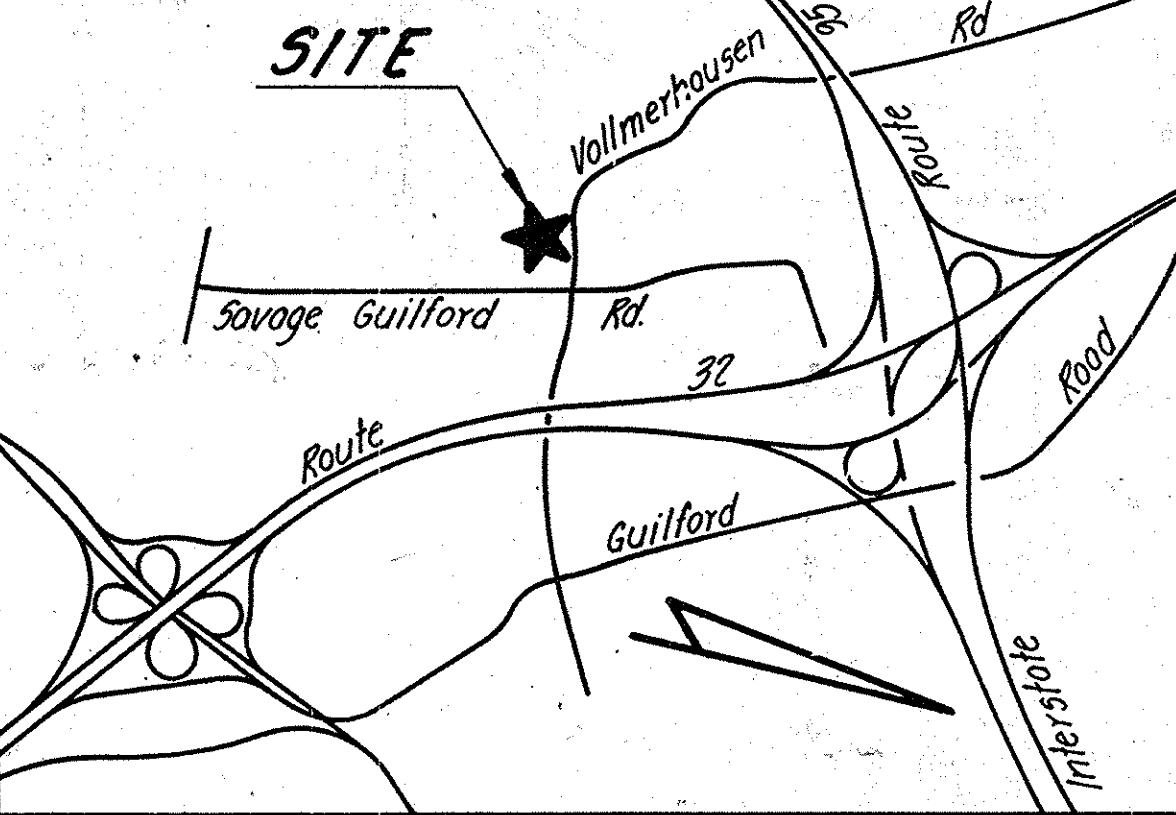


SITE ANALYSIS

1. Limit of Controld Area = 13.44 Acres
2. Land Area = 40.95 Ac.
3. Zoning - R-20
4. Proposed Use - Public Middle School
5. Floor Area - Middle School - 94,528 SF
Elem. School - 63,500 SF
Total - Total = 162,028 SF
6. Parking Spaces Required:
Middle School - 75
Elem. School - 50
Total - 125
7. Parking Spaces Provided:
Middle School - 85 St'd. (9'wide)
2 HC
Elem. School - 67 St'd. (9'wide)
3 HC
Total 162 St'd. Spa.
7 HC Spa.
8. Building Coverage
Middle School - 21,000 SF, 9.82%
Elem. School - 63,500 SF, 3.2%
Total - 84,500 SF, 7.10%
9. Vehicular Area
Middle School - 46,057 SF
Elem. School - 67,950 SF
Total - 114,007 SF
10. Open Space - 1,721,153 SF ± = 84.16%



VICINITY MAP
Scale: 1" = 200'

APPROVED: For public water and public sewerage systems, Howard County Health Department
Jocelyn Bell 3-29-88
County Health Officer Date

APPROVED: Howard County Office of Planning & Zoning
[Signature] 2/20/88
Planning Director Date

[Signature] 3/30/88
Chief, Division of Community Planning Date
and Land Development L.S.

APPROVED: For public water, and public sewerage systems storm drainage systems and public roads.
Howard County Department of Public Works

[Signature]
Director Date
2-24-88
Chief, Bureau of Engineering

1. LANDSCAPE PLAN
2. PREDEVELOPMENT DRAINAGE PLAN
3. STORM DRAINAGE PROFILES AND STORMWATER MANAGEMENT PLAN
4. STORM DRAINAGE CONTROL AND STORMWATER MANAGEMENT PLAN
5. STORM DRAINAGE CONTROL AND STORMWATER MANAGEMENT PLAN

INDEX TO DRAWINGS

1. Detailed Site Plan
2. Site Plan - Sheet 1
3. Site Plan - Sheet 2
4. Storm Sewer Profiles
5. Area Map, Details, San. Sewer Profiles
6. Plan of Sediment Control Sht. 1
7. Plan of Sediment Control Sht. 2
8. Sediment Control Details
9. Predevelopment Drainage - Sheet 1
10. Predevelopment Drainage - Sheet 2
11. Postdevelopment Drainage - Sheet 1
12. Postdevelopment Drainage - Sheet 2
13. LANDSCAPE PLAN - SHEET 1
14. LANDSCAPE PLAN - SHEET 2
15. VEHICULAR PLAN
16. VEHICULAR PLAN
17. SITE IMPROVEMENT PLAN
18. SITE IMPROVEMENT PLAN
19. EROSION CONTROL PLAN
20. EROSION CONTROL PLAN
21. DETAIL SHEET & BUILDING ELEVATIONS
22. STORM DRAIN PROFILES
23. EROSION CONTROL NOTES
24. EROSION CONTROL DETAILS & SOIL BORING LOG
25. STORMWATER MANAGEMENT BMP PROFILE & DETAILS
26. STORMWATER MANAGEMENT NOTES & PLANING PLAN
27. STORMWATER MANAGEMENT GROUND NEAR DETAIL
28. DRAINAGE IMPROVEMENT NEAR SWIMMING

NOTE 1: Land dedicated to Howard County, Maryland for purpose of public Road: Area 22,500 SF ± = 0.518 Ac.
2. Dimensions marked "CHECK" shall be verified after layout is complete. Any discrepancy shall be reported immediately to Arch.

**DETAILED SITE PLAN
PATUXENT VALLEY
MIDDLE SCHOOL
PARCEL 25 TAX MAP 47**

SIXTH ELECTION DISTRICT
HOWARD COUNTY, MD.

NOTE: THE PURPOSE OF THIS REGULINE IS TO ADD ADDITIONS & 1 BMP ALONG WITH THEIR UTILITIES WITHIN SHEETS 15-27.

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 3-21-88
LKS/

NOTE: THE PURPOSE OF THIS REGULINE IS TO SHOW DRAINAGE IMPROVEMENTS ON SHEET 28 NEAR THE SWIMMING.

OWNER-DEVELOPER
Howard County Bd of Educ.
10910 Rt 108
Ellicott City, Md 21042
992-0500
Attn: Mr. Henry Hornung

SUBDIVISION NAME	Patuxent Valley Middle School	PARCEL NO.	25
SUBDIVISION MAP	47	TAX/ZONE MAP	47
SECTION	47	ELC. DIST.	6
WATER CODE	C01	SEWER CODE	5091500

HANKINS & ANDERSON CONSULTING ENGINEERS 504 SANTA ROSA ROAD RICHMOND, VIRGINIA 23282 (804) 281-4171	DATE 17 FEB. 1988	DRAWING SCALE 1" = 30'
--	----------------------	------------------------------

ADDRESS CHART

Lot Number	Street Address
1	9151 VOLLMERHAUSEN ROAD

REVISION 7/28/84
1. UPON REVIEW AND APPROVAL OF THE QUALIFIED EOP FOR COMPLIANCE WITH THE ZONING AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR WITHIN THIS SITE DEVELOPMENT PLAN AND SUBJECT TO ADDITIONAL AND MORE DETAILED COMMENTS AS THE PLAN PROGRESSES THROUGH THE DEVELOPMENT PROCESS. THE QUALIFIED EOP HAS APPROVED AS FOLLOWS:
2. THE PLANNING DIRECTOR, ON JULY 11, 2014 GRANTED APPROVAL TO WAIVE SUBSECTION 10.1201 (c) OF THE HOWARD COUNTY CODE, SUBJECT TO THE FOLLOWING CONDITIONS:

- UPON BUILDING PERMIT APPLICATION PARTNER SHALL SUBMIT TO THE DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF INSPECTIONS, LICENSING AND PERMITS A COPY OF THE MINORITIES AUTHORITY IN THE DEPARTMENT OF FINANCE, BUREAU OF ACCOUNTING TO TRANSFER \$3,000.00 TO SAV ACCT 2060000000-3000-3000000000-R1000000000-430001 FOR THE FOREST CONSERVATION FEE-IN-LIEU PAYMENT.
- NO DISTURBANCE IS PERMITTED BEYOND THE LIMIT OF DISTURBANCE INDICATED ON THE WATER BARRIER WITHOUT PRIOR WRITTEN APPROVAL BY DEP.
- ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AND PERMANENT CONTROL PLAN.
- THE PARTNER SHALL CITE THE WATER BARRIER NUMBER ON ALL PERMIT PLANS, EXCISE REPORTS, APPLICATIONS AND PERMITS.
- THE PARTNER SHALL APPLY FOR ALL NECESSARY PERMITS WITH THE DEPARTMENT OF INSPECTIONS, LICENSING AND PERMITS PRIOR TO THE COMMENCEMENT OF ANY GRADING AND/OR CONSTRUCTION FOR THIS PROJECT.

SOUTHERN ELEMENTARY SCHOOL (UNDER CONSTRUCTION)

See SDP-87-30 for this Project

BY THE ENGINEER

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Careed T. Elliott 2-17-88
CAREED T. ELLIOTT, P.E. DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

[Signature] 3-23-88
U.S. SOIL CONSERVATION SERVICE DATE

BY THE DEVELOPER

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Henry Flourens 3/18/88
HOWARD CO. BOARD OF EDUCATION DATE

PRIVATE LOOP DRIVE (BUS LOOP) EXISTS.

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 3/23/88
HOWARD SOIL CONSERVATION DISTRICT DATE

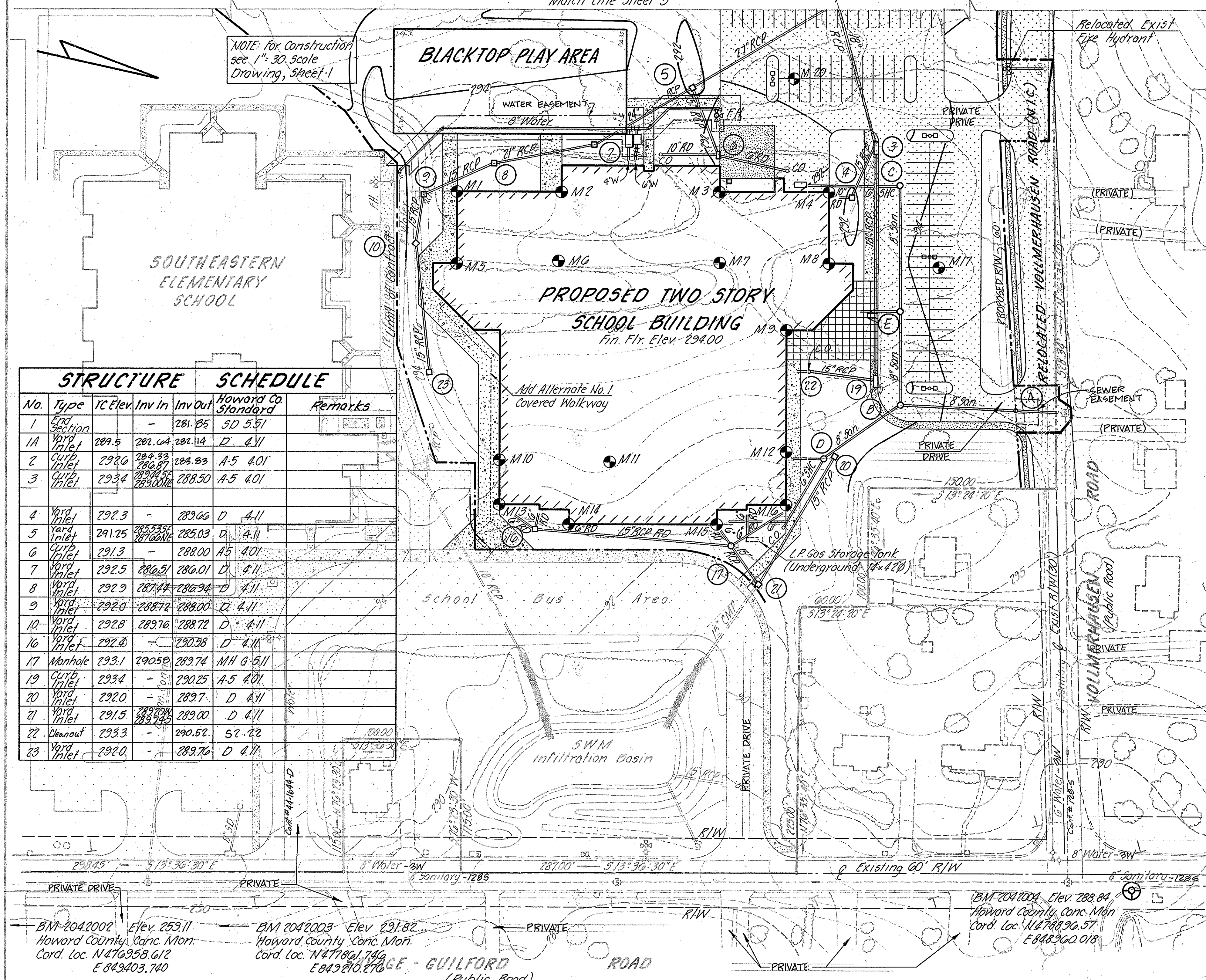
ARBER, ARTHUR K. & W.F. (R-20)
3/23/88
3/23/88

NOTE: for Construction See 1/4" Scale Drawing - Sheet 3

NOTE: For Construction see 1"=30' Scale Drawing, Sheet 1

Match Line Sheet 3

See Dwg. No. 7 for Sediment Trap in this Area



STRUCTURE		SCHEDULE				
No.	Type	IC Elev.	Inv In	Inv Out	Howard Co. Standard	Remarks
1	End Section	-	-	281.85	SD 5.51	
1A	Yard Inlet	289.5	282.64	282.14	D 4.11	
2	Yard Inlet	292.0	284.33	283.83	A-5 4.01	
3	Yard Inlet	293.4	286.87	286.37	A-5 4.01	
4	Yard Inlet	292.3	-	283.66	D 4.11	
5	Yard Inlet	291.25	285.53	285.03	D 4.11	
6	Yard Inlet	291.3	-	288.00	A-5 4.01	
7	Yard Inlet	292.5	286.5	286.01	D 4.11	
8	Yard Inlet	292.9	287.44	286.94	D 4.11	
9	Yard Inlet	292.0	288.72	288.00	D 4.11	
10	Yard Inlet	292.8	289.76	289.22	D 4.11	
16	Yard Inlet	292.4	-	290.38	D 4.11	
17	Manhole	293.1	290.50	289.74	MH G-5.11	
19	Yard Inlet	293.4	-	290.25	A-5 4.01	
20	Yard Inlet	292.0	-	289.7	D 4.11	
21	Yard Inlet	291.5	289.20	289.00	D 4.11	
22	Yard Inlet	293.3	-	290.52	S-7 2.2	
23	Yard Inlet	292.0	-	289.76	D 4.11	

BM 2042002 Elev. 259.11
Howard County Conc. Mon.
Cord. Loc. N476958.612
E 849203.740

BM 2042003 Elev. 291.82
Howard County Conc. Mon.
Cord. Loc. N477861.746
E 849210.276

CONSTRUCTION NOTES

- All materials and construction to be in accordance with Howard County "Standard Specifications and Details for Construction."
- Any damage to county owned rights-of-way to be corrected at the developer's expense.
- Installation of traffic control devices shall be in accordance with the latest edition of the "Manual of Uniform Traffic Control."
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location by digging test pits, by hand, at all utility crossings, well in advance of construction.
- Notify "Miss Utility" at 559-0100 before beginning construction.
- Topography was prepared by Mapping Assoc. and Purdum and Jeschke dated July 29, 1986
- Driveways and parking areas to be privately maintained.
- Handicap Parking Details shall be in accordance with the "Maryland Building Code for the Handicapped," Sect. 5.01-7.05.
- Construct entrances to Vollmerhausen Road per Std. R-6-07 of the width and curb radius as detailed on Sht. 1. Provide curb depressions for future sidewalk ramps in driveway per Std. G 2.01.
- The following paving standards apply:
Paving of parking lot "A" per P-1 Std R 2.01.
Paving of service area, lot "B", in back of school P2 curb & gutter (Std. C&G) per Std. R-3.01
Curb & gutter (Std. C&G) per Std. R-3.03
Concrete sidewalk per Std. R-3.05
Monolithic curb & sidewalk per Std. R-3.07
Sidewalk ramp "Type A" per Std. R-4.01
Other standards may additionally be needed to complete the proposed construction.
Trench bedding for storm drainage per Std. G-2.01.
- All rip rap shown on these drawings are to be of stone with minimum weight of 20 lbs max. 50 lbs.
- See requirements of other trades (gas, telephone, electricity, cable, etc.) for location and installation.
- Sod all lawn areas 3 to 1 or steeper and all swale flow lines for 8' width except as may be required otherwise (rip rap, landscaping, etc.) all other areas may be seeded. No disturbed area may be left unfinished.
- See landscaping drawings for areas to be left not grassed for planting purposes, and for playfields, turf bed preparation and planting.
- Stormwater management infiltration basin bottoms to be left clean of sediment and in natural virgin soil.
- All exterior lighting devices shall be directed/reflected away from all adjacent public road right of ways and residentially zoned properties.
- Installation of water mains shall be in accordance with the Water Main Extension drawing and is a part of this contract.
- Grades in play field area may be uniformly raised or lowered to secure balance of earthwork.

APPROVED: For public water and public sewerage systems,
Howard County Health Department
Jeanne Baker County Health Officer 7-29-88 Date

APPROVED: Howard County Office of Planning & Zoning
Chapman Planning Director 3/20/88 Date

APPROVED: Division of Community Planning and Land Development
Joseph Smith 3/30/88 Date
L.S.

APPROVED: For public water & public sewerage, storm drainage systems and public roads.
Howard County Department of Public Works
James H. Jones Director 3/25/88 Date

William E. R. C. Co. Chief, Bureau of Engineering 3-24-88 Date 3-24-88

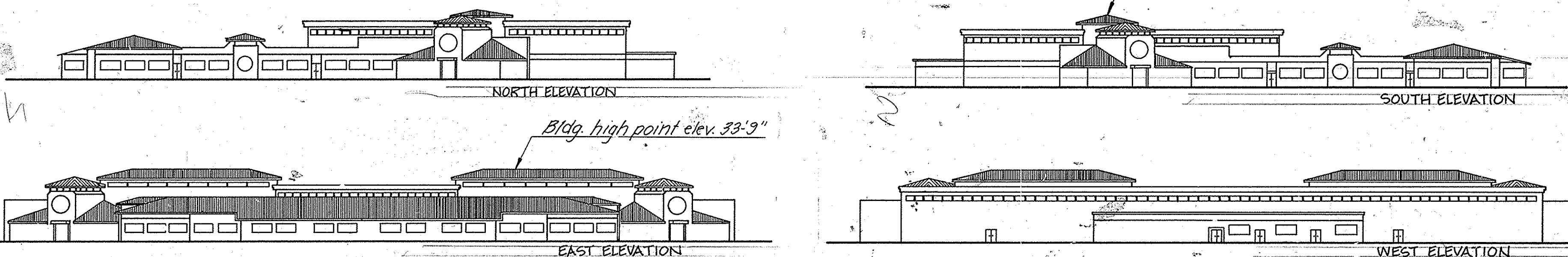
BY THE DEVELOPER
"I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."
Henry Hornung Howard Co. Board of Education 3/18/88 DATE

BY THE ENGINEER
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL IS 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 30 DAYS OF COMPLETION."
Creed T. Elliott, P.E. 2-17-88 DATE

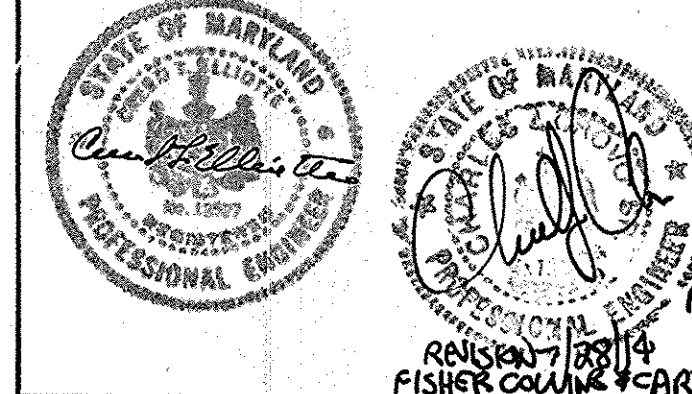
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
J. Helms U.S. SOIL CONSERVATION SERVICE 3-22-88 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Stephen L. Fisher Howard Soil Conservation District 3/23/88 DATE

**SITE PLAN
SHEET ONE
PATUXENT VALLEY
MIDDLE SCHOOL
PARCEL 25, TAX MAP 47
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MD**



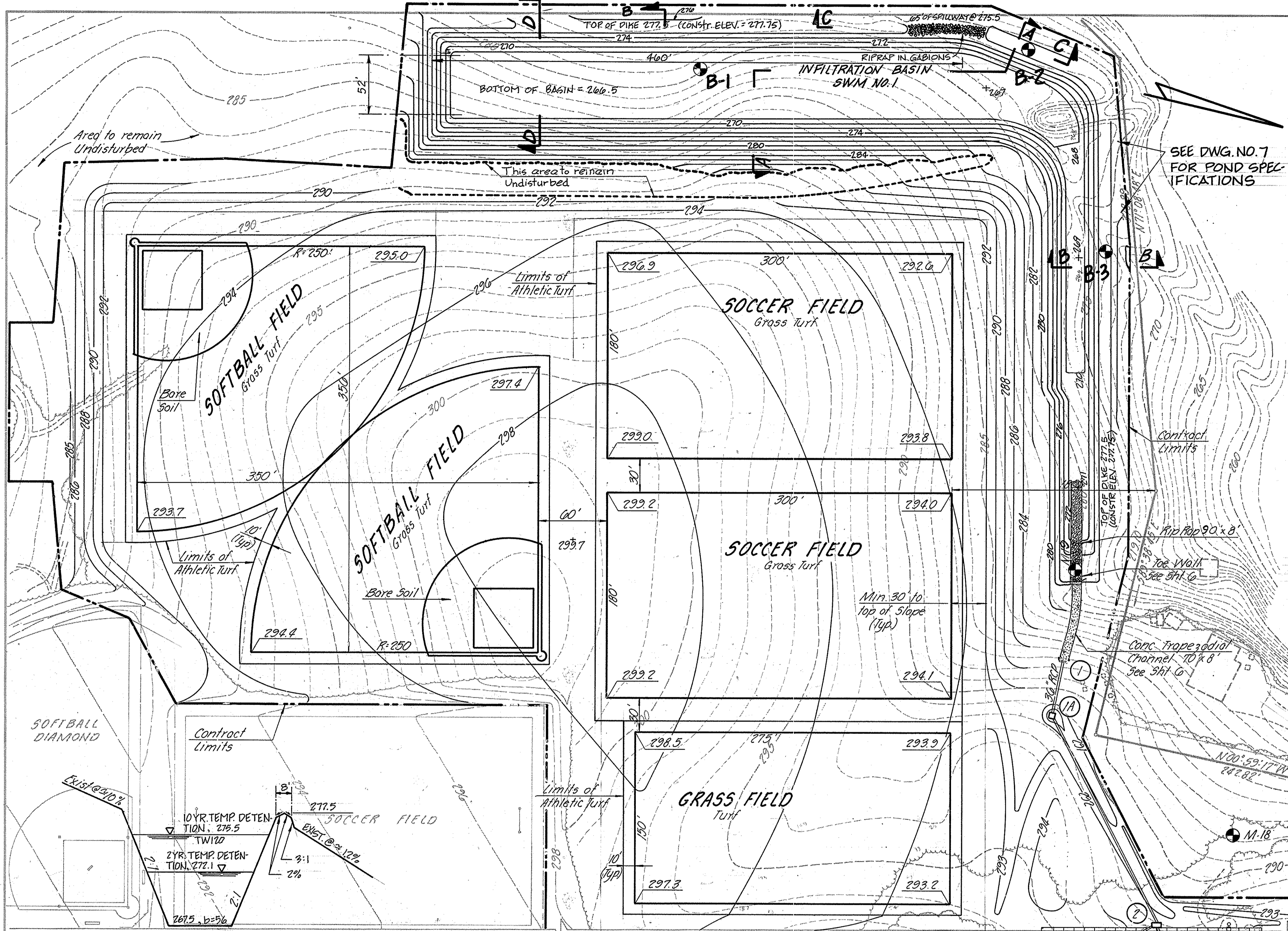
APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 3-21-88
LKS



OWNER - DEVELOPER
Howard County Bd. of Educa.
10910 Rf 105
Pillcott City, Md 21043
999.0500
Attn: Mr. Henry Hornung

HANKINS & ANDERSON
CONSULTING ENGINEERS
1604 SANTA ROSA ROAD
RICHMOND, VIRGINIA 23288
(804) 285-4171

DATE 17 FEB. 1988
SCALE 1"=30'
JOB NO. 2 28
DRAWING OF



BY THE ENGINEER

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Creed T. Elliott, P.E. 2-17-88
CREED T. ELLIOTT, P.E. DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

J. J. Volant 3-22-88
U.S. SOIL CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Stephen L. Glavin 3/23/88
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: For public water and public sewerage systems, Howard County Health Department

Joan Bowen 3-29-88
County Health Officer Date

APPROVED: Howard County Office of Planning & Zoning

[Signature] 3/20/88
Planning Director Date

APPROVED: Division of Community Planning and Land Development

[Signature] 3/30/88
Date

APPROVED: For public water, public sewerage systems, storm drainage systems and public roads.

Howard County Department of Public Works

[Signature] 3/25/88
Director Date

[Signature] 3-24-88
Chief, Bureau of Engineering Date

BY THE DEVELOPER

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

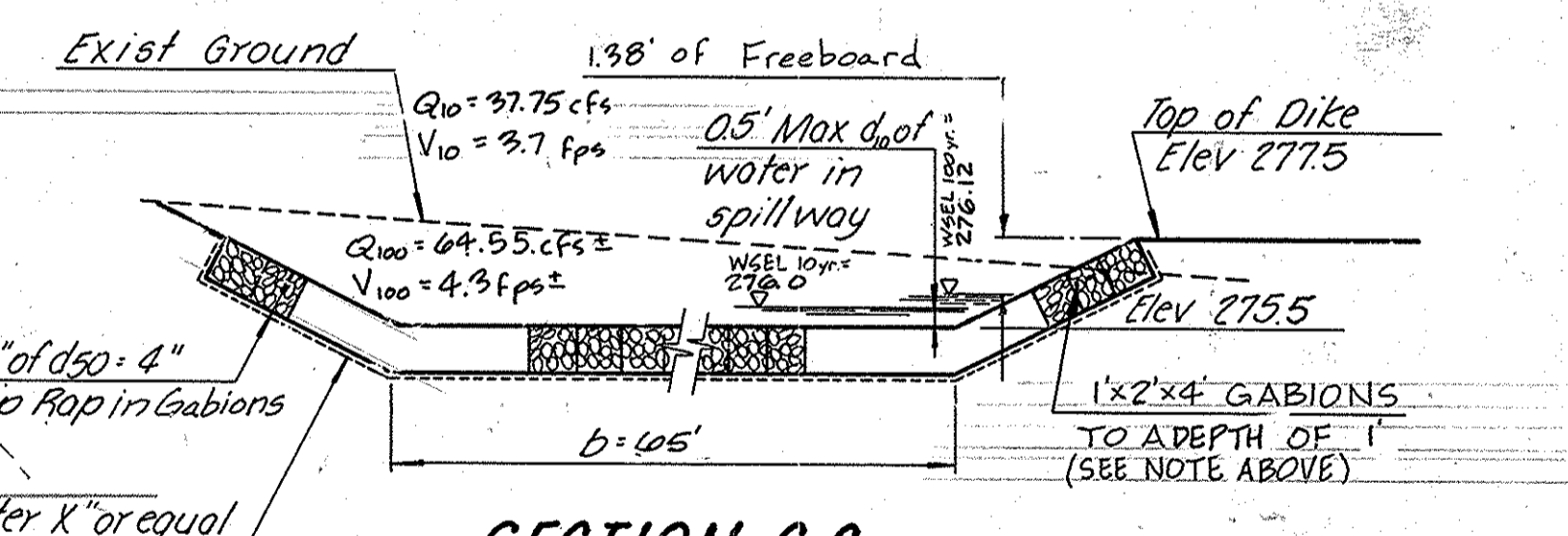
Henry Hornung 3/18/88
HOWARD CO. BOARD OF EDUCATION DATE

LEGEND

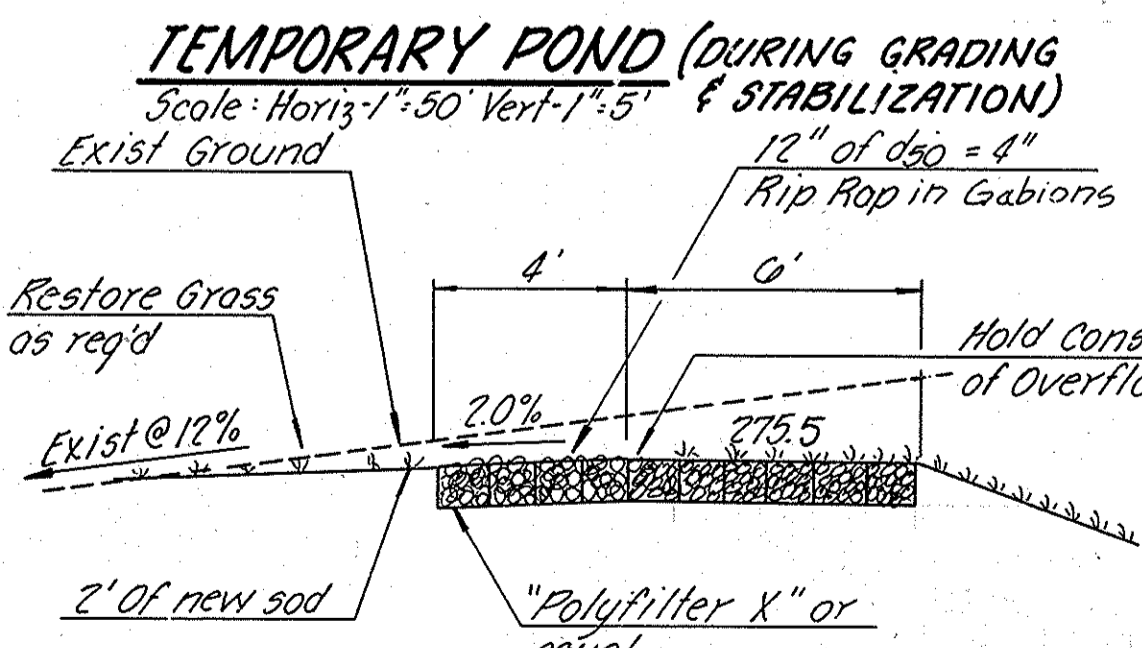
B-1 BORING NO. 1
B-2 BORING NO. 2
B-3 BORING NO. 3

NOTE

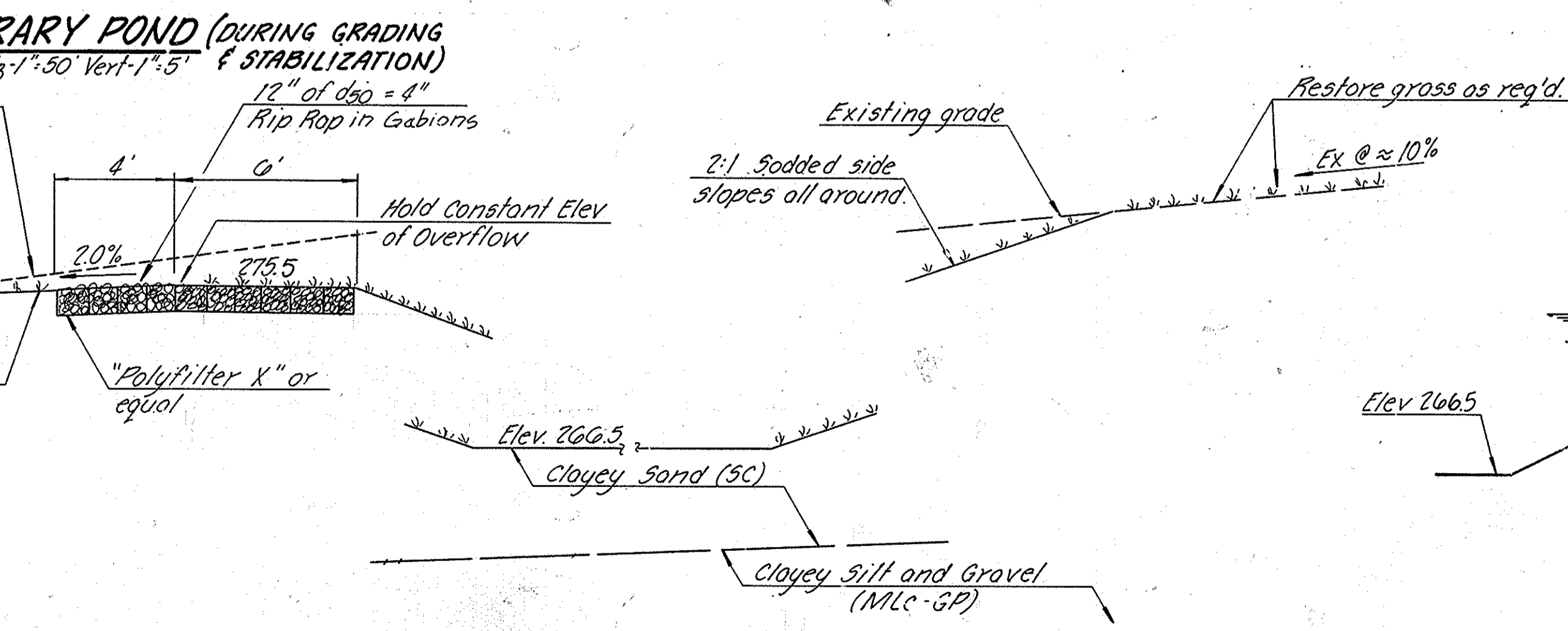
GABIONS SHALL BE MADE OF HEXAGONAL TRIPLE TWIST MESH WITH HEAVILY GALVANIZED STEEL WIRE. MAXIMUM LINEAR DIMENSION OF MESH OPENING SHALL NOT EXCEED 4 1/2" AND THE AREA OF THE OPENING SHALL NOT EXCEED 10 SQ. IN. GABIONS SHALL BE FABRICATED IN SUCH A MANNER THAT THE SIDES, ENDS AND LID CAN BE ASSEMBLED ON-SITE INTO BASKETS. GABIONS SHALL BE OF SINGLE UNIT CONSTRUCTION AND INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. THE AREA ON WHICH THE GABION IS TO BE INSTALLED SHALL BE GRADED AS SHOWN ON THE DRAWINGS. FOUNDATION CONDITIONS SHALL BE THE SAME AS FOR PLACING ROCK RIPRAP AND FILTER CLOTH SHALL BE PLACED UNDER ALL GABIONS.



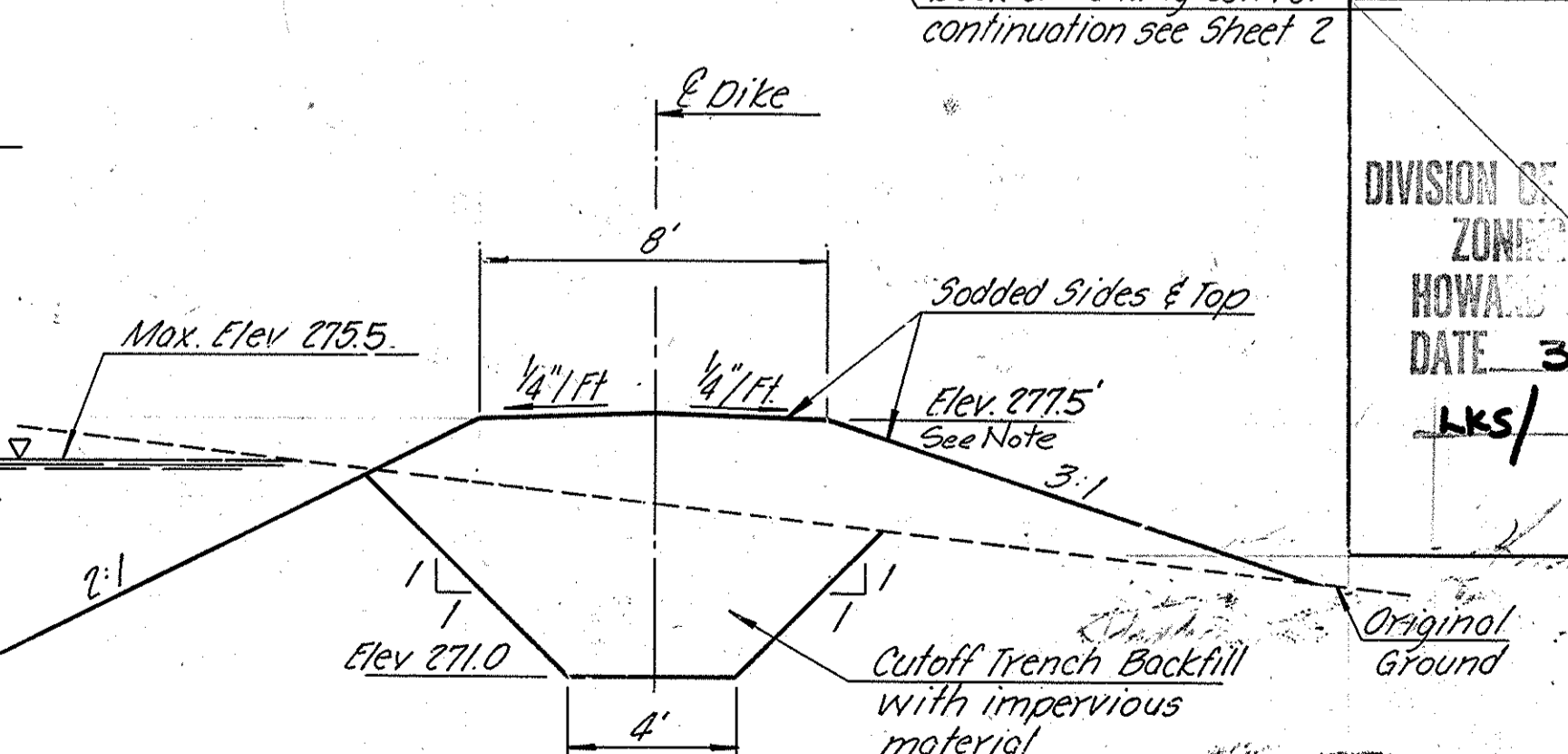
SECTION D-D



SECTION A-A



SECTION B-B



DIVISION OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
DATE 3-21-88
LKS

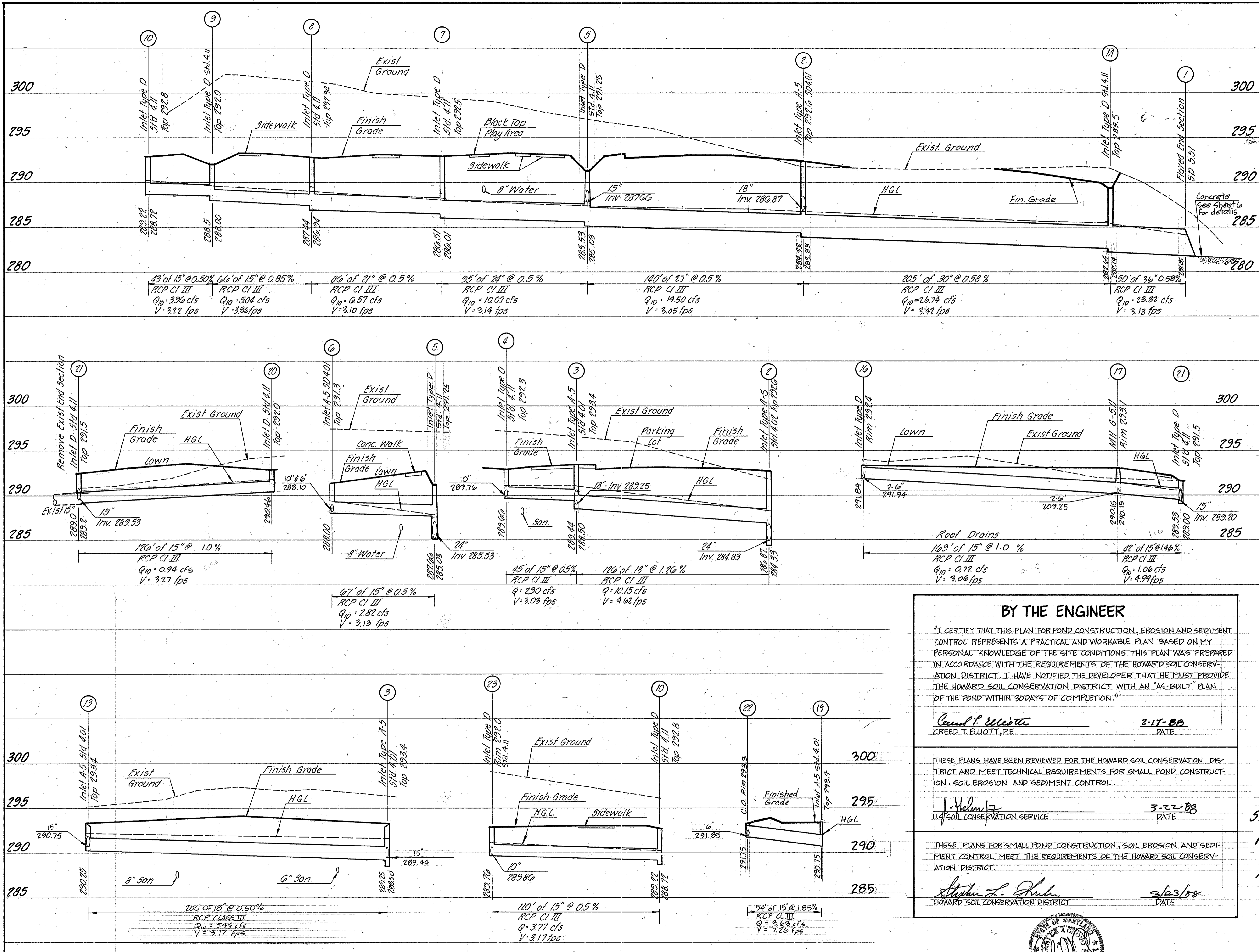
SECTION C-C
EMERGENCY SPILLWAY

SITE PLAN
SHEET TWO
PATUXENT VALLEY
MIDDLE SCHOOL
PARCEL 25, TAX MAP 47
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MD.

OWNER - DEVELOPER
Howard County Bd of Educa
10910 Rt 108
Ellicott City, Md 21043
392-0500
Attn: Mr. Henry Hornung

STATE OF MARYLAND
Professional Engineer
[Signature]
REVISION 7/28/14
FISHER CONSULTING & ENGINEERING
REVISION 01/30/16

HANKINS & ANDERSON CONSULTING ENGINEERS 1604 SANTA ROSA ROAD RICHMOND, VIRGINIA 23288 (804) 285-4171	DATE 17 FEB. 1988	DRAWING SCALE 1" = 50' JOB NO. 3 28 OF
---	----------------------	---



APPROVED: For public water and public sewerage systems, Howard County Health Department
 County Health Officer James P. ... Date 3-29-88

APPROVED: Howard County Office of Planning and Zoning
 Planning Director W. ... Date 3/28/88

APPROVED: For public water, public sewerage systems, storm drainage systems and public roads.
 Howard County Department of Public Works.
 Director James ... Date 3/25/88

APPROVED: Chief, Bureau of Engineering
James ... Date 3-24-88

BY THE DEVELOPER
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
Henry Hornung DATE 3/18/88
 HOWARD CO. BOARD OF EDUCATION

- UTILITY CONSTRUCTION**
- All structures are Howard County Standard per detail as designated.
 - All permanent storm drains shall be RCP per ASTM C-76 of the class as shown in profile.
 - SHC to be P.V.C., CSPX, VCPX or ACP cl. 2400.
 - All construction methods and materials shall be per current edition of H.C. Std. Dets and Specs.
 - All water mains to have a min of 3.5' of cover, and be of Ductile iron pipe.
 - All service connections to be to 5' from the face of building unless otherwise shown.
 - All inlets requiring grates shall have reticular type grates.

BY THE ENGINEER

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Creed T. Elliott DATE 2-17-88
 CREED T. ELLIOTT, P.E.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

J. Helms DATE 3-22-88
 U.S. SOIL CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

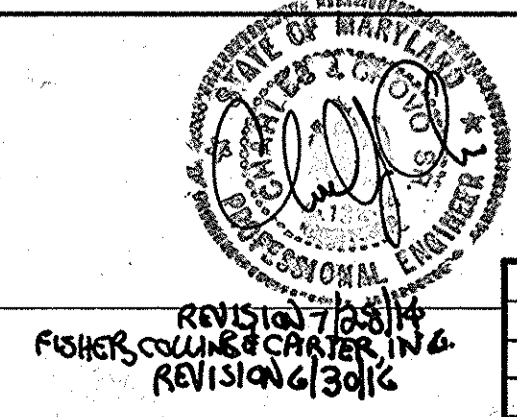
Stephen L. ... DATE 3/23/88
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE 3-21-88
HKS/

STORM SEWER PROFILES
PATUXENT VALLEY
MIDDLE SCHOOL
PARCEL 25 TAX MAP 47
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MD.

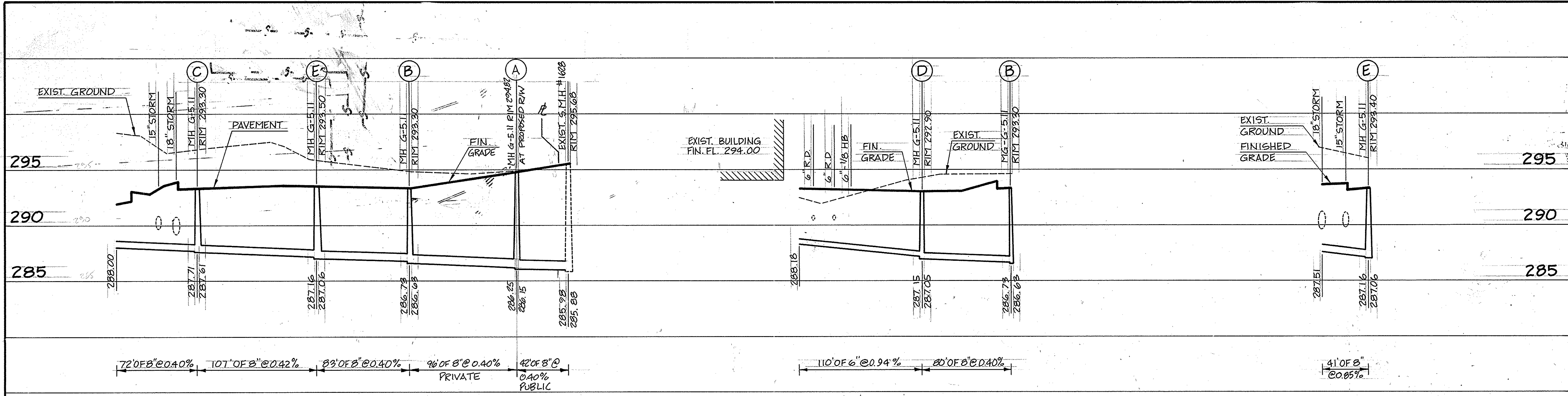


OWNER-DEVELOPER
 Howard County Bd. of Educa.
 10910 Rt 103
 Ellicott City, Md. 21043
 992-0500
 Attn: Mr Henry Hornung



HANKINS & ANDERSON CONSULTING ENGINEERS 1604 SANTA ROSA ROAD RICHMOND, VIRGINIA 23288 (804) 285-4171	DATE 17 FEB. 1988	DRAWING 4 28 OF
	SCALE H: 1"=30' V: 1"=5'	JOB NO.

SDP-88-50



SANITARY SEWER PROFILES

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

APPROVED: For public water and public sewerage systems, Howard County Health Department
James B. [Signature] 3-24-88
 Health Officer Date

APPROVED: For public water and sewerage systems, storm drainage systems and public roads.
James M. [Signature] 3/25/88
 Director Date

APPROVED: For public water and sewerage systems, storm drainage systems and public roads.
 Howard County Department of Public Works
James M. [Signature] 3/25/88
 Director Date

APPROVED: For public water and sewerage systems, storm drainage systems and public roads.
 Howard County Department of Public Works
James M. [Signature] 3/25/88
 Director Date

BY THE DEVELOPER:
 I certify that all development and/or construction will be done according to this plan of development and plan for erosion and sediment control, and I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.
Henry Horning 4/10/88
 Developer Date
 Howard County Board of Education

NOTE: Standard R7.8 Reserved Parking for Handicapped Sign shall be mounted directly above # 50 FINE Sign

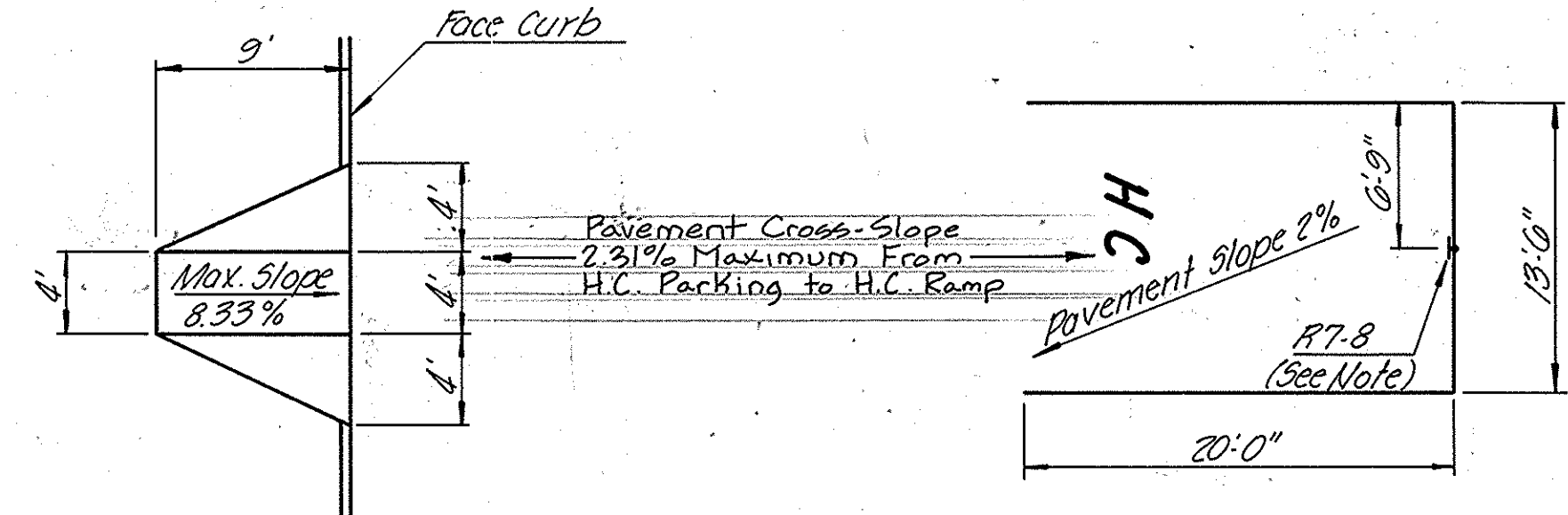


Sign (1/2 Size)

Sign to utilize an aluminum blank 6" x 12" x 0.080 inch thick with (2) single post mounting holes.

