

PHASE III PERMIT DRAWINGS

CHESAPEAKE TERRACE RUBBLE LANDFILL

4th ASSESSMENT DISTRICT

ANNE ARUNDEL COUNTY, MARYLAND

Prepared for:

NATIONAL WASTE MANAGERS, INC.
2900 Linden Lane, Suite 300
Silver Springs, Maryland 20910
(301) 495-1520

Submitted to:

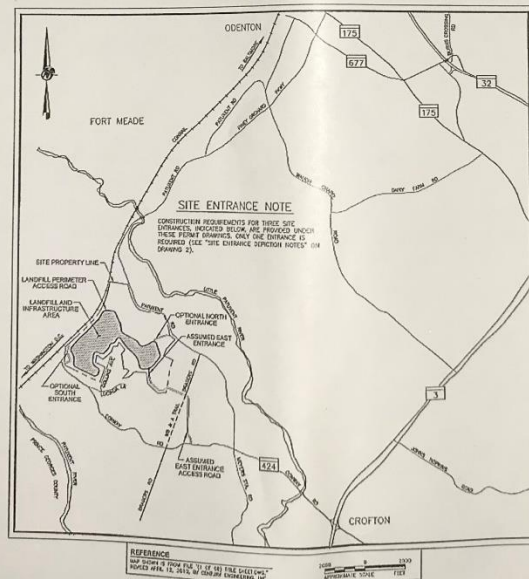


MARYLAND DEPARTMENT OF THE ENVIRONMENT
1500 Washington Boulevard
Baltimore, Maryland 21230
(410) 537-3000 www.mde.state.md.us

Prepared by:



200 Century Parkway, Suite C
Mount Laurel, New Jersey 08054
(856) 793-2005 www.golder.com



DRAWING LIST

DRAWING	DRAWING TITLE
1	TITLE SHEET
2	OVERALL SITE PLAN
3	ASSIGNED EAST ENTRANCE ACCESS ROAD PLAN
4	ASSIGNED EAST ENTRANCE BIFURCATED GRADING PLAN
5	OPTIONAL NORTH ENTRANCE PLAN
6	OPTIONAL SOUTH ENTRANCE PLAN
7	EAST SECTION COMPOSITE CELL TOP OF SUBGRADE GRADING PLAN
8	WEST SECTION COMPOSITE CELL TOP OF SUBGRADE GRADING PLAN
9	EAST SECTION COMPOSITE LEACHATE COLLECTION PLAN
10	WEST SECTION COMPOSITE LEACHATE COLLECTION PLAN
11	LEACHATE FORCE MAIN TRUNK LINE PLAN AND PROFILES
12	PARTIAL PROFILES OF LEACHATE FORCE MAIN TRUNK LINE
13	LEACHATE STORAGE AREA CROSS SECTIONS
14	EAST SECTION COMPOSITE TOP OF PROTECTIVE COVER GRADING PLAN
15	WEST SECTION COMPOSITE TOP OF PROTECTIVE COVER GRADING PLAN
16	LEACHATE COLLECTION AND LINES SYSTEM DETAILS
17	CELL SLUMP TO PUMP HOUSE PLAN (MINIMUM 10 FOOT BERM HEIGHT)
18	CELL SLUMP TO PUMP HOUSE PLAN (OVER 10 FOOT BERM HEIGHT)
19	PERMETER BERM TEMPORARY UNDER BALLAST PLAN
20	LEACHATE PUMP HOUSE PLAN
21	LEACHATE FORCE MAIN LATERAL PLAN AND DETAILS
22	LEACHATE FORCE MAIN DETAILS
23	MISCELLANEOUS CELL CONSTRUCTION AND DRAINAGE DETAILS
24	SEQUENCE AND GENERAL NOTES FOR CONSTRUCTION
25	EAST SECTION CLOSURE CAP GRADING PLAN
26	WEST SECTION CLOSURE CAP GRADING PLAN
27	EAST SECTION LANDFILL CROSS SECTIONS
28	WEST SECTION LANDFILL CROSS SECTIONS
29	BASIN NO. 1 PLAN AND SECTIONS
30	BASIN NO. 2 PLAN AND SECTIONS
31	BASIN NO. 3 PLAN AND SECTIONS
32	BASIN NO. 4 PLAN AND SECTIONS
33	BASIN EMBANKMENT AND EMERGENCY SPILLWAY PROFILES
34	SEWER BASIN DETAILS
35	SEWER BASIN/SURFACE WATER MANAGEMENT POND CONVERSION DETAILS
36	PLAN AND PROFILE OF POND WATER DRAIN
37	INTERIOR CELL CONSTRUCTION DETAILS

