

GENERAL NOTES

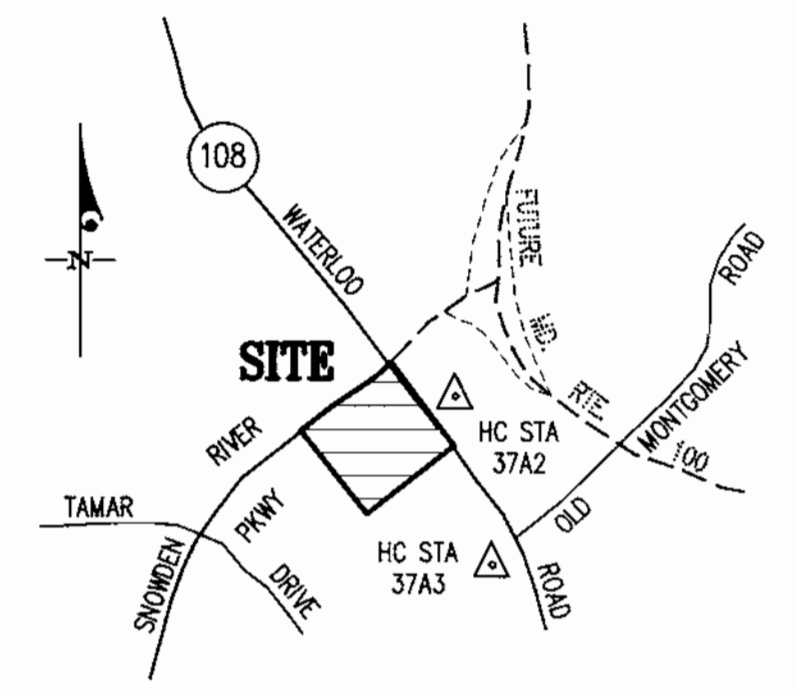
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standard and specifications if applicable.
- The contractor shall notify the Department of Public Works at (410) 313-1880 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
- The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 313-4900 at least five working days prior to starting any excavation work.
- Area of Parcel: 13.1382 Ac. Disturbed Area: 2.2 Ac.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- All plan dimensions are to face of curb unless otherwise noted.
- Existing topography is based on field run information performed by Gutschick, Little & Weber, P.A. in January, 1999.
- Coordinates and bearings are based upon the MD State Plane System (NAD '83).
- Water and sewer shown is public.
- All existing water and sewer is shown per Contract No. 24-3659-D and
- Stormwater management quantity and quality control is being provided by a regional facility approved under F-98-101.
- All existing public storm drain is per F-98-101
- All curb radii is 5' unless noted otherwise.
- Utility information taken from approved final construction plans for development, F-98-101.
- For all storm drain connections at existing stubs, the contractor shall remove the existing blocking and maintain the same grade and alignment.
- Use trench bedding class "C" for storm drains.
- Paved areas indicated are private except as noted.
- Project background: See Dept. of Planning & Zoning File Numbers: SP-98-05, FDP-229, PB-315, WF-97-107, WF-98-34 & F-98-101.
- Recording reference: Plat No. 13398 and 13399.
- All proposed ramps shall be in accordance with current A.D.A. standards. Maximum sidewalk cross slope shall be two percent. Provide a five-foot by five-foot level (2 percent max.) landing at the top and bottom of all ramps and building entrances and exits.
- A traffic study, sight distance analysis and A.P.F.O. analysis, which included this Parcel, were performed under F-98-101.
- There is no floodplain on this site.
- There are no wetlands on this site.
- Horizontal and vertical control are based on Howard County Control Sta. Nos. 37A2 & 37A3.
- The purpose of this plan is for construction of the private road only, therefore, lighting and landscaping for individual parcels will be provided for at Site Development Plan stage for each parcel.

SITE DEVELOPMENT PLAN

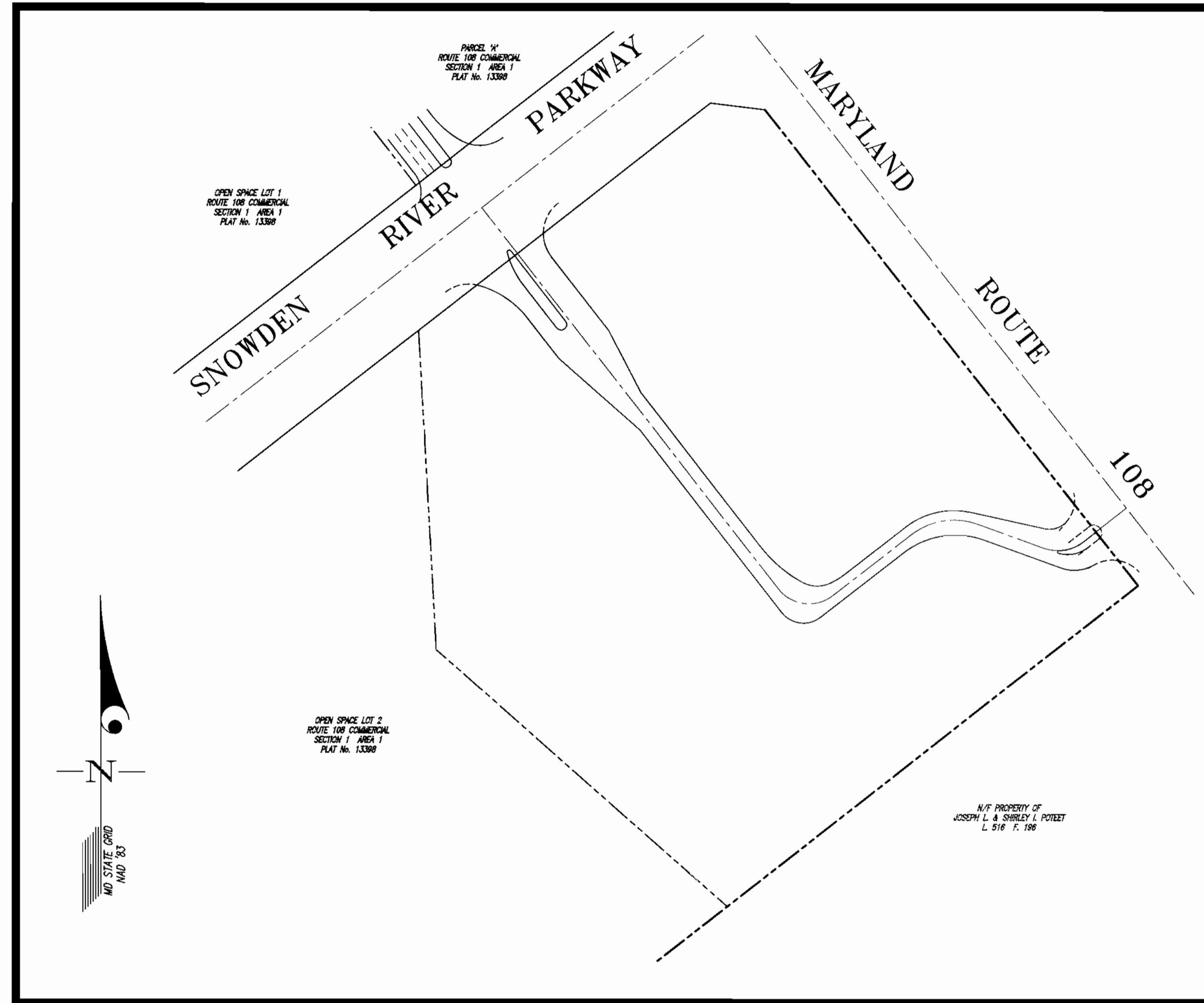
ROUTE 108 COMMERCIAL

SECTION 1 AREA 1

PARCEL 'B'



VICINITY MAP
SCALE: 1"=2000'



BENCHMARK DESCRIPTIONS

- STATION 37A2 (CONCRETE MONUMENT)**
N. 562120.86 E. 1369300.25
ELEV.: 403.02
STATION IS LOCATED 40'± NORTHEAST OF MARYLAND ROUTE 108, 1100'± NORTHWEST OF OLD MONTGOMERY ROAD.
- STATION 37A3 (CONCRETE MONUMENT)**
N. 561130.82 E. 1369913.27
ELEV.: 384.94
STATION IS LOCATED SOUTHWEST OF THE INTERSECTION OF MARYLAND ROUTE 108 AND OLD MONTGOMERY ROAD.

