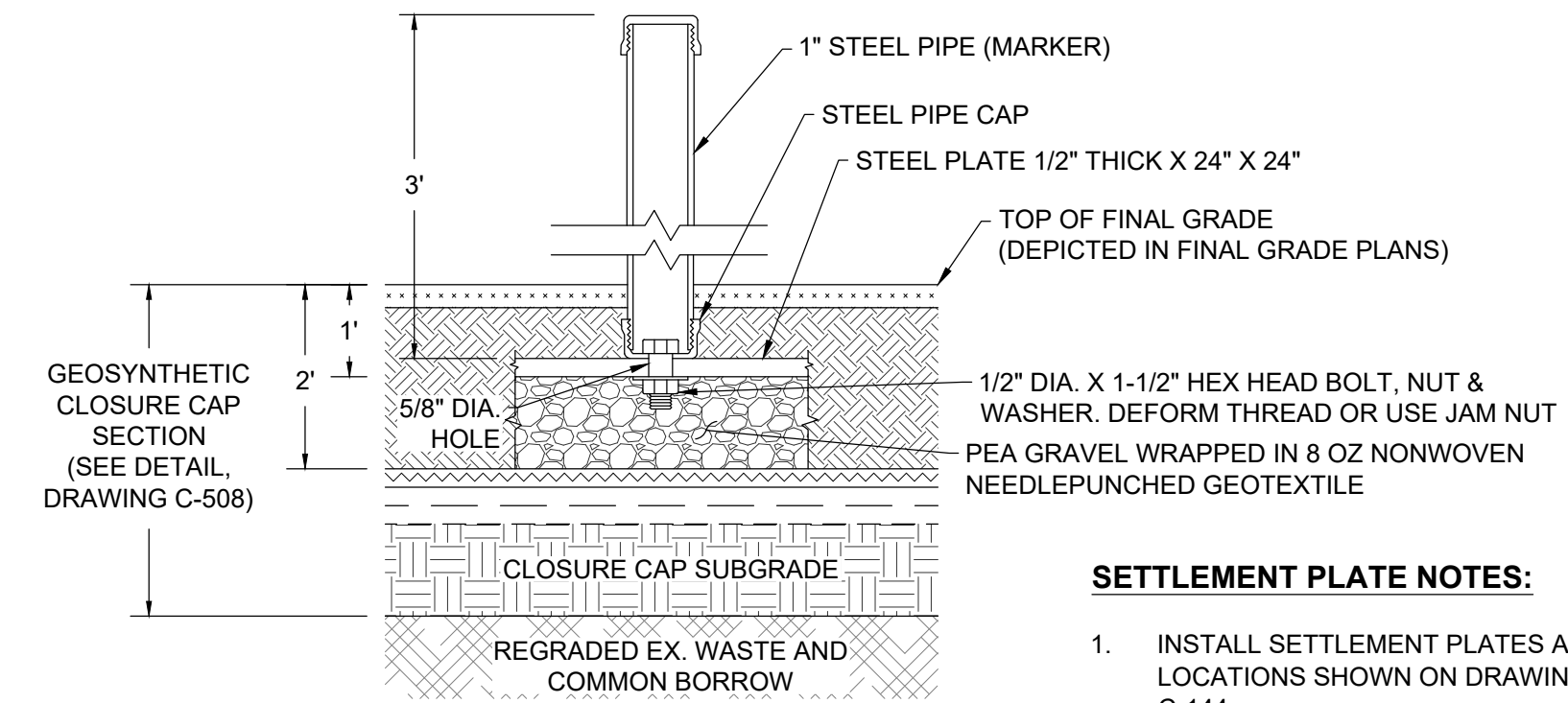
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-506**  
 SHEET: 96 OF 146

FILE PATH: G:\PROJECTS\164601 - GUIDE OF REMEDIATION/PRODUCTION/DESIGN SET/164601 - 0100 - DETAILS/DWG C-506 (REVISION) - REVIEW: 12/10/2020 8:44 AM

100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 24 OF 53



FILE PATH: G:\PROJECTS\156461 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\156461 - 100% - DETAILS\G7 (C-507) (REVISION) - REVISED 12/08/20 8:44 AM



G7 SETTLEMENT PLATE DETAIL  
NOT TO SCALE

**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.

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

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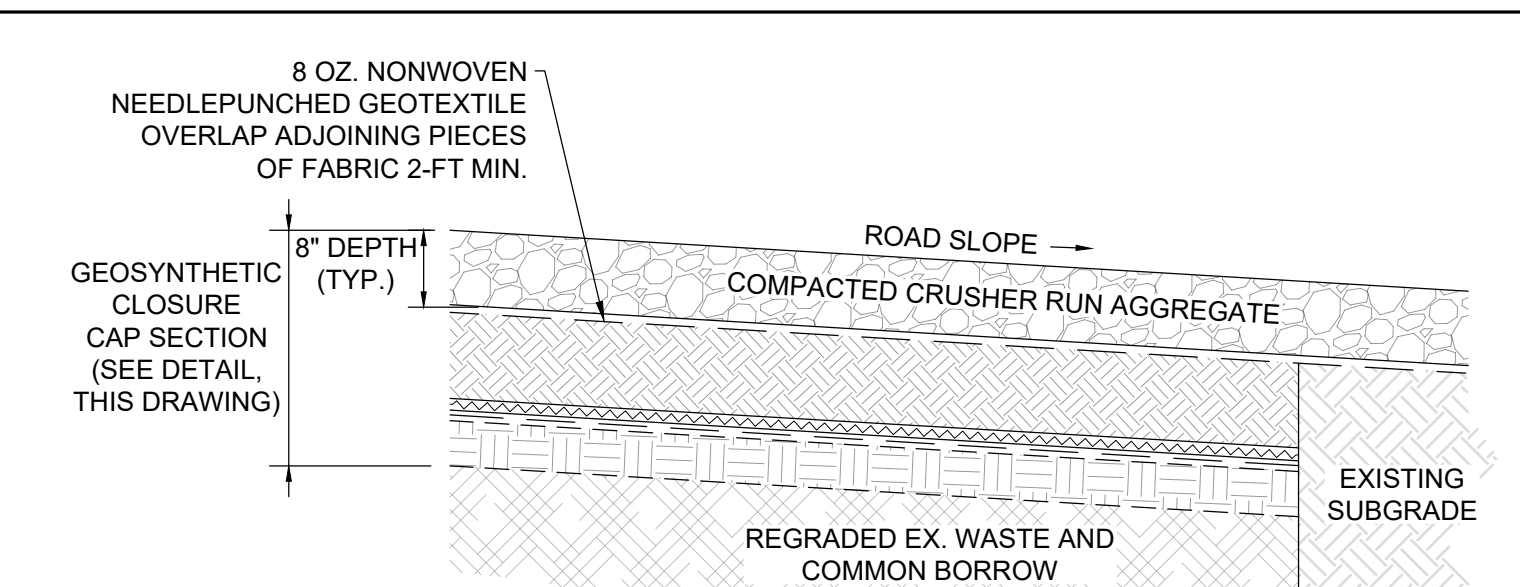
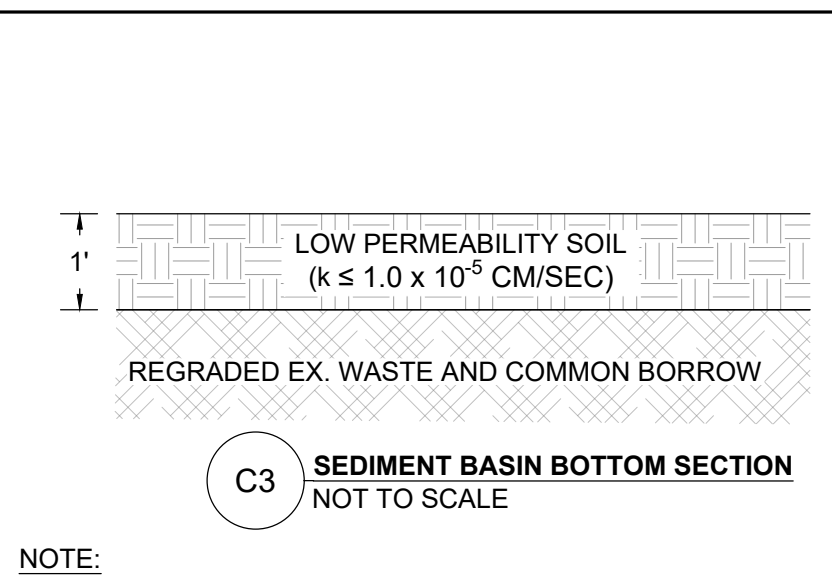
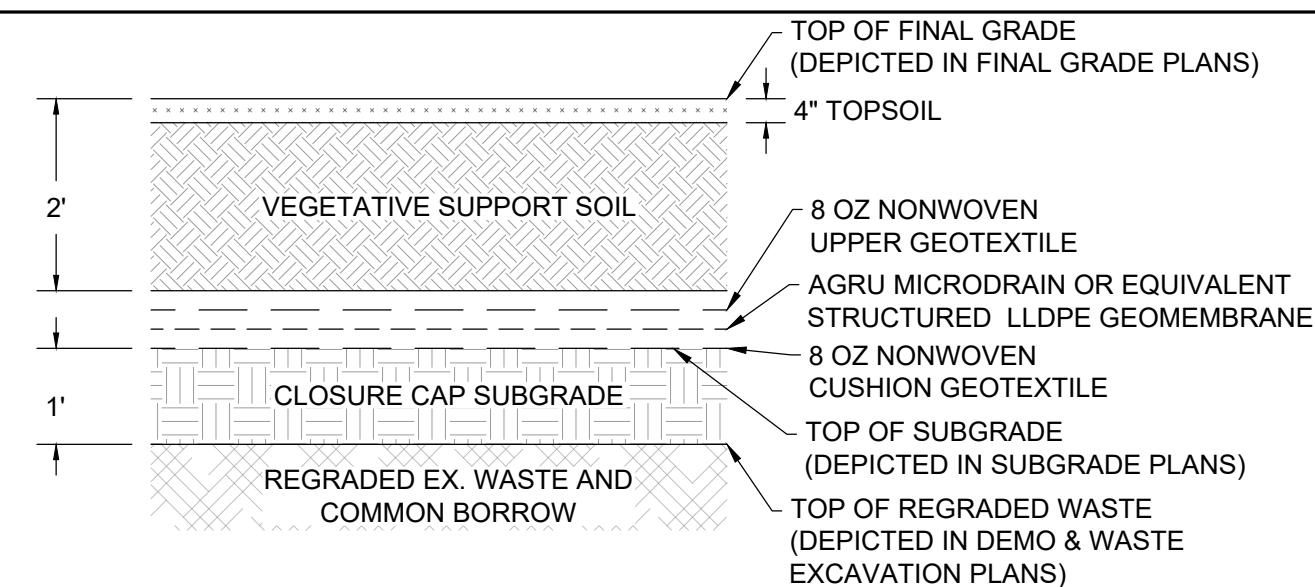
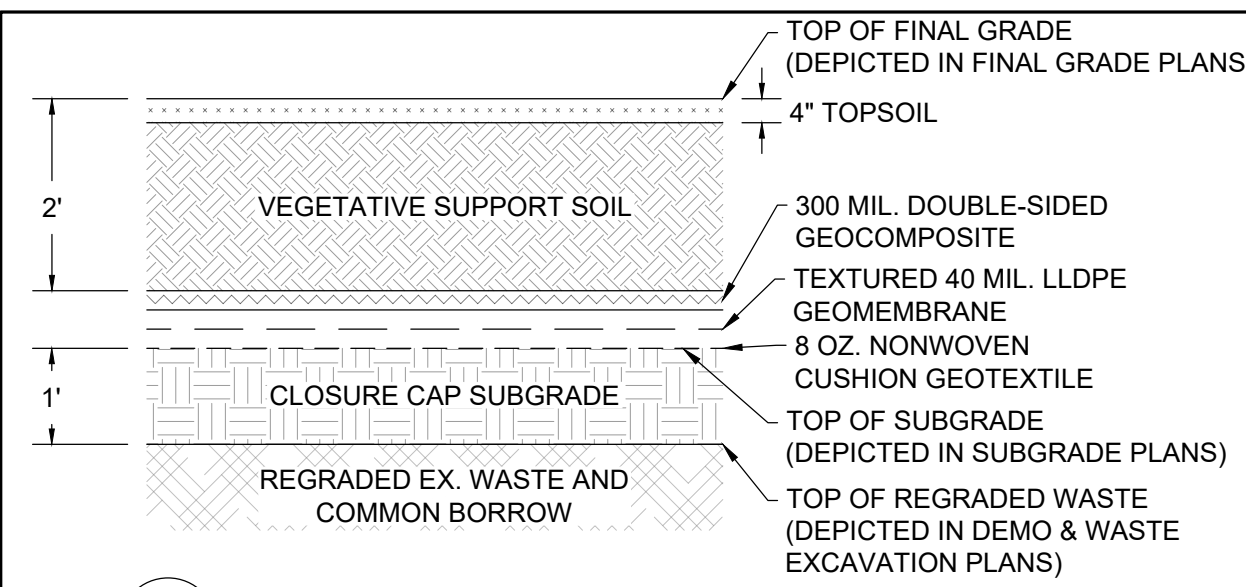
SEAL

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**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: DECEMBER 2020  
PROJECT NUMBER: 1564601

**C-507**  
SHEET: 97 OF 146

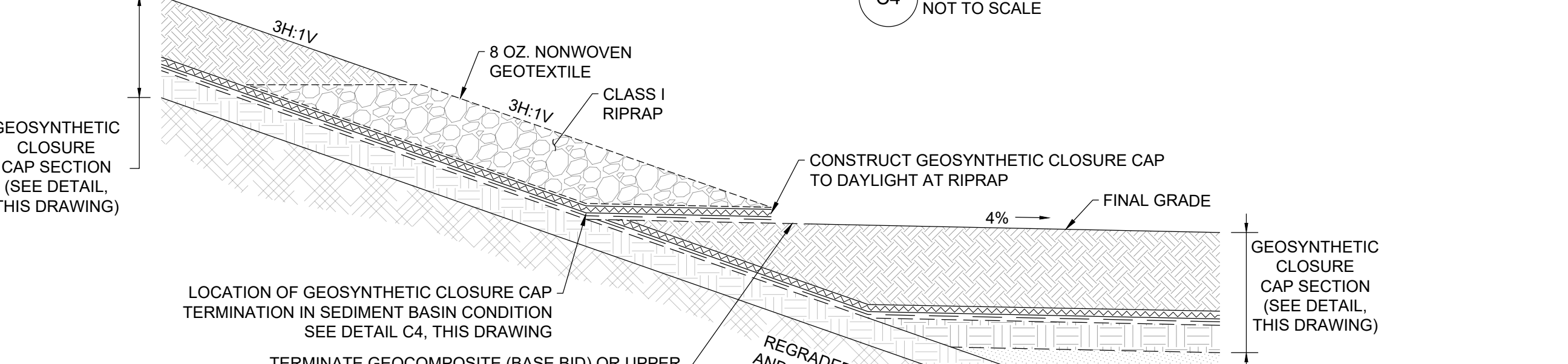
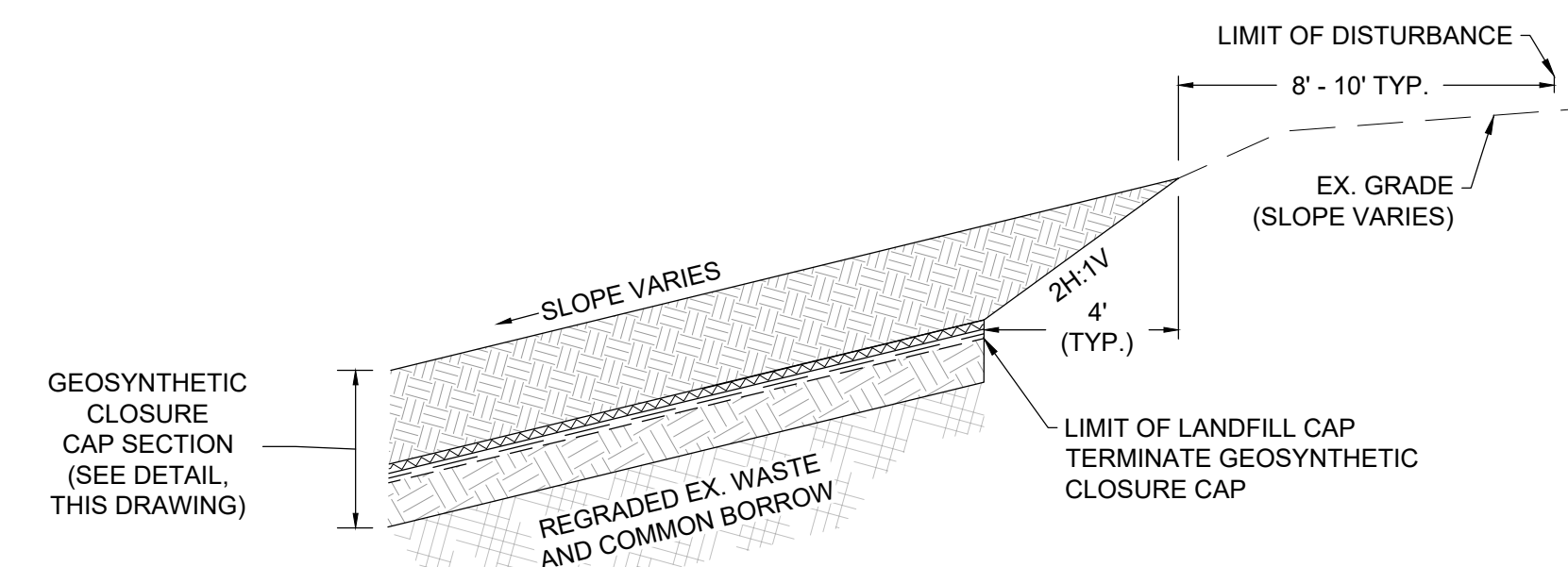
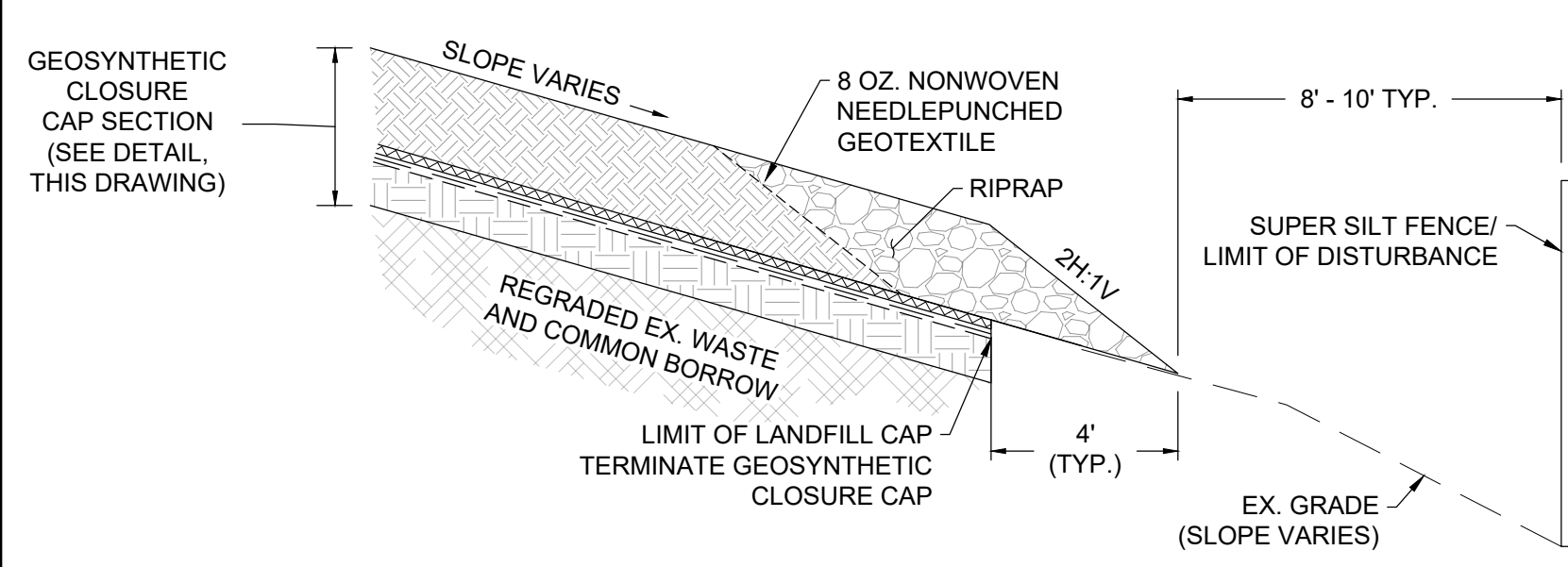


**C1 GEOSYNTHETIC CLOSURE CAP SECTION - BASE BID**  
NOT TO SCALE

**C2 GEOSYNTHETIC CLOSURE CAP SECTION - ALTERNATE**  
NOT TO SCALE

**C3 SEDIMENT BASIN BOTTOM SECTION**  
NOT TO SCALE

**C4 GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (ROAD CONDITION)**  
NOT TO SCALE



**C5 GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (TYPICAL CONDITION)**  
NOT TO SCALE

**C6 GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (UPHILL PERIMETER CONDITION)**  
NOT TO SCALE

**C7 GEOSYNTHETIC CLOSURE CAP TERMINATION DETAIL (SEDIMENT BASIN CLOSE-OUT)**  
NOT TO SCALE

- NOTES:**
- REFER TO CAP TERMINATION SCHEDULE FOR LOCATION(S) OF WHERE THIS CONDITION APPLIES.
  - THIS DETAIL APPLIES TO BOTH THE BASE BID AND THE ALTERNATE GEOSYNTHETIC CLOSURE CAP SECTION.
  - EXISTING CONDITIONS ON SITE MAY VARY AT TIME OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION ENSURE THAT GEOSYNTHETIC CLOSURE CAP DRAINS ONTO EXISTING GRADE.

- NOTES:**
- REFER TO CAP TERMINATION SCHEDULE FOR LOCATION(S) OF WHERE THIS CONDITION APPLIES.
  - THIS DETAIL APPLIES TO BOTH THE BASE BID AND THE ALTERNATE GEOSYNTHETIC CLOSURE CAP SECTION.
  - EXISTING CONDITIONS ON SITE MAY VARY AT TIME OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION ENSURE THAT EXISTING GRADE DRAINS ONTO GEOSYNTHETIC CLOSURE CAP.

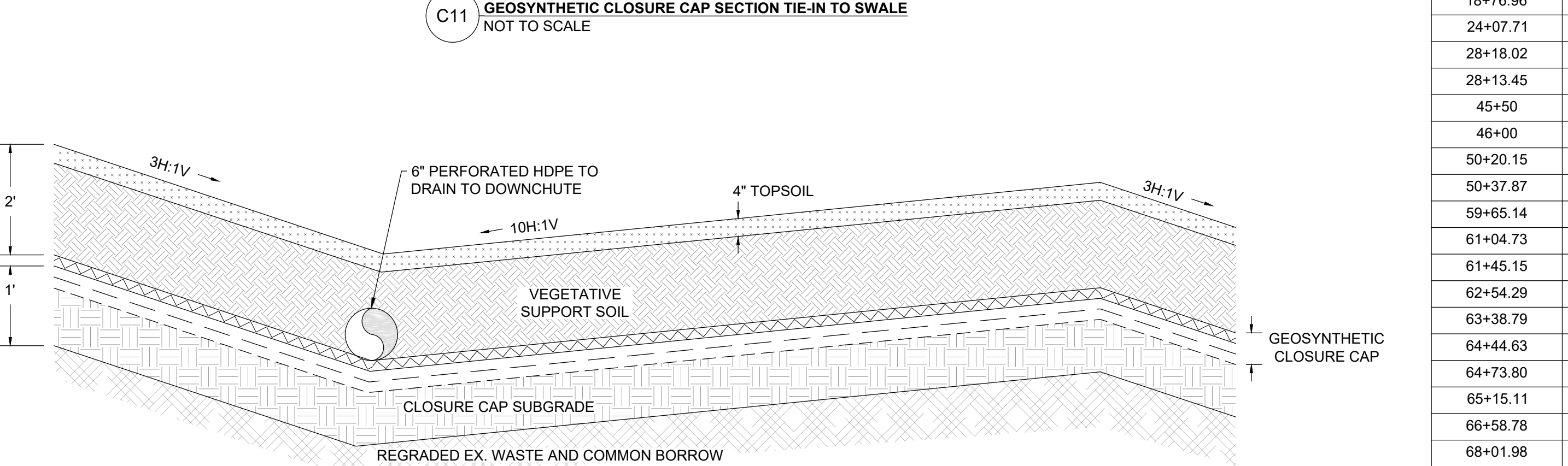
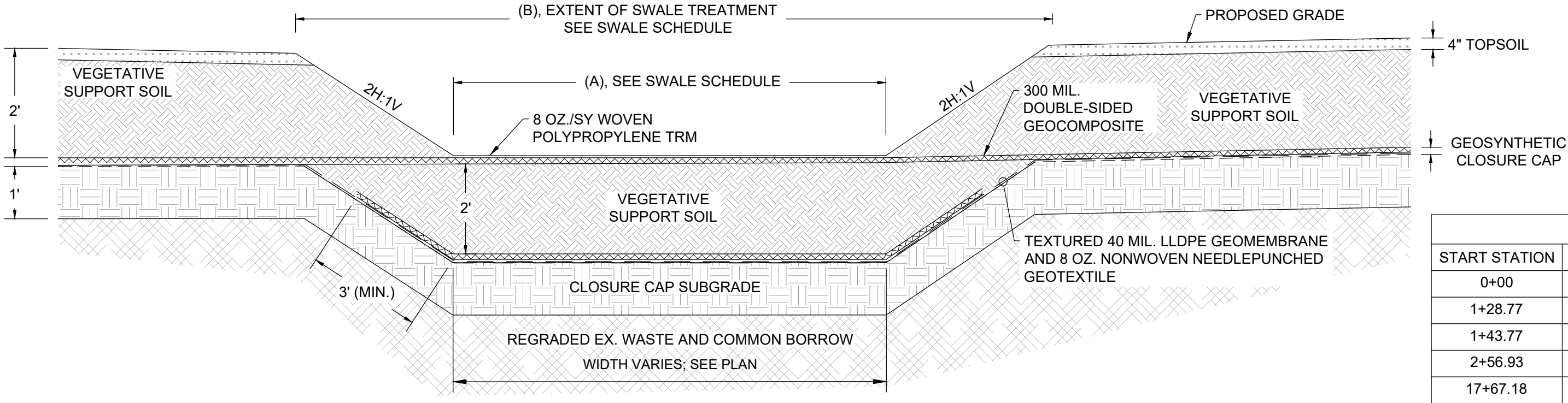
- NOTES:**
- FILL THE BOTTOM OF THE SEDIMENT BASIN WITH COMMON BORROW AND CONSTRUCT CLOSURE CAP SUBGRADE TO REACH THE GRADES SHOWN ON DRAWING C-149.
  - CONSTRUCT GEOSYNTHETIC CLOSURE CAP OVER THE CLOSURE CAP SUBGRADE.

SWALE SCHEDULE			
ID	(A) BOTTOM WIDTH (FT)	(B) SUBGRADE CONDITION TREATMENT	(B) FINAL GRADE CONDITION TREATMENT
SWALE 1	4	ECM	ECM
SWALE 2	4	ECM	ECM
SWALE 3	4	TRM	TRM
SWALE 4	4	TRM	TRM
SWALE 5	8	TRM	TRM
SWALE 6	8	ECM	ECM
SWALE 7	8	ECM	ECM

SWALE SCHEDULE			
ID	(A) BOTTOM WIDTH (FT)	(B) SUBGRADE CONDITION TREATMENT	(B) FINAL GRADE CONDITION TREATMENT
SWALE 8	8	TRM	TRM
SWALE 9	8	ECM	ECM
SWALE 10	8	TRM	TRM
SWALE 11	8	ECM	ECM
SWALE 12	8	ECM	ECM
SWALE 13	8	TRM	TRM
SWALE 14	8	ECM	ECM

SWALE SCHEDULE			
ID	(A) BOTTOM WIDTH (FT)	(B) SUBGRADE CONDITION TREATMENT	(B) FINAL GRADE CONDITION TREATMENT
SWALE 14A	8	ECM	ECM
SWALE 14B	8	ECM	ECM
SWALE 15	8	TRM	TRM
SWALE 16	8	TRM	TRM
SWALE 17	8	TRM	TRM
SWALE 18	8	ECM	ECM
SWALE 19	8	ECM	ECM

- NOTES:**
- TRM and ECM TREATMENTS PLACED IN SUBGRADE CONDITION WILL NEED TO BE REMOVED PRIOR TO LINER PLACEMENT.
  - ECM: EROSION CONTROL MATTING PER STANDARD EROSION AND SEDIMENT CONTROL DETAILS ON DRAWING C-514.
  - TRM: TURF REINFORCEMENT MATTING, ENKMAT 7010 OR APPROVED EQUAL.



**C11 GEOSYNTHETIC CLOSURE CAP SECTION TIE-IN TO SWALE**  
NOT TO SCALE

**C12 GEOSYNTHETIC CLOSURE CAP SECTION THROUGH BENCH**  
NOT TO SCALE

CAP TERMINATION SCHEDULE					
START STATION	END STATION	TERMINATION TYPE	DETAIL, DRAWING	GEOMETRY PLAN DRAWING	
0+00	1+28.77	SWALE CONDITION	C7, C-508	C-166, C-169	
1+28.77	1+43.77	ROAD CONDITION	C4, C-508	C-166	
1+43.77	2+56.93	TYPICAL CONDITION	C5, C-508	C-166	
2+56.93	17+66.96	NORTHWEST SLOPE CONDITION	C8, C-508	C-165, C-166, C-167	
17+67.18	18+76.96	NORTHWEST SLOPE DISCHARGE FACILITY CONDITION	C9, C-509	C-165	
18+76.96	24+07.71	NORTHWEST SLOPE CONDITION	C8, C-508	C-165	
24+07.71	28+18.02	SWALE CONDITION	C7, C-508	C-165	
28+18.02	28+29.34	ROAD CONDITION	C4, C-508	C-165	
28+13.45	45+50	TYPICAL CONDITION	C5, C-508	C-165, C-167, C-168	
45+50	46+00	UPHILL PERIMETER CONDITION	C6, C-508	C-168	
46+00	50+20.15	TYPICAL CONDITION	C5, C-508	C-168, C-171	
50+20.15	50+37.87	ROAD CONDITION	C4, C-508	C-168	
50+37.87	59+65.14	TYPICAL CONDITION	C5, C-508	C-168, C-171	
59+65.14	61+04.73	UPHILL PERIMETER CONDITION	C6, C-508	C-171	
61+04.73	61+45.15	TYPICAL CONDITION	C5, C-508	C-171	
61+45.15	62+54.29	UPHILL PERIMETER CONDITION	C6, C-508	C-171	
62+54.29	63+38.79	SWALE CONDITION	C7, C-508	C-171	
63+38.79	64+44.63	TYPICAL CONDITION	C5, C-508	C-171	
64+44.63	64+73.80	ROAD CONDITION	C4, C-508	C-171	
64+73.80	65+15.11	SWALE CONDITION	C7, C-508	C-171	
65+15.11	66+58.78	TYPICAL CONDITION	C5, C-508	C-171	
66+58.78	67+88.45	SWALE CONDITION	C7, C-508	C-171	
68+01.98	80+13.80	TYPICAL CONDITION	C5, C-508	C-166, C-169, C-170	
80+13.80	81+06.69	ROAD CONDITION	C4, C-508	C-170	
81+06.69	98+68.35	TYPICAL CONDITION	C5, C-508	C-166, C-169, C-170	

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

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

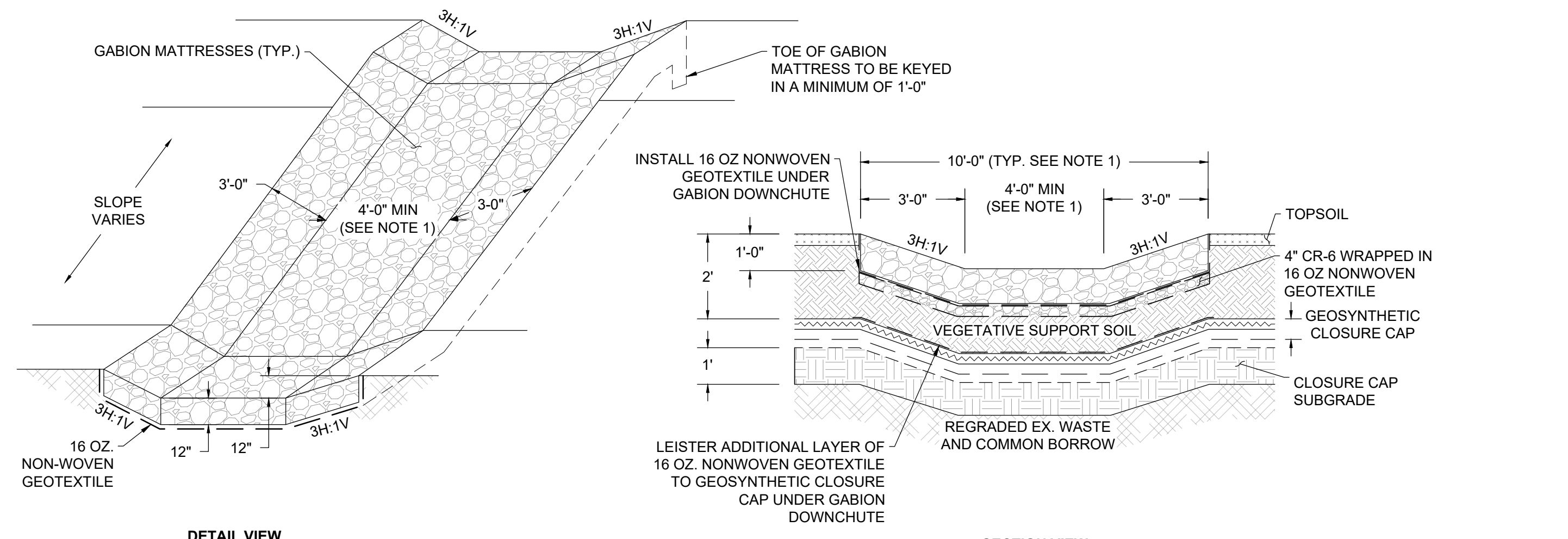
GUIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 CLOSURE CAP DETAILS

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-508**  
 SHEET: 98 OF 146

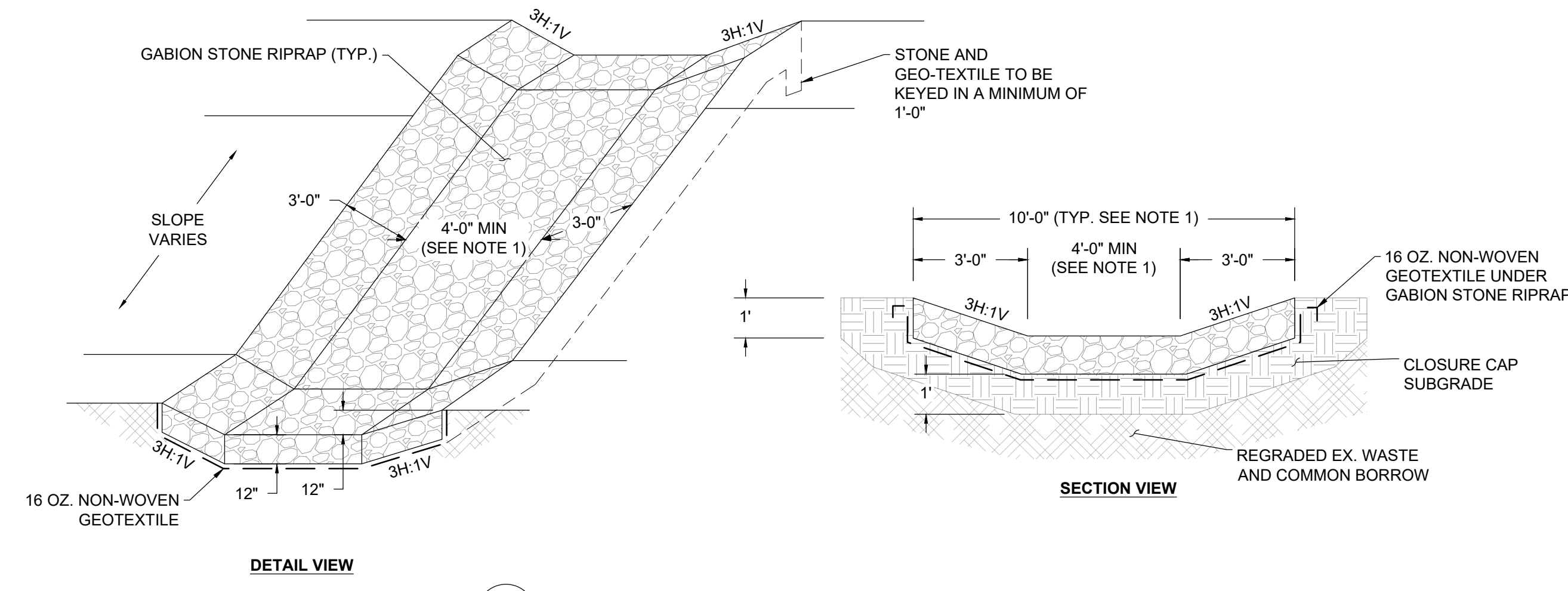
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100% DESIGN PLANS - NOT FOR CONSTRUCTION



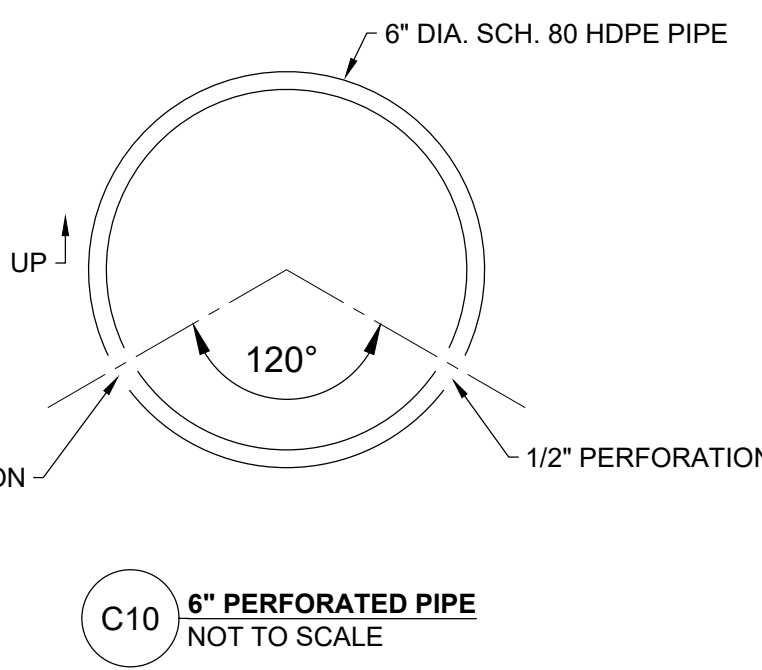
**C13 GABION DOWNCHUTE**  
NOT TO SCALE

NOTE:  
1. DOWNCHUTE 9 REQUIRES A BOTTOM WIDTH OF 8'-0".

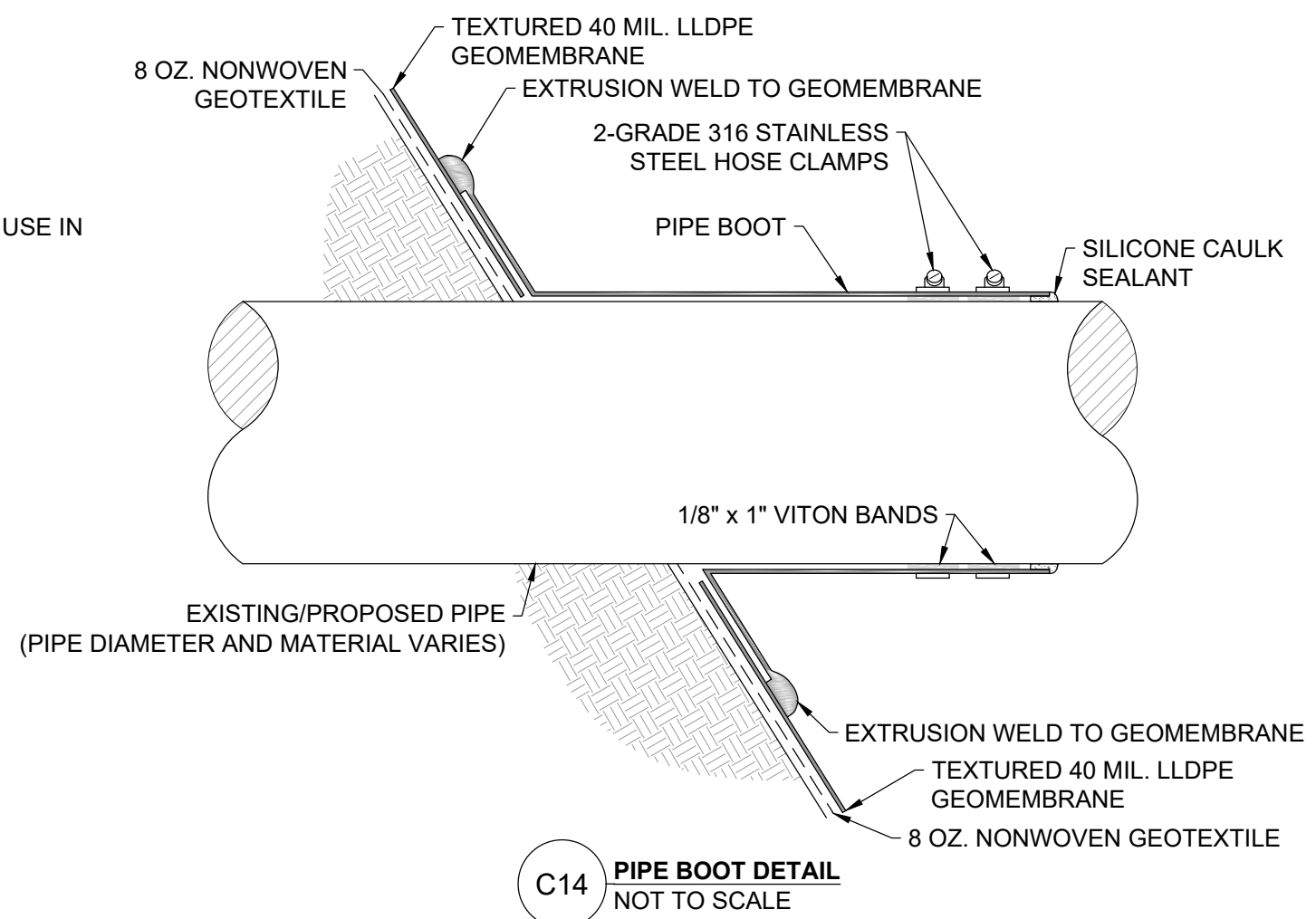


**C16 TEMPORARY STONE DOWNCHUTE**  
NOT TO SCALE

NOTES:  
1. DOWNCHUTE 9 REQUIRES A BOTTOM WIDTH OF 8'-0".  
2. UPON REMOVAL, CONTRACTOR SHALL EXCAVATE AND REUSE STONE FOR USE IN PERMANENT GABION DOWNCHUTES.

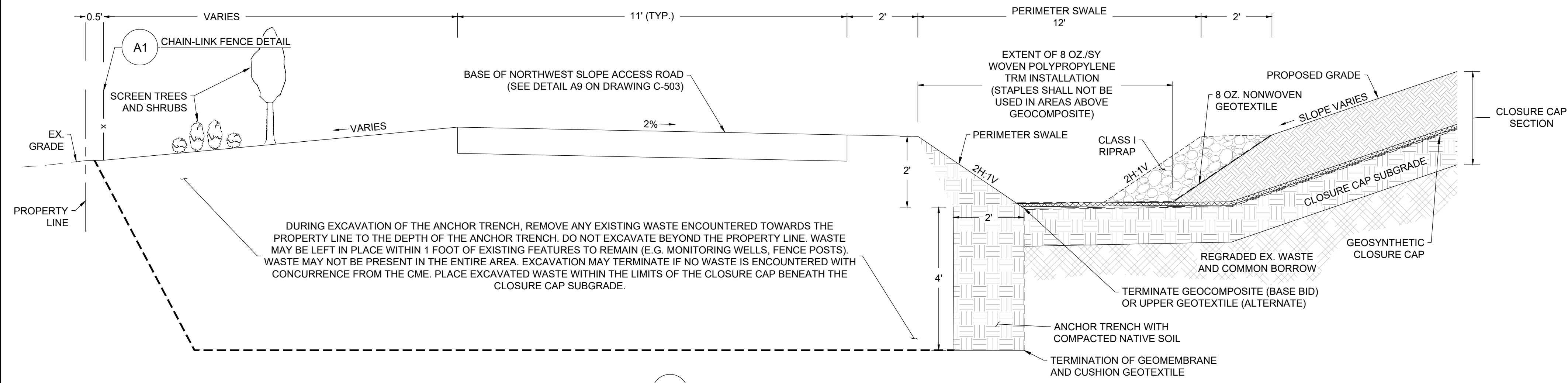


**C10 6" PERFORATED PIPE**  
NOT TO SCALE

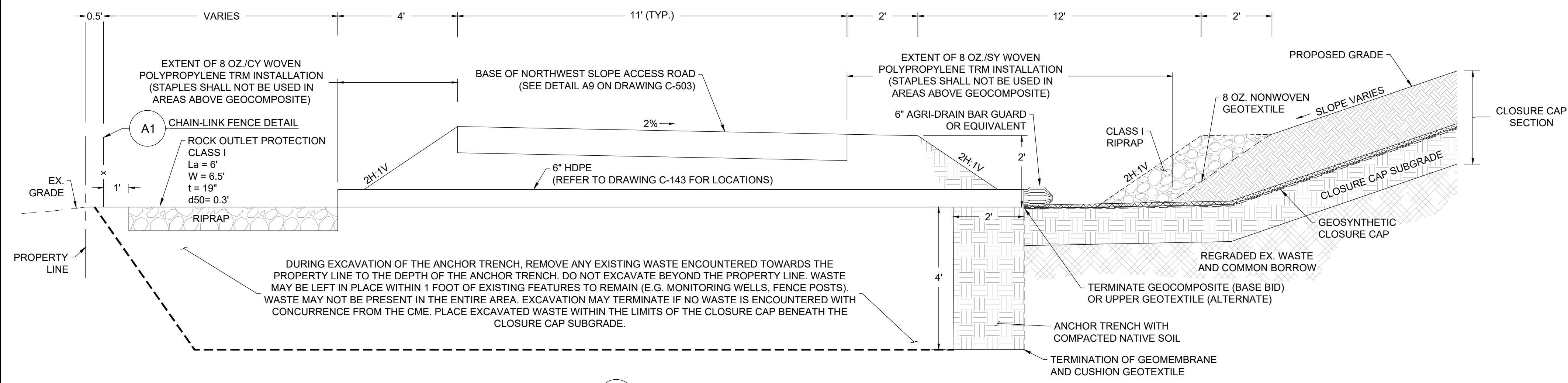


**C14 PIPE BOOT DETAIL**  
NOT TO SCALE

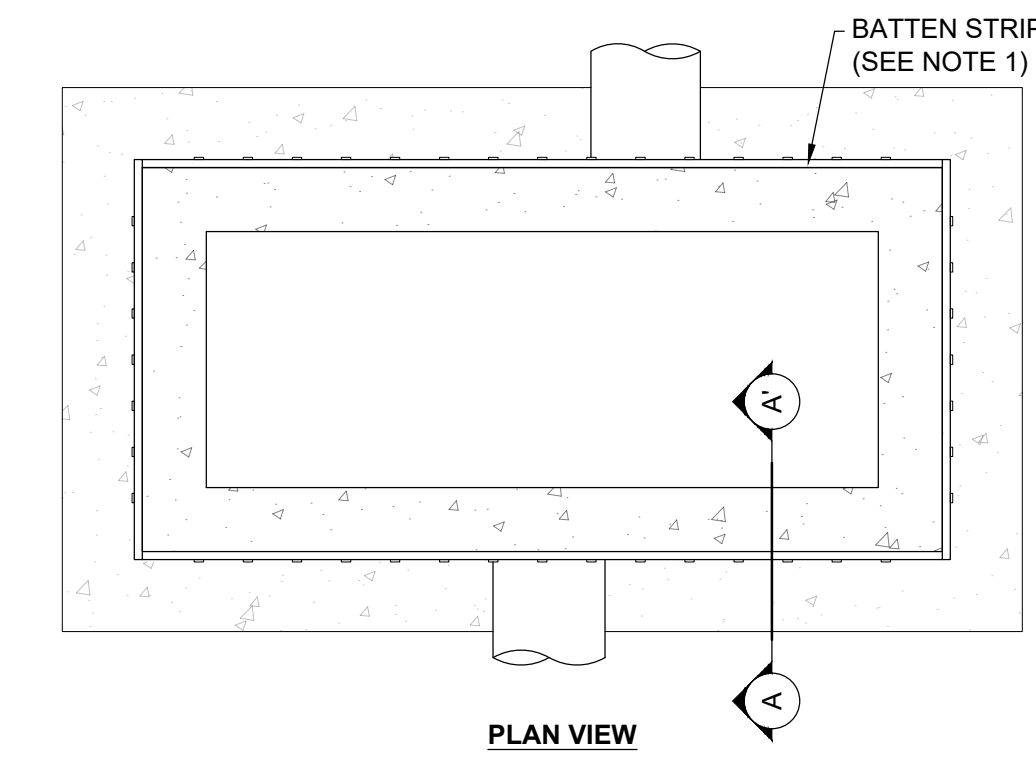
NOTE:  
1. PIPE BOOT SHALL BE INSTALLED ON ALL EXISTING AND PROPOSED PIPES PENETRATING THE GEOMEMBRANE LINER.



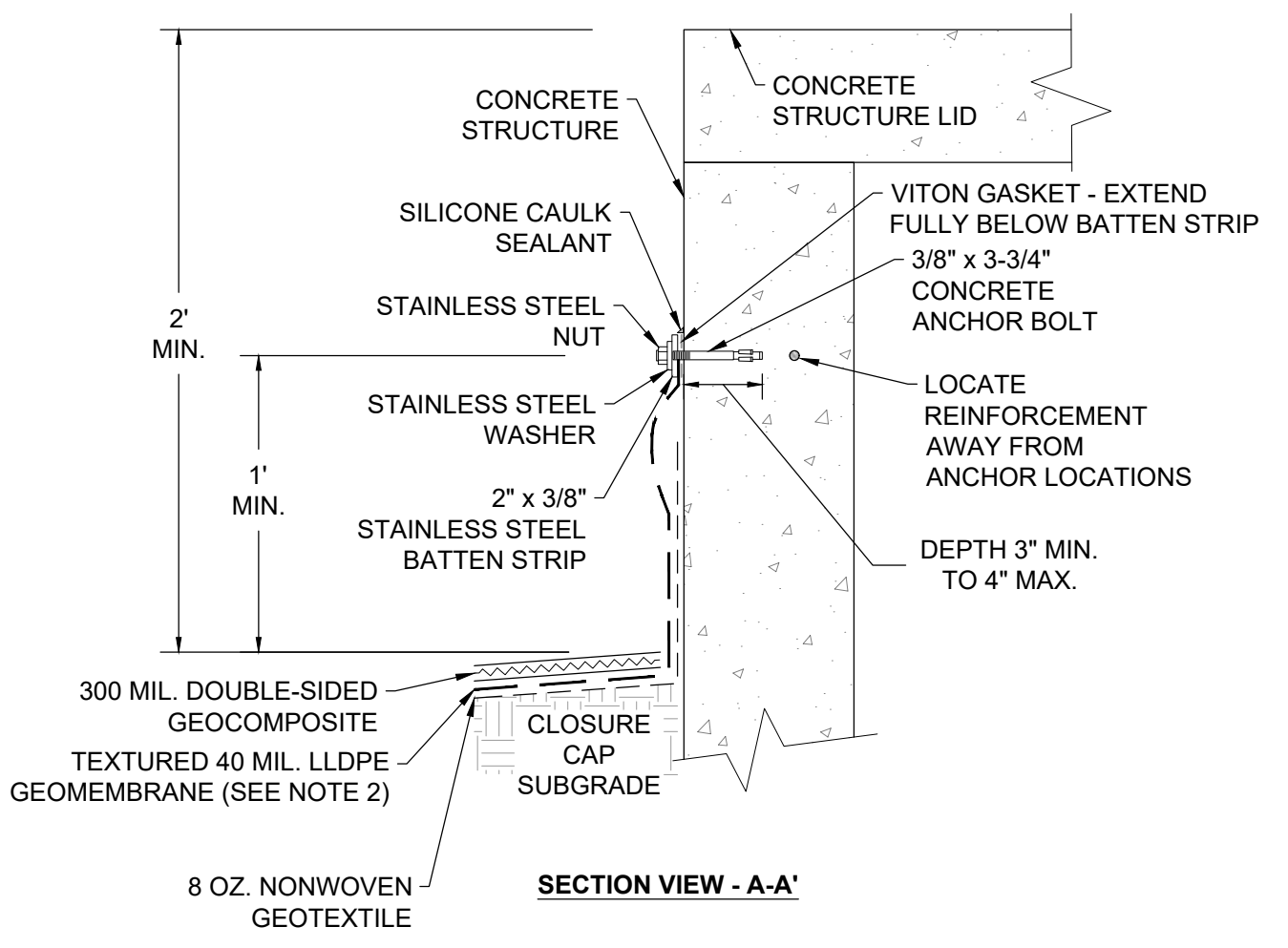
**C8 NORTHWEST SLOPE DETAIL**  
NOT TO SCALE



**C9 NORTHWEST SLOPE DISCHARGE FACILITY DETAIL**  
NOT TO SCALE



**PLAN VIEW**



**C15 GEOMEMBRANE LINER TO CONCRETE STRUCTURE ATTACHMENT DETAIL**  
NOT TO SCALE

NOTES:  
1. STAINLESS STEEL 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:	M/J
--------------	-----------	-----------	-----	-------------	-----------	------------------	-----

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: 8/25/2022

SEAL

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

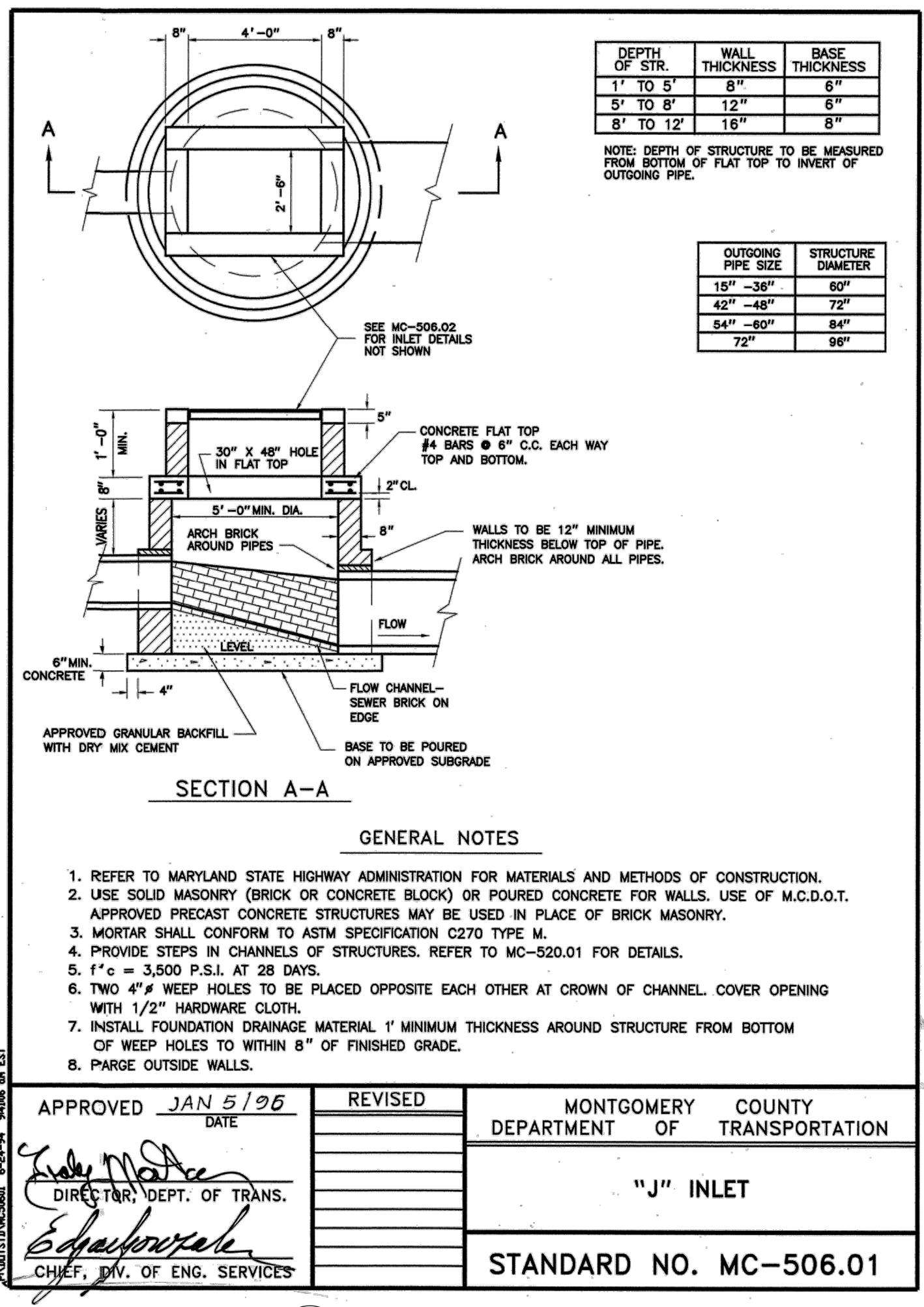
**CLOSURE CAP DETAILS**

SC/SWM SHEET 27 OF 53

100% DESIGN PLANS - NOT FOR CONSTRUCTION

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

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**C-509**  
SHEET: 99 OF 146



APPROVED JAN 5/96 DATE  
 DIRECTOR, DEPT. OF TRANS.  
 CHIEF, DIV. OF ENG. SERVICES

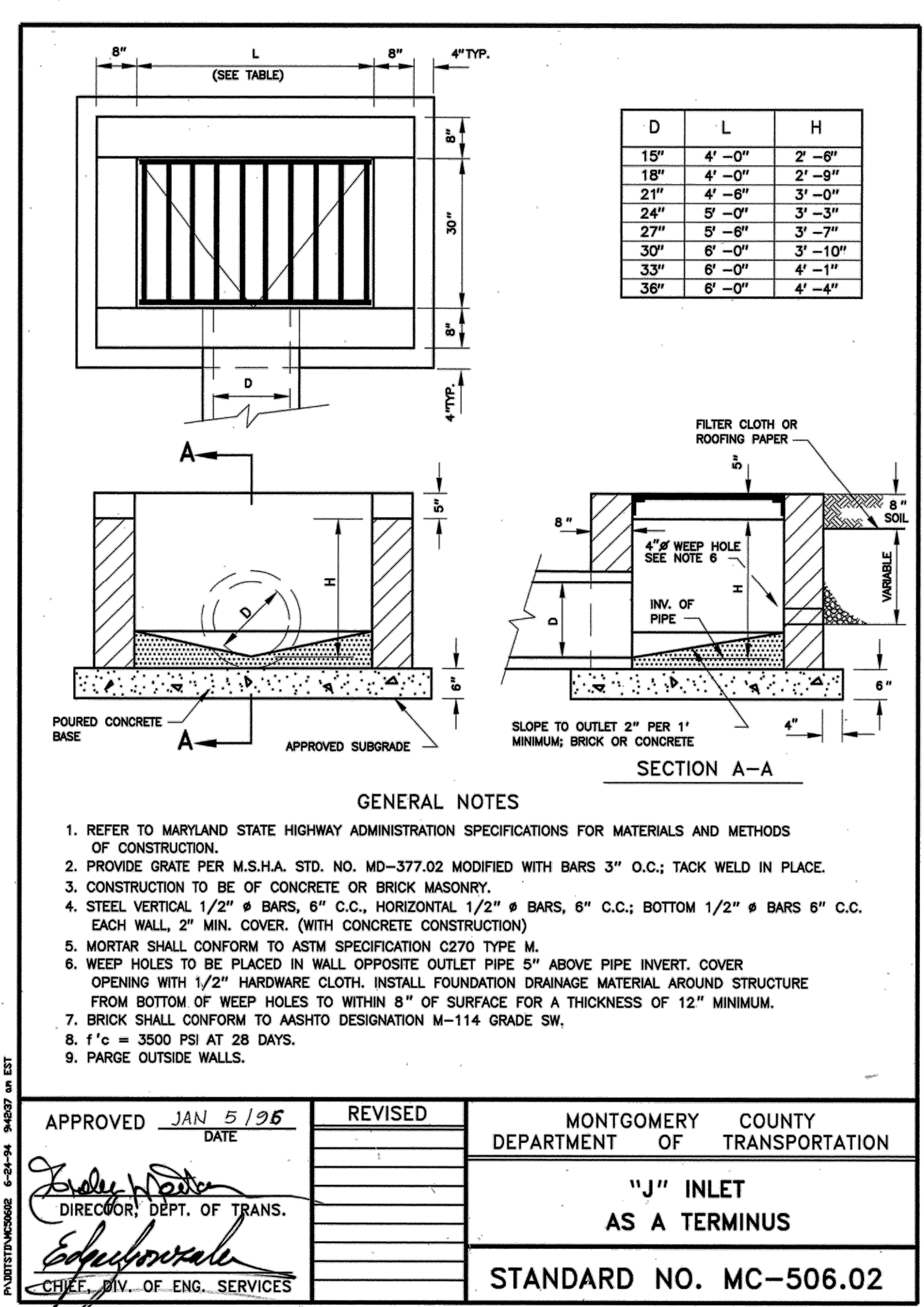
REVISOR

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

"J" INLET

STANDARD NO. MC-506.01

D1 "J" INLET DETAIL NOT TO SCALE



APPROVED JAN 5/96 DATE  
 DIRECTOR, DEPT. OF TRANS.  
 CHIEF, DIV. OF ENG. SERVICES

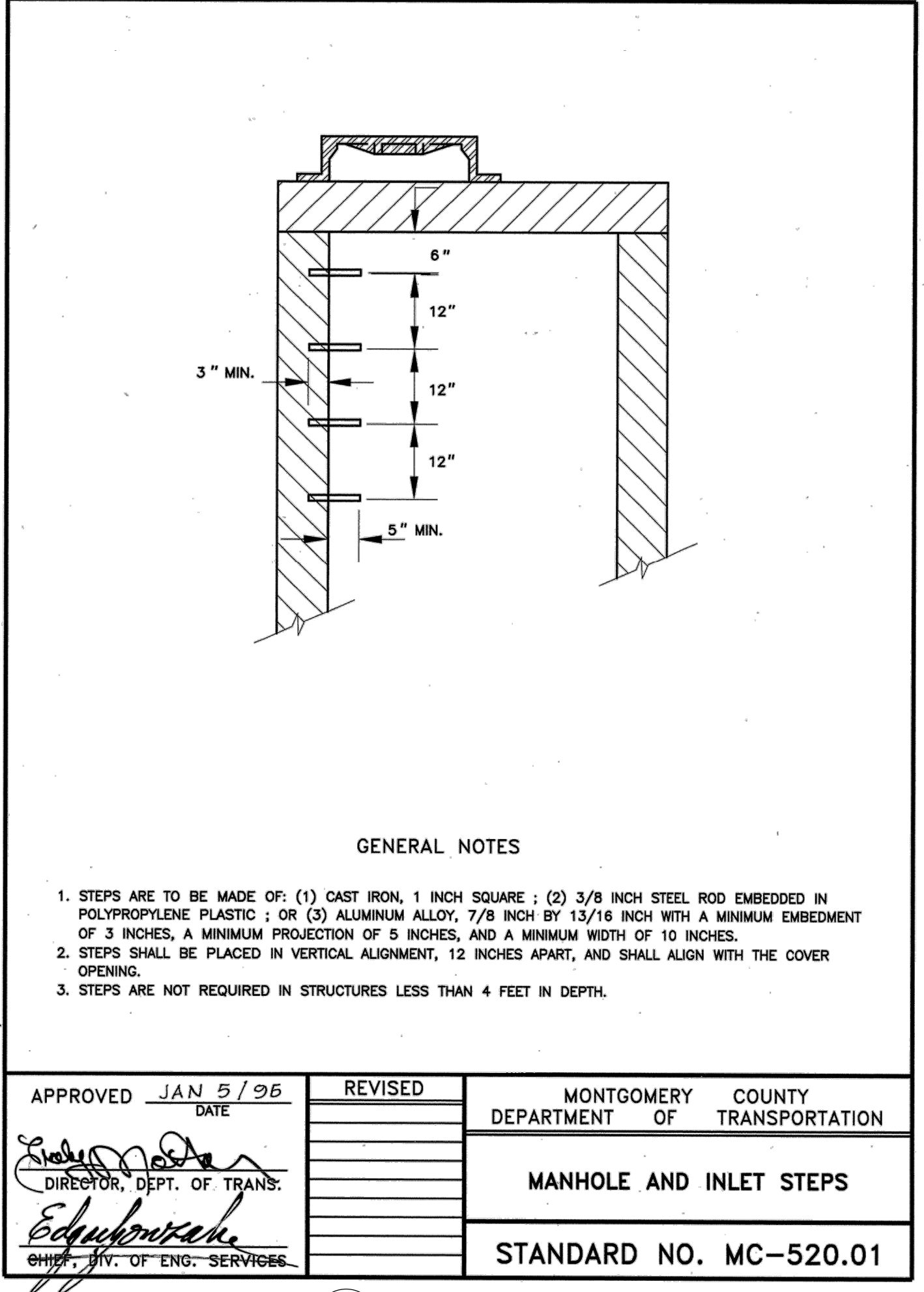
REVISOR

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

"J" INLET AS A TERMINUS

STANDARD NO. MC-506.02

D2 "J" INLET AS A TERMINUS DETAIL NOT TO SCALE



APPROVED JAN 5/96 DATE  
 DIRECTOR, DEPT. OF TRANS.  
 CHIEF, DIV. OF ENG. SERVICES

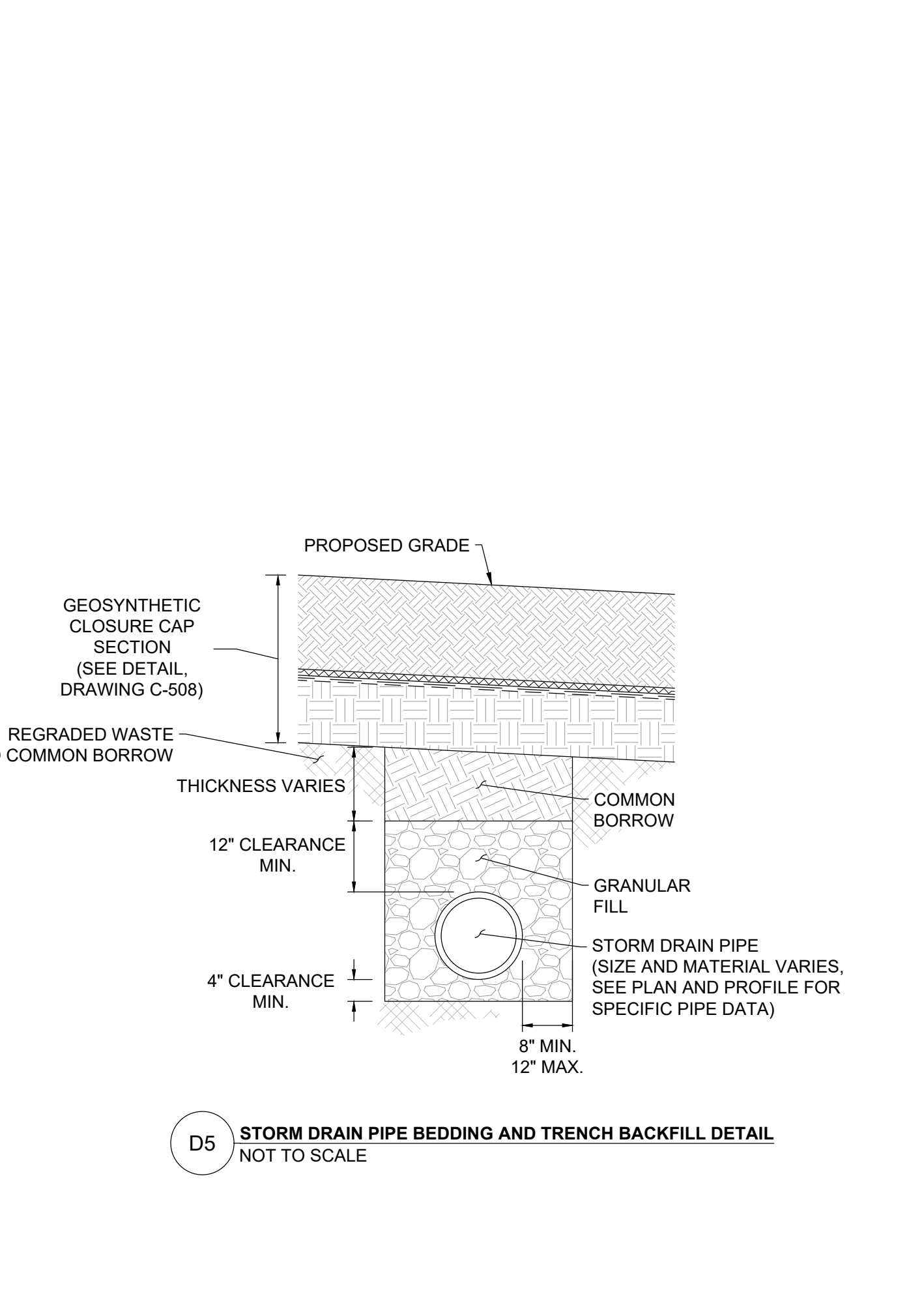
REVISOR

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

MANHOLE AND INLET STEPS

STANDARD NO. MC-520.01

D4 MANHOLE AND INLET STEPS DETAIL NOT TO SCALE



APPROVED JAN 5/96 DATE  
 DIRECTOR, DEPT. OF TRANS.  
 CHIEF, DIV. OF ENG. SERVICES

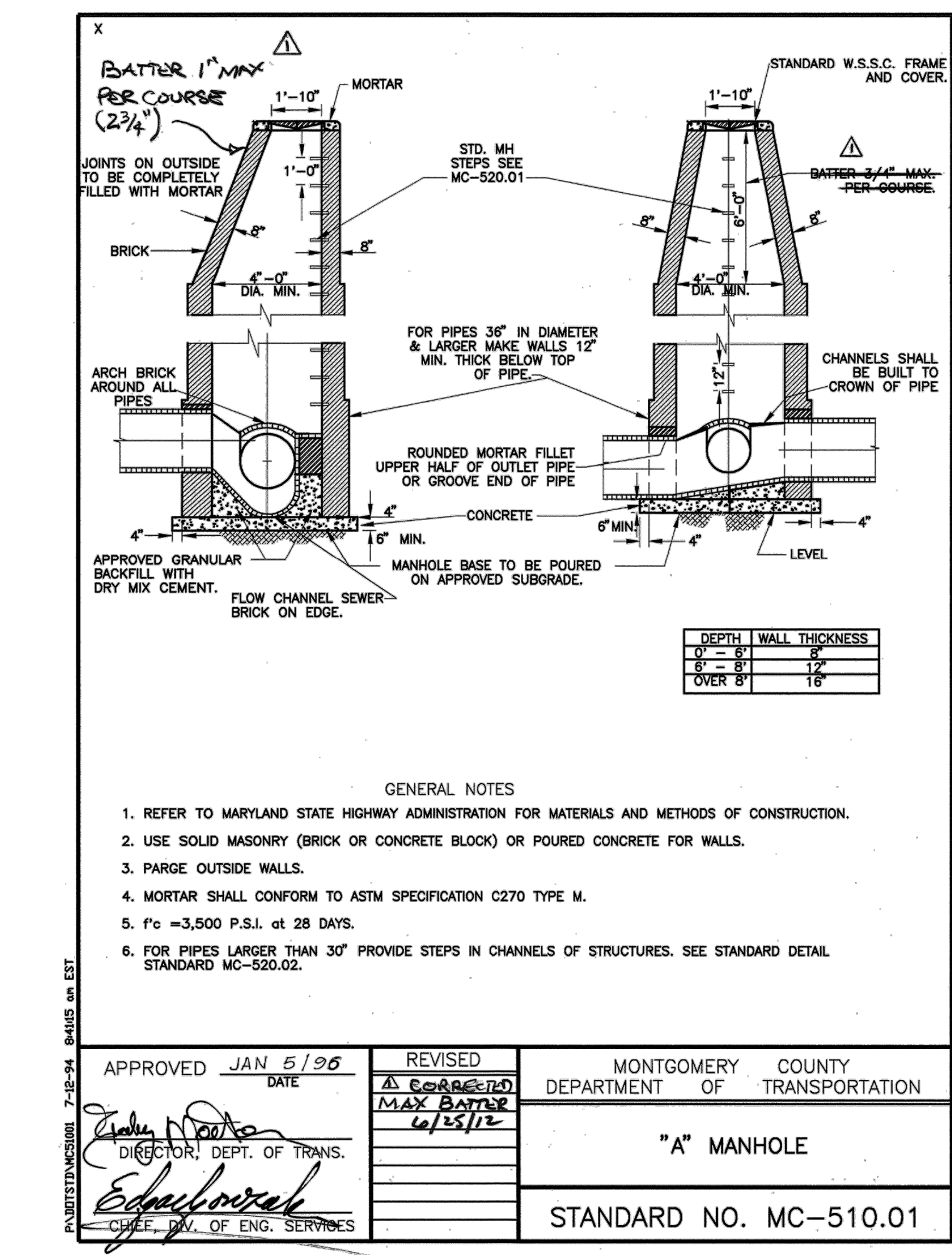
REVISOR

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

STORM DRAIN PIPE BEDDING AND TRENCH BACKFILL DETAIL

STANDARD NO. MC-506.03

D5 STORM DRAIN PIPE BEDDING AND TRENCH BACKFILL DETAIL NOT TO SCALE



APPROVED JAN 5/96 DATE  
 DIRECTOR, DEPT. OF TRANS.  
 CHIEF, DIV. OF ENG. SERVICES

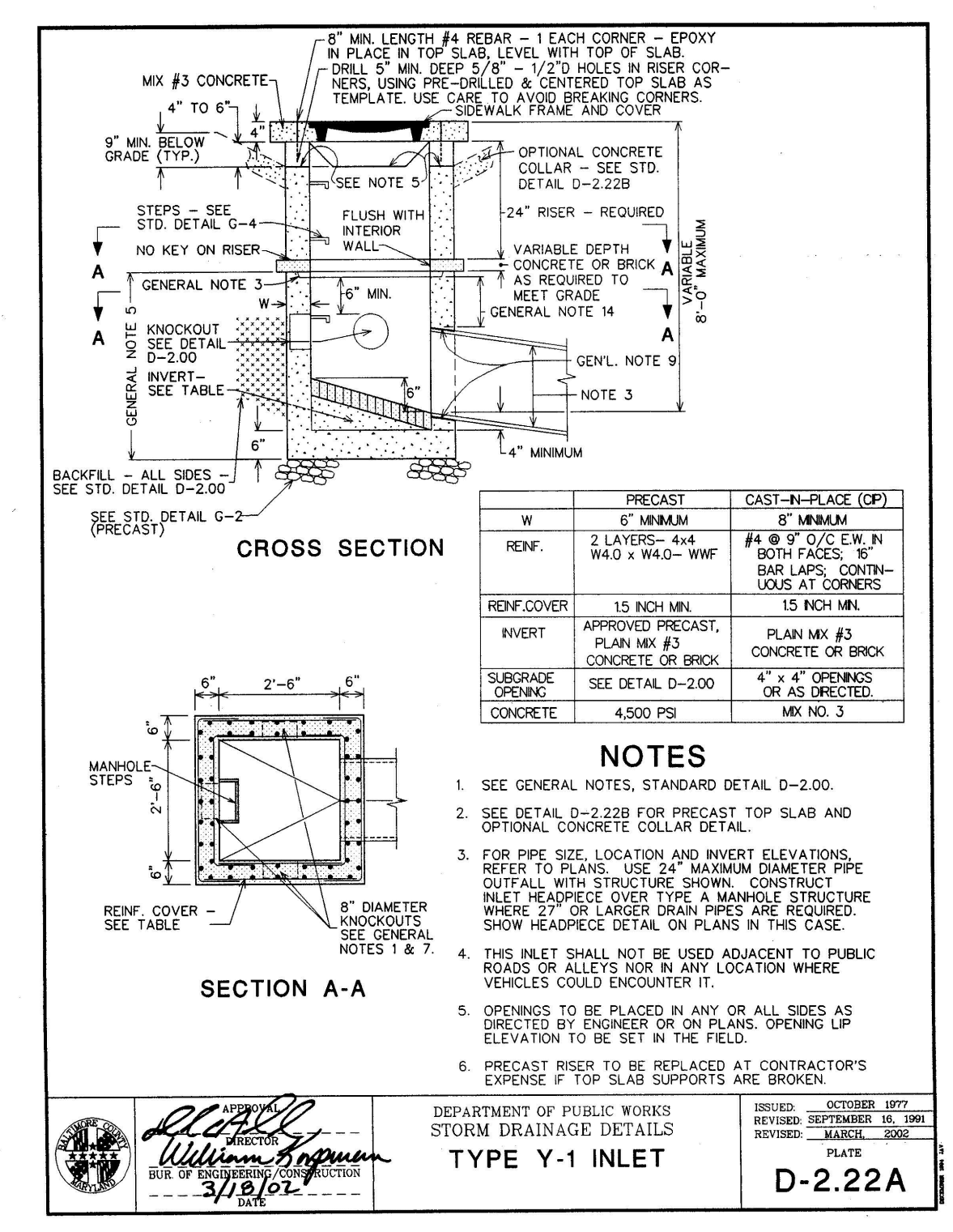
REVISOR

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

"A" MANHOLE

STANDARD NO. MC-510.01

D3 "A" MANHOLE DETAIL NOT TO SCALE



APPROVED JAN 5/96 DATE  
 DIRECTOR, DEPT. OF TRANS.  
 CHIEF, DIV. OF ENG. SERVICES

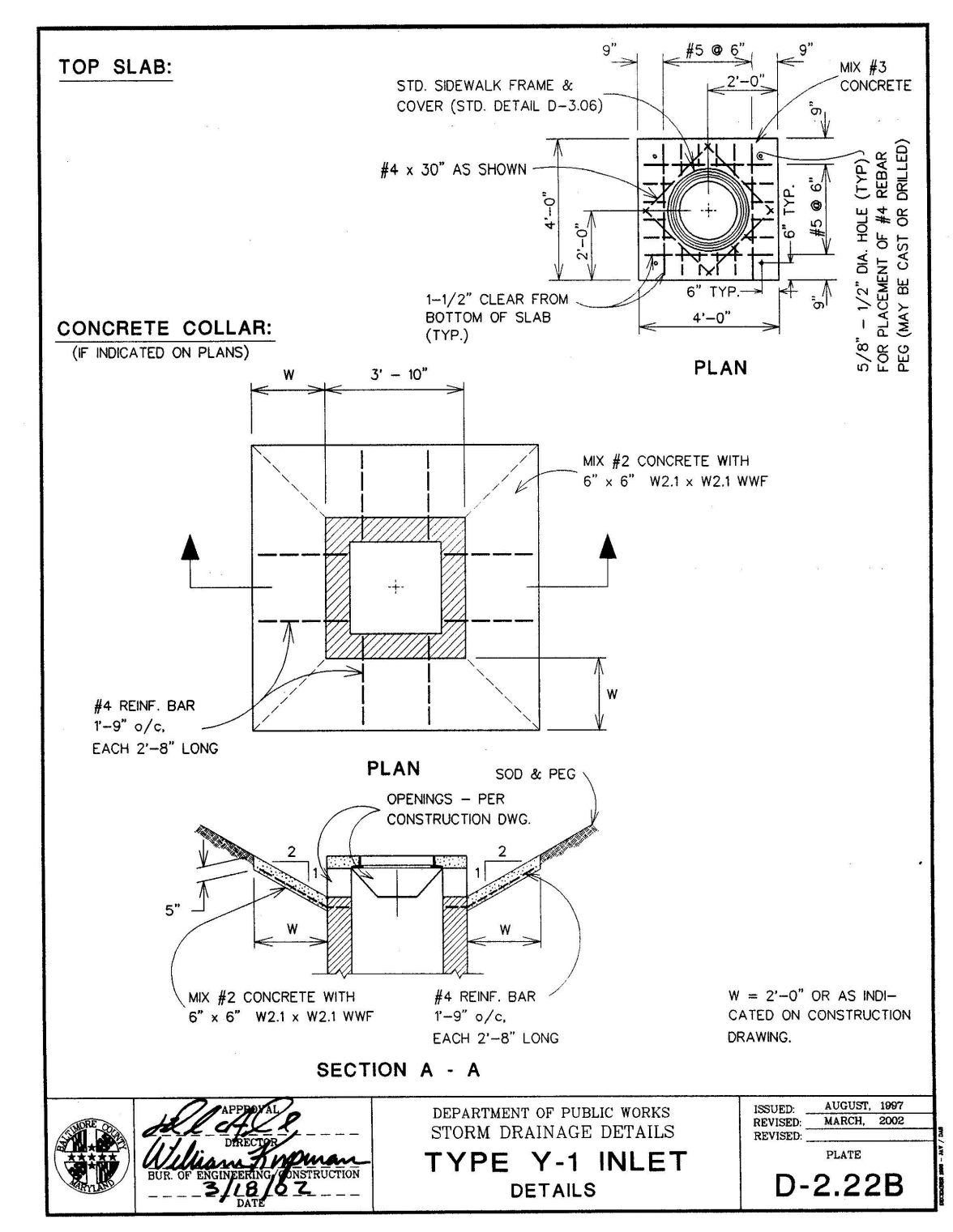
REVISOR

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

TYPE Y-1 INLET

STANDARD NO. MC-510.02

D6 TYPE "Y" INLET DETAIL NOT TO SCALE



APPROVED JAN 5/96 DATE  
 DIRECTOR, DEPT. OF TRANS.  
 CHIEF, DIV. OF ENG. SERVICES

REVISOR

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

TYPE Y-1 INLET DETAILS

STANDARD NO. MC-510.03

D7 TYPE "Y" INLET DETAILS DETAIL NOT TO SCALE

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

DESIGN INFORMATION

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

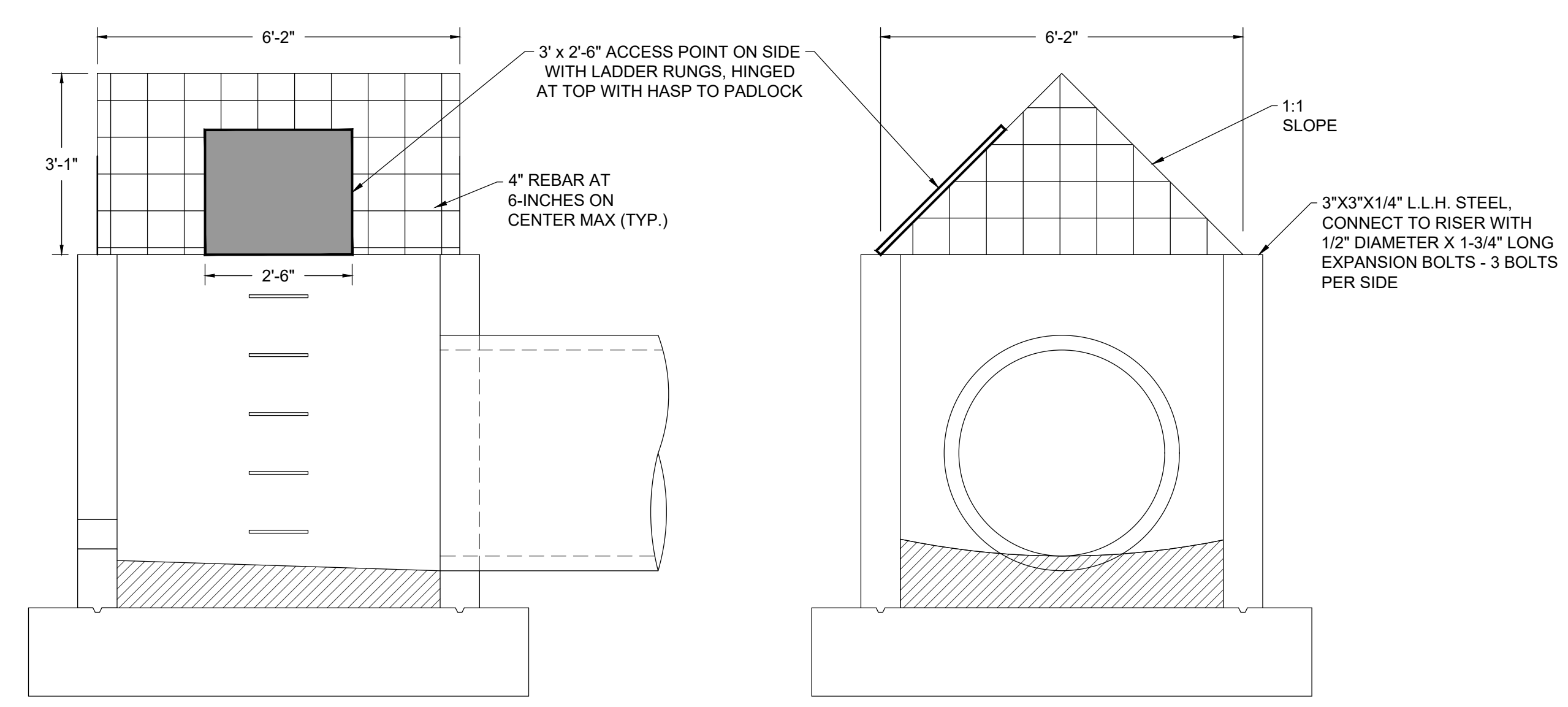
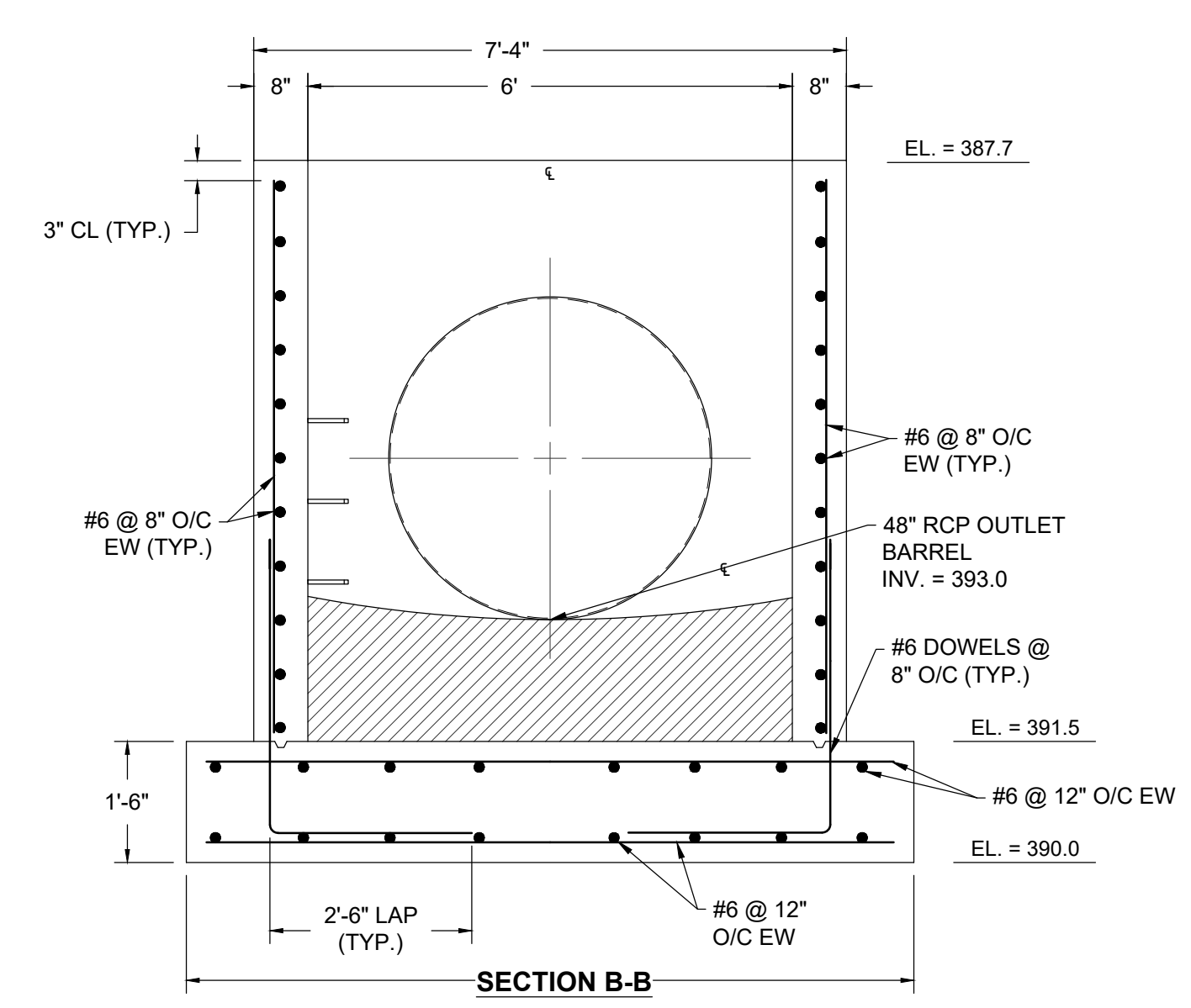
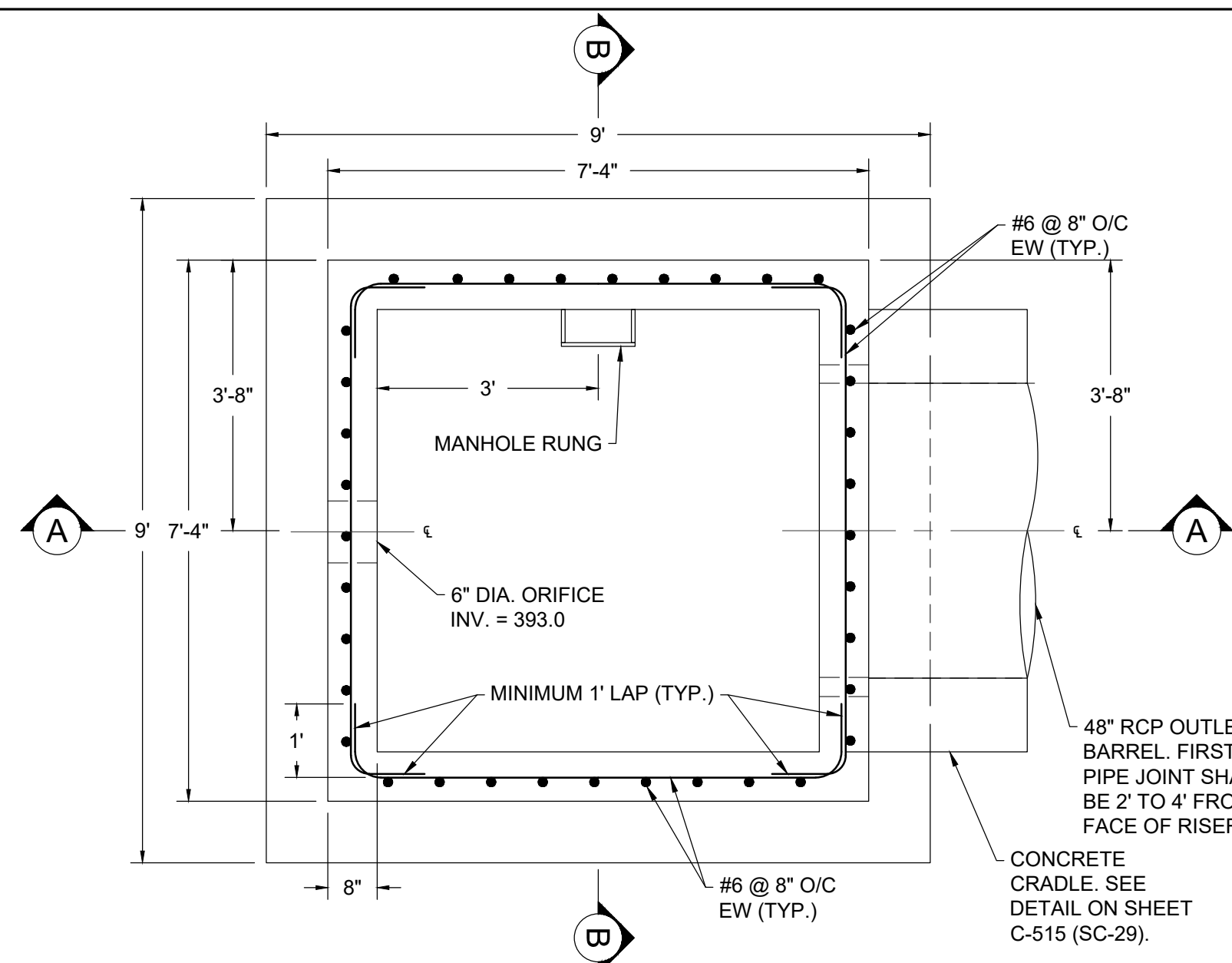
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23402, EXPIRATION DATE: 8/25/2022

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
 C-510  
 SHEET: 100 OF 146

FILE PATH: G:\PROJECTS\1564601 - GUIDE OF DESIGN\PRODUCT\CONSTRUCTION SET\1564601 - 01 - DETAILS - DRAINAGE - ELEC.DWG (S-10) BURETT, STEVEN 12/10/2020 10:46 AM

100% DESIGN PLANS - NOT FOR CONSTRUCTION





D9 TRASH RACK 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-520.01.
  - 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.
  - FIRST BARREL PIPE JOINT SHALL BE 2' TO 4' FROM THE FACE OF RISER STRUCTURE.
  - CONCRETE CRADLE SHALL BE PROVIDED ALONG THE ENTIRE LENGTH OF THE BARREL PIPE. SEE DETAIL ON SHEET C-515 (SC-29).
  - REINFORCED CONCRETE BARREL PIPE SHALL COMPLY WITH ASTM C 361

- NOTE:**
- ENTIRE TRASH RACK TO BE HOT DIP GALVANIZED. IF RACK IS TOO LARGE TO BE GALVANIZED AS ONE PIECE, COMPONENTS TO BE GALVANIZED AND THEN BOLTED TOGETHER IN THE FIELD. CUTTING, WELDING, OR PAINTING AFTER FABRICATION IS PROHIBITED.

Table G.6: Temporary Sediment Basin Design Data Sheet  
(Refer to instructions on pages G.27 through G.29)

Computed by: SCJ Date: 09/20/20 Checked by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Project name: Guide Landfill Remediation Basin #: Sediment Basin No. 1  
 Location: 800 E. Sude Drive

**Design Volumes and Elevations**

- Total area draining to basin = 44.60 acres (ac)
- Required total storage volume = 36000 ft<sup>3</sup>/ac x 44.60 acre drainage area = 161280 ft<sup>3</sup>
- Required wet storage volume = 1800 ft<sup>3</sup>/ac x 44.60 acre drainage area = 80280 ft<sup>3</sup>
- Required dry storage volume = 1800 ft<sup>3</sup>/ac x 44.60 acre drainage area = 80640 ft<sup>3</sup>
- Basin bottom elevation = 392 ft
- Riser or weir crest (total storage) elevation = 393.7 ft
- Provided total storage volume = 175191 ft<sup>3</sup>
- Wet storage (permanent pool/draw-down) elevation = 395.2 ft
- Provided wet storage volume = 83528 ft<sup>3</sup>
- Provided dry storage volume = 117838 ft<sup>3</sup>
- Basin cleanout elevations (located at 1/2 wet storage depth) = 393.7 ft
- Distance from riser crest elevation to cleanout elevation = 5.0 ft

**Surface Area Design**

- $Q_{10} = 108.1$  cfs (peak inflow from 10-yr, 24-hr storm event; attach computations)
- Minimum basin surface area  $\geq 0.0035 \times Q_{10} \times L$  ac  $\leq 0.68$  ac  
 required provided

**Principal Spillway ( $Q_p$ )**  
(See Figure G.1)

- Design  $Q_p$  for barrel = 108.1 cfs (min. 10% of  $Q_{10}$ )
- Barrel head,  $H = 5.60$  ft; Barrel length,  $L = 23$  ft
- Barrel dia. = 48 in (min. 10 in);  $Q_p = 147$  (Q from Table G.7 or G.8) x 1.03 (length correction factor) = 151 cfs. Note:  $Q_p$  must equal or exceed Design  $Q_p$ .
- Riser dia. = 72 in; Riser height = 5.7 ft; Riser head ( $h$ ) = 1.59 ft
- Trash rack dia. = 74.74 in; Trash rack height = 37 in

**Emergency Spillway ( $Q_e$ )**  
(See Figures G.3 and G.4)

- Emergency spillway capacity  $Q_e = Q_{10} - Q_p = \text{_____}$  cfs
  - Width,  $b = \text{_____}$  ft;  $H_p = \text{_____}$  ft
  - Exit channel slope = 2%
  - Emergency Spillway Crest = \_\_\_\_\_ ft
  - Design High Water = \_\_\_\_\_ ft
  - Settled top of embankment elevation = \_\_\_\_\_ ft
- 100-yr containment is provided in sediment basin, conveyed with principle spillway.  
 EMERGENCY SPILLWAY ITEMS 20 - 25 ARE NOT APPLICABLE.

