

HOMEOWNERS RECYCLING CENTER

ALPHA RIDGE SOLID WASTE

MANAGEMENT CENTER

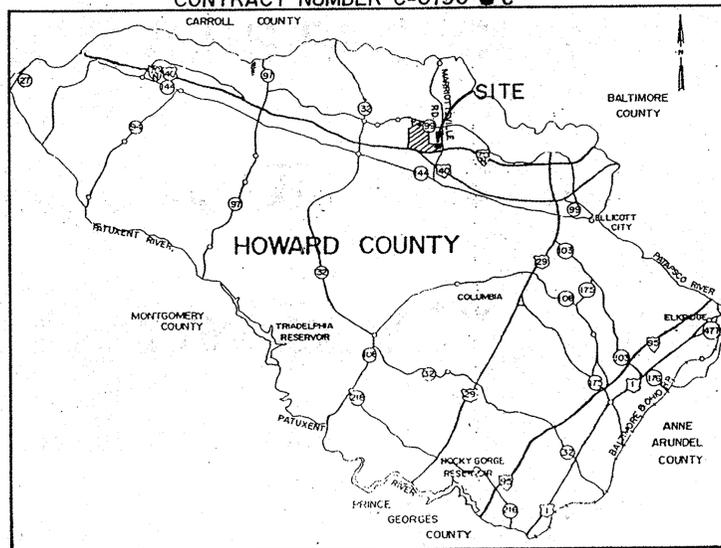
HOWARD COUNTY, MARYLAND

NEW DRAWING LIST

2. GENERAL NOTES AND LEGEND
3. EXISTING SITE CONDITIONS/DEMOLITION PLAN
4. SITE PLAN
5. POND CONSTRUCTION SPECIFICATIONS AND CERTIFICATIONS
6. POND NO. 1 PLAN AND PROFILES
7. POND NO. 1 PROFILES AND DETAILS
8. POND NO. 1 RISER DETAILS
9. POND NO. 1 MISCELLANEOUS DETAILS
10. STORM DRAIN SYSTEM PLAN AND PROFILES
11. DRAINAGE AREA MAP - PREDEVELOPMENT
12. DRAINAGE AREA MAP - POSTDEVELOPMENT
13. RETAINING WALL PLANS AND DETAILS
14. RETAINING WALL PLANS AND DETAILS-2
15. STRUCTURAL DETAILS
16. DETAILS
17. EROSION AND SEDIMENT CONTROL NOTES
18. EROSION AND SEDIMENT CONTROL PLAN
19. EROSION AND SEDIMENT CONTROL DETAILS
20. EROSION AND SEDIMENT CONTROL DETAILS-2
21. HHW STORAGE FACILITY PLAN AND ELEVATIONS
22. BORING LOGS
23. SITE ELECTRICAL-1
24. SITE ELECTRICAL-2

CAPITAL PROJECT NUMBER C-0190

CONTRACT NUMBER C-0190 ● C



VICINITY MAP
SCALE: 1 INCH = 3 MILES

- 2 SITE ANALYSIS
- a) Area of Submittal: 372,684 SF = 8.56 Ac.
 - b) Present Zoning: R1
 - c) Proposed use of structures: Homeowner Drop-off Recycling Center
32 SF = 0.0007 Ac.
 - d) Floor space: Guard Booth
338 SF = 0.008 Ac.
 - Metal Roof Shelter
122,487 SF = 2.81 Ac.
 - Paved Area
 - e) Total number of units allowed: N/A
 - f) Total number of units provided: Zero
 - g) Apartment and SFA unit area: Zero
 - h) Maximum number of employees on site: 2
 - i) Required parking spaces: N/A
 - j) Parking spaces provided: Existing parking - 12, Additional spaces-21
 - k) Open space to remain: 249,817 SF = 5.73 Ac. = 67.0% of submittal
 - l) Building coverage of site: 370 SF = 0.0087 Ac. = 0.01% of submittal
 - m) Vegetatively Stabilized Area = 5.73 Ac.
 - n) Volume Cut = 20,432 cy
 - o) Volume Fill = 3,319 cy
 - Note
 - 1) Topography as developed by Buchart-Horn, Inc., York, PA from aerial flight of 2/12/82.
 - 2) Horizontal datum based on Maryland coordinate grid system.
 - 3) Vertical datum based on USCG & GS M.S.L. of 1929.
 - 4) The property herein is described by metes & bounds on property plat, 3rd Election District recorded in SDP-79-85, dated March 1979, & approved Division of Land Development 8-17-79.

NOTES:

- 1 DRAWINGS FOR CAPITAL PROJECT NUMBER C-0190 WERE ORIGINALLY PREPARED BY EA ENGINEERING, SCIENCE AND TECHNOLOGY INC., SPARKS, MD. REPLACEMENT AND NEW DRAWINGS WERE PREPARED BY SCS ENGINEERS FOR PLANNED SITE IMPROVEMENTS TO THE ALPHA RIDGE LANDFILL RESIDENTS DROP-OFF AREA EXPANSION.
- 2 SITE ANALYSIS SUPERSEDED BY GENERAL NOTES ON SHEET 2 AND EROSION AND SEDIMENT CONTROL NOTES ON SHEET 17.

SHEET NO.

TITLE

| SHEET NO. | TITLE |
|-----------|---|
| 1 | TITLE SHEET |
| 2 | SITE PLAN |
| 3 | ROAD PROFILES/PAVING SECTIONS |
| 4 | ROADWAY SECTIONS |
| 5 | USED OIL STORAGE TANK/DETAILS |
| 6 | EROSION AND SEDIMENT CONTROL PLAN |
| 7 | EROSION AND SEDIMENT CONTROL DETAILS/STORM DRAIN PROFILES |
| 8 | DETENTION POND PLAN/DETAILS |
| 8A | DETENTION POND DETAILS/SECTIONS/PROFILES |
| 9 | MISCELLANEOUS DETAILS |
| 10 | RECYCLING AREA RETAINING WALL |
| 11 | GENERAL REFUSE DROP-OFF AREA RETAINING WALL EXPANSION |
| 12 | METAL ROOF STRUCTURE |
| 13 | SIGN/SITE DETAILS |
| 14 | ELECTRICAL SITE PLAN |
| 15 | ELECTRICAL SCHEDULES |

REVISIONS

| BY | NO. | DESCRIPTION | DATE |
|-----|-----|--------------------|-------|
| SCS | 1 | REPLACEMENT DWGS | 8/05 |
| SCS | 2 | SITE ANALYSIS DATA | 8/05 |
| SCS | 3 | CHANGED ZONING | 8/05 |
| SCS | 4 | REVISED # OF SHTS | 8/05 |
| SCS | 5 | PURPOSE STATEMENT | 9/05 |
| JED | 6 | HHW ADDITION | 11/13 |

THE PURPOSE OF THE REVISED SDP IS TO DOCUMENT THE EXPANSION OF THE RESIDENTS' DROP-OFF AREA, WHICH INCLUDES THE ADDITION OF DROP-OFF BAYS, LARGER HHW BUILDING, WIDENED ACCESS ROAD, VEHICLE TURNAROUND AREA, TWO GUARDBOUSES, AND A WET POND.

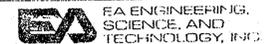
| | |
|---|--|
| SUBDIVISION NAME Alpha Ridge Solid Waste Management Center | SECT./AREA/LOT/PARCEL 302 |
| LIBER/FOLIO/BLOCK 888-330 | TAX/ZONE MAP/ELEC. DIST./CENSUS TR. 16 3 6030 |
| WATER CODE Private, Existing | SEWER CODE Private, Existing |
| OWNER/DEVELOPER Howard County Government | ADDRESS 3430 Court House Drive, Ellicott City, MD 21043 |



| |
|------------------------------|
| DESIGN D. T. M. |
| DRAWN D. T. M. |
| CHECKED P. A. P. |
| PROJECT ENGINEER D. S. S. |

ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER
HOWARD COUNTY, MARYLAND
HOMEOWNERS RECYCLING CENTER

TITLE SHEET



EA ENGINEERING,
SCIENCE, AND
TECHNOLOGY, INC.

| |
|-------------------------|
| DATE 24 JULY 1990 |
| SCALE AS SHOWN |
| PROJECT NO. 10293.02 |
| SHEET NO. 1 OF 1524 |

SDP-90-37

HSCD No. EP-06-01

GENERAL NOTES:

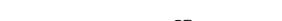
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS, THE TECHNICAL SPECIFICATIONS (DIVISION 1 TO 16) OF THE PROJECT MANUAL, THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY DESIGN MANUAL (VOL. IV), AND THE MARYLAND STATE HIGHWAY ADMINISTRATION IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY 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.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 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.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM NAD, 1983 (HORIZ.) & NGVD, 1929 (VERT.).
- WATER IS PUBLIC, CONTRACT 44-4158.
- SEWER IS PRIVATE.
- STORMWATER MANAGEMENT CONTROL IS PRIVATE AND IS OWNED AND MAINTAINED BY HOWARD COUNTY.
- EXISTING UTILITIES ARE BASED ON HOWARD COUNTY RECORDS.
- 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.
- NO WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY HOWARD SOIL CONSERVATION SERVICE. NONE NEEDED PER DISCUSSION WITH HOWARD SOIL CONSERVATION SERVICE.
- NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
- SUBDIVISION NAME IS ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER, TAX MAP 10 & 16.
- 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.
- MAGNETIC LOCATION TAPE IS TO BE PLACED ABOVE ALL BURIED PLASTIC PIPELINE UTILITIES DURING CONSTRUCTION.
- NIC MEANS "NOT IN CONTRACT".
- 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.

- 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.
- 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:

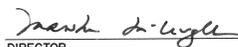
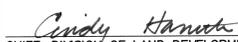
- RETAINING WALLS SHALL ONLY BE CONSTRUCTED UNDER THE OBSERVATION OF A REGISTERED PROFESSIONAL ENGINEER AND A (NICET, WACEL OR EQUIVALENT) CERTIFIED SOILS TECHNICIAN.
- THE REQUIRED BEARING PRESSURE BENEATH THE FOOTING OF THE WALL SHALL BE VERIFIED IN THE FIELD BY A CERTIFIED SOILS TECHNICIAN. TESTING 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.
- 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 |
| | |  | 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 | 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

| | |
|---|---------|
|  | 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
Asc# EP-06-01

BACKFILL DEPRESSION TO PROVIDE POSITIVE DRAINAGE FROM EXISTING CONCRETE PAVEMENT TO CHANNEL

FOR HHW STORAGE FACILITY RETAINING WALL PLAN AND DETAILS, SEE SHT 13

CONCRETE PAD, FOR SECTION SEE

ADDITIONAL ROOFED AREA 18'x15' OVER EX. CONCRETE & ASPHALT DISTURBED < 5,000 SF

PROPOSED HHW STORAGE FACILITY, FOR PLAN AND ELEVATION SEE SHT 21

PROPOSED STORM DRAIN SYSTEM, FOR PLAN AND PROFILE SEE SHT 10

NEW TREE LINE

30' DIAMETER TURNAROUND

FOR POND NO. 1 INFORMATION SEE SHT 6

ADA ACCESS PARKING, SEE SHT 21 FOR ADDITIONAL DETAIL

NEW TREE LINE

NEW TREE LINE

38' SWING GATES, SEE

PAVED VEHICLE TURNAROUND AREA, FOR PAVEMENT SECTION SEE

REGRADE EXISTING GRAVEL AREA N 597000

E 1339500

MH-2

MH-1

RADIUS CENTER N 596882.24 E 1339983.31

10' GRAVEL ACCESS ROAD, FOR TYPICAL SECTION SEE

NOTES:

1. FOR TIE IN BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT, SEE

PROPOSED ASPHALT PAVEMENT

PROPOSED GRAVEL

EXISTING RETAINING WALL

PROPOSED GUARD HOUSES, SEE

PAVED AREA

PAVED AREA

PAVED AREA

20' ACCESS ROAD, FOR TYPICAL SECTION SEE

EXISTING WATER WELL TO REMAIN, PROTECT FROM DAMAGE.

12' WIDE, PAVED EXIT LANE, FOR TYPICAL SECTION SEE

PAVEMENT SECTION SEE

EXISTING GRAVEL ACCESS ROAD

NEW TREE LINE

GRADE CHANNEL TO PROVIDE POSITIVE (1.2% SLOPE) DRAINAGE FROM CULVERT (C2) OUTFALL. FOR SECTION SEE

EXISTING SCALE HOUSE

RESIDENTS' DROP-OFF AREA, FOR PAVEMENT SECTION SEE

REROUTE EXISTING UNDERGROUND 'ELECTRIC' LINE. VERIFY SIZE IN FIELD.

ABANDON PIPE IN-PLACE, GROUT END, FOR DETAIL SEE

PROPERTY LINE

INTERSTATE 70

| | |
|---|---------------------------------|
| 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

Mark DeLoyle 11/1/05
DIRECTOR DATE

William J. Williams 11/2/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Edmunds 11/7/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John A. ... 10/14/05
DIRECTOR OF PUBLIC WORKS DATE

John A. ... 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 | 11/29/13 |
| DRN. AST | 10/7/05 |
| CHK. PAM/MRG | |
| DATE: 09/05 | |
| BY NO. | REVISION |
| | DATE |

