

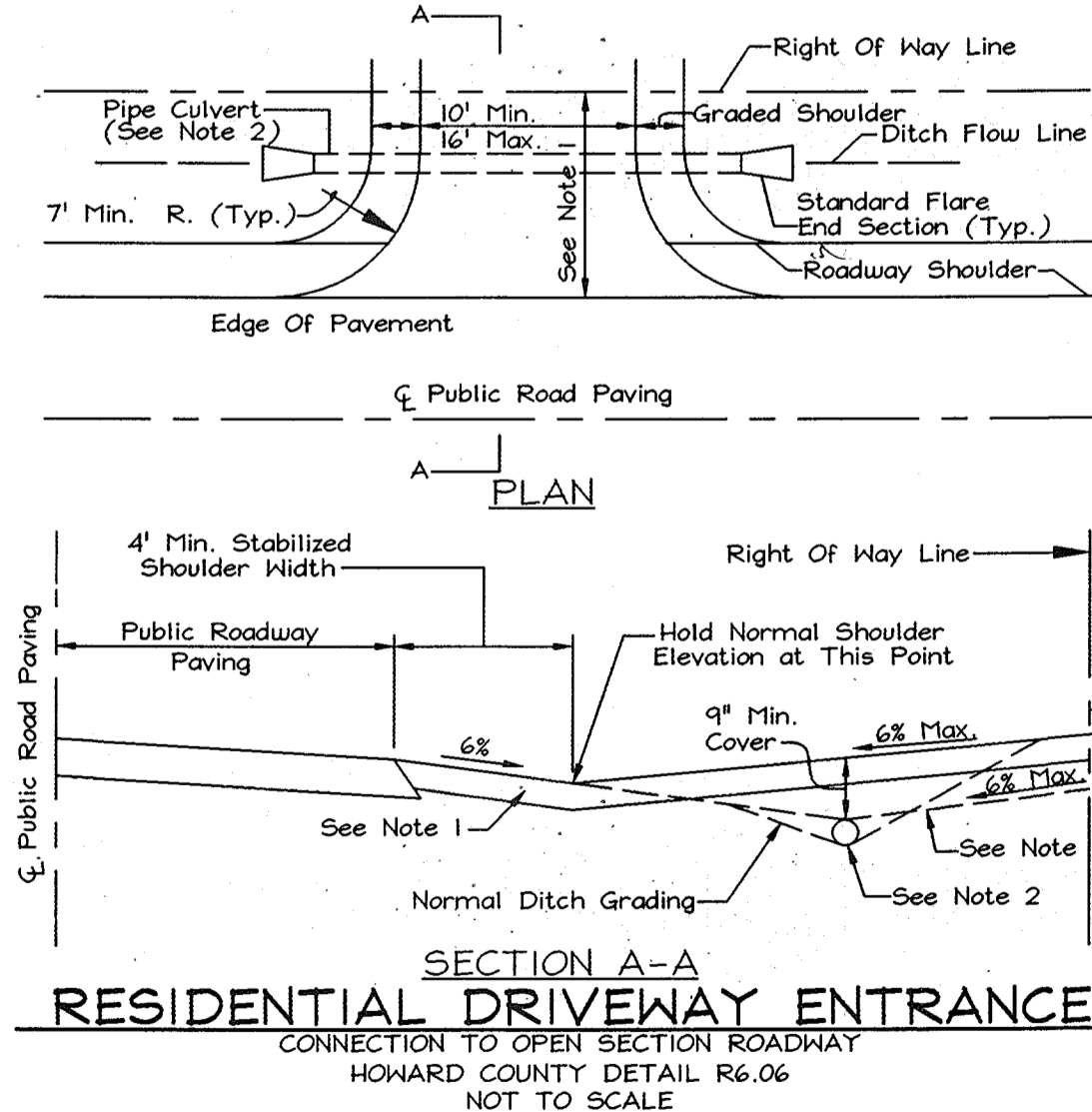
CURVE #	ROAD STATIONS	DELTA	RADIUS	ARC LENGTH
C-1	4+93.46 to 6+76.72 - Lorenzo Lane	70°00'00"	150.00'	183.26'
C-2	7+40.12 to 9+23.38 - Lorenzo Lane	70°00'00"	150.00'	183.26'
C-3	10+54.47 to 11+76.64 - Lorenzo Lane	70°00'00"	100.00'	122.17'
C-4	14+56.96 to 15+79.13 - Lorenzo Lane	70°00'00"	100.00'	122.17'
C-5	16+80.54 to 17+59.19 - Lorenzo Lane	45°00'00"	100.00'	78.54'
C-6	1+27.02 to 3+10.28 - Eleanors Garden Way	70°00'00"	150.00'	183.26'
C-7	4+26.89 to 6+10.15 - Eleanors Garden Way	70°00'00"	150.00'	183.26'
C-8	10+25.96 to 11+78.68 - Eleanors Garden Way	70°00'00"	125.00'	152.72'
C-9	11+92.31 to 12+75.23 - Eleanors Garden Way	47°30'35"	100.00'	82.92'
C-10	14+35.08 to 15+13.62 - Eleanors Garden Way	45°00'00"	100.00'	78.54'

ROAD NAME	CLASSIFICATION	R/W
Cliff View Road	Minor Collector	50'
Lorenzo Lane	Public Access Place	40'
Eleanors Garden Way	Public Access Place	40'
Hillis Way	Public Access Place	40'

DESCRIPTION	SHEET No.
Cover Sheet	1 of 21
Road Plan and Profile	2 of 21
Road Plan and Profiles	3 of 21
Road Plan and Profiles	4 of 21
Road Plan and Profiles	5 of 21
Sediment & Erosion Control and Grading Plan	6 of 21
Sediment & Erosion Control and Grading Plan	7 of 21
Sediment & Erosion Control and Grading Plan	8 of 21
Sediment & Erosion Control and Grading Plan	9 of 21
Sediment & Erosion Control Notes and Details	10 of 21
Traffic Control Plan and Details	11 of 21
Storm Drain Drainage Area Map	12 of 21
Storm Drain Profiles	13 of 21
Storm Drain Profiles	14 of 21
Stormwater Management Notes and Details	15 of 21
Stormwater Management Notes and Details	16 of 21
Landscape Plan	17 of 21
Landscape Plan, Notes and Details	18 of 21
Forest Conservation Plan	19 of 21
Forest Conservation Plan, Notes and Details	20 of 21
Stormwater Management Funds Planting Plan	21 of 21

STREET NAME	STATION	OFFSET	FIXTURE
Cliff View Road	0+33	25' Right	250-Watt 30' pole with 12' arm
Lorenzo Lane	0+00	13' Right	250-Watt 30' pole with 12' arm

- General Notes continued...
- Financial Surety for the required perimeter landscaping shall be posted as part of the Developer's Agreement in the amount of \$38,950.00 (75 shade trees @ \$300.00 each and 109 evergreen trees @ \$150.00 each).
 - Financial Surety for the required Street Trees shall be posted as part of the Developer's Agreement in the amount of \$1,800.00 (206 street shade trees @ \$300.00 each).
 - Forest conservation is fulfilled by retention of 37,800 ac. surety in the amount of \$324,313.60 will be part of the developer's agreement.
 - Stormwater Management Facilities No. 1 and No. 3 are extended detention micropool facilities which are privately owned and are within private easements. storm drain system from S-2 to I-11 is privately owned, all remaining storm drain systems are publicly owned and maintained.
 - All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
 - Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
 - For private driveway culverts for each lot, see detail this sheet.
 - The coordinates shown herein are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monuments No. 131C and No. 131D were used for this project.



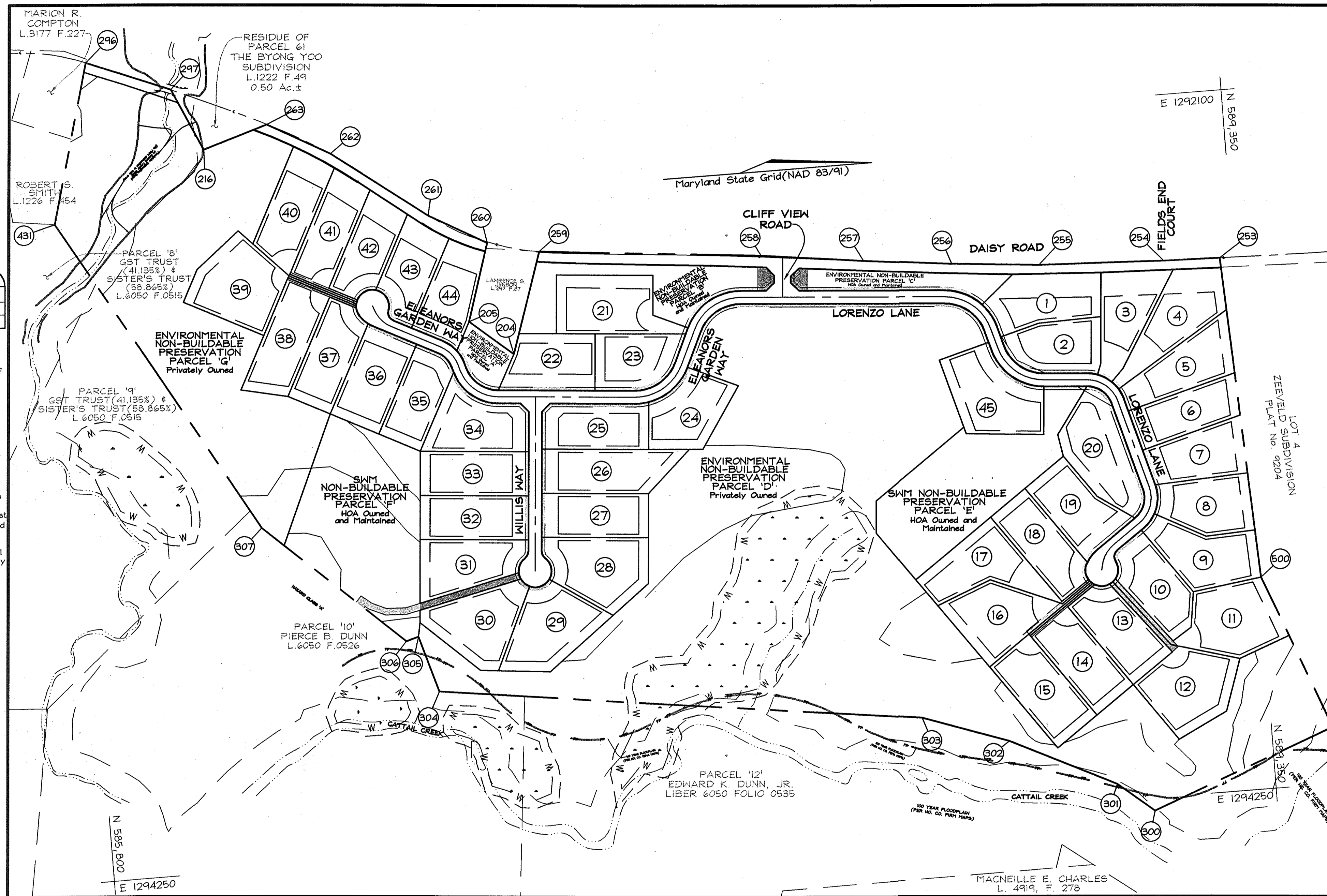
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamata 7/9/03
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William J. Mahala 6-27-03
 CHIEF, BUREAU OF HIGHWAYS
 DATE

FINAL ROAD CONSTRUCTION PLANS

WATERFORD FARMS

LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'

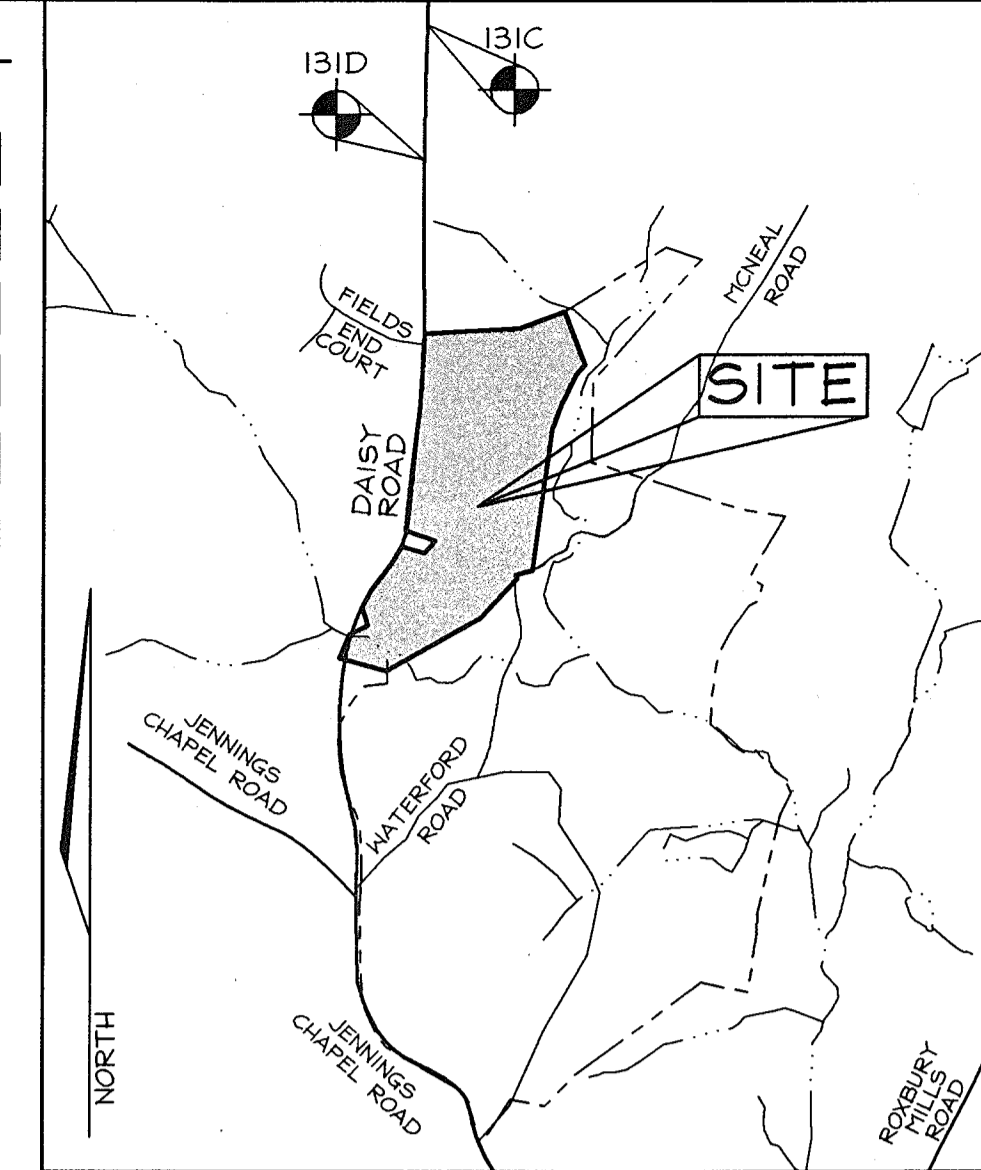


LOCATION MAP
 SCALE: 1"=200'

- NOTES:
- Driveway must be paved from edge of public road to right of way line using standard paving section P-1 as shown on Std. No. or alternate section equal to or better than P-1, as approved by D.F.W.
 - Drainage culvert shall be sized for a 10 year frequency storm and the minimum size shall be 12" dia. round or 14" x 9" arch pipe if larger pipe is required, ditch invert shall be lowered to provide min. ditch gradient of 0.5% and clearance shown.
 - Swale flow may be provided over driveway located at or near the crest of vertical curves on the public road where quantity of flow is small, as approved by D.F.W.
 - Tie-in grade of private driveway shall not exceed 14%.
- DRIVEWAY CULVERT REQUIREMENTS
 Lot 1, 2 and 4 - 45 : 12" CMP or equivalent
 Lot 3 : 15" CMP or equivalent

LEGEND

- EXISTING CONTOURS - - - - - 552
- PROPOSED HOUSE SITE [Symbol]
- PROPOSED SEPTIC AREA [Symbol]
- PROPOSED WELL AREA [Symbol]
- 15-24.9% SLOPES [Symbol]
- 25% AND GREATER SLOPES [Symbol]
- WETLANDS [Symbol]



VICINITY MAP
 SCALE: 1"=200'

BENCHMARKS

- Sta. 131C N 180,602.2091 E 393,997.4918 Elev. 166.6119 (meters)
 N 542,525.747 E 1,242,640.104 Elev. 546.626 (feet)
 Sta. 131D N 180,175.3620 E 393,985.0317 Elev. 162.8381 (meters)
 N 541,125.3333 E 1,242,599.224 Elev. 534.245 (feet)

GENERAL NOTES

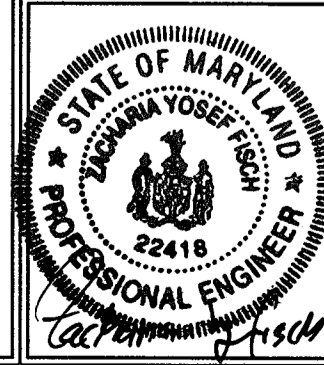
- Subject property zoned "RC DEO" per 9/18/92 comprehensive zoning plan.
- Private water and sewer to be utilized.
- Soils map no. 12.
- Gross area of site subject to subdivision: 110.50 ac.±
- Total area of flood plain: 2.09 ac.± (excluding overlapping steep slope areas).
- Total area of steep slopes: 15.42 ac.± (includes overlapping flood plain areas)
- Net area of site subject to subdivision: 92.99 ac.±
- Area of proposed public r/w: 6.24 ac.±
- Number of proposed lots: 45
- Area of proposed buildable lots: 50.15 ac.±
- Number of proposed non-buildable preservation parcels: 7
- Area of proposed non-buildable preservation parcels: 54.07 ac.±
- Topography is based on an aerial topographic survey performed by Harford Aerial Surveys, Inc. on February 2, 2001 and field run topography by C.B. Miller & Associates on December 2002.
- A.P.F.O. traffic study prepared by Street Traffic Studies, I.T.D. and approved under S-01-33.
- Operating speed study along Daisy Road prepared by Street Traffic Studies, I.T.D.
- Wetlands delineation and report and forest stand delineation and report prepared by Exploration Research Inc. approved under S-01-33.
- There are no historic structures or cemeteries on-site within the limits of the subdivision boundary (110.50 acres±).
- a. Open space requirements: 110.50 acres x 5% = 5.60 ac.±
 b. Open space provided: non-buildable preservation parcels, that are proposed to be owned and maintained by the H.O.A., will fulfill the open space requirements.
- In accordance with sections 16.115.d and 16.116.4, non-critical flood plains and wetlands need not be delineated in a rural cluster subdivision. The wetlands and flood plain are shown on this plan for the purpose of determining forest conservation obligations and density. The flood plain shown is based on a study performed by Howard County as shown on sheets GC-0119-T-33-31, GC-0119-T-32-31, and GC-0119-T-32-30 and FEMA maps.
- Field run boundary survey prepared by C.B. Miller and Associates in February 2001.
- Groundwater appropriation permit no. H02002G005 (01) has been issued.
- This plan is subject to the Fourth Edition of the Subdivision Regulations (S-01-33 was submitted prior to 11-15-2001) and to Council Bill SB-2001 which amends portions of the Zoning Regulations.
- a. Preservation parcels 'E' and 'F' are H.O.A. owned with Howard County as easement holder.
 b. Preservation parcels 'A' 'B' 'C' 'D' and 'G' are privately owned with Howard County and H.O.A. as easement holders.
- This area designates a private sewage easement of at least 10,000 sf as required by the Md. Department of the Environment for individual sewage disposal (Comar 26.04.03). Improvements of any nature in this area are restricted until public sewage is available. These easements shall become null and void upon connection to a public sewage system. The county health officer shall have the authority to grant adjustments to the private sewage easement. Recordation of a modified sewage easement shall not be necessary.
- The lots shown herein comply with the minimum ownership width and lot area as required by the Maryland Department of the Environment.
- The contractor shall notify the following utility companies or agencies at least five (5) working days before starting work shown on these plans:
 State Highway Administration 410.531.5533
 BGE (contractor services) 410.250.4620
 BGE (underground damage control) 410.787.9068
 Miss Utility 1.800.257.7777
 Calmar Pipeline Company 410.795.1330
 Howard County, Dept. of Public Works, Bureau of Utilities 410.315.4900
 Howard County Health Department 410.315.2640
- The contractor shall notify Miss Utility at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
- The contractor shall notify the Department of Public Works/Bureau of Engineering Construction Inspection Division at (410) 315-1880 at least five (5) working days prior the start of work. All fills for public road surfaces require 95% compaction (AASHTO-T-180).

General Notes continued (this sheet)...

COVER SHEET

WATERFORD FARMS
 LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'

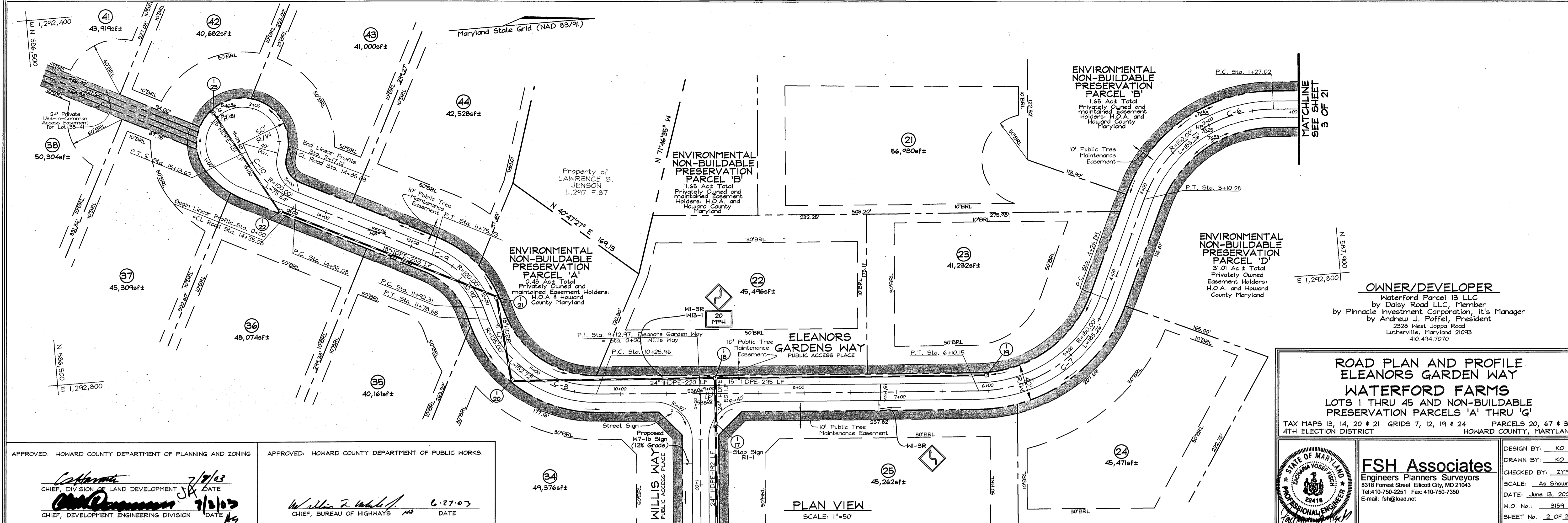
TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312
 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



FSH Associates
 Engineers Planners Surveyors
 8318 Forrest Street Elkton City, MD 21043
 Tel: 410-750-2251 Fax: 410-750-7350
 E-mail: fsh@load.net

DESIGN BY: KO
 DRAWN BY: KO
 CHECKED BY: ZYF
 SCALE: As Shown
 DATE: June 13, 2003
 H.O. No.: 3159
 SHEET No. 1 OF 21

OWNER/DEVELOPER
 Waterford Parcel 13 LLC
 by Daisy Road LLC, Member
 by Pinnacle Investment Corporation, It's Manager
 by Andrew J. Poffel, President
 2328 West Joppa Road
 Lutherville, Maryland 21093
 410.494.7070

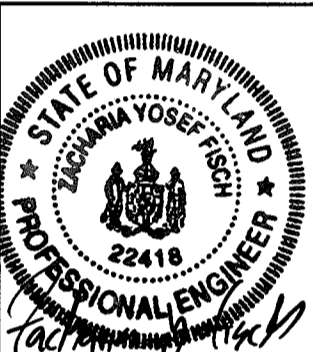


MATCHLINE SEE SHEET 5 OF 21

MATCHLINE SEE SHEET 3 OF 21

OWNER/DEVELOPER
Waterford Parcel 13 LLC
by Daisy Road LLC, Member
by Pinnacle Investment Corporation, It's Manager
by Andrew J. Poffel, President
2328 West Joppa Road
Lutherville, Maryland 21093
410.494.7070

ROAD PLAN AND PROFILE
ELEANORS GARDEN WAY
WATERFORD FARMS
LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'
TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

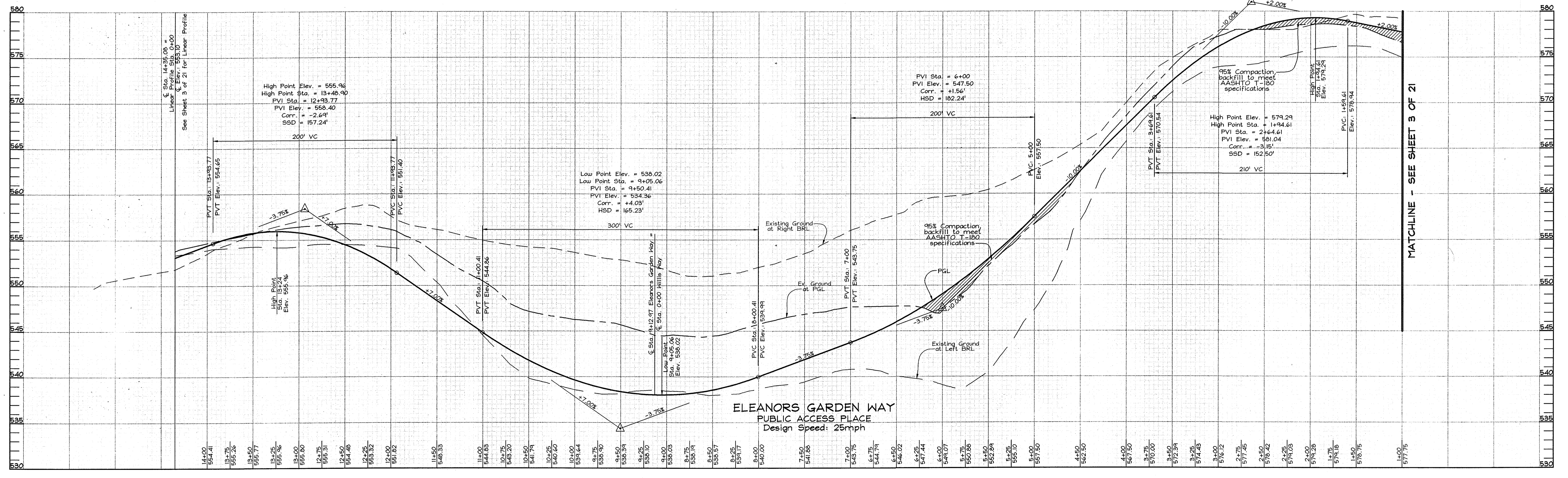


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8318 Forrest Street, Ellicott City, MD 21043
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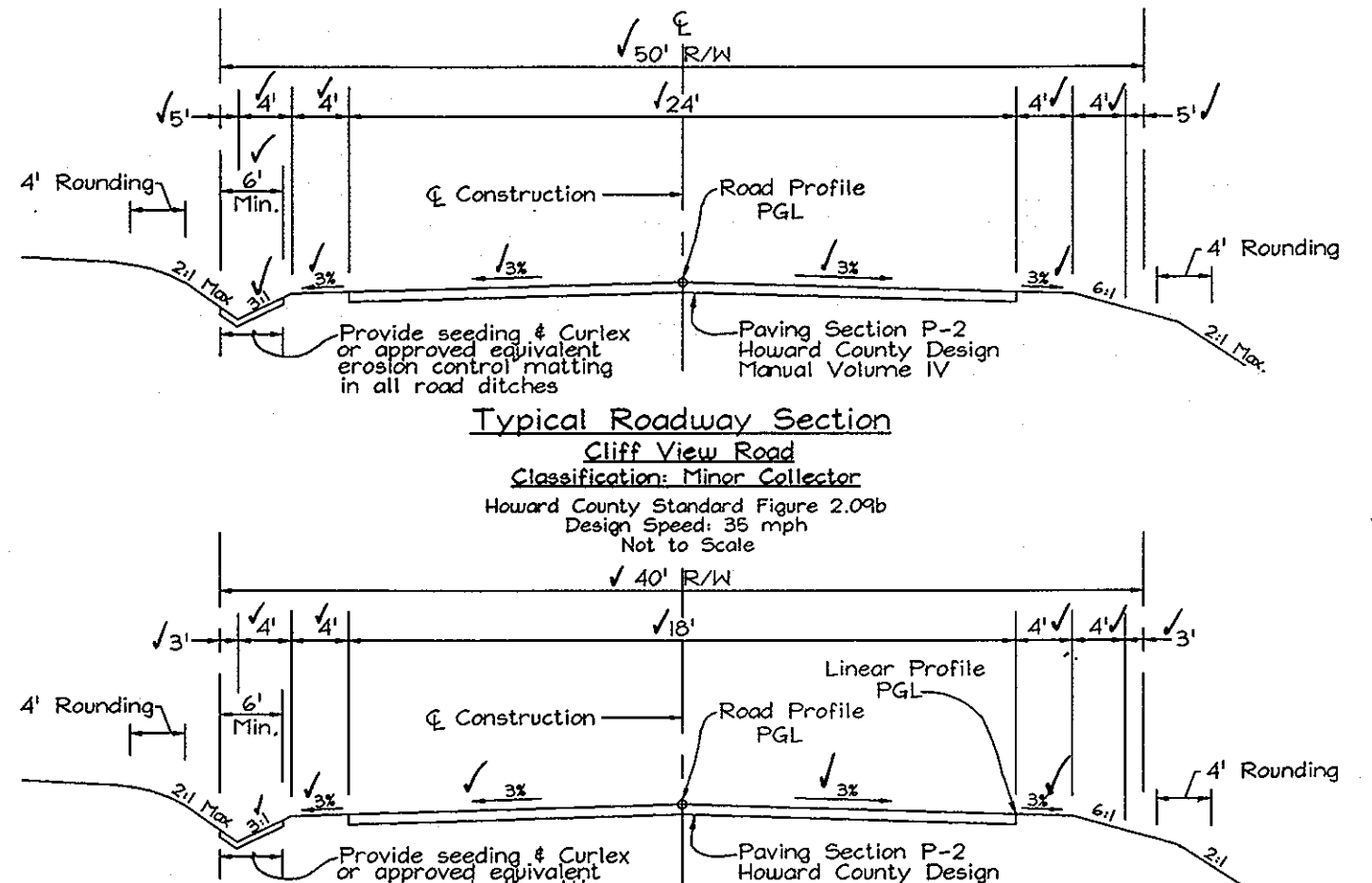
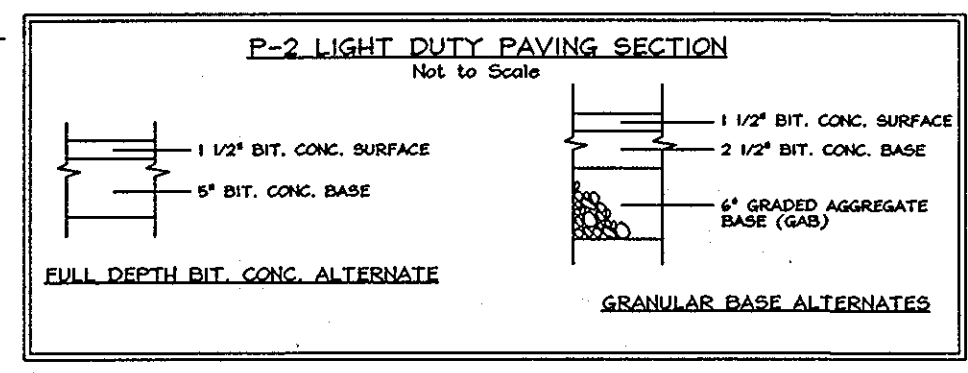
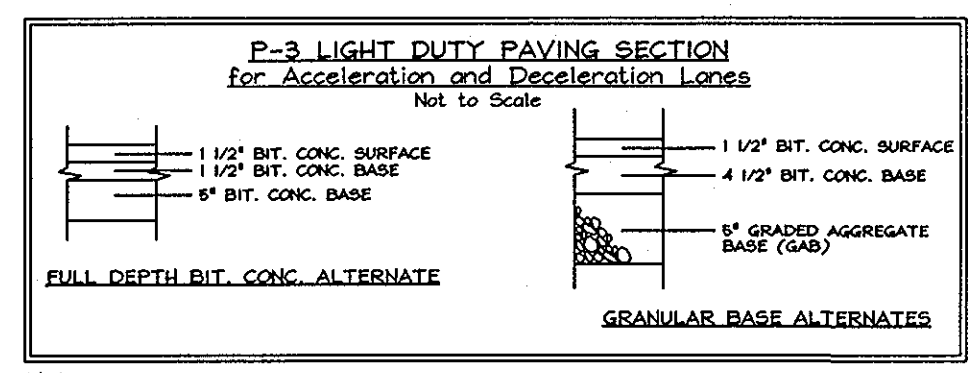
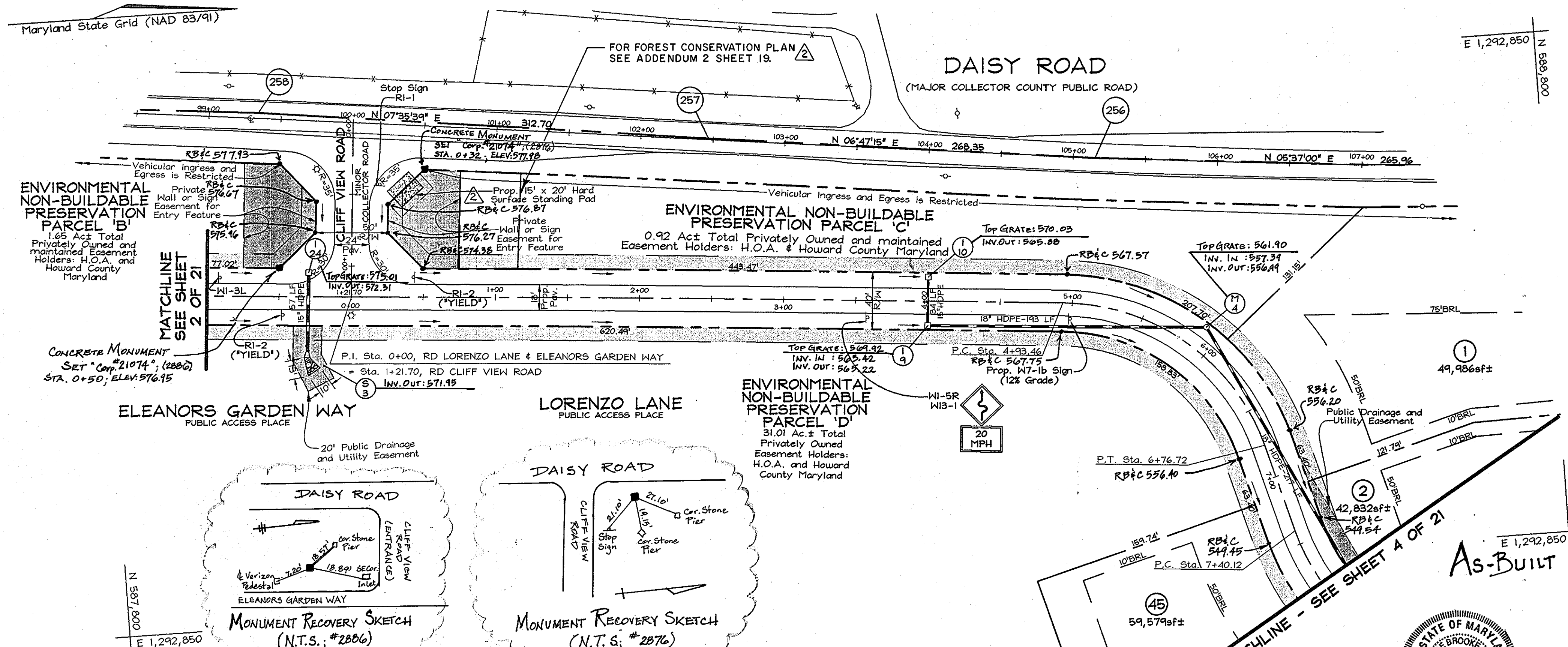
DESIGN BY: KO
DRAWN BY: KO
CHECKED BY: ZYF
SCALE: As Shown
DATE: June 13, 2003
W.O. No.: 3159
SHEET No. 2 OF 21