Table G.6: Temporary Sediment Basin Design Data Sheet (continued)

**Anti-Screen Collar Design (If Required)**  
(See Figures G.5 and G.6)

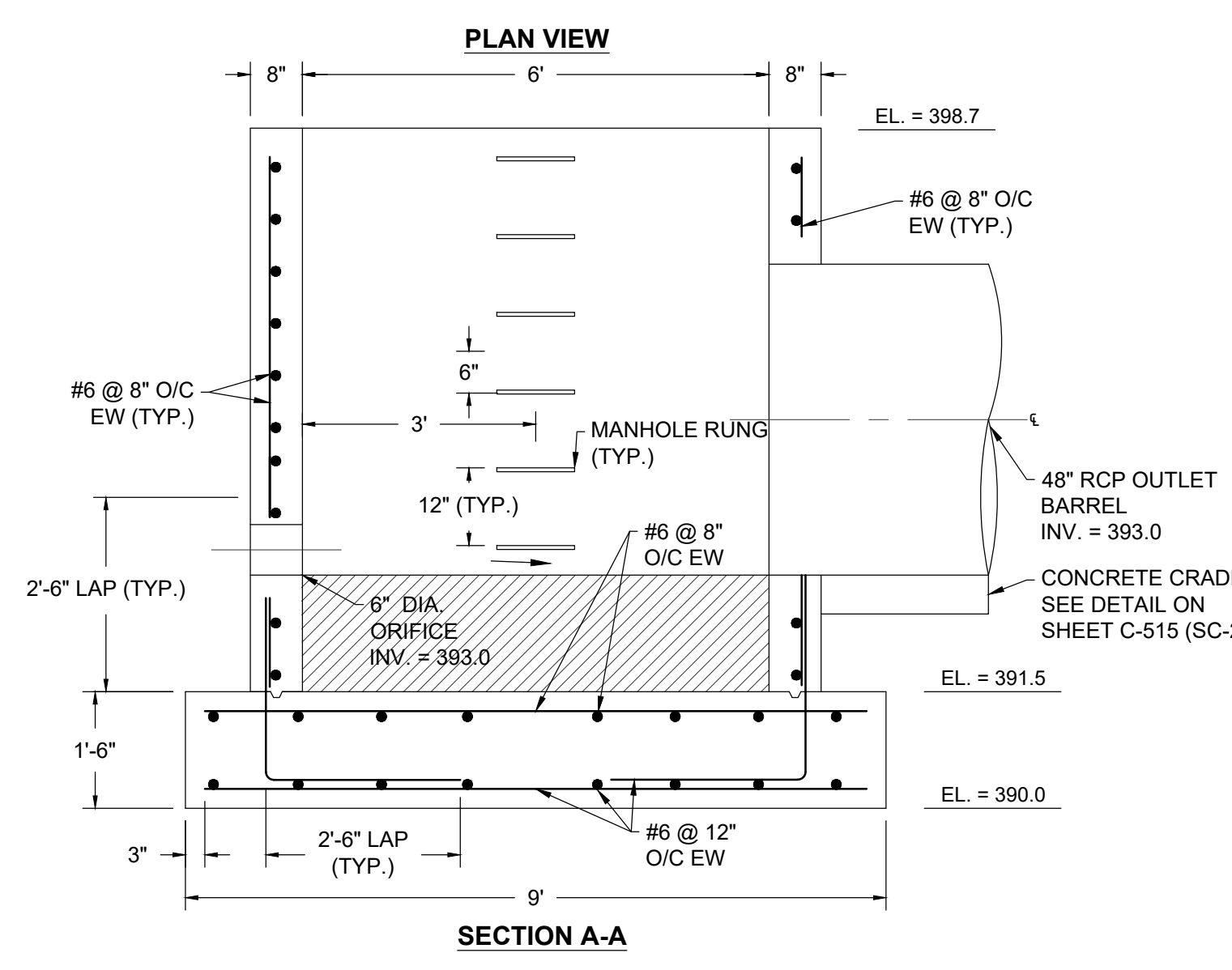
- $y = 0.7$  ft;  $x = 3$  ft; pipe slope = 1.87 %;  $L_s = 52$  ft (See determined graphically)
- Use 2 collars;  $8$  ft  $\times$  3 in. square; projection = 2 ft

**Draw-Down Device**  
(See Table G.10 and Details G-2.6 and G-2.7)

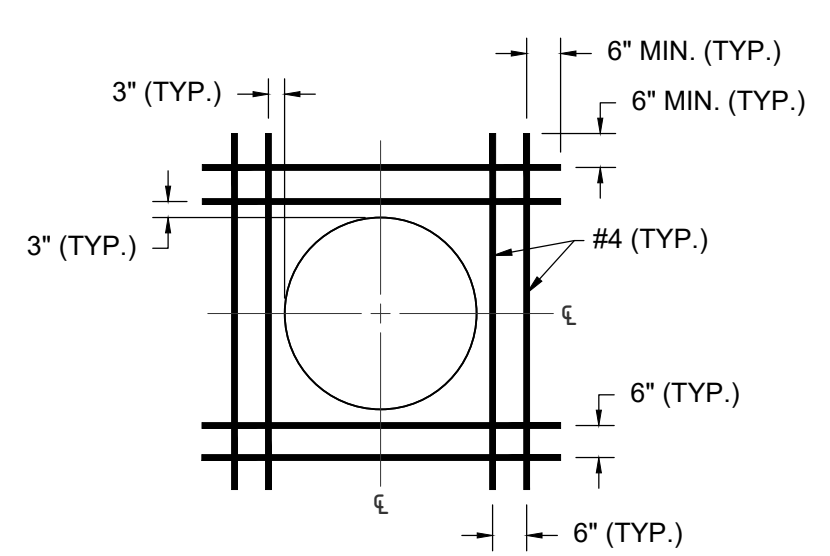
- $Q_{10} = 228$  cfs
- Calculated  $A_s = 27$  ft<sup>2</sup>
- Calculated  $d_s = 28$  in
- Maximum diameter from Table G.10 = 10 in
- Design  $d_s$  = smaller of line 30 or line 31 = 58 in
- Draw-down device pipe diameter = 48 in
- Minimum  $A_s$  = total area of perforations = 4.3 ft<sup>2</sup>
- Perforation diameter = 0.25 in (Perforation size Per Montgomery County Modified Dewatering Device Detail)
- Minimum number of perforations = 358
- Number of longitudinal rows = 25 (Based on Montgomery Co. perforation spacing = 6")
- Perforated pipe length = 3 ft
- Actual  $A_s = (0.0055 \text{ ft}^2) \times (\text{line } 37 + 0.5 \text{ ft}) \times (\text{line } 38) = 0.46$  ft<sup>2</sup> (must be  $\geq$  line 34)

**Baffle Board Design**  
(See Detail G-2.4)

- $A =$  surface area at wet storage elevation = 29,818 ft<sup>2</sup>
- Effective width,  $W_e = (A/2)^{0.5} = 121.5$  ft (We  $\geq$  245 min.)
- Flow length from inflow point to outlet = 11 ft (Line 17.24, 258 (west to east inflow points))
- If line 42 is less than  $W_e \times 2$ , provide baffle boards to lengthen flow path
- Effective flow length,  $L_e = L_1 + L_2 + L_3 = \text{_____}$  ft (must be  $\geq W_e \times 2 = \text{_____}$  ft)  
 248R, 288R, 420R (west to east inflow points)

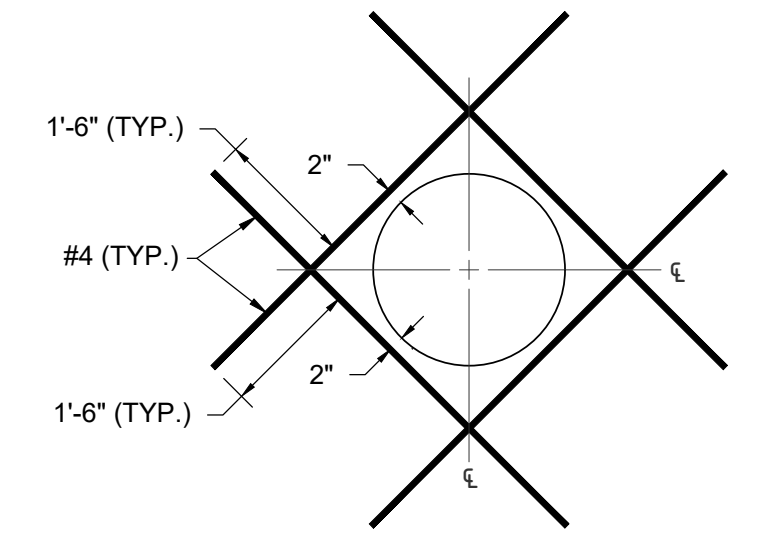


D8 SEDIMENT BASIN NO. 1 - RISER STRUCTURE DETAIL  
SCALE 1" = 2'



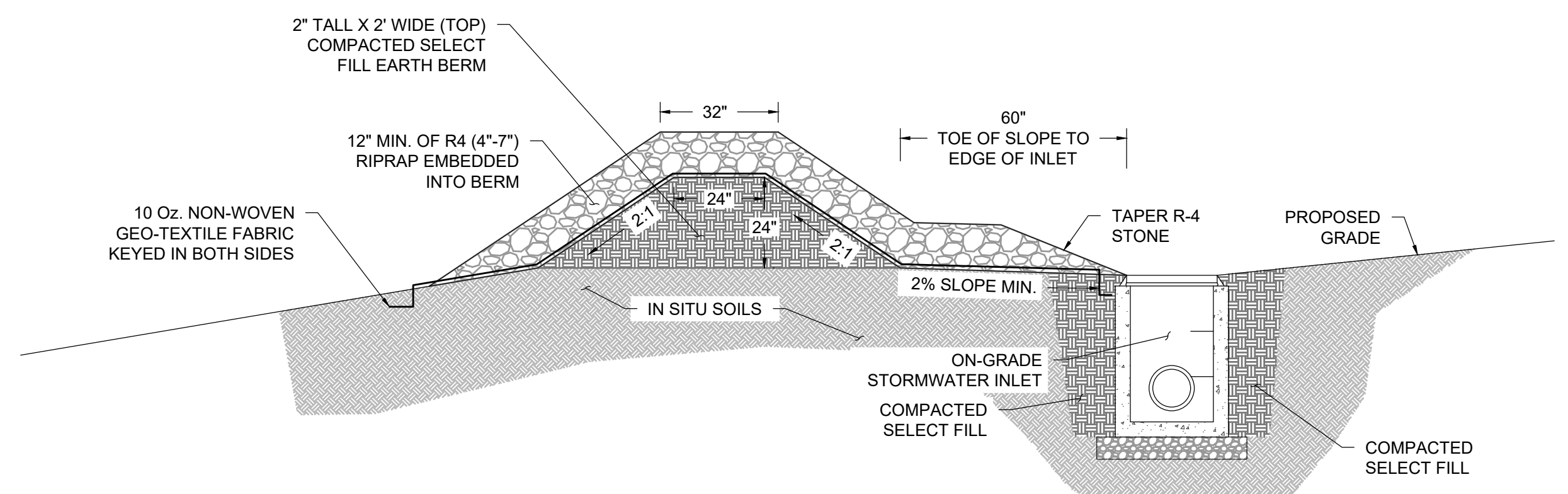
D10 TYPICAL REINFORCING AROUND CIRCULAR OPENING  
NOT TO SCALE

- 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.



D11 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.

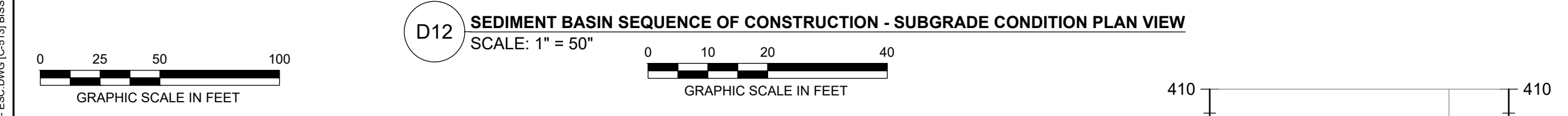
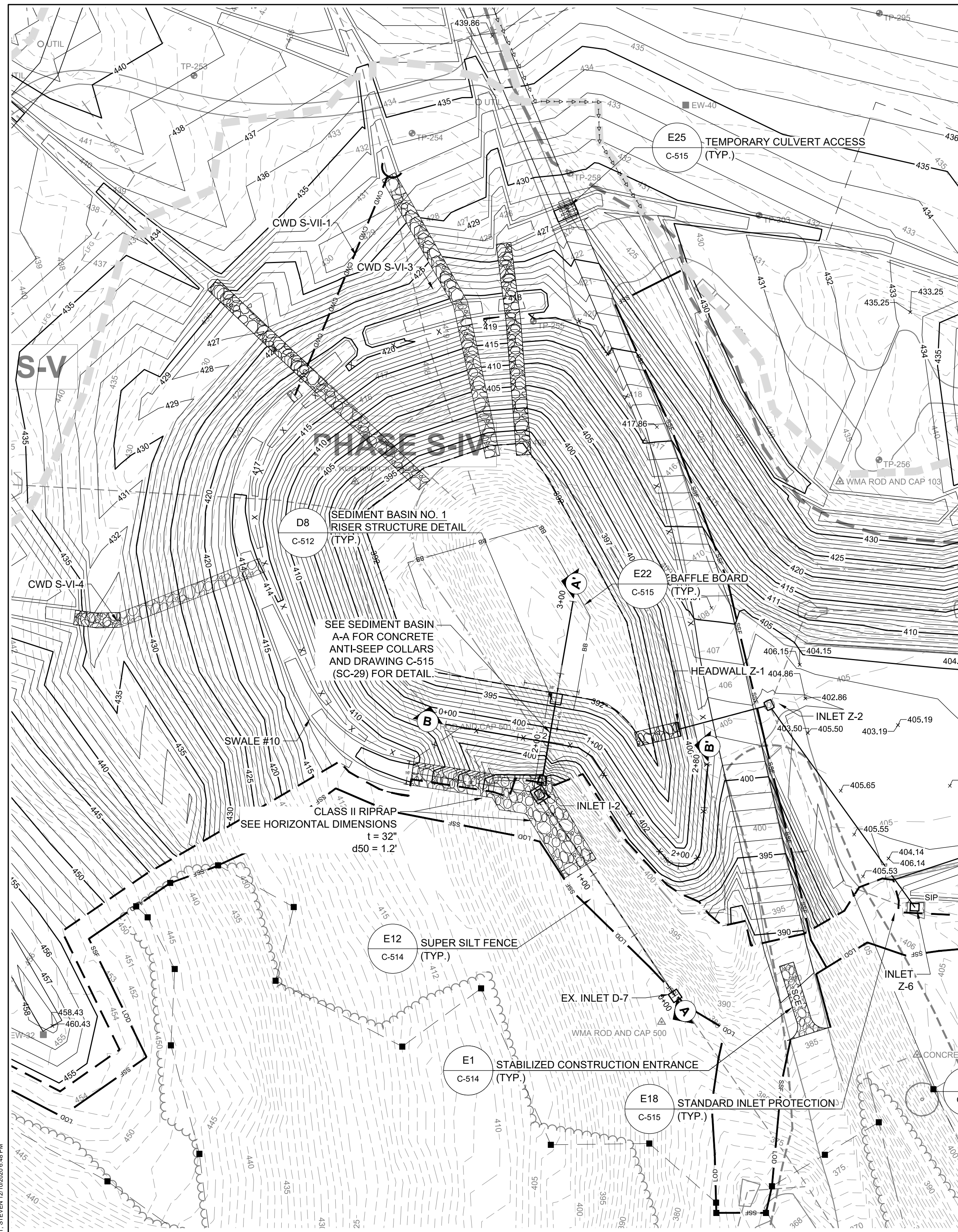


D14 INLET DIVERSION  
SCALE 1" = 2'

FILE PATH: G:\PROJECTS\156461 - GUIDE OF SEDIMENTATION CONSTRUCTION DETAILS - 10 IN. DETAILS - DRAINAGE - ELEC. RWD (C-515) BUREAU - REVIEW: 12/10/2020 04:47 PM

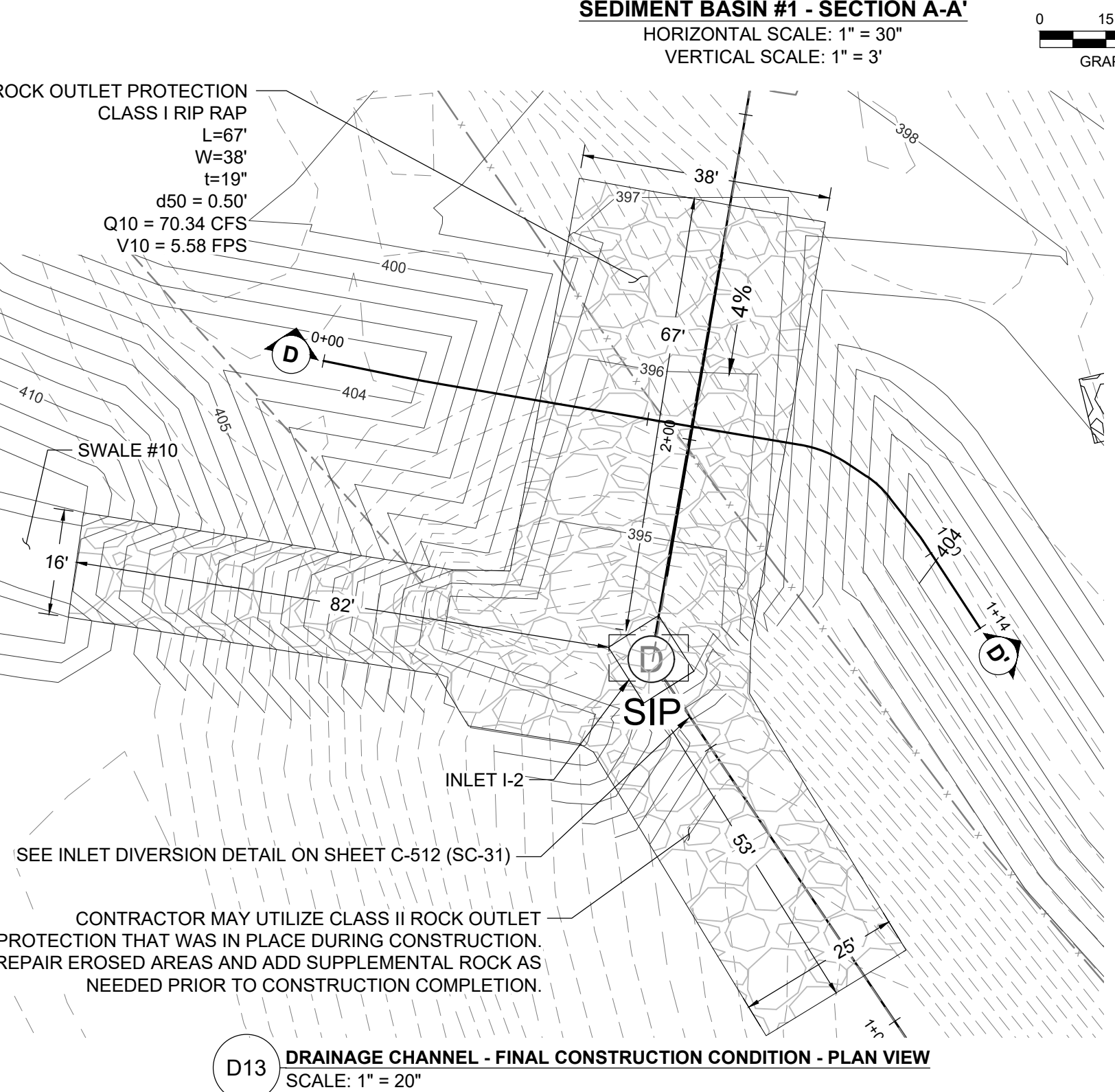
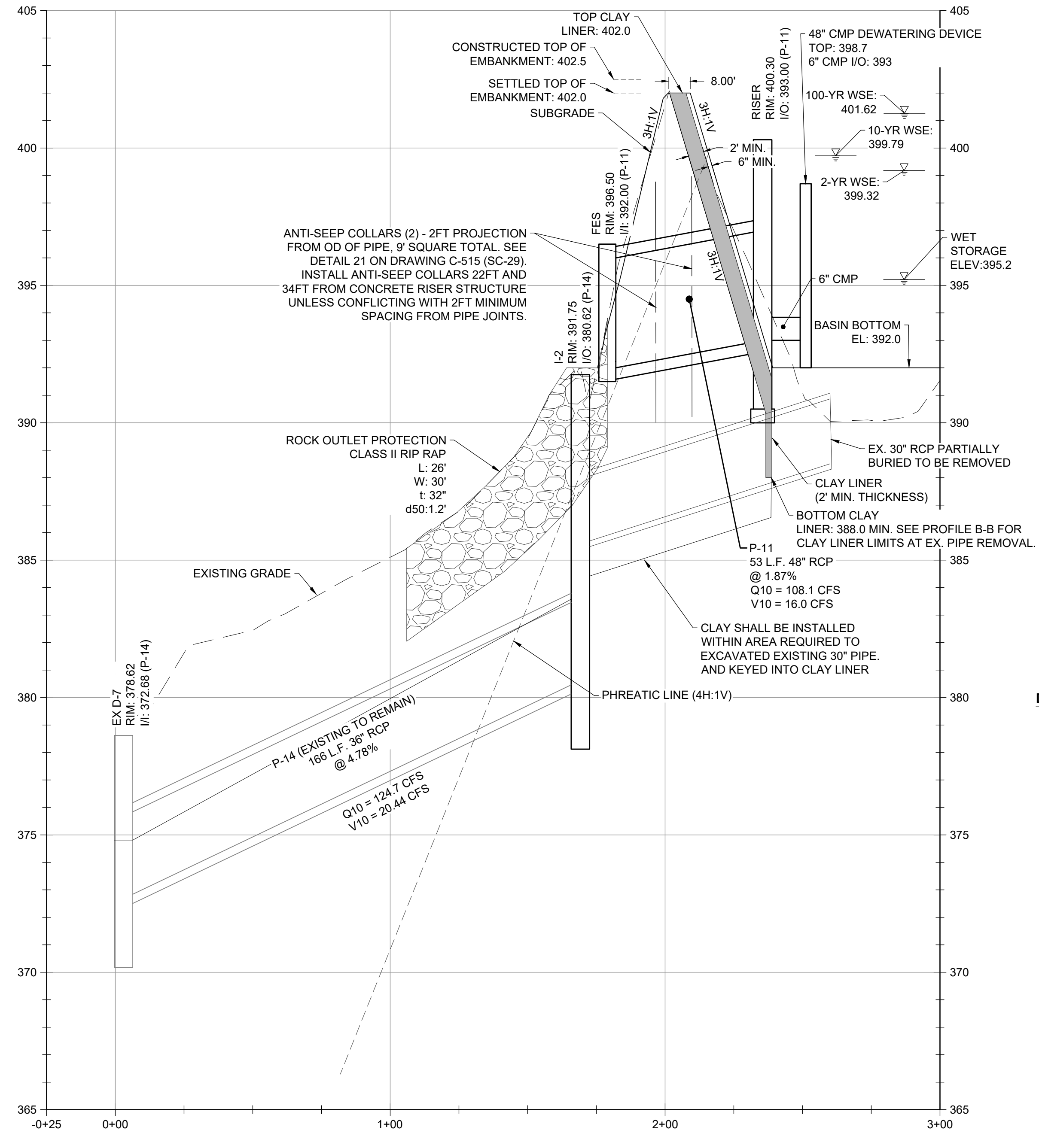
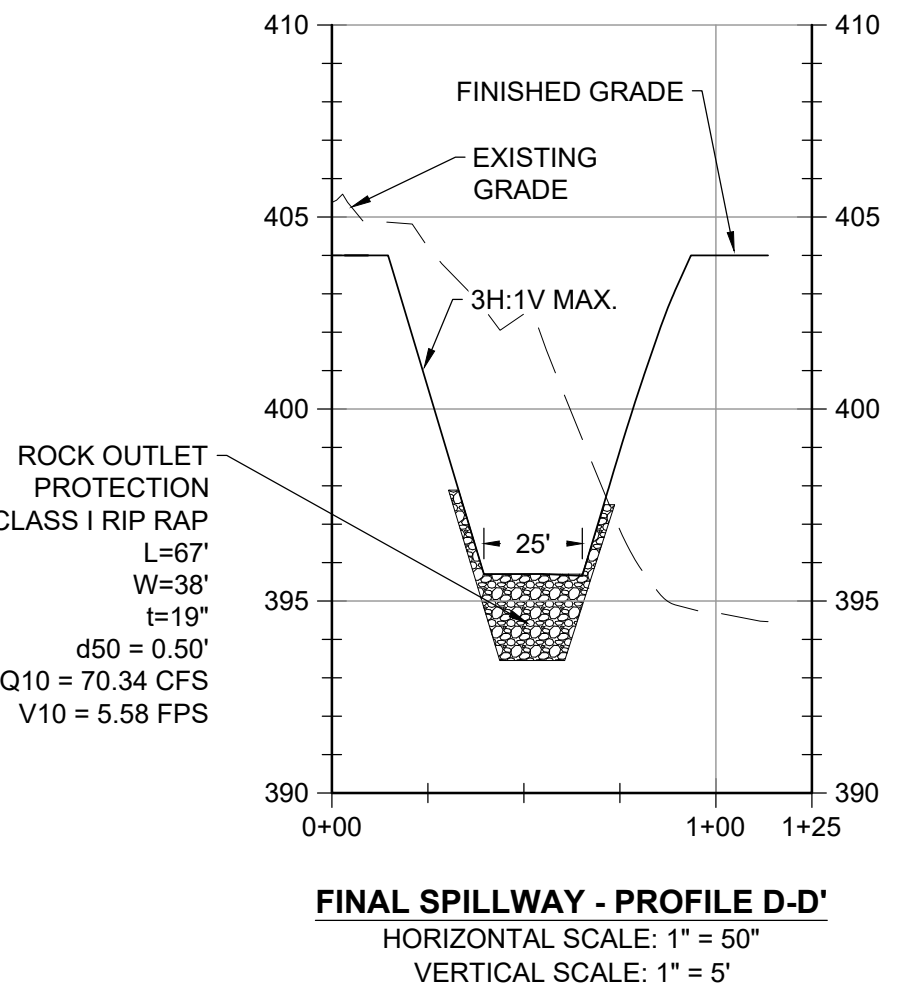
REVISIONS	DESCRIPTION	
BY:		
DATE:		
NO.:		
DESIGN INFORMATION	DESIGNED BY: _____ KEF / SMB DRAWN BY: _____ SMB CHECKED BY: _____ LJO / GAT PROJECT MANAGER: _____ MJG	
SEAL	PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402. EXPIRATION DATE: 8/25/2022.	
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: DECEMBER 2020		
PROJECT NUMBER: 1564601		
<b>C-512</b> SHEET: 102 OF 146		

100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 31 OF 53

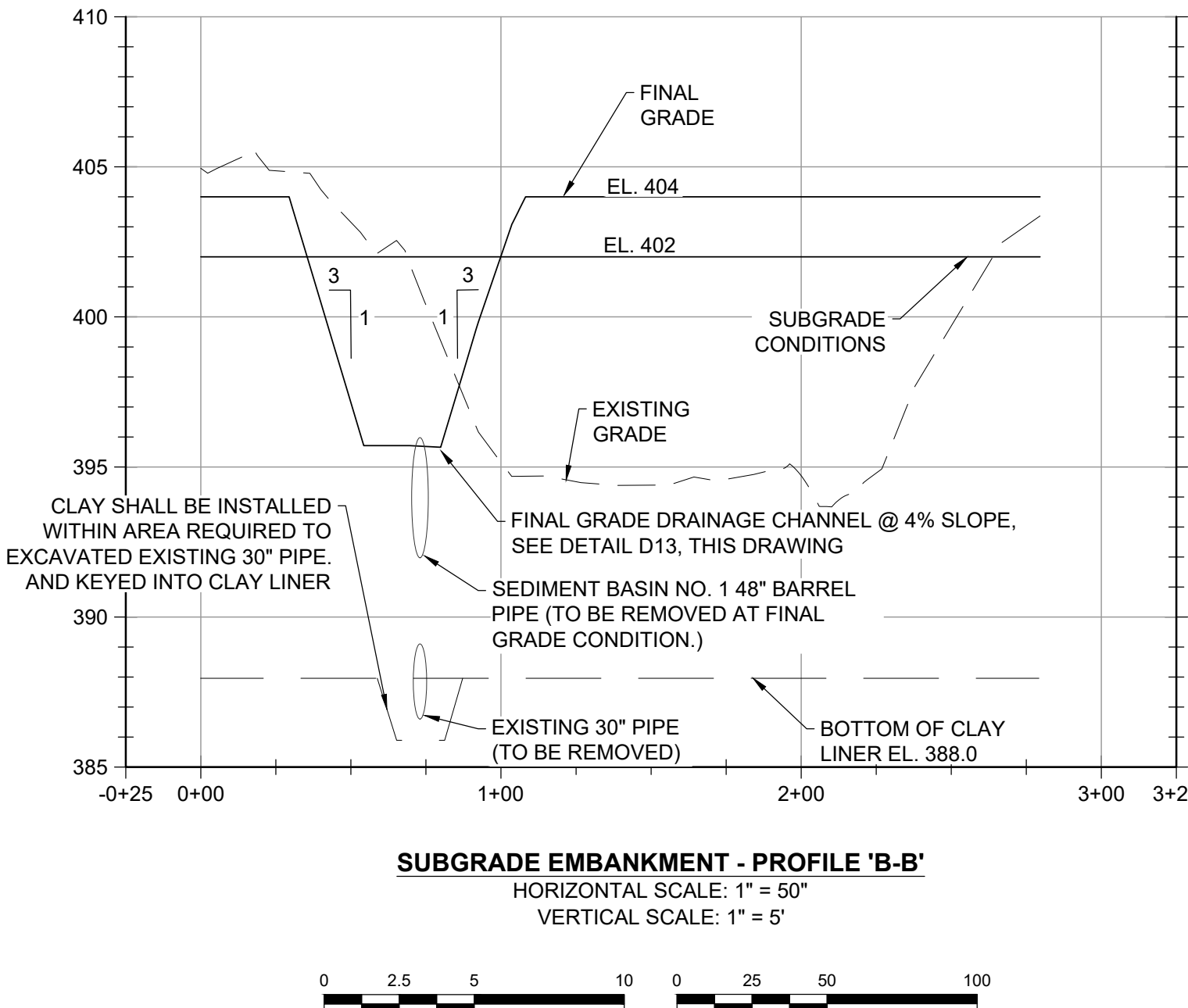
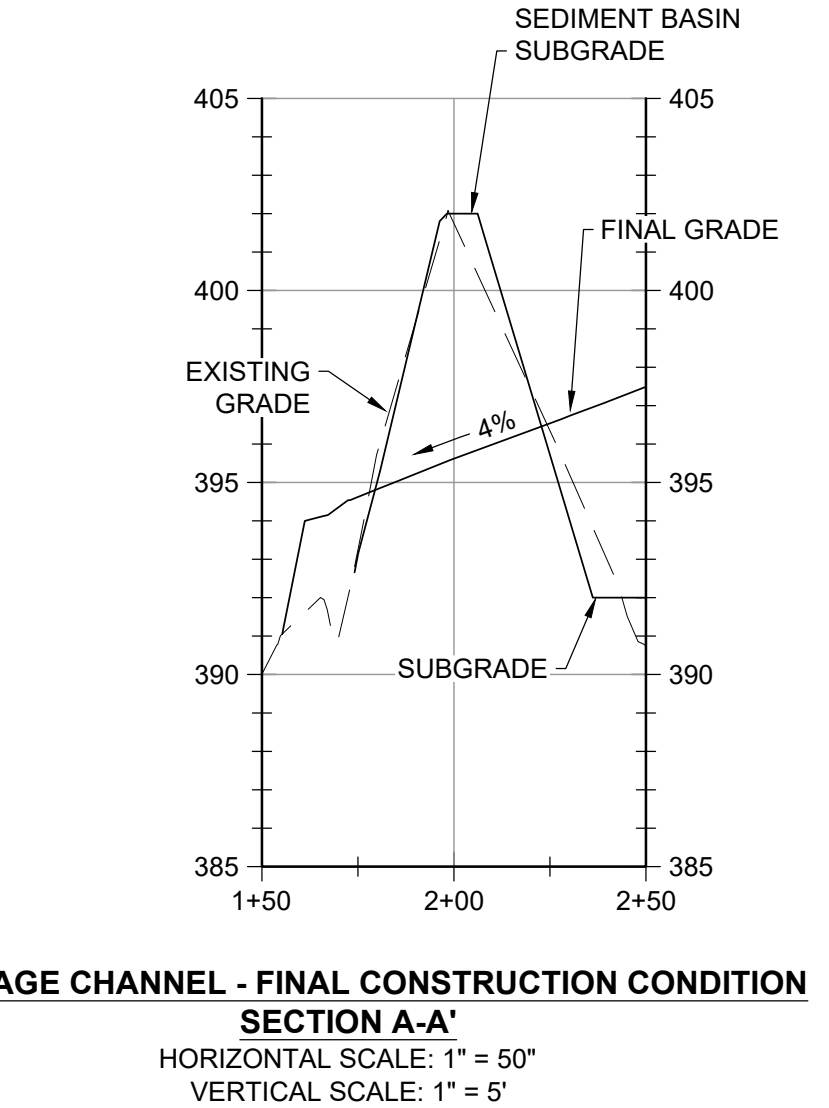


**SEDIMENT BASIN NO. 1 DESIGN DATA**

FACILITY ID	MAXIMUM CONTRIBUTING DRAINAGE AREA (AC.)	WET STORAGE REQUIRED (C.F.)	WET STORAGE PROVIDED (C.F.)	DRY STORAGE REQUIRED D (C.F.)	DRY STORAGE PROVIDED (C.F.)	CLEANOUT ELEVATION
SEDIMENT BASIN NO. 1	44.8	80,640	83,379	80,640	117,808	393.7



- NOTES:**
- SEE SHEET C-515 (SC-29) FOR DEWATERING DEVICE DETAIL.
  - SEE SHEET C-515 (SC-29) FOR CONCRETE ANTI-SEEP COLLAR DETAIL.
  - SEE SHEET C-512 (SC-31) FOR THE CAST-IN-PLACE CONCRETE RISER DETAILS.
  - SEE CONSTRUCTION SPECIFICATIONS FOR SEDIMENT BASIN ON SHEET C-515 (SC-29).



REVISIONS	DESCRIPTION

DESIGN INFORMATION	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 DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402 EXPIRATION DATE: 8/25/2022

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

**DRAINAGE DETAILS**

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-513**  
 SHEET: 103 OF 146

FILE PATH: G:\PROJECTS\1564601 - CODE OF FEDERAL REGULATIONS (CFR) - 10.10 - DETAILS - DRAINAGE - EDC.DWG (C:\PSBIBBETT - REVIEW) 12/10/2020 4:44 PM

100% DESIGN PLANS - NOT FOR CONSTRUCTION

**DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE** STANDARD SYMBOL: SCS-E

**DETAIL B-4-B-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION** STANDARD SYMBOL: TSSMS - \* lb/ft² (\* HOLLOW SHEAR STRESS)

**DETAIL B-4-B-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION** STANDARD SYMBOL: TSSMS - \* lb/ft² (\* HOLLOW SHEAR STRESS)

**DETAIL B-4-B-C PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION** STANDARD SYMBOL: PSSMS - \* lb/ft² (\* HOLLOW SHEAR STRESS)

**DETAIL B-4-B-D PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION** STANDARD SYMBOL: PSSMS - \* lb/ft² (\* HOLLOW SHEAR STRESS)

**DETAIL C-1 EARTH DIKE** STANDARD SYMBOL: E1

**CONSTRUCTION SPECIFICATIONS:**

- USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
- USE TEMPORARY SOIL STABILIZATION MATTING MADE OF BIODEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE RESISTANT TO CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SOIL IF PRESENT. NETTING MUST BE EXTENDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2.0 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
- SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE 1/4" OR 1/8" SHARPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. 1/8" SHARPED STEEL MUST AVERAGE 1 TO 1 1/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. 1/4" SHARPED STEEL MUST AVERAGE 1 TO 1 1/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. 1/8" SHARPED STEEL MUST AVERAGE 1 TO 1 1/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. 1/4" SHARPED STEEL MUST HAVE A MINIMUM 8 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1 1/2 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDING PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEDIMENT CONTROL PLAN. UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDING SURFACE. ADJUST STAPLES TO SECURE THE MATTING.
- KEY-IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED EARTH WITH SOIL, AND TAMPING TO SECURE THE MAT END.
- OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSTREAM MAT.
- KEY-IN THE SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
- STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MINIMUM) CENTERS THROUGHOUT AND 2 FOOT (MINIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

<b>E1</b> STABILIZED CONSTRUCTION ENTRANCE	<b>E2</b> TEMPORARY SOIL STABILIZATION MATTING DITCH OR CHANNEL APPLICATION	<b>E3</b> TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION	<b>E4</b> PERMANENT SOIL STABILIZATION MATTING DITCH OR CHANNEL APPLICATION	<b>E5</b> PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION	<b>E6</b> EARTH DIKE
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**DETAIL C-6 CLEAR WATER DIVERSION PIPE** STANDARD SYMBOL: C6-10  
DESIGNATION C6-10 REFERS TO 12" DIA. CLEAR WITH DRAINAGE.

**DETAIL C-8 MOUNTABLE BERM** STANDARD SYMBOL: C8-10

**DETAIL D-1 PIPE SLOPE DRAIN** STANDARD SYMBOL: PSD-12  
DESIGNATION PSD-12 REFERS TO 12 IN. PIPE SLOPE DRAIN.

**DETAIL D-1 PIPE SLOPE DRAIN** STANDARD SYMBOL: PSD-12  
DESIGNATION PSD-12 REFERS TO 12 IN. PIPE SLOPE DRAIN.

**DETAIL E-10 TEMPORARY GABION OUTLET STRUCTURE AND PIPE SLOPE DRAIN INTERFACE DETAIL**

**CONSTRUCTION SPECIFICATIONS:**

- FLEXIBLE PIPE IS PREFERRED. HOWEVER, CORRUGATED METAL PIPE OR EQUIVALENT PVC PIPE CAN BE USED IF ALL JOINTS ARE WATER TIGHT.
- FOR SANDBAGS USE MATERIALS THAT ARE RESISTANT TO ULTRA-VIOLET RADIATION, TEARING, AND PUNCTURE AND MOVEN TIGHTLY ENOUGH TO PREVENT LEAKAGE OF FILL MATERIAL.
- USE 10 MIL OR THICKER, UV RESISTANT, IMPERMEABLE SHEETING OR OTHER APPROVED MATERIAL THAT IS IMPERMEABLE AND RESISTANT TO PUNCTURING AND TEARING.
- PLACE IMPERMEABLE SHEETING SUCH THAT UPGRADE PORTION OVERLAPS DOWNGRADE PORTION BY A MINIMUM OF 18 INCHES.
- SET HEIGHT OF SANDBAG DIKE AT TWICE THE PIPE DIAMETER. MAINTAIN HEIGHT ALONG LENGTH OF SANDBAG DIKE. PLACE COURSE TO COURSE.
- AT A MINIMUM, SECURELY ANCHOR DIVERSION PIPE AT EACH DOWNGRADE JOINT.
- SET OUTLET END OF DIVERSION PIPE LOWER THAN INLET END.
- PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
- DEVELOP WORK AREA USING AN APPROVED EROSION AND SEDIMENT CONTROL PRACTICE AS SPECIFIED ON APPROVED PLAN.
- KEEP POINT OF DISCHARGE FREE OF EROSION. MAINTAIN WATER TIGHT CONNECTIONS AND POSITIVE DRAINAGE. REPLACE SANDBAGS AND IMPERMEABLE SHEETING IF TORN.

<b>E7</b> CLEAR WATER DIVERSION PIPE	<b>E8</b> MOUNTABLE BERM	<b>E9</b> PIPE SLOPE DRAIN	<b>E10</b> TEMPORARY GABION OUTLET STRUCTURE AND PIPE SLOPE DRAIN INTERFACE DETAIL
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**DETAIL E-3 SUPER SILT FENCE** STANDARD SYMBOL: SSF

**DETAIL E-4 CLEAR WATER PIPE THROUGH SILT FENCE OR SUPER SILT FENCE** STANDARD SYMBOL: CWP

**DETAIL B-3-1 BENCHING** STANDARD SYMBOL: BENCHING

**DETAIL E-6 FILTER LOG** STANDARD SYMBOL: FL-18  
DESIGNATION FL-18 REFERS TO 18" DIA. FILTER LOG.

**DETAIL E-6 FILTER LOG** STANDARD SYMBOL: FL-18  
DESIGNATION FL-18 REFERS TO 18" DIA. FILTER LOG.

**DETAIL D-4-1-B ROCK OUTLET PROTECTION II** STANDARD SYMBOL: ROP(II)

**CONSTRUCTION SPECIFICATIONS:**

- INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FT. PROVIDE A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 8 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR RING RINGS.
- FASTEN WOVEN SILT FLM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSTREAM SIDE OF CHAIN LINK FENCE WITH THIS SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEEDING BY PASS.
- EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSTREAM AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
- PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 20% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN, IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

<b>E12</b> SUPER SILT FENCE	<b>E13</b> CLEAR WATER PIPE THROUGH SILT FENCE OR SUPER SILT FENCE	<b>E14</b> BENCHING	<b>E15</b> FILTER LOG	<b>E11</b> ROCK OUTLET PROTECTION II
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FILE PATH: G:\PROJECTS\156461 - C&S - DETAILS - DRAINAGE - E10 (TEMPORARY GABION OUTLET STRUCTURE AND PIPE SLOPE DRAIN INTERFACE DETAIL) - R15.DWG (2/28/2020 10:54 AM)

DESIGN INFORMATION		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: 8/25/2022.

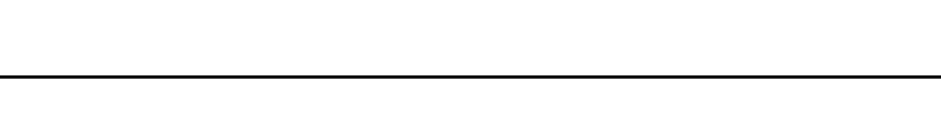
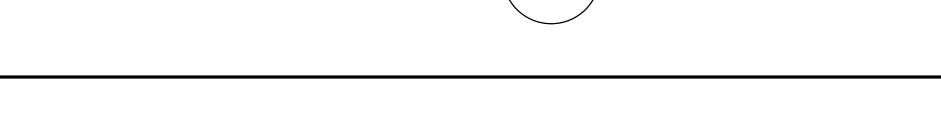
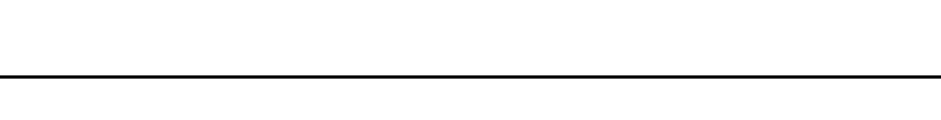
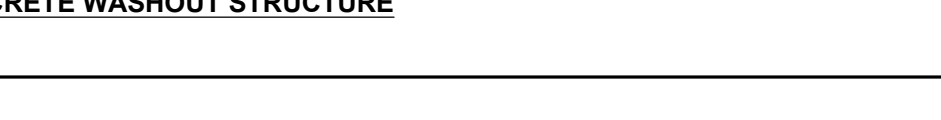
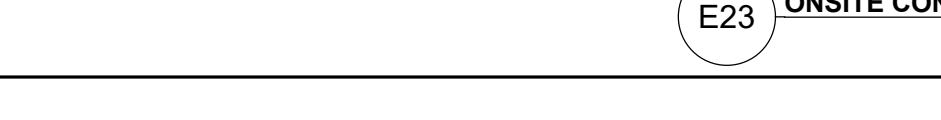
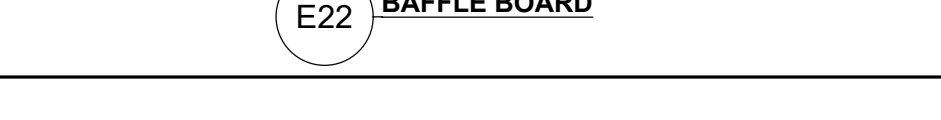
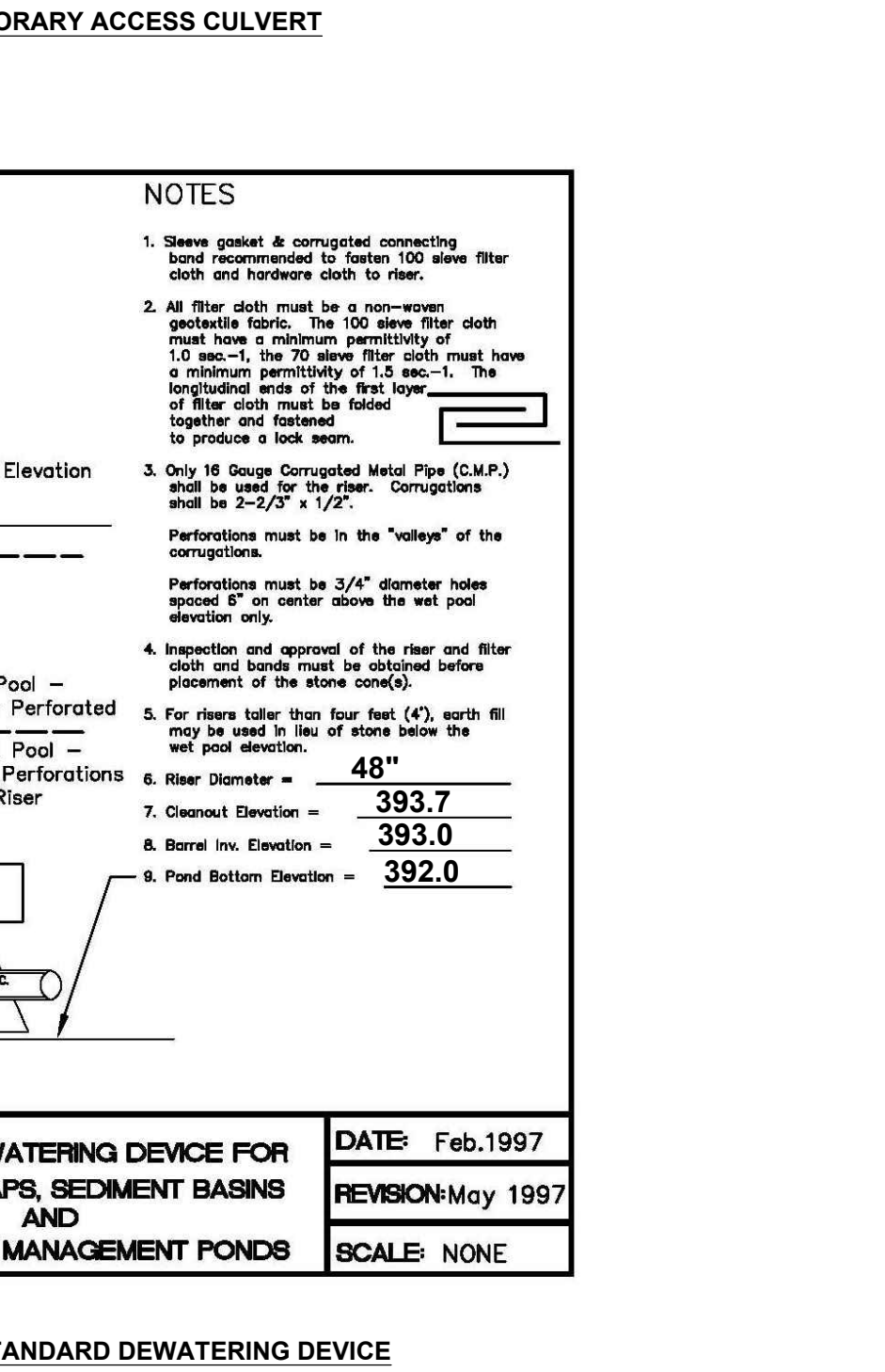
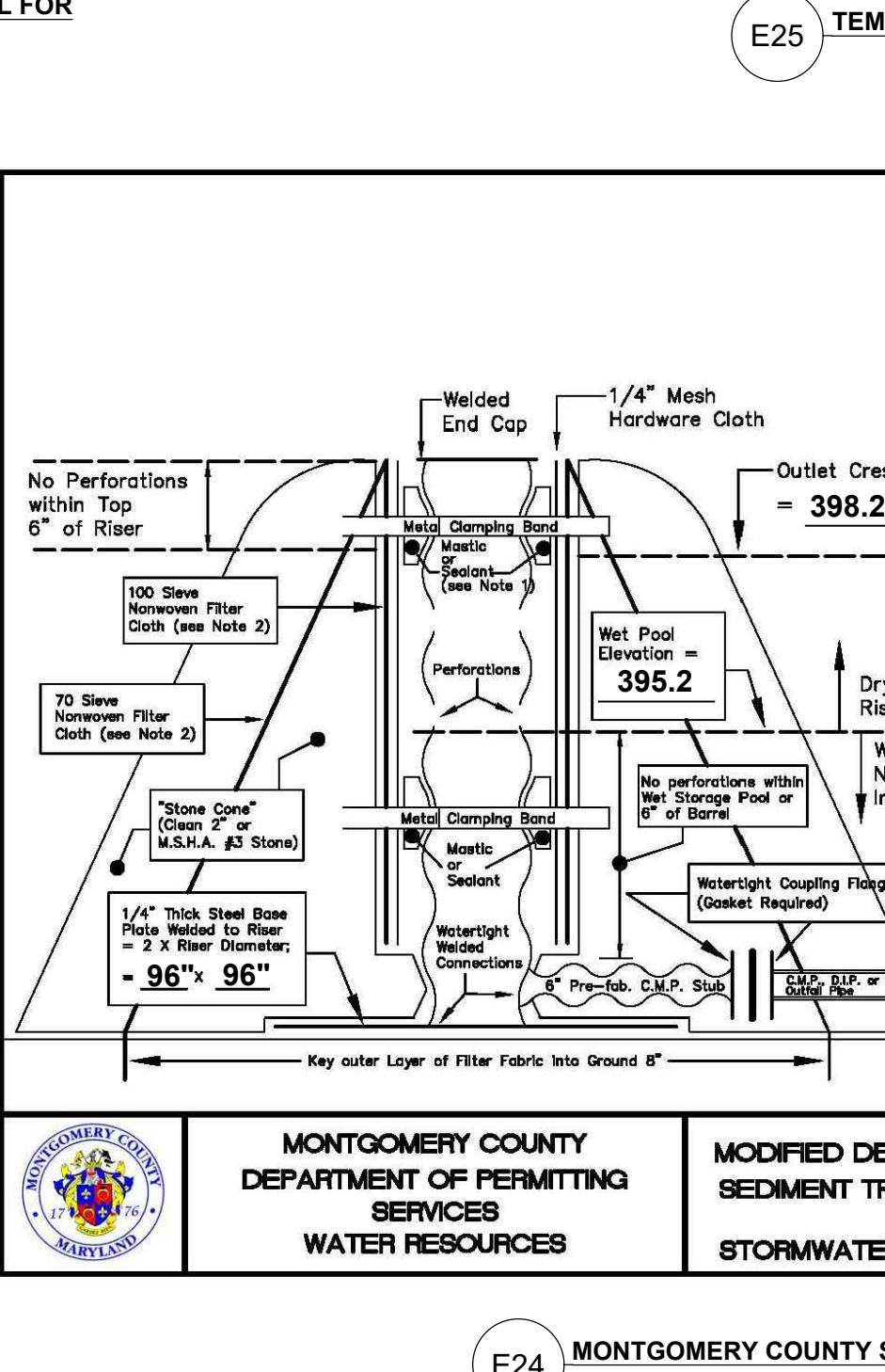
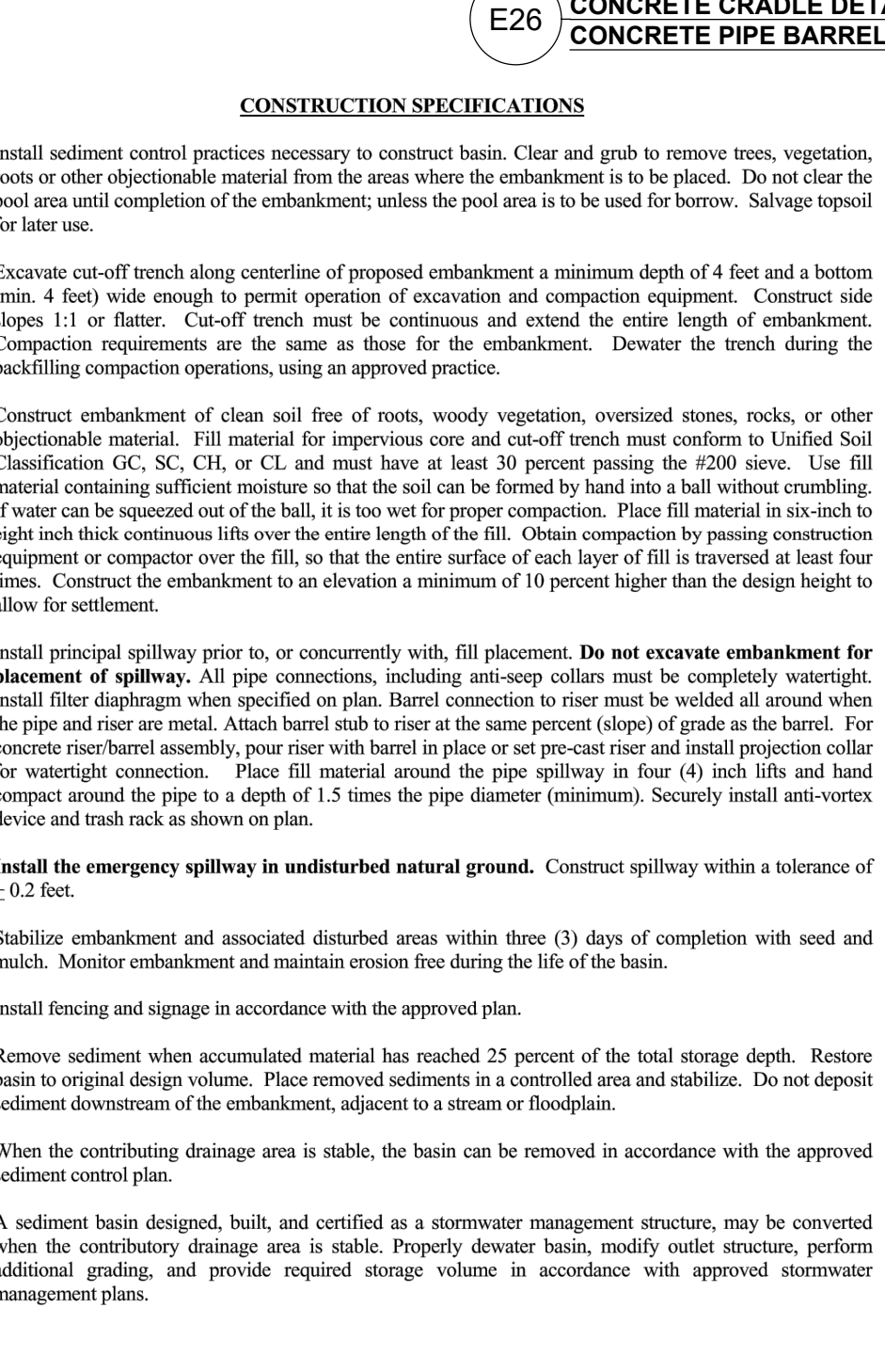
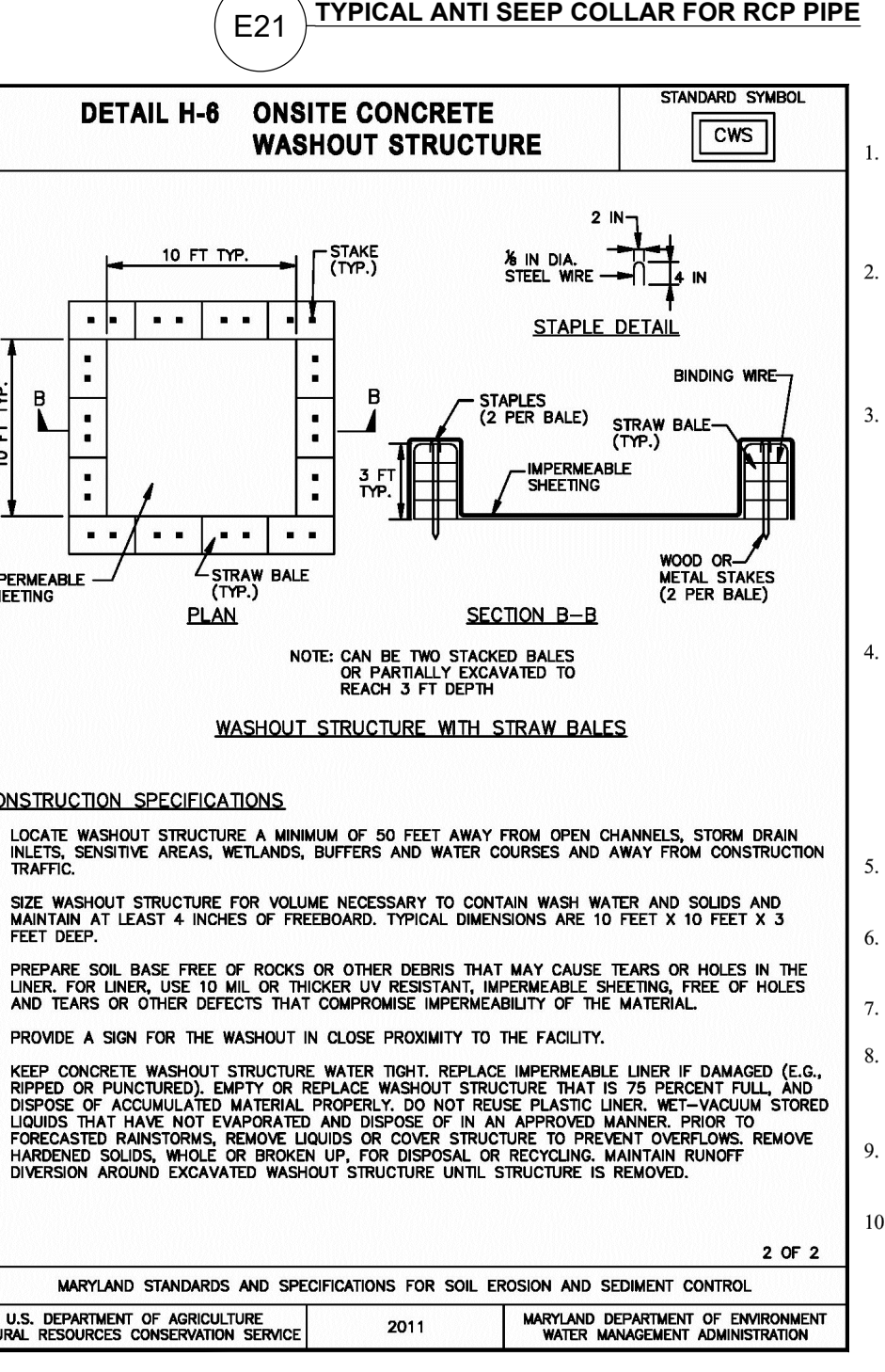
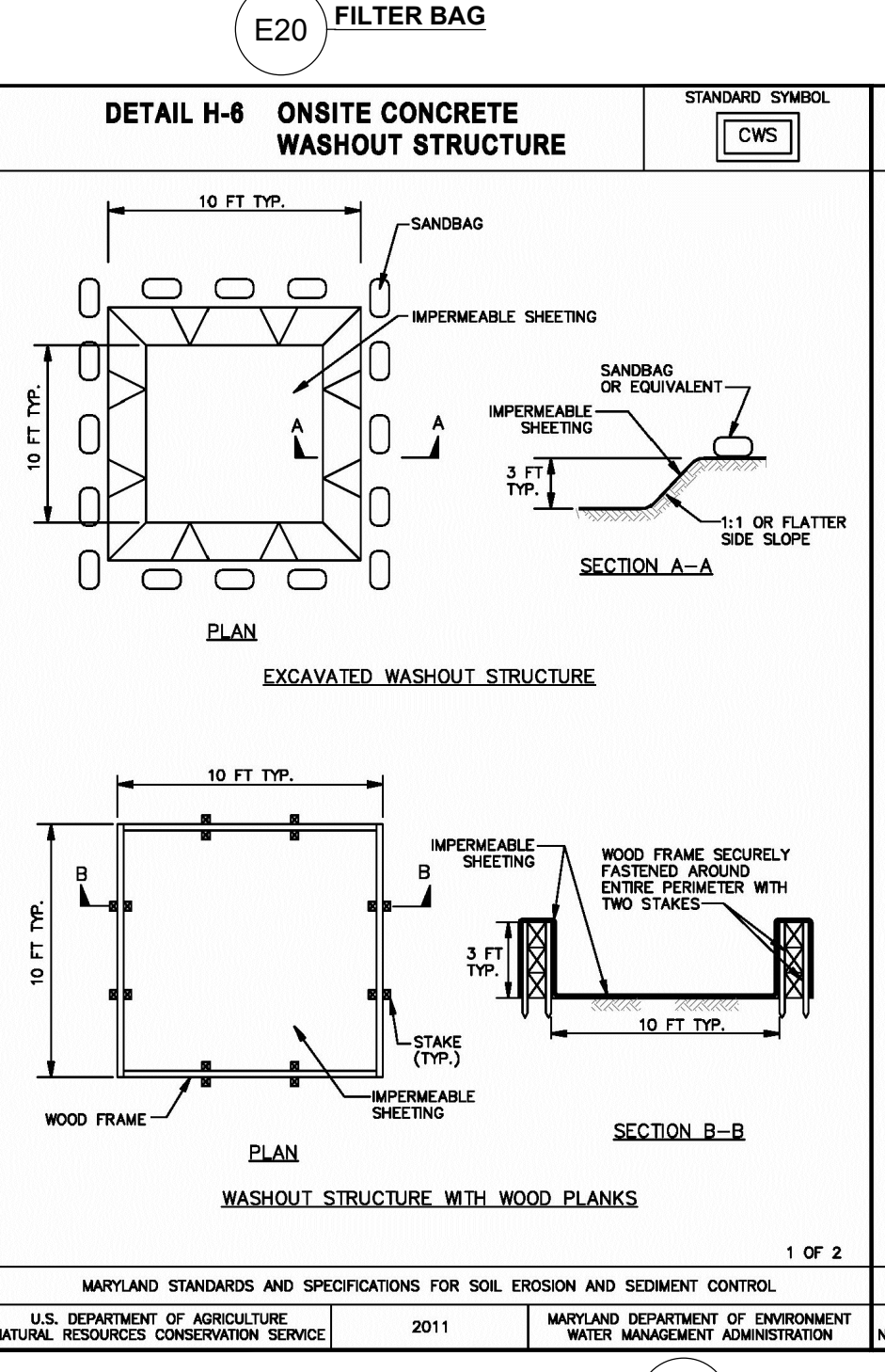
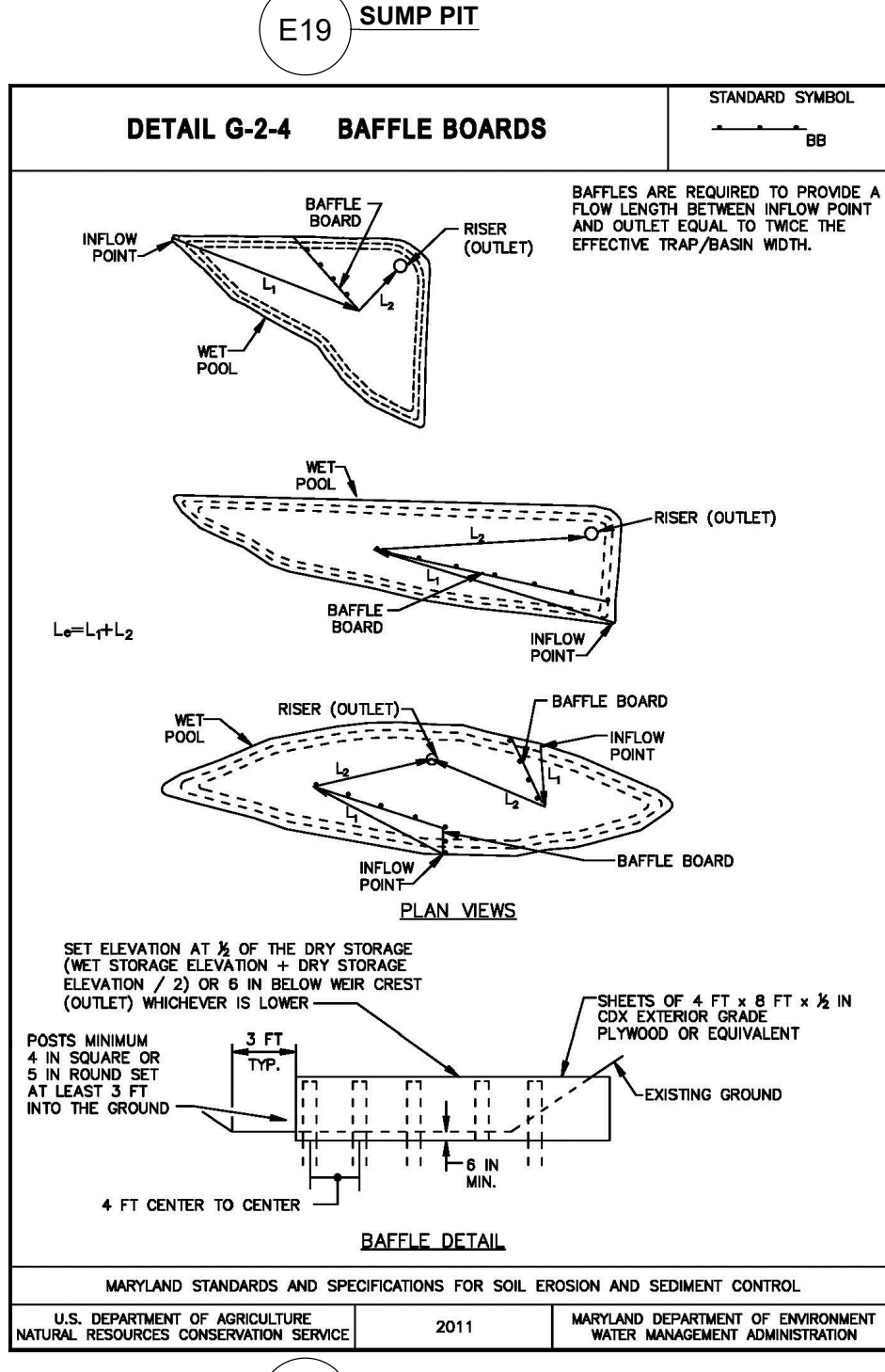
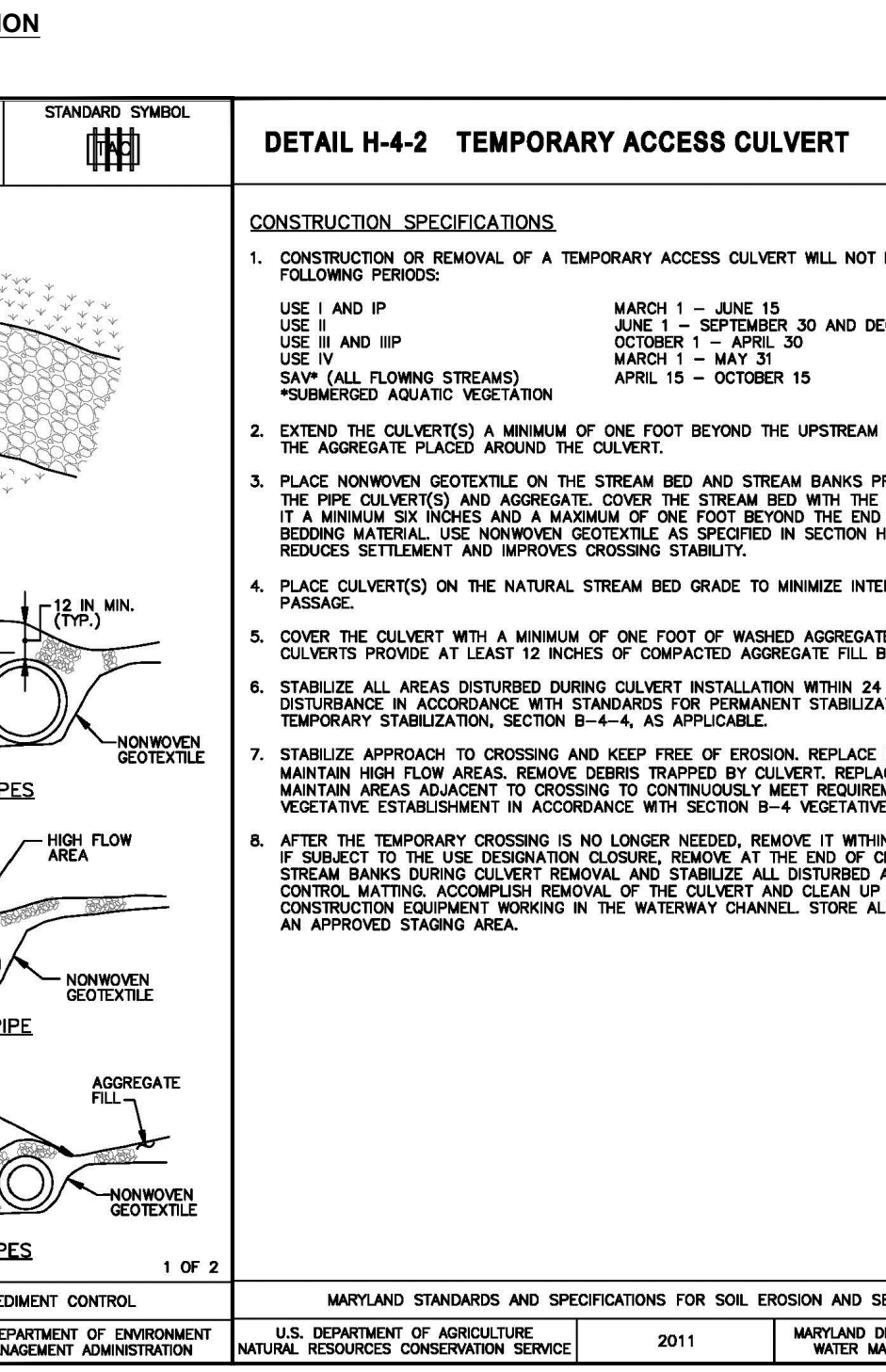
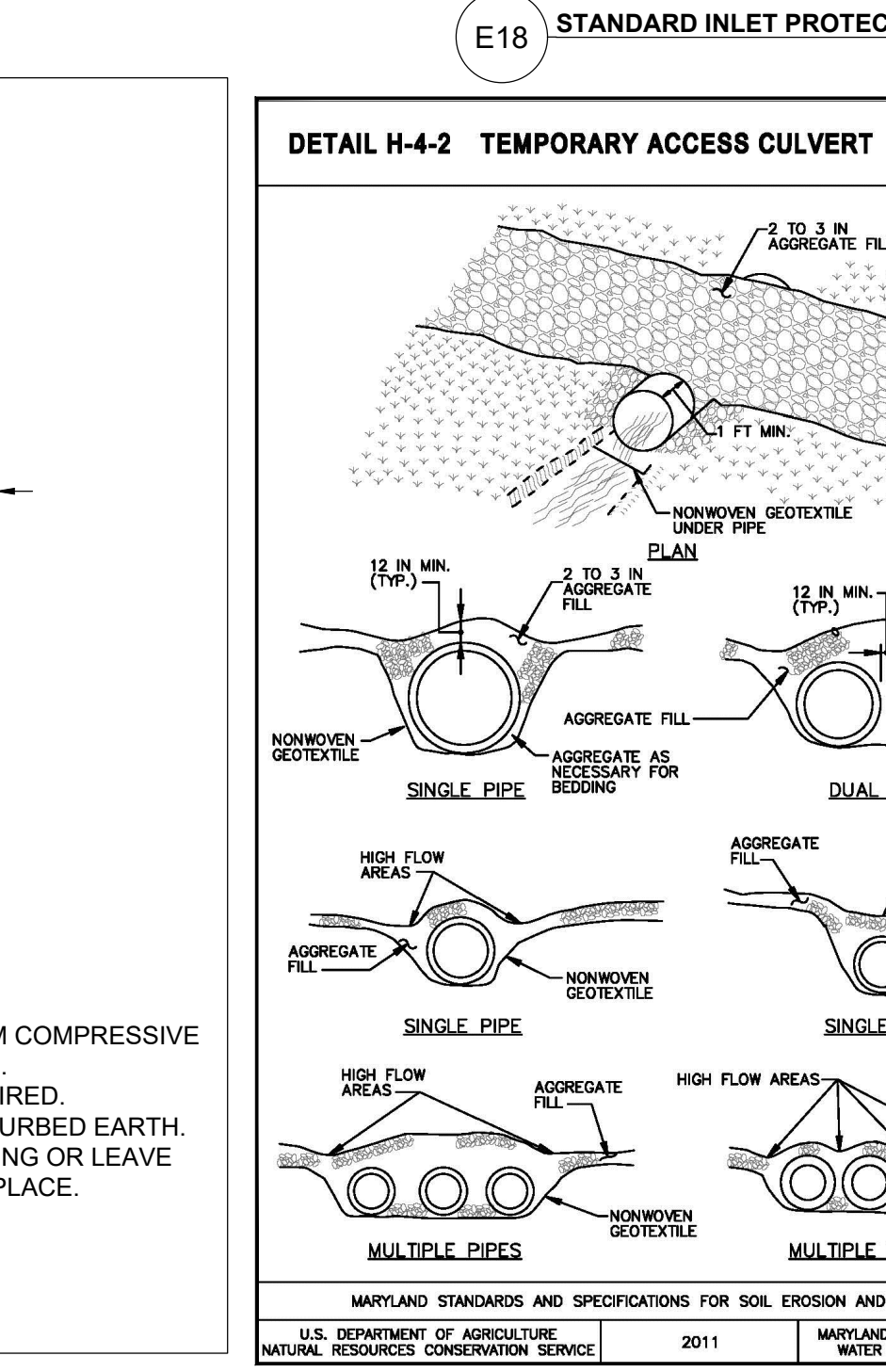
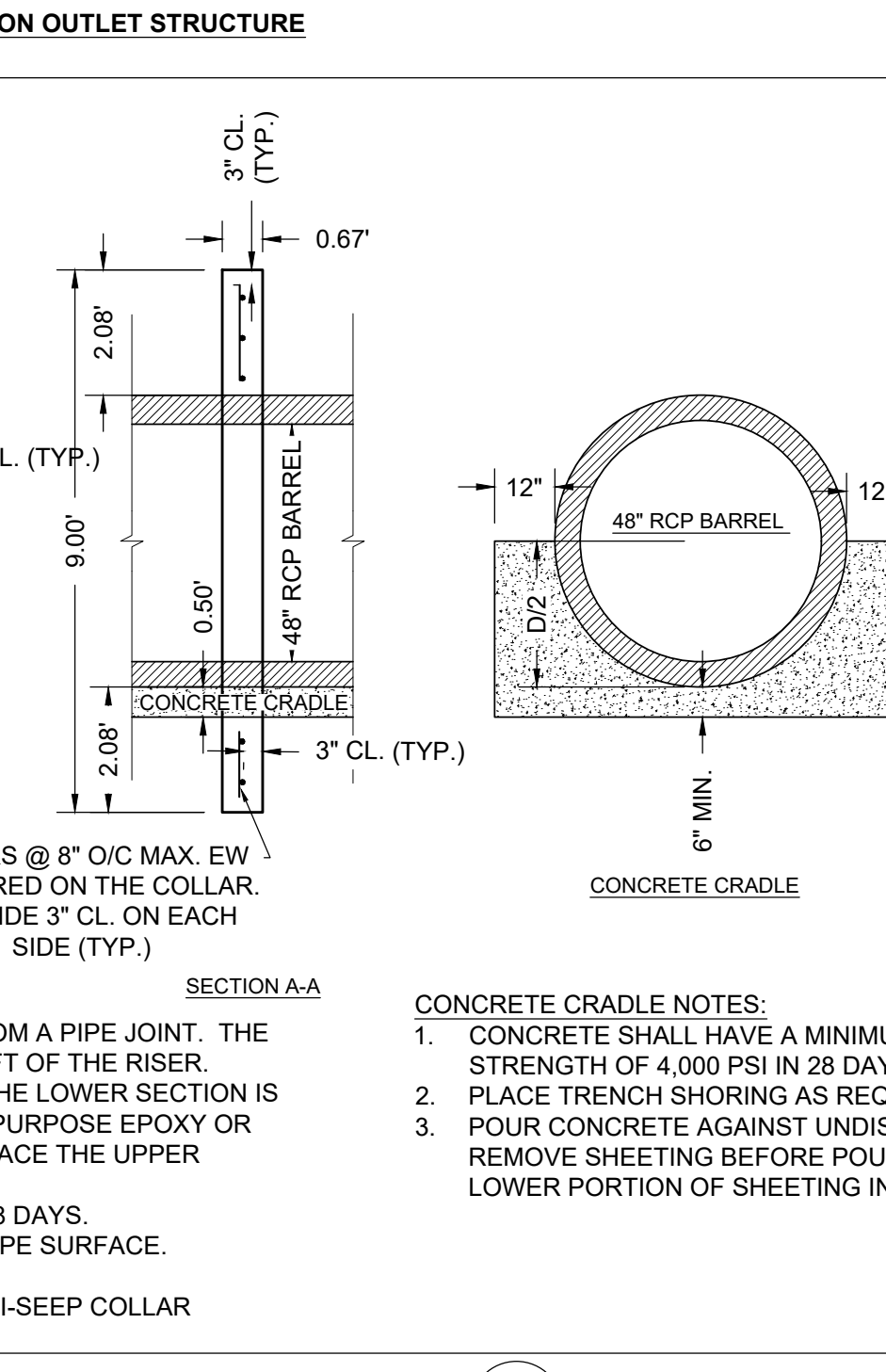
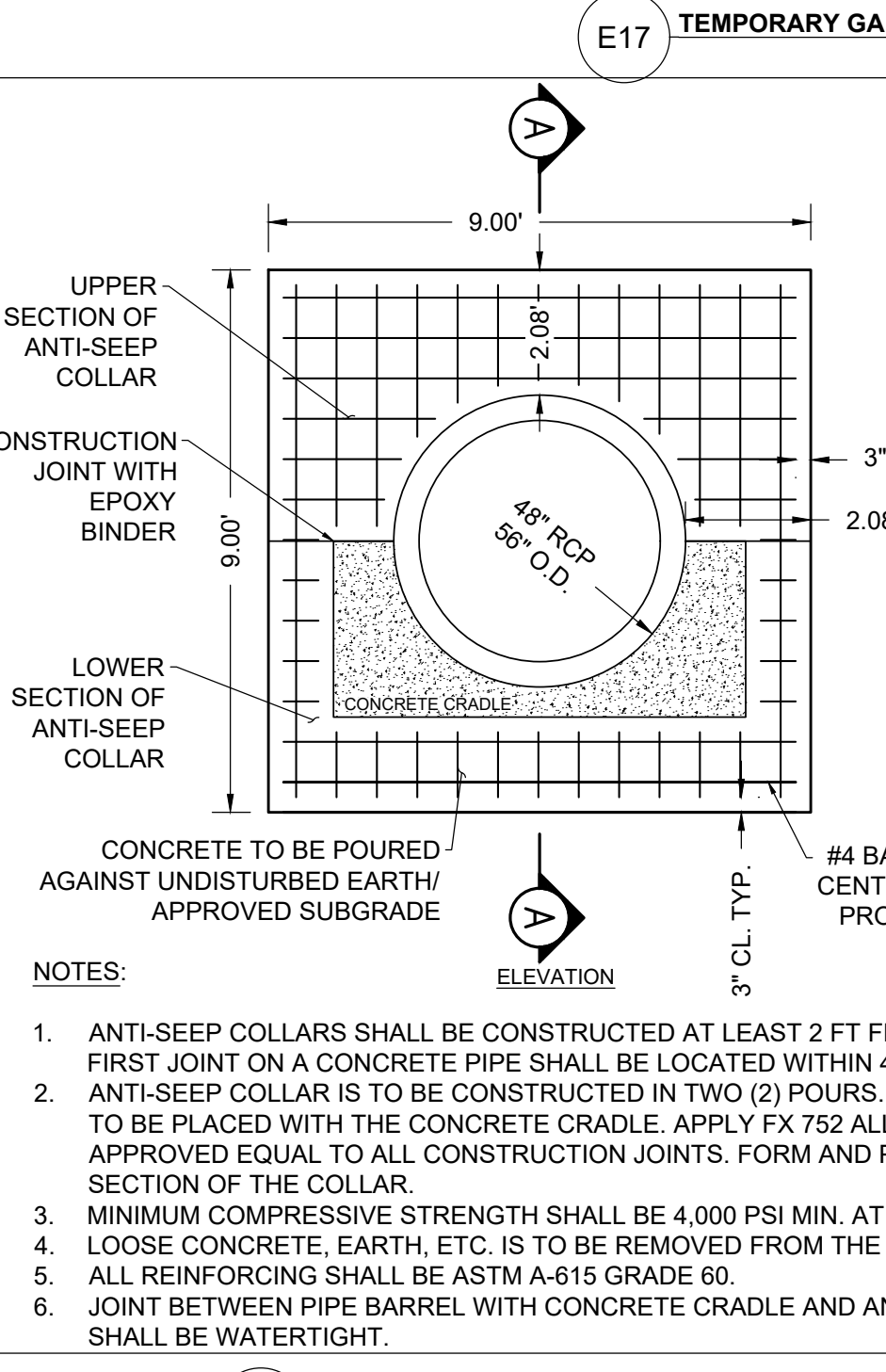
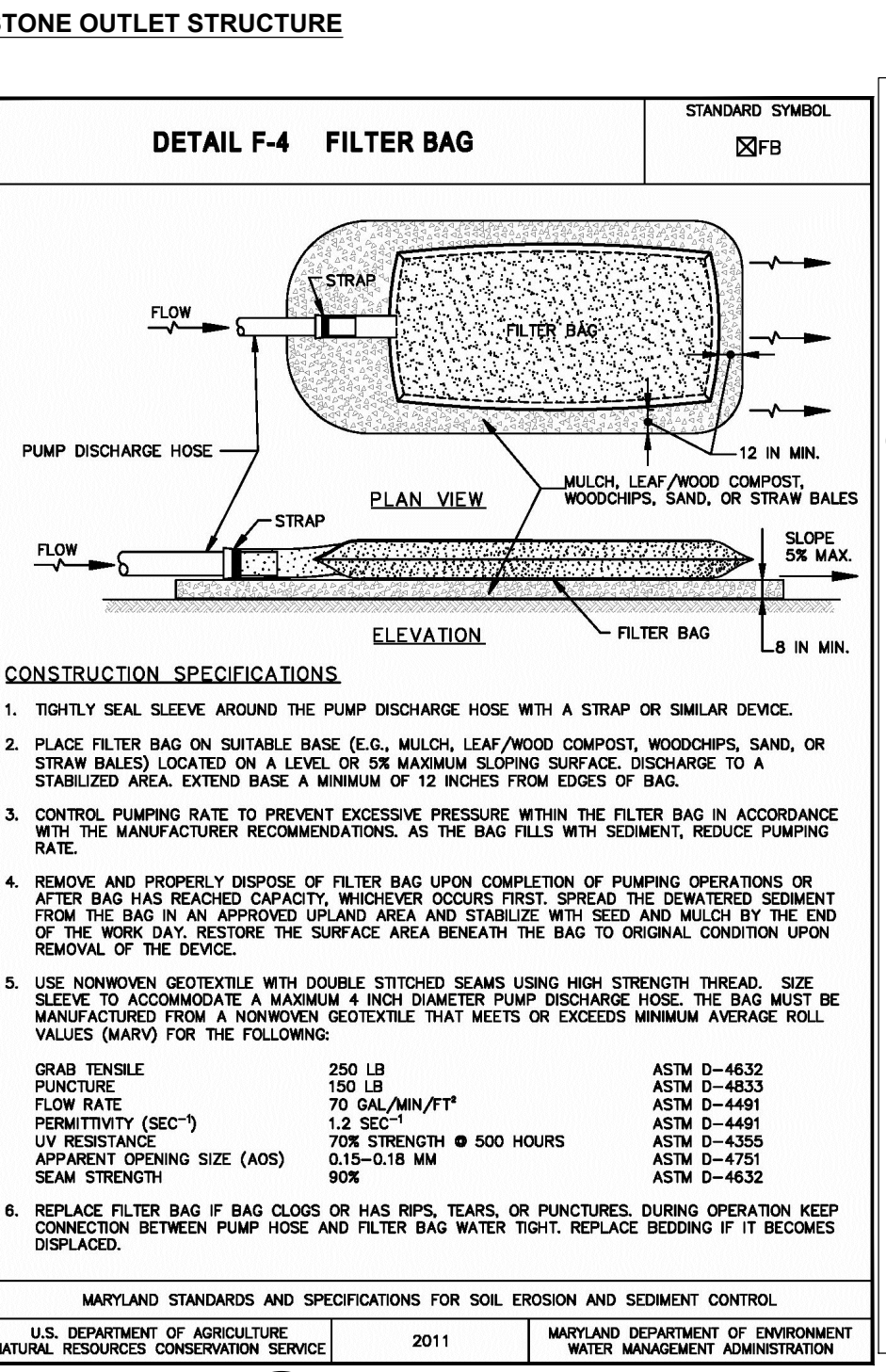
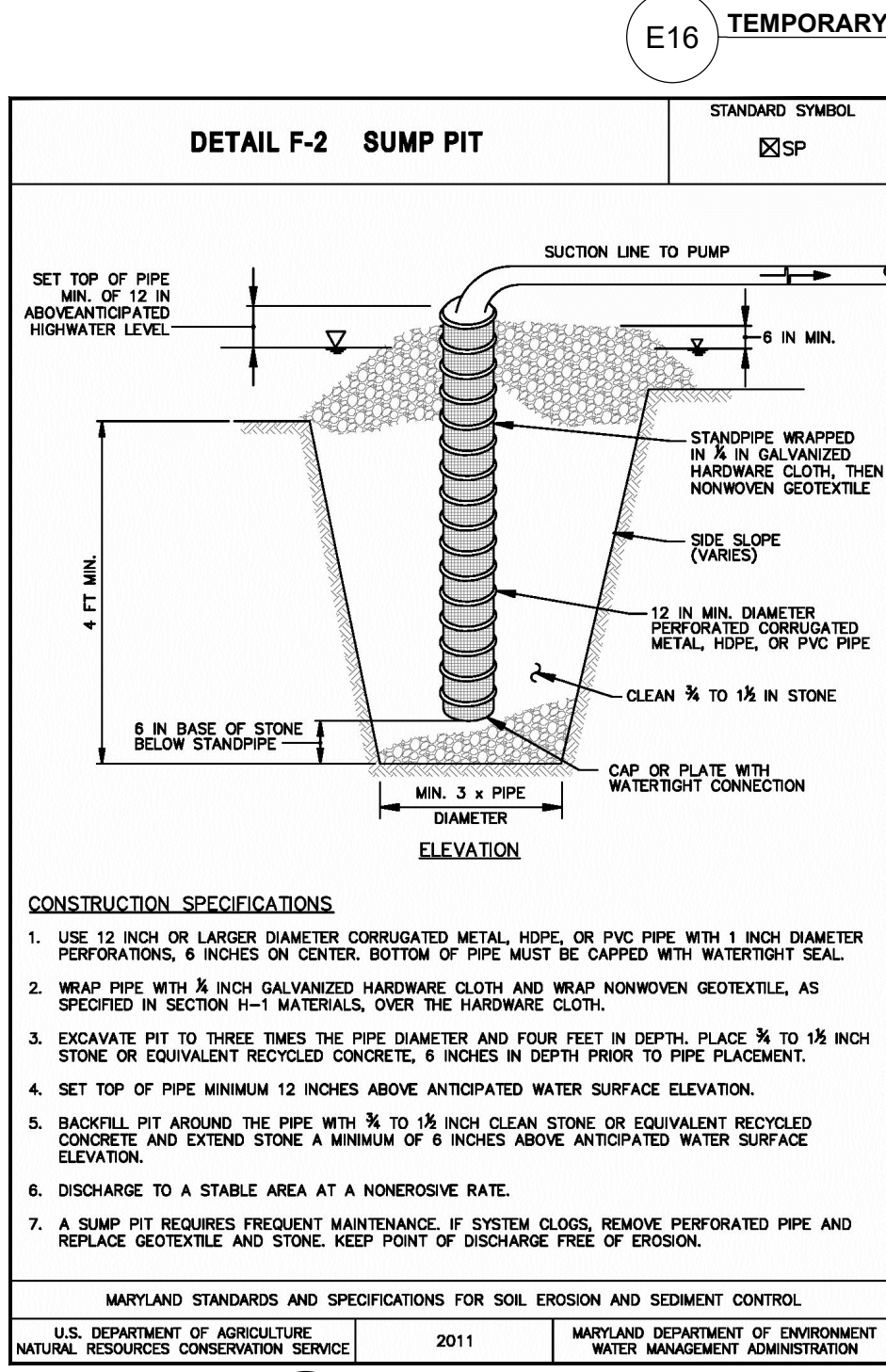
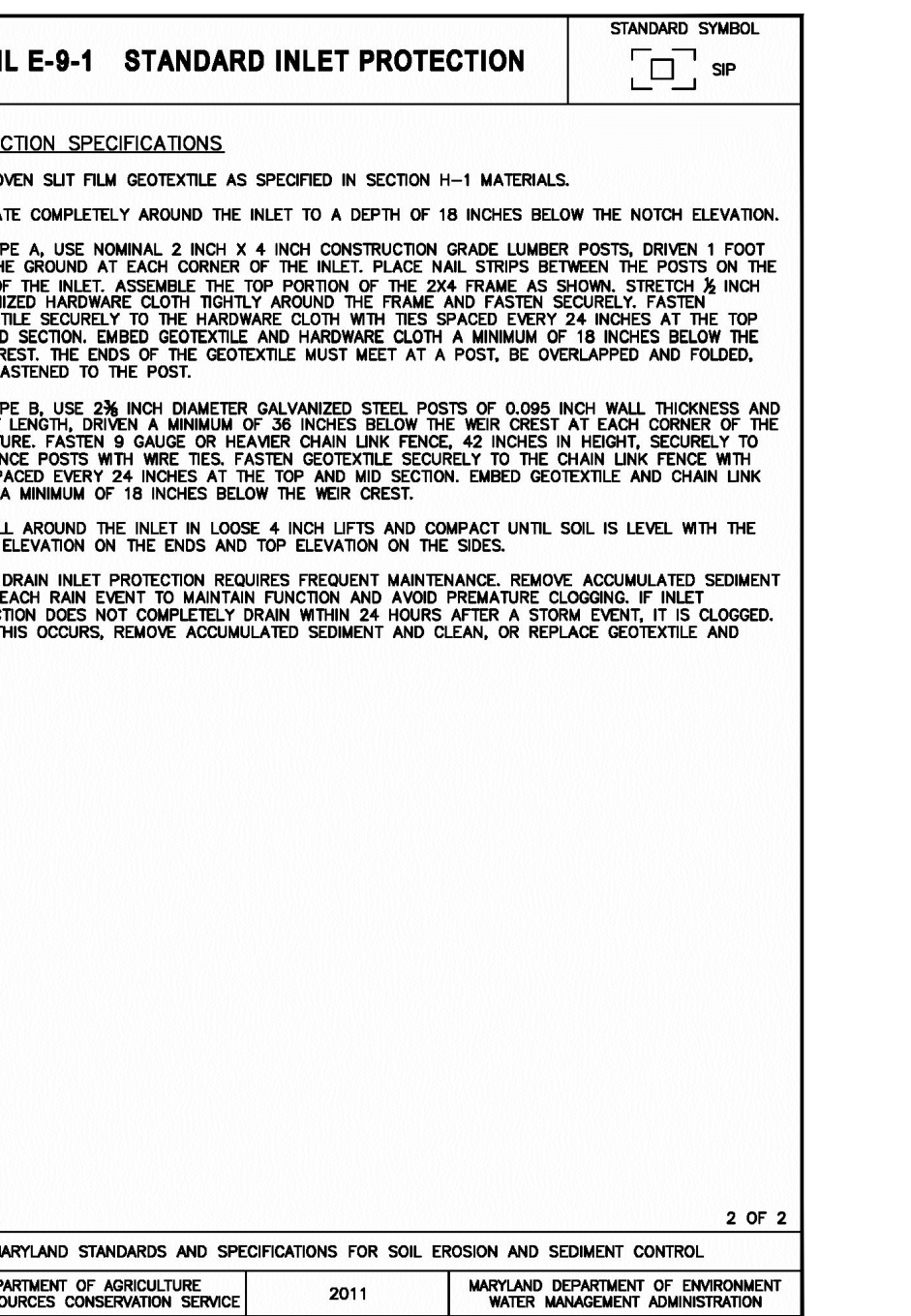
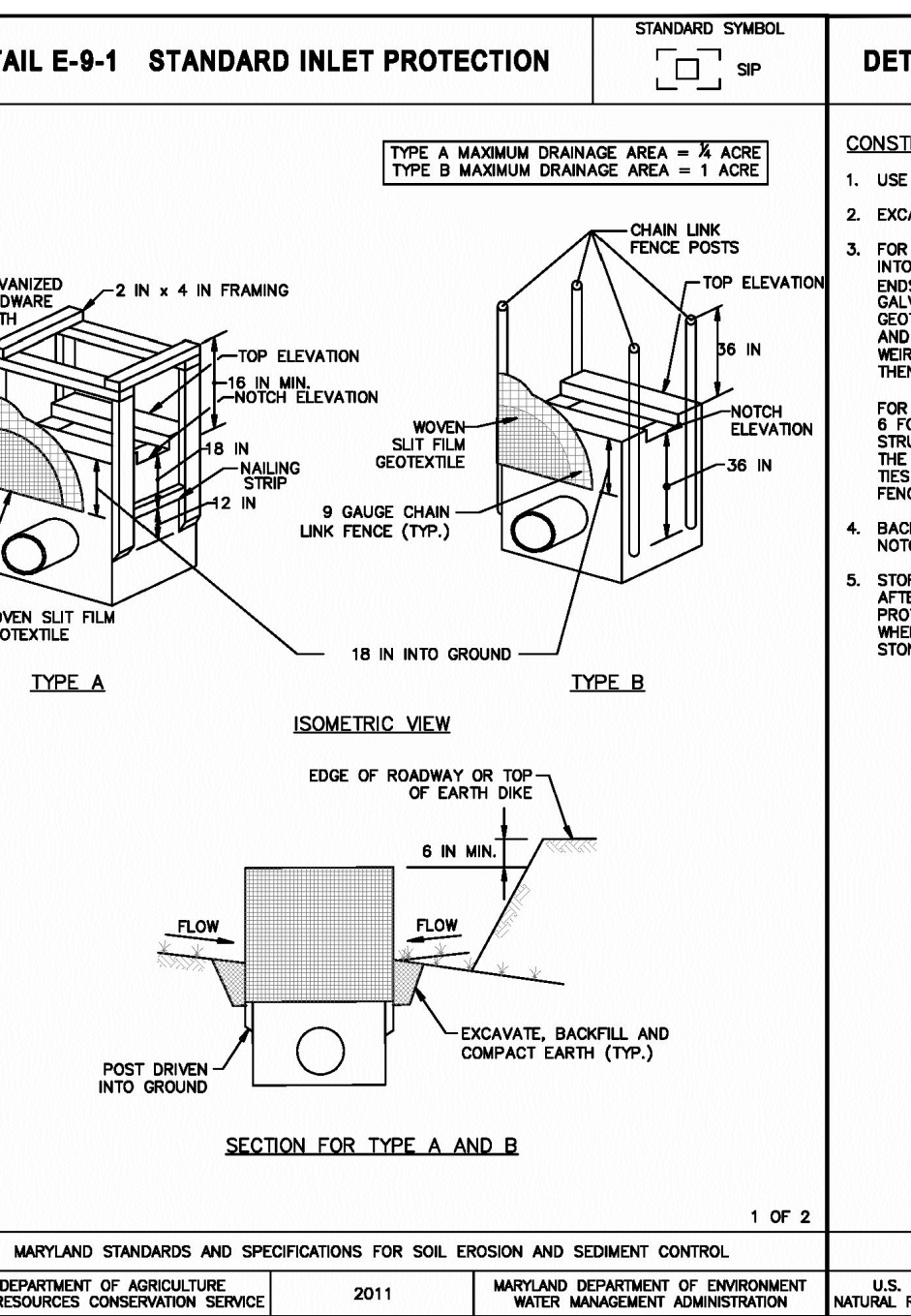
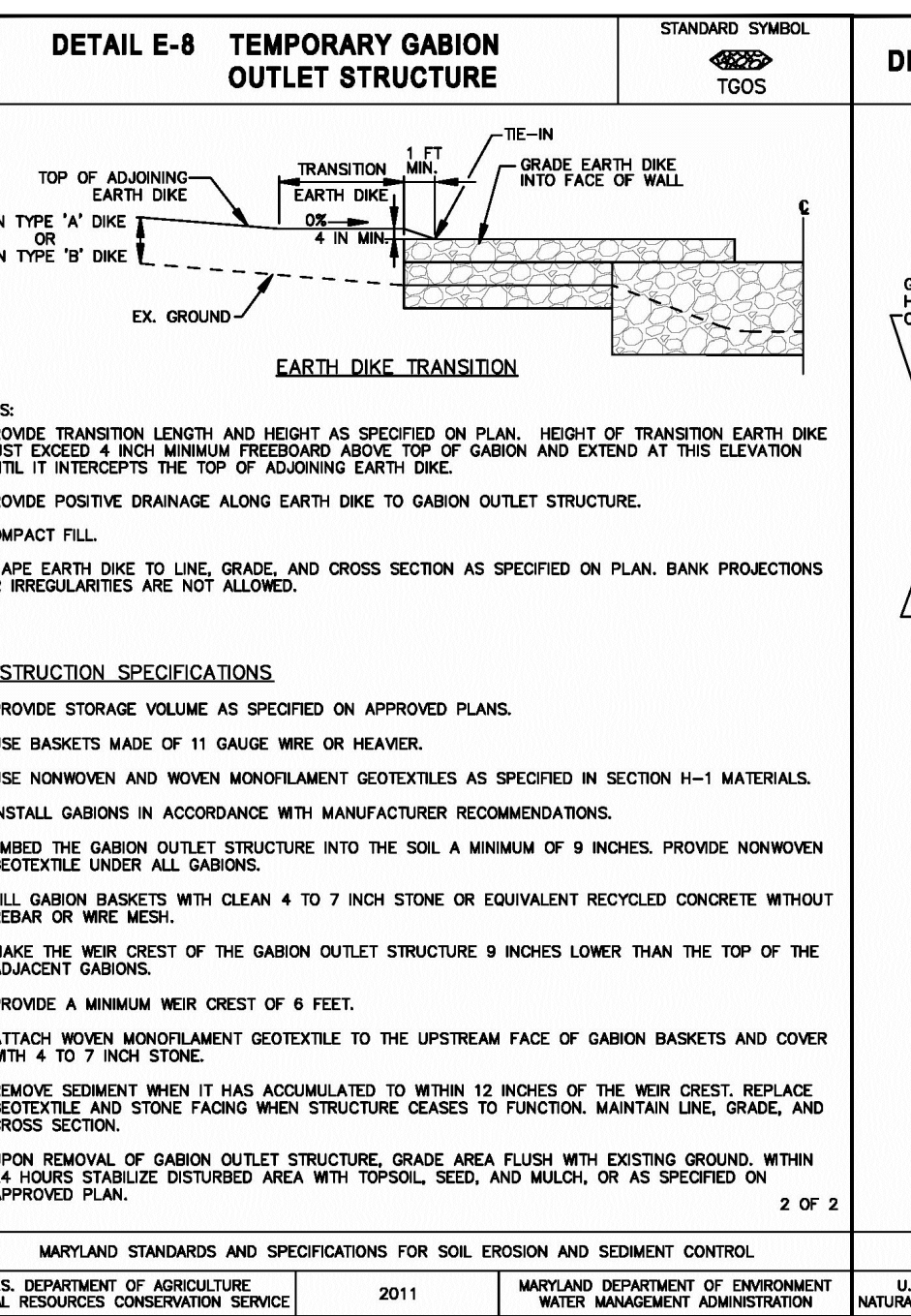
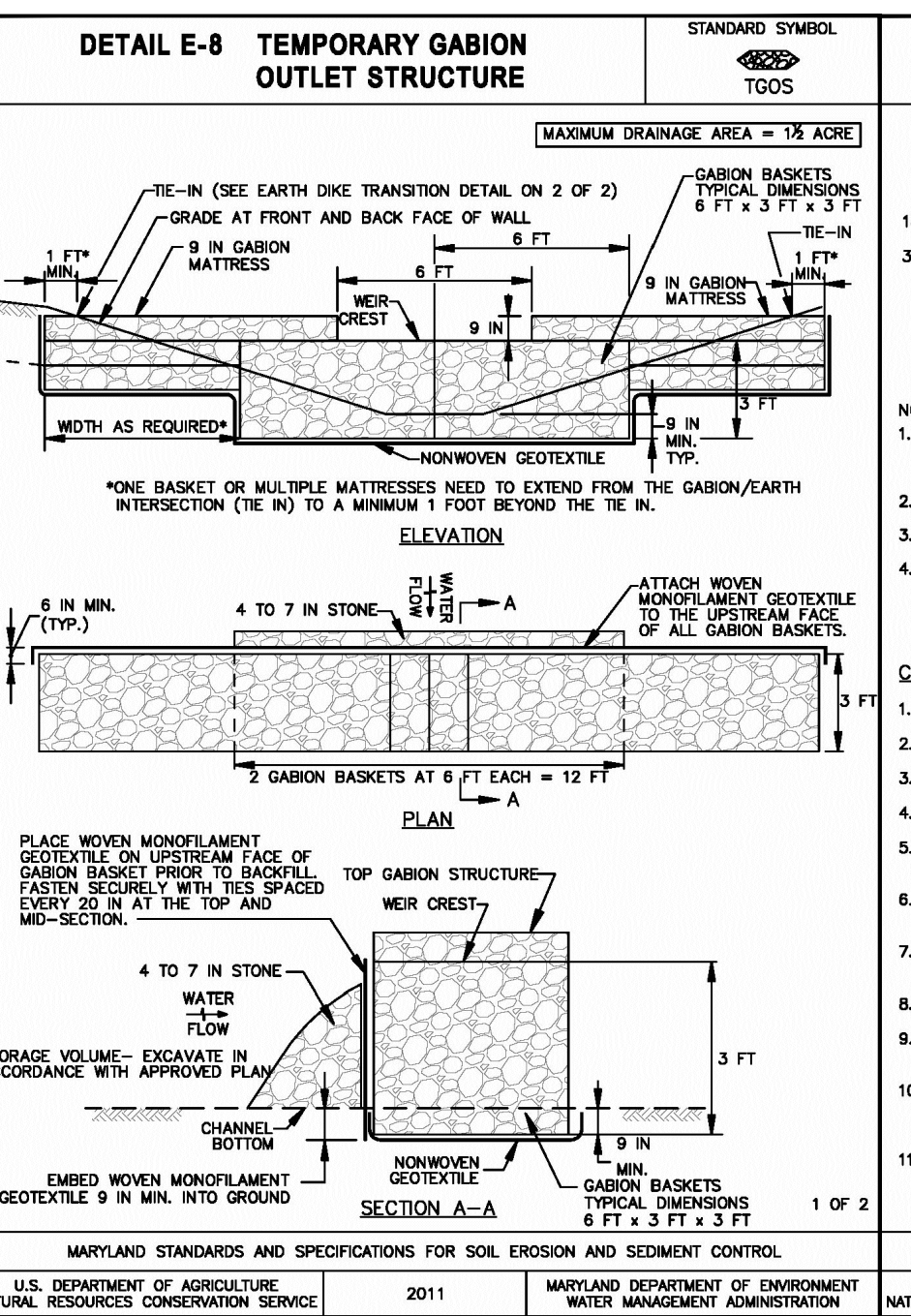
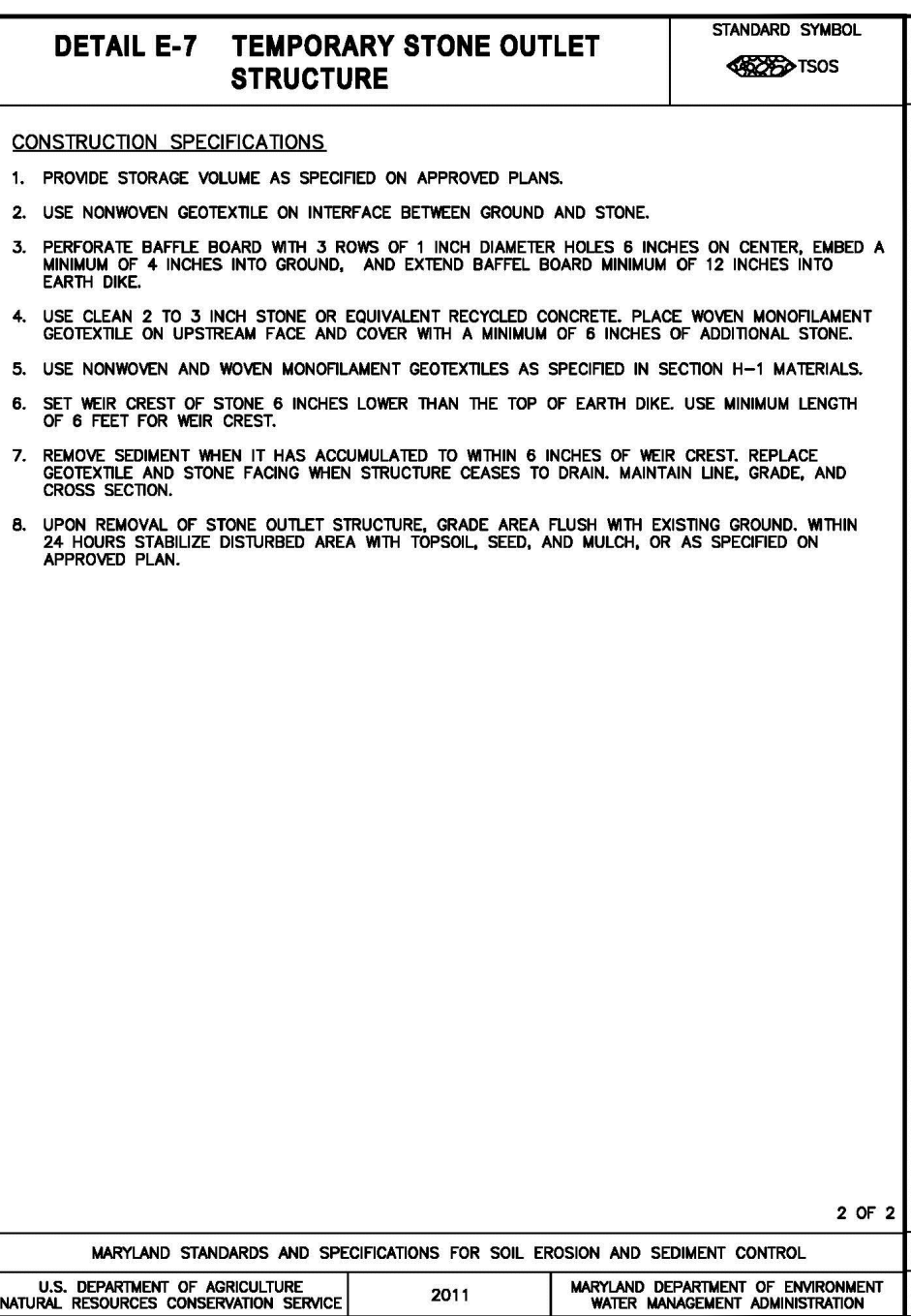
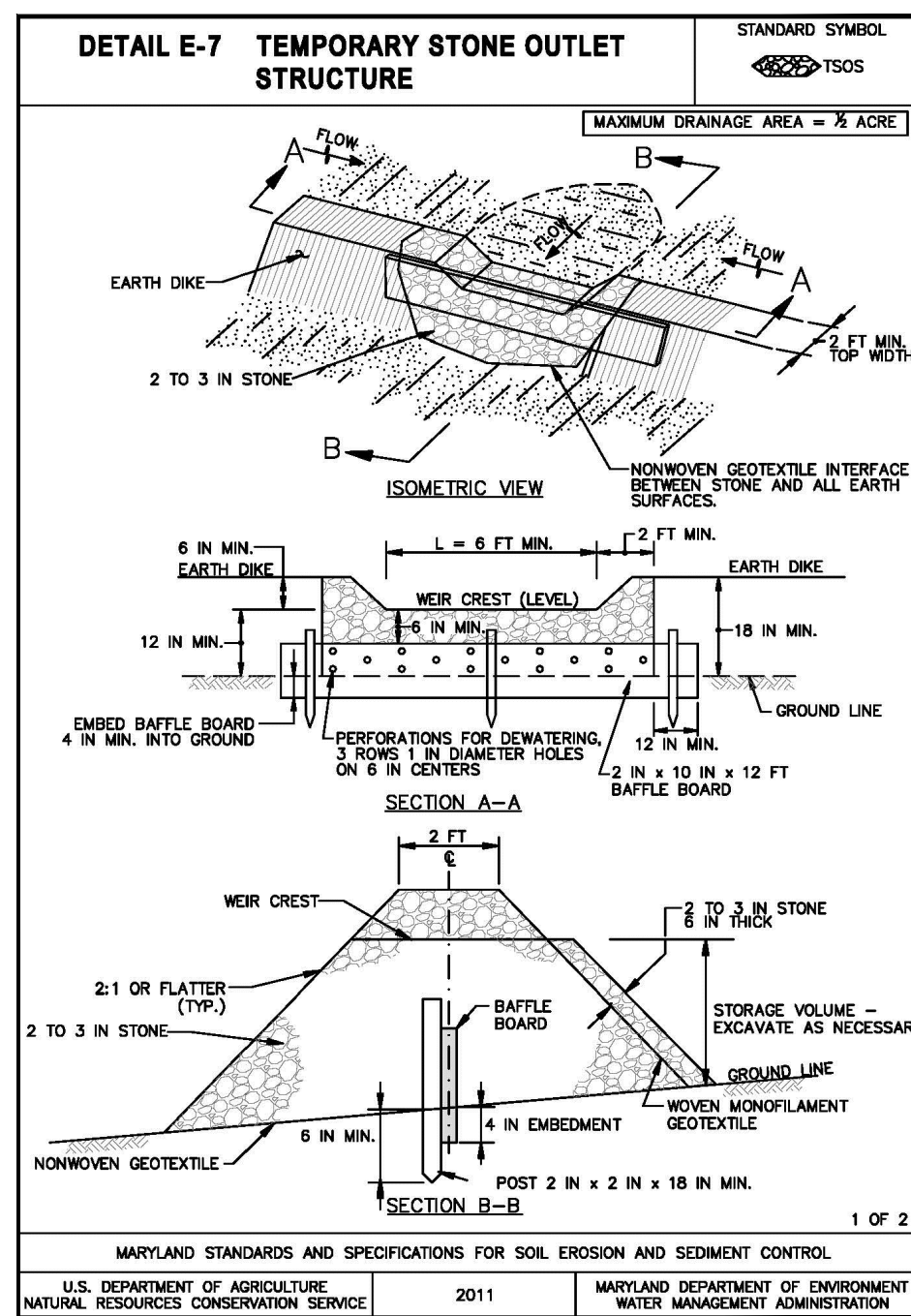
GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND

EROSION AND SEDIMENT CONTROL DETAILS

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

DATE: DECEMBER 2020  
PROJECT NUMBER: 156461  
C-514  
SHEET: 104 OF 146





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: 8/25/2022

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

EROSION AND SEDIMENT CONTROL DETAILS

100% DESIGN PLANS - NOT FOR CONSTRUCTION

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
 C-515  
 SHEET: 105 OF 146

**B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION**

**DEFINITION**  
USING VEGETATION AS COVER TO PROTECT EXPOSED SOIL FROM EROSION.

**PURPOSE**  
TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL.

**CONDITIONS WHERE PRACTICE APPLIES**  
ON ALL DISTURBED AREAS NOT STABILIZED BY OTHER METHODS. THIS SPECIFICATION IS DIVIDED INTO SECTIONS ON INCREMENTAL STABILIZATION; SOIL PREPARATION, SOIL AMENDMENTS AND TOPSOILING; SEEDING AND MULCHING; TEMPORARY STABILIZATION; AND PERMANENT STABILIZATION.