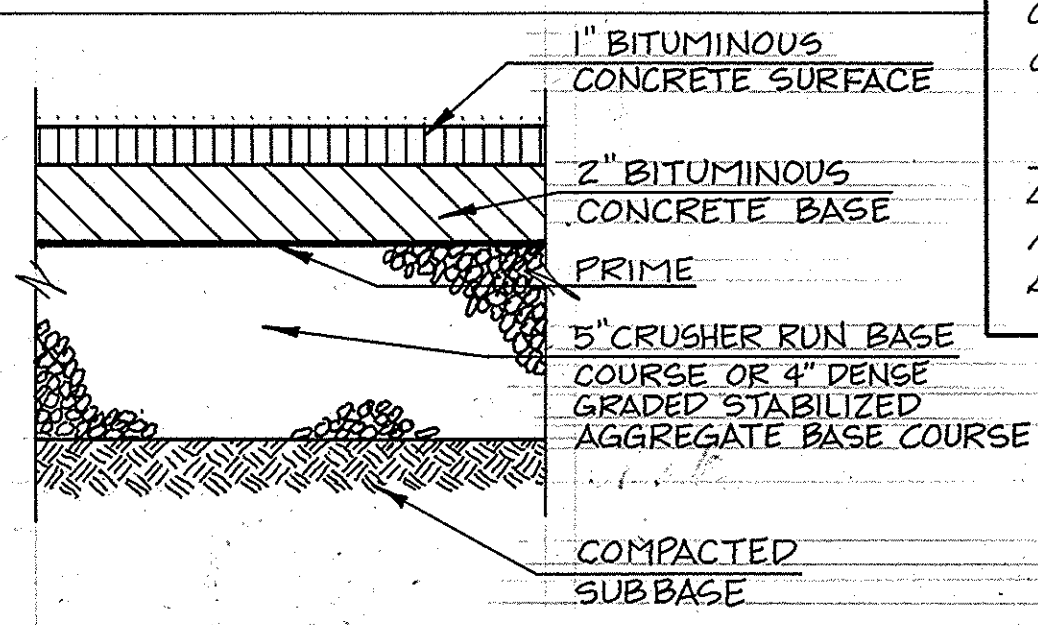
The text and border shall be standard green to match that on R7.8 and the background shall be reflective white. Text shall be in 3" characters.

MOUNTING: Above sign shall be mounted directly below the standard R7.8 Reserved Parking for Handicapped sign. Its bottom edge shall be no less than 7 feet above ground.



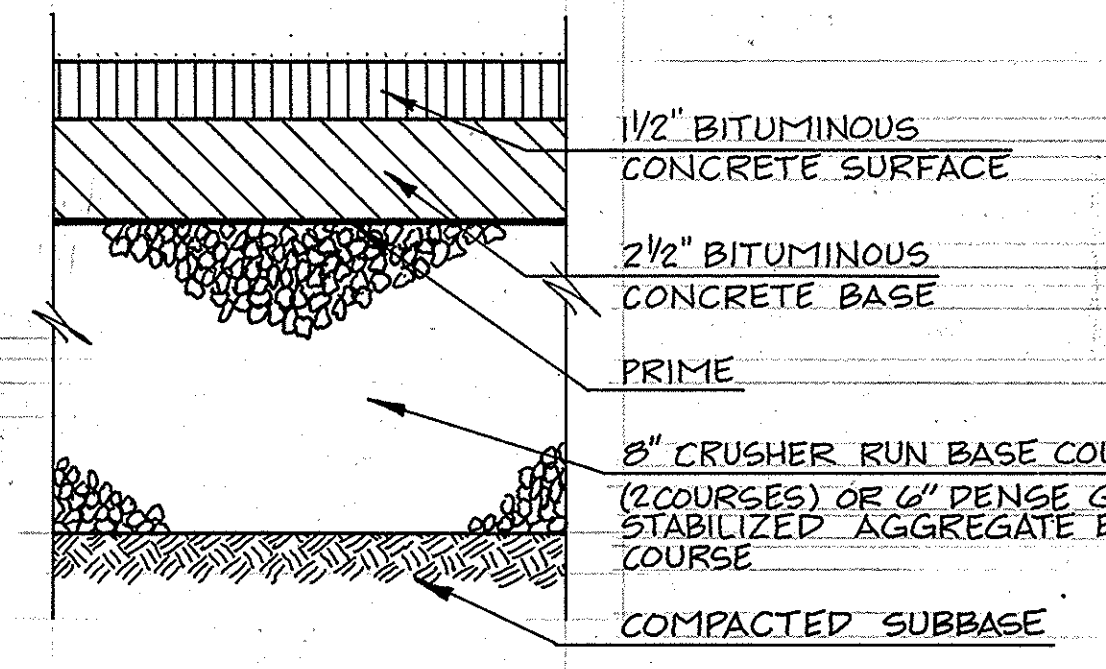
CURB CUT RAMP DRIVE HANDICAPPED PARKING SPACES

Scale: 1/8" = 1'-0" No Scale Scale: 1/8" = 1'-0" (TYP. OF 4)



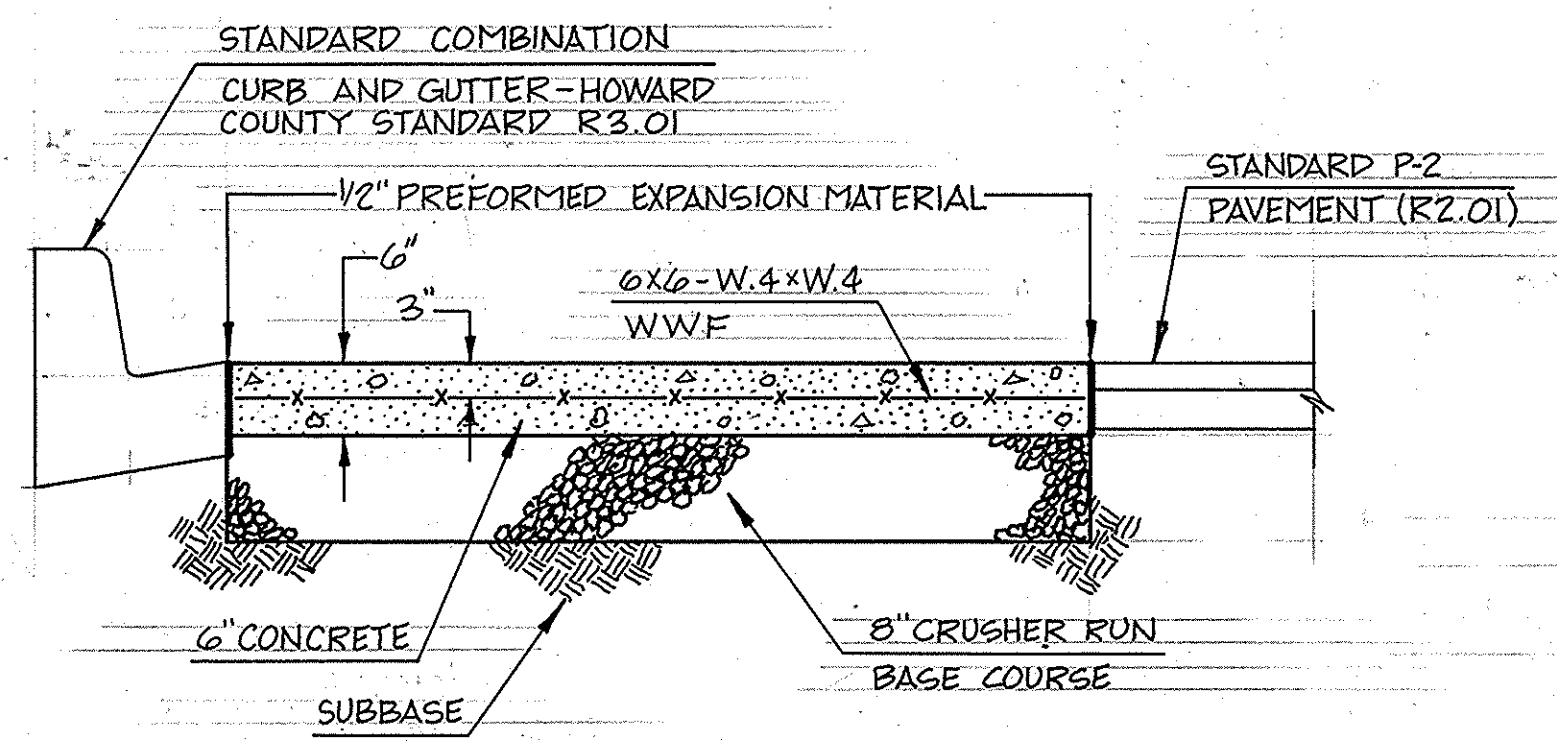
DETAIL OF PAVING SECTION P-1

NO SCALE



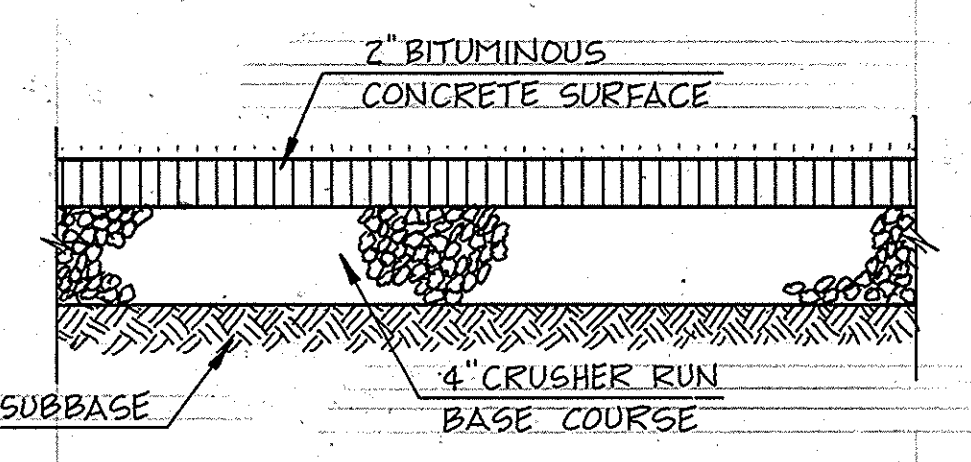
DETAIL OF PAVING SECTION P-2

NO SCALE



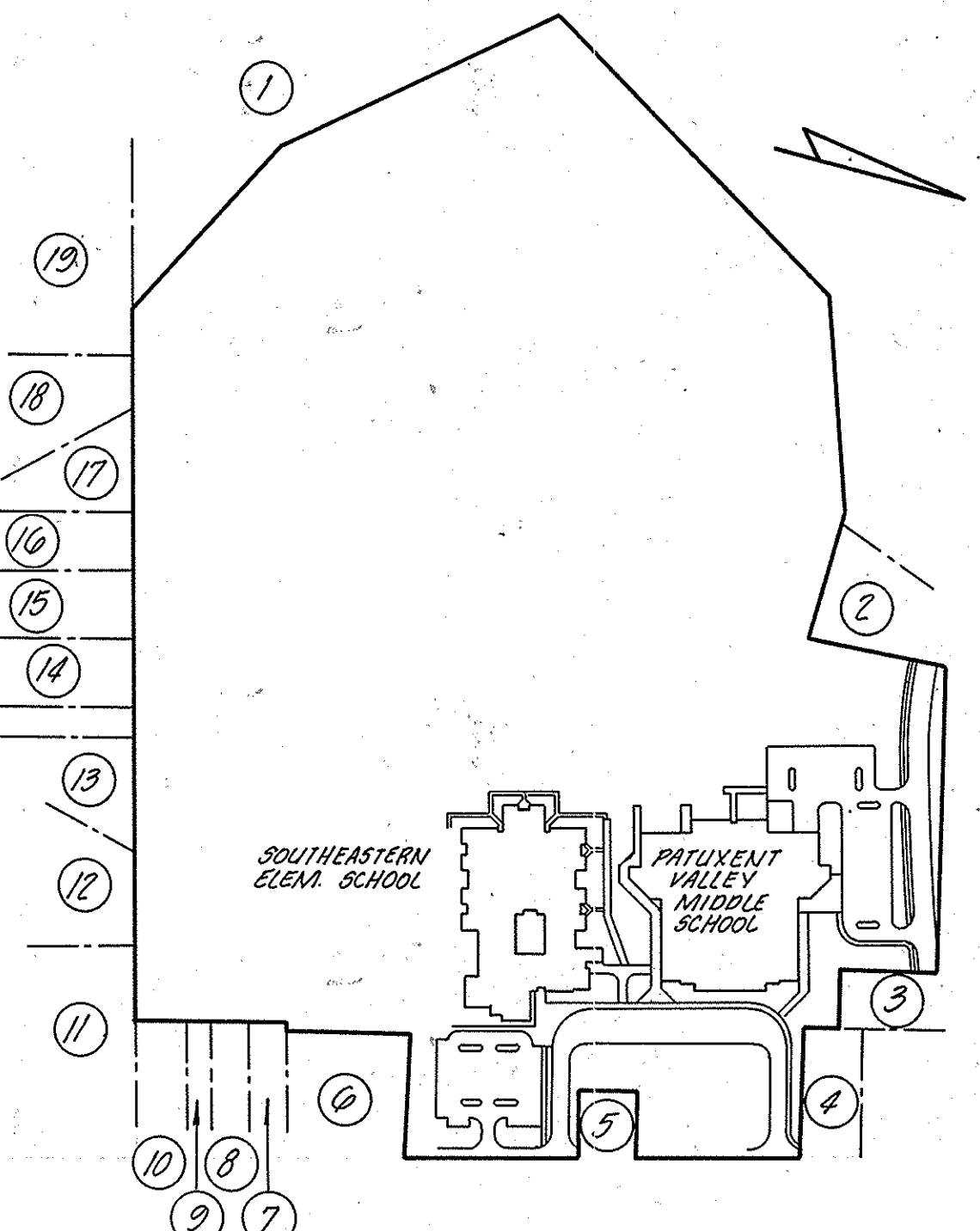
TYPICAL SECTION OF CONCRETE PAVEMENT

NO SCALE



TYPICAL SECTION OF BITUMINOUS PAVED PLAY AREA

NO SCALE



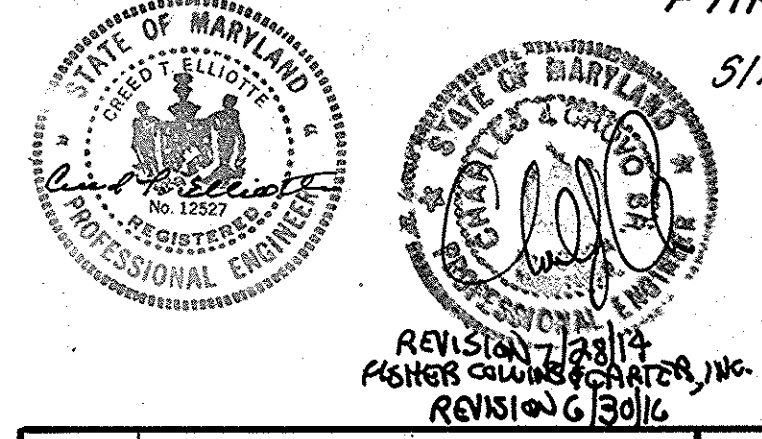
AREA MAP

Scale: 1" = 300'

- | | | | |
|---|--------------|--|--------------|
| 1 Howard County Dept. of Recreation and Parks | 306/63 R-20 | 14 E. Hilton, Jr. | 301/634 R-20 |
| 2 M. Cochran | 421/173 R-20 | 15 Marion Snyder | 342/410 R-20 |
| 3 Glen P. Twigg | 216/314 R-20 | 16 John Hogen, Jr. | 434/543 R-20 |
| 4 Arthur K. Arber & W.F. | 427/134 R-20 | 17 John Hengen, Jr. | 436/598 R-20 |
| 5 L. Keeney | 209/562 R-20 | 18 Roy Piercy | 203/430 R-20 |
| 6 John W. Hill | 122/140 R-20 | 19 Board of County Commission of Howard County | 501/704 R-20 |
| 7 G. Mitschang | 300/616 R-20 | | |
| 8 Robert Estes | 516/483 R-20 | | |
| 9 Joseph Long | 218/112 R-20 | | |
| 10 W. Long | 292/308 R-20 | | |
| 11 William Banks | 162/555 R-20 | | |
| 12 Malcolm Murff | 512/224 R-20 | | |
| 13 Lewis Smith | 443/211 R-20 | | |

APPROVED: DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION HOWARD COUNTY, MARYLAND
 DATE 3-21-88
 LKS/

AREA MAP, DETAILS, SANITARY SEWER PROFILES PATUXENT VALLEY MIDDLE SCHOOL PARCEL 25 TAX MAP 47 SIXTH ELECTION DISTRICT HOWARD COUNTY, MD.



OWNER-DEVELOPER Howard County Bd of Educa. 10910 Rt 108 Ellicott City, Md. 21043 992-0500 Attn: Mr. Henry Horning	HANKINS & ANDERSON CONSULTING ENGINEERS 1604 SANTA ROSA ROAD RICHMOND, VIRGINIA 23288 (804) 285-4171	DATE 17 FEB. 1988 SCALE As Noted JOB NO	DRAWING 5 28 OF
--	--	---	--------------------

Match Line Sheet 7

BY THE ENGINEER

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS...

Blair T. Elliott 2-17-88 DATE
CREED T. ELLIOTT

BY THE DEVELOPER

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM...

Henry Hornung 2/18/88 DATE
HOWARD CO. BOARD OF EDUCATION

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

J. Helms 3-22-88 DATE
U.S. SOIL CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District 2/23/88 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, HOWARD COUNTY HEALTH DEPARTMENT. DATE 2-29-87

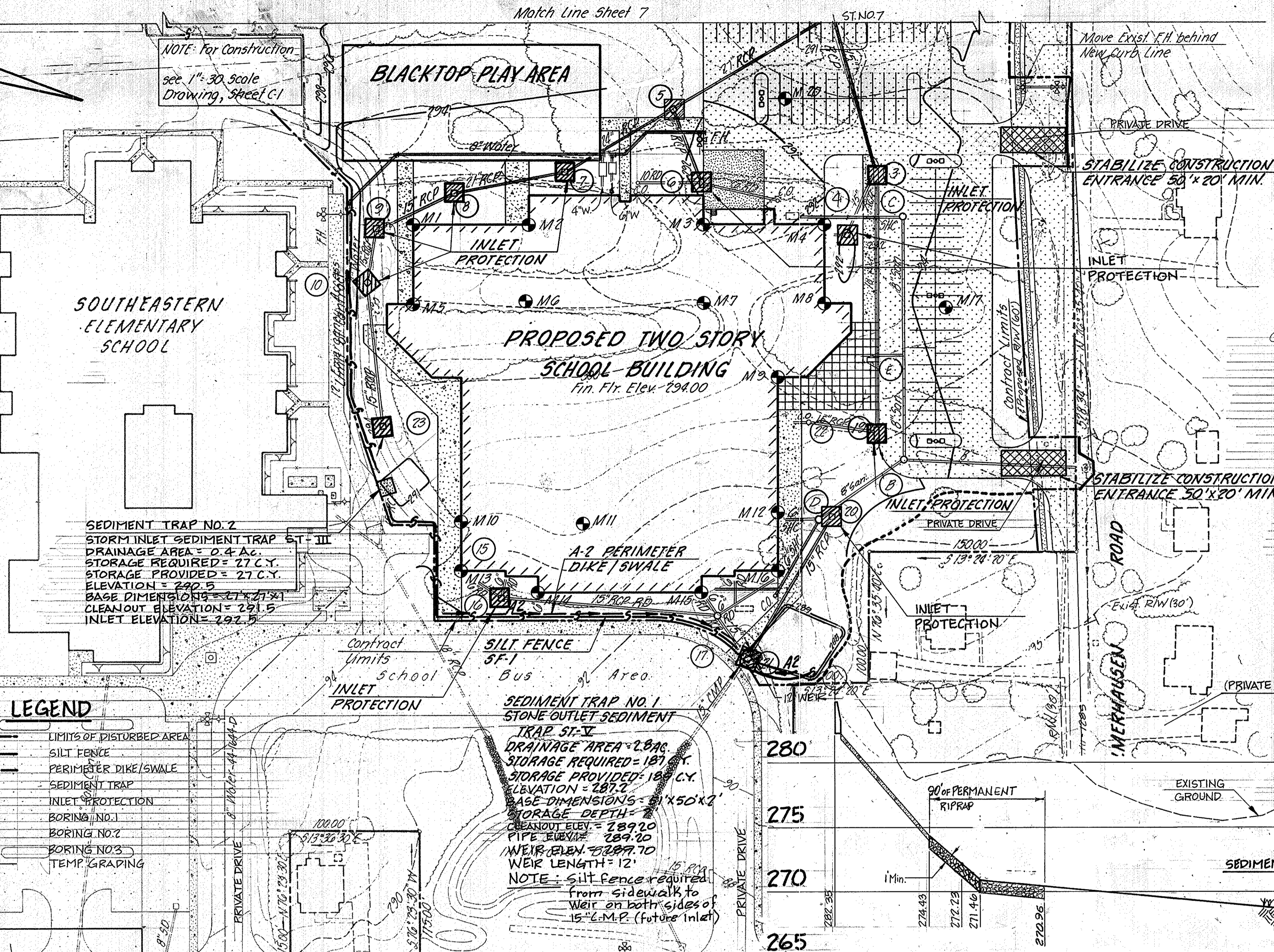
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING. DATE 3-30-88

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE SYSTEMS, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS - HOWARD CO. DEPT. OF PUBLIC WORKS. DATE 3/30/88

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE SYSTEMS, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS - HOWARD CO. DEPT. OF PUBLIC WORKS. DATE 3/25/88

SEQUENCE OF CONSTRUCTION

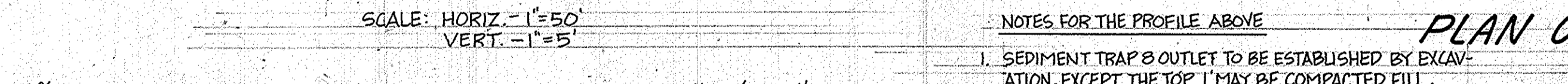
- 1. Obtain grading permit. 0d
2. Construct stabilized construction entrances. 0d
3. Clear only as necessary to install and install sediment control measures... 1d
4. Clear balance of designated area and rough grade site. 14d
5. Start with building construction. 46d
6. Prepare recreational fields for turf establishment... 46d
7. Construct storm drains and water and sewer. 50d
8. Fine grade vehicular areas and install base. 75d
9. As soon as entire area, except for building construction is stabilized... 100d
10. Remove perimeter sediment controls and restabilize. 120d
11. When building is under roof fine grade and stabilize/plant around the building.
12. Take pond and outfall channel to finish grades after site is stabilized...



LEGEND: LIMITS OF DISTURBED AREA, SILT FENCE, PERIMETER DIKE/SWALE, SEDIMENT TRAP, INLET PROTECTION, BORING NO. 1, BORING NO. 2, BORING NO. 3, TEMP. GRADING.

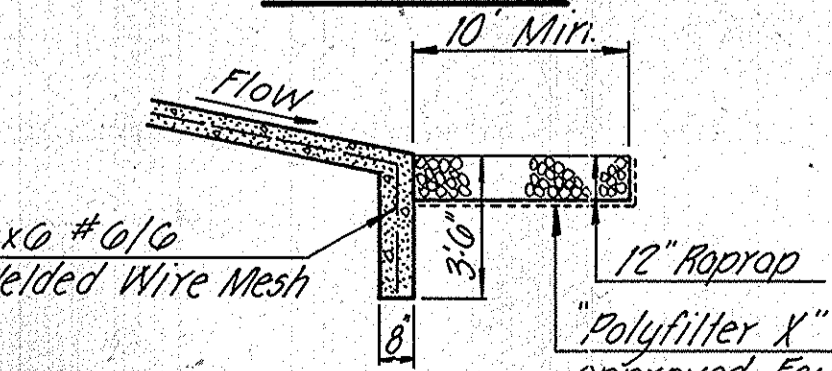
APPROVED: DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION, HOWARD COUNTY, MARYLAND. DATE 3-21-88.

SWM OUTFALL CHANNEL INTO POND PROFILE

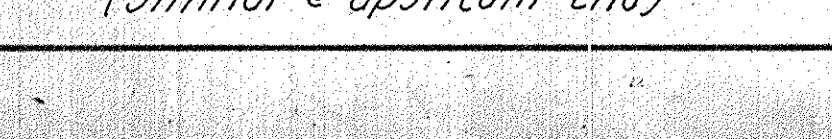


- NOTES FOR THE PROFILE ABOVE: 1. SEDIMENT TRAP'S OUTLET TO BE ESTABLISHED BY EXCAVATION... 2. SEDIMENT TRAP AND OUTLET TO BE EXCAVATED TO FINISH GRADE... 3. TEMPORARY DETENTION POND TO BE EXCAVATED TO FINISH GRADE... 4. 25' OF TEMPORARY RIPRAP AT BASE OF OUTFALL CHANNEL... 5. 40' OF PERMANENT RIPRAP AT BASE OF OUTFALL CHANNEL...

CONCRETE TRIANGULAR SECTION



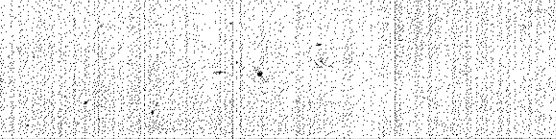
TOE WALL



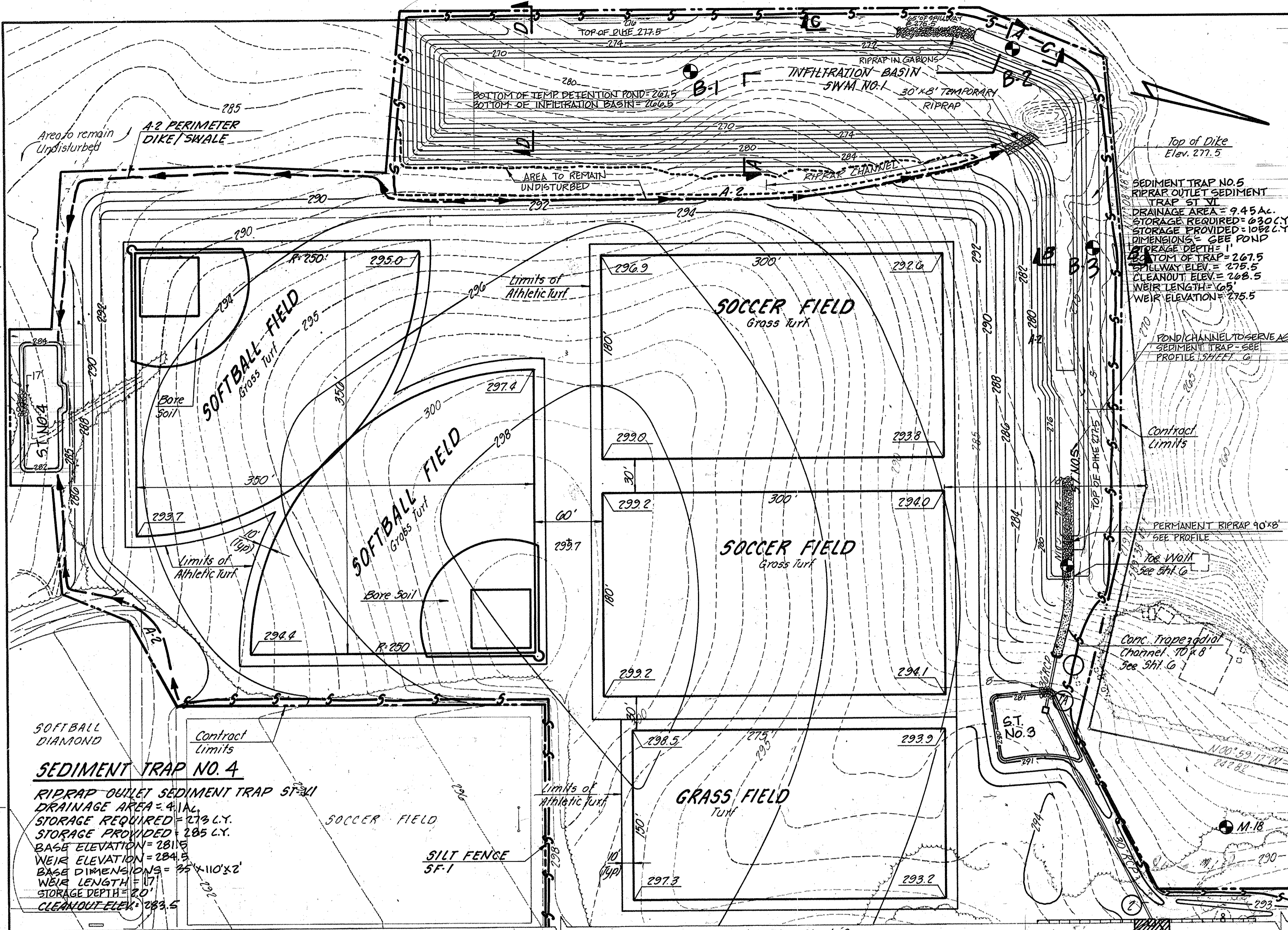
CONCRETE TRAPEZOIDAL CHANNEL



RIPRAP DETAIL



HANKINS & ANDERSON CONSULTING ENGINEERS, 1604 SANTA ROSA ROAD, RICHMOND, VIRGINIA 23288. DATE 17 FEB. 1988. DRAWING 6 28 OF.



BY THE ENGINEER

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Creed T. Elliott, P.E. 2-17-88
DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

N. Holm, Jr. 3-22-88
U.S. SOIL CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Stephen J. ... 3/23/88
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: For public water, and public sewerage systems, Howard County Health Department

John ... 3-21-88
County Health Officer Date

APPROVED: Howard County Office of Planning & Zoning
... 3/20/88
Planning Director Date

... 3/30/88
Chief, Division of Community Planning and Land Development Date

APPROVED: For public water, public sewerage systems, storm drainage systems and public roads.

Howard County Department of Public Works
James M. ... 3/25/88
Director Date

... 3-24-88
Chief, Bureau of Engineering Date

BY THE DEVELOPER:

"I, THE DEVELOPER, 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 NATURAL RESOURCES 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

Henry ... 3/18/88
HOWARD CO. BOARD OF EDUCATION DATE

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 3-21-88
LES/

SEDIMENT TRAP NO. 3
STORM INLET TRAP ST-3
DRAINAGE AREA = 3.0 AC.
STORAGE REQUIRED = 200 C.Y.
STORAGE PROVIDED = 257 C.Y.
ELEVATION = 296.5
BASE DIMENSIONS = 53' x 53' x 2'
STORAGE DEPTH = 2'
CLEANOUT ELEV. = 288.50
INLET ELEV. = 289.50
WEIR LENGTH = 8'
WEIR ELEV. = 289.5

NOTE: THIS DRAWING TO BE USED FOR SEDIMENT CONTROL AND TEMPORARY STORM WATER DETENTION ONLY

CONSTRUCTION SPECIFICATIONS FOR PONDS

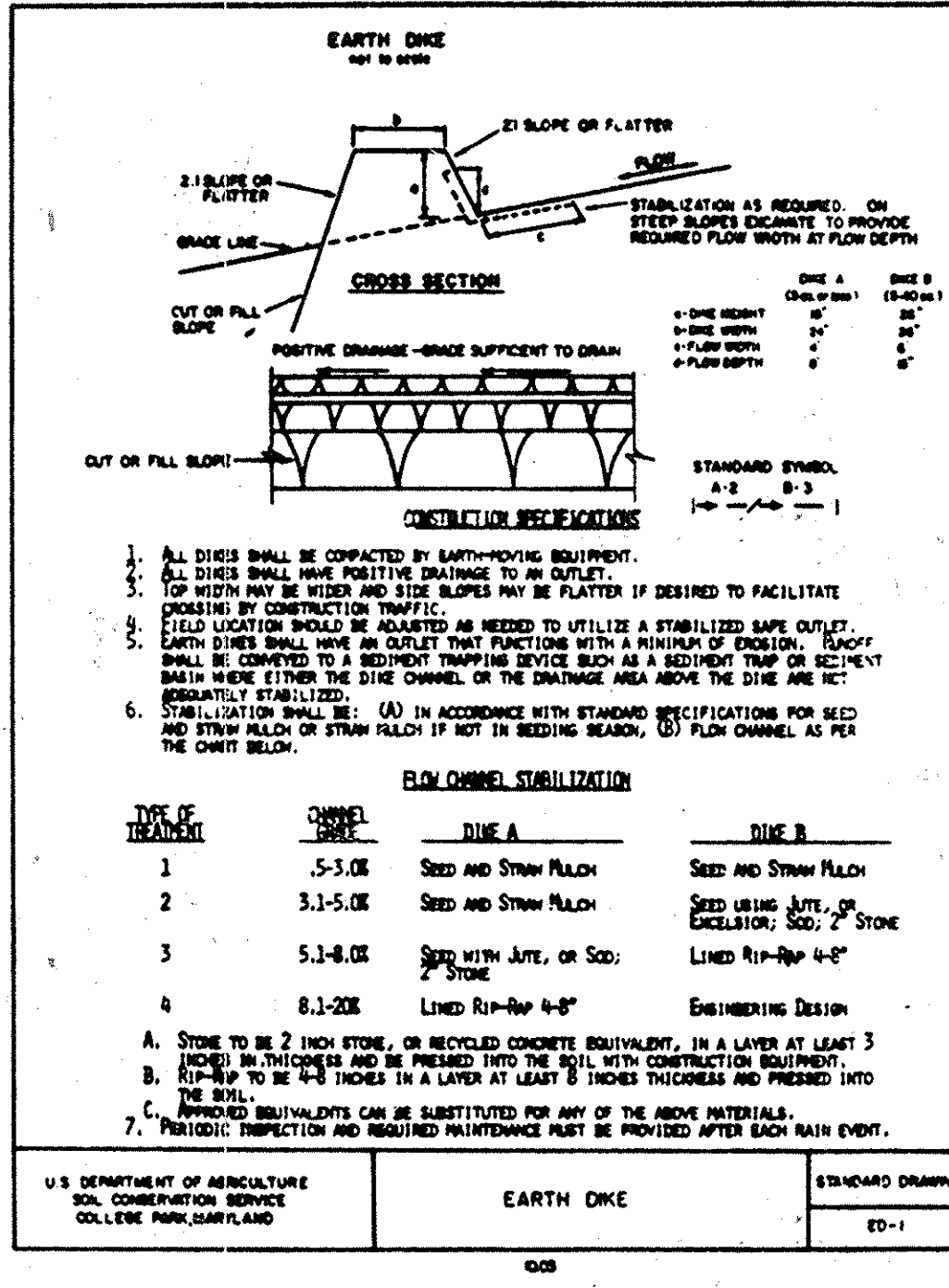
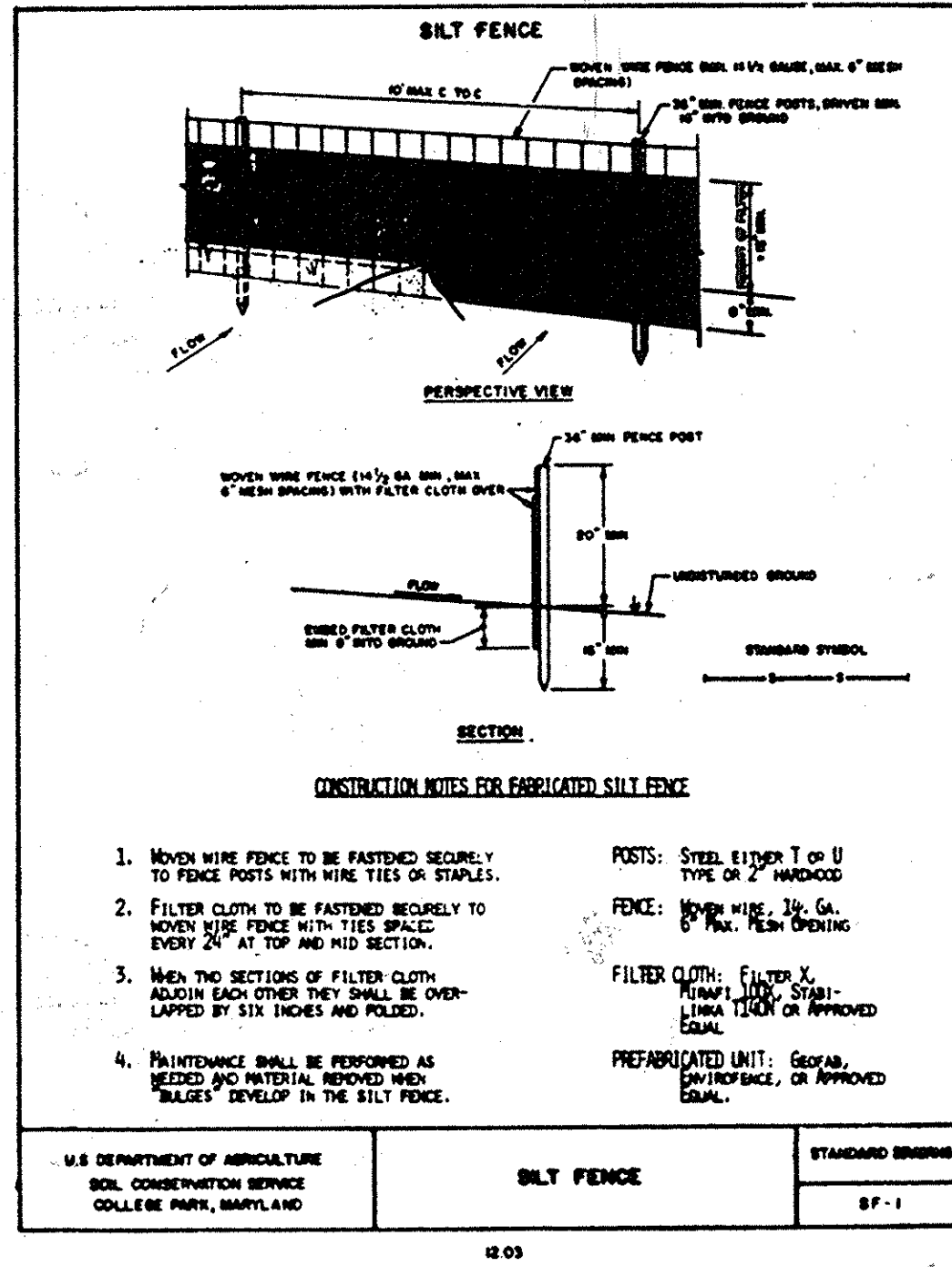
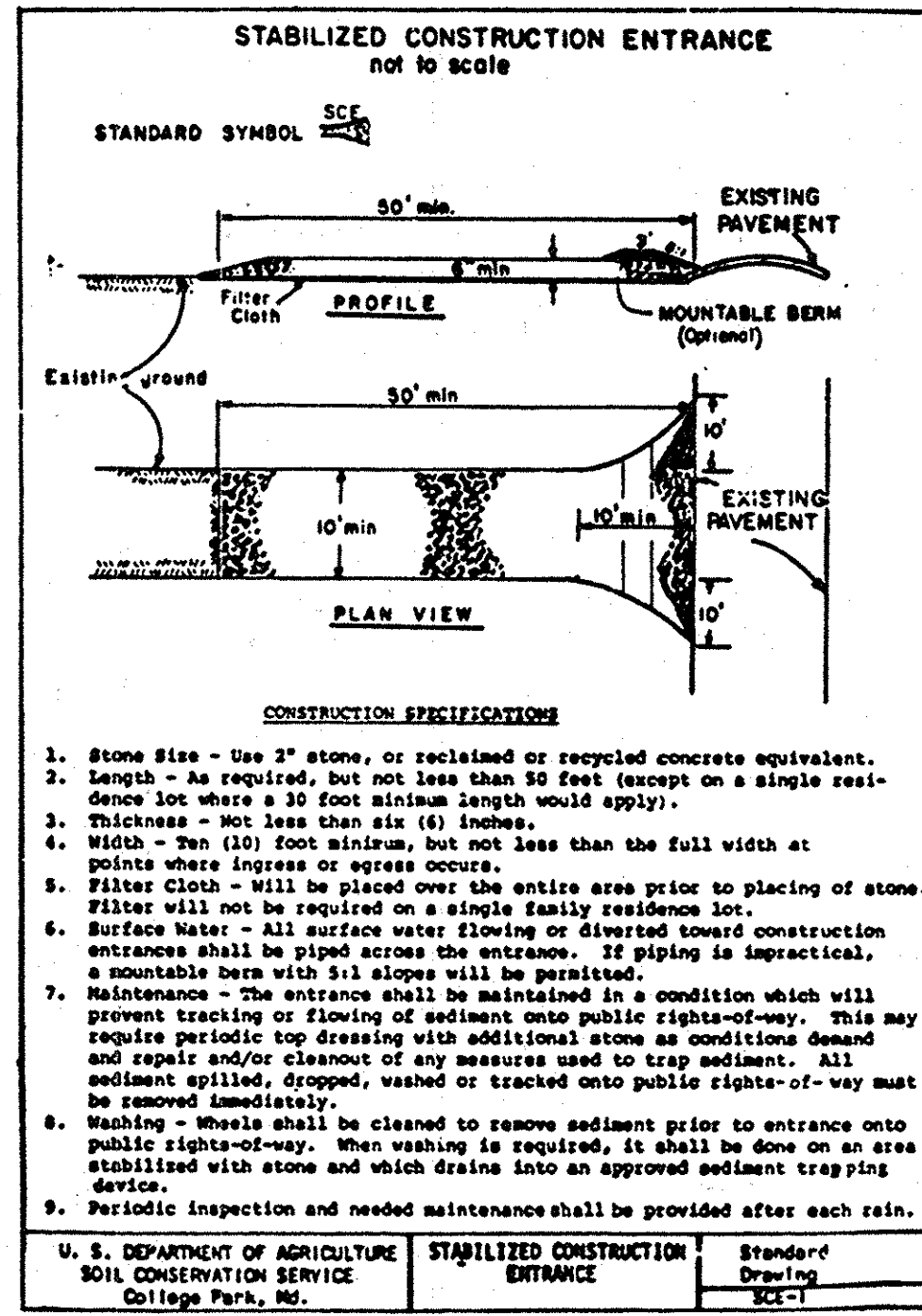
- I. SITE PREPARATION**
AREAS DESIGNATED FOR EMBANKMENT AND STRUCTURAL WORKS AND AREAS TO BE COVERED BY THE POND SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1.
ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED, A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.
- II. EARTH FILL**
MATERIALS:
THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREA OR AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, OVERSIZED STONES, FROZEN OR OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE CONSTRUCTED TO AN ELEVATION WHICH PROVIDES FOR ANTICIPATED SETTLEMENT TO THE DESIGN ELEVATION. THE FILL HEIGHT ALL ALONG THE LENGTH OF THE EMBANKMENT SHALL BE INCREASED ABOVE THE DESIGN ELEVATION (INCLUDING FREEBOARD) AS SHOWN ON THE PLANS.
PLACEMENT:
AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN 8" MAXIMUM THICKNESS (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST POROUS BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT.
COMPACTION:
THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD

- TRACK OF THE EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER Tired OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED.
CUTOFF TRENCH:
WHERE SPECIFIED, A CUTOFF TRENCH SHALL BE EXCAVATED ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE AS SHOWN ON THE DRAWINGS, WITH THE MINIMUM WIDTH BEING 4'. THE DEPTH SHALL BE AT LEAST 4' OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1:1 OR FLATTER. THE BACKFILL MATERIAL FOR THE CUTOFF TRENCH SHALL BE THE MOST IMPERVIOUS MATERIAL AVAILABLE AND SHALL BE COMPACTED WITH EQUIPMENT OR ROLLERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.
- III. STABILIZATION**
ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY AND SPOIL AREAS AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING (IF REQUIRED) IN ACCORDANCE WITH THE VEGETATIVE TREATMENT SPECIFICATIONS OR AS SHOWN ON THE ACCOMPANYING DRAWINGS.
- IV. EROSION AND SEDIMENT CONTROL**
CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND AIR POLLUTION MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS SHALL DETAIL SEDIMENT AND EROSION CONTROL MEASURES TO BE EMPLOYED DURING THE CONSTRUCTION PROCESS.

TEMPORARY DETENTION POND:
Temporary pond bottom, spillway and dike are to be graded to finish elevations after site is stabilized. Temporary spillway must utilize 12" of 40 - 4" rip rap on bottom and on side slopes to top of temporary dike.

REVISION 6/30/14
REVISION 7/28/14
FISHER, GAVINS & CARTER INC.

HANKINS & ANDERSON CONSULTING ENGINEERS 1604 SANTA ROSA ROAD RICHMOND, VIRGINIA 23288 (804) 285-4171		DATE 17 FEB 1988 SCALE 1" = 50' JOB NO.	DRAWING 7 20 OF
REVISIONS 6/30/14 REVISION SHEET NUMBER 7/28/14 REVISION SHEET NUMBER		OWNER - DEVELOPER Howard County Bd. of Educa. 10910 Rt 108 Ellicott City, Md 21043 392-0500 Attn: Mr. Henry Horning	



PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed. Recreational fields to receive "turf" treatment in accordance with Landscaping Drawings.

Seeded Preparation:

Loosen upper three inches of topsoil by raking, discing or other acceptable means before seeding. See Specification for more complete description.

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 sq. ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs/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 60 lbs. per 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/1000sq. 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

Maintenance -

Inspect all seeded areas and make needed repairs, replacements and reseeding. See Specifications for more complete description.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seeded Preparation:

Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

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 November 15, seed with 2 1/2 bushel per acre of annual rye (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.

