

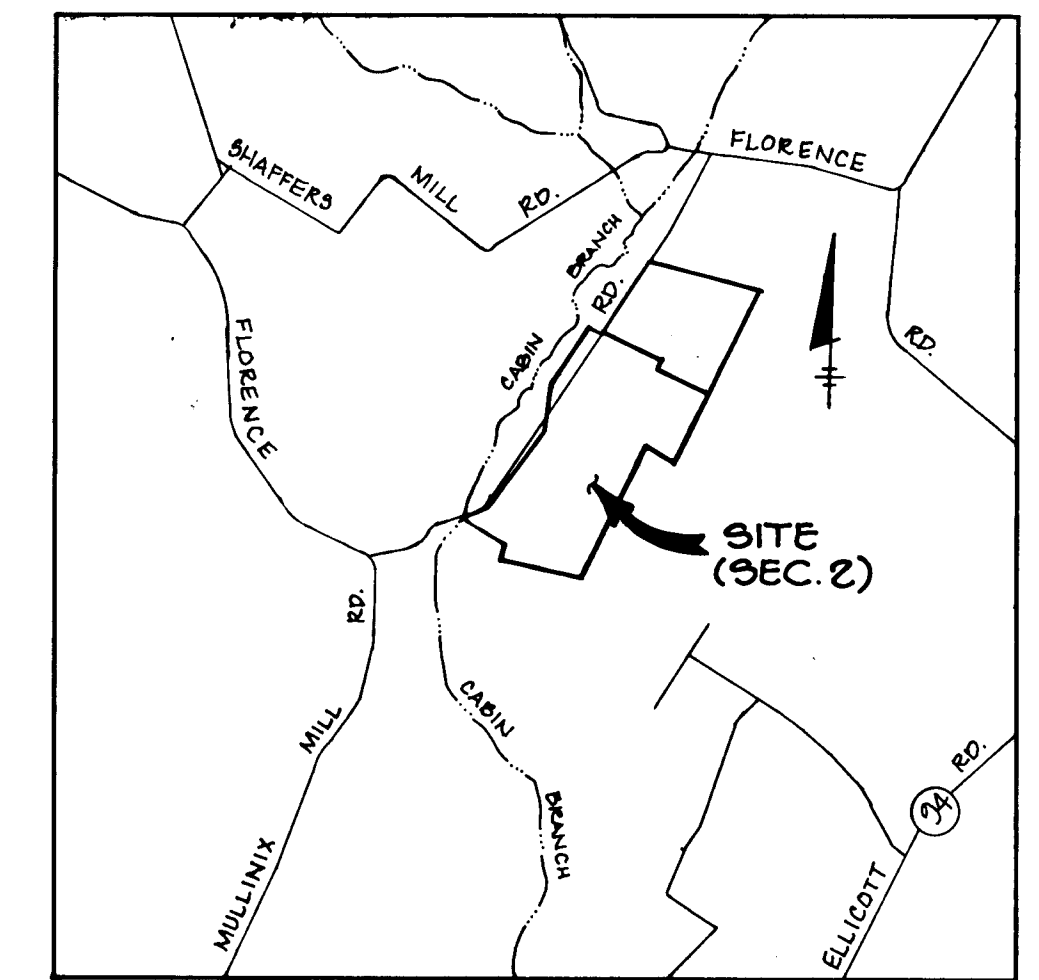
INDEX OF SHEETS	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN & PROFILE - FLORENCE ROAD (9+57 TO 23+00)
3	PLAN & PROFILE - FLORENCE ROAD (23+00 TO 33+56.72)
4	PLAN & PROFILE - HORSESHOE BEND CT. (0+00 TO 7+01.19)
5	PLAN & PROFILE - BRIDLE BROOK CT. (0+00 TO 5+90.89)
6	GRADING, SEDIMENT CONTROL PLAN & DETAILS
7	GRADING, SEDIMENT CONTROL & STORM DRAIN PROFILES
8	GRADING, SEDIMENT CONTROL PLAN & DETAILS
9	GRADING, SEDIMENT CONTROL PLAN & DETAILS
10	DRAINAGE AREA MAP & STORM DRAIN PROFILES
11	STORM DRAIN PROFILES & DETAILS
12	PROFILES & DETAILS

ROADS AND STORM DRAINS

SECTION TWO

BRIDLE BROOK ESTATES

LOTS 8-23 & PARCEL A 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP

SCALE: 1"=2000'

BENCH MARKS

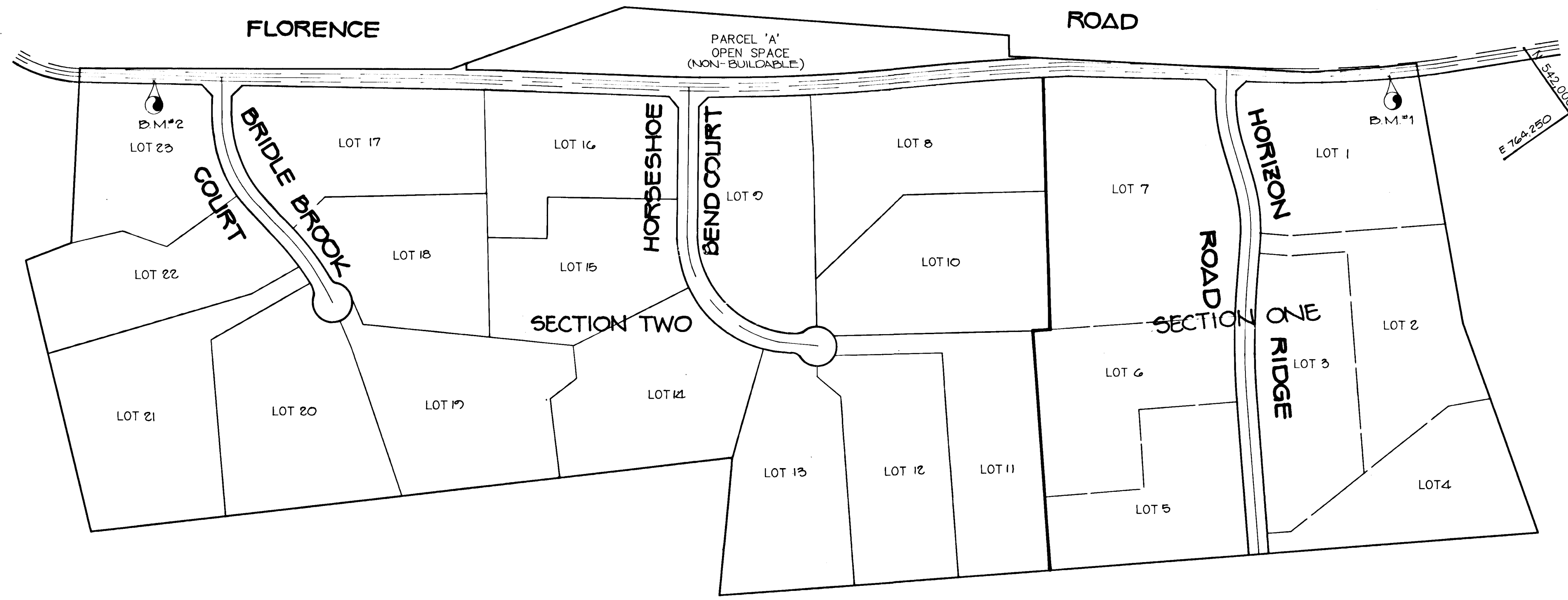
B.M.#1 ELEV. 620.21
R.R. SPIKE SET IN EX. PAVING
OPPOSITE E. STA. 0+52: FLORENCE
ROAD (TRAVERSE STA. #206)

B.M.#2 ELEV. 608.97
R.R. SPIKE SET IN EX. PAVING
OPPOSITE E. STA. 31+70: FLORENCE
ROAD (TRAVERSE STA. #201)

- GENERAL NOTES**
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, 1989 AS AMENDED.
 - APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED TO THE CONTRACTOR'S OBLIGATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 - MISS UTILITY 1-800-257-7777
 - BELL TELEPHONE SYSTEM 393-3669
 - LONG DISTANCE CABLE DIVISION 393-3333 or 3354
 - BALTIMORE GAS AND ELECTRIC CO. 539-8000, ext. 691
 - HOWARD COUNTY BUREAU OF UTILITIES 992-2366
 - HOWARD COUNTY CONSTRUCTION 992-2772
 - INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK) 992-1390
 - ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
 - ALL STREET CURB RETURNS SHALL HAVE 35.0' RADIUS UNLESS OTHERWISE NOTED.
 - STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
 - INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 1984 REVISED EDITION.
 - PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
 - DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:

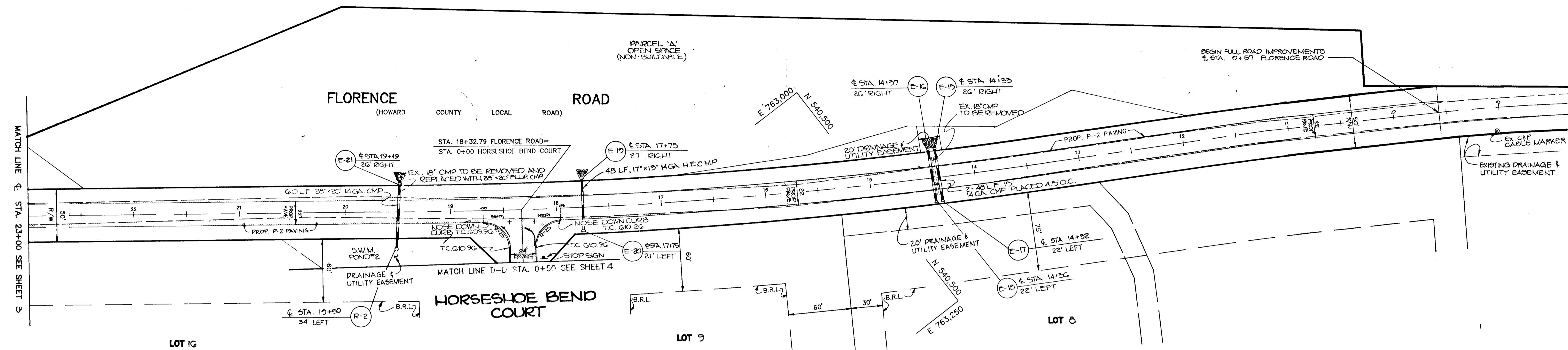
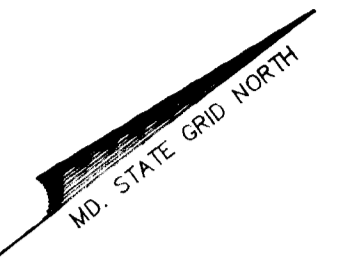
ALL 50' RIGHT-OF-WAYS	30	M.P.H.
-----------------------	----	--------
 - ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
 - ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
 - SUBJECT PROPERTY ZONED PER B-2-85 COMPREHENSIVE ZONING PLAN.
 - TOPO TAKEN FROM FIELD SURVEY DATED MAR, 1989 BY RYANER LUEGGE & ASSOC., INC.
 - NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
 - ALL STORM DRAIN PIPE BEYOND SHALL BE CLASS 'C' AS SHOWN IN FIG. 11-4, VOLUME I OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
 - SEE OFFICE OF PLANNING AND ZONING FILE NOS. 5-88-118, P. 05-62
 - PROVIDE DRIVEWAY CULVERTS AS FOLLOWS:

LOT 18	26" x 22" HECMP, 14 GA.
LOT 11	18" x 14" CMP, 14 GA.
LOT 8	24" x 18" CMP, 14 GA.
 - ALL C.M. PIPES CONTAINED ON THESE PLANS TO BE BITUMINOUS COATED.

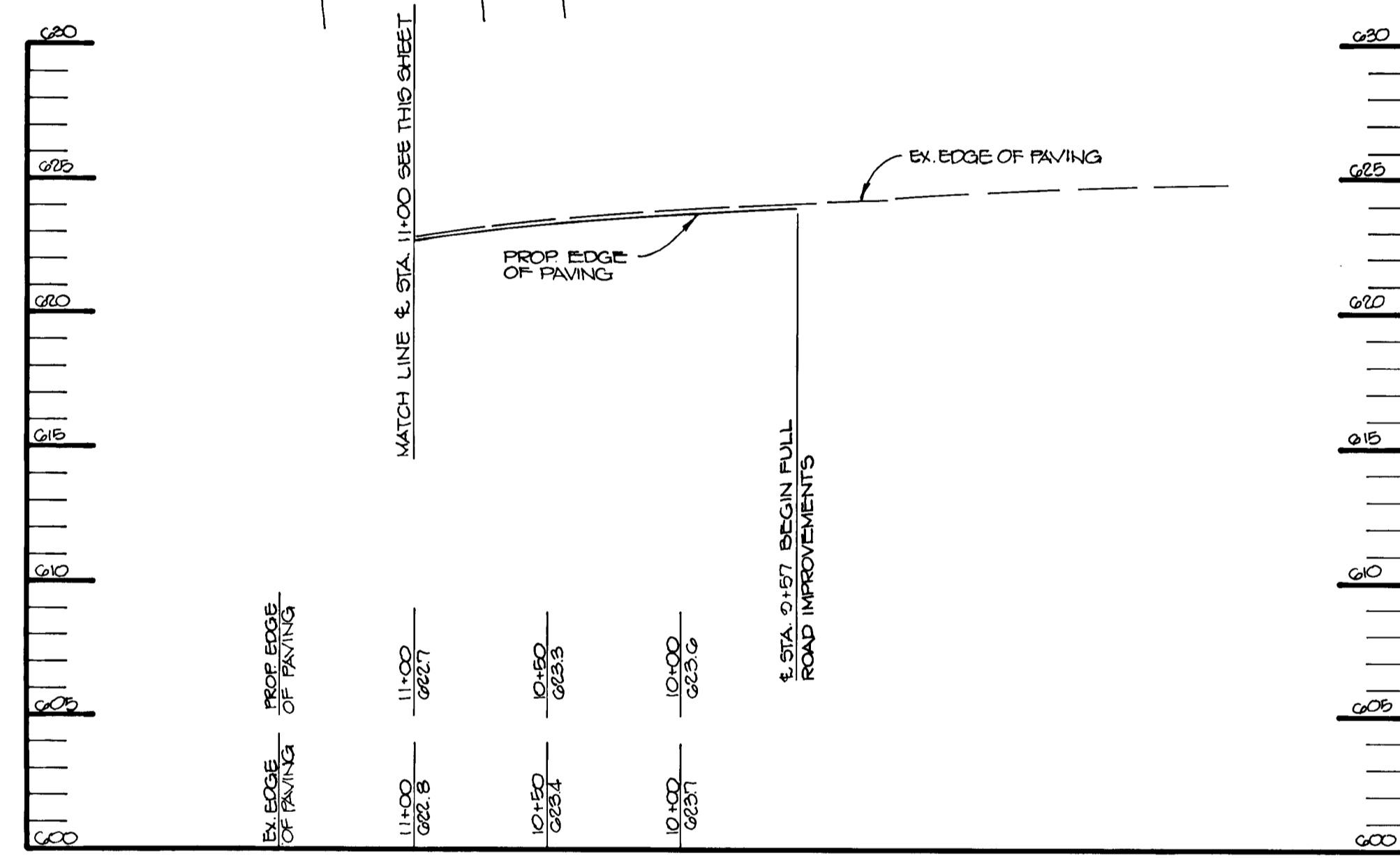


PLAN
SCALE: 1"=200'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING		
<i>David J. Anglin</i>	12/3/90	DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT		
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS		
<i>Charles Danner</i>	11/20/90	DATE
CHIEF, LAND DEVELOPMENT DIVISION		
<i>Francis W. Welland</i>	11/6/90	DATE
CHIEF, BUREAU OF HIGHWAYS		
<i>William E. Riley</i>	11-20-90	DATE
CHIEF, BUREAU OF ENGINEERING		
DATE	NO.	REVISION
OWNER/DEVELOPER		
GREGG McCARRON 2404 FLORENCE RD. MT. AIRY, MARYLAND 21171		POTOMAC DEVELOPMENT CO. 1015 COPPERSTONE COURT ROCKVILLE, MARYLAND 20852
PROJECT: 588-118 SECTION TWO F 87-62 BRIDLE BROOK ESTATES LOTS 8-23 AND PARCEL A		
AREA TAX MAP 12 ZONED R PARCELS 13 & 23 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE: TITLE SHEET		
RIEMER MUEGGE & ASSOCIATES, INC. A Land Planning, Engineering and Consulting Firm 3105 North Ridge Road Ellicott City, Maryland 21043 301-461-2690 FAX: 301-750-3176		
10-3-90 DATE	DESIGNED BY: D.B.S.	
DRAWN BY: C.A.D.D./		
PROJECT NO: 52303		
DATE: AUGUST 24, 1990		
SCALE: AS SHOWN		
DRAWING NO. 1 OF 12		
ARTHUR E. MUEGGE #2707		



PLAN
SCALE: 1"=50'



FLORENCE ROAD
(HOWARD COUNTY LOCAL ROAD)
30 M.P.H. DESIGN SPEED
ZONED R

PROFILE
SCALE: HOR: 1"=50'
VER.: 1"=5'

23+00	612.7
22+50	612.3
22+00	611.7
21+50	610.8
21+00	610.2
20+50	609.6
20+00	609.1
19+50	608.9
19+00	608.7
18+50	609.3
18+00	609.7
17+50	610.3
17+00	611.4
16+50	613.2
16+00	614.7
15+50	615.7
15+00	616.2
14+50	616.7
14+00	616.7
13+50	617.4
13+00	618.5
12+50	620.0
12+00	621.0
11+50	622.0
11+00	622.7

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APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Paul J. Mangle 12/1/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chad Dorman 11/2/90
 CHIEF, LAND DEVELOPMENT DIVISION

Brantley W. Heiland 11/6/90
 CHIEF, BUREAU OF HIGHWAYS

William E. Riley 11-20-90
 CHIEF, BUREAU OF ENGINEERING

DATE NO REVISION

OWNER/DEVELOPER
 GREGG McCARRON POTOMAC DEVELOPMENT CO.
 2404 FLORENCE RD 1015 COPPERSTONE COURT
 MT. AIRY, MARYLAND ROCKVILLE, MARYLAND
 21771 20852

