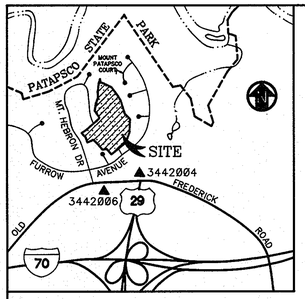
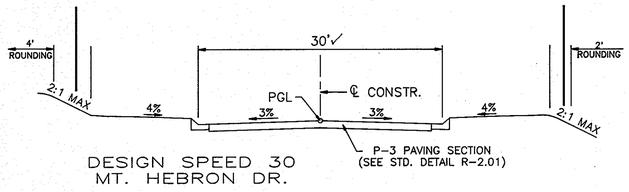
PATAPSCO PARK ESTATES

SECTION FOUR

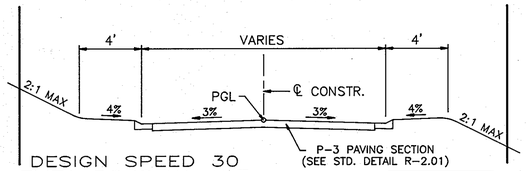
ROADWAY CONSTRUCTION PLANS



VICINITY MAP
SCALE : 1"=2000'

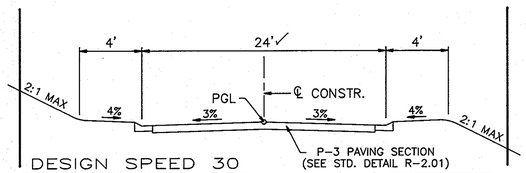


DESIGN SPEED 30
MT. HEBRON DR.



DESIGN SPEED 30
ELIZA DORSEY LANE

FROM STA. 0+00
TO STA. 1+20



DESIGN SPEED 30
ELIZA DORSEY LANE

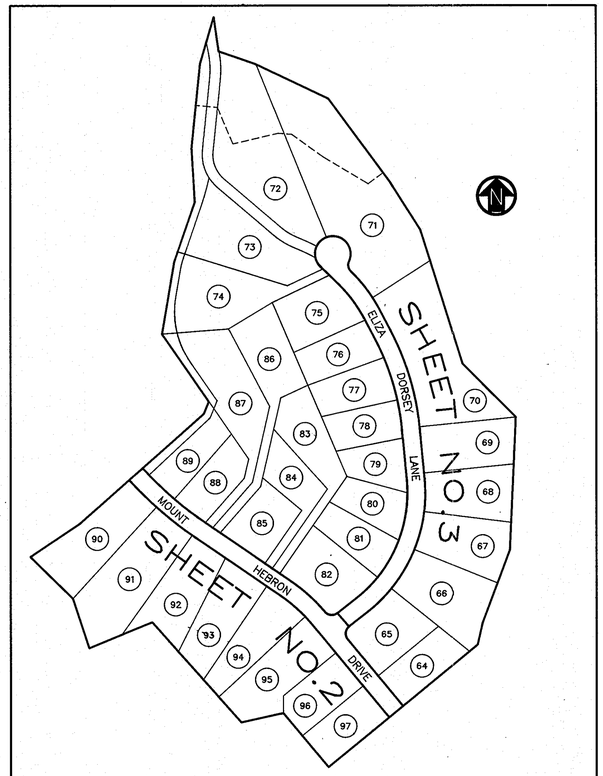
FROM STA. 1+20
TO STA. 12+00

MODIFIED CLOSED SECTIONS

NOTE:
CURB & GUTTER
ALL ROADS – MODIFIED COMBINATION CURB & GUTTER – DETAIL R-3.01 (INCL. CUL-DE-SAC)
~~CUL-DE-SAC~~ ~~STANDARD 7" COMBINATION CURB & GUTTER – DETAIL R-3.01~~ (EXCEPT CUL-DE-SAC) (2)

TYPICAL ROADWAY SECTIONS

NOT TO SCALE



KEY MAP
SCALE : 1"=200'

INDEX OF SHEETS

SHEET NO.	DESCRIPTION	
1	TITLE SHEET	
2	ROADWAY PLANS AND PROFILES –	MOUNT HEBRON DRIVE – STA. 0+00 TO STA. 12+48.24
		ELIZA DORSEY LANE – STA. 0+00 TO STA. 1+18.51
3		ELIZA DORSEY LANE – STA. 1+18.51 TO STA. 12+00
		LINEAR PROFILE
4	STORM DRAIN PROFILES	
5	GRADING & SEDIMENT CONTROL PLANS – SHEET 1	
6	SHEET 2	
7	SEDIMENT CONTROL DETAILS AND NOTES	
8	STORMWATER MANAGEMENT DETAILS	

ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
1	MANHOLES (G 5.12)	EA.	7
2	INLETS (SD 4.21)	EA.	6
3	CONCRETE END SECTIONS (SD 5.52)	EA.	6
4	18" RCP	LF	1029

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON THE LATEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL, HOWEVER, DETERMINE THE EXACT LOCATION BY TEST PITTING AND NOTIFY ALL UTILITY COMPANIES AND "MISS UTILITY" AT LEASE THREE (3) WORKING DAYS PRIOR TO BEGINNING WORK.
3. ALL INLETS SHALL BE HOWARD COUNTY STANDARDS UNLESS OTHERWISE NOTED.
4. ELEVATIONS SHOWN ARE BASED ON THE HOWARD COUNTY VERTICAL CONTROL DATUM.
5. STORM DRAIN TRENCHES WITHIN ROAD RIGHTS-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
6. TEMPORARY COMPACTED 18" HIGH EARTH FILL DIVERSION DIKES SHALL BE CONSTRUCTED ABOVE THE LIPS OF THE FILL SLOPES ON THE RIGHT-OF-WAY CONCURRENTLY WITH THE INITIAL GRADING AND DIRECTED TO UNDISTURBED SOD AREAS AT THE END OF EACH DAY.
7. CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPT. OF INSPECTIONS AND PERMITS AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE NO. 792-7272
8. ALL DISTURBED SLOPE AREAS TO BE STABILIZED AS SOON AS GRADING IS COMPACTED.
9. ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3500 P.S.I..
10. ALL SWALES AND SLOPES SHALL BE PERMANENTLY SEEDED. SEE THE SEED SPECIFICATIONS ON SHEET 7.
11. TRAFFIC CONTROL DEVICES AND THEIR INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 1988 EDITION.
12. POLY FILTER-X (FILTER CLOTH BLANKET) OR EQUAL SHALL BE PLACED UNDER ALL STONE RIP-RAP (FULL WIDTH AND LENGTH OF STONE).
13. STONE SHALL BE MARYLAND S.H.A. CLASS I MEDIUM RIP-RAP. STONE FROM ON SITE ROCK EXCAVATION MAY SUBSTITUTED FOR THE MARYLAND S.H.A. CLASS I MEDIUM RIP-RAP. RIP-RAP SHALL BE UNPAVED UNLESS OTHERWISE NOTED.
14. STUBS FOR 6" P.V.C. UNDERDRAIN PIPE TO BE INSTALLED AT CENTER OF EACH WALL OF EVERY INLET.
15. THIS PLAN IS BASED ON FIELD RUN TOPOGRAPHY BY PURDUM AND JESCHKE IN APRIL 1973.
16. EXISTING ZONING : R-20
17. BUILDABLE LOTS : 34
18. PUBLIC WATER AND PUBLIC SEWER WILL BE UTILIZED BY ALL PROPOSED LOTS.
19. WATER CODE : H03
20. SEWER CODE : 1455600
21. MINIMUM BUILDING SETBACK REQUIREMENTS SHALL BE 50' FRONT, 30' REAR AND 10' SIDE YARDS UNLESS OTHERWISE NOTED.
22. SEDIMENT AND EROSION CONTROL PROVIDED UNDER GP#8866 WILL REMAIN IN PLACE FOR GRADING OPERATIONS.
23. TOTAL TRACT : 34.18 ACRES
24. LOTS NET : 26.22 ACRES
25. ROADS : 2.41 ACRES
26. EASEMENTS : 5.55 ACRES
27. WAIVER PETITIONS :

WAIVER PETITION No. WP-90-90 – GRANTED AUGUST 23, 1990	
SECTION OF REGULATIONS	REQUEST
16.133.a.13	REDUCES THE DESIGN MANUAL PAVEMENT WIDTH FROM 28' TO 24' ON ELIZA DORSEY LANE FROM STA. 1+20 TO STA. 12+00
16.116.c.4	ALLOW GRADING AND CLEARING ON 25% OR GREATER STEEP SLOPE AREAS ADJACENT TO STREAMBANKS AND WETLANDS.
16.129.1	TO NOT PROVIDE A SIDEWALK ON ONE SIDE OF THE LOCAL AND CUL-DE-SAC ROADS.
16.131.1	TO NOT PROVIDE STREET TREES ALONG ELIZA DORSEY LANE FROM STA. 1+20 TO STA. 12+00.
WAIVER PETITION No. WP-89-128 – DENIED AUGUST 23, 1990	
SECTION OF REGULATIONS	REQUEST
16.113.c.10 & 16.113.c.11	TO PERMIT A CUL-DE-SAC STREET LENGTH GREATER THAN 1200 ft. (REQUESTED 1325 ft. LENGTH)