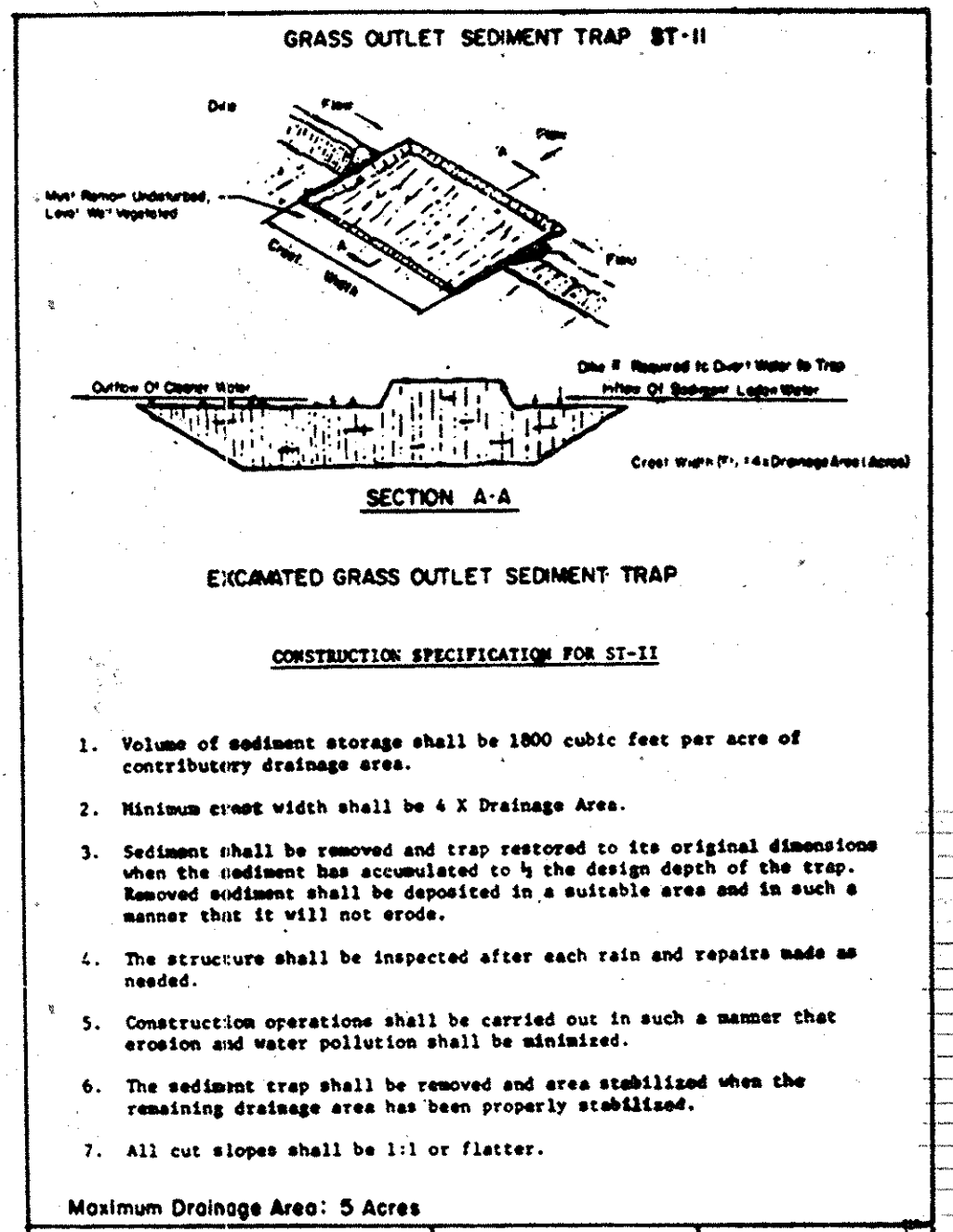
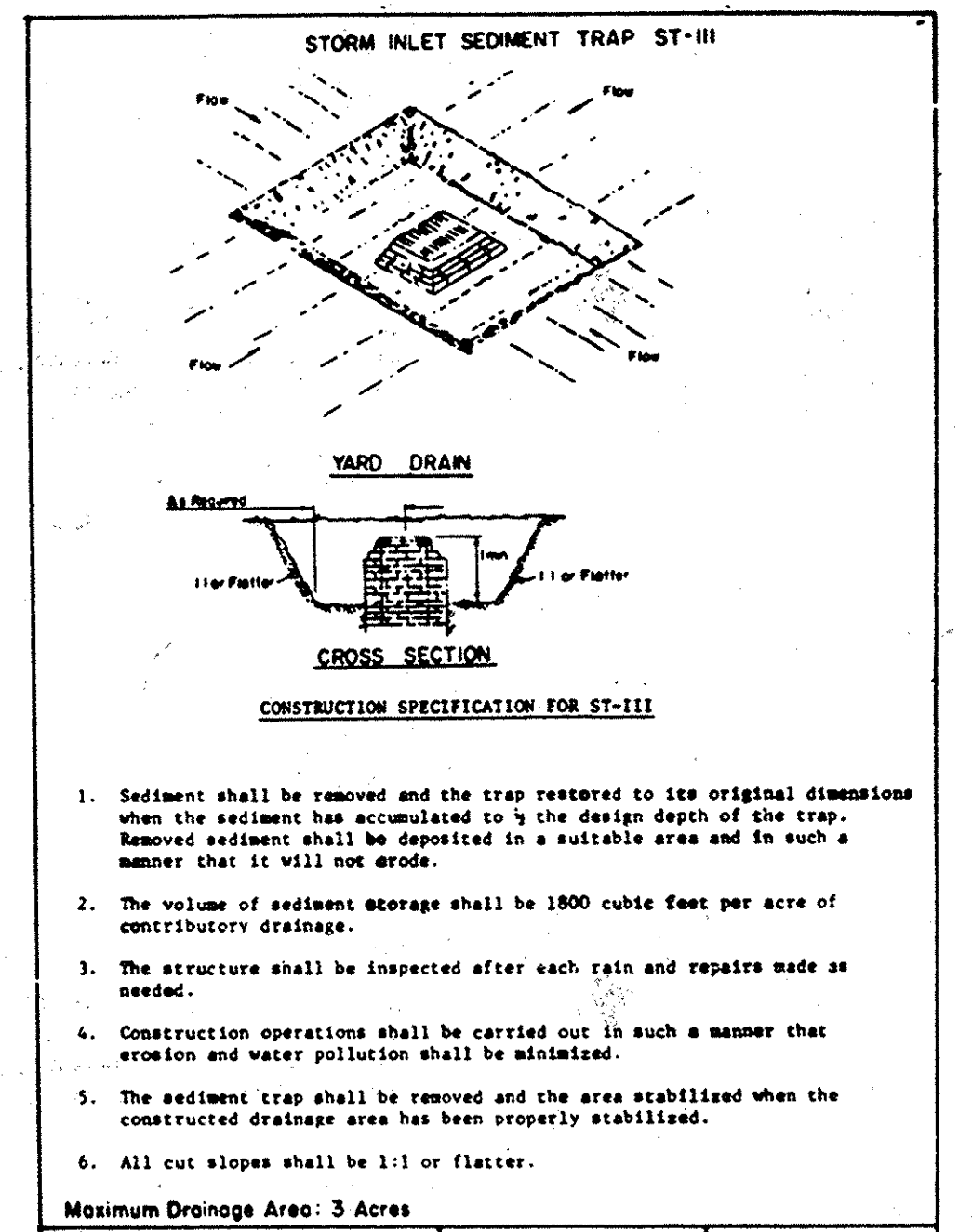
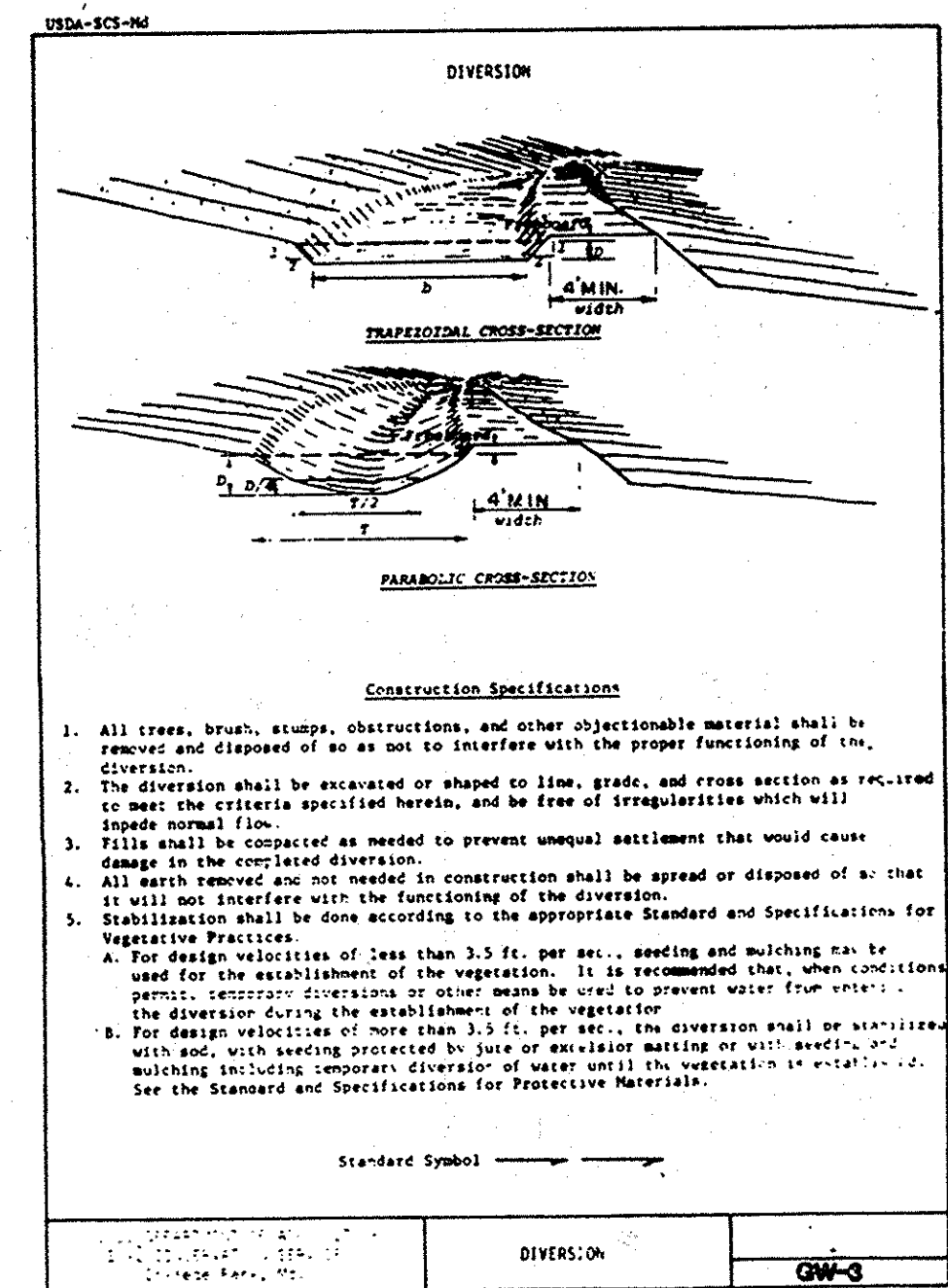
Mulching -

Apply 1 1/2 to 2 tons per acre 70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool

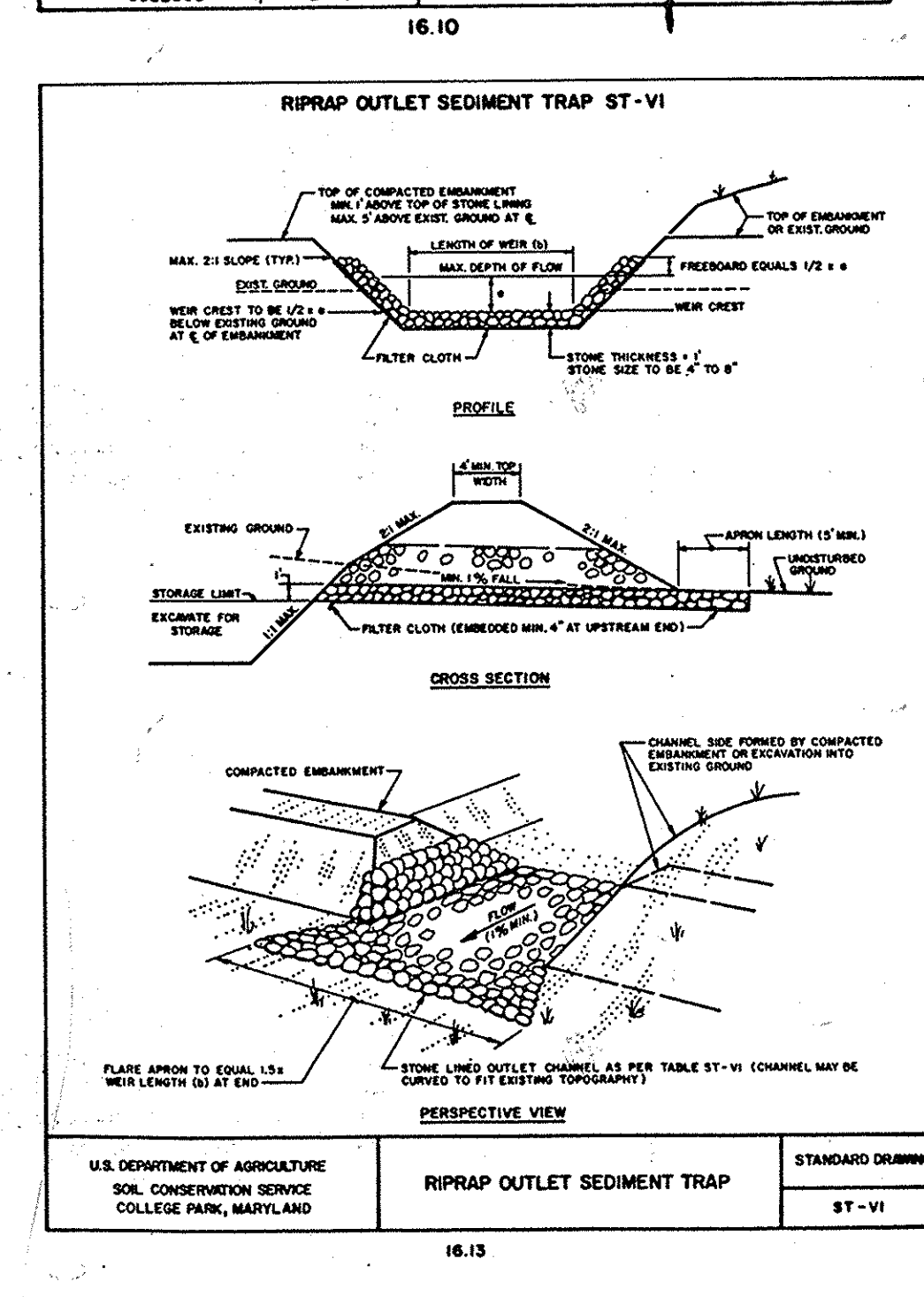
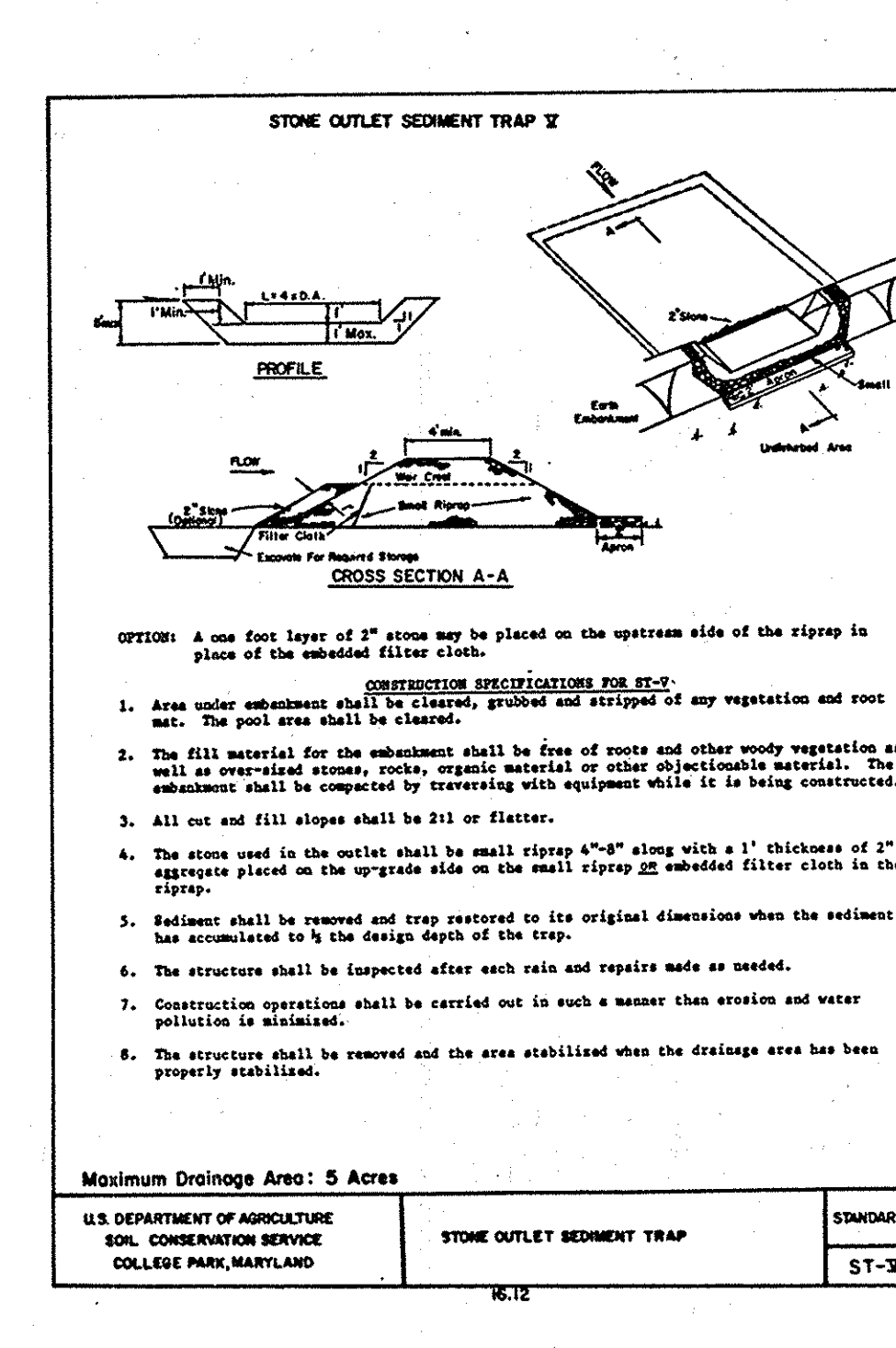
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

GENERAL 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. (992-2437).
- 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, or later revisions.
- 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.
- 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 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.
- 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: 14.95 Acres
 - Area Disturbed: 15.6 Acres
 - Area to be roofed or paved: 5.9 Acres
 - Area to be vegetatively stabilized: 9.5 Acres
 - Total Cut: 40,950 Cu. yds.
 - Total Fill: 27,450 Cu. yds.Approved site
- 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 controls 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.
- Notify "Miss Utility" at 559-0100 before beginning the construction.



APPROVED: HOWARD CO. OFFICE OF PLANNING AND ZONING
[Signature] 2/20/88 DATE
PLANNING DIRECTOR
APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
[Signature] 3/30/88 DATE
FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS - HOWARD CO. DEPT. OF PUBLIC WORKS.
[Signature] 3/24/88 DATE
DIRECTOR, BUREAU OF ENGINEERING



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD CO. HEALTH DEPT.
[Signature] 3-27-88 DATE
COUNTY HEALTH OFFICER

BY THE ENGINEER
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
[Signature] 3-17-88 DATE
CREED T. ELLIOTT, P.E.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
[Signature] 3-23-88 DATE
U.S. SOIL CONSERVATION SERVICE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS - HOWARD CO. DEPT. OF PUBLIC WORKS.
[Signature] 3/24/88 DATE
DIRECTOR, BUREAU OF ENGINEERING

BY THE DEVELOPER
I WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 3/10/88 DATE
HOWARD CO. BOARD OF EDUCATION

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 3/23/88 DATE
HOWARD SOIL CONSERVATION DISTRICT

APPROVED
DIVISION OF LAND DEVELOPMENT
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 3-21-88
LKS/

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
SOIL CONSERVATION DISTRICT
PROFESSIONAL ENGINEER
[Signature]

OWNER-DEVELOPER
HOWARD CO. BOARD OF EDUCATION
10910 RT.102
ELLCOTT CITY, MD 21043
992-0500
ATTN: MR. HENRY HORNUNG

HANKINS & ANDERSON
CONSULTING ENGINEERS
1604 SANTA ROSA ROAD
RICHMOND, VIRGINIA 23288
(804) 285-4171

DATE 17 FEB. 1988
SCALE None
JOB NO. 8 OF 20

SPECIAL Sediments Control Notes

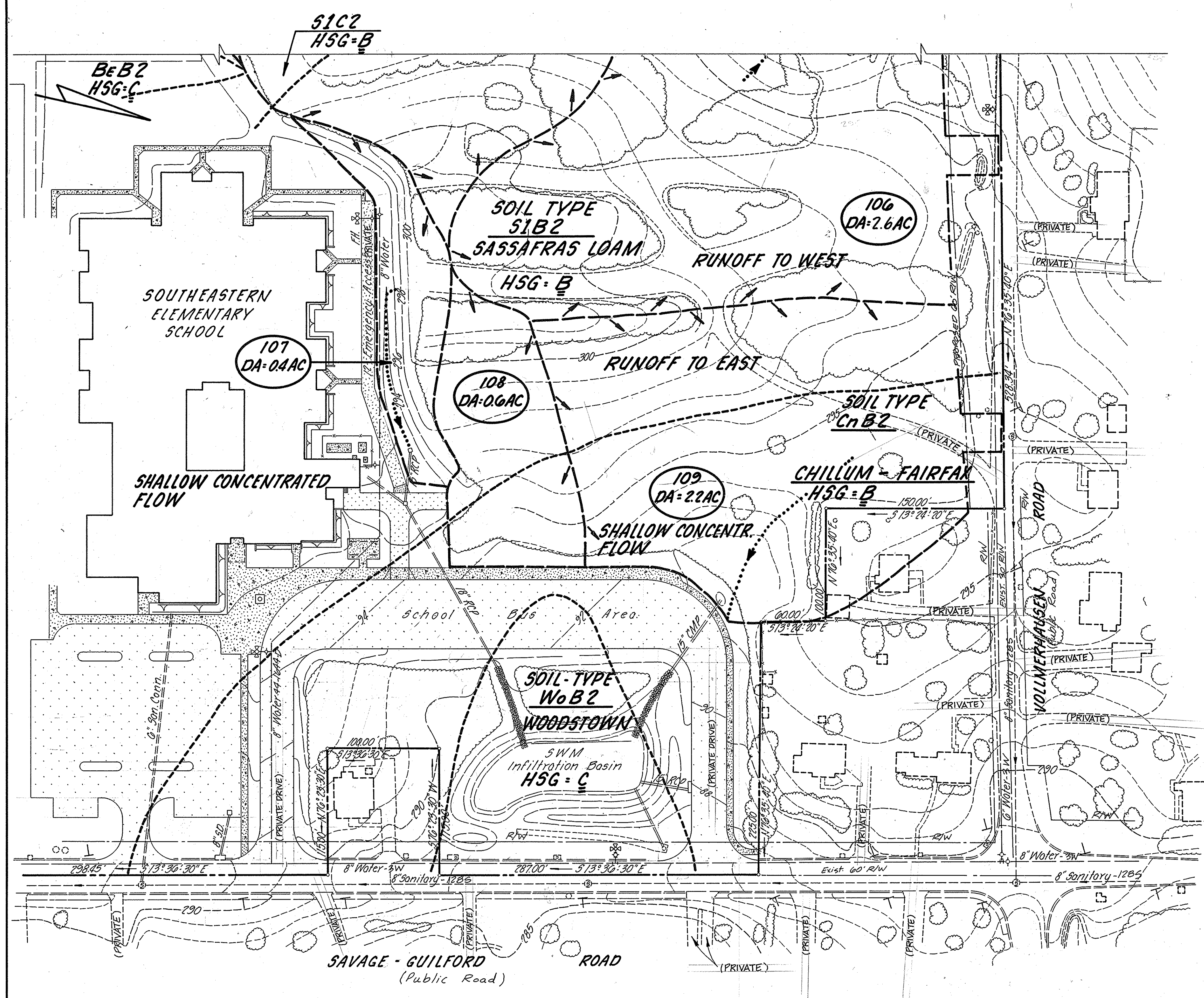
- All work shall be in accordance with "1983 MD standards and specifications for soil erosion and sediment control".
- All site work to be performed in accordance with the specifications for erosion and sediment control.
- Stabilize the perimeter dikes by seeding and mulching.
- Only the area of immediate construction to be disturbed.
- Periodic inspection and maintenance of all sediment control structures must be provided to insure intended purpose is accomplished.
- At the end of each working day check all sediment control measures for integrity and operation.
- All surface run-off to be directed into the silt traps, no sediment must be allowed to leave the site.
- Silt traps shall be cleaned out when sediment reaches prescribed elevation.
- All sediment control plans shall include the following general notes:
 - The developer is responsible for the acquisition of all required easements, right, and/or right-of-way pursuant to the discharge from the sediment and erosion control practices, storm water management practices and the discharge of storm water onto or across and grading or other work to be performed on adjacent or downstream properties affected by this plan.
 - Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) Seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 2 horizontal to 1 vertical (3:1) and b) fourteen days as to all other disturbed or graded areas on the project site. The in-place sediment control measures will be maintained on a continuing basis until the site is permanently stabilized and all permit requirements are met.
 - 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 approval by the inspection agency is made; and
 - Approval shall be requested upon final stabilization of all site with disturbance areas in excess of 2 acres before removal or controls.
- All borrow or spoil to be at a source with an approved sediment control plan.
- Use mulch only during non-seeding periods.

SEDIMENT CONTROL DETAILS

PATUXENT VALLEY
MIDDLE SCHOOL
PARCEL 25, TAX MAP 47
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MD.

REVISION 3/31/86
FISHER CONSULTING ENGINEERING

SDP-88-50



BY THE DEVELOPER

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Henry R. Hornung 12/18/88
 HOWARD CO. BOARD OF EDUCATION DATE

APPROVED: For public water and public sewerage systems, Howard County Health Department.

Jesse G. ... 3-21-88
 County Health Officer Date

APPROVED: Howard County Office of Planning and Zoning
[Signature] 3/21/88
 Planning Director Date

APPROVED: Division of Community Planning and Land Development
[Signature] 3/20/88
 Date

BY THE ENGINEER

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Creed T. Elliott 2-17-88
 CREED T. ELLIOTT, P.E. DATE

APPROVED: For public water, public sewerage systems, storm drainage systems and public roads.

Howard County Department of Public Works
[Signature] 3/25/88
 Director Date

[Signature] 3-24-88
 Chief, Bureau of Engineering Date

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

[Signature] 3-22-88
 U.S. SOIL CONSERVATION SERVICE DATE

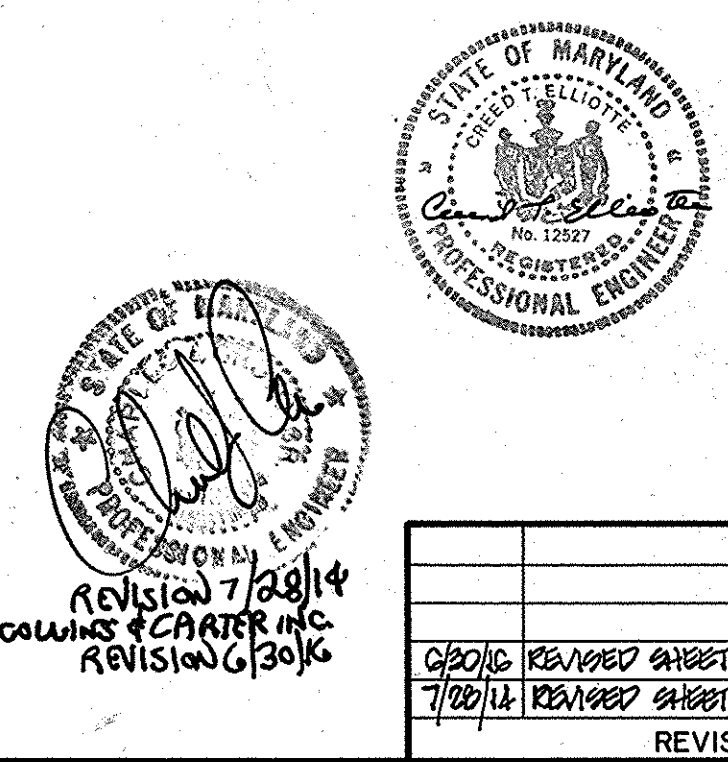
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 3/23/88
 HOWARD SOIL CONSERVATION DISTRICT DATE

- LEGEND**
- DRAINAGE AREA DIVIDE
 - SOIL GROUP DIVIDE
 - 101- SUBWATERSHED
 - DA AC- DRAINAGE AREA - DA ACRES
 - SHALLOW CONCENTRATED FLOW

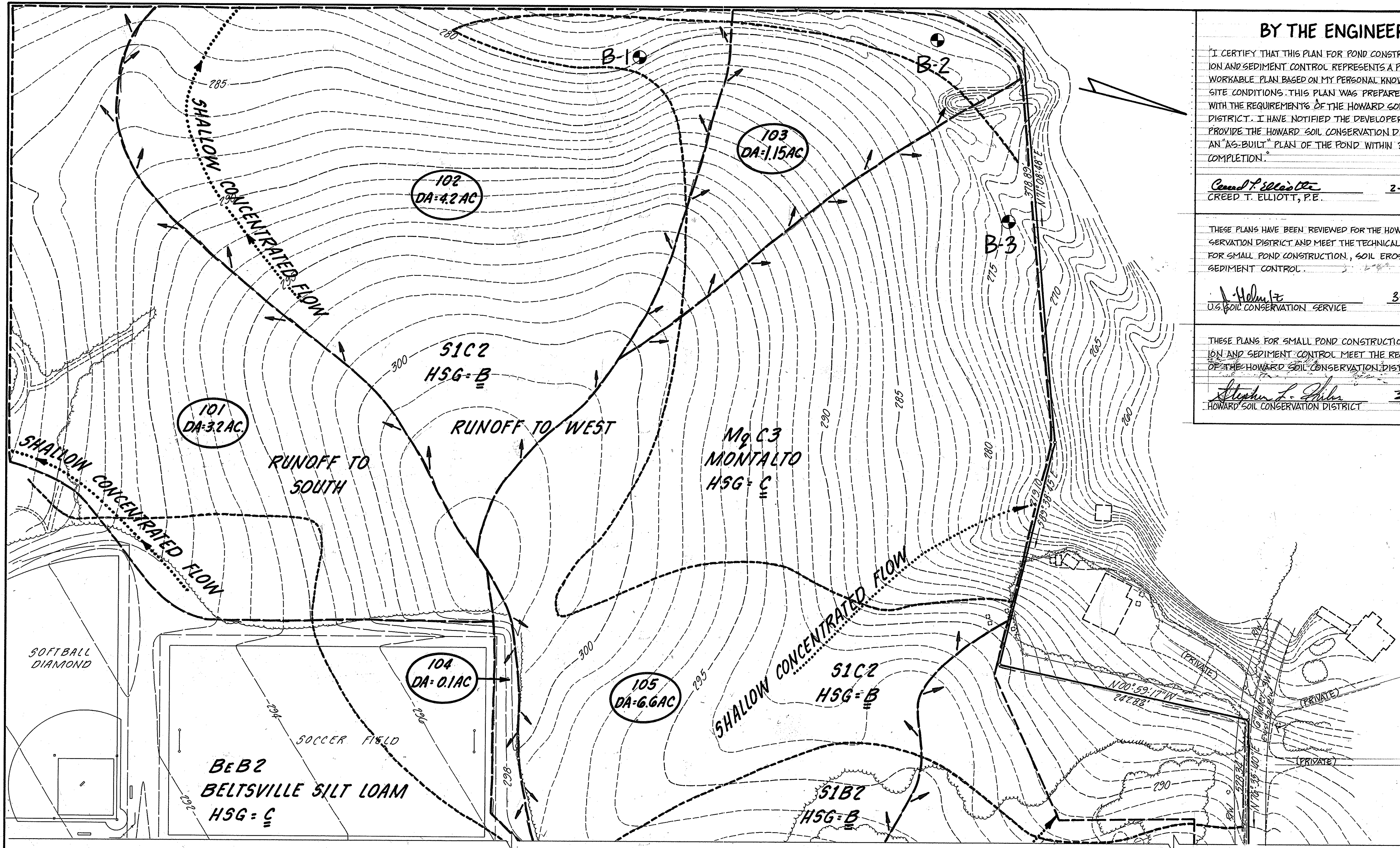
APPROVED
 DIVISION OF LAND DEVELOPMENT &
 ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE 3-21-88
[Signature]

PREDEVELOPMENT DRAINAGE
 PATUXENT VALLEY
 MIDDLE SCHOOL
 PARCEL 25 TAX MAP 47
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MD.



REVISION 7/28/14
 FISHER COLLINS & CARTER INC.
 REVISION 6/30/16

DATE 17 FEB. 1988	SCALE 1"=50'	JOB NO. 9 28	DRAWING OF
HANKINS & ANDERSON CONSULTING ENGINEERS 1604 SANTA ROSA ROAD RICHMOND, VIRGINIA 23288 (804) 285-4171		DATE 17 FEB. 1988	



BY THE ENGINEER

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Creed T. Elliott 2-17-88
 CREED T. ELLIOTT, P.E. DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

J. Holmertz 3-22-88
 U.S. SOIL CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Stephen L. Fisher 3/23/88
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: For public water and public sewerage systems, Howard County Health Department.

[Signature] 3-22-88
 County Health Officer Date

APPROVED: Howard County Office of Planning and Zoning

[Signature] 3/20/88
 Planning Director Date

APPROVED: Division of Community Planning and Land Development

[Signature] 3/30/88
 Chief, Division of Community Planning and Land Development Date

APPROVED: For public water, public sewerage systems, storm drainage systems and public roads.

Howard County Department of Public Works

[Signature] 3/25/88
 Director Date

[Signature] 3-24-88
 Chief, Bureau of Engineering Date

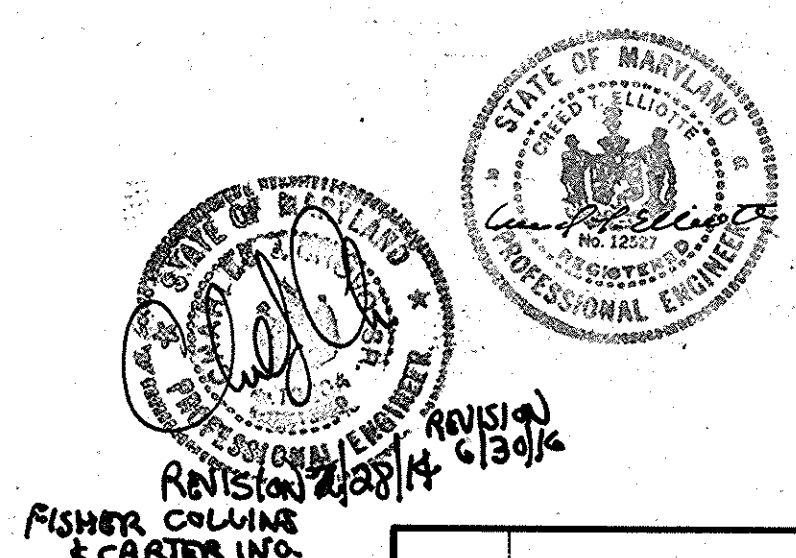
BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 3/18/88
 HOWARD CO. BOARD OF EDUCATION DATE

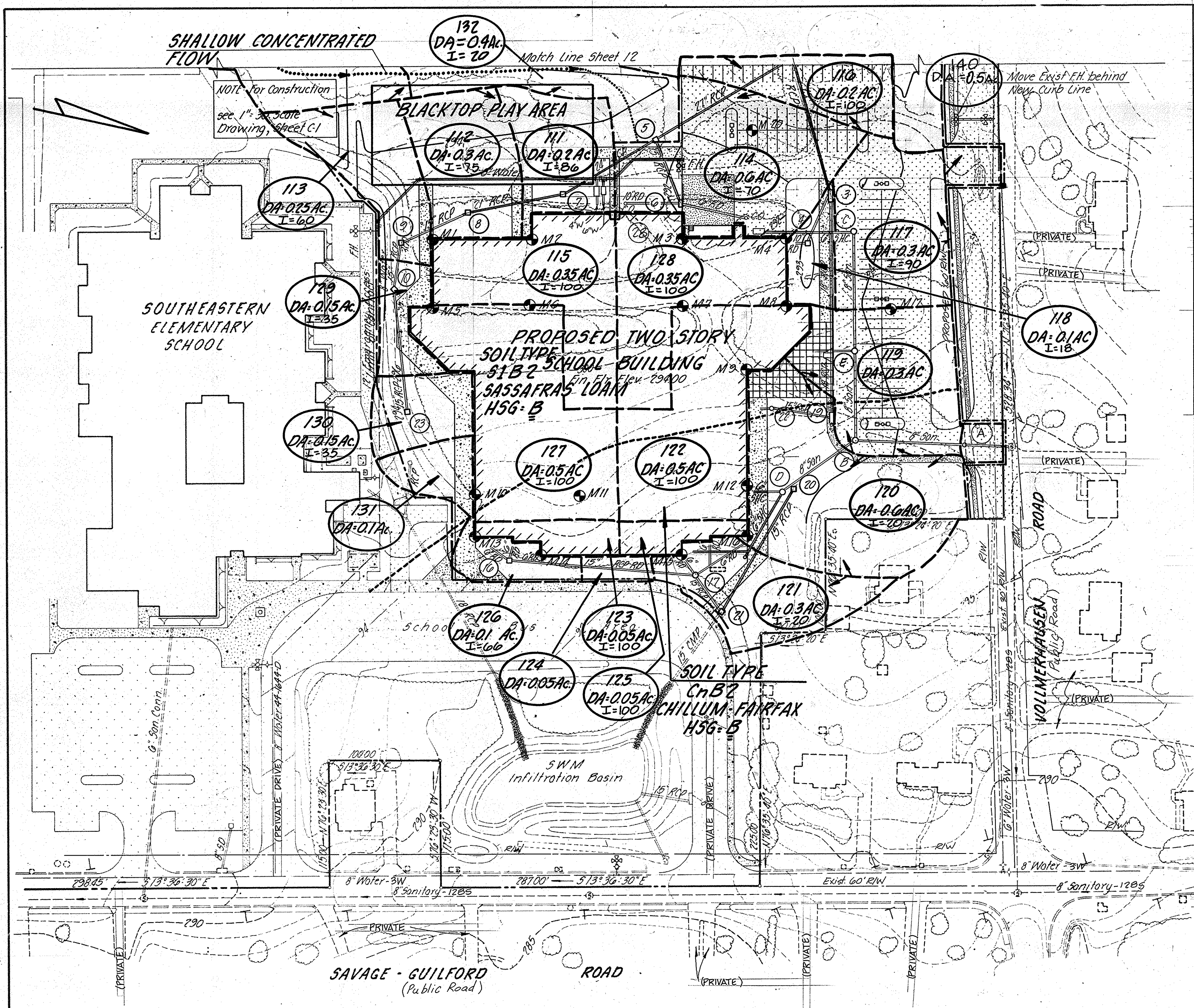
APPROVED
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE 3-21-88
 [Initials]

**PREDEVELOPMENT DRAINAGE
 PATUXENT VALLEY
 MIDDLE SCHOOL
 PARCEL 25 TAX MAP 47
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MD.**



FISHER COLVING & CARTER INC.

OWNER-DEVELOPER Howard Co. Bd. of Educa. 10910 Rt. 108 Ellicott City, Md. 21043 992-0500 Attn: Mr. Henry Hornum	DATE 17 FEB. 1988	DRAWING 10 28 OF
HANKINS & ANDERSON CONSULTING ENGINEERS 1604 SANTA ROSA ROAD RICHMOND, VIRGINIA 23288 (804) 285-4171	SCALE 1"=50'	JOB NO.
REVISIONS		



BY THE ENGINEER

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Creed T. Elliott
CREED T. ELLIOTT, P.E. 2-17-88 DATE

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

J. Adams
U.S. SOIL CONSERVATION SERVICE 3-22-88 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Stephen L. Smith
HOWARD SOIL CONSERVATION DISTRICT 3/23/88 DATE

APPROVED: For public water and public sewerage systems,
Howard County Health Department.

Joeyn Boyd
County Health Officer 3-21-88 Date

APPROVED: Howard County Office of Planning and Zoning

W. Adams
Planning Director 3/30/88 Date

James Latta
Chief, Division of Community Planning and Land Development 3/30/88 Date

APPROVED: For public water, public sewerage systems, storm drainage systems and public roads

Howard County Department of Public Works

James Latta
Director 3/25/88 Date

William E. Reed
Chief Bureau of Engineering 3-24-88 Date

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

Henry Hornung
HOWARD CO. BOARD OF EDUCATION 3/18/88 DATE

CONTRIBUTING		
INLET NO.	BASIN NO.	DRAINAGE AREA
16	126	0.10 Ac.
20	120	0.60 Ac.
21	121	0.30 Ac.
23	130	0.15 Ac.
10	129	0.15 Ac.
9	113	0.25 Ac.
8	112	0.30 Ac.
7	111	0.20 Ac.
6	114	0.60 Ac.
5	132	0.40 Ac.
4	118	0.10 Ac.
3	117	0.30 Ac.
2	116	0.20 Ac.
1A	105,108,141	1.90 Ac.

LEGEND

DA DRAINAGE AREA
I PERCENT IMPERVIOUS
B-1 BORING NO.1
B-2 BORING NO.2
B-3 BORING NO.3

NOTE: THIS SHEET TO BE USED FOR POSTDEVELOPMENT DRAINAGE ONLY.

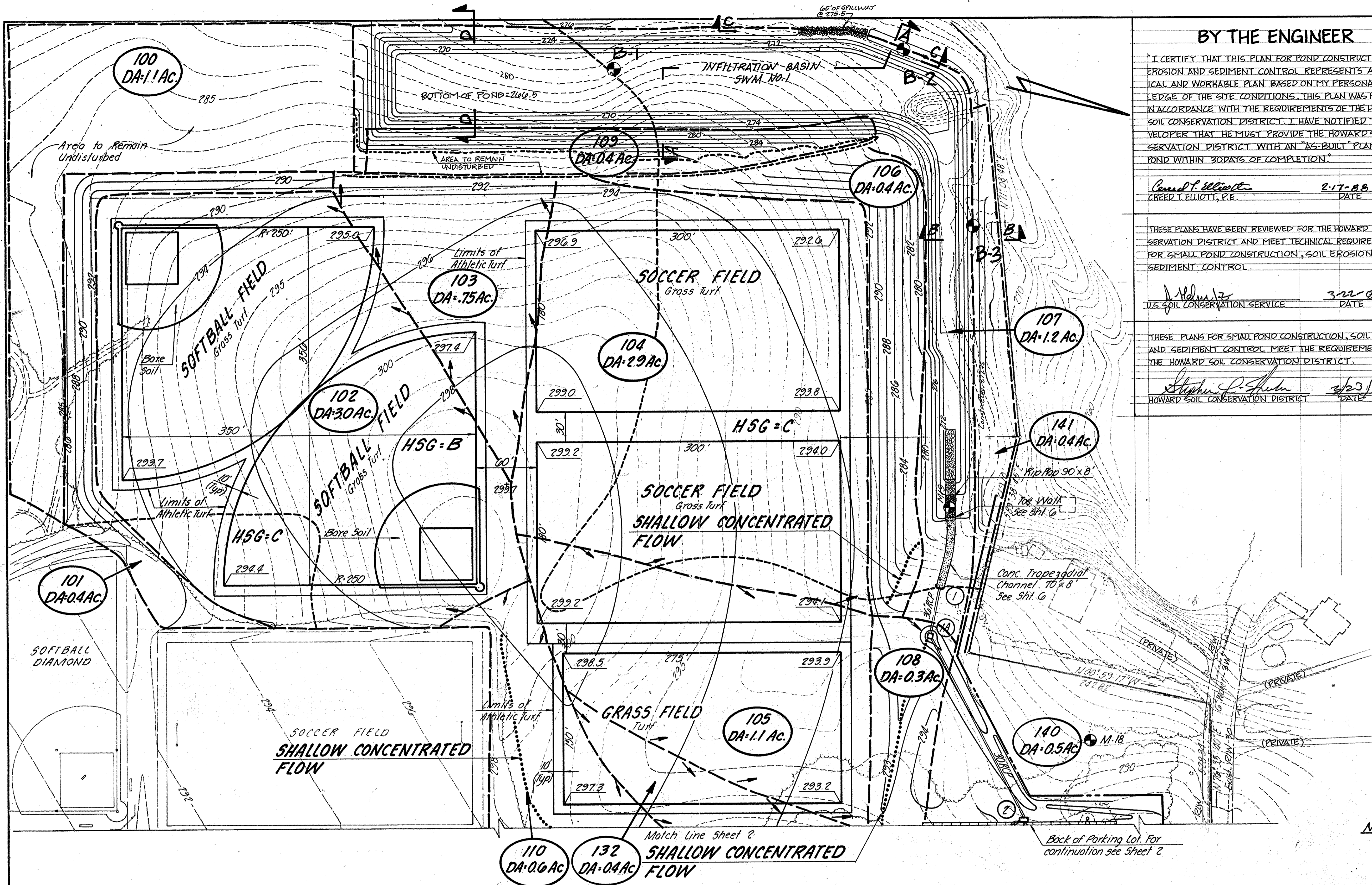
APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 3-21-88
WKE

**POSTDEVELOPMENT DRAINAGE
SHEET ONE
PATUXENT VALLEY
MIDDLE SCHOOL
PARCEL 25, TAX MAP 47
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MD.**

REVISION 7/23/84
FISHER COLLINS & CARBERG



7/23/84 REVISION SHEET NUMBER	HANKINS & ANDERSON CONSULTING ENGINEERS 1604 SANTA ROSA ROAD RICHMOND, VIRGINIA 23288 (804) 285-4171	DATE 17 FEB. 1988	DRAWING 11 27 OF
	REVISIONS	SCALE 1"=50' JOB NO.	



BY THE ENGINEER

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Creed T. Elliott
CREED T. ELLIOTT, P.E. 2-17-88 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

J. Adams
U.S. SOIL CONSERVATION SERVICE 3-22-88 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Stephen L. Fisher
HOWARD SOIL CONSERVATION DISTRICT 3/23/88 DATE

APPROVED: For public water, and public sewerage systems, Howard County Health Department

James Boyer
County Health Officer 3-24-88 Date

APPROVED: Howard County Office of Planning & Zoning

W. H. ...
Planning Director 2/20/88 Date

James ...
Division of Community Planning and Land Development 2/30/88 Date

APPROVED: For public water, public sewerage systems, storm drainage systems and public roads.

Howard County Department of Public Works

James ...
Director 3/25/88 Date

William ...
Chief, Bureau of Engineering 3-24-88 Date

BY THE DEVELOPER

I HAVE CERTIFIED THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE ZONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSON INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Henry ...
HOWARD CO. BOARD OF EDUCATION 4/18/88 DATE

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 3-21-88
msj

NOTE: THIS DRAWING TO BE USED FOR POSTDEVELOPMENT DRAINAGE ONLY

**POSTDEVELOPMENT DRAINAGE
SHEET TWO
PATUXENT VALLEY
MIDDLE SCHOOL
PARCEL 25, TAX MAP 47
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MD.**

STATE OF MARYLAND
PROFESSIONAL ENGINEER
REVISION 7/28/84
FISHER CONSULTING & ARCHITECTURE
REVISION 6/30/86

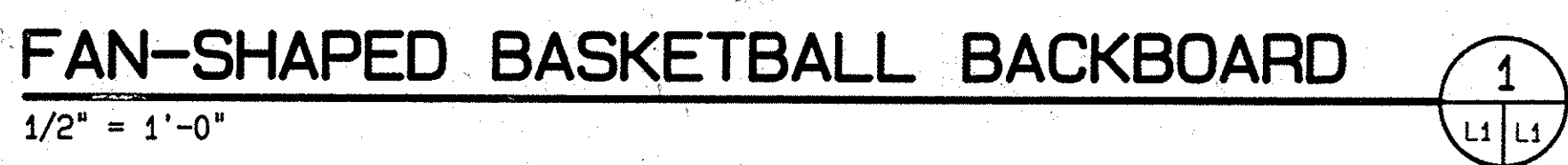
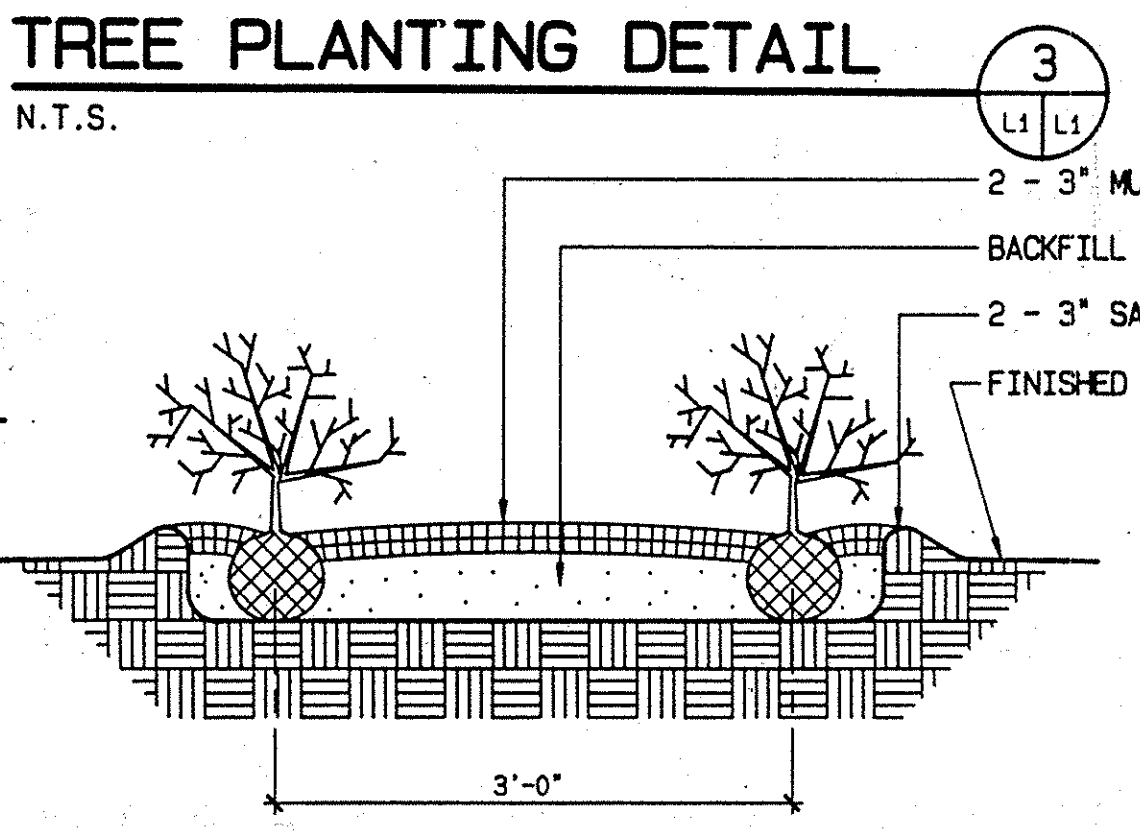
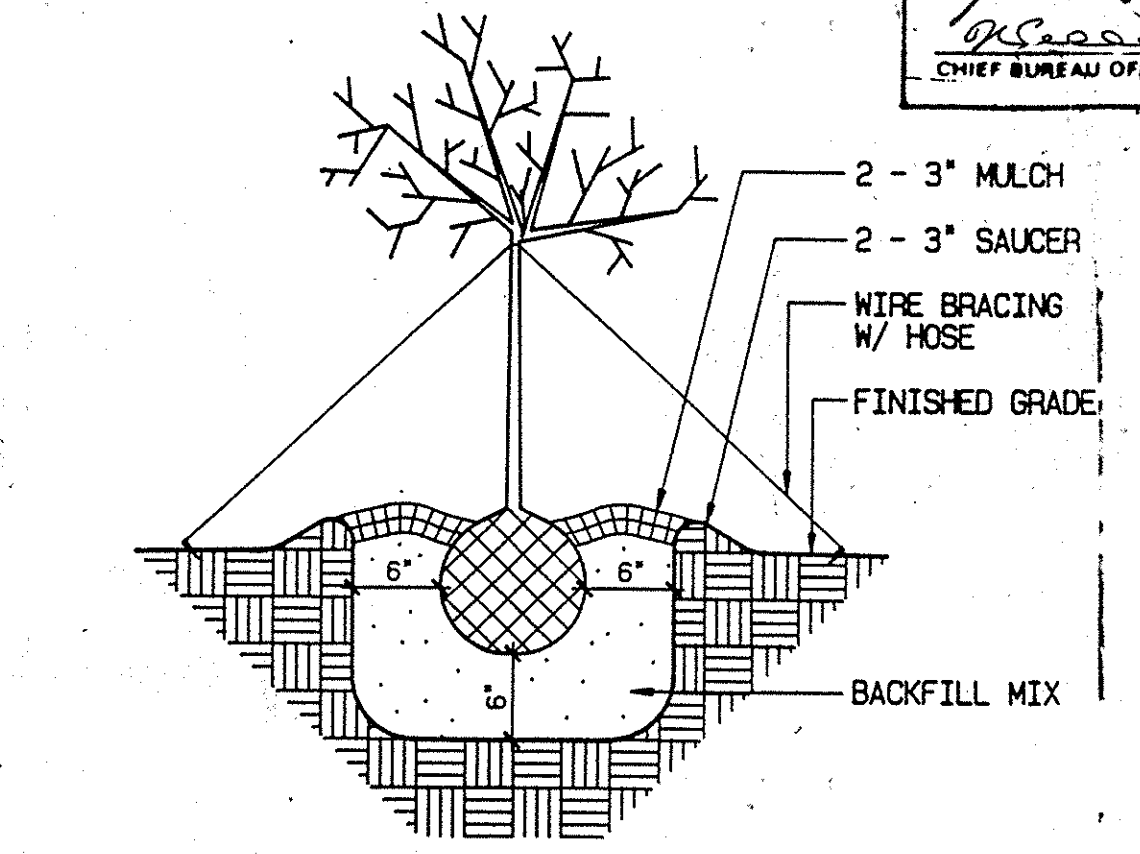
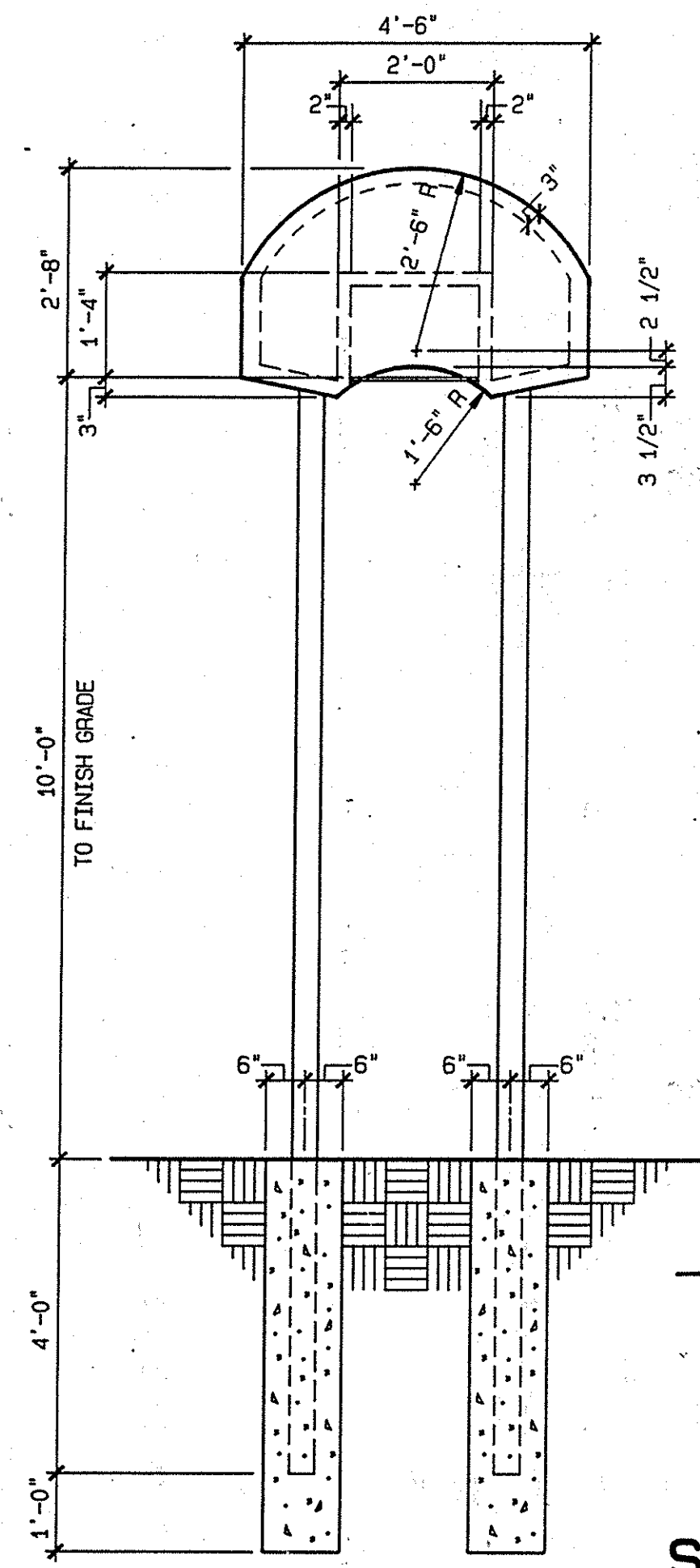
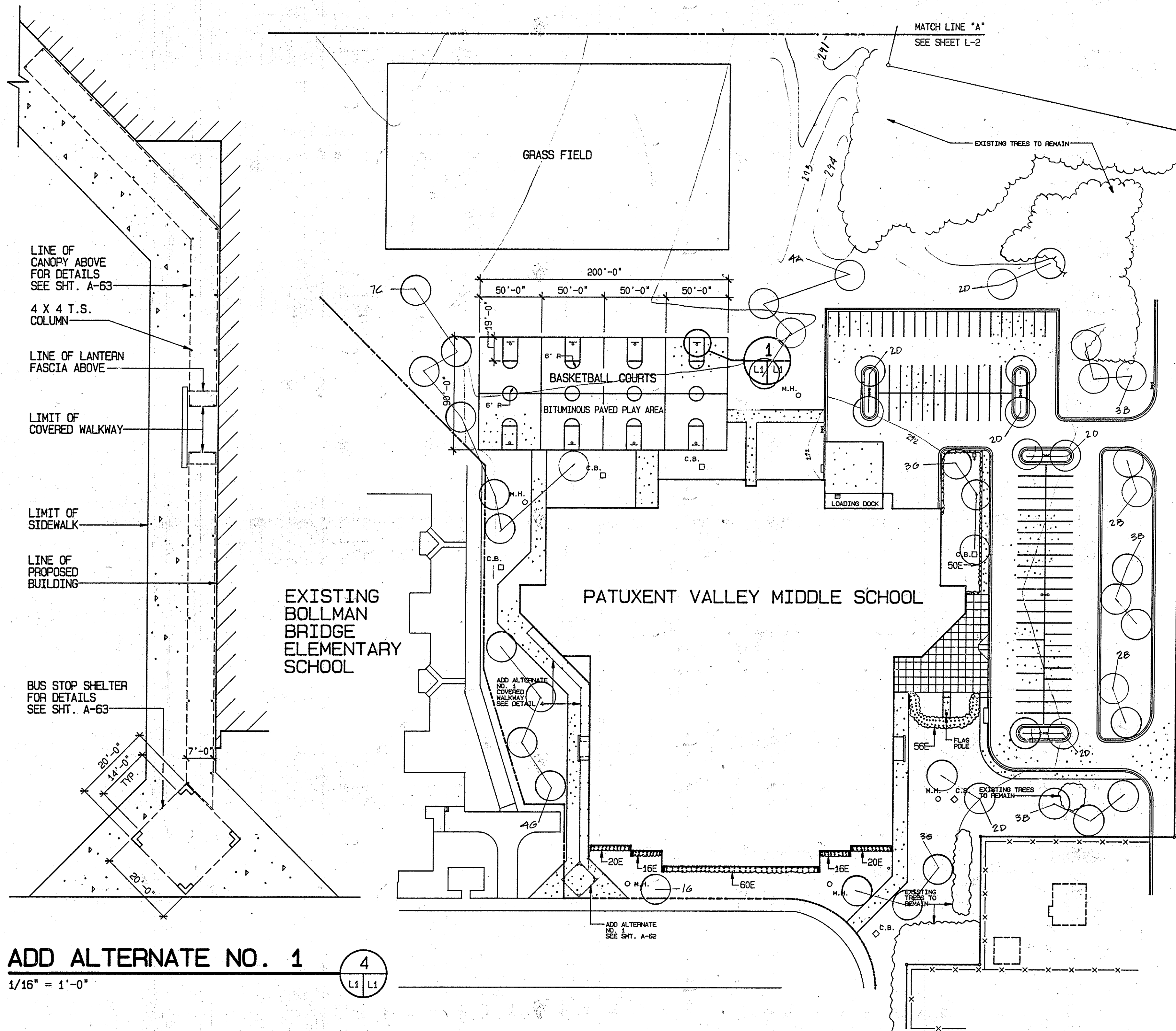
STATE OF MARYLAND
PROFESSIONAL ENGINEER

OWNER - DEVELOPER
Howard County Bd. of Educa.
10910 Rt. 106
Ellicott City, Md. 21043
992-0500
Attn: Mr. Henry Hornung

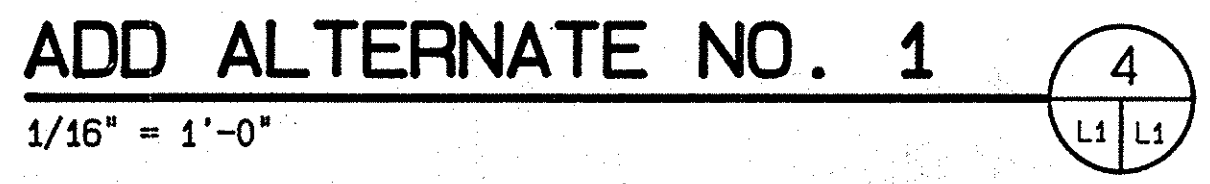
HANKINS & ANDERSON CONSULTING ENGINEERS 1604 SANTA ROSA ROAD RICHMOND, VIRGINIA 23288 (804) 285-4171	DATE 17 FEB 1988	DRAWING SCALE 1" = 50' JOB NO. 12 28 OF
--	---------------------	--

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER *James Boye* DATE **3-24-88**
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
 PLANNING DIRECTOR *[Signature]* DATE **3/20/88**
 APPROVED: DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 DIRECTOR *[Signature]* DATE **3/20/88**
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR *[Signature]* DATE **3/25/88**
 CHIEF BUREAU OF ENGINEERING *[Signature]* DATE **3-24-88**

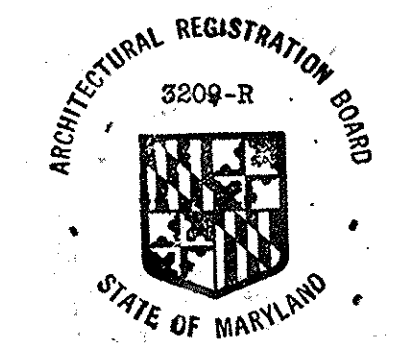
APPROVED
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE **3-21-88**
[Signature]



- GENERAL NOTES:**
1. THIS SHEET TO BE USED FOR PLANTING ONLY
 2. ALL PLANT MATERIAL SHALL BE FULL AND HEAVY AND CONFORM TO MOST RECENT AAN/LC/MW SPECIFICATIONS
 3. UNLESS OTHERWISE NOTED, ALL DISTURBED AREAS TO BE SEEDED AS PER SPECIFICATIONS
 4. ANY PROPOSED SUBSTITUTIONS SHALL BE MADE PRIOR TO BIDDING
 5. PLANT QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON DRAWING AND THOSE LISTED, THE QUANTITIES ON THE DRAWINGS SHALL TAKE PRECEDENCE.