HHW ADDITION
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

SITE PLAN

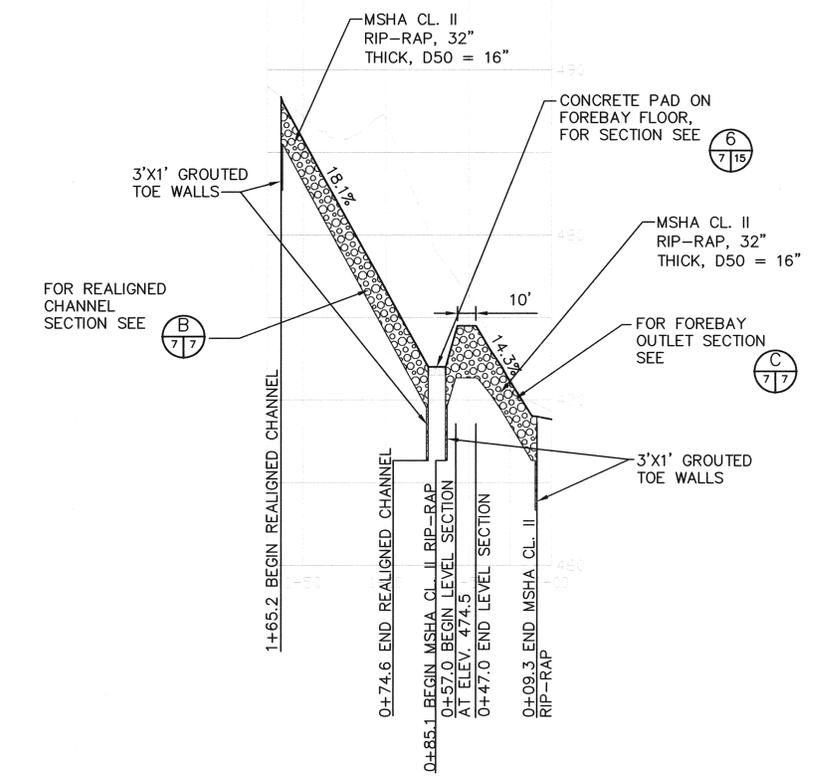
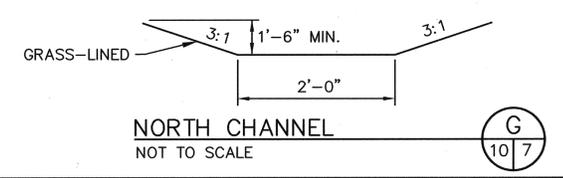
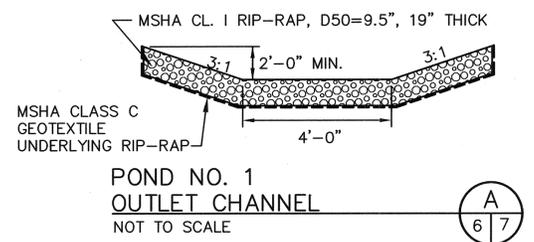
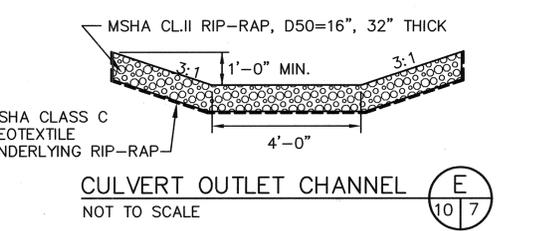
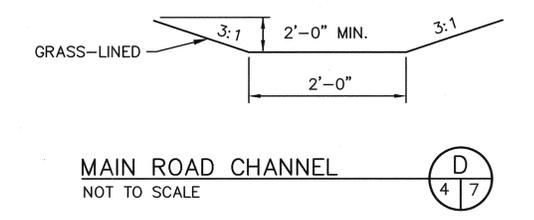
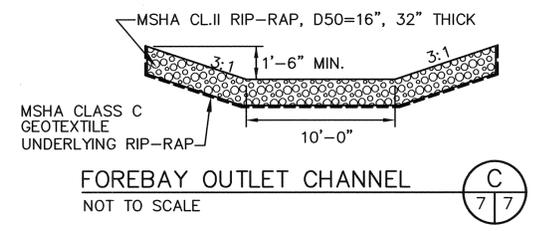
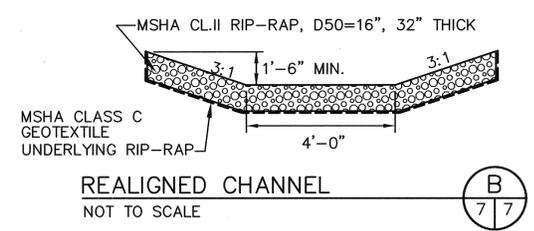
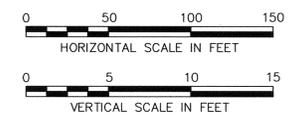
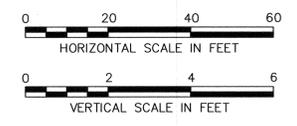
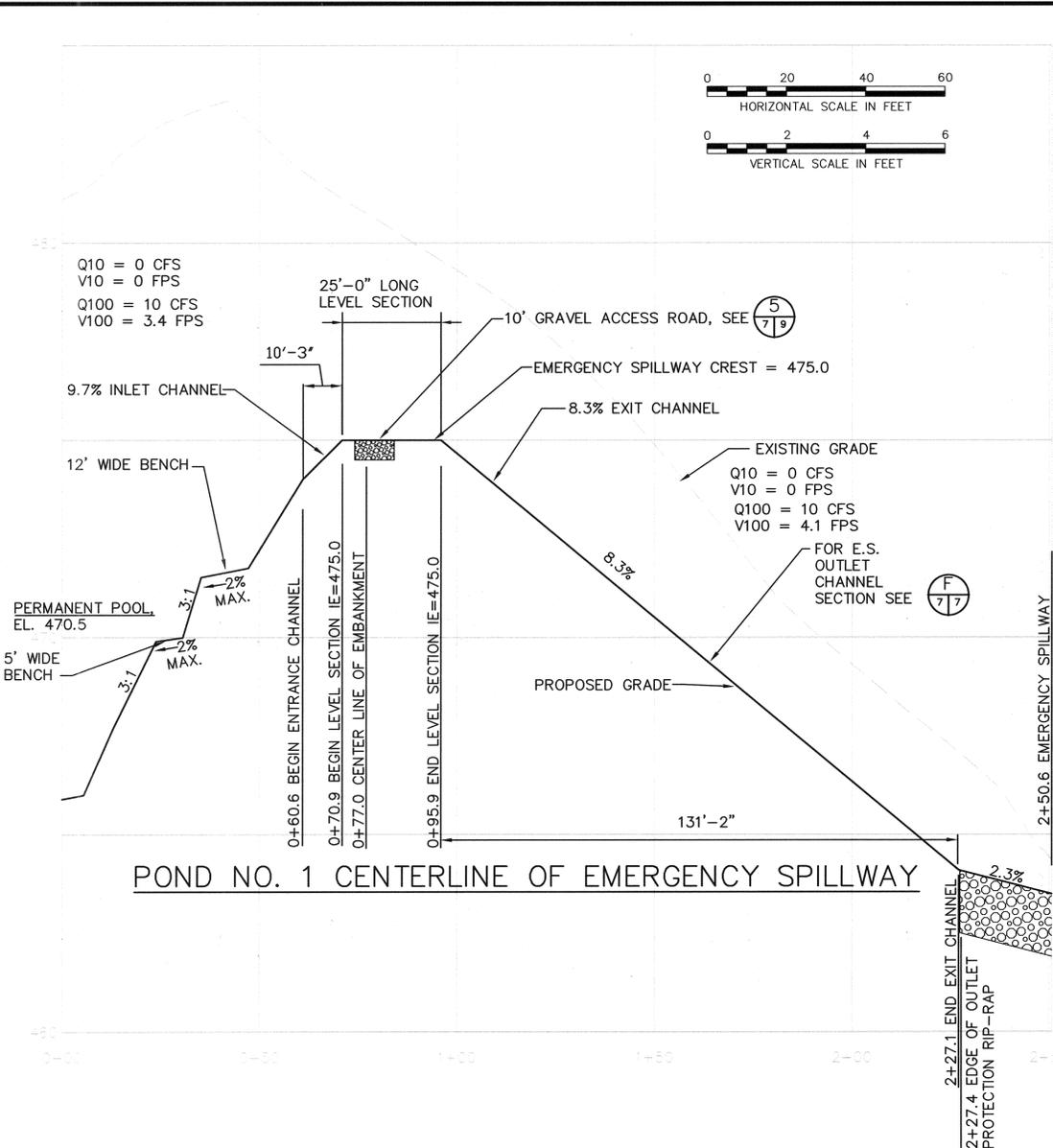
ALPHA RIDGE LANDFILL
RESIDENTS' DROP-OFF AREA EXPANSION
REVISED SITE DEVELOPMENT PLAN
CAPITAL PROJECT NO. C-0299-A

3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

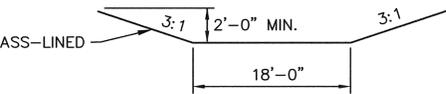
EP-06-01
SCALE:
AS SHOWN
SHEET
4 OF 24

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

2nd orig.



REALIGNED CHANNEL AND FOREBAY PROFILE



E.S. OUTLET CHANNEL
NOT TO SCALE

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* DATE: 10/14/05
PRINT NAME BELOW SIGNATURE: JOHN J. CHAPP

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. Gaudreau* DATE: 10/14/05
PRINT NAME BELOW SIGNATURE: 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.

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: 10/21/05

| | |
|---|-----------------------------------|
| 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 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 DeWeger* DATE: 11/6/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION: *John J. Chapp* DATE: 11/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT: *John J. Chapp* DATE: 11/2/05

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS: *John J. Chapp* DATE: 10/14/05
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES: *John J. Chapp* 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 | |
| CHK. PAM/MRG | AREA. THIS SHEET SHOWS: | |
| DATE: 09/05 | PROFILES OF EMERGENCY SPILLWAY AND BASIN | |
| | FOREBAY INLET, & CHANNEL X-SECTIONS | |
| BY NO. | REVISION | DATE |

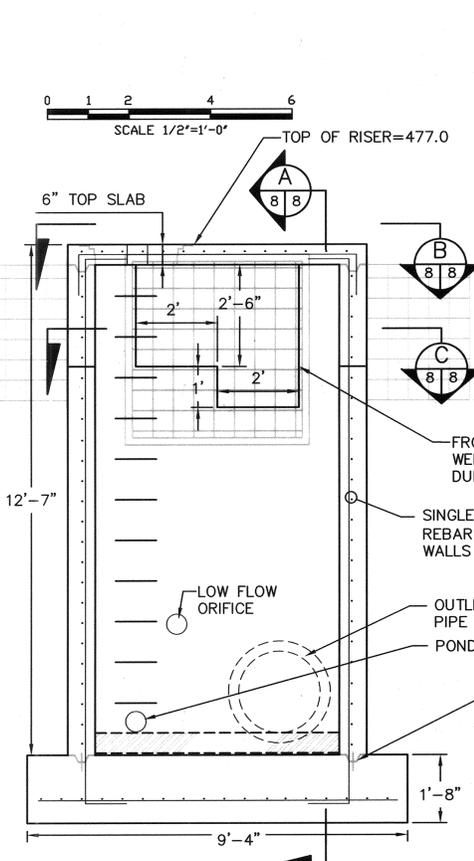
POND NO. 1
PROFILES AND DETAILS

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 24

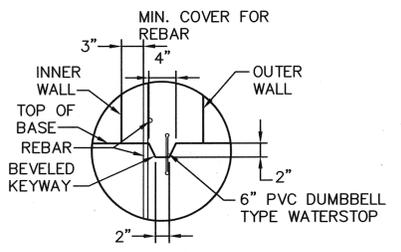
SDP-90-37
Add EP-06-01

NORFOLK/022030323.12/PONDPLANPROFILES.DWG

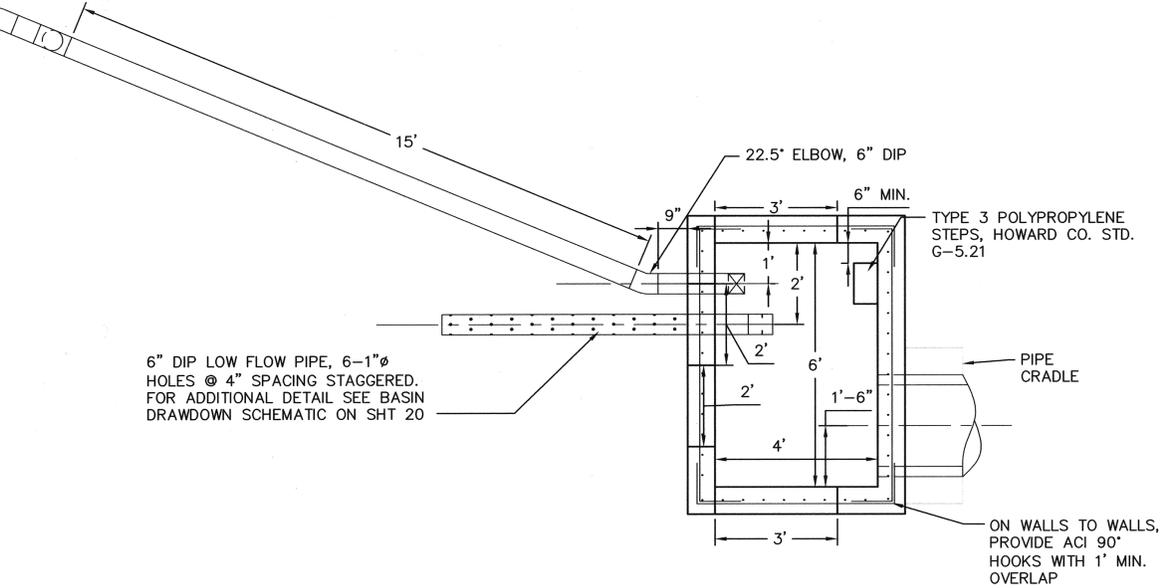


RISER STRUCTURE DETAIL (1)
SCALE: 1/2"=1'-0"

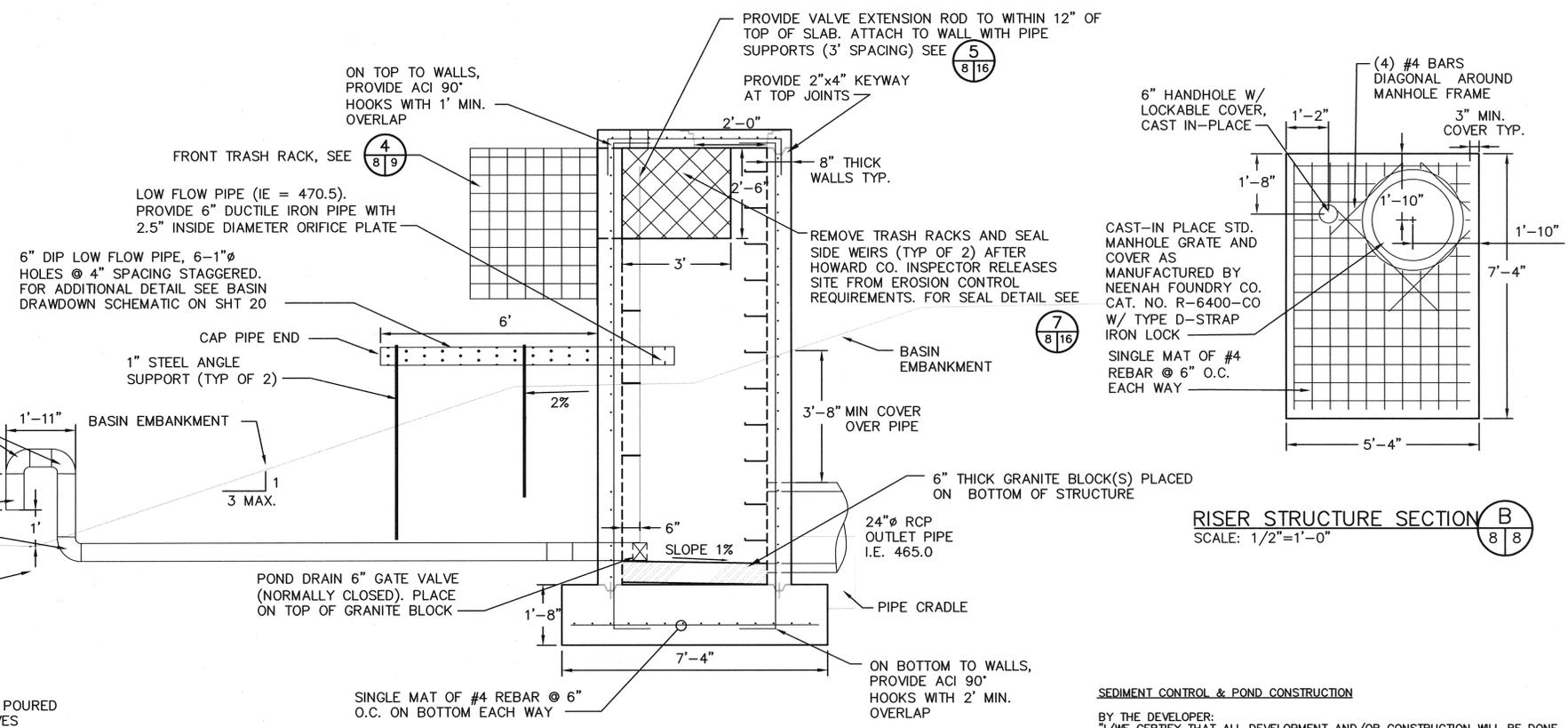
- NOTES:**
1. CONCRETE OUTLET RISER SHALL BE POURED IN PLACE UNLESS CONTRACTOR RECEIVES APPROVAL FROM HOWARD CO. FOR A WATERTIGHT PRECAST OUTLET RISER DESIGN.
 2. FOR RISER CONFIGURATION DURING TEMPORARY CONDITIONS SEE SHEET 20.
 3. POND DRAIN VALVE SHALL BE RESEATING.
 4. CONTRACTOR SHALL PROVIDE EXTENSION ARM TO ALLOW PERSONNEL TO OPEN OR CLOSE POND DRAIN VALVE FROM HANDHOLE.
 5. DUCTILE IRON PIPE (DIP) SHALL BE AWWA C-151, CL. 52.



