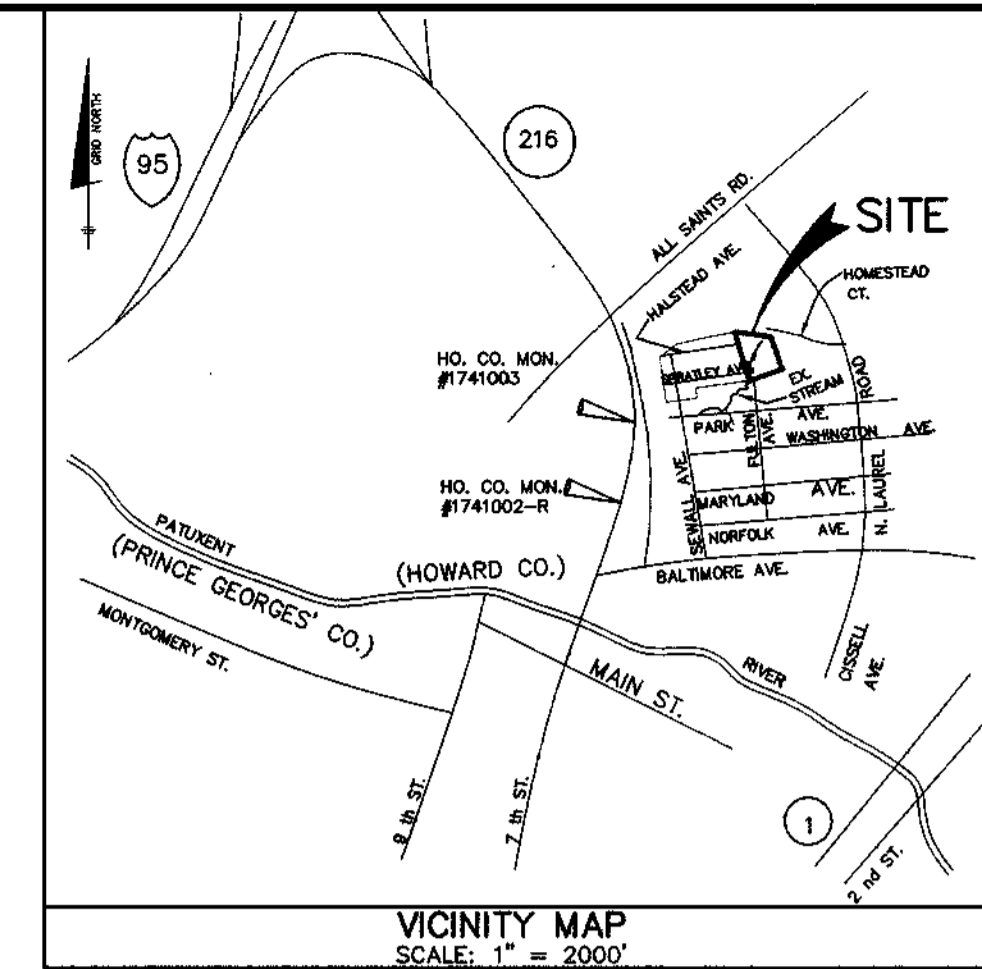


PATUXENT RIDGE

6th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

ROADS AND STORM DRAIN CONSTRUCTION PLANS



BENCH MARK DATA

HOWARD COUNTY MON. # 1741003
CONC. MON. ON WEST SIDE OF
RTE. 216 AND 0.2' BELOW SURFACE.
ELEV. = 198.395

HOWARD COUNTY MON. # 1741002-R
CONC. MON. ON TOP OF BANK
EAST OF EAST EDGE MAC. OF
RTE. 216 FLUSH WITH SURFACE.
ELEV. = 197.368

GENERAL NOTES

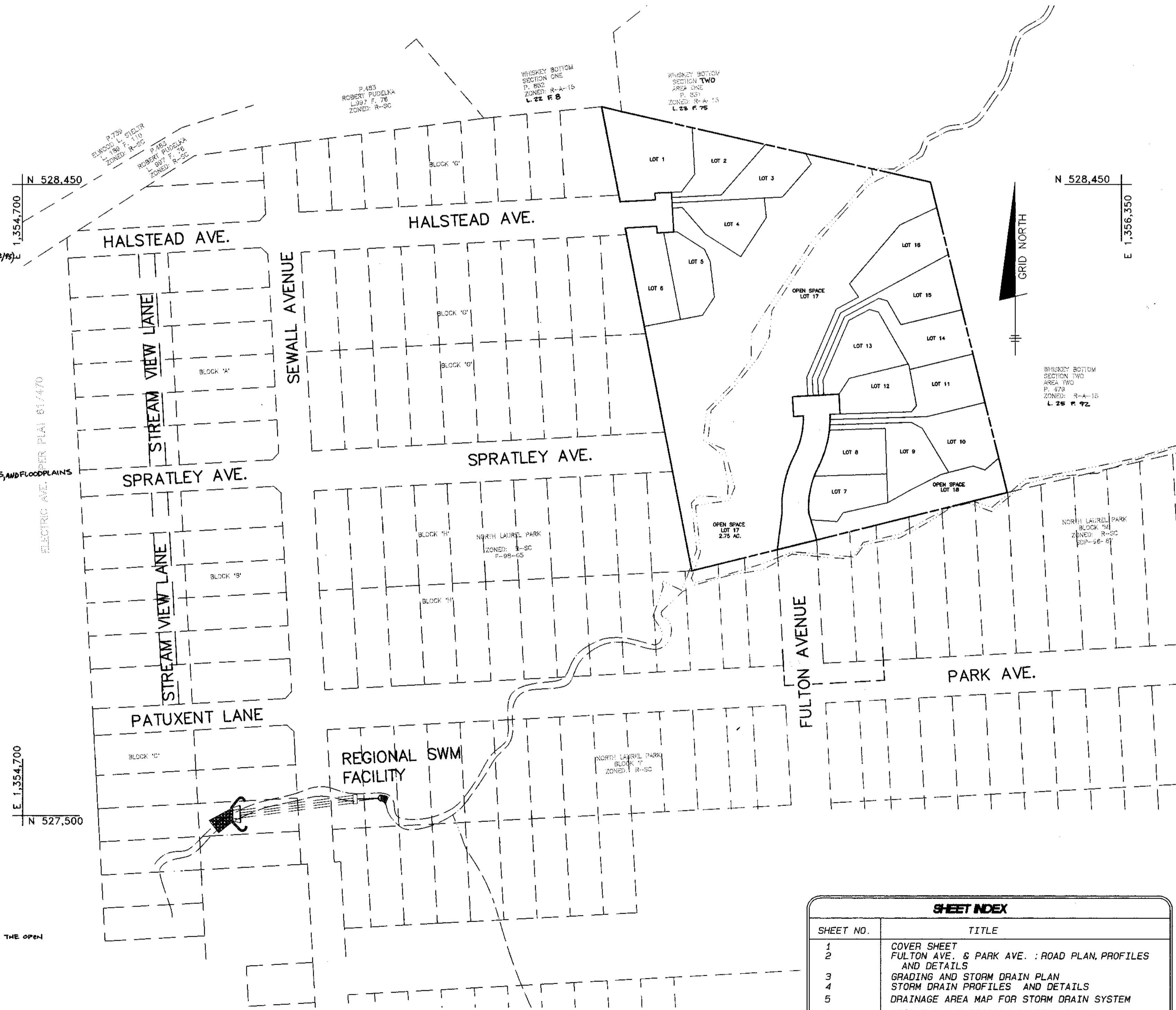
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARD AND SPECIFICATIONS OF HOWARD COUNTY PLUS WMA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- PROJECT BACKGROUND:
LOCATION: TAX MAP: 50, GRIDS 3, PARCEL 374
ZONING: R-SC
ELECTION DISTRICT: 6th
TOTAL TRACT AREA: 8.40 AC.
NUMBER OF PROPOSED LOTS: 16
NUMBER OF PROPOSED OPEN SPACE LOT: 2
DPZ REFERENCE FILE: SP-94-06 (OCT. 16, 1995), F-99-23 (NORTH LAUREL PARK, PHASE II)
SP-98-09 (12/4/98)
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- TOPOGRAPHY SHOWN HEREON WAS TAKEN FROM *AERIAL PHOTOGRAMMETRY PREPARED BY WINGS AERIAL MAPPING CO./INC. (01/19/98)* AND FROM THE F-99-23 AND SP-98-09 TO AND SP-98-09-07. CONTOUR INTERVAL IS 2 FEET.
- COORDINATES ARE BASED ON NAD 83, MARYLAND STATE PLAN GRID AS PROJECTED BY HOWARD CO. GEODETIC CONTROL STATIONS NO. 1741003 AND 1741002-R.
- THE PROJECT IS WITHIN THE METROPOLITAN DISTRICT, WATER AND SEWER FOR THIS PROJECT SHALL BE PUBLIC AND WILL BE PROVIDED TO THE LOTS UNDER CONTRACT NUMBER 24-3722-D.
- WATER QUALITY AND QUANTITY TREATMENT FOR THE PROPOSED ROADWAY AND THE SITE IS BEING PROVIDED BY THE PUBLIC REGIONAL SMM FACILITY (F-98-05). THE FACILITY IS LOCATED NEAR SEWALL AVE. IN A STREAM WHICH IS BISECTING THE SITE.
- WETLAND LIMITS SHOWN HEREON ARE BASED ON A DELINEATION BY ECO-SCIENCE PROFESSIONAL, INC. DATED MAY, 1998.
- ADEQUATE PUBLIC FACILITIES ORDINANCE TRAFFIC ANALYSIS IS NOT REQUIRED. THE SITE IS LOCATED FARTHER THAN 1 MILE FROM A MAJOR CLASSIFIED ROAD INTERSECTION OR HIGHER.
- NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL REPORT FOR THIS PROJECT IS NOT REQUIRED.
- EXISTING UTILITIES SHOWN ARE TAKEN FROM RECORD INFORMATION AND FIELD LOCATIONS.
- PRELIMINARY FOREST CONSERVATION PLAN WAS PREPARED BY ECO-SCIENCE PROFESSIONAL, INC. DATED JUNE 1997 AND APPROVED IN JANUARY 1998. A FINAL FCP HAS BEEN INCLUDED IN THIS SET OF PLANS.
- FOREST STAND DELINEATION WAS APPROVED UNDER SP-98-09 IN JAN., 1998.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, WETLANDS BUFFERS, STREAM BUFFERS, AND FLOODPLAINS UNLESS HOWARD COUNTY DPZ DETERMINED THAT IT IS NECESSARY FOR ROAD OR UTILITY CONSTRUCTION.
- CONTRACTOR SHALL VERIFY ALL UTILITIES LOCATIONS AND EASEMENTS PRIOR TO ANY CONSTRUCTION.
- THE FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT.
- THE 100-YEAR FLOODPLAIN STUDY WAS PREPARED BY FISHER, COLLINS, AND CARTER, INC. DATED AUG., 1994, AND UPDATED BY TSA GROUP, INC. ON JANUARY 30, 1997 TO REFLECT THE REGIONAL SMMF AND APPROVED IN AUGUST, 1997. NO DISTURBANCE IS PERMITTED WITHOUT THE PRIOR APPROVAL BY THE MARYLAND DEPARTMENT OF ENVIRONMENT.
- MAINTENANCE AGREEMENT FOR THE USE-IN-COMMON DRIVEWAY ACCESS FOR LOTS 2-8, LOTS 9-11, AND LOTS 13-16 HAVE BEEN RECORDED WITH THE RECORDATION OF THE SUBDIVISION PLATS.
- STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)". THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
a) WIDTH - 12' (14' SERVING MORE THAN ONE RESIDENCE)
b) SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING.
c) GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS.
d) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
e) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
f) STRUCTURE CLEARANCES - MINIMUM 12 FEET.
g) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- ANY DAMAGE TO THE COUNTY OWNED RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- ALL EASEMENTS ARE PUBLIC UNLESS NOTED AS "PRIVATE".
- STORM DRAIN SYSTEM WILL BE PUBLICLY OWNED AND MAINTENANCE BY HOWARD COUNTY.
- TO THE BEST OF OWNER/DEVELOPER'S KNOWLEDGE, THERE ARE NO CEMETERY LOCATIONS ON SITE.
- PERMISSION TO CONSTRUCT FULTON AVENUE ACROSS THE STREAM IS AUTHORIZED BY THE NOTIONAL WETLANDS AND WATERWAYS AUTHORIZATION NO. 96-NI-1197/199866059 FOR NORTH LAUREL PARK. A MODIFICATION TO THE AUTHORIZATION FOR PARCEL 374 (PATUXENT RIDGE) WILL BE ISSUED UPON RECEIPT OF APPROVED SEDIMENT/EROSION PLANS. (THE RESTRICTION DATE FOR DISTURBANCE IN A CLASS I STREAM IS FROM 3/1 TO 6/15.)
- LOT 1 IS TO BE RESUBDIVIDED INTO TWO LOTS IN THE FUTURE.
- THE FOREST CONSERVATION OBLIGATIONS FOR THIS SUBDIVISION HAS BEEN MET BY RETAINING 1.2 ACRES OF FOREST ON-SITE IN 4 FOREST CONSERVATION EASEMENTS AND BY A FEE-IN-LIEU PAYMENT OF \$ 19,008.00 TO THE HOWARD COUNTY FOREST CONSERVATION FUND FOR THE REQUIRED 10 ACRE OF RE-FORESTATION.