28. VARIANCES REQUESTED AND DENIED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS :
    A. TO ALLOW A 12% GRADE FROM STA. 2+40 TO STA. 6+75 ON ELIZA DORSEY LANE (MAXIMUM ALLOWED IS 10%)
    B. TO ALLOW THE CENTERLINE OF ELIZA DORSEY LANE TO BE OFFSET IN THE RIGHT-OF-WAY.
29. DRIVEWAYS/ROADWAYS WHICH SERVE TWO (2) OR MORE LOTS MUST MEET THE FOLLOWING REQUIREMENTS FOR FIRE AND EMERGENCY SERVICE VEHICLES ACCESS :
    A. WIDTH – SIXTEEN (16) FEET FOR 4 LOTS: TWENTY (20) FEET FOR MORE THAN 4 LOTS
    B. CONSTRUCTION – SIX (6) INCHES OF COMPACTED "CRUSHER RUN" BASE WITH A "TAR AND CHIP" COATING.
    C. TURNING RADIUS – FORTY (40) FEET.
    D. BRIDGES AND CULVERTS – DESIGNED TO SUPPORT VEHICLES WITH A GROSS VEHICLE WEIGHT OF TWENTY-FIVE (25) TONS.
    E. OVERHEAD CLEARANCE – TWELVE (12) FEET.
    F. HOUSE NUMBERS – IDENTIFICATION SIGNS ARE TO BE PLACED AT THE DRIVEWAY ENTRANCE AND THE MAIN ROAD. WHERE ONE (1) DRIVEWAY SERVES MORE THAN ONE (1) LOT (COMMON DRIVEWAYS), A HOUSE NUMBER SIGN MUST BE PLACED AT EACH LOT ENTRANCE.
    G. MAINTENANCE – DRIVEWAYS MUST BE MAINTAINED FOR ALL WEATHER USE.
    H. THESE ARE RECOMMENDATIONS ONLY FOR DRIVEWAYS SERVING ONE (1) LOT. HOWEVER, FLAG LOT DRIVEWAYS MUST HAVE A HOUSE NUMBER SIGN PLACED WHERE DRIVEWAY MEETS THE MAIN ROAD.
30. STREET TREES WILL BE PROVIDED IN ACCORDANCE WITH SECTION 16.131 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND WP-90-90.
31. THIS PLAN IS BASED ON FIELD RUN TOPOGRAPHY BY PURDUM & JESCHKE IN APRIL 1973.
32. ALL COORDINATES ARE BASED ON NAD 27', MARYLAND STATE PLAN GRID AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3442004 AND 3442006.

NO.	DATE	DESCRIPTION	APP'D
4	11-29-04	Revised Storm drain outfall and manholes M-4A, M-4B and M-4C	
2	7/14/94	REVISED CURB IN CUL-DE-SAC (SHEET 3)	

REVISIONS

RESIGNED 11/23/04 FISHER COLLINS AND CARTER, INC.

AS BUILT 7/07/03
FISHER COLLINS AND CARTER, INC.

405

PURDUM and JESCHKE
CONSULTING ENGINEERS & LAND SURVEYORS
1029 NORTH CALVERT STREET
BALTIMORE, MARYLAND 21202
TEL:(410)837-0194 FAX:(410)837-3431

5447D1

P&J W.O.# 5447-10

OWNER/DEVELOPER

PATAPSCO ASSOCIATES LIMITED PARTNERSHIP

12116 ARBIE ROAD
SILVER SPRING, MARYLAND 20904

DEVELOPER'S CERTIFICATION

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

SIMON ROSENBERG — 9-9-92 DATE

ENGINEER'S CERTIFICATION

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

RICHARD H. BERICH, P.E. — 9 Sept 92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 10/30/92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — 10/27/92 DATE
CHIEF, BUREAU OF HIGHWAYS — 10/15/92 DATE
CHIEF, BUREAU OF ENGINEERING — 10-27-92 DATE

STATE OF MARYLAND — No. 10060 — PROFESSIONAL ENGINEER

ROADWAY CONSTRUCTION PLANS
PATAPSCO PARK ESTATES
SECTION FOUR

TITLE SHEET

TAX MAP NO. 17 — PARCEL 38
2nd ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
DATE : AUGUST 28, 1992 — SCALE : AS SHOWN

SHEET 1 OF 8

DES : GDT/DPW
DRAWN : REC
CHK : RHB

F-91-167

AS BUILT F-91-167

STORM DRAIN STRUCTURE LOCATIONS

STRUCT	LOCATION
I-1	MT HEBRON DR 7+67.73 0'15"LT. ✓
I-2	MT HEBRON DR 12+45.19 0'15"LT. ✓
I-3	MT HEBRON DR 12+45.19 0'15"RT. ✓
I-4	ELIZA DORSEY LN 6+57.63 0'12"LT. ✓
I-5	ELIZA DORSEY LN 6+57.63 0'12"RT. ✓
I-6	~~N 536986.69 E 849196.23~~
M-1	~~MT HEBRON DR 7+65.34 242'LT.~~
M-2	~~MT HEBRON DR 12+34.87 122'LT.~~
M-3	~~ELIZA DORSEY LN 6+58.28 52'RT.~~
M-4	N 53773~~4.67~~3.57 E 848666.~~58~~ 7.90
S-1	~~MT HEBRON DR 7+80.34 242'LT.~~
S-2	~~MT HEBRON DR 12+39.89 197'LT.~~
S-3	~~ELIZA DORSEY LN 6+68.79 220'RT.~~
S-4	N 53777~~1.77~~ E 848651.~~56~~ 7.03

69.91

BENCH MARKS

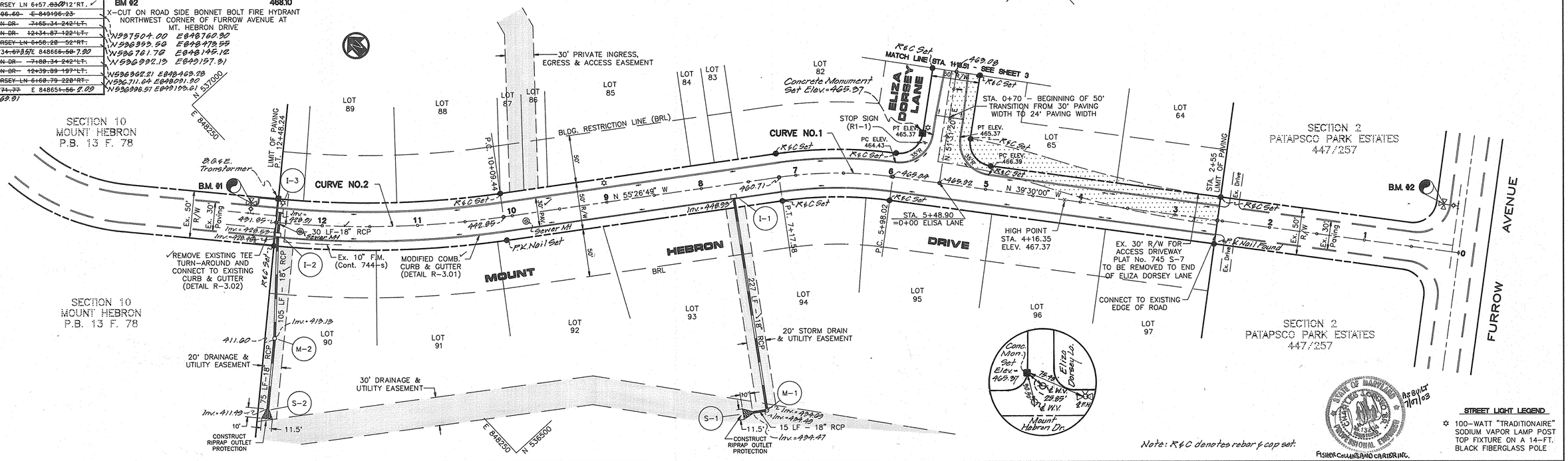
BM #1 433.70
BOLT ON RIGHT SIDE OF FIRE HYDRANT ON EAST SIDE OF MT. HEBRON DRIVE APPROX. ℄ ROADWAY STATION 12+75

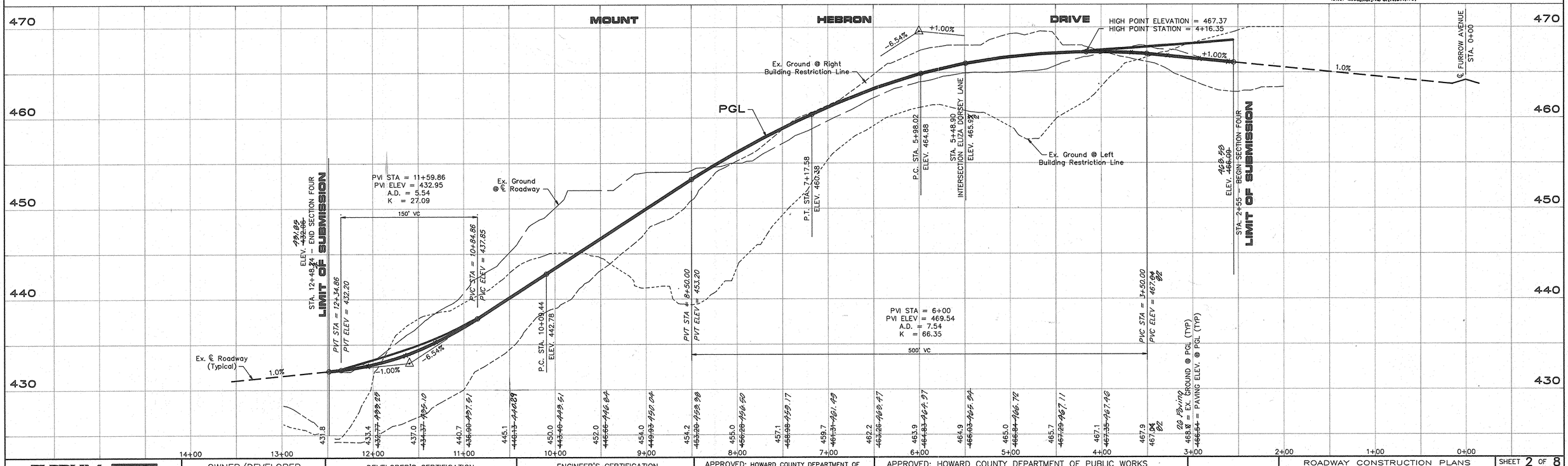
BM #2 468.10
X-CUT ON ROAD SIDE BONNET BOLT FIRE HYDRANT NORTHWEST CORNER OF FURROW AVENUE AT MT. HEBRON DRIVE