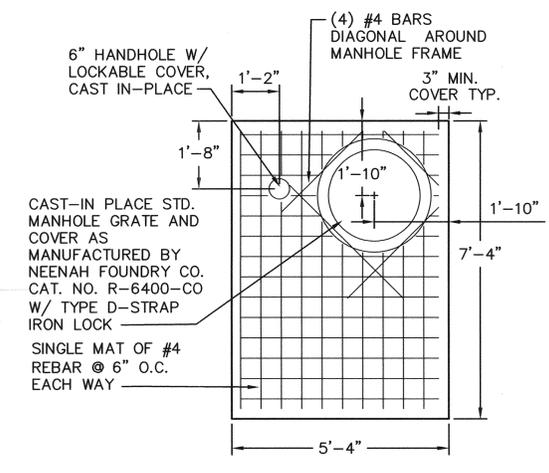
KEYED JOINT WITH WATERSTOP DETAIL (2)
NOT TO SCALE



RISER STRUCTURE SECTION (C)
SCALE: 1/2"=1'-0"



RISER STRUCTURE SECTION (A)
SCALE: 1/2"=1'-0"



RISER STRUCTURE SECTION (B)
SCALE: 1/2"=1'-0"

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* 10/19/05
PRINT NAME BELOW SIGNATURE: JOHN J. O'HARA 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. Goudreau* 10/11/05
PRINT NAME BELOW SIGNATURE: MICHAEL R. GOUDREAU 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: 10/31/05
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
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

| | |
|---|-----------------------------------|
| 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 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 | |
| <i>David DeLough</i> | 11/6/05 |
| DIRECTOR | DATE |
| <i>Michael J. O'Hara</i> | 11/2/05 |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | DATE |
| <i>John J. O'Hara</i> | 11/2/05 |
| CHIEF, DIVISION OF LAND DEVELOPMENT | DATE |

| | |
|---|----------|
| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND | |
| <i>John J. O'Hara</i> | 10/19/05 |
| DIRECTOR OF PUBLIC WORKS | DATE |
| <i>John J. O'Hara</i> | 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 |
|--|



| | | |
|--------------|--|---------------|
| 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 | BY NO. | REVISION DATE |

| | |
|-----------------------------|--|
| POND NO. 1 RISER DETAILS | |
|-----------------------------|--|

| | |
|---|-------------------------|
| 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 |

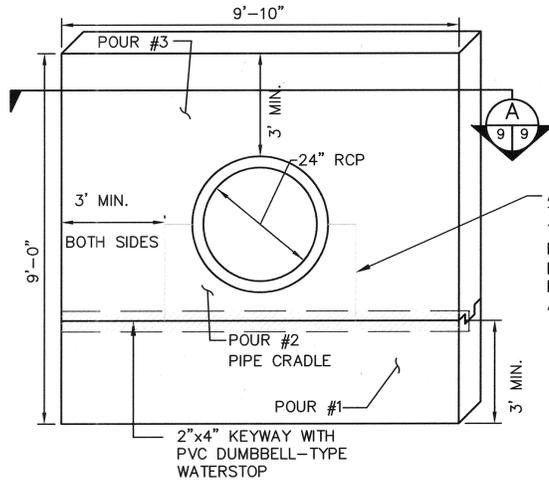
SDP-90-37
ED-06-01

| 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' 3.5' | 2' 2' | 474.0 473.0 | 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 | | | |

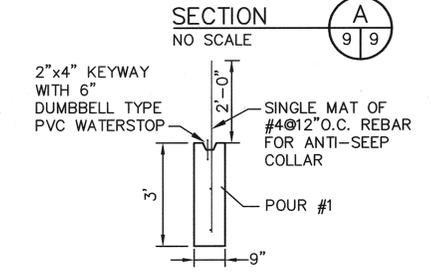
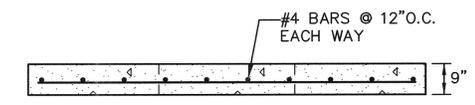
CW-4B
TABLE NOTES:
1. Qp AND Qf NOT REQUIRED (NR) FOR BASIN.
2. Rev NOT APPLICABLE (NA) FOR BASIN. Rev MET VIA CREDITS.

TYPE P-2, WET POND, HAS BEEN SELECTED AS THE BMP FOR THE SITE. THE CRITERIA FOR THEIR SELECTION ARE NOTED BELOW:
1. 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.
2. 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.
3. 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.
4. PHYSICAL FEASIBILITY FACTORS: THE GEOTECHNICAL REPORT FOR THE PROJECT SHOWS THAT A WET POND IS FEASIBLE FOR THE AREA.
5. 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.
6. 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.

TRASH RACK NOTES:
1. WELD BAR TO PLATE ALL AROUND.
2. GALVANIZE TRASH RACK AFTER FABRICATION.
3. PAINT TRASH RACK BATTLESHIP GRAY.
4. USE #4 GALVANIZED SMOOTH BAR.
5. 6" TYP. SPACING BETWEEN BARS.
6. SIDE TRASH RACKS TO BE REMOVED AFTER CONSTRUCTION. SIDE WEIRS TO BE SEALED.

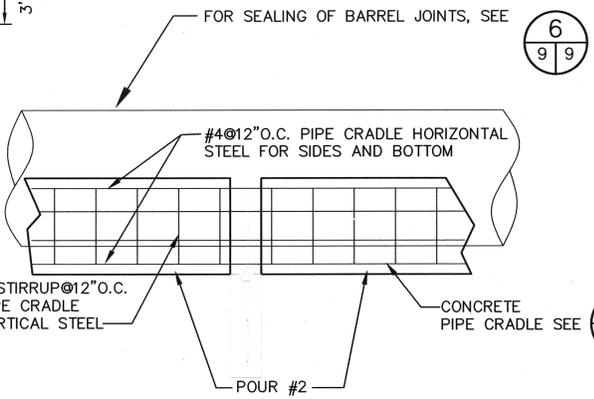


APPLY EPOXY ADHESIVE TO CONCRETE PIPE PRIOR TO SECOND AND THIRD CONCRETE POUR. EPOXY ADHESIVE SHALL BE MASTERBUILDER'S CONCRESE PASTE LPL OR ENGINEER APPROVED EQUAL.

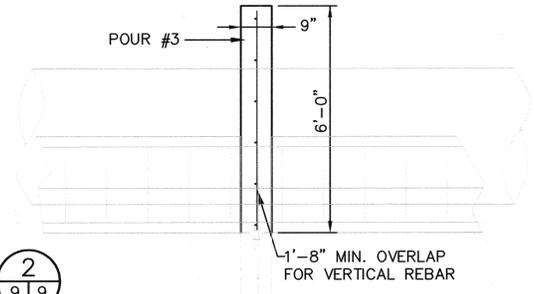


ANTI-SEEP COLLAR CONSTRUCTION SEQUENCE

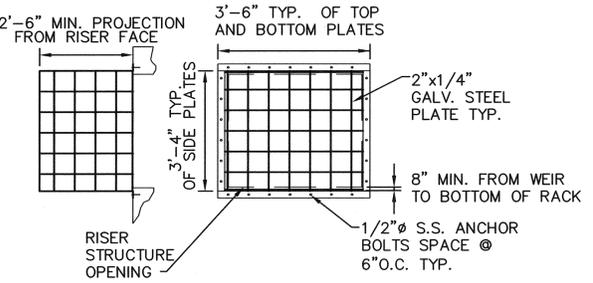
ANTI-SEEP COLLAR DETAIL 1
NOT TO SCALE



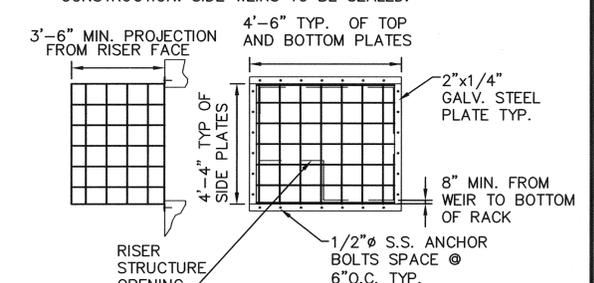
ANTI-SEEP COLLAR NOTES:
1. ANTI-SEEP COLLAR TO BE POURED AT LEAST TWO (2) FEET FROM NEAREST PIPE JOINT.
2. ANTI-SEEP COLLAR IS TO BE CONSTRUCTED IN THREE POURS: BOTTOM HALF TO BE POURED FIRST, PLACE PIPE AND POUR CRADLE SECOND, THEN TOP PORTION OF COLLAR POURED THIRD.
3. BACKFILL SHALL BE PLACED EVENLY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



2
9 9



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



TRASH RACK DETAIL - FRONT 4
NOT TO SCALE

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* 10/17/05
PRINT NAME BELOW SIGNATURE: JOHN J. O'HARA 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 NOTICED 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* 10/17/05
PRINT NAME BELOW SIGNATURE: MICHAEL R. GOUSSARD 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
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
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.

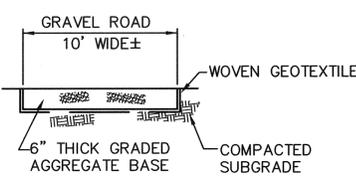
PE NO. _____
SIGNATURE _____ DATE _____

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.

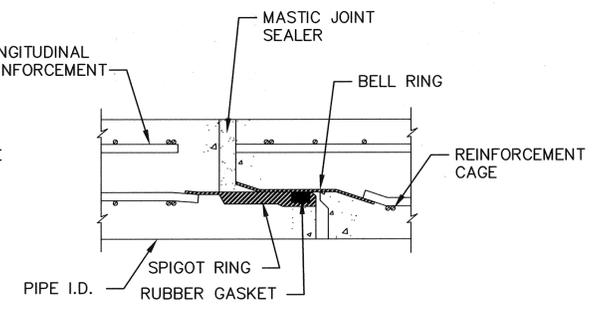
OPERATION, MAINTENANCE AND INSPECTION
INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL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

| | |
|---|---------------------------------|
| PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER | LOT/PARCEL 302 |
| LIBER/FOLIO 10-847/606 16-878/215 10-691/314 | 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
John J. O'Hara 11/17/05
DIRECTOR DATE
Michael R. Goussard 11/2/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
John J. O'Hara 11/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



BASIN ACCESS ROAD 5
NO SCALE



BARREL JOINT SEAL DETAIL 6
NO SCALE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
John J. O'Hara 10/17/05
DIRECTOR OF PUBLIC WORKS DATE
Michael R. Goussard 10/17/05
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



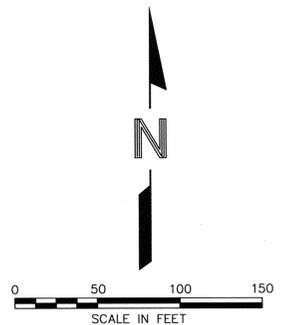
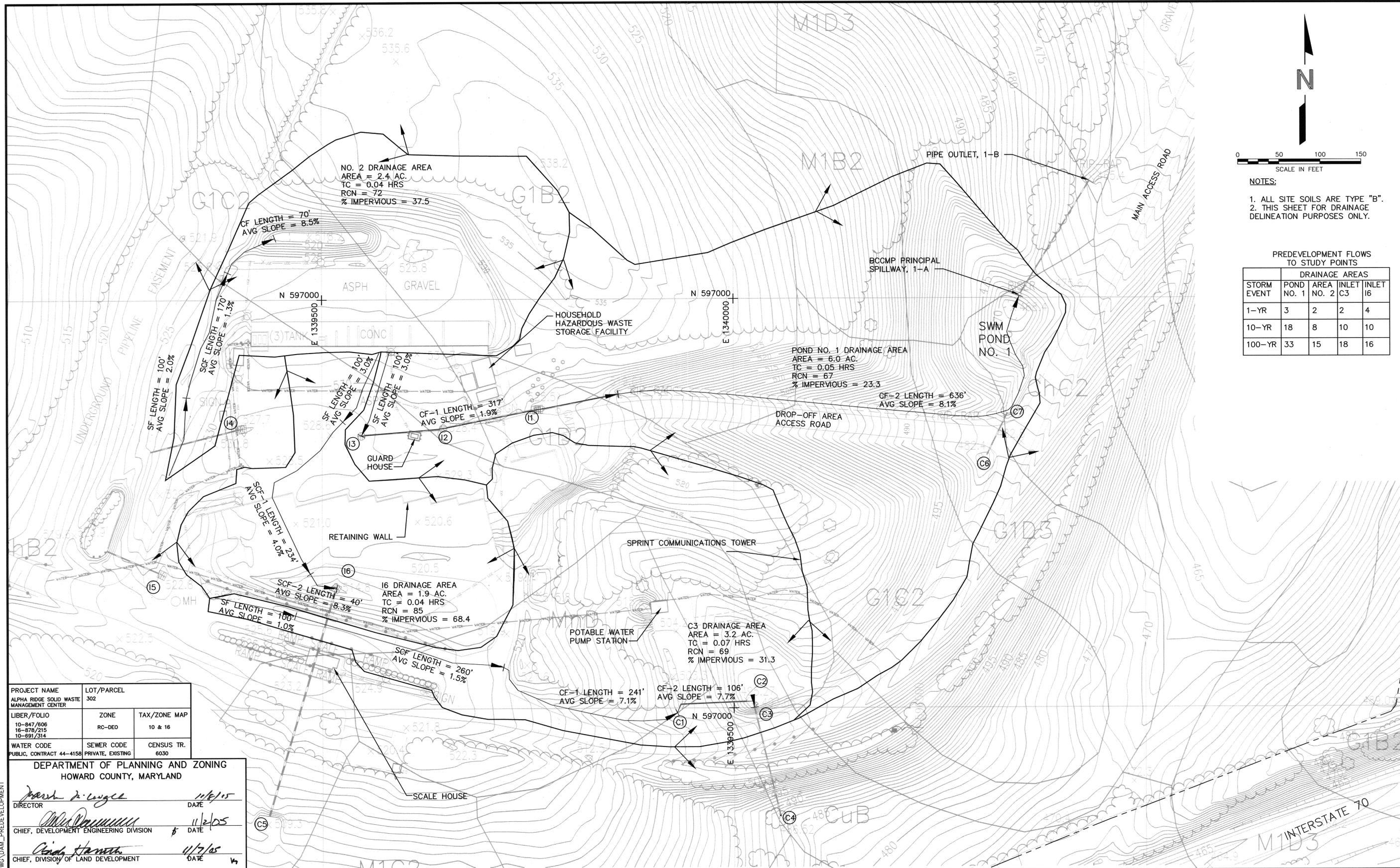
| | | |
|--------------|---|---------|
| DES. AST | THE PURPOSE OF THE REVISED SDP IS TO DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS: DETAILS RELATED TO NEW WET POND RISER | 10/7/05 |
| DRN. AST | | |
| CHK. PAM/MRG | | |
| DATE: 09/05 | BY NO. REVISION | DATE |

POND NO. 1
MISCELLANEOUS DETAILS

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

SDP-90-37
EP-06-01



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 | INLET C3 | INLET I6 |
| 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 16-878/215 10-891/314 | 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

Frank P. Lunge 11/6/15
 DIRECTOR DATE

Chris P. ... 11/2/15
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

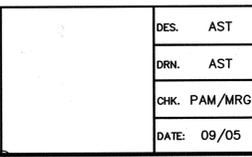
Chris ... 11/7/15
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