3L UTILITY BOXES MAY NOT BE LOCATED WITHIN THE OPEN SPACE ACCESS STRIP.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daniels 10-27-99
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Richard Blaz 10/25/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John Williams 10/27/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



SITE LOCATION MAP

SCALE: 1" = 100'

SHEET INDEX

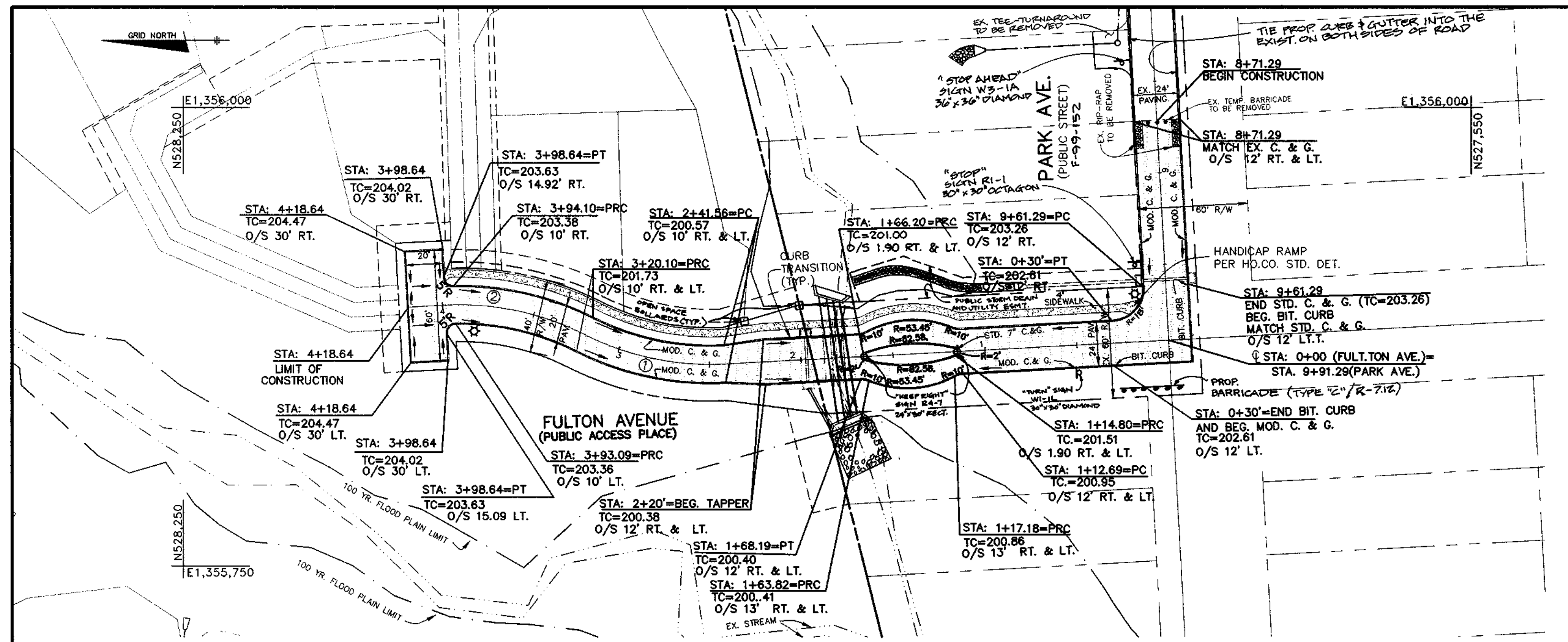
SHEET NO.	TITLE
1	COVER SHEET
2	FULTON AVE. & PARK AVE. : ROAD PLAN, PROFILES AND DETAILS
3	GRADING AND STORM DRAIN PLAN
4	STORM DRAIN PROFILES AND DETAILS
5	DRAINAGE AREA MAP FOR STORM DRAIN SYSTEM
6	SEDIMENT AND EROSION CONTROL PLAN
7	EROSION & SEDIMENTS CONTROL NOTES AND DETAILS
8	LANDSCAPE PLAN
9	FOREST CONSERVATION PLAN

0	3/99	SUBMISSION TO COUNTY FOR REVIEW AND APPROVAL.
NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565	PROJECT: PATUXENT RIDGE SUBDIVISION OF PARCEL 374 (SP-98-09, F-99-23)
DESIGN: YSL DRAFT: YSL CHECK: CAM	LOCATION: TAX MAP 50, GRID 3 - PARCEL 374 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: MARCH 1999 JUNE, 1999	TITLE: COVER SHEET
PROJECT NO. 0928	SCALE: AS SHOWN
DRAWING 1 OF 9	



FULTON AVENUE CENTERLINE CURVE DATA

CURVE NO.	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	150.00'	78.54'	40.19'	77.65'	N11°55'05"E	30°00'00"
2	150.00'	78.54'	40.19'	77.65'	S11°55'05"W	30°00'00"

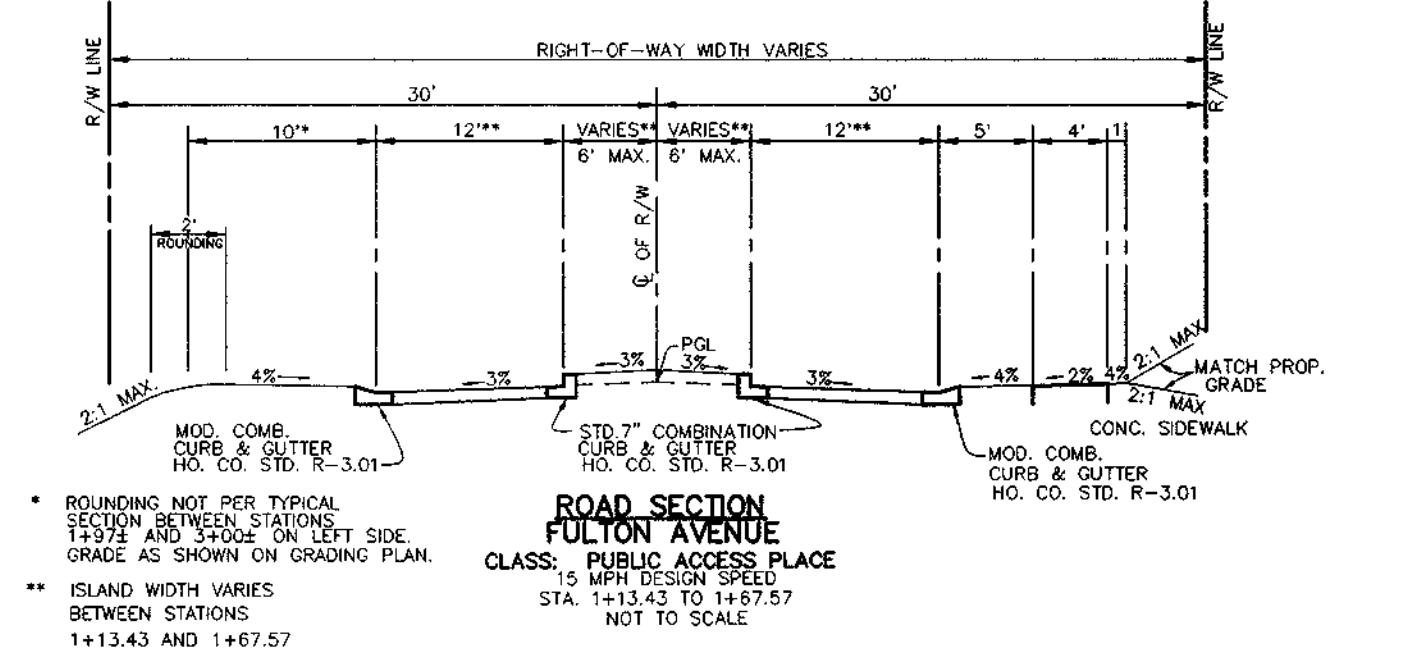
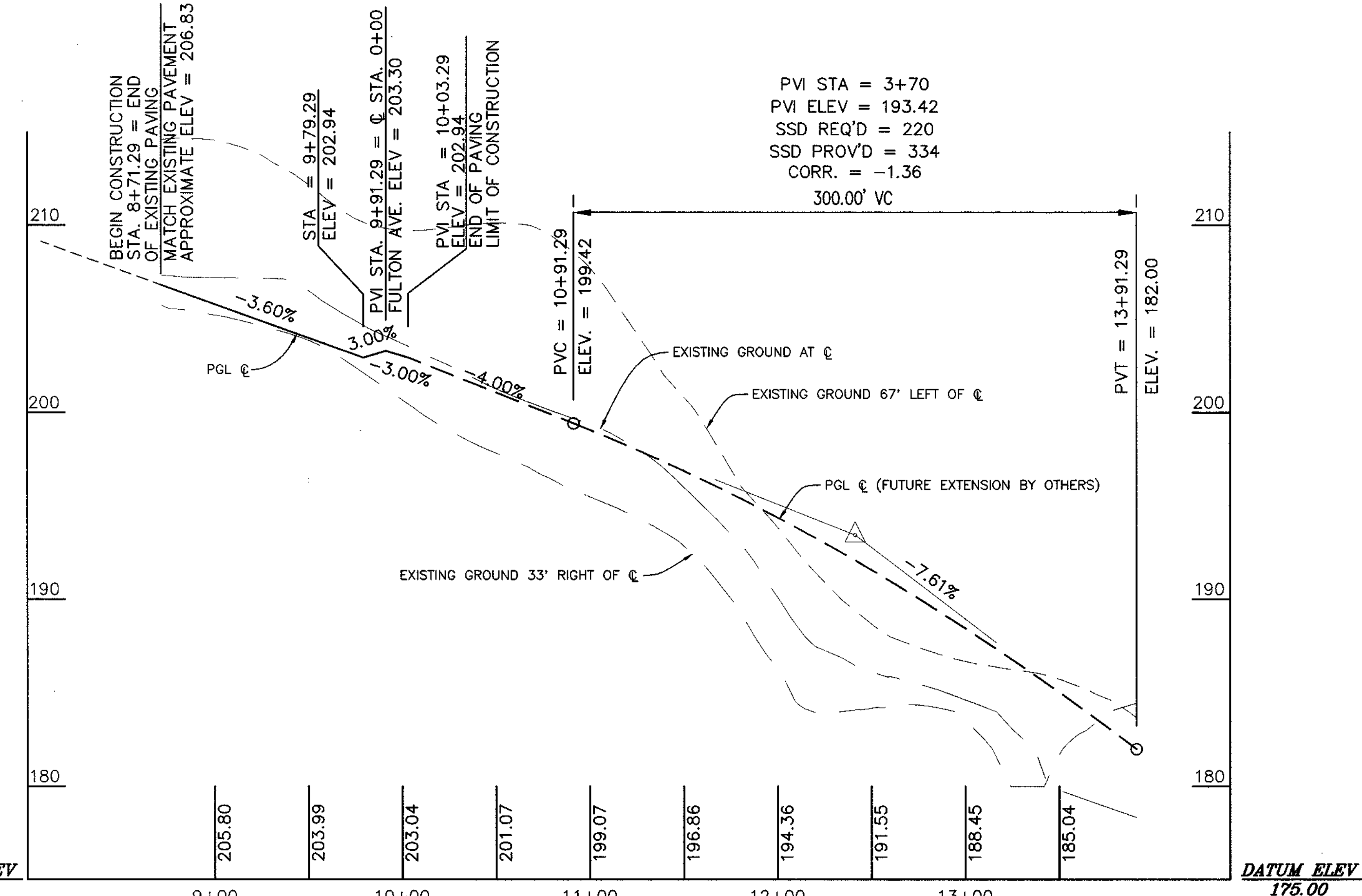
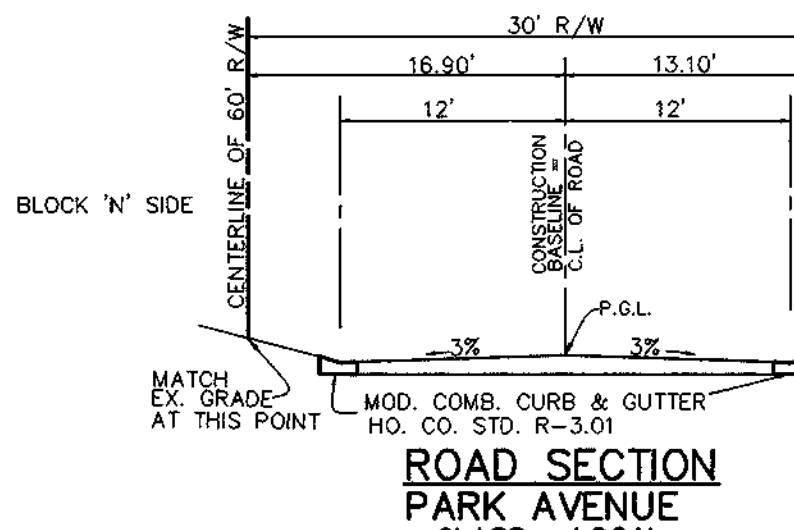
PLAN VIEW
SCALE: 1" = 50'

NOTE: SEE SHEET 3 FOR UTILITY LOCATIONS AND ADJACENT PROPERTIES OWNERSHIP.