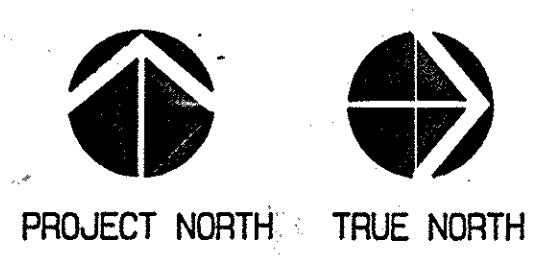


LANDSCAPE PLAN - SHEET 1
 PATUXENT VALLEY
 MIDDLE SCHOOL
 PARCEL 25 TAX MAP 47
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MD.



Drum & Beck

LANDSCAPE PLAN
 1" = 50'-0"



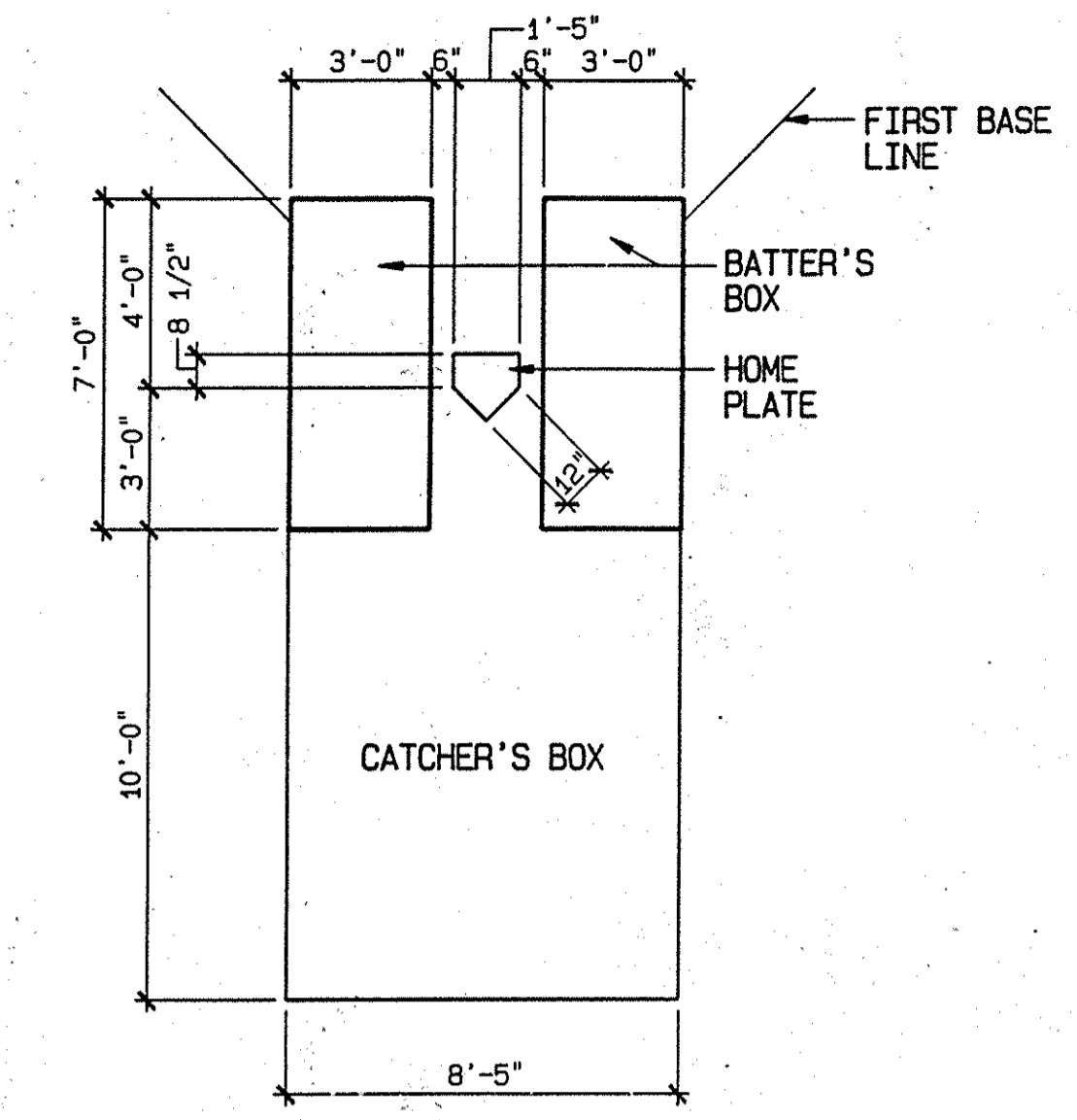
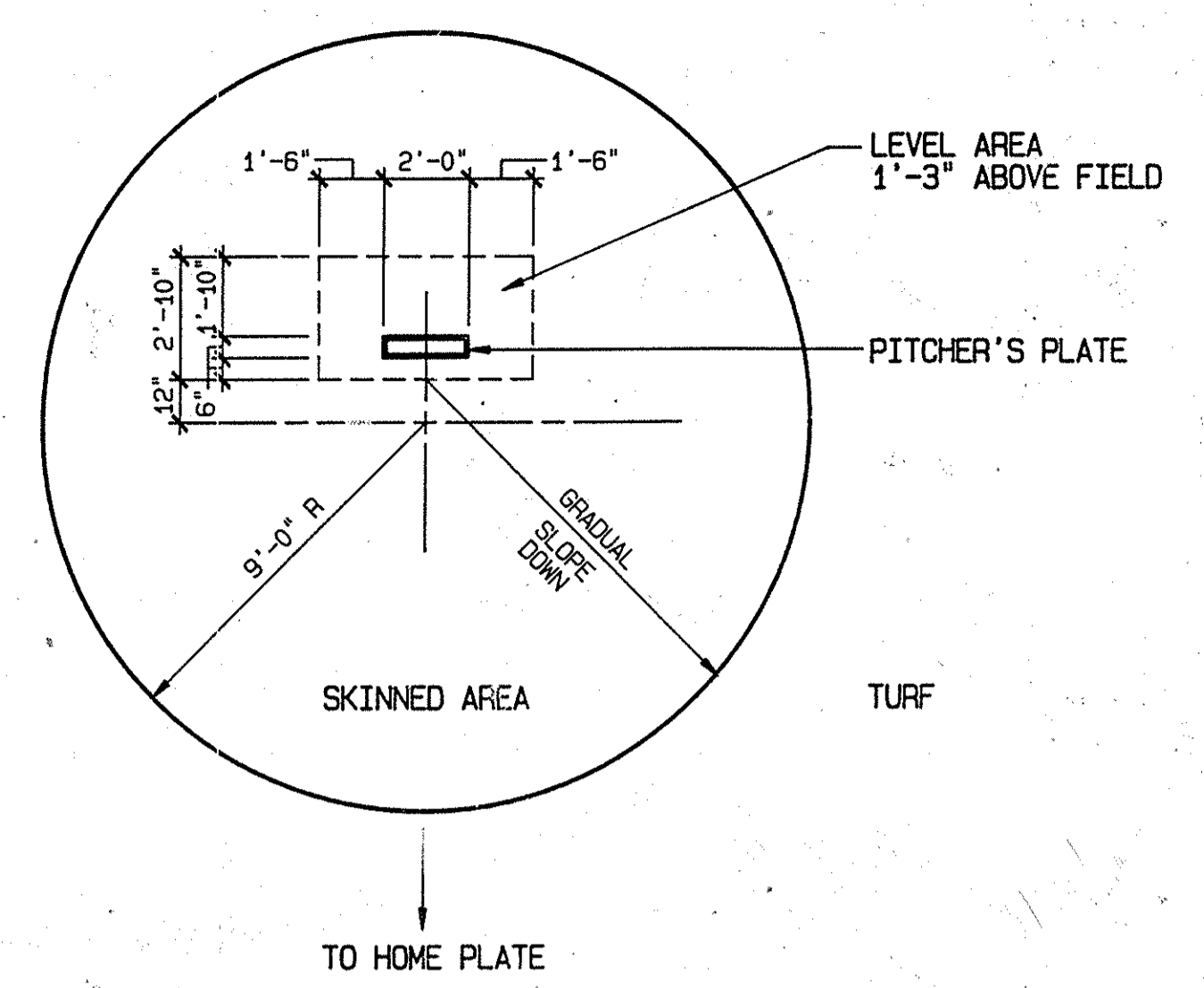
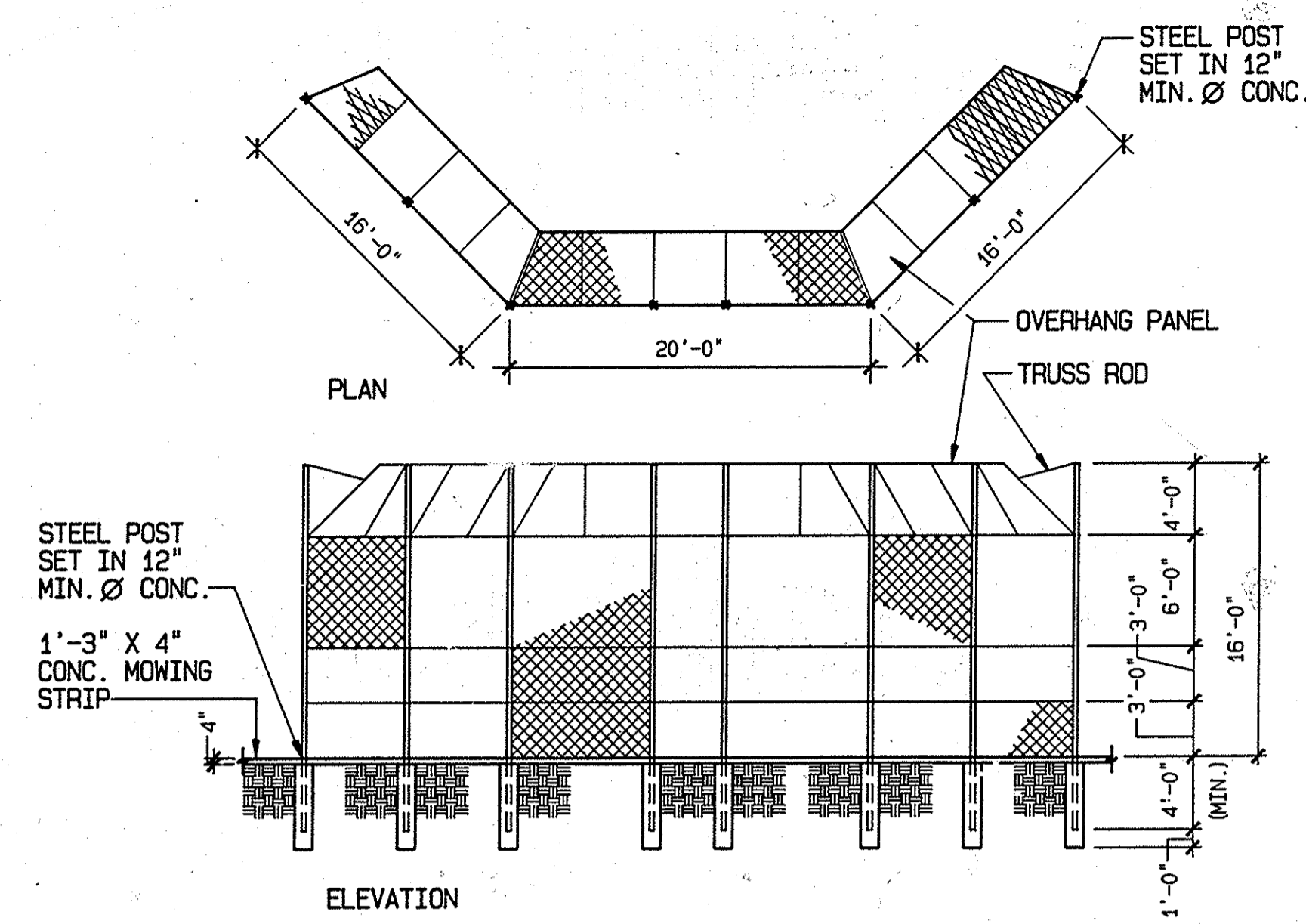
REVISION 7/28/84
 FISHER
 REVISION 6/30/86

NO.	NAME	QUANTITY	SIZE
A	ACER RUBRUM 'RED SUNSET' / RED SUNSET MAPLE	4	3 1/2" - 4" CALIBER
B	ACER RUBRUM 'OCTOBER GLOEY' / OCTOBER GLOEY MAPLE	15	2 1/2" - 3" CALIBER
C	ACER SACCHARUM/SUGAR MAPLE	7	2 1/2" - 3" CALIBER
D	QUERCUS PHELLOPS / WILLOW OAK	12	2" CALIBER
E	COTONEASTER DAMMERI / COAL BEAUTY COTONEASTER	238	24" - 30"
F	PINUS STROBILUS/WHITE PINE	0.117	6" - 8"
G	ZELKOVA SPERATA 'VILLAGE GREEN' / VILLAGE GREEN ZELKOVA	11	2" CALIBER

DATE	15 Dec 87	DRAWING	13
SCALE	1" = 30'		28
JOB NO.			
OWNER - DEVELOPER	Howard County Bd. of Educa. 10910 Rt. 108 Ellicott City, Md. 21043 992-0500 Attn: Mr. Henry Hornung	PECK PECK & ASSOCIATES, INC. 1924 OPTZ BLVD WOODBRIDGE VA. 22191 (703) 690-3121	REVISIONS

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER *[Signature]* DATE 3-22-88
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
 PLANNING DIRECTOR *[Signature]* DATE 3/20/88
 DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR *[Signature]* DATE 3/25/88
 CHIEF BUREAU OF ENGINEERING *[Signature]* DATE 3-24-88

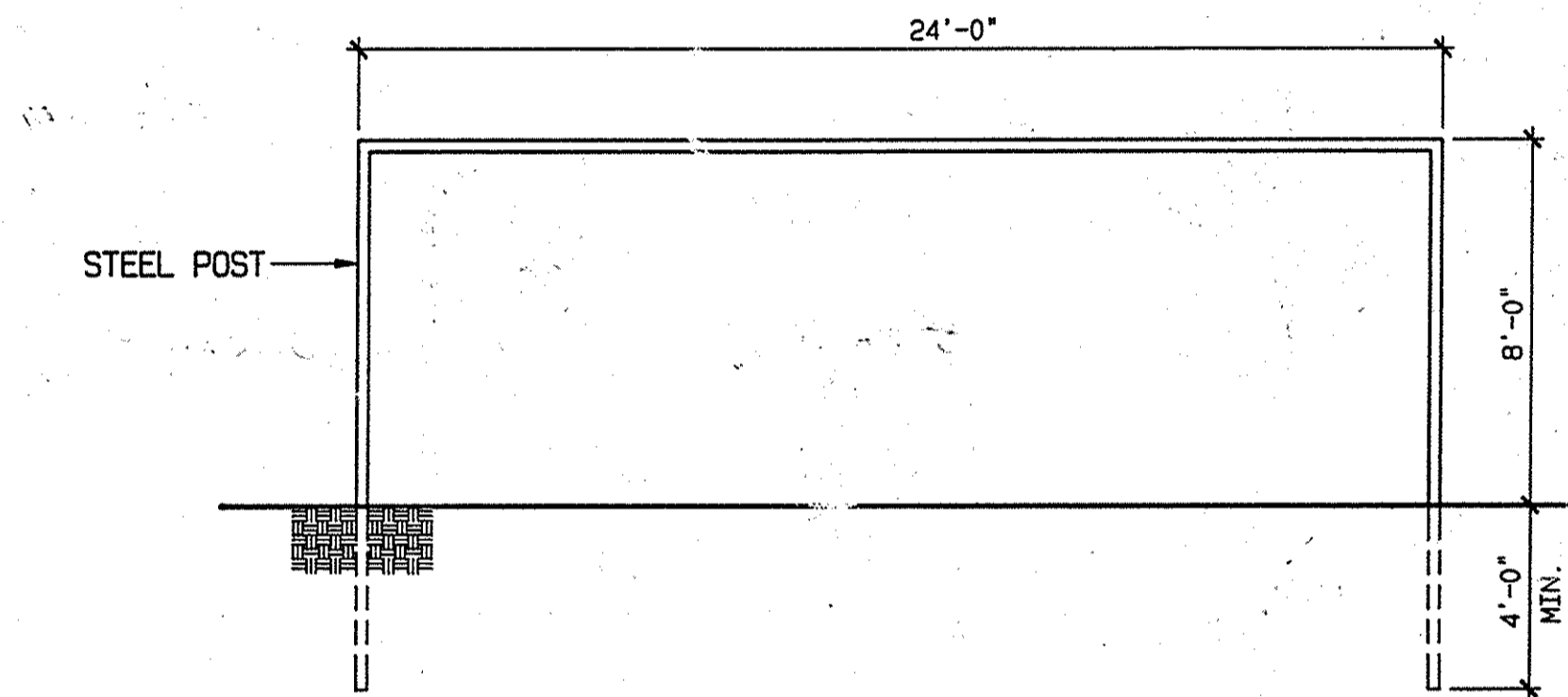
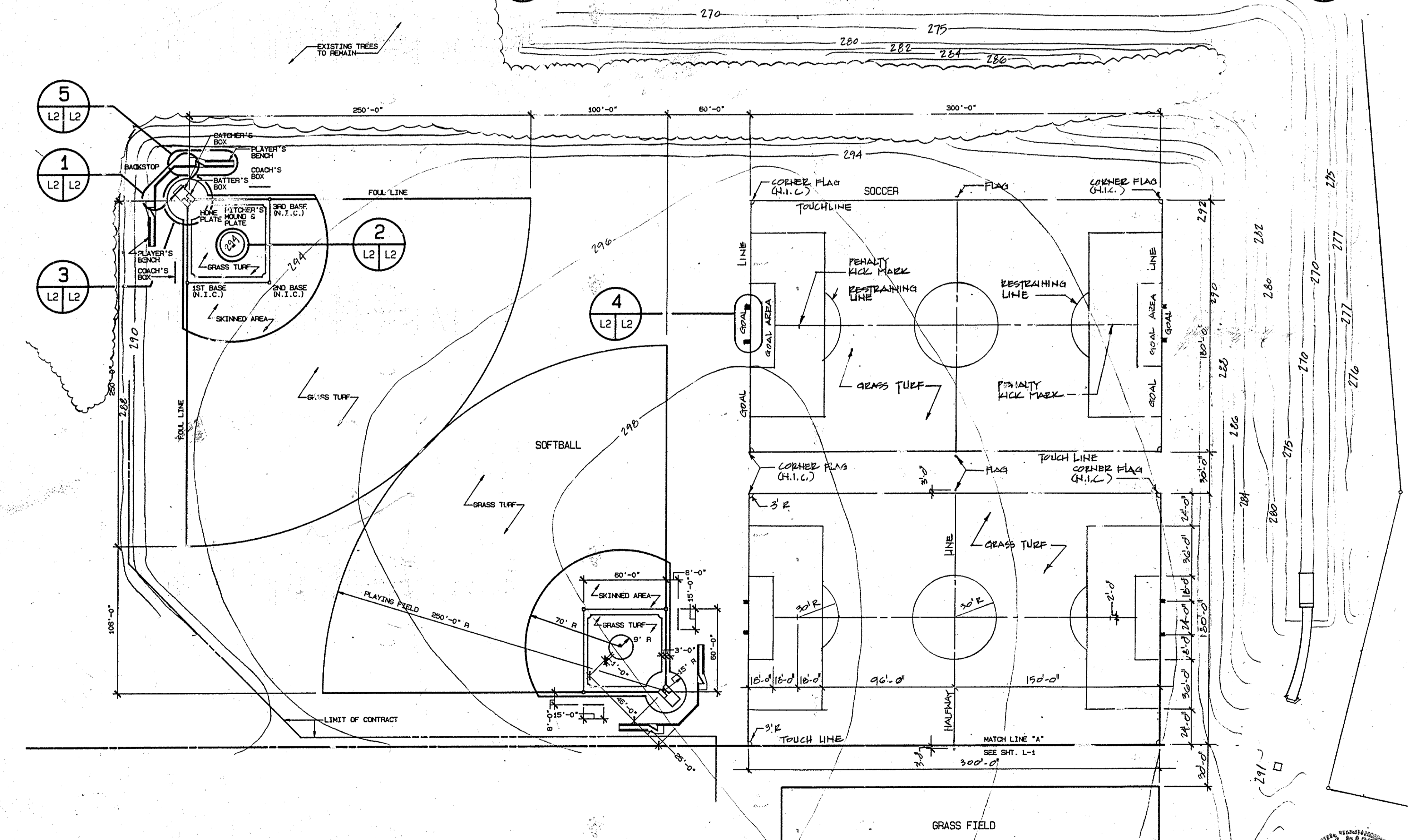
APPROVED
 DIVISION OF LAND DEVELOPMENT &
 ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE 3-21-88
[Signature]



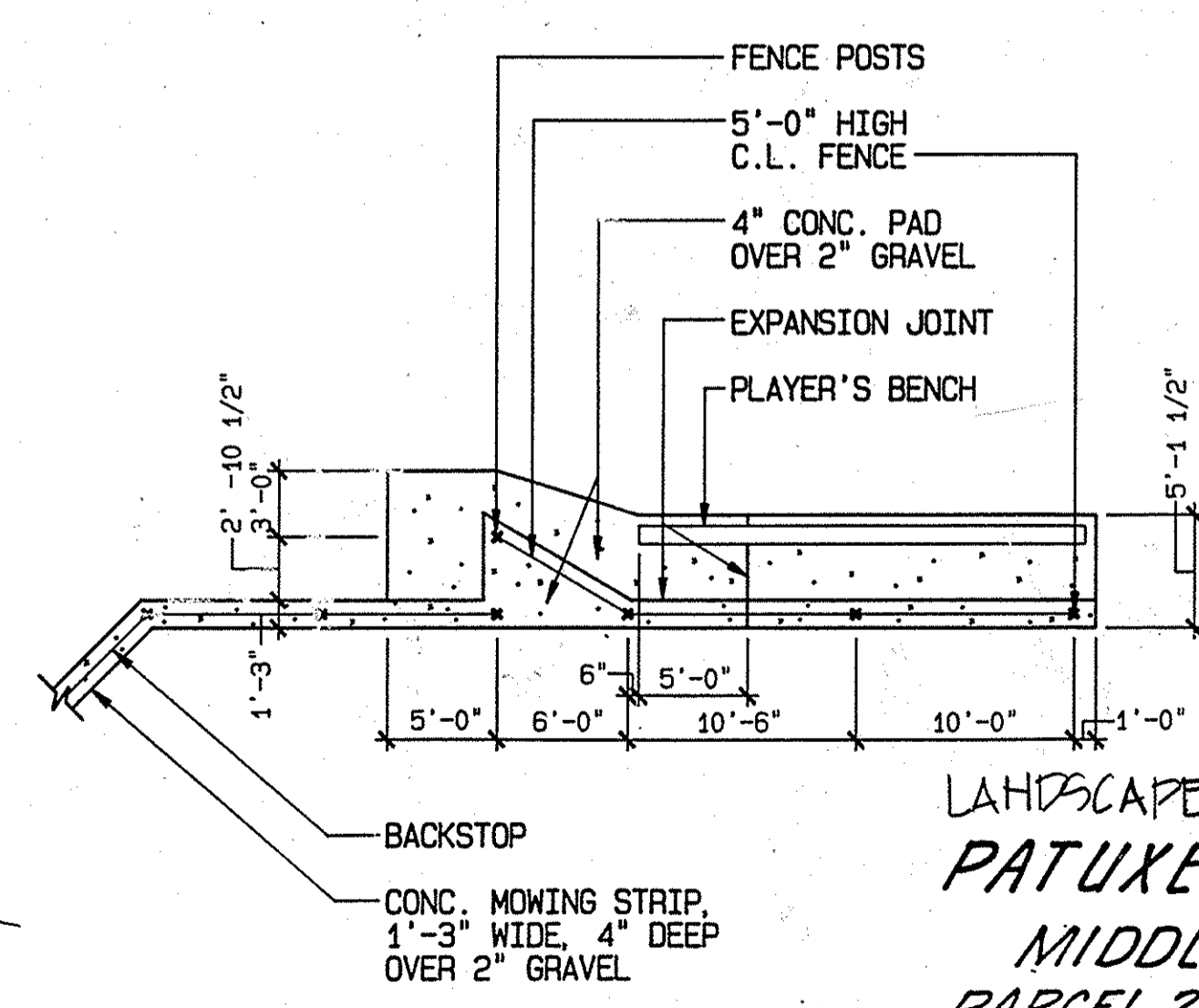
DETAILS - BACKSTOP
 1/8" = 1'-0"

DETAIL - PITCHER'S MOUND
 1/4" = 1'-0"

DETAIL - HOME PLATE
 1/4" = 1'-0"



DETAIL - GOAL
 1/4" = 1'-0"



PLAYERS BENCH DETAIL
 1/8" = 1'-0"

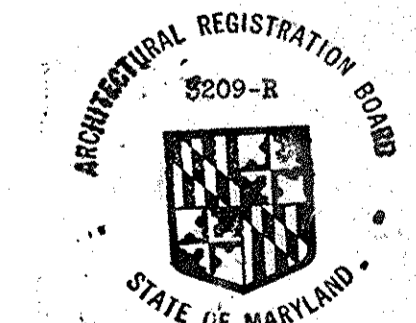
LANDSCAPE PLAN
 1" = 50'-0"
 PROJECT NORTH
 TRUE NORTH

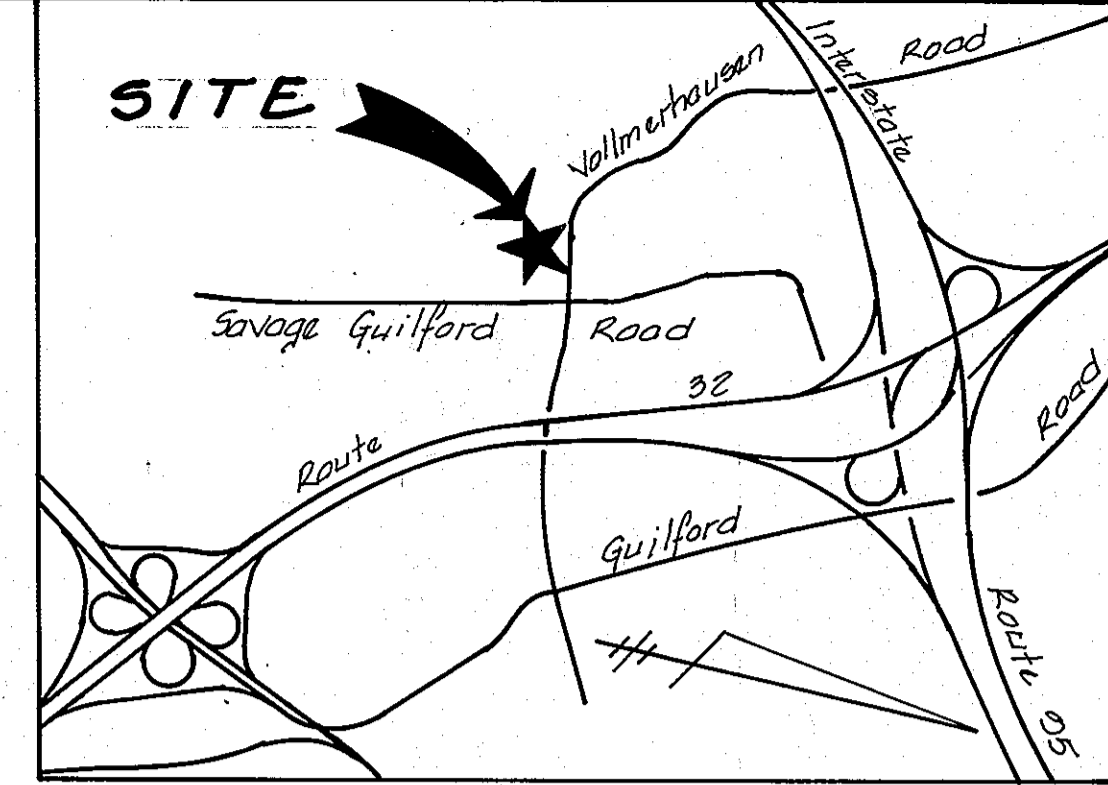
REVISION 7/28/84
 REVISION 6/30/86
 FISHER COLLINS & CARTER INC.

LANDSCAPE PLAN - SHEET 2
 PATUXENT VALLEY
 MIDDLE SCHOOL
 PARCEL 25 TAX MAP 47
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MD.
 OWNER - DEVELOPER
 Howard County Bd. of Educa.
 10910 Rt. 108
 Ellicott City, Md. 21043
 992-0500
 Attn: Mr. Henry Hornung

DATE	15 Dec 87	DRAWING	14 28
SCALE	1" = 30'	JOB NO.	OF
REVISIONS			

PECK PECK & ASSOCIATES, INC.
 1924 OPITZ BLVD
 WOODBRIDGE VA. 22191
 (703) 690-3121



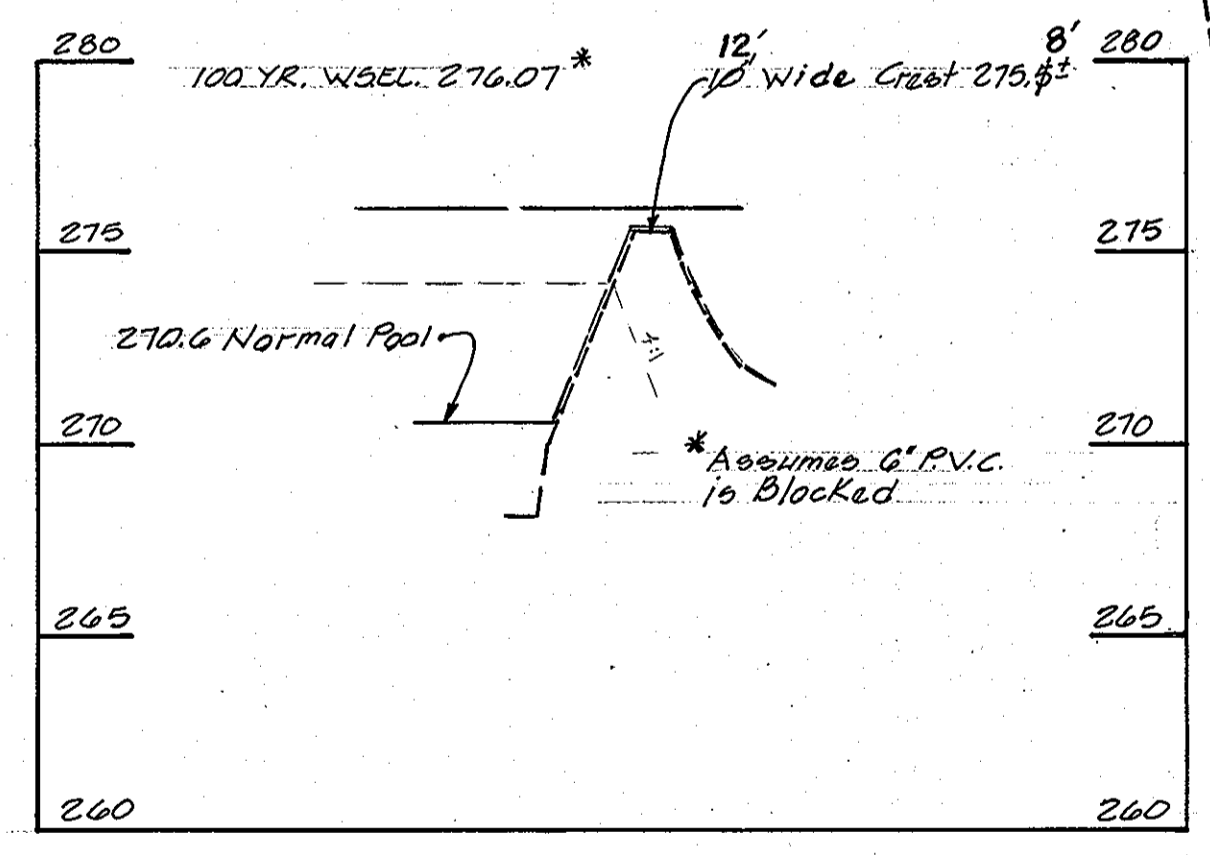
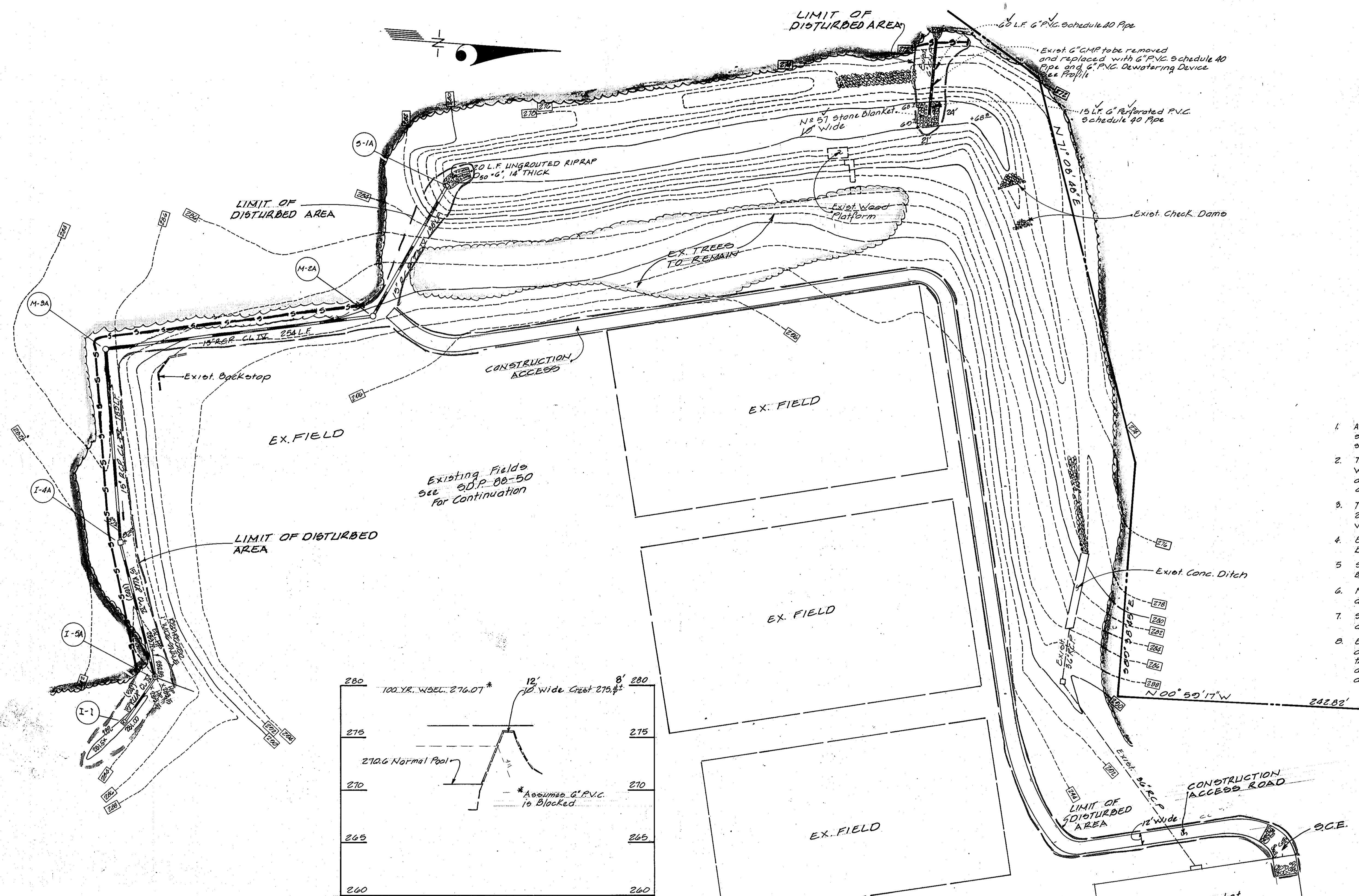


VICINITY MAP
Scale: 1" = 2000'

LEGEND

Contour Interval	2ft
Existing Contour	--- 200 ---
Proposed Contour	--- 200 ---
Spot Elevation	+80.2
Direction of Drainage	→
Existing Storm Drain	--- Ex. 36" R.C.P. ---
Proposed Storm Drain	--- 18" R.C.P. ---
Silt Fence	--- S ---
Ex. Trees to Remain	--- 20.2 ---
Ex. Spot Elev.	20.2

- GENERAL NOTES**
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
 - The contractor shall notify the Department of Public Works, Construction Inspection Division, at (410) 313-1800 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.
 - Existing topography is from a field run survey by Clark Finefrock & Sackett, Inc. July 1993.
 - Survey is based on Howard County Control BM 2042002, ELEV. 250.11, BM 2042003, ELEV. 201.82, BM 2042004, ELEV. 288.8.
 - Public water and sewer to be utilized Contract 1280 and SW Little Patuxent Drainage Area.
 - Stormwater management facility will be privately owned and maintained (shallow marsh).
 - Existing utilities shown were located by field survey and available records. The contractor must determine the exact location of utilities in the field by digging test pits by hand at all crossings well in advance of construction.
 - Contractor to minimize removal of trees for storm drainage construction.
 - Contractor to coordinate access with Howard County Board of Education.



SHEET INDEX

- 1A-A SITE DEVELOPMENT SEDIMENT AND EROSION CONTROL AND STORMWATER MANAGEMENT PLAN
- 1A-B SITE DEVELOPMENT PLAN, STORM DRAINAGE PROFILES AND STORMWATER MANAGEMENT PLAN
- 1A-C SEDIMENT AND EROSION CONTROL DETAILS AND POND SPECIFICATIONS

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: [Signature] DATE: 12-20-93

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 DIRECTOR: [Signature] DATE: 12/27/93
 CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT: [Signature] DATE: 12/23/93

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: [Signature] DATE: 12/15/93
 CHIEF BUREAU OF ENGINEERING: [Signature] DATE: 12/15/93

By The Developer:
 "I/we certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."
 [Signature] DATE: 10/14/93

By The Engineer:
 "I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."
 [Signature] DATE: 10-11-93

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
 [Signature] DATE: 12/2/93
 U.S. Soil Conservation Service

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
 [Signature] DATE: 12/2/93
 Approved: [Signature] DATE: 12/2/93
 Plan Number: 60-88-50

STATE OF MARYLAND
 DEPARTMENT OF PUBLIC SAFETY
 PROFESSIONAL ENGINEER
 [Signature] 10-11-93

STATE OF MARYLAND
 DEPARTMENT OF PUBLIC SAFETY
 PROFESSIONAL ENGINEER
 [Signature] 10-11-93

REVISION 12/20/11
 FISHER COLLINS AND CARTER INC.

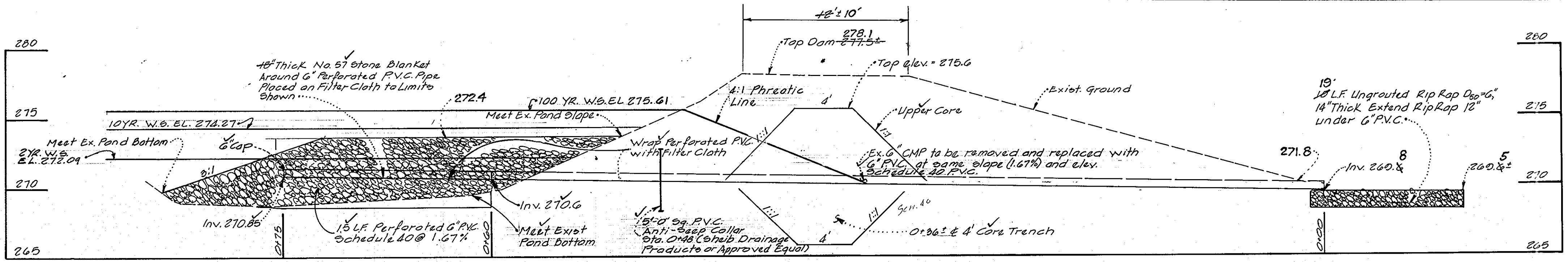
SUBDIVISION NAME	DECT/AREA	PARCEL N
Patuxent Valley Middle School		25
PLAT OR L.P.	BLK #	ZONE
7401300	4/5	R-20
TAX/ZONE MAP	ELEC DIST	CENSUS
47	G	G0G4
WATER CODE	SEWER CODE	
CO1	5001500	

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (301) 381-7500 • BALTO. • (301) 621-8100 - WASH.

