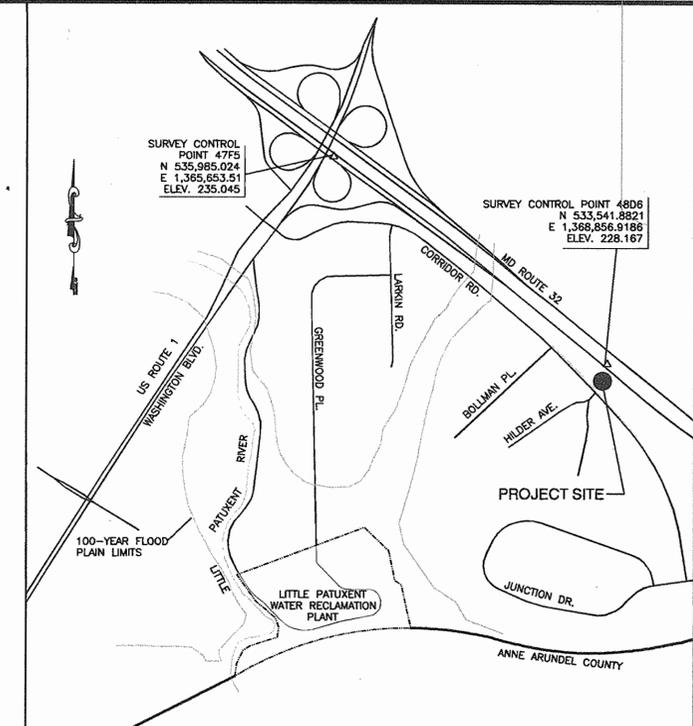


BENCH MARK LOCATION PLAN
SCALE: 1"=100'



VICINITY MAP
SCALE: 1"=1000'

INDEX OF SHEETS

1. COVER SHEET
2. LAYOUT PLAN AND UTILITIES
3. FUEL STATION AND DETAILS
4. GRADING PLAN
5. LANDSCAPE PLAN
6. STORMWATER MANAGEMENT PLAN AND DETAILS
7. MISCELLANEOUS SITE DETAILS
8. SEDIMENT CONTROL PLAN
9. EROSION AND SEDIMENT CONTROL DETAILS
10. EROSION AND SEDIMENT CONTROL NOTES

HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY

OWNER:
Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202
Tel. (410) 764-4000

DEVELOPER:
HOWARD COUNTY GOVERNMENT
CENTRAL SERVICES ADMINISTRATION
3430 Courthouse Dr.
Ellicott City, MD 21043
Tel. (410) 313-2044

SITE ANALYSIS DATA CHART

Total Project Area:	79,242 sf (1.82 acres)
Area of plan submission	79,242 sf (1.82 acres)
Limit of Disturbed Area	79,242 sf (1.82 acres)
Present Zoning Designation	M-2
Proposed use	Two Above Ground Fuel Storage Tanks, Storm Water Management Facility and Landscaping with a Future Salt Storage Facility and office trailer
Floor space	Salt Barn & Trailer are Future Dev.
Total Number of Units Allowed	N.A.
Total Number of Units Proposed	N.A.
Maximum number of employees	N.A.
Number of Parking Spaces required	N.A.
Number of Parking Spaces Provided	2
Open area on site	N.A.
Area of recreation	N.A.
Building Coverage	INCLUDED
DPZ file references	N.A.
Soil Type	Cs - Comus silt loam

- GENERAL NOTES**
1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
 2. The contractor shall notify the Department of Public Work/ Bureau of Engineering / Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
 3. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to an excavation work being done.
 4. Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
 5. All plan dimensions are to face of curb unless otherwise noted.
 6. The existing topography is taken from field run survey with one foot contour intervals prepared by Dewberry dated February 2006.
 7. The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 47F5 and 48D6 were used for this project.
 8. Water and sewer is public.
 9. Stormwater management for this facility is provided on site. Grass channel and Pocked Pond, County owned and maintained.
 10. The existing utilities are based on county records, test pits and utility provided plans.
 11. The project lies outside the 100-year floodplain per FEMA Map 240044-0043B.
 12. There are no wetlands within the limits of this project.
 13. There was no traffic study prepared for this project.
 14. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. Street trees, perimeter and storm water management landscaping shall be provided as shown on this site development plan. No surety is required since this is a government use.
 15. This property is located within the Maryland State Highway Administration right-of-way for MD Route 32. Since this property is located within the right-of-way it is exempt from required setbacks of the M-2 Zoning district.
 16. This project is exempt from the requirements of the Forest Conservation in accordance with Appendix O of the Howard County Forest Conservation Manual as follows:

This Howard County Capital Improvement Project will not cut, clear or grade more than 40,000 square feet of forest and not result in the cutting, clearing, or grading of any forest that is subject to the requirements of a previous forest conservation plan prepared under Subtitle 19.
 17. The pond does not have to meet MD 378 standards

PERMIT INFORMATION CHART

Subdivision Name	MD ROUTE 32 (RIGHT-OF-WAY)	Section Area	N.A.	Lot/Parcel No.	182
Plat # or L/F	944/678	Grid #	13	Zoning	M-2
Water Code	N.A.	Tax Map No.	48	Elect Distr	6
		Sewer Code	N.A.	Census Tract	6069.02

ADDRESS CHART

Lot/Parcel #	182	Street Address	
TAX MAP 48		8821 Corridor Road, Savage MD	

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 4/12/07
Chief, Development Engineering Division

[Signature] 4/12/07
Chief, Division of Land Development

[Signature] 4/12/07
Director



Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

[Signature] 4/31/07
USDA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 4/31/07
Howard Soil Conservation District

Dewberry
Dewberry & Davis LLC
3125 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2602
PHONE: 410.285.9500
FAX: 410.285.9075

DES:	RHB				
DRN:	CTM				
CHK:	RHB				
DATE:	11/03/06	BY	NO.	REVISIONS	DATE

COVER SHEET

OWNER:
Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202

**HOWARD COUNTY
CORRIDOR ROAD
FUEL AND SALT STORAGE
FACILITY**

DEED: 1974/523
TAX MAP: 48
GRID: 13
PARCEL: 182

CONTRACT NO. 24-4369
ELECTION DISTRICT NO. 6

CAPITAL PROJECT NO. W-8600
HOWARD COUNTY, MARYLAND

SCALE:
NOTED

SHEET
1 OF 10

SDP-06-142

CENTERLINE OF BERM		
STATION	NORTHING	EASTING
0+00	533,529.0586	1,368,563.7757
0+84.77	533,586.3770	1,368,626.2343
1+25.05	533,559.4320	1,368,656.1700
1+57.98	533,537.7886	1,368,680.9831
3+43.68	533,412.2147	1,368,817.7992
4+05.46	533,370.5618	1,368,863.4173

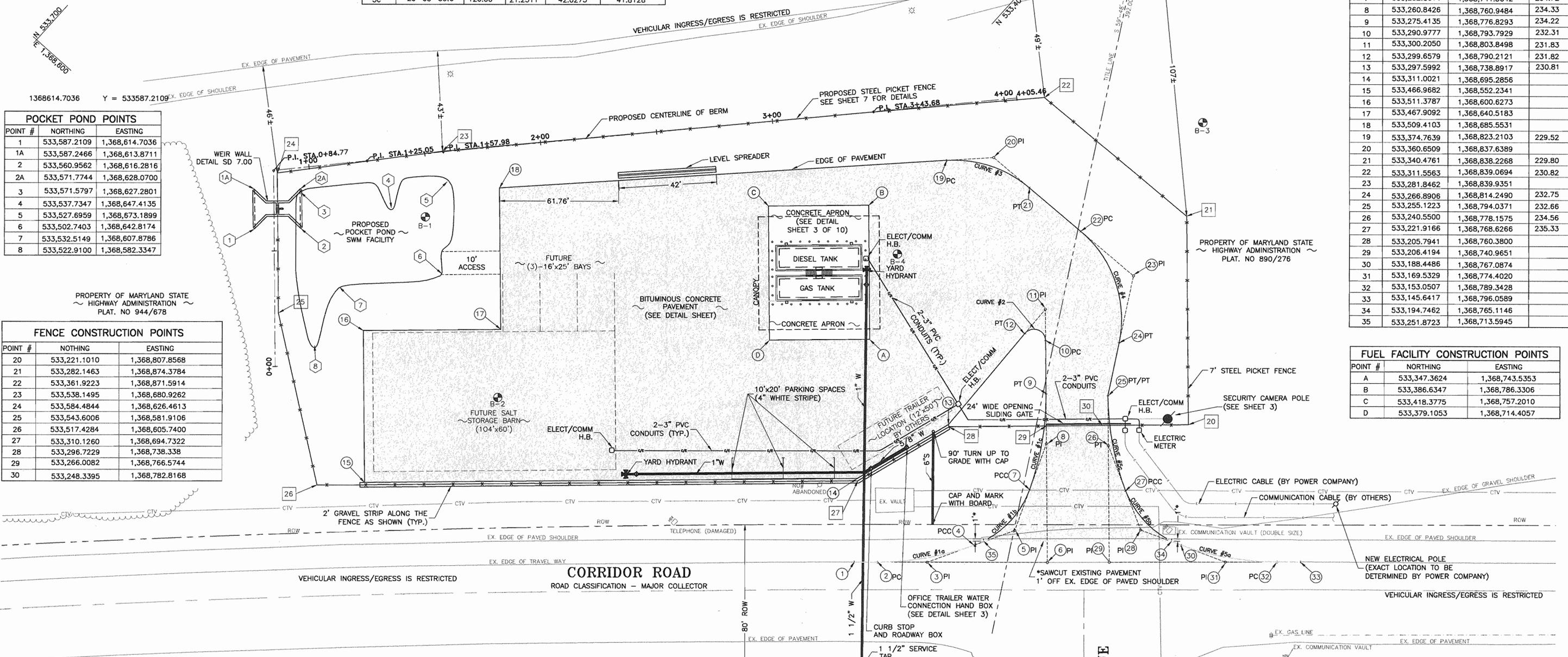
PAVEMENT CONSTRUCTION CURVE DATA					
CURVE #	Δ	RADIUS	TANGENT	ARC LENGTH	CHORD LENGTH
1a	20° 09' 59.4"	120.00'	21.3391'	42.2366'	42.0189'
1b	50° 13' 13.7"	40.00'	18.7461'	35.0605'	33.9489'
1c	20° 10' 15.4"	120.00'	21.3439'	42.2459'	42.0281'
2	139° 44' 45.9"	5.00'	13.6433'	12.1951'	9.3893'
3	43° 57' 52.1"	50.00'	20.1833'	38.3662'	37.4319'
4	61° 27' 33.2"	50.00'	29.7228'	53.6333'	51.0987'
5a	20° 03' 59.6"	120.00'	21.2311'	42.0273'	41.8128'
5b	49° 31' 00.2"	40.00'	18.4473'	34.5692'	33.5034'
5c	20° 03' 59.6"	120.00'	21.2311'	42.0273'	41.8128'

POCKET POND POINTS		
POINT #	NORTHING	EASTING
1	533,587.2109	1,368,614.7036
1A	533,587.2466	1,368,613.8711
2	533,560.9562	1,368,616.2816
2A	533,571.7744	1,368,628.0700
3	533,571.5797	1,368,627.2801
4	533,537.7347	1,368,647.4135
5	533,527.6959	1,368,673.1899
6	533,502.7403	1,368,642.8174
7	533,532.5149	1,368,607.8786
8	533,522.9100	1,368,582.3347

FENCE CONSTRUCTION POINTS		
POINT #	NORTHING	EASTING
20	533,221.1010	1,368,807.8568
21	533,282.1463	1,368,874.3784
22	533,361.9223	1,368,871.5914
23	533,538.1495	1,368,680.9262
24	533,584.4844	1,368,626.4613
25	533,543.6006	1,368,581.9106
26	533,517.4284	1,368,605.7400
27	533,310.1260	1,368,694.7322
28	533,296.7229	1,368,738.338
29	533,266.0082	1,368,766.5744
30	533,248.3395	1,368,782.8168

PAVEMENT CONSTRUCTION POINTS			
POINT #	NORTHING	EASTING	ELEVATION
1	533,287.7625	1,368,667.6205	
2	533,280.3281	1,368,674.3084	
3	533,264.4601	1,368,688.5832	
4	533,254.4876	1,368,707.4540	
5	533,245.7669	1,368,723.9559	
6	533,226.1047	1,368,723.0874	
7	533,252.8614	1,368,741.3642	234.72
8	533,260.8426	1,368,760.9484	234.33
9	533,275.4135	1,368,776.8293	234.22
10	533,290.9777	1,368,793.7929	232.31
11	533,300.2050	1,368,803.8498	231.83
12	533,299.6579	1,368,790.2121	231.82
13	533,297.5992	1,368,738.8917	230.81
14	533,311.0021	1,368,695.2856	
15	533,466.9682	1,368,552.2341	
16	533,511.3787	1,368,600.6273	
17	533,467.9092	1,368,640.5183	
18	533,509.4103	1,368,685.5531	
19	533,374.7639	1,368,823.2103	229.52
20	533,360.6509	1,368,837.6389	
21	533,340.4761	1,368,838.2268	
22	533,311.5563	1,368,839.0694	230.82
23	533,281.8462	1,368,839.9351	
24	533,266.8906	1,368,814.2490	232.75
25	533,255.1223	1,368,794.0371	232.66
26	533,240.5500	1,368,778.1575	234.56
27	533,221.9166	1,368,768.6266	235.33
28	533,205.7941	1,368,760.3800	
29	533,206.4194	1,368,740.9651	
30	533,188.4486	1,368,767.0874	
31	533,169.5329	1,368,774.4020	
32	533,153.0507	1,368,789.3428	
33	533,145.6417	1,368,796.0589	
34	533,194.7462	1,368,765.1146	
35	533,251.8723	1,368,713.5945	

FUEL FACILITY CONSTRUCTION POINTS		
POINT #	NORTHING	EASTING
A	533,347.3624	1,368,743.5353
B	533,386.6347	1,368,786.3306
C	533,418.3775	1,368,757.2010
D	533,379.1053	1,368,714.4057

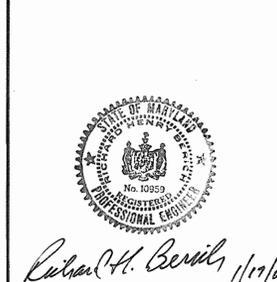


APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 4/13/07
 Chief, Development Engineering Division

[Signature] 4/17/07
 Chair, Division of Land Development

[Signature] 4/18/07
 Director

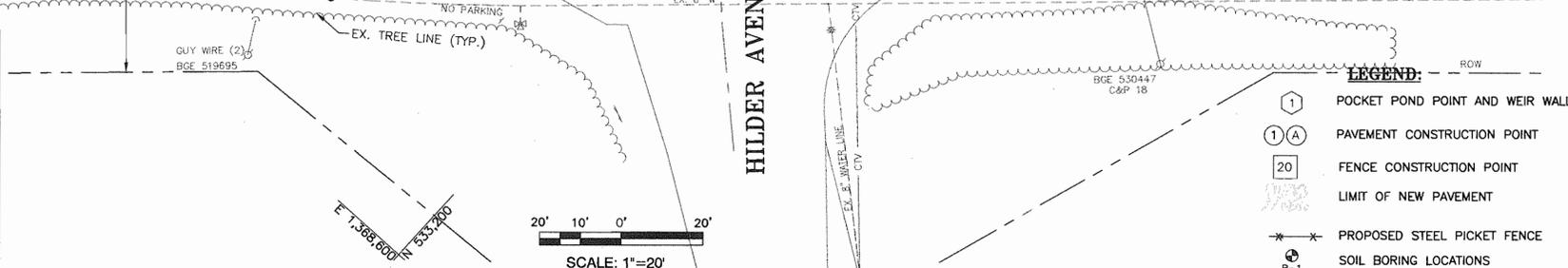


Reviewed for HOWARD COUNTY Soil Conservation District and Meets Technical Requirements.

USDA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District



Dewberry
 Dewberry & Davis LLC
 9120 LORD BALTIMORE DRIVE
 SUITE 211
 BALTIMORE, MD 21244-2662
 PHONE: 410.265.9500
 FAX: 410.265.8875

DES:	RHB
DRN:	CTM
CHK:	RHB
DATE:	11/03/06

BY	NO.	REVISIONS	DATE

LAYOUT PLAN AND UTILITIES

OWNER: Maryland State Highway Administration
 707 Calvert Street
 Baltimore, MD 21202

HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY

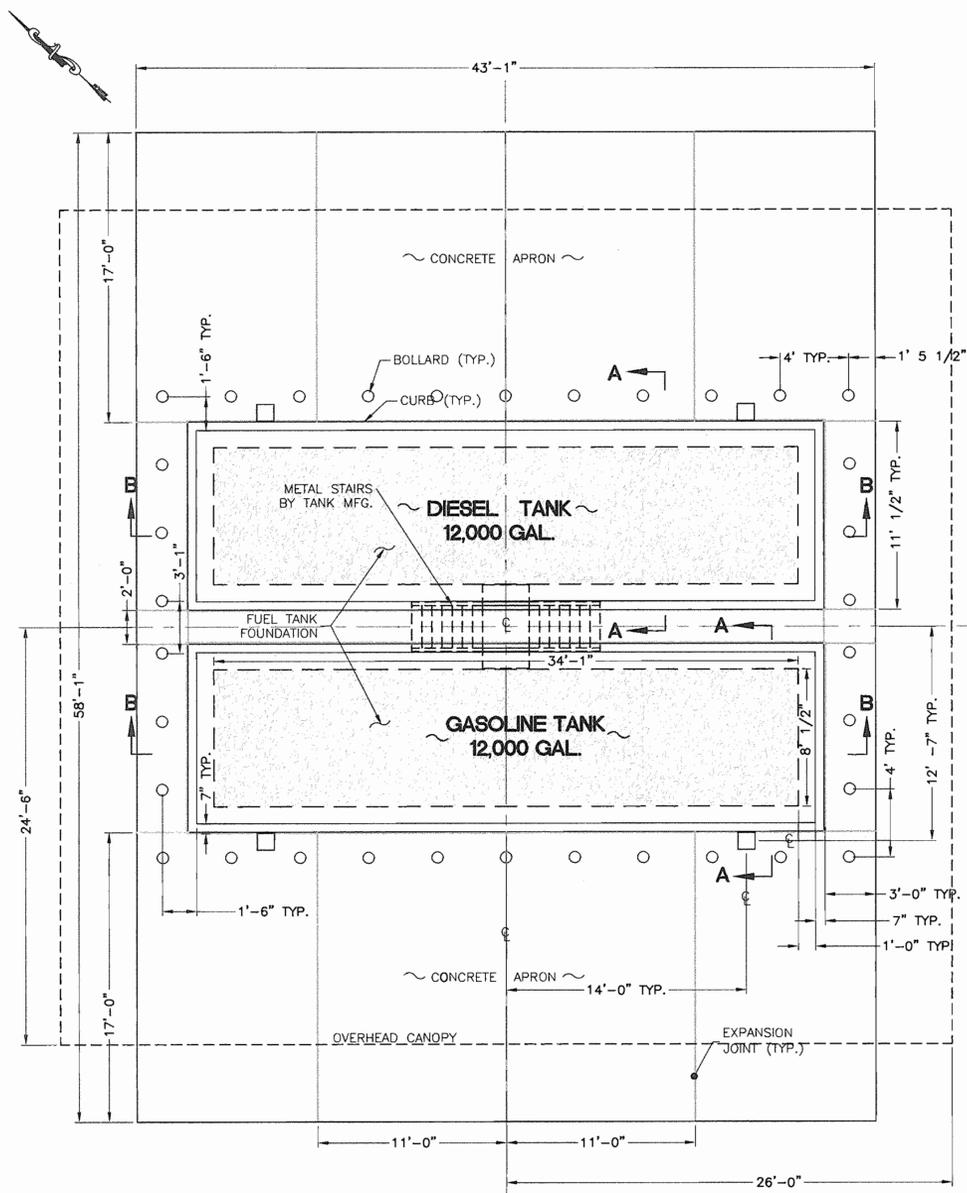
DEED: 1974/523
 TAX MAP: 48
 GRID: 13
 PARCEL: 182