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 7/10/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
[Signature] 6-27-03
CHIEF, BUREAU OF HIGHWAYS DATE



MATCHLINE - SEE SHEET 3 OF 21



Revised Forest Conservation Easement '1' 01/26/10

REVISIONS

ROAD PLAN AND PROFILES
CLIFF VIEW ROAD, PARTS OF
LORENZO LANE & ELEANORS GARDEN WAY
WATERFORD FARMS
LOTS 1 THRU 45 AND NON-BUILDABLE
PRESERVATION PARCELS 'A' THRU 'G'

TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312
HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John Horvath 7/9/02
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Danner 2/1/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

William F. Mahan 6-27-03
CHIEF, BUREAU OF HIGHWAYS DATE

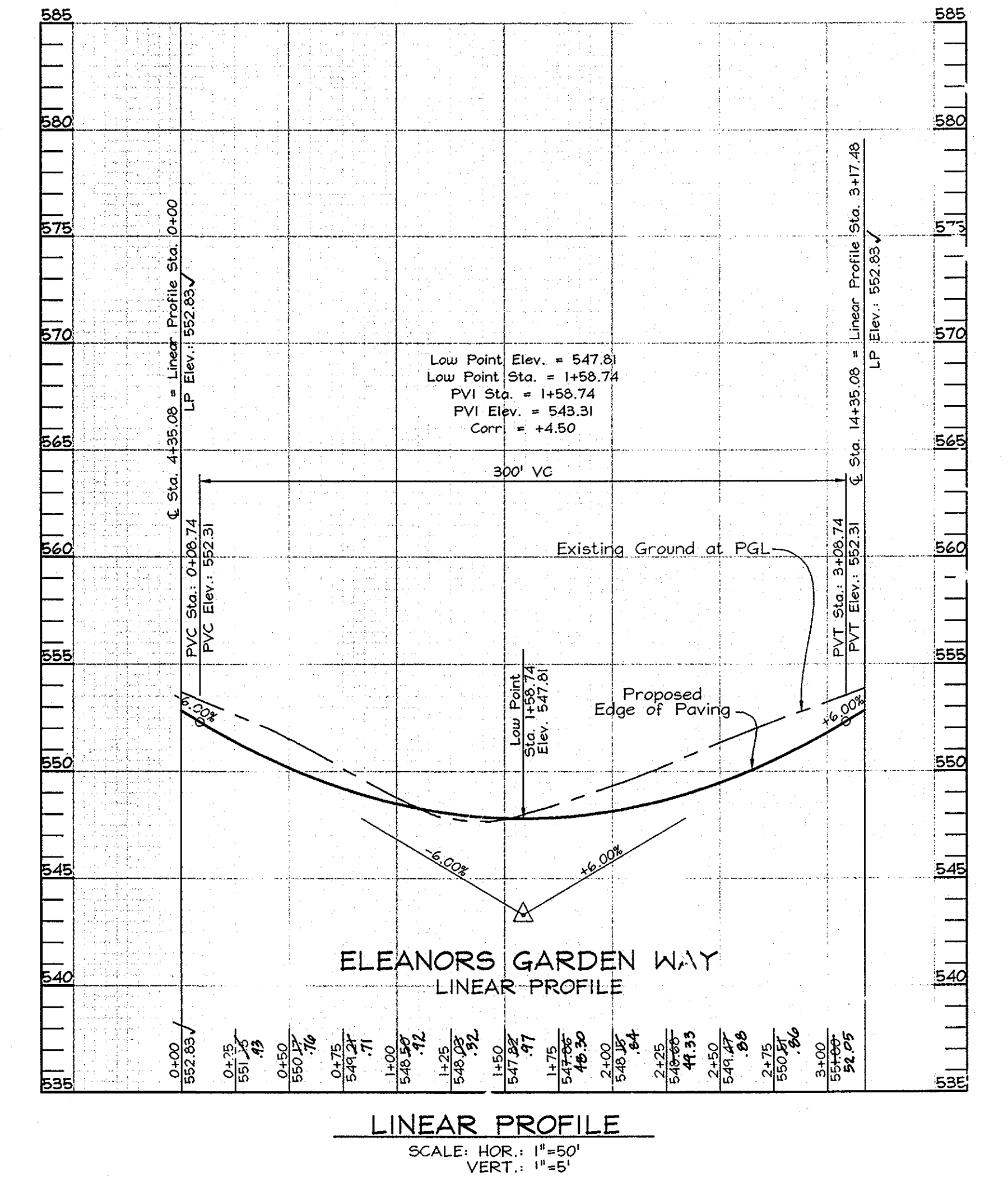
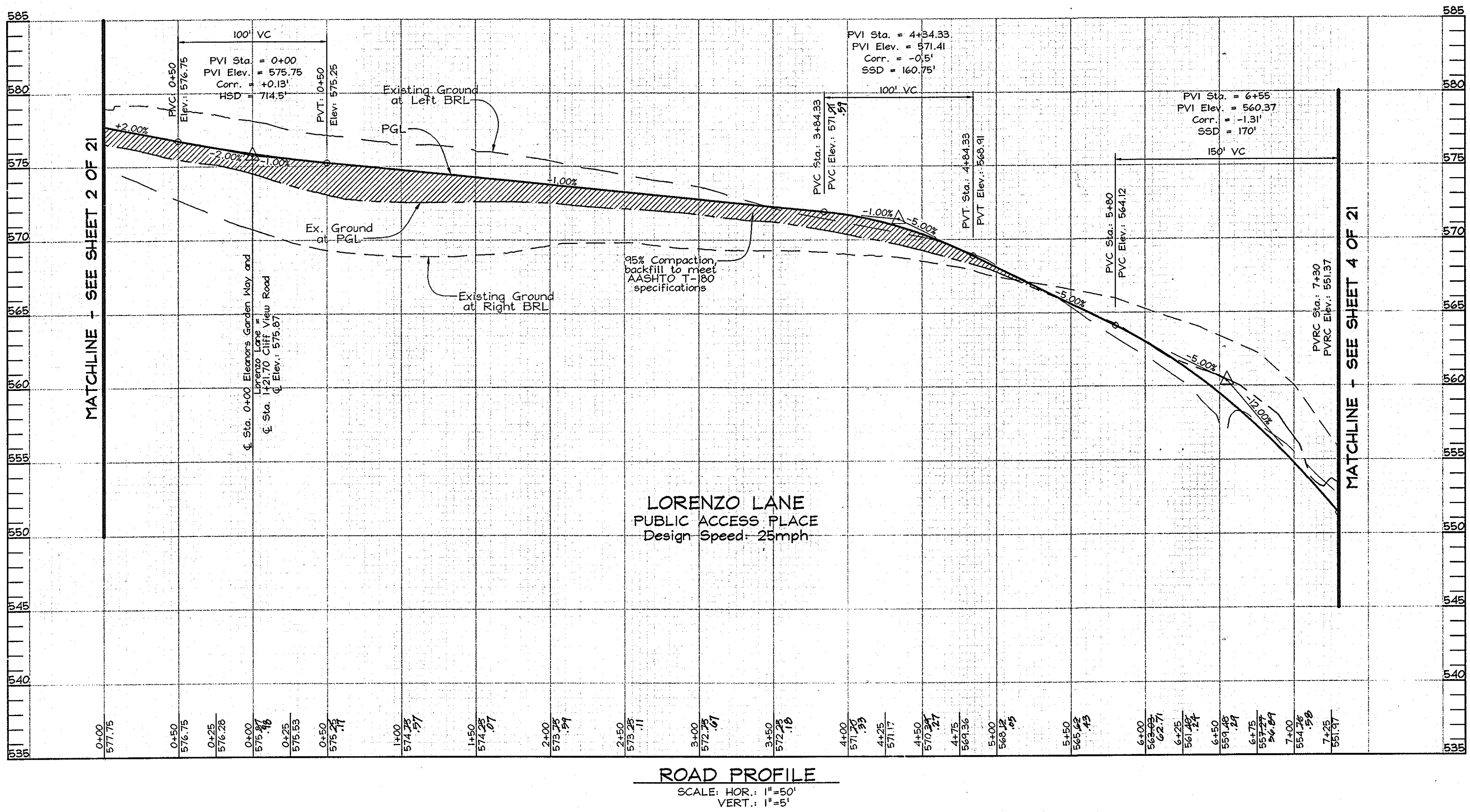
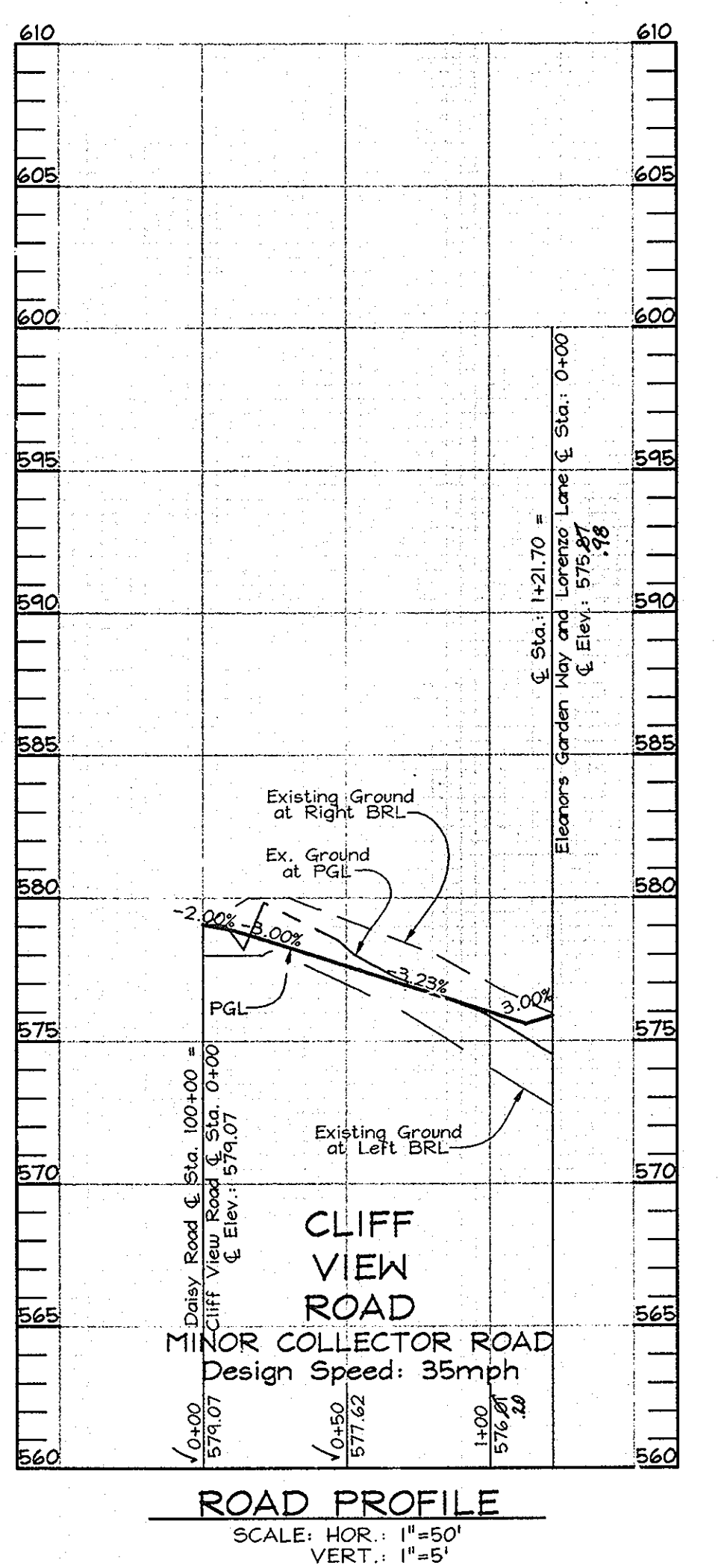
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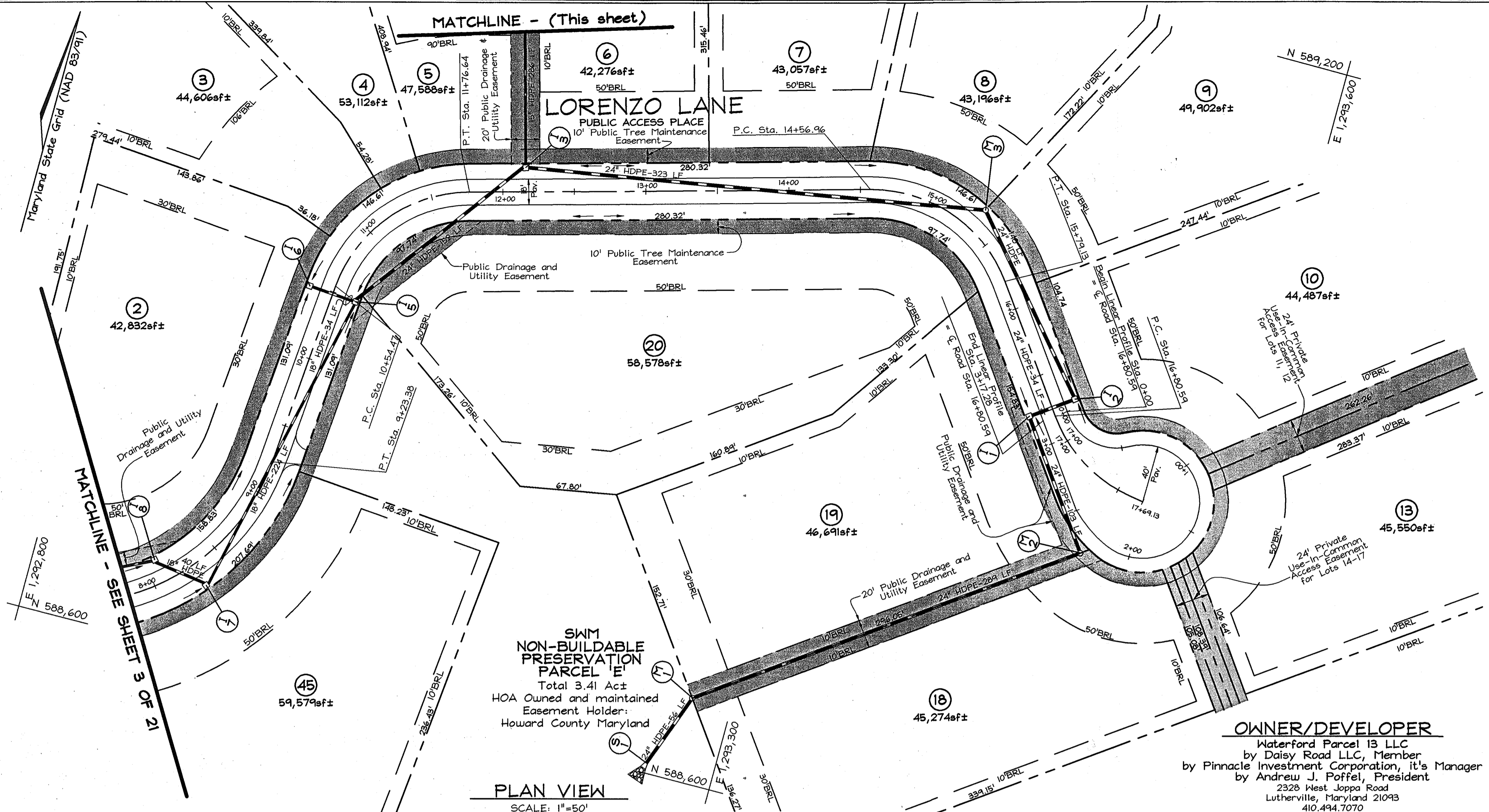
STATE OF MARYLAND
COUNTY OF HOWARD
C. BROOKE MILLER
PROP. L.S. #135
11-22-2005
DATE

OWNER/DEVELOPER
Waterford Parcel 13 LLC
by Daisy Road LLC, Member
by Pinnacle Investment Corporation, it's Manager
by Andrew J. Poffel, President
2328 West Joppa Road
Lutherville, Maryland 21093
410.474.7070

DESIGN BY: KO
DRAWN BY: KO
CHECKED BY: ZYF
SCALE: As Shown
DATE: June 13, 2005
W.O. No.: 3159
SHEET No. 3 OF 21

FSH Associates
Engineers Planners Surveyors
8318 Forest Street Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: fsh@load.net





ROAD PLAN AND PROFILES
LORENZO LANE

WATERFORD FARMS
LOTS 1 THRU 45 AND NON-BUILDABLE
PRESERVATION PARCELS 'A' THRU 'G'

TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

OWNER/DEVELOPER
Waterford Parcel 13 LLC
by Daisy Road LLC, Member
by Pinnacle Investment Corporation, it's Manager
by Andrew J. Poffel, President
2238 West Joppa Road
Lutherville, Maryland 21093
410.494.7070

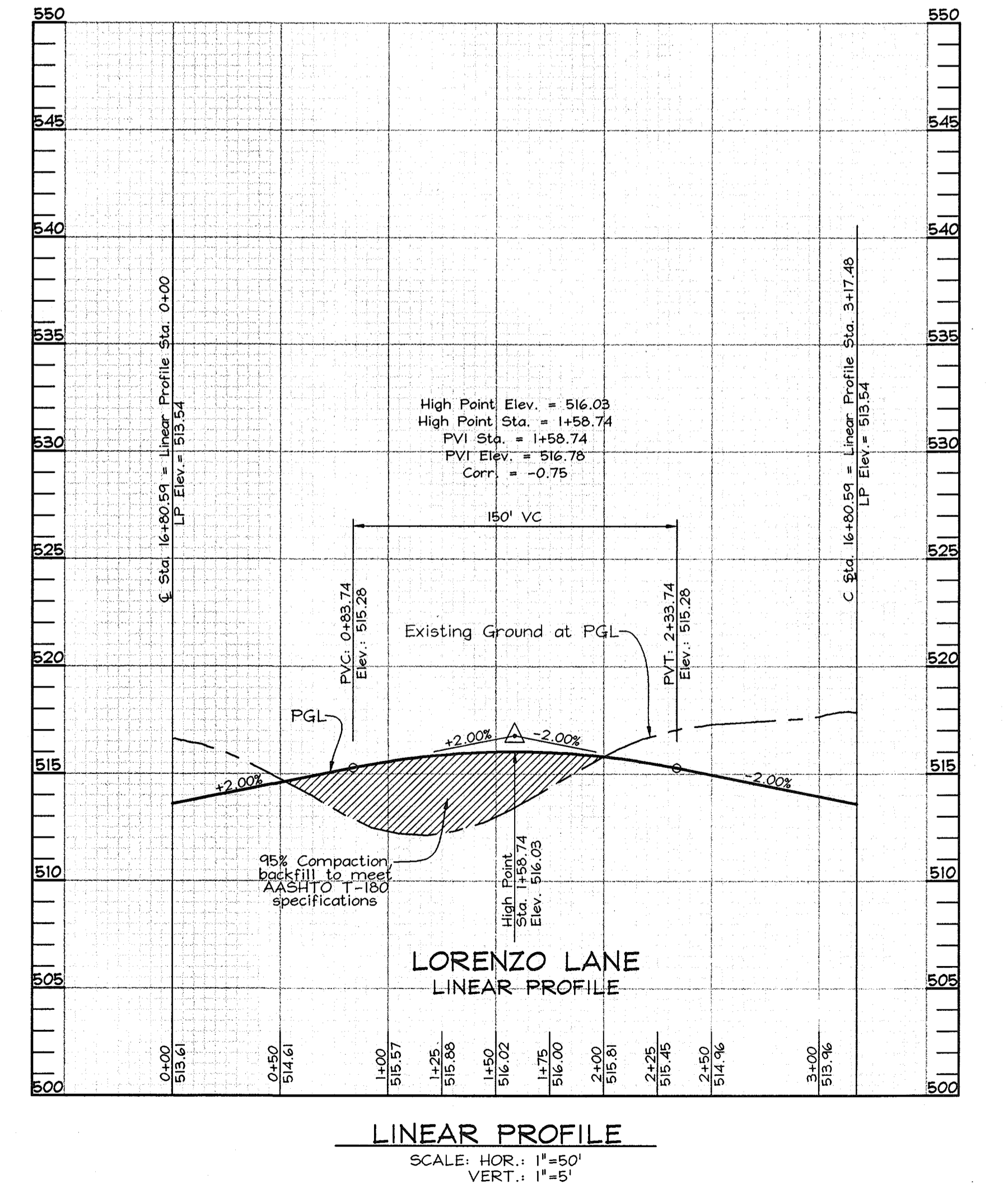
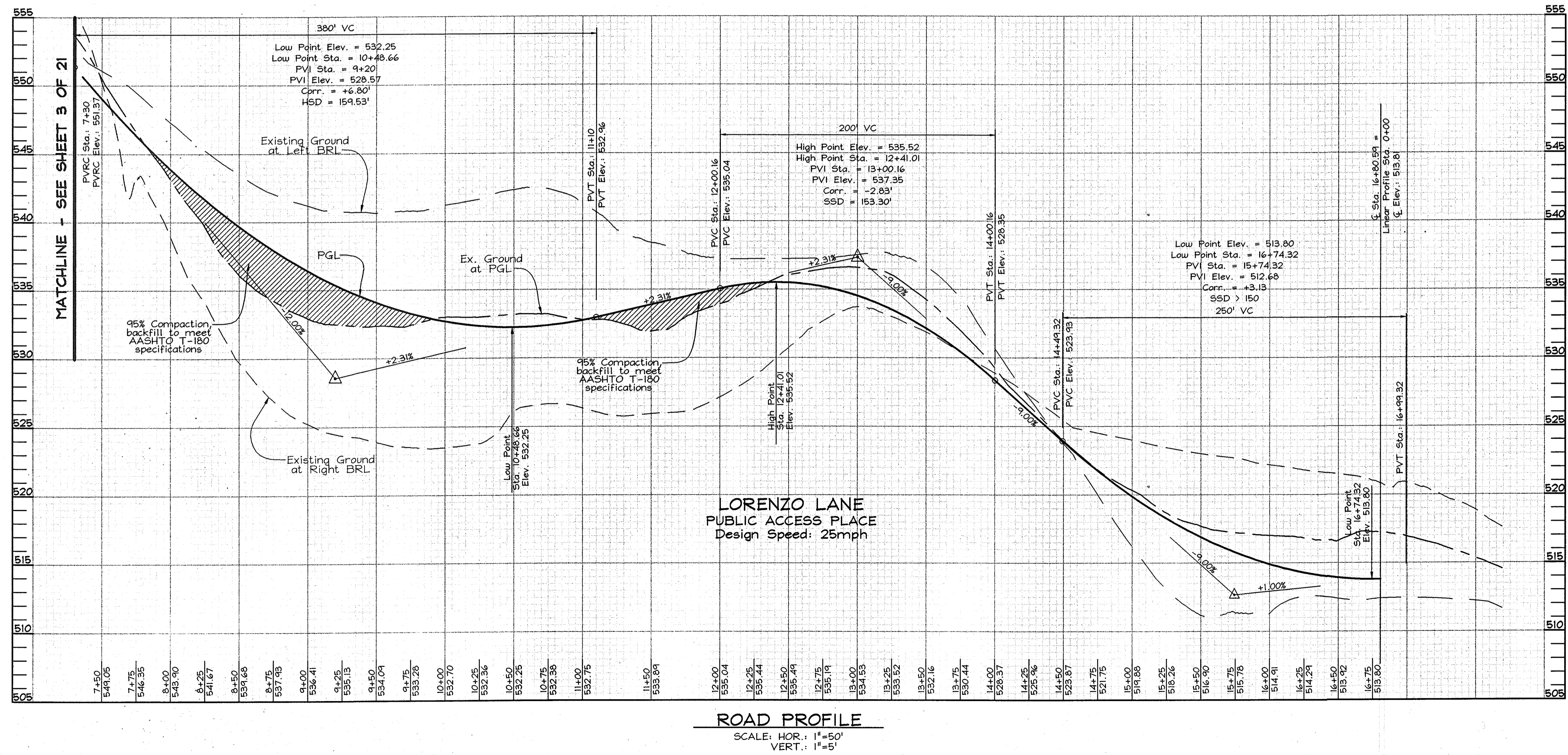
FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: fsh@road.net

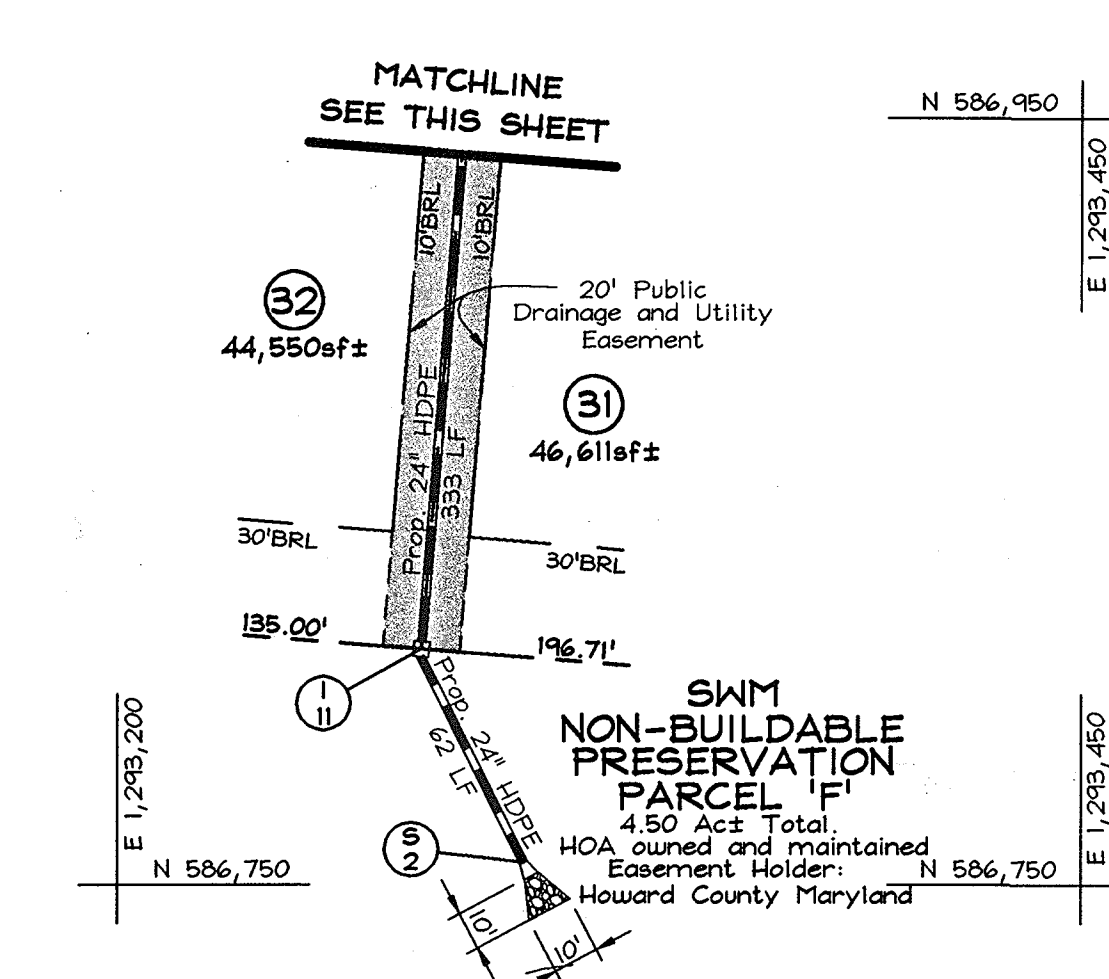
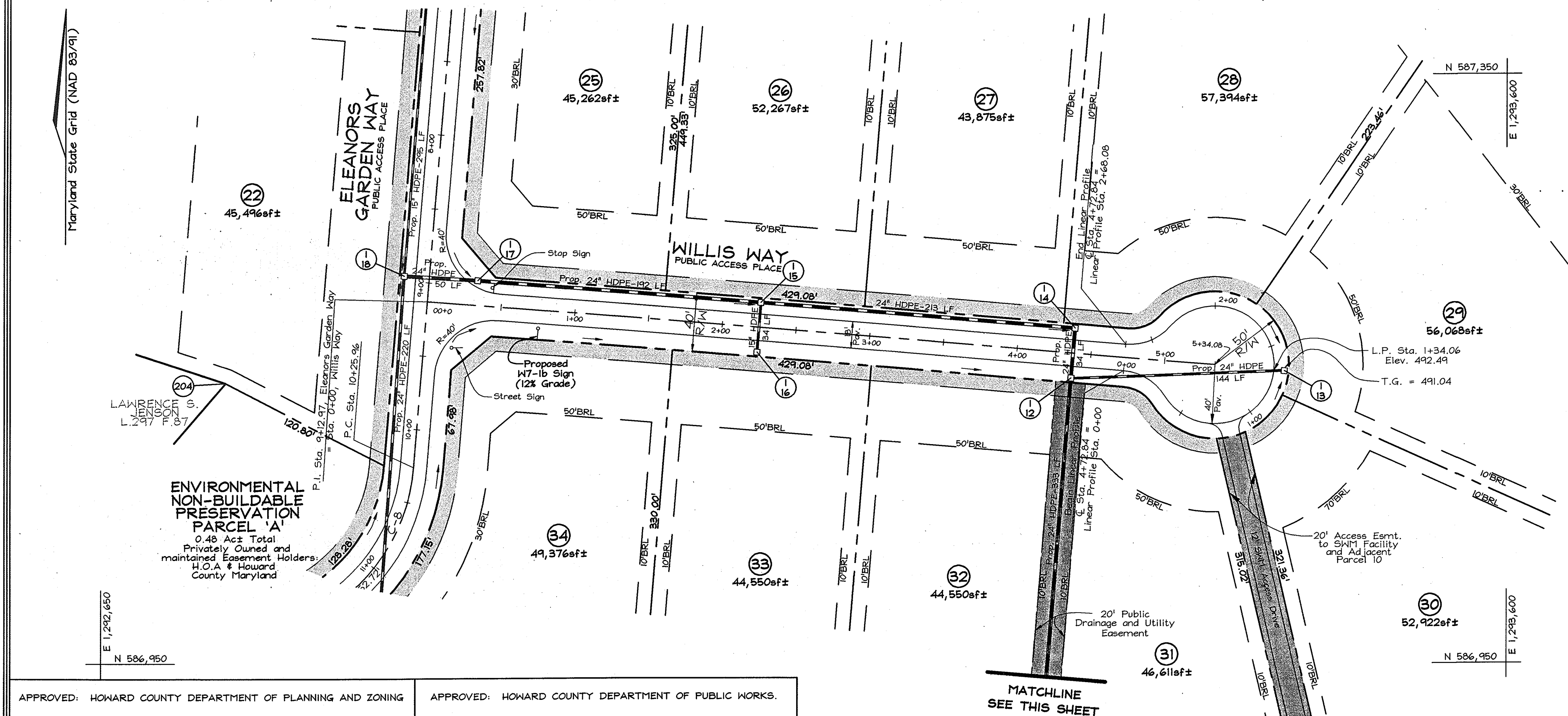
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DRAWN BY: KO
CHECKED BY: ZYF
SCALE: As Shown
DATE: June 13, 2003
I.O. No.: 3159
SHEET No. 4 OF 21

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
Walter T. Winkler 6-27-03
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamata 7/9/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chris Danner 7/16/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE





APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamata 7/9/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. White 6-27-03
 CHIEF, BUREAU OF HIGHWAYS MS DATE

PLAN VIEW
 SCALE: 1"=50'

OWNER/DEVELOPER
 Waterford Parcel 13 LLC
 by Daisy Road LLC, Member
 by Pinnacle Investment Corporation, it's Manager
 by Andrew J. Poffel, President
 2328 West Joppa Road
 Lutherville, Maryland 21093
 410.494.7070

