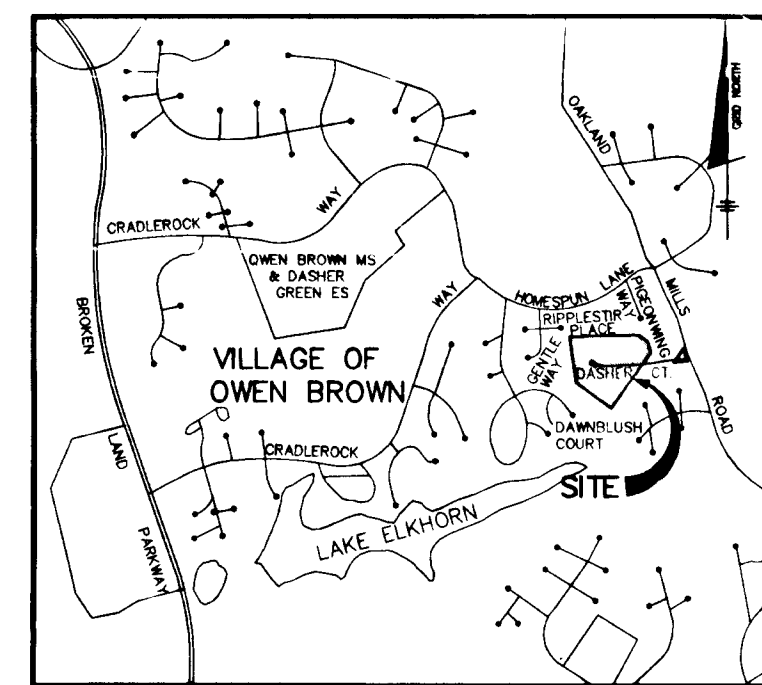


SHEET INDEX	
No.	DESCRIPTION
1	ROAD PLAN
2	ROAD PROFILE AND DETAILS
3	DRAINAGE AREA MAP
4	DRAINAGE AREA MAP FOR CULVERT CROSSING
5	STORM DRAIN PROFILES, NOTES AND DETAILS
6	GRADING AND SEDIMENT CONTROL PLAN
7	STORMWATER MANAGEMENT AND SEDIMENT CONTROL NOTES AND DETAILS
8	ROAD AND SEDIMENT CONTROL NOTES AND DETAILS
9	STORMWATER MANAGEMENT NOTES AND DETAILS
10	LANDSCAPE PLAN AND DETAILS
11	FOREST CONSERVATION PLAN
12	FOREST CONSERVATION DETAILS
13	STRIPING PLAN

STRUCTURE SCHEDULE						
No.	TYPE	LOCATION	INV. OUT	TOP ELEV.	HO. CO. STD.	
I-3	A-5	13.00' LT. CL. STA 64+06.33 DASHER COURT	18'D 312.16	18'D 311.96	319.58	SD 4.01 & R 3.06 A
I-4	A-10	13.00' RT. CL. STA 64+06.33 DASHER COURT	15'D 312.54	18'D 312.29	319.58	SD 4.02 & R 3.06 A
I-5	TYPE 'D' INLET	53.00' RT. CL. STA 54+54.71 DASHER COURT	----	15'D 314.06	317.83	SD 4.11
I-6	A-10	13.00' RT. CL. STA 84+14.95 DASHER COURT	18'D 321.76	18'D 321.56	337.72	SD 4.02 & R 3.06 A
I-7	A-10	13.00' RT. CL. STA 84+14.95 DASHER COURT	15'D 322.14	18'D 321.89	337.72	SD 4.02 & R 3.06 A
I-8	TYPE 'D' INLET	N 554452.1473 E 1359728.6729	----	18'D 323.39	326.33	SD 4.11
E-9	18" STD. CONC. SECTION	60.30' LT. CL. STA 74+37.85 DASHER COURT	----	313.56	----	SD 5.51
E-3	18" STD. CONC. SECTION	66.25' LT. CL. STA 64+75.10 DASHER COURT	----	311.56	----	SD 5.51
HW-1	27" TYPE 'A' ENDWALL	N 553906.7043 E 1359778.2935	----	307.57	----	SD 5.21
HW-2	SEE CULVERT PROFILE AND DETAILS-SHEET NO. 5	22.73' LT. CL. STA 44+37.66 DASHER COURT	----	----	SEE CULVERT PROFILE AND DETAILS SHEET NO. 5	----
HW-3	SEE CULVERT PROFILE AND DETAILS-SHEET NO. 5	22.73' RT. CL. STA 44+48.29 DASHER COURT	----	----	SEE CULVERT PROFILE AND DETAILS SHEET NO. 5	----
S-1	SEE DETAILS SHT. NO. 8	N 553935.2319 E 1359738.4541	----	----	SEE DETAILS SHEET NO. 8	----



VICINITY MAP  
SCALE: 1"=2000'

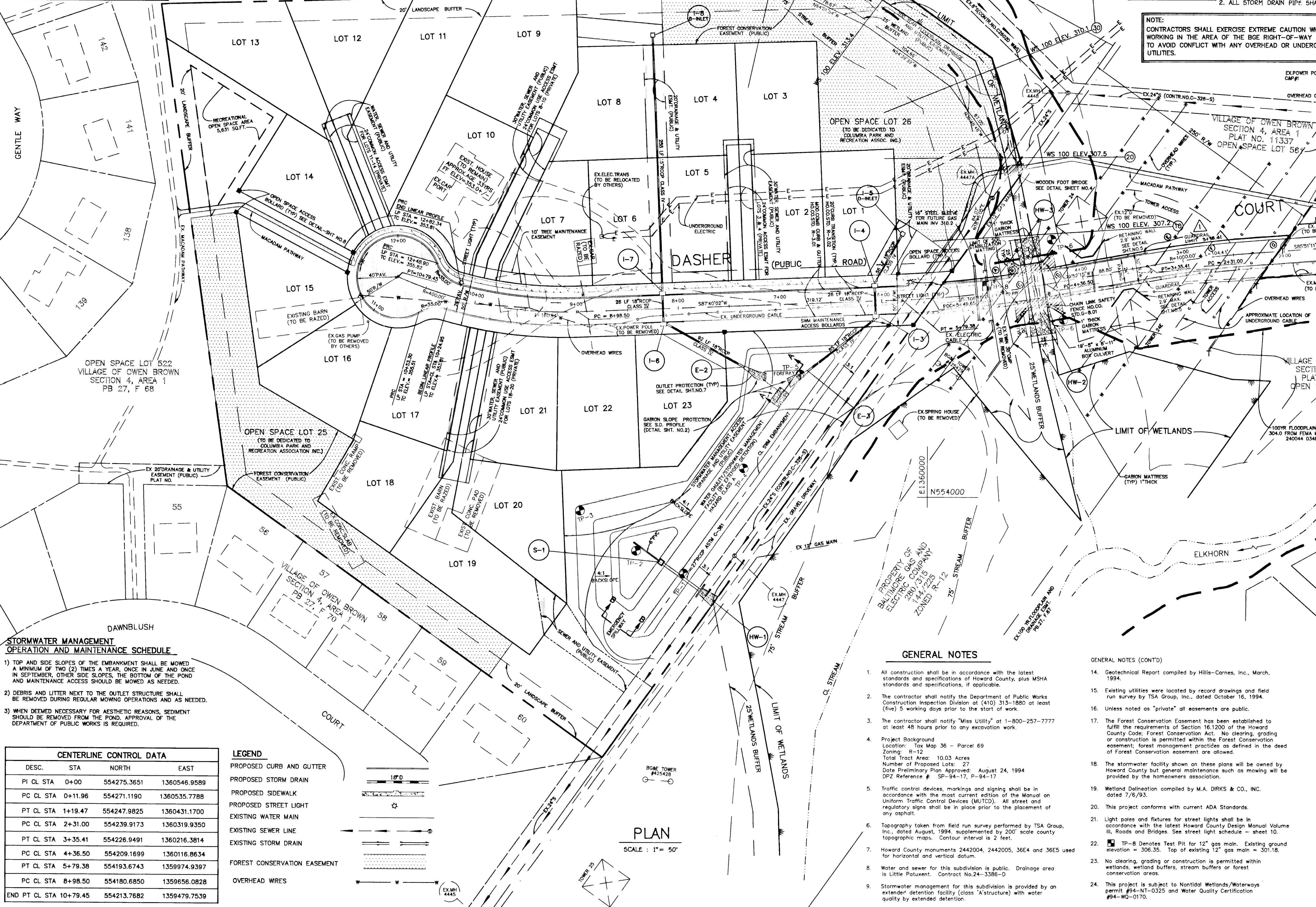
BENCH MARKS

HO. CO. #364 NAD 83  
STAMPED BRASS OR ALUMINUM DISC SET ON TOP OF CONC. BASE. WEST SIDE OF OAKLAND MILLS ROAD.  
N 560264.3489 E 1359398.731

HO. CO. #365 NAD 83  
STAMPED BRASS OR ALUMINUM DISC SET ON TOP OF CONC. BASE. WEST SIDE OF OAKLAND MILLS ROAD.  
N 558664.7314 E 1359171.284

HO. CO. #2442004 NAD 27  
USED FOR ELEVATION ONLY  
ELEV. 367.37

OVERHEAD WIRE ELEVATION			
WIRE	WIRE ELEV	ROAD ELEV	CLEARANCE
A	363.0	314.2	48.8
B	376.0	313.8	62.2
C	394.0	313.4	80.6
D	382.0	312.4	69.6
E	375.0	312.0	61.0
F	370.0	312.6	57.4
G	332.5	313.6	18.9
H	328.3	315.7	12.6



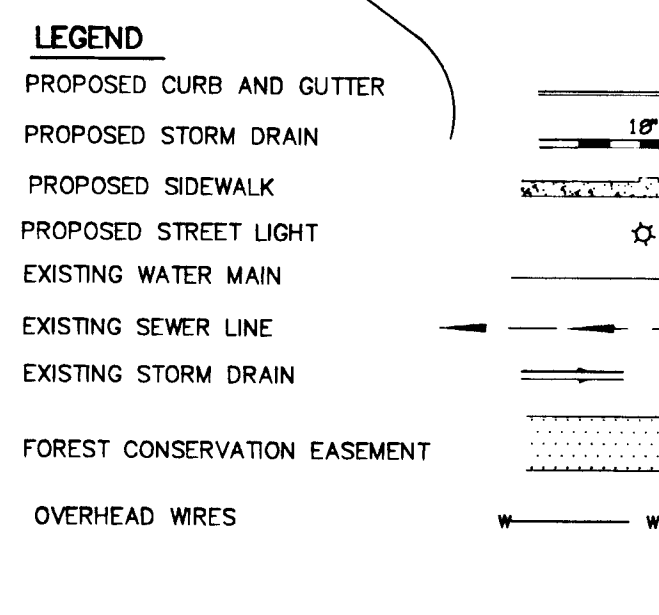
**STORMWATER MANAGEMENT OPERATION AND MAINTENANCE SCHEDULE**

1) TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES, THE BOTTOM OF THE POND AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.

2) DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.

3) WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, SEDIMENT SHOULD BE REMOVED FROM THE POND. APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS IS REQUIRED.

CENTERLINE CONTROL DATA			
DESC.	STA	NORTH	EAST
PI CL STA	0+00	554275.3651	1360546.9589
PC CL STA	0+11.96	554271.1190	1360535.7788
PT CL STA	1+19.47	554247.9825	1360431.1700
PC CL STA	2+31.00	554239.9173	1360319.9350
PT CL STA	3+35.41	554226.9491	1360216.3814
PC CL STA	4+36.50	554209.1699	1360116.8634
PT CL STA	5+79.38	554193.6743	1359974.9397
PC CL STA	8+98.50	554180.6850	1359656.0828
END PT CL STA	10+79.45	554213.7682	1359479.7539



CENTERLINE CURVE DATA						
FROM - TO	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
0+11.96 - 1+19.47	370.00	107.51	54.14	107.14	S77°31'43" W	16°38'56"
2+31.00 - 3+35.41	1000.00	104.41	52.25	104.36	S82°51'43" W	05°58'56"
4+36.50 - 5+79.38	1050.00	142.88	71.55	142.77	S83°46'08" W	05°27'34"
8+98.50 - 10+79.45	400.00	180.94	92.05	179.41	N79°22'25" W	25°55'06"

- GENERAL NOTES**
- All construction shall be in accordance with the latest standards and specifications of Howard County, plus MSHA standards and specifications, if applicable.
  - The contractor shall notify the Department of Public Works Construction Inspection Division at (410) 313-1880 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 36 - Parcel 69; Zoning: R-12; Total Tract Area: 10.03 Acres; Number of Proposed Lots: 27; Date Preliminary Plan Approved: August 24, 1994; DZ Reference #: SP-94-17, P-94-17.
  - Traffic control devices, markings and signing shall be in accordance with the most current 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 taken from field run survey performed by TSA Group, Inc., dated August, 1994, supplemented by 200' scale county topographic maps. Contour interval is 2 feet.
  - Howard County monuments 2442004, 2442005, 36E4 and 36E5 used for horizontal and vertical datum.
  - Water and sewer for this subdivision is public. Drainage area is Little Patuxent. Contract No. 24-3386-D.
  - Stormwater management for this subdivision is provided by an extended detention facility (class A structure) with water quality by extended detention.
  - Floodplain Study compiled by TSA Group, Inc., March, 1994.
  - Forest Conservation Plan compiled by M.A. Dirks & Co., Inc., March, 1994.
  - Traffic Study compiled by Lee Cunningham & Associates, Inc., June, 1993.
  - Noise Study not required for this project.

- GENERAL NOTES (CONT'D)**
- Geotechnical Report compiled by Hillis-Carnes, Inc., March, 1994.
  - Existing utilities were located by record drawings and field run survey by TSA Group, Inc., dated October 16, 1994.
  - Unless noted as "private" all easements are public.
  - The Forest Conservation Easement has been established to fulfill the requirements of Section 16.1200 of the Howard County Code. Forest Conservation Act. No clearing, grading or construction is permitted within the Forest Conservation easement; forest management practices as defined in the deed of Forest Conservation easement are allowed.
  - Wetland Delineation compiled by M.A. DIRKS & CO., INC. dated 7/6/93.
  - This project conforms with current ADA Standards.
  - Light poles and fixtures for street lights shall be in accordance with the latest Howard County Design Manual Volume III, Roads and Bridges. See street light schedule - sheet 10.
  - TP-8 Denotes Test Pit for 12" gas main. Existing ground elevation = 306.35. Top of existing 12" gas main = 301.18.
  - No clearing, grading or construction is permitted within wetlands, wetland buffers, stream buffers or forest conservation areas.
  - This project is subject to Nonpoint Wetlands/Waterways permit #94-NI-0325 and Water Quality Certification #94-WQ-0170.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker*  
CHIEF, BUREAU OF HIGHWAYS  
ANDREW DANEKER  
8-1-95  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Tirmanni*  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
GINA TIRMANNI  
8/8/95  
DATE

*Charles Damms*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHARLES DAMMS  
8/4/95  
DATE

NO	DATE	REVISION
3-11-97		REVISE GUARDEAUL

**TSA GROUP, INC.**  
planning • architecture • engineering • surveying  
8480 Baltimore National Pike • Millcott City, Maryland 21048 • (410)465-8100

OWNER: GEORGE AND MARIE DASHER  
6668 OAKLAND MILLS ROAD  
COLUMBIA, MARYLAND 21045  
AND  
BALTIMORE GAS AND ELECTRIC COMPANY  
7152 WINDSOR BLVD.  
BALTIMORE, MARYLAND 21207

DEVELOPER/CONTRACT PURCHASER:  
S D C GROUP INC.  
P.O. BOX 417  
ELLCOTT CITY, MARYLAND 21041

PROJECT:  
**DASHER HOMESTEAD**  
LOTS 1-27

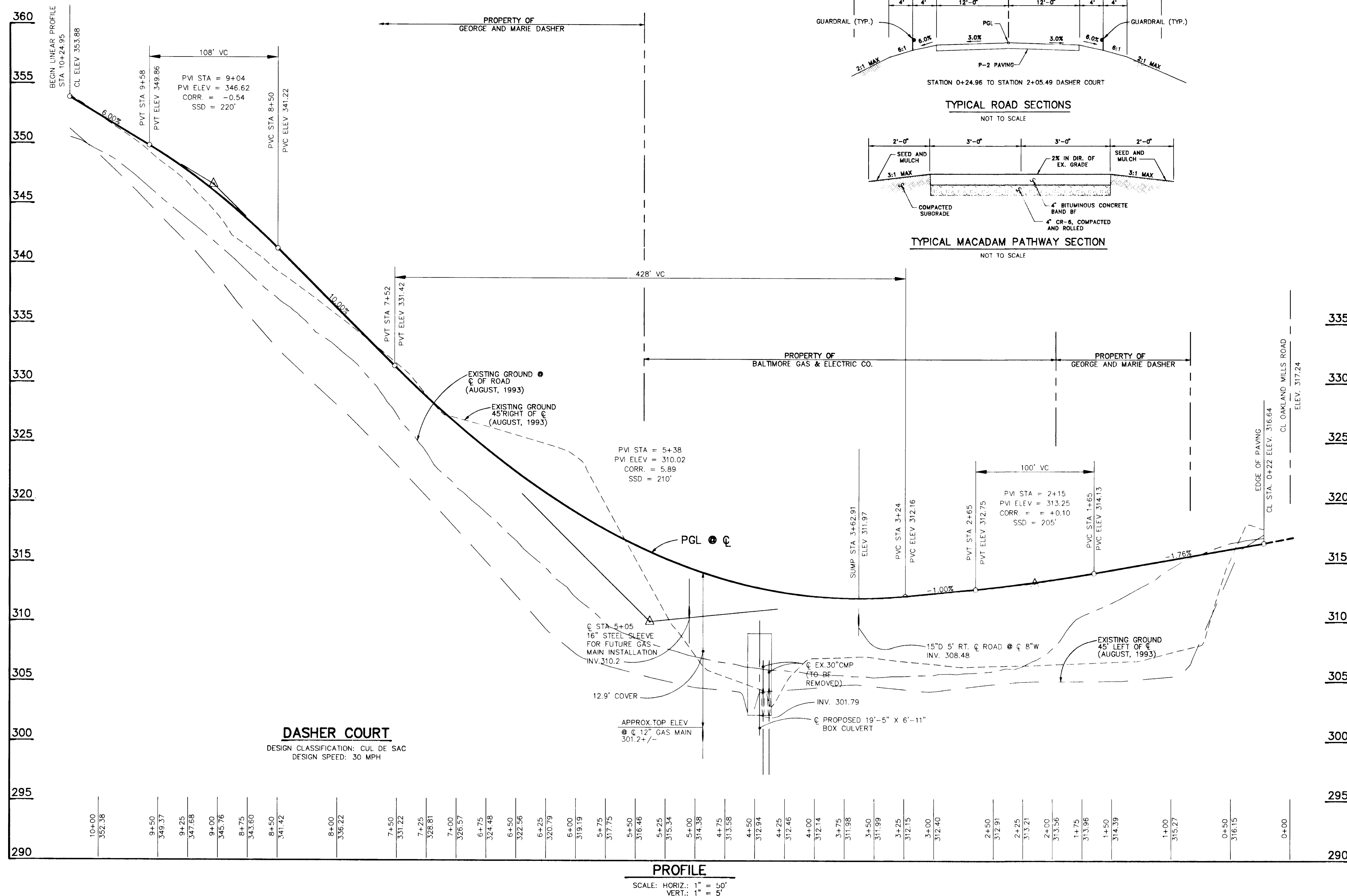
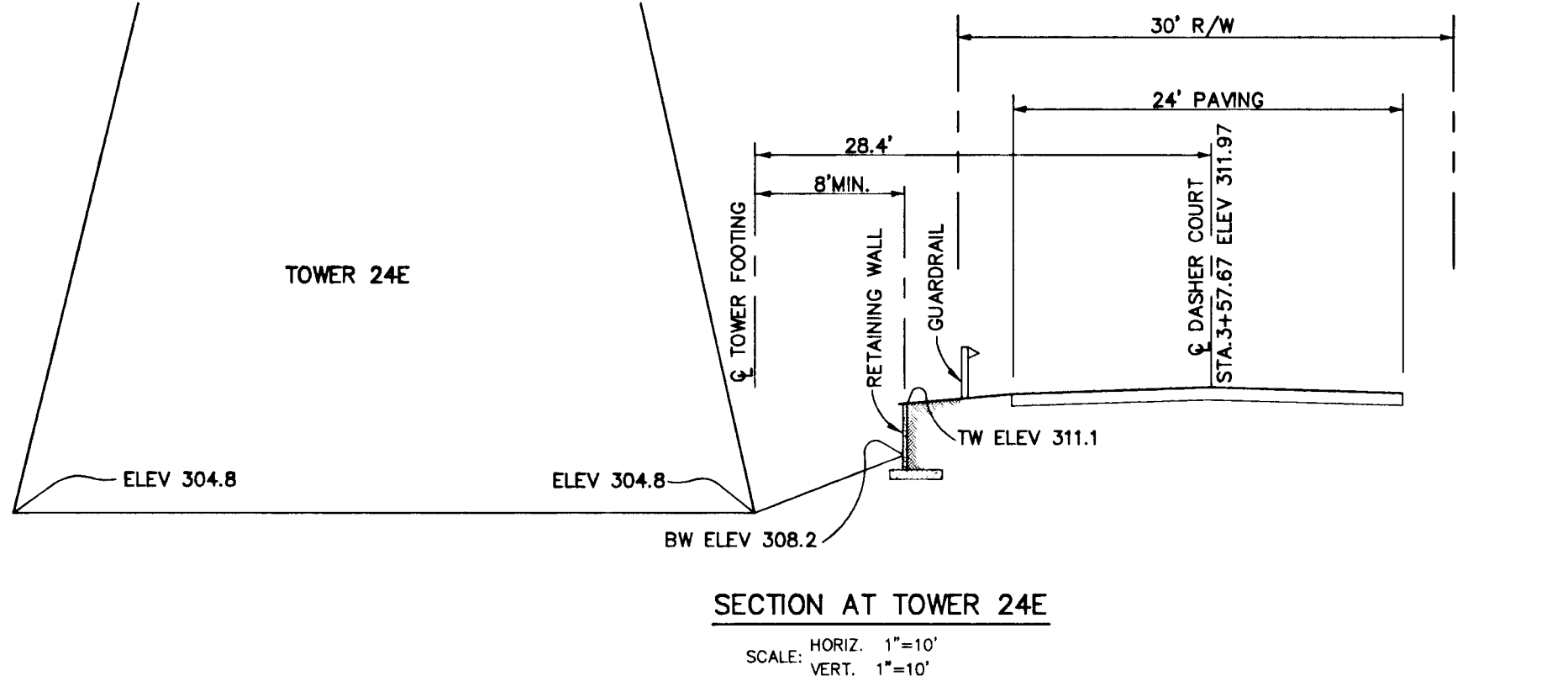
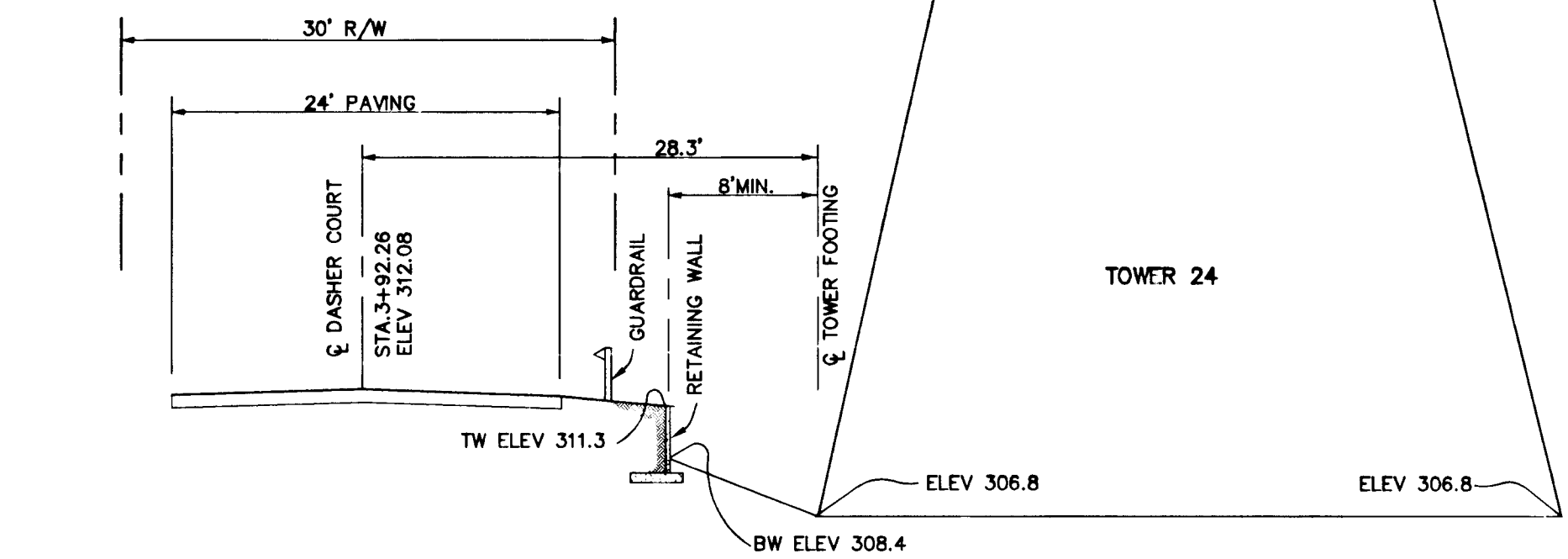
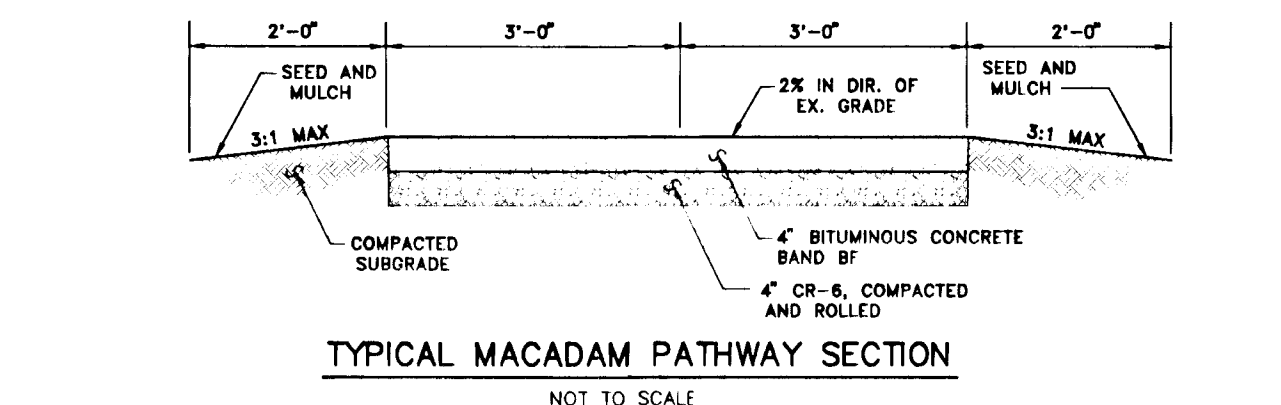
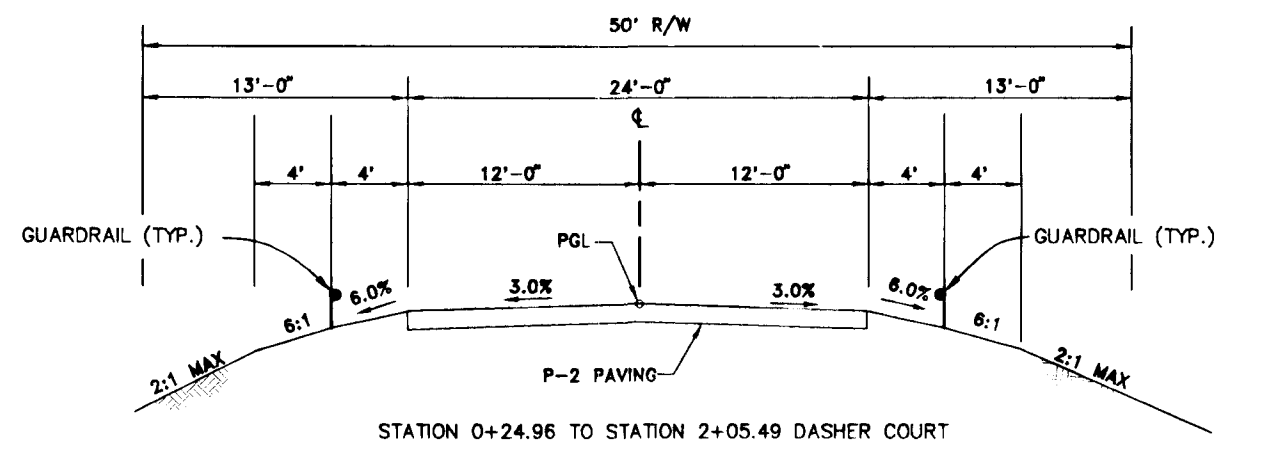
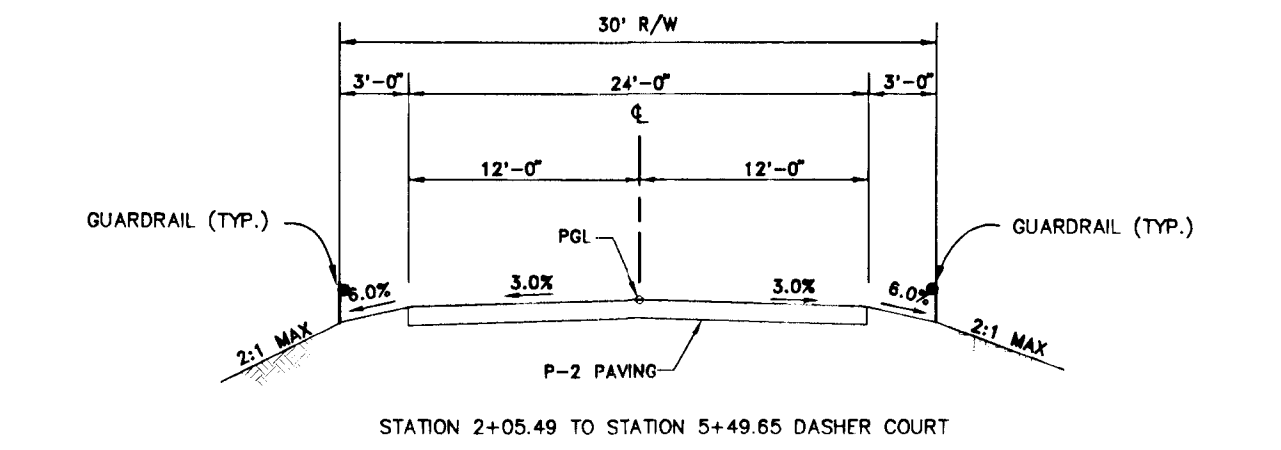
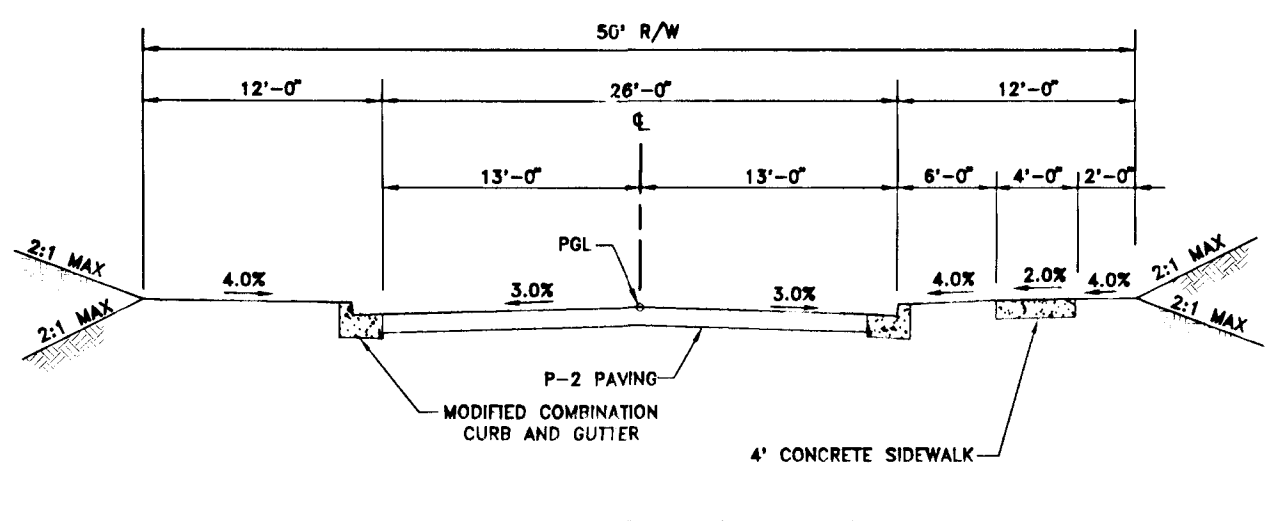
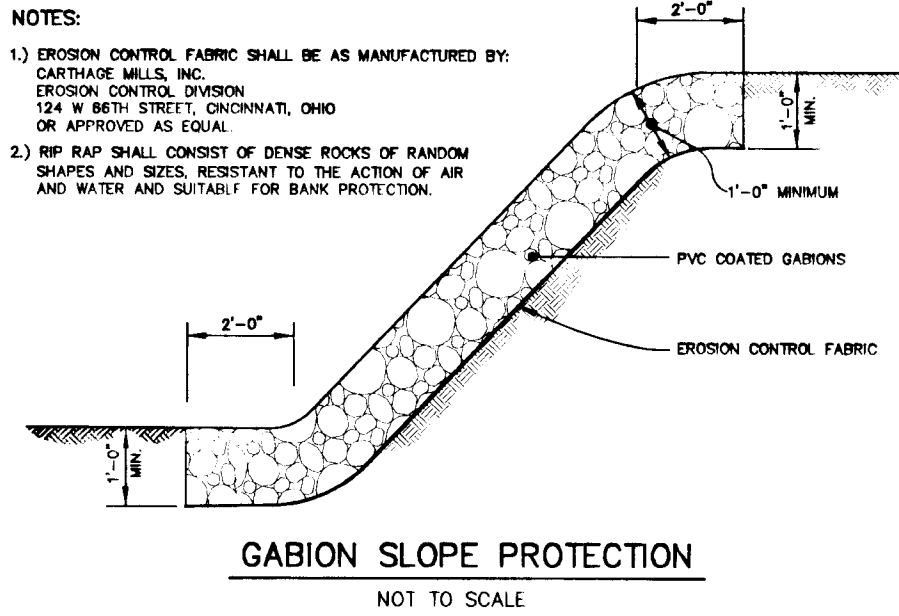
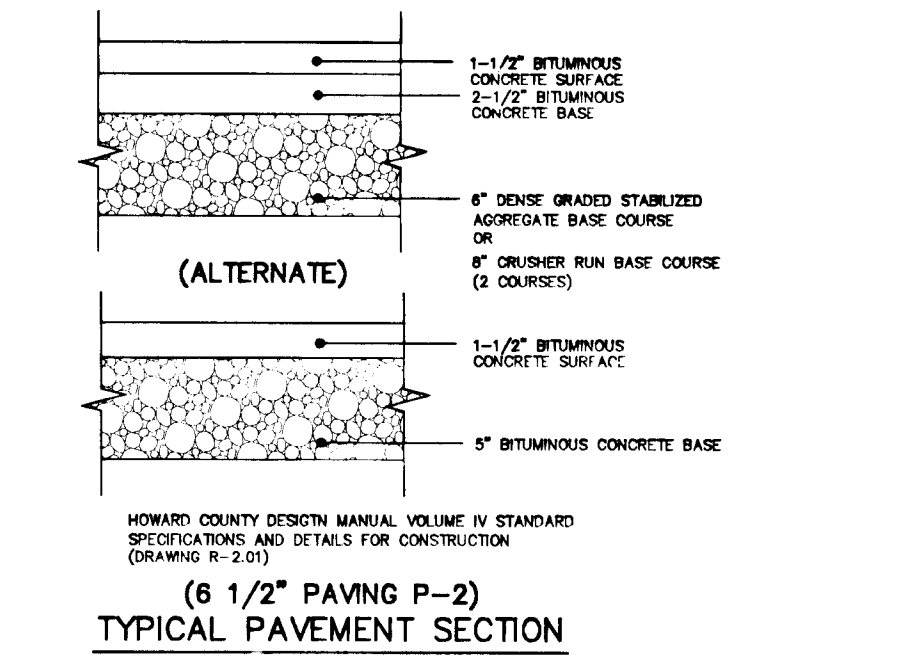
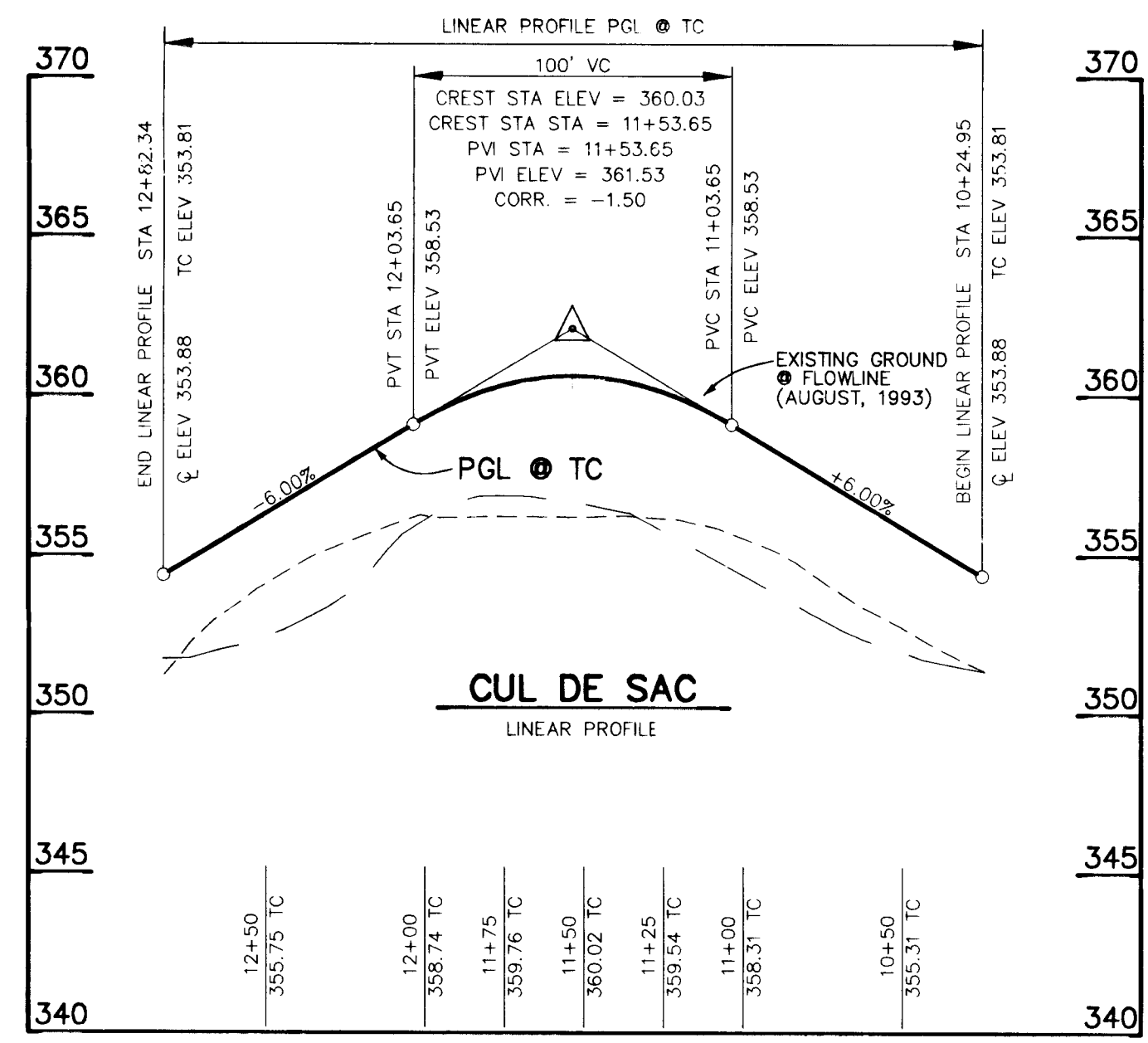
LOCATION:  
TAX MAP 36 - PARCEL 69  
6th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE:  
**ROAD PLAN**  
S-94-11 P-94-17 F-94-117 FDP 146-A-II