CONTRACT NO. 24-4369
 ELECTION DISTRICT NO. 6

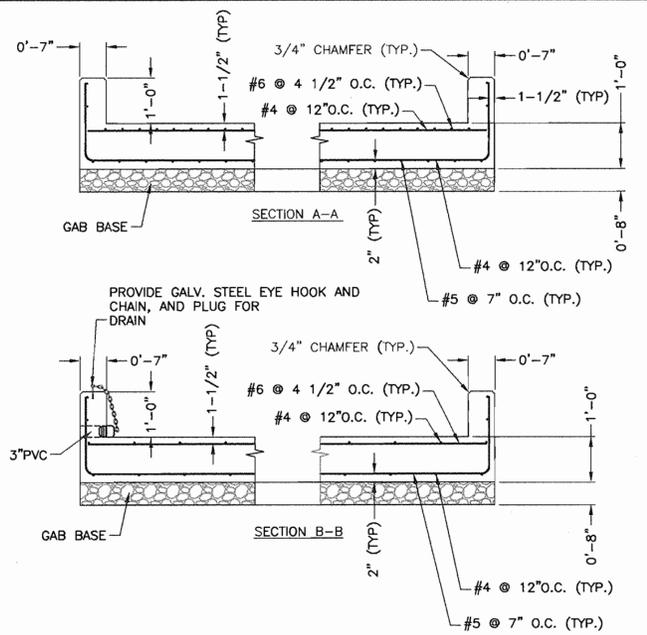
CAPITAL PROJECT NO. W-8600
 HOWARD COUNTY, MARYLAND

SCALE: NOTED
 SHEET 2 OF 10

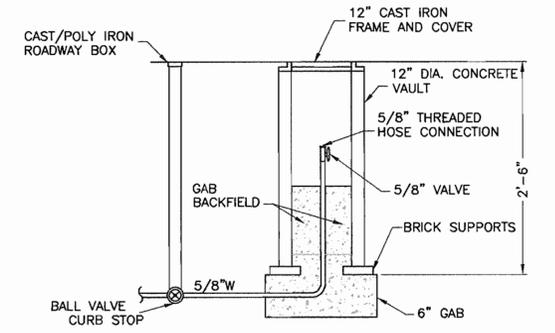
50R06-142



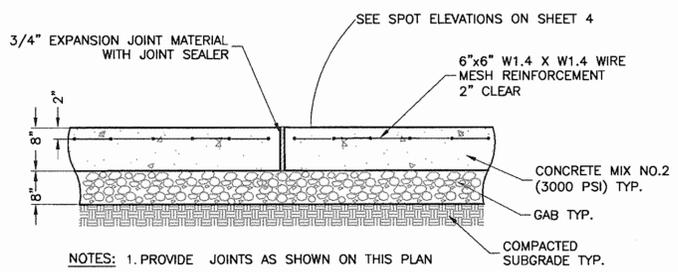
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SCALE: N.T.S.



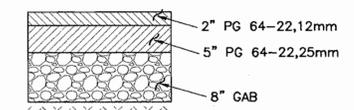
FUEL TANK FOUNDATION SLAB SECTION
SCALE: N.T.S.



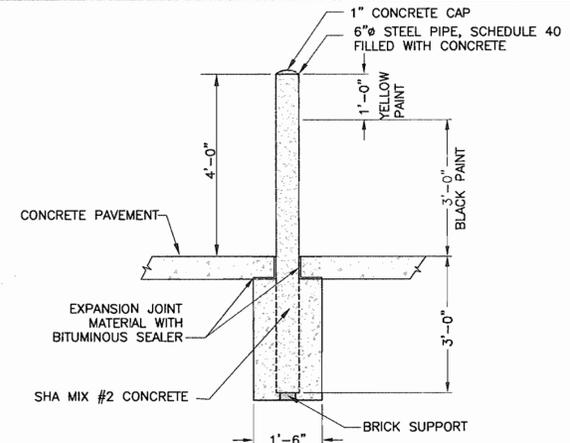
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SCALE: N.T.S.



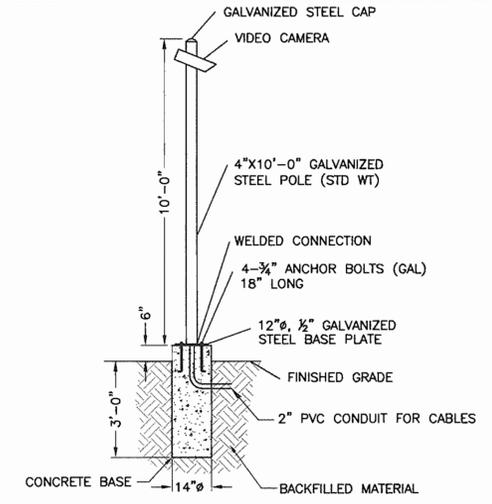
CONCRETE APRON
SCALE: N.T.S.



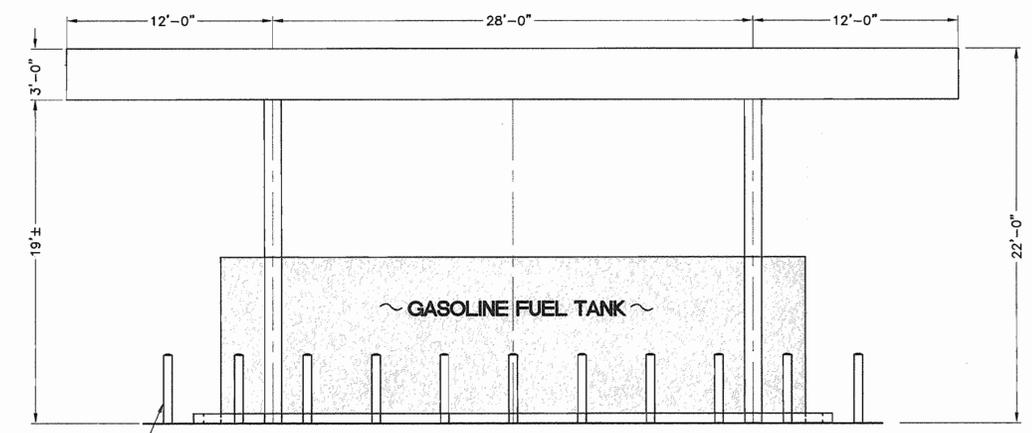
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SCALE: N.T.S.



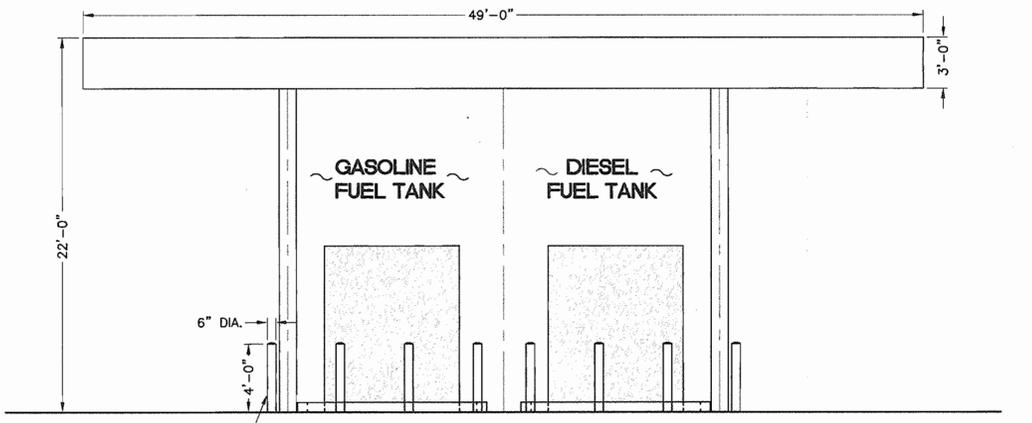
BOLLARD DETAIL
SCALE: N.T.S.



SECURITY CAMERA POLE
SCALE: N.T.S.



SOUTH ELEVATION
SCALE: 1"=5'



EAST ELEVATION
SCALE: 1"=5'
FUEL TANK CANOPY

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division Date 4/13/07
 Chief, Division of Land Development Date 4/17/07
 Director Date 4/18/07



Robert H. Beavel 1/07/07

Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.
 USDA-Natural Resources Conservation Service Date
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Howard Soil Conservation District Date

Dewberry
Dewberry & Davis LLC
3120 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2662
PHONE: 410.285.9900
FAX: 410.285.8875

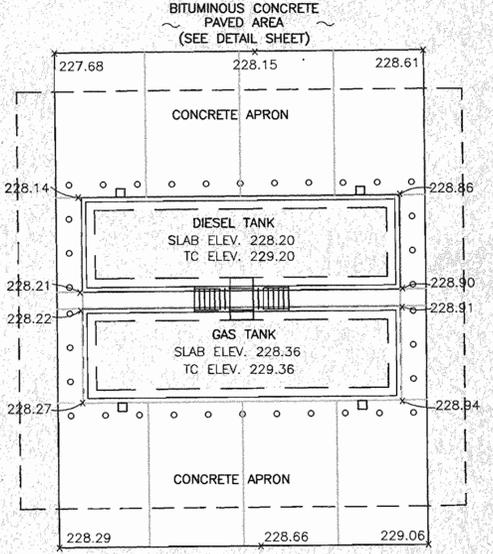
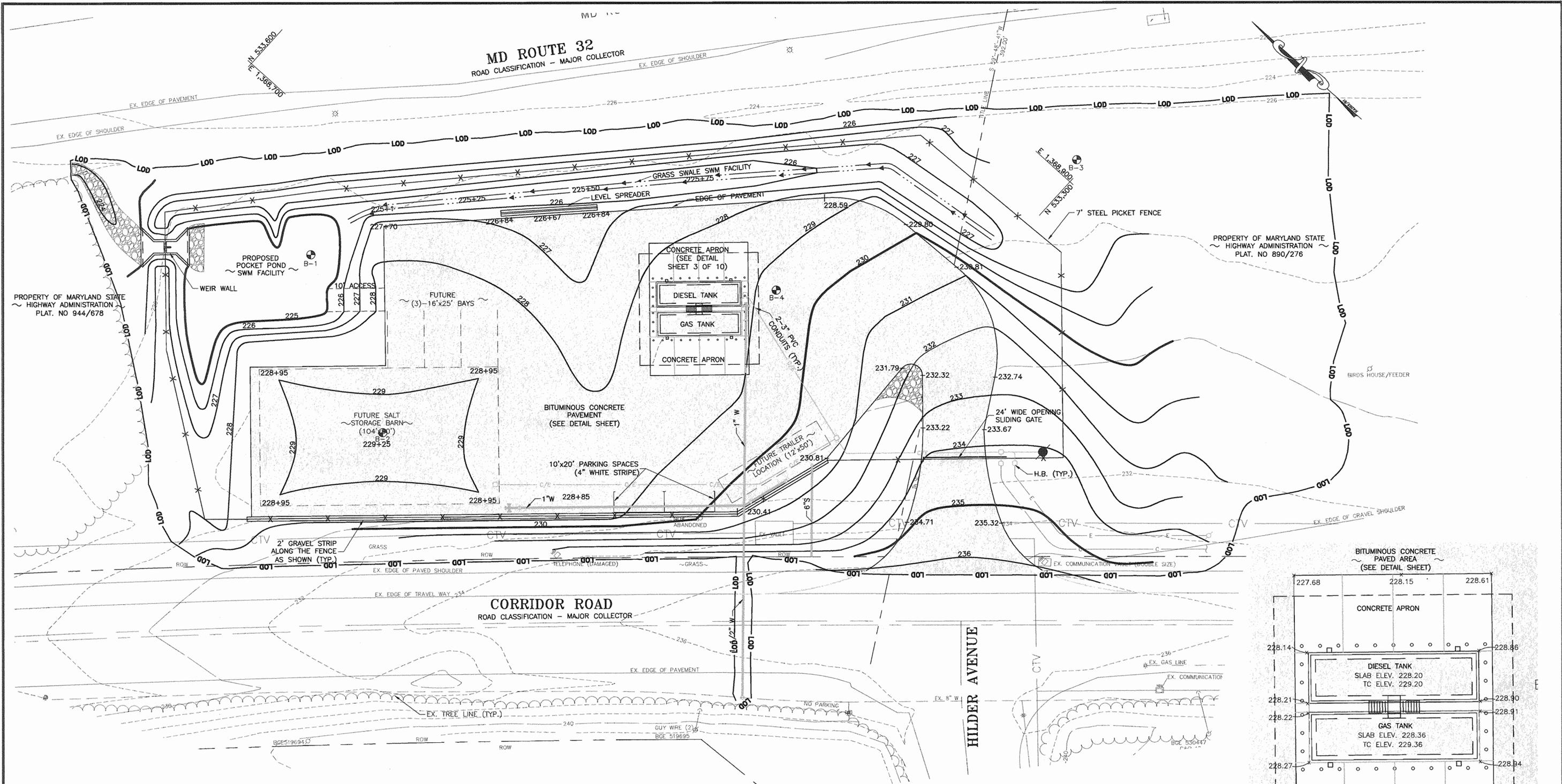
DES:	RHB				
DRN:	CTM				
CHK:	RHB				
DATE:	11/03/06	BY	NO.	REVISIONS	DATE

FUEL STATION AND DETAILS

OWNER:
Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202
CONTRACT NO. 24-4369
ELECTION DISTRICT NO. 6

HOWARD COUNTY
CORRIDOR ROAD
FUEL AND SALT STORAGE
FACILITY
CAPITAL PROJECT NO. W-8600
HOWARD COUNTY, MARYLAND
DEED: 1974/523
TAX MAP: 48
GRID: 13
PARCEL: 162
SCALE: NOTED
SHEET 3 OF 10

SDP.06-142

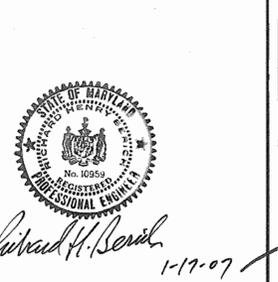


APPROVED: DEPARTMENT OF PLANNING AND ZONING

John P. ... 4/12/07
Chief, Development Engineering Division Date

Cindy ... 4/17/07
Chief, Division of Land Development Date

Stephen ... 4/18/07
Director Date



Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

USDA-Natural Resources Conservation Service Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District Date

NOTE:
FOR PROPOSED WATER AND SEWER AND ELECTRIC UTILITY LAYOUT SEE SHEET 2

SCALE: 1"=20'

LEGEND:
230 PROPOSED CONTOURS

Dewberry
Dewberry & Davis LLC
3120 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2662
PHONE: 410.265.9500
FAX: 410.265.9975

DES:	RHB		
DRN:	CTM		
CHK:	RHB		
DATE:	11/03/06	BY	NO.
		REVISIONS	DATE

GRADING PLAN

OWNER:
Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202

HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY

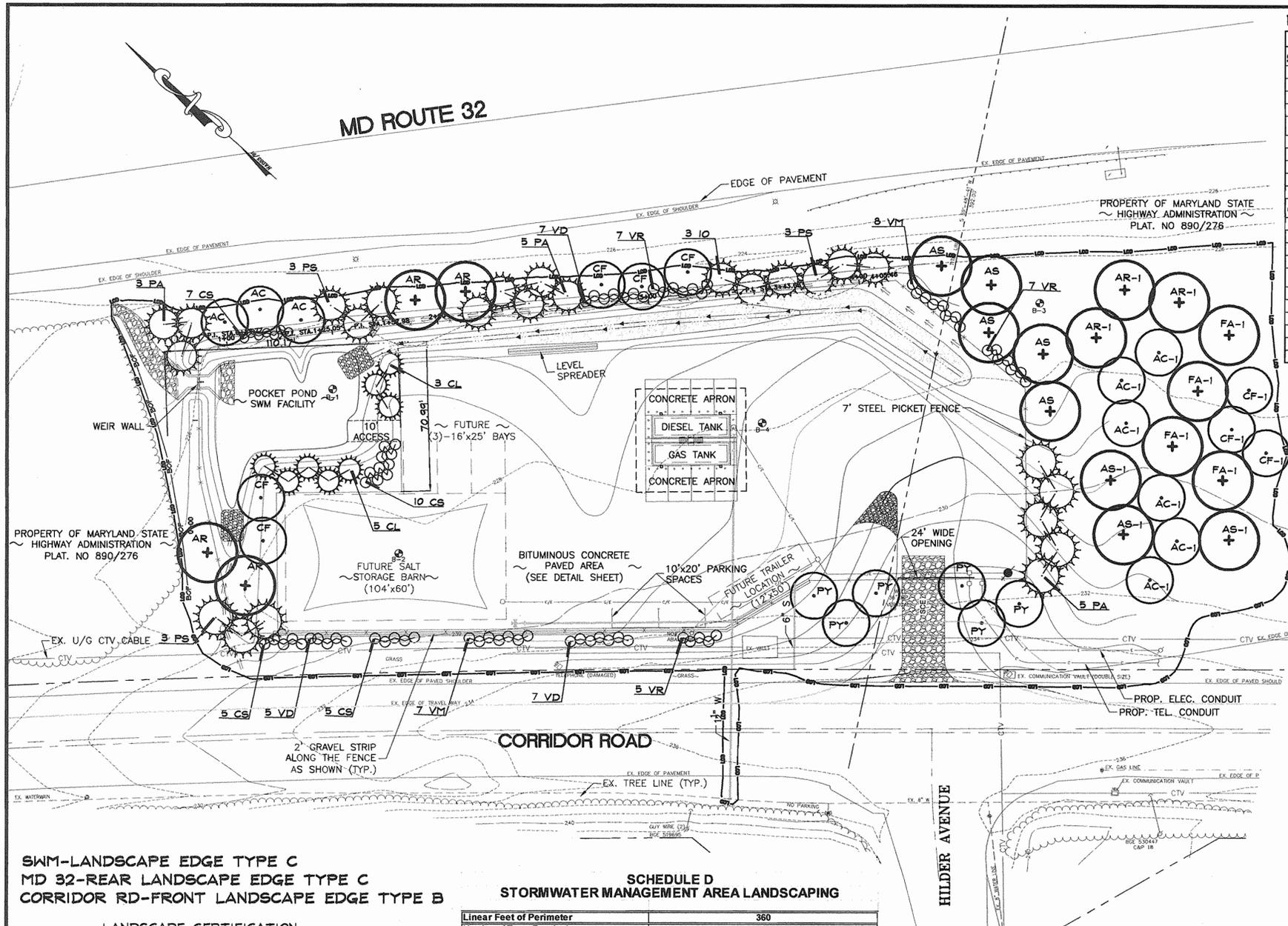
DEED: 1974/523
TAX MAP: 48
GRID: 13
PARCEL: 182