N 537504.00 E 848760.30
N 536393.50 E 848478.55
N 536761.76 E 848145.12
N 536992.13 E 849157.31
N 536360.21 E 849469.98
N 536711.68 E 848081.90
N 536896.57 E 849195.61

CURVE DATA

CURVE	RADIUS	LENGTH	TANGENT	CHORD BEARING & DIST.	DELTA
1	429.56'	119.56'	60.17'	N 47°28'24" W 119.17'	15°56'49"
2	997.32'	238.80'	119.97'	S 48°35'15" E 238.23'	13°43'08"





PURDUM and JESCHKE
CONSULTING ENGINEERS & LAND SURVEYORS
1029 NORTH CALVERT STREET
BALTIMORE, MARYLAND 21202
TEL:(410)837-0194 FAX:(410)837-3431

OWNER/DEVELOPER
PATAPSCO ASSOCIATES LIMITED PARTNERSHIP
12116 ARBIE ROAD
SILVER SPRING, MARYLAND 20904

DEVELOPER'S CERTIFICATION
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF ANY SEDIMENT EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT
SIMON ROSENBERG — 9-9-92 DATE

ENGINEER'S CERTIFICATION
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
RICHARD H. BERICH, P.E. — 9 Sept 92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 10/30/92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — 10/27/92 DATE
CHIEF, BUREAU OF HIGHWAYS — 10/15/92 DATE
CHIEF, BUREAU OF ENGINEERING — 10-27-92 DATE

ROADWAY CONSTRUCTION PLANS
PATAPSCO PARK ESTATES
SECTION FOUR
MOUNT HEBRON DRIVE STA. 0+00 TO 12+48.24
TAX MAP NO. 17 — PARCEL 38
2nd ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
DATE : AUGUST 28, 1992 — F-91-167

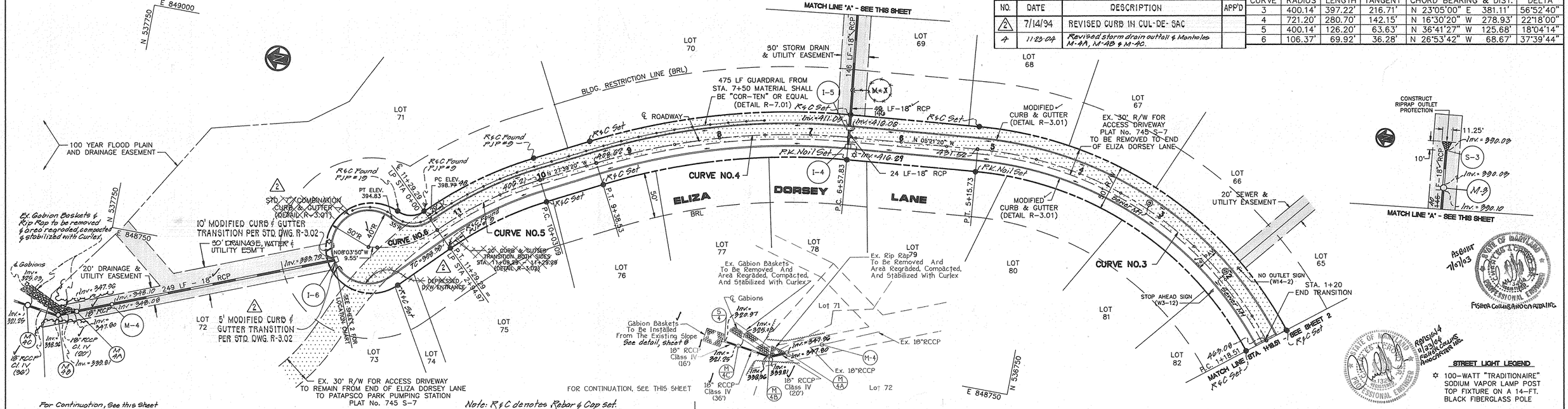
SHEET 2 OF 8
DES : GDT/DPW
DRAWN : REC
CHK : RHB
SCALE :
HORIZ. 1"= 50'
VERT. 1"= 5'

AS BUILT F-91-167

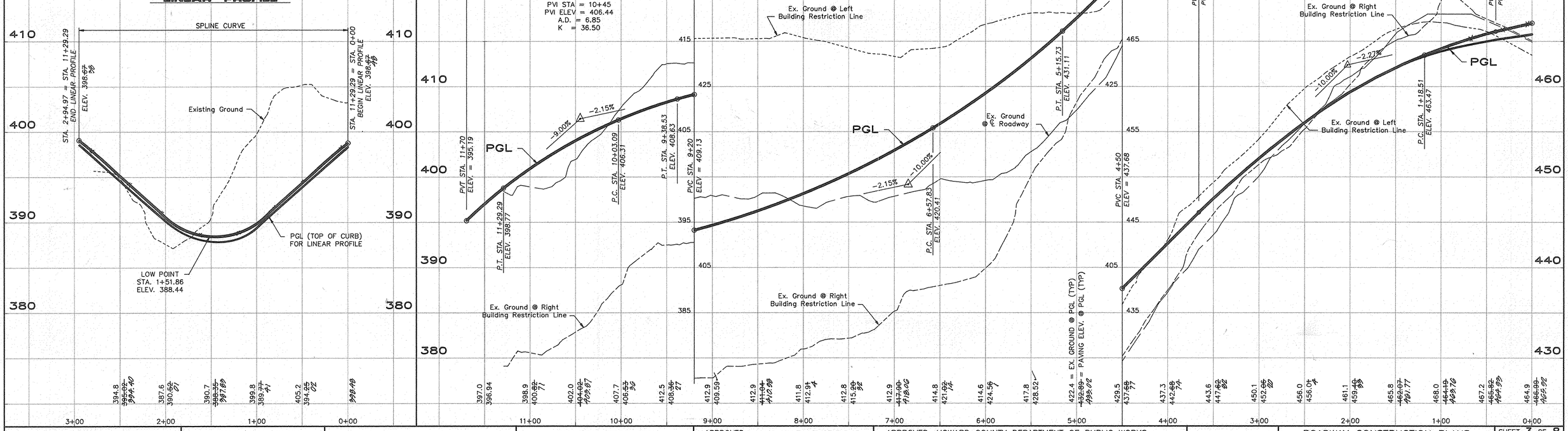
405
5447R02
P&J W.O.# 5447-10

REVISIONS			
NO.	DATE	DESCRIPTION	APP'D
2	7/14/94	REVISED CURB IN CUL-DE-SAC	
4	11-23-04	Revised storm drain outfall & Manholes M-4A, M-4B & M-4C.	

CURVE DATA					
CURVE	RADIUS	LENGTH	TANGENT	CHORD BEARING & DIST.	DELTA
3	400.14'	397.22'	216.71'	N 23°05'00" E 381.11'	56°52'40"
4	721.20'	280.70'	142.15'	N 16°30'20" W 278.93'	22°18'00"
5	400.14'	126.20'	63.63'	N 36°41'27" W 125.68'	18°04'14"
6	106.37'	69.92'	36.28'	N 26°53'42" W 68.67'	37°39'44"