ANNE ARUNDEL COUNTY
BOARD OF APPEALS

PETITIONER'S

EXHIBIT# 17A

NAME

NWM

CASE

BA12-13V, BA13-13V

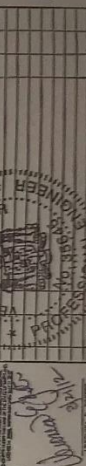
DATE

8/14/13

PROJECT No. 063-1431

MARCH 2012

DRAWING 1



PHASE III PERMIT DRAWINGS
CHESAPEAKE TERRACE
RUBBLE LANDFILL
4th ARUNDEL DISTRICT
ANNE ARUNDEL COUNTY, MARYLAND

OVERALL SITE PLAN
- NOT FOR CONSTRUCTION -

DRAWING 2



ASSUMED EAST ENTRANCE
ACCESS ROAD PLAN

CELL AREA TABULATION (SEE GENERAL NOTE 3)			
CELL NO.	AREA (AC.)	CELL NO.	AREA (AC.)
1	6.0	8	5.0
2	1.6	9	11.3
3	8.8	10	7.1
4	10.5	11	6.3
5	15.0	12	2.9
6	8.9	13	5.7
7	12.8	14	5.1
8	7.1	15	5.2
TOTAL CELL AREA = 117.8 ACRES			

LEGEND

- PROPERTY LINE
- LIMIT OF DISTURBANCE
- PERMIT ACCESS ROAD
- LIMIT OF WASTE
- CELL SEPARATION BERM
- EXISTING CONTOUR
- WETLAND LIMIT
- 100 YEAR FLOOD PLAIN LIMIT

REFERENCE

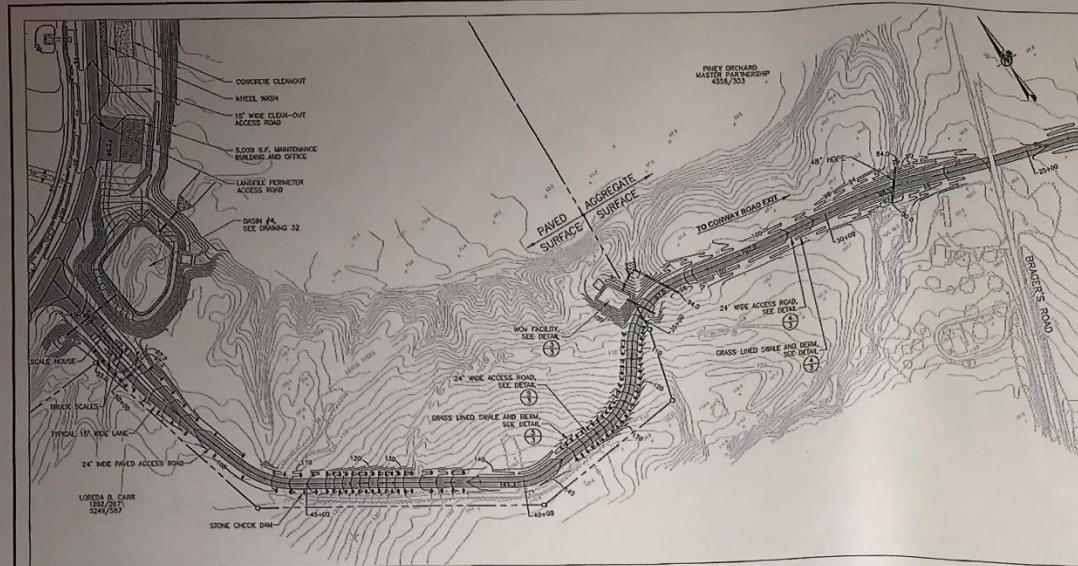
1) DRAWING SHOWN IS FROM 12 OF 60 SITE PLANS, REVISED APRIL 12, 2010, BY CENTURY ENGINEERING, INC. SUPERVISOR INFORMATION FOR DEVELOPMENT OF THE PLANS IS BASED ON PHOTOGRAMMETRY PROVIDED BY MAPPING ASSOCIATES, 4 AIRPORT CIRCLE, EASTON, MARYLAND.

