





GENERAL NOTES:










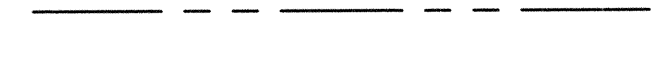


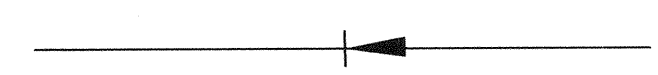




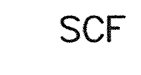
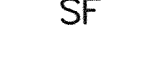
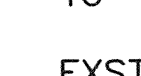
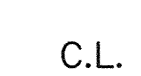




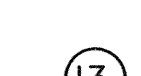

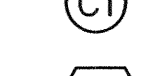
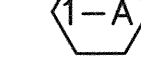


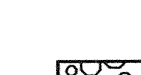


1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS, THE TECHNICAL SPECIFICATIONS (DIVISION 1 TO 16) OF THE PROJECT MANUAL, THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY DESIGN MANUAL (VOL. IV), AND THE MARYLAND STATE HIGHWAY ADMINISTRATION IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENVIRONMENTAL SERVICES AT (410) 313-6444 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
4. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
5. TOPOGRAPHIC INFORMATION ON THIS SHEET WAS COMPILED BY AIR SURVEY CORPORATION, INC. FROM AIR PHOTOGRAPHY DATED DECEMBER 1997. INFORMATION UPDATED BY HOWARD COUNTY SURVEYING DEPARTMENT IN NOVEMBER 2004.
6. THE COORDINATES SHOWN HEREON ARE BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM NAD, 1983 (HORIZ.) & NGVD, 1929 (VERT.).
7. WATER IS PUBLIC, CONTRACT 44-4158.
8. SEWER IS PRIVATE.
9. STORMWATER MANAGEMENT CONTROL IS PRIVATE AND IS OWNED AND MAINTAINED BY HOWARD COUNTY.
10. EXISTING UTILITIES ARE BASED ON HOWARD COUNTY RECORDS.
11. 100 YEAR FLOODPLAIN INFORMATION BASED ON THE FEMA FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 2400440016 B (PANEL 16 OF 45), DATED DECEMBER 4, 1986. NO 100 YEAR FLOOD PLAIN EXISTS WITHIN OR ADJACENT TO PROJECT AREA.
12. NO WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY HOWARD SOIL CONSERVATION SERVICE. NONE NEEDED PER DISCUSSION WITH HOWARD SOIL CONSERVATION SERVICE.
13. NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
14. SUBDIVISION NAME IS ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER, TAX MAP 10 & 16.
15. CONTRACTOR SHALL PROTECT ALL EXISTING GROUNDWATER WELLS BY MEANS OF BARRICADES AND/OR CONCRETE JERSEY BARRIERS AS NECESSARY TO PREVENT DAMAGE FROM CONSTRUCTION VEHICLES. WELLS DAMAGED AS A RESULT OF CONTRACTOR'S OPERATION SHALL BE REPAIRED/REPLACED BY HOWARD COUNTY AT THE CONTRACTOR'S EXPENSE.
16. MAGNETIC LOCATION TAPE IS TO BE PLACED ABOVE ALL BURIED PLASTIC PIPELINE UTILITIES DURING CONSTRUCTION.
17. NIC MEANS "NOT IN CONTRACT".
18. FOREST DISTURBANCE IS 36,800 SF. THE DISTURBANCE IS LESS THAN 40,000 SF, THEREFORE THIS CAPITAL IMPROVEMENT PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS IN ACCORDANCE WITH APPENDIX O OF THE FOREST CONSERVATION MANUAL. THE FOREST CONSERVATION EXEMPTION APPLIES FOR THIS PROJECT BECAUSE ONLY PARCEL NO. 302 IS INVOLVED WITH THE PROPOSED SITE IMPROVEMENT WORK.

19. WAIVERS HAVE BEEN APPROVED FOR THIS PROJECT AND ARE SUMMARIZED BELOW:
  - DRAWING DETAILS DO NOT NEED TO BE DRAWN TO SCALE.
  - PRINCIPAL SPILLWAY PROFILE DOES NOT NEED TO BE EXTENDED THROUGH THE BASIN INLET.
  - A LEVEL AREA AROUND THE BASIN AS NOTED IN DESIGN MANUAL SECTION 5.2.6.D.1 IS NOT REQUIRED.
  - MINIMUM PIPE COVER REQUIREMENTS HAVE BEEN WAIVED IN AREAS WHERE PIPE IS BEING REPLACED AND 1-FOOT MINIMUM COVER (FROM TOP OF GRADE OR TOP OF PAVEMENT) BE ALLOWED FOR ALL NEW PIPES.
  - A LANDSCAPING PLAN IS NOT REQUIRED. THE BASIN WILL BE GRASSED.
  - HOWARD COUNTY STANDARD DETAILS ARE NOT REQUIRED ON THE DRAWINGS.
  - A PROFILE OF THE CHANNEL ALONG THE NEW ACCESS ROAD LANE AND A PROFILE OF THE NEW ACCESS ROAD LANE ARE NOT REQUIRED.
  - GRAVEL MAY BE USED AS A PERMANENT PARKING/TRAVEL SURFACE AT THE SITE.
  - IN LIEU OF THE RETAINING WALL DESIGN GUIDELINES DEFINITION OF HEIGHT OF RETAINING WALLS AS THE DISTANCE FROM FINISHED GRADE AT THE FRONT OF THE WALL TO THE TOP OF WALL, THE FOLLOWING STANDARD WILL BE USED. THE HEIGHT OF WALL WILL BE DETERMINED AS THE MEASUREMENT FROM FINISHED GRADE AT THE FRONT OF THE WALL TO FINISHED GRADE AT THE BACK OF THE WALL.
  - CONSTRUCTION OF RETAINING WALLS ON FILL MATERIALS IS ALLOWED AS LONG AS THE COMPACTION OF FILL UNDER THE RETAINING WALLS IS GREATER THAN 95% OF PROCTOR.
  - A 39-INCH REINFORCED CONCRETE WALL CREATED BY THE EXTENSION OF THE RETAINING WALLS MAY BE USED AS A TYPE OF GUARDRAIL IN RESIDENTS' UNLOADING AREAS.
  - CHAIN LINK FENCING ANCHORED INTO THE TOP OF WALL IS ALLOWED AS A GUARDRAIL/FENCE.
  - CURBS ARE NOT REQUIRED IN FRONT OF THE RETAINING WALLS.
  - JERSEY BARRIERS MAY BE USED AS GUARDRAILS ALONG THE TOP OF RETAINING WALL ALONG THE SOUTH SIDE OF THE SITE.
  - THE MAINTENANCE EASEMENT REQUIREMENT HAS BEEN WAIVED FOR THE HOUSEHOLD HAZARDOUS WASTE AREA.
  - MISCELLANEOUS INFORMATION FOR RETAINING WALLS, SUCH AS MATERIAL SPECIFICATIONS, RECOMMENDED BLOCK WALL SYSTEMS, AND SPECIFIC INSTRUCTIONS FOR NON-TYPICAL DESIGNS, ARE NOT REQUIRED ON THE DRAWINGS.
20. THE RESIDENTS' DROP-OFF AREA MUST REMAIN FULLY OPERATIONAL DURING CONSTRUCTION. NORMAL OPERATING HOURS ARE MONDAY THROUGH SATURDAY, 8 AM TO 4 PM.

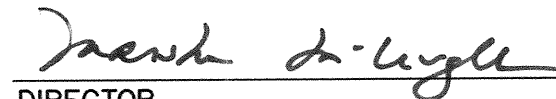

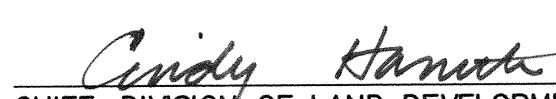
RETAINING WALL NOTES:



1. RETAINING WALLS SHALL ONLY BE CONSTRUCTED UNDER THE OBSERVATION OF A REGISTERED PROFESSIONAL ENGINEER AND A (NICET, WACEL OR EQUIVALENT) CERTIFIED SOILS TECHNICIAN.
2. THE REQUIRED BEARING PRESSURE BENEATH THE FOOTING OF THE WALL SHALL BE VERIFIED IN THE FIELD BY A CERTIFIED SOILS TECHNICIAN. TESTING DOCUMENTATION MUST BE PROVIDED TO THE HOWARD COUNTY INSPECTOR PRIOR TO THE START OF CONSTRUCTION. THE REQUIRED TEST PROCEDURE SHALL BE THE DYNAMIC CONE PENETROMETER TEST ASTM STP-399.
3. THE SUITABILITY OF FILL MATERIAL (TO INCLUDE FILL TO BE PLACED AS A BASE FOR THE WALL) SHALL BE CONFIRMED BY THE ON-SITE SOILS TECHNICIAN. EACH EIGHT INCH LIFT MUST BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY AND THE TESTING REPORT SHALL BE MADE AVAILABLE TO THE HOWARD COUNTY INSPECTOR UPON COMPLETION OF CONSTRUCTION.

LEGEND

	EXISTING TREE LINE		EXISTING WATER LINE
	EXISTING PIPE		UNDERGROUND ELECTRIC LINE (DIRECT BURY)
	EXISTING RIP-RAP		GUARD RAIL
	EASEMENT EXISTING		CHAINLINK FENCE
			EXISTING INDEX CONTOUR
			EXISTING INTERMEDIATE CONTOUR
			PROPERTY LINE
			PROPOSED INDEX CONTOUR
			PROPOSED INTERMEDIATE CONTOUR
			LIMITS OF DISTURBANCE
			FLOW PATH FOR TC, ARROWS DENOTE CHANGE IN TYPE OF FLOW
			DRAINAGE DIVIDE
			STORMWATER PIPE
			CHANNEL FLOW
			RUNOFF CURVE NUMBER
			SHALLOW CONCENTRATED FLOW
			SHEET FLOW
			TIME OF CONCENTRATION
			EXISTING
			CENTERLINE
			SURVEY BENCHMARK
			GROUNDWATER WELLS
			LIGHT POLE
			DROP INLET NUMBER
			CULVERT INLET/OUTLET NUMBER
			STRUCTURE DESIGNATIONS
			POTABLE WATER WELL
			SOIL BORING
			PROPOSED RIP-RAP
			STRUCTURES TO BE DEMOLISHED

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/606 16-878/215 10-691/314	ZONE RC-DEO
	TAX/ZONE MAP 10 & 16
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING
	CENSUS TR. 6030

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND	
	11/9/05
DIRECTOR	DATE
	11/2/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
	11/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	
	10/14/05
DIRECTOR OF PUBLIC WORKS	DATE
	10/14/05
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES	DATE

SCS ENGINEERS  
CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676



DES. AST		THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST		DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS: NOTES AND LEGEND	
CHK. PAM/MRG			
DATE: 09/05	BY NO.	REVISION	DATE

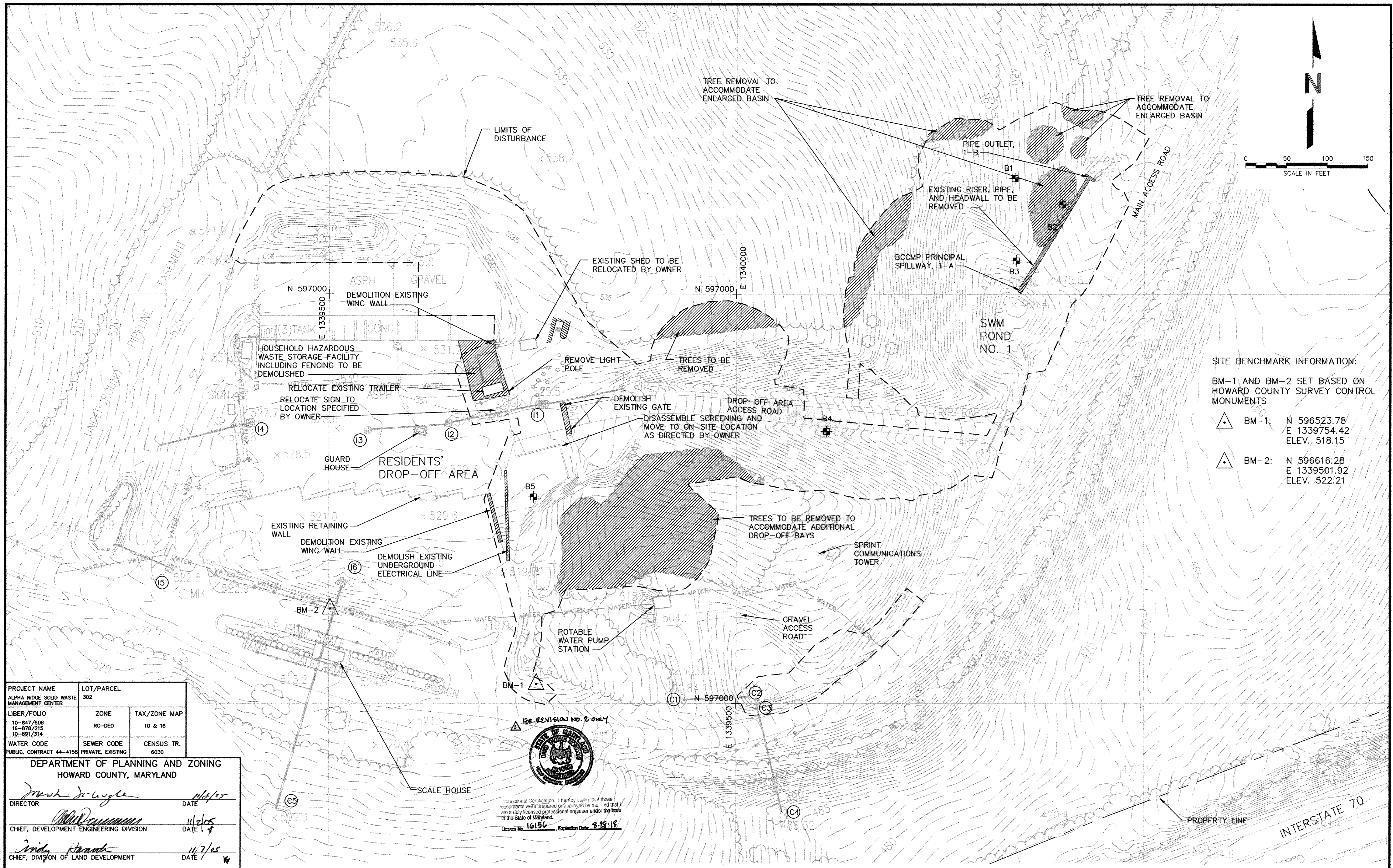
GENERAL NOTES AND LEGEND

ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION  
REVISED SITE DEVELOPMENT PLAN  
CAPITAL PROJECT NO. C-0299-A  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

EP-06-01
SCALE: AS SHOWN
SHEET 2 OF 24

SDP-90-37  
Ascd# EP-06-01





**SITE BENCHMARK INFORMATION:**

BM-1 AND BM-2 SET BASED ON HOWARD COUNTY SURVEY CONTROL MONUMENTS

BM-1: N 596523.78  
E 1339754.42  
ELEV. 518.15

BM-2: N 596616.28  
E 1339501.92  
ELEV. 522.21

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER		LOT/PARCEL 302	
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WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING	CENSUS TR. 6030	

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Mark DeWyle* 11/1/05  
DIRECTOR DATE

*John P. ...* 11/2/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

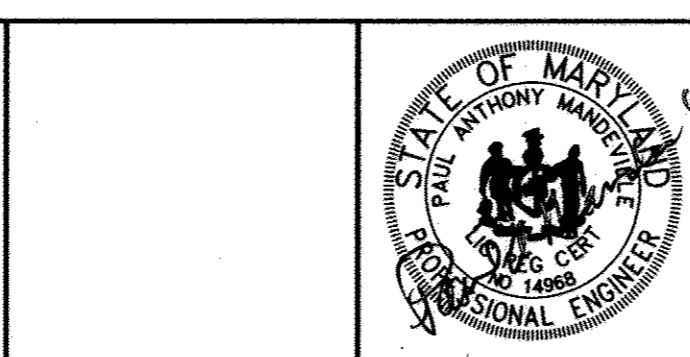
*Trudy ...* 11/7/05  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John P. ...* 10/14/05  
DIRECTOR OF PUBLIC WORKS DATE

*John O'Hara* 10/14/05  
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

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CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676



DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS: EXISTING SITE CONDITIONS AND ITEMS TO BE DEMOLISHED OR CLEARED AS PART OF THE PROJECT	
CHK. PAM/MRG	REVISED SHEET No.	7110
DATE: 09/05	BY NO. REVISION	DATE

EXISTING SITE CONDITIONS/  
DEMOLITION PLAN

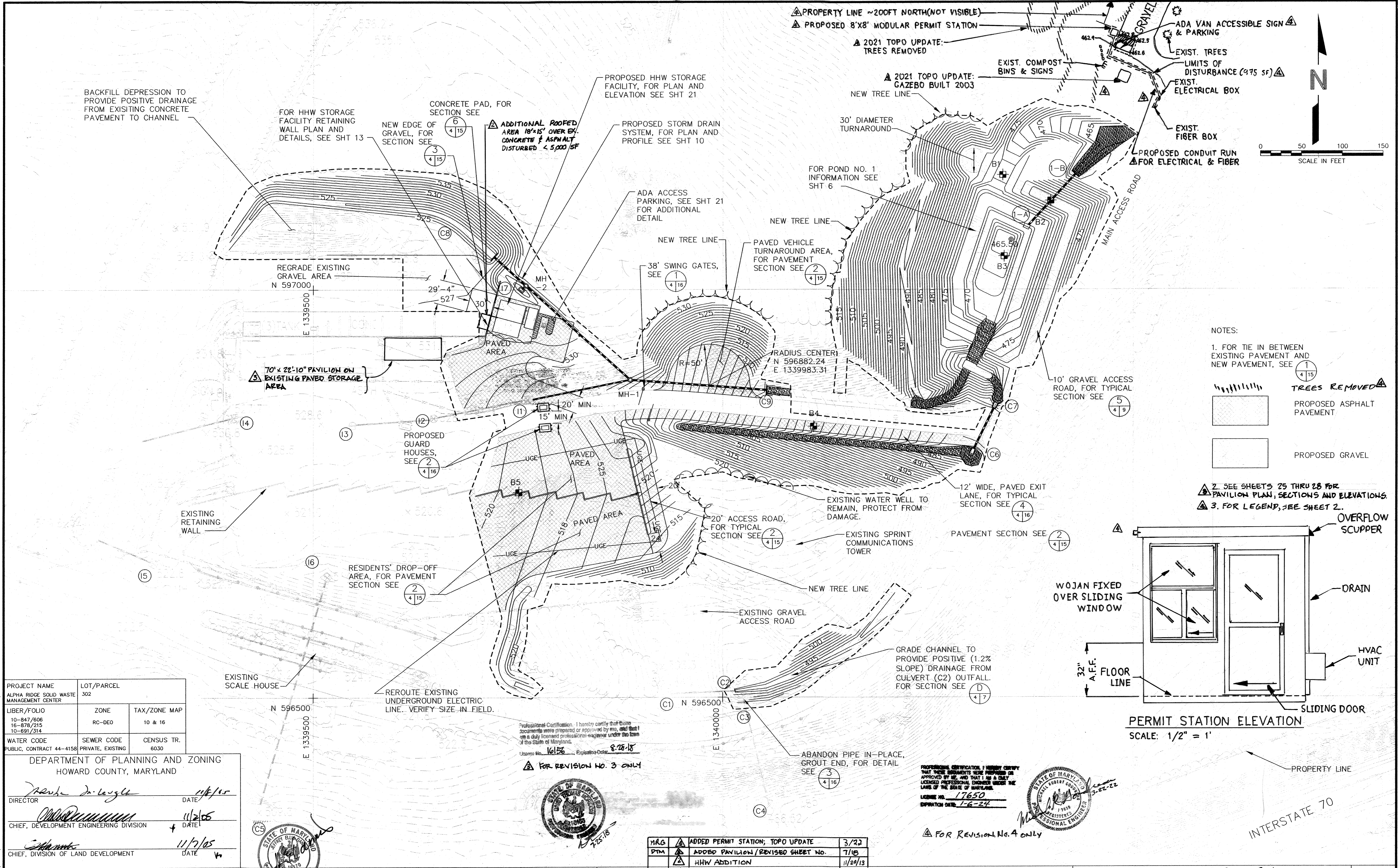
REVISED SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION  
REVISED SITE DEVELOPMENT PLAN  
CAPITAL PROJECT NO. C-0299-A  
3rd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

EP-06-01  
SCALE:  
AS SHOWN  
SHEET  
3 OF 24  
28

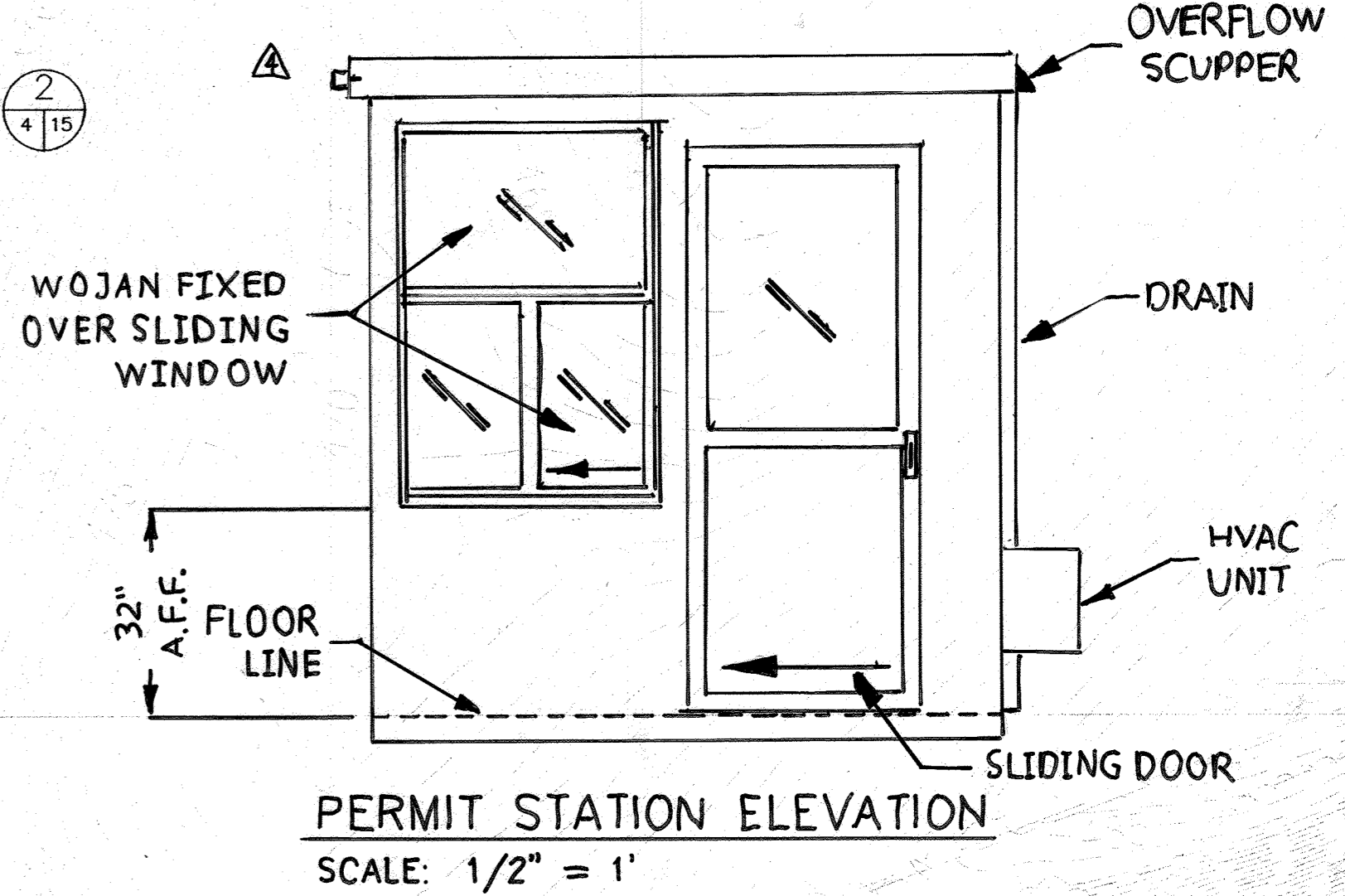
NORFOLK\_02203023.12.DWG-EXISTINGCONDITIONS

SDP-90-37  
Howd EP-06-01





- NOTES:
- FOR TIE IN BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT, SEE 1/4/15
  - SEE SHEETS 25 THRU 28 FOR PAVILION PLAN, SECTIONS AND ELEVATIONS.
  - FOR LEGEND, SEE SHEET 2.
- TREES REMOVED
  - PROPOSED ASPHALT PAVEMENT
  - PROPOSED GRAVEL



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DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

*David DeLoyle* 11/6/15  
 DIRECTOR DATE

*Michael J. Williams* 11/2/15  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*John J. O'Hara* 11/7/15  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*John J. O'Hara* 10/14/15  
 DIRECTOR OF PUBLIC WORKS DATE

*John J. O'Hara* 10/14/15  
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

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NO.	DESCRIPTION	DATE
1	ADDED PERMIT STATION; TOPO UPDATE	3/22
2	ADDED PAVILION/REVISED SHEET NO.	7/10
3	HHW ADDITION	11/29/13
4	THE PURPOSE OF THE REVISED SDP IS TO DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS: LAYOUT OF CHANGES INCLUDING NEW HHW FACILITY, ADDITIONAL RETAINING WALLS, WIDENED ROAD, AND EXPANDED WET POND	10/7/05

DES. AST  
 DRN. AST  
 CHK. PAM/MRG  
 DATE: 09/05

SITE PLAN

REVISED SITE DEVELOPMENT PLAN  
 ALPHA RIDGE LANDFILL  
 RESIDENTS' DROP-OFF AREA EXPANSION  
 REVISED SITE DEVELOPMENT PLAN  
 CAPITAL PROJECT NO. C-0299-A

3rd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

EP-06-01  
 SCALE: AS SHOWN  
 SHEET 4 OF 28

NORFOLK 02203023.12 DWG SITEPLAN

SDP-90-37  
 HCD# EP-06-01  
 2nd orig.



**SEDIMENT CONTROL & POND CONSTRUCTION**

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD CO. SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER John J. O'Hara DATE 10/19/05  
 PRINT NAME BELOW SIGNATURE JOHN J. O'HARA

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD CO. SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD CO. SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER Michael R. Goudreau DATE 10/19/05  
 PRINT NAME BELOW SIGNATURE MICHAEL R. GOUDREAU

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD CO. SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

USDA - NATURAL RESOURCES CONSERVATION SERVICE  
 SIGNATURE Jim Myers/US DATE 10/21/05

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD CO. SOIL CONSERVATION DISTRICT.

HOWARD CO. SOIL CONSERVATION DISTRICT  
 SIGNATURE Paula Selby DATE 10/21/05

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE \_\_\_\_\_ PE NO. \_\_\_\_\_  
 DATE \_\_\_\_\_

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

**OPERATION, MAINTENANCE AND INSPECTION**

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

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WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING
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DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

DIRECTOR Mark L. Layton DATE 10/19/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION Michael R. Goudreau DATE 10/19/05

CHIEF, DIVISION OF LAND DEVELOPMENT Judy Hancock DATE 11/2/05



FOR REVISION NO. 2 ONLY

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. 16156, Expiration Date: 8-28-18

**CONSTRUCTION SPECIFICATIONS**  
 THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD FOR PRACTICE MD-378. ALL REFERENCES TO ASTM AND AASHTO SPECIFICATIONS APPLY TO THE MOST RECENT VERSION.

**SITE PREPARATION**

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1.

AREAS TO BE COVERED BY THE RESERVOIR (AKA THE AREA WITHIN THE BASIN) WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, FENCES, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNATED ON THE PLANS. TREES, BRUSH, AND STUMPS SHALL BE CUT APPROXIMATELY LEVEL WITH THE GROUND SURFACE. FOR DRY STORMWATER MANAGEMENT PONDS, A MINIMUM OF A 25-FOOT RADIUS AROUND THE INLET STRUCTURE SHALL BE CLEARED.

ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED, A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

**EARTH FILL**

**MATERIAL** - THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6", FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT, AND CUT OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL AND MUST HAVE AT LEAST 30% PASSING THE #200 SIEVE. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGNED BY A GEOTECHNICAL ENGINEER. SUCH SPECIAL DESIGNS MUST HAVE CONSTRUCTION SUPERVISED BY A GEOTECHNICAL ENGINEER.

MATERIALS USED IN THE OUTER SHELL OF THE EMBANKMENT MUST HAVE THE CAPABILITY TO SUPPORT VEGETATION OF THE QUALITY REQUIRED TO PREVENT EROSION OF THE EMBANKMENT.

**PLACEMENT** - AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN MAXIMUM 8 INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE PRINCIPAL SPILLWAY MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE EMBANKMENT.

**COMPACTION** - THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF HEAVY EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER TIERED OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH THE EQUIPMENT USED. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IF FORMED INTO A BALL IT WILL NOT CRUMBLE, YET NOT BE SO WET THAT WATER CAN BE SQUEEZED OUT.

WHEN REQUIRED BY THE REVIEWING AGENCY THE MINIMUM REQUIRED DENSITY SHALL NOT BE LESS THAN 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN ±2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IS TO BE CERTIFIED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD T-99 (STANDARD PROCTOR).

**CUT OFF TRENCH** - THE CUTOFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

**EMBANKMENT CORE** - THE CORE SHALL BE PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE CORE SHALL BE A MINIMUM OF FOUR FEET. THE HEIGHT SHALL EXTEND UP TO AT LEAST THE 10 YEAR WATER ELEVATION OR AS SHOWN ON THE PLANS. THE SIDE SLOPES SHALL BE 1 TO 1 OR FLATTER. THE CORE SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY. IN ADDITION, THE CORE SHALL BE PLACED CONCURRENTLY WITH THE OUTER SHELL OF THE EMBANKMENT.

**STRUCTURE BACKFILL**

BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A CONCRETE STRUCTURE OR PIPE, UNLESS THERE IS A COMPACTED FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE.

STRUCTURE BACKFILL MAY BE FLOWABLE FILL MEETING THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 313 AS MODIFIED. THE MIXTURE SHALL HAVE A 100-200 PSI; 28 DAY UNCONFINED COMPRESSIVE STRENGTH. THE FLOWABLE FILL SHALL HAVE A MINIMUM PH OF 4.0 AND A MINIMUM RESISTIVITY OF 2,000 OHM-CM. MATERIAL SHALL BE PLACED SUCH THAT A MINIMUM OF 6" (MEASURED PERPENDICULAR TO THE OUTSIDE OF THE PIPE) OF FLOWABLE FILL SHALL BE UNDER (BEDDING), OVER AND, ON THE SIDES OF THE PIPE. IT ONLY NEEDS TO EXTEND UP TO THE SPRING LINE FOR RIGID CONDUITS. AVERAGE SLUMP OF THE FILL SHALL BE 7" TO ASSURE FLOWABILITY OF THE MATERIAL. ADEQUATE MEASURES SHALL BE TAKEN (SAND BAGS, ETC.) TO PREVENT FLOATING THE PIPE. WHEN USING FLOWABLE FILL, ALL METAL PIPE SHALL BE BITUMINOUS COATED. ANY ADJOINING SOIL FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL SHALL COMPLETELY FILL ALL VOIDS ADJACENT TO THE FLOWABLE FILL ZONE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A STRUCTURE OR PIPE UNLESS THERE IS A COMPACTED FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE. BACKFILL MATERIAL OUTSIDE THE STRUCTURAL BACKFILL (FLOWABLE FILL) ZONE SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE CORE OF THE EMBANKMENT OR OTHER EMBANKMENT MATERIALS.

**PIPE CONDUITS**

ALL PIPES SHALL BE CIRCULAR IN CROSS SECTION.

**REINFORCED CONCRETE PIPE** - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE:

1. MATERIALS - REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM C-361.
2. BEDDING - REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING/CRADLE FOR THEIR ENTIRE LENGTH. THIS BEDDING/CRADLE SHALL CONSIST OF HIGH SLUMP CONCRETE PLACED UNDER THE PIPE AND UP THE SIDES OF THE PIPE AT LEAST 50% OF ITS OUTSIDE DIAMETER WITH A MINIMUM THICKNESS OF 6 INCHES. WHERE A CONCRETE CRADLE IS NOT NEEDED FOR STRUCTURAL REASONS, FLOWABLE FILL MAY BE USED AS DESCRIBED IN THE STRUCTURE BACKFILL SECTION OF THIS STANDARD. GRAVEL BEDDING IS NOT PERMITTED.
3. LAYING PIPE - BELL AND SPIGOT PIPE SHALL BE PLACED WITH THE BELL END UPSTREAM. JOINTS SHALL BE MADE IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL. AFTER THE JOINTS ARE SEALED FOR THE ENTIRE LINE, THE BEDDING SHALL BE PLACED SO THAT ALL SPACES UNDER THE PIPE ARE FILLED. CARE SHALL BE EXERCISED TO PREVENT ANY DEVIATION FROM THE ORIGINAL LINE AND GRADE OF THE PIPE. THE FIRST JOINT MUST BE LOCATED WITHIN 4 FEET FROM THE RISER.
4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL".
5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

**CONCRETE**

CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 414, MIX NO. 3.

**ROCK RIPRAP**

ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 311.

GEOTEXTILE SHALL BE PLACED UNDER ALL RIPRAP AND SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 921.09, CLASS C.

**CARE OF WATER DURING CONSTRUCTION**

ALL WORK ON PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES, LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS. THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL NECESSARY PUMPING AND OTHER EQUIPMENT REQUIRED FOR REMOVAL OF WATER FROM VARIOUS PARTS OF THE WORK AND FOR MAINTAINING THE EXCAVATIONS, FOUNDATION, AND OTHER PARTS OF THE WORK FREE FROM WATER AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STREAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIAL IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER SUMPS FROM WHICH THE WATER SHALL BE PUMPED.

**STABILIZATION**

ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SLIGHTLY CONDITION. ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING IN ACCORDANCE WITH THE NATURAL RESOURCES CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS FOR CRITICAL AREA PLANTING (MD-342) OR AS SHOWN ON THE ACCOMPANYING DRAWINGS.

**EROSION AND SEDIMENT CONTROL**

CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND AIR POLLUTION MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS SHALL DETAIL EROSION AND SEDIMENT CONTROL MEASURES.

NORFOLK\02203023.12\DWGS\POND SPEC&CERTS

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DIRECTOR John J. O'Hara DATE 10/19/05

CHIEF, BUREAU OF ENVIRONMENTAL SERVICES John J. O'Hara DATE 10/19/05

SCS ENGINEERS  
 CONSULTING ENGINEERS  
 11260 ROGER BACON DRIVE  
 SUITE 300  
 RESTON, VIRGINIA 20190  
 PH. (703) 471-6150  
 FAX. (703) 471-6676



DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	POND SPECIFICATIONS	
DATE: 09/05	REVISED SHEET NO.	7/18
BY NO.	REVISION	DATE

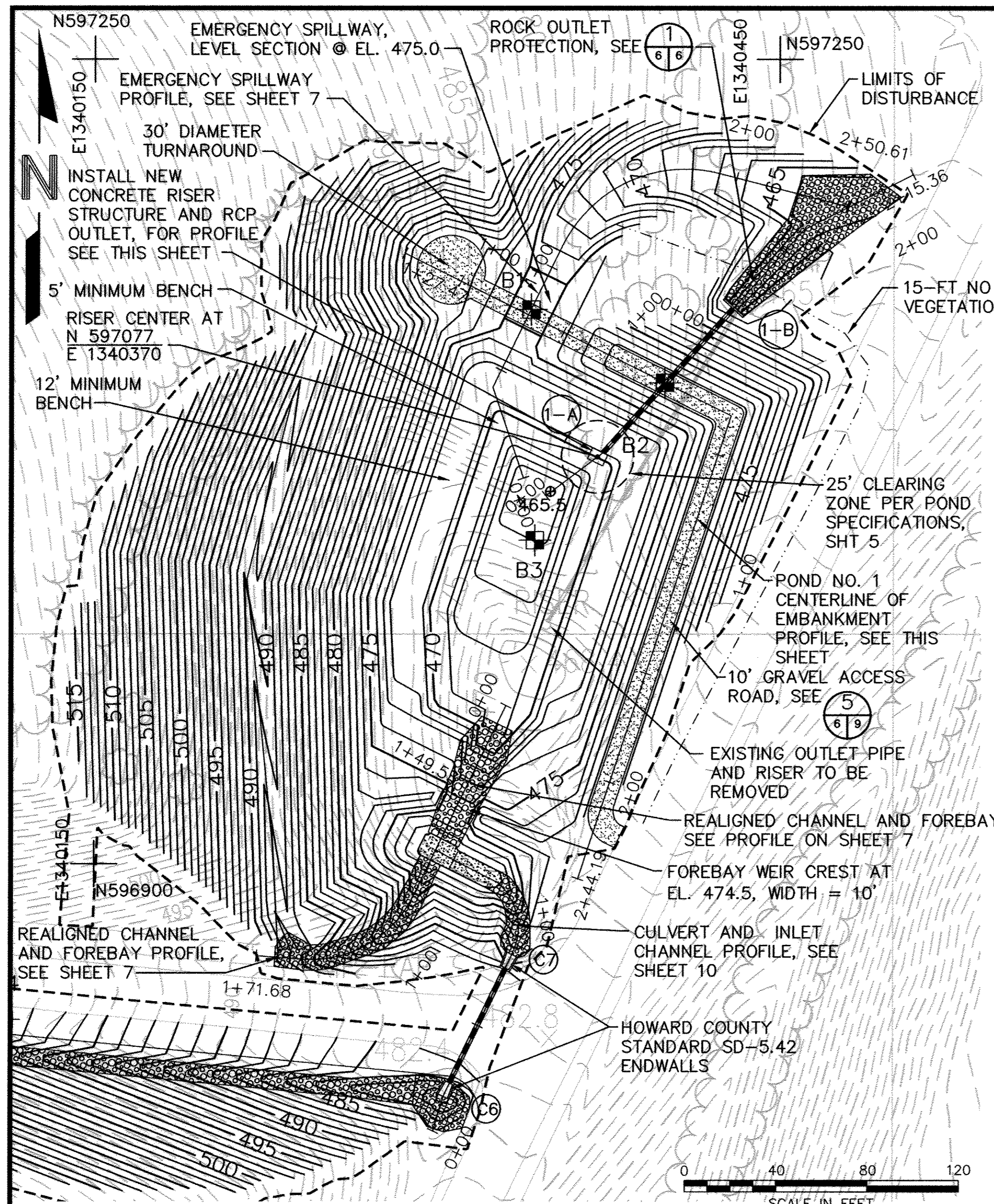
POND CONSTRUCTION SPECIFICATIONS AND CERTIFICATIONS

REVISED SITE DEVELOPMENT PLAN  
 ALPHA RIDGE LANDFILL  
 RESIDENTS' DROP-OFF AREA EXPANSION  
 REVISED SITE DEVELOPMENT PLAN  
 CAPITAL PROJECT NO. C-0299-A  
 3rd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

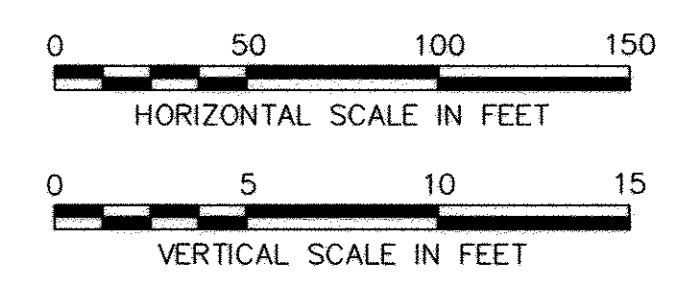
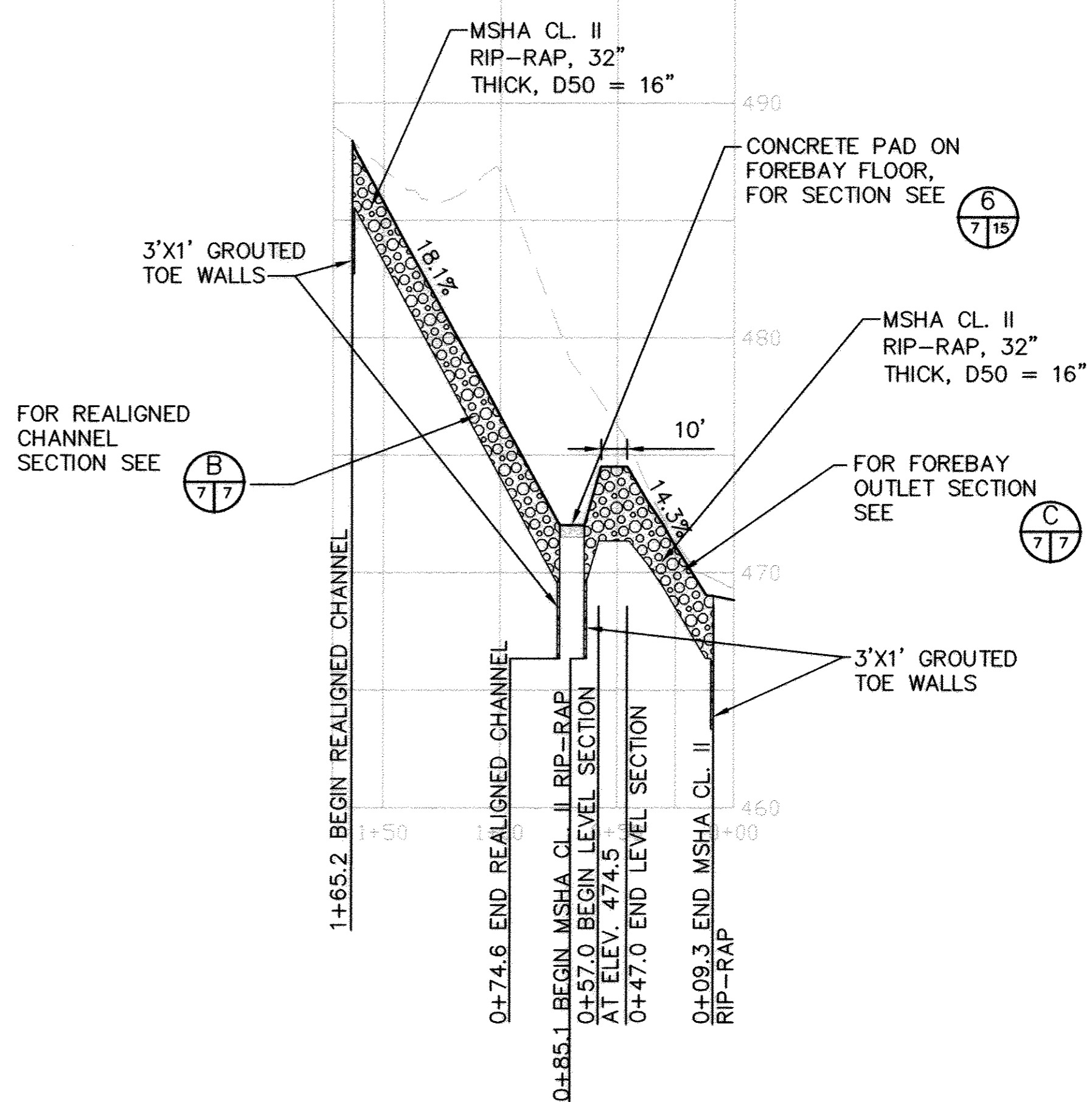
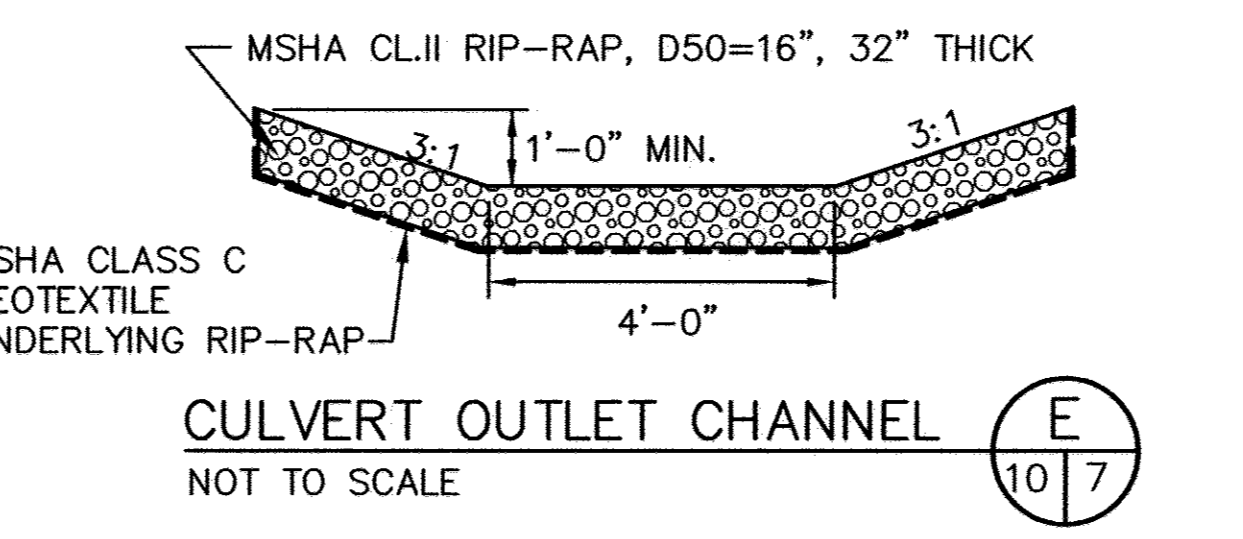
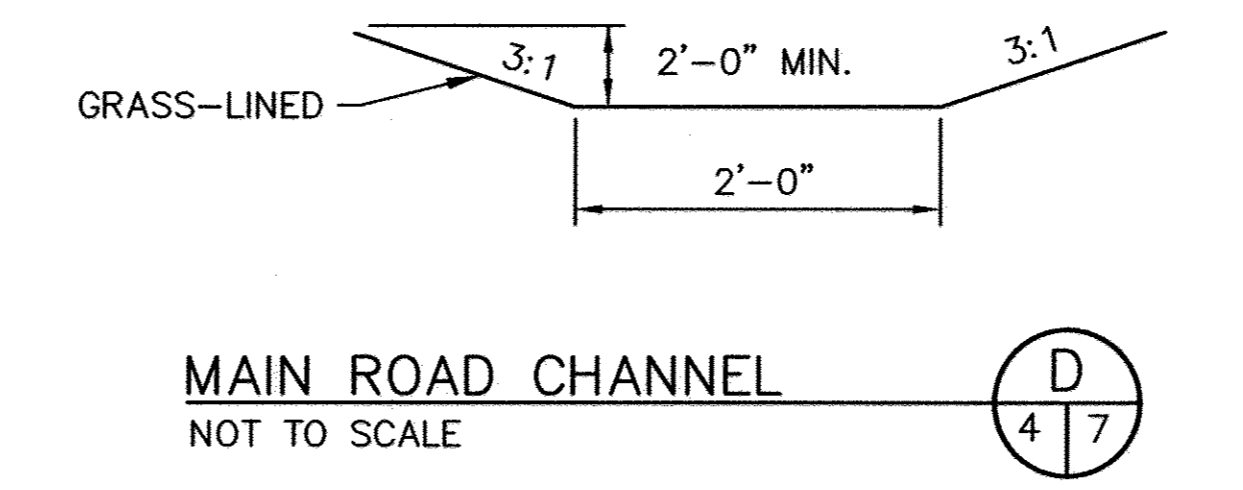
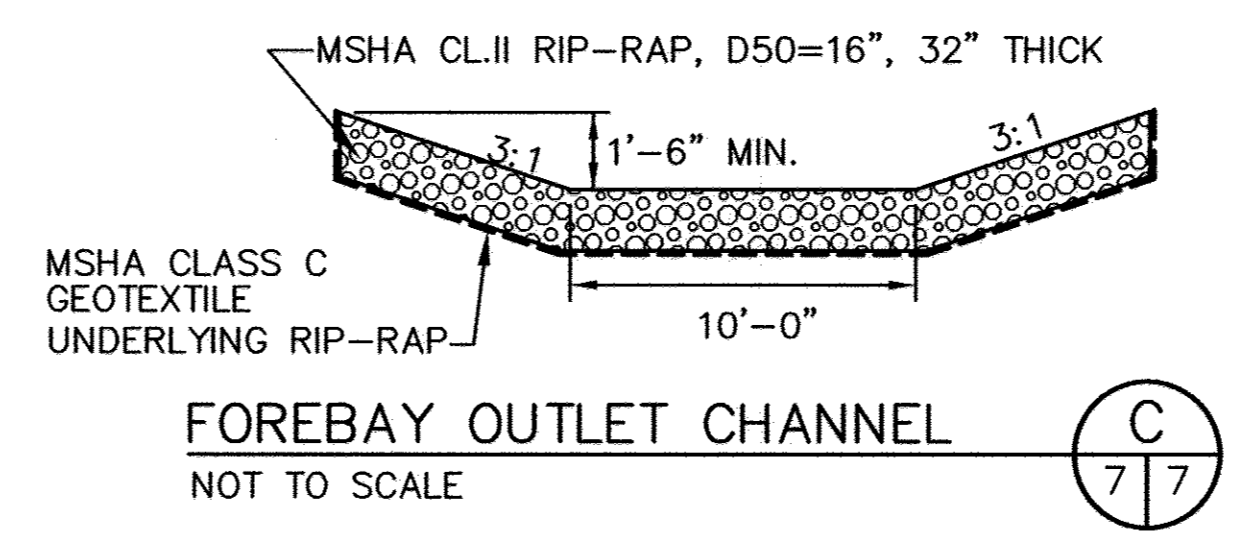
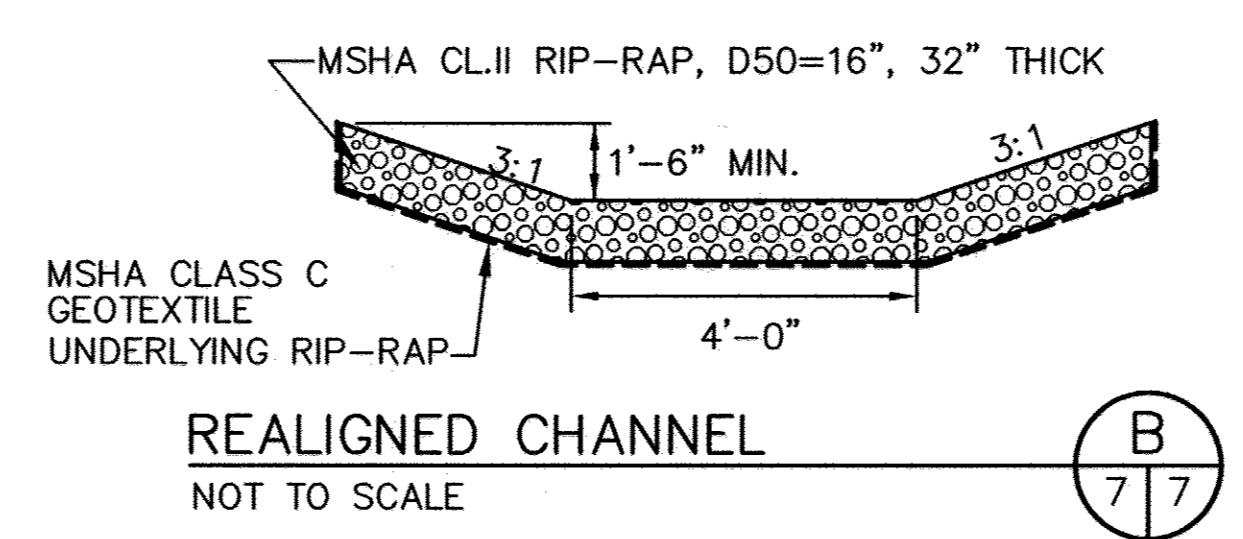
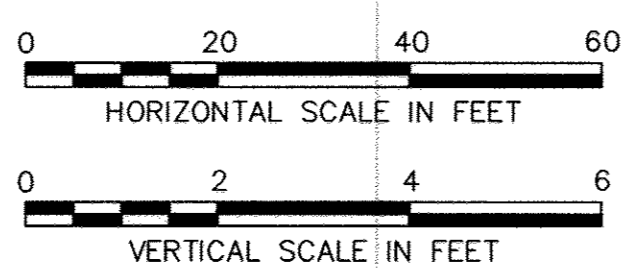
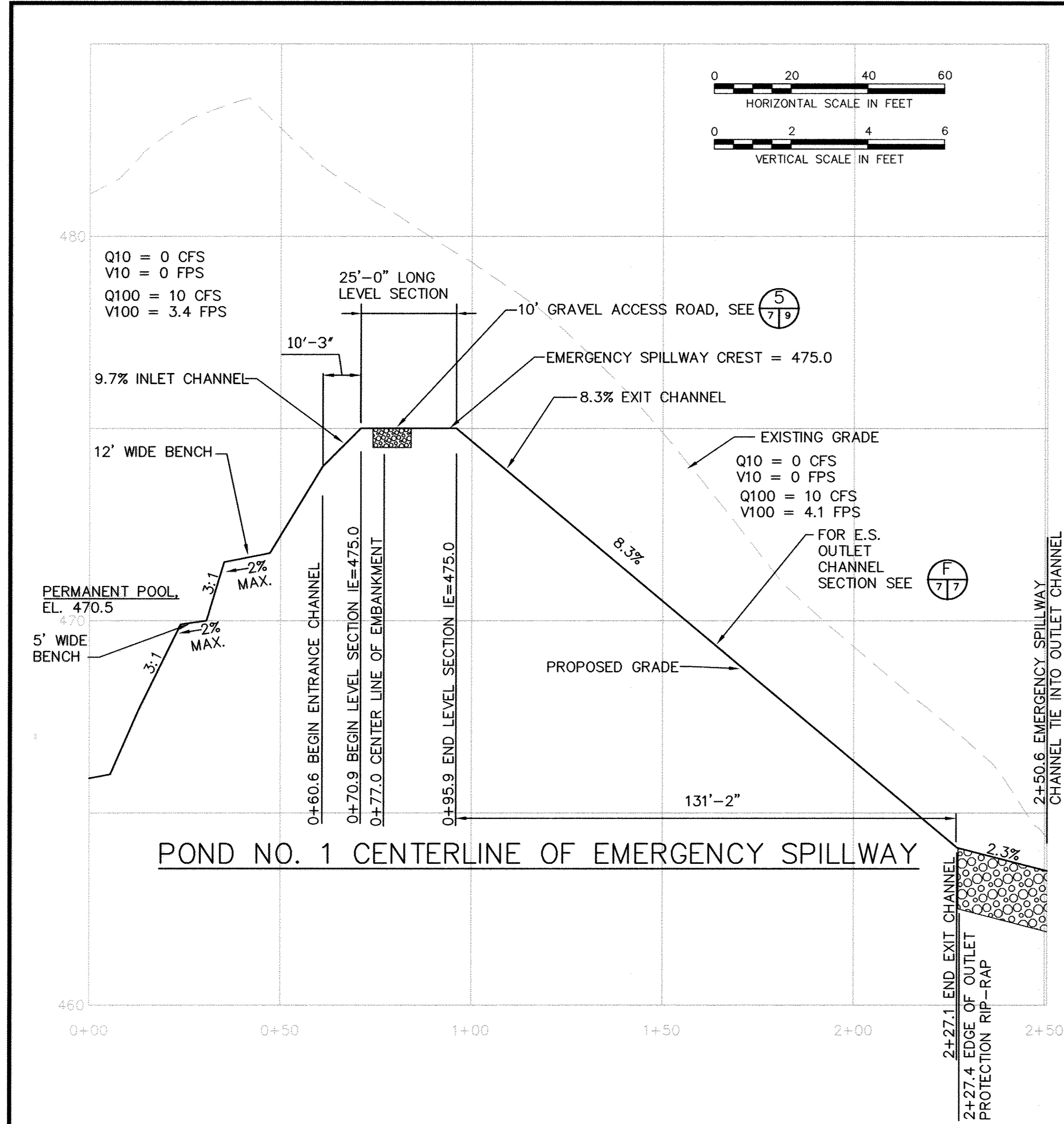
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 SCALE:  
 AS SHOWN  
 SHEET  
 5 OF 28  
 28

