ROADWAY, STORM DRAINS & STORM WATER MANAGEMENT

RIVER MILLS

2 ND ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

SHEET INDEX

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1	TITLE SHEET
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3	PLAN AND PROFILE OF PATAPSCO RIVER ROAD STA. 0+00 TO STA. 12+75
4	PLAN AND PROFILE OF PATAPSCO RIVER ROAD STA. 12+76 TO STA. 24+20.54
5	PLAN AND PROFILE OF RIDGE ROAD
6	PLAN AND PROFILE OF OLD MANSE COURT, QUAKER MILL COURT, HOLLOW FIELDS COURT, AND MILL LAWN COURT
7	PLAN AND PROFILE OF LOWER MILL COURT, UPPER MILL COURT, AND BUCKS COUNTY COURT
8	PLAN AND PROFILE OF ORANGE GROVE COURT
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11	STORM DRAIN PROFILES
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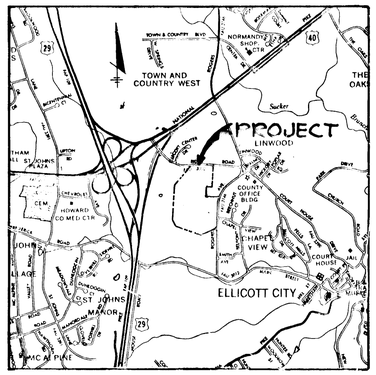
18	STORM WATER MANAGEMENT & SEDIMENT CONTROL PROFILES, DETAILS, AND STORM DRAIN PROFILES
19	STORM WATER MANAGEMENT & SEDIMENT CONTROL NOTES AND DETAILS



VICINITY MAP
SCALE 1" 2000'

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. 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 DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
4. CONTRACTOR SHALL NOTIFIY THE FOLLOWING UTILITIES AT LEASE FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

MISS UTILITY	559-0100
BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 or 3554
BALTIMORE GAS AND ELECTRIC COMPANY	539-8000, ext. 691
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	792-7272

5. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
6. ALL STREET CURB RETURNS SHALL HAVE 35.0' RADII UNLESS OTHERWISE NOTED.
7. 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.
8. INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1971 EDITION.
9. 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.
10. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:

ALL 80' RIGHT-OF-WAYS	40 M.P.H.
ALL 50' RIGHT-OF-WAYS	30 M.P.H.

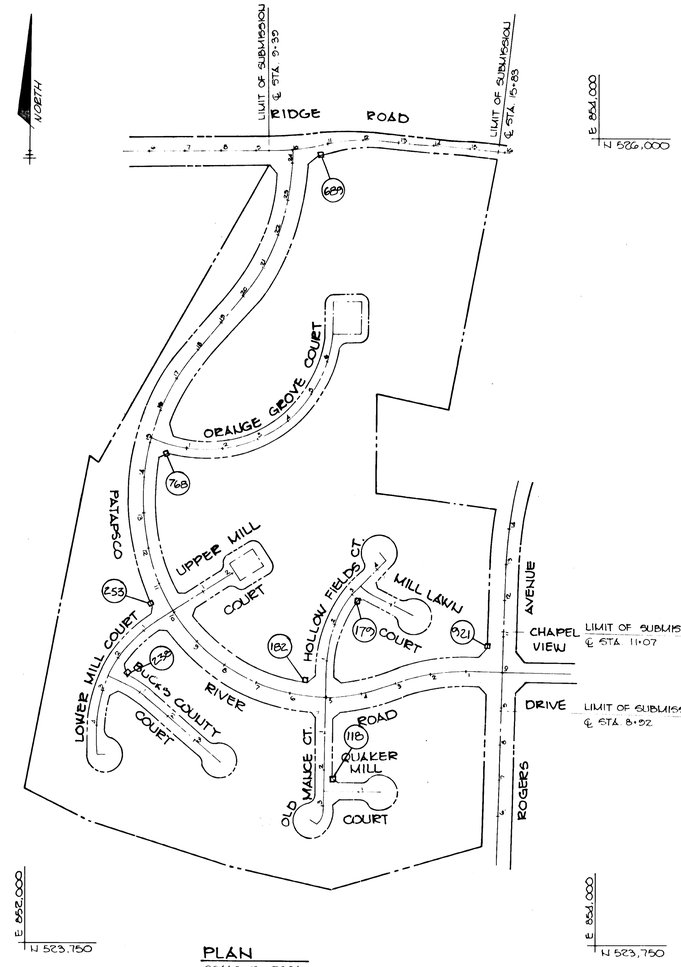
11. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
12. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
13. ALL PIPE ELEVATIONS SHOWN ARE INVERT (82) ELEVATIONS.
14. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
15. SUBJECT PROPERTY ZONED R-SC PER 10-03-77 COMPREHESIVE ZONING PLAN.
16. TOPO TAKEN FROM FIELD RUN SURVEY DATED DECEMBER , 1984 BY THE RIEMER GROUP INC.
17. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
18. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME I OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
19. ALL CORRUGATED METAL PIPE IS SHOWN AS BITUMINOUS COATED. ALUMINIZED CORRUGATED METAL PIPE MAY BE SUBSTITUTED.

BENCH MARKS

HO CO MONUMENT # 32B3011 ELEV. 397.272
HOWARD COUNTY CONCRETE MONUMENT WITH BRONZE DISK LOCATED AT THE INTERSECTION OF ROGGERS AVENUE AND RIDGE ROAD.

HO CO MONUMENT # 32B3010 ELEV 408.675
HOWARD COUNTY CONCRETE MONUMENT WITH BRONZE DISK LOCATED ON SOUTHWEST CORNER OF BRIGHTWELL DRIVE AND COURTHOUSE DRIVE.

} HORIZONTAL AND VERTICAL CONTROLS USED FOR AS-BUILT SURVEY



PLAN
SCALE 1" = 200'

NOTE:
FOR CONCRETE MONUMENT RECOVERY SKETCHES SEE APPROPRIATE ROAD PLAN & PROFILE SHEETS

SITE TABULATION

ZONING	R-SC
1. Gross Area	44.81 AC
2. Floodplain/Steep Slopes/	0.80 AC
3. Net Area	44.01 AC
4. No. of Dwelling Units Allowed @ 4 D.U. Per Net Area	176. D.U.
5. Total No. of Dwelling Units Proposed	176. D.U.
6. Density Per Acre	4. DU/AC
7. Single Family Detached	72. D.U.
8. Single Family Attached Lots	104. D.U.
9. Parking Spaces Required @ 2 Spaces/Attached D.U.	208.
10. Parking Spaces Provided	216.
11. Open Space Required (20%)	8.998 AC
12. Open Space Provided	15.883 AC
13. Road R.O.W.	9.3185 AC

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-15-85

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-23-85

DATE	NO	REVISION
5/14/86	1	REVISED GENERAL NOTES, PER COUNTY COMMENTS

OWNER/DEVELOPER
WEISSBERG CORPORATION
1911 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT
RIVER MILLS

AREA
ELECTION DISTRICT #2 HOWARD COUNTY, MARYLAND
TAX MAP #24 PARCEL 847 ZONED RSC

TITLE
TITLE SHEET

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-15-85
DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — No. 8707 — REGISTERED PROFESSIONAL ENGINEER

ARTHUR E MUEGGE 8707

6-20-86, 11-24-86, 5-15-86

DESIGNED BY	L.J.D.
DRAWN BY	DAM
PROJECT NO	007700
DATE	APRIL 22, 1985
SCALE	AS SHOWN
DRAWING NO.	1 OF 19

AS-BUILT 1-2-92

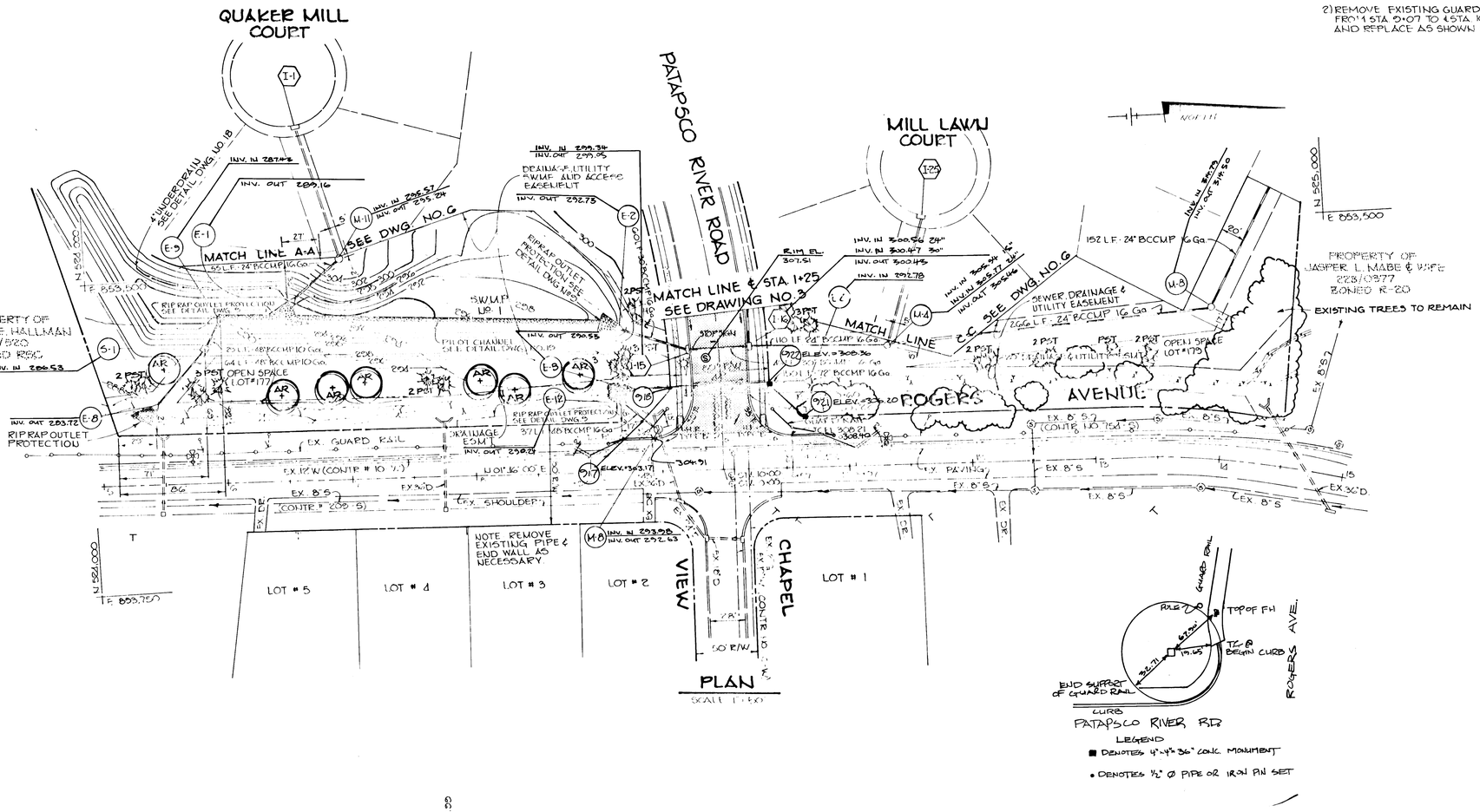
F-85-113

#11

MARYLAND BLUEPRINT CO., INC. 727-0300

NOTES: 1) ✡ DENOTES STREET LIGHTING

2) REMOVE EXISTING GUARD RAILS FROM ℄ STA. 9+07 TO ℄ STA. 10+85 AND REPLACE AS SHOWN ON PLAN.



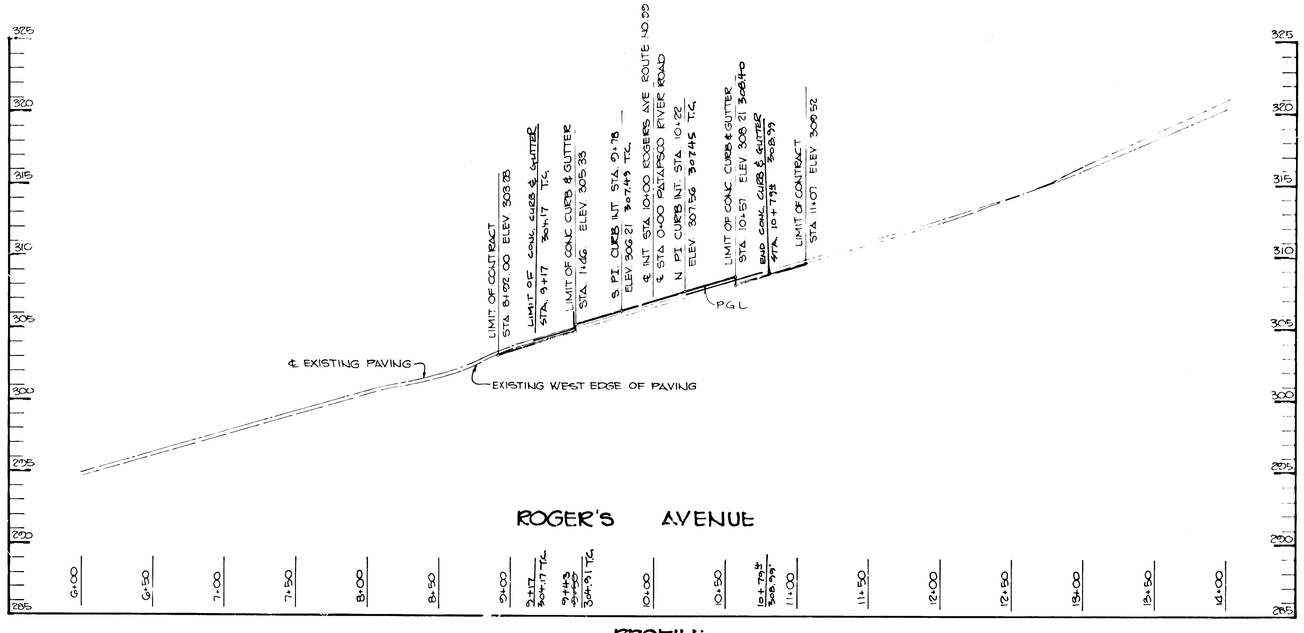
PLAN

SCALE 1"=50'

LEGEND

■ DENOTES 4"x4"x36" CONC. MONUMENT

• DENOTES ½" Ø PIPE OR IRON PIN SET



PROFILE

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

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. Murphy 8-15-85

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Pradeep S. Rao 8-23-85

CHIEF, BUREAU OF ENGINEERING — DATE

DATE	NO	REVISION

OWNER/DEVELOPER

WEISSBERG CORPORATION
1511 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL 847 ZONED RSC

TITLE

PLAN AND PROFILE OF ROGER'S AVENUE

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

F.S. 85 — DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — NO. 8107 — REGISTERED PROFESSIONAL ENGINEER

ARTHUR E. MUEGGE 8107

S 85-16, P 84-34, S 85-06

DESIGNED BY: LJD
DRAWN BY: JCJ
PROJECT NO. 007700
DATE: APRIL 24, 1985
SCALE: AS SHOWN
DRAWING NO. 2 OF 19

AS-BUILT 1-2-92 F-85-115

#1155

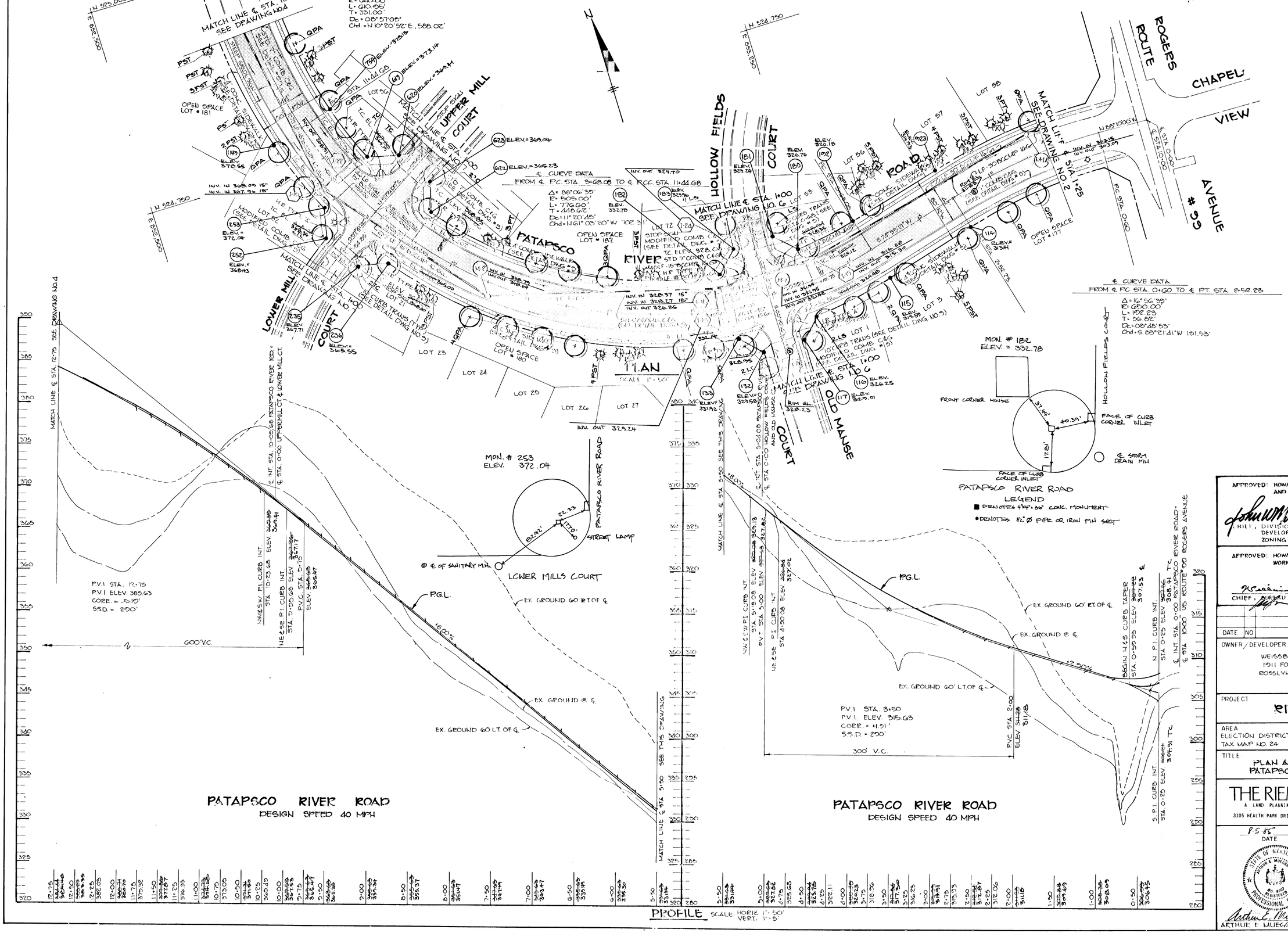
MARYLAND BLUEPRINT CO., INC. 410-2000

NOTES: 1. ☼ DENOTES STREET LIGHTS.