**EFFECTS ON WATER QUALITY AND QUANTITY**  
STABILIZATION PRACTICES ARE USED TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL. WHEN SOIL IS STABILIZED WITH VEGETATION, THE SOIL IS LESS LIKELY TO ERODE AND MORE LIKELY TO ALLOW INFILTRATION OF RAINFALL, THEREBY REDUCING SEDIMENT LOADS AND RUNOFF TO DOWNSTREAM AREAS.

**PLANTING VEGETATION IN DISTURBED AREAS WILL HAVE AN EFFECT ON THE WATER BUDGET, ESPECIALLY ON VOLUMES AND RATES OF RUNOFF, INFILTRATION, EVAPORATION, TRANSPORTATION, PERCOLATION, AND GROUNDWATER RECHARGE. OVER TIME, VEGETATION WILL INCREASE ORGANIC MATTER CONTENT AND IMPROVE THE WATER HOLDING CAPACITY OF SOIL AND SUBSEQUENT PLANT GROWTH.**

**VEGETATION WILL HELP REDUCE THE MOVEMENT OF SEDIMENT, NUTRIENTS, AND OTHER CHEMICAL CARRIED BY RUNCHE TO RECEIVING BODIES. PLANTS WILL ALSO HELP PROTECT GROUNDWATER SUPPLIES BY ASSIMILATING THOSE SUBSTANCES PRESENT WITHIN THE ROOT ZONE.**

**SEDIMENT CONTROL PRACTICES MUST REMAIN IN PLACE DURING GRADING, SEEDED PREPARATION, SEEDING, MULCHING, AND VEGETATIVE ESTABLISHMENT.**

**ADEQUATE VEGETATIVE ESTABLISHMENT**  
INSPECT SEEDED AREAS FOR VEGETATIVE ESTABLISHMENT AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN THE PLANTING SEASON.

1. ADEQUATE VEGETATIVE STABILIZATION REQUIRES 95 PERCENT GROUND COVER.
2. IF AN AREA HAS LESS THAN 40 PERCENT GROUND COVER, REESTABLISH FOLLOWING THE ORIGINAL RECOMMENDATIONS FOR LIME, FERTILIZER, SEEDED PREPARATION, AND SODDING.
3. IF AN AREA HAS BETWEEN 40 AND 94 PERCENT GROUND COVER, OVER-SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY SPECIFIED.
4. MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDING ARE SHOWN IN TABLE B.4.4 WITHIN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL.

**B-4.1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION**

**DEFINITION**  
ESTABLISHMENT OF VEGETATIVE COVER ON CUT AND FILL SLOPES.

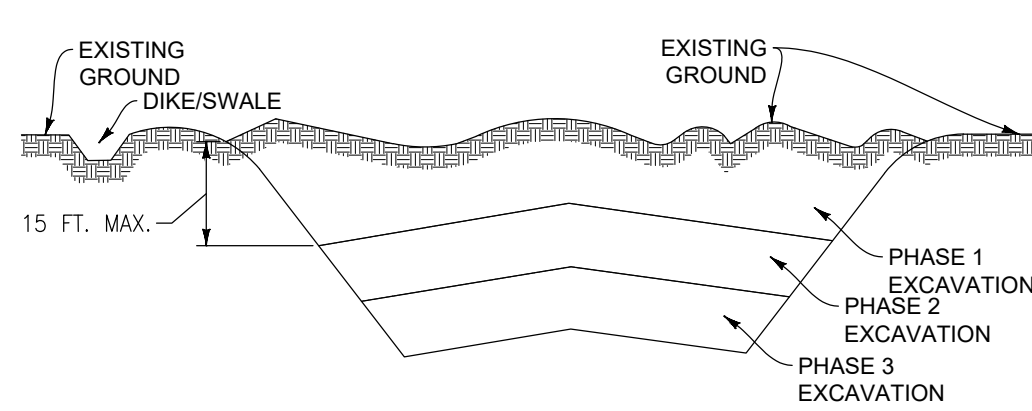
**PURPOSE**  
TO PROVIDE TIME VEGETATIVE COVER ON CUT AND FILL SLOPES AS WORK PROGRESSES.

**CONDITIONS WHERE PRACTICE APPLIES**  
ANY CUT OR FILL SLOPE GREATER THAN 15 FEET IN HEIGHT. THIS PRACTICE ALSO APPLIES TO STOCKPILES.

**CRITERIA**

- INCREMENTAL STABILIZATION - CUT SLOPES**
  1. EXCAVATE AND STABILIZE CUT SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDED AND APPLY SEED AND MULCH ON ALL CUT SLOPES AS THE WORK PROGRESSES.
  2. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.1):
    - a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO CONVEY RUNOFF AROUND THE EXCAVATION.
    - b. PERFORM PHASE 1 EXCAVATION, PREPARE SEEDED, AND STABILIZE.
    - c. PERFORM PHASE 2 EXCAVATION, PREPARE SEEDED, AND STABILIZE. OVERSEED PHASE 1 AREAS AS NECESSARY.
    - d. PERFORM FINAL PHASE EXCAVATION, PREPARE SEEDED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.

**NOTE: ONCE EXCAVATION HAS BEGUN, THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.**

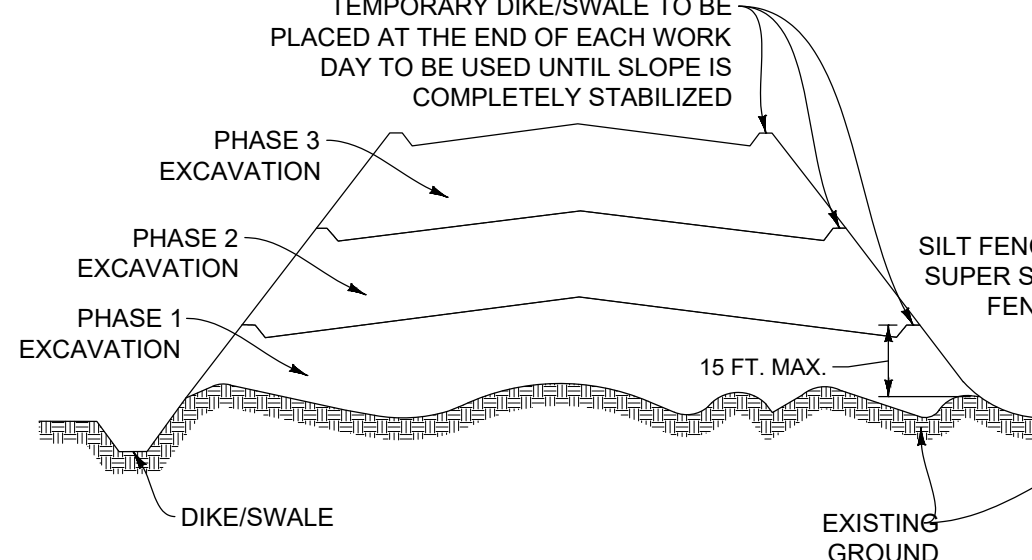


**FIGURE B.1: INCREMENTAL STABILIZATION - CUT**

**B. INCREMENTAL STABILIZATION - FILL SLOPES**

1. CONSTRUCT AND STABILIZE FILL SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDED AND APPLY SEED AND MULCH ON ALL SLOPES AS THE WORK PROGRESSES.
2. STABILIZE SLOPES IMMEDIATELY WHEN THE VERTICAL HEIGHT OF A LIFT REACHES 15 FEET OR WHEN THE GRADING OPERATION CEASES AS PRESCRIBED IN THE PLANS.
3. AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICE(S), AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
4. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.2):
  - a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO DIVERT RUNOFF AROUND THE FILL. CONSTRUCT SILT FENCE ON LOW SIDE OF FILL UNLESS OTHER METHODS SHOWN ON THE PLANS ADDRESS THIS AREA.
  - b. AT THE END OF THE DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICE(S), AS NECESSARY, TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
  - c. PLACE PHASE 1 FILL, PREPARE SEEDED, AND STABILIZE.
  - d. PLACE PHASE 2 FILL, PREPARE SEEDED, AND STABILIZE.
  - e. PLACE FINAL PHASE FILL, PREPARE SEEDED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.

**NOTE: ONCE THE PLACEMENT OF FILL HAS BEGUN, THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.**



**FIGURE B.2: INCREMENTAL STABILIZATION - FILL**

**B-4.2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS**

**DEFINITION**  
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

**PURPOSE**  
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

**CONDITIONS WHERE PRACTICE APPLIES**  
WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

**CRITERIA**

- SOIL PREPARATION**
  1. TEMPORARY STABILIZATION

- SEED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS OR CONSTRUCTION EQUIPMENT. AFTER SOIL IS LOOSEMED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN ROUGHENED CONDITION. SLOPES 3H:1V OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
- APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
  - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- PERMANENT STABILIZATION
  - A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
    - SOIL PH BETWEEN 6.0 TO 7.0
    - SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM)
    - SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 20 PERCENT SILT) TO PROVIDE ADEQUATE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
    - SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
    - SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
  - APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
  - GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSEMED TO A DEPTH OF 3 TO 5 INCHES.
  - APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
  - MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. IN LARGE LAWNS AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE APPROPRIATE. WORKS WILL NOT PERMIT NORMAL SEEDED PREPARATION. TRACK SLOPES 3H:1V OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
- B. MULCHING
  - MULCH MATERIALS (IN ORDER OF PREFERENCE)
    - STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLE BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEE LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STRIPED STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
    - WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBER PHYSICAL STATE.
      - WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE GROWTH OF THE GRASS SEEDLINGS.
      - WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
      - WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
      - WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BY PHYTO-TOXIC.
      - WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

- TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW PH WITHIN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL.
- TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
- TOPSOILING IS LIMITED TO AREAS HAVING 2H:1V OR FLATTER SLOPES WHERE:
  - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
  - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT MATERIAL.
  - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
  - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
  - AREAS HAVING SLOPES STEEPER THAN 2H:1V REQUIRE SPECIAL CONSIDERATION AND DESIGN.
- TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
  - TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CHOKERS, STONES, SLUG, COARSE FRAGMENTS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.
  - TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEED, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
  - TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
- TOPSOIL APPLICATION
  - EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
  - UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
  - TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDED PREPARATION.

- SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
  - SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZERS ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
  - FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
  - LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
  - LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
  - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

**B-4.3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING**

**DEFINITION**  
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

**PURPOSE**  
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

**CONDITIONS WHERE PRACTICE APPLIES**  
TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

**CRITERIA**

- SEEDING**
  - SEED SPECIFICATIONS
    - ALL SEED MUST MEET THE REQUIREMENT OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4.4 WITHIN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY THE TYPE OF SEED AND SEEDING RATE.
    - MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
    - INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
    - SOD AND SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL, UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
  - APPLICATION
    - DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
    - INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES AS FOUND WITHIN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL.
    - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
    - DRILL OR CULTPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND

**B-4.4 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION**

**DEFINITION**  
TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

**PURPOSE**  
TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT COVER ON DISTURBED SOILS.

**CONDITIONS WHERE PRACTICE APPLIES**  
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

**CRITERIA**

- SEED MIXTURES**
    - GENERAL USE
      - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2 AS FOUND WITHIN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN AS SHOWN ON THIS SHEET.
      - ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR SYNTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.
      - FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
      - FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
    - TURFGRASS MIXTURES
      - AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
      - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
      - KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF TOTAL MIXTURE BY WEIGHT.
      - KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
      - TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR OTHER AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 5 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
      - KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE 60 TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1000 SQUARE FEET.
  - NOTES:
    - SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND".
    - CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.
- IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES**
  - CENTRAL MARYLAND: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)
  - SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)
- TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES. LEVEL AND PAKE THE AREAS TO PREPARE A PROPER SEEDED. REMOVE STONES AND DEBRIS OVER 1 1/2 INCHES IN DIAMETER. THE RESULTING SEEDED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
- IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR

**B-4.5 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION**

**DEFINITION**  
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

**PURPOSE**  
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

**CONDITIONS WHERE PRACTICE APPLIES**  
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

**CRITERIA**

- SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THE SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN. THE TABLES AND FIGURE CAN BE FOUND WITHIN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL.
- FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
- WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONG AS PRESCRIBED IN SECTION B-4.3.1.1B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

**TEMPORARY SEEDING SUMMARY**

NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE
1	ANNUAL RYEGRASS (Lolium perenne var. multiflorum)	40 LB/AC (1.0 LB/1000 SF)	MAR 1 - MAY 15; AUG 1 - SEPT 30	0.5 IN		
2	CEREAL RYE	112 LB/AC (2.8 LB/1000 SF)	MAY 1 - MAY 15; AUG 1 - SEPT 30	1.0 IN	436 LB/AC (10.9 LB/1000SF)	2 TONS/AC (90 LB/1000SF)
3	FOXTAIL MILLET (Setaria italica)	30 LB/AC (0.7 LB/1000 SF)	MAY 16 - JUL 31	0.5 IN		
4	PEARL MILLET	20 LB/AC (0.5 LB/1000 SF)	MAY 16 - JUL 31	0.5 IN		

APPLY STRAW MULCH AT 2 TONS PER ACRE (90 LB/1000 SF) OR WOOD CELLULOSE FIBER AT 1500 LB/ACRE (35 LB/1000 SF) IMMEDIATELY AFTER SEEDING, ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR APPROVED SYNTHETIC BINDER AT RATE SPECIFIED BY MANUFACTURER.

FOR PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELLS ANCHORED STRAW, MULCH, AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE SOD.

**B-4.6 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION**

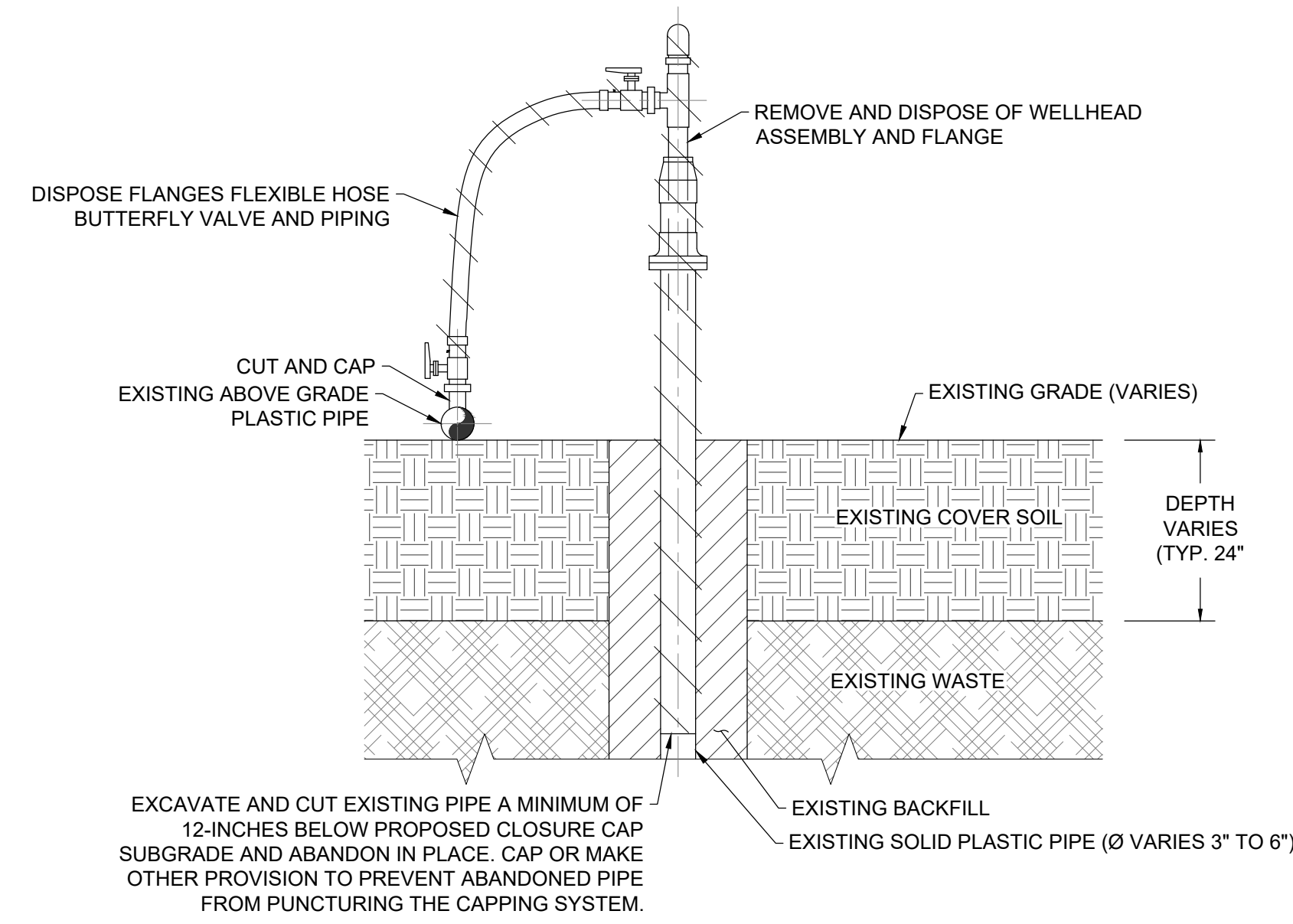
**DEFINITION**  
TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

**PURPOSE**  
TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT COVER ON DISTURBED SOILS.

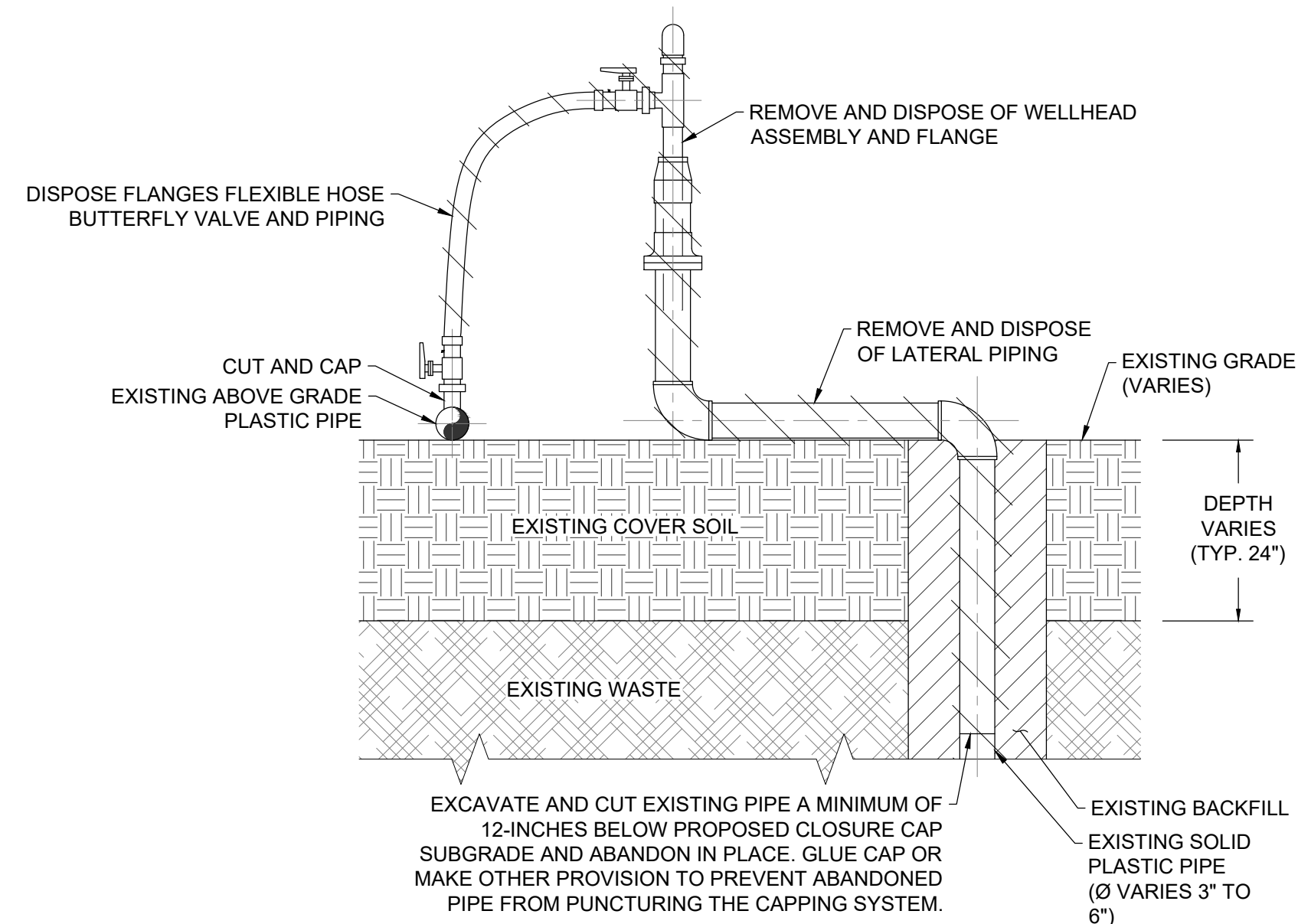
**CONDITIONS WHERE PRACTICE APPLIES**  
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

**CRITERIA**

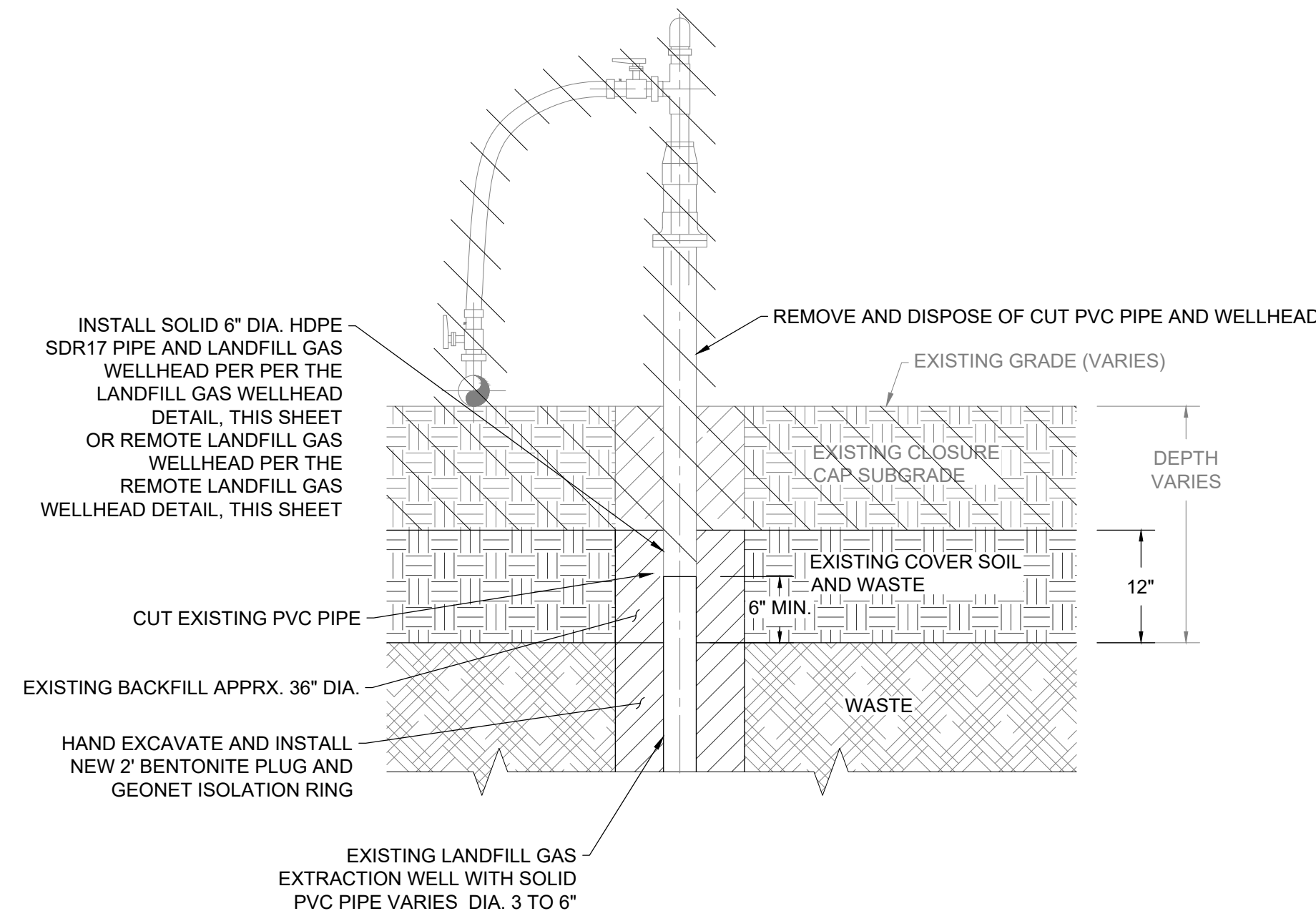
- SEED MIXTURES**
  - GENERAL USE
    - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2 AS FOUND WITHIN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN AS SHOWN ON THIS SHEET.
    - ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR SYNTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.
    - FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
    - FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
  - TURFGRASS MIXTURES
    - AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
    - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
    - KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF TOTAL MIXTURE BY WEIGHT.
    - KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
    - TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR OTHER AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 5 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
    - KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE 60 TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1000 SQUARE FEET.
- NOTES:
  - SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND".
  - CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS



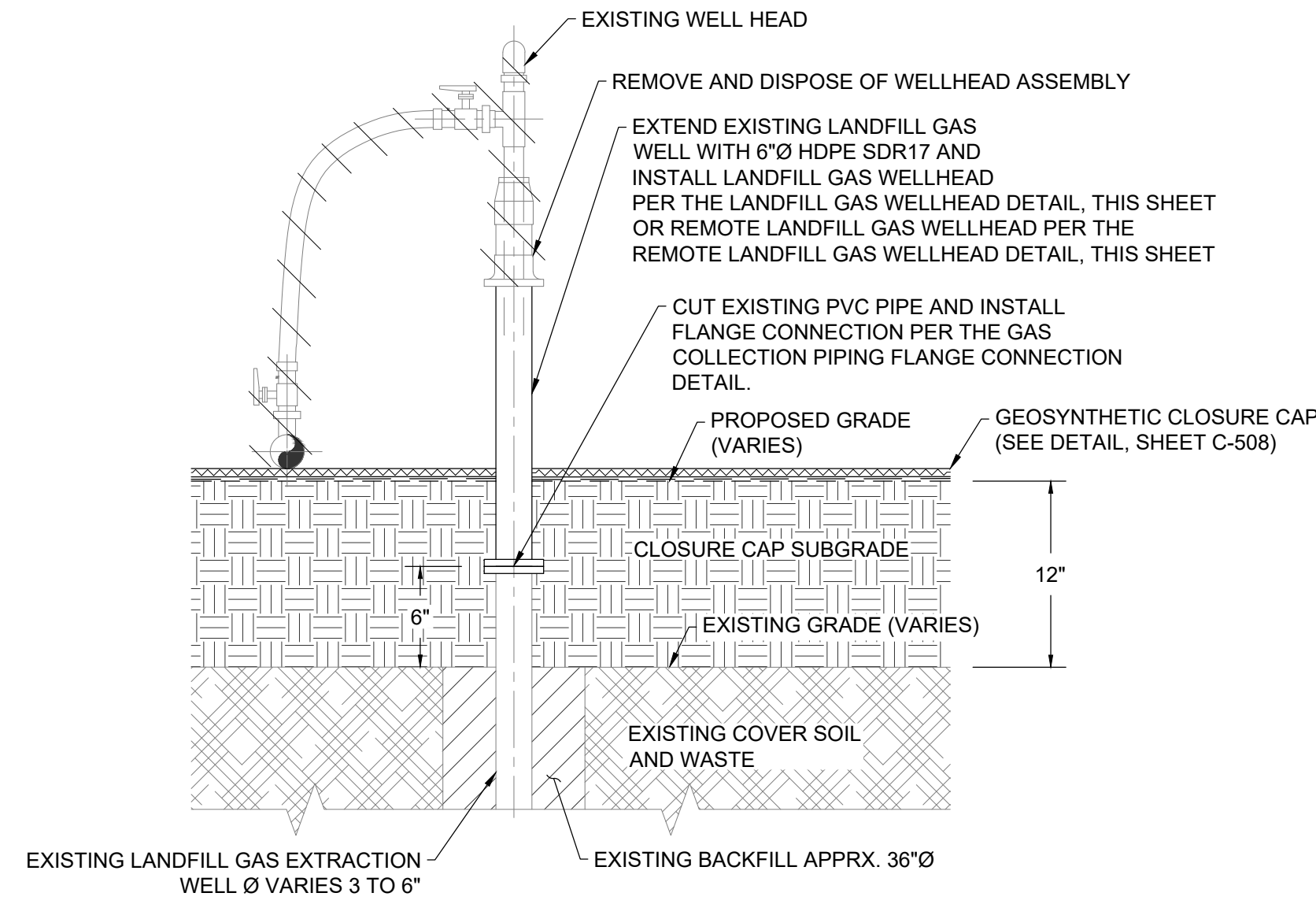
**L1 EXISTING LANDFILL GAS EXTRACTION WELL ABANDONMENT**  
NOT TO SCALE



**L2 EXISTING REMOTE LANDFILL GAS EXTRACTION WELL ABANDONMENT**  
NOT TO SCALE



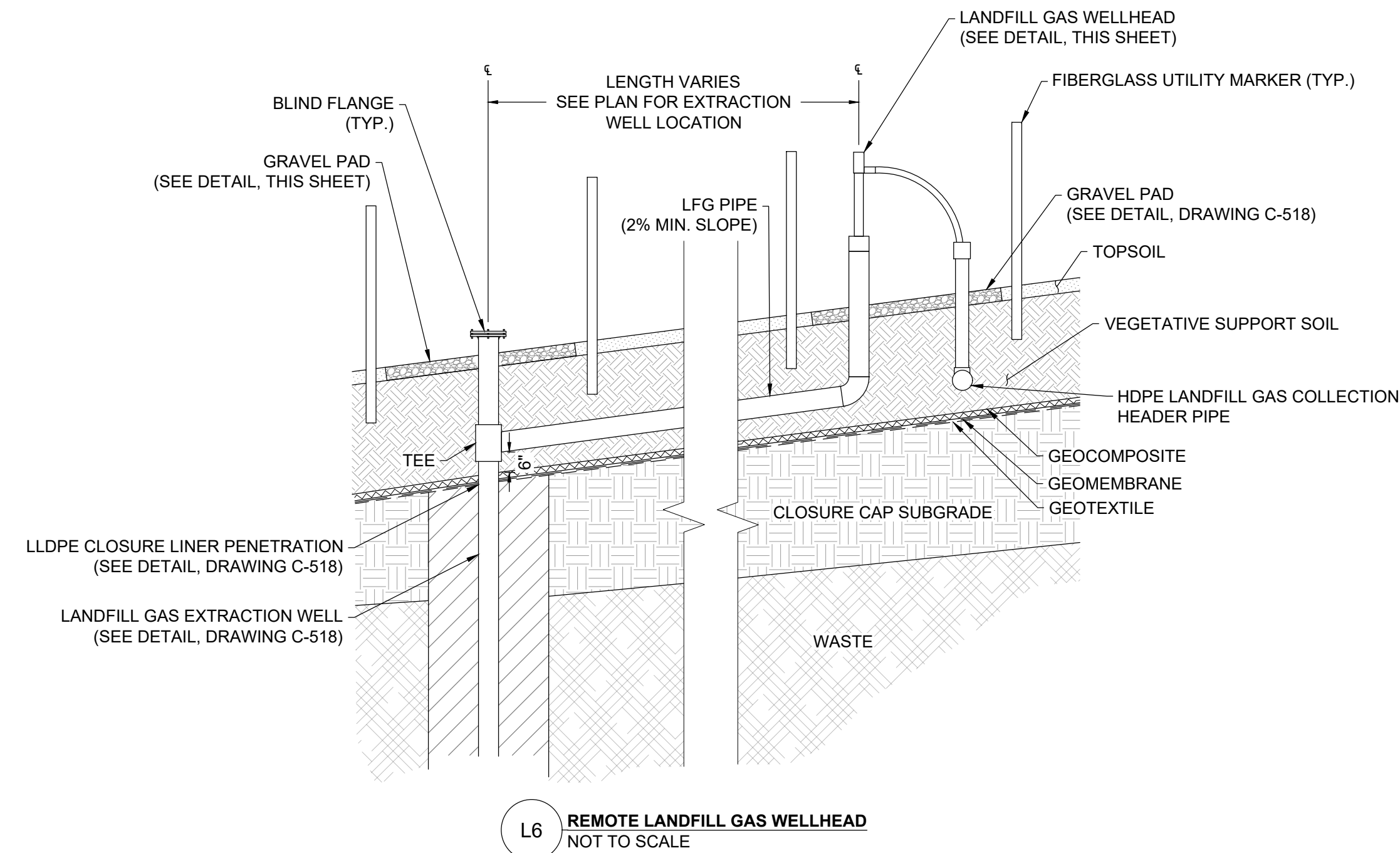
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NOT TO SCALE



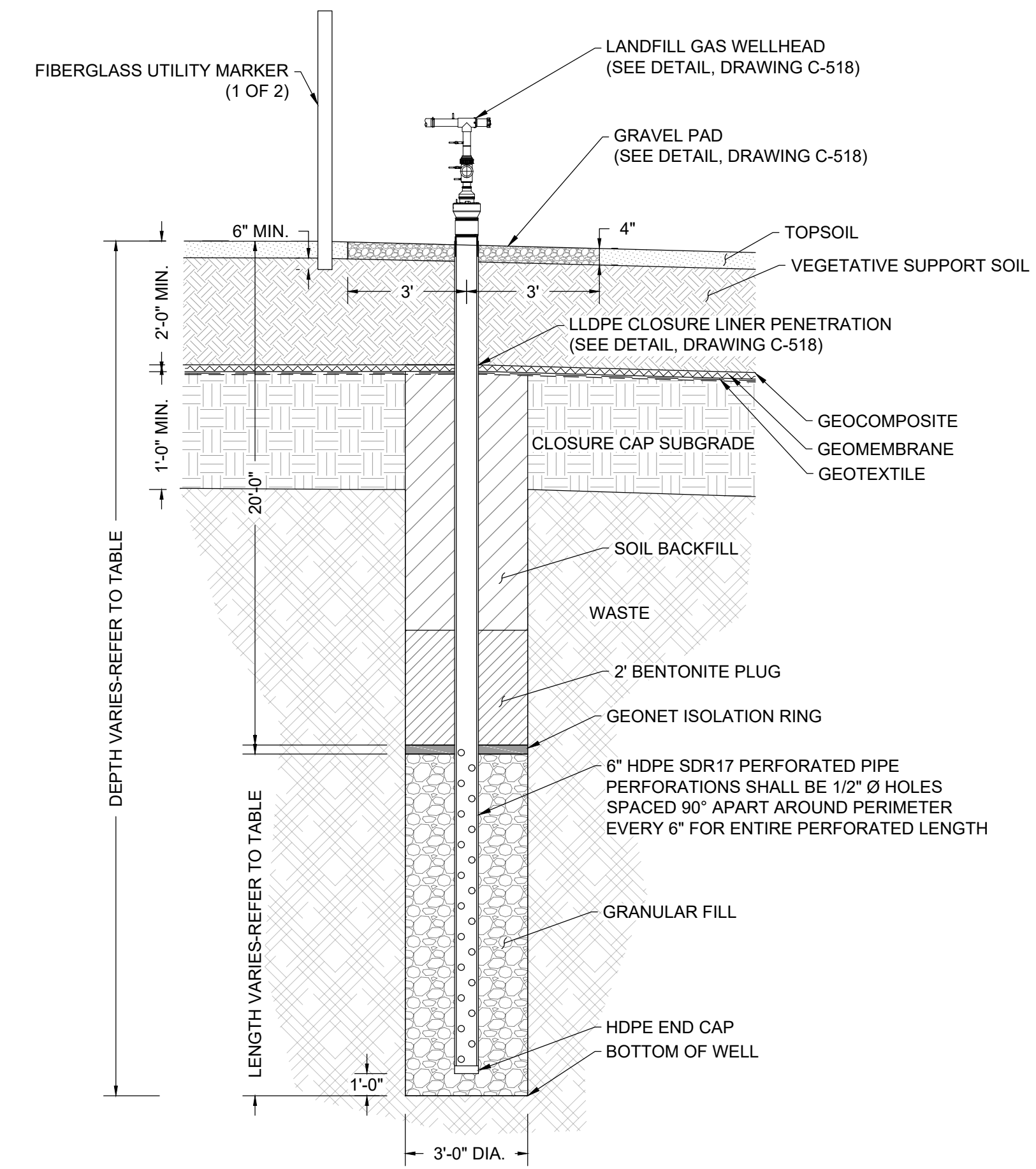
**L4 EXISTING LANDFILL GAS EXTRACTION WELL MODIFICATION - EXTEND**  
NOT TO SCALE

**NOTES:**

- BACKFILL WITHIN 5-FT OF LANDFILL GAS EXTRACTION WELL 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.



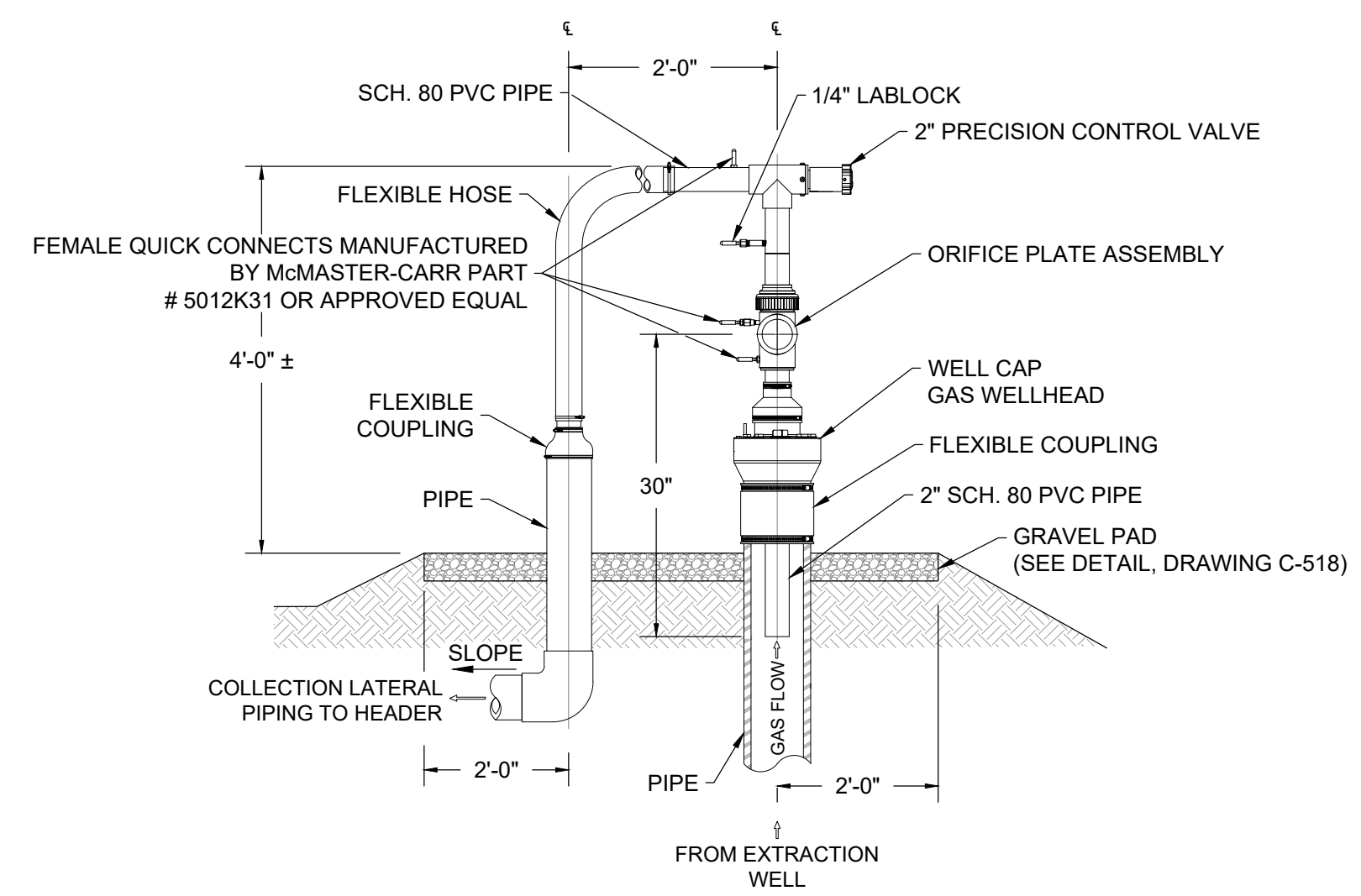
**L6 REMOTE LANDFILL GAS WELLHEAD**  
NOT TO SCALE



**L5 PROPOSED LANDFILL GAS EXTRACTION WELL**  
NOT TO SCALE

**INSTALLATION NOTES:**

- WELL CASING DRILLING DEPTH TO BE DETERMINED BASED ON LFG EXTRACTION WELL SCHEDULE, FIELD CONDITIONS AND THE CONSTRUCTION MANAGEMENT ENGINEER'S DIRECTION.
- GEONET ISOLATION RING SHALL FIT SNUG TO EXTRACTION WELL TO PROVIDE SEPARATION BETWEEN STONE AND BENTONITE PLUG.
- 72" MARKER POST SHALL HAVE WELL ID. TWO PLACED AT EACH WELL AT OPPOSITE CORNERS.



**L7 LANDFILL GAS WELLHEAD**  
NOT TO SCALE

**INSTALLATION NOTES:**

- REFER TO WELLHEAD MANUFACTURER'S INSTALLATION AND OPERATION MANUAL. READ INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING ASSEMBLY AND INSTALLATION OF WELLHEAD ON WELL CASING.
- WELLHEAD AND FLOW MEASUREMENT TUBE ASSEMBLY SHALL BE COMPATIBLE WITH CES-LANDTEC GEM-500, GEM-2000, AND GEM-5000 (LANDFILL GAS INSTRUMENTS).
- SUPPLY BRASS ID TAG WITH NUMBER AS DESIGNATED ON CONTRACT DRAWINGS.
- WELLHEAD SHALL BE RATED FOR A FLOW RANGE OF 0-50 SCFM.
- LATERAL PIPING MAY BE SUPPORTED BY GROUND SURFACE, BERMED EARTH, OR AS SPECIFIED IN PLANS.
- FOR FLEXIBLE CONNECTIONS TO PIPE USE ONLY STAINLESS STEEL V-BAND CLAMPS.
- DRAWING SHOWS TYPICAL CONNECTION TO A 90° ELBOW. ACTUAL CONNECTION MAY BE TO A TEE OR COUPLING.
- 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.
- ALLOW SUFFICIENT SLACK IN FLEX. HOSE FOR PIPING EXPANSION AND CONTRACTION. AN EXTRA 12" IS RECOMMENDED.

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: 8/25/2022

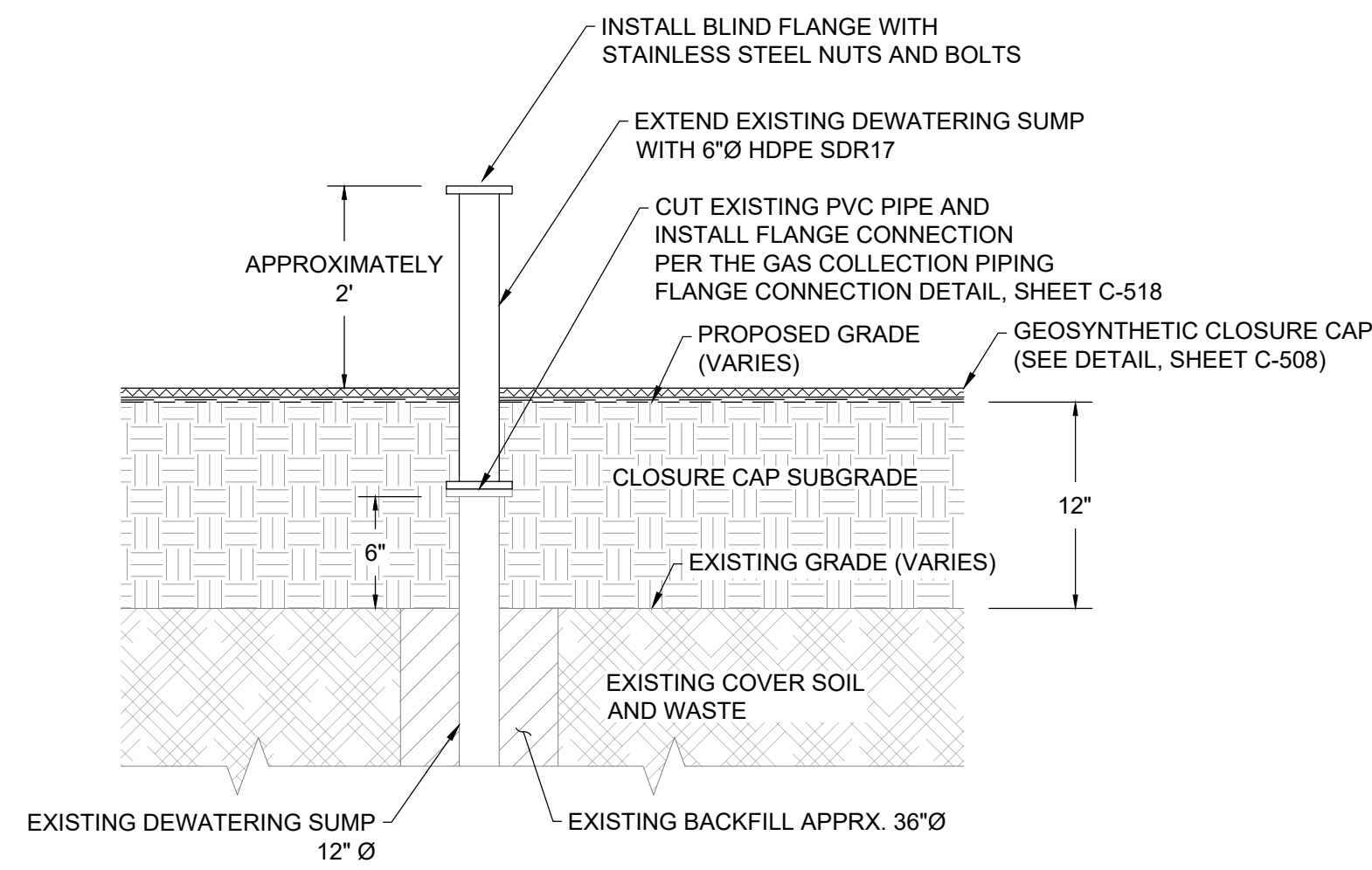
**GUIDE LANDFILL REMEDIATION DESIGN**  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND  
LANDFILL GAS DETAILS

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

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**C-517**  
SHEET: 107 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION



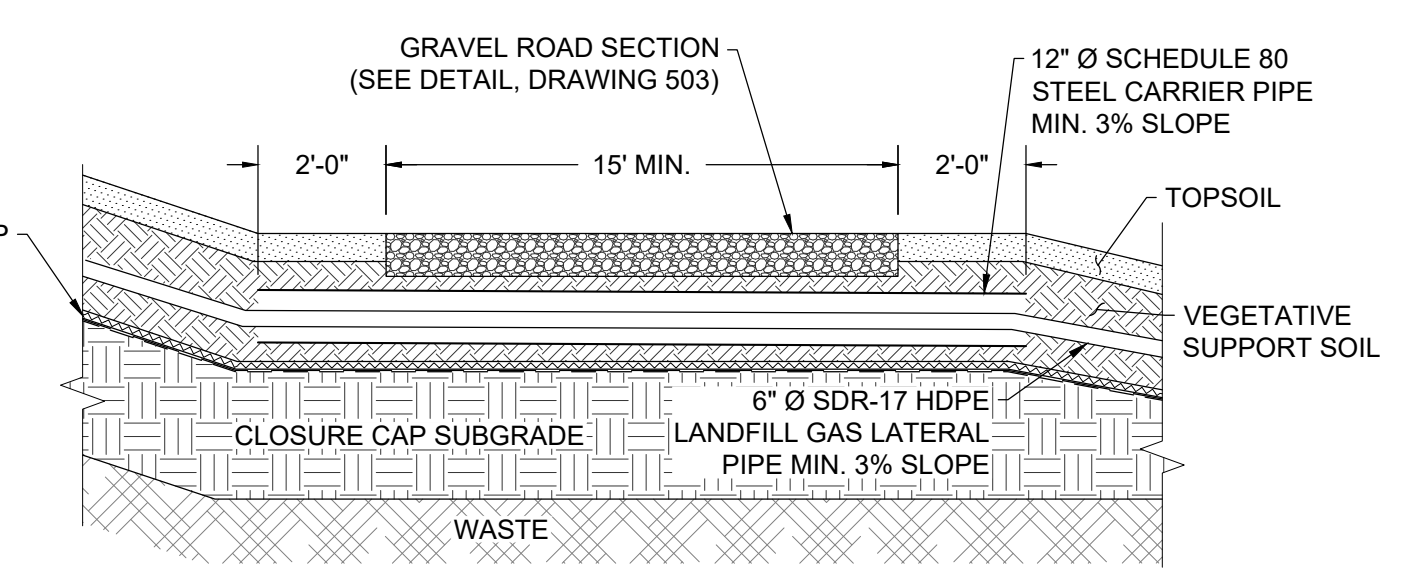
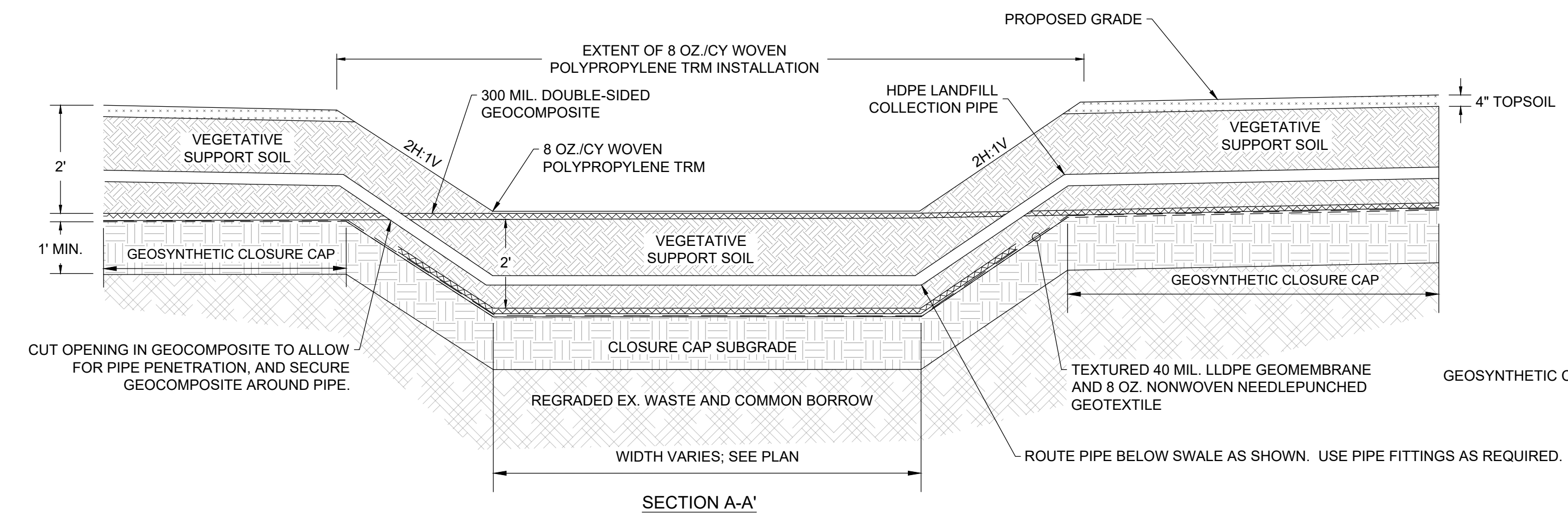
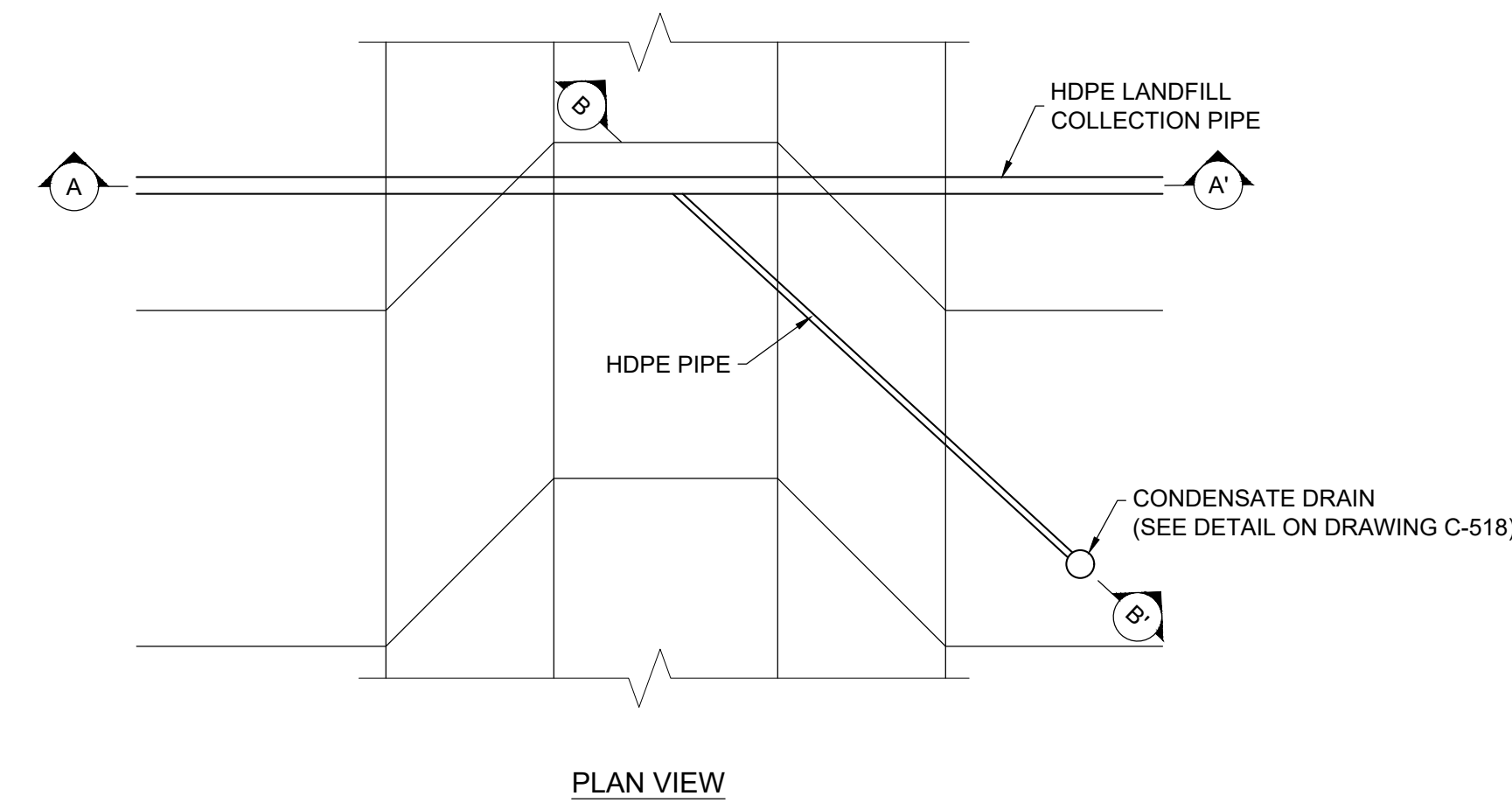


**L17 EXISTING DEWATERING SUMP MODIFICATION - EXTEND**  
NOT TO SCALE

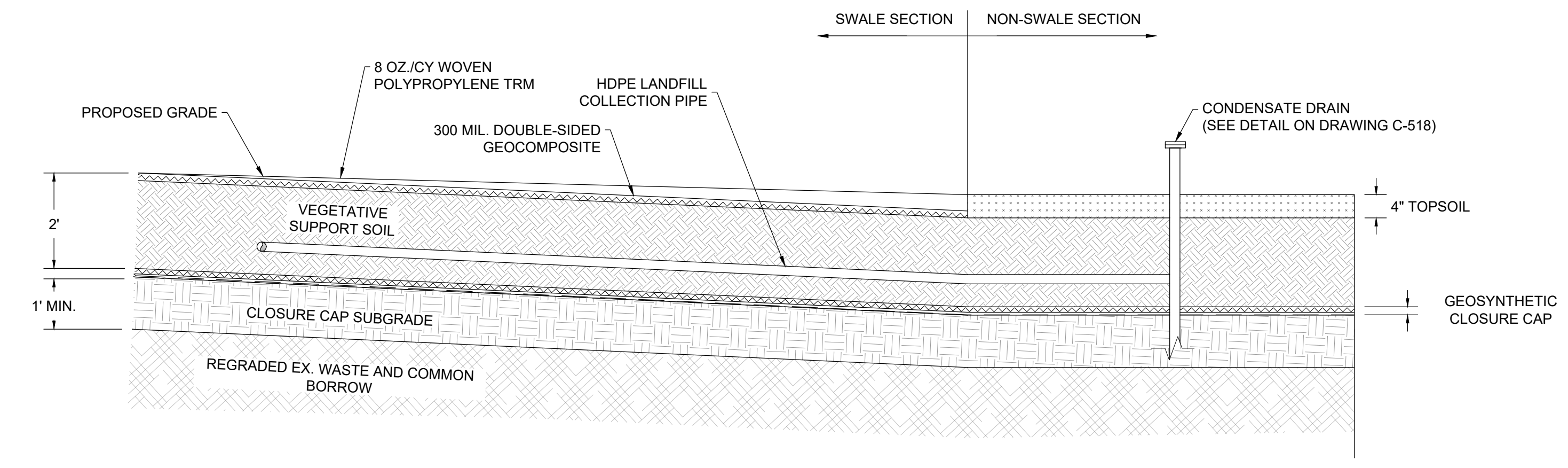
- NOTES:**
- BACKFILL WITHIN 5-FT OF DEWATERING SUMP TO BE PERFORMED BY HAND.
  - PLACE BACKFILL SOIL BY HAND IN MAXIMUM 8-IN LIFTS AND MECHANICALLY TAMP.
  - CONTINUE TO PLACE BACKFILL IN LIFTS AND COMPACT UNTIL FINAL SUBGRADE ELEVATION IS ACHIEVED.
  - VEGETATIVE SUPPORT SOIL AND TOPSOIL NOT SHOWN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

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	457.09	1.80
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

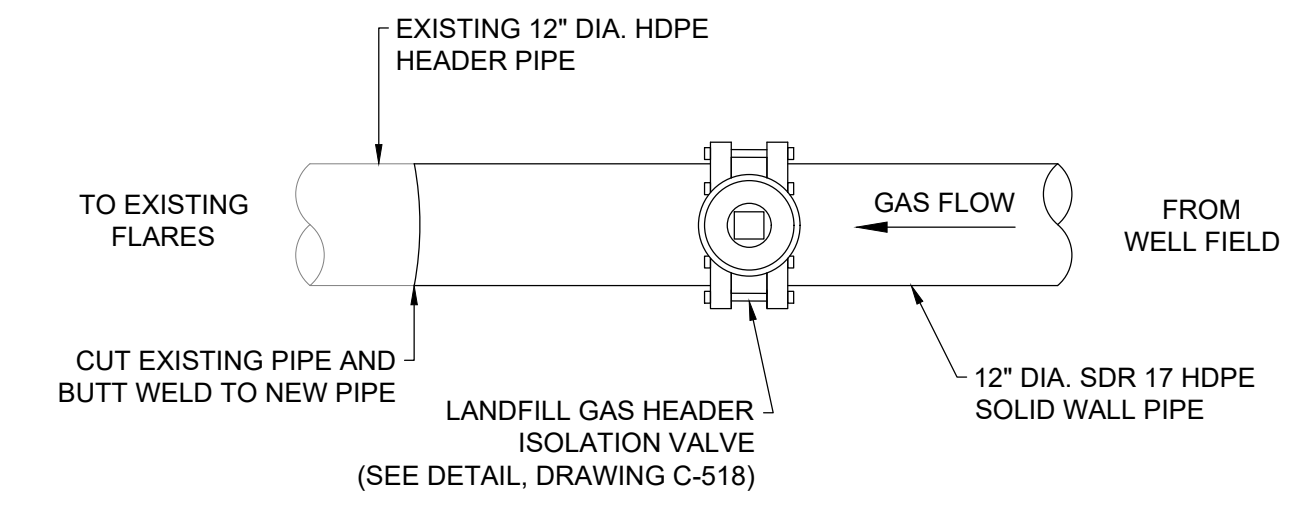
**NOTE:**  
ELEVATIONS ARE ESTIMATED BASED ON AERIAL SURVEY AND SHALL BE VERIFIED BY THE CONTRACTOR.



**L19 LANDFILL GAS PIPE ROAD CROSSING**  
NOT TO SCALE



**L18 LANDFILL GAS PIPE SWALE CROSSING**  
NOT TO SCALE



**L20 LANDFILL GAS HEADER TIE-IN DETAIL PLAN**  
NOT TO SCALE

- NOTE:**
- CONTRACTOR TO TEST PIT AND VERIFY EXISTING PIPE SIZE AND MATERIAL IN ADVANCE OF PERFORMING WORK.

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: 8/25/2022

SEAL

GUIDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND  
LANDFILL GAS 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: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**C-519**  
SHEET: 109 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: G:\PROJECTS\164669 - CODES OF REGULATIONS\PRODUCTION\CONSTRUCTION SET\164669 - 12-25 - DETAILS - 100% DWG (CONTRACT) SET.dwg, PLOT DATE: 12/25/2024 8:58 AM

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). Contains 47 rows of well data.

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). Contains 28 rows of well data.

- 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.
6. REMOTE WELL IS DESIGNATED WITH "R" AT THE END OF THE CORRESPONDING WELL ID.

PROPOSED LANDFILL GAS EXTRACTION WELLS

Table with 10 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). Contains 26 rows of well data.

PROPOSED REMOTE LANDFILL GAS EXTRACTION WELLS

Table with 10 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). Contains 8 rows of well data.

- 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.
2. REMOTE WELL IS DESIGNATED WITH "R" AT THE END OF THE CORRESPONDING WELL ID.

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). Contains 35 rows of well data.

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). Contains 4 rows of well data.

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). Contains 7 rows of well data.

- 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.

Vertical sidebar containing: REVISIONS, DESIGN INFORMATION, SEAL, PROJECT DESCRIPTION, PROFESSIONAL CERTIFICATION, PROJECT TITLE (GUIDE LANDFILL REMEDIATION DESIGN...), COUNTY (MONTGOMERY COUNTY, MARYLAND), LANDFILL GAS DETAILS, EA Engineering, Science, and Technology, Inc., PBC logo and contact info, DATE: DECEMBER 2020, PROJECT NUMBER: 1564601, SHEET: 110 OF 146.

100% 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)	Q25 (cfs)	V25 (fps)	Flow Depth (feet)	Treatment
Bench 1	S-I / F-I	3.15	718	10	8.14	3.16	0.63	11.68	3.47	0.72	SSM
Bench 2	S-I / S-II / F-I	1.75	852	10	4.46	2.74	0.5	6.41	2.93	0.58	SSM
Bench 3	S-II / S-III / F-1 / F-II	3.62	520	10	9.44	3.24	0.67	13.55	3.61	0.76	SSM
Bench 4	S-IV / F-VI	17.53	418	20	40.96	4.71	0.87	58.92	5.12	1	TRM
Bench 5	S-IV / F-III	0.39	365	10	1.43	1.99	0.25	2.03	2.25	0.28	SSM
Bench 6	S-V / F-III	0.36	300	10	1.43	1.99	0.25	2.03	2.25	0.28	SSM

**NOTES:**

- SSM = SOIL STABILIZATION MATTING PER STANDARD EROSION AND SEDIMENT CONTROL DETAILS ON SHEET C-514 (SC-28)
- TRM = TURF REINFORCEMENT MATTING. ENKAMAT 7010 OR APPROVED EQUAL.
- SSM AND TRM SHALL BE REMOVED FROM SUBGRADE PRIOR TO PLACING LINER.

**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	1.49	18
PSD S-II-1	S-II	1.31	18
PSD S-II-2	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%	Dirty	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%	Dirty	A-2
ED S-V-3	S-V	0.12	5.0%	Clear	A-2
ED S-V-4	S-V	0.61	0.08	Clear	A-2
ED S-V-5	S-V	0.05	0.01	Clear	A-2
ED S-V-6	S-V	0.25	0.10	Clear	A-2
ED S-V-7	S-V	0.05	0.10	Clear	A-2
ED S-V-8	S-V	3.89	0.06	Clear	A-2
ED S-VI-1	S-VI	0.72	0.06	Clear	A-2
ED S-VI-2	S-VI	0.43	0.02	Clear	A-2
ED S-VI-3	S-VI	0.16	0.01	Clear	A-2
ED S-VI-4	S-VI	0.29	0.04	Clear	A-2
ED S-VI-5	S-VI	0.17	0.01	Clear	A-2
ED S-VI-6	S-VI	0.29	0.08	Clear	A-2
ED S-VI-7	S-VI	0.74	0.03	Clear	A-2
ED S-VI-8	S-VI	0.85	0.03	Clear	A-2
ED S-VI-9	S-VI	0.82	0.04	Dirty	A-2
ED S-VI-10	S-VI	0.32	0.03	Dirty	A-2
ED S-VI-11	S-VI	1.48	0.04	Dirty	A-2
ED S-VII-1	S-VII	1.46	0.09	Dirty	A-2

**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	1.15	2,070	2,465	465	468
TGOS S-I-2	S-I	1.49	2,682	7,785	465	467
TGOS S-I-3	S-I	1.42	2,556	2,560	467	469
TGOS S-I-4	S-I	1.34	2,412	2,798	468	470
TGOS S-II-1	S-II	1.31	2,358	4,753	459	461
TGOS S-II-2	S-II	0.91	1,638	2,414	452	454
TGOS S-II-3	S-II	1.07	1,926	2,664	466.5	467.5
TGOS S-II-4	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-VI-1	S-VI	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-II-1	S-II	0.46	828	1,018	463	464.5

**SWALE SCHEDULE**

ID	MAXIMUM DRAINAGE AREA	LENGTH (FT.)	WIDTH (FT.)	MAXIMUM SLOPE (%)	Q10 (CFS)	V10 (FPS)	FLOW DEPTH	TREATMENT
SWALE 1	5.30	900	4	1.50	13.26	3.78	0.66	SSM
SWALE 2	1.20	665	4	4.00	4.61	3.76	0.27	SSM
SWALE 3	1.22	578	4	2.50	23.03	5.40	0.77	TRM
SWALE 4	7.16	779	8	11.50	18.29	7.09	0.30	TRM
SWALE 5	7.73	1263	8	3.50	26.57	5.53	0.53	TRM
SWALE 6	1.10	234	8	2.00	3.28	2.06	0.19	SSM
SWALE 7	0.16	146	8	3.50	0.46	1.14	0.05	SSM
SWALE 8	16.12	1607	8	2.00	41.81	5.29	0.82	TRM
SWALE 9	2.21	296	8	1.00	6.63	2.25	0.34	SSM
SWALE 10	2.67	455	8	6.00	86.66	9.83	0.90	TRM
SWALE 11	2.23	728	8	5.50	6.19	3.68	0.20	SSM
SWALE 12	3.31	500	8	2.00	9.54	3.13	0.35	SSM
SWALE 13	14.04	1520	8	2.00	36.14	5.07	0.75	TRM
SWALE 14A	0.44	150	8	2.50	1.53	1.69	0.10	SSM
SWALE 14B	1.56	208	8	3.00	4.75	2.69	0.21	SSM
SWALE 14	0.10	130	8	1.00	6.65	2.25	0.34	SSM
SWALE 15	9.31	624	8	2.50	34.53	5.34	0.69	TRM
SWALE 16	7.68	1260	8	3.00	27.45	5.27	0.57	TRM
SWALE 17	0.59	123	8	1.00	70.32	4.96	1.33	TRM
SWALE 18	0.79	430	8	2.00	2.39	1.80	0.16	SSM
SWALE 19	0.15	209	8	13.50	0.54	1.67	0.04	SSM

**NOTES:**

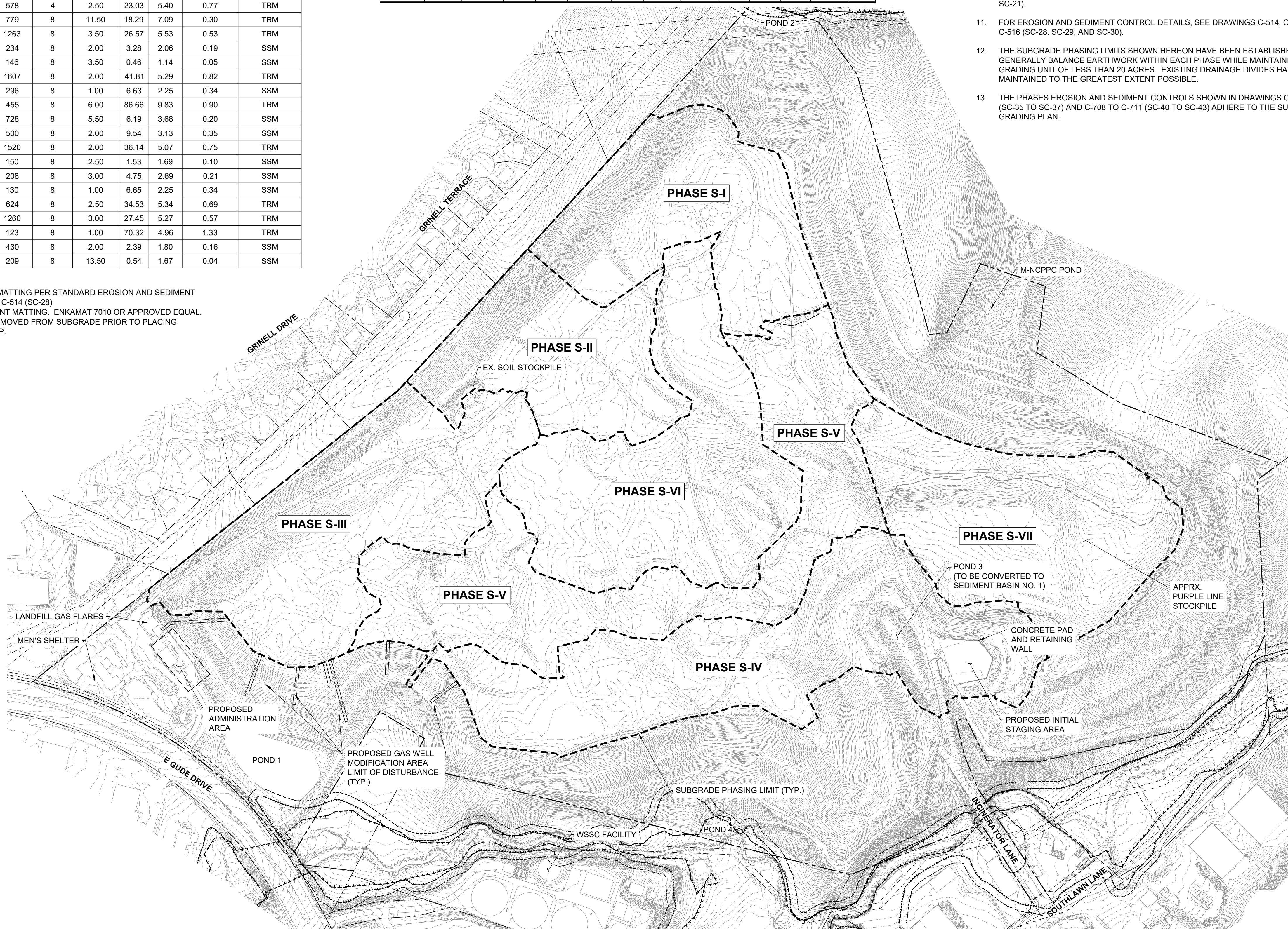
- SSM = EROSION CONTROL MATTING PER STANDARD EROSION AND SEDIMENT CONTROL DETAILS ON SHEET C-514 (SC-28)
- TRM = TURF REINFORCEMENT MATTING. ENKAMAT 7010 OR APPROVED EQUAL.
- SSM AND TRM SHALL BE REMOVED FROM SUBGRADE PRIOR TO PLACING GEOSYNTHETIC CLOSURE CAP.

**CLEAR WATER DIVERSION PIPE SCHEDULE**

ID	Phase	Drainage Area (AC.)	Pipe Size	Pipe Length (ft.)	Min. Pipe Slope (%)	2-Yr Flow (cfs)	2-Yr Velocity (fps)	Pipe Depth of Flow (ft.)	CWD Rock Outlet Protection				
									L (ft)	W (ft)	T (in)	d50 (ft.)	Class
CWD S-IV-1	S-IV	6.54	24"	338	4.7	7.8	11.34	0.54	12	14	19	0.5	I
CWD S-IV-2	S-IV	12.96	24"	498	2.2	15.84	10.43	0.97	12	14	19	0.6	I
CWD S-IV-3	S-IV	10.61	24"	584	2.1	12.49	9.6	0.86	12	14	19	0.5	I
CWD S-IV-4	S-IV	0.99	18"	145	2.2	-	-	-	12	14	19	0.5	I
CWD S-IV-5	S-IV	10.8	24"	260	3.3	14.5	11.76	0.83	12	14	19	0.6	I
CWD S-IV-6	S-IV	0.2	12"	141	2.0	-	-	-	12	14	19	0.5	I
CWD S-IV-7	S-IV	0.68	18"	41	2.0	-	-	-	12	14	19	0.5	I
CWD S-IV-8	S-IV	0.93	18"	68	1.5	-	-	-	12	14	19	0.5	I
CWD S-V-1	S-V	1.62	24"	190	1.1	-	-	-	12	14	19	0.5	I
CWD S-V-2	S-V	0.97	18"	175	2.3	-	-	-	12	14	19	0.5	I
CWD S-V-3	S-V	4.92	24"	120	1.8	5.81	7.32	0.6	12	14	19	0.5	I
CWD S-V-4	S-V	18.85	24"	331	2.1	22.11	11.1	1.21	14	16	19	0.6	I
CWD S-V-5	S-V	5.09	24"	150	3.1	5.85	8.91	0.52	12	14	19	0.5	I
CWD S-V-6	S-V	3.22	24"	161	3.5	-	-	-	12	14	19	0.5	I
CWD S-VI-1	S-VI	1.08	18"	55	1.4	-	-	-	12	14	19	0.5	I
CWD S-VI-2	S-VI	2.74	24"	140	1.9	-	-	-	12	14	19	0.5	I
CWD S-VI-3	S-VI	0.36	12"	46	2.5	-	-	-	12	14	19	0.5	I
CWD S-VI-4	S-VI	11.44	24"	128	2.0	12.96	9.28	0.83	12	14	19	0.5	I
CWD S-VII-1	S-VII	10.57	24"	161	1.5	12.25	8.51	0.93	12	14	19	0.5	I

**GENERAL NOTES**

- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-2).
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
- ALL SUBGRADE PHASING LIMITS (S-#) ARE TO BE DELINEATED BY ORANGE CONSTRUCTION FENCE UNLESS OTHERWISE SHOWN.
- FOR OVERALL SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-2).
- FOR PHASED EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION, SEE SHEETS C-703 TO C-717 (SC-6 TO SC-18).
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-3).
- FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 AND C-506 (SC-23 AND SC-24).
- FOR TEMPORARY DOWNCHUTE, GABION DOWNCHUTE, AND NORTHWEST SLOPE DISCHARGE FACILITY DETAILS, SEE DRAWINGS C-509 (SC-27)
- FOR DRAINAGE AREA MAPS, SEE DRAWINGS C-150 AND C-151 (SC-19 AND SC-20)
- FOR SEDIMENT BASIN NO. 1 DETAILS, SEE DRAWINGS C-512 AND C-513 (SC-31 AND SC-32).
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514, C-515, AND C-516 (SC-28, SC-29, AND SC-30).
- THE SUBGRADE PHASING LIMITS SHOWN HEREON HAVE BEEN ESTABLISHED TO GENERALLY 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 PHASES EROSION AND SEDIMENT CONTROLS SHOWN IN DRAWINGS C-703 TO C-705 (SC-35 TO SC-37) AND C-708 TO C-711 (SC-40 TO SC-43) ADHERE TO THE SUBGRADE GRADING PLAN.



DESIGN INFORMATION	DESCRIPTION				
DESIGNED BY:	DRAWN BY:	CHECKED BY:	LJO / GAT	PROJECT MANAGER:	M/G
KEY / SMB	SMB				
NO.	DATE	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: 8/25/2022					
GUYE LANDFILL REMEDIATION DESIGN NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION MONTGOMERY COUNTY, MARYLAND					
SUBGRADE PHASE - PHASED EROSION AND SEDIMENT CONTROL PLAN - KEY SHEET					
Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000					
DATE: DECEMBER 2020 PROJECT NUMBER: 1564601					
<b>C-701</b> SHEET: 111 OF 146					

**BENCH SCHEDULE**

ID	Phase (s)	Maximum Drainage Area (AC.)	Length (Feet)	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	SSM
Bench 2	S-I / S-II / F-I	0.68	873	10	2.14	2.28	0.4	SSM
Bench 3	S-II / S-III / F-1 / F-II	0.77	520	10	2.06	2.59	0.4	SSM
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	SSM
Bench 6	S-V / F-III	1.15	312	10	4.33	3.15	0.5	SSM

**NOTES:**

1. SSM = SOIL STABILIZATION MATTING PER STANDARD EROSION AND SEDIMENT CONTROL DETAILS ON SHEET C-514 (SC-28)

2. TRM = TURF REINFORCEMENT MATTING. ENKAMAT 7010 OR ENGINEER APPROVED EQUAL.

**EARTH DIKE SCHEDULE**

ID	Phase	Drainage Area (Ac.)	Maximum Slope	Clear / Dirty Water	Class
ED F-V-1	F-V	0.86	1.60%	Dirty	A-2
ED F-VI-1	F-VI	0.86	1.60%	Clean	A-2

**CLEAR WATER DIVERSION PIPE SCHEDULE**

ID	Phase	Drainage Area (AC.)	Pipe Size	Pipe Length	Min. Pipe Slope (%)	2-yr Flow	2-Yr Velocity	Pipe Depth of	CWD Rock Outlet Protection			Class	
									L (ft)	W (ft)	T (in)	d50 (ft.)	
CWD F-III-1	F-III	14.07	24"	150	2.0	17.04	10.27	1.04	12	14	19	0.6	I
CWD F-III-2	F-III	10.95	24"	168	3.3	12.97	11.61	0.77	12	14	19	0.6	I
CWD F-III-3	F-III	2.15	24"	68	1.5	-	-	-	12	14	19	0.5	I
CWD F-IV-1	F-IV	15.81	24"	150	3.3	17.96	12.65	0.92	12	14	19	0.7	I
CWD F-IV-2	F-IV	10.95	24"	168	3.3	12.97	11.61	0.77	12	14	19	0.6	I
CWD F-IV-3	F-IV	2.15	24"	68	1.5	-	-	-	12	14	19	0.5	I
CWD F-V-1	F-V	2.15	24"	68	1.5	-	-	-	12	14	19	0.5	I
CWD F-VI-1	F-VI	10.95	24"	168	3.3	12.97	11.61	0.77	12	14	19	0.6	I
CWD F-VI-2	F-VI	14.07	24"	170	2.0	17.04	10.27	1.04	12	14	19	0.6	I
CWD F-VI-3	F-VI	37.8	30"	451	1.5	45.78	11.55	1.88	14	16	19	0.8	I

D-4-1 Rock Outlet Protection											
ID	Phase	Q <sub>10</sub> (cfs)	V <sub>10</sub> (fps)	d <sub>50</sub> (ft)	L (ft)	W (ft)	T (in)	RipRap Class	Notes		
ROP-1	Final	23.03	5.4	0.3	6	6.5	19	Class I	Outlet Pipe NW Slope Facility - end of Swale 3		
ROP-2	Final	23.03	5.4	0.3	6	6.5	19	Class I	Outlet Pipe NW Slope Facility - end of Swale 3		
ROP-3	Final	4.61	3.76	0.2	6	6.5	19	Class I	Outlet Pipe NW Slope Facility - end of Swale 2		
ROP-4	Final	4.61	3.76	0.2	6	6.5	19	Class I	Outlet Pipe NW Slope Facility - end of Swale 2		
ROP-5	Final	18.16	5.88	0.50	13	15	19	Class I	Headwall-Pond 3; Z Stormdrain		
ROP-6	Temporary E&S Phase	108.1	16.00	1.20	26	30	32	Class II	Pond 3 E&S Principle Spillway @ Inlet 2		
ROP-7	Final	70.34	2.85	0.9	-	-	19	Class I	Spillway @ Ex. Pond 3		

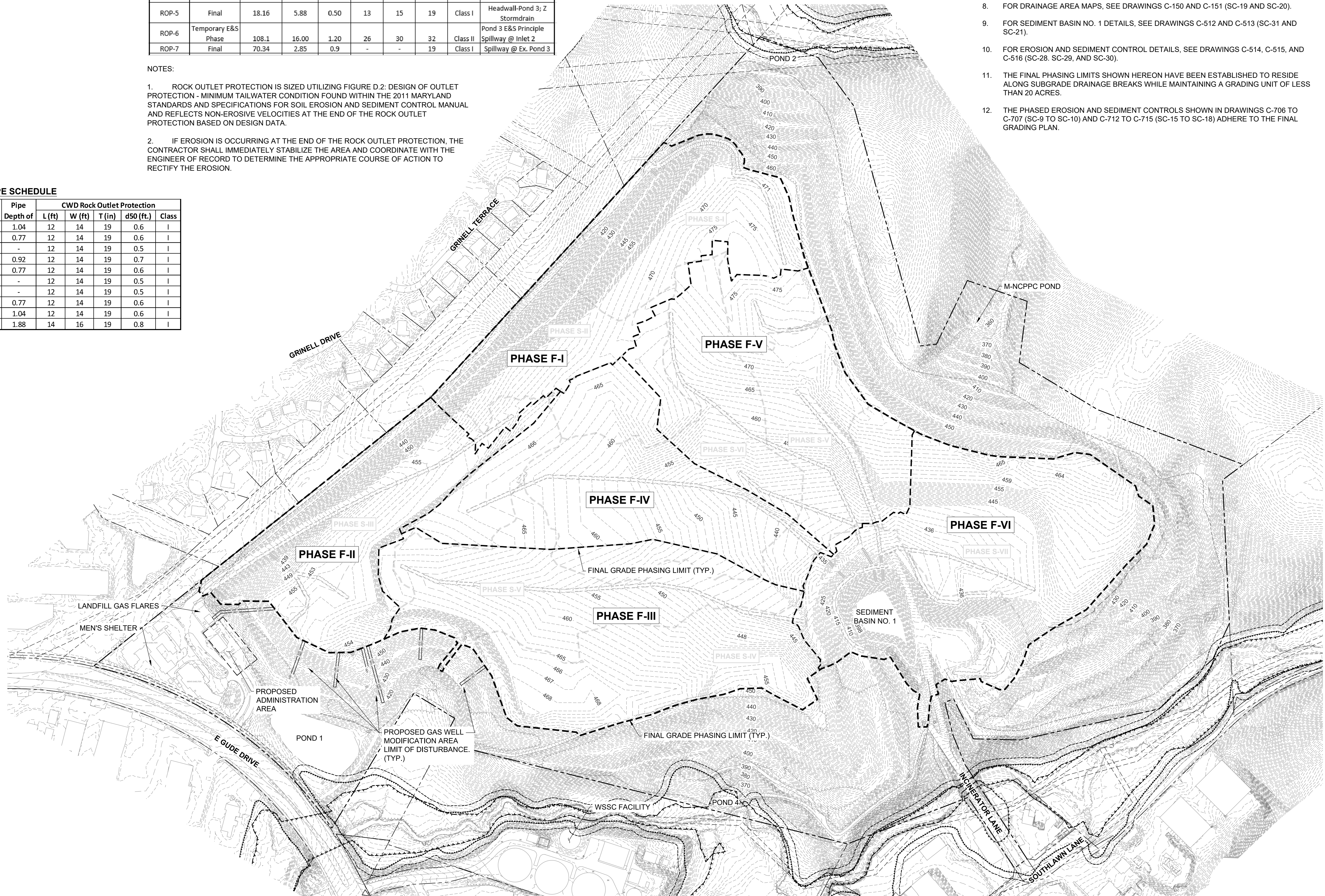
**NOTES:**

1. ROCK OUTLET PROTECTION IS SIZED UTILIZING FIGURE D.2: DESIGN OF OUTLET PROTECTION - MINIMUM TAILWATER CONDITION FOUND WITHIN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL AND REFLECTS NON-EROSIVE VELOCITIES AT THE END OF THE ROCK OUTLET PROTECTION BASED ON DESIGN DATA.

2. IF EROSION IS OCCURRING AT THE END OF THE ROCK OUTLET PROTECTION, THE CONTRACTOR SHALL IMMEDIATELY STABILIZE THE AREA AND COORDINATE WITH THE ENGINEER OF RECORD TO DETERMINE THE APPROPRIATE COURSE OF ACTION TO RECTIFY THE EROSION.

**GENERAL NOTES**

- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-2).
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
- FOR OVERALL SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-2).
- FOR PHASED EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION, SEE SHEETS C-703 TO C-717 (SC-6 TO SC-18).
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-3).
- FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 AND C-506 (SC-23 AND SC-24).
- FOR TEMPORARY DOWNCHUTE, GABION DOWNCHUTE, AND NORTHWEST SLOPE DISCHARGE FACILITY DETAILS, SEE DRAWING C-509 (SC-27).
- FOR DRAINAGE AREA MAPS, SEE DRAWINGS C-150 AND C-151 (SC-19 AND SC-20).
- FOR SEDIMENT BASIN NO. 1 DETAILS, SEE DRAWINGS C-512 AND C-513 (SC-31 AND SC-21).
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514, C-515, AND C-516 (SC-28, SC-29, AND SC-30).
- THE FINAL PHASING LIMITS SHOWN HEREON HAVE BEEN ESTABLISHED TO RESIDE ALONG SUBGRADE DRAINAGE BREAKS WHILE MAINTAINING A GRADING UNIT OF LESS THAN 20 ACRES.
- THE EROSION AND SEDIMENT CONTROLS SHOWN IN DRAWINGS C-706 TO C-707 (SC-9 TO SC-10) AND C-712 TO C-715 (SC-15 TO SC-18) ADHERE TO THE FINAL GRADING PLAN.