CONTRACT NO. 24-4369
ELECTION DISTRICT NO. 6

CAPITAL PROJECT NO. W-8800
HOWARD COUNTY, MARYLAND

SCALE: NOTED
SHEET 4 OF 10

SDP-06-14a



QTY.	KEY	GENUS/SPECIES	COMMON NAME	SIZE	ROOT	COMMENTS
SHADE TREES						
7	AR	ACER RUBRUM "RED SUNSET"	RED SUNSET RED MAPLE	2.5"-3" CAL	B & B	
8	AS	ACER SACCHARUM "GREEN MOUNTAIN"	GREEN MOUNTAIN SUGAR MAPLE	2.5"-3" CAL	B & B	
4	FA	FRAXINUS AMERICANA "AUTUMN PURPLE"	AUTUMN PURPLE WHITE ASH	2.5"-3" CAL	B & B	
EVERGREEN TREES						
9	PS	PINUS STROBUS	EASTERN WHITE PINE	6'-8' HT.	B & B	
13	PA	PICEA ABIES	NORWAY SPRUCE	6'-8' HT.	B & B	
3	IO	ILEX OPACA	AMERICAN HOLLY	5'-6' HT.	B & B	PLANT 1 MALE PER 5 FEMALES
8	CL	CUPRESSOCYPARIS LEYLANDI	LEYLAND CYPRESS	5'-6' HT.	B & B	
ORNAMENTAL TREES						
8	CF	CORNUS FLORIDA	FLOWERING DOGWOOD	8'-10' HT.	B & B	
9	AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	8'-10' HT.	B & B	MULTI-STEM, 3 STEM MIN., FULL CROWN
6	PY	PRUNUS YEDOENSIS	YOSHINO CHERRY	1.5" CAL	B & B	MATCHED SPECIMENS
SHRUBS						
19	VR	VIBURNUM RHYTTIDOPHYLLUM	LEATHERLEAF VIBURNUM	2.5"-3" HT.	CONT.	
15	VM	VIBURNUM PLICATUM "MARIESI"	MARIE'S DOUBLEFILE VIBURNUM	2.5"-3" HT.	CONT.	
19	VD	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	2.5"-3" HT.	CONT.	
27	CS	CHAENOMELES SPECIOSA "TEXAS SCARLET"	FLOWERING QUINCE	2.5"-3" HT.	CONT.	
TOTAL SHRUBS PROPOSED: 60						

SCHEDULE A - MD RTE 32 PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	C	
Linear Feet of Roadway Frontage / Perimeter	470	
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	NO	
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe below if needed)	NO	
Number of Plants Required		
Shade Trees	12	
Evergreen Trees	24	
Shrubs		
Number of Plants Provided		
Shade Trees	9*	
Evergreen Trees	17**	
Other Trees (2:1 substitution)	6	
Shrubs (10:1 substitution)	40	
(Describe plant substitution credits below if needed)		
Substitutions:		
*Substitution of 6 ornamental trees for 3 shade trees		
**Substitution of 40 shrubs for 4 evergreens and credit given from SWM perimeter for 3 evergreens		

SCHEDULE A - CORRIDOR RD PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	B	
Linear Feet of Roadway Frontage / Perimeter	470	
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	NO	
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe below if needed)	NO	
Number of Plants Required		
Shade Trees	10	
Evergreen Trees	12	
Shrubs		
Number of Plants Provided		
Shade Trees	7*	
Evergreen Trees	8**	
Other Trees (2:1 substitution)	6	
Shrubs (10:1 substitution)	40	
(Describe plant substitution credits below if needed)		
Substitutions:		
*Substitution of 6 ornamental trees for 3 shade trees		
**Substitution of 40 shrubs for 4 evergreens		

GENERAL NOTES:

- ALTERNATIVE COMPLIANCE REQUEST INCLUDES 3 (AS-1), 4 (FA-1), 3 (AR-1), 3 (CF-1) AND 6 (AC-1) TO MEET LANDSCAPE REQUIREMENTS ALONG MD 32 AND CORRIDOR ROAD.
- FACILITY TO BE MAINTAINED BY HOWARD COUNTY.
- ACCESS TO SWM FACILITY FROM WITHIN THE FUEL/SALT FACILITY GROUNDS (NOT FROM MD. RTE. 32).
- CTV LINE PREVENTS PLANTING OF TREES ALONG CORRIDOR ROAD.
- SINCE NO STREET TREES ARE PROPOSED ALONG CORRIDOR ROAD, A DECORATIVE 7' HIGH FENCE IS PROPOSED AROUND THE FACILITY. SEE SHEET 7 OF 10 FOR DETAILS.

SWM-LANDSCAPE EDGE TYPE C
MD 32-REAR LANDSCAPE EDGE TYPE C
CORRIDOR RD-FRONT LANDSCAPE EDGE TYPE B

LANDSCAPE CERTIFICATION
 THIS IS TO CERTIFY THAT HEALTHY PLANT MATERIALS WERE PROPERLY INSTALLED IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN AND THAT A 1 YEAR GUARANTEE HAS BEEN EXECUTED.

SIGNATURE of DEVELOPER: _____ DATE _____
 Central Services Administration for Howard County

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

Linear Feet of Perimeter	360
Number of Trees Required	
Shade Trees	8
Evergreen Trees	9
Credit for Existing Vegetation (No, Yes and %)	YES, 25%
Credit for Other Landscaping (No, Yes and %)	YES, 25%
Number of Trees Provided	
Shade Trees	2*
Evergreen Trees	8**
Other Trees (2:1 substitution)	
*Substitution of 2 ornamentals for 1 shade, 20 shrubs for 2 shades, and credit from MD Rt. 32 Perimeter for 2 ornamentals, 1 shade, and 10 shrubs	
**Credit for 1 evergreen from MD Rt. 32 Perimeter	

APPROVED: DEPARTMENT OF PLANNING AND ZONING

 Chief, Development Engineering Division
 Date: 4/12/07

 Chief, Division of Land Development
 Date: 4/17/07

 Director
 Date: 4/18/07

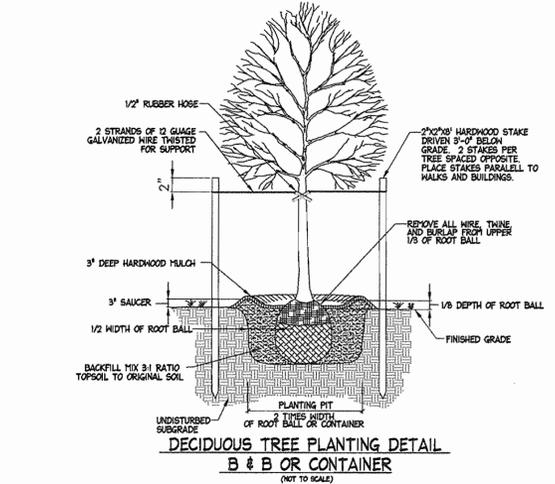
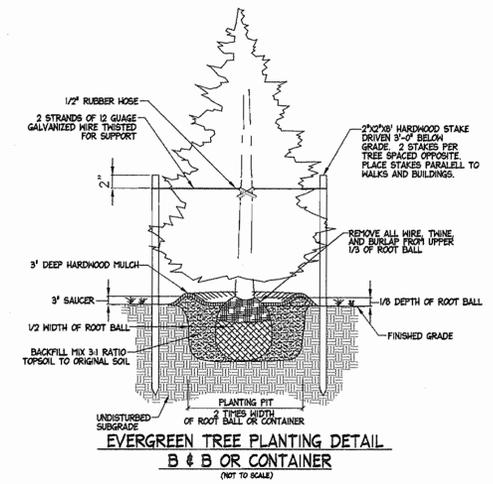
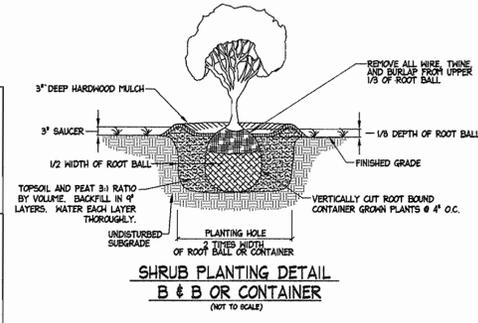


Reviewed for HOWARD COUNTY Soil Conservation District and Forests Technical Requirements.

USDA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District
 Date: 1/17/07



Dewberry
 Dewberry & Davis LLC
 3120 LORD BALTIMORE DRIVE
 SUITE 211
 BALTIMORE, MD 21244-2962
 PHONE: 410.285.9500
 FAX: 410.285.8875

DES:	TLK				
DRN:	KG				
CHK:	RHB				
DATE:	11/03/06	BY:	NO.	REVISIONS	DATE

LANDSCAPE PLAN

OWNER:
 CENTRAL SERVICES ADMINISTRATION
 3430 Courthouse Dr.
 Ellicott City, MD 21043
 Tel. (410) 313-2044

HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY

DEED: 1974/523
 TAX MAP: 48
 GRID: 13
 PARCEL: 182

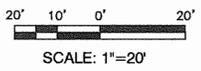
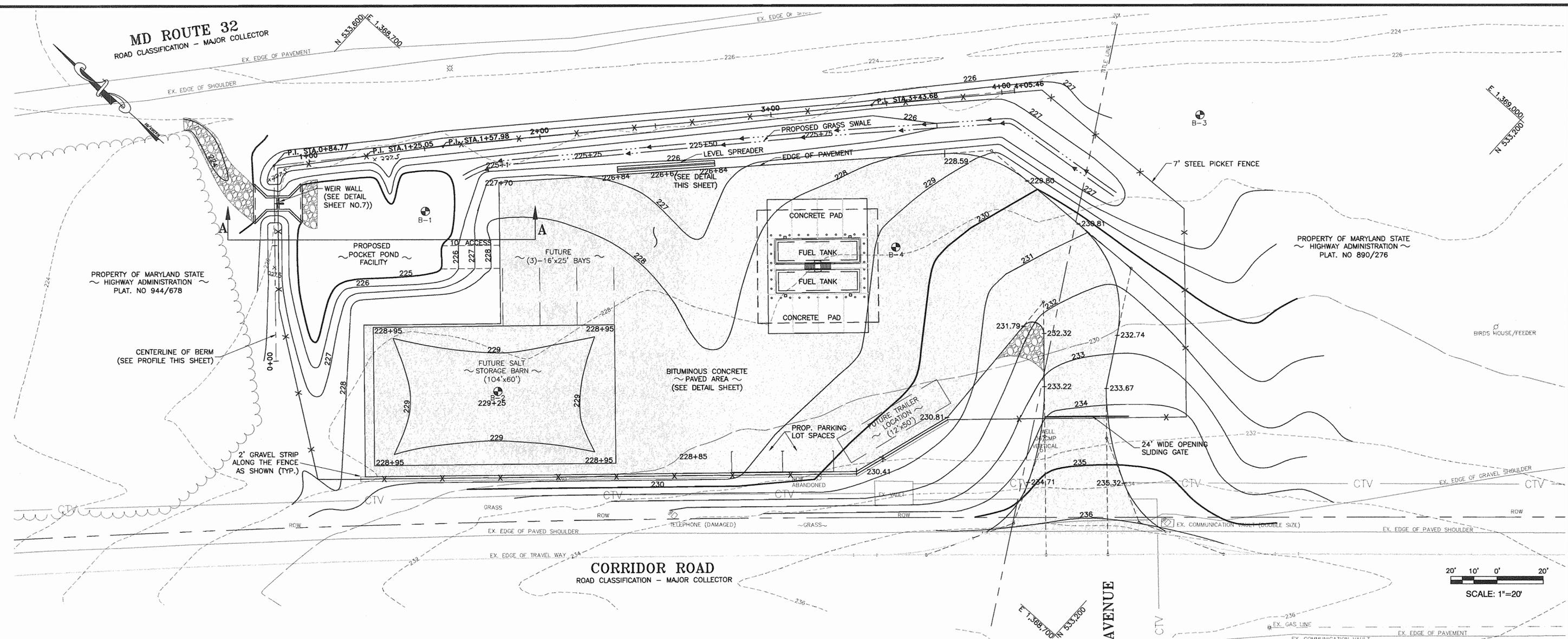
CONTRACT NO. 24-4369
 ELECTION DISTRICT NO. 8

CAPITAL PROJECT NO. W-8600
 HOWARD COUNTY, MARYLAND

SCALE: NOTED
 SHEET 5 OF 10

SDP-06-142

MD ROUTE 32
ROAD CLASSIFICATION - MAJOR COLLECTOR



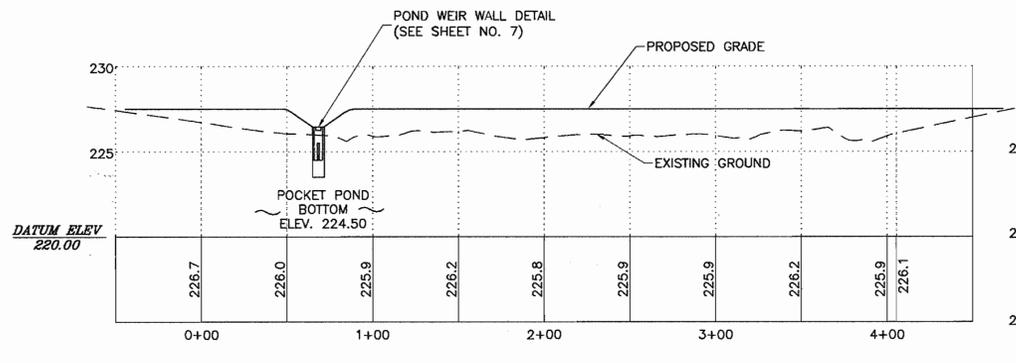
Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

USDA-Natural Resources Conservation Service

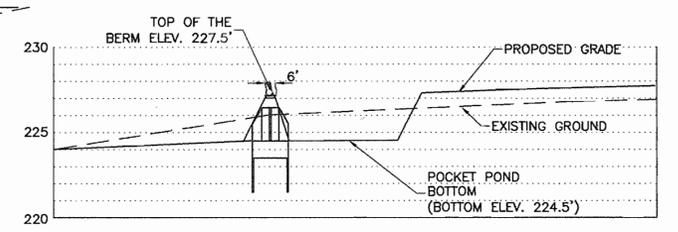
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District Date

POND DATA				
Wqv	Cpv	Q1	Q10	Q100
3,683 CF	7,081 CF	0.09 cfs	4.61 cfs	8.92 cfs
Elev. 225.65	Elev. 226.22	Elev. 226.30	Elev. 226.79	Elev. 227.10



EMBAKMENT PROFILE
SCALE: HOR. 1"=50'
VERT. 1"=5'



POCKET POND SECTION A-A
SCALE: HOR. 1"=50'
VERT. 1"=5'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 4/13/07
Chief, Development Engineering Division Date

[Signature] 4/17/07
Chief, Division of Land Development Date

[Signature] 4/18/07
Director Date

[Professional Engineer Seal]

Richard H. Berich 4/13/07
Professional Engineer

Dewberry
Dewberry & Davis LLC
3120 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2062
PHONE: 410.285.9500
FAX: 410.285.9875

DES:	RHB			
DRN:	CTM			
CHK:	RHB			
DATE:	11/03/06	BY	NO.	REVISIONS
				DATE

STORMWATER MANAGEMENT PLAN AND DETAILS

OWNER:
Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202

CONTRACT NO. 24-4369
ELECTION DISTRICT NO. 6

HOWARD COUNTY
CORRIDOR ROAD
FUEL AND SALT STORAGE FACILITY

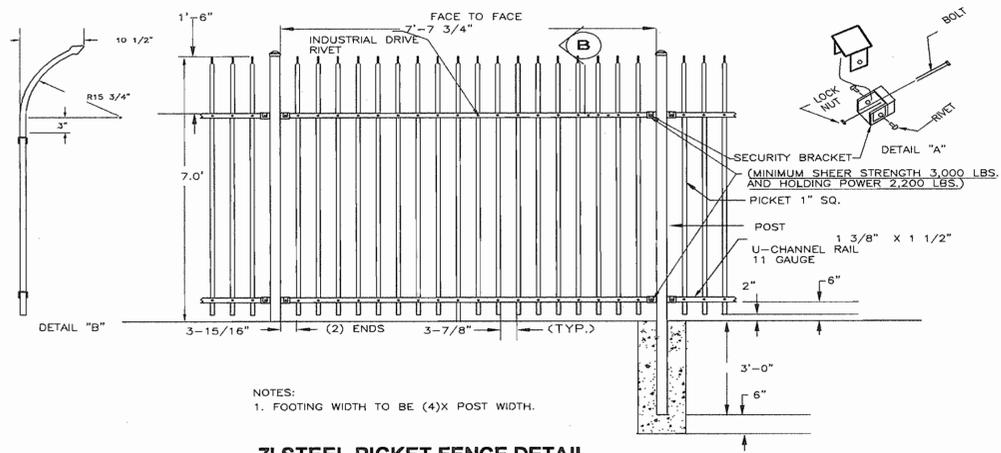
DEED: 1974/523
TAX MAP: 48
GRID: 13
PARCEL: 182

CAPITAL PROJECT NO. W-8600
HOWARD COUNTY, MARYLAND

SCALE:
NOTED

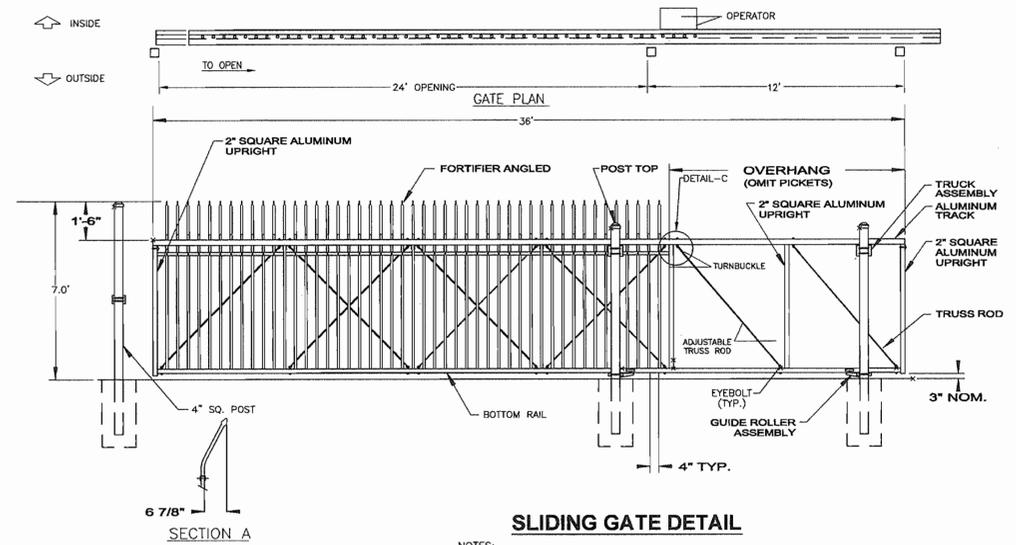
SHEET
6 OF 10

SDP-06-142



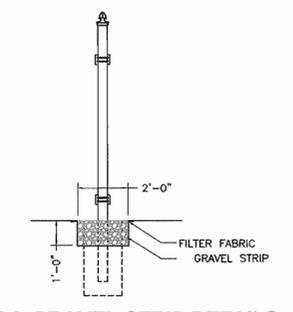
7' STEEL PICKET FENCE DETAIL

SCALE: NONE

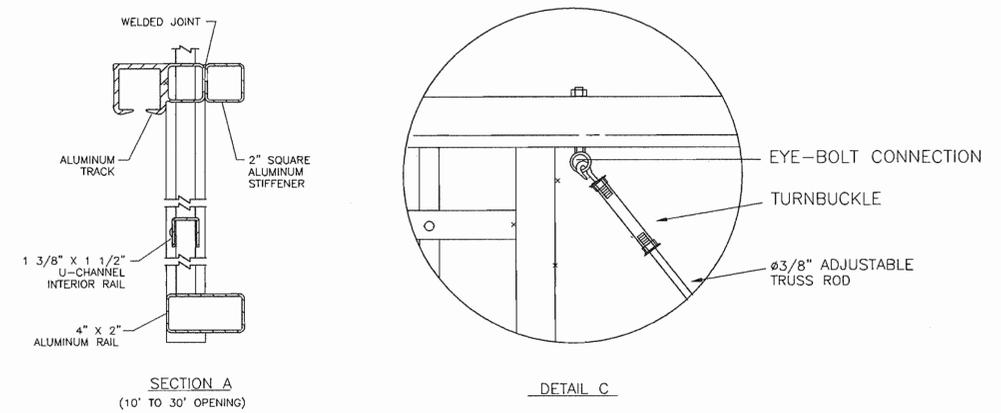


SLIDING GATE DETAIL

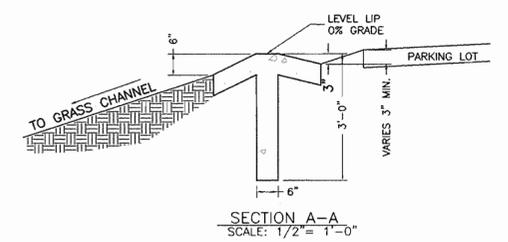
NOTES:
1. FOOTING WIDTH TO BE (4)X POST WIDTH. MIN DEPTH TO BE 36".
2. GATES WILL BE ELECTRICALLY OPERATED. HARDWARE WILL VARY FOR ELECTRICALLY OPERATED GATES.