SDP-90-37  
 HSD# EP-06-01

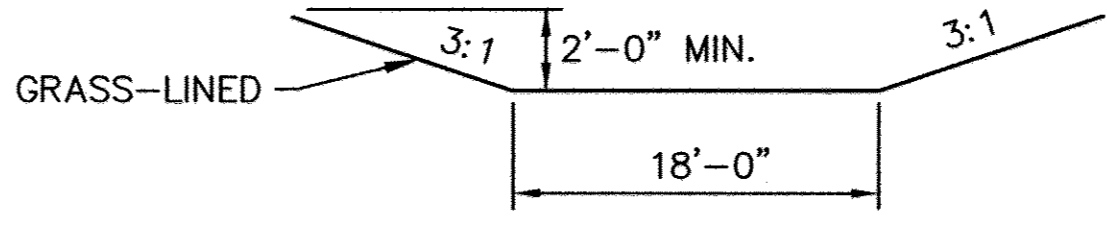
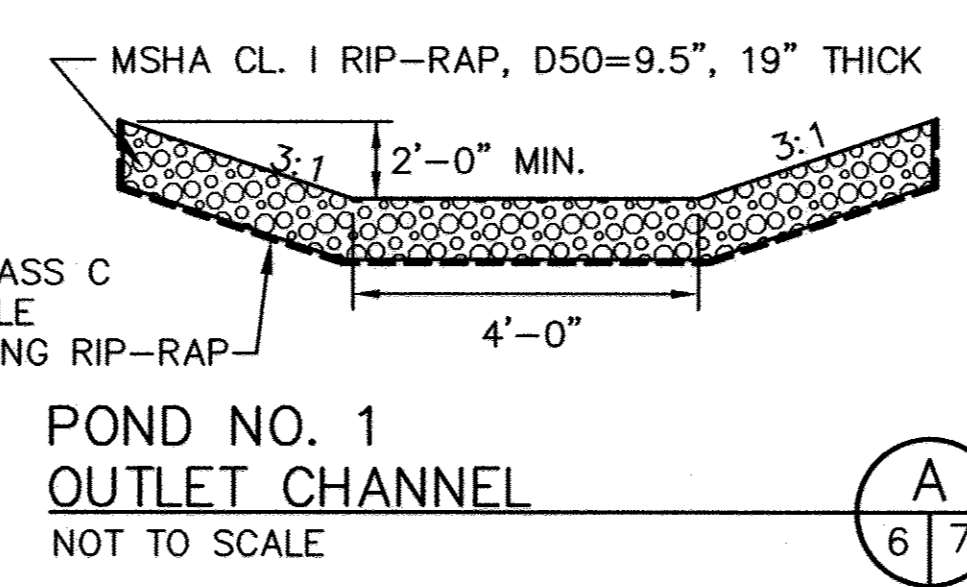








REALIGNED CHANNEL AND FOREBAY PROFILE



AS-BUILT CERTIFICATION  
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

PE NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

OPERATION, MAINTENANCE AND INSPECTION  
INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

SEDIMENT CONTROL & POND CONSTRUCTION  
BY THE DEVELOPER: "I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER: *John J. Chapp* 10/19/05  
PRINT NAME BELOW SIGNATURE: JOHN J. CHAPP DATE

BY THE ENGINEER: "I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER: *Michael R. Gostreanu* 10/19/05  
PRINT NAME BELOW SIGNATURE: MICHAEL R. GOSTREANU DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE: *10/21/05*

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
HOWARD SOIL CONSERVATION DISTRICT DATE: *10/31/05*

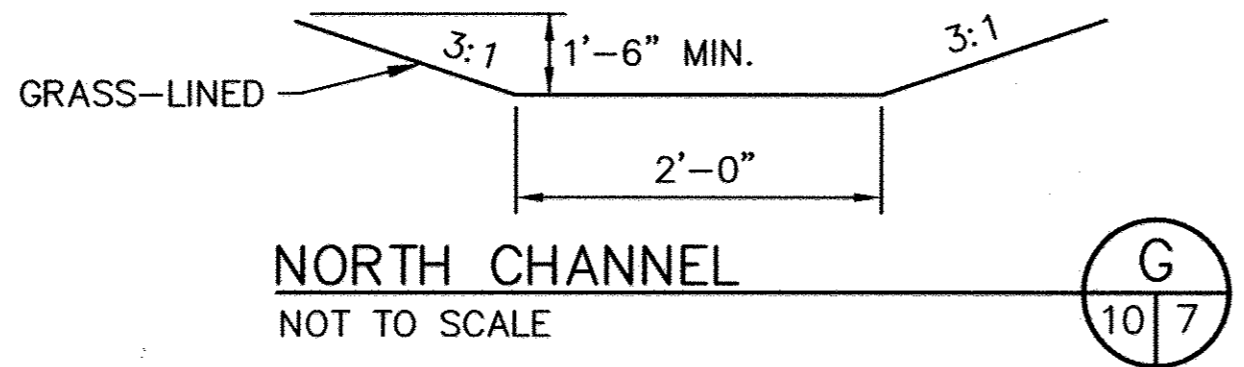
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LIBER/FOLIO 10-847/806 16-876/215 10-691/314	ZONE RC-DEO	TAX/ZONE MAP 10 & 16	
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING	CENSUS TR. 6030	

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Frank R. Luger* 11/6/05  
DIRECTOR DATE

*John J. Chapp* 11/2/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*John J. Chapp* 11/2/05  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John J. Chapp* 10/19/05  
DIRECTOR OF PUBLIC WORKS DATE

*John J. Chapp* 10/19/05  
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

SCS ENGINEERS  
CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676

STATE OF MARYLAND  
MICHAEL R. GOSTREANU  
REGISTERED PROFESSIONAL ENGINEER  
L.C. REG. NO. 17900  
EXPIRES 12/31/10

DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHR. PAM/MRG	PROFILES OF EMERGENCY SPILLWAY AND BASIN FOREBAY INLET, & CHANNEL X-SECTIONS	
DATE: 09/05	BY NO. REVISION	DATE
		7/15

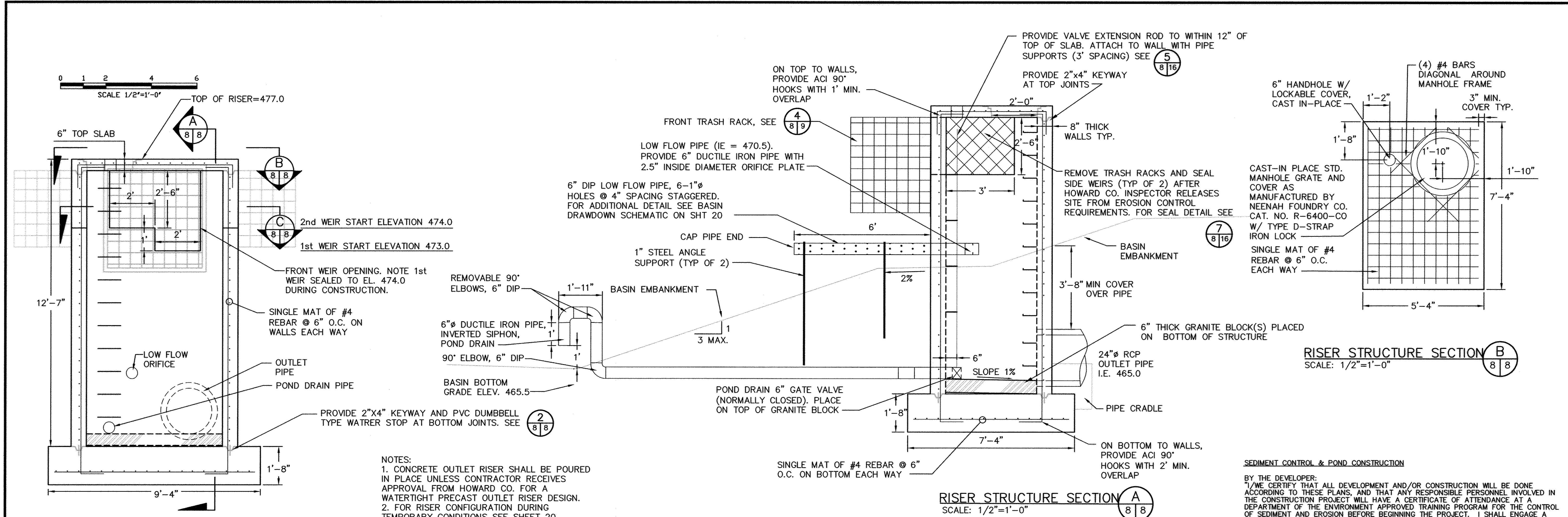
POND NO. 1  
PROFILES AND DETAILS

REVISED SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION  
REVISED SITE DEVELOPMENT PLAN  
CAPITAL PROJECT NO. C-0299-A

3rd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

EP-06-01  
SCALE: AS SHOWN  
SHEET 7 OF 27  
SDP-90-37  
ADD ED-06-01





**RISER STRUCTURE DETAIL**  
SCALE: 1/2"=1'-0"  
1/8

**KEYED JOINT WITH WATERSTOP DETAIL**  
NOT TO SCALE  
2/8

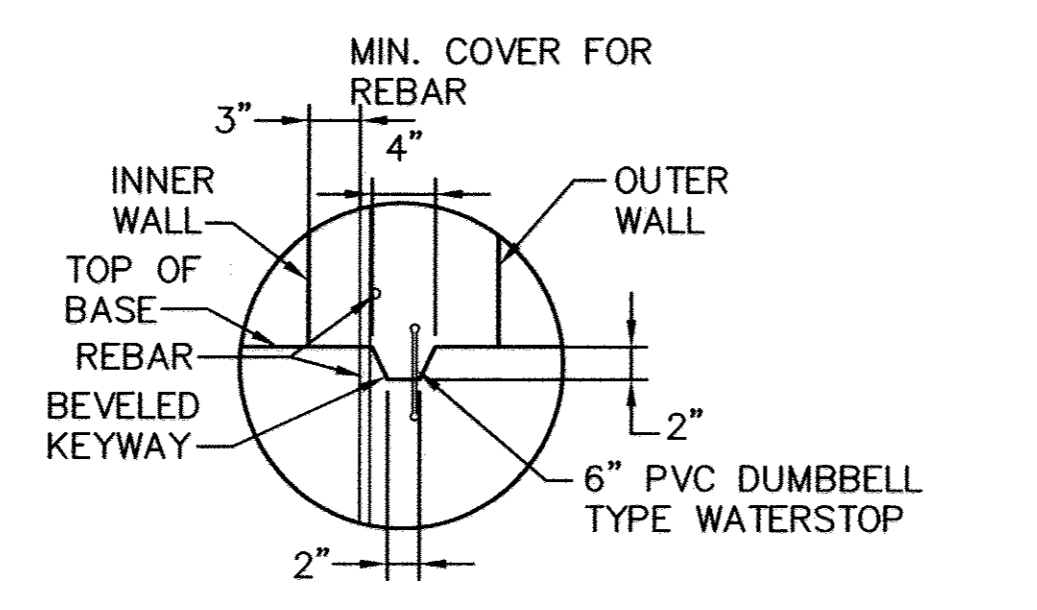
PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/806 16-876/215 10-891/314	TAX/ZONE MAP 10 & 16
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING
	CENSUS TR. 6030

**DEPARTMENT OF PLANNING AND ZONING**  
HOWARD COUNTY, MARYLAND

*David DeLuca* 11/8/05  
DIRECTOR DATE

*John O'Hara* 11/2/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*John O'Hara* 11/2/05  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



FOR REVISION NO. 2 ONLY

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. 16156, Expiration Date: 8-28-18

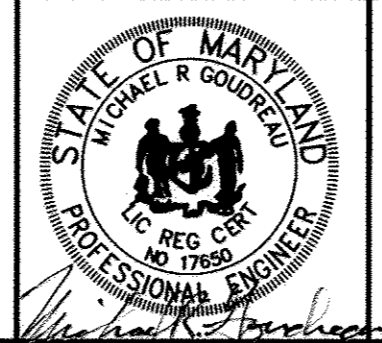


**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

*John O'Hara* 10/14/05  
DIRECTOR OF PUBLIC WORKS DATE

*John O'Hara* 10/14/05  
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

**SCS ENGINEERS**  
CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676



DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	POND RISER DETAIL AND SECTIONS	
DATE: 09/05	REVISED SHEET No.	1/15
BY NO.	REVISION	DATE

**POND NO. 1**  
**RISER DETAILS**

**REVISED SITE DEVELOPMENT PLAN**  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION  
REVISED SITE DEVELOPMENT PLAN  
CAPITAL PROJECT NO. C-0299-A  
3rd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

EP-06-01  
SCALE: AS SHOWN  
SHEET 8 OF 24  
28

**SEDIMENT CONTROL & POND CONSTRUCTION**

BY THE DEVELOPER:  
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*John J. O'Hara* 10/19/05  
SIGNATURE OF DEVELOPER DATE  
JOHN J. O'HARA

BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*Michael R. Gaudreau* 10/11/05  
SIGNATURE OF ENGINEER DATE  
MICHAEL R. GAUDREAU

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

*Jim Myer* 10/21/05  
USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John O'Hara* 10/21/05  
HOWARD SOIL CONSERVATION DISTRICT DATE  
AS-BUILT CERTIFICATION  
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

PE NO. \_\_\_\_\_  
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

**OPERATION, MAINTENANCE AND INSPECTION**

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS STANDARDS AND SPECIFICATIONS FOR PONDS (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL

NORFOLK 1022030312.DWG, RISERDETAILS.SHEETS.DWG

SDP-90-37  
EP-06-01



POND	TYPE	DRAINAGE AREA ACRES	WATER QUALITY INFORMATION (CF UNLESS OTHERWISE NOTED)				WATER QUANTITY INFORMATION (CFS)				RISER				OUTLET PIPE				ANTI-SEEP COLLAR		DAM			EMERG. SPILLWAY		CORE TRENCH		CUT-OFF TRENCH		WATER SURFACE ELEV.				
			WQv REQUIRED	WQv PROVIDED	Rev REQUIRED	Rev PROVIDED	Cpv REQUIRED	Cpv PROVIDED	Qp10 REQUIRED	Qp10 PROVIDED	Qp100 REQUIRED	Qp100 PROVIDED	WEIR HT.	WEIR WIDTH	CREST ELEV.	STR. WIDTH	DIA. IN.	L FT.	U/S INV.	D/S INV.	QTY.	APPROX. SIZE	TOP WIDTH FT.	CONSTR. HEIGHT	SETTLED HEIGHT	ELEV.	BOTTOM WIDTH FT.	TOP WIDTH FT.	SIDE SLOPES	BOT. WIDTH FT.	SIDE SLOPES	1 YR.	10 YR.	100 YR.
NO. 1	P-2	11.9	5,391	16,599	.38 AC	NA	3,273	28,387	NR	12	NR	38	2.5'	2'	474.0	5.33' x 7.33'	24	89	465.0	464.0	3	9'x9.83'	12'	478.0	477.0	475.0	18'	4'	1:1	4'	1:1	472.52	474.36	475.30
																											CLOGGED CONDITION ELEVATIONS			474.84	475.39			

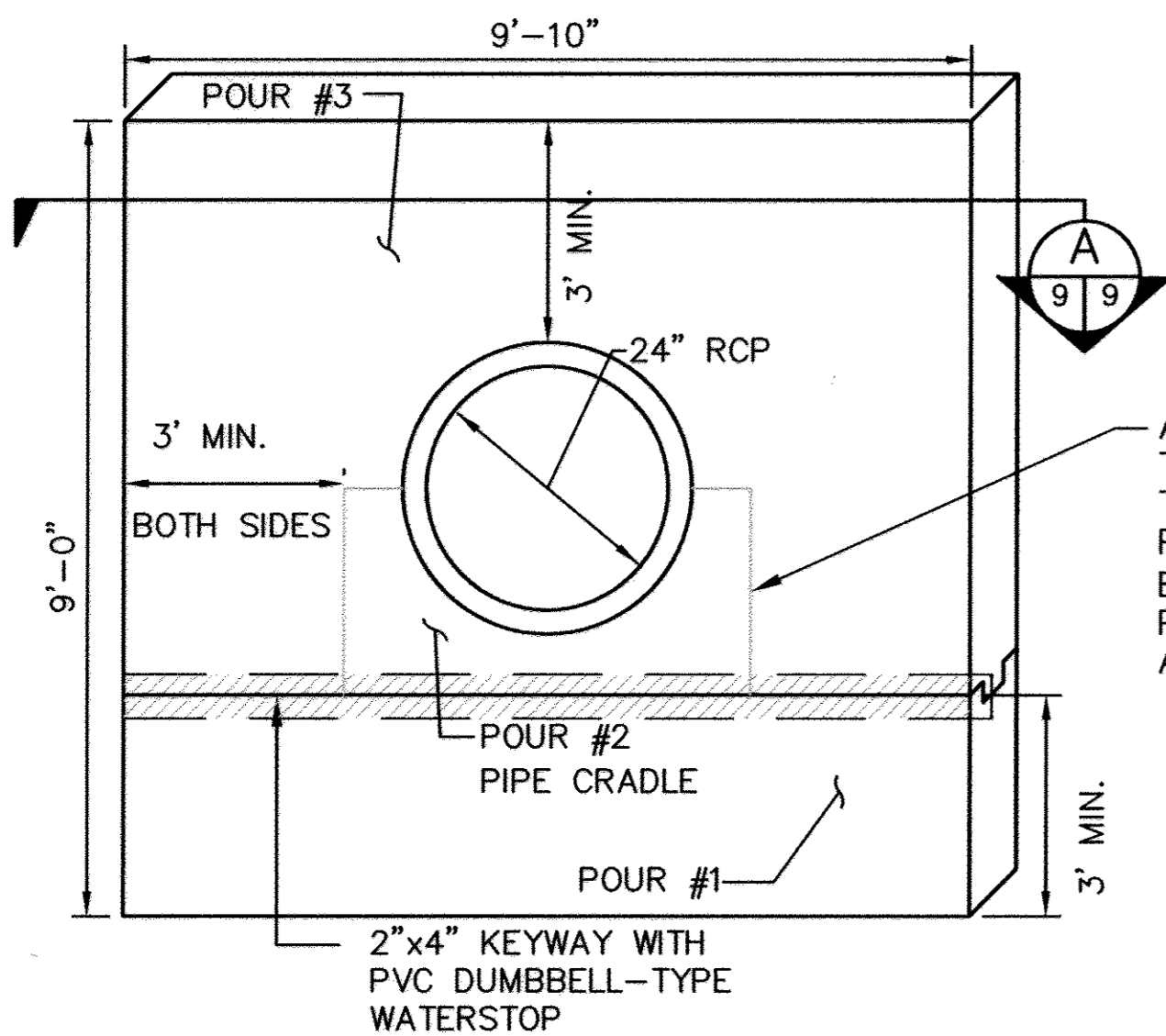
CW-4B

TABLE NOTES:

- Op AND Qf NOT REQUIRED (NR) FOR BASIN.
- Rev NOT APPLICABLE (NA) FOR BASIN. Rev MET VIA CREDITS.

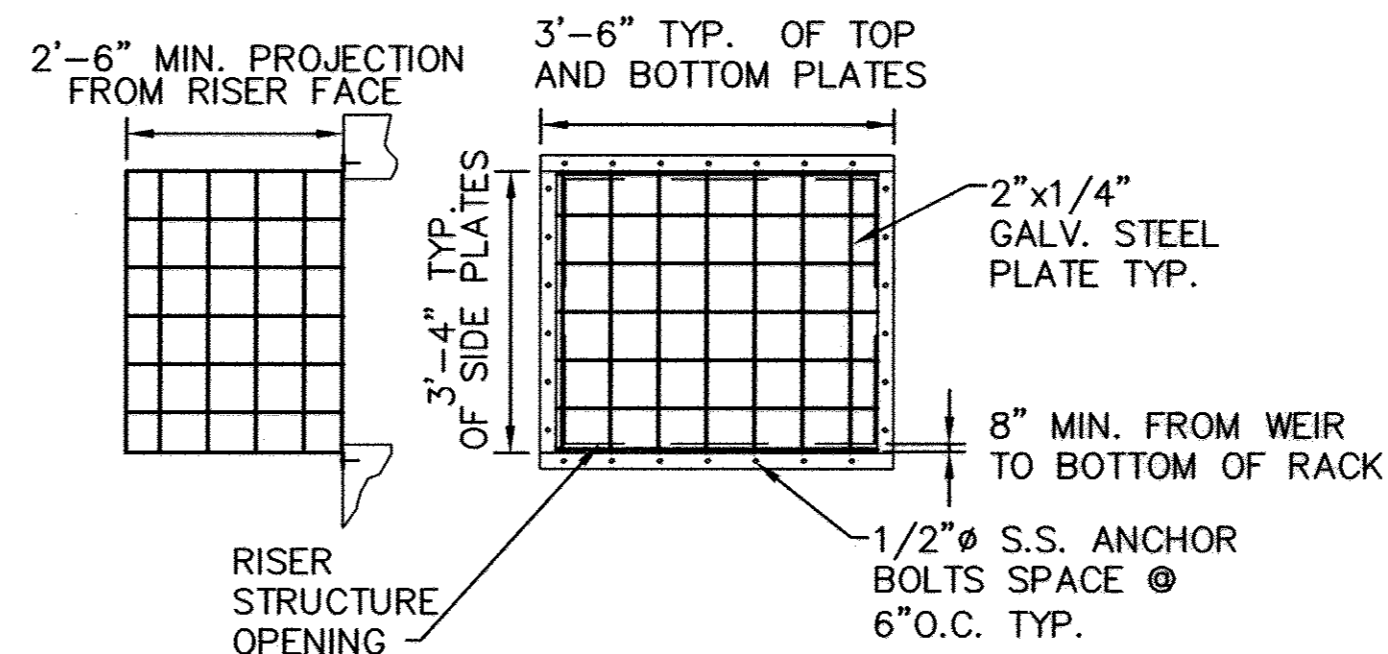
TYPE P-2, WET POND, HAS BEEN SELECTED AS THE BMP FOR THE SITE. THE CRITERIA FOR THEIR SELECTION ARE NOTED BELOW:

- WATERSHED FACTORS: THE PROJECT IS NOT LOCATED IN A WATERSHED THAT REQUIRES A SPECIAL DESIGN. THE PROJECT'S SEDIMENT BASIN WILL BE CONVERTED TO A WET POND.
- TERRAIN FACTORS: THE PROJECT IS NOT LOCATED IN A PORTION OF THE STATE THAT REQUIRES A SPECIAL DESIGN. A LARGE PORTION OF THE SITE'S RUN-OFF IS ALREADY DISCHARGING TO THE WET POND LOCATION.
- STORMWATER TREATMENT SUITABILITY: FOR THE PROJECT, WET PONDS CAN MEET CPV AND QP REQUIREMENTS AND ARE USED TO MEET THEM. REV IS MET WITH GRASSED LINE CHANNEL CREDITS.
- PHYSICAL FEASIBILITY FACTORS: THE GEOTECHNICAL REPORT FOR THE PROJECT SHOWS THAT A WET POND IS FEASIBLE FOR THE AREA.
- COMMUNITY AND ENVIRONMENTAL FACTORS: THE WET POND IS INTERIOR TO A LARGE PROPERTY, THEREFORE THERE ARE NO IMMEDIATE NEIGHBORS THAT MAY BE AFFECTED. THE WET POND WILL IMPROVE THE ENVIRONMENT BY IMPROVING WATER QUALITY.
- LOCATIONAL AND PERMITTING FACTORS: THERE ARE NO WETLANDS OR FLOODPLAIN NEAR THE POND LOCATION. THERE ARE WOODED AREAS NEAR THE POND. TOTAL AREA OF TREES REMOVED DOES NOT REQUIRE COMPENSATION THROUGH A FOREST CONSERVATION PLAN.

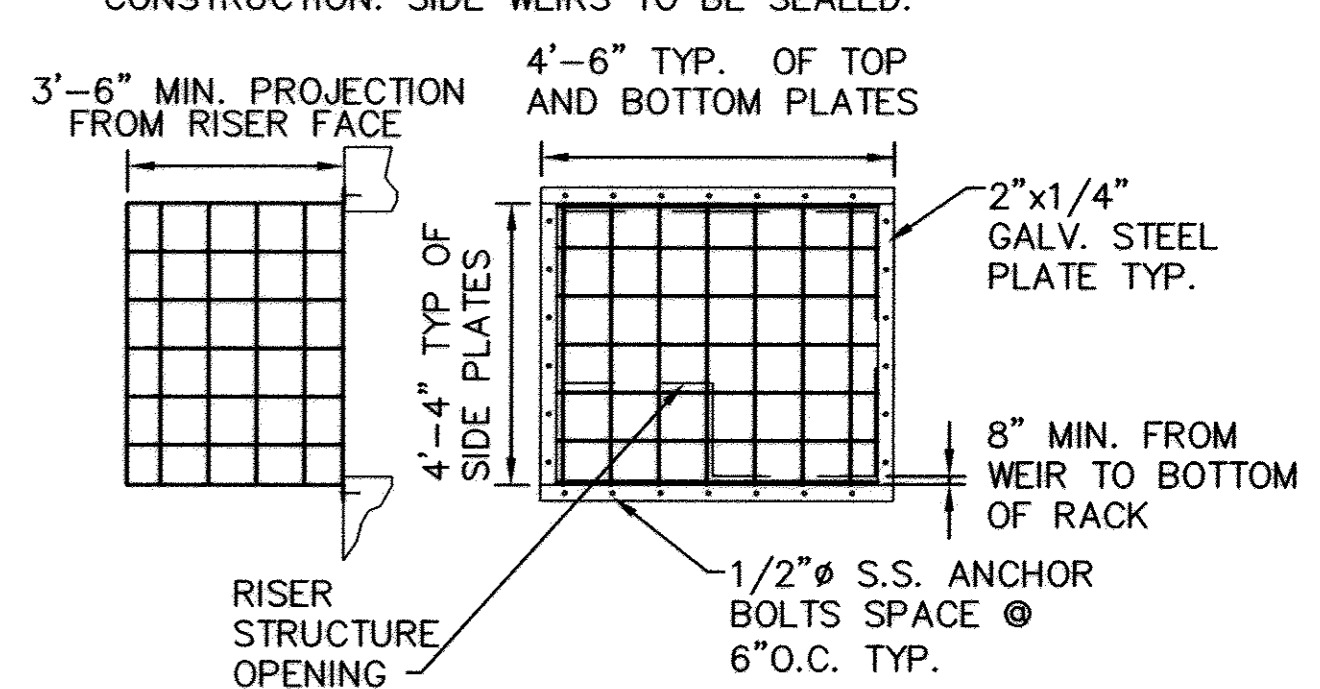


APPLY EPOXY ADHESIVE TO CONCRETE PIPE PRIOR TO SECOND AND THIRD CONCRETE POUR. EPOXY ADHESIVE SHALL BE MASTERBUILDER'S CONCRESE PASTE LPL OR ENGINEER APPROVED EQUAL.

FOR SEALING OF BARREL JOINTS, SEE 6



TRASH RACK DETAIL - SIDE, TYP OF 2 NOT TO SCALE



TRASH RACK DETAIL - FRONT NOT TO SCALE

TRASH RACK NOTES:

- WELD BAR TO PLATE ALL AROUND.
- GALVANIZE TRASH RACK AFTER FABRICATION.
- PAINT TRASH RACK BATTLESHIP GRAY.
- USE #4 GALVANIZED SMOOTH BAR.
- 6" TYP. SPACING BETWEEN BARS.
- SIDE TRASH RACKS TO BE REMOVED AFTER CONSTRUCTION. SIDE WEIRS TO BE SEALED.

SEDIMENT CONTROL & POND CONSTRUCTION

BY THE DEVELOPER:  
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: *John J. O'Hara* DATE: 10/19/05  
PRINT NAME BELOW SIGNATURE: JOHN J. O'HARA

BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER: *Michael R. Goussard* DATE: 10/19/05  
PRINT NAME BELOW SIGNATURE: MICHAEL R. GOUSSARD

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

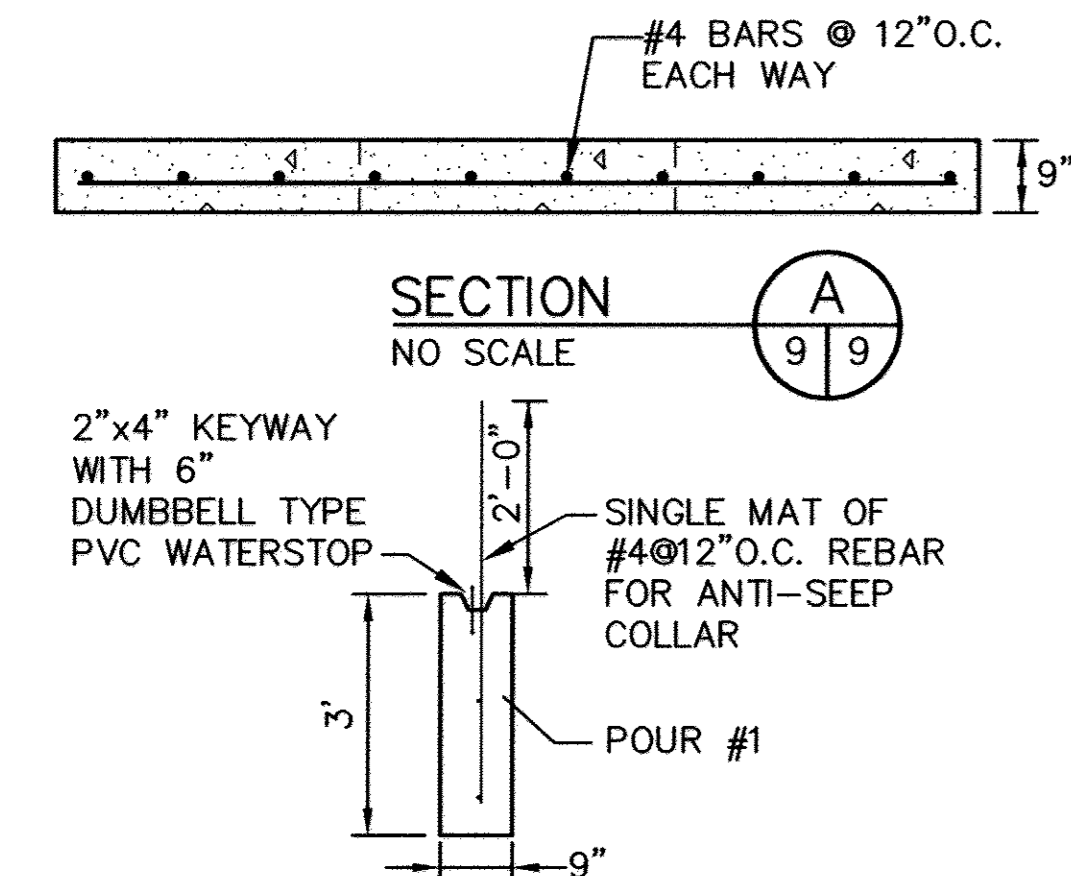
USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE: 10/24/05  
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT AS-BUILT CERTIFICATION DATE: 10/24/05  
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_  
PE NO. \_\_\_\_\_

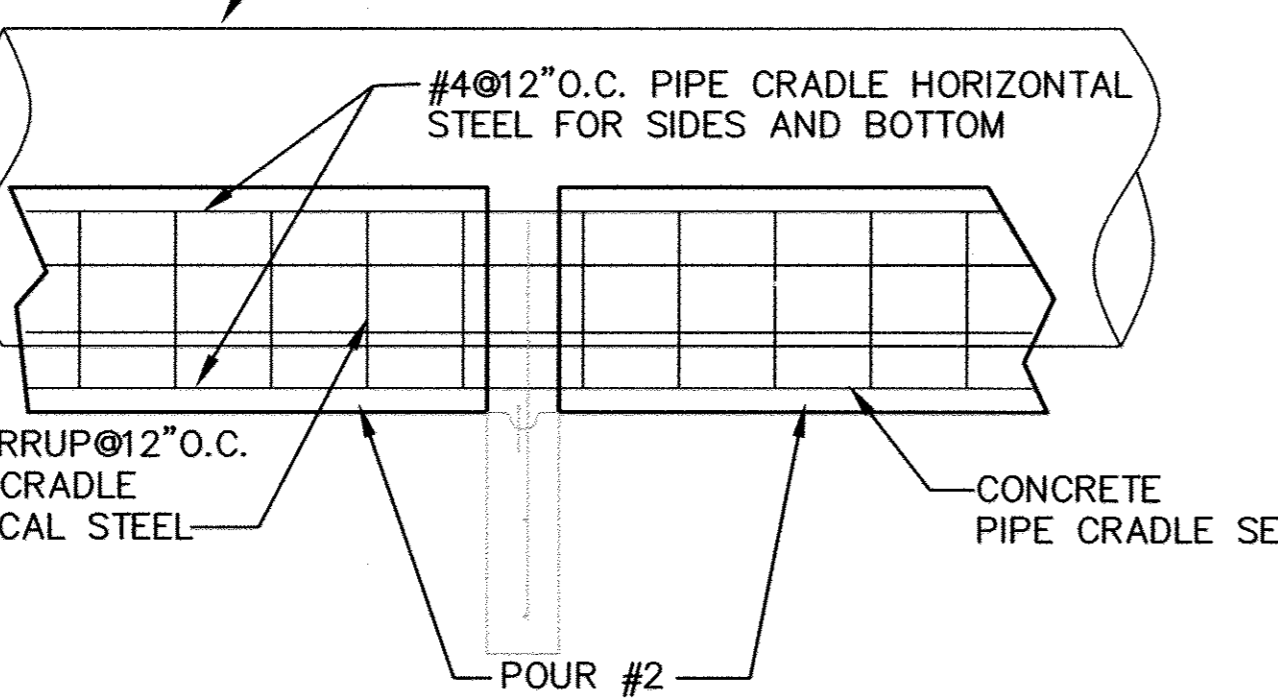
CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

OPERATION, MAINTENANCE AND INSPECTION  
INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

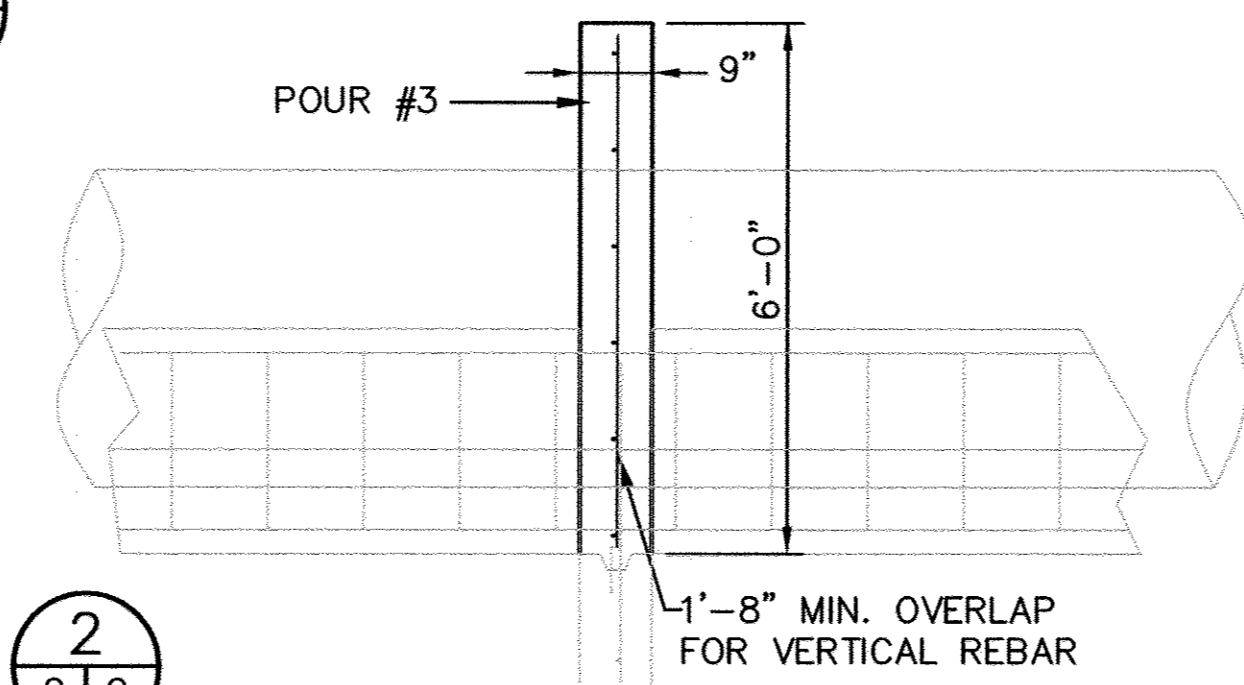


ANTI-SEEP COLLAR CONSTRUCTION SEQUENCE

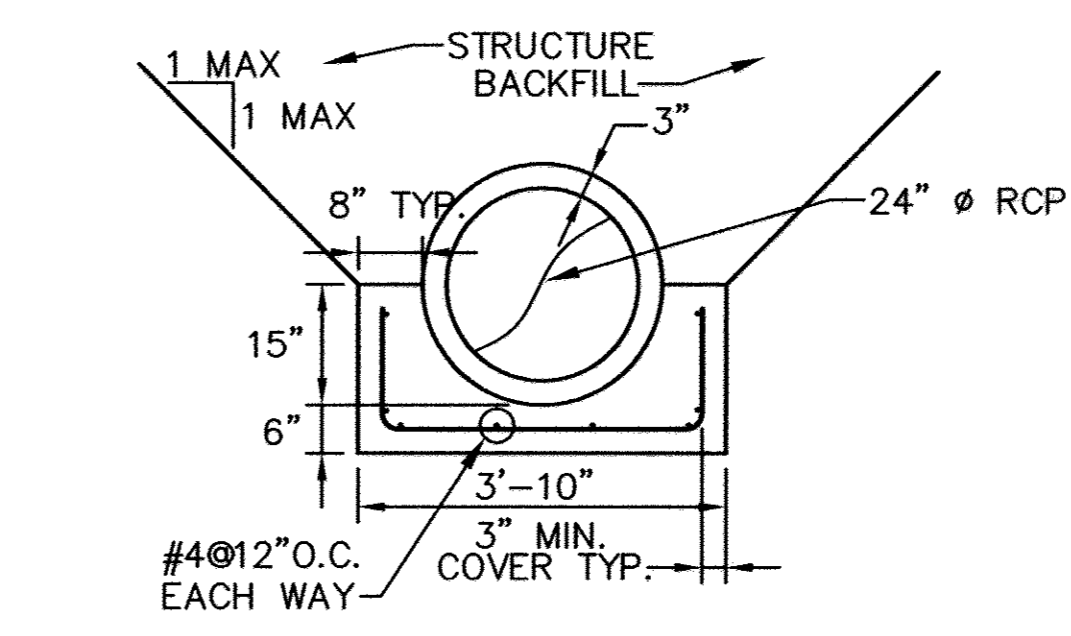
ANTI-SEEP COLLAR DETAIL NOT TO SCALE



- ANTI-SEEP COLLAR NOTES:
- ANTI-SEEP COLLAR TO BE POURED AT LEAST TWO (2) FEET FROM NEAREST PIPE JOINT.
  - ANTI-SEEP COLLAR IS TO BE CONSTRUCTED IN THREE POURS: BOTTOM HALF TO BE POURED FIRST, PLACE PIPE AND POUR CRADLE SECOND, THEN TOP PORTION OF COLLAR POURED THIRD.
  - BACKFILL SHALL BE PLACED EVENLY ON BOTH SIDES OF THE ANTI-SEEP COLLAR.
  - REINFORCED CONCRETE:  $f_c = 4,000$  psi @ 28 DAYS.
  - PROVIDE THREE COLLARS.

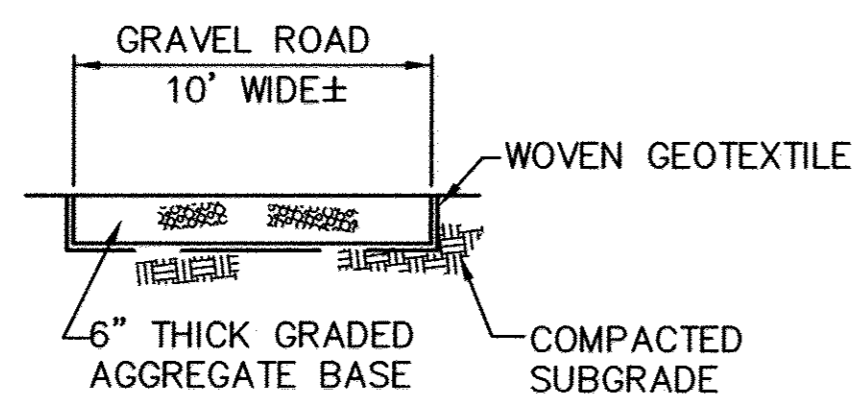


CONCRETE PIPE CRADLE SEE 2

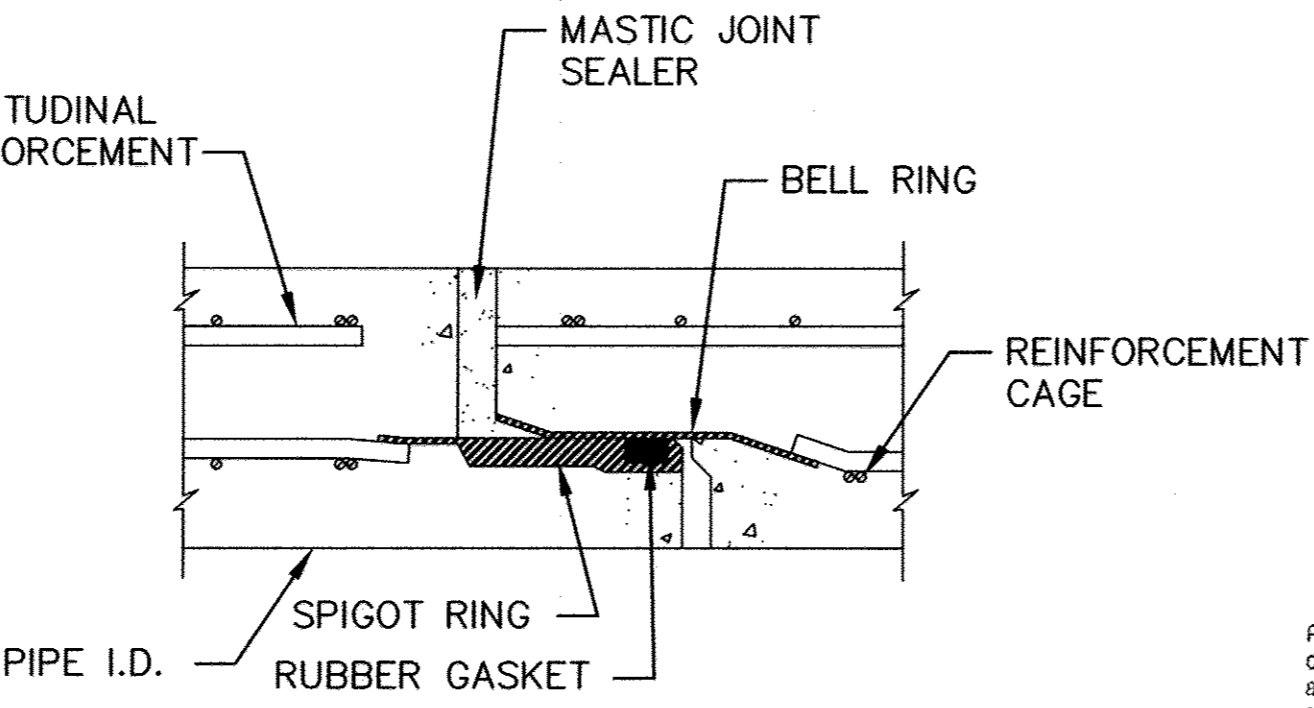


PIPE CRADLE DETAIL NO SCALE

- CRADLE NOTES:
- PIPE CRADLE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 psi @ 28 DAYS
  - USE GRADE 60 REINFORCING STEEL
  - CONCRETE CRADLE SHALL CONFORM TO THE REQUIREMENTS OF "SCS TR-46 A-2 CONCRETE CRADLE."
  - INSTALL CRADLE WITH MONOLITHIC CONTINUOUS POUR OF CONCRETE.



BASIN ACCESS ROAD NO SCALE



BARREL JOINT SEAL DETAIL NO SCALE

FOR REVISION NO. 2 ONLY

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. 16156, Expiration Date: 8-18-18

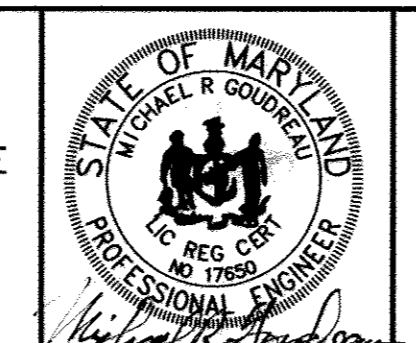


PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/806 16-878/215 10-891/314	TAX/ZONE MAP 10 & 16
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING
CENSUS TR. 8030	

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
Director: *Mark J. Laugel* DATE: 11/16/05  
Chief, Development Engineering Division: *John J. O'Hara* DATE: 11/2/05  
Chief, Division of Land Development: *John J. O'Hara* DATE: 11/2/05

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director: *John J. O'Hara* DATE: 10/14/05  
Chief, Bureau of Environmental Services: *John J. O'Hara* DATE: 10/14/05

SCS ENGINEERS  
CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676



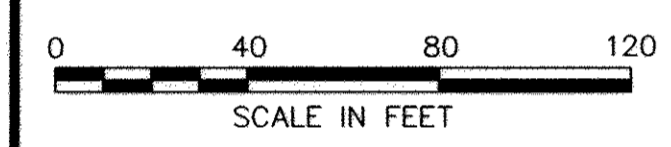
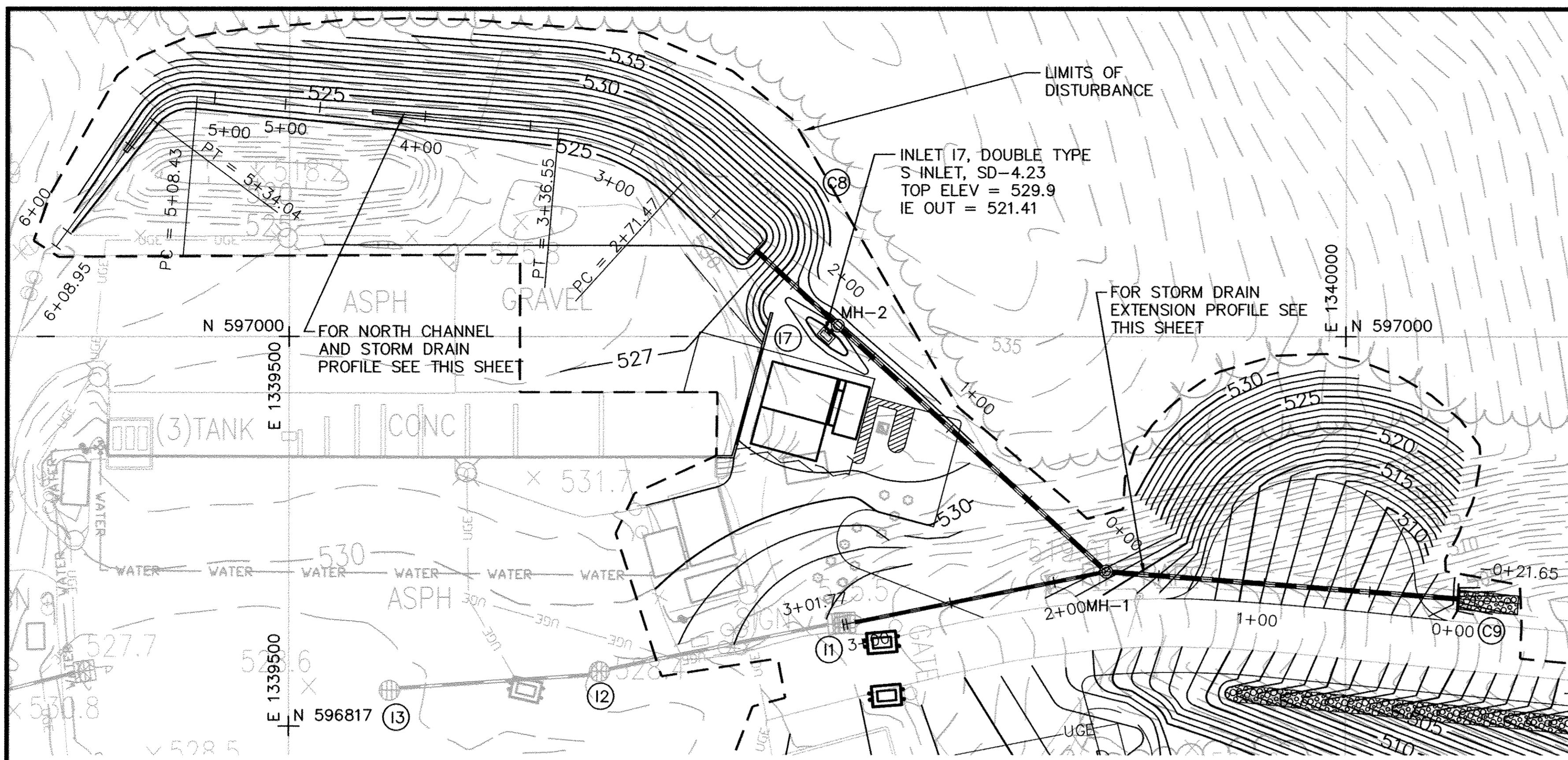
DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	DETAILS RELATED TO NEW WET POND RISER	
	REVISED SHEET NO.	1/13
DATE: 09/05	BY NO.	REVISION
		DATE

POND NO. 1  
MISCELLANEOUS DETAILS

REVISED SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION  
REVISED SITE DEVELOPMENT PLAN  
CAPITAL PROJECT NO. C-0299-A  
3rd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

EP-06-01  
SCALE: AS SHOWN  
SHEET 9 OF 24  
DATE: 10/28





NOTES:  
1. TRENCHING BEDDING FOR STORMDRAINS SHALL BE IN ACCORDANCE WITH HOWARD CO. G-2.01.