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

FINAL GRADE PHASE - PHASED EROSION AND SEDIMENT CONTROL PLAN - KEY SHEET



DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-702**  
 SHEET: 112 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

SC/SWM SHEET 5 OF 53

FILE PATH: G:\PROJECTS\164601 - GUIDE OF DESIGN\PRODUCTION\DESIGN SET\164601 - 11.01 - E&S - F PHASE KEY SHEET.DWG (C-702) (BIBBETT, STEVEN) 12/10/2020 8:49 PM



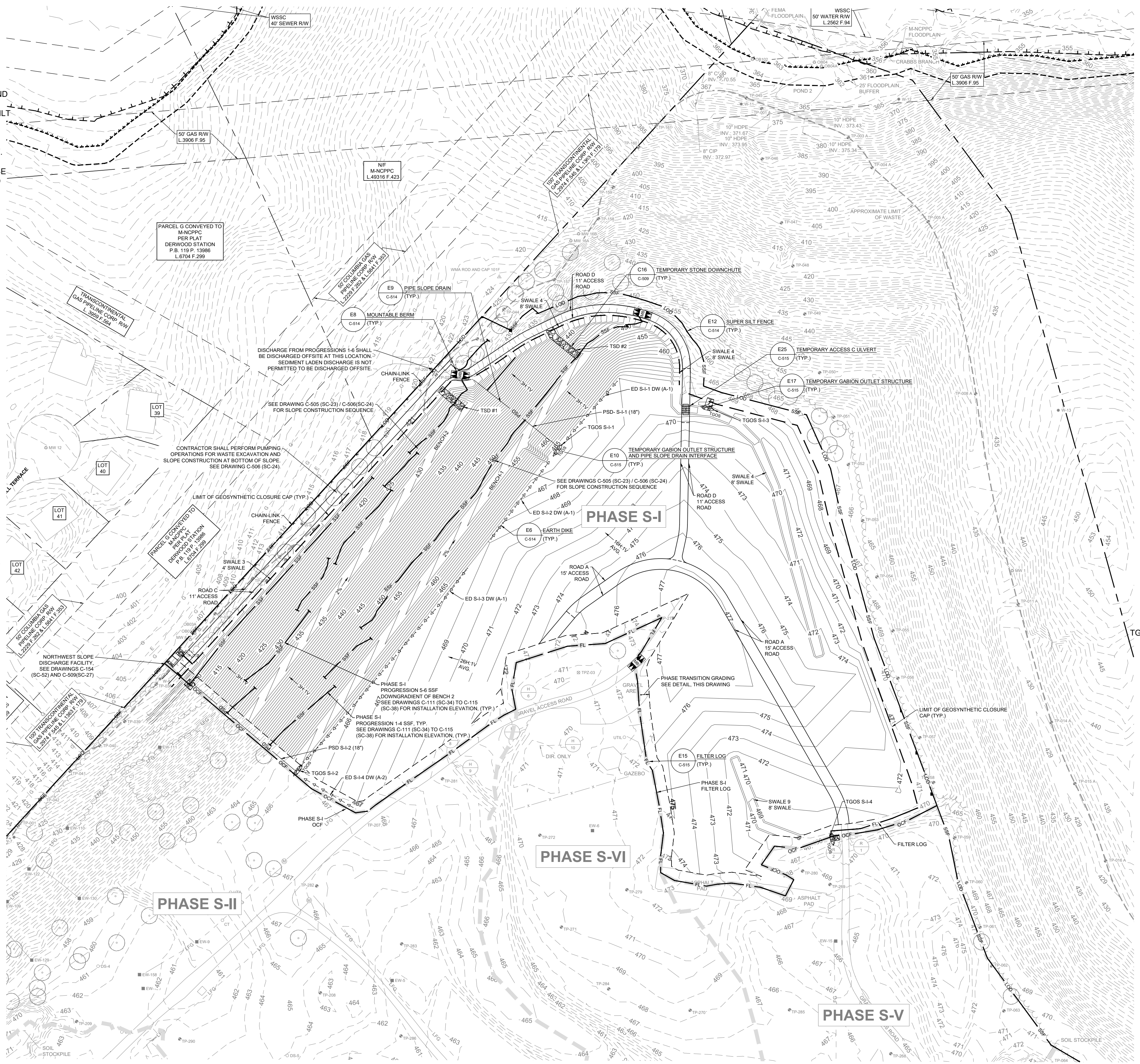
**GENERAL NOTES**

1. PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
2. REFER TO DRAWINGS C-110 TO C-117 (SC-33 TO SC-40) FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
3. REFER TO DRAWING C-134 TO C-141 (SC-41 TO SC-48) FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS.
4. REFER TO DRAWING C-701 (SC-4) FOR TGOs, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT CONSTRUCTION AND IMPLEMENTATION OF THE PROPOSED EROSION AND SEDIMENT CONTROL DEVICES. WITHIN PHASE TRANSITION AREAS WHERE SILT FENCE, SUPER SILT FENCE, OR FILTER LOGS ARE PROPOSED, CONTRACTOR SHALL INSTALL THESE FEATURES PERPENDICULAR TO THE DIRECTION OF FLOW.
6. LINWORK ALONG THE PHASE BOUNDARY LINES ARE OFFSET FOR CLARITY. THE CONTRACTOR SHALL INSTALL TGOs AND EARTH DIKE AT THE SUMP LOCATION, EITHER INSIDE OF THE PHASE (CUT SCENARIO) OR AT THE PHASE LIMIT (ON-GRADE SCENARIO). TEMPORARY FILTER LOGS SHALL BE PLACED ALONG THE PHASE BOUNDARY IN A FILL SCENARIO. THE FEATURES SHALL NOT BE INSTALLED WITHIN THE PHASE TRANSITION GRADING.

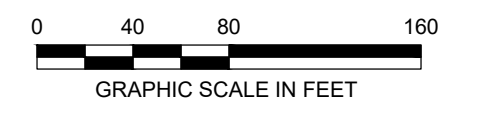
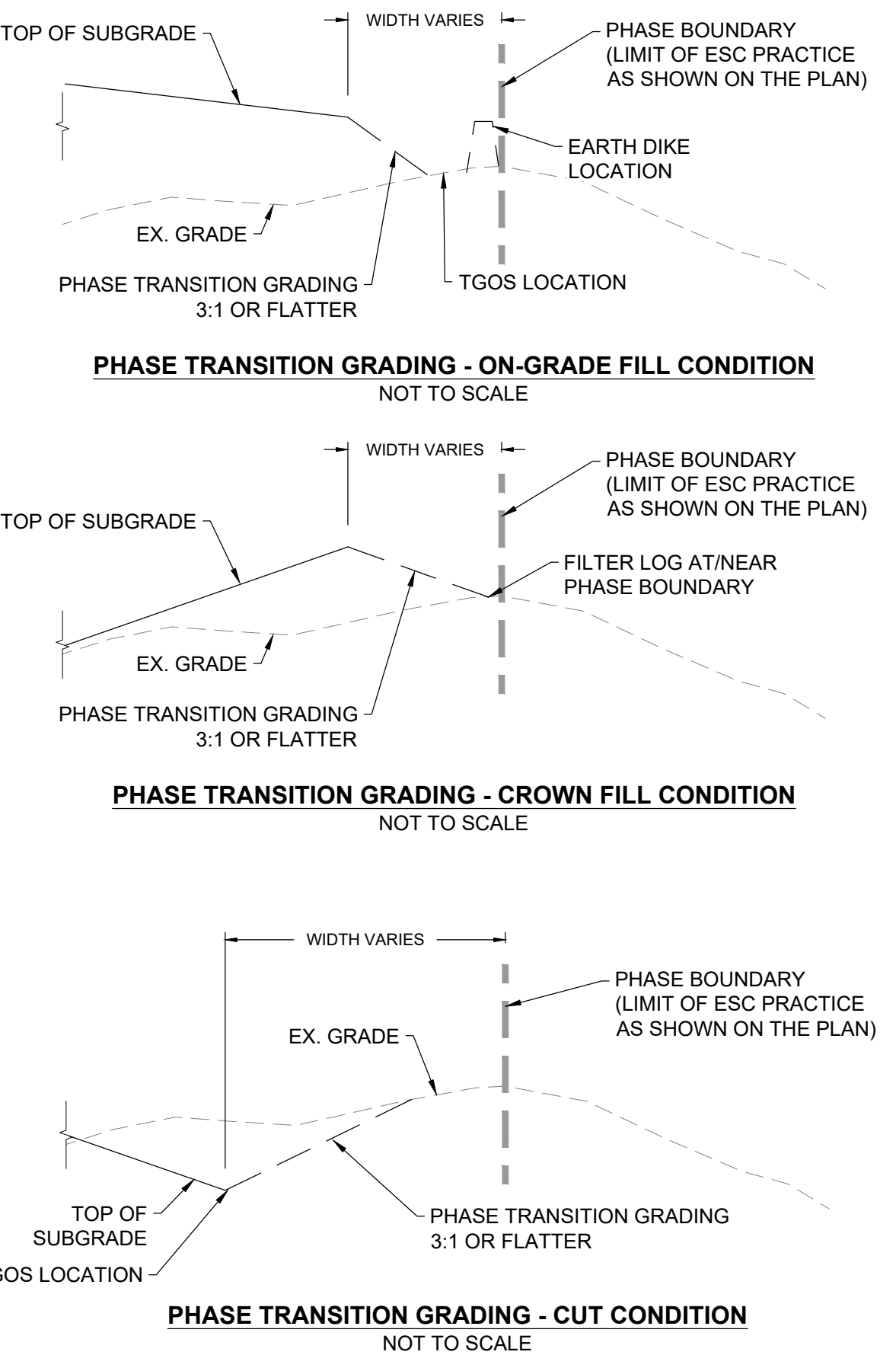
**PHASE S-I EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

REFER TO DRAWING G-002 (SC-02) 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 SLOPE FOR THE SLOPE EXCAVATION PROGRESSIONS FOR PHASE S-I AS SHOWN ON DRAWING C-506 (SC-24). REMAINDER OF CONTROLS WILL BE PHASED IN AS CONSTRUCTION PROGRESSES.
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. ROUGH GRADE ROAD D AND SWALE 4 TO TEMPORARY ACCESS CULVERT LOCATION. INSTALL TEMPORARY STONE DOWNCHUTE 1.
5. PERFORM COVER SOIL EXCAVATION AND WASTE RELOCATION IN ORDER TO INSTALL TGOs S-I-3 AND S-I-4 AND TEMPORARY ACCESS CULVERT PIPE. COMPLETE ROUGH GRADING OF ROAD D AND SWALE 4.
6. COMMENCE REMOVAL AND STOCKPILE OF EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
7. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS). CONTRACTOR TO PRIORITIZE EXCAVATION AND PLACEMENT ACTIVITIES STARTING AT UPGRADING LOCATIONS AND LOCATIONS WITH STRUCTURAL EROSION AND SEDIMENT CONTROLS DEVICES.
8. WHEN PERFORMING CONSTRUCTION ACTIVITIES ON THE SIDE SLOPES, FOLLOW THE PROCEDURES AND PROGRESSION OUTLINED IN THE SIDE SLOPE EXCAVATION DETAIL ON DRAWING C-506 (SC-24). ALL BENCHES SHALL BE STABILIZED USING SAME DAY STABILIZATION METHODS. SEDIMENT-LADEN WATER FROM DISTURBED SLOPES ARE NOT PERMITTED TO CONCENTRATE WITHIN BENCHES AND/OR SWALES WITHOUT FLOWING THROUGH A SEDIMENT FILTERING DEVICE FIRST. WHERE NO SEDIMENT FILTERING DEVICE IS INSTALLED, VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION IS REQUIRED.
  - 8.1. PROGRESSION 1 AND 2: MAINTAIN SUPER SILT FENCE ON SLOPE. PERFORM COVER SOIL EXCAVATION AND WASTE RELOCATION AT TOP OF SLOPE. ONCE PERFORMED, CONSTRUCT TGOs S-I-1 AND TGOs S-I-2 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.
  - 8.2. PROGRESSION 3 AND 4: COMMENCE SIDE SLOPE EXCAVATION WORKING DOWNHILL. WHEN BENCH-1 IS REACHED, INSTALL TEMPORARY STONE DOWNCHUTE 2. BEGIN BENCH-1 CONSTRUCTION AT THE LOW POINT AND WORK UPHILL. AT THE END OF EACH WORKING DAY, INSTALL SOIL STABILIZATION MATTING WITHIN THE BENCH SECTION AND STABILIZE ALL DISTURBED AREAS. ONCE PROGRESSION STEPS ARE COMPLETED AND STABILIZED, PROGRESSION 1-4 SUPER SILT FENCE SHALL BE REMOVED WITH THE APPROVAL OF THE MCDPS INSPECTOR.
  - 8.3. PROGRESSION 5 AND 6: COMMENCE SIDE SLOPE EXCAVATION WORKING DOWNHILL. WHEN BENCH-2 IS REACHED, BEGIN BENCH-2 CONSTRUCTION AT THE LOW POINT AND WORK UPHILL. AT THE END OF EACH WORKING DAY, INSTALL SOIL STABILIZATION MATTING AND STABILIZE ALL DISTURBED AREAS. ONCE PROGRESSION STEPS ARE COMPLETED AND STABILIZED, PROGRESSION 5-6 SUPER SILT FENCE SHALL BE REMOVED WITH THE APPROVAL OF THE MCDPS INSPECTOR.
  - 8.4. COMPLETE SLOPE CONSTRUCTION FROM BENCH-2 TO TOE OF SLOPE. PROVIDE VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION PRIOR TO THE REMOVAL OF SUPER SILT FENCE AT TOE OF SLOPE.
9. CONSTRUCT PHASE S-I PORTION OF THE NORTHWEST DISCHARGE FACILITY. PROVIDE GRAVEL AT TOP END OF PIPE TO AID IN PREVENTING SEDIMENT FROM DISCHARGING OFFSITE. SEE DETAIL ON DRAWING C-509 (SC-27).
10. ROUGH GRADE ACCESS ROAD C AND SWALE 3. INSTALL TURF REINFORCEMENT MATTING IN SWALE 3. PROVIDE SAME DAY STABILIZATION OF REMAINING DISTURBED AREAS.



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



REVISIONS	DESCRIPTION	
	BY	
DESIGN INFORMATION	DATE	
	NO.	
DESIGNED BY:	KEY / 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: 8/25/2022.	
GUIDELINE 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: DECEMBER 2020		
PROJECT NUMBER: 1564601		
<b>C-703</b>		
SHEET: 113 OF 146		

FILE PATH: G:\PROJECTS\1564601 - GUIDELINE REMEDIATION DESIGN\1564601 - 1111 - ESC - PH-I (DWG) (C-703) (REV) - 12/16/2020 8:52 AM

100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 6 OF 53

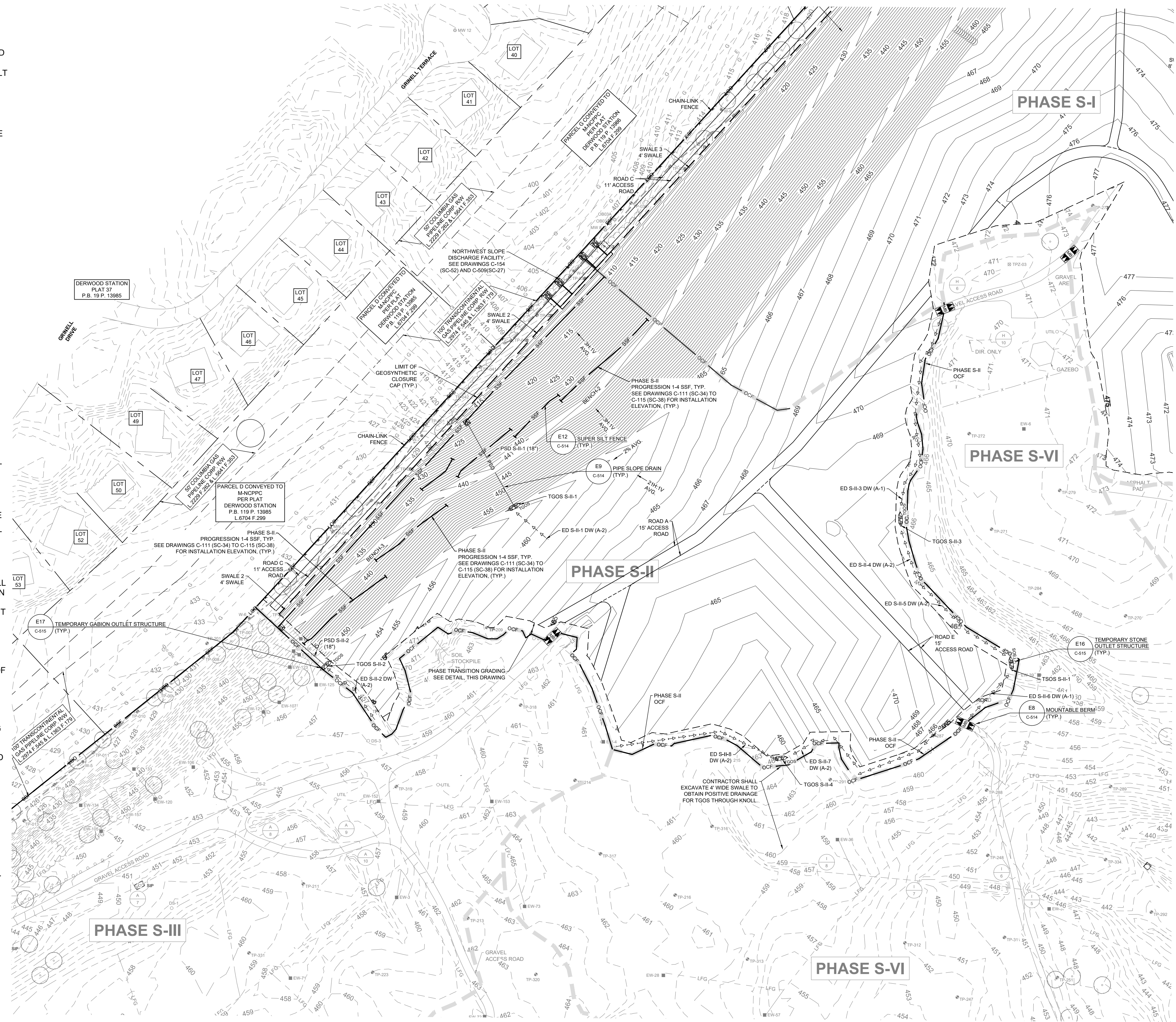
**GENERAL NOTES**

- PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
- REFER TO DRAWINGS C-110 TO C-117 (SC-33 TO SC-40) FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO DRAWING C-134 TO C-141 (SC-41 TO SC-48) FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS.
- REFER TO DRAWING C-701 (SC-4) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT CONSTRUCTION AND IMPLEMENTATION OF THE PROPOSED EROSION AND SEDIMENT CONTROL DEVICES. WITHIN PHASE TRANSITION AREAS WHERE SILT FENCE, SUPER SILT FENCE, OR FILTER LOGS ARE PROPOSED, CONTRACTOR SHALL INSTALL THESE FEATURES PERPENDICULAR TO THE DIRECTION OF FLOW.
- LINEWORK ALONG THE PHASE BOUNDARY LINES ARE OFFSET FOR CLARITY. THE CONTRACTOR SHALL INSTALL TGS AND EARTH DIKE AT THE SUMP LOCATION, EITHER INSIDE OF THE PHASE (CUT SCENARIO) OR AT THE PHASE LIMIT (ON-GRADE SCENARIO). TEMPORARY FILTER LOGS SHALL BE PLACED ALONG THE PHASE BOUNDARY IN A FILL SCENARIO. THE FEATURES SHALL NOT BE INSTALLED WITHIN THE PHASE TRANSITION GRADING.

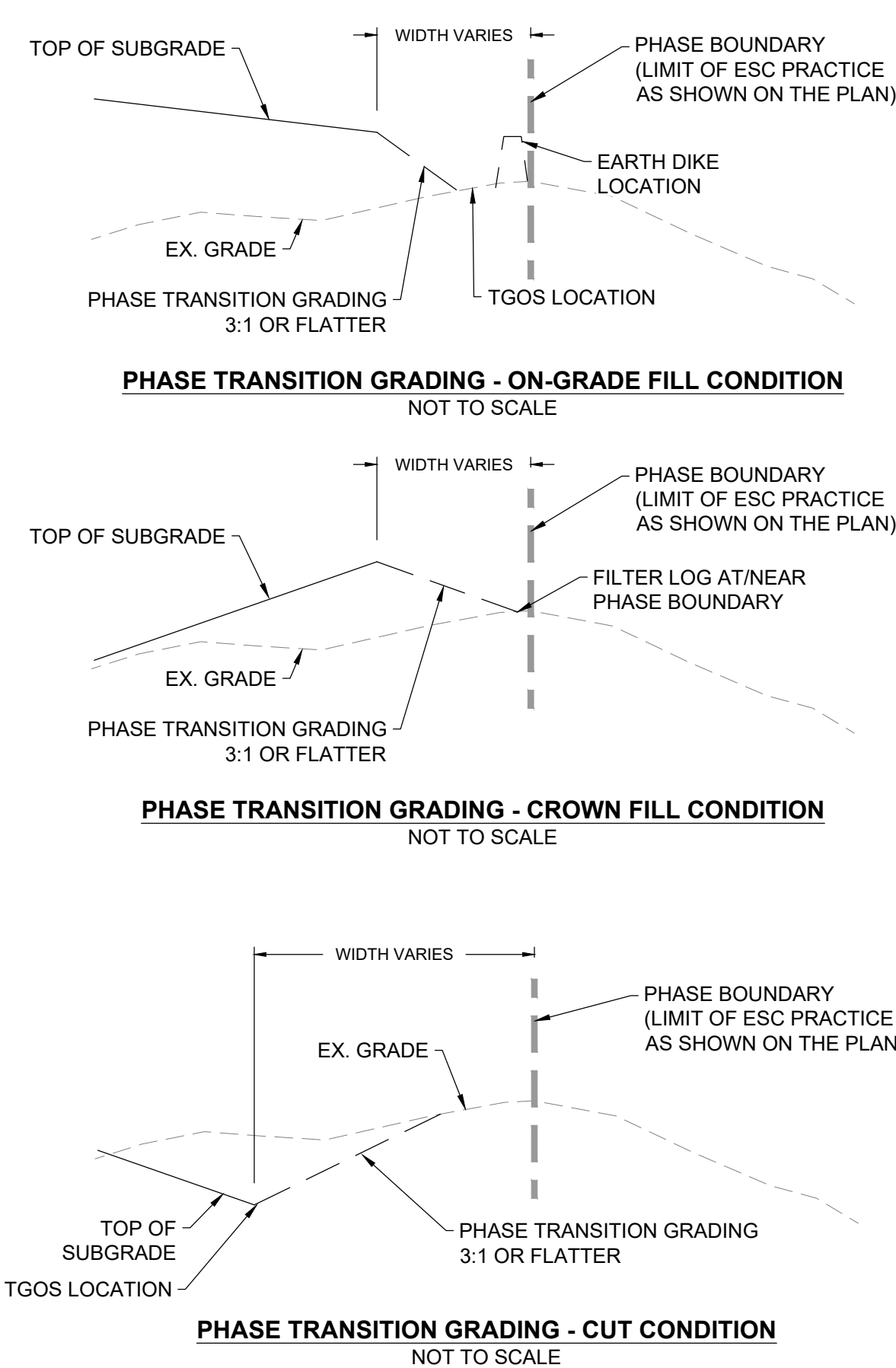
**PHASE S-II EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION**

REFER TO DRAWING C-002 (SC-2) 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.

- INSTALL ORANGE CONSTRUCTION FENCING AT PHASE BOUNDARY AND SUPER SILT FENCE ON THE NORTHWEST SLOPE FOR SLOPE EXCAVATION PROGRESSION FOR PHASE S-II AS SHOWN ON DRAWING C-506 (SC-24). REMAINDER OF CONTROLS WILL BE PHASED IN AS CONSTRUCTION PROGRESSES.
- 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.
- 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.
- PERFORM COVER SOIL EXCAVATION AND WASTE RELOCATION IN ORDER TO INSTALL TGS S-II-3 AND S-II-4, AND TSOS S-II-1 ALONG THE EASTERN PERIMETER OF THE SITE WITH THEIR RESPECTIVE EARTH DIKE DIVERSIONS.
- COMMENCE REMOVAL AND STOCKPILING OF EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 (SC-23) 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.
- PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
- WHEN PERFORMING CONSTRUCTION ACTIVITIES ON THE SIDE SLOPES, FOLLOW THE PROCEDURES AND PROGRESSION DETAIL IN THE SIDE SLOPE EXCAVATION DETAIL ON DRAWING C-506 (SC-24). ALL BENCHES SHALL BE STABILIZED USING SAME DAY STABILIZATION METHODS. SEDIMENT-LADEN WATER FROM DISTURBED SLOPES ARE NOT PERMITTED TO CONCENTRATE WITHIN BENCHES AND/OR SWALES WITHOUT FLOWING THROUGH A SEDIMENT FILTERING DEVICE FIRST. WHERE NO SEDIMENT FILTERING DEVICE IS INSTALLED, VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION IS REQUIRED.
  - PROGRESSION 1 AND 2: MAINTAIN SUPER SILT FENCE ON SLOPE. PERFORM COVER SOIL EXCAVATION AND WASTE RELOCATION AT TOP OF SLOPE. ONCE PERFORMED, CONSTRUCT TGS S-II-1 AND TGS S-II-2 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.
  - PROGRESSION 3 AND 4: COMMENCE SIDE SLOPE EXCAVATION WORKING DOWNHILL. WHEN BENCH-2 IS REACHED, BEGIN BENCH CONSTRUCTION AT THE LOW POINT AND WORK UPHILL. AT THE END OF EACH WORKING DAY, INSTALL SOIL STABILIZATION MATTING WITHIN BENCH SECTION AND STABILIZE ALL DISTURBED AREAS. CONTINUE WITH BENCH CONSTRUCTION TOWARDS THE WESTERN LIMIT OF THE PHASE. ONCE PROGRESSION STEPS ARE COMPLETED AND STABILIZED, THE PROGRESSION 1-4 SUPER SILT FENCE SHALL BE REMOVED WITH THE APPROVAL OF THE MCDPS INSPECTOR.
  - PROGRESSION 5 AND 6: COMPLETE SLOPE CONSTRUCTION FROM BENCH-2 TO TOE OF SLOPE. PROVIDE VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION PRIOR TO THE REMOVAL OF SUPER SILT FENCE AT TOE OF SLOPE.
- CONSTRUCT PHASE S-II PORTION OF THE NORTHWEST DISCHARGE FACILITY. PROVIDE GRAVEL ATOP END OF PIPE TO AID IN PREVENTION OF SEDIMENT FROM DISCHARGING OFFSITE. SEE DETAIL ON DRAWING C-509 (SC-27).
- ROUGH GRADE ROAD C AND SWALE 2. PROVIDE SOIL STABILIZATION MATTING IN SWALE 2. PROVIDE SAME DAY STABILIZATION OF REMAINING DISTURBED AREAS.



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



REVISIONS	DESCRIPTION	
	BY	
DESIGN INFORMATION	NO.	
	DATE	
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: 8/25/2022.		
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 Engineering, Science, and Technology, Inc., PBC Hunt Valley Center 225 Schilling Circle, Suite 400 Hunt Valley, Maryland 21031 (410) 584-7000		
DATE: DECEMBER 2020		
PROJECT NUMBER: 1564601		
<b>C-704</b>		
SHEET: 114 OF 146		

**GENERAL NOTES**

- PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
- REFER TO DRAWINGS C-110 TO C-117 (SC-33 TO SC-40) FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO DRAWING C-134 TO C-141 (SC-41 TO SC-48) FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS.
- REFER TO DRAWING C-701 (SC-4) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT CONSTRUCTION AND IMPLEMENTATION OF THE PROPOSED EROSION AND SEDIMENT CONTROL DEVICES. WITHIN PHASE TRANSITION AREAS WHERE SILT FENCE, SUPER SILT FENCE, OR FILTER LOGS ARE PROPOSED, CONTRACTOR SHALL INSTALL THESE FEATURES PERPENDICULAR TO THE DIRECTION OF FLOW.
- LINEWORK ALONG THE PHASE BOUNDARY LINES ARE OFFSET FOR CLARITY. THE CONTRACTOR SHALL INSTALL TGS AND EARTH DIKE AT THE SUMP LOCATION, EITHER INSIDE OF THE PHASE (CUT SCENARIO) OR AT THE PHASE LIMIT (ON-GRADE SCENARIO). TEMPORARY FILTER LOGS SHALL BE PLACED ALONG THE PHASE BOUNDARY IN A FILL SCENARIO. THE FEATURES SHALL NOT BE INSTALLED WITHIN THE PHASE TRANSITION GRADING.

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

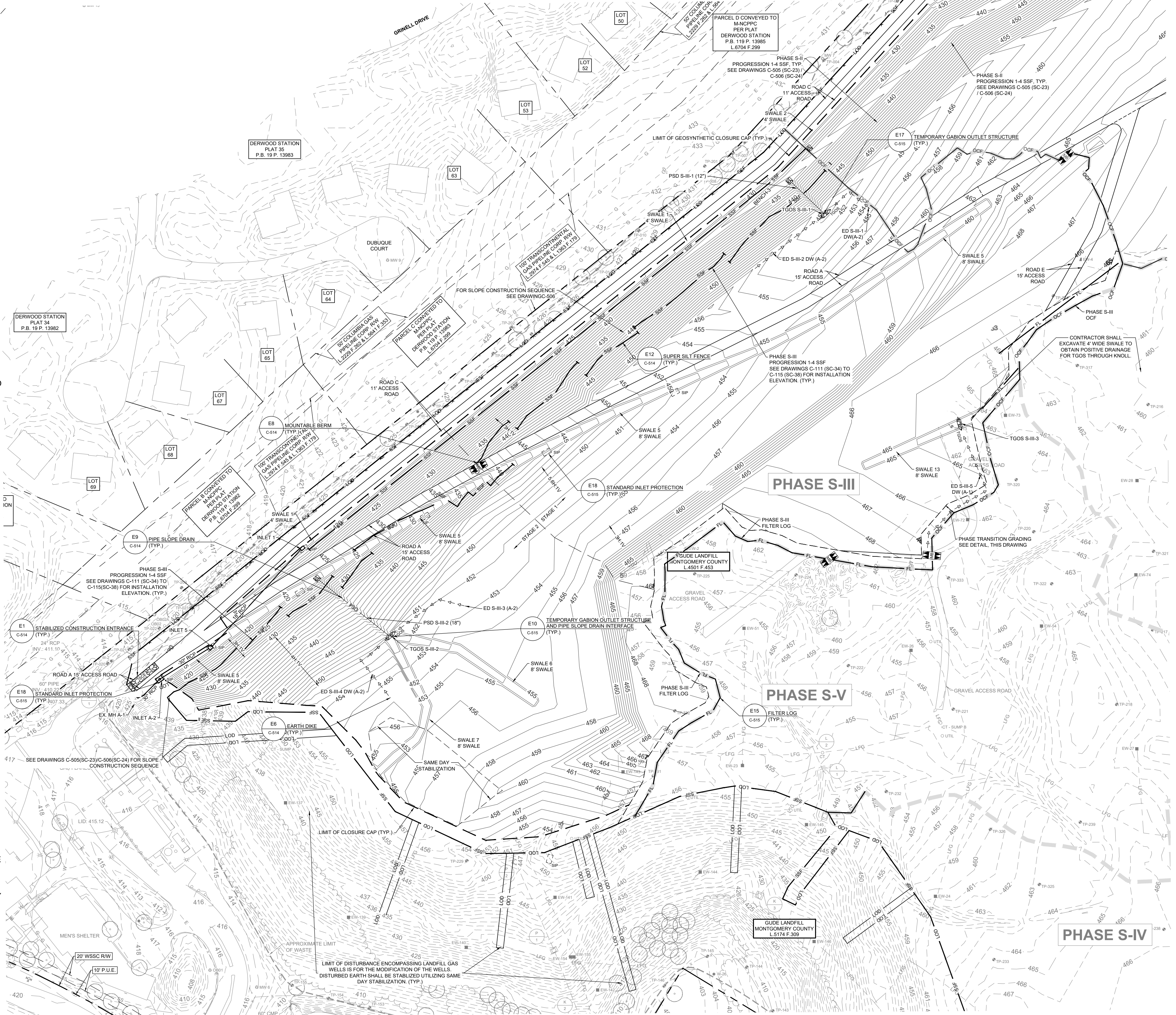
- INSTALL ORANGE CONSTRUCTION FENCING, PERIMETER SEDIMENT CONTROL DEVICES, INLET PROTECTION, AND SUPER SILT FENCE ON THE NORTHWEST SLOPE FOR THE SLOPE EXCAVATION PROGRESSIONS FOR PHASE S-III AS SHOWN ON DRAWING C-506 (SC-24). REMAINDER OF CONTROLS WILL BE PHASED IN AS CONSTRUCTION PROGRESSES.
- ONCE 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.
- 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.
- PERFORM COVER SOIL EXCAVATION AND WASTE RELOCATION IN ORDER TO INSTALL TGS S-III-3 AND ASSOCIATED EARTH DIKES.

**STAGE 1**

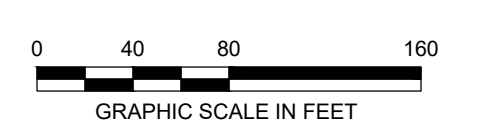
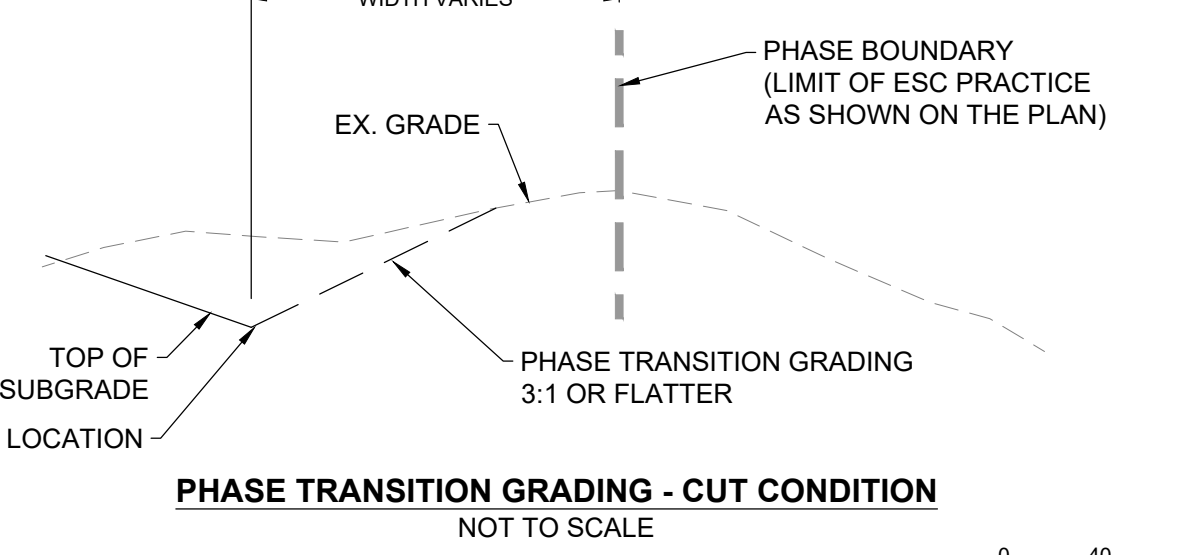
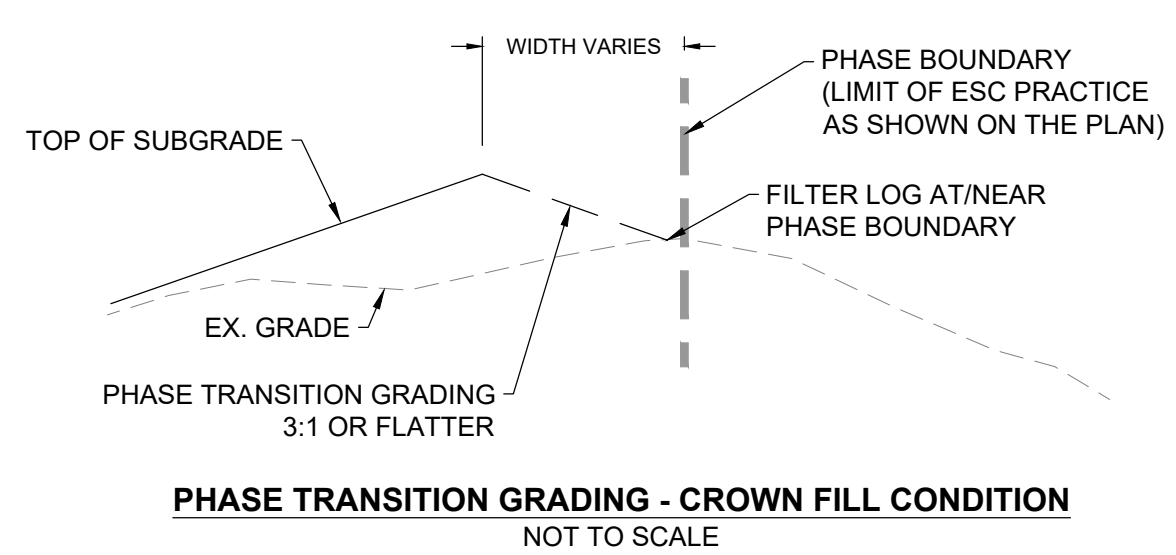
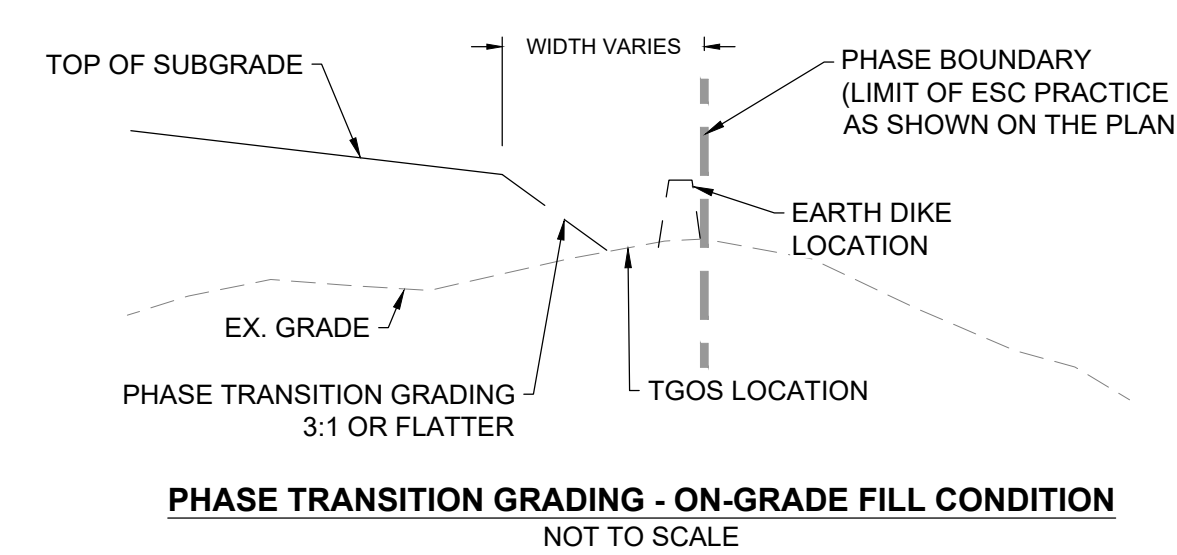
- COMMENCE PHASE S-III CONSTRUCTION FROM PHASE S-II.
- ROUGH GRADE THE EASTERN UPGRADIENT PORTION OF ROAD A AND SWALE 5 TO THE MOUNTABLE BERM AT ROAD MID-POINT. MAINTAIN SUMP CONDITIONS WITHIN SWALE 5 AS CONSTRUCTION PROGRESSES DOWNSLOPE. PERFORM PUMPING OPERATIONS TO PORTABLE TANK AS NEEDED TO DEWATER SUMP WITHIN SWALE. INSTALL TURF REINFORCEMENT MATTING.
- COMMENCE GRADING OPERATIONS ON THE NORTH SIDE OF ROAD A IN STAGE 1.
- REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 (SC-23) 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 (SC-23) AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
- LIMIT WASTE PLACEMENT TO AREAS OF STAGE 1.
- WHEN PERFORMING CONSTRUCTION ACTIVITIES ON THE SIDE SLOPES, FOLLOW THE PROCEDURES AND PROGRESSION OUTLINED IN THE SIDE SLOPE EXCAVATION DETAIL ON DRAWING C-506 (SC-24). ALL BENCHES SHALL BE STABILIZED USING SAME DAY STABILIZATION METHODS. SEDIMENT-LADEN WATER FROM DISTURBED SLOPES ARE NOT PERMITTED TO CONCENTRATE WITHIN BENCHES AND/OR SWALES WITHOUT FLOWING THROUGH A SEDIMENT FILTERING DEVICE FIRST. WHERE NO SEDIMENT FILTERING DEVICE IS INSTALLED, VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION IS REQUIRED.
- PROGRESSION 1 AND 2: MAINTAIN SUPER SILT FENCE ON SLOPE. PERFORM COVER SOIL EXCAVATION AND WASTE RELOCATION AT TOP OF SLOPE. ONCE PERFORMED, CONSTRUCTION TGS S-II-1 AND ASSOCIATED EARTH DIKES AND PIPE SLOPE DRAIN SEDIMENT CONTROL DEVICES ALONG THE TOP OF THE PHASE SHALL REMAIN IN PLACE UNTIL FINAL GRADING PHASE.
- PROGRESSION 3 AND 4: COMMENCE SIDE SLOPE EXCAVATION WORKING DOWNHILL. WHEN REACHED, REMOVE PROGRESSION 1-4 SUPER SILT FENCE WITH THE APPROVAL OF THE MCDPS INSPECTOR.
- CONTINUE SIDE SLOPE EXCAVATION. WHEN BENCH-3 IS REACHED, BEGIN BENCH CONSTRUCTION AT THE LOW POINT AND WORK UPHILL. AT THE END OF EACH WORKING DAY, INSTALL SOIL STABILIZATION MATTING WITHIN THE BENCH SECTION AND STABILIZE ALL DISTURBED AREAS.
- COMPLETE SLOPE CONSTRUCTION TO TOE OF SLOPE. PROVIDE VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION PRIOR TO THE REMOVAL OF SUPER SILT FENCE AT TOE OF SLOPE.
- ROUGH GRADE THE SECTION OF ROAD C AND SWALE 1 AND 2. INSTALL SOIL STABILIZATION MATTING IN SWALE 1 AND TURF REINFORCEMENT MATTING IN SWALE 2. PROVIDE SAME DAY STABILIZATION OF REMAINING DISTURBED AREAS.

**STAGE 2**

- ONCE STAGE 1 IS COMPLETED, COMMENCE CONSTRUCTION ON STAGE 2.
- VISUALLY INSPECT SUPER SILT FENCE ON THE NORTHWEST SLOPE AND MAINTAIN AS NEEDED. REMOVED ACCUMULATED SEDIMENT FROM TGS S-II-1 AND S-III-3.
- REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 (SC-23) 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 (SC-23) AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
- PROGRESSION 1 AND 2: MAINTAIN SUPER SILT FENCE ON SLOPE AND PERFORM COVER EXCAVATION AND PLACEMENT OF WASTE AT TOP OF SLOPE. ONCE PERFORMED, CONSTRUCT TGS S-II-2 AND ASSOCIATED EARTH DIKES AND PIPE SLOPE DRAIN.
- PROGRESSION 3 AND 4: COMMENCE SIDE SLOPE EXCAVATION WORKING DOWNHILL. PROVIDE VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION PRIOR TO THE REMOVAL OF SUPER SILT FENCE NEAR THE TOE OF SLOPE. ONCE STABILIZED, REMOVE THE DOWNGRADIENT SUPER SILT FENCE WITH THE APPROVAL OF THE MCDPS INSPECTOR.
- COMPLETE SLOPE CONSTRUCTION TO THE TOE OF SLOPE AND PROVIDE SAME DAY STABILIZATION.
- DEMOLISH AND REMOVE EXISTING STORM DRAINAGE FEATURES AND INSTALL INLETS A-2, 5, AND 1 AND ASSOCIATED PIPING. PROVIDE INLET PROTECTION.
- COMPLETE ROUGH GRADING OF ROADS A AND C, AND SWALES 1 AND 5. INSTALL SOIL STABILIZATION MATTING WITHIN SWALE 1 AND TURF REINFORCEMENT MATTING WITHIN SWALE 5. PROVIDE SAME DAY STABILIZATION OF REMAINING DISTURBED AREAS.



**PHASE S-III - 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:	M/JG
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: 8/25/2022.									

**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**PHASE S-III - 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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-705**  
 SHEET: 115 OF 146

FILE PATH: G:\PROJECTS\1564601 - GUIDE OF REMEDIATION DESIGN FOR WASTE DISPOSAL AUTHORITY - 11.15.15.EC - PHASE III AND C-701 SHEET - EROSION AND SEDIMENT CONTROL PLAN

100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 8 OF 53



**GENERAL NOTES**

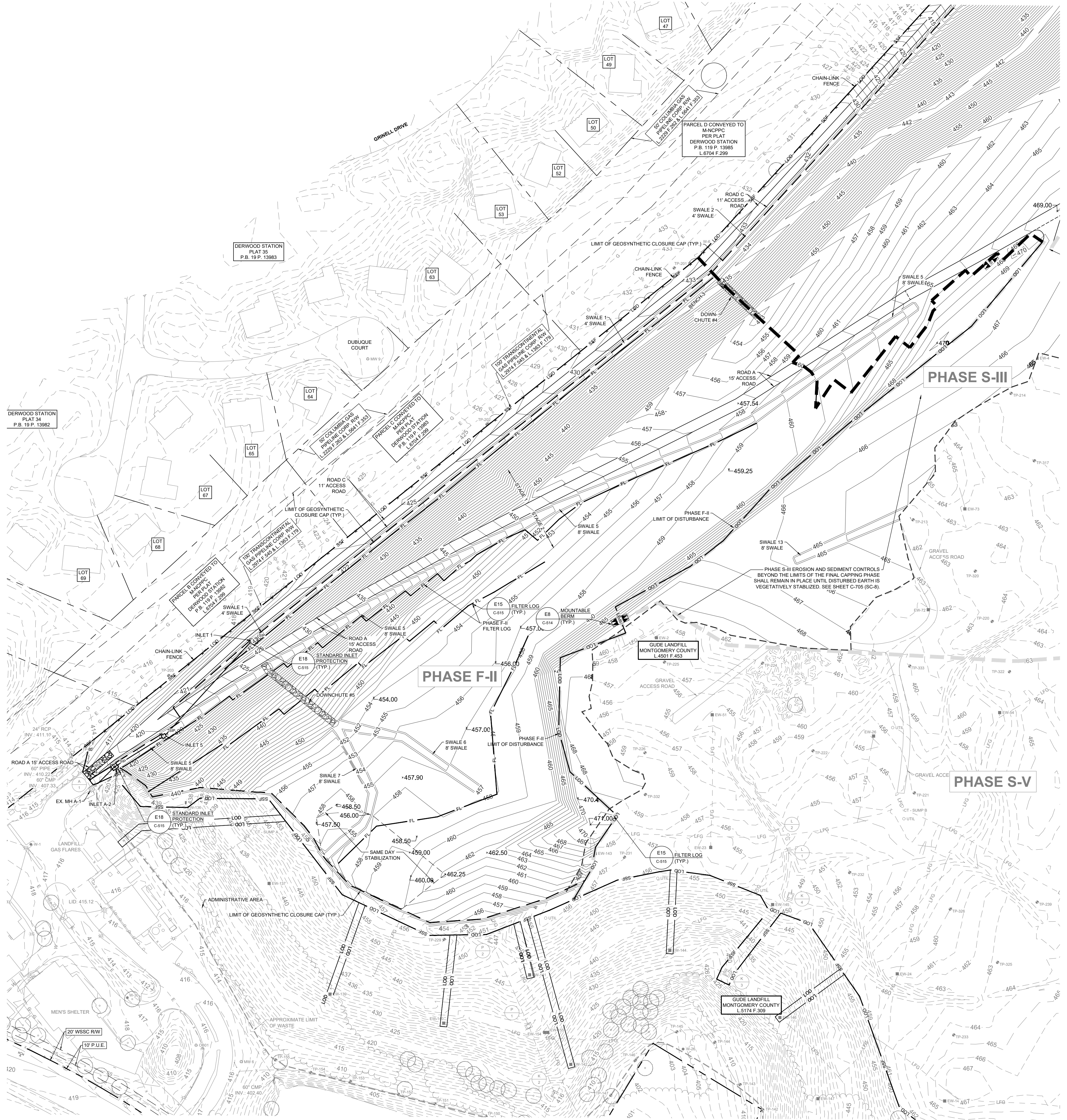
- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-2).
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
- FOR OVERALL SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-2).
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-3).
- FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 AND C-506 (SC-23 AND SC-24).
- FOR GEOSYNTHETIC CLOSURE CAP DETAILS, SEE DRAWINGS C-508.
- FOR DRAINAGE AREA MAPS, SEE DRAWINGS C-150 AND C-151 (SC-19 AND SC-20).
- FOR SEDIMENT BASIN NO. 1 DETAILS, SEE DRAWINGS C-512 AND C-513 (SC-31 AND SC-21).
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514, C-515, AND C-516 (SC-28, SC-29, AND SC-30).
- THE PHASED EROSION AND SEDIMENT CONTROLS SHOWN IN DRAWINGS C-706, C-707, AND C-712 TO C-715 (SC-38, SC-39, AND SC-44 TO SC-47) FINAL GRADING PLAN.
- REFER TO SHEET C-702 (SC-5) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.

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

PHASE F-II IS SEQUENCED AS A TWO STAGE PROGRESSION OF CONSTRUCTION TO DELINEATE BETWEEN EROSION CONTROL METHODOLOGIES WITHIN THE FULL PHASE. STAGE 1 OCCURS TO THE NORTH OF ROAD A AND CONSISTS PRIMARILY OF NORTHWEST SLOPE CONSTRUCTION. STAGE 2 OCCURS TO THE SOUTH OF ROAD A AND CONSISTS OF BOTH SLOPE CONSTRUCTION AND MULTIPLE SWALES THAT REQUIRE SAME DAY STABILIZATION.

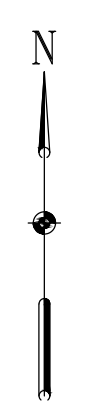
- PERFORM A VISUAL CHECK OF ALL EXISTING EROSION AND SEDIMENT CONTROL CONTROLS AND PERFORM MAINTENANCE AS NEEDED TO REPLACE SECTIONS OF SILT FENCE THAT ARE IN DISREPAIR.
  - CLEAR VEGETATION TO THE LIMIT OF PHASE F-II. SOIL STABILIZATION MATTING AND/OR TURF REINFORCEMENT MATTING THAT WAS INSTALLED DURING SUBGRADE PHASES SHALL BE REMOVED AND DISPOSED OFFSITE.
  - FINAL GRADE ACCESS ROAD C AND SWALE 1. INSTALL SOIL STABILIZATION MATTING WITHIN THE SWALE.
- STAGE 1**
- INSTALL GEOSYNTHETIC CLOSURE CAP FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
  - PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL STARTING AT THE TOE OF SLOPE TOWARDS BENCH-3 AND ROAD A. PERFORM PERMANENT VEGETATIVE STABILIZATION ON ALL DISTURBED AREAS.
  - IN AREAS OF CONCENTRATED FLOW ON SLOPE, AT PERIMETER, AND AT THE NORTHWEST SLOPE DISCHARGE FACILITY, CONTRACTOR SHALL BE PREPARED TO PERFORM SANDBAG, PUMP, AND FILTER BAG OPERATIONS IN THE EVENT OF RAIN. SEDIMENT-LADEN WATER IS NOT PERMITTED TO EXIT THE SITE.
  - CONSTRUCT BENCH-3 STARTING AT THE LOW POINT AND WORK UPHILL TO TIE IN POINT OF PHASE F-I. AT THE END OF EACH WORKING DAY, INSTALL SOIL STABILIZATION MATTING WITHIN THE BENCH SECTION AND STABILIZE SURROUNDING DISTURBED AREAS. INSTALL FILTER LOG AT EDGE OF BENCH PRIOR TO CONTINUING THE INSTALLATION OF VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL.
  - CONTINUE PLACEMENT OF VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL TO THE TOP OF SLOPE INSTALLING DOWNCHUTE 4 AS CONSTRUCTION PROGRESSES.
  - ONCE THE TOP OF SLOPE IS REACHED, CONSTRUCT BENCH FROM LOW POINT AND WORK UPHILL. AT THE END OF EACH WORKING DAY, INSTALL SOIL STABILIZATION MATTING WITHIN THE BENCH SECTION AND STABILIZE SURROUND DISTURBED AREAS.
  - CONTINUE PLACEMENT OF VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL TO THE LIMIT OF STAGE 1 AT ROAD A. PROVIDE SAME DAY STABILIZATION WITHIN THE AREA BETWEEN THE BENCH AND ROAD A.
  - PROVIDE PERMANENT STABILIZATION AS FINAL GRADE IS ACHIEVED OR IN AREAS OF EROSION.
  - ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE MCDPS INSPECTOR, REMOVE INTERNAL STAGE 1 PHASE CONTROLS.

- STAGE 2**
- INSTALL GEOSYNTHETIC CLOSURE CAP FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
  - INSTALL ROAD A AND SWALE 5. INSTALL TURF REINFORCEMENT MATTING WITHIN SWALE 5. INSTALL FILTER LOG AT EDGE OF SWALE PRIOR TO CONTINUING THE INSTALLATION OF VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL UPSLOPE.
  - CONTINUE PLACEMENT OF VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL UPSLOPE.
  - CONTINUE PLACEMENT OF VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL INSTALLING FILTER LOGS AT DEFINED LOCATION ALONG SLOPE AND DOWNCHUTE #5 AS CONSTRUCTION PROGRESSES.
  - WHEN SWALE 7 IS REACHED, BEGIN CONSTRUCTION OF THE SWALE AT THE LOW POINT AND WORK UPHILL. AT THE END OF EACH WORKING DAY, INSTALL SOIL STABILIZATION MATTING WITHIN THE SECTION OF SWALE 7 AND ALL DISTURBED AREAS WITHIN THE DRAINAGE AREA OF SWALE 7. SEDIMENT-LADEN WATER FROM DISTURBED SLOPES ARE NOT PERMITTED TO CONCENTRATE WITHIN BENCHES AND/OR SWALES WITHOUT FLOWING THROUGH A SEDIMENT FILTERING DEVICE FIRST. WHERE NO SEDIMENT FILTERING DEVICE IS INSTALLED, VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION IS REQUIRED TO PREVENT THE CONCENTRATION OF SEDIMENT LADEN WATER.
  - PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL STARTING AT THE TOE OF SLOPE TO TOP OF SLOPE PERFORM PERMANENT VEGETATIVE STABILIZATION ON ALL DISTURBED AREAS.
  - CONTINUE PLACEMENT OF VEGETATIVE SUPPORT SOIL AND TOPSOIL TO THE LIMITS OF THE PHASE. PROVIDE PERMANENT STABILIZATION AS FINAL GRADE IS ACHIEVED OR IN AREAS OF EROSION.
  - ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE MCPDS INSPECTOR, REMOVE INTERNAL STAGE 2 PHASE CONTROLS.



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

SCALE: 1" = 80'



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: 8/25/2022

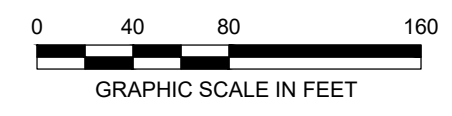
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**PHASE F-II - EROSION AND SEDIMENT CONTROL PLAN**

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

DATE: DECEMBER 2020

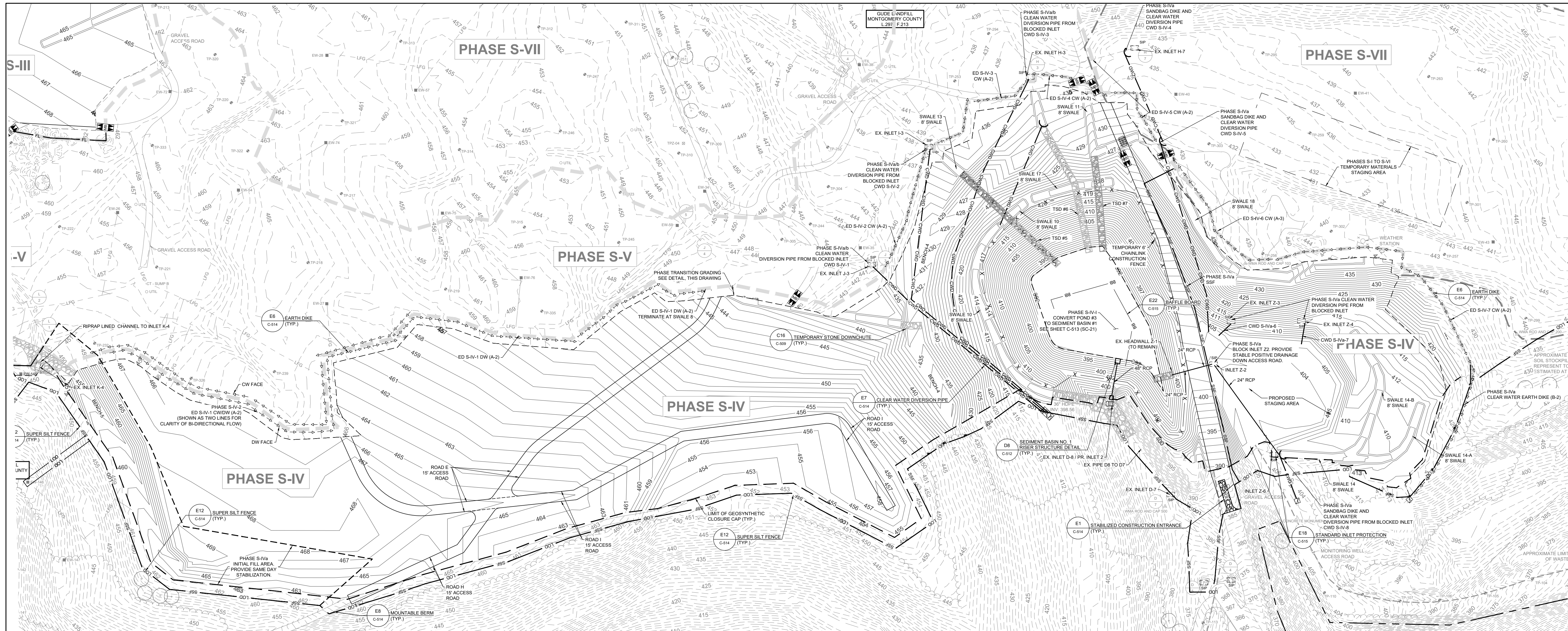
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**C-707**  
SHEET: 117 OF 146



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100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 10 OF 53



**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 (SC-33 TO SC-40) FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO SHEET C-134 TO C-141 (SC-41 TO SC-48) FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS.
- REFER TO SHEET C-701 (SC-4) FOR TGOs, TSOs, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT CONSTRUCTION AND IMPLEMENTATION OF THE PROPOSED EROSION AND SEDIMENT CONTROL DEVICES. WITHIN PHASE TRANSITION AREAS WHERE SILT FENCE, SUPER SILT FENCE, OR FILTER LOGS ARE PROPOSED, CONTRACTOR SHALL INSTALL THESE FEATURES PERPENDICULAR TO THE DIRECTION OF FLOW.
- LINEWORK ALONG THE PHASE BOUNDARY LINES ARE OFFSET FOR CLARITY. THE CONTRACTOR SHALL INSTALL TGOs AND EARTH DIKE AT THE SUMP LOCATION, EITHER INSIDE OF THE PHASE (CUT SCENARIO) OR AT THE PHASE LIMIT (ON-GRADE SCENARIO). TEMPORARY FILTER LOGS SHALL BE PLACED ALONG THE PHASE BOUNDARY IN A FILL SCENARIO. THE FEATURES SHALL NOT BE INSTALLED WITHIN THE PHASE TRANSITION GRADING.

**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 NO. 1, AND STAGE 2 (CONTROLS NOTED AS S-IV-2) FOR PERFORMING THE REMAINING WASTE RELOCATION AND SUBGRADE GRADING.

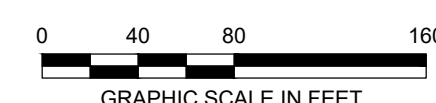
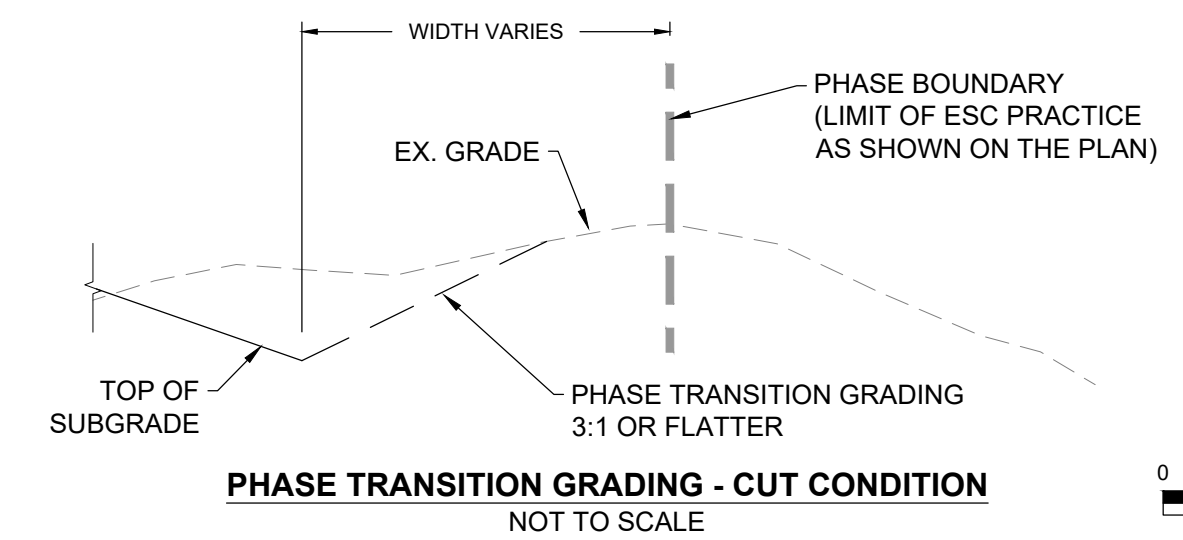
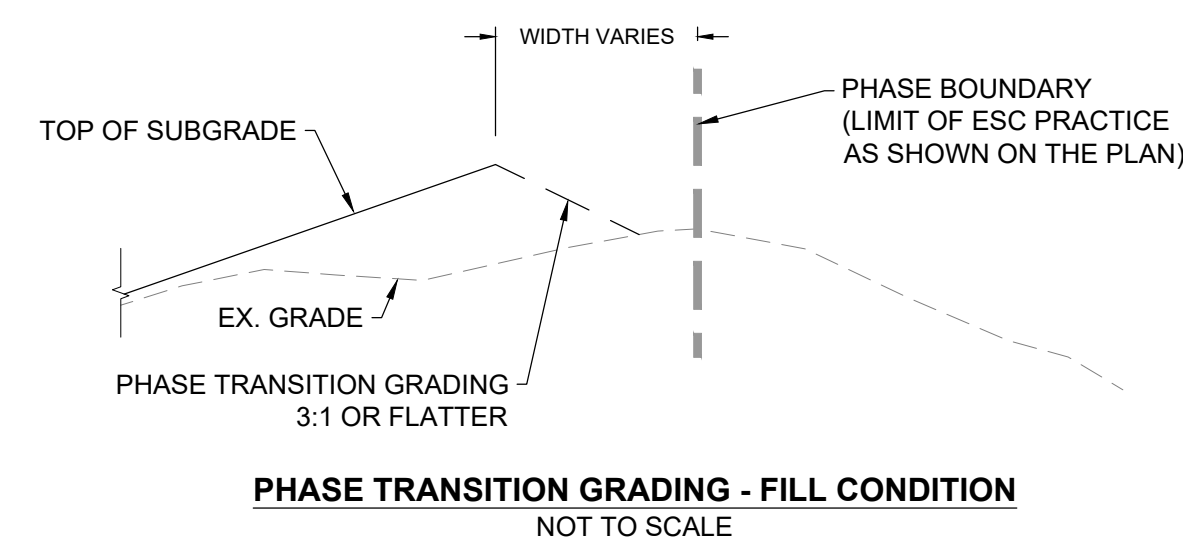
**STAGE 1 (S-IV-1) - CONVERSION OF POND 3 TO SEDIMENT BASIN NO. 1 TO ELEVATION 405.**

- REMOVE FLOW DIRECTED TO EXISTING POND 3 THAT WILL BE CONVERTED TO SEDIMENT BASIN NO. 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.
- CONTRACTOR SHALL MONITOR POND 3 DURING THE FIRST STORM EVENT WITH VISIBLE RUNOFF FOLLOWING MOBILIZATION TO THE FIELD TO VERIFY ADEQUATE FLOW BLOCKAGE AND DIVERSION TO PERMIT THE CONVERSION OF POND 3 TO SEDIMENT BASIN NO. 1.
- WITH THE APPROVAL OF THE MCDPS INSPECTOR, BEGIN CONVERSION OF POND 3 TO SEDIMENT BASIN NO. 1.
  - SETUP EMERGENCY BYPASS PUMPING FOR POND 3.
  - EXCAVATE AND REMOVE POND 3 OUTLET PIPE AND EXISTING STRUCTURE D-8. BLOCK PIPE D8 TO D7 WITH PLYWOOD SHEETING AND SANDBAGS.
  - INSTALL INLET I2 AND PERFORM TIE IN TO PIPE D8 TO D7.
  - STARTING ALONG THE SOUTHERN SECTION, PERFORM ROUGH GRADING OF FACILITY TO ESTABLISH EMBANKMENT AND OUTFALL OF FACILITY.
  - REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 (SC-23).
  - PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 (SC-23). PROVIDE LOW PERMEABLE SOIL WITHIN THE BOTTOM FOOTPRINT OF SEDIMENT BASIN NO. 1 PER DETAIL C3 ON SHEET C-508.
  - PLACE EXCAVATED MATERIAL WITHIN POND 3 FILL AREA. PROVIDE SAME DAY STABILIZATION FOR DISTURBED LAND WITHIN THIS AREA.
  - ONCE POND 3 FILL AREA IS COMPLETE, PLACE EXCAVATED MATERIAL WITHIN INITIAL FILL AREA ALONG THE WESTERN LIMIT OF THE PHASE CONTINUING TOWARDS THE EAST AFTER FILL AREA IS COMPLETED. PROVIDE SAME DAY STABILIZATION OF INITIAL FILL AREA. CONCURRENTLY, INSTALL RIPRAP LINED CHANNEL DIRECTING RUNOFF TO EXISTING INLET K-4.
  - BEGIN BENCH 5 CONSTRUCTION AT THE LOW POINT AND WORK UPHILL. AT THE END OF EACH WORKING DAY, INSTALL SOIL STABILIZATION MATTING AND PROVIDE SAME DAY STABILIZATION OF DISTURBED AREAS. SEDIMENT-LADEN WATER FROM DISTURBED SLOPES ARE NOT PERMITTED TO CONCENTRATE WITHIN BENCHES AND/OR SWALES WITHOUT FLOWING THROUGH A SEDIMENT FILTERING DEVICE PRIOR TO DISCHARGE. WHERE NO SEDIMENT FILTERING DEVICE IS INSTALLED, VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION IS REQUIRED.
  - DEMOLISH AND REMOVE EXISTING STORM PIPING AS ENCOUNTERED AND AS SHOWN ON THE PLANS.

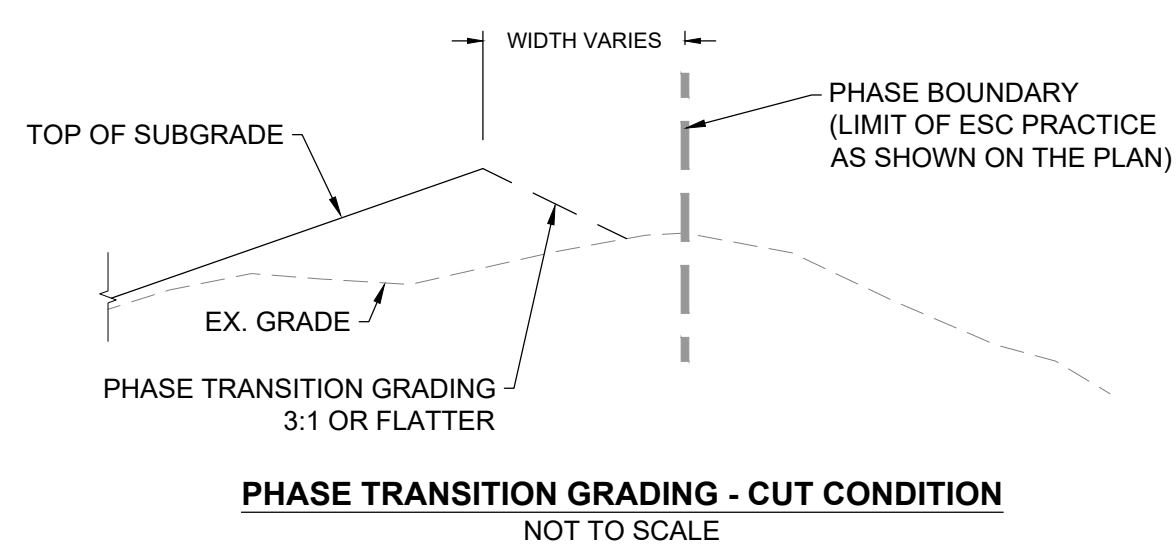
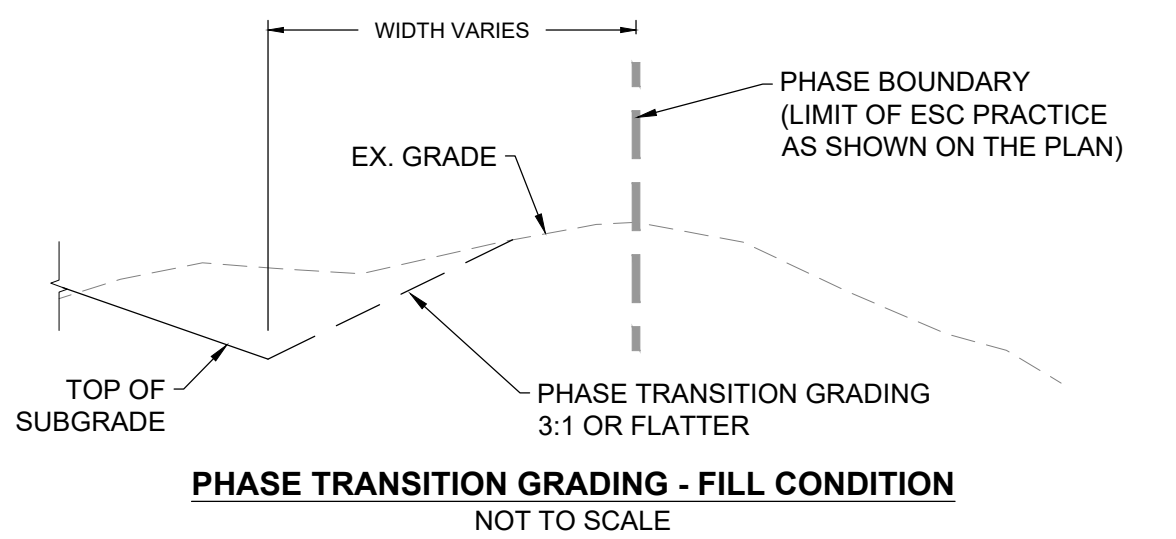
- BEGIN INSTALLATION OF CLAY LINER FACE OF SEDIMENT BASIN NO. 1.
- INSTALL PIPE BARREL, RIPRAP OUTLET PROTECTION, ANTI-SEEP COLLAR, RISER STRUCTURE, AND DRAW DOWN DEVICE.
- INSTALL THE REMAINDER OF THE EMBANKMENT AND CLAY LINER.
- PERFORM ROUGH GRADING AND REMOVAL OF EXISTING STORM DRAINAGE PIPING FOR THE REMAINDER OF THE NORTHERN SECTION OF THE BASIN INSTALLING TEMPORARY STONE DOWNCHUTES 5, 6, AND 7 AS CONSTRUCTION PROGRESSES.
- INSTALL SWALE 10 AND 17 STARTING AT THE LOW POINT AND WORK UPHILL. PROVIDE TURF REINFORCEMENT MATTING. PERFORM SAME DAY STABILIZATION OF SWALE 10 AND ITS DRAINAGE AREA.
- INSTALL BAFFLE BOARD AND TEMPORARY CHAINLINK FENCE.
- VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION MUST BE ACHIEVED AND SEDIMENT BASIN NO. 1 OPERATIONAL BEFORE STAGE 1 IS CONSIDERED COMPLETE. ONCE THE VEGETATION OR MATTED STABILIZATION 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**

- MAINTAIN CLEAR WATER DIVERSIONS FOR OUT-OF-PHASE RUNOFF.
- REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 31 05 15 (NOT SHOWN IN PLANS). LIMITED TO AREAS WEST OF INCINERATOR LANE.
- PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 02 61 13 (NOT SHOWN ON THESE PLANS). LIMITED TO THE AREAS WEST OF INCINERATOR LANE.
- AS CONSTRUCTION PROGRESSES, INSTALL SWALES 8, 11, 13, AND 16 AND BENCH 4. INSTALL TURF REINFORCEMENT MATTING IN BENCH 4 AND SWALES 8, 13, AND 16. INSTALL SOIL STABILIZATION MATTING IN SWALE 11.
- WITH THE APPROVAL OF THE MCDPS INSPECTOR, CLEAR WATER DIVERSION PIPING MAY BE REDIRECTED TO SWALE 10. ONLY CLEAR WATER SHALL BE DIRECTED TO SWALE 10.
- INSTALL INLET Z-2 AND Z-8 AND ASSOCIATED PIPING INTO SEDIMENT BASIN NO. 1. PROVIDE INLET PROTECTION AND ROCK OUTLET PROTECTION.
- 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 DIRECT DISCHARGE FROM DISTURBED AREAS INTO SEDIMENT BASIN NO. 1.
- DEMOLISH EXISTING INLET STRUCTURES WITHIN PORTION OF PHASE IV ADJACENT TO THE STAGING AREA.
- COMPLETE PHASE S-IV AND PROVIDE STABILIZATION.



DESIGN INFORMATION	DESIGNED BY:	KEY / SMB	DESCRIPTION
	DRAWN BY:	SMB	BY:
SEAL	CHECKED BY:	LJO / GAT	DATE:
	PROJECT MANAGER:	MJM	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: 8/25/2022.			
<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> SC/SWM SHEET 11 OF 53	
<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: DECEMBER 2020 PROJECT NUMBER: 1564601 <b>C-708</b> SHEET: 118 OF 146	



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

**GENERAL NOTES**

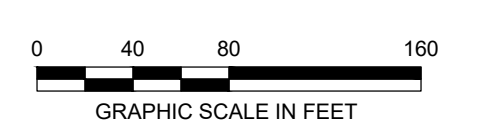
- PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
- REFER TO SHEETS C-110 TO C-117 (SC-33 TO SC-40) FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
- REFER TO SHEET C-134 TO C-141 (SC-41 TO SC-48) FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS.
- REFER TO SHEET C-701 (SC-4) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT CONSTRUCTION AND IMPLEMENTATION OF THE PROPOSED EROSION AND SEDIMENT CONTROL DEVICES. WITHIN PHASE TRANSITION AREAS WHERE SILT FENCE, SUPER SILT FENCE, OR FILTER LOGS ARE PROPOSED, CONTRACTOR SHALL INSTALL THESE FEATURES PERPENDICULAR TO THE DIRECTION OF FLOW.
- LINEWORK ALONG THE PHASE BOUNDARY LINES ARE OFFSET FOR CLARITY. THE CONTRACTOR SHALL INSTALL TGSOS AND EARTH DIKE AT THE SUMP LOCATION, EITHER INSIDE OF THE PHASE (CUT SCENARIO) OR AT THE PHASE LIMIT (ON-GRADE SCENARIO). TEMPORARY FILTER LOGS SHALL BE PLACED ALONG THE PHASE BOUNDARY IN A FILL SCENARIO. THE FEATURES SHALL NOT BE INSTALLED WITHIN THE PHASE TRANSITION GRADING.

**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: SWALE 13 AND AREAS LYING EAST AND NORTH, AND STAGE 2: AREAS LYING WEST OF SWALE 13
- STAGE 1**
- INSTALL PHASE PERIMETER CONTROLS: MOUNTABLE BERMS, INLET PROTECTION, CLEAR WATER DIVERSIONS, AND EARTH DIKES
  - 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.
  - REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS) FOR SECTION EAST OF SWALE 13.
  - INSTALL SWALES 12 AND 13 FROM PHASE S-IV LIMIT TO PHASE S-V LIMIT. PROVIDE TEMPORARY CULVERT ACCESS FOR TRAVERSING ACROSS SWALES. PROVIDE SOIL STABILIZATION MATTING IN SWALE 10 AND TURF REINFORCEMENT MATTING IN SWALE 13.
  - CONTINUE TOWARDS THE NORTH/EAST 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 (SC-23) AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).

- STAGE 2**
- INSTALL SWALE 16 FROM PHASE S-IV LIMIT TO PHASE S-VI LIMIT. PROVIDE TURF REINFORCEMENT MATTING IN SWALE 16.
  - CONTINUE WITH COVER SOIL 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.
  - ONCE RECEIVING DRAINAGE AREAS FOR SWALES 12 AND 16 ARE STABILIZED, INSTALL CLEAR WATER DIVERSION PIPE FROM SWALE 16 TO SWALE 10.
  - INSTALL PHASE PERIMETER CONTROLS: MOUNTABLE BERMS, SUMP PIT AND FILTER BAGS, AND EARTH DIKES.
  - 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.
  - 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.
  - PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).

- PLACE WASTE MATERIAL WITHIN THE INITIAL FILL AREA LOCATED ALONG THE WESTERN LIMIT OF THE PHASE. PROVIDE SAME DAY STABILIZATION OF DISTURBED LAND WITHIN THIS AREA. CONCURRENTLY, INSTALL RIPRAP LINED CHANNEL DIRECTING RUNOFF TO EXISTING INLET K-4. ALL BENCHES SHALL BE STABILIZED USING SAME DAY STABILIZATION METHODS. SEDIMENT-LADEN WATER FROM DISTURBED SLOPES ARE NOT PERMITTED TO CONCENTRATE WITHIN BENCHES AND/OR SWALES WITHOUT FLOWING THROUGH A SEDIMENT FILTERING DEVICE FIRST. WHERE NO SEDIMENT FILTERING DEVICE IS INSTALLED, VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION IS REQUIRED.
- ONCE SUBGRADE IS ESTABLISHED AND STABILIZED BETWEEN SWALE 13 AND THE CLEAR WATER DIVERSION PIPE (APPROXIMATE ELEVATION 440), INSTALL THE CLEAR WATER DIVERSION PIPE.
- CONTINUE WITH COVER SOIL REMOVAL AND WASTE EXCAVATION TO THE WESTERN LIMITS OF THE PHASING INCLUDING THE INSTALLATION OF SWALE 8. PROVIDE TURF REINFORCEMENT MATTING IN SWALE 8.
- COMPLETE PHASE S-V AND PROVIDE STABILIZATION.



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: 8/25/2022

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

PHASE S-V - 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: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**C-709**  
SHEET: 119 OF 146

FILE PATH: G:\PROJECTS\1564601 - GUIDE OF REMEDIATION DESIGN\CONSTRUCTION SET\1564601 - 11 - ESC - PHASE S-V (SC-20) BURETT - STERNAI.DWG 2/10/2020 8:59 AM

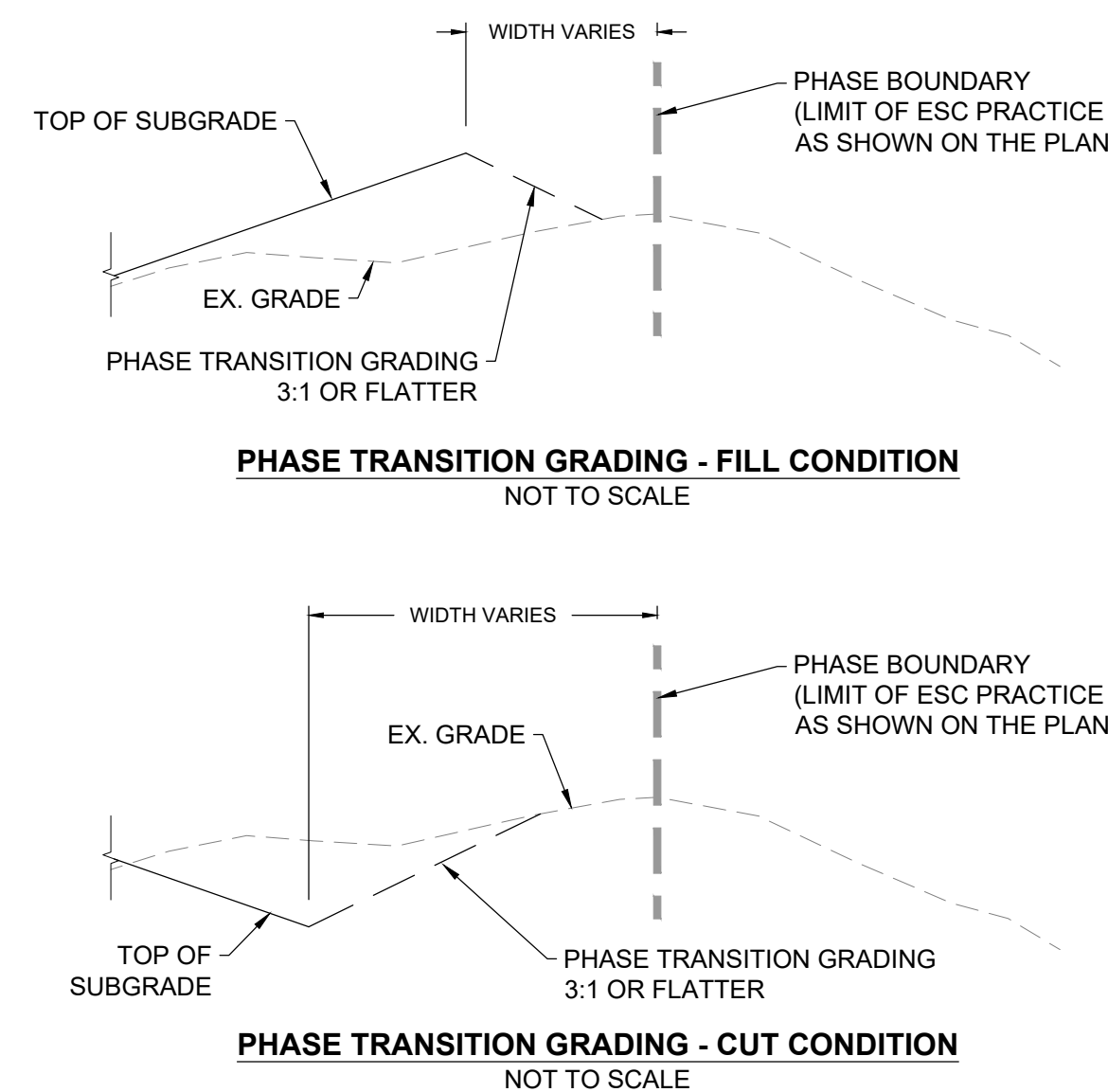
100% DESIGN PLANS - NOT FOR CONSTRUCTION

**GENERAL NOTES**

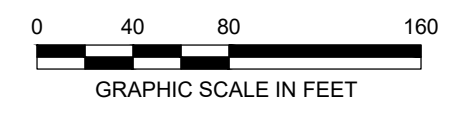
1. PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
2. REFER TO SHEETS C-110 TO C-117 (SC-33 TO SC-40) FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
3. REFER TO SHEET C-134 TO C-141 (SC-41 TO SC-48) FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS.
4. REFER TO SHEET C-701 (SC-4) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT CONSTRUCTION AND IMPLEMENTATION OF THE PROPOSED EROSION AND SEDIMENT CONTROL DEVICES. WITHIN PHASE TRANSITION AREAS WHERE SILT FENCE, SUPER SILT FENCE, OR FILTER LOGS ARE PROPOSED, CONTRACTOR SHALL INSTALL THESE FEATURES PERPENDICULAR TO THE DIRECTION OF FLOW.
6. LINEWORK ALONG THE PHASE BOUNDARY LINES ARE OFFSET FOR CLARITY. THE CONTRACTOR SHALL INSTALL TGS AND EARTH DIKE AT THE SUMP LOCATION, EITHER INSIDE OF THE PHASE (CUT SCENARIO) OR AT THE PHASE LIMIT (ON-GRADE SCENARIO). TEMPORARY FILTER LOGS SHALL BE PLACED ALONG THE PHASE BOUNDARY IN A FILL SCENARIO. THE FEATURES SHALL NOT BE INSTALLED WITHIN THE PHASE TRANSITION GRADING.

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

1. INSTALL PHASE PERIMETER CONTROLS: INLET PROTECTION, EARTH DIKES, CLEAR WATER DIVERSION PIPES.
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. COMMENCE GRADING OPERATIONS STARTING FROM DOWNGRADIENT AREAS AND PROCEEDING UPGRADIENT.
4. REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS).
5. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
6. INSTALL SWALES 12, 13, AND 16 AS GRADING PROGRESSES. PROVIDE SOIL STABILIZATION MATTING IN SWALE 12 AND TURF REINFORCEMENT MATTING IN SWALES 13 AND 16.
7. INSTALL CLEAR WATER DIVERSION PIPES FROM PHASE S-II TO SWALE 16 ONCE GRADING HAS PROGRESSED ADJACENT TO ITS EXISTING DISCHARGE POINT.
8. INSTALL CLEAR WATER DIVERSION PIPE FROM PHASE S-II TO SWALE 13 ONCE GRADING HAS PROGRESSED ADJACENT TO ITS EXISTING DISCHARGE POINT.
9. COMPLETE PHASE S-VI AND PROVIDE STABILIZATION.



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



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION	
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: 8/25/2022

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

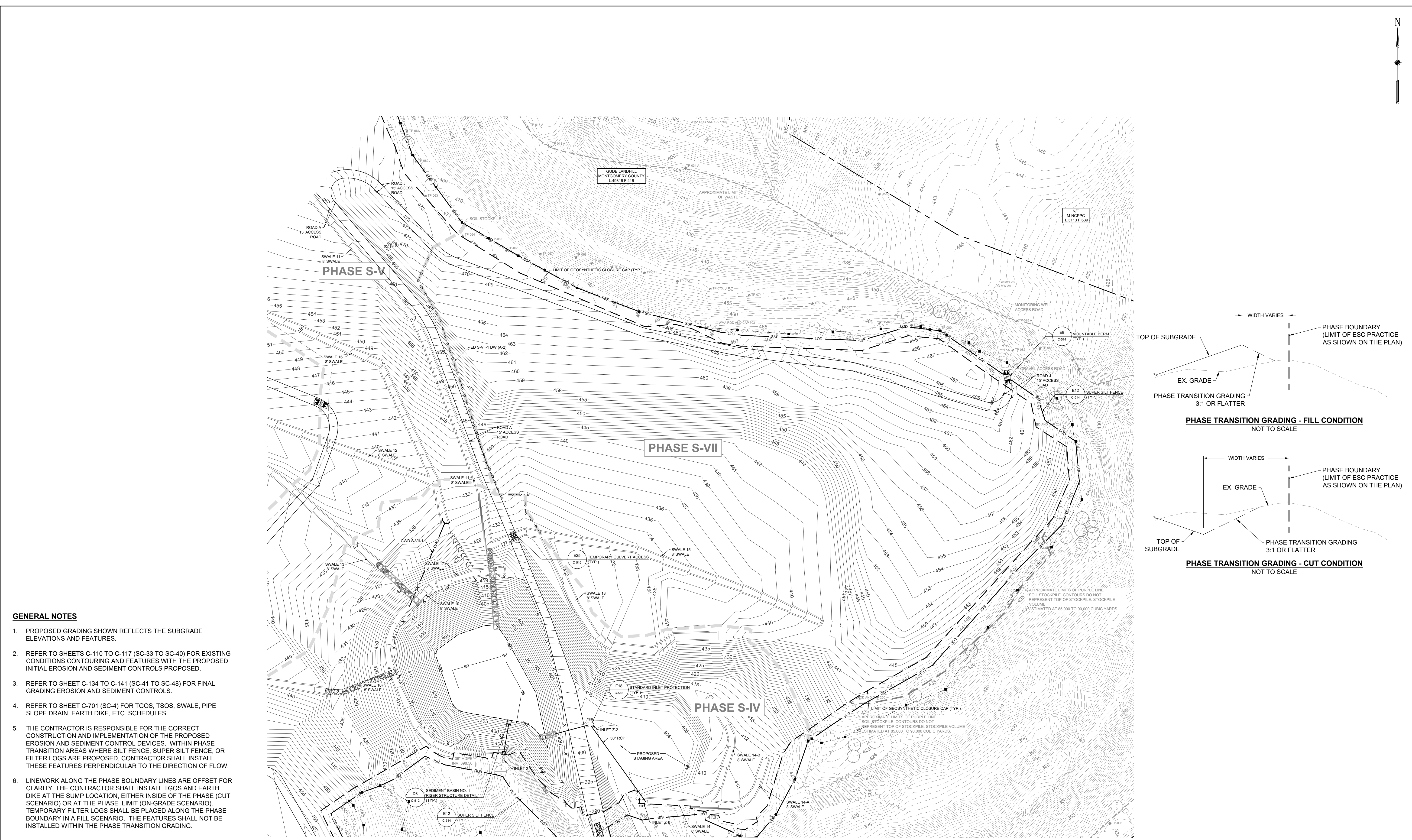
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**C-710**  
 SHEET: 120 OF 146

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100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 13 OF 53



FILE PATH: G:\PROJECTS\164601 - GUIDE OF REMEDIATION DESIGN\DESIGN\SC-711\EROSION AND SEDIMENT CONTROL\SC-711-EROSION AND SEDIMENT CONTROL PLAN.dwg

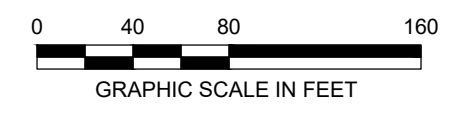
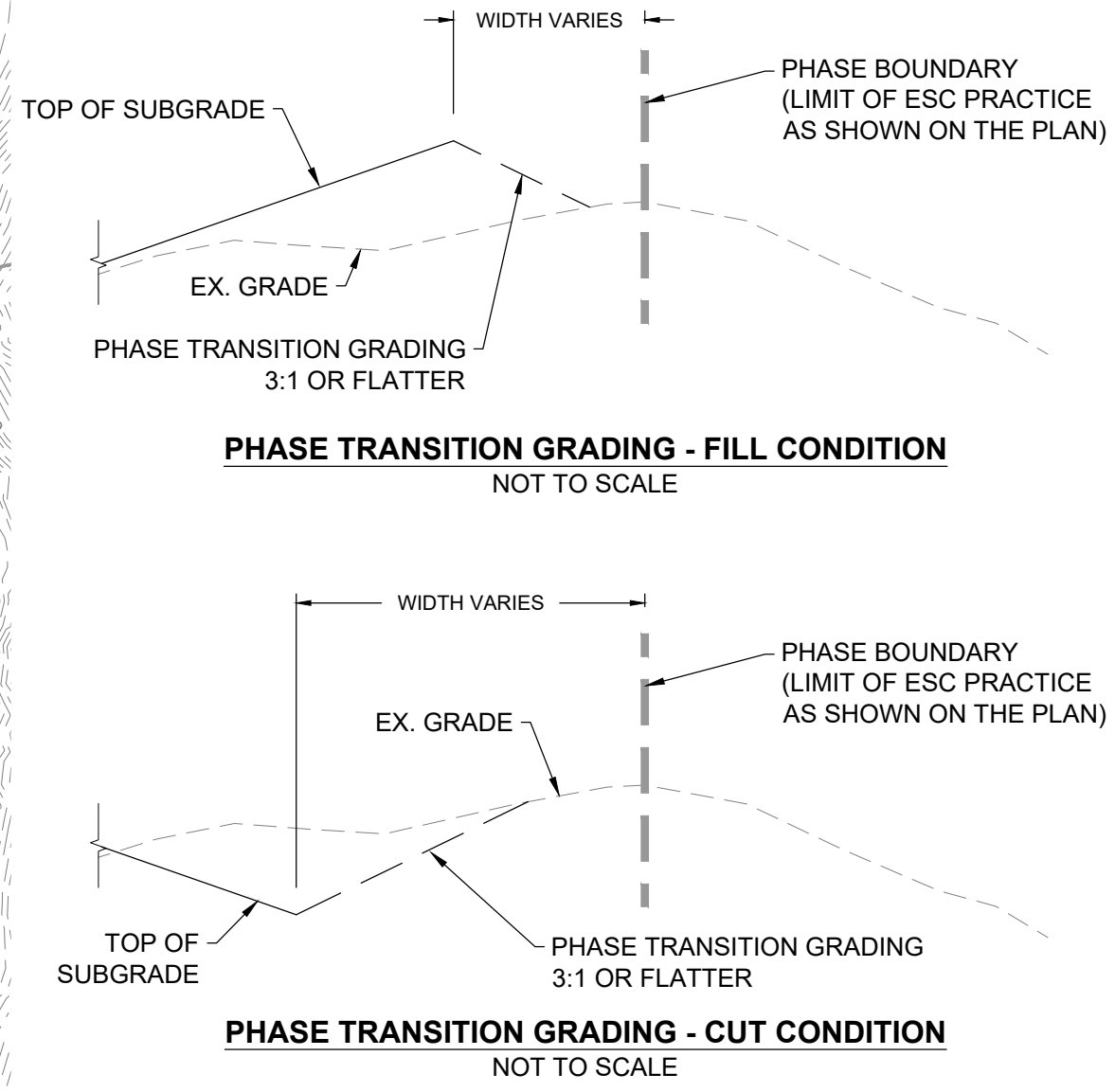


- GENERAL NOTES**
1. PROPOSED GRADING SHOWN REFLECTS THE SUBGRADE ELEVATIONS AND FEATURES.
  2. REFER TO SHEETS C-110 TO C-117 (SC-33 TO SC-40) FOR EXISTING CONDITIONS CONTOURING AND FEATURES WITH THE PROPOSED INITIAL EROSION AND SEDIMENT CONTROLS PROPOSED.
  3. REFER TO SHEET C-134 TO C-141 (SC-41 TO SC-48) FOR FINAL GRADING EROSION AND SEDIMENT CONTROLS.
  4. REFER TO SHEET C-701 (SC-4) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.
  5. THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECT CONSTRUCTION AND IMPLEMENTATION OF THE PROPOSED EROSION AND SEDIMENT CONTROL DEVICES. WITHIN PHASE TRANSITION AREAS WHERE SILT FENCE, SUPER SILT FENCE, OR FILTER LOGS ARE PROPOSED, CONTRACTOR SHALL INSTALL THESE FEATURES PERPENDICULAR TO THE DIRECTION OF FLOW.
  6. LINWORK ALONG THE PHASE BOUNDARY LINES ARE OFFSET FOR CLARITY. THE CONTRACTOR SHALL INSTALL TGS AND EARTH DIKE AT THE SUMP LOCATION, EITHER INSIDE OF THE PHASE (CUT SCENARIO) OR AT THE PHASE LIMIT (ON-GRADE SCENARIO). TEMPORARY FILTER LOGS SHALL BE PLACED ALONG THE PHASE BOUNDARY IN A FILL SCENARIO. THE FEATURES SHALL NOT BE INSTALLED WITHIN THE PHASE TRANSITION GRADING.

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

1. INSTALL PHASE PERIMETER CONTROLS, INLET PROTECTION, EARTH DIKES, AND CLEAR WATER DIVERSION PIPES.
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. PERFORM GRADING DOWNGRADIENT TO UPGRADIENT.
4. REMOVE AND STOCKPILE EXISTING COVER SOIL IN ACCORDANCE WITH THE EXISTING COVER SOIL REMOVAL DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 31 05 15 (GRADING NOT SHOWN ON THESE PLANS).
5. PERFORM WASTE EXCAVATION AND RELOCATION IN ACCORDANCE WITH THE EXISTING WASTE RELOCATION AND SUBGRADE CONSTRUCTION DETAIL ON DRAWING C-505 (SC-23) AND SPECIFICATION SECTION 02 61 13 (GRADING NOT SHOWN ON THESE PLANS).
6. INSTALL SWALE 15 AS GRADING PROGRESSES. PROVIDE TURF REINFORCEMENT MATTING IN SWALE 15.
7. COMPLETE GRADING FOR PHASE VII AND PROVIDE STABILIZATION.

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



REVISIONS	NO.	DATE	BY	DESCRIPTION
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: 8/25/2022			
<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-VII - 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: DECEMBER 2020				
PROJECT NUMBER: 1564601				
<b>C-711</b> SHEET: 121 OF 146				

**GENERAL NOTES**

1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-2).
2. FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
3. FOR OVERALL SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-2).
4. FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-3).
5. FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 AND C-506 (SC-23 AND SC-24).
6. FOR GEOSYNTHETIC CLOSURE CAP DETAILS, SEE DRAWINGS C-508.
7. FOR DRAINAGE AREA MAPS, SEE DRAWINGS C-150 AND C-151 (SC-19 AND SC-20).
8. FOR SEDIMENT BASIN NO. 1 DETAILS, SEE DRAWINGS C-512 AND C-513 (SC-31 AND SC-31).
9. FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514, C-515, AND C-516 (SC-28, SC-29, AND SC-30).
10. THE PHASED EROSION AND SEDIMENT CONTROLS SHOWN IN DRAWINGS C-706, C-707, AND C-712 TO C-715 (SC-38, SC-39, AND SC-44 TO SC-47) FINAL GRADING PLAN.
11. REFER TO SHEET C-702 (SC-5) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.

**PHASE F-III 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 TO REPLACE SECTIONS OF SILT FENCE THAT ARE IN DISREPAIR.
2. INSTALL CLEAR WATER DIVERSION PIPES AND FILTER LOGS. NOTE THAT DIVERSION OF INLET Z-6 IS NOT SHOWN ON THIS SHEET BUT SHALL REMAIN OPERATIONAL FOR THIS PHASE.
3. CLEAR VEGETATION TO THE LIMIT OF PHASE F-III. SOIL STABILIZATION MATTING AND/OR TURF REINFORCEMENT MATTINGS THAT WAS INSTALLED DURING SUBGRADE PHASES SHALL BE REMOVED AND DISPOSED OFFSITE.
4. INSTALL GEOSYNTHETIC CLOSURE CAP FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
5. PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL WITHIN INITIAL FILL AREA AND INSTALL RIPRAP LINED CHANNEL/OUTFALL. CONSTRUCT BENCH 5 AND 6 FROM LOW POINT AND WORK UPHILL. AT THE END OF EACH WORKING DAY, INSTALL SOIL STABILIZATION MATTING WITHIN SWALES 5 AND 6 AND STABILIZE SURROUNDING DISTURBED AREAS. PROVIDE SAME DAY STABILIZATION OF THE INITIAL FILL AREA AS DISTURBANCE OCCURS. SEDIMENT-LADEN WATER FROM DISTURBED SLOPES ARE NOT PERMITTED TO CONCENTRATE WITHIN BENCHES AND/OR SWALES WITHOUT FLOWING THROUGH A SEDIMENT FILTERING DEVICE FIRST. WHERE NO SEDIMENT FILTERING DEVICE IS INSTALLED, VEGETATIVE OR STRUCTURAL (MATTING) STABILIZATION IS REQUIRED TO PREVENT THE CONCENTRATION OF SEDIMENT LADEN WATER.
6. PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL STARTING AT THE TOP OF SLOPE FOR THE REMAINDER OF THE PHASE.
7. AS CONSTRUCTION PROGRESSES, INSTALL TURF REINFORCEMENT MATTING AND BOX CULVERTS E-2 AND E-3 WITHIN SWALE 8.
8. PROVIDE PERMANENT STABILIZATION IN REMAINING DISTURBED AREAS, AS FINAL GRADE IS ACHIEVED, OR IN AREAS OF EROSION.
9. ONCE FINAL PERMANENT STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE MCCPS INSPECTOR, REMOVE INTERNAL PHASE CONTROLS.