FENCE & GRAVEL STRIP DETAILS

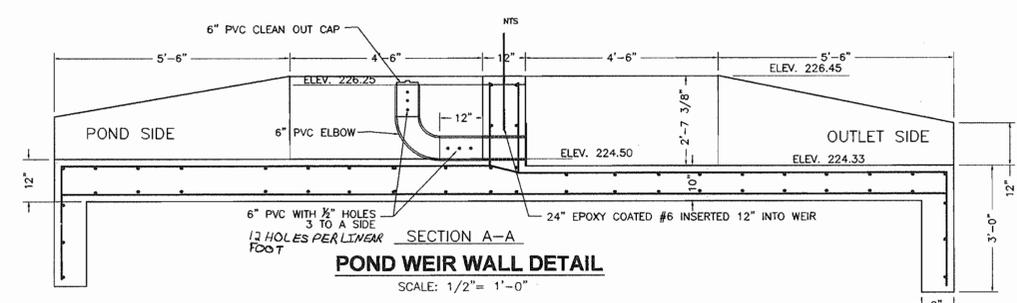


SLIDING GATE DETAILS



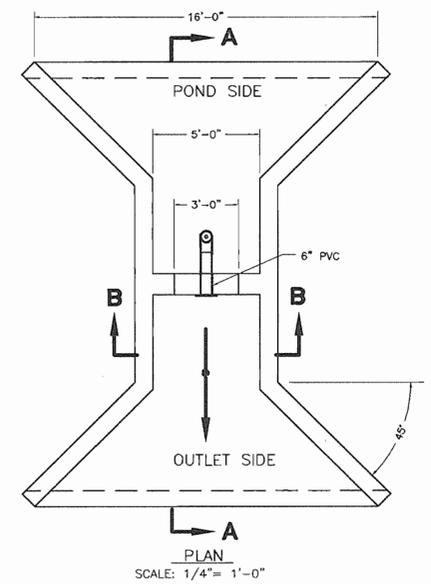
CONCRETE LEVEL SPREADER DETAIL

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



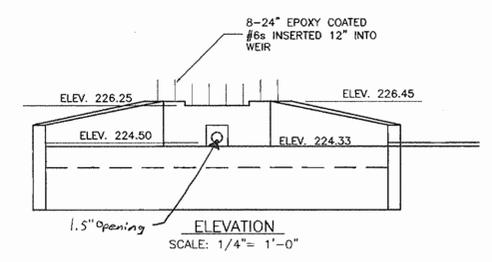
POND WEIR WALL DETAIL

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



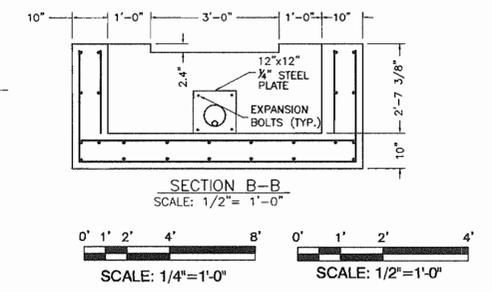
POND WEIR WALL DETAIL

SCALE: AS NOTED



ELEVATION

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



SECTION B-B

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division Date 4/13/07
 Chief, Division of Land Development Date 4/17/07
 Director Date 4/18/07

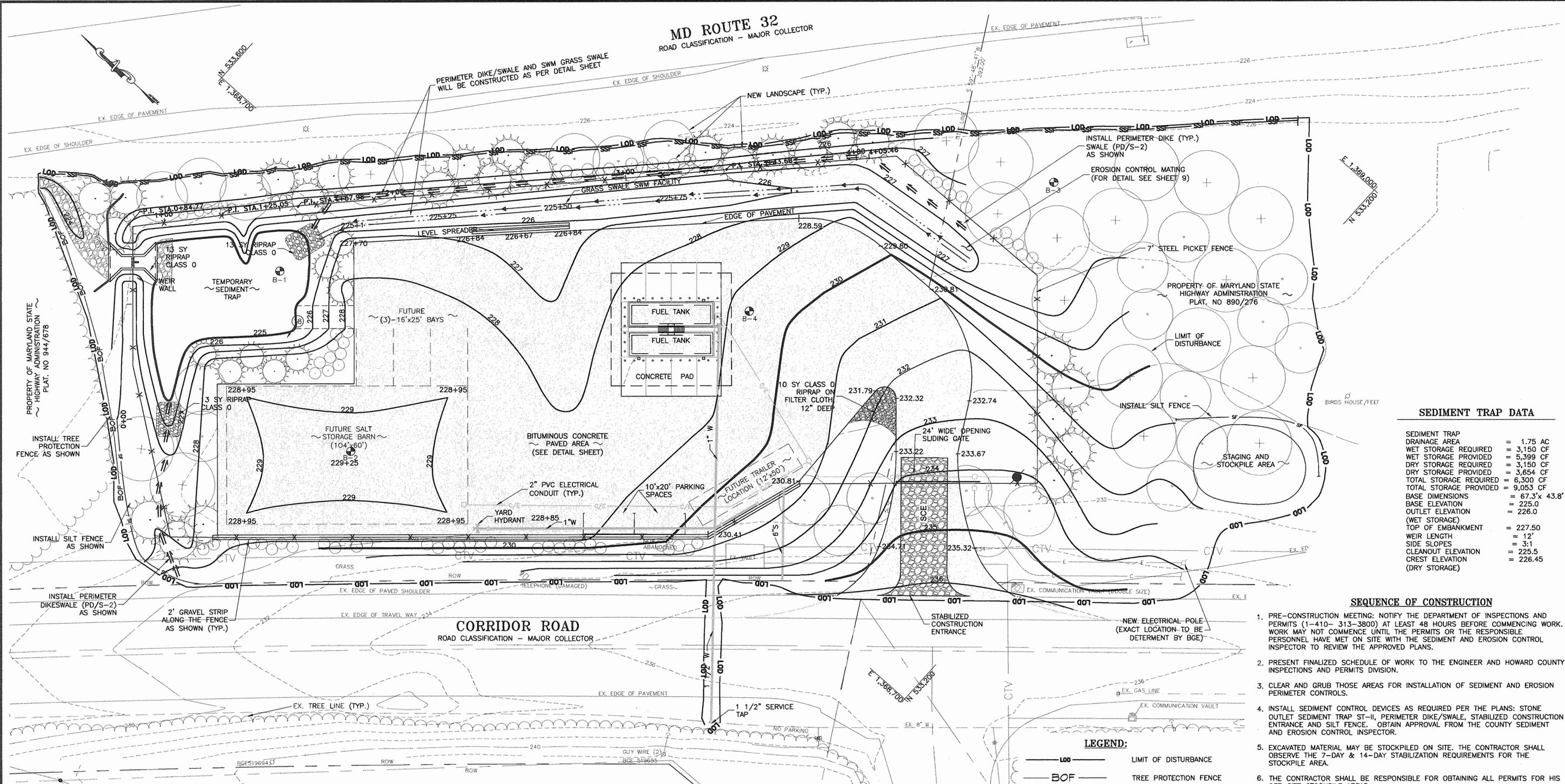


Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.
 USDA-Natural Resources Conservation Service Date
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Howard Soil Conservation District Date

NOTES:
1. POND WEIR WALL TO BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD LOW RISE STORMWATER MANAGEMENT CONTROL STRUCTURE SD 7.00 EXCEPT WHERE MODIFIED FOR THIS STRUCTURE.
2. TOP OF EMBANKMENT TO BE ELEV. 227.50

 Dewberry & Davis LLC 3120 LORD BALTIMORE DRIVE SUITE 211 BALTIMORE, MD 21244-2662 PHONE: 410.285.9500 FAX: 410.285.8875	DES: DES				MISCELLANEOUS SITE DETAILS	OWNER: Maryland State Highway Administration 707 Calvert Street Baltimore, MD 21202 CONTRACT NO. 24-4369 ELECTION DISTRICT NO. 6	HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY. CAPITAL PROJECT NO. W-8600 HOWARD COUNTY, MARYLAND	DEED: 1974/523 TAX MAP: 48 GRID: 13 PARCEL: 182	SCALE: AS NOTED SHEET 7 OF 10
	DRN: DRN								
	CHK: CHK								
	DATE: 11/03/06	BY: NO.		REVISIONS	DATE				

MD ROUTE 32
ROAD CLASSIFICATION - MAJOR COLLECTOR



SEDIMENT TRAP DATA

SEDIMENT TRAP DRAINAGE AREA	= 1.75 AC
WET STORAGE REQUIRED	= 3,150 CF
WET STORAGE PROVIDED	= 5,399 CF
DRY STORAGE REQUIRED	= 3,150 CF
DRY STORAGE PROVIDED	= 3,654 CF
TOTAL STORAGE REQUIRED	= 6,300 CF
TOTAL STORAGE PROVIDED	= 9,053 CF
BASE DIMENSIONS	= 67.3' x 43.8'
BASE ELEVATION	= 225.0
OUTLET ELEVATION (WET STORAGE)	= 226.0
TOP OF EMBANKMENT	= 227.50
WEIR LENGTH	= 12'
SIDE SLOPES	= 3:1
CLEANOUT ELEVATION	= 225.5
CREST ELEVATION (DRY STORAGE)	= 226.45

- SEQUENCE OF CONSTRUCTION**
- PRE-CONSTRUCTION MEETING: NOTIFY THE DEPARTMENT OF INSPECTIONS AND PERMITS (1-410- 313-3800) AT LEAST 48 HOURS BEFORE COMMENCING WORK. WORK MAY NOT COMMENCE UNTIL THE PERMITS OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE WITH THE SEDIMENT AND EROSION CONTROL INSPECTOR TO REVIEW THE APPROVED PLANS.
 - PRESENT FINALIZED SCHEDULE OF WORK TO THE ENGINEER AND HOWARD COUNTY INSPECTIONS AND PERMITS DIVISION.
 - CLEAR AND GRUB THOSE AREAS FOR INSTALLATION OF SEDIMENT AND EROSION PERIMETER CONTROLS.
 - INSTALL SEDIMENT CONTROL DEVICES AS REQUIRED PER THE PLANS: STONE OUTLET SEDIMENT TRAP ST-II, PERIMETER DIKE/SWALE, STABILIZED CONSTRUCTION ENTRANCE AND SILT FENCE. OBTAIN APPROVAL FROM THE COUNTY SEDIMENT AND EROSION CONTROL INSPECTOR.
 - EXCAVATED MATERIAL MAY BE STOCKPILED ON SITE. THE CONTRACTOR SHALL OBSERVE THE 7-DAY & 14-DAY STABILIZATION REQUIREMENTS FOR THE STOCKPILE AREA.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR HIS OFF-SITE STOCKPILE AREAS.
 - CLEAR AND GRUB THE REMAINDER OF THE SITE AND BEGIN GRADING OPERATIONS.
 - INSTALL UTILITIES; CONSTRUCT FUEL TANK SLABS, CONCRETE SURROUND AND CANOPY; LAY PAVEMENT COURSES; INSTALL LANDSCAPING AND FENCE.
 - STABILIZE ANY REMAINING DISTURBED AREAS AS REQUIRED.
 - CONVERT STONE OUTLET SEDIMENT TRAP TO BIORETENTION FACILITY.
 - REMOVE ANY REMAINING SEDIMENT CONTROLS AFTER PRIOR APPROVAL FROM HOWARD COUNTY INSPECTIONS AND PERMITS DIVISION. FINE GRADE AND STABILIZE AREA FORMERLY OCCUPIED BY PERIMETER CONTROLS.

LEGEND:

LOD	LIMIT OF DISTURBANCE
BOF	TREE PROTECTION FENCE
PD/S-2	PERIMETER DIKESWALE (PD/S-2)
GSW	GRASS SWALE
SSF	SUPER SILT FENCE
SF	SILT FENCE
230	PROPOSED CONTOURS
(Symbol)	PROPOSED LANDSCAPE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Allen [Signature] 4/12/07
Chief, Development Engineering Division

Chris [Signature] 4/17/07
Chief, Division of Land Development

Stephen [Signature] 4/18/07
Director



Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

Jim [Signature] 4/31/07
USA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John [Signature] 4/31/07
Howard Soil Conservation District

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND THESE PLANS F-01-142.

20' 10' 0' 20'

SCALE: 1"=20'

Dewberry
Dewberry & Davis LLC
3120 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2662
PHONE: 410.265.8500
FAX: 410.265.6276

DES:	CTM
DRN:	ARW
CHK:	RHB
DATE:	11/03/06
BY:	NO.
NO.	
REVISIONS	
DATE	

SEDIMENT CONTROL PLAN

OWNER:
Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202

HOWARD COUNTY
CORRIDOR ROAD
FUEL AND SALT STORAGE FACILITY

DEED: 1974/523
TAX MAP: 48
GRID: 13
PARCEL: 182

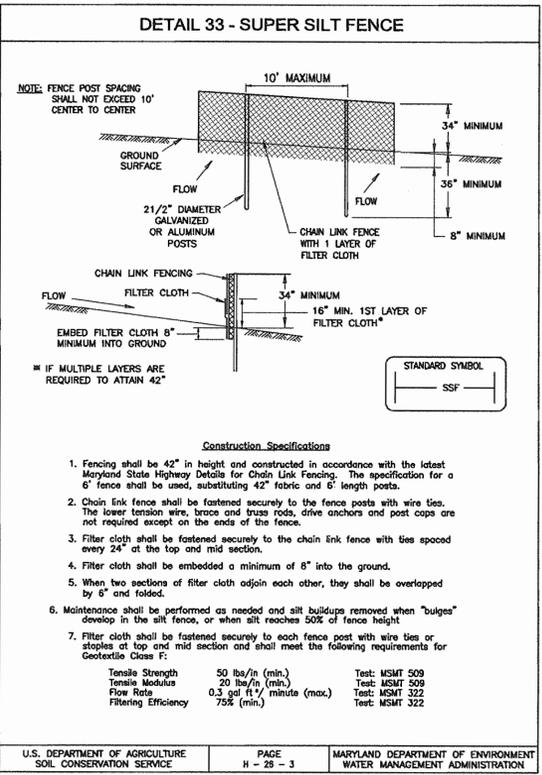
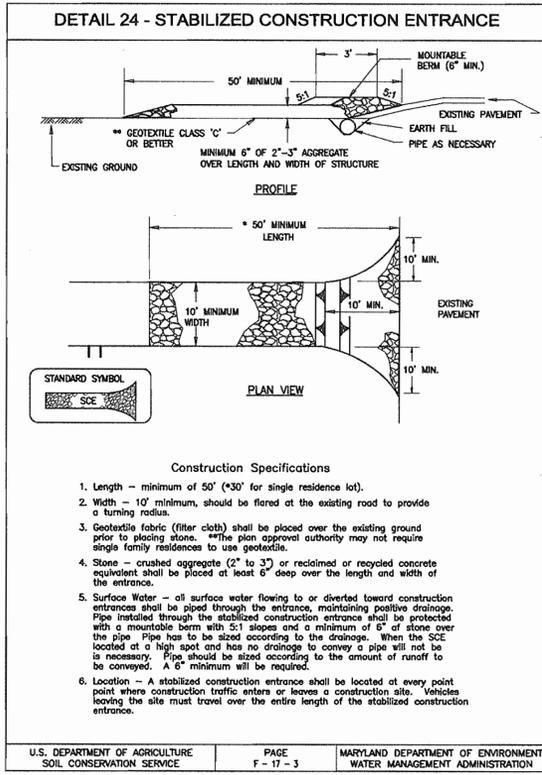
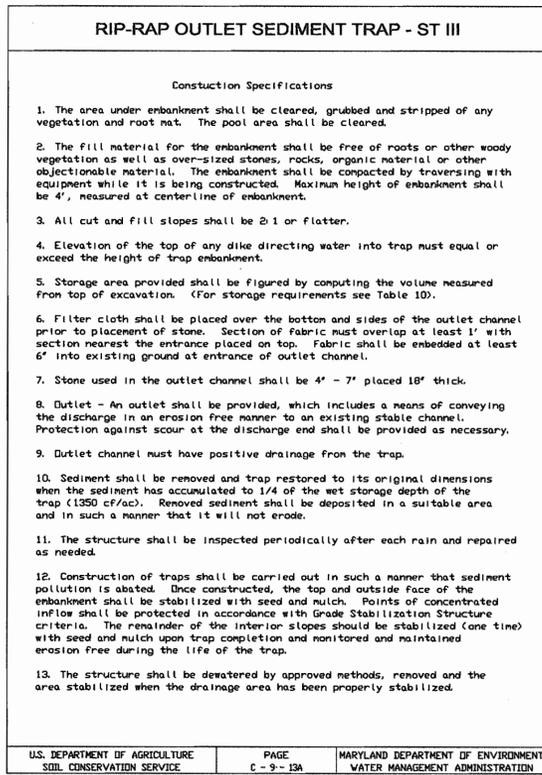
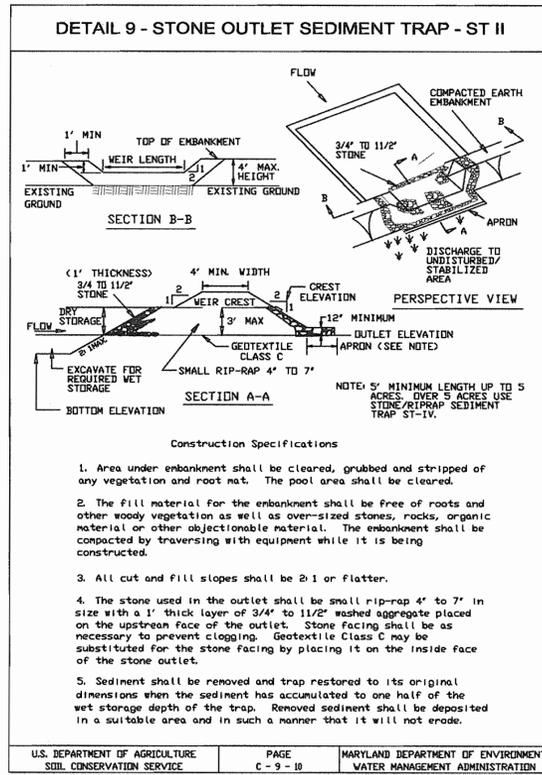
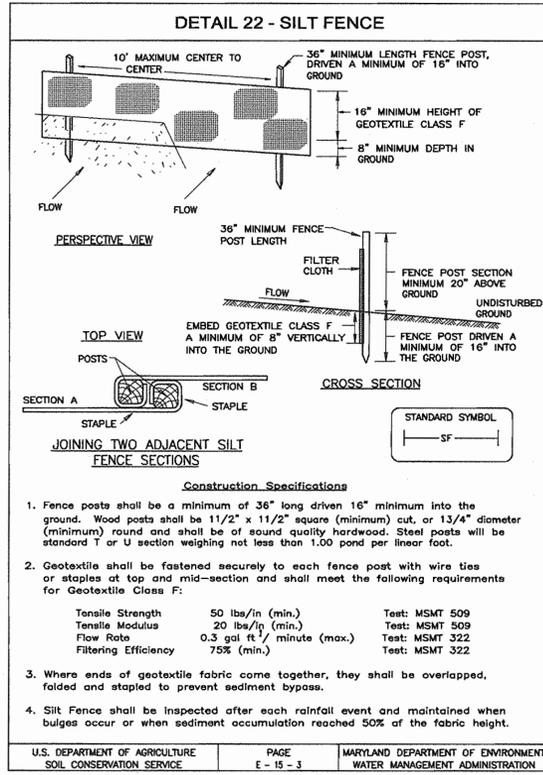
CONTRACT NO. 24-4369
ELECTION DISTRICT NO. 6