LINEAR PROFILE



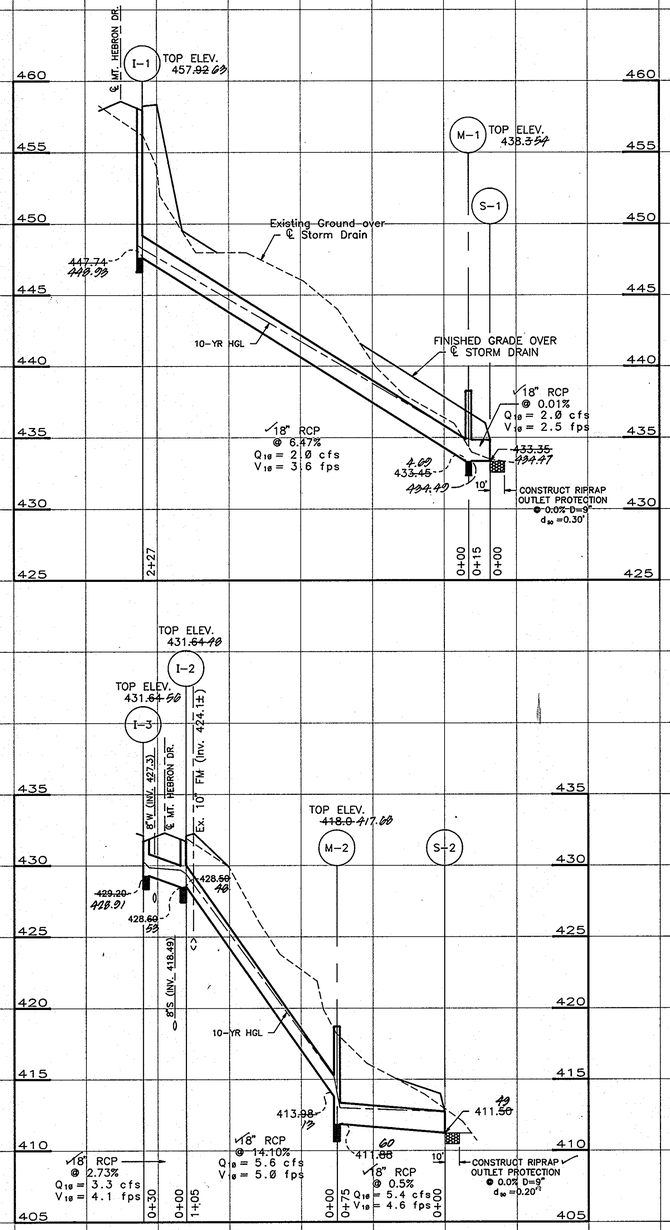
PURDUM and JESCHKE CONSULTING ENGINEERS & LAND SURVEYORS 1029 NORTH CALVERT STREET BALTIMORE, MARYLAND 21202 TEL:(410)837-0194 FAX:(410)837-3431	OWNER/DEVELOPER PATAPSCO ASSOCIATES LIMITED PARTNERSHIP 12116 ARBIE ROAD SILVER SPRING, MARYLAND 20904
DEVELOPER'S CERTIFICATION I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF ANY SEDIMENT EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT SIMON ROSENBERG — DATE 7-9-92	ENGINEER'S CERTIFICATION I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. RICHARD H. BERICH, P.E. — DATE 9 Sept 92
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 10/30/92	APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS CHIEF, LAND DEVELOPMENT DIVISION — DATE 10/27/92 CHIEF, BUREAU OF HIGHWAYS — DATE 10/28/92 CHIEF, BUREAU OF ENGINEERING — DATE
ROADWAY CONSTRUCTION PLANS PATAPSCO PARK ESTATES SECTION FOUR ELIZA DORSEY LANE STA. 0+00 TO 12+00 TAX MAP NO. 17 — PARCEL 38 2nd ELECTION DISTRICT — HOWARD COUNTY, MARYLAND DATE : AUGUST 28, 1992 — F-91-167	SHEET 3 OF 8 DES : GDT/DPW DRAWN : REC CHK : RHB SCALE : HORIZ. 1"= 50' VERT. 1"= 5'

405

5447R03

P&J W.O.# 5447-10

AS BUILT F-91-167



FOR PLAN SEE SHEET 5

FOR PLAN SEE SHEET 6

No.	Revisions	Date
4	Revised storm drain outfall & added manholes M-4A, M-4B & M-4C	11.23.04

AS BUILT 7/07/03

STATE OF MARYLAND — CHRISTOPHER J. FISHER — No. 10569 — REGISTERED PROFESSIONAL ENGINEER

FISHER COLLINS & CARTER, INC.

	7.90		80	
M-4A	351.90 ~~70~~	~~348.12~~	~~347.50~~	G 5.12
M-4B	~~344.80~~	~~342.80~~	~~341.50~~	G 5.12
M-4C	~~329.50~~	~~325.08~~	~~321.99~~	G 5.12

STRUCTURE SCHEDULE

STRUCT	RIM ELEV	INV IN	INV OUT	DETAIL #
I-1	457.92 ~~69~~	~~448.99~~	~~447.74~~	SD 4.21
I-2	431.64 ~~90~~	428.60 ~~50~~	428.50 ~~40~~	SD 4.21
I-3	431.64 ~~50~~	~~428.91~~	~~429.20~~	SD 4.21
I-4	~~419.60~~ ~~420.40~~	416.20 ~~?~~	416.00 ~~?~~	SD 4.21
I-5	~~419.60~~ ~~420.20~~	~~415.70~~	~~416.00~~	SD 4.21
I-6	387.86 ~~45~~	384.50 ~~?~~	384.50 ~~?~~	SD 4.21
M-1	438.354	~~433.45~~	433.45	G 5.12
M-2	~~418.0~~ ~~417.60~~	413.98 ~~13~~	411.88 ~~60~~	G 5.12
M-3	395.93	390.150	390.053	G 5.12
M-4	355.670	~~348.98~~	~~348.88~~	G 5.12
S-1	—	—	~~435.35~~	SD 5.52
S-2	—	—	411.5040	SD 5.52
S-3	—	~~390.03~~	~~389.86~~	SD 5.52
S-4	—	~~420.91~~	~~421.02~~	SD 5.52
S-5 Private	—	—	424.44	SD 5.52
S-6 Private	—	—	429.75	SD 5.52
S-7 Private	—	—	427.85	SD 5.52
S-8 Private	—	—	439.38	SD 5.52

405

PURDUM and JESCHKE
CONSULTING ENGINEERS & LAND SURVEYORS
1029 NORTH CALVERT STREET
BALTIMORE, MARYLAND 21202
TEL:(410)837-0194 FAX:(410)837-3431

OWNER/DEVELOPER
PATAPSCO ASSOCIATES LIMITED PARTNERSHIP
12116 ARBIE ROAD
SILVER SPRING, MARYLAND 20904

DEVELOPER'S CERTIFICATION
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF ANY SEDIMENT EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT
SIMON ROSENBERG — 9-9-92 DATE

ENGINEER'S CERTIFICATION
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
RICHARD H. BERICH, P.E. — 9 Sept 92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 10/30/92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — 10/27/92 DATE
CHIEF, BUREAU OF HIGHWAYS — 10/28/92 DATE
CHIEF, BUREAU OF ENGINEERING — 10-27-92 DATE

STATE OF MARYLAND — RICHARD H. BERICH — No. 10569 — REGISTERED PROFESSIONAL ENGINEER

ROADWAY CONSTRUCTION PLANS
PATAPSCO PARK ESTATES
SECTION FOUR

STORM DRAIN PROFILES

TAX MAP NO. 17 — PARCEL 38
2nd ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
DATE : AUGUST 28, 1992 — F-91-167

SHEET 4 OF 8
DES : GDT/DPW
DRAWN : REC
CHK : RHB
SCALE :
HORIZ. 1" = 50'
VERT. 1" = 5'

AS BUILT F-91-167

P&J W.O.# 5447-10

STONE OUTLET SEDIMENT TRAP

BOTTOM DIMENSIONS =	27'x17'
DRAINAGE AREA =	1.89 AC.±
L =	8'
VOLUME REQ'D =	3402 C.F.
VOLUME PROVIDED =	3500 C.F.
BOTTOM ELEV. =	428
TOP OF EMBANKMENT =	432
OUTLET WEIR CREST ELEV. =	431
CLEANOUT ELEV. =	430
TRAP DEPTH =	4'

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 90 DAYS OF COMPLETION.

ENGINEER — DATE

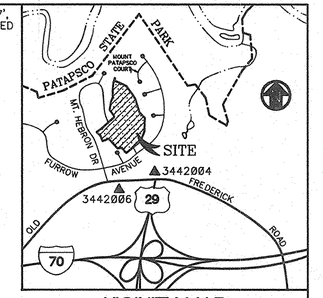
ENGINEER'S PRINTED NAME:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 90 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