SITE ANALYSIS

- Area of site: 572,302 sq. ft. or 13.1382 ac.
- Disturbed Area: 2.2 Ac.
- Present Zoning: New Town (Employment Center Commercial) FDP Phase 229.
- Future Uses: Commercial/Restaurant/Office/Hotel

Explanation of WF 97-107 and WF 98-34

WF-97-107: On April 8, 1997, WF-97-107, waiver of section 10.145(A)(2) was approved permitting mass grading without FDP approval on February 11, 1998, amended WF-97-107, waiver of section 10.147(d) was approved permitting installation of a temporary diversion pipe prior to approval of final road drawings.

WF-98-34: On January 26, 1998, WF-98-34, waiver of sections 10.110(a)(1) & (2)(1) were approved permitting grading and/or removal of vegetative cover within the 25' wetland buffer and 50' stream buffer for the purpose of road construction and section 10.117(f)(1) & (2) allowing access onto Snowden River Parkway and Maryland Route 108.

KEY MAP

SCALE: 1"=100'

Sheet Index

- Cover Sheet
- Grading/Drainage Area Map
- Road Grades/Storm Drain Profiles
- Sediment Control Plan
- Sediment Control Notes & Details
- Road Details

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 1/31/00 Date
[Signature] 1/29/00 Date
 Chief, Division of Land Development
[Signature] 1/15/00 Date
 Chief, Development Engineering Division MK



Lot Number	Street Address
Parcel B	8201 Snowden River Parkway*
WATER CODE:	SEWER CODE: *(For grading purpose only)
SUBDIVISION NAME: ROUTE 108 COMMERCIAL SECTION/AREA 1/1 PARCEL 'B'	
PLAT 13398/13399	ZONE NEW TOWN TAX MAP 37 BLOCK 1 ELEC. DIST. 6 CENSUS TRACT 6806-02

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD. 21044
 PH: 410-992-8027
 ATTN: MR. AL EDWARDS

Cover Sheet
ROUTE 108 COMMERCIAL
 SECTION 1 AREA 1
PARCEL 'B'
 PLAT No. 13398

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	NT	97009
DATE	TAX MAP - GRID	SHEET
Jan. 5, 2000	37 - 1	1 OF 6

DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.

GUILFORD ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

M.A.H.A. R/W Plat Nos. 12453 and 12454
MARYLAND ROUTE 108
 WATERLOO ROAD Minor Arterial
 (Public 100' R/W)
 VARIABLE WIDTH PAVING

- Legend**
- Existing Contour
 - Proposed Contour
 - Std. 6" Conc. curb & gutter
 - Rev. 6" Conc. curb & gutter
 - Existing Curb & gutter
 - Existing Curb & gutter (to be removed)

Structure Number	Drainage Area	'c' Value
Stub 1	0.5	0.85 *
Stub 2	0.4	"
Stub 3	0.1	"
Stub 4	0.9	"
Stub 5	0.0	"
Stub 6	1.2	"
Stub 7	1.1	"
I-1	0.4	"
I-2	0.4	"
I-3	0.2	"
I-4	0.2	"
I-5	0.2	"
I-6	0.2	"

* A 'c' value of 0.85 was used for commercial land use on 'c' soil. 'c' soil was assumed based on the mass grading performed under F&B-101.

Top of Curb Elevation

Point #	Elevation	Point #	Elevation	Point #	Elevation
2	399.97	13	399.25	25	397.97
3	399.97	14	401.24	26	397.11
4	400.21	15	401.27	27	398.01
5	399.78	16	400.71	28	397.52
6	399.78	17	402.00	29	398.49
7	401.04	18	402.33	30	399.18
8	401.04	19	402.14	31	399.78
9	401.44	20	401.04	32	400.77
10	398.57	21	398.41	33	402.24
11	398.43	22	398.16	34	402.33
12	398.27	23	398.11	35	401.57
13	398.71	24	398.69	36	401.91

Ⓜ indicates point number in table

ROUTE 108 COMMERCIAL SECTION 1 AREA 2
 PARCEL 'A'
 PLAT No. 13398
 ZONED: NT

ROUTE 108 COMMERCIAL SECTION 1 AREA 2
 OPEN SPACE LOT 1
 PLAT No. 13398
 ZONED: NT

ROUTE 108 COMMERCIAL SECTION 1 AREA 2
 OPEN SPACE LOT 2
 PLAT No. 13398
 ZONED: NT

ROUTE 108 COMMERCIAL SECTION 1 AREA 2
 OPEN SPACE LOT 2
 PLAT No. 13398
 ZONED: NT

¢ CURVE DATA

P.C. STA.	P.T. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
6+24.00	7+02.54	50.00'	78.54'	50.00'	70.71'	S 82°53'24" E	90°00'00"
8+31.04	9+21.86	90.00'	90.82'	49.70'	87.02'	N 81°01'10" E	57°49'09"
10+11.19	10+66.91	55.00'	55.72'	30.52'	53.37'	N 80°54'19" E	58°02'50"

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 1/31/08
 Date

[Signature] 1/25/08
 Chief, Division of Land Development
 Date

[Signature] 1/21/08
 Chief, Development Engineering Division MK
 Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3009 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BAL: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD. 21044
 PH: 410-992-6027
 ATTN: MR. AL EDWARDS

SITE DEVELOPMENT PLAN
 ROUTE 108 COMMERCIAL SECTION 1 AREA 1
 PARCEL 'B'
 PLAT No. 13398

SCALE	ZONING	G. L. W. FILE No.
1"=40'	NT	97009
DATE	TAX MAP - GRID	SHEET
Jan. 5, 2008	37 - 1	2 OF 0

DATE	REVISION	BY	APPR.

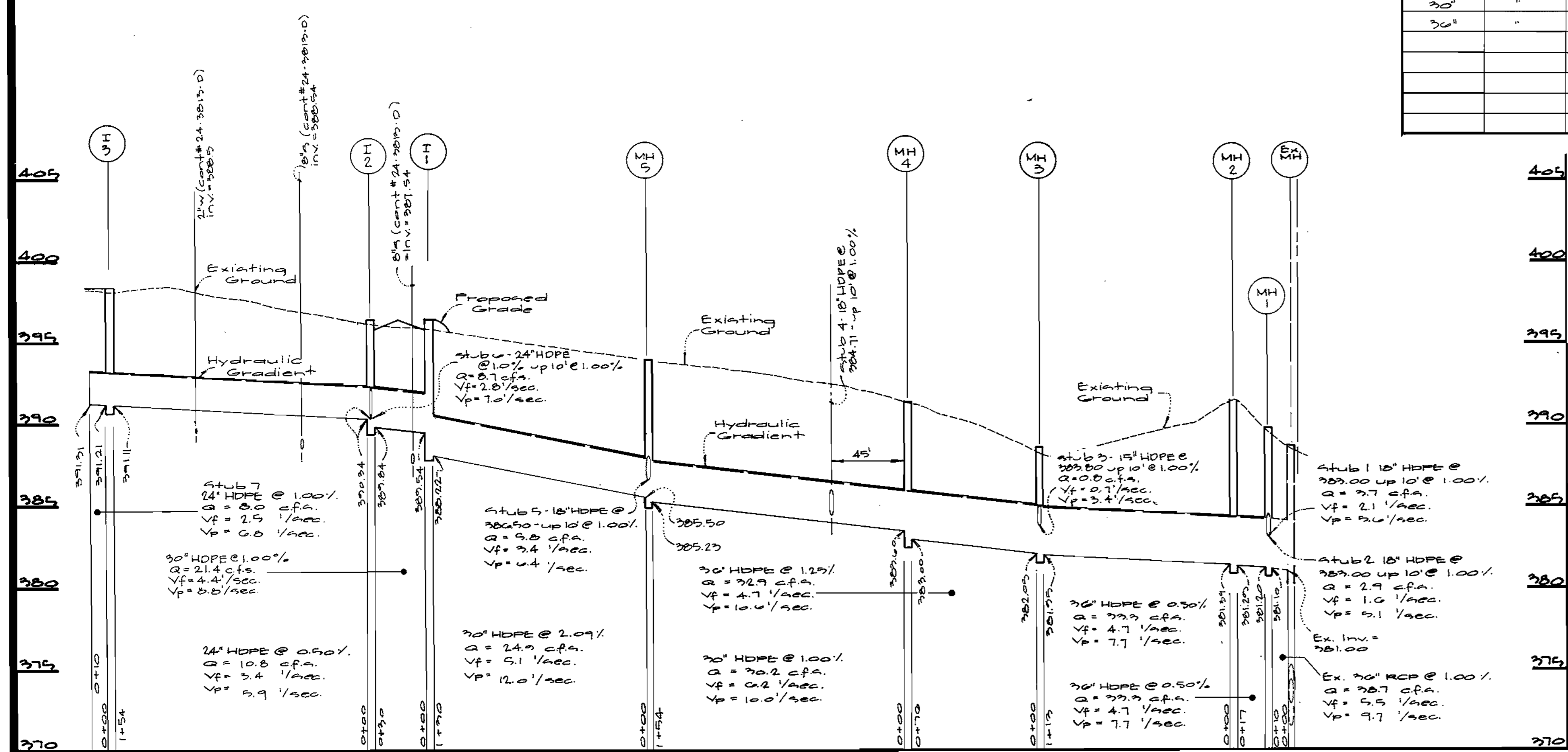
GUILFORD ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