DATE: JUNE 28, 1995 PROJECT NO. 0558

DES: JH/GWF DRN: JH/JR SCALE: AS SHOWN DRAWING 1 OF 13





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker*  
CHIEF, BUREAU OF HIGHWAYS  
ANDREW DANEKER  
8-1-95  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Tirinnanzi*  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
GINA TIRINNANZI  
8/6/95  
DATE

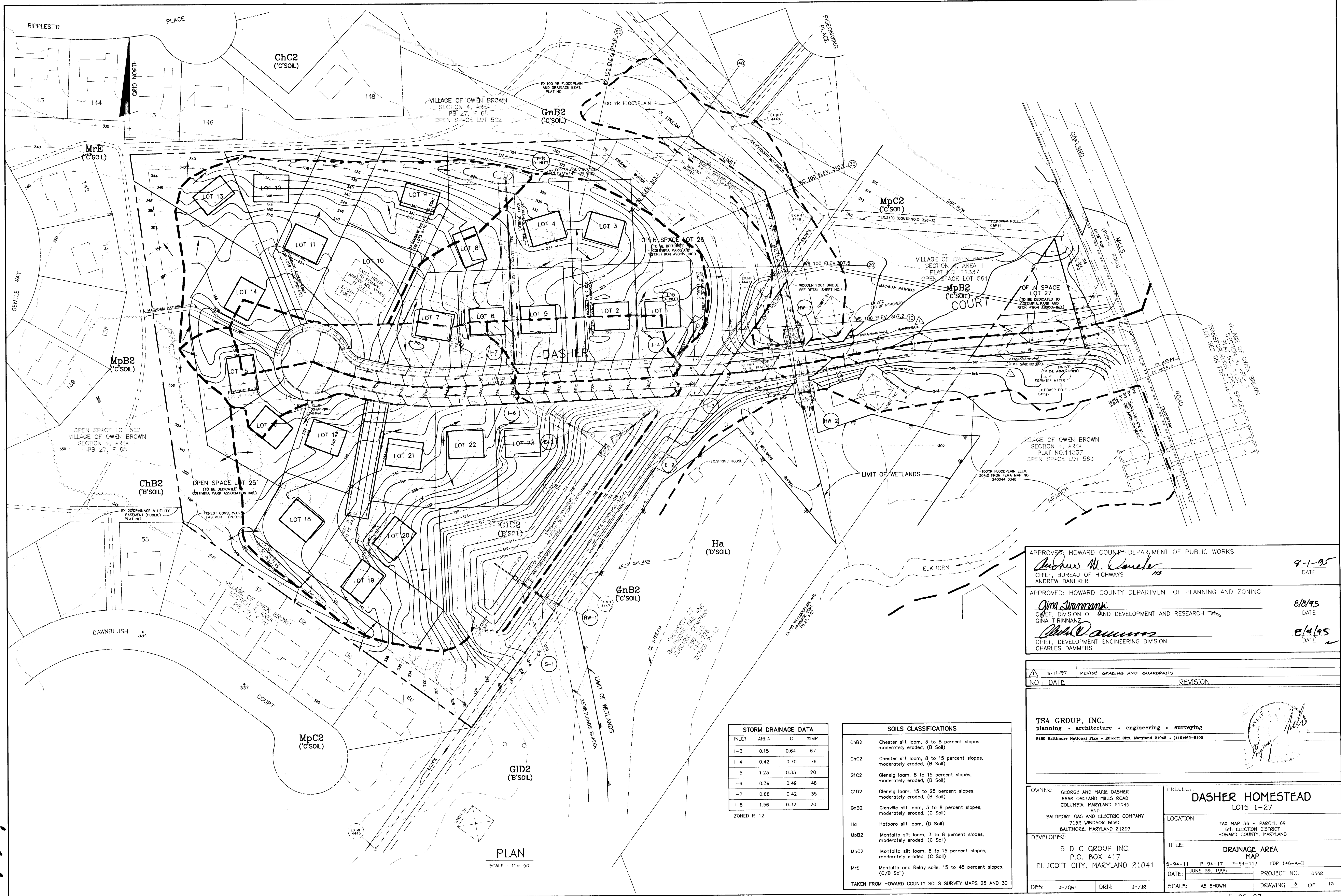
*Charles Damms*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHARLES DAMMS  
8/4/95  
DATE

NO	DATE	REVISION

**TSA GROUP, INC.**  
planning • architecture • engineering • surveying  
8400 Baltimore National Pike • Millcott City, Maryland 21045 • (410)468-6108

OWNER: GEORGE AND MARIE DASHIER 6668 OAKLAND MILLS ROAD COLUMBIA, MARYLAND 21045 AND BALTIMORE GAS AND ELECTRIC COMPANY 7152 WINDSOR BLVD. BALTIMORE, MARYLAND 21047	PROJECT: <b>DASHER HOMESTEAD</b> LOTS 1-27
DEVELOPER/CONTRACT PURCHASER: S D C GROUP INC. P.O. BOX 417 ELLCOTT CITY, MARYLAND 21041	LOCATION: TAX MAP 36 - PARCEL 69 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: JUNE 20, 1992	TITLE: <b>ROAD PROFILES AND DETAILS</b>
DES: JH/GWF	SCALE: AS SHOWN
DRN: JH/JR	PROJECT NO. 0598
	DATE: JUNE 20, 1992
	SCALE: AS SHOWN
	DRAWING 2 OF 13

17A-4



PLAN  
SCALE: 1" = 50'

STORM DRAINAGE DATA			
INLET	ARE A	C	TEMP
I-3	0.15	0.64	67
I-4	0.42	0.70	78
I-5	1.23	0.33	20
I-6	0.39	0.49	46
I-7	0.66	0.42	35
I-8	1.56	0.32	20

ZONED R-12

SOILS CLASSIFICATIONS	
ChB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded, (B Soil)
ChC2	Chester silt loam, 8 to 15 percent slopes, moderately eroded, (B Soil)
G1C2	Glenelg loam, 8 to 15 percent slopes, moderately eroded, (B Soil)
G1D2	Glenelg loam, 15 to 25 percent slopes, moderately eroded, (B Soil)
GnC2	Glenelg silt loam, 3 to 8 percent slopes, moderately eroded, (C Soil)
Ha	Hatboro silt loam, (D Soil)
MpB2	Montalto silt loam, 3 to 8 percent slopes, moderately eroded, (C Soil)
MpC2	Montalto silt loam, 8 to 15 percent slopes, moderately eroded, (C Soil)
MrE	Montalto and Relay soils, 15 to 45 percent slopes, (C/B Soil)

TAKEN FROM HOWARD COUNTY SOILS SURVEY MAPS 25 AND 30

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Conner*  
 CHIEF, BUREAU OF HIGHWAYS  
 ANDREW DANEKER  
 9-1-95 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Tirinnanzi*  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
 GINA TIRINNANZI  
 8/8/95 DATE

*Charles Damms*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHARLES DAMMS  
 8/4/95 DATE

NO	DATE	REVISION
1	3-11-97	REVISE GRADING AND GUARDRAILS

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410)486-8106

OWNER: GEORGE AND MARIE DASHER  
 6668 OAKLAND MILLS ROAD  
 COLUMBIA, MARYLAND 21045  
 AND  
 BALTIMORE GAS AND ELECTRIC COMPANY  
 7152 WINDSOR BLVD.  
 BALTIMORE, MARYLAND 21207

DEVELOPER:  
 S D C GROUP INC.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21041

DESIGNER: JH/GWF  
 DRAWN: JH/JR

PROJECT: DASHER HOMESTEAD  
 LOTS 1-27

LOCATION: TAX MAP 36 - PARCEL 69  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

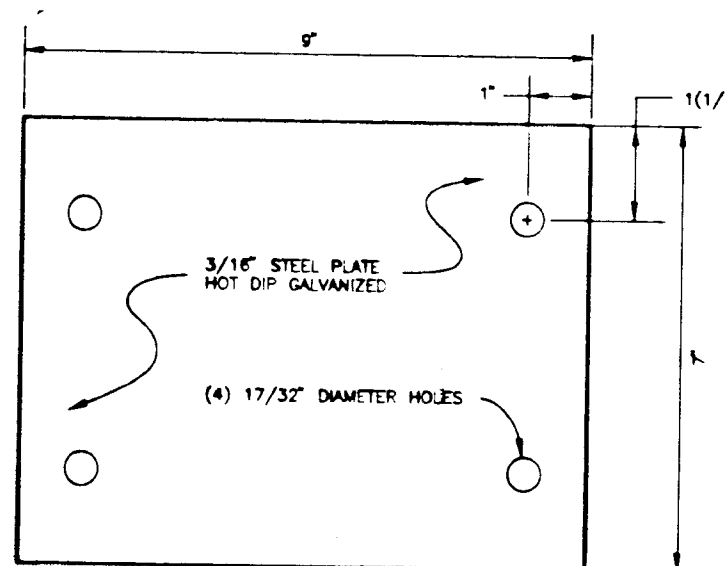
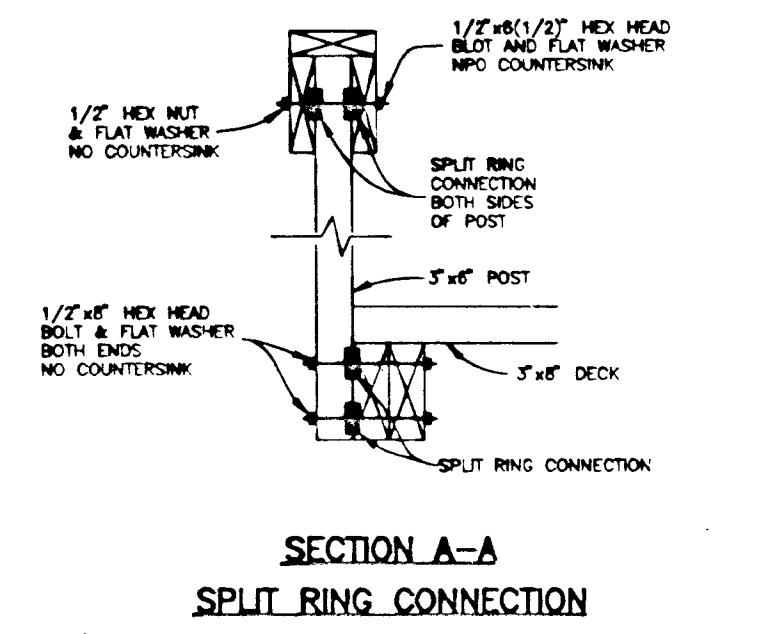
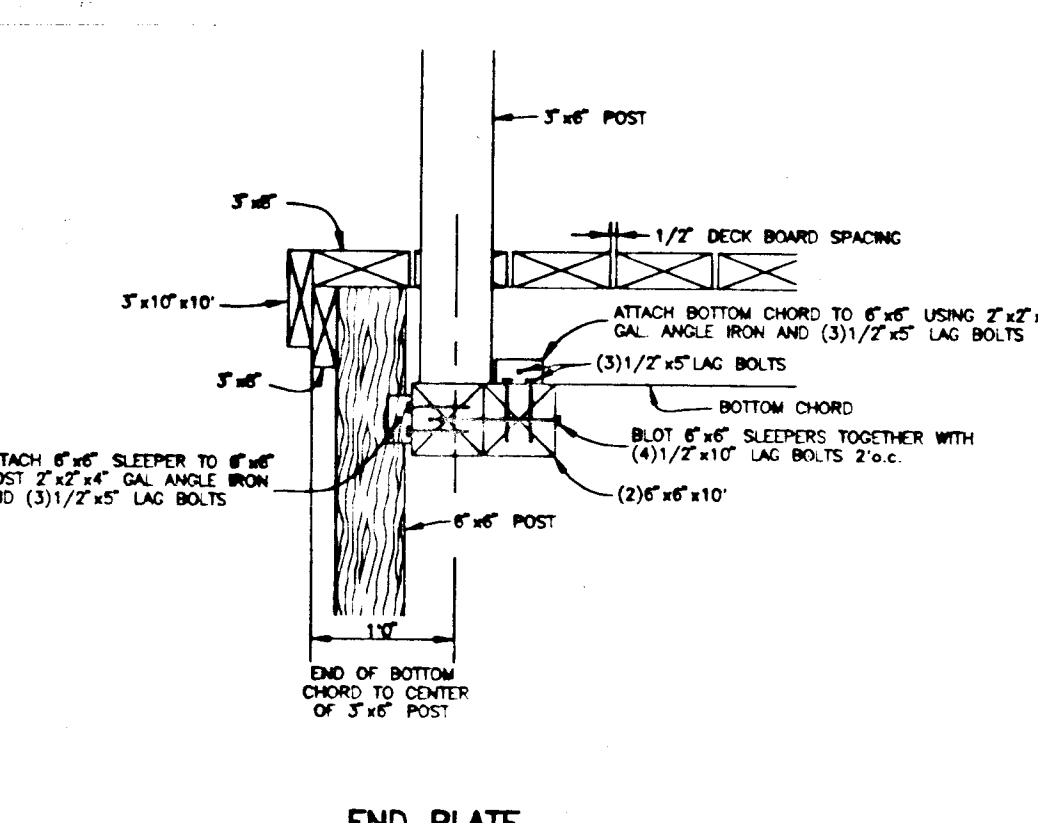
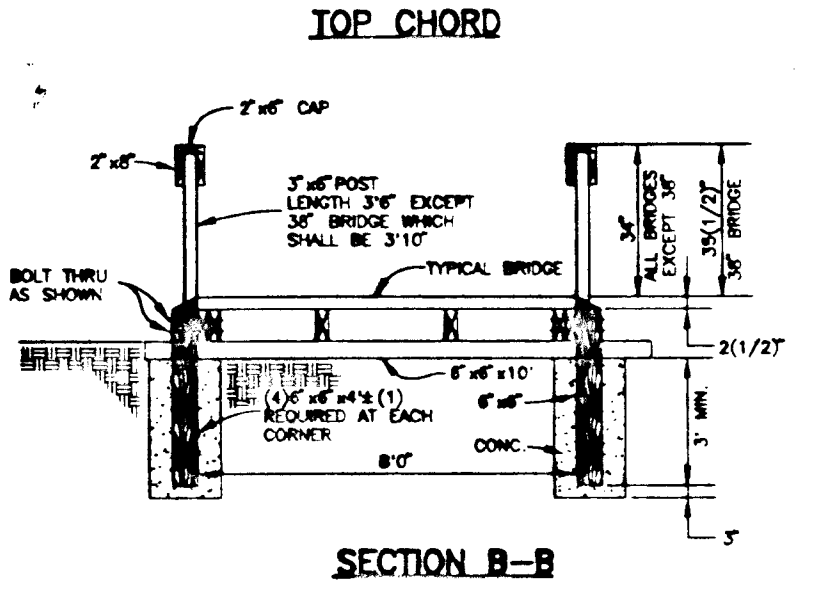
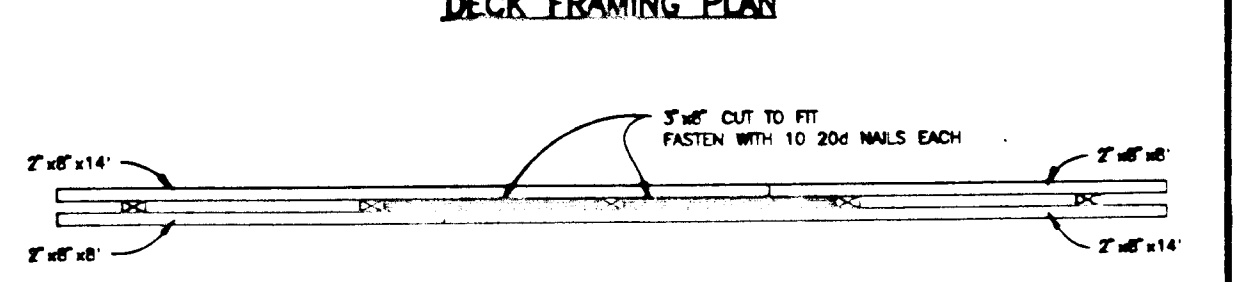
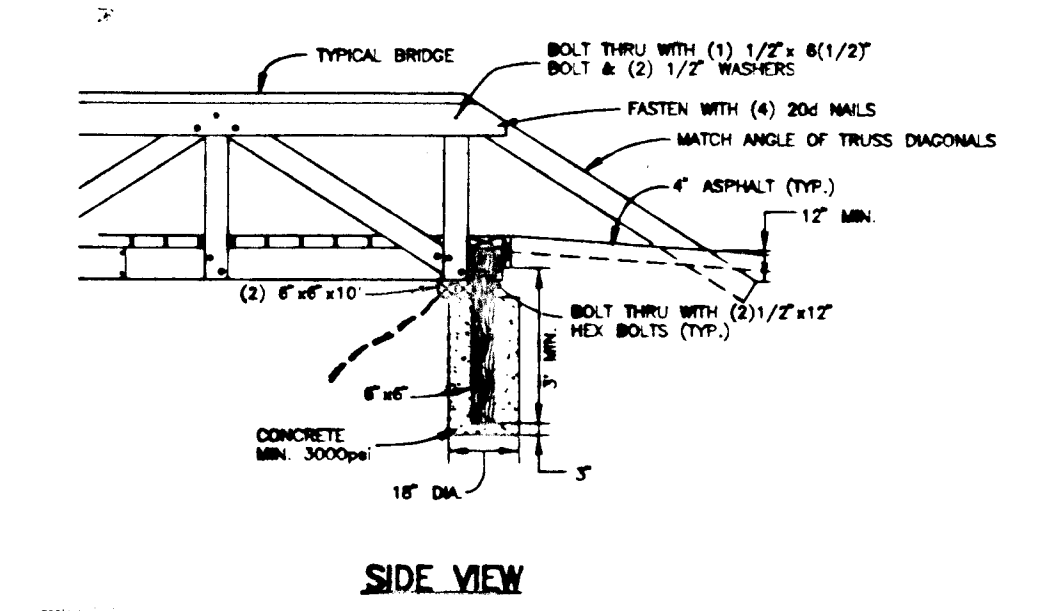
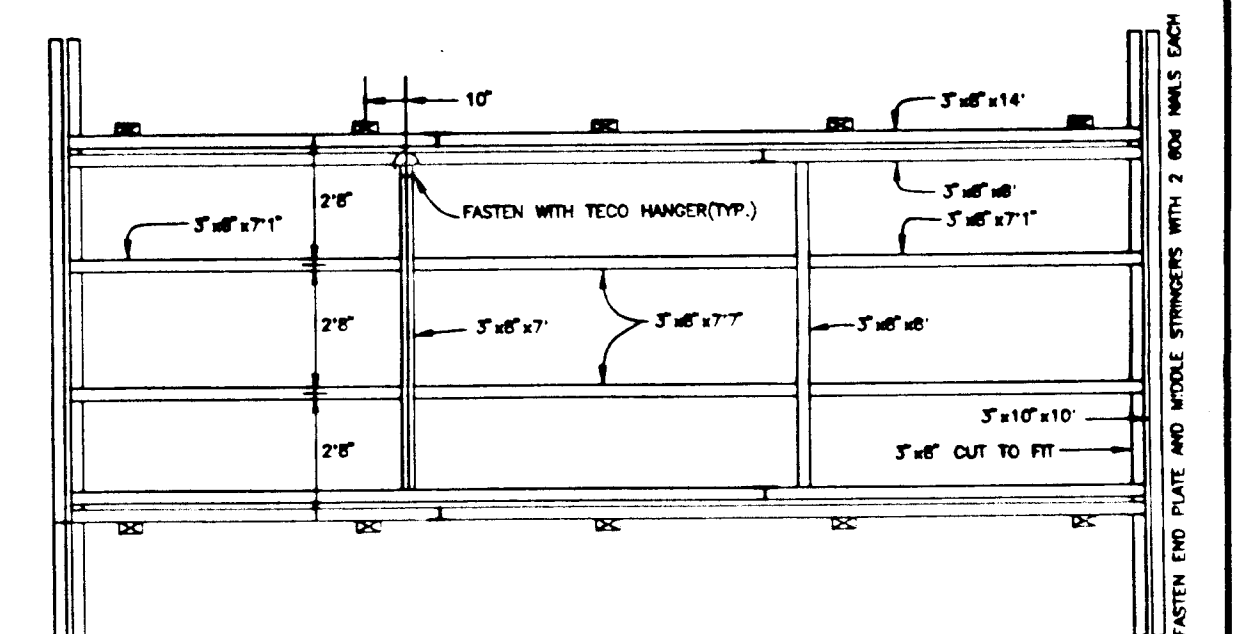
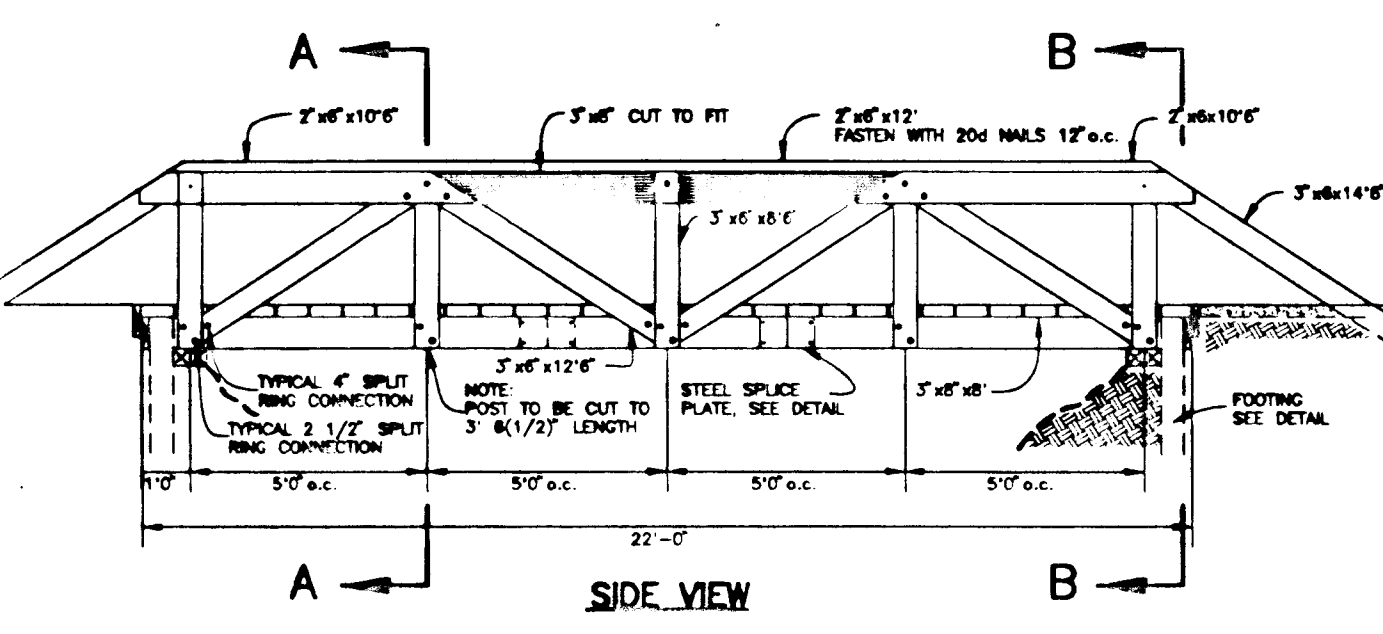
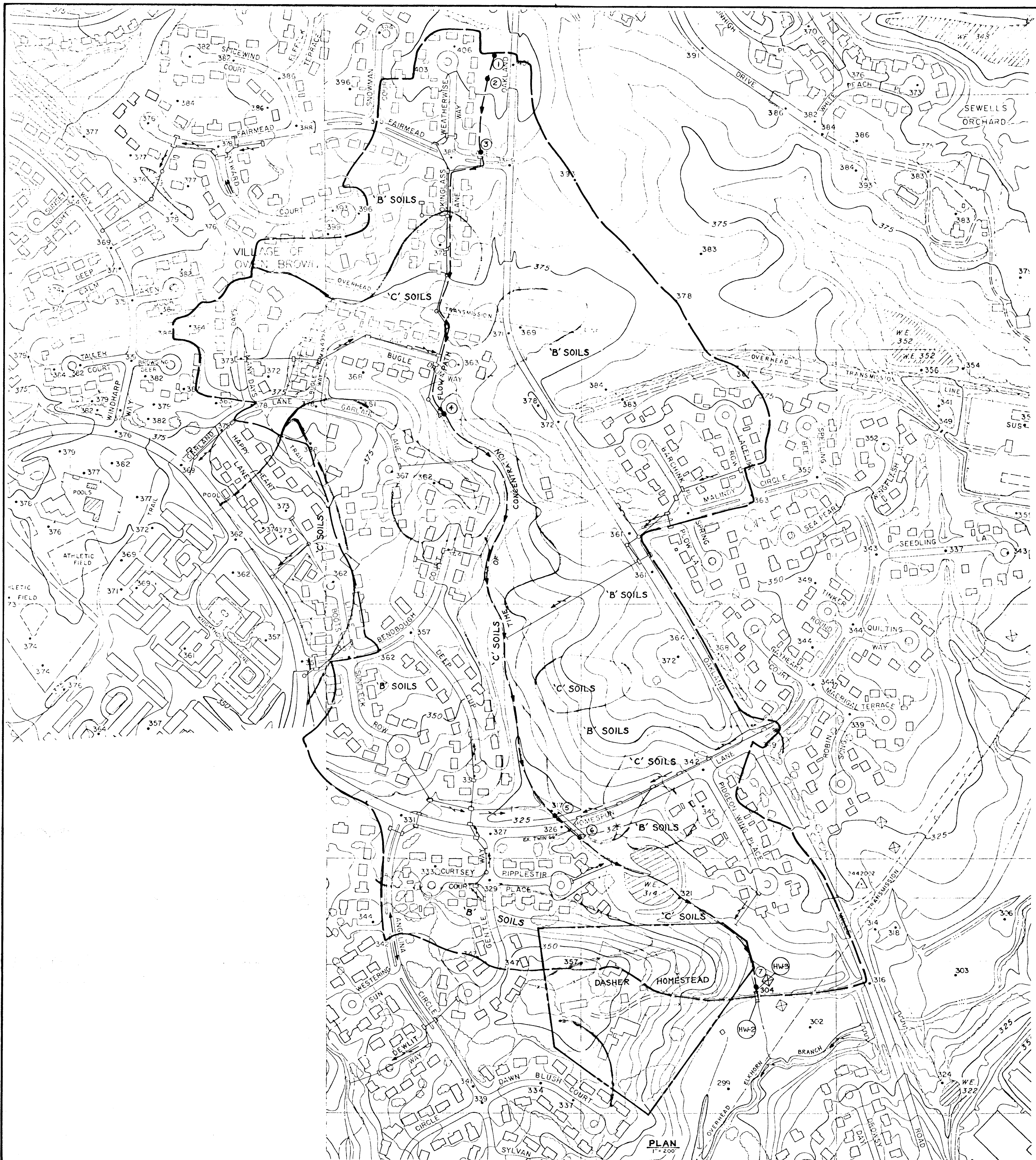
TITLE: DRAINAGE AREA  
 MAP