STRUCTURE SCHEDULE	
ID NO.	STANDARD DETAIL
MH-1	HOWARD CO. G-5.11
MH-2	HOWARD CO. G-5.11
I7	HOWARD CO. SD-4.23
C6	HOWARD CO. SD-5.42
C7	HOWARD CO. SD-5.42
C8	HOWARD CO. SD-5.21
C9	HOWARD CO. SD-5.21

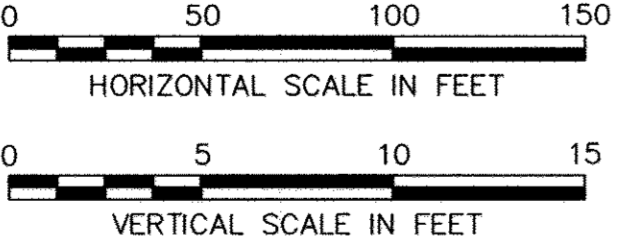
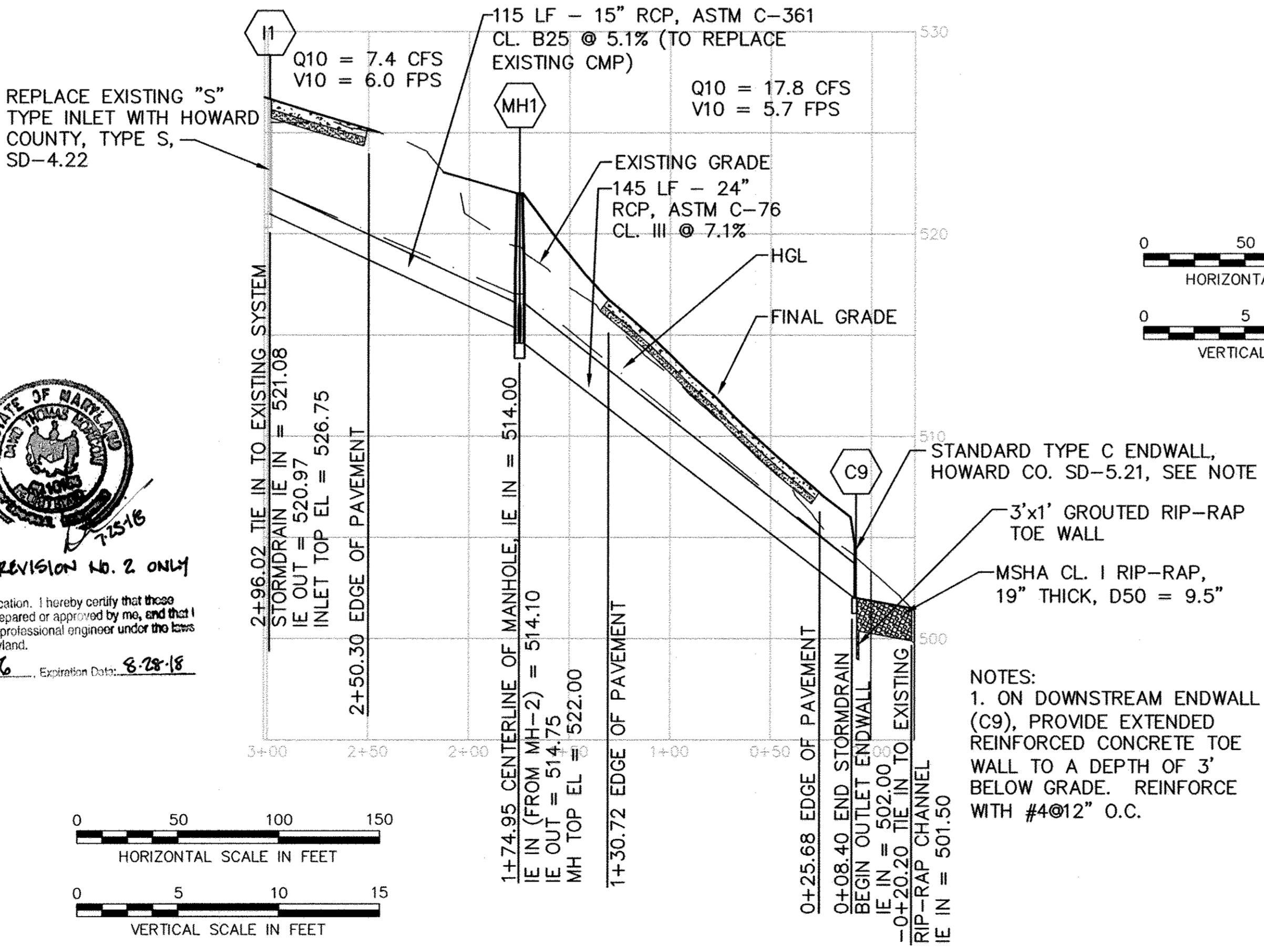


FOR REVISION NO. 2 ONLY  
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 16150, Expiration Date: 8-28-18

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/606 16-878/215 10-891/314	TAX/ZONE MAP 10 & 16
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING
CENSUS TR. 6030	

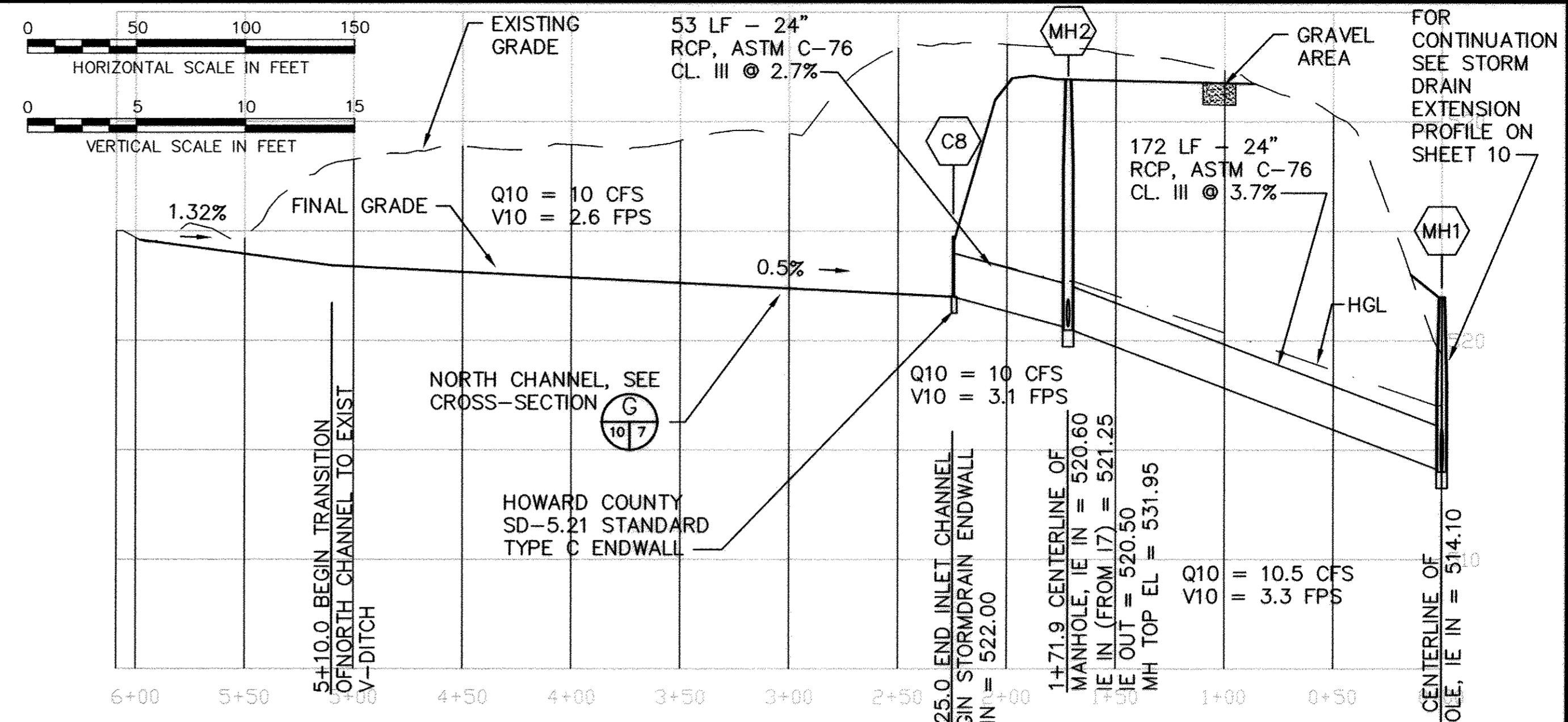
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

Director: *Frank DeLuca* DATE: 11/6/05  
Chief, Development Engineering Division: *John J. O'Hara* DATE: 11/2/05  
Chief, Division of Land Development: *John J. O'Hara* DATE: 11/2/05

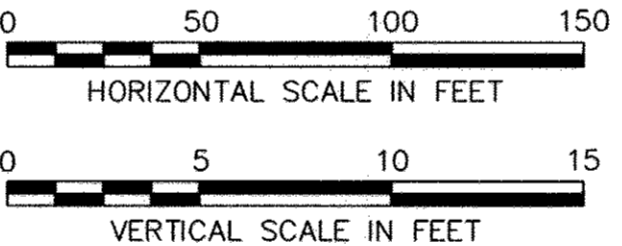
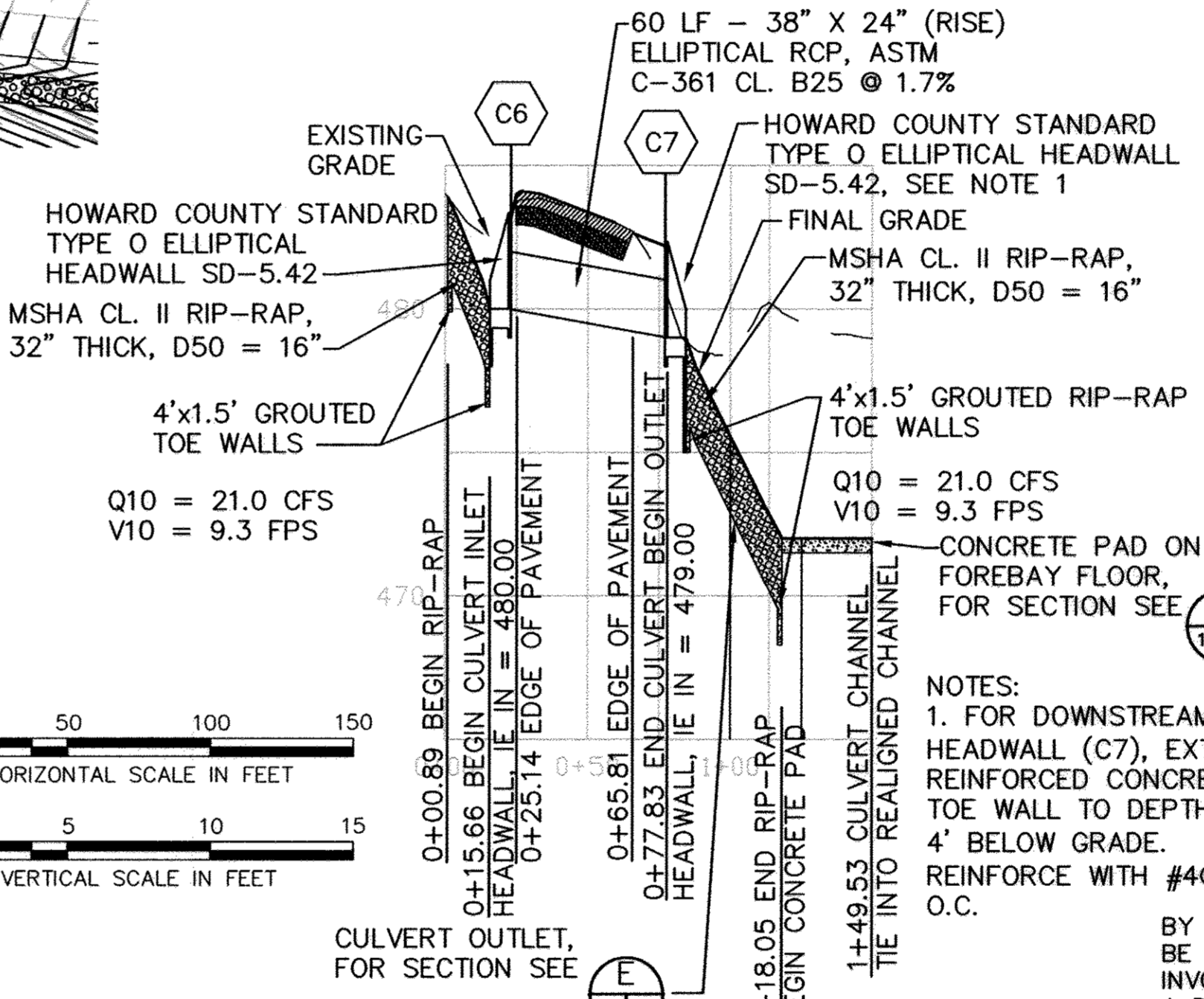


STORM DRAIN EXTENSION PROFILE

NOTES:  
1. ON DOWNSTREAM ENDWALL (C9), PROVIDE EXTENDED REINFORCED CONCRETE TOE WALL TO A DEPTH OF 3' BELOW GRADE. REINFORCE WITH #4@12" O.C.



NORTH CHANNEL AND STORM DRAIN PROFILE



C6 TO C7 CULVERT PROFILE

AS-BUILT CERTIFICATION  
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

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PIPE SCHEDULE				
FROM	TO	SIZE	TYPE	LENGTH
MH-1	C9	24"	RCP ASTM C-76 CL. III	145'
MH-1	I1	15"	RCP ASTM C-76 CL. III	115'
MH-1	MH-2	24"	RCP ASTM C-76 CL. III	172'
MH-2	C8	24"	RCP ASTM C-76 CL. III	53'
I7	MH-2	15"	RCP ASTM C-361 CL. B25	8'
C6	C7	38"x24"	RCP ASTM C-361 CL. B25	60'

SEDIMENT CONTROL & POND CONSTRUCTION  
BY THE DEVELOPER: "I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER: *John J. O'Hara* DATE: 10/11/05  
PRINT NAME BELOW SIGNATURE: JOHN J. O'HARA

BY THE ENGINEER: "I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER: *Michael R. Grodzinski* DATE: 10/11/05  
PRINT NAME BELOW SIGNATURE: MICHAEL R. GRODZINSKI

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

USDA - NATURAL RESOURCES CONSERVATION SERVICE  
DATE: 10/25/05

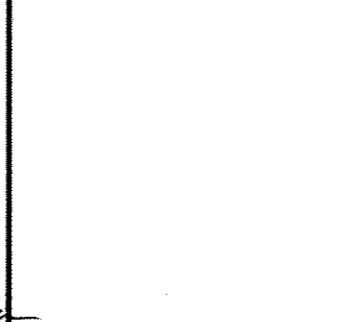
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT  
DATE: 10/25/05

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director: *John J. O'Hara* DATE: 10/11/05  
Chief, Bureau of Environmental Services: *John J. O'Hara* DATE: 10/11/05

SCS ENGINEERS  
CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676



DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	EXPANDED STORM DRAIN PLAN AND PROFILE & NEW ROAD CULVERT PROFILE	
DATE: 09/05	REVISED SHEET NO.	1/13
BY NO.	REVISION	DATE

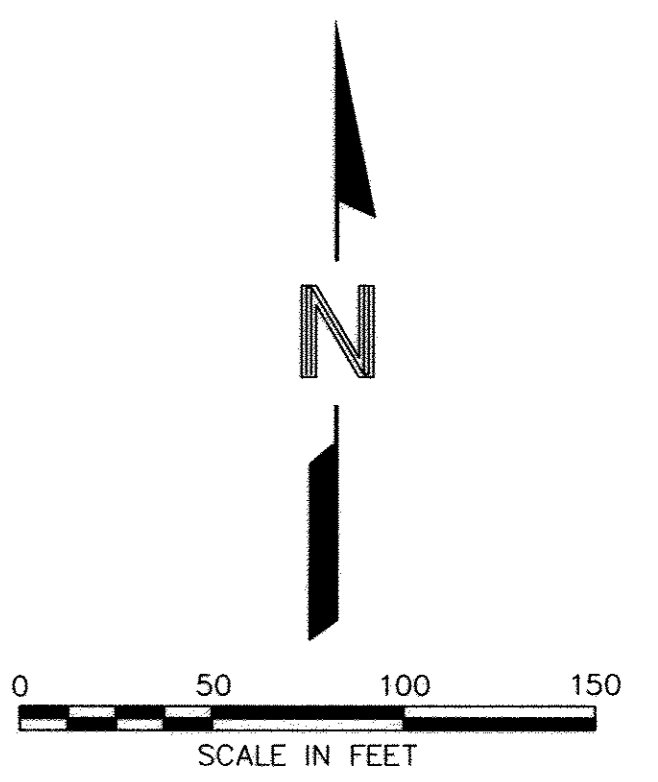
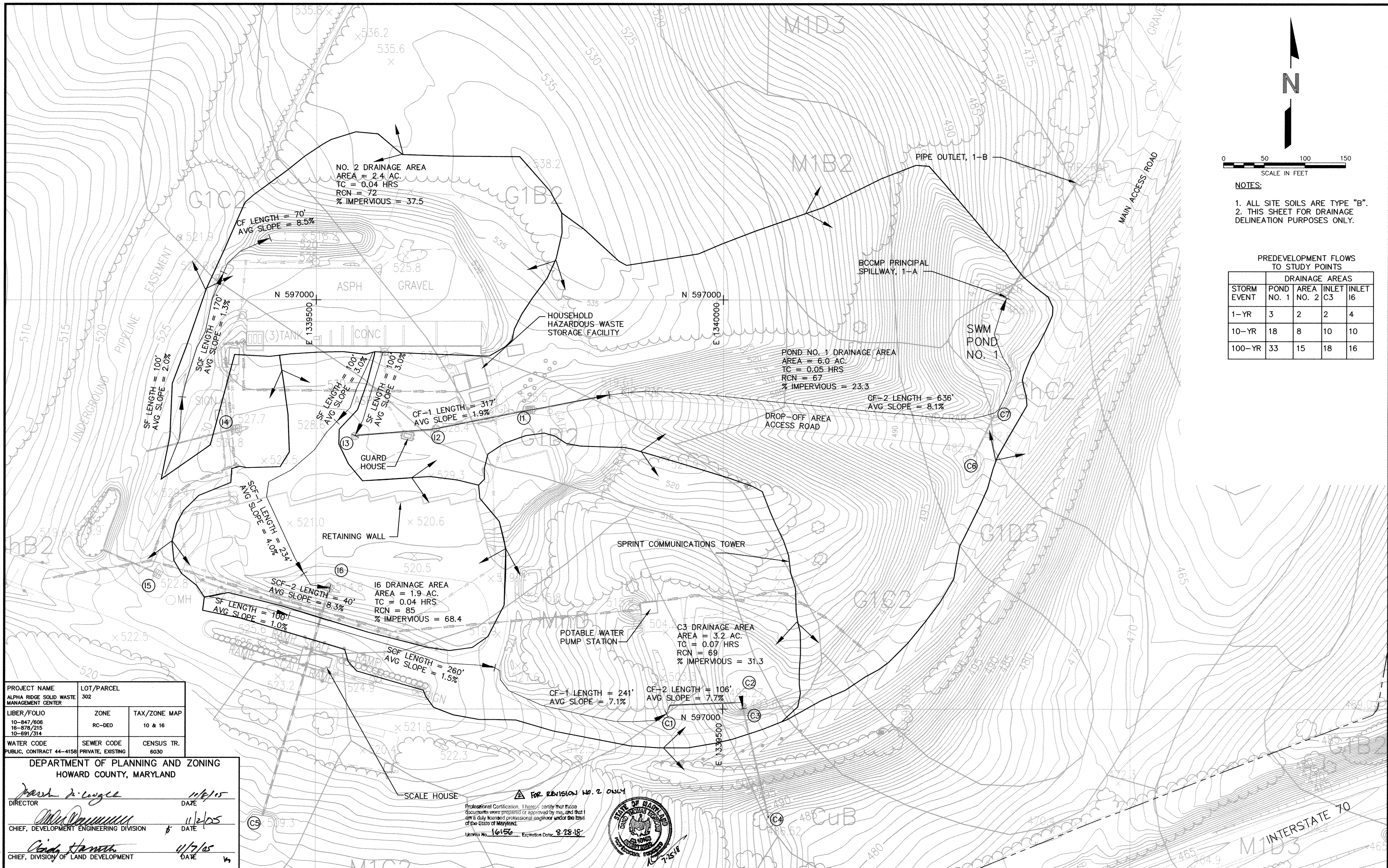
STORM DRAIN SYSTEM PLAN AND PROFILES

REVISED SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION  
REVISED SITE DEVELOPMENT PLAN  
CAPITAL PROJECT NO. C-0299-A

3rd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

EP-06-01  
SCALE: AS SHOWN  
SHEET 10 OF 24





NOTES:  
 1. ALL SITE SOILS ARE TYPE "B".  
 2. THIS SHEET FOR DRAINAGE DELINEATION PURPOSES ONLY.

PREDEVELOPMENT FLOWS TO STUDY POINTS

STORM EVENT	DRAINAGE AREAS			
	POND NO. 1	AREA NO. 2	C3	INLET 16
1-YR	3	2	2	4
10-YR	18	8	10	10
100-YR	33	15	18	16

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/806 16-876/215 10-691/314	ZONE RC-DEO
WATER CODE PUBLIC, CONTRACT 44-4158	TAX/ZONE MAP 10 & 16
SEWER CODE PRIVATE, EXISTING	CENSUS TR. 6030

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

*Mark P. Longle* 11/1/05  
 DIRECTOR DATE

*Michael D. ...* 11/2/05  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Cindy ...* 11/7/05  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 16156 Expiration Date: 8-28-18

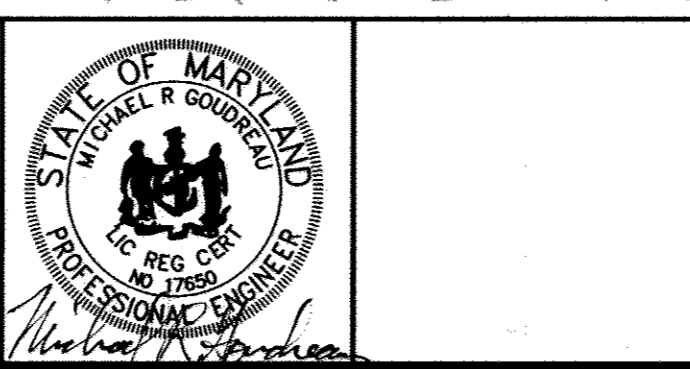


DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*James ...* 10/14/05  
 DIRECTOR OF PUBLIC WORKS DATE

*John ...* 10/14/05  
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

SCS ENGINEERS  
 CONSULTING ENGINEERS  
 11260 ROGER BACON DRIVE  
 SUITE 300  
 RESTON, VIRGINIA 20190  
 PH. (703) 471-6150  
 FAX. (703) 471-6676



DES.	AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN.	AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK.	PAM/MRG	DRAINAGE AREAS BEFORE DEVELOPMENT	
		REVISED SHEET NO.	7/1/05
DATE:	09/05	BY NO.	REVISION
			DATE

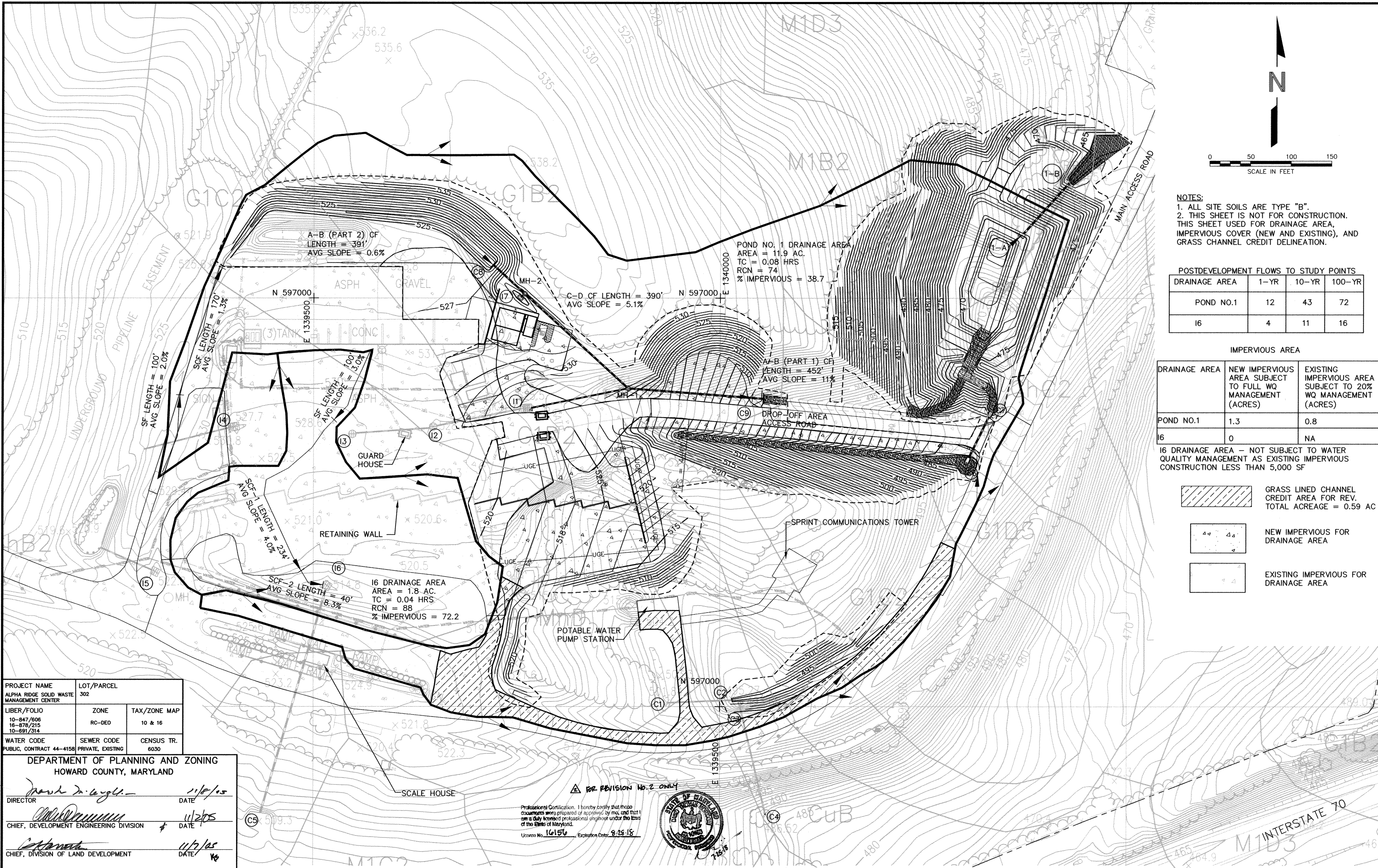
DRAINAGE AREA MAP  
 PREDEVELOPMENT

REVISED SITE DEVELOPMENT PLAN  
 ALPHA RIDGE LANDFILL  
 RESIDENTS' DROP-OFF AREA EXPANSION  
 REVISED SITE DEVELOPMENT PLAN  
 CAPITAL PROJECT NO. C-0299-A  
 3rd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

EP-06-01  
 SCALE:  
 AS SHOWN  
 SHEET  
 11 OF 24

SDP-90-37  
 EP-06-01





NOTES:  
 1. ALL SITE SOILS ARE TYPE "B".  
 2. THIS SHEET IS NOT FOR CONSTRUCTION. THIS SHEET USED FOR DRAINAGE AREA, IMPERVIOUS COVER (NEW AND EXISTING), AND GRASS CHANNEL CREDIT DELINEATION.

POSTDEVELOPMENT FLOWS TO STUDY POINTS

DRAINAGE AREA	1-YR	10-YR	100-YR
POND NO.1	12	43	72
16	4	11	16

IMPERVIOUS AREA

DRAINAGE AREA	NEW IMPERVIOUS AREA SUBJECT TO FULL WQ MANAGEMENT (ACRES)	EXISTING IMPERVIOUS AREA SUBJECT TO 20% WQ MANAGEMENT (ACRES)
POND NO.1	1.3	0.8
16	0	NA

16 DRAINAGE AREA - NOT SUBJECT TO WATER QUALITY MANAGEMENT AS EXISTING IMPERVIOUS CONSTRUCTION LESS THAN 5,000 SF

- GRASS LINED CHANNEL CREDIT AREA FOR REV. TOTAL ACREAGE = 0.59 AC
- NEW IMPERVIOUS FOR DRAINAGE AREA
- EXISTING IMPERVIOUS FOR DRAINAGE AREA

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/806 16-878/215 10-691/314	ZONE RC-DEO
WATER CODE PUBLIC, CONTRACT 44-4158	TAX/ZONE MAP 10 & 16
SEWER CODE PRIVATE, EXISTING	CENSUS TR. 6030

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

Director: *Mark D. Long* DATE: 11/10/05  
 Chief, Development Engineering Division: *Michael* DATE: 11/2/05  
 Chief, Division of Land Development: *John* DATE: 11/2/05

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Director of Public Works: *John* DATE: 10/14/05  
 Chief, Bureau of Environmental Services: *John O'Hara* DATE: 10/14/05

SCS ENGINEERS  
 CONSULTING ENGINEERS  
 11260 ROGER BACON DRIVE  
 SUITE 300  
 RESTON, VIRGINIA 20190  
 PH. (703) 471-6150  
 FAX. (703) 471-6676



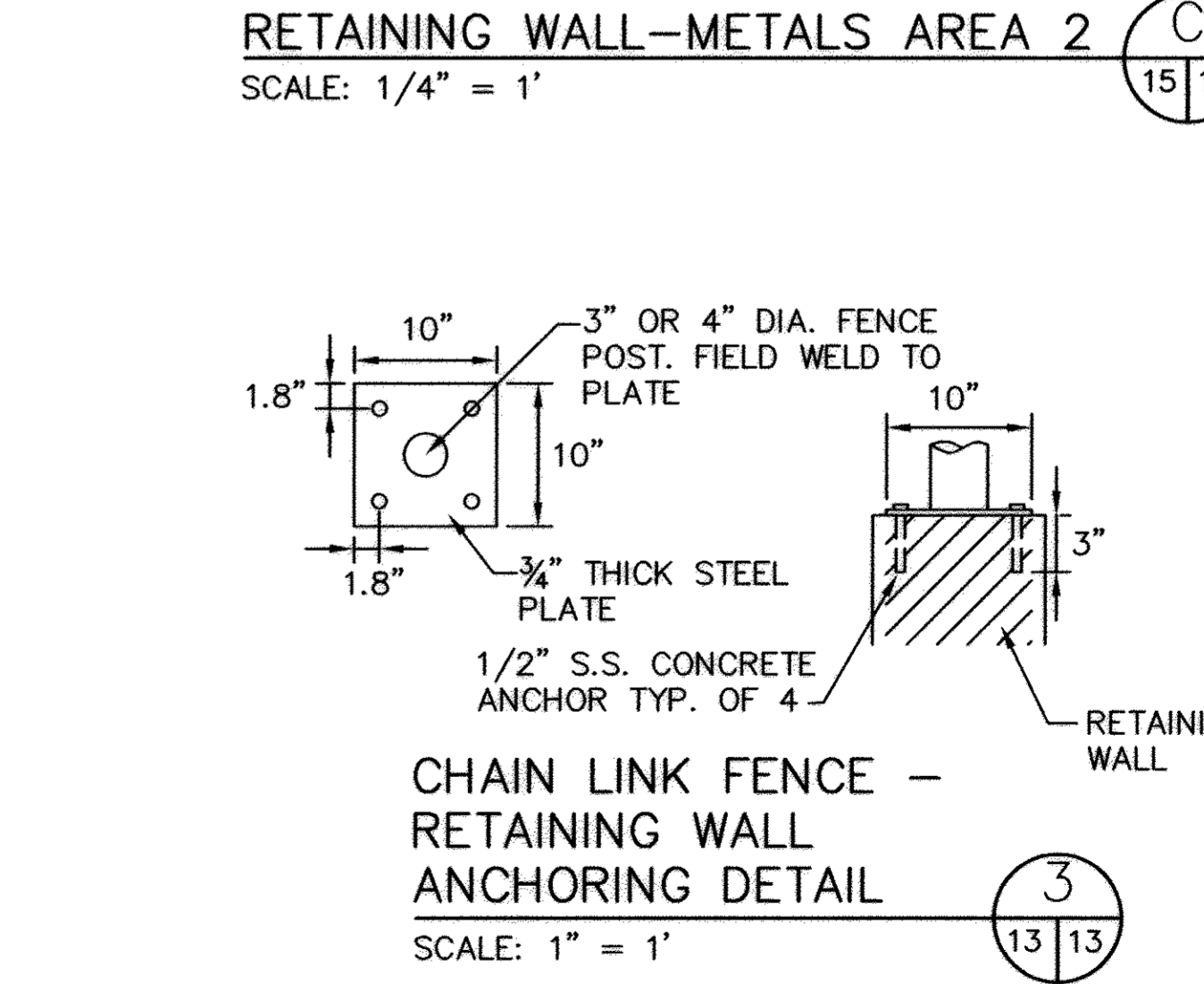
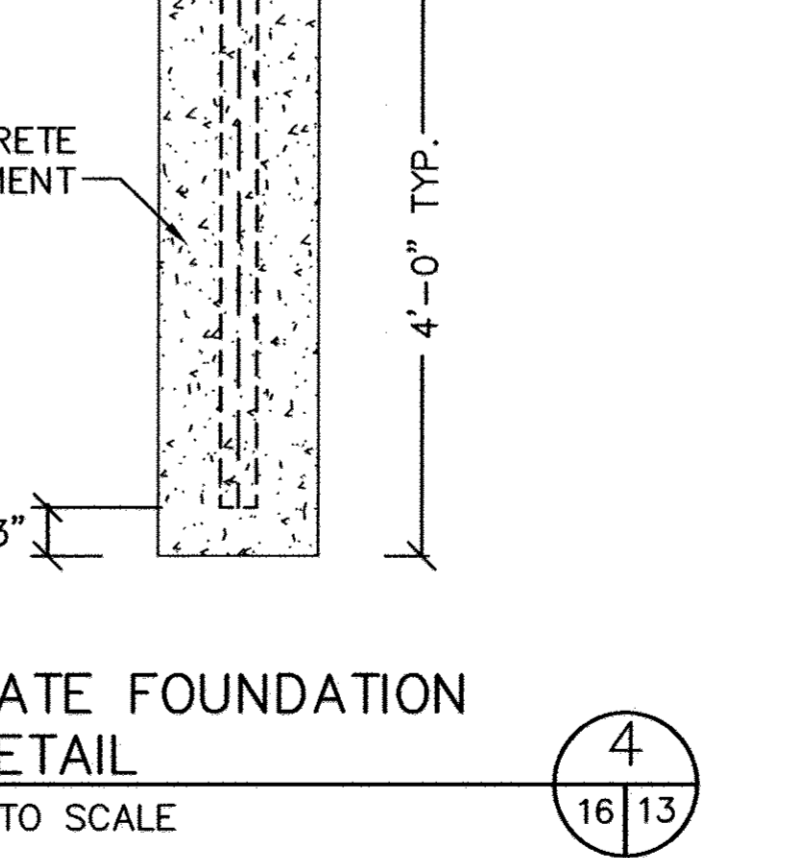
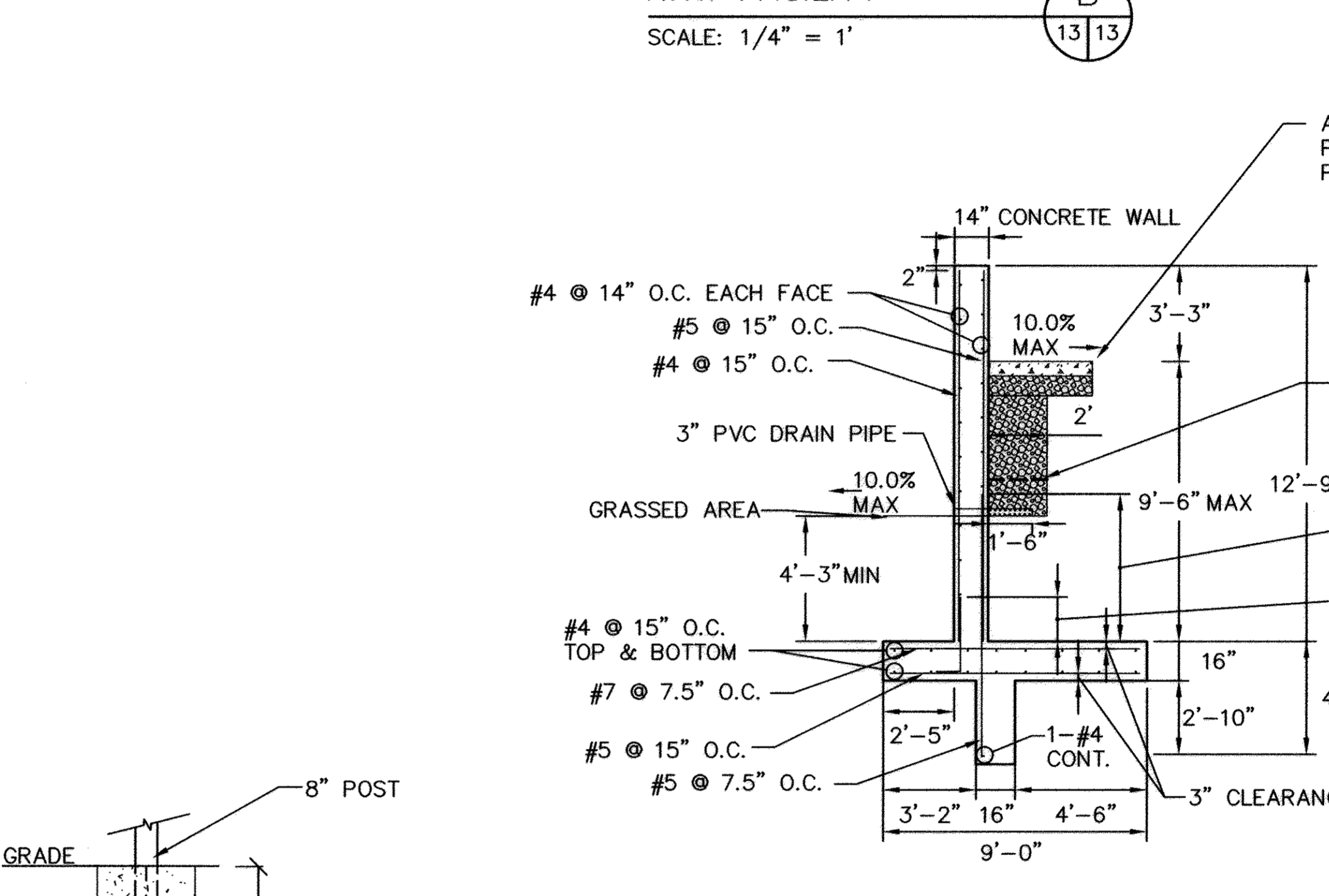
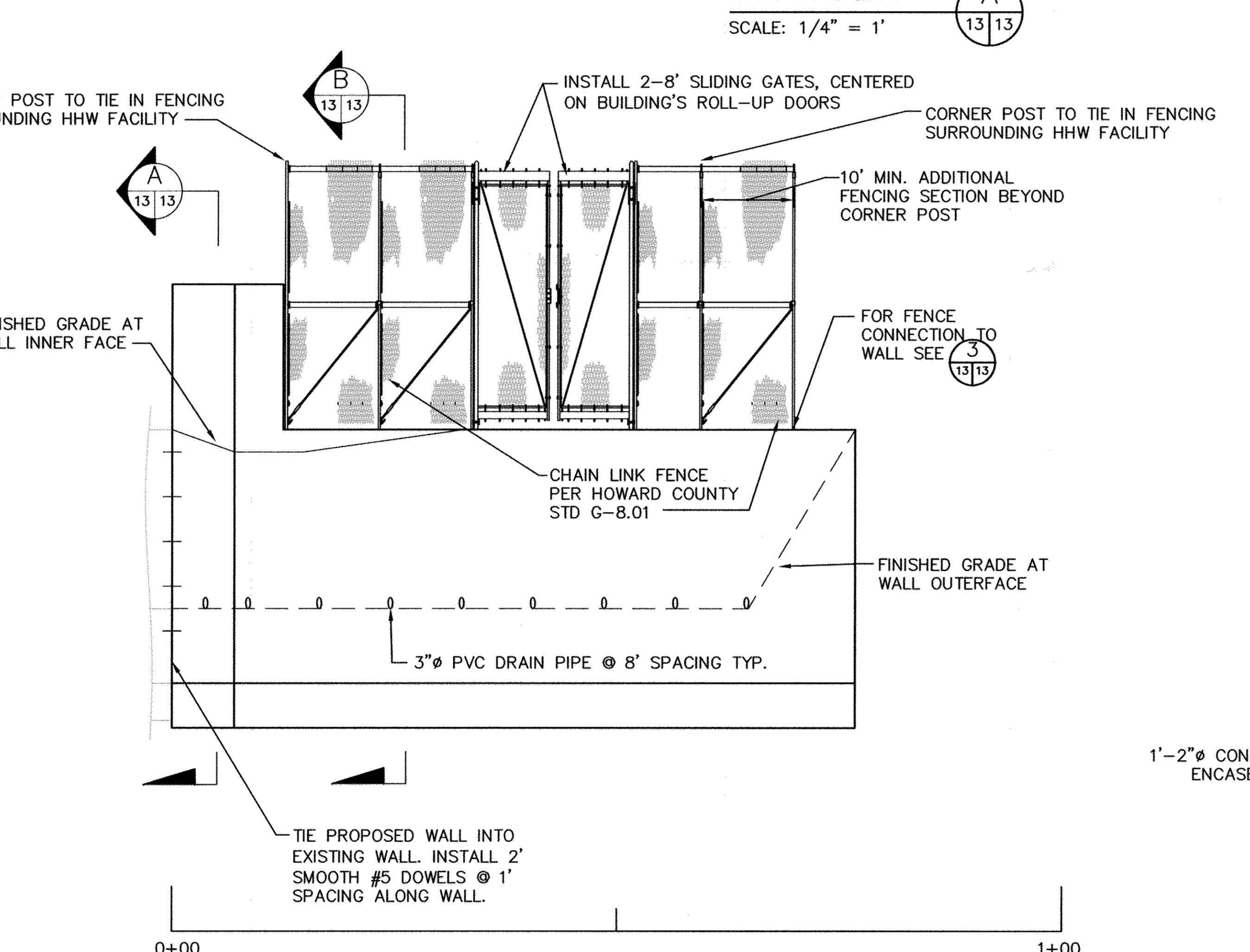
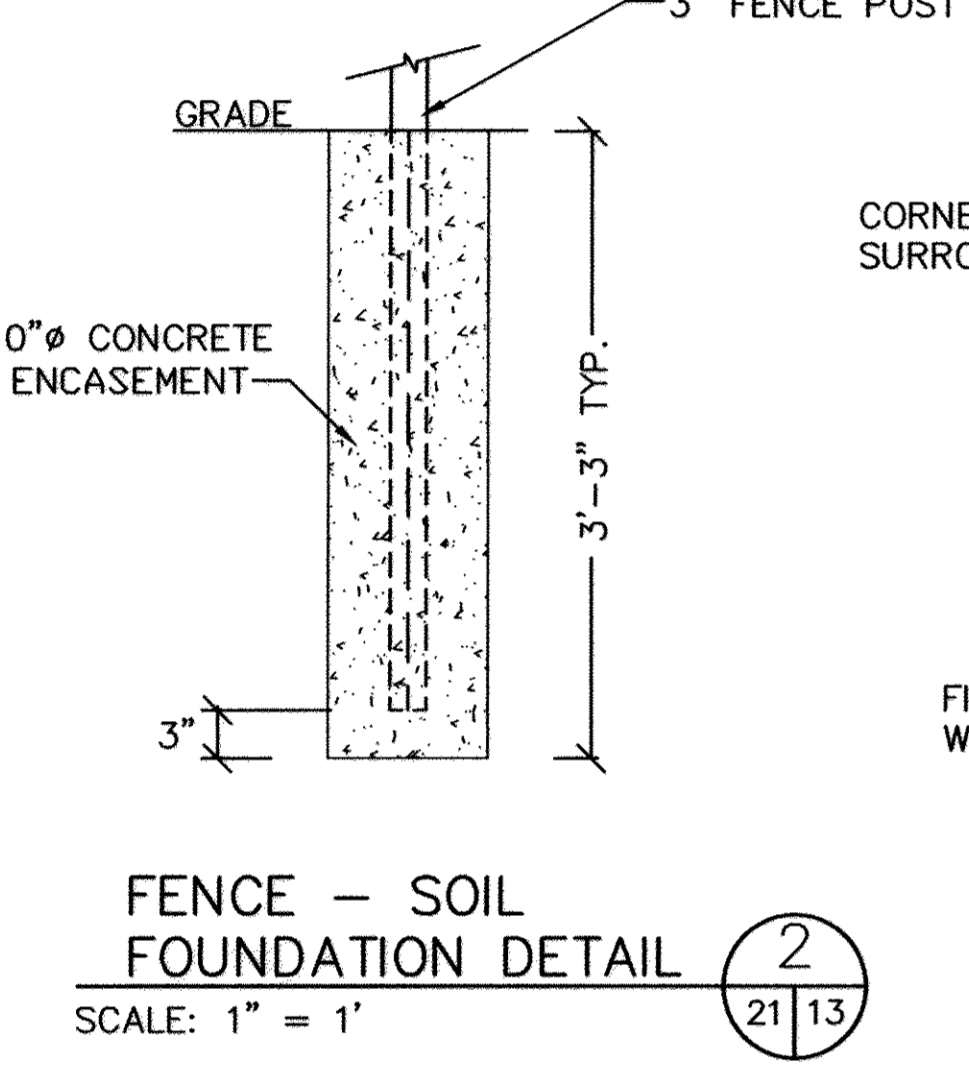
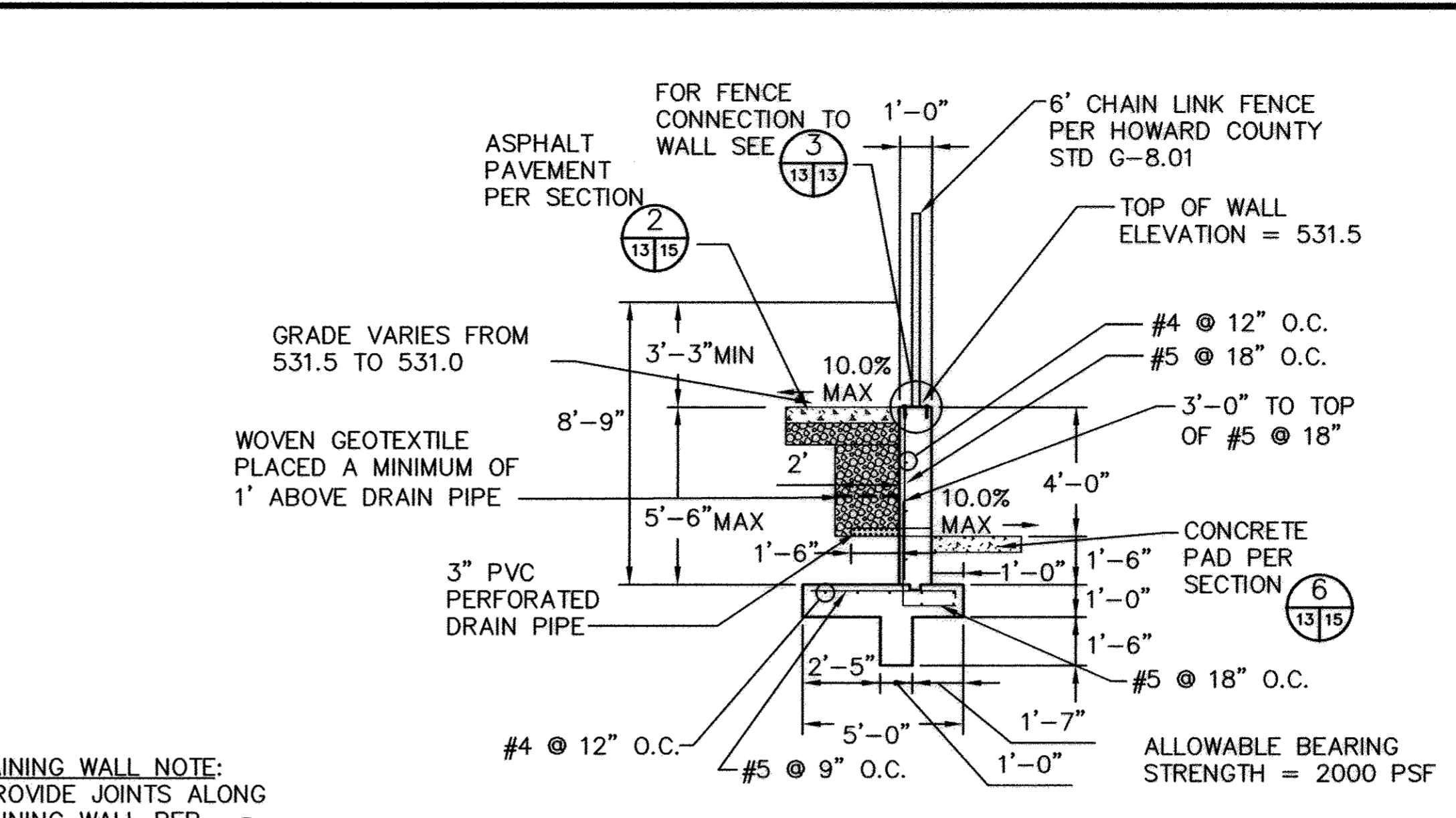
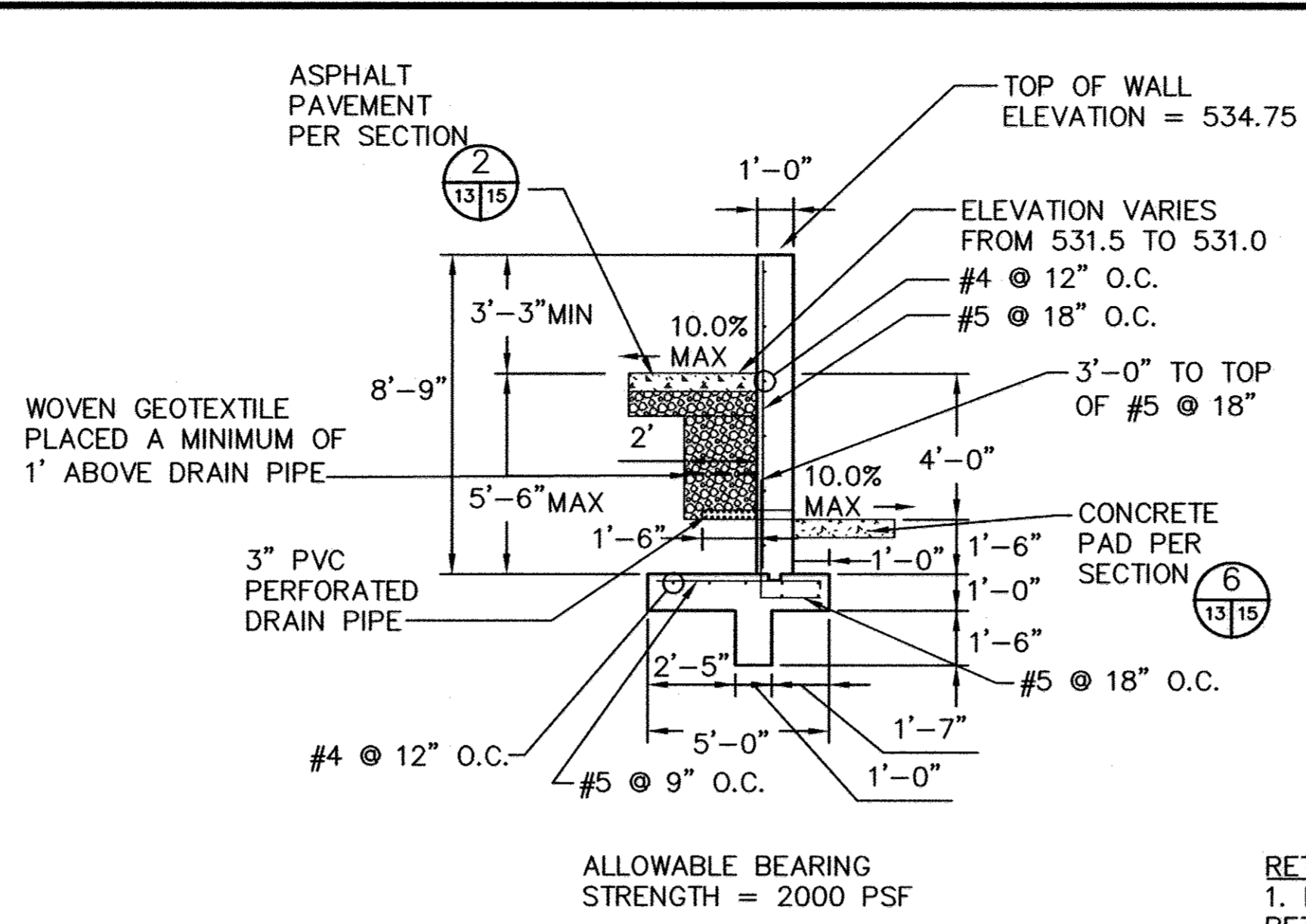
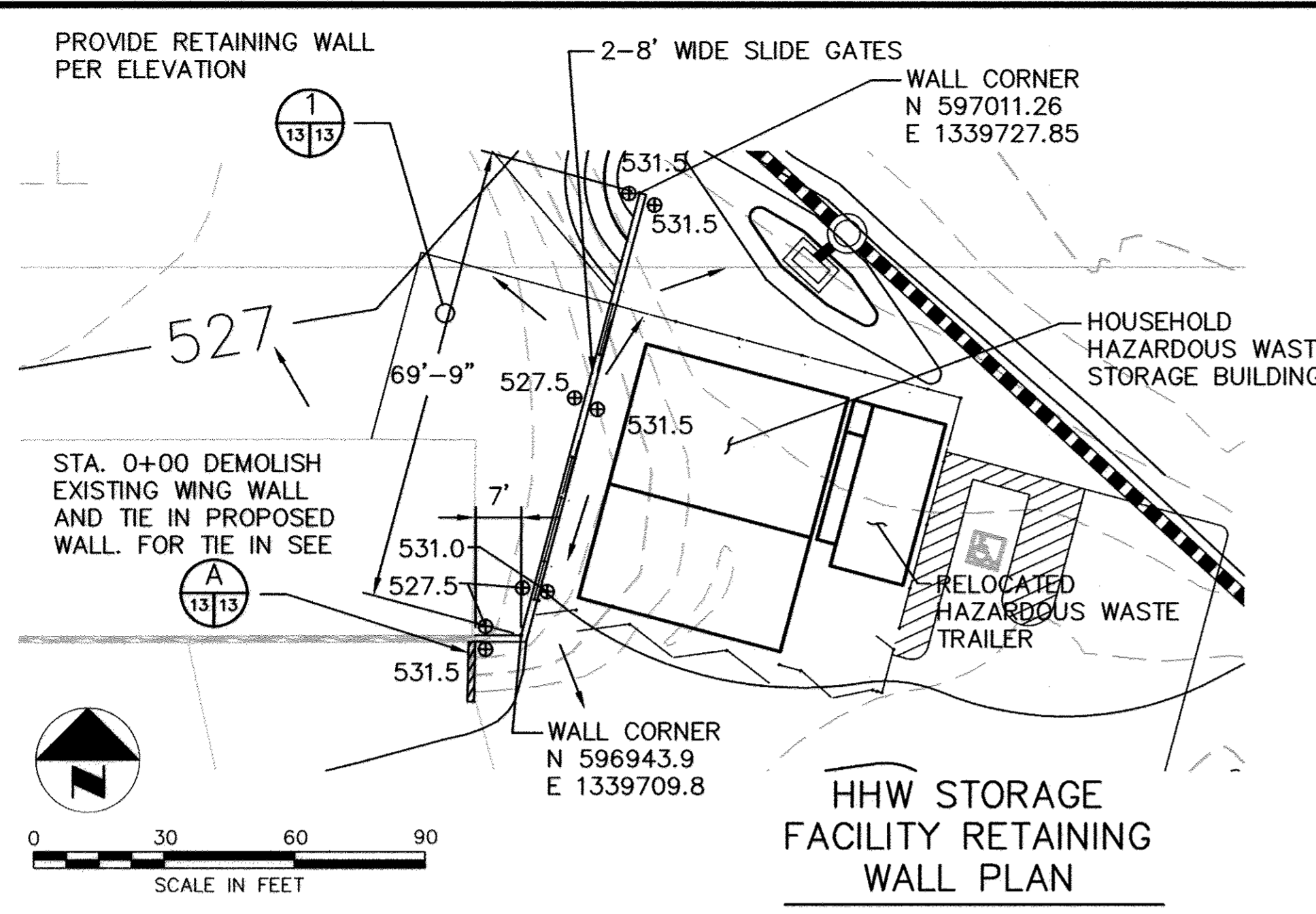
DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	DRAINAGE AREAS AFTER DEVELOPMENT	
DATE: 09/05	REVISED SHEET No.	1/18
BY NO.	REVISION	DATE