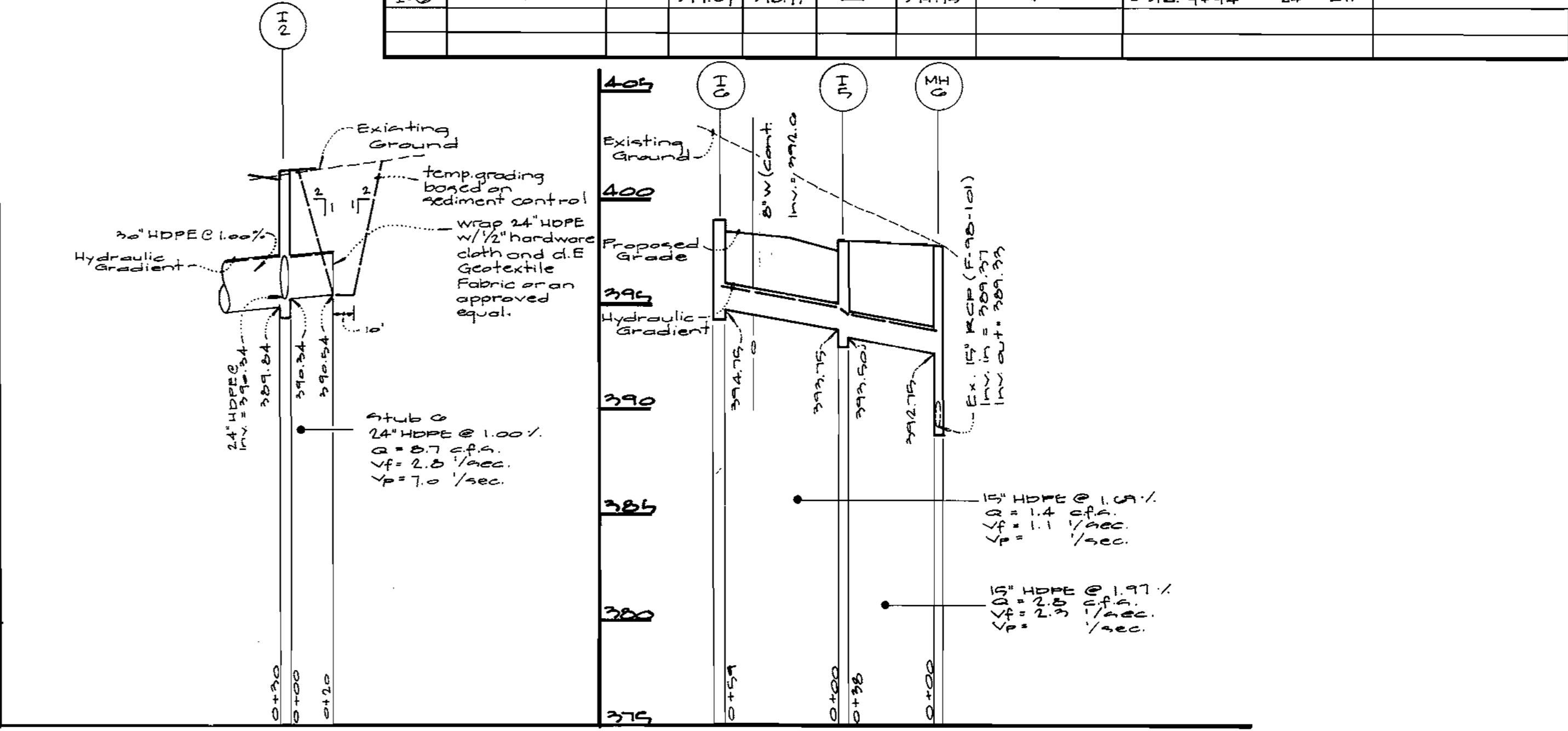
GDP 00-44

Size	Type	Quantity (L.F.)	Remarks
15"	HDPE	27'	
18"	"	40'	
24"	"	184'	
30"	"	314'	
36"	"	200'	

No.	Type	Width (Inches)	Top Elevation		Bottom Elevation		Std. Detail	Locations	Remarks
			Upper	Lower	Upper	Lower			
I-1	CO9-15	5'-0"	399.84	—	399.84	399.22	SHA 374.03	Sta. 3+05	15' Rt.
I-2	"	"	399.84	—	399.84	399.24	"	Sta. 3+05	15' Lt.
I-3	CO9-15	4'-0"	398.50	398.20	398.21	398.11	SHA 374.02	Sta. 5+20	15' Lt.
MH 1	Std. Manhole	5'-0"	397.70	—	393.00	391.10	G. S. 01	Sta. 5+51	36' Rt.
MH 2	"	"	391.30	—	391.37	391.27	"	Sta. 5+47	33' Rt.
MH 3	"	"	398.40	—	393.00	391.75	"	Sta. 4+32	30' Rt.
MH 4	"	"	391.20	—	393.00	393.00	"	Sta. 3+61	31' Rt.
MH 5	"	4'-0"	393.20	—	396.00	395.20	"	Sta. 3+61	15' Rt.
MH 6	"	"	397.00	—	392.70	397.33	"	Sta. 10+53	42' Rt.
I-5	A-10	3'-0"	396.07	396.03	393.70	393.50	S.D. 4.41	Sta. 10+20	31' Rt.
I-6	"	"	399.07	398.77	—	394.75	"	Sta. 9+94	24' Lt.



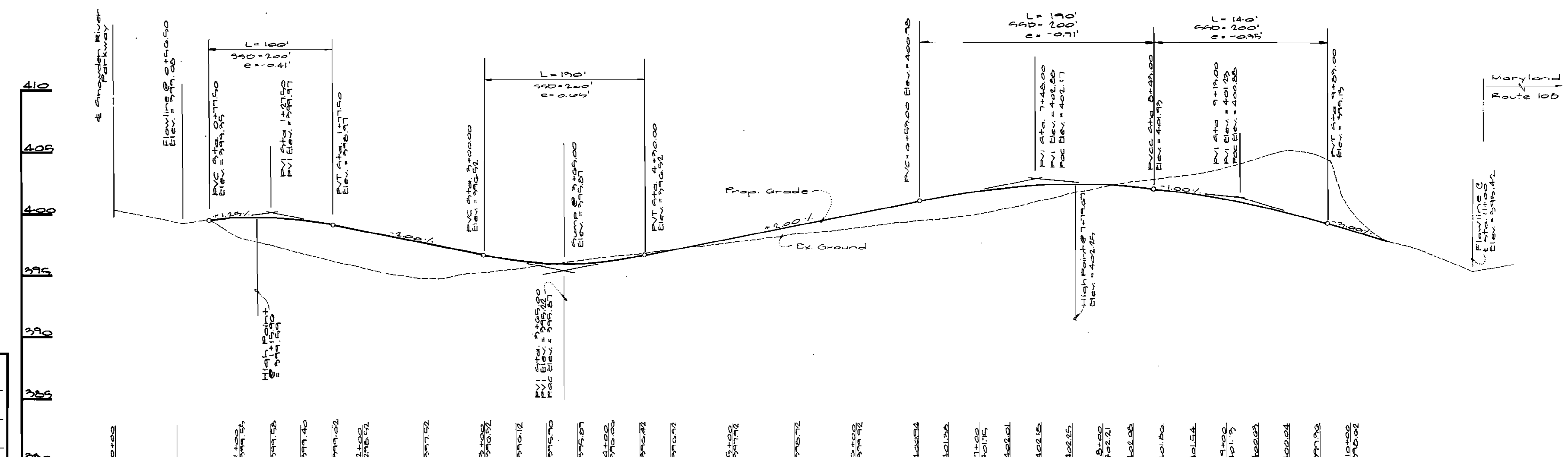
*High Density Polyethylene Pipe (See Howard County Standards & Specifications)



Private Road

Profiles

Scale: Horizontal: 1"=50'
Vertical: 1"=5'



Approved: Howard County Department of Planning & Zoning
 Director: [Signature] Date: 1/31/00
 Chief, Division of Land Development: [Signature] Date: 1/27/00
 Chief, Development Engineering Division: [Signature] Date: 1/26/00

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD. 20866
 TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP.