PROJECT: 500-110 SECTION TWO P. 07-02
BRIDLE BROOK ESTATES
 LOTS 8-22 & PARCEL A
 AREA TAX MAP 12 ZONED R PARCELS 13 & 23
 4TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **PLAN AND PROFILE**
FLORENCE ROAD
 STA. 9+57 TO STA. 23+00

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 3105 North Ridge Road Ellicott City, Maryland 21043
 301-461-2690 FAX: 301-750-3176

DATE: 12-1-90

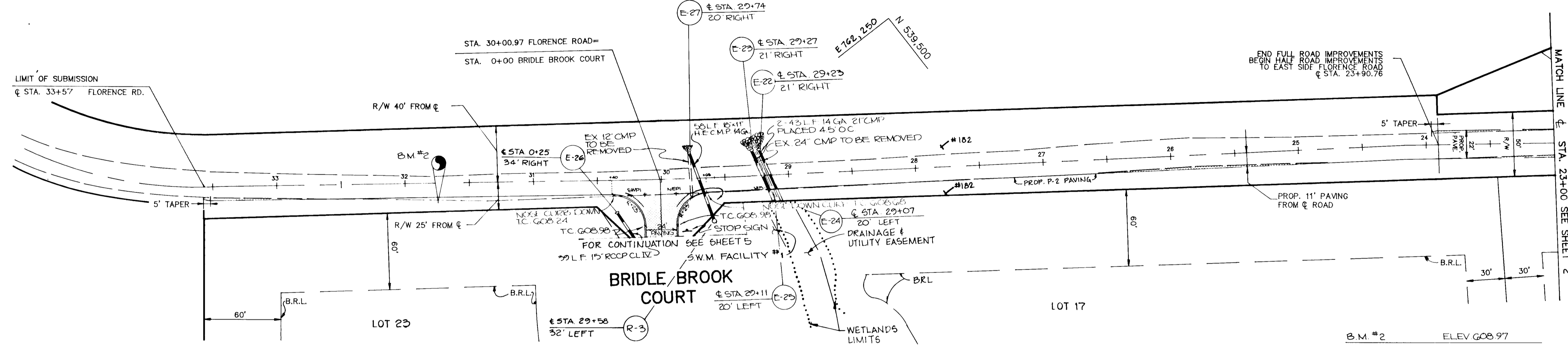
DESIGNED BY: DBS
 DRAWN BY: CADD
 PROJECT NO: 52905
 DATE: AUGUST 24, 1990
 SCALE: AS SHOWN
 DRAWING NO. 2 OF 12

ARTHUR E. MUEGGE *P.E.*

E 761.800
N 539.000

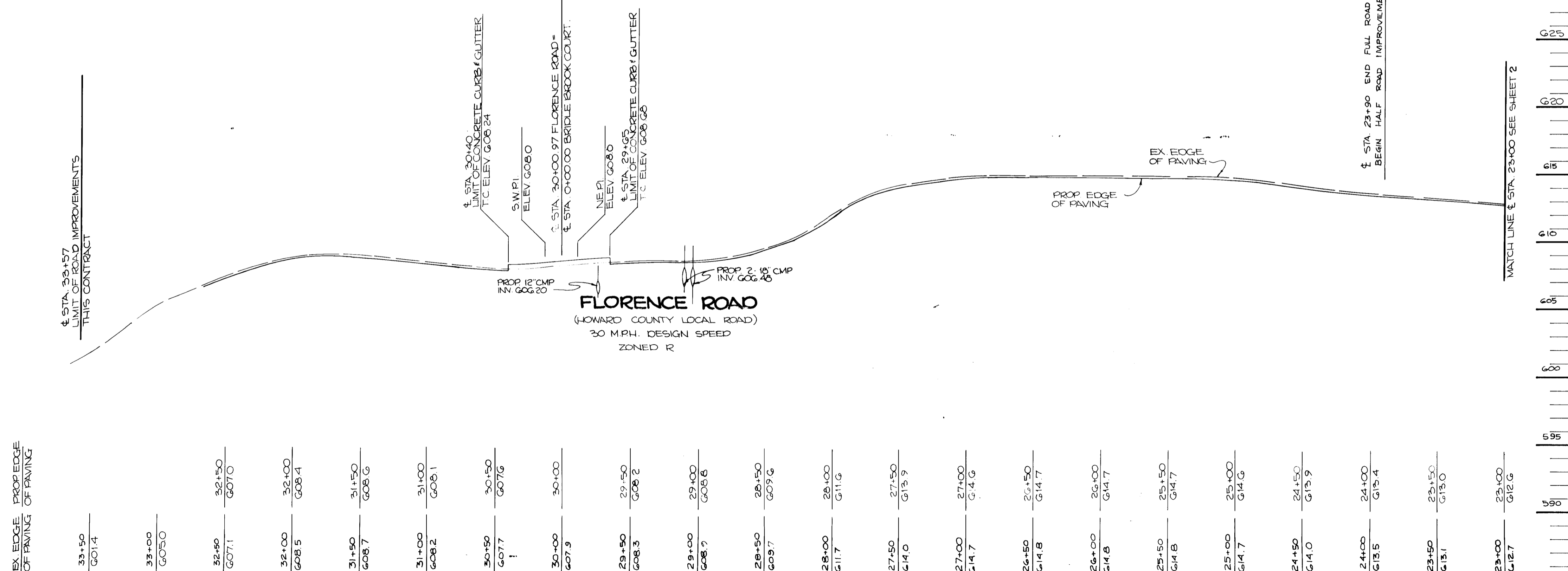
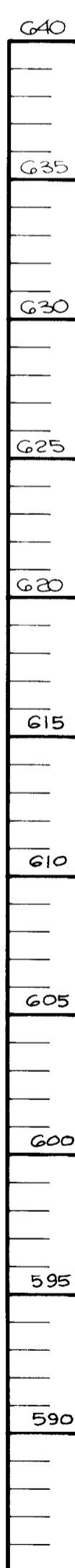
MD. STATE GRID NORTH

FLORENCE ROAD
(HOWARD COUNTY LOCAL ROAD)



PLAN
SCALE: 1"=50'

B.M. #2 ELEV 608.97
R.R. SPIKE SET IN EX. PAVING
OPPOSITE STA. 31+70.4 FLORENCE
ROAD (TRAVERSE STA. #901)



PROFILE
SCALE: HOR.: 1"=50'
VER.: 1"=5'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Carol J. Langley 11/2/90
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Charles Dammus 11/2/90
CHIEF, LAND DEVELOPMENT DIVISION

Francis W. Weiland 11/2/90
CHIEF, BUREAU OF HIGHWAYS

William E. Ryan 11-20-90
CHIEF, BUREAU OF ENGINEERING

DATE: NO. REVISION

OWNER/DEVELOPER
GREGG McCARRON POTOMAC DEVELOPMENT CO.
2424 FLORENCE RD. 1015 COPPERSTONE COURT
MT. AIRY, MARYLAND ROCKVILLE, MARYLAND
21171 20852

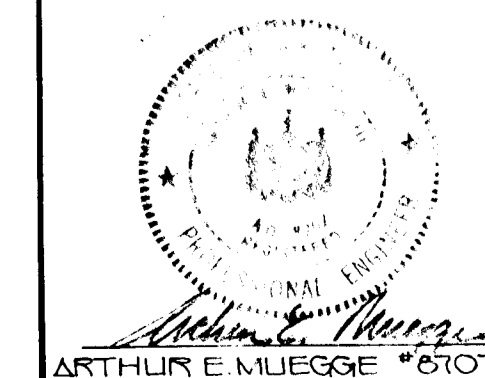
PROJECT: 58B-118 SECTION TWO P89-02
BRIDLE BROOK ESTATES
LOTS 23 & 25 PARCEL A

AREA: TAX MAP 12 ZONED R PARCELS 13 & 25
4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **PLAN & PROFILE**
FLORENCE ROAD
STA. 23+00 TO STA. 33+57

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
3105 North Ridge Road Ellicott City, Maryland 21043
301-461-2690 FAX: 301-750-3176

DATE: 11-2-90
DESIGNED BY: D.B.S.
DRAWN BY: CADD/
PROJECT NO: 52905
DATE: AUGUST 24, 1990
SCALE: AS SHOWN
DRAWING NO. 3 OF 12



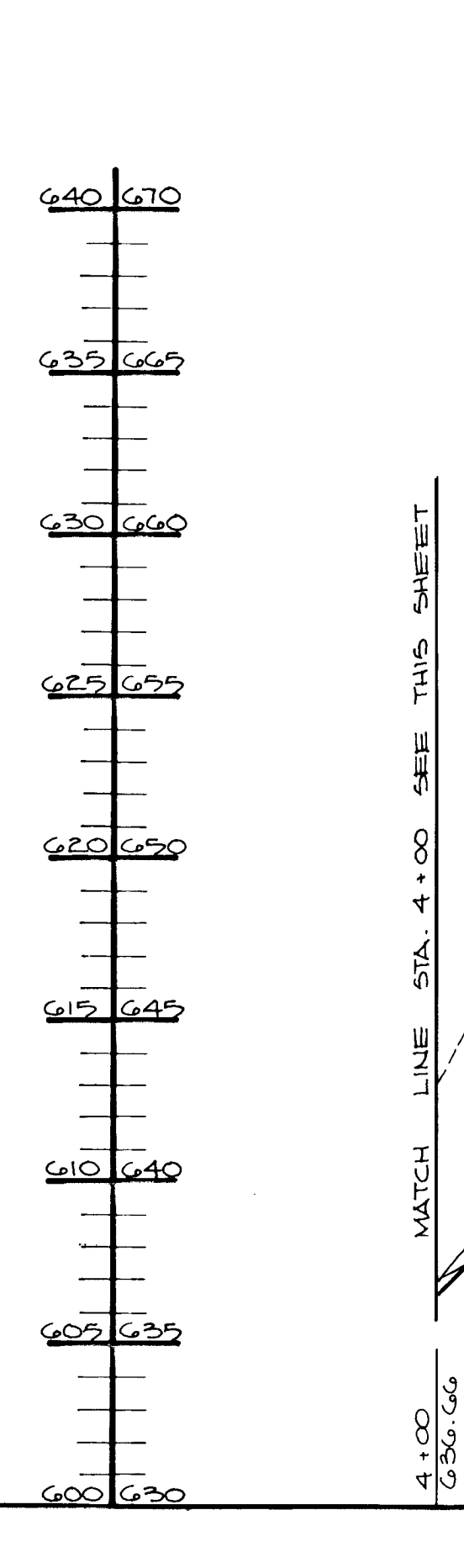
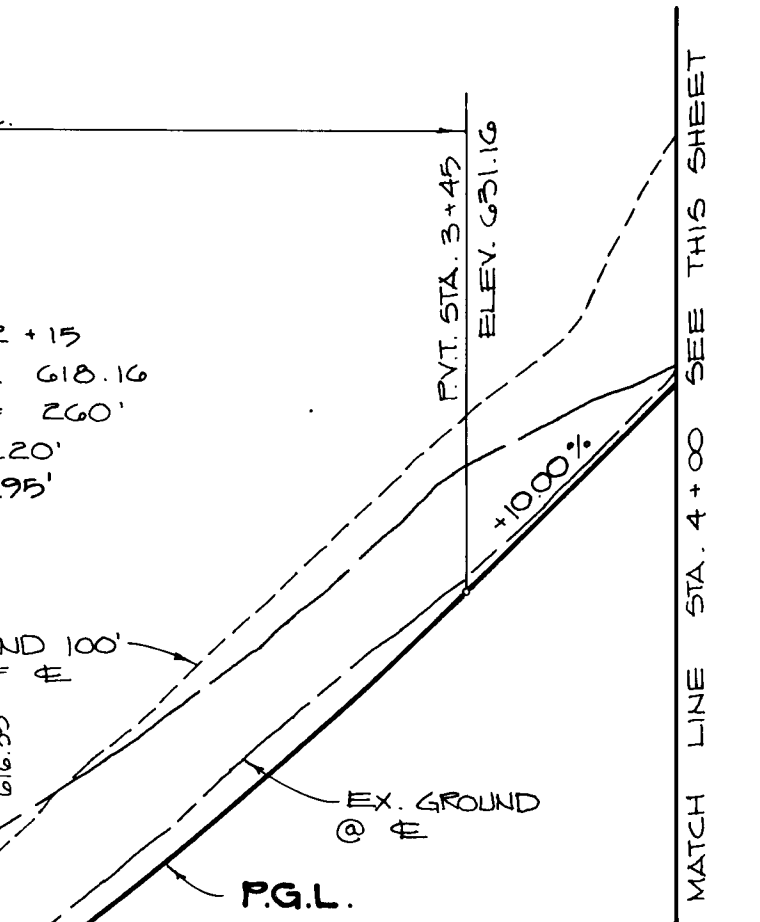
N 540,000
E 763,000

LD STATE GRID NORTH

MATCHLINE D-D STA 0+50 SEE SHEET 2

CURVE DATA
 STA. 34+61.41 TO STA. 74+70.43
 $\Delta = 85^{\circ}13'6"$
 $R = 275.00'$
 $T = 252.96'$
 $L = 409.32'$
 $Chd. = N83^{\circ}15'29"E 372.35'$

PLAN
 SCALE: 1"=50'



APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Paul J. Langley 12/1/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

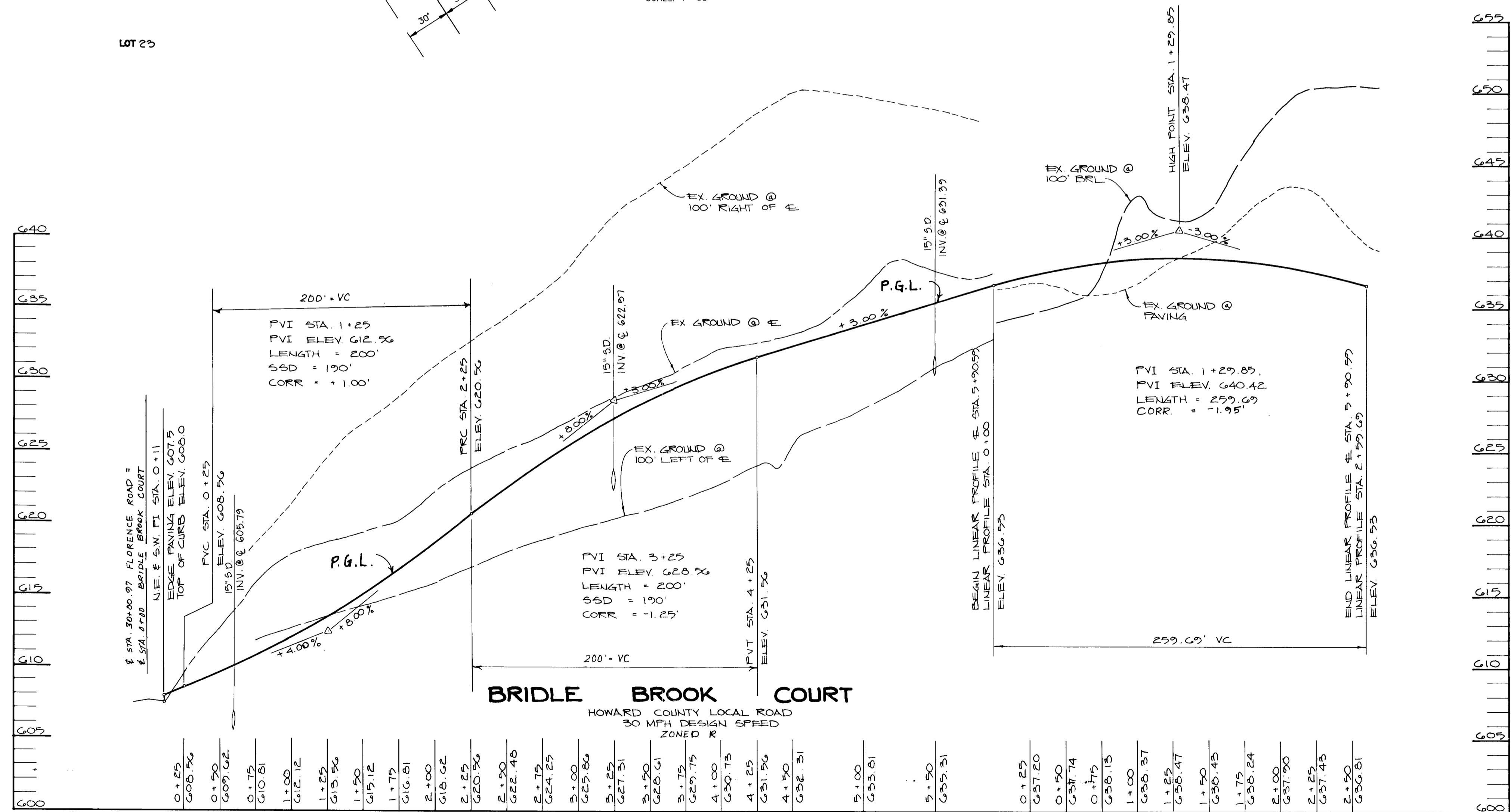
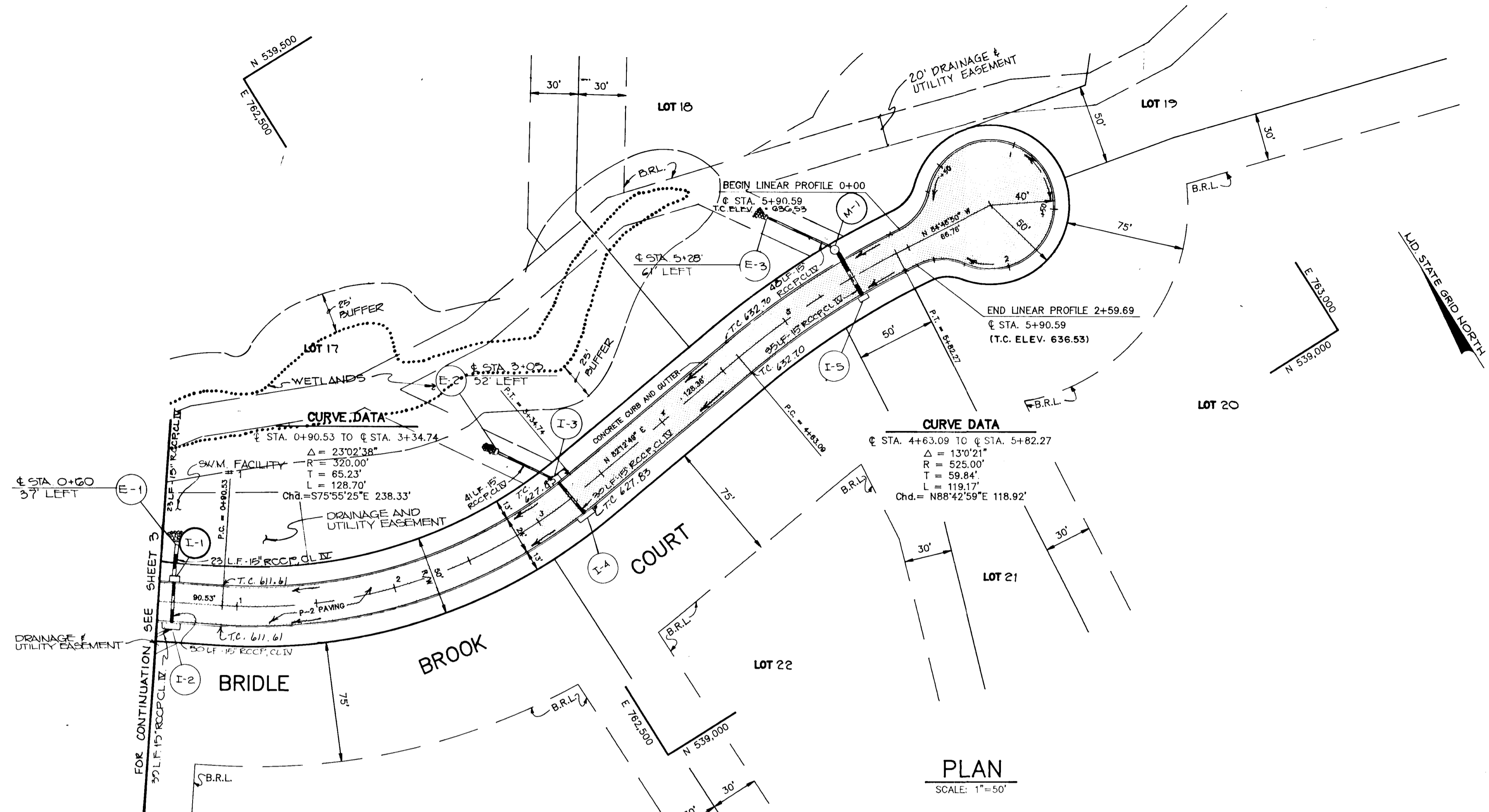
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Charles Damians 4/2/90
 CHIEF, LAND DEVELOPMENT DIVISION
Thomas W. Wansand 11/6/90
 CHIEF, BUREAU OF HIGHWAYS
William E. Riley 11-20-90
 CHIEF, BUREAU OF ENGINEERING