CAPITAL PROJECT NO. W-8600
HOWARD COUNTY, MARYLAND

SCALE: NOTED

SHEET 8 OF 10

SDP-06-142



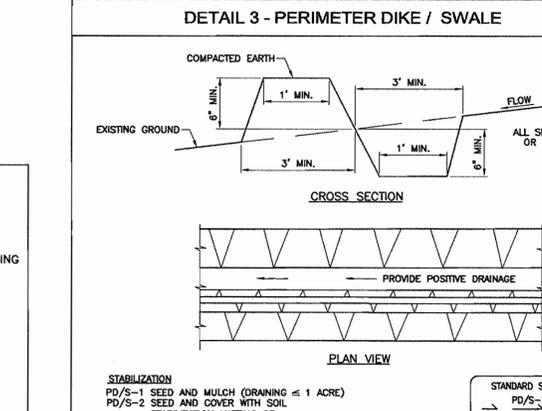
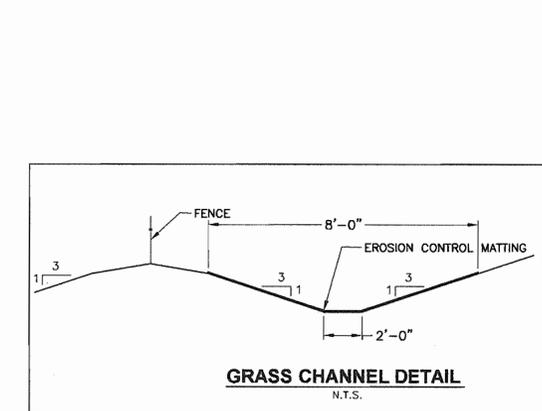
SILT FENCE

Silt Fence Design Criteria

Slope Steepness	Silt Fence Length	
	(Maximum)	(Minimum)
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-15-3A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

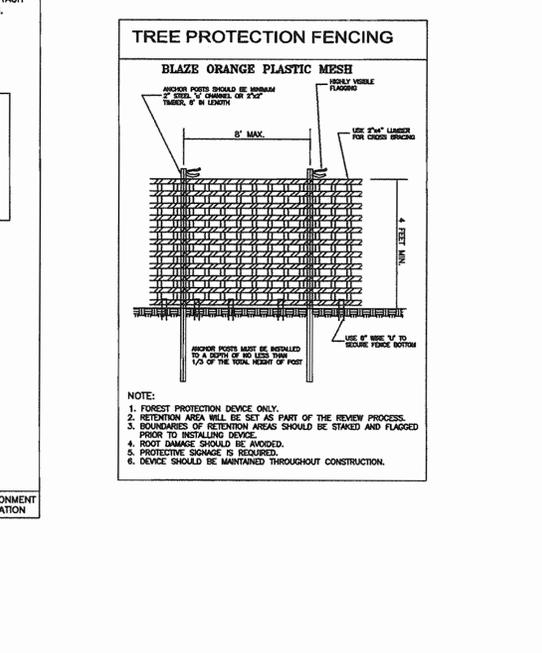
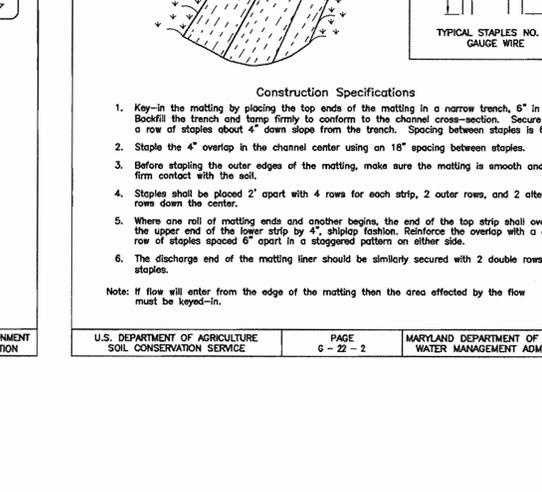
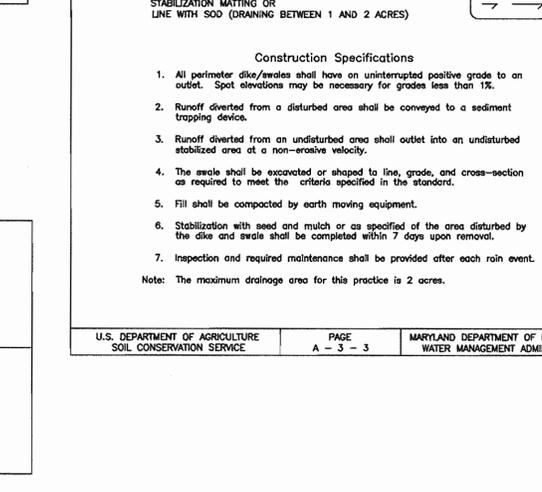
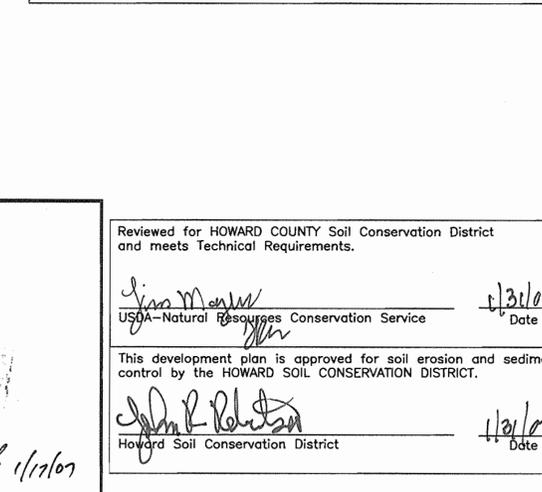
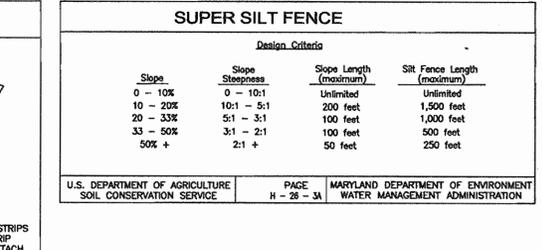


SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-28-3A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division 4/13/07
Chief, Division of Land Development 4/17/07
Director 4/18/07

Richard H. Beaulieu 4/17/07

Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

Jim M... 4/13/07
 USDA-Natural Resources Conservation Service
John P. ... 4/12/07
 Howard Soil Conservation District

This development plan is approved for soil erosion and sediment control by the HOWARD COUNTY SOIL CONSERVATION DISTRICT.

Dewberry Dewberry & Davis LLC 3120 LORD BALTIMORE DRIVE SUITE 211 BALTIMORE, MD 21244-2682 PHONE: 410.285.9500 FAX: 410.285.8875	DES: RHB				
	DRN: CTM				
	CHK: RHB				
DATE: 11/03/06	BY: NO.	REVISIONS	DATE		

EROSION AND SEDIMENT CONTROL DETAILS

OWNER: Maryland State Highway Administration, 707 Calvert Street, Baltimore, MD 21202

HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY

DEED: 1974/523
 TAX MAP: 48
 GRID: 13
 PARCEL: 182

CONTRACT NO. 24-4369
 ELECTION DISTRICT NO. 6

CAPITAL PROJECT NO. W-8600
 HOWARD COUNTY, MARYLAND

SCALE: NOTED
 SHEET 9 OF 10

SDR-06-142

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Section I - Vegetative Stabilization Methods and Materials

- A. Site Preparation
 - Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
 - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
 - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.
- B. Soil Amendments (Fertilizer and Lime Specifications)
 - Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
 - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall only be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.
 - Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98-100% will pass through a #20 mesh sieve.
 - Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

- C. Seeded Protection
 - Temporary Seeding
 - Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or ripper-mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
 - Permanent Seeding
 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be between 6.0 and 7.0.
 - Soluble salts shall be less than 500 parts per million (ppm).
 - The soil shall contain less than 40% clay but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lowgrass or aerial legumosa is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
 - Soil shall contain 1.5% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
 - Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3" - 5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
 - Apply soil amendments as per soil tests or as included on the plans.
 - Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seeded preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1"-3" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.

- D. Seed Specifications
 - All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.
 - Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydrosowing. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75-80° F. can weaken bacteria and make the inoculant less effective.

- E. Methods of Seeding
 - Hydrosowing: Apply seed uniformly with hydrosower (slurry includes seed and fertilizer), broadcast or drop seeder, or a cultipacker seeder.
 - If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorus); 200 lbs/acre; K20 (potassium); 200 lbs/acre.
 - Lime - use only ground agricultural limestone. (Up to 3 tons per acre may be applied by hydrosowing). Normally, not more than 2 tons are applied by hydrosowing at any one time. Do not use burnt or hydrated lime when hydrosowing.
 - Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
 - Drop Seeding: This includes use of conventional drop or broadcast spreaders.
 - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 25 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
 - Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
 - Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seeded must be firm after planting.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

- F. Mulch Specifications (in order of preference)
 - Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be musty, moldy, coated, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
 - Wood Cellulose Fiber Mulch (WCFM)
 - WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
 - WCFM, including dye, shall contain no germination or growth inhibiting factors.
 - WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFM material shall contain no elements or compounds at concentration levels that will be phytotoxic.
 - WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

- G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.
 - If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
 - When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
 - Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons water.

- H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:
 - A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
 - Wood Cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. The remainder of area should be applied uniform after binder application. Synthetic binders - such as Acrylic ULR (Agra-Tack), DCA-70, Petro-Tack, Terra Tack II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
 - Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4" to 15" feet wide and 300 to 3,000 feet long.

- I. Incremental Stabilization - Cut Slopes
 - All cut slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
 - Construction sequence (refer to Figure 4 below):
 - Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
 - Perform phase 1 excavation, dress and stabilize.
 - Perform phase 2 excavation, dress, and stabilize. Overseed phase 1 areas as needed areas as necessary.
 - Perform final phase excavation, dress, and stabilize. Overseed previously seeded areas as necessary.

Note: Once excavation has begun, the operation should be continuous from grubbing through completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completion of the operation out of the season will necessitate the application of temporary stabilization.

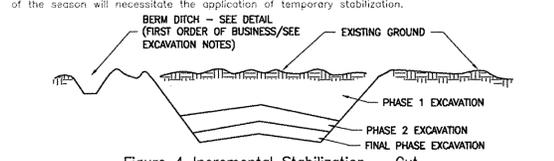


Figure 4 Incremental Stabilization - Cut

- J. Incremental Stabilization of Embankments - Fill Slopes
 - Embankments shall be constructed in lifts as prescribed on the plans.
 - Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15', or when the grading operation ceases as prescribed in the plans.
 - At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
 - Construction sequence: Refer to Figure 5 (below):
 - Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct Slope Silt Fence on low side of fill as shown in Figure 4, unless other methods shown on the plans address this area.
 - Place phase 1 embankment, dress and stabilize.
 - Place phase 2 embankment, dress and stabilize.
 - Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun, the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completion of the operation out of the seeding season will necessitate the application of temporary stabilization.

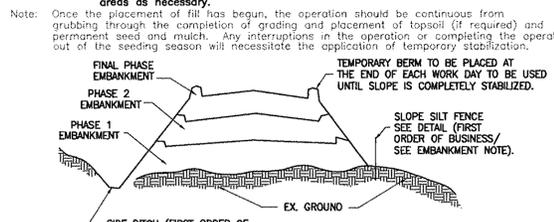


Figure 5 Incremental Stabilization - Embankment Fill Comply with MD 378 Specifications.

Section II - Temporary Seeding

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

- A. Seed Mixtures - Temporary Seeding
 - Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Temporary Seeding Summary below, along with application rates, seeding dates and seeding depths. If this Summary is not put on the plans and completed, then Table 26 must be put on the plans.
 - For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in. Soil tests are not required for Temporary Seeding.

TEMPORARY SEEDING SUMMARY

SEED MIXTURE (HARDINESS ZONE 6b)				FERTILIZER RATE (10-10-10)		LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P205
	ANNUAL RYEGRASS	50 LB/AC	3/1 - 4/30	1/4"-1/2"	600 LB/AC (15 LB/1000 SF)	2 TONS/AC (100 LB/1000 SF)
	MILLET	50 LB/AC	5/1 - 8/14	1/2"		

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *[Signature]* Date: 4/13/07

Chief, Division of Land Development: *[Signature]* Date: 4/17/07

Director: *[Signature]* Date: 4/18/07

[Signature] Date: 4/17/07

Section III: Permanent Seeding

Seeding grass and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance.

- A. Seed Mixtures - Permanent Seeding
 - Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Permanent Seed Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 25. If this Summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-SCS technical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintenance areas, see Section IV Sod and V Turfgrass.
 - For sites having disturbed area over 5 acres, the rates shown on this table shall be deleted and the rates recommended by the soil testing agency shall be written in.
 - For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 1/2 lbs/1000 sq. ft. (150 lbs/AC), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding.

PERMANENT SEEDING SUMMARY

SEED MIXTURE (HARDINESS ZONE 6b)				FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P205	K20
3	TALL FESCUE PERENNIAL RYE	125 LB/AC	3/1 - 5/15	1/4"-1/2"			
4	KY. BLUEGRASS	10 LB/AC	8/15 - 10/15				
7	TALL FESCUE WEAVERING LOWGRASS SEREGIA LESPEDEZA	110 LB/AC (15 LB/1000 SF)	3/1 - 10/15	1/4"-1/2"	90 LB/AC (15 LB/1000 SF)	175 LB/AC (4 LB/1000 SF)	175 LB/AC (4 LB/1000 SF)

Section IV - Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

- A. General specifications
 - Class of turf grass sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made available to the job foreman and inspector.
 - Sod shall be machine cut at uniform thickness of 3/4", plus or minus 1/4", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
 - Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the sod.
 - Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
 - Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation.
- B. Sod Installation
 - During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.
 - The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
 - Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface.
 - Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.
- C. Sod Maintenance
 - In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantity to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to prevent wilting.
 - After the first week, sod watering is required as necessary to maintain adequate moisture content.
 - The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grasses having thatch shall be maintained between 2" and 3" unless otherwise specified.

Section V - Turfgrass Establishment

Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and rolled to prepare a seedbed. Stones and debris over 1 1/2 inches in diameter shall be removed. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty.

Note: Choose certified material. Certified material is the best guarantee to cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

- A. Permanent Seeding
 - Kentucky Bluegrass - Full sun mixture - For use in areas that receive intensive maintenance. Irrigation required in the areas of central Maryland and eastern shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds/1000 square feet. A minimum of three bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.
 - Kentucky Bluegrass/Perennial Rye - Full sun mixture - For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight. Seeding rate: 2 pounds mixture/1000 square feet. A minimum of 3 Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight.
 - Tall Fescue/Kentucky Bluegrass - Full sun mixture - For use in drought prone areas and/or for areas receiving low to medium maintenance in full sun to medium shade. Recommended mixture includes: certified Tall Fescue Cultivars 95-100%, certified Kentucky Bluegrass Cultivars 0 - 5%. Seeding rate: 5 to 8 lb/1000 sf. One or more cultivars may be blended.
 - Kentucky Bluegrass/Fine Fescue - Shade Mixture - For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: certified Kentucky Bluegrass Cultivars 30-40% and certified Fine Fescue and 60-70%. Seeding rate: 1.1 to 1.3 lb/1000 square feet. A minimum of 3 Kentucky bluegrass cultivars must be chosen, with each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

Note: Turfgrass varieties should be selected from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland".

- B. Ideal times of seeding
 - Western MD: March 15 - June 1, August 1 - October 1 (Hardiness Zones - 5b, 6a)
 - Central MD: March 1 - May 15, August 15 - October 15 (Hardiness Zone - 6b)
 - Southern MD, Eastern Shore: March 1 - May 15, August 15 - October 15 (Hardiness Zones - 7a, 7b)
- C. Irrigation
 - If soil moisture is deficient, supply new seedlings with adequate water for plant growth (23/64" O 1" every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.
- D. Repairs and Maintenance
 - Inspect all seeded areas for failures and make necessary repairs, replacements, and reseeding within the planting season.
 - Once the vegetation is established, the site shall have 95% ground cover to be considered adequately stabilized.
 - If the stand provides less than 40% ground coverage, reestablish following original time, fertilizer, seeded preparation and seeding recommendations.
 - If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing half of the rates originally applied may be necessary.
 - Maintenance fertilizer rates for permanent seedings are shown in table 24. For lawns and other medium to high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" Bulletin No. 171.