℄ CURVE DATA
FROM ℄ P.C.C. STA. 11+44.68 TO ℄ P.T. STA. 17+55.68
Δ = 54°41'44"
R = 640.00'
L = 610.95'
T = 331.00'
De = 08°57'05"
Chd. = N 10°20'52" E, 588.02'

℄ CURVE DATA
FROM ℄ P.C. STA. 3+68.08 TO ℄ P.C.C. STA. 11+44.68
Δ = 88°06'39"
R = 505.00'
L = 776.60'
T = 488.62'
De = 11°20'45"
Chd = N 61°03'20" W 702.31'

℄ CURVE DATA
FROM ℄ P.C. STA. 0+60 TO ℄ P.T. STA. 2+52.23
Δ = 16°56'38"
R = 650.00'
L = 192.23'
T = 96.82'
De = 08°48'53"
Chd = S 88°21'41" W 191.53'



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

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. Muchow 8-15-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

8-23-85
CHIEF, BUREAU OF ENGINEERING — DATE

DATE	NO	REVISION

OWNER / DEVELOPER
WEISSBERG CORPORATION
1911 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT
RIVER MILLS

AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL 847 ZONED RSC

TITLE
PLAN AND PROFILE OF PATAPSCO RIVER ROAD

THE RIEMER GROUP INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — REG. NO. 6707 — REGISTERED PROFESSIONAL ENGINEER

Arthur E. Muegge
ARTHUR E. MUEGGE #6707

S-85-16, P-84-13, B 85-06	
DESIGNED BY: L.J.D.	
DRAWN BY: DAM	
PROJECT NO: 007700	
DATE: APRIL 24, 1985	
SCALE: AS SHOWN	
DRAWING NO. 3 OF 13	

AS-BUILT 1-2-92

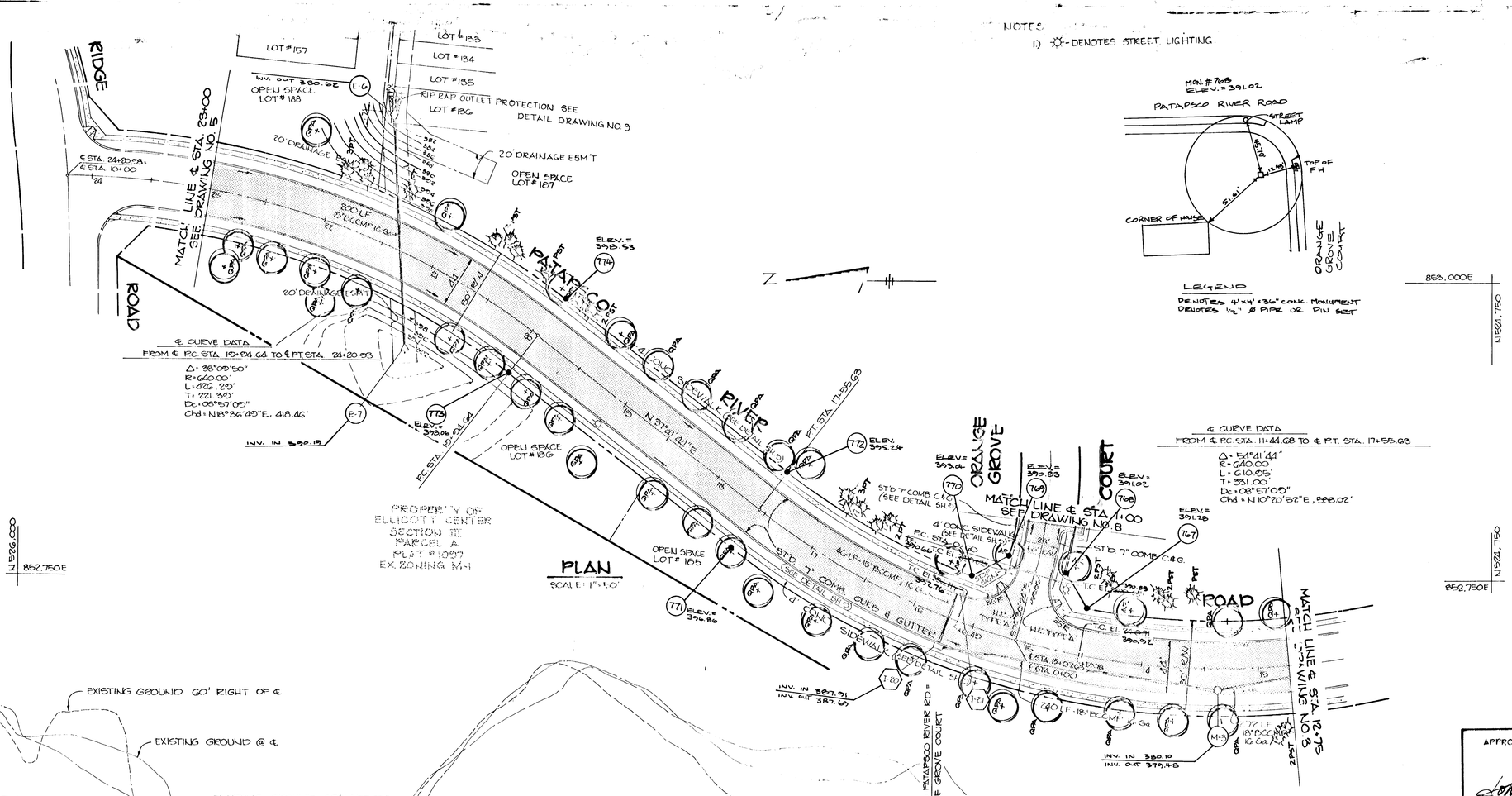
F-85-113

#1155

MARYLAND BLUEPRINT CO. INC. 410-730-3000

NOTES

1) ☼-DENOTES STREET LIGHTING.

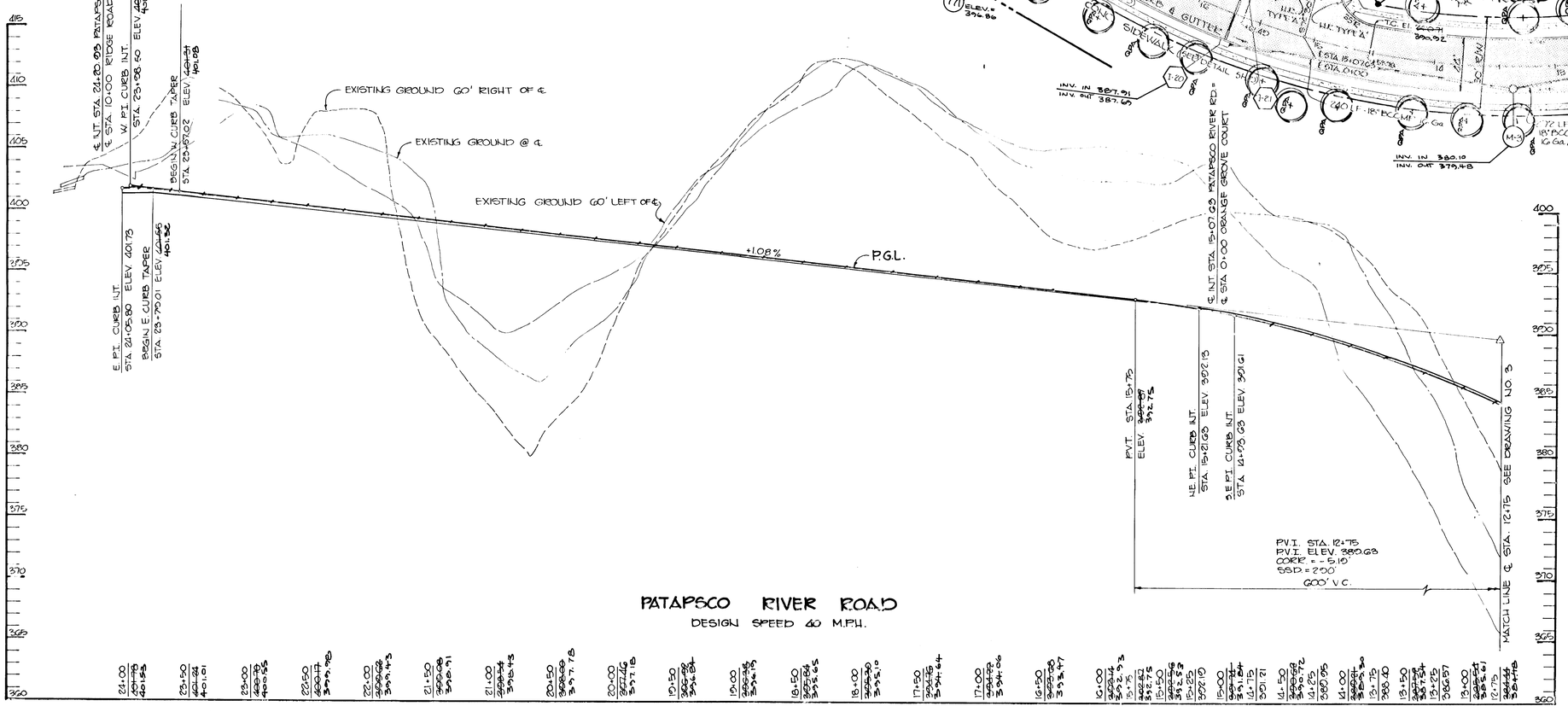


PLAN

SCALE: 1" = 50'

LEGEND

DENOTES 4"x4"x36" CONC. MONUMENT
DENOTES 1/2" Ø PIPE OR PIN SET



PROFILE

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

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-15-85

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-23-85

DATE	NO	REVISION

OWNER/DEVELOPER

WEISSBERG CORPORATION
1911 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL 847 ZONED-RSC

TITLE

PLAN AND PROFILE OF PATAPSCO RIVER ROAD

THE RIEMER GROUP, INC.

A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM

3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 · 301 461-2690

8-5-85 DATE

STATE OF MARYLAND ARTHUR E. MUEGGE No. 8107 REGISTERED PROFESSIONAL ENGINEER

Arthur E. Muegge
ARTHUR E. MUEGGE #8107

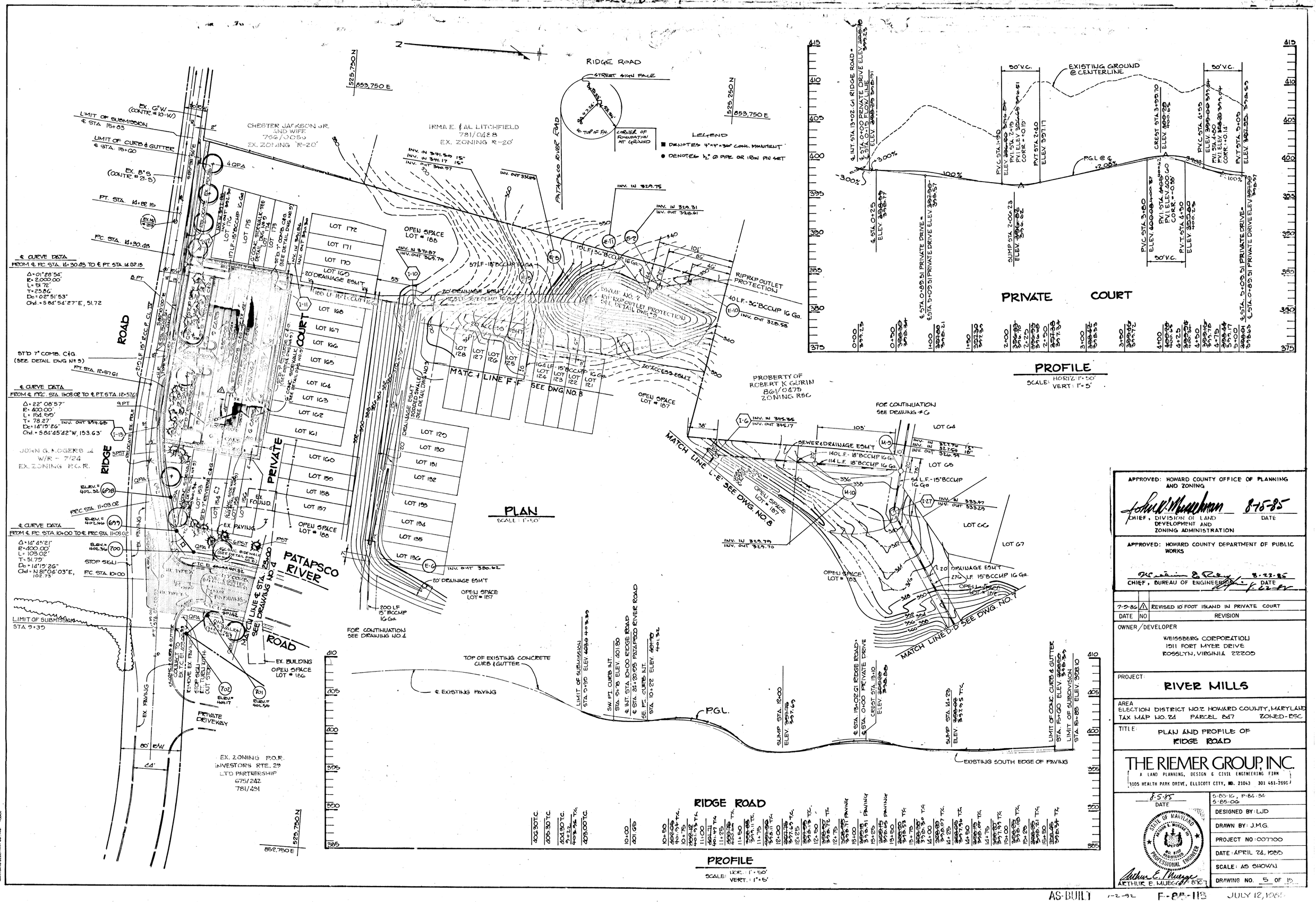
S-88-16, P-84-51, S-85-06	
DESIGNED BY: L.J.D.	
DRAWN BY: J.M.G.	
PROJECT NO: 007700	
DATE: APRIL 24, 1985	
SCALE: AS SHOWN	
DRAWING NO. 4 OF 19	

AS-BUILT 1-2-92

F-85-113

#1155

MARYLAND BLUEPRINT CO., INC. 12500



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-15-85

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-22-85

DATE	NO	REVISION
7-9-86	1	REVISED 10 FOOT ISLAND IN PRIVATE COURT

OWNER/DEVELOPER
WEISSBERG CORPORATION
1511 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22205

