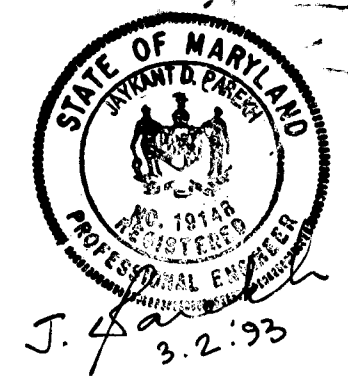
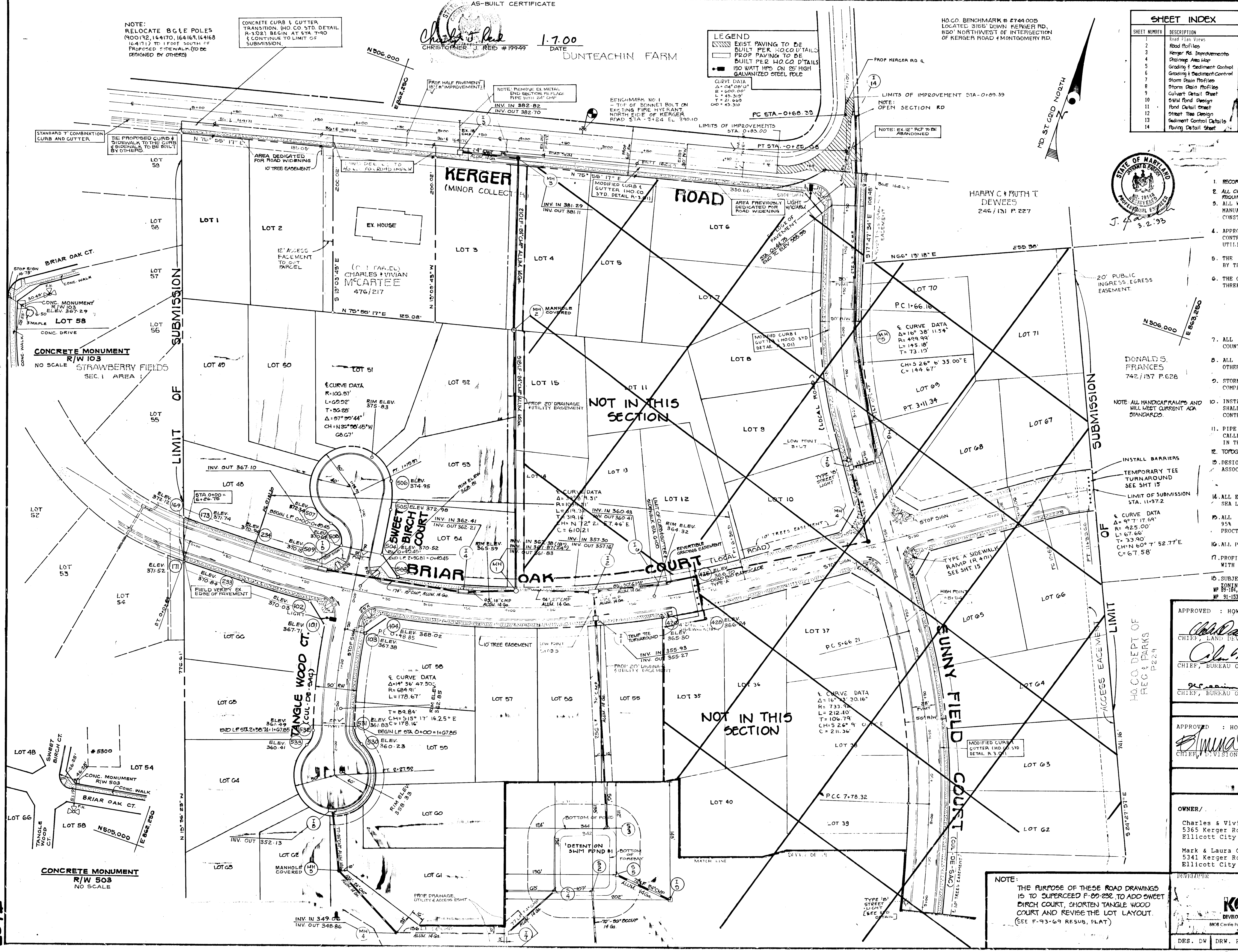
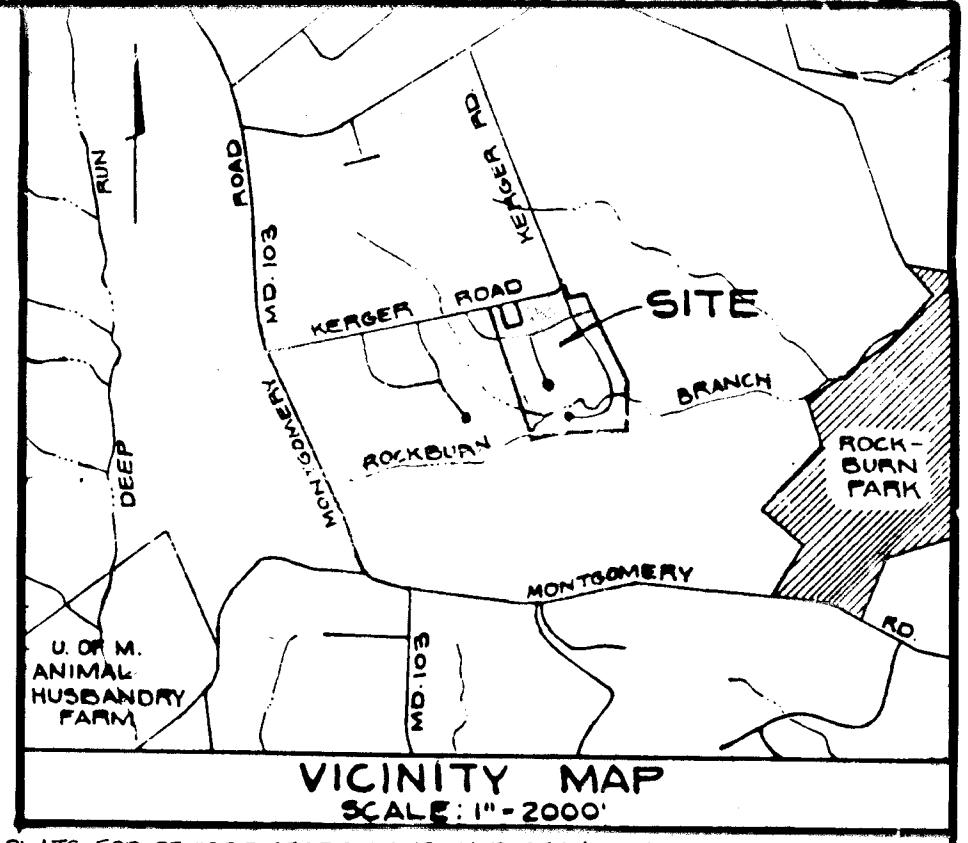