PHASE F-II

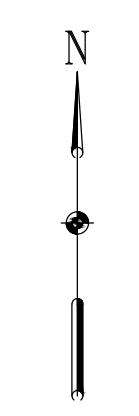
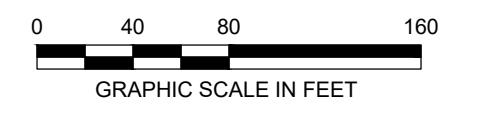
PHASE F-IV

PHASE F-V

PHASE F-III

PHASE F-VI

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



DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	KEF / SMB	NO.	BY
DRAWN BY:	SMB	DATE	
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: 8/25/2022

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

MONTGOMERY COUNTY, MARYLAND

**PHASE F-III - 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:	DECEMBER 2020
PROJECT NUMBER:	1564601
<b>C-712</b>	
SHEET:	122 OF 146

**GENERAL NOTES**

- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-2).
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
- FOR OVERALL SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-2).
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-3).
- FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 AND C-506 (SC-23 AND SC-24).
- FOR GEOSYNTHETIC CLOSURE CAP DETAILS, SEE DRAWINGS C-508.
- FOR DRAINAGE AREA MAPS, SEE DRAWINGS C-150 AND C-151 (SC-19 AND SC-20).
- FOR SEDIMENT BASIN NO. 1 DETAILS, SEE DRAWINGS C-512 AND C-513 (SC-31 AND SC-21).
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514, C-515, AND C-516 (SC-28, SC-29, AND SC-30).
- THE PHASED EROSION AND SEDIMENT CONTROLS SHOWN IN DRAWINGS C-706, C-707, AND C-712 TO C-715 (SC-38, SC-39, AND SC-44 TO SC-47) FINAL GRADING PLAN.
- REFER TO SHEET C-702 (SC-5) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.

**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 TO REPLACE SECTIONS OF SILT FENCE THAT ARE IN DISREPAIR.
- INSTALL CLEAR WATER DIVERSIONS AND FILTER LOGS. NOTE THAT DIVERSION OF INLET Z-6 IS NOT SHOWN ON THIS SHEET BUT SHALL REMAIN OPERATIONAL FOR THIS PHASE.
- CLEAR VEGETATION TO THE LIMIT OF PHASE F-IV. EROSION CONTROL MATTING AND/OR TURF REINFORCEMENT MATTING THAT WAS INSTALLED DURING SUBGRADE PHASES SHALL BE REMOVED AND DISPOSED OFFSITE.
- INSTALL GEOSYNTHETIC CLOSURE CAP FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
- PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL STARTING AT THE TOP OF SLOPE.
- AS CONSTRUCTION PROGRESSES, INSTALL TURF REINFORCEMENT MATTING AND BOX CULVERTS E-1, E-4, AND 13-1 WITHIN SWALE 13.
- PROVIDE PERMANENT STABILIZATION IN REMAINING DISTURBED AREAS, AS FINAL GRADE IS ACHIEVED, OR IN AREAS OF EROSION.
- ONCE FINAL PERMANENT STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE MCDPS INSPECTOR, REMOVE INTERNAL PHASE DEVICES.



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



FILE PATH: G:\PROJECTS\164601 - GUIDE F-IV EROSION AND SEDIMENT CONTROL DESIGN\164601 - 11.21.20 - EDC - PHASE F-IV EROSION AND SEDIMENT CONTROL DESIGN.dwg; DATE: 12/03/2020 11:11 AM

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: 8/25/2022.

SEAL

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

**PHASE F-IV - 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: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**C-713**  
SHEET: 123 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

**GENERAL NOTES**

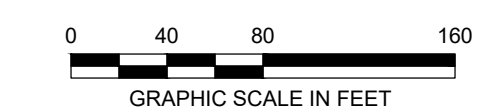
- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-2).
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
- FOR OVERALL SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-2).
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-3).
- FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 AND C-506 (SC-23 AND SC-24).
- FOR GEOSYNTHETIC CLOSURE CAP DETAILS, SEE DRAWINGS C-508.
- FOR DRAINAGE AREA MAPS, SEE DRAWINGS C-150 AND C-151 (SC-19 AND SC-20).
- FOR SEDIMENT BASIN NO. 1 DETAILS, SEE DRAWINGS C-512 AND C-513 (SC-31 AND SC-21).
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514, C-515, AND C-516 (SC-28, SC-29, AND SC-30).
- THE PHASED EROSION AND SEDIMENT CONTROLS SHOWN IN DRAWINGS C-706, C-707, AND C-712 TO C-715 (SC-38, SC-39, AND SC-44 TO SC-47) FINAL GRADING PLAN.
- REFER TO SHEET C-702 (SC-5) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.

**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 TO REPLACE SECTIONS OF SILT FENCE THAT ARE IN DISREPAIR.
- REMOVE PORTION OF DOWNCHUTE AT END OF SWALE 13 BETWEEN SWALE 10 AND THE BOTTOM OF THE SEDIMENT BASIN. DISCHARGE FROM SWALE 13 SHALL ENTER INTO SWALE 10 IN ORDER TO BYPASS CLEAR WATER AROUND SEDIMENT BASIN NO. 1
- MAINTAIN OPERATION OF CLEARWATER DIVERSION PIPE AT INLET Z-6 (NOT SHOWN ON PLAN.)
- INSTALL ED F-V-1.
- CLEAR VEGETATION TO THE LIMIT OF PHASE F-V. EROSION CONTROL MATTING AND/OR TURF REINFORCEMENT MATTING THAT WAS INSTALLED DURING SUBGRADE PHASES SHALL BE REMOVED AND DISPOSED OFFSITE.
- INSTALL GEOSYNTHETIC CLOSURE CAP FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
- PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL STARTING AT THE TOP OF SLOPE.
- AS CONSTRUCTION PROGRESSES, INSTALL SOIL STABILIZATION MATTING WITHIN SWALES 9, 11, AND 12. TURF REINFORCEMENT MATTING WITHIN SWALE 16, AND BOX CULVERTS A-1, 16-1, AND E-5.
- PROVIDE PERMANENT STABILIZATION IN REMAINING DISTURBED AREAS, AS FINAL GRADE IS ACHIEVED, OR IN AREAS OF EROSION.
- ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE MCDPS INSPECTOR, REMOVE INTERNAL PHASE CONTROLS.



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



FILE PATH: G:\PROJECTS\156461 - CODE OF ZONING\PRODUCTION\DESIGN SET\156461 - 1125 - EDC - PHASE F-V\PHASE F-V EROSION AND SEDIMENT CONTROL PLAN.dwg

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: 8/25/2022

**EA**

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

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

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601

**C-714**  
SHEET: 124 OF 146

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

**PHASE F-V - EROSION AND SEDIMENT CONTROL PLAN**

100% DESIGN PLANS - NOT FOR CONSTRUCTION SC/SWM SHEET 17 OF 53

**GENERAL NOTES**

- FOR LEGEND AND GENERAL NOTES, SEE DRAWING G-002 (SC-2).
- FOR EXISTING STORM DRAIN STRUCTURE TABLES, SEE DRAWING C-109 (SC-32).
- FOR OVERALL SEQUENCE OF CONSTRUCTION, SEE DRAWING G-002 (SC-2).
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE DRAWING G-003 (SC-3).
- FOR EXCAVATION AND GRADING DETAILS, SEE DRAWINGS C-505 AND C-506 (SC-23 AND SC-24).
- FOR GEOSYNTHETIC CLOSURE CAP DETAILS, SEE DRAWINGS C-508.
- FOR DRAINAGE AREA MAPS, SEE DRAWINGS C-150 AND C-151 (SC-19 AND SC-20).
- FOR SEDIMENT BASIN NO. 1 DETAILS, SEE DRAWINGS C-512 AND C-513 (SC-31 AND SC-21).
- FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE DRAWINGS C-514, C-515, AND C-516 (SC-28, SC-29, AND SC-30).
- THE PHASED EROSION AND SEDIMENT CONTROLS SHOWN IN DRAWINGS C-706, C-707, AND C-712 TO C-715 (SC-38, SC-39, AND SC-44 TO SC-47) FINAL GRADING PLAN.
- REFER TO SHEET C-702 (SC-5) FOR TGS, TSOS, SWALE, PIPE SLOPE DRAIN, EARTH DIKE, ETC. SCHEDULES.

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

PHASE F-VI IS A MULTI-STAGE PROGRESSION IN ORDER TO CONSTRUCT THE PHASE FEATURES TO MINIMIZE THE TOTAL DRAINAGE AREA THAT SEDIMENT BASIN NO. 1 RECEIVES. THE STAGE PROGRESSION GENERALLY BEGINS AT THE EASTERN LIMIT OF THE PHASE AND THEN PROGRESSIVELY ENCIRCLES THE SEDIMENT BASIN COUNTERCLOCKWISE SHIFTING CLEAR WATER DIVERSION PIPES TO LIMIT THE RECEIVED RUNOFF.

- PERFORM A VISUAL CHECK OF ALL EXISTING EROSION AND SEDIMENT CONTROL DEVICES AND PERFORM MAINTENANCE AS NEEDED TO REPLACE SECTIONS OF SILT FENCE THAT ARE IN DISREPAIR.

**STAGE 1**

- INSTALL PHASE F-VI CONTROLS: INLET PROTECTION, EARTH DIKES, AND CLEAR WATER DIVERSION F-VI-1. ESTABLISH AND/OR MAINTAIN THE CLEAR WATER BYPASS USING SWALE 10 FOR PHASE F-III AND F-IV. SWALES 8, 13 AND 16 SHALL BE DIRECTED TO SWALE 10 TO BYPASS THE SEDIMENT BASIN.
- CLEAR EAST OF INCINERATOR LANE TO THE LIMIT OF PHASE F-VI. EROSION CONTROL MATTING AND/OR TURF REINFORCEMENT MATTING THAT WAS INSTALLED DURING SUBGRADE PHASES SHALL BE REMOVED AND DISPOSED OFFSITE.
- INSTALL GEOSYNTHETIC CLOSURE CAP FROM TOP OF SLOPE TO BOTTOM OF SLOPE FOR AREAS TO THE EAST OF INCINERATOR LANE.
- PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL MATERIAL STARTING AT THE TOP OF SLOPE.
- AS CONSTRUCTION PROGRESSES, PROVIDE SOIL STABILIZATION MATTING IN SWALES 14A AND 14B, TURF REINFORCEMENT MATTING IN SWALE 15, AND INSTALL BOX CULVERT A-2.
- PROVIDE PERMANENT STABILIZATION IN DISTURBED AREAS, AS FINAL GRADE IS ACHIEVED, OR IN AREAS OF EROSION EAST OF INCINERATOR LANE.

**STAGE 2**

- CLEAR VEGETATION IN AREA OF STAGE 2. INSTALLED SOIL STABILIZATION MATTING AND/OR TURF REINFORCEMENT MATTING SHALL BE REMOVED PRIOR TO INSTALLATION OF GEOSYNTHETIC CLOSURE CAP.
- INSTALL GEOSYNTHETIC CLOSURE CAP WITHIN SWALE 17 AND TO ITS UPGRADIENT DRAINAGE AREA TO THE STAGE AND PHASE LIMITS.
- PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL STARTING AT THE TOP OF SLOPE FOR STAGE 2.
- AS CONSTRUCTION PROGRESSES, INSTALL GABION DOWNCHUTES AND TURF REINFORCEMENT MATTING IN SWALE 17.
- PROVIDE PERMANENT STABILIZATION AS FINAL GRADE IS ACHIEVED OR IN AREAS OF EROSION WITHIN THE STAGE.
- ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE MCDPS INSPECTOR, CONTRACTOR MAY PROCEED TO SEQUENCE ITEM 14.

**STAGE 3**

- CLEAR VEGETATION IN AREA OF STAGE 3. INSTALLED SOIL STABILIZATION MATTING AND/OR TURF REINFORCEMENT MATTING SHALL BE REMOVED PRIOR TO INSTALLATION OF GEOSYNTHETIC CLOSURE CAP.
- INSTALL CLEAR WATER DIVERSION PIPE F-VI-3 FROM SWALE 17 TO SWALE 19 AND F-VI-2 FROM SWALE 13 TO SWALE 17. REMOVE CLEAR WATER DIVERSION PIPE F-VI-1 AND DIRECT RUNOFF TO SWALE 17 FOR BYPASS TO SWALE 19.
- CONTINUE TO DISCHARGE SWALE 8 TO SWALE 10 FOR CLEAR WATER BYPASSING.
- INSTALL GEOSYNTHETIC CLOSURE CAP WITHIN STAGE 3 FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
- PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL STARTING AT THE TOP OF SLOPE. PROVIDE SAME DAY STABILIZATION.
- AS CONSTRUCTION PROGRESSES, INSTALL GABION DOWNCHUTES AND TURF REINFORCEMENT MATTING WITHIN SWALE 10 AND BENCH 4.
- PROVIDE PERMANENT STABILIZATION IN DISTURBED AREAS, AS FINAL GRADE IS ACHIEVED, OR IN AREAS OF EROSION.
- ONCE STABILIZATION IS ACHIEVED, AND WITH THE APPROVAL OF THE MCDPS INSPECTOR, CONTRACTOR MAY PROCEED TO SEQUENCE ITEM 22.

**STAGE 4**

- CLEAR VEGETATION IN AREA OF STAGE 4. INSTALLED SOIL STABILIZATION MATTING AND/OR TURF REINFORCEMENT MATTING SHALL BE REMOVED PRIOR TO INSTALLATION OF GEOSYNTHETIC CLOSURE CAP.
- PROVIDE MEANS OF BYPASS PUMPING OR CLEAR WATER DIVERSION PIPE FOR SWALE 8. MAINTAIN CLEAR WATER DIVERSION PIPING FROM SWALE 17 TO SWALE 19.
- INSTALL GEOSYNTHETIC CLOSURE CAP WITHIN STAGE 4 FROM TOP OF SLOPE TO BOTTOM OF SLOPE.
- PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL. STAGE 4. PROVIDE SAME DAY STABILIZATION.
- AS CONSTRUCTION PROGRESSES, INSTALL TURF REINFORCEMENT MATTING WITHIN SWALE 1 AND BENCH 4.
- PROVIDE PERMANENT STABILIZATION IN DISTURBED AREAS, AS FINAL GRADE IS ACHIEVED, OR IN AREAS OF EROSION.

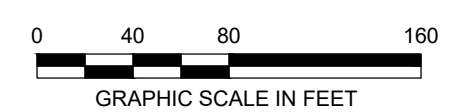
**STAGE 5**

- ONCE STABILIZATION IS ACHIEVED AND WITH THE APPROVAL OF THE INSPECTOR, DRAIN SEDIMENT BASIN NO. 1 TO PERFORM FINAL FILLING, GRADING, AND INSTALLATION OF GEOSYNTHETIC CLOSURE CAP. PROVIDE BYPASS PUMPING ACCOMMODATIONS FOR UPGRADIENT CONVEYANCES TO PREVENT DAMAGE TO THE GEOSYNTHETIC CLOSURE CAP SYSTEM.
- CLEAR VEGETATION IN AREA OF STAGE 4. INSTALLED SOIL STABILIZATION MATTING AND/OR TURF REINFORCEMENT MATTING SHALL BE REMOVED PRIOR TO INSTALLATION OF GEOSYNTHETIC CLOSURE CAP.
- ONCE FACILITY IS DRAINED, PLACE FILL SOIL MATERIAL AND GRADE TO FINAL GRADE. INSTALL GEOSYNTHETIC CLOSURE CAP ALONG THE NORTHERN HALF OF THE FACILITY. PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL AND STABILIZE. CONTINUE DEWATERING OPERATIONS IF NECESSARY.
- REMOVE DEWATERING DEVICES, RISER STRUCTURE, OUTFALL PIPING, AND EMBANKMENT AS SHOWN ON THE PLANS AS SHOWN ON SHEET C-513 (SC-21).
- MODIFY INLET 2 SIDE OPENINGS AS SHOWN ON THE SHEET C-510.
- INSTALL THE REMAINDER OF THE GEOSYNTHETIC CLOSURE CAP AND PLACE VEGETATIVE SUPPORT SOIL AND TOPSOIL. PROVIDE SAME DAY STABILIZATION.
- PROVIDE PERMANENT STABILIZATION, IN ALL REMAINING DISTURBED AREA OR IN AREAS OF EROSION. INSTALL ROCK OUTLET PROTECTION AS SHOWN ON THE PLANS.
- ONCE THE PHASE IS VEGETATIVELY OR STRUCTURALLY (MATTING) STABILIZED AND WITH THE APPROVAL OF THE MCDPS INSPECTOR, REMOVE INTERNAL PHASE CONTROLS.



**PHASE F-VI - EROSION AND SEDIMENT CONTROL PLAN**

SCALE: 1" = 80'



FILE PATH: G:\PROJECTS\16440 - GUIDE OF REMEDIATION DESIGN - 11.25.18 - EDC - PHASE F-VI - 16 BUREAU - 12/20/2020 10:18 PM

DESIGN INFORMATION	DESIGNED BY:	KEF / SMB		
	DRAWN BY:	SMB		
SEAL	CHECKED BY:	LJO / GAT		
	PROJECT MANAGER:	MJG		
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 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 23402. EXPIRATION DATE: 8/25/2022.				
<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>				
DATE: DECEMBER 2020 PROJECT NUMBER: 1564601 <b>C-715</b> SHEET: 125 OF 146				



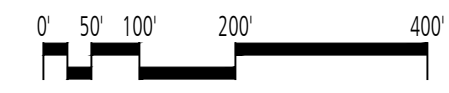
100% DESIGN PLANS - NOT FOR CONSTRUCTION

SC/SWM SHEET 18 OF 53



**TRAIL LEGEND**

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



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: 07/26/2022

**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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**L100**  
 SHEET: 126 OF 146

**1 KEY SHEET**  
 PLAN

FILE PATH: P:\PDC\PROJECTS\1564601 - GODE LANDFILL REMEDIATION\LANDSCAPE PLAN\LANDSCAPE KEY SHEET.DWG (JOB DATE: 01/15/2020 4:44 PM)

100% DESIGN PLANS - NOT FOR CONSTRUCTION

FILE PATH: P:\PLANS\PROJECTS\108 - GIDE LANDFILL DEMANDS\PLANS\OVERALL LANDSCAPE AND MEADOWS\108 - GIDE LANDFILL DEMANDS\PROJECTS\108 - GIDE LANDSCAPE AND MEADOWS\OVERALL LANDSCAPE PLAN (1) OVERALL LANDSCAPE PLAN (1) DWG (DATE: 07/26/2022) C:\PDM\PROJECTS\108 - GIDE LANDFILL DEMANDS\PLANS\OVERALL LANDSCAPE AND MEADOWS\108 - GIDE LANDSCAPE AND MEADOWS\OVERALL LANDSCAPE PLAN (1) OVERALL LANDSCAPE PLAN (1) DWG (DATE: 07/26/2022) C:\PDM\PROJECTS\108 - GIDE LANDFILL DEMANDS\PLANS\OVERALL LANDSCAPE AND MEADOWS\108 - GIDE LANDSCAPE AND MEADOWS\OVERALL LANDSCAPE PLAN (1) OVERALL LANDSCAPE PLAN (1) DWG (DATE: 07/26/2022)



MEADOW MIX #3 (M-3) LAYOUT POINTS		
Key	Northing	Easting
A	524960.9096	1273786.6321
B	524996.802	1273831.6876
C	525007.2604	1274196.1057
D	524970.9748	1274322.0718
E	524851.6392	1274376.3225
F	524641.4322	1274382.4689
G	524661.3866	1274283.9025
H	524878.9794	1273764.814
I	524825.7857	1273620.743
J	524723.9347	1273520.036
K	524567.3933	1273483.913
L	524484.4526	1273453.143
M	524424.0306	1273403.394

PLANT SCHEDULE (THIS SHEET ONLY)		
KEY	QTY	NAME
<b>MEADOW SEED MIXES</b>		
M-1	221,267 SY	Meadow Mix #1
M-2	79,263 SY	Meadow Mix #2
M-3	116,375 SY	Meadow Mix #3
WCM	739 SY	Wood Chip Mulch

**MEADOW MIX #1 (M-1):**

% of Mix	Latin Name	Common Name	Cultivar/ Ecotype
1.3	<i>Asclepias tuberosa</i>	Butterfly Milkweed	Any
1.3	<i>Aster oblongifolius</i>	Aromatic Aster	PA
1.3	<i>Aster prenanthoides</i>	Zig Zag Aster	PA
0.3	<i>Baptisia tinctoria</i>	Wild Indigo	PA
4	<i>Chamaecrista fasciculata</i>	Partridge Pea	PA
4	<i>Careopsis lanceolata</i>	Lance Leaf Coreopsis	Any
8.6	<i>Echinacea purpurea</i>	Purple Coneflower	Any
20	<i>Elymus virginicus</i>	Virginia Wildrye	PA
0.3	<i>Eragrostis spectabilis</i>	Purple Lovegrass	PA
0.7	<i>Eupatorium coelestinum</i>	Mistflower	VA
0.2	<i>Genum canadense</i>	White Avena	PA
2.6	<i>Helopsis helianthoides</i>	Ox-Eye Sunflower	PA
0.5	<i>Liatris spicata</i>	Spiked Gayfeather	PA or Any
1	<i>Liatris squarrosa</i>	Scaly Blazing Star	VA
0.4	<i>Monarda fistulosa</i>	Wild Bergamot	FIG (PA)
0.3	<i>Monarda punctata</i>	Dotted Mint	MD or APB
0.3	<i>Oenothera fruticosa</i>	Sundrops	PA
19	<i>Panicum anceps</i>	Beaked Panicgrass	MD
3	<i>Panicum sphaerocarpon</i>	Roundseeded Panicgrass	PA
0.4	<i>Penstemon canescens</i>	Grayhairy Beardtongue	WV
0.7	<i>Penstemon digitalis</i>	Tall White Beardtongue	PA
0.4	<i>Penstemon hirsutus</i>	Hairy Beardtongue	PA
0.9	<i>Pycnanthemum tenuifolium</i>	Narrow Leaved Mountain Mint	PA
0.7	<i>Rudbeckia hirta</i>	Orange Coneflower	VA
4	<i>Rudbeckia hirta</i>	Black Eyed Susan	PA or Any
20	<i>Schizachyrium scoparium</i>	Little Bluestem	PA or Camper
1	<i>Senna hebecarpa</i>	Wild Senna	WV
0.6	<i>Solidago nemoralis</i>	Gray Goldenrod	PA
0.2	<i>Solidago odora</i>	Licorice Scented Goldenrod	PA
1.5	<i>Tradescantia ohimensis</i>	Ohio Spiderwort	PA
0.5	<i>Zizia aurea</i>	Golden Alexanders	PA

BY SEED COUNT THIS MIX HAS APPROXIMATELY 357,000 SEEDS/LB AND IS 28.1% GRASSES AND 71.9% WILDFLOWERS.  
IF AN ITEM IN THIS MIX IS NOT AVAILABLE, ADD ITS PERCENTAGE TO A MEMBER OF THE SAME GENERA IN THE MIX OR TO SCHIZACHYRIUM SCOPARIUM. MIX SHALL INCLUDE NO LESS THAN 25 INDIVIDUAL SPECIES.  
SEEDING RATE: ON SITES WITH SLOPES LESS THAN 3:1, APPLY THIS MIX AT 10 LBS PLS OR 15 BULK LBS/ACRE ALONG WITH A COVER CROP.

**MEADOW MIX #2 (M-2):**

% of Mix	Latin Name	Common Name
34	<i>Festuca arundinacea</i>	'Firecracker SL'S' Turf Type, Tall Fescue
33	<i>Festuca arundinacea</i>	'Ninja III' Tall Fescue
33	<i>Festuca arundinacea</i>	'Valkyrie LS' Turf Type, Tall Fescue

SEEDING RATE: 7-10 LBS/1,000 SF.

**MEADOW MIX #3 (M-3):**

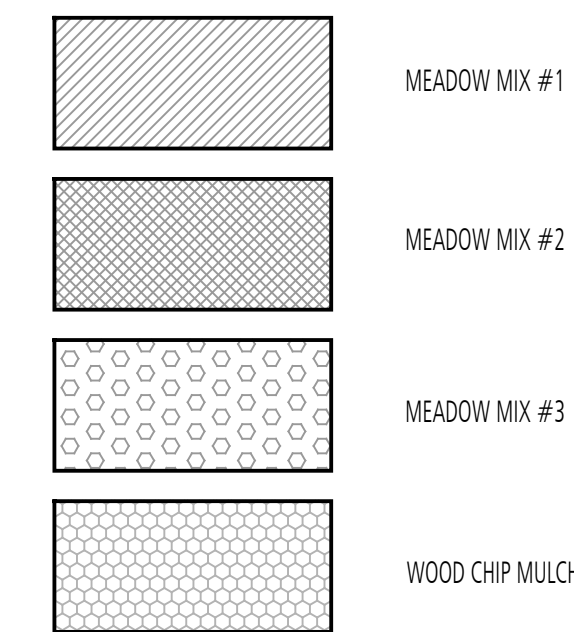
% of Mix	Latin Name	Common Name	Cultivar/ Ecotype
0.2	<i>Asclepias tuberosa</i>	Butterfly Milkweed	Any
0.2	<i>Aster oblongifolius</i>	Aromatic Aster	PA
0.2	<i>Aster prenanthoides</i>	Zig Zag Aster	PA
1.6	<i>Chamaecrista fasciculata</i>	Partridge Pea	PA
1.3	<i>Careopsis lanceolata</i>	Lance Leaf Coreopsis	Any
2.8	<i>Echinacea purpurea</i>	Purple Coneflower	Any
22.2	<i>Elymus virginicus</i>	Virginia Wildrye	PA
0.1	<i>Eragrostis spectabilis</i>	Purple Lovegrass	PA
0.1	<i>Eupatorium coelestinum</i>	Mistflower	VA
0.1	<i>Genum canadense</i>	White Avena	PA
0.9	<i>Helopsis helianthoides</i>	Ox-Eye Sunflower	PA
0.1	<i>Liatris spicata</i>	Spiked Gayfeather	PA or Any
0.1	<i>Liatris squarrosa</i>	Scaly Blazing Star	VA
0.2	<i>Monarda fistulosa</i>	Wild Bergamot	FIG (PA)
0.2	<i>Monarda punctata</i>	Dotted Mint	MD or APB
0.1	<i>Oenothera fruticosa</i>	Sundrops	PA
31.1	<i>Panicum anceps</i>	Beaked Panicgrass	MD
4.4	<i>Panicum sphaerocarpon</i>	Roundseeded Panicgrass	PA
0.1	<i>Penstemon canescens</i>	Grayhairy Beardtongue	WV
0.2	<i>Penstemon digitalis</i>	Tall White Beardtongue	PA
0.1	<i>Penstemon hirsutus</i>	Hairy Beardtongue	PA
0.2	<i>Pycnanthemum tenuifolium</i>	Narrow Leaved Mountain Mint	PA
0.1	<i>Rudbeckia hirta</i>	Orange Coneflower	VA
1.3	<i>Rudbeckia hirta</i>	Black Eyed Susan	PA or Any
31.1	<i>Schizachyrium scoparium</i>	Little Bluestem	PA or Camper
0.4	<i>Senna hebecarpa</i>	Wild Senna	WV
0.1	<i>Solidago nemoralis</i>	Gray Goldenrod	PA
0.1	<i>Solidago odora</i>	Licorice Scented Goldenrod	PA
0.3	<i>Tradescantia ohimensis</i>	Ohio Spiderwort	PA
0.1	<i>Zizia aurea</i>	Golden Alexanders	PA

BY SEED COUNT THIS MIX HAS APPROXIMATELY 234,000 SEEDS/LB AND IS 63.7% GRASSES AND 36.3% WILDFLOWERS.  
IF AN ITEM IN THIS MIX IS NOT AVAILABLE, ADD ITS PERCENTAGE TO A MEMBER OF THE SAME GENERA IN THE MIX OR TO SCHIZACHYRIUM SCOPARIUM. MIX SHALL INCLUDE NO LESS THAN 25 INDIVIDUAL SPECIES.  
SEEDING RATE: ON SLOPES 3:1 OR GREATER, APPLY THIS MIX AT 45 BULK LBS/ACRE ALONG WITH A COVER CROP AND EROSION CONTROL BLANKET.

**COVER CROP:**

SEED A COVER CROP OF GRAIN CROPS, AT THE TIME OF SEEDING, BASED ON THE FOLLOWING RECOMMENDATIONS:  
i. GRAIN OATS (1 JAN TO 30 APR, 30 LBS/ACRE)  
ii. BROWN TOP MILLET (1 MAY TO 31 AUG, 10 LBS/ACRE)  
iii. GRAIN RYE (1 SEPT TO 31 DEC, 30 LBS/ACRE)

**LEGEND**



**SEEDING NOTES & APPLICATION:**

- PERFORM SEEDING WHEN TEMPERATURE IS ABOVE 32° F AND THE SOIL IS NOT FROZEN.
- PLANTING SEASONS:  
- SPRING PLANTING SHALL BE BETWEEN FEBRUARY 15TH THROUGH JUNE 15TH  
- FALL PLANTING SHALL BE BETWEEN SEPTEMBER 1ST THROUGH NOVEMBER 30TH.
- MARK AREAS TO BE SEEDED, AND OBTAIN APPROVAL FROM THE OWNER AND CONSTRUCTION MANAGEMENT ENGINEER BEFORE BEGINNING WORK.
- ANY AND ALL DEBRIS ENCOUNTERED SHALL BE REMOVED, INCLUDING ROCKS GREATER THAN 1 INCH DIAMETER AND RESIDUAL PLANT BIOMASS. DEBRIS SHALL BE DISPOSED OFF SITE BY THE CONTRACTOR.
- WHERE UPLAND MEADOW ESTABLISHMENT AND FOREST PLANTING AREAS OVERLAP, USE A DRILL SEED METHOD. MIX THE COVER CROP SEEDS AND UPLAND MEADOW SEEDS PER THE SPECIFICATIONS. SPREAD SEED MIXTURE EVENLY OVER THE PREPARED SITE USING A BROADCAST SPREADER.
- IN AREAS WHERE UPLAND MEADOW ESTABLISHMENT IS LOCATED IN AN OPEN FIELD, USE A DRILL SEED METHOD. MIX THE COVER CROP SEEDS AND UPLAND MEADOW SEEDS PER THE SPECIFICATIONS. SPREAD SEED MIXTURE EVENLY OVER THE PREPARED SITE USING A DRILL WITH RAKE.
- WHEN SEEDING ON STEEP SLOPES, RUN MACHINERY PERPENDICULAR TO THE SLOPE.
- AFTER SEED APPLICATION, FIRM THE SOIL USING A ROLLER TO PRESS SEEDS INTO THE SOIL. SEEDS SHALL BE PLANTED NO DEEPER THAN 1/4".
- SPREAD A 1/2" LAYER OF STRAW MULCH OVER THE AREA OF MEADOW IMMEDIATELY AFTER SEEDING. FOR AREAS SLOPED 3:1 OR GREATER INSTALL EROSION CONTROL BLANKET IN LIEU OF STRAW MULCH.
- GENTLY APPLY WATER OVER SEEDED AND MULCHED AREAS TO WET THE SOIL. A MINIMUM DEPTH OF 2 INCHES. APPLY WATER WEEKLY FOR THE FIRST TWO MONTHS AFTER SEEDING.
- TREATMENT OF INVASIVES:  
- AFTER A PERIOD OF APPROXIMATELY 3 MONTHS OF THE GROWING SEASON, DURING WHICH TIME GROWTH IS APPROXIMATELY 6 INCHES IN HEIGHT, APPLY A NON-SELECTIVE HERBICIDE TO ELIMINATE UNDESIRABLE VEGETATION.  
- APPLY A GLYPHOSATE PRODUCT AT 2% WITH WETTING AGENT AND DYE IN CONFORMANCE WITH THE IPM PROGRAM A MINIMUM OF 10 DAYS BEFORE SEEDING. FOLLOW WITH A SECOND APPLICATION ONE MONTH LATER TO ADDRESS SKIPS OR PERSISTENT SPECIES.
- MOWING:  
- DURING THE FIRST GROWING SEASON, WHEN THE MEADOW VEGETATION REACHES A HEIGHT OF 18 INCHES - 24 INCHES, APPROXIMATELY EVERY 6 WEEKS, USE A MOWER TO TRIM THE MEADOW TO A HEIGHT OF 8 INCHES. MOWING SHALL CEASE BY MID-SEPTEMBER.  
- ANNUALLY, PRIOR TO NEW SPRING GROWTH, TRIM ANY MATERIAL STANDING FROM THE PREVIOUS YEAR TO APPROXIMATELY 2 INCHES.  
- DURING THE SECOND GROWING SEASON, IF THE MEADOW HAS A HEAVY PRESENCE OF RAGWEED OR FOXTAIL, TRIM THE MEADOW TO A HEIGHT OF 8 INCHES.

**SEEDING LAYOUT NOTES:**

- MEADOW MIX #1 (M-1):
- INSTALL ON SLOPES LESS THAN 3:1 UNLESS OTHERWISE DIRECTED.
  - PROVIDE A MINIMUM WIDTH OF 8'-0" WHEN MIX IS BETWEEN SWALES OR TRAILS. WHERE MINIMUM WIDTH IS NOT AVAILABLE, INSTALL MEADOW MIX #2 (M-2) UNLESS OTHERWISE NOTED.
  - DO NOT INSTALL IN AMENITY AREAS.
- MEADOW MIX #2 (M-2):
- SWALES: INSTALL ALL SWALES WITH 4'-0" OFFSET, EACH SIDE, FROM CENTERLINE OF SWALE.
  - GRASS TRAILS: INSTALL WITH 10'-0" OFFSET, EACH SIDE, FROM CENTERLINE OF GRASS TRAILS.
  - PAVED TRAILS: INSTALL WITH 10'-0" TYPICAL OFFSET FROM PAVEMENT EDGE ALONG ALL GRASS TRAILS.
- MEADOW MIX #3 (M-3):
- INSTALL ON SLOPES 3:1 OR GREATER UNLESS OTHERWISE DIRECTED.
  - PROVIDE A MINIMUM WIDTH OF 8'-0" WHEN MIX IS BETWEEN SWALES OR TRAILS.
  - DO NOT INSTALL IN AMENITY AREAS.

DESIGN INFORMATION	DESIGNED BY:	MM	DRAWN BY:	JCI	CHECKED BY:	MM	PROJECT MANAGER:	M/JG
	REVISIONS	NO.	DATE	DESCRIPTION	SEAL	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: 07/26/2022

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

MONTGOMERY COUNTY, MARYLAND

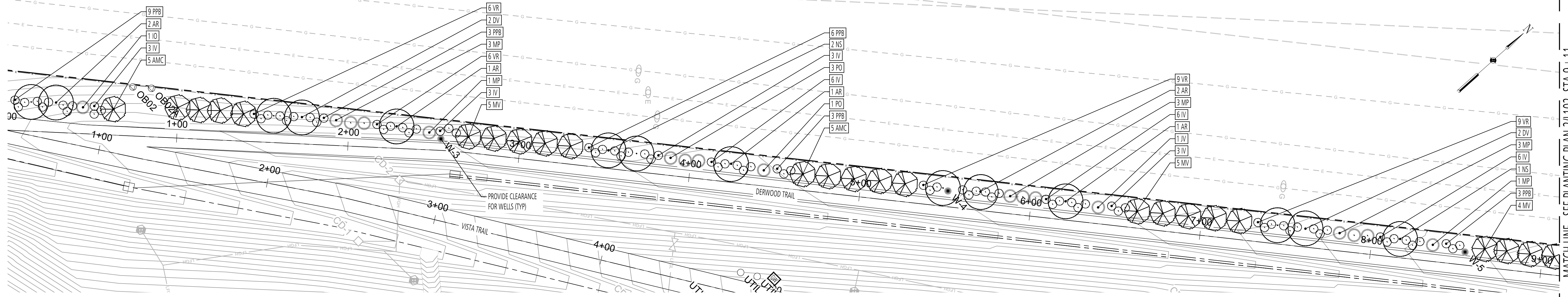
OVERALL LANDSCAPE PLAN

SCISWM SHEET 53 OF 53

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

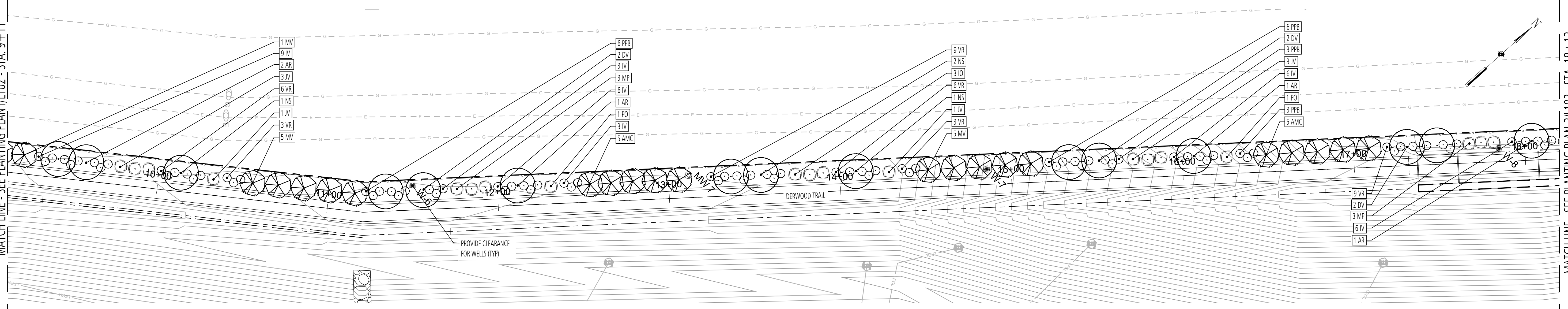
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**L101**  
SHEET: 127 OF 146



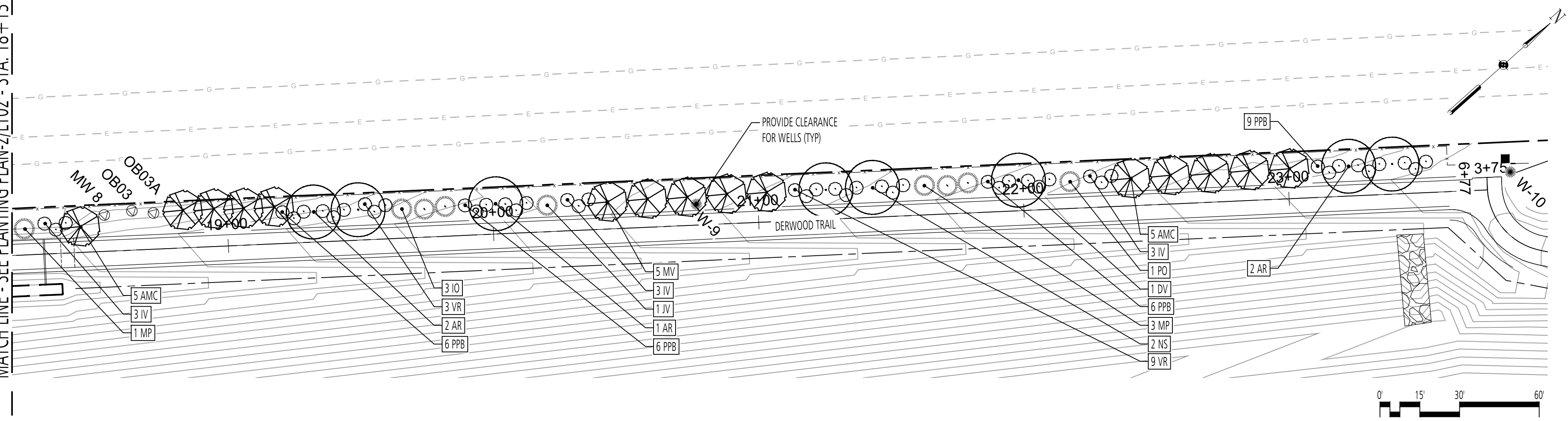
1 DERWOOD TRAIL PLANTING- NORTH ENLARGEMENT  
PLAN

SCALE: 1" = 30'



2 DERWOOD TRAIL PLANTING PLAN- CENTRAL ENLARGEMENT  
PLAN

SCALE: 1" = 30'



3 DERWOOD TRAIL PLANTING PLAN- SOUTH ENLARGEMENT  
PLAN

SCALE: 1" = 30'

LEGEND

- CANOPY TREE
- UNDERSTORY TREE
- EVERGREEN TREE
- SHRUB

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

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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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Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**L102**  
SHEET: 128 OF 146

FILE PATH: P:\PLD\PROJECTS\1808 - GIDE LANDFILL REMEDIATION\PLANTING\STA. 1-10 DERWOOD TRAIL PLANTING.DWG; L:\00\GANTLUS 20\102020-40.PDF

100% DESIGN PLANS - NOT FOR CONSTRUCTION





KEY NOTES:

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		3/L304
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		1-4/L305
C-7	ART INSTALLATION		2/L204
C-8	TIC TAC TOE		2/L304
C-9	STUMP CLUMB		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, 9/L504
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	

LEGEND

- MEADOW MIX #1
- MEADOW MIX #2
- MEADOW MIX #3
- WOOD CHIP MULCH
- INFORMATION SIGN (SMALL) GAS WELL
- OWL NESTING BOX
- PARK BENCH
- DISC GOLF TEE POST SIGN
- EDUCATIONAL POST
- INFORMATION SIGN (LARGE)
- TRAIL MARKER
- TRASH RECEPTACLE
- DIRECTIONAL SIGN POST

GEOMETRY TABLE:

Key	Northing	Easting
1	525210.0711	1272410.7862
2	525223.1565	1272418.1195
3	525226.9095	1272431.6863
4	525323.2899	1272485.6904
5	525342.8433	1272450.7953
6	525248.0418	1272343.0222
7	525071.5419	1272142.3721
8	525000.4177	1272173.881
9	525111.0954	1272423.71
10	525168.0213	1272398.687
11	525183.4546	1272407.335
12	525196.9852	1272403.454

1 DOG PLAY PLAN

SCALE: 1"=30'-0"

FILE PATH: P:\PLANS\PROJECTS\188 - GIDE LANDFILL DOMESTIC\LANDSCAPE\188 - GIDE DOG PLAY ENLARGEMENT.DWG (2021) JOB: GANITHE 2/10/2020 4:41 PM

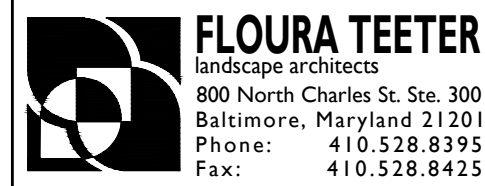
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 DESIGN INFORMATION: DESIGNED BY: MM, DRAWN BY: JCI, CHECKED BY: MM, PROJECT MANAGER: M/G  
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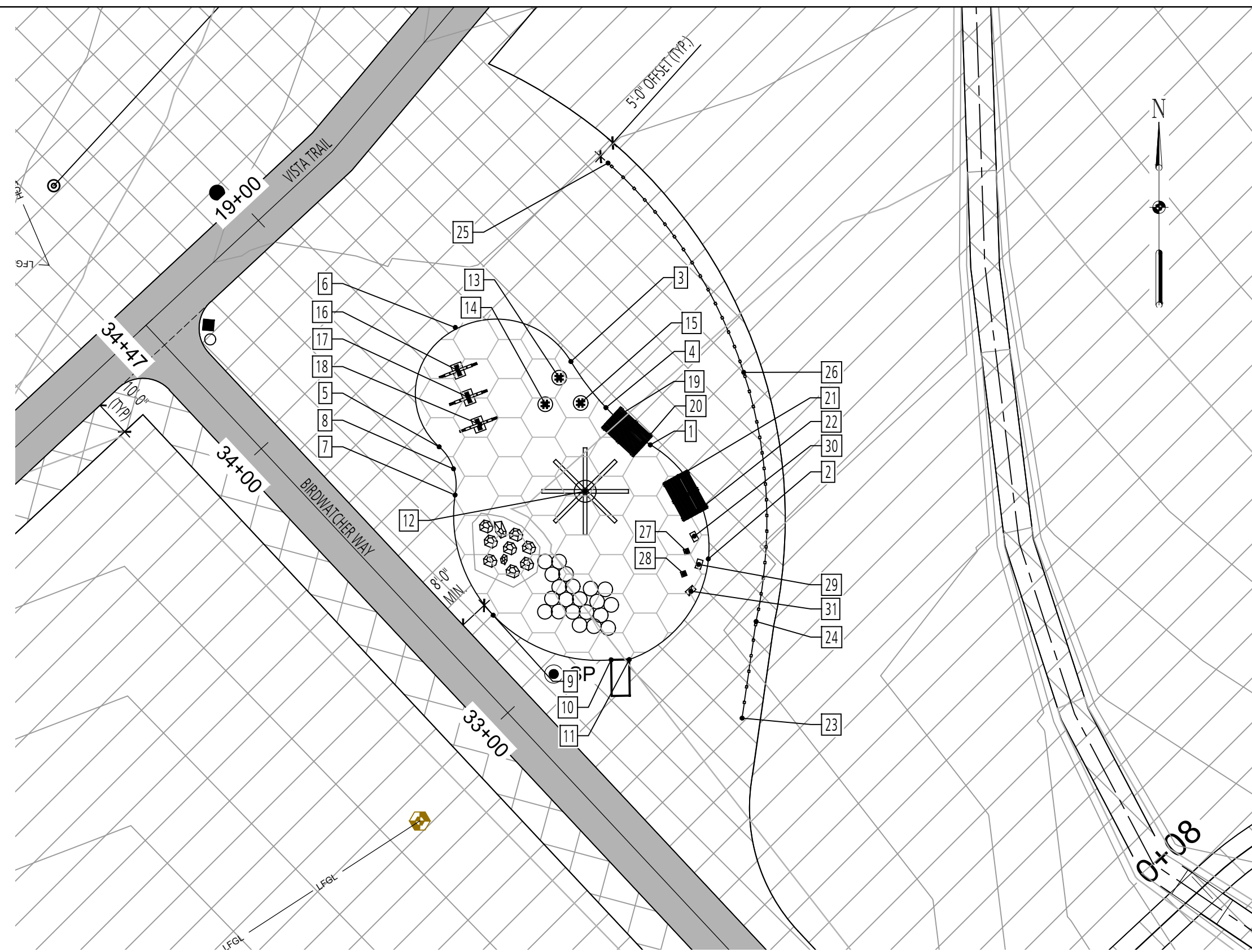
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GIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 DOG PLAY ENLARGEMENT PLAN

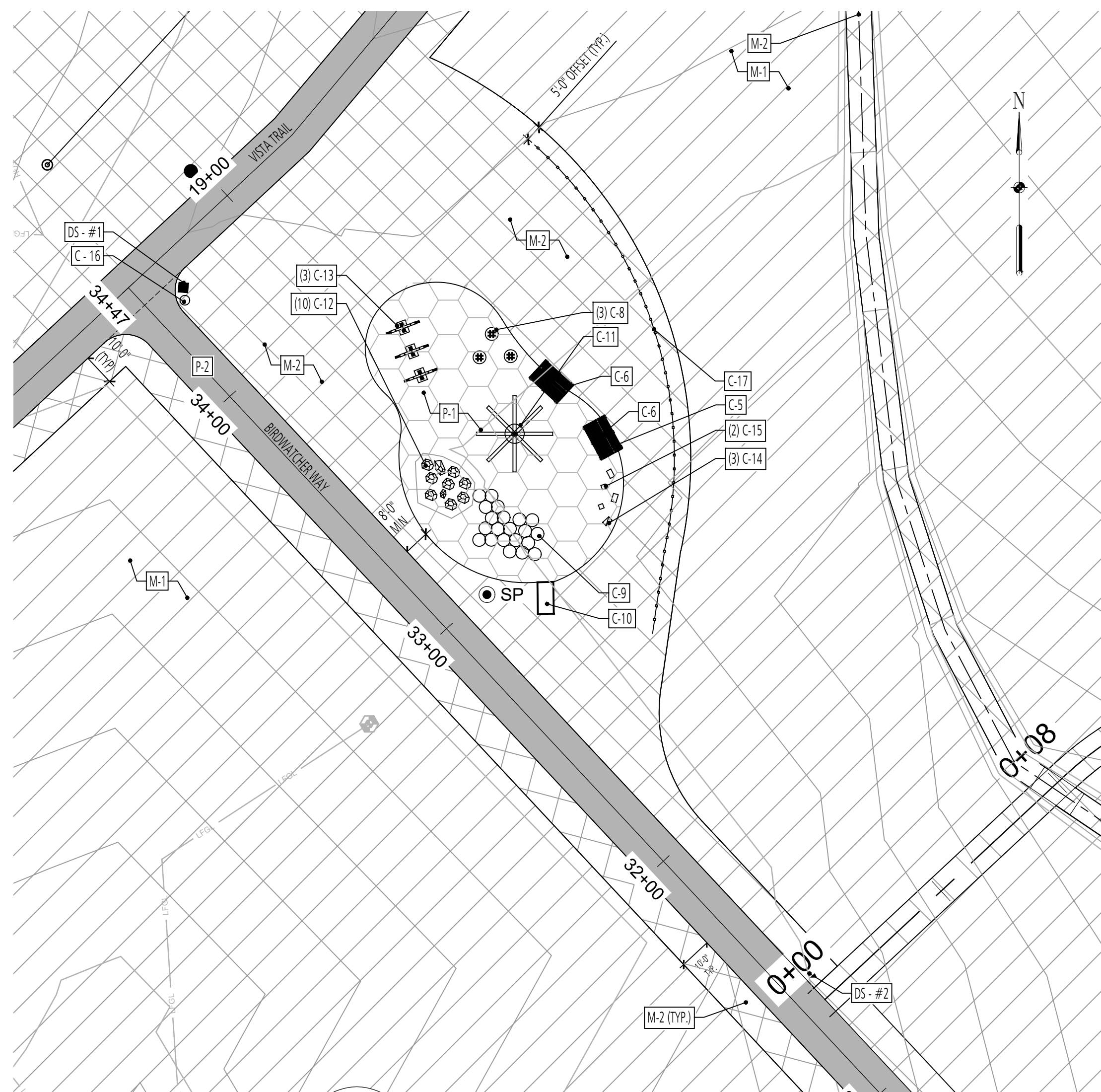
100% DESIGN PLANS - NOT FOR CONSTRUCTION

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**L201**  
 SHEET: 129 OF 146





**4 CHILDREN'S NATURE PLAY LAYOUT**  
PLAN  
SCALE: 1" = 30'-0"



**1 CHILDREN'S NATURE PLAY**  
PLAN  
SCALE: 1" = 30'-0"

**KEY NOTES:**

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		3/L304
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		1-4/L305
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	

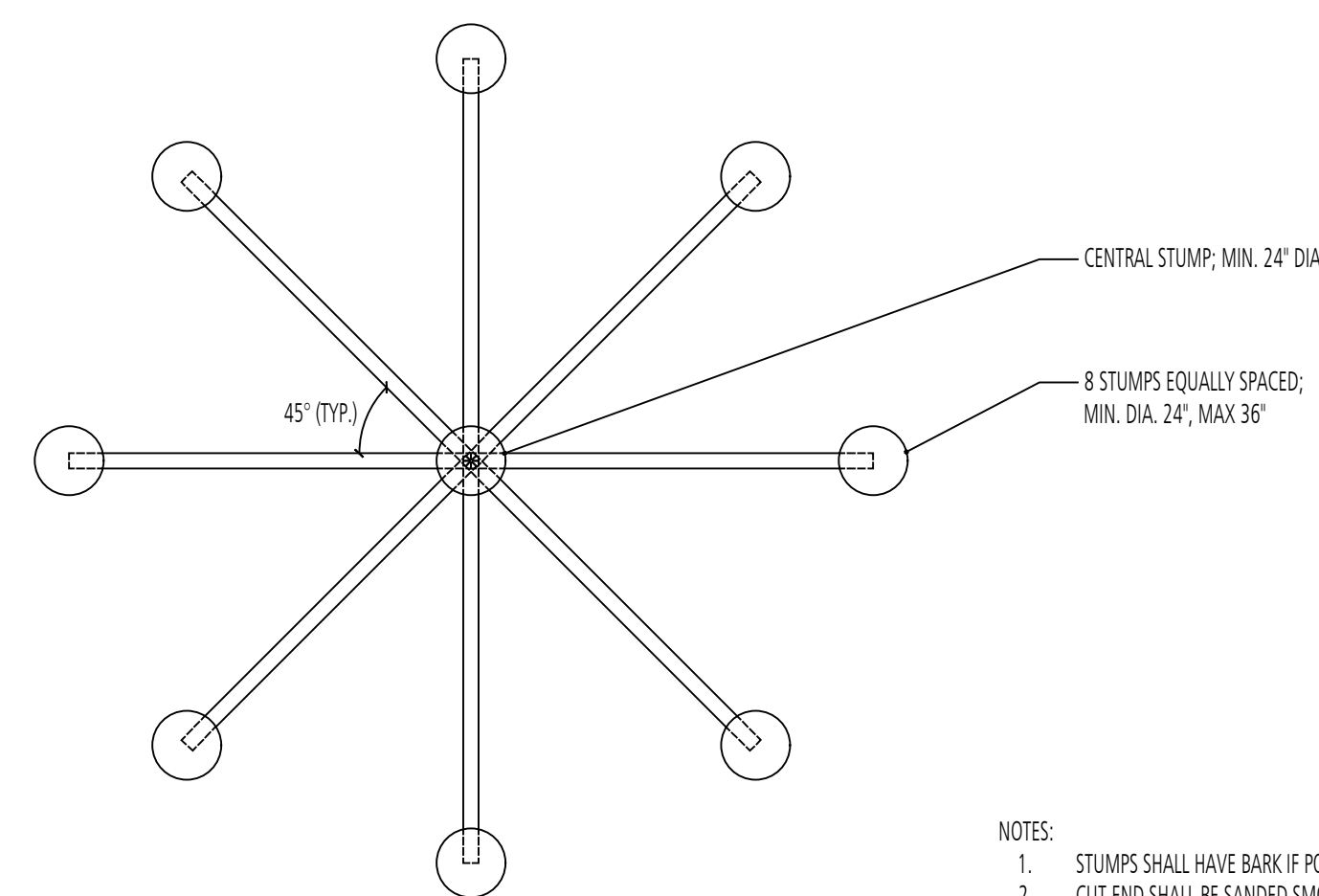
  

SIGNAGE NOTES			
SYMBOL	SIGN TYPE	NOTES	REFERENCE
TM	TRAIL MARKER	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	1/L303, 3-6/L502
EP	EDUCATIONAL POST	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	6/L303, 1-6/L500, 1-6/L501
ISS	INFORMATION SIGN (SMALL)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	3/L303, 3-6/L502, 9/L504
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	

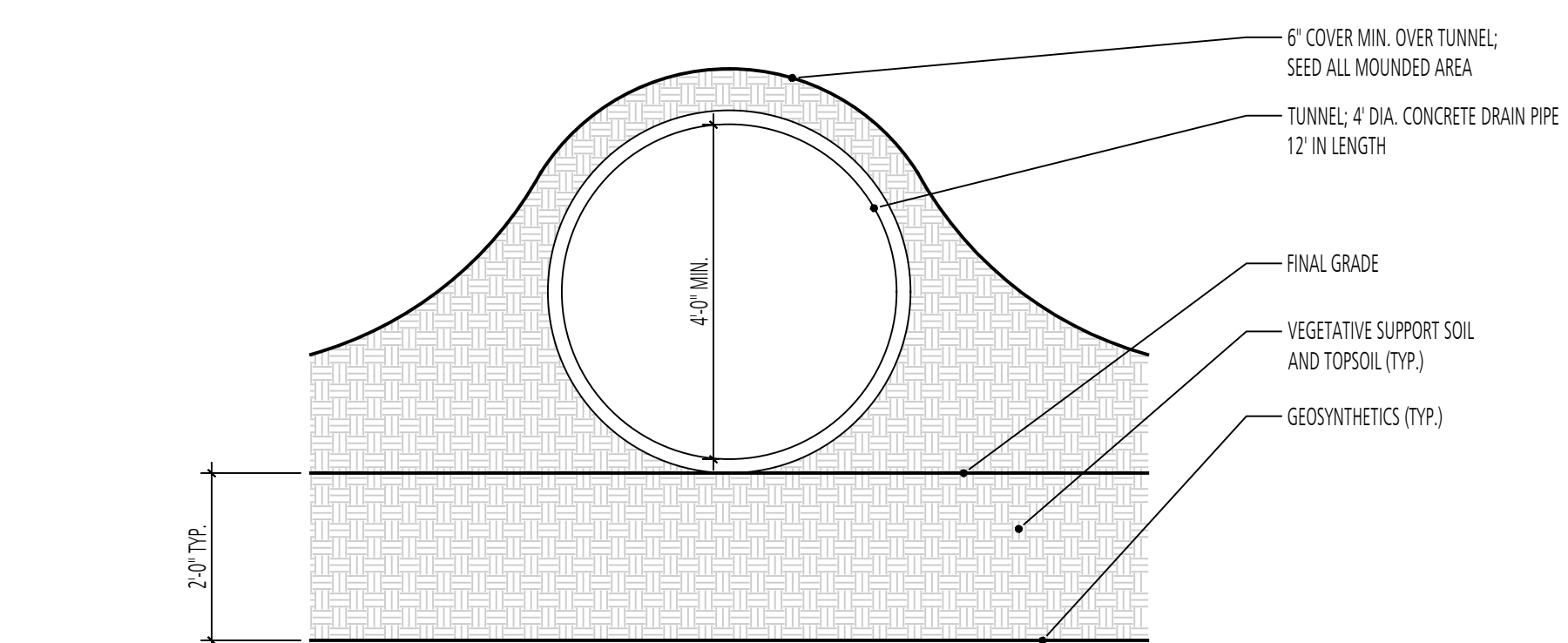
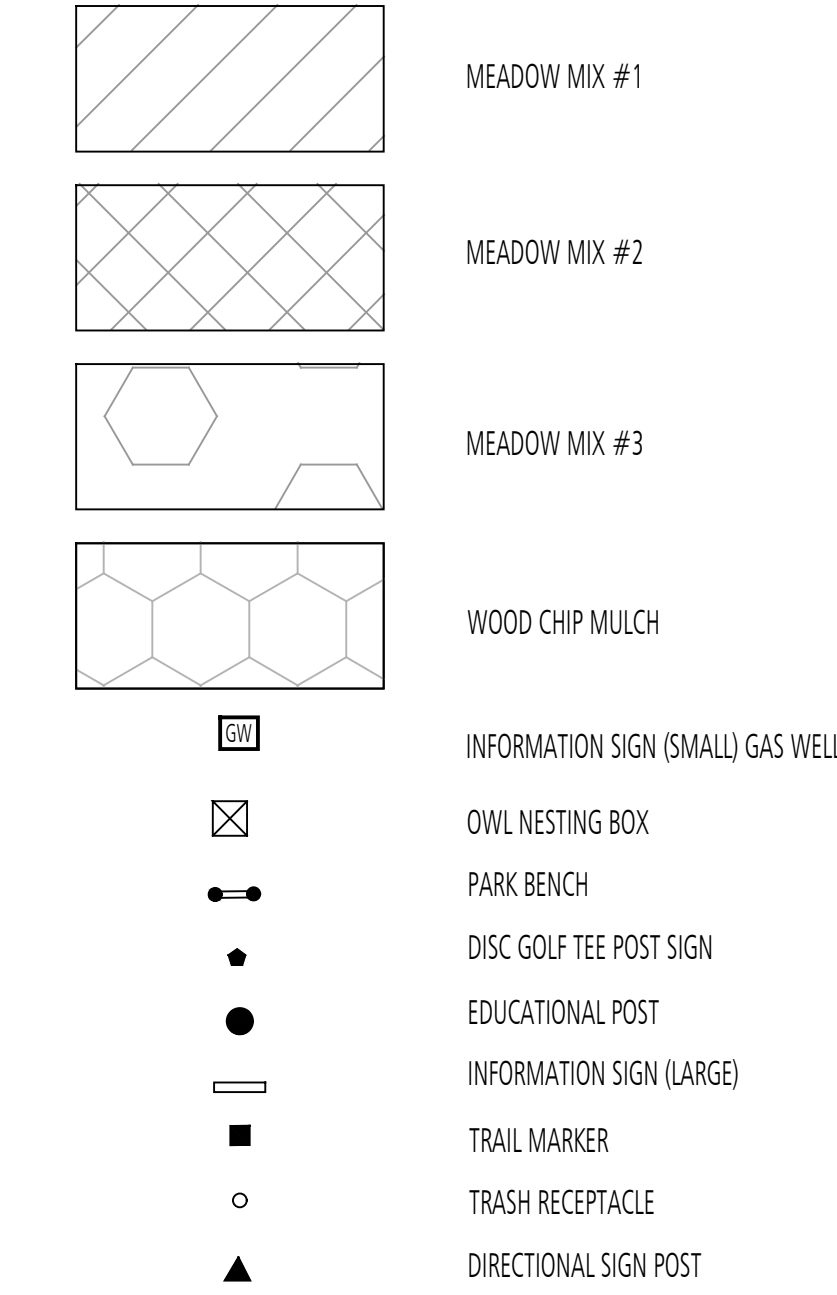
**3 BALANCE STAR**  
PLAN & SECTION  
SCALE: 1/4" = 1'-0"



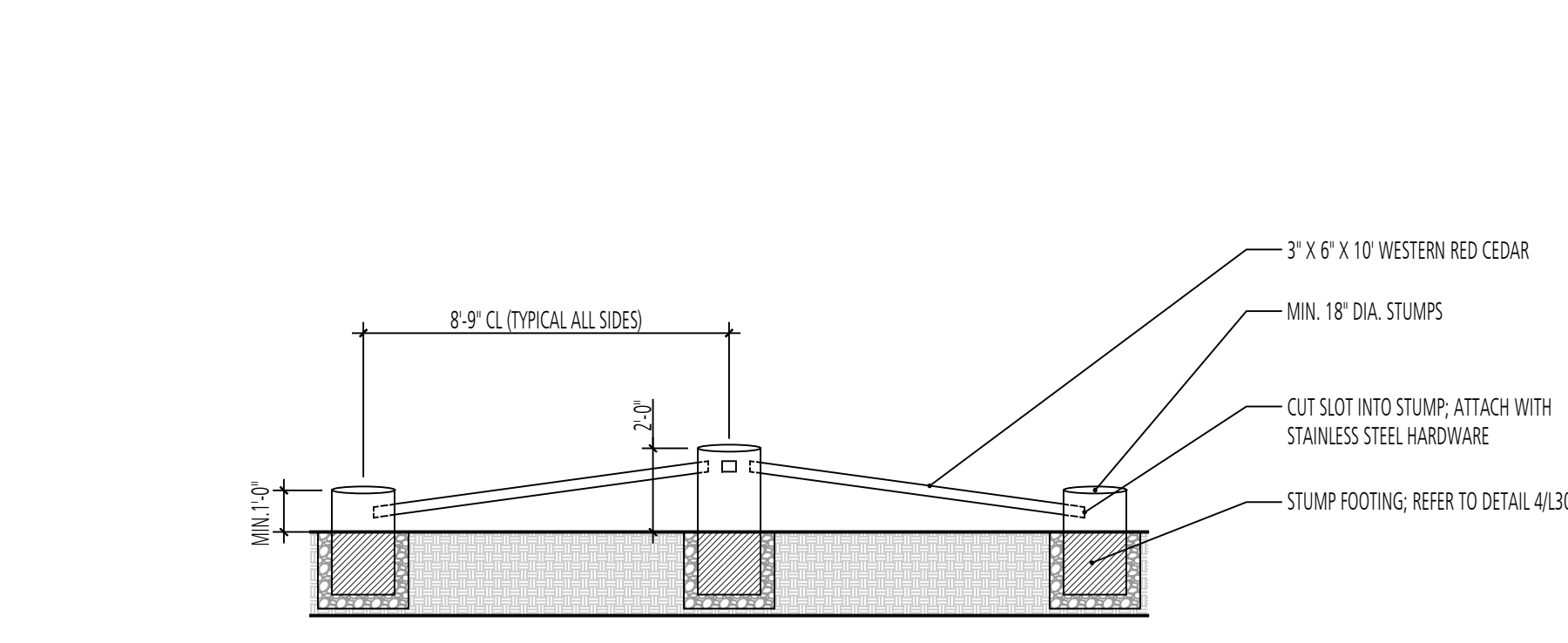
**GEOMETRY TABLE:**

L202 Children's Play			
Key	Northing	Eastng	Description
1	525597.4708	1272875.6548	Limits of Mulch;
2	525565.8879	1272891.7180	Arc Midpoint
3	525620.5483	1272853.6883	Limits of Mulch;
4	525607.7755	1272863.3750	Arc Midpoint
5	525596.9282	1272817.2266	Limits of Mulch;
6	525629.9867	1272821.6926	Arc Midpoint
7	525583.5728	127821.6429	Limits of Mulch;
8	525590.8361	1272821.2057	Arc Midpoint
9	525550.3132	1272832.1929	Limits of Mulch
10	525537.9460	1272864.8204	Tunnel
11	525538.0298	1272869.8222	Tunnel
12	525584.6261	1272857.6447	Balance Star
13	525609.0296	1272856.3850	Tic Tac Toe
14	525608.7012	1272846.5887	Tic Tac Toe
15	525616.0542	1272850.4196	Tic Tac Toe
16	525618.072	1272822.4913	Teeter Totter
17	525610.5863	1272825.3135	Teeter Totter
18	525603.1006	1272828.1357	Teeter Totter
19	525605.3923	1272865.9590	Shade Structure Post
20	525598.1408	1272873.7781	Shade Structure Post
21	525588.5854	1272883.6908	Shade Structure Post
22	525579.1766	1272888.8010	Shade Structure Post
23	525521.8262	1272901.0621	Guardrail Start
24	525548.5832	1272904.9425	Guardrail Arc
25	525675.5049	1272863.9645	Guardrail Arc
26	525617.5557	1272901.5229	Midpoint
27	525567.9628	1272885.7134	Magnifying Post
28	525561.7651	1272884.9094	Magnifying Post
29	525564.4536	1272889.1550	Butterfly Box
30	525572.0761	1272887.8579	Butterfly Box
31	525557.1205	1272886.8519	Butterfly Box

**LEGEND**




















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

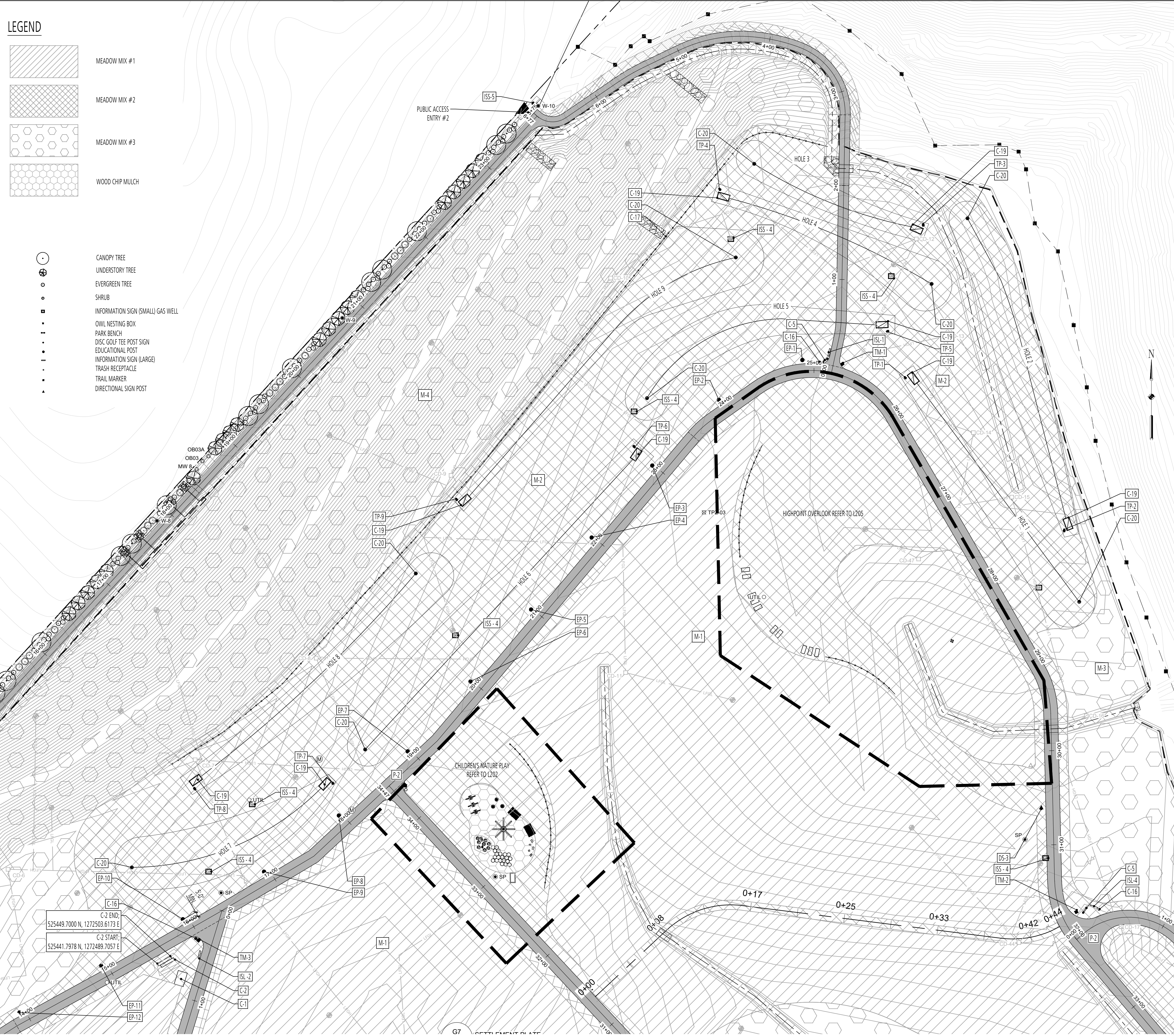


**3 STUMP CLIMB**  
SECTION  
SCALE: 1/4" = 1'-0"

DESIGN INFORMATION: 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: 07/26/2022  
**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**  
 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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**L202**  
 SHEET: 130 OF 146  
 100% DESIGN PLANS - NOT FOR CONSTRUCTION

**LEGEND**

-  MEADOW MIX #1
-  MEADOW MIX #2
-  MEADOW MIX #3
-  WOOD CHIP MULCH
-  CANOPY TREE
-  UNDERSTORY TREE
-  EVERGREEN TREE
-  SHRUB
-  INFORMATION SIGN (SMALL) GAS WELL
-  OWL NESTING BOX
-  PARK BENCH
-  DISC GOLF TEE POST SIGN
-  EDUCATIONAL POST
-  INFORMATION SIGN (LARGE)
-  TRASH RECEPTACLE
-  TRAIL MARKER
-  DIRECTIONAL SIGN POST



**KEY NOTES:**

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		3/L304
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		1-4/L305
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, 9/L504
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	

NOTE: THE WEATHER STATION (C-1) IS AN EXISTING FEATURE. RELOCATION WILL BE BY OTHERS; CONTRACTOR SHALL COORDINATE WITH THE CONSTRUCTION MANAGEMENT ENGINEER.

**GEOMETRY TABLE:**

L203 Disc Golf			
Key	Northing	Easting	Description
EP-1	526083.1882	1273175.2561	Educational Post Centerpoint
EP-2	526040.8339	1273086.5243	Educational Post Centerpoint
EP-3	525971.0406	1273015.7428	Educational Post Centerpoint
EP-4	525864.5341	1272951.3474	Educational Post Centerpoint
EP-5	525818.0277	1272886.9521	Educational Post Centerpoint
EP-6	525741.5212	1272822.5567	Educational Post Centerpoint
EP-7	525667.2916	1272755.7648	Educational Post Centerpoint
EP-8	525599.0636	1272682.6557	Educational Post Centerpoint
EP-9	525539.3714	1272603.1486	Educational Post Centerpoint
EP-10	525488.8717	1272516.8401	Educational Post Centerpoint
EP-11	525439.2512	1272430.0196	Educational Post Centerpoint
EP-12	525389.6308	1272343.1990	Educational Post Centerpoint
TP-1	526064.0867	1273284.8131	Tee Post Centerpoint - Hole 1
TP-2	525901.6434	1273453.5822	Tee Post Centerpoint - Hole 2
TP-3	526226.4361	1273303.8255	Tee Post Centerpoint - Hole 3
TP-4	526264.4174	1273087.6970	Tee Post Centerpoint - Hole 4
TP-5	526113.8567	1273266.3383	Tee Post Centerpoint - Hole 5
TP-6	525991.6200	1272996.2652	Tee Post Centerpoint - Hole 6
TP-7	525633.2214	1272676.3820	Tee Post Centerpoint - Hole 7
TP-8	525627.8593	1272529.1811	Tee Post Centerpoint - Hole 8
TP-9	525934.8949	1272808.0123	Tee Post Centerpoint - Hole 9
C-20	525826.1518	1273469.5443	Basket Target - Hole 1
C-20	526233.7529	1273350.7974	Basket Target - Hole 2
C-20	526291.6657	1273124.0831	Basket Target - Hole 3
C-20	526164.1084	1273312.5724	Basket Target - Hole 4
C-20	526042.7145	1273010.1588	Basket Target - Hole 5
C-20	525669.2153	1272710.5738	Basket Target - Hole 6
C-20	525543.9563	1272462.5857	Basket Target - Hole 7
C-20	525856.3594	1272764.4201	Basket Target - Hole 8
C-20	526192.1597	1273104.5118	Basket Target - Hole 9
C-19	526063.9007	1273293.2535	Tee Box Centerpoint - Hole 1
C-19	525909.114	1273457.5818	Tee Box Centerpoint - Hole 2
C-19	526222.3214	1273296.7550	Tee Box Centerpoint - Hole 3
C-19	526256.8365	1273091.4211	Tee Box Centerpoint - Hole 4
C-19	526120.7675	1273260.0168	Tee Box Centerpoint - Hole 5
C-19	525982.8765	1272998.7059	Tee Box Centerpoint - Hole 6
C-19	525632.7541	1272667.9824	Tee Box Centerpoint - Hole 7
C-19	525636.6643	1272530.5804	Tee Box Centerpoint - Hole 8
C-19	525934.2028	1272816.5213	Tee Box Centerpoint - Hole 9
ISL-1	526091.4535	1273204.1503	Information Sign (Large) Centerpoint
ISL-2	525450.9805	1272534.4676	Information Sign (Large) Centerpoint
ISL-4	525502.0073	1273484.7549	Information Sign (Large) Centerpoint
ISL-5	526355.8738	1272889.7345	Information Sign (Large) Centerpoint

**1 DISC GOLF COURSE**  
PLAN

SCALE: 1" = 40'-0"



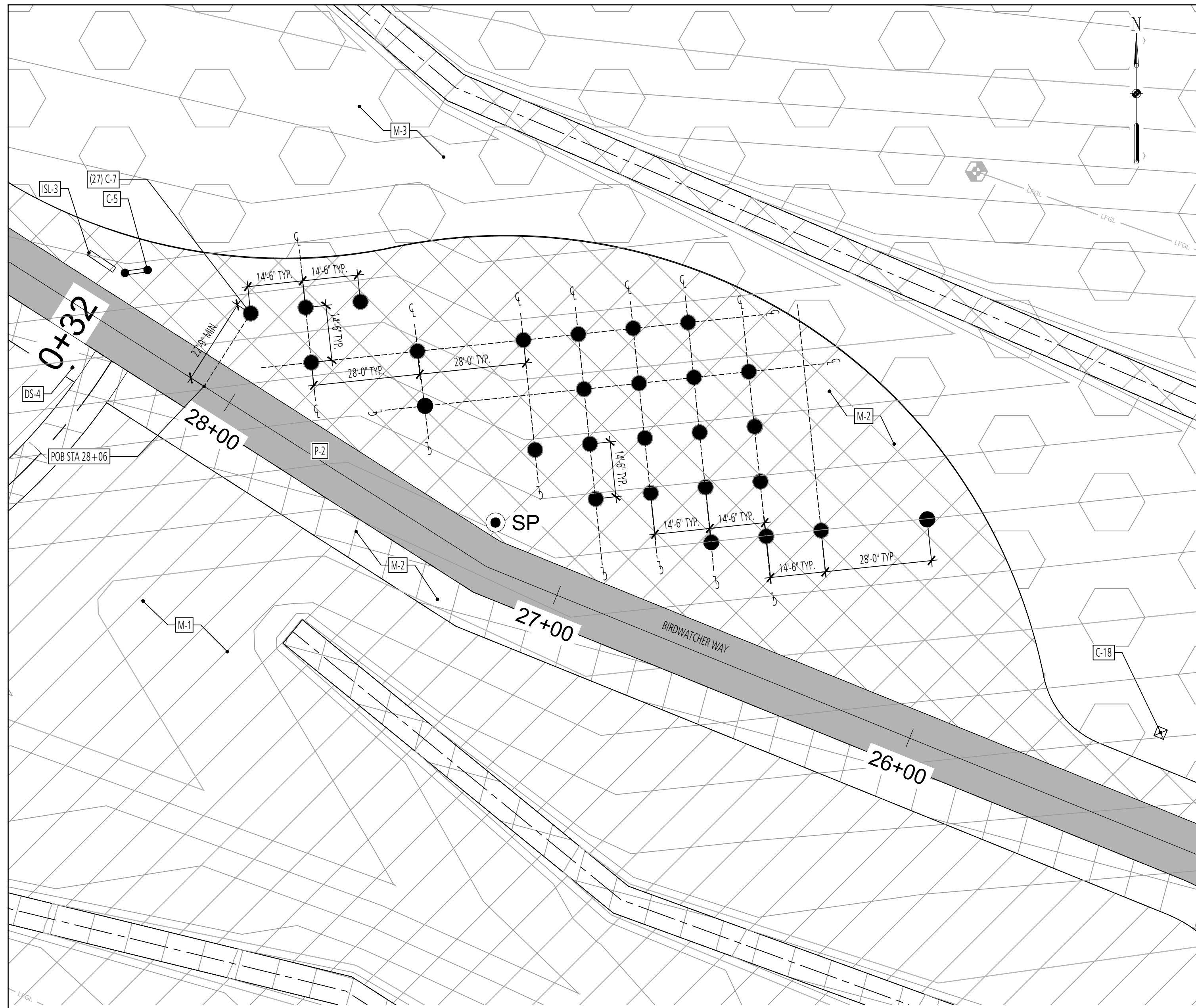
**GUIDE LANDFILL REMEDIATION DESIGN**  
**NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY**  
**MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 MONTGOMERY COUNTY, MARYLAND  
**DISC GOLF COURSE ENLARGEMENT PLAN**

**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: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**L203**  
SHEET: 131 OF 146

100% 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		3/L304
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		1-4/L305
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, 9/L504
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

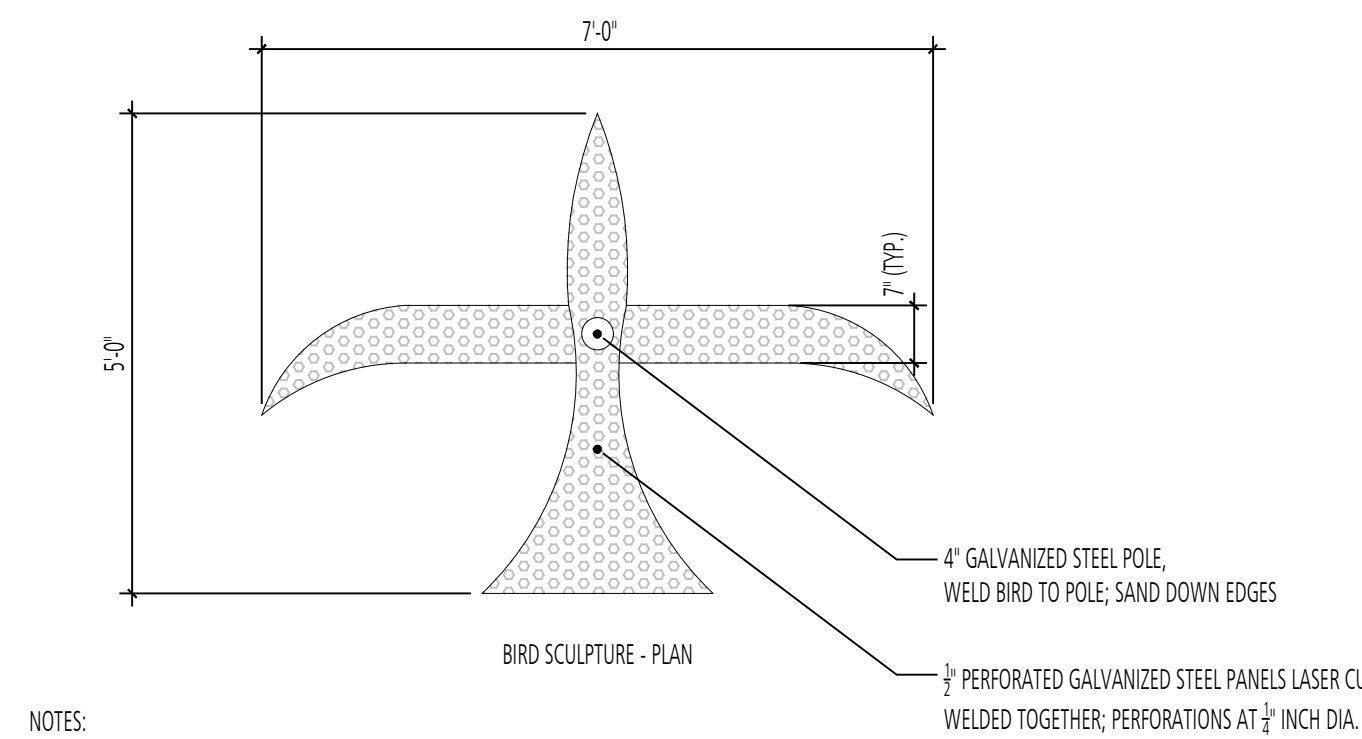
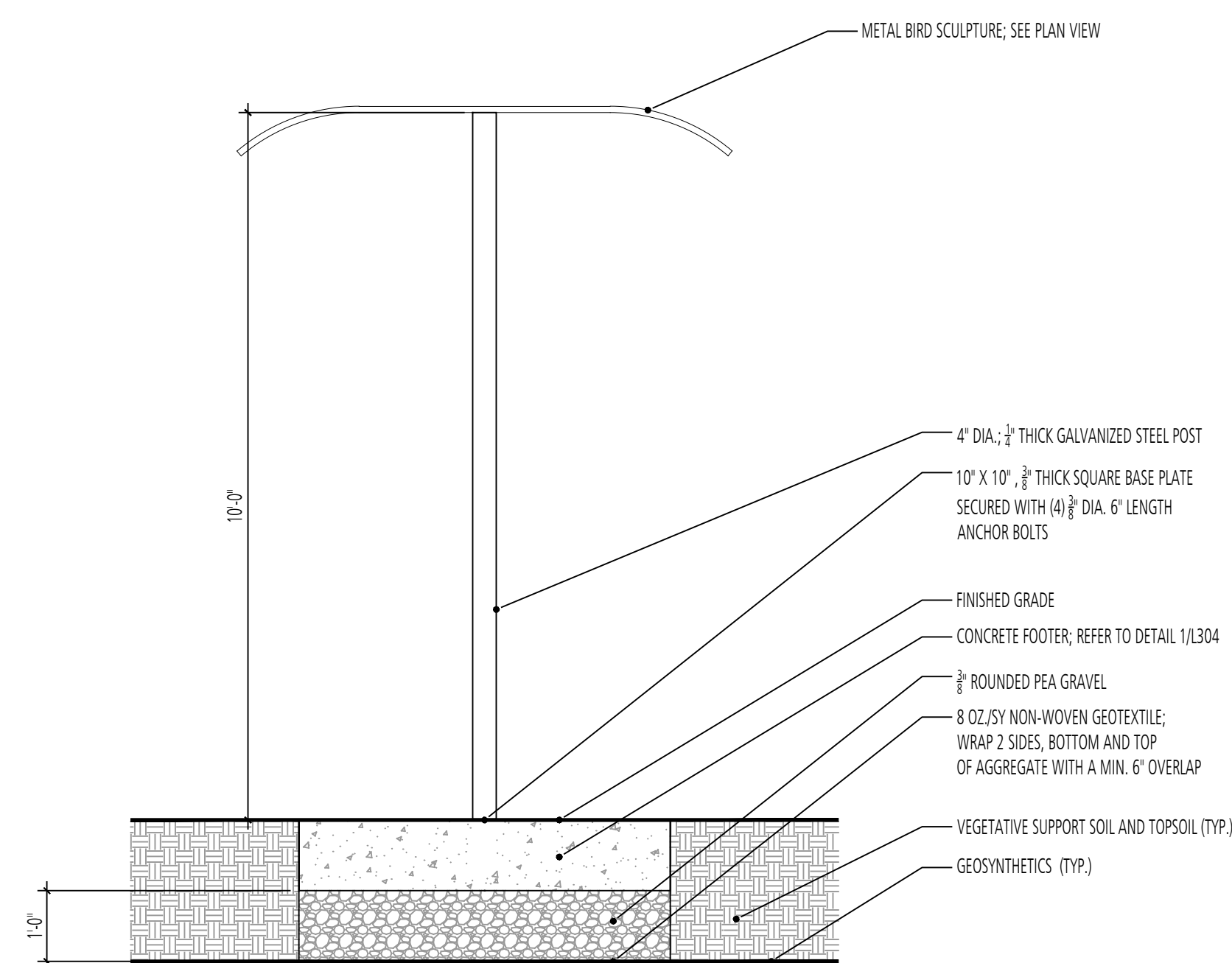
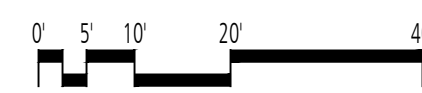
MEADOW NOTES			
SYMBOL	MEADOW TYPE	NOTES	REFERENCE
M-1	MEADOW MIX #1	REFER TO SPECIFICATIONS	
M-2	MEADOW MIX #2	REFER TO SPECIFICATIONS	
M-3	MEADOW MIX #3	REFER TO SPECIFICATIONS	

LEGEND

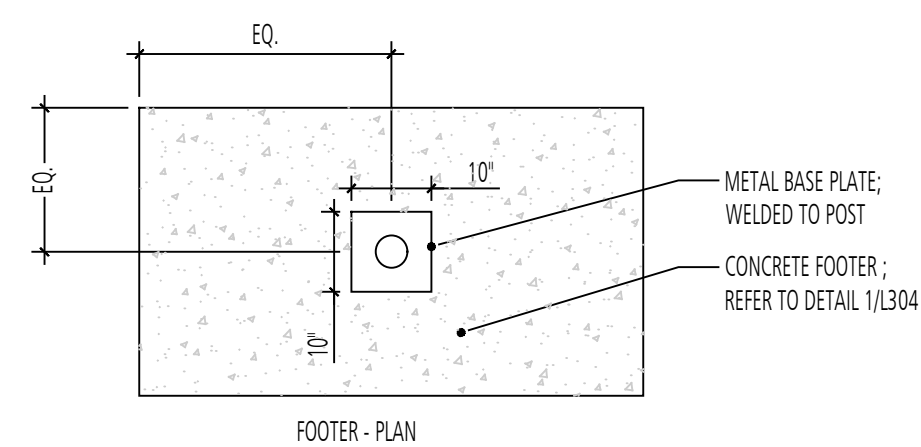
- MEADOW MIX #1
- MEADOW MIX #2
- MEADOW MIX #3
- WOOD CHIP MULCH
- INFORMATION SIGN (SMALL) GAS WELL
- OWL NESTING BOX
- PARK BENCH
- DISC GOLF TEE POST SIGN
- EDUCATIONAL POST
- INFORMATION SIGN (LARGE)
- TRAIL MARKER
- TRASH RECEPTACLE
- DIRECTIONAL SIGN POST

1 ART INSTALLATION PLAN

SCALE: 1" = 20'-0"



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



2 ART INSTALLATION SECTION & PLAN

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

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. 10993 EXPIRATION DATE: 07/26/2022			

GUDE 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: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**L204**  
 SHEET: 132 OF 146

FILE PATH: P:\P\PROJECTS\1888 - GUDE LANDFILL REMEDIATION DESIGN\1888 - GUDE LANDFILL REMEDIATION ENLARGEMENT.DWG, DATE: 12/20/2020 4:57 PM

100% DESIGN PLANS - NOT FOR CONSTRUCTION



KEY NOTES:

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		3/L304
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		1-4/L305
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/L501
ISS	INFORMATION SIGN (SMALL)	REFER TO SIGN GRAPHICS SHEETS FOR INDIVIDUAL SIGNS	3/L303, 3-6/L502, 9/L504
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	

GEOMETRY TABLE:

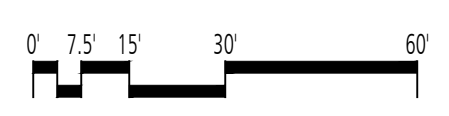
Key	Northing	Easting	Description
1	525784.6276	1273334.3885	Owl Nest Box
2	525728.129	1273273.6570	Guardrail Start
3	525767.7857	1273199.7515	Guardrail End
4	525754.4919	1273240.2106	Guardrail Midpoint
5	525873.1156	1273109.0429	Guardrail Start
6	525992.7507	1273132.7666	Guardrail End
7	525934.7323	1273111.8322	Guardrail Midpoint

LEGEND

- MEADOW MIX #1
- MEADOW MIX #2
- MEADOW MIX #3
- WOOD CHIP MULCH
- INFORMATION SIGN (SMALL) GAS WELL
- OWL NESTING BOX
- PARK BENCH
- DISC GOLF TEE POST SIGN
- EDUCATIONAL POST
- INFORMATION SIGN (LARGE)
- TRAIL MARKER
- TRASH RECEPTACLE
- DIRECTIONAL SIGN POST

1 HIGHPOINT OVERLOOK PLAN

SCALE: 1" = 30'-0"



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

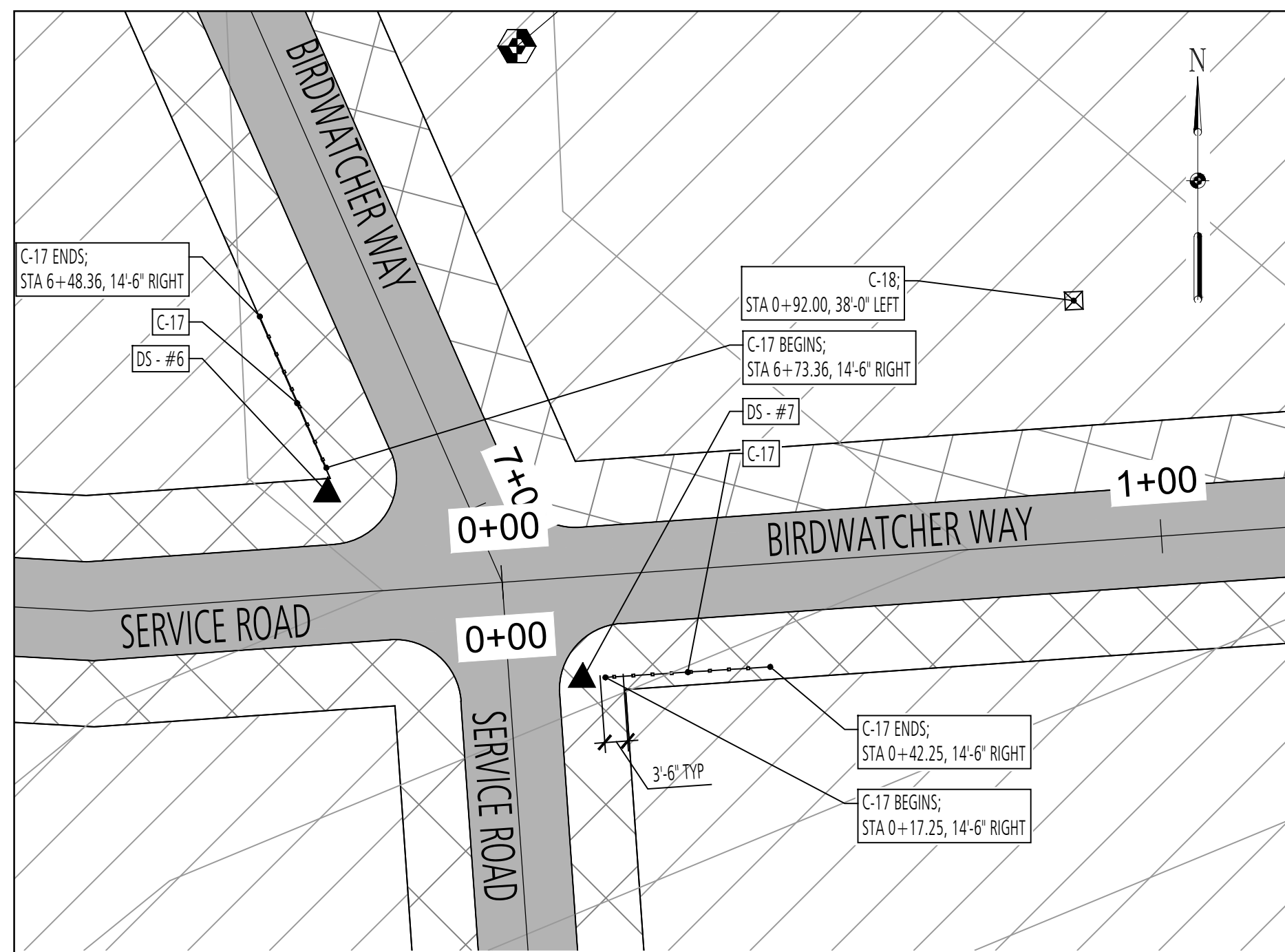
**FLOURA TEETER**  
 landscape architects  
 800 North Charles St. Ste. 300  
 Baltimore, Maryland 21201  
 Phone: 410.528.8395  
 Fax: 410.528.8425

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

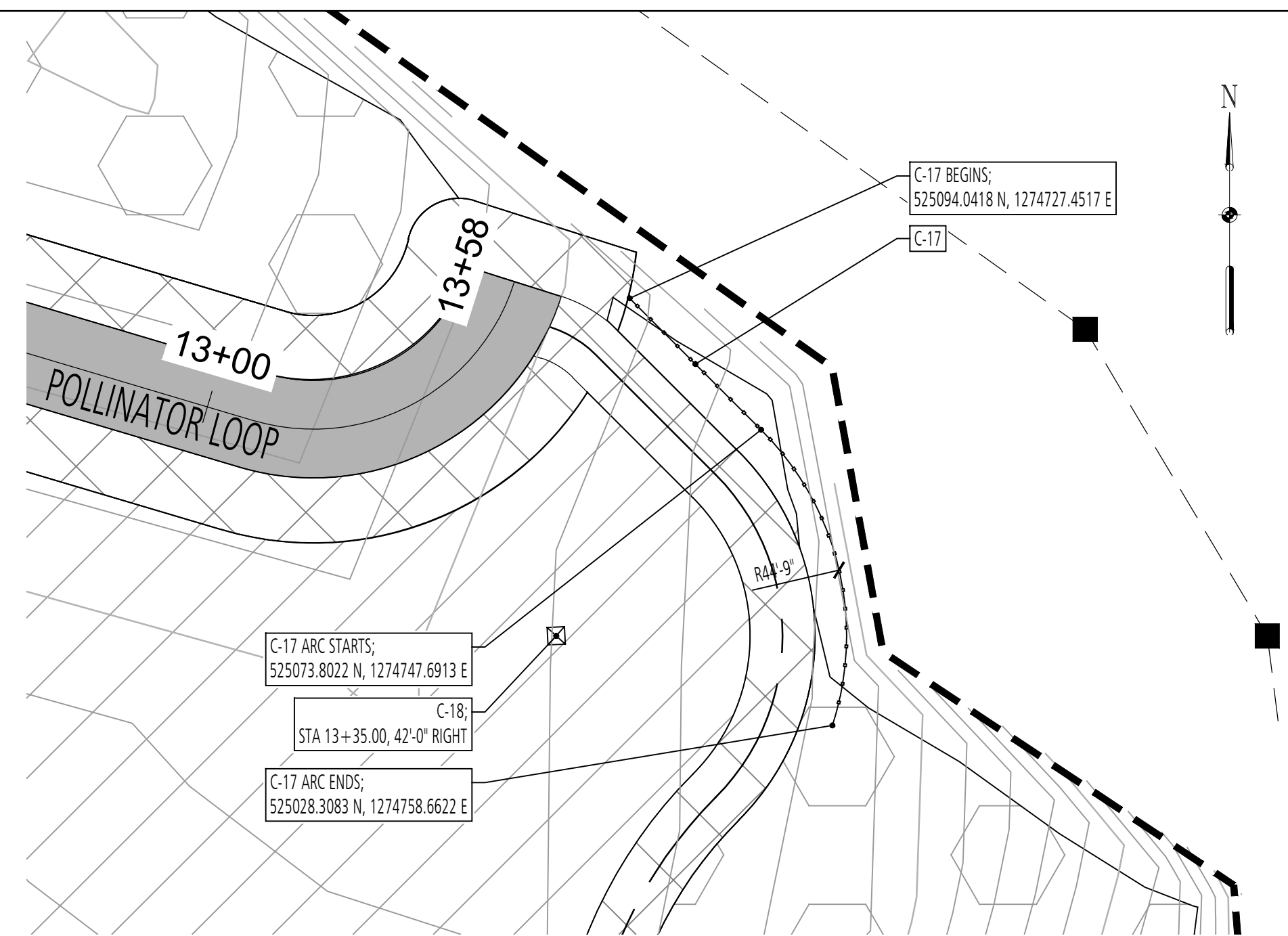
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**L205**  
 SHEET: 133 OF 146