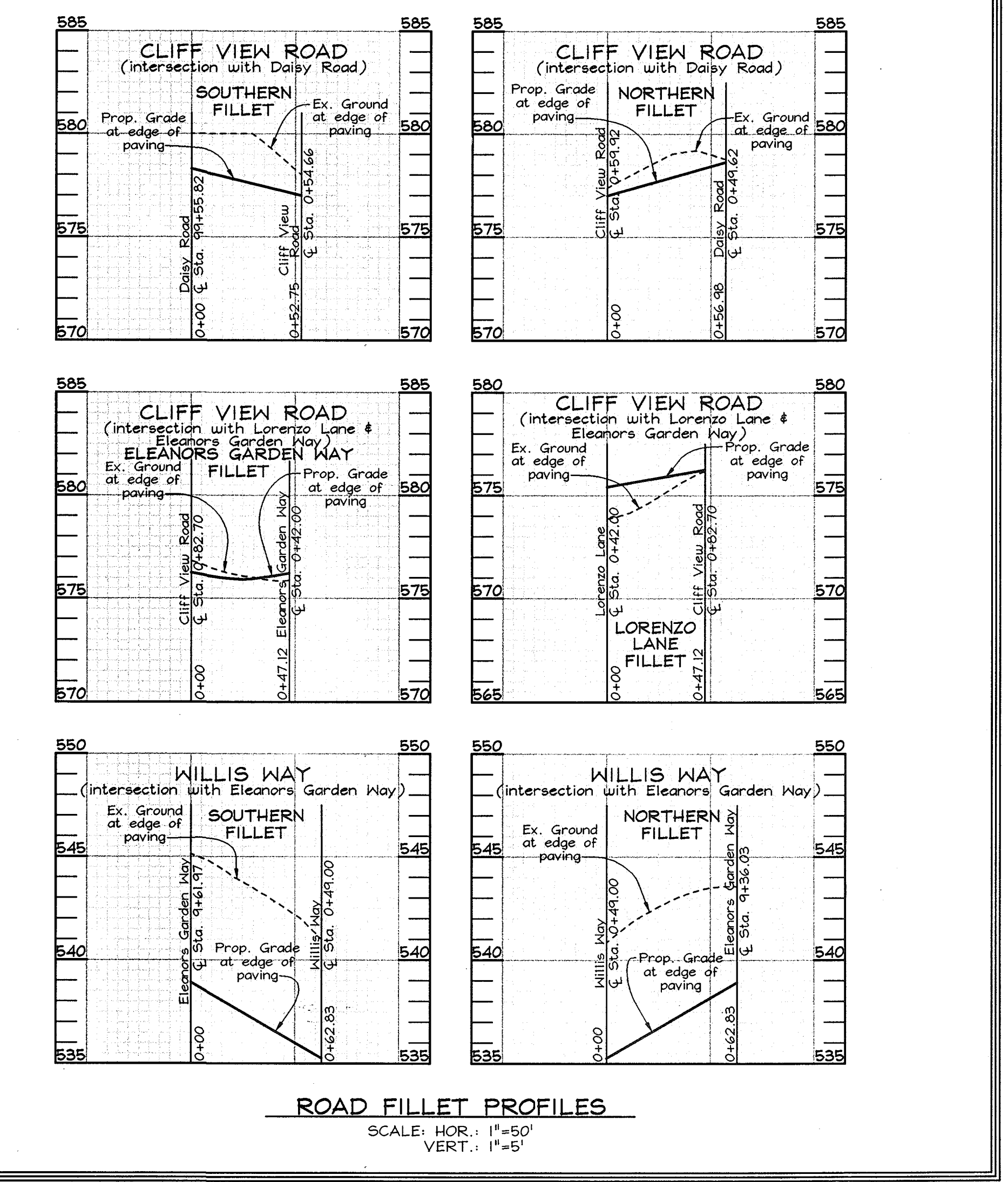
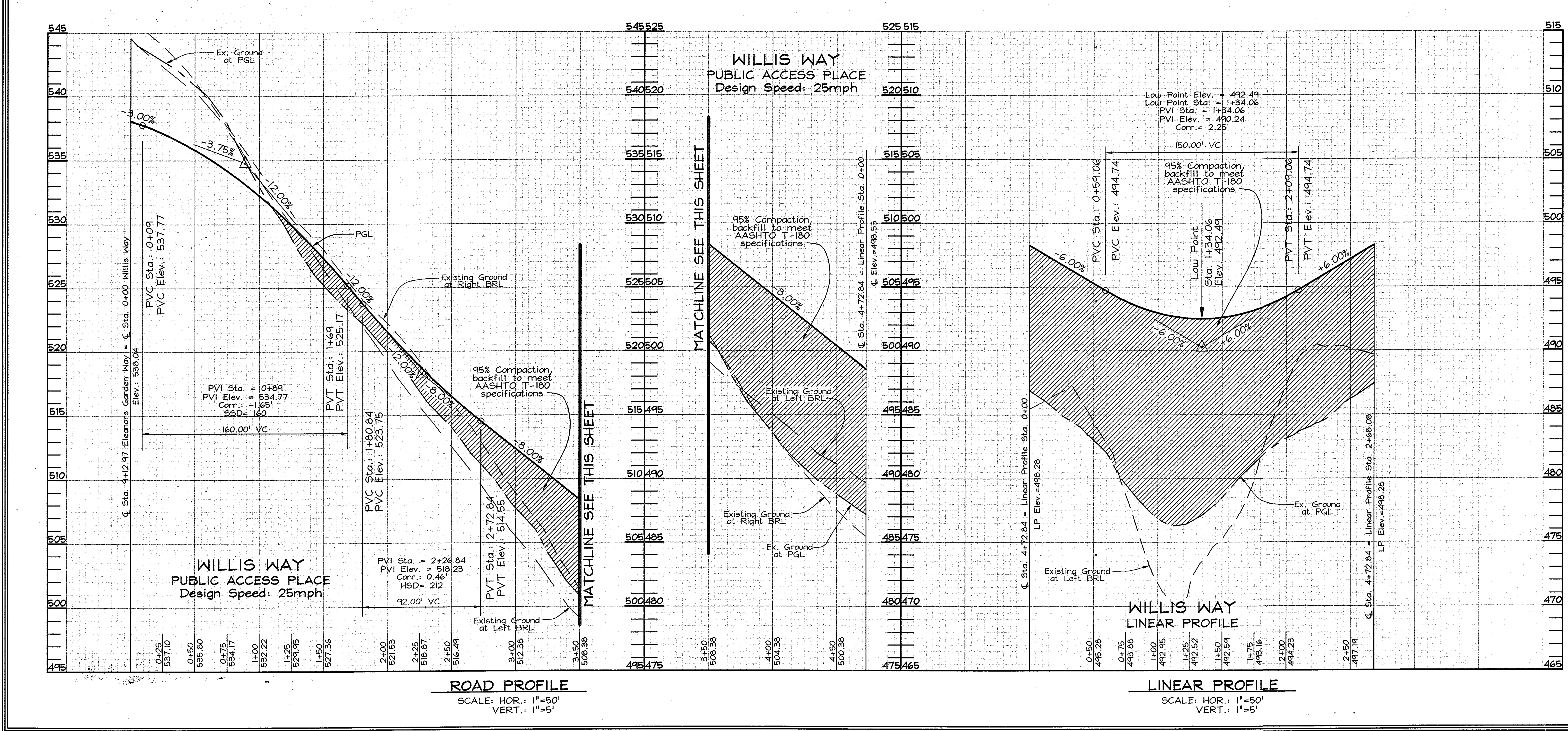
ROAD PLAN AND PROFILES
 WILLIS WAY

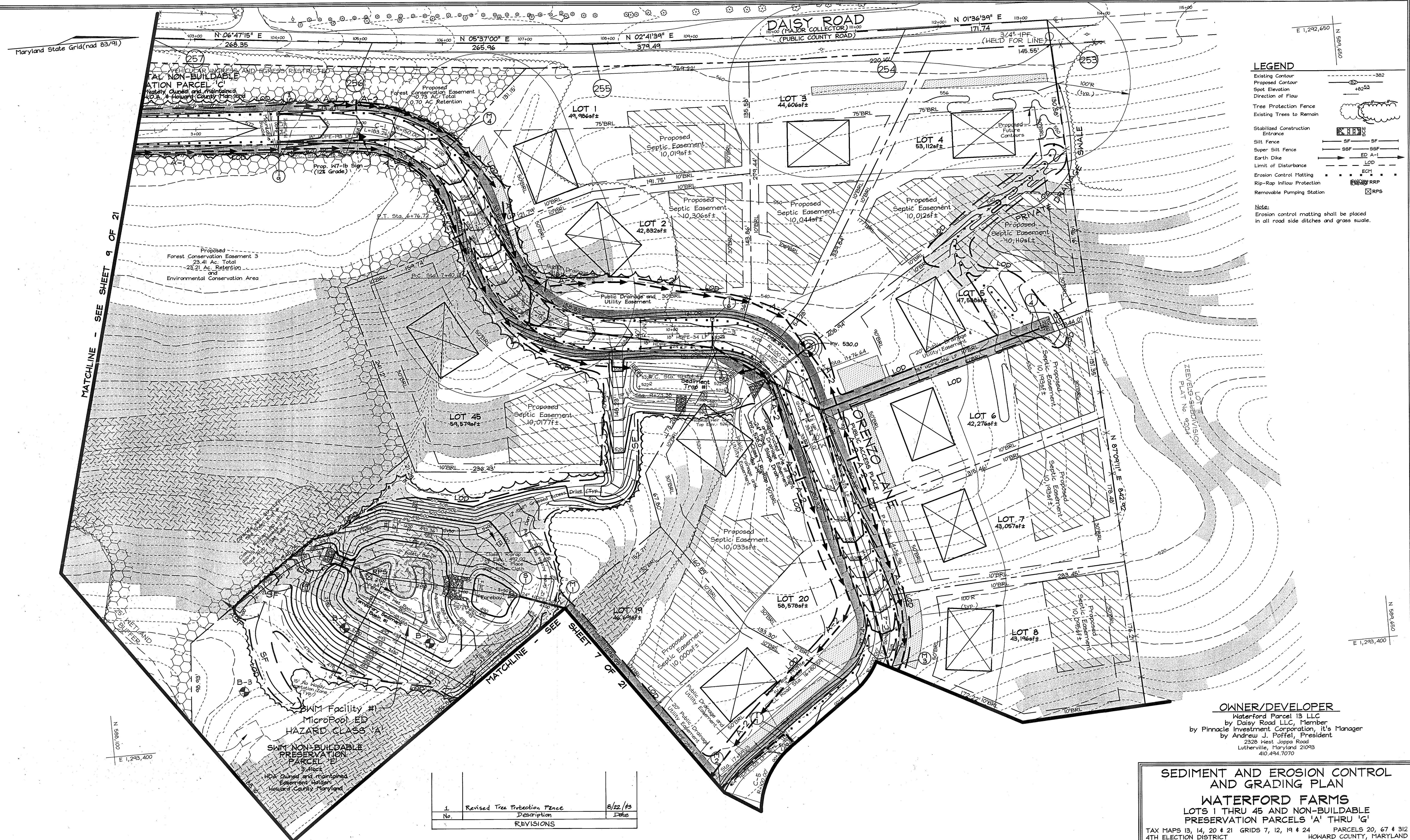
WATERFORD FARMS
 LOTS 1 THRU 45 AND NON-BUILDABLE
 PRESERVATION PARCELS 'A' THRU 'G'

TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312
 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FSH Associates
 Engineers Planners Surveyors
 8318 Forest Street Elkton City, MD 21043
 Tel: 410-750-2251 Fax: 410-750-7350
 E-mail: fsh@load.net

DESIGN BY: KO
 DRAWN BY: KO
 CHECKED BY: ZYF
 SCALE: As Shown
 DATE: June 13, 2003
 W.O. No.: 3159
 SHEET No. 5 OF 21





LEGEND

- Existing Contour
- Proposed Contour
- Spot Elevation
- Direction of Flow
- Tree Protection Fence
- Existing Trees to Remain
- Stabilized Construction Entrance
- Silt Fence
- Super Silt Fence
- Earth Dike
- Limit of Disturbance
- Erosion Control Matting
- Rip-Rap Inflow Protection
- Removable Pumping Station

Note:
Erosion control matting shall be placed in all road side ditches and grass swales.

MATCHLINE - SEE SHEET 9 OF 21

MATCHLINE - SEE SHEET 7 OF 21

OWNER/DEVELOPER
Waterford Parcel 13 LLC
by Daisy Road LLC, Member
by Pinnacle Investment Corporation, it's Manager
by Andreau J. Poffel, President
2328 West Joppa Road
Lutherville, Maryland 21093
410.494.7070

No.	Revised Tree Protection Fence Description	8/22/03 Date
1		

SEDIMENT AND EROSION CONTROL AND GRADING PLAN
WATERFORD FARMS
LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'
TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

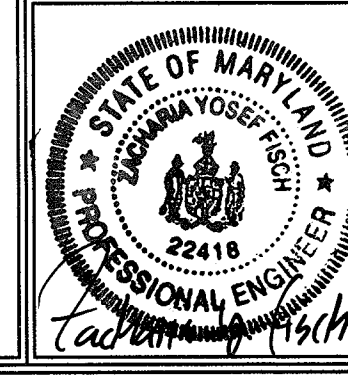
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cecilia Hamstra 7/9/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William J. ... 6-27-03
CHIEF BUREAU OF HIGHWAYS DATE

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."
Andreau J. Poffel PRESIDENT 6/12/03
SIGNATURE OF DEVELOPER DATE
PINNACLE INVESTMENT CORP.

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."
Zacharia Y. Fisch 6/12/03
SIGNATURE OF ENGINEER DATE
ZACHARIA Y. FISCH

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
John R. ... 6/20/03
DATE
STATE OF MARYLAND
NATURAL RESOURCES COMMISSION SERVICE
THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
John R. ... 6/20/03
DATE
HOWARD SOIL CONSERVATION DISTRICT



FSH Associates
Engineers Planners Surveyors
8318 Forest Street Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7359
E-mail: fsh@load.net

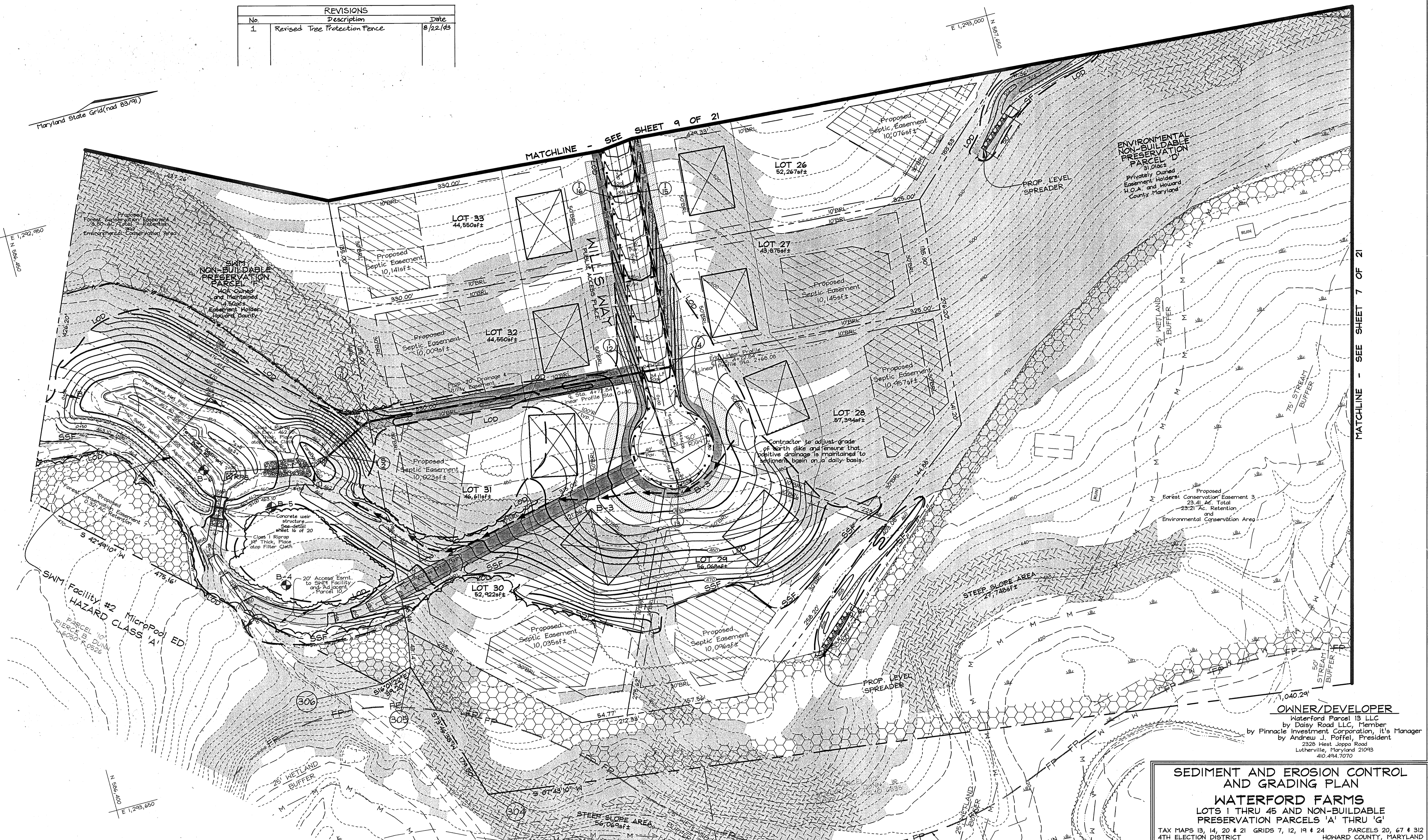
DESIGN BY: KO
DRAWN BY: JC
CHECKED BY: JYF
SCALE: 1"=50'
DATE: June 13, 2003
I.O. No.: 315A
SHEET No. 6 OF 21

F-03-102

REVISIONS		
No.	Description	Date
1	Revised Tree Protection Fence	6/22/03

Maryland State Grid (nad 83/91)

MATCHLINE - SEE SHEET 9 OF 21



MATCHLINE - SEE SHEET 7 OF 21

OWNER/DEVELOPER
 Waterford Parcel 13 LLC
 by Daisy Road LLC, Member
 by Pinnacle Investment Corporation, it's Manager
 by Andrew J. Poffel, President
 2326 West Joppa Road
 Lutherville, Maryland 21093
 410.494.7070

SEDIMENT AND EROSION CONTROL AND GRADING PLAN
WATERFORD FARMS
 LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'
 TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312
 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Andy Hamilton 7/9/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William J. Mahoney 6.27.03
 CHIEF, BUREAU OF HIGHWAYS DATE

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."
Andrew J. Poffel PRESIDENT 6/12/03
 SIGNATURE OF DEVELOPER DATE
 PINNACLE INVESTMENT CORP

ENGINEERS 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."
Zacharia Y. F'sch 6/5/03
 SIGNATURE OF ENGINEER DATE
 ZACHARIA Y. F'SCH

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
Jim Myers 6/20/03
 HOWARD SOIL CONSERVATION DISTRICT SERVICE DATE
 THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
John K. Roluta 6/20/03
 HOWARD SOIL CONSERVATION DISTRICT DATE



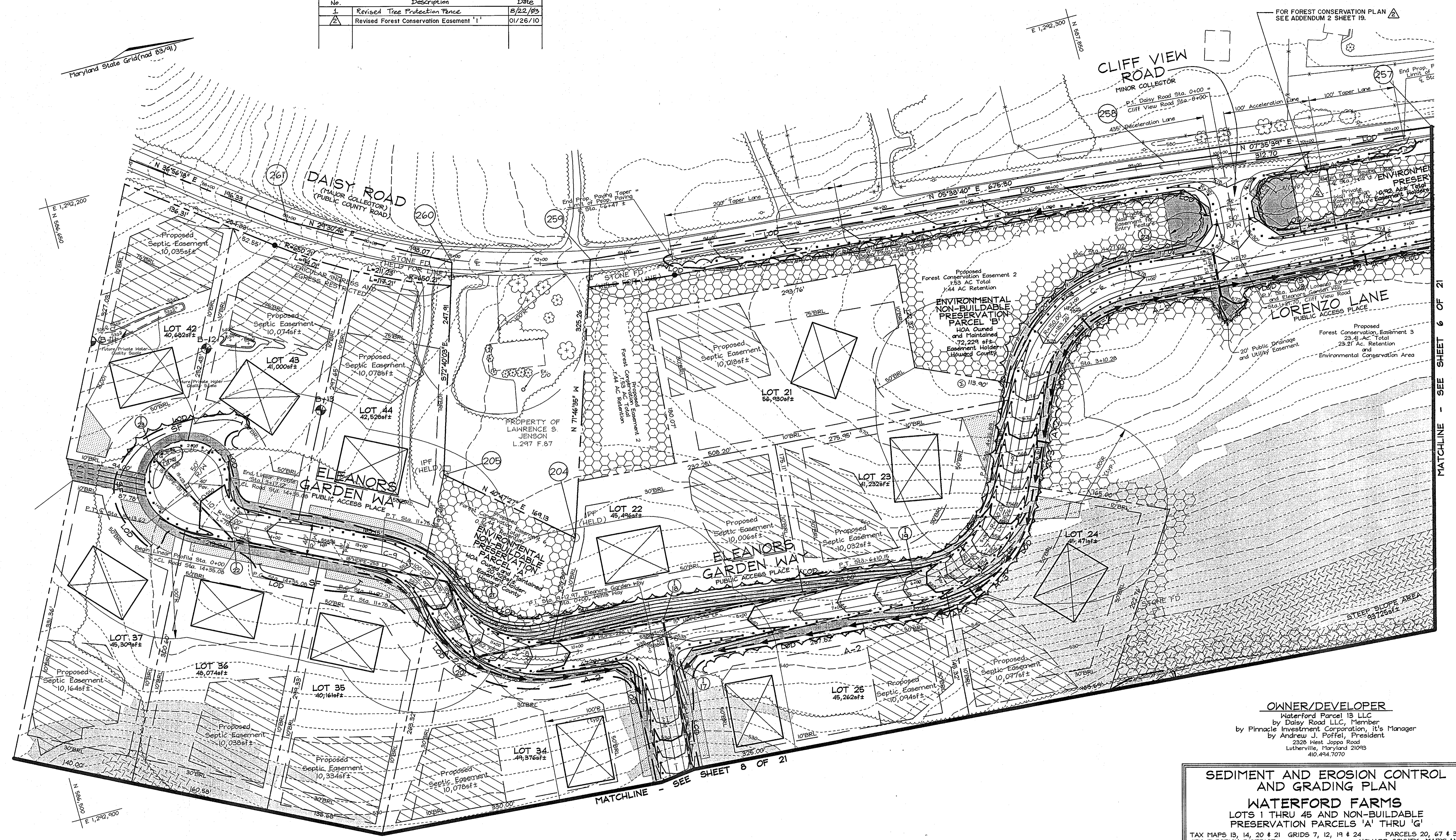
FSH Associates
 Engineers Planners Surveyors
 8318 Forrest Street Elkridge City, MD 21043
 Tel: 410-750-2251 Fax: 410-750-7350
 E-mail: fsh@fsd.net

DESIGN BY: KO
 DRAWN BY: KO
 CHECKED BY: ZYF
 SCALE: 1"=50'
 DATE: June 13, 2003
 H.O. No.: 3159
 SHEET No. 8 OF 21

F.03.122

F-03-122

REVISIONS		
No.	Description	Date
1	Revised Tree Protection Fence	8/22/03
2	Revised Forest Conservation Easement 'I'	01/26/10



FOR FOREST CONSERVATION PLAN
SEE ADDENDUM 2 SHEET 19.

OWNER/DEVELOPER
Waterford Parcel 13 LLC
by Daisy Road LLC, Member
by Pinnacle Investment Corporation, it's Manager
by Andrew J. Portfel, President
2328 West Joppa Road
Lutherville, Maryland 21093
410.494.7070

**SEDIMENT AND EROSION CONTROL
AND GRADING PLAN**
WATERFORD FARMS
LOTS 1 THRU 45 AND NON-BUILDABLE
PRESERVATION PARCELS 'A' THRU 'G'
TAX MAPS 13, 14, 20 # 21 GRIDS 7, 12, 19 # 24 PARCELS 20, 67 # 312
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

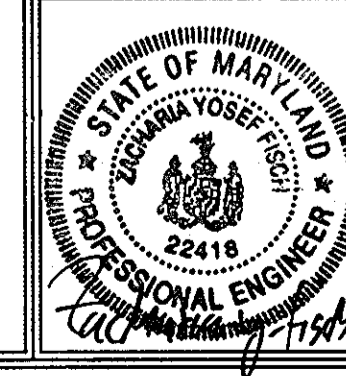
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cinda Horvath 7/6/03
CHIEF, DIVISION OF LAND DEVELOPMENT
William Z. Mink 7/6/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William Z. Mink 6-27-03
CHIEF, BUREAU OF HIGHWAYS

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.
Andrew J. Portfel PRESIDENT 6/12/03
SIGNATURE OF DEVELOPER
PINNACLE INVESTMENT CORP.

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.
Zacharia Y. Fisch 6/12/03
SIGNATURE OF ENGINEER
ZACHARIA Y. FISCH

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
Jim Meyer 6/20/03
DATE
NDA-NATURAL RESOURCES CONSULTATION SERVICE
THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
John K. Robertson 6/20/03
DATE
HOWARD SOIL CONSERVATION DISTRICT

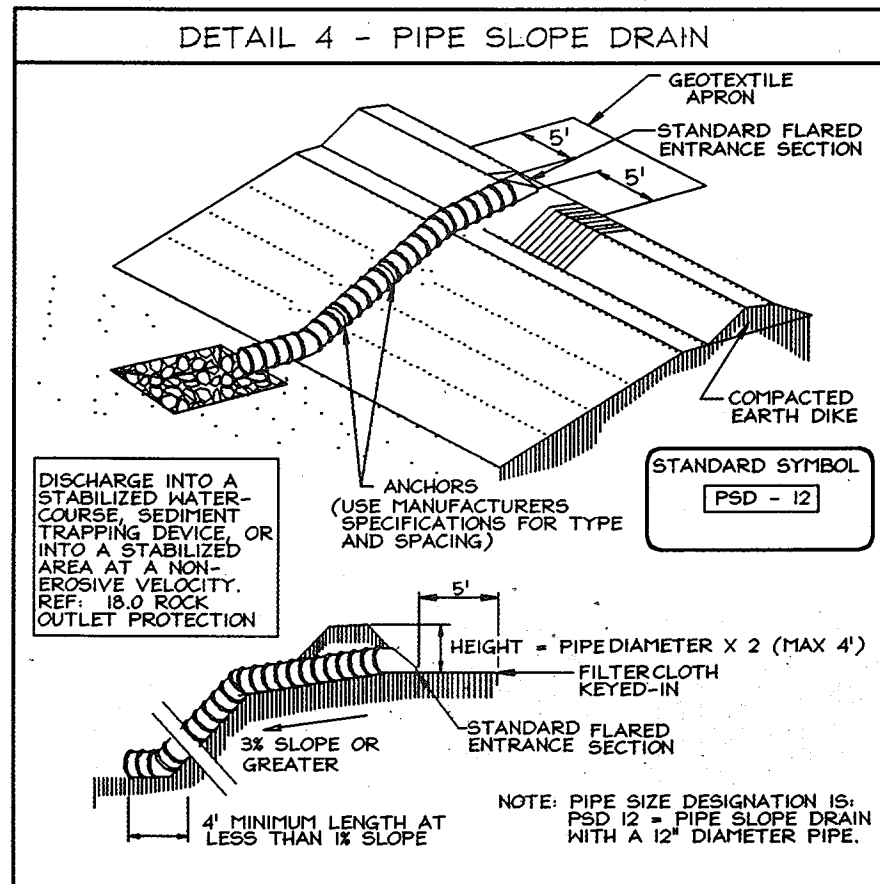


FSH Associates
Engineers Planners Surveyors
8318 Forrest Street, Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: fsh@fsad.net

DESIGN BY: KO
DRAWN BY: KO
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: June 13, 2003
I.O. No.: 3154
SHEET No. 9 OF 21

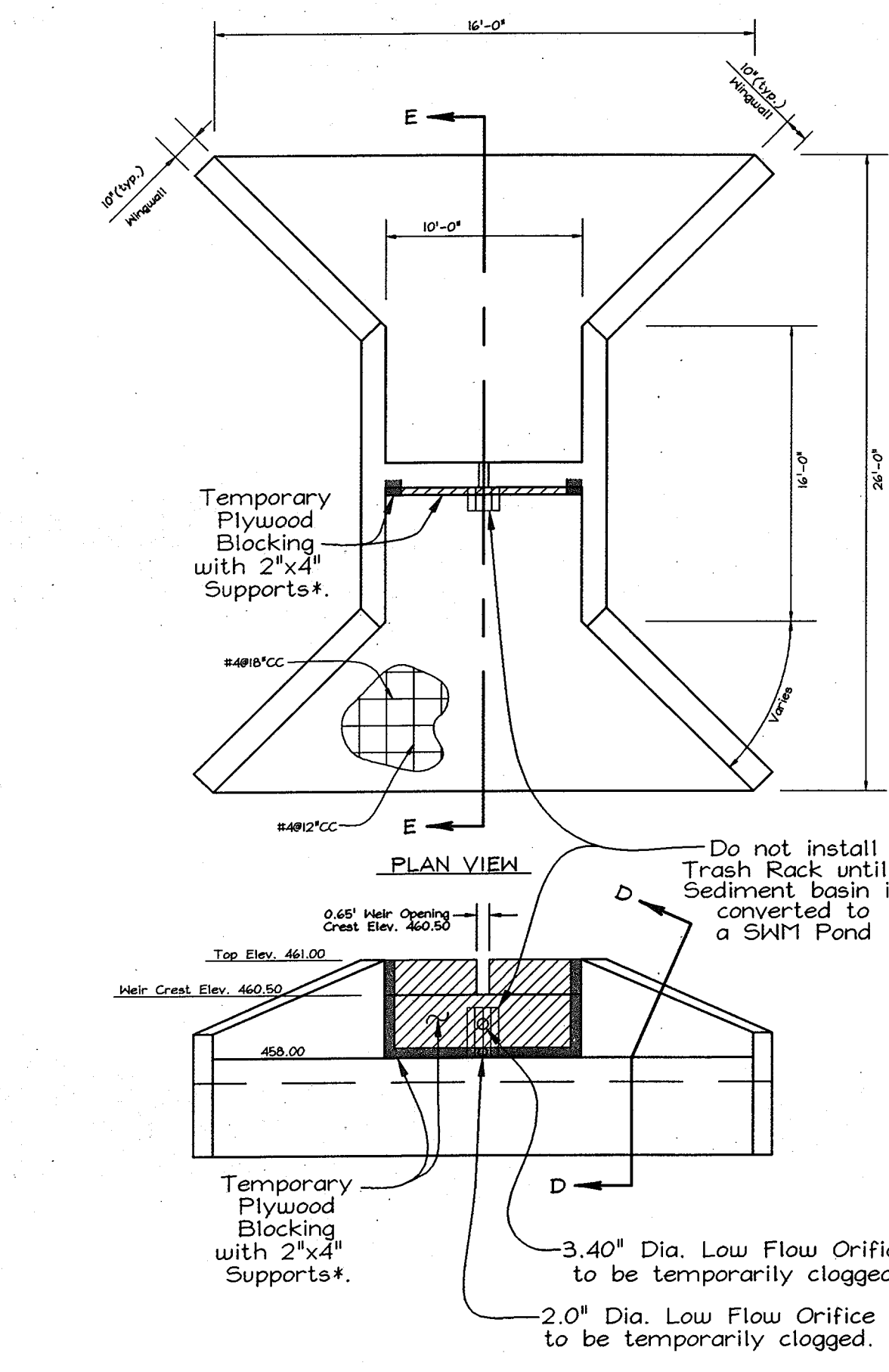
MATCHLINE - SEE SHEET 6 OF 21

MATCHLINE - SEE SHEET 8 OF 21



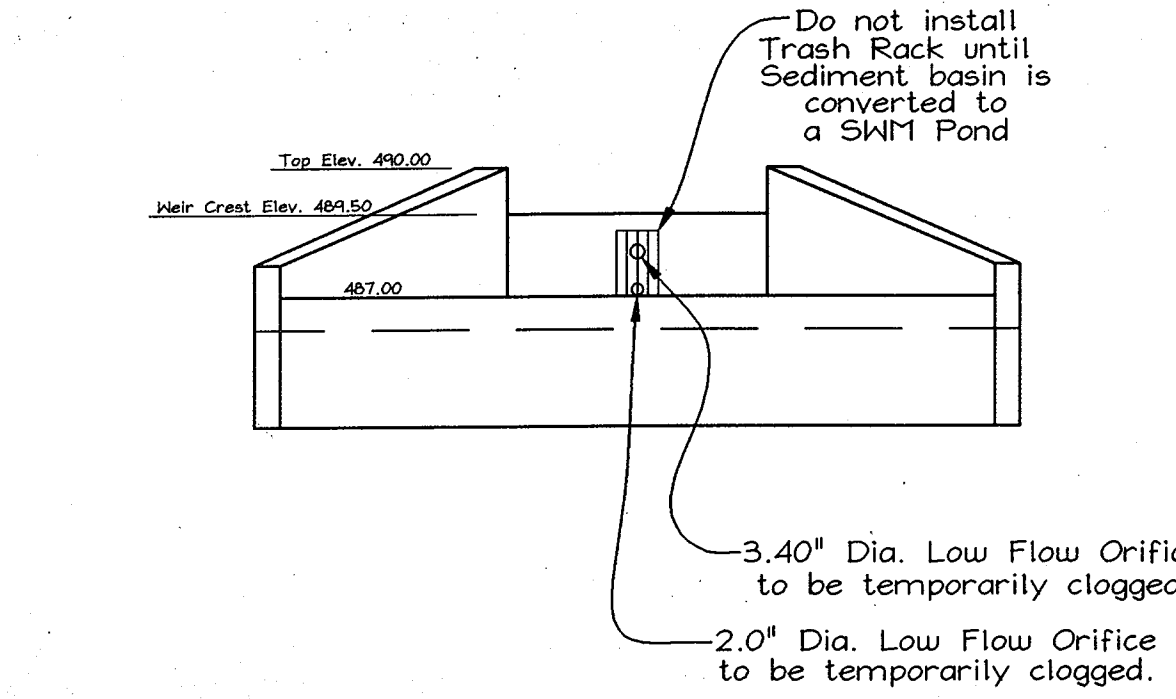
Construction Specifications - Pipe Slope Drain

- The Pipe Slope Drain (PSD) shall have a slope of 3 percent or steeper.
- The top of the earth dike over the inlet pipe shall be at least 2 times the pipe diameter measured at the invert of the pipe.
- Flexible tubing is preferred. However, corrugated metal pipe or equivalent PVC pipe can be used. All connections shall be watertight.
- A flared section shall be attached to the inlet end of pipe with a watertight connection. Filter cloth shall be placed under the inlet of the pipe slope drain and shall extend out 5' from the inlet. The filter cloth shall be "keyed in" on all sides.
- The Pipe Slope Drain shall be securely anchored to the slope by staking at the grinnets provided. Spacing for anchors shall be as provided by manufacturer's specification. In no case shall less than two (2) anchors be provided, equally spaced along the length of pipe. These details shall be provided by pipe supplier.
- The soil ground under the pipe and end section shall be hand tamped to 4 inch lifts to the top of the earth dike.
- All pipe connections shall be watertight.
- Whenever possible where a PSD drains an unutilized area, it shall outlet into a sediment trap or basin. If this is not possible, the slope drain will discharge into a stable conveyance that leads to a sediment trap or basin. When discharging into a trap or basin the PSD shall discharge at the same elevation as the wet pool elevation. The discharge from the PSD must be as far away from the sediment control outlet as possible.
- When the drainage area is stabilized, the PSD shall discharge into a stabilized area at a non-erosive velocity.
- Inspection and any required maintenance shall be performed periodically and after each rain event.
- The inlet must be kept open at all times.