SEDIMENT CONTROL GENERAL NOTES

- A minimum of 48 hours notice must be given to Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction. 410-313-1855.
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current Maryland Standards and Specifications for Soil Erosion and Sediment Control and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warnings signs posted in around their perimeter in accordance with Vol 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control for permanent seeding (Sec. 51), sod (Sec. 54) temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis

Total Area of Site	2.32 Acres
Area Disturbed	2.32 Acres
Area to be paved	1.03 Acres
Area to be Vegetatively Stabilized	1.29 Acres
Total Cut	2,122 Cu. Yds.
Total Fill	534 Cu. Yds.

 Offsite waste/borrow area location To be determined by contractor.
- Any sediment control practices which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each work day, whichever is shorter.

OPERATION AND MAINTENANCE SCHEDULE FOR PUBLICLY OWNED AND MAINTAINED STORMWATER PONDS (P-1 THROUGH P-5)

- Routine Maintenance:
- Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
 - Top and side slopes of the embankment shall be mowed a minimum of (2) times per year, once in June and once in September. Other side slopes and remaining grasses shall be mowed as needed. Removed "limbs" of mowing shall be removed.
 - Debris and litter shall be removed from the pond - rap
 - Visible signs of erosion in the pond as well as the rip or gully outlet area shall be repaired as soon as it is routine.
- Non-Routine Maintenance:
- Structural components of the pond such as the riser, and the pipes shall be inspected upon the detection of any damage. The components shall be inspected during routine maintenance operations. or for any, no later than when the capacity of the pond, full of sediment, or when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works

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 inspections by the Howard Soil Conservation District.

[Signature] Date: 4/24/07
Signature of Developer

[Signature] Date: 4/24/07
MARC DESMADLES
Print Name

I certify that this plan for sediment and erosion 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] Date: 4/23/07
Signature of Engineer

RICHARD H. BERICH, P.E. LICENSE NO. 10959
Print Name

Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

[Signature] Date: 4/3/07
USDA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

[Signature] Date: 4/3/07
Howard Soil Conservation District

Dewberry
Dewberry & Davis LLC
3120 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2682
PHONE: 410.285.9500
FAX: 410.285.8875

DES:	RHB		
DRN:	CTM		
CHK:	RHB		
DATE:	11/03/06	BY	NO.
		REVISIONS	DATE

EROSION AND SEDIMENT CONTROL NOTES

OWNER: Maryland State Highway Administration, 707 Calvert Street, Baltimore, MD 21202

HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY

DEED: 1974/523
TAX MAP: 48
GRID: 13
PARCEL: 182

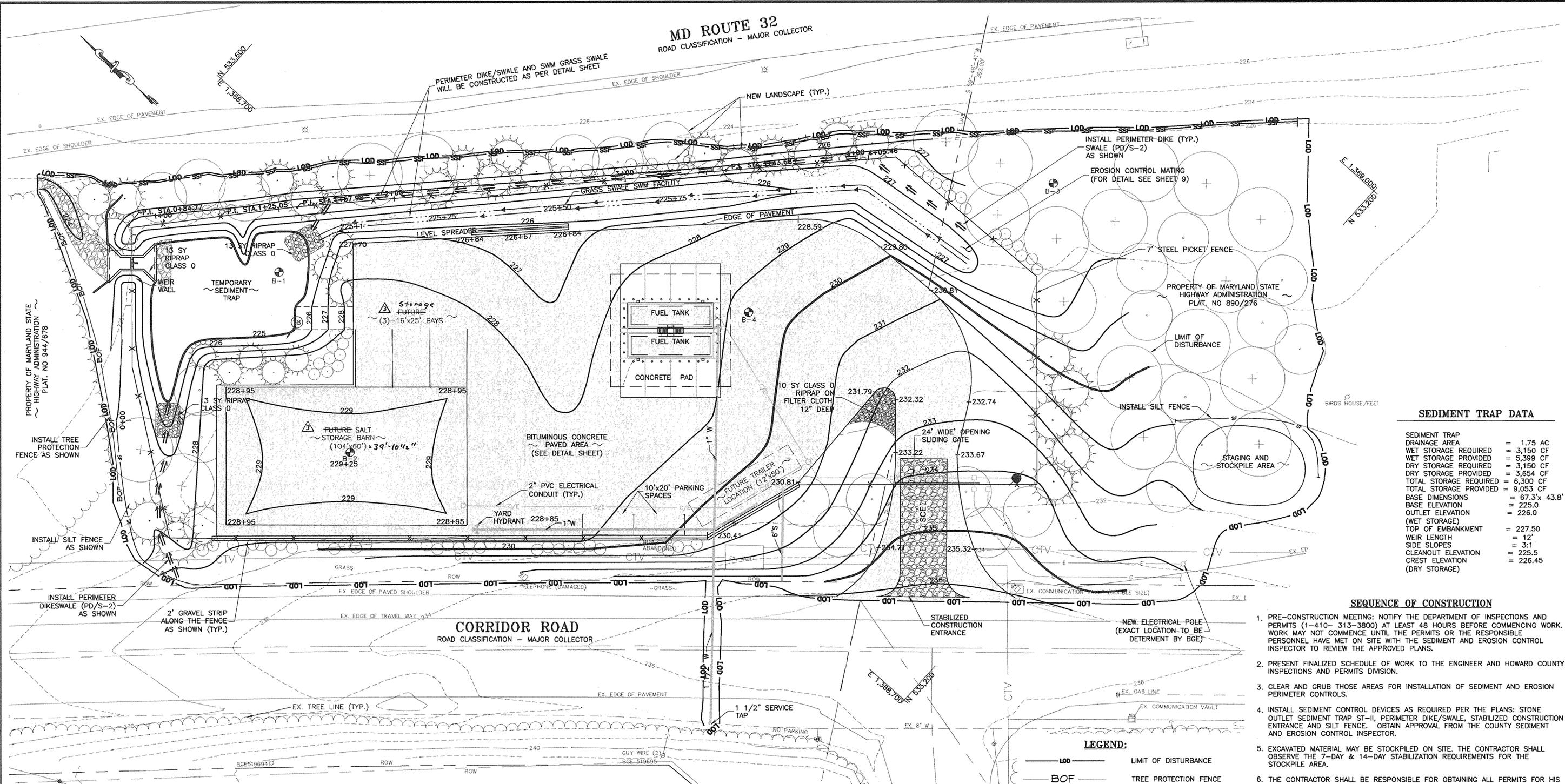
CONTRACT NO. 24-4369
ELECTION DISTRICT NO. 6

CAPITAL PROJECT NO. W-8600
HOWARD COUNTY, MARYLAND

SCALE: NOTED
SHEET: 10 OF 10

JDP-06-142

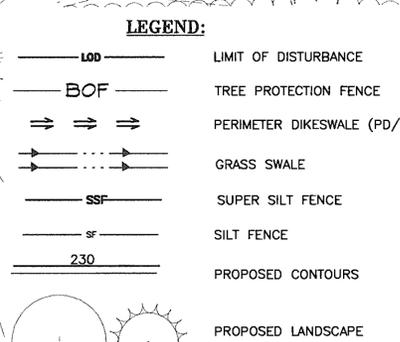
MD ROUTE 32
ROAD CLASSIFICATION - MAJOR COLLECTOR



SEDIMENT TRAP DATA

SEDIMENT TRAP DRAINAGE AREA	= 1.75 AC
WET STORAGE REQUIRED	= 3,150 CF
WET STORAGE PROVIDED	= 5,389 CF
DRY STORAGE REQUIRED	= 3,150 CF
DRY STORAGE PROVIDED	= 3,654 CF
TOTAL STORAGE REQUIRED	= 6,300 CF
TOTAL STORAGE PROVIDED	= 9,053 CF
BASE DIMENSIONS	= 67.3' x 43.8'
BASE ELEVATION	= 225.0
OUTLET ELEVATION (WET STORAGE)	= 226.0
TOP OF EMBANKMENT	= 227.50
WEIR LENGTH	= 12'
SIDE SLOPES	= 3:1
CLEANOUT ELEVATION	= 225.5
CREST ELEVATION (DRY STORAGE)	= 226.45

- SEQUENCE OF CONSTRUCTION**
- PRE-CONSTRUCTION MEETING: NOTIFY THE DEPARTMENT OF INSPECTIONS AND PERMITS (1-410- 313-3800) AT LEAST 48 HOURS BEFORE COMMENCING WORK. WORK MAY NOT COMMENCE UNTIL THE PERMITS OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE WITH THE SEDIMENT AND EROSION CONTROL INSPECTOR TO REVIEW THE APPROVED PLANS.
 - PRESENT FINALIZED SCHEDULE OF WORK TO THE ENGINEER AND HOWARD COUNTY INSPECTIONS AND PERMITS DIVISION.
 - CLEAR AND GRUB THOSE AREAS FOR INSTALLATION OF SEDIMENT AND EROSION PERIMETER CONTROLS.
 - INSTALL SEDIMENT CONTROL DEVICES AS REQUIRED PER THE PLANS: STONE OUTLET SEDIMENT TRAP ST-II, PERIMETER DIKE/SWALE, STABILIZED CONSTRUCTION ENTRANCE AND SILT FENCE. OBTAIN APPROVAL FROM THE COUNTY SEDIMENT AND EROSION CONTROL INSPECTOR.
 - EXCAVATED MATERIAL MAY BE STOCKPILED ON SITE. THE CONTRACTOR SHALL OBSERVE THE 7-DAY & 14-DAY STABILIZATION REQUIREMENTS FOR THE STOCKPILE AREA.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR HIS OFF-SITE STOCKPILE AREAS.
 - CLEAR AND GRUB THE REMAINDER OF THE SITE AND BEGIN GRADING OPERATIONS.
 - INSTALL UTILITIES; CONSTRUCT FUEL TANK SLABS, CONCRETE SURROUND AND CANOPY; LAY PAVEMENT COURSES; INSTALL LANDSCAPING AND FENCE.
 - STABILIZE ANY REMAINING DISTURBED AREAS AS REQUIRED.
 - CONVERT STONE OUTLET SEDIMENT TRAP TO BIORETENTION FACILITY.
 - REMOVE ANY REMAINING SEDIMENT CONTROLS AFTER PRIOR APPROVAL FROM HOWARD COUNTY INSPECTIONS AND PERMITS DIVISION. FINE GRADE AND STABILIZE AREA FORMERLY OCCUPIED BY PERIMETER CONTROLS.



STANDARD STABILIZATION NOTE

Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within seven (7) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1); and fourteen (14) days as to all other disturbed or graded areas on the project site.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Allen Deveraux 4/12/07
Chief, Development Engineering Division

Chris Hamer 4/12/07
Chief, Division of Land Development

Stephen J. Felt 4/18/07
Director



Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

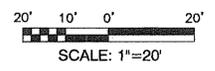
Jim Murrin 1/31/07
USDA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John R. Blanton 1/31/07
Howard Soil Conservation District

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND THESE PLANS F-01-142.

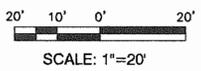
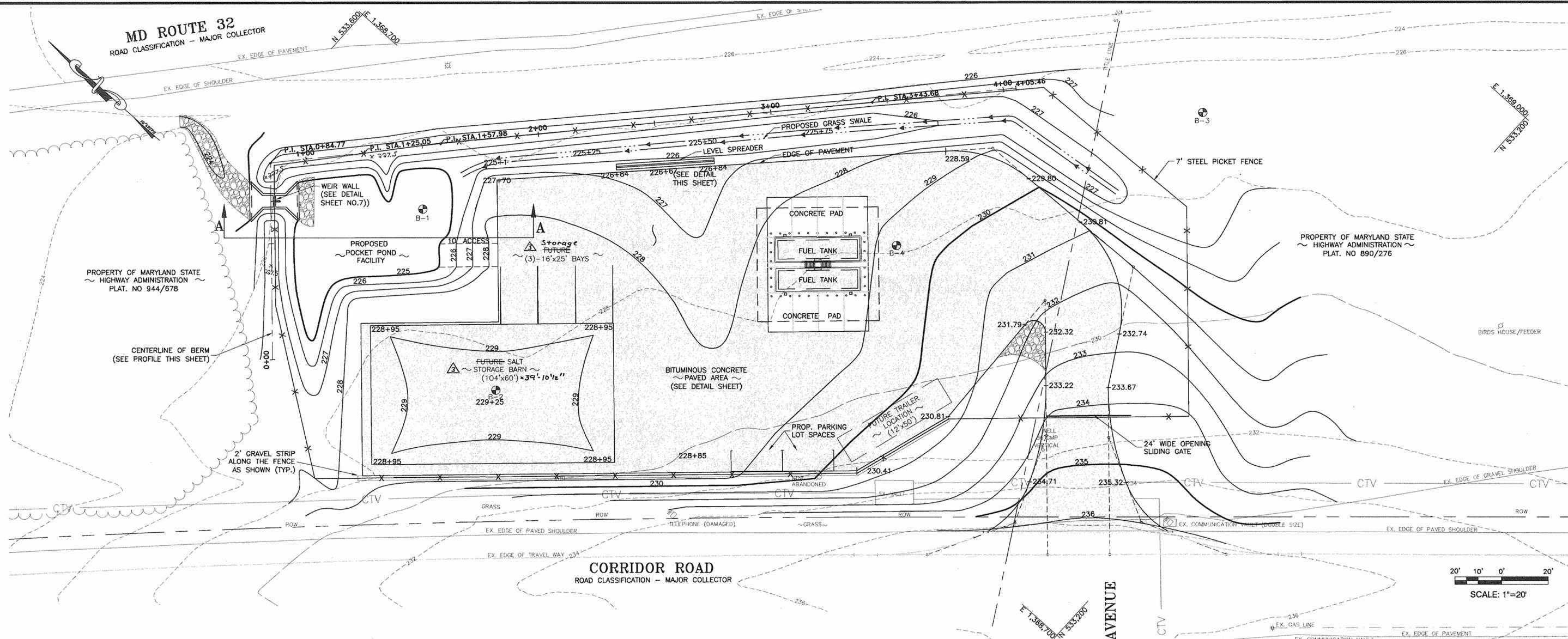
Richard H. Bensch 1/19/07



<p>Dewberry Dewberry & Davis LLC 3120 LORD BALTIMORE DRIVE SUITE 211 BALTIMORE, MD 21244-2682 PHONE: 410.285.8500 FAX: 410.285.8875</p>	DES: CTM	DRN: ARW	CHK: RHB	DATE: 11/03/06	WPM BY NO. 119-07	REVISIONS	DATE	OWNER: Maryland State Highway Administration 707 Calvert Street Baltimore, MD 21202	<p>HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY</p> <p>CONTRACT NO. 24-4369 ELECTION DISTRICT NO. 6</p>	<p>DEED: 1974/523 TAX MAP: 48 GRID: 13 PARCEL: 182</p> <p>SCALE: NOTED</p> <p>SHEET 8 OF 10</p>
	<p>Change 'Future salt...' to 'Salt...'</p>	11-9-07								

SDP-06-142

MD ROUTE 32
ROAD CLASSIFICATION - MAJOR COLLECTOR



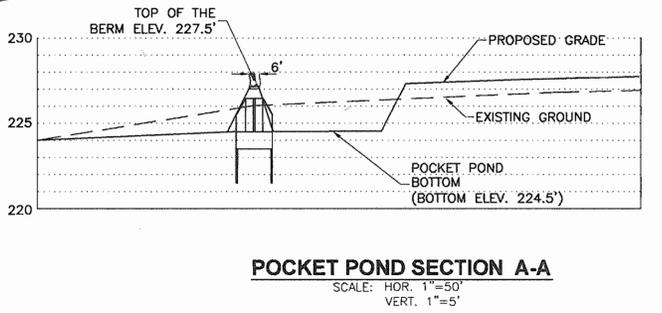
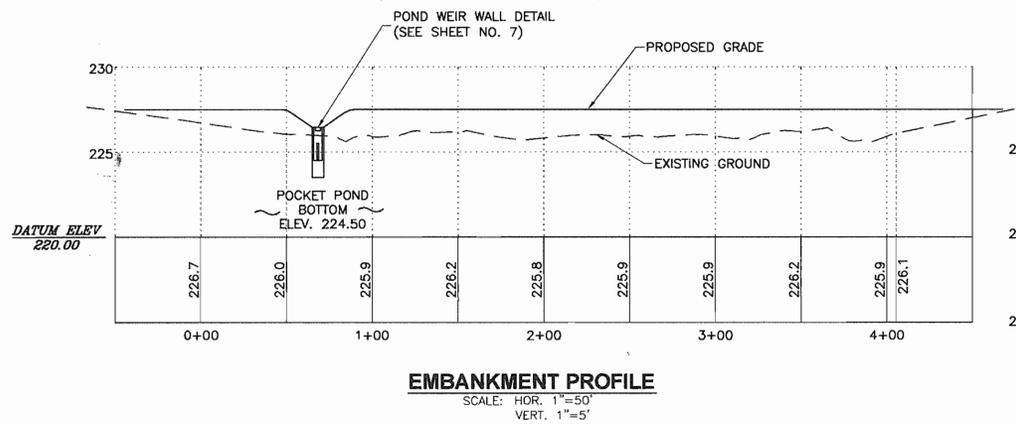
Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

USDA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District Date

POND DATA				
Wqv	Cpv	Q1	Q10	Q100
3,683 CF	7,081 CF	0.09 cfs	4.61 cfs	8.92 cfs
Elev. 225.65	Elev. 226.22	Elev. 226.30	Elev. 226.79	Elev. 227.10



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 4/13/07
Chief, Development Engineering Division Date

[Signature] 4/17/07
Chief, Division of Land Development Date

[Signature] 4/18/07
Director Date

[Professional Engineer Seal]

Richard H. Berich 4/17/07

Dewberry
Dewberry & Davis LLC
3120 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2982
PHONE: 410.285.9500
FAX: 410.285.9875

DES:	DRN:	CHK:	DATE:	BY:	NO.	REVISIONS	DATE:
RHB	CTM	RHB	11/03/06	WFM	1	Change 'Future salt...' to 'salt...'	11-9-07