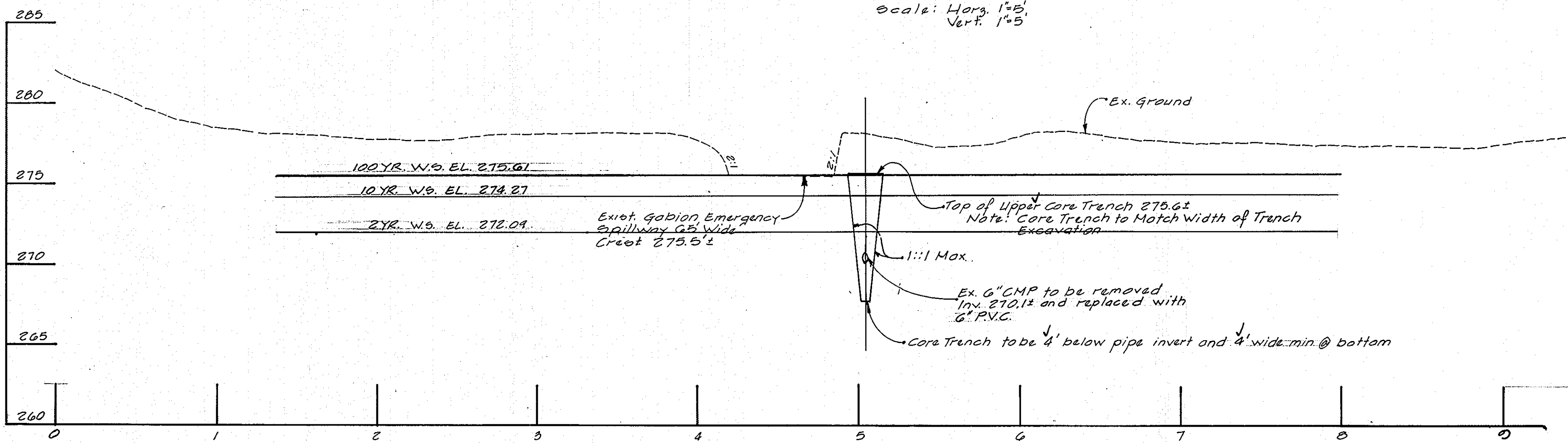
DESIGNED	J.L.D.	SITE DEVELOPMENT SEDIMENT AND EROSION CONTROL AND STORMWATER MANAGEMENT PLAN	SCALE	1" = 50'
DRAWN	C.A.F.	PATUXENT VALLEY MIDDLE SCHOOL	DRAWING	14-A
CHECKED	J.L.D.	PARCEL 25 TAX MAP 47 SIXTH ELECTION DISTRICT HOWARD COUNTY, MD	JOB NO.	03-134
DATE	10-5-93	FOR: HOWARD COUNTY BOARD OF EDUCATION 10010 Route 100 Ellicott City, Md. 21040	FILE NO.	03-134 X

"SWIM AS-BUILT" SDP-88-50

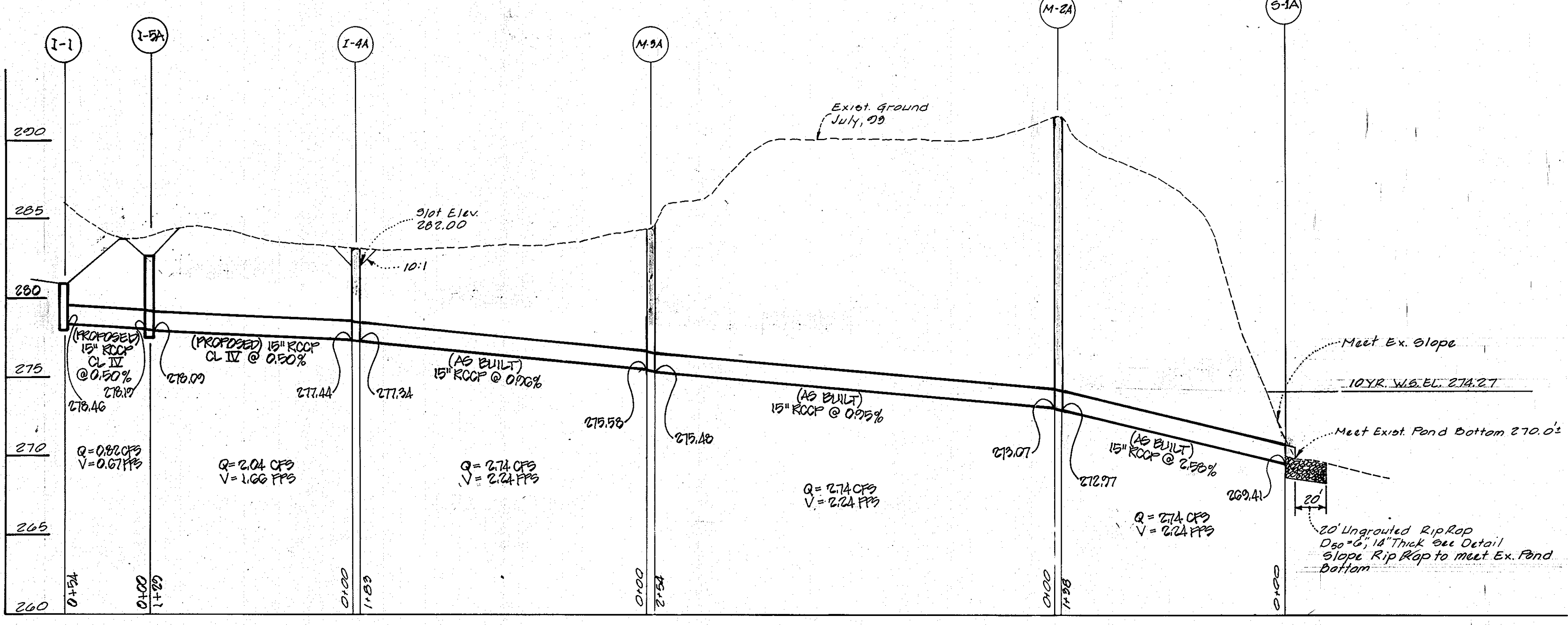
NO.	REVISION	DATE
1	REPLACED EXISTING STORM DRAIN PIPES FROM INLET I-1A TO I-2A, RELOCATED I-2A AND ADDED A NEW INLET & STORM DRAIN FROM I-2A TO I-1A	12/11



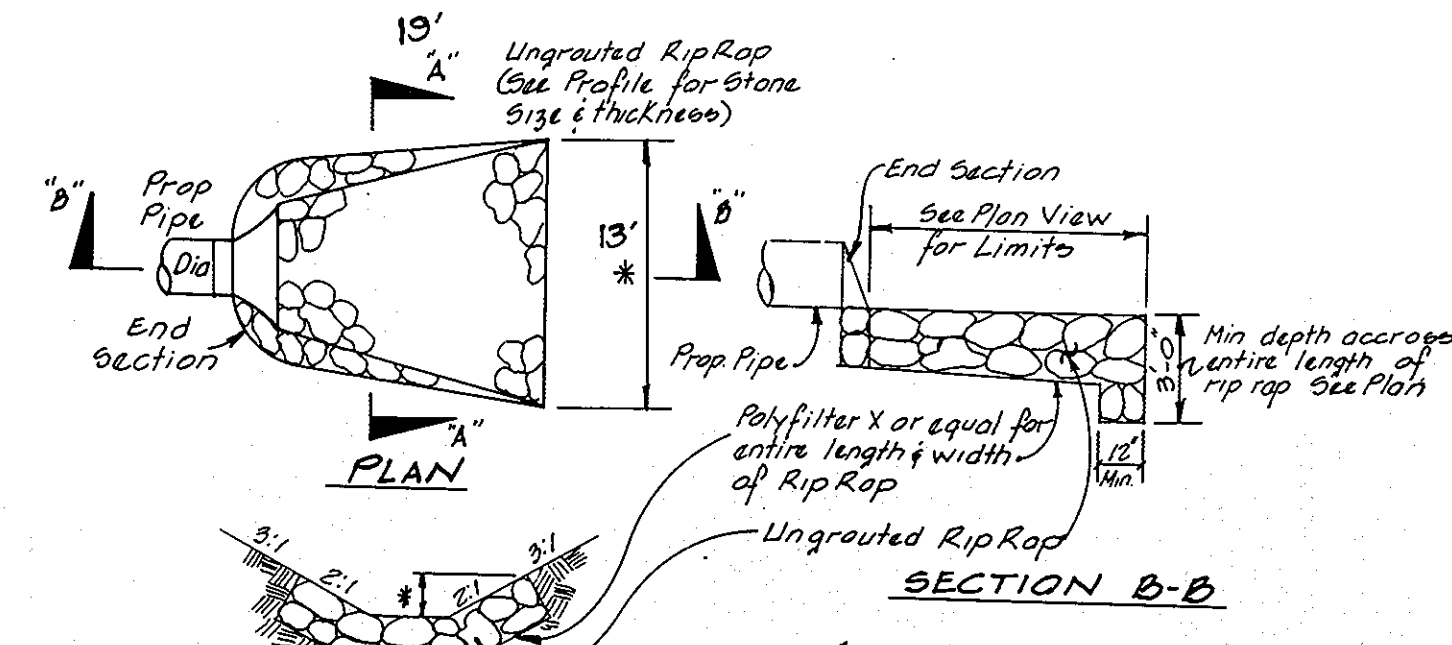
PROFILE ALONG PRINCIPAL SPILLWAY
Scale: Horiz. 1"=5', Vert. 1"=5'



PROFILE ALONG CENTERLINE OF DAM
Scale: Horiz. 1"=50', Vert. 1"=5'



PROFILES
Scale: Horiz. 1"=50', Vert. 1"=5'



UNGROUTED RIP RAP PAVING DETAILS
No Scale

By The Developer:
"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

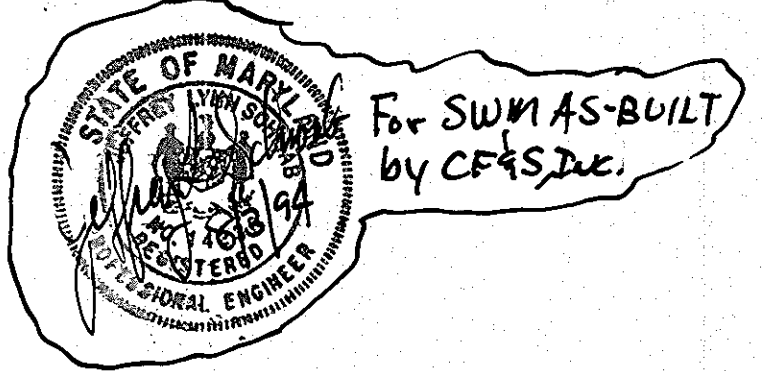
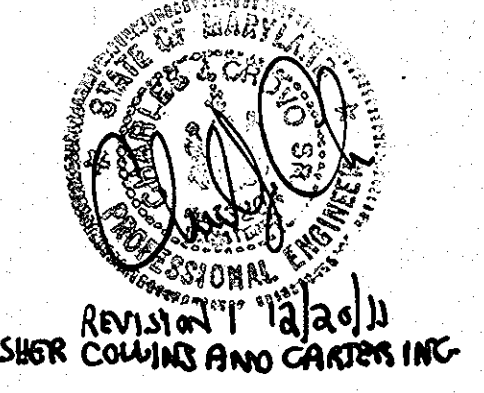
Catherine Conley 10/11/93
Signature of Developer Date

By The Engineer:
"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

J. R. Clark 10-11-93
Signature of Engineer Date

Approved: *Mark J. Kelly* 12/3/92
Howard S.C.D. Date
revised to: SDP-88-50
Plan Number

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
J. O. Campbell 12/3/92
Soil Conservation Service Date



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
HOWARD COUNTY HEALTH DEPARTMENT
James M. ... 12-20-93
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
... 12/27/93
DIRECTOR DATE

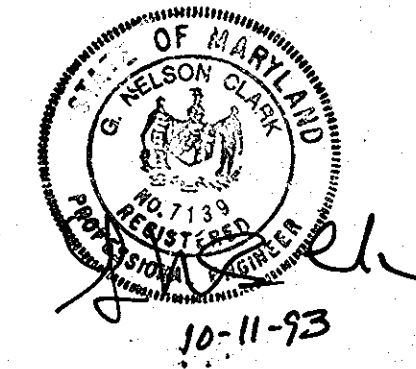
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
... 12/15/93
DIRECTOR DATE

STRUCTURE SCHEDULE							
No.	TYPE	INV IN	INV OUT	TOP ELEVATION		REMARKS	LOCATION
				UPPER	LOWER		
S-1A	Concrete End Section	270.17	270.00			Ho.Co. Sid 50 5.51 15"	SEE PLAN
M-2A	Precoat MI	274.00	273.0	201.5		Ho.Co. Sid 51 5.12 48"	
M-2A	Precoat MI	276.64	276.54	204.5		Ho.Co. Sid 51 5.12 48"	
M-2A	D-Inlet	276.57	276.47	202.05		Ho.Co. Sid 50 4.11 24" SQ	
I-2A	D-INLET W/4 OPENINGS	276.19 (15")	276.02 (15")	202.05 (THROAT)		D-4.10	N 92 22 25 E 130 00 00 00
I-1	D-INLET W/4 OPENINGS	276.46 (15")	276.46 (15")	221.00 (THROAT)		D-4.10	N 92 18 45 E 130 00 00 00

△ FULLY DEVELOPED INVERTS
* PROVIDE SLOTS IN ALL SIZES

PIPE SCHEDULE			
SIZE	TYPE	LENGTH	
15"	RCP CL. IX	788 LF	

1 REVISION STORM DRAIN PROFILE AND STRUCTURE SCHEDULE 10/20/93
NO. REVISION DATE



CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA MD 21045 • (410) 981-7500 BALTO • (301) 621-8100 - WASH

DESIGNED J.L.S.	SITE DEVELOPMENT PLAN STORM DRAINAGE PROFILES AND STORMWATER MANAGEMENT PLAN PATUXENT VALLEY MIDDLE SCHOOL PARCEL 25 TAX MAP 47 SIXTH ELECTION DISTRICT HOWARD COUNTY, MD	SCALE AS SHOWN
DRAWN C.A.F.		DRAWING 14-B
CHECKED J.L.S.		JOB NO. 03-194
DATE 10/15/93		FILE NO. 03-194 X

FOR: HOWARD COUNTY BOARD OF EDUCATION
10010 Route 108
Baltimore City, Md 21043

SWA "AS-BUILT" SDP-88-50

SEDIMENT AND EROSION 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. (313-2437).
- 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 SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeters 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 1983 MARYLAND STANDARDS AND SPECS. 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.
- 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:	16.05AC
Area Disturbed:	0.05AC
Area to be reseeded or paved:	0.05AC
Area to be vegetatively stabilized:	0.05AC
Total Cut:	
Total Fill:	
- 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.
- If houses are to be constructed on an "as sold" basis, at random, Single Family Sediment Control, as shown below shall be implemented. N/A
- The total amount of silt fence= 675LF

* It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

SEQUENCE OF CONSTRUCTION:	NO. OF DAYS
1. Obtain Grading permit	7
2. Install Sediment & Erosion Control measures	7
3. Reconstruct pond spillway and immediately Stabilize	7
4. Construct Storm Drainage and immediately Stabilize	14
5. Upon Approval of the Sediment Control Inspector, remove Sediment & Erosion Control measures and Stabilize.	14

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, discing 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/100 sq ft.) and 500 lbs per acre 10-10-10 fertilizer (14 lbs./1000 sq ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per 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. 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 60 lbs per 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 29, protect site by: Option (1) 2 tons per acre 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 unrattled 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

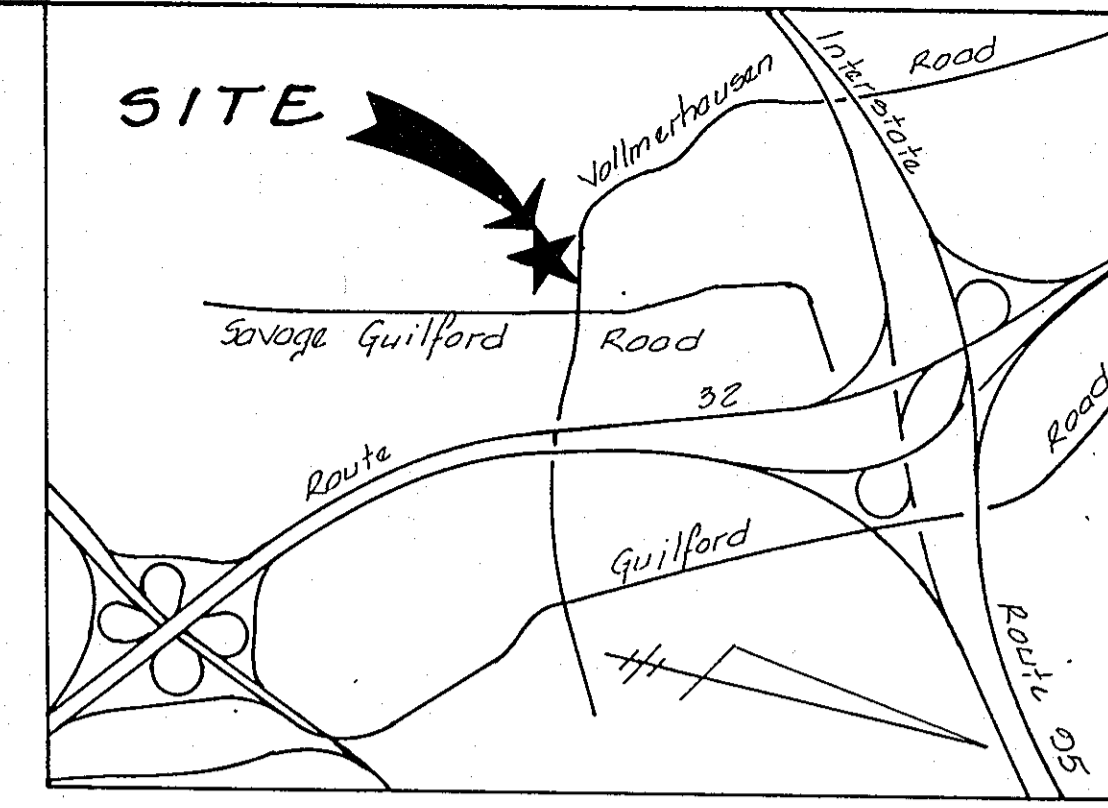
SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing, or other acceptable means before seeding, if not previously loosened.

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 November 15, seed with 2 1/2 bushels 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 29, 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 unrattled 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.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



VICINITY MAP
Scale: 1" = 200'

POND SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

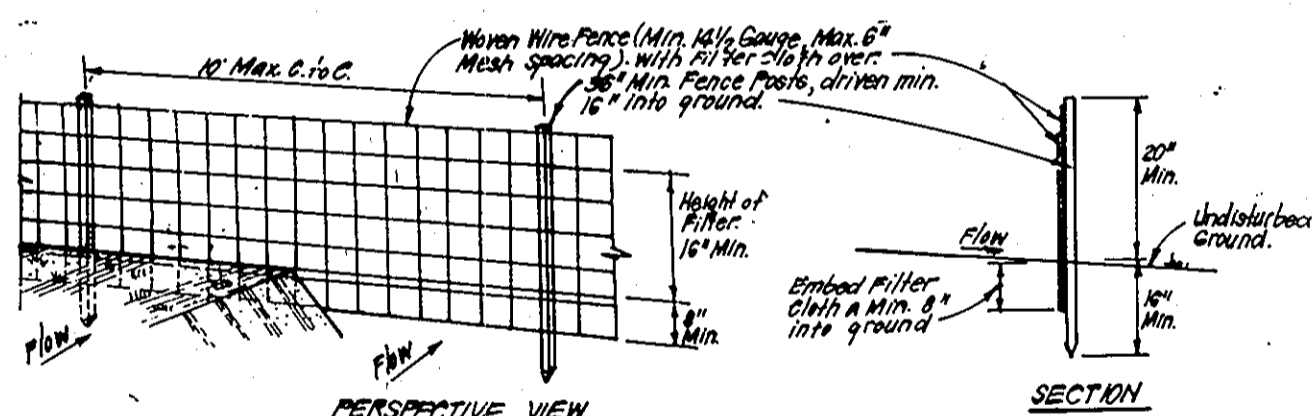
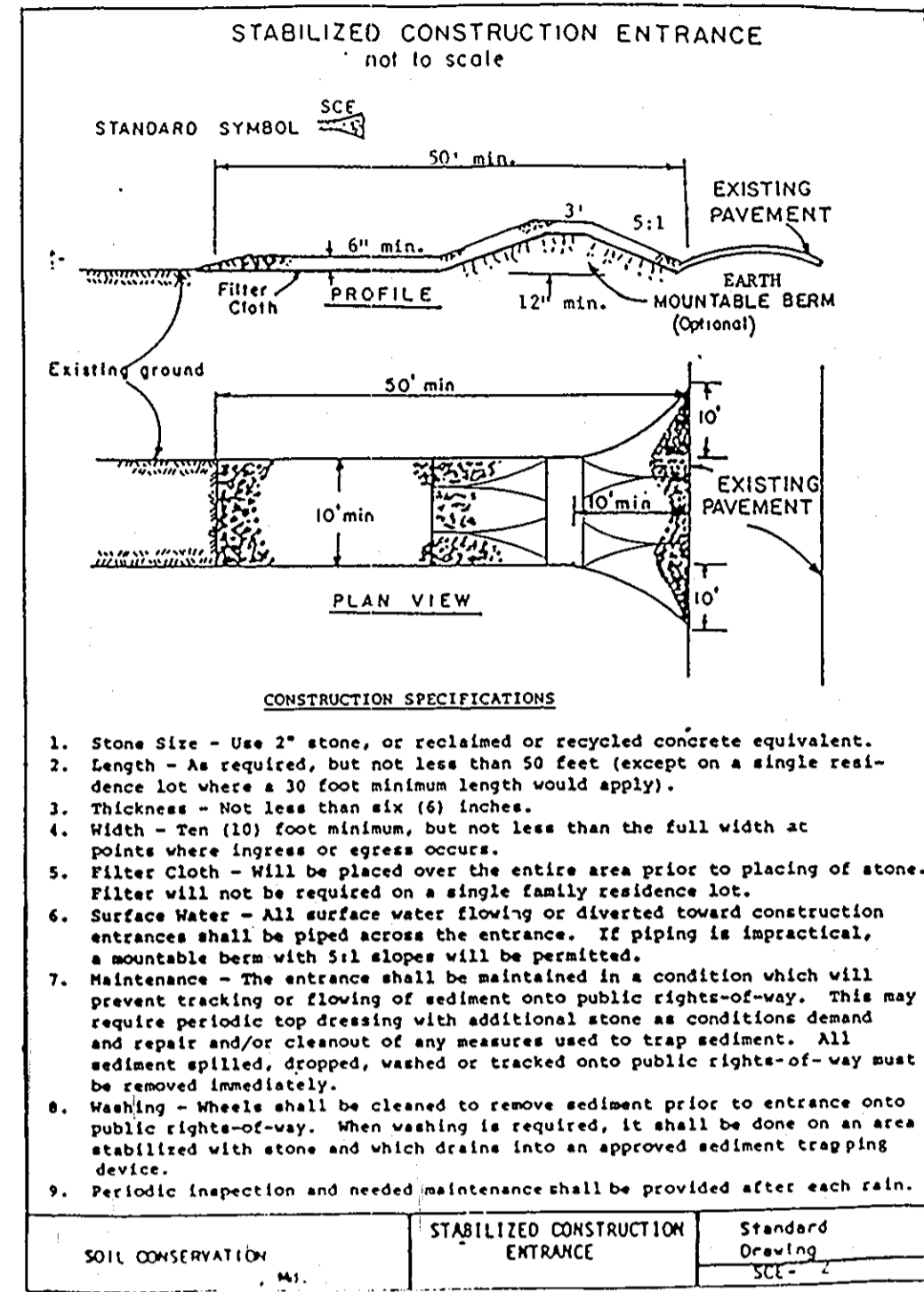
Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four

complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.



SILT FENCE DETAIL (S)
1/8" SCALE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 HOWARD COUNTY HEALTH DEPARTMENT
 Director: *James M. Boyd* DATE: 12-20-93

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 Director: *James M. Boyd* DATE: 12/27/93

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 Director: *Gina J. Jaramani* DATE: 12/29/93

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Director: *James P. Chew* DATE: 12/15/93

CHIEF BUREAU OF ENGINEERING DATE: 12/15/93

By The Developer:
 "I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."
 Signature of Developer: *Cathleen Conroy* Date: 10/11/93

By The Engineer:
 "I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."
 Signature of Engineer: *J. Beck* Date: 10-11-93

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
 J. G. Washburn 12/9/93
 U.S. Soil Conservation Service

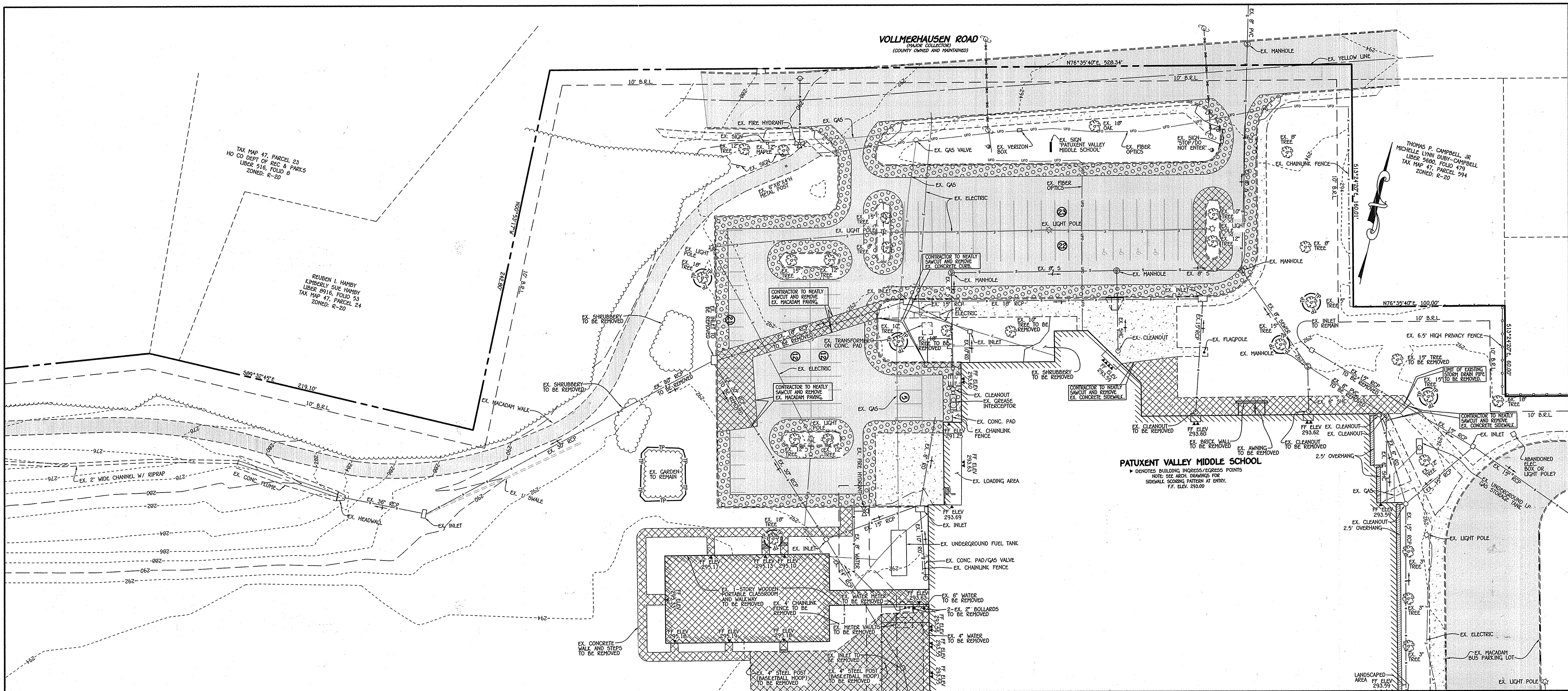
These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
 Approved: *John P. S. D.* DATE: 12/15/93
 SDC-SP-50
 Plan Number

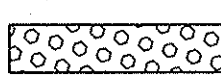
CLARK • FINEROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINISTREL WAY • COLLEGE PARK, MD 20745 • (301) 381-7500 • BALTO. • (301) 621-8100 - WASH.

DESIGNED J.L.S.	SEDIMENT AND EROSION CONTROL DETAILS AND POND SPECIFICATIONS PATUXENT VALLEY MIDDLE SCHOOL PARCEL 25 TAX MAP 47 SIXTH ELECTION DISTRICT HOWARD COUNTY, MD.	SCALE As Shown
DRAWN C.A.F.		DRAWING 14-C
CHECKED J.L.S.		JOB NO. 03-134
DATE 10-5-93		FILE NO. 03-134 X
		FOR: HOWARD COUNTY BOARD OF EDUCATION 10010 Route 100 Ellicott City, Md. 21040

SWM "AS-BUILT" SDC-88-50



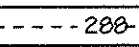
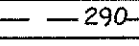
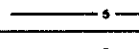
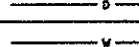
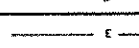
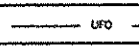
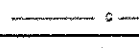
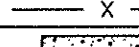
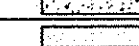

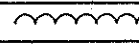
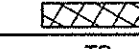
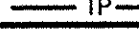




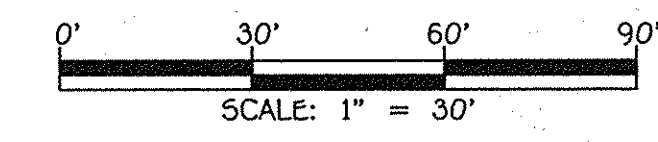
 DENOTES AREA TO BE MILLED IN THE EXISTING PARKING LOT ADJACENT TO THE CURB ALONG WITH PROVIDING A 1.5 INCH SURFACE GRADED ASPHALT OVERLAY ON THE EXISTING PAVED PARKING LOT.

PLAN

SCALE: 1" = 30'

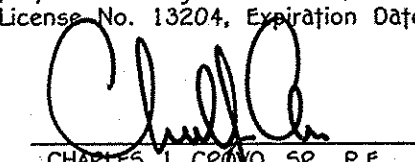
MATCHLINE SEE SHEET 16

LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR 2' INTERVAL
	EXISTING CONTOUR 10' INTERVAL
	EXISTING SAN. SEWER LINE
	EXISTING STORM DRAIN LINE
	EXISTING WATER LINE
	EXISTING ELECTRIC LINE
	EXISTING FIBER OPTICS
	EXISTING GAS LINE
	EXISTING FENCE
	EXISTING CONCRETE WALK
	EXISTING MACADAM PAVING
	EXISTING TREES
	EXISTING TREELINE
	APPROXIMATE DEMOLITION AREA
	TREE PROTECTION FENCING



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE DEMOLITION AREAS EFFECTED BY BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

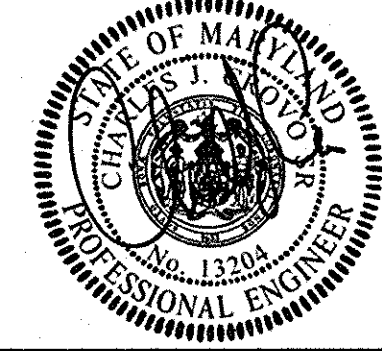
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 GAITHERSBURG, MARYLAND 21042
 (410) 461-2099

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, Expiration Date: November 3, 2014."

 CHARLES J. CRIVELLO, SR., P.E.

7/28/14 DATE

DATE	REVISION SHEET NUMBER	DESCRIPTION
8/20/14	1	REVISION BLOCK
8/11/14		APPROVED: DEPARTMENT OF PLANNING AND ZONING
8/11/14		Director - Department of Planning and Zoning
8/6/14		Chief, Development Engineering Division

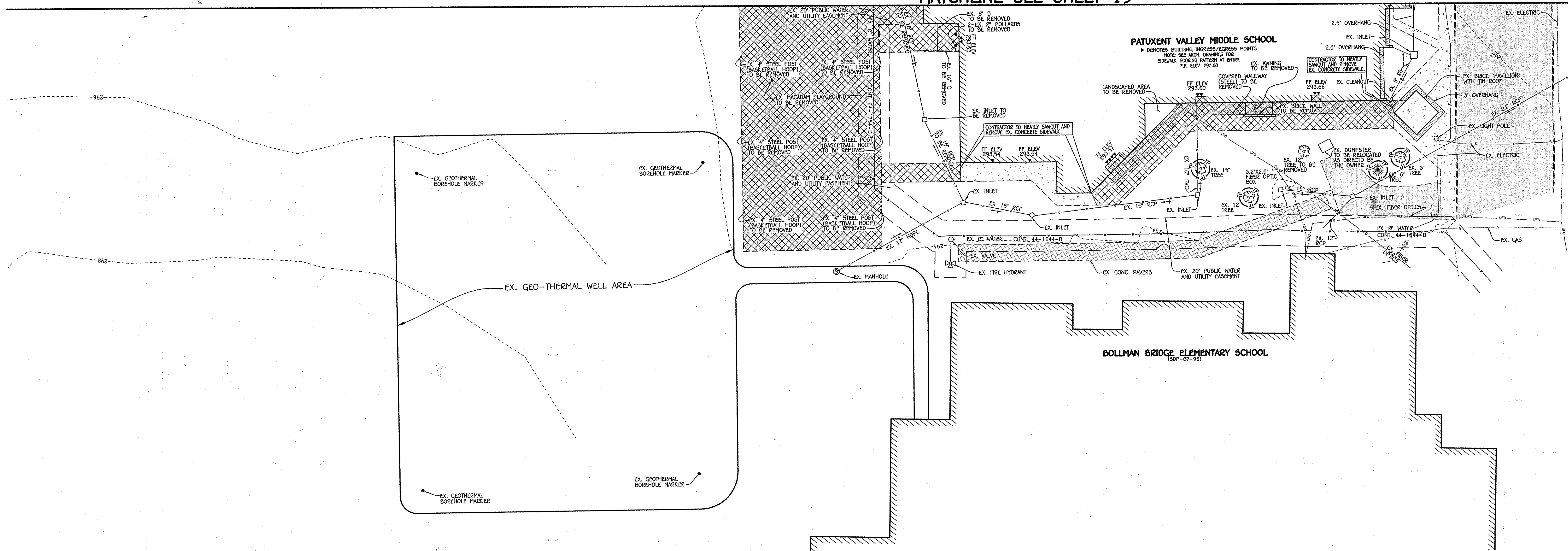
PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HARRIET TUBMAN BUILDING
 8045 HARRIET TUBMAN LANE
 COLUMBIA, MARYLAND 21044
 Attention: BRUCE GIST
 410-313-6805



ADDRESS CHART					
LOT/PARCEL#	STREET ADDRESS				
P. 16B	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794				
PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.			
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25			
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
L.749 F.399	5	R-20	47	SIXTH	6064

DEMOLITION PLAN
"REVISED SITE DEVELOPMENT PLAN"
PATUXENT VALLEY MIDDLE SCHOOL
 ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JULY 2, 2014
 SHEET 15 OF 20

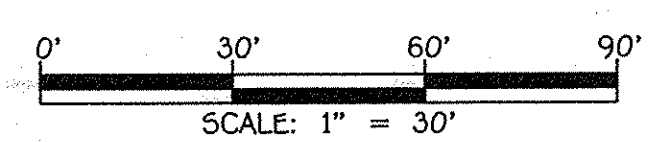
MATCHLINE SEE SHEET 15



PLAN

SCALE: 1" = 30'

LEGEND	
SYMBOL	DESCRIPTION
---288---	EXISTING CONTOUR 2' INTERVAL
---290---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING ELECTRIC LINE
---	EXISTING FIBER OPTICS
---	EXISTING GAS LINE
---	EXISTING FENCE
---	EXISTING CONCRETE WALK
---	EXISTING MACADAM PAVING
---	EXISTING TREES
---	EXISTING TREELINE
---	APPROXIMATE DEMOLITION AREA



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE DEMOLITION AREAS EFFECTED BY BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10072 BALTIMORE NATIONAL PIKE
 ELKROTT CITY, MARYLAND 21042
 (410) 461-0999

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, 2014."

 CHARLES J. PROVO, SR., P.E. 7/23/14 DATE

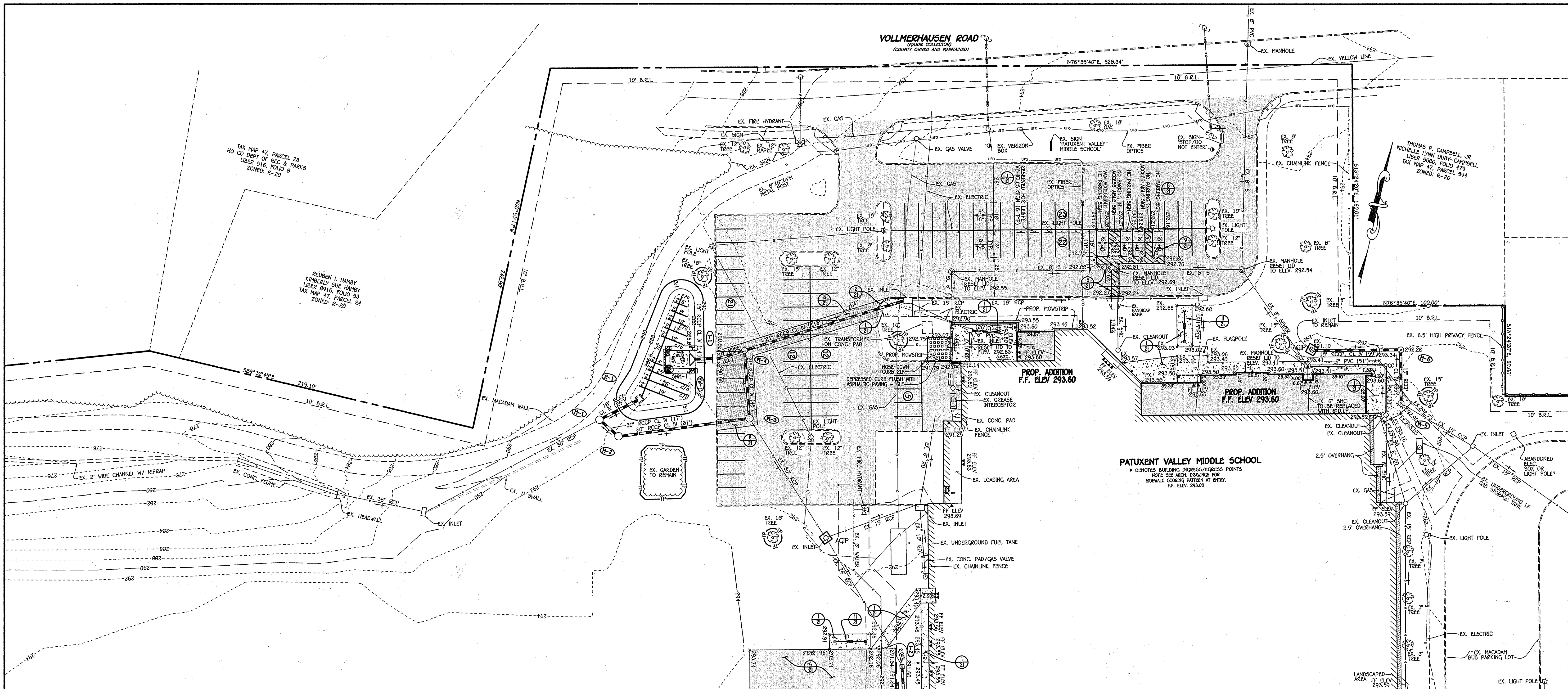
DATE	REVISION NUMBER	DESCRIPTION
8/20/14	1	REVISION BLOCK
APPROVED DEPARTMENT OF PLANNING AND ZONING		
Director - Department of Planning and Zoning		
Chief, Division of Land Development		
Chief, Development Engineering Division		

PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HARRIET TUBMAN BUILDING
 8045 HARRIET TUBMAN LANE
 COLUMBIA, MARYLAND 21044
 Attention: BRUCE GIST
 410-313-6805



ADDRESS CHART					
LOT/PARCEL#	STREET ADDRESS				
P. 168	9151 VOLLMERHAUSEN ROAD				
JESSUP, MARYLAND 20794					
PERMIT INFORMATION CHART					
SUBDIVISION NAME		SECTION/AREA	LOT/PARCEL NO.		
PATUXENT VALLEY MIDDLE SCHOOL		N/A	P. 25		
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
L.749 F.399	5	R-20	47	SIXTH	6064

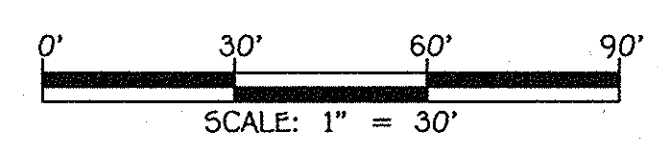
DEMOLITION PLAN			
"REVISED SITE DEVELOPMENT PLAN"			
PATUXENT VALLEY MIDDLE SCHOOL			
ZONED R-20	TAX MAP No.: 47	GRID No.: 5	PARCEL No.: 25
SIXTH ELECTION DISTRICT		HOWARD COUNTY, MARYLAND	
SCALE: 1" = 30'			
DATE: JULY 2, 2014			
SHEET 16 OF 28			



PLAN
SCALE: 1" = 30'

LEGEND	
SYMBOL	DESCRIPTION
--- 280 ---	EXISTING CONTOUR 2' INTERVAL
--- 290 ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING ELECTRIC LINE
---	EXISTING FIBER OPTICS
---	EXISTING GAS LINE
X	EXISTING FENCE
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	EXISTING TREES
---	EXISTING TREELINE
---	LIMIT OF CLEARING

PATUXENT VALLEY MIDDLE SCHOOL BIORETENTION (F-6) BMP SUMMARY TABLE						
ESD _r		Re _r		Peak Qs/WSEs		
Required	Provided	Required	Provided	Q ₁	Q ₁₀	Q ₁₀₀
1,807 cf	1,813 cf	100 cf	138 cf	3.0 cfs @ WSE 288.10	5.2 cfs @ WSE 288.23	11.5 cfs @ WSE 288.53



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10572 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21114
(410) 461-2099

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, Expiration Date: November 3, 2014."
Charles J. Crocco, Sr., P.E.
7/29/14 DATE

DATE	DESCRIPTION
6/30/16	REVISED SHEET NUMBER
REVISION BLOCK	
<i>Charles J. Crocco, Sr.</i>	8-11-14 DATE
<i>Charles J. Crocco, Sr.</i>	8/28/14 DATE
<i>Charles J. Crocco, Sr.</i>	8/11/14 DATE

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention BRUCE GIST
410-313-6805

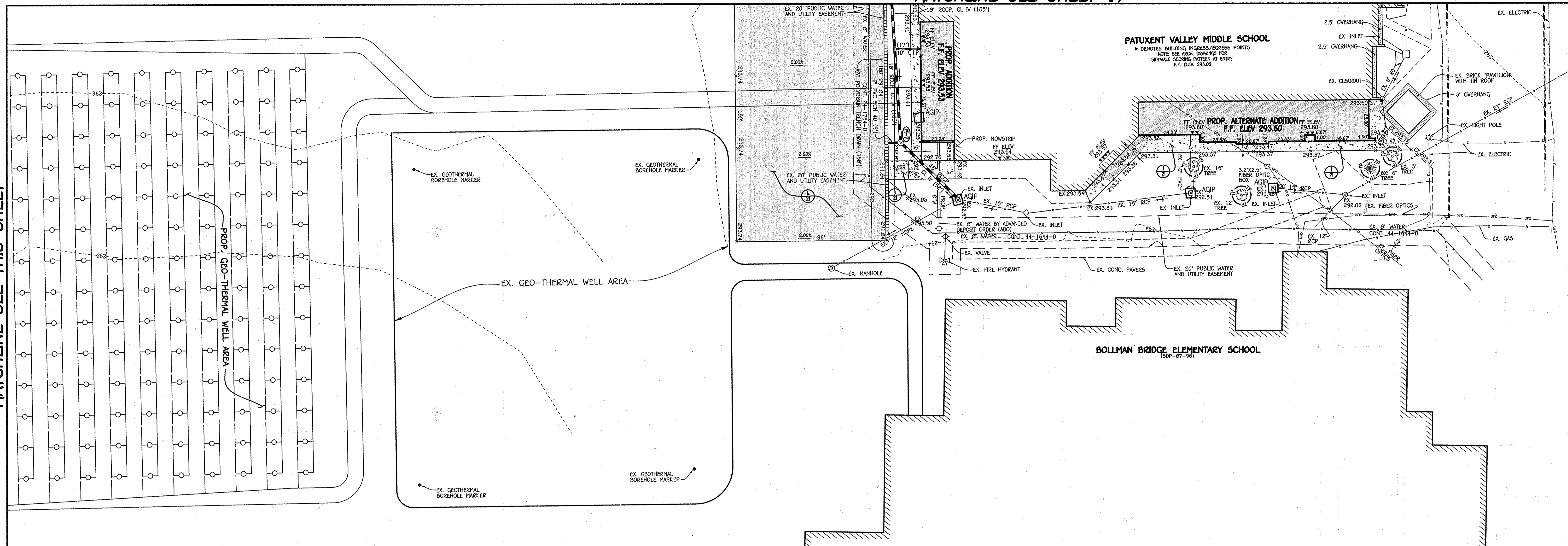


ADDRESS CHART					
LOT/PARCEL#	STREET ADDRESS				
P. 168	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794				
PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.			
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25			
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
L.749 F.399	5	R-20	47	SIXTH	6064

SITE IMPROVEMENT PLAN
"REVISED SITE DEVELOPMENT PLAN"
PATUXENT VALLEY
MIDDLE SCHOOL
ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: JULY 2, 2014
SHEET 17 OF 28

MATCHLINE SEE SHEET 17

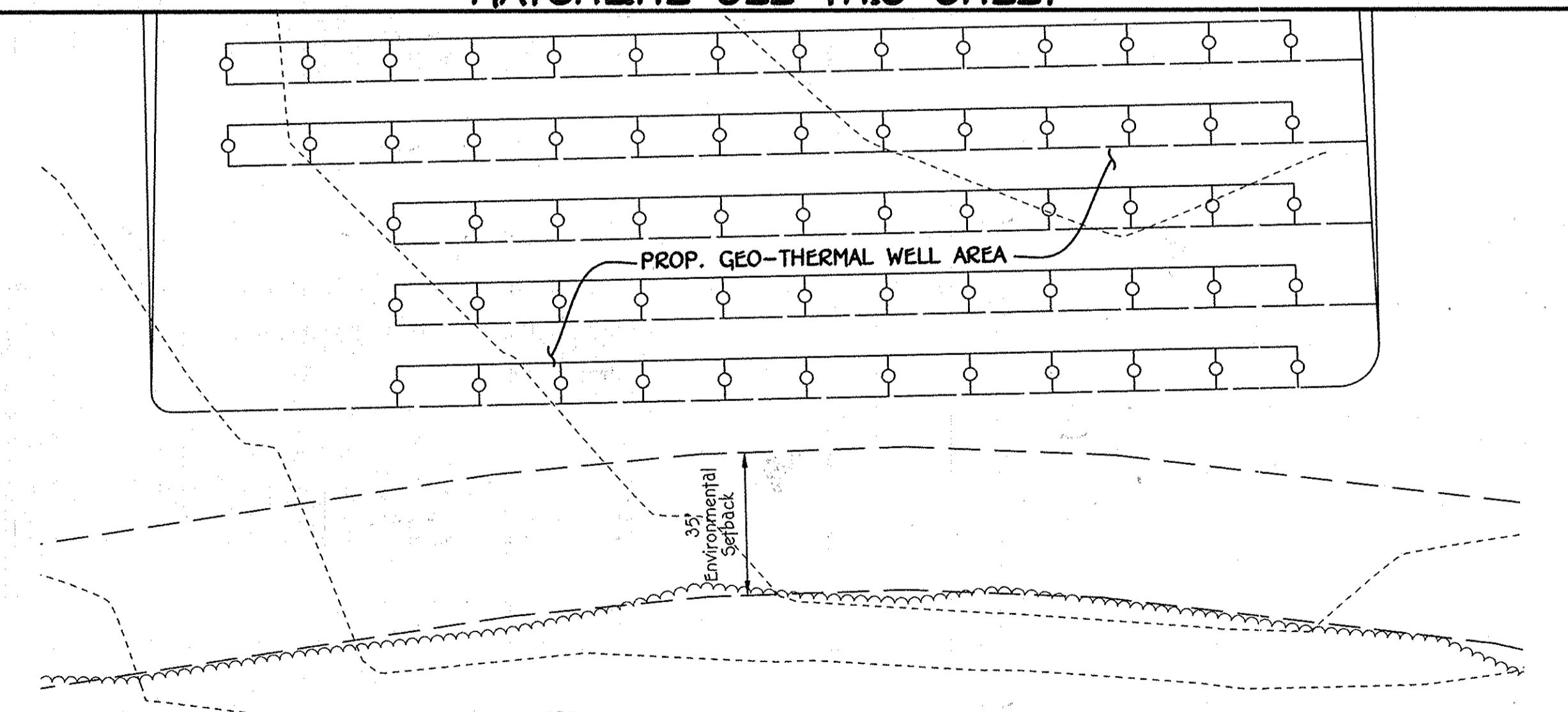
MATCHLINE SEE THIS SHEET



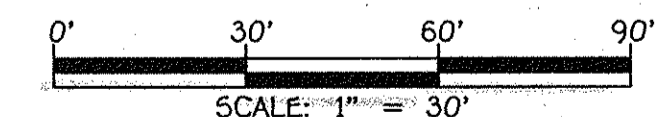
PLAN

SCALE: 1" = 30'

MATCHLINE SEE THIS SHEET



SYMBOL	DESCRIPTION
--- 200 ---	EXISTING CONTOUR 2' INTERVAL
--- 290 ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING ELECTRIC LINE
---	EXISTING FIBER OPTICS
---	EXISTING GAS LINE
---	EXISTING FENCE
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	EXISTING TREES
---	EXISTING TREELINE



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLSWORTH CITY, MARYLAND 21042
 (410) 461-2099

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, Expiration Date: November 3, 2014."
Charles J. Grovo, Sr.
 CHARLES J. GROVO, SR., P.E. 7/28/14 DATE

DATE	REVISION SHEET NUMBER	DESCRIPTION
8/20/16	1	APPROVED: DEPARTMENT OF PLANNING AND ZONING Director - Department of Planning and Zoning <i>Charles J. Grovo, Sr.</i> Chief, Development Engineering Division
8-11-14		Date
8/20/14		Date
8/6/14		Date

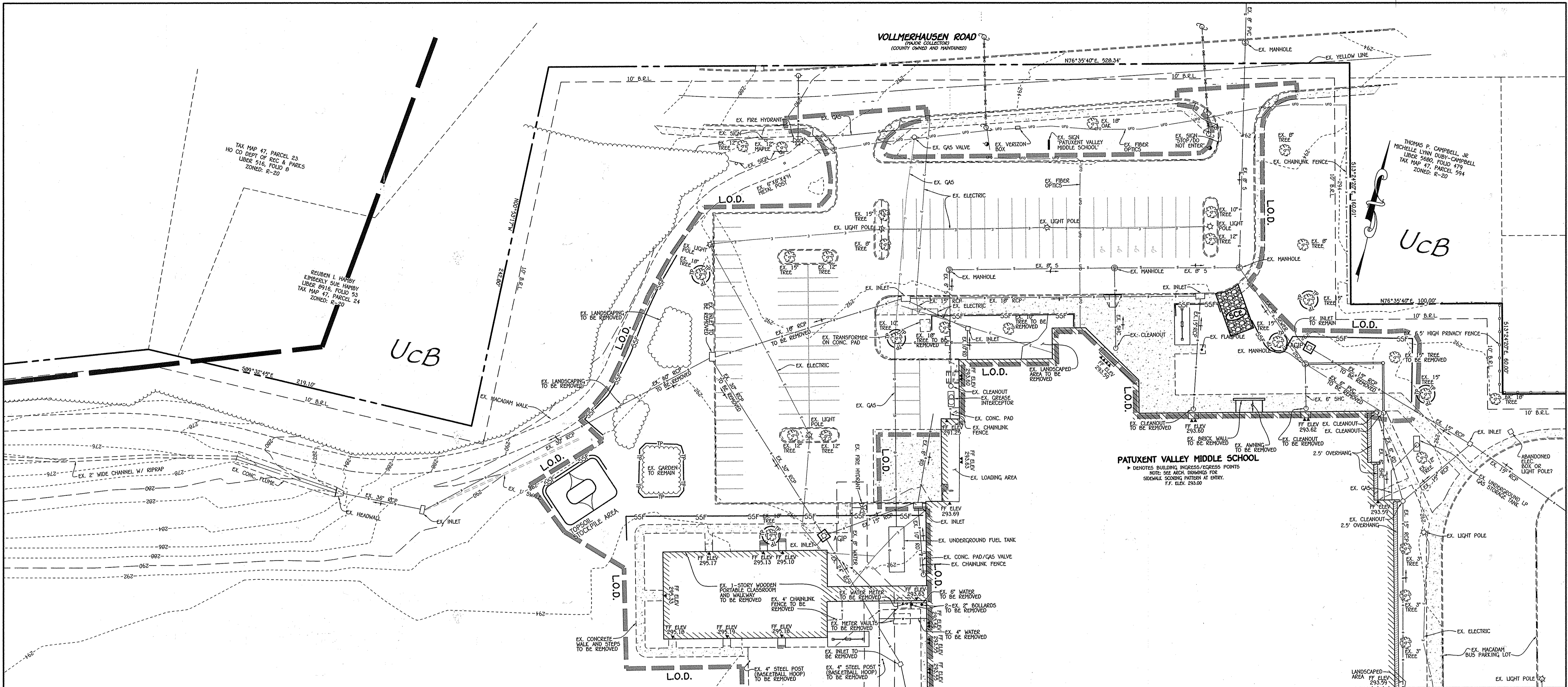
PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HARRIET TUBMAN BUILDING
 8045 HARRIET TUBMAN LANE
 COLUMBIA, MARYLAND 21044
 Attention: BRUCE GIST
 410-313-6805



ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
P. 16B	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794

PERMIT INFORMATION CHART			
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25	
PLAT# OR L/F	GRID#	ZONING	TAX MAP#
L.749 F.399	5	R-20	47
ELECT. DISTR.		CENSUS TRACT	
SIXTH		6064	

SITE IMPROVEMENT PLAN
 "REVISED SITE DEVELOPMENT PLAN"
 PATUXENT VALLEY
 MIDDLE SCHOOL
 ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JULY 2, 2014
 SHEET 18 OF 28

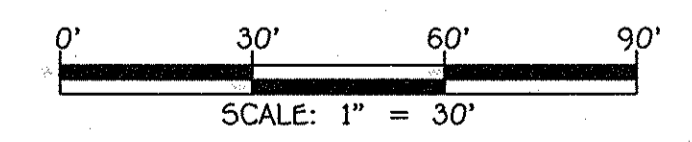


PLAN

SCALE: 1" = 30'

MATCHLINE SEE SHEET 20

LEGEND	
SYMBOL	DESCRIPTION
---200---	EXISTING CONTOUR 2' INTERVAL
---290---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING ELECTRIC LINE
---	EXISTING FIBER OPTICS
---	EXISTING GAS LINE
X	EXISTING FENCE
---	EXISTING CONCRETE WALK
---	EXISTING MACADAM PAVING
---	EXISTING TREES
---	EXISTING TREELINE
---	SUPER SILT FENCE
---	TREE PROTECTION FENCE
---	L.O.D.