DATE: JUNE 28, 1995  
 PROJECT NO. 0558

SCALE: AS SHOWN  
 DRAWING 3 OF 13

1744





**NOTES**

ALL TIMBER TO BE NO. 2 OR BETTER SOUTHERN YELLOW  
 PINE - MINIMUM STRESS GRADE 1200psi - D.800C  
 TREATED - SURFACE 4 SIDES

4" SPLIT RING CONNECTION (SEE DETAIL)  
 2 1/2" x 4" GAL ANGLE IRON AND (3) 1/2" x 2 1/2" LAG BOLTS  
 HEX BOLT WITH NO SPLIT RING CONNECTION

SAND SMOOTH ALL EXPOSED ROUGH AREAS AND CORNERS

STAIN BRIDGE TO DESIRED COLOR WITH PRESERVATIVE STAIN

MINIMUM FOOTING IS SHOWN EXISTING STREAM CONDITIONS  
 MAY DICTATE R.R. THE WING WALL OR ROCK STABILIZATION

ALL HARDWARE TO BE HOT DIP GALVANIZED

**PEDESTRIAN FOOTBRIDGE DETAILS**  
 NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew W. Daneker*  
 CHIEF, BUREAU OF HIGHWAYS  
 ANDREW DANEKER  
 8-1-95  
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Tirinnanzi*  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
 GINA TIRINNANZI  
 8/8/95  
 DATE

*Charles Dammers*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHARLES DAMMERS  
 8/4/95  
 DATE

NO.	DATE	REVISION

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410-460-8100)

OWNER: GEORGE AND MARI DASHER  
 6668 OAKLAND MILLS ROAD  
 COLUMBIA, MARYLAND 21045  
 AND  
 BALTIMORE GAS AND ELECTRIC COMPANY  
 7152 WINDSOR BLVD  
 BALTIMORE, MARYLAND 21207

PROJECT: **DASHER HOMESTEAD**  
 LOTS 1-27

LOCATION:  
 TAX MAP 36 - PARCEL 69  
 6TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

DEVELOPER:  
 SDC GROUP INC.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21041

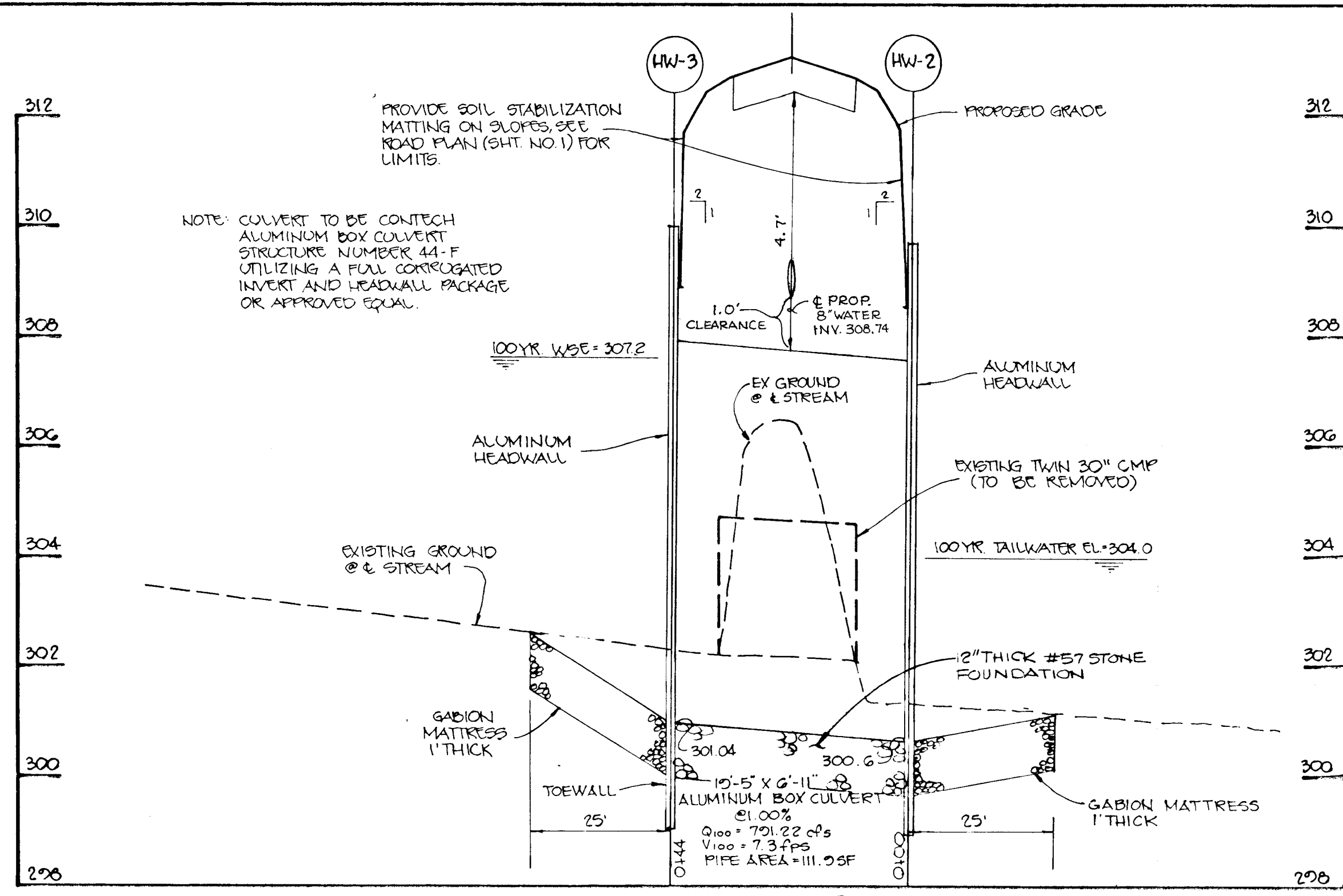
TITLE: **DRAINAGE AREA MAP FOR CULVERT CROSSING**  
 5-94-11 P-94-17 F-94-117 FDP146-A-II  
 DATE: NOVEMBER 28, 1994  
 DATE: JUNE 28, 1995

PROJECT NO. 0958

SCALE: AS SHOWN  
 DRAWING 4 OF 19

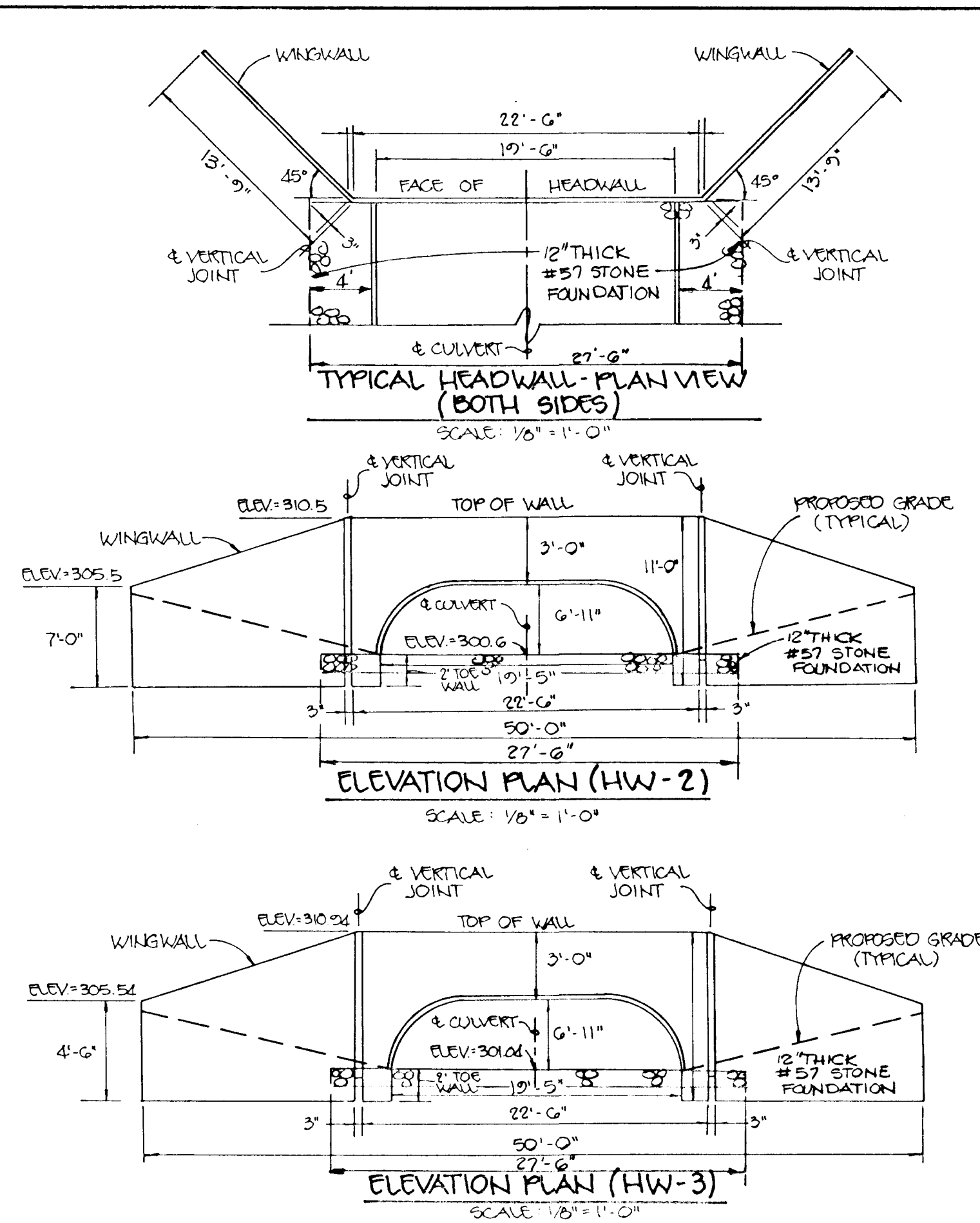
5/2/95





**CULVERT PROFILE**  
SCALE: HOR: 1"=20'  
VERT: 1"=2'

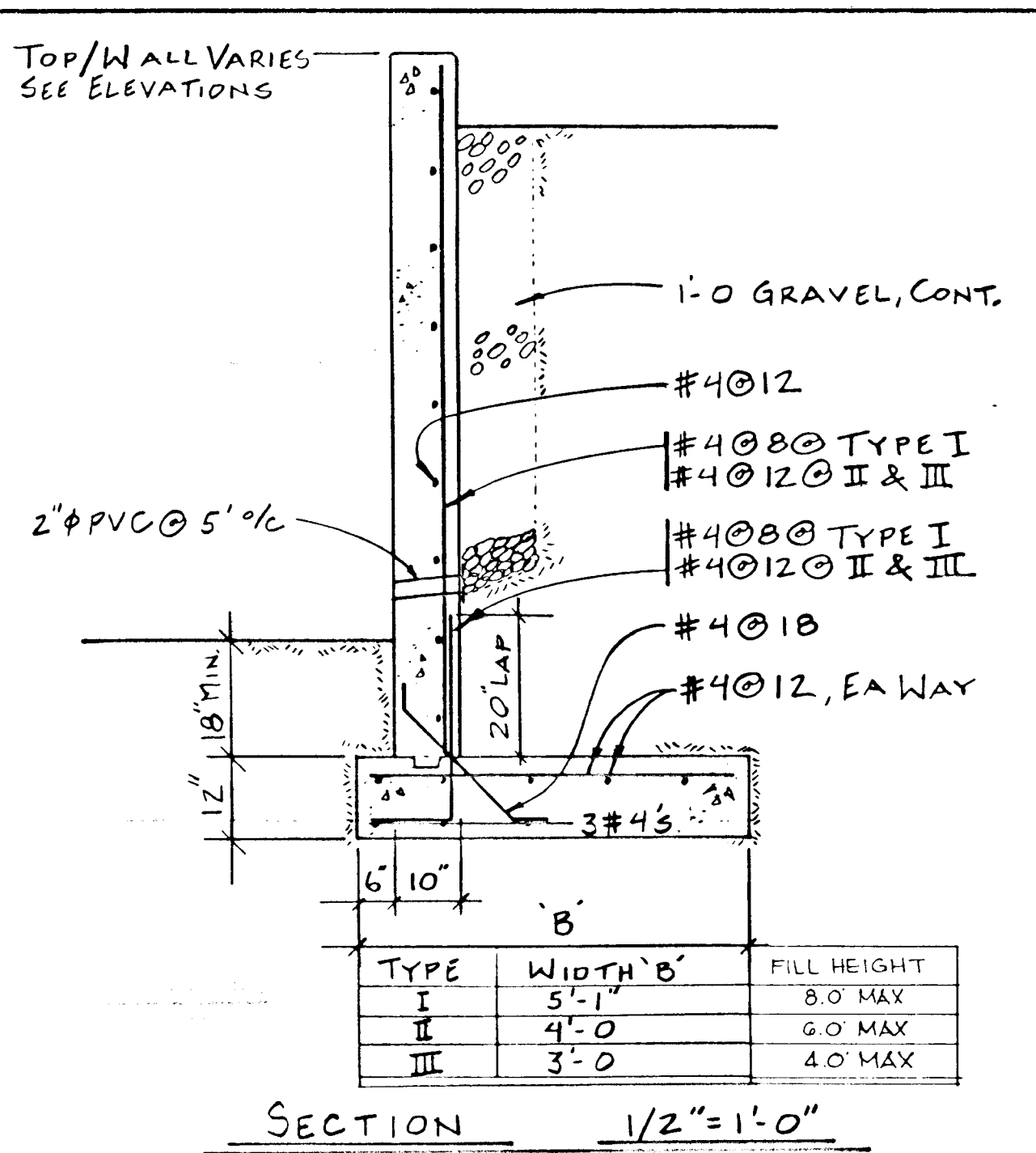
CULVERT DESIGN IS FOR H9-25 LOADING  
HAUNCH PLATE THICKNESS = 0.175" CROWN PLATE THICKNESS = 0.225"  
HAUNCH RIB SPACING = 18" CROWN RIB SPACING = 18"  
MINIMUM COVER = 3'-0" MAXIMUM COVER = 5'-0"  
CULVERT SHALL UTILIZE FULL CORRUGATED INVERT. CULVERT INSTALLATION SHALL BE AS RECOMMENDED BY THE MANUFACTURER.  
CULVERT SHALL UTILIZE A 12" THICK #57 STONE FOUNDATION TO COMPENSATE FOR EXISTING POOR SOIL BEARING CAPACITY AS RECOMMENDED BY HILLIS-CARNES ENGINEERING ASSOC., INC. GEOTECHNICAL ENGINEERS FOR THIS PROJECT.



**ELEVATION PLAN (HW-2)**  
SCALE: 1/8"=1'-0"

**ELEVATION PLAN (HW-3)**  
SCALE: 1/8"=1'-0"

NOTE: CULVERT TO BE CONTECH ALUMINUM BOX CULVERT STRUCTURE NUMBER 44-F UTILIZING A FULL CORRUGATED INVERT AND HEADWALL PACKAGE OR APPROVED EQUAL.



**SECTION 1/2"=1'-0"**

TYPE	WIDTH 'B'	FILL HEIGHT
I	5'-1"	8'0" MAX
II	4'-0"	6'0" MAX
III	3'-0"	4'0" MAX

**CONTROL JOINT DETAIL - TYPICAL @ CORNERS 1/2"=1'-0"**

DONALD SIMMONS ASSOCIATES  
Consulting Engineers 455-7354  
4637 South Leisure Court  
ELLICOTT CITY, MARYLAND 21043

- STRUCTURAL NOTES**
- SEE SITE PLAN FOR LOCATION AND GRADING. IF FOOTING ELEVATIONS REQUIRE ADJUSTMENT, NOTIFY ENGINEER.
- FOUNDATIONS AND EARTH WORK:**
- FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 3000 PSF.
  - BOTTOM OF FOOTINGS SHALL BE 2'-6" MINIMUM BELOW FINISH GRADE. EXCAVATE AT LEAST 6" INTO ORIGINAL SOIL.
  - THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO INSPECT AND CERTIFY THE BEARING CAPACITY OF THE SOIL PRIOR TO POURING FOOTINGS.
  - BACKFILL SHALL CONSIST OF CLEAN POROUS MATERIAL, PLACED IN 8" LAYERS AND COMPACTED WITH APPROPRIATE EQUIPMENT.
- CONCRETE:**
- ALL CONCRETE SHALL DEVELOP COMPRESSIVE STRENGTH OF 3,500 PSI IN 28 DAYS, AND SHALL HAVE 5% AIR ENTRAINMENT.
  - CONCRETE WORK SHALL CONFORM TO BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE A.C.I. 318, BY THE AMERICAN CONCRETE INSTITUTE, LATEST EDITION.
  - REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60.
  - PROVIDE SPACERS, CHAIRS AND TIES AS REQUIRED TO SUPPORT REINFORCING IN POSITION. PROVIDE 3" CLEARANCE TO BOTTOM FOOTING STEEL AND 1-1/2" COVER ON WALL REINFORCING AND TOP FOOTING STEEL.
  - CONTINUOUS REINFORCING SHALL BE LAPPED A MINIMUM OF 36 BAR DIAMETERS AT SPLICES.
  - REMOVE FINIS, PATCH ALL TIE HOLES AND APPLY CLEAR SEALER.
  - PROVIDE 3/4" CHAMFER AT EXPOSED EDGES AND JOINTS.
  - THREE CONCRETE CYLINDERS SHALL BE FORMED AND TESTED FOR EACH POUR.

**RETAINING WALL DETAILS**

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker* 8-1-95  
CHIEF, BUREAU OF HIGHWAYS 113 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Tirinnanzi* 8/8/95  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE  
*Charles Dammers* 8/4/95  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO	DATE	REVISION

**TSA GROUP, INC.**  
planning • architecture • engineering • surveying  
8490 Baltimore National Pike • Ellicott City, Maryland 21043 • (410)460-6100

OWNER: GEORGE AND MARIE DASHER  
6668 OAKLAND MILLS ROAD  
COLUMBIA, MARYLAND 21045  
AND  
BALTIMORE GAS AND ELECTRIC COMPANY  
7152 WINDSOR BLVD.  
BALTIMORE, MARYLAND 21207

PROJECT: **DASHER HOMESTEAD**  
LOTS 1-27

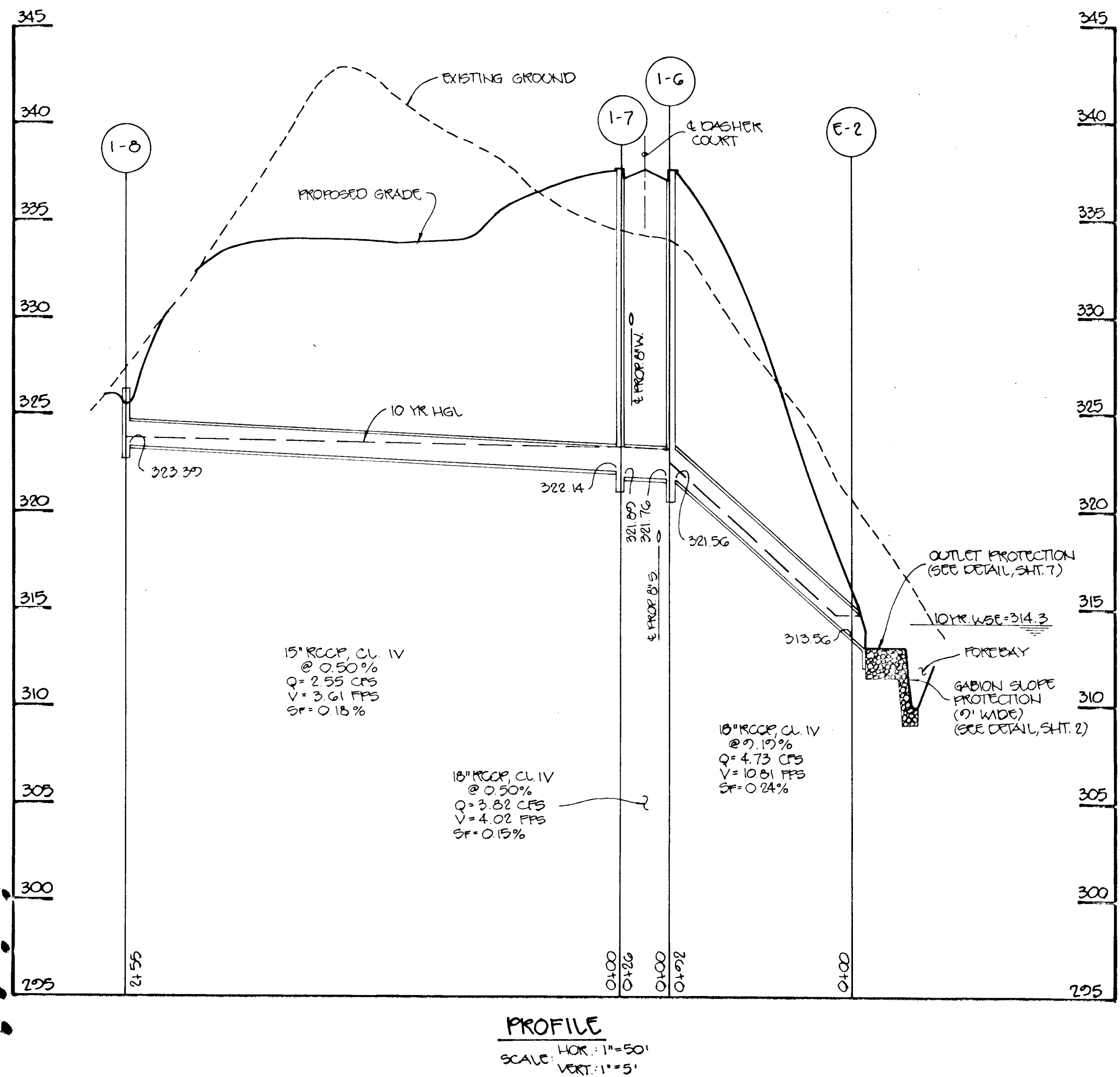
LOCATION: TAX MAP 35 - PARCEL 69  
8th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DEVELOPER: S D C GROUP INC.  
P.O. BOX 417  
ELLICOTT CITY, MARYLAND 21041

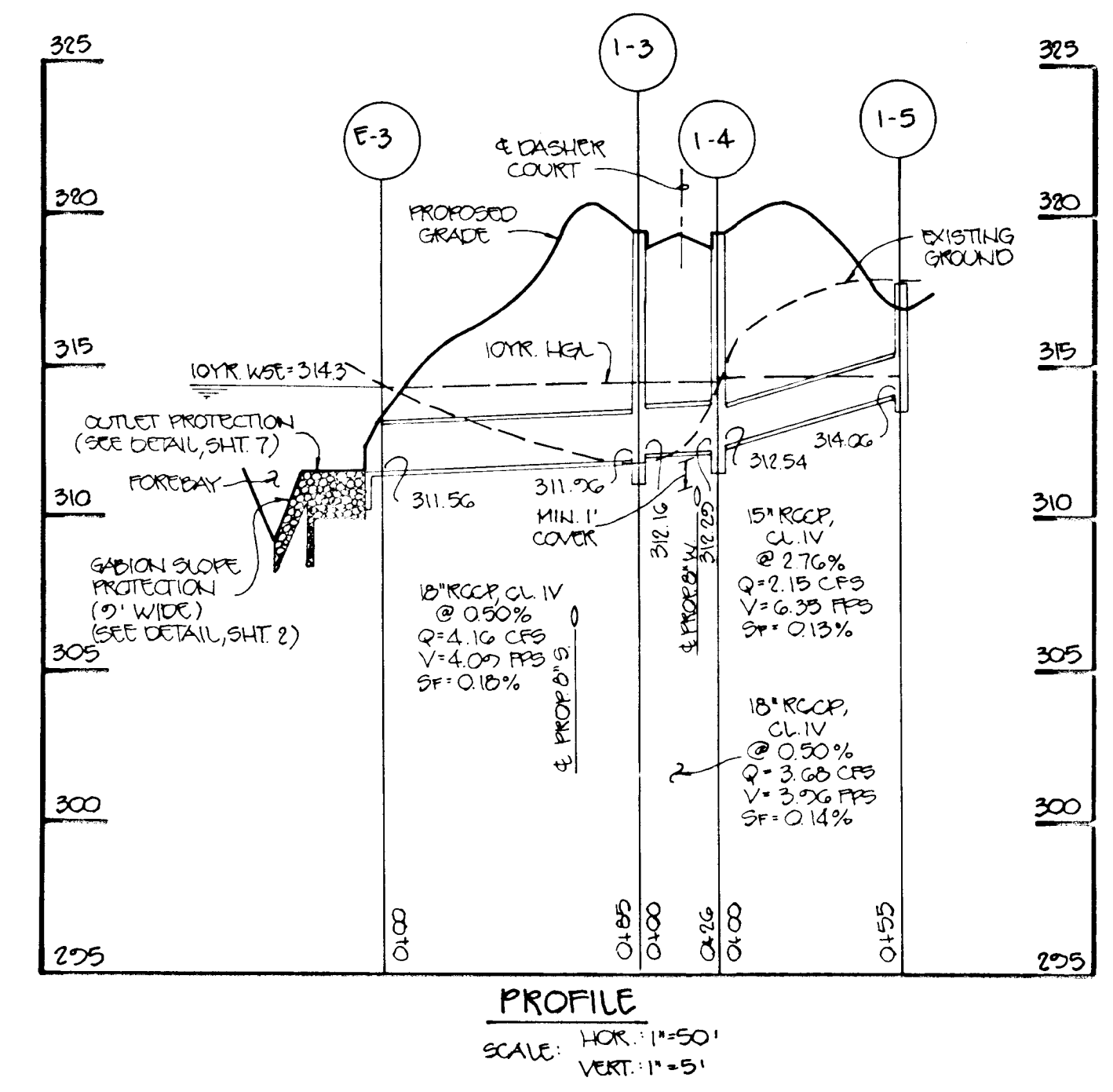
TITLE: **STORM DRAIN PROFILES,  
NOTES AND DETAILS**

DATE: JUNE 28, 1995 PROJECT NO. 0558

DES: JH/GWF DRN: JCO SCALE: AS SHOWN DRAWING 3 OF 12



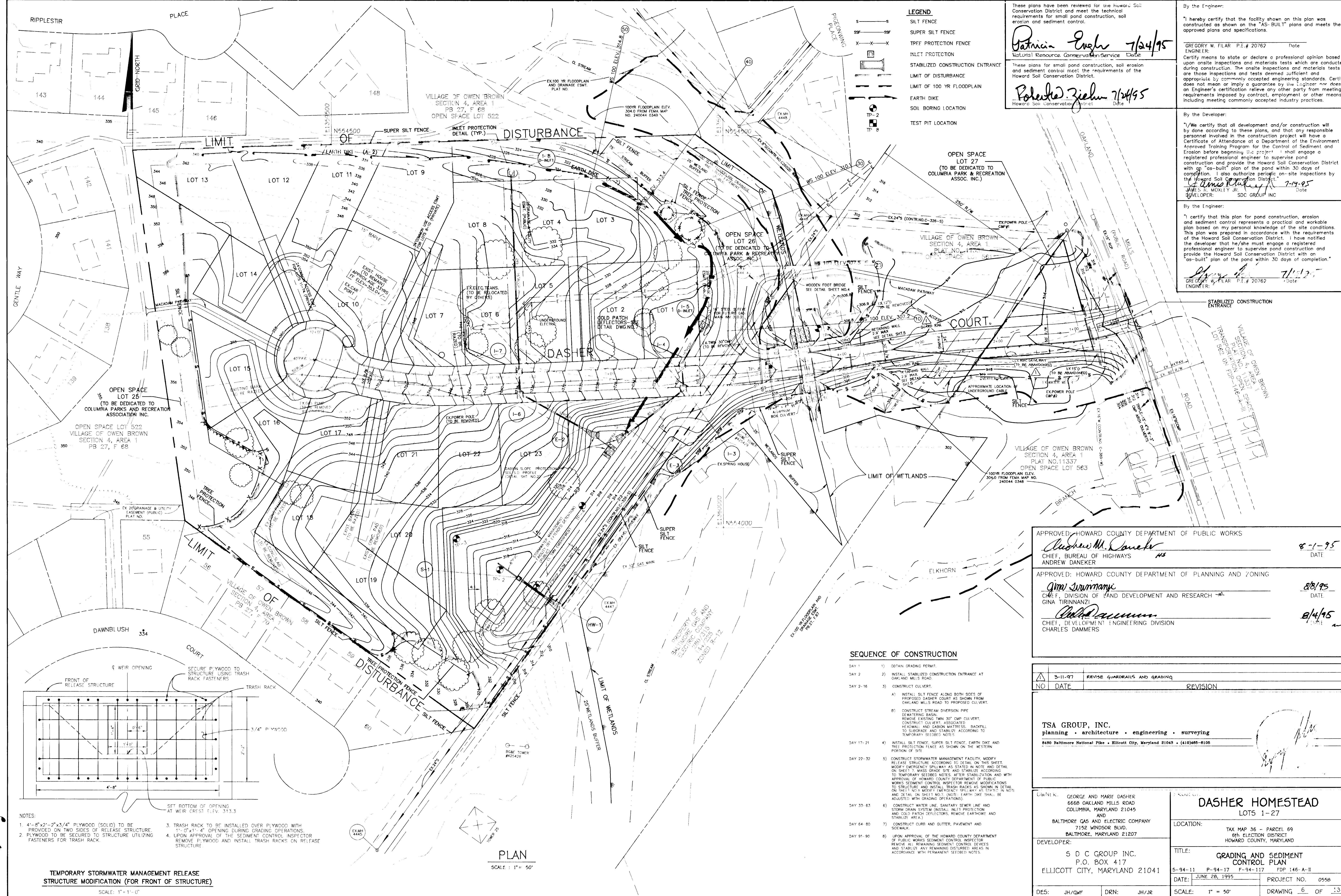
**PROFILE**  
SCALE: HOR: 1"=50'  
VERT: 1"=5'



**PROFILE**  
SCALE: HOR: 1"=50'  
VERT: 1"=5'

WILLI





- LEGEND**
- SILT FENCE
  - SUPER SILT FENCE
  - TREE PROTECTION FENCE
  - INLET PROTECTION
  - STABILIZED CONSTRUCTION ENTRANCE
  - LIMIT OF DISTURBANCE
  - LIMIT OF 100 YR FLOODPLAIN
  - EARTH DIKE
  - SOIL BORING LOCATION
  - TEST PIT LOCATION

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

*Patricia Egle* 7/24/95  
Natural Resource Conservation Service Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

*Robert Zielh* 7/24/95  
Howard Soil Conservation District Date

By the Engineer:  
GREGORY W. FILAR P.E. # 20762 Date  
ENGINEER:  
Certify means to state or declare a professional opinion based upon onsite inspections and materials tests which are conducted during construction. The onsite inspections and materials tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an Engineer's certification relieve any other party from meeting requirements imposed by contract, employment or other means, including meeting commonly accepted industry practices.

