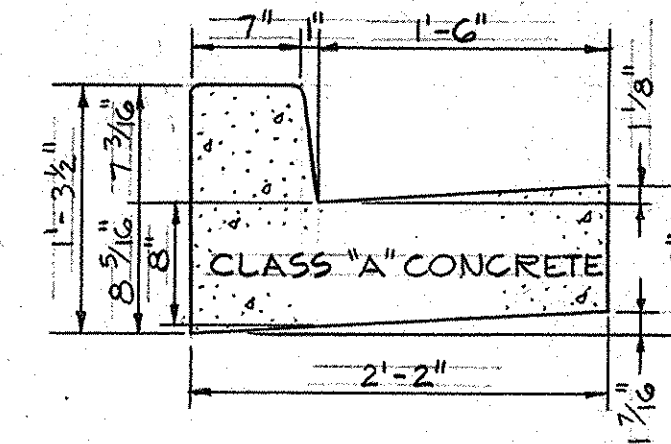


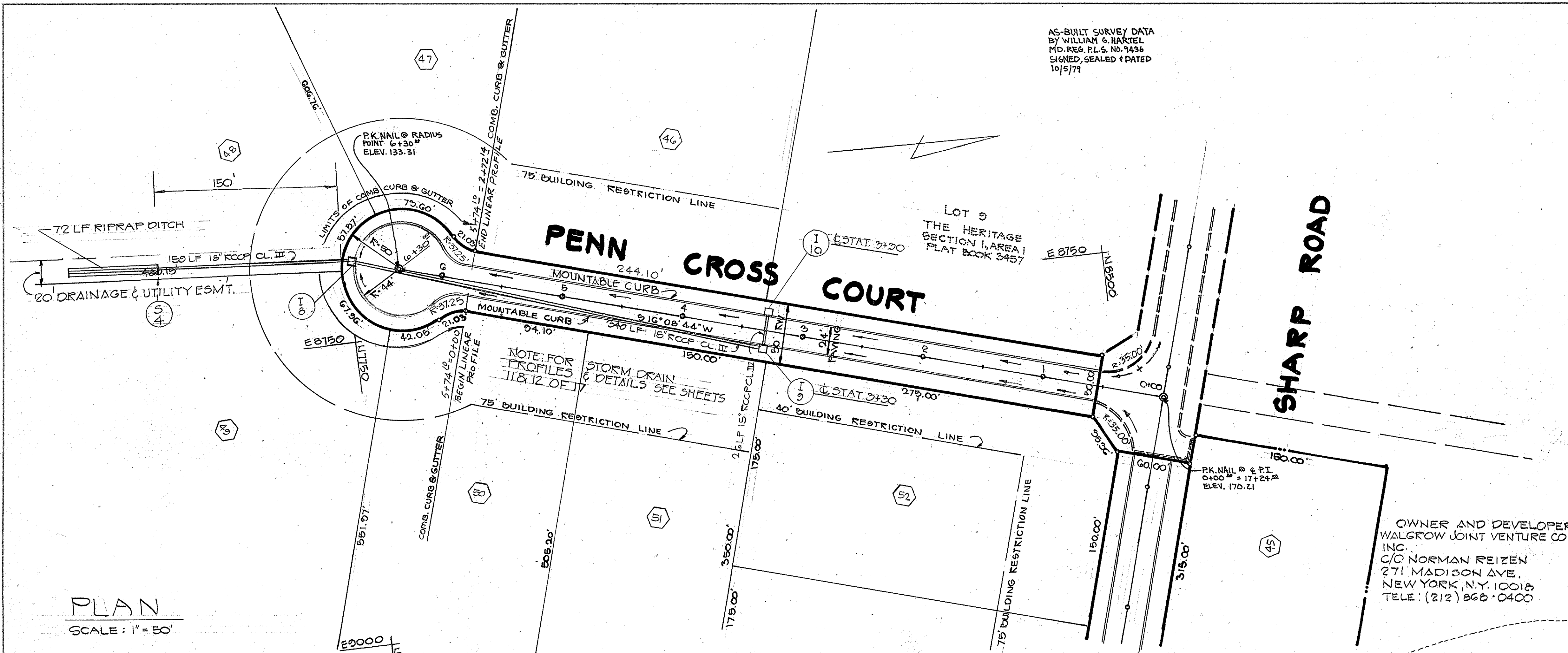
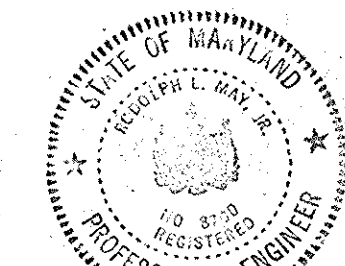
DATE	
BY	
REVISIONS	
NO.	
PLAN	
NOTE BOOK	
ALIGNMENT CHECKED	
RT. OF WAY CHECKED	

DATE	
BY	
REVISIONS	
NO.	
PROFILE	
NOTE BOOK	
GRADES CHECKED	
STRUCTURE NOTATIONS CHECKED	

AS-BUILT SURVEY DATA
BY WILLIAM G. HARTEL
MD. REG. P.L.S. NO. 1436
SIGNED, SEALED & DATED
10/5/77



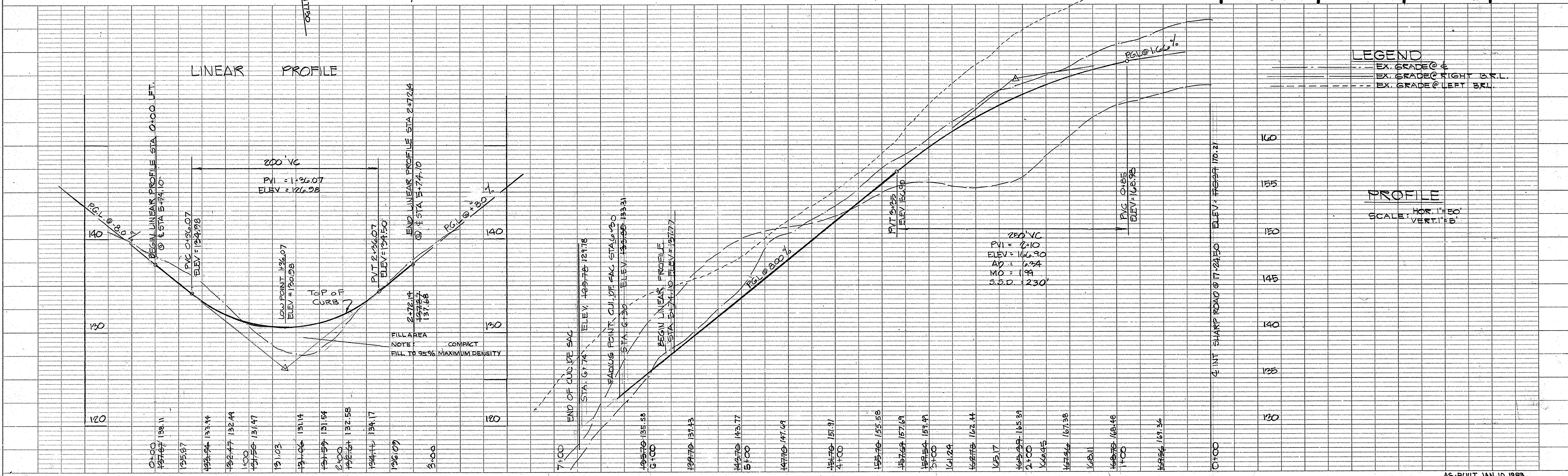
STANDARD 7" COMBINATION CURB & GUTTER
SEE HO. CO. DWG. 40 PG. 95



PLAN
SCALE: 1" = 30'

DEPARTMENT OF PUBLIC WORKS	
Browlie N. McLeod CHIEF, BUREAU OF HIGHWAYS	
4/26/77 DATE	
OFFICE OF PLANNING AND ZONING	
John M. Maschman CHIEF, DIVISION OF LAND DEVELOPMENT	
4-25-77 DATE	
TITLE	PENN CROSS COURT STA 0+00 TO 6+80
PROJECT	THE HERITAGE SECTION 1, AREA 2
LOCATION	5TH ELECTION DISTRICT - HOWARD COUNTY - MD.
DATE	JUNE 1976
DES BY	TRG
DRAWN BY	JC
CHKD. BY	ULS
SCALE	AS SHOWN
JOB NO.	7450
DRWG. NO.	7 OF 18
ENGINEERING	PLANNING
SURVEYING	BY
BOENDER ASSOCIATES INC.	
ELLICOTT CITY, MD. TELE: 465-7777	

OWNER AND DEVELOPER
WALGROW JOINT VENTURE CO.
INC.
C/O NORMAN REIZEN
271 MADISON AVE.
NEW YORK, N.Y. 10018
TELE: (212) 868-0400



LEGEND
--- EX. GRADE @ R.
--- EX. GRADE @ RIGHT B.R.L.
--- EX. GRADE @ LEFT B.R.L.

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

AS-BUILT JAN. 10, 1983

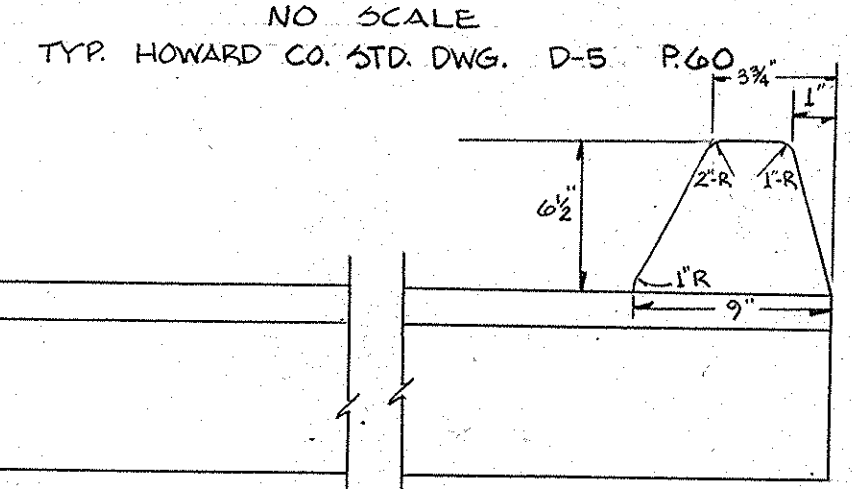
NOTE: ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD CO ROAD CODE AND STANDARD SPECIFICATIONS

BIT CONC. SURFACE	1 1/2" BAND C-3
BIT. CONCRETE BASE	5" GRAVEL MIX

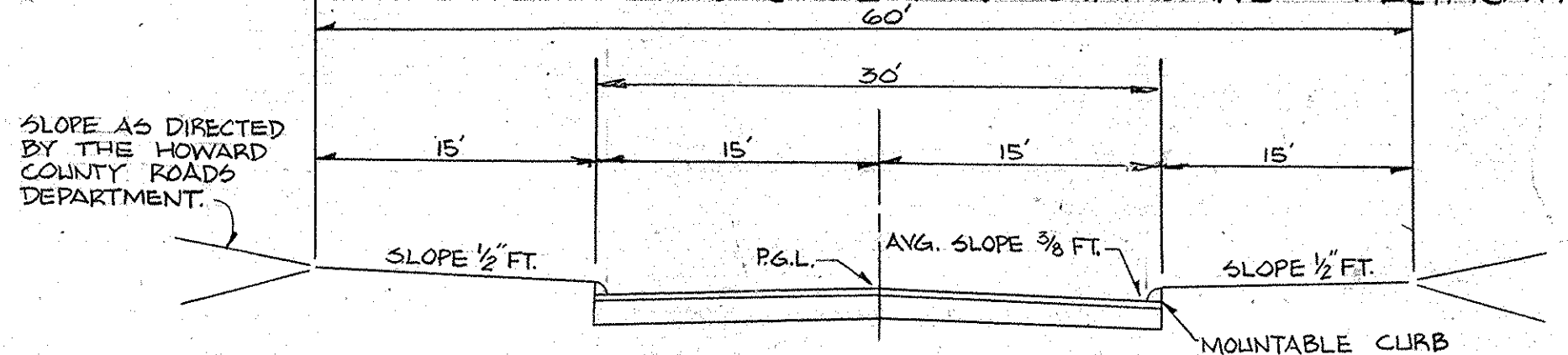
CLEARING AND GRADING ART C-1
 SUBGRADE ART C-2
 BASE COURSE ART C-33
 SURFACE ART C-31

1. BASE WILL BE PRIMED IN ACCORDANCE WITH SECTION C-30-3 AS PROVIDED IN THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECS.
2. TACK COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-31-4 OF THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECS.