... 10/14/15
 DIRECTOR OF PUBLIC WORKS DATE

... 10/14/15
 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 | 10/7/05 |
| 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:
 DRAINAGE AREAS BEFORE DEVELOPMENT

DRAINAGE AREA MAP
 PREDEVELOPMENT

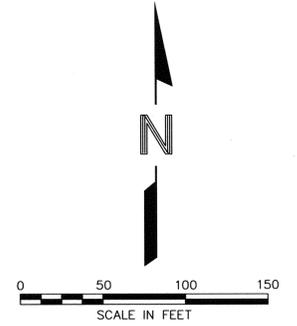
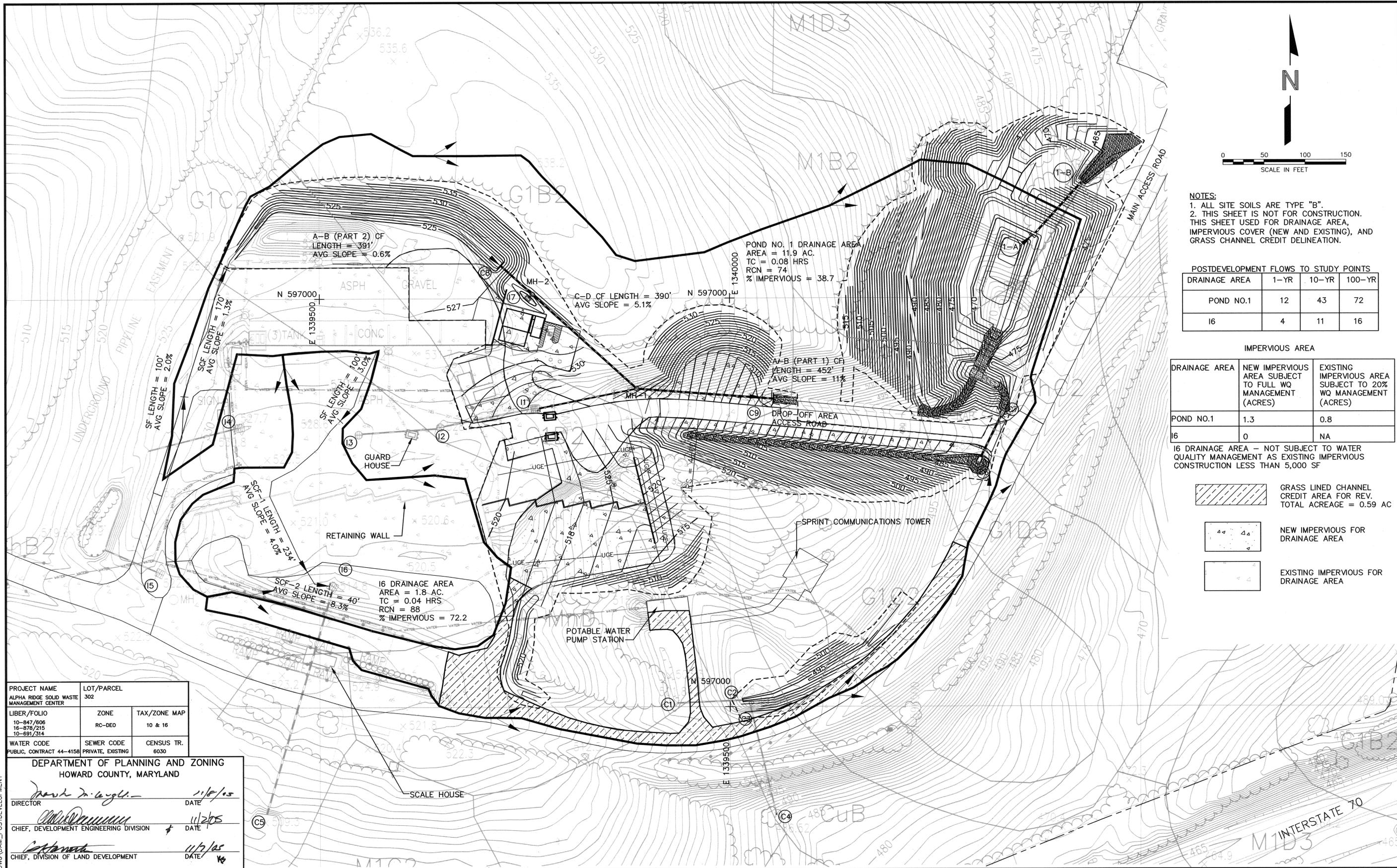
ALPHA RIDGE LANDFILL
 RESIDENTS' DROP-OFF AREA EXPANSION
 REVISED SITE DEVELOPMENT PLAN
 CAPITAL PROJECT NO. C-0299-A
 3rd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

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

SDP-90-37
 EP-06-01

NORFOLK 02203023.12.DWG.DAM_PREDEVELOPMENT



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 |
| I6 | 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 |
| I6 | 0 | NA |

I6 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 10-847/606 16-876/215 10-691/314 | 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 J. Long 11/6/05
 DIRECTOR DATE

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

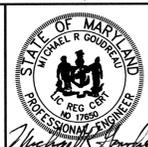
John ... 11/2/05
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John ... 10/10/05
 DIRECTOR OF PUBLIC WORKS DATE

John ... 10/10/05
 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 | NO. | REVISION | DATE |
|---------|---------|-----|----------|------|
| AST | 10/7/05 | | | |
| AST | | | | |
| PAM/MRG | | | | |
| 09/05 | | | | |

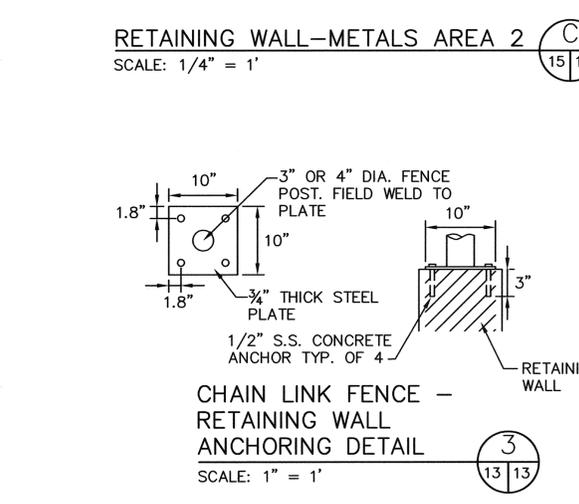
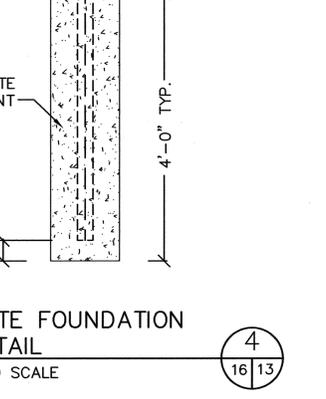
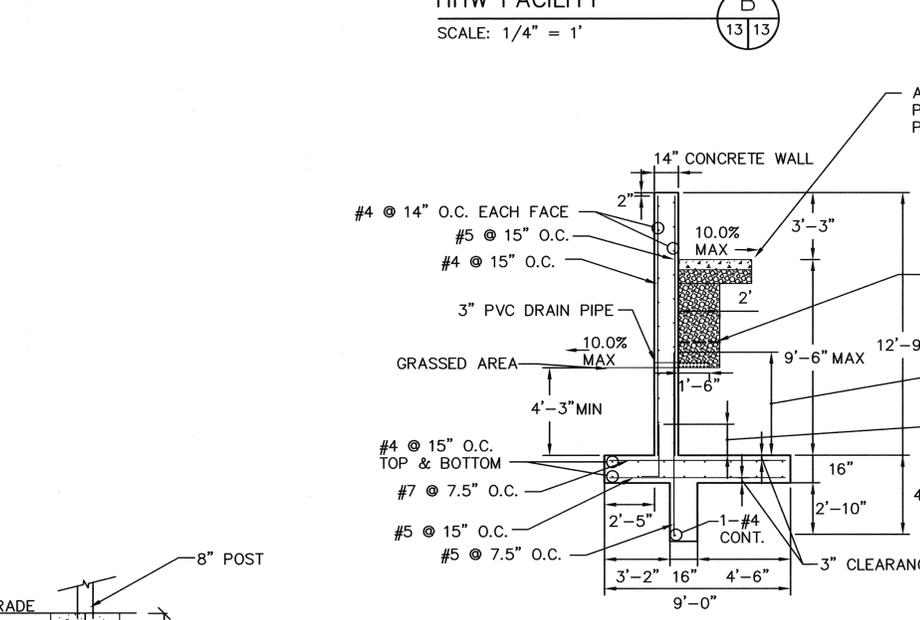
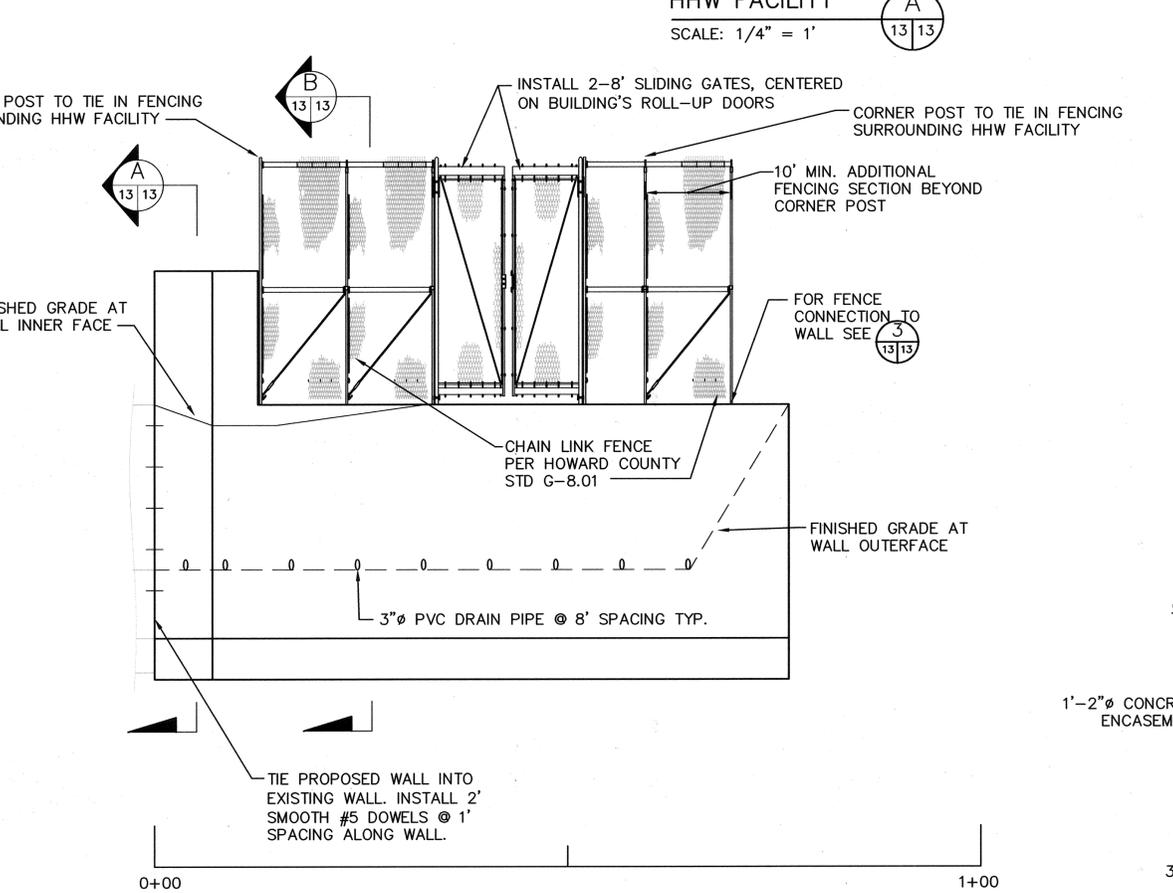
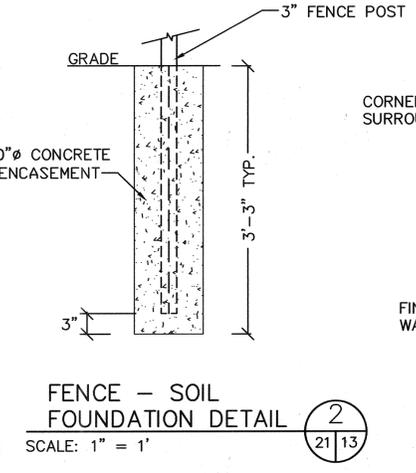
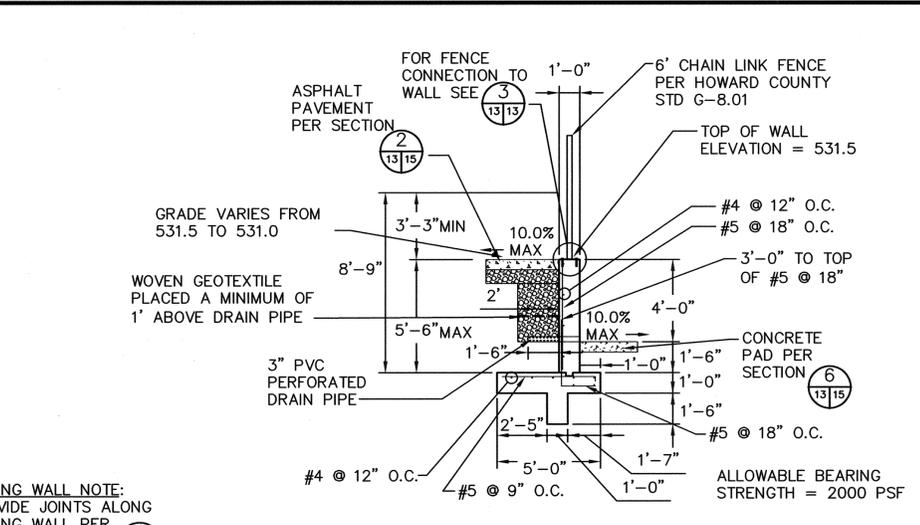
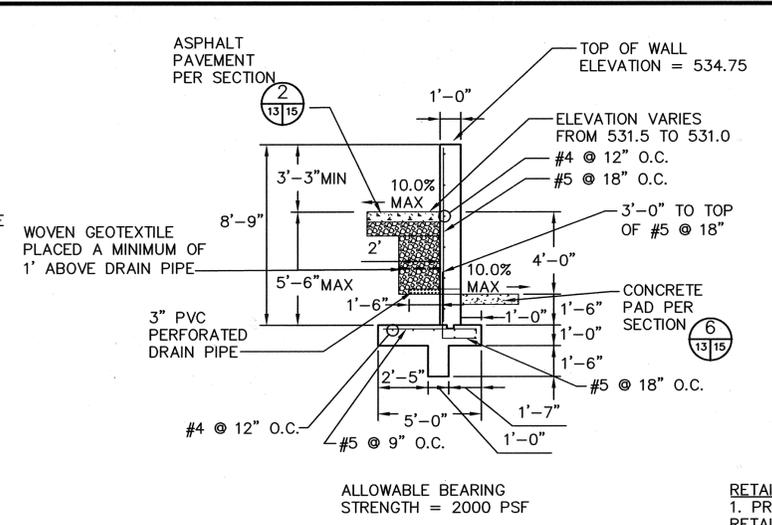
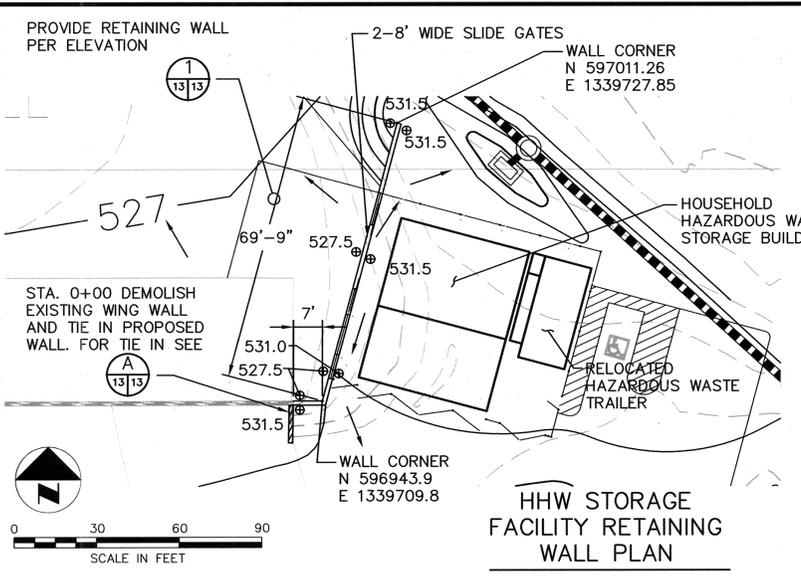
DRAINAGE AREA MAP
 POSTDEVELOPMENT