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE SEDIMENT AND EROSION CONTROL IN AREAS AFFECTED BY BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELIZOVT CITY, MARYLAND 21142
 (410) 461-2095

ENGINEER'S CERTIFICATE
 "I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature of Engineer: *Charles J. Gedvo, Sr.* Date: 7/29/14

DEVELOPER'S CERTIFICATE
 "I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
 Signature of Developer: *John W. Roberts* Date: 7/29/14

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, Expiration Date: November 3, 2014."
 Signature: *Charles J. Gedvo, Sr., P.E.* Date: 7/29/14

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *John W. Roberts* Date: 7/29/14

DATE	REVISION NUMBER	DESCRIPTION
8/29/14	1	REMOVED SHEET NUMBER
8/11/14	2	APPROVED: DEPARTMENT OF PLANNING AND ZONING
8/28/14	3	APPROVED: DEPARTMENT OF PLANNING AND ZONING
8/6/14	4	APPROVED: DEPARTMENT OF PLANNING AND ZONING

PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HARRIET TUBMAN BUILDING
 2045 HARRIET TUBMAN LANE
 COLUMBIA, MARYLAND 21044
 Attention: BRUCE GIST
 410-313-6805

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 License No. 13204

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
P. 168	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794

PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	TAX MAP#	ELECT. DISTR.
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25	47	SIXTH
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.
L.749 F.399	5	R-20	47	SIXTH

SEDIMENT AND EROSION CONTROL PLAN

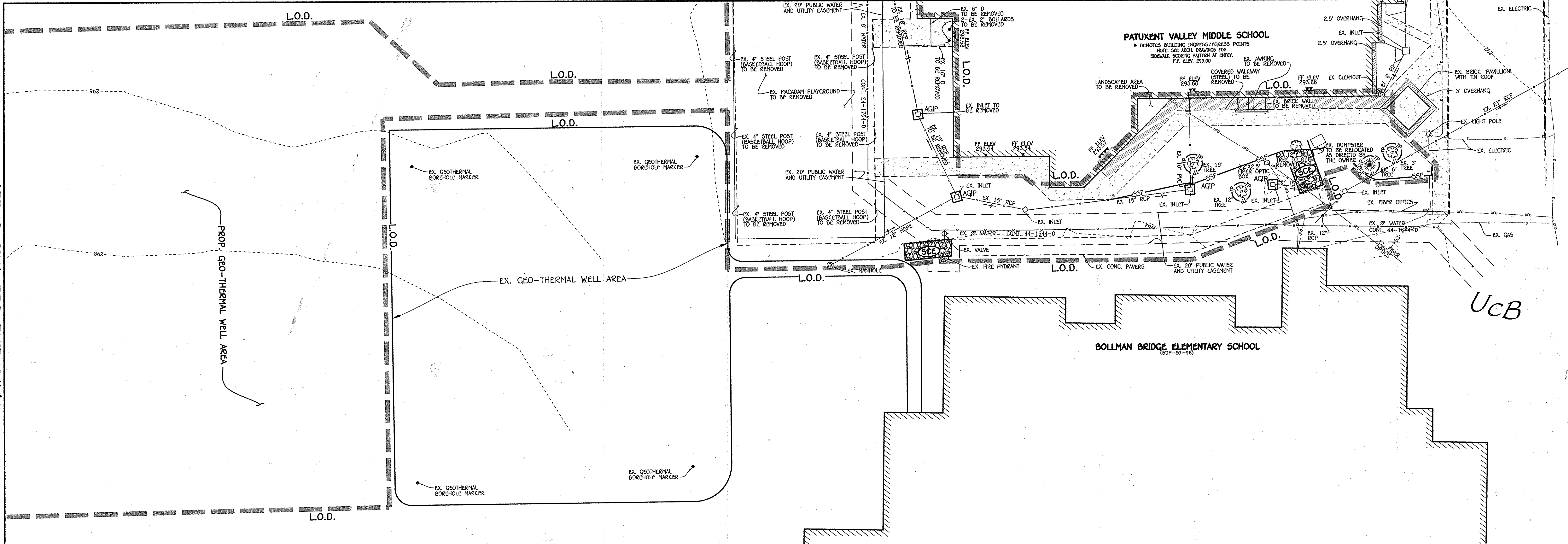
"REVISED SITE DEVELOPMENT PLAN" PATUXENT VALLEY MIDDLE SCHOOL

ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JULY 2, 2014

SHEET 19 OF 28

MATCHLINE SEE SHEET 19

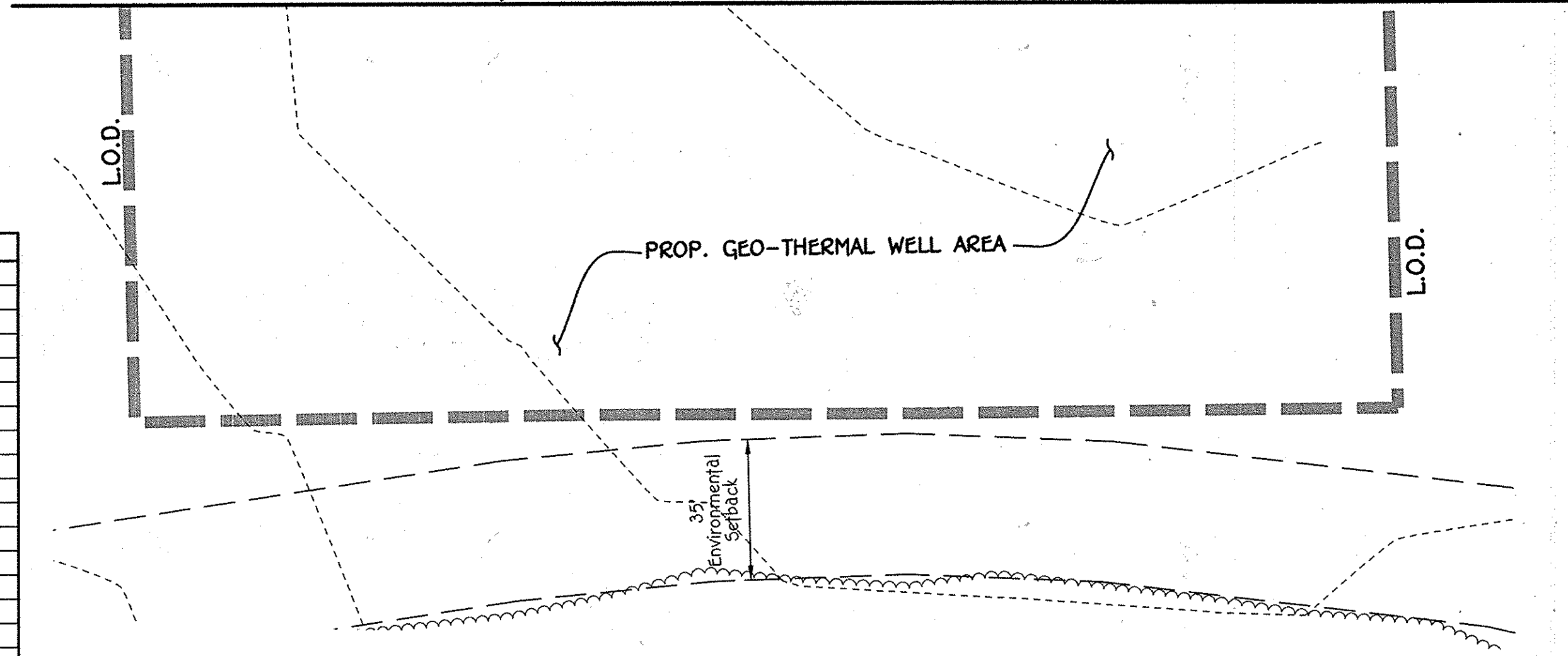
MATCHLINE SEE THIS SHEET



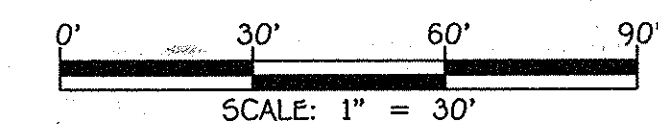
PLAN

SCALE: 1" = 30'

MATCHLINE SEE THIS SHEET



LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING ELECTRIC LINE
---	EXISTING FIBER OPTICS
---	EXISTING GAS LINE
X	EXISTING FENCE
---	EXISTING CONCRETE WALK
---	EXISTING MACADAM PAVING
---	EXISTING TREES
---	EXISTING TREELINE
---	SUPER SILT FENCE
---	TREE PROTECTION FENCE
---	LIMIT OF DISTURBANCE



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE SEDIMENT AND EROSION CONTROL IN AREAS AFFECTED BY BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2992

ENGINEER'S CERTIFICATE
 "I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature of Engineer: *Charles J. Cravo, Sr.* Date: 7/28/14

DEVELOPER'S CERTIFICATE
 "I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at the Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
 Signature of Developer: *Scott W. Wank* Date: 7/28/14

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, Expiration Date: November 3, 2014."
 Signature: *Charles J. Cravo, Sr.* Date: 7/28/14
 CHARLES J. CRAVO, SR., P.E.

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *John K. Kavanagh* Date: 7/28/14
 John K. Kavanagh, Howard SCD

APPROVED, DEPARTMENT OF PLANNING AND ZONING
 Director - Department of Planning and Zoning
 Signature: *John J. Gavello* Date: 8/11/14
 Chief, Division of Land Development
 Signature: *John J. Gavello* Date: 8/11/14
 Chief, Development Engineering Division

PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HARRIET TUBMAN BUILDING
 2045 HARRIET TUBMAN LANE
 COLUMBIA, MARYLAND 21044
 Attention: BRUCE GIST
 410-313-6805

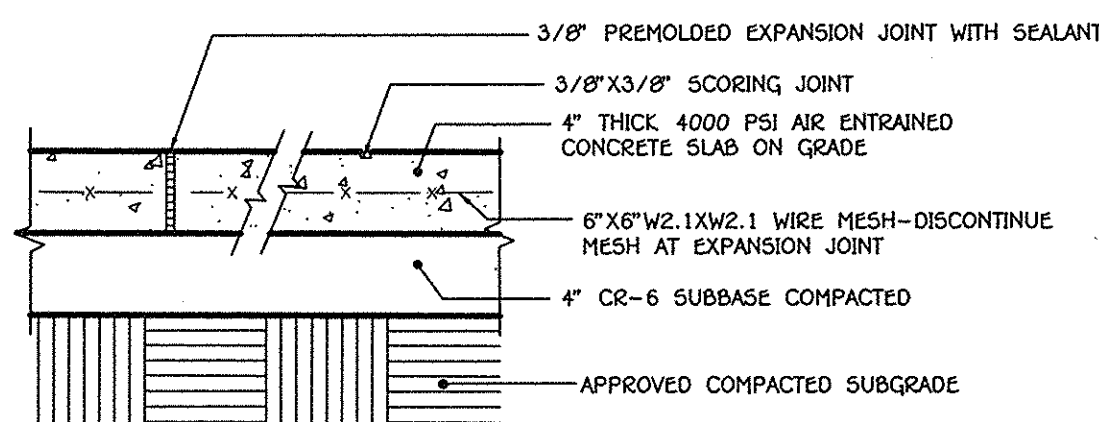
ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
P. 16B	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794

PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	TAX MAP#	ELECT. DISTR.
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25	47	SIXTH
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.
L.749 F.399	5	R-20	47	SIXTH
				CENSUS TRACT
				6064

SEDIMENT AND EROSION CONTROL PLAN
"REVISED SITE DEVELOPMENT PLAN"
PATUXENT VALLEY MIDDLE SCHOOL

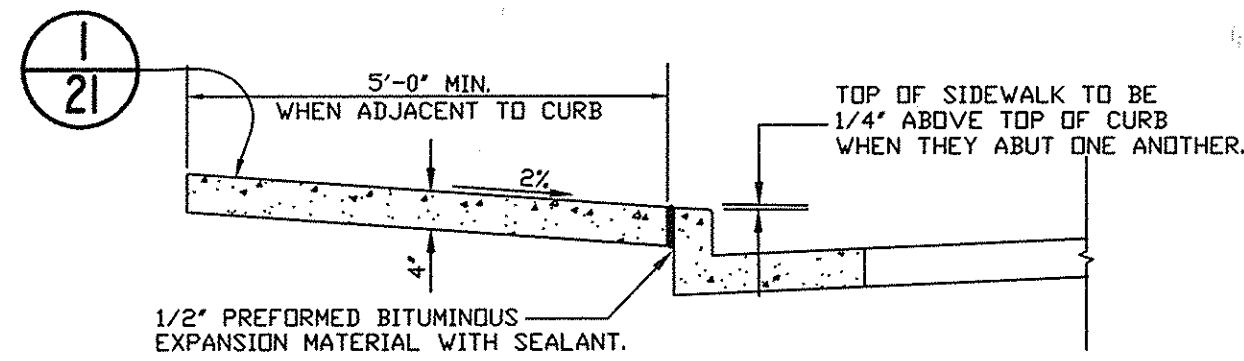
ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JULY 2, 2014

SHEET 20 OF 28



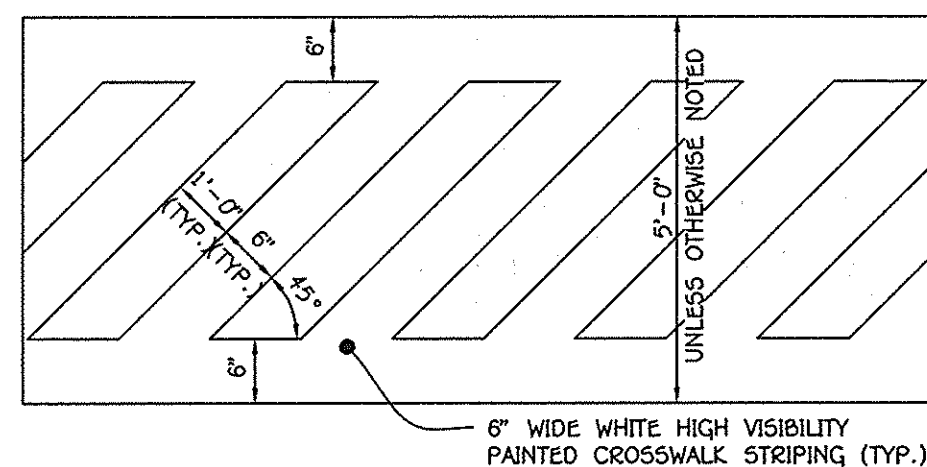
NOTE: INSTALL EXPANSION JOINTS AT MAX. 15'-0" O.C. AND INSTALL SCORING JOINTS AT MAX. 9'-0" O.C.
SLOPE ACROSS SIDEWALK SHALL BE MIN. 1/8"/FT.

1 **21** CONCRETE WALK DETAIL
NO SCALE

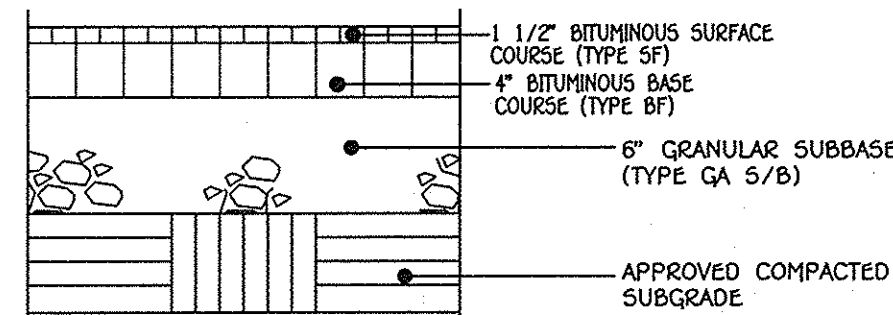


- NOTES:
- SIDEWALK TO BE SCRIBED IN EQUALLY 5'-0" MAXIMUM SQUARES.
 - EXPANSION JOINTS ACROSS THE SIDEWALK NOT TO MORE THAN 15' APART.
 - 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK. FILL WITH SEALANT.
 - 4000 PSI AIR ENTRAINED CONCRETE SHALL BE USED.
 - WHEN SIDEWALK ABUTS CURB, WALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL BETWEEN SIDEWALK AND CURB.
 - ON LONGITUDINAL SIDEWALK GRADES OF 5% OR GREATER, A CONCRETE HEADER, 6" THICK AND 6" DEEP BELOW THE NORMAL 4" SIDEWALK THICKNESS SHALL BE CONSTRUCTED FOR THE FULL WIDTH OF THE SIDEWALK AT INTERVALS OF 48 FEET. THE HEADERS SHALL BE PLACED AT EXPANSION JOINT LOCATIONS AND SHALL BE MONOLITHIC WITH THE SIDEWALK.
 - SIDEWALK WIDTH ADJACENT TO CURB SHALL BE 5'-0" MIN.
 - SIDEWALK LOCATED 2' OR MORE FROM CURB MAY BE 4'-0" IN WIDTH WITH A 5' X 5' PAVED SECTION PLACED 200' APART.
 - PROVIDE 1/2" EXPANSION JOINT WHERE WALKS ABUT EXISTING CONCRETE SURFACES TO REMAIN.

2 **21** CONCRETE SIDEWALK DETAIL
NO SCALE



3 **21** CROSSWALK DETAIL
NO SCALE

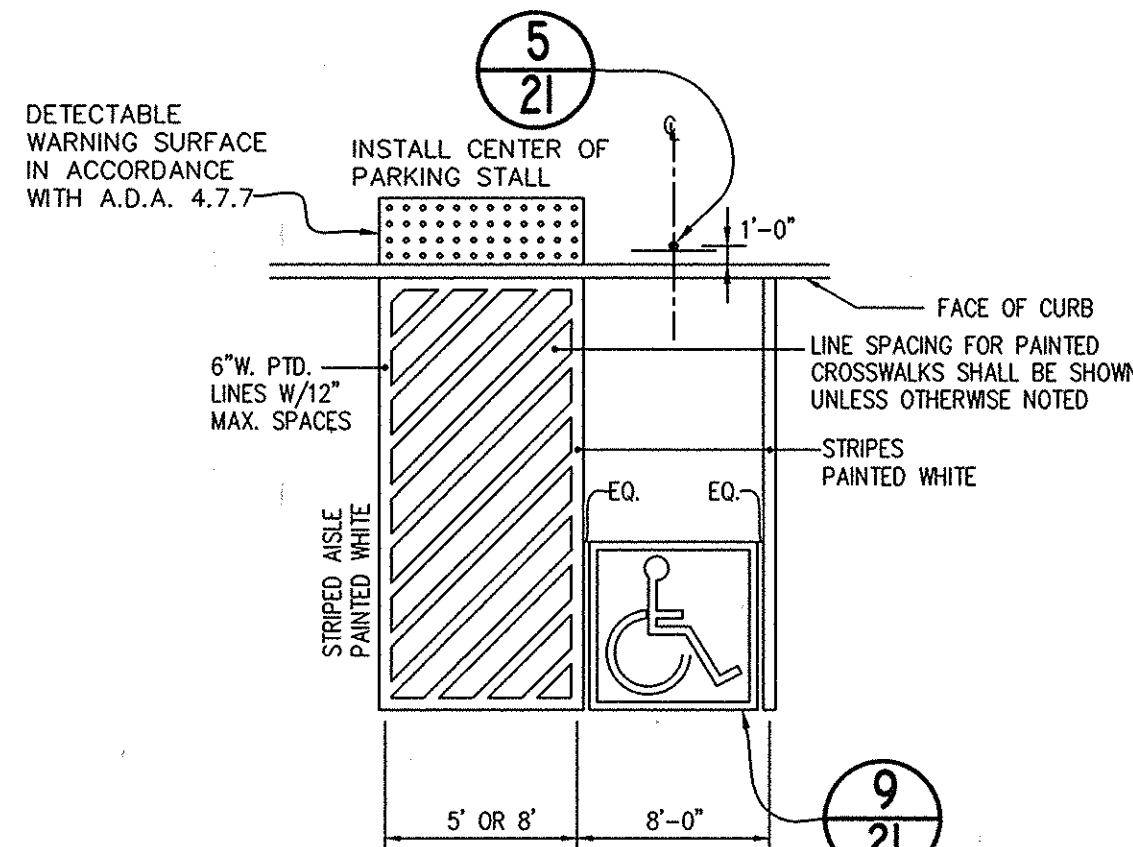


4 **21** MACADAM PLAY SURFACE DETAIL
NO SCALE

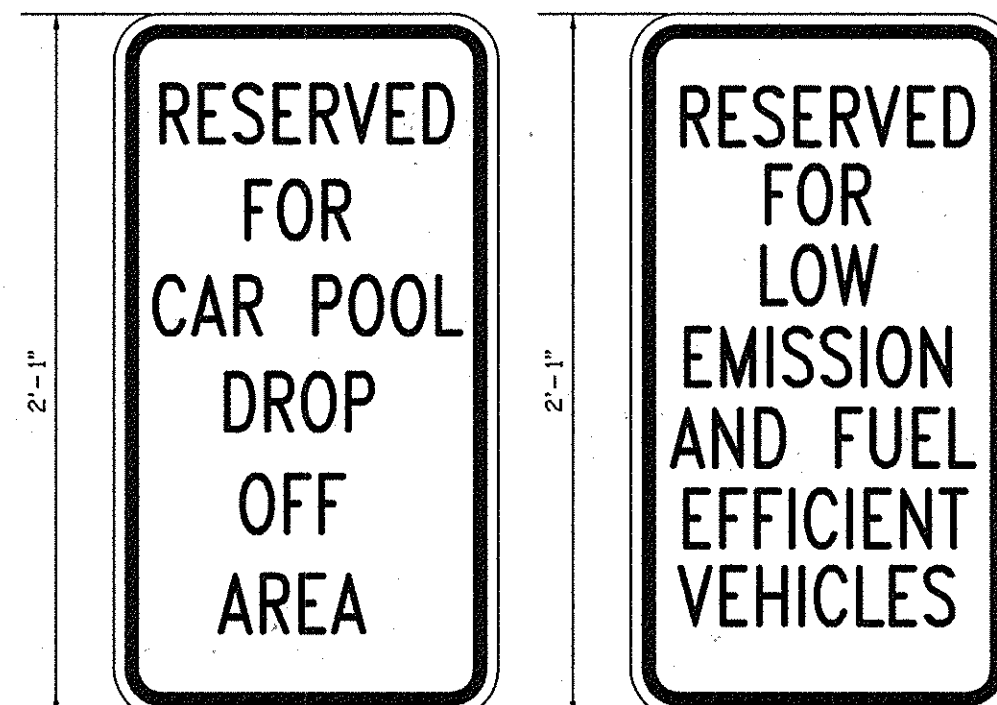


- GENERAL NOTES:
- SIGNS SHALL MEET DESIGN STANDARDS OF THE FEDERAL HIGHWAY ADMINISTRATION AND CONFORM TO THE STATE OF MARYLAND STANDARD HIGHWAY SIGN BOOKLET DETAIL R7-8.
 - ONE SIGN IS REQUIRED PER SPACE PLACED AS SHOWN ON SITE IMPROVEMENT PLAN.
 - SIGNS SHALL BE POLE MOUNTED WITH HOT DIPPED GALVANIZED COUNTY APPROVED PERFORATED CHANNEL POSTS W/TOP OF SIGNS 9'-1" ABOVE FINISHED GRADE OR AS INDICATED ON SITE DRAWINGS.
 - SIGN SHALL BE ATTACHED TO FLANGED SIDE OF POST. POST SHALL EXTEND INTO GROUND 2'-6" MIN.
 - COLORS: LEGEND AND BORDER-GREEN SYMBOL-WHITE ON BLUE BACKGROUND BACKGROUND-WHITE
 - CONTRACTOR SHALL COORDINATE ARROW DIRECTION WITH LOCATION OF ADJACENT AISLE.
 - SPACES INDICATED ON SITE DEVELOPMENT PLANS AS "VAN ACCESSIBLE" SHALL BE SIGNED ACCORDINGLY.

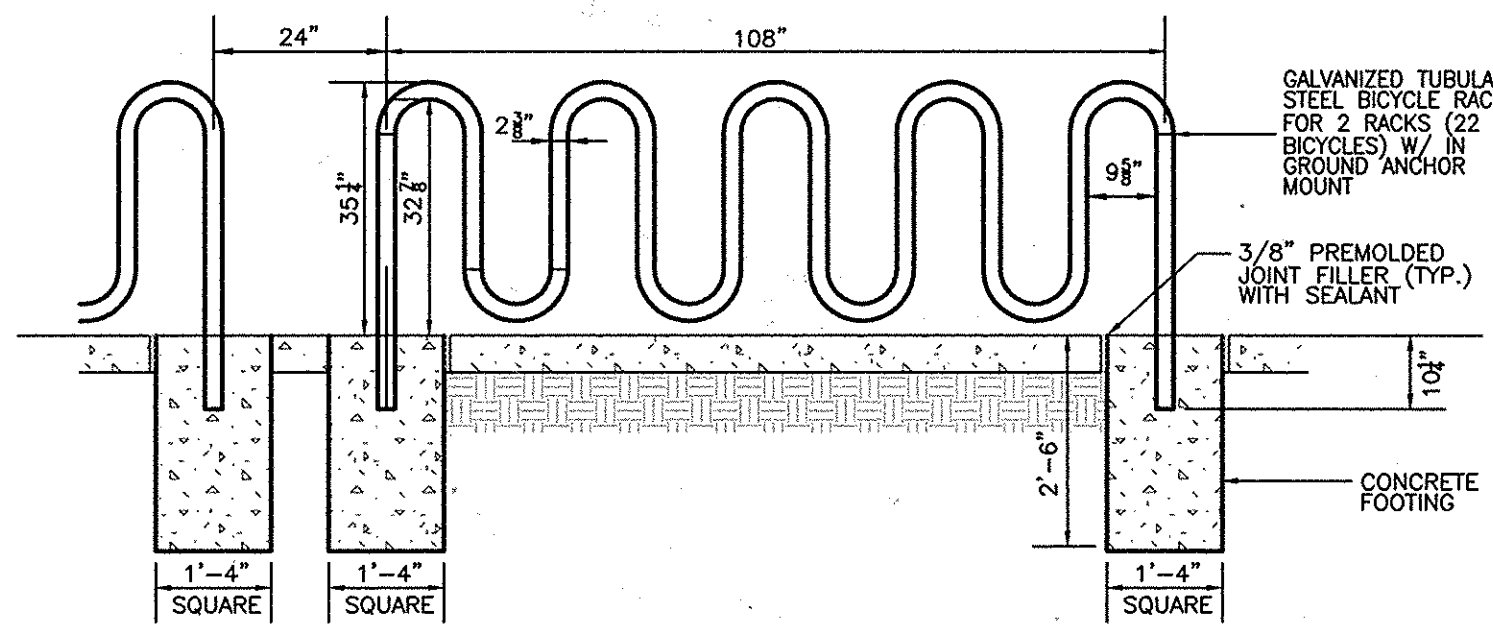
5 **21** HANDICAP PARKING SIGN DETAIL
NOT TO SCALE



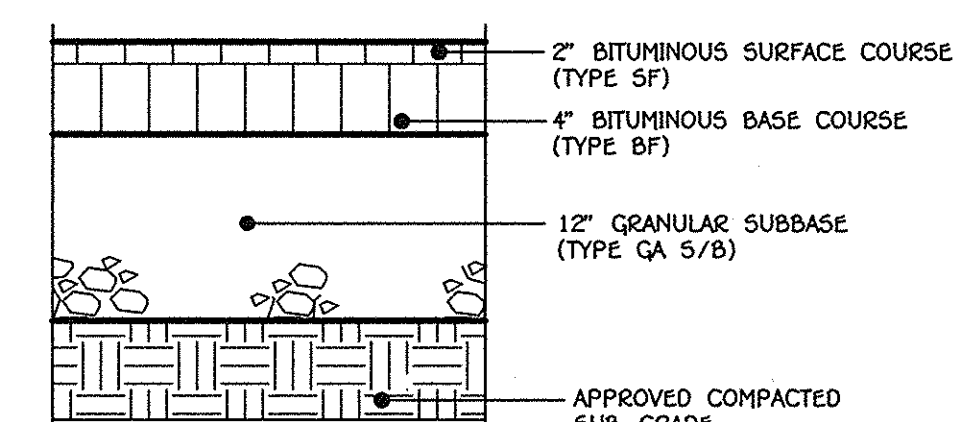
6 **21** ACCESSIBLE SPACE LAYOUT
NO SCALE



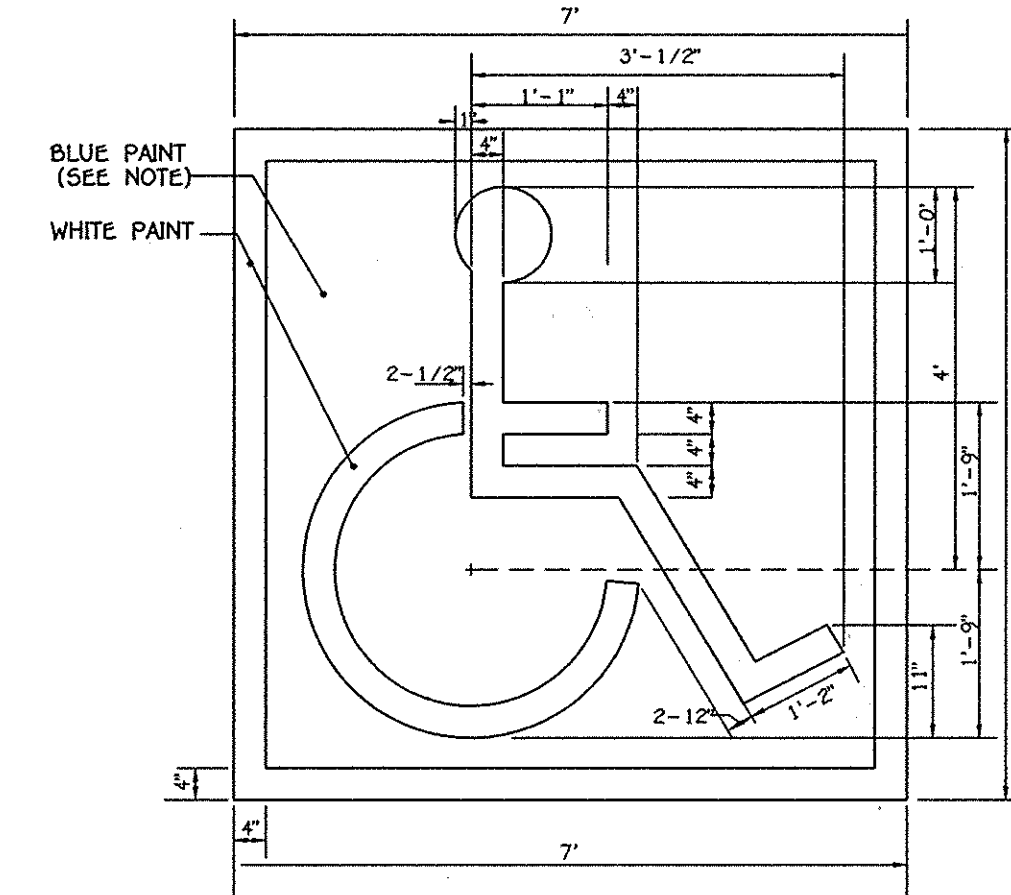
7 **21** LE & FE SIGN DETAIL
NOT TO SCALE



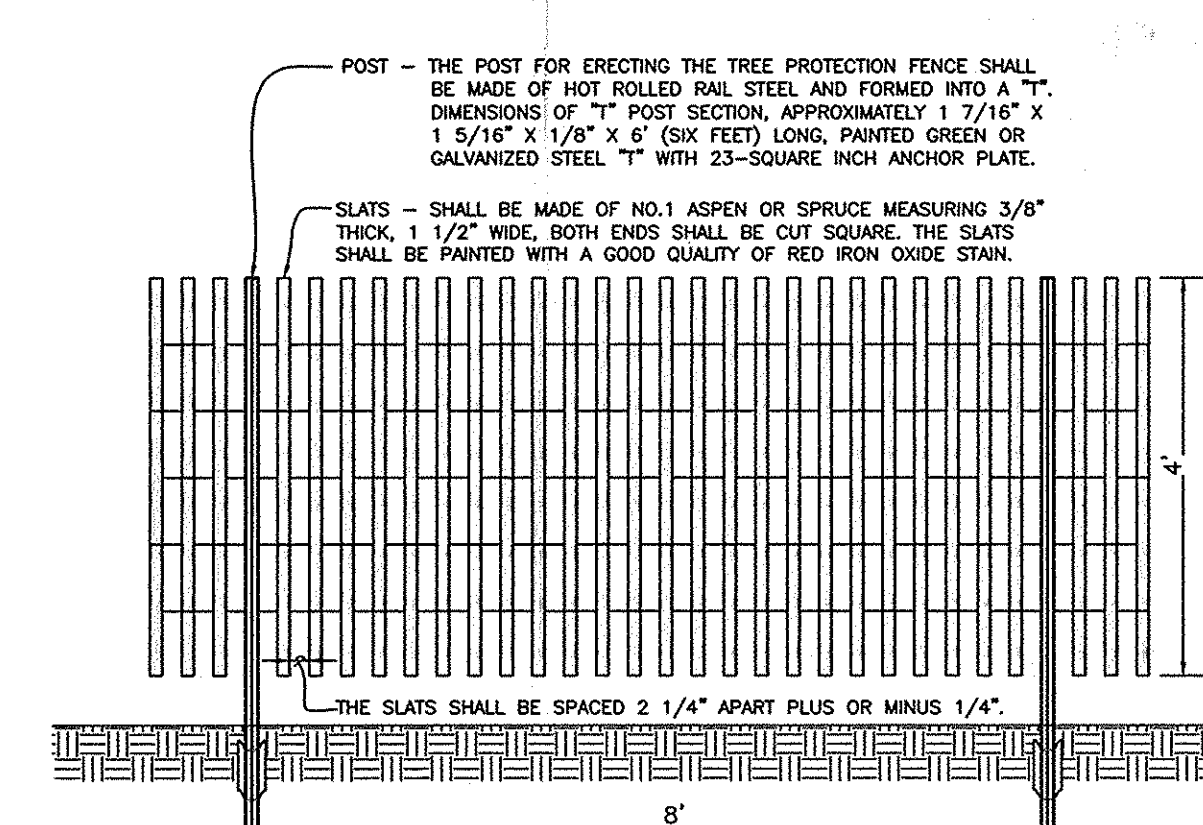
11 **21** BICYCLE RACK DETAIL
NO SCALE



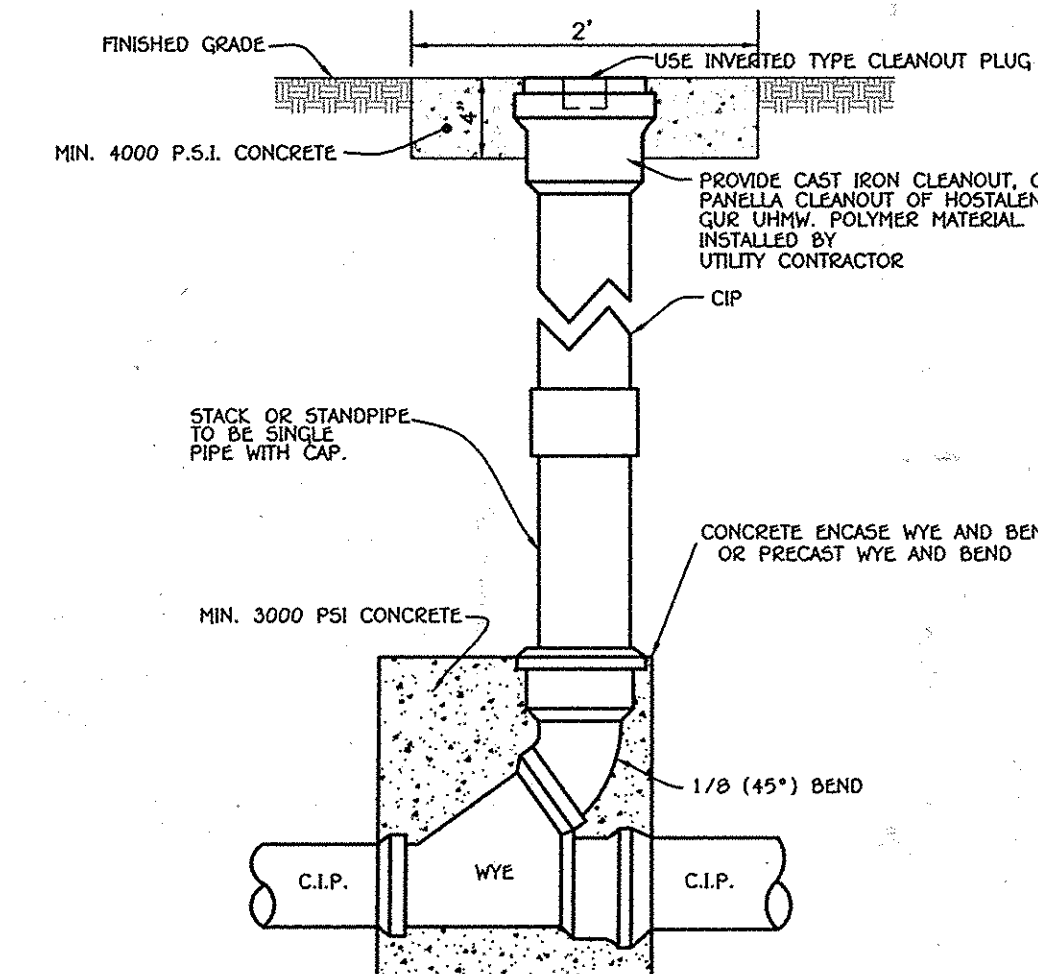
8 **21** HEAVY DUTY ASPHALTIC PAVING DETAIL
NO SCALE



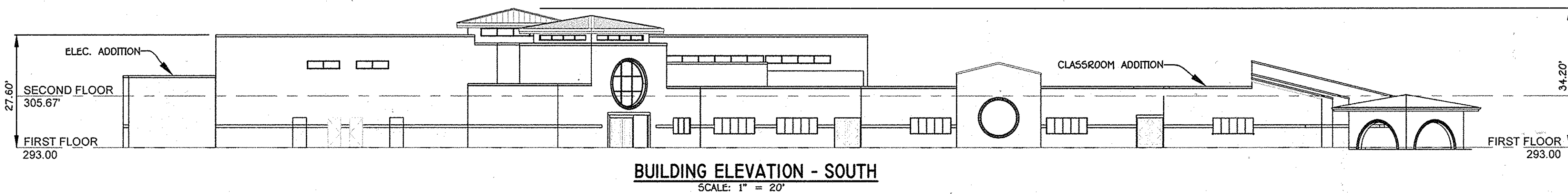
9 **21** HANDICAP SPACE STENCIL LAYOUT
SCALE: 1" = 20"



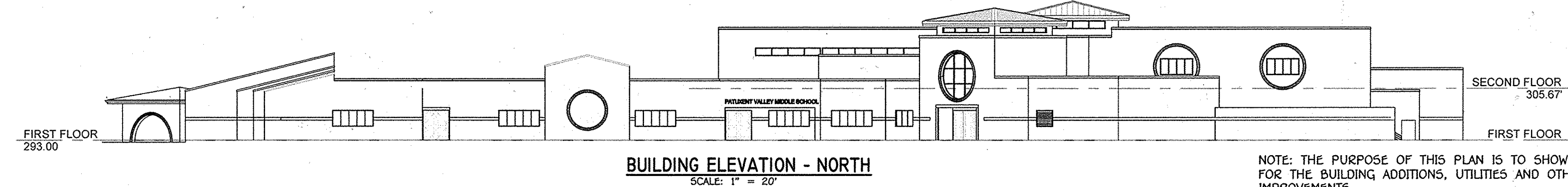
10 **21** TREE PROTECTION FENCE DETAIL
NOT TO SCALE



10 **21** TYPICAL ROOF LEADER CLEAN-OUT
NO SCALE



BUILDING ELEVATION - SOUTH
SCALE: 1" = 20"



BUILDING ELEVATION - NORTH
SCALE: 1" = 20"

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW DETAILS FOR THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2099

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, 2014."

Charles J. Cravo, Sr., P.E.
CHARLES J. CRAVO, SR., P.E. 7/28/14 DATE

DATE	REVISION NUMBER	DESCRIPTION
8/20/14	1	REVISED SHEET NUMBER
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
Director - Department of Planning and Zoning		
Chief, Division of Land Development		
Chief, Development Engineering Division		

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention BRUCE GIST
410-313-6805



ADDRESS CHART					
LOT/PARCEL#	STREET ADDRESS				
P. 168	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794				
PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.			
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25			
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
L.749 F.399	5	R-20	47	SIXTH	6064

DETAIL SHEET & BUILDING ELEVATIONS

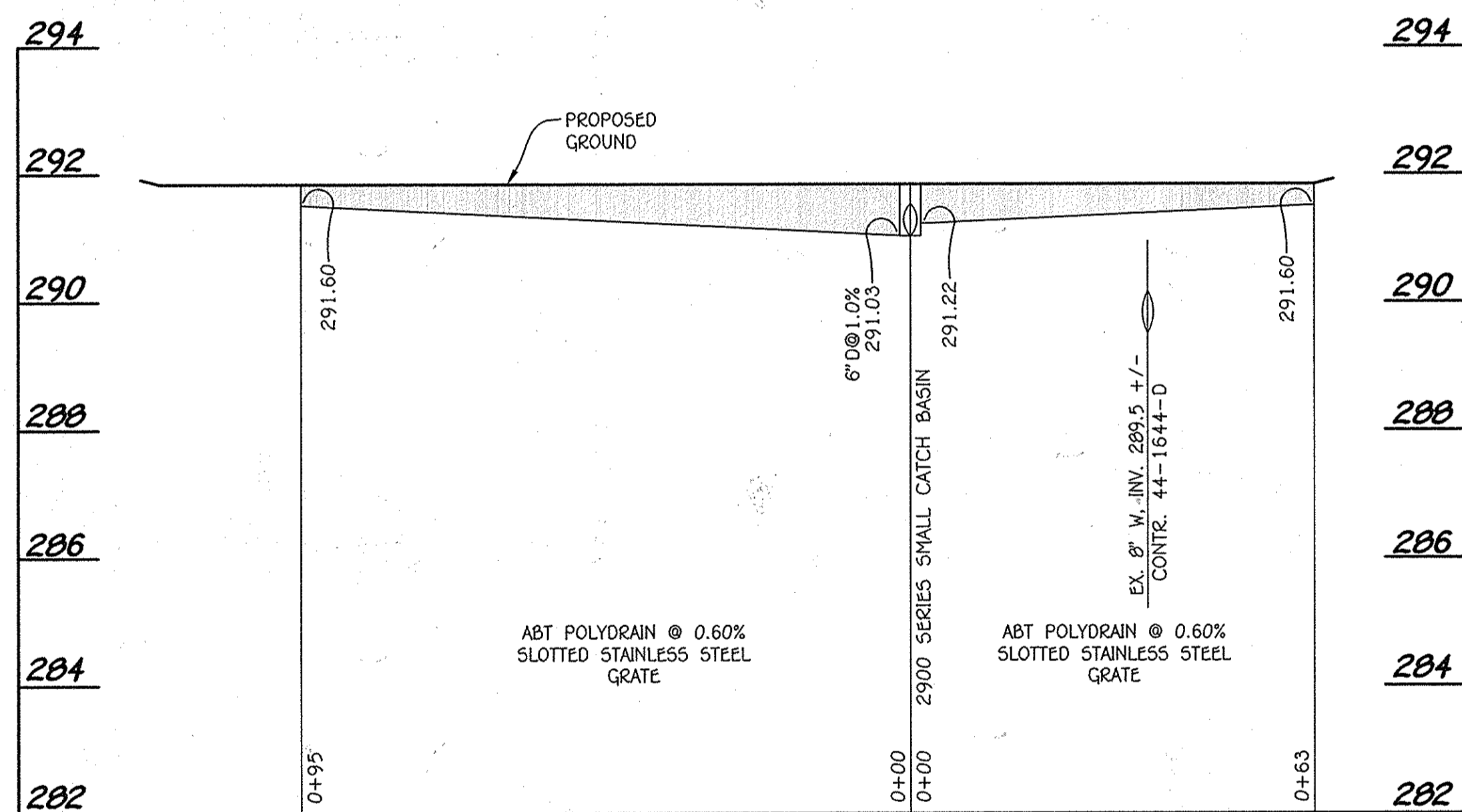
**"REVISED SITE DEVELOPMENT PLAN"
PATUXENT VALLEY
MIDDLE SCHOOL**

ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 2, 2014

STRUCTURE SCHEDULE								
STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	COORDINATES		WIDTH	TYPE	REMARKS
I-1	291.45	287.00 (8")	286.90 (15")	N 539220.10	E 1360699.06	2.5'	A-5 INLET	D - 4.01
I-2	291.60	285.40 (18")	284.90 (24")	N 539049.21	E 1360863.71	2.50'	S INLET	D-4.22 & D-4.93
R-1	288.80	284.22 (4")	284.12 (18")	N 539182.76	E 1360655.31	3.0'	MODIFIED K INLET	SEC SHEET 25
HW-1	289.55	286.80 (15")	-	N 539216.12	E 1360684.49	-	TYPE A HEADWALL	D - 5.11
M-1	291.50	283.77 (18")	283.37 (30")	N 539163.33	E 1360632.55	-	5.0' DIA MANHOLE	G - 5.13
M-2	292.50	283.57 (30")	283.47 (30")	N 539155.55	E 1360647.29	-	5.0' DIA MANHOLE	G - 5.13
M-3	291.30	284.83 (21")	284.18 (30")	N 539186.49	E 1360728.70	-	5.0' DIA MANHOLE	G - 5.13
M-4	291.20	287.10 (21")	287.10 (21")	N 539229.36	E 1360715.40	-	4.0' DIA MANHOLE	G - 5.12 *
M-5	292.90	288.70 (15")	288.65 (15")	N 539292.70	E 1361144.00	-	4.0' DIA MANHOLE	G - 5.12
M-6	292.28	288.90 (15")	288.85 (15")	N 539327.01	E 1361136.65	-	4.0' DIA MANHOLE	G - 5.12
M-7	292.82	286.26 (15")	286.01 (18")	N 539049.34	E 1360863.85	-	4.0' DIA MANHOLE	G - 5.12

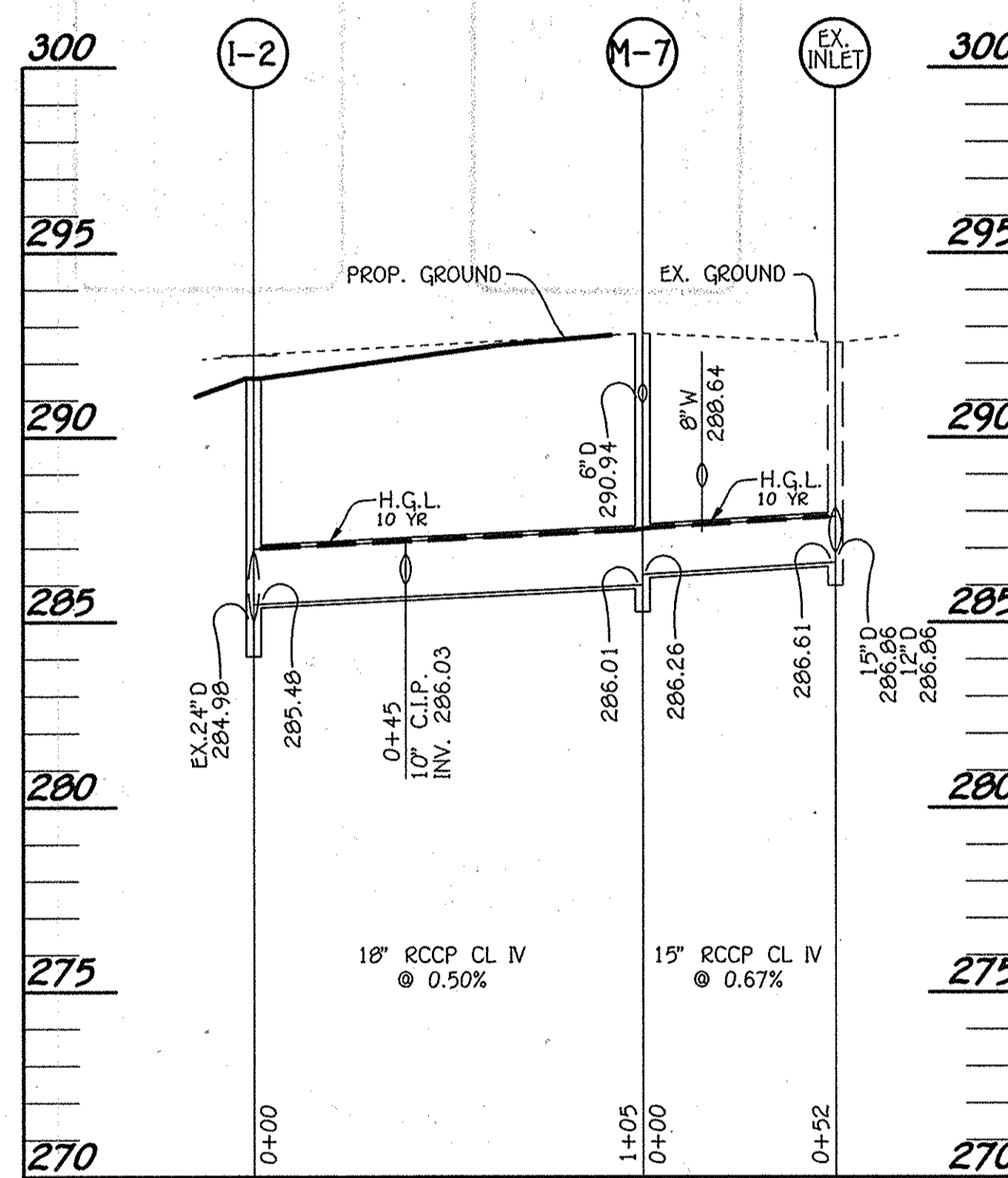
PIPE SCHEDULE		
SIZE	CLASS	LENGTH
4"	PERF. PVC	211 L.F.
6"	PVC	9 L.F.
8"	HDPE	21 L.F.
15"	RCCP	160 L.F.
18"	RCCP	130 L.F.
21"	RCCP	150 L.F.
30"	RCCP	104 L.F.

* SHALLOW MANHOLE WITH 4" FRAME AND COVER



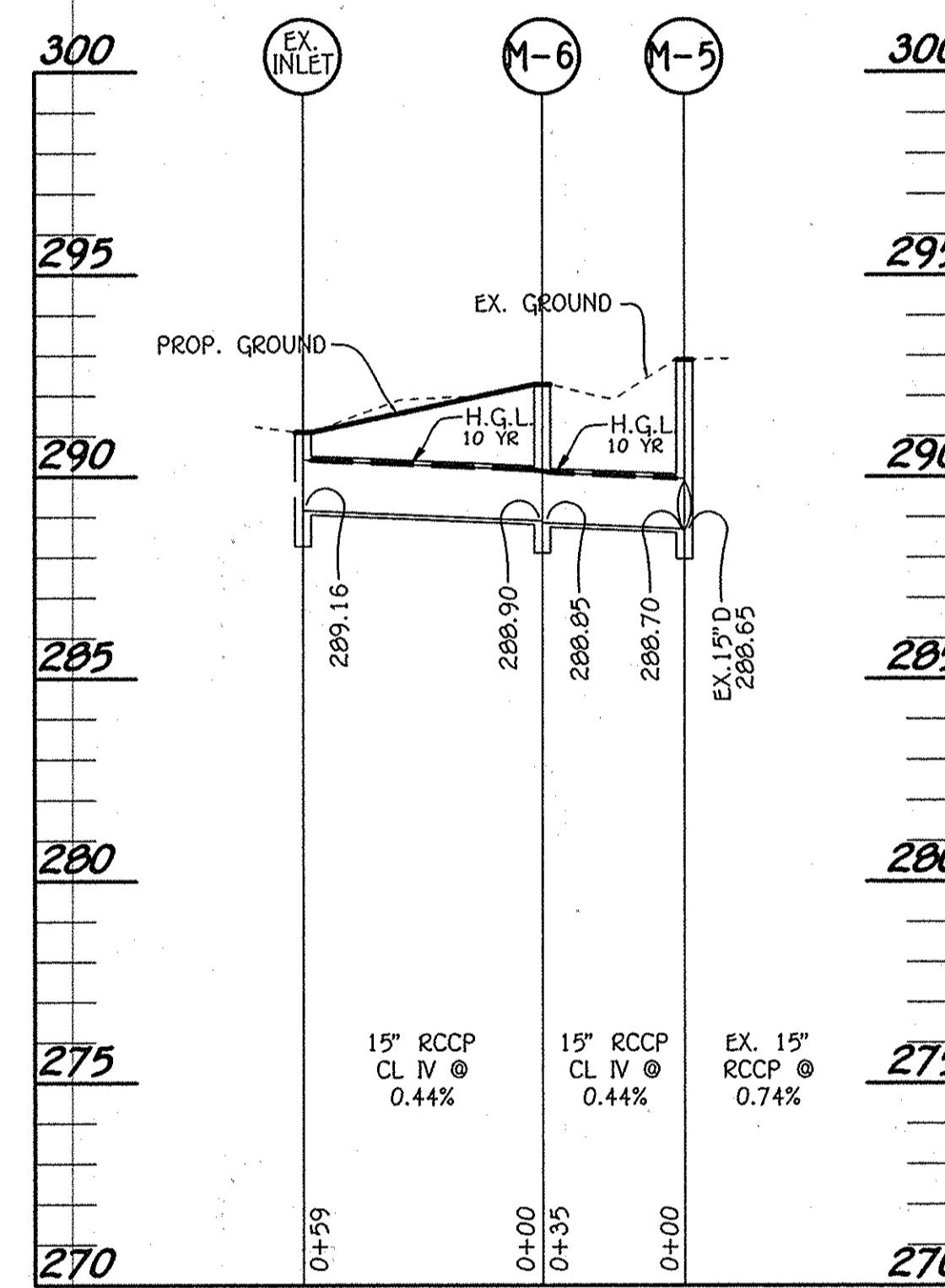
STORM DRAIN PROFILE

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'



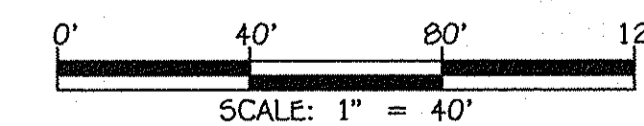
STORM DRAIN PROFILE

SCALE: HORIZ. : 1" = 40'
VERT. : 1" = 4'



STORM DRAIN PROFILE

SCALE: HORIZ. : 1" = 40'
VERT. : 1" = 4'



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW STORM DRAIN PROFILES FOR THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

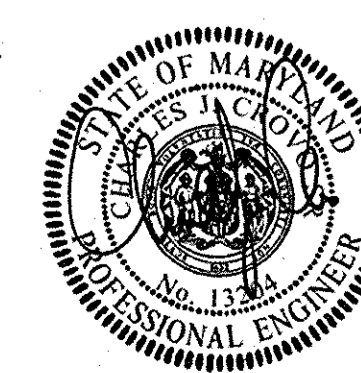
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21142
(410) 461-2095

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, expiration Date: November 3, 2014."