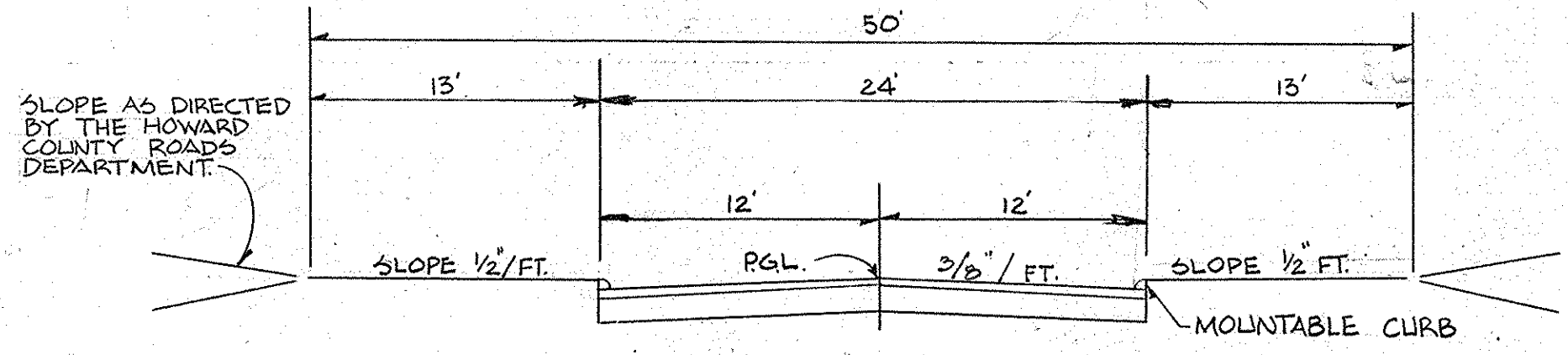
TYPICAL PAVING SECTION



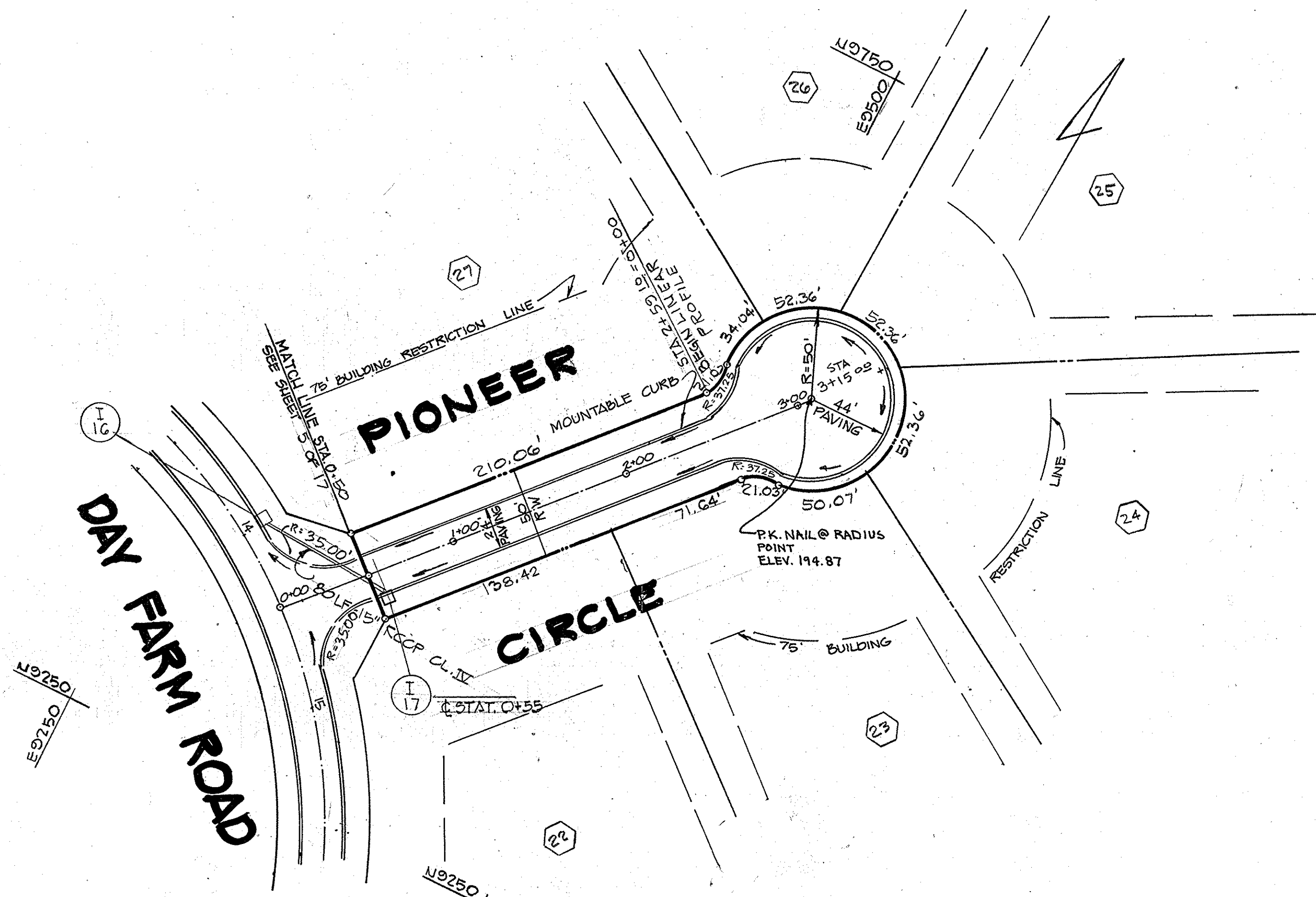
MOUNTABLE CURB DETAIL
 TYP. HOWARD CO. STD. DWG. D-39 P.24



DESIGN SPEED: 35 MPH
TYPICAL SECTION SHARP ROAD
 ZONING: R-40
 TYPICAL HOWARD COUNTY STANDARD DWGS. D-16, PAGE 71



DESIGN SPEED: 30 MPH
TYPICAL SECTION
 ZONING: R-40

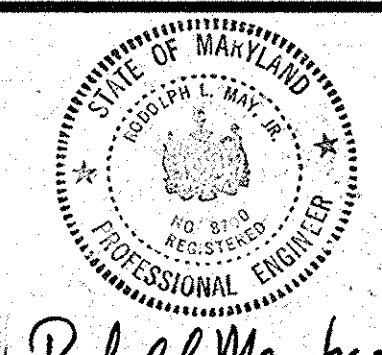


PLAN
 SCALE: 1" = 50'

OWNER AND DEVELOPER

WALGROW JOINT VENTURE CO., INC.
 90 NORMAN REIZEN
 271 MADISON AVENUE
 NEW YORK, NEW YORK 10018
 TELEPHONE: (212) 868-0400

DEPARTMENT OF PUBLIC WORKS		DATE: 4/26/77	
<i>James W. McLeod</i> CHIEF, BUREAU OF HIGHWAYS		DATE: 4/25/77	
OFFICE OF PLANNING AND ZONING		DATE: 4/25/77	
<i>John W. Masserman</i> CHIEF, DIVISION OF LAND DEVELOPMENT		DATE: 4/25/77	
TITLE: STA. 0+00 TO STA. 3+14.54 PIONEER CIRCLE			
PROJECT: THE HERITAGE SECTION 1, AREA 2			
LOCATION: 5 TH ELECTION DISTRICT, HOWARD COUNTY, MD			
DATE: JUNE 1976	DES. BY: TKS	DRAWN BY: JC	CHKD BY: JS
SCALE: AS SHOWN	JOB NO.: 7450	DRWG. NO.: 9 OF 18	