STREET LIGHT SCHEDULE

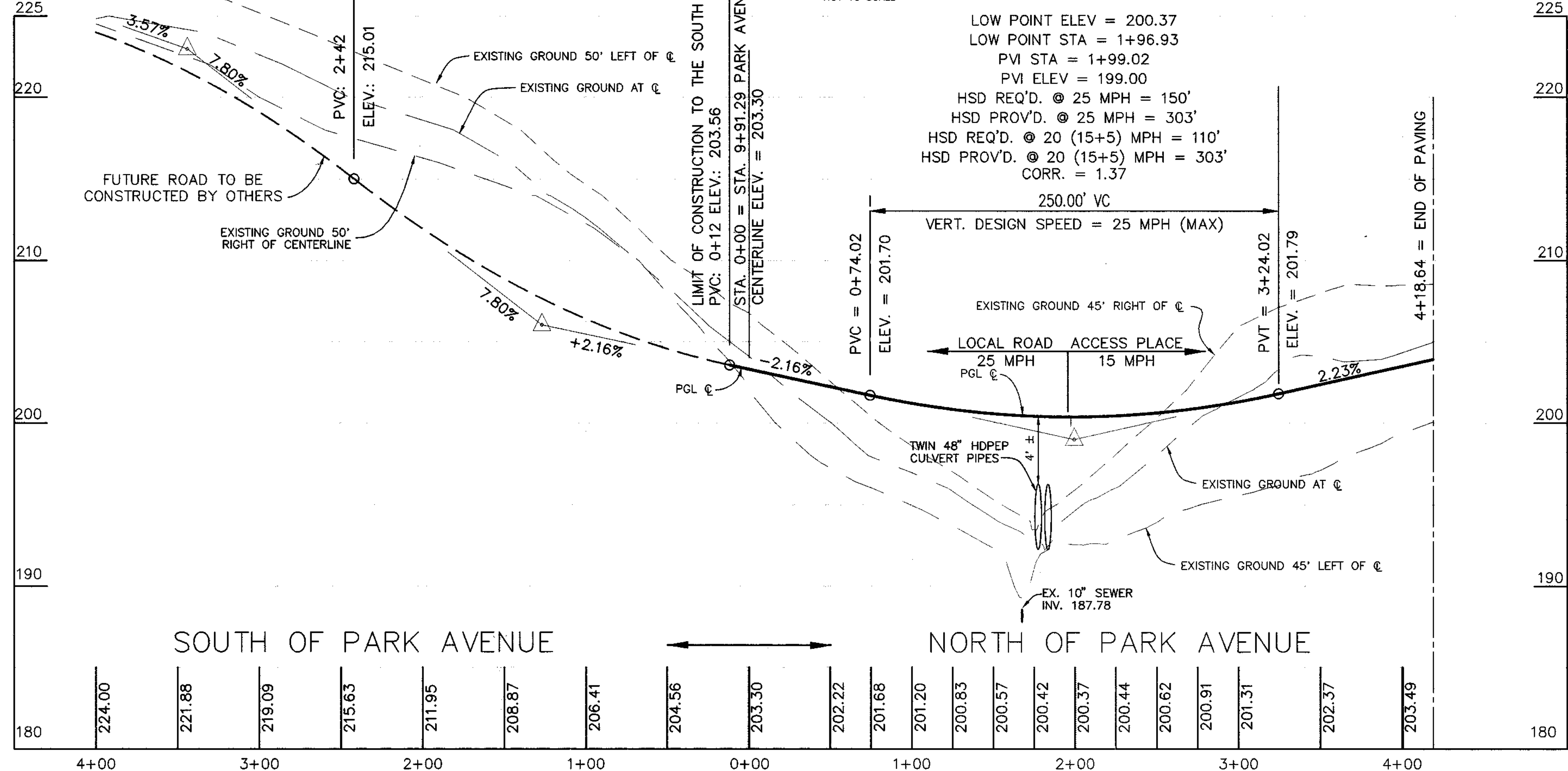
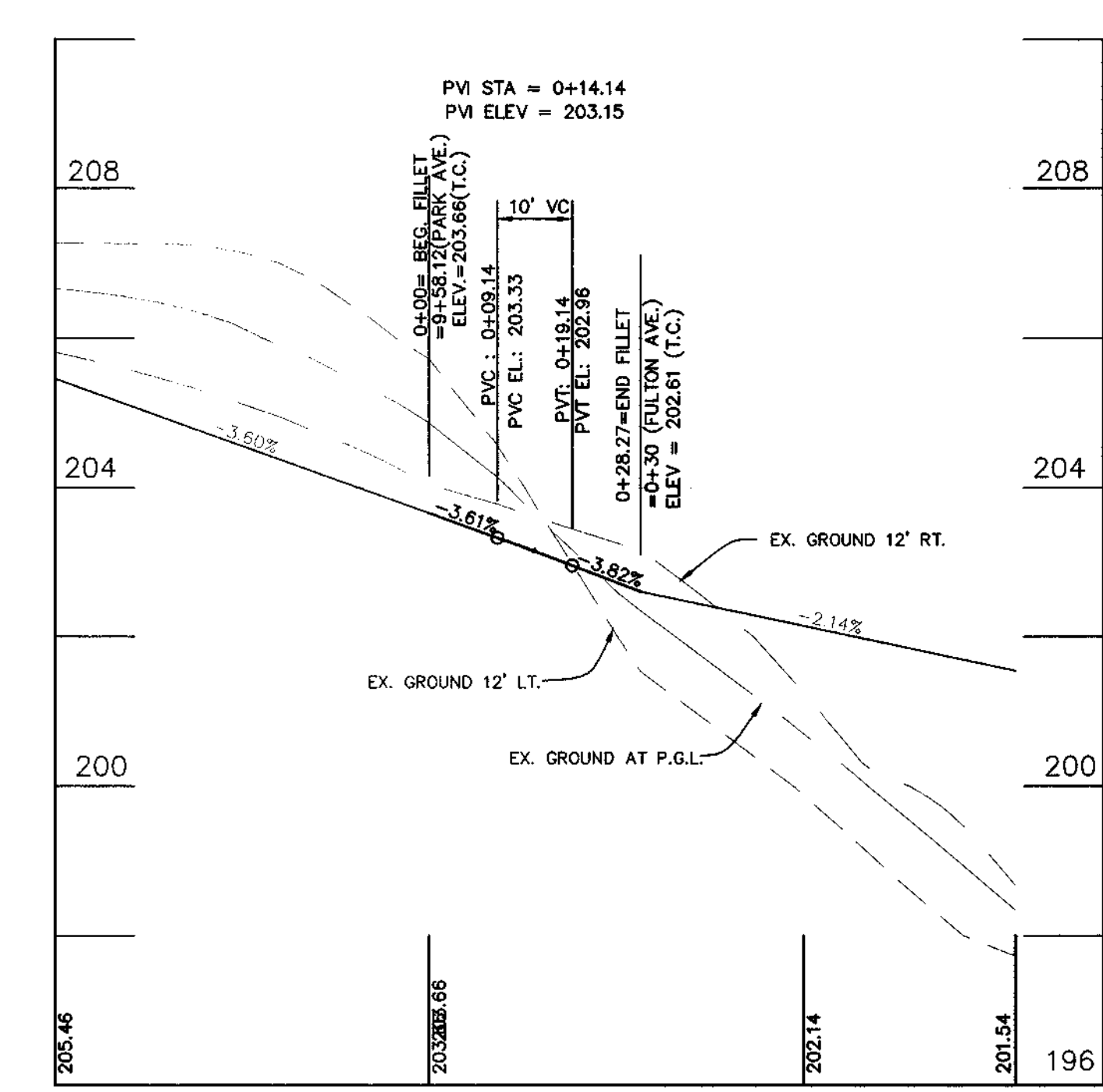
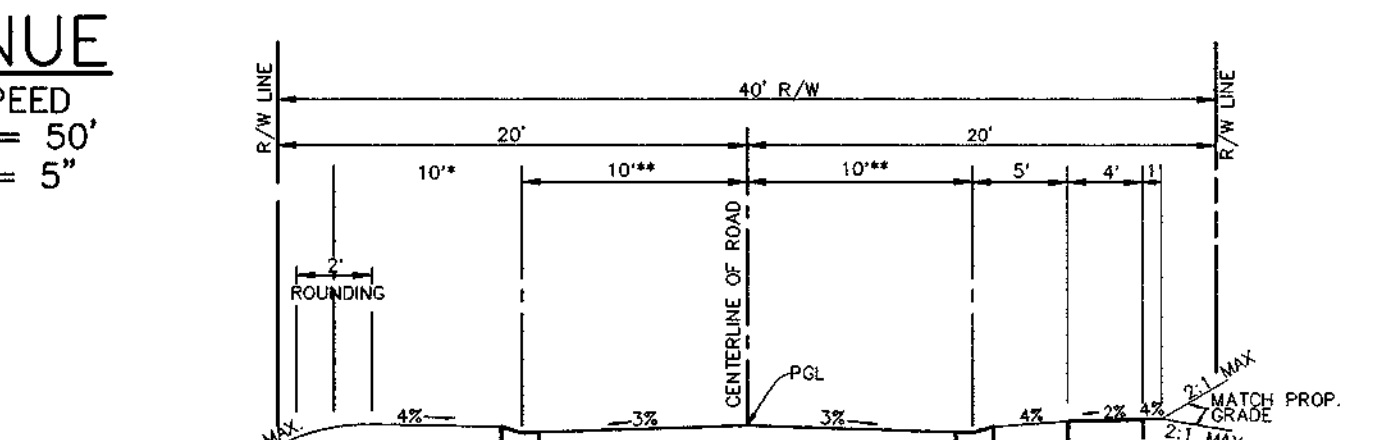
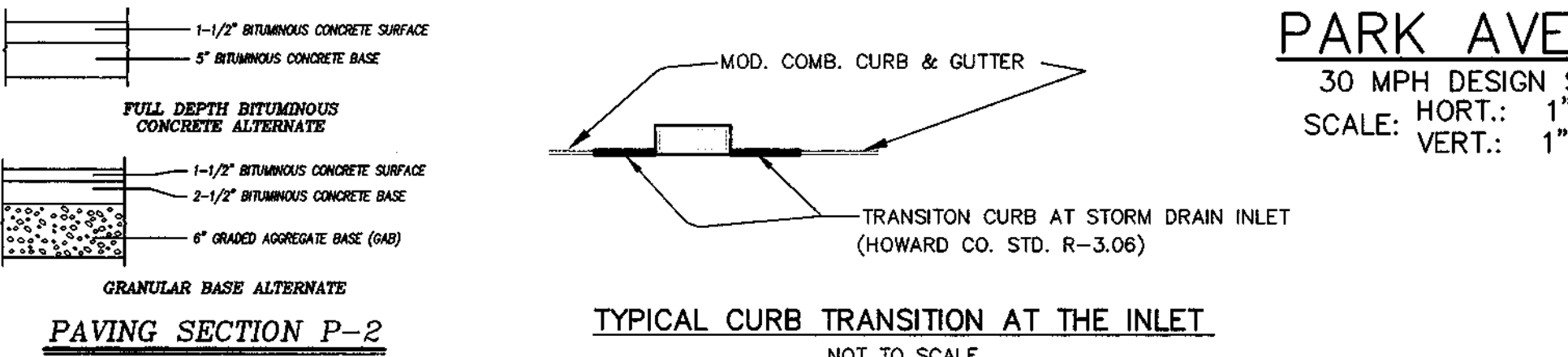
SYMBOL	DESCRIPTION	LOCATION
(Symbol)	100 WATT HPS VAPOR "TRADITIONAL" POST TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE.	17' RT. STA. 9+65 PARK AVENUE 18' LT. STA. 3+82 FULTON AVENUE

NOTE: A MINIMUM OF TWENTY (20) FEET SHALL BE MAINTAINED BETWEEN TREES AND STREET LIGHTS.



PVI STA = 3+21
PVI ELEV = 221.18
SSD REQ'D. = 220
SSD PROV'D. = 220

PVI STA = 1+27
PVI ELEV = 206.04
HSD REQ'D. = 210
HSD PROV'D. = 218



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Sanchez 10/27/99
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Richard Blawie 10/27/99
CHIEF, DIVISION OF LAND DEVELOPMENT

Michael J. ... 10/20/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION

0 3/99 SUBMISSION TO COUNTY FOR REVIEW AND APPROVAL.
NO DATE REVISION

BENCHMARK ENGINEERING, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS
8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-8644

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C.
9691 NORFOLK AVENUE
LAUREL, MARYLAND 20723
410-792-2565

PROJECT: PATUXENT RIDGE
LOTS 1-18
SUBDIVISION OF PARCEL 374
(SP-98-09, F-99-23)

LOCATION: TAX MAP 50, GRID 3- PARCEL 374
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: FULTON AVENUE AND PARK AVENUE
PLAN, PROFILES AND DETAILS

DATE: MARCH 1999 PROJECT NO. 0928
JUNE 1999

DESIGN: YSL DRAFT: YSL CHECK: CAM SCALE: AS SHOWN DRAWING 2 OF 9



LEGEND

CONTOUR INTERVAL	2 FEET
EXISTING CONTOUR	200
PROPOSED CONTOUR	100
EXISTING SEWER	EX. 8" S
EXISTING WATER MAIN	EX. 8" W
EXISTING STORM DRAIN	EX. 18" RCP
PROPOSED SEWER	8" S
PROPOSED WATER MAIN	8" W
PROPOSED STORM DRAIN	18" HDPEP
LIMIT OF DISTURBED AREA	--- --- --- ---
EXISTING TREE LINE	~~~~~
PROPOSED TREE LINE	~~~~~
ACCESS POINT TO OPEN SPACE LOTS (WITH BOLLARD)	↑

PLAN VIEW
SCALE: 1"=50'

NO	DATE	REVISION
1	7-23-99	REVISIONS PER D.F.W. COMMENTS
0	3/99	SUBMISSION TO COUNTY FOR REVIEW AND APPROVAL
NO	DATE	REVISION

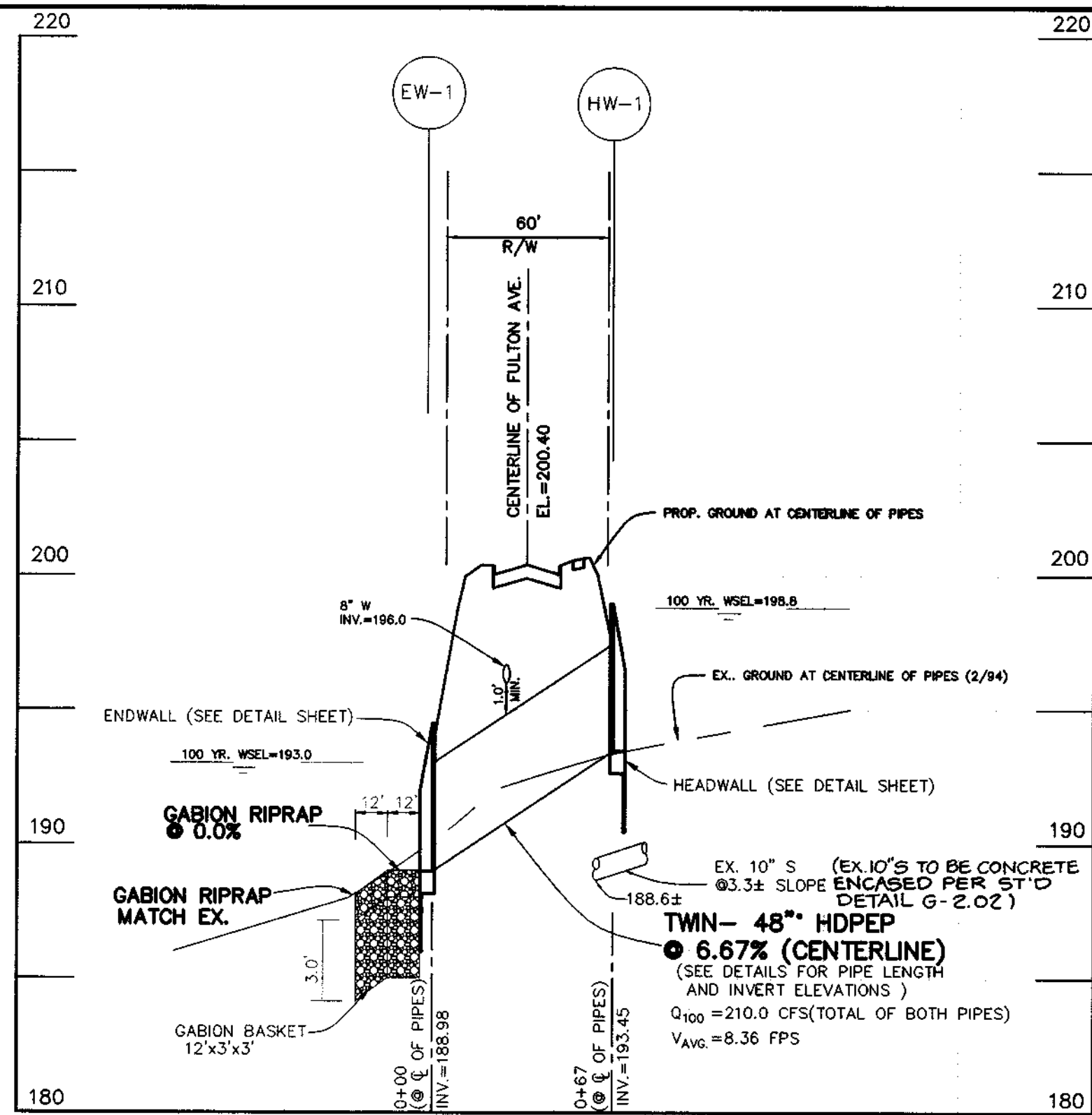
BENCHMARK ENGINEERING, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS



8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644

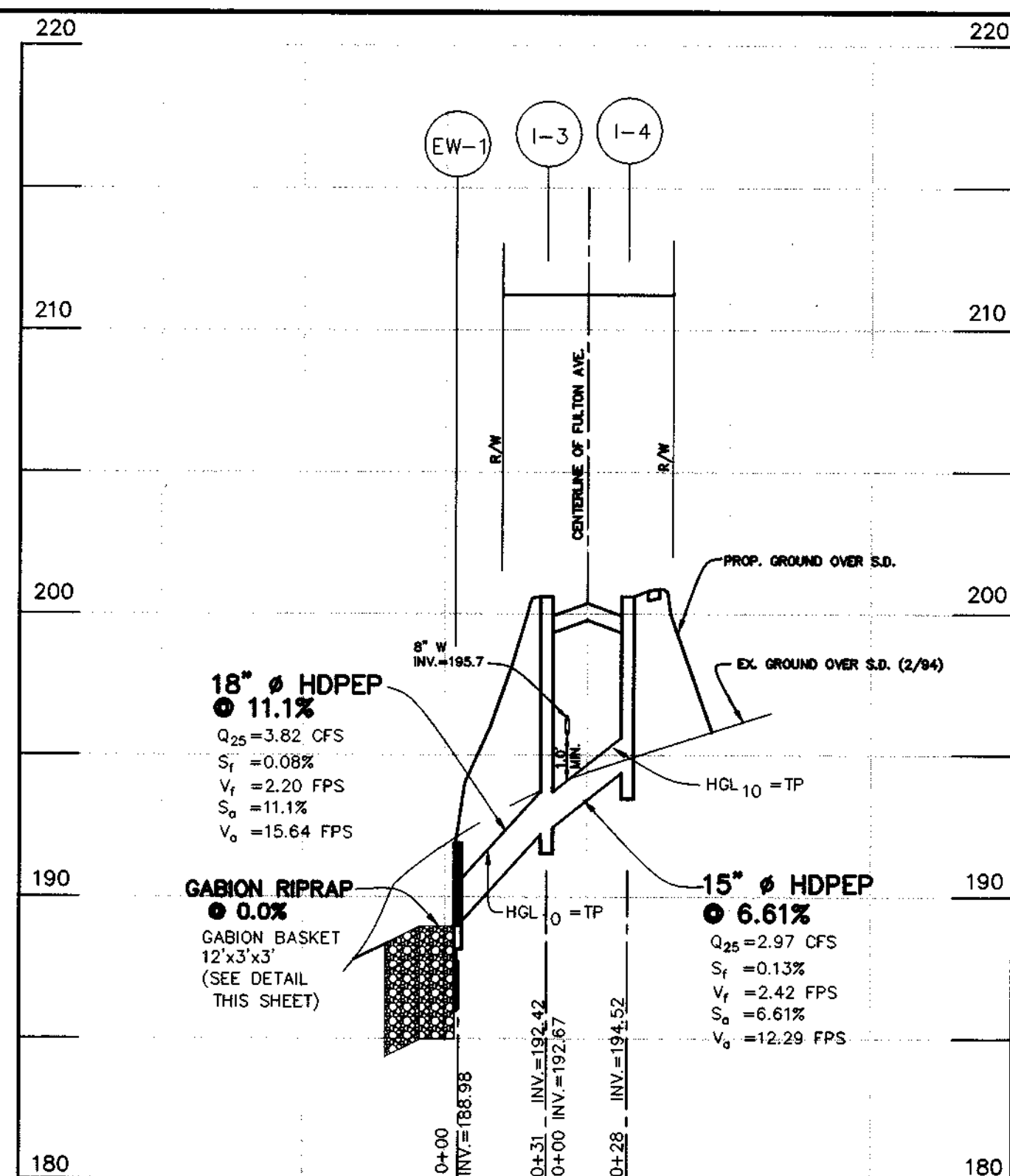
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>Andrew M. Daniels</i>	10-27-99
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>Ronald Blood</i>	10/27/99
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>John D. ...</i>	10/20/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE

OWNER/DEVELOPER:	PROJECT:
CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565	PATUXENT RIDGE LOTS 1-18 SUBDIVISION OF PARCEL 374 (SP-98-09, F-99-23)
	LOCATION:
	TAX MAP 50, GRID 3- PARCEL 374 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
	TITLE:
	GRADING AND STORM DRAIN PLAN
DATE:	PROJECT NO. 0928
MARCH 1999	
DESIGN: YSL	DRAFT: YSL
CHECK: DAM	SCALE: AS SHOWN
	DRAWING 3 OF 9



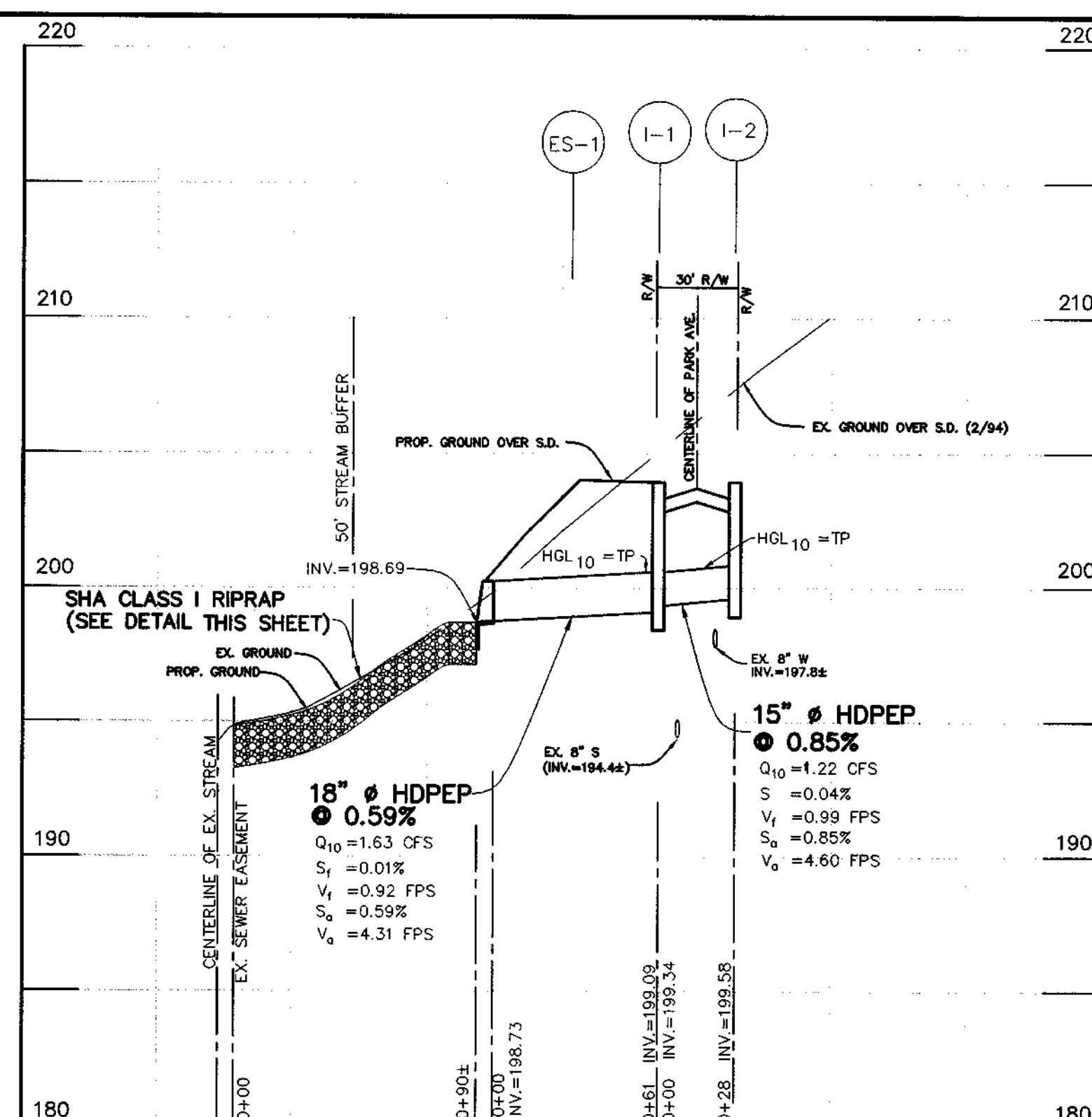
CULVERT CROSSING AT FULTON AVENUE

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



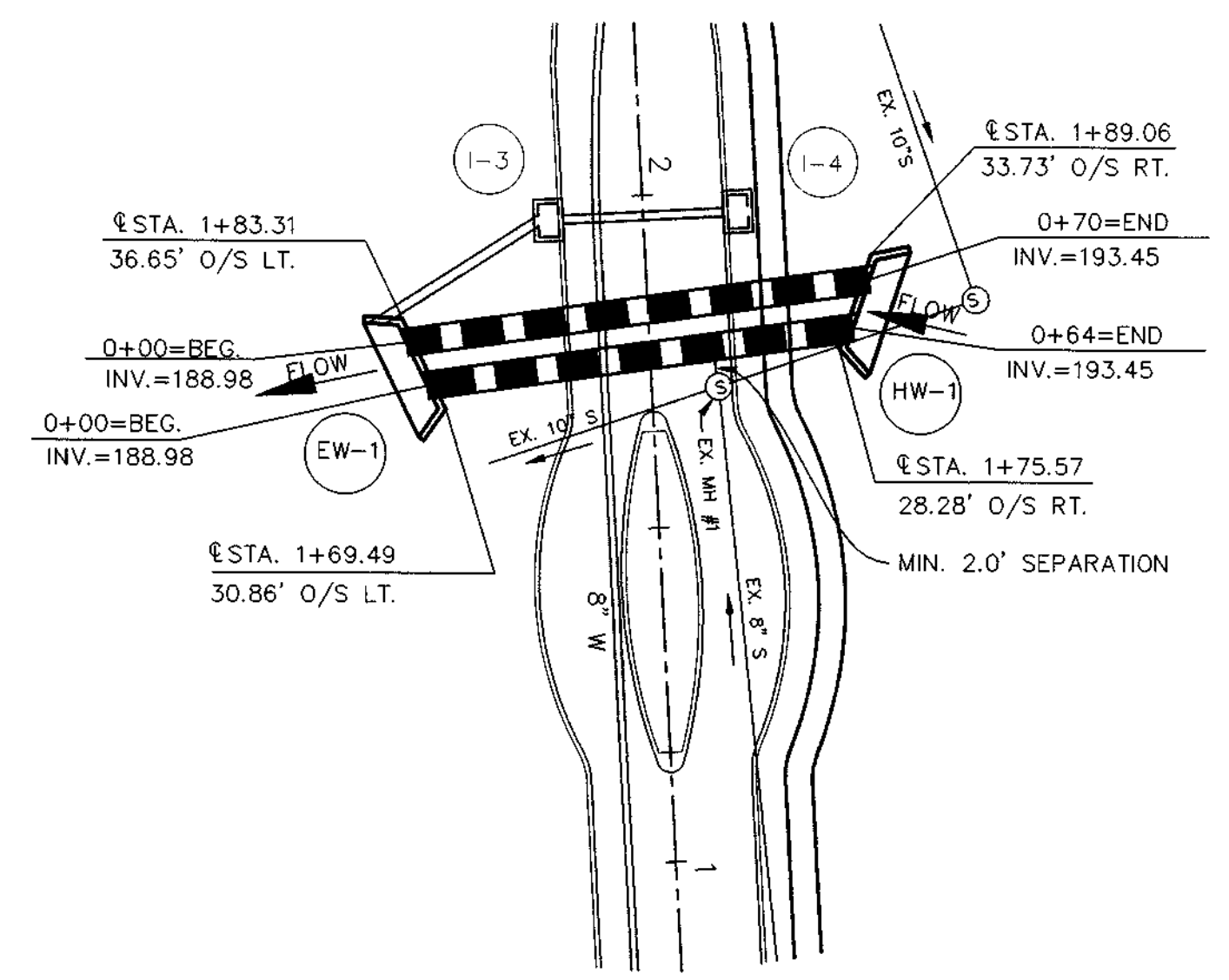
STORM DRAIN PROFILE AT FULTON AVE.

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



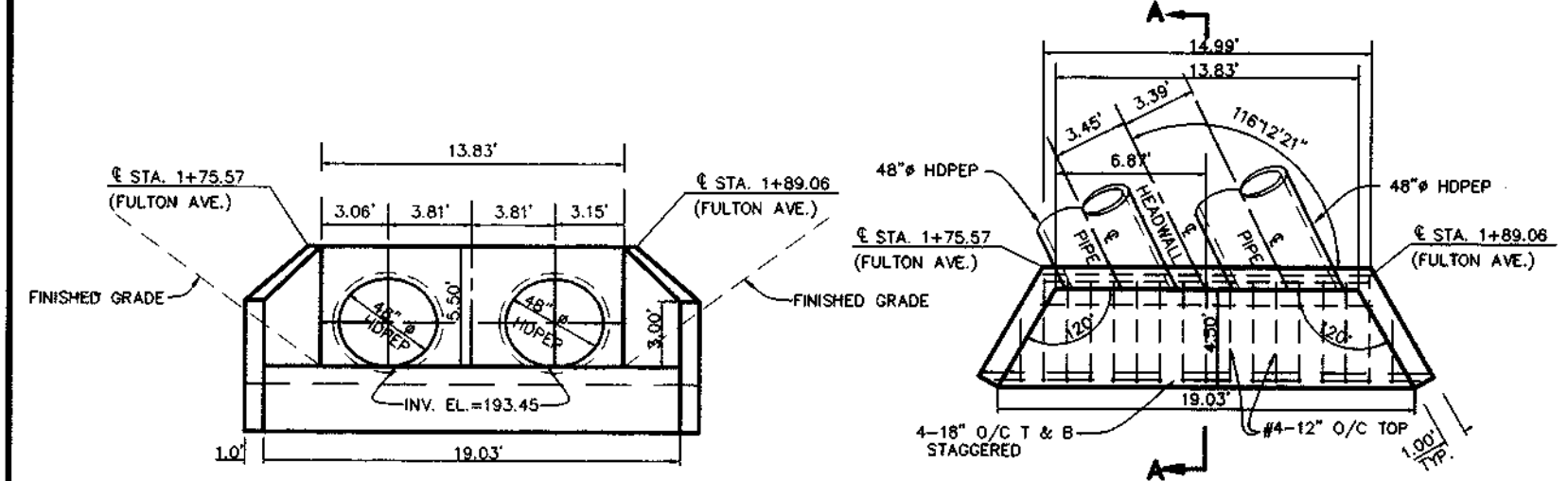
STORM DRAIN PROFILE AT PARK AVE.