OWNER/DEVELOPER
 GREGG McCARRON POTOMAC DEVELOPMENT CO.
 2404 FLORENCE ROAD 1015 COPPERSTONE COURT
 MT AIRY, MARYLAND 21111 ROCKVILLE, MARYLAND 20852

PROJECT: S 85-118 SECTION TWO P 89-92
BRIDLE BROOK ESTATES
 LOTS 9 & 23 of PARCEL A
 AREA TAX MAP 12 ZONED R PARCELS 13 & 23
 4TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TITLE: **PLAN & PROFILE**
HORSESHOE BEND COURT
 STA 0+00 TO STA. 7+90.13

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 3105 North Ridge Road Ellicott City, Maryland 21043
 301-461-2690 FAX: 301-750-3176

DATE: 8/24/90
 DESIGNED BY: DBS
 DRAWN BY: CADD/DOS
 PROJECT NO: 52905
 DATE: AUGUST 24, 1990
 SCALE: AS SHOWN
 DRAWING NO. 4 OF 12



APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Howard County Seal
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 DATE: 11/27/90

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Howard County Seal
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE: 11/27/90

APPROVED: *William W. Weiland*
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 11/6/90

APPROVED: *William B. Eley*
 CHIEF, BUREAU OF ENGINEERING
 DATE: 11-20-90

DATE	NO.	REVISION

OWNER/DEVELOPER
 GREGG McCARRON POTOMIC DEVELOPMENT CO.
 2484 FLORENCE ROAD 1015 COPPERSTONE COURT
 MT. AIRY, MARYLAND 21111 ROCKVILLE, MARYLAND 20852

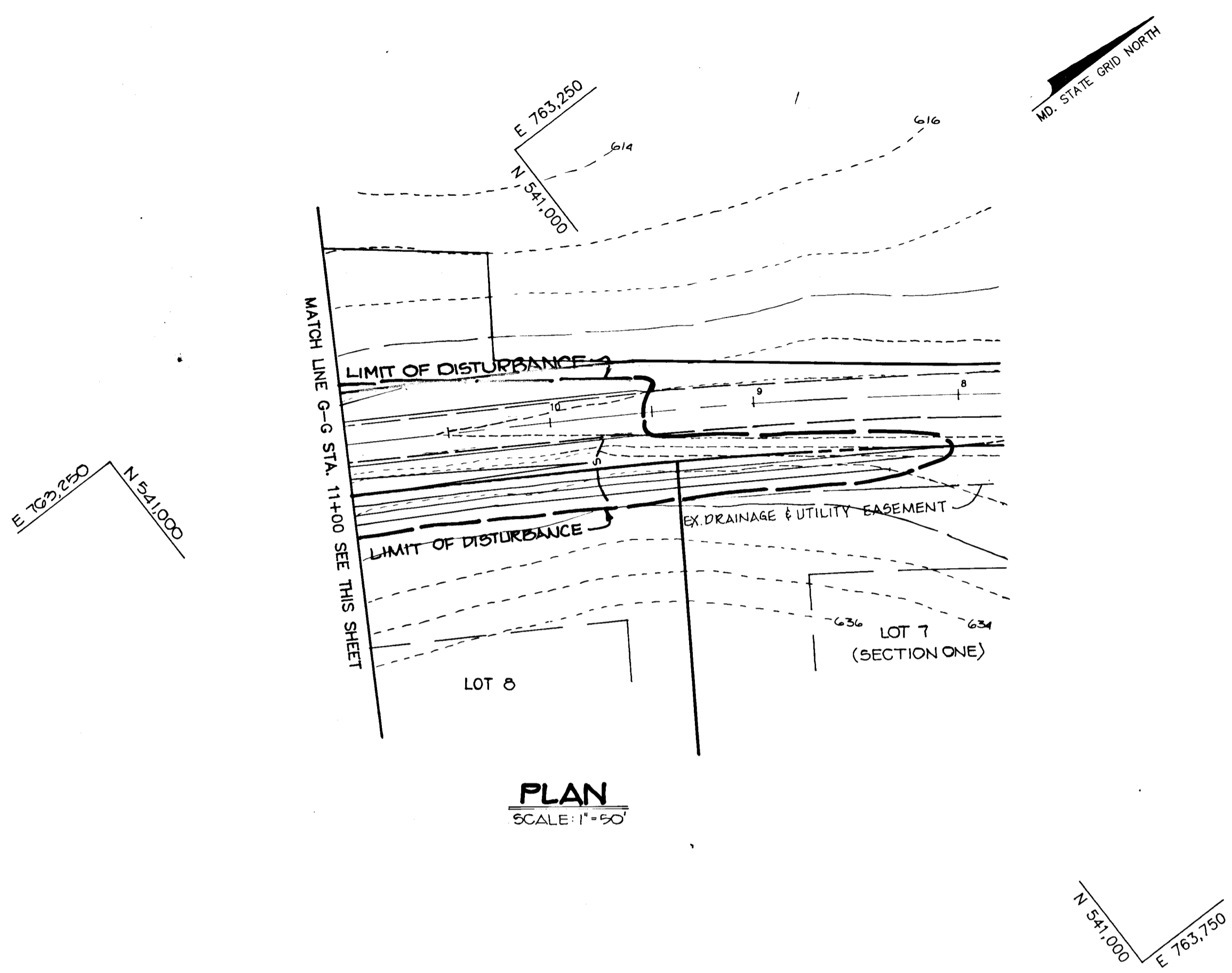
PROJECT: 500-110 SECTION TWO P07-92
BRIDLE BROOK ESTATES
 LOTS 8-25 PARCELS A
 AREA TAX MAP 12 ZONED R PARCELS 19 & 25
 4TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE:
PLAN & PROFILE
BRIDLE BROOK COURT
 STA. 0+00 TO STA. 5+70.57

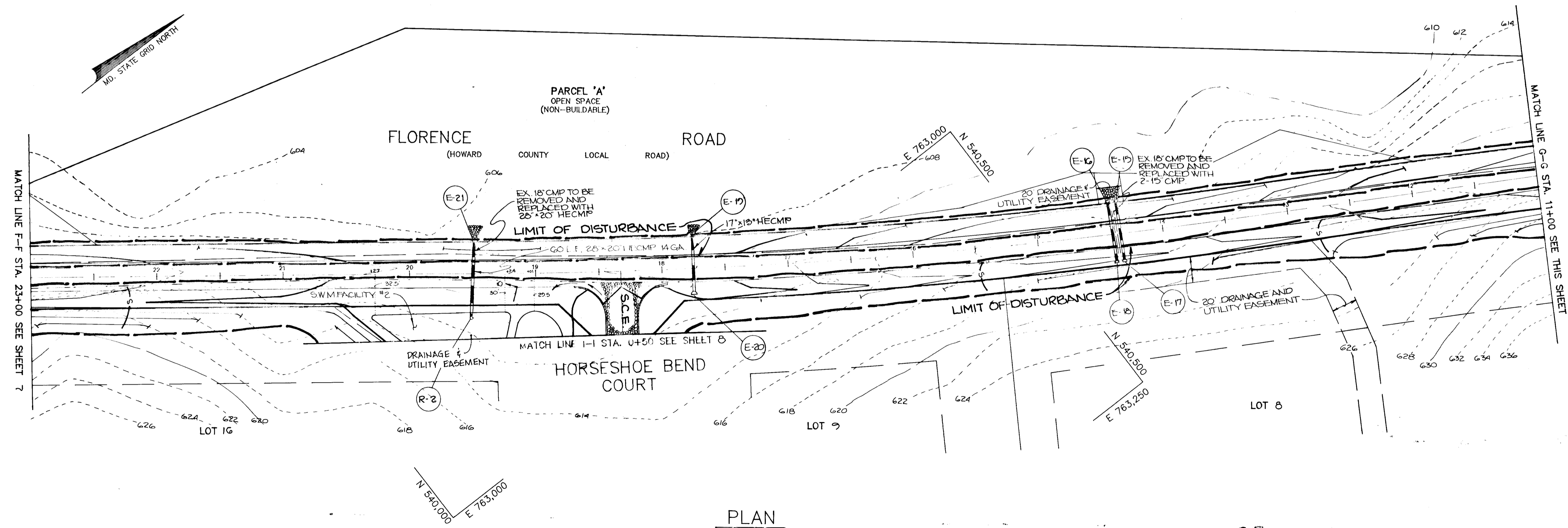
RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 3105 North Ridge Road Ellicott City, Maryland 21043
 301-461-2690 FAX: 301-750-3176

DATE	DESIGNED BY: D.B.S.
	DRAWN BY: CADD/DOS.
	PROJECT NO: 52705
	DATE: AUGUST 24, 1990
	SCALE: AS SHOWN
	DRAWING NO. 5 OF 12

ARTHUR E. MUEGGE #5101



PLAN
SCALE: 1"=50'



PLAN
SCALE: 1"=50'

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

DEVELOPER _____ DATE _____

BY THE ENGINEER:
"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 SOIL CONSERVATION DISTRICT."

ENGINEER Arthur E. Muegge DATE 10-3-90

REVIEWED FOR Howard NAME _____ S.C.D.
AND MEETS TECHNICAL REQUIREMENTS
James M. H. H. H. DATE 10/3/90
U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Arthur E. Muegge DATE 10/3/90
HOWARD S.C.D.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Frank J. Langley DATE 10/3/90
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

M. M. M. M. DATE _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Charles D. ... DATE 11/6/90
CHIEF, LAND DEVELOPMENT DIVISION
Branville W. ... DATE 11/6/90
CHIEF, BUREAU OF HIGHWAYS

William E. Ray DATE 11-20-90
CHIEF, BUREAU OF ENGINEERING

DATE	NO	REVISION

OWNER/DEVELOPER
GREGG McCARRON POTOMAC DEVELOPMENT CO.
2404 FLORENCE RD 1015 COPPERSTONE COURT
MONTAIGY, MARYLAND ROCKVILLE, MARYLAND
21771 20852

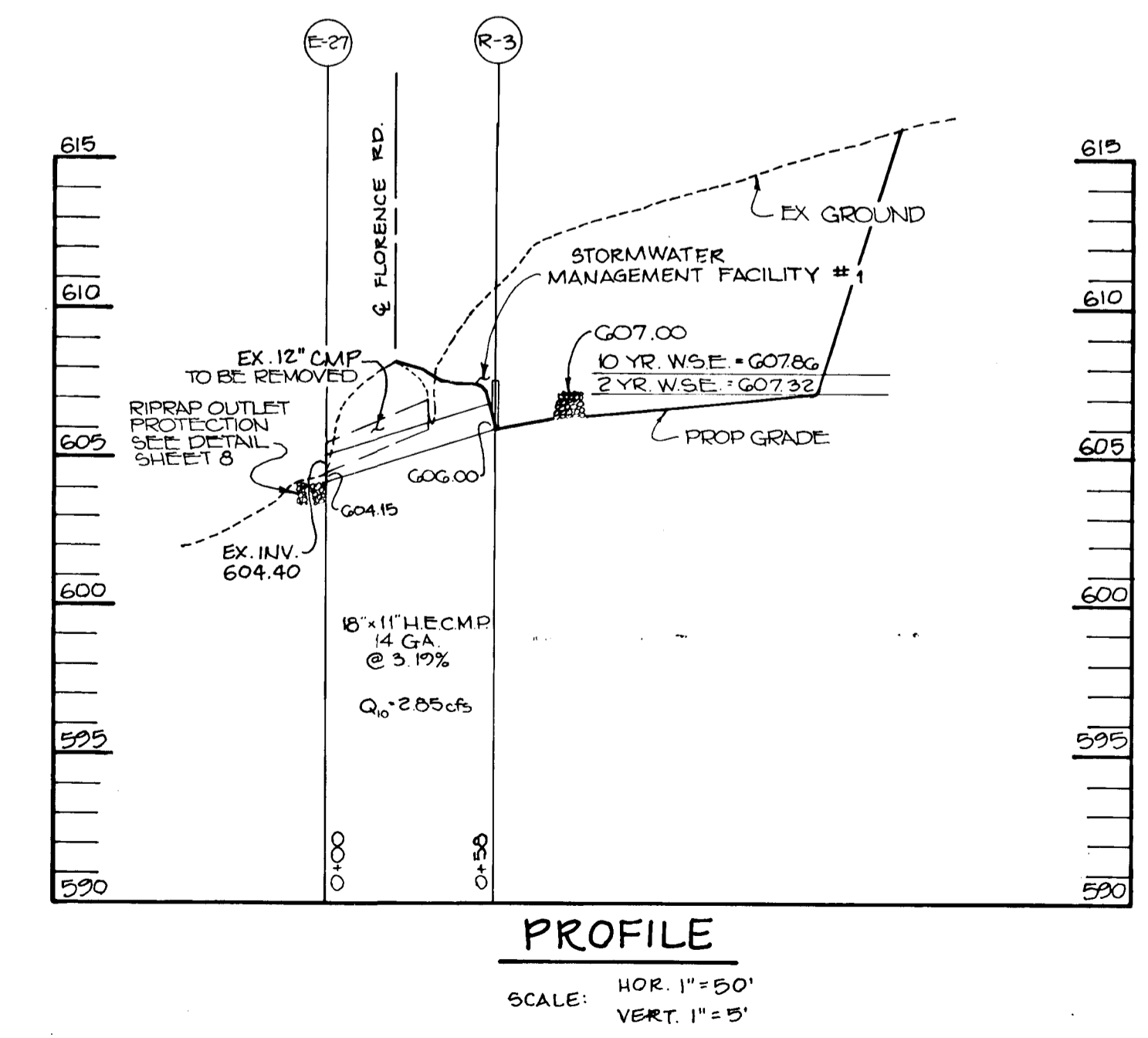
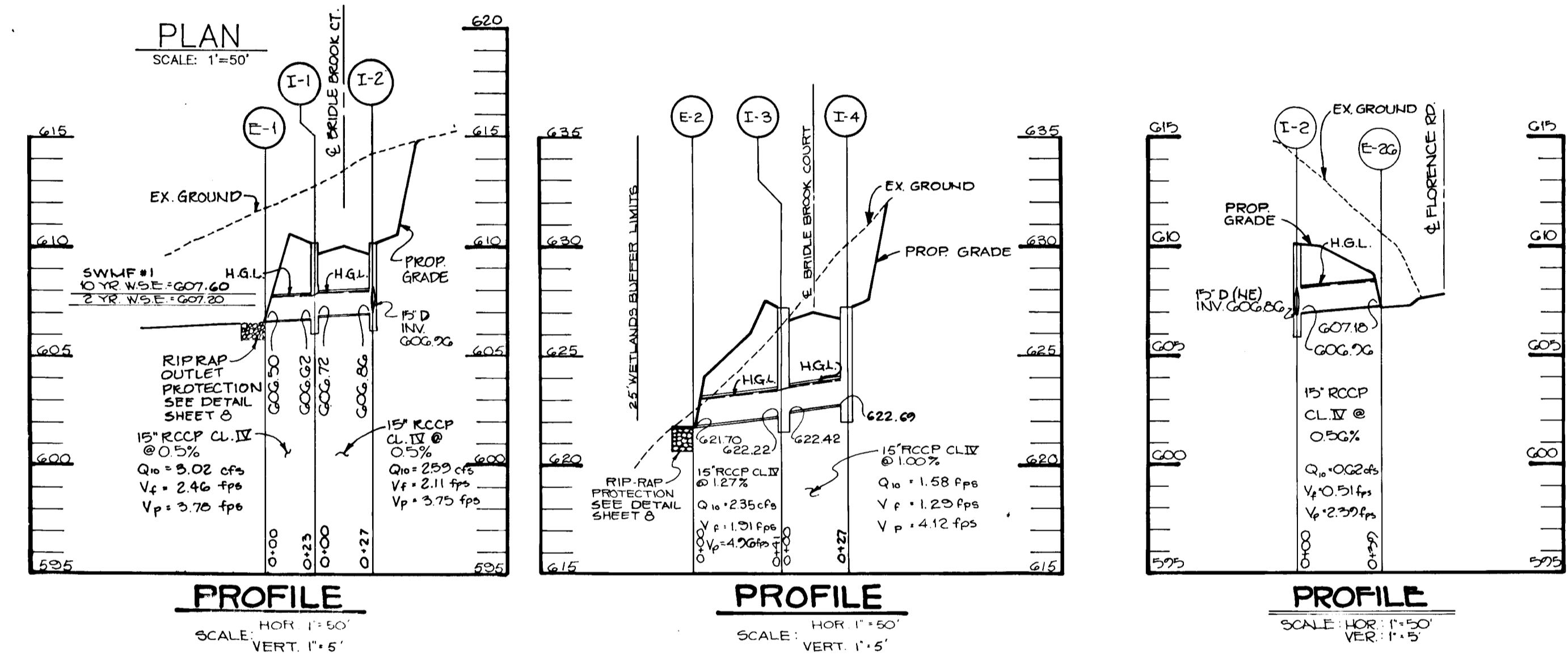
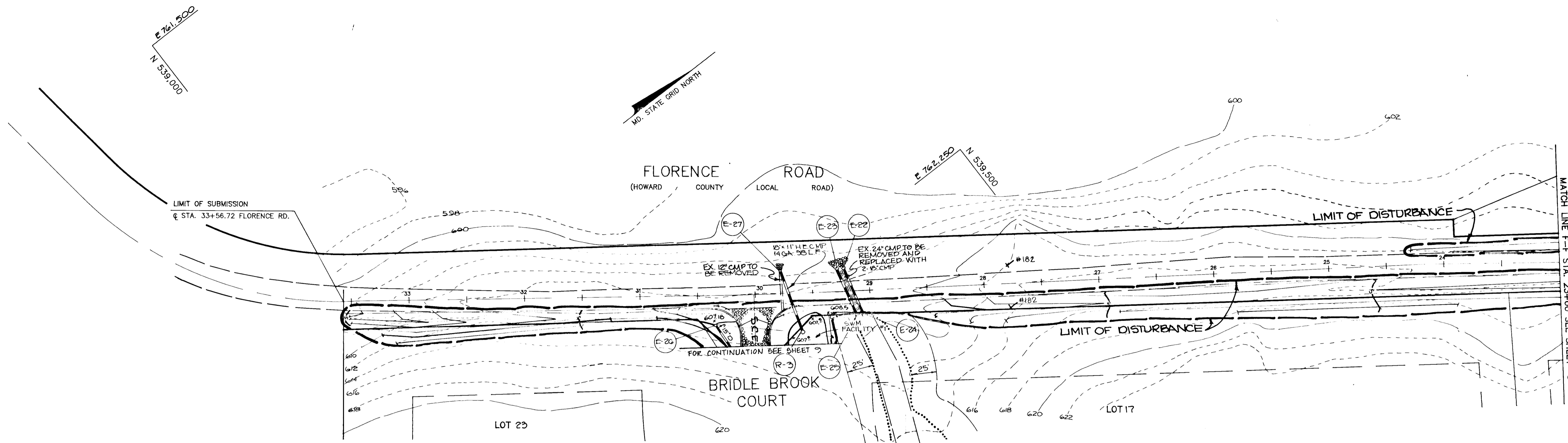
PROJECT: 500-118 SECTION TWO F89-02
BRIDLE BROOK ESTATES
LOTS 8-23 & PARCEL A