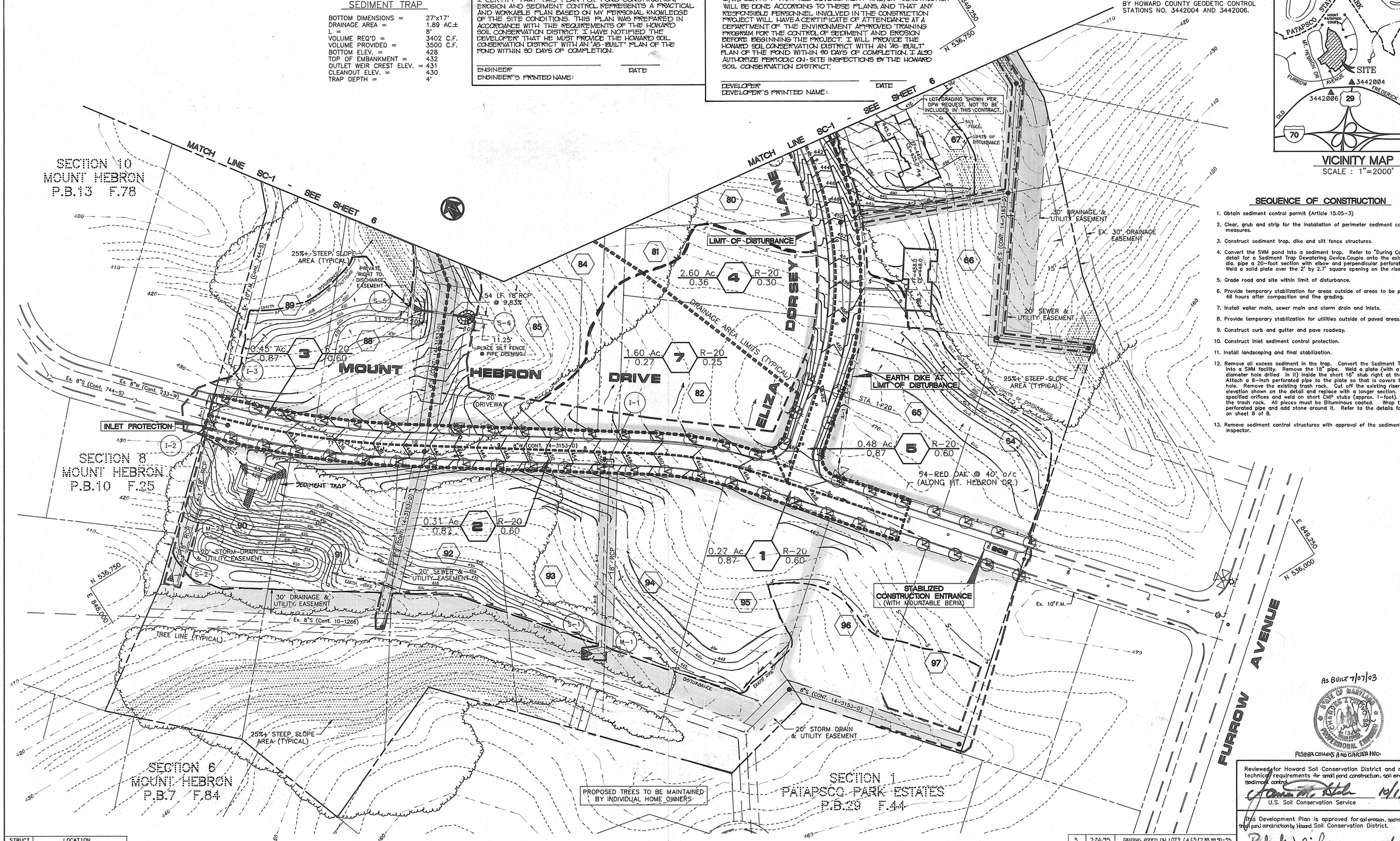
DEVELOPER — DATE

DEVELOPER'S PRINTED NAME:

NOTE: ALL COORDINATES ARE BASED ON NAD 27', MARYLAND STATE PLAN GRID AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3442004 AND 3442006.



VICINITY MAP
SCALE : 1"=2000'



SEQUENCE OF CONSTRUCTION

1. Obtain sediment control permit (Article 15.05-3)
2. Clear, grub and strip for the installation of perimeter sediment control measures.
3. Construct sediment trap, dike and silt fence structures.
4. Convert the SWM pond into a sediment trap. Refer to "During Construction" detail for a Sediment Trap Dewatering Device.Couple onto the existing 18" dia. pipe a 20-foot section with elbow and perpendicular perforated 18" CMP. Weld a solid plate over the 2' by 2.7' square opening on the riser.
5. Grade road and site within limit of disturbance.
6. Provide temporary stabilization for areas outside of areas to be paved within 48 hours after compaction and fine grading.
7. Install water main, sewer main and storm drain and inlets.
8. Provide temporary stabilization for utilities outside of paved areas.
9. Construct curb and gutter and pave roadway.
10. Construct inlet sediment control protection.
11. Install landscaping and final stabilization.
12. Remove all excess sediment in the trap. Convert the Sediment Trap back into a SWM facility. Remove the 18" pipe. Weld a plate (with a one-inch diameter hole drilled in it) inside the short 18" stub right at the riser. Attach a 6-inch perforated pipe to the plate so that is covers the one-inch hole. Remove the existing trash rack. Cut off the existing riser at the elevation shown on the detail and replace with a longer section. Cut the specified orifices and weld on short CMP stubs (approx. 1-foot). Re-attach the trash rack. All pieces must be Bituminous coated. Wrap the 6-inch perforated pipe and add stone around it. Refer to the details for the riser on sheet 8 of 8.
13. Remove sediment control structures with approval of the sediment control inspector.

STRUCT	LOCATION	
S-5	N 536818.77	E 848511.81
S-6	N 536783.42	E 848551.23

NO.	DATE	REVISION
3	7-24-95	GRADING ADDED ON LOT? 64,65,67,88,89,90-95

AS BUILT 7/07/03

FISHER COLLINS & CARTER INC.

Reviewed for Howard Soil Conservation District and meets technical requirements for small pond construction, soil erosion and sediment control

U.S. Soil Conservation Service — 10/1/92 Date

This Development Plan is approved for soil erosion, sediment control, and small pond construction by Howard Soil Conservation District.

Howard Soil Conservation District — 10/1/92 Date

PURDUM and JESCHKE
CONSULTING ENGINEERS & LAND SURVEYORS
1029 NORTH CALVERT STREET
BALTIMORE, MARYLAND 21202
TEL:(410)837-0194 FAX:(410)837-3431

OWNER/DEVELOPER
PATAPSCO ASSOCIATES LIMITED PARTNERSHIP
12116 ARBIE ROAD
SILVER SPRING, MARYLAND 20904

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

SIMON ROSENBERG — 9-9-92 DATE

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

RICHARD H. BERICH, P.E. — 9 Sept 92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 10/30/92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — 10/27/92 DATE
CHIEF, BUREAU OF HIGHWAYS — 10/15/92 DATE
CHIEF, BUREAU OF ENGINEERING — 10/27/92 DATE

STATE OF MARYLAND — No. 10966 — REGISTERED PROFESSIONAL ENGINEER — Richard H. Berich

ROADWAY CONSTRUCTION PLANS
PATAPSCO PARK ESTATES
SECTION FOUR

GRADING & SEDIMENT CONTROL PLAN

TAX MAP NO. 17 — PARCEL 38
2nd ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
DATE : AUGUST 28, 1992

SHEET 5 OF 8
DES : GDT/DPW
DRAWN : REC
CHK : RHB

405

5447SC1

P&J W.O.# 5447-10

AS BUILT F-91-167

STRUCT	LOCATION	
S-7	N 536997.43	E 848579.87
S-8	N 536971.72	E 848639.44

STONE OUTLET SEDIMENT TRAP

DRAINAGE AREA = 2.78 AC
L = 12'
VOLUME REQUIRED = 5008 CF
VOLUME PROVIDED = 6240 CF
BOTTOM DEMENSIONS = 42'x14'
DEPTH = 5'
BOTTOM ELEV. = 390
TOP OF EMBANKMENT = 395
OUTLET WEIR CREST ELEV.= 394
CLEANOUT ELEV. = 393

PIPE OUTLET SEDIMENT TRAP

DRAINAGE AREA = 60 Ac.±
VOLUME REQUIRED = 4000 cu.yd.
VOLUME PROVIDED = 4370 cu.yd.
BOTTOM ELEV. = 318
TOP OF EMBANKMENT = 336.2
OUTLET PIPE ELEV. = 318.45
CLEANOUT ELEV. = 320
BOTTOM DIMENSIONS = 55'x30'
TOP DIMENSIONS = 210'x70'
TOTAL DEPTH = 16'
OUTLET PIPE SIZE = 54" CMP
SIDE SLOPES = 2:1

SECTION 3
MOUNT HEBRON
P.B.13 F.28

SECTION 3
PATAPSCO PARK ESTATES
447/257

SECTION 2
PATAPSCO PARK ESTATES
447/257

ELIZA DORSEY LANE

EX. 20' SEWER & UTILITY EASEMENT (CONT. 14-1547-D)

100 YEAR FLOOD PLAIN AND STORM WATER MANAGEMENT AND UTILITY EASEMENT

SEE SHT 8 FOR DETAILS

EX. 12" CMP

EX. 10" Paved Driveway

40' WATER & UTILITY EASEMENT

100 YR W.S.E 334.2

20' DRAINAGE & UTILITY EASEMENT

30' DRAINAGE, WATER & UTILITY EASEMENT

8" SCONT (14-3153-D)

25' STREAM BUFFER

25' WETLANDS BUFFER

WETLANDS

25%+ STEEP SLOPE AREA (TYPICAL)

EARTH DIKE AT LIMIT OF DISTURBANCE

3-WHITE PINE

7-SWEET GUM

11-WHITE PINE

7-SWEET GUM

10-WHITE PINE

6-SWEET GUM

5-WHITE PINE

LIMIT OF DISTURBANCE

20' SEWER & UTILITY EASEMENT

DRAINAGE AREA LIMITS (TYPICAL)

INLET PROTECTION

EX. SEDIMENT TRAP

EARTH DIKE

LOT GRADING SHOWN PER-DPW REQUEST, NOT TO BE INCLUDED IN THIS CONTRACT.