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



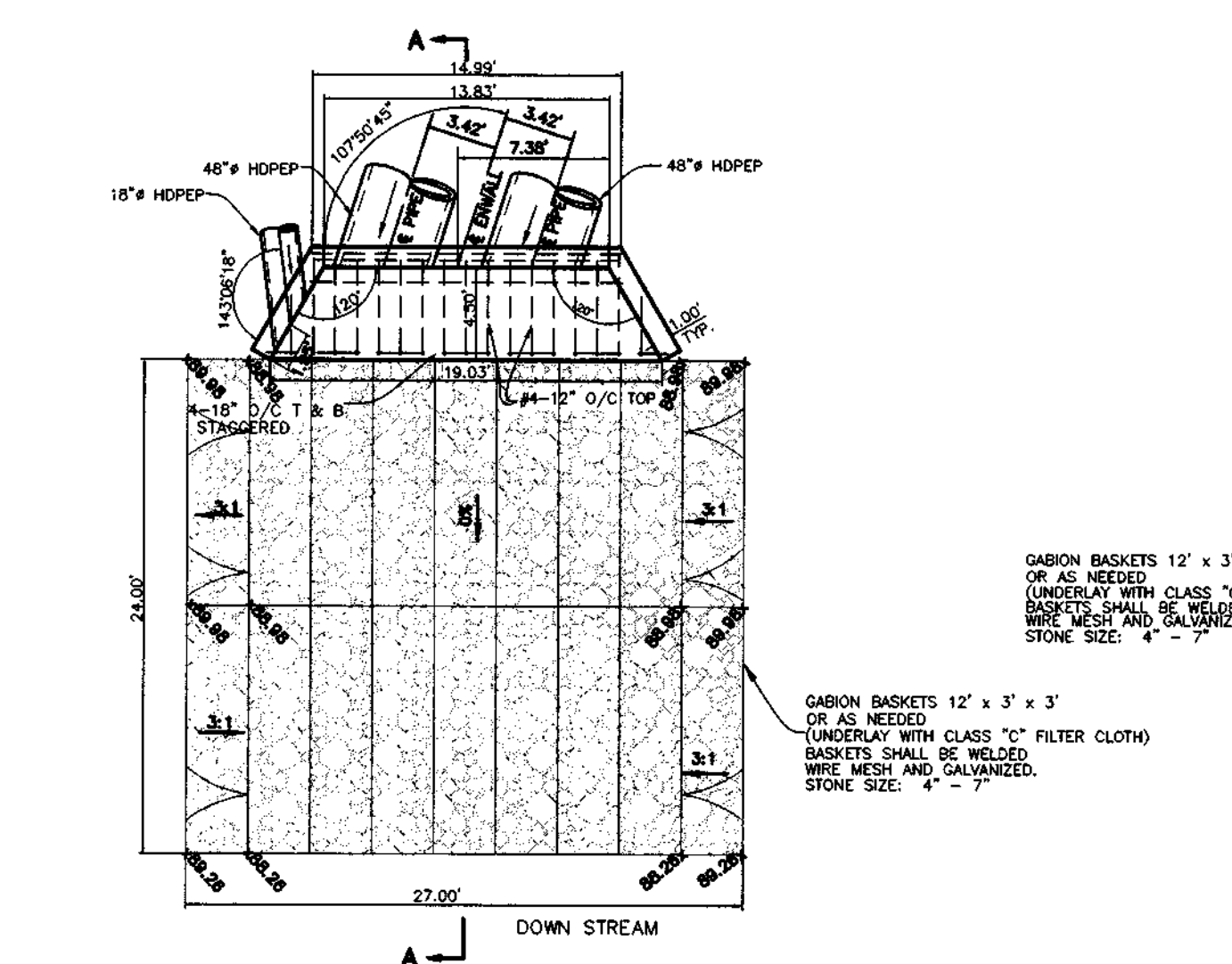
TWIN 48" Ø HDPEP: PLAN VIEW

NOT TO SCALE



FRONT ELEVATION

PLAN VIEW

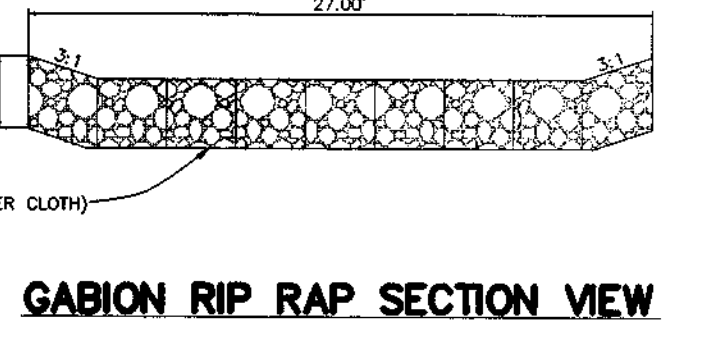


PLAN VIEW

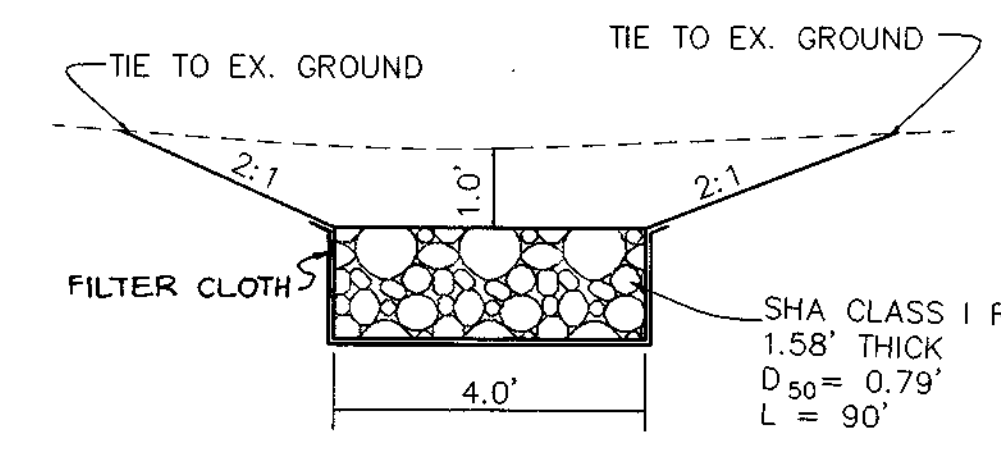
FRONT ELEVATION

STR. NO. EW-1: ENDWALL & GABION RIP-RAP DETAILS

NOT TO SCALE



GABION RIP RAP SECTION VIEW



OUTFALL SECTION FROM ES-1 TO EX. STREAM

NOT TO SCALE

NOTES:
1. CONCRETE 4000 PSI.
2. THIS DESIGN TO BE USED FOR SKEWS UP TO 15'.

PIPE SCHEDULE	
SIZE, TYPE, CLASS	LENGTH (FT.)
15" Ø HDPEP	56
18" Ø HDPEP	92
48" Ø HDPEP	134

STORM DRAIN STRUCTURE SCHEDULE						
STRUCTURE NO.	STRUCTURE TYPE	LOCATION	STRUCTURE ELEV.	INVERT IN (SIZE)	INVERT OUT (SIZE)	REMARKS
ES-1	STD. CONC. END SECTION, H.C. STD. SD-5.51	33.36' O/S RT. AT P.G.L. STA. 0+75.32 FULTON AVE.		198.73 (18")		
I-1	STD. PRECAST A-5 INLET, H.C. STD. SD-4.40	12.0' O/S RT. AT P.G.L. STA. 9+58.12 PARK AVE.	203.93	199.34 (15")	199.09 (16")	3'-6" WIDTH MAX.
I-2	STD. PRECAST A-5 INLET, H.C. STD. SD-4.40	12.0' O/S LT. AT P.G.L. STA. 9+58.20 PARK AVE.	203.93		199.58 (15")	3'-6" WIDTH MAX.
I-3	STD. PRECAST A-5 INLET, H.C. STD. SD-4.40	12.0' O/S LT. AT P.G.L. STA. 1+96.96 FULTON AVE.	200.60	192.67 (15")	192.42 (18")	SUMP LOCATION, 3'-6" WIDTH MAX.
I-4	STD. PRECAST A-5 INLET, H.C. STD. SD-4.40	12.0' O/S RT. AT P.G.L. STA. 1+96.90 FULTON AVE.	200.60		194.52(15")	SUMP LOCATION, 3'-6" WIDTH MAX.
HW-1	MODIFIED CONC. HEADWALL, SEE DET. THIS SHEET	N. COR. 33.73' O/S RT AT P.G.L. STA. 1+89.06 FULTON AVE. S. COR. 28.28' O/S RT AT P.G.L. STA. 1+75.57 FULTON AVE.	198.95		193.45(2-48")	
EW-1	MODIFIED CONC. ENDWALL, SEE DET. THIS SHEET	N. COR. 36.65' O/S LT AT P.G.L. STA. 1+83.31 FULTON AVE. S. COR. 30.86' O/S LT AT P.G.L. STA. 1+89.49 FULTON AVE.	194.48		188.98 (2-48")	

- NOTES:
- STRUCTURE ELEVATION FOR MANHOLE IS AT THE TOP CENTER OF THE RIM.
 - STRUCTURE ELEVATION FOR THE INLET IS THE TOP OF CURB ELEVATION LOCATED AT THE MID-POINT OF THE INLET.
 - REFER DRAWING FOR TYPE A-5 INLET IN HOWARD COUNTY STANDARD DETAIL DRAWING No. SD. 4.40. INLET WIDTH IS 3'-6" AS PER DETAIL.
 - STRUCTURE ELEVATION FOR THE ENDWALL/HEADWALL IS AT THE TOP CENTER OF THE WALL.
 - STRUCTURE LOCATION FOR ENDWALL/HEADWALL IS AT THE TOP BACK FACE OF THE WALL @ CORNERS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Quack 10/27/99
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Ronald Blouel 10/25/99
 CHIEF, DIVISION OF LAND DEVELOPMENT

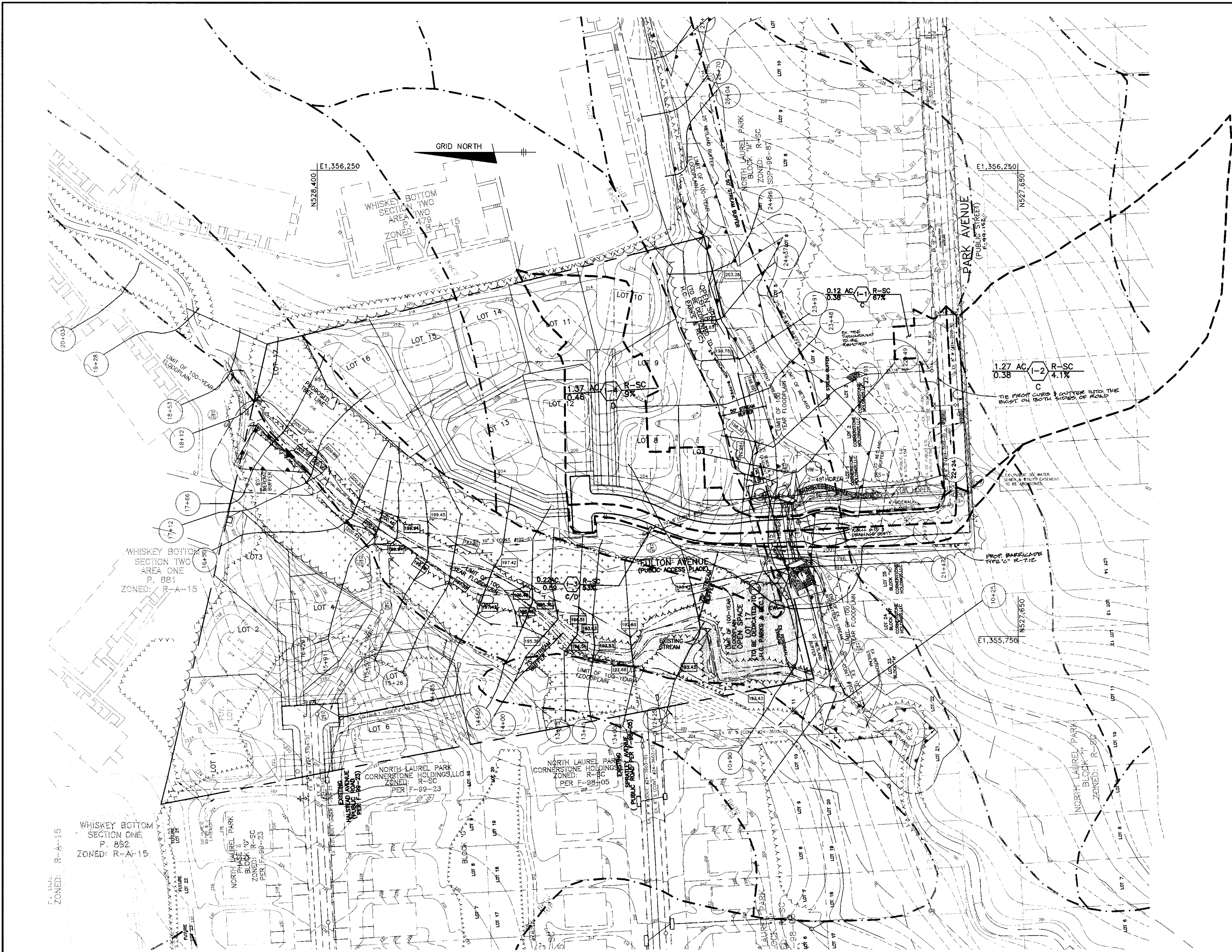
John DeWitt 10/26/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