NOTE: Contractor shall block 10' wide Weir Opening at Crest Elev. 460.50 Leaving a 0.65' wide opening to elevation 461.00. Block with plywood or approved equivalent and provide support with 2"x4" posts as necessary. Once Sediment Control Measures are removed, these modifications shall be removed.

CS-2 POND #2 WEIR STRUCTURE MODIFICATIONS FOR SEDIMENT CONTROL
NOT TO SCALE



NOTE: The only modifications required to Pond #1 Weir Structure for Sediment Control are to Block the two (2) Low Flow Orifices (2.0" Diameter and 3.4" Diameter).

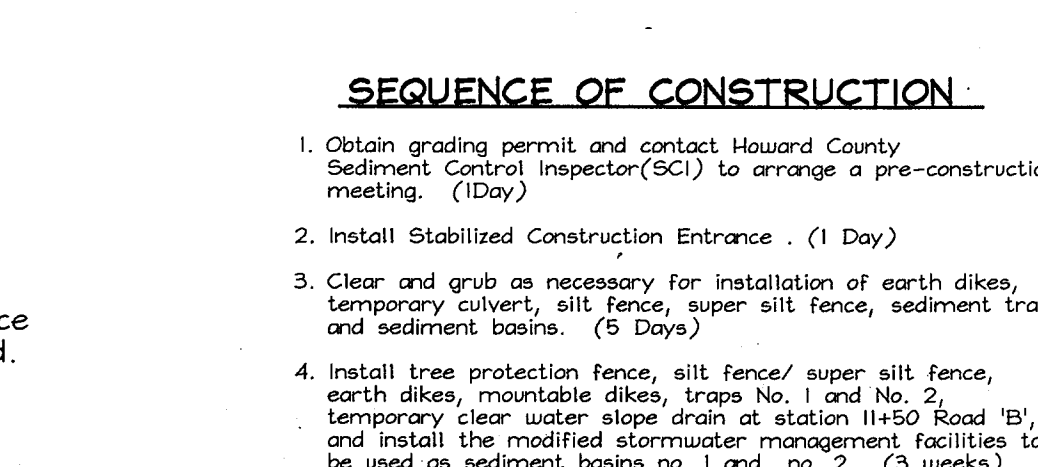
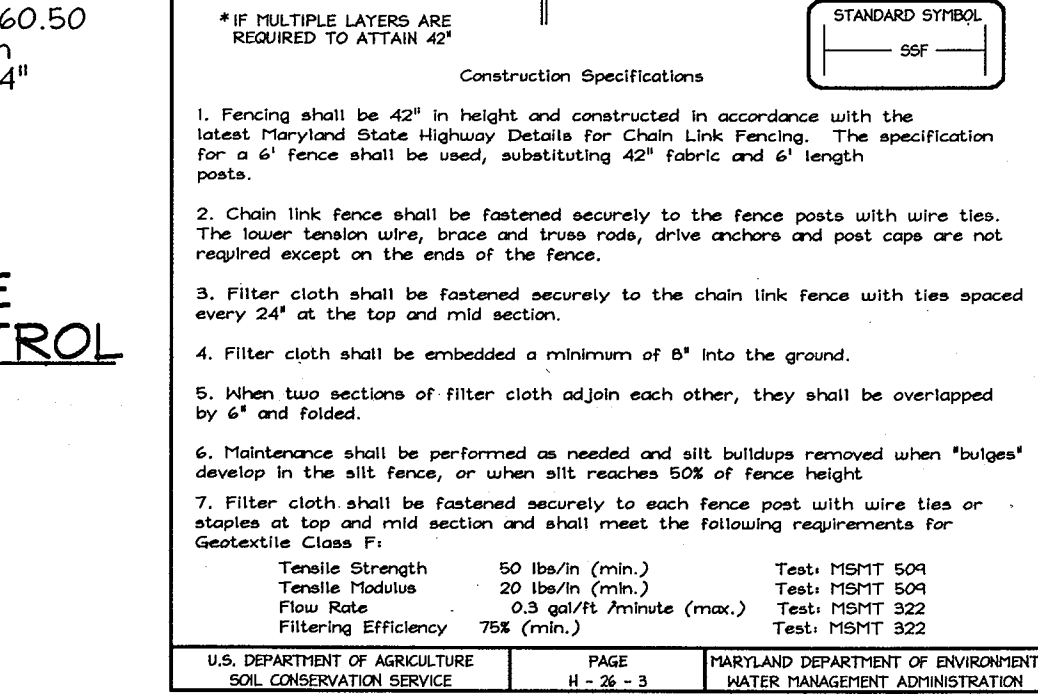
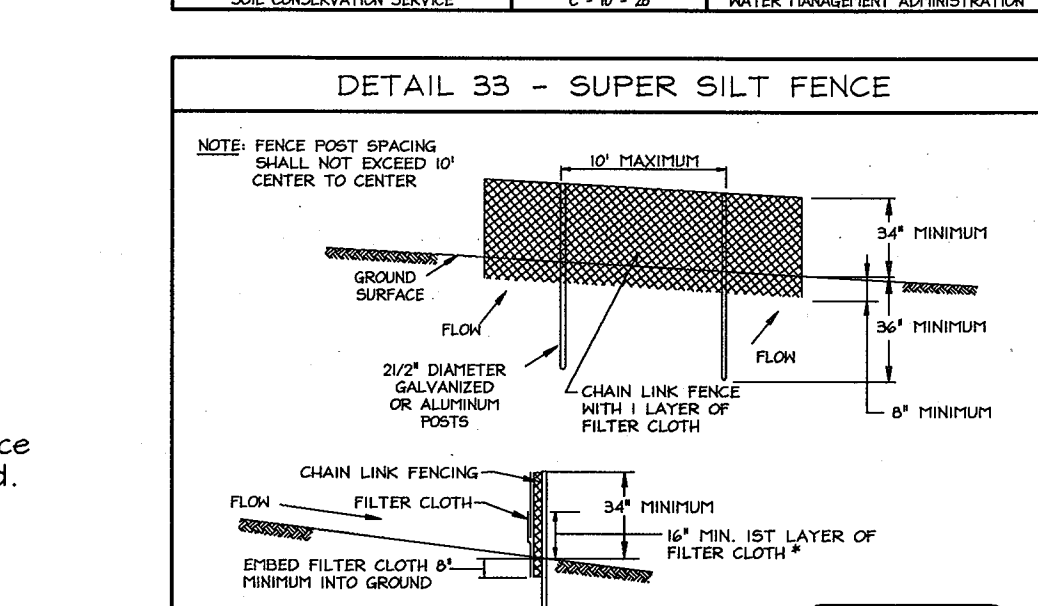
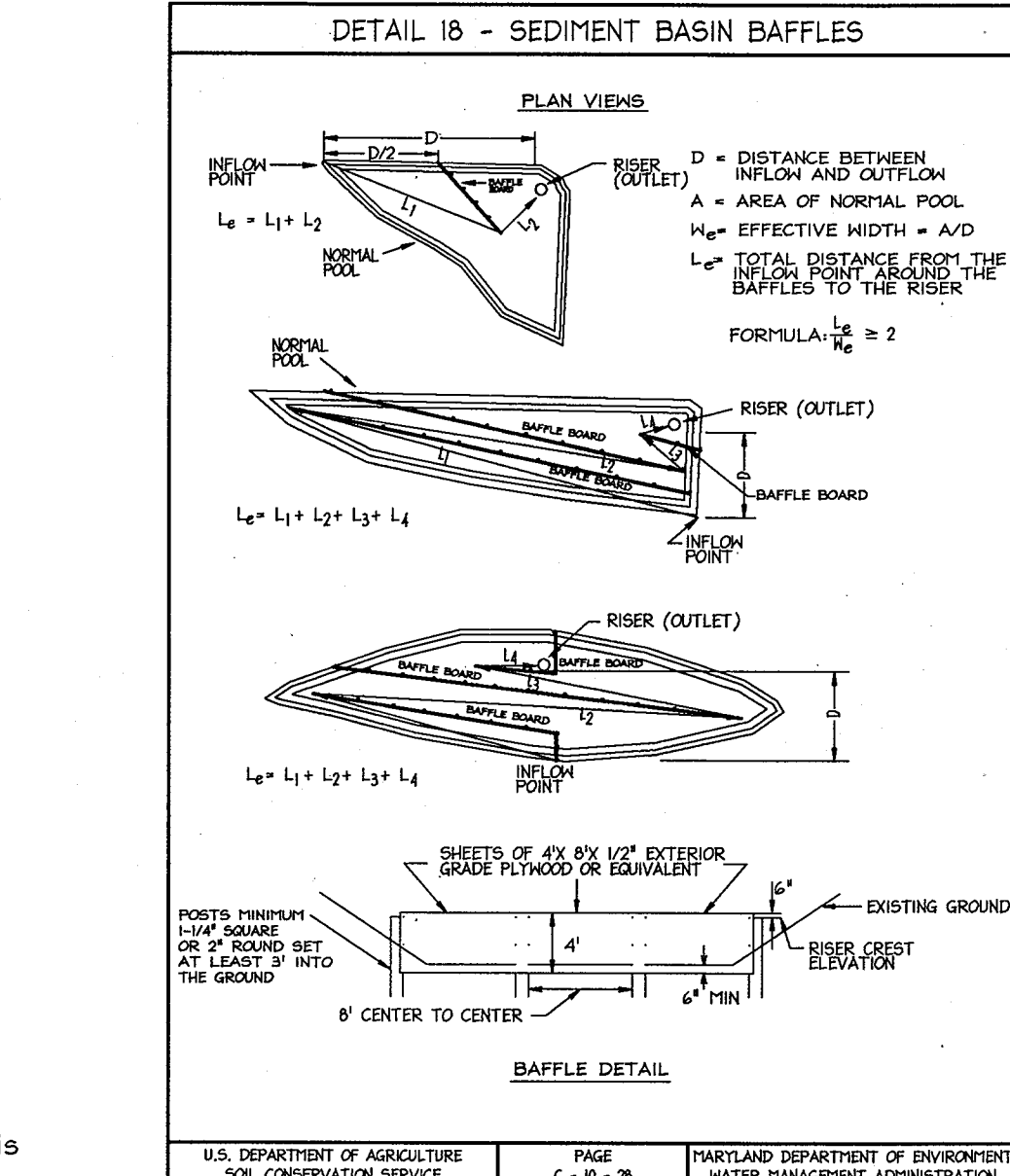
CS-1 POND #1 WEIR STRUCTURE MODIFICATIONS FOR SEDIMENT CONTROL
NOT TO SCALE

SEDIMENT BASIN SCHEDULE

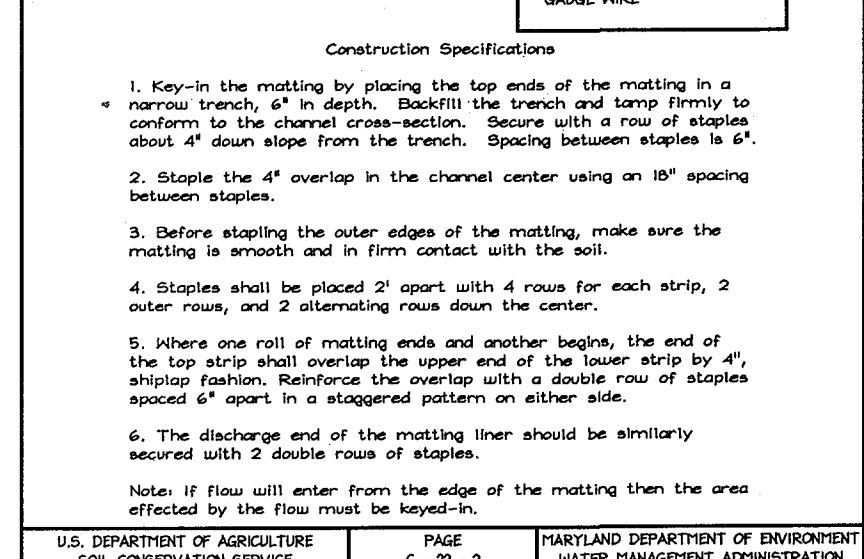
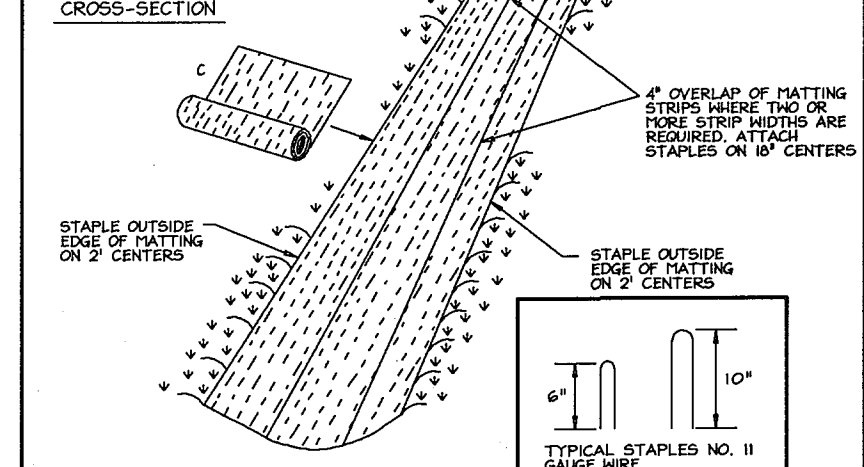
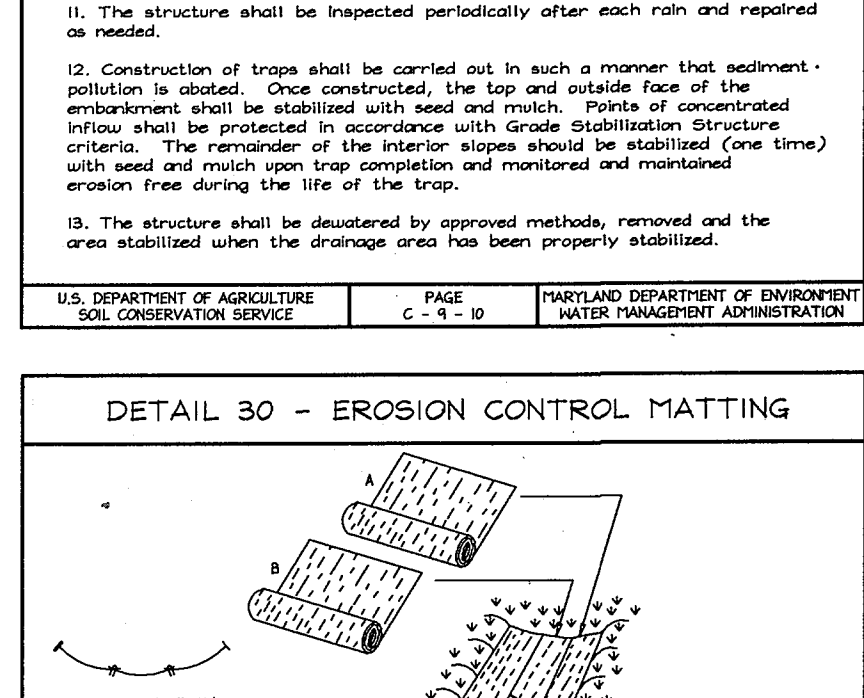
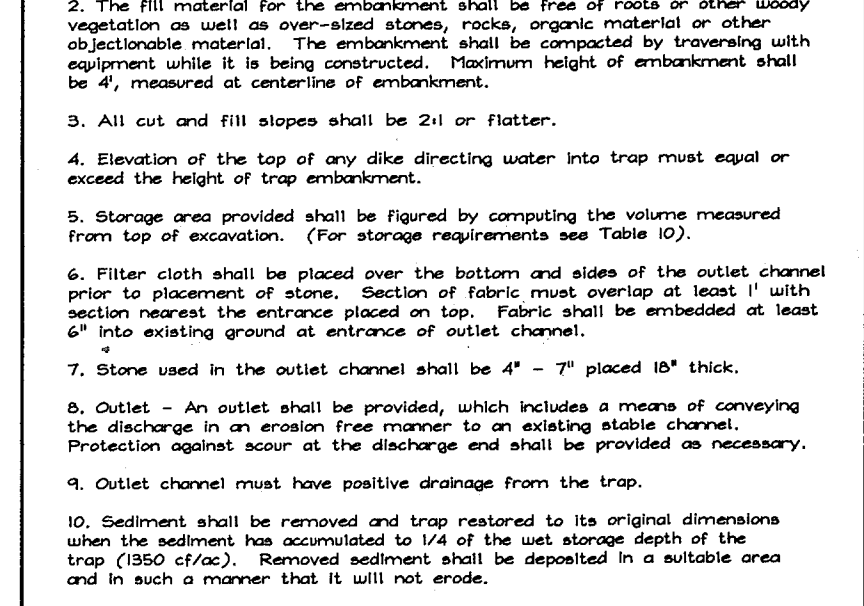
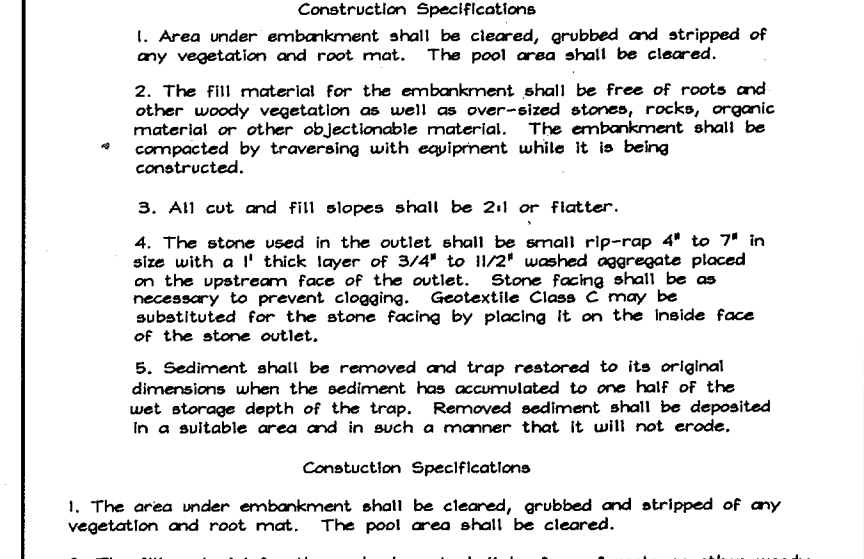
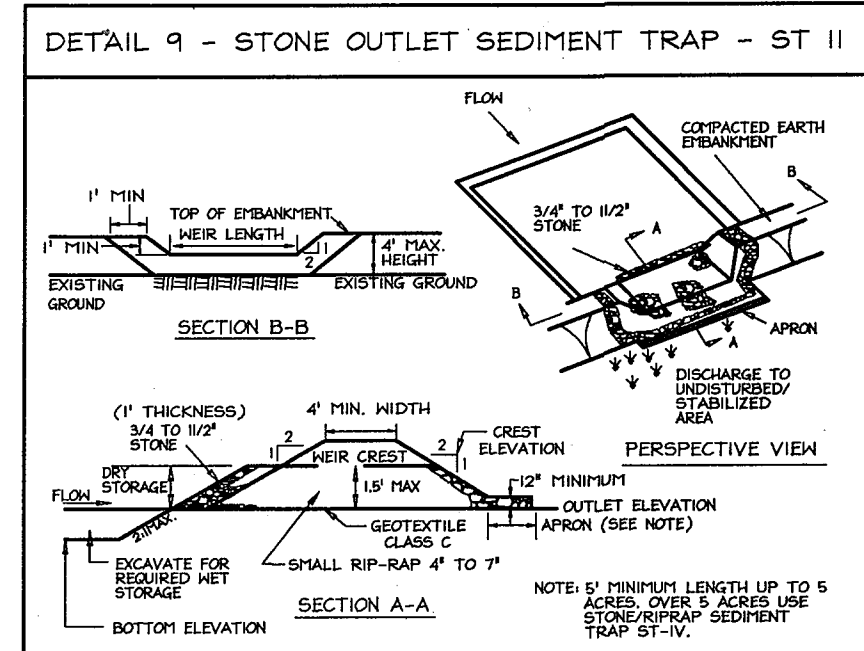
Type of Trap	Modified SWM Basin #1 (Secondary Control)	Modified SWM Basin #2 (Primary Control)
Drainage Area	21.56 Ac.	20.39 Ac.
Storage Required	77,616 cu.ft. wet & dry	36,590 cu.ft. wet
Storage Provided	77,616 cu.ft. wet & dry	36,590 cu.ft. wet with 1 yr. management
Weir Length	10 ft.	10 ft.
Bottom Elevation	485.0	453.2
Clearout Elevation	487.83	459.04
Embarkment Elevation	493.0	463.1
Net Storage Elevation	489.42	460.5

SEDIMENT TRAP SCHEDULE

TRAP NUMBER	1	2
D.A.	2.8 Ac.	1.0 Ac.
Storage Required	5040 cfw 5040 cfd	1800 cfw 1800 cfd
Storage Provided	5472 cfw 6032 cfd	2112 cfw 1800 cfd
Weir Length	12.0 ft.	4.0 ft.
Top Embankment Elev.	527.0	513.2
Bottom Trap Elev.	522.0	509.0
Weir Crest Elev.	526.0	512.2
Clean Out Elev.	523.0	510.0



NOTE: See Forest Conservation Plan Sheet 14 of 20 for tree protection measures and locations.



21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition: Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

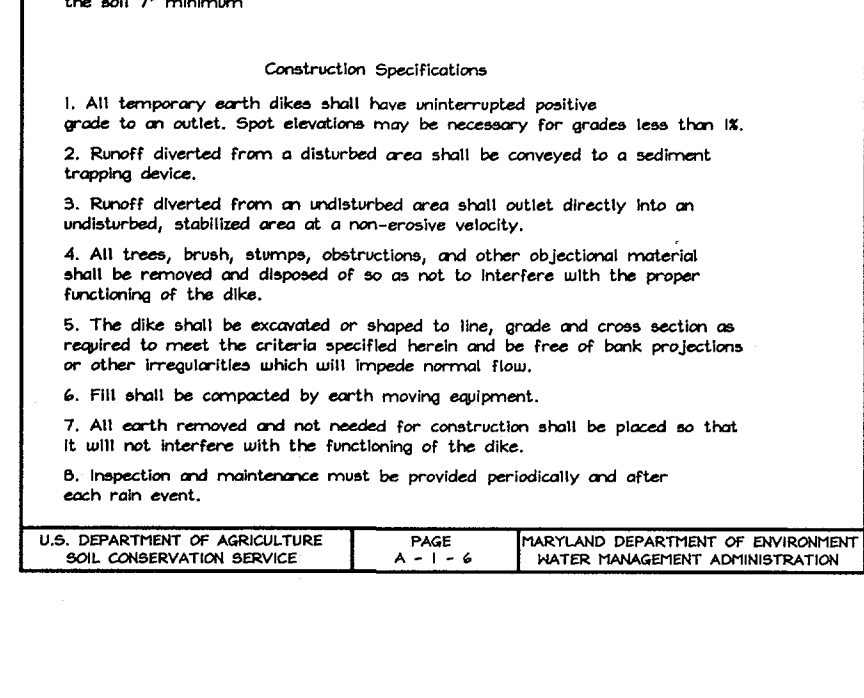
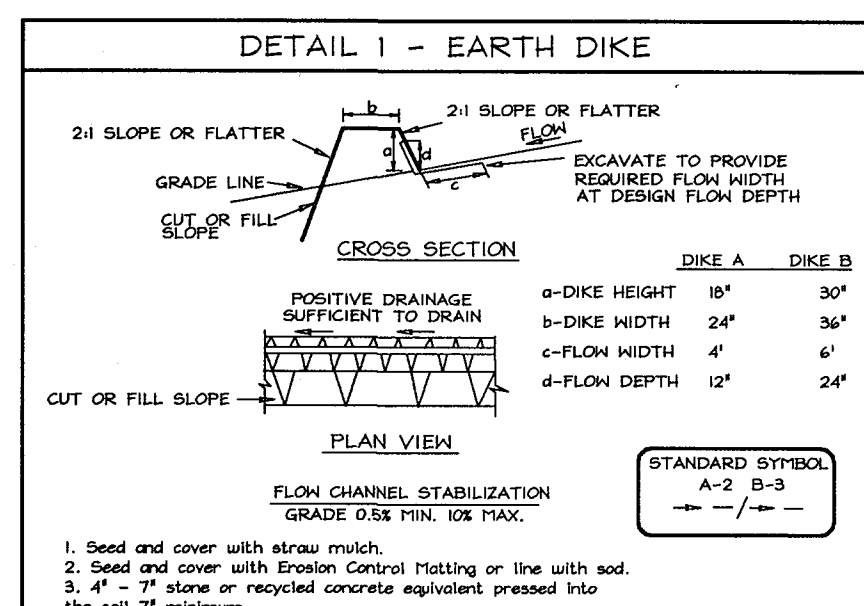
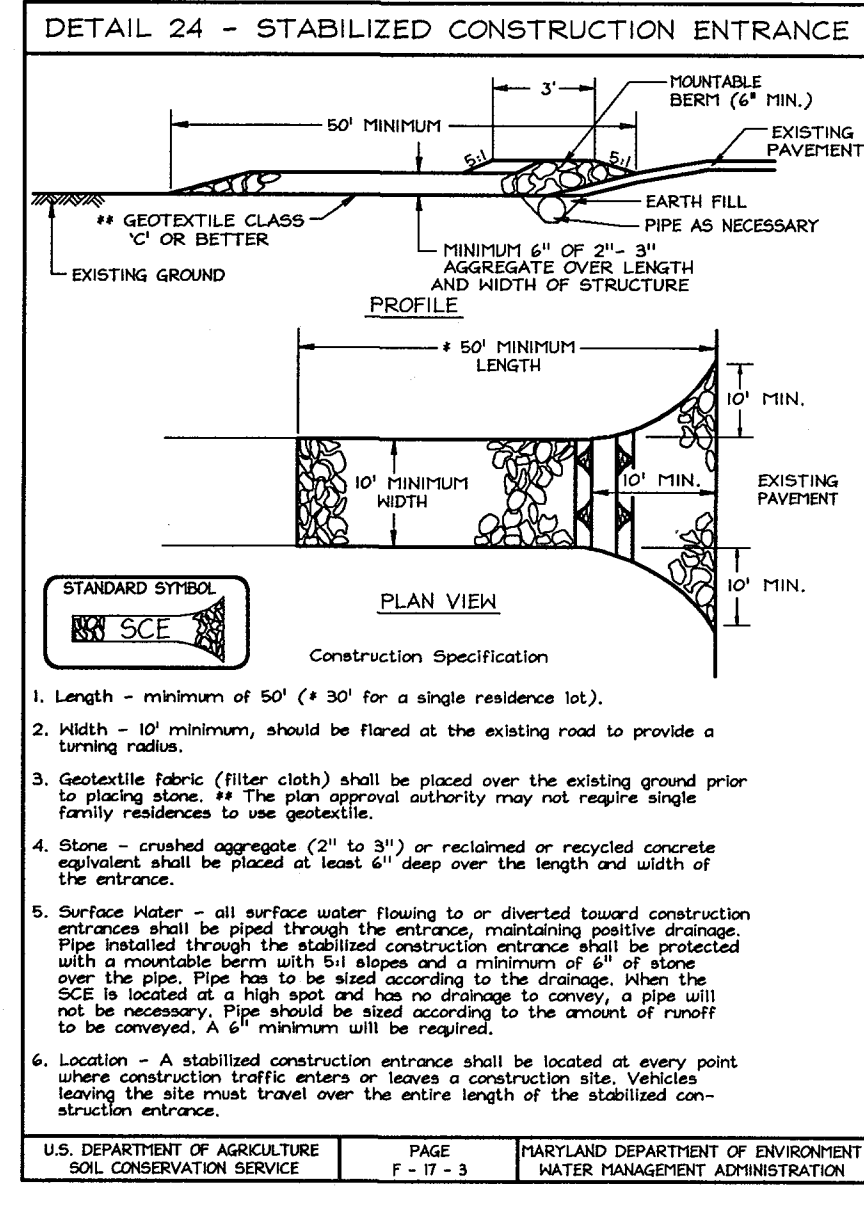
Purpose: To provide a suitable soil medium for vegetable growth, soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies:

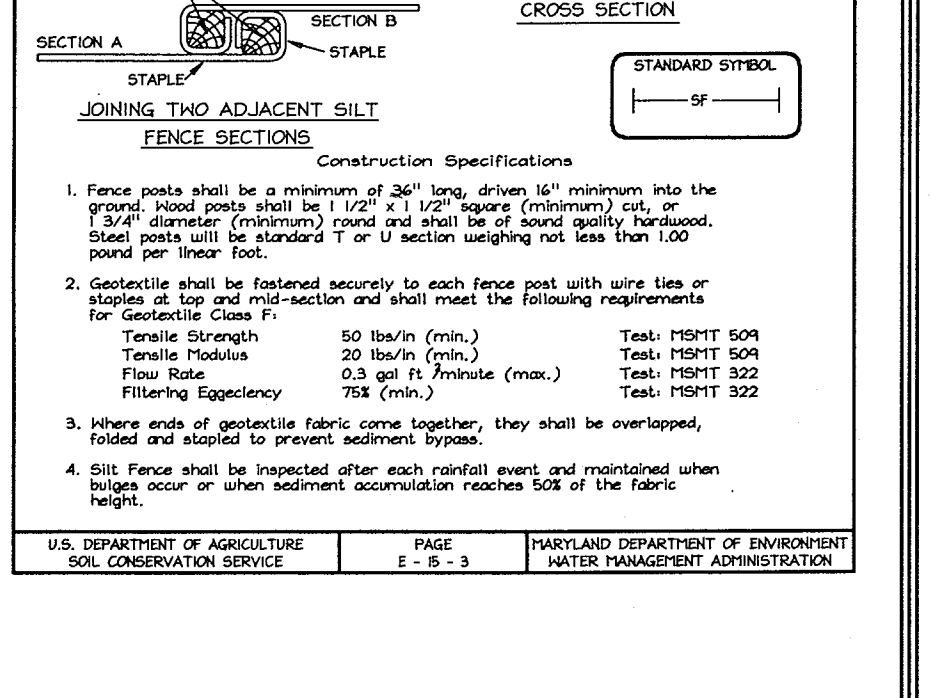
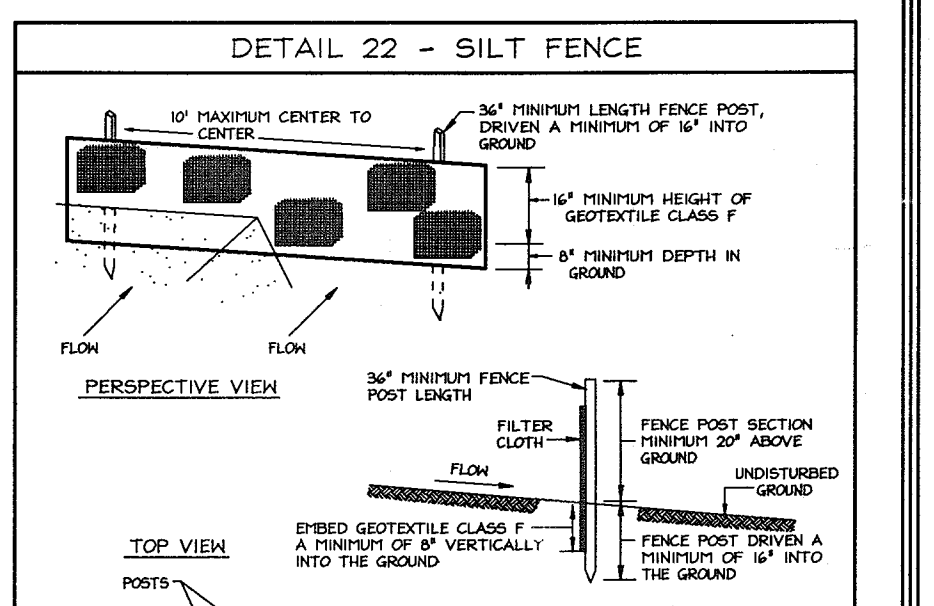
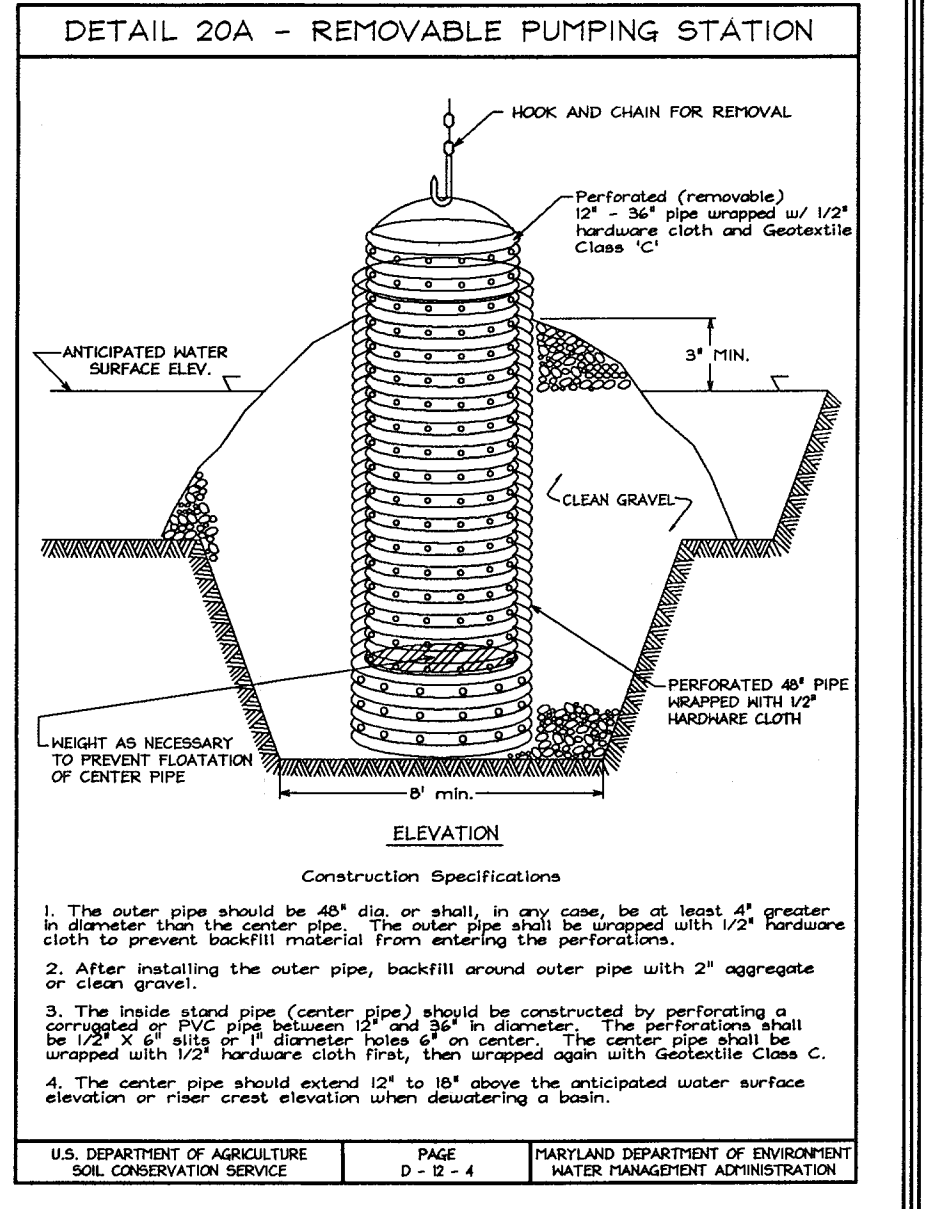
- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetable growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish containing supplies of moisture 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.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plan.