SITE ENTRANCE DEPICTION NOTES

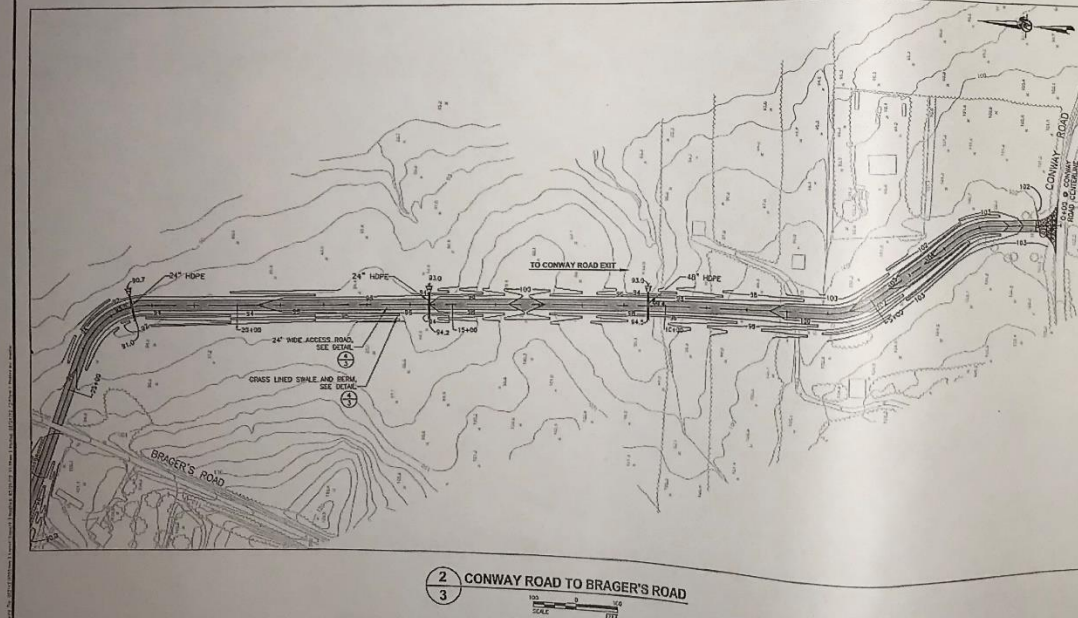
- CONSTRUCTION OF ONLY ONE SITE ENTRANCE IS REQUIRED BY MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE). THREE SITE ENTRANCES (EACH COMPRISING OF ACCESS ROAD, SCALE HOUSE, TRUCK SCALES, MAINTENANCE BUILDING, WHEEL WASH AND CLEAN-OUT) ARE SHOWN HEREON. UNDER COUNTY PERMIT CONDITIONS, THE OWNER MAY CONSTRUCT ONE OR ALL ENTRANCES.
- COMPOSITE PLANS THAT DEPICT CONSTRUCTION OF THE ENTIRE LANDFILL ARE PROVIDED ON DRAWINGS 7 THROUGH 11, 14, 15, 25 AND 26. PER SITE ENTRANCE CONTROL UNDER ITEM 3 REPORT, IN ACCORDANCE WITH REGULATIONS AND GENERAL NOTES FOR CONSTRUCTION ON DRAWING 24.
- LIMIT OF CONSTRUCTION SHOWN HEREON ENCLOSURES AREA REQUIRED TO CONSTRUCT ALL THREE SITE ENTRANCES. PER DESCRIPTION IN DRAWING 24 UNDER ITEM 100, "DESCRIPTION OF INTERMEDIATE CONSTRUCTION STAGE PLANS" AND ITEM 103, "ASSUMPTIONS FOR DEVELOPMENT OF LANDFILL SEQUENCE OF CONSTRUCTION", EAST ENTRANCE IS THE ASSUMED SITE ENTRANCE. UNDER ASSUMPTION OF AN EASEMENT ON OFFSITE PROPERTY AS REQUIRED TO CONSTRUCT THE ACCESS ROAD SHOWN HEREON, OPTIONAL NORTH AND/OR SOUTH ENTRANCES MAY BE CONSTRUCTED IN LIEU OF THE ASSUMED EAST ENTRANCE, PER REGULATIONS UNDER ITEM 10, "VARIANCE FROM SEQUENCE OF CONSTRUCTION FOR LANDFILL CELL", ON DRAWING 24.
- CONTRACT COORDINATOR FOR SITE WHEEL WASH AND CONCRETE CLEAN-OUT SHALL BE PROVIDED AS APPROVED BY MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER PERMIT DRAWING 24, SECTION 10.10 AND SECTION 7.2 OF THE PHASE II REPORT.
- THE EAST ENTRANCE ACCESS ROAD IS AN AT-GRADE CROSSING WITH THE HICKORY/ELDER TRAIL AT GRADERS ROAD. THE LANDFILL VEHICLES WILL BE MANAGED BY TRAFFIC SIGNS AT THE CROSSING IN BOTH DIRECTIONS.