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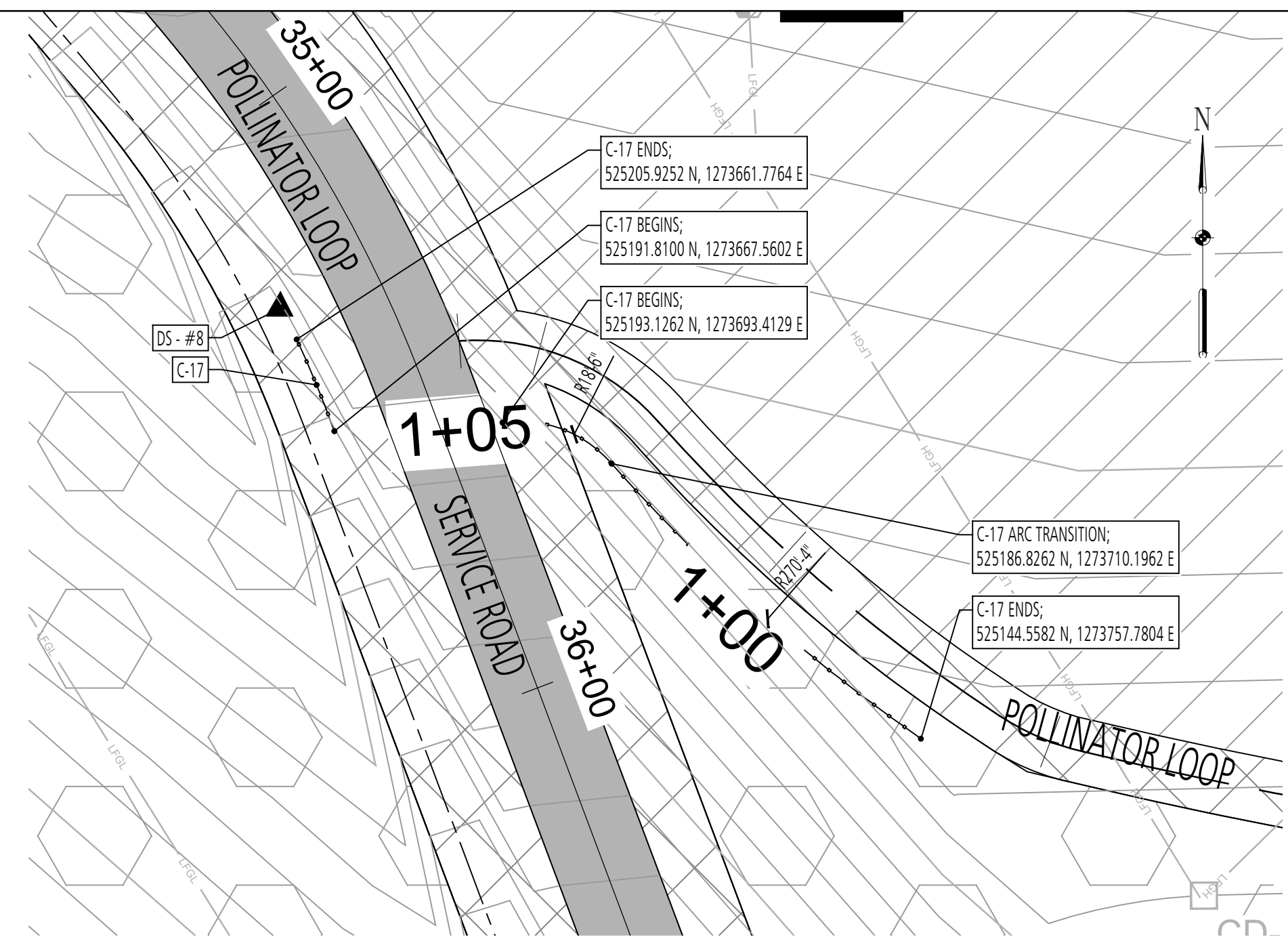
100% DESIGN PLANS - NOT FOR CONSTRUCTION



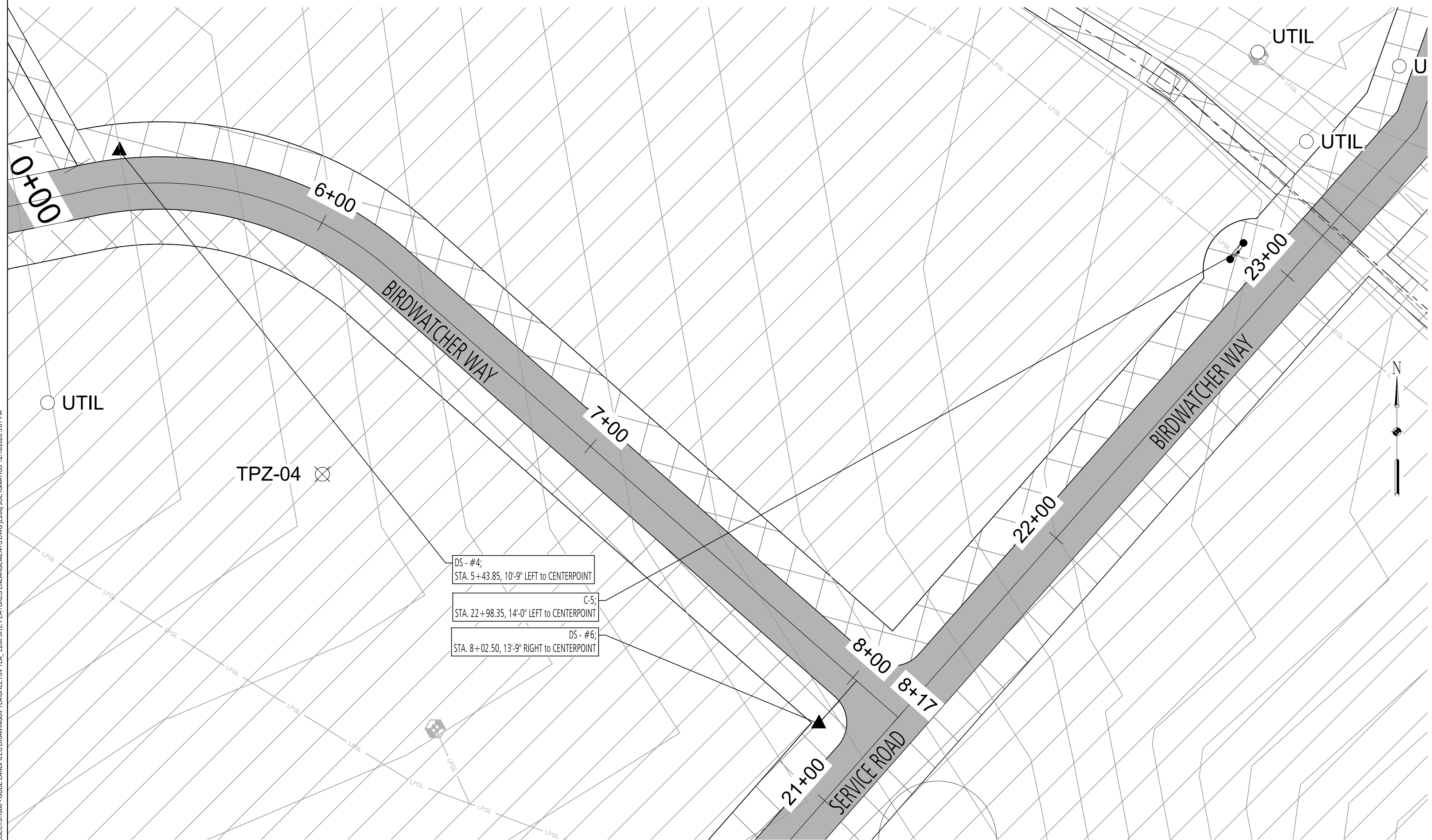
**1 BIRDWATCHER WAY ENLARGEMENT**  
 PLAN ENLARGEMENT  
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 SCALE: 1" = 20'-0"



**2 POLLINATOR LOOP ENLARGEMENT**  
 PLAN ENLARGEMENT  
 L206\_Trail Wayfinding Enlargements.dwg  
 SCALE: 1" = 20'-0"



**3 POLLINATOR LOOP ENLARGEMENT**  
 PLAN ENLARGEMENT  
 L206\_Trail Wayfinding Enlargements.dwg  
 SCALE: 1" = 20'-0"



**4 BIRDWATCHER WAY ENLARGEMENT**  
 PLAN ENLARGEMENT  
 L206\_Trail Wayfinding Enlargements.dwg  
 SCALE: 1" = 20'-0"

**KEYNOTES:**

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		3/L304
C-5	PARK BENCH		7/L303
C-6	SHADE STRUCTURE		1-4/L305
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
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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

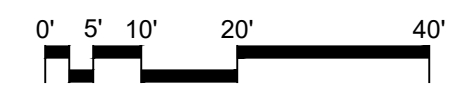
PAVEMENT NOTES			
SYMBOL	PAVEMENT TYPE	NOTES	REFERENCE
P-1	MULCH BED		2/L400
P-2	ACCESS ROAD	REFER TO CIVIL PLAN	

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, 9/L504
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	

**LEGEND**

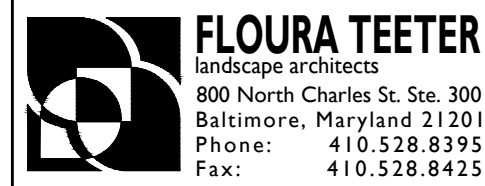
- MEADOW MIX #1
- MEADOW MIX #2
- MEADOW MIX #3
- WOOD CHIP MULCH
- INFORMATION SIGN (SMALL) GAS WELL
- OWL NESTING BOX
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- EDUCATIONAL POST
- INFORMATION SIGN (LARGE)
- TRAIL MARKER
- TRASH RECEPTACLE
- DIRECTIONAL SIGN POST



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

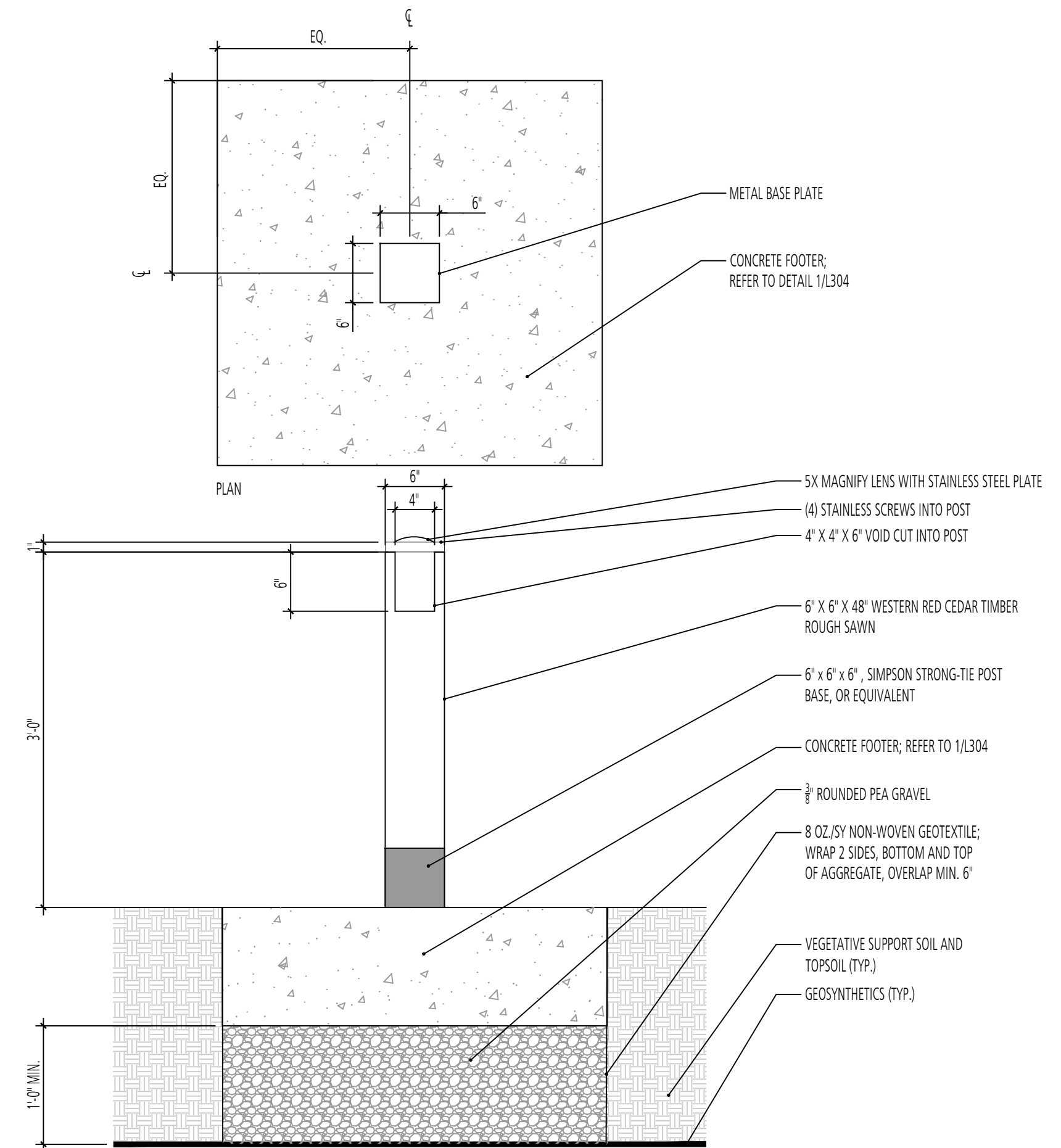
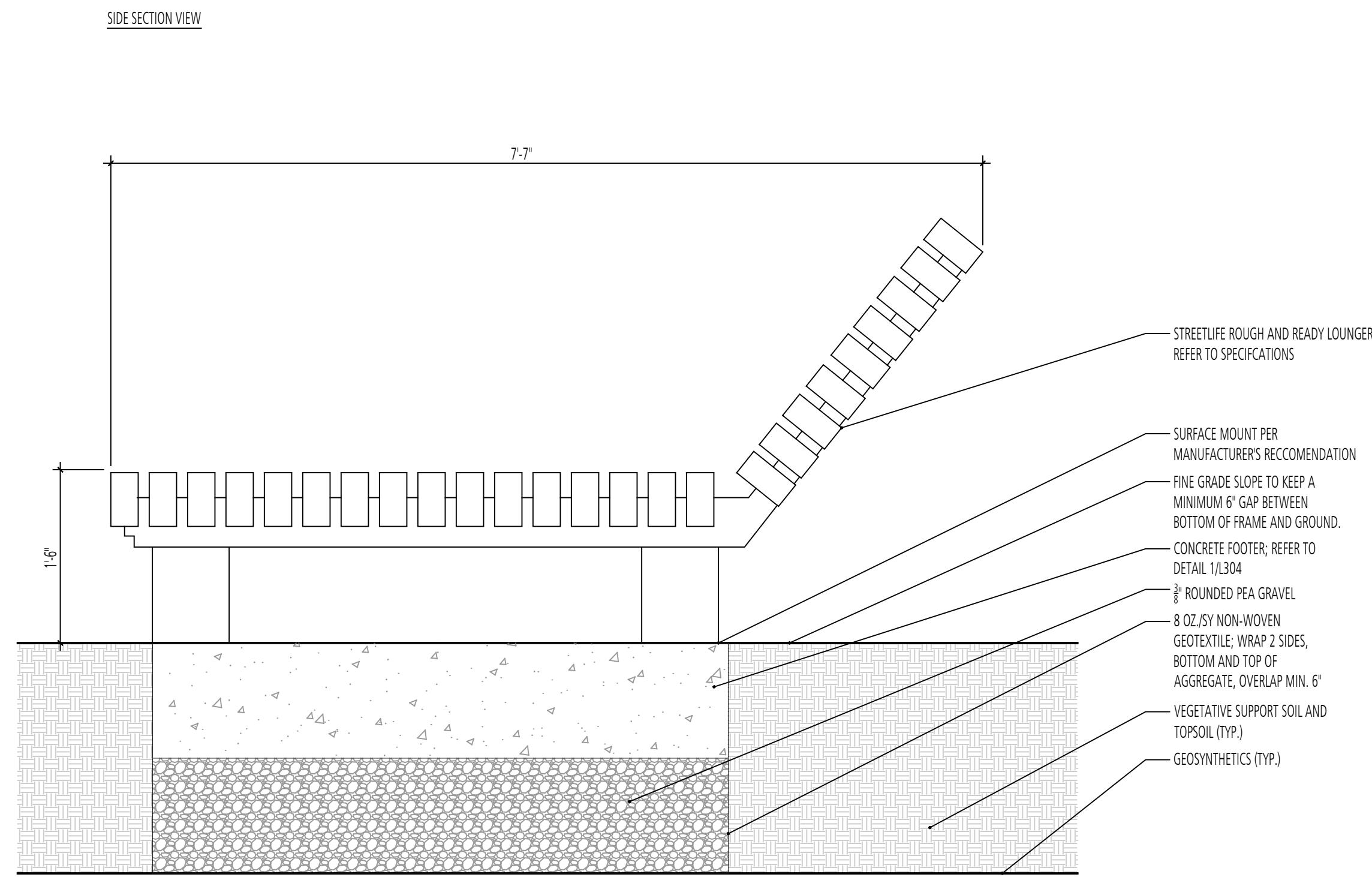
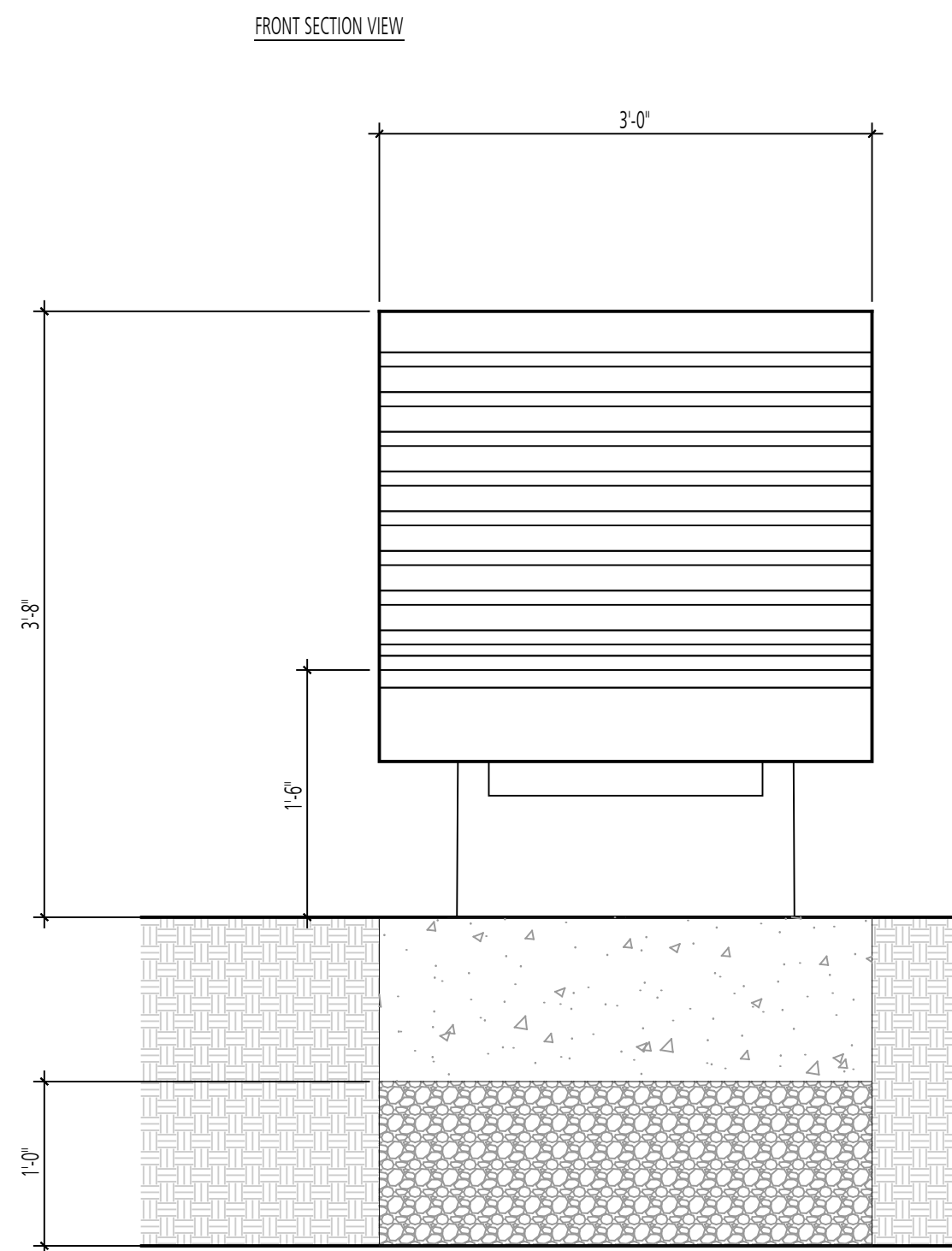
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1093 EXPIRATION DATE: 07/26/2022

GUDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 TRAIL AND WAYFINDING ENLARGEMENT PLANS



DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**L206**  
 SHEET: 134 OF 146

100% DESIGN PLANS - NOT FOR CONSTRUCTION

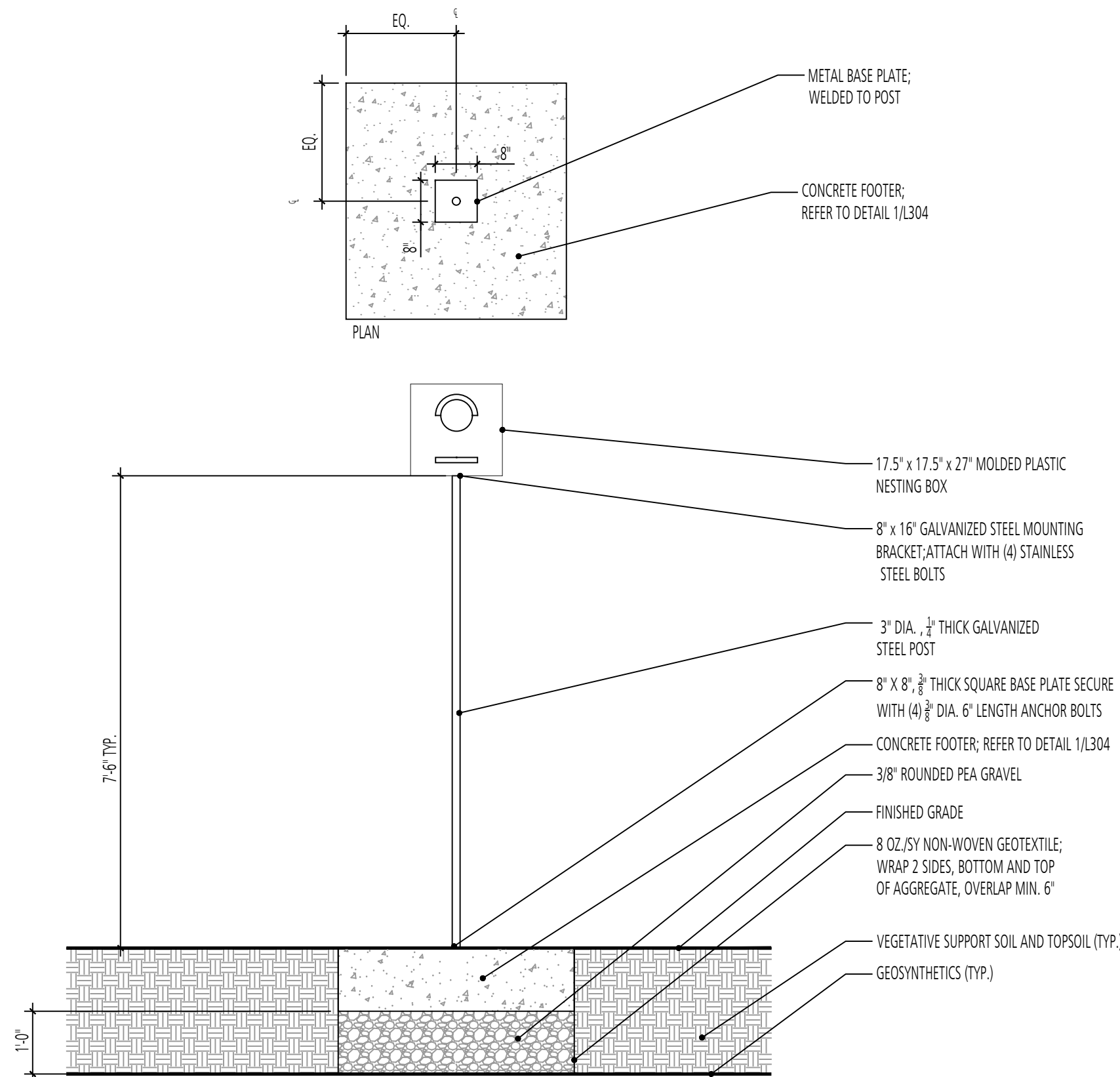


1 SLOPED CHAISE LOUNGE CHAIR  
PLAN & SECTION

SCALE: 1" = 1'-0"

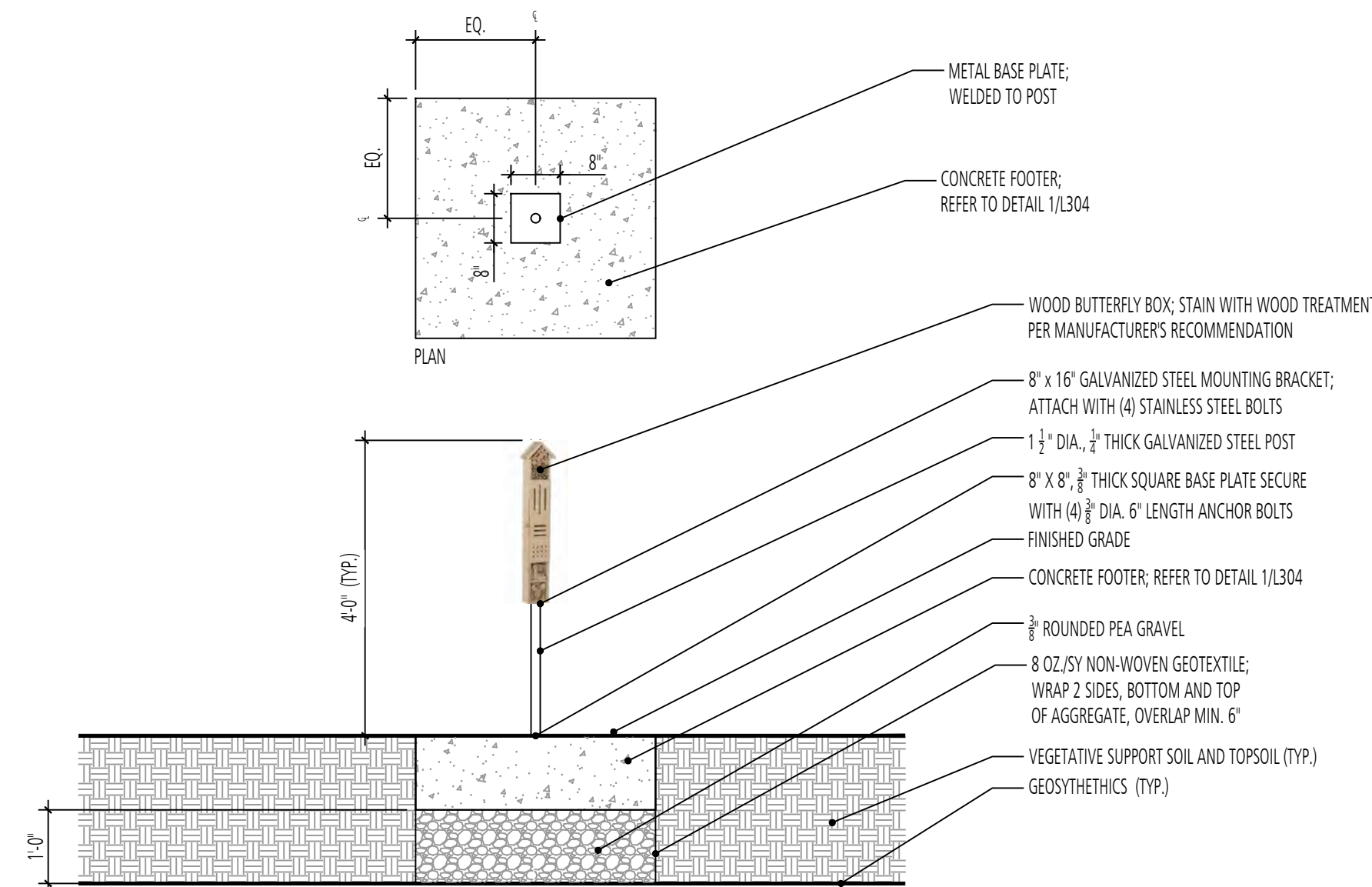
2 MAGNIFYING LENS POST  
SECTION

SCALE: 1" = 1'-0"



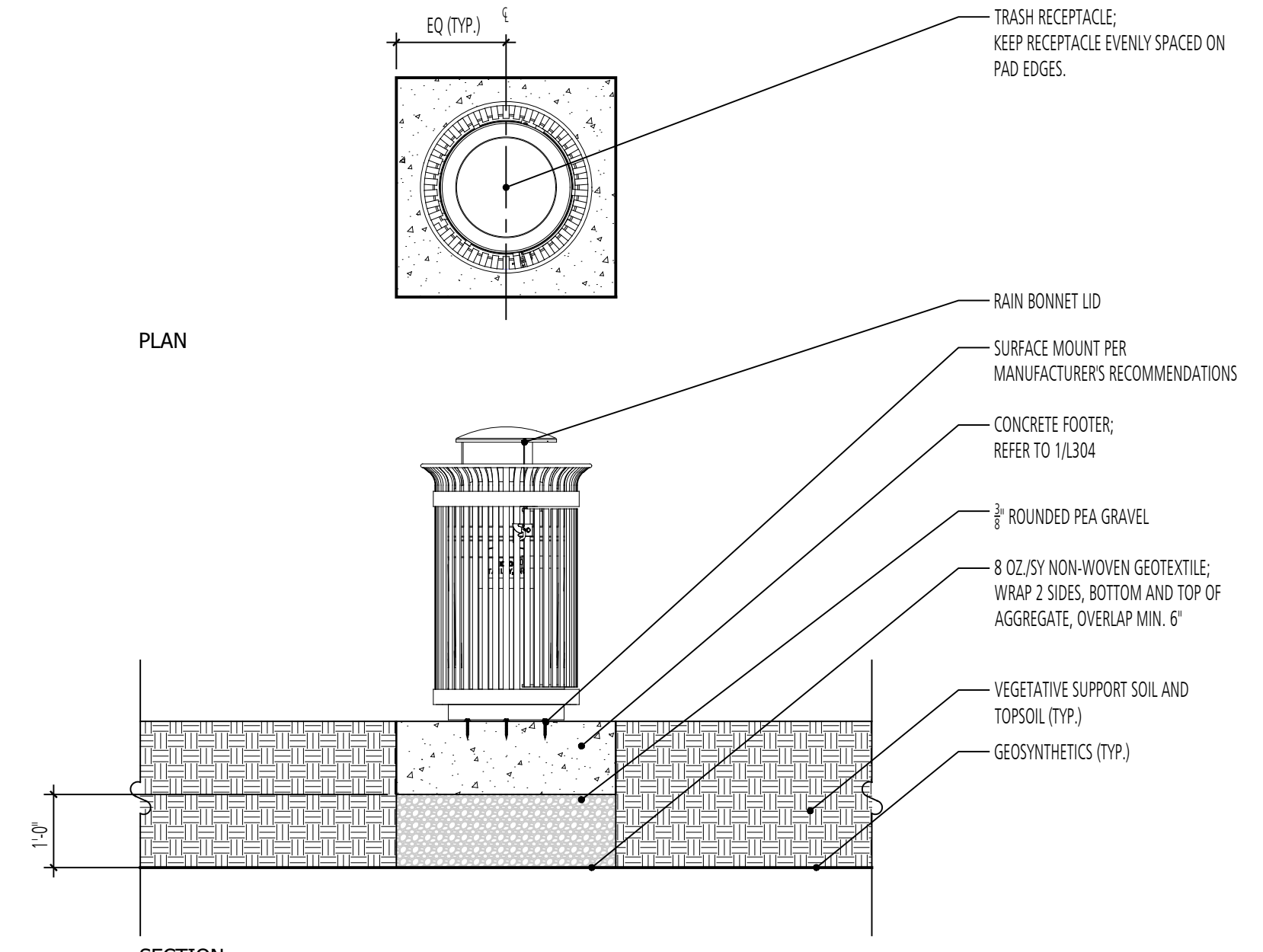
3 OWL NESTING BOX  
SECTION

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



4 BUTTERFLY BOX  
SECTION

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



5 TRASH RECEPTACLE  
SECTION

SCALE: 1/2" = 1'

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

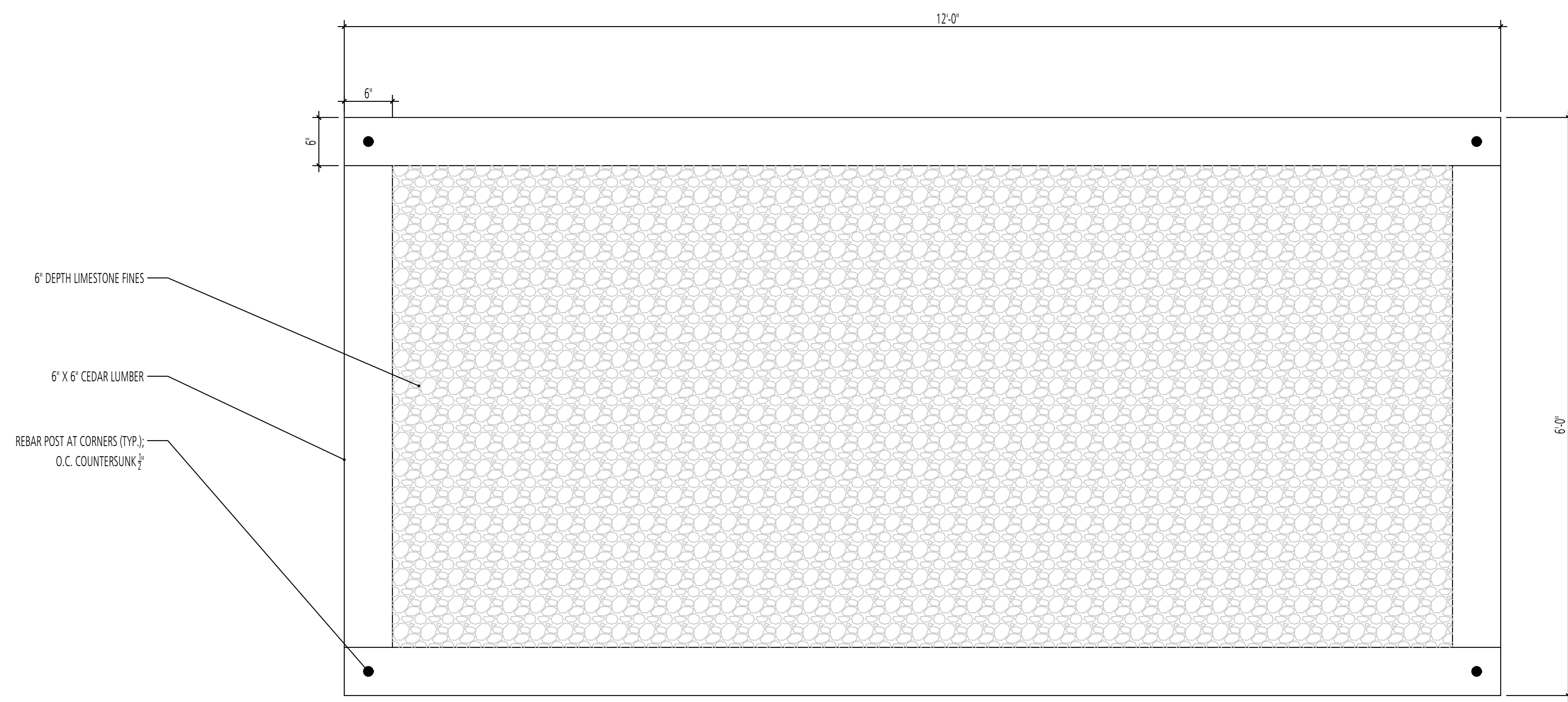
**EA**  
**EA Engineering, Science, and Technology, Inc., PBC**  
 Hunt Valley Center  
 225 Schilling Circle, Suite 400  
 Hunt Valley, Maryland 21031  
 (410) 584-7000

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601

**L300**  
 SHEET: 135 OF 146

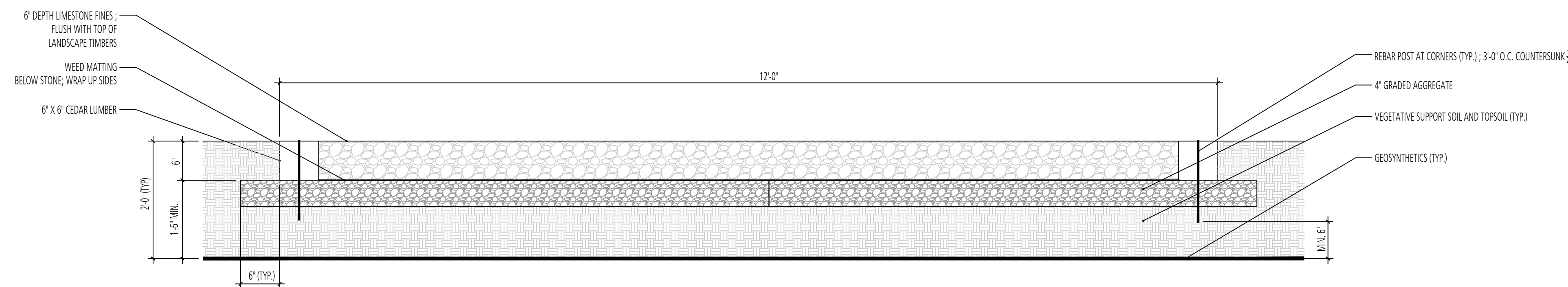
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100% DESIGN PLANS - NOT FOR CONSTRUCTION



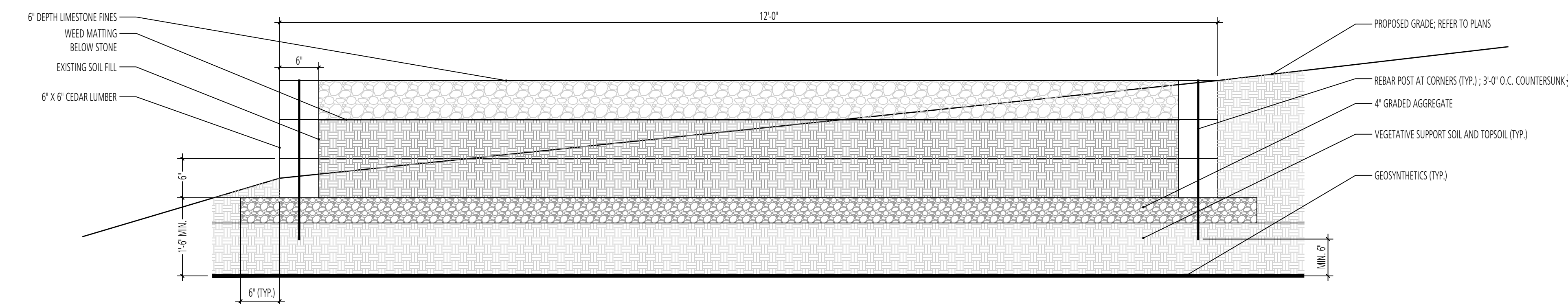
1 DISC GOLF TEE BOX  
PLAN

SCALE: 1"=1'-0"



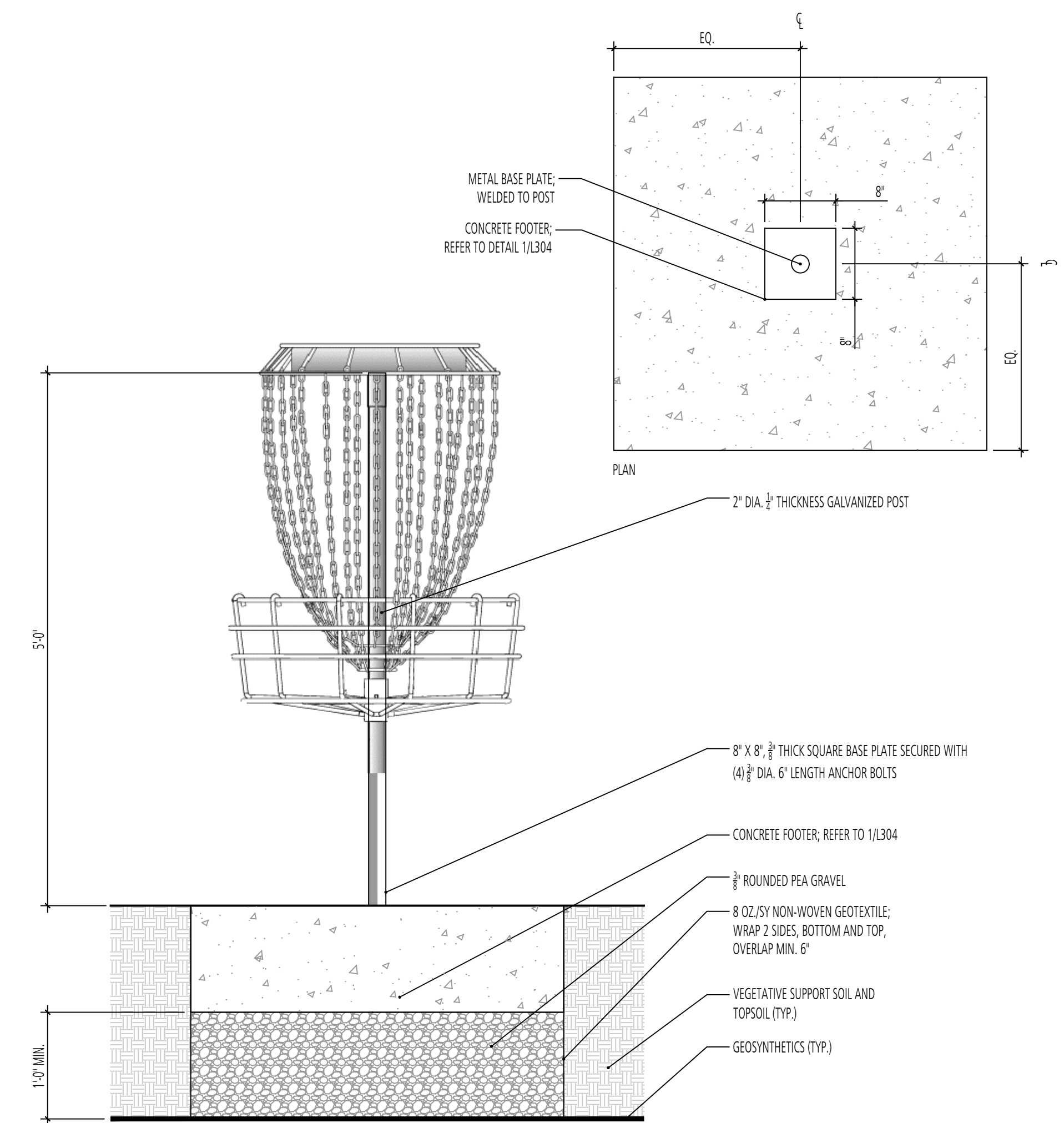
2 DISC GOLF TEE BOX - FLAT GRADE  
SECTION

SCALE: 1"=1'-0"



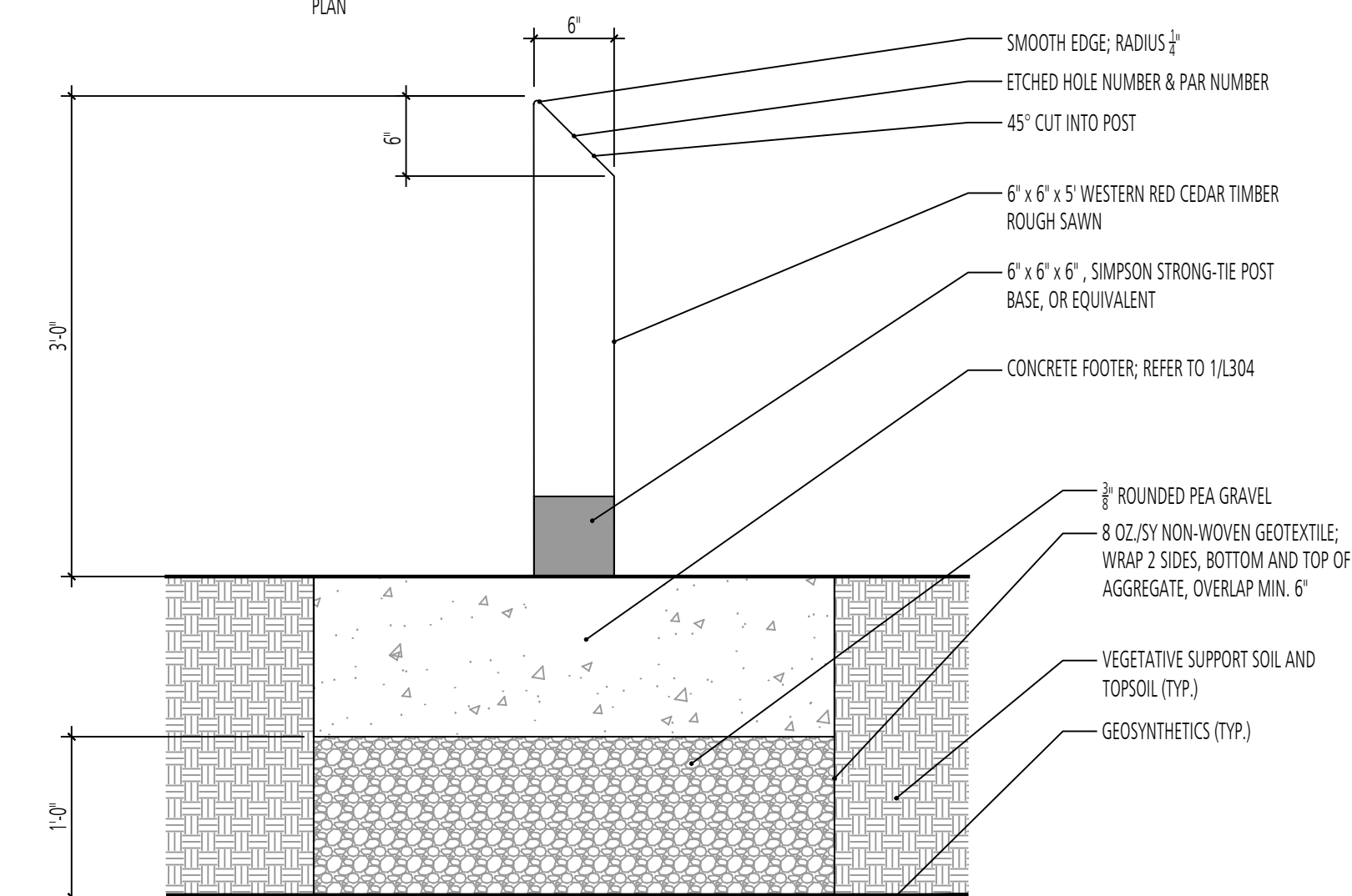
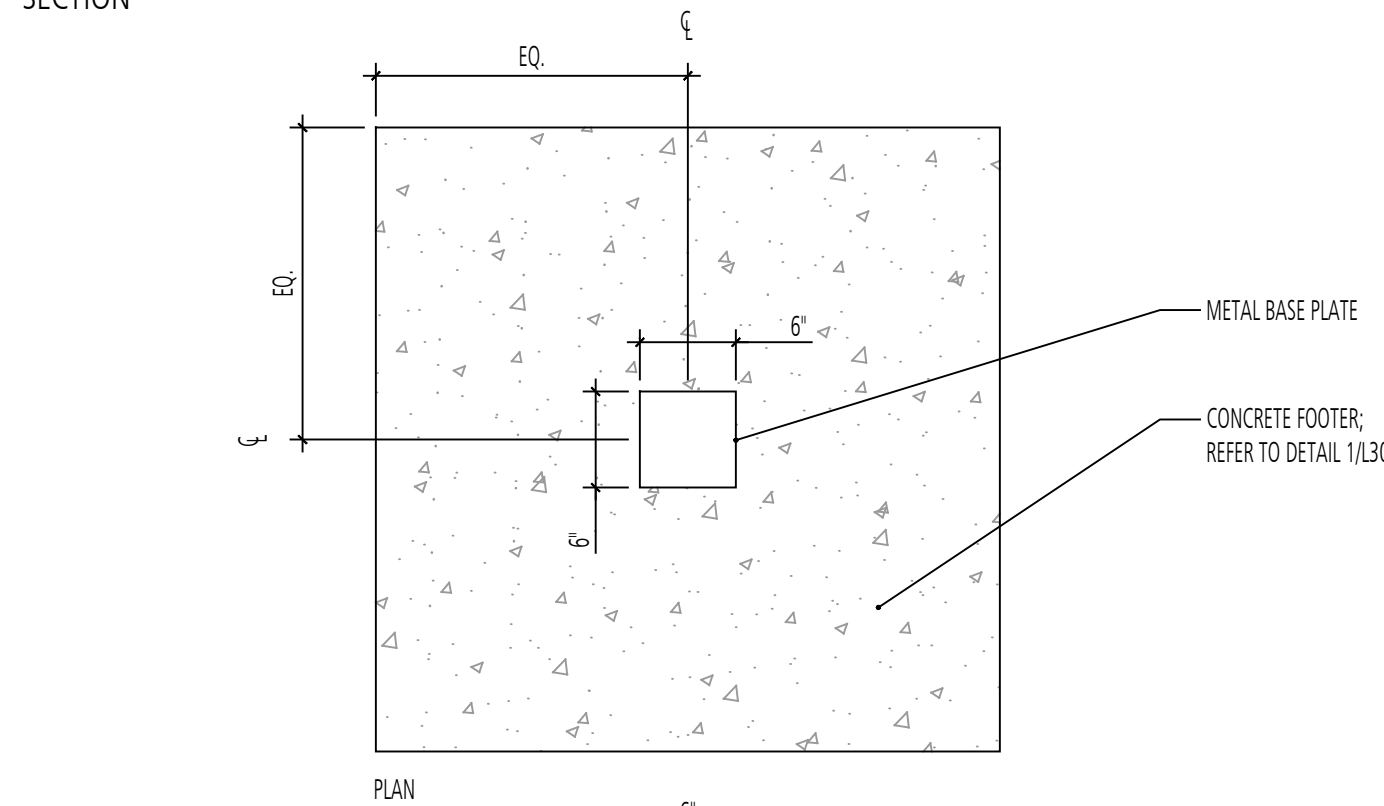
3 DISC GOLF TEE BOX - SLOPED GRADE  
SECTION

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: 07/26/2022

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

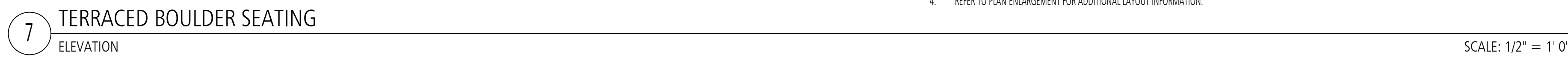
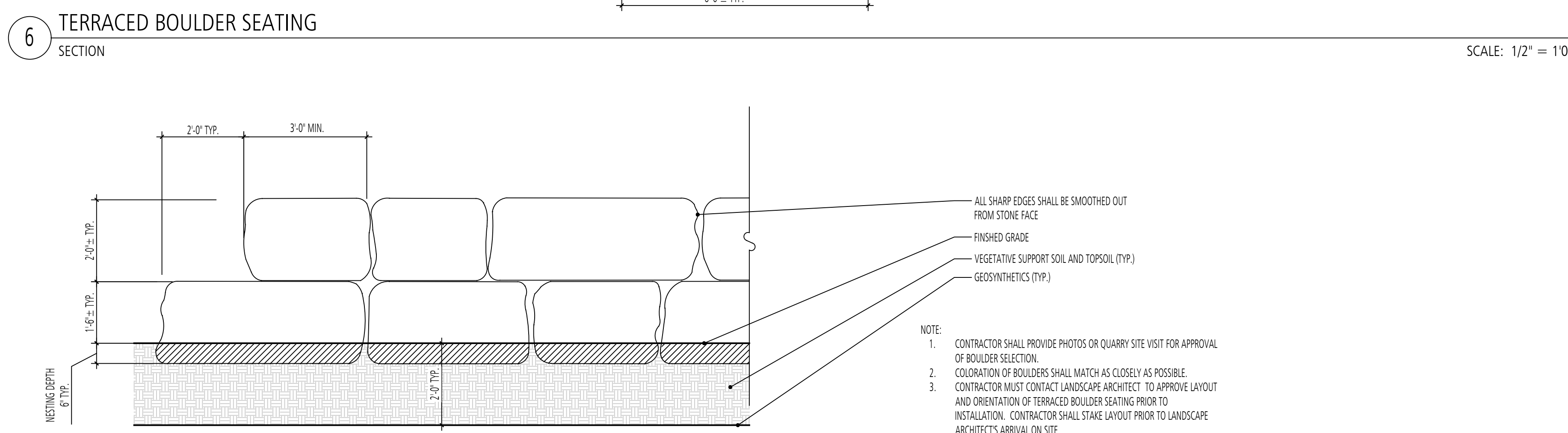
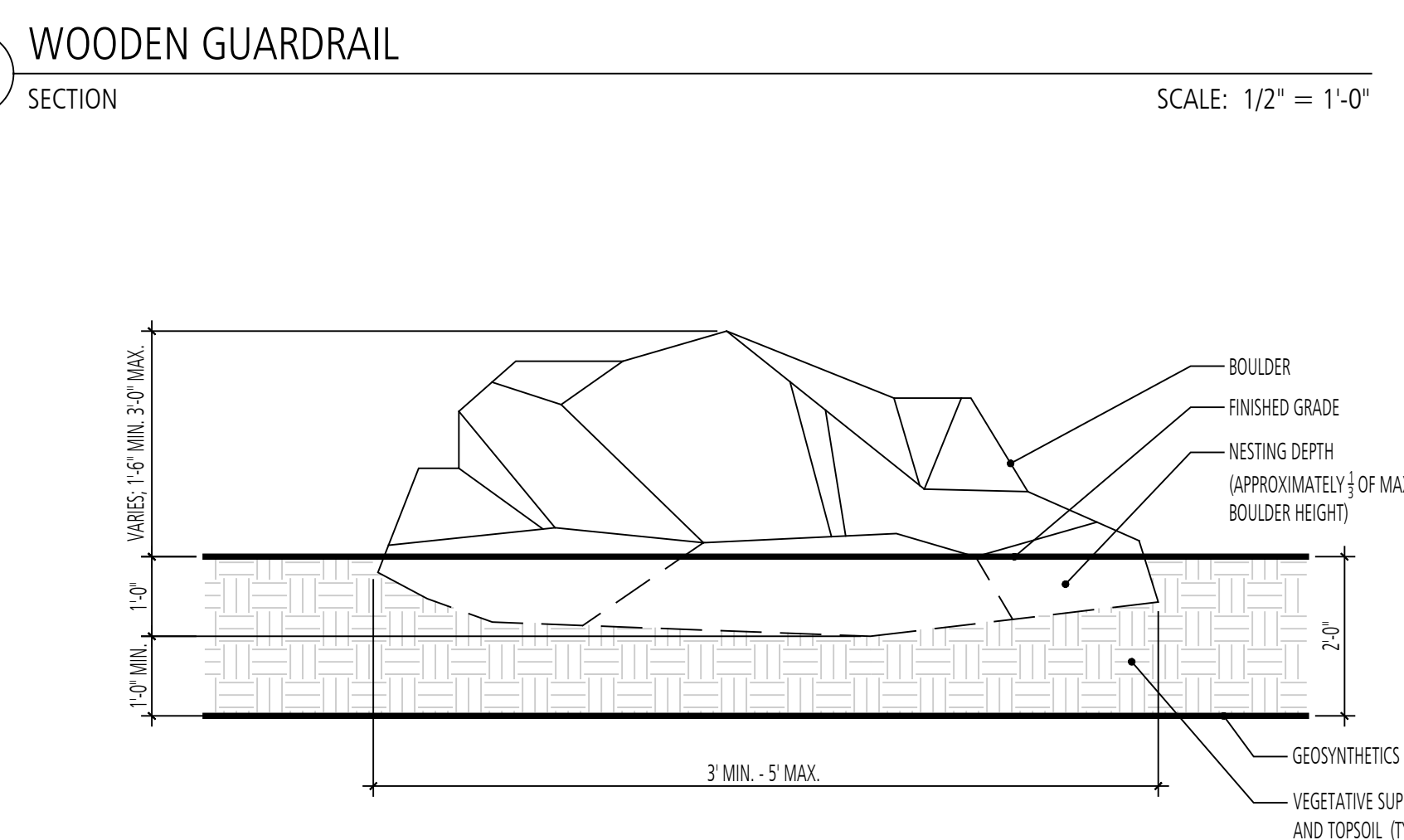
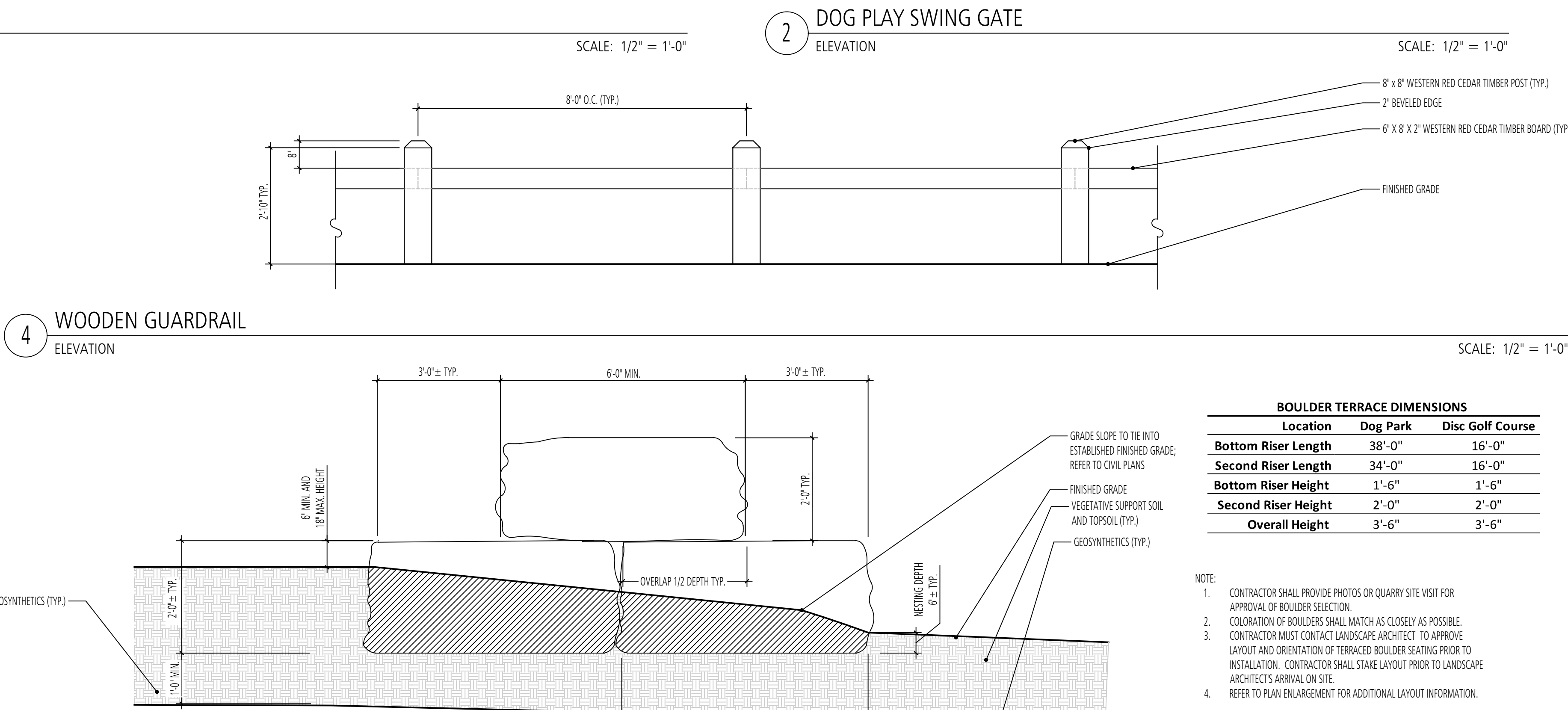
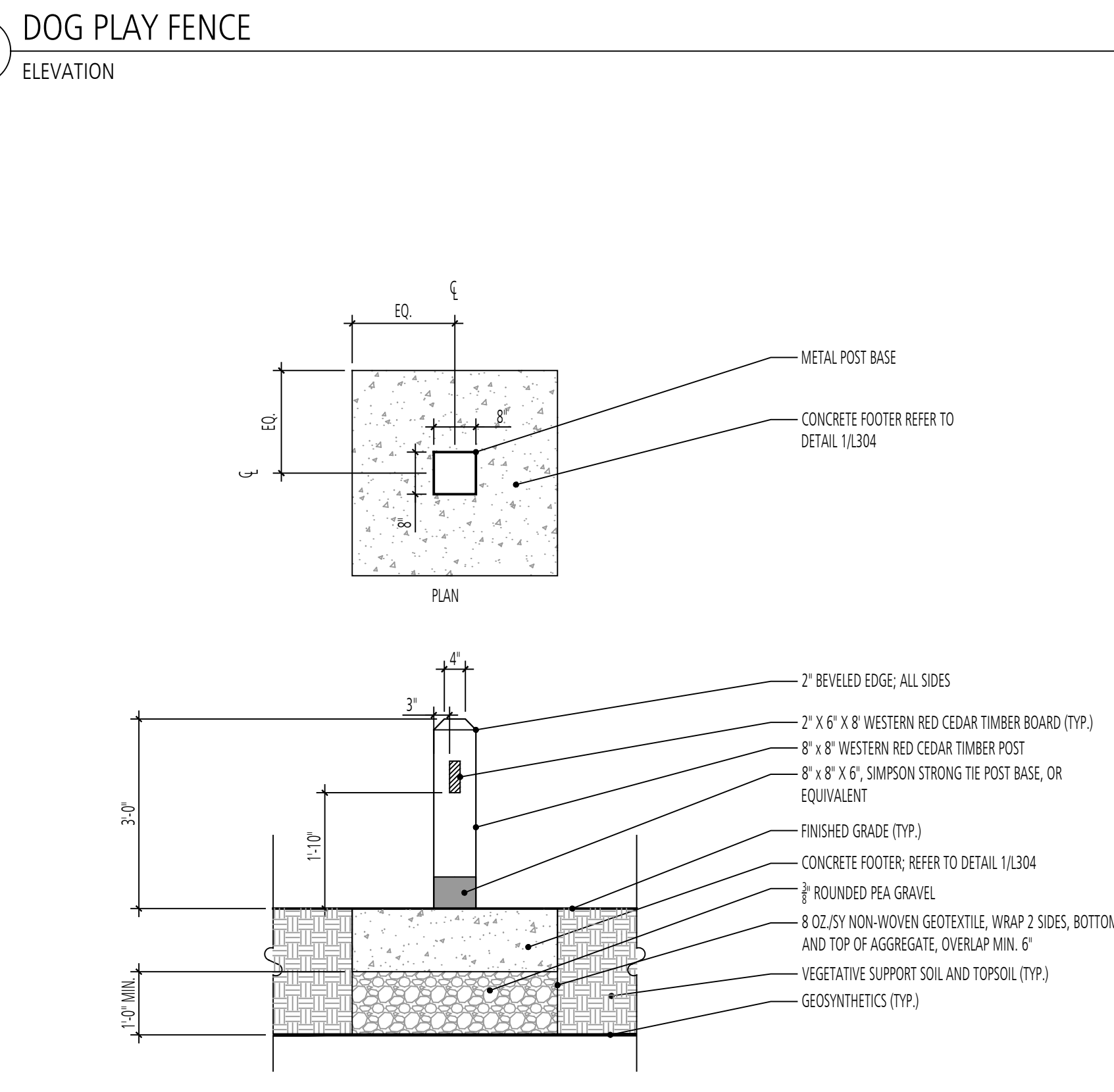
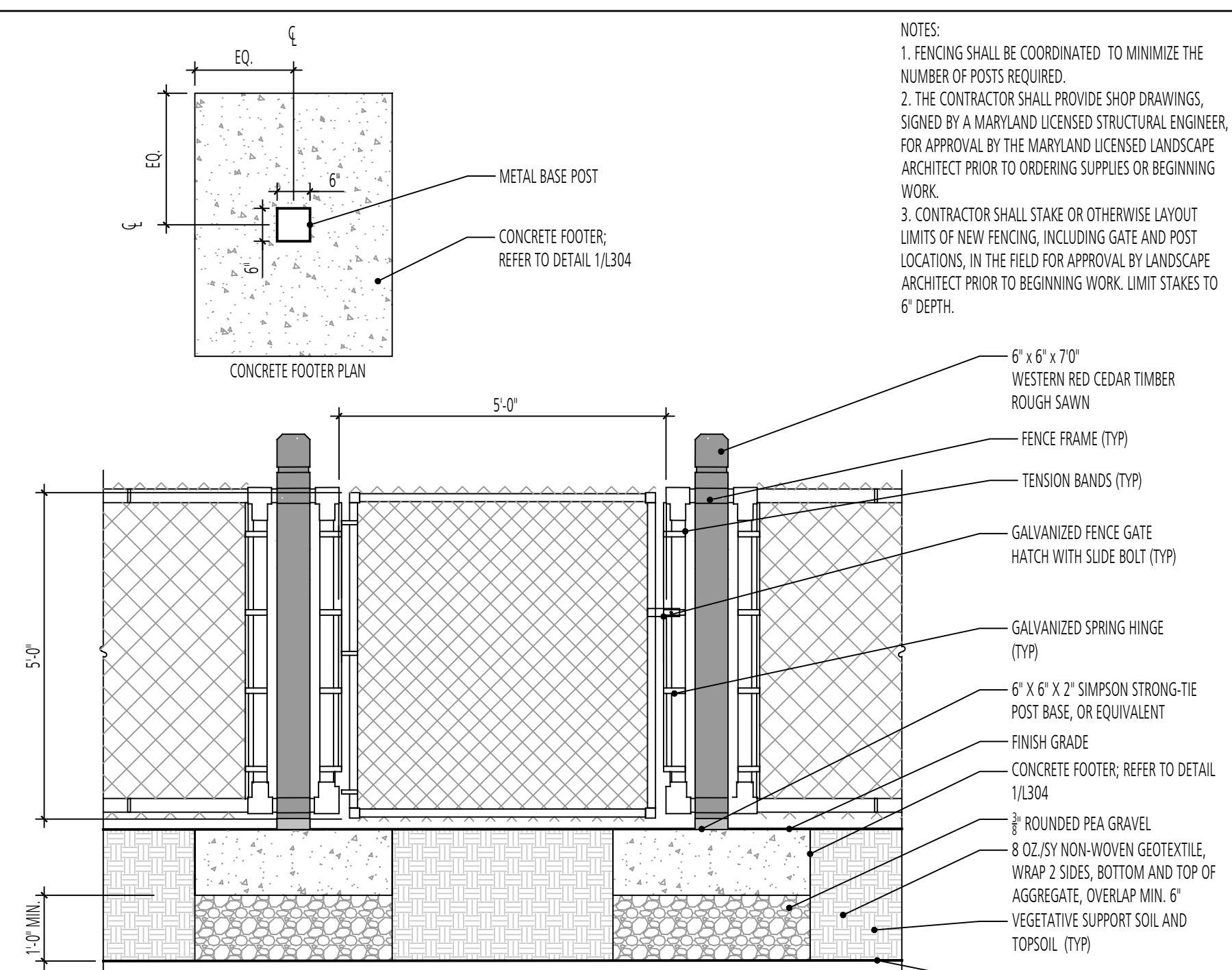
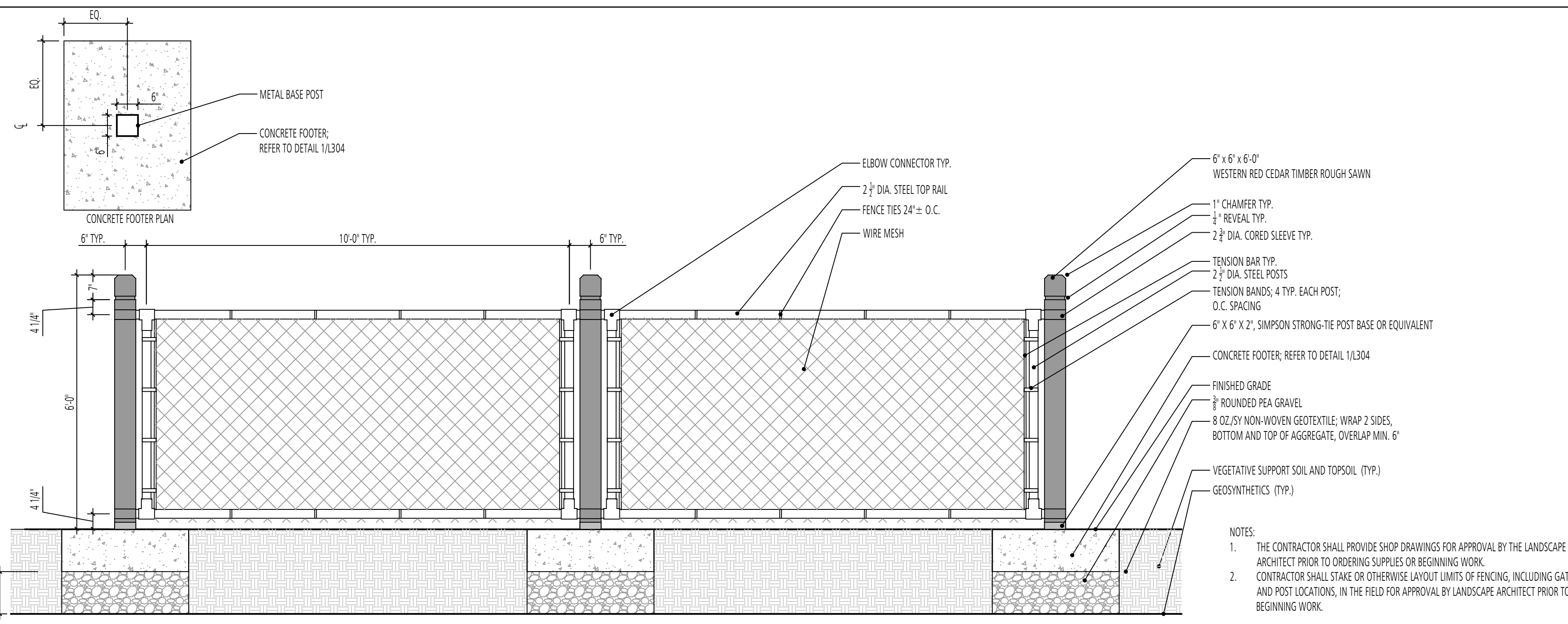
**EA**  
Engineering, Science,  
and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
L301  
SHEET: 136 OF 146

FILE PATH: P:\PLANS\PROJECTS\1564601 - GIDE LANDFILL REMEDIATION DESIGN\1564601-01 SITE DETAILS\DWG\L301.DWG (DATE: 12/08/2020 10:48:00 AM)

100% DESIGN PLANS - NOT FOR CONSTRUCTION





**BOULDER TERRACE DIMENSIONS**

Location	Dog Park	Disc Golf Course
Bottom Riser Length	38'-0"	16'-0"
Second Riser Length	34'-0"	16'-0"
Bottom Riser Height	1'-6"	1'-6"
Second Riser Height	2'-0"	2'-0"
Overall Height	3'-6"	3'-6"

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: 07/26/2022

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

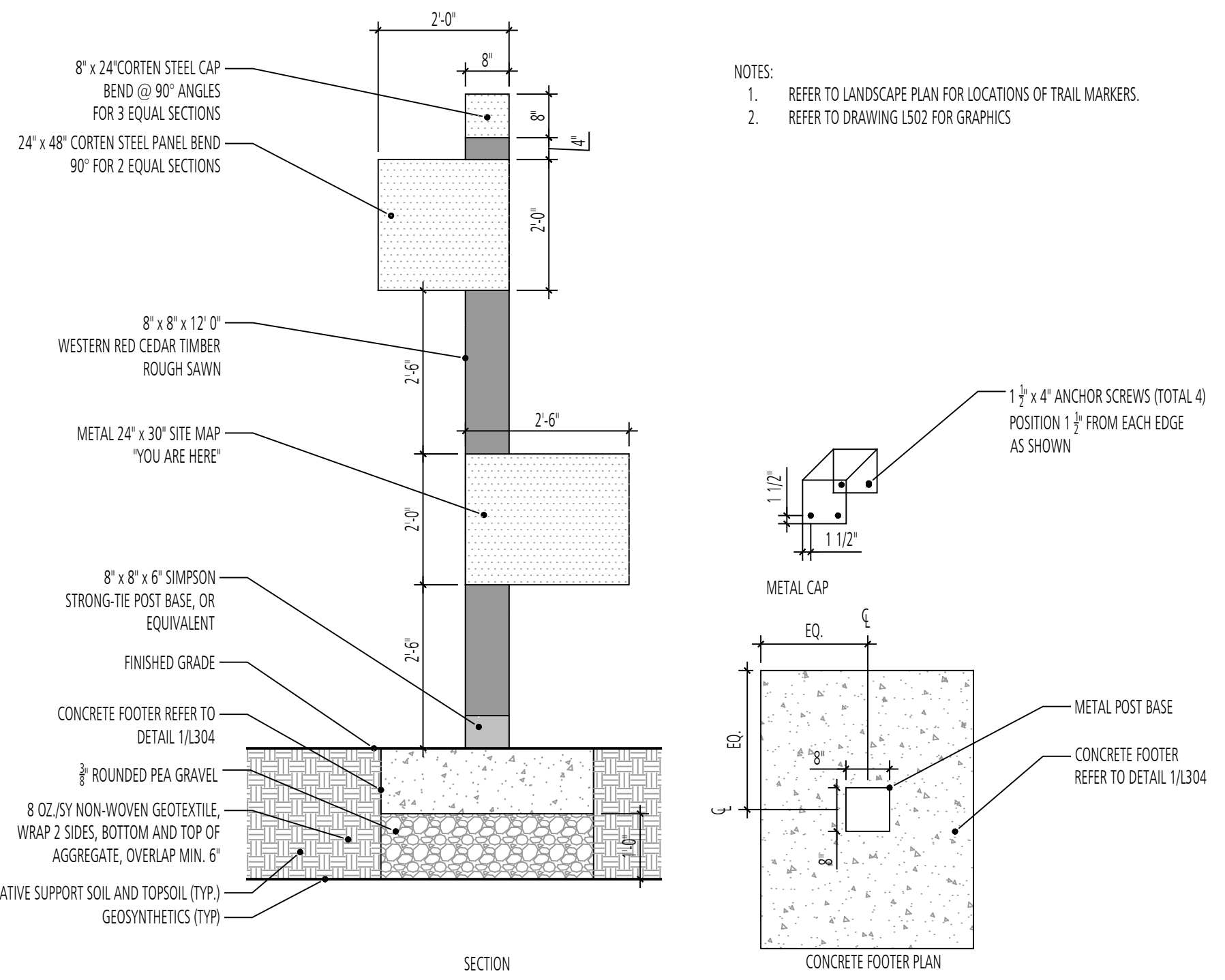
**FLOURA TEETER**  
landscape architects  
800 North Charles St. Ste. 300  
Baltimore, Maryland 21201  
Phone: 410.528.8395  
Fax: 410.528.8425

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

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
L302  
SHEET: 137 OF 146

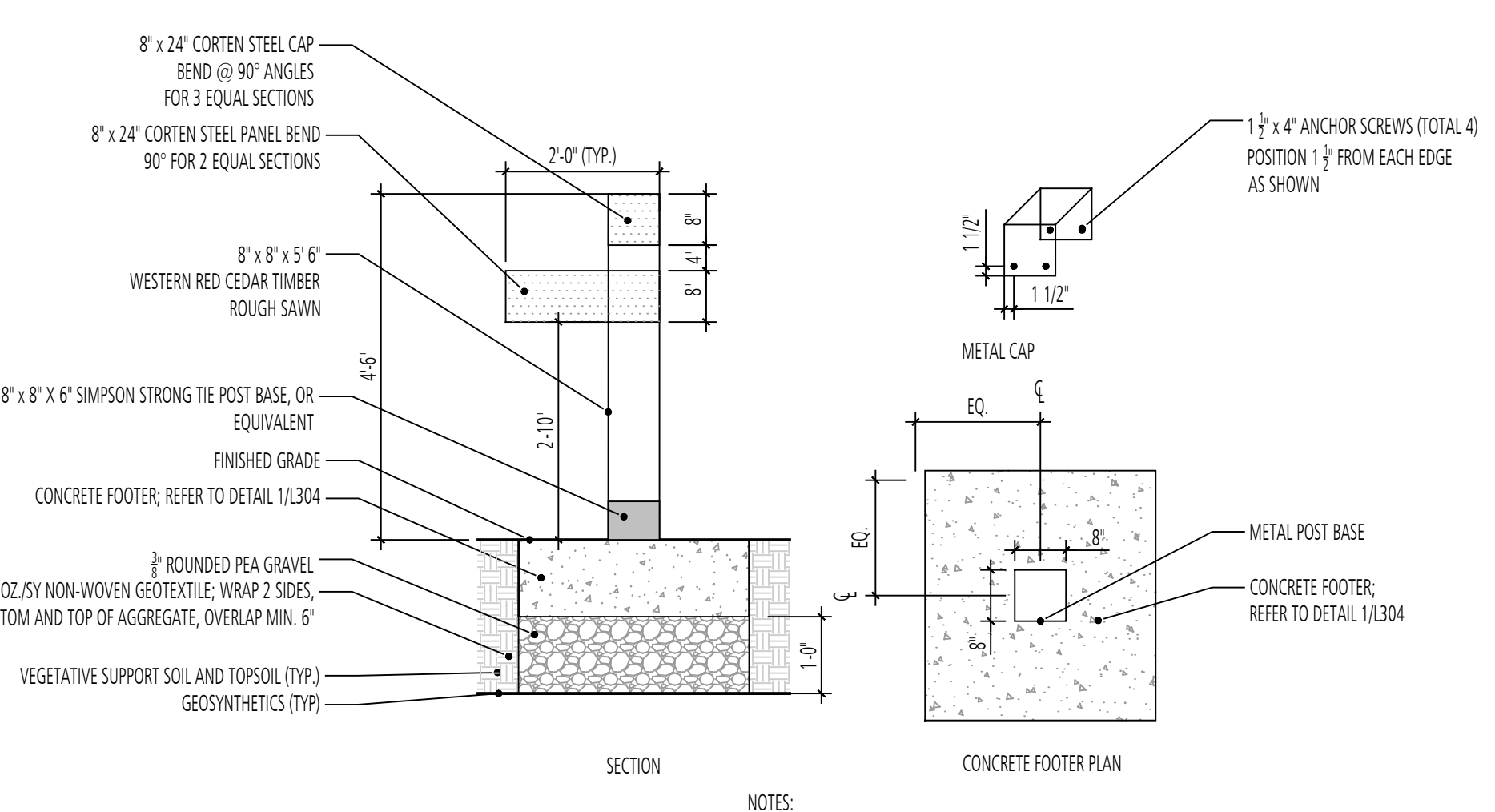
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100% DESIGN PLANS - NOT FOR CONSTRUCTION



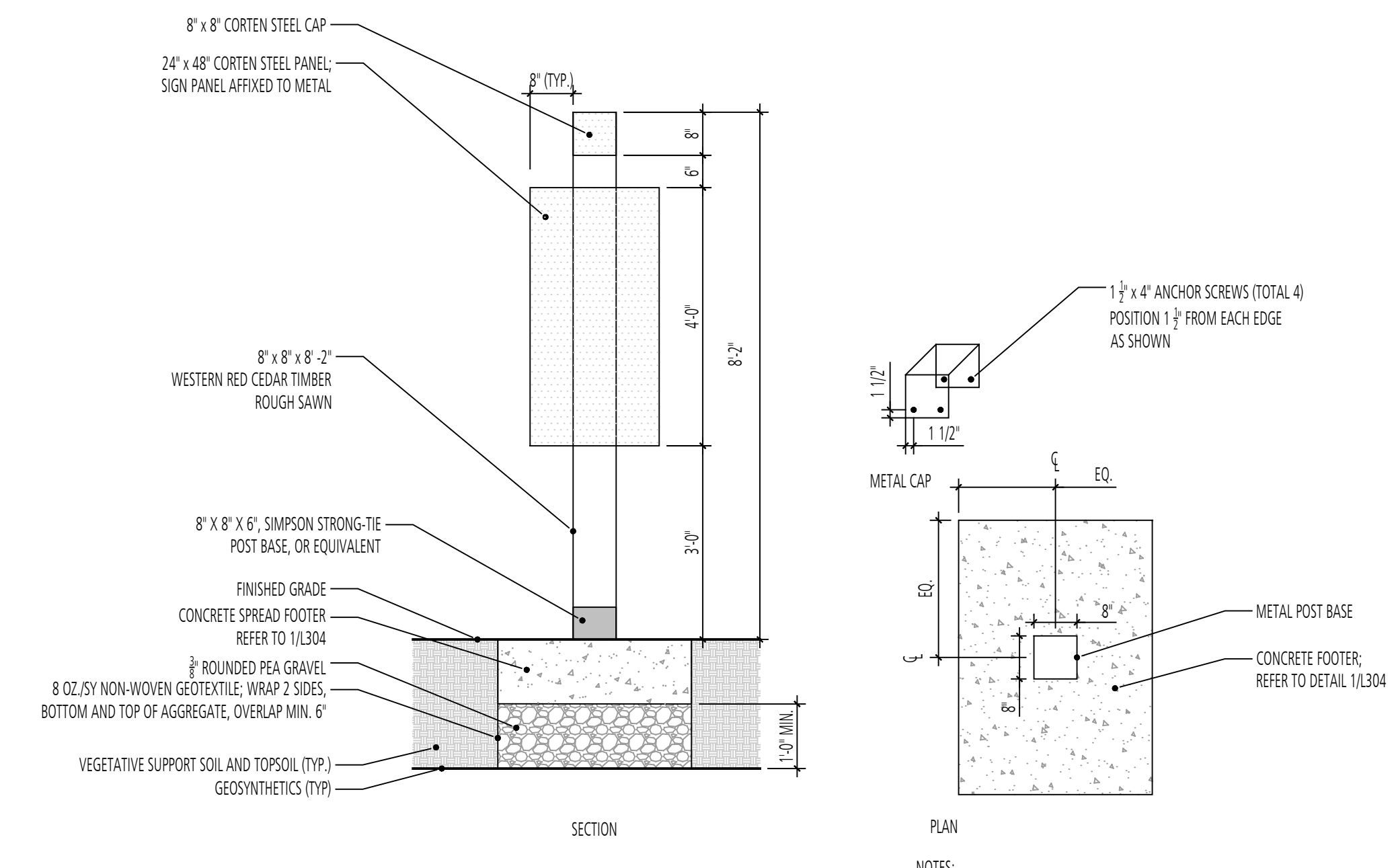
NOTES:  
 1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF TRAIL MARKERS.  
 2. REFER TO DRAWING L502 FOR GRAPHICS.

1 TRAIL MARKER  
 SECTION SCALE: 1/2" = 1'-0"



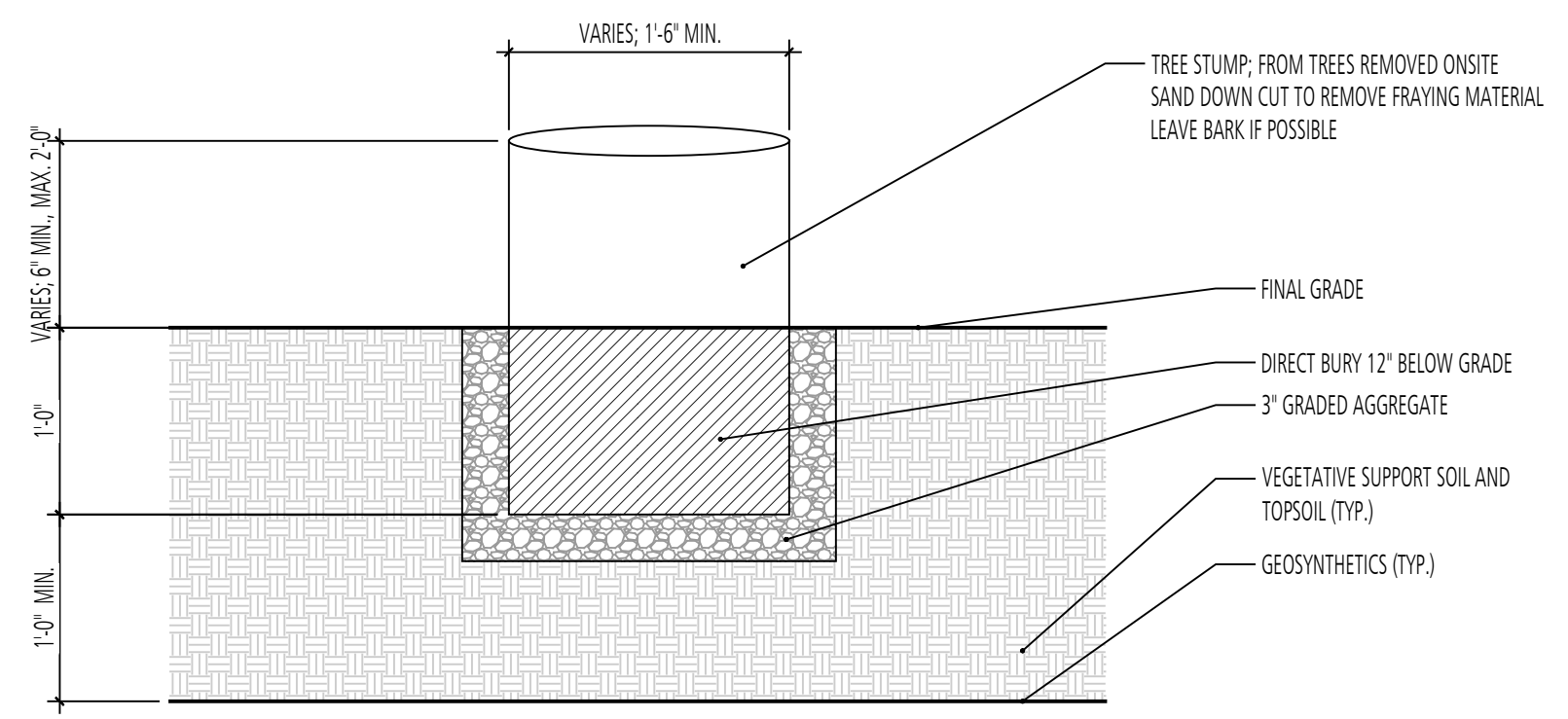
NOTES:  
 1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF DIRECTIONAL SIGN POSTS.  
 2. REFER TO DRAWING L504 FOR GRAPHICS.

2 DIRECTIONAL SIGN POST  
 SECTION & PLAN SCALE: 1/2" = 1'-0"

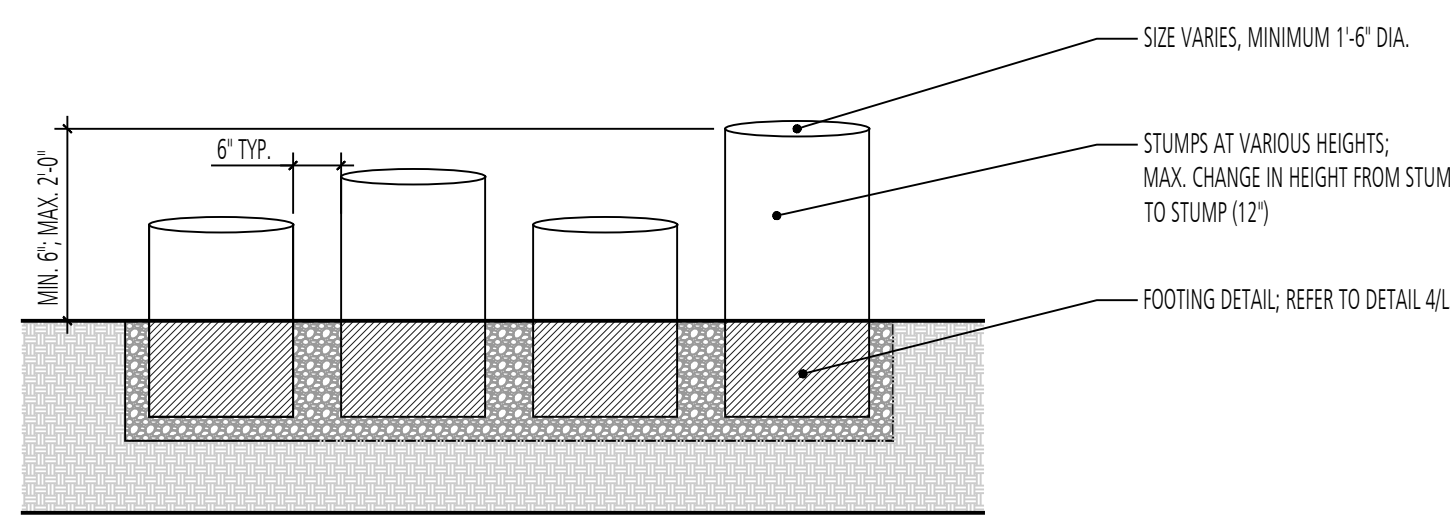


NOTES:  
 1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF SIGN POSTS.  
 2. FOR GRAPHICS REFER TO DRAWING L504.