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

*James R. Moxley Jr.* 7-19-95  
Date  
DEVELOPER: SDC GROUP INC

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

*Gregory W. Filar* 7-19-95  
Date  
ENGINEER: GREGORY W. FILAR P.E. # 20762

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneke*  
CHIEF, BUREAU OF HIGHWAYS 715  
ANDREW DANEKER 8-1-95  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Tirinnanzi*  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH 715  
GINA TIRINNANZI 8/8/95  
DATE

*Charles Damms*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHARLES DAMMS 8/4/95  
DATE

3-11-97	REVISE GUARDRAILS AND GRADING	
NO	DATE	REVISION

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**DASHER HOMESTEAD**  
LOTS 1-27

LOCATION: TAX MAP 36 - PARCEL 69  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

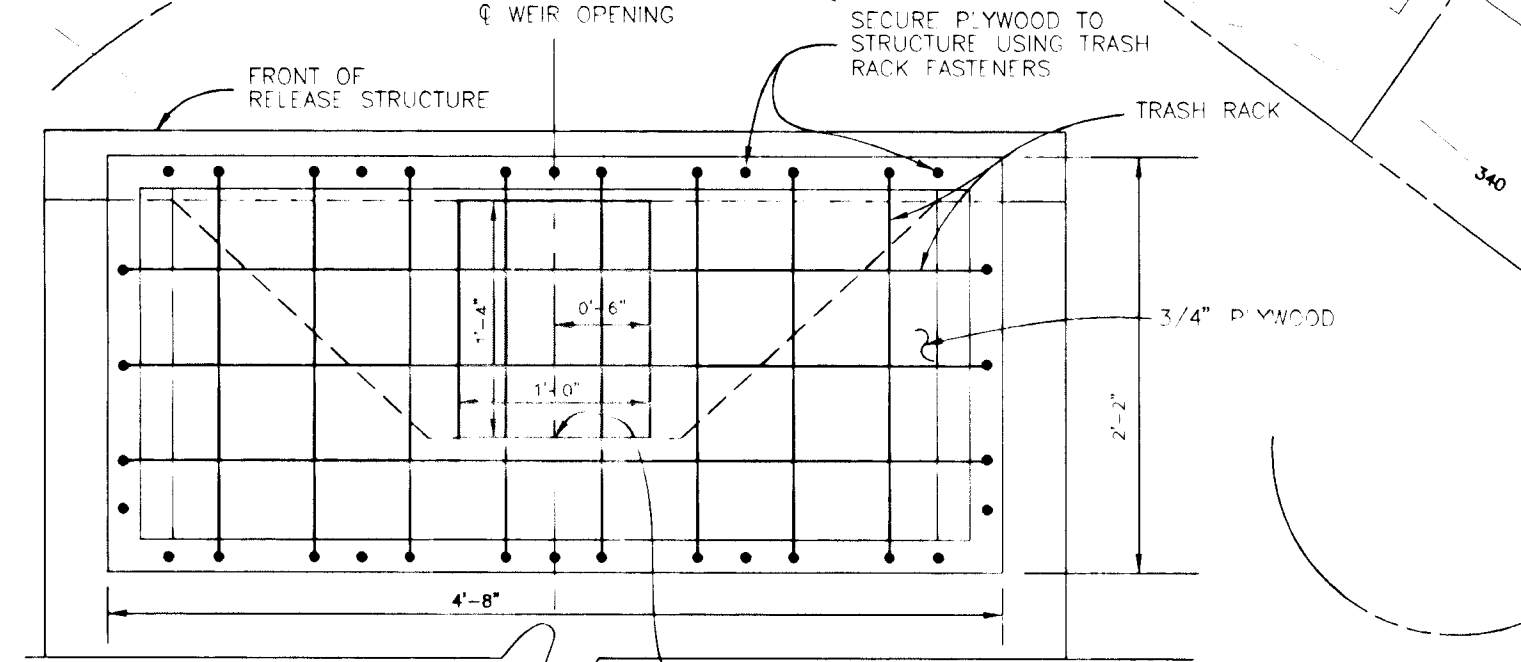
DEVELOPER: S D C GROUP INC.  
P.O. BOX 417  
ELLICOTT CITY, MARYLAND 21041

TITLE: GRADING AND SEDIMENT CONTROL PLAN

DATE: JUNE 28, 1995 PROJECT NO. 0558

DES: JH/GWF DRN: JH/JR SCALE: 1" = 50' DRAWING 6 OF 13

- SEQUENCE OF CONSTRUCTION**
- DAY 1 1) OBTAIN GRADING PERMIT.
  - DAY 2 2) INSTALL STABILIZED CONSTRUCTION ENTRANCE AT OAKLAND MILLS ROAD.
  - DAY 2-16 3) CONSTRUCT CULVERT.
  - A1) INSTALL SILT FENCE ALONG BOTH SIDES OF PROPOSED DASHER COURT AS SHOWN FROM OAKLAND MILLS ROAD TO PROPOSED CULVERT.
  - B1) CONSTRUCT STREAM DIVERSION PIPE DRAINING BASIN.
  - B2) REMOVE EXISTING TWIN 30" CMP CULVERT. CONSTRUCT CULVERT ASSOCIATED HEADWALL AND CARBON MATTRESS. BACKFILL TO SHOULDERS AND STABILIZE ACCORDING TO TEMPORARY SEEDED NOTES.
  - DAY 17-21 4) INSTALL SILT FENCE, SUPER SILT FENCE, EARTH DIKE AND TREE PROTECTION FENCE AS SHOWN ON THE WESTERN PORTION OF SITE.
  - DAY 22-35 5) CONSTRUCT STORMWATER MANAGEMENT FACILITY. MODIFY RELEASE STRUCTURE ACCORDING TO DETAIL ON THIS SHEET. MODIFY EMERGENCY SPILLWAY AS STATED IN NOTE AND DETAIL ON SHEET 7. MASS GRADE SITE AND STABILIZE ACCORDING TO TEMPORARY SEEDED NOTES. AFTER STABILIZATION AND WITH APPROVAL OF HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, SEDIMENT CONTROL INSPECTOR REMOVE MODIFICATIONS TO STRUCTURE AND INSTALL TRASH RACKS AS SHOWN IN DETAIL ON SHEET 8. MODIFY EMERGENCY SPILLWAY AS STATED IN NOTE AND DETAIL ON SHEET 8. (NOTE: EARTH DIKE SHALL BE ADJUSTED WITH GRADING OPERATIONS).
  - DAY 33-63 6) CONSTRUCT WATER LINE, SANITARY SEWER LINE AND STORM DRAIN SYSTEM (INSTALL INLET PROTECTION AND COLD PATCH DEFLECTORS. REMOVE EARTHDIKE AND STABILIZE AREA).
  - DAY 64-80 7) CONSTRUCT CURB AND GUTTER, PAVEMENT AND SIDEWALK.
  - DAY 91-90 8) UPON APPROVAL OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, SEDIMENT CONTROL INSPECTOR REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE ANY REMAINING DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDED NOTES.



**NOTES:**

1. 4'-8"x2'-0"x3/4" PLYWOOD (SOLID) TO BE PROVIDED ON TWO SIDES OF RELEASE STRUCTURE.
2. PLYWOOD TO BE SECURED TO STRUCTURE UTILIZING FASTENERS FOR TRASH RACK.
3. TRASH RACK TO BE INSTALLED OVER PLYWOOD WITH 1'-0"x1'-4" OPENING DURING GRADING OPERATIONS.
4. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR REMOVE PLYWOOD AND INSTALL TRASH RACKS ON RELEASE STRUCTURE.

**TEMPORARY STORMWATER MANAGEMENT RELEASE STRUCTURE MODIFICATION (FOR FRONT OF STRUCTURE)**  
SCALE: 1" = 1'-0"

**PLAN**  
SCALE: 1" = 50'

5/2/95



TEMPORARY SEEDBED PREPARATION

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 SQ FT).

SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT)...

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING...

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

PERMANENT SEEDBED PREPARATION

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1. PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING...

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 SQ FT) OF KENTUCKY 31 TALL FESCUE PER ACRE...

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING...

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION.

Table with columns: ELEV, SOIL DESCRIPTION, STRA DEPTH, STRA SCALE, SAMPLE NO, BORING & SAMPLING NOTES. Includes data for TP-1 borings.

Table with columns: ELEV, SOIL DESCRIPTION, STRA DEPTH, STRA SCALE, SAMPLE NO, BORING & SAMPLING NOTES. Includes data for TP-2 borings.

Table with columns: ELEV, SOIL DESCRIPTION, STRA DEPTH, STRA SCALE, SAMPLE NO, BORING & SAMPLING NOTES. Includes data for TP-3 borings.

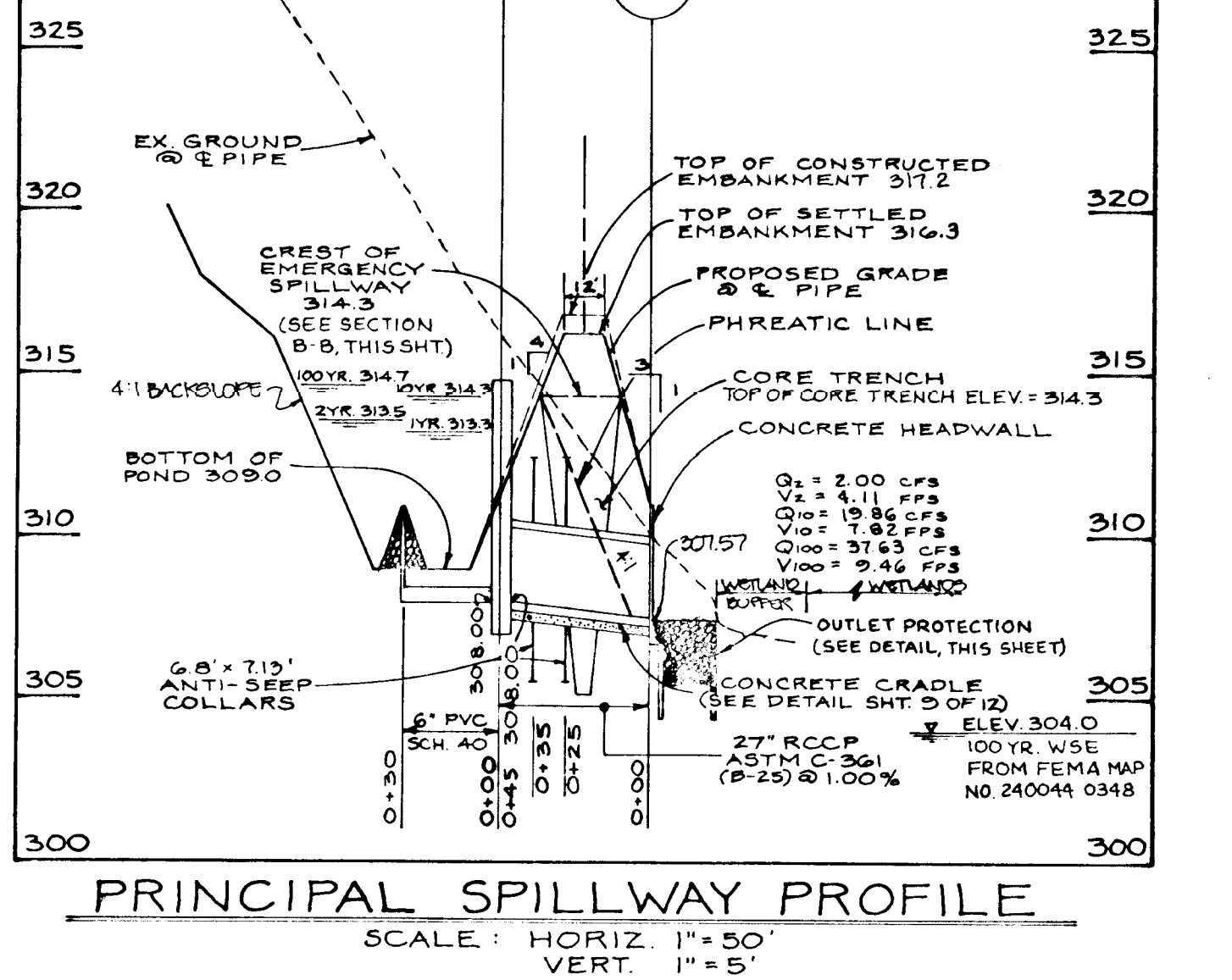
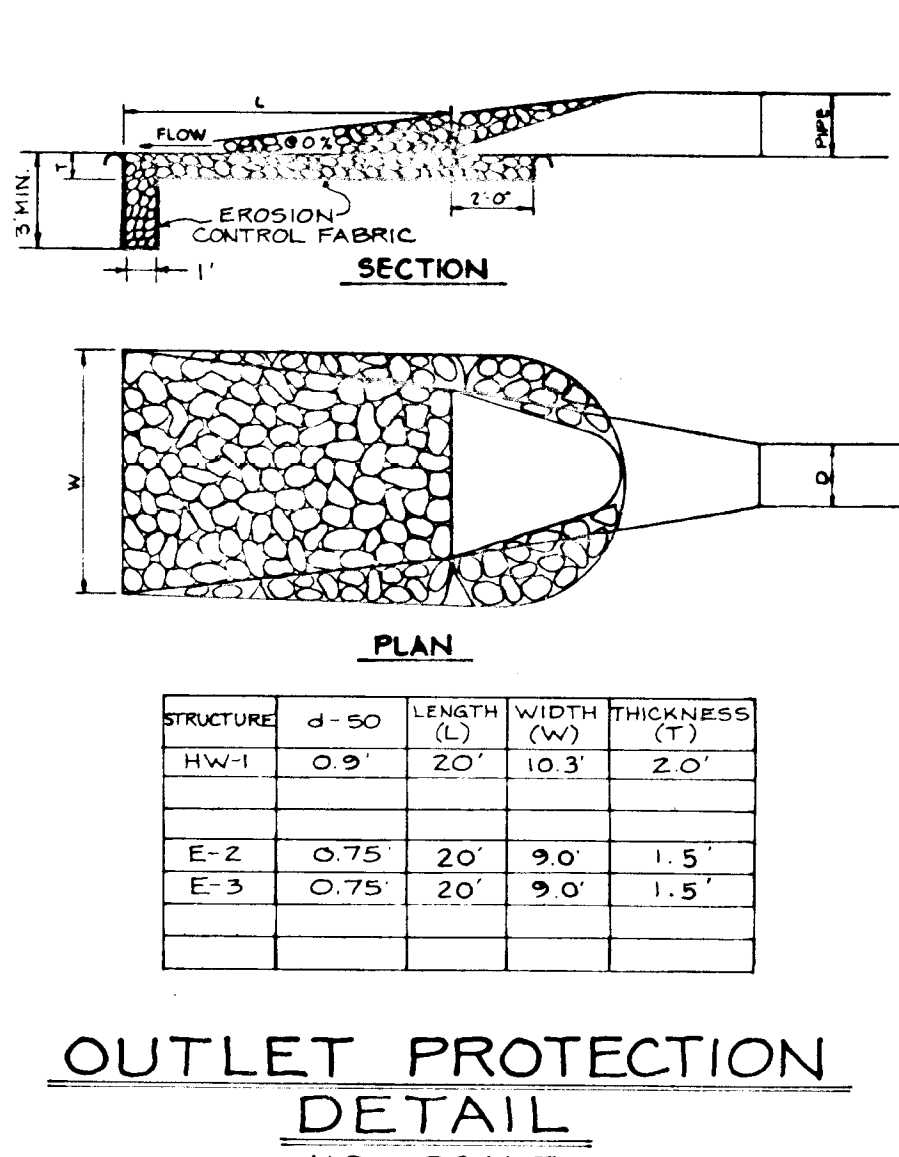
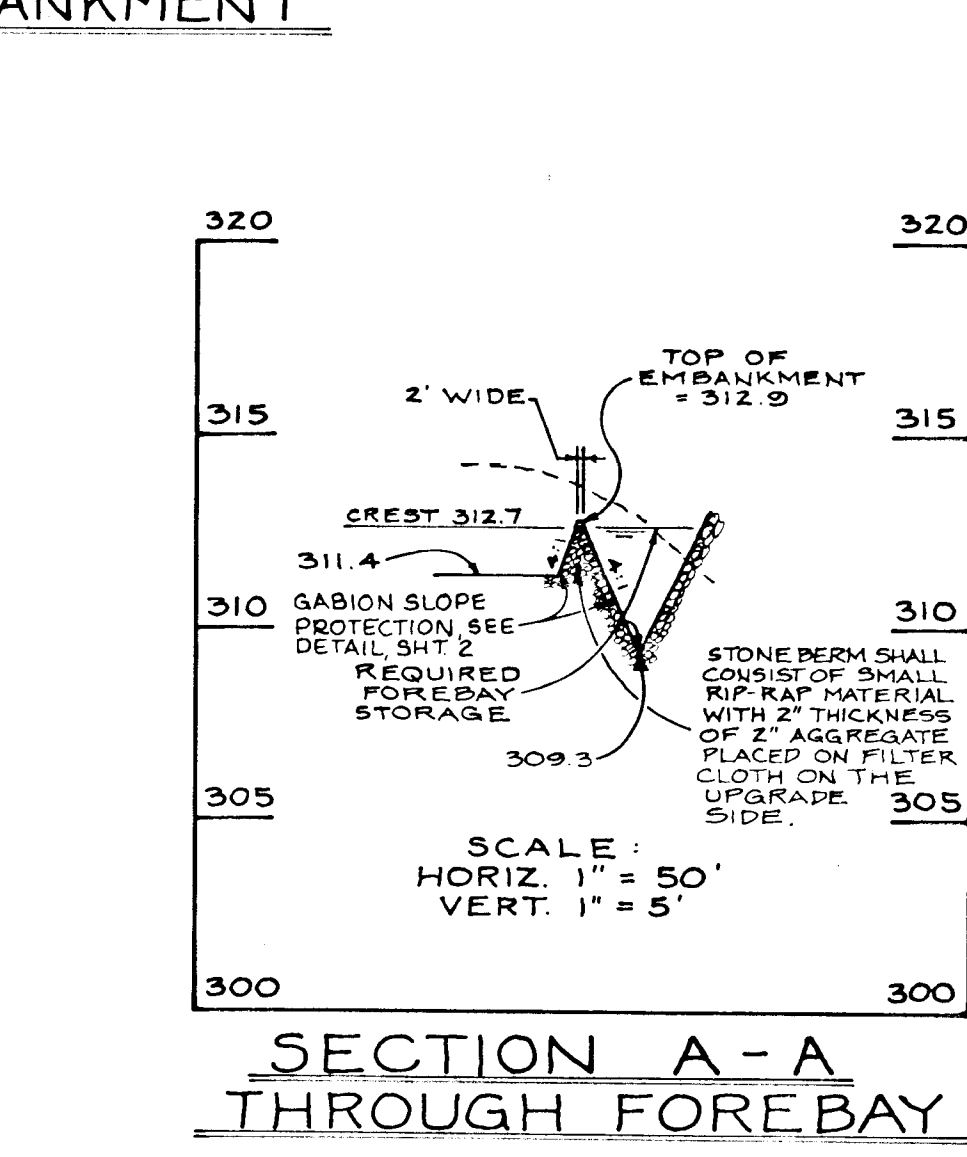
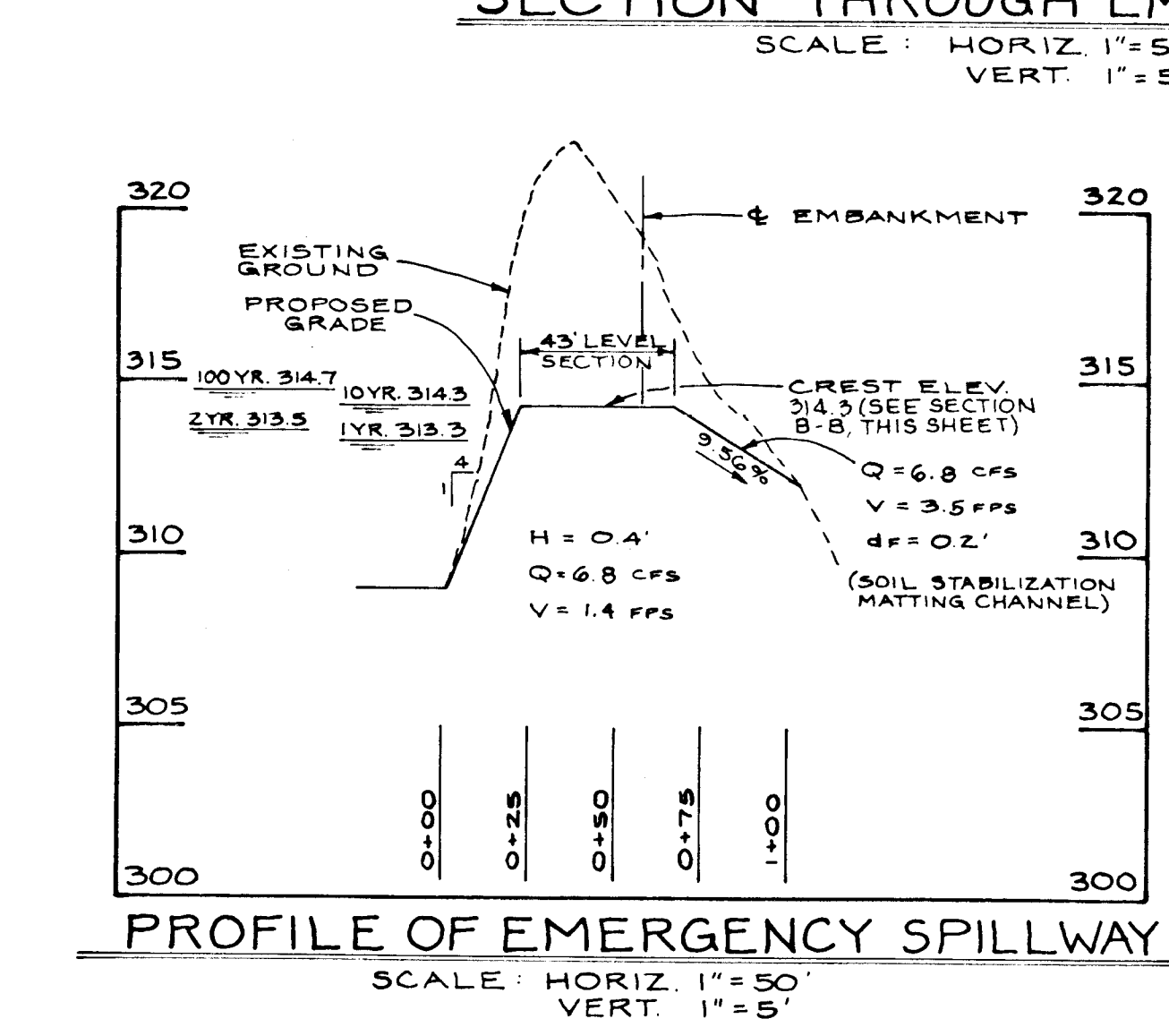
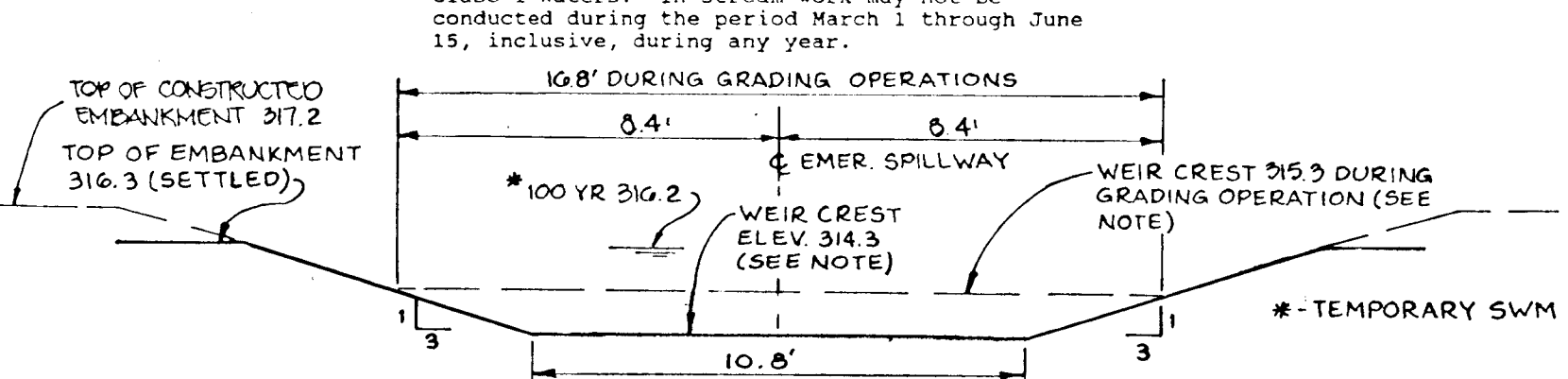
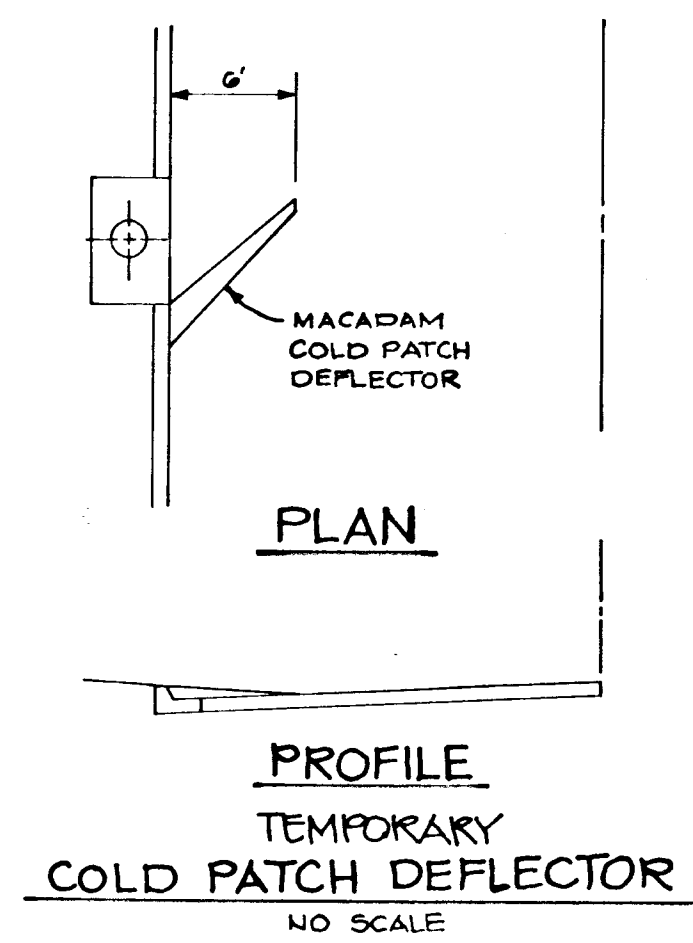
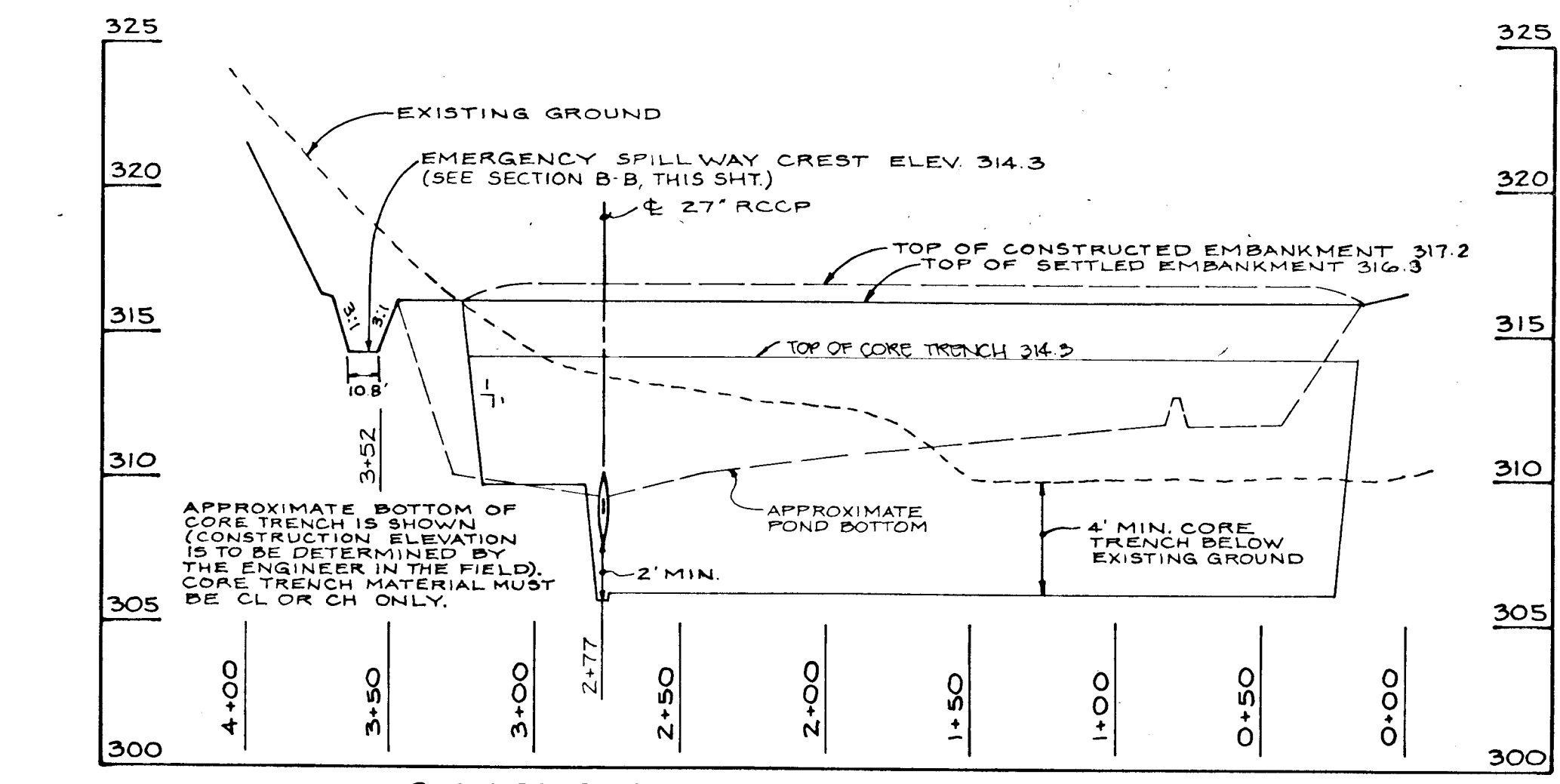
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Table with columns: ELEV, SOIL DESCRIPTION, STRA DEPTH, STRA SCALE, SAMPLE NO, BORING & SAMPLING NOTES. Includes data for TP-5 borings.

Table with columns: ELEV, SOIL DESCRIPTION, STRA DEPTH, STRA SCALE, SAMPLE NO, BORING & SAMPLING NOTES. Includes data for TP-6 borings.

CONDITIONS AND MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS

- a) Remove excess fill or construction material or debris to an upland disposal area outside of the nontidal wetlands and their buffers.



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

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. Chief, Bureau of Highways: Andrew Daneker. Date: 8-1-95.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Chief, Division of Land Development and Research: Dina Tirinnanzi. Date: 8/8/95.

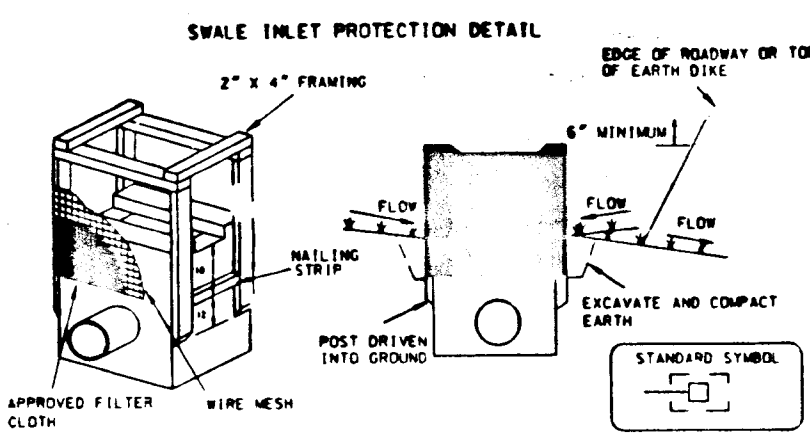
APPROVED: DEVELOPMENT ENGINEERING DIVISION. Chief: Charles Dammers. Date: 2/4/95.

TSA GROUP, INC. planning • architecture • engineering • surveying. 8400 Baltimore National Pike • Elllicott City, Maryland 21043 • (410-466-6100).