PROJECT: RIVER MILLS

AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL 847 ZONED-RSC

TITLE: PLAN AND PROFILE OF RIDGE ROAD

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85 DATE

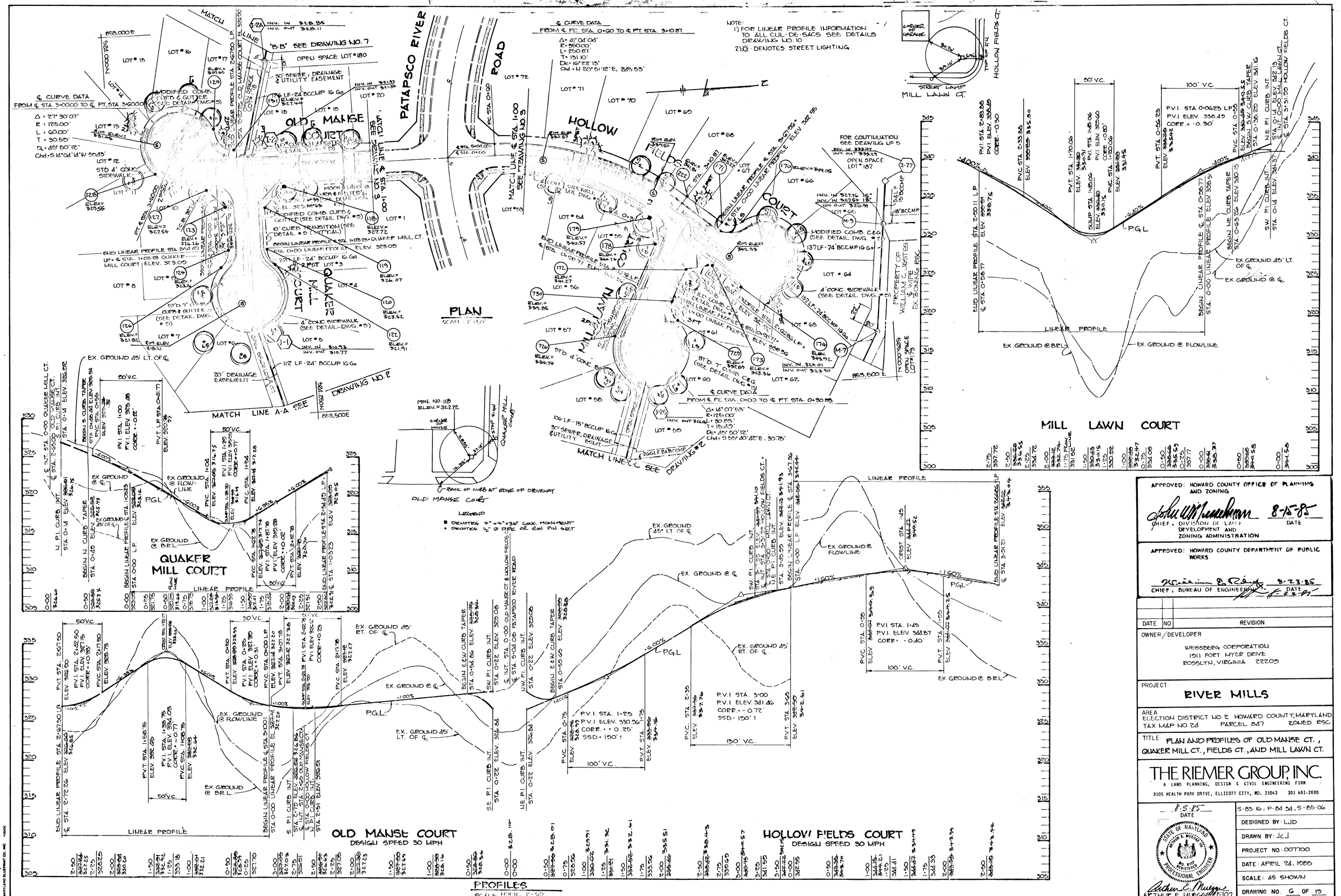
S-85-16, P-84-84
S-85-06

DESIGNED BY: LJD
DRAWN BY: J.M.G.
PROJECT NO: 007700
DATE: APRIL 22, 1985
SCALE: AS SHOWN
DRAWING NO. 5 OF 15

ARTHUR E. MUEGGE 8-7-85

AS-BUILT 1-2-92 F-88-113 JULY 12, 1989

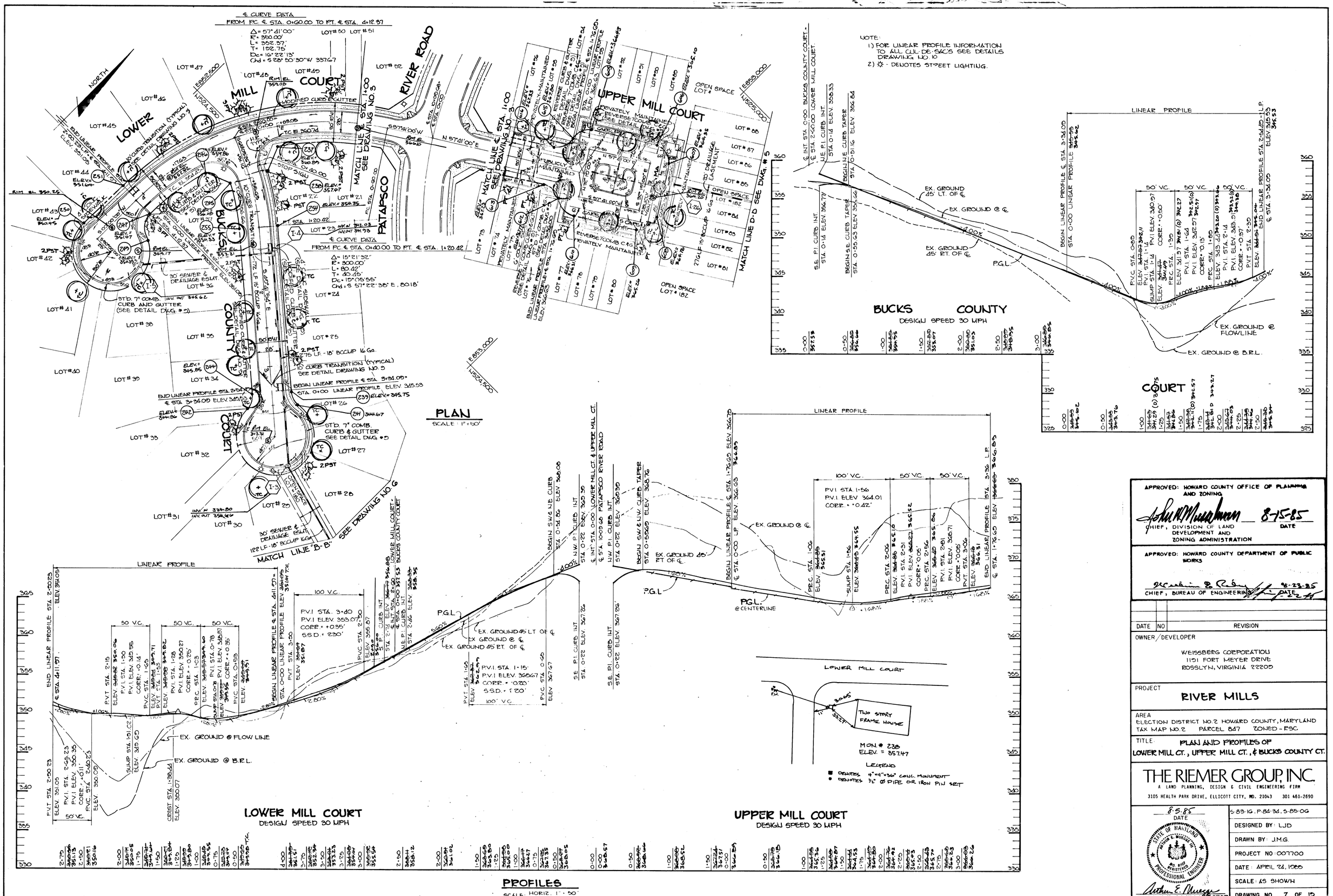
#1155



AS-BUILT 1-2-92 F-85-113

#1155

MARYLAND BLUEPRINT CO. INC. 1-20-00



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-15-85

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-23-85

DATE	NO	REVISION

OWNER/DEVELOPER

WEISSBERG CORPORATION
1101 FORT MEYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 2 PARCEL 847 ZONED - RSC

TITLE: PLAN AND PROFILES OF
LOWER MILL CT., UPPER MILL CT., & BUCKS COUNTY CT.

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — NO. 8707 REGISTERED PROFESSIONAL ENGINEER

ARTHUR E. MUEGGE #8707

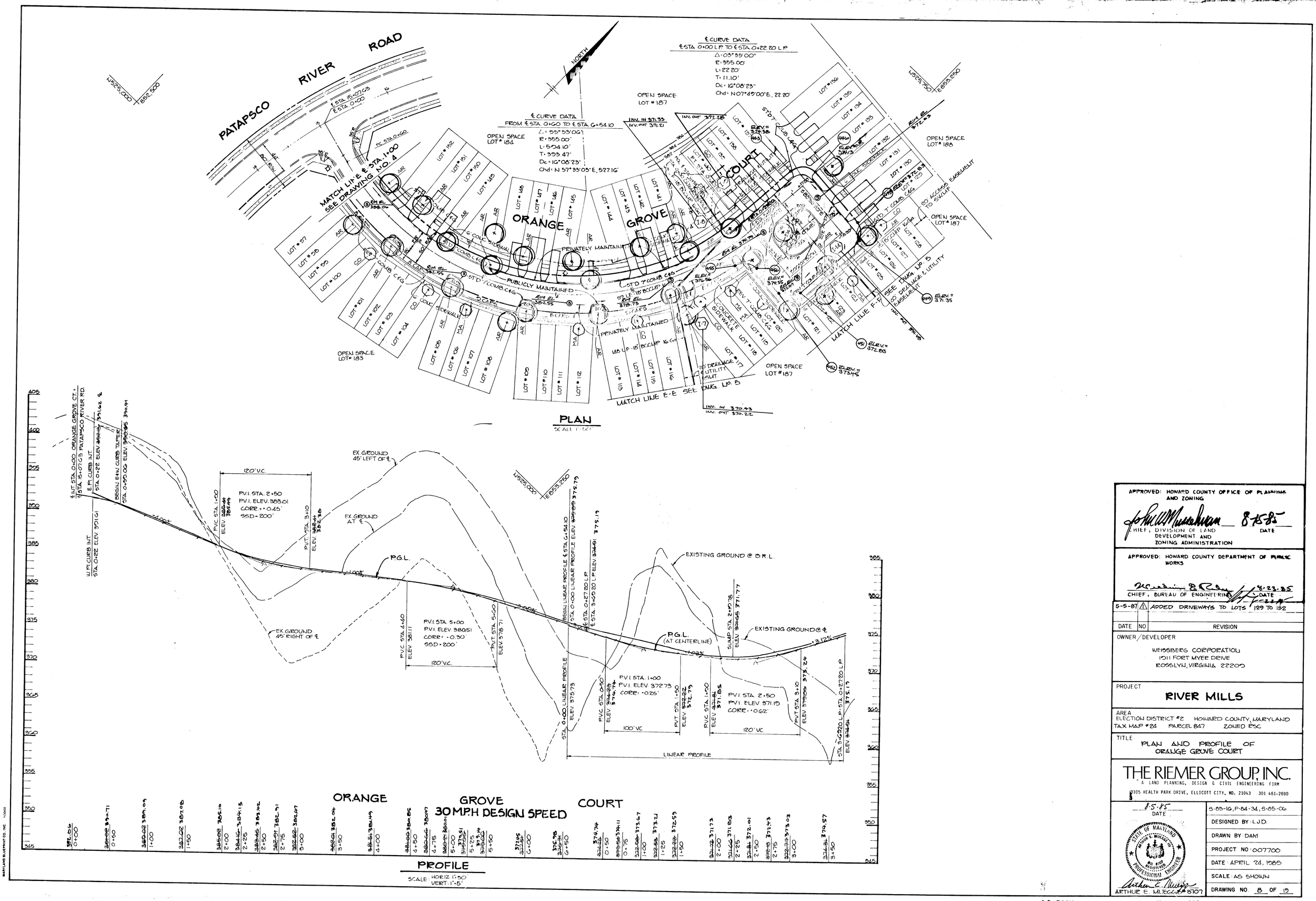
5-83-16, P-84-34, S-85-06	
DESIGNED BY: LJD	
DRAWN BY: J.M.G.	
PROJECT NO. 007700	
DATE: APRIL 22, 1985	
SCALE: AS SHOWN	
DRAWING NO. 7 OF 15	

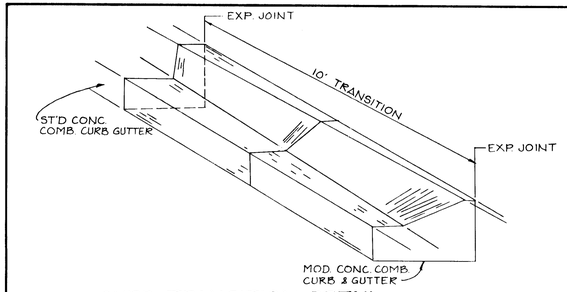
AS-BUILT 1-2-92

F-85-113

#1155

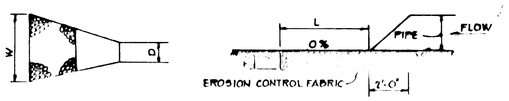
MARYLAND BLUEPRINT CO. INC. 1-10-00


PATAPSCO RIVER ROAD
NORTH
℄ CURVE DATA
℄ STA 0+00 L.P. TO ℄ STA 0+22.20 L.P.
Δ=05°55'00"
R=355.00'
L=22.20'
T=11.10'
Dc=16°08'23"
Chd: N07°49'00"E, 22.20'
℄ CURVE DATA
FROM ℄ STA. 0+60 TO ℄ STA. 6+54.10
Δ=95°53'09"
R=355.00'
L=594.10'
T=393.47'
Dc=16°08'23"
Chd: N 57°39'05"E, 527.16'
MATCH LIN ℄ STA. 1+00 SEE DRAWING NO. 4
ORANGE GROVE COURT
PRIVATELY MAINTAINED
PUBLICLY MAINTAINED
OPEN SPACE LOT # 187
OPEN SPACE LOT # 188
OPEN SPACE LOT # 184
OPEN SPACE LOT # 183
MATCH LINE E-E SEE DWG. NO. 5
MATCH LINE F-F SEE DWG. NO. 5
PLAN
SCALE 1"=50'
EX. GROUND 45' LEFT OF ℄
EX. GROUND AT ℄
EX. GROUND 45' RIGHT OF ℄
EXISTING GROUND @ D.R.L.
EXISTING GROUND @ ℄
P.G.L.
P.G.L. (AT CENTERLINE)
PVI STA. 2+50
PVI. ELEV. 385.01
CORR: +0.45'
SSD = 200'
PVI STA. 5+00
PVI. ELEV. 380.51
CORR: -0.30'
SSD = 200'
PVI STA. 1+00
PVI. ELEV 372.73
CORR: -0.26'
PVI STA. 2+50
PVI. ELEV 371.19
CORR: +0.62'
LINEAR PROFILE
ORANGE GROVE COURT
30 M.P.H DESIGN SPEED
PROFILE
SCALE: HORIZ 1"=50' VERT: 1"=5'
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
DATE 8-15-85
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING
DATE 8-23-85
5-5-87 ADDED DRIVEWAYS TO LOTS 129 TO 152
DATE NO REVISION
OWNER/DEVELOPER
WEISSBERG CORPORATION
10211 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209
PROJECT
RIVER MILLS
AREA
ELECTION DISTRICT #2 HOWARD COUNTY, MARYLAND
TAX MAP #24 PARCEL 847 ZONED RSC
TITLE
PLAN AND PROFILE OF ORANGE GROVE COURT
THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
9105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690
8-5-85
DATE
S-83-16, P-84-34, S-85-06
DESIGNED BY: L.J.D.
DRAWN BY: DAM
PROJECT NO: 007700
DATE: APRIL 24, 1985
SCALE: AS SHOWN
DRAWING NO. 8 OF 19
ARTHUR E. MUEGGE #8707
AS-BUILT 1-2-92
F-85-113



CURB TRANSITION DETAIL

NO SCALE



PLAN

SECTION

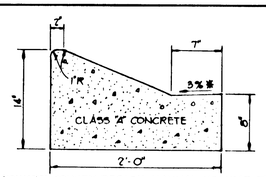
STRUCTURE	MEDIUM STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	.42'	14'	16'	1.0'
E-2	.50	13	15.5	1.17'
E-5	.67'	18	19.5	1.50'
E-6	.33'	8	9.5	.75'
E-8	0.7'	20'	12'	1.50'
E-9	1.0'	30'	18'	2.25'
E-12	1.0'	30'	18'	2.25'
E-10	.50	20'	12'	1.17'

NOTE:

OUTLET PROTECTION TO BE PLACED IN SUCH A MANNER THAT PROVIDES TRANSITION TO THE SHAPE OF THE DOWNSTREAM CHANNEL AT E-6, E-8, E-9 & E-12 ALSO AT E-8 THE RIPRAP SHALL BE PLACED A MINIMUM OF 4' UP THE OPPOSITE SIDE SLOPE OF THE OUTLET CHANNEL.

OUTLET PROTECTION DETAIL

NO SCALE

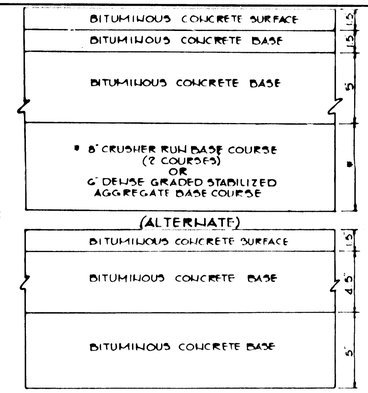


HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-8.01)

* 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.

MODIFIED COMBINATION CURB AND GUTTER

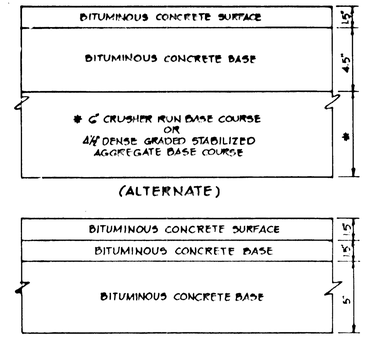
No Scale



HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.02)

(11" PAVING, P-3)

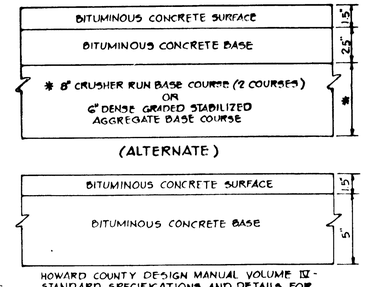
ROGERS AVE. ROAD WIDENING



HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

(8" PAVING, P-3)

PATAPSCO RIVER ROAD

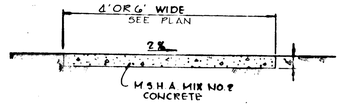


HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

(6½" PAVING, P-2)

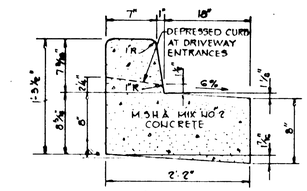
TYPICAL PAVING SECTIONS

NO SCALE

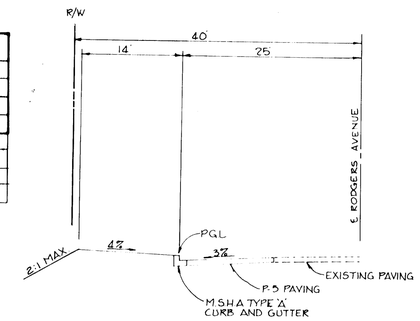


SIDEWALK DETAIL

No Scale

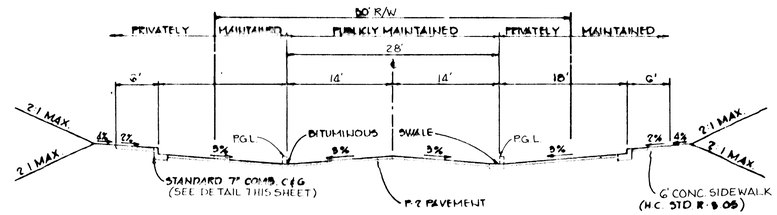


REVERSE 7" COMBINATION CURB AND GUTTER



TYPICAL HALF SECTION ROGERS AVE.

NO SCALE



ZONED RSC

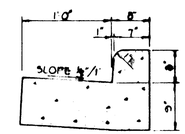
DESIGN SPEED 30 M.P.H.

ORANGE GROVE COURT

FROM ℄ STA. 0+55.06 TO ℄ STA. 6+54.10

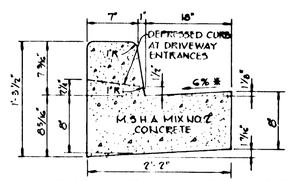
UPPER MILL COURT

FROM ℄ STA. 0+59.69 TO ℄ STA. 1+76.69



M.S.H.A. TYPE 'A' CURB AND GUTTER

No Scale

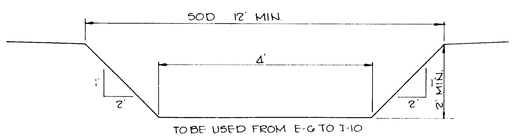


HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-8.01)

* 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.