Construction and Material Specifications:

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. The depth of the soil to be salvaged for a given soil type can be found in the representative soil survey map of the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, silty loam, or silty clay loam. Other soil types may be used if recommended by a soil scientist and approved by the appropriate authority. Regardless, topsoil shall not be a mixture of contrasting layers, subsoils and shall contain less than 5% by volume of stony, stony clay, coarse fragments, sticks, clumps, trash, or other materials larger than 1" and 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1000 square feet) prior to the placement of topsoil. Lime shall be spread uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedure:
 - For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 21.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
 - For sites having disturbed areas over 5 acres:
 - On soil meeting topsoil specifications, obtain test results for fertilizer requirements.
 - For topsoil that does not meet the specifications, if the tested soil contains a pH of less than 6.0, apply 2 tons per acre of lime. If the pH is 6.0 to 6.5 or higher,
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No soil or clay shall be placed on soil which has been treated with lime.
 - Topsoil shall be placed on soil with sufficient lime to permit dispersion of phytotoxic materials.
 - NOTE: Soil amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate authority, may be used in lieu of natural topsoil.
 - Place topsoil (if required) and apply soil amendments as specified in 21.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.



OWNER/DEVELOPER
Waterford Parcel 13 LLC
by Daisy Road LLC, Member
by Pinnacle Investment Corporation, it's Manager
by Andrew J. Poffel, President
Joseph J. Poffel
Lutherville, Maryland 21093
410.494.7070



SEDIMENT # EROSION CONTROL AND MISCELLANEOUS NOTES & DETAILS

WATERFORD FARMS
LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'

TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamito 7/9/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William F. Mahaffey 6/27/03
CHIEF, BUREAU OF HIGHWAYS DATE

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Andrew J. Poffel President 6/12/03
SIGNATURE OF DEVELOPER DATE
PINNACLE INVESTMENT CORP.

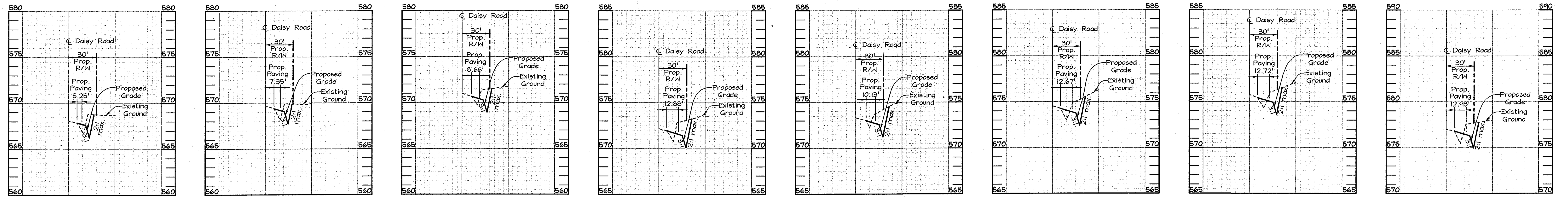
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Zacharia Y. Fisch 6/12/03
SIGNATURE OF ENGINEER DATE
ZACHARIA Y. FISCH
HOWARD SOIL CONSERVATION DISTRICT

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD COUNTY CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
Jim Muzina 6/20/03
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE
THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
John K. Robertson 6/20/03
HOWARD SOIL CONSERVATION DISTRICT DATE

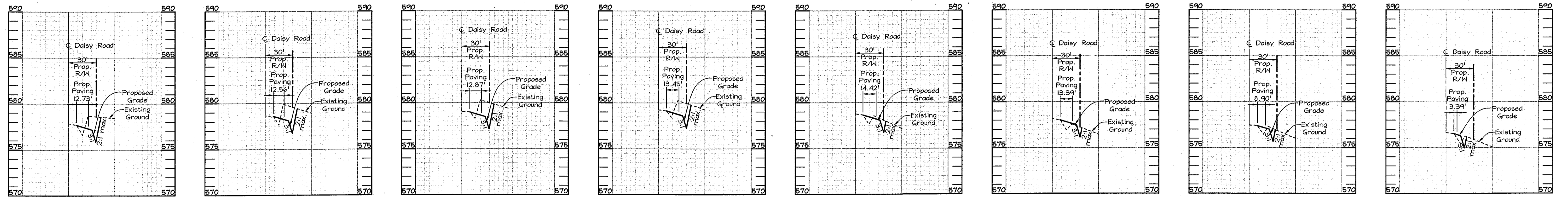


DESIGN BY: KO
DRAWN BY: KO
CHECKED BY: ZYF
SCALE: As Shown
DATE: June 19, 2003
H.O. No.: 3159
SHEET No. 10 OF 21

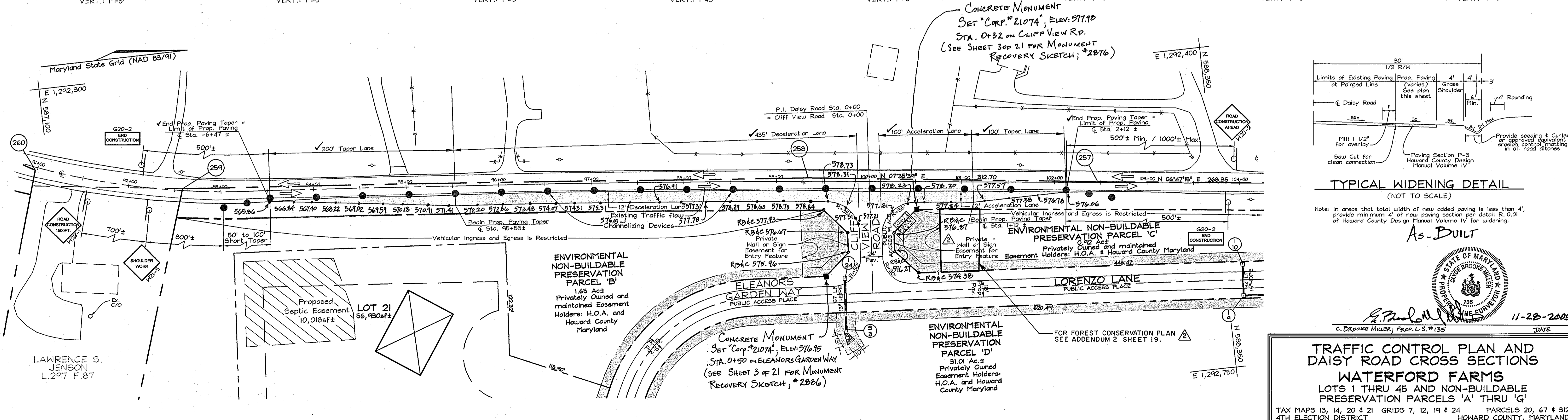
FSH Associates
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8318 Forest Street Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: fsh@fsa.net



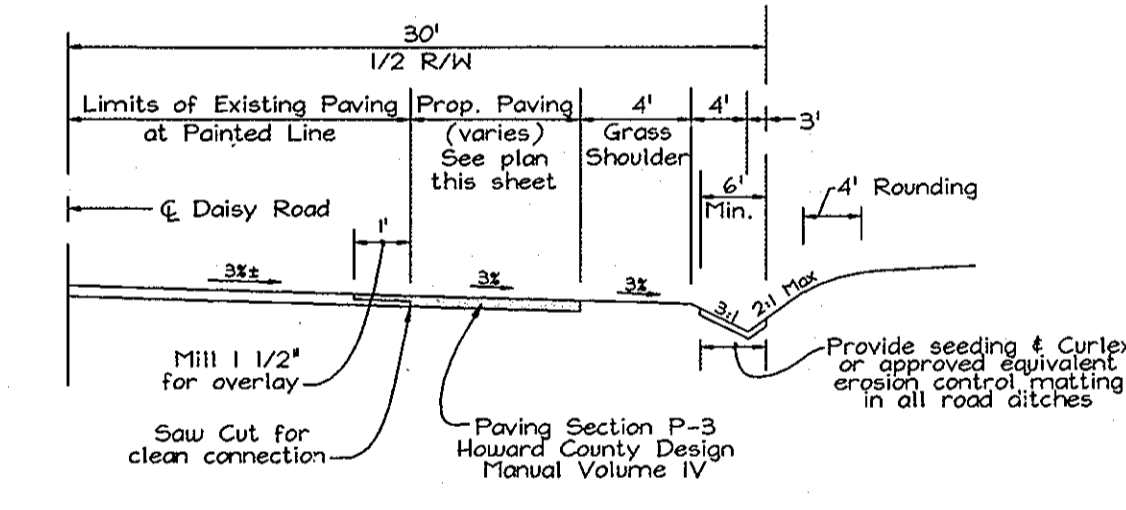
DAISY ROAD STA. 94+00 SECTION SCALE: HOR.: 1"=50' VERT.: 1"=5'
 DAISY ROAD STA. 94+50 SECTION SCALE: HOR.: 1"=50' VERT.: 1"=5'
 DAISY ROAD STA. 95+00 SECTION SCALE: HOR.: 1"=50' VERT.: 1"=5'
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DAISY ROAD STA. 98+00 SECTION SCALE: HOR.: 1"=50' VERT.: 1"=5'
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 DAISY ROAD STA. 102+00 SECTION SCALE: HOR.: 1"=50' VERT.: 1"=5'



ENTRANCE AND TRAFFIC CONTROL PLAN SCALE: 1"=50'



TYPICAL WIDENING DETAIL (NOT TO SCALE)

Note: In areas that total width of new added paving is less than 4', provide minimum 4' of new paving section per detail R.10.01 of Howard County Design Manual Volume IV for widening.

As-BUILT
 11-28-2005
 C. BROOKE MILLER, PROP. L.S. #135
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
 Chief, Division of Land Development 7/9/05
 Chief, Development Engineering Division 7/16/05
 Chief, Bureau of Highways 6-27-03

REVISIONS	DATE
Revised Forest Conservation Easement '1'	01/26/10

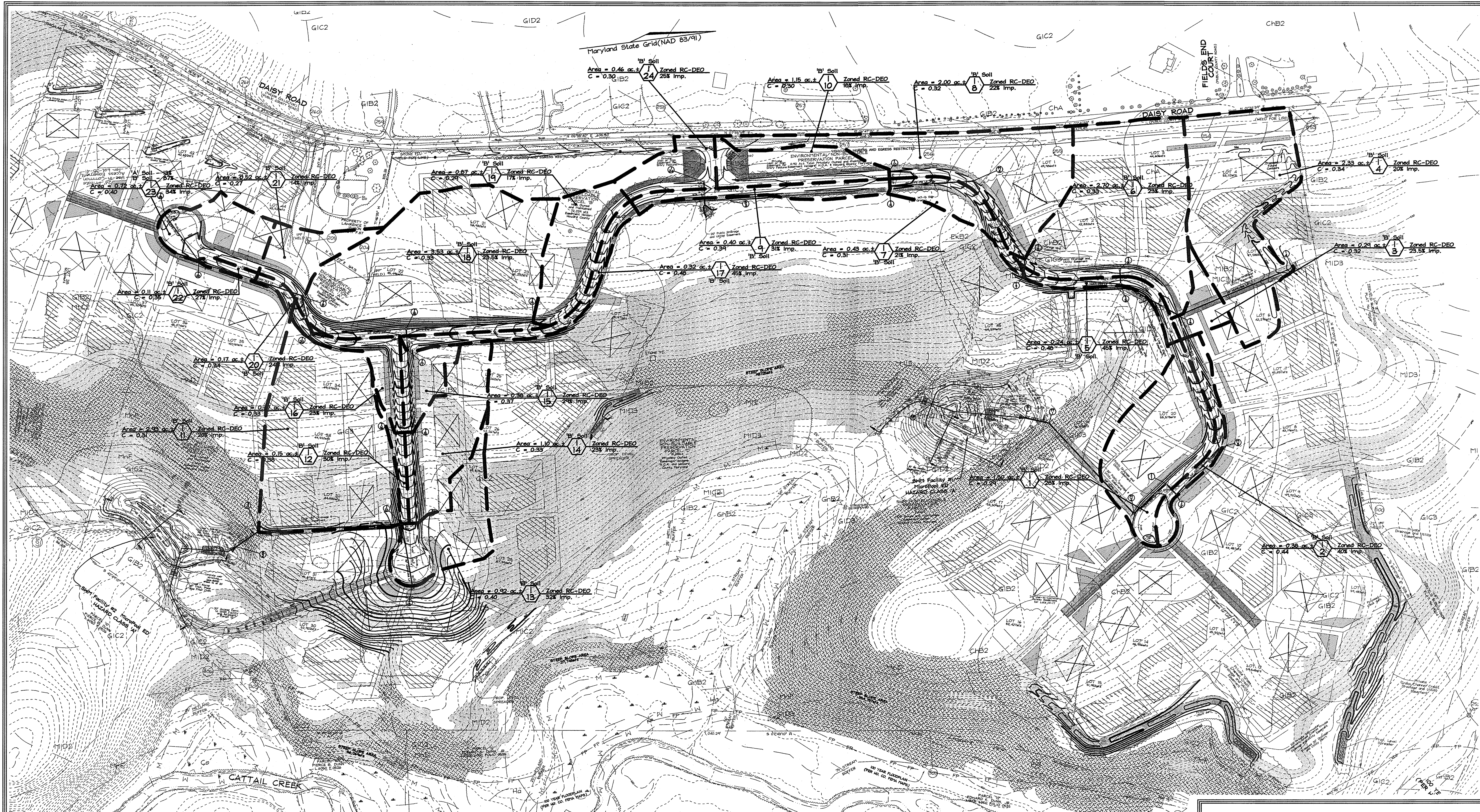
OWNER/DEVELOPER
 Waterford Parcel 13 LLC
 by Daisy Road LLC, Member
 by Pinnacle Investment Corporation, its Manager
 by Andrew J. Poffel, President
 2328 West Joppa Road
 Lutherville, Maryland 21093
 410.494.7070

TRAFFIC CONTROL PLAN AND DAISY ROAD CROSS SECTIONS WATERFORD FARMS LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'

TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: KO
 DRAWN BY: KO
 CHECKED BY: ZYF
 SCALE: As Shown
 DATE: June 13, 2005
 N.O. No.: 3159
 SHEET No. 11 OF 21

FSH Associates
 Engineers Planners Surveyors
 8318 Forrest Street, Ellicott City, MD 21043
 Tel: 410-750-2251 Fax: 410-750-7350
 Email: fsh@load.net



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

William E. White 6-27-03
 CHIEF, BUREAU OF HIGHWAYS DATE

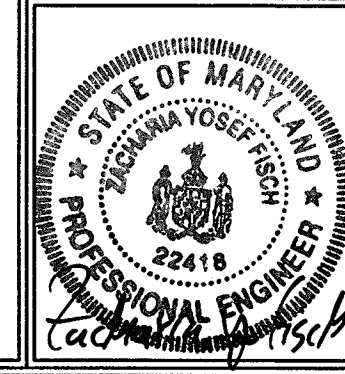
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Candy R. ... 7/1/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
Chris ... 7/1/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
CHB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	B
CHC2	Chester silt loam, 8 to 15 percent slopes, moderately eroded	B
CHD2	Chester silt loam, 15 to 25 percent slopes, moderately eroded	B
CHA	Chester silt loam, 0 to 3 percent slopes	B
Co	Codorus silt loam	C
CaB	Corvus silt loam, local alluvium, 3 to 8 percent	B
EKB2	Eliok silt loam, 3 to 8 percent slopes, moderately eroded	B
GIB2	Glensig loam, 3 to 8 percent slopes, moderately eroded	B
GIC2	Glensig loam, 8 to 15 percent slopes, moderately eroded	B
GIC3	Glensig loam, 15 to 25 percent slopes, severely eroded	B
GID2	Glensig loam, 15 to 25 percent slopes, moderately eroded	B
GID3	Glensig loam, 15 to 25 percent slopes, severely eroded	B
GrB2	Glenville silt loam, 3 to 8 percent slopes, moderately eroded	C
Ha	Hatboro silt loam	D
MIb2	Minor loam, 3 to 8 percent slopes, moderately eroded	B
MIc2	Minor loam, 8 to 15 percent slopes, moderately eroded	B
MIc3	Minor loam, 15 to 25 percent slopes, severely eroded	B
MIb2	Minor loam, 15 to 25 percent slopes, moderately eroded	B
MIb3	Minor loam, 15 to 25 percent slopes, severely eroded	B
MIe	Minor loam, 25 to 45 percent slopes	B
PHd	Minor very stony loam, 3 to 25 percent slopes	B
PHf	Minor very stony loam, 25 to 45 percent slopes	B
MIc2	MI, Aery cherty loam, 8 to 15 percent slopes, mod. eroded	A
MIe	MI, Aery cherty loam, 25 to 45 percent slopes	A

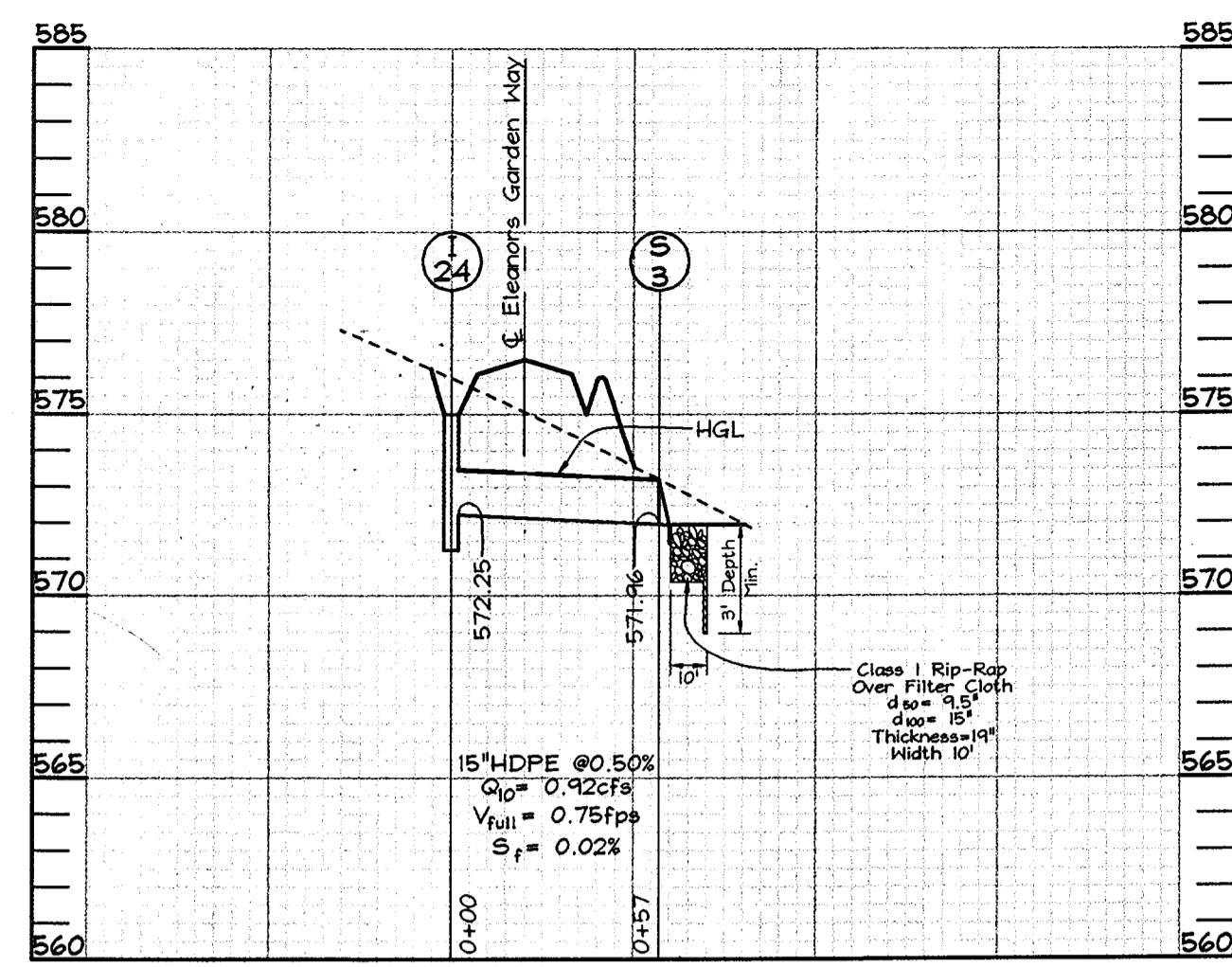
OWNER/DEVELOPER
 Waterford Parcel 13 LLC
 by Daisy Road LLC, Member
 by Pinnacle Investment Corporation, it's Manager
 by Andreu J. Poffel, President
 2326 West Apple Road
 Lutherville, Maryland 21043
 410.494.7070

STORM DRAIN DRAINAGE AREA MAP
WATERFORD FARMS
 LOTS 1 THRU 45 AND NON-BUILDABLE
 PRESERVATION PARCELS 'A' THRU 'G'
 TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312
 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



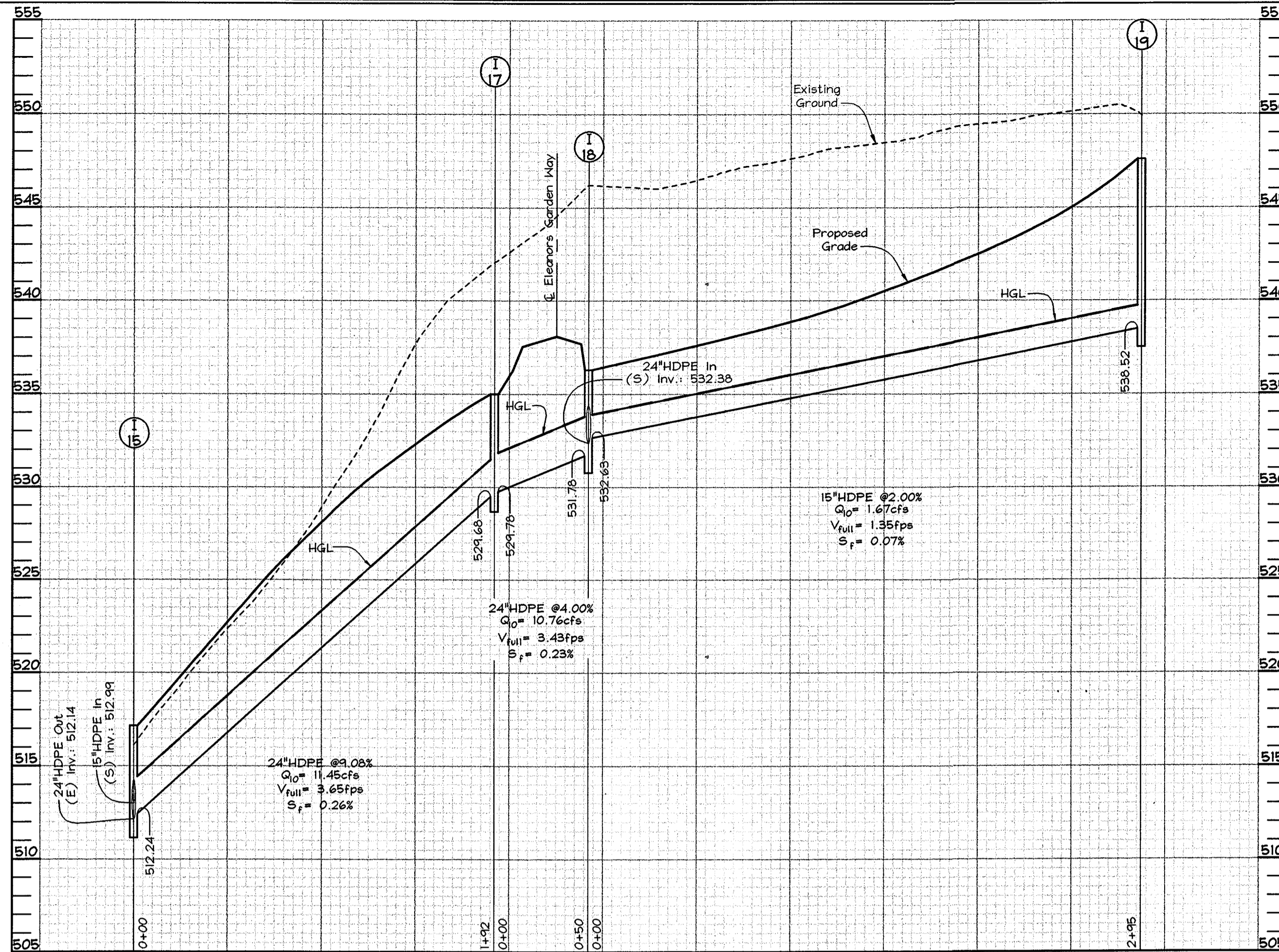
FSH Associates
 Engineers Planners Surveyors
 8318 Forrest Street, Ellicott City, MD 21043
 Tel: 410-750-2251 Fax: 410-750-7350
 E-mail: fsh@load.net

DESIGN BY: KO
 DRAWN BY: KO
 CHECKED BY: ZYF
 SCALE: 1"=100'
 DATE: June 13, 2003
 M.O. No.: 315A
 SHEET No. 12 OF 21



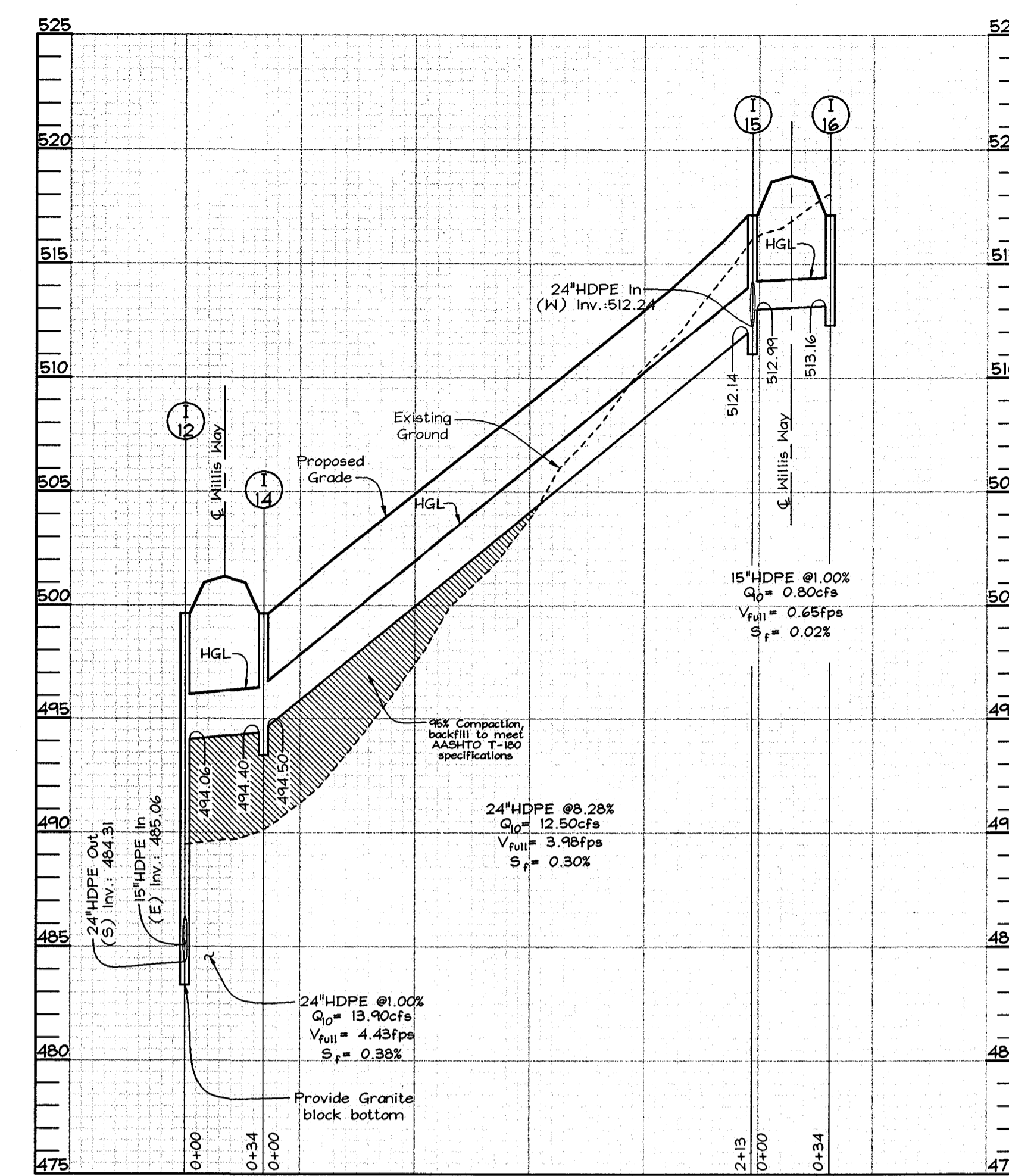
STORM DRAIN PROFILES

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



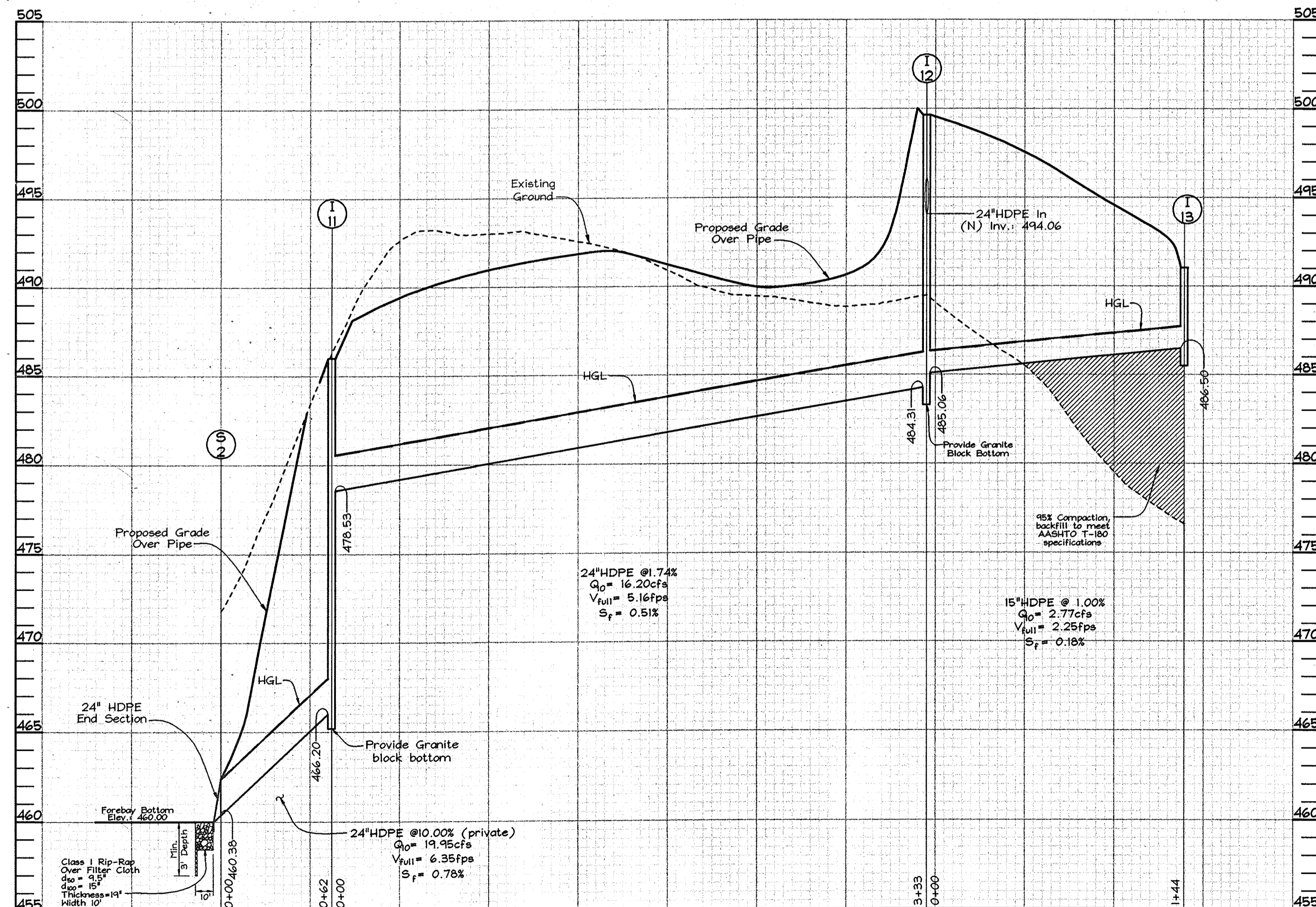
STORM DRAIN PROFILES

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



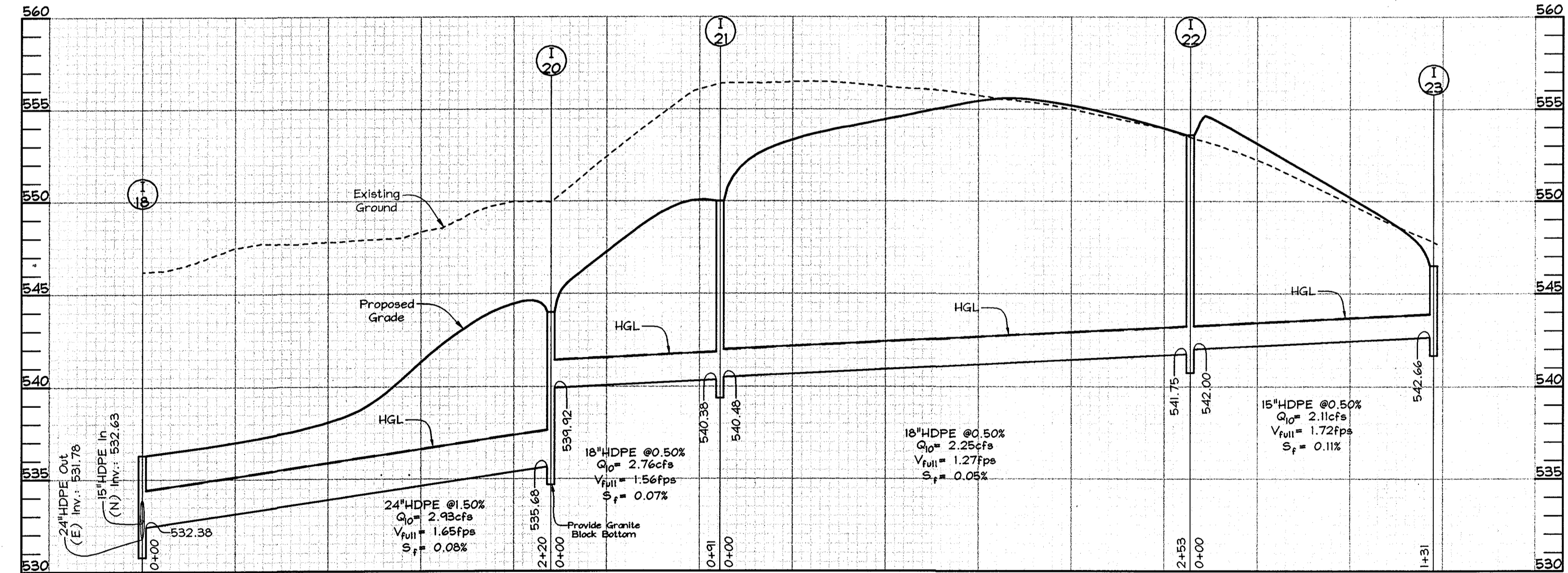
STORM DRAIN PROFILES

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



STORM DRAIN PROFILES

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



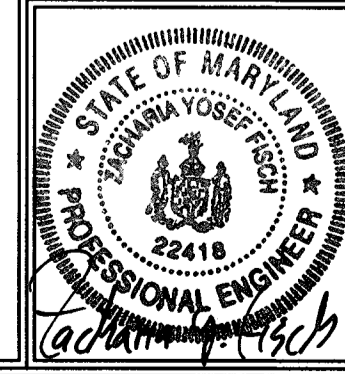
STORM DRAIN PROFILES

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chris Hamilton 7/1/13
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William T. Anderson 6-27-03
 CHIEF, BUREAU OF HIGHWAYS
 DATE