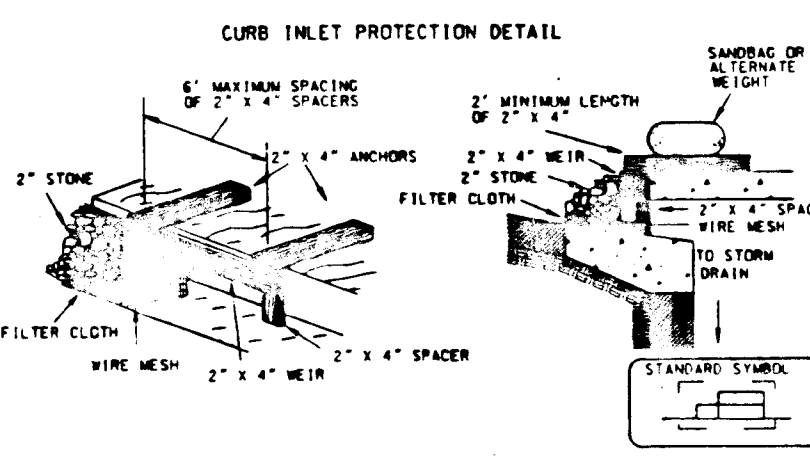
OWNER: GEORGE AND MARIE DASHER, 6660 OAKLAND HILLS ROAD, COLUMBIA, MARYLAND 21045. PROJECT: DASHER HOMESTEAD, LOTS 1-27. LOCATION: TAX MAP 36 - PARCEL 69, 6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND.

DEVELOPER/CONTRACT PURCHASER: S D C GROUP INC., P.O. BOX 417, ELLICOTT CITY, MARYLAND 21041. TITLE: STORMWATER MANAGEMENT AND SEDIMENT CONTROL NOTES AND DETAILS. DATE: NOVEMBER 28, 1994. PROJECT NO. 0550. SCALE: AS SHOWN. DRAWING 7 OF 12.





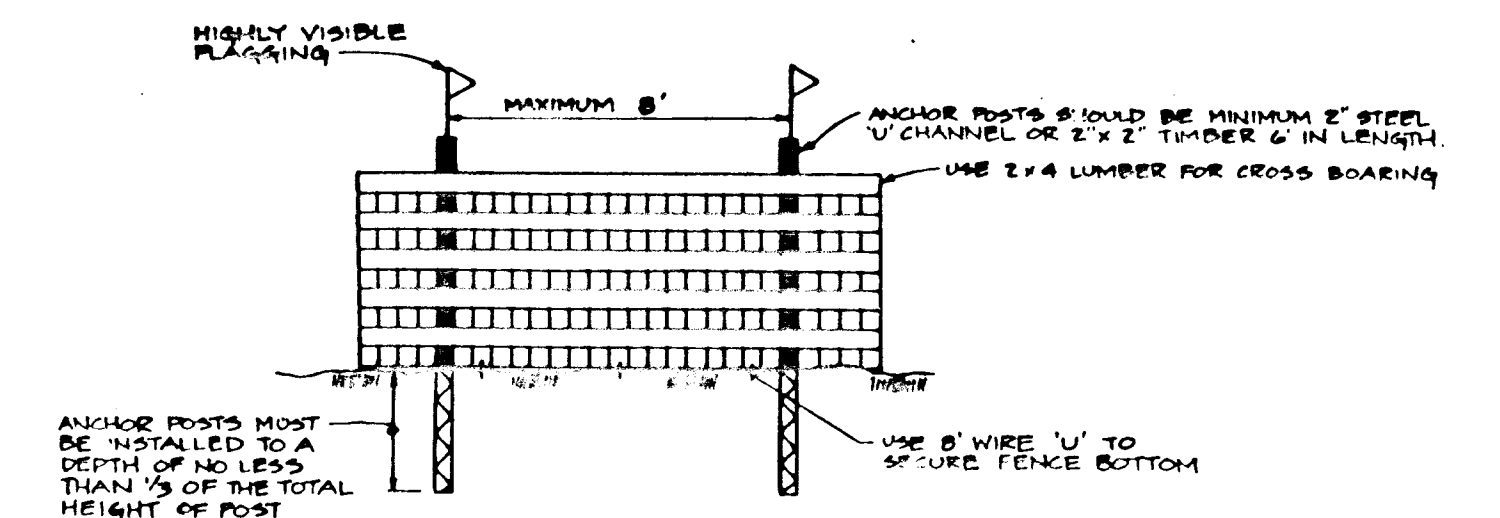
**B. Procedure**  
 1. Excavate completely around the inlet to a depth of 18 inches below the notch elevation.  
 2. Drive the 2' x 4' posts 1' into the ground at each corner of the inlet. Place nail latrises between the posts on the ends of the inlet. Assemble top portion of the 2' x 4' frame using the overlap joint shown in the figure. The top of the frame (nail) must be 6" below the edge of the roadway adjacent to the inlet.  
 3. Strain the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.  
 4. Strain the filter cloth tightly over the wire mesh. The cloth must extend from the top of the frame to 18" below the inlet notch elevation. Fasten the cloth firmly to the frame. The ends of the filter cloth must meet at a post; be overlapped and folded, then fastened down.  
 5. Backfill around the inlet in compacted 6" layers until the top of earth is level with the notch elevation and top elevation on the sides.  
 6. If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of the frame (nail).  
 7. The structure may be inspected periodically and after each rain the filter fabric should be checked and replaced if it becomes clogged.



**Curb Inlet Protection**  
 1. Assemble a continuous piece of wire mesh (30" minimum width by 24" length plus 4" to the 2' x 4' wire) measuring three feet length plus 2" as shown on the standard drawing.  
 2. Place a continuous piece of approved filter cloth (40 - 80 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2' x 4' wire.  
 3. Securely nail the 2' x 4' wire to a 6" long vertical spacer to be located between the wire and the inlet face (nail 6" apart).  
 4. Place the assembly against the inlet throat and nail (minimum 2" lengths of 2' x 4" to the top of the wire or spacer locations). These 2' x 4' anchors shall extend across the inlet face and be held in place by sandbags or alternate weight.  
 5. The assembly shall be placed so that the top spacer is a minimum 1" beyond both ends of the throat opening.  
 6. Form the 1/2" x 1/2" wire mesh and the filter cloth to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter cloth in a 6" normal to prevent water from entering the inlet under or around the filter cloth.  
 7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.  
 8. Assume that storm flow does not bypass the inlet by installing a temporary earth or cement dike to direct the flow to the inlet.

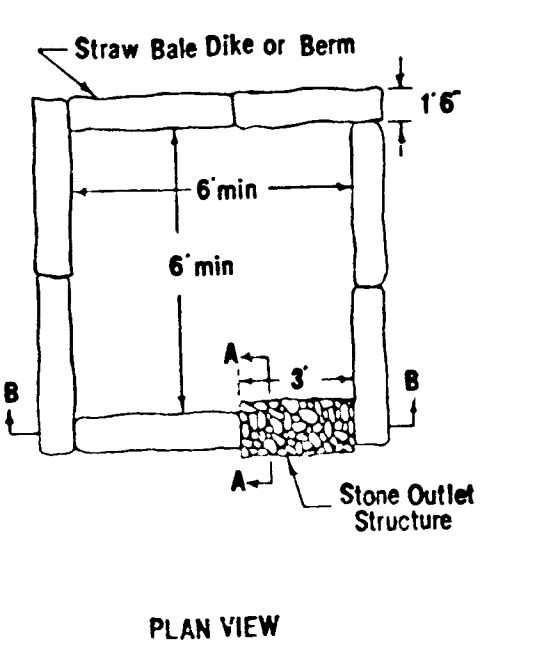
**Construction Specifications**  
 1. Wood frame is to be constructed of 2' x 4' construction grade lumber.  
 2. Wire mesh size must be of sufficient strength to support filter fabric and stone for curb inlet with water fully rebounded against it.  
 3. Filter cloth must be of a type approved for this purpose resistant to ultraviolet light with an equivalent opening size 40 - 80 sieve, to allow sufficient passage of water and removal of sediment.  
 4. Spaced stone 3/4" to 1 1/2" in size is to be used.

**INLET PROTECTION DETAIL**  
NO SCALE



1. FOREST PROTECTION DEVICE ONLY.  
 2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.  
 3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLATION.  
 4. ROOT DAMAGE SHOULD BE AVOIDED.  
 5. PROTECTIVE SIGNAGE MAY ALSO BE USED.  
 6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

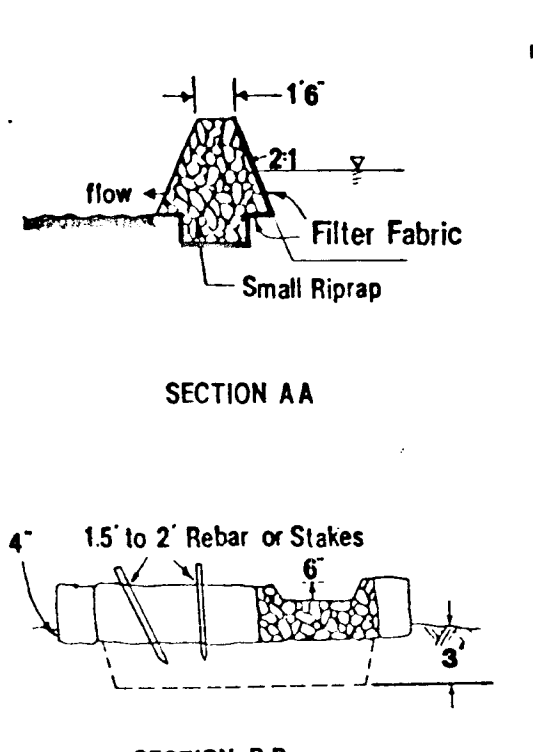
**TEMPORARY TREE PROTECTION FENCE**  
NO SCALE



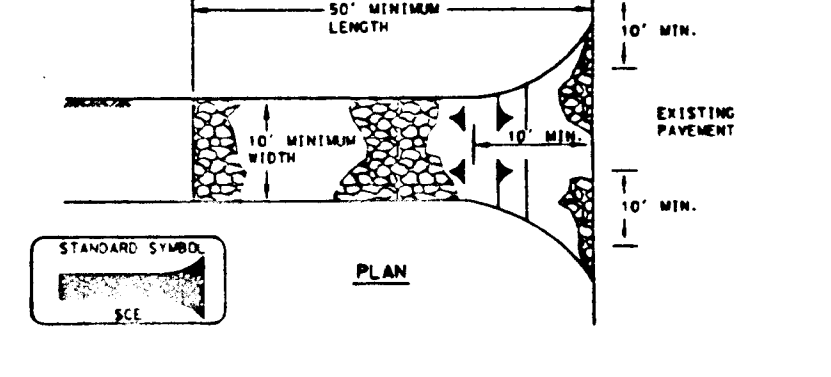
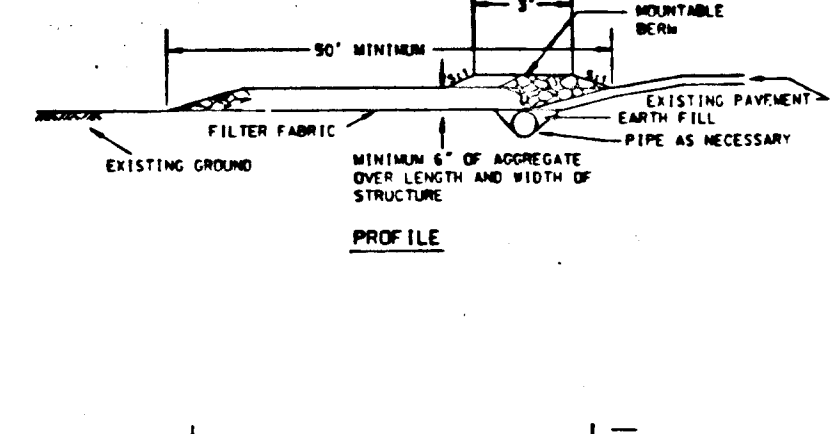
**I. Description**  
 The work shall consist of the construction of a dewatering basin for the purpose of receiving sediment-laden water pumped from a construction site to allow filtration before the water re-enters the waterway.

**II. Material Specifications**  
 1. Riprap: Riprap shall consist of 4-8 inch washed stone or gravel.  
 2. Filter Fabric: The filter cloth shall be a woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydrocarbons, aldehydes, and rot resistant. No. 6 stone (MASHTO 57) may be used on the inner-face for filtering instead of fabric.  
 3. Strawbales: Strawbales shall meet the criteria as specified in the Maryland Standards and Specifications for Soil Erosion and Sediment Control.

**III. Construction Requirements**  
 1. The contractor shall install all sediment and erosion control devices as the first order of business.  
 2. Excavated materials shall be stored such that sediments are prevented from entering the waterway; i.e., sediment perimeter controls may be necessary.  
 3. Excavated subsoil and topsoil shall be kept separate and replaced in their natural order.  
 4. Any dewatering of the construction area shall be filtered through a dewatering basin prior to entering the waterway.  
 5. The dewatering basin shall be excavated to a minimum depth of 3 feet.  
 6. Once the dewatering basin becomes filled to 1/2 of the excavated depth, accumulated sediment shall be removed and disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the M&A.  
 7. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal. All ground contours shall be returned to their original condition unless specifically approved otherwise by the Administration.



**DEWATERING BASIN DETAIL**  
NO SCALE



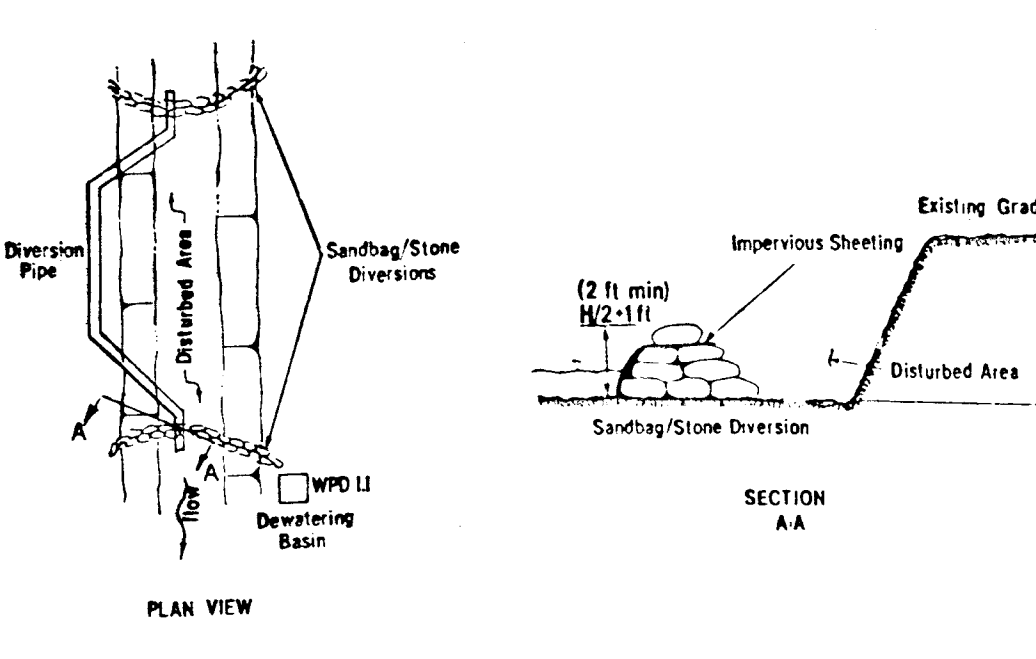
**Construction Specifications**  
 1. Length - minimum of 50' (30' for single residence lots).  
 2. Width - 10' minimum, should be placed on the existing road to provide a turning radius.  
 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residence to use geotextile.  
 4. Stone - crushed aggregate (2" to 3"), or recycled or recycled concrete equivalent shall be placed on top 6" deep over the length and width of the entrance.  
 5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be placed through the entrance, maintaining positive drainage. Pipe (sanitary) through the stabilized construction entrances shall be protected with a minimum 6" diameter pipe with a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located on a high spot and has no drainage to convey a dike will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.  
 6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vertical lavings the site must travel over the entire length of the stabilized construction entrance.

**STABILIZED CONSTRUCTION ENTRANCE**  
NO SCALE

**Design Criteria**

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

**SUPER SILT FENCE DETAIL**  
NO SCALE

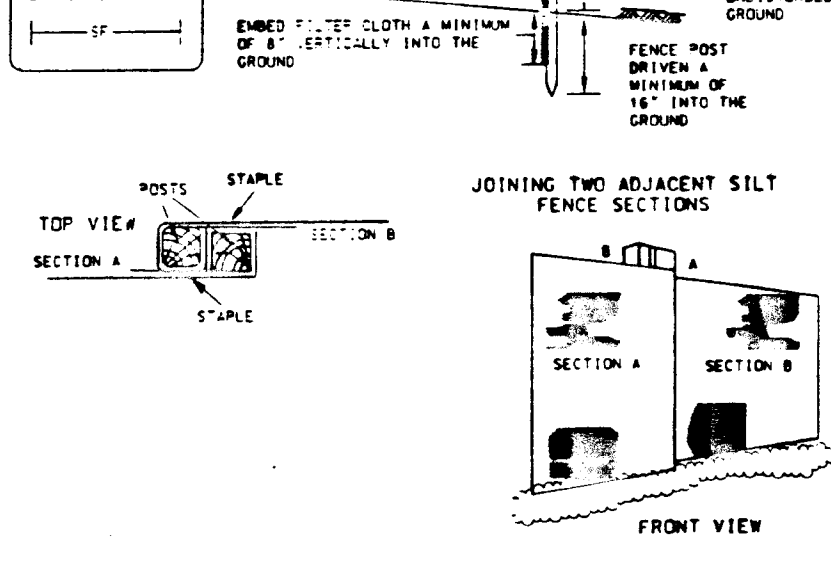
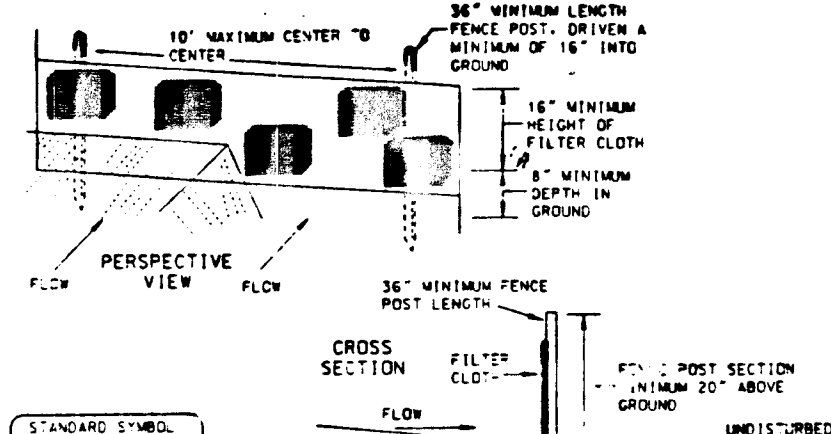


**I. Description**  
 The work shall consist of installing a flow diversion structure when construction activities take place within the stream channel such as culvert construction or culvert replacement.

**II. Material Specifications**  
 1. Sandbags: Sandbags shall consist of materials which are resistant to ultraviolet radiation, tearing and puncture and cover tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).  
 2. Stone: Stone shall be washed and have a minimum diameter of 6 inches.  
 3. Sheetpiling: Sheetpiling shall consist of polyethylene or other material which is impervious and resistant to puncture and tearing.

**III. Construction Requirements**  
 1. All erosion and sediment control devices shall be installed as the first order of work.  
 2. The height of the sandbag/stone diversion structure shall be one half the distance from the stream bed to the bank plus one foot, as indicated in section A-A. The sandbags shall be placed on a smooth, prepared surface.  
 3. All excavated materials shall be disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the M&A.  
 4. All dewatering of the construction area shall be pumped to a dewatering basin (Plate WPD-11) or otherwise approved on the plans by the M&A.  
 5. Sheetpiling shall be overlapped a minimum of 18 inches.  
 6. The diversion pipe shall have a minimum diameter of sufficient size to convey the normal stream flow.  
 7. If necessary, silt fence or strawbales shall be installed around the perimeter of the work area.  
 8. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal.

**DIVERSION PIPE DETAIL**  
NO SCALE



**SILT FENCE DETAIL**  
NO SCALE

**Construction Specifications**  
 1. A detail of the silt fence shall be shown on the plan and contain the following minimum requirements:  
 a. The type, size and spacing of fence posts.  
 b. The type of filter cloth used.  
 c. The method of fastening the filter cloth to the fence and/or.  
 d. Accurately sediment must be removed when it reaches 50% of the height of the fabric.  
 2. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass.  
 3. Design computations are not required.  
 4. All silt fences shall be placed as close to the contour as possible.  
 5. The area below the fence must be undisturbed or stabilized.  
 6. Silt Fence Fabric: The fabric shall meet the Filter Fabric Specifications listed in Table 27.  
 7. Fence Posts (for fabric-covered units): The length shall be a minimum of 36 inches long - wood posts, 2" x 2", with a minimum cross sectional area of 3.0 square inches will be of sound quality hardwood. Steel posts will be standard 1" or 1 1/2" section weighing not less than 1.00 pound per linear foot.

**Silt Fence Design Criteria**

Slope Steepness	(Minimum) Slope Length	(Maximum) Silt Fence Length
Flatter than 90:1	Unlimited	Unlimited
90:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	50 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

NOTE: In areas of less than 2% slope and sandy soils USDA general classification SLOPE: 90:1 Class B1 minimum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

**SILT FENCE DETAIL**  
NO SCALE

I hereby certify that the facility shown on this plan was constructed as shown on the "AS-BUILT" plans and meets the approved plans and specifications.

GREGORY W. FILLAR, P.E. #20762  
 ENGINEER  
 I certify that the facility shown on this plan was constructed as shown on the "AS-BUILT" plans and meets the approved plans and specifications.

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

James R. Moxley, 7/24/95  
 DEVELOPER, SDC GROUP INC

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

GREGORY W. FILLAR, P.E. #20762  
 ENGINEER

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Victoria Engler  
 Natural Resource Conservation Officer

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.  
 Robert Ziehm, 7/24/95  
 Howard Soil Conservation District

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Andrew M. Daneker, 8/1/95  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Gina Trinnanzi, 8/18/95  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Charles Damers, 8/14/95  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	REVISION

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410)665-8105

OWNER: GEORGE AND MARIE DASHER  
 6668 OAKLAND HILLS ROAD  
 COLUMBIA, MARYLAND 21045  
 AND  
 BALTIMORE GAS AND ELECTRIC COMPANY  
 7152 WINDSOR BLVD.  
 BALTIMORE, MARYLAND 21207

DEVELOPER:  
 S D C GROUP INC.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21041

PROJECT:  
**DASHER HOMESTEAD**  
 LOTS 1-27

LOCATION:  
 TAX MAP 36 - PARCEL 69  
 6TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE:  
**ROAD AND SEDIMENT CONTROL**  
**NOTES AND DETAILS**

DATE: NOVEMBER 23, 1994  
 PROJECT NO. 0558

SCALE: AS SHOWN  
 DRAWING 8 OF 13



**Site Preparation**

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

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

All cleared and grubbed material shall be disposed of outside and below the limits of the dam or reservoir. The contractor shall be responsible for the removal of this material. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

**Earth Fill**

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

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

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

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

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

**Structure Backfill**

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

**Pipe Conduits**

All pipes shall be circular in cross section.

**Corrugated Metal Pipe** - All of the following criteria shall apply for corrugated metal pipe:

- Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coating shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plast-Cote, Blac-Klad, and Beth-Ou-Lay. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.
- Materials - (Aluminum Coated Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.
- Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
- Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 48" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide huggar type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 48" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24". Helically corrugated pipe shall have either continuously welded seams or have lock seams.

- Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, such material shall be removed and replaced with suitable earth compacted to provide adequate support.
- Backfilling shall conform to "Structure Backfill."
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Reinforced Concrete Pipe** - All of the following criteria shall apply for reinforced concrete pipe:

- Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is ANWA Specification C-302.
- Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
- Laying pipe - Bell and spigot pipe shall be placed with the bell and upstream joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
- Backfilling shall conform to "Structure Backfill."
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Polyvinyl Chloride (PVC) Pipe** - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

- Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
- Joints and connections to anti-seep collars shall be completely watertight.
- Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
- Backfilling shall conform to "Structure Backfill."
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Concrete**

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

**Rock Riprap**

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular and subrounded in shape. The least dimension of an individual rock fragment shall be not less than one third the greatest dimension of the fragment.

The rock shall have the following properties:

- Bulk specific gravity (saturated surface-dry basis) not less than 2.5.
- Absorption not more than three percent.
- Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 88.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

**Care of Water during Construction**

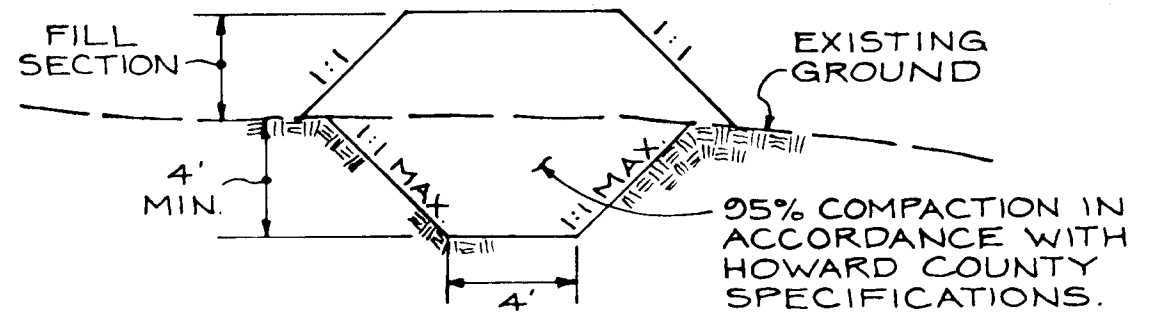
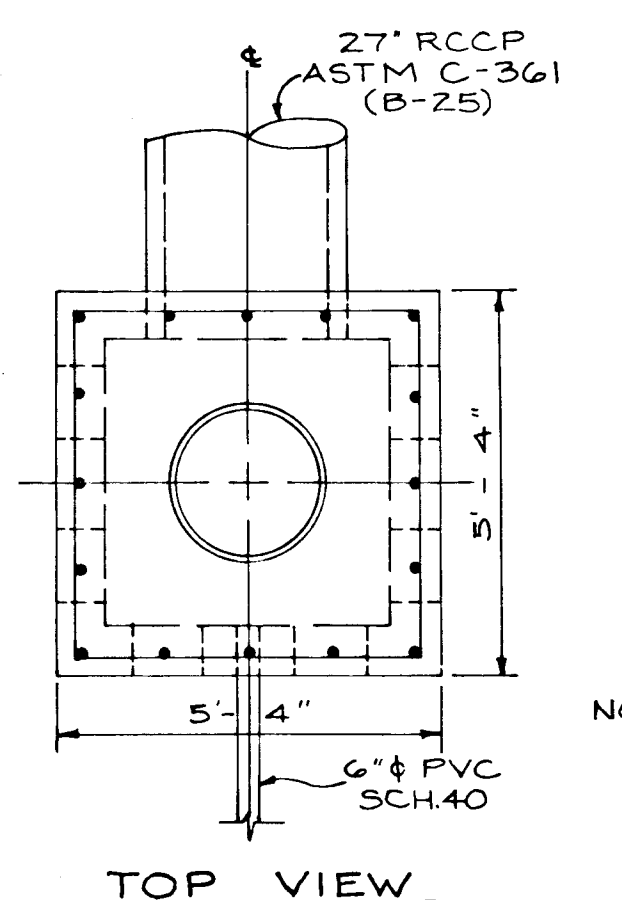
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the piling and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to pumps from which the water shall be pumped.

**Stabilization**

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

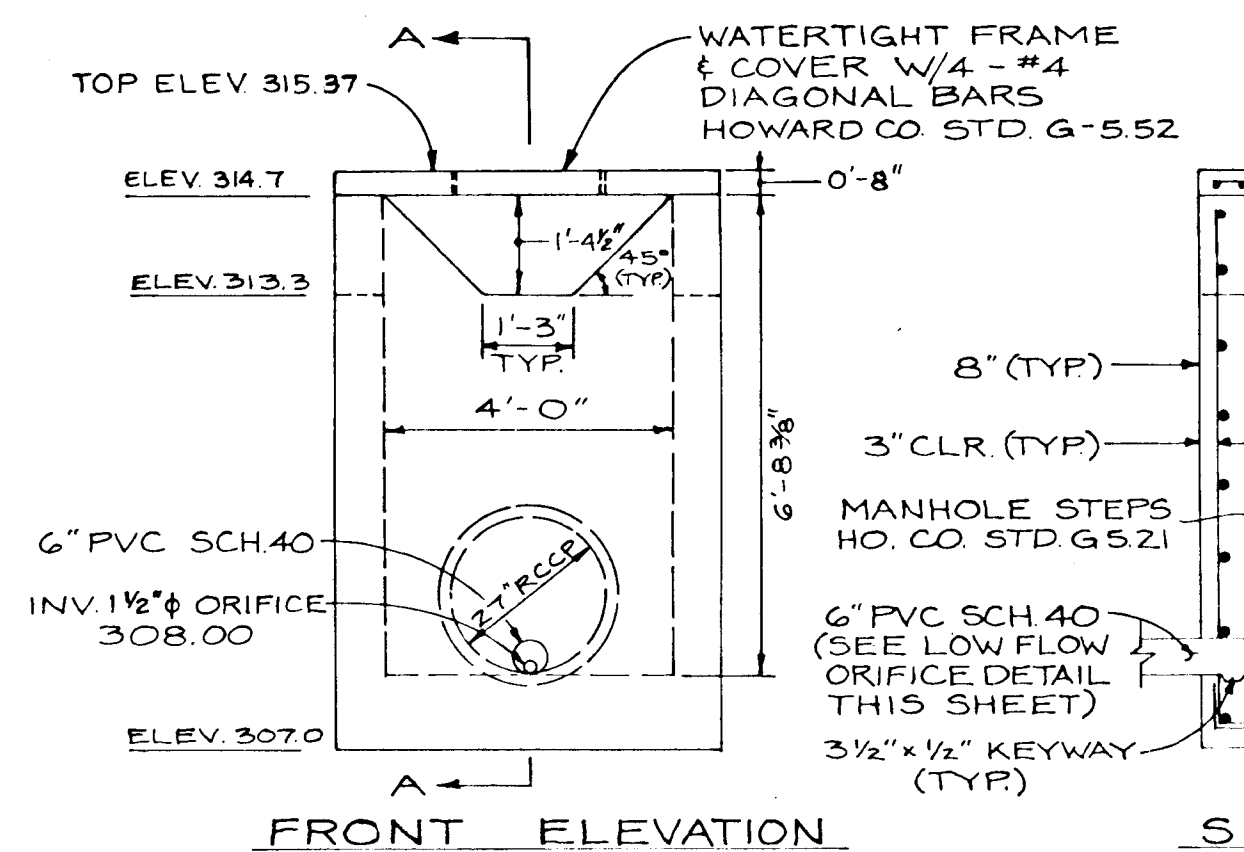
**Erosion and Sediment Control**

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

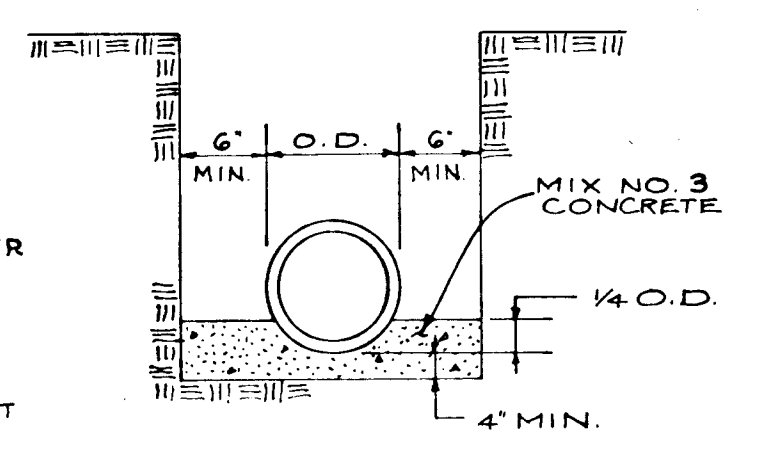


**CORE TRENCH SECTION**  
NO SCALE

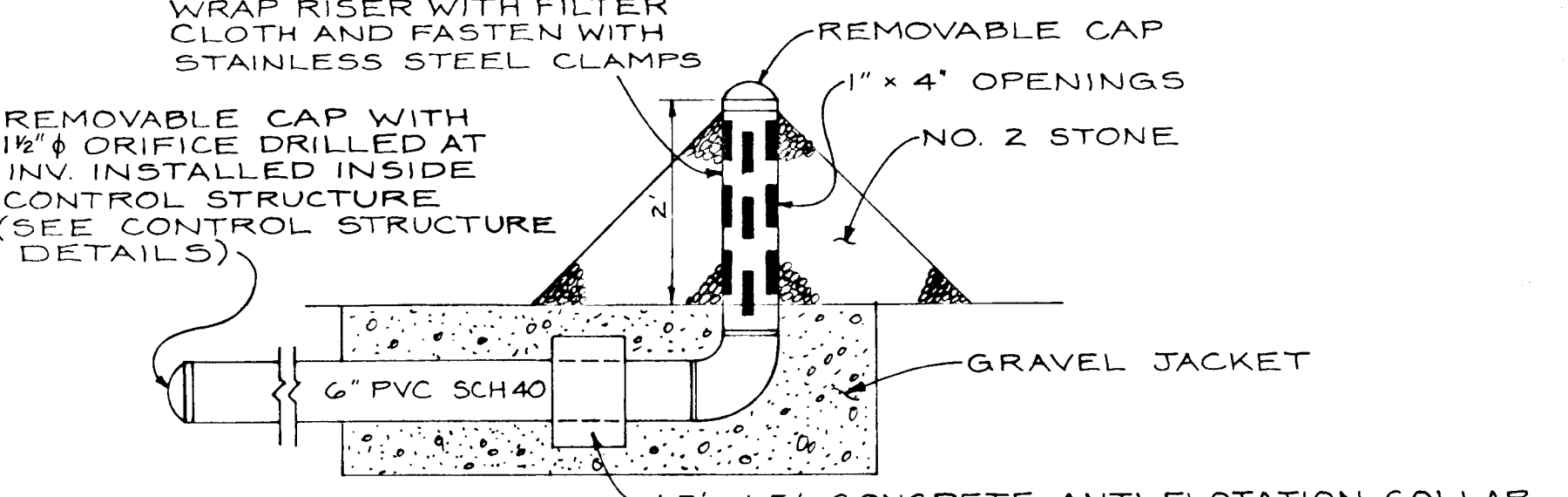
- NOTES: 1) THREE WEIRS TO BE PROVIDED ON FRONT AND 2-SIDES OF STRUCTURE TO BE MODIFIED DURING GRADING OPERATION. SEE DETAIL AND SEQUENCE OF CONSTRUCTION ON SHT NO 6