1.7.00 DATE
CHRISTOPHER J. REID #19949

DUNTEACHIN FARM

H.O.CO. BENCHMARK # 2744 005
LOCATED 3155' DOWN KERGER RD,
850' NORTHWEST OF INTERSECTION
OF KERGER ROAD & MONTGOMERY RD.

SHEET INDEX	
SHEET NUMBER	DESCRIPTION
1	Road Plan Views
2	Road Profiles
3	Kerger Rd. Improvements
4	Drainage Area Map
5	Grading & Sediment Control
6	Storm Drain Profiles
7	Storm Drain Profiles
8	Storm Drain Profiles
9	Storm Drain Profiles
10	Storm Drain Profiles
11	Storm Drain Profiles
12	Storm Drain Profiles
13	Storm Drain Profiles
14	Storm Drain Profiles



- RECORD PLATS FOR REVISION SECTION ONE HAVE BEEN CREATED UNDER F-05-00
- ALL CURB STORM DRAINS TO BE ADJUSTED 14 Gals. PER COUNTY REQUIREMENTS.
- ALL WORK SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME 14 STANDARD SPECIFICATIONS AND DETAILS FOR ROAD CONSTRUCTION, 1985 AMENDMENTS.
- APPROXIMATE LOCATION OF EXISTING SEWERS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTION TO PROTECT UTILITIES, AND MAINTAIN UNINTERRUPTED SERVICE.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AS DIRECTED BY THE ENGINEER A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST THREE DAYS IN ADVANCE OF STARTING WORK SHOWN ON THESE DRAWINGS.