GENERAL NOTES

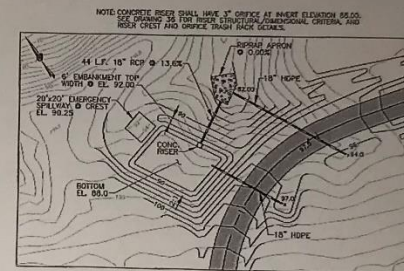
- TOPOGRAPHIC INFORMATION FOR DEVELOPMENT OF THE PLANS IS BASED ON PHOTOGRAMMETRY PROVIDED BY MAPPING ASSOCIATES, 4 AIRPORT CIRCLE, EASTON, MARYLAND.
- 100-YEAR FLOOD PLAIN AND WETLAND LIMITS ARE BASED ON INFORMATION PROVIDED BY OTHERS (SEE PHASE II REPORT SECTIONS 6.1 AND 6.2, RESPECTIVELY).
- THE LANDFILL IS SEPARATED INTO EAST AND WEST SECTIONS AS SHOWN. EACH SECTION IS DIVIDED INTO CELLS. FILLING WASTE WILL BE CONTAINED IN EACH CELL BY MEANS OF LANDFILL PERIMETER BORDERS AND CELL SEPARATION BORDERS INDICATED HEREON (SEE "CELL AREA TABULATION" AT RIGHT). EACH CELL CONTAINS A LEACHATE SYSTEM THAT INCLUDES DRAINAGE PROTECTIVE LAYER, CELL TOP OF SUBGRADE CONTOURS SHOWN ON DRAWINGS 7 AND 8 ARE BASED ON CODE OF MARYLAND REGULATIONS AND GEOGRAPHIC DATA PROVIDED BY OTHERS. REFER TO PHASE II REPORT FOR CHESAPEAKE TERRACE RUBBLE LANDFILL, VOLUME 1 FOR DESCRIPTION AND EXHIBITS ASSOCIATED WITH DETERMINATION OF CELL TOP OF SUBGRADE CONTOURS.
- PERMIT DRAWING SITE PLANS HEREON FOR THE LANDFILL ARE SHOWN AT 1" = 100' SCALE. SEDIMENT CONTROL BASINS AND TRAPS ARE SHOWN AT 1" = 40' SCALE, PER ANNE ARUNDEL COUNTY SOIL CONSERVATION DISTRICT (ACSD) REQUIREMENTS. SEDIMENT CONTROL PLANS FOR ASSIGNED AND OPTIONAL SITE ENTRANCES ARE PROVIDED ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN APPROVED BY AGENCIES. LOCATION OF THE LANDFILL AND APPURTENANT INFRASTRUCTURE (E.G., LEACHATE STORAGE AREAS, STORAGE MANAGEMENT/SEDIMENT CONTROL BASINS, ETC.) IS BASED ON ALIGNMENT OF THE PERMITTER ACCESS ROAD, TAKEN FROM DRAWINGS PROVIDED BY CENTURY ENGINEERING, INC., DATED JUNE 1994.
- THE FORMER LAND USE OF THE LANDFILL AREA WAS FOR SAND AND GRAVEL MINING. IT IS ASSURED THAT THERE ARE NO EXISTING ON-SITE UNDERGROUND UTILITIES. AT LEAST 48 HOURS PRIOR TO BEGINNING OF SUBSURFACE CONSTRUCTION, WIRE UTILITY SHALL BE NOTIFIED.