AREA TAX MAP 12 ZONED R PARCELS 19 & 25
4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **GRADING, SEDIMENT CONTROL PLAN & DETAILS**

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
3105 North Ridge Road Ellicott City, Maryland 21043
301-461-2690 FAX: 301-750-3176

	DATE _____
	DESIGNED BY: D.B.S.
	DRAWN BY: CADD/DE
	PROJECT NO: 52905
	DATE: AUGUST 24, 1990
SCALE: AS SHOWN	
DRAWING NO: 6 OF 12	



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Charles J. Doyle 12/15/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 DIRECTOR

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Charles J. Doyle 11/16/90
 CHIEF, LAND DEVELOPMENT DIVISION
William W. Woodland 11/16/90
 CHIEF, BUREAU OF HIGHWAYS
William W. Woodland 11-20-90
 CHIEF, BUREAU OF ENGINEERING

BY THE DEVELOPER:
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."
Gregg McCarron 9-19-90
 DEVELOPER DATE

BY THE ENGINEER:
 "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 SOIL CONSERVATION DISTRICT."
Arthur E. Muegge 10-3-90
 ENGINEER DATE

REVIEWED FOR *Howard S.C.D.* NAME S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS
Arthur E. Muegge 10/3/90 DATE
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Arthur E. Muegge 10/31/90 DATE
 HOWARD S.C.D.

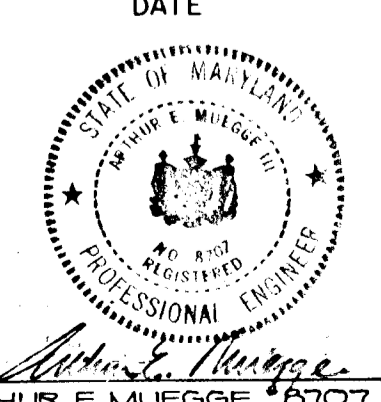
OWNER / DEVELOPER
 GREGG McCARRON POTOMAC DEVELOPMENT CO.
 2404 FLORENCE RD 1015 COPPERSTONE COURT
 MT. AIRY, MARYLAND ROCKVILLE, MARYLAND
 21171 20852

PROJECT: 500-110 SECTION TWO P 89-02
BRIDLE BROOK ESTATES
 LOTS 0-23 & PARCEL A
 AREA TAX MAP 12 ZONED R PARCELS 13 & 25
 4TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **GRADING, SEDIMENT CONTROL & STORM DRAIN PROFILES**

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 3105 North Ridge Road Ellcott City, Maryland 21043
 301-461-2690 FAX: 301-750-3176

DATE 10-17-90
 DESIGNED BY: D.B.S.
 DRAWN BY: CADD / D.E.
 PROJECT NO: 52905
 DATE: AUGUST 24, 1990
 SCALE: AS SHOWN
 DRAWING NO. 7 OF 12



10/31/90

SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
3. INSTALL SILT FENCE, EARTHDIKES AND SEDIMENT CONTROL DEVICES.
4. GRADE FOR SWM FACILITIES, EXCEPT SWM FACILITY #2, AND SEDIMENT TRAPS. FOR TRAP #1, BUILD UP BERM TO ELEVATION 609.5 AND PROVIDE 4' CREST AT ELEVATION 609.0.
5. GRADE ROADS WITHOUT DISTURBING SEDIMENT CONTROL DEVICES.
6. INSTALL STORM DRAIN SYSTEMS AND STONE FILTER INLET PROTECTIONS.
7. COMPLETE ROAD CONSTRUCTION.
8. FINISH GRADING FOR SWM FACILITY #2.
9. FLUSH CLEAN NEW STORM DRAIN SYSTEMS AND CONVERT SEDIMENT TRAP #1 TO SWM FACILITY #1, RESPECTIVELY. FOR SWM FACILITY #1, BERM IS TO BE TAKEN DOWN TO ELEVATION 607.0 AND CONVERTED TO FOREBAY.
10. STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
11. UPON APPROVAL OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES, AND STABILIZE ALL AREAS DISTURBED BY THEIR REMOVAL IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

PERMANENT SEEDING NOTES

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

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

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (22 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs./acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well-anchored straw.

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

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

TEMPORARY SEEDING NOTES

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

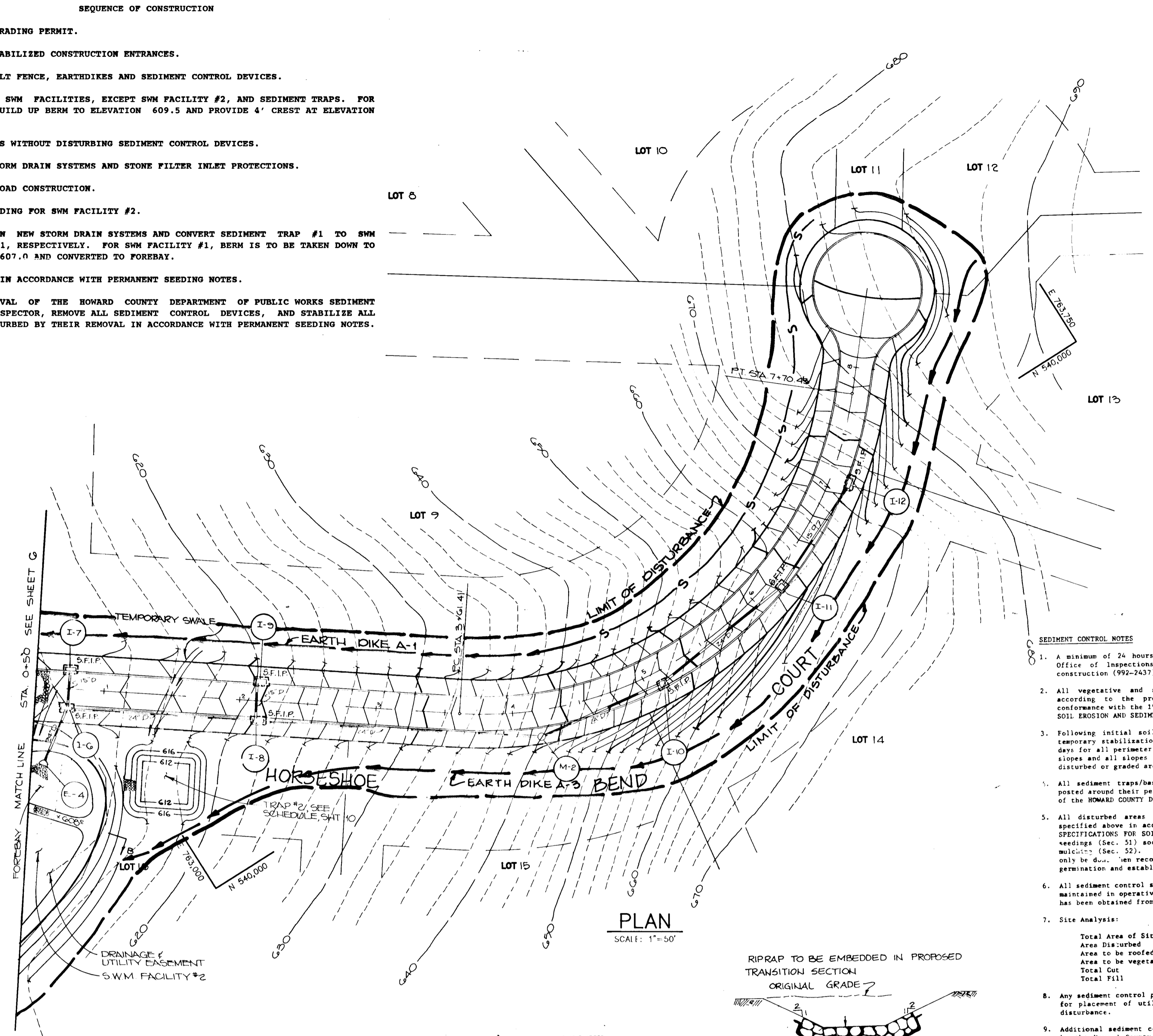
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 25 bushel per acre of annual rye (3.2 lbs./1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

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

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



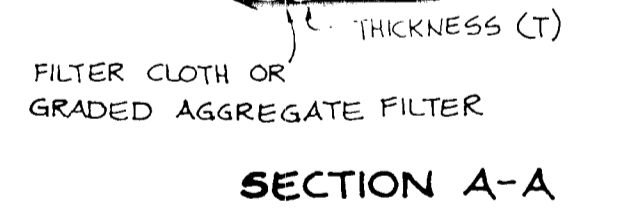
PLAN
SCALE: 1"=50'

SEEDING CONTROL NOTES

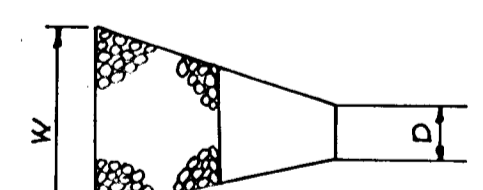
1. A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction (992-7437).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1; b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (Sec. 54), temporary seeding (Sec. 30) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be used - see recommended seeding rates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis:

Total Area of Site	66.77 acres
Area Disturbed	15.56 acres
Area to be roofed or paved	1.42 acres
Area to be vegetatively stabilized	10.79 acres
Total Cut	10,200 cu. yds.
Total Fill	0 cu. yds.
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County Department of Public Works Sediment Control Inspector.
10. Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
11. Sediment will be removed from traps when its depth reaches the clean out elevation shown on the plans.

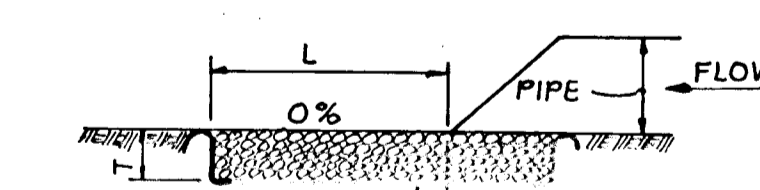
SECTIONS



SECTION A-A

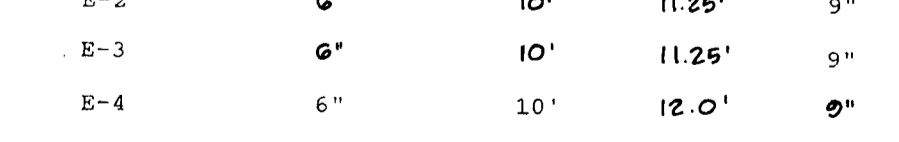


PLAN

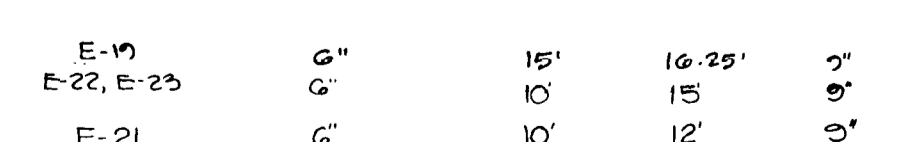


SECTION

STRUCTURE	MEDIAN STONE DIAMETER	LENGTH L	WIDTH W	THICKNESS T
E-19	6"	15'	16.25'	9"
E-22, E-23	6"	10'	15'	9"
E-21	6"	10'	12'	9"
E-15, E-16	6"	10'	15'	9"
E-27	6"	10'	15'	9"



EROSION CONTROL FABRIC SECTION



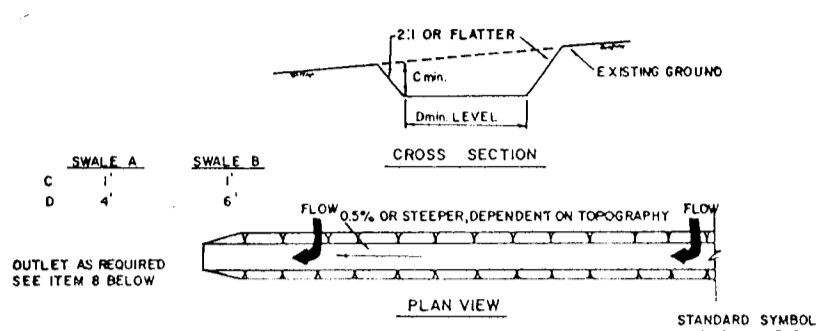
OUTLET PROTECTION DETAIL

FLUM CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL SIZE	DIKE A	DIKE B
1	5-3.0C	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0C	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSTON, SOO; 2" STONE
3	5.1-8.0C	SEED WITH JUTE, OR SOO	LINED RIP-RAP 4-8"
4	8.1-20C	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

1. STONE TO BE 2 INCH SIZE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
2. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 6 INCHES THICKNESS AND PRESSED INTO THE SOIL.
3. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
4. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE
NO SCALE



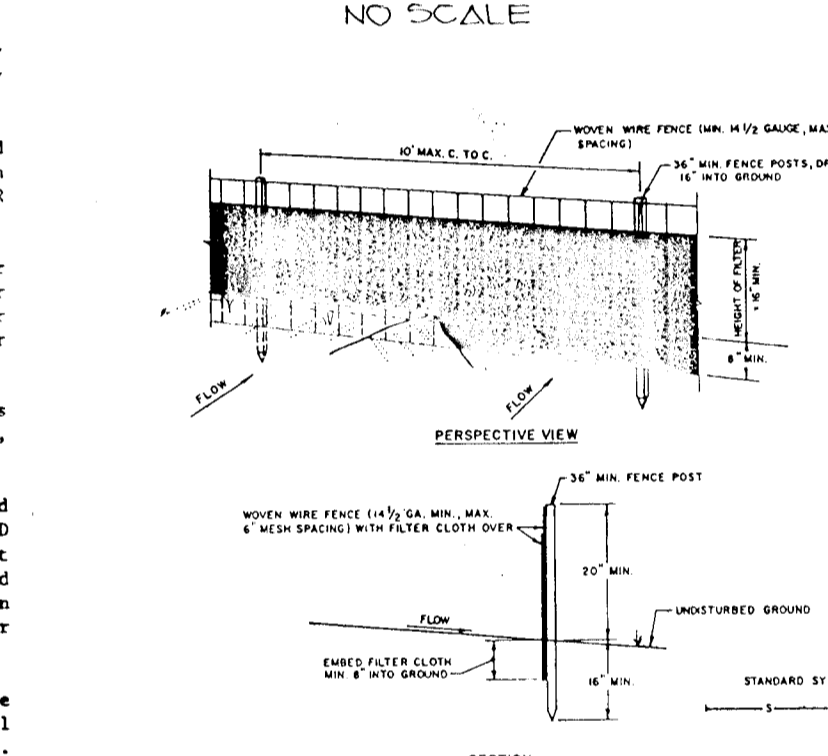
CROSS SECTION

TEMPORARY SWALE
NO SCALE

TYPE OF TREATMENT	CHANNEL SIZE	DIKE A	DIKE B
1	0.5-3.0C	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0C	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSTON
3	5.1-8.0C	SEED WITH JUTE OR SOO	LINED RIP-RAP 4-8"
4	8.1-20C	LINED RIP-RAP	ENGINEERING DESIGN

1. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

TEMPORARY SWALE
NO SCALE



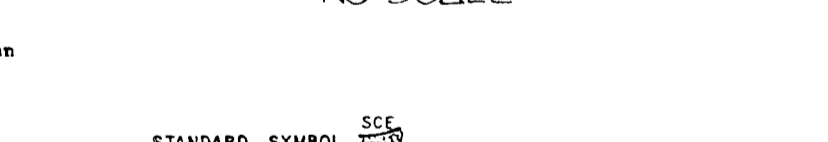
PERSPECTIVE VIEW

SECTION

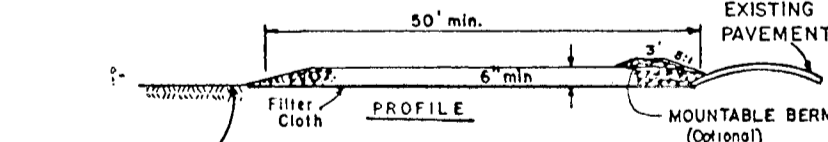
CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. MOVE THE FENCE TO BE FASTENED SECURELY TO THE POSTS WITH WIRE TIES OR SHOULDS.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOODS WITH TIE WITH THE SPECIFIED COVER ON TOP AND BOTTOM.
3. WHEN THE SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THE SHALE BE OVERLAPPED BY 6 INCHES AND SECTION.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BACKS DEVELOP IN THE SILT FENCE.