BELL TELEPHONE	393-3649
LONG DISTANCE CABLE DIVISION	393-3553
BALTIMORE GAS AND ELECTRIC	539-8000
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION	792-2417
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL STREET CURB RETURNS SHALL HAVE A 20' RADIUS UNLESS OTHERWISE STATED.
- STORM DRAIN TRENCHES WITHIN ROAD R-O-W SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1988 EDITION.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- TOPOGRAPHY SUPPLIED BY AMERICAN ENGINEERING.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:
 - ALL CUL-DE-SACS DESIGNED FOR 30 MPH
 - ALL LOCAL ROADS DESIGNED FOR 30 MPH
- ALL ELEVATIONS SHOWN HEREIN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929, AND H.O.CO. BENCHMARK
- ALL FILL AREAS UNDER ROADS AND STRUCTURES ARE TO BE COMPACTED 95% OF MAXIMUM OBTAINABLE DENSITY DETERMINED BY MARSHALL PROCTOR.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM WITH PLAN DIMENSIONS.
- SUBJECT PROPERTY IS ZONED R-20 PER THE 8-7-85 COMPREHENSIVE ZONING PLAN, SUBJECT TO 8-28-06 P. 89-06, 8-28-06 P. 89-07, 8-28-06 P. 89-08, 8-28-06 P. 89-09, 8-28-06 P. 89-10, 8-28-06 P. 89-11, 8-28-06 P. 89-12, 8-28-06 P. 89-13, 8-28-06 P. 89-14, 8-28-06 P. 89-15, 8-28-06 P. 89-16, 8-28-06 P. 89-17, 8-28-06 P. 89-18, 8-28-06 P. 89-19, 8-28-06 P. 89-20, 8-28-06 P. 89-21, 8-28-06 P. 89-22, 8-28-06 P. 89-23, 8-28-06 P. 89-24, 8-28-06 P. 89-25, 8-28-06 P. 89-26, 8-28-06 P. 89-27, 8-28-06 P. 89-28, 8-28-06 P. 89-29, 8-28-06 P. 89-30, 8-28-06 P. 89-31, 8-28-06 P. 89-32, 8-28-06 P. 89-33, 8-28-06 P. 89-34, 8-28-06 P. 89-35, 8-28-06 P. 89-36, 8-28-06 P. 89-37, 8-28-06 P. 89-38, 8-28-06 P. 89-39, 8-28-06 P. 89-40, 8-28-06 P. 89-41, 8-28-06 P. 89-42, 8-28-06 P. 89-43, 8-28-06 P. 89-44, 8-28-06 P. 89-45, 8-28-06 P. 89-46, 8-28-06 P. 89-47, 8-28-06 P. 89-48, 8-28-06 P. 89-49, 8-28-06 P. 89-50, 8-28-06 P. 89-51, 8-28-06 P. 89-52, 8-28-06 P. 89-53, 8-28-06 P. 89-54, 8-28-06 P. 89-55, 8-28-06 P. 89-56, 8-28-06 P. 89-57, 8-28-06 P. 89-58, 8-28-06 P. 89-59, 8-28-06 P. 89-60, 8-28-06 P. 89-61, 8-28-06 P. 89-62, 8-28-06 P. 89-63, 8-28-06 P. 89-64, 8-28-06 P. 89-65, 8-28-06 P. 89-66, 8-28-06 P. 89-67, 8-28-06 P. 89-68, 8-28-06 P. 89-69, 8-28-06 P. 89-70, 8-28-06 P. 89-71, 8-28-06 P. 89-72, 8-28-06 P. 89-73, 8-28-06 P. 89-74, 8-28-06 P. 89-75, 8-28-06 P. 89-76, 8-28-06 P. 89-77, 8-28-06 P. 89-78, 8-28-06 P. 89-79, 8-28-06 P. 89-80, 8-28-06 P. 89-81, 8-28-06 P. 89-82, 8-28-06 P. 89-83, 8-28-06 P. 89-84, 8-28-06 P. 89-85, 8-28-06 P. 89-86, 8-28-06 P. 89-87, 8-28-06 P. 89-88, 8-28-06 P. 89-89, 8-28-06 P. 89-90, 8-28-06 P. 89-91, 8-28-06 P. 89-92, 8-28-06 P. 89-93, 8-28-06 P. 89-94, 8-28-06 P. 89-95, 8-28-06 P. 89-96, 8-28-06 P. 89-97, 8-28-06 P. 89-98, 8-28-06 P. 89-99, 8-28-06 P. 89-100.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Christopher J. Reid 4/1/93 DATE
CHIEF, LAND DEVELOPMENT DIVISION M.K.