SILT FENCE AT LIMIT OF DISTURBANCE

DRAINAGE & UTILITY EASEMENT

EX. 30' DRAINAGE EASEMENT

R/W FOR INGRESS, EGRESS & UTILITIES

16' DRIVEWAY

20' DRIVEWAY

2.57 Ac. 0.44 — 6 — R-20 0.30

0.57 Ac. 0.27 — 8 — R-20 0.25

0.48 Ac. 0.87 — 5 — R-20 0.50

2.60 Ac. 0.36 — 4 — R-20 0.30

1.60 Ac. 0.27 — 7 — R-20 0.25

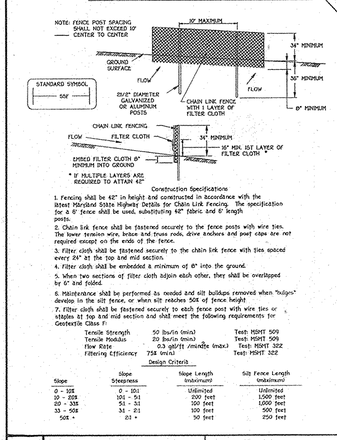
N 537,500 E 849,250

N 536,500 E 849,250

MATCH LINE SC-1 - SEE SHEET 5

MATCH LINE SC-1 SEE SHEET 5

SUPER SILT FENCE



Construction Specifications

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

Tensile Strength	50 lbs/in (min)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min)	Test: MSMT 509
Flow Rate	0.3 gal/ft /minute (max)	Test: MSMT 322
Filtering Efficiency	75% (min)	Test: MSMT 322

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	1,000 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

NO	COMMON NAME	BOTANICAL NAME	SIZE	SPACING	NOTES
29	White Pine	Pinus Strobus	2"cal.	15' oc	B & B
20	Sweet Gum	Liquidamber Styacilua	2"cal.	15' oc	B & B

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 90 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — DATE
DEVELOPER'S PRINTED NAME

I CERTIFY THAT THIS PLAN IS FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 90 DAYS OF COMPLETION.

ENGINEER — DATE
ENGINEER'S PRINTED NAME

NO	DATE	REVISION
4	11-28-94	Revised the storm drain outfall & added manholes M-4A, M-4B, M-4C.
3	7-24-95	GRADING ADDED ON LOTS 68, 69, 70, 78, 79, 80, AND 87
2	11-3-93	Move prop. sewer main between mh#1 & mh#2
1	5/17/93	RELOCATION OF TREES

AS BUILT 7/07/03
FISHER COLLINS AND CARTER INC.

REVISION 4 11/30/94 FISHER COLLINS AND CARTER INC.

Reviewed for Howard Soil Conservation District and meets technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — 10-1-92 Date

This Development Plan is approved for soil erosion and sediment control and small pond construction by the Howard Soil Conservation District.

Howard Soil Conservation District — 10/1/92 Date

PURDUM and JESCHKE
CONSULTING ENGINEERS & LAND SURVEYORS
1029 NORTH CALVERT STREET
BALTIMORE, MARYLAND 21202
TEL: (410)837-0194 FAX: (410)837-3431

OWNER/DEVELOPER
PATAPSCO ASSOCIATES LIMITED PARTNERSHIP
12116 ARBIE ROAD
SILVER SPRING, MARYLAND 20904

DEVELOPER'S CERTIFICATION
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF ANY SEDIMENT EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT
SIMON ROSENBERG — 9-9-92 DATE

ENGINEER'S CERTIFICATION
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
RICHARD H. BERICH, P.E. — 9 Sept 92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 10/30/92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — 10/22/92 DATE
CHIEF, BUREAU OF HIGHWAYS — 10/15/92 DATE
CHIEF, BUREAU OF ENGINEERING — 10-22-92 DATE

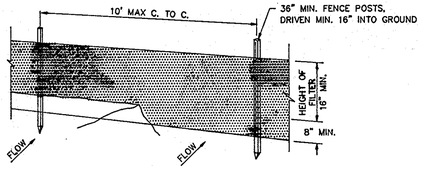
No. 10969 REGISTERED PROFESSIONAL ENGINEER

ROADWAY CONSTRUCTION PLANS
PATAPSCO PARK ESTATES
SECTION FOUR
GRADING & SEDIMENT CONTROL PLAN
TAX MAP NO. 17 PARCEL 38
2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE : AUGUST 28, 1992 SCALE : 1"=50'

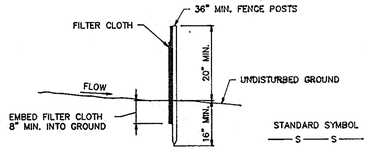
SHEET 6 OF 8
DES : GDT/GS
DRAWN : REC
CHK : RHB
F-91-167

405
5447SC2
P&J W.O.# 5447-10

AS BUILT F-91-167



PERSPECTIVE VIEW

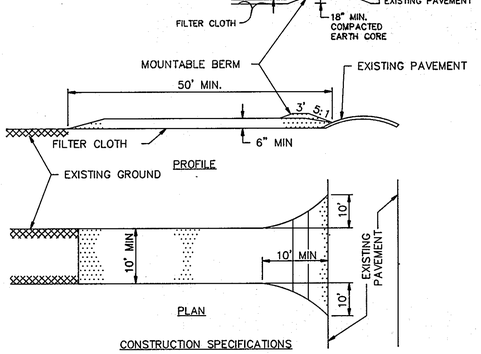


SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. SILT FENCES MUST BE EMBEDDED, OR KEYED IN, AT LEAST 8 INCHES INTO THE GROUND. LAYING THE LOWER EDGE OF THE FILTER FABRIC ON THE GROUND AND COVERING IT WITH SOIL IS NOT AN ACCEPTABLE METHOD OF KEYING IN. THE KEY–IN TRENCH CAN BE EXCAVATED BY HAND OR BY DITCHING EQUIPMENT. AFTER THE SILT FENCE IS CONSTRUCTED, THE TRENCH MUST BE BACKFILLED AND COMPACTED.
2. FENCE POSTS MUST BE:
   a. AT LEAST 36 INCHES LONG, AND
   b. HAVE A CROSS SECTIONAL AREA OF AT LEAST 3 SQUARE INCHES IF WOODEN OR
   c. WEIGH AT LEAST 1 POUND PER LINEAR FOOT IF STEEL T OR U TYPE, AND
   d. ON 10 FOOT MAXIMUM CENTERS, AND
   e. DRIVEN AT LEAST 16 INCHES INTO THE GROUND.
3. THE FILTER FABRIC MUST BE FASTENED SECURELY TO THE FENCE POSTS.
4. WHEN TWO SECTIONS OF FILTER FABRIC ARE JOINED TOGETHER, THE JOINT MUST OCCUR AT A FENCE POST. THE ENDS OF THE FILTER FABRIC SHOULD BE OVERLAPPED BY AT LEAST 6 INCHES, FOLDED, AND FASTENED TO THE FENCE POST SO THAT NO GAPS IN THE FENCE OCCUR. MANUFACTURER'S RECOMMENDATIONS FOR JOINING FABRIC SECTIONS MAY BE FOLLOWED AS LONG AS THE RESULTING JOINT DOES NOT CREATE GAPS IN THE SILT FENCE.
5. SILT FENCES MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN EVENT AND MAINTENANCE PERFORMED AS NECESSARY.

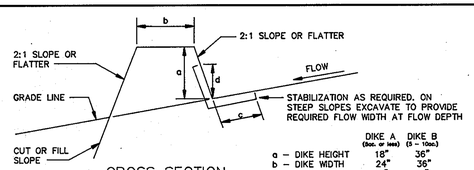
SILT FENCE



CONSTRUCTION SPECIFICATIONS

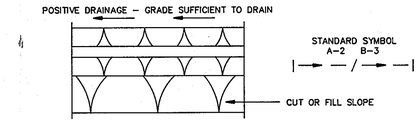
1. STONE SIZE– USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH– AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS– NOT LESS THAN SIX (6) INCHES.
4. WIDTH– TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH– WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER– ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE– THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING– WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE



CROSS SECTION

	DIKE A (Soc. or less)	DIKE B (3 – 10ac.)
a – DIKE HEIGHT	18"	36"
b – DIKE WIDTH	24"	36"
c – FLOW WIDTH	4"	6"
d – FLOW DEPTH	8"	15"



CONSTRUCTION SPECIFICATION

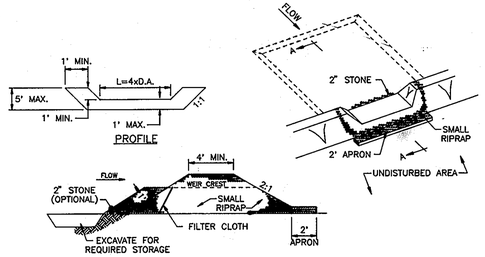
1. ALL DIKES SHALL BE COMPACTED BY EARTH–MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE : (A) IN ACCORDANCE WITH STANDARD SPECIFICATION FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON; (B) FLOW CHANNEL AS PER THE CHART BELOW.

TYPE OF TREATMENT	CHANNEL GRADE	FLOW CHANNEL STABILIZATION DIKE A	DIKE B
1	.5 – 3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1 – 5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1 – 8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIPRAP 4 – 8"
4	8.1 – 20%	LINED RIPRAP 4 – 8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLE CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT .
B. RIPRAP TO BE 4 – 8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
C. APPROVED EQUIVALENT CAN BE SUBSTITUTED FOR ANY OF THE MATERIALS.

7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTEREACH RAIN EVENT.