1 BRAGER'S ROAD TO LANDFILL PERIMETER ACCESS ROAD



2 CONWAY ROAD TO BRAGER'S ROAD

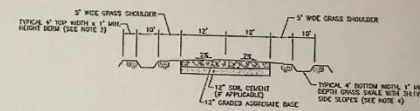


3 WQV FACILITY PLAN

NOTE: WQV IS AN ABBREVIATION FOR WATER QUALITY VOLUME. IT IS A BEST MANAGEMENT PRACTICE (BMP) REQUIRED BY THE MARYLAND STORMWATER MANAGEMENT LAW AS DOCUMENTED IN THE MARYLAND STORMWATER DESIGN MANUAL, SECTION 2.1.

CONSTRUCTION NOTES

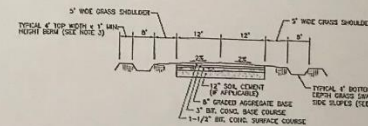
1. UNLESS INDICATED OTHERWISE, ALL PROPOSED STEEP SLOPES ARE 2:1.
2. PROVIDE GRADED AGGREGATE BASE ON ROAD SUBGRADE WHICH HAS BEEN COMPACTED TO 95 PERCENT MOISTURE PROCTOR DENSITY. FOR POOR SUBGRADE, 12% SOIL CEMENT MAY BE USED. ALL ROAD CONSTRUCTION SHALL BE PER THE RECOMMENDATION OF A PROFESSIONAL GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF MARYLAND.
3. LANDFILL PERIMETER ACCESS ROAD CONSTRUCTION SHALL BE PER THE TYPICAL SECTION BELOW AND NOTE 2 ABOVE.
4. EXCLUDING BRAGER'S ROAD, PROVIDE GRASS SHALE AND BERM ON BOTH SIDES OF ROAD BETWEEN STATION 1+30 AND WQV FACILITY.



4 TYPICAL SECTION FROM CONWAY ROAD TO SITE PROPERTY LINE

CONSTRUCTION NOTES

1. UNLESS INDICATED OTHERWISE, ALL PROPOSED STEEP SLOPES ARE 2:1.
2. PROVIDE 5" GRADED AGGREGATE BASE ON ROAD SUBGRADE WHICH HAS BEEN COMPACTED TO 95 PERCENT MOISTURE PROCTOR DENSITY. FOR POOR SUBGRADE, 12% SOIL CEMENT MAY BE USED. ALL ROAD CONSTRUCTION SHALL BE PER THE RECOMMENDATION OF A PROFESSIONAL GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF MARYLAND.
3. OFFICIAL NORTH AND SOUTH EXTERIOR PAVEMENT CONSTRUCTION SHALL BE PER THE TYPICAL SECTION BELOW AND NOTE 2 ABOVE.
4. PROVIDE GRASS SHALE AND BERM ON EAST SIDE OF ROAD BETWEEN WQV FACILITY AND 48' HOPES TO BORN HILL.



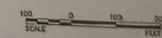
5 TYPICAL SECTION FROM SITE PROPERTY LINE TO LANDFILL

GENERAL NOTES

- 1) THE PURPOSE OF THIS PLAN IS TO SHOW CONSTRUCTION AND STORMWATER MANAGEMENT RECOMMENDATIONS FOR THE ASSUMED EAST ENTRANCE ACCESS ROAD.
- 2) SEE SITE PLAN ON DRAWING 2 FOR ASSUMED EAST ENTRANCE ACCESS ROAD LOCATION.
- 3) SEE DRAWING 4 FOR ASSUMED SITE ENTRANCE (EAST SECTION) WITH GRADING PLAN.
- 4) REFER TO SOIL EROSION AND SEDIMENT CONTROL PLAN FOR TEMPORARY EROSION CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION.

REFERENCE

- 1) DRAWING SHOWN IS FROM FILE "13 OF 60" EAST SECTION ACCESS ROAD GRADING PLAN, REVISED MARCH 31, 2011, BY CENTURY ENGINEERS, INC.



PHASE III PERMIT DRAWINGS
CHESAPEAKE TERRACE
RUBBLE LANDFILL
4TH ASSESSMENT DISTRICT
ANNE ARUNDEL COUNTY, MARYLAND

ASSUMED EAST ENTRANCE
ACCESS ROAD PLAN
- NOT FOR CONSTRUCTION -

PROJECT NO.	001-1231
FILE NO.	0011111111
REV. 0	SCALE AS SHOWN
DESIGN	03/01/12
DRW	03/01/12
CHECK	03/01/12
REVIEW	03/01/12

DRAWING 3