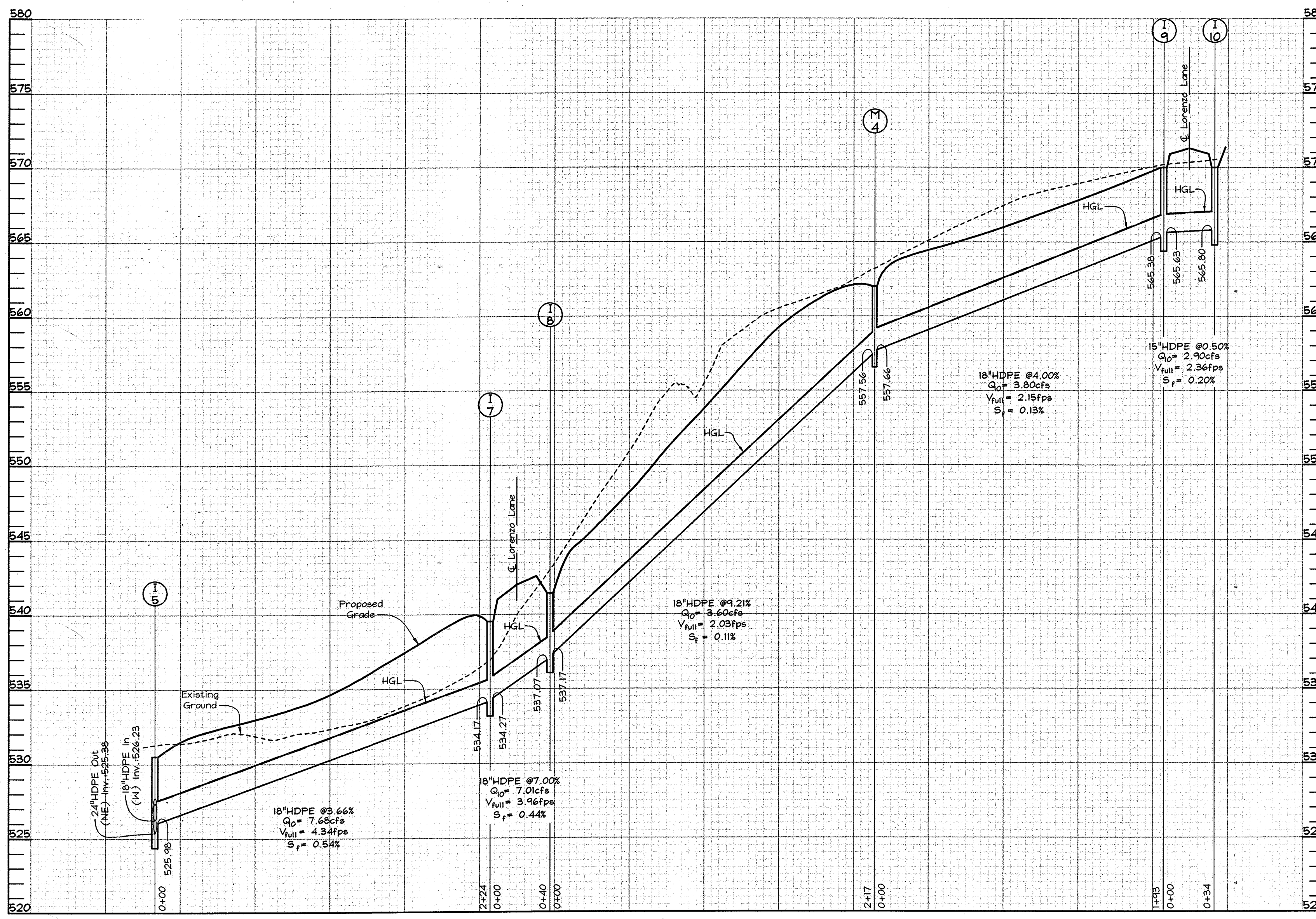
OWNER/DEVELOPER
 Waterford Parcel 13 LLC
 by Daisy Road LLC, Member
 by Pinnacle Investment Corporation, it's Manager
 by Andreu J. Poffel, President
 2325 West Apple Road
 Lutherville, Maryland 21043
 410.494.7070



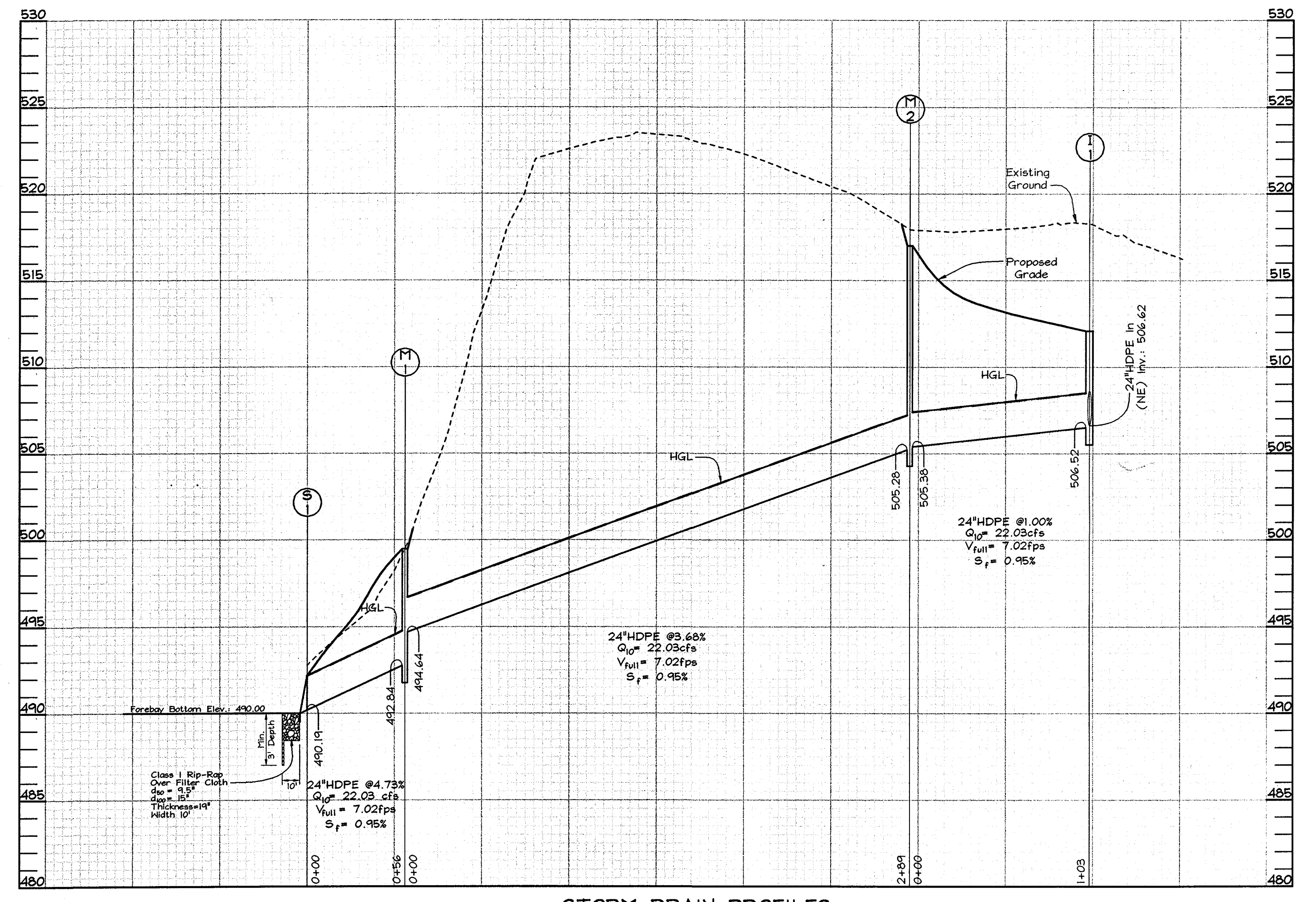
STORM DRAIN PROFILES
WATERFORD FARMS
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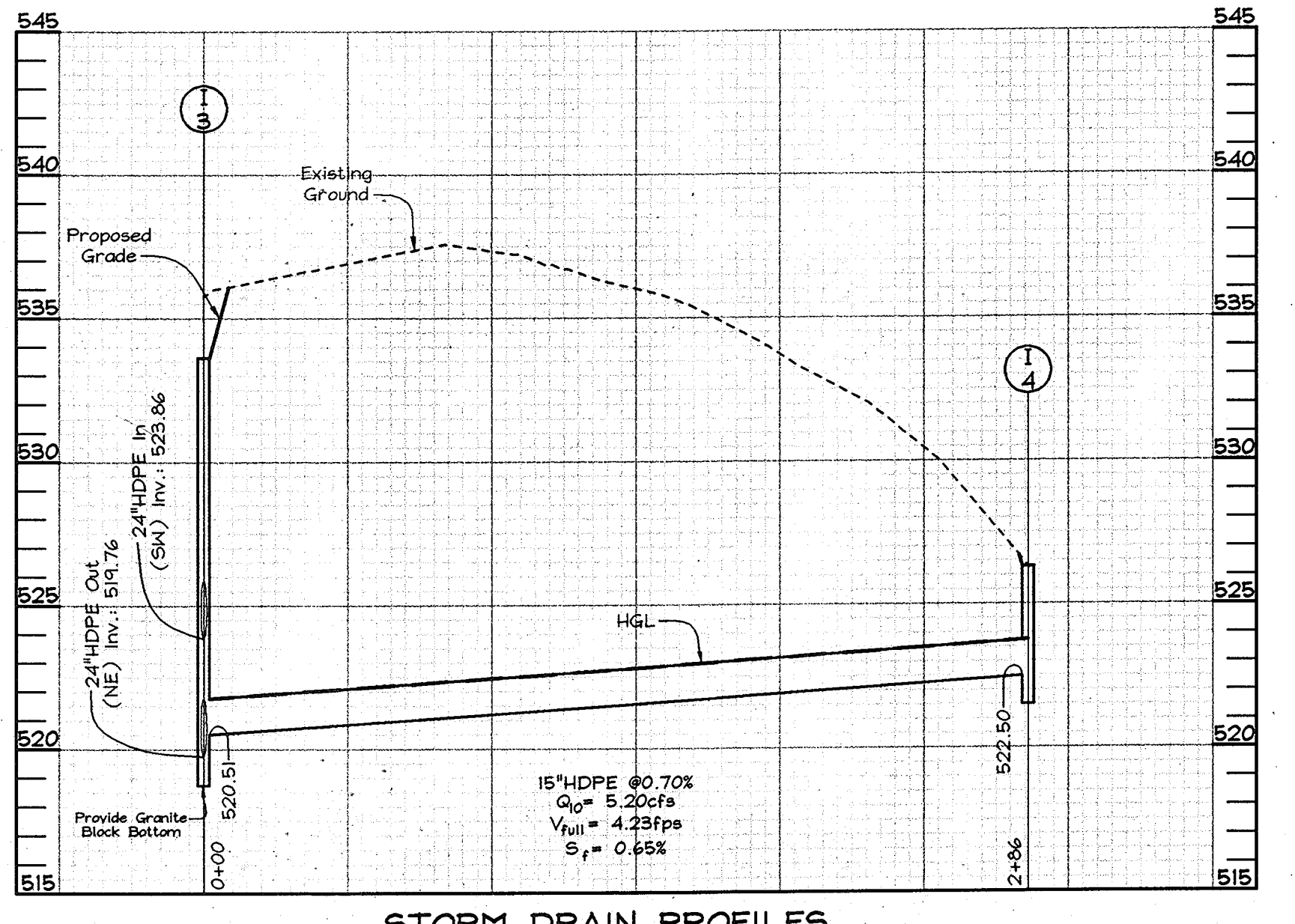
DESIGN BY: KO
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 CHECKED BY: ZTF
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 DATE: June 13, 2003
 H.O. No.: 3159
 SHEET No. 13 OF 21



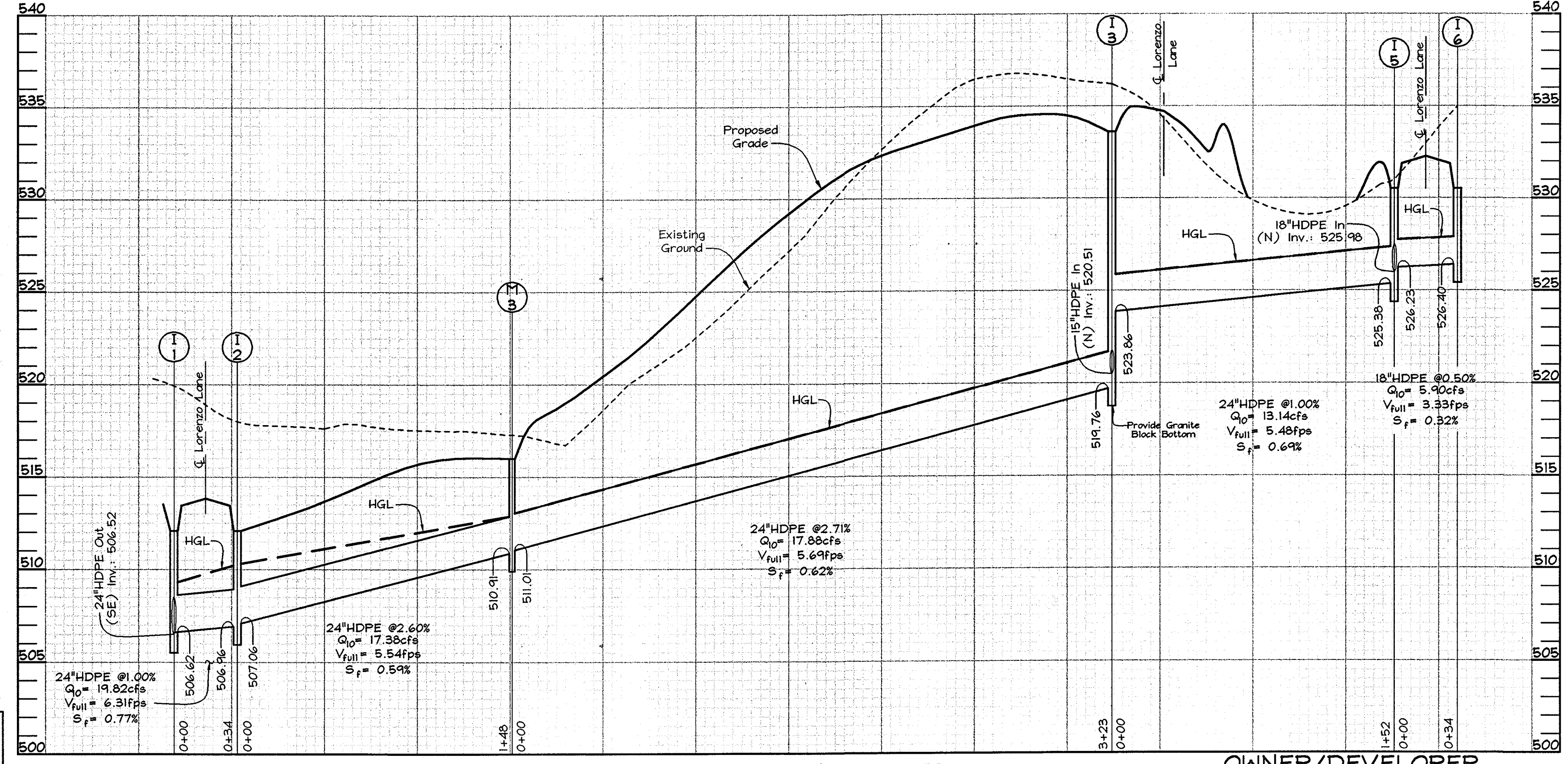
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 Scale: Horizontal-1"=50'
 Vertical-1"=5'



STORM DRAIN PROFILES
 Scale: Horizontal-1"=50'
 Vertical-1"=5'



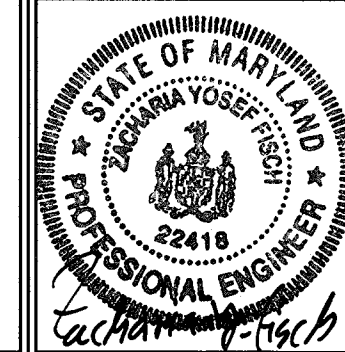
STORM DRAIN PROFILES
 Scale: Horizontal-1"=50'
 Vertical-1"=5'



STORM DRAIN PROFILES
 Scale: Horizontal-1"=50'
 Vertical-1"=5'

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 by Daisy Road LLC, Member
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 232 West Joppa Road
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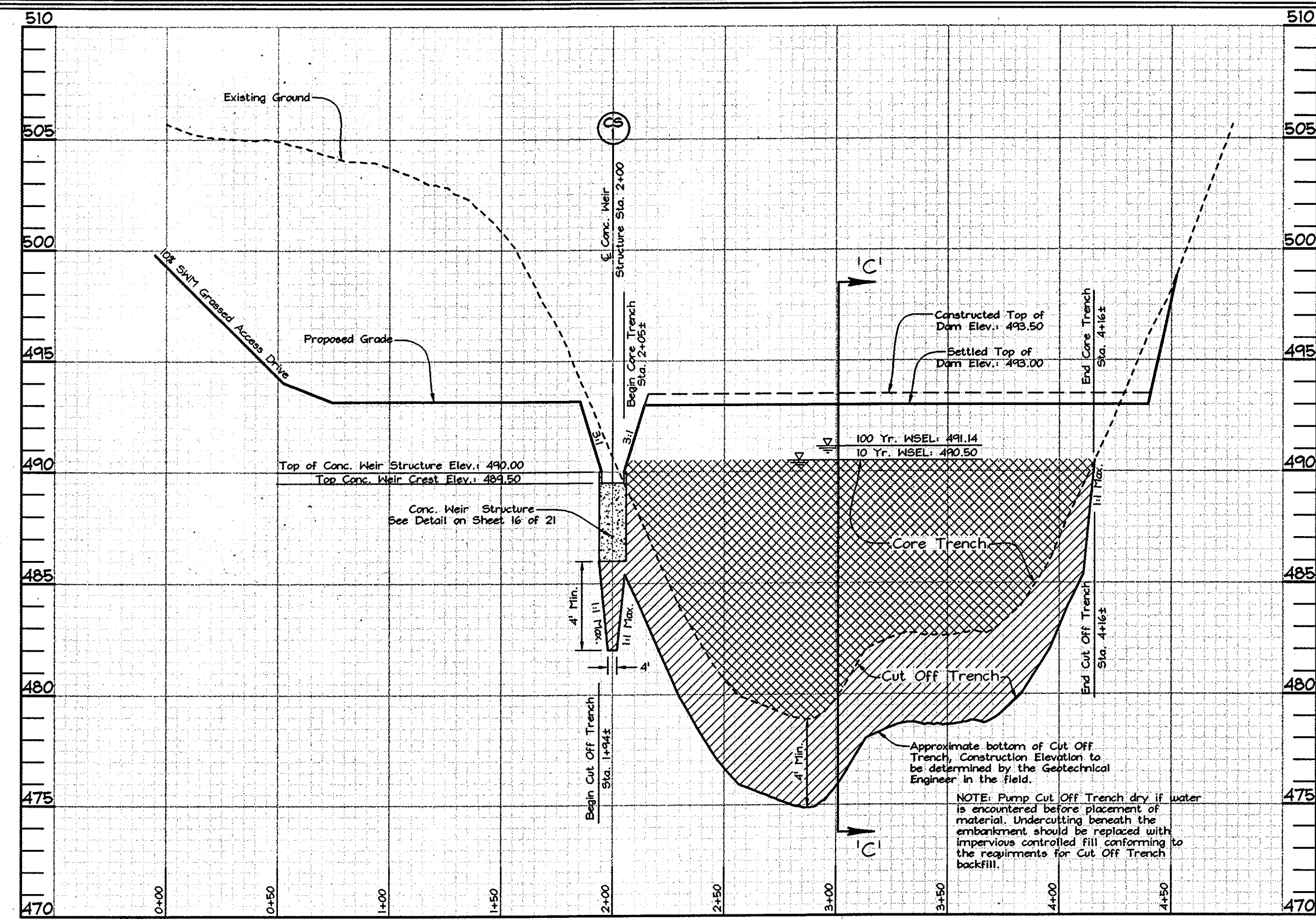


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 8318 Forrest Street Elkton City, MD 21043
 Tel: 410-750-2251 Fax: 410-750-7350
 E-mail: fsh@tad.net

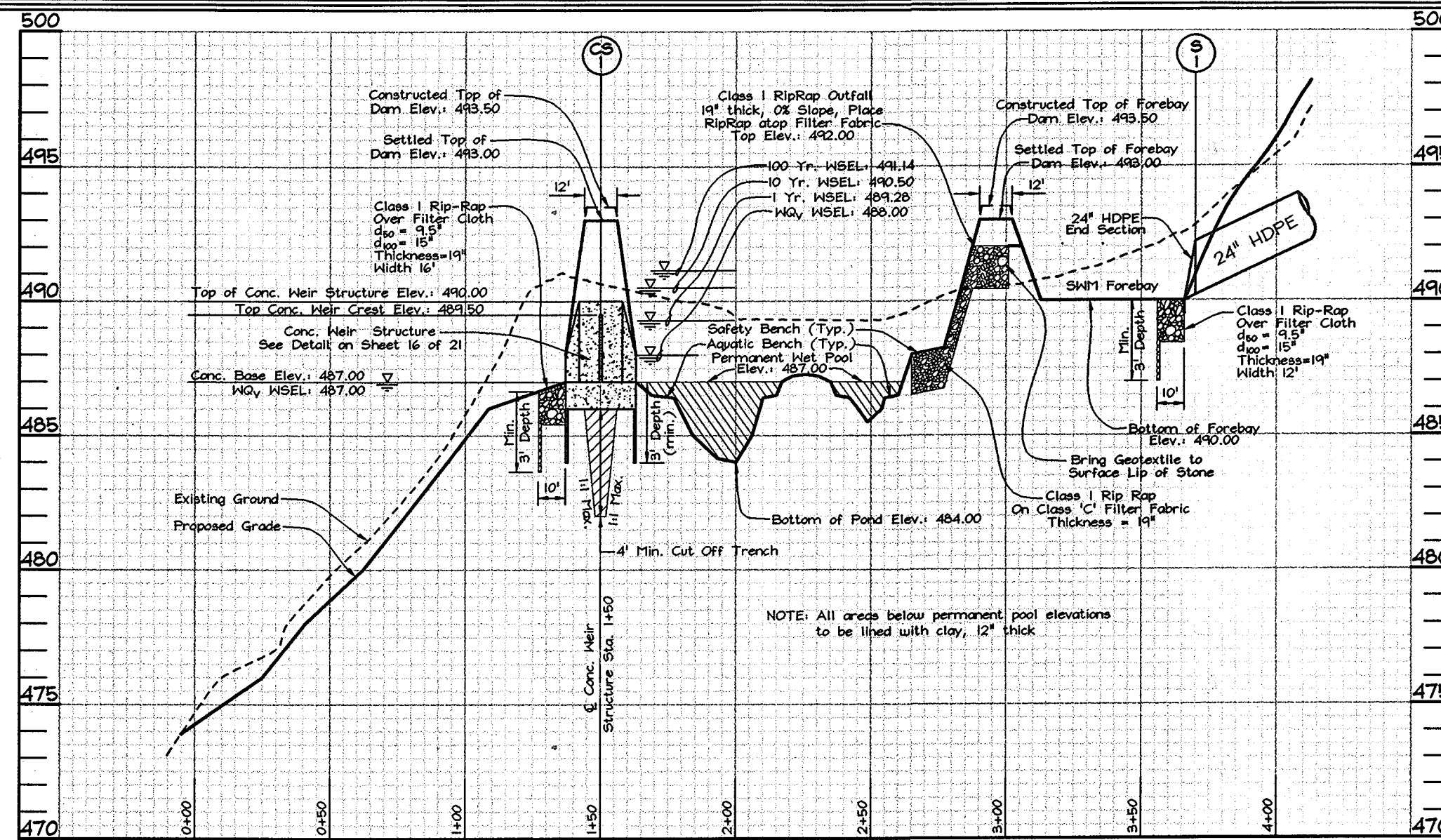
DESIGN BY: KO
 DRAWN BY: KO
 CHECKED BY: ZYF
 SCALE: As Shown
 DATE: June 13, 2003
 W.O. No.: 3159
 SHEET No. 14 OF 21

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamilton 7/9/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

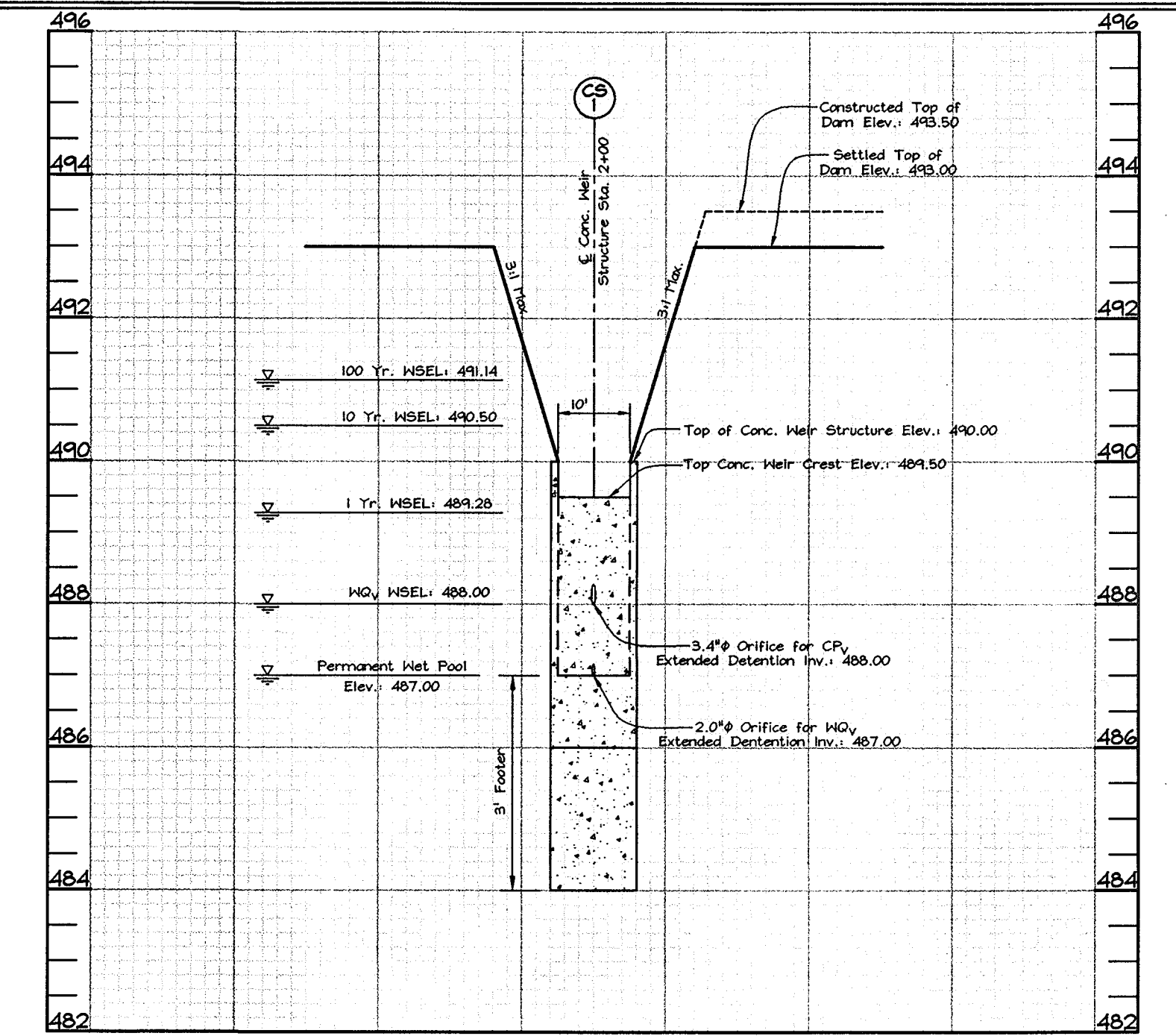
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William T. Mahan 6.27.03
 CHIEF BUREAU OF HIGHWAYS DATE



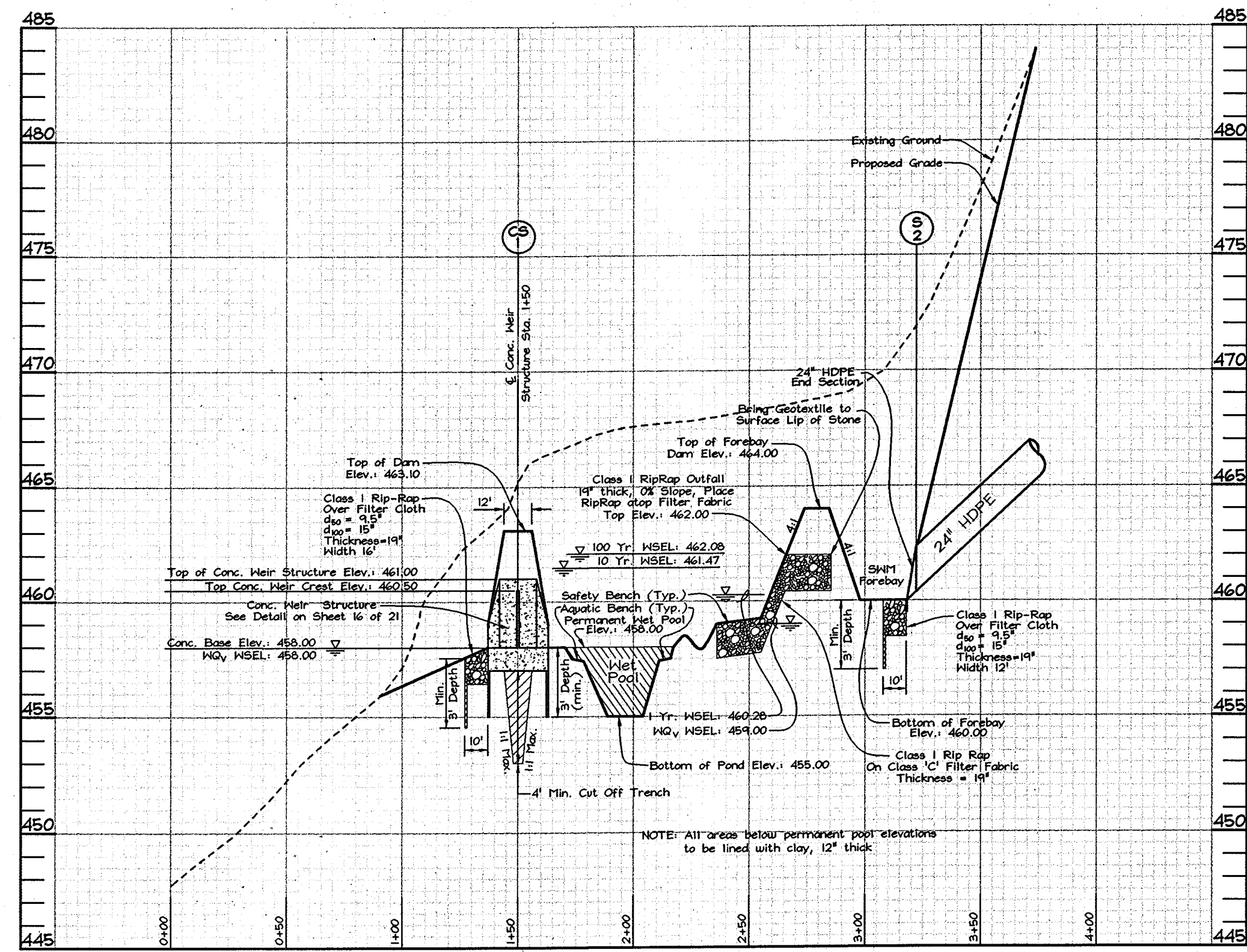
SWM POND 1
SECTION 'B'-'B' ALONG TOP OF DAM
Scale: Horizontal-1"=50'
Vertical-1"=5'