1	7/22/99	REV. PER DPW & DED COMMENTS DATED 6/24/99
0	3/99	SUBMISSION TO COUNTY FOR REVIEW AND APPROVAL.
NO	DATE	REVISION

BENCHMARK
 ENGINEERS - LAND SURVEYORS - PLANNERS
ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6644

OWNER/DEVELOPER:	PROJECT:
CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565	PATUXENT RIDGE LOTS 1-18 SUBDIVISION OF PARCEL 374 (SP-98-09, F-99-23)
TITLE:	DATE:
STORM DRAIN PROFILES AND DETAILS	MARCH 1999
DESIGN: YSL	PROJECT NO. 0928
DRAFT: YSL	JUNE 1999
CHECK: CAM	SCALE: AS SHOWN
DRAWING 4 OF 9	



SOILS LEGEND		
SYMBOL	MAPPING UNIT	HYD. SOIL GROUP
BeB2	BELTSVILLE SILT LOAM 1-5% SLOPES, MOD. ERODED	B
BeC2	BELTSVILLE SILT LOAM 5-10% SLOPES, MOD. ERODED	B
BeC3	BELTSVILLE SILT LOAM 5-10% SLOPES, SEVERELY ERODED	B
BeD2	BELTSVILLE SILT LOAM 10-15% SLOPES, MOD. ERODED	B
BrB2	BRANDYWINE LOAM 3-8% SLOPES, MOD. ERODED	B
BrC2	BRANDYWINE LOAM 8-15% SLOPES, MOD. ERODED	B
BrD3	BRANDYWINE LOAM 15-25% SLOPE, SEVERELY ERODED	B
BfF	BRANDYWINE LOAM 25-60% SLOPES, N/S ASPECT	B
CmC2	CHILLUM SILT LOAM 5-10% SLOPES, MOD. ERODED	B
CnB2	CHILLUM-FAIRFAX LOAM 1-5% SLOPES, MOD. ERODED	B
Em	ELKTON SILT LOAM	B
EvB	EVESBORO LOAM SAND 1-5% SLOPES	B
Fa	FALLSINGTON LOAM	B
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1-5% SLOPES	B
KeE3	KELLY CLAY LOAM 15-30% SLOPES, SEVERELY ERODED	B
KeB2	KELLY SILT LOAM 3-8% SLOPES, MOD. ERODED	B
KeC2	KELLY SILT LOAM 8-15% SLOPES, MOD. ERODED	B
L1	LEONARTOWN SILT LOAM	B
LeB2	LEGORE SILT LOAM 3-8% SLOPES, MOD. ERODED	B
M1C3	MANOR LOAM 8-15% SLOPES, SEVERELY ERODED	B
M1D2	MANOR LOAM 15-25% SLOPES, MOD. ERODED	B
M1D3	MANOR LOAM 15-25% SLOPES, SEVERELY ERODED	B
M1E	MANOR LOAM 25-45% SLOPES	B
MhD	MANOR STONY LOAM 3-25% SLOPES	B
Me	MONTALTO & RELAY SOILS 15-45% SLOPES	B
RuC2	RUMFORD LOAMY SAND 5-10% SLOPES, MOD. ERODED	B
RuD2	RUMFORD LOAMY SAND 10-15% SLOPES, MOD. ERODED	B
ScB	SANDY & CLAYEY LAND GENTLY SLOPING	C
ScD	SANDY & CLAYEY LAND MOD. SLOPING	C
ScE	SANDY & CLAYEY LAND MOD. STEEP	C
StB2	SASSAFRAS GRAVELLY SANDY LOAM 1-5% SLOPES, MOD. ERODED	B
StC2	SASSAFRAS GRAVELLY SANDY LOAM 5-10% SLOPES, MOD. ERODED	B
StD2	SASSAFRAS GRAVELLY SANDY LOAM 5-15% SLOPES, SEVERELY ERODED	B
StD2	SASSAFRAS LOAM 10-15% SLOPES, MOD. ERODED	B
SuD2	SUNNYSIDE FINE SANDY LOAM 5-15% SLOPES, MOD. ERODED	B
		*ASSUMED

NO	DATE	REVISION
1	7-23-99	REVISIONS PER DPW COMMENTS
0	3/99	SUBMISSION TO COUNTY FOR REVIEW AND APPROVAL

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8180 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
PHONE: 410-485-6100 FAX: 410-485-6644

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Dowdy 10/27/99
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Richard Blood 10/25/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John Dammeyer 10/26/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

PLAN VIEW
SCALE: 1"=50'

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C.
9691 NORFOLK AVENUE
LAUREL, MARYLAND 20723
410-792-2565

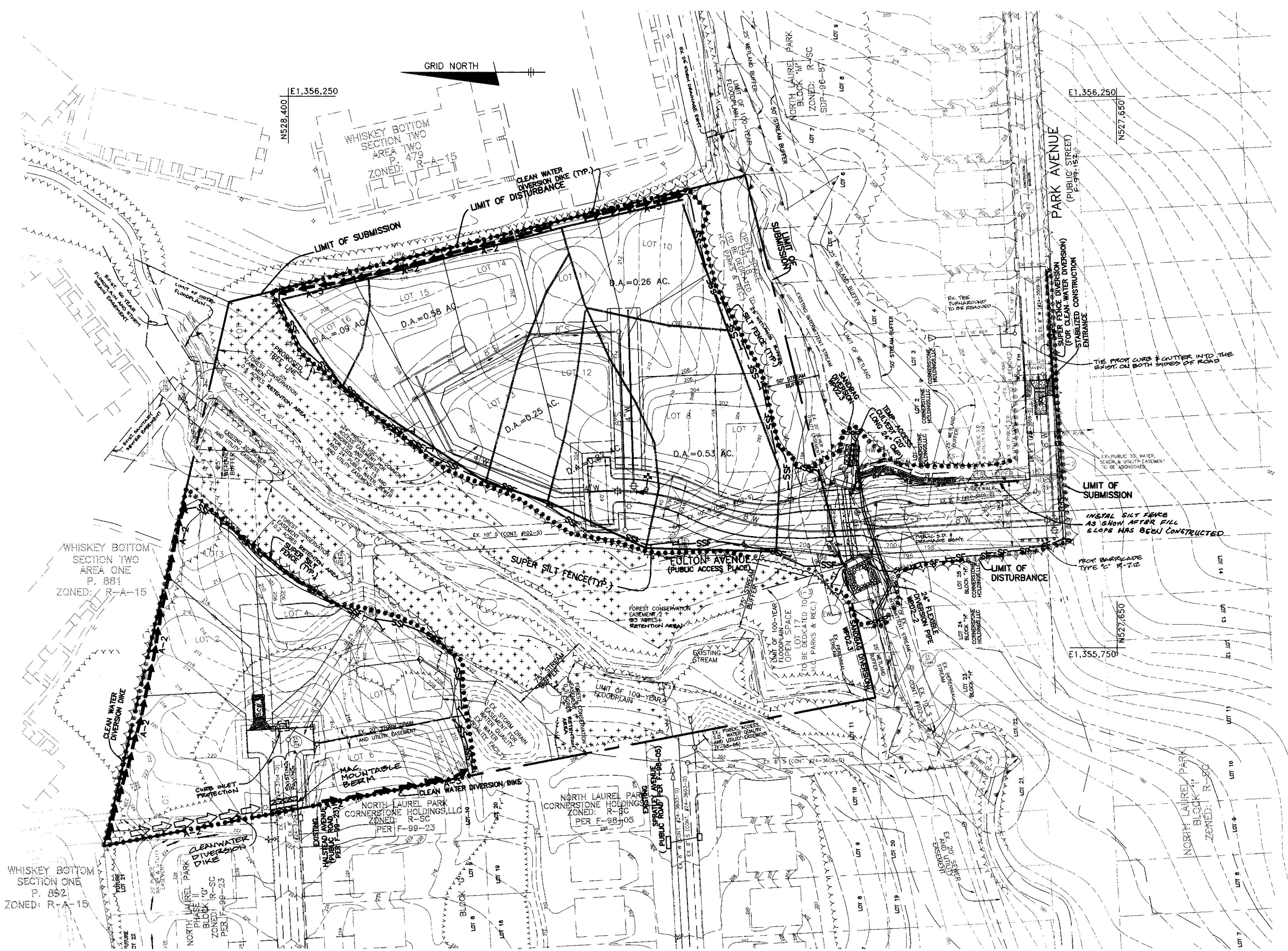
PROJECT: PATUXENT RIDGE
SUBDIVISION OF PARCEL 374
(SP-98-09, F-93-23)

LOCATION: TAX MAP 50, GRID 3- PARCEL 374
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **STORM DRAINAGE AREA MAP**

DATE: MARCH 1999 PROJECT NO. 0928
JUNE, 1999

DESIGN: YSL DRAFT: YSL CHECK: CAM SCALE: AS SHOWN DRAWING 5 OF 9



LEGEND

CONTOUR INTERVAL	2 FEET
EXISTING CONTOUR	200
PROPOSED CONTOUR	200
EXISTING SEWER	EX. 8" S
EXISTING WATER MAIN	EX. 8" W
EXISTING STORM DRAIN	EX. 18" RCP
PROPOSED SEWER	8" S
PROPOSED WATER MAIN	8" W
PROPOSED STORM DRAIN	18" RCP
STABILIZED CONSTRUCTION ENTRANCE	
PROPOSED EARTH DIKE	A-3
SILT FENCE	SF
SUPER SILT FENCE	SSF
LIMIT OF DISTURBED AREA	
EXISTING TREE LINE	
PROPOSED TREE LINE	
SUPER FENCE DIVERSION	SFD

PLAN VIEW
SCALE: 1"=50'

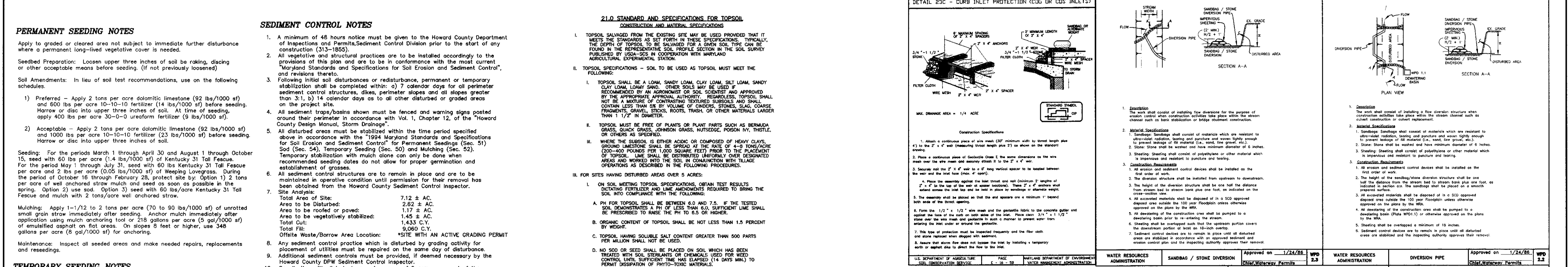
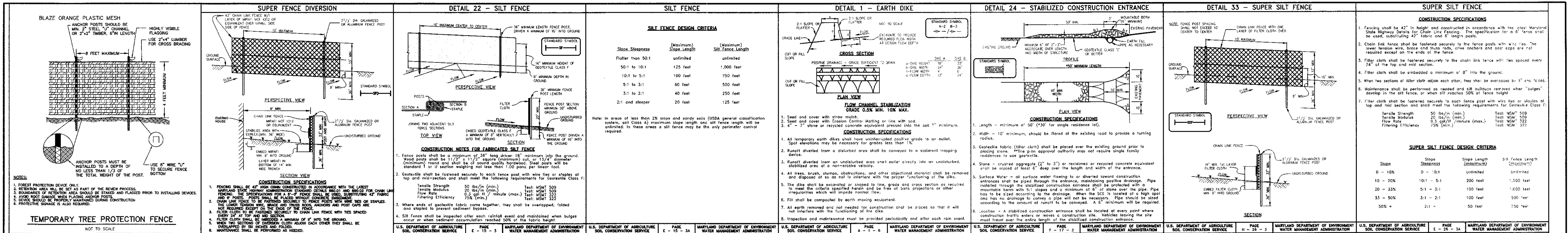
<p>APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p><i>John R. Robertson</i> 9/27/99 HOWARD SOIL CONSERVATION DISTRICT DATE</p>	<p>ENGINEER'S CERTIFICATE</p> <p>I hereby certify that this plan for erosion and sediment control represents 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.</p> <p><i>Donnell Mason</i> 3/25/99 Date</p>
<p>APPROVED: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.</p> <p><i>Cleyle Simmons</i> 9/27/99 NATURAL RESOURCES CONSERVATION SERVICE DATE</p>	<p>DEVELOPER'S CERTIFICATE</p> <p>I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.</p> <p><i>B. D. By</i> 3/25/99 Signature of Developer Date</p>

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daniels 10/27/99
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Richard Blood 10/28/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Ch. Dammann 10/28/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

<p>1 7-23-99 REVISIONS PER DPW COMMENTS</p> <p>0 3/99 SUBMISSION TO COUNTY FOR REVIEW AND APPROVAL</p> <p>NO DATE REVISION</p>	
<p>BENCHMARK ENGINEERS • LAND SURVEYORS • PLANNERS ENGINEERING, INC.</p> <p>8480 BALTIMORE NATIONAL PKWY • SUITE 418 • ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-8844</p>	
<p>OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565</p>	<p>PROJECT: PATUXENT RIDGE LOTS 1-18 SUBDIVISION OF PARCEL 374 (SP-98-09, P-99-23)</p> <p>LOCATION: TAX MAP 50, GRID 3- PARCEL 374 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p> <p>TITLE: SEDIMENT AND EROSION CONTROL PLAN</p> <p>DATE: MARCH 1999 PROJECT NO. 0928 JUNE 1999</p> <p>DESIGN: YSL DRAFT: YSL CHECK: CAM SCALE: AS SHOWN DRAWING 6 OF 9</p>



PERMANENT SEEDING NOTES
 Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

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

SOIL AMENDMENTS: In lieu of soil test recommendations, use on the following schedules:

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 500 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf) 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 sf).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 through April 30 and August 1 through October 15, seed with 60 lbs per acre (1.4 lbs/1000 sf) of Kentucky 31 Tall Fescue. For the period May 1 through July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.05 lbs/1000 sf) of Weeping Lovegrass. During the period of October 16 through 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) 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 sf) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseedings.

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

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

SOIL AMENDMENTS: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf).