STANDARD 7" COMBINATION CURB AND GUTTER

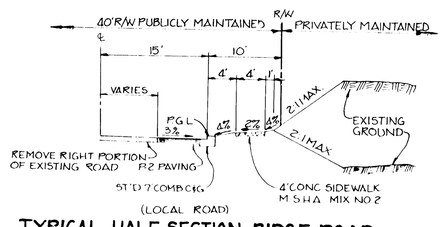
No Scale



SODDED SWALE

NO SCALE

MAX. DRAINAGE AREA = 2.48 Ac
CHANNEL BOTTOM SLOPE = 2%
Q_{max} = 9.80 cfs (SCS TR-55)
V_{max} = 2.7 fps FOR RETARDANCE 'D'
MAX. DEPTH = 0.9 FOR RETARDANCE 'C'



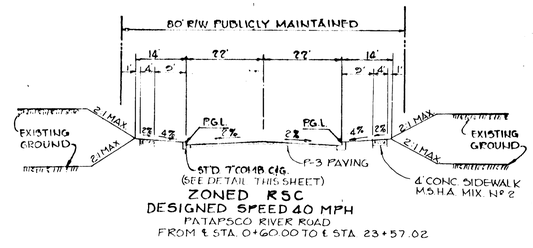
TYPICAL HALF SECTION-RIDGE ROAD

NO SCALE

FROM ℄ STA. 12+77 TO ℄ STA. 15+60

TYPICAL SECTION 50' R/W WITH PARKING

NO SCALE



ZONED RSC

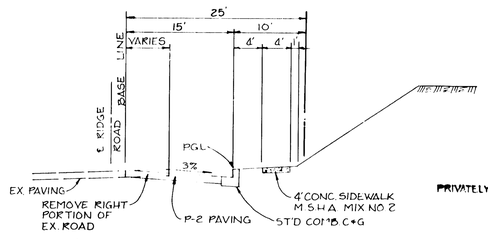
DESIGNED SPEED 40 MPH

PATAPSCO RIVER ROAD

FROM ℄ STA. 0+60.00 TO ℄ STA. 23+57.02

TYPICAL SECTION 80' R/W

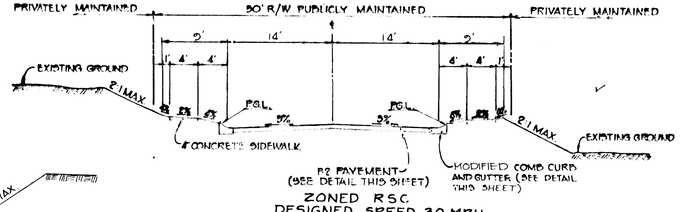
NO SCALE



TYPICAL HALF SECTION RIDGE ROAD

NO SCALE

FROM ℄ STA. 11+42 TO ℄ STA. 12+77



ZONED RSC

DESIGNED SPEED 30 MPH

OLD MANSE COURT FROM ℄ STA. 0+54.86 TO ℄ STA. 2+16.00

QUAKER MILL COURT FROM ℄ STA. 0+65.00 TO ℄ STA. 0+93.23

HOLLOW FIELDS COURT FROM ℄ STA. 0+59.69 TO ℄ STA. 3+67.06

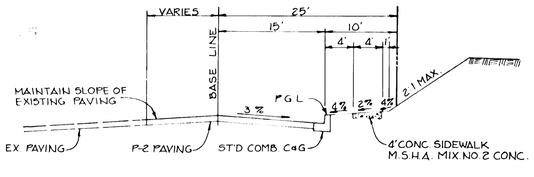
MILL LAWN COURT FROM ℄ STA. 0+63.26 TO ℄ STA. 0+88.77

LOWER MILL COURT FROM ℄ STA. 0+54.06 TO ℄ STA. 4+01.97

BUCKS COUNTY COURT FROM ℄ STA. 0+55.63 TO ℄ STA. 3+24.09

TYPICAL SECTION 50' R/W

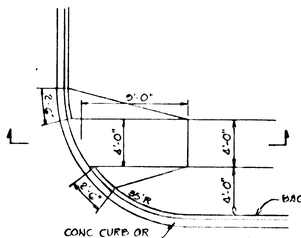
NO SCALE



TYPICAL HALF SECTION RIDGE ROAD

NO SCALE

FROM ℄ STA. 10+28.68 TO ℄ STA. 11+42



PLAN

(SEE SECTION BELOW)

HANDICAP RAMP TYPE 'B'

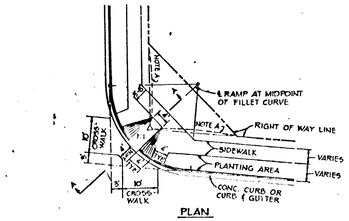
(FOR INTERSECTION WITH ONE SIDEWALK)

NO SCALE

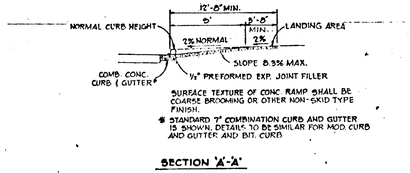
NOTES:

A. RIGHT OF WAY LINE TRUNCATION TO BE AT 25' FROM PI ALONG EACH OF THE INTERSECTING LINES, AS SET FORTH IN SECTION 16-115, PART F.8 OF SUBDIVISION REGULATIONS. MINIMUM DISTANCE BETWEEN BACK OF SIDEWALK AND RIGHT OF WAY LINE TO BE 1 FOOT.

B. TYPE 'A' RAMP TO BE USED FOR ALL NEW CONSTRUCTION WHERE APPLICABLE UNLESS OTHERWISE DIRECTED BY D.P.W.



PLAN



SURFACE TEXTURE OF CONC. RAMP SHALL BE COARSE BROOMING OR OTHER NON-SKID TYPE FINISH.

* STANDARD 7" COMBINATION CURB AND GUTTER IS SHOWN, DETAILS TO BE SIMILAR FOR MOD. CURB AND GUTTER AND BIT. CURB

SECTION 'A'-'A'

HANDICAP RAMP TYPE 'A'

NO SCALE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. Murphy — 8-15-85

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

8-23-85

CHIEF, BUREAU OF ENGINEERING — DATE

DATE	NO	REVISION

OWNER/DEVELOPER

WEISSBERG CORPORATION
1101 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO 2 PARCEL 847 ZONED RSC

TITLE

DETAILS

THE RIEMER GROUP, INC.

A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM

3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

STATE OF MARYLAND REGISTERED PROFESSIONAL ENGINEER NO. 8707

Arthur E. Muegge
ARTHUR E. MUEGGE #8707

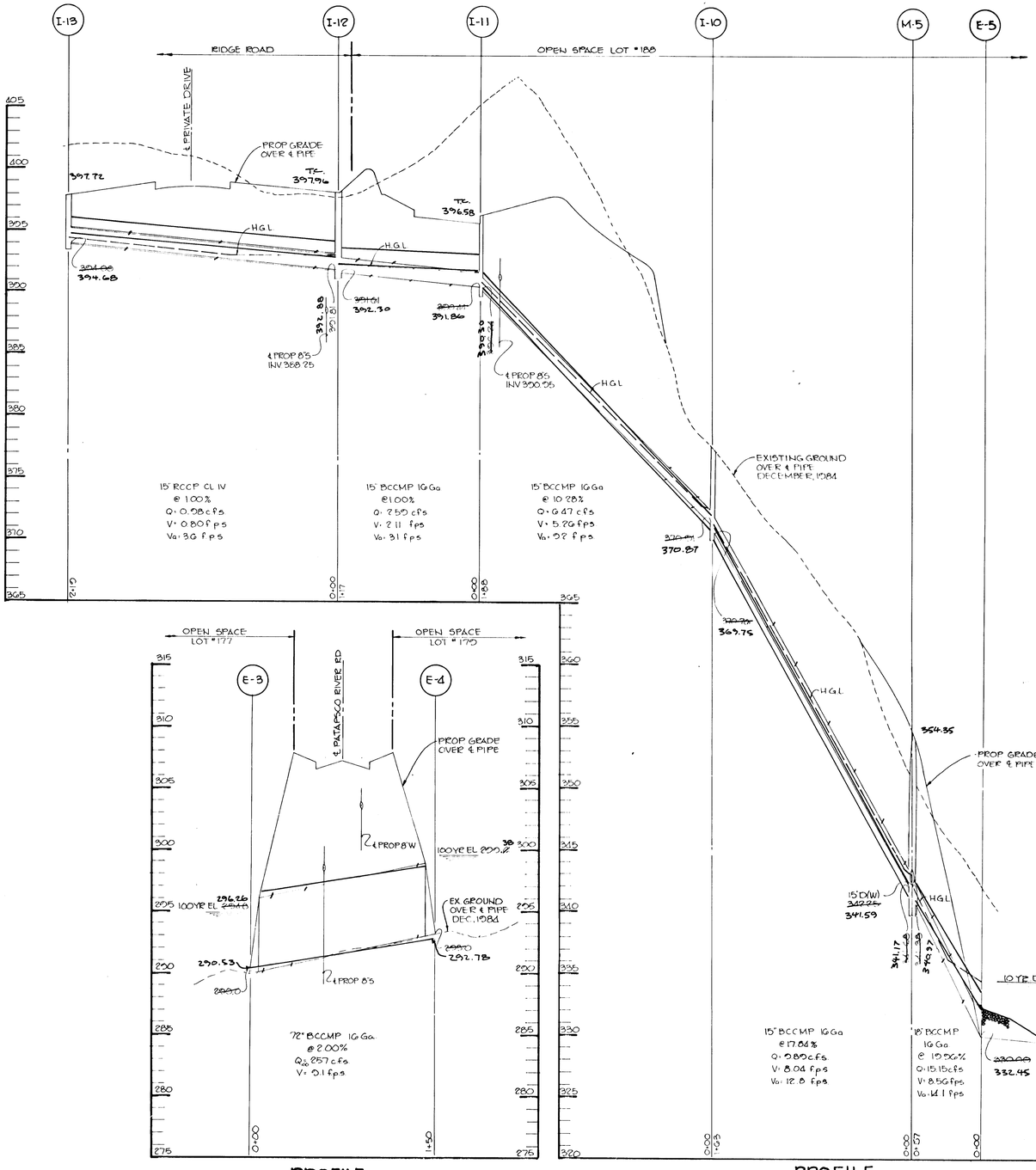
5-83-16, P-84-84, S-85-06	
DESIGNED BY: LJD	
DRAWN BY: JMG	
PROJECT NO: 007700	
DATE: APRIL 24, 1985	
SCALE: AS SHOWN	
DRAWING NO. 2 OF 19	

AS-BUILT 1-2-92

F-85-113

#1155

MARYLAND BLUEPRINT CO., INC. 728-6100

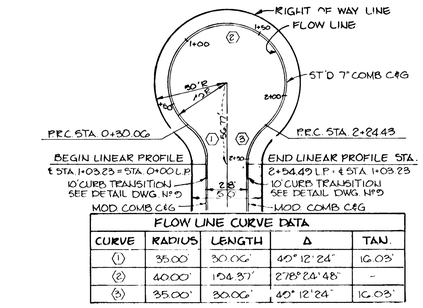


PROFILE

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

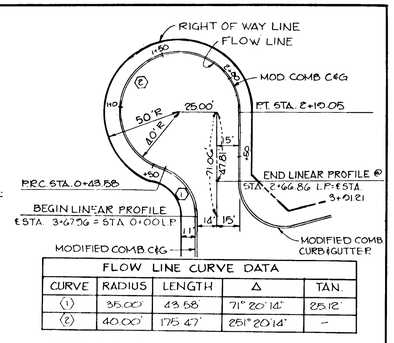
PROFILE

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



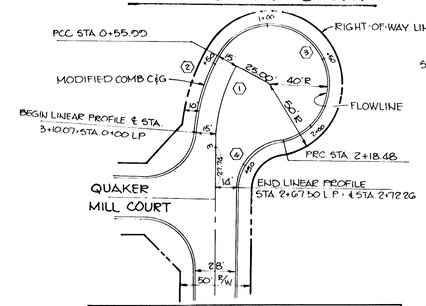
FLOW LINE CURVE DATA				
CURVE	RADIUS	LENGTH	Δ	TAN.
(1)	35.00'	30.06'	49° 12' 24"	16.03'
(2)	40.00'	194.37'	278° 24' 48"	–
(3)	35.00'	30.06'	49° 12' 24"	16.03'

QUAKER MILL COURT & BUCKS COUNTY COURT



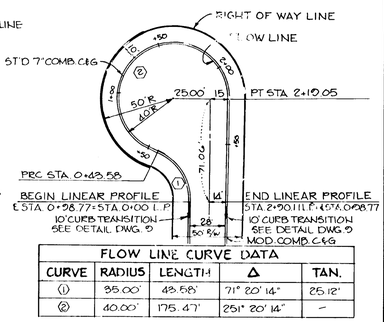
FLOW LINE CURVE DATA				
CURVE	RADIUS	LENGTH	Δ	TAN.
(1)	35.00'	43.58'	71° 20' 14"	25.12'
(2)	40.00'	175.47'	251° 20' 14"	–

HOLLOW FIELDS COURT



FLOW LINE CURVE DATA				
CURVE	RADIUS	LENGTH	Δ	TAN.
(1)	125.00'	60.00'	27° 30' 07"	30.50'
(2)	140.00'	55.95'	22° 54' 48"	28.37'
(3)	40.00'	162.40'	232° 44' 58"	–
(4)	35.00'	49.02'	80° 15' 05"	29.60'

OLD MANSE COURT

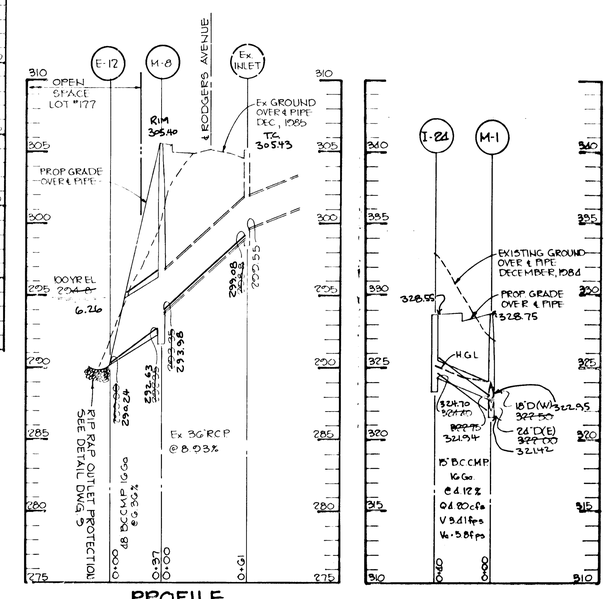


FLOW LINE CURVE DATA				
CURVE	RADIUS	LENGTH	Δ	TAN.
(1)	35.00'	43.58'	71° 20' 14"	25.12'
(2)	40.00'	175.47'	251° 20' 14"	–

MILL LAWN COURT

CUL-DE-SAC DETAILS

NO SCALE



PROFILE

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

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-15-85

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-23-85

DATE	NO	REVISION

OWNER/DEVELOPER

WEISSBERG CORPORATION
1101 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA
ELECTION DISTRICT Nº 2 — HOWARD COUNTY MARYLAND
TAX MAP Nº 2 — PARCEL 847 — ZONED RSC

TITLE

DETAILS & STORM DRAIN PROFILES

THE RIEMER GROUP, INC.

A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM

3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85 DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — No. 8707 — REGISTERED PROFESSIONAL ENGINEER

ARTHUR E. MUEGGE #8707

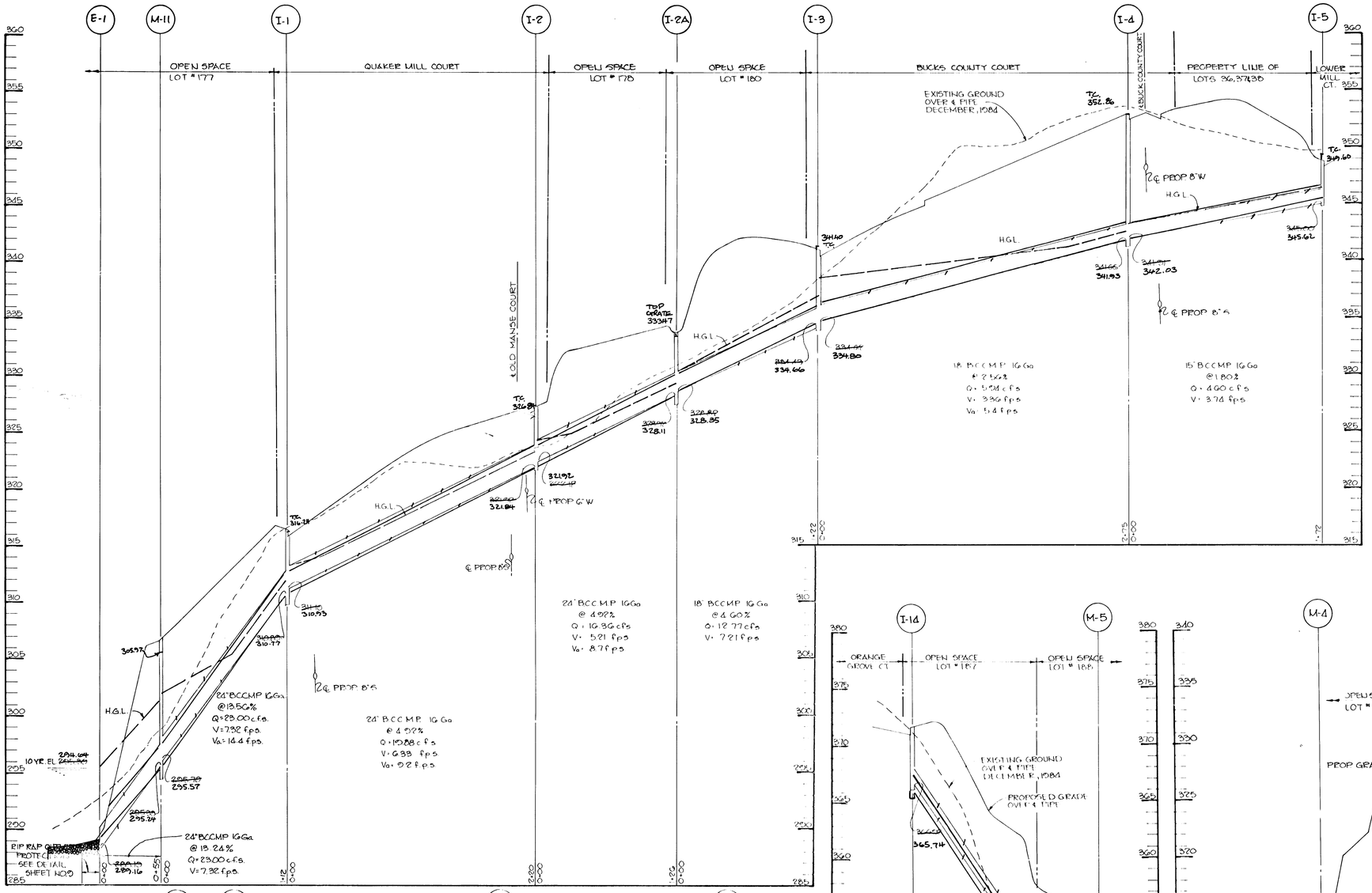
5-89-16 / 5-85-06	P-84-34
DESIGNED BY: L.J.D	
DRAWN BY: D.A.M	
PROJECT NO: 007700	
DATE: APRIL 26, 1985	
SCALE: AS SHOWN	
DRAWING NO. 10 OF 19	