DRAINAGE AREA MAP  
 POSTDEVELOPMENT

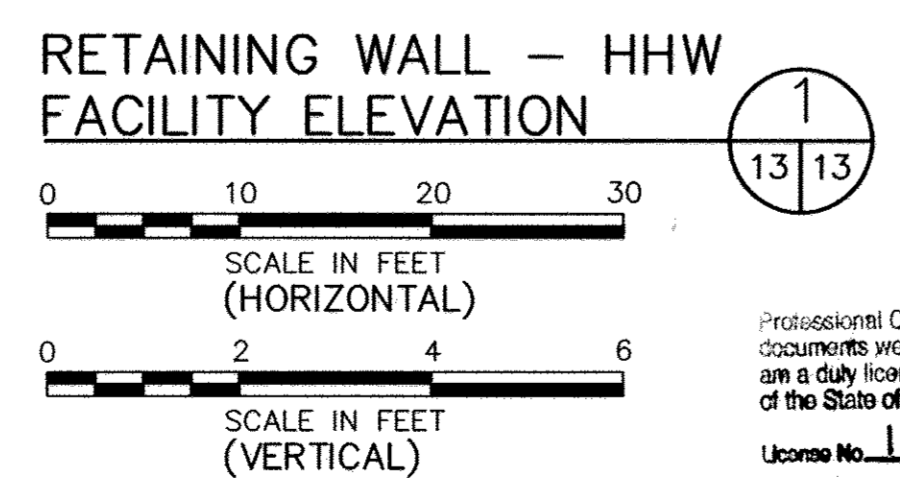
REVISED SITE DEVELOPMENT PLAN  
 ALPHA RIDGE LANDFILL  
 RESIDENTS' DROP-OFF AREA EXPANSION  
 REVISED SITE DEVELOPMENT PLAN  
 CAPITAL PROJECT NO. C-0299-A  
 3rd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

EP-06-01  
 SCALE: AS SHOWN  
 SHEET 12 of 24  
 A28





PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER		LOT/PARCEL 302	
LIBER/FOLIO 10-847/806 16-878/215 10-891/314	ZONE RC-DEO	TAX/ZONE MAP 10 & 16	
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING	CENSUS TR. 6030	
DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND			
Paul R. Gargan DIRECTOR		11/15/05 DATE	
John J. ... CHIEF, DEVELOPMENT ENGINEERING DIVISION		11/2/05 DATE	
Linda ... CHIEF, DIVISION OF LAND DEVELOPMENT		11/7/05 DATE	



FOR REVISION NO. 2 ONLY

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. 16156, Expiration Date: 8-18-18

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		SCS ENGINEERS CONSULTING ENGINEERS 11260 ROGER BACON DRIVE SUITE 300 RESTON, VIRGINIA 20190 PH. (703) 471-6150 FAX. (703) 471-6676	
John J. ... DIRECTOR OF PUBLIC WORKS		John J. ... CHIEF, BUREAU OF ENVIRONMENTAL SERVICES	
10/14/05 DATE		10/19/05 DATE	

DES. AST	10/7/05
DRN. AST	
CHK. PAM/MRG	
DATE: 09/05	
BY NO.	REVISION
	DATE

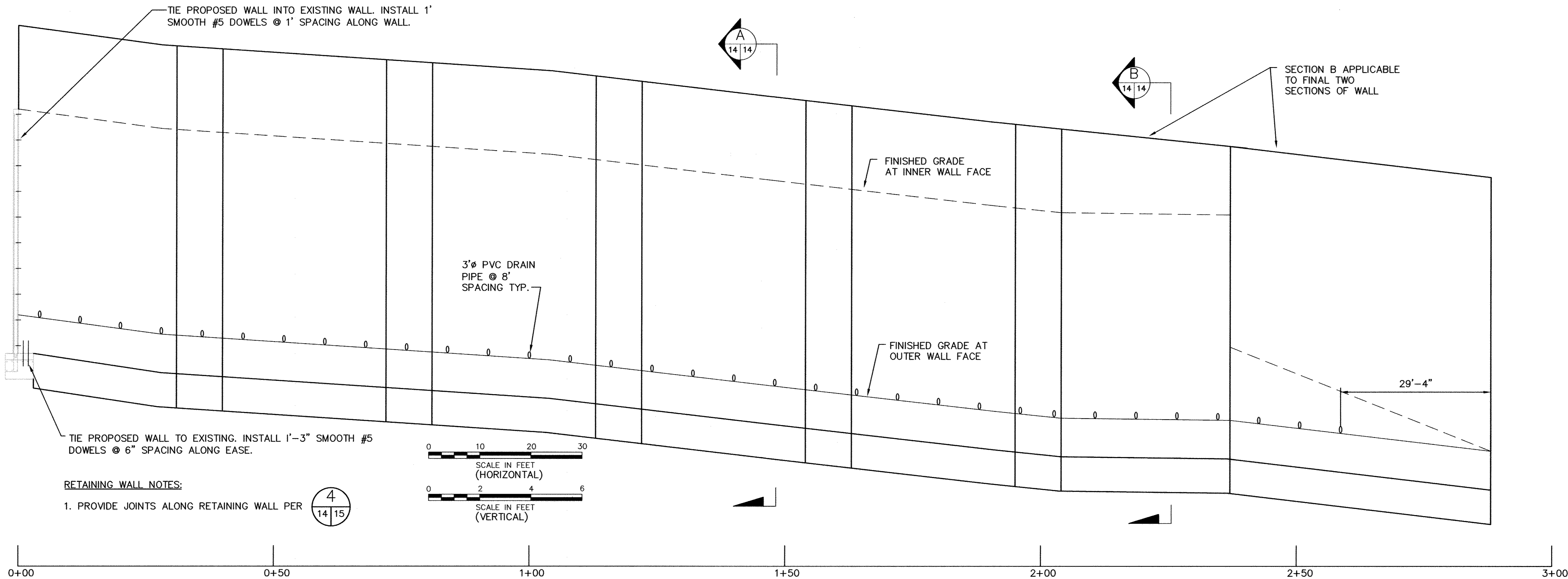
RETAINING WALL PLANS AND DETAILS	
THE PURPOSE OF THE REVISED SDP IS TO DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS: HHW FACILITY RETAINING WALL PLAN, PROFILE, AND SECTIONS. REVISED SHEET NO. 1/18	

REVISED SITE DEVELOPMENT PLAN ALPHA RIDGE LANDFILL RESIDENTS' DROP-OFF AREA EXPANSION REVISED SITE DEVELOPMENT PLAN CAPITAL PROJECT NO. C-0299-A 3rd ELECTION DISTRICT	
HOWARD COUNTY, MARYLAND	

EP-06-01
SCALE: AS SHOWN
SHEET 13 OF 28

SDP-90-37  
6-06-01



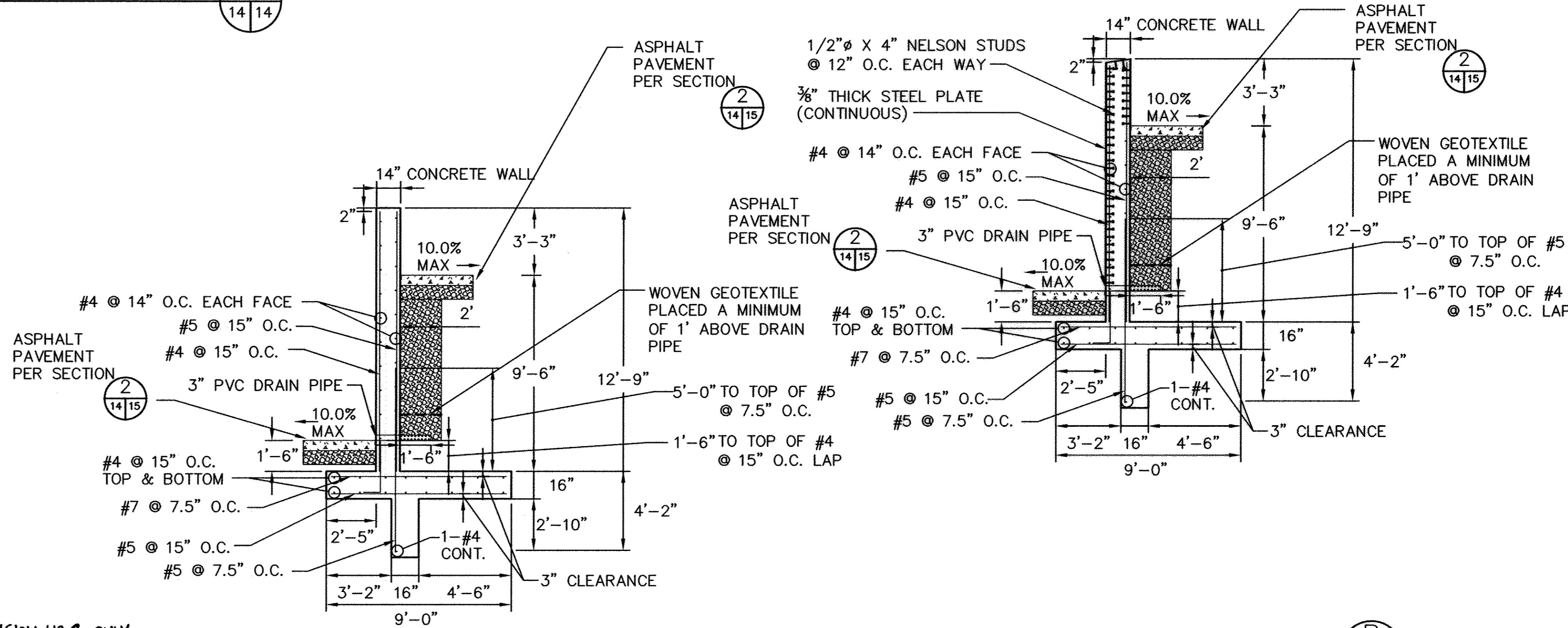
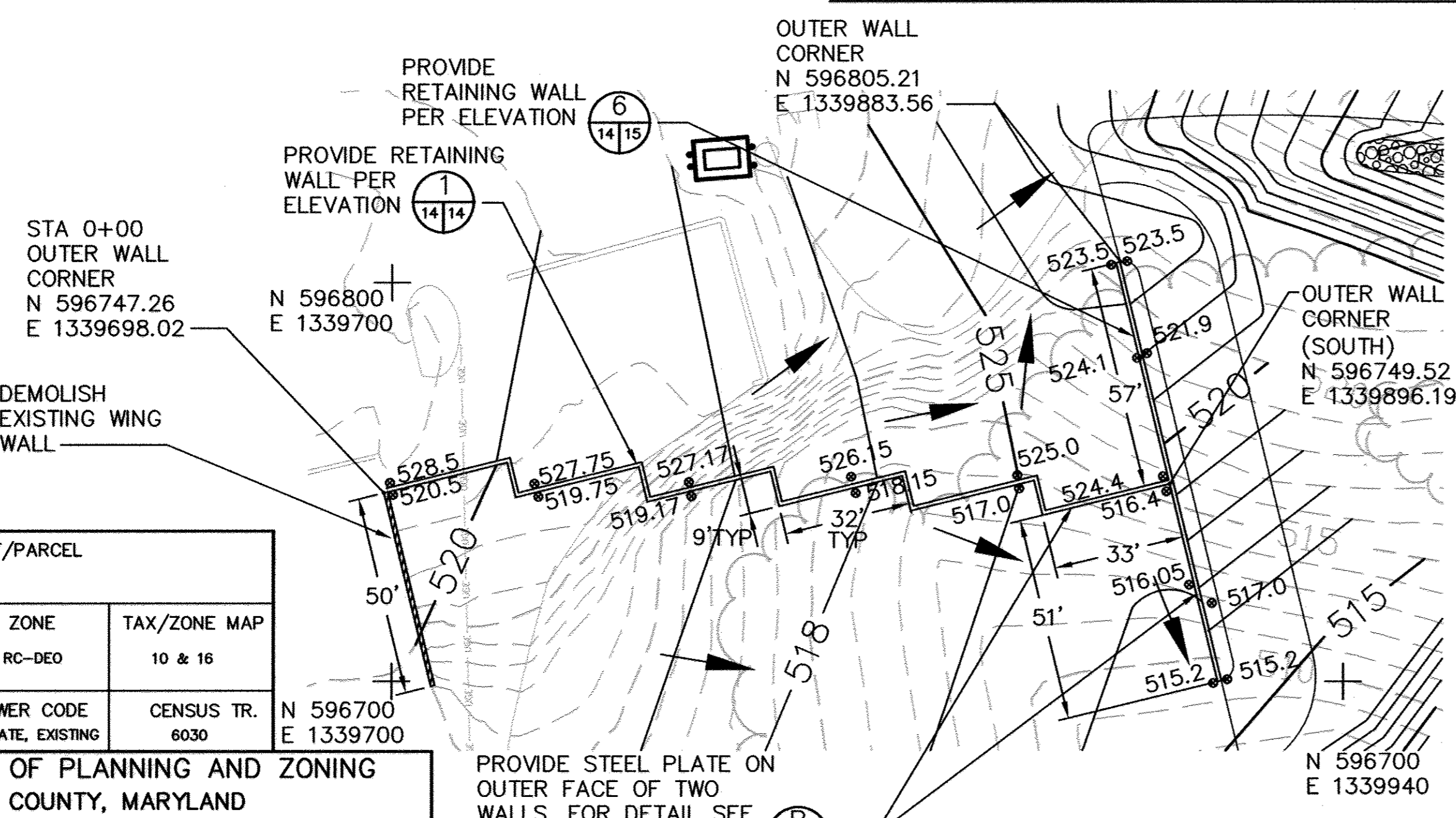
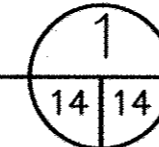


**RETAINING WALL NOTES:**

- 1. PROVIDE JOINTS ALONG RETAINING WALL PER



**RETAINING WALL ELEVATION—SOUTH DROP-OFF AREA**



PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER		LOT/PARCEL 302	
LIBER/FOLIO 10-847/806 16-878/215 10-891/314	ZONE RC-DEO	TAX/ZONE MAP 10 & 16	
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING	CENSUS TR. 6030	N 596700 E 1339700

**DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND**

Director: *Frank K. Lyle* DATE: 11/2/05  
 Chief, Development Engineering Division: *Chris Dammus* DATE: 11/2/05  
 Chief, Division of Land Development: *Windy Hunt* DATE: 11/2/05



**HHW STORAGE FACILITY  
RETAINING WALL PLAN**

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. 16156, Expiration Date: 8-28-18



**RETAINING WALL - DROP-OFF AREA**



**RETAINING WALL—METALS AREA**



SCALE: 1/4" = 1'

**DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND**

Director of Public Works: *James J. O'Hara* DATE: 10/14/05  
 Chief, Bureau of Environmental Services: *John J. O'Hara* DATE: 10/14/05

**SCS ENGINEERS**  
 CONSULTING ENGINEERS  
 11260 ROGER BACON DRIVE  
 SUITE 300  
 RESTON, VIRGINIA 20190  
 PH. (703) 471-6150  
 FAX. (703) 471-6676



DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	DROP-OFF BAY PLAN, RETAINING WALL PROFILE AND SECTIONS	
DATE: 09/05	REVISED SHEET NO.	1/15
BY NO.	REVISION	DATE

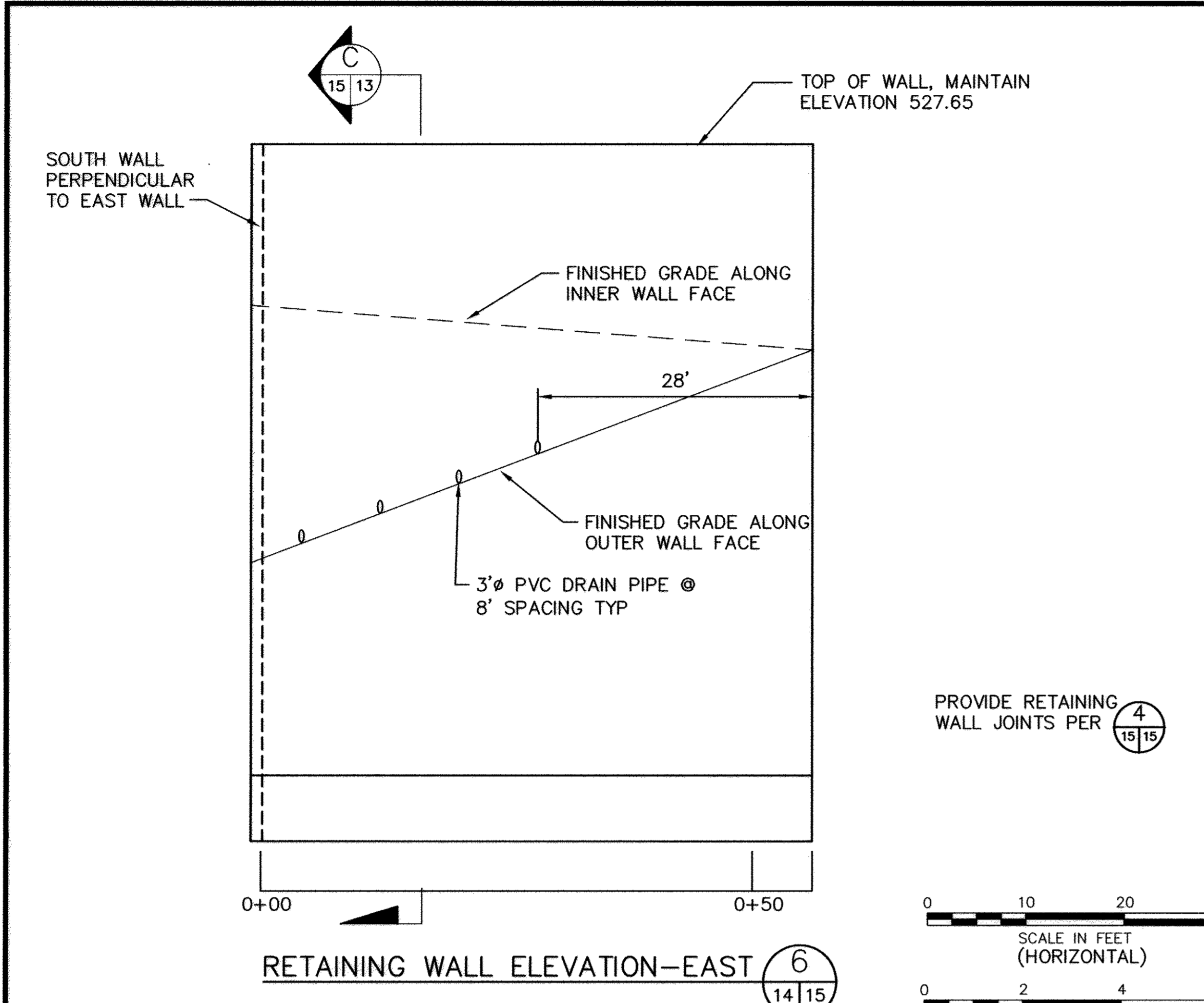
**RETAINING WALL PLANS AND DETAILS-2**

**REVISED SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION**  
 REVISED SITE DEVELOPMENT PLAN  
 CAPITAL PROJECT NO. C-0299-A  
 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

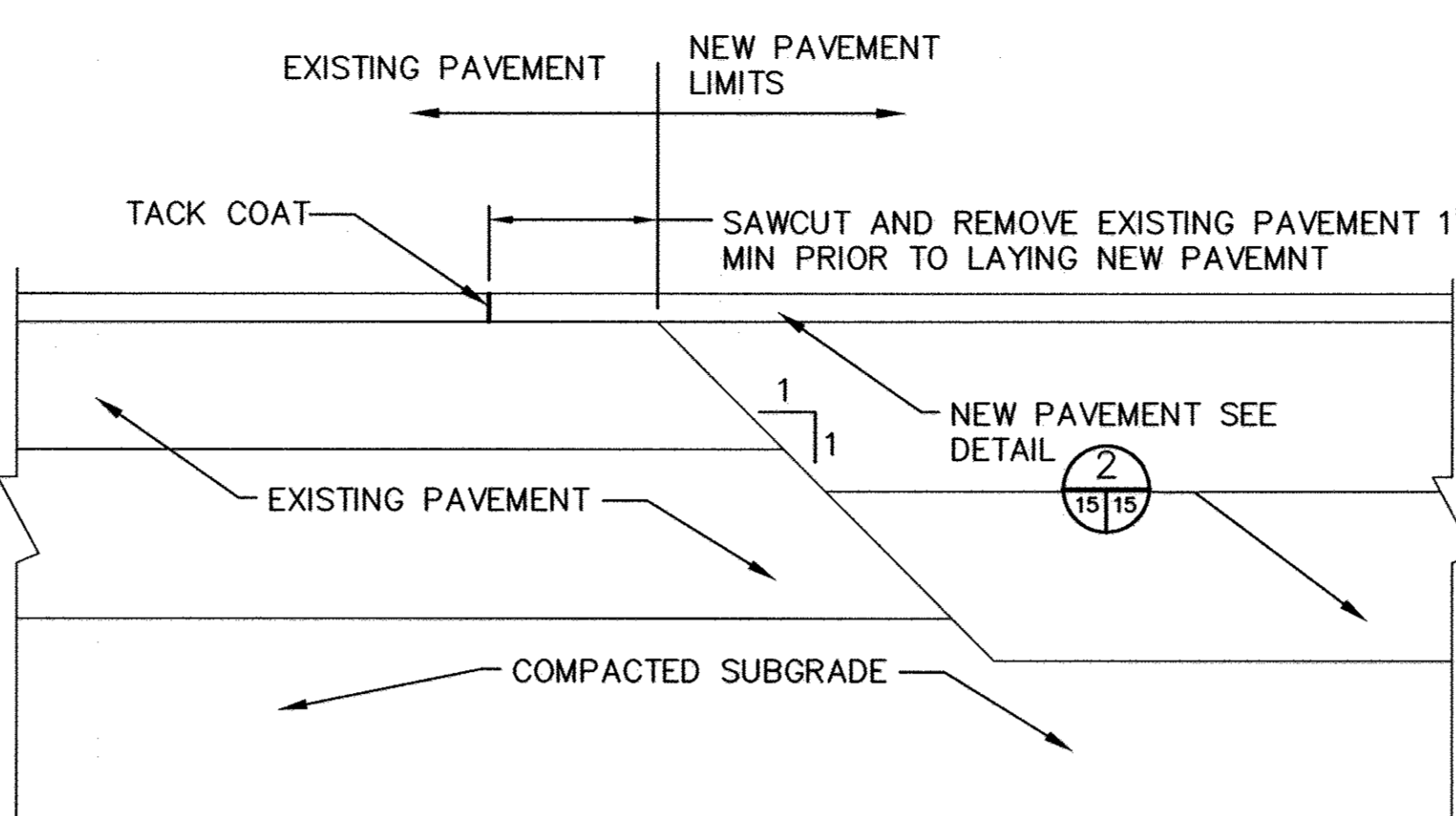
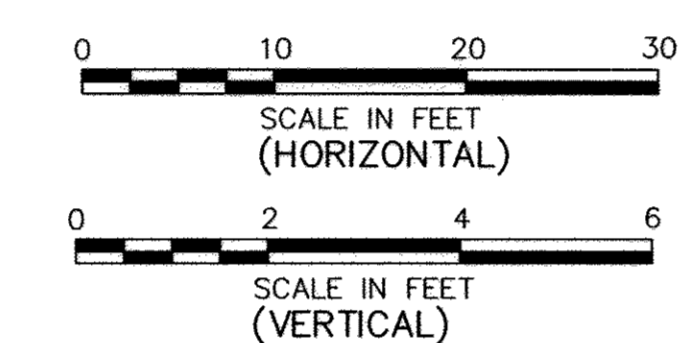
EP-06-01  
 SCALE: AS SHOWN  
 SHEET 14 OF 24  
 A28

SDP-90-37  
EP-06-01

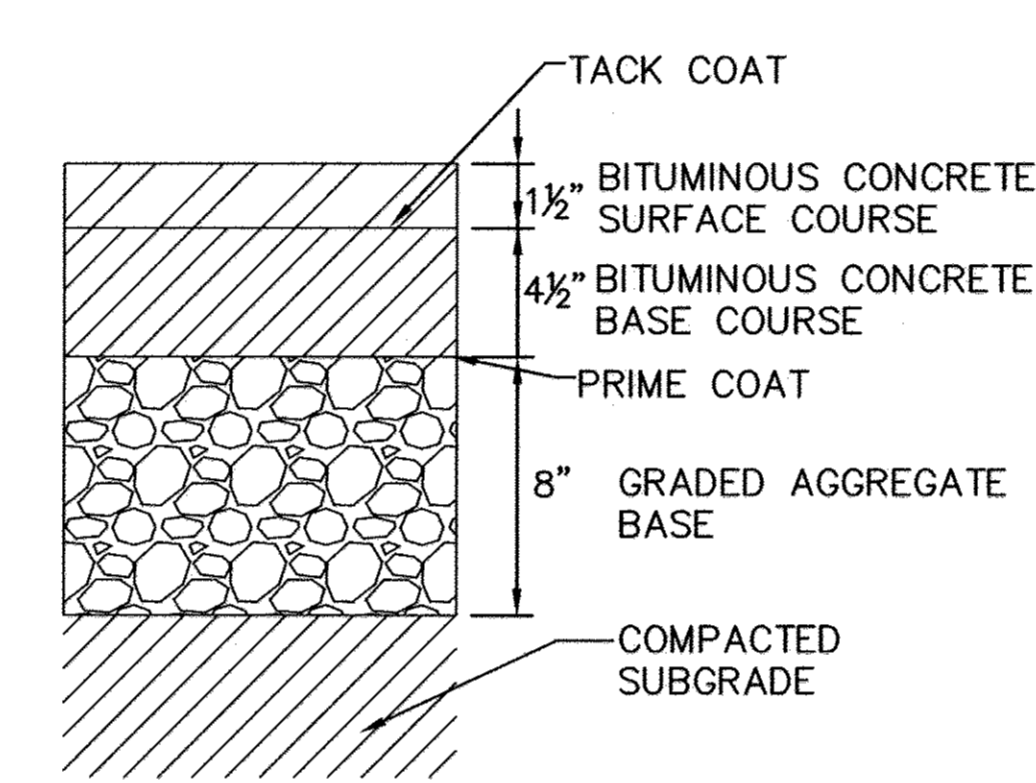




PROVIDE RETAINING WALL JOINTS PER

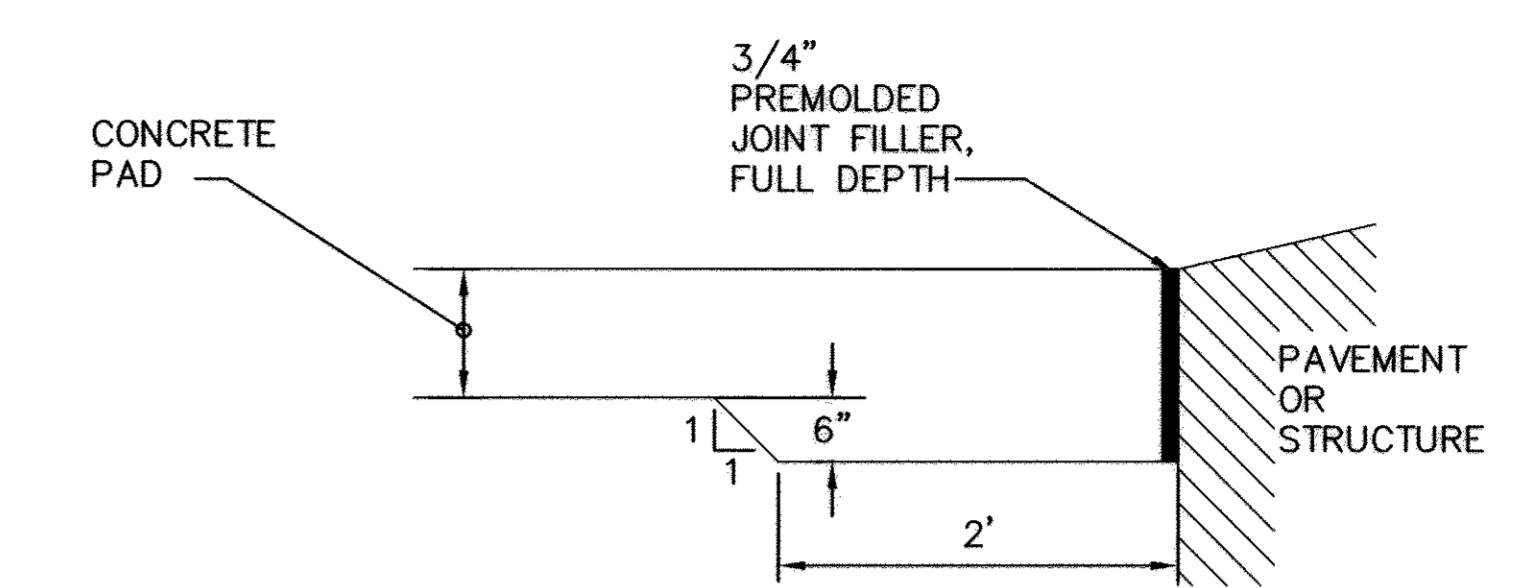


EXISTING TO NEW PAVEMENT CONNECTION DETAIL

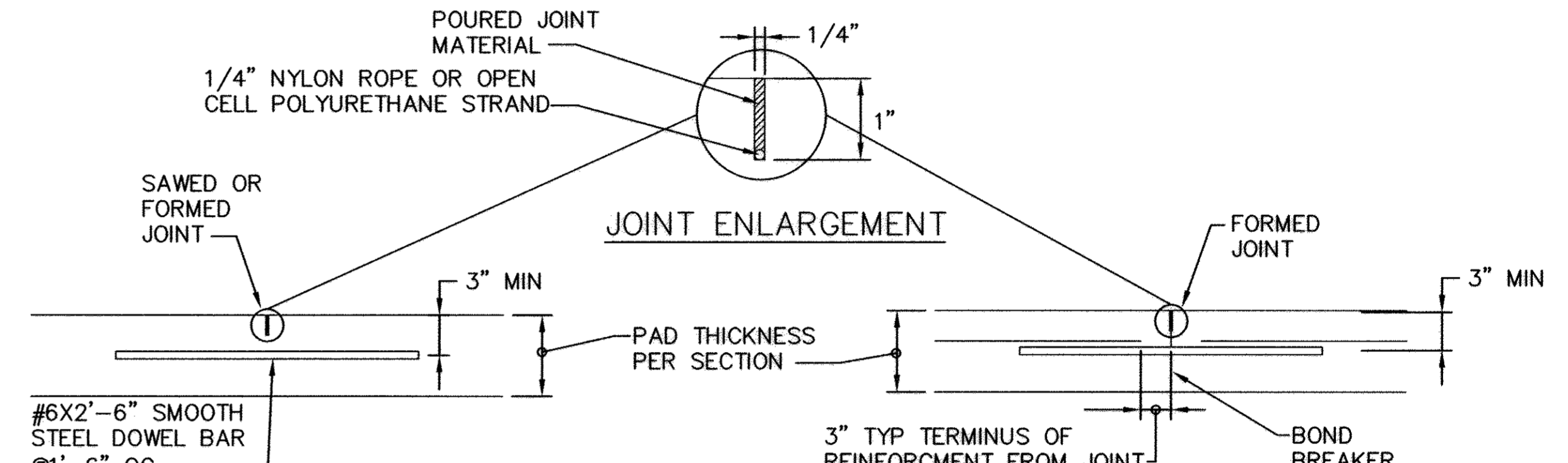


EQUIVALENT TO HOWARD CO. P-3 PAVEMENT (R-201)

ASPHALT PAVEMENT TYPICAL SECTION



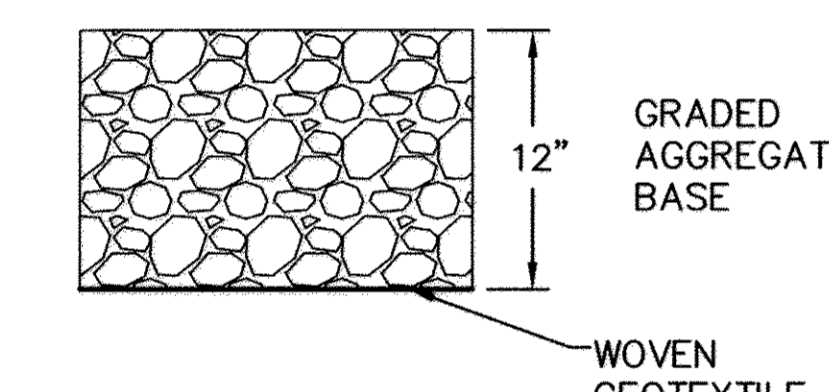
CONCRETE PAVEMENT EDGE



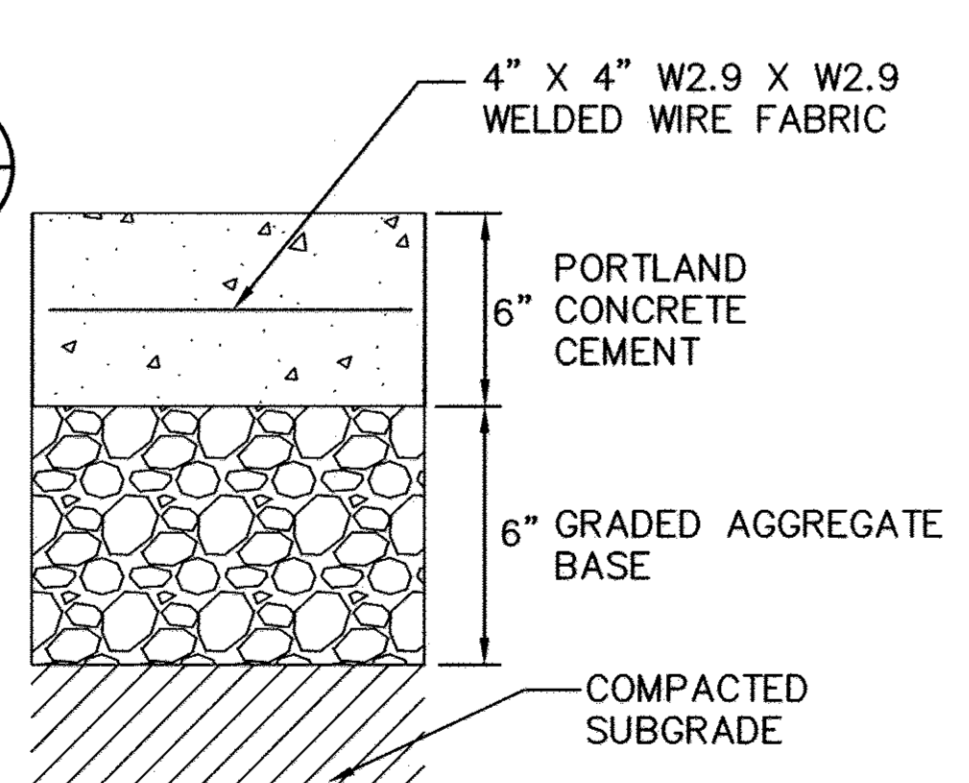
CONTRACTION JOINT

CONSTRUCTION JOINT

1. PROVIDE COMPACTED SUBGRADE IN AREAS FOR CONCRETE PADS PRIOR TO CONSTRUCTION.
2. CONCRETE USED FOR PAVEMENT TO HAVE AIR ENTRAINMENT FOR OUTDOOR USE.
3. REINFORCING STEEL PER CONCRETE PAD SECTIONS.
4. ALONG EDGES OF CONCRETE PAD THE SLAB THICKNESS SHALL BE INCREASED AS SHOWN ON SECTIONS.
5. CONTRACTION JOINTS ARE REQUIRED TO BE SAW-CUT OR FORMED AS SHOWN. UNLESS MONOLITHIC CONSTRUCTION IS NOTED, THE LENGTH BETWEEN CONTRACTION JOINTS IS NOT TO EXCEED A MAXIMUM DISTANCE OF 30'. SMOOTH STEEL DOWELS ARE REQUIRED ACROSS CONTRACTION JOINTS AS SHOWN.

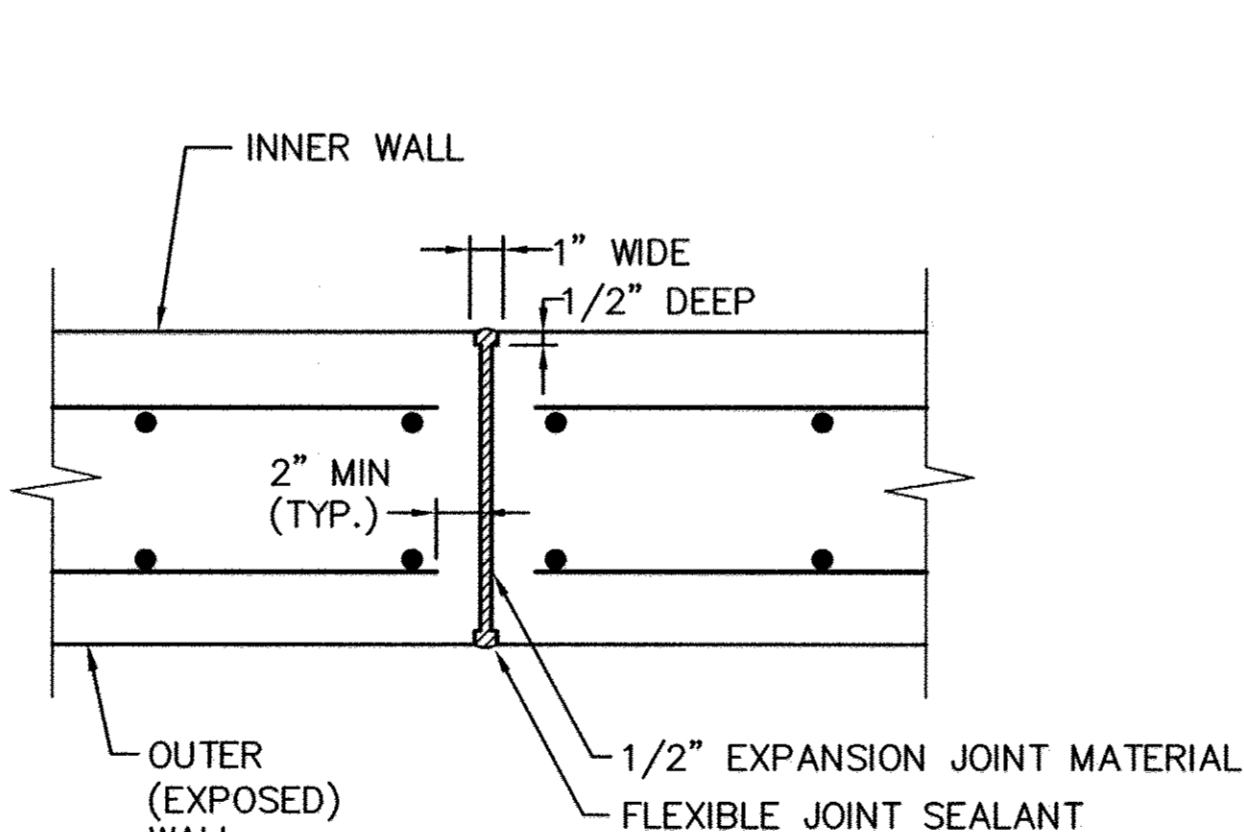


GRAVEL AREA TYPICAL SECTION

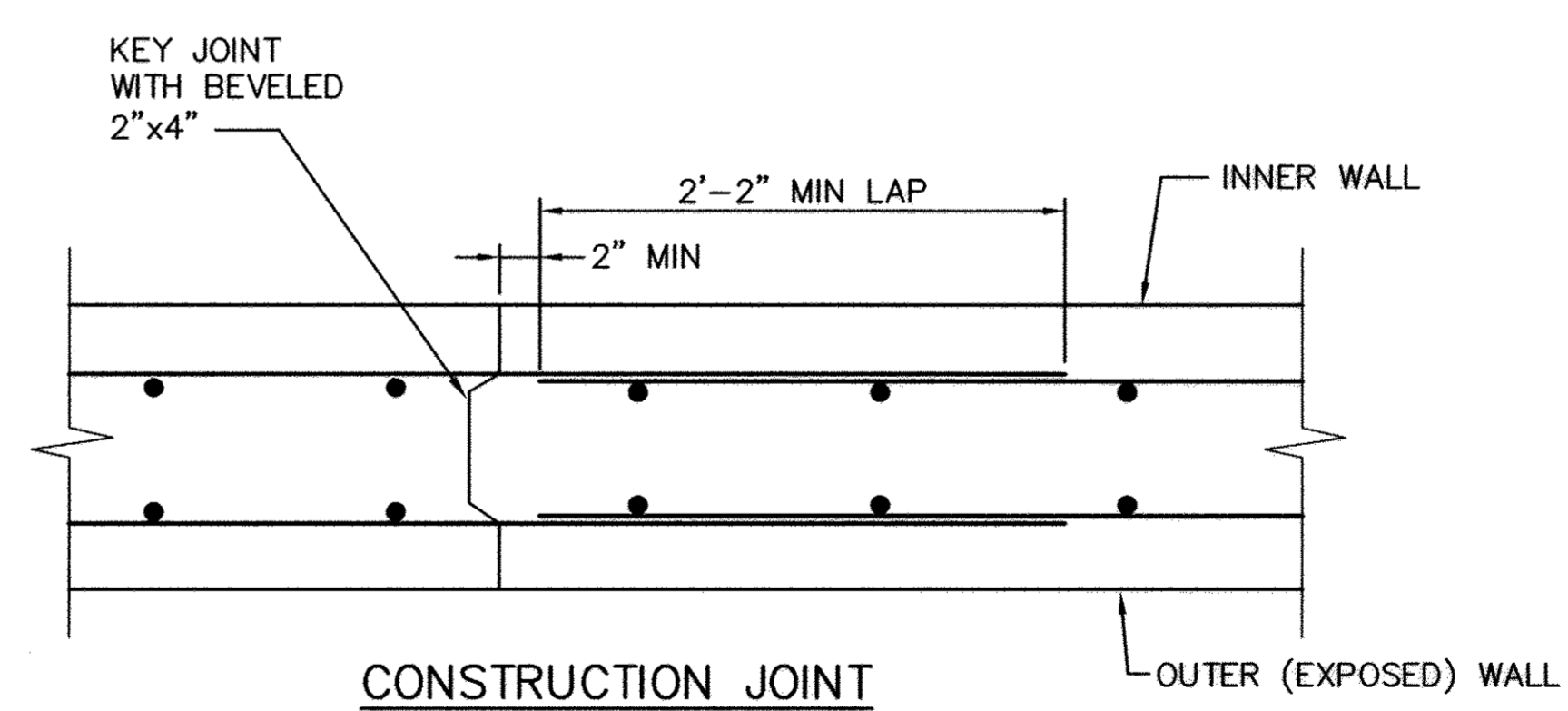


NOTE: FOR PAD/FOUNDATION JOINTS SEE

CONCRETE PAD

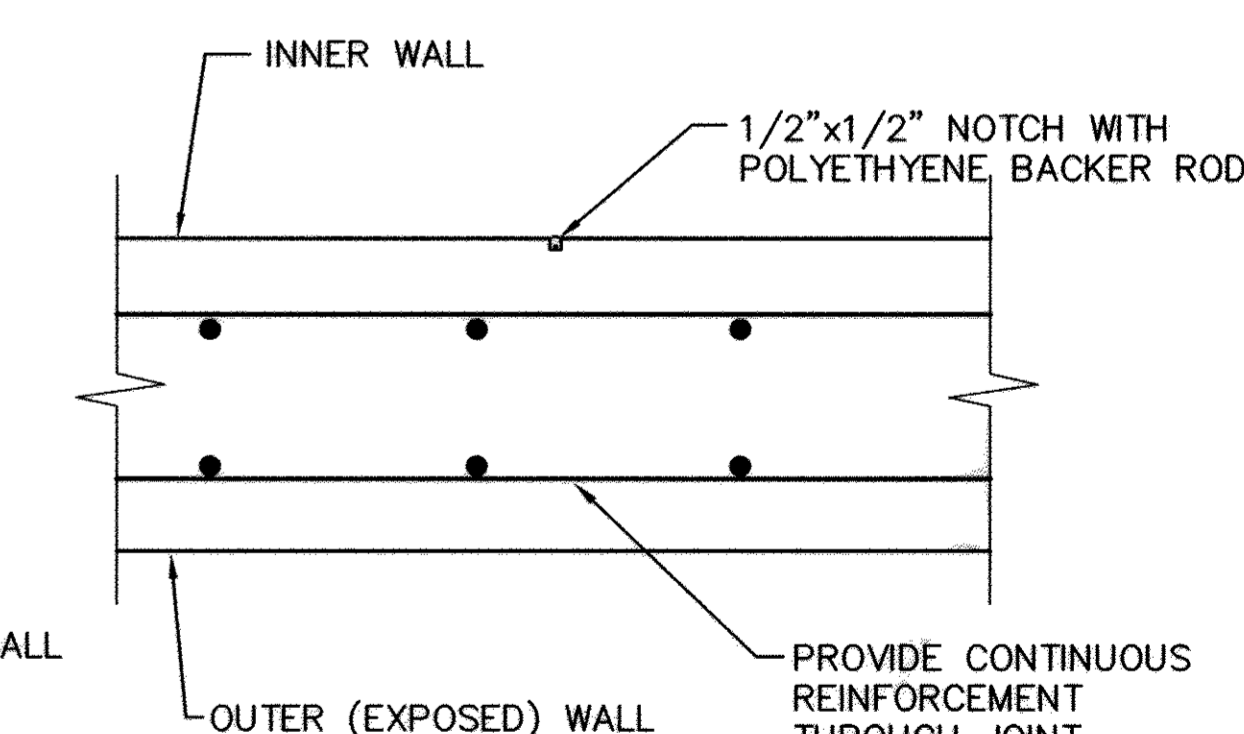


EXPANSION JOINT



CONSTRUCTION JOINT

1. CONCRETE USED FOR WALLS TO HAVE AIR ENTRAINMENT FOR OUTDOOR USE.
2. REINFORCING STEEL PER WALL SECTIONS.
3. PROVIDE EXPANSION JOINTS AT 90' INTERVALS.
4. CONTRACTION JOINTS AT 30' INTERVALS.