Charles J. Grovo, Sr.
CHARLES J. GROVO, SR., P.E. 7/28/14 DATE

DATE	REVISION SHEET NUMBER	DESCRIPTION
8/11/14		APPROVED: DEPARTMENT OF PLANNING AND ZONING
8/28/14		Director - Department of Planning and Zoning
8/6/14		Chief, Division of Land Development
		Chief, Development Engineering Division

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention: BRUCE GIST
410-313-6805



ADDRESS CHART					
LOT/PARCEL#	STREET ADDRESS				
P. 168	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794				
PERMIT INFORMATION CHART					
SUBDIVISION NAME		SECTION/AREA		LOT/PARCEL NO.	
PATUXENT VALLEY MIDDLE SCHOOL		N/A		P. 25	
FLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
L.749 F.399	5	R-20	47	SIXTH	6064

STORM DRAIN PROFILES
"REVISED SITE DEVELOPMENT PLAN"
PATUXENT VALLEY
MIDDLE SCHOOL

ZONED R-20 TAX MAP No.: 47 GRID No.: 5 - PARCEL No.: 25
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 2, 2014

SHEET 22 OF 28

SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

A. Soil Preparation

- Temporary Stabilization
 - Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable permanent stabilization.
- A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
 - Soil pH between 6.0 and 7.0.
 - Soluble salt less than 500 parts per million (ppm).
 - Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if loess soils will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
 - Soil contains 1.5 percent minimum organic matter by weight.
 - Soil contains sufficient pore space to permit adequate root penetration.
- Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
 - Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
 - Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
- Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rate lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seeded preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seeded loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

- Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
- Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
- Topsoiling is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- Areas having slopes steeper than 2:1 require special consideration and design.
- Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
 - Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.
 - Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
 - Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
- Topsoil Application
 - Erosion and sediment control practices must be maintained when applying topsoil.
 - Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)

- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
- Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydrosodding) which contains at least 50 percent total calcium (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
- Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
- Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

- THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER EROSION SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

PERMANENT SEEDING NOTES (B-4-3)

A. Seed Mixtures

- General Use
 - Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixtures, application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
 - Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Field Section 342 - Critical Area Planning.
 - For sites having disturbed areas over 5 acres, use and show the rates recommended by the soil testing agency. d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

2. Turfgrass Mixtures

- Areas where turfgrasses may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
- Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixtures, application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management, irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

ii. Kentucky Bluegrass/Perennial Ryegrass: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.

iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

Notes:
Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

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

c. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardness Zones: 7a, 7b)

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Permanent Seeding Summary							
Hardness Zone (from Figure B.3):			Fertilizer Rate (10-20-20)			Lime Rate	
Seed Mixture (from Table B.3):			N	P ₂ O ₅	K ₂ O		
No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths			
8	TALL FESCUE	100	Mar. 1-May 15 Aug. 15-Oct. 15	1/4-1/2 in.	45 lb. per acre (2 lb./1000 sf)	90 lb/acre (2 lb./1000 sf)	2 tons/acre (90 lb./1000 sf)

TEMPORARY SEEDING NOTES (B-4-4)

- Definition
To stabilize disturbed soils with vegetation for up to 6 months.
- Purpose
To use fast growing vegetation that provides cover on disturbed soils.
- Conditions Where Practice Applies
Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.
- Criteria
- Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
 - For sites having disturbed areas, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
 - When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary						
Hardness Zone (from Figure B.3):			Fertilizer Rate (10-20-20)			Lime Rate
Seed Mixture (from Table B.1):			N	P ₂ O ₅	K ₂ O	
Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths			
BARLEY	96	3/1 - 5/15, 8/15 - 10/15	1"	436 lb/acre (100 lb/1000 sf)		2 tons/acre (90 lb/1000 sf)
OATS	72		1"			
RYE	112		1"			

DUST CONTROL

DEFINITION
CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

PURPOSE
TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SPECIFICATIONS
TEMPORARY METHODS
1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKLED TO PREVENT BLOWING.
2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLOSD TO THE SURFACE THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF THE SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12' APART, SPRING-TOOTHED HARROWS AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
4. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
5. BARRIERS - SOLID BOARD FENCES SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALE DIKES AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

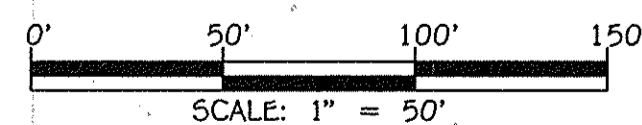
PERMANENT METHODS
1. PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER AND PERMANENT STABILIZATION WITH SOIL. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
2. TOPSOILING - COVERING WITH LESS EROSION SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
3. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (1 DAY)
 - NOTIFY "HIS UTILITY" AT 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-527-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 48 HOURS BEFORE STARTING WORK.
 - INSTALL ALL TREE PROTECTION FENCE FOR TREES TO BE UNDISTURBED AS INDICATED ON THE PLANS (1 DAY). INSTALL STABILIZED CONSTRUCTION ENTRANCES. (1 DAY)
 - INSTALL SEDIMENT CONTROL MEASURES SHOWN ON SHEETS 19 AND 20. (1 WEEK)
 - BEGIN DEMOLITION WORK SHOWN ON SHEETS 15 AND 16. (3 WEEKS)
 - WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR BEGIN SITE GRADING AND BUILDING CONSTRUCTION. (18 MONTHS)
 - INSTALL WATER AND SEWER LINES. (2 WEEKS)
 - INSTALL STORM DRAIN SYSTEM AND INSTALL INLET PROTECTION AT INLETS AND EXCAVATE BMP AREA TO ALLOW POSITIVE DRAINAGE FROM THE STORM DRAINS. INSTALL 8-1 WITH THE EXCEPTION OF RIPRAP, UNDERDRAIN PIPE, PLANTING SOIL AND MULCH IN BMP. THE CONTRACTOR SHALL PROVIDE 20% OF THE TOTAL BMP VOLUME. THE CONTRACTOR SHALL PROVIDE 20% OF THE TOTAL BMP VOLUME. THE CONTRACTOR SHALL PROVIDE 20% OF THE TOTAL BMP VOLUME. BLOCK THE UNDERDRAIN OPENING AT 8-1 UNTIL SUCH TIME AS THE UNDERDRAIN SYSTEM IS INSTALLED. INSTALL INLET PROTECTION AT ALL NEW INLETS WHEN CONSTRUCTED. (8 WEEKS)
 - INSTALL CURBS AND GUTTER, PAVING AND SIDEWALKS AS SHOWN ON SHEETS 17 AND 18. (6 WEEKS)
 - THE CONTRACTOR SHALL NOTIFY HIS REG. GRAD CONNOR AT GROUND SERVICES (410-313-2577) ONE WEEK PRIOR TO FINE GRADING ANY AREAS ON THE PROJECT SITE. FINE GRADE ALL AREAS. INSTALL PERMANENT SEEDING, SOIL AND LANDSCAPING. THE CONTRACTOR SHALL FLUSH THE ENTIRE STORM DRAIN SYSTEM TO REMOVE ANY ACCUMULATED SEDIMENT FROM THE STORM DRAIN PIPES. (3 WEEKS)
 - WHEN DISTURBED AREAS HAVE BEEN STABILIZED (E.G. HAVING FULLY ESTABLISHED 3 GRASS OR PAVEMENT) INSTALL BMP. WORK INCLUDES EXCAVATION, INSTALLING UNDERDRAINS, RIPRAP, PLANTING SOIL, MULCH LAYERS AND PLANTINGS. (3 WEEKS)
 - OBTAIN PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR TO REMOVE ALL REMAINING SEDIMENT AND EROSION CONTROL DEVICES. THEN STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS WITH PERMANENT SEEDING. (1 WEEK)
 - NOTIFY HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS FOR FINAL INSPECTION OF THE COMPLETED PROJECT.
14. SEQUENCE NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFALL EVENT AND ON A DAILY BASIS. REMOVE SEDIMENT FROM THE SUPER SILT FENCE WHEN SEDIMENT REACHES 25% OF THE FENCE HEIGHT.

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1895).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, b) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-3), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-5). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
TOTAL AREA OF SITE 46.95 ACRES
AREA DISTURBED 6.0 ACRES
AREA TO BE ROOFED OR PAVED 2.1 ACRES
AREA TO BE VEGETATIVELY STABILIZED 3.9 ACRES
TOTAL CUT 1000 CU.YDS.
TOTAL FILL 1000 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION N/A
- ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
- A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM AVERAGE OF 20 ACRES PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PROCEEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.



B-4-3 STANDARDS AND SPECIFICATIONS

FOR SEEDING AND MULCHING

Definition
The application of seed and mulch to establish vegetative cover.

Purpose
To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies
To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

A. Seeding

- Specifications
 - All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
 - Mulch alone may be applied between the fall and spring seeding dates only if the ground is from the top. The appropriate seeding mixture must be applied when the ground thaws.
 - Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydrosodding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
 - Soil or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
- Application
 - Dry Seeding: This includes use of conventional drop or broadcast seeders.
 - Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
 - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.
 - Hydrosodding: Apply seed uniformly with hydroseducer (slurry includes seed and fertilizer).
 - If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P₂O₅ (phosphorus), 200 pounds per acre; K₂O (potassium), 200 pounds per acre.
 - Slurry: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydrosodding). Normally, not more than 2 tons are applied by hydrosodding at any one time. Do not use burnt or hydrated lime when hydrosodding.
 - Mix seed and fertilizer on site and seed immediately and without interruption.
 - When hydrosodding do not incorporate seed into the soil.

B.15

- Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
 - Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
 - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
- Hydrosodding: Apply seed uniformly with hydroseducer (slurry includes seed and fertilizer).
 - If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P₂O₅ (phosphorus), 200 pounds per acre; K₂O (potassium), 200 pounds per acre.
 - Slurry: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydrosodding). Normally, not more than 2 tons are applied by hydrosodding at any one time. Do not use burnt or hydrated lime when hydrosodding.
 - Mix seed and fertilizer on site and seed immediately and without interruption.
 - When hydrosodding do not incorporate seed into the soil.

B. Mulching

- Mulch Materials (in order of preference)
 - Straw consisting of thoroughly threshed wheat, rye, oat or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, colored, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
 - Wood Cellulose Fiber Mulch (WCFFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCFFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
 - WCFFM, including dye, must contain no germination or growth inhibiting factors.
 - WCFFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFFM material must not contain elements or compounds at concentration levels that will be phytotoxic.
 - WCFFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.
- Application
 - Apply mulch to all seeded areas immediately after seeding.
 - When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
 - Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to obtain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Anchoring
 - Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by use of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
 - A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
 - Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petrosol, Terra Tac II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.
 - Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 foot long.

B-4-8 STANDARDS AND SPECIFICATIONS

FOR STOCKPILE AREA

Definition
A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies
Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

- The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
- Runoff from the stockpile area must drain to a suitable sediment control practice.
- Access the stockpile area from the upgrade side.
- Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
- Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
- Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
- If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

Maintenance

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

B.43

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW NOTES FOR THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 18722 BALDWIN NATIONAL PIKE
COLUMBIA, MARYLAND 21046
(410) 461-2295

ENGINEER'S CERTIFICATE
"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
Signature of Engineer: [Signature]
Date: 7/29/14

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, 2014."
Signature of Engineer: [Signature]
Date: 7/29/14
CHARLES J. CRUMP, Sr., P.E.

APPROVED DEPARTMENT OF PLANNING AND ZONING
Director - Department of Planning and Zoning
Signature: [Signature]
Date: 8-11-14
Chief, Division of Land Development
Signature: [Signature]
Date: 8/14/14
Chief, Development Engineering Division

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention: BRUCE GIST
410-313-6805

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
P. 168	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.			
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25			
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
L.749.F.399	5	R-20	47	SIXTH	6064

SEDIMENT CONTROL NOTES

"REVISED SITE DEVELOPMENT PLAN" PATUXENT VALLEY MIDDLE SCHOOL

ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 2, 2014

SHEET 23 OF 28

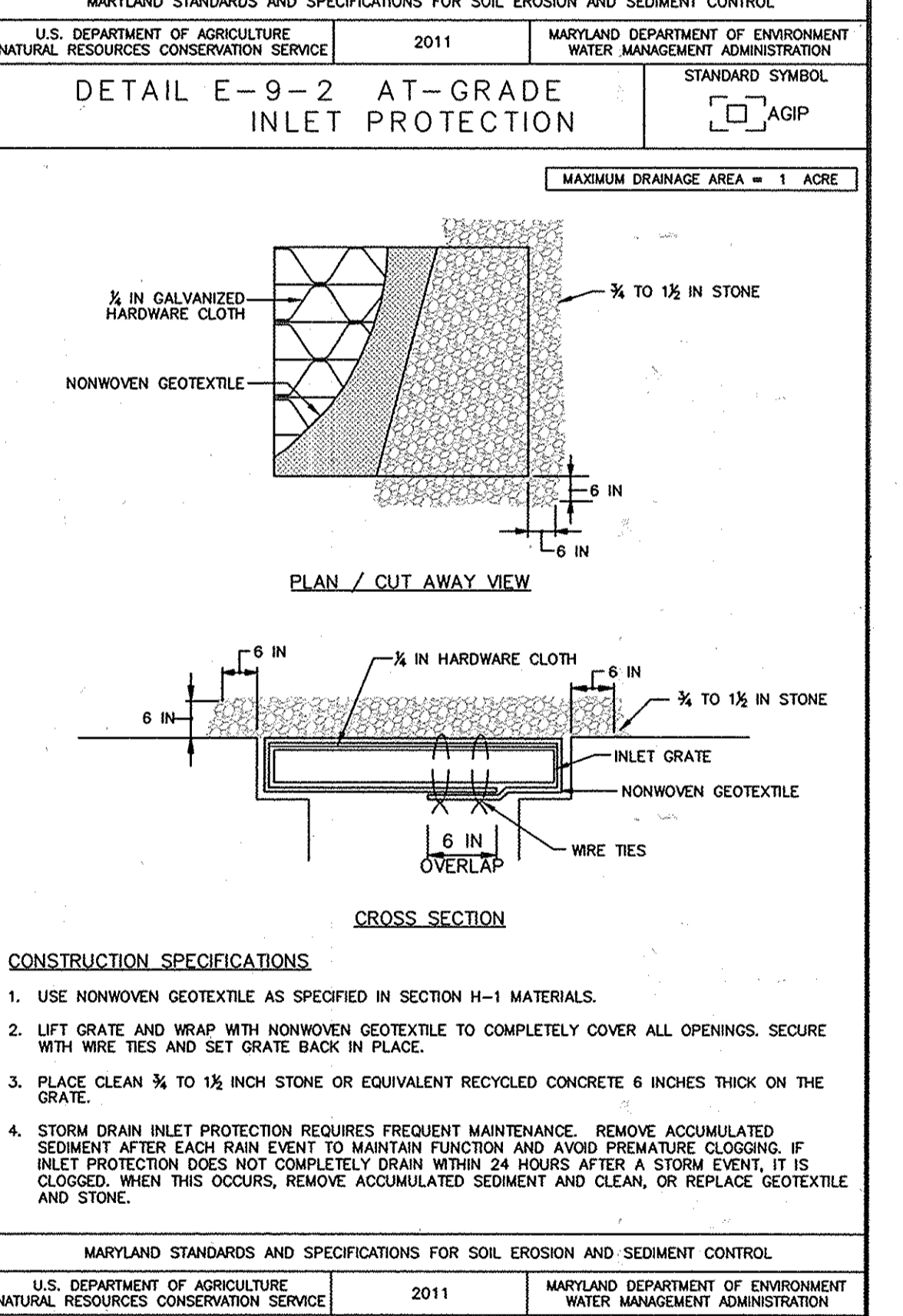
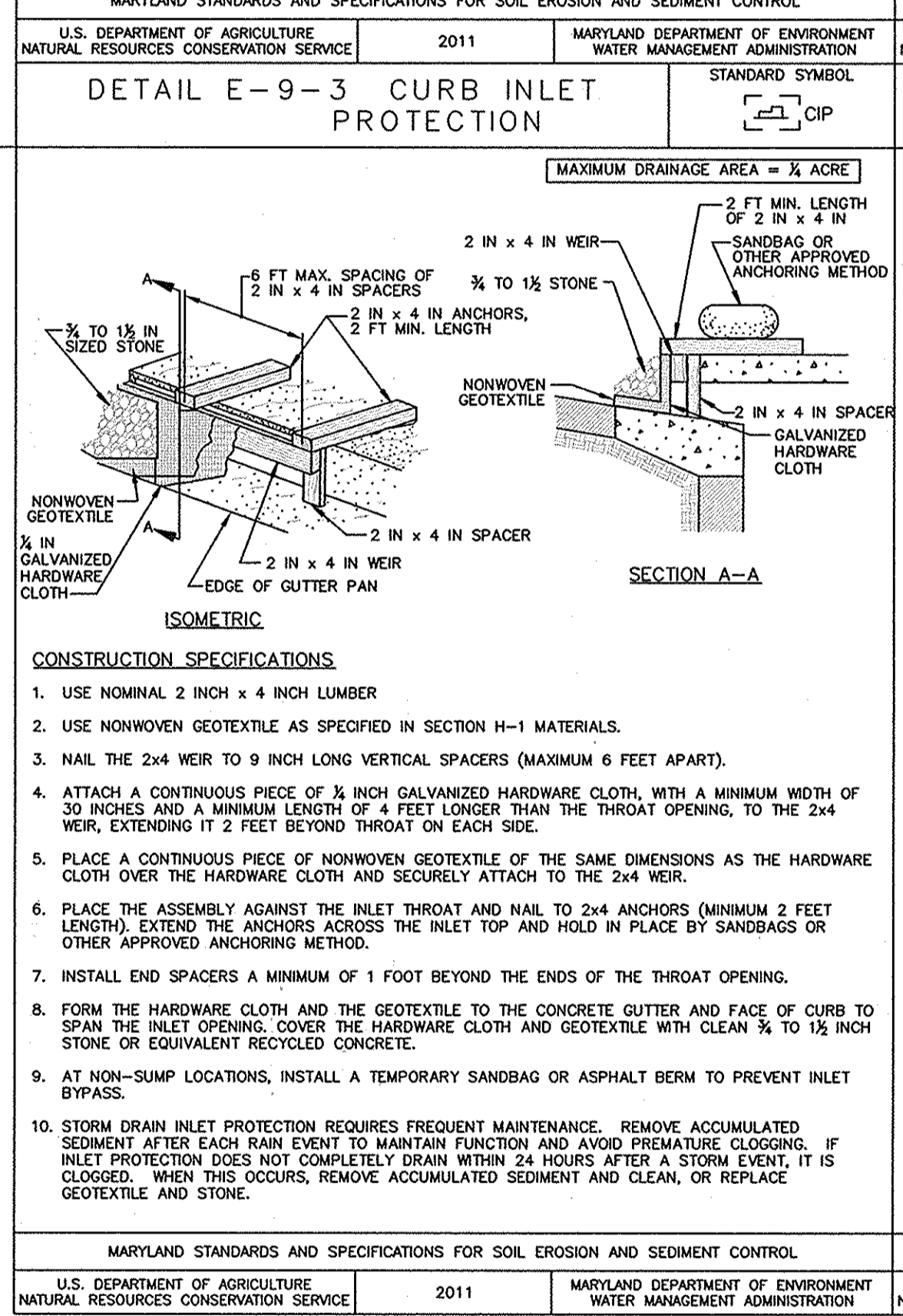
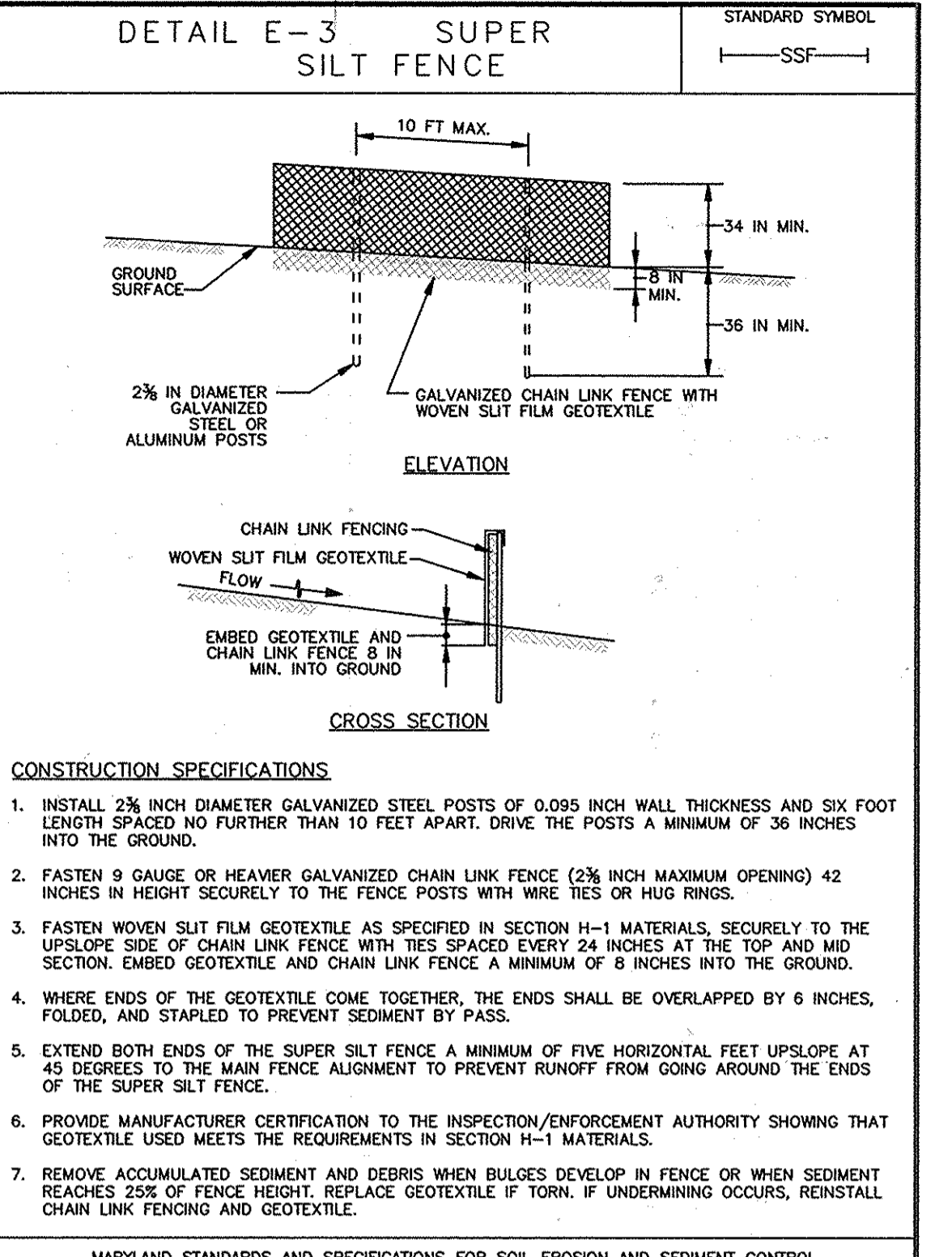
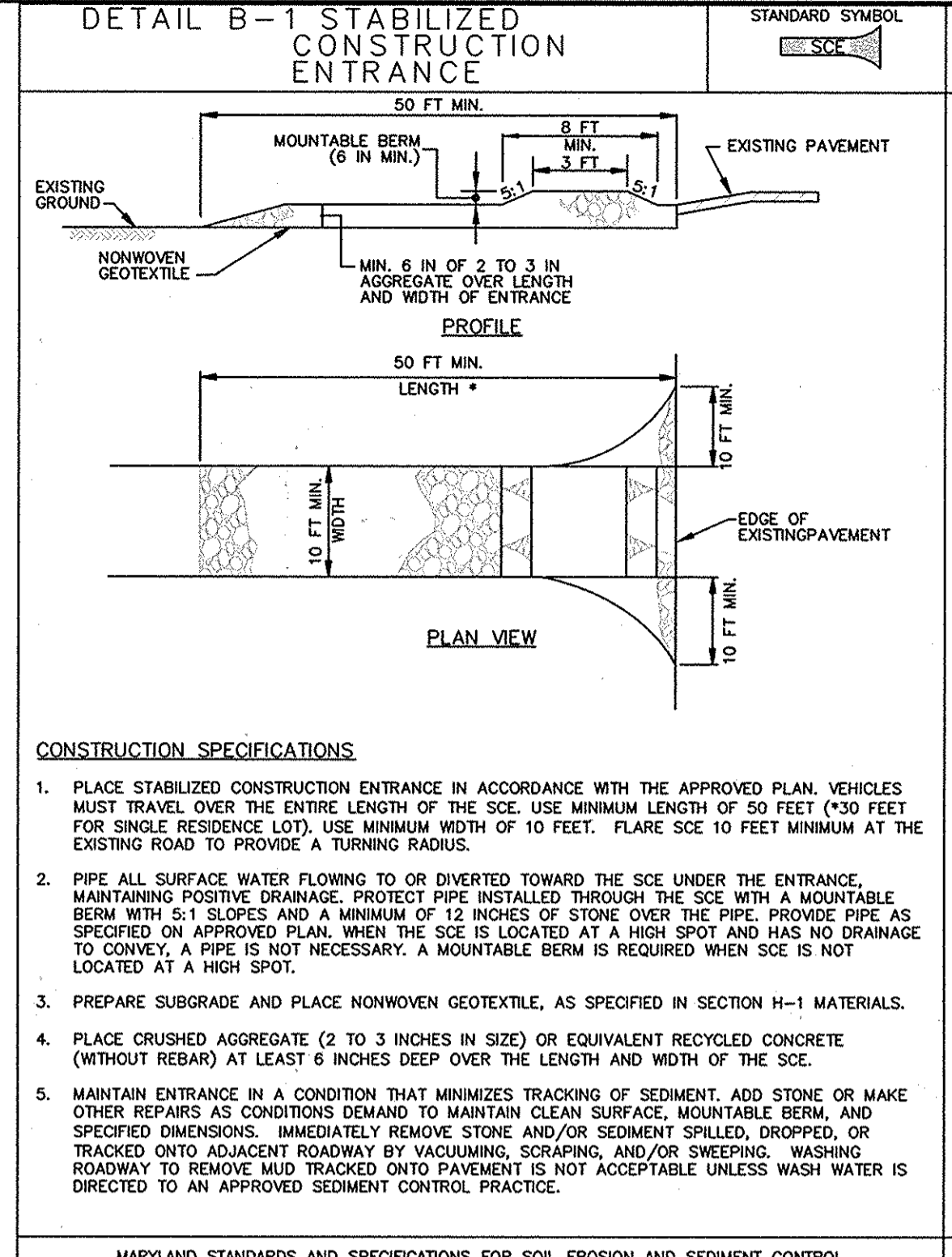
BORING LOG

Boring: SWM-1 (1 of 1)

Project No: Patuxent Middle School Elevation: 291.73 ± Drilling Method: SB
 Client: Total Depth: 12.0' Hammer Type:
 Project: Boring Location: Patuxent Valley Middle School Date Drilled: 4/5/14
 City/State: Patuxent Valley Middle School Driller: John Hanson

Elevation	Depth	Description of Materials (Classification)	Sample Blows	Sample Depth (Feet)	Blow Count (blows/ft)	Remarks
291.4	0.3	0.3 FEET OF TOPSOIL				
		COASTAL PLAIN SOILS, Dark brown and black, LEAN CLAY (CL), some silt, some sand, trace rock fragments very stiff, moist	7-7.8	1.0	15	
				2.5		
288.7	3.0	Brown, fine to medium silty SAND (SM), trace fine to coarse gravel, trace clay, medium dense, moist	19-9-16	3.5	25	
				5.0		
285.7	6.0	Red and red-brown, LEAN CLAY (CL), trace silt, stiff, moist	6-4.7	6.0	11	Dry at completion of drilling
				7.5		
283.7	8.0	RESIDUAL SOILS, Red and black SILT (ML), some clay, trace fine sand, stiff, moist	7-8.7	8.5	15	
				10.0		
281.7	10.0	Red and green SILT (ML), some clay, very stiff, moist	6-7.9	10.5	16	Cave in depth at 11.4 feet after boring completed
				12.0		
279.7	12.0	BORING TERMINATED AT 12 FEET		12.0		

*Number of blows required for a 140 lb hammer dropping 30" to drive a "C.O., 1.25" I.D. sampler a total of 18 inches in three 6" increments. The sum of the second and third increments of penetration is termed the standard penetration resistance, N-Value.



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21114
 (410) 461-2299

ENGINEER'S CERTIFICATE
 "I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature of Engineer: *Charles J. Crovo, Sr.* Date: 7/28/14

DEVELOPER'S CERTIFICATE
 "I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
 Signature of Developer: *Scott W. Wayles* Date: 7/28/14

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, Expiration Date: November 3, 2014."
 Signature: *Charles J. Crovo, Sr.* Date: 7/28/14

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Director - Department of Planning and Zoning
 Signature: *John R. Rowland* Date: 7/29/14
 Chief, Development Engineering Division

DATE	REVISION	DESCRIPTION
7/29/14	REVISED SHEET NUMBER	

PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HARRIET TUBMAN BUILDING
 8045 HARRIET TUBMAN LANE
 COLUMBIA, MARYLAND 21044
 Attention: BRUCE GIST
 410-313-6005

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
P. 168	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794

PERMIT INFORMATION CHART

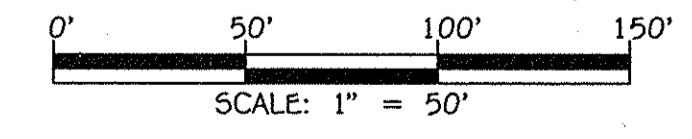
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25
PLAT# OR L/F	GRID#	ZONING
L.749 F.399	5	R-20
TAX MAP#	ELECT. DISTR.	CENSUS TRACT
47	SIXTH	6064

SEDIMENT CONTROL DETAILS AND SOIL BORING LOG

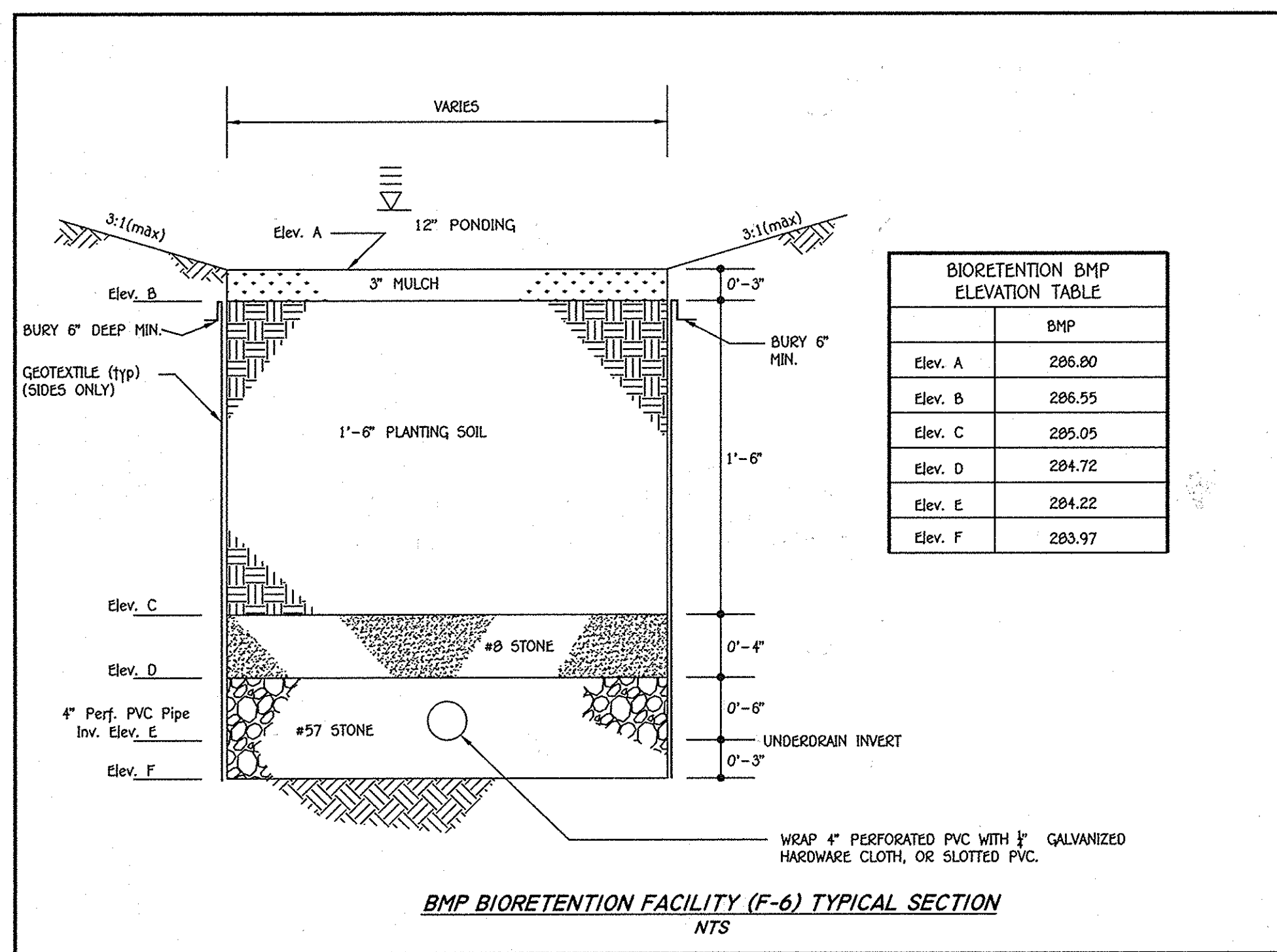
"REVISED SITE DEVELOPMENT PLAN" PATUXENT VALLEY MIDDLE SCHOOL

ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: JULY 2, 2014

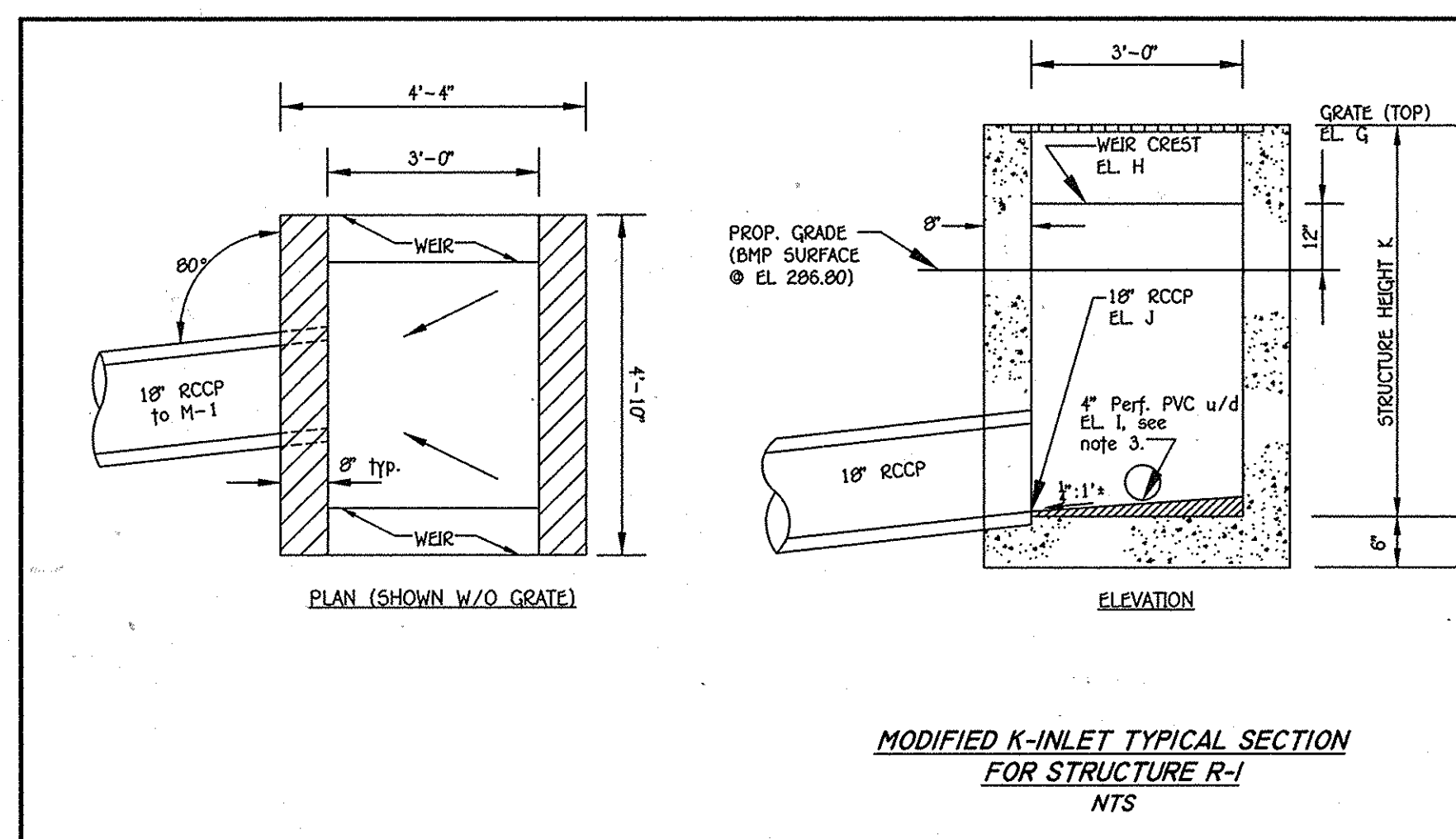
SHEET 24 OF 28



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW DETAILS FOR THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

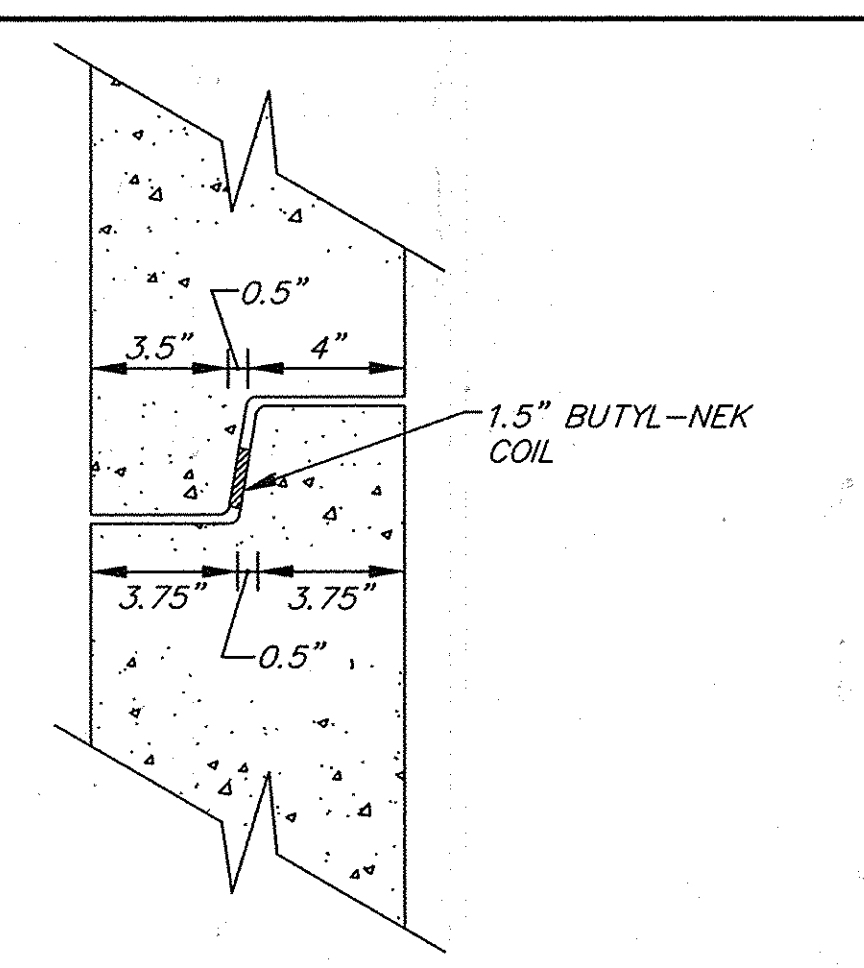


Elev.	BMP
Elev. A	286.80
Elev. B	286.55
Elev. C	285.05
Elev. D	284.72
Elev. E	284.22
Elev. F	283.97

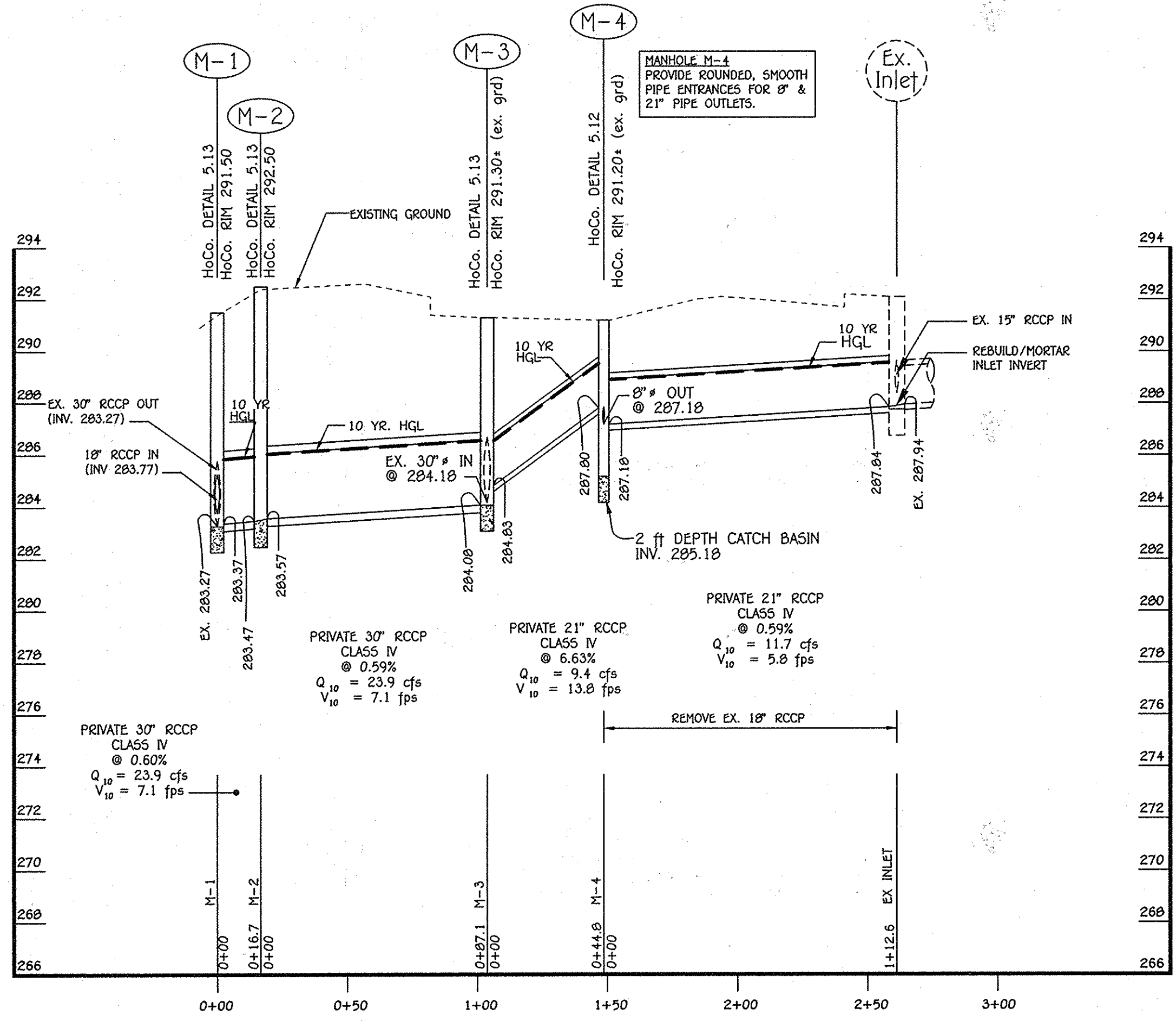


Elev.	Value
Elev. G	288.80
Elev. H	287.80
Elev. I	284.22
Elev. J	284.12
Elev. K	5'-0"

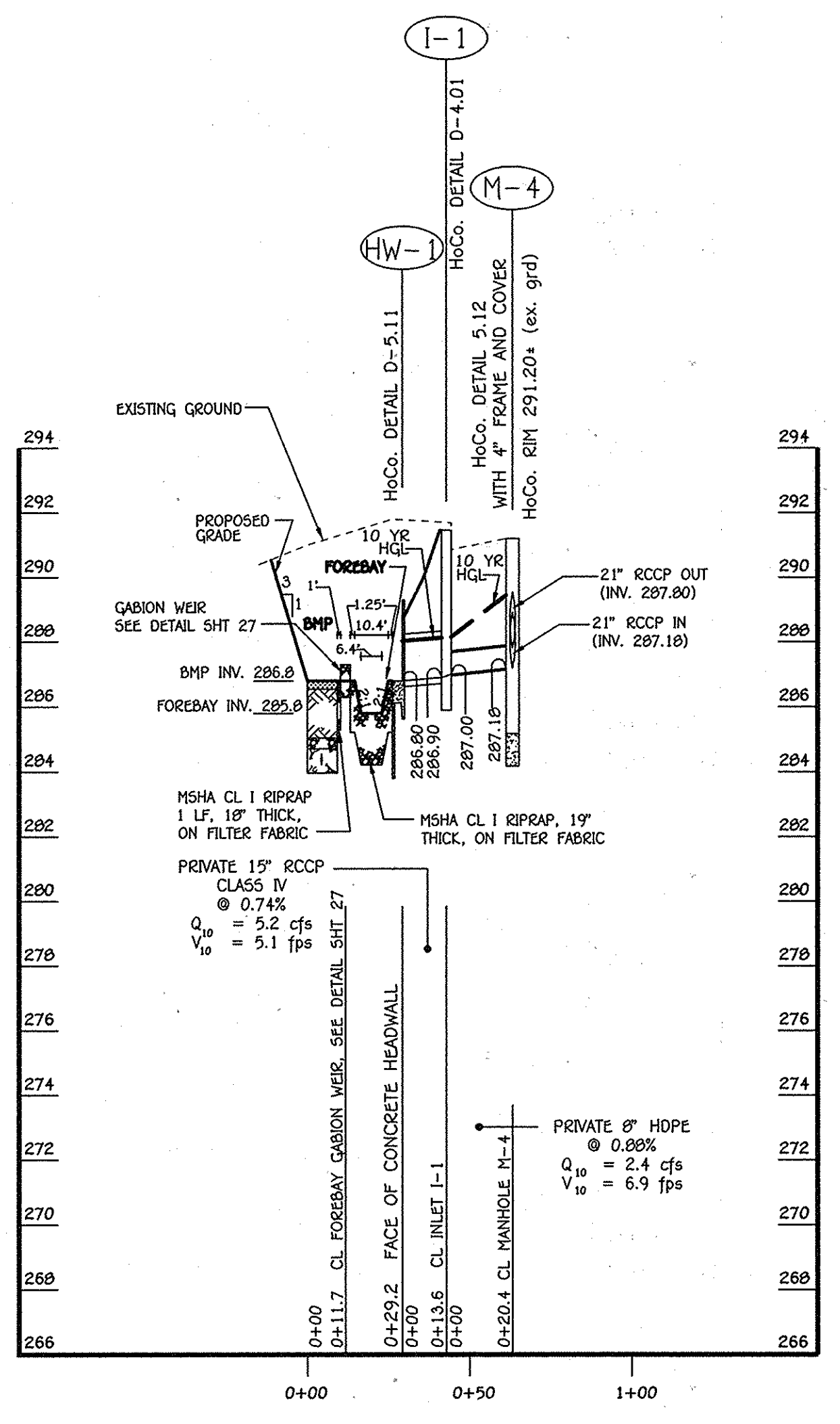
- NOTES:
- SEE MSHA STD DETAIL MD-378.11 FOR DETAILS NOT SHOWN.
 - USE DOUBLE OPENING WITH NO CONCRETE GUTTER APPROACHES.
 - PVC UNDERDRAIN MAY ENTER INLET AT AN ANGLE TO MAINTAIN IN CENTER OF BMP. SEE PLAN FOR UNDERDRAIN ENTRANCE WALL LOCATION.
 - SLOPE RISER INVERT 1:1 TOWARD RCCP OUTFALL WITH CONCRETE OR BRICK.
 - THIS STRUCTURE SHALL BE CONSTRUCTED WITH TWO (2) 3' WIDE WEIR OPENINGS LOCATED ON OPPOSITE SIDES.



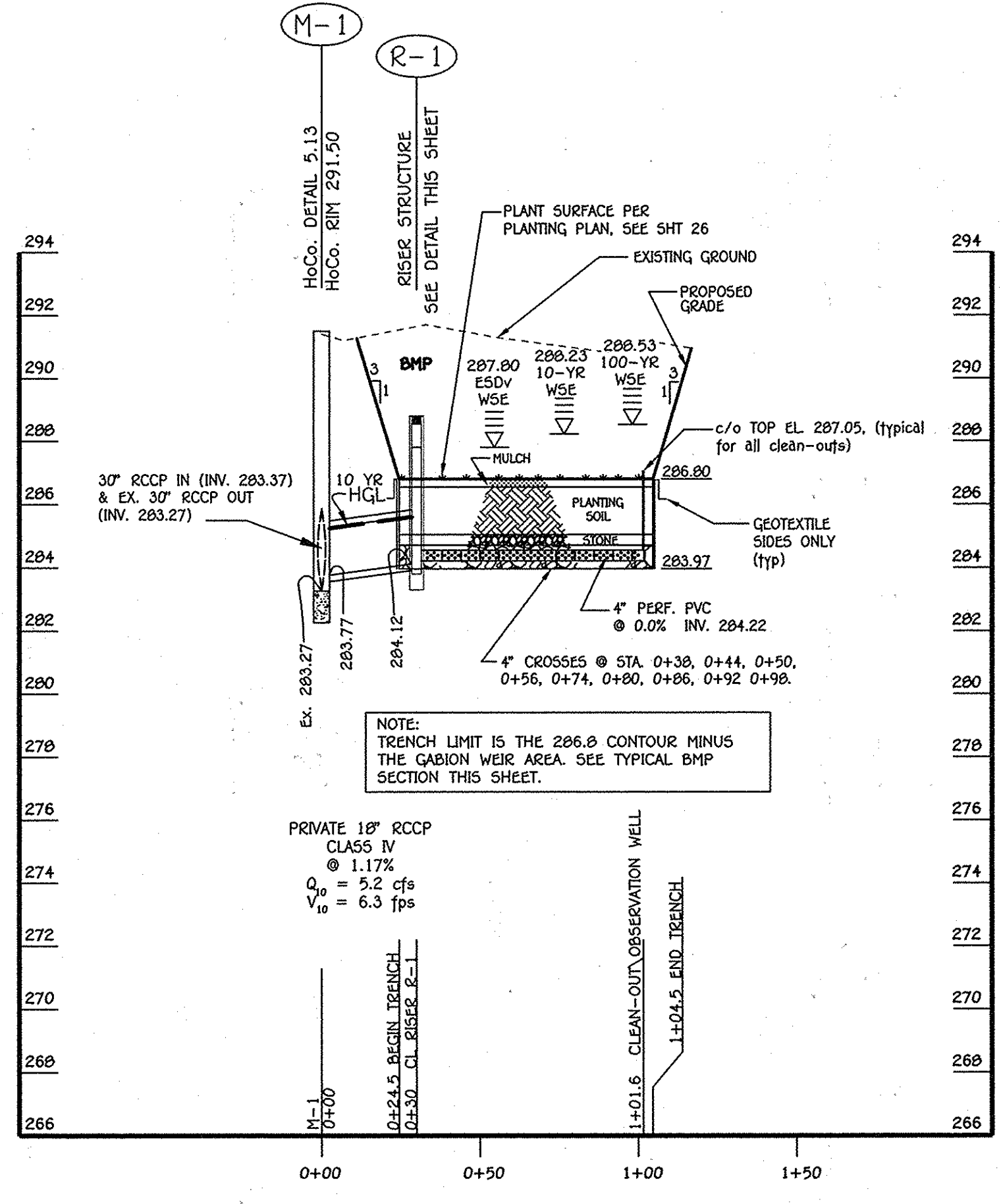
- NOTES:
- Riser joints shall join evenly and be watertight. Parge joints after installation.
 - The referenced joint and joint sealant material is used by Frederick Precast, Inc. Similar joints may be used with shop drawing approval by the engineer.