ENGINEERING PLANNING SURVEYING BY
BOENDER ASSOCIATES INC.
 ELLICOTT CITY, MD. TELE: 465-7777

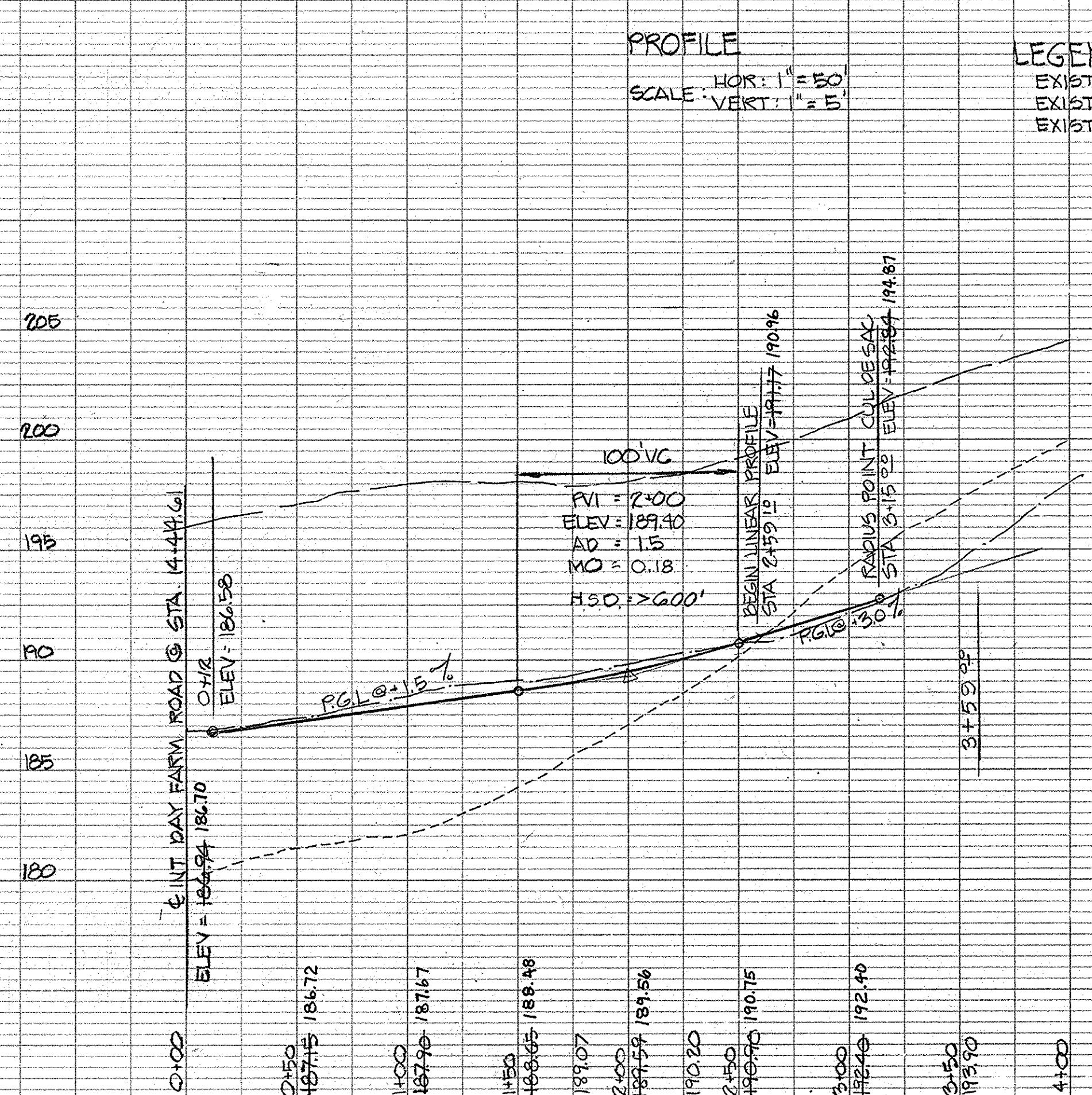
PROFILE

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

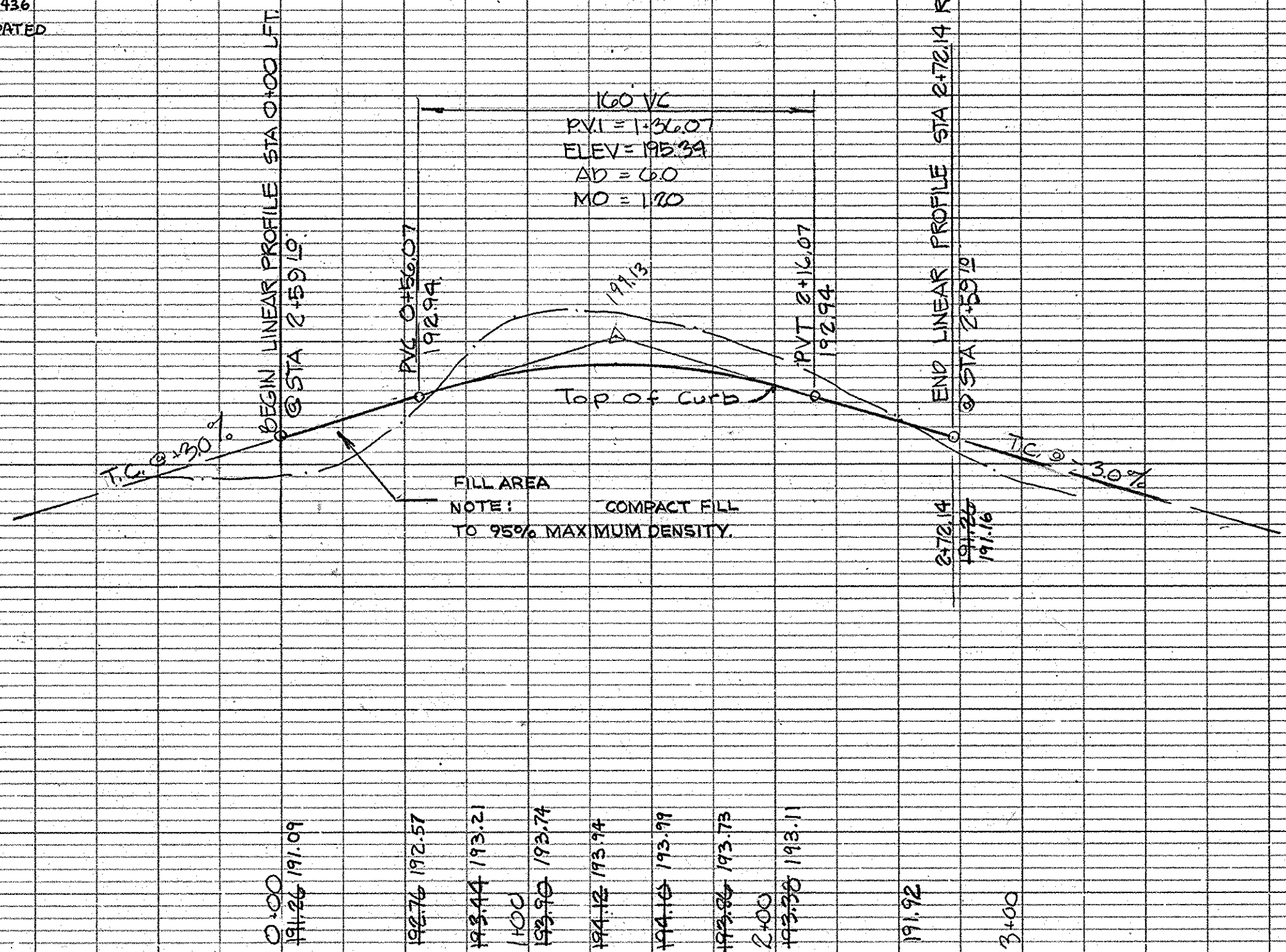
LEGEND

- EXISTING GRADE @ RIGHT B.R.L.
- EXISTING GRADE @ LEFT B.R.L.
- EXISTING GRADE @ E

AS-BUILT SURVEY DATA BY WILLIAM G. HARTZEL
 MO. REG. P.L.S. NO. 9936
 SIGNED/SEALED/DATED 10/9/77



LINEAR PROFILE

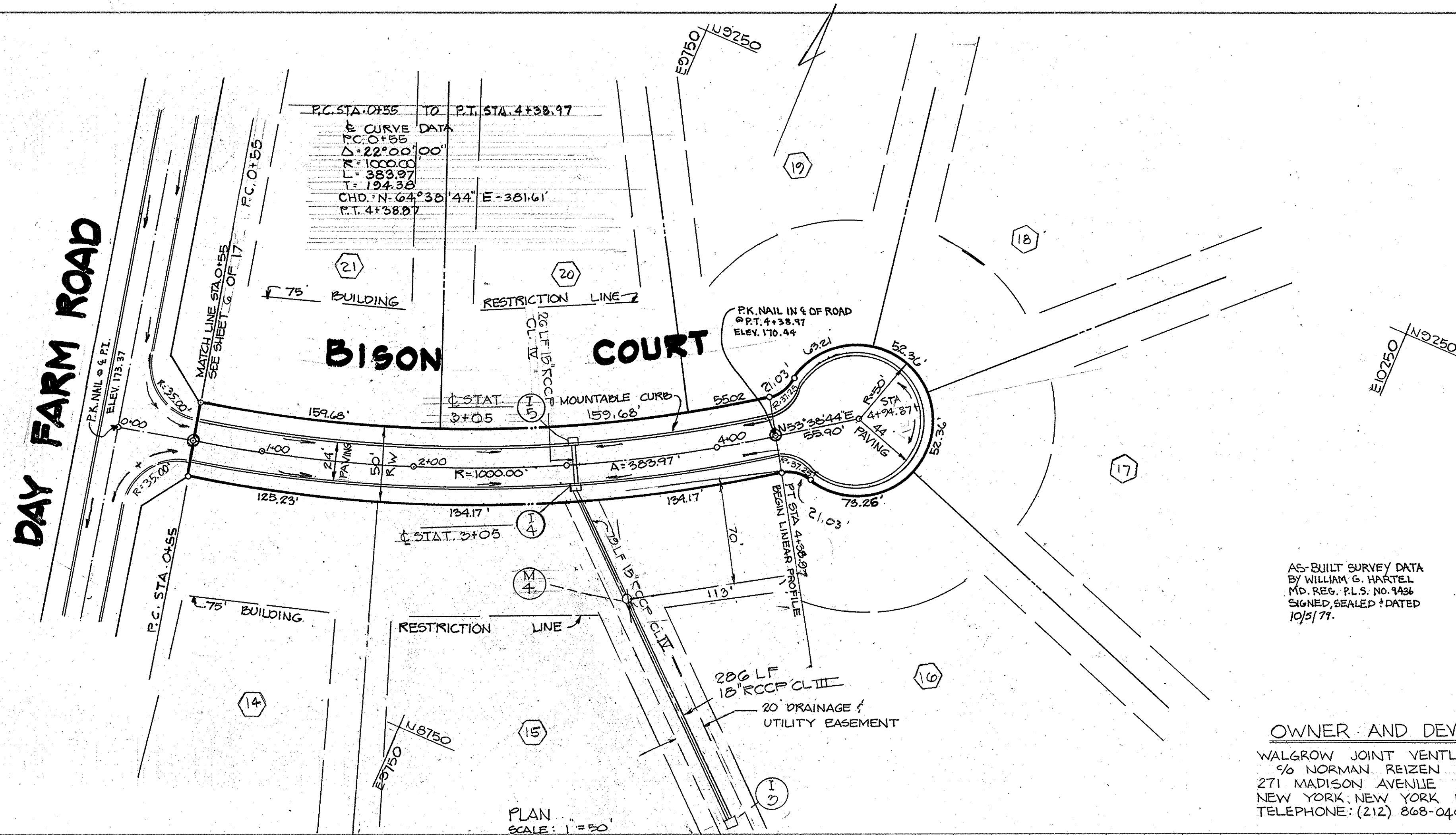


AS-BUILT JAN. 10, 1983

DATE	
BY	
SUBMITTED	
NOTE BOOK	
NO.	
RT. OF WAY CHECKED	
ALIGNMENT CHECKED	
PLAN	

DAY FARM ROAD

BISON COURT



AS-BUILT SURVEY DATA BY WILLIAM G. HARTSEL MD. RES. P.L.S. NO. 948 SIGNED, SEALED & DATED 10/2/71.

OWNER AND DEVELOPER
 WALGROW JOINT VENTURE CO.
 90 NORMAN REIZEN
 271 MADISON AVENUE
 NEW YORK, NEW YORK 10018
 TELEPHONE: (212) 868-0400

DEPARTMENT OF PUBLIC WORKS		4/26/77 DATE	
Irvinville W. McLeod CHIEF, BUREAU OF HIGHWAYS		4-25-77 DATE	
OFFICE OF PLANNING AND ZONING John W. Muschman CHIEF, DIVISION OF LAND DEVELOPMENT			
TITLE: STA. 0+00 TO STA. 4+24.87 BISON COURT			
PROJECT: THE HERITAGE - SECTION 1, AREA 2			
LOCATION: 5TH ELECTION DISTRICT - HOWARD COUNTY, MD.			
DATE: JUNE 1976	DES. BY: TKS	DRAWN BY: X	CHKD. BY: JLS
SCALE: AS SHOWN	JOB NO. 7450	DRWG. NO.: 10 OF 18	Rodolph May Jr. 2-7-77



ENGINEERING PLANNING SURVEYING BY
BOENDER ASSOCIATES INC.
 ELLICOTT CITY, MD.
 TELE: 465-7777

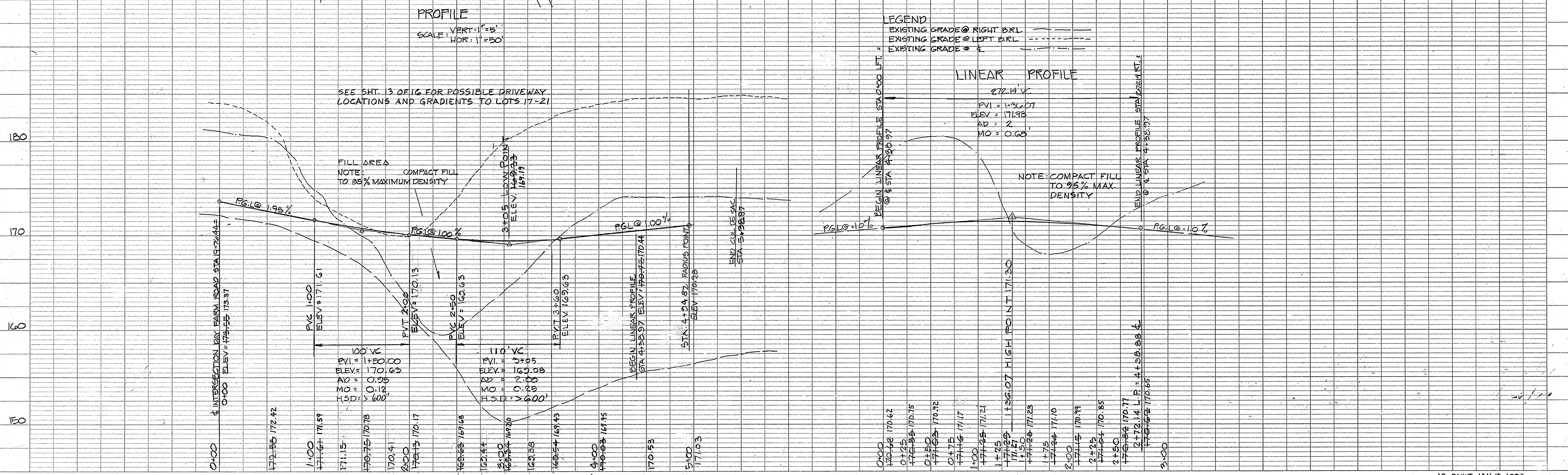
DATE	
BY	
SUBMITTED	
NOTE BOOK	
NO.	
RT. OF WAY CHECKED	
ALIGNMENT CHECKED	
PROFILE	

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

LEGEND

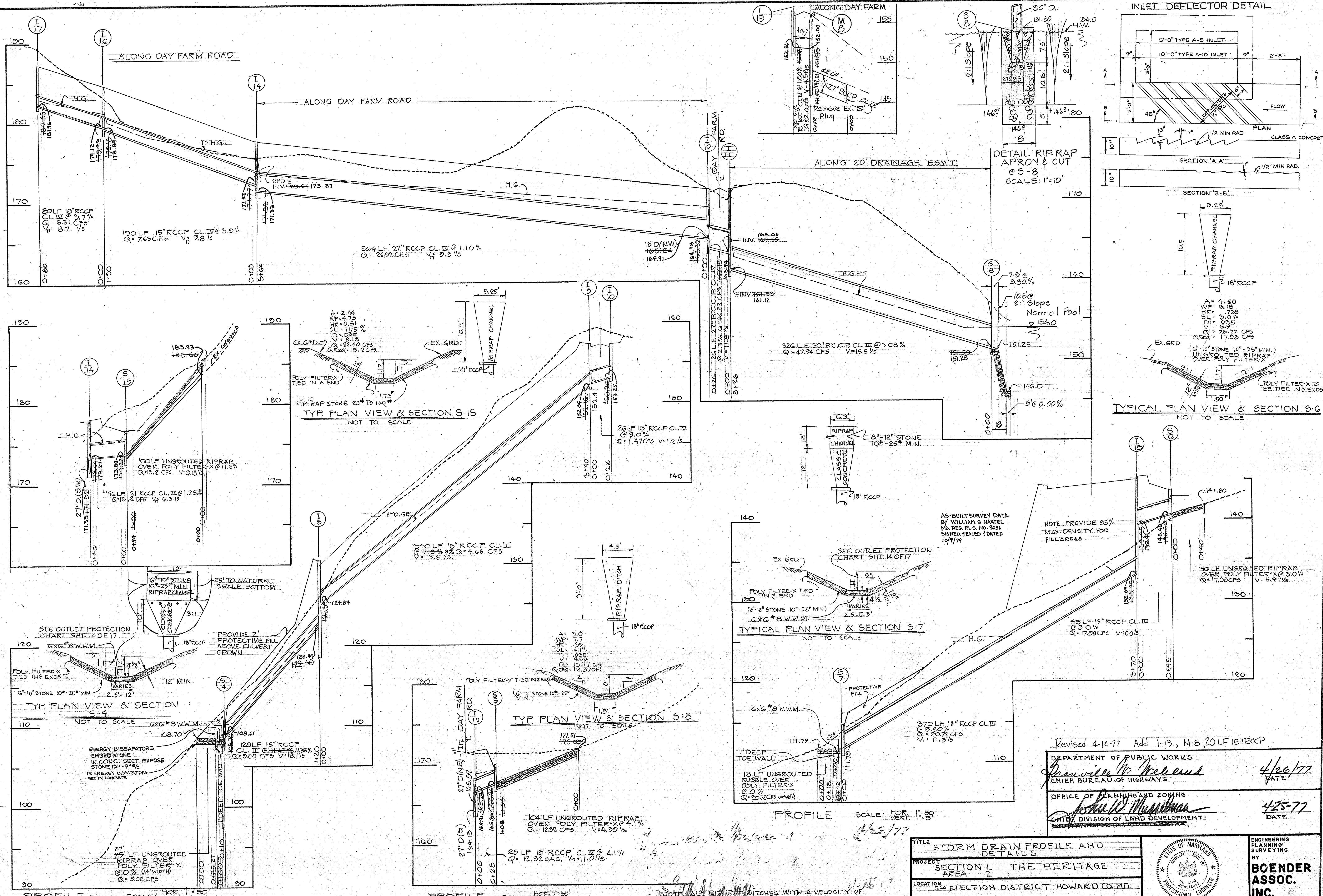
- EXISTING GRADE @ RIGHT B.R.L.
- EXISTING GRADE @ LEFT B.R.L.
- EXISTING GRADE @ E

LINEAR PROFILE



AS-BUILT JAN. 10, 1983

F-77-31



Revised 4-14-77 Add 1-19, M-8, 20 LF 15" RCCP

DEPARTMENT OF PUBLIC WORKS
William G. Hartel
 CHIEF, BUREAU OF HIGHWAYS

OFFICE OF PLANNING AND ZONING
John W. Musserman
 CHIEF, DIVISION OF LAND DEVELOPMENT

4/26/77 DATE
 4/25-77 DATE

TITLE STORM DRAIN PROFILE AND DETAILS			
PROJECT SECTION 1 THE HERITAGE			
LOCATION 5th ELECTION DISTRICT HOWARD CO. MD.			
DATE JULY 8, 1976	DES. BY TKS	DRAWN BY TD	CHECKED BY T.S.
SCALE AS SHOWN	JOB NO. 74-50	DRAWING NO. 11 OF 18	

STATE OF MARYLAND
 PROFESSIONAL ENGINEER

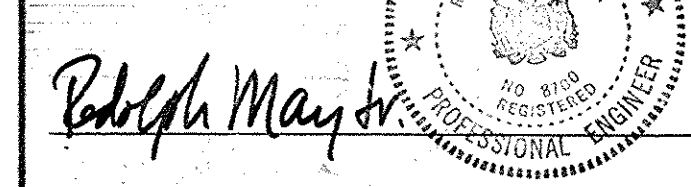
ENGINEERING PLANNING AND SURVEYING BY
BOENDER ASSOC. INC.
 ELLICOTT CITY, MD 466-7777

Robert M. ... 2-7-77

Rev. I16-I14, I12-I11, I11-S8, I8-S4 by WN/JK, Ch. R.M. 1/31/77

ENGINEER'S CERTIFICATION:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.



REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

Eric V. Henman 4/20/77
U.S. SOIL CONSERVATION SERVICE DATE

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

Robert May Jr. 4-20-77
HOWARD S.C.D. DATE

DEVELOPERS CERTIFICATION:

I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

Walter Reizen, Inc. 4/20/77
DEVELOPER DATE

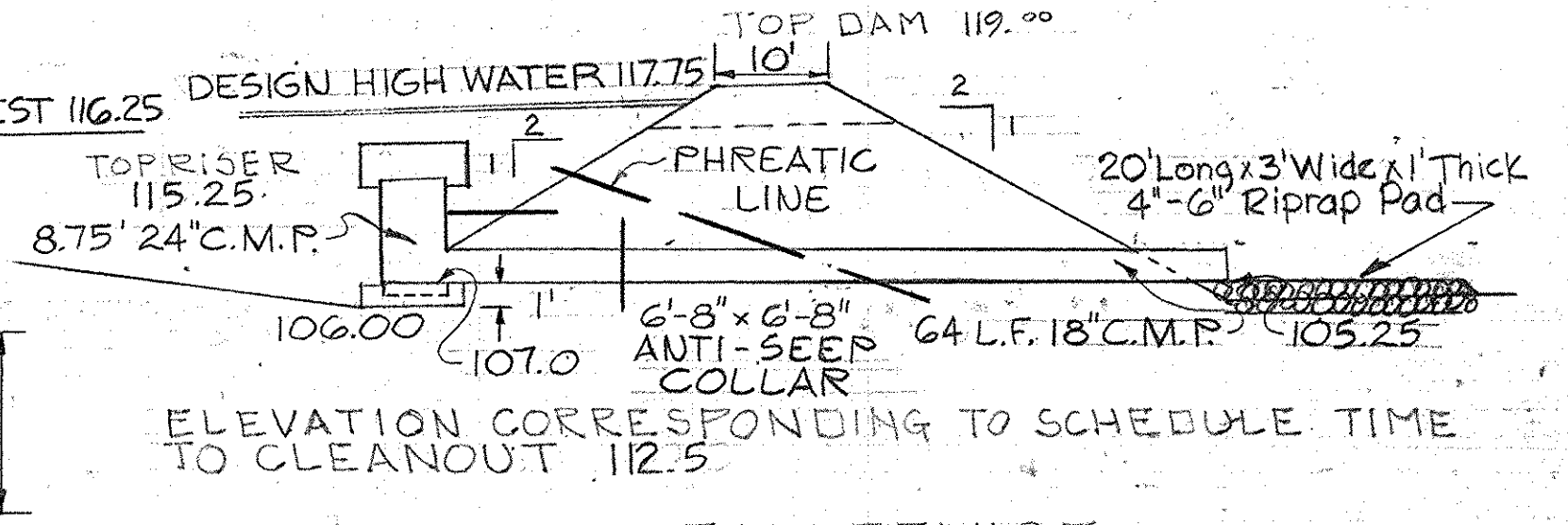
SEDIMENT CONTROL NOTES

1. THE H.S.C.D. AND BUREAU OF LICENSE, INSPECTION AND PERMITS WILL BE GIVEN 24 HR. NOTICE PRIOR TO ANY GRADING.
2. ALL SEDIMENT CONTROL STRUCTURES SHOWN ON THIS PLAN UNLESS OTHERWISE SPECIFIED WILL BE INSTALLED AND STABILIZED IN ACCORDANCE WITH NOTES 9 PRIOR TO ANY GRADING OR EARTH DISTURBANCE ON THIS SITE.
3. AS SOON AS ROAD GRADING IS COMPLETED AREA TO BE PAVED WILL BE STABILIZED WITH BASE MATERIAL.
4. ALL CUT AND FILL SLOPES WILL BE A MAXIMUM OF 3:1.
5. FOLLOWING THE STABILIZATION OF ALL AREAS, UPGRADE THE AREA OF THE SEDIMENT CONTROL MEASURES, MAY BE REMOVED AND GRADED TO THE FINAL GRADE, PLANNED AND STABILIZED IMMEDIATELY.
6. ELEVATIONS MARKED WITH (+) ARE FINISHED GRADES.
7. IN THE EVENT OF EXCESS OF MATERIAL, THE WASTE WILL BE STOCKPILED WITH A MAXIMUM 2:1 SLOPE ON AN AREA WHICH HAS BEEN CLEARED ON THE SITE. STOCKPILED MATERIAL WILL BE STABILIZED IN ACCORDANCE WITH NOTE # 9.
8. SEDIMENT CONTROL MEASURES WILL NOT BE REMOVED UNTIL APPROVAL IS OBTAINED FROM THE H.S.C.D.
9. TEMPORARY STABILIZATION:
APPLY: 1000 LBS./AC. OF 40-100 MESH 1000 SQ FT OF FULVURIZED DOLOMITIC LIMESTONE 200 LBS./AC. OR 11.5 LBS./1000 SQ FT OF 10-10-10 FERTILIZER, PLANT WITH KYTGRASS 30 LBS./AC. MULCH, ALL DISTURBED AREAS IMMEDIATELY AFTER MULCH LAYDOWN. NOTE: MULCH W/ STRAW @ 1/2 TON/ACRE.
10. PERMANENT STABILIZATION:
APPLY: 1000 LBS./AC. OF FULVURIZED DOLOMITIC LIMESTONE 200 LBS./AC. OR 20-20-0 SUPER PHOSPHATE 100 LBS./AC. OR 10-10-10 FERTILIZER
SEED: 20 LBS./AC. OF KENTUCKY TALL FESCUE 20 LBS./AC. OF KENTUCKY BLUE GRASS 20 LBS./AC. OF ANNUAL RYE GRASS
NOTE: SEED LAYDOWN BETWEEN MARCH 1 TO MAY 1 OR AUGUST 1 TO OCTOBER 1 ONLY.
11. STRAW BALES ARE TO BE SECURELY STAKED AND WIRE TIED, WIRE TIES ARE TO BE STAGGERED ACROSS BALES.
12. STRAW BALES ARE TO BE PLACED AROUND ALL INLETS AFTER INLETS ARE CONSTRUCTION.
13. ALL BERMS MUST BE MACHINE COMPACTED.
14. ALL DIVERSION BERMS MUST HAVE POSITIVE GRADE DRAINING TO A STABILIZED OUTLET.
15. DIVERTED RUNOFF WILL OUTLET ON TO A STABILIZED UNDISTURBED AREA, A PREPARED LEVEL SPREADER OR INTO A GRADE STABILIZATION STRUCTURE.
16. STRAW BALES AND STONE FILTERS AND DIVERSION BERMS ARE TO BE MAINTAINED AND REPLACED WHEN CHOKED, TATTERED, DISTURBED, ETC.
17. SOODING: 500 SHALL BE WELL ROOTED KENTUCKY BLUE GRASS 500, CONTAINING NOT MORE THAN 20% OF OTHER GRASSES NATIVE TO HOWARD COUNTY, AREA AND NOT MORE THAN 5% CLOVER. IT MUST BE REASONABLY FREE OF CRAB GRASS, CECIDAR & QUACK GRASS. TIMOTHY, FLAINTAIN, DANDELION AND OTHER UNDESIRABLE GROWTH. THE 500 SHALL BE CUT IN STRIPS NOT MORE THAN 15 INCHES WIDE BY NOT MORE THAN 1/2 FEET LONG AND SHALL BE UNIFORMED 2 INCHES THICK, AFTER CUTTING THE 500 SHALL BE IMMEDIATELY ROLLED WITH THE GRASS INSIDE AND SHALL BE KEPT MOIST TO PREVENT DRYING. 500 SHALL BE LAID WITH CLOSE, TIGHT JOINTS ON A SMOOTH BED OF TOPSOIL. 4" THICK THAT HAS BEEN ROLLED WITH A ROLLER WEIGHING 100 LBS./PER FT. OF ROLLER WIDE AND LEVELLED UP WITH SCREENED TOPSOIL TO PREVENT VIDS. AFTER THE 500 HAS BEEN LAID AND PEDED, IT SHALL BE ROLLED AND THOROUGHLY WETTED.
18. INDIVIDUAL LOT GRADING AND ADDITIONAL SEDIMENT CONTROL MEASURES, IF REQUIRED TO BE APPROVED BY HOWARD S.C.D. PRIOR TO HOUSE CONSTRUCTION.
19. NO BUILDING PERMITS SHALL BE ISSUED PRIOR TO SUBMISSION AND APPROVAL OF GRADING PLANS.
20. MULCH SPECIFICATION:
APPLY 2 TONS/AC. OF UNWEATHERED WHEAT STRAW. TIE MULCH DOWN WITH 480 GAL./AC. OF LIQUID ASPHALT.

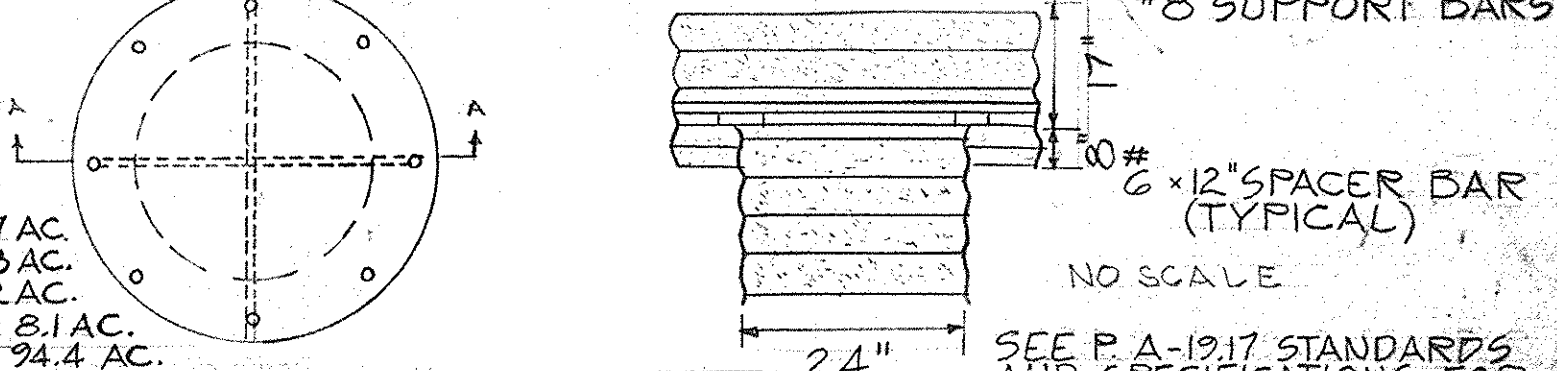
CONSTRUCTION SEQUENCE

1. OBTAIN GRADING PERMIT.
2. NOTIFY H.S.C.D. AND BUREAU OF LICENSE & PERMITS 24 HOURS PRIOR TO COMMENSING WORK.
3. INSTALL SEDIMENT CONTROL MEASURES. STABILIZE ACCORDING TO NOTE 9.
4. INSTALL TEMPORARY PIPE TO BASIN I IN CONJUNCTION WITH STORM DRAIN TO 1.
5. INSTALL STORM DRAINS. BLOCK END OF DRAIN UNDER CONSTRUCTION WITH PLYWOOD EACH NIGHT. CONSTRUCT Storm Water Management Pond.
6. ROUGH GRADE FOR ROADS.
7. PLACE BASE COURSE OF ROADS.
8. APPLY PERMANENT STABILIZATION MEASURES.
9. REMOVE SEDIMENT CONTROL MEASURES.
10. Provide As Built Plans of the Permanent Pond and outlet to the Howard Soil Conservation District within 10 Days of Completion.