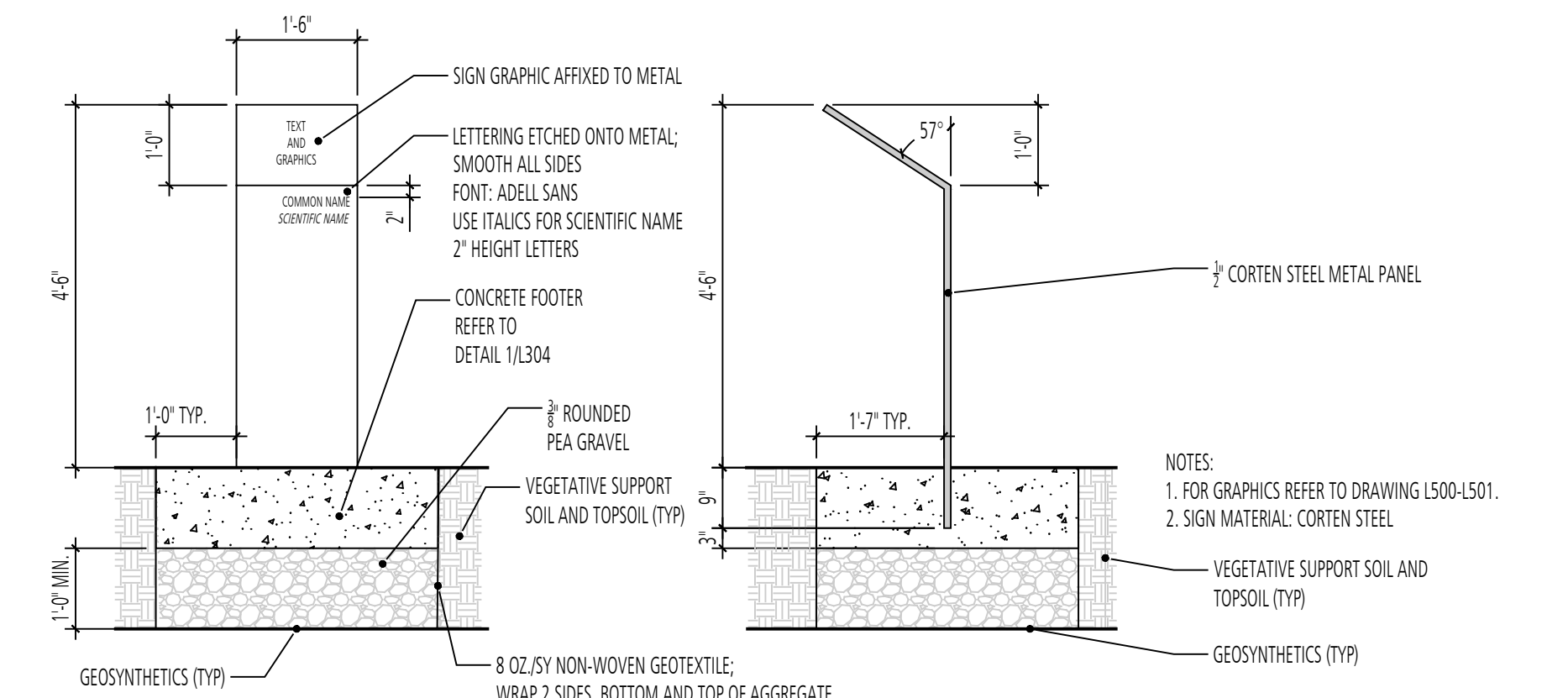
3 INFORMATION SIGN (SMALL)  
 SECTION SCALE: 1/2" = 1'-0"



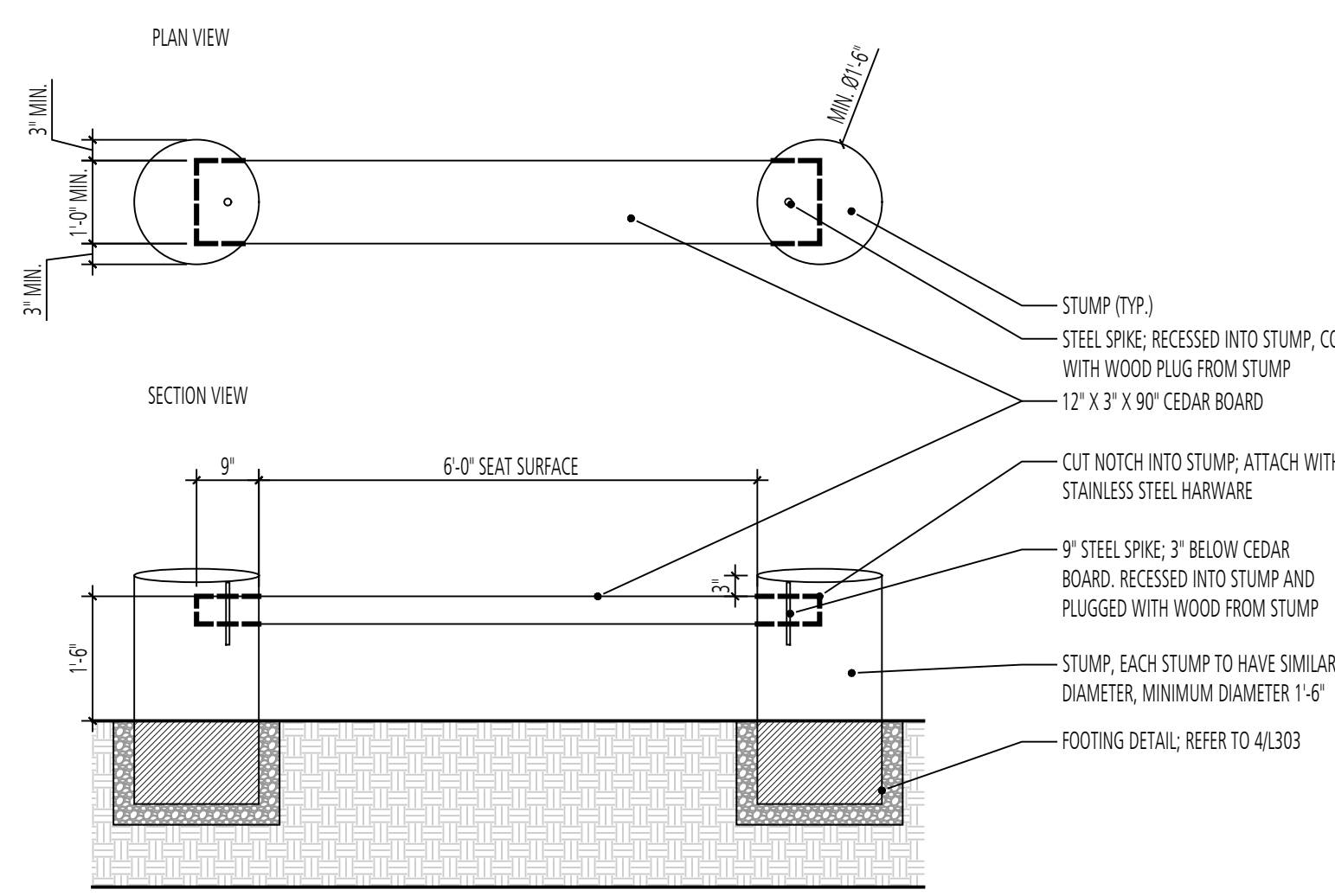
4 STUMP - FOOTER  
 SECTION SCALE: 1" = 1'-0"



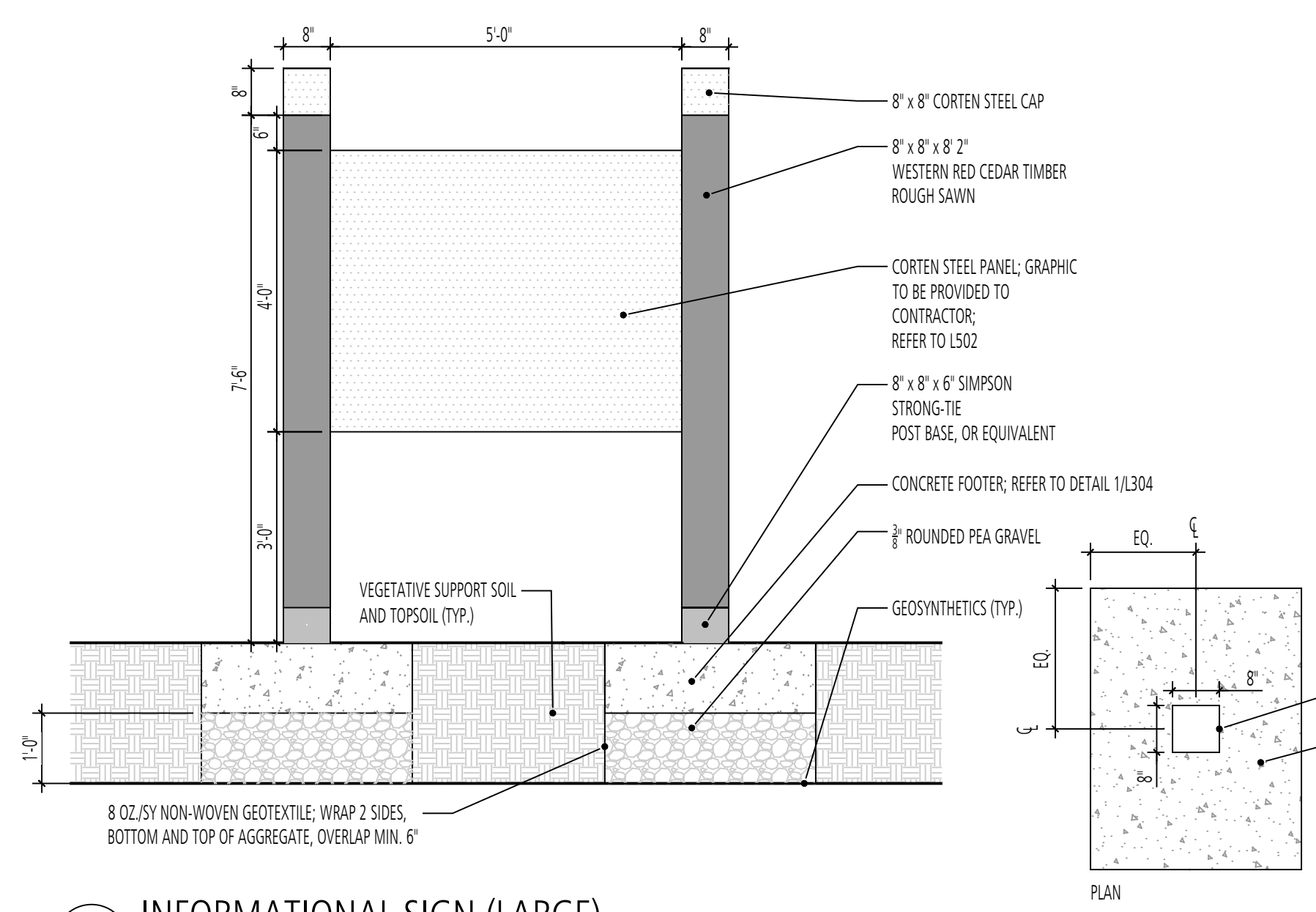
5 STUMP CLIMB  
 SECTION SCALE: 1/2" = 1'-0"



6 EDUCATIONAL POST  
 SECTION SCALE: 1/2" = 1'-0"

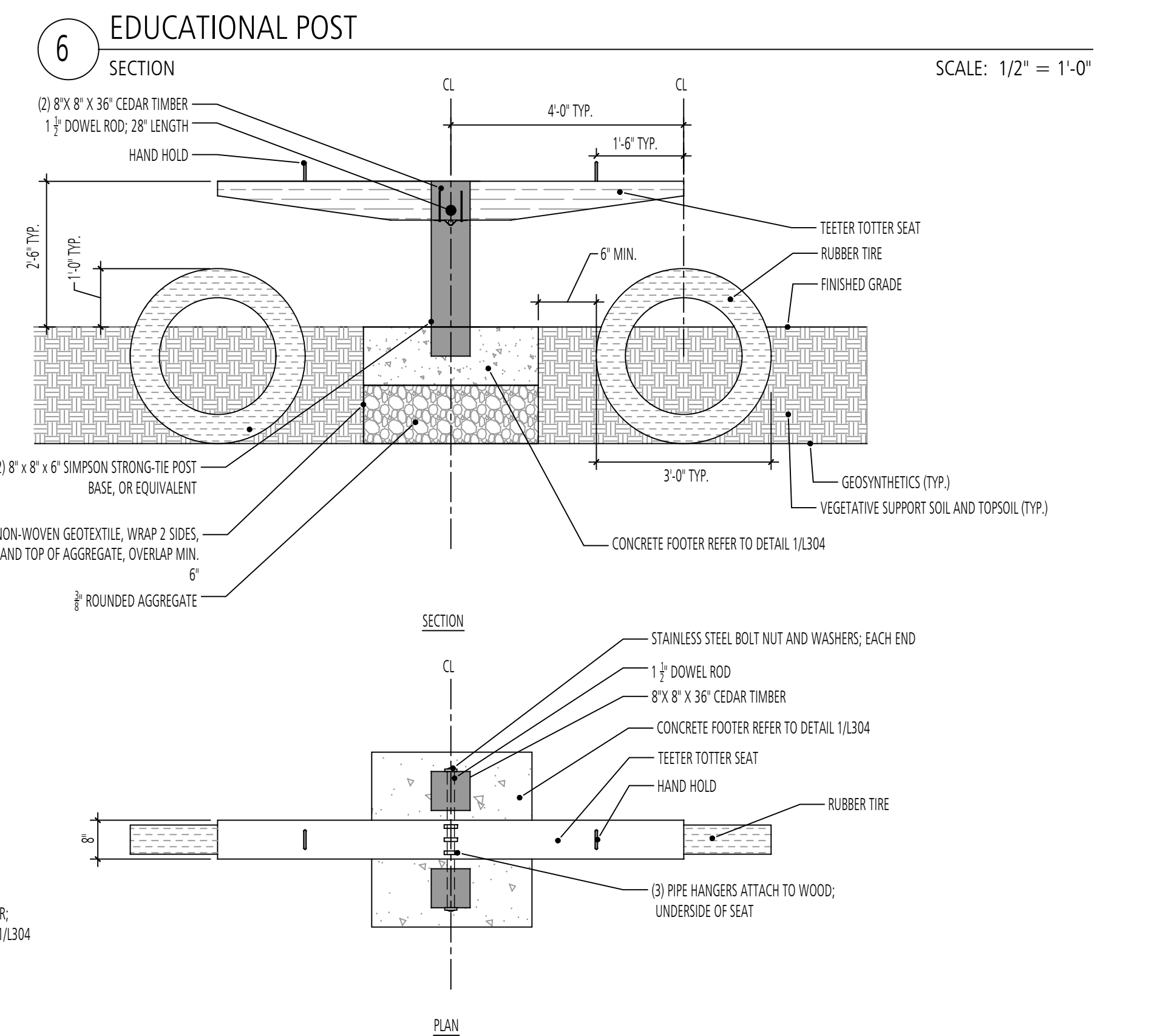


7 PARK BENCH  
 PLAN & SECTION SCALE: 1/2" = 1'-0"



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:		DRAWN BY:		CHECKED BY:		PROJECT MANAGER:	
MM	DD	MM	DD	MM	DD	MM	DD	MM	DD

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: 07/26/2022

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

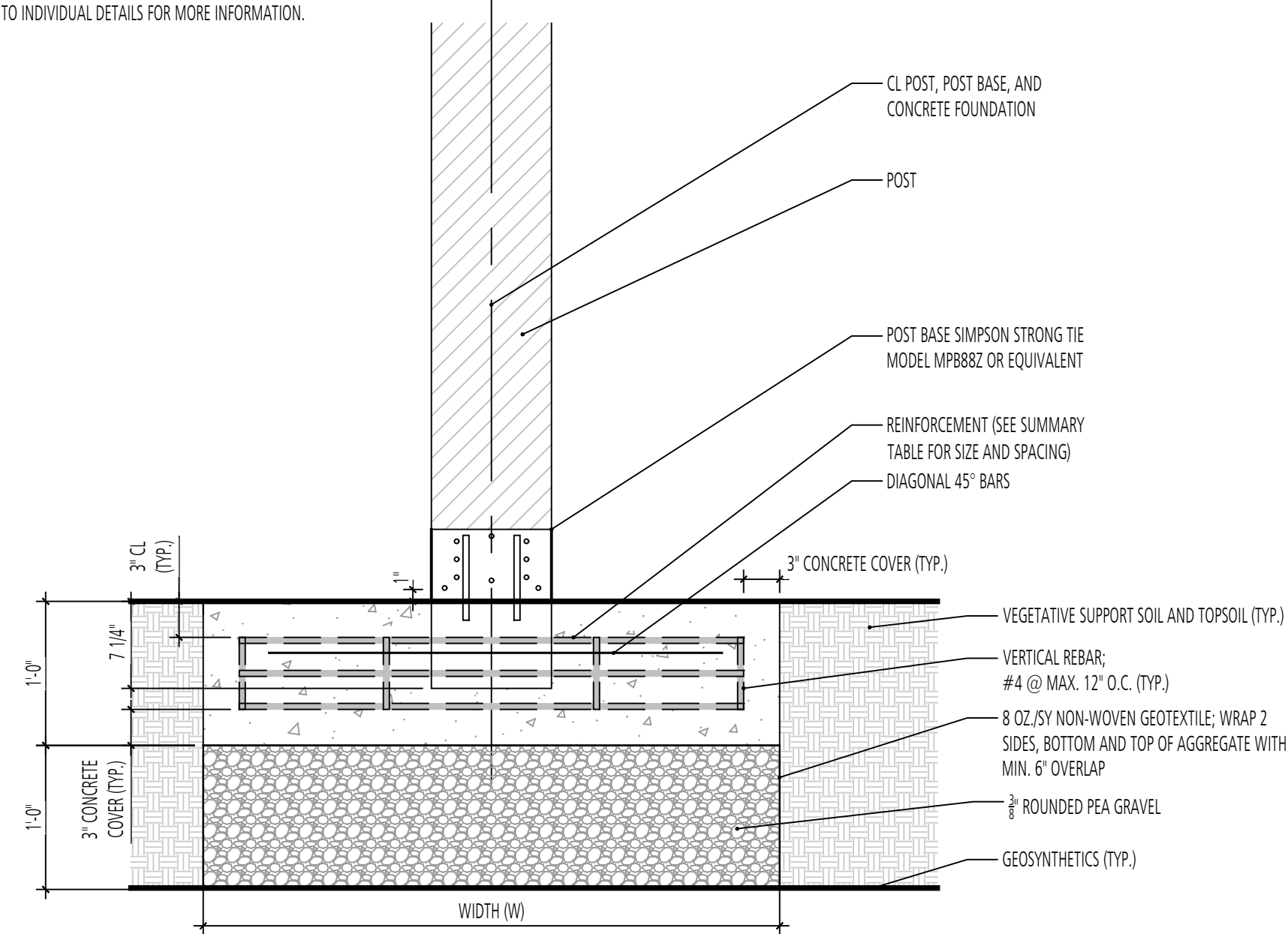
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**L303**  
 SHEET: 138 OF 146

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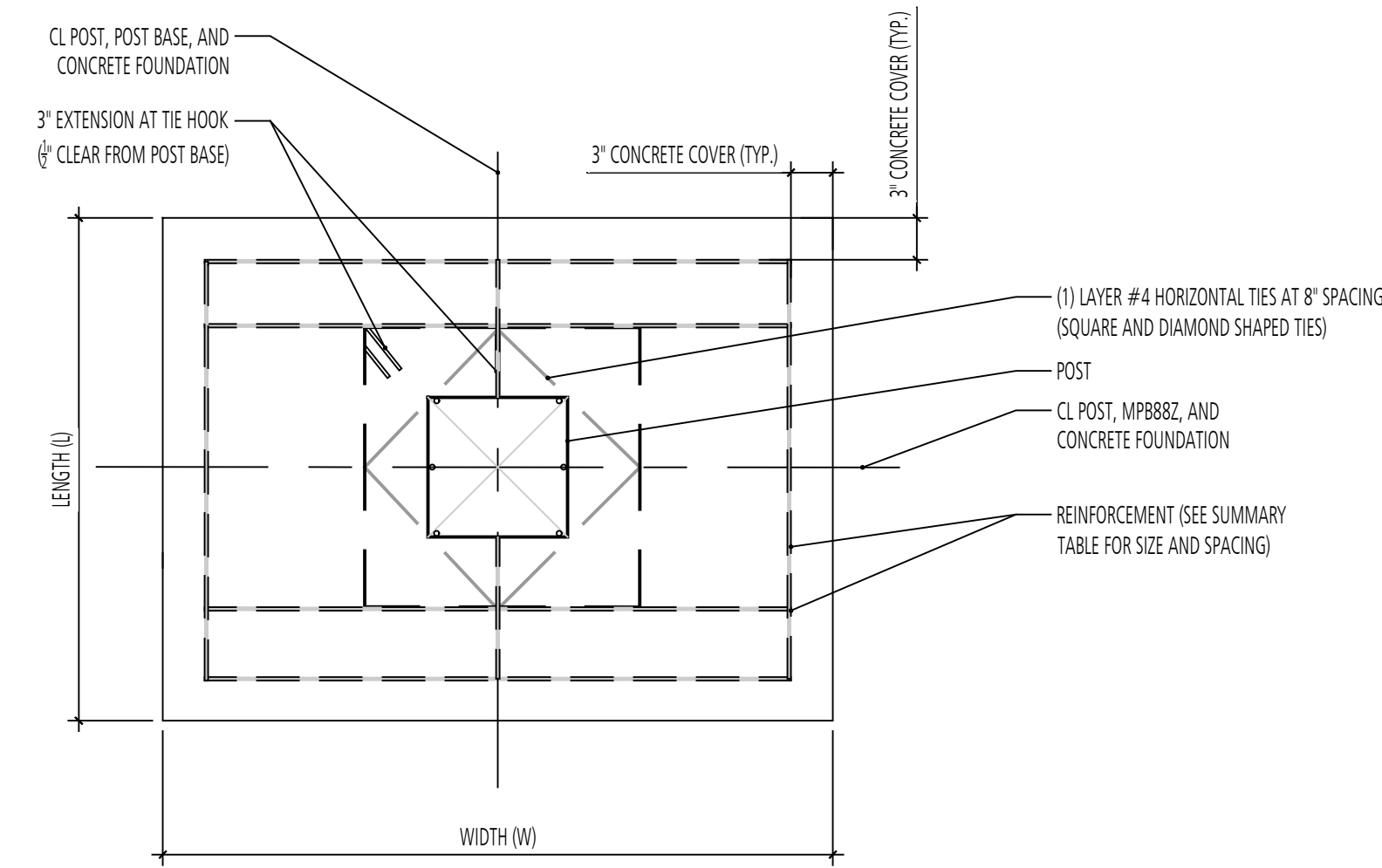
100% DESIGN PLANS - NOT FOR CONSTRUCTION

PASSIVE RECREATION ELEMENTS CALCULATIONS 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 (3) 12' x 8'	#5 @ 6" O.C.	14.08	4.00	56.32	3	168.96	112.64	337.92	147.84	443.52
C-7	ART INSTALLATION	#5 @ 6" O.C.	3.00	5.25	15.75	30	472.50	15.75	472.50	39.00	1170.00
C-13	TEETER TOTTER	#4 @ 12" O.C.	2.75	3.00	8.25	3	24.75	8.25	24.75	23.38	70.13
C-14	BUTTERFLY BOX	#5 @ 12" O.C.	3.25	3.25	10.56	3	31.68	10.56	31.69	29.25	87.75
C-15	MAGNIFYING LENS POST	#4 @ 12" O.C.	2.75	2.75	7.56	2	15.13	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	52.52	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	110.25	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	8	78.00	9.75	78.00	27.00	216.00
EP	EDUCATIONAL POST	#5 @ 12" O.C.	3.25	3.50	11.38	12	136.56	11.38	136.50	30.88	370.50
ISL	INFORMATION SIGN (LARGE)	#5 @ 10" O.C.	3.00	4.00	12.00	6	72.00	12.00	72.00	31.50	189.00
ISS	INFORMATION SIGN (SMALL)	#5 @ 10" O.C.	3.00	4.25	12.75	15	191.25	12.75	191.25	33.00	495.00
TM	TRAIL MARKER	#5 @ 8" O.C.	3.25	4.25	13.81	4	55.24	13.81	55.25	35.75	143.00
TP	DISC GOLF TEE POST	#4 @ 12" O.C.	2.75	2.75	7.56	9	68.06	7.56	68.06	22.00	198.00

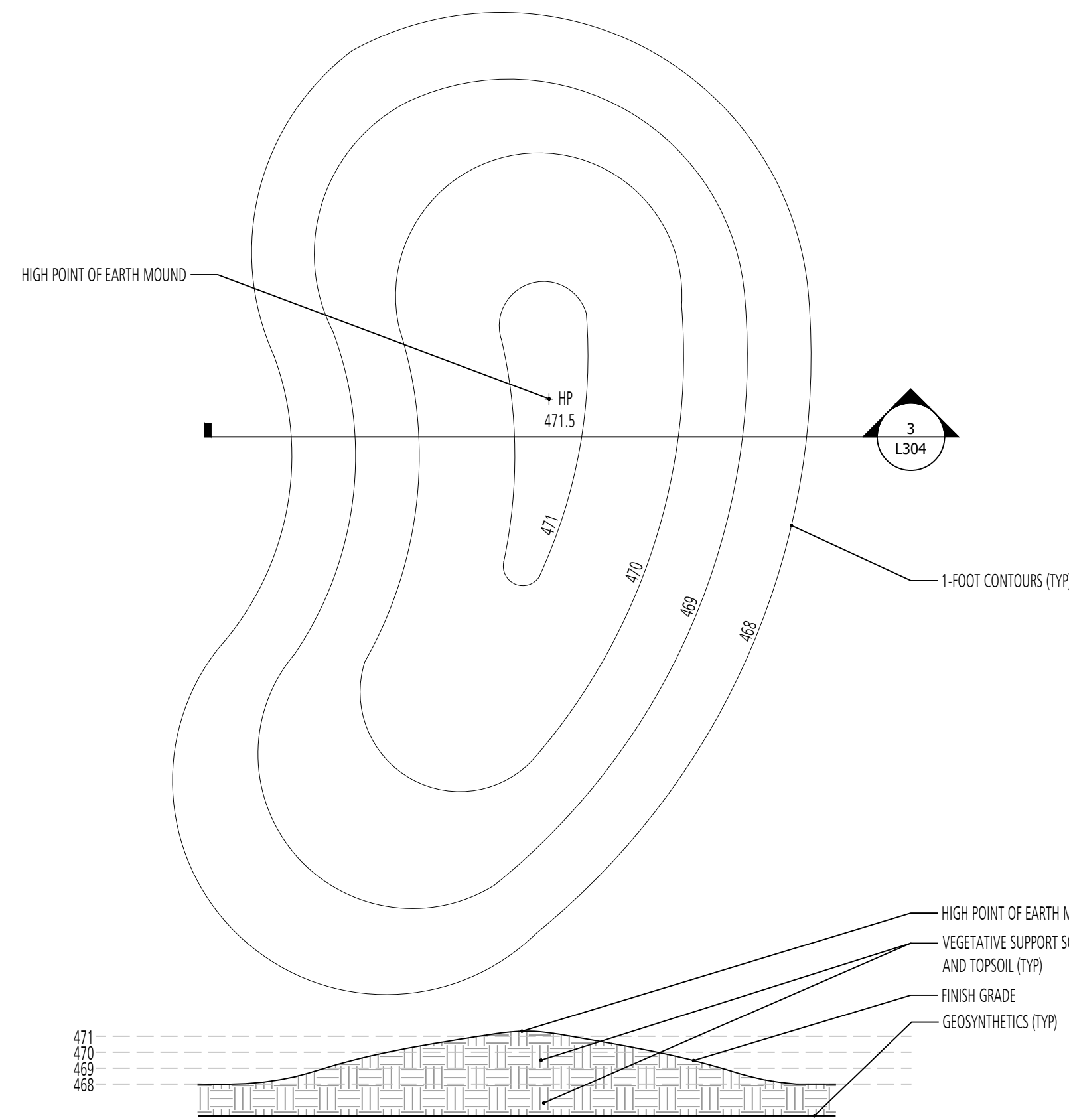
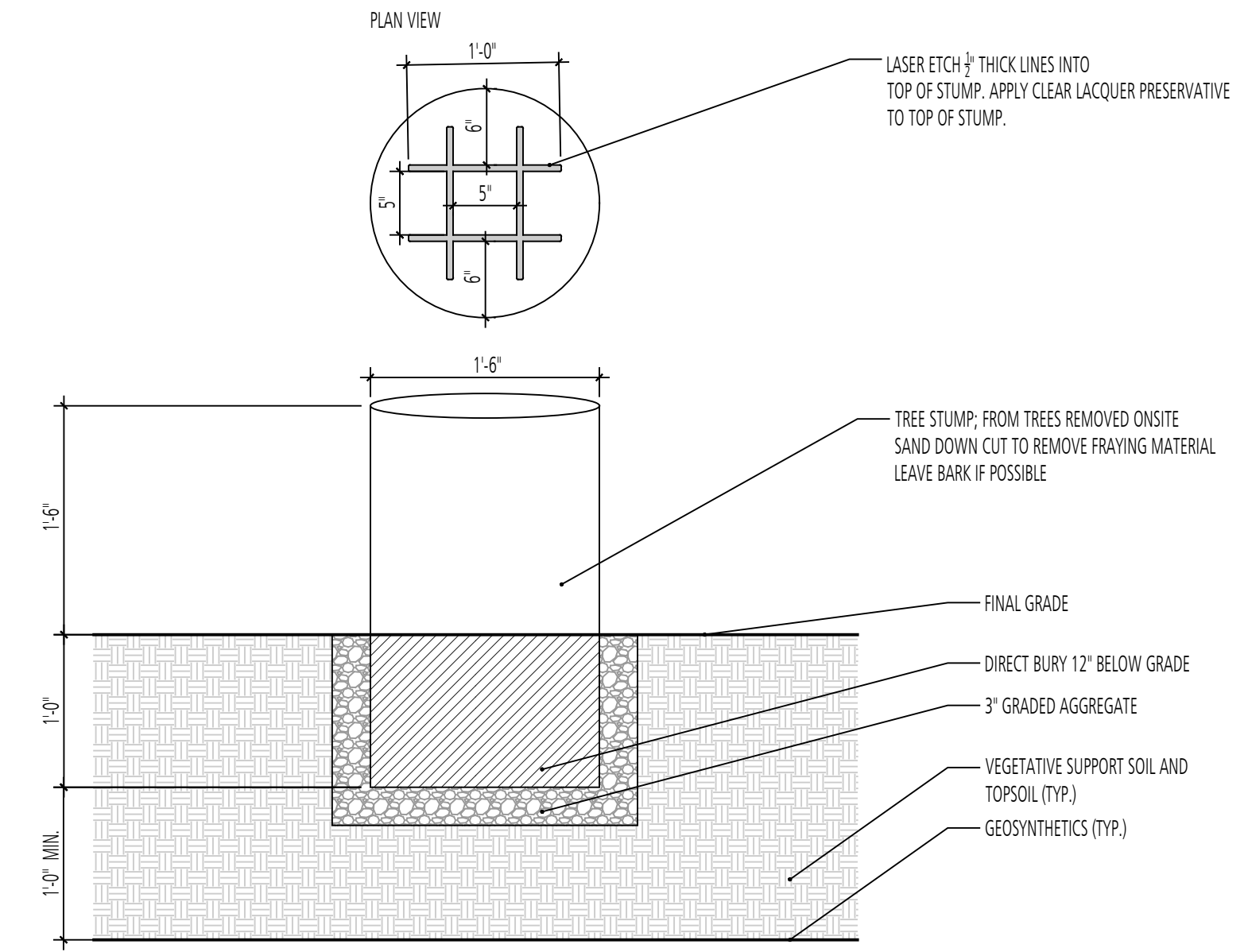
NOTE:  
1. MAXIMUM FOOTING DEPTH IS 1'-0". REFER TO INDIVIDUAL DETAILS FOR MORE INFORMATION.



1 TYPICAL REINFORCED CONCRETE FOUNDATION  
SECTION



2 TIC TAC TOE  
SECTION



3 PLAN & SECTION  
EARTH MOUND INSTALLATION  
SECTION

d-earth mound.dwg  
SCALE: 1/8" = 1'-0"

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: 07/26/2022

SEAL

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

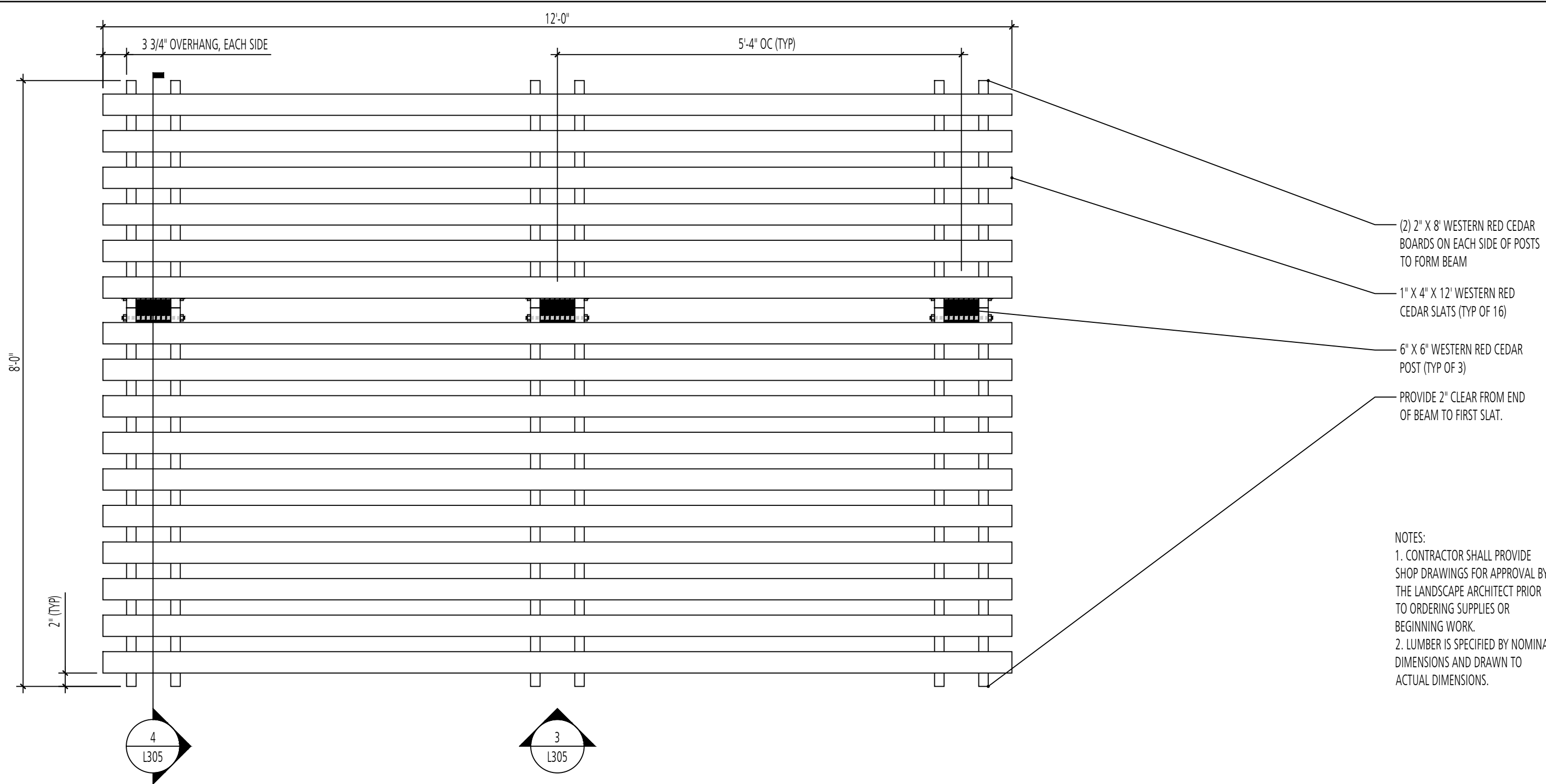
**EA**  
Engineering, Science,  
and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601

L304  
SHEET: 139 OF 146

FILE PATH: P:\PLU PROJECTS\1888 - GUDE LANDFILL REMEDIATION\DESIGN\DETAILS\DWG\LANDSCAPE\LANDSCAPE.dwg (DATE: 12/10/2020 2:08 PM)

100% DESIGN PLANS - NOT FOR CONSTRUCTION

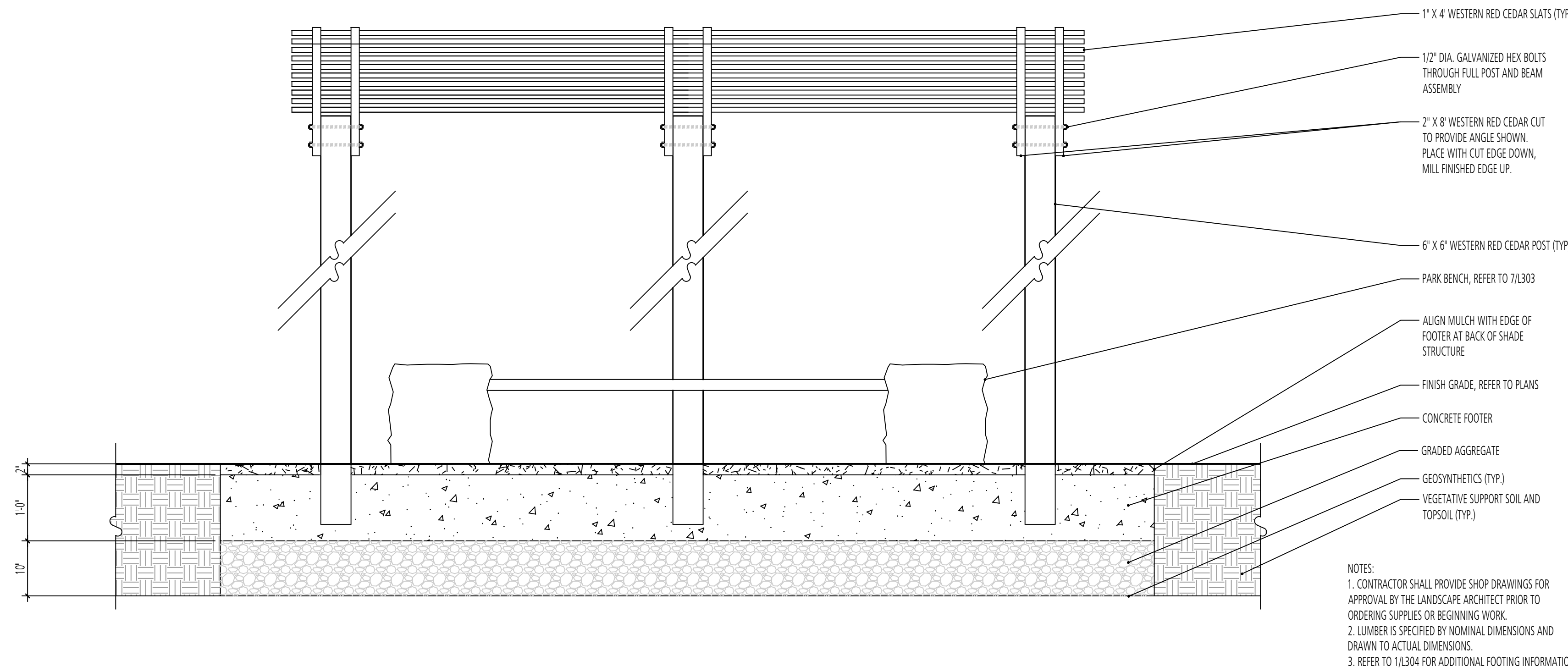


- (2) 2" X 8" WESTERN RED CEDAR BOARDS ON EACH SIDE OF POSTS TO FORM BEAM
- 1" X 4" X 12" WESTERN RED CEDAR SLATS (TYP OF 16)
- 6" X 6" WESTERN RED CEDAR POST (TYP OF 3)
- PROVIDE 2" CLEAR FROM END OF BEAM TO FIRST SLAT.

NOTES:  
 1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO ORDERING SUPPLIES OR BEGINNING WORK.  
 2. LUMBER IS SPECIFIED BY NOMINAL DIMENSIONS AND DRAWN TO ACTUAL DIMENSIONS.

1 SHADE STRUCTURE  
 PLAN ENLARGEMENT

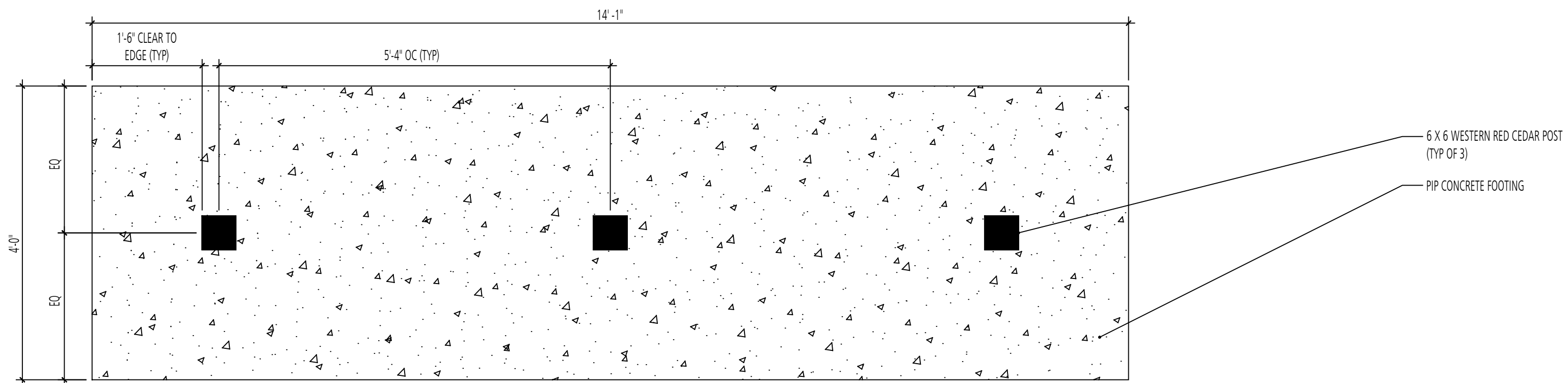
d-pergola-UPDATED.dwg  
 SCALE: 3/4" = 1'-0"



NOTES:  
 1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO ORDERING SUPPLIES OR BEGINNING WORK.  
 2. LUMBER IS SPECIFIED BY NOMINAL DIMENSIONS AND DRAWN TO ACTUAL DIMENSIONS.  
 3. REFER TO 1/L304 FOR ADDITIONAL FOOTING INFORMATION.

2 SHADE STRUCTURE - FRONT FACE  
 ELEVATION

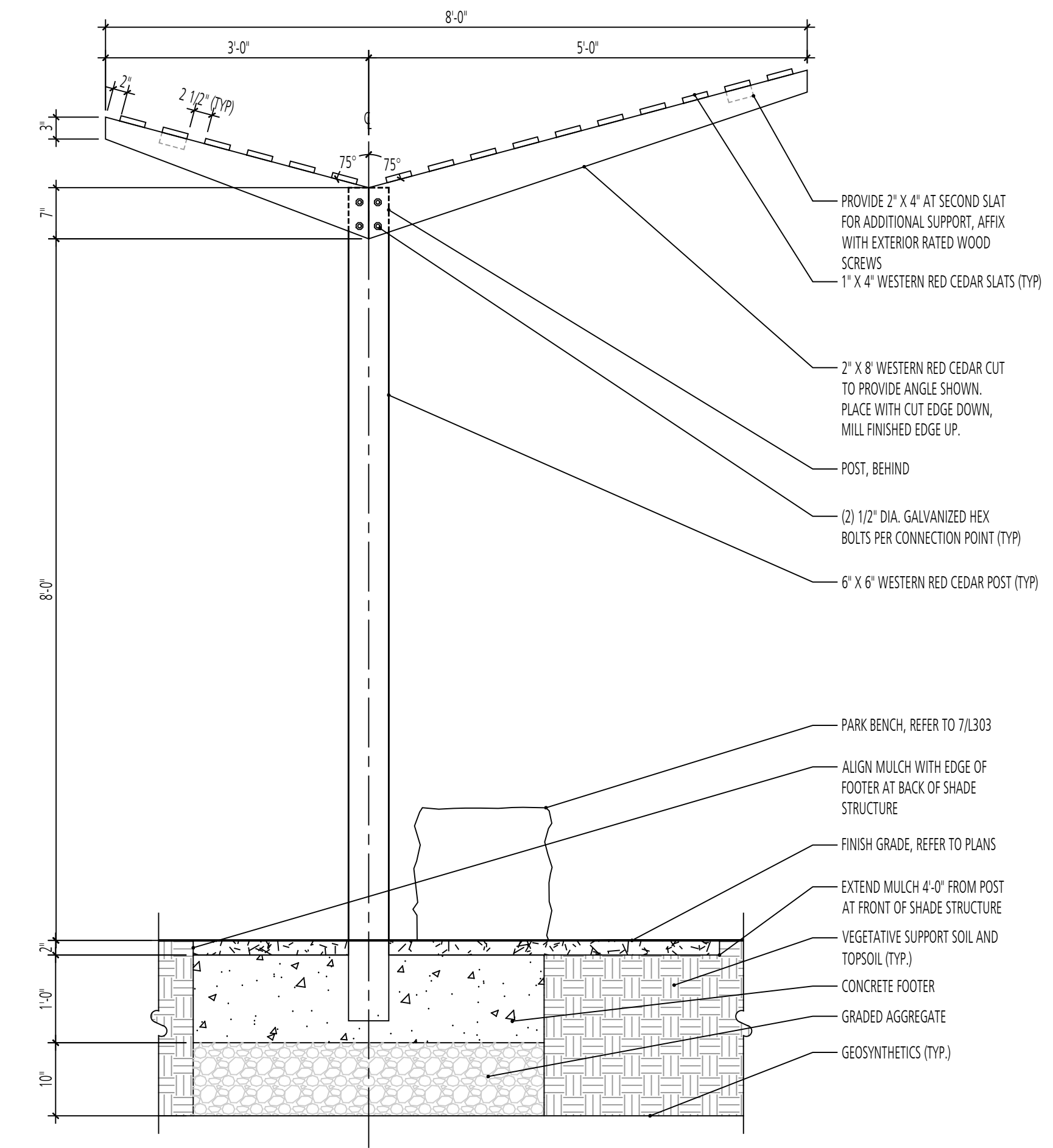
d-pergola-UPDATED.dwg  
 SCALE: 3/4" = 1'-0"



NOTES:  
 1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO ORDERING SUPPLIES OR BEGINNING WORK.  
 2. LUMBER IS SPECIFIED BY NOMINAL DIMENSIONS AND DRAWN TO ACTUAL DIMENSIONS.  
 3. REFER TO 1/L304 FOR ADDITIONAL FOOTING INFORMATION.

3 SHADE STRUCTURE - FOOTING PLAN  
 PLAN

d-pergola-UPDATED.dwg  
 SCALE: 3/4" = 1'-0"



NOTES:  
 1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO ORDERING SUPPLIES OR BEGINNING WORK.  
 2. LUMBER IS SPECIFIED BY NOMINAL DIMENSIONS AND DRAWN TO ACTUAL DIMENSIONS.  
 3. REFER TO 1/L304 FOR ADDITIONAL FOOTING INFORMATION.

4 SHADE STRUCTURE - PROFILE  
 SECTION

d-pergola-UPDATED.dwg  
 SCALE: 3/4" = 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: 07/26/2022

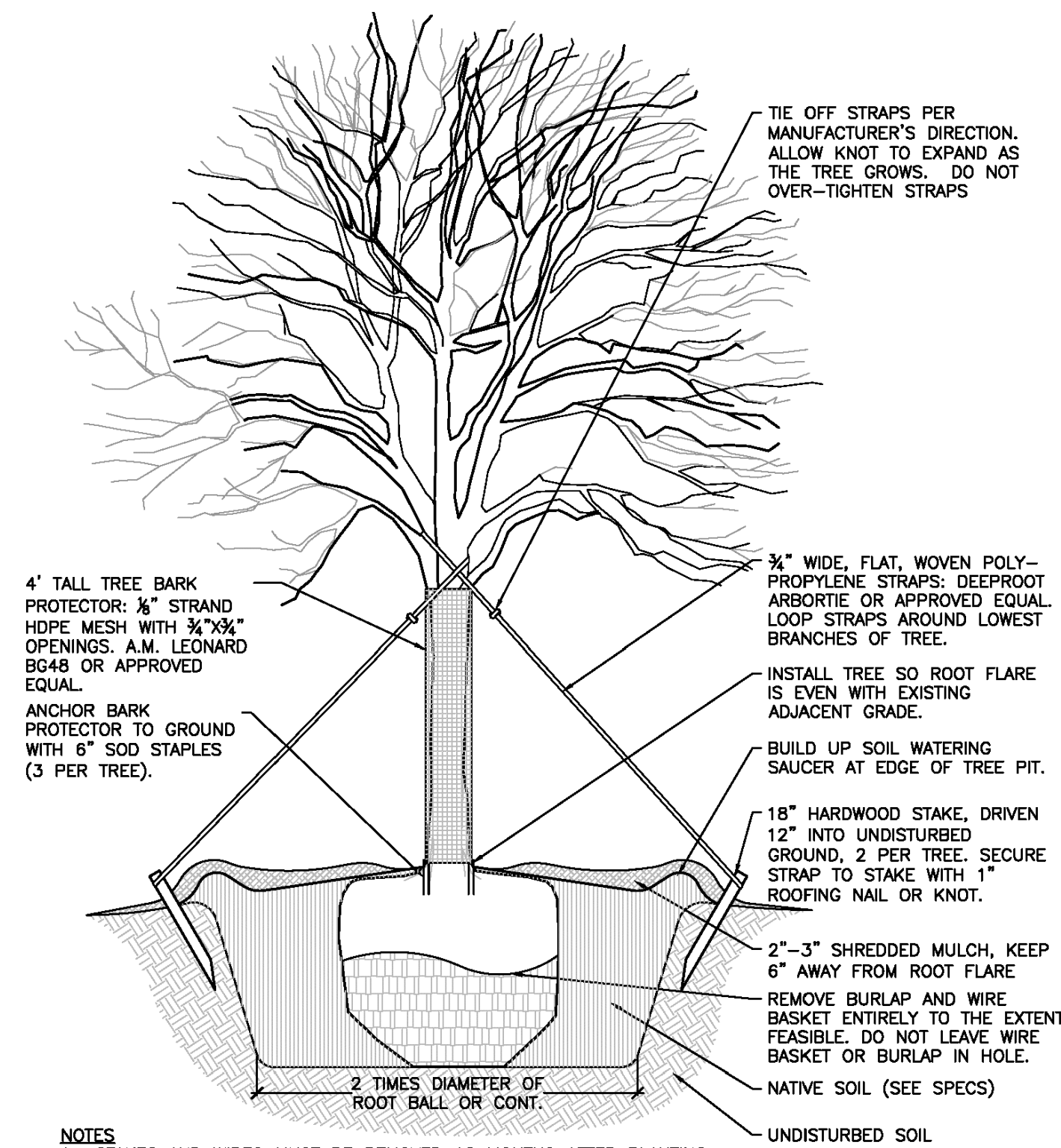
GIDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND

SITE DETAILS

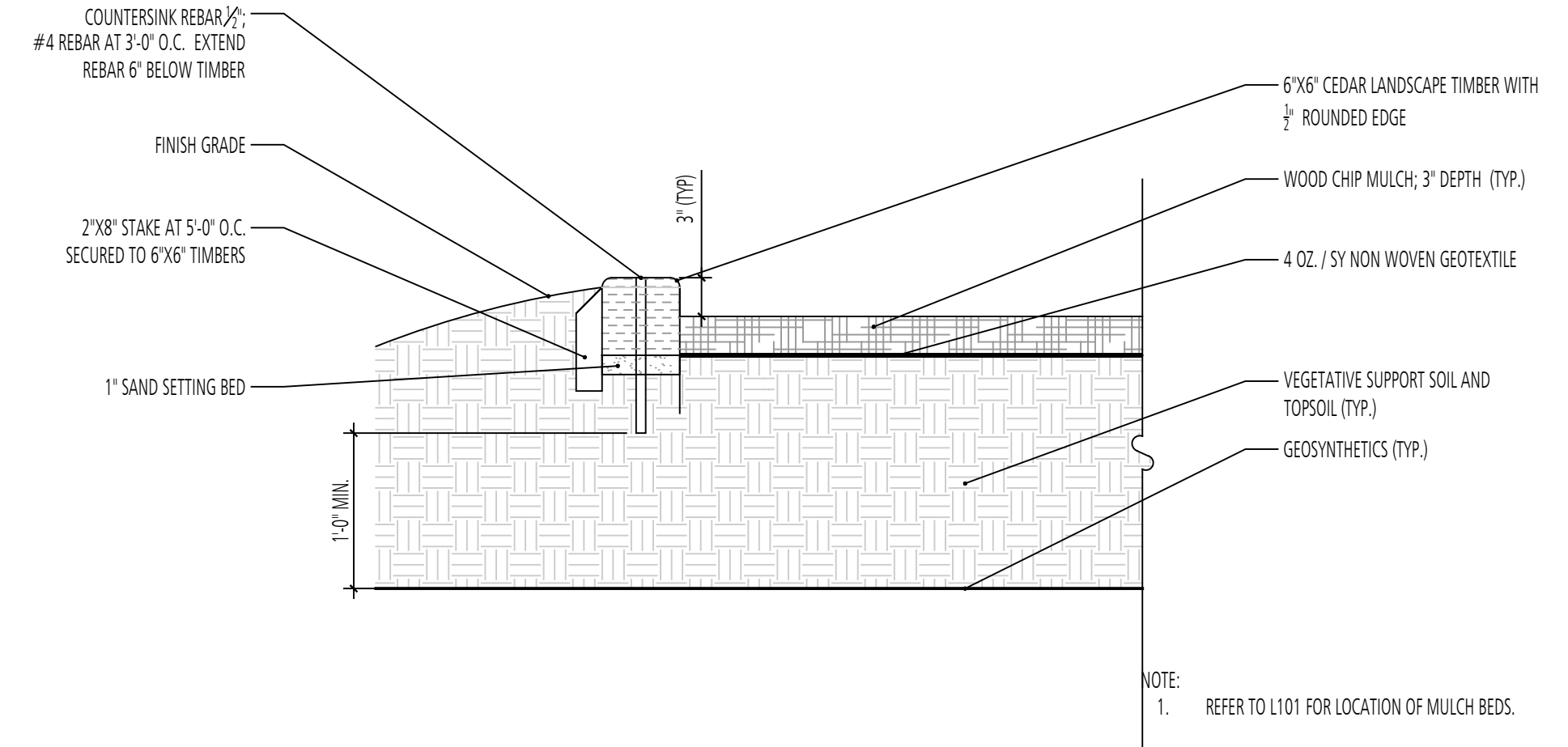
**FLOURA TEETER**  
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 Phone: 410.528.8395  
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 Hunt Valley, Maryland 21031  
 (410) 584-7000

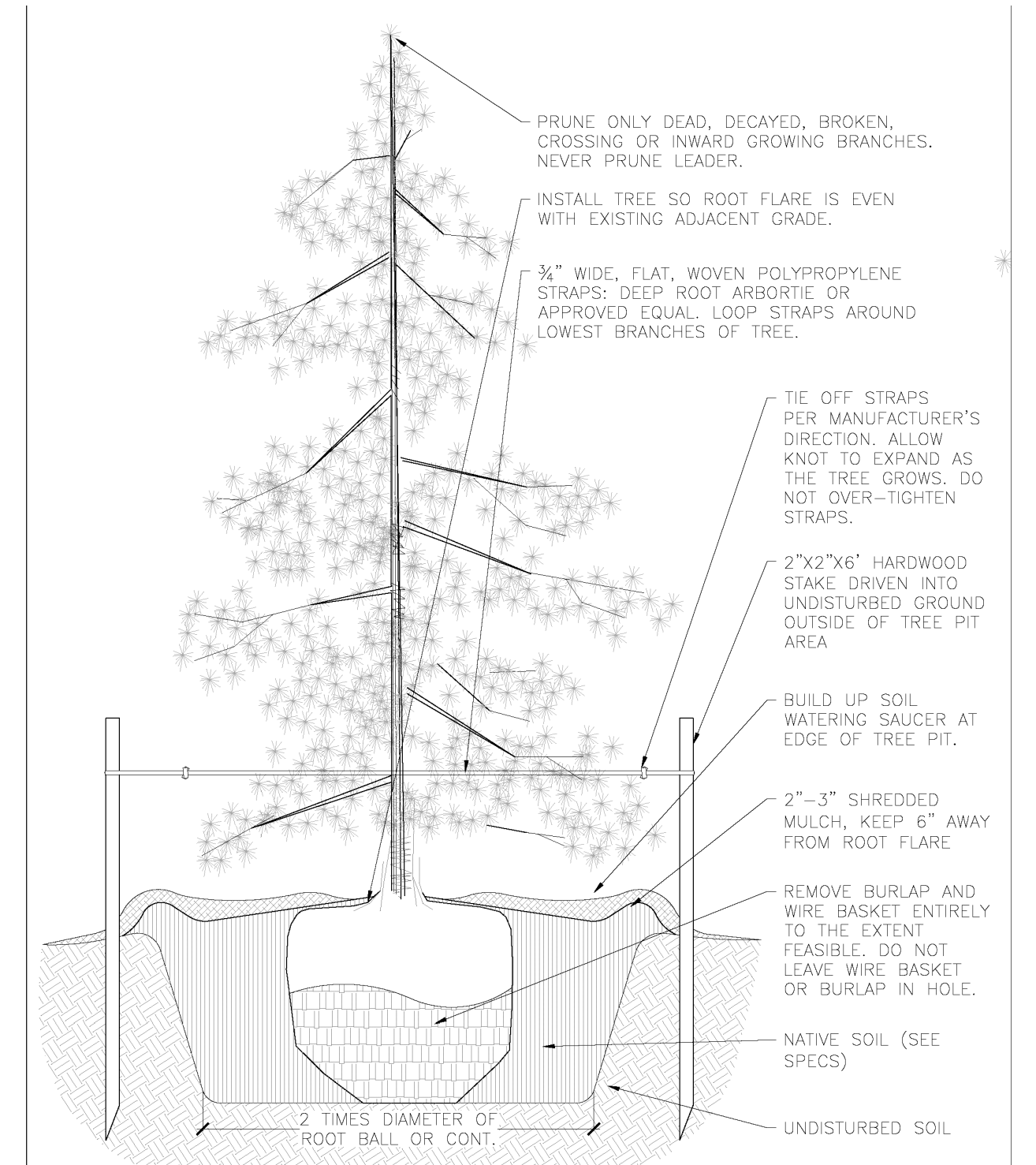
DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**L305**  
 SHEET: 140 OF 146



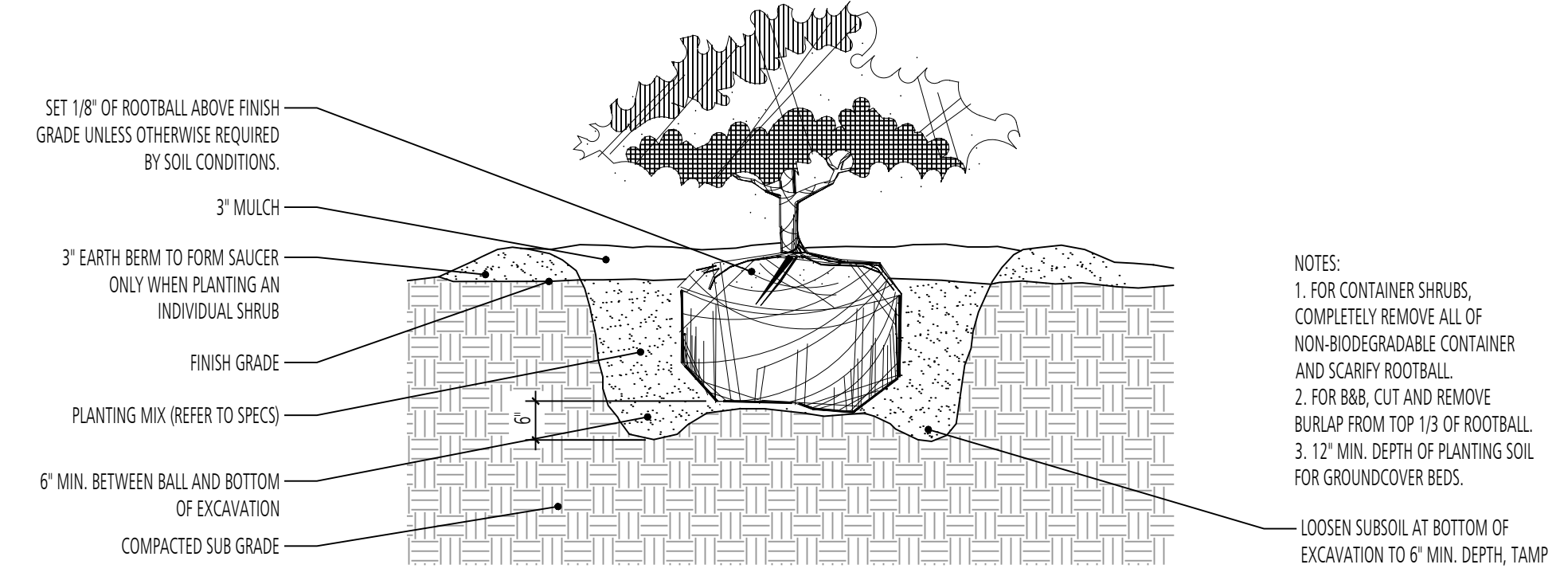
1 TREE PLANTING SECTION SCALE: 1/2" = 1'-0"



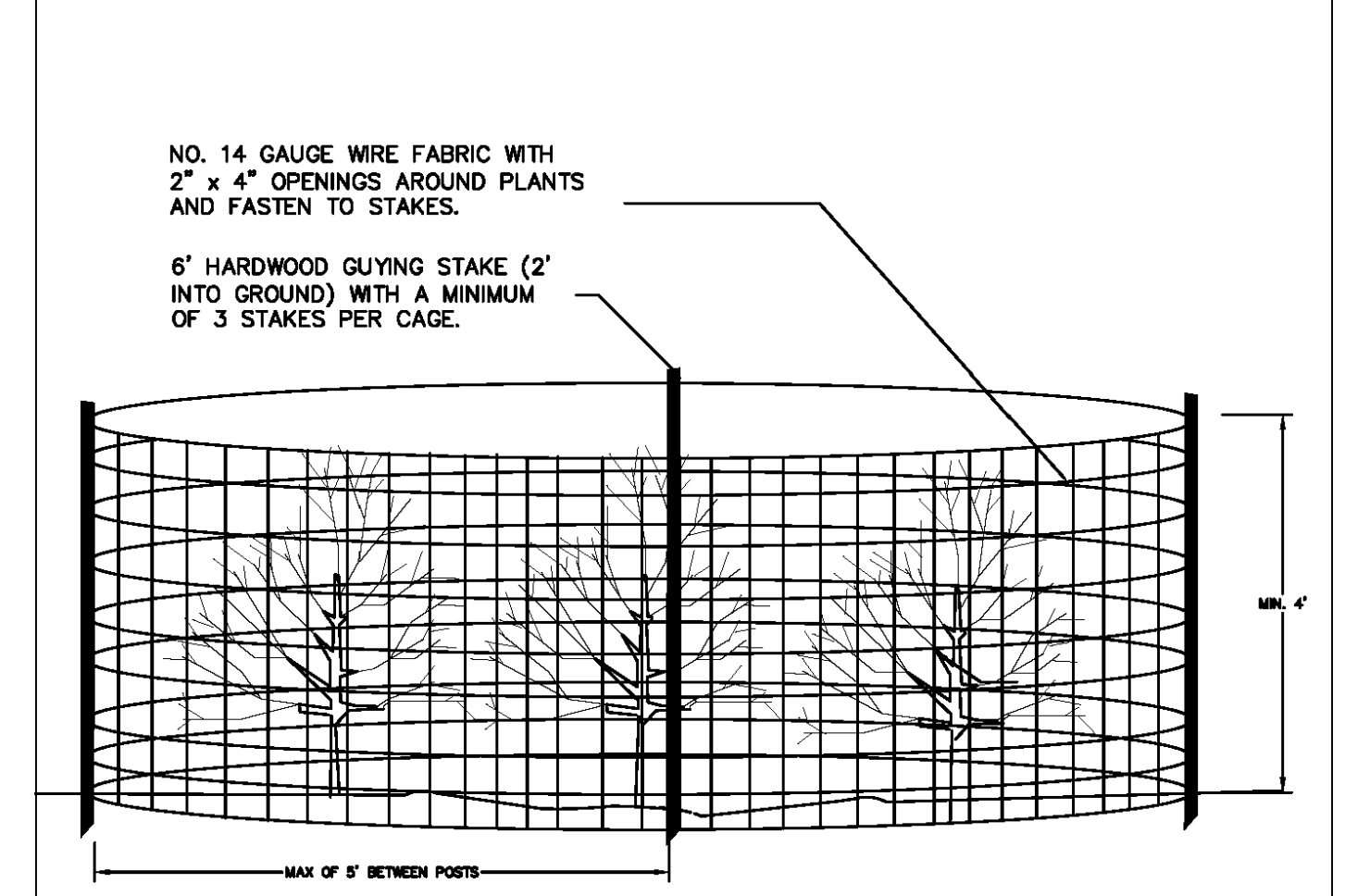
2 MULCH BORDER SECTION SCALE: 1" = 1'-0"



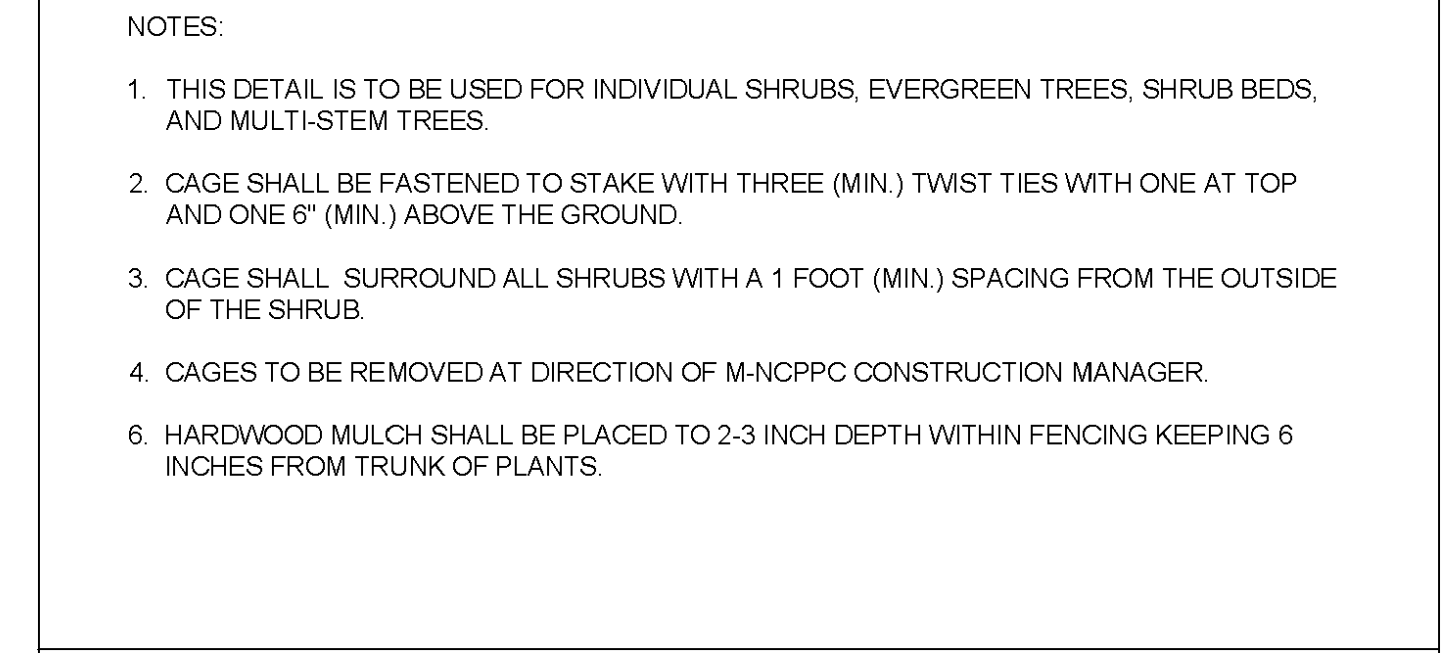
3 EVERGREEN TREE PLANTING SECTION SCALE: NTS



4 SHRUB PLANTING DETAIL SECTION SCALE: 1/2" = 1'-0"



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



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

GENERAL PLANTING NOTES:

- NOTICE SHALL BE PROVIDED TO THE CONSTRUCTION MANAGEMENT ENGINEER THREE-DAYS IN ADVANCE OF START OF ANY WORK.
- CONTRACTOR MUST CONTACT MISS UTILITY TO LOCATE ALL EXISTING UTILITIES AND PROVIDE PROOF AND WRITTEN CONFIRMATION FOR UTILITY LOCATION TO THE CONSTRUCTION MANAGEMENT ENGINEER. CONTRACTOR TO PROVIDE NOTICE TO UTILITY COMPANIES PRIOR TO BEGINNING ANY WORK. IF ACCESS IS REQUIRED THROUGH THE UTILITY EASEMENTS ADDITIONAL COORDINATION FOR RIGHT OF ENTRY IS REQUIRED.
- PLANT MATERIAL TYPES AND SIZES MAY VARY DUE TO MARKET AVAILABILITY AT TIME OF CONSTRUCTION. ANY SUBSTITUTIONS ARE TO BE OF EQUIVALENT TYPE AND SIZE, AND MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT. FOR SHRUB CONTAINERIZED STOCK, B&B STOCK MAY BE SUBSTITUTED WITH WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT.
- WHERE THE CONDITION EXISTS THAT B&B TREES ARE DELIVERED IN WIRE BASKETS, THE WIRE BASKETS SHALL BE CUT DOWN THE SIDE OF EACH MESH AND PEELLED AWAY FROM THE ROOTBALL OR REMOVED IN ENTIRETY. NO PORTION OF THE WIRE BASKET SHALL REMAIN INTACT AROUND THE SIDES OF THE ROOTBALL OR EXTEND ABOVE FINISHED GRADE.
- DISTURBANCE SHALL BE LIMITED TO ONLY THE AREA OF WORK THAT CAN BE COMPLETED IN ONE DAY. NO EXPOSED PLANTING PITS SHALL BE EXPOSED OVERNIGHT.
- PLANTS SHALL BE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1, LATEST EDITION, AMERICAN NURSERY & LANDSCAPE ASSOCIATION. PLANTS SHALL BE INSPECTED BY THE CONSTRUCTION MANAGEMENT ENGINEER FOR QUALITY AND COMPLIANCE PRIOR TO INSTALLATION.
- ALL INDIVIDUAL TREES SHALL RECEIVE A 2" LAYER OF SHREDDED HARDWOOD MULCH TO COVER THE ENTIRE EXCAVATED AREA OF THE PLANT PIT.
- PROVIDE DEER PROTECTION DEVICES FOR TREES AND SHRUBS, REFER TO L400 FOR ADDITIONAL INFORMATION.
- ALL PLANTINGS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A ONE-YEAR MAINTENANCE PERIOD. INSPECTION BY THE CONSTRUCTION MANAGEMENT ENGINEER SHALL BE REQUESTED AT THE END OF THE ONE-YEAR MAINTENANCE PERIOD. FOR ANY REPLACEMENT PLANTS REQUIRED, A RE-INSPECTION WILL OCCUR AT THE END OF THE GROWING SEASON FOLLOWING REPLANTING. IF ADDITIONAL CORRECTIONS ARE REQUIRED AN ADDITIONAL MAINTENANCE PERIOD AND SUBSEQUENT INSPECTION WILL BE REQUIRED.
- INVASIVE SPECIES CONTROL IS A REQUIREMENT OF THE ONE-YEAR MAINTENANCE PERIOD.
- ANY DAMAGE TO THE EXISTING UTILITIES, FENCES, PAVING, CURB, WALLS, TURFGRASS, OR VEGETATION (NOT DESIGNATED FOR REMOVAL ON THESE PLANS) SHALL BE REPAIRED TO PREVIOUS CONDITION OR REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.
- ALL AREAS DISTURBED DURING CONSTRUCTION ARE TO BE SEEDDED AS LAWN UNLESS NOTED OTHERWISE.

REVISIONS		DESCRIPTION	
NO.	DATE	BY	

DESIGN INFORMATION		DESIGNED BY		DRAWN BY		CHECKED BY		PROJECT MANAGER	
MM	JCI	MM	MM	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: 07/26/2022

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

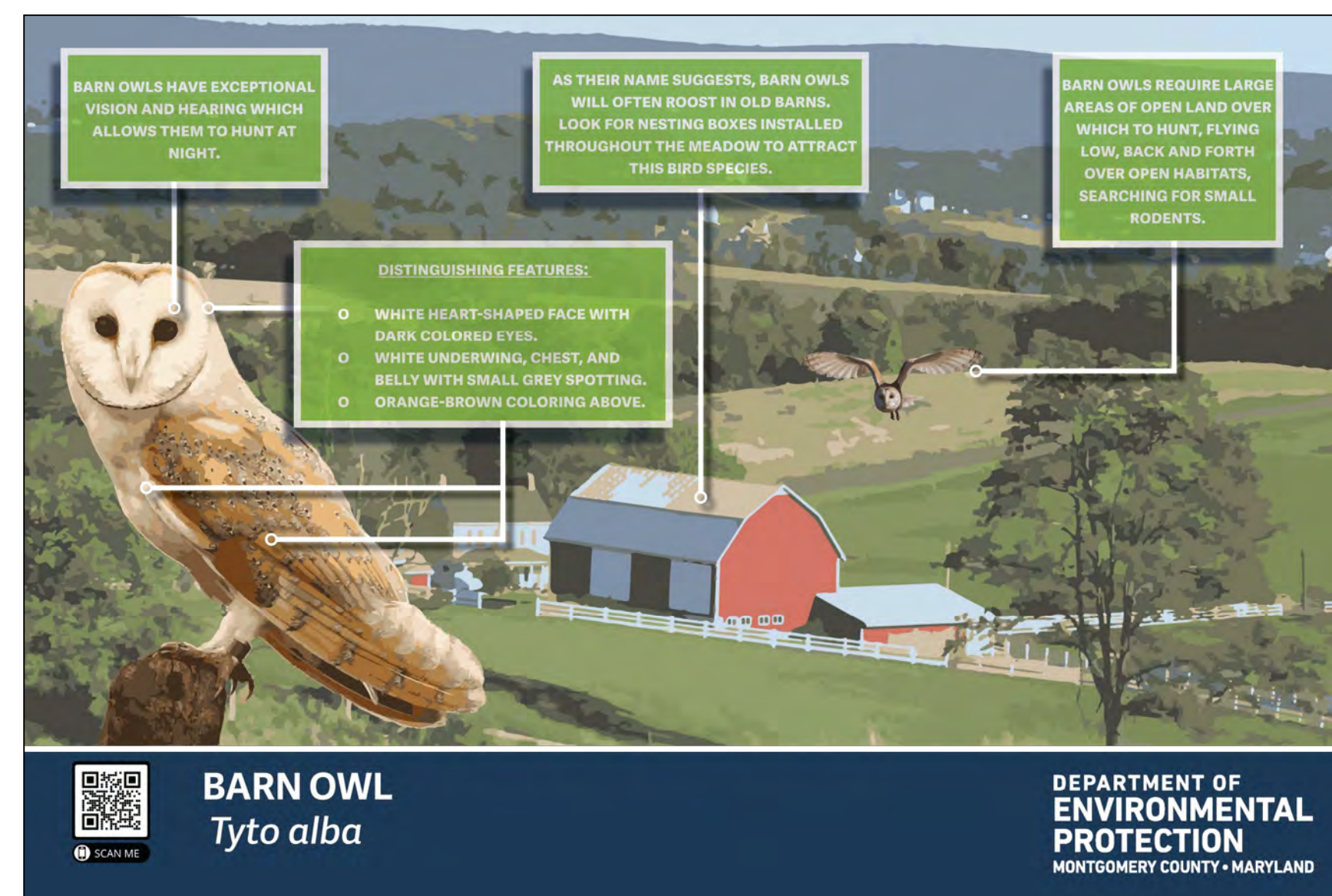
**FLOURA TEETER**  
 landscape architects  
 800 North Charles St. Ste. 300  
 Baltimore, Maryland 21201  
 Phone: 410.528.8395  
 Fax: 410.528.8425

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

DATE: DECEMBER 2020  
 PROJECT NUMBER: 1564601  
**L400**  
 SHEET: 141 OF 146

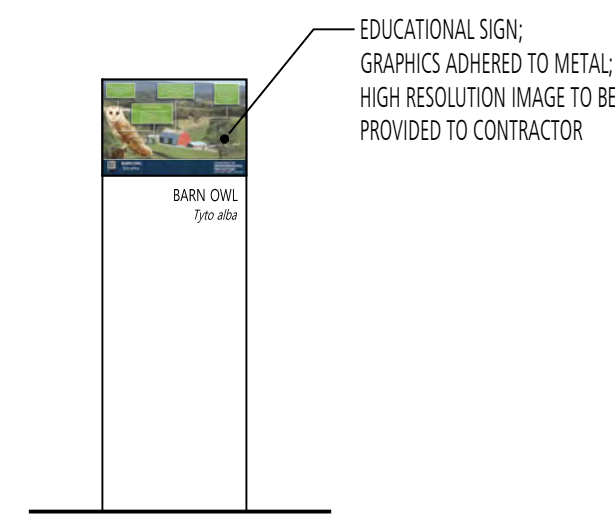
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100% DESIGN PLANS - NOT FOR CONSTRUCTION



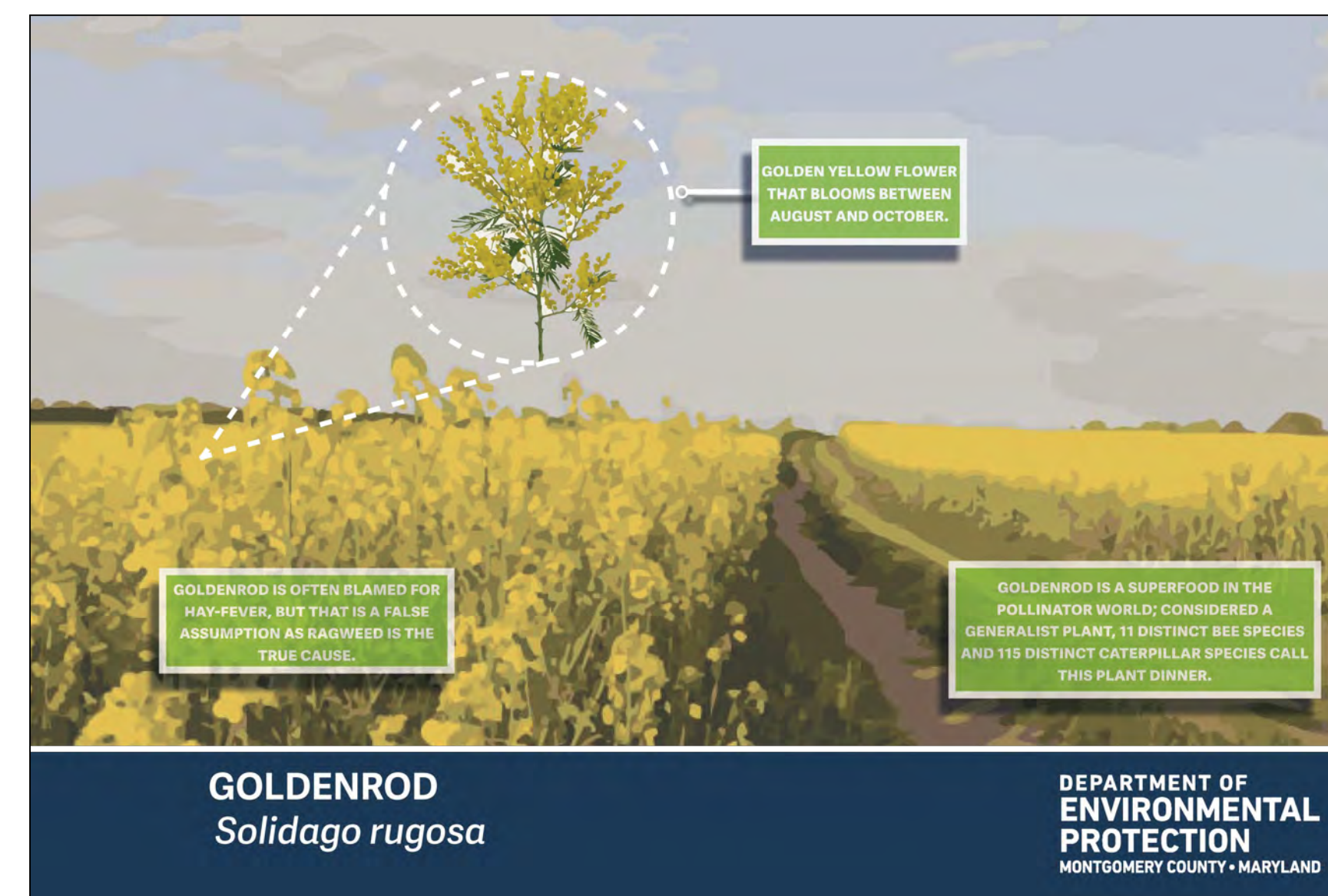
**BARN OWL**  
*Tyto alba*

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY • MARYLAND



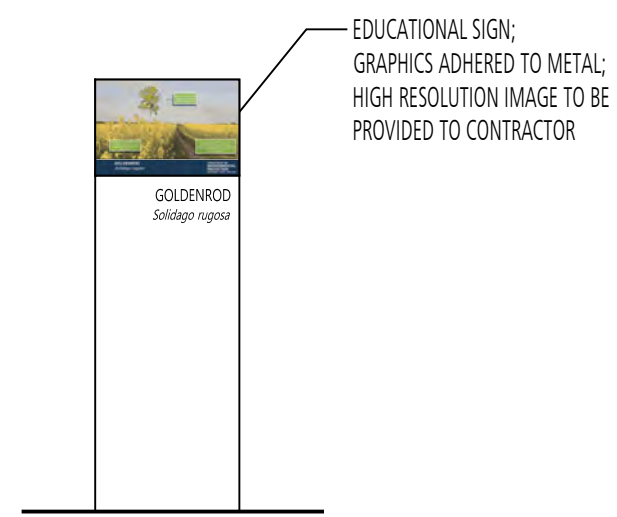
NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

1 EDUCATIONAL POST #1 - BARN OWL  
EVEVATION SCALE: 1/2" = 1'-0"



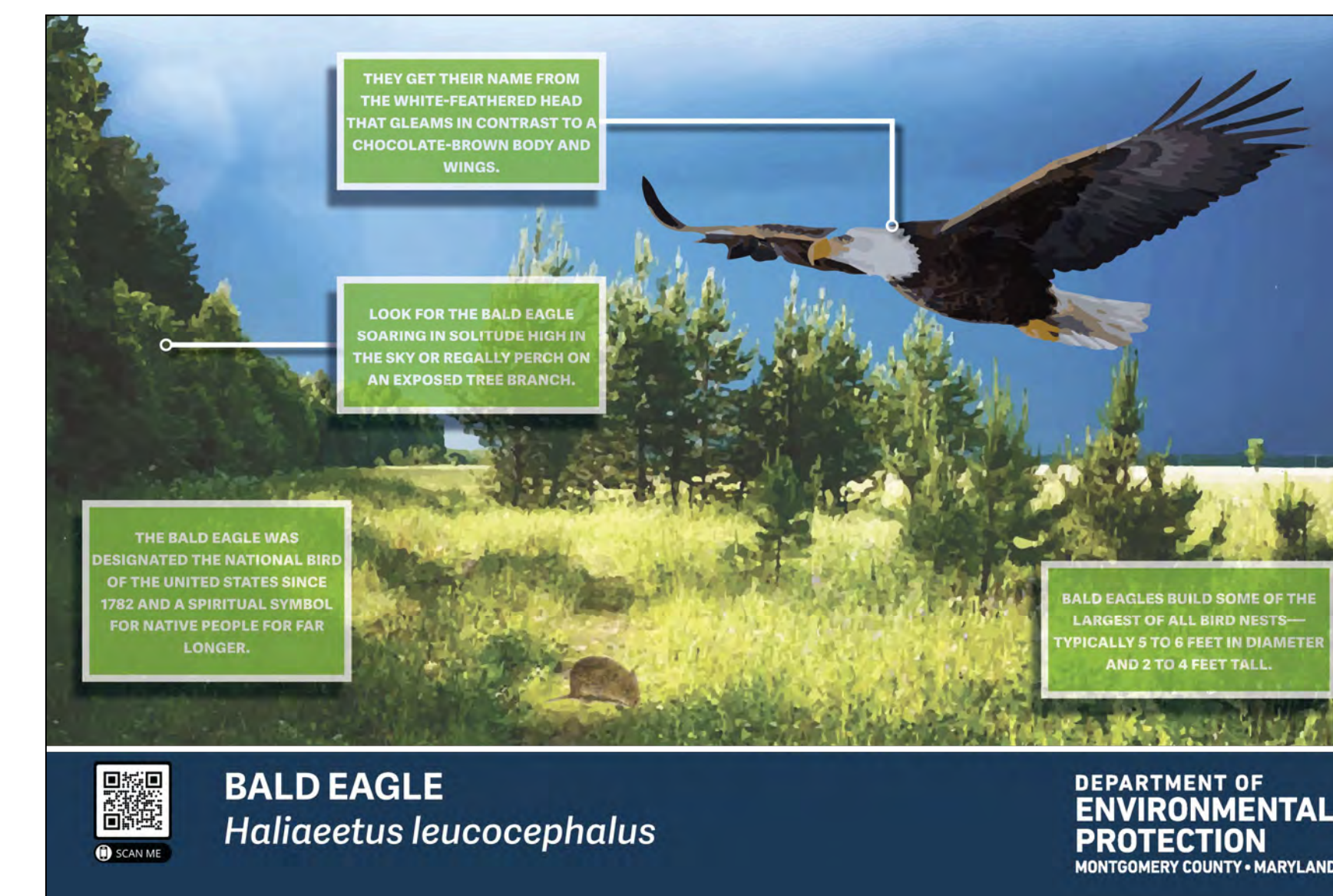
**GOLDENROD**  
*Solidago rugosa*

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY • MARYLAND



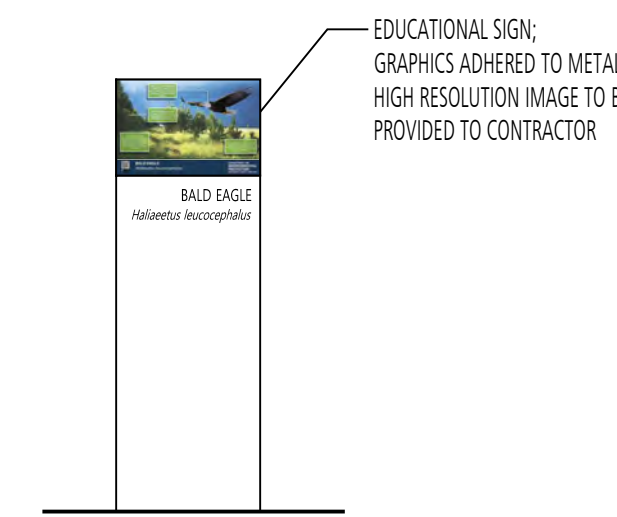
NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

2 EDUCATIONAL POST #2 - GOLDENROD  
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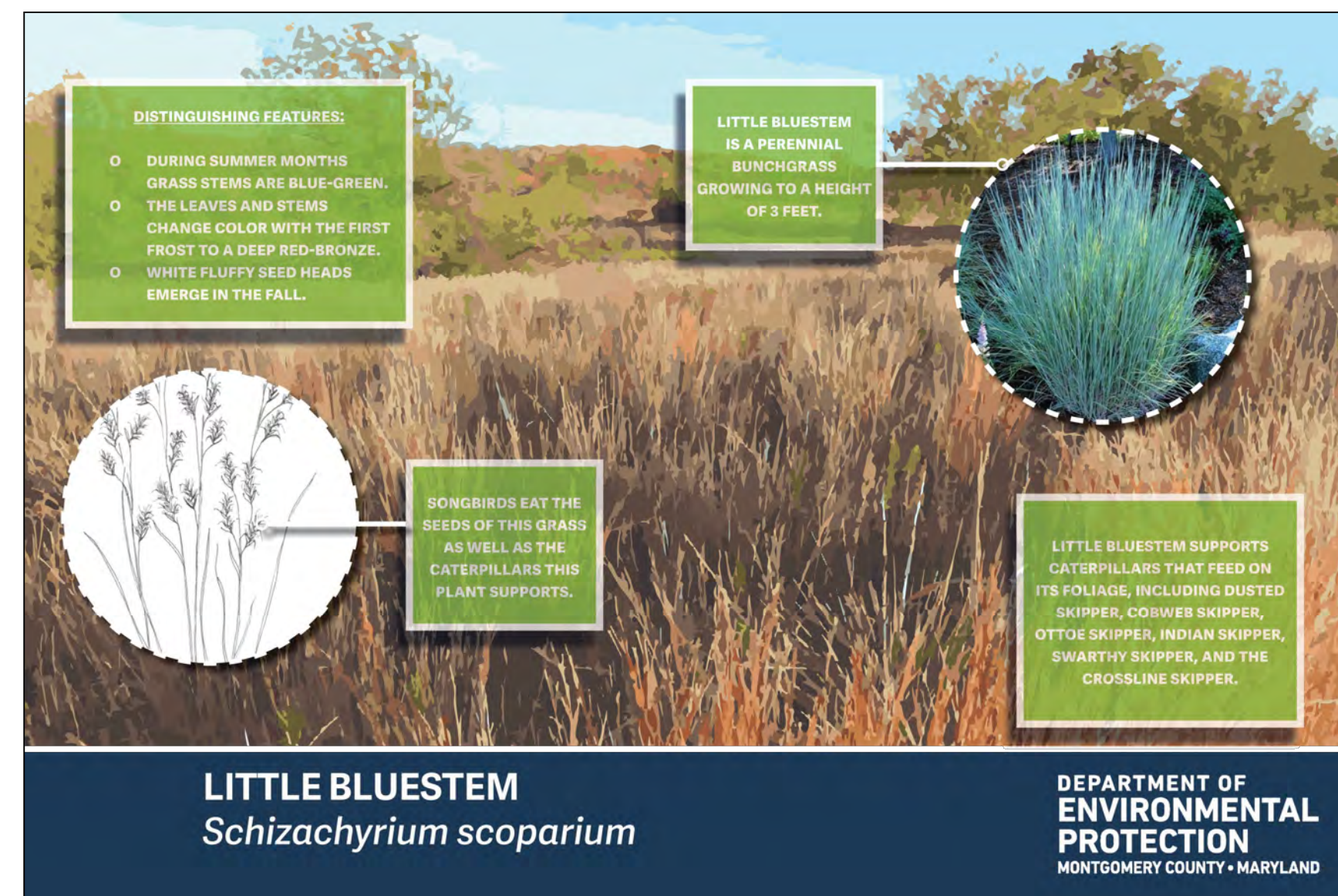
**BALD EAGLE**  
*Haliaeetus leucocephalus*

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY • MARYLAND



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

3 EDUCATIONAL POST #3 - BALD EAGLE  
EVEVATION SCALE: 1/2" = 1'-0"



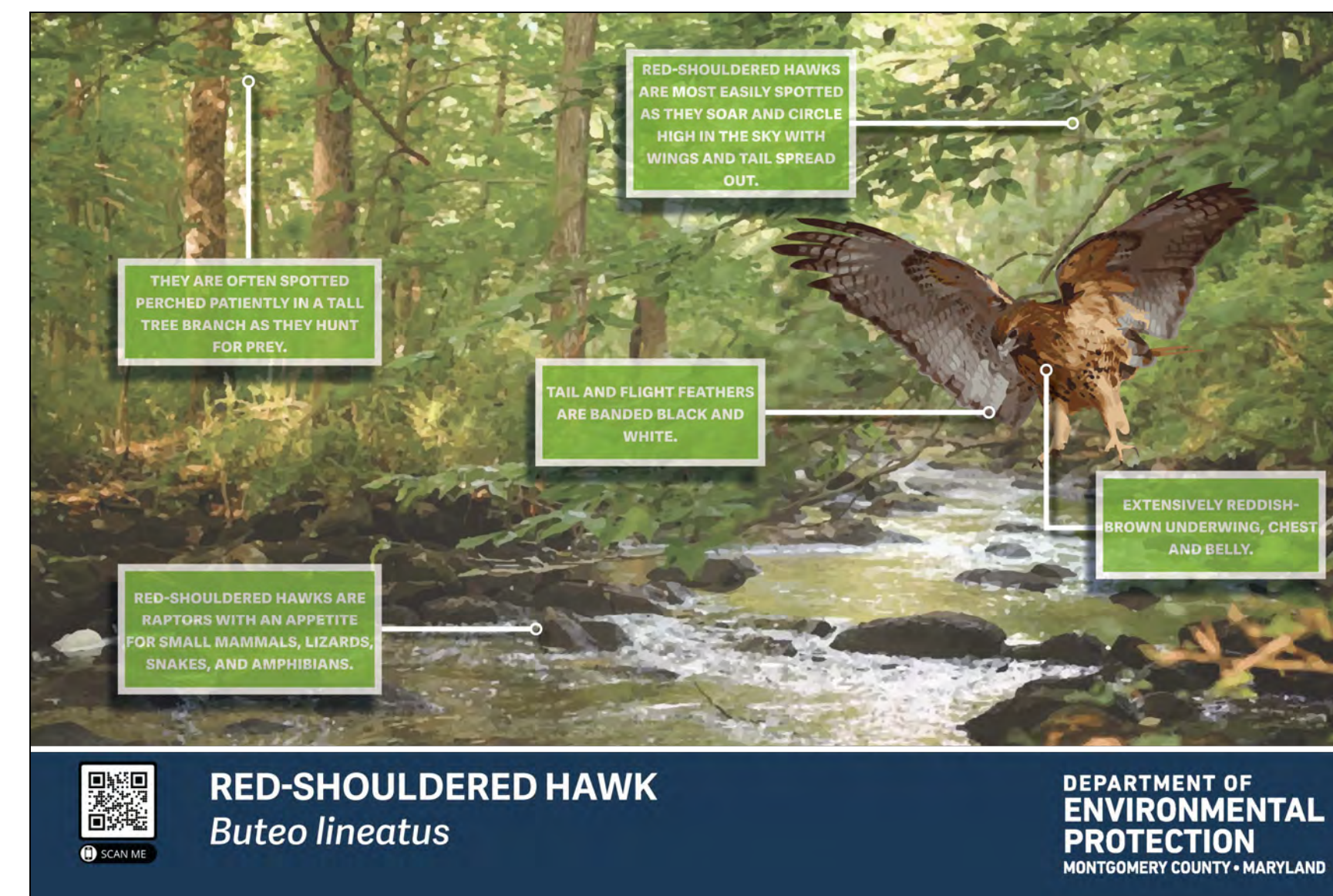
**LITTLE BLUESTEM**  
*Schizachyrium scoparium*

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY • MARYLAND



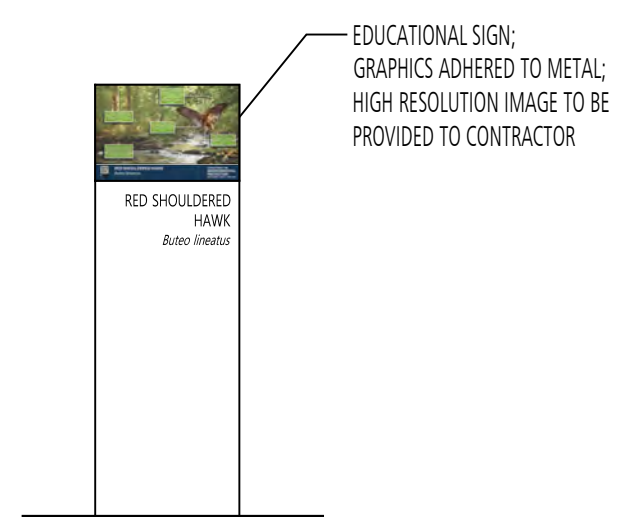
NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

4 EDUCATIONAL POST #4 - LITTLE BLUESTEM  
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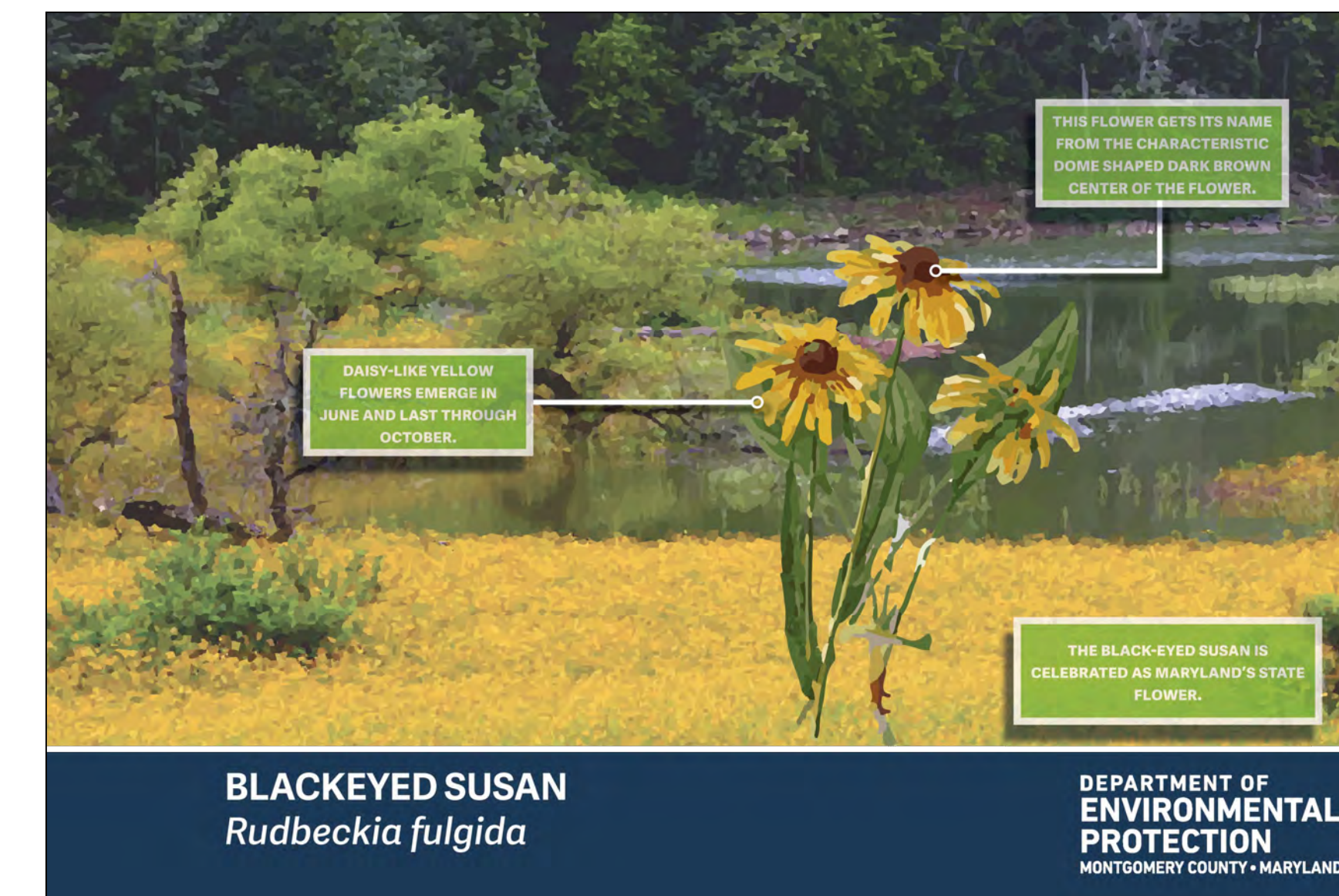
**RED-SHOULDERED HAWK**  
*Buteo lineatus*

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY • MARYLAND



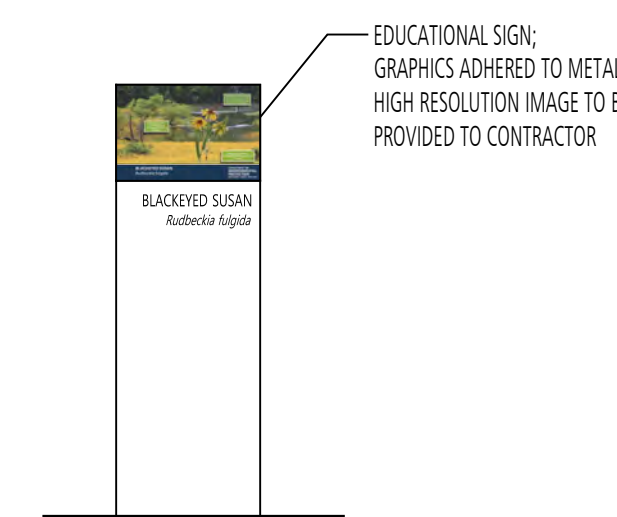
NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

5 EDUCATIONAL POST #5 - RED SHOULDERED HAWK  
EVEVATION SCALE: 1/2" = 1'-0"



**BLACKEYED SUSAN**  
*Rudbeckia fulgida*

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY • MARYLAND



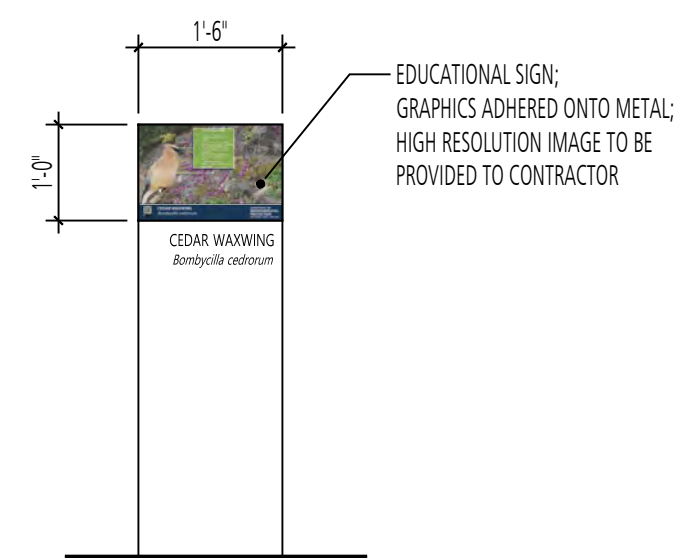
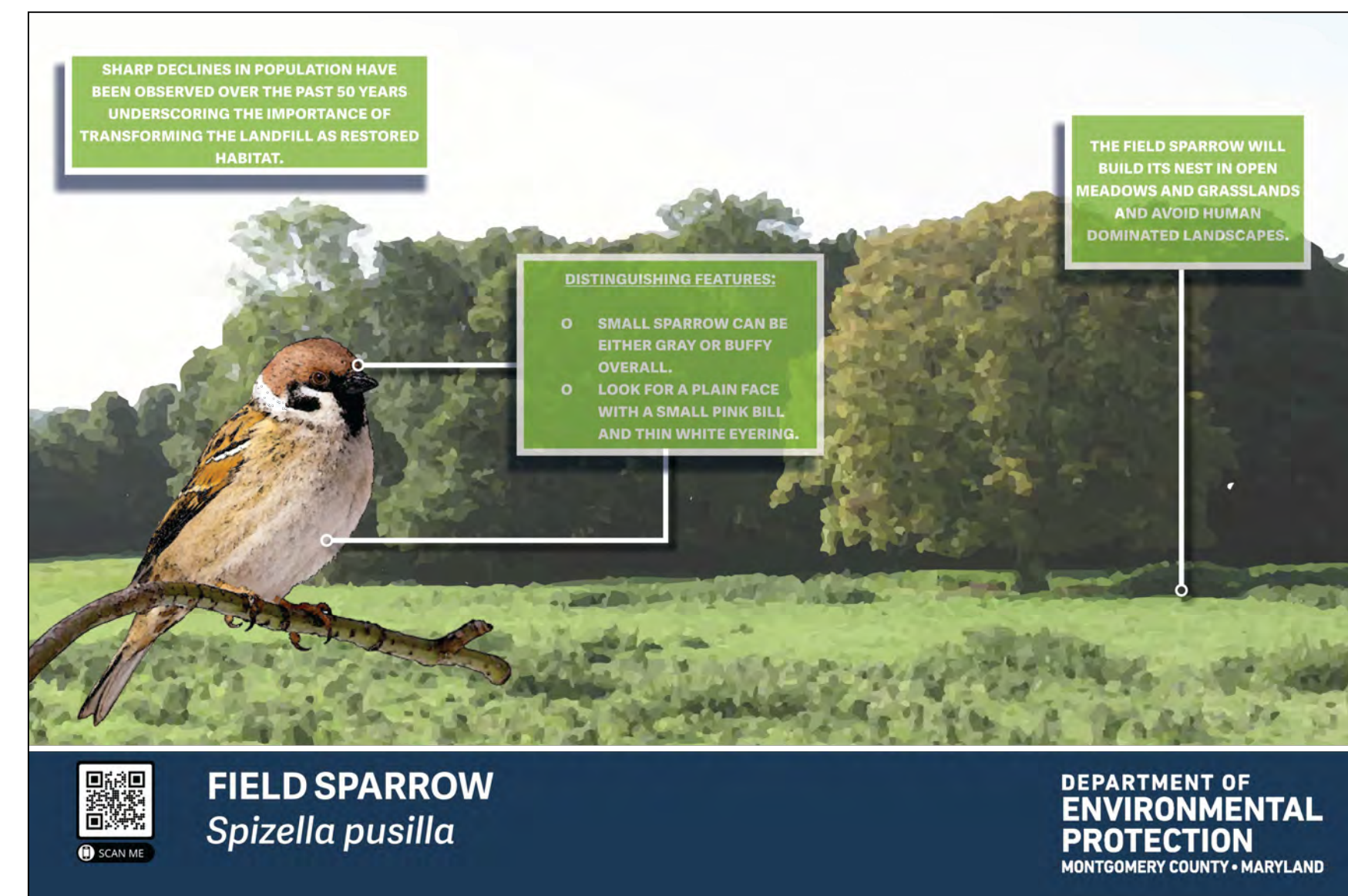
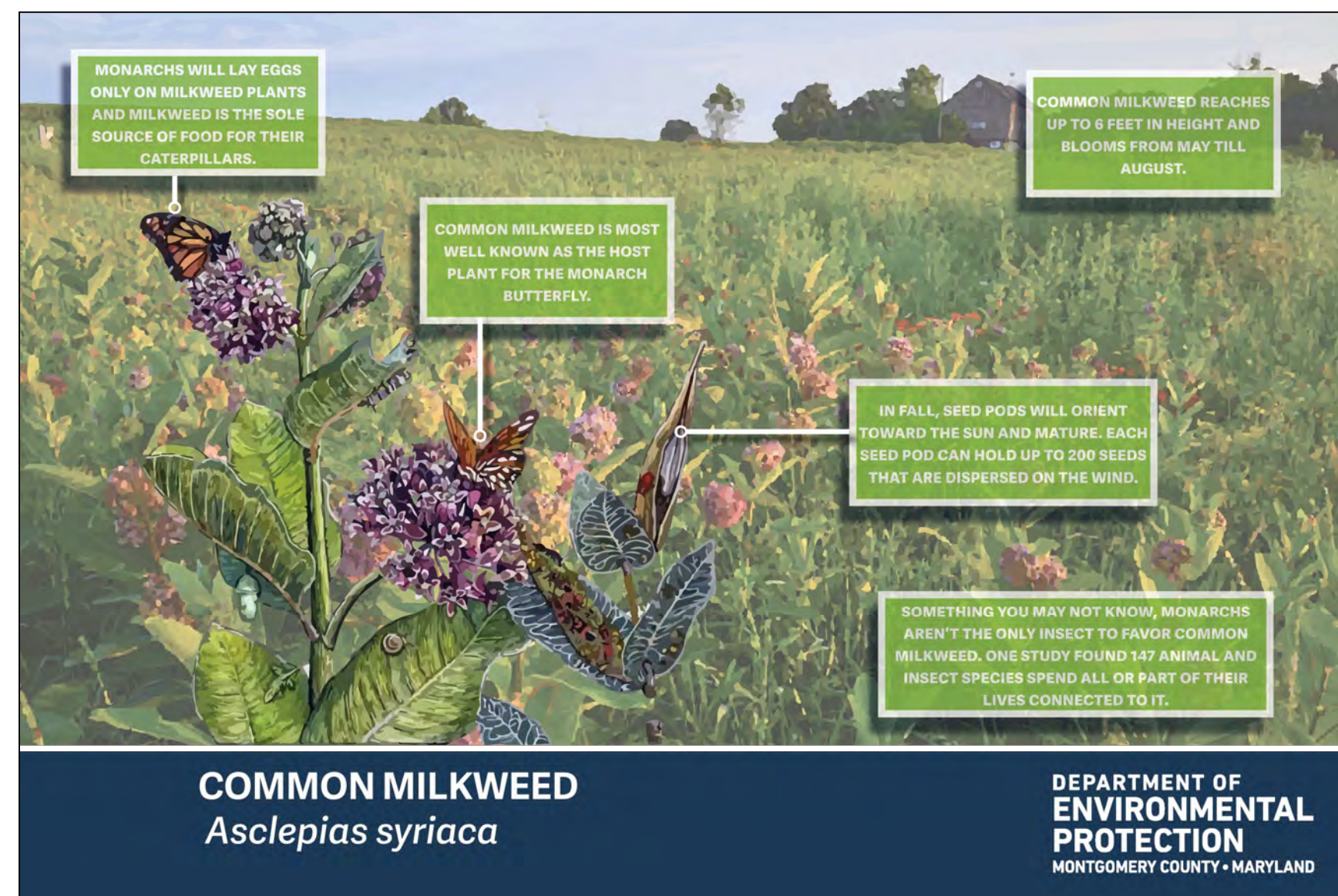
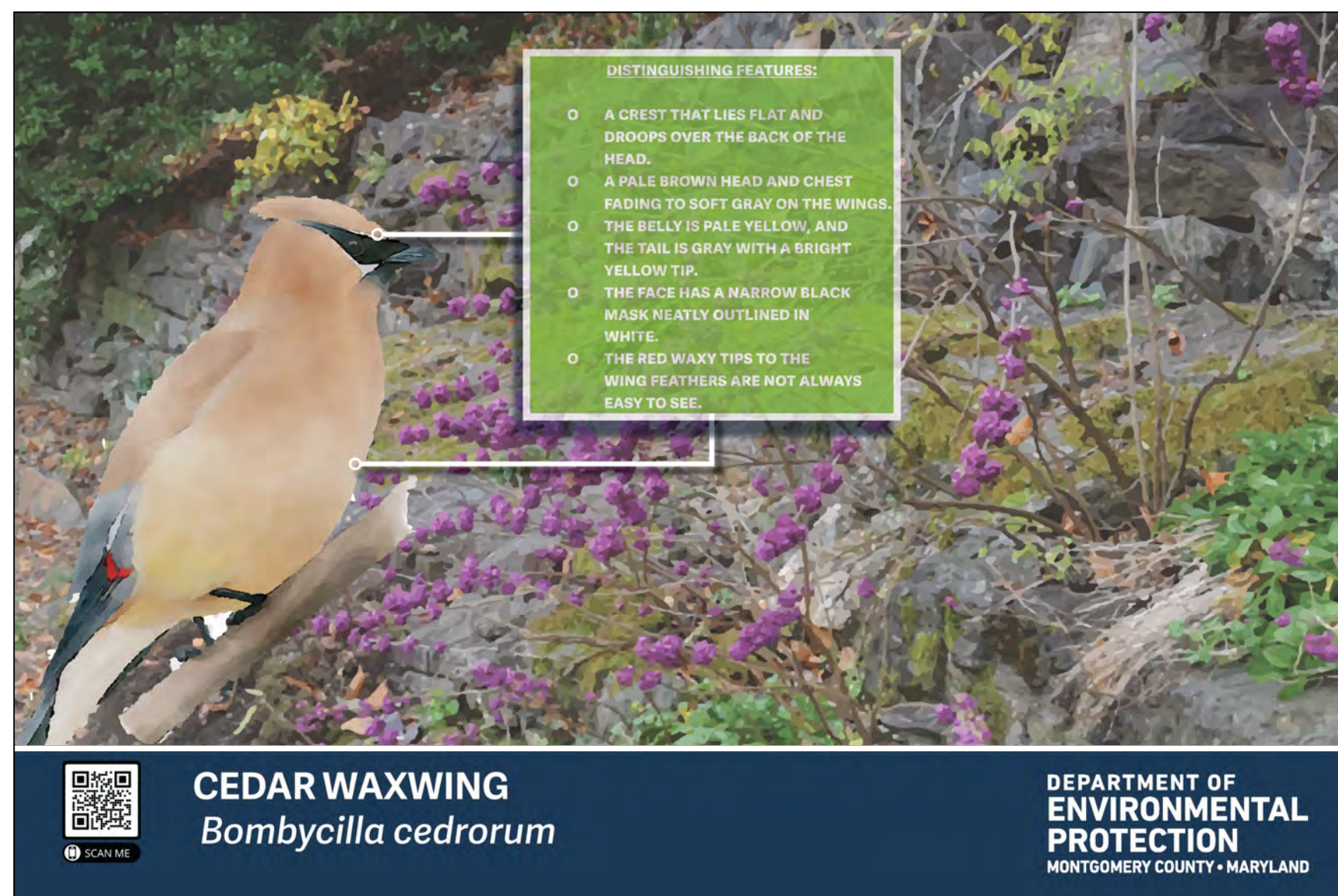
NOTE:  
1. REFER TO DETAIL 6/L303 FOR SIGN STRUCTURE.