Calvin M. Pennington 3/23/93 DATE
CHIEF, BUREAU OF HIGHWAYS

William J. Reid 4-5-93 DATE
CHIEF, BUREAU OF ENGINEERS M.K.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Anna M. Blonard 4/19/93 DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT-DATE

RIEMER MUEGGE & ASSOCIATES, INC.
Engineers + Surveyors
8818 Centre Park Drive - Suite 200 - Columbia, MD 21046
410-997-8900 FAX: 410-997-9282

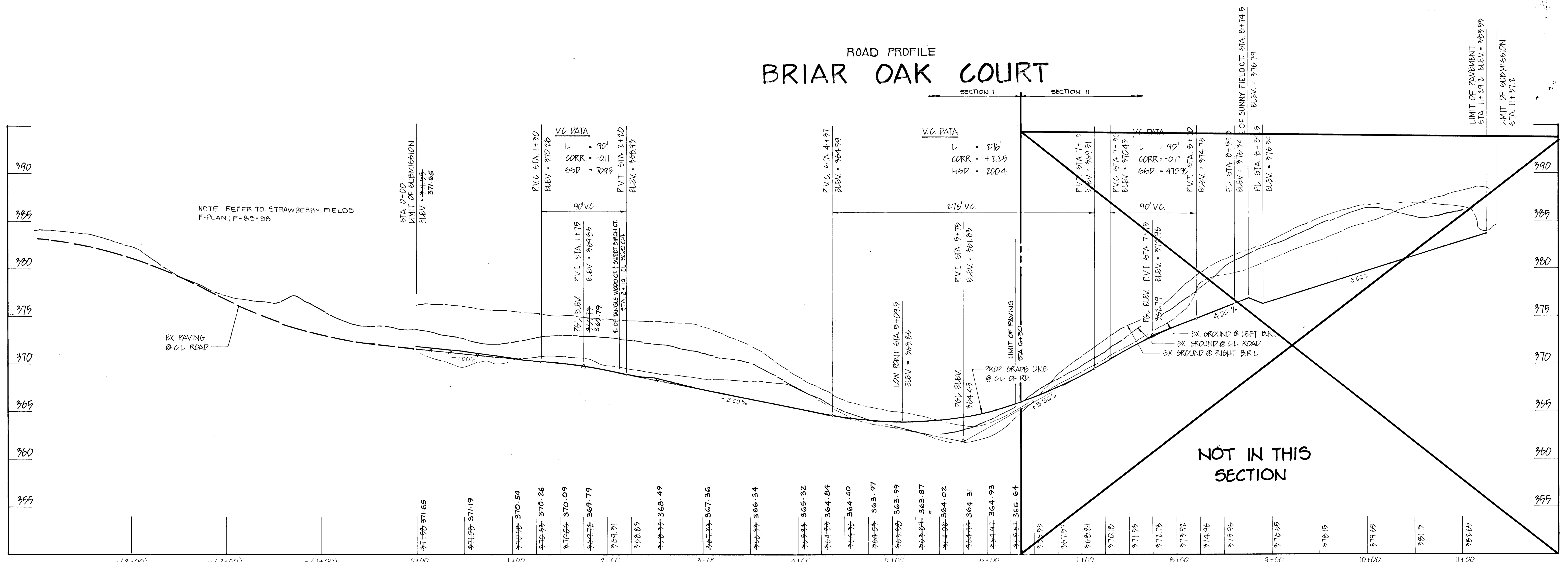
OWNER/	PROJECT NAME
Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043	SUNNY FIELD ESTATES Section I Lots 48-67
Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	T.M.#31 P. 57, 58, 518, 757 1 Elect. Dist. Ho.Co., MD

DEVELOPER	KOREN DEVELOPMENT COMPANY INC. 8808 Centre Park Drive Columbia MD 21045 301-740-1010	TITLE ROAD CONSTRUCTION DRAWING Final Plan WP-89-104 S-89-06, P-89-52, P-89-232, P-93-69
DES. DW	DRW. RT. CHK. RA/DW	DATE 3-2-93 PROJECT # 888101
SCALE 1"=50'		DRAWING 1 OF 14