CONTRACTION JOINT

CONCRETE FOUNDATION JOINT DETAILS

RETAINING WALL JOINT DETAILS

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER		LOT/PARCEL 302	
LIBER/FOLIO 10-847/808 16-878/215 10-891/314	ZONE RC-DEO	TAX/ZONE MAP 10 & 16	
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING	CENSUS TR. 6030	

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Mark M. Vogel* 11/10/15  
DIRECTOR DATE

*Michelle Williams* 11/2/15  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Cindy Hamms* 11/7/15  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 16156 Exp. Date: 8-28-18



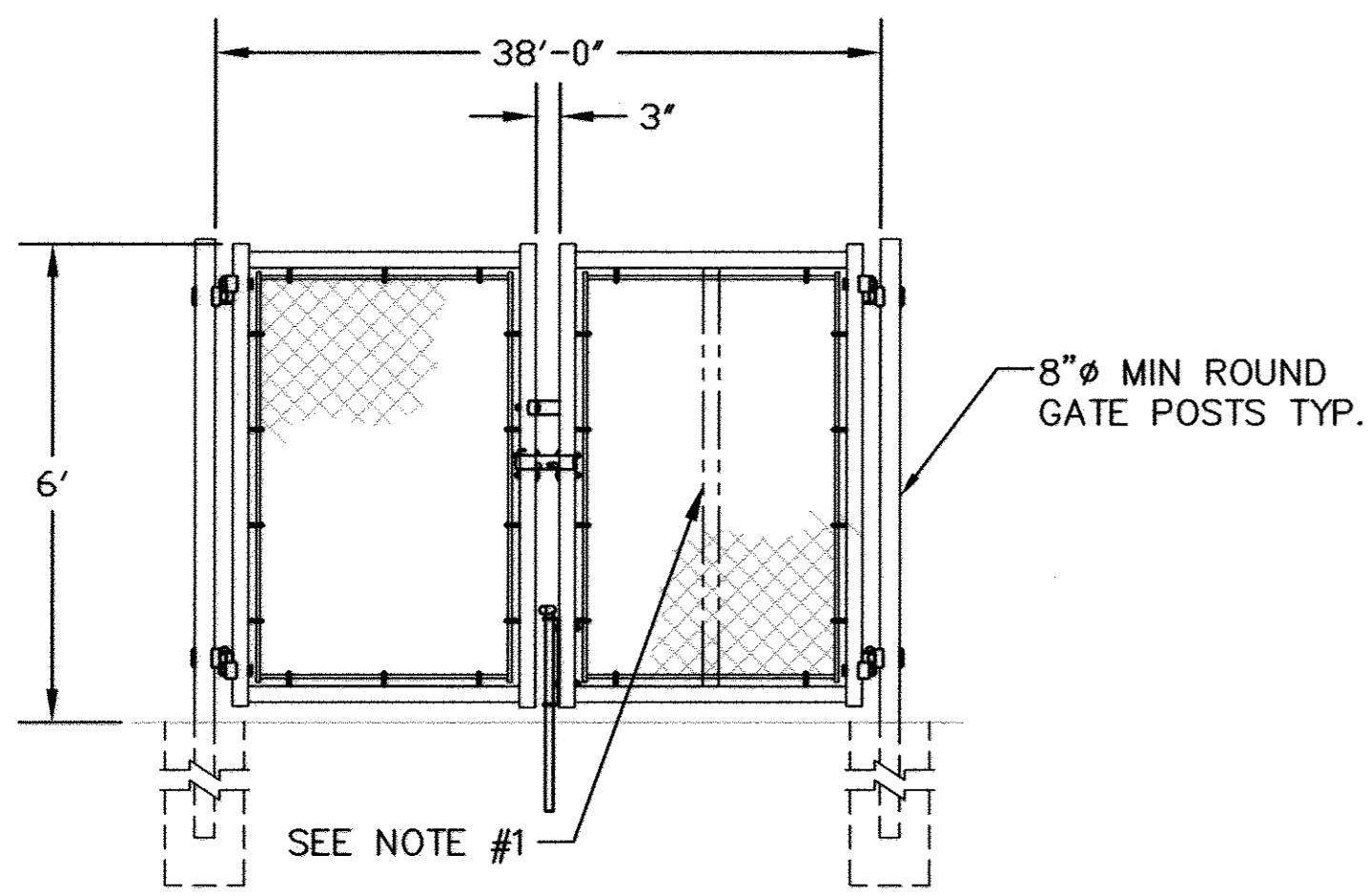
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		SCS ENGINEERS CONSULTING ENGINEERS 11260 ROGER BACON DRIVE SUITE 300 RESTON, VIRGINIA 20190 PH. (703) 471-6150 FAX. (703) 471-6676	
<i>James J. ...</i> 10/14/15 DIRECTOR OF PUBLIC WORKS DATE	<i>John P. O'Hara</i> 10/14/15 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE		

DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	PAVEMENT SECTIONS AND JOINTS & RETAINING WALL PROFILE	
DATE: 09/05	BY NO. REVISION	DATE
	161560 SHEET NO.	7/18

STRUCTURAL DETAILS		EP-06-01
REVISED SITE DEVELOPMENT PLAN ALPHA RIDGE LANDFILL RESIDENTS' DROP-OFF AREA EXPANSION REVISED SITE DEVELOPMENT PLAN CAPITAL PROJECT NO. C-0299-A		SCALE: AS SHOWN
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND		SHEET 15 OF 24

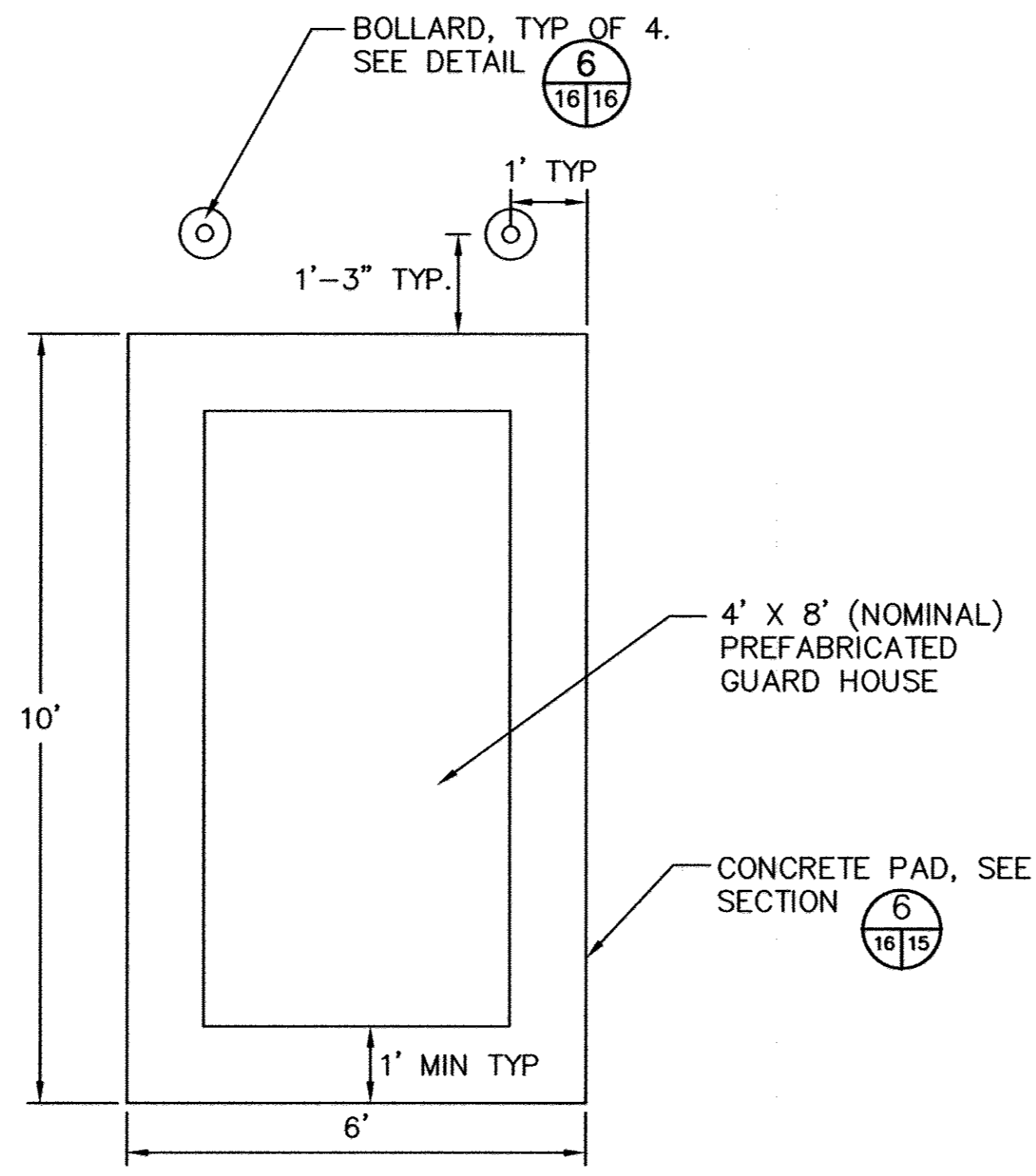
SDP-90-37  
41-06-01



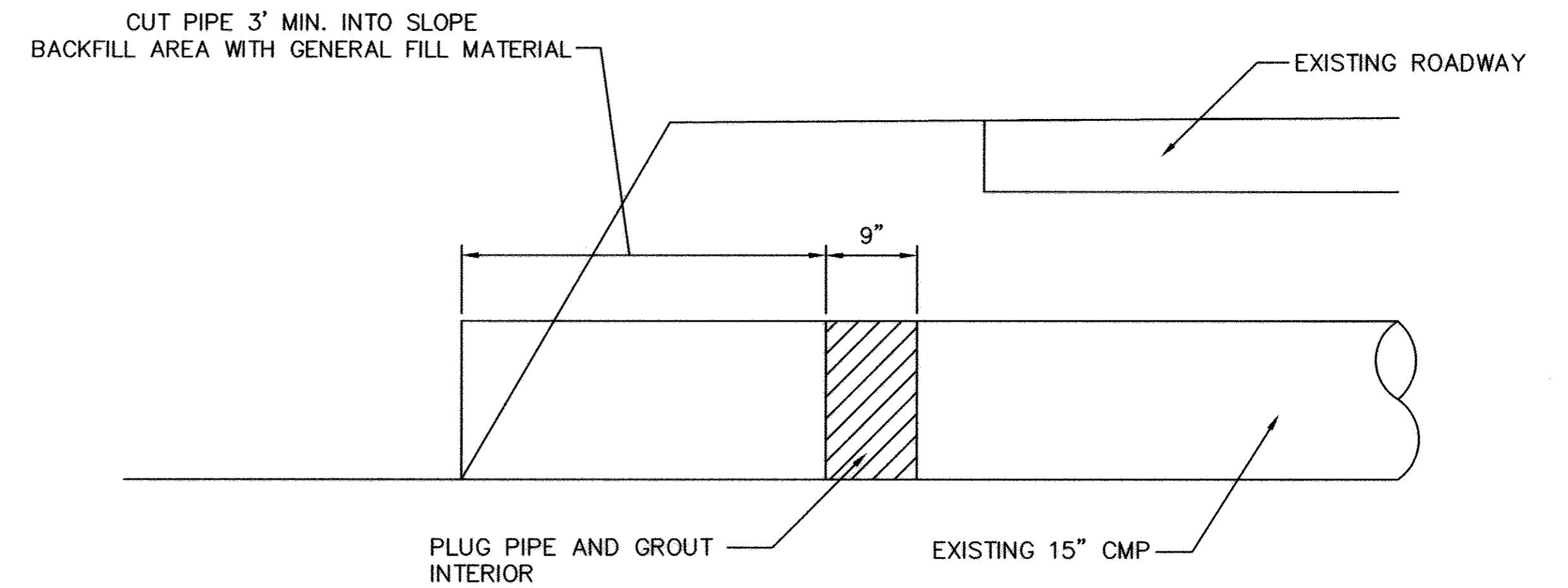


38' SWING GATE  
NOT TO SCALE

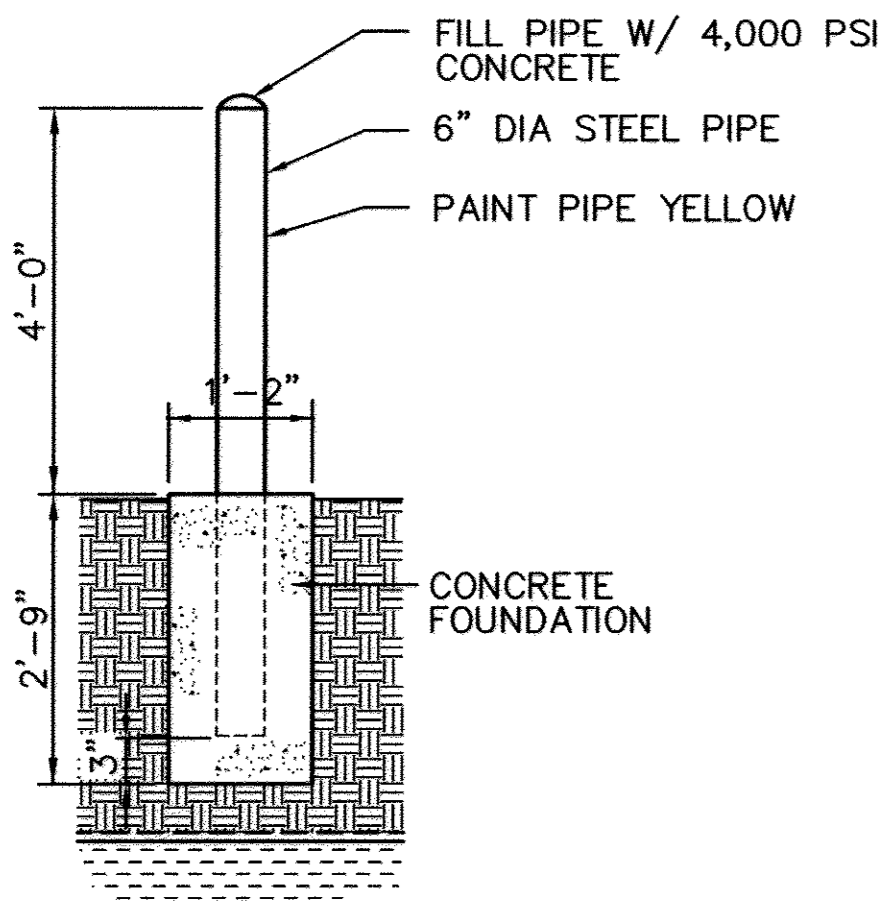
NOTES:  
1. CENTER UPRIGHT REQUIRED ON GATE LEAVES.  
2. FOR POST FOUNDATION, SEE



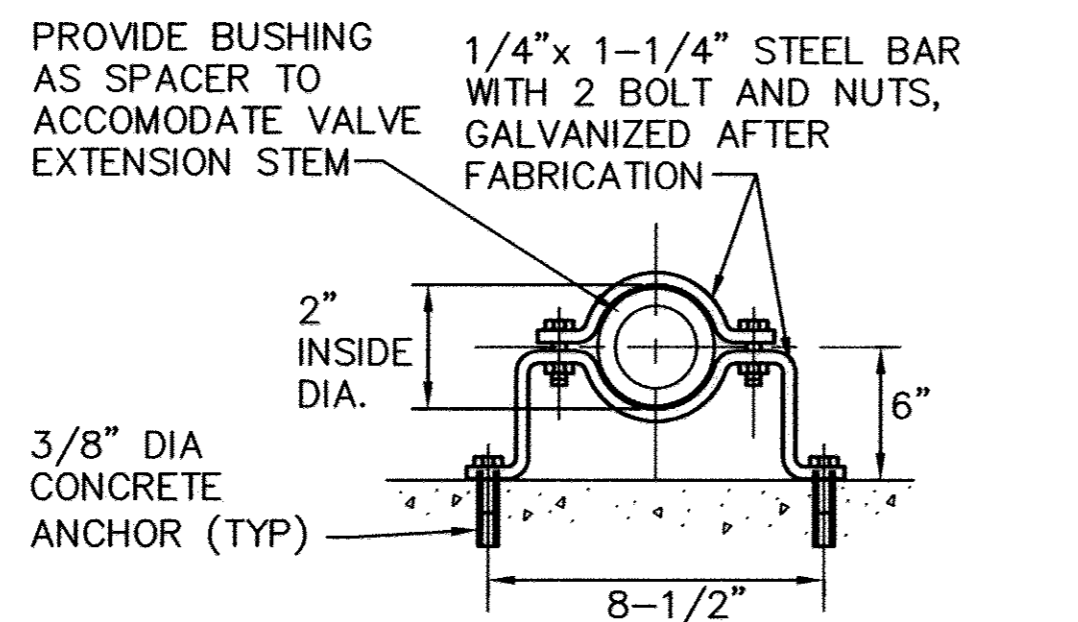
GUARD HOUSE  
NOT TO SCALE



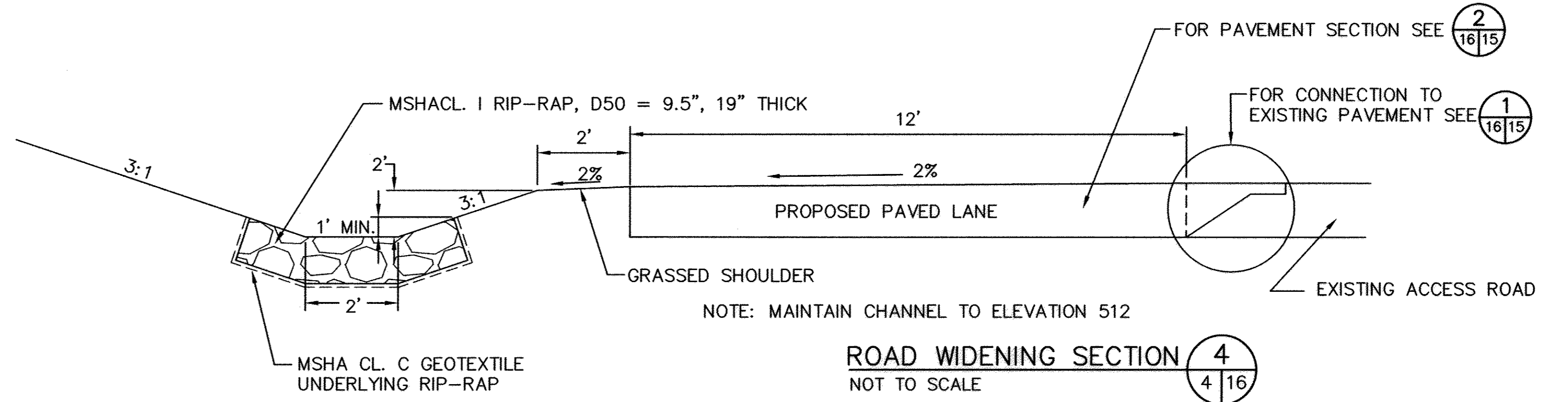
INLET C3 ABANDONMENT  
NOT TO SCALE



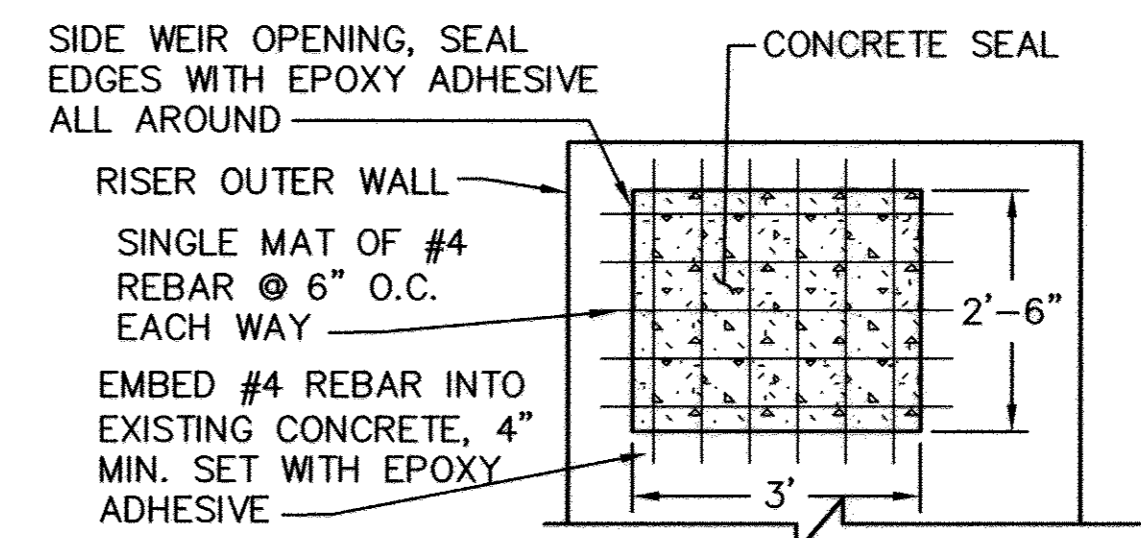
PROTECTION BOLLARD DETAIL  
SCALE: 1/2"=1'-0"



PIPE/EXTENSION BAR SUPPORT  
NOT TO SCALE



ROAD WIDENING SECTION  
NOT TO SCALE



SIDE WEIR SEAL (TYP OF 2)  
SCALE: 1/2"=1'-0"

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302	
LIBER/FOLIO 10-847/808 16-878/215 10-891/314	ZONE RC-DEO	TAX/ZONE MAP 10 & 16
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING	CENSUS TR. 6030

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Mark M. Lyle* 11/1/05  
DIRECTOR DATE

*John P. ...* 11/2/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Cindy ...* 11/2/05  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

FOR REVISION NO. 2 ONLY

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. 16156, Expiration Date: 2-28-18



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John P. ...* 10/14/05  
DIRECTOR OF PUBLIC WORKS DATE

*John P. ...* 10/14/05  
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

SCS ENGINEERS  
CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676



DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	MISCELLANEOUS DETAILS	
DATE: 09/05	REVISED SHEET NO.	7/13
BY NO.	REVISION	DATE

DETAILS

REVISED SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION  
REVISED SITE DEVELOPMENT PLAN  
CAPITAL PROJECT NO. C-0299-A  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

EP-06-01  
SCALE:  
AS SHOWN  
SHEET  
16 OF 24

SDP-90.37  
EM-06.01



**HOWARD SOIL CONSERVATION DISTRICT  
STANDARD SEDIMENT CONTROL NOTES**

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY BUREAU OF ENVIRONMENTAL SERVICES PRIOR TO THE START OF ANY CONSTRUCTION (410-313-6444).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC.G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:  
TOTAL AREA OF SITE = 13.8  
ACRES AREA DISTURBED = 6.3  
ACRES AREA TO BE ROOFED OR PAVED = 4.6 (1.3 NEW PAVED)  
ACRES AREA TO BE VEGETATIVELY STABILIZED = 1.5  
ACRES TOTAL CUT = 26,500 CY  
TOTAL FILL = 6,700 CY  
OFFSITE WASTE/BORROW AREA LOCATION: TO BE DETERMINED, AND SHALL HAVE AN APPROVED AND ACTIVE GRADING PERMIT. OWNER MAY USE EXCAVATED MATERIAL AS DAILY COVER IN LANDFILL LINED CELL NO. 1.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER.

**\*\* NOTE: DURING GRADING ACTIVITIES, THE CONTRACTOR SHALL PLACE RIP-RAP AS SOON AS DITCH/CHANNEL GRADE IS ESTABLISHED.**

**PERMANENT SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.  
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.  
SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:  
1. PREFERRED --- APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 IBS/1000 SQ. FT.) AND 600 IBS/ACRE 10-10-10 FERTILIZER (14 IBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 IBS/ACRE 30-0-0 UREAFORM FERTILIZER (9 IBS/1000 SQ. FT.)  
2. ACCEPTABLE --- APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 IBS/1000 SQ. FT.) AND 1000 IBS/ACRE 10-10-10 FERTILIZER (23 IBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.  
SEEDING --- FOR THE PERIODS MARCH 1 --- APRIL 30, AND AUGUST 1 --- OCTOBER 15, SEED WITH 60 IBS/ACRE (1.4 IBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 --- JULY 31, SEED WITH 60 IBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 IBS/ACRE (.05 IBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 --- FEBRUARY 28, PROTECT SITE BY:  
OPTION 1 --- TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.  
OPTION 2 --- USE SOD. OPTION 3 --- SEER: WITH 60 IBS/ACRE KENTUCKY 30 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.  
MULCHING --- APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 IBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.  
MAINTENANCE --- INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

**TEMPORARY SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.  
SEEDBED PREPARATION: --- LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.  
SOIL AMENDMENTS: --- APPLY 600 IBS/ACRE 10-10-10 FERTILIZER (14 IBS/1000 SQ. FT.)  
SEEDING: --- FOR PERIODS MARCH 1 --- APRIL 30 AND FROM AUGUST 15 --- OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 IBS/1000 SQ. FT.). FOR THE PERIOD MAY 1 --- AUGUST 14, SEED WITH 3 IBS/ACRE OF WEEPING LOVEGRASS (.07 IBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 --- FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.  
MULCHING: --- APPLY 1-1/2 TO 2 TONS/ACRE (70 TO 90 IBS/1000 SQ. FT.) OF UNROTTED WEED-FREE, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.  
REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

**SEQUENCE OF CONSTRUCTION**

- THE GRADING PERMIT FOR THE PROJECT WILL BE OBTAINED BY HOWARD COUNTY UPON APPROVAL OF PLAN.
- ACCESS THE CITIZENS' DROP-OFF AREA AND POND NO. 1 BY THE EXISTING ACCESS ROADS.
- INSTALL PERIMETER EROSION CONTROL MEASURES: SILT FENCE, SUPER SILT FENCE AND CONSTRUCTION ENTRANCES. EST. CONSTRUCTION DURATION - 3 DAY.
- POND NO. 1 CONSTRUCTION (EST. CONSTRUCTION DURATION - 2 MONTH):  
A. BEGIN CONSTRUCTION OF NEW EMBANKMENT - 5 DAY.  
B. INSTALL CULVERT INLET PROTECTION AROUND EXISTING PRINCIPAL SPILLWAY - 1 DAY.  
C. BEFORE COMPLETING CONSTRUCTION OF NEW EMBANKMENT, BREACH EXISTING EMBANKMENT AND REMOVE EXISTING RISER, PIPE, AND ENDWALL - 2 DAYS.  
D. INSTALL CULVERT INLET PROTECTION AROUND NEW PRINCIPAL SPILLWAY LOCATION, AND INSTALL REMOVABLE PUMP STATION - 1 DAY.  
E. CONSTRUCT NEW PRINCIPAL SPILLWAY WITH TEMPORARY DRAW-DOWN DEVICE, OUTLET PROTECTION AND COMPLETE CONSTRUCTION OF EMBANKMENT - 5 DAY.  
F. COMPLETE EXCAVATION OF BASIN (INCLUDING FOREBAY AND INLET CHANNELS) - 1 MONTH.  
G. PERMANENTLY STABILIZE ALL DENUDED AREAS BY SEEDING AND MULCHING - 1 DAY.  
H. REMOVE TEMPORARY SEDIMENT CONTROL MEASURES FOR POND NO.1 UPON RECEIVING PERMISSION FROM HOWARD COUNTY.
- WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, BEGIN WIDENING OF DROP-OFF AREA ACCESS ROAD (EST. CONSTRUCTION DURATION - 1 MONTH):  
A. CONSTRUCT NEW PIPE CULVERT UNDER ACCESS ROAD - 2 DAY.  
B. EXCAVATE SLOPE TO ESTABLISH NEW ACCESS ROAD LANE TO POINT WHERE NEW RETAINING WALL WILL BE PLACED - 2 WEEKS.  
C. INSTALL NEW PAVED ROAD LANE - 5 DAY.  
D. PERMANENTLY STABILIZE ALL DENUDED AREAS BY SEEDING AND MULCHING - 1 DAY.  
E. REMOVE TEMPORARY SEDIMENT CONTROL MEASURES UPON RECEIVING PERMISSION FROM HOWARD COUNTY.
- RECONSTRUCTION OF CHANNEL ALONG MAIN ACCESS ROAD (EST. CONSTRUCTION DURATION - 2 WEEKS):  
A. EXCAVATE NEW CHANNEL AND INSTALL EROSION CONTROL MATTING - 5 DAY.  
B. EXCAVATE AND PLUG PIPE (CULVERT INLET - C3) - 1 DAY.  
C. PERMANENTLY STABILIZE ALL DENUDED AREAS BY SEEDING AND MULCHING OR EROSION CONTROL MATTING - 1 DAY.  
D. REMOVE TEMPORARY SEDIMENT CONTROL MEASURES UPON RECEIVING PERMISSION FROM HOWARD COUNTY.
- CONSTRUCT PAVED VEHICLE TURNAROUND (EST. CONSTRUCTION DURATION - 1 MONTH):  
A. EXCAVATE AND DEMOLITION STORM DRAIN OUTLET AND PIPE TO INLET 11 - 2 DAYS.  
B. CONSTRUCT NEW STORM DRAIN FROM 11 TO MH-1 (PROVIDE PIPE STUBOUT FOR MH-2 CONNECTION) AND TO OUTLET, C9 - 1 WEEK.  
C. EXCAVATE AND GRADE AREA FOR TURNAROUND - 5 DAYS.  
D. PAVE TURNAROUND AREA - 3 DAYS.  
E. INSTALL NEW GATE - 1 DAY.  
F. PERMANENTLY STABILIZE ALL DENUDED AREAS BY SEEDING AND MULCHING - 1 DAY.  
G. REMOVE TEMPORARY SEDIMENT CONTROL MEASURES UPON RECEIVING PERMISSION FROM HOWARD COUNTY.
- CONSTRUCT NEW HHW FACILITY (EST. CONSTRUCTION DURATION - 2 MONTH):  
A. EXCAVATE/FILL FACILITY AREA.  
B. CONSTRUCT NEW STORM DRAIN FROM C8 TO MH-2 AND MH-1. (TO INCLUDE NORTH CHANNEL EXCAVATION) - 1 WEEK.  
C. CONSTRUCT RETAINING WALL - 1 WEEK.  
D. INSTALL CONCRETE PAD ALONG NORTH SIDE - 2 DAYS.  
E. CONSTRUCT FOUNDATIONS/PADS FOR BUILDING AND TRAILER, AND PAVE WITHIN VICINITY - 1 WEEK.  
F. CONSTRUCT HHW BUILDING - 1 MONTH.  
G. RELOCATE TRAILER AND UTILITIES - 2 DAYS.  
H. INSTALL FENCING AROUND NEW FACILITY - 2 DAYS.  
I. DEMOLISH EXISTING HHW BUILDING - 1 WEEK.  
J. COMPLETE GRADING AND PAVING TO ALLOW ACCESS TO NEW FACILITY - 1 WEEK.  
K. PERMANENTLY STABILIZE ALL DENUDED AREAS BY SEEDING AND MULCHING - 1 DAY.  
L. REMOVE TEMPORARY SEDIMENT CONTROL MEASURES UPON RECEIVING PERMISSION FROM HOWARD COUNTY.
- CONSTRUCT NEW DROP-OFF BAYS (EST. CONSTRUCTION DURATION - 2 MONTHS):  
A. REMOVE EXISTING SCREENING WALL - 1 DAY.  
B. PRELIMINARILY GRADE AREA. (INCLUDES REMOVAL OF EXISTING PAVEMENT) - 2 WEEKS.  
C. CONSTRUCT NEW RETAINING WALLS - 2 WEEKS.  
D. PAVE AREAS - 1 WEEK.  
E. INSTALL NEW GUARDBOUSES AND EXTEND UTILITIES TO THEIR LOCATION - 1 WEEK.  
F. PERMANENTLY STABILIZE ALL DENUDED AREAS BY SEEDING AND MULCHING - 1 DAY.  
G. REMOVE TEMPORARY SEDIMENT CONTROL MEASURES UPON RECEIVING PERMISSION FROM HOWARD COUNTY.
- PROVIDE POND NO. 1 AS-BUILT DRAWINGS TO HOWARD SCD.

**SPECIFICATIONS FOR TOPSOIL**

- TOPSOIL SALVAGE FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
  - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
  - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
  - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
  - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES: (NOT APPLICABLE)
- TOPSOIL APPLICATION
  - WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
  - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.
  - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL 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 SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
  - TOPSOIL SHALL NOT BE PLACED WHILE 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 SEEDBED PREPARATION.
  - ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
    - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
      - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
      - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
      - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
      - COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/808 16-878/215 10-891/314	ZONE RC-DEO
TAX/ZONE MAP 10 & 16	
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING
CENSUS TR. 6030	

**DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND**

DIRECTOR *David P. Layton* 11/18/05  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION *John J. O'Hara* 11/21/05  
 CHIEF, DIVISION OF LAND DEVELOPMENT *Cindy Kaman* 11/17/05

**BY THE DEVELOPER:**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER *John J. O'Hara* 10/19/05  
 PRINT NAME BELOW SIGNATURE JOHN J. O'HARA

**SEDIMENT CONTROL CERTIFICATION BLOCKS**

**BY THE ENGINEER:**

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER *Michael R. Goudreau* 10/11/05  
 PRINT NAME BELOW SIGNATURE MICHAEL R. GOUDREAU

FOR REVISION NO. 2 ONLY

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. 16150, Expiration Date: 8-28-18

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCES CONSERVATION SERVICE  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 HOWARD SCD *John J. O'Hara* 10/21/05

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DIRECTOR OF PUBLIC WORKS *John J. O'Hara* 10/19/05  
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES *John J. O'Hara* 10/19/05

SCS ENGINEERS  
 CONSULTING ENGINEERS  
 11260 ROGER BACON DRIVE  
 SUITE 300  
 RESTON, VIRGINIA 20190  
 PH. (703) 471-6150  
 FAX. (703) 471-6676

DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS: EROSION CONTROL NOTES AND CONSTRUCTION SEQUENCE.	
CHK. PAM/MRG	REVISED SHEET NO.	7/18
DATE: 09/05	BY NO.	REVISION DATE

EROSION & SEDIMENT CONTROL NOTES

REVISED SITE DEVELOPMENT PLAN  
 ALPHA RIDGE LANDFILL  
 RESIDENTS' DROP-OFF AREA EXPANSION  
 REVISED SITE DEVELOPMENT PLAN  
 CAPITAL PROJECT NO. C-0299-A  
 3rd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

EP-06-01  
 SCALE:  
 AS SHOWN  
 SHEET  
 17 OF 24

NORFOLK\_02203023.12.DWG.E&SNOTES



POND NO.	POND TYPE	PREDEVELOPMENT DRAINAGE AREA (ACRES)	PROPOSED DRAINAGE AREA (ACRES)	STORAGE REQUIRED		STORAGE PROVIDED			RISER			OUTLET PIPE			DAM			Qp1 PRE-DEVELOPMENT	Qp1 CONSTRUCTION					
				WET STORAGE (CF)	DRY STORAGE (CF)	WET STORAGE (CF)	DRY STORAGE (CF)	ELEV.	ELEV.	WEIR HT.	WEIR WIDTH	CREST ELEV.	STR. WIDTH	DIA. IN.	L FT.	U/S INV.	D/S INV.			TOP WIDTH FT.	CONSTR. HEIGHT	SETTLED HEIGHT	BOTTOM ELEVATION	CLEANOUT ELEVATION
1	P-2	6.0	11.9	21,420	21,420	25,207	471.5	35,695	474.0	2.5'	10'	474.0	5.33' x 7.33'	24	89	465.0	464.0	12'	478.0	477.0	465.5	469.61	1	1

**EROSION AND SEDIMENT CONTROL LEGEND:**

- SUPER SILT FENCE
- SILT FENCE
- TEMPORARY CULVERT INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- REMOVABLE PUMP STATION
- AT GRADE INLET PROTECTION
- RIP-RAP INFLOW PROTECTION
- LIMITS OF EROSION CONTROL MATTING
- EARTH DIKE
- PIPE SLOPE DRAIN
- TREE PROTECTION
- LIMITS OF DISTURBANCE
- TEMPORARY STOCKPILE AREA

**SEDIMENT CONTROL CERTIFICATION BLOCKS**

**BY THE DEVELOPER:**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER *John J. O'Hara* DATE *10/14/05*  
 PRINT NAME BELOW SIGNATURE JOHN J. O'HARA

**BY THE ENGINEER:**

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER *Michael R. Goudreau* DATE *10/14/05*  
 PRINT NAME BELOW SIGNATURE MICHAEL R. GOUDREAU

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE *10/31/05*  
*Jim Myer*

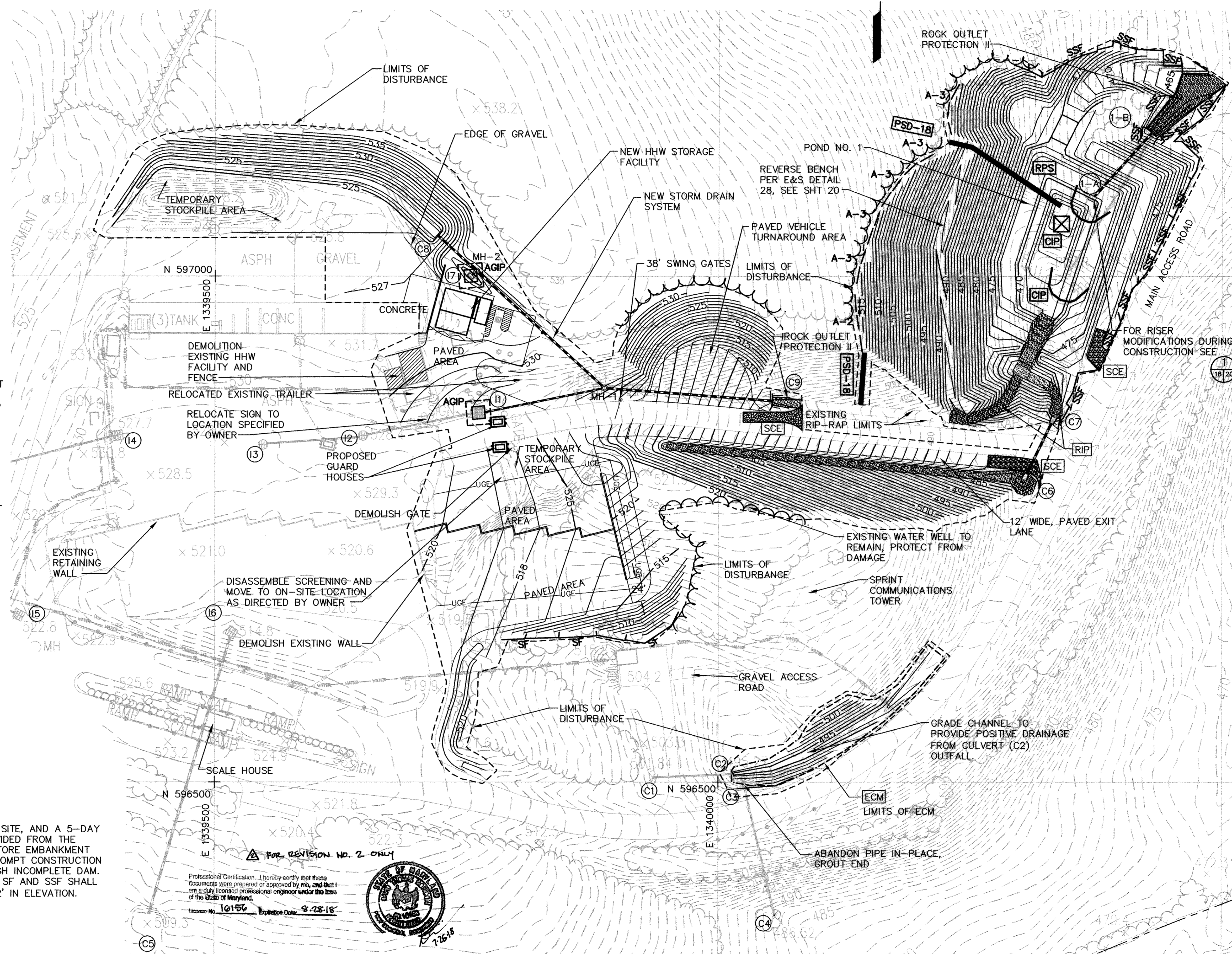
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SCD DATE *10/31/05*  
*[Signature]*

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/606 10-878/215 10-891/314	TAX/ZONE MAP RC-DEO 10 & 16
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING
CENSUS TR. 6030	

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND	
DIRECTOR <i>Paula De la Torre</i>	DATE <i>11/8/05</i>
CHIEF, DEVELOPMENT ENGINEERING DIVISION <i>[Signature]</i>	DATE <i>11/2/05</i>
CHIEF, DIVISION OF LAND DEVELOPMENT <i>Cindy Harrah</i>	DATE <i>11/7/05</i>

NOTES:  
 1. ALL MATERIALS SHALL BE ON SITE, AND A 5-DAY CLEAR WEATHER FORECAST PROVIDED FROM THE NATIONAL WEATHER SERVICE, BEFORE EMBANKMENT EXCAVATION TO PROVIDE FOR PROMPT CONSTRUCTION AND PREVENT OVERFLOW THROUGH INCOMPLETE DAM.  
 2. ALL IMBRICATED SECTIONS OF SF AND SSF SHALL HAVE ENDS TURNED UPHILL BY 2' IN ELEVATION.



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. *16156* Expiration Date *8-28-18*

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	
DIRECTOR <i>Jay De...</i> DATE <i>10/14/05</i>	CHIEF, BUREAU OF ENVIRONMENTAL SERVICES <i>John J. O'Hara</i> DATE <i>10/14/05</i>

SCS ENGINEERS  
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 RESTON, VIRGINIA 20190  
 PH. (703) 471-6150  
 FAX. (703) 471-6676

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER

DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	LAYOUT OF EROSION CONTROL MEASURES	7/18
DATE: 09/05	REVISION	DATE

EROSION AND SEDIMENT CONTROL PLAN

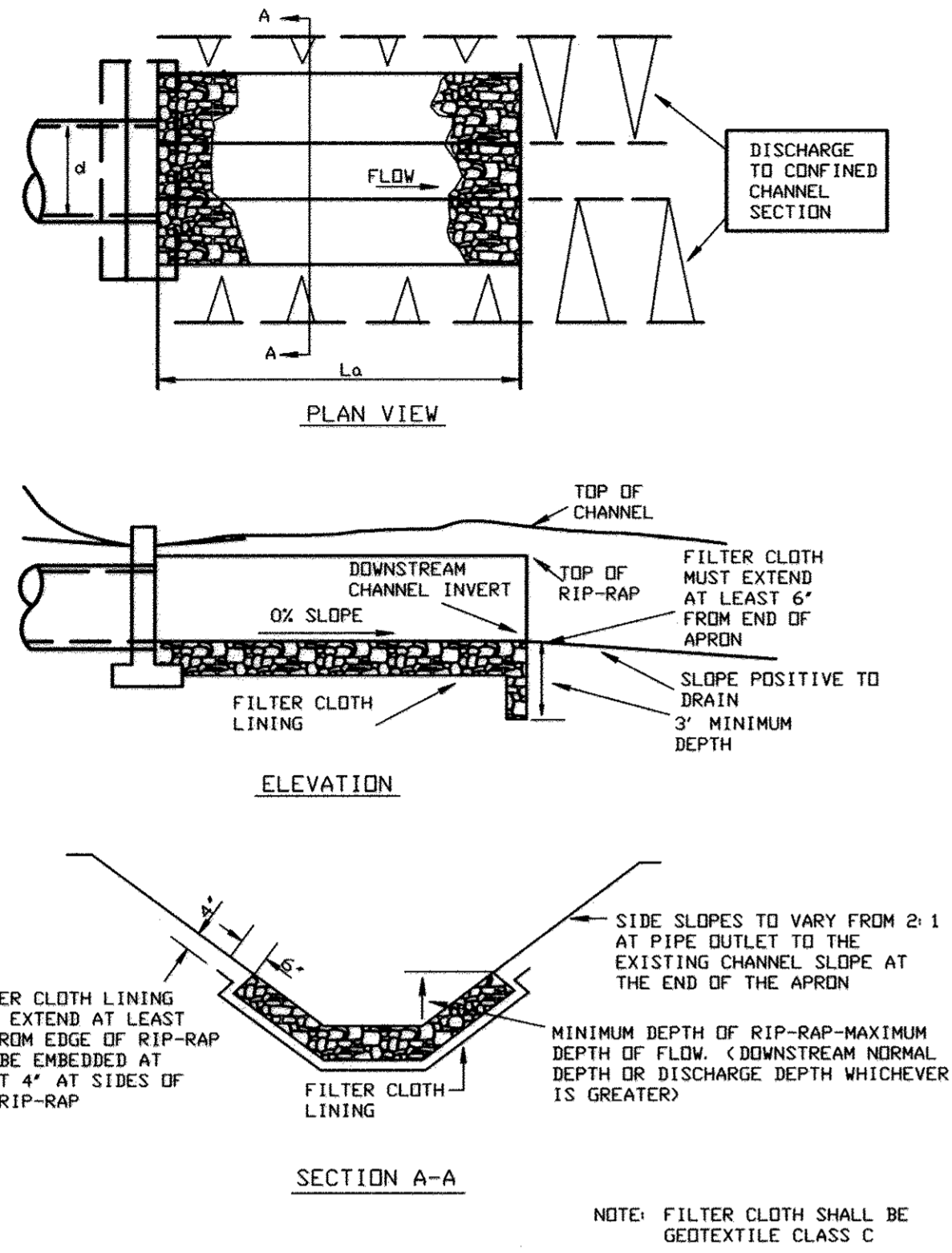
REVISED SITE DEVELOPMENT PLAN  
 ALPHA RIDGE LANDFILL  
 RESIDENTS' DROP-OFF AREA EXPANSION  
 REVISED SITE DEVELOPMENT PLAN  
 CAPITAL PROJECT NO. C-0299-A  
 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

EP-06-01  
 SCALE: AS SHOWN  
 SHEET 18 OF 28

SDP-90-37  
 EP-06-01



DETAIL 26 - ROCK OUTLET PROTECTION II



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-18-9 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

ROCK OUTLET PROTECTION II CONSTRUCTION SPECIFICATIONS

- The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
- Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.
- Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
- The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.

FOR REVISION NO. 2 ONLY

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. 16150, Expiration Date: 8-18-15



PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/806 16-878/215 10-891/314	ZONE RC-DEO
TAX/ZONE MAP 10 & 16	
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING
CENSUS TR. 6030	

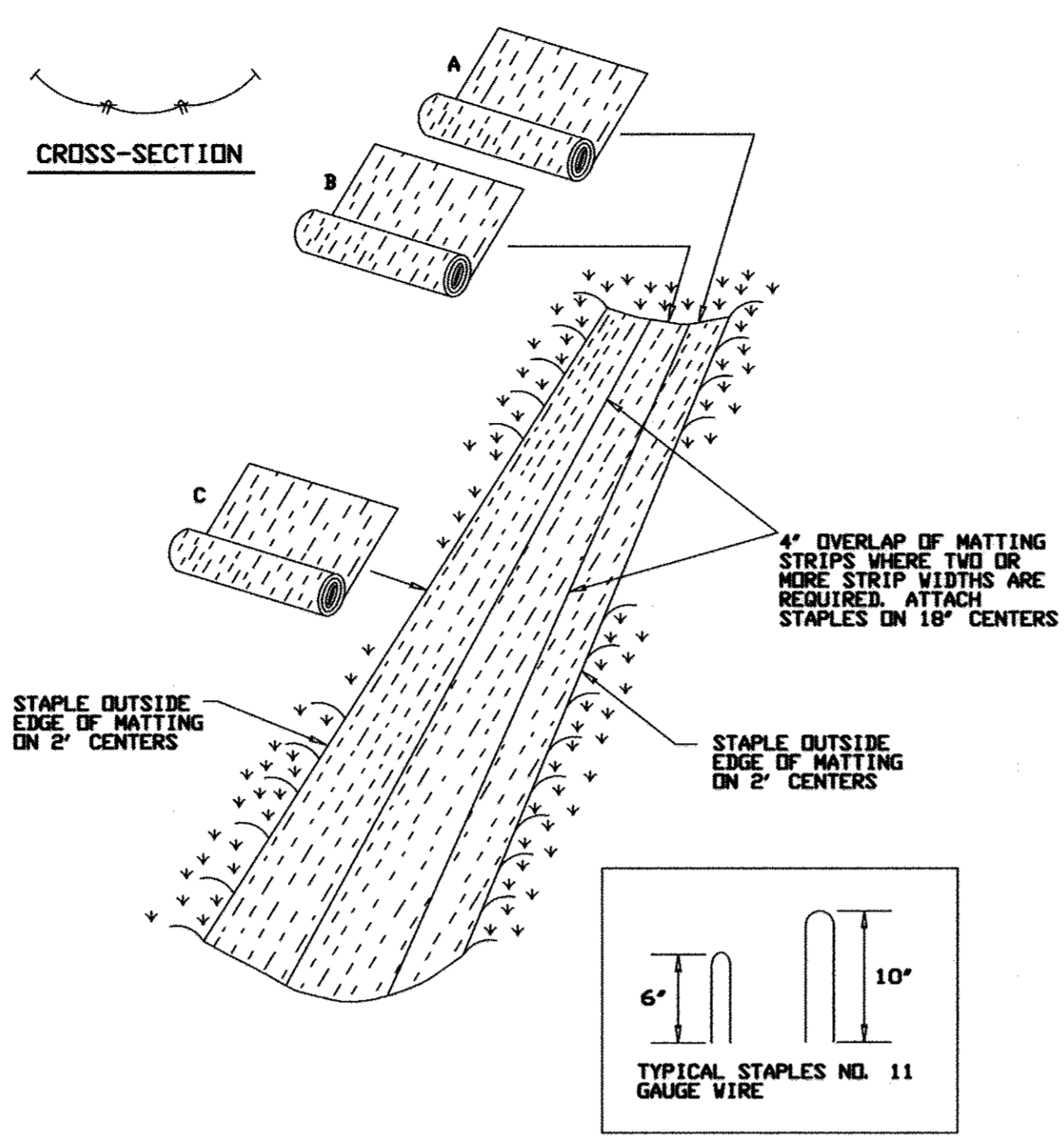
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

DIRECTOR: *Mark DeLuca* DATE: 11/8/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION: *John DeLuca* DATE: 11/2/05  
CHIEF, DIVISION OF LAND DEVELOPMENT: *Cindy Hamant* DATE: 11/7/05

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS: *John DeLuca* DATE: 10/14/05  
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES: *John O'Hara* DATE: 10/14/05

DETAIL 30 - EROSION CONTROL MATTING

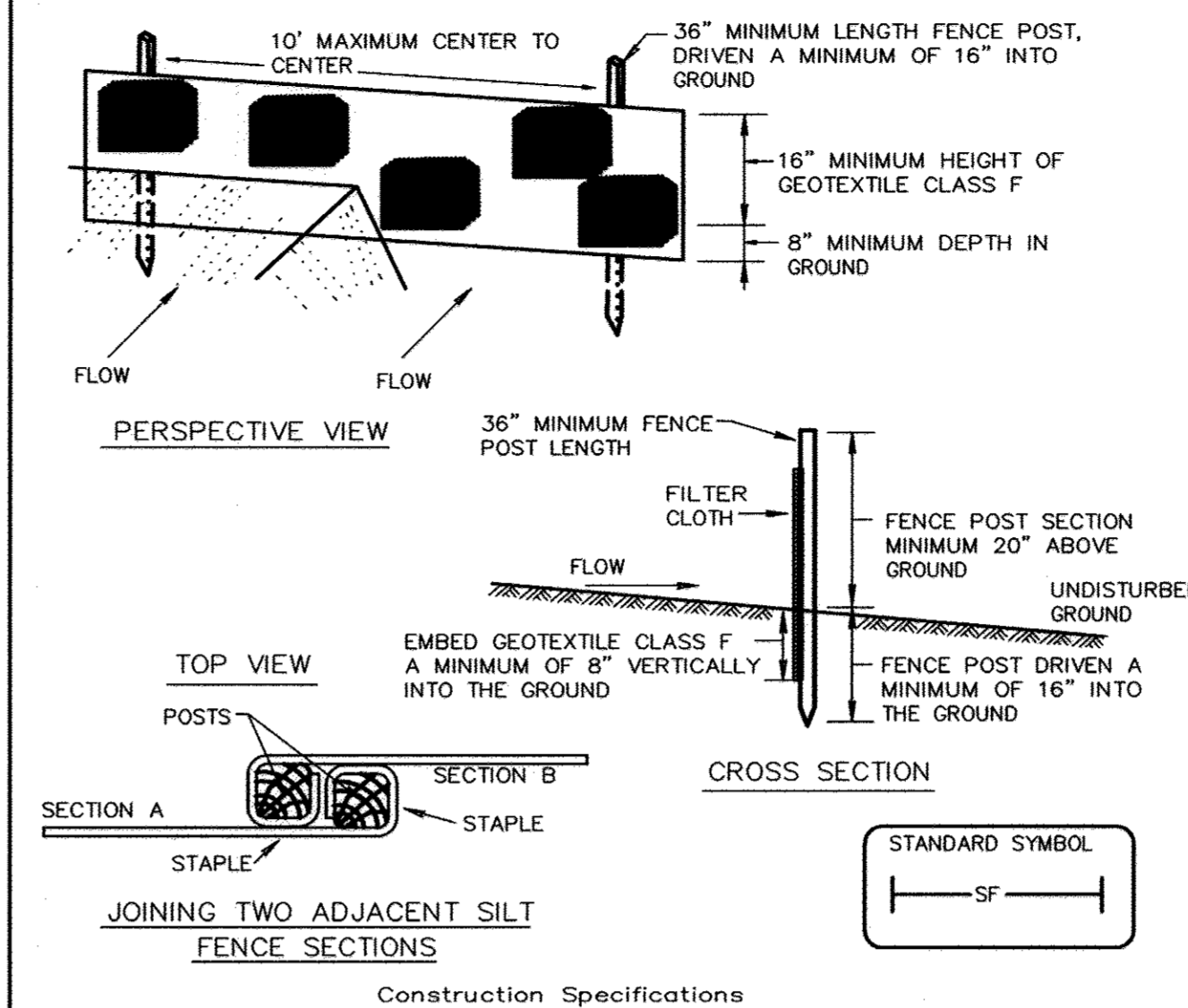


U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE G-22-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

EROSION CONTROL MATTING CONSTRUCTION SPECIFICATIONS

- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4' down slope from the trench. Spacing between staples is 6'.
  - Staple the 4' overlap in the channel center using an 18" spacing between staples.
  - Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
  - Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
  - Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4', shiplap fashion. Reinforce the overlap with a double row of staples spaced 6' apart in a staggered pattern on either side.
  - The discharge end of the matting liner should be similarly secured with 2 double rows of staples.
- Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

DETAIL 22 - SILT FENCE

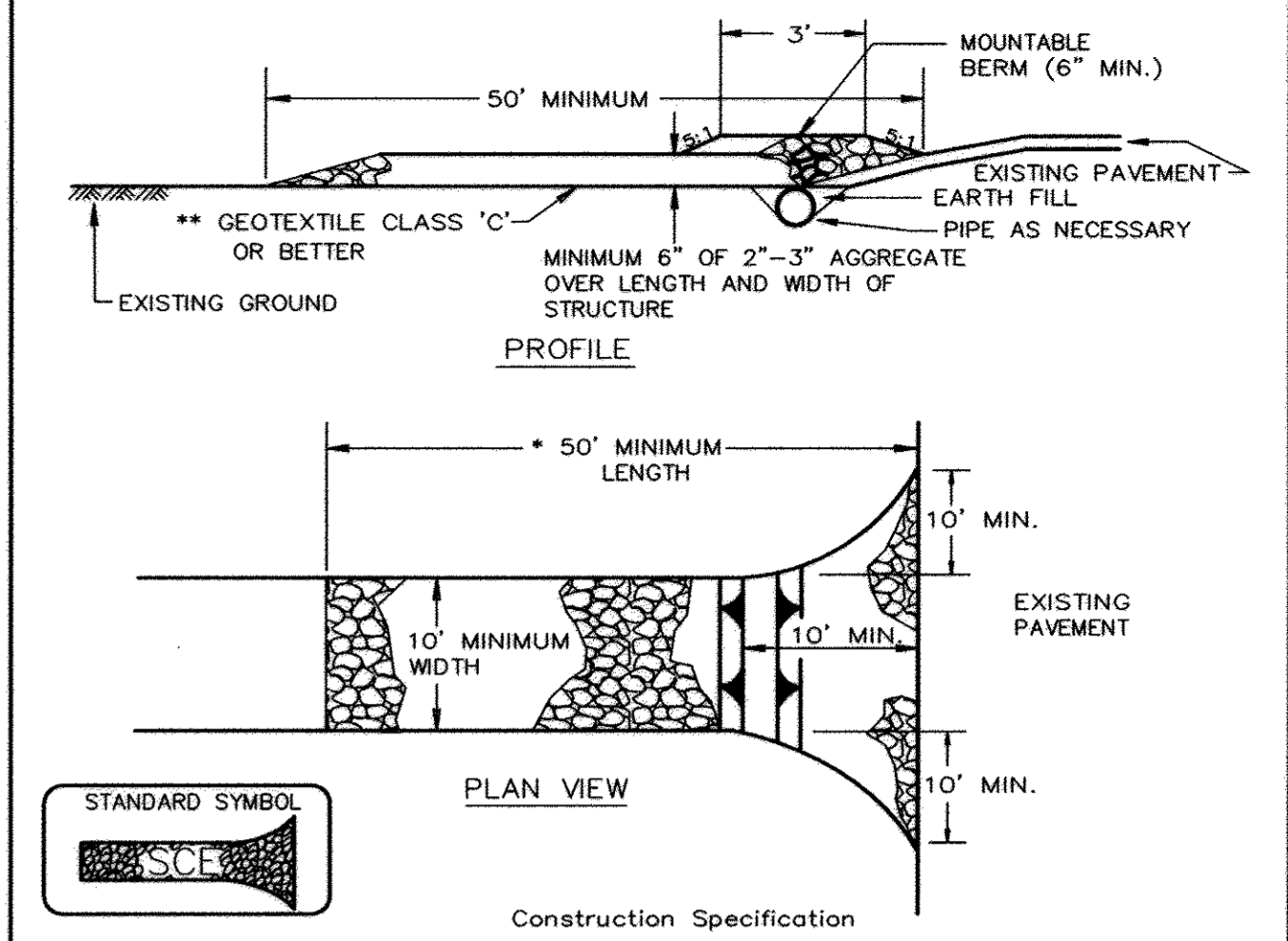


Construction Specifications

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:  
Tensile Strength: 50 lbs/in (min.) Test: MSMT 509  
Tensile Modulus: 20 lbs/in (min.) Test: MSMT 509  
Flow Rate: 0.3 gal ft / minute (max.) Test: MSMT 322  
Filtering Efficiency: 75% (min.) Test: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-16-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