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

EP-06-01
 SCALE: AS SHOWN
 SHEET 12 OF 24

SDP-90-37
 EP-06-01

NORFOLK\0220302312.DWG_DAM_POSTDEVELOPMENT



| | |
|---|---------------------------------|
| PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER | LOT/PARCEL 302 |
| LIBER/FOLIO 10-847/606 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

Barbara R. Longell 11/8/05
DIRECTOR DATE

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

Linda Stanish 11/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

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

John J. O'Hara 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



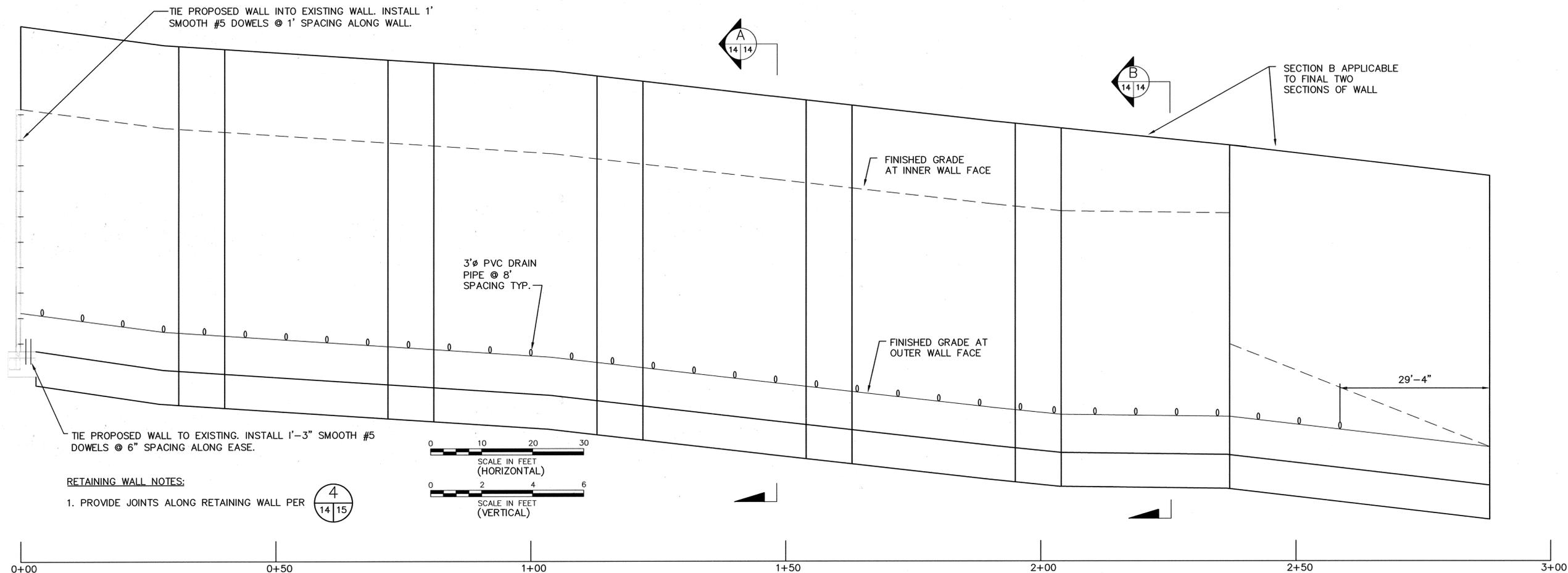
| | |
|--------------|----------|
| DES. AST | 10/7/05 |
| DRN. AST | |
| CHK. PAM/MRG | |
| DATE: 09/05 | |
| BY NO. | REVISION |
| | DATE |

RETAINING WALL PLANS AND DETAILS

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

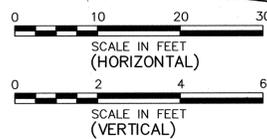
EP-06-01
SCALE:
AS SHOWN
SHEET
13 OF 24

SDP-90-37
6-06-01

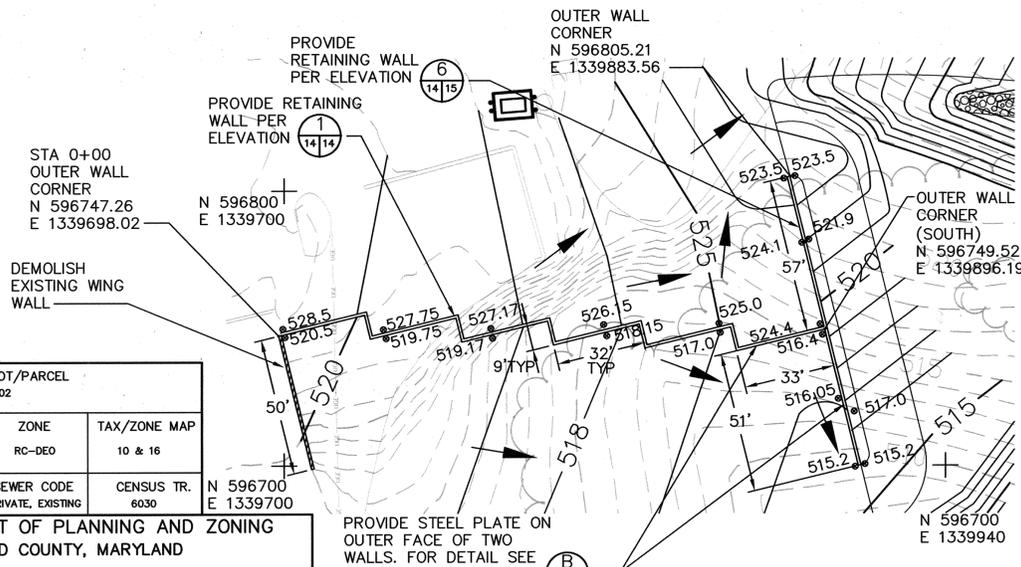


RETAINING WALL NOTES:

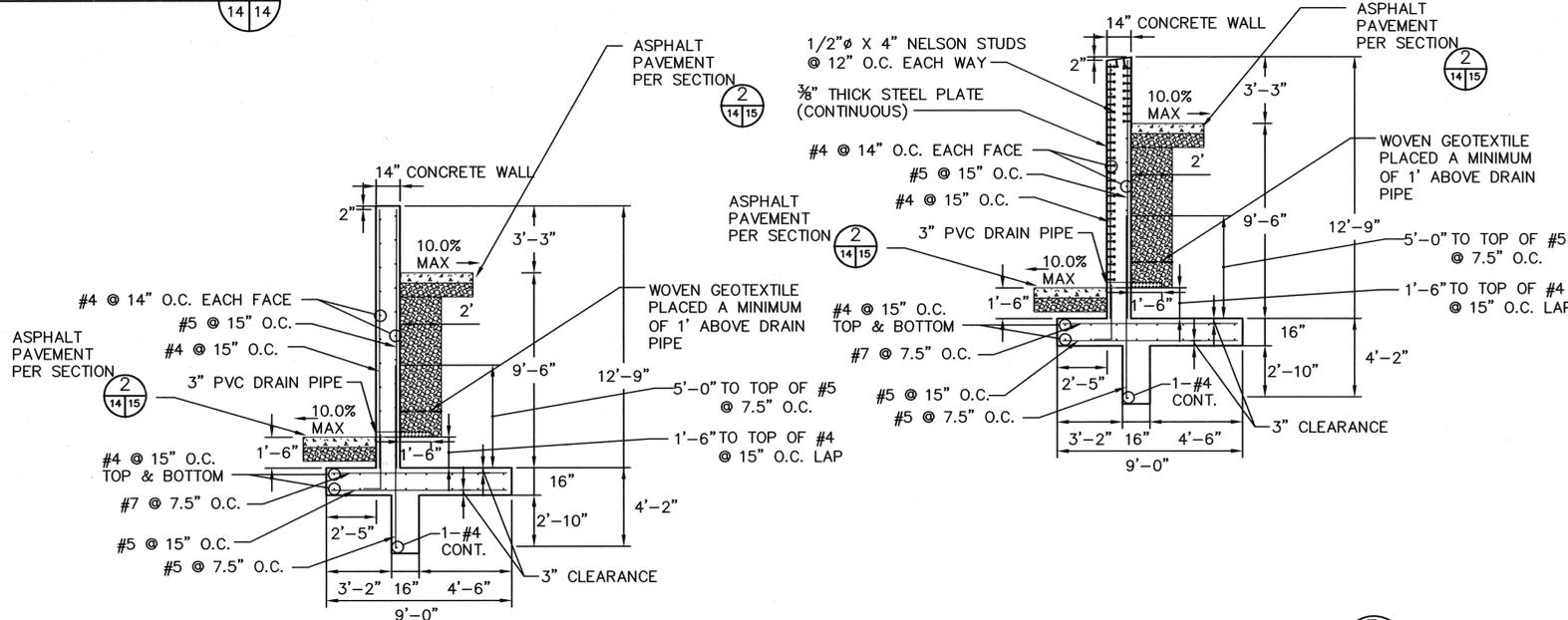
1. PROVIDE JOINTS ALONG RETAINING WALL PER



RETAINING WALL ELEVATION—SOUTH DROP-OFF AREA



**HHW STORAGE FACILITY
RETAINING WALL PLAN**



RETAINING WALL - DROP-OFF AREA



SCALE: 1/4" = 1'

RETAINING WALL—METALS AREA



SCALE: 1/4" = 1'

| | | |
|--|---------------------------------|-------------------------|
| PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER | | LOT/PARCEL 302 |
| LIBER/FOLIO 10-847/606 16-876/215 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 | | N 596700 E 1339700 |
| DIRECTOR <i>David L. Wyle</i> | | DATE 11/10/05 |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | | DATE 11/2/05 |
| CHIEF, DIVISION OF LAND DEVELOPMENT | | DATE 11/2/05 |

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



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

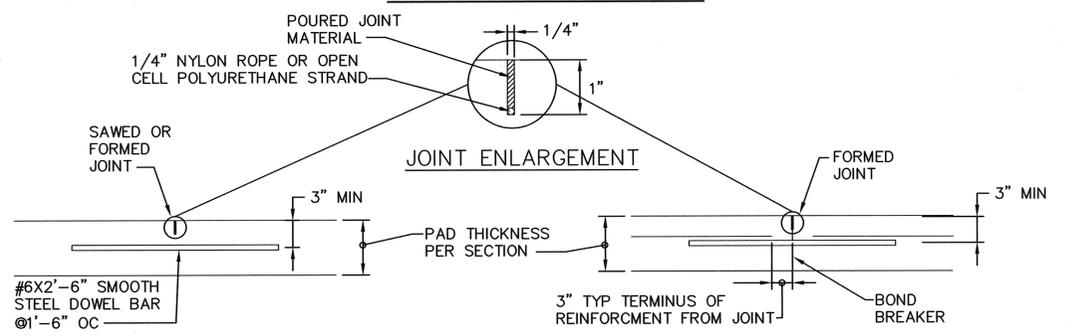
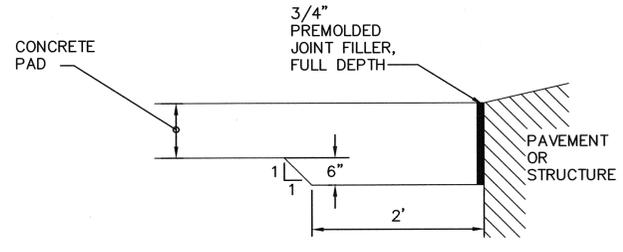
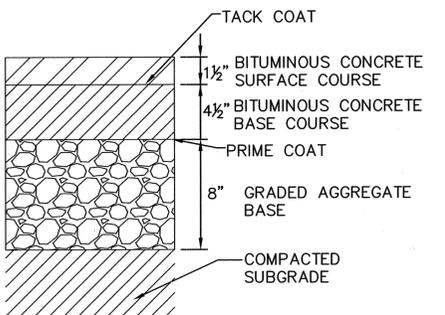
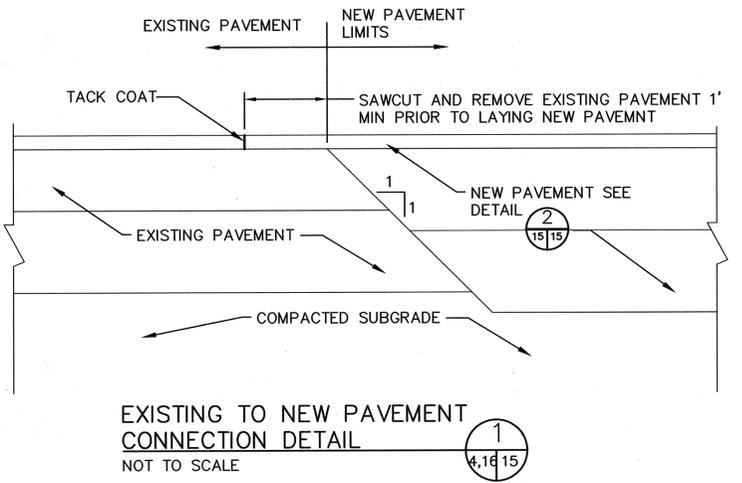
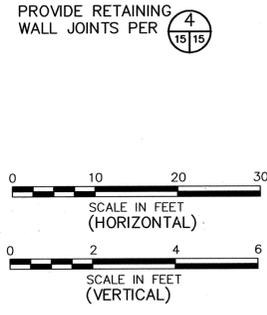
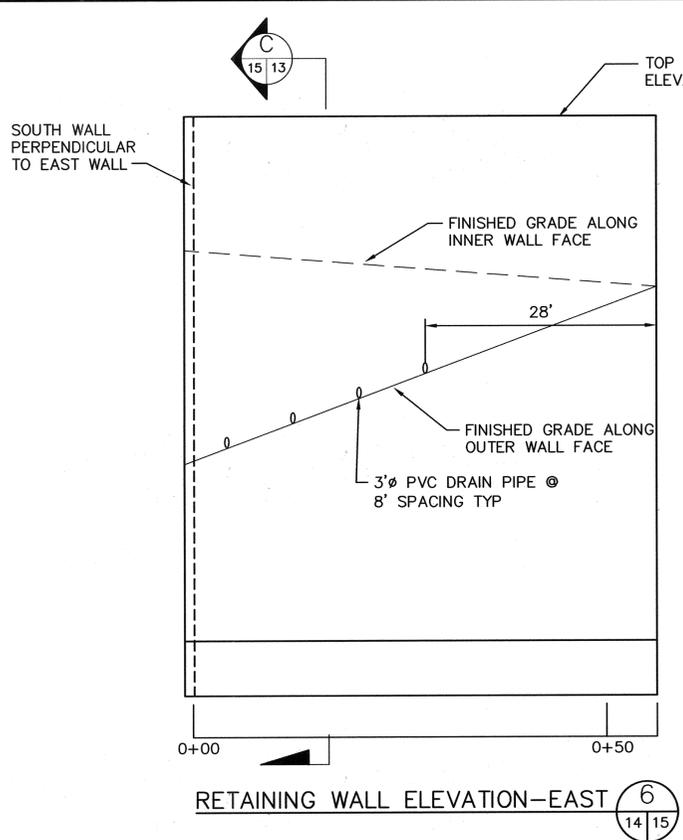
**RETAINING WALL PLANS AND
DETAILS-2**