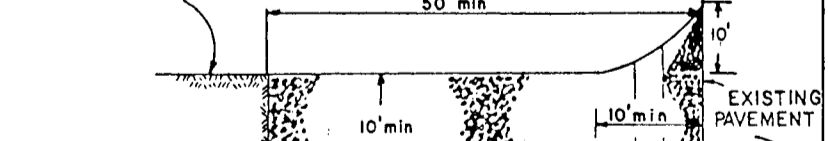
SILT FENCE
NO SCALE



STANDARD SYMBOL



PROFILE



PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single real-estate lot where a 25 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mounded berm with 5:1 slope will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right-of-way. This may require periodic top dressing with additional stone or concrete aggregate and repair and/or cleanup of any measures used to trap sediment. All sediment applied, dropped, washed or tracked onto public right-of-way must be removed immediately.
8. Washing - Vehicles shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION
ENTRANCE
NO SCALE

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

DEVELOPER _____ DATE _____

BY THE ENGINEER:
"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 SOIL CONSERVATION DISTRICT."

ENGINEER *Arthur E. Muegge* DATE *10-2-90*

REVIEWED FOR _____ S.C.D. NAME _____
AND MEETS TECHNICAL REQUIREMENTS
U.S. SOIL CONSERVATION SERVICE DATE *10/2/90*

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

HOWARD S.C.D. DATE _____

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Frank J. D'Amico DATE *10/2/90*
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chris Ann Amicus DATE *11/2/90*
CHIEF, LAND DEVELOPMENT DIVISION
Lawrence W. Weiland DATE *11/6/90*
CHIEF, BUREAU OF HIGHWAYS

William E. King DATE *11-20-90*
CHIEF, BUREAU OF ENGINEERING

DATE _____ NO _____ REVISION _____

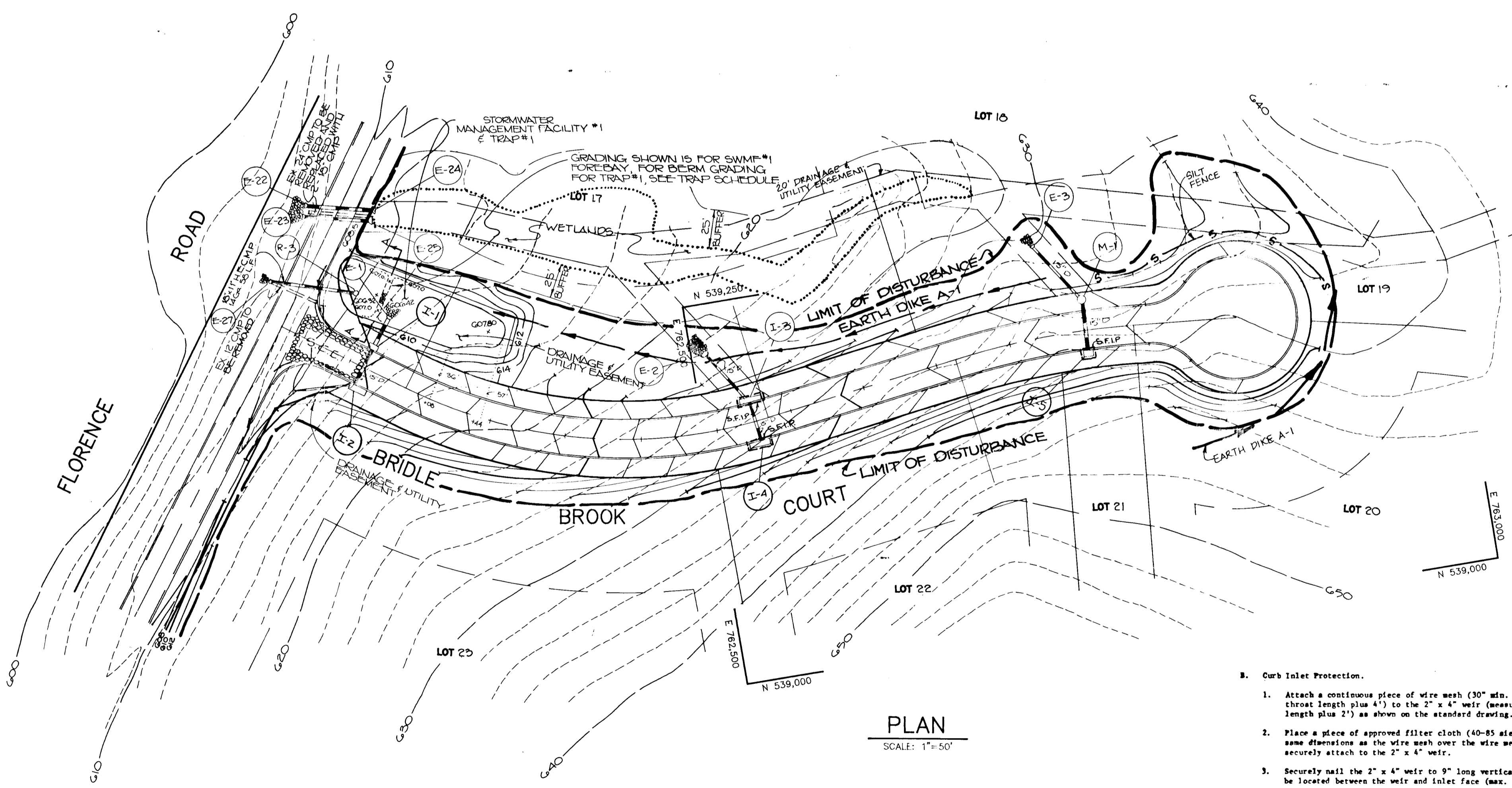
OWNER/DEVELOPER
GREGG McCARRON POTOMAC DEVELOPMENT CO.
2484 FLORENCE ROAD 1015 COPPERSTONE COURT
MT. AIRY, MARYLAND 21771 ROCKVILLE, MARYLAND 20852

PROJECT 508-110 SECTION TWO P89-02
BRIDLE BROOK ESTATES
LOTS 8-23 & PARCEL A
AREA TAX MAP 12 ZONED R PARCELS 12 & 23
4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TITLE: **GRADING, SEDIMENT CONTROL PLAN & DETAILS**

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
3105 North Ridge Road Ellicott City, Maryland 21043
301-461-2690 FAX: 301-750-3176

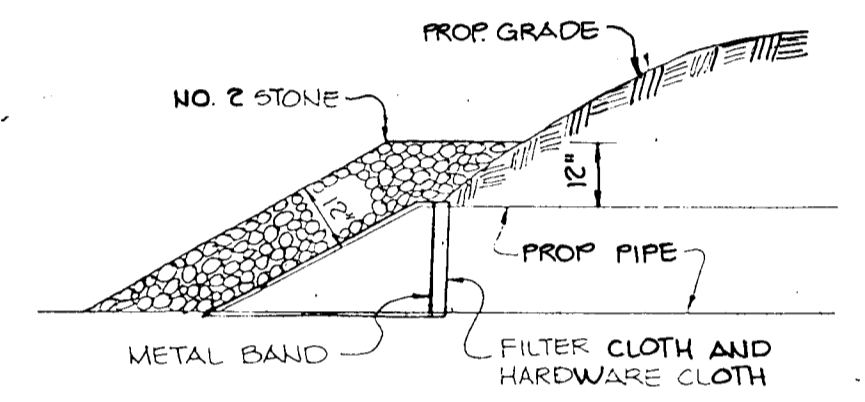
DATE _____
DESIGNED BY: *D.B.S.*
DRAWN BY: *CADD/*
PROJECT NO: *52905*
DATE: *AUGUST 24, 1990*
SCALE: *AS SHOWN*
DRAWING NO. *8* OF *12*

NO STATE GRID NORTH



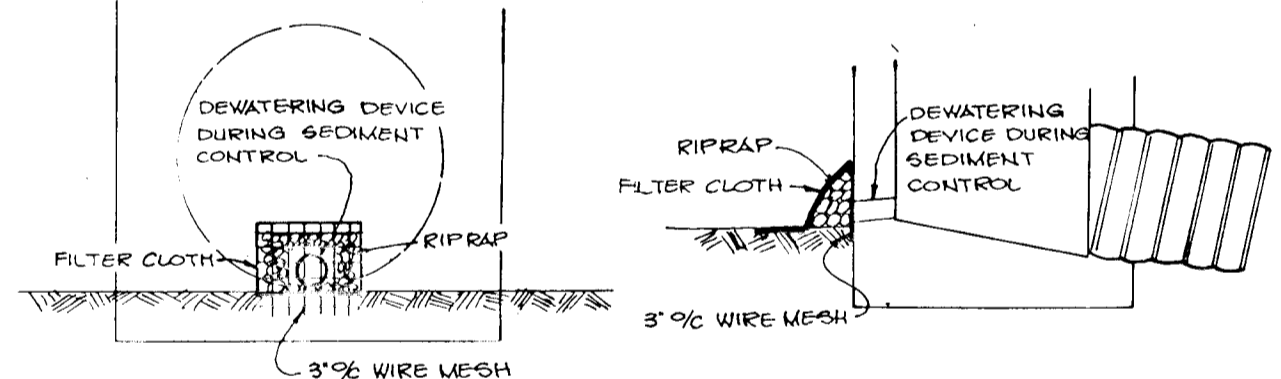
SEDIMENT TRAP SCHEDULE

TYPE OF TRAP	TRAP NO.	DRAINAGE AREA	STORAGE VOL. (SQ. FT.)	STORAGE VOL. (CU. YD.)	CREST ELEV.	GRASS WIDTH	BOTTOM ELEV.	BOTTOM DIMENSIONS	CLEANOUT ELEV.	SIDE SLOPES
STONE OUTLET	1	2.10 Ac.	3780	4750	609.0	8'	G09.42	SEE PLAN	G07.71	2:1
STONE OUTLET	2	1.71 Ac.	3078	5062	G15.0	8'	G12.0	30'x35'	G13.5	2:1

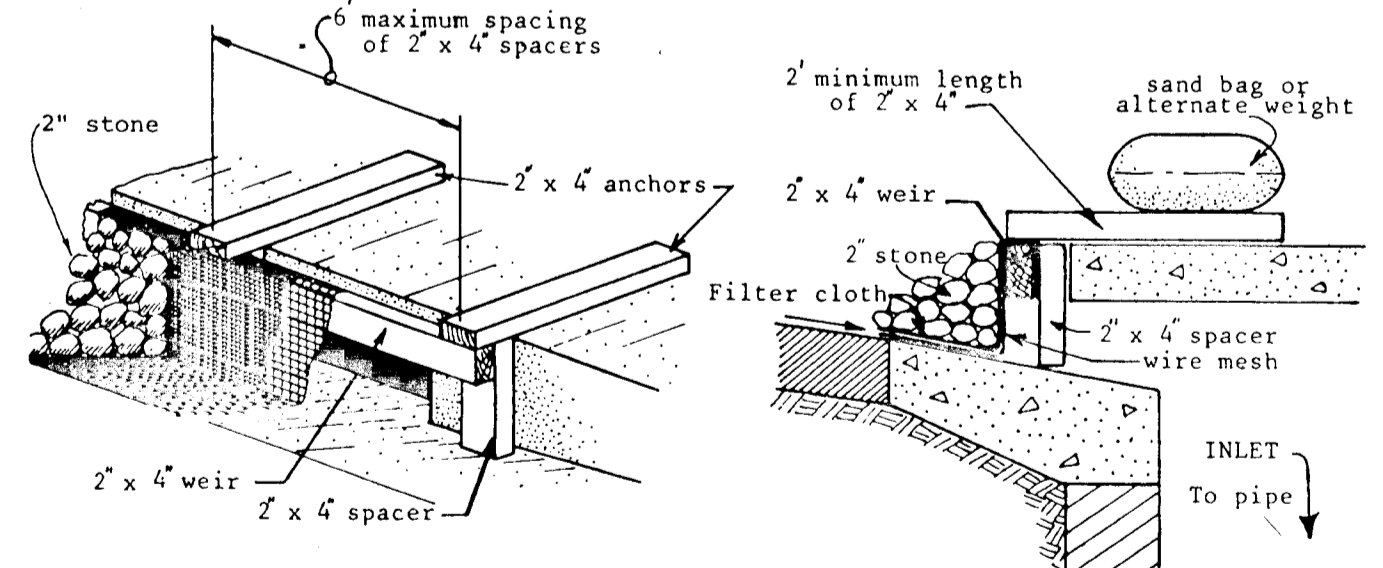


END SECTION BLOCKING FOR E-16 & E-19

NOTE: FILTER CLOTH TO BE INSTALLED OVER THE TOP OF HARDWARE CLOTH, METAL BAND TO BE INSTALLED TO SECURE FILTER CLOTH AND HARDWARE CLOTH.



ORIFICE BLOCKING DETAIL FOR STRUCTURE R-1 & R-3



STONE FILTER INLET PROTECTION

- Curb Inlet Protection.
 - Attach a continuous piece of wire mesh (30" min. width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
 - Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
 - Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart).
 - Place the assembly against the inlet throat and nail (stiffen 2' lengths of 2" x 4" to the top of the weir at spacer locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
 - The assembly shall be placed so that the end spacers are a minimum 1" beyond both ends of the throat opening.
 - Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
 - This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 - Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

- Construction Specifications
- Materials
 - Wooden frame is to be constructed of 2" x 4" construction grade lumber.
 - Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.
 - Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, E08, 40-85, to allow sufficient passage of water and removal of sediment.
 - Stone is to be 2" in size and clean, since fines would clog the cloth.
 - Procedure

BY THE DEVELOPER:
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."
 Signature: *Gregg B. Powell* DATE: 9-17-90
 DEVELOPER

BY THE ENGINEER:
 "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 SOIL CONSERVATION DISTRICT."
 Signature: *William E. Muegge* DATE: 10-3-90
 ENGINEER

REVIEWED FOR: *[Signature]* NAME: S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS
 Signature: *[Signature]* DATE: 10-3-90
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *[Signature]* DATE: 10-3-90
 HOWARD S.C.D.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
 Signature: *[Signature]* DATE: 12-2-90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Signature: *[Signature]* DATE: 11/6/90
 CHIEF, LAND DEVELOPMENT DIVISION
 Signature: *[Signature]* DATE: 11/6/90
 CHIEF, BUREAU OF HIGHWAYS