PREPARED FOR:
 The Howard Research & Development Corporation
 The Kourne Building
 10275 Little Patuxent Parkway
 Columbia, Maryland 21044
 (410) 992-0370

Road Grades / Storm Drain Profiles
Route 108 Commercial
 Section 1 Area 1
 Parcel "B"
 Guilford Election District No. 9
 Howard County, Maryland

DES. DEV.	SCALE	ZONING	G.L.W. FILE No.
As Shown	1"=5'	UT	97009
DRN. F.M.M.	DATE	TAX MAP No.	SHEET
CHK.	Jan. 5, 2000	37-1	3 of 6

MARYLAND ROUTE 108

WATERLOO ROAD
 (100' R/W)
 VARIABLE WIDTH PAVING

E 1,388,800
 N 562,800



Engineer's Certificate
 I certify that this plan for erosion & sediment control represents a practical & workable plan based on my personal knowledge of the site conditions & that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

ROUTE 108 COMMERCIAL
 SECTION 1 AREA 2
 PARCEL 'A'
 PLAT No. 13398
 ZONED: NT

C. G. Williams 10-5-99

Developer's/Builder's Certificate
 I/we certify that all development & construction will be done according to this plan, & that any responsible personnel involved in the construction project will have a certificate of Attendance of a Maryland Department of the Environment Approved Training Program for the Control of Sediment & Erosion before beginning the project. I/also authorize periodic, on-site inspection by the HSCD.

Joseph L. Poteet 10-5-99
 Signature of Developer/Builder Date

These plans have been reviewed for the Howard Soil Conservation District & meet the technical requirements.

Joseph L. Poteet 11/10/00
 Natural Resources Conservation Service Date

This Development Plan is approved for Soil Erosion & Sediment Control by the Howard Soil Conservation District.

John Robertson 11/14/00
 Howard S.C.D. Date

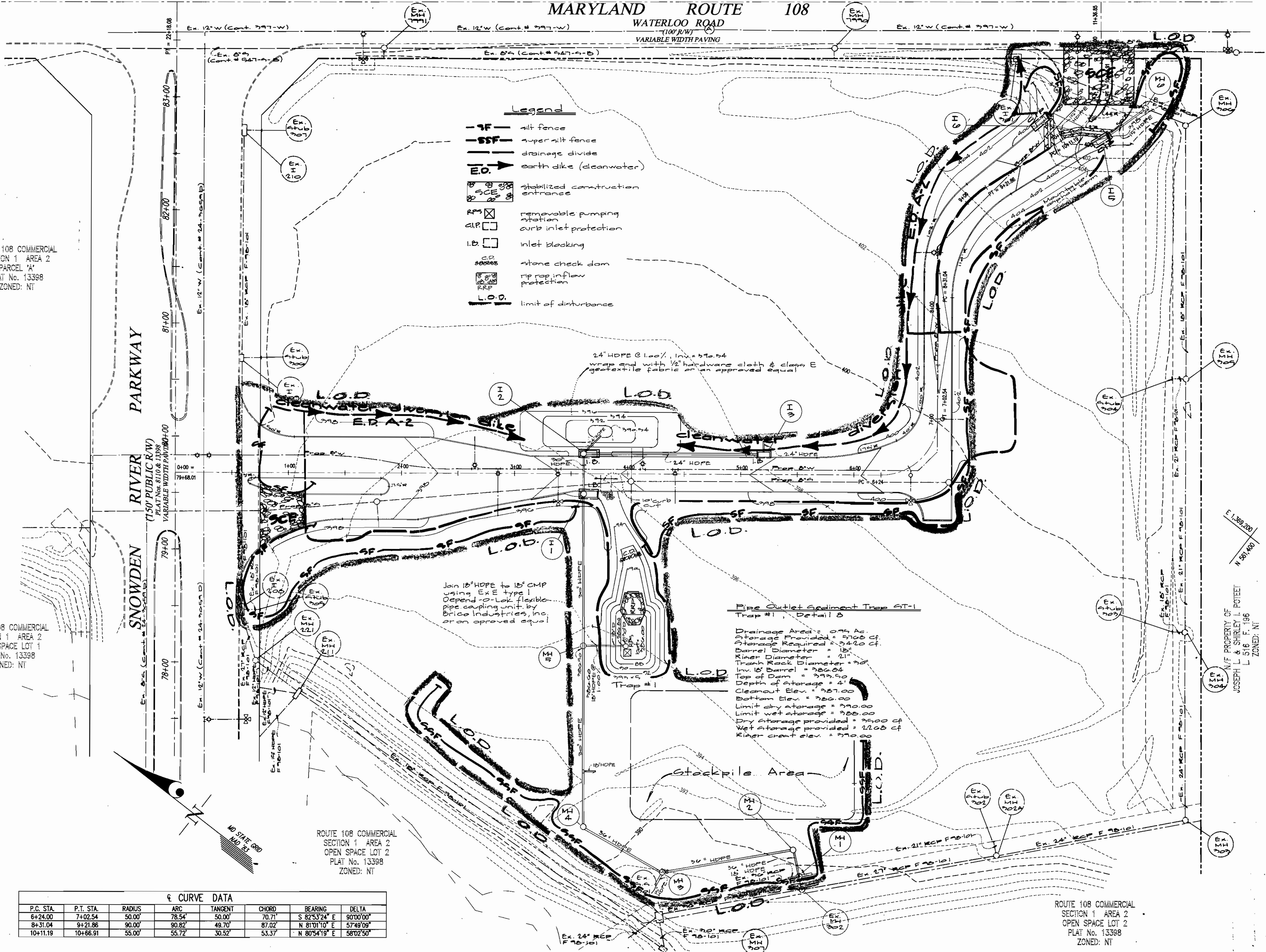
ROUTE 108 COMMERCIAL
 SECTION 1 AREA 2
 OPEN SPACE LOT 1
 PLAT No. 13398
 ZONED: NT

E 1,388,800
 N 562,800

RIVER PARKWAY
 SNOWDEN RIVER
 (150' PUBLIC R/W)
 PLAT Nos. 8110 & 13398
 VARIABLE WIDTH PAVING 70'-0" R/W

ROUTE 108 COMMERCIAL
 SECTION 1 AREA 2
 OPEN SPACE LOT 2
 PLAT No. 13398
 ZONED: NT

- Legend**
- SF- silt fence
 - SSF- super silt fence
 - > drainage divide
 - > earth dike (cleanwater)
 - [Symbol] stabilized construction entrance
 - [Symbol] removable pumping station
 - [Symbol] curb inlet protection
 - [Symbol] inlet blocking
 - [Symbol] stone check dam
 - [Symbol] rip rap inflow protection
 - LOD- limit of disturbance



Join 18" HOPE to 18" CMP using Ex E type I depend-on-Low flexible pipe coupling unit by Brice Industries, Inc. or an approved equal

Pipe Outlet Sediment Trap ST-1
 Trap #1, Detail B

Drainage Area = 0.75 Ac.
 Storage Provided = 5700 cf.
 Storage Required = 2340 cf.
 Barrel Diameter = 18"
 Riser Diameter = 21"
 Trash Rack Diameter = 20"
 Inv. 18" Barrel = 320.04
 Top of Dam = 319.00
 Depth of Storage = 4'
 Cleanout Elev. = 307.00
 Bottom Elev. = 300.00
 Limit dry storage = 390.00
 Limit wet storage = 300.00
 Dry storage provided = 3900 cf.
 Wet storage provided = 2200 cf.
 Riser crest elev. = 319.00

¢ CURVE DATA

P.C. STA.	P.T. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
6+24.00	7+02.54	50.00'	78.54'	50.00'	70.71'	S 82°53'24" E	90°00'00"
8+31.04	9+21.86	90.00'	90.82'	49.70'	87.02'	N 81°01'10" E	57°49'09"
10+11.19	10+66.91	55.00'	55.72'	30.52'	53.37'	N 80°54'19" E	58°02'50"

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Joseph L. Poteet 11/31/00
 Director Date

Cindy Hamilton 11/30/00
 Chief, Division of Land Development Date

MK 11/21/00
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
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 TEL: 301-421-4024 BALT: 410-800-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATENT PARKWAY
 COLUMBIA, MD. 21044
 PH: 410-992-5027
 ATTN: MR. AL EDWARDS

Grading / Sediment Control
 ROUTE 108 COMMERCIAL
 SECTION 1 AREA 1
 PARCEL 'B'
 PLAT No. 13398

SCALE	ZONING	G. L. W. FILE No.
1"=40'	NT	97009
DATE	TAX MAP - GRID	SHEET
Jan. 5, 2000	37 - 1	4 OF 6

E 1,388,800
 N 562,800

PROPERTY OF
 JOSEPH L. & SHIRLEY L. POTEET
 L 516 F 196
 ZONED: NT

SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 - 7 calendar days for all perimeter sediment control structures, dikes and 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 warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seedings and mulching (Sec. C). Temporary stabilization, with mulch alone, can only be done when recommended seedings 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	150.14	Acres
Area Disturbed	2.07	Acres
Area to be roofed or paved	1.0	Acres
Area to be vegetatively stabilized	1.07	Acres
Total Cut	0.140	Cu. Yds.
Total Fill	0.140	Cu. Yds.