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

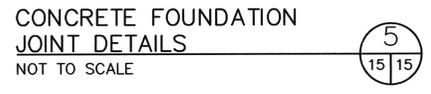
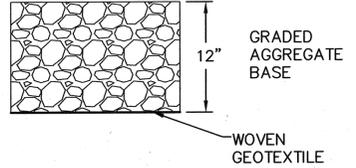
EP-06-01
SCALE:
AS SHOWN
SHEET
14 OF 24

NORFOLK\02203023.12.DWG\RETAINING WALL PLANS-DETAILS.DWG

SDP-90-37
SP-06-01



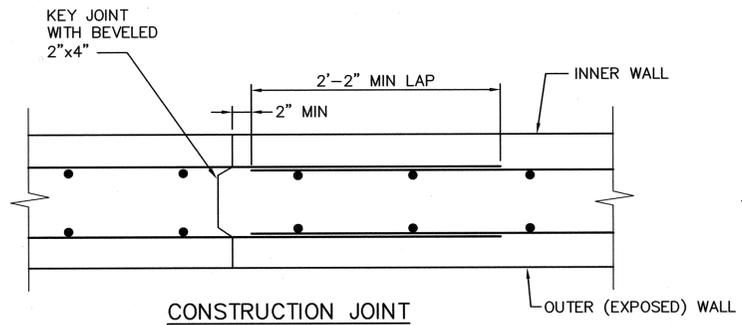
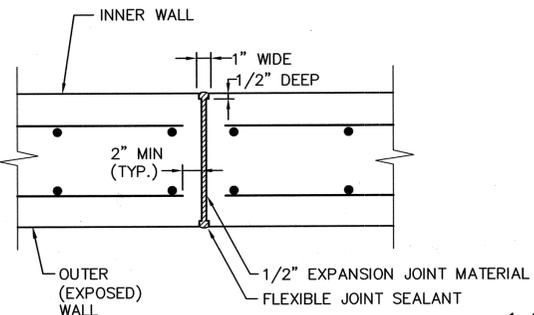
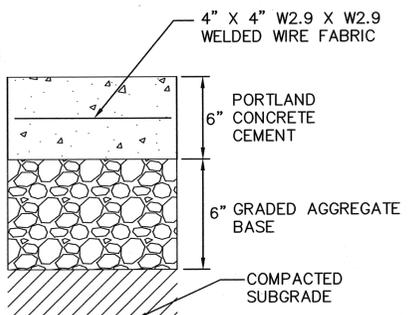
1. PROVIDE COMPACTED SUBGRADE IN AREAS FOR CONCRETE PADS PRIOR TO CONSTRUCTION.
2. CONCRETE USED FOR PAVEMENT TO HAVE AIR ENTRAINMENT FOR OUTDOOR USE.
3. REINFORCING STEEL PER CONCRETE PAD SECTIONS.
4. ALONG EDGES OF CONCRETE PAD THE SLAB THICKNESS SHALL BE INCREASED AS SHOWN ON SECTIONS.
5. CONTRACTION 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.



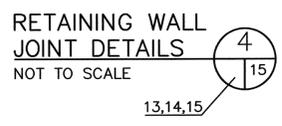
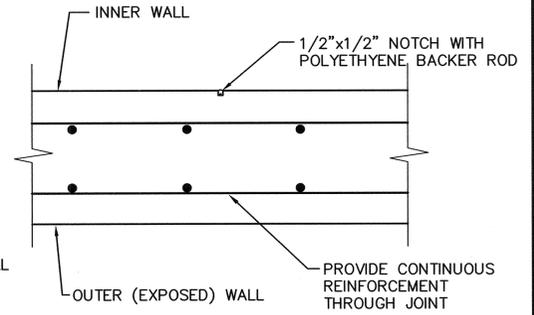
GRAVEL AREA TYPICAL SECTION

NOT TO SCALE

3/4, 15



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.



| | |
|---|-----------------------------------|
| 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 RC-DEO 10 & 16 |
| WATER CODE PUBLIC, CONTRACT 44-415B | SEWER CODE PRIVATE, EXISTING |
| CENSUS TR. 6030 | |

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Frank M. Weger 11/16/05
DIRECTOR DATE

Allen Williams 11/21/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cristy Hamrick 11/21/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

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



| | | |
|--------------|--|----------|
| 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 |

STRUCTURAL DETAILS

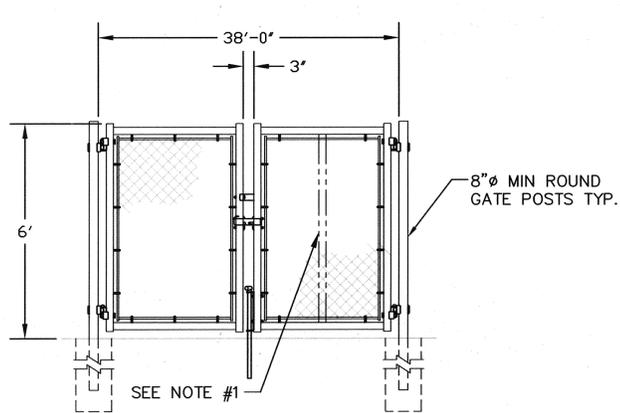
ALPHA RIDGE LANDFILL
RESIDENTS' DROP-OFF AREA EXPANSION
REVISED SITE DEVELOPMENT PLAN
CAPITAL PROJECT NO. C-0299-A
3rd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

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

SDP-90-37
41-06-01

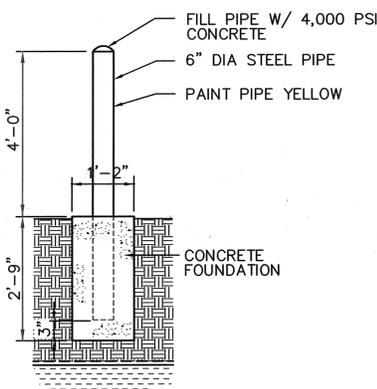
NORFOLK 022020023.12.DWG\RETAINING WALL PLANS-DETAILS.DWG



38' SWING GATE
NOT TO SCALE

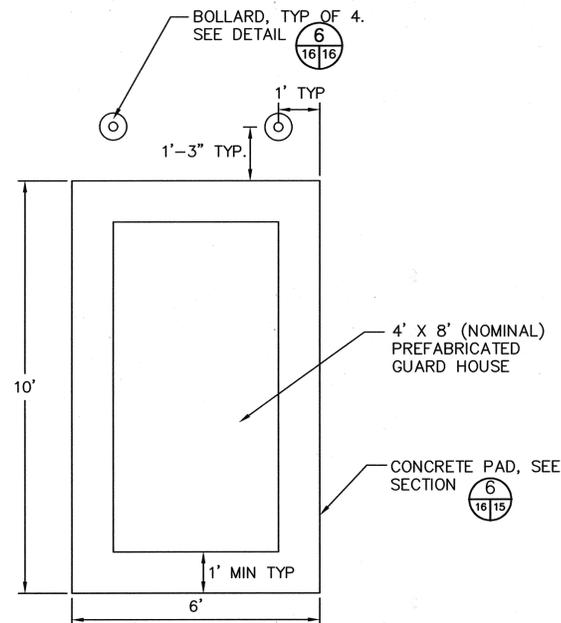
NOTES:
1. CENTER UPRIGHT REQUIRED ON GATE LEAVES.
2. FOR POST FOUNDATION, SEE

4
16/13



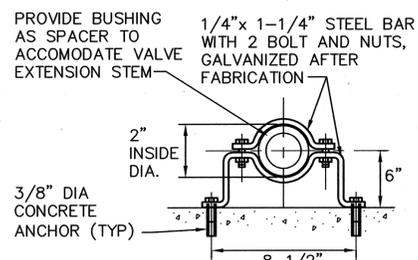
PROTECTION BOLLARD DETAIL
SCALE: 1/2"=1'-0"

6
16/16



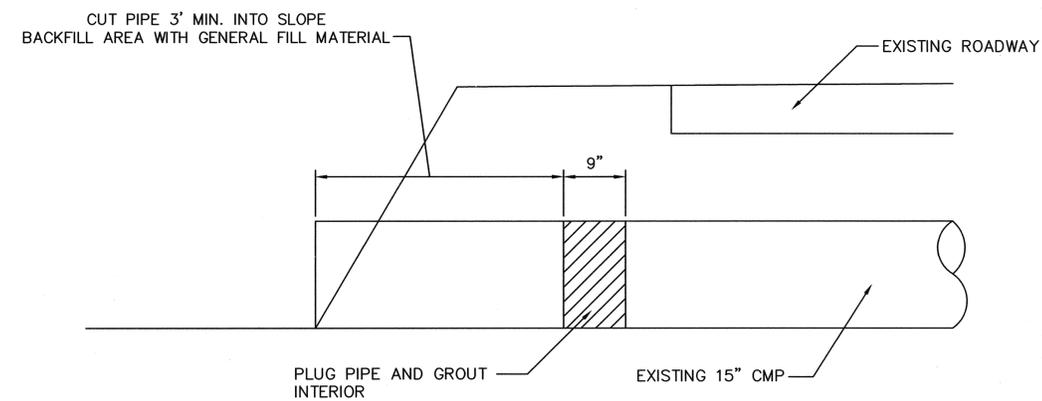
GUARD HOUSE
NOT TO SCALE

2
4/16



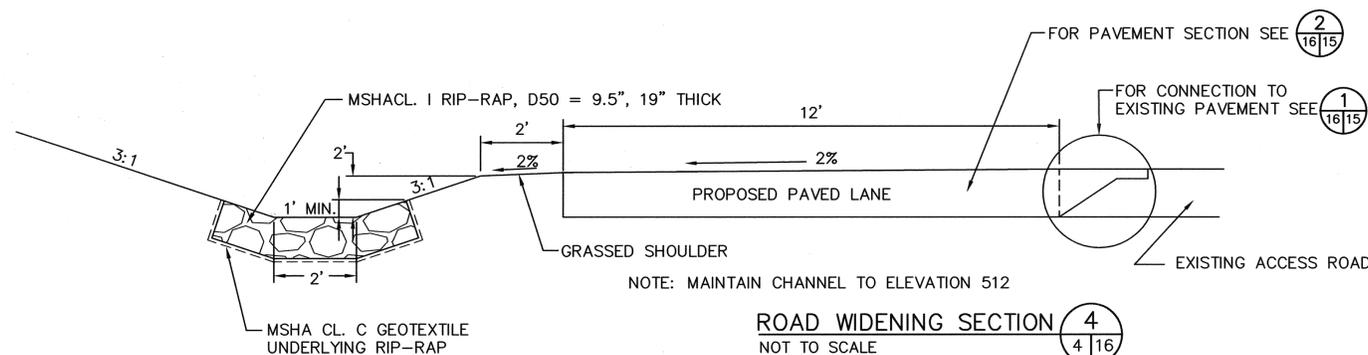
PIPE/EXTENSION BAR SUPPORT
NOT TO SCALE

5
8/16



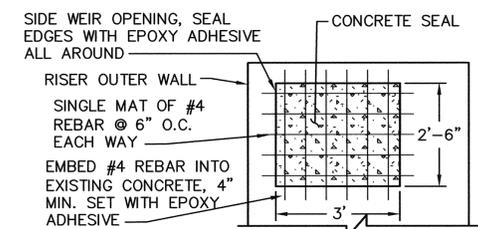
INLET C3 ABANDONMENT
NOT TO SCALE

3
4/16



ROAD WIDENING SECTION
NOT TO SCALE

4
4/16



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

7
6/16

| | |
|--|---|
| 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 | |
| <i>Mark W. Gull</i> DIRECTOR | DATE 11/6/05 |
| <i>Mark W. Gull</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION | DATE 11/2/05 |
| <i>Cindy Hamrick</i> CHIEF, DIVISION OF LAND DEVELOPMENT | DATE 11/2/05 |

| | |
|---|---------------|
| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND | |
| <i>John O'Hare</i> DIRECTOR OF PUBLIC WORKS | DATE 10/14/05 |
| <i>John O'Hare</i> CHIEF, BUREAU OF ENVIRONMENTAL SERVICES | DATE 10/14/05 |

SCS ENGINEERS
CONSULTING ENGINEERS
1260 ROGER BACON DRIVE
SUITE 300
RESTON, VIRGINIA 20190
PH. (703) 471-6150
FAX. (703) 471-6676



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

DETAILS

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**

1. 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).
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. SITE ANALYSIS:
TOTAL AREA OF SITE = 13.8 ACRES
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.
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. 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.
11. 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 LOOSENEED.
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 LOOSENEED.
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.

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 10/19/05
PRINT NAME BELOW SIGNATURE JOHN J. O'HARA

SEQUENCE OF CONSTRUCTION

1. THE GRADING PERMIT FOR THE PROJECT WILL BE OBTAINED BY HOWARD COUNTY UPON APPROVAL OF PLAN.
2. ACCESS THE CITIZENS' DROP-OFF AREA AND POND NO. 1 BY THE EXISTING ACCESS ROADS.
3. INSTALL PERIMETER EROSION CONTROL MEASURES: SILT FENCE, SUPER SILT FENCE AND CONSTRUCTION ENTRANCES. EST. CONSTRUCTION DURATION - 3 DAY.
4. 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.
5. 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.
6. 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.
7. CONSTRUCT PAVED VEHICLE TURNAROUND (EST. CONSTRUCTION DURATION - 1 MONTH):
A. EXCAVATE AND DEMOLITION STORM DRAIN OUTLET AND PIPE TO INLET I1 - 2 DAYS.
B. CONSTRUCT NEW STORM DRAIN FROM I1 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.
8. 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.
9. 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 GUARDHOUSES 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.
10. PROVIDE POND NO. 1 AS-BUILT DRAWINGS TO HOWARD SCD.