EARTH DIKE



CROSS SECTION A–A

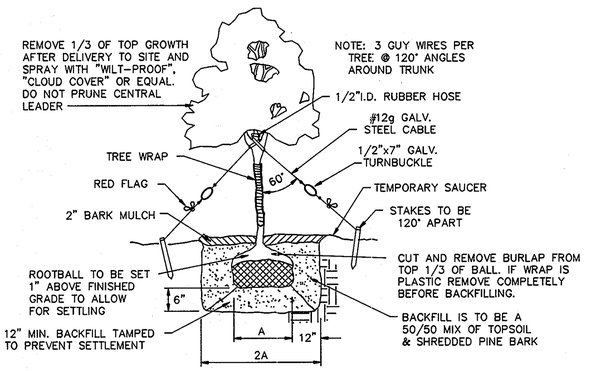
OPTION: A ONE FOOT LAYER OF 2" STONE MAY BE PLACED ON THE UPSTREAM SIDE OF THE RIPRAP IN PLACE OF THE EMBEDDED FILTER CLOTH.

CONSTRUCTION SPECIFICATIONS

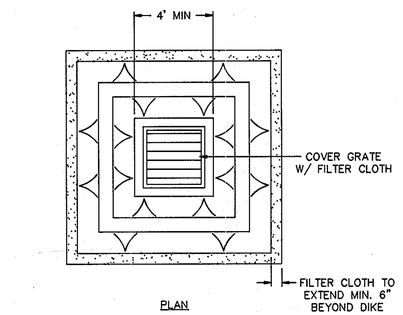
1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER–SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONAL MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"–8" ALONG WITH A 1' THICKNESS OF 2" AGGREGATE PLACED ON THE UP–GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP.
6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

MAXIMUM DRAINAGE AREA : 5 ACRES

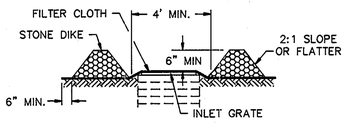
STONE OUTLET SEDIMENT TRAP



TREE PLANTING DETAIL



PLAN



CROSS SECTION

CONSTRUCTION SPECIFICATIONS

1. STONE FOR THE DIKE SHALL BE CRUSHED STONE. GRAVEL MAY BE USED IF CRUSHED STONE IS NOT AVAILABLE. THE STONE SHALL MEET MSHA SIZE NO. 2 OR AASHTO DESIGNATION M43 SIZE NO. 2 OR 24. CRUSHER RUN IS NOT ACCEPTABLE.
2. FILTER CLOTH SHALL BE POLY–FILTER X OR APPROVED EQUAL.
3. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.

INLET PROTECTION

EROSION AND SEDIMENT CONTROL SECTION NOTES

The Contractor will comply with all requirements of Sediment and Erosion Control as set forth in the Howard County Sediment Control Manual.

All sediment controls and critical slopes must be stabilized within seven calendar days. All other disturbed areas on the project site must be stabilized within 14 calendar days.

All sediment controls to be constructed first, prior to any construction on the site.

No pumping from foundation excavations will be allowed into County system unless it is filtered by way of sediment traps or filter.

All excavated material shall be placed on the high side whenever possible and confined to an area where it will not obstruct the normal flow of drainage courses.

Continuous inspection and maintenance of all sediment control devices will be required.

The Contractor shall notify in writing the Howard County Sediment Control Representative at least three working days prior to starting any work.

On all sites with disturbed areas in excess of two acres, the permittee shall request that a Howard County Erosion and Sediment Control Inspector inspect and approve the work, completed at the stages of construction specified below to ensure accordance with the approved erosion and sediment control plan, the grading or building permit, and this Manual:

a. Upon completion of installation of perimeter erosion and sediment controls, prior to proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until initial approval by the inspection agency is made, and

b. Upon final stabilization be fore removal of sediment controls.

Howard County Sediment Control Section must be notified in writing of where any excess material will be disposed of or where any borrowed material will come from.

The Owner/Contractor shall not deviate from the approved sediment and erosion control plans without prior approval of the Howard County Sediment Control Representative. Variations to the plan must be submitted in writing, accompanied by a copy of the originally approved plan modified to show the requested changes, for his approval. Substantial changes will necessitate amending the building and/or grading permit if applicable.

SEDIMENT CONTROL NOTES

1. 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. (992–2437)
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. Following initial soil disturbance or redisturbance, 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.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (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.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector
7. Site Analysis:

Total Area of Site	34.18 Acres
Area Disturbed	9.5 Acres
Area to be roofed or paved	2.4 Acres
Area to be vegetatively stabilized	7.1 Acres
Total Cut	5055 Cu. yds.
Total Fill	2500 Cu. yds.
Offsite waste/borrow area location	N/A

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long–lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding. If not previously loosened.
Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:
1) Preferred – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs per acre 10–10–10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 30–0–0 ureaform fertilizer (9 lbs/1000 sq. ft.)
2) Acceptable: – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10–10–10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding – For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs/acre (1.4 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 16 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 unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons/acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons/acre (8 gal/1000 sq. ft.) for anchoring

Maintenance – Inspect all seeded areas and make needed repairs, replacements and redseedings.

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, disking or other acceptable means before seeding. If not previously loosened.

Soil Amendments: Apply 60 lbs/ acre 10–10–10 fertilizer (14 lbs/1000 sq. ft.)
Seeding: For Periods March 1 thru April 30 and August 15 thru October 15, seed with 2–1/2 bushel/acre of annual rye (3.2 lbs/1000 sq. ft.) For the period May 1 thru August 14, seed with 3 lbs/acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons/acre of well anchored straw mulch and see das soon as possible in the Spring, or use sod.

Mulching: – Apply 1–1/2 to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal/acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 ft. or higher, use 348 gal/acre (8 gal/1000 sq. ft.) for anchoring

Reviewed for Howard Soil Conservation District and meets technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — Date 9-30-92

This Development Plan is approved for soil erosion and sediment control and small pond construction by the Howard Soil Conservation District.

Howard Soil Conservation District — Date 10/1/92

405

5447SCD

PURDUM and JESCHKE
CONSULTING ENGINEERS & LAND SURVEYORS
1029 NORTH CALVERT STREET
BALTIMORE, MARYLAND 21202
TEL:(410)837–0194 FAX:(410)837–3431

OWNER/DEVELOPER
PATAPSCO ASSOCIATES LIMITED PARTNERSHIP
12116 ARBIE ROAD
SILVER SPRING, MARYLAND 20904

DEVELOPER'S CERTIFICATION
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF ANY SEDIMENT EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON–SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT
SIMON ROSENBERG — DATE 9-9-92

ENGINEER'S CERTIFICATION
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
RICHARD H. BERICH, P.E. — DATE 9 Sept 92

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 10/30/92

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 10/27/92
CHIEF, BUREAU OF HIGHWAYS — DATE 10/15/92
CHIEF, BUREAU OF ENGINEERING — DATE 10-27-92

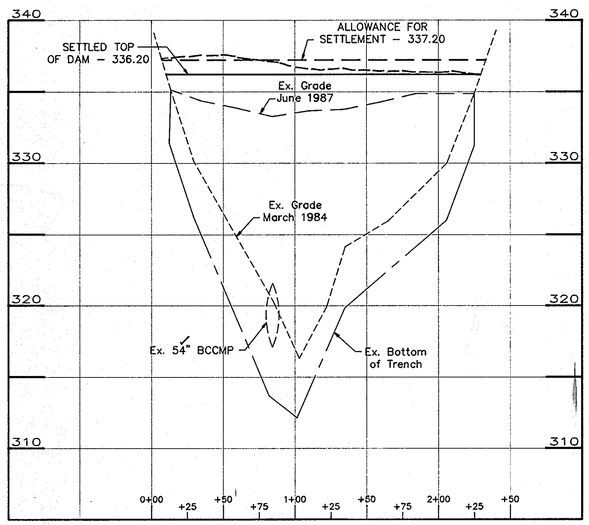
STATE OF MARYLAND — No. 10969 — REGISTERED PROFESSIONAL ENGINEER

ROADWAY CONSTRUCTION PLANS
PATAPSCO PARK ESTATES
SECTION FOUR
SEDIMENT CONTROL DETAILS AND NOTES
TAX MAP NO. 17 — PARCEL 38
2nd ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
DATE : AUGUST 28, 1992 — NO SCALE

SHEET 7 OF 8
DES : GDT/DPW
DRAWN : REC
CHK : RHB
F-91-167

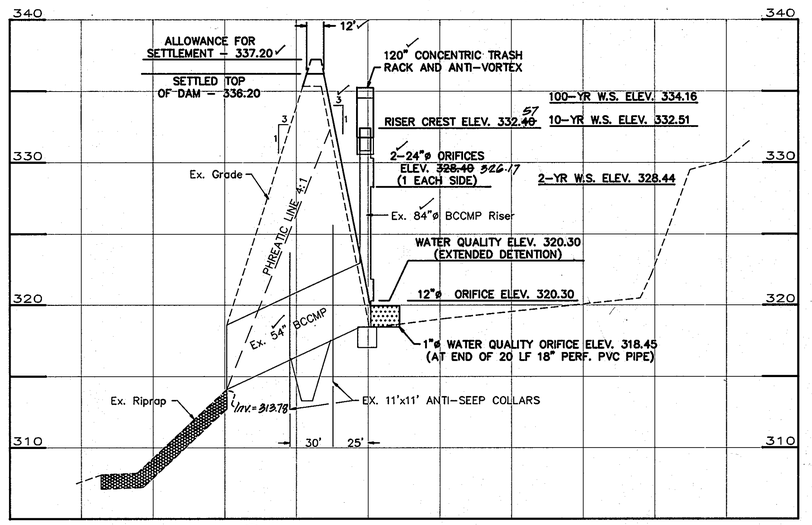
AS BUILT F-91-167

P&J W.O.# 5447–10



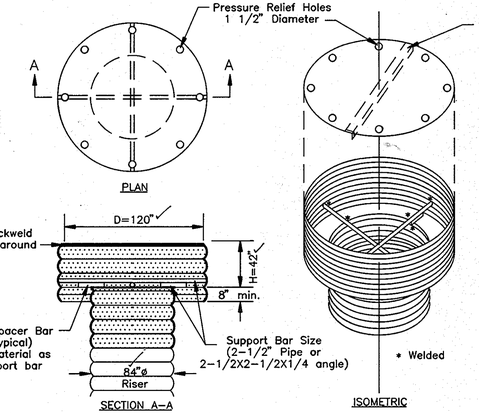
PROFILE OF EMBANKMENT

SCALE : HORIZ. 1"=50'
VERT. 1"=5'