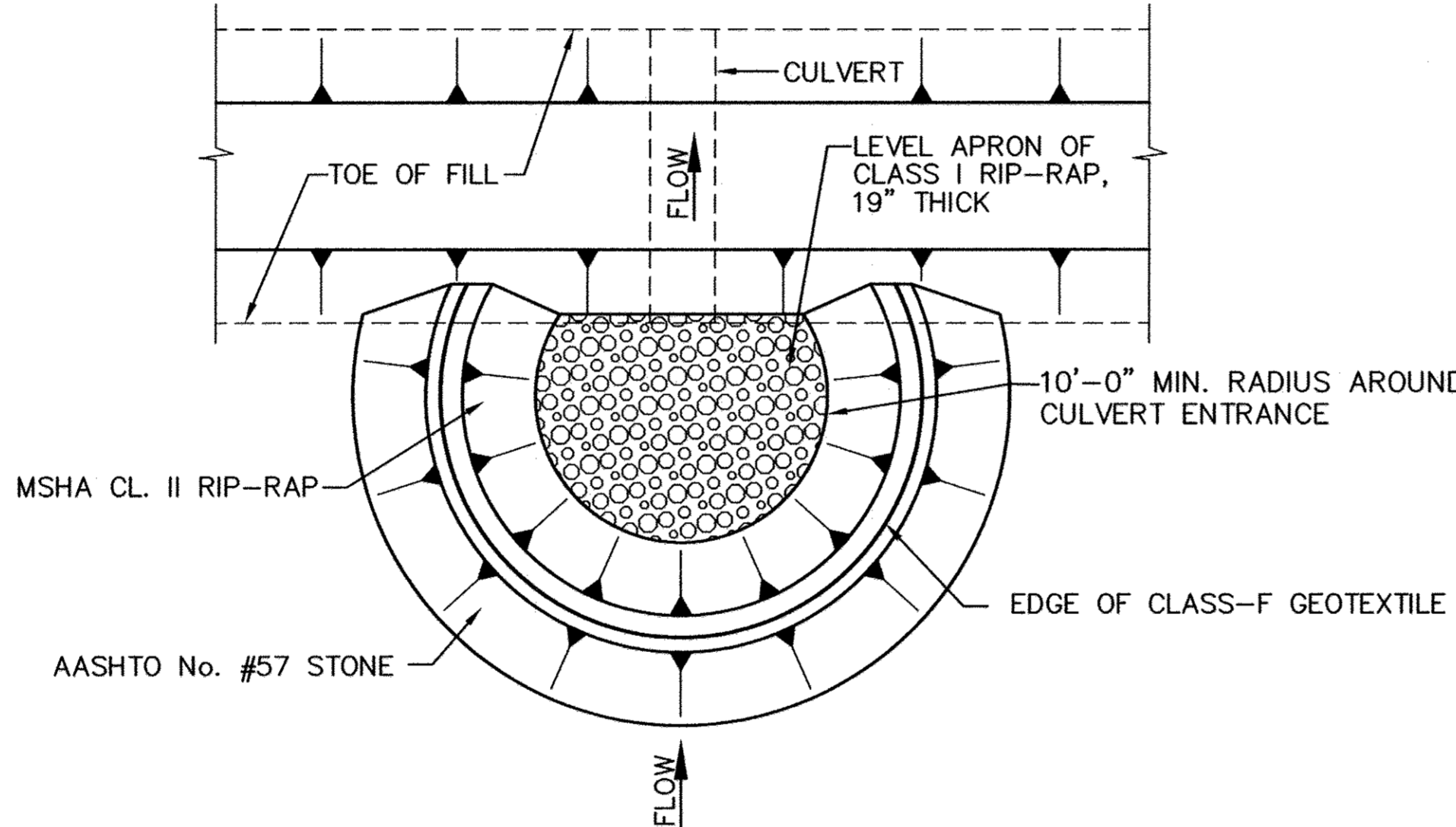
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



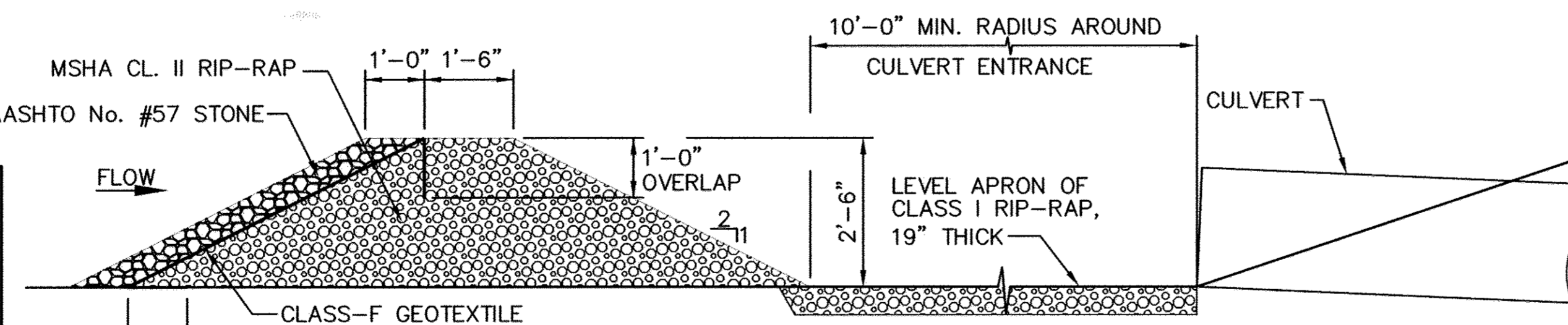
Construction Specification

- Length - minimum of 50' (\*30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. \*\*The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

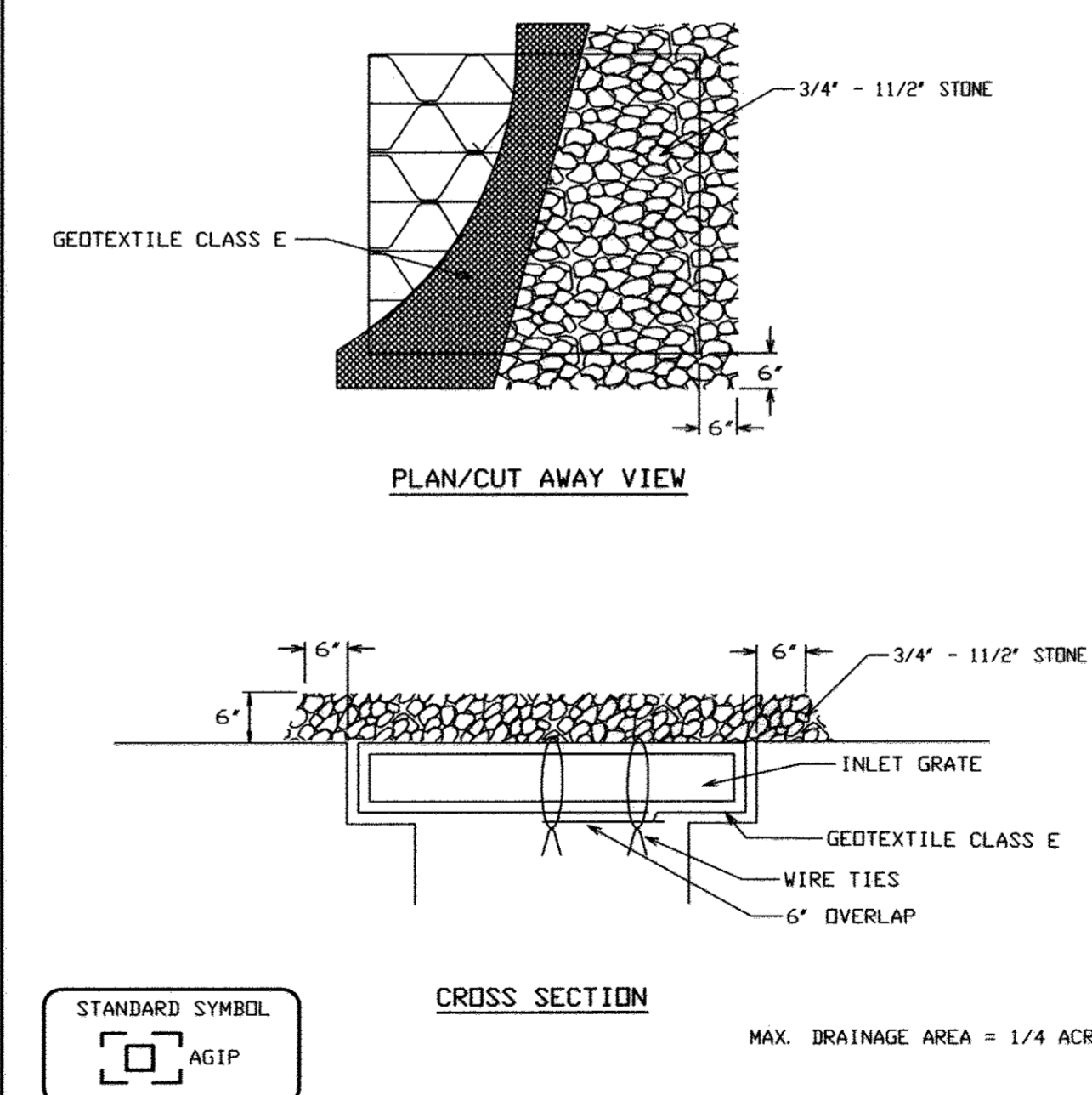


TEMPORARY CULVERT INLET PROTECTION  
STONE COMBINATION PLAN VIEW  
NO SCALE



TEMPORARY CULVERT INLET PROTECTION  
STONE COMBINATION PROFILE VIEW  
NO SCALE

DETAIL 23B - AT GRADE INLET PROTECTION

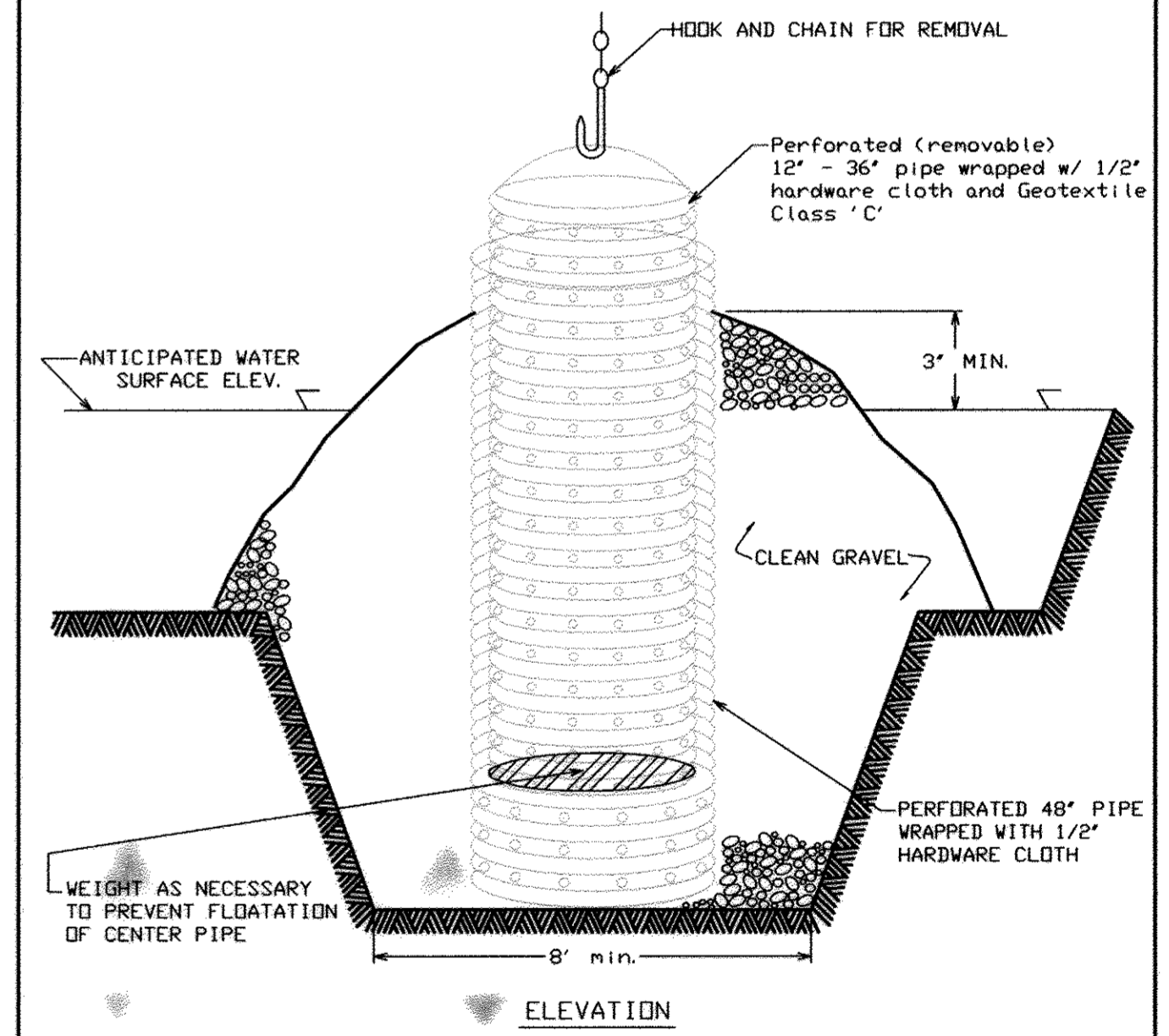


Construction Specifications

- Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
- Place 3/4" to 1 1/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-16-5A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 20A - REMOVABLE PUMPING STATION



Construction Specifications

- The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.
- After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.
- The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be 1/2" x 6" slits or 1" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C.
- The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE D-18-4 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NORFOLK 02203023.12 DWGS/E&S/DETAILS

DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF	
CHK. PAM/MRG	AREA. THIS SHEET SHOWS:	
DATE: 09/05	EROSION CONTROL DETAILS	
	REVISED SHEET No.	7/18
BY NO.	REVISION	DATE

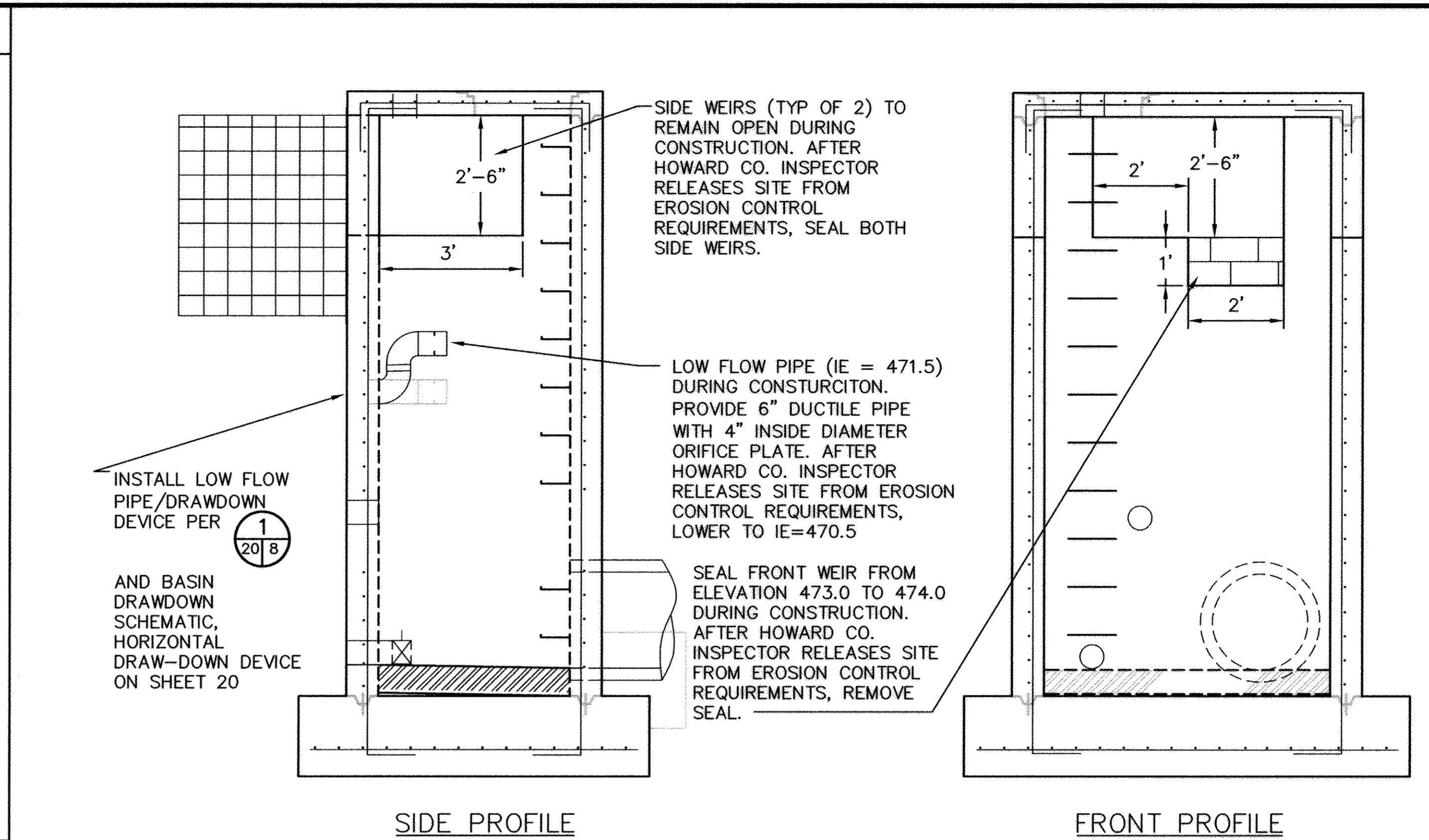
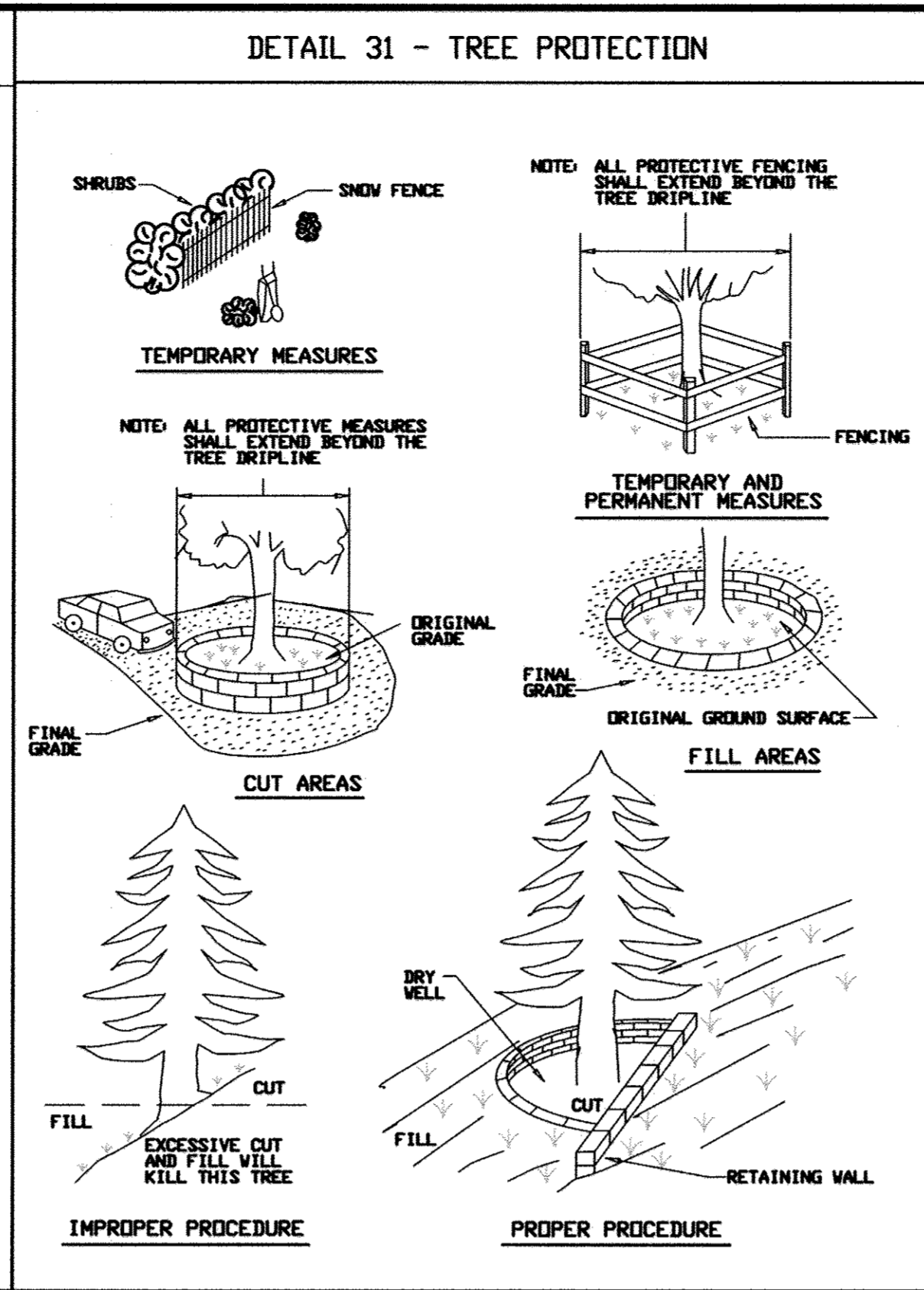
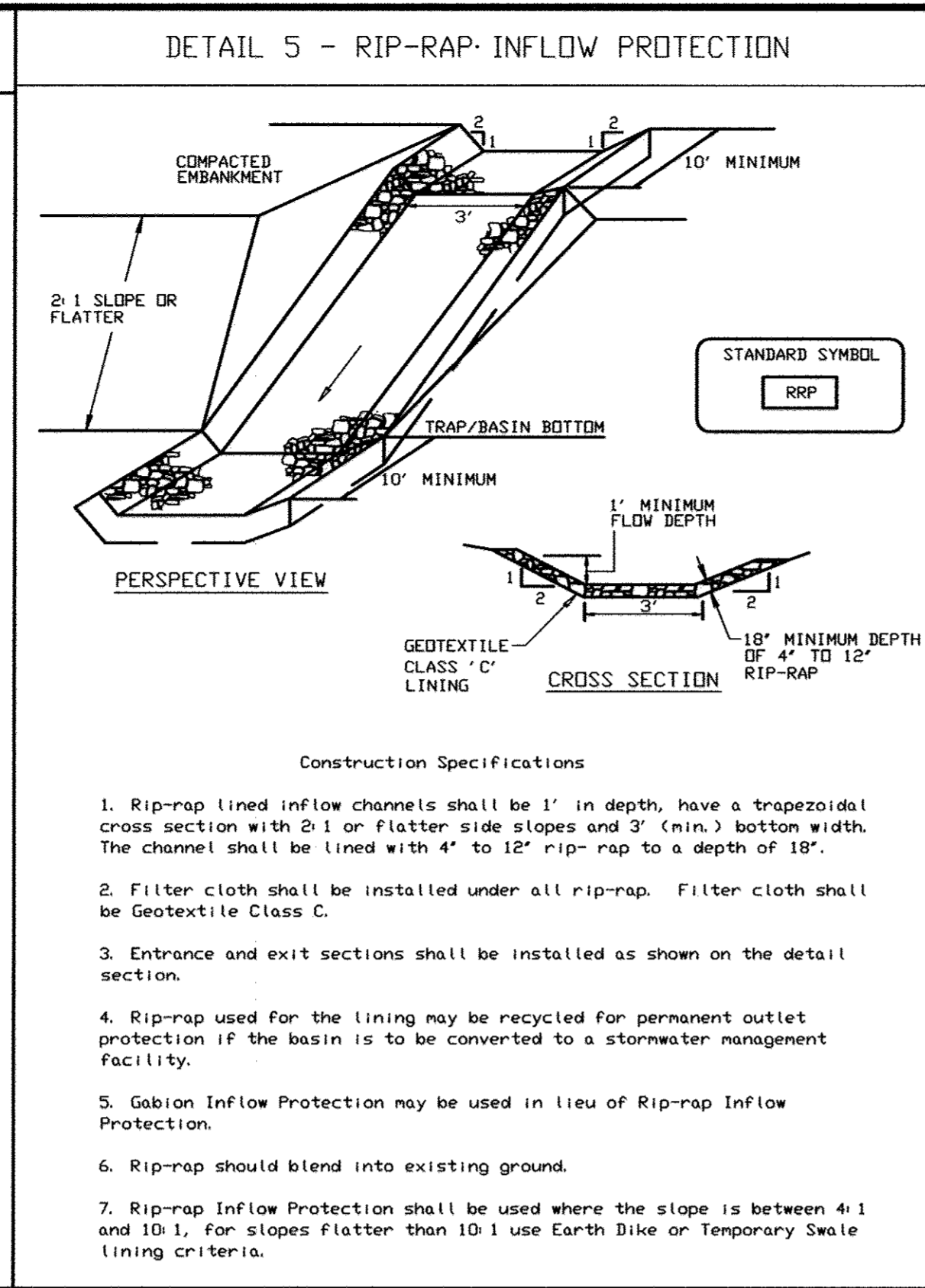
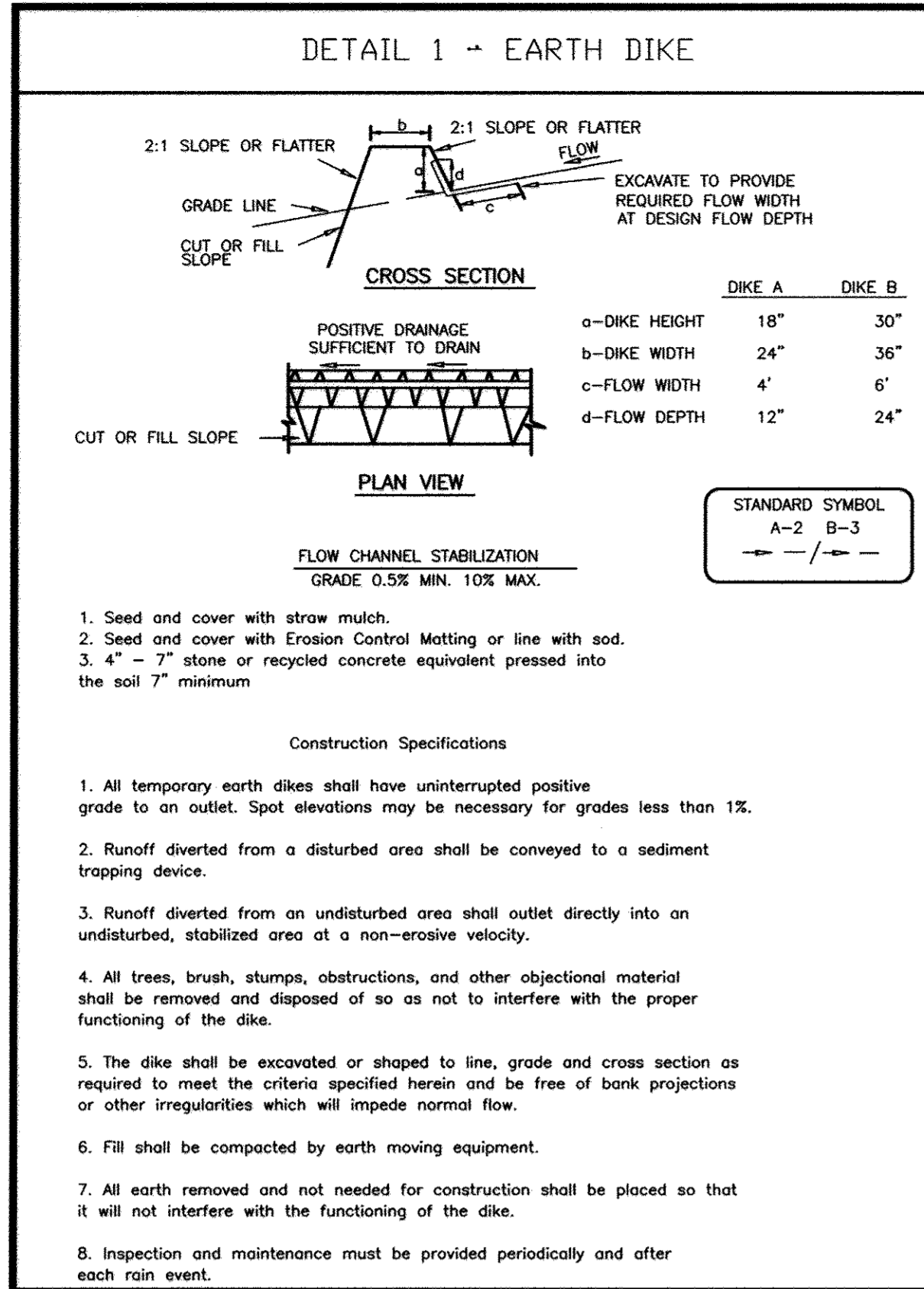
EROSION & SEDIMENT CONTROL DETAILS

REVISED SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION  
REVISED SITE DEVELOPMENT PLAN  
CAPITAL PROJECT NO. C-0299-A  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

EP-06-01  
SCALE: AS SHOWN  
SHEET 19 OF 28

SDP-90-37  
EP-06-01





U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

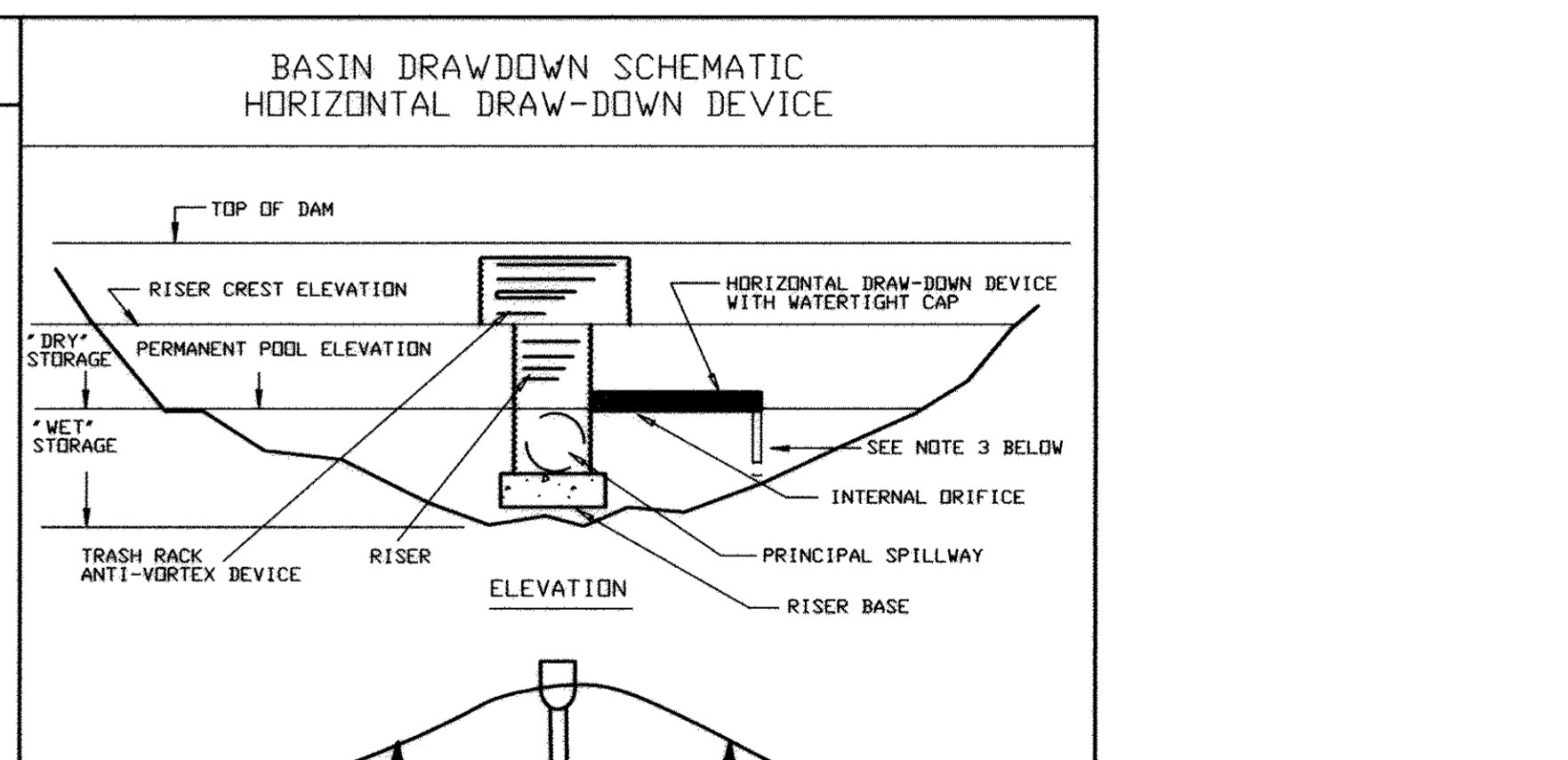
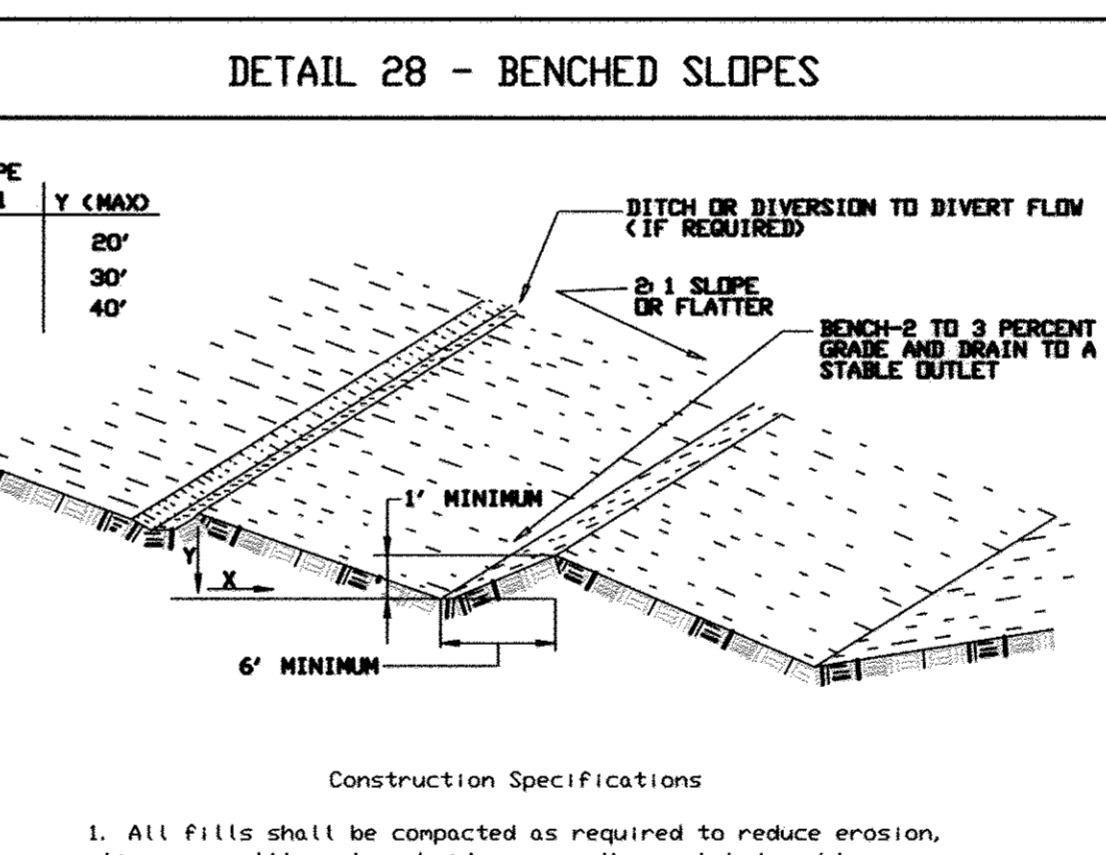
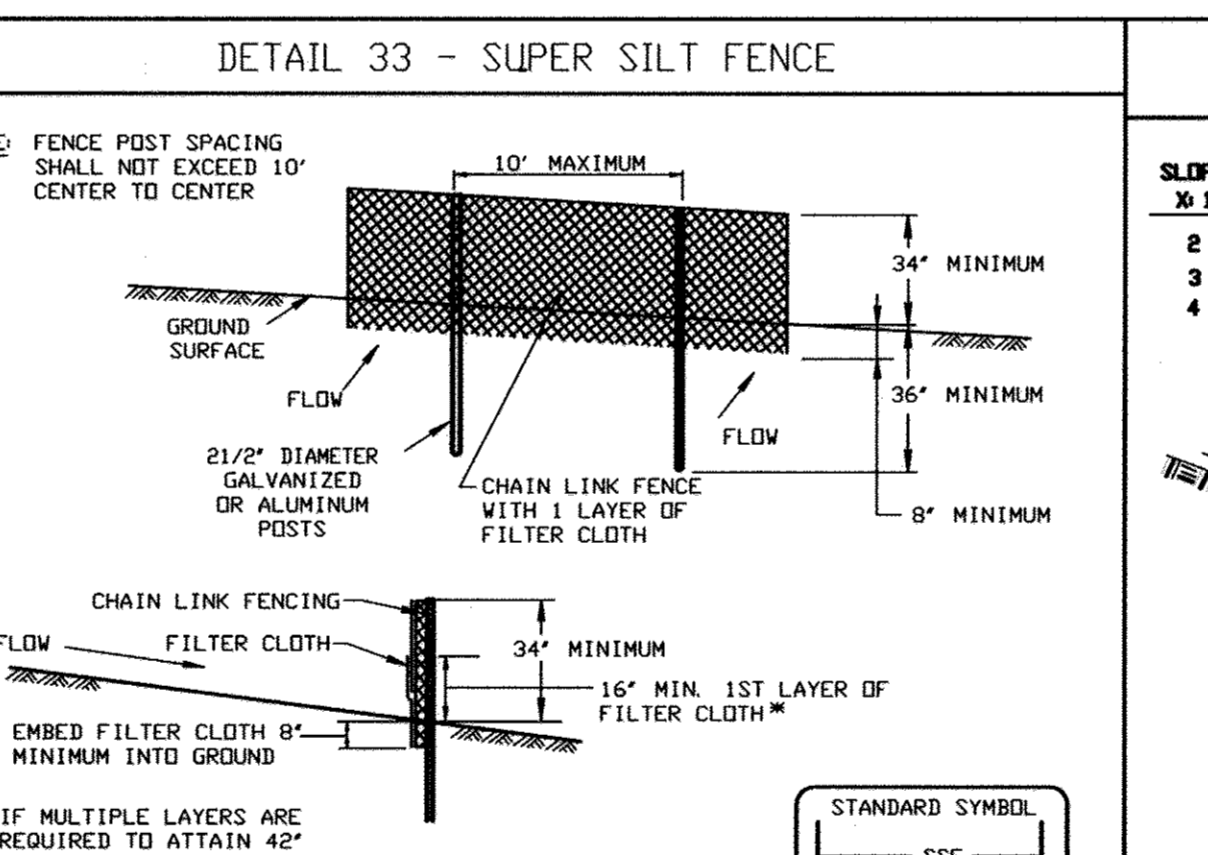
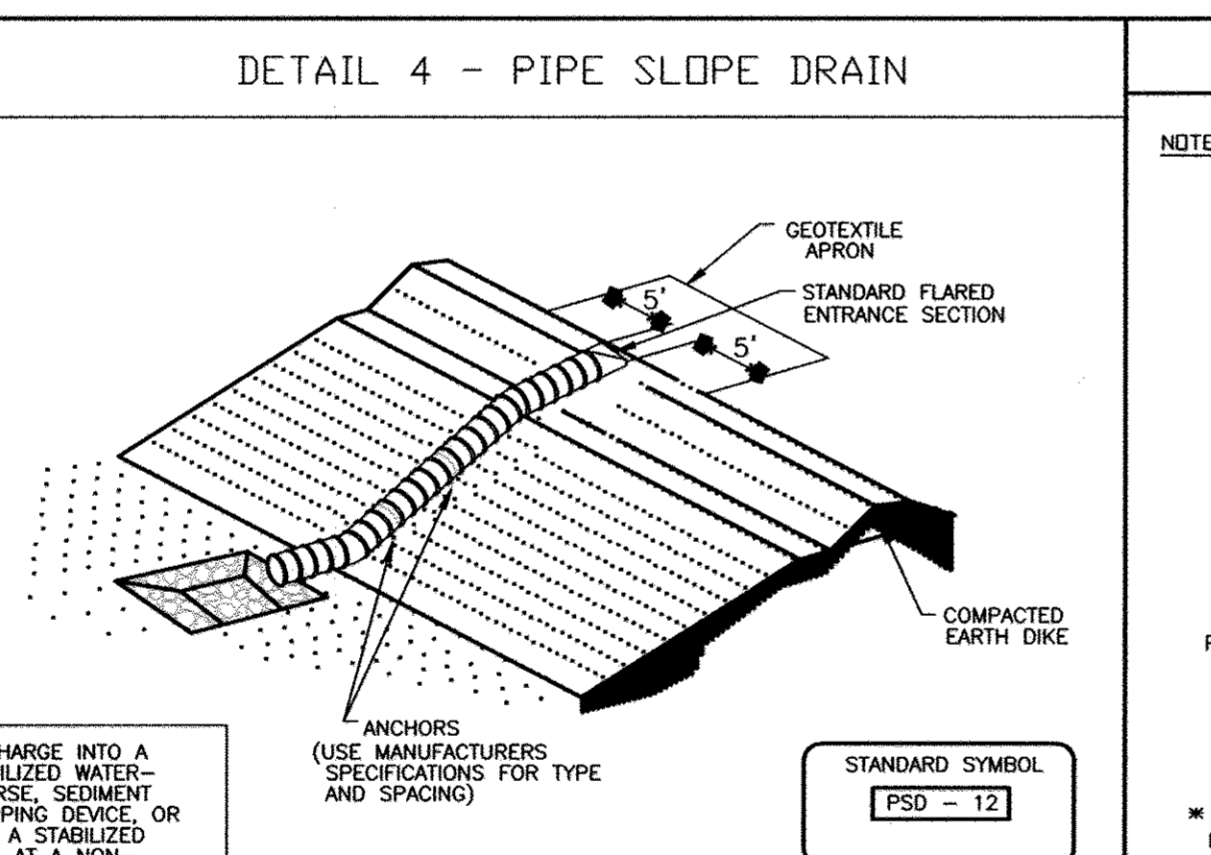
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### Construction Specifications - Pipe Slope Drain

- The Pipe Slope Drain (PSD) shall have a slope of 3 percent or steeper.
- The top of the earth dike over the inlet pipe shall be at least 2 times the pipe diameter measured at the invert of the pipe.
- Flexible tubing is preferred. However, corrugated metal pipe or equivalent PVC pipe can be used. All connections shall be watertight.
- A flared end section shall be attached to the inlet end of pipe with a watertight connection. Filter cloth shall be placed under the inlet of the pipe slope drain and shall extend out 5' from the inlet. The filter cloth shall be "stayed in" on all sides.
- The Pipe Slope Drain shall be securely anchored to the slope by staking of the grommets provided. Spacing for anchors shall be as provided by manufacturer's specification. In no case shall less than two (2) anchors be provided, equally spaced along the length of pipe. These details shall be provided by pipe suppliers.
- The soil around and under the pipe and end section shall be hand tamped in 4 inch lifts to the top of the earth dike.
- All pipe connections shall be watertight.
- Whenever possible where a PSD drains an unstabilized area, it shall outlet into a sediment trap or basin. If this is not possible then the slope drain will discharge into a stable conveyance that leads to a sediment trap or basin. When discharging into a trap or basin the PSD shall discharge at the same elevation as the wet pool elevation. The discharge from the PSD must be as far away from the sediment control outlet as possible.
- When the drainage area is stabilized, the PSD shall discharge onto a stabilized area at a non-erosive velocity.
- Inspection and any required maintenance shall be performed periodically and after each rain event.
- The inlet must be kept open at all times.



PROJECT NAME: ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER

LOT/PARCEL: 302

LIBER/FOLIO: 10-847/606, 16-878/215, 10-691/314

ZONE: RC-DEO

TAX/ZONE MAP: 10 & 16

SEWER CODE: PRIVATE, EXISTING

CENSUS TR.: 6030

DEPARTMENT OF PLANNING AND ZONING, HOWARD COUNTY, MARYLAND

DIRECTOR: [Signature] DATE: 11/6/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 11/2/05

CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 11/2/05

Table 6 Design Criteria for Pipe Slope Drain

Size	Pipe/Tubing Diameter (D) in	Maximum Drainage Area (Acres)
PSD-12	12	0.5
PSD-18	18	1.5
PSD-21	21	2.5
PSD-24	24	3.5
PSD-24 (2)	24	5.0

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND

DIRECTOR: [Signature] DATE: 10/14/05

CHIEF, BUREAU OF ENVIRONMENTAL SERVICES: [Signature] DATE: 10/14/05

SCS ENGINEERS CONSULTING ENGINEERS

11260 ROGER BACON DRIVE SUITE 300

RESTON, VIRGINIA 20190

PH. (703) 471-6150

FAX. (703) 471-6676

DES. AST

DRN. AST

CHK. PAM/MRG

DATE: 09/05

BY NO.

REVISION

DATE

THE PURPOSE OF THE REVISED SDP IS TO

DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:

EROSION CONTROL DETAILS AND RISER MODIFICATIONS DURING CONSTRUCTION

REVISED SHEET NO.