SEEDING: For periods March 1 through April 30 and from August 15 through November 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs/1000 sf). For the period May 1 through August 14, seed with 3 lbs per acre of Weeping Lovegrass (0.07 lbs/1000 sf). For the period November 16 through 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 sf) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

REFER TO THE 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control for rate and methods not covered.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL
CONSTRUCTION AND MATERIAL SPECIFICATIONS
 I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS 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-SOCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
 II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDER, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRUNKS, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
 II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, HUTCHESON GRASS, YIP, TRIFLE, OR OTHERS AS SPECIFIED.
 III. WHERE THE SUBSOIL IS EITHER ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIME SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
 III. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 I. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 A. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE APPLIED TO RAISE THE PH TO 6.0 OR HIGHER.
 B. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 C. TOPSOIL HAVING SUITABLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 D. NO 600 OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL. UNWANTED PLANTS ARE ELIMINATED (14 DAYS MIN) TO PERMIT DISPERSION OF PHOTO-TOXIC MATERIALS.
 NOTE: 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.
 II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 21.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
 V. TOPSOIL APPLICATION
 I. WHEN TOP SOILING, MAINTAIN NEARBY EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 II. GRADES ON THE AREAS TO BE TOP SOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" HIGHER IN ELEVATION.
 III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 6" LAYER AND LIGHTLY COMPACTED TO A MINIMUM DENSITY OF 8%. SPRINKLING SHALL BE PERFORMED IN SUCH A MANNER THAT SOODING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOP SOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 IV. TOPSOIL SHALL NOT BE PLACED WHILE 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 SEEDBED PREPARATION.
 VI. ALTERNATE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW.
 I. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 A. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 B. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 C. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
 IV. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.
 REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SOODING. MD-VA, PUB. #1. COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

ENGINEER'S CERTIFICATE
 I hereby certify that this plan for erosion and sediment 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.

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

APPROVED: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

SEQUENCE OF CONSTRUCTION

DAY 1	OBTAIN A GRADING PERMIT.
DAY 2	INSTALL TEMPORARY ACCESS CULVERT AND STREAM DIVERSION DEVICES.
DAY 3	CLEAR THE AREA NEEDED FOR INSTALLATION OF SEDIMENT AND EROSION CONTROL DEVICES.
DAY 4-8	INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN.
DAY 9-12	CLEAR REMAINING AREA OF DISTURBANCE.
DAY 13	INSTALL STREAM DIVERSION DEVICES.
DAY 14-18	INSTALL TWIN 48" DIA. HOPEP AND ENDWALL/HEADWALL.
DAY 19-29	GRADE SITE TO SUBGRADE.
DAY 30-40	COMMENCE UTILITY CONSTRUCTION.
DAY 41-61	COMPLETE CURB AND GUTTER, SIDEWALK AND PAVING.
DAY 62-70	FINE GRADE SITE AND STABILIZE IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.
DAY 71-76	UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES, STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.

BENCHMARK ENGINEERING, INC.
 8490 BALTIMORE NATIONAL PIKE • SUITE 418 • ELICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6644

OWNER/DEVELOPER: PATUENGE RIDGE LOTS 1-18 SUBDIVISION OF PARCEL 374 (50-98-09, F-99-23)

LOCATION: TAX MAP 50, GRID 3 - PARCEL 374 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: SEDIMENT & EROSION CONTROL NOTES AND DETAILS

DATE: MARCH 1999 PROJECT NO. 0928
 JUNE 1999

DESIGN: YSL **DRAFT:** YSL **CHECK:** CAM **SCALE:** AS SHOWN **DRAWING NO. OF 9**



PLAN VIEW
SCALE: 1"=50'

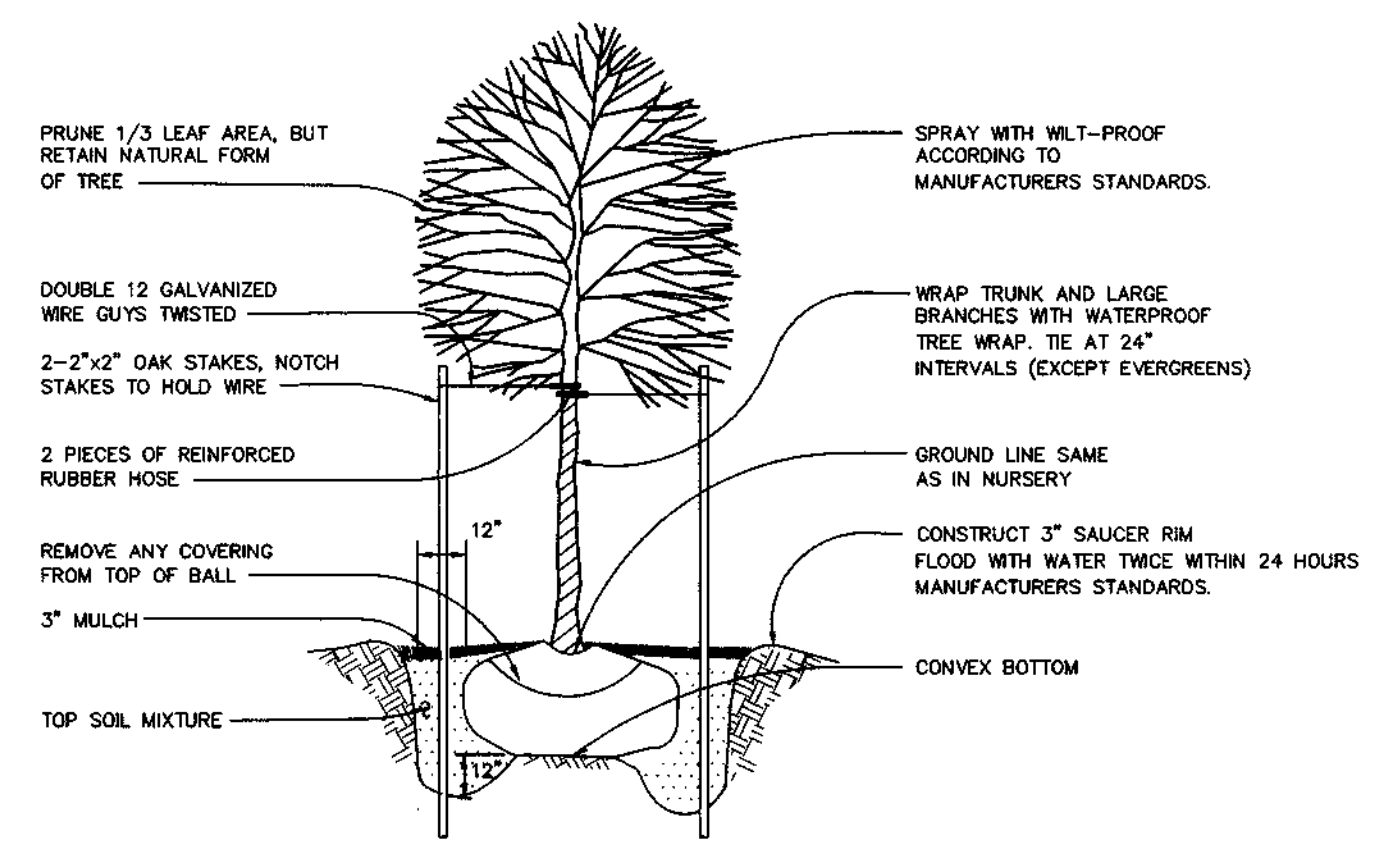
FOR LANDSCAPING PURPOSES ONLY

NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DWP DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$6,900.00.

LANDSCAPE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
⊙	25	PLATANUS ACERIFOLIA (BLOODGOOD LONDON PLANE)	2 1/2" MIN. CAL. B & J FULL HEAD

STREET TREE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
⊙	24	ACER RUBRA (RED MAPLE)	2 1/2" MIN. CAL. B & J FULL HEAD



TREE PLANTING DETAIL
NOT TO SCALE

SCHEDULE A PERIMETER LANDSCAPE EDGE	
CATEGORY	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	A/1
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	2187'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	*YES 760' EXIST. VEGETATION
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) SHRUBS	23 0 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	23 0 0 0

* - EXISTING TREES TO REMAIN

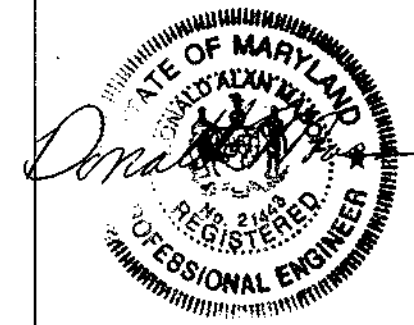
LANDSCAPE LEGEND	
SYMBOL	DESCRIPTION
⊙	STREET TREES TO BE PROVIDED BY THE DEVELOPER AND TO BE INCORPORATED ON FINAL PLANS.
⊕	SHADE TREES ALONG PERIMETER TO BE PROVIDED BY THE DEVELOPER AND INCORPORATED ON FINAL PLANS.

STREET TREES REQUIRED (1:40'):
 AT FULTON AVE.: REQUIRED (1:40' @ 950±) = 24
 AT HALSTEAD AVE.: PROVIDED (1:40' @ 950±) = 24
 AT HALSTEAD AVE.: PROVIDED (1:40' @ 230±) = 6*
 AT HALSTEAD AVE.: PROVIDED (1:40' @ 230±) = 6*
 *NOTE: STREET TREES AT HALSTEAD AVE. ARE PROVIDED UNDER THE NORTH LAUREL PARK, PHASE II PLAN. (F-99-23) STORMWATER MANAGEMENT AREA PLANTING FOR WQF#3 IS PROVIDED UNDER NORTH LAUREL PARK, PHASE II ROAD PLANS (F-99-23).

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED 24 STREET TREES IN THE AMOUNT OF \$ 7,200.00 IS PART OF THE DEVELOPER'S AGREEMENT.

0	3/99	SUBMISSION TO COUNTY FOR REVIEW AND APPROVAL.
NO	DATE	REVISION

BENCHMARK ENGINEERING, INC.
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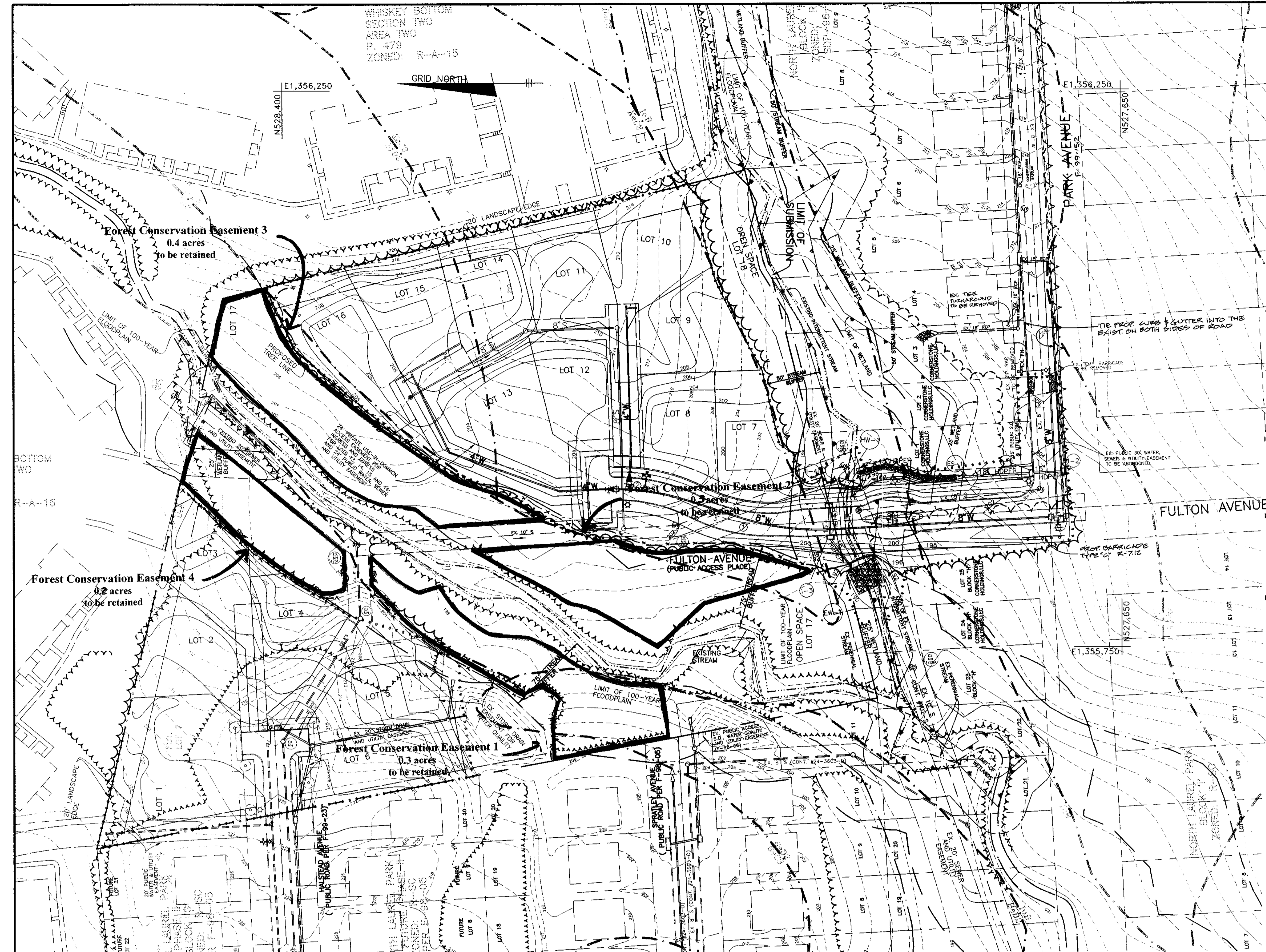
8480 GALT MORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C. 9891 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565	PROJECT: PATUXENT RIDGE LOTS 1-18 SUBDIVISION OF PARCEL 374 (SP-98-09, F-99-23)	LOCATION: TAX MAP 50, GRID 3- PARCEL 374 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE: LANDSCAPING PLAN
DESIGN: YSL DRAFT: YSL CHECK: CAM	DATE: MARCH 1999 JUNE, 1999	PROJECT NO. 0928	DRAWING 8 OF 9