Signature: *[Signature]* DATE: 11-20-90
 CHIEF, BUREAU OF ENGINEERING

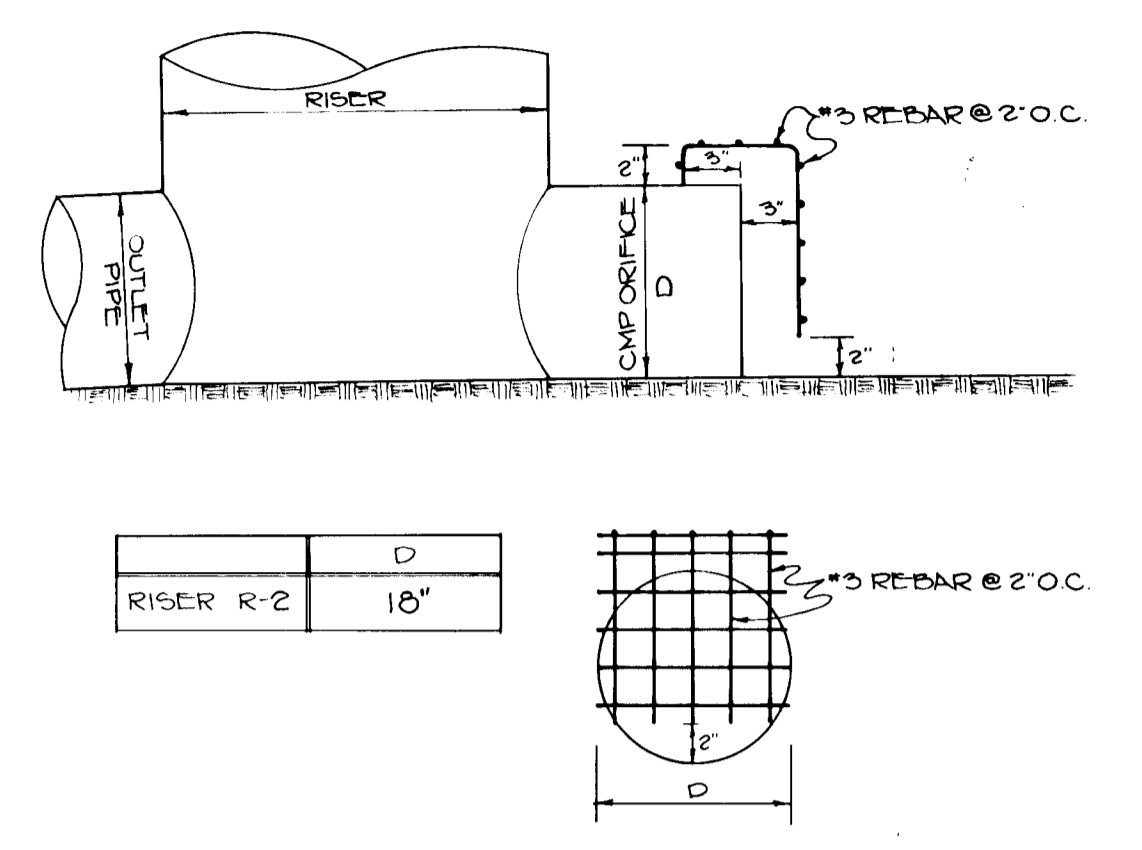
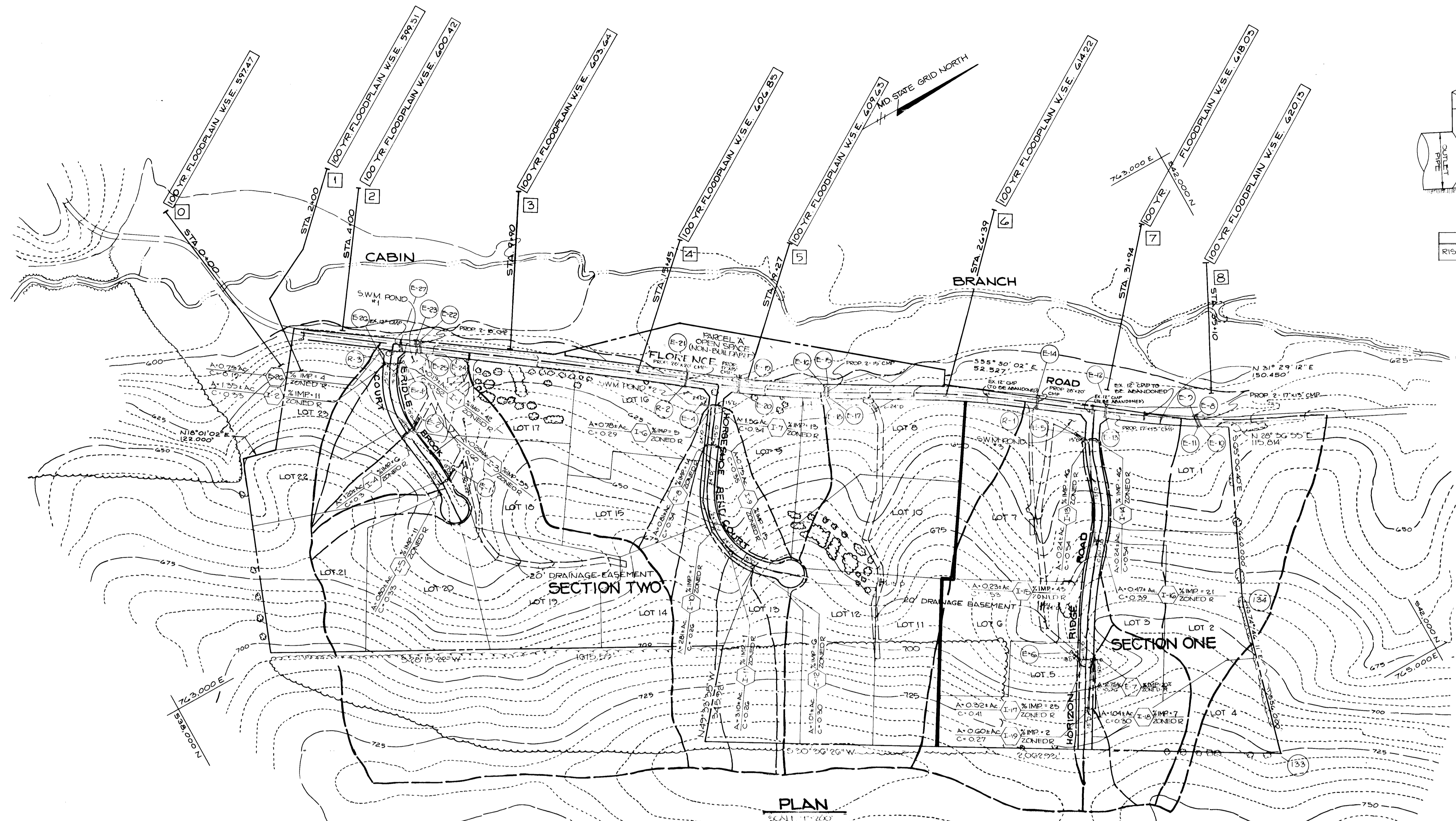
OWNER/DEVELOPER
 GREGG McCARRON POTOMAC DEVELOPMENT CO.
 2484 FLORENCE ROAD 1015 COPPERSTONE COURT
 MT. AIRY, MARYLAND 21771 ROCKVILLE, MARYLAND 20852

PROJECT: 88-116 SECTION TWO P09-02
BRIDLE BROOK ESTATE'S
 LOTS 8-23 & PARCEL A
 AREA: TAX MAP 12 ZONED R FACH-15 B AND 25
 4 TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **GRADING, SEDIMENT CONTROL PLAN & DETAILS**

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 3105 North Ridge Road Elliott City, Maryland 21043
 301-461-2690 FAX: 301-750-3176

DATE: _____
 DESIGNED BY: D.B.S.
 DRAWN BY: CAD
 PROJECT NO: 52905
 DATE: AUGUST 24, 1990
 SCALE: AS SHOWN
 DRAWING NO: 9 OF 12
 Signature: *[Signature]*
 ARTHUR E. MUEGGE # 8107



ORIFICE PROTECTION DETAIL FOR R-1 & R-2
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark J. Gault 12/2/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 DATE: 12/2/90

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Michael J. ... 11/2/90
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE: 11/2/90

Lawrence W. ... 11/6/90
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 11/6/90

William B. ... 11-20-90
 CHIEF, BUREAU OF ENGINEERING
 DATE: 11-20-90

DATE NO REVISION

OWNER/DEVELOPER
 GREGG MCCARRON POTOMAC DEVELOPMENT CO.
 2424 FLORENCE RD. 1015 COPPERSTONE COURT
 MT AIRY MD. 21171 ROCKVILLE, MD. 20852

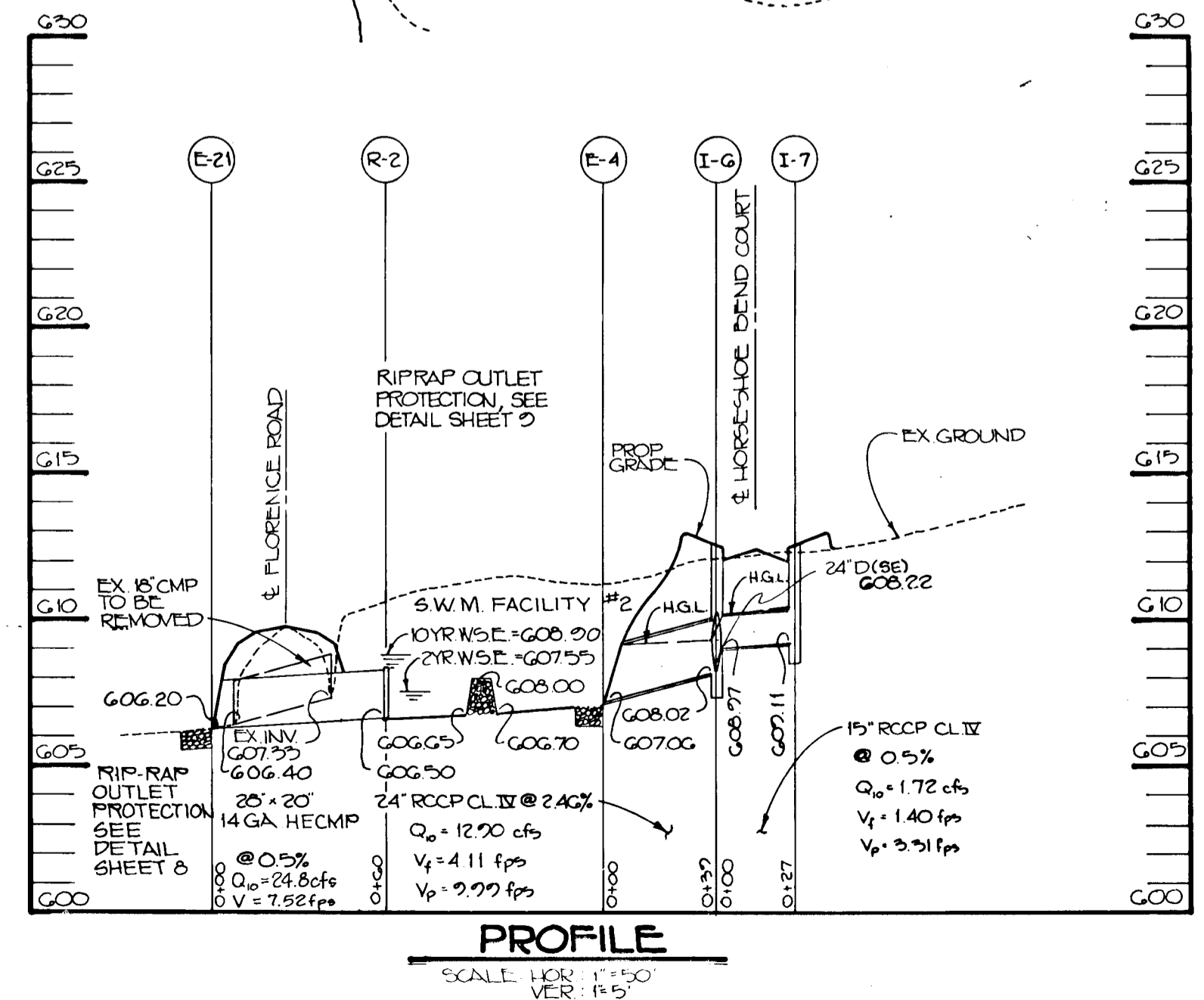
PROJECT 88-118 SECTION TWO F89-02
BRIDLE BROOK ESTATES
 LOTS 6-23 OF PARCEL A

AREA TAX MAP 12 ZONED R PARCELS 13+25
 4TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE **DRAINAGE AREA MAP & STORM DRAIN PROFILES**

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering, and Consulting Firm
 3105 North Ridge Road Ellicott City, Maryland 21043
 301-461-2690 FAX: 301-750-3176

DATE 11-22-90
 DESIGNED BY: C.B.B. / D.B.S.
 DRAWN BY: C.B.B.
 PROJECT NO: 52905
 DATE: AUGUST 24, 1990
 SCALE: AS SHOWN
 DRAWING NO. 10 OF 12