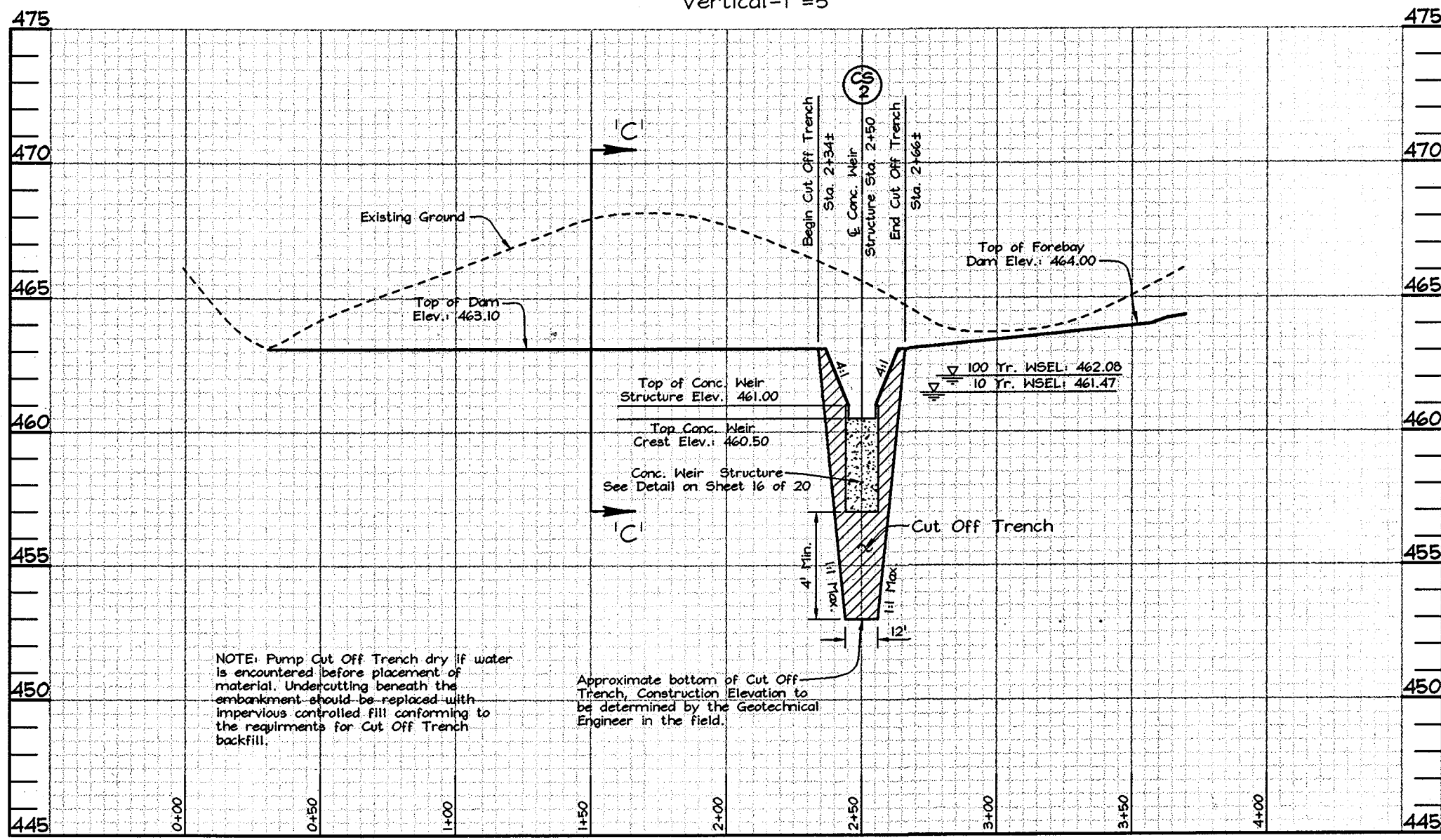
SWM POND 1
SECTION 'A-A' THRU WET POOL FACILITY
Scale: Horizontal-1"=50'
Vertical-1"=5'



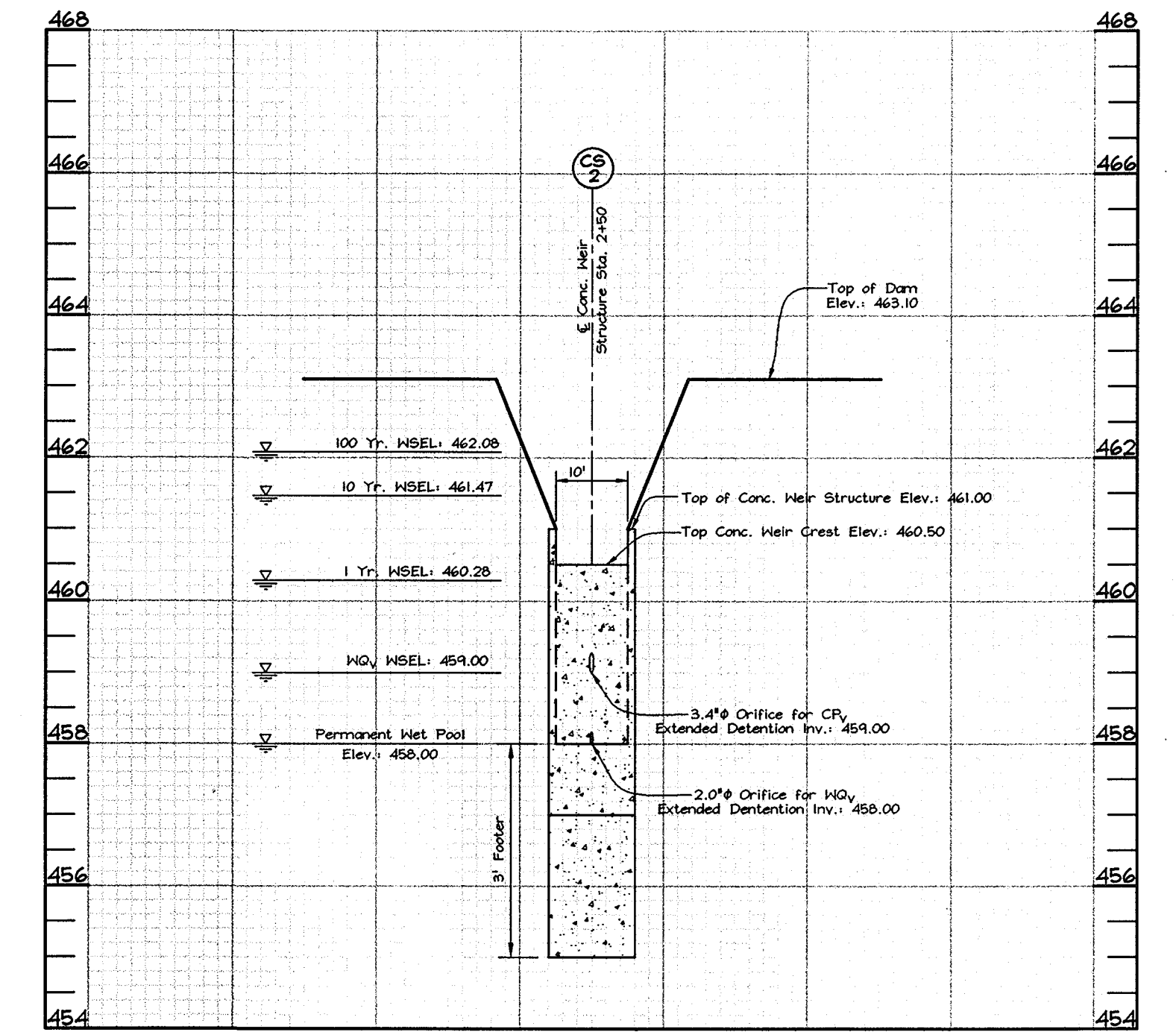
SWM POND 1
SECTION THRU WEIR STRUCTURE (CS-1)
Scale: Horizontal-1"=20'
Vertical-1"=2'



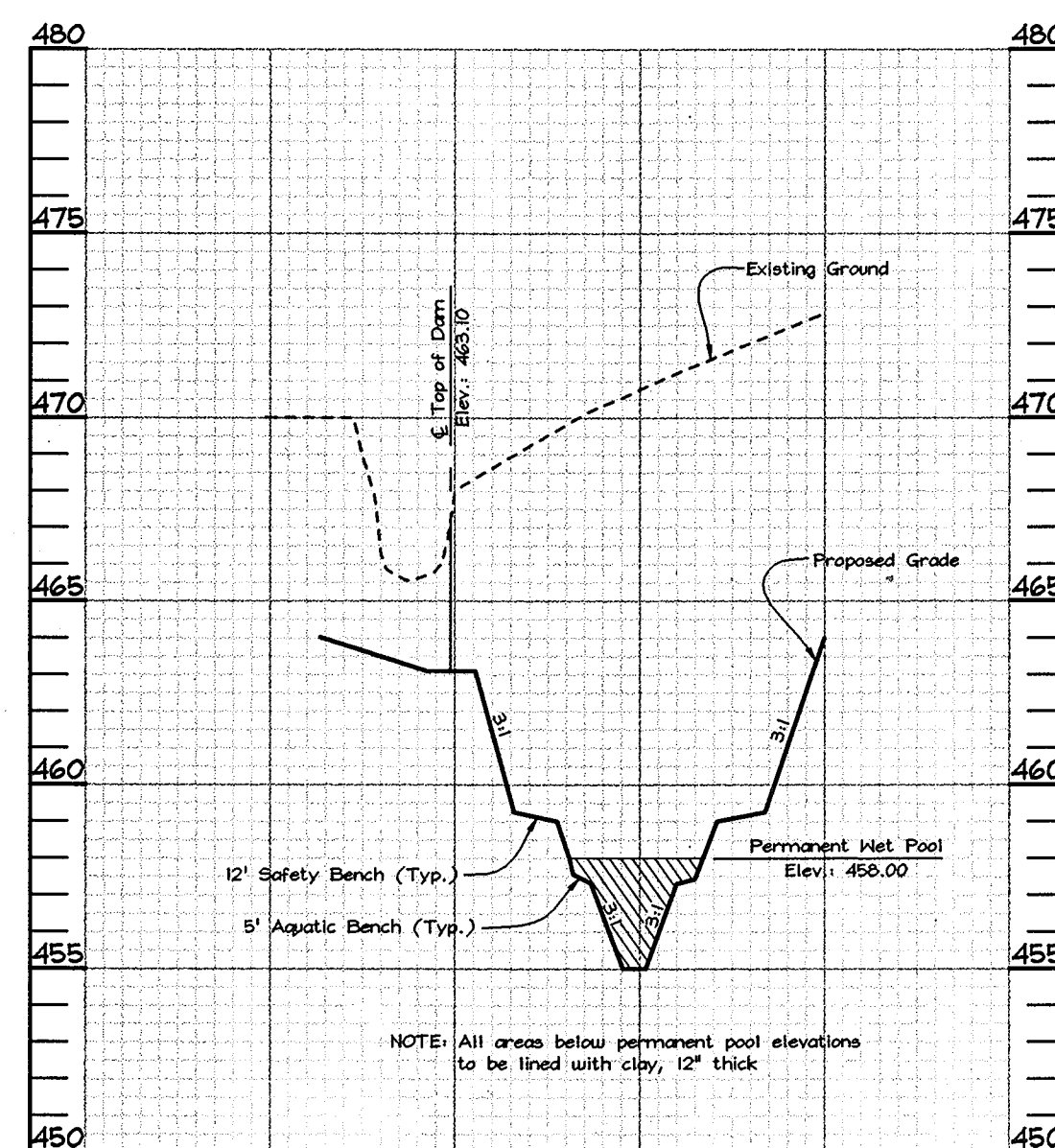
SWM POND 2
SECTION 'A-A' THRU WET POOL FACILITY
Scale: Horizontal-1"=50'
Vertical-1"=5'



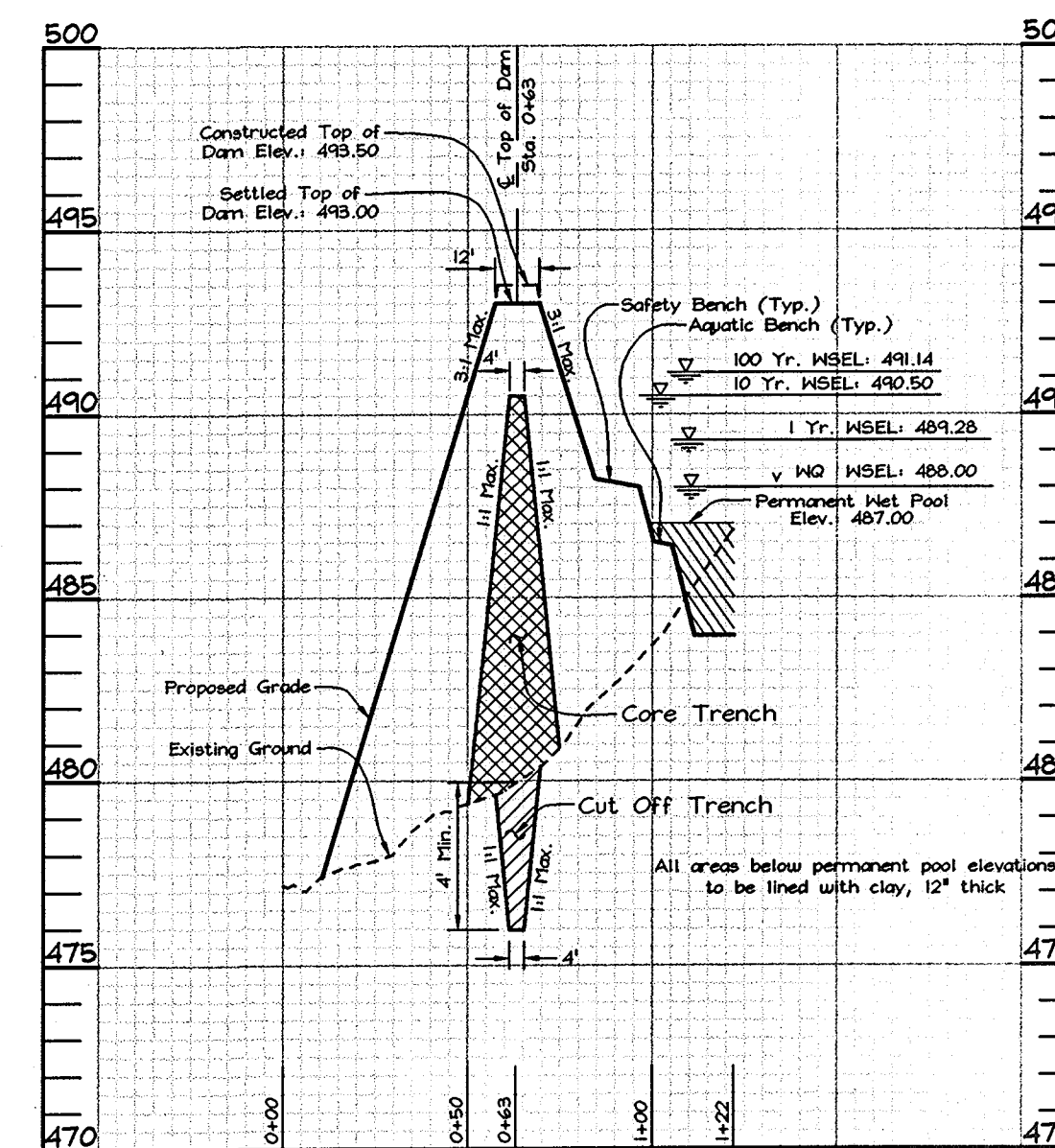
SWM POND 2
SECTION 'B'-'B' ALONG TOP OF DAM
Scale: Horizontal-1"=50'
Vertical-1"=5'



SWM POND 2
SECTION THRU WEIR STRUCTURE CS-2
Scale: Horizontal-1"=20'
Vertical-1"=2'



SWM POND 2
SECTION 'C'-'C' THROUGH DAM
Scale: Horizontal-1"=50'
Vertical-1"=5'



SWM POND 1
SECTION 'C'-'C' THROUGH DAM
Scale: Horizontal-1"=50'
Vertical-1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Cindy Hamilton 7/1/03
CHIEF, DIVISION OF LAND DEVELOPMENT
Chad Damann 7/1/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

William J. Maloney 6-27-03
CHIEF, BUREAU OF HIGHWAYS

OWNER/DEVELOPER
Waterford Parcel 13 LLC
by Daisy Road LLC, Member
by Pinnacle Investment Corporation, it's Manager
by Andrew J. Poffel, President
2329 West Joppa Road
Lutherville, Maryland 21093
410.494.7070



STORMWATER MANAGEMENT NOTES AND DETAILS
WATERFORD FARMS
LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'
TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Elkton City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: fsh@load.net

DESIGN BY: *KO*
DRAWN BY: *SLM*
CHECKED BY: *ZYF*
SCALE: *As Shown*
DATE: *June 13, 2003*
N.O. No.: *3159*
SHEET No. *16 OF 21*

LEGEND

- Existing Contour -----382
- Proposed Contour -----382
- Existing Spot Elevation 382.3
- Proposed Spot Elevation +82.33
- Direction of Flow
- Existing Trees to Remain
- Walk Out Basement
- Shade Tree
- Street Tree
- Evergreen Tree
- Landscape Perimeter PERIMETER ONE

STREET TREE SCHEDULE			
STREET NAME	LF REQUIRED	TREES REQUIRED	PROVIDED
Cliff View Road	244'	8	8
Lorenzo Lane	3,538'	91	91
Eleanora Garden Way	3,048'	78	78
Hillis May	1,068'	29	29

STREET TREE LANDSCAPE SCHEDULE			
KEY	QUAN.	BOTANICAL NAME	SIZE NOTE
AR	77	Acer rubrum, Shade Trees (Street Trees) 'October Glory Red Maple'	2 1/2"-3" Cal. B # B
PA	73	Platanus x acerifolia, Shade Trees (Street Trees) 'Bloodgood' London Plane'	2 1/2"-3" Cal. B # B
ZS	56	Zelkova serrata, Shade Trees (Street Trees) 'Village Green' Japanese Zelkova'	2 1/2"-3" Cal. B # B

LANDSCAPE SCHEDULE			
KEY	QUAN.	BOTANICAL NAME	SIZE NOTE
AR	39	Acer rubrum (Shade Trees) 'October Glory Red Maple'	2 1/2"-3" Cal. B # B
QR	36	Quercus rubra (Shade Trees) 'Red Oak'	2 1/2"-3" Cal. B # B
PS	48	Pinus strobus 'Eastern White Pine'	6'-8' Ht. B # B
TO	61	Thuja occidentalis 'Nigra' 'Dark American Arborvitae'	5'-6' Ht. B # B

- NOTES:**
- At the time of plant installation, all shrubs and trees listed and approved on the Landscape Plan shall comply with the proper height requirements in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocations of the required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from the approved Landscape Plan may result in denial or delay in the release of Landscape Surety until such time as all required materials are planted and/or revision are made to the applicable plans.
 - Financial Surety for the required perimeter landscaping shall be posted as part of the Developer's Agreement in the amount of \$38,850.00 (75 shade trees @ \$300.00 each and 104 evergreen trees @ \$150.00 each).
 - Financial Surety for the required Street Trees shall be posted as part of the Developer's Agreement in the amount of \$61,800.00 (206 street shade trees @ \$300.00 each).

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING		
Perimeter/Frontage Designation	7	19
Landscape Type	B	B
Linear Feet of Perimeter	2,000'	2,443'
Credit for Existing Vegetation (No, Yes and Linear Feet)	Yes*, 1,962' / 766'	Yes, 876'
Remaining Perimeter Length	38' / 1234'	1567'
Credit for Wall, Fence or Berm (No, Yes and %)	No	No
Number of Trees Required		
Shade Trees (150)	1:50 0*	1:50 7*
Evergreen Trees (140)	1:40 19	1:40 39
Number of Trees Provided		
Shade Trees	0	7
Evergreen Trees	19	39
Other Trees (2:1 Substitution)	-	-

* Only the evergreen component of the type 'B' perimeter landscaping is required for the SWM areas adjacent to Lots 17-19, 45, 31 and on the northwest side of the SWM Pond 2.

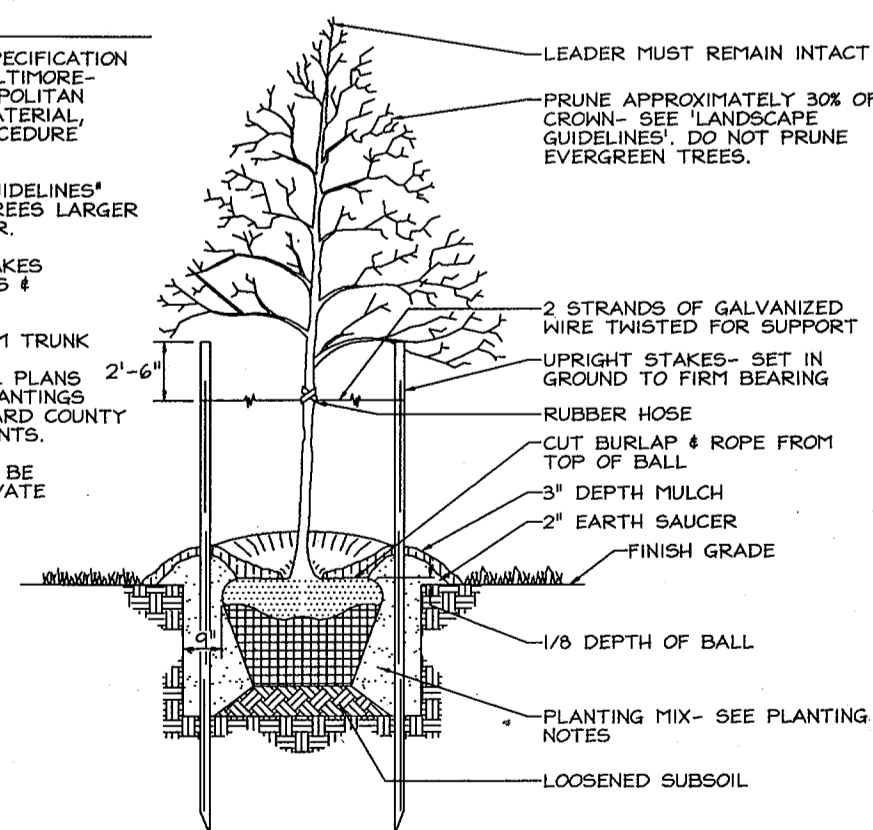
CATEGORY	ADJACENT TO ROADWAYS										ADJACENT TO PERIMETER PROPERTIES												
	2	9	1	12	14	16	24	25	3	4	5	6	8	10	11	13	15	17	18	20	21	22	23
Perimeter/Frontage Designation	B	B	B	B	B	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Linear Feet of Roadway	635'	669'	131'	114'	294'	114'	325'	270'	1188'	499'	518'	675'	401'	319'	186'	180'	122'	165'	1575'	285'	182'	266'	664'
Frontage/Perimeter																							
Credit for Existing Vegetation (Yes, No, Linear Feet)	Yes 50	Yes 669	Yes 131	Yes 114	Yes 294	Yes 114	Yes 175	Yes 143	No	Yes(A) 449	Yes 65	Yes 417	Yes 401	Yes 262	Yes 186	Yes 180	Yes 122	Yes 165	Yes 728	Yes 285	Yes 182	Yes 266	Yes 664
Remaining Perimeter Length	(585)	(0)	(0)	(0)	(0)	(0)	(143)	(0)	(0)	(0)(B)	(453)	(258)	(0)	(57)	(0)	(0)	(0)	(0)	(867)	(0)	(0)	(0)	(0)
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Describe below if needed																							
Number of Plants Required																							
Shade Trees	1:50 12	1:50 15	1:50 0	1:50 0	1:50 0	1:50 0	1:50 3	1:50 5	1:60 20	1:60 14	1:60 8	1:60 4	1:60 0	1:60 1	1:60 0	1:60 0	1:60 0	1:60 14	1:60 0	1:60 0	1:60 0	1:60 0	
Evergreen Trees	1:40 15	1:40 17	1:40 0	1:40 0	1:40 0	1:40 0	1:40 7	1:40 7	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	1:40 19	
Shrubs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Plants Provided																							
Shade Trees	12	15	0	0	0	0	3	5	20	1	8	4	0	1	0	0	0	14	0	0	0	0	
Evergreen Trees	0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other Trees (2:1 Substitution)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Shrubs (10:1 Substitution)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
(Describe Plant Substitution Credits Below if needed)																							

* Credit for perimeter 9 and 14 is for the Shade Tree component only. Evergreen component will be provided in full with no credits.

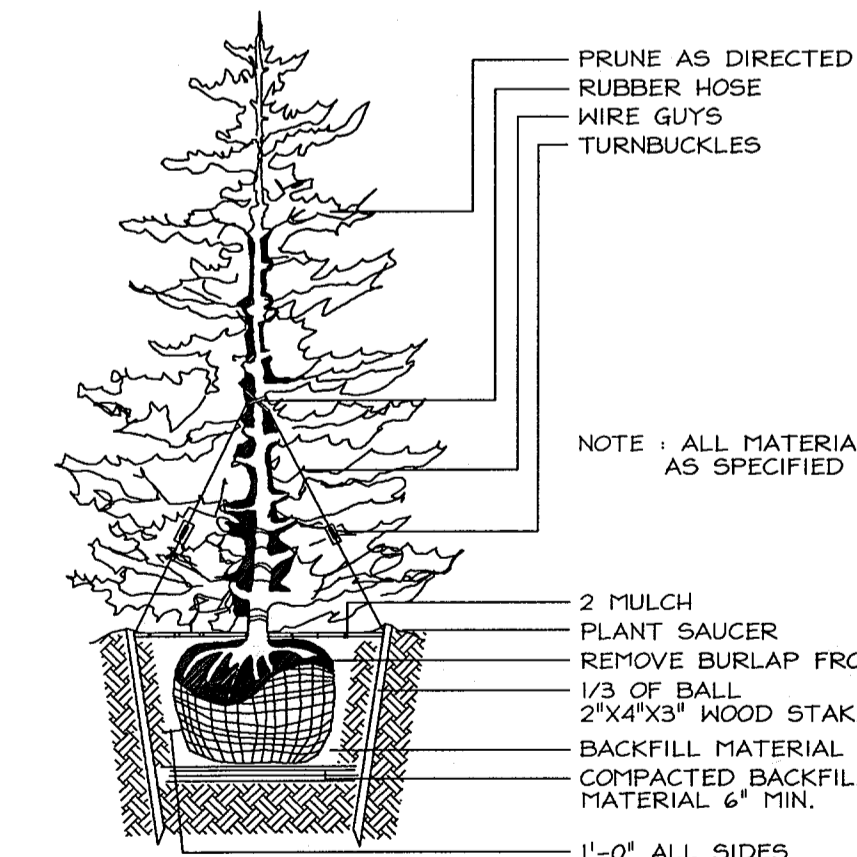
** The type B perimeter landscaping is for the Evergreen component only, the Shade Tree component will come from the type A perimeter landscape requirement.

NOTES

- SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT, AND PROCEDURE SPECIFICATIONS.
- SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
- PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
- KEEP MULCH 1" FROM TRUNK.
- SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
- TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.



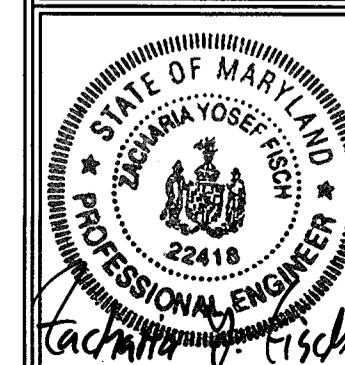
TYPICAL TREE PLANTING AND STAKING
DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

LANDSCAPE PLAN, NOTES & DETAILS

WATERFORD FARMS
LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'
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DESIGN BY: KO
DRAWN BY: KO
CHECKED BY: ZYF
SCALE: 1"=100'
DATE: June 13, 2003
H.O. No.: 3159
SHEET No. 18 OF 21

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

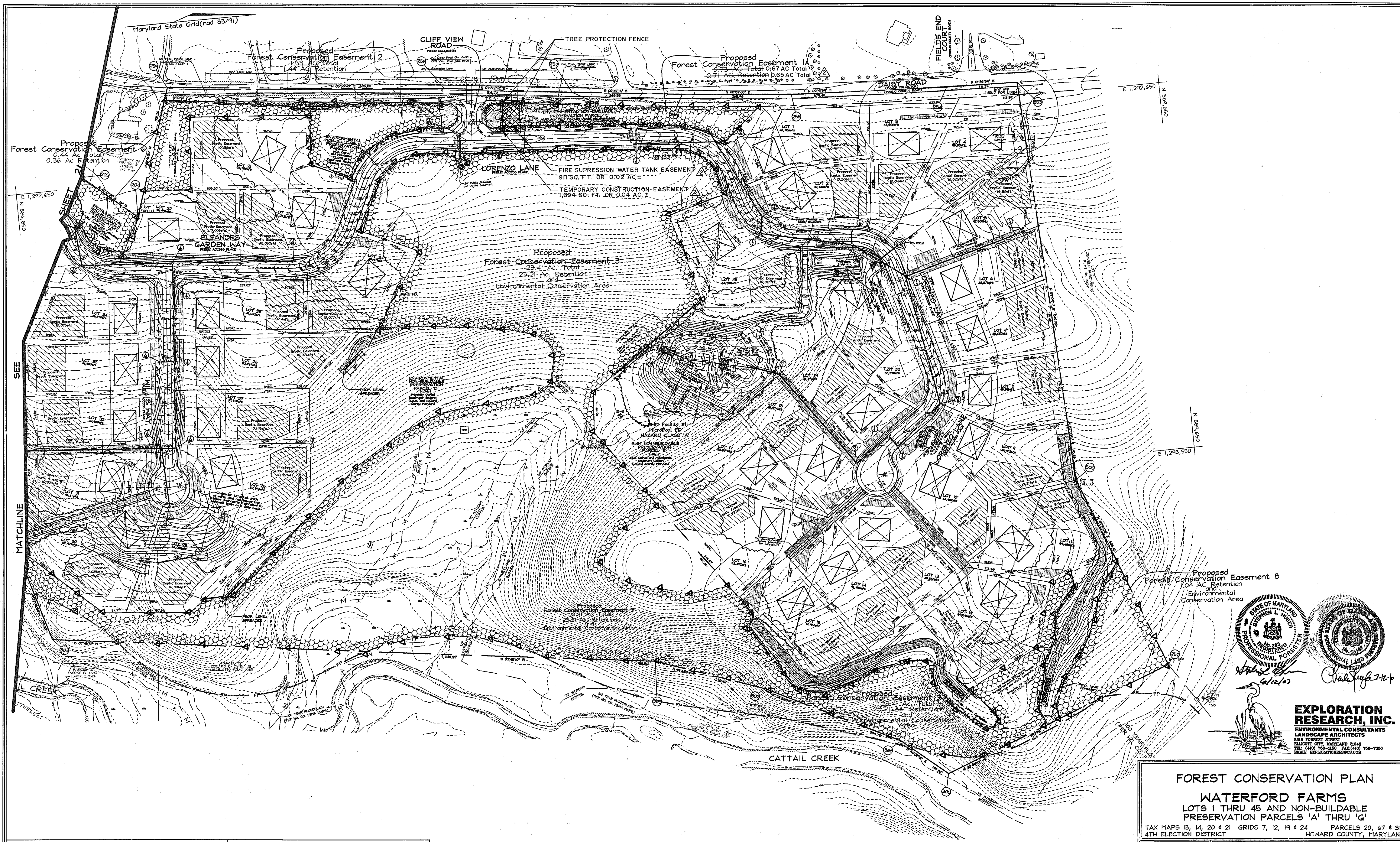
Andy Hamilton 7/1/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

William F. White 6-27-03
CHIEF, BUREAU OF HIGHWAYS DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
Andrew J. Poffel PRESIDENT 6/12/03
SIGNATURE OF DEVELOPER DATE
PINNACLE INVESTMENT CORP.

OWNER/DEVELOPER
Waterford Parcel 13 LLC
by Daisy Road LLC, Member
by Pinnacle Investment Corporation, it's Manager
by Andrew J. Poffel, President
2328 West Joppa Road
Lutherville, Maryland 21093
410.494.7070



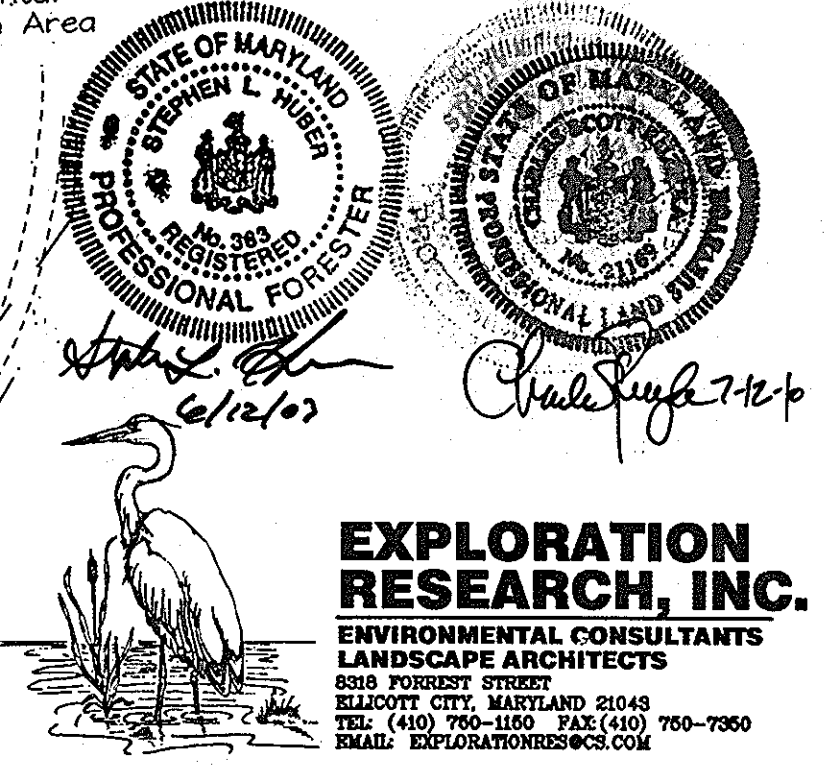
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E 1,249,550
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E 1,249,550
N 5361,650

E 1,249,550
N 5361,650

FOREST CONSERVATION PLAN
WATERFORD FARMS
 LOTS 1 THRU 45 AND NON-BUILDABLE
 PRESERVATION PARCELS 'A' THRU 'G'
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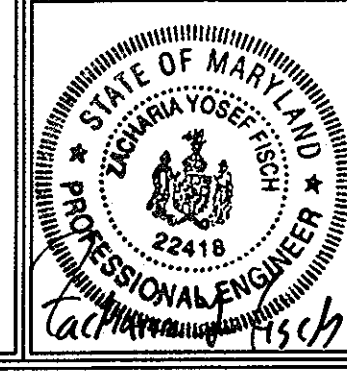


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Harris 7/9/13
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. White 6-27-03
 CHIEF, BUREAU OF HIGHWAYS DATE

No.	Description	Date
1	Revised Forest Conservation Easement '1'	01/26/10
1	Revised Tree Protection Fence	8/22/03

OWNER/DEVELOPER
 Waterford Parcel 13 LLC
 by Daisy Road LLC, Member
 by Pinnacle Investment Corporation, it's Manager
 by Andreu J. Poffel, President
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DESIGN BY: KO
 DRAWN BY: KO
 CHECKED BY: ZYF
 SCALE: 1"=100'
 DATE: June 13, 2003
 P.L.O. No.: 3159
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F-03-122 F-03-122

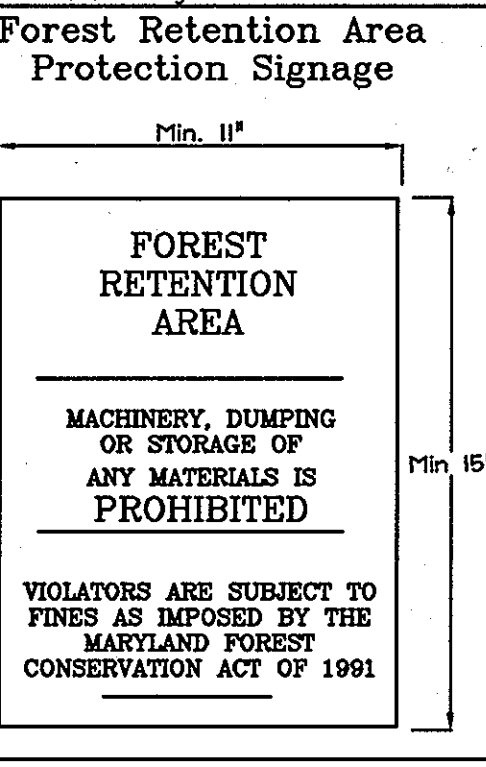


FOREST CONSERVATION EASEMENT ABANDONMENT PURPOSE NOTES

An underground suppression fire tank will be installed within the existing Forest Conservation Easement '1A'. The newest Forest Conservation Easement shall be known herein as Forest Conservation Easement '1A'. The proposed limits of disturbance total approximately 0.06 Acres, which will be abandoned for an easement for the tank. A temporary construction easement of 0.04 Acres will be reverted after construction is complete. These Forest Conservation Plans have been revised using the Red-Line Revision process, per the request of Howard County Department of Planning and Zoning on December 1, 2009.