SPECIFICATIONS FOR TOPSOIL

- I. 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.
- II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - i. 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.
 - ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - iii. 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.
- III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES: (NOT APPLICABLE)
- V. TOPSOIL APPLICATION
 - i. 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.
 - ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.
 - iii. 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.
 - iv. 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.
- VI. 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:
 - i. 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:
 - a. 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.
 - b. 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.
 - c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
 - ii. 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 10-847/606 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 McLaughlin 10/19/05
DIRECTOR DATE

John J. O'Hara 10/19/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

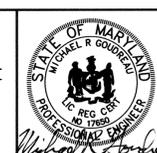
Chris Kramer 10/19/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

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

John J. O'Hara 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



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 DATE 10/11/05
PRINT NAME BELOW SIGNATURE MICHAEL R. GOUDREAU

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

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

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

John J. O'Hara 10/21/05
HOWARD SCD 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 EROSION CONTROL NOTES AND CONSTRUCTION SEQUENCE | |
| CHK. PAM/MRG | | |
| DATE: 09/05 | BY NO. REVISION | DATE |

EROSION & SEDIMENT CONTROL NOTES

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

SDP-90-37
EP-06-01

| 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) | 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
 - A-2** **A-3** 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 Meyer

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD SCD DATE 10/31/05
John J. O'Hara

| | |
|---|---------------------------------|
| PROJECT NAME ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER | LOT/PARCEL 302 |
| LIBER/FOLIO 10-847/606 16-876/215 10-891/314 | ZONE RC-DEO |
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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

DIRECTOR *Paula DeLoyle* DATE 11/8/05
 CHIEF, DEVELOPMENT ENGINEERING DIVISION *Michael R. Goudreau* DATE 11/2/05
 CHIEF, DIVISION OF LAND DEVELOPMENT *Cindy Harms* DATE 11/2/05

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS *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



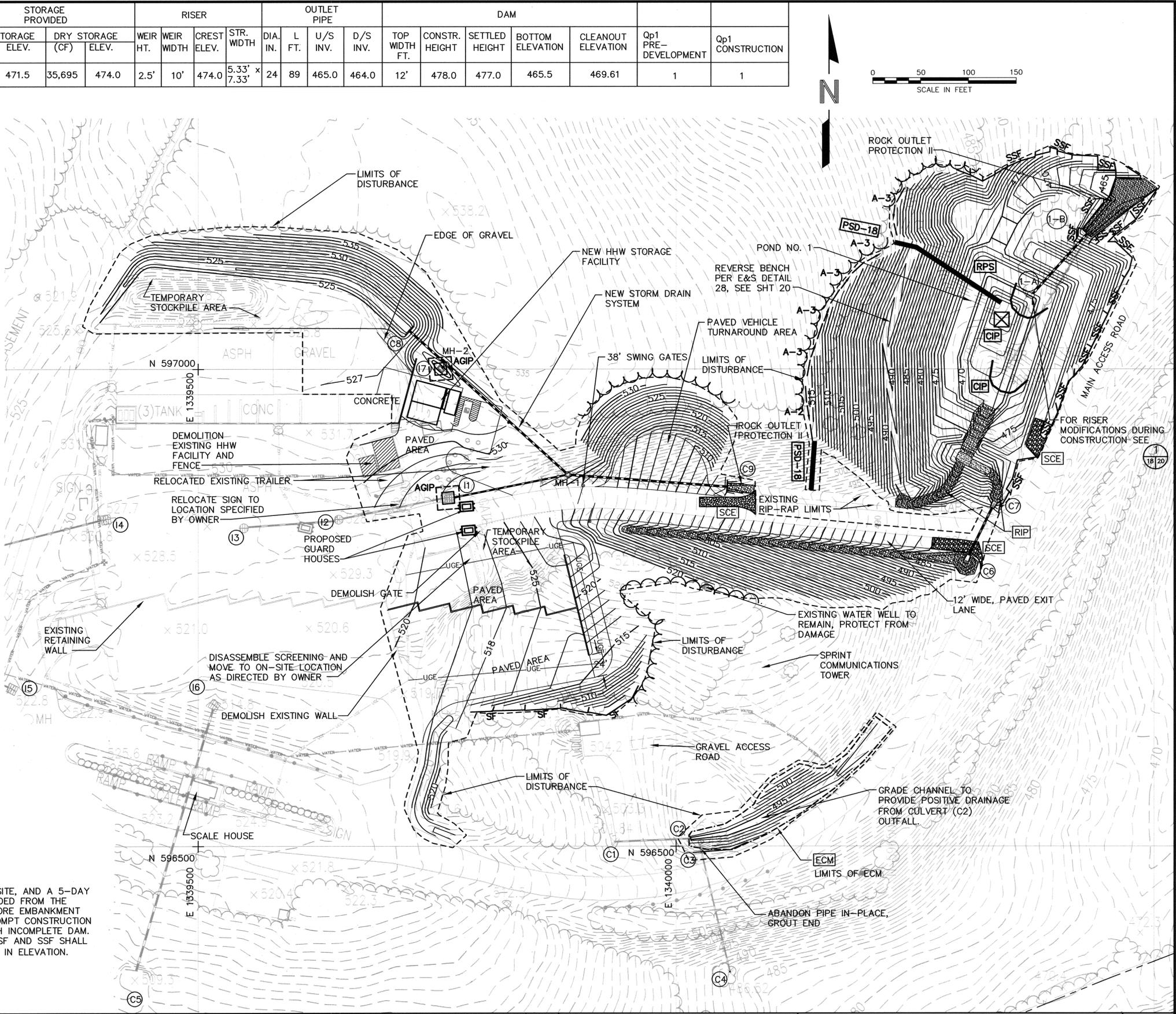
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|--------------|---------|
| DES. AST | 10/7/05 |
| DRN. AST | |
| CHK. PAM/MRG | |
| DATE: 09/05 | |
| BY NO. | |
| REVISION | |
| DATE | |

THE PURPOSE OF THE REVISED SDP IS TO DOCUMENT THE EXPANSION OF THE DROP-OFF AREA. THIS SHEET SHOWS: LAYOUT OF EROSION CONTROL MEASURES

EROSION AND SEDIMENT CONTROL 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 24

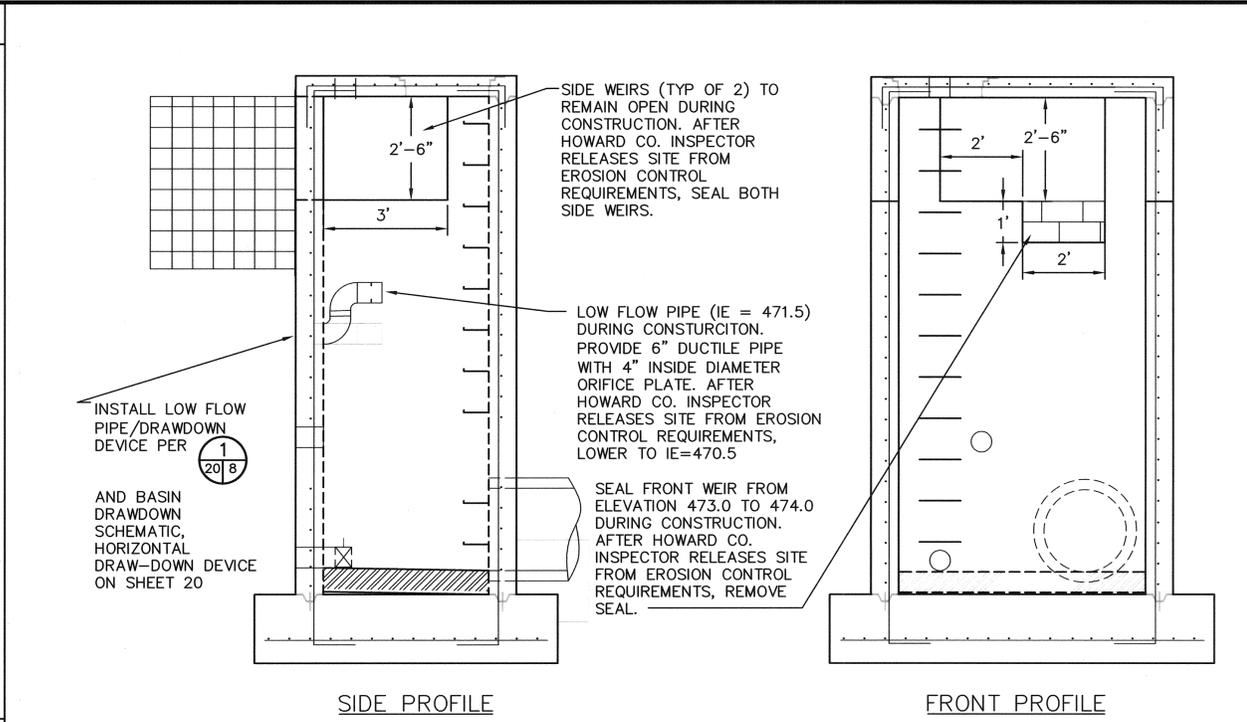
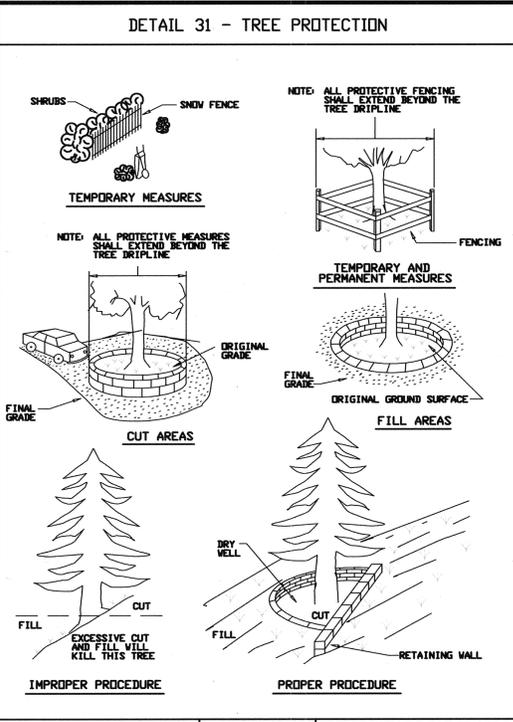
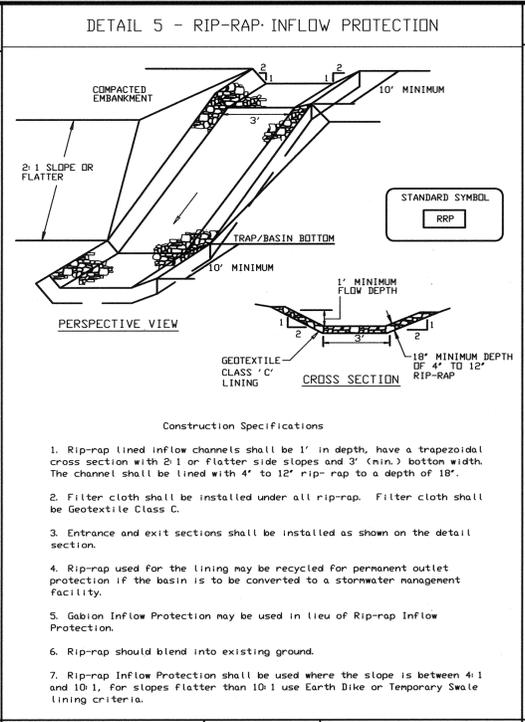
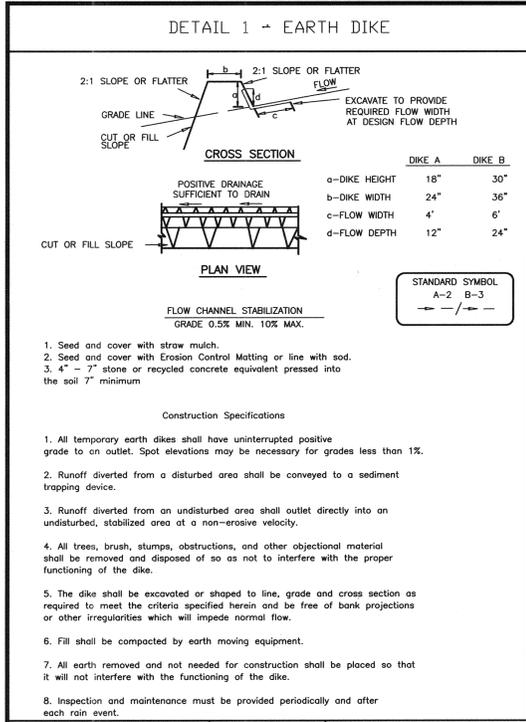


NOTES:
 1. ALL MATERIALS SHALL BE ON SITE, AND A 5-DAY CLEAR WEATHER FORECAST PROVIDED FROM THE NATIONAL WEATHER SERVICE, BEFORE EMBANKMENT EXCAVATION TO PROVIDE FOR PROMPT CONSTRUCTION AND PREVENT OVERFLOW THROUGH INCOMPLETE DAM.
 2. ALL IMBRICATED SECTIONS OF SF AND SSF SHALL HAVE ENDS TURNED UPHILL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



NORFOLK 02203032.12.DWG, E&S PLAN.DWG

SDP-90-37
 EP-06-01



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

PAGE A-1-6

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

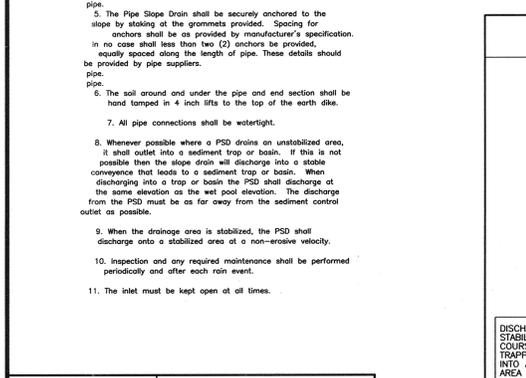
PAGE B-6-2

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

PAGE C-29-3

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



DETAIL 33 - SUPER SILT FENCE

NOTE: FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER

10' MAXIMUM
34" MINIMUM
36" MINIMUM
8" MINIMUM

2 1/2" DIAMETER GALVANIZED OR ALUMINUM POSTS
CHAIN LINK FENCE WITH 1 LAYER OF FILTER CLOTH

EMBED FILTER CLOTH 8" MINIMUM INTO GROUND

16" MIN. 1ST LAYER OF FILTER CLOTH

STANDARD SYMBOL
SSF

Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
7. Filter cloth 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 ² /minute (max.) | Test: MSMT 322 |
| Filtering Efficiency | 75% (min.) | Test: MSMT 322 |

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

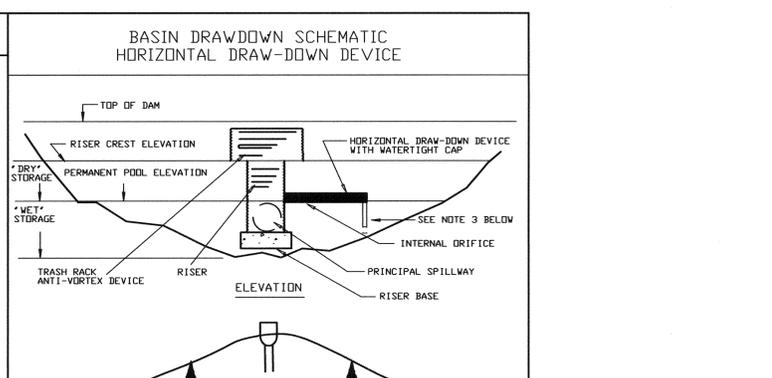
PAGE H-26-3

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

PAGE F-19-3

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



Construction Specifications - Pipe Slope Drain

1. The Pipe Slope Drain (PSD) shall have a slope of 3 percent or steeper.
2. 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.
3. Flexible tubing is preferred. However, corrugated metal pipe or equivalent PVC pipe can be used. All connections shall be watertight.
4. 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 "keyed in" on all sides.
5. The Pipe Slope Drain shall be securely anchored to the slope by staking at 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 should be provided by pipe suppliers.
6. 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.
7. All pipe connections shall be watertight.
8. 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 well pool elevation. The discharge from the PSD must be as far away from the sediment control outlet as possible.
9. When the drainage area is stabilized, the PSD shall discharge onto a stabilized area of a non-erosive velocity.
10. Inspection and any required maintenance shall be performed periodically and after each rain event.
11. The inlet must be kept open at all times.

| PROJECT NAME | LOT/PARCEL | |
|---|-------------------|--------------|
| ALPHA RIDGE SOLID WASTE MANAGEMENT CENTER | 302 | |
| LIBER/FOLIO | ZONE | TAX/ZONE MAP |
| 10-847/606 15-878/215 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

DIRECTOR: Mark J. Weyhl DATE: 11/8/15

CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 11/2/15

CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 11/7/15

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

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MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

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MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

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MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

PAGE C-19-29

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS: [Signature] DATE: 10/14/15