DAM DETAIL



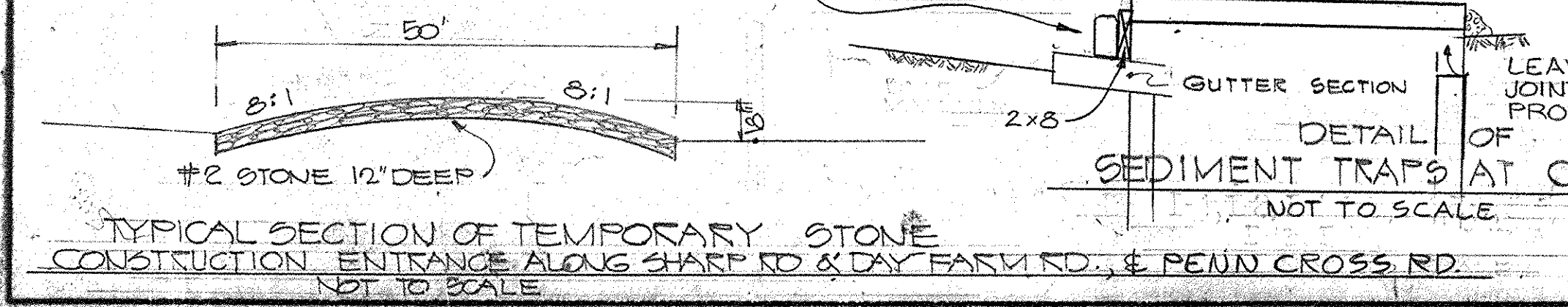
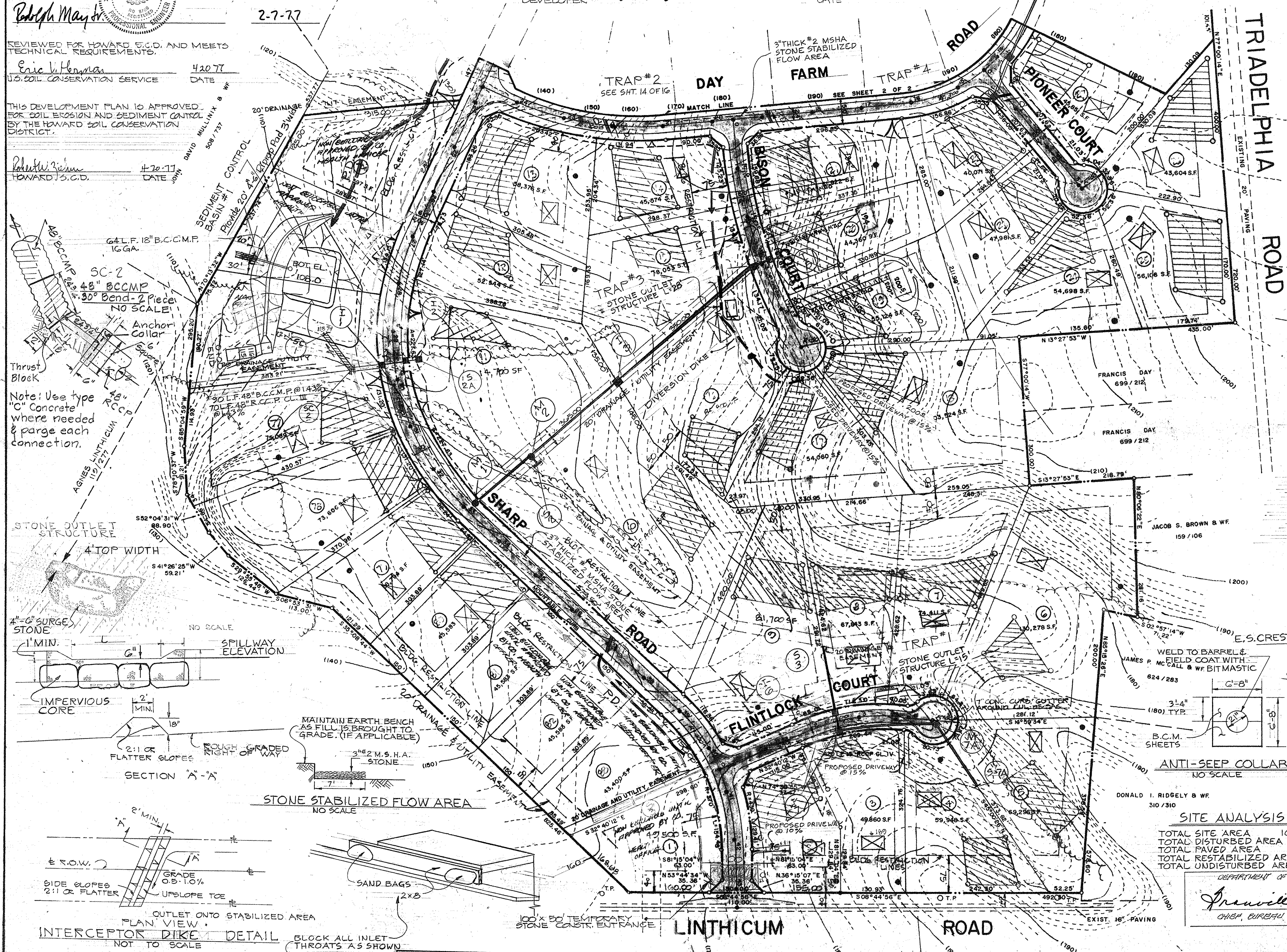
ANTI-VORTEX DEVICE



SITE ANALYSIS

TOTAL SITE AREA 106.7 AC.
TOTAL DISTURBED AREA 12.3 AC.
TOTAL PAVED AREA 4.2 AC.
TOTAL RESTABILIZED AREA 81.4 AC.
TOTAL UNDISTURBED AREA 94.4 AC.

DEPARTMENT OF PUBLIC WORKS
Greenville N. Melford 4/26/77
CHIEF, BUREAU OF HIGHWAYS



HOWELL, ROBERT & WIFE 325/329
WHITE, CHARLES D. JR. WIFE 417/262
OWNER & DEVELOPER
WALGROW JOINT VENTURE CO.
90 NORMAN REIZEN
1271 MADISON AVENUE
NEW YORK, N.Y. 10013
TELE. (212) 868-0400

TITLE	SEDIMENT CONTROL PLAN	
PROJECT	THE HERITAGE SECTION 1 AREA 2	
LOCATION	5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
DATE	DES BY	DRAWN BY
SCALE	DRG. NO.	90F 12

Revised 4-14-77 - Add 20' Riprap Pad At Sediment Basin Outfall

ENGINEERING PLANNING SURVEYING BY **BOENDER ASSOC. INC.** ELLICOTT CITY, MD. 465-7777

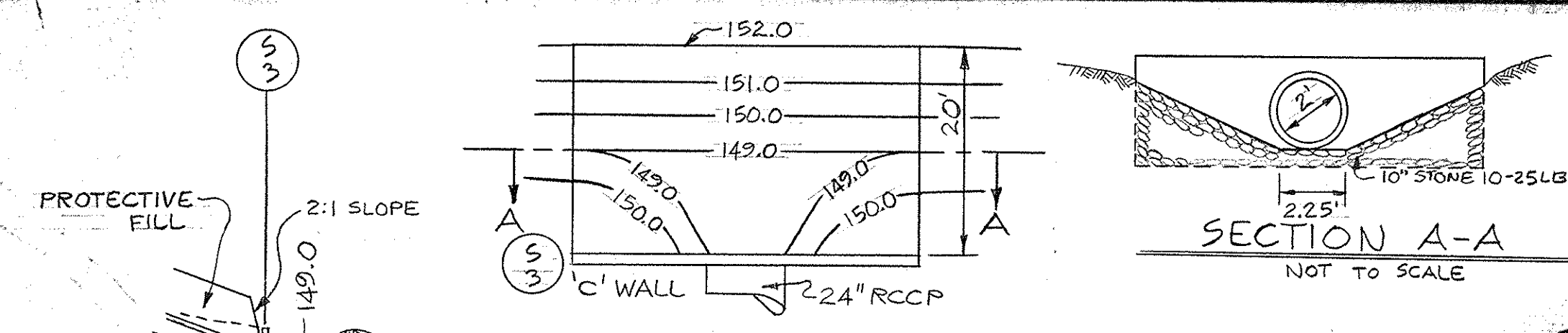
2-7-77
F-77-31

DEVELOPERS CERTIFICATION:

I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

William H. Riggle, Mgr.
DEVELOPER

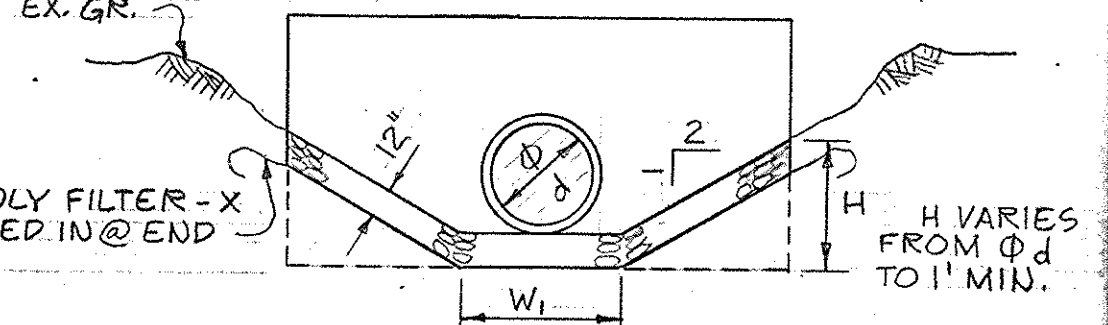
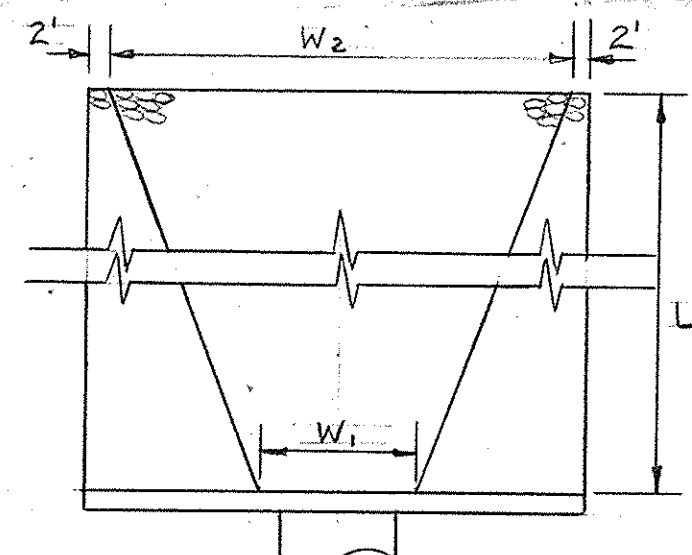
November 14, 1976
DATE



SEDIMENT TRAP SCHEDULE

SPILLWAY CREST ELEV. LENGTH	TRAP #	DRAINAGE AREA	DIST. AREA	STORAGE (C.Y.) REQ'D	STORAGE (C.Y.) PROVIDED	SIZE	CLEANOUT ELEV.
157.0 15'	#1	2.4	1.14	79	79	18 X 14 X 2 DEEP	109.0
156.1 12'	#2	2.0	1.03	69	80	20 X 40 X 2 DEEP	155.1
153.0 28'	#3	4.6	0.95	64	78	20 X 28 X 2 DEEP	151.8
186.7 -	#4	1.5	0.50	32	49	6 X 28 X 2 DEEP	185.2
116.0 6'	#5	0.55	0.55	37	49	6 X 28 X 2 DEEP	114.5
170.7 -	#6	6.7	1.20	80.4	80.4	20 X 34 X 2 DEEP	169.7
146.0 20'	#7	3.3	1.30	80.0	108.0	20 X 34 X 2 DEEP	145.0

TRAP TYPES
STONE OUTLET SEDIMENT TRAP # 1, 2, 3, 5
STORM INLET SEDIMENT TRAP # 4, 7



STORM DRAIN OUTLET PROTECTION

STRUCTURE #	Φd	W1	W2	L	SLOPE	Q	d50
S-1	4'	5'	9'	18.0'	1%	118	4"
S-4	1.5'	2.5'	12'	10'	0%	9	4"
S-7	1.5'	2.5'	6.3'	12'	0%	21	8"

DEPARTMENT OF PUBLIC WORKS
Dr. W. P. Probst 4/26/77
CHIEF, BUREAU OF HIGHWAYS
DATE

ENGINEER'S CERTIFICATION
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.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Richard May Jr. 2-777

POOLE, CHARLES 502/770
Robert W. Ziel 4-20-77
HOWARD S.C.D. DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.
Eric V. Herman 4-20-77
U.S. SOIL CONSERVATION SERVICE DATE