Per Howard County Department of Planning and Zoning, the Approved Forest Conservation Plan for Waterford Farms subdivision indicates that the forest obligation for this subdivision is 37.50 acres. 38.31 acres of Forest Easement were recorded, leaving approximately 0.81 acres of extra forest easement that has been recorded as a credit. No fee-in-lieu will be required to abandon this 0.06 acres of Forest Conservation Easement '1A'.

Tree Protection Fencing has been added to the limit of the easement to protect vegetation within Forest Conservation Easement '1'. All existing forest retention signs will remain in place within the existing Forest Conservation Easement.



FOREST CONSERVATION WORKSHEET

Net Tract Area	Acres
A. Total Tract Area	110.50
B. Area Within 100 Year Floodplain	2.37
C. Other deductions	--
D. Net Tract Area	108.13
Zoning Use Category: RESIDENTIAL-SUBURBAN	
Land Use Category	
E. Afforestation Minimum (20 % x D)	21.63
F. Conservation Threshold (25 % x D)	27.03
Existing Forest Cover	
G. Existing Forest on Net Tract Area	68.49
H. Forest Area Above Conservation Threshold	41.46
Breakeven Point	
I. Forest Retention Above Threshold with no Mitigation	35.32
J. Clearing Permitted without Mitigation	33.17
Proposed Forest Clearing	
K. Forest Areas to be Cleared	30.69
L. Forest Areas to be Retained	37.80
Planting Requirements	
M. Reforestation for Clearing Above Threshold	7.67
N. Reforestation for Clearing Below the Threshold	0
P. Credit for Retention Above Conservation Threshold	10.77
Q. Total Reforestation Required	0
R. Total Afforestation Required	0
S. Total Reforestation and Afforestation Requirement	0

MANAGEMENT NOTES FOR FOREST RETENTION AREAS

- All proposed activities shall adhere to the conditions, schedules and terms of an approved sediment control and erosion plan.
- After the boundaries of the retention area have been staked and flagged and before any disturbance has taken place on-site, a preconstruction meeting at the construction site shall take place. The developer, contractor or project manager, and appropriate County Inspectors shall attend.
- Tree protection for all retained areas:
 - All retention areas within 50 feet of proposed construction activities shall be protected by highly visible, well anchored temporary protection devices (silt fence or blaze orange plastic mesh).
 - All protection devices shall be in place prior to any grading or land clearing.
 - All protection devices shall be properly maintained and shall remain in place until construction has ceased.
 - Attachment of signs, fencing or other objects to trees is prohibited.
 - No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed within protected areas.
- During construction phase, monitor and correct condition of retained trees for soil compaction, root injury, flood conditions, drought conditions and other stress signs.
- Post-Construction Phase
 - Inspect existing trees around the perimeter of disturbed limits for evidence of soil compaction, root injury, limb injury, or other stress signs and correct with proper management techniques such as root or limb pruning, soil aeration, fertilization, crown reduction or watering. Inspection and evaluation shall be performed by a Md. Licensed Tree Expert.
 - Inspect for dead or dying trees or limbs which may pose safety hazard and remove.
 - No burial of discarded materials will occur onsite within the conservation areas.
 - No burning within 100 feet of wooded area.
 - All temporary forest protection structures will be removed after construction.
 - Following completion of construction, prior to use, the County inspector shall inspect the entire area.

Soil Protection Zone Notes

- The Soil Protection Zone shall include all areas contained inside the Limit of Disturbance.
- Where possible, the Soil Protection Zone shall extend to the drip line of specimen trees. For other groups of trees, the zone shall be the drip line or 40% of the height of the tree, whichever is greater.
- No construction activity is permitted within the Soil Protection Zone.
- If soil has been compacted or grading has taken place in the vicinity of the Soil Protection Zone, root pruning shall be implemented per Root Pruning detail, shown on this plan.
- Root pruning shall occur prior to the beginning of construction.
- Where the Soil Protection Zone must encroach inside the Critical Root Zone of a tree, soil disturbance shall be mitigated with vertical mulching, radial trenching, or another method approved by the ERI Forest Conservation Professional.
- Prior to construction, the Limits of Disturbance shall be marked and the Professional Arborist shall determine which trees will need preventative treatment or removal.
- Tree maintenance and removal shall be undertaken by a qualified MD Licensed Tree Expert to ensure damage to surrounding trees is minimized.
- Brush and limbs removed for construction shall be chipped and spread at the edge of the Soil Protection Zone to a depth of 6 inches. This shall occur outside the Soil Protection Zone where compaction could impact otherwise unprotected Critical Root Zone.

Forest Conservation Narrative

This Forest Conservation Plan complies with the Howard County Manual of 1998 and the Maryland Forest Conservation Act of 1991. This plan will be utilizing the rules for Rural Cluster Subdivisions.

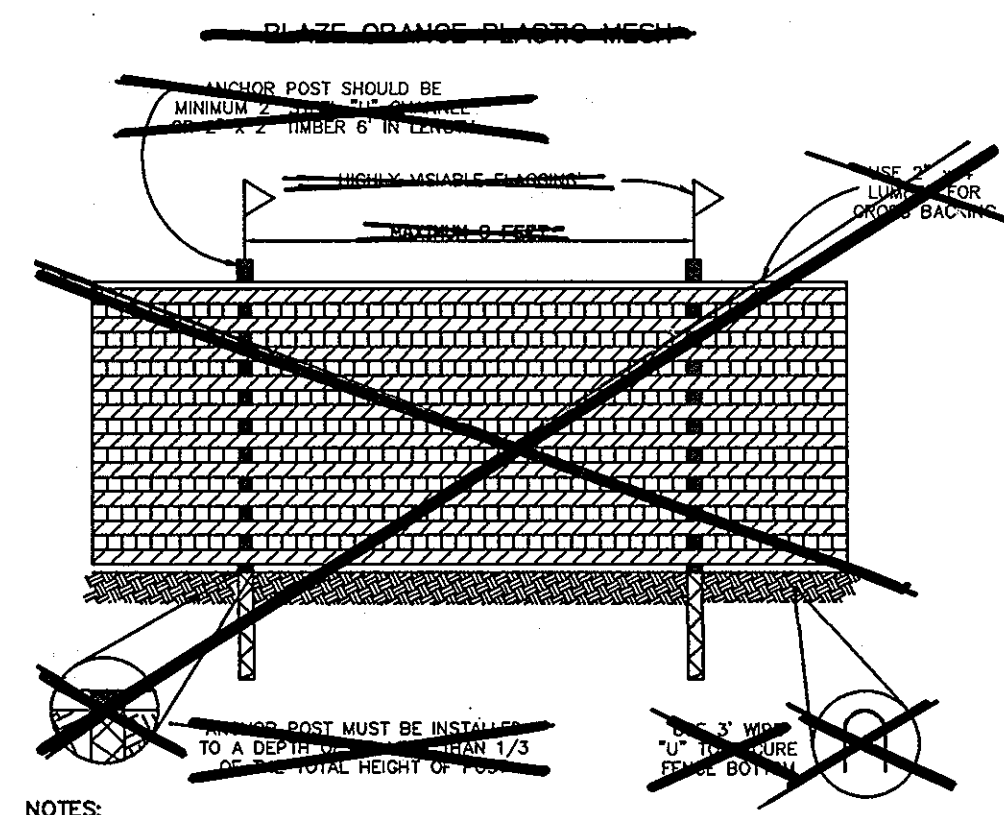
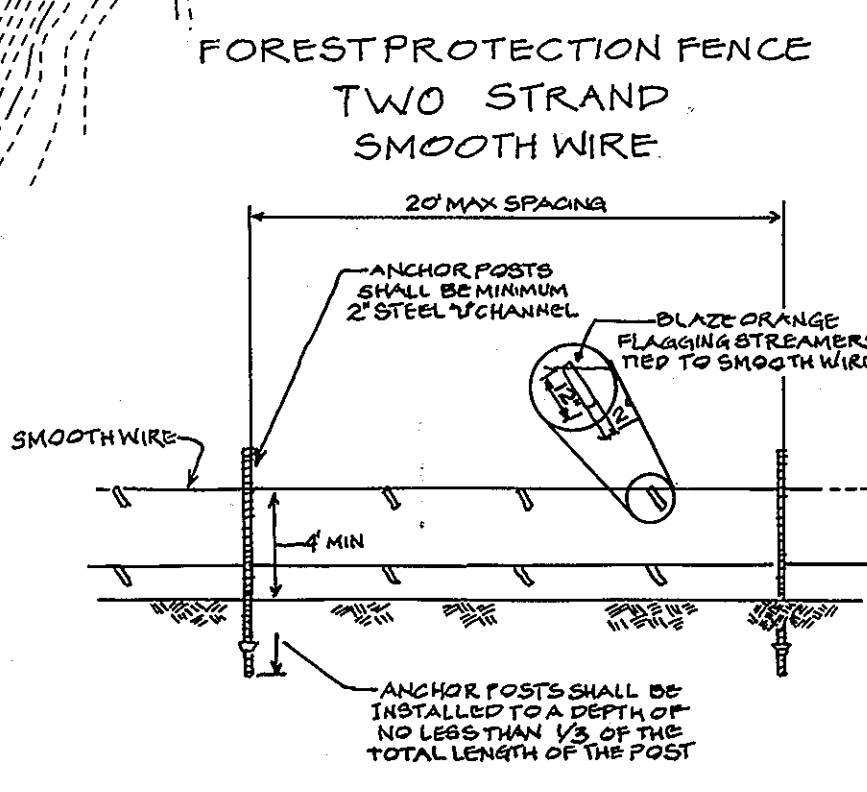
The existing tract consists of 110.50± ac. The 2.37 ac. of floodplain have been netted out for a net tract of 108.13 acres. Option "B" will be utilized wherein the entire area of Preservation Parcels is utilized. Existing forest resources total 68.49 ac. within the net tract. Easements will be established to preserve 37.80 ac. The total area of easements will exceed the acreage of trees retained, but will not be credited beyond the amount of retention. Easements will total 38.31± ac. The reason for the extra easement area is that easement boundaries were extended to proposed lot and right of way lines where the retained area ended in close vicinity to those lines.

FOREST CONSERVATION EASEMENT TABLE

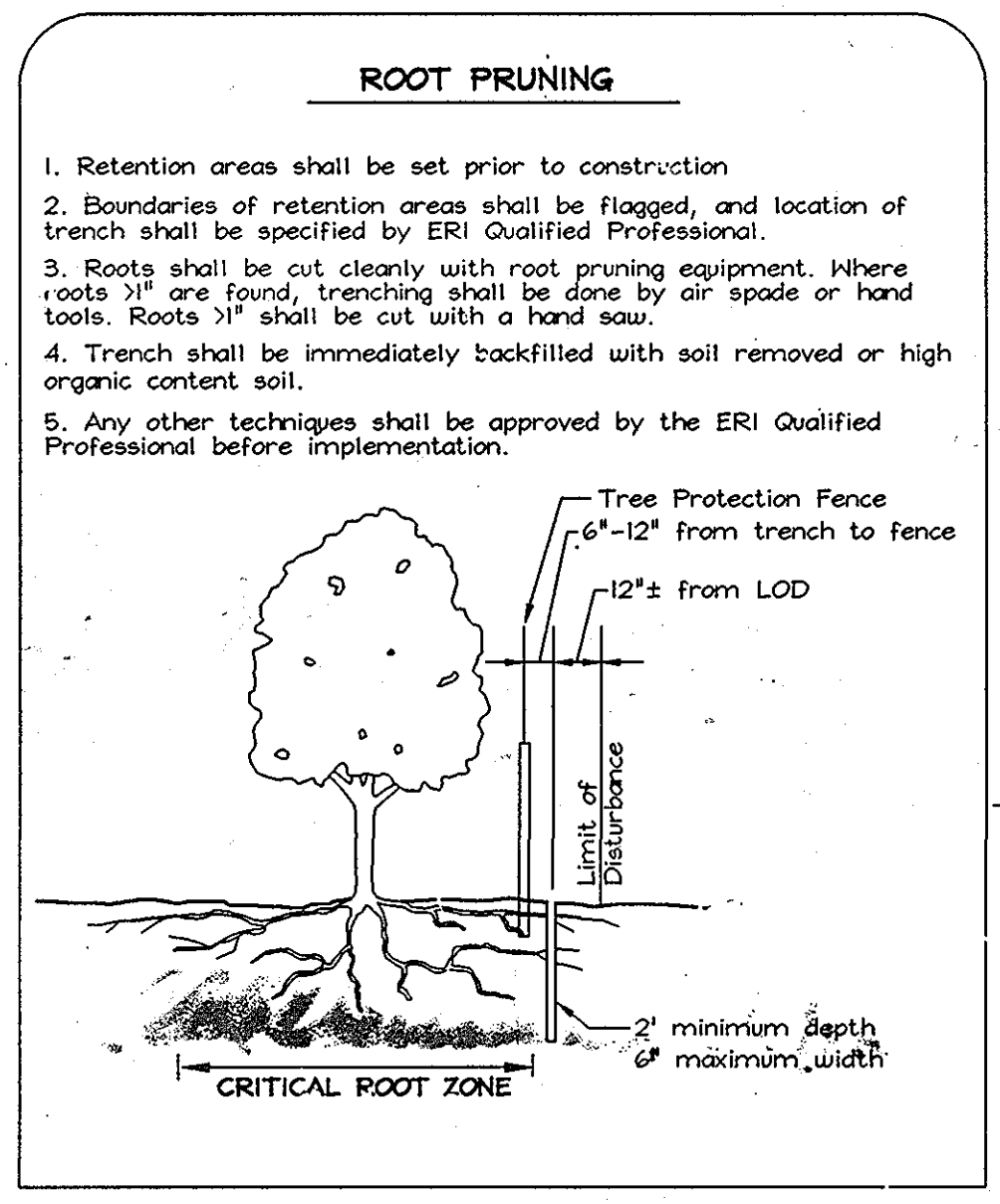
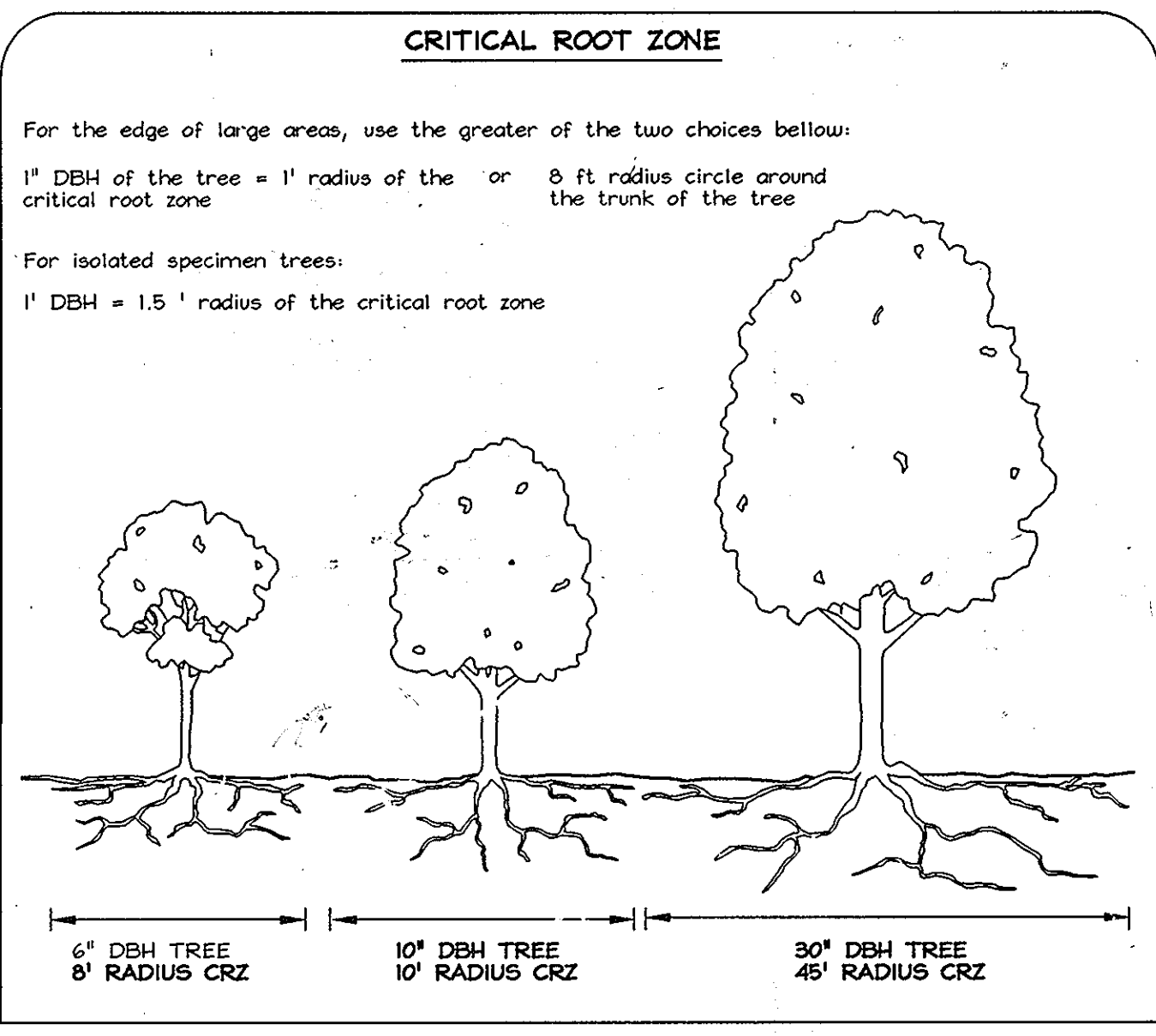
EASEMENT	CREDITED RETENTION	TOTAL EASEMENT AREA*
ESMT 1	0.71	0.65
ESMT 2	1.44	1.53
ESMT 3	23.21	23.41
ESMT 4	8.82	8.30
ESMT 5	1.92	1.92
ESMT 6	0.36	0.44
ESMT 7	0.32	0.32
ESMT 8	1.04	1.04
TOTAL	37.80	38.25

* Total Easement Area includes areas of trees preserved with the easement. These areas have not been utilized for forest retention credit because there do not meet the requirements of forest defined in the Howard County Forest Manual.

Forest Conservation Surety in the amount of \$329,315.60 will be posted with the Developers Agreement.
(37.8 ac = 1,646,568 sf X \$0.20/sf)



- NOTES:**
- FOREST PROTECTION DEVICE ONLY.
 - RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
 - BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
 - ROOT DAMAGE SHOULD BE AVOIDED.
 - PROTECTIVE SIGNAGE MAY ALSO BE USED.
 - DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.



REVISIONS

No.	Description	Date
2	Revised Forest Conservation Easement '1'	01/26/10
1	Revised Tree Protection Fence and Detail	8/22/09
No.		

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamilton 7/9/13
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William J. Mahan 6-27-03
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Andrew J. Poffel 7/9/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

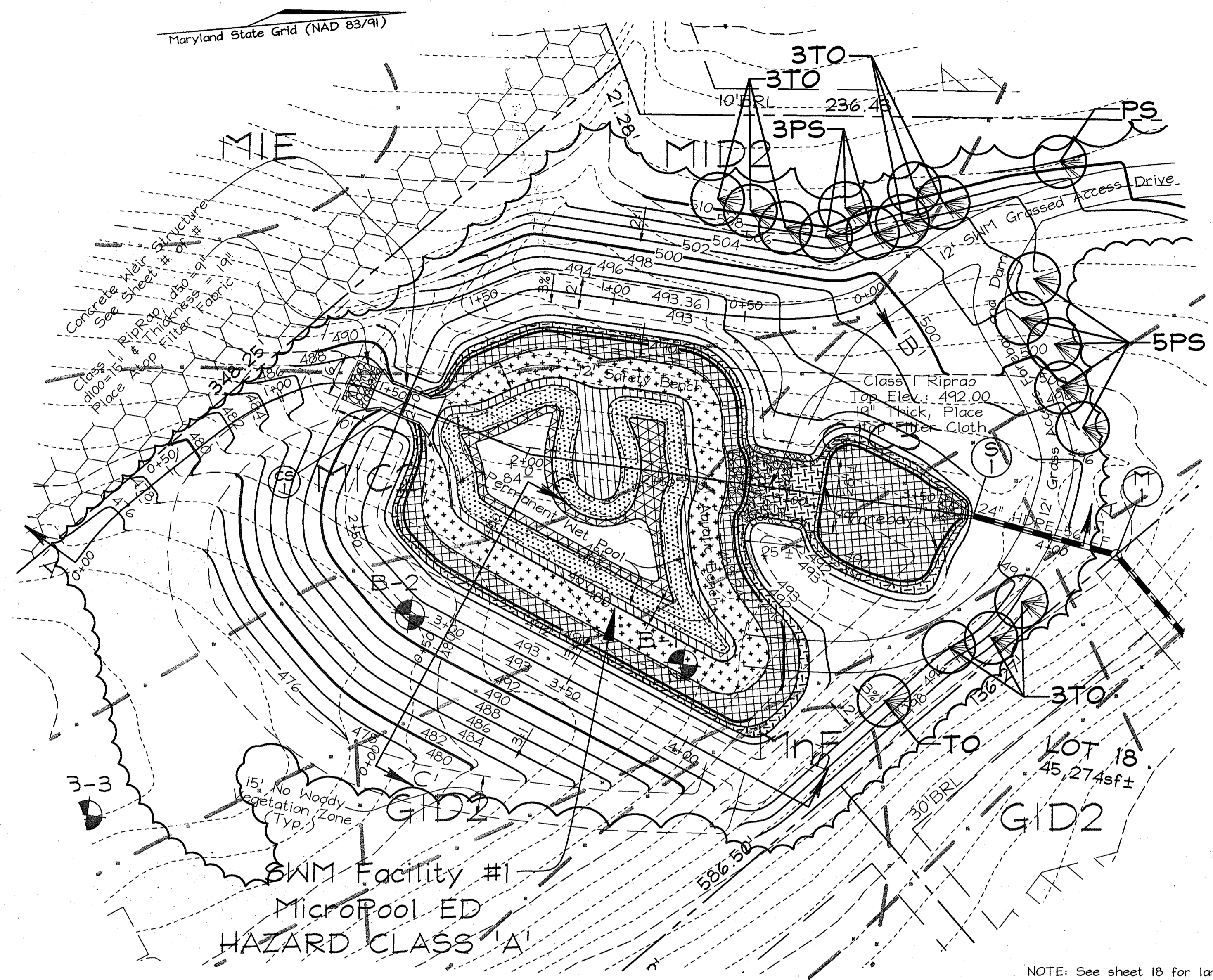
EXPLORATION RESEARCH, INC.
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS
8014 FOREST STREET
ELLSWORTH CITY, MARYLAND 21043
TEL: 410-750-2251 FAX: 410-750-7350
EMAIL: EXPLORATION@EXR.COM

FOREST CONSERVATION PLAN, NOTES AND DETAILS
WATERFORD FARMS
LOTS 1 THRU 45 AND NON-BUILDABLE PRESERVATION PARCELS 'A' THRU 'G'

TAX MAPS 13, 14, 20 # 21 GRIDS 7, 12, 19 # 24 PARCELS 20, 67 # 312 4TH ELECTION DISTRICT HONARD COUNTY, MARYLAND

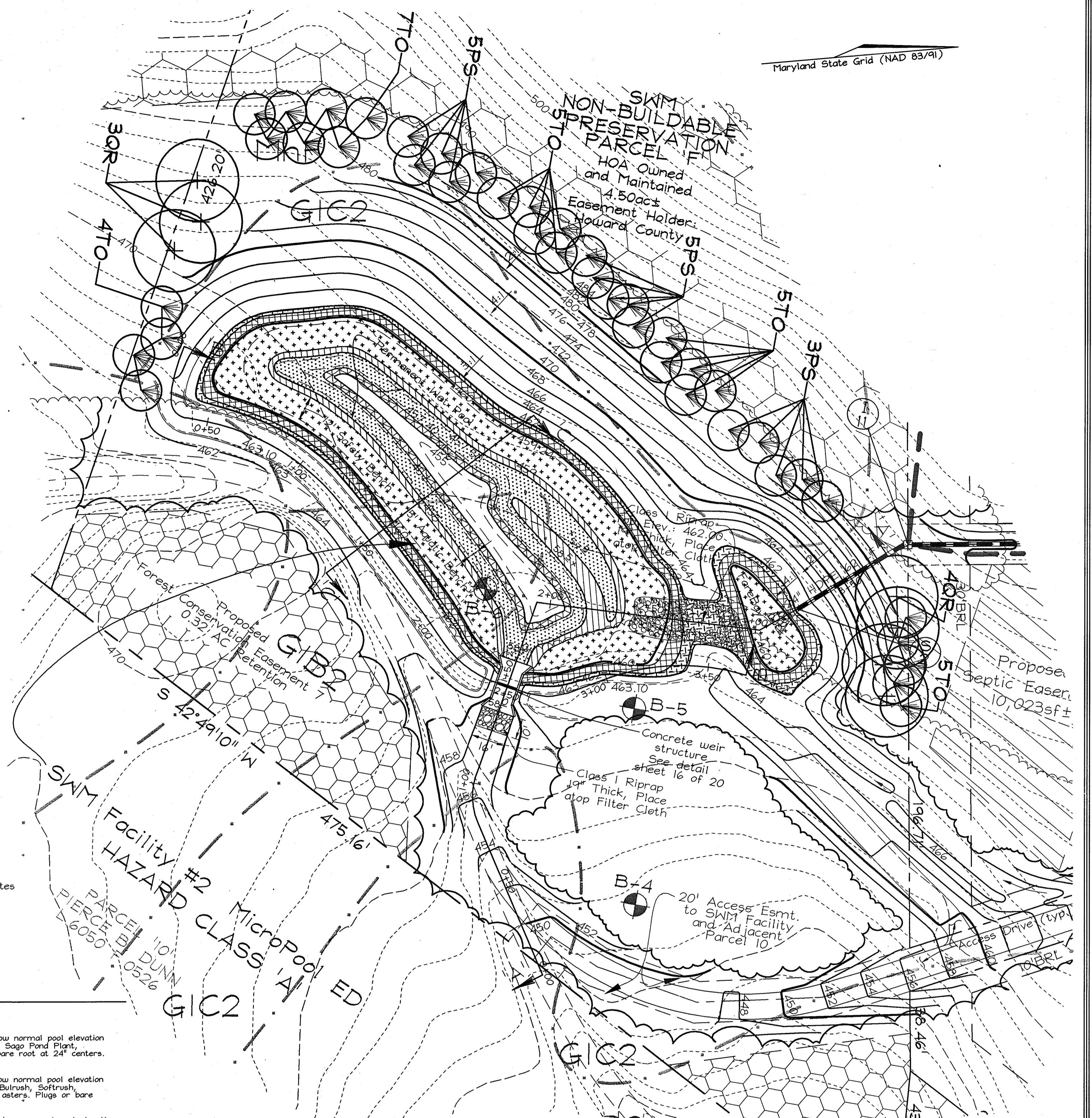
FSH Associates
Engineers Planners Surveyors
8318 Forrest Street, Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: fsh@fsa.net

DESIGN BY: KO
DRAWN BY: KO
CHECKED BY: ZYF
SCALE: As Shown
DATE: June 13, 2009
P.L.O. No.: 3159
SHEET No. 20 OF 21



SWM FACILITY #1
SCALE: 1"=30'

NOTE: See sheet 18 for landscape notes



SWM FACILITY #2
SCALE: 1"=30'

LEGEND - SWM FACILITY #1
(SWM Facility Hydrologic Zones Planting Requirements)

- Zone 1 - 1124 s.f. - 12"-24" depth below normal pool elevation
Pickersweed, Deep Water Duck Potato, Sago Pond Plant,
Wild Celery, Redhead Grass. Plugs or bare root at 24" centers.
- Zone 2 - 2942 s.f. - 0"-12" depth below normal pool elevation
Blue Flag Iris, Duck Potato, Flowering Bulrush, Softrush,
Sedges, Labelia, Pond Cypress, various asters. Plugs or bare
root at 24" centers.
- Zone 3 - 1629 s.f. - 0"-12" elevation above normal pool elevation
New England Aster, Marsh Aster, Marsh Marigold (Appalachian
Plateau), Tussock Sedge, Spotted Joe Pye Weed, Forget the Nots,
Inkberry, Purple, Red Osier Dogwood, Seed Mix Only
- Zone 4 - 4080 s.f. - 1' to Cpv elevation above normal pool elevation
Purple Cone Flower, Birds Foot Trefoil, Slender Rush, Deer Tongue
Grass, Lespedeza, Switch Grass, Serviceberry, Gray Birch, Hackberry,
Suset Pepper, Bush (Coastal Plain), Gray Stem Dogwood, Red
Osier Dogwood, Green Ash, Seed Mix with potted stock (No
trees/shrubs on dam slopes).*
- Zone 5 - 5725 s.f. - Cpv to Op10 water surface elevation
(many wildflowers and native grasses) American Holly, Witch Hazel,
Ninebark, Red Oak, American Elderberry, American Hemlock, Loubush,
Blueberry, Maple Leaf Viburnum, Nannyberry, Blackhaw Viburnum
Seed Mix with potted stock (No trees/shrubs on dam slopes).*
- Zone 6 - 2001 s.f. - Op10 water surface elevation and above (Floodplain)
Mostly ornamentals as long as soil drains well. Many Natives.
All species must be able to tolerate flood plain conditions.
Hackberry, Pitch Pine, Sheep Fescue, Wildflowers, Many
Native Grasses. Seed Mix with potted stock (No trees/shrubs
on dam slopes).*

* Plant mix of 3 potted stock species at density of 2 / 1000 s.f. area.

LEGEND - SWM FACILITY #2
(SWM Facility Hydrologic Zones Planting Requirements)

- Zone 1 - 1060 s.f. - 12"-24" depth below normal pool elevation
Pickersweed, Deep Water Duck Potato, Sago Pond Plant,
Wild Celery, Redhead Grass. Plugs or bare root at 24" centers.
- Zone 2 - 4203 s.f. - 0"-12" depth below normal pool elevation
Blue Flag Iris, Duck Potato, Flowering Bulrush, Softrush,
Sedges, Labelia, Pond Cypress, various asters. Plugs or bare
root at 24" centers.
- Zone 3 - 2064 s.f. - 0"-12" elevation above normal pool elevation
New England Aster, Marsh Aster, Marsh Marigold (Appalachian
Plateau), Tussock Sedge, Spotted Joe Pye Weed, Forget the Nots,
Inkberry, Purple, Red Osier Dogwood, Seed Mix Only
- Zone 4 - 9436 s.f. - 1' to Cpv elevation above normal pool elevation
Purple Cone Flower, Birds Foot Trefoil, Slender Rush, Deer Tongue
Grass, Lespedeza, Switch Grass, Serviceberry, Gray Birch, Hackberry,
Suset Pepper, Bush (Coastal Plain), Gray Stem Dogwood, Red
Osier Dogwood, Green Ash, Seed Mix with potted stock (No
trees/shrubs on dam slopes).*
- Zone 5 - 2939 s.f. - Cpv to Op10 water surface elevation
(many wildflowers and native grasses) American Holly, Witch Hazel,
Ninebark, Red Oak, American Elderberry, American Hemlock, Loubush,
Blueberry, Maple Leaf Viburnum, Nannyberry, Blackhaw Viburnum
Seed Mix with potted stock (No trees/shrubs on dam slopes).*
- Zone 6 - 2238 s.f. - Op10 water surface elevation and above (Floodplain)
Mostly ornamentals as long as soil drains well. Many Natives.
All species must be able to tolerate flood plain conditions.
Hackberry, Pitch Pine, Sheep Fescue, Wildflowers, Many
Native Grasses. Seed Mix with potted stock (No trees/shrubs
on dam slopes).*

* Plant mix of 3 potted stock species at density of 2 / 1000 s.f. area.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William F. White 6-27-03
CHIEF, BUREAU OF HIGHWAYS MS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamster 7/9/03
CHIEF, DIVISION OF LAND DEVELOPMENT MS DATE
Chad... 7/2/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

SWM FACILITY #2
SCALE: 1"=30'

OWNER/DEVELOPER
WATERFORD PARCEL 13, LLC
3 Wyndam Court
Lutherville, Maryland 21093
410.308.2714

**STORM WATER MANAGEMENT
PONDS PLANTING PLAN
WATERFORD FARMS**
SWM FACILITIES #1 AND #2
TAX MAPS 13, 14, 20 & 21 GRIDS 7, 12, 19 & 24 PARCELS 20, 67 & 312
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: fsh@load.net

DESIGN BY: KO
DRAWN BY: Slim
CHECKED BY: ZYF
SCALE: As Shown
DATE: May 7, 2003
M.O. No.: 3006
SHEET No.: 21 OF 21

F.03.102