AS-BUILT 1-2-92

F-85-113

#1155

MARYLAND BLUEPRINT CO. INC. N-0001



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-15-85

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-23-85

DATE	NO	REVISION

OWNER / DEVELOPER

WEISSBERG CORPORATION
1101 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA
ELECTION DISTRICT Nº 2 — HOWARD COUNTY MARYLAND
TAX MAP Nº 2 — PARCEL 847 — ZONED RSC

TITLE: STORM DRAIN PROFILES

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

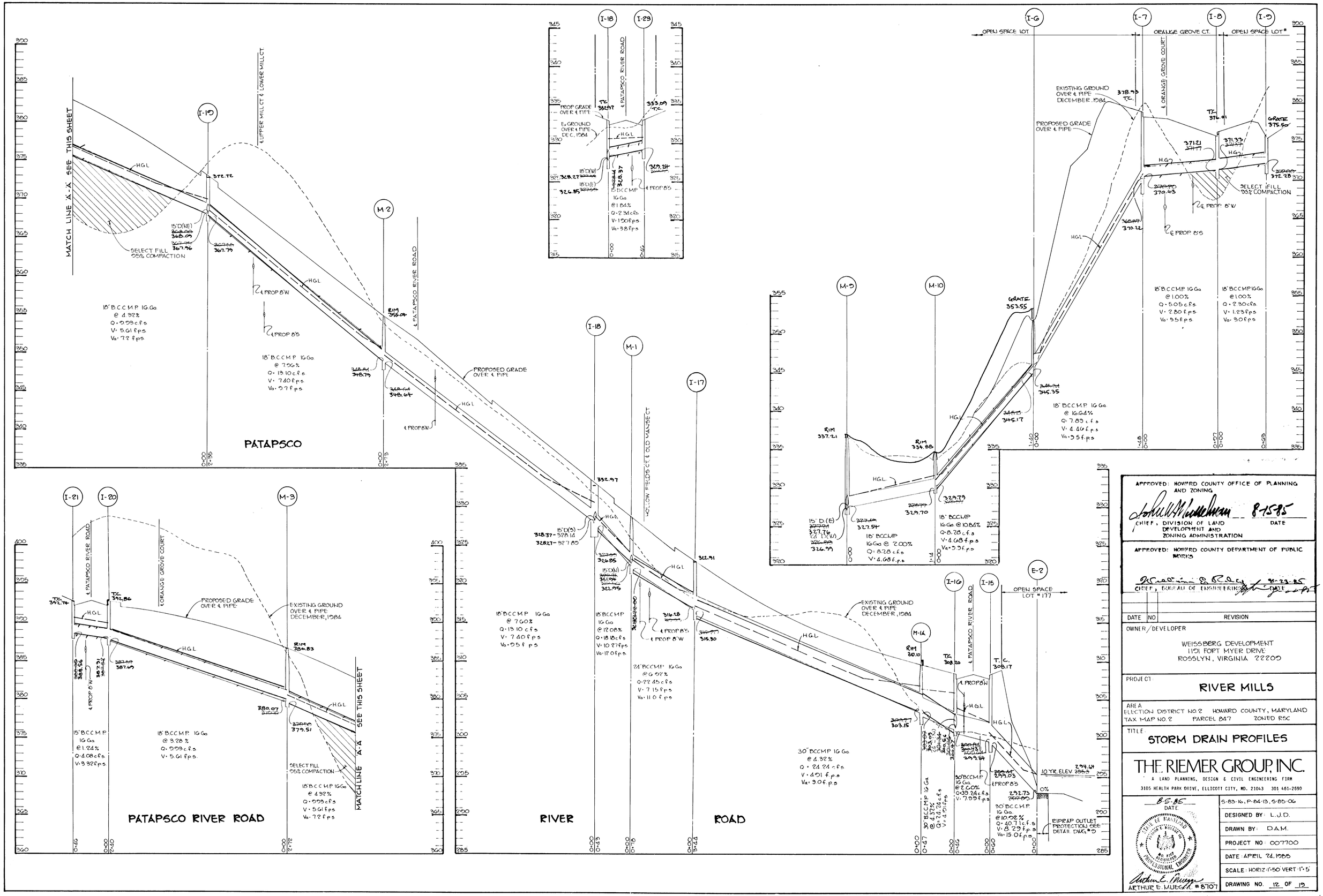
STATE OF MARYLAND — ARTHUR E. MUGGE — No. 8707 — REGISTERED PROFESSIONAL ENGINEER

ARTHUR E. MUGGE #8707

	S-85-16, P-84-34, S-85-06
DESIGNED BY:	L.J.D.
DRAWN BY:	D.A.M.
PROJECT NO:	007700
DATE:	APRIL 22, 1985
SCALE:	HORIZ 1"=50' VERT 1"=5'
DRAWING NO.	11 OF 19

#1155

AS-BUILT 1-2-92 F-85-113



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-15-85

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-23-85

DATE	NO	REVISION

OWNER/DEVELOPER

WEISSBERG DEVELOPMENT
1101 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT: **RIVER MILLS**

AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 2 PARCEL 847 ZONED RSC

TITLE: **STORM DRAIN PROFILES**

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — No. 8707 — REGISTERED PROFESSIONAL ENGINEER

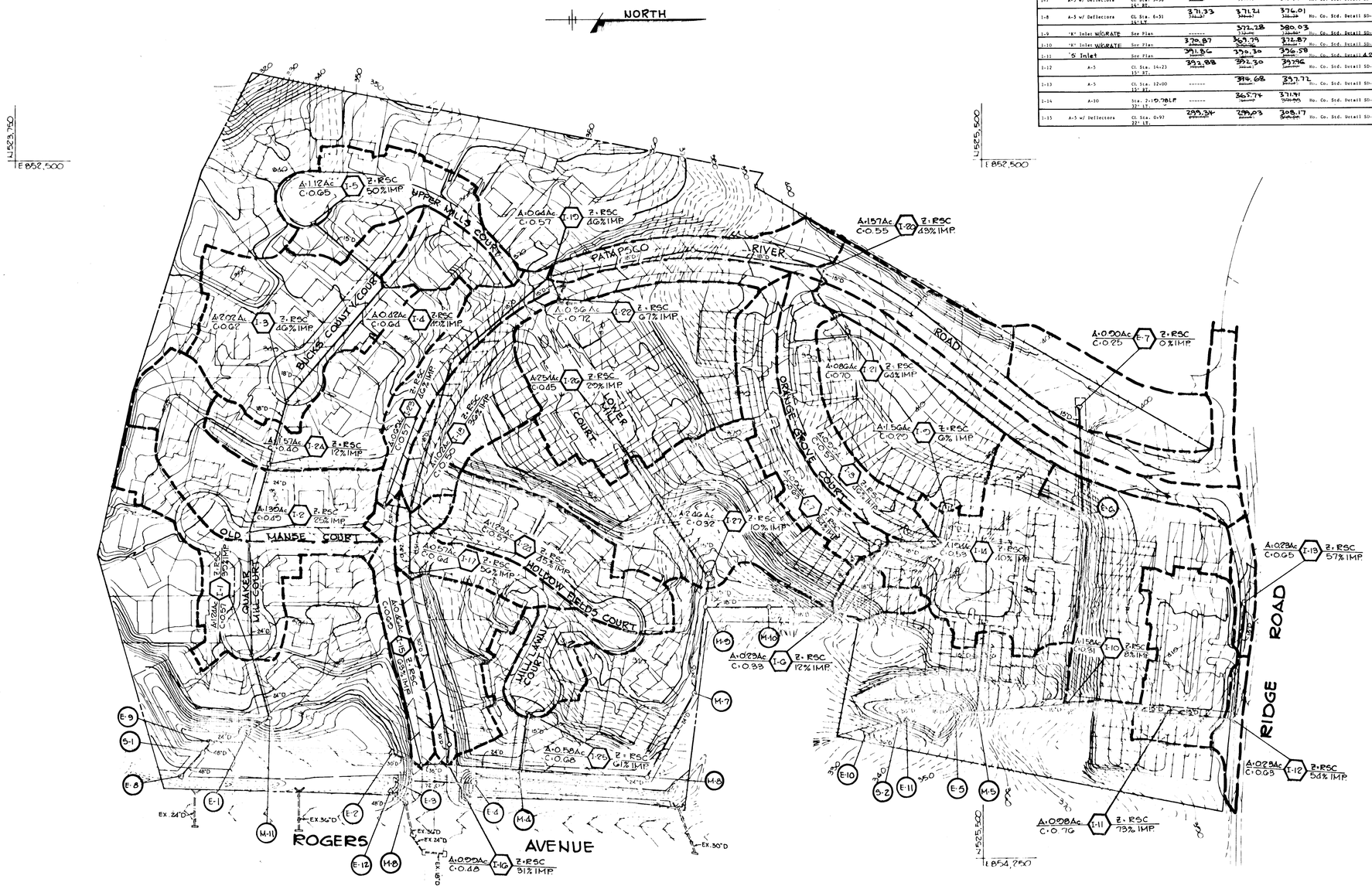
ARTHUR E. MUEGGE #8707

5-83-16, P-84-13, S-85-06	
DESIGNED BY:	L.J.D.
DRAWN BY:	D.A.M.
PROJECT NO:	007700
DATE:	APRIL 26, 1985
SCALE:	HORIZ. 1"=50' VERT. 1"=5'
DRAWING NO.	12 OF 19

AS-BUILT 1-2-92 F-85-113

#1155

MARYLAND BLUEPRINT CO., INC. 410-2000



STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP OF CURB	REMARKS
I-1	A-5	Sta. 1+28.20 L.P.	310.93	310.77	316.26	Ho. Co. Std. Detail SD-4.01
I-2	A-5	Cl. Sta. 2+62.78 14' RT.	~~362.33~~ 361.92	~~361.74~~ 361.54	~~366.84~~ 366.84	Ho. Co. Std. Detail SD-4.01
I-2a	'K' Inlet W/GRATE	See Plan	328.86	328.11	333.47 *	Ho. Co. Std. Detail SD-4.02
I-3	A-5	Sta. 1+14 L.P.	334.80	334.66	341.40	Ho. Co. Std. Detail SD-4.01
I-4	A-5	Cl. Sta. 1+55 14' LT.	342.03	341.93	352.86	Ho. Co. Std. Detail SD-4.01
I-5	A-10	Sta. 0+78 L.P.	------	345.62	349.60	Ho. Co. Std. Detail SD-4.02
I-6	'K' Inlet W/GRATE	See Plan	345.35	345.17	353.53	Ho. Co. Std. Detail SD-4.13
I-7	A-5 w/ Deflectors	Cl. Sta. 3+56 14' RT.	370.43	370.22	379.53	Ho. Co. Std. Detail SD-4.01
I-8	A-5 w/ Deflectors	Cl. Sta. 6+51 14' LT.	371.33	371.21	376.01	Ho. Co. Std. Detail SD-4.01
I-9	'K' Inlet W/GRATE	See Plan	------	372.28	380.03	Ho. Co. Std. Detail SD-4.13
I-10	'K' Inlet W/GRATE	See Plan	370.87	369.79	372.87	Ho. Co. Std. Detail SD-4.13
I-11	'S' Inlet	See Plan	391.86	390.30	396.58	Ho. Co. Std. Detail 4.22
I-12	A-5	Cl. Sta. 14+23 15' RT.	392.88	392.30	397.96	Ho. Co. Std. Detail SD-4.01
I-13	A-5	Cl. Sta. 12+00 15' RT.	------	394.68	397.72	Ho. Co. Std. Detail SD-4.01
I-14	A-10	Sta. 2+10.78LP 22' LT.	------	365.74	371.41	Ho. Co. Std. Detail SD-4.02
I-15	A-5 w/ Deflectors	Cl. Sta. 0+97 22' LT.	299.34	299.03	308.17	Ho. Co. Std. Detail SD-4.01

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP OF CURB	REMARKS
I-16	A-5 w/ Deflectors	Cl. Sta. 0+97 22' RT.	24" D ~~300.56~~ 300.43; 30" D ~~300.44~~ 300.47	~~300.43~~ 300.41	~~309.30~~ 309.30	Ho. Co. Std. Detail SD-4.01
I-17	A-5 w/ Deflectors	Cl. Sta. 6+36 22' RT.	~~316.28~~ 316.08	~~315.30~~ 315.10	~~322.91~~ 322.91	Ho. Co. Std. Detail SD-4.01
I-18	A-10 w/ Deflectors	Cl. Sta. 3+67.43 22' RT.	15" D ~~328.37~~ 328.37; 18" D ~~328.27~~ 328.27	~~328.05~~ 328.05	~~332.97~~ 332.97	Ho. Co. Std. Detail SD-4.02
I-19	A-5 w/ Deflectors	Cl. Sta. 10+70.52 22' LT.	15" D ~~368.09~~ 368.09; 18" D ~~367.96~~ 367.96	~~367.79~~ 367.79	~~372.78~~ 372.78	Ho. Co. Std. Detail SD-4.01
I-20	A-10	Cl. Sta. 13+69.49 22' LT.	~~387.71~~ 387.61	~~387.67~~ 387.67	~~392.86~~ 392.86	Ho. Co. Std. Detail SD-4.02
I-21	A-10	Cl. Sta. 13+69.49 22' RT.	------	~~388.86~~ 388.86	~~392.74~~ 392.74	Ho. Co. Std. Detail SD-4.02
I-22	A-5	Cl. Sta. 10+70.52 22' RT.	------	~~368.91~~ 368.91	~~373.01~~ 373.01	Ho. Co. Std. Detail SD-4.01
I-23	A-5 w/ Deflectors	Cl. Sta. 5+07.02 22' LT.	------	~~323.74~~ 323.74	~~333.09~~ 333.09	Ho. Co. Std. Detail SD-4.01
I-24	A-5 w/ Deflectors	Cl. Sta. 0+65.19 14' Lt.	------	~~324.70~~ 324.70	~~328.55~~ 328.55	Ho. Co. Std. Detail SD-4.01
I-25	A-5	Sta. 1+45.06 L.P.	------	~~326.06~~ 326.06	~~330.34~~ 330.34	Ho. Co. Std. Detail SD-4.01
I-26	A-5	See Plan	------	~~353.58~~ 353.58	~~364.34~~ 364.34	Ho. Co. Std. Detail SD-4.01
I-27	'K' Inlet W/GRATE	See Plan	------	~~333.47~~ 333.27	~~335.29~~ 335.29	~~342.92~~ 342.92 Ho. Co. Std. Detail SD-4.13
M-1	Std. 4'-0" Dia.	Cl. Sta. 3+21 22' RT.	15" D ~~311.94~~ 311.94; 18" D ~~311.95~~ 311.95	~~321.82~~ 321.82	~~328.75~~ 328.75	Ho. Co. Std. Detail G-5.01 OR Ho. Co. Std. Detail G-5.12
M-2	Std. 4'-0" Dia.	Cl. Sta. 8+45 13' LT.	~~348.79~~ 348.79	~~348.64~~ 348.64	~~355.04~~ 355.04	Ho. Co. Std. Detail G-5.01 OR Ho. Co. Std. Detail G-5.12
M-3	Std. 4'-0" Dia.	Cl. Sta. 13+35 18' LT.	~~380.10~~ 380.10	~~379.98~~ 379.98	~~386.83~~ 386.83	Ho. Co. Std. Detail G-5.01 OR Ho. Co. Std. Detail G-5.12
M-4	Std. 4'-0" Dia.	See Plan	15" D ~~306.54~~ 306.54; 24" D ~~305.77~~ 305.77	~~306.46~~ 306.46	~~310.95~~ 310.95	Ho. Co. Std. Detail G-5.01 OR Ho. Co. Std. Detail G-5.12
M-5	Std. 4'-0" Dia.	See Plan	15" D ~~341.69~~ 341.69; 15" D ~~341.17~~ 341.17	~~340.97~~ 340.97	~~349.35~~ 349.35	Ho. Co. Std. Detail G-5.01 OR Ho. Co. Std. Detail G-5.12
M-7	Shallow 4'-0" Dia.	See Plan	~~324.01~~ 324.01	~~323.90~~ 323.90	~~332.31~~ 332.31	Ho. Co. Std. Detail G-5.12
M-8	Std. 4'-0" Dia.	See Plan	~~324.49~~ 324.49	~~324.50~~ 324.50	~~329.18~~ 329.18	Ho. Co. Std. Detail G-5.03
M-9	Std. 4'-0" Dia.	See Plan	15" D ~~317.76~~ 317.76; 18" D ~~323.54~~ 323.54	~~326.49~~ 326.49	~~337.21~~ 337.21	Ho. Co. Std. Detail G-5.01 or Ho. Co. Std. Detail G-5.12
M-10	Std. 4'-0" Dia.	See Plan	~~329.49~~ 329.49	~~329.70~~ 329.70	~~339.86~~ 339.86	Ho. Co. Std. Detail G-5.01 or Ho. Co. Std. Detail G-5.12
M-11	Std. 4'-0" Dia.	See Plan	~~296.57~~ 296.57	~~296.24~~ 296.24	~~305.97~~ 305.97	Ho. Co. Std. Detail G-5.01 or Ho. Co. Std. Detail G-5.12
E-1	24" Metal End Section	See Plan	------	~~289.16~~ 289.16	------	Ho. Co. Std. Detail SD-5.61
E-2	30" Metal End Section	Cl. Sta. 1+23 80' LT.	------	~~292.78~~ 292.78	------	Ho. Co. Std. Detail SD-5.61
E-3	72" Metal End Section	Cl. Sta. 0+67 75' LT.	------	~~290.53~~ 290.53	------	Ho. Co. Std. Detail SD-5.61
E-4	72" Metal End Section	Cl. Sta. 0+67 75' RT.	~~292.78~~ 292.78	------	------	Ho. Co. Std. Detail SD-5.61
E-5	18" Metal End Section	See Plan	------	~~332.45~~ 332.45	------	Ho. Co. Std. Detail SD-5.61
E-6	15" Metal End Section	See Plan	------	~~380.62~~ 380.62	------	Ho. Co. Std. Detail SD-5.61
E-7	15" Metal End Section	Cl. Sta. 20+86 24' LT.	~~390.19~~ 390.19	------	------	Ho. Co. Std. Detail SD 5.61
E-8	48" Metal End Section	See Plan	------	~~283.72~~ 283.72	------	Ho. Co. Std. Detail SD-5.61
E-9	48" Metal End Section	See Plan	~~287.49~~ 287.49	------	------	Ho. Co. Std. Detail SD-5.61
E-10	36" Metal End Section	See Plan	------	~~328.58~~ 328.58	------	Ho. Co. Std. Detail SD-5.61
E-11	36" Metal End Section	See Plan	~~329.75~~ 329.75	------	------	Ho. Co. Std. Detail SD-5.61
E-12	48" Metal End Section	See Plan	------	~~290.24~~ 290.24	------	Ho. Co. Std. Detail SD-5.61
S-1	Special Structure	See Plan	~~286.53~~ 286.53	~~285.49~~ 285.49	~~298.68~~ 298.68	See Plan for Detail
S-2	Special Structure	See Plan	~~328.31~~ 328.31	~~328.51~~ 328.51	~~336.40~~ 336.40	See Plan for Detail
M-1A	STD. 4'-0' Dia.	CL. Sta. 1+41 21' RT.	~~303.15~~ 303.15	~~303.09~~ 303.09	~~310.10~~ 310.10	Ho.Co. Std Detail G-5.01 or Ho.Co. Std Detail G-5.12