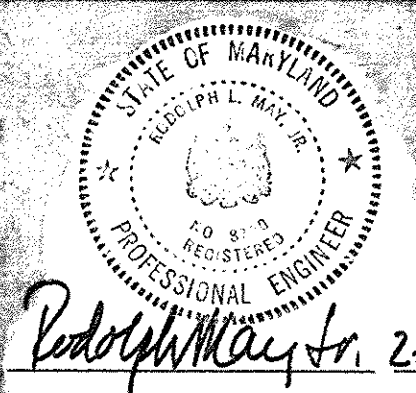
WILLIAM H. RIDGELY 30/418
TITLE **SEDIMENT CONTROL PLAN**

PROJECT **THE HERITAGE SECTION 1 AREA 2**

LOCATION 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

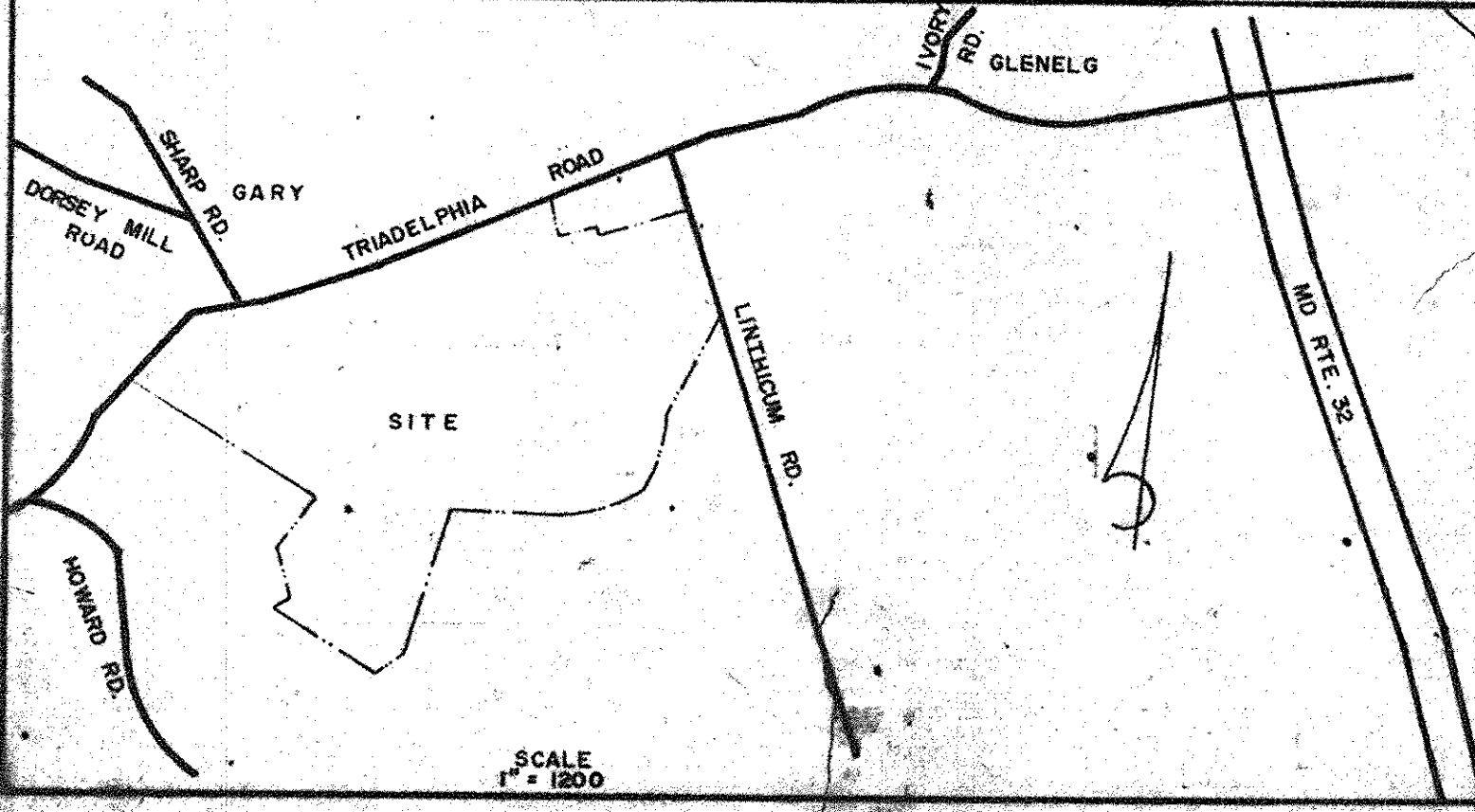
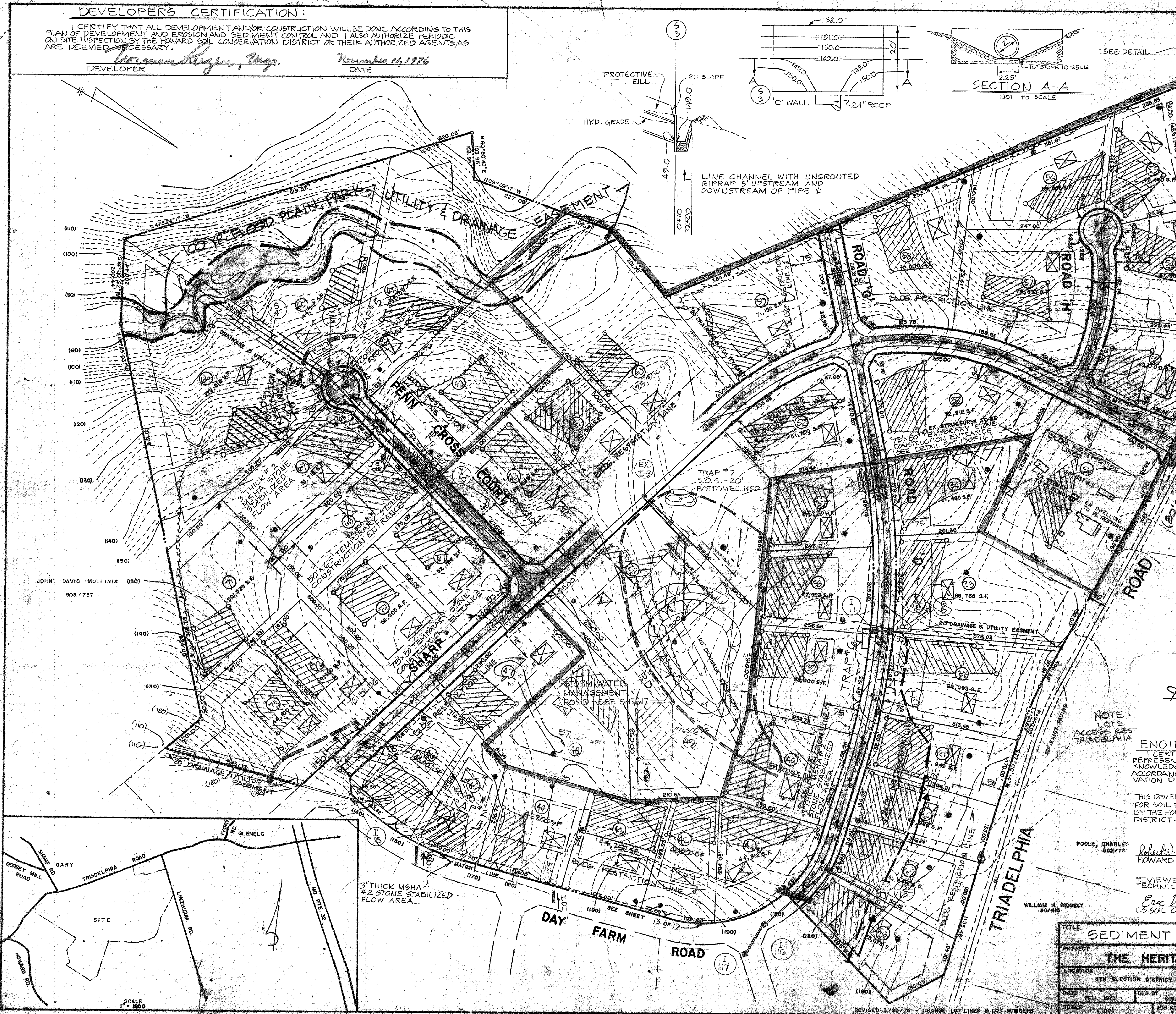
DATE FEB. 1975 DES. BY D.M.R. DRAWN BY D.M.R. CHKD. BY

SCALE 1" = 100' JOB NO. 7450 DRWG. NO. 14 OF 18



ENGINEERING PLANNING SURVEYING BY **BOENDER ASSOC. INC.** ELLICOTT CITY, MD. 485-7772

F-77-31



REVISED: 3/25/76 - CHANGE LOT LINES & LOT NUMBERS

THIS AREA DESIGNATES PRIVATE SEWAGE EASEMENT OF APPROXIMATELY 10,000 AS REQUIRED BY THE MARYLAND STATE HEALTH DEPARTMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE AND SERVICING ANY RESIDENTIAL STRUCTURE CONSTRUCTED ON THESE BUILDING SITES THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM.

PATTERSON, WALTER
434/787

NOTE:
LOTS 25 & 26 HAVE ACCESS RESTRICTED FROM TRIADELPHIA ROAD.

- "GENERAL NOTES"
- 1) TAX MAP NO. 21
 - 2) PARCEL NO.: 76
 - 3) RECORDED IN PLATBOOK 29, FOLIO 62
 - 4) TOTAL AREA OF SITE 138.59 ACRES
 - 5) TOTAL AREA OF LOTS: 125.24 ACRES
 - 6) TOTAL AREA OF ROADWAY: 13.35 ACRES
 - 7) ZONING OF PROPERTY: R-40
 - 8) PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS WILL BE UTILIZED
 - 9) TOTAL NO. OF LOTS: 83
 - 10) DESIGN SPEED:
SHARP RD. - 35 M.P.H.
OTHER ROADS - 30 M.P.H.

DEPARTMENT OF PUBLIC WORKS

Irwinville W. Ireland 4/26/77
CHIEF, BUREAU OF HIGHWAYS DATE

NOTE BOUNDARY AND TOPOGRAPHY SHOWN HEREON PREPARED BY BOENDER ASSOCIATES INCORPORATED FEBRUARY 1974

NOTE TEST AREAS SHOWN HEREON HAVE BEEN FIELD LOCATED AND NO SLOPES IN TESTED AREAS EXCEED 25%

NOTE ALL SEDIMENT CONTROL MEASURES WILL BE PROVIDED ON THE FINAL ROAD CONSTRUCTION DRAWING.

OWNERS / DEVELOPER:
WALGROW JOINT VENTURE CO., Inc.
C/O MR. NORMAN REIZEN
271 MADISON AVENUE
NEW YORK, N.Y. 10018
TELEPHONE: (212) 688-0400

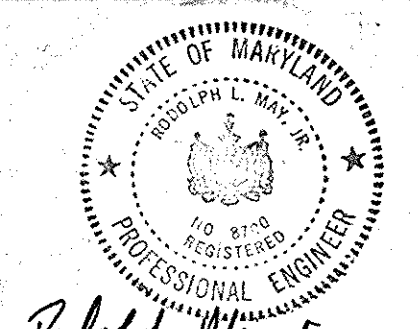
- NOTE
- 1) TOTAL NO. OF LOTS ON THIS SHEET: 87
 - 2) TOTAL AREA ON THIS SHEET: 62.12 AC.
 - 3) TOTAL AREA OF R/W ON THIS SHEET: 7.00 AC.

NOTE:
LOTS 1, 2, 3, 4 AND 5 HAVE ACCESS RESTRICTED FROM LINTHICUM ROAD.
ENTRANCE OF SHARP ROAD AT LINTHICUM ROAD SHALL CONFORM TO THE STANDARD GRADING ON PG. 170 OF THE H.C. CO. ROAD CONSTRUCTION CODE