CHIEF, BUREAU OF ENVIRONMENTAL SERVICES: [Signature] DATE: 10/14/15

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. GOODE, GOV.
PROFESSIONAL ENGINEER
NO. 17890

| | | |
|--------------|--|---------------|
| 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 | EROSION CONTROL DETAILS AND RISER | |
| | MODIFICATIONS DURING CONSTRUCTION | |
| DATE: 09/05 | BY NO. | REVISION DATE |

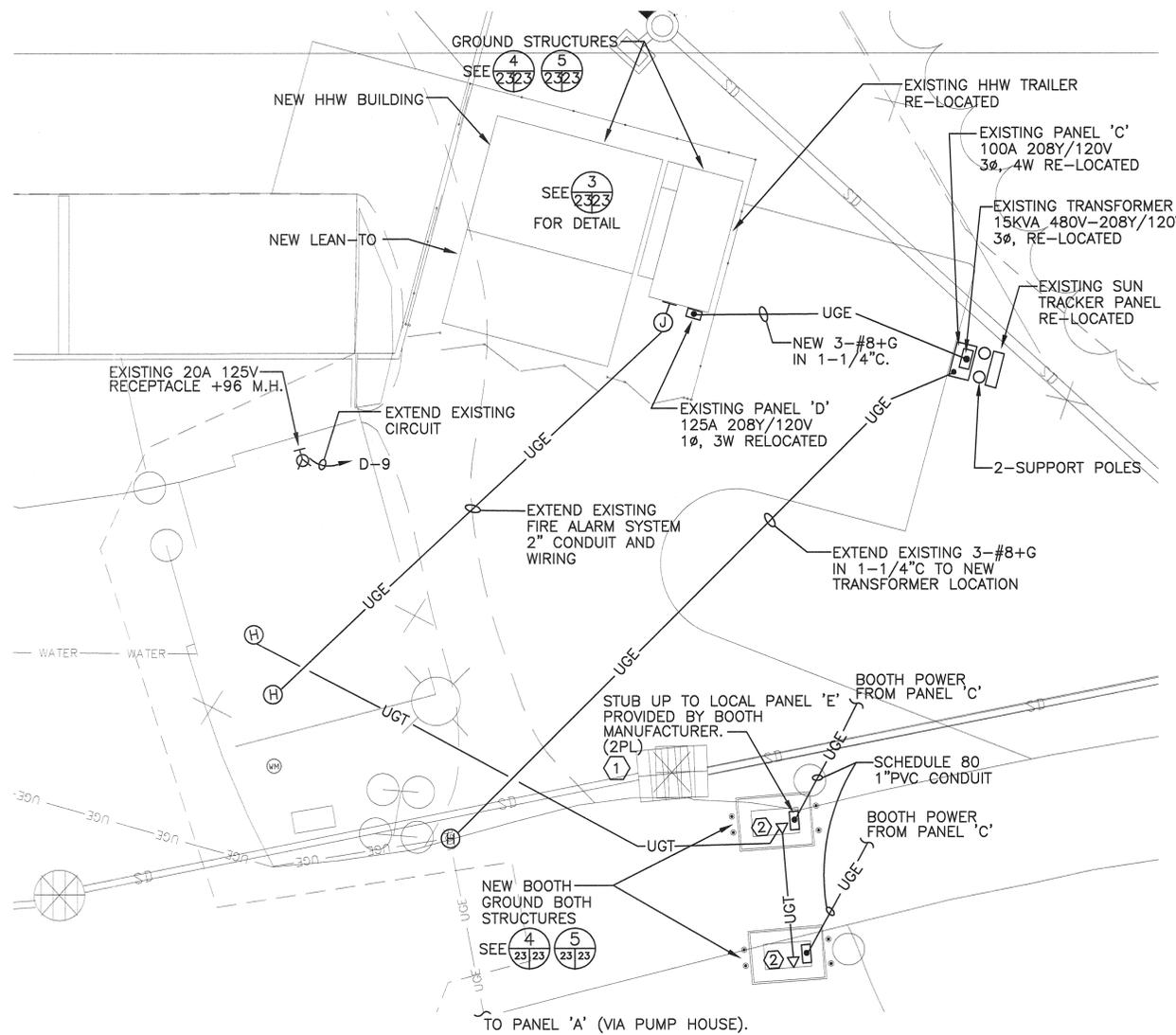
EROSION AND SEDIMENT CONTROL DETAILS - 2

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

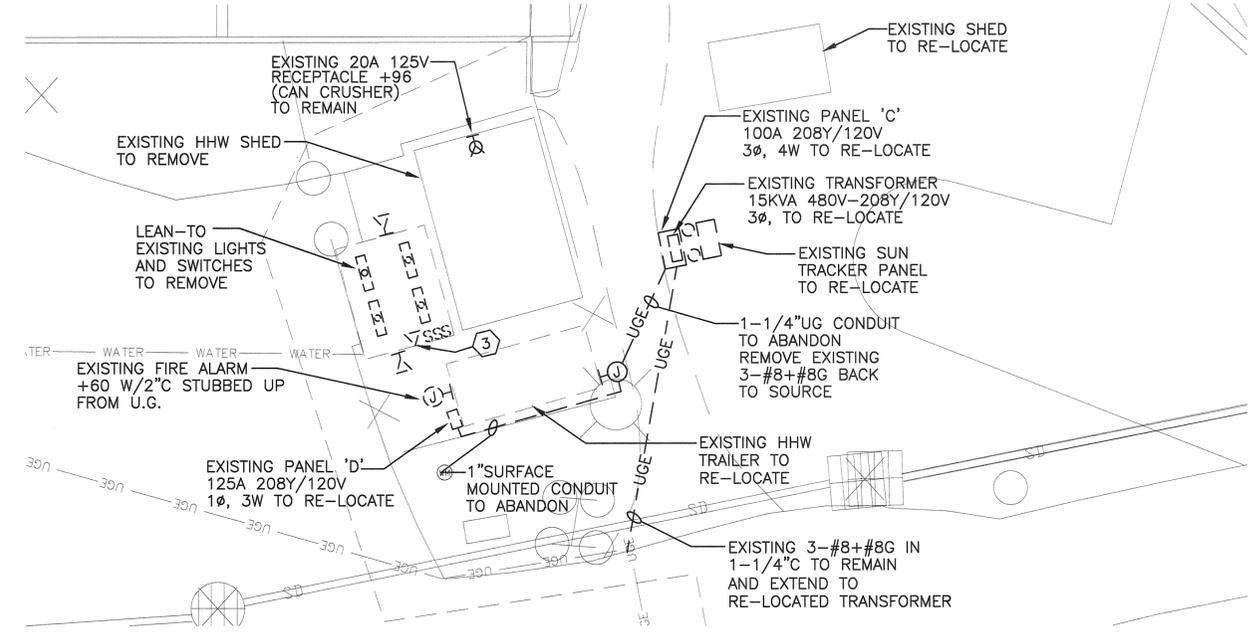
EP-06-01
SCALE: AS SHOWN
SHEET 20 OF 24

NORFOLK\02203023.12\DWGS\E&SD\DETAILS-2.DWG

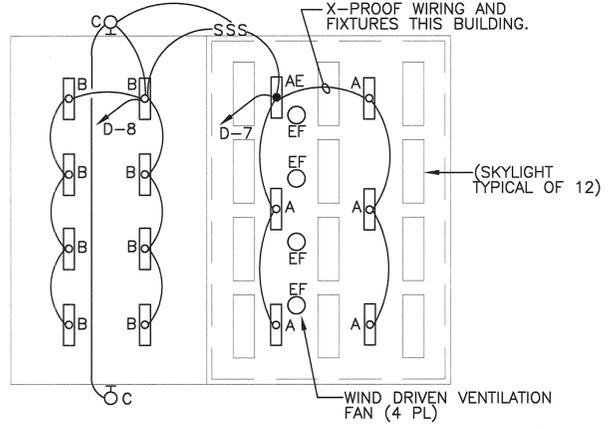
SDP-90-37
EP-06-01



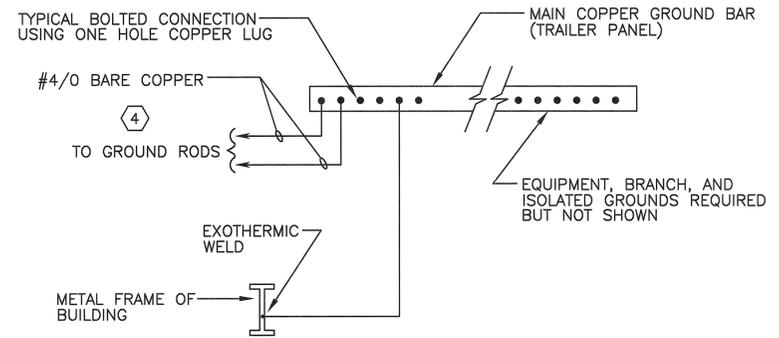
2 SITE PLAN ELECTRICAL NEW WORK
SCALE: 1" = 15'



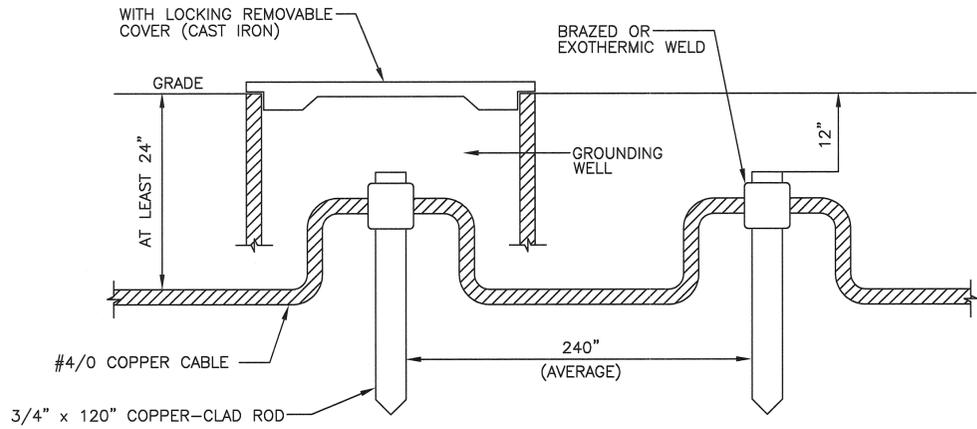
1 SITE PLAN DEMOLITION
SCALE: 1" = 15'



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 10-691/314 | ZONE RC-DEO |
| TAX/ZONE MAP 10 & 16 | |
| WATER CODE PUBLIC, CONTRACT 44-4158 | SEWER CODE PRIVATE, EXISTING |
| CENSUS TR. 60-30 | |

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Mark J. Leagle 11/8/05
DIRECTOR DATE

John DeMunnis 11/2/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

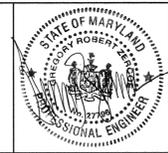
Andy Hamak 11/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Sancho 10/19/05
DIRECTOR OF PUBLIC WORKS DATE

John O'Hara 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



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

SITE ELECTRICAL - 1

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

NORFOLK\022030203.12\DWGS\ELECTRICAL-1.DWG

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 WORK:** 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 I, 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:

- A SURFACE MOUNTED FLUORESCENT LIGHT FIXTURE (SEE FIXTURE SCHEDULE). EXPLOSION PROOF, CLASS I DIVISION 1, FOR GROUP C AND D FLAMMABLE LIQUIDS.
- AE 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.).
- +45 MOUNTING HEIGHT (M.H.) ABOVE FINISHED GRADE IN INCHES.
- S 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.
- UGE— UNDERGROUND ELECTRICAL FEEDER.
- UGT— 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.
- SD— UNDERGROUND STORM DRAIN.

| PANEL SCHEDULE | | | | | | |
|---|-----------------------|-------|------|-------------------|--------------|----------------|
| CIRCUIT NO. | CIRCUIT BREAKER POLES | FRAME | TRIP | WIRE SIZE | CONDUIT SIZE | LOAD (KVA) |
| 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' |
| 6 | 1 | 100 | 20 | 2-#12+G | 3/4" | SUNTRACKER |
| 7,8 | 2 | 100 | 30 | 2-#10+G | 1" | BOOTH POWER |
| 9,10 | 2 | 100 | 30 | 2-#10+G | 1" | BOOTH POWER |
| 11-13 | — | — | — | — | — | SPACE |

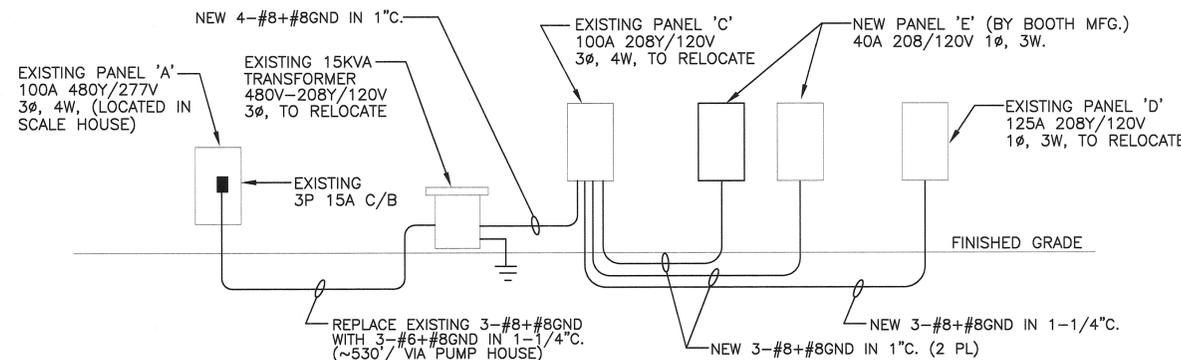
*NEW CIRCUIT BREAKER CONNECTED LOAD = 12.3KVA
CONNECTED CURRENT, I = 12.3kVA/(208*1.73) = 34A

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

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

| PANEL SCHEDULE | | | | | | |
|--|-----------------------|-------|------|---------------|--------------|----------------|
| CIRCUIT NO. | CIRCUIT BREAKER POLES | FRAME | TRIP | WIRE SIZE | CONDUIT SIZE | LOAD (KVA) |
| 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 | 1 | 100 | 20 | BY BOOTH MFG. | — | LIGHTS/RECEPT. |
| 4 | 1 | 100 | 20 | BY BOOTH MFG. | — | CAMERA |
| 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.

| LIGHTING FIXTURE SCHEDULE | | | | | | |
|---------------------------|---------------|--------------------------|----------------|----------|-------------------|---------|
| FIXT. TYPE | MANUFACTURER | CATALOG NO | MOUNTING SURF. | REC. NO. | LAMPS DESCRIPTION | VOLTAGE |
| A | LDPI LIGHTING | 380-T5H0-2L-4-120-P | X | 2 | 54W T5HO | 120V. |
| AE | LDPI LIGHTING | 380-T5H0-2L-4-120-EMP | X | 2 | 54W T5HO | 120V. |
| B | LDPI LIGHTING | 375-3-32T8-A-120-IR | X | 2 | 54W T5HO | 120V. |
| C | LDPI LIGHTING | DSR-70-C-12-S-R5-B2-T-E1 | X | 1 | 70W HPS | 120V. * |

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

- 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/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 16-878/215 10-891/314 | ZONE RC-DEO |
| TAX/ZONE MAP 10 & 16 | |
| WATER CODE PUBLIC, CONTRACT 44-4158 | SEWER CODE PRIVATE, EXISTING |
| CENSUS TR. 60-30 | |

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Frank M. Layell 11/6/05
DIRECTOR DATE

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

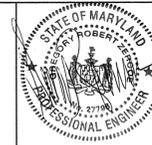
Andy Hamrick 11/2/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John P. Williams 11/16/05
DIRECTOR OF PUBLIC WORKS DATE

John P. Williams 11/16/05
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

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