* ELEVATIONS AT RIM OR GRATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. Murchinson 8-15-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

8-23-85
CHIEF, BUREAU OF ENGINEERING — DATE

DATE	NO	REVISION

OWNER / DEVELOPER
WEISSBERG CORPORATION
1911 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT
RIVER MILLS

AREA
ELECTION DISTRICT NO 2 HOWARD COUNTY, MARYLAND
TAX MAP NO 24 PARCEL 847 ZONED RSC

TITLE
DRAINAGE AREA MAP

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — No. 8707 — REGISTERED PROFESSIONAL ENGINEER

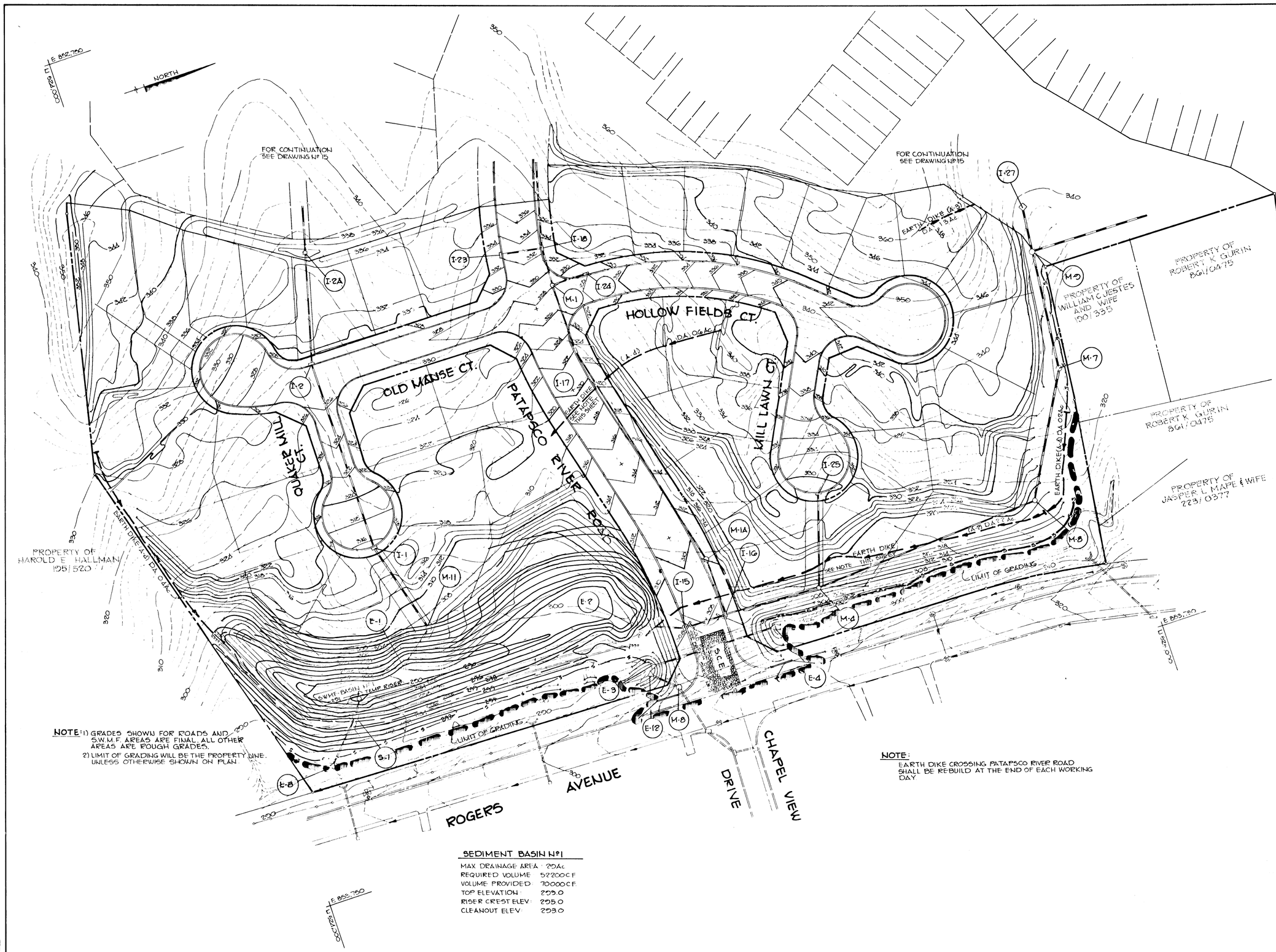
Arthur E. Muegge
ARTHUR E. MUEGGE #8707

DESIGNED BY	LJD
DRAWN BY	D.A.M.
PROJECT NO	007700
DATE	APRIL 24, 1985
SCALE	1" = 100'
DRAWING NO.	13 OF 19

#1155

AS-BUILT 1-2-92

F-85-113



NOTE: 1) GRADES SHOWN FOR ROADS AND S.W.M.F. AREAS ARE FINAL. ALL OTHER AREAS ARE ROUGH GRADES.
2) LIMIT OF GRADING WILL BE THE PROPERTY LINE. UNLESS OTHERWISE SHOWN ON PLAN.

NOTE: EARTH DIKE CROSSING PATAPSCO RIVER ROAD SHALL BE REBUILD AT THE END OF EACH WORKING DAY

SEDIMENT BASIN Nº1

MAX DRAINAGE AREA	20Ac
REQUIRED VOLUME	52200 C.F.
VOLUME PROVIDED	70000 C.F.
TOP ELEVATION	295.0
RISER CREST ELEV.	295.0
CLEANOUT ELEV.	293.0

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

John W. Muchhann — 8-27-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

8-23-85
CHIEF, BUREAU OF ENGINEERING — DATE

BY THE DEVELOPER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DEVELOPER-MARVIN F. WEISSBERG — DATE

BY THE ENGINEER:

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

Arthur E. Muegge — 8-5-85
ENGINEER-ARTHUR E. MUEGGE — 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.

8-12-85
U.S. SOIL CONSERVATION SERVICE — DATE

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

APPROVED — HOWARD S.C.D. — 8-9-85 DATE

DATE	NO	REVISION

OWNER/DEVELOPER

WEISSBERG CORPORATION
1101 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT
RIVER MILLS

AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 2 PARCEL 847 ZONED-RSC

TITLE
GRADING AND SEDIMENT CONTROL PLAN

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

ARTHUR E. MUEGGE

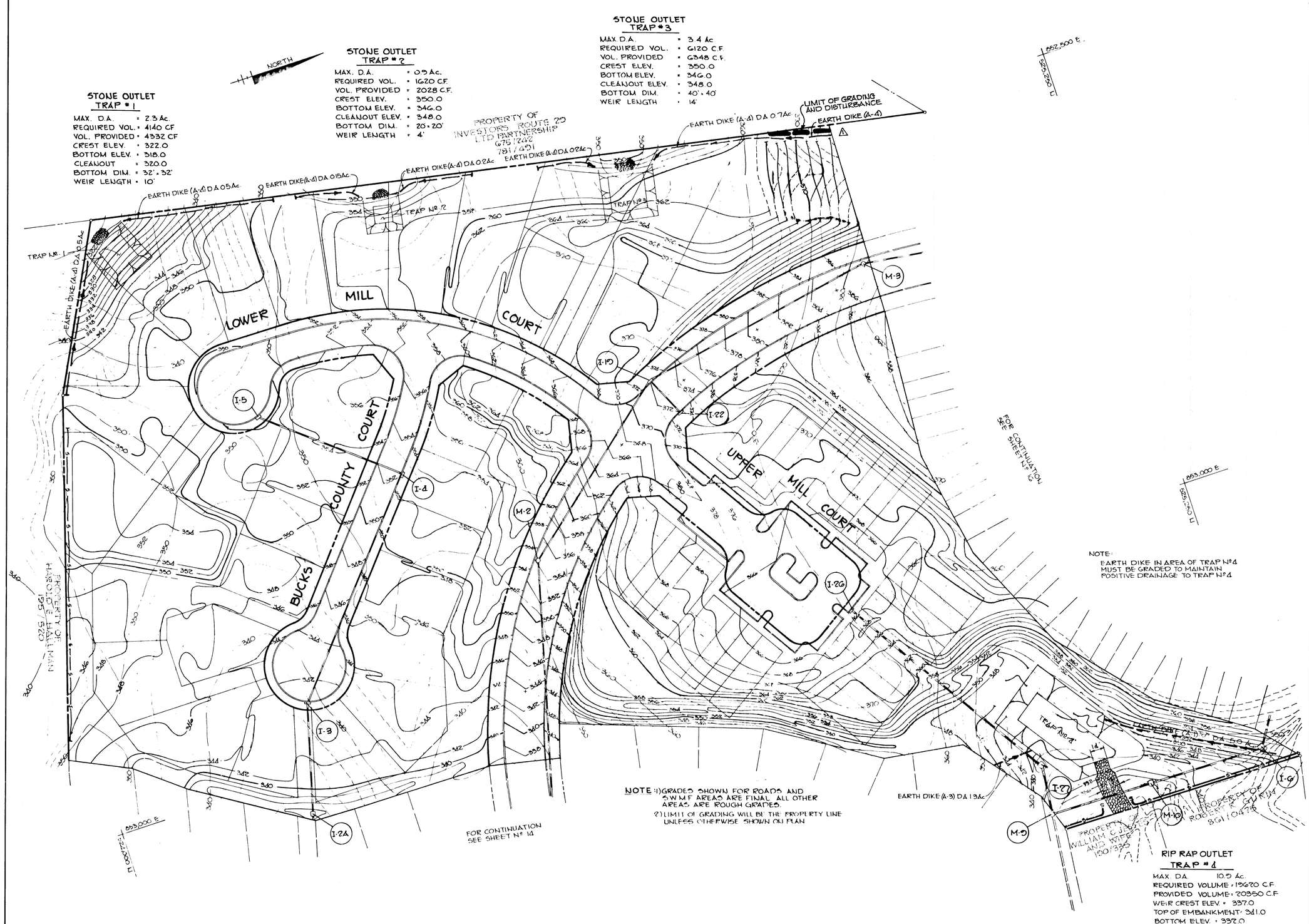
DESIGNED BY	MCM
DRAWN BY	TJM
PROJECT NO	007700
DATE	APRIL 24, 1985
SCALE	1" = 50'
DRAWING NO.	14 OF 19

AS-BUILT 1-2-92

F-85-113

#1155

MARYLAND BLUEPRINT CO. INC. 1-4-1987



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-27-85

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-23-85

BY THE DEVELOPER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DEVELOPER: MARVIN J. WEISSBERG — DATE Aug 1985

BY THE ENGINEER:

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

ENGINEER: ARTHUR E. MUEGGE — DATE 8-5-85

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.

U.S. SOIL CONSERVATION SERVICE — DATE 8-12-85

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

APPROVED HOWARD S.C.D. — DATE 8-9-85

DATE	NO	REVISION
MAR. '88	1	ADD GRADING, EXTEND EARTH DIKE

OWNER/DEVELOPER

WEISSBERG CORPORATION
1101 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 2 PARCEL 247 ZONED - RSC

TITLE

GRADING AND SEDIMENT CONTROL PLAN

THE RIEMER GROUP, INC.

A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM

3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85 DATE

STATE OF MARYLAND ARTHUR E. MUEGGE No. 8707 REGISTERED PROFESSIONAL ENGINEER

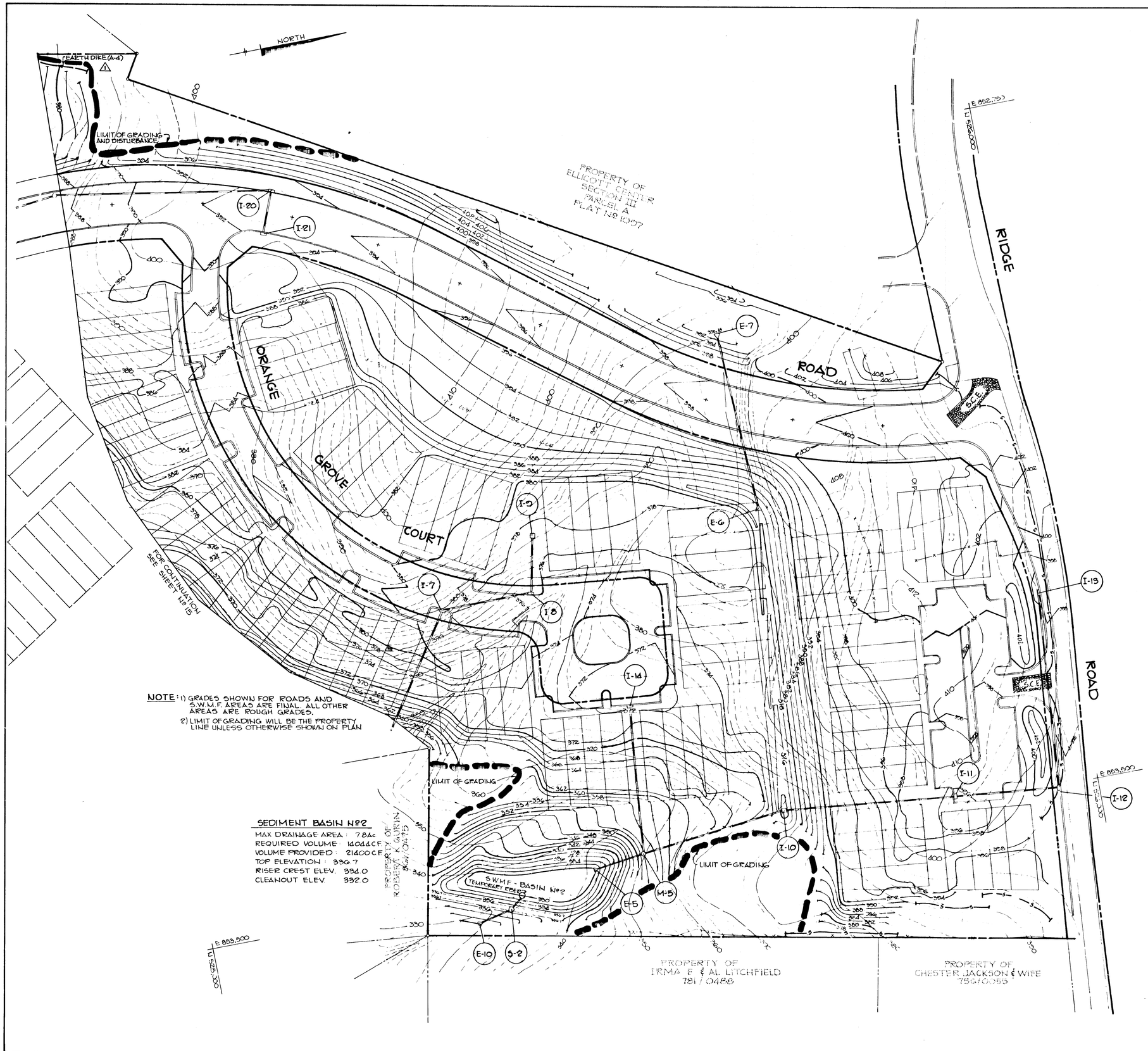
ARTHUR E. MUEGGE

DESIGNED BY	MCM
DRAWN BY	JCJ
PROJECT NO	007700
DATE	APRIL 24, 1985
SCALE	1" = 50'
DRAWING NO	15 OF 19

AS-BUILT 1-2-92

F-85-113

#115



NOTE: 1) GRADES SHOWN FOR ROADS AND S.W.M.F. AREAS ARE FINAL. ALL OTHER AREAS ARE ROUGH GRADES.
2) LIMIT OF GRADING WILL BE THE PROPERTY LINE UNLESS OTHERWISE SHOWN ON PLAN

SEDIMENT BASIN No 2

MAX DRAINAGE AREA : 7.8ac
REQUIRED VOLUME : 14044 C.F.
VOLUME PROVIDED : 21400 C.F.
TOP ELEVATION : 336.7
RISER CREST ELEV. 334.0
CLEANOUT ELEV. 332.0

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

John W. Mueller 8-27-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William E. Riley 8-29-85
CHIEF, BUREAU OF ENGINEERING — DATE

BY THE DEVELOPER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

M. F. Weisberg Aug. 1985
DEVELOPER: MARVIN F. WEISBERG INC. — DATE

BY THE ENGINEER:

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

Arthur E. Muegge 8-5-85
ENGINEER: ARTHUR E. MUEGGE — 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.