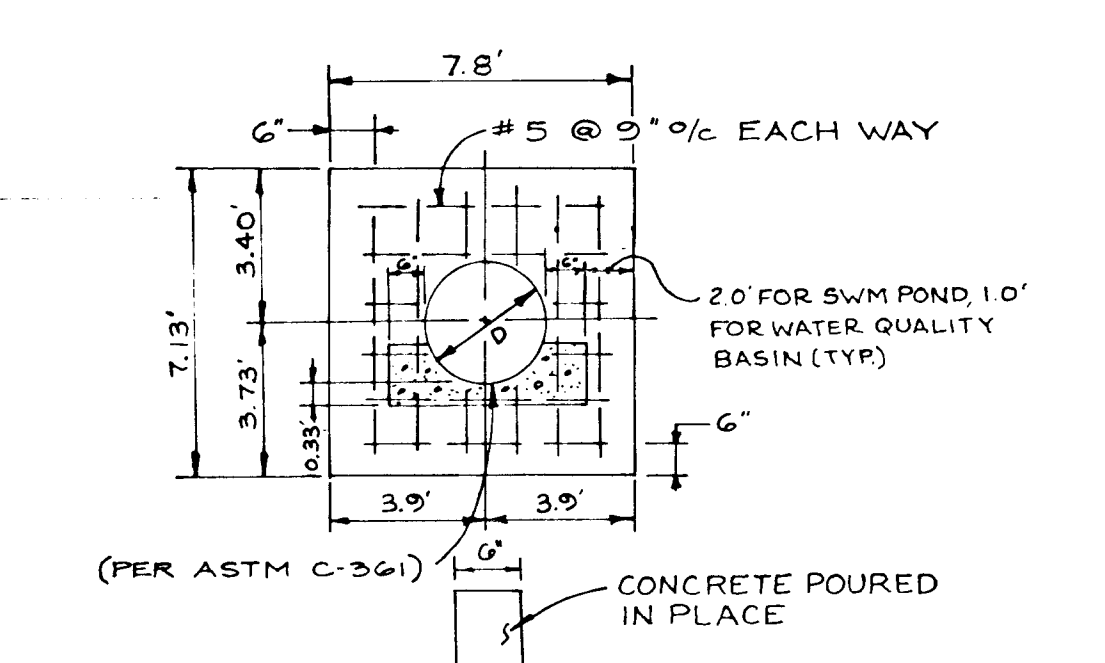
**CONTROL STRUCTURE DETAIL**  
SCALE: 3/8" = 1'-0"



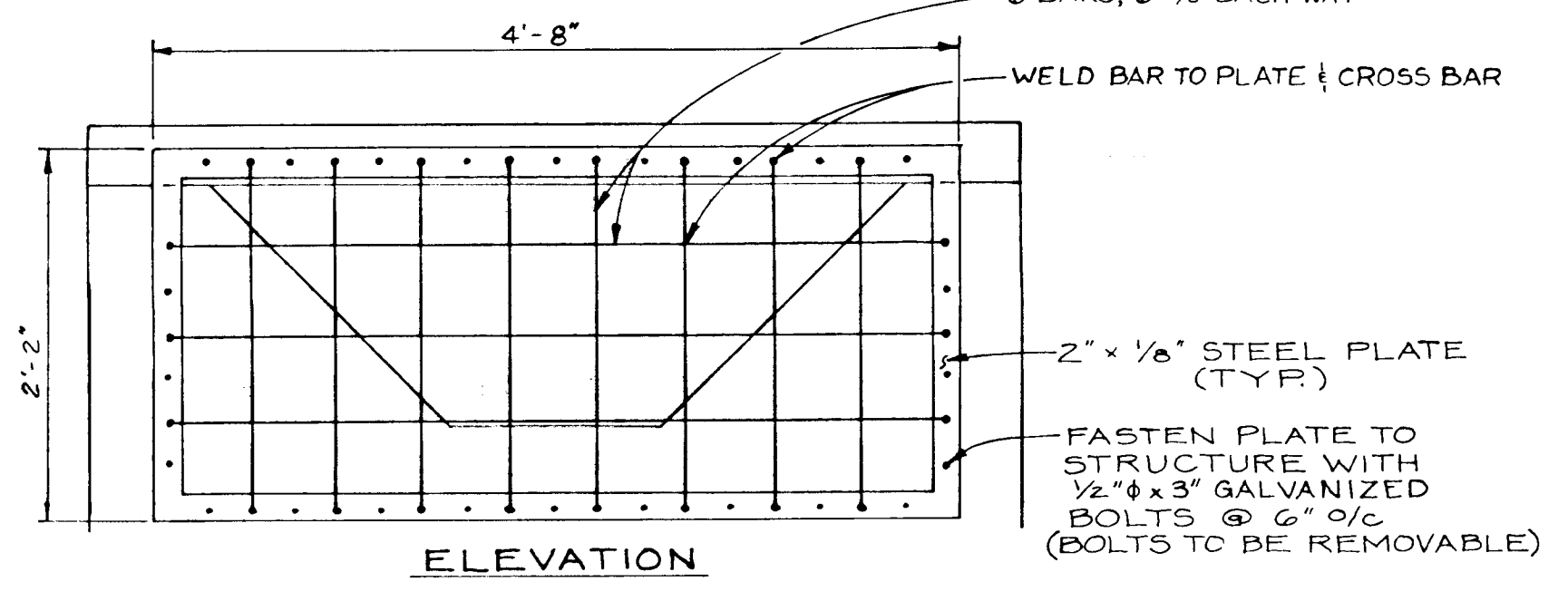
**CONCRETE CRADLE**  
NO SCALE



**LOW FLOW ORIFICE DETAIL**  
NO SCALE



**ANTI-SEEP COLLAR DETAIL**  
NO SCALE



**TRASH RACK DETAIL**  
SCALE: 1" = 1'-0"

BY THE DEVELOPER:  
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: *James R. Imhoff* 7-14-95 DATE

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

ENGINEER: *Gregory W. Pilar, P.E.* # 20762 7/14/95 DATE

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

*Patricia Egle* 7/24/95 DATE  
NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
*Robert W. Ziehm* 7/24/95 DATE  
HOWARD S.C.D.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker* 8-1-95 DATE  
CHIEF, BUREAU OF HIGHWAYS #3  
ANDREW DANEKER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Swannan* 8/8/95 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
GINA SWANNAN  
*Charles Dammers* 8/4/95 DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHARLES DAMMERS

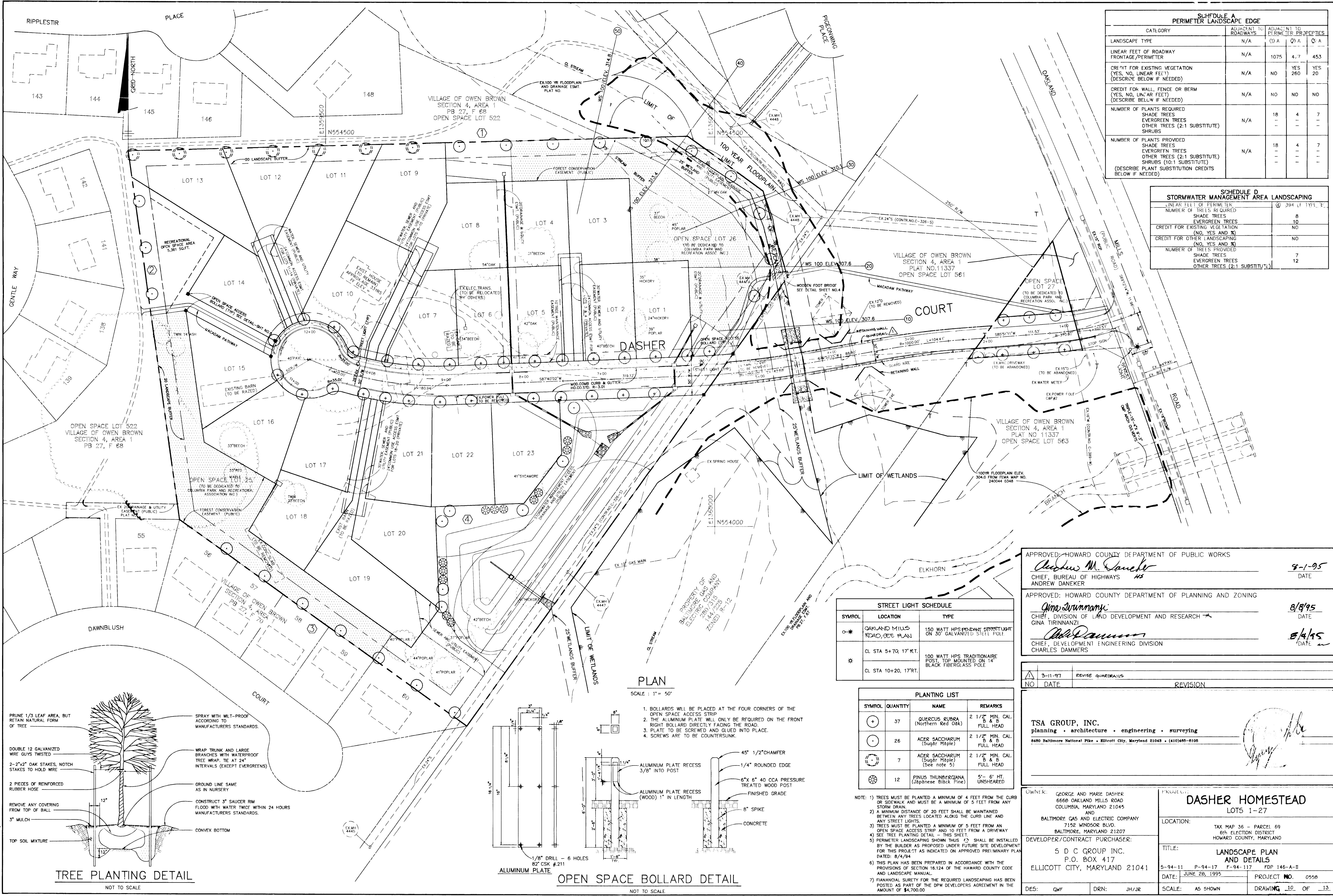
NO	DATE	REVISION

**TSA GROUP, INC.**  
planning • architecture • engineering • surveying  
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410-465-8100)

OWNER: GEORGE AND MARIE DASHER 6668 OAKLAND HILLS ROAD COLUMBIA, MARYLAND 21045	PROJECT: <b>DASHER HOMESTEAD</b> LOTS 1-27
BALTIMORE GAS AND ELECTRIC COMPANY 7152 WINDSOR BLVD BALTIMORE, MARYLAND 21207	LOCATION: TAX MAP 36 - PARCEL 69 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER/CONTRACT PURCHASER: S D C GROUP INC. P.O. BOX 417 ELICOTT CITY, MARYLAND 21041	TITLE: <b>STORMWATER MANAGEMENT NOTES AND DETAILS</b>
DES: GWF	DATE: NOVEMBER 28, 1994
DRN: JFB JR.	PROJECT NO. 0558
SCALE: AS SHOWN	DRAWING 02 OF 12

1744





SCHEDULE A PERIMETER LANDSCAPE EDGE				
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	N/A	(1) A	(2) A	(3) A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	N/A	1075	47	453
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO	YES 260	YES 20
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO	NO	NO
NUMBER OF PLANTS REQUIRED				
SHADE TREES	N/A	18	4	7
EVERGREEN TREES	N/A	-	-	-
OTHER TREES (2:1 SUBSTITUTE) SHRUBS	N/A	-	-	-
NUMBER OF PLANTS PROVIDED				
SHADE TREES	N/A	18	4	7
EVERGREEN TREES	N/A	-	-	-
OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE)	N/A	-	-	-
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)				

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING		
LINEAR FEET OF PERIMETER	NUMBER OF TREES REQUIRED	394 LF TYPE
SHADE TREES	8	
EVERGREEN TREES	10	
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	NO	
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO	
NUMBER OF TREES PROVIDED		
SHADE TREES	7	
EVERGREEN TREES	12	
OTHER TREES (2:1 SUBSTITUTE)		

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker*  
 CHIEF, BUREAU OF HIGHWAYS 115  
 ANDREW DANEKER 9-1-95 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Tirinnanzi*  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH 115  
 GINA TIRINNANZI 8/8/95 DATE

*Charles Dammers*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHARLES DAMMERS 8/4/95 DATE

STREET LIGHT SCHEDULE		
SYMBOL	LOCATION	TYPE
○*	OAKLAND MILLS ROAD, SEE PLAN	150 WATT HPS PENDANT STREET LIGHT ON 30' GALVANIZED STEEL POLE
○	CL STA 5+70, 17' RT.	100 WATT HPS TRADITIONAL POST, TOP MOUNTED ON 14' BLACK FIBERGLASS POLE
○	CL STA 10+20, 17' RT.	100 WATT HPS TRADITIONAL POST, TOP MOUNTED ON 14' BLACK FIBERGLASS POLE

PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
○	37	QUERCUS RUBRA (Northern Red Oak)	2 1/2" MIN. CAL. B & B FULL HEAD
○	26	ACER SACCHARUM (Sugar Maple)	2 1/2" MIN. CAL. B & B FULL HEAD
○	7	ACER SACCHARUM (Sugar Maple)	2 1/2" MIN. CAL. B & B FULL HEAD
○	12	PINUS THUNBERGIANA (Japanese Black Pine)	5'-6' HT. UNSHEARED

NOTE: 1) TREES MUST BE PLANTED A MINIMUM OF 4 FEET FROM THE CURB OR SIDEWALK AND MUST BE A MINIMUM OF 5 FEET FROM ANY STORM DRAIN.  
 2) A MINIMUM DISTANCE OF 20 FEET SHALL BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND ANY STREET LIGHTS.  
 3) TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM AN OPEN SPACE ACCESS STRIP AND 10 FEET FROM A DRIVEWAY.  
 4) SEE TREE PLANTING DETAIL THIS SHEET.  
 5) PERIMETER LANDSCAPING SHOWN THUS (C) SHALL BE INSTALLED BY THE BUILDER AS PROPOSED UNDER FUTURE SITE DEVELOPMENT FOR THIS PROJECT AS INDICATED ON APPROVED PRELIMINARY PLAN DATED: 8/4/94.  
 6) THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.  
 7) FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$4,700.00.

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410)480-8105

OWNER: GEORGE AND MARIE DASHER  
 6666 OAKLAND MILLS ROAD  
 COLUMBIA, MARYLAND 21045

DEVELOPER/CONTRACT PURCHASER:  
 5 D C GROUP INC.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21041

PROJECT: DASHER HOMESTEAD  
 LOTS 1-27

LOCATION: TAX MAP 36 - PARCEL 69  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

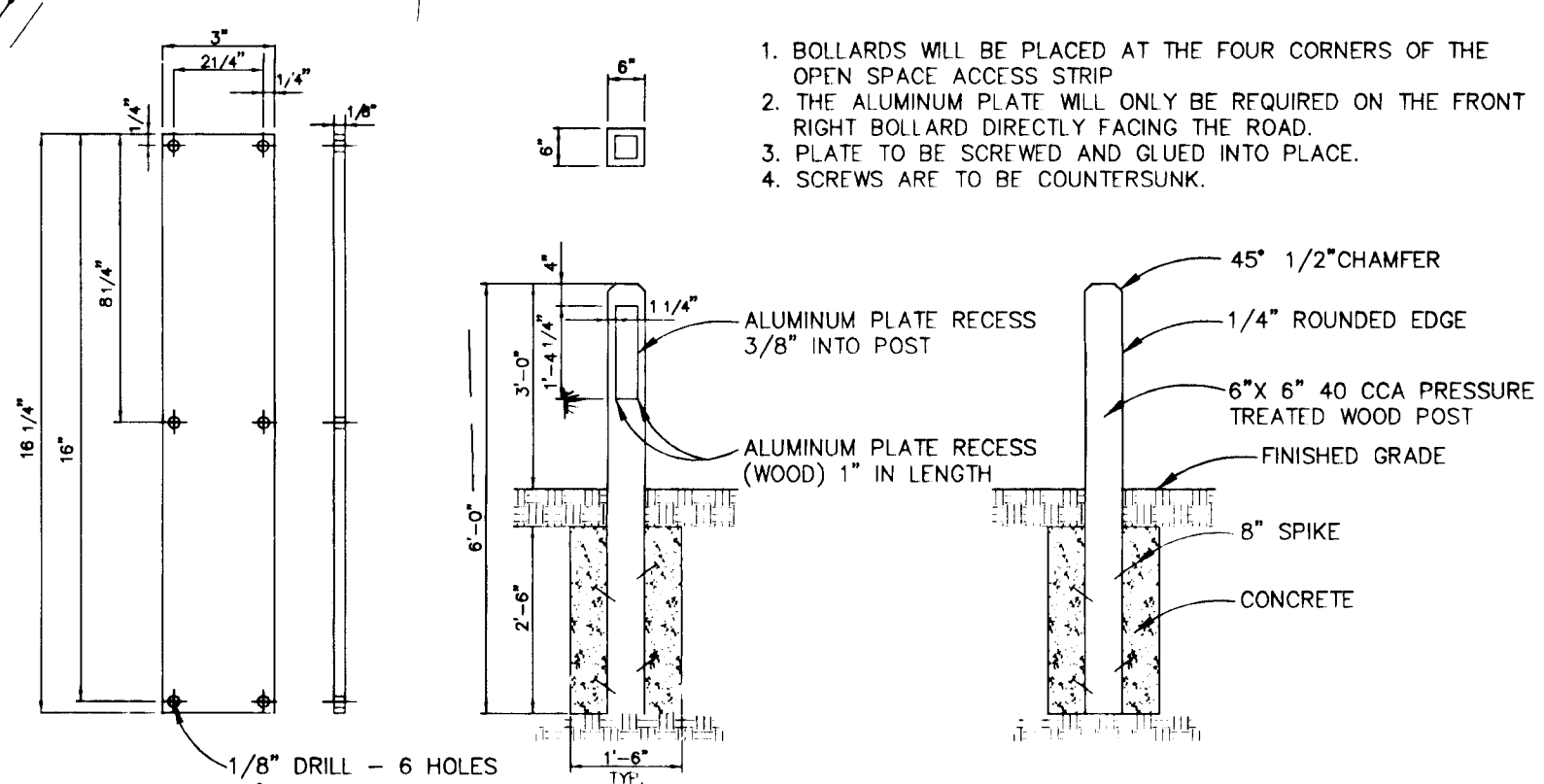
TITLE: LANDSCAPE PLAN  
 AND DETAILS

DATE: JUNE 28, 1995 PROJECT NO. 0558

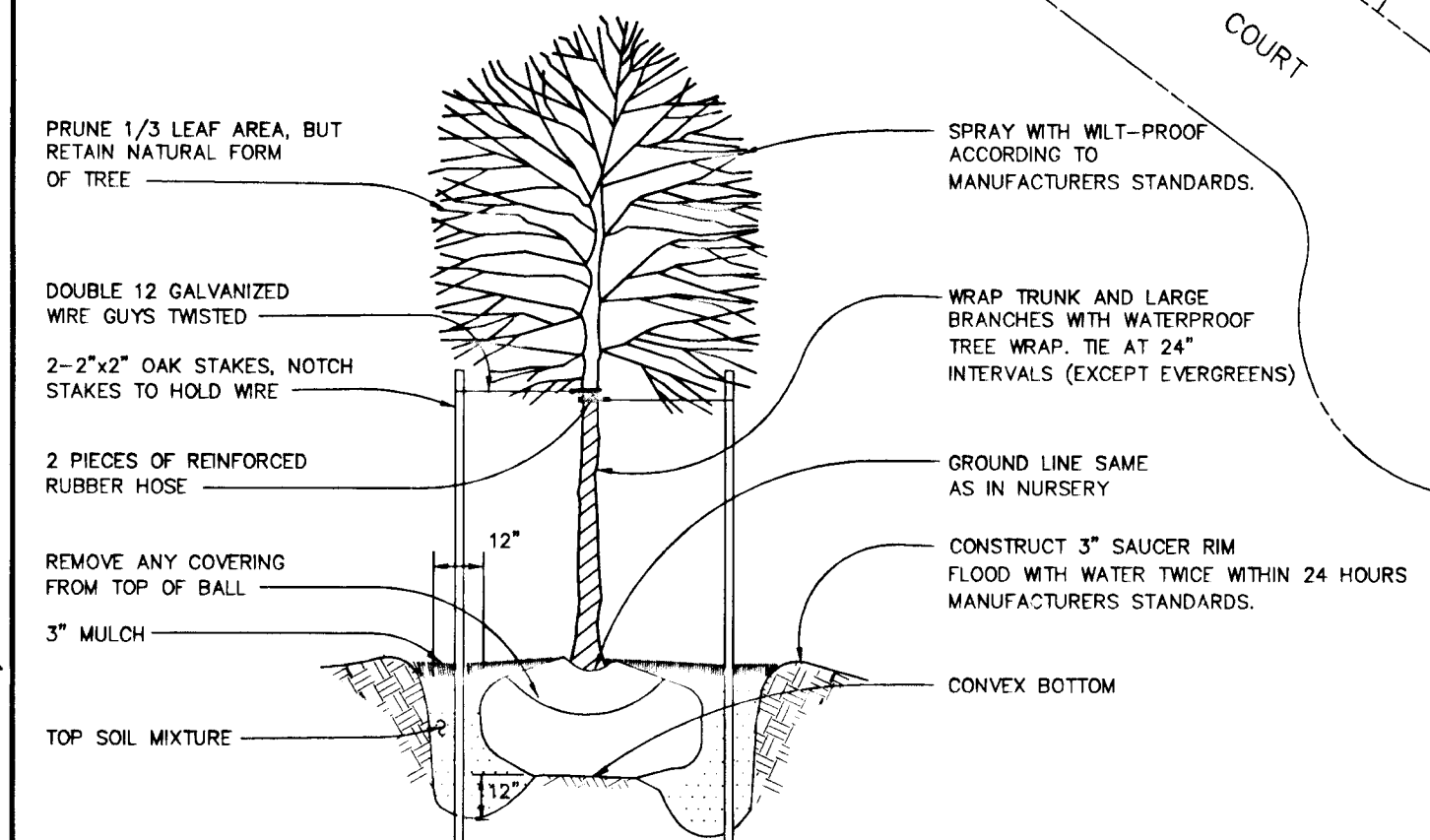
DES: QWF DRN: JH/JR SCALE: AS SHOWN DRAWING 10 OF 13

PLAN  
 SCALE: 1" = 50'

- BOLLARDS WILL BE PLACED AT THE FOUR CORNERS OF THE OPEN SPACE ACCESS STRIP.
- THE ALUMINUM PLATE WILL ONLY BE REQUIRED ON THE FRONT RIGHT BOLLARD DIRECTLY FACING THE ROAD.
- PLATE TO BE SCORED AND OILED INTO PLACE.
- SCREWS ARE TO BE COUNTERSUNK.