STORMWATER MANAGEMENT PLAN AND DETAILS

OWNER:
Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202

CONTRACT NO. 24-4369
ELECTION DISTRICT NO. 6

HOWARD COUNTY
CORRIDOR ROAD
FUEL AND SALT STORAGE FACILITY

DEED: 1974/523
TAX MAP: 48
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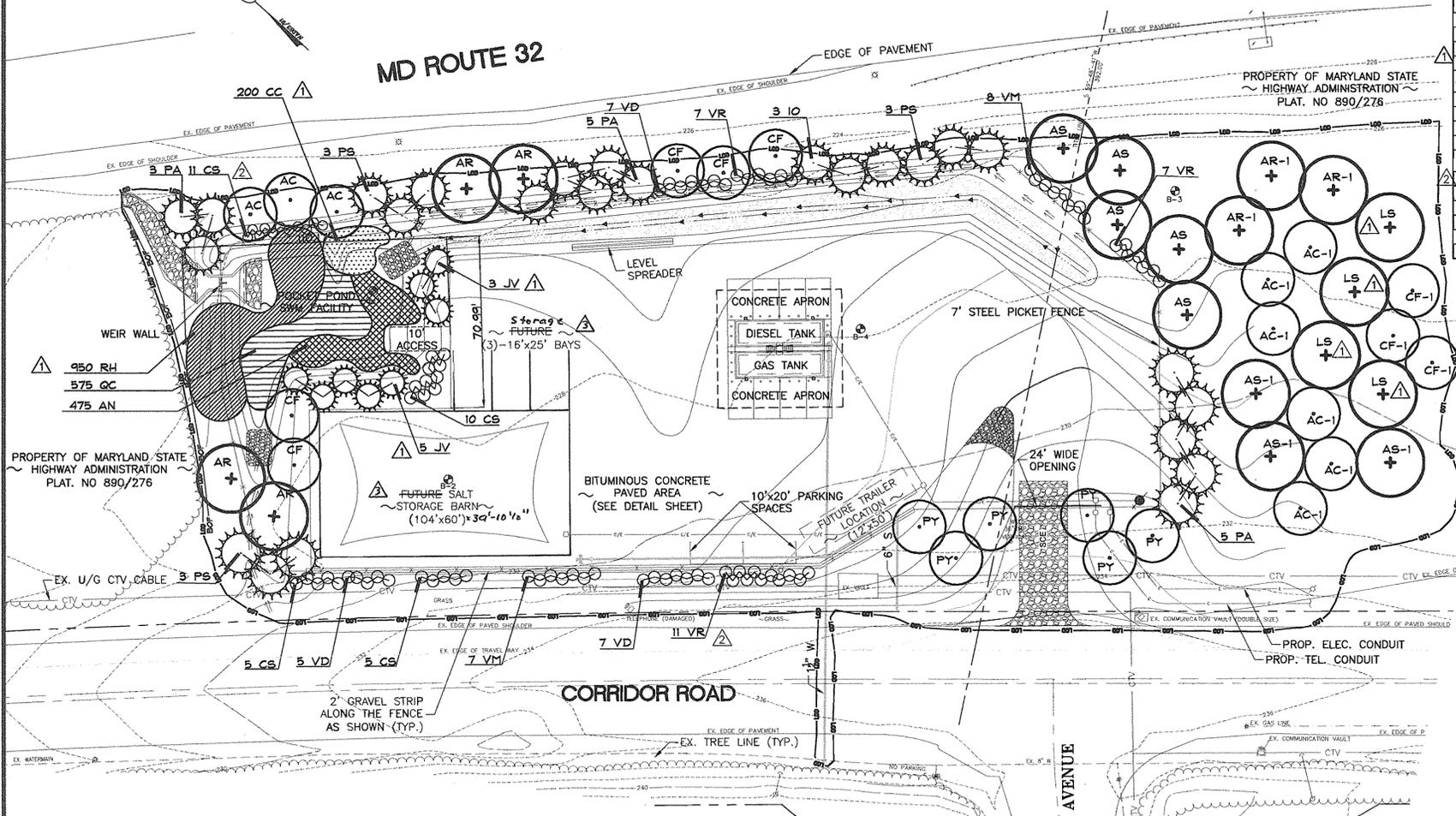
SCALE:
NOTED

SHEET
6 OF 10

SDP-06-142

PLANT SCHEDULE						
QTY.	KEY	GENUS/SPECIES	COMMON NAME	SIZE	ROOT	COMMENTS
PERENNIALS						
475	AN	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	QUART	CONT.	PLANT 18" O.C.
200	CC	CENTAUREA CYANUS	CORNFLOWER	QUART	CONT.	PLANT 18" O.C.
575	QC	AQUILEGIA CANADENSIS	WILD COLUMBINE	QUART	CONT.	PLANT 18" O.C.
950	RH	RUDBECKIA HIRTA (YELLOW)	BLACK-EYED SUSAN	QUART	CONT.	PLANT 18" O.C.

PLANT SCHEDULE						
QTY.	KEY	GENUS/SPECIES	COMMON NAME	SIZE	ROOT	COMMENTS
SHADE TREES						
7	AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2.5'-3' CAL.	B & B	
8	AS	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2.5'-3' CAL.	B & B	
4	FA	FRAXINUS AMERICANA 'AUTUMN PURPLE'	AUTUMN PURPLE WHITE ASH	2.5'-3' CAL.	B & B	
4	LS	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2.5' CAL.	B & B	
EVERGREEN TREES						
9	PS	PINUS STROBUS	EASTERN WHITE PINE	6'-8' HT.	B & B	
13	PA	PICEA ABIES	NORWAY SPRUCE	6'-8' HT.	B & B	
3	IO	ILEX OPACA 'MISS HELEN'	AMERICAN HOLLY	5'-6' HT.	B & B	PLANT 1 MALE PER 5 FEMALES
8	SL	SPRENGERIA PARIS LEYLANDI	LEYLAND CYPRRESS	5'-6' HT.	B & B	
8	JV	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	6' HT.	B & B	
ORNAMENTAL TREES						
8	CF	CORNUS FLORIDA	FLOWERING DOGWOOD	8'-10' HT.	B & B	
9	AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	8'-10' HT.	B & B	MULTI-STEM, 3 STEM MIN., FULL CROWN
6	PY	PRUNUS YEDOENSIS	YOSHINO CHERRY	1.5' CAL.	B & B	MATCHED SPECIMENS
SHRUBS						
14	25	VR	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	2.5'-3' HT.	CONT.
15	VM	VD	VIBURNUM Plicatum 'Mariesii'	MARIE'S DOUBLEFILE VIBURNUM	2.5'-3' HT.	CONT.
19	VD	VD	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	2.5'-3' HT.	CONT.
27	31	CS	CHAENOMELES SPECIOSA 'TEXAS SCARLET'	FLOWERING QUINCE	2.5'-3' HT.	CONT.
				TOTAL SHRUBS PROPOSED:	69	90



SCHEDULE A - MD RTE 32 PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	C	B
Linear Feet of Roadway Frontage / Perimeter	470	470
Credit for Existing Vegetation (Yes, No, Linear Feet)	NO	NO
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet)	NO	NO
Number of Plants Required		
Shade Trees	12	
Evergreen Trees	24	
Shrubs		
Number of Plants Provided		
Shade Trees	9*	
Evergreen Trees	17**	
Other Trees (2:1 substitution)	6	
Shrubs (10:1 substitution)	40	

SCHEDULE A - CORRIDOR RD PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	B	B
Linear Feet of Roadway Frontage / Perimeter	470	470
Credit for Existing Vegetation (Yes, No, Linear Feet)	NO	NO
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet)	NO	NO
Number of Plants Required		
Shade Trees	10	
Evergreen Trees	12	
Shrubs		
Number of Plants Provided		
Shade Trees	7*	
Evergreen Trees	8**	
Other Trees (2:1 substitution)	6	
Shrubs (10:1 substitution)	40	

Substitutions:
 *Substitution of 6 ornamental trees for 3 shade trees
 **Substitution of 40 shrubs for 4 evergreens and credit given from SWM perimeter for 3 evergreens

Substitutions:
 *Substitution of 6 ornamental trees for 3 shade trees
 **Substitution of 40 shrubs for 4 evergreens

GENERAL NOTES:

- ALTERNATIVE COMPLIANCE REQUEST INCLUDES 3 (AS-1), 4 (FA-1), 3 (AR-1), 3 (CF-1) AND 6 (AC-1) TO MEET LANDSCAPE REQUIREMENTS ALONG MD 32 AND CORRIDOR ROAD.
- FACILITY TO BE MAINTAINED BY HOWARD COUNTY.
- ACCESS TO SWM FACILITY FROM WITHIN THE FUEL/SALT FACILITY GROUNDS (NOT FROM MD. RTE. 32).
- CTV LINE PREVENTS PLANTING OF TREES ALONG CORRIDOR ROAD.
- SINCE NO STREET TREES ARE PROPOSED ALONG CORRIDOR ROAD, A DECORATIVE 7' HIGH FENCE IS PROPOSED AROUND THE FACILITY. SEE SHEET 7 OF 10 FOR DETAILS.
- NO LANDSCAPE SURETY IS REQUIRED SINCE THIS IS A COUNTY PROJECT.

**SWM-LANDSCAPE EDGE TYPE C
 MD 32-REAR LANDSCAPE EDGE TYPE C
 CORRIDOR RD-FRONT LANDSCAPE EDGE TYPE B**

LANDSCAPE CERTIFICATION
 THIS IS TO CERTIFY THAT HEALTHY PLANT MATERIALS WERE PROPERLY INSTALLED IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN AND THAT A 1 YEAR GUARANTEE HAS BEEN EXECUTED.

10/12/2007
 SIGNATURE OF DEVELOPER: [Signature]
 Central Services Administration for Howard County

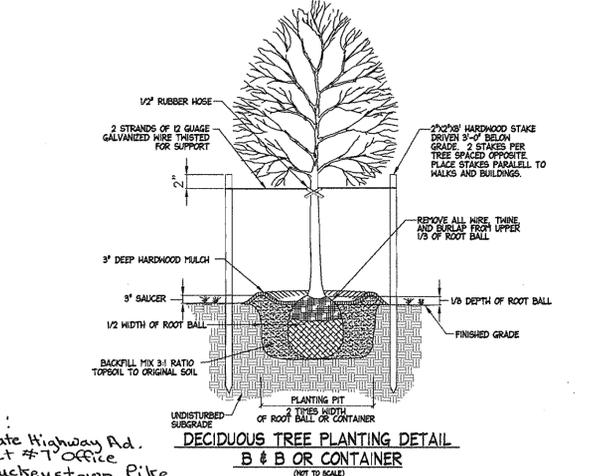
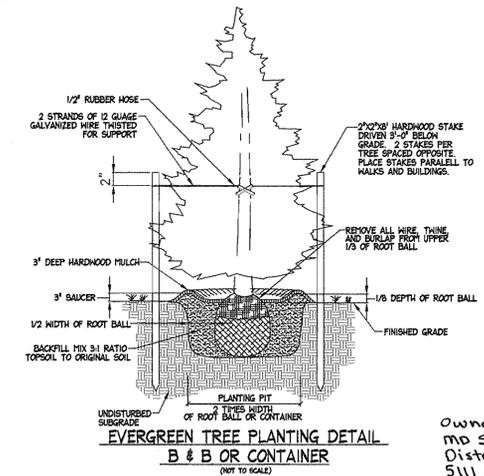
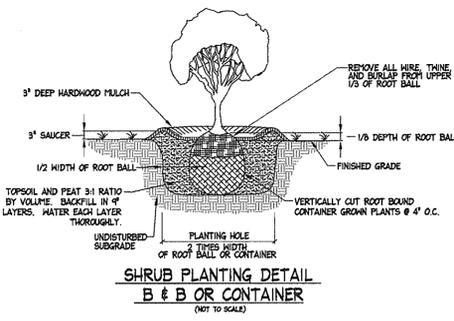
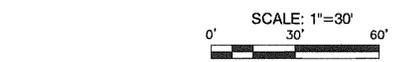
SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

Linear Feet of Perimeter	360
Number of Trees Required	8
Shade Trees	8
Evergreen Trees	9
Credit for Existing Vegetation (No, Yes and %)	YES, 25%
Credit for Other Landscaping (No, Yes and %)	YES, 25%
Number of Trees Provided	
Shade Trees	2*
Evergreen Trees	8**
Other Trees (2:1 substitution)	

*Substitution of 2 ornamentals for 1 shade; 20 shrubs for 2 shades, and credit from MD Rt. 32 Perimeter for 2 ornamentals, 1 shade, and 10 shrubs
 **Credit for 1 evergreen from MD Rt. 32 Perimeter

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signatures and dates]
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

Reviewed for HOWARD COUNTY Soil Conservation District and Meets Technical Requirements.
 USDA-Natural Resources Conservation Service
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Howard Soil Conservation District



Owner: MD State Highway Ad. District #7 Office 5111 Buckeystown Pike Frederick, MD 21704
 SDP-06-142

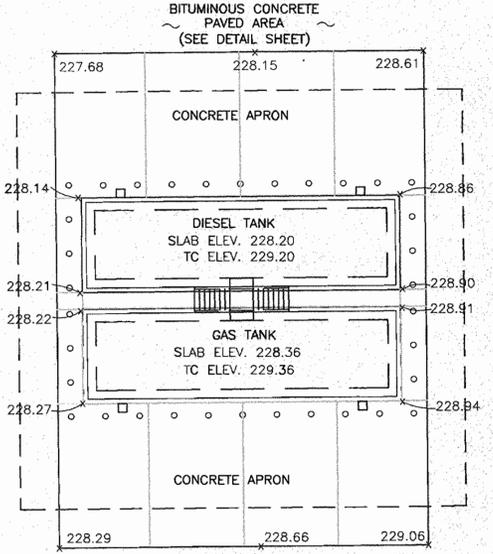
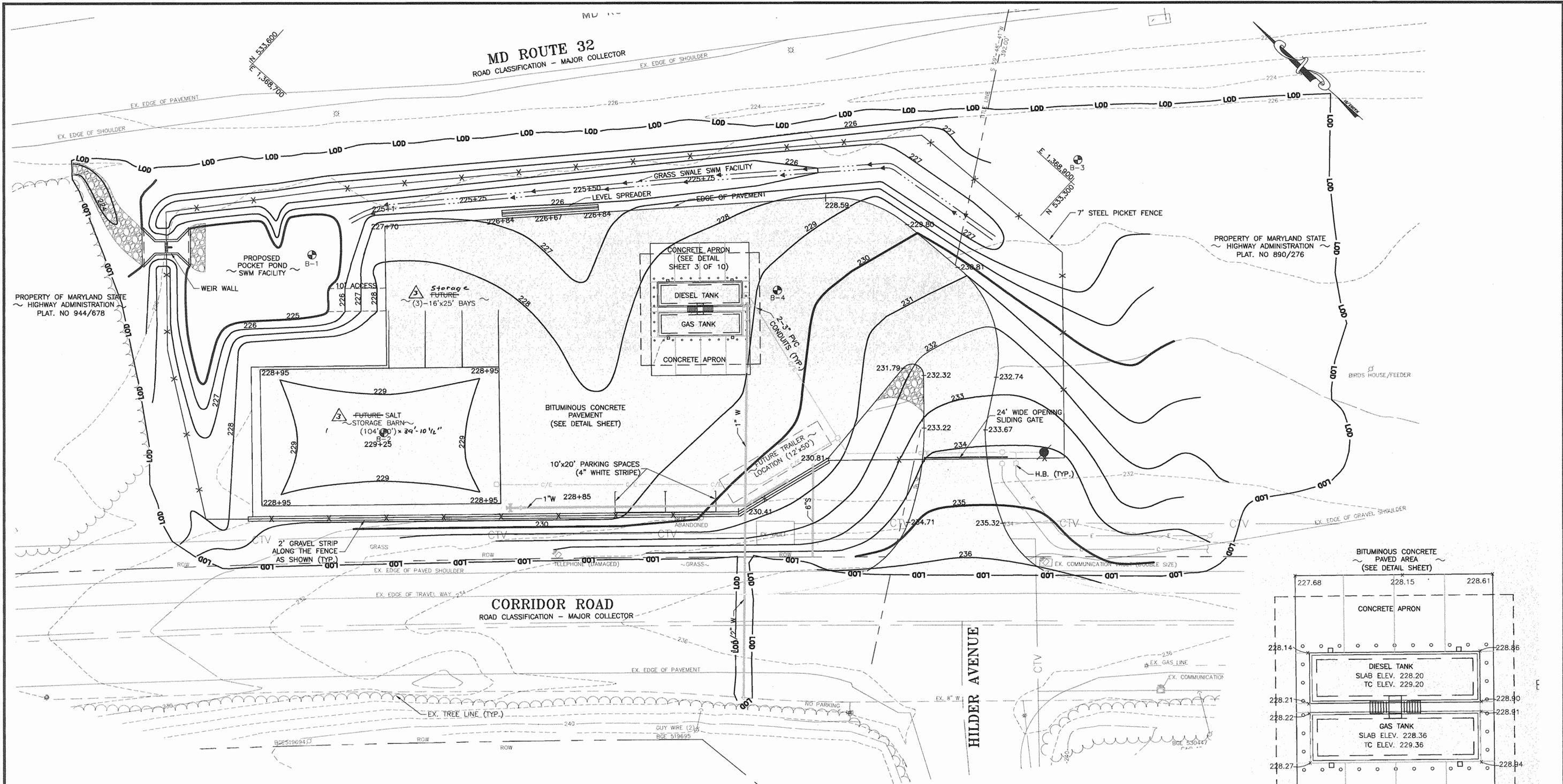
Dewberry
 Dewberry & Davis LLC
 3120 LORD BALTIMORE DRIVE SUITE 211 BALTIMORE, MD 21244-2862 PHONE: 410.285.9500 FAX: 410.285.8875



DES:	TLK		
DRN:	KG		
CHK:	RHB	WFA	Change Future salt... to 'Salt...'
DATE:	11/03/06	RLR	REVISIONS PER DPZ COMMENTS/Landscaping 9/17/07
		RLR	REVISIONS PER SHA COMMENTS/Landscaping 6/27/07
		BY NO.	REVISIONS DATE

LANDSCAPE PLAN

HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY
 DEVELOPER: Howard County Dept. of Public Works 3430 Courthouse Dr. Elicott City, MD 21043 Tel. (410) 313-2044 Attn: John Swain/Utilities CONTRACT NO. 24-4369 ELECTION DISTRICT NO. 6
 DEED: 1974/523 TAX MAP: 48 GRID: 13 PARCEL: 182
 CAPITAL PROJECT NO. W-8600 HOWARD COUNTY, MARYLAND
 SCALE: NOTED SHEET 5 OF 10
 SDP 06-142

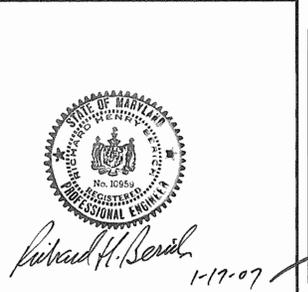


APPROVED: DEPARTMENT OF PLANNING AND ZONING

Mr. [Signature] 4/13/07
Chief, Development Engineering Division

Cindy [Signature] 4/17/07
Chief, Division of Land Development

Stephen [Signature] 4/18/07
Director



Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

USDA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District

NOTE:
FOR PROPOSED WATER AND SEWER AND ELECTRIC UTILITY LAYOUT SEE SHEET 2

SCALE: 1"=20'

LEGEND:
230 PROPOSED CONTOURS

Dewberry
Dewberry & Davis LLC
3120 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2062
PHONE: 410.265.9500
FAX: 410.265.9875

DES:	RHB
DRN:	CTM
CHK:	RHB
DATE:	11/03/06
WPM BY:	3
NO.:	Change 'Future Salt...' to 'Salt...'
REVISIONS:	
DATE:	11-9-07