James M. Yeiter 8-12-85
U.S. SOIL CONSERVATION SERVICE — DATE

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

APPROVED Robert W. Zieber 8-9-85
HOWARD S.C.D. — DATE

DATE	NO	REVISION
MAR. '85	1	ADD GRADING, EXTEND EARTH DIKE

OWNER/DEVELOPER

WEISBERG CORPORATION
1101 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA

ELECTION DISTRICT NO 2, HOWARD COUNTY, MARYLAND
TAX MAP NO. 7 PARCEL 847 ZONED - RSC

TITLE

GRADING AND SEDIMENT CONTROL PLAN

THE RIEMER GROUP, INC.

A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM

3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — NO. 8707 REGISTERED PROFESSIONAL ENGINEER

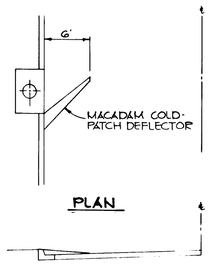
Arthur E. Muegge
ARTHUR E. MUEGGE

DESIGNED BY	MCM
DRAWN BY	JCJ
PROJECT NO	007707
DATE	APRIL 24, 1985
SCALE	1" = 50'
DRAWING NO	16 OF 15

#1155

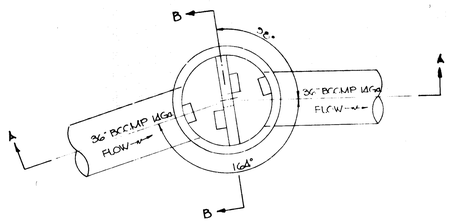
MARYLAND BLUEPRINT CO. INC. 1-800-

AS-BUILT 1-2-92 F-85-113

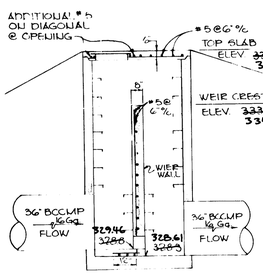


PLAN

PROFILE
COLD PATCH DEFLECTOR
NO SCALE



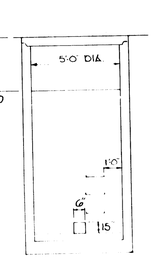
PLAN



SECTION A-A

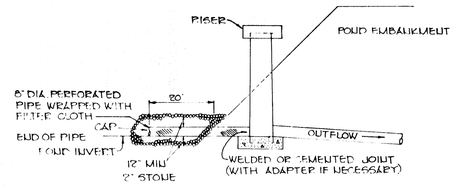
NOTES

1. ALL WORK AND MATERIALS TO BE IN ACCORDANCE WITH MD. "C" STANDARD DETAIL G-5.13 5' DIA SHALLOW PRECAST MANHOLE EXCEPT FOR MODIFICATIONS TO TOP SLAB MANHOLE STEPS AND WEIR WALL.
2. ALL REBAR SHALL HAVE A 2" MIN. CLEARCOVER
3. SHADED AREA (WEIR WALL) SHALL NOT BE CONSTRUCTED UNTIL CONVERSION OF THE SEDIMENT BASIN TO STORM WATER MANAGEMENT USE
4. MANHOLE OPENINGS SHALL BE A SIDEWALK FRAME AND COVER PER MD. CO. STD. DETAIL MD-3.01
5. DOWEL EVERY OTHER HORIZONTAL REBAR IN WEIR WALL 4" INTO MANHOLE WALLS. GROUT HOLES WITH NON-SHRINK GROUT PRIOR TO POURING WEIR WALL.

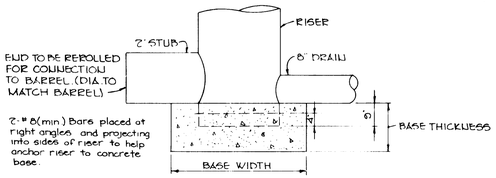


SECTION B-B

CONTROL STRUCTURE S-2
NO SCALE

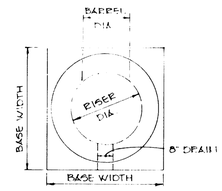


DEWATERING OUTLET
NO SCALE

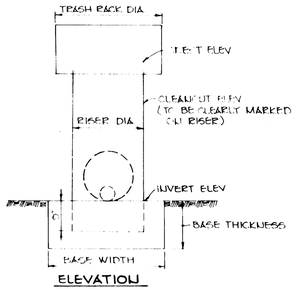


RISER BASE DETAIL
NO SCALE

NOTE:
The concrete base shall be poured in such a manner to insure that the concrete fills the bottom of the riser to the invert of the outlet pipe to prevent the riser from breaking away from the base.

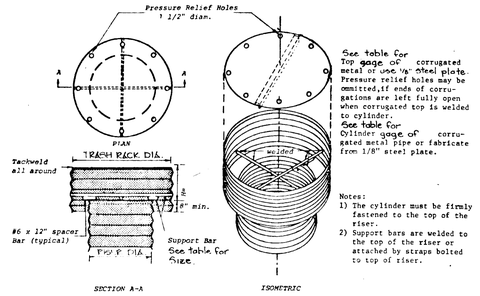


PLAN



ELEVATION

DETAILS FOR TEMPORARY RISER FOR SEDIMENT BASINS
NO SCALE



See table for Top gage of corrugated metal or use 'A' steel plate. Pressure relief holes may be omitted, if ends of corrugations are left fully open when corrugated top is welded to cylinder.
See table for Cylinder gage of corrugated metal pipe or fabricate from 1/8" steel plate.

Notes:
1) The cylinder must be firmly fastened to the top of the riser.
2) Support bars are welded to the top of the riser or attached by straps bolted to top of riser.

CONCENTRIC TRASH RACK & ANTI-VORTEX DEVICE
NO SCALE

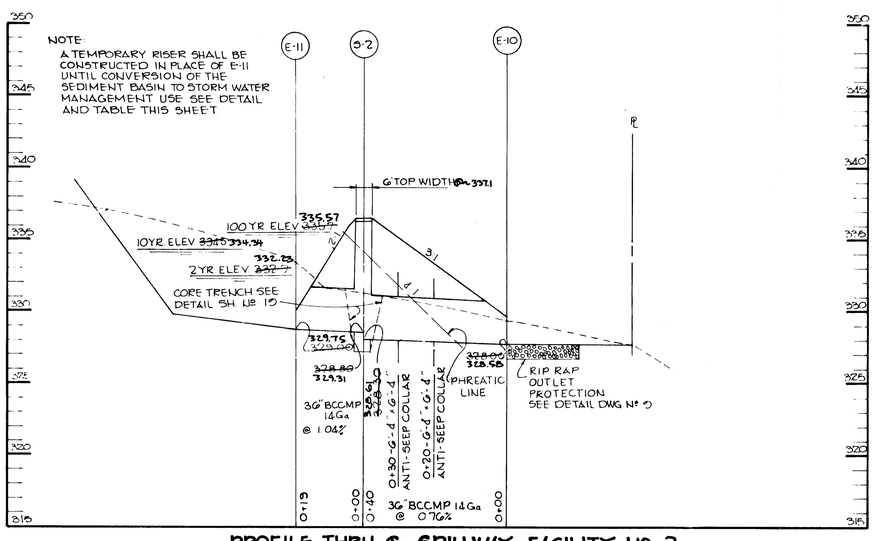
TEMPORARY RISER AND ANTI-SEEP COLLAR

DATA TABLE

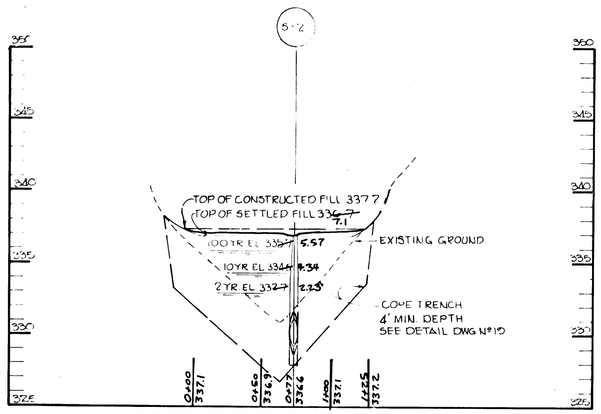
SEDIMENT BASIN/FACILITY	RISER DIA	RISER GAGE	BARREL DIA	BARREL GAGE	CREST ELEV	INVERT ELEV	CLEANOUT ELEV	BASE WIDTH	BASE THICKNESS	TRASH RACK CYLINDER DIA	TRASH RACK CYLINDER GAGE	TRASH RACK H	TRASH RACK TOP GAGE	TRASH RACK SUPPORT BAR	ANTI-SEEP COLLARS* HEIGHT	ANTI-SEEP COLLARS* WIDTH
1	60"	10	48"	10	295.0	288.0	293.0	9.0'	18"	90"	12	29"	8	½" Pipe	7'-6"	7'-6"
2	48"	10	36"	14	334.0	329.0	332.0	6.0'	18"	72"	12	21"	10	1½" Pipe	6'-4"	6'-4"

* 2 Collars for Facility No 2
* 3 Collars for Facility No 1

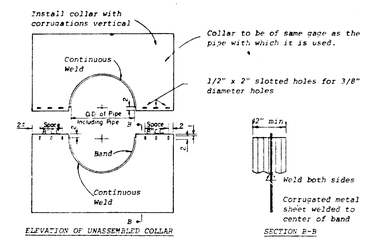
NOTE:
A TEMPORARY RISER SHALL BE CONSTRUCTED IN PLACE OF E-11 UNTIL CONVERSION OF THE SEDIMENT BASIN TO STORM WATER MANAGEMENT USE SEE DETAIL AND TABLE THIS SHEET



PROFILE THRU ℄ SPILLWAY FACILITY NO. 2
SCALE HORIZ. 1"=20' VERT. 1"=5'



PROFILE ALONG ℄ DAM FACILITY NO. 2
SCALE HORIZ. 1"=50' VERT. 1"=5'



NOTES FOR COLLARS:
1. All materials to be in accordance with construction and construction material specifications.
2. When specified on the plans, coating of collars shall be in accordance with construction and construction material specifications.
3. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
4. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at time of installation.
5. Each collar shall be furnished with two 1/2" diameter rods with standard tank lugs for connecting collars to pipe.

ANTI-SEEP COLLAR
NO SCALE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-27-85

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-23-85

BY THE DEVELOPER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DEVELOPER: HARVIN F. WEISSBERG — DATE Aug 1985

BY THE ENGINEER:

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

ENGINEER: ARTHUR E. MUEGGE — DATE 8-5-85

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.

U.S. SOIL CONSERVATION SERVICE — DATE 8-12-85

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

APPROVED HOWARD S. CLD. — DATE 8-9-85

DATE	NO	REVISION

OWNER/DEVELOPER

WEISSBERG CORPORATION
1191 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT
RIVER MILLS

AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 2 PARCEL 247 ZONED RSC

TITLE
STORM WATER MANAGEMENT AND SEDIMENT CONTROL, PROFILES & DETAILS

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — No. 8107 — REGISTERED PROFESSIONAL ENGINEER

ARTHUR E. MUEGGE 8/8/07

DESIGNED BY: JKB
DRAWN BY: JCJ
PROJECT NO: 007100
DATE: APRIL 22, 1985
SCALE: AS SHOWN
DRAWING NO. 17 OF 19

AS-BUILT 1-2-92

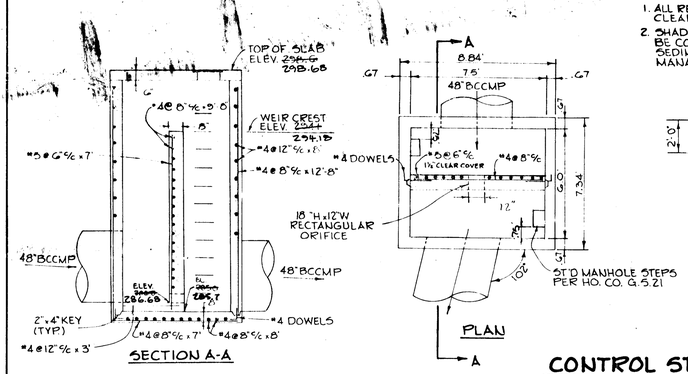
F-85-113

#1155

MARYLAND BLUEPRINT CO. INC. 747-0800

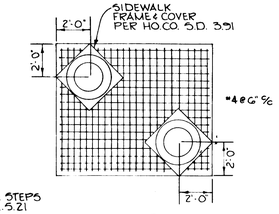
NOTES:

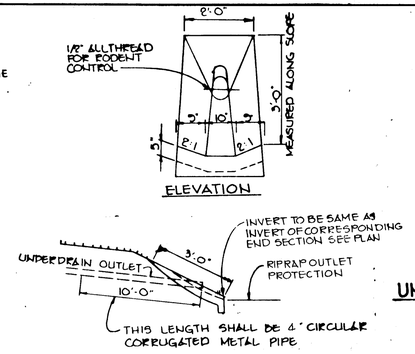
1. ALL REBAR SHALL HAVE A 2" MINIMUM CLEAR COVER.
2. SHADED AREA (WEIR WALL) SHALL NOT BE CONSTRUCTED UNTIL CONVERSION OF THE SEDIMENT BASIN TO STORM WATER MANAGEMENT USE.



CONTROL STRUCTURE S-1

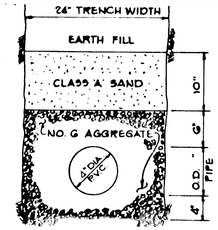
NO SCALE





CONCRETE OUTLET PROTECTION DETAIL

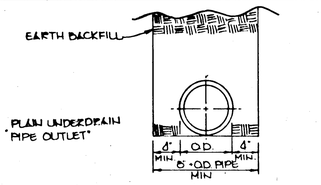
NO SCALE



UNDERDRAIN DITCH SECTION

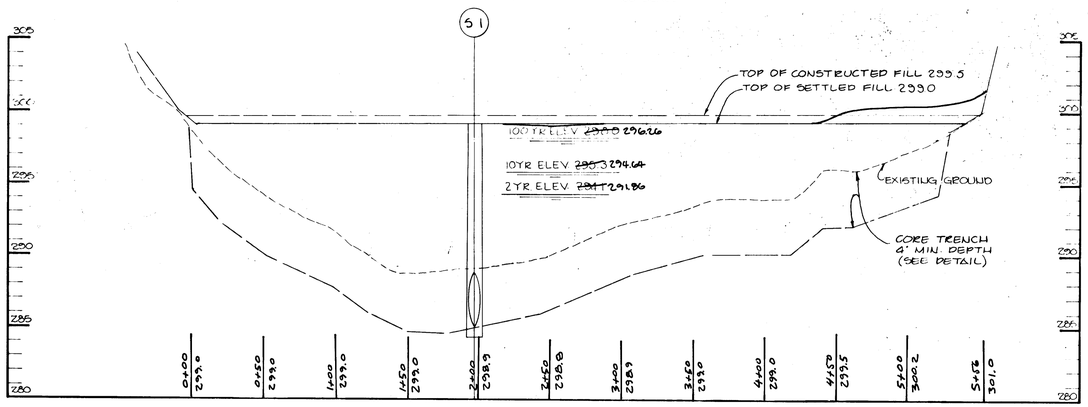
NO SCALE

NOTE:
UNDERDRAINS ARE TO BE LAID AT A MINIMUM OF 0.5% AND A MAXIMUM OF 1.00%



UNDERDRAIN OUTLET DITCH SECTION

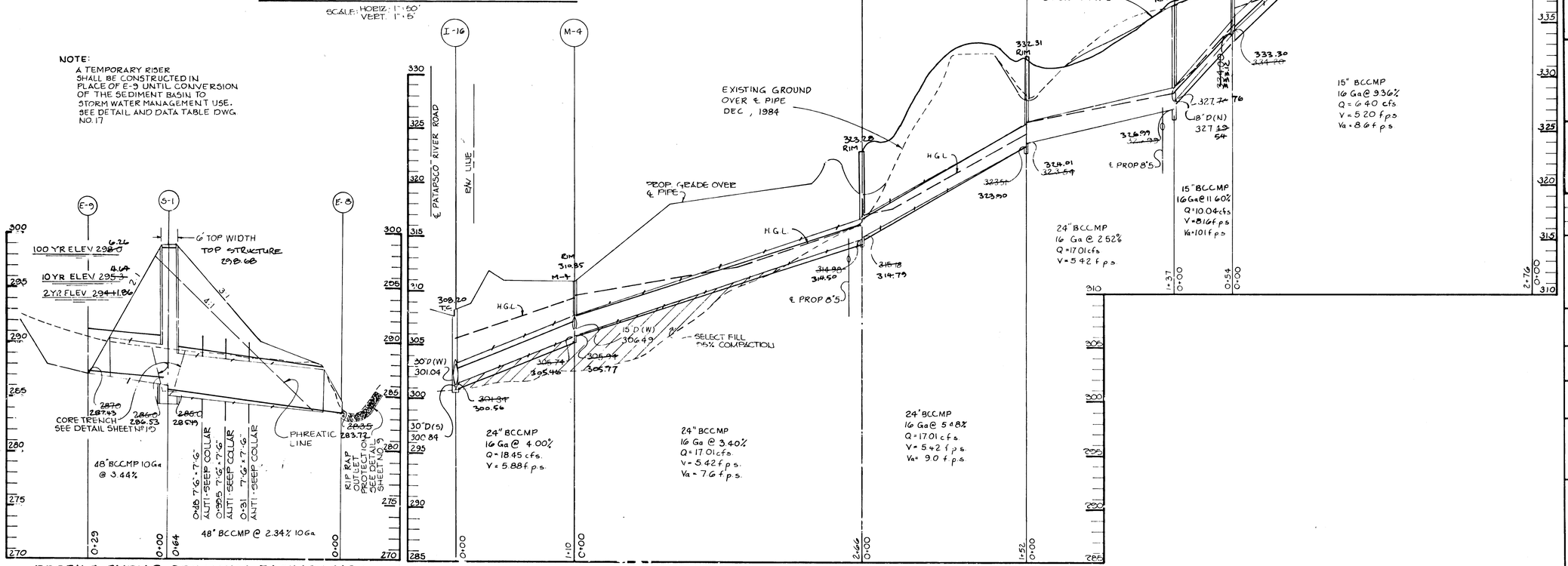
NO SCALE



PROFILE ALONG ℄ DAM FACILITY NO. 1

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

NOTE:
A TEMPORARY RISER SHALL BE CONSTRUCTED IN PLACE OF E-9 UNTIL CONVERSION OF THE SEDIMENT BASIN TO STORM WATER MANAGEMENT USE. SEE DETAIL AND DATA TABLE DWG. NO. 17



PROFILE THRU ℄ SPILLWAY FACILITY NO. 1

SCALE: HORIZ. 1" = 20' VERT. 1" = 5'

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 8-27-85

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 8-23-85

BY THE DEVELOPER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DEVELOPER: MARVIN F. WEISSBERG — DATE April 1985

BY THE ENGINEER:

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

ENGINEER: ARTHUR E. MUEGGE — DATE 8-5-85

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.