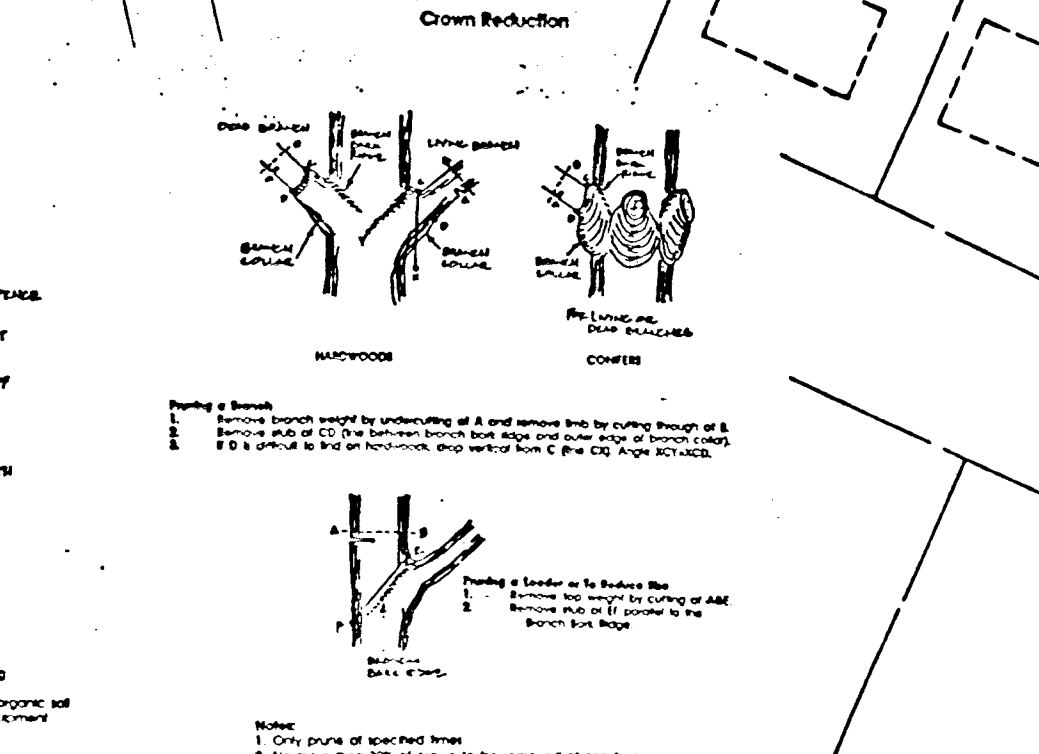
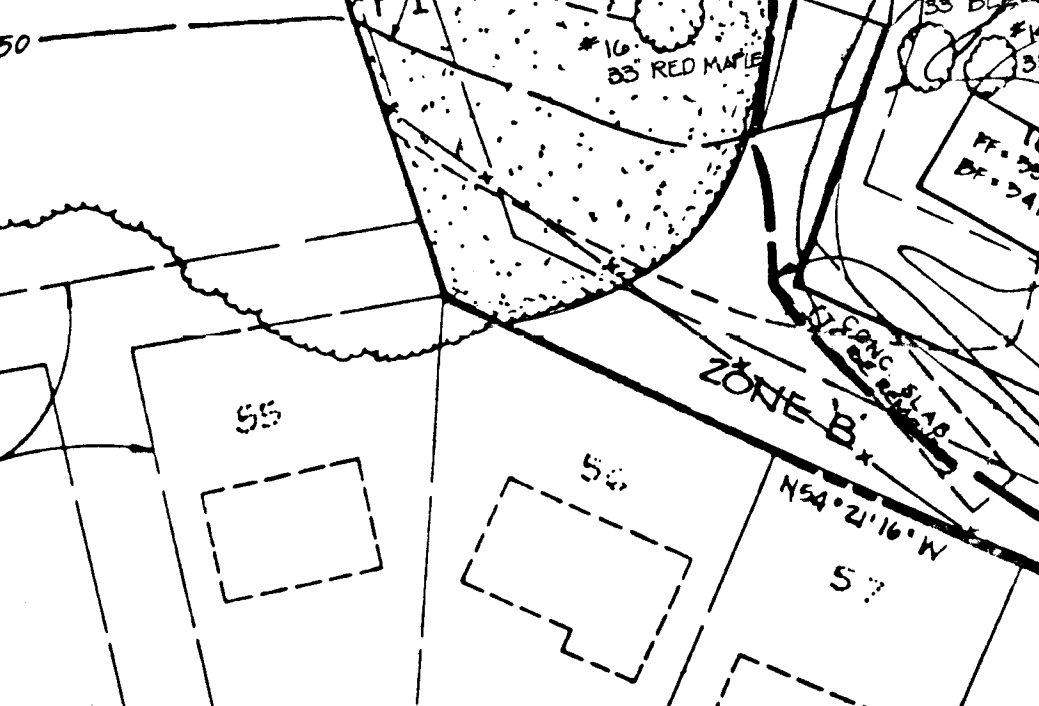
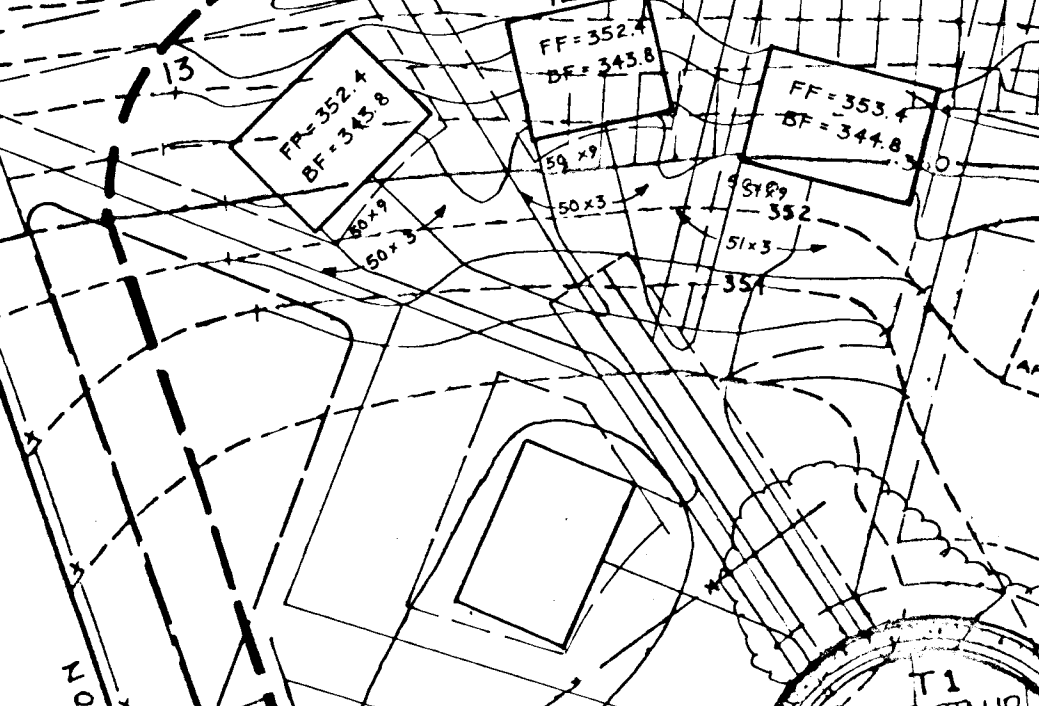
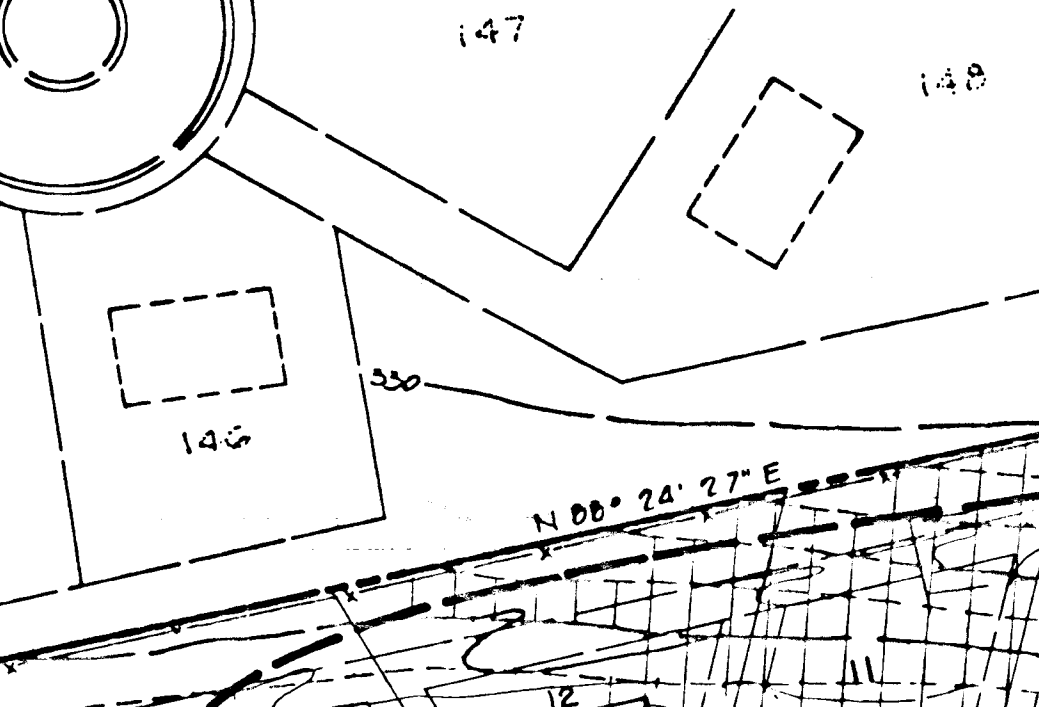
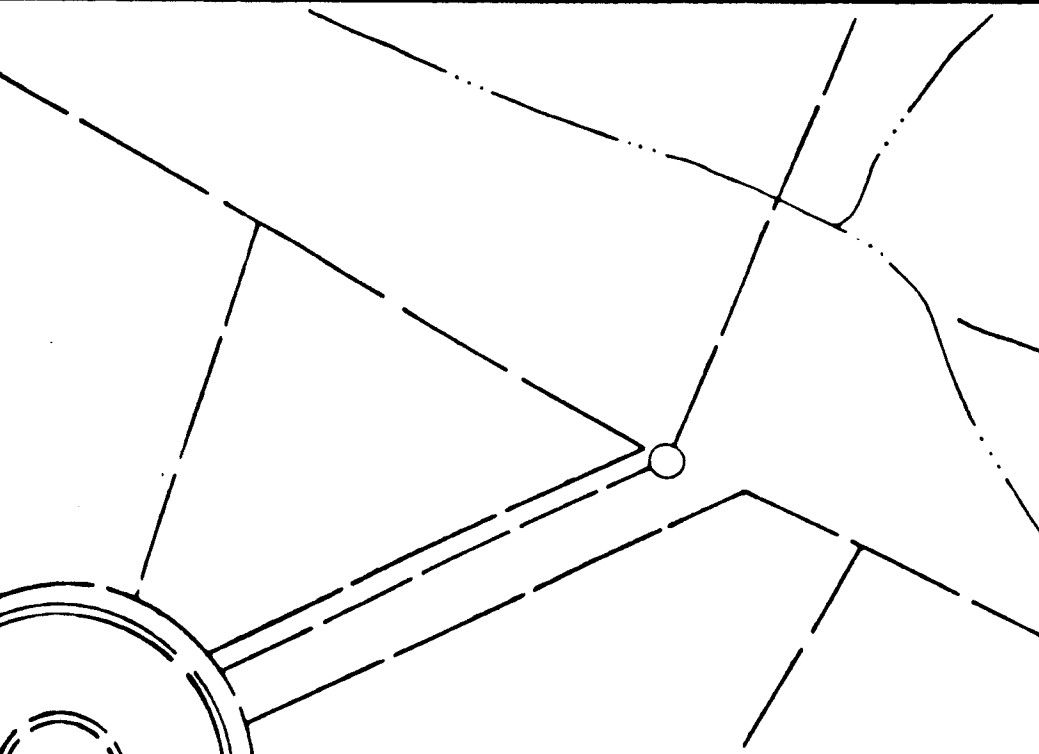
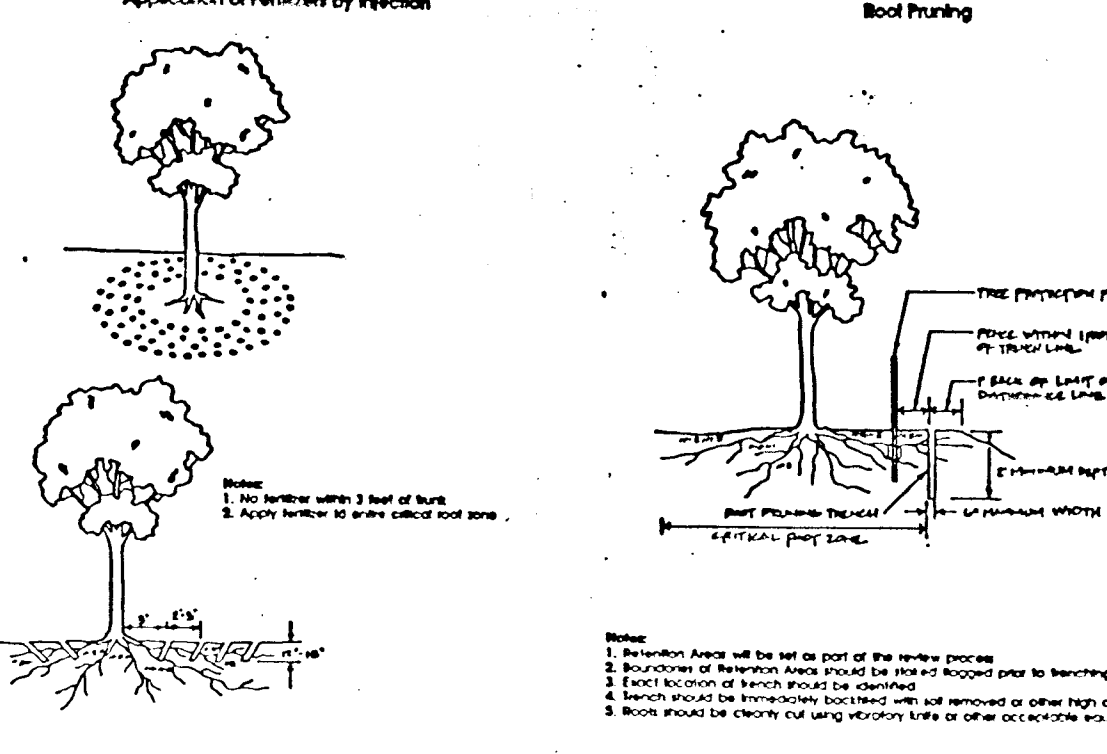
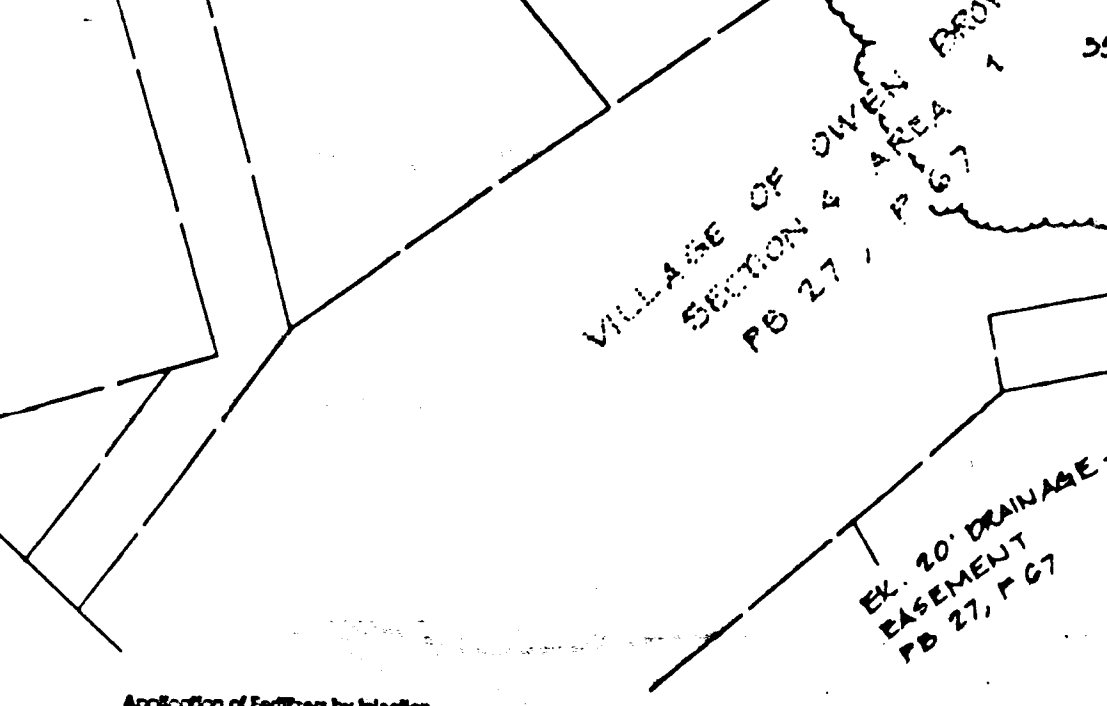
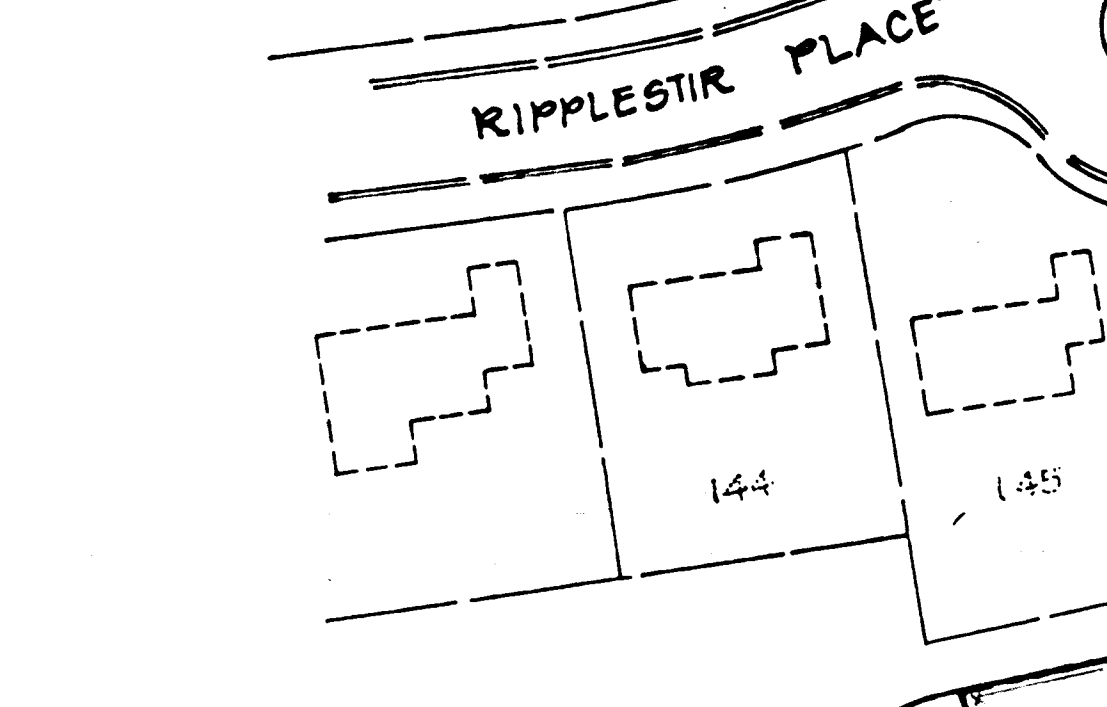
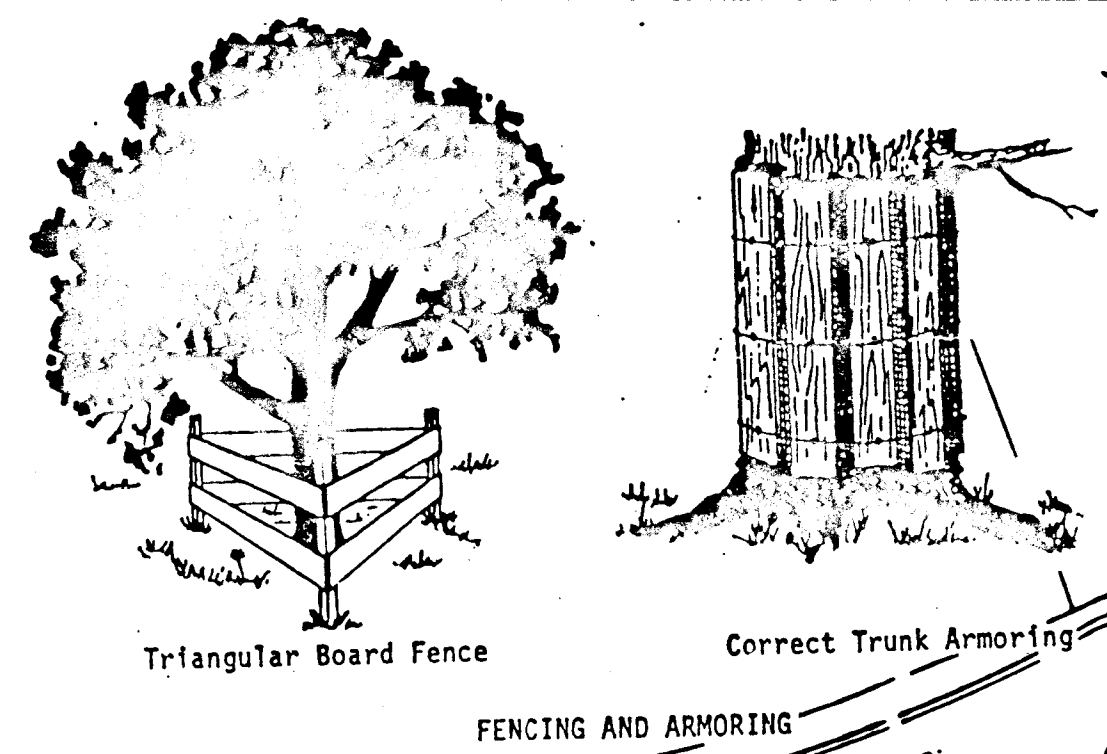
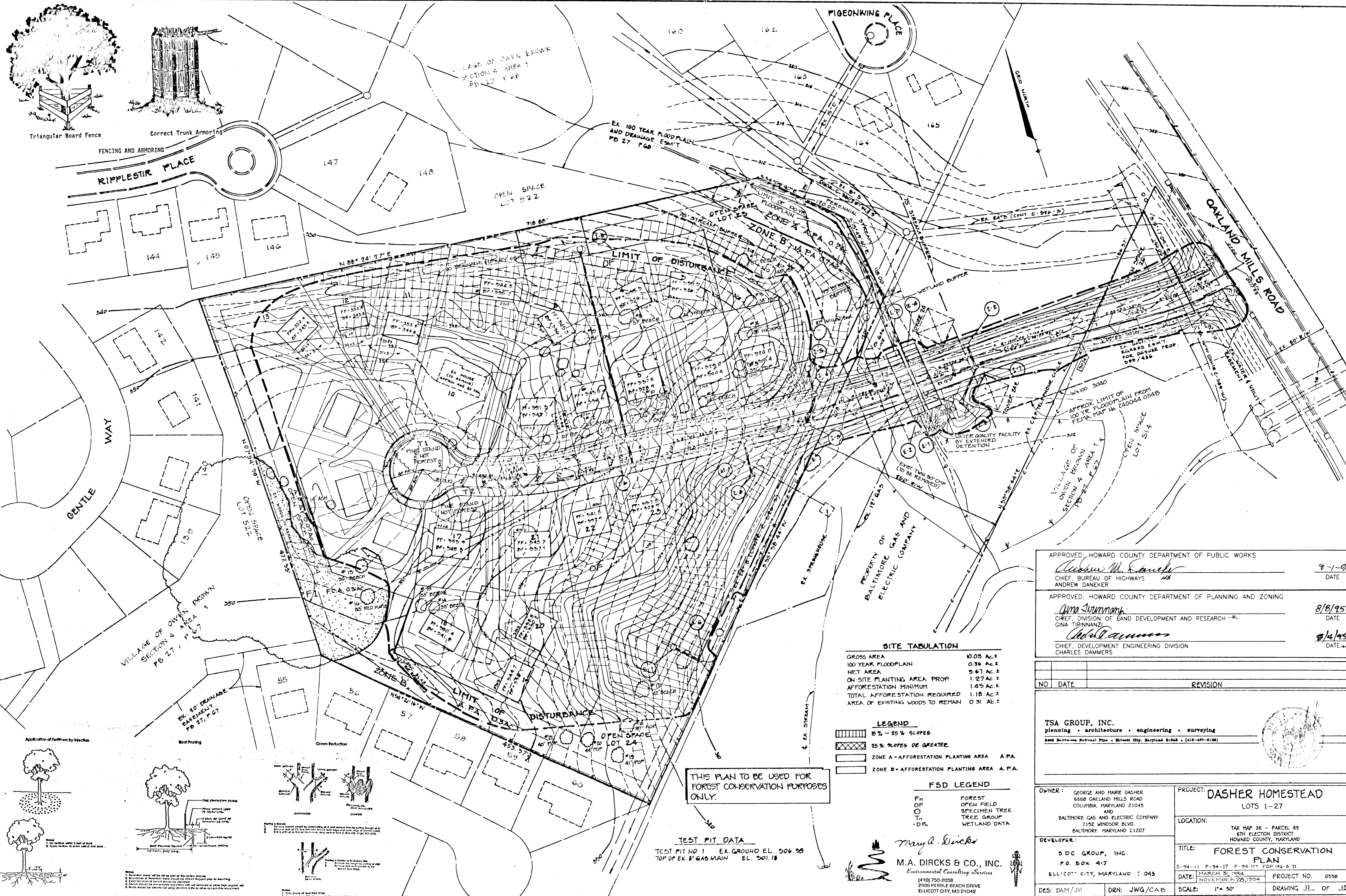
OPEN SPACE BOLLARD DETAIL  
 NOT TO SCALE



TREE PLANTING DETAIL  
 NOT TO SCALE

1744





**SITE TABULATION**

GROSS AREA	10.03 AC.±
100 YEAR FLOODPLAIN	0.36 AC.±
NET AREA	9.67 AC.±
ON-SITE PLANTING AREA PROP	1.27 AC.±
AFFORESTATION MINIMUM	1.45 AC.±
TOTAL AFFORESTATION REQUIRED	1.18 AC.±
AREA OF EXISTING WOODS TO REMAIN	0.91 AC.±

**LEGEND**

[Hatched Box]	5% - 25% SLOPES
[Cross-hatched Box]	25% SLOPES OR GREATER
[Dotted Box]	ZONE A - AFFORESTATION PLANTING AREA A.P.A.
[Solid Box]	ZONE B - AFFORESTATION PLANTING AREA A.P.A.

**FSD LEGEND**

F <sub>n</sub>	FOREST
O	OPEN FIELD
T <sub>n</sub>	SPECIMEN TREE
DP	TREE GROUP
W	WETLAND DATA

THIS PLAN TO BE USED FOR FOREST CONSERVATION PURPOSES ONLY.

**TEST PIT DATA**  
 TEST PIT NO. 1 EX. GROUND EL. 506.35  
 TOP OF EX. GAS MAIN EL. 501.18

*Maya Dircks*  
**M.A. DIRCKS & CO., INC.**  
 Environmental Consulting Services  
 (410) 750-2058  
 2986 PEBBLE BEACH DRIVE  
 ELICOTT CITY, MD 21042

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker*  
 CHIEF, BUREAU OF HIGHWAYS  
 ANDREW DANEKER  
 8-1-95 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Trinnanzi*  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
 GINA TRINNANZI  
 8/8/95 DATE

*Charles Damms*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHARLES DAMMS  
 8/4/95 DATE

NO.	DATE	REVISION

**TSA GROUP, INC.**  
 planning • architecture • engineering • surveying  
 8800 Baltimore National Pike • Ellicott City, Maryland 21042 • (410-407-0100)

**OWNER:** GEORGE AND MARIE DASHER  
 6568 OAKLAND MILLS ROAD  
 COLUMBIA, MARYLAND 21045  
 AND  
 BALTIMORE GAS AND ELECTRIC COMPANY  
 7152 WINDSOR BLVD.  
 BALTIMORE, MARYLAND 21207

**PROJECT:** DASHER HOMESTEAD  
 LOTS 1-27

**LOCATION:** TAX MAP 36 - PARCEL 69  
 6TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**DEVELOPER:** SDC GROUP, INC.  
 P.O. BOX 417  
 ELICOTT CITY, MARYLAND 21042

**TITLE:** FOREST CONSERVATION PLAN  
 S-94-11 P-94-17 F-94-117 FDP 146-A-II

**DATE:** MARCH 31, 1994  
 NOVEMBER 28, 1994

**PROJECT NO.:** 0558

**DES:** DAM/JH **DRN:** JWQ/CAB **SCALE:** 1" = 50' **DRAWING 11 OF 12**

1744



PLANTING SPECIFICATIONS AND NOTES

I. SITE PREPARATION AND SOILS

- Disturbance of soils should be limited to the Planting Field for each plant. Planting hole will be a minimum 18" auger hole, dug to the depth of the root ball. As shown on the detail view, a Planting Field of 18" diameter is recommended.
- In areas of steep slopes or erodible soils, soil disturbance will be limited to the Planting Field which is equal to the 18" diameter auger hole.
- Soil mix for all plants shall be native soil with no soil amendments, unless a soils analysis determines that soil amendments are required (disturbed sites). Natural amendments, such as organic mulch or leaf mold compost, are preferred.

II. PLANT STORAGE AND INSPECTION

- For container grown nursery stock, planting should occur within two weeks after delivery to site.
- Planting stock should be inspected prior to planting. Plants not conforming to standard nurseryman specifications for size, form, and vigor, roots, trunk wounds, insects and disease should be replaced.

III. SOIL AMENDMENTS

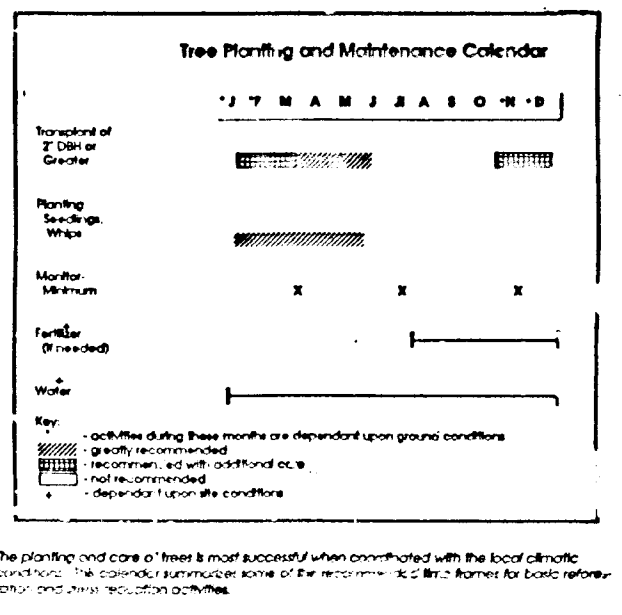
- Amendments are not recommended in the planting field as studies have shown that roots will be encouraged to stay within the amended soils.

IV. PLANT INSTALLATION

- Container grown stock should be removed from the container and roots gently loosened from the soil. If the roots encircle the root ball, substitution is required. J-shaped or kinked root systems should also be rejected. **ROOTS MAY NOT BE TRIMMED ON SITE.**
- The Planting Field should be prepared as specified (see detail). Stock must be planted in random pattern (see detail). Native dug soils should be used to backfill Planting Field. Set plant material no more than 1" above existing ground and no lower than existing ground. Gently pack native soil around plant to eliminate all air pockets. After whip and container installation, rake soils evenly over the Planting Field and cover hole with three inches of composted hardwood mulch. Water to settle soil and provide moisture, as needed.

V. MAINTENANCE SCHEDULE

- Landscaper should conduct an inspection at the following intervals: 6 months after planting, 1 year after planting and 2 years after planting. The purpose of inspection is to evaluate survival rate with reference to the survival required at the end of the two year period (75% minimum).  
Regular visits during the first growing season (yr 1) are to assess the success of the plantings and determine if supplemental watering or other actions are necessary. Early spring visits will determine winter kill and autumn visits will determine summer kill.
- Assess tree mortality of planting stock, remove and replace any dead or diseased plantings for the first 2 growing seasons.
- Volunteer seeding of native, local and endemic vegetation is to be expected. Do not discourage this effort unless it is negatively affecting the planted stock.
- Landscaper shall remove or control aggressive, noxious, invasive species (i.e. Multiflora Rose, Japanese Honeysuckle, and all herbaceous vegetation) within a 3-foot radius surrounding the planted woody nursery stock for 2 years after planting.
- The landscaper shall be responsible to remove down and dead material that is smothering planting stock. Naturally occurring material that is not affecting planted stock shall not be removed.
- Mowing is one of the most effective means to control exotic and/or invasive species. No mowing shall occur during the wildlife nesting period of early April through mid-July. The landscaper is responsible for mowing and/or weed wacking and/or applying herbicide around planting stock, if needed for 2 growing seasons after planting.



FOREST PROTECTION PROCEDURES - Preconstruction Phase

- The edge of the woods to be protected will be marked (staked or flagged) in the field per the limits of disturbance shown in the approved site development plan prior to the start of construction activity. All areas within protective fences are to be considered "off limits" to any construction activities. The protective fencing shall be installed at the outside edge of forested areas and specimen trees to be retained and should be combined with sediment control devices when possible. The limit of the critical root zone and therefore the location of the protective devices is to be determined as follows:  
Edge of Forested Area - 1 foot of protective radius/inch of DBH or an eight foot protective radius, which ever is greater.  
Critical Root Zone for the forest on this site is an average of 24 feet from the trunk of the tree.

Construction activities expressly prohibited within the preservation areas are:  
Placing or stockpiling backfill or top soil in protected areas  
Felling trees into protected areas  
Driving construction equipment into or through protected areas  
Burning in or in close proximity to protected areas  
Stacking or storing supplies of any kind  
Concrete wash-off areas.  
Conducting trenching operations  
Grading beyond the limits of disturbance  
Parking vehicles or construction equipment  
Removal of root mat or topsoil  
Siting and construction of:  
Utility lines  
Access roads  
Impervious surfaces  
Stormwater management devices  
Staging areas

- Protective fencing (see Figure "Protective Fencing") shall be the responsibility of the general contractor. The general contractor shall affix signs to the fencing at 25' minimum intervals indicating that these areas are "Forest Retention Area" (see Figure "Signage"). The general contractor shall take great care to assure the restricted areas are not violated and that root systems are protected from smothering, flooding, excessive wetting from de-watering operations, off-site run-off, spillage, and drainage or solutions containing materials hazardous to tree roots.

- The general contractor shall be responsible for any tree damaged or destroyed within the preservation areas whether caused by the contractor, his agents, employees, sub-contractors, or licensees.
- Foot traffic shall be kept to a minimum in the protective areas.
- All trees which are not to be preserved within fifty feet of any tree preservation areas are to be removed in a manner that will not damage those trees that are designated for preservation. It is highly recommended that tree stumps within this fifty foot area be ground out with a stump grinding machine to minimize damage.
- The general contractor shall designate a "wash out" area on-site for concrete trucks which will not drain toward a protected area.
- A pre-construction meeting shall be held with local authorities before any disturbance has taken place on site.

FOREST PROTECTION PROCEDURES - Construction Phase

Forest and tree conditions should be monitored during construction and corrective measures taken when appropriate. The following shall be monitored:

- Soil compaction
- Root injury - prune and monitor; consider crown reduction
- Limb injury - prune and monitor
- Flooded conditions - drain and monitor; correct problem
- Drought conditions - water and monitor; correct problem.
- Other stress signs - determine reason, correct, and monitor.

FOREST PROTECTION PROCEDURES - Post-Construction Phase

The following measures shall be taken:

- Corrective measures if damages were incurred due to negligence:
  - Stress reduction
  - Removal of dead or dying trees. This may be done only if trees pose an immediate safety hazard
- Removal of temporary structures:
  - No burial of discarded materials will occur on-site within the conservation area.
  - No open burning within 100 feet of a wooded area.
  - All temporary forest protection structures will be removed after construction.
  - Remove temporary roads by removing stone or broadcasting mulch; pre-construction elevation should be maintained.
  - Aerate compacted soil.
  - Replant disturbed sites with trees, shrubs and/or herbaceous plants.
  - Retain signs for retention areas or specimen trees.
  - A County official shall inspect the entire site.
- Future protection measures:
  - Howard County and the developer shall arrange for the dedication of an appropriate forest conservation easement at a later date.

FOREST PROTECTION PROCEDURES - Preconstruction Phase

Stress Reduction and Protection of Specimen Trees Isolated from Forest Retention Areas and General Forest Retention Areas (As They May Apply)

Isolated specimen trees that are to be preserved will be examined to determine if stress reduction techniques are needed. Protective measures and their evaluation criteria are provided on this plan only if they are employed herein.

Root Pruning

Evaluation Criteria  
Will the critical root zone be affected by construction activities such as grade changes, digging for foundations and roads or utility installation?

Design Considerations

- Prune prior to construction as shown on the plan (see Figure "Root Pruning Detail.")
- Prune root with a clean cut using proper pruning equipment such as a vibratory knife.
- Exact location of pruning trench should be identified, and immediately back-filled to cover exposed root after pruning with soil removed other topsoil, peat moss, or other suitable material or with other high organic soil.
- For trees over 15" in diameter, root pruning may be done up to one year in advance of construction.
- Tree(s) will be monitored for signs of stress

Crown Reduction or Pruning

Evaluation Criteria  
Has the root system been significantly reduced (>30%) or are there dead, damaged, or diseased limbs?

Design Considerations

- Reduce only at specified times of the year:  
Flowering trees - only after flowering and before bud set  
Non-flowering trees - in late winter, early spring or mid summer
- No more than 1/3 of the crown should be removed at one time using acceptable pruning methods (see Figure "Crown Reduction Detail.")
- Monitor for signs of stress

Watering

Evaluation Criteria  
Will construction activities alter the hydrology of the site? Has or will root pruning occur?

Design Considerations

- Water only as necessary
- Monitor for signs of stress (see Figure "Tree Planting and Maintenance Calendar")

Fertilizing

Evaluation Criteria  
Is or will the tree(s) be under stressful conditions? Has or will root pruning occur?

Design Considerations

- Use low nitrogen and slow release fertilizers.
- Apply in late fall or early spring (see Figure "Tree Planting and Maintenance Calendar")
- For small trees (<3" in diameter), use broadcast method.
- For larger trees (>3" in diameter), use punch hole method or pressurized injection method (see Figure "Application of Fertilizers by Injection.")
- Do not apply fertilizer any closer than 3' from tree trunk for pressurized injection method.
- Monitor for signs of stress.