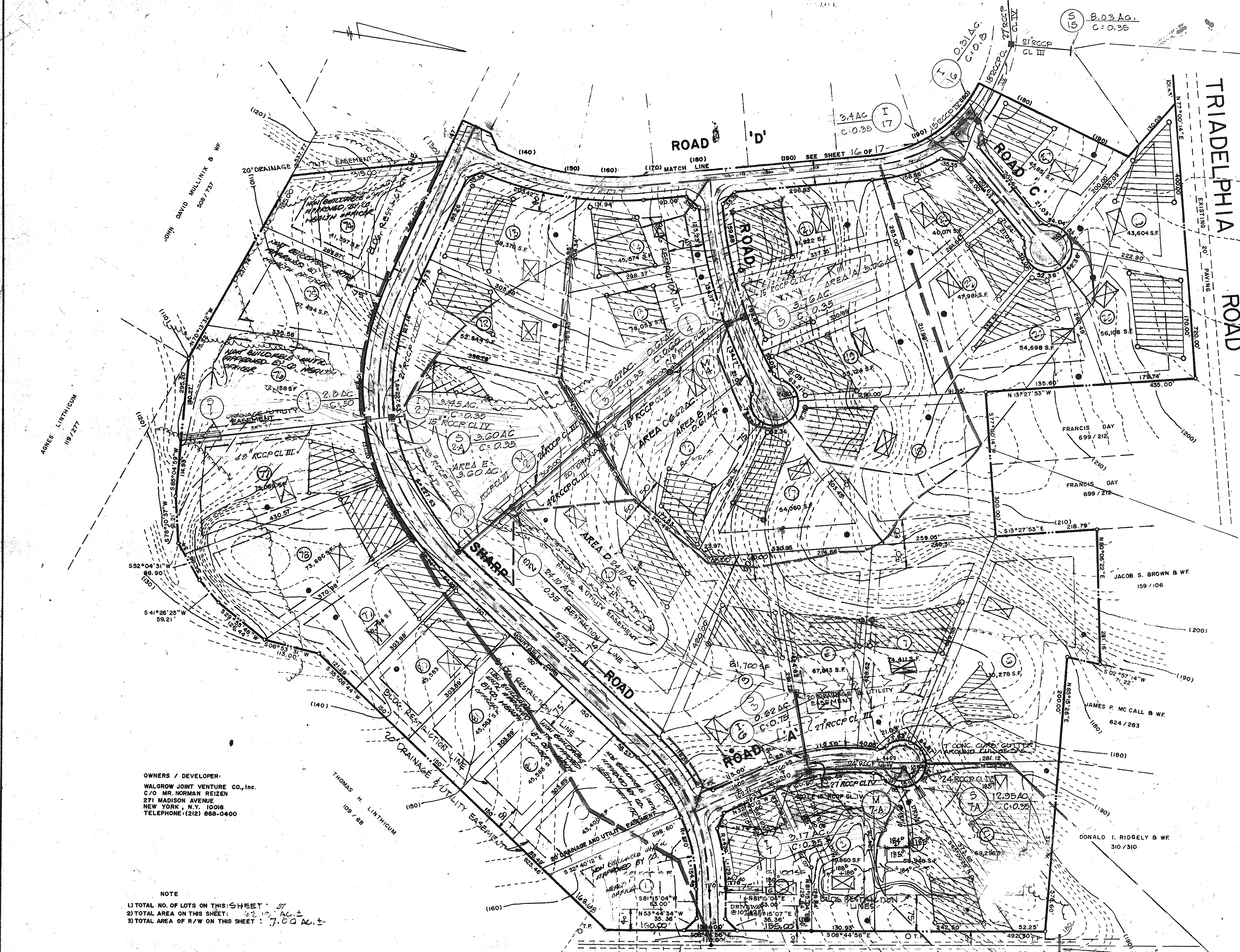
HOWELL, ROBERT & WIFE 325/329

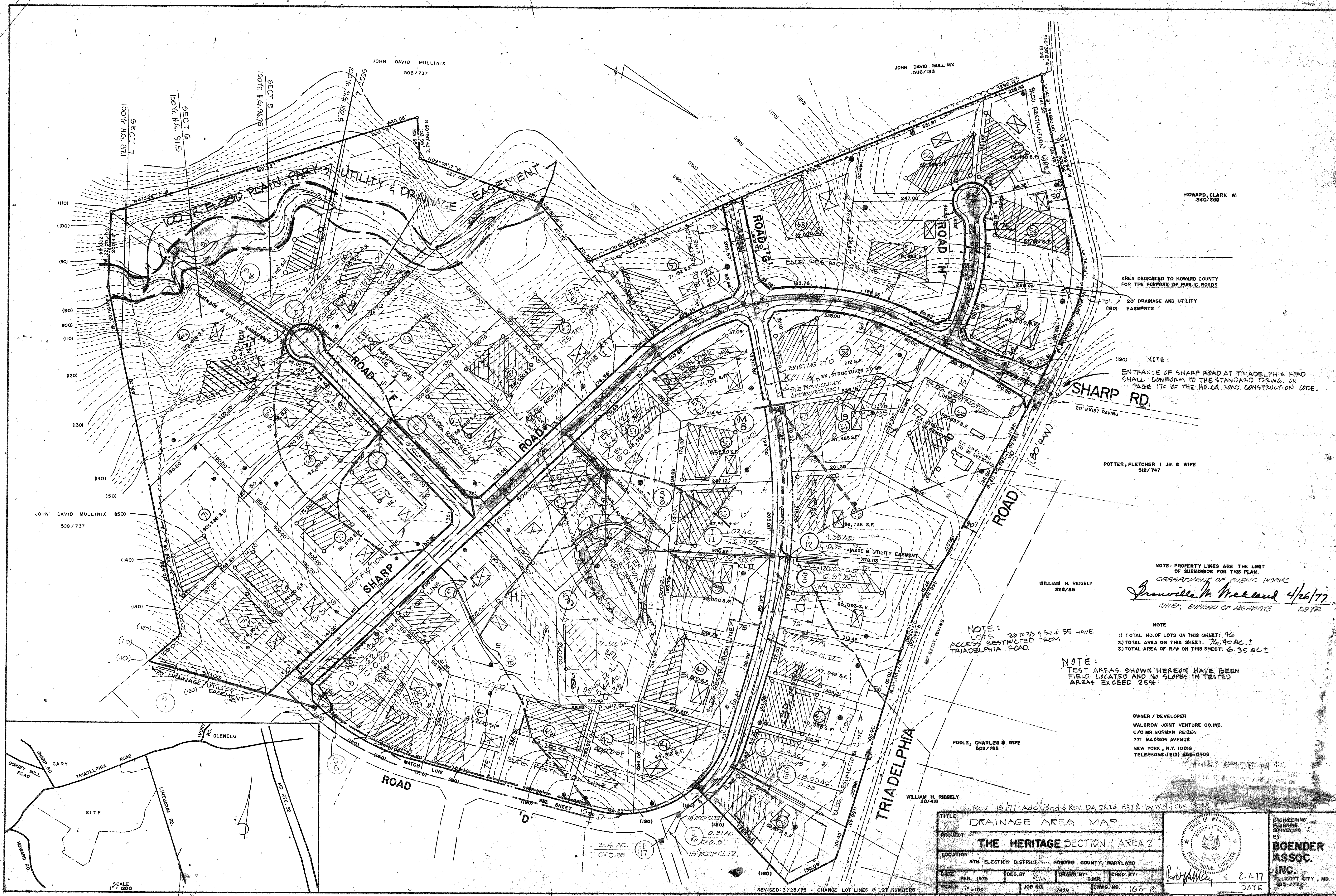
WHITE, CHARLES D. JR. WIFE 417/262

TITLE DRAINAGE AREA MAP			
PROJECT THE HERITAGE SECTION 1, AREA 2			
LOCATION 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND			
DATE 1977	DES. BY DMR	DRAWN BY DMR	CHECKED BY DMR
SCALE 1"=40'	DRWG. NO. 15 OF 18		



ENGINEERING PLANNING SURVEYING BY
BOENDER ASSOC. INC.
ELLCOTT CITY, MD. 465-7777





JOHN DAVID MULLINIX
508/737

JOHN DAVID MULLINIX
586/133

HOWARD, CLARK W.
340/555

AREA DEDICATED TO HOWARD COUNTY
FOR THE PURPOSE OF PUBLIC ROADS

20' DRAINAGE AND UTILITY
EASMENTS

NOTE:
ENTRANCE OF SHARP ROAD AT TRIADELPHIA ROAD
SHALL CONFORM TO THE STANDARD DRAWG. ON
PAGE 17C OF THE HO. CO. ROAD CONSTRUCTION CODE.

POTTER, FLETCHER I JR. & WIFE
512/747

JOHN DAVID MULLINIX (150)
508/737

WILLIAM H. RIDGELY
328/85

NOTE: PROPERTY LINES ARE THE LIMIT
OF SUBMISSION FOR THIS PLAN.
DEPARTMENT OF PUBLIC WORKS
Granville M. McLeod 4/26/77
CHIEF, BUREAU OF HIGHWAYS

NOTE
1) TOTAL NO. OF LOTS ON THIS SHEET: 46
2) TOTAL AREA ON THIS SHEET: 76.40 AC. ±
3) TOTAL AREA OF R/W ON THIS SHEET: 6.35 AC. ±

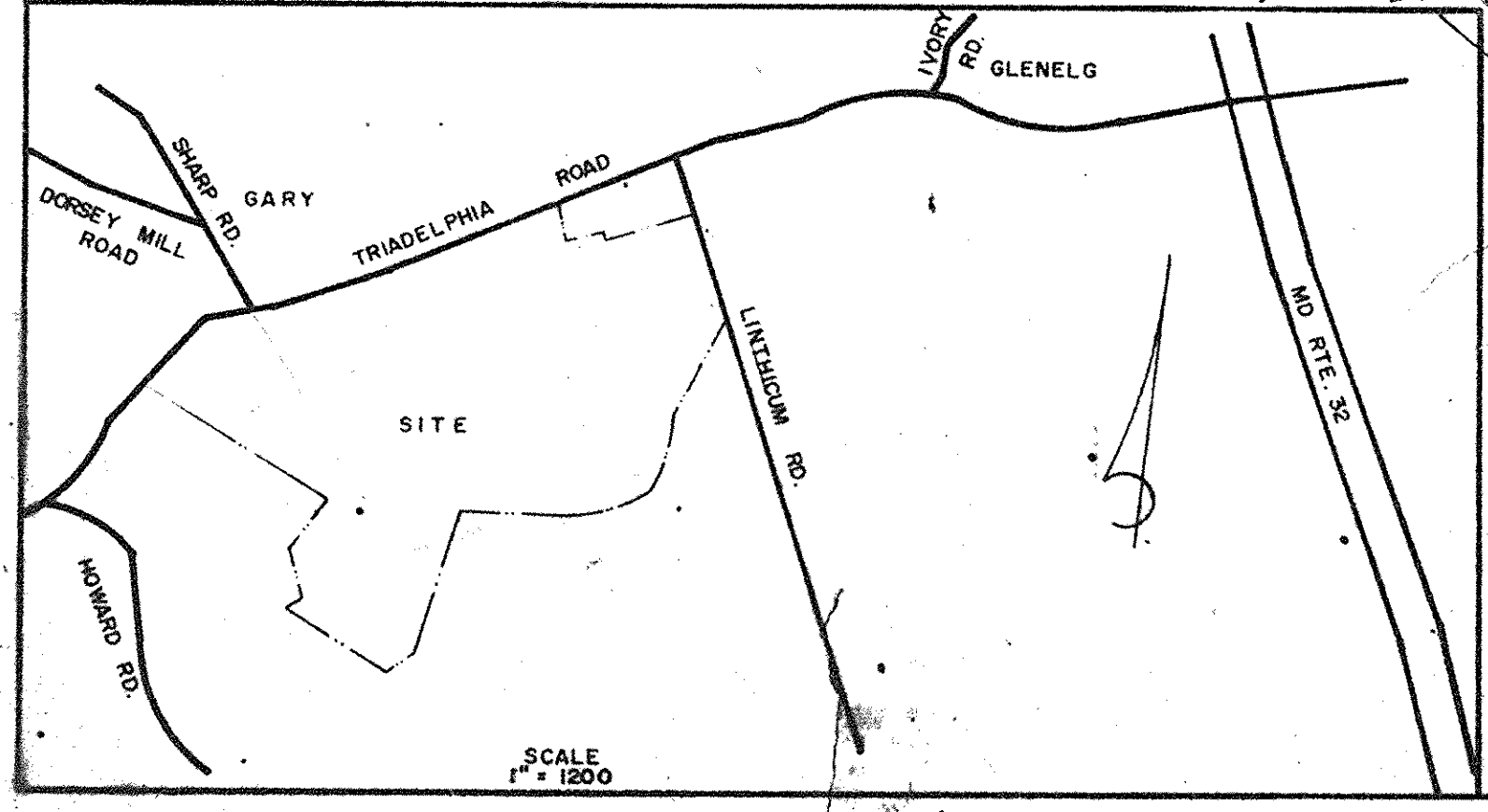
NOTE:
TEST AREAS SHOWN HEREON HAVE BEEN
FIELD LOCATED AND NO SLOPES IN TESTED
AREAS EXCEED 25%

OWNER / DEVELOPER
WALGROW JOINT VENTURE CO. INC.
C/O MR. NORMAN REIZEN
271 MADISON AVENUE
NEW YORK, N.Y. 10016
TELEPHONE: (212) 888-0400

POOLE, CHARLES & WIFE
502/783

WILLIAM H. RIDGELY
304/415

NOTE:
28' x 33' & 54' x 55' HAVE
ACCESS RESTRICTED FROM
TRIADELPHIA ROAD.

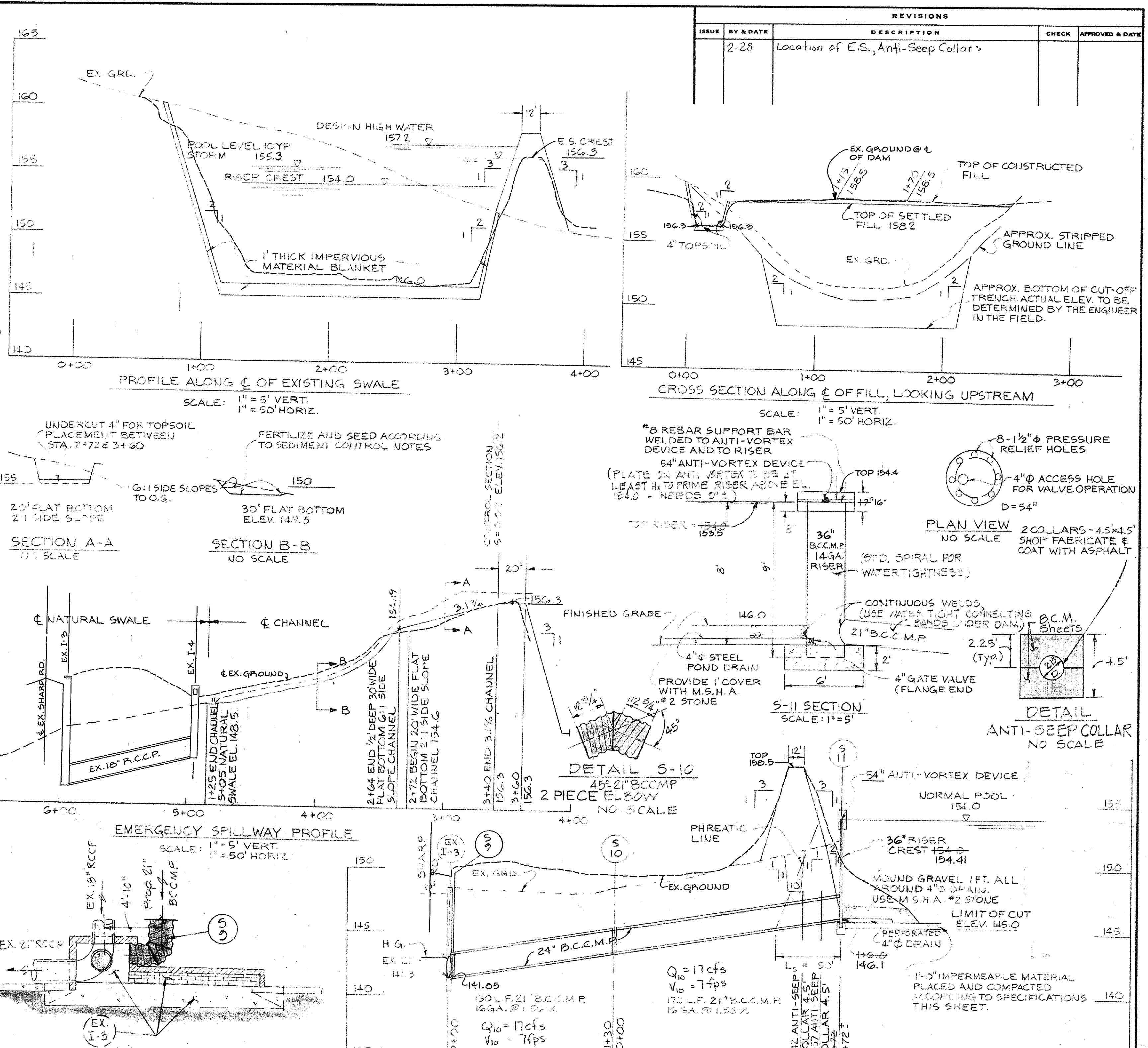
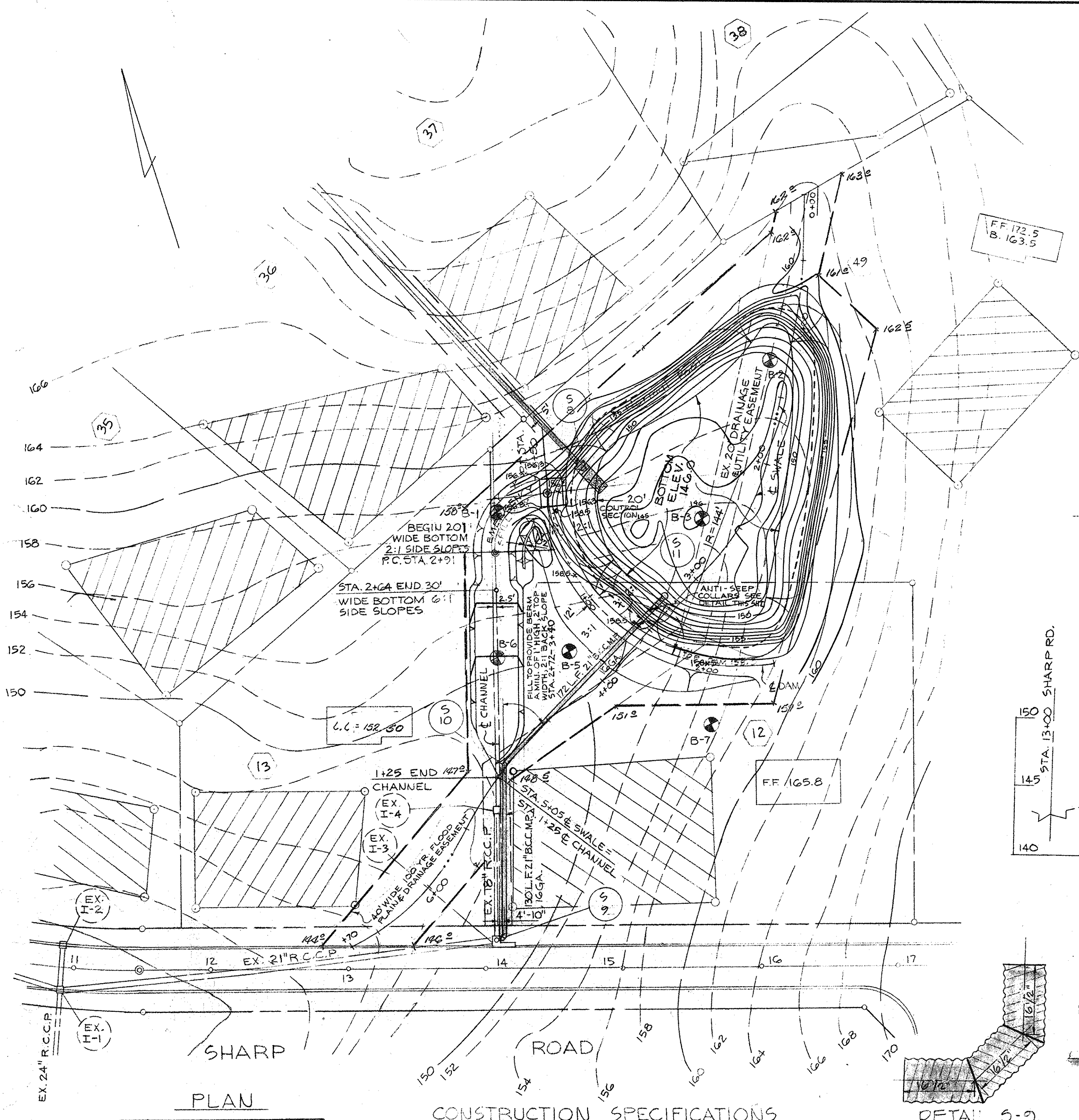