U.S. SOIL CONSERVATION SERVICE — DATE 8-12-85

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

APPROVED HOWARD S.C.D. — DATE 8-9-85

DATE	NO	REVISION

OWNER / DEVELOPER

WEISSBERG CORPORATION
1101 FORT MYER DRIVE
ARLINGTON, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA

ELECTION DISTRICT #2 HOWARD COUNTY, MARYLAND
TAX MAP # 24 PARCEL 847 ZONED RSC

TITLE

STORM WATER MANAGEMENT PROFILES & DETAILS

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
5 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85 DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — NO. 8707 — REGISTERED PROFESSIONAL ENGINEER

ARTHUR E. MUEGGE 8707

DESIGNED BY	LJD
DRAWN BY	B&C
PROJECT NO.	7700
DATE	APRIL 24, 1985
SCALE	AS SHOWN
DRAWING NO.	18 OF 19

AS-BUILT 1-2-92

F-85-113

#1155

MARYLAND BLUEPRINT CO. INC. N-0587

POND CONSTRUCTION SPECIFICATIONS

I. SITE PREPARATION

Areas under the borrow areas, embankment, and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas covered by the pond or 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.

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

II. EARTH FILL

Material:

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Placement

Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.

Compaction:

The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Cutoff Trench:

Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

III. STRUCTURAL BACKFILL

Backfill material 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 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 the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

IV. CORRUGATED METAL PIPE

Material:

(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.

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. Watertight coupling bands shall be used at all joints. Antiseep collars shall be connected to the pipe in such a manner as to 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.

V. CONCRETE

Material:

1. Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.
2. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
3. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.
4. Course Aggregate - The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-½) inches.
5. Reinforcing Steel - The reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

Design Mix:

The concrete shall be mixed in the following proportions, measured by weight: The water-cement ration shall be 5-½ to 6 U.S. gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-½. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

Mixing:

The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the material, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the additions of water to perserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.

Forms:

The forms shall have sufficient strength and rigidity to hold the concrete and to with stand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.

Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

Reinforcing Steel:

All reinforcing material shall be free of dirt, rust, scale, oil, paint or other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

Consolidating:

Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be suplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

Finishing:

Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.

Protection and Curing:

Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also by used.

Placing Temperature:

Concrete may not be placed at temperatures below 37° F with the temperature falling, or 34° with the temperature rising.

VI STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications shown on or accompanying the drawings.

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 (992-2437)
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 redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
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) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
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	44.81	acres
Area Disturbed	40.00	acres
Area to be roofed or paved	13.3	acres
Area to be vegetatively stabilized	26.0	acres
Total Cut	193820	Cu. yds.
total Fill	180857	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 distrubance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County DPW 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.

PERMANENT SEEDING NOTES

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

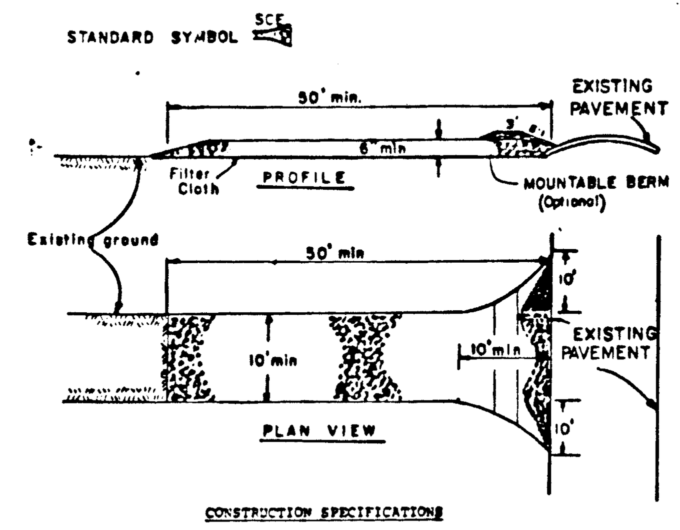
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 0-20-20 fertilizer at the rate of 600 lbs. per acre. Harrow or disc lime and 0-20-20 fertilizer into the soil to a minimum depth of 3". Lawns or high maintenance areas will be dragged and leveled with a York rake. At the time of seeding, apply 400 lbs. of 30-0-0 ureaform fertilizer and 500 lbs. of 10-20-20 or equivalent fertilizer per acre.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 40 lbs. per acre (1 lb/1000 sq.ft.) of a mixture of certified 'Merion' Kentucky bluegrass; common Ketucky bluegrass @ 40 lbs. per acre (1 lb./1000 sq.ft.) and Red Fescue, Pennlawn or Jamestown @ 20 lbs. per acre (0.5 lb./1000 sq.ft.) for the period May 1 thru July 31, seed with 40-40-20 mix as specified above and 2 lbs. per acre (0.05 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 40-40-20 mix specified above and mulch with 2 tons/acre well-anchored straw.

Mulching: Apply 1½ 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.

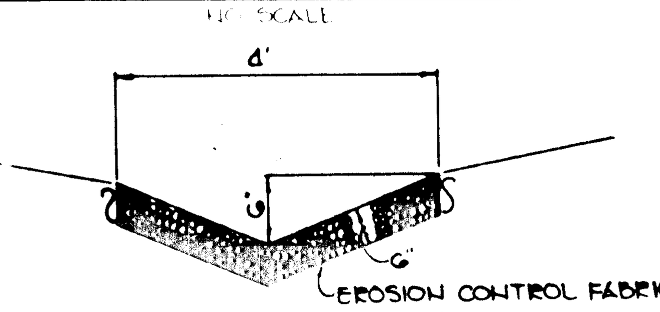


CONSTRUCTION SPECIFICATIONS

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 residence lot where a 30 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 mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-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



PILOT CHANNEL DETAIL

NO SCALE

SITE ANALYSIS

AREA OF SITE	45.1Ac
AREA DISTURBED	45.1Ac
AREA TO BE PAVED	7.6Ac
AREA TO BE REVEGETATED	37.5Ac

TEMPORARY SEEDING NOTES

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

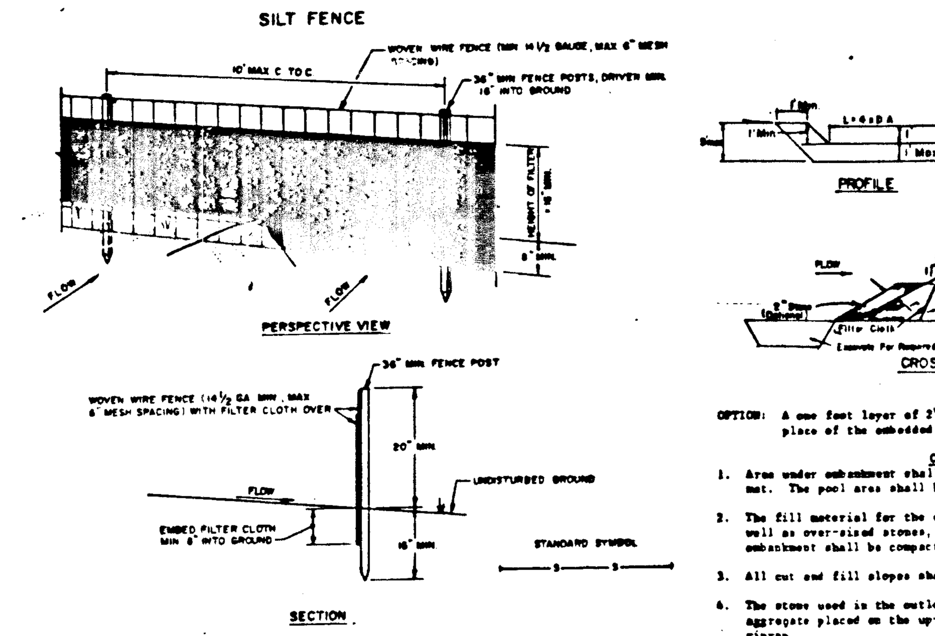
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) Where soil is highly acidic, apply dolomitic limestone at the rate of 1 ton per acre.

Seeding: For periods March 1 thru April 30 and from Agust 15 thru November 15, seed with 140 lbs. 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 1½ 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.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

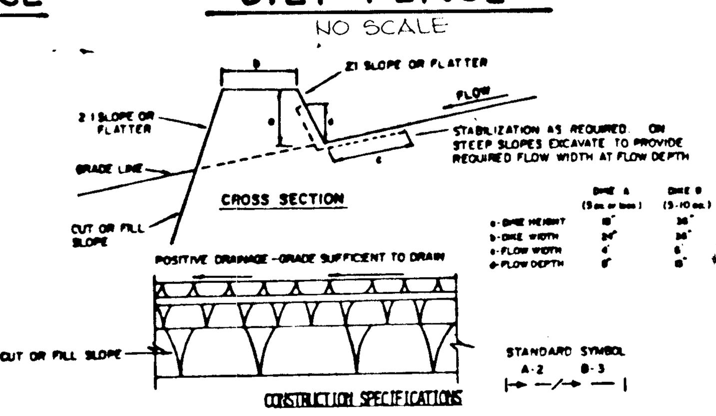
FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE

NO SCALE



CONSTRUCTION SPECIFICATIONS

1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

FLOW CHANNEL STABILIZATION

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

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

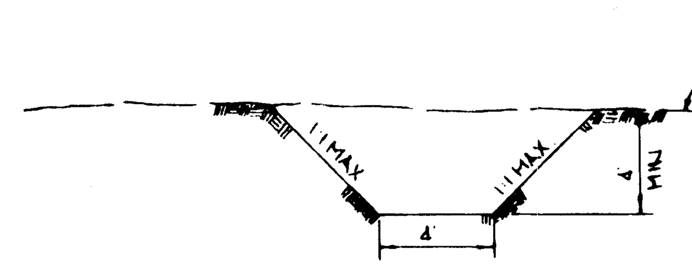
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE

NO SCALE

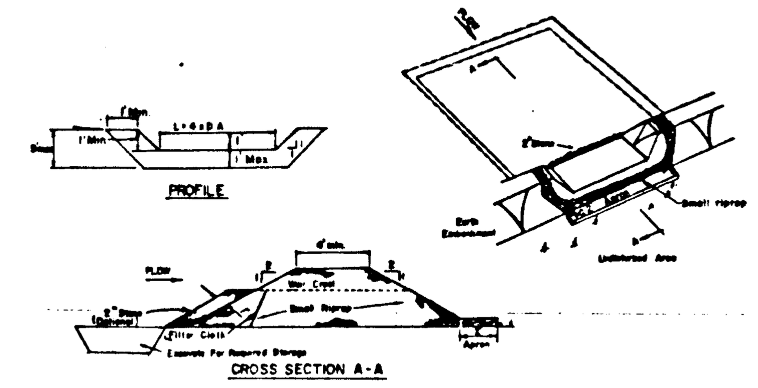
SEQUENCE OF CONSTRUCTION

1. Obtain Grading Permit.
2. Install stabilized construction entrances from Ridge Road.
3. Construct Sediment Basins, Sediment Traps and Earth Dikes and install Silt Fence. Earth dike in area of trap must be graded to maintain positive drainage to trap No 4. Stabilize all embankments and dikes.
4. Construct Storm Drains from E-3 to E-4 and from E-12 to M-8. Backfill to road subgrade. Install SCE to Rogers Avenue and stabilize upstream and downstream slopes immediately in accordance with the Permanent Seeding Notes. (Items 3 and 4 may be order reversed if access from Rogers Avenue is necessary to complete Item 3.)
5. Complete Rough Grading except for fill where Sediment Traps 1 through 4 are located.
6. Complete Storm Drain, install cold patch deflectors at I-15 & I-16 and Roadway and other construction as shown on plan.
7. Fine Grade all areas except for areas where Sediment Traps 1 through 4 are located and stabilize in accordance with the Permanent Seeding Notes.
8. Construct Earth Dikes at the top of slopes to Traps 1 through 4 in a manner to divert all surface runoff from them.
9. Complete grading in area of Traps 1 through 4 and stabilize immediately in accordance with the Permanent Seeding Notes.
10. Upon stabilization of all disturbed areas and obtaining permission from the Howard County Sediment Control Division, convert Sediment Basins to Storm Water Management in accordance with the Storm Water Management Conversion Notes and remove all remaining Sediment Controls and stabilize areas disturbed in their removal in accordance with the Permanent Seeding Notes. (Prior to conversion of Sediment Basins, all contributing Storm Drains shall be flushed of any sediment deposits).



CORE TRENCH TYP. SECTION

NO SCALE



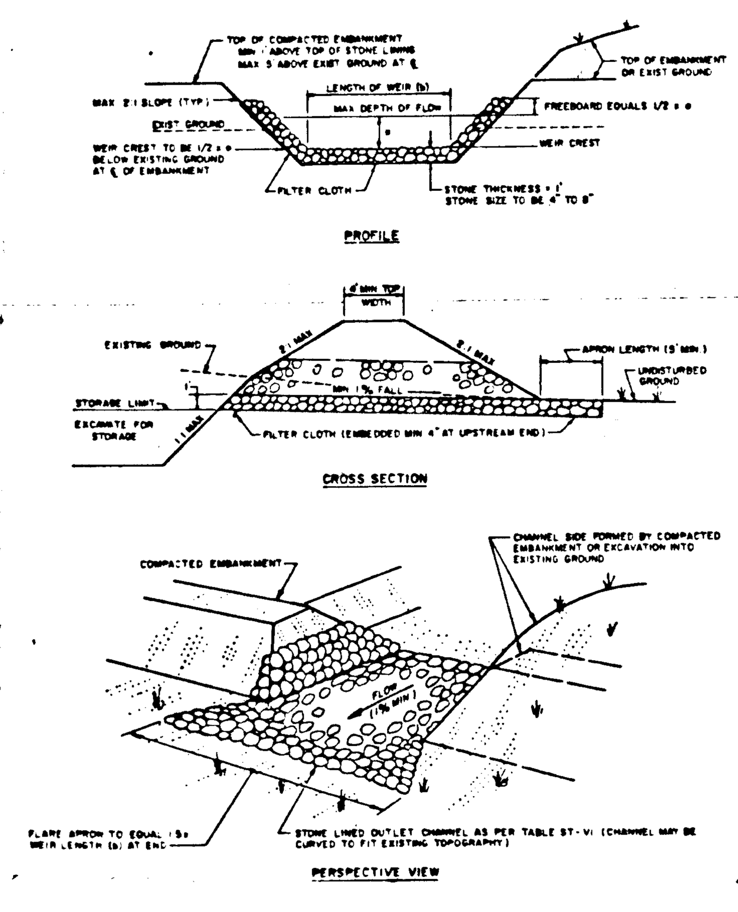
OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

CONSTRUCTION SPECIFICATIONS FOR ST-V

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small riprap 4"-8" along with a 1' thickness of 2" aggregate placed on the up-grade side on the small riprap or embedded filter cloth in the riprap.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner than erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

STONE OUTLET TRAP

NO SCALE



CONSTRUCTION SPECIFICATIONS

1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
5. Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.
6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
7. Stone used in the outlet channel shall be four (4) to eight(8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
8. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
9. The structure shall be inspected after each rain and repaired as needed.
10. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
11. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
12. Drainage area for this practice is limited to 15 acres or less.

RIP RAP OUTLET TRAP

NO SCALE

STORM WATER MANAGEMENT CONVERSION NOTES

1. PUMP ANY STANDING WATER FROM THE SEDIMENT BASIN THRU THE PRINCIPAL SPILLWAY.
2. INSTALL WEIR WALL IN CONTROL STRUCTURE (S-1, S-2) PER DETAIL, PROVISION SHALL BE MADE FOR PUMPING ANY UNEXPECTED RUNOFF OVER THE EMBANKMENT TO A STABLE OUTLET WHILE CONTROL STRUCTURE IS BEING MODIFIED AND THE CONCRETE IS CURING.
3. UPON COMPLETION OF THE WEIR, REMOVE THE TEMPORARY RISER AND DEWATERING DEVICE, THEN INSTALL END SECTION (E-9, E-11) IN ITS PLACE.
4. REMOVE ANY DEPOSITED SEDIMENT FROM BASIN AND REGRADE AS NECESSARY TO OBTAIN ORIGINAL PLAN DIMENSIONS.
5. SPREAD SEDIMENT IN AN AREA PROTECTED BY SEDIMENT CONTROLS OR STABILIZE IMMEDIATELY IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.
6. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

John W. Musselman 8-27-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

8-23-85
CHIEF, BUREAU OF ENGINEERING — DATE

BY THE DEVELOPER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Aug 1, 1985
DEVELOPER MARVIN F. WEISSBERG — DATE

BY THE ENGINEER:

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

Arthur E. Muegge 8-5-85
ENGINEER: ARTHUR E. MUEGGE — 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.

8-12-85
U.S. SOIL CONSERVATION SERVICE — DATE

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

APPROVED Robert W. Zichus 8-9-85
HOWARD S.C.D. — DATE

DATE	NO	REVISION

OWNER/DEVELOPER

WEISSBERG CORPORATION
1511 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT

RIVER MILLS

AREA
ELECTION DISTRICT No 2 HOWARD COUNTY, MARYLAND
TAX MAP No 24 PARCEL 847 ZONED BSC

TITLE
STORM WATER MANAGEMENT & SEDIMENT CONTROL, & NOTES & DETAILS

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85
DATE

ARTHUR E. MUEGGE 8107

DESIGNED BY	JKB
DRAWN BY	JCJ
PROJECT NO	07700
DATE	APRIL 24, 1985
SCALE	AS SHOWN
DRAWING NO.	19 OF 19

AS-BUILT 1-2-92

F-85-113

#1155

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