 Off-site waste/borrow area location:
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County DPW 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 3 pipe lengths or that which shall be backfilled and stabilized within 1 working day, whichever is shorter.

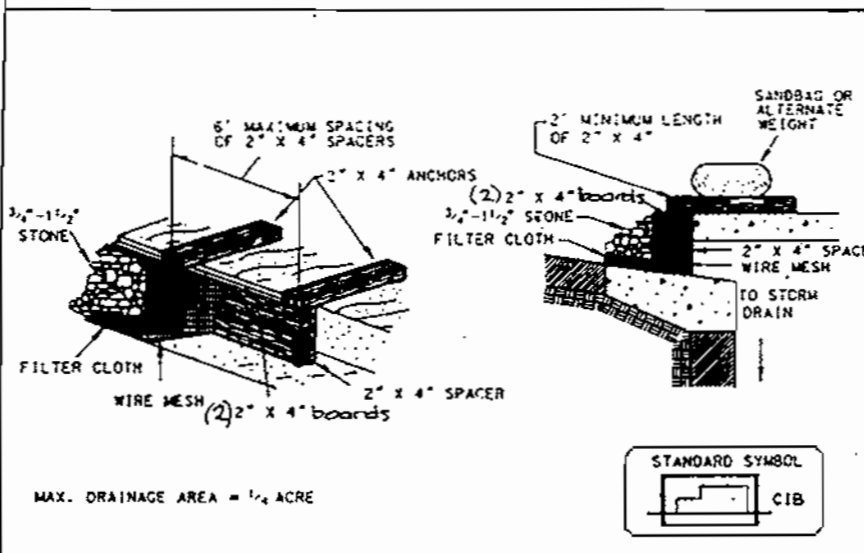
PERMANENT SEEDING NOTES

- Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).
- Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:
- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
 - Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.
- Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 2-1/2 bushel per acre (14 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 15 thru February 28, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.
- Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unwetted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.
- Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseeding.

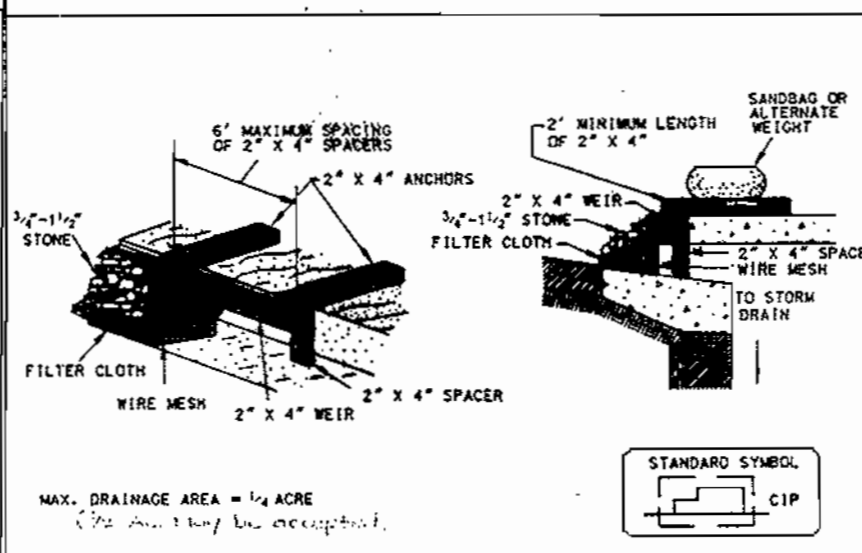
TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
- Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).
- Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).
- Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs./1000 sq ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.
- Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unwetted, weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.
- Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

DETAIL 23C - CURB INLET BLOCKING (COG OR COS INLETS)



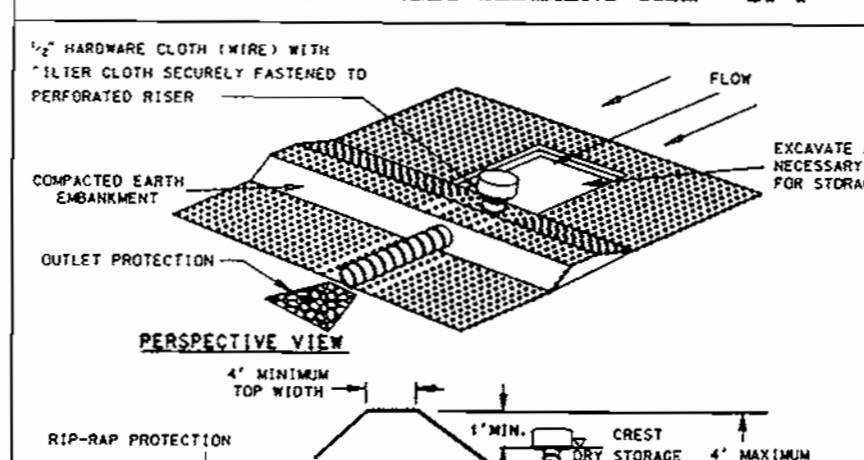
DETAIL 23C - CURB INLET PROTECTION (COG OR COS INLETS)



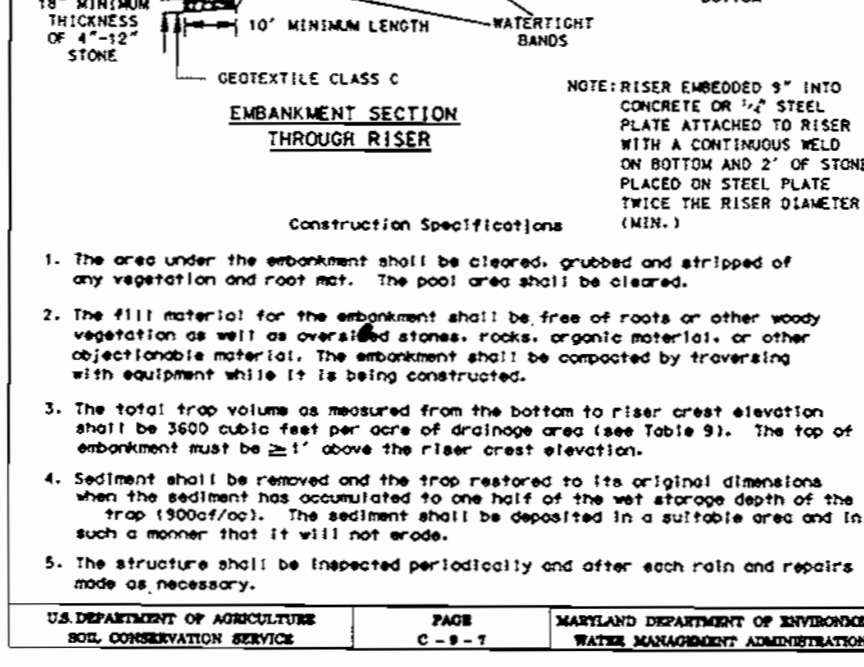
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE	MARYLAND DEPARTMENT OF ENVIRONMENT & WATER MANAGEMENT ADMINISTRATION
	E-18-1B	

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE	MARYLAND DEPARTMENT OF ENVIRONMENT & WATER MANAGEMENT ADMINISTRATION
	E-18-1B	