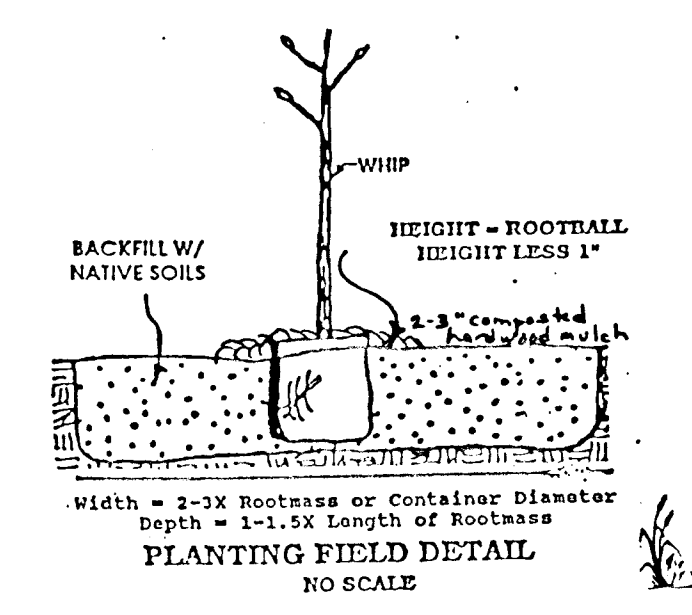
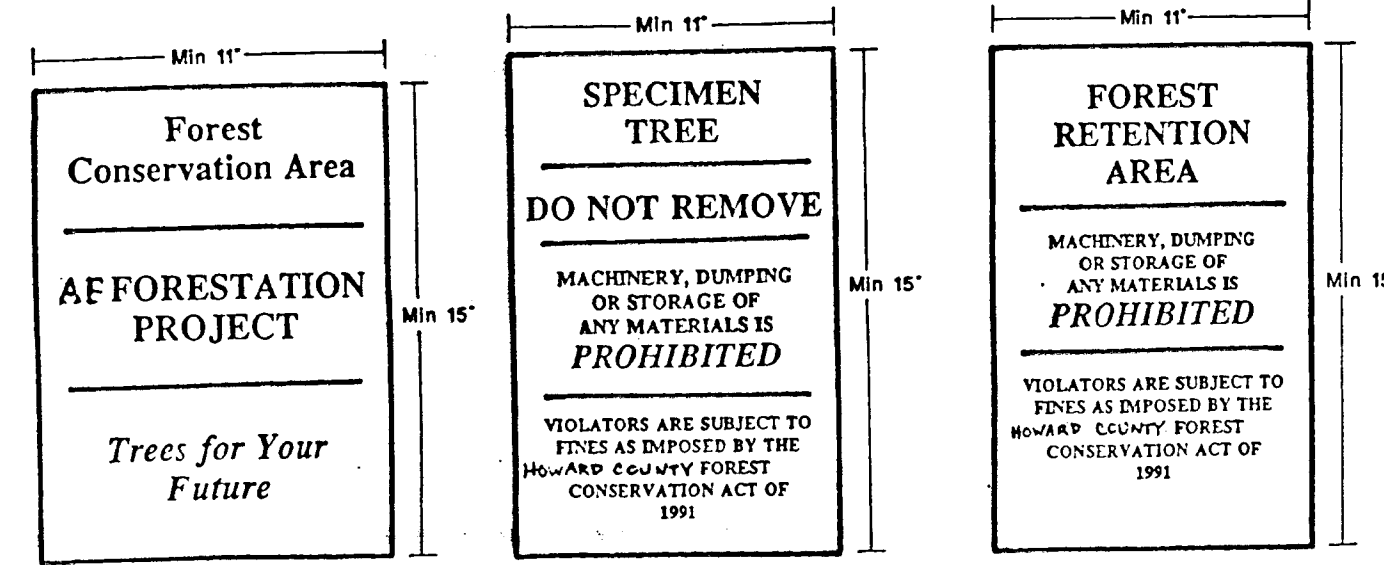
Delineation of the Critical Root Zone

Calculation of the CRZ for Isolated Specimen Trees:  
1.5 feet of protective radius per inch of DBH

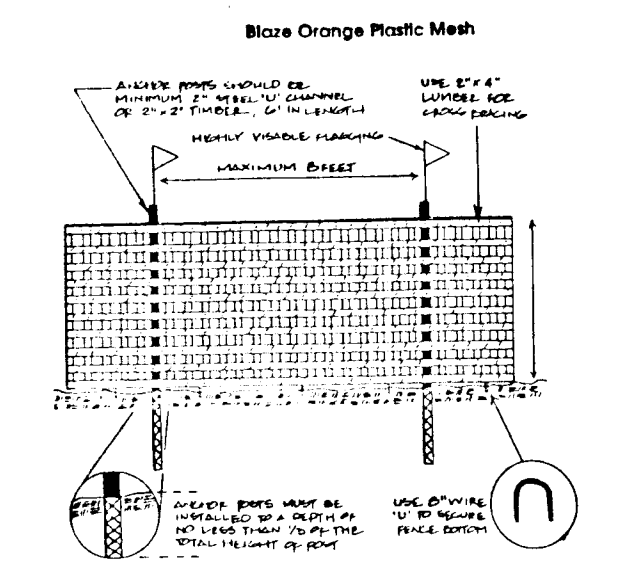
Radii for the respective trees found on the site are set forth in the table above.

Protection of the Critical Root Zone

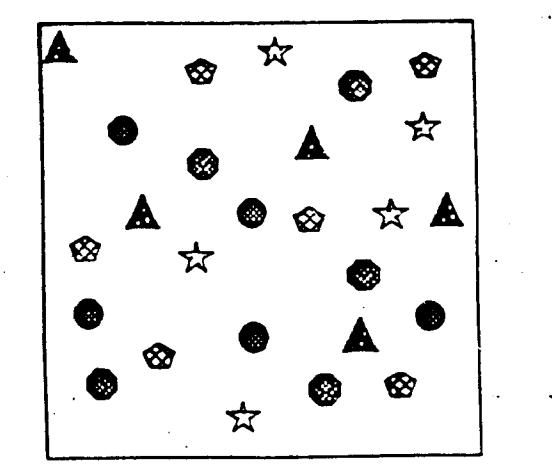
Upon determining the CRZ, blaze orange protective fencing (see Figure "Protective Fencing") shall be erected one foot from the limits of the CRZ so as to completely surround the tree or trees to be protected. No disturbance, storage, parking, or alteration of drainage of any kind shall be permitted within the CRZ. Protective Area except prior allowable root pruning. Signs designating a specimen tree protective area shall be placed atop the protective fencing at a minimum interval of 25 feet (see Figure "Signage"). No signs are to be attached to the specimen tree itself.



M.A. DIRCKS & CO., INC.  
Environmental Consulting Services  
(410) 750-2058  
2986 PEBBLE BEACH DRIVE  
ELICOTT CITY, MD 21042



PROTECTIVE FENCING



SYCAMORE/OAK  
TULIP POPLAR  
RED MAPLE  
DOGWOOD  
GREEN ASH  
TO BE PLANTED IN RANDOM DISTRIBUTION PATTERN  
RANDOM PLANTING DETAIL

PLANT LIST

ZONES A & B

Zone A: 100 Year Floodplain (approx. 0.2 acre):

QTY	SPECIES	INDICATOR STATUS	SIZE
14	Quercus phellos Willow oak	FAC+	whip
14	Cornus amomum swamp dogwood	FACW	whip/container
14	Acer rubrum Red maple	FAC	whip
14	Quercus palustris Pin oak	FACW	whip
14	Vaccinium corymbosum Highbush blueberry	FACW	container

Zone B: Upland (approx. 0.8 acres)

63	Acer rubrum Red maple	FAC	whip
63	Liriodendron tulipifera Tulip poplar or oak species	FACU	whip
63	Quercus palustris Pin oak or oak species	FACW	whip
63	Cornus florida Flowering dogwood	FACU	container
63	Prunus serotina Black cherry	FACU	container or whip

Whips should be planted an average of 11 ft on center. (see random planting detail)

1.1 acres afforestation required.

PLANTING NOTES

- Planting stock should be 3' to 4' whips and 1 1/2 to 2 gallon container stock at a minimum.
- Only composted mulch may be used.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker*  
CHIEF, BUREAU OF HIGHWAYS  
ANDREW DANEKER  
8-1-05 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Tirinnanzi*  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
GINA TIRINNANZI  
8/8/05 DATE

*Charles Dammers*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHARLES DAMMERS  
8/4/05 DATE

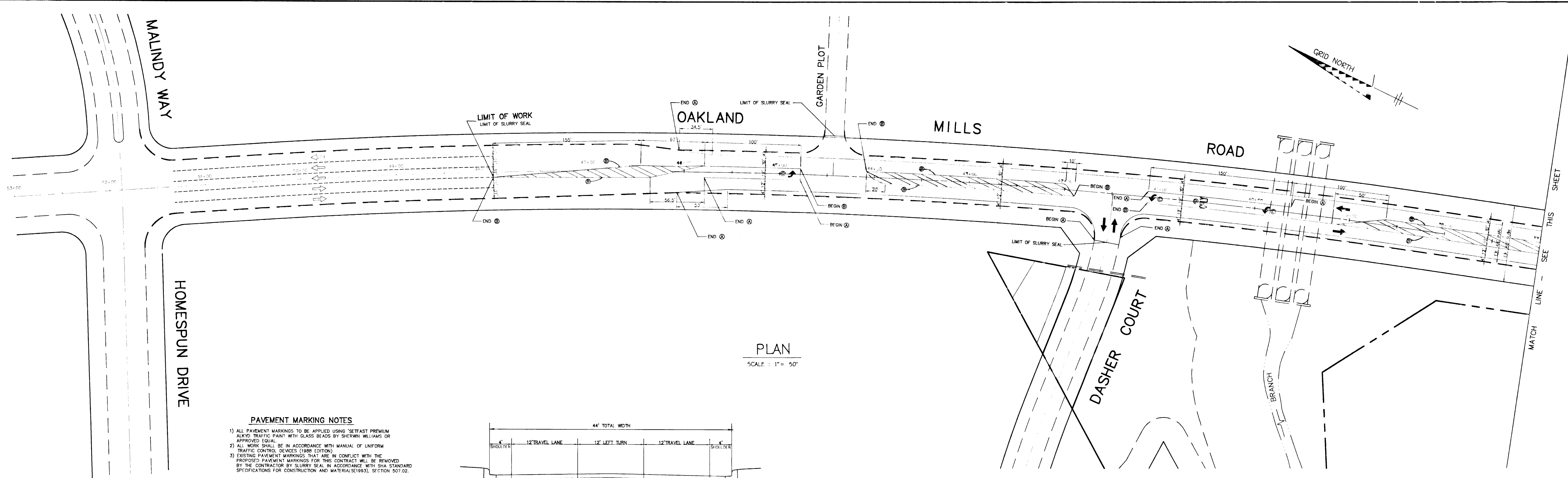
NO	DATE	REVISION

TSA GROUP, INC.  
planning • architecture • engineering • surveying  
8480 Baltimore National Pike • Ellicott City, Maryland 21045 • (410) 465-8100

OWNER: GEORGE AND MARIE DASHER 6658 OAKLAND HILLS ROAD COLUMBIA, MARYLAND 21045 AND BALTIMORE GAS AND ELECTRIC COMPANY 7152 WINDSOR BLVD. BALTIMORE, MARYLAND 21207	PROJECT: <b>DASHER HOMESTEAD</b> LOTS 1-27
DEVELOPER: SDC GROUP, INC. P.O. BOX 417 ELICOTT CITY, MARYLAND 21043	LOCATION: TAX MAP 36 PARCEL 69 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DES: DAM DRN: JWG	TITLE: <b>FOREST CONSERVATION PLAN</b> 5-94-11 P-94-17 F-94-117 FDP 146-A-11 DATE: MARCH 31, 1994 PROJECT NO. 558 NOVEMBER 28, 1994 SCALE: AS SHOWN DRAWING 12 OF 12

1744

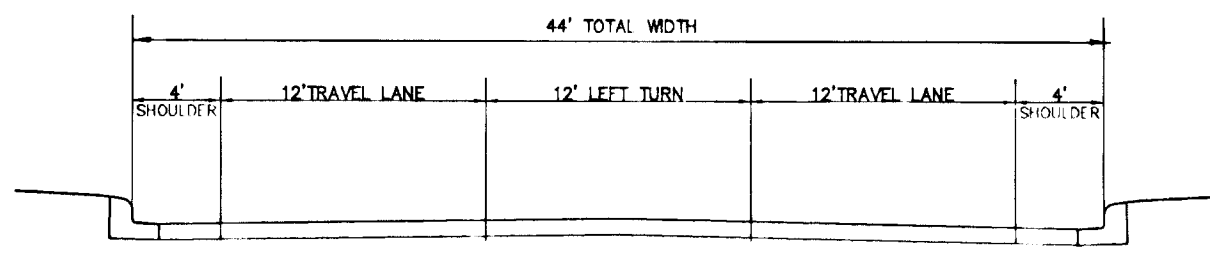




PLAN  
SCALE: 1" = 50'

**PAVEMENT MARKING NOTES**

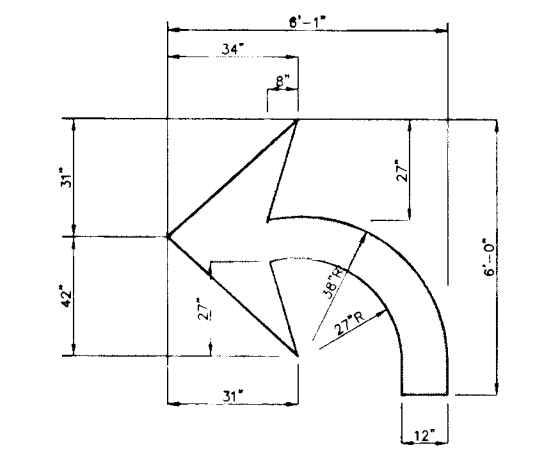
- 1) ALL PAVEMENT MARKINGS TO BE APPLIED USING "SETFAST PREMIUM ALKYLID TRAFFIC PAINT WITH GLASS BEADS BY SHERWIN WILLIAMS OR APPROVED EQUAL.
- 2) ALL WORK SHALL BE IN ACCORDANCE WITH MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (1988 EDITION).
- 3) EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS FOR THIS CONTRACT WILL BE REMOVED BY THE CONTRACTOR BY SLURRY SEAL, IN ACCORDANCE WITH SH&S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (1993), SECTION 507.02.



THREE LANE PROFILE  
NO SCALE

**NOTE:**  
CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO HOWARD COUNTY CHIEF, TRAFFIC DIVISION PRIOR TO STARTING CONSTRUCTION.

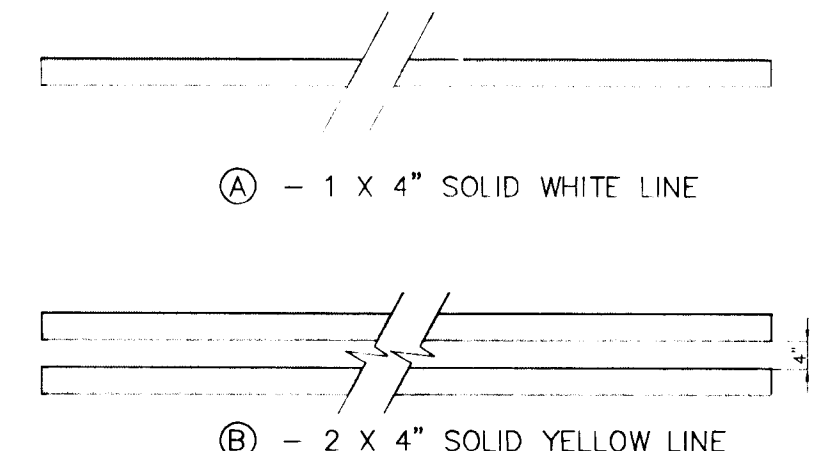
- LEGEND**
- ⊙ - PAVEMENT LINES - 4" WHITE SOLID
  - ⊙ - PAVEMENT LINES - 4" YELLOW SOLID
  - ⊙ - PAVEMENT SYMBOL - LEFT TURN LANE
  - ⊙ - PAVEMENT SYMBOL - ONLY



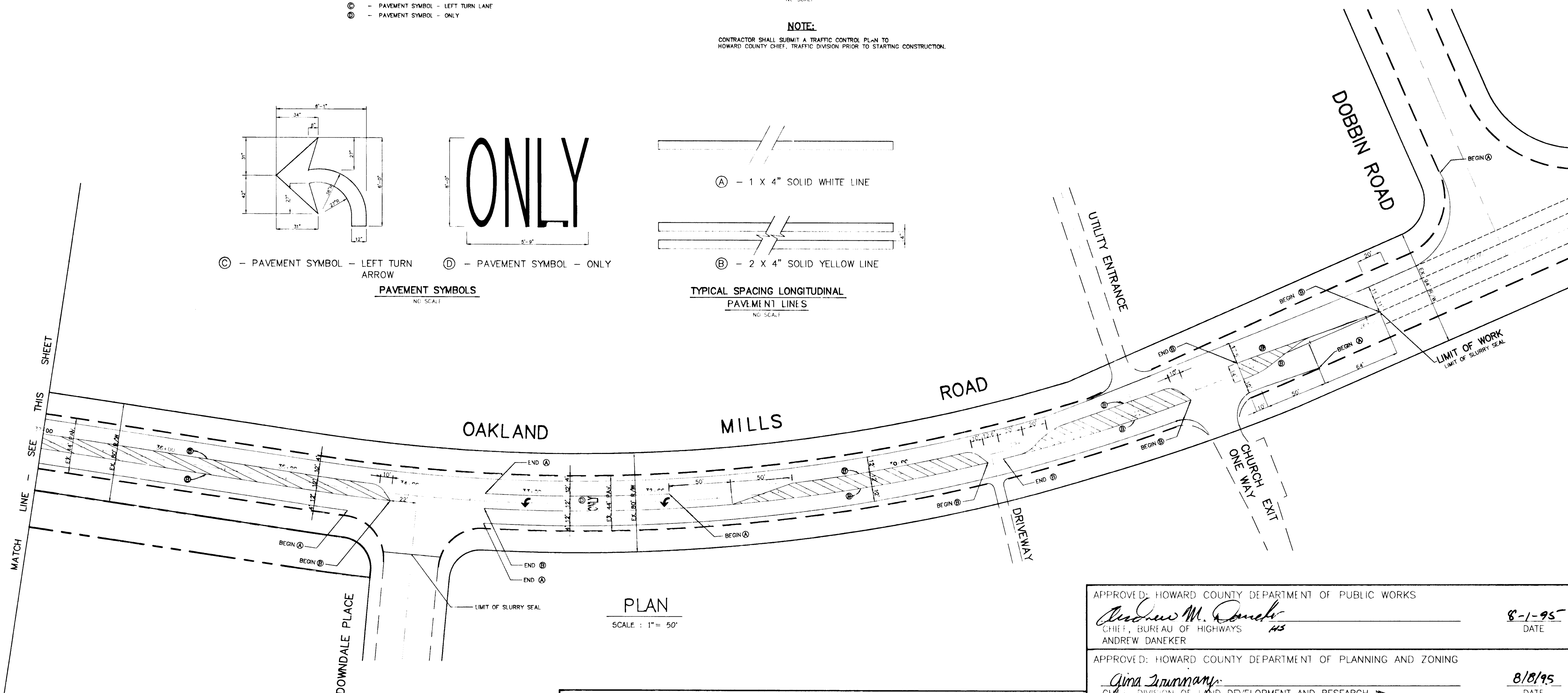
⊙ - PAVEMENT SYMBOL - LEFT TURN ARROW  
NO SCALE

**ONLY**

⊙ - PAVEMENT SYMBOL - ONLY  
NO SCALE



TYPICAL SPACING LONGITUDINAL PAVEMENT LINES  
NO SCALE



PLAN  
SCALE: 1" = 50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*C. Edward Walter*  
CHIEF, TRAFFIC ENGINEERING  
C.E. WALTER

8/14/95  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Danek*  
CHIEF, BUREAU OF HIGHWAYS  
ANDREW DANEKER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Trinnaman*  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
GINA TRINNAMAN

*Charles Dammers*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHARLES DAMMERS

8-1-95  
DATE

8/8/95  
DATE

8/14/95  
DATE

NO.	DATE	REVISION

TSA GROUP, INC.  
planning • architecture • engineering • surveying  
6480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410)465-6105

OWNER: GEORGE AND MARIE DASHER  
6668 OAKLAND MILLS ROAD  
COLUMBIA, MARYLAND 21045  
AND  
BALTIMORE GAS AND ELECTRIC COMPANY  
7152 WINDSOR BLVD.  
BALTIMORE, MARYLAND 21207

DEVELOPER/CONTRACT PURCHASER:  
S D C GROUP INC.  
P.O. BOX 417  
ELLICOTT CITY, MARYLAND 21041

**DASHER HOMESTEAD**  
LOTS 1-27

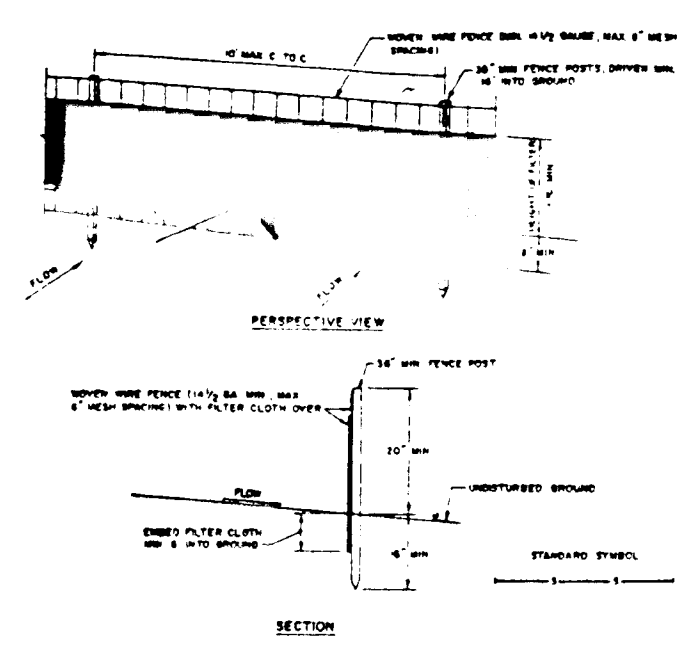
LOCATION:  
TAX MAP 36 - PARCEL 69  
9TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE:  
**STRIPING PLAN**

5-94-11 P-94-17 F-94-117 FDP 146-A-II  
DATE: JUNE 28, 1992 PROJECT NO. 0558  
SCALE: AS SHOWN DRAWING 13 OF 13

1744



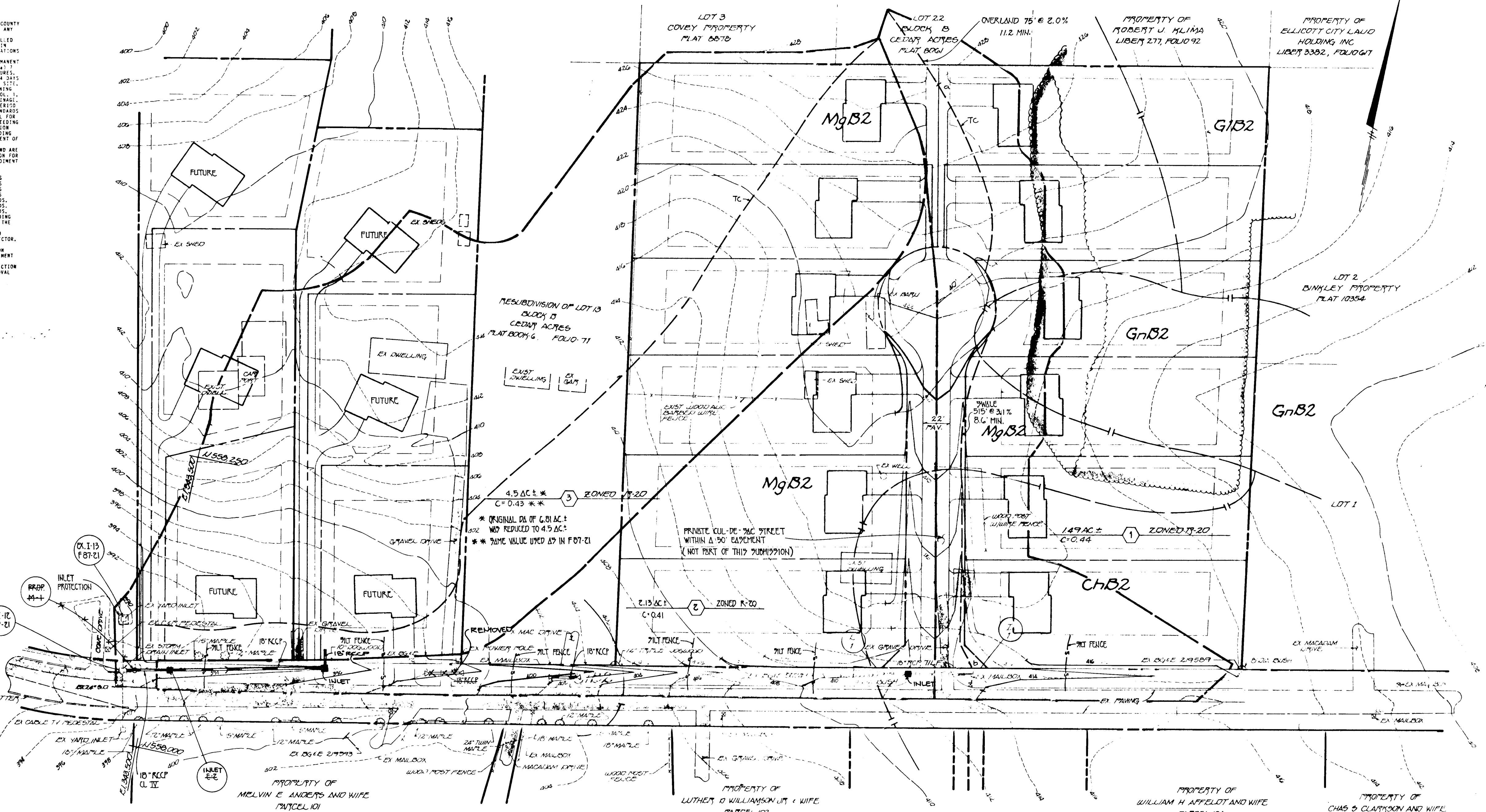
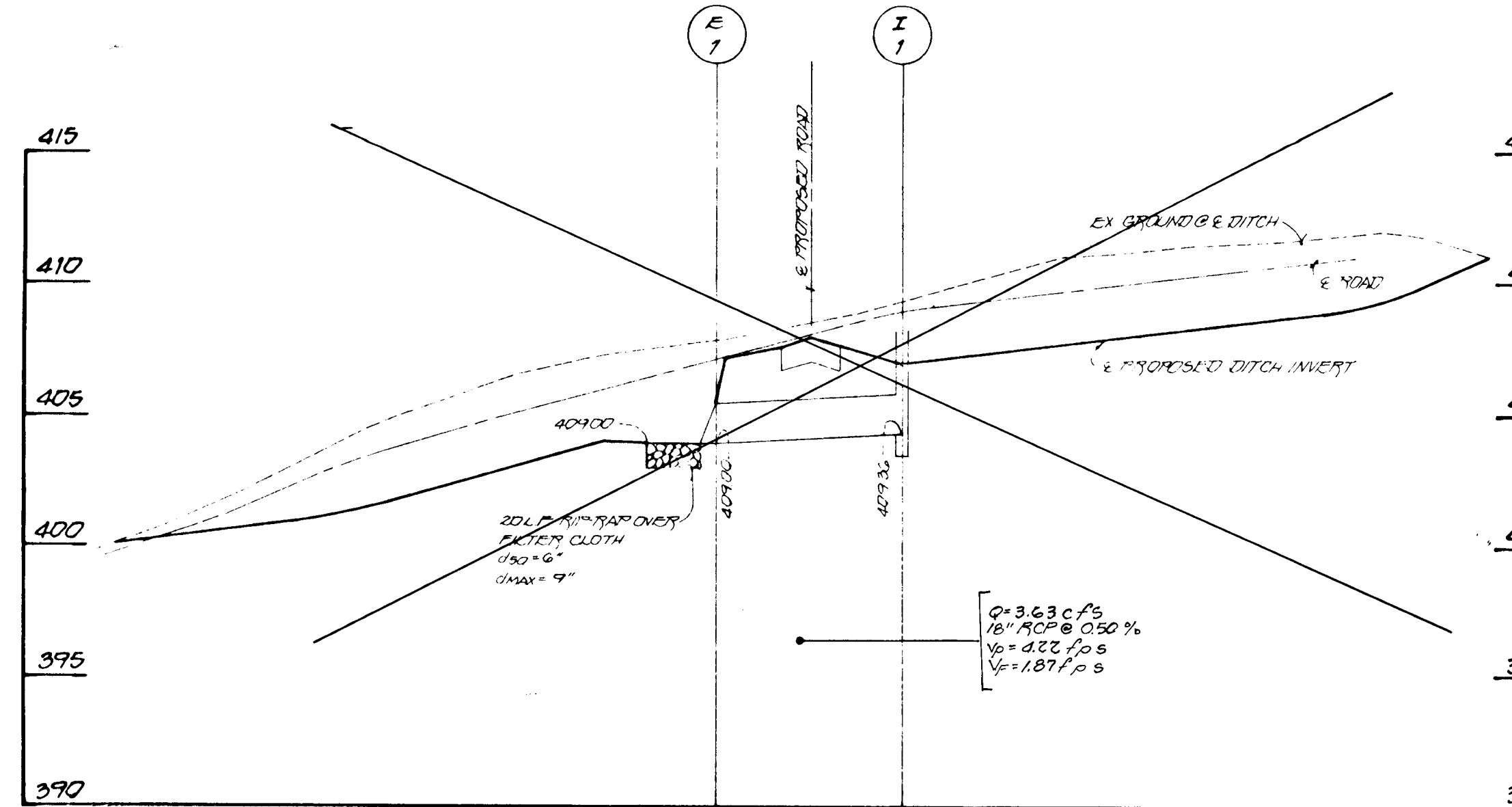


1. WHEN THE FENCE IS PLACED BEHIND THE POSTS WITH THE TIES OF STAPLES.
2. FILTER FABRIC TO BE PLACED BEHIND THE POSTS WITH THE TIES OF STAPLES.
3. WHEN THE SECTIONS OF FILTER FABRIC ARE PLACED BEHIND THE POSTS, THEY SHOULD BE LAPPED BY SIX INCHES AND FILLED.
4. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO KEEP THE FENCE IN PROPER ORDER.

**SILT FENCE**  
NOT TO SCALE

**SEDIMENT CONTROL NOTES**

1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (1992-2437).
2. ALL PERMITS AND STRUCTURAL PRACTICES ARE TO BE INSTALLED CONFORMING WITH THE 1989 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. FOLLOWING MINIMUM SOIL DISTURBANCE OR ACTIVATION: PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 DAYS OF THE DATE OF SOIL DISTURBANCE OR ACTIVATION. PERIMETER SLOPES AND ALL AREAS GREATER THAN 2% SLOPE SHALL BE MULCHED OR COVERED WITHIN 14 DAYS OF SOIL DISTURBANCE OR ACTIVATION. ALL SEDIMENT TRAPS/BASINS SHALL BE FENCED AND MAINTAINED THROUGHOUT THEIR PERMITS. IN ACCORDANCE WITH TITLE 28, CHAPTER 22 OF THE HOWARD COUNTY DESIGN MANUAL, TYPICAL DRAINAGE AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL ARE SPECIFIED ABOVE IN ACCORDANCE WITH THE 1989 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. TEMPORARY SEEDINGS (SEC. 531.500 (SEC. 541), TEMPORARY SEEDING (SEC. 500) AND MULCHING (SEC. 521), TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER SEEDING AND ESTABLISHMENT OF GRASSES.
4. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
5. SITE ANALYSIS:  
TOTAL AREA OF SITE: 0.40 ACRES  
AREA DISTURBED: 0.40 ACRES  
AREA TO BE ROOFED OR PAVED: 0.40 ACRES  
TOTAL CUT: 0.40 ACRES  
TOTAL FILL: 0.40 ACRES  
OFFSITE WASTE/DRAINAGE AREA LOCATION: 0.40 ACRES
6. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
7. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES.
8. APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUIRED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.



**ENGINEER'S CERTIFICATE**  
"I 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 COUNTY CONSERVATION DISTRICT."  
*Clary*  
SIGNATURE OF ENGINEER  
DATE

**DEVELOPER'S CERTIFICATE**  
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEGINSING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT."  
*Paul D. Reed*  
SIGNATURE OF DEVELOPER  
DATE 6/26/95

REVIEW FOR HOWARD COUNTY CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS:  
*Patricia Engle*  
DATE 7/27/95

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY CONSERVATION DISTRICT:  
*John R. Chaston*  
DATE 7/27/95

APPROVED DEPARTMENT OF PLANNING AND ZONING:  
*Richard Blood*  
DATE 8/1/95

APPROVED DEPARTMENT OF PLANNING & ZONING:  
*Robert Thomas*  
DATE 7/26/95

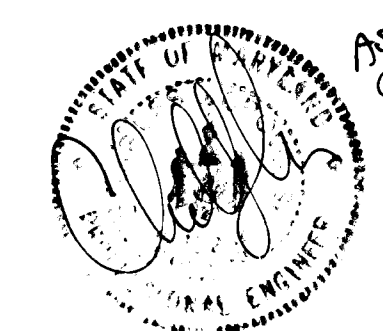
APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS:  
*Christopher M. Kuehl*  
DATE 7-19-95

**SOILS CHART**

MAP SYMBOL	DESCRIPTION
ChB2	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
G1B2	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
G2B2	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgB2	MAMBA GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED

GRADING, DRAINAGE AREAS, SEDIMENT CONTROL, AND SOILS MAP  
**CLARY'S DISCOVERY**  
V  
TAX MAP 35 PART OF PARCELS 941-95  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY MARYLAND  
DATE MAY 1995  
SCALE AS SHOWN  
SHEET 2 OF 2

**OWNER/DEVELOPER**  
HARMEL INCORPORATED  
900 MARY MATHY TRAIL  
COLUMBIA, MARYLAND 21044



**F-95-85**

**1743**

**FISHER, COLLINS & CARTER, INC.**  
971 BALTIMORE NATIONAL BLDG. SUITE 100  
BELLEVILLE, MISSOURI 63703

AS-BUILT