SCALE
1" = 1200'

REVISED: 3/25/75 - CHANGE LOT LINES & LOT NUMBERS

TITLE DRAINAGE AREA MAP			ENGINEERING PLANNING SURVEYING BY BOENDER ASSOC. INC. ELICOTT CITY, MD. 889-7777
PROJECT THE HERITAGE SECTION I AREA 2			
LOCATION 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		DATE FEB. 1975 SCALE 1" = 100'	DRAWN BY DIMR CHKD. BY 2-1-77 DATE
DES. BY CAN	DRAWN BY DIMR		

F-77-31



REVISIONS				
ISSUE	BY DATE	DESCRIPTION	CHECK	APPROVED & DATE
2-28		Location of E.S., Anti-Sleep Collars		

I. SITE PREPARATION
 THE EMBANKMENT AREA (FILL) EMERGENCY SPILLWAYS, BORROW AREA AND OUTLET CHANNEL SHALL BE CLEARED AND GRUBBED TO REMOVE ALL TREES, VEGETATION ROOTS, OR OTHER OBJECTIONABLE MATERIAL. THE TOPSOIL FROM THE EMBANKMENT AREA, EMERGENCY SPILLWAYS, AND BORROW AREA SHALL BE REMOVED AND STOCKPILED. THE TOPSOIL SHALL BE SPREAD ON THE COMPLETED EMBANKMENT AND EMERGENCY SPILLWAY.

II. EARTH FILL
 MATERIAL: THE FILL MATERIAL SHALL BE OBTAINED FROM THE CORE TRENCH EXCAVATION, THE EMERGENCY SPILLWAY EXCAVATION, AND THE DESIGNATED BORROW AREA. IT SHALL BE FREE FROM ROOTS, STUMPS, WOOD, RUBBISH, OVERSIZE STONES, FROZEN OR OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE CONSTRUCTED TO THE ELEVATIONS AS SHOWN ON THIS SHEET TO ALLOW FOR ANTICIPATED SETTLEMENT.

PLACEMENT: AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIAL SHALL BE PLACED IN 6" MAXIMUM THICKNESS (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST FORMOUS BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTION 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 SHEEPFOOT ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IT CAN BE FORMED INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SQUEEZED OUT OF THE BALL IT IS TOO WET TO COMPACT PROPERLY.

CORE TRENCH: THE CORE TRENCH SHALL BE EXCAVATED ALONG THE CENTERLINE OF THE EMBANKMENT. THE BACKFILL MATERIAL FOR THE CORE TRENCH SHALL BE THE MOST IMPERVIOUS MATERIAL AVAILABLE AND SHALL BE COMPACTED WITH EQUIPMENT OR ROLLERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY AS PER ASSOCIATED T-180 DENSITY.

CLAY BLANKET LINER: THE POND BOTTOM SHALL BE EXCAVATED TO 1" BELOW FINAL GRADE. THE POND SHALL THEN BE COMPLETELY LINED WITH 1" OF THE MOST IMPERVIOUS MATERIAL. COMPACTION SHALL BE AS SPECIFIED ABOVE.

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 4" IN THICKNESS AND COMPACTED BY HAND TAMING OR MANUALLY DIRECTED POWER TAMPERS OR PLATE VIBRATORS. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE ANY CLOSER THAN 4" FEET MEASURED HORIZONTALLY TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR DRIVE EQUIPMENT OVER ANY PART OF A CONCRETE STRUCTURE OR PIPE UNLESS THERE IS A COMPACTED FILL OF 24 INCHES OR GREATER OVER THE STRUCTURE OR PIPE.

IV. PIPE CONDUIT
 1. MATERIAL BITUMINOUS COATED CORRUGATED METAL PIPE 21" DIA. - 16 GAUGE AND 36" DIA. - 14 GAUGE. PIPE BANDS IF STANDARD LENGTH ARE TO BE USED. ALL UNCOATED AND SCARF SURFACES TO BE FIELD COATED WITH BITUMASTIC AS DIRECTED BY ENGINEER IN FIELD.
 2. BACKFILL SHALL CONFORM TO STRUCTURAL BACKFILL AS SHOWN ABOVE.
 3. OTHER DETAILS (ANTI-SLEEP COLLARS, RISERS, DRAINS, ETC.) SHALL BE AS SHOWN ON THIS DRAWING.

V. CONCRETE
 CONCRETE SHALL MEET MINIMUM REQUIREMENTS SET FORTH IN MARYLAND STATE HWY. ADMINISTRATION SPECIFICATIONS FOR MATERIALS, HIGHWAYS, BRIDGES, AND INCIDENTAL STRUCTURES, ARTICLE 20.07 (PORTLAND CEMENT MIXTURE) CLASS A-1 OR A-1.

VI. STABILIZATION
 ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SLIGHTLY CONDITON. ALL EXPOSED SURFACES OF THE EMBANKMENT SPILLWAY AND BORROW AREAS SHALL BE STABILIZED BY SEEDING AND APPLYING STRAW MULCH IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN URBANIZING AREAS IMMEDIATELY AFTER FINISH GRADING.

DETAIL S-9
 20" - 21" B.C.C.M.P. 5 PIECE EL. BOTW - NO SCALE

DETAIL S-10
 45" - 21" B.C.C.M.P. 2 PIECE ELBOW NO SCALE

DETAIL S-11
 54" ANTI-VORTEX DEVICE NORMAL POOL 151.0

PROFILE OF PRINCIPLE SPILLWAY
 SCALE: 1" = 5' VERT. 1" = 50' HORIZ.

CERTIFICATION BY THE ENGINEER
 I CERTIFY THAT THIS PLAN FOR A POND REPRESENTS A PRACTICAL & 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.

CERTIFICATION BY THE DEVELOPER
 I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR A POND AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATIONS FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT.

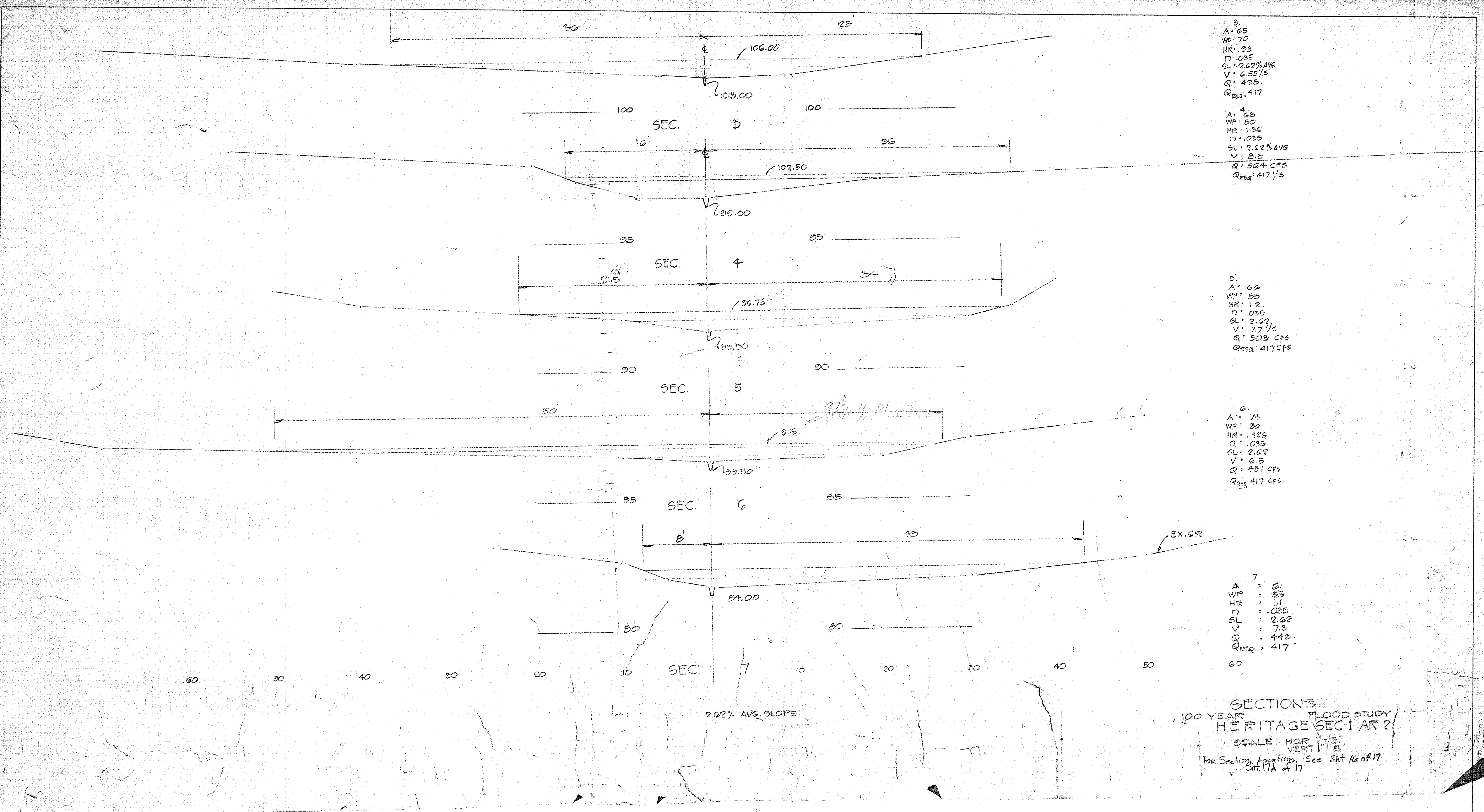
Eric V. Herman 4-20-77
 DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS

Robert W. Zelnick 4/26/77
 DATE

AS-BUILT SURVEY DATA BY TERRELL A. FISHER, MD. REG. P.E. NO. 9757 SHAWD SEALED DATED 4/9/81

AS-BUILT JANUARY 1983

TITLE STORM WATER MANAGEMENT POND			ENGINEERING PLANNING SURVEYING BY BOENDER ASSOCIATES INC. BALTIMORE, MD. 466-7777 SALISBURY, MD. 749-1286 WESTMINSTER, MD. 848-5888
PROJECT THE HERITAGE SECTION 1, AREA 2			
LOCATION 5TH ELECTION DISTRICT HOWARD CO., MD.			
DATE:	DES. BY: R.L.M.	DRAWN BY: J.E.K.	CHKD. BY: Robert W. Zelnick
SCALE: AS SHOWN	JOB NO.: 7450	DRWG. NO.: S-1172P 15	DATE:



3.
 A: 65
 WP: 70
 HR: .93
 n: .035
 SL: 2.62% AVG
 V: 6.55 1/5
 Q: 425
 QREQ: 417

4.
 A: 68
 WP: 50
 HR: 1.36
 n: .035
 SL: 2.62% AVG
 V: 8.9
 Q: 564 CFS
 QREQ: 417 1/5

5.
 A: 66
 WP: 55
 HR: 1.2
 n: .035
 SL: 2.62
 V: 7.7 1/5
 Q: 503 CFS
 QREQ: 417 CFS

6.
 A: 74
 WP: 30
 HR: .926
 n: .035
 SL: 2.62
 V: 6.5
 Q: 431 CFS
 QREQ: 417 CFS

7.
 A: 61
 WP: 55
 HR: 1.1
 n: .035
 SL: 2.62
 V: 7.3
 Q: 443
 QREQ: 417

2.62% AVG. SLOPE

SECTIONS
 100 YEAR FLOOD STUDY
 HERITAGE SECTION I AREA 2
 SCALE: HORZ: 1"=50' VERT: 1"=5'
 FOR SECTION LOCATIONS, SEE SHET 16 OF 17
 SHET 17A OF 17

DEPARTMENT OF PUBLIC WORKS
Branvick M. Weland
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 4/26/77

OFFICE OF PLANNING AND ZONING
Shirley M. ...
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 4-25-77

TITLE 100 YR. FLOODPLAIN SECTIONS					ENGINEERING PLANNING SURVEYING BY BOENDER ASSOCIATES, INC. BALTIMORE, MD 443-7777 SALISBURY, MD 743-1286
PROJECT THE HERITAGE SECTION I AREA 2					
LOCATION FIFTH ELECTION DISTRICT HOWARD COUNTY, MD				<i>Rodolph May Jr.</i> 4-14-77 DATE	
DATE DEC 2, 1976	DES. BY J.B.	DRWN. BY W.N.	CHKD. BY R.L.M.		
SCALE HORZ: 1"=50' VERT: 1"=5'		PROJECT NO. 7450	SHEET NO. 10 OF 10		