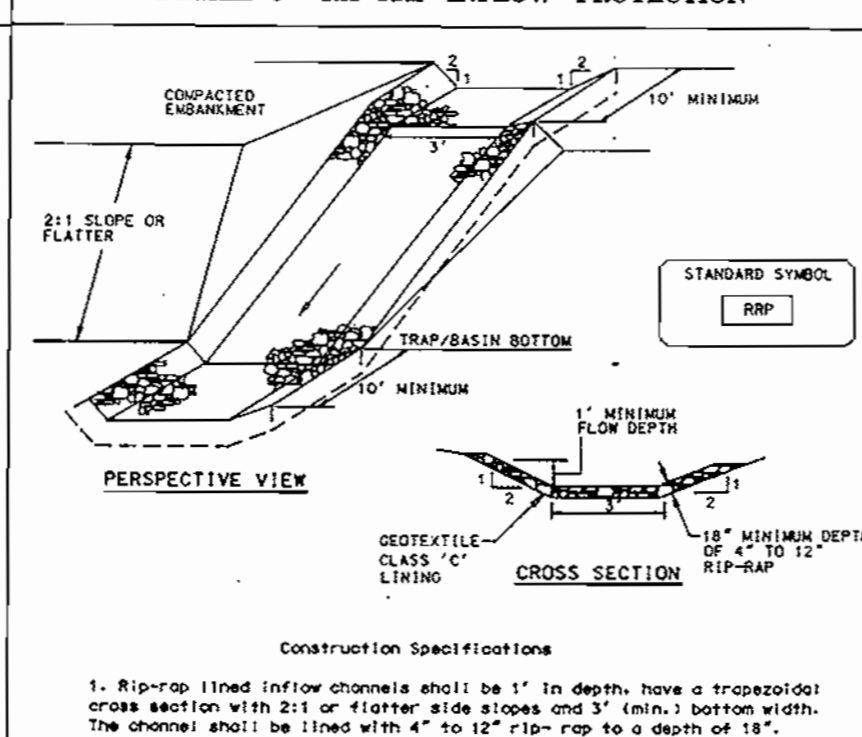
DETAIL 8 - PIPE OUTLET SEDIMENT TRAP - ST I