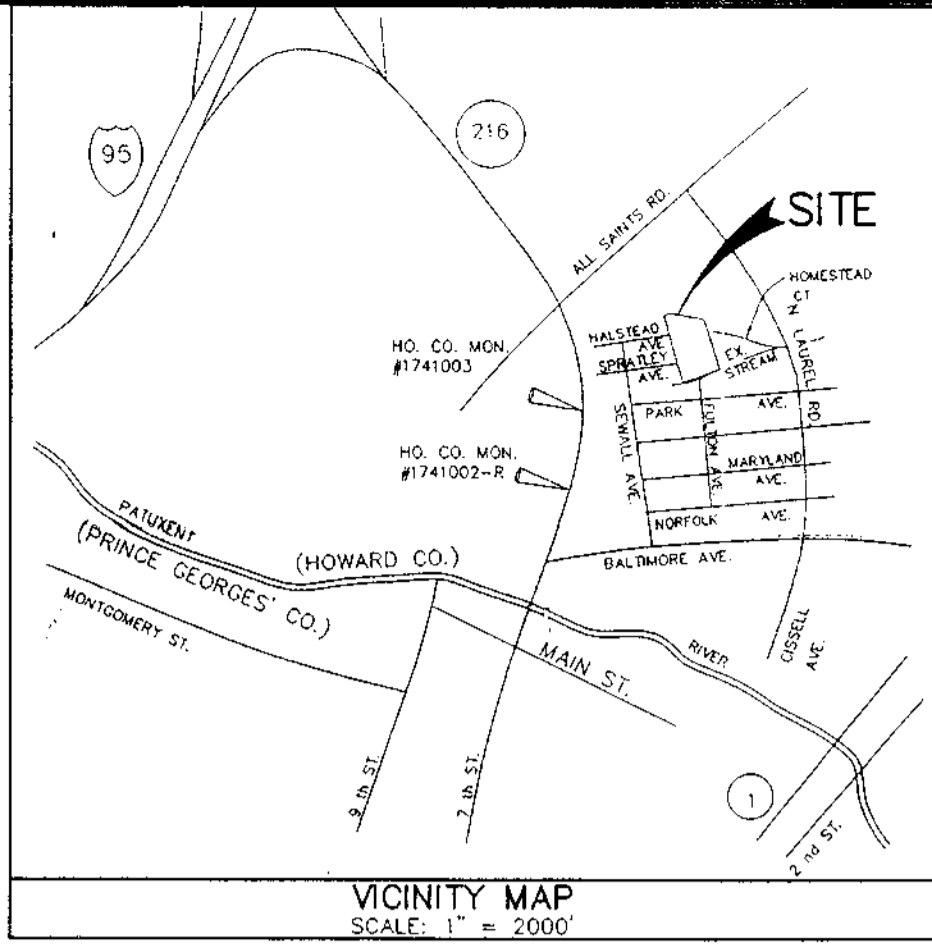
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daulton 10-27-99
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Rudolf Blood 10/25/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Michael J. ... 10/27/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



SOILS LEGEND		
SYMBOL	MAPPING UNIT	HYD. SOIL GROUP
BwB2	BELTSVILLE SILT LOAM 1-5% SLOPES, MOD. ERODED	C
BwC2	BELTSVILLE SILT LOAM 5-10% SLOPES, MOD. ERODED	C
BwC3	BELTSVILLE SILT LOAM 5-10% SLOPES, SEVERELY ERODED	C
BwD2	BELTSVILLE SILT LOAM 10-15% SLOPES, MOD. ERODED	C
BwE2	BRANDYWINE LOAM 3-8% SLOPES, MOD. ERODED	C
BwC2	BRANDYWINE LOAM 8-15% SLOPES, MOD. ERODED	C
BwD3	BRANDYWINE LOAM 15-25% SLOPES, SEVERELY ERODED	C
BwF	BRANDYWINE LOAM 25-50% SLOPES, N/S ASPECT	C
CmC2	CHILLUM SILT LOAM 5-10% SLOPES, MOD. ERODED	C
CmD2	CHILLUM-FAIRFAX LOAM 1-5% SLOPES, MOD. ERODED	C
Eh	ELKTON SILT LOAM	C
EhB	EVESBORO LOAM SAND 1-5% SLOPES	C
Fo	FALLSINGTON LOAM	C
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1-5% SLOPES	C
KcE3	KELLY CLAY LOAM 15-30% SLOPES, SEVERELY ERODED	C
KeB2	KELLY SILT LOAM 3-8% SLOPES, MOD. ERODED	C
KeC2	KELLY SILT LOAM 8-15% SLOPES, MOD. ERODED	C
L1	LEONARDTOWN SILT LOAM	C
LeB2	LEGORE SILT LOAM 3-8% SLOPES, MOD. ERODED	C
M1C3	MANOR LOAM 8-15% SLOPES, SEVERELY ERODED	C
M1D2	MANOR LOAM 15-25% SLOPES, MOD. ERODED	C
M1D3	MANOR LOAM 15-25% SLOPES, SEVERELY ERODED	C
M1E	MANOR LOAM 25-45% SLOPES	C
M1D	MANOR STONY LOAM 3-25% SLOPES	C
M1E	MONTALTO & RELAY SOILS 15-45% SLOPES	C
RuC2	RUMFORD LOAMY SAND 5-10% SLOPES, MOD. ERODED	C
RuD2	RUMFORD LOAMY SAND 10-15% SLOPES, MOD. ERODED	C
S2B	SANDY & CLAYEY LAND GENTLY SLOPING	C
S2D	SANDY & CLAYEY LAND MOD. SLOPING	C
S2E	SANDY & CLAYEY LAND MOD. STEEP	C
S2B2	SASSAFRAS GRAVELLY SANDY LOAM 1-5% SLOPES, MOD. ERODED	B
S1C2	SASSAFRAS GRAVELLY SANDY LOAM 5-10% SLOPES, MOD. ERODED	B
S1D2	SASSAFRAS GRAVELLY SANDY LOAM 5-15% SLOPES, SEVERELY ERODED	B
S1D2	SASSAFRAS LOAM 10-15% SLOPES, MOD. ERODED	B
SuD2	SUNNYSIDE FINE SANDY LOAM 5-15% SLOPES, MOD. ERODED	B



**APPENDIX G
FOREST CONSERVATION WORKSHEET**

	ACRES (1/10 acre)
I. BASIC SITE DATA	
GROSS SITE AREA	6.5
AREA WITHIN 100 YEAR FLOODPLAIN	0.9
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	N/A
NET TRACT AREA	5.6
LAND USE CATEGORY (R-RLD, R-RMD, R-S, C/1/0, I)	R-SC
II. INFORMATION FOR CALCULATIONS	
A. NET TRACT AREA	5.6
B. REFORESTATION THRESHOLD (20% x A)	1.1
C. AFFORESTATION MINIMUM (15% x A)	0.8
D. EXISTING FOREST ON NET TRACT AREA	5.5
E. FOREST AREAS TO BE CLEARED	4.3
F. FOREST AREAS TO BE RETAINED	1.2
III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION	
1. Reforestation	
If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C), and clearing of forest areas is proposed, reforestation requirements may apply.	
GO TO SECTION IV	
If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C), and no clearing of existing forest resources is proposed, no reforestation is required. No further calculations are needed.	
2. Afforestation	
If existing forest areas are less than the afforestation minimum (if D is less than C), afforestation requirements apply.	
GO TO SECTION V	
IV. REFORESTATION CALCULATIONS	
A. NET TRACT AREA	5.6
B. REFORESTATION THRESHOLD (20% x A)	1.1
D. EXISTING FOREST ON NET TRACT AREA	5.5
E. FOREST AREAS TO BE CLEARED	4.3
F. FOREST AREAS TO BE RETAINED	1.2
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (D-F, if F equals or is greater than B, Alternate 1) (D-B, if F is less than B, Alternate 2)	4.3
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (G-F, if applicable)	N/A
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F-B, Retention Credit, if applicable)	0.1

- FCP NOTES**
- Any Forest Conservation Easement (FCE) area shown hereon is subject to protective covenants which may be found in the Land Records of Howard County which restrict the disturbance and use of these areas.
 - Forested areas occurring outside of the FCE shall not be considered part of the FCE and shall not be subject to protective land covenants.
 - Limits of disturbance shall be restricted to areas outside the limit of temporary fencing or the FCE boundary, whichever is greater.
 - There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Easement, except as permitted by Howard County DPZ.
 - No stockpiles, parking areas, equipment cleaning areas, etc. shall occur within areas designated as Forest Conservation Easements.
 - Temporary fencing shall be used to protect forest resources during construction. The fencing shall be placed along all FCE boundaries which occur within 25 feet of the proposed limits of disturbance.
 - Permanent signage shall be placed 50-100' apart along the boundaries of all areas included in Forest Conservation Easements.
 - THE FORESTATION OBLIGATION OF 10 ACRES SHALL BE MET BY A FEE-IN-LIEU PAYMENT OF \$13,068.00.

Site Data	
	Acres
Gross Area:	6.5
Net Tract Area (NTA):	5.6
Existing Forest on NTA:	5.5
Afforestation Threshold:	0.8
Reforestation Threshold:	1.1
NTA Forest to be Cleared:	4.3
NTA Forest to be Retained:	1.2
Forestation Required:	1.0
Fee-in-lieu payment:	\$13,068.00

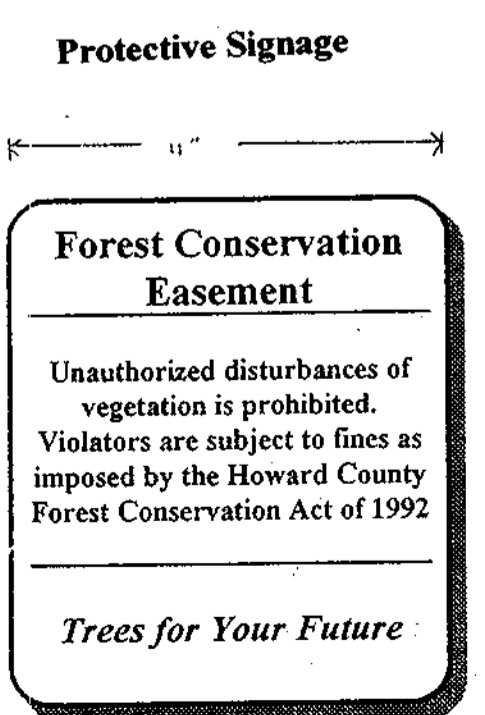
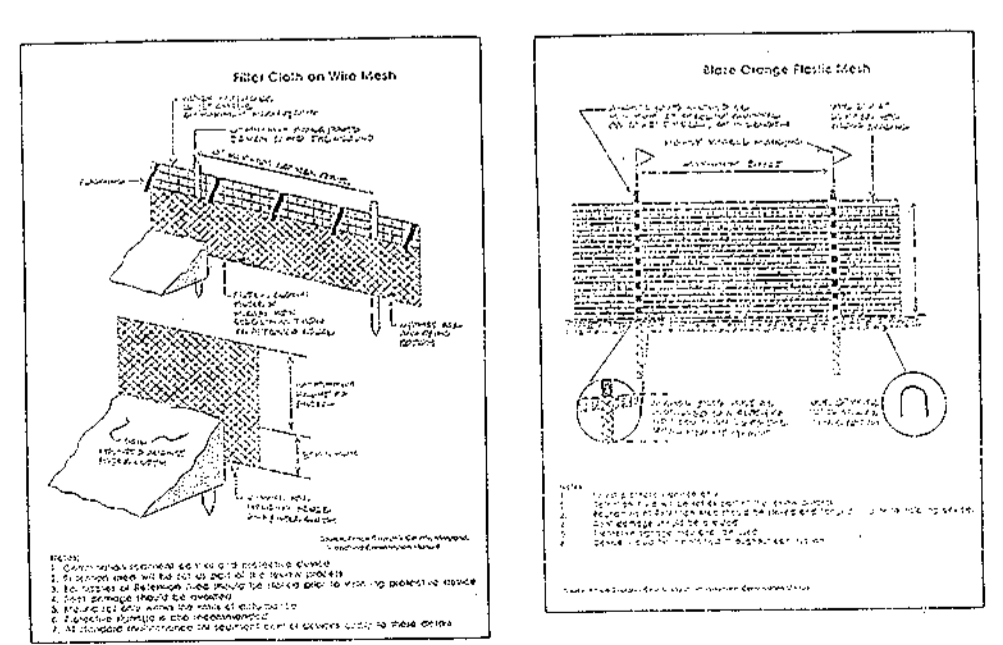
SELECT THE ALTERNATE THAT APPLIES:

- Clearing above the threshold only**
If forest areas to be retained equal or are greater than the reforestation threshold (if F equals or is greater than B), the following calculations apply:
 REFORESTATION FOR CLEARING ABOVE THRESHOLD $G \times 1/4$ = 1.1
 CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD $1 =$ Retention Credit = 0.1
 TOTAL REFORESTATION REQUIRED $(G \times 1/4) - 1$ = 1.0
 If the total reforestation requirement is equal to or less than 0, no reforestation is required.
- Clearing below the threshold**
If forest areas to be retained are less than the reforestation threshold (if F is less than B), the following calculations apply:
 REFORESTATION FOR CLEARING ABOVE THRESHOLD $G \times 1/4$ = N/A
 REFORESTATION FOR CLEARING BELOW THRESHOLD $H \times 2$ = N/A
 TOTAL REFORESTATION REQUIRED $(G \times 1/4) + (H \times 2)$ = N/A
 Since clearing occurs below the threshold, no forest retention credit is possible.

PLAN VIEW
SCALE: 1"=50'

FOR FOREST CONSERVATION PURPOSES ONLY

- FCP Legend**
- YYYYY Existing Tree Line
 - Proposed Tree Line
 - Forest Conservation Easement
 - X X Temporary Fencing
 - Protective Signage



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Donohue 10-27-99
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Richard Blood 10/28/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John P. Casella 10/28/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS
 MD DNR Qualified Professional
 EROSION CONTROL Designer
 Certification # WEP0001004402
 P.O. Box 5026 Glen Arm, MD 21057 (410) 592-6752

0 1/98 SUBMISSION TO COUNTY FOR REVIEW AND APPROVAL.
 NO DATE REVISION

BENCHMARK ENGINEERING, INC.
 ENGINEERS - LAND SURVEYORS - PLANNERS
 8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6644

OWNER/DEVELOPER: **PATUXENT RIDGE**
 LOTS 1-18
 SUBDIVISION OF PARCEL 374
 (SP-98-09, F-99-23)

LOCATION: TAX MAP 50, GRID 3, PARCEL 374
 6th ELECTION DISTRICT
 LAUREL, MARYLAND 20723
 410-792-2565

TITLE: **FOREST CONSERVATION PLAN**

DATE: JAN. 1999 PROJECT NO. 0928
 SCALE: AS SHOWN DRAWING 9 OF 9

DESIGN: YSL/JMC DRAFT: YSL/JMC CHECK: DAM