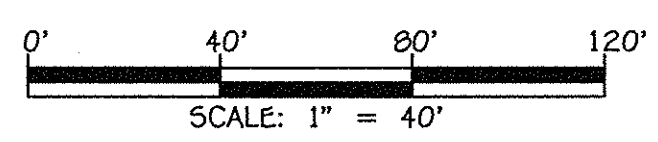
STORM DRAIN PROFILE M-1 TO EX. I-1
SCALE:
HORZ. 1" = 40'
VERT. 1" = 4'



BMP UNDERDRAIN PROFILE
SCALE:
HORZ. 1" = 40'
VERT. 1" = 4'



BMP RISER OUTFALL PROFILE
SCALE:
HORZ. 1" = 40'
VERT. 1" = 4'



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BMP DETAILS AND PROFILES.

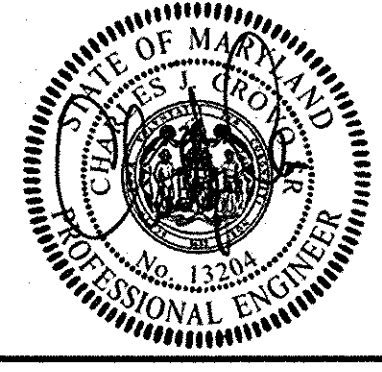
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21044
(410) 481-2095

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, expiration date: November 3, 2014."
Charles J. Provo
CHARLES J. PROVO, SR., P.E. 7/28/14 DATE

DATE	REVISION NUMBER	DESCRIPTION
6/20/10		

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Director - Department of Planning and Zoning
Kevin Schumacher 8/08/14 DATE
Chief, Division of Land Development
Chief, Development Engineering Division

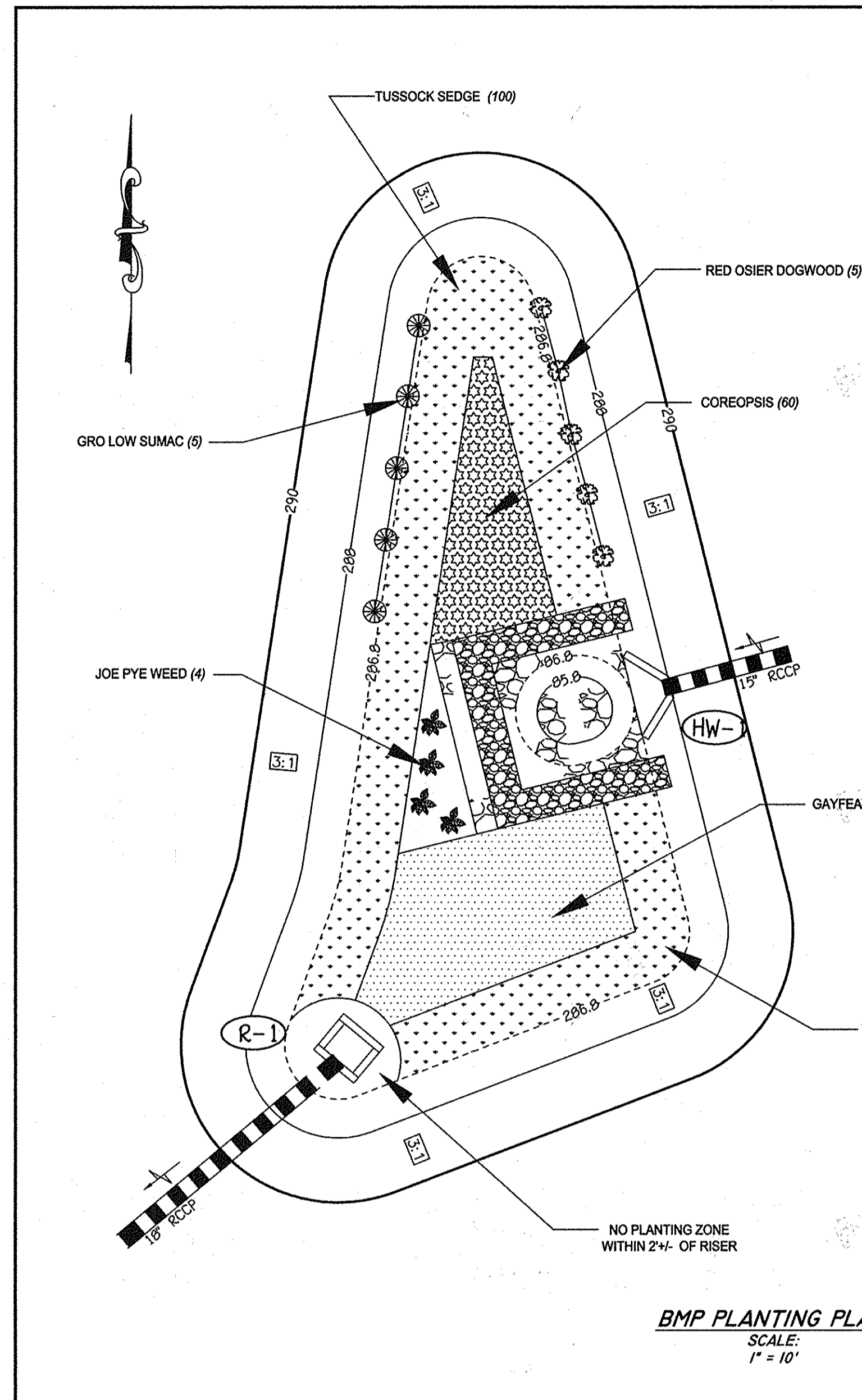
PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention: BRUCE GIST
410-313-6805



ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
P. 168	9151 VOLLMEYERHAUSEN ROAD JESSUP, MARYLAND 20794

PERMIT INFORMATION CHART			
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25	
PLAT# OR L/F	GRID#	ZONING	TAX MAP#
L.749 F.399	5	R-20	47
		ELECT. DISTR.	CENSUS TRACT
		SIXTH	6064

STORMWATER MANAGEMENT
BMP PROFILE & DETAILS
"REVISED SITE DEVELOPMENT PLAN"
PATUXENT VALLEY
MIDDLE SCHOOL
ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 2, 2014
SHEET 25 OF 28



BIORETENTION FACILITY PLANTING SCHEDULE					
PLANT NAME	SIZE	QUANTITY	SPACING (min.)	FORM	SYMBOL
TUSOCK SEDGE (<i>Carex Stricta</i>)	1 gal	100 + 45 = 145	2' o/c *	Grass	[Symbol]
COREOPSIS (<i>Coreopsis verticillata</i>)	1 qt	60	2' o/c *	Flower	[Symbol]
GAYFEATHER (<i>Liatris Spicata</i>)	1 gal	60	2' o/c *	Flower	[Symbol]
JOE PYE WEED (<i>Eupatorium maculatum 'Gateway'</i>)	1 gal	4	3' o/c *	Perennial	[Symbol]
RED OSIER DOGWOOD (<i>Cornus sericea</i>)	2 gal	5	6' o/c *	Shrub	[Symbol]
GRO LOW SUMAC (<i>Rhus aromatica 'Gro Low'</i>)	2 gal	5	6' o/c *	Shrub	[Symbol]

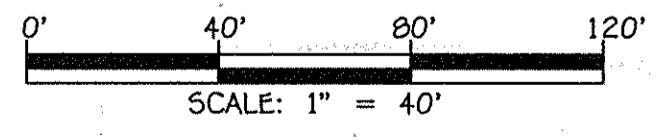
PLANTING SPECIFICATIONS:
 1. PLANT INSTALLATION SHALL BE PER THE MDE SPECIFICATIONS IN THE CURRENT STORMWATER DESIGN MANUAL.
ADDITIONAL SPECIFICATIONS:
 1. PLANT BMP LEVEL SURFACE AS SHOWN WITH AN EVEN DISTRIBUTION DENSITY. STABILIZE SIDE SLOPES WITH PERMANENT GRASS SEED PER NRCS SPECIFICATIONS. SIDE SLOPES SHALL HAVE 4" OF CLEAN TOPSOIL ON TILLED SUB-SOIL.
 2. THE CONTRACTOR SHALL PROVIDE AN UNCONDITIONAL ONE (1) YEAR GUARANTEE FROM THE DATE OF ACCEPTANCE FOR ALL PLANT MATERIALS.
 3. PLANT MATERIAL SHALL CONFORM TO THE U.S. STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSEYMEN.
 4. PLANTING PERENNIALS & GRASSES: ROOT SYSTEMS SHALL BE SPLIT OR CRUMBLED. POTTED PLANTS SHALL BE SET SO THAT THE TOP OF THE POT IS EVEN WITH EXISTING GRADE. TREAT THE MULCHED AND PLANTED AREA WITH A PRE-EMERGENT HERBICIDE.
 5. ALL PLANTS MUST BE THOROUGHLY WATERED PRIOR TO ACCEPTANCE.
 6. SHRUBS SHALL BE PLANTED ON THE SIDE SLOPES 6"-8" VERTICALLY ABOVE THE BMP (LEVEL) SURFACE.

BMP PLANTING PLAN
 SCALE: 1" = 10'

GENERAL STORMWATER MANAGEMENT NOTES
 1. STORMWATER MANAGEMENT HAS BEEN PROVIDED WITH ONE (1) BIORETENTION (F-6) BMP (BEST MANAGEMENT PRACTICE). PLEASE REFER TO THE SWM REPORT PREPARED BY FISHER, COLLINS, & CARTER, INC. DATED JUNE 9, 2014.
 2. ALL CONSTRUCTION SHALL MEET THE LATEST EDITION OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS, SMALL EARTHEN DAM SPECIFICATION MD-37B, AND THE MARYLAND DEPARTMENT OF THE ENVIRONMENT'S CURRENT STORMWATER DESIGN MANUAL, OR AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CONSULT THE ENGINEER SHOULD THERE BE ANY DISCREPANCIES. SEE BIORETENTION FACILITY SPECIFICATIONS ON THIS SHEET.
 3. THE UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL TEST PIT ALL KNOWN EXISTING UTILITIES TO VERIFY, SIZE, SHAPE, LOCATION, AND TYPE PRIOR TO PERFORMING CONSTRUCTION. ANY UTILITY DAMAGED DUE TO CONSTRUCTION MUST BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
 4. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. IF THE CONTRACTOR MAKES FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
 5. CONTRACTOR SHALL NOTIFY MISS UTILITY 1-800-257-7777 AND THE HOWARD COUNTY DEPARTMENT OF INSPECTION LICENSES & PERMITS THREE (3) WORKING DAYS BEFORE BEGINNING CONSTRUCTION.
 6. FISHER, COLLINS & CARTER, INC. IS NOT RESPONSIBLE FOR THE CONTRACTOR'S UTILIZATION OF MEN, MATERIALS, EQUIPMENT, OR SAFETY MEASURES IN THE PERFORMANCE OF ANY WORK FOR THIS PROJECT. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR PERFORMING THE WORK CORRECTLY AND IN CONFORMANCE WITH CODE/SPECIFICATION REQUIREMENTS.
 7. THE BMP MAY BE GRADED, HOWEVER, THE PLANTING SOIL SHALL NOT BE INSTALLED IN THE BMP UNTIL ALL UPSTREAM AREAS HAVE BEEN STABILIZED (I.E., THICK GRASS COVER, OR PAVED).
 8. THE STORMWATER MANAGEMENT BIORETENTION BMP FOR THIS PROJECT WILL BE PRIVATELY OWNED AND MAINTAINED.

OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION FACILITIES
 ALL MICRO-BIORETENTION FACILITIES SHALL BE INSPECTED AT LEAST TWICE PER YEAR, ONCE EACH IN THE SPRING AND FALL, AND AFTER LARGE STORMS. THE BIORETENTION FACILITY COMPONENTS TO BE INSPECTED AND MAINTAINED INCLUDE THE ITEMS AS FOLLOWS:
 1. PLANT MATERIAL: PLANTS SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION. REMOVE AND REPLACE DEAD OR DYING VEGETATION CONSIDERED BEYOND TREATMENT (SEE NOTE #1 BELOW). MAINTENANCE INCLUDES PRUNING, AND REPLACEMENT OF DEFICIENT STAKES AND WIRE.
 2. MULCH LAYER: SHALL BE REPLACED EVERY 2-3 YEARS (IN THE SPRING) DUE TO THE ACCUMULATION OF HEAVY METALS. THE OWNER SHALL PROPERLY DISPOSE THE OLD MULCH SO AS NOT TO CAUSE STORMWATER CONTAMINATION ELSEWHERE. WASHED OUT AREAS SHALL BE REPAIRED.
 3. SOIL LAYER: SHOULD STORMWATER POND FOR MORE THAN 48 HOURS, THE TOP 6 INCHES (MINIMUM) OF THE PLANTING SOIL LAYER SHALL BE REPLACED. THE OLD SOIL SHALL BE PROPERLY DISPOSED OF.
 4. SPILLWAY OUTFALL INTERIOR SLOPES: ERODED AREAS SHALL BE REPAIRED (ILLED IN AND SEEDED). BARE AREAS SHALL BE TREATED AND RE-SEEDED.
 5. INLET: REPAIR CRACKS, DAMAGED CONCRETE, ETC. AS NECESSARY.
 6. REMOVE AND PROPERLY DISPOSE OF ACCUMULATED SEDIMENT GREATER THAN ONE (1) INCH.
NOTES:
 1. IF SPECIFIC PLANTS ARE NOT SURVIVING, THE PLANT TYPE SHALL BE CHANGED TO BETTER SUITED SPECIES.
 2. PLANT WATERING MAY BE NEEDED DURING PROLONGED DRY PERIODS.

BMP BIORETENTION FACILITY NOTES AND SPECIFICATIONS
 1. REFER TO THE LATEST MARYLAND SWM DESIGN MANUAL FOR BIORETENTION SPECIFICATIONS FOR INFORMATION NOT LISTED HEREIN AND FOR ADDITIONAL INFORMATION.
 2. THE BIORETENTION BMP MATERIALS ARE AS FOLLOWS:
 - PLANTING SOIL: PER PLANTING SOIL SPECIFICATIONS OUTLINED IN MDE'S 2000 SWM MANUAL, APPENDIX B.4.
 - PVC UNDERDRAIN PIPE OUTSIDE BMP: SCHEDULE 40, SOLID PIPE WITH MINIMUM SLOPE OF 0.5% OR AS PER PLAN.
 - PVC UNDERDRAIN IN BMP: SCHEDULE 40 AND PERFORATED WITH 3/8" DIA. HOLES. WRAP UNDERDRAIN WITH GALVANIZED 1/4" HARDWARE CLOTH (WELDED WIRE MESH) PER HOWARD COUNTY SPECIFICATIONS. PROVIDE FOUR (4)-3/8" DIA. HOLES EVENLY SPACED AROUND THE 4" PIPE CIRCUMFERENCE. SPACE PERFORATIONS ALONG PIPE AT 3" ON CENTER. ADJACENT SETS OF PERFORATIONS SHALL BE STAGGERED AT 45°. PERFORATIONS MUST TOTAL 1.76 SQ. IN. PER LF OF PIPE.
 - STONE AGGREGATE: MSHA SPECIFICATIONS AS SHOWN ON TYPICAL SECTION; AGGREGATE MUST WASHED, AND BE FREE OF FINES, SAND, DIET & DEBRIS.
 - GEOTEXTILE: PER MDE SWM MANUAL, OR MIRAFI 140N.
 - MULCH: SHREDDED, WELL-AGED (6-12 MONTHS) HARDWOOD MULCH; NO WOOD CHIPS OR PINE MULCH.
 3. THE CONTRACTOR SHALL UNDER NO CIRCUMSTANCES ALLOW SURFACE DRAINAGE INTO THE MICRO-BIORETENTION BMPs UNTIL ALL UPSTREAM AREAS HAVE BEEN STABILIZED (I.E., PAVED, OR HAVE WELL-ESTABLISHED VEGETATION).
 4. BOARDS SHALL NOT BE LEFT IN PLACE DURING THE CONSTRUCTION OF THE BIORETENTION BMP.
 5. GEOTEXTILE (FILTER FABRIC) SHALL BE PLACED ONLY AGAINST EXCAVATED VERTICAL SURFACES. SCARIFY EARTH PRIOR TO GEOTEXTILE PLACEMENT. INSTALL GEOTEXTILE PER MANUFACTURER'S SPECIFICATIONS/RECOMMENDATIONS AND USE A 2 FT MINIMUM OVERLAP AND NOTCH ENDS WITH A 6" MINIMUM BURY OR EQUIVALENT ANCHORING METHOD.
 6. THE CONTRACTOR SHALL PROVIDE TO THE OWNER INDEPENDENT CERTIFICATION THAT THE PLANTING SOILS AND OTHER MICRO-BIORETENTION MATERIALS MEET THE SPECIFICATIONS.
 7. THE BIORETENTION FACILITIES SHALL BE VEGETATED (TOP LEVEL SURFACE ONLY) IN ACCORDANCE WITH THE PLANTING PLAN AND THE BMP M-6 SPECIFICATIONS IN MDE'S CURRENT STORMWATER MANAGEMENT DESIGN MANUAL.
 8. FOR UNDERDRAINS, USE PERFORATED PVC PIPE INSIDE THE BIORETENTION FACILITIES AND WRAP PERFORATED PIPE WITH 1/4" HARDWARE CLOTH TO PREVENT AGGREGATE FROM ENTERING THE PERFORATIONS.
 9. INSTALL CLEANOUTS (SOLID PVC PIPE) AS SHOWN. THE CLEANOUT TOP SHALL EXTEND 3" ABOVE TOP OF MULCH.
 10. THE LIMIT OF THE TYPICAL SECTION (I.E., PLANTING SOIL, AGGREGATE, ETC.) IS THE ENTIRE LEVEL SURFACE OF THE BIORETENTION FACILITY EXCLUDING FOREBAY AREA AND GABION WEIR.



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BMP PLANTING PLAN, OPERATION AND MAINTENANCE SCHEDULE AND SPECIFICATIONS.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2999

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, expiration Date: November 3, 2014."

 CHARLES J. GROVO, SR., P.E. 7/29/14 DATE

DATE	REVISION SHEET NUMBER	DESCRIPTION
6/20/16	REVISED SHEET NUMBER	

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Director - Department of Planning and Zoning

 Chief, Division of Land Development 5-11-14 Date

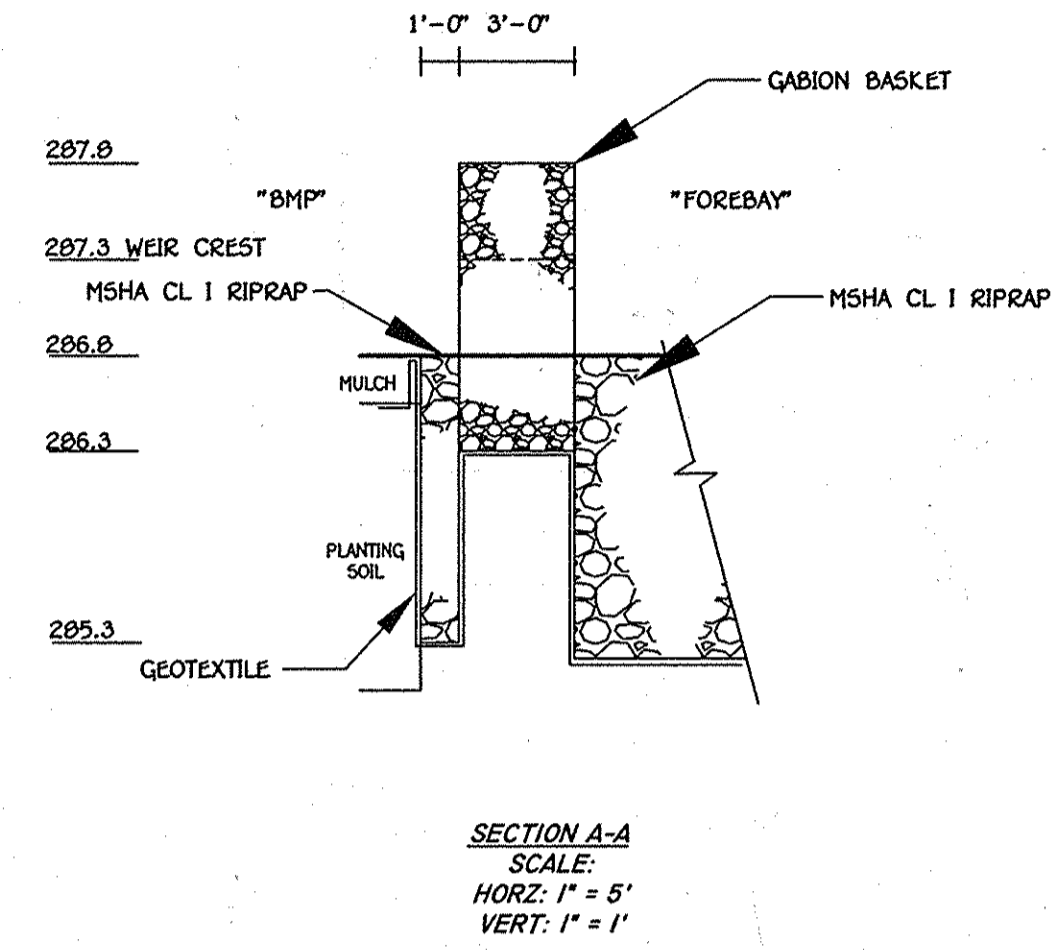
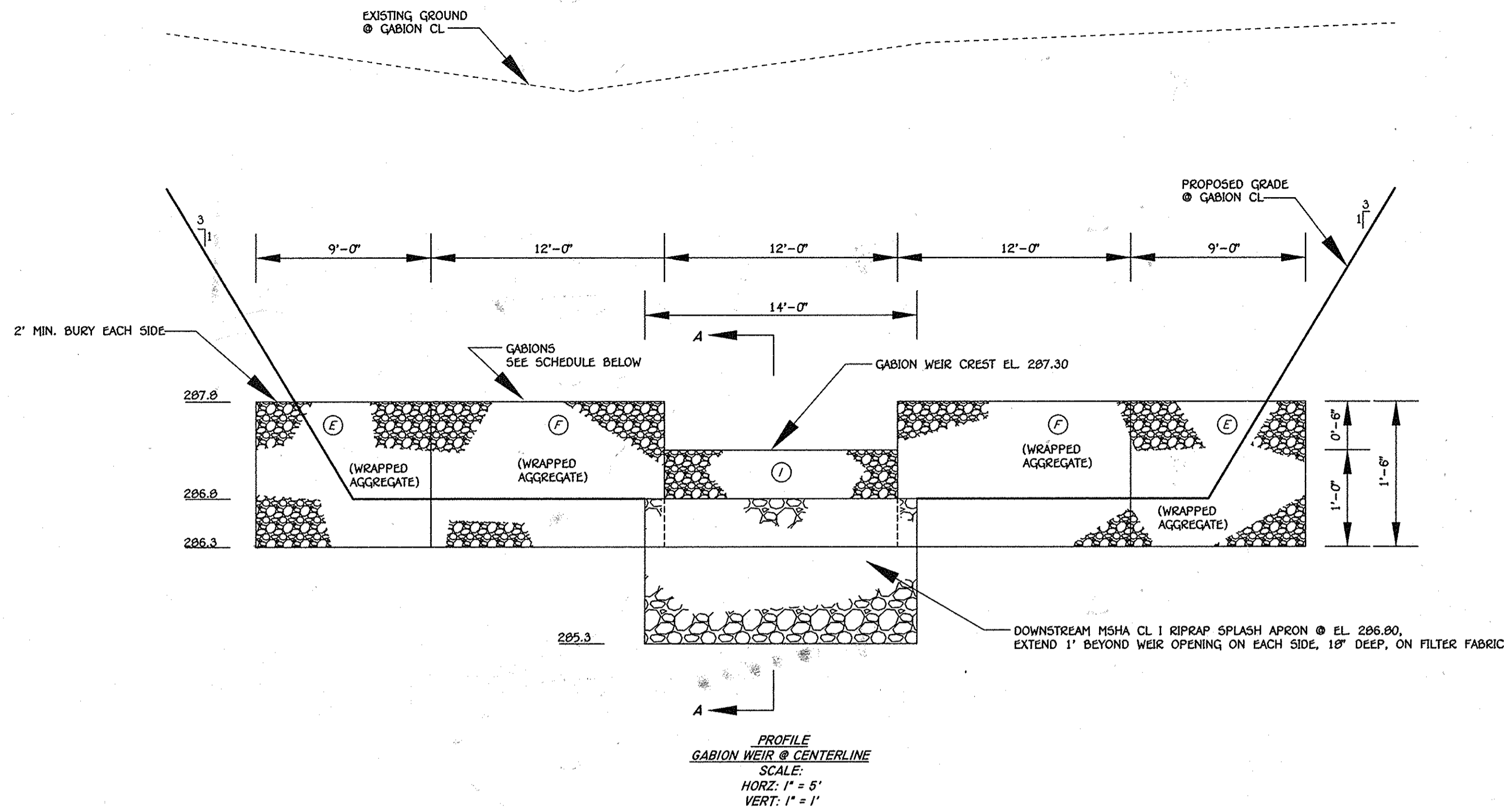
 Chief, Development Engineering Division 8/6/14 Date

PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HARRIET TUBMAN BUILDING
 8045 HARRIET TUBMAN LANE
 COLUMBIA, MARYLAND 21044
 Attention: BRUCE GIST
 410-313-6805

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
P. 16B	9151 VOLLMEYERHAUSEN ROAD JESSUP, MARYLAND 20794

PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.		
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25		
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTRICT
L749 F.399	5	R-20	47	SIXTH
			CENSUS TRACT	
			6064	

STORMWATER MANAGEMENT NOTES & PLANTING PLAN
"REVISED SITE DEVELOPMENT PLAN" PATUXENT VALLEY MIDDLE SCHOOL
 ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: JULY 2, 2014
 SHEET 26 OF 28

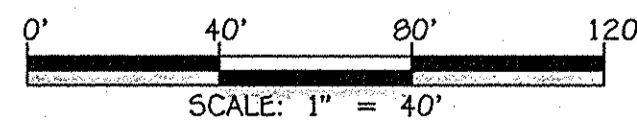
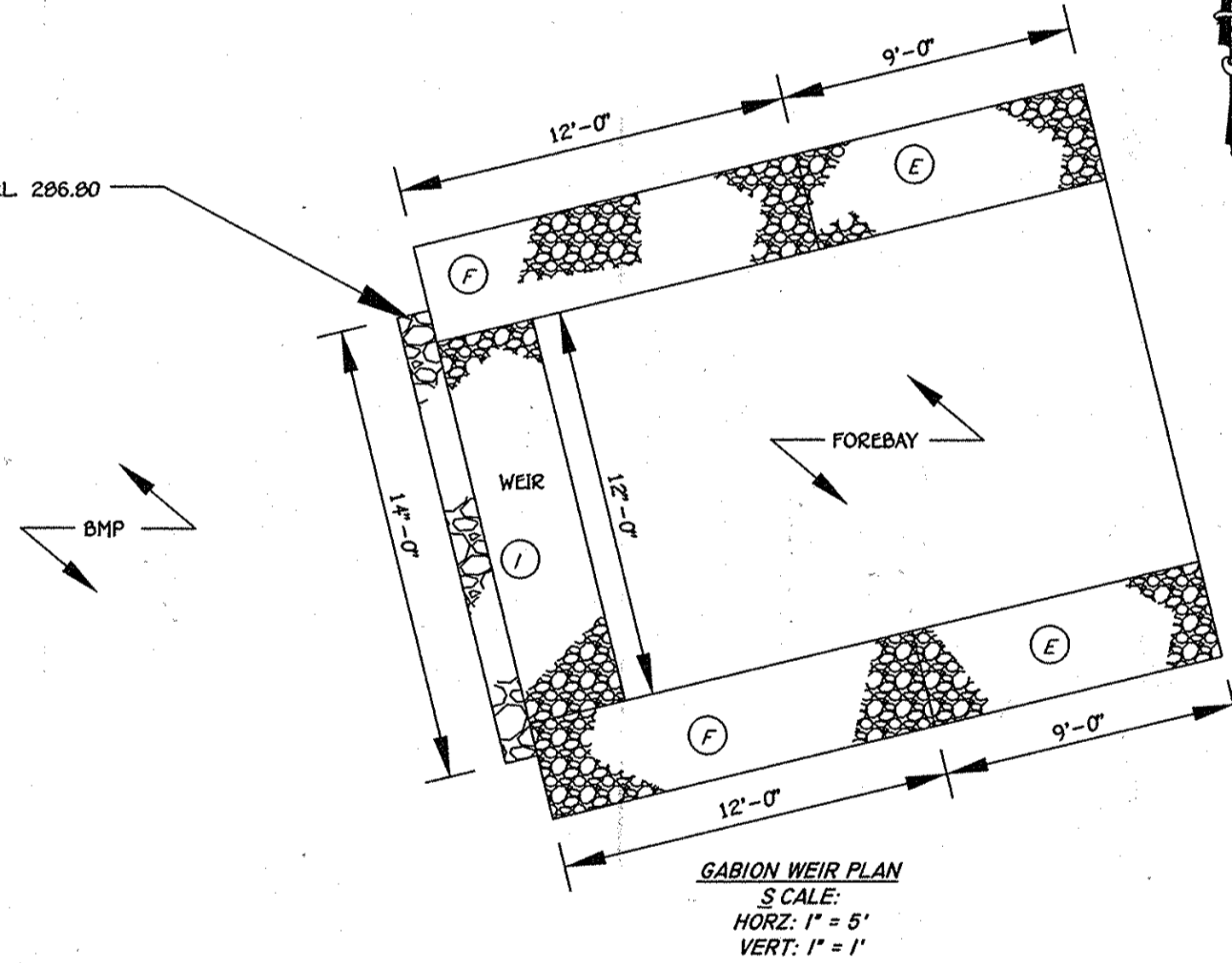


GABION/FOREBAY WEIR OUTFALL NOTES

- Gabions shall be manufactured by Maccoferrri Gabions Inc. or approved equal. The installation shall follow the manufacturer's specifications and installation guidelines.
- The gabion baskets shall be PVC coated and filled with clean 4" - 7" stone. Gabion stone shall be carefully placed as to create a tight interlocking stone wall with minimal voids.
- Wrap aggregate in gabions baskets E and F with two (2) layers of 4 mil or greater vinyl/plastic sheeting or equal. Use 2" ft overlap. This maintains discharge over the weir and onto the splash apron and precludes erosion of buried gabion ends.
- Geotextile fabric (Ultrasil 600x or approved equal) shall be placed against all buried gabions.
- Gabions shall be carefully placed with no damaged wire. Earth foundation shall be firm. Fill soil around gabions shall be well-compacted (95%).
- Gabions shall be fastened together with lacing or rings per manufacturer's recommendations/specifications. Rings shall be per ASTM A975-97 section 6.3. Spacing shall not exceed 6". See Maccoferrri's Gabion installation guide.
- Minimum gabion embedment into side slope is a 2'-0" bury.
- Gabions can be "nested" to meet designed dimensions if longer-than-specified gabions are used.

BMP FOREBAY GABION WEIR SCHEDULE (Gabion Basket Quantities)	
MANUFACTURER'S LETTER CODE/DIMENSIONS	QUANTITY
E 9' x 3' x 1.5'	2
F 12' x 3' x 1.5'	2
I 12' x 3' x 1'	1

12" WIDE, MSHA CL I RIPRAP SPLASH APRON, EL. 286.80



NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE GABION WEIR PLAN AND PROFILE.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2095

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 13204, expiration Date: November 3, 2014."

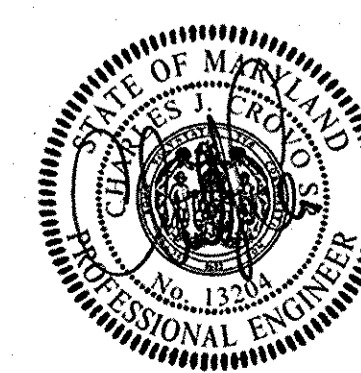
Charles J. Grovo
CHARLES J. GROVO, SR., P.E.

7/23/14
DATE

DATE	REVISION NUMBER	DESCRIPTION

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Director - Department of Planning and Zoning
David J. Powers 8/11/14 Date
Chief, Development Engineering Division
Robert L. ... 8/28/14 Date
8/6/14 Date

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention: BRUCE GIST
410-313-6805



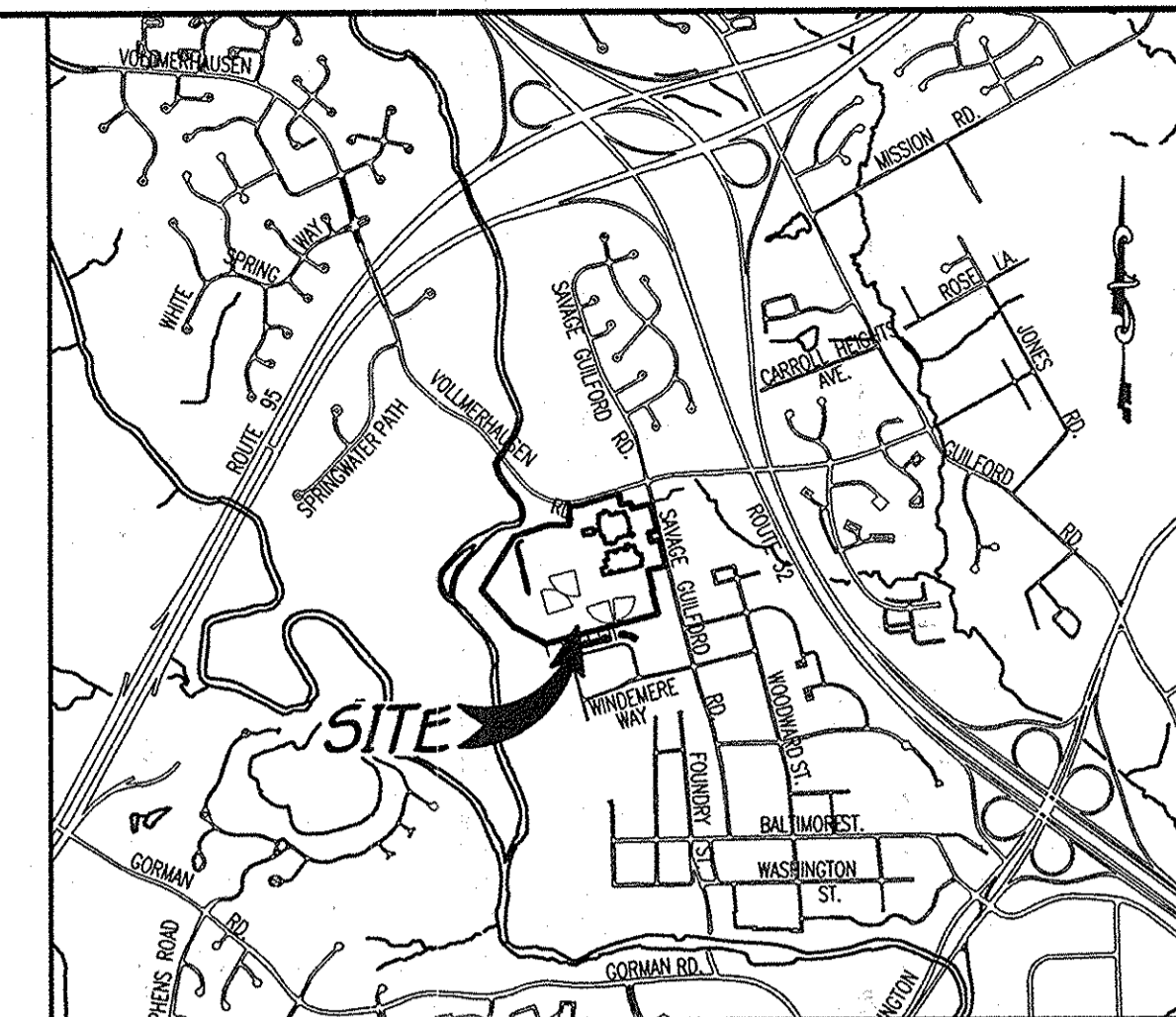
ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
P. 168	9151 VOLLMERHAUSEN ROAD JESSUP, MARYLAND 20794

PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.		
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25		
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.
L.749	F.399	5	R-20	47
CENSUS TRACT				
6064				

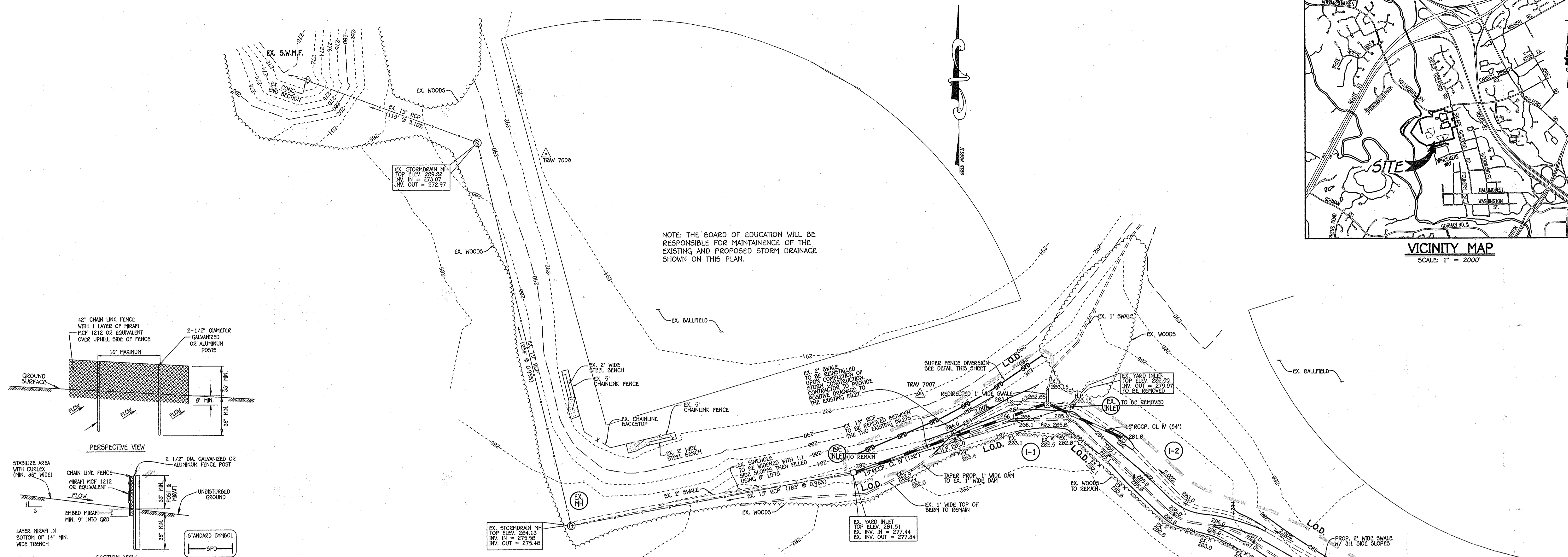
**STORMWATER MANAGEMENT
GABION WEIR DETAIL**
**"REVISED SITE DEVELOPMENT PLAN"
PATUXENT VALLEY
MIDDLE SCHOOL**

ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 2, 2014

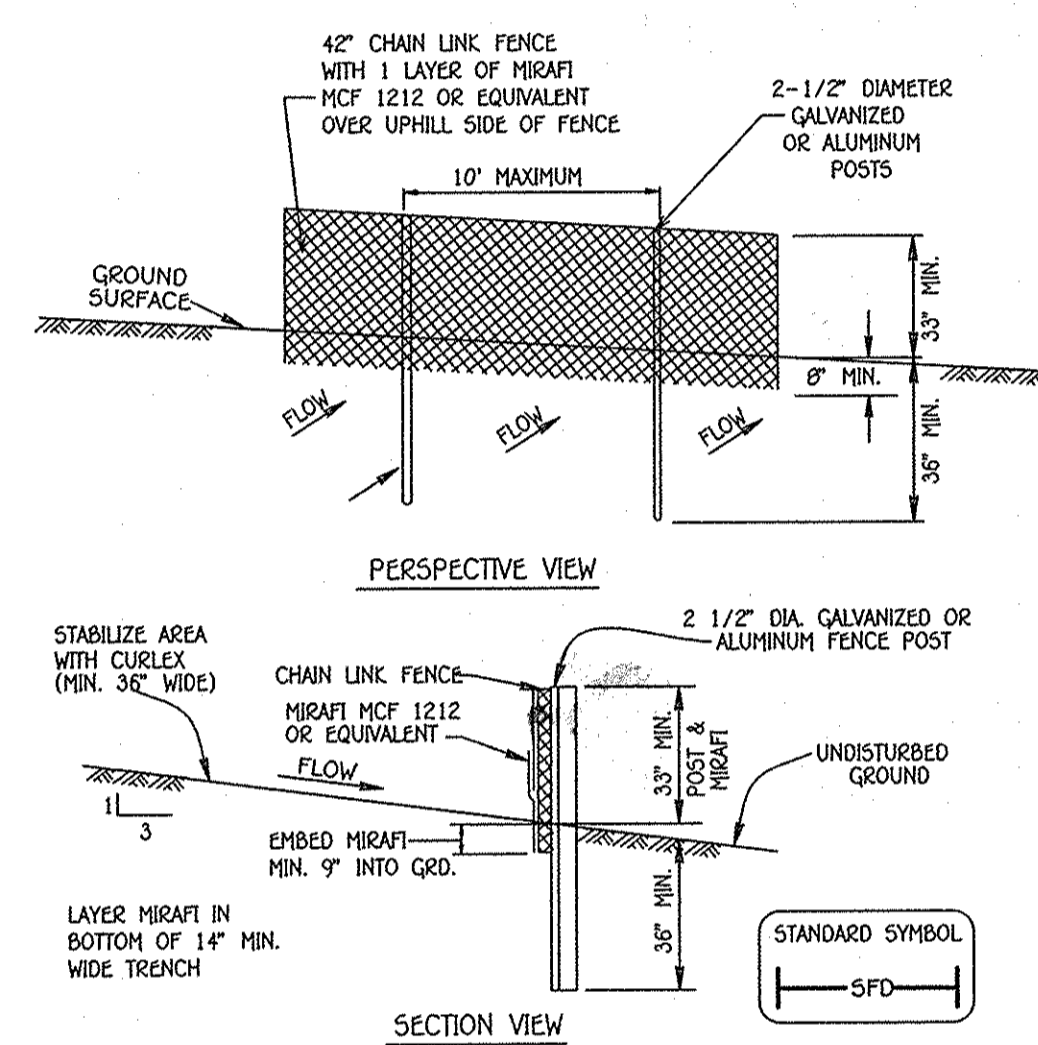
SHEET 27 OF 28



VICINITY MAP
SCALE: 1" = 200'



NOTE: THE BOARD OF EDUCATION WILL BE RESPONSIBLE FOR MAINTENANCE OF THE EXISTING AND PROPOSED STORM DRAINAGE SHOWN ON THIS PLAN.



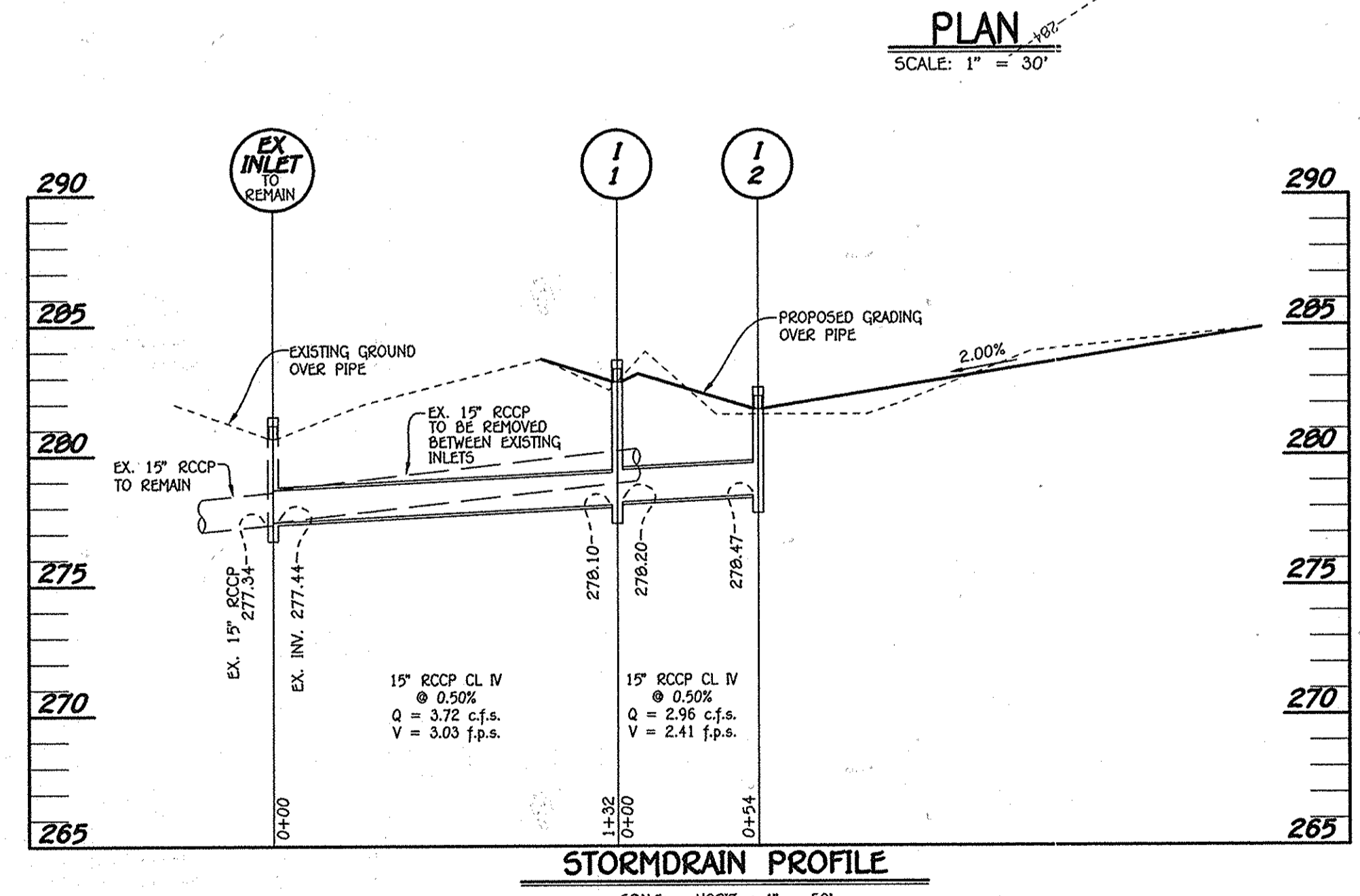
CONSTRUCTION SPECIFICATIONS

- FENCING SHALL BE 42" HIGH CHAIN LINK CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD DETAILS 690.01 AND 690.02 FOR CHAIN U FENCING. THE SPECIFICATIONS FOR A 6'-0" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 8" POSTS. POSTS SHALL BE PLACED WITHOUT CONCRETE EMBEDMENT.
- CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
- FILTER CLOTH TO BE FASTENED SECURELY TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- FILTER CLOTH SHALL BE IMBEDDED A MINIMUM OF 9" INTO THE GROUND.
- WHEN TWO SECTIONS OF DIVERSION CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED.

Fabric Properties	Value	Test Method
Grab Tensile Strength (lbs.)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682
Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs.)	40	ASTM D751
Slurry Flow Rate (gal/min/ft)	0.3	Virginia DOT VPI-51
Equivalent Opening Size	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability (%)	90	ASTM G-26

Design Criteria		Silt Fence Length (maximum)	Silt Fence Length (maximum)
Slope	Slope Steepness	0 - 10%	Unlimited
10 - 20%	10:1 - 5:1	400 feet	1,500 feet
20 - 33%	5:1 - 3:1	300 feet	1,000 feet
33 - 50%	3:1 - 2:1	200 feet	500 feet
50% +	2:1 +	100 feet	250 feet

SUPER FENCE DIVERSION
NOT TO SCALE



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

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (1 DAY)
- NOTIFY "MISS UTILITY" AT 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 48 HOURS BEFORE STARTING WORK.
- INSTALL SEDIMENT CONTROL MEASURES (SUPER FENCE DIVERSION). CONTRACTOR TO INSPECT AFTER EVERY RAINFALL. REPAIR OR REPLACE AS NECESSARY IF DAMAGED UNTIL COMPLETION OF PROJECT. (1 DAY)
- BEGIN DEMOLITION WORK. (3 DAYS)
- INSTALL STORM DRAIN SYSTEM. (1 WEEK)
- THE CONTRACTOR SHALL NOTIFY MR. GREG CONNOR AT GROUND SERVICES (410-313-2577) PRIOR TO FINE GRADING ANY AREAS ON THE SCHOOL SITE. FINE GRADE ALL AREAS. INSTALL PERMANENT SEEDING. (1 WEEK)
- OBTAIN PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR TO REMOVE ALL REMAINING SEDIMENT AND EROSION CONTROL DEVICES. THEN STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS WITH PERMANENT SEEDING. (1 DAY)

STRUCTURE SCHEDULE

STRUCTURE NO.	TOP ELEVATION	INV.IN	INV.OUT	COORDINATES	WIDTH	TYPE	REMARKS
I-1	283.68 (TOP) 282.99 (THROUGH) 282.81 (THREAT)	278.20 (15")	278.10 (15")	N 538218.29 E 136603.95	2'-6"	6" INLET W/ 4 OPENINGS	D-4.10
I-2	281.80 (TOP) 281.80 (THROUGH) 281.80 (THREAT)	-	278.47 (15")	N 538195.90 E 1366052.93	2'-6"	6" INLET W/ 4 OPENINGS	D-4.10

NOTES:
1. TOP ELEVATION AND COORDINATES FOR '0' INLET ARE LOCATED AT CENTER OF GRATE.

BENCH MARK INFORMATION

TRAVERSE STATION 7007 REBAR AND CAP SET	ELEV. = 292.07
TRAVERSE STATION 7008 REBAR AND CAP SET	ELEV. = 294.29

NOTE: THE PURPOSE OF THIS PLAN IS TO ADD THE STORM DRAIN SYSTEM AND ASSOCIATED GRADING.

NOTE: ABSOLUTELY NO CONSTRUCTION TRAFFIC WILL BE PERMITTED TO ENTER OR EXIT THE SITE DURING HEAVY PEDESTRIAN TRAFFIC HOURS. TIMES WILL BE DETERMINED BY HOWARD COUNTY PUBLIC SCHOOL SYSTEM.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONTINENTAL SOURCE OFFICE, SUITE 100 - 17072 BALTIMORE NATIONAL PLACE
ELKTON CITY, MARYLAND 21924
(410) 461-2899

ENGINEER'S CERTIFICATE

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

Signature of Engineer: *Charles J. Cravo, Sr., P.E.*
Date: 6/22/16

DEVELOPER'S CERTIFICATE

"I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 13204, Expiration Date: November 3, 2016."

Signature of Developer: *John R. Blanton*
Date: 6/22/16

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director: *Walter J. ...* Date: 6-30-16
Chief, Division of Land Development: *...* Date: 6-30-16
Chief, Development Engineering Division: *...* Date: 6-29-16

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
P. 25	9151 VOLLMERHAUSEN ROAD (PATUXENT) JESSUP, MARYLAND 20794

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
PATUXENT VALLEY MIDDLE SCHOOL	N/A	P. 25
PLAT# OR L/F	GRID#	ZONING
749/399	5	R-20
TAX MAP#	ELECT. DISTR.	CENSUS TRACT
47	SIXTH	6064

DRAINAGE IMPROVEMENTS NEAR S.W.M.F.

"REVISED SITE DEVELOPMENT PLAN" PATUXENT VALLEY MIDDLE SCHOOL
ZONED R-20 TAX MAP No.: 47 GRID No.: 5 PARCEL No.: 25
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: MAY 25, 2016
SHEET 28 OF 28