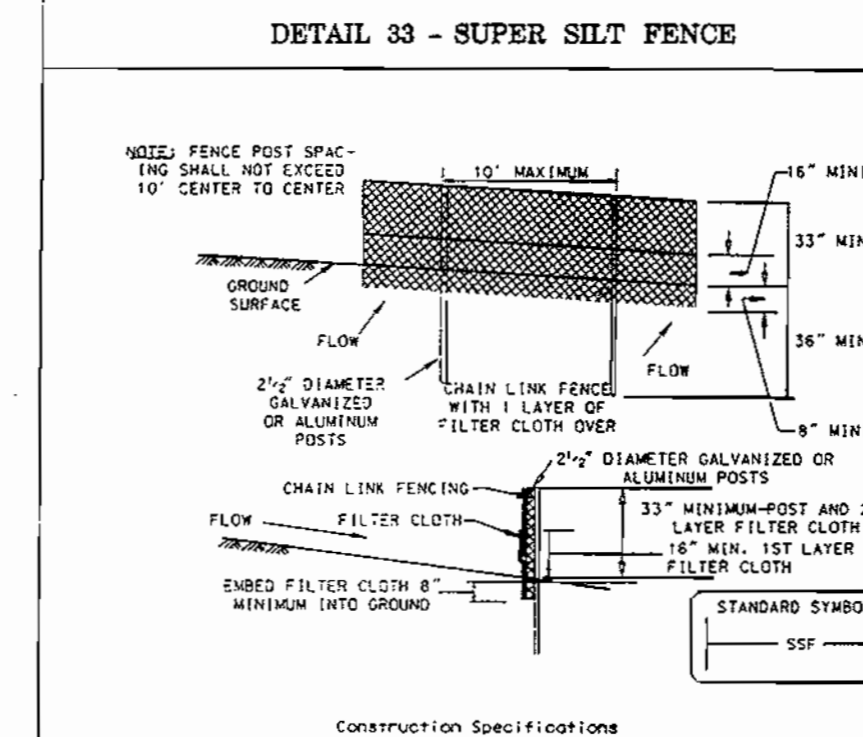
DETAIL 5 - RIP-RAP INFLOW PROTECTION



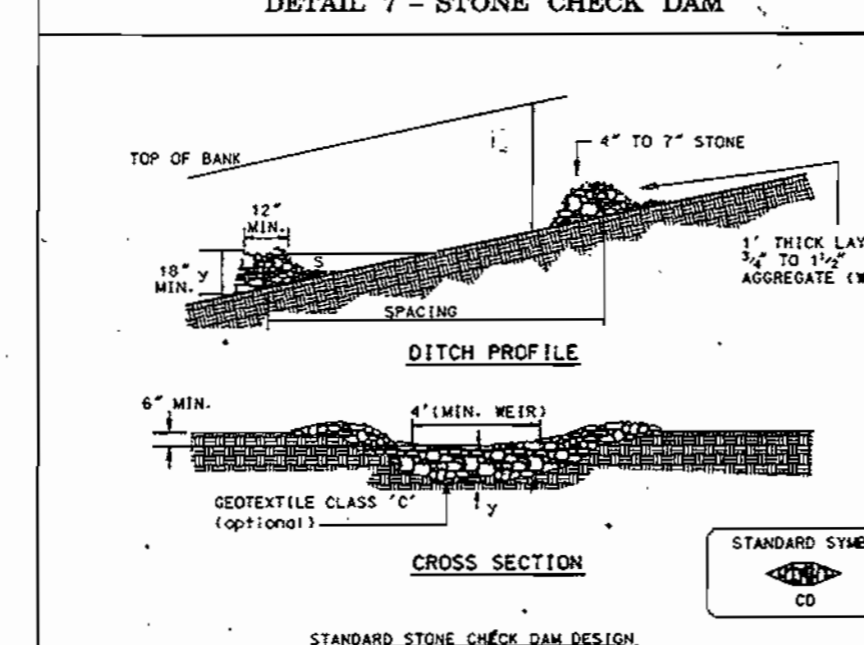
DETAIL 33 - SUPER SILT FENCE



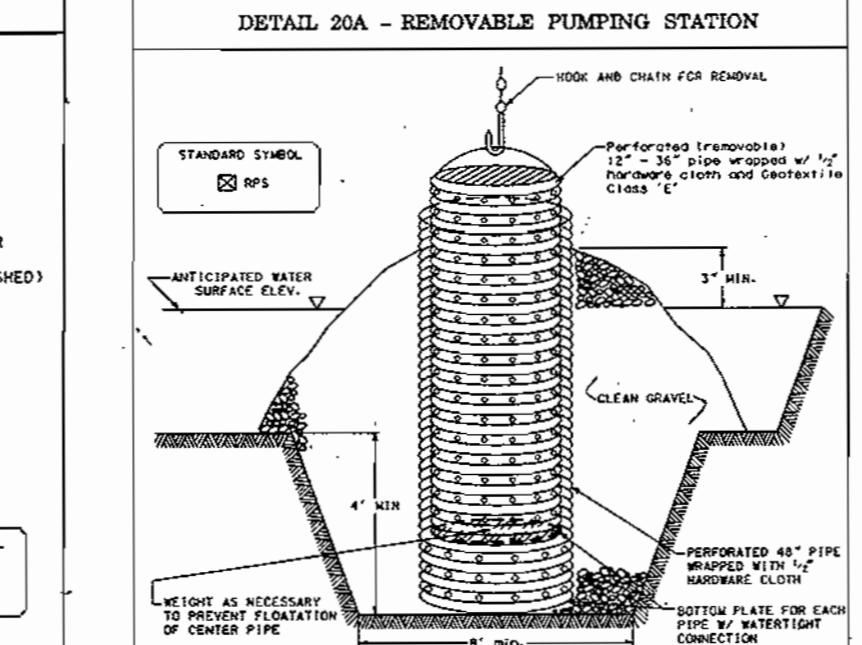
DETAIL 22 - SILT FENCE



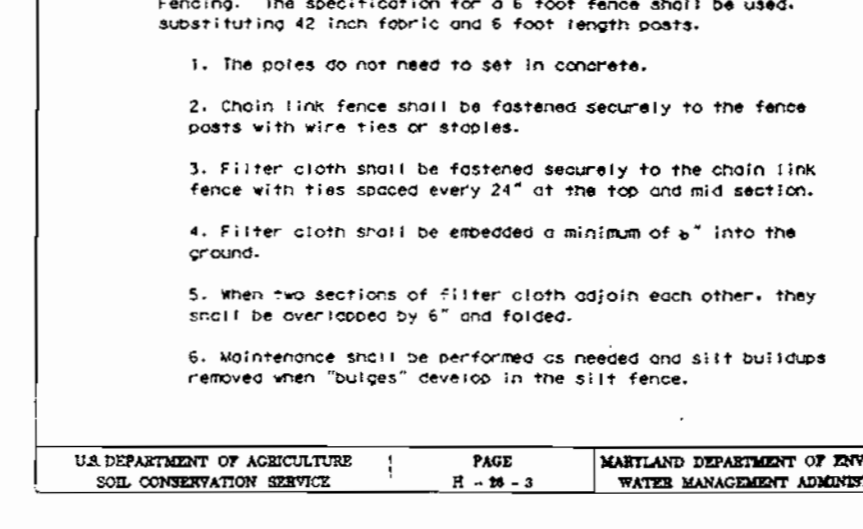
DETAIL 7 - STONE CHECK DAM



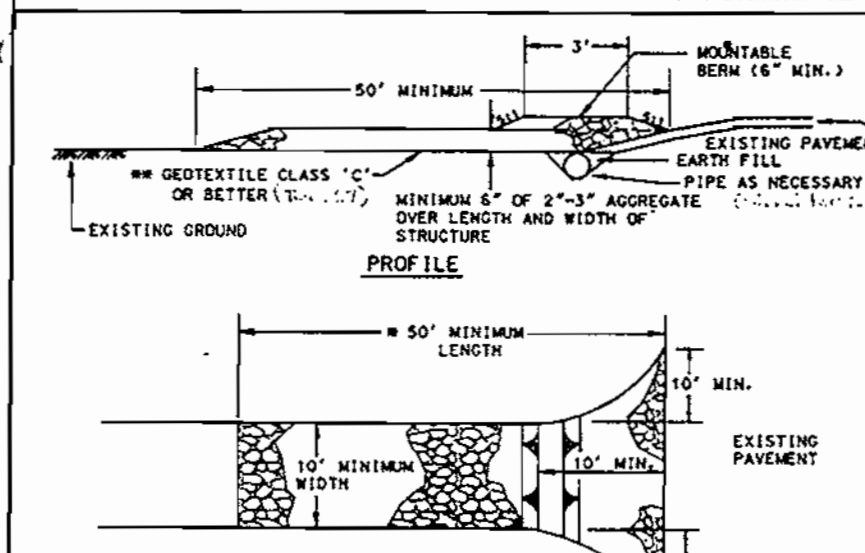
DETAIL 20A - REMOVABLE PUMPING STATION



DETAIL 1 - EARTH DIKE



DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE	MARYLAND DEPARTMENT OF ENVIRONMENT & WATER MANAGEMENT ADMINISTRATION
	A-1-4	

TOPSOIL

- Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.
- Details:
- To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, excessive salts, and/or excessive compaction.
- Construction When Practice Applies:
- The practice is limited to areas having 2:1 or flatter slopes.
 - The texture of the exposed subsoil must not be such as to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or shrubs containing taproots and/or shallow root systems.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
 - For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization as shown on the plan.
- Construction and Material Specifications:
- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type will be found in the representative soil profile tables in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
 - Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silty loam, sandy clay loam, loamy sand. Other soils may be used if recommended by a qualified agronomist and approved by the appropriate approval authority. Regardles, topsoil shall not be a mixture of contrasting natural horizons and shall contain less than 5% by volume of clods, stones, lime, coarse fragments, gravel, sticks, snags, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as burdock grass, quackgrass, johnsongrass, nutgrass, poison ivy, dandelion, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be applied at the rate of 48 pounds/1000 square feet (1000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedure.
 - For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
 - For sites having disturbed areas under 5 acres:
 - On soil meeting Topsoil specifications, obtain test results detailing fertilizer and lime requirements required to meet the minimum nutrient and pH requirements for the site.
 - pH for topsoil shall be between 6.0 and 7.5. If soil test pH demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No seed or soil shall be placed on soil which has been treated with soil surfactants or chemicals used for weed control, unless sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
 - Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist approved by the appropriate approval authority, may be used in lieu of topsoil.
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
 - Topsoil Application:
 - When topsoiling, maintain needed erosion and sediment control practices such as diversion, Grade Stabilization Structures, Earth Dikes, Slope 2:1 Fence and Sediment Traps and Basins.
 - Grades on the area to be topsoiled, which have been previously established, shall be maintained, about 4" - 8" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seedling can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from spreading or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be placed within the topsoil or subsoil in a frozen or muddy condition, when the subsoil is extremely wet or in a condition that any disturbance is detrimental to proper germination and seedling propagation.
 - Alternative for Permanent Seeding - Instead of applying the full amount of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below.
 - Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to determine nutrient and lime requirements for the site.
 - Composted sludge shall be applied by a separate firm, a person or persons that are permitted on the time of application of the compost by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composted sludge shall contain at least 1 percent nitrogen, 1.3 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - Composted sludge shall be applied at a rate of 100,000 square feet.
 - Composted sludge shall be applied with a potassium fertilizer applied at the rate of 100,000 square feet, and 1/3 the normal lime application rate.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] Date: 11/31/00

[Signature] Date: 11/31/00

Chief, Division of Land Development Date: 12/10/00

Chief, Development Engineering Division MK Date:

DEVELOPER'S/BUILDER'S CERTIFICATE

"I certify that all development and/or 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 Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the HSCD.

[Signature] 10-6-99 Date

ENGINEER'S CERTIFICATE

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District.

Construction on 10-5-99 Date



These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

[Signature] 11/18/00 Date

Natural Resources Conservation Service

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

[Signature] 11/18/00 Date

Howard S.C.D. Date

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE - SUITE 250 - BURTONTVILLE OFFICE PARK

BURTONTVILLE, MARYLAND 20896

TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION

10275 LITTLE PATENT PARKWAY

COLUMBIA, MD. 21044

PH: 410-992-8027

ATTN: MR. A. EDWARDS

ROUTE 108 COMMERCIAL

SECTION 1 AREA 1

PARCEL 'B'