OWNER:	Maryland State Highway Administration 707 Calvert Street Baltimore, MD 21202
CONTRACT NO. 24-4369	ELECTION DISTRICT NO. 6
HOWARD COUNTY	CORRIDOR ROAD
FUEL AND SALT STORAGE	FACILITY
CAPITAL PROJECT NO. W-8600	HOWARD COUNTY, MARYLAND

GRADING PLAN

DEED: 1974/523
TAX MAP: 48
GRID: 13
PARCEL: 182

SCALE: NOTED

SHEET 4 OF 10

SDP-06-142

CENTERLINE OF BERM		
STATION	NORTHING	EASTING
0+00	533,529.0586	1,368,563.7757
0+84.77	533,586.3770	1,368,626.2343
1+25.05	533,559.4320	1,368,656.1700
1+57.98	533,537.7886	1,368,680.9831
3+43.68	533,412.2147	1,368,817.7992
4+05.46	533,370.5618	1,368,863.4173

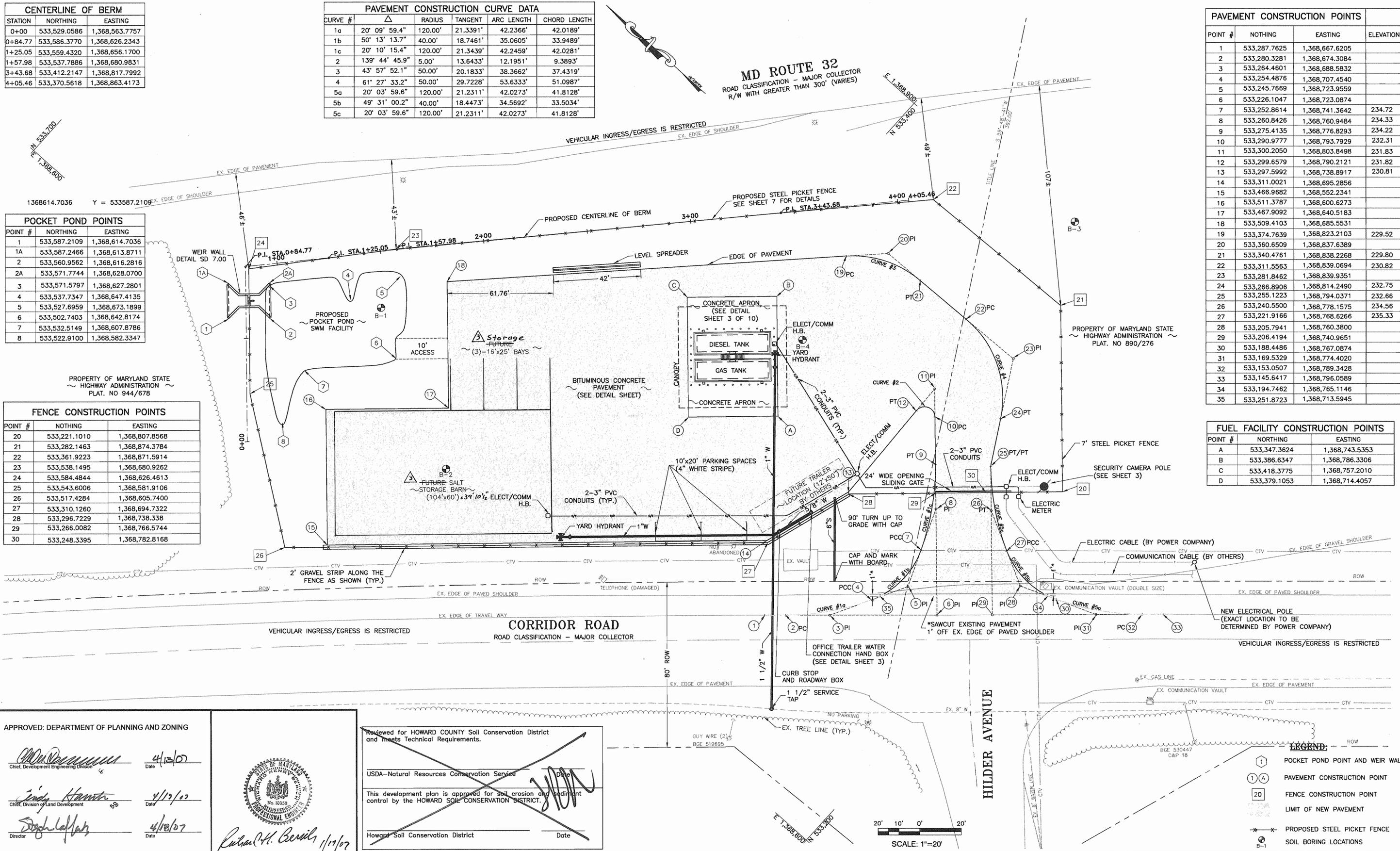
PAVEMENT CONSTRUCTION CURVE DATA					
CURVE #	Δ	RADIUS	TANGENT	ARC LENGTH	CHORD LENGTH
1a	20° 09' 59.4"	120.00'	21.3391'	42.2366'	42.0189'
1b	50° 13' 13.7"	40.00'	18.7461'	35.0605'	33.9489'
1c	20° 10' 15.4"	120.00'	21.3439'	42.2459'	42.0281'
2	139° 44' 45.9"	5.00'	13.6433'	12.1951'	9.3893'
3	43° 57' 52.1"	50.00'	20.1833'	38.3662'	37.4319'
4	61° 27' 33.2"	50.00'	29.7228'	53.6333'	51.0987'
5a	20° 03' 59.6"	120.00'	21.2311'	42.0273'	41.8128'
5b	49° 31' 00.2"	40.00'	18.4473'	34.5692'	33.5034'
5c	20° 03' 59.6"	120.00'	21.2311'	42.0273'	41.8128'

PAVEMENT CONSTRUCTION POINTS			
POINT #	NORTHING	EASTING	ELEVATION
1	533,287.7625	1,368,667.6205	
2	533,280.3281	1,368,674.3084	
3	533,264.4601	1,368,688.5832	
4	533,254.4876	1,368,707.4540	
5	533,245.7669	1,368,723.9559	
6	533,226.1047	1,368,723.0874	
7	533,252.8614	1,368,741.3642	234.72
8	533,260.8426	1,368,760.9484	234.33
9	533,275.4135	1,368,776.8293	234.22
10	533,290.9777	1,368,793.7929	232.31
11	533,300.2050	1,368,803.8498	231.83
12	533,299.6579	1,368,790.2121	231.82
13	533,297.5992	1,368,738.8917	230.81
14	533,311.0021	1,368,695.2856	
15	533,466.9682	1,368,552.2341	
16	533,511.3787	1,368,600.6273	
17	533,467.9092	1,368,640.5183	
18	533,509.4103	1,368,685.5531	
19	533,374.7639	1,368,823.2103	229.52
20	533,360.6509	1,368,837.6389	
21	533,340.4761	1,368,838.2268	229.80
22	533,311.5563	1,368,839.0694	230.82
23	533,281.8462	1,368,839.9351	
24	533,266.8906	1,368,814.2490	232.75
25	533,255.1223	1,368,794.0371	232.66
26	533,240.5500	1,368,778.1575	234.56
27	533,221.9166	1,368,768.6266	235.33
28	533,205.7941	1,368,760.3800	
29	533,206.4194	1,368,740.9651	
30	533,188.4486	1,368,767.0874	
31	533,169.5329	1,368,774.4020	
32	533,153.0507	1,368,789.3428	
33	533,145.6417	1,368,796.0589	
34	533,194.7462	1,368,765.1146	
35	533,251.8723	1,368,713.5945	

FUEL FACILITY CONSTRUCTION POINTS		
POINT #	NORTHING	EASTING
A	533,347.3624	1,368,743.5353
B	533,386.6347	1,368,786.3306
C	533,418.3775	1,368,757.2010
D	533,379.1053	1,368,714.4057

POCKET POND POINTS		
POINT #	NORTHING	EASTING
1	533,587.2109	1,368,614.7036
1A	533,587.2466	1,368,613.8711
2	533,560.9562	1,368,616.2816
2A	533,571.7744	1,368,628.0700
3	533,571.5797	1,368,627.2801
4	533,537.7347	1,368,647.4135
5	533,527.6959	1,368,673.1899
6	533,502.7403	1,368,642.8174
7	533,532.5149	1,368,607.8786
8	533,522.9100	1,368,582.3347

FENCE CONSTRUCTION POINTS		
POINT #	NORTHING	EASTING
20	533,221.1010	1,368,807.8568
21	533,282.1463	1,368,874.3784
22	533,361.9223	1,368,871.5914
23	533,538.1495	1,368,680.9262
24	533,584.4844	1,368,626.4613
25	533,543.6006	1,368,581.9106
26	533,517.4284	1,368,605.7400
27	533,310.1260	1,368,694.7322
28	533,296.7229	1,368,738.338
29	533,266.0082	1,368,766.5744
30	533,248.3395	1,368,782.8168



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 4/12/07
Chief, Development Engineering Division

[Signature] 4/12/07
Chief, Division of Land Development

[Signature] 4/18/07
Director

Reviewed for HOWARD COUNTY Soil Conservation District and Meets Technical Requirements.

USDA-Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District

[Signature] 1/19/07

DES: RHB

DRN: CTM

CHK: RHB

DATE: 11/03/06

WFM BY NO. 3 Change 'Future salt...' to 'salt...' 11-9-06 REVISIONS DATE

Dewberry
Dewberry & Davis LLC
3120 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2662
PHONE: 410.265.9500
FAX: 410.285.6875

LAYOUT PLAN AND UTILITIES

OWNER: Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202

HOWARD COUNTY
CORRIDOR ROAD
FUEL AND SALT STORAGE
FACILITY

DEED: 1974/523
TAX MAP: 48
GRID: 13
PARCEL: 182

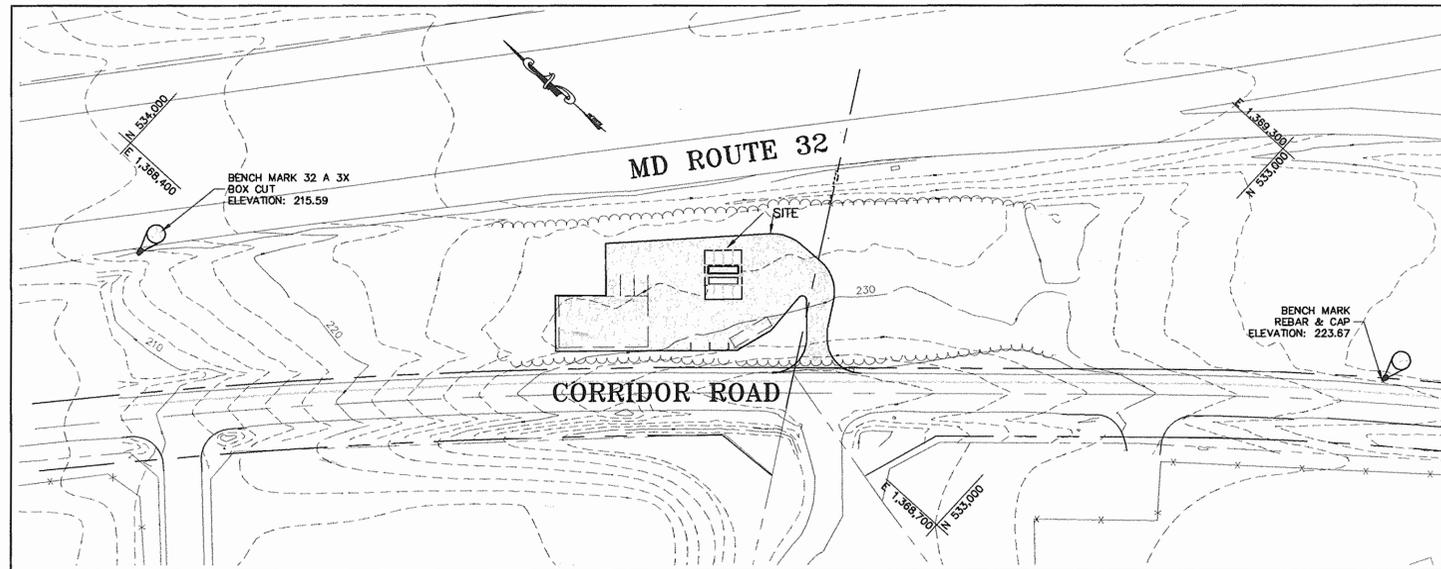
CONTRACT NO. 24-4369
ELECTION DISTRICT NO. 6

CAPITAL PROJECT NO. W-8600
HOWARD COUNTY, MARYLAND

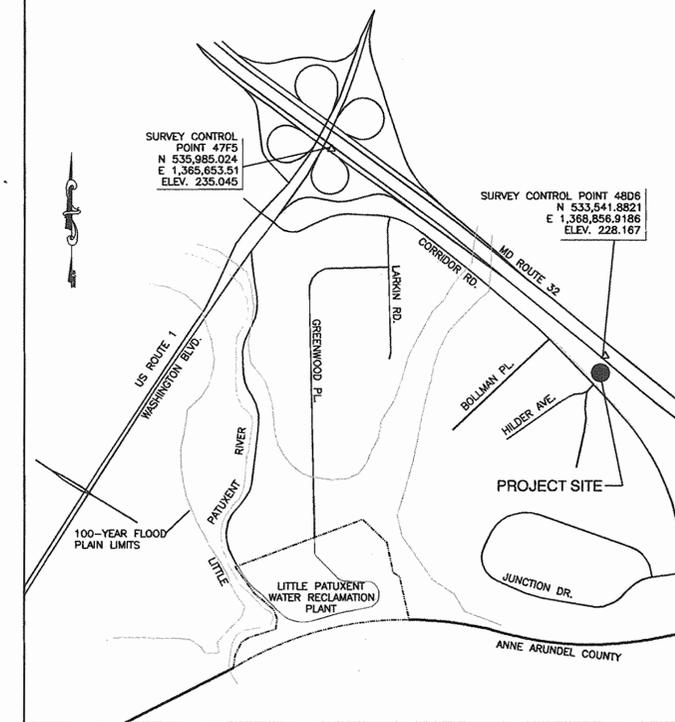
SCALE: NOTED

SHEET 2 OF 10

50906-142



BENCH MARK LOCATION PLAN
SCALE 1"=100'



VICINITY MAP
SCALE: 1"=1000'

INDEX OF SHEETS

1. COVER SHEET
2. LAYOUT PLAN AND UTILITIES
3. FUEL STATION AND DETAILS
4. GRADING PLAN
5. LANDSCAPE PLAN
6. STORMWATER MANAGEMENT PLAN AND DETAILS
7. MISCELLANEOUS SITE DETAILS
8. SEDIMENT CONTROL PLAN
9. EROSION AND SEDIMENT CONTROL DETAILS
10. EROSION AND SEDIMENT CONTROL NOTES

HOWARD COUNTY CORRIDOR ROAD FUEL AND SALT STORAGE FACILITY

OWNER:
Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202
Tel. (410) 764-4000

DEVELOPER:
HOWARD COUNTY GOVERNMENT
CENTRAL SERVICES ADMINISTRATION
3430 Courthouse Dr.
Ellicott City, MD 21043
Tel. (410) 313-2044

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 4/12/07
Chief, Development Engineering Division Date

[Signature] 4/12/07
Chief, Division of Land Development Date

[Signature] 4/12/07
Director Date



[Signature] 1/31/07
Richard H. Berish Date

Reviewed for HOWARD COUNTY Soil Conservation District and meets Technical Requirements.

[Signature] 1/31/07
USDA-Natural Resources Conservation Service Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 1/31/07
Howard Soil Conservation District Date

SITE ANALYSIS DATA CHART

Total Project Area:	79,242 sf (1.82 acres)
Area of plan submission	79,242 sf (1.82 acres)
Limit of Disturbed Area	79,242 sf (1.82 acres)
Present Zoning Designation	M-2
Proposed use	Two Above Ground Fuel Storage Tanks, Storm Water Management Facility and Landscaping with a Future Salt Storage Facility and Office trailer - Future
Floor space	Salt Barn & Trailer are Future Dev.
Total Number of Units Allowed	N.A.
Total Number of Units Proposed	N.A.
Maximum number of employees	N.A.
Number of Parking Spaces required	N.A.
Number of Parking Spaces Provided	2
Open area on site	N.A.
Area of recreation	N.A.
Building Coverage	INCLUDED
DPZ file references	N.A.
Soil Type	Cs Comus silt loam

GENERAL NOTES

1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
2. The contractor shall notify the Department of Public Work/ Bureau of Engineering / Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
3. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to an excavation work being done.
4. Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
5. All plan dimensions are to face of curb unless otherwise noted.
6. The existing topography is taken from field run survey with one foot contour intervals prepared by Dewberry dated February 2006.
7. The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 47F5 and 48D6 were used for this project.
8. Water and sewer is public.
9. Stormwater management for this facility is provided on site. Grass channel and Pocked Pond, County owned and maintained.
10. The existing utilities are based on county records, test pits and utility provided plans.
11. The project lies outside the 100-year floodplain per FEMA Map 240044-0043B.
12. There are no wetlands within the limits of this project.
13. There was no traffic study prepared for this project.
14. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. Street trees, perimeter and storm water management landscaping shall be provided as shown on this site development plan. No surety is required since this is a government use.
15. This property is located within the Maryland State Highway Administration right-of-way for MD Route 32. Since this property is located within the right-of-way it is exempt from required setbacks of the M-2 Zoning district.
16. This project is exempt from the requirements of the Forest Conservation in accordance with Appendix O of the Howard County Forest Conservation Manual as follows:

This Howard County Capital Improvement Project will not cut, clear or grade more than 40,000 square feet of forest and not result in the cutting, clearing, or grading of any forest that is subject to the requirements of a previous forest conservation plan prepared under Subtitle 19.

17. The pond does not have to meet MD 378 standards
18. Setbacks do not apply since this entire site is within the state highway for rte 32

PERMIT INFORMATION CHART

Subdivision Name	MD ROUTE 32 (RIGHT-OF-WAY)	Section Area	N.A.	Lot/Parcel No.	182
Plat # or L/F	944/678	Grid #	13	Zoning	M-2
Water Code	N.A.	Tax Map No.	48	Elect Distr	6
		Sewer Code	N.A.	Census Tract	6069.02

ADDRESS CHART

Lot/Parcel #	182	Street Address	
TAX MAP 48		8821 Corridor Road, Savage MD	

COVER SHEET

OWNER:
Maryland State Highway Administration
707 Calvert Street
Baltimore, MD 21202

**HOWARD COUNTY
CORRIDOR ROAD
FUEL AND SALT STORAGE
FACILITY**

DEED: 1974/523
TAX MAP: 48
GRID: 13
PARCEL: 182

SCALE: NOTED

CONTRACT NO. 24-4369
ELECTION DISTRICT NO. 6

CAPITAL PROJECT NO. W-8600
HOWARD COUNTY, MARYLAND

SHEET 1 OF 10

Dewberry
Dewberry & Davis LLC
3120 LORD BALTIMORE DRIVE
SUITE 211
BALTIMORE, MD 21244-2662
PHONE: 410.285.9500
FAX: 410.285.8875

DES:	RHB				
DRN:	CTM				
CHK:	RHB				
DATE:	11/03/06	BY	WPM	NO.	Change 'Future Salt...' to 'Salt...'
					11-9-07
					REVISIONS
					DATE