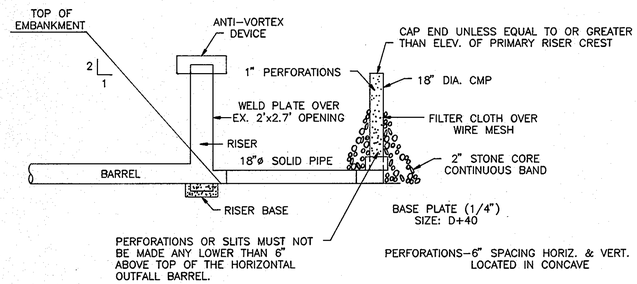
PROFILE OF DAM

SCALE : HORIZ. 1"=50'
VERT. 1"=5'



CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE

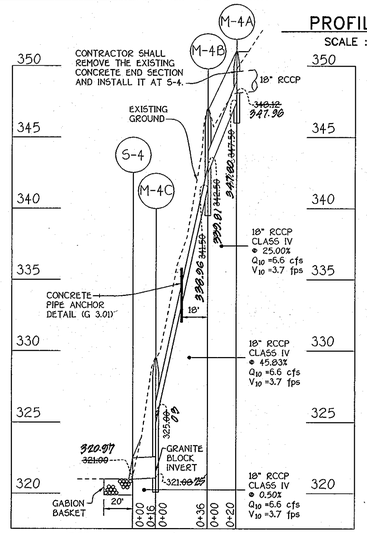
NOT TO SCALE



SEDIMENT TRAP DEWATERING DEVICE WITH 18" PERFORATED RISER

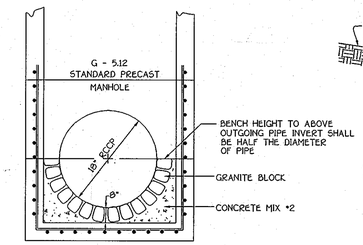
NOT TO SCALE

DURING CONSTRUCTION
NOTE: REFER TO SEQUENCE OF CONSTRUCTION



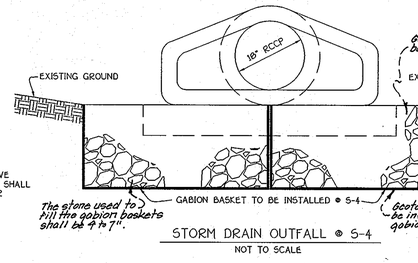
STORM DRAIN PROFILE

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



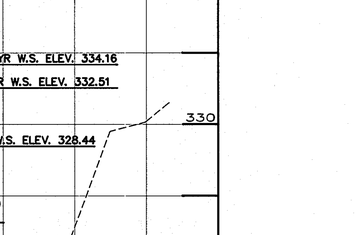
GRANITE BLOCK DETAIL

NOT TO SCALE

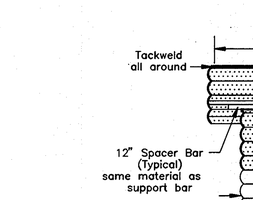


STORM DRAIN OUTFALL @ S-4

NOT TO SCALE

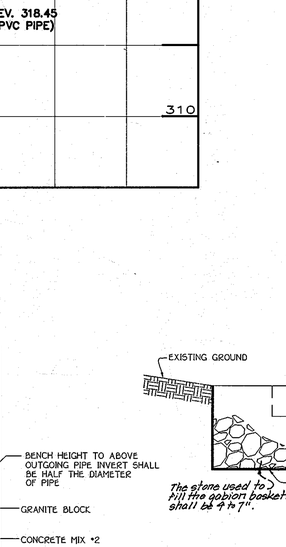


PLAN

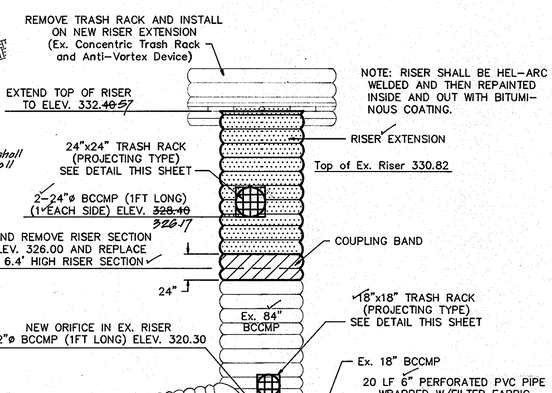


#3 REBAR IMBEDDED INTO EX. RISER BASE 1' FROM END OF BLOCK – DRILL 1/2"ø HOLES, 6" DEEP, FILL WITH NON-SHRINKAGE, QUICK SETTING HYDRAULIC GROUT

B–B

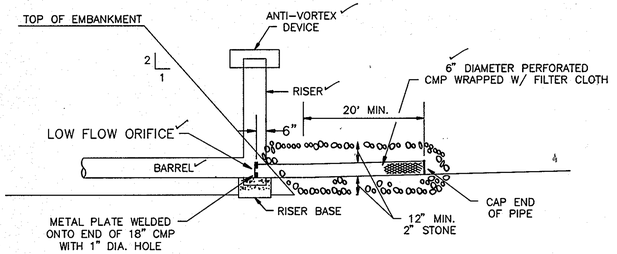


A–A



PRINCIPLE SPILLWAY DETAIL

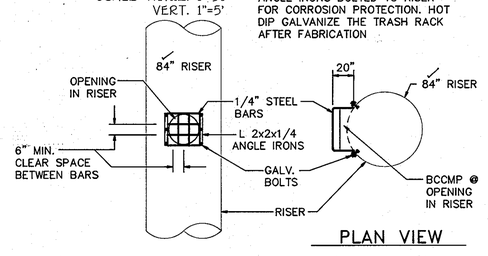
NOT TO SCALE



EXTENDED DETENTION / DEWATERING DEVICE

NOT TO SCALE

AFTER CONSTRUCTION



SIDE VIEW

PLAN VIEW

TRASH RACK (PROJECTING TYPE)

NOT TO SCALE

AS BUILT 7/01/03

STATE OF MARYLAND — JAMES E. CROSS — No. 19361 — REGISTERED PROFESSIONAL ENGINEER

FISHER COLLINS AND CARTER INC.

No	Revision	Date
4	Added storm drain outfall & Manholes M-4A, M-4B & M-4C	11-03-94

RISER BASE MODIFICATIONS

NOT TO SCALE

REVISION #4 11/03/94 FISHER COLLINS AND CARTER INC.

STATE OF MARYLAND — RICHARD H. BERICH — No. 10968 — REGISTERED PROFESSIONAL ENGINEER

Reviewed for Howard Soil Conservation District and meets technical requirements

James M. Foster — U.S. Soil Conservation Service — 9-30-92 Date

This Development Plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

Robert W. Zirkan — Howard Soil Conservation District — 10/1/92 Date

PURDUM and JESCHKE
CONSULTING ENGINEERS & LAND SURVEYORS
1029 NORTH CALVERT STREET
BALTIMORE, MARYLAND 21202
TEL:(410)837-0194 FAX:(410)837-3431

OWNER/DEVELOPER
PATAPSCO ASSOCIATES LIMITED PARTNERSHIP
12116 ARBIE ROAD
SILVER SPRING, MARYLAND 20904

DEVELOPER'S CERTIFICATION
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF ANY SEDIMENT EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT
SIMON ROSENBERG — 9-9-92 DATE

ENGINEER'S CERTIFICATION
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
RICHARD H. BERICH, P.E. — 9 Sept 92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 10/31/92 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — 10/27/92 DATE
CHIEF, BUREAU OF HIGHWAYS — 10/15/92 DATE
CHIEF, BUREAU OF ENGINEERING — 9/30/92 DATE

STATE OF MARYLAND — RICHARD H. BERICH — No. 10968 — REGISTERED PROFESSIONAL ENGINEER

ROADWAY CONSTRUCTION PLANS
PATAPSCO PARK ESTATES
SECTION FOUR

STORMWATER MANAGEMENT DETAILS

TAX MAP NO. 17 — PARCEL 38
2nd ELECTION DISTRICT — HOWARD COUNTY, MARYLAND
DATE : AUGUST 28, 1992 — AS SHOWN

SHEET 8 OF 8
DES : GDT/DPW
DRAWN : REC
CHK : RHB

F-91-167

AS BUILT F-91-167

405

5447SHM

P&J W.O.# 5447-10