PLAT No. 13398

SCALE	ZONING	G. L. W. FILE No.
As Shown	NT	07009
DATE	TAX MAP - GRID	SHEET
Jan. 5, 2000	37-1	5 of 6

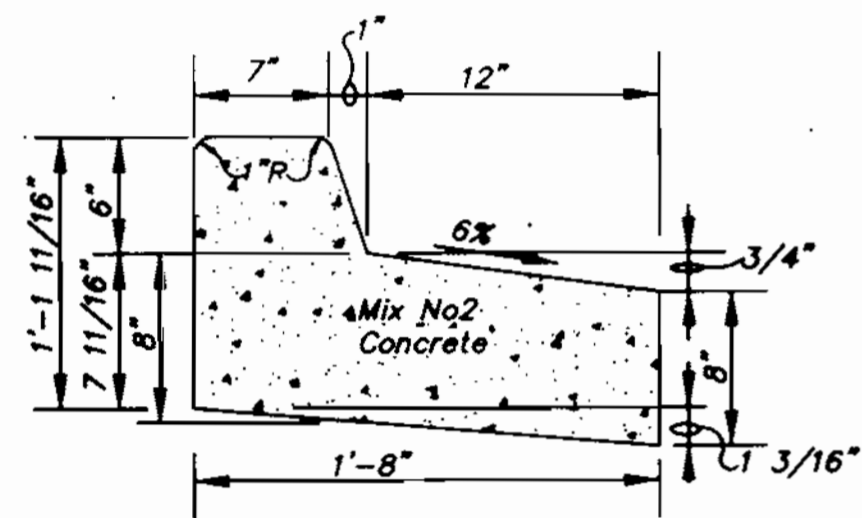
GDP 00-44

SEQUENCE OF CONSTRUCTION

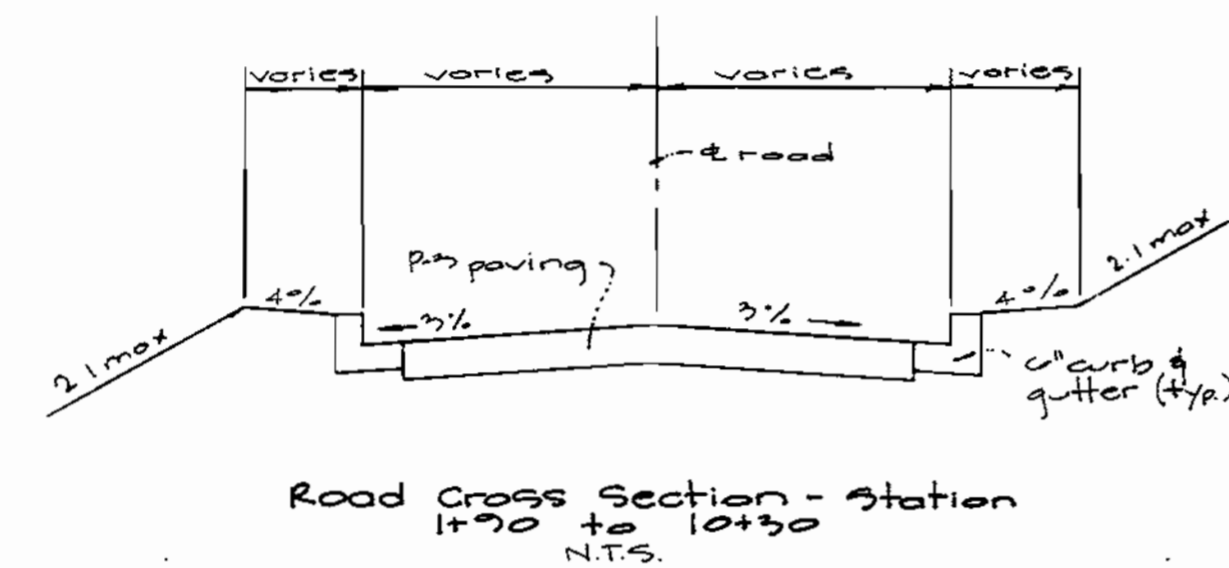
1. Arrange for an on-site pre-construction meeting and obtain grading permit. (1 day)
2. Install stabilized construction entrances on Md. Route 108 and Snowden River Parkway (1 day)
3. Install silt fence and super silt fence as shown on these plans, then begin construction of storm drains from MH1 to Stub 6. As storm drain construction nears MH5, construct Trap #1. (1 week)
4. After completion of initial storm drain run, install clean water diversion dikes to Stub 6. Block inlets I-1 and I-2. (2 days)
5. Construct remainder of storm drains. Block inlets I-3 and I-4 and install curb inlet protection for inlets I-5 and I-6. (1 week)
6. Rough grade road and provide positive drainage from sump at I-1/I-2 to Trap #1 (1 week)
7. Install utilities within road and begin construction of curb and gutter and base paving. Provide 10' curb cut at Station 3+80 (next to I-1). Stabilize areas no longer being disturbed with permanent grass, seed and mulch. (4 weeks)
8. When areas draining to sediment control devices have been stabilized and permission has been granted from the Sediment Control Inspector, flush storm drain system and backfill sediment trap to subgrade. (1 week)
9. Install surface paving. (1 week)
10. Remove any remaining sediment controls and stabilize as needed. (1 day)

Station	Type of Traffic	Zoning	Design Speed	Paving Section	Crown Section
0+04 to 10+00	Local	NT	25mph	P-3	—

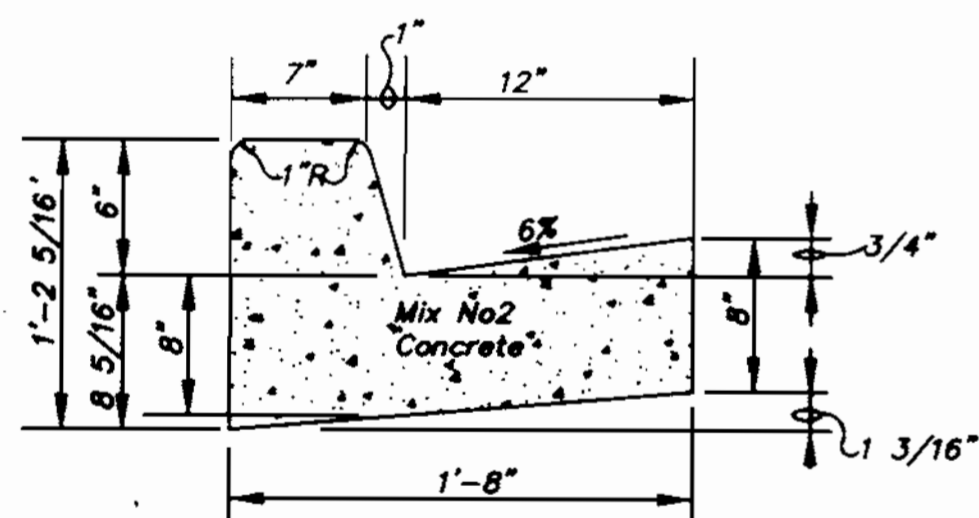
P-3	RESIDENTIAL ZONES MINOR AND MAJOR COLLECTORS COMMERCIAL-INDUSTRIAL ZONES LOCAL AND CUL-DE-SAC STREETS ALLEYS TRAVELWAYS	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 4 1/2" BIT. CONC. BASE 5" GRADED AGGREGATE BASE (GAB)
	APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH MORE THAN 10 HEAVY TRUCKS PER DAY		



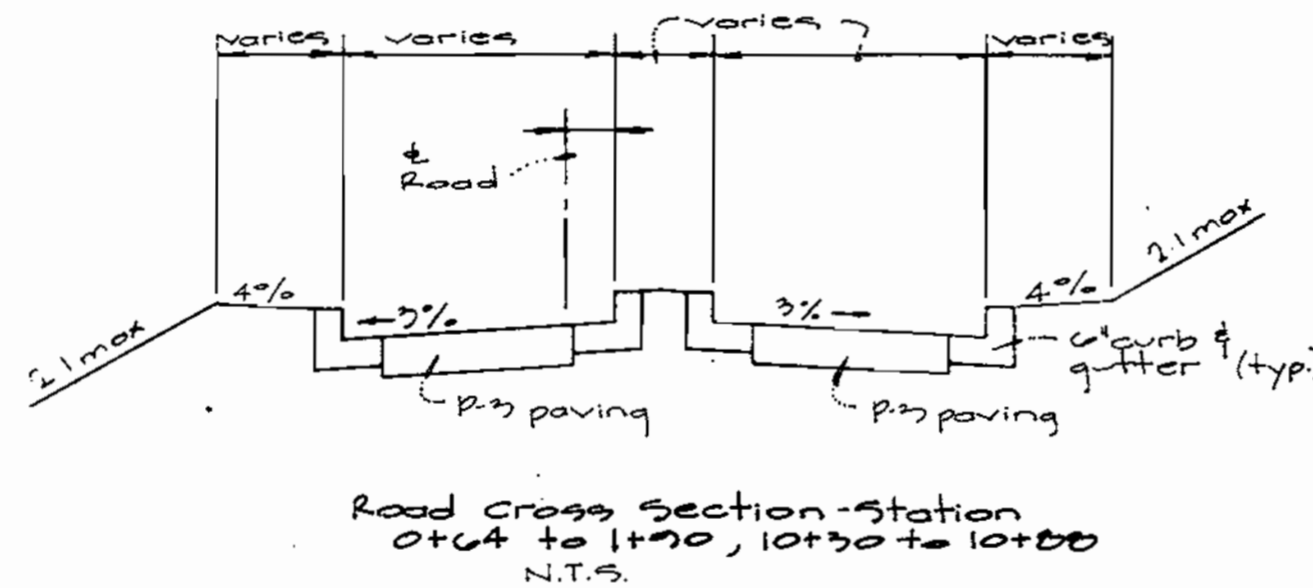
Reverse 6" Combination Curb & Gutter
N.T.S.



Road Cross Section - Station 1+90 to 10+50
N.T.S.



Standard 6" Combination Curb & Gutter
N.T.S.



Road Cross Section - Station 0+04 to 1+90, 10+50 to 10+00
N.T.S.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] Date: 11/3/00
 Chief, Division of Land Development: [Signature] Date: 1/28/01
 Chief, Development Engineering Division: [Signature] Date: 1/30/01

Engineer's Certificate
 I certify that this plan for erosion & sediment control represents a practical & workable plan based on my personal knowledge of the site conditions & that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

[Signature] Date: 10/6/99

Developer's/Engineer's Certificate
 I/we certify that all development &/or construction will be done according to this plan & that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment & Erosion before beginning the project. I also authorize periodic on-site inspection by the HSCD.

[Signature] Date: 10-5-99

~~These plans have been reviewed by the Howard Soil Conservation District & meet the technical requirements.~~

~~This Development Plan is approved for Soil Erosion & Sediment Control by the Howard Soil Conservation District.~~

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 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
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 TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
 The Howard Research & Development Corporation
 The Route Building
 10275 Little Patuxent Parkway
 Columbia, Maryland 21044
 (410) 792-0970

ROAD DETAILS
ROUTE 108 COMMERCIAL
 SECTION 1 AREA 1
 PARCEL 'B'
 PLAT No. 13396
 HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
DRN.:	N/A	NT	97009
CHK.:	DATE	TAX MAP No.	SHEET
	Jan. 5, 2000	27-1	6 of 6