REVISION

DATE

EROSION AND SEDIMENT CONTROL DETAILS - 2

REVISED SITE DEVELOPMENT PLAN ALPHA RIDGE LANDFILL

RESIDENTS' DROP-OFF AREA EXPANSION

REVISED SITE DEVELOPMENT PLAN

CAPITAL PROJECT NO. C-0299-A

3rd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

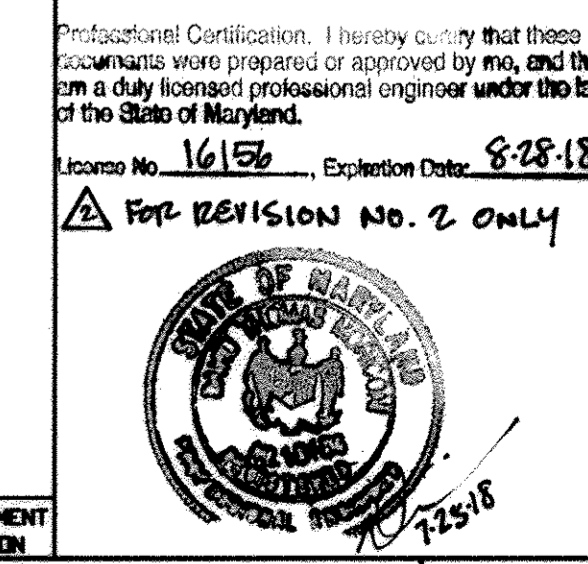
SDP-90-37

EP-06-01

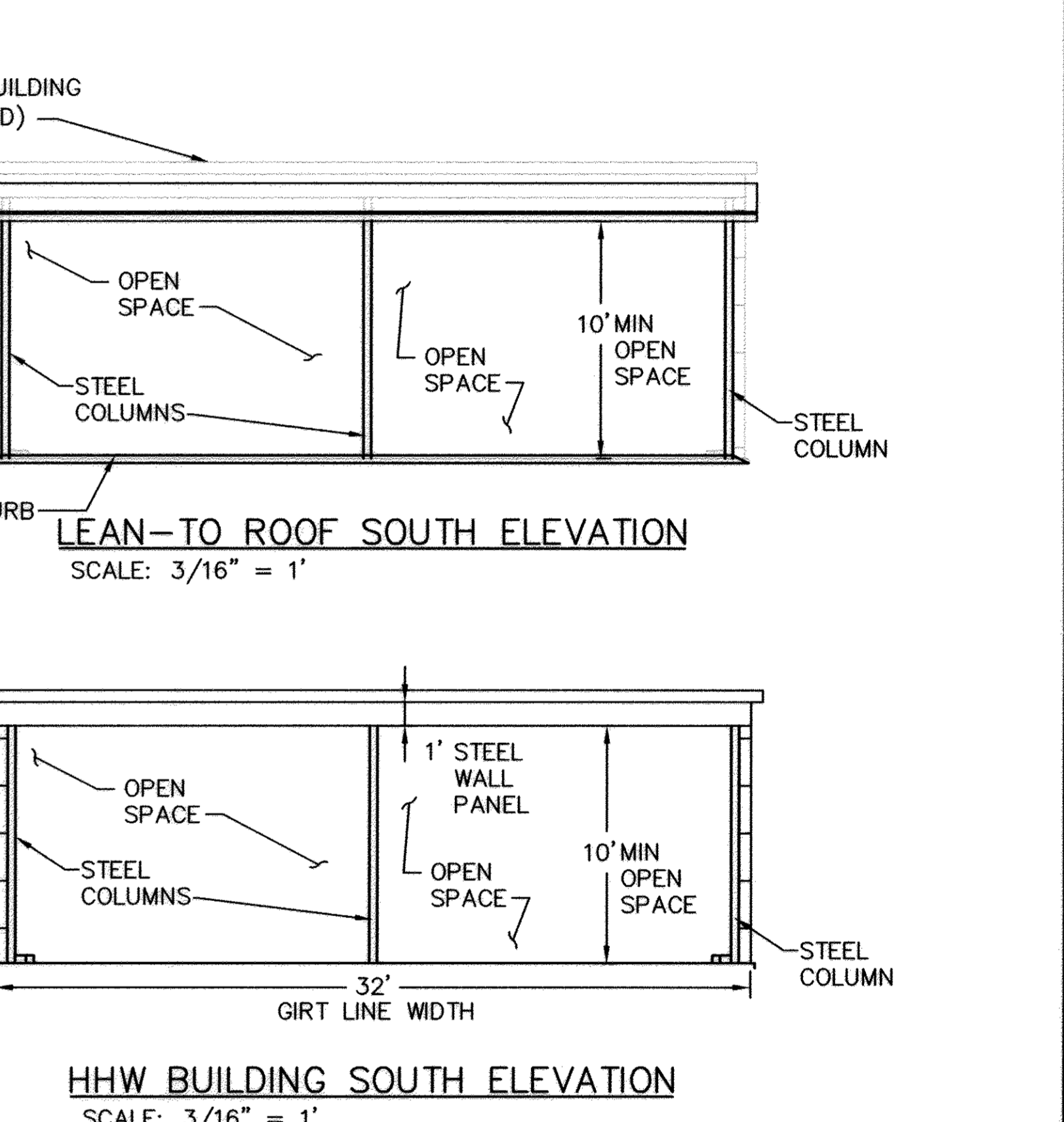
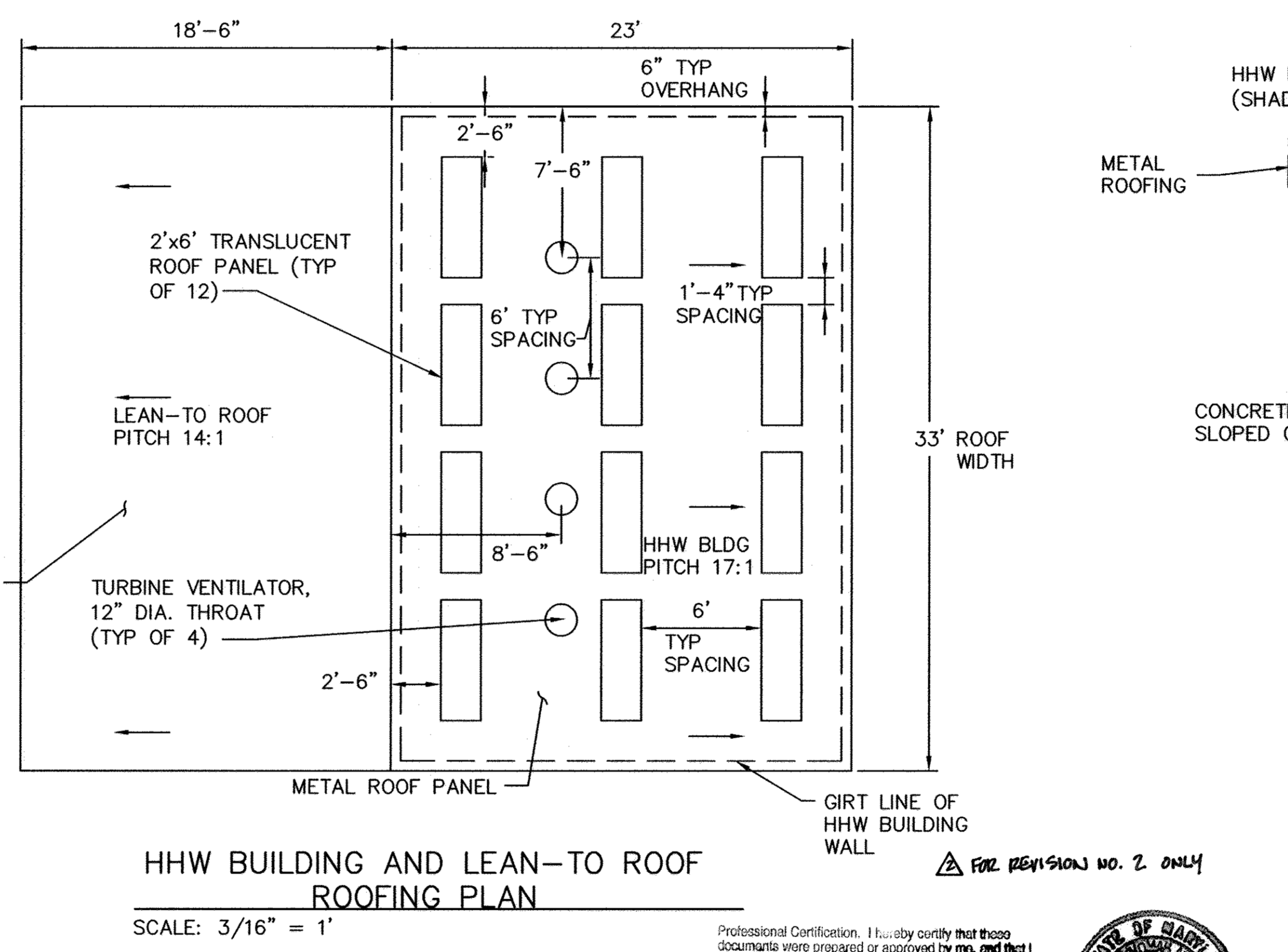
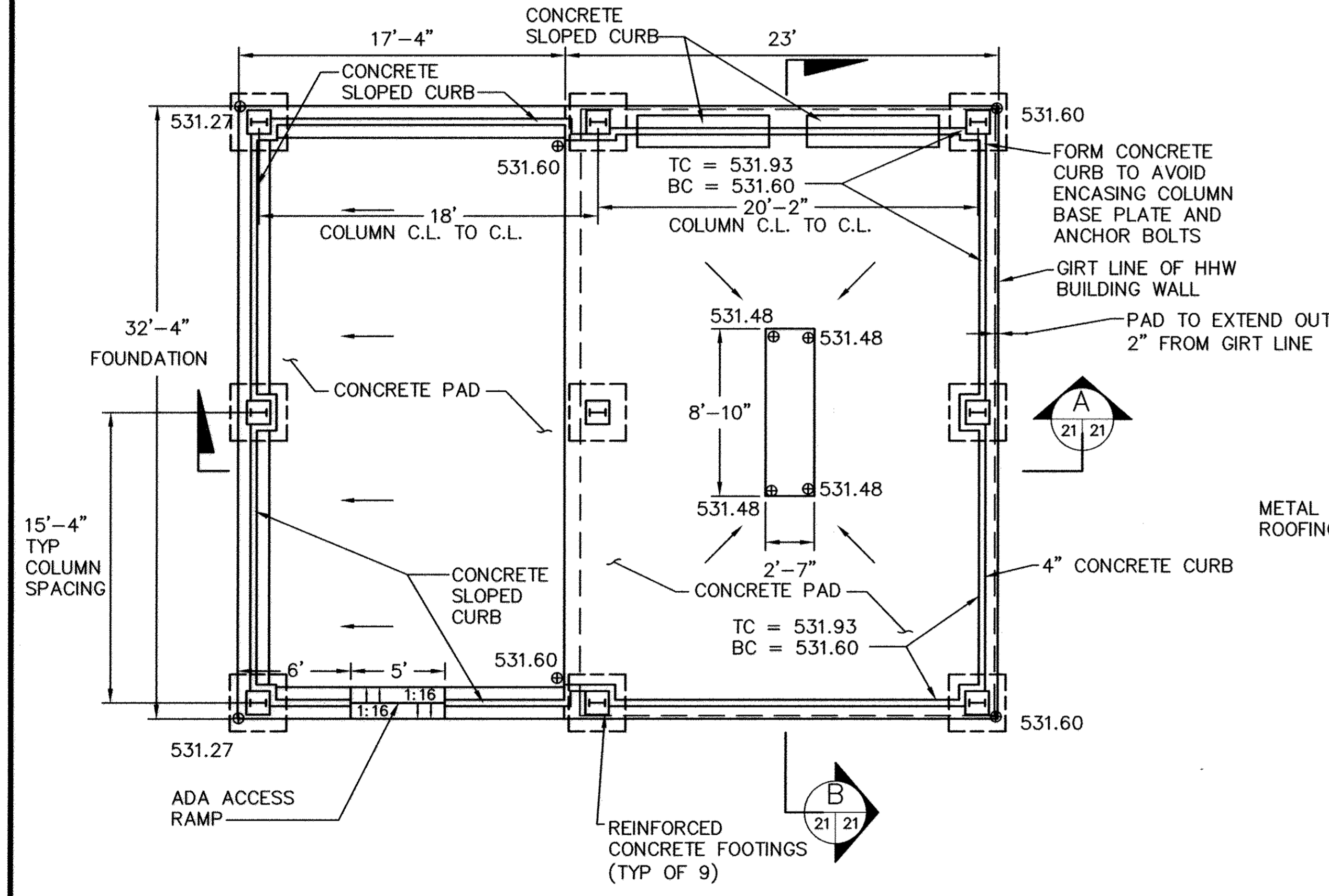
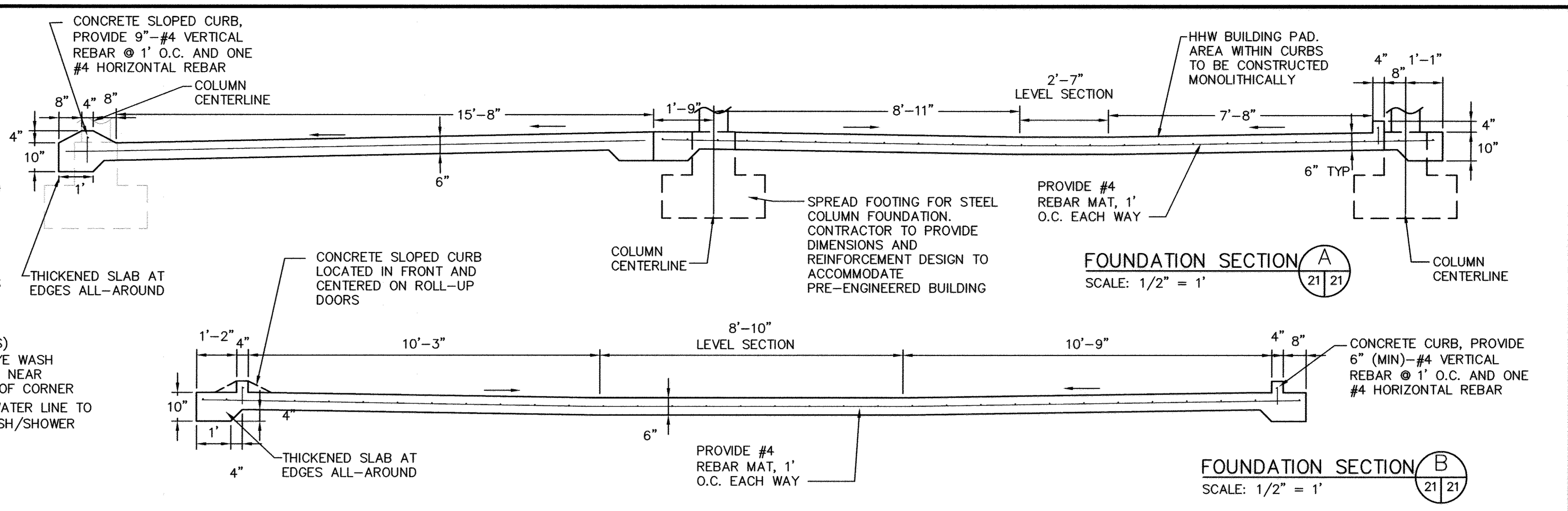
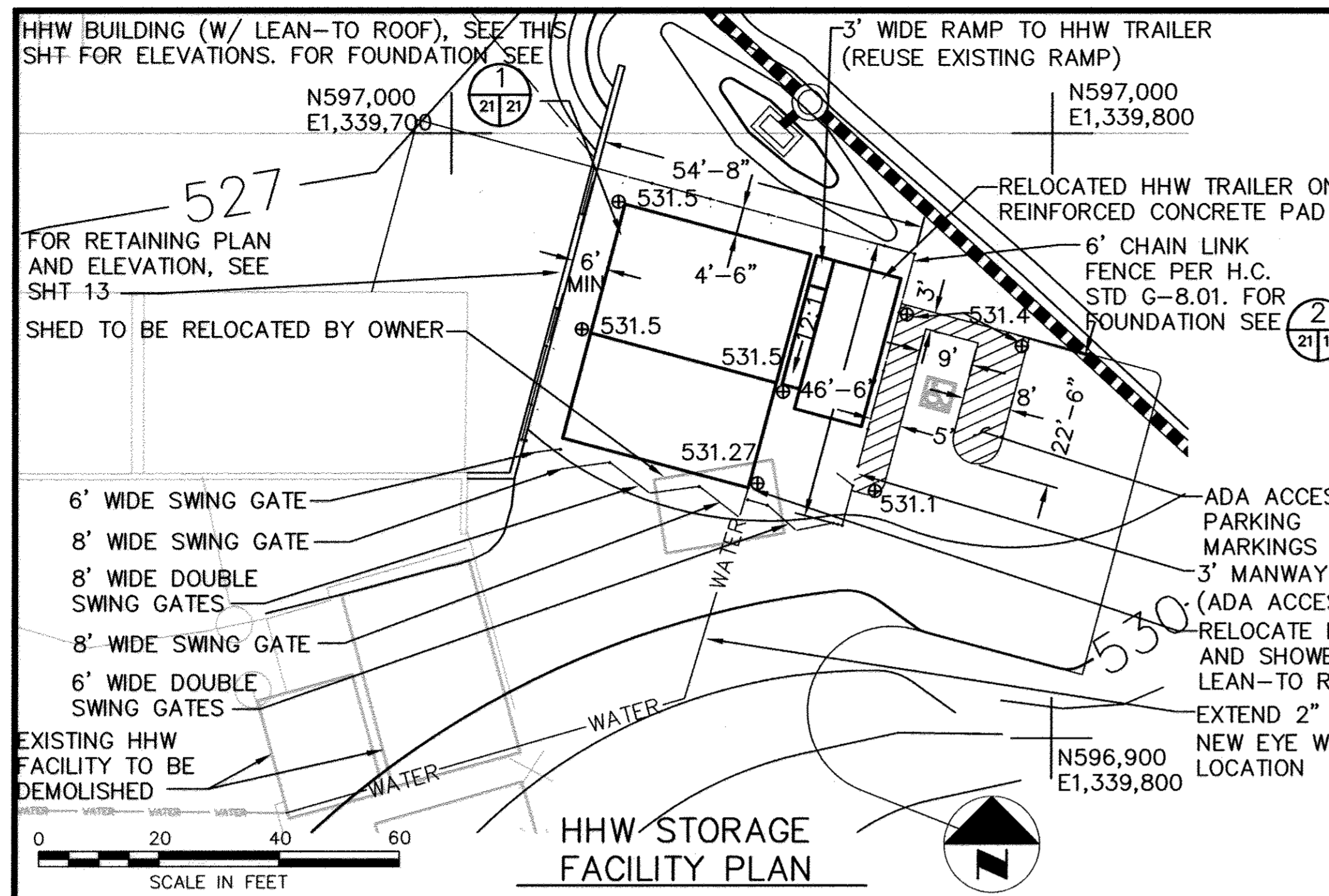
SCALE: AS SHOWN

SHEET 20 OF 24

NORFOLK 002203023.12 \DWGS\EROSION-2.DWG







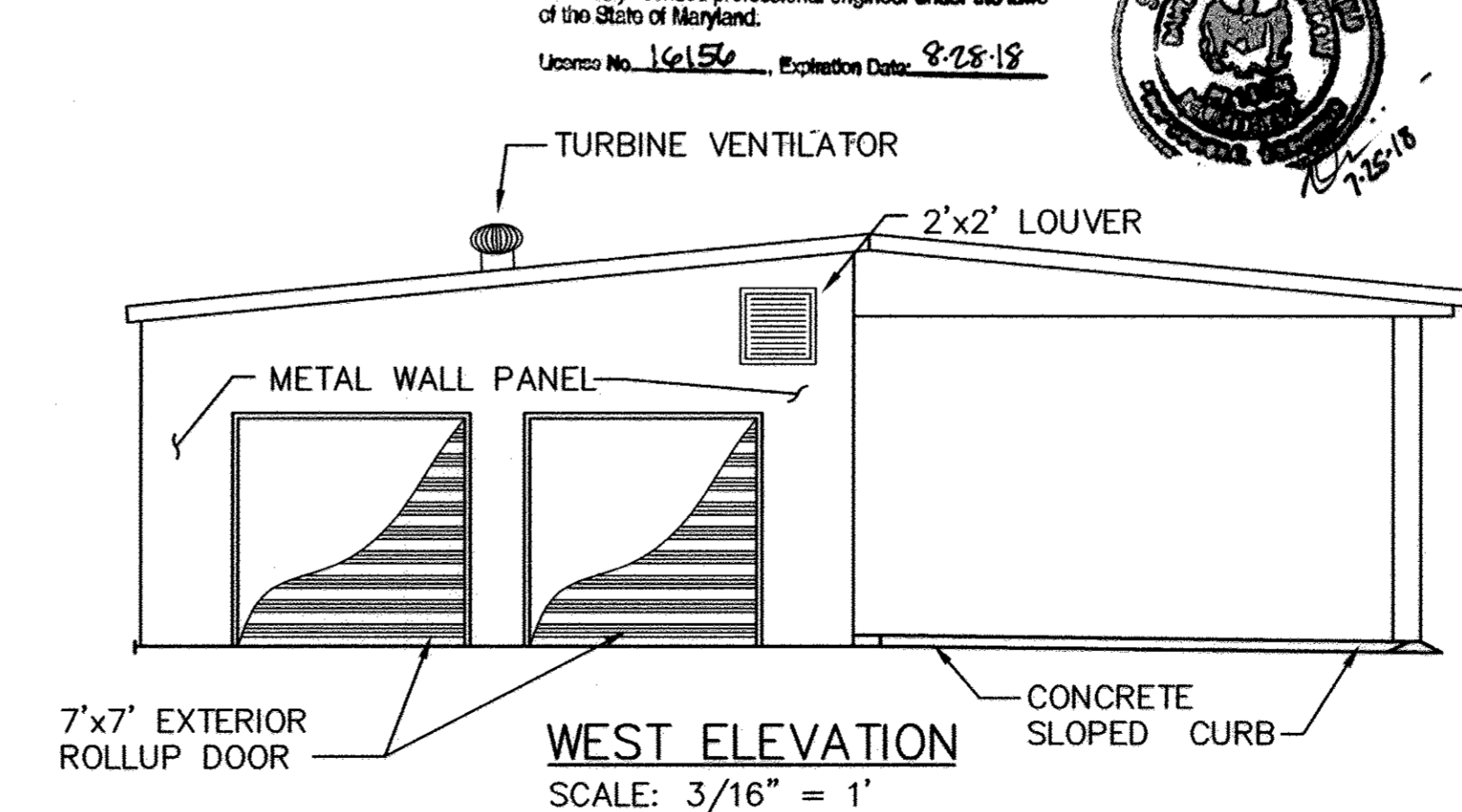
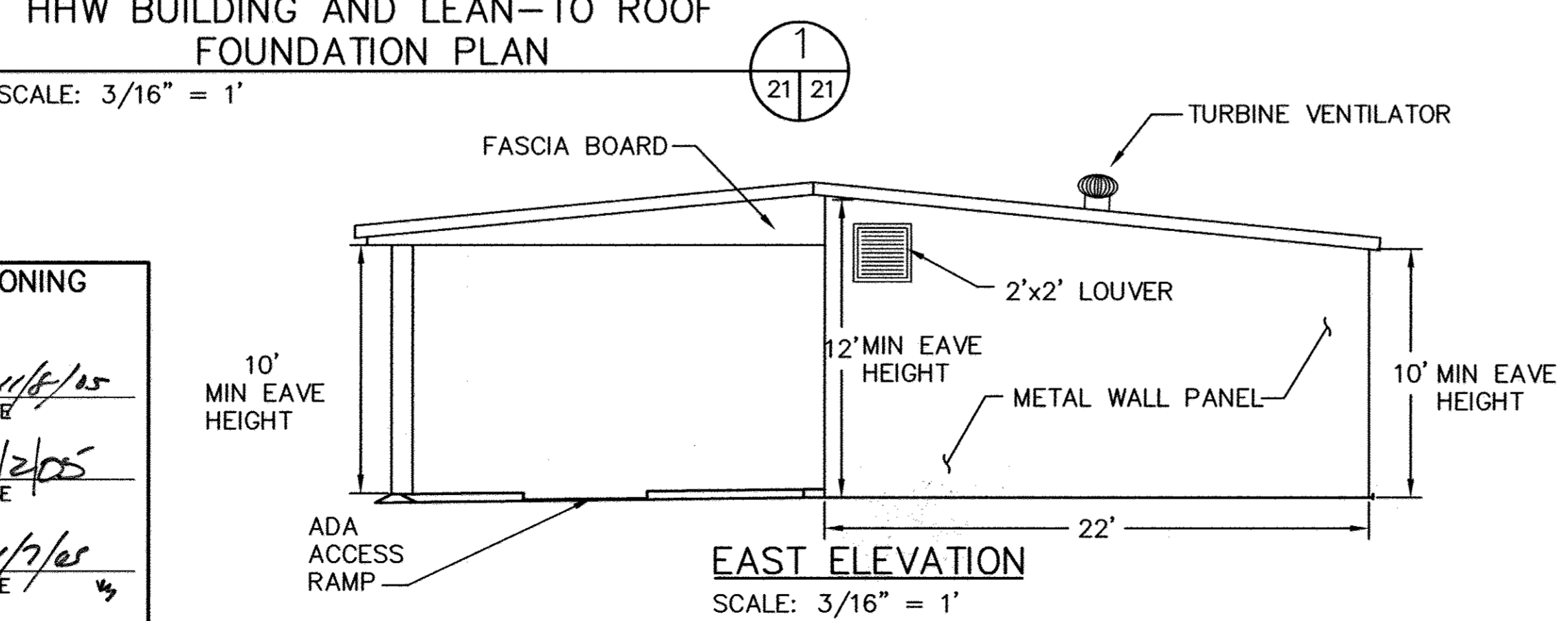
PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/806 16-876/215 10-891/314	TAX/ZONE MAP RC-DEO 10 & 16
WATER CODE PUBLIC CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING
CENSUS TR. 6030	

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

Director: *Frank Laugel* DATE: 11/8/05

Chief, Development Engineering Division: *Andrew...* DATE: 11/2/05

Chief, Division of Land Development: *Vinda Hammett* DATE: 11/7/05



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. 16156 Expiration Date: 8-25-18

STATE OF MARYLAND PROFESSIONAL ENGINEER

- NOTES:
- LEAN-TO ROOF AND HHW BUILDING CONNECTION DETAILS (E.G., RAFTER TO POST AND PANEL TO SUPPORT MEMBER) TO BE PROVIDED BY CONTRACTOR AND APPROVED BY ENGINEER.
  - HHW BUILDING TO BE A PRE-ENGINEERED METAL BUILDING. CONTRACTOR TO PROVIDE DESIGN CALCULATIONS FOR BUILDING AND CONCRETE FOOTINGS TO COMPLY WITH LOCAL BUILDING CODES, IBC 2000 OR LATEST.
  - COLUMN DIMENSIONS SHOWN FOR HHW BUILDING ARE APPROXIMATE. PRE-ENGINEERED METAL BUILDING MANUFACTURER TO FINALIZE COLUMN SPACING AND DIMENSIONS.
  - BUILDING COLORS AND LEAN-TO ROOF COLORS TO BE DETERMINED BY OWNER IN COORDINATION WITH CONTRACTOR PRIOR TO ORDERING PRE-ENGINEERED BUILDING.
  - PROVIDE 4" THICK REINFORCED (WWF REINFORCEMENT) CONCRETE PAD FOR PLACEMENT OF THE RELOCATED HHW TRAILER. SIZE TO FIT TRAILER, APPROXIMATE DIMENSIONS ARE 11.5'x25.3'.
  - SOUTH ELEVATION OF HHW BUILDING IS ENCLOSED IN WALL PANEL.
  - COLUMN FOOTINGS SHALL BE A MINIMUM OF 30" BELOW GRADE FOR FROSTLINE.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director: *John...* DATE: 10/14/05

Chief, Bureau of Environmental Services: *John...* DATE: 10/19/05

SCS ENGINEERS  
CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676

STATE OF MARYLAND PROFESSIONAL ENGINEER

DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF	
CHK. PAM/MRG	AREA. THIS SHEET SHOWS:	
DATE: 09/05	PLAN AND ELEVATIONS OF NEW FACILITY	
BY NO.	REVISED SHEET No.	7/15
	REVISION	
	DATE	

HHW STORAGE FACILITY PLAN  
AND ELEVATIONS

REVISED SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION  
REVISED SITE DEVELOPMENT PLAN  
CAPITAL PROJECT NO. C-0299-A

3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

EP-06-01  
SCALE:  
AS SHOWN  
SHEET  
21 OF 28  
28

SDP-90-37  
80-06-01



LOG OF BORING NUMBER: 1									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 480.5 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Brown sandy SILT, loose, moist.									
Orange.									
Red-brown.									
medium dense, trace rock fragments.									
Boring Terminated at 31.5 Feet.									
Completion Depth: 31.5 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operations and at completion.									

LOG OF BORING NUMBER: 1									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 480.5 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Orange tan.									
Brown tan.									
Orange tan.									
Boring Terminated at 31.5 Feet.									
Completion Depth: 31.5 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operations and at completion.									

LOG OF BORING NUMBER: 2									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 472.5 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Orange sandy SILT, loose, moist.									
Brown, medium dense.									
Orange brown.									
Brown.									
trace rock fragments.									
Boring Terminated at 31.5 Feet.									
Completion Depth: 31.5 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operations and at completion.									

LOG OF BORING NUMBER: 2									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 472.5 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Brown sandy SILT, loose, moist.									
Orange.									
trace rock fragments.									
Orange brown, medium dense.									
Tan orange, loose.									
Boring Terminated at 31.5 Feet.									
Completion Depth: 31.5 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operations and at completion.									

LOG OF BORING NUMBER: 3									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 477.5 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Brown sandy SILT, loose, moist.									
Orange.									
trace rock fragments.									
Orange brown, medium dense.									
Boring Terminated at 31.5 Feet.									
Completion Depth: 31.5 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operations and at completion.									

LOG OF BORING NUMBER: 3									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 477.5 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Tan orange, loose.									
Brown, dense.									
Tan brown, medium dense.									
Boring Terminated at 31.5 Feet.									
Completion Depth: 31.5 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operations and at completion.									


LOG OF BORING NUMBER: 4									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 499.0 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Tan sandy SILT, medium dense, moist.									
Residual.									
Boring Terminated at 5.0 Feet.									
Completion Depth: 5.0 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operations and at completion.									

LOG OF BORING NUMBER: 5									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 527.5 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Gray brown sandy SILT, medium dense, trace rock fragments, moist.									
Tan, loose.									
Tan orange.									
Tan brown, trace rock fragments and organics.									
Fill.									
Orange sandy SILT, loose, trace rock fragments, moist.									
medium dense.									
Boring Terminated at 15.0 Feet.									
Completion Depth: 15.0 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operation and at completion.									

LOG OF BORING NUMBER: 4									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 499.0 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Tan sandy SILT, medium dense, moist.									
Residual.									
Boring Terminated at 5.0 Feet.									
Completion Depth: 5.0 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operations and at completion.									

LOG OF BORING NUMBER: 5									
Project Description: Howard County ARL Citizen's Area									
Project Location: Washington County, MD									
Depth, feet	Sample Type	Symbol / USCS	Borehole Location: See Plate A-2 Surface El.: 527.5 +/-	Offset: 0	Rock Coring	Laboratory Testing			
						Gravel %	Sand %	Silt and Clay %	Water Content %
0-4	Split Spoon	SS							
4-4.4	Shelby Tube	ST							
4-5.8	Rock Core	RC							
LITHOLOGIC DESCRIPTION									
3 inches of Topsoil									
0-4									
4-4.4									
4-5.8									
Gray brown sandy SILT, medium dense, trace rock fragments, moist.									
Tan, loose.									
Tan orange.									
Tan brown, trace rock fragments and organics.									
Fill.									
Orange sandy SILT, loose, trace rock fragments, moist.									
medium dense.									
Boring Terminated at 15.0 Feet.									
Completion Depth: 15.0 feet Date Boring Started: 2/2/05 Date Boring Completed: 2/2/05 Engineer/Geologist: DDH Project Number: 03-05-0031									
Remarks: Boring Dry During Drilling operation and at completion.									

PROJECT NAME	LOT/PARCEL	
ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	302	
LIBER/FOLIO	ZONE	TAX/ZONE MAP
10-847/806 16-878/215 10-891/314	RC-DEO	10 & 16
WATER CODE	SEWER CODE	CENSUS TR.
PUBLIC, CONTRACT 44-4158	PRIVATE, EXISTING	6030
DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND		
<i>Frank L. Leight</i>	DATE	11/10/05
DIRECTOR		
<i>Cheryl Williams</i>	DATE	11/2/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION		
<i>Cindy Harvath</i>	DATE	11/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT		

FOR REVISION NO. 2 ONLY	
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. 16156	Expiration Date: 8-28-18
	

DES. AST	THE PURPOSE OF THE REVISED SDP IS TO	10/7/05
DRN. AST	DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS:	
CHK. PAM/MRG	GEOTECHNICAL BORING LOGS	
DATE: 09/05	REVISED SHEET NO.	7/13
BY	NO.	REVISION
		DATE

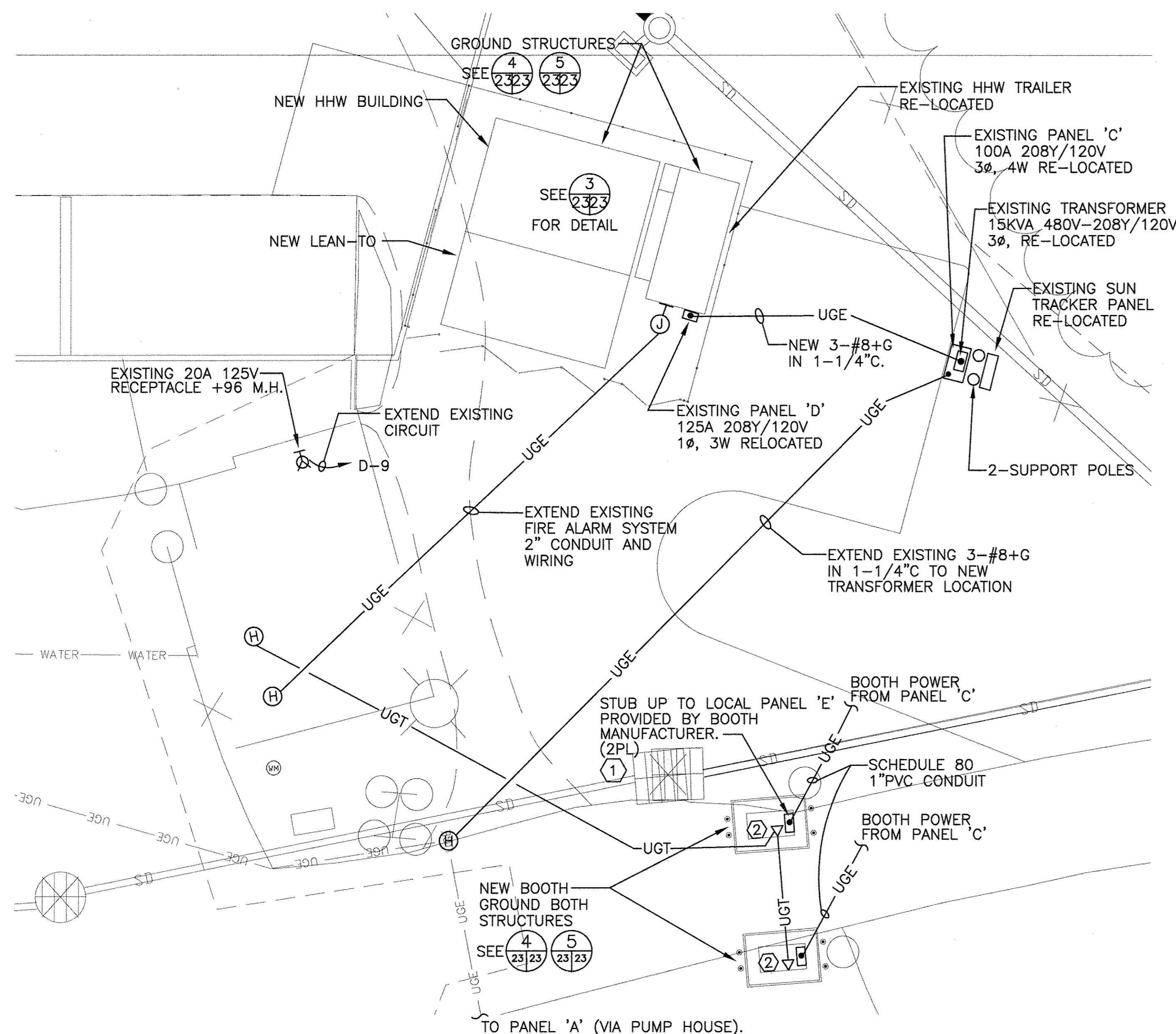
BORING LOGS	
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REVISED SITE DEVELOPMENT PLAN ALPHA RIDGE LANDFILL RESIDENTS' DROP-OFF AREA EXPANSION REVISED SITE DEVELOPMENT PLAN CAPITAL PROJECT NO. C-0299-A	
3rd ELECTION DISTRICT	HOWARD COUNTY, MARYLAND
EP-06-01	SCALE: AS SHOWN
SHEET 22 OF 24	

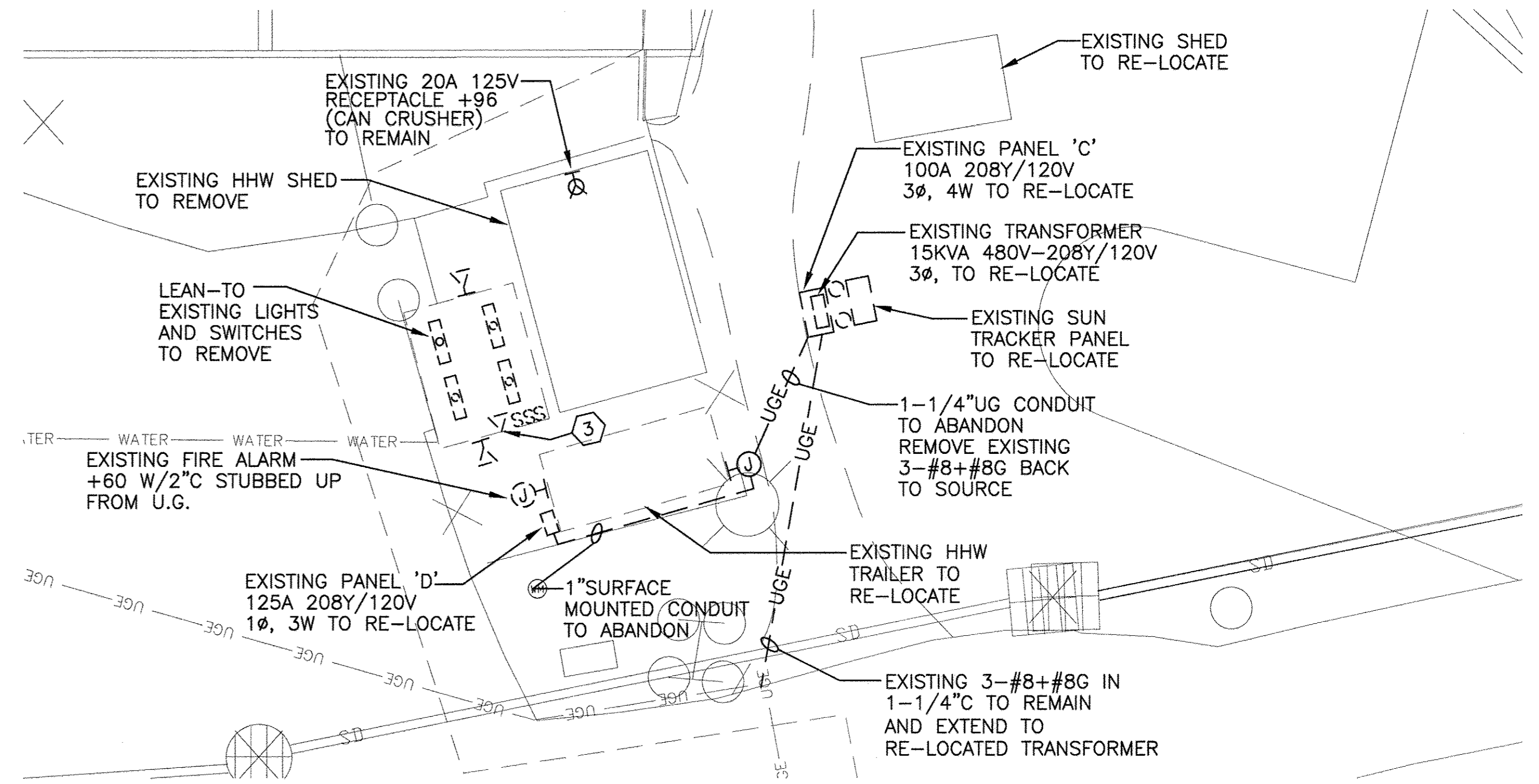
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SDP-90-37  
EP-06-01

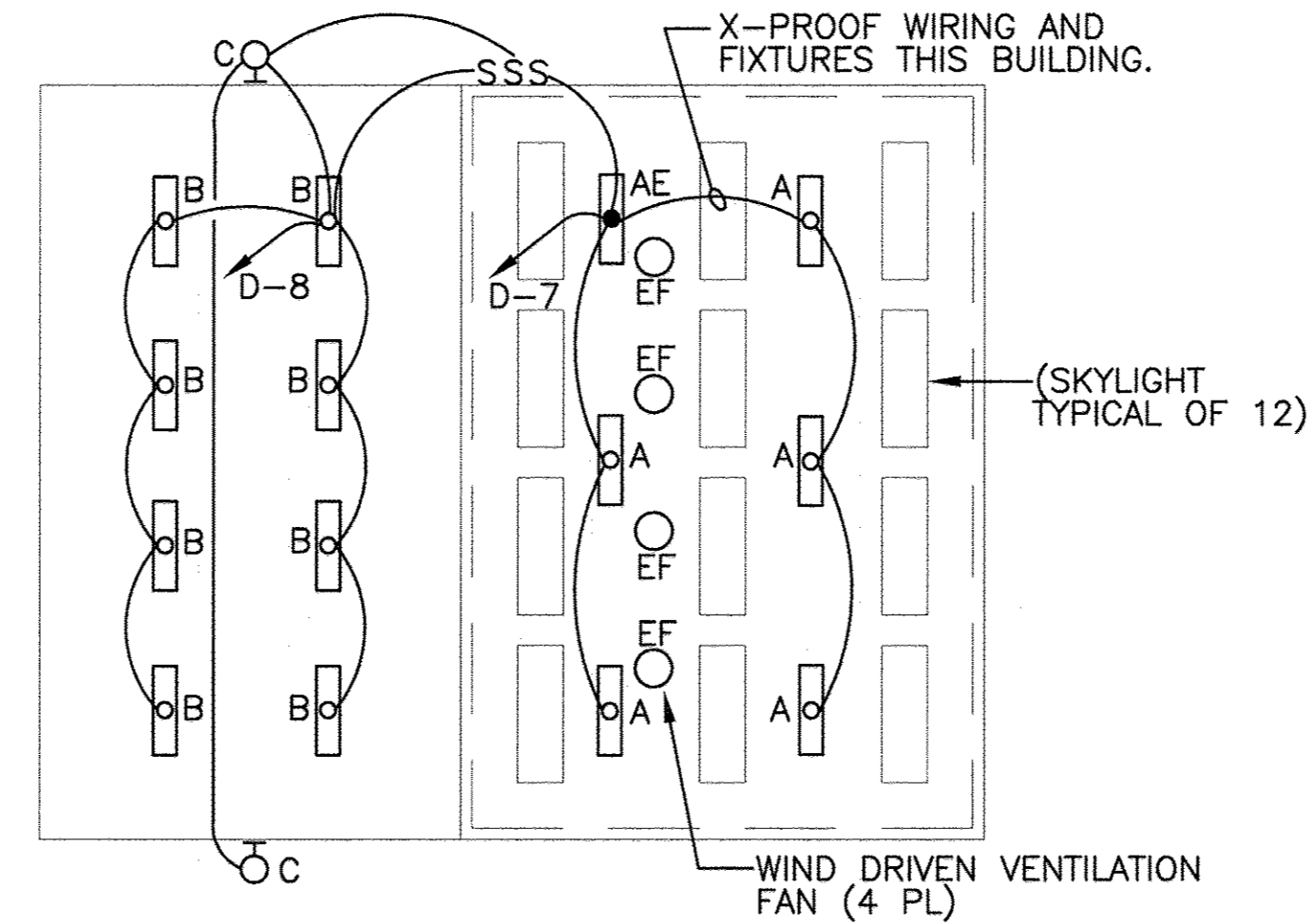




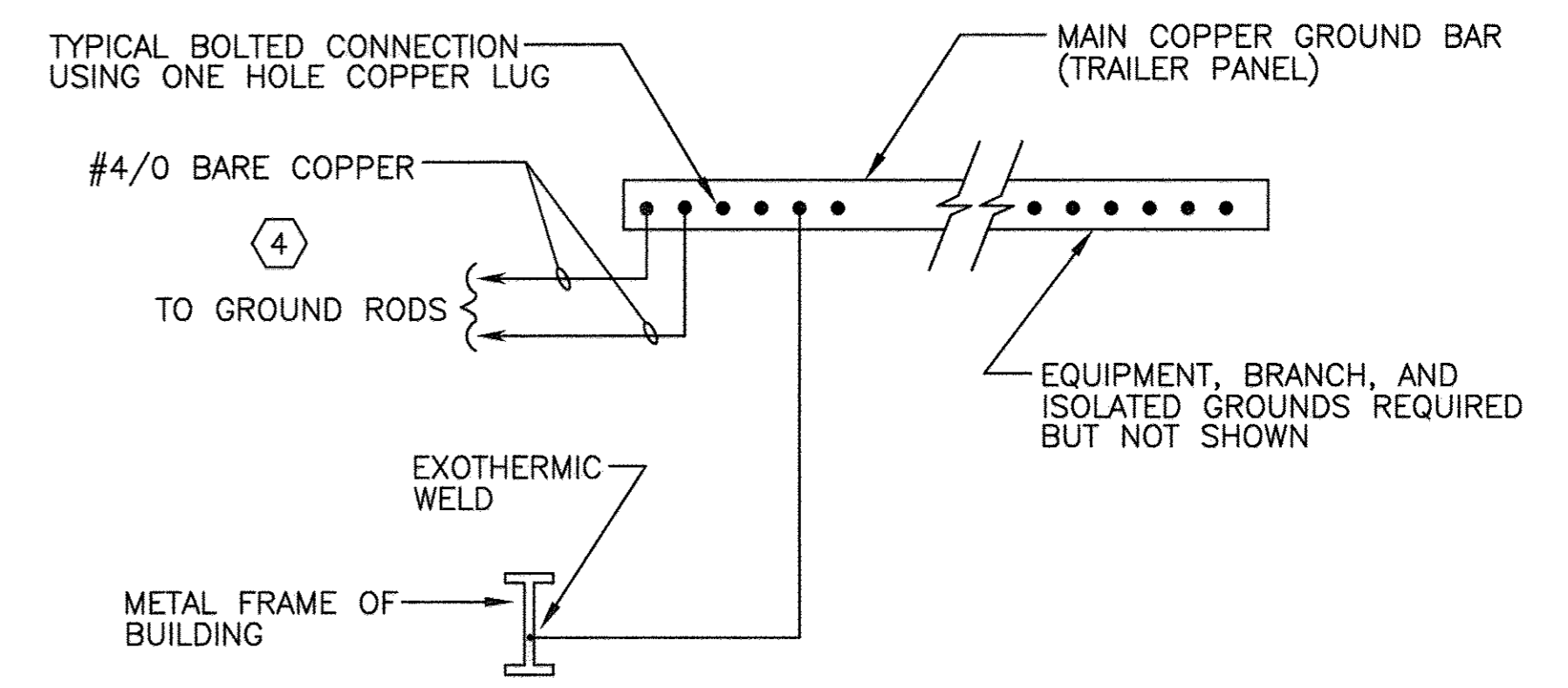
2 SITE PLAN ELECTRICAL NEW WORK  
SCALE: 1" = 15'



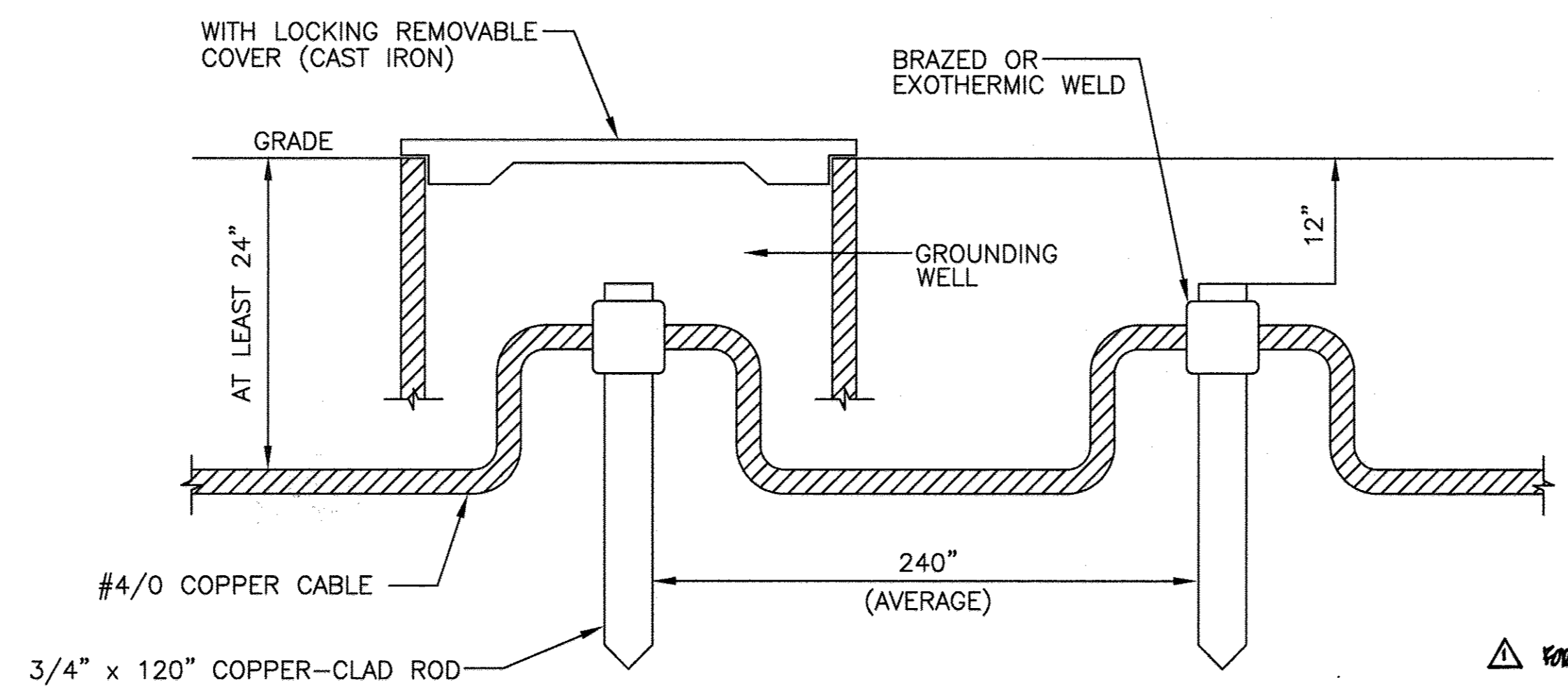
1 SITE PLAN DEMOLITION  
SCALE: 1" = 15'



3 HHW BUILDING - NEW LIGHTING PLAN  
SCALE: 1/8" = 1-0"



4 TYPICAL BUILDING GROUNDING ELECTRODE SYSTEM DETAIL  
N.T.S.



5 GROUND ROD INSTALLATION DETAIL  
N.T.S.

- KEY NOTES:
- 1 COORDINATE STUB-UP LOCATION WITH BOOTH MANUFACTURER'S ELECTRICAL PANEL LOCATION.
  - 2 STUB-UP 3/4" CONDUIT TO WEATHER PROOF JUNCTION BOX ON ROOF FROM SECURITY CAMERA SYSTEM LOCATED WITHIN BOOTH.
  - 3 EXTEND EXISTING TELEPHONE CONDUIT TO NEW GUARD BOOTHS. SEE 2/23
  - 4 ALL WIRE SIZES SHOWN ARE MINIMUM SIZE TO BE INSTALLED. ALL GROUNDING ELECTRODE CONDUCTOR SIZES SHALL CONFORM TO NEC.

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/606 16-878/215 10-891/314	ZONE RC-DEO
TAX/ZONE MAP 10 & 16	
WATER CODE PUBLIC, CONTRACT 44-415B	SEWER CODE PRIVATE, EXISTING
CENSUS TR. 60-30	

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Mark J. Wagle* 11/8/05  
DIRECTOR DATE

*John DeMunn* 11/2/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

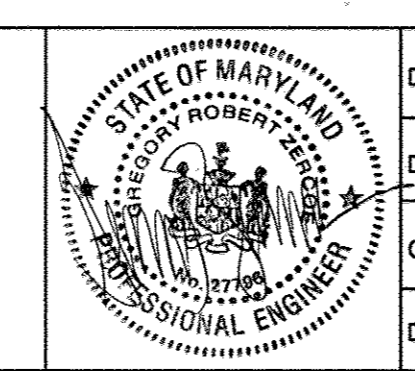
*Cindy Hammett* 11/7/05  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John DeMunn* 10/10/05  
DIRECTOR OF PUBLIC WORKS DATE

*John O'Brien* 10/11/05  
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

SCS ENGINEERS  
CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676



DES.	GZ			
DRN.	AA			
CHK.	GZ			
DATE:	6/21/05	DTM	REVISOR SHEET No.	7/18
BY:	NO.	NO.	REVISION	DATE

SITE ELECTRICAL - 1

REVISOR SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION

CAPITAL PROJECT NO. C-0299-A

3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE:  
AS SHOWN

SHEET  
23 OF 24



**GENERAL ELECTRICAL NOTES:**

- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL OTHER APPLICABLE STATE AND LOCAL CODES AND BUILDING STANDARDS, UNLESS DRAWING AND/OR SPECIFICATIONS INDICATE WORK OVER AND ABOVE CODE REQUIREMENTS. FURNISH ALL MATERIALS AND LABOR NECESSARY FOR THE COMPLETION OF WORK UNLESS NOTED OTHERWISE.
- ALL CUTTING AND PATCHING SHALL BE PERFORMED IN A WORKMANLIKE MANNER ACCEPTABLE TO THE ENGINEER.
- THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE, COMPARE THE DRAWINGS WITH THE EXISTING ELECTRICAL INSTALLATION ASCERTAINING CORRECTNESS OF CIRCUIT NUMBERS IN EXISTING PANELS.
- ARRANGE THE WORK SO THAT ELECTRICAL POWER AND COMMUNICATIONS ARE AVAILABLE TO THE EXISTING FACILITIES AT ALL TIMES, EXCEPT FOR SHORT PERIODS OF INTERRUPTION NECESSARY FOR THE PERFORMANCE OF WORK. SCHEDULE ALL INTERRUPTIONS WITH THE SITE MANAGER, EXACT TIME AND DURATION. COST OF ALL INTERRUPTIONS SHALL BE INCLUDED IN THE WORK.
- RE-LABEL ALL REVISED CIRCUITS IN PANELBOARDS TO NEW FUNCTIONS AND AREAS SERVED.
- ALL ELECTRICAL WORK, INCLUDING SERVICE AND EQUIPMENT, SHALL BE CONDUCTED ON DE-ENERGIZED SYSTEMS AND COMPONENTS. WHERE CONTINUOUS SERVICES REQUIRED TO EXISTING EQUIPMENT, AN ALTERNATIVE MEANS OF SERVICE SHALL BE PROVIDED AND INSTALLED UNTIL THE REQUIRED NEW AND/OR ALTERED WORK HAS BEEN COMPLETED.
- THE CONTRACTOR WILL PERFORM ALL ELECTRICAL SWITCHING OPERATIONS. ALL OUTAGE THAT AFFECT AREA OUTSIDE WORK AREA SHOWN ON DRAWING SHALL OCCUR AT NIGHT, WEEKENDS, AND/OR HOLIDAYS AT THE DISCRETION OF THE SITE MANAGER. DOWN TIME WORK SHALL COMMENCE DURING MINIMAL OCCUPANCY PERIODS, AND AT TIME PRE-ARRANGED WITH SITE MANAGER.
- DISCONNECTION OF ELECTRICAL SERVICES: PRIOR TO COMMENCING DEMOLITION IN ANY AREA, THE CONTRACTOR SHALL REPORT TO THE ENGINEER AND OBTAIN WRITTEN PERMISSION TO PROCEED. IN ADDITION, THE CONTRACTOR SHALL SCHEDULE ALL POWER OUTAGES WITH THE ENGINEER WITH FIVE(5) DAYS ADVANCE NOTICE. AS A SAFETY PRECAUTION, THE CONTRACTOR SHALL DISCONNECT ALL ELECTRICAL BRANCH CIRCUITS AND/OR FEEDERS SERVING THE AREA BEING DEMOLISHED.
- DAMAGE: WHERE CONDUIT AND WIRING TO REMAIN ARE INADVERTENTLY DAMAGED OR SOURCE SWITCHBOARD, PANELBOARD OR PULLBOX TO THE DESTINATION CONNECTION POINT. DISTURBED, CUT OUT AND REMOVE DAMAGED PORTION AND ALL DAMAGED WIRING FROM THE PROVIDE NEW WIRING OF EQUAL CAPACITY.
- ACCESSIBLE WIRING: EXPOSED CONDUIT TO BE DEMOLISHED SHALL BE REMOVED IN ITS ENTIRETY.
- WIRING: WIRING TO BE DEMOLISHED SHALL BE REMOVED FROM BOTH CONCEALED AND EXPOSED CONDUIT. NO WIRING WHICH BECOMES UNUSED AS A RESULT OF THE CONTRACT SHALL BE ABANDONED IN PLACE.
- ABANDONED WORK: ALL ABANDONED ELECTRICAL EQUIPMENT, FEEDERS, AND CONDUITS SHALL BE REMOVED, CONCEALED CONDUIT, ABANDONED IN PLACE, SHALL BE CUT OUT APPROXIMATELY 2" BEYOND THE FACE OF ADJACENT CONSTRUCTION, PLUGGED AND THE ADJACENT SURFACE PATCHED TO MATCH EXISTING.
- REMOVAL: EQUIPMENT SPECIFIED OR INDICATED TO BE DEMOLISHED, SHALL BE REMOVED FROM THE PROJECT SITE AND SHALL NOT BE REUSED.
- ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE PROVIDED WITH (UL) LISTED FIRE STOPPING AND MATERIAL.
- APPLICABLE CODES: THE INSTALLATION SHALL COMPLY WITHIN THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND CODES OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
- WORKMANSHIP: ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
- WIRE: MINIMUM WIRE SIZE TO BE USED SHALL BE 12AWG TYPE THHN OR THWN. FOR RUNS EXCEEDING 100 FEET FOR 120VOLT. CIRCUIT WIRE SIZE SHALL BE INCREASED TO 10 AWG.
- CONDUIT SYSTEM: ALL WIRING TO BE RUN IN STEEL CONDUIT, 3/4" MINIMUM TRADE SIZE. NO BX, OR AC TYPE CABLE TO BE USED, HHW BUILDING SYSTEM TO COMPLY WITH ARTICLE 501 OF NATIONAL ELECTRIC CODE FOR CLASS 1, DIVISION 1.
- OUTLET BOXES: 4" SQUARE FOR SWITCHES AND RECEPTACLES, EXPLOSION PROOF.