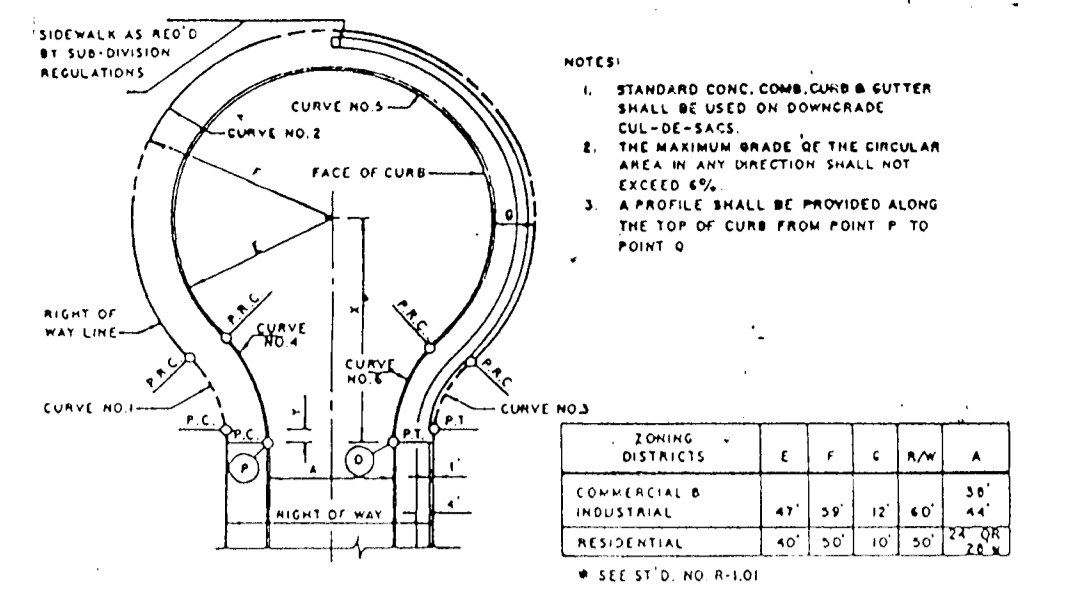
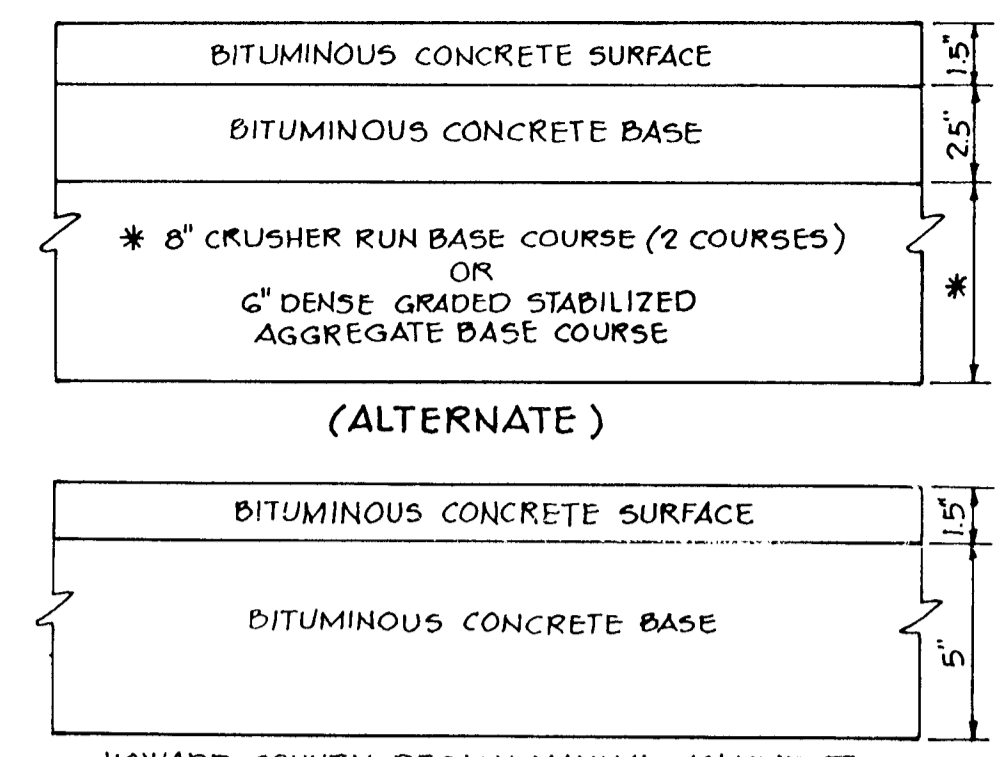
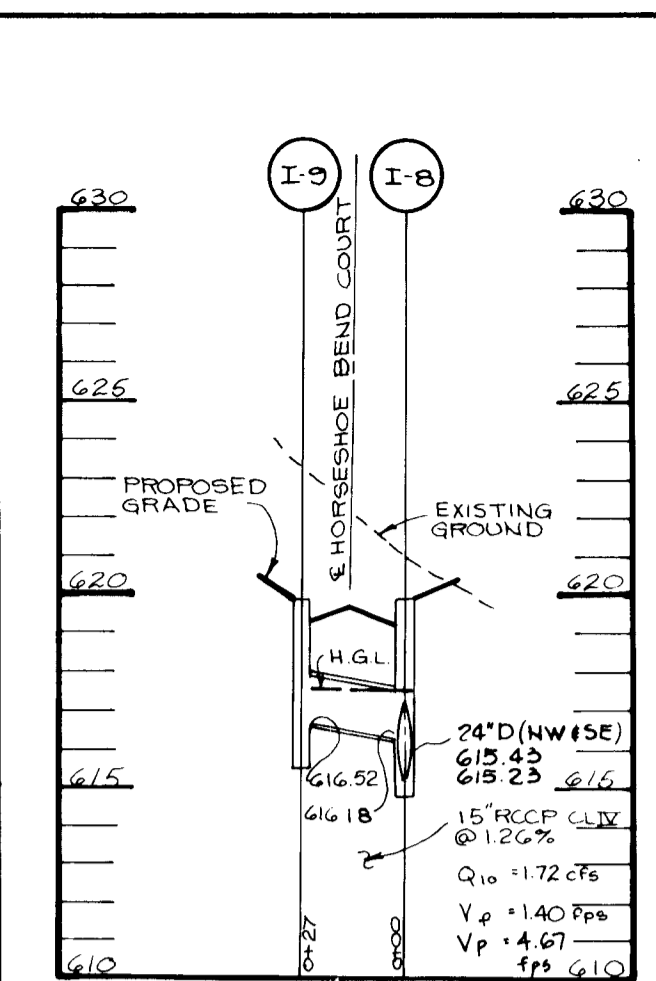
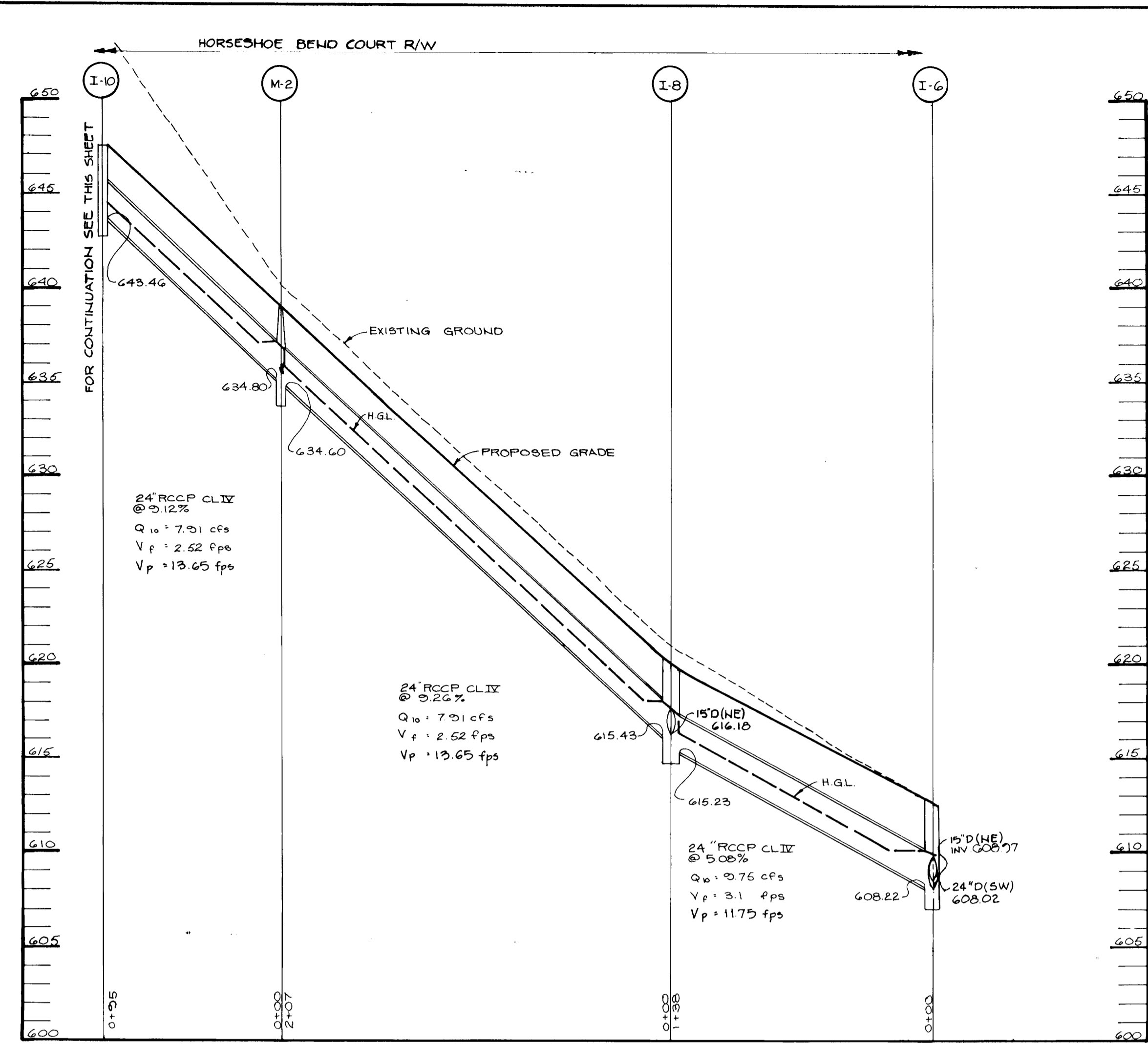
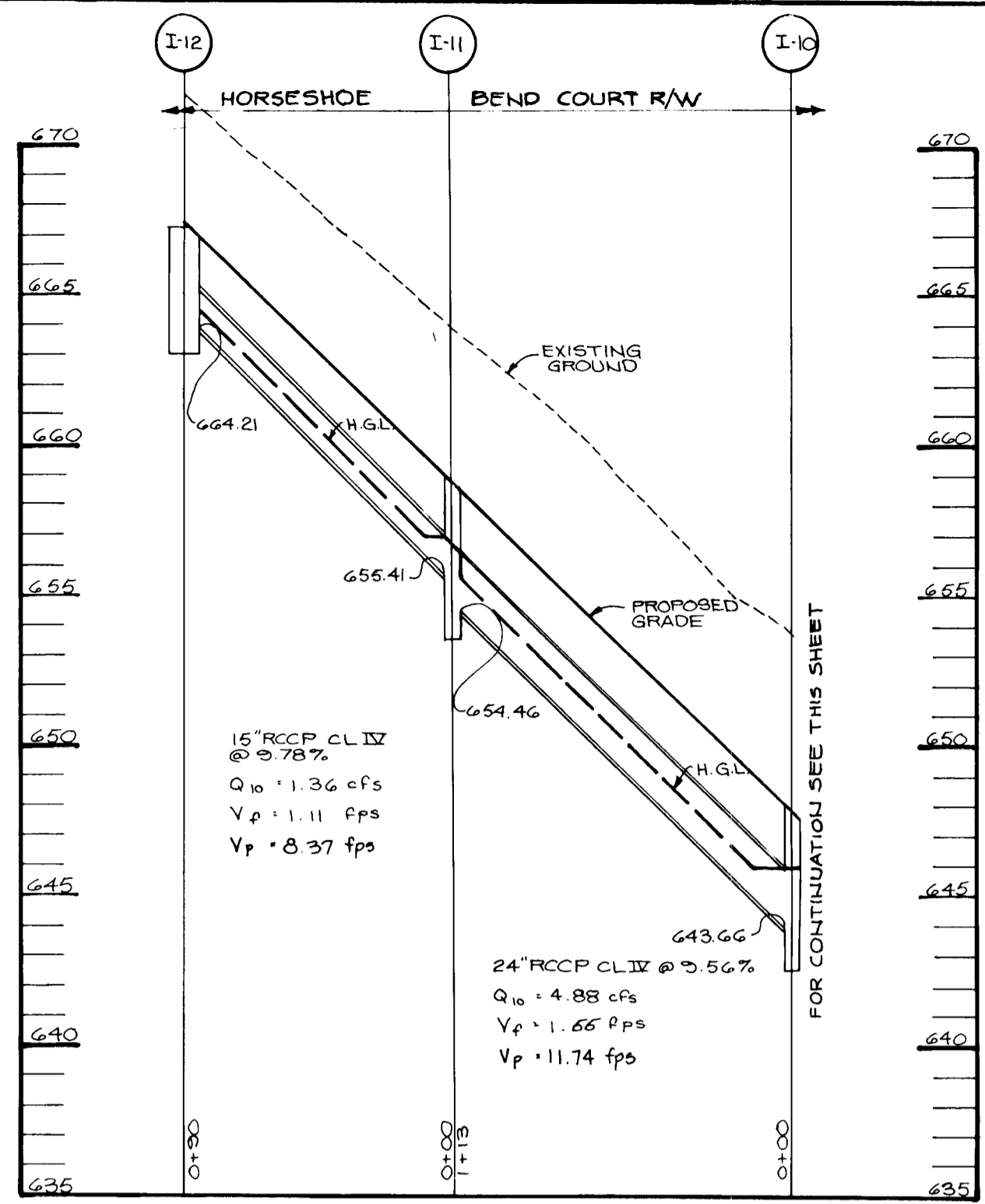


LEGEND

- DRAINAGE AREA LIMITS
- PROPERTY LIMITS
- INLET
- END SECTION
- MANHOLE
- 100 YEAR WATER SURFACE ELEVATION
- FLOODPLAIN X-SECTION NO.

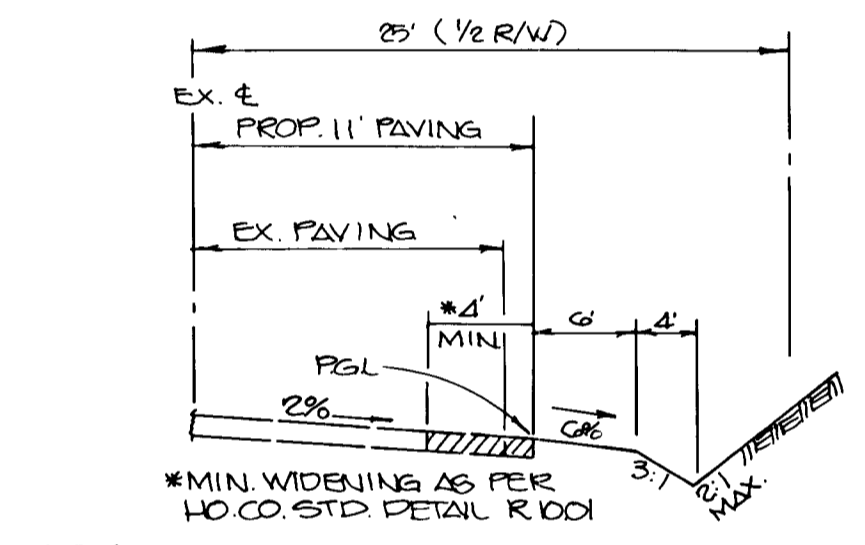
NOTE: 100 YR. FLOODPLAIN WATER SURFACE ELEVATIONS BASED ON HEC-2 STUDY BY RIEMER, MUEGGE & ASSOCIATES, INC. DATED FEBRUARY, 1989

1107
 LAND SURVEYING CO., INC.

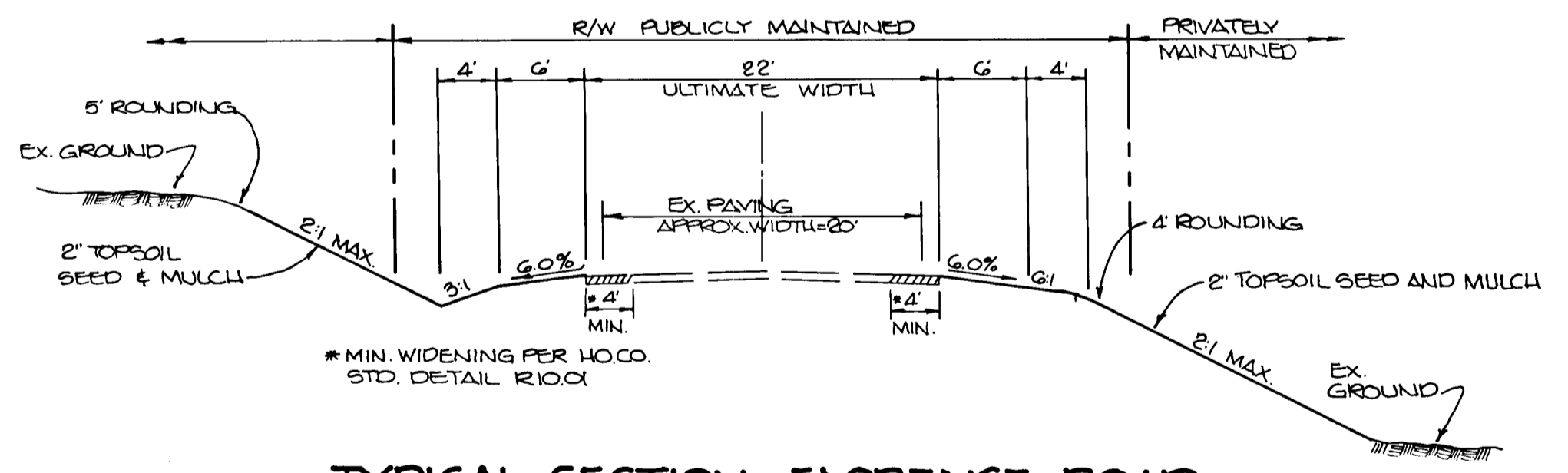


CURVE DATA

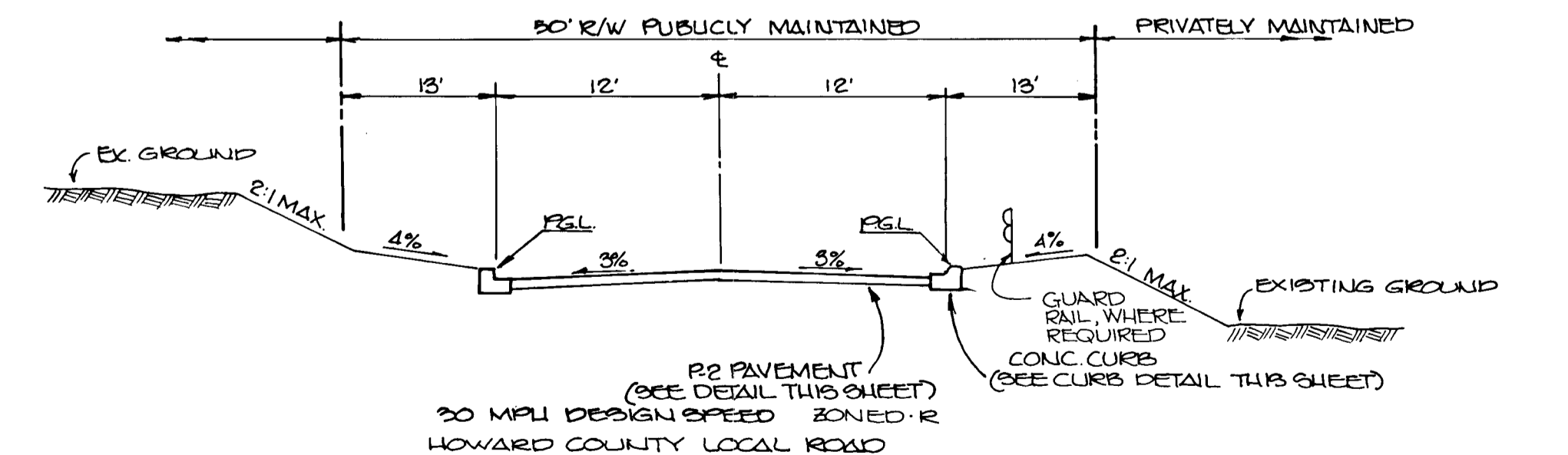
COMMERCIAL/INDUSTRIAL (24" APPROACH)				COMMERCIAL/INDUSTRIAL (24" APPROACH)			
CURVE NO.	START STA.	END STA.	L.P. (FT.)	CURVE NO.	START STA.	END STA.	L.P. (FT.)
1	2100.00	2100.00	0.00	1	2100.00	2100.00	0.00
2	2100.00	2100.00	0.00	2	2100.00	2100.00	0.00
3	2100.00	2100.00	0.00	3	2100.00	2100.00	0.00
4	2100.00	2100.00	0.00	4	2100.00	2100.00	0.00
5	2100.00	2100.00	0.00	5	2100.00	2100.00	0.00
6	2100.00	2100.00	0.00	6	2100.00	2100.00	0.00
7	2100.00	2100.00	0.00	7	2100.00	2100.00	0.00
8	2100.00	2100.00	0.00	8	2100.00	2100.00	0.00
9	2100.00	2100.00	0.00	9	2100.00	2100.00	0.00
10	2100.00	2100.00	0.00	10	2100.00	2100.00	0.00
11	2100.00	2100.00	0.00	11	2100.00	2100.00	0.00
12	2100.00	2100.00	0.00	12	2100.00	2100.00	0.00
13	2100.00	2100.00	0.00	13	2100.00	2100.00	0.00
14	2100.00	2100.00	0.00	14	2100.00	2100.00	0.00
15	2100.00	2100.00	0.00	15	2100.00	2100.00	0.00
16	2100.00	2100.00	0.00	16	2100.00	2100.00	0.00
17	2100.00	2100.00	0.00	17	2100.00	2100.00	0.00
18	2100.00	2100.00	0.00	18	2100.00	2100.00	0.00
19	2100.00	2100.00	0.00	19	2100.00	2100.00	0.00
20	2100.00	2100.00	0.00	20	2100.00	2100.00	0.00



STATION 23+00 TO STATION 23+57
HOWARD COUNTY LOCAL ROAD - 30 MPH DESIGN SPEED
ZONED - R
NO SCALE

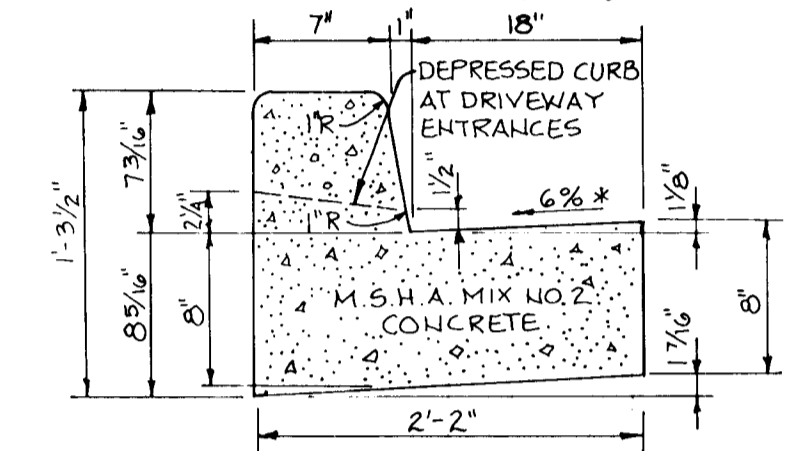


STATION 2+57 TO STATION 23+90%
HOWARD COUNTY LOCAL ROAD - 30 MPH DESIGN SPEED
ZONED - R
NO SCALE



STATION 0+00 TO STATION 2+00 BRIDLE BROOK CT.
STATION 0+00 TO STATION 1+20.13 HORSESHOE BEND CT.
NO SCALE

STANDARD 7" COMBINATION CURB AND GUTTER
No Scale



HOWARD COUNTY DESIGN MANUAL VOLUME III - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01)

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Mark J. Long 11/16/90
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Charles D. Williams 11/16/90
CHIEF, LAND DEVELOPMENT DIVISION