6 EDUCATIONAL POST #6 - BLACKEYED SUSAN  
EVEVATION SCALE: 1/2" = 1'-0"

FILE PATH: P:\PL\PROJECTS\1808 - GIDE LANDFILL DOMESTIC WASTE DISPOSAL AUTHORITY - L500 - BRANDE DETAIL SIGNS (L500) - DATE: 12/10/2020 10:27 PM

DESIGN INFORMATION	DESIGNED BY:	MM	REVISIONS	NO.	DATE	BY	DESCRIPTION
	DRAWN BY:	JCI		NO.	DATE	BY	DESCRIPTION
SEAL	CHECKED BY:	MM	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: 07/26/2022				
	PROJECT MANAGER:	M/G					
GIDE LANDFILL REMEDIATION DESIGN NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION MONTGOMERY COUNTY, MARYLAND							
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: DECEMBER 2020							
PROJECT NUMBER: 1564601							
L500							
SHEET: 142 OF 146							

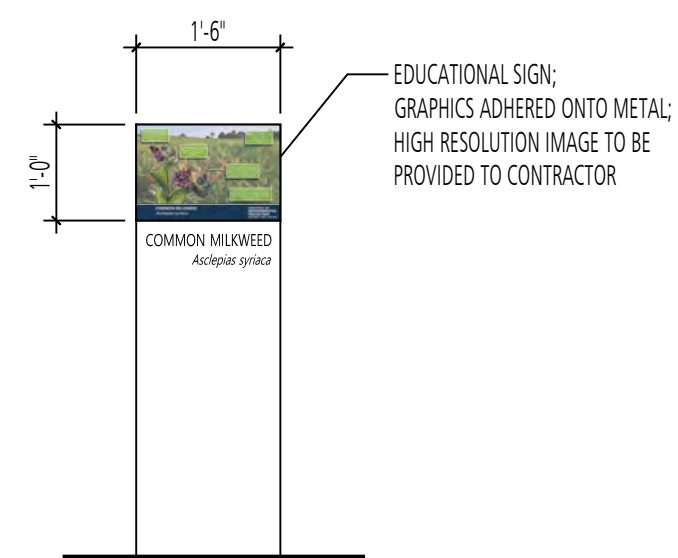
100% DESIGN PLANS - NOT FOR CONSTRUCTION



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

1 EDUCATIONAL POST #7 - CEDAR WAXWING  
ELEVATION

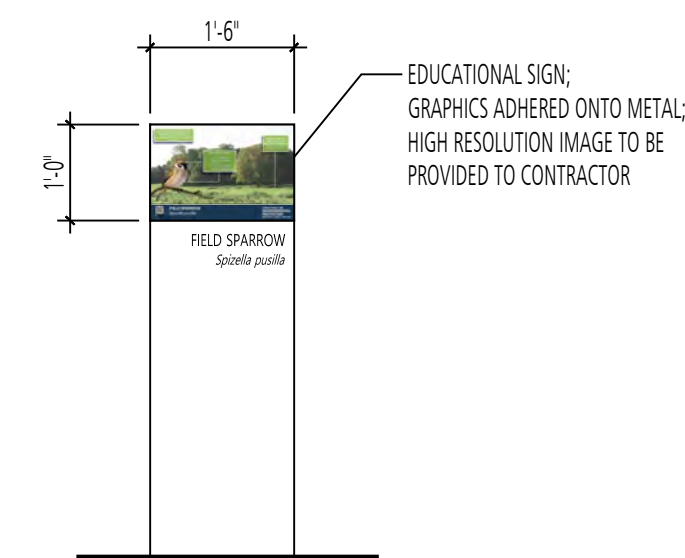
SCALE: 1/2" = 1'-0"



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

2 EDUCATIONAL POST #8 - COMMON MILKWEED  
ELEVATION

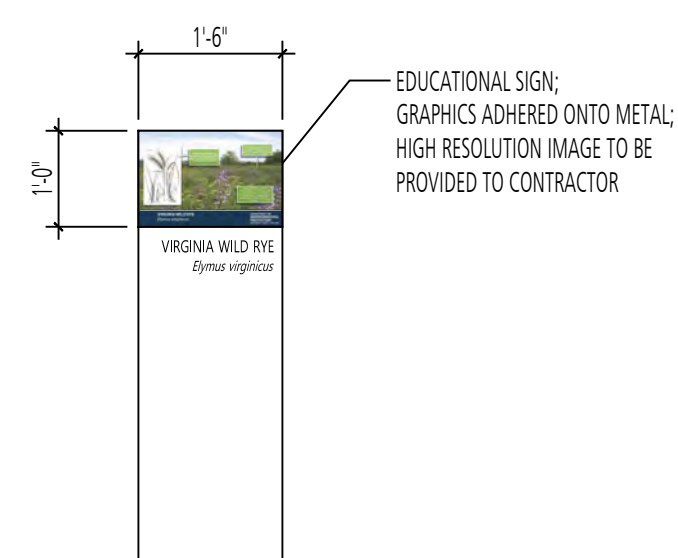
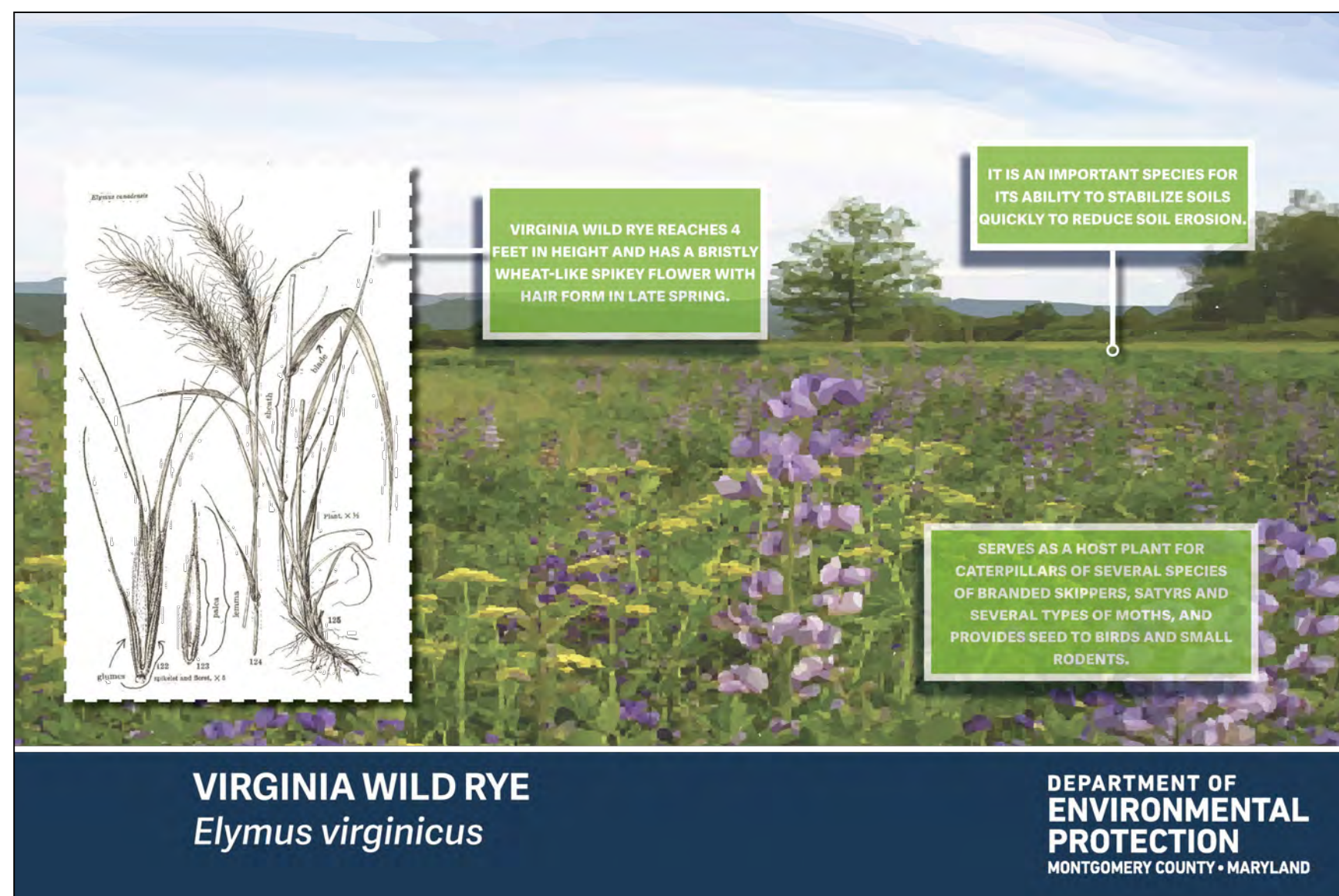
SCALE: 1/2" = 1'-0"



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

3 EDUCATIONAL POST #9 - FIELD SPARROW  
ELEVATION

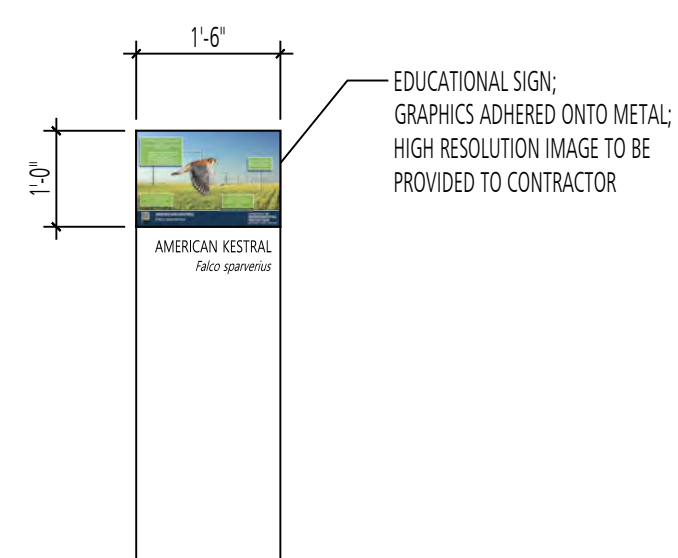
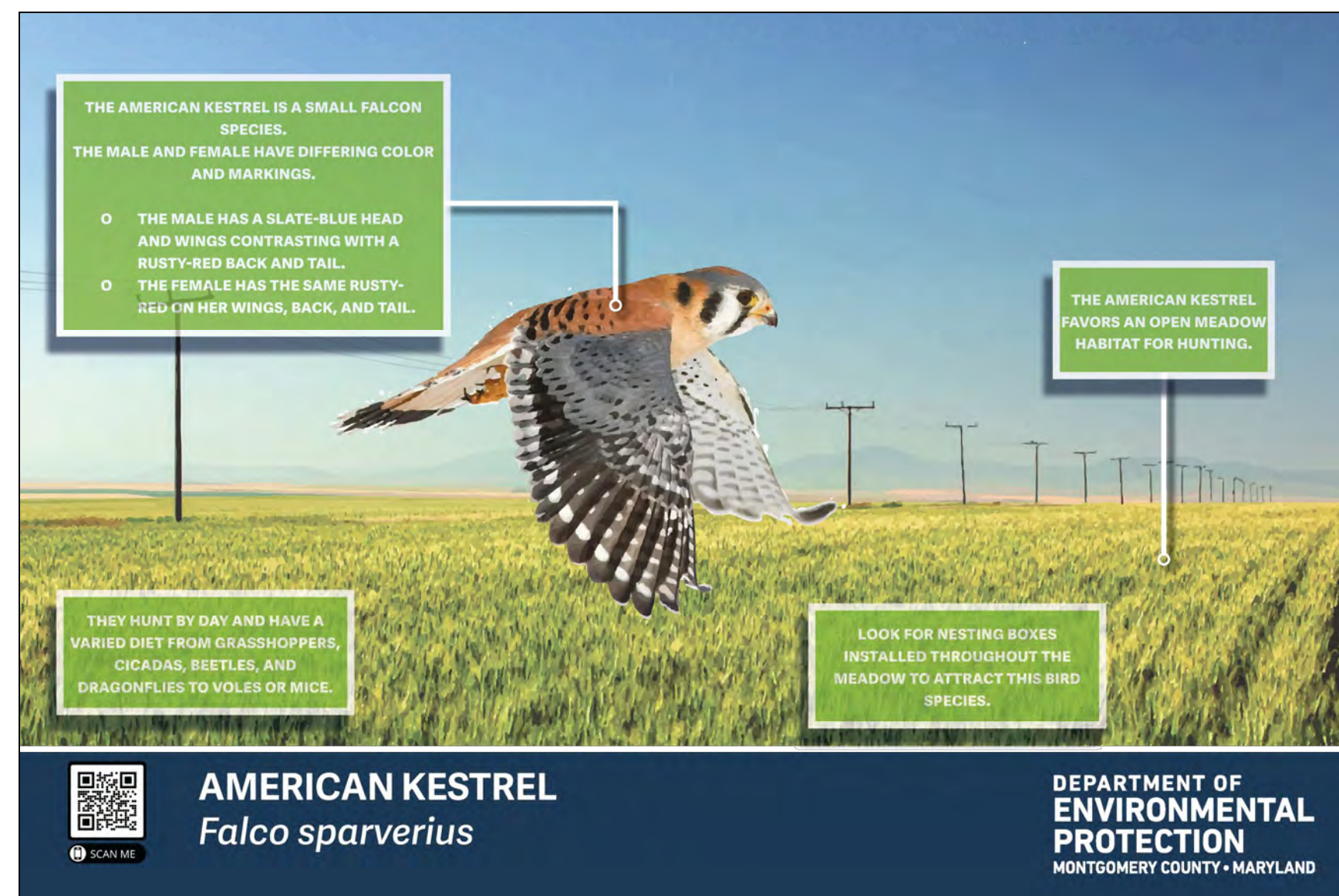
SCALE: 1/2" = 1'-0"



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

4 EDUCATIONAL POST #10 - VIRGINIA WILD RYE  
ELEVATION

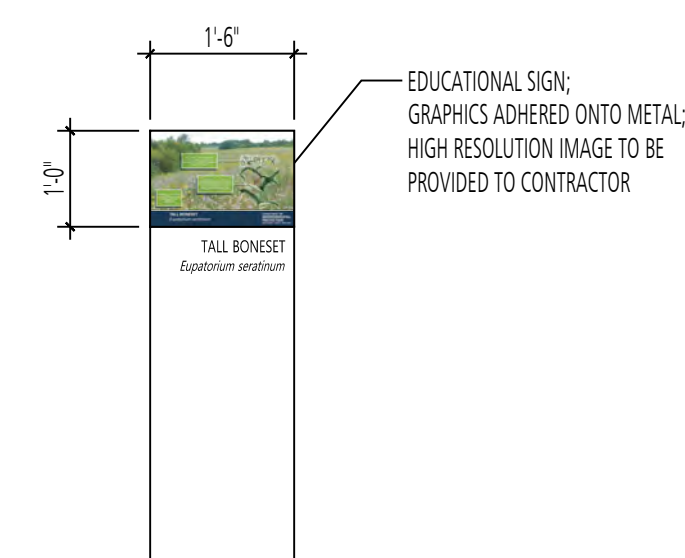
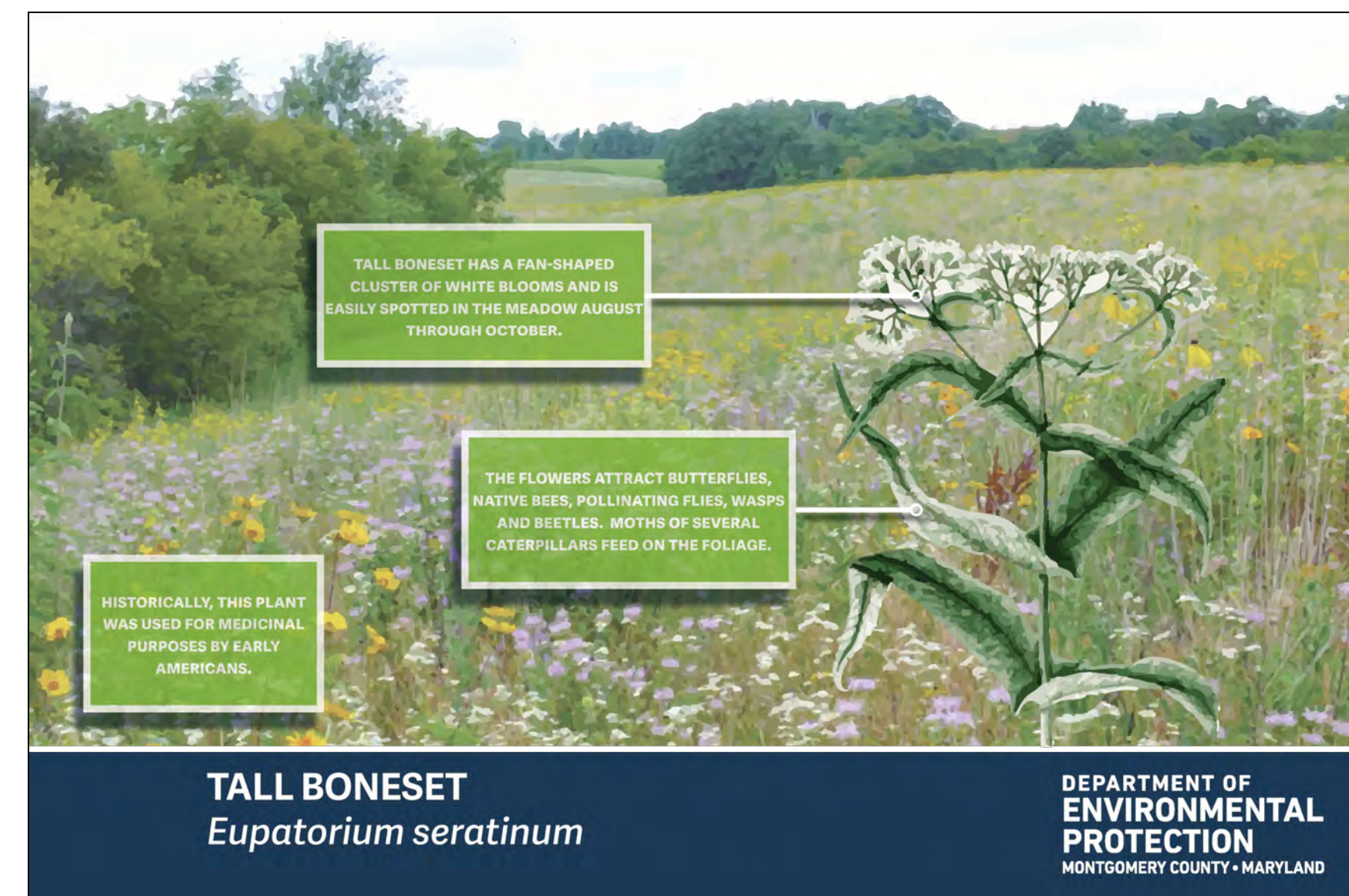
SCALE: 1/2" = 1'-0"



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

5 EDUCATIONAL POST #11 - AMERICAN KESTREL  
ELEVATION

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



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

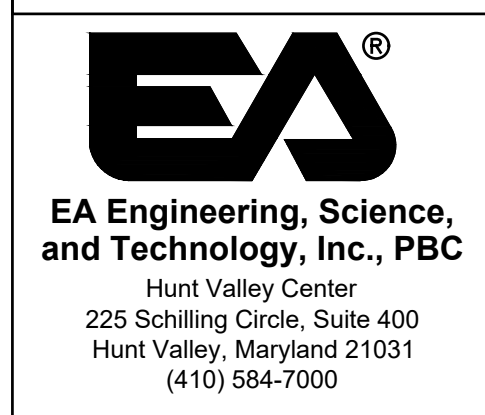
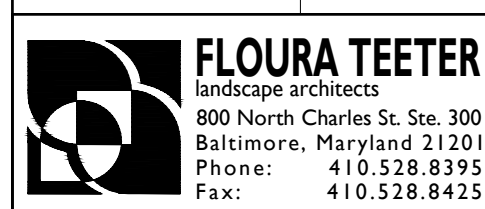
6 EDUCATIONAL POST #12 - TALL BONESET  
ELEVATION

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: 07/26/2022			

SEAL

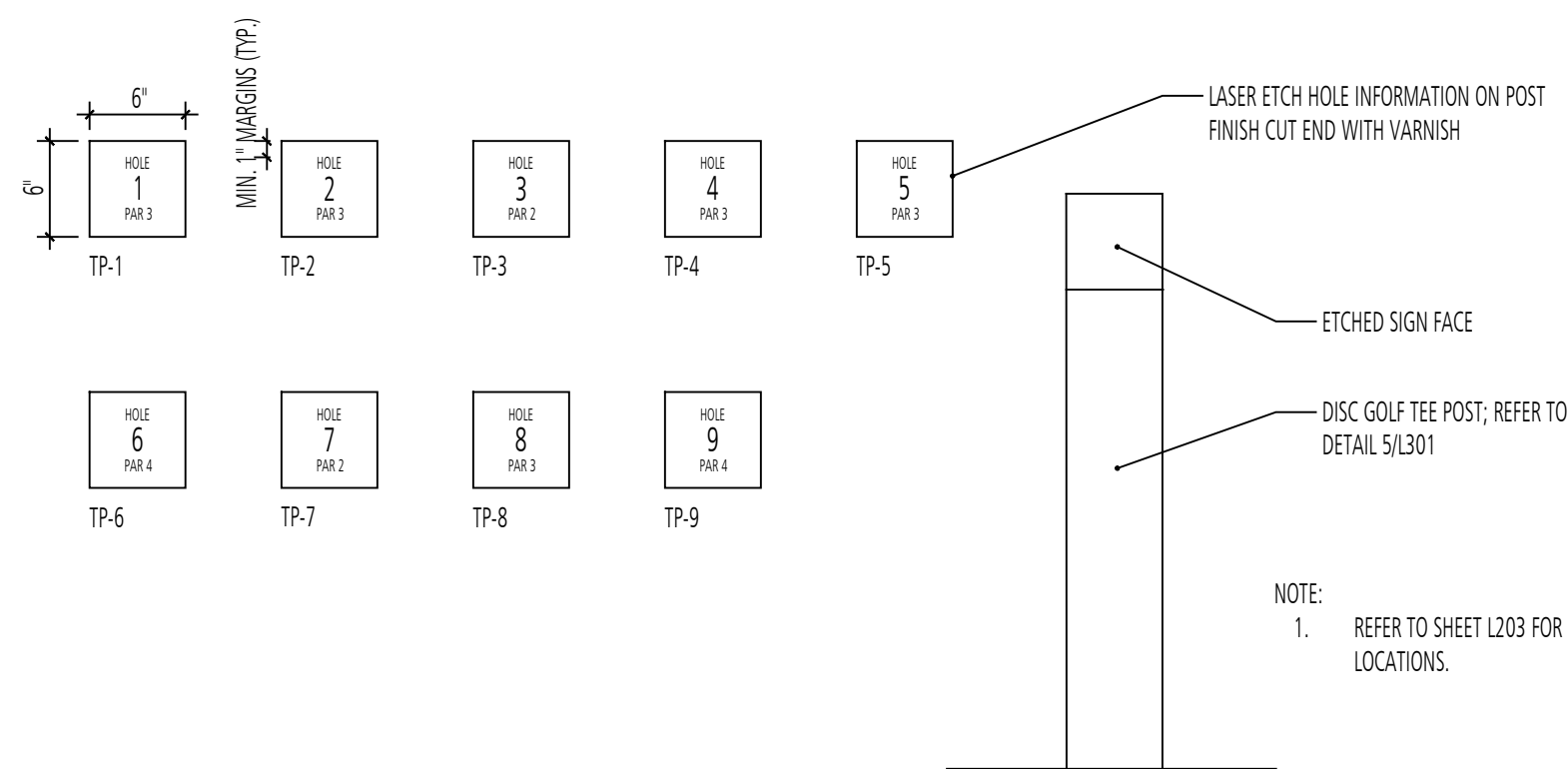
GUDE LANDFILL REMEDIATION DESIGN  
 NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 MONTGOMERY COUNTY, MARYLAND  
 EDUCATIONAL SIGNS - GRAPHICS



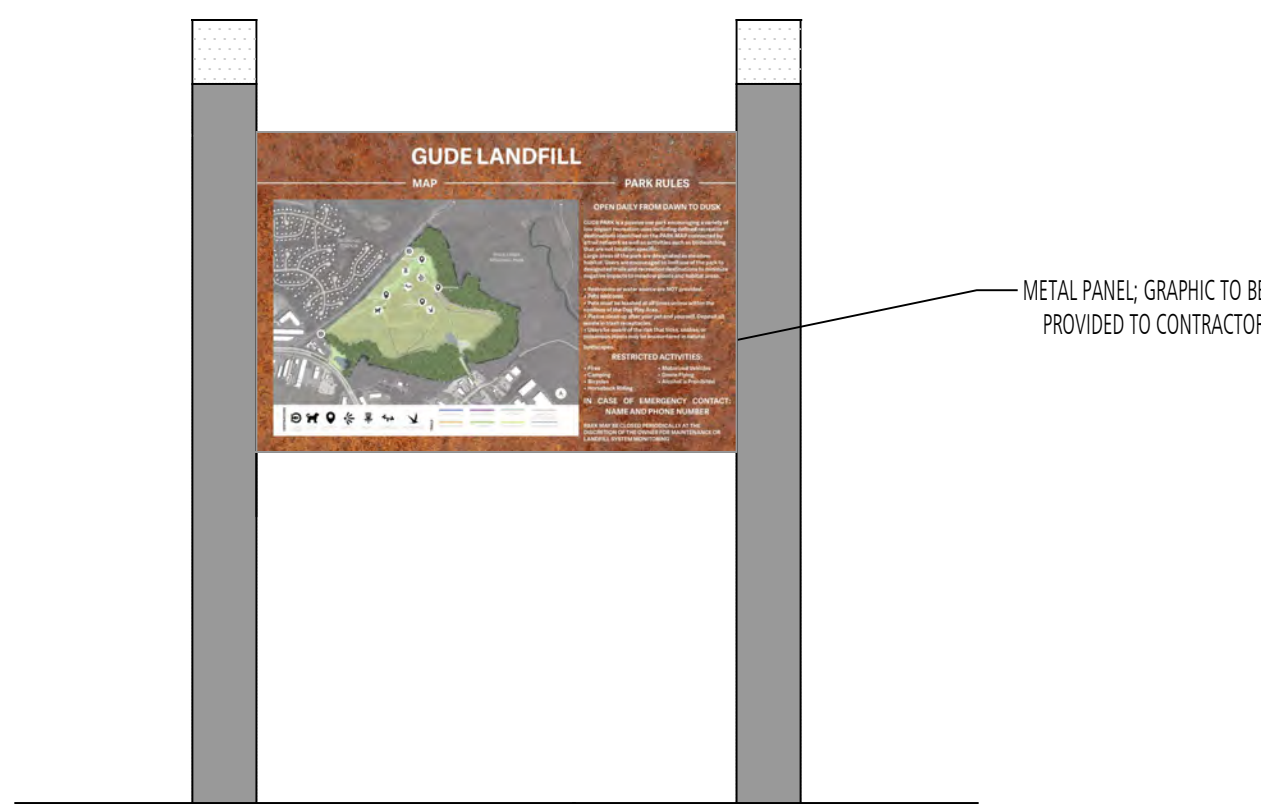
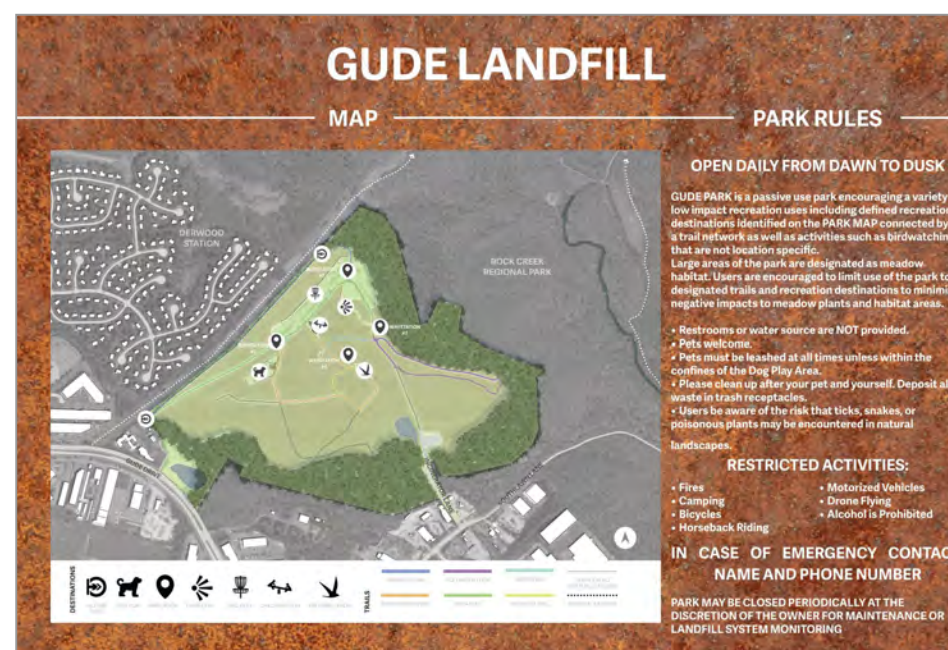
DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
L501  
SHEET: 143 OF 146

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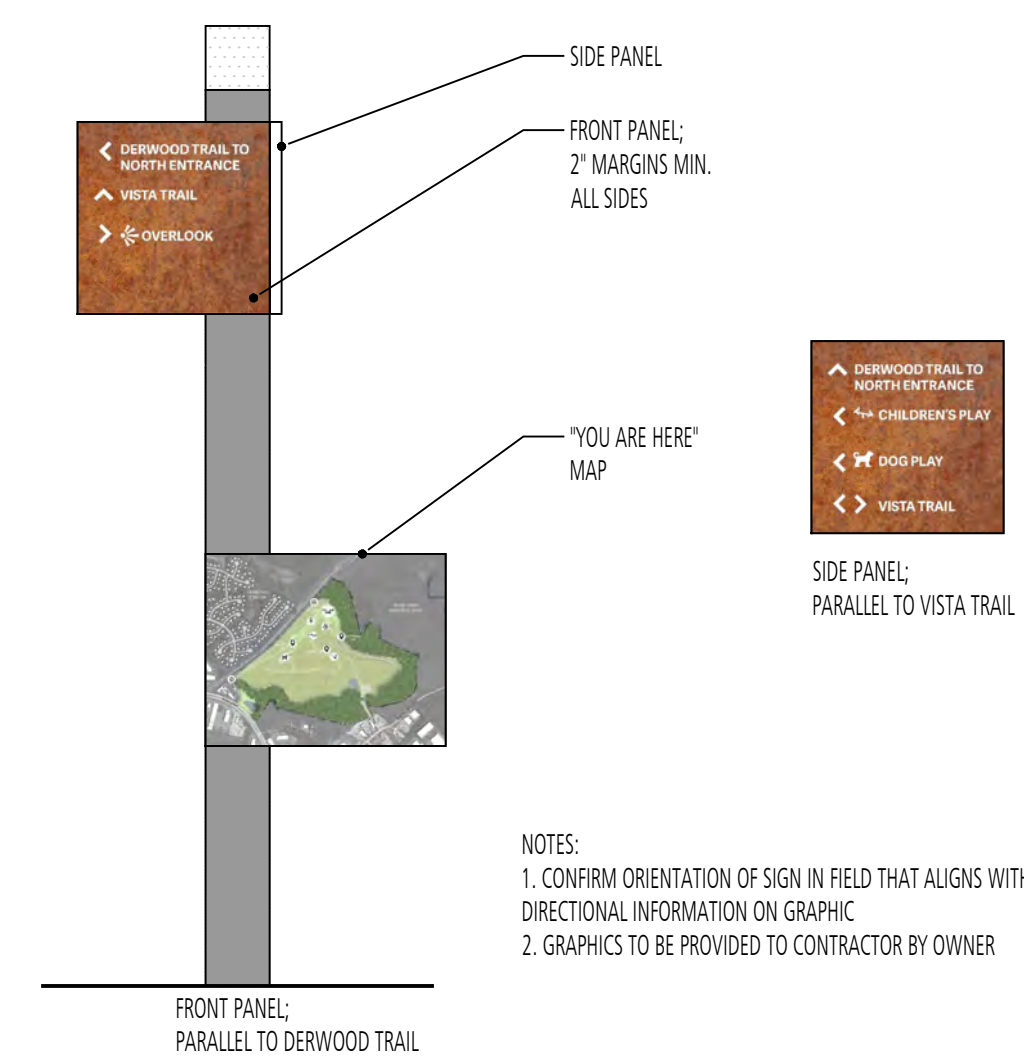
100% DESIGN PLANS - NOT FOR CONSTRUCTION



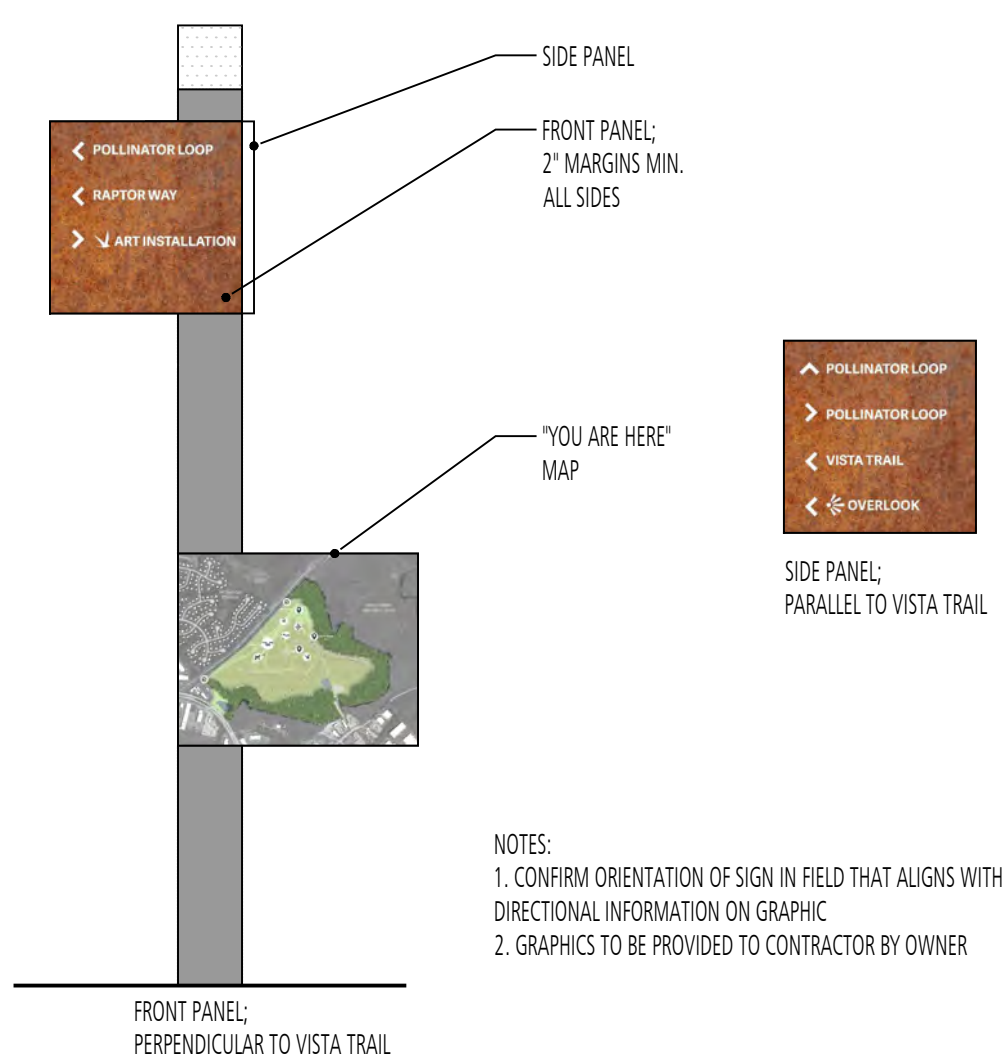
1 DISC GOLF TEE POST - GRAPHIC  
ELEVATION  
d-disc golf holes- graphic.dwg  
SCALE: 1" = 1'-0"



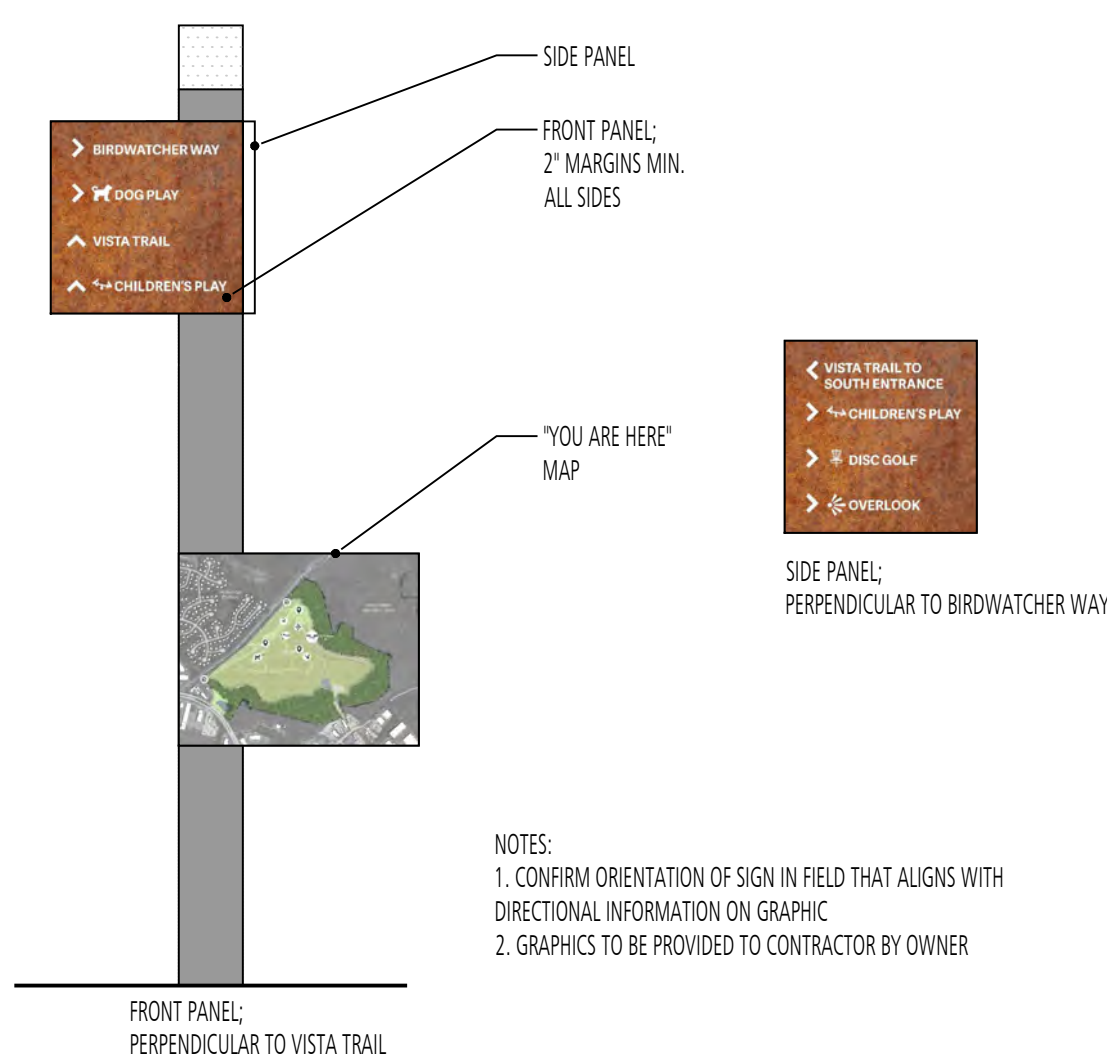
2 INFORMATION SIGN (LARGE) - #5  
ELEVATION  
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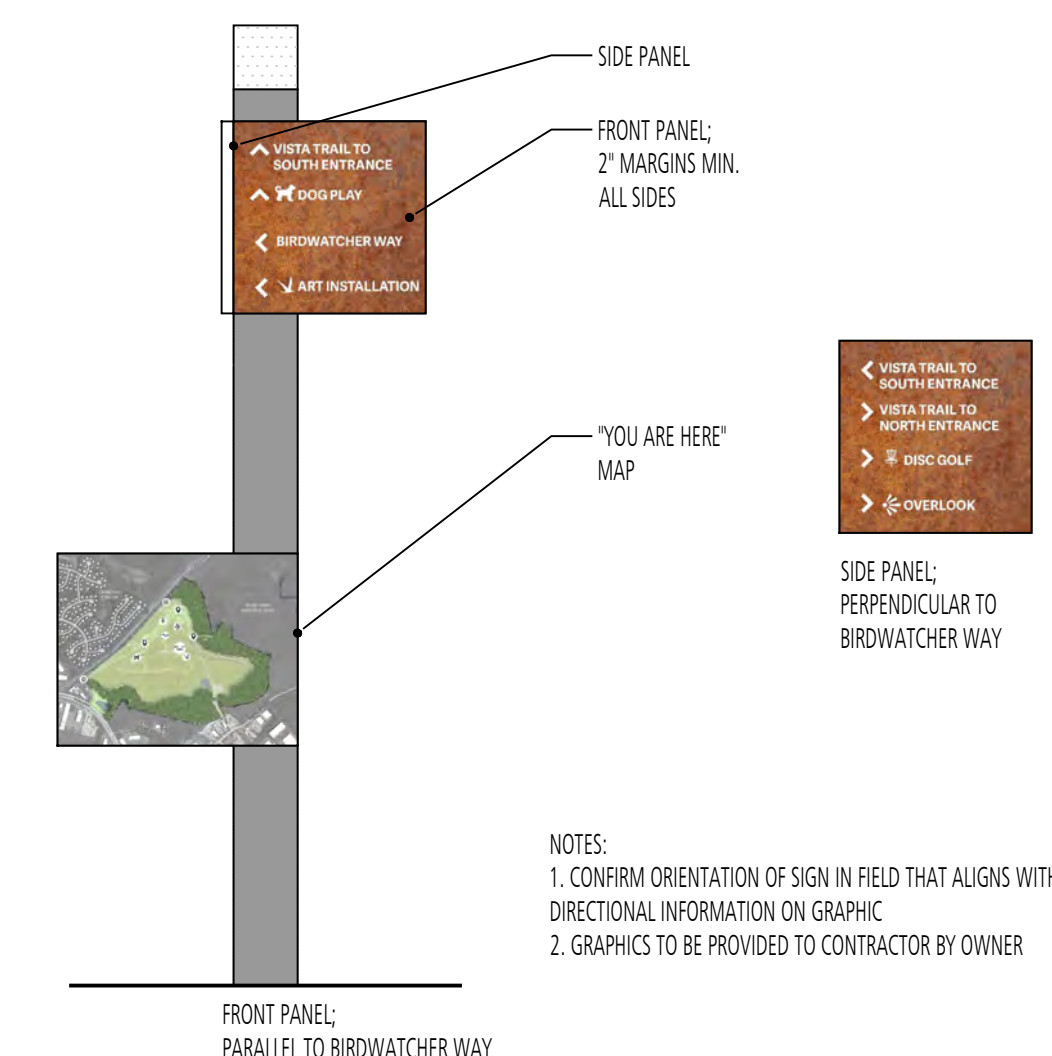
3 TRAIL MARKER #1  
ELEVATION  
SCALE: 1/2" = 1'-0"



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:	NO.	DATE	BY	DESCRIPTION	
MM					
DRAWN BY:					
JCI					
CHECKED BY:					
MM					
PROJECT MANAGER:					
MM/G					

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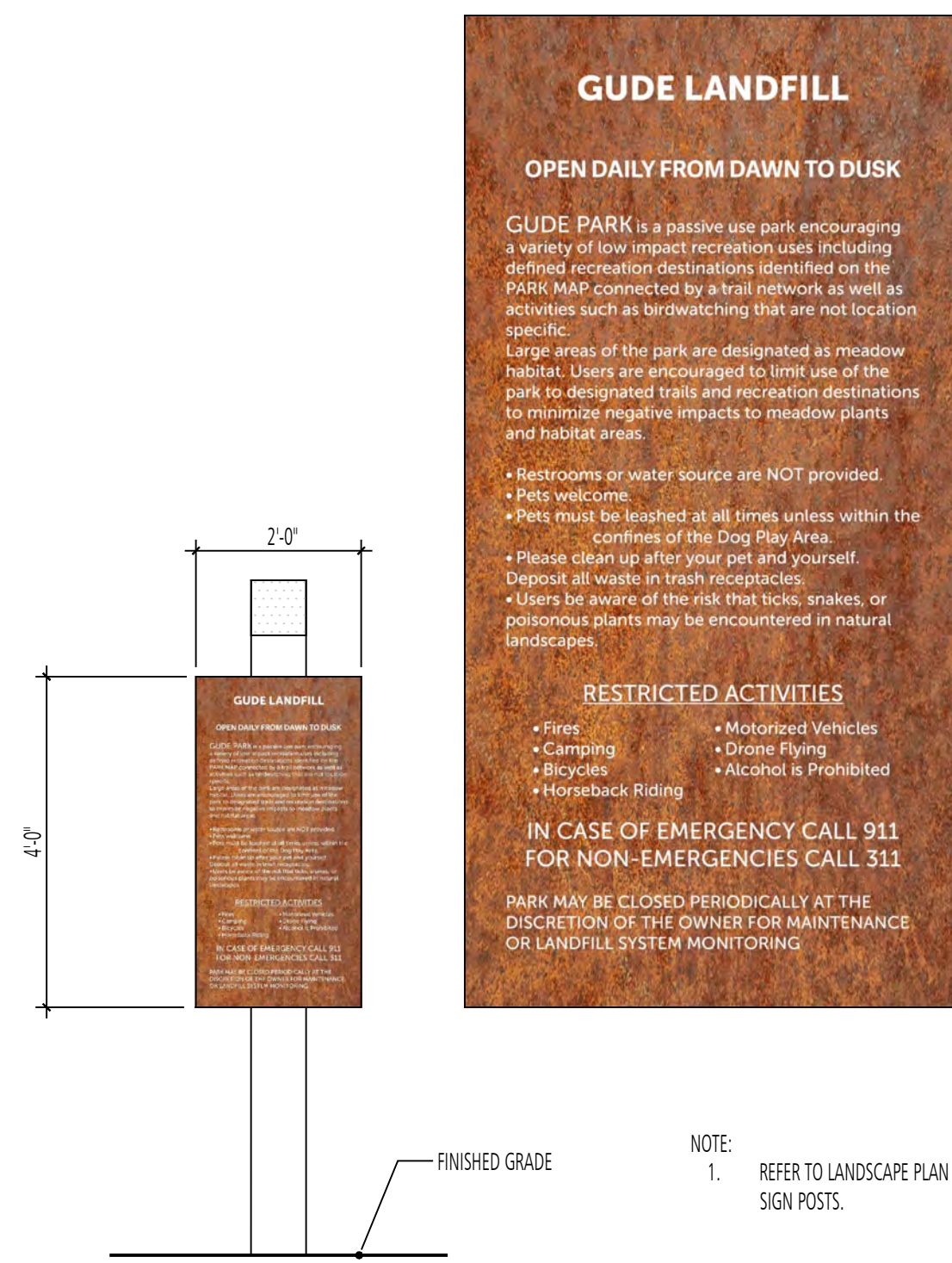
GUDE LANDFILL REMEDIATION DESIGN  
NORTHEAST MARYLAND WASTE DISPOSAL AUTHORITY  
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
MONTGOMERY COUNTY, MARYLAND  
SIGNAGE GRAPHICS

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

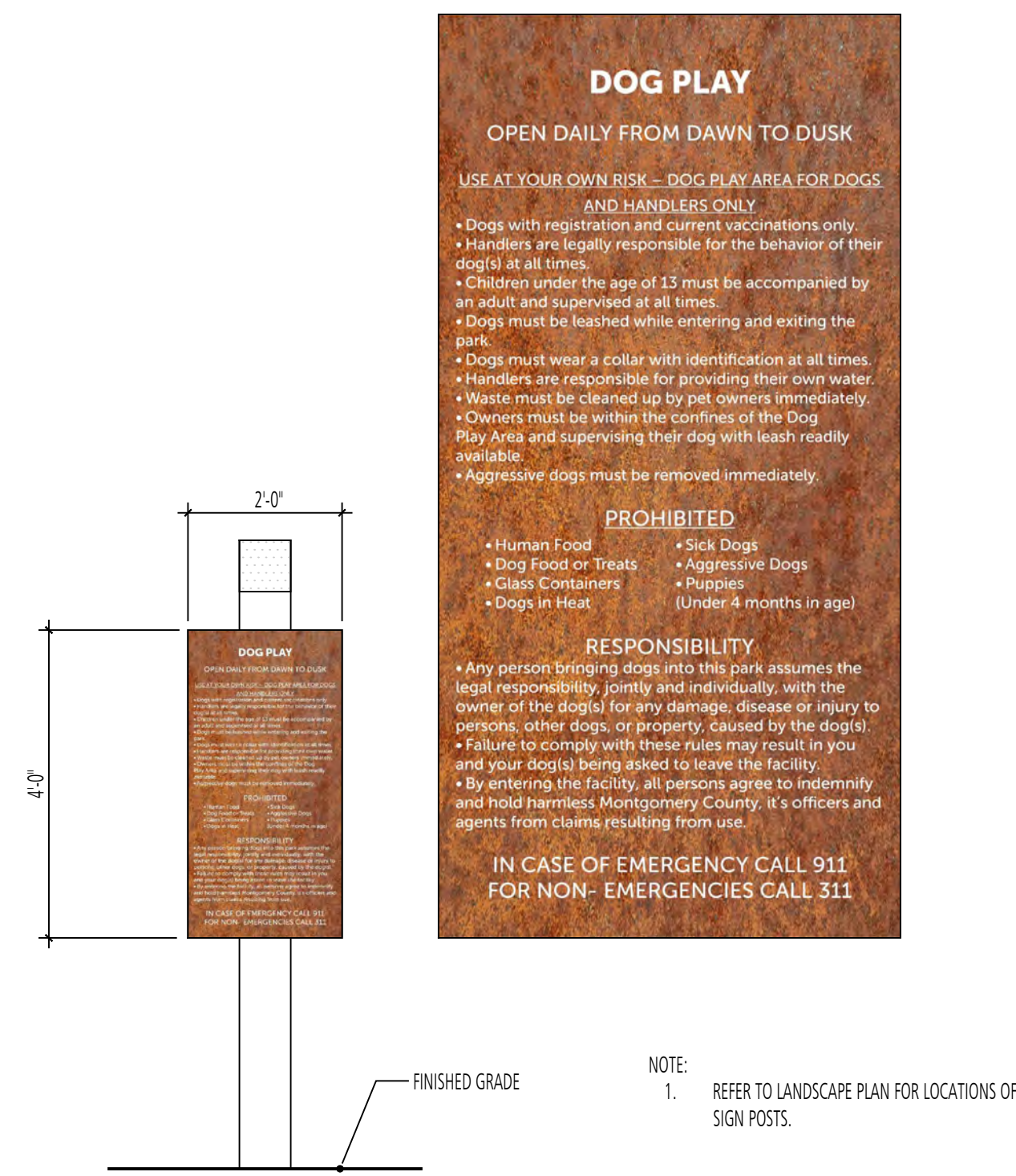
**EA**  
Engineering, Science,  
and Technology, Inc., PBC  
Hunt Valley Center  
225 Schilling Circle, Suite 400  
Hunt Valley, Maryland 21031  
(410) 584-7000

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
L502  
SHEET: 144 OF 146





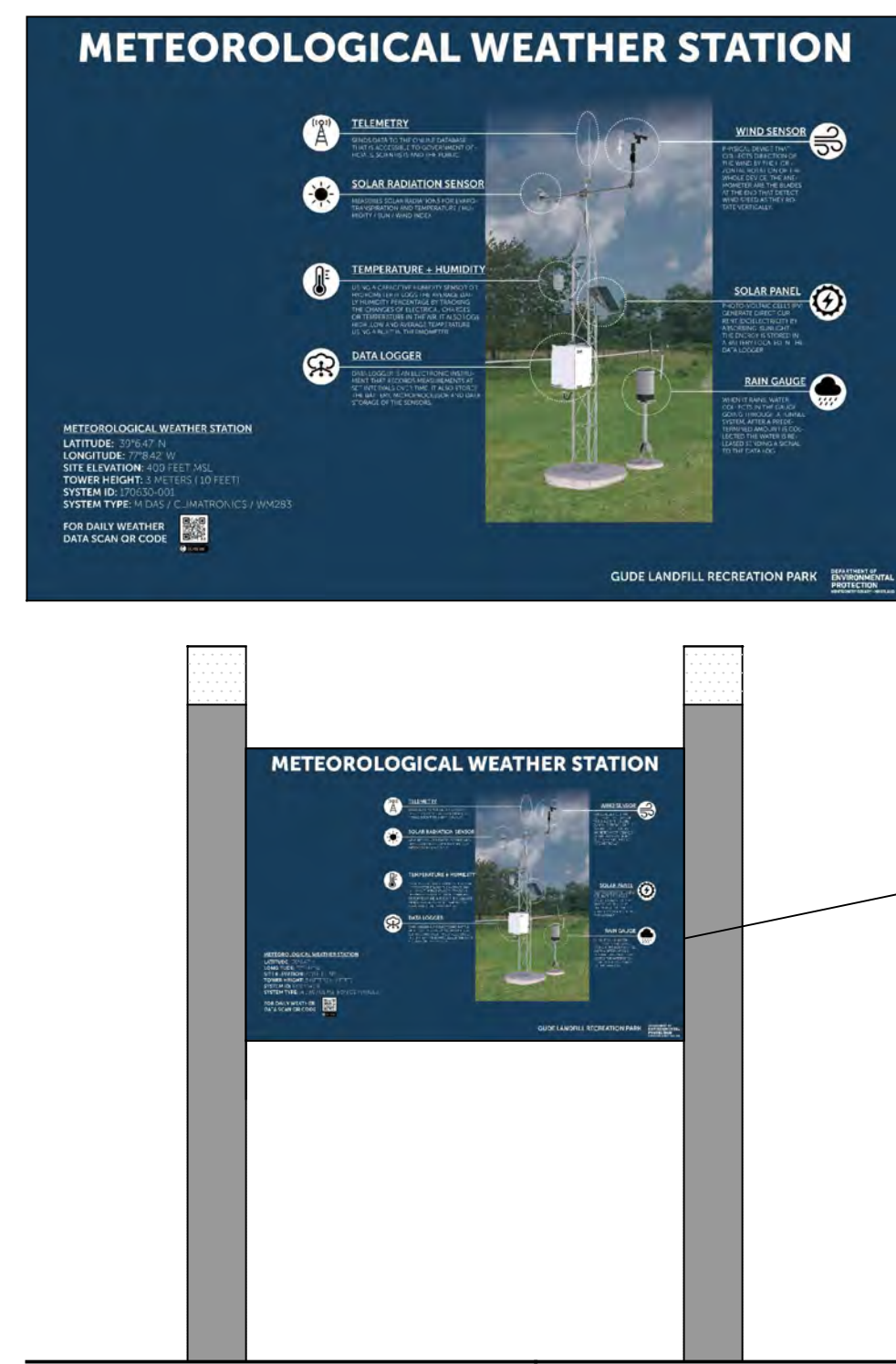
1 INFORMATION SIGN (SMALL) - #1+2  
ELEVATION SCALE: 1/2" = 1'-0"



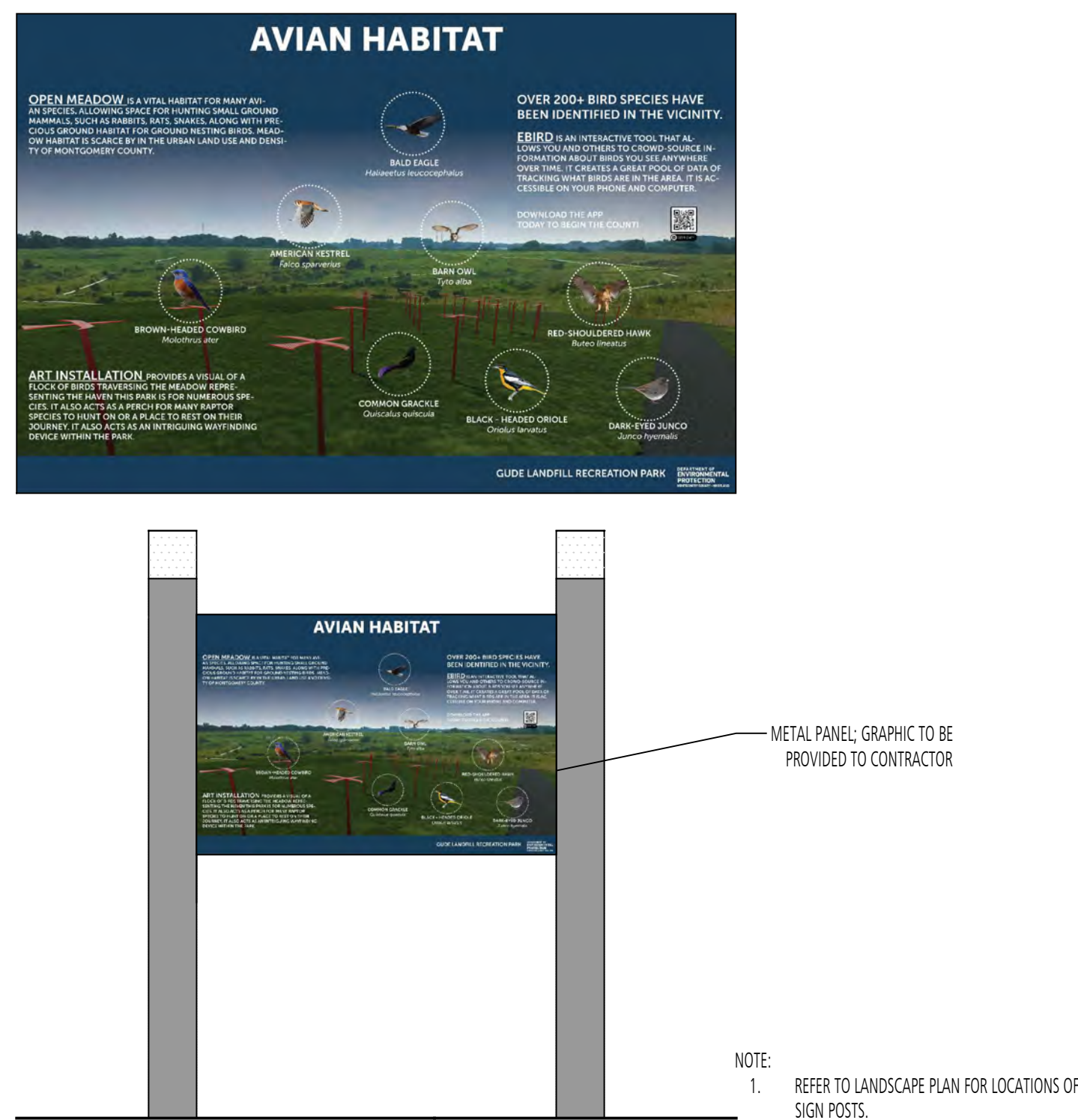
2 INFORMATION SIGN (SMALL) - #3  
ELEVATION SCALE: 1/2" = 1'-0"



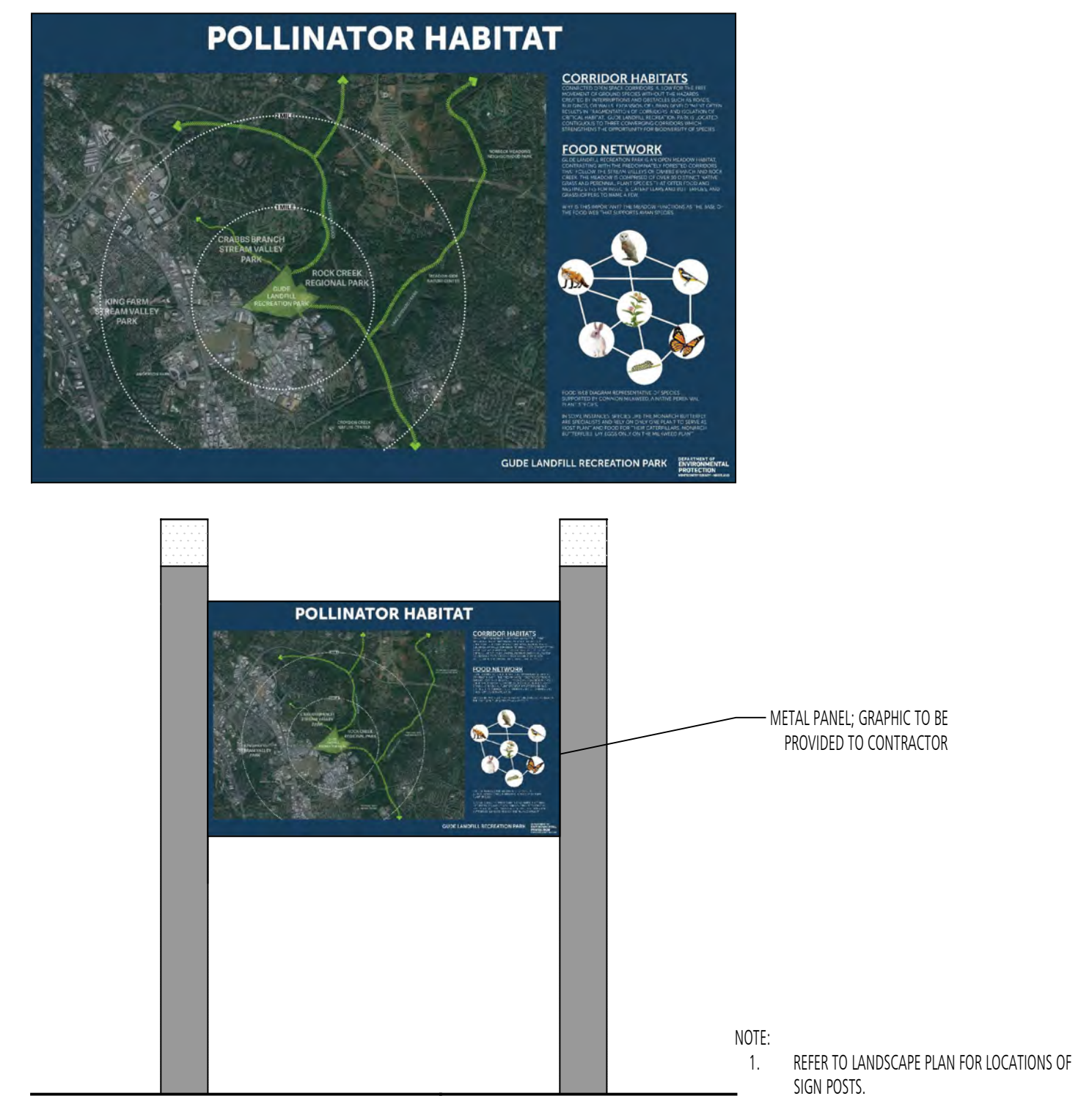
3 INFORMATIONAL SIGN (LARGE) #1  
ELEVATION SCALE: 1/2" = 1'-0"



4 INFORMATIONAL SIGN (LARGE) #2  
ELEVATION SCALE: 1/2" = 1'-0"



5 INFORMATIONAL SIGN (LARGE) #3  
ELEVATION SCALE: 1/2" = 1'-0"



6 INFORMATIONAL SIGN (LARGE) #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:	MM		

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

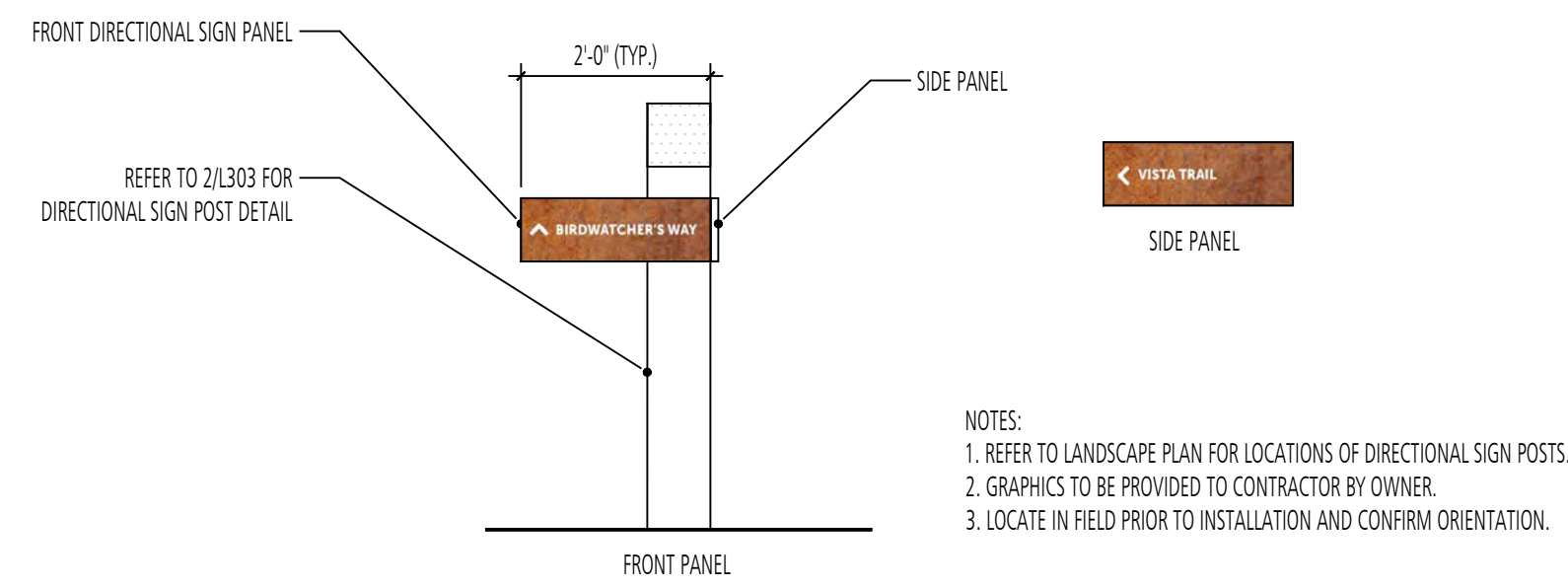
**FLOURA TEETER**  
landscape architects  
800 North Charles St. Ste. 300  
Baltimore, Maryland 21201  
Phone: 410.528.8395  
Fax: 410.528.8425

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

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**L503**  
SHEET: 145 OF 146

FILE PATH: P:\P\PROJECTS\1808 - GUDE LANDFILL\DOMINGOS\FLORA TEETER\STA. L503\SIGNAGE\DETAILS\DWG\LANDSCAPE\LANDSCAPE\_SIGNAGE\_031020.DWG

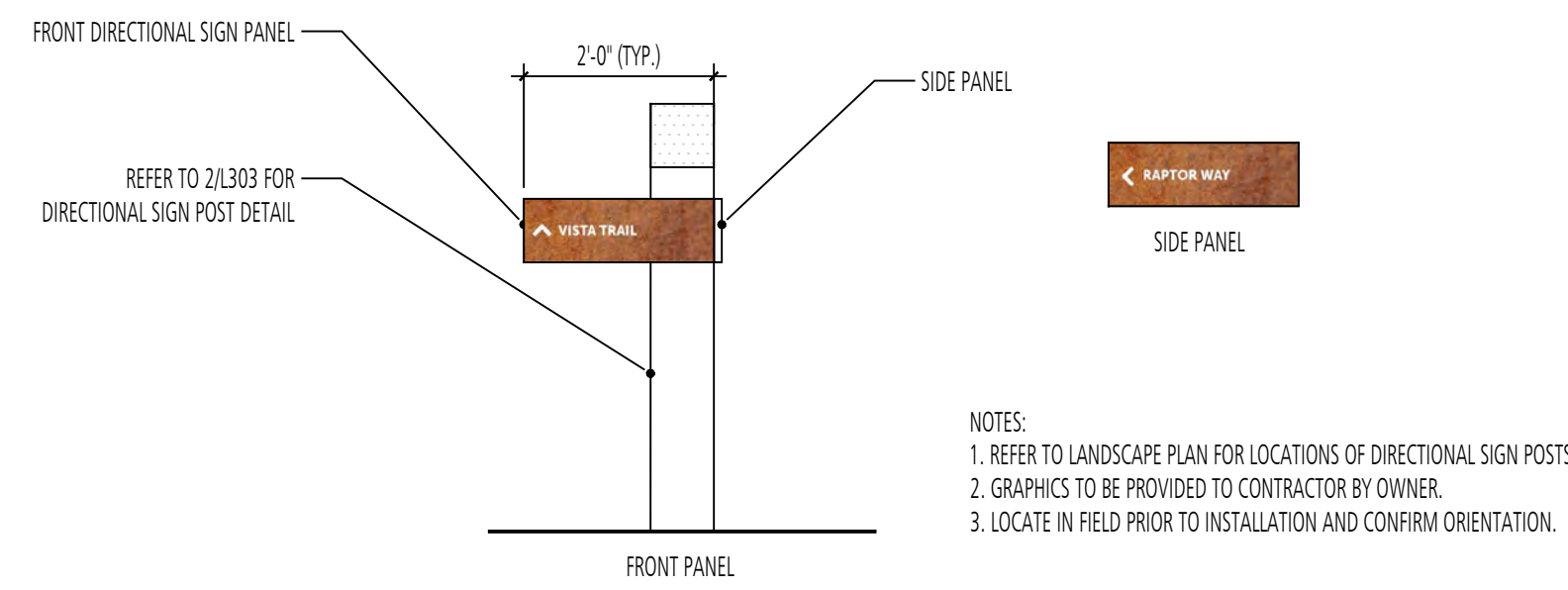
100% DESIGN PLANS - NOT FOR CONSTRUCTION



1 DIRECTIONAL SIGN - #1  
SECTION

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

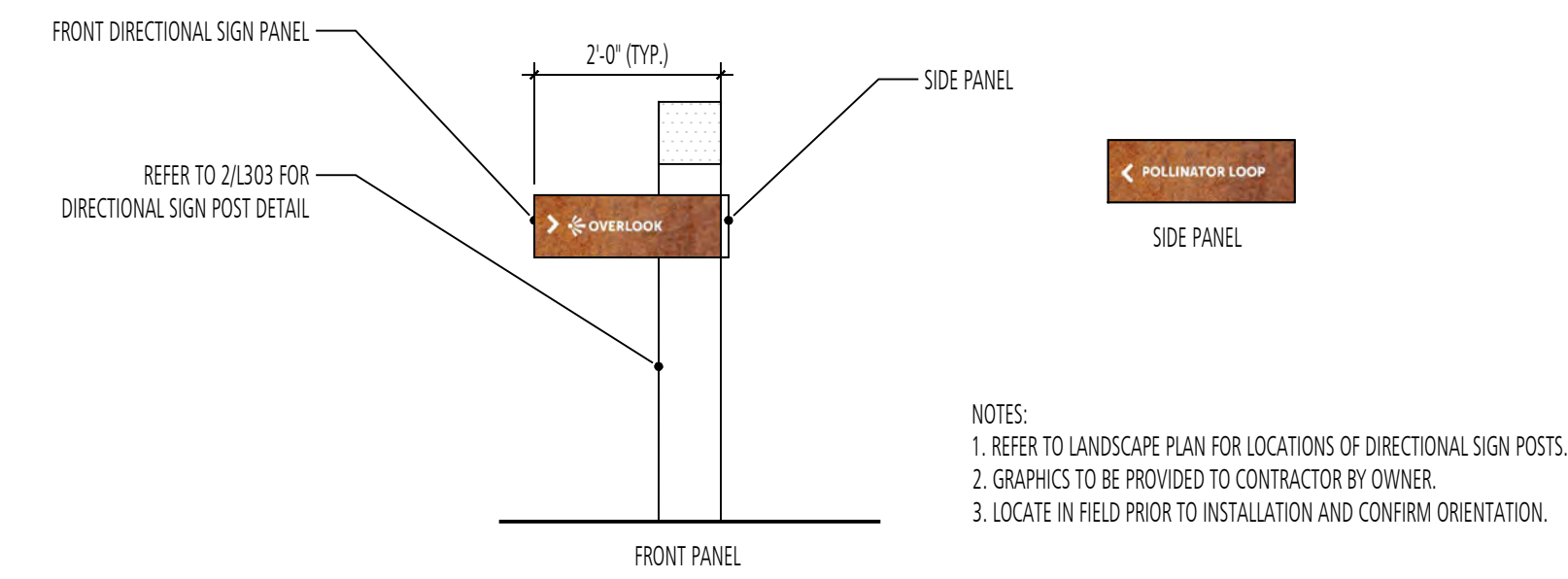
NOTES:  
1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF DIRECTIONAL SIGN POSTS.  
2. GRAPHICS TO BE PROVIDED TO CONTRACTOR BY OWNER.  
3. LOCATE IN FIELD PRIOR TO INSTALLATION AND CONFIRM ORIENTATION.



2 DIRECTIONAL SIGN - #2  
SECTION

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

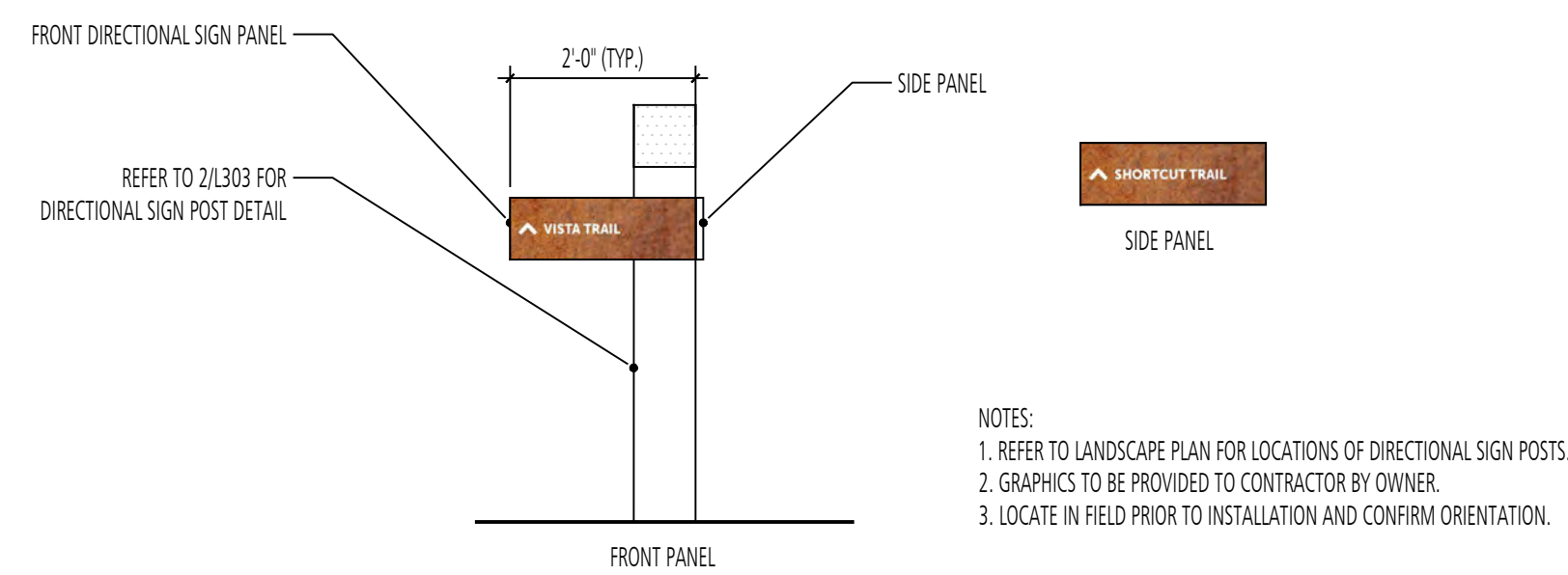
NOTES:  
1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF DIRECTIONAL SIGN POSTS.  
2. GRAPHICS TO BE PROVIDED TO CONTRACTOR BY OWNER.  
3. LOCATE IN FIELD PRIOR TO INSTALLATION AND CONFIRM ORIENTATION.



3 DIRECTIONAL SIGN - #3  
SECTION

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

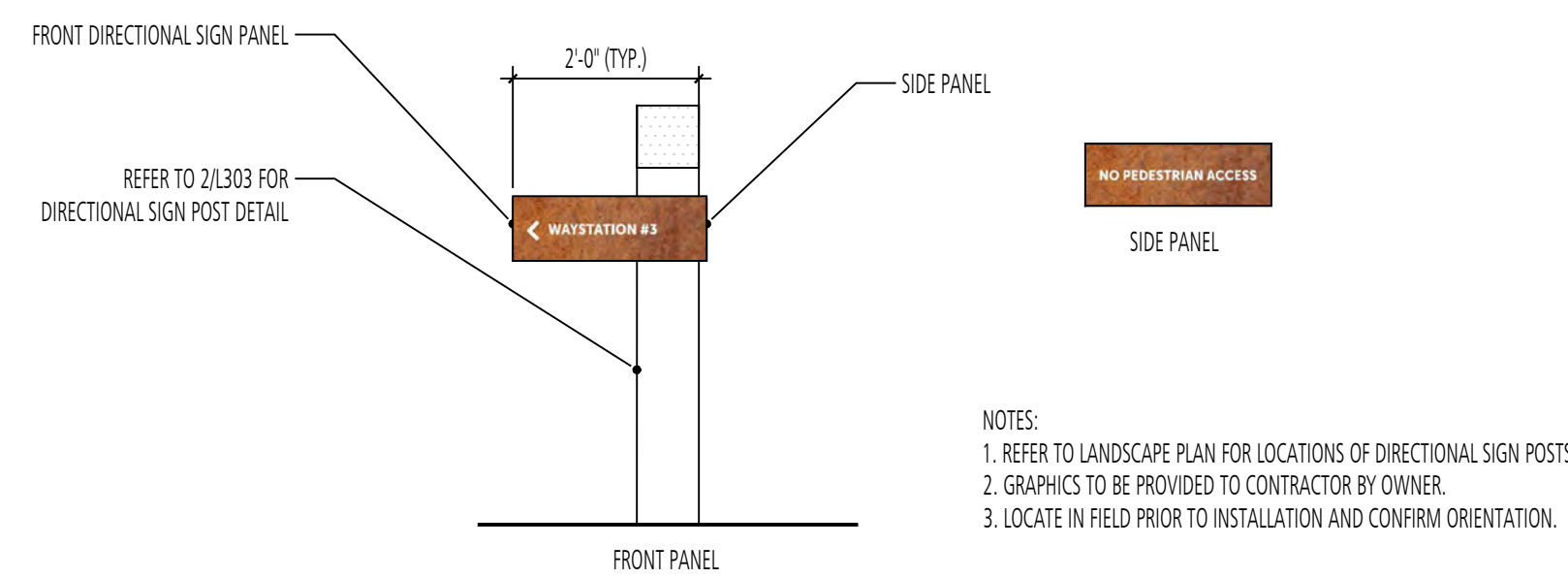
NOTES:  
1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF DIRECTIONAL SIGN POSTS.  
2. GRAPHICS TO BE PROVIDED TO CONTRACTOR BY OWNER.  
3. LOCATE IN FIELD PRIOR TO INSTALLATION AND CONFIRM ORIENTATION.



4 DIRECTIONAL SIGN - #4  
SECTION

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

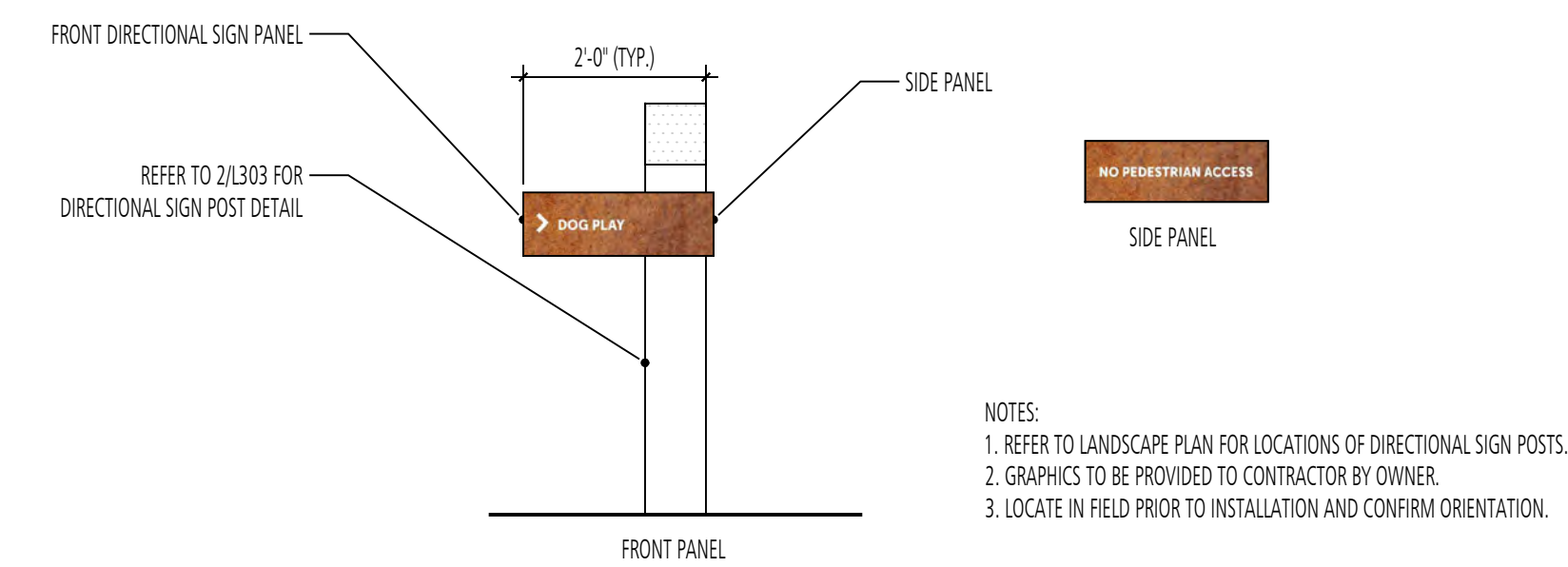
NOTES:  
1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF DIRECTIONAL SIGN POSTS.  
2. GRAPHICS TO BE PROVIDED TO CONTRACTOR BY OWNER.  
3. LOCATE IN FIELD PRIOR TO INSTALLATION AND CONFIRM ORIENTATION.



5 DIRECTIONAL SIGN - #5  
SECTION

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

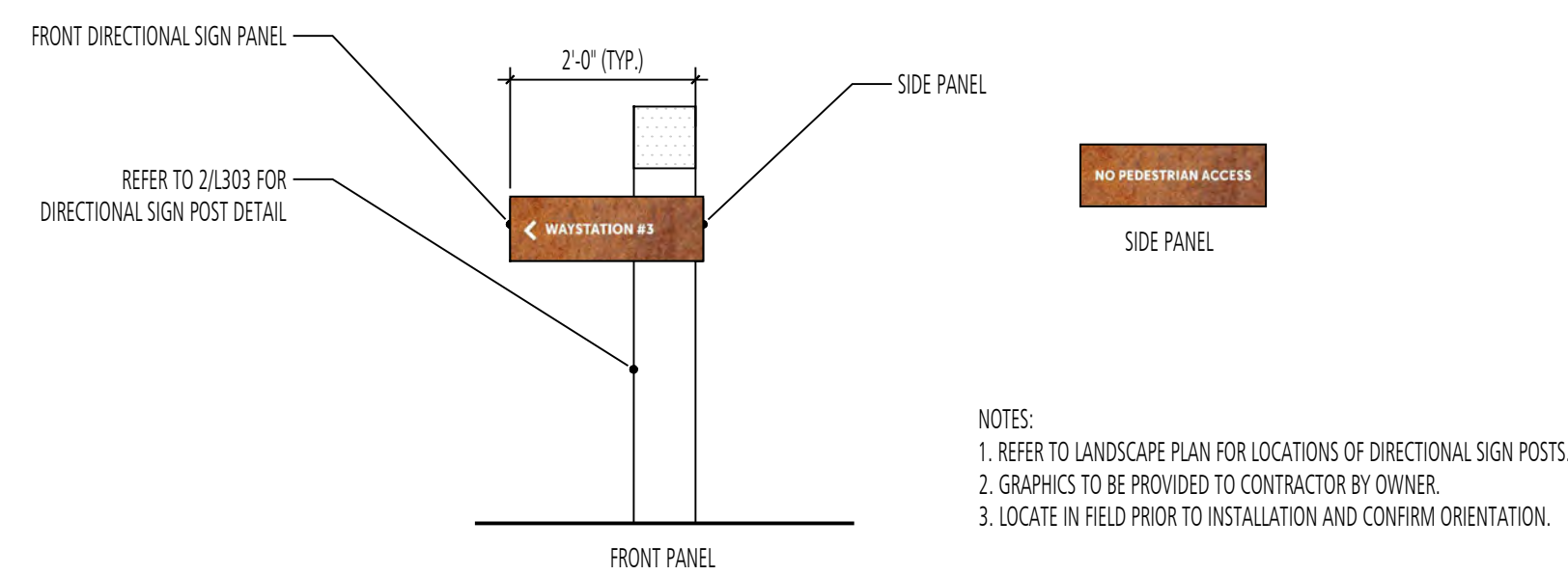
NOTES:  
1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF DIRECTIONAL SIGN POSTS.  
2. GRAPHICS TO BE PROVIDED TO CONTRACTOR BY OWNER.  
3. LOCATE IN FIELD PRIOR TO INSTALLATION AND CONFIRM ORIENTATION.



6 DIRECTIONAL SIGN - #6  
SECTION

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

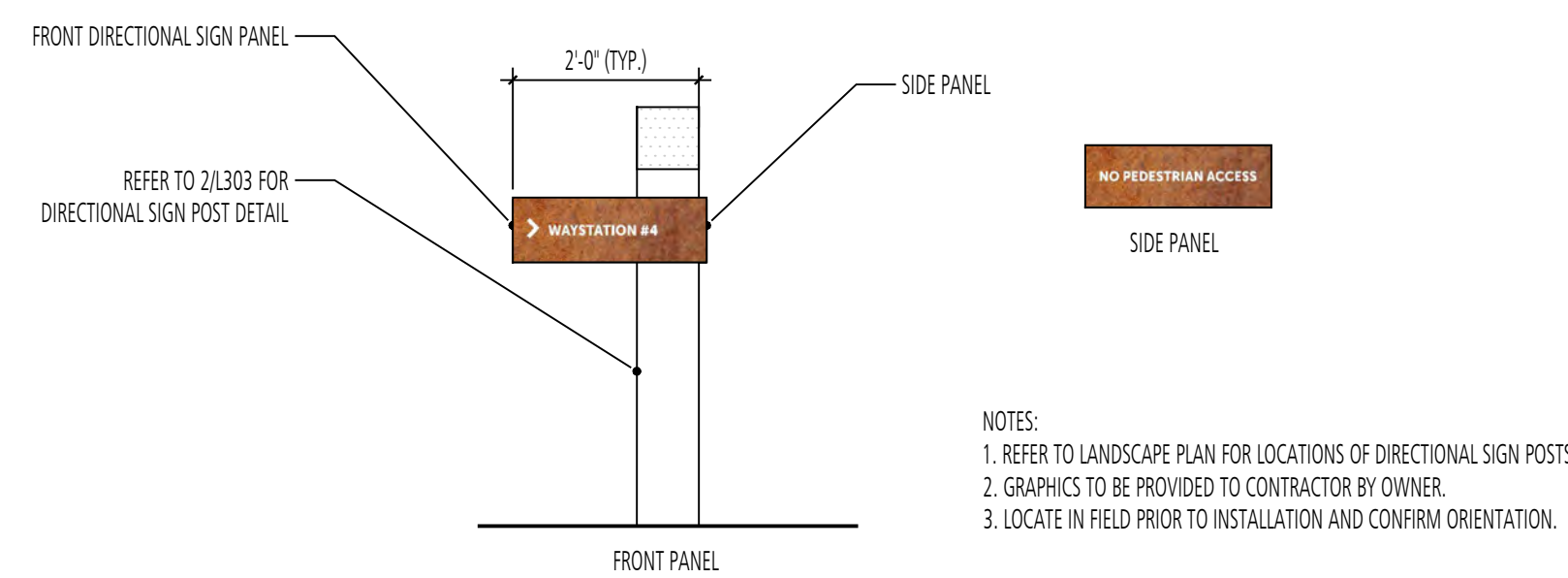
NOTES:  
1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF DIRECTIONAL SIGN POSTS.  
2. GRAPHICS TO BE PROVIDED TO CONTRACTOR BY OWNER.  
3. LOCATE IN FIELD PRIOR TO INSTALLATION AND CONFIRM ORIENTATION.



7 DIRECTIONAL SIGN - #7  
SECTION

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

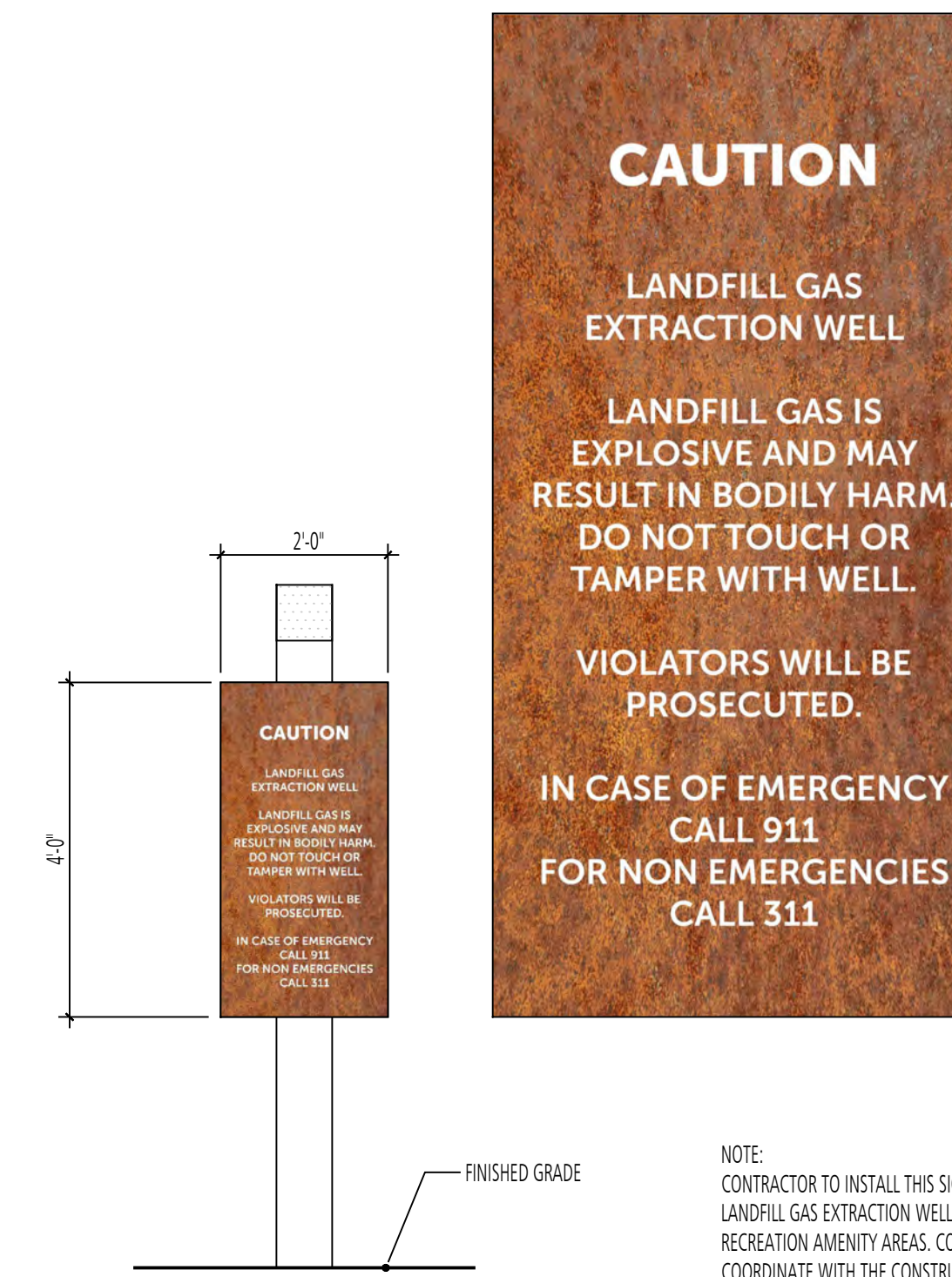
NOTES:  
1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF DIRECTIONAL SIGN POSTS.  
2. GRAPHICS TO BE PROVIDED TO CONTRACTOR BY OWNER.  
3. LOCATE IN FIELD PRIOR TO INSTALLATION AND CONFIRM ORIENTATION.



8 DIRECTIONAL SIGN - #8  
SECTION

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

NOTES:  
1. REFER TO LANDSCAPE PLAN FOR LOCATIONS OF DIRECTIONAL SIGN POSTS.  
2. GRAPHICS TO BE PROVIDED TO CONTRACTOR BY OWNER.  
3. LOCATE IN FIELD PRIOR TO INSTALLATION AND CONFIRM ORIENTATION.



9 INFORMATION SIGN (SMALL) - #4  
ELEVATION

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

NOTE:  
CONTRACTOR TO INSTALL THIS SIGN IN FRONT OF EACH LANDFILL GAS EXTRACTION WELL LOCATED WITHIN RECREATION AMENITY AREAS. CONTRACTOR SHALL COORDINATE WITH THE CONSTRUCTION MANAGEMENT ENGINEER FOR APPROVAL OF SIGN LOCATIONS PRIOR TO INSTALLATION.

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. 1093 EXPIRATION DATE: 07/26/2022

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

DATE: DECEMBER 2020  
PROJECT NUMBER: 1564601  
**L504**  
SHEET: 146 OF 146

FILE PATH: P:\PLT\PROJECTS\1808 - GIDE LANDFILL REMEDIATION DESIGN\1808-GIDE-DESIGN\1808-GIDE-DESIGN\1808-GIDE-DESIGN.dwg DATE: 12/10/2020 10:10:00 AM

100% DESIGN PLANS - NOT FOR CONSTRUCTION