- WIRING STANDARDS: MINIMUM CONDUIT SIZE IS 3/4". THE USE OF BX IS NOT ALLOWED. CONDUIT SHALL BE RUN IN ALL SPACES. WIRING SHALL BE UL-LISTED. INSULATION SHALL BE TYPE THHN/THWN. (DRY LOCATION ONLY) 75° C INSULATION, NO. 12AWG (MIN.) UON. ALL BRANCH CIRCUIT WIRING ON THE DRAWINGS THAT IS UNMARKED INDICATES TWO CURRENT CARRYING CONDUCTORS AND A GROUNDING CONDUCTOR.
- SHOP DRAWINGS: SUBMIT SHOP DRAWING FOR THE FOLLOWING: LIGHTING FIXTURES, FIRE ALARM DEVICES, SWITCHES, CONDUCTORS, AND RACEWAYS.
- GROUNDING: ALL SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- GUARANTEE: THE ENTIRE ELECTRICAL INSTALLATION, MATERIAL AND WORKMANLIKE SHALL BE GUARANTEED FOR PERIOD OF ONE YEAR.
- TESTING: ALL ELECTRICAL SYSTEMS, DEVICES, AND RELATED ITEMS SHALL BE TESTED AT THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL REPLACE ANY AND ALL DEFECTIVE DEVICES, ITEMS, OR SYSTEMS AT COMPLETION OF THE PROJECT.

**SYMBOLS LIST:**

- SURFACE MOUNTED FLUORESCENT LIGHT FIXTURE (SEE FIXTURE SCHEDULE). EXPLOSION PROOF, CLASS I DIVISION 1, FOR GROUP C AND D FLAMMABLE LIQUIDS.
- LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK UNIT—SUBSCRIPT OF LETTER (A, B, C, ETC) INDICATES FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE).
- SURFACE MOUNTED INCANDESCENT SPOT LIGHT. (SEE FIXTURE SCHEDULE).
- HOMERUN TO PANELBOARD. NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. NUMBER OF CROSSMARKS INDICATES NUMBER OF CONDUCTORS WHEN MORE THAN TWO. HALF-CROSSMARK INDICATES GROUND WIRE LETTER DENOTES PANELBOARD NAME.
- BRANCH CIRCUIT WIRE AND CONDUIT RUN SURFACE MOUNTED TO WALLS.
- HAND HOLE, NORDIC FIBERGLASS PHH-16192, 12"x16" (OR EQUAL)
- EXHAUST FAN, CEILING MOUNTED, WIND DRIVEN, TURBINE VENTILATOR LOMANCO MODEL BEB-12 (OR EQUAL).
- JUNCTION-BOX, WALL MOUNTED (WALL M.H. +18" A.F.F. U.O.N.).
- MOUNTING HEIGHT (M.H.) ABOVE FINISHED GRADE IN INCHES.
- SINGLE POLE TOGGLE SWITCH 20A. 120/277V. M.H. +50", EXPLOSION PROOF, KILLARK FXS-1C (OR EQUIVALENT).
- BRANCH CIRCUIT PANELBOARD (SURFACE MOUNTED)—DESIGNATION AS INDICATED ON PLANS.
- EXISTING TELEPHONE TO REMOVE.
- NEW TELEPHONE IN GUARD BOOTH. COORDINATE STUB-UP LOCATION WITH BOOTH MANUFACTURER.
- UNDERGROUND ELECTRICAL FEEDER.
- UNDERGROUND TELEPHONE CONDUIT, 1", EXTEND FROM EXISTING PHONE BOOTH. STUB UP TO NEW GUARD BOOTH. COORDINATE LOCATION WITH BOOTH MANUFACTURER.
- RACEWAY UP / RACEWAY DOWN.
- DISCONNECT SWITCH, 30A, 240V, FUSED PER MANUFACTURER SPECIFICATIONS, U.O.N.
- UNDERGROUND STORM DRAIN.

PANEL SCHEDULE							
CIRCUIT NO.	CIRCUIT BREAKER			WIRE SIZE	CONDUIT SIZE	LOAD SERVED	LOAD (KVA)
	POLES	FRAME	TRIP				
RELOCATED EXISTING PANEL 'C' 208Y/120V. 3Ø, 4W, WITH 40A MCB. (NEMA 3R)							
1-3	3	100	60			SECONDARY MAIN	
4,5	2	100	40	SEE RISER DIAGRAM		PANEL 'D'	5.2
6	1	100	20	2-#12+G	3/4"	SUNTRACKER	0.1
7,8	2	100	30	2-#10+G	1"	BOOTH POWER	3.5 *
9,10	2	100	30	2-#10+G	1"	BOOTH POWER	3.5 *
11-13						SPACE	

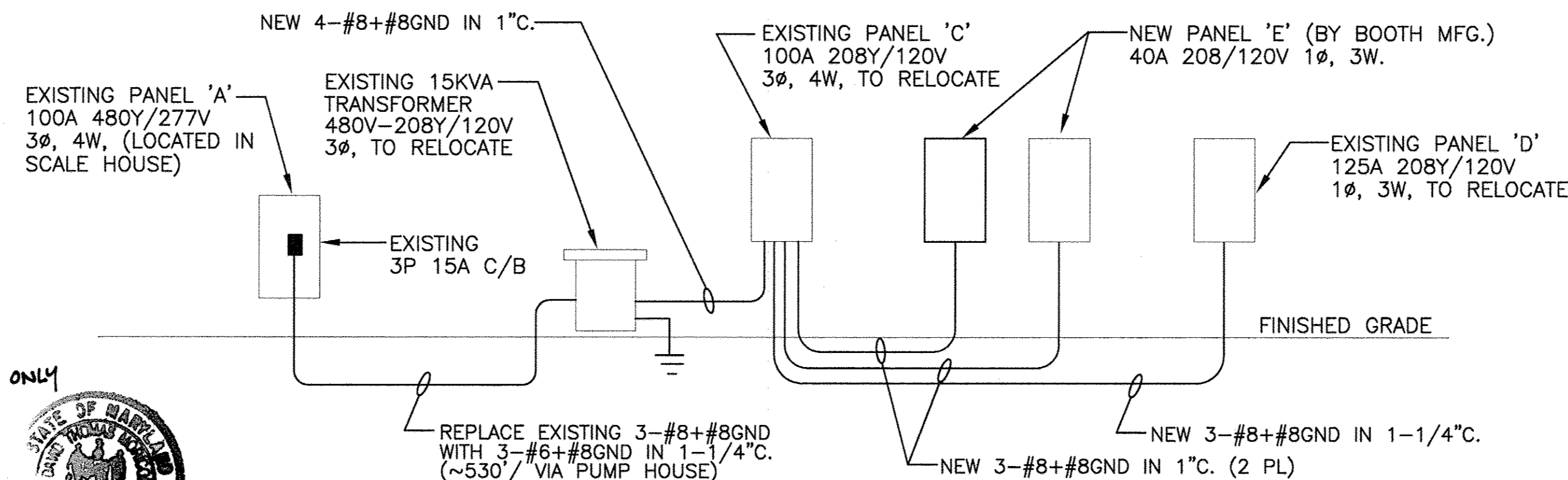
\* NEW CIRCUIT BREAKER CONNECTED LOAD = 12.3KVA  
CONNECTED CURRENT, I = 12.3kVA/(208\*1.73) = 34A

PANEL SCHEDULE							
CIRCUIT NO.	CIRCUIT BREAKER			WIRE SIZE	CONDUIT SIZE	LOAD SERVED	LOAD (KVA)
	POLES	FRAME	TRIP				
RELOCATED EXISTING PANEL 'D' 208Y/120V. 1Ø, 3W, WITH 40A MCB. (NEMA 3R)							
1,2	2	100	20			TRAILER HEATER	2.0
3,4	2	100	40			MAIN BREAKER	
5	1	100	20			FAN	0.4
6	1	100	20			TRAILER LIGHTS	0.5
7	1	100	20	2-#10+G	3/4"	HHW LIGHTS	1.0 *
8	1	100	20	2-#10+G	3/4"	LEAN-TO LIGHTS	1.0 *
9	1	100	20	2-#12+G	3/4"	CAN CRUSHER	0.3 *
10-16						SPACE	

\* NEW CIRCUIT BREAKER CONNECTED LOAD = 5.2KVA  
CONNECTED CURRENT, I = 5.2kVA/(208V) = 25A

PANEL SCHEDULE							
CIRCUIT NO.	CIRCUIT BREAKER			WIRE SIZE	CONDUIT SIZE	LOAD SERVED	LOAD (KVA)
	POLES	FRAME	TRIP				
NEW PANEL 'E' 40A 208/120V. 1Ø, 3W, WITH MLO. (NEMA 3) BY BOOTH MFG.							
1,2	2	100	20	BY BOOTH MFG.		10K BTU A/C	3.0
3	1	100	20	BY BOOTH MFG.		LIGHTS/RECEPT.	0.4
4	1	100	20	BY BOOTH MFG.		CAMERA	0.1
5-8	1	100	20			SPARE	

CONNECTED LOAD = 3.5KVA  
CONNECTED CURRENT, I = 3.5kVA/(208V) = 17A



1 ELECTRICAL RISER DIAGRAM  
E-2 N.T.S.

**DEMOLITION NOTES:**

- WHETHER SPECIFICALLY INDICATED OR NOT, THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT THAT IS NO LONGER REQUIRED TO REMAIN AS A PART OF AN ACTIVE SYSTEM.
- FOR EQUIPMENT TO BE REMOVED (SHOWN DASHED ON PLANS) THE CONTRACTOR SHALL REMOVE ALL CIRCUITING BACK TO THE ELECTRICAL PANEL OR TO THE NEAREST JUNCTION BOX TO REMAIN ENERGIZED. CIRCUITS NO LONGER REQUIRED TO REMAIN AS PART OF AN ACTIVE SYSTEM SHALL BE REMOVED BACK TO THE PANEL. INACTIVE OUTLETS SHALL BE PROVIDED WITH BLANK COVERS.
- CONDUIT NOT BEING USED SHALL BE REMOVED BACK TO THE SOURCE.
- ALL EXISTING CIRCUITS NO LONGER USED SHALL BE LABELED AS A SPARE CIRCUIT IN THE RESPECTIVE PANEL.
- ALL EXISTING EQUIPMENT REMOVED DURING CONSTRUCTION SHALL REMAIN THE PROPERTY OF HOWARD COUNTY AND SHALL BE STORED, REMOVED FROM THE JOB SITE, OR DISPOSED OF AS DIRECTED BY HOWARD COUNTY'S REPRESENTATIVE.
- WHERE EXISTING EQUIPMENT IS TO BE RELOCATED, EXTREME CARE SHALL BE TAKEN TO PREVENT DAMAGE DURING THE REMOVAL AND REINSTALLATION. WHERE DAMAGE OCCURS, THE EQUIPMENT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF HOWARD COUNTY, AT NO ADDITIONAL COST TO HOWARD COUNTY.
- UNLESS OTHERWISE NOTED, ALL EXISTING ELECTRICAL SYSTEMS TO REMAIN ACTIVE AND DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL OPERATING CONDITION.
- WHERE EXISTING ELECTRICAL SYSTEMS INTERFERE WITH THE INSTALLATION OF NEW SYSTEMS AND THE EXISTING IS TO REMAIN ACTIVE, THE INSTALLATION SHALL BE DISCONNECTED AND RELOCATED AND/OR RECONNECTED AS REQUIRED TO MAINTAIN THE SYSTEM. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- FEEDERS AND BRANCH CIRCUITS EXTENDING THROUGH THE CONTRACT SPACE TO SERVE OTHER AREAS NOT IN THE CONTRACT SHALL REMAIN ACTIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THIS CIRCUIT CONTINUITY.
- THE CONTRACTOR SHALL NOT DISCONNECT ANY SERVICE WITHOUT OBTAINING WRITTEN APPROVAL FROM HOWARD COUNTY NOT LESS THAN FIVE(5) DAYS PRIOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP OUTAGES TO A MINIMUM.
- UNLESS OTHERWISE NOTED, PANELBOARD, LIGHT FIXTURE CABINETS, AND OTHER CABINETS SHALL NOT BE USED FOR PURPOSES OTHER THAN CIRCUIT PROTECTION OR DISTRIBUTION POINTS. THESE CABINETS ARE NOT TO BE USED AS JUNCTION BOXES.
- REFER TO THE GENERAL NOTES, AND/OR SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- GENERAL CONTRACTOR TO IDENTIFY AND LOCATE ANY AND ALL UTILITIES THAT MAY BE IMPACTED AS A RESULT OF TRENCHING AND CUTTING REQUIRED FOR INSTALLATION OF NEW CONDUITS. LOCATION OF EXISTING UNDERGROUND CONDUITS SHOWN ON DRAWINGS MUST BE VERIFIED IN THE FIELD.

PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	LOT/PARCEL 302
LIBER/FOLIO 10-847/606 16-876/215 10-691/314	TAX/ZONE MAP RC-DEO 10 & 16
WATER CODE PUBLIC, CONTRACT 44-4158	SEWER CODE PRIVATE, EXISTING CENSUS TR. 60-30

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. 16156, Expiration Date: 8-28-18



DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Mark Laugel* 11/6/05  
DIRECTOR DATE

*John Deane* 11/2/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Judy Hanan* 11/9/05  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

LIGHTING FIXTURE SCHEDULE							
FIXT. TYPE	MANUFACTURER	CATALOG NO	MOUNTING		LAMPS DESCRIPTION	REMARKS	VOLTAGE
			SURF.	REC. NO.			
A	LDPI LIGHTING	380-T5HO-2L-4-120-P	X	2	54W T5HO	XPROOF 4' LIGHT FIXTURE	120V.
A	LDPI LIGHTING	380-T5HO-2L-4-120-EMP	X	2	54W T5HO	XPROOF 4' LIGHT FIXTURE W/EMERGENCY BATTERY	120V.
B	LDPI LIGHTING	375-3-32T8-A-120-IR	X	2	54W T5HO	WET LOCATION SURFACE MOUNTED	120V.
C	LDPI LIGHTING	DSR-70-C-12-S-R5-B2-T-E1	X	1	70W HPS	WALL MOUNTED DOME LIGHT	120V. *

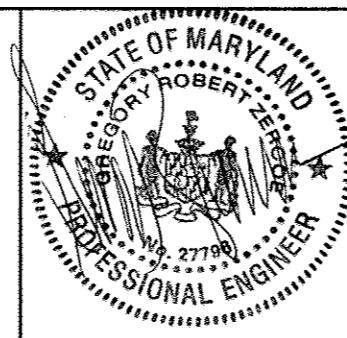
\* WITH WALL BRACKET (VB2) AND REFLECTOR (VRA22P)

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John Deane* 11/14/05  
DIRECTOR OF PUBLIC WORKS DATE

*John Deane* 10/11/05  
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

SCS ENGINEERS  
CONSULTING ENGINEERS  
11260 ROGER BACON DRIVE  
SUITE 300  
RESTON, VIRGINIA 20190  
PH. (703) 471-6150  
FAX. (703) 471-6676



DES.	GZ		
DRN.	AA		
CHK.	GZ		
DATE:	6/21/05	BY:	NO.
REVISION		DATE	

SITE ELECTRICAL - 2

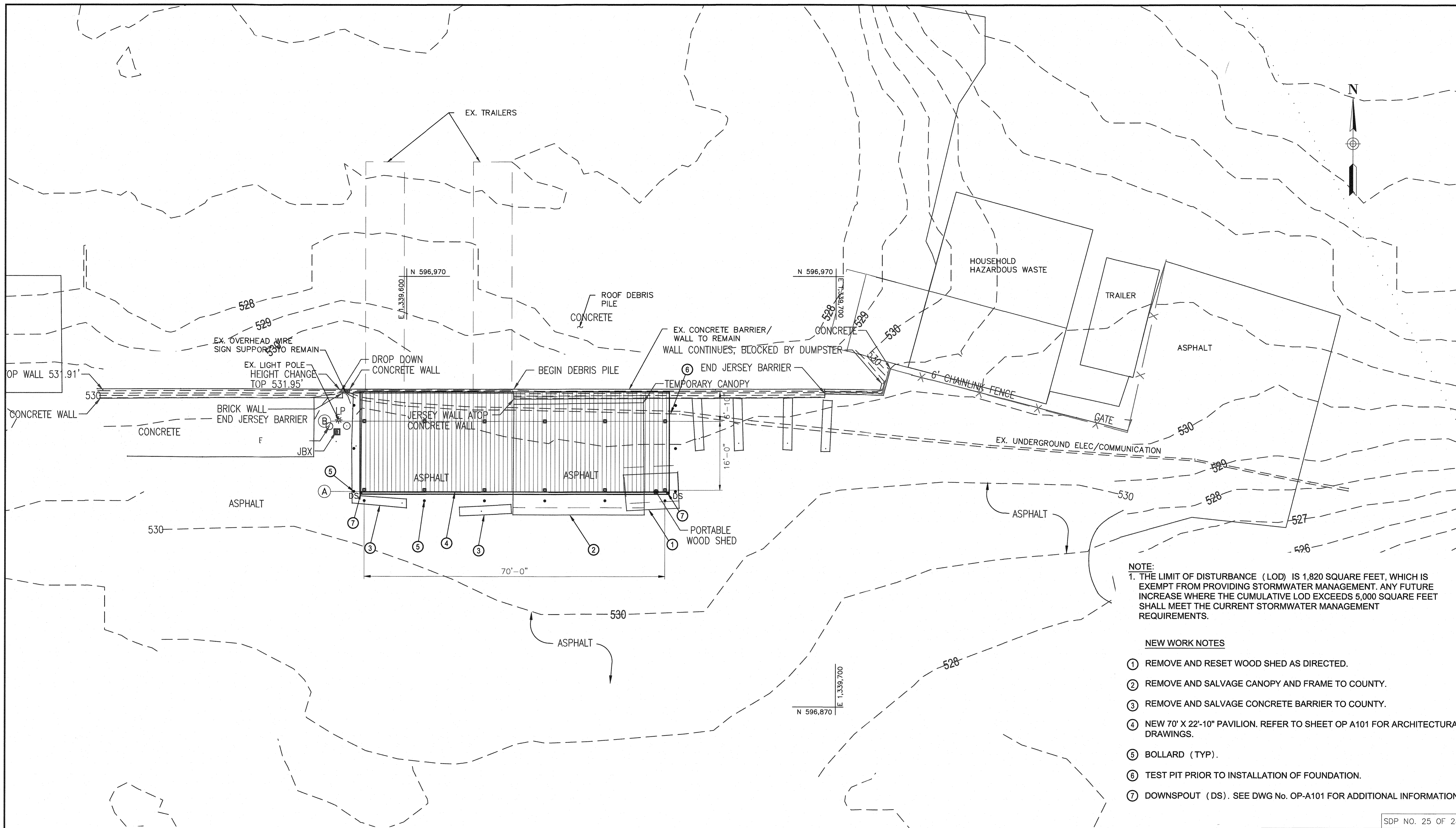
REVISOR SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RESIDENTS' DROP-OFF AREA EXPANSION

CAPITAL PROJECT NO. C-0299-A  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE:  
AS SHOWN

SHEET  
24 OF 24  
26





**NOTE:**  
 1. THE LIMIT OF DISTURBANCE (LOD) IS 1,820 SQUARE FEET, WHICH IS EXEMPT FROM PROVIDING STORMWATER MANAGEMENT. ANY FUTURE INCREASE WHERE THE CUMULATIVE LOD EXCEEDS 5,000 SQUARE FEET SHALL MEET THE CURRENT STORMWATER MANAGEMENT REQUIREMENTS.

- NEW WORK NOTES**
- ① REMOVE AND RESET WOOD SHED AS DIRECTED.
  - ② REMOVE AND SALVAGE CANOPY AND FRAME TO COUNTY.
  - ③ REMOVE AND SALVAGE CONCRETE BARRIER TO COUNTY.
  - ④ NEW 70' X 22'-10" PAVILION. REFER TO SHEET OP A101 FOR ARCHITECTURAL DRAWINGS.
  - ⑤ BOLLARD (TYP).
  - ⑥ TEST PIT PRIOR TO INSTALLATION OF FOUNDATION.
  - ⑦ DOWNSPOUT (DS). SEE DWG No. OP-A101 FOR ADDITIONAL INFORMATION.

SDP NO. 25 OF 28

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 8/2/18  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 8/9/18  
 DIRECTOR  
 DATE: 8-9-18

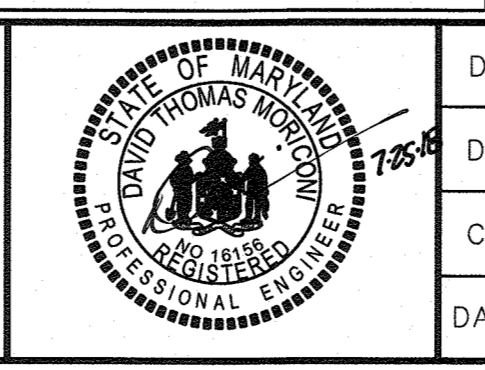
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16156, EXPIRATION DATE: 8/28/2018

**PURPOSE NOTE:**  
 THE PURPOSE OF THIS REDLINE IS TO ADD A NEW PAVILION TO THE RESIDENTIAL DROP-OFF AREA

SCALE: 1" = 10'

OWNER HOWARD COUNTY MARYLAND DEPARTMENT OF PUBLIC WORKS 3430 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 PH: 410 313-6444	WATER CODE: 730	SEWER CODE: PRIVATE	BUILDING	STREET ADDRESS 2350 MARRIOTTSVILLE ROAD
PROJECT NAME: ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER	SECTION/AREA N/A	LOT/PARCEL 54,253,220,11,302		
PLAT 15716 L.6689 F.619	FOREST CONS. PLAT 15834	ZONE RC-DEO	TAX MAP BLOCK 16 2/8	ELEC. DIST. 3RD
		CENSUS TRACT 6030.00		

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES  
 DATE: 7/24/18



DES: RLL			
DRN: CDF			
CHK: DTM			
DATE: 07/2018	DTM	INSERT NEW SHEET	07/2018
BY: NO.	REVISION		DATE

**SITE PLAN 1-  
 PAVILION STRUCTURE**

SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

REVISED SITE DEVELOPMENT PLAN  
**ALPHA RIDGE LANDFILL  
 RECYCLING STORAGE SHED, PAVILION AND  
 ORGANICS STORAGE STRUCTURE**

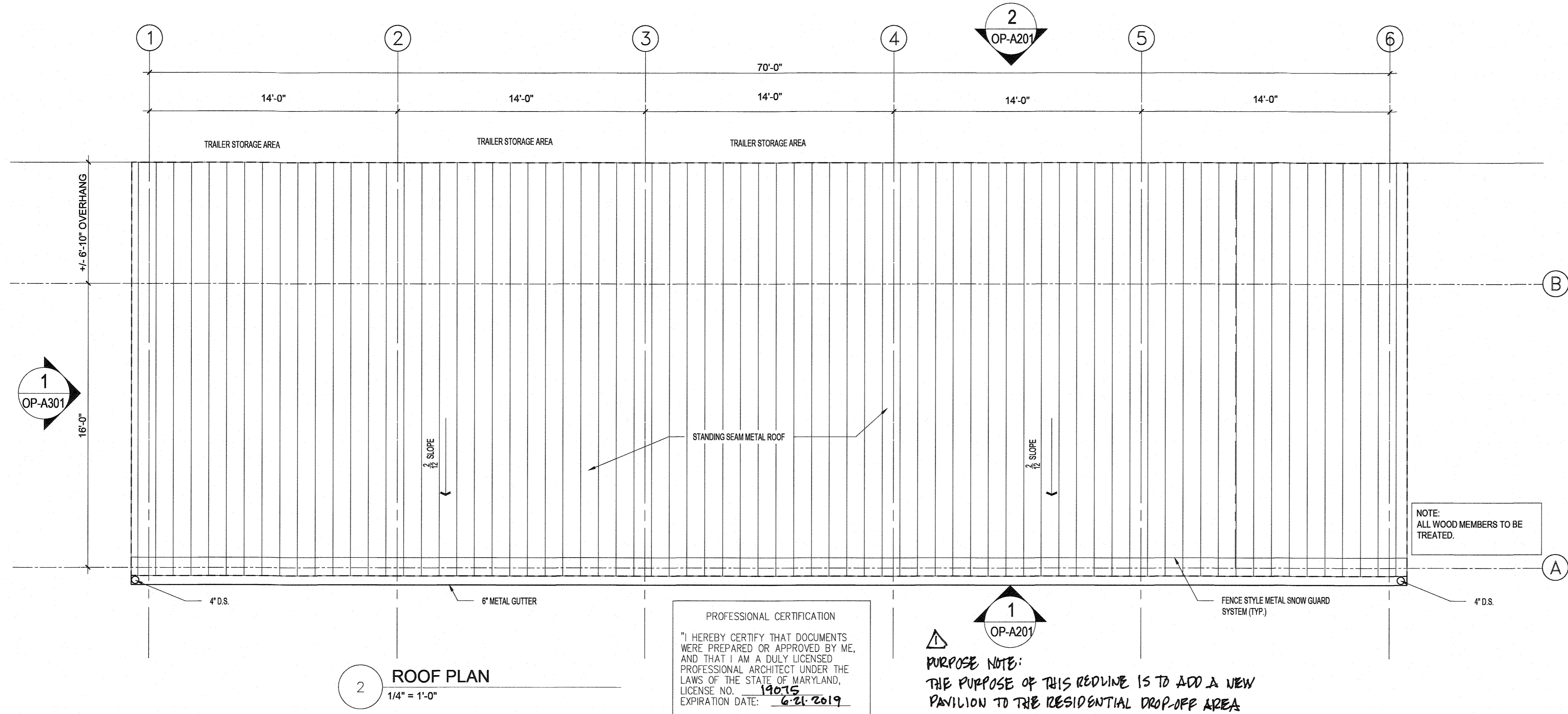
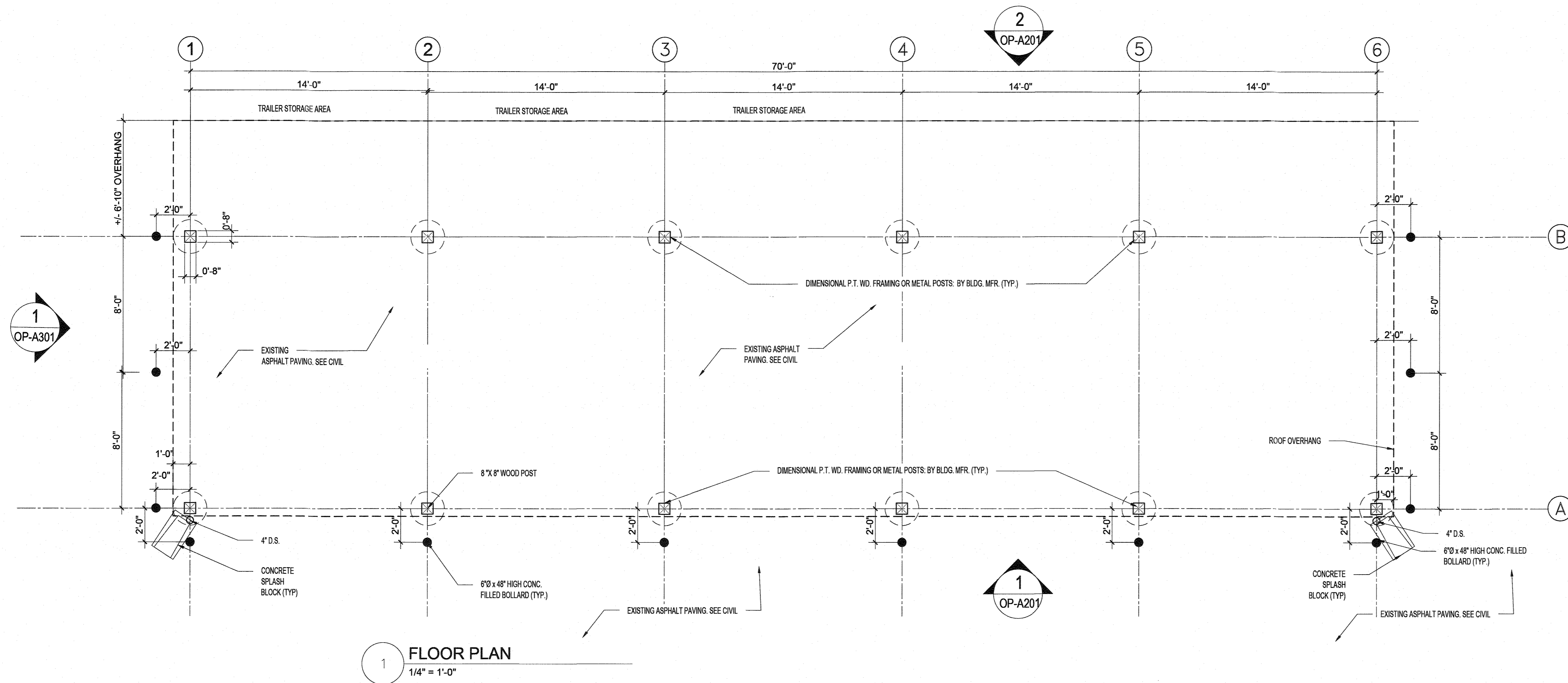
CAPITAL PROJECT NO. C-0299  
 3RD ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE  
 1"=10'  
 DWG NO.  
 C-1



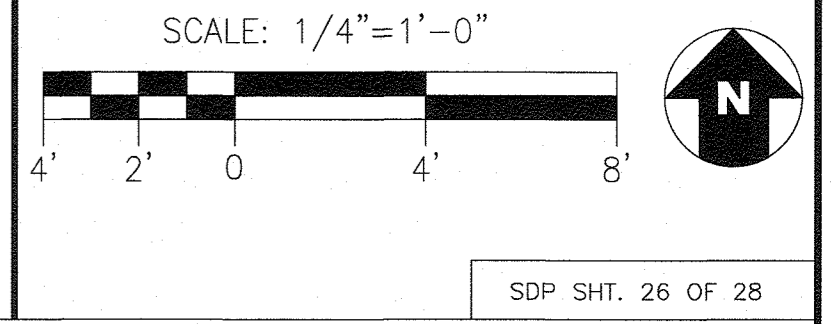
**GENERAL NOTES**

1. THE CONTRACTOR SHALL PROTECT ALL FINISH WORK AND SURFACES FROM DAMAGE DURING THE COURSE OF CONSTRUCTION AND SHALL REPLACE AND/OR REPAIR ALL DAMAGED SURFACES CAUSED BY CONTRACTOR OR SUBCONTRACTOR PERSONNEL TO THE SATISFACTION OF THE ENGINEER.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING FLOOR ELEVATIONS WITH RESPECT TO CIVIL ELEVATIONS.
3. DO NOT SCALE THE DRAWINGS.
4. CONTRACTOR TO REPAIR ALL EXISTING TO REMAIN ELEMENTS THAT ARE DAMAGED DURING CONSTRUCTION. REPAIR WORK SHOULD BE CARRIED OUT PER APPLICABLE CODES.
5. SEE LANDFILL SUPERINTENDENT FOR DISPOSAL OF CONSTRUCTION DEBRIS.



PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19075, EXPIRATION DATE: 6-21-2019

**1** OP-A201  
 PURPOSE NOTE:  
 THE PURPOSE OF THIS REDLINE IS TO ADD A NEW PAVILION TO THE RESIDENTIAL DROP-OFF AREA



APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* 8/2/18  
 CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* 8/9/18  
 DIRECTOR: *[Signature]* 8-9-18

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*[Signature]* 7/27/18  
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES



DES:	SJ	DATE:	07/2018
DRN:	SJ	BY:	DTM
CHK:	DM	NO.:	1
DATE: 07/2018		REVISION: INSERT NEW SHEET	
DATE: 7/18		SCALE MAP NO. _____ BLOCK NO. _____	

**PAVILION STRUCTURE- PLAN VIEWS**

REVISED SITE DEVELOPMENT PLAN  
**ALPHA RIDGE LANDFILL  
 RECYCLING STORAGE SHED, PAVILION AND  
 ORGANICS STORAGE STRUCTURE**

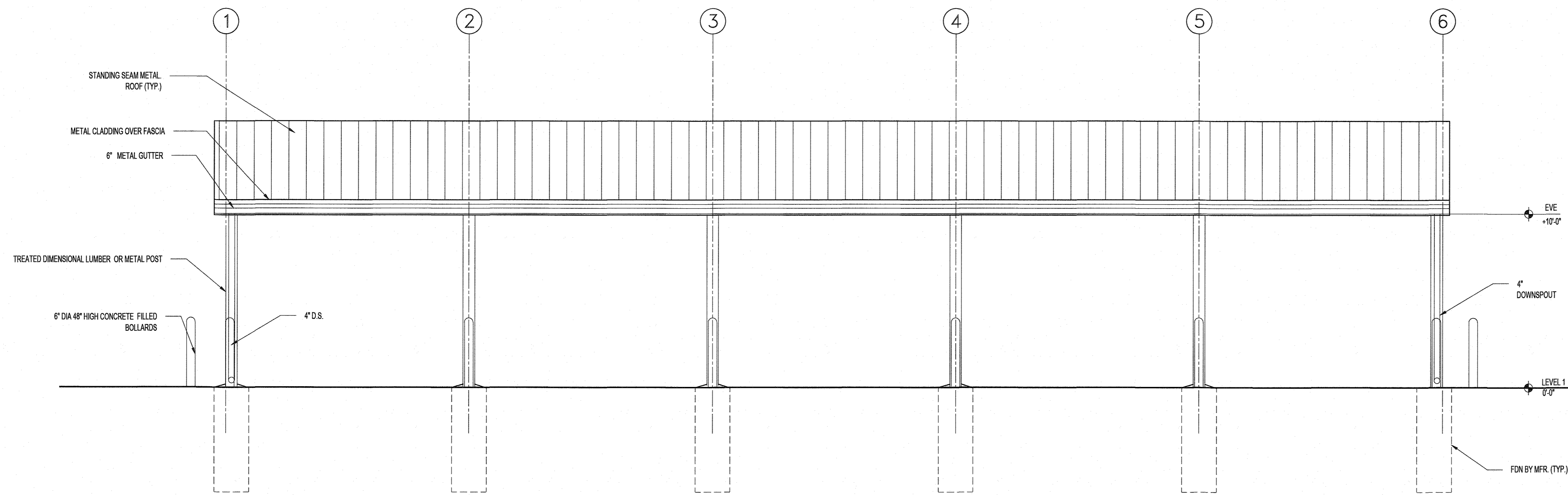
CAPITAL PROJECT NO. C-0299  
 3RD ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 DWG NO. OP-A101

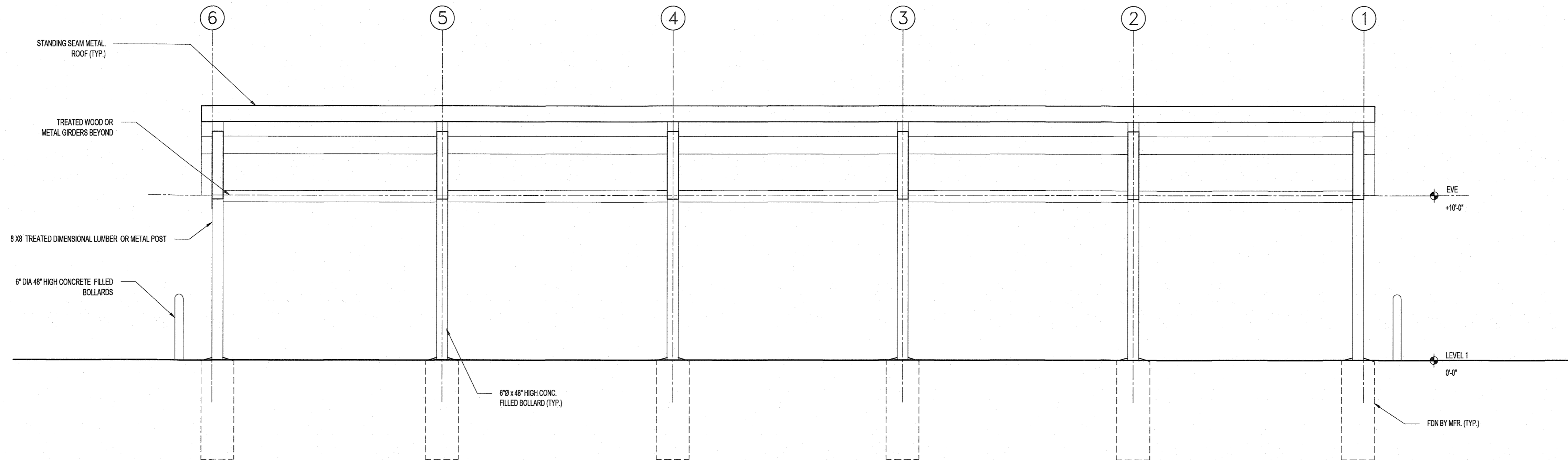


**GENERAL NOTES**

1. THE CONTRACTOR SHALL PROTECT ALL FINISH WORK AND SURFACES FROM DAMAGE DURING THE COURSE OF CONSTRUCTION AND SHALL REPLACE AND/OR REPAIR ALL DAMAGED SURFACES CAUSED BY CONTRACTOR OR SUBCONTRACTOR PERSONNEL TO THE SATISFACTION OF THE ENGINEER.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING FLOOR ELEVATIONS WITH RESPECT TO CIVIL ELEVATIONS.
3. DO NOT SCALE THE DRAWINGS.
4. CONTRACTOR TO REPAIR ALL EXISTING TO REMAIN ELEMENTS THAT ARE DAMAGED DURING CONSTRUCTION. REPAIR WORK SHOULD BE CARRIED OUT PER APPLICABLE CODES.
5. SEE LANDFILL SUPERINTENDENT FOR DISPOSAL OF CONSTRUCTION DEBRIS.



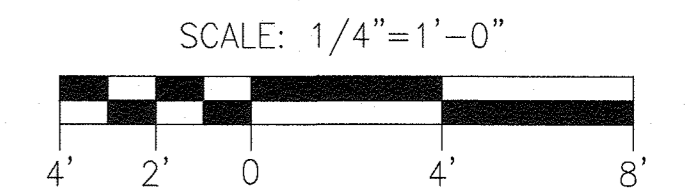
1 SOUTH ELEVATION  
1/8" = 1'-0"



2 NORTH ELEVATION  
1/4" = 1'-0"

PROFESSIONAL CERTIFICATION  
 "I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 19075 EXPIRATION DATE: 6-21-2019"

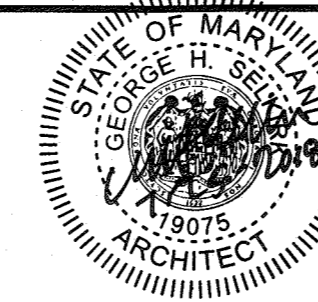
△  
 PURPOSE LETTER:  
 THE PURPOSE OF THIS REDLINE IS TO ADD A NEW PAVILION TO THE RESIDENTIAL DROP-OFF AREA



SDP SHT. 27 OF 28

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 8/2/18  
 CHIEF, DIVISION OF LAND DEVELOPMENT 8/9/18  
 DIRECTOR 8-9-18

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Environmental Services  
 7/27/18



DES:	SJ				
DRN:	SJ				
CHK:	DM				
DATE:	07/2018	DTM	△	INSERT NEW SHEET	7/18
BY:	NO.	REVISION			

PAVILION STRUCTURE-  
 ELEVATIONS

REVISED SITE DEVELOPMENT PLAN  
 ALPHA RIDGE LANDFILL  
 RECYCLING STORAGE SHED, PAVILION AND  
 ORGANICS STORAGE STRUCTURE

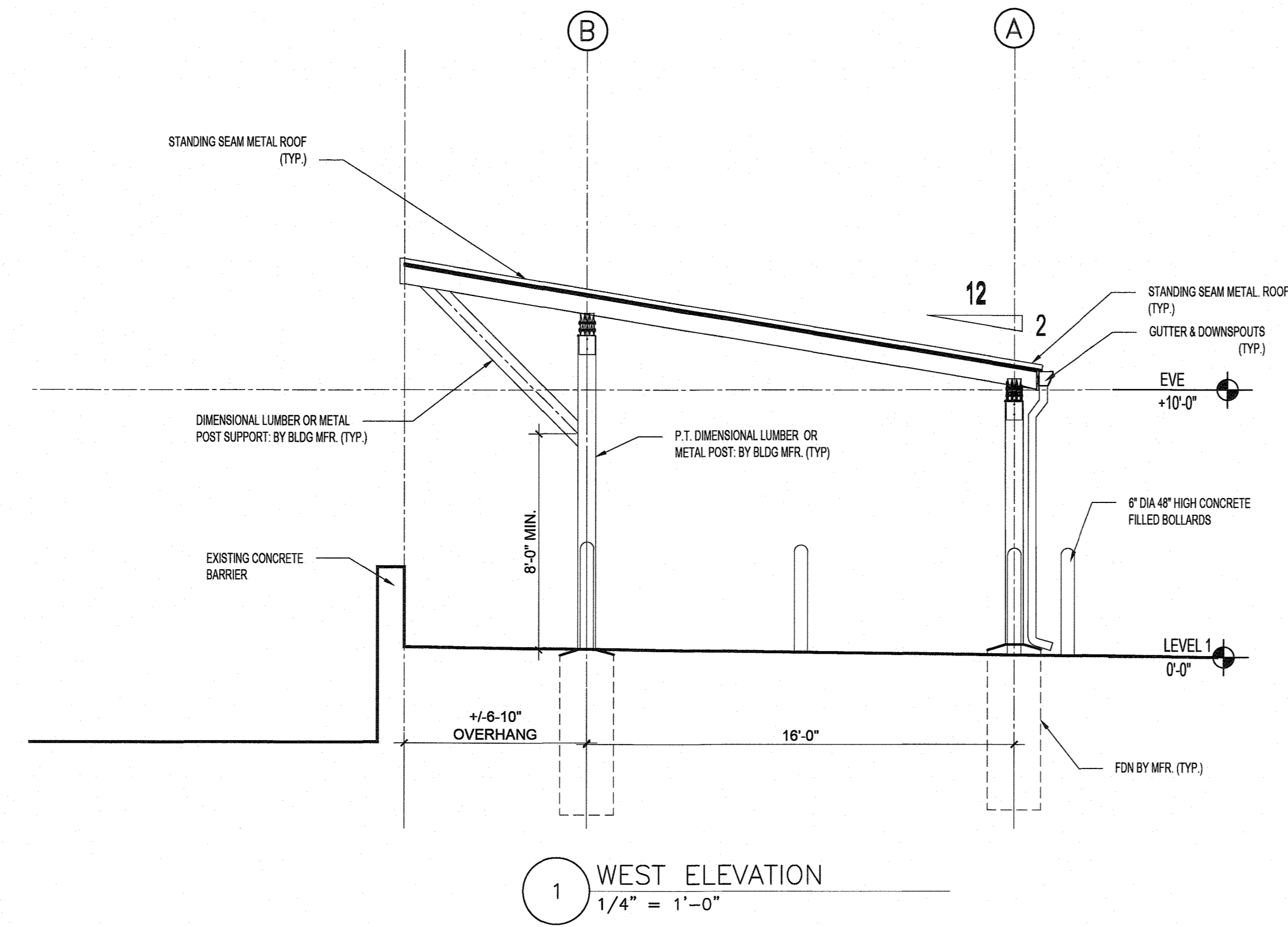
CAPITAL PROJECT NO. C-0299  
 3RD ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 DWG NO. OP-A20

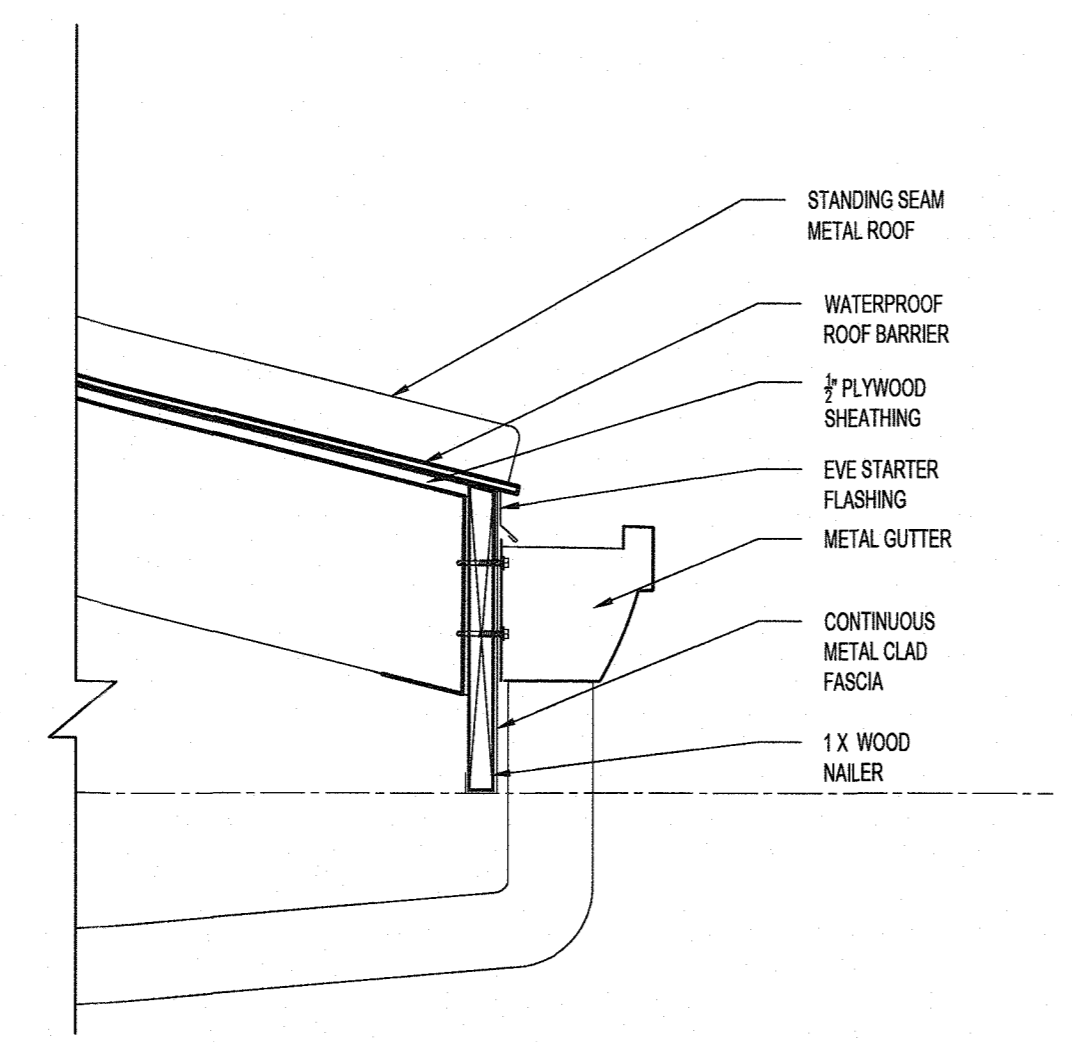


**GENERAL NOTES**

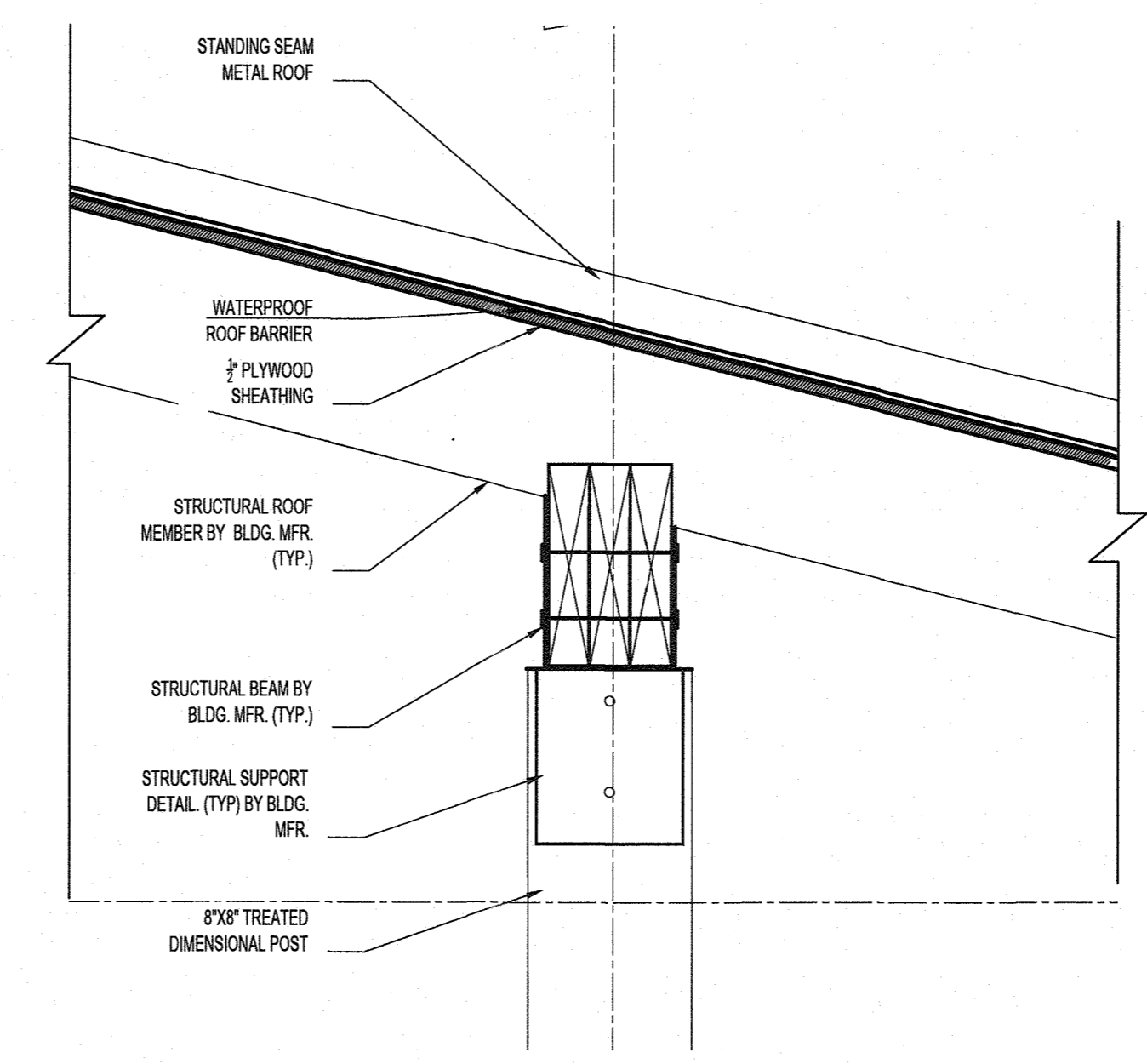
1. THE CONTRACTOR SHALL PROTECT ALL FINISH WORK AND SURFACES FROM DAMAGE DURING THE COURSE OF CONSTRUCTION AND SHALL REPLACE AND/OR REPAIR ALL DAMAGED SURFACES CAUSED BY CONTRACTOR OR SUBCONTRACTOR PERSONNEL TO THE SATISFACTION OF THE ENGINEER.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING FLOOR ELEVATIONS WITH RESPECT TO CIVIL ELEVATIONS.
3. DO NOT SCALE THE DRAWINGS.
4. CONTRACTOR TO REPAIR ALL EXISTING TO REMAIN ELEMENTS THAT ARE DAMAGED DURING CONSTRUCTION. REPAIR WORK SHOULD BE CARRIED OUT PER APPLICABLE CODES.
5. SEE LANDFILL SUPERINTENDENT FOR DISPOSAL OF CONSTRUCTION DEBRIS.



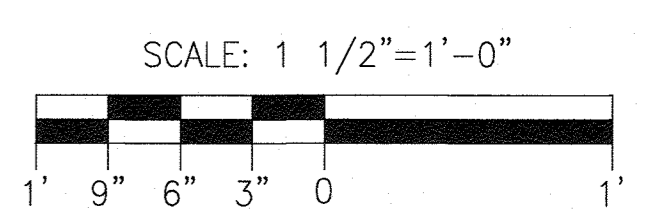
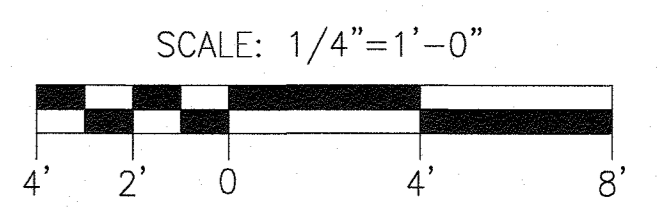
1 WEST ELEVATION  
1/4" = 1'-0"



2 SECTION DETAILS  
1 1/2" = 1'-0"



3 SECTION DETAILS  
1 1/2" = 1'-0"



SDP SHT. 28 OF 28

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19075, EXPIRATION DATE: 6-21-2019

▲ PURPOSE NOTE:  
THE PURPOSE OF THIS REDLINE IS TO ADD A NEW PAVILION TO THE RESIDENTIAL DROP-OFF AREA

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION 4 8/7/18  
CHIEF, DIVISION OF LAND DEVELOPMENT 3/9/19  
DIRECTOR 8-9-18

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
7/24/18



DES:	SJ				
DRN:	SJ				
CHK:	DM				
DATE:	07/2018	DTM	▲	INSERT NEW SHEET	7/18
BY:		NO.		REVISION	DATE

PAVILION STRUCTURE-  
ELEVATIONS AND SECTIONS

REVISED SITE DEVELOPMENT PLAN  
ALPHA RIDGE LANDFILL  
RECYCLING STORAGE SHED, PAVILION AND  
ORGANICS STORAGE STRUCTURE  
CAPITAL PROJECT NO. C-0299  
3RD ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
DWG NO. OP-A301