Lawrence W. Wehner 11/16/90
CHIEF, BUREAU OF HIGHWAYS

William E. Ryan 11-20-90
CHIEF, BUREAU OF ENGINEERING

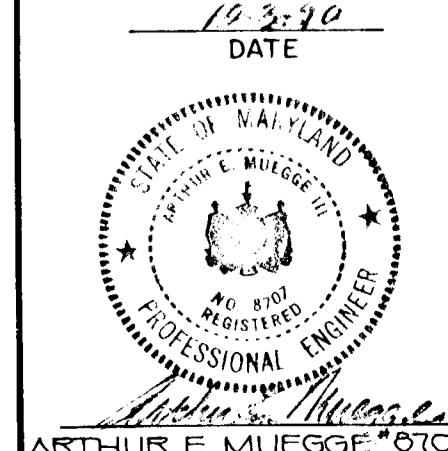
OWNER / DEVELOPER
GREGG McCARRON POTOMAC DEVELOPMENT CO.
2404 FLORENCE ROAD 1015 COPPERSTONE COURT
MT. AIRY, MARYLAND ROCKVILLE, MARYLAND
21771 20852

PROJECT: 500-110 SECTION TWO P09-92
BRIDLE BROOK ESTATES
LOTS B-23 & PARCEL A
AREA TAX MAP 12 ZONED R PARCELS 13 & 25
4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **STORM DRAIN PROFILES & DETAILS**

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
3105 North Ridge Road Ellicott City, Maryland 21043
301-461-2690 FAX: 301-750-3176

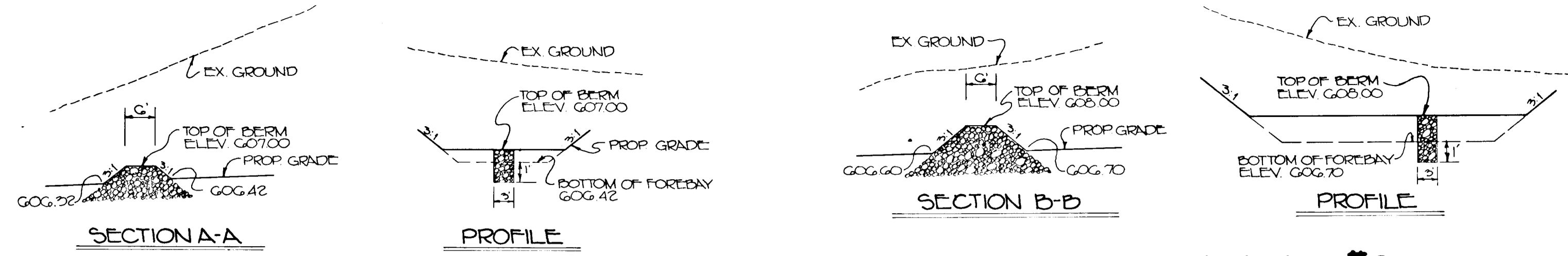
DATE: 11-20-90
DESIGNED BY: DBS
DRAWN BY: M.D.
PROJECT NO: 52905
DATE: AUGUST 24, 1990
SCALE: AS SHOWN
DRAWING NO. 11 OF 12



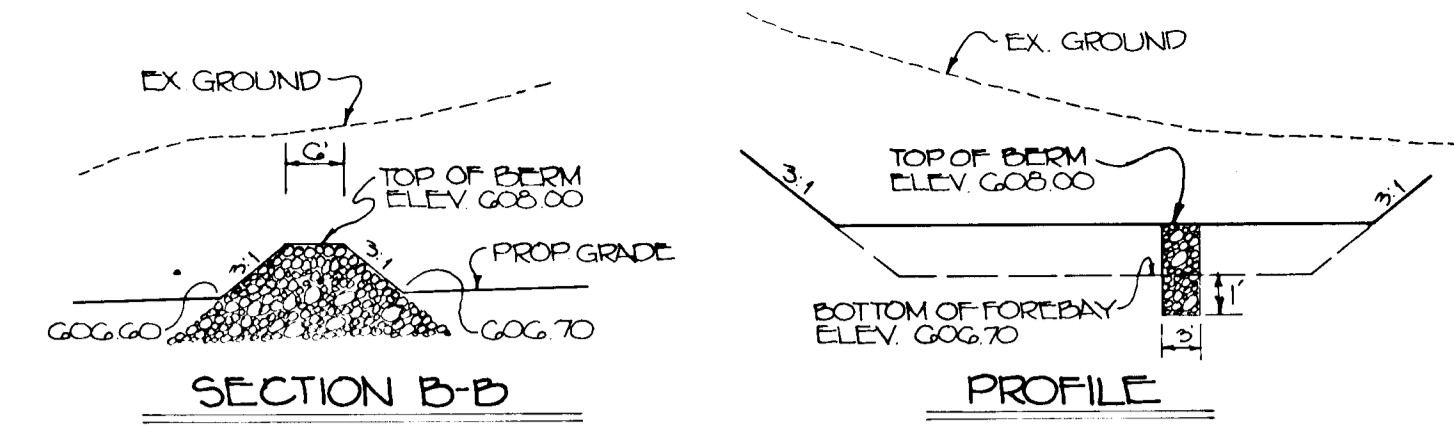
STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN.	INV. OUT	TOP OF CURB OR RIM ELEV.	REMARKS
I-1	A-5	C/L Sta. 0+60 Bridle Brook Ct. 12' Lt.	606.72	606.62	610.08	Ho. Co. Std. Detail SD 4.01
I-2	A-10	C/L Sta. 0+60 Bridle Brook Ct. 12' Rt.	606.96	606.86	610.08	Ho. Co. Std. Detail SD 4.02
I-3	A-10	C/L Sta. 3+25 Bridle Brook Ct. 12' Lt.	622.42	622.22	627.31	Ho. Co. Std. Detail SD 4.02
I-4	A-10	C/L Sta. 3+25 Bridle Brook Ct. 12' Rt.	--	622.69	627.31	Ho. Co. Std. Detail SD 4.02
I-5	A-5	C/L Sta. 5+50 Bridle Brook Ct. 12' Rt.	--	631.54	635.31	Ho. Co. Std. Detail SD 4.01
I-6	A-10	C/L Sta. 0+75 Horseshoe Bend Ct. 12' Rt.	608.97 608.22	608.02	612.56	Ho. Co. Std. Detail SD 4.02
I-7	A-10	C/L Sta. 0+75 Horseshoe Bend Ct. 12' Lt.	--	609.11	612.56	Ho. Co. Std. Detail SD 4.02
I-8	A-10	C/L Sta. 2+12 Horseshoe Bend Ct. 12' Rt.	616.18 615.43	615.23	619.90	Ho. Co. Std. Detail SD 4.02
I-9	A-10	C/L Sta. 2+12 Horseshoe Bend Ct. 12' Lt.	--	616.52	619.90	Ho. Co. Std. Detail SD 4.02
I-10	S-Comb.	C/L Sta. 5+08 Horseshoe Bend Ct. 12' Rt.	643.66	643.46	646.88	Ho. Co. Std. Detail SD 4.32
I-11	S-Comb.	C/L Sta. 6+19 Horseshoe Bend Ct. 12' Rt.	655.41	654.46	657.98	Ho. Co. Std. Detail SD 4.32
I-12	A-10	C/L Sta. 7+04 Horseshoe Bend Ct. 12' Rt.	--	664.21	667.06	Ho. Co. Std. Detail SD 4.02
E-26	15" Conc. End Section	C/L Sta. 0+25 Bridle Brook Ct. 34' Rt.	607.18	--	--	Ho. Co. Std. Detail SD 5.51
E-27	Metal End Section	C/L Sta. 29+74 Florence Rd. 20' Rt.	--	604.15	--	Ho. Co. Std. Detail SD 5.61
R-3	24" CMP Riser	C/L Sta. 29+58 Florence Rd. 32' Lt.	--	606.00	607.60	See Detail Sheet

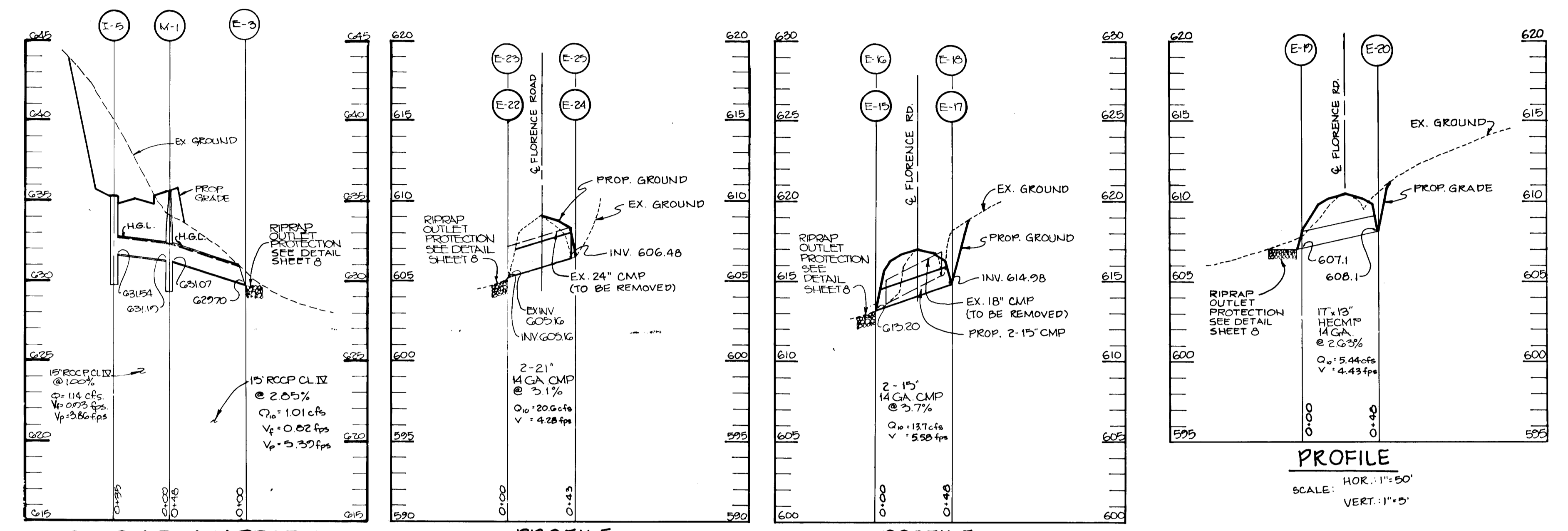
NO.	TYPE	LOCATION	INV. IN.	INV. OUT	TOP OF CURB OR RIM ELEV.	REMARKS
E-1	15" Conc. End Section	C/L Sta. 0+60 Bridle Brook Ct. 37' Lt.	--	606.50	--	Ho. Co. Std. Detail SD 5.51
E-2	15" Conc. End Section	C/L Sta. 3+05 Bridle Brook Ct. 52' Lt.	--	621.70	--	Ho. Co. Std. Detail SD 5.51
E-3	15" Conc. End Section	C/L Sta. 5+28 Bridle Brook Ct. 61' Lt.	--	629.70	--	Ho. Co. Std. Detail SD 5.51
E-4	24" Conc. End Section	C/L Sta. 0+60 Horseshoe Bend Ct. 51' Rt.	--	607.06	--	Ho. Co. Std. Detail SD 5.51
E-15	15" Metal End Section	C/L Sta. 14+33 Florence Rd. 26' Rt.	--	613.20	--	Ho. Co. Std. Detail SD 5.61
E-16	15" Metal End Section	C/L Sta. 14+37 Florence Rd. 26' Rt.	--	613.20	--	Ho. Co. Std. Detail SD 5.61
E-17	15" Metal End Section	C/L Sta. 14+32 Florence Rd. 22' Lt.	614.98	--	--	Ho. Co. Std. Detail SD 5.61
E-18	15" Metal End Section	C/L Sta. 14+36 Florence Rd. 22' Lt.	614.98	--	--	Ho. Co. Std. Detail SD 5.61
E-19	Metal End Section	C/L Sta. 17+75 Florence Rd. 27' Rt.	--	607.10	--	Ho. Co. Std. Detail SD 5.63
E-20	Metal End Section	C/L Sta. 17+75 Florence Rd. 21' Lt.	608.10	--	--	Ho. Co. Std. Detail SD 5.63
E-21	Metal End Section	C/L Sta. 19+49 Florence Rd. 26' Rt.	--	606.25	--	Ho. Co. Std. Detail SD 5.63
E-22	21" Metal End Section	C/L Sta. 29+23 Florence Rd. 21' Rt.	--	605.16	--	Ho. Co. Std. Detail SD 5.61
E-23	21" Metal End Section	C/L Sta. 29+27 Florence Rd. 21' Rt.	--	605.16	--	Ho. Co. Std. Detail SD 5.61
E-24	21" Metal End Section	C/L Sta. 29+07 Florence Rd. 20' Lt.	606.48	--	--	Ho. Co. Std. Detail SD 5.61
E-25	21" Metal End Section	C/L Sta. 29+11 Florence Rd. 20' Lt.	606.48	--	--	Ho. Co. Std. Detail SD 5.61
M-1	4' Manhole	C/L Sta. 5+50 Bridle Brook Ct. 20' Lt.	631.19	631.07	635.51	Ho. Co. Std. Detail G 5.61
M-2	4' Manhole	C/L Sta. 4+18 Horseshoe Bend Ct. 20' Rt.	634.80	634.60	638.66	Ho. Co. Std. Detail G 5.11
R-2	48" CMP Riser	C/L Sta. 19+50 Florence Rd. 34' Lt.	--	606.50	608.40	See Detail Sheet



**S.W.M. FACILITY #1
FOREBAY BERM DETAIL**
NO SCALE

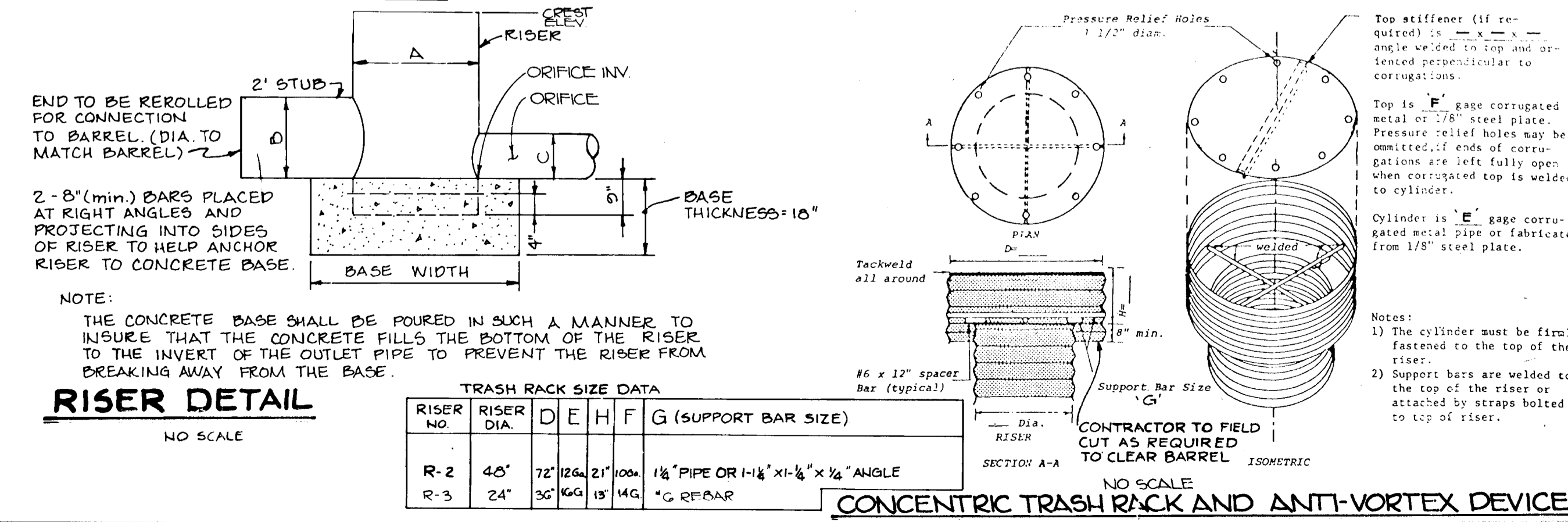


**S.W.M. FACILITY #2
FOREBAY BERM DETAIL**
NO SCALE



STORM DRAIN PROFILE SCALE: HOR: 1"=50' VERT: 1"=5'
PROFILE SCALE: HOR: 1"=50' VERT: 1"=5'
PROFILE SCALE: HOR: 1"=50' VERT: 1"=5'
PROFILE SCALE: HOR: 1"=50' VERT: 1"=5'

	R-2	R-3
A	48" CMP	24" CMP
B	28" x 20" CMP	18" x 18" CMP
C	10"	2"
CREST ELEV	606.40	607.60
ORIFICE INV.	606.50	606.00
RISER BASE DIMENSION	8' x 6'	4' x 4'



RISER DETAIL
NO SCALE

CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE
NO SCALE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Frank J. Taylor 12/3/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Charles Dammas 11/20/90
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE

Francis W. Wardlaw 11/6/90
 CHIEF, BUREAU OF HIGHWAYS
 DATE

W. E. ... 11-20-90
 CHIEF, BUREAU OF ENGINEERING
 DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
 GREGG MCCABEON POTOMAC DEVELOPMENT CO.
 2484 FLORENCE RD. 1045 COPPERSTONE CT.
 MT. AIRY, MD. 21771 ROCKVILLE, MD 20851

PROJECT: 5-88-48 SECTION TWO P87-02
BRIDLE BROOK ESTATES
 LOTS 8-23 & PARCEL A

AREA TAX MAP 12 ZONED R PARCELS 13 & 15
 4TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **PROFILES & DETAILS**

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 3105 North Ridge Road Ellicott City, Maryland 21043
 301-461-2690 FAX: 301-750-3176

DATE: 10-3-90

DESIGNED BY: D.F.
 DRAWN BY: M.A.D./M.K.
 PROJECT NO: 52005
 DATE: AUGUST 24, 1990
 SCALE: AS SHOWN
 DRAWING NO. 12 OF 12

ARTHUR B. MUEGGE PE#907