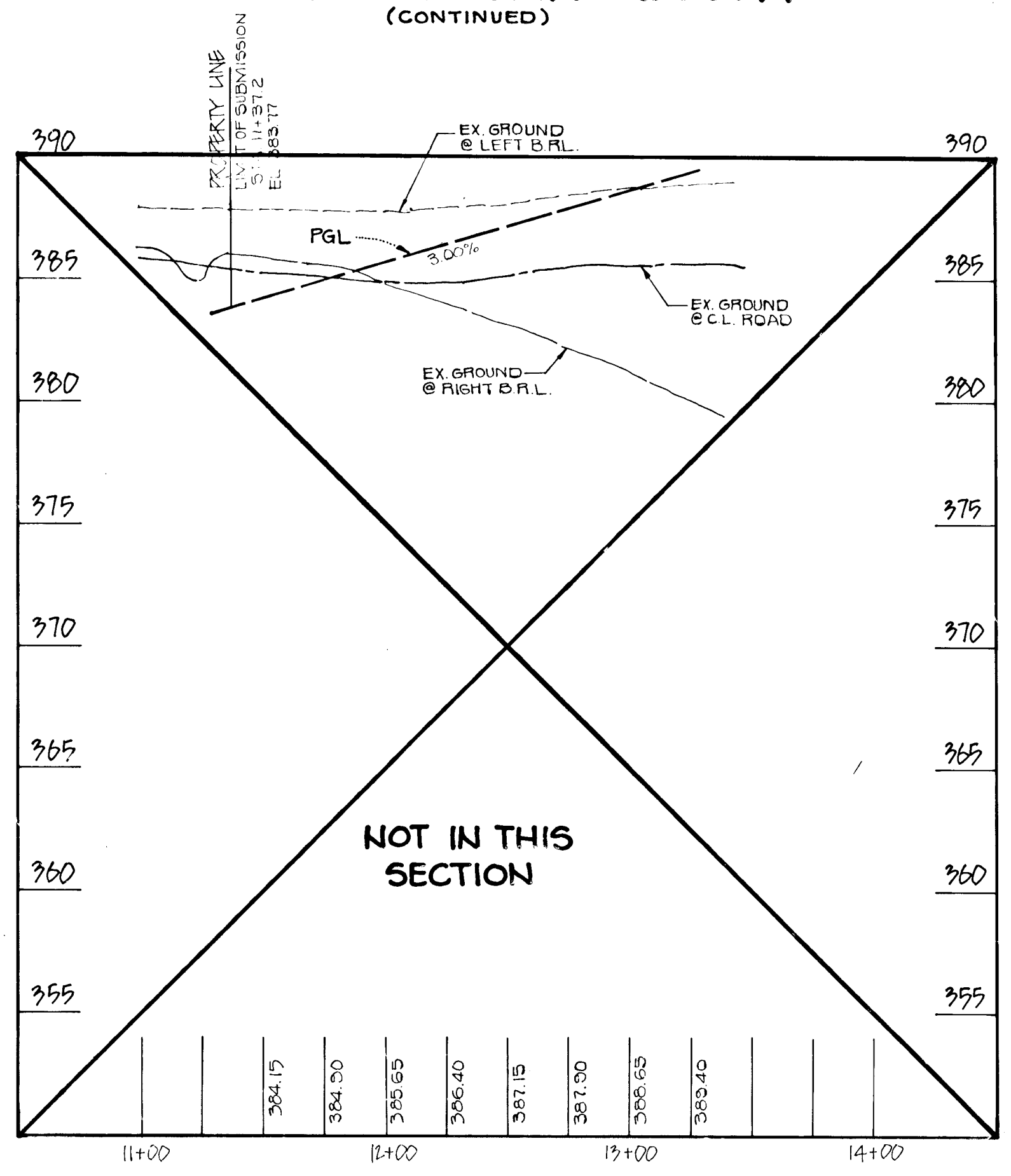
NOTE:
THE PURPOSE OF THESE ROAD DRAWINGS IS TO SUPERCEED F-89-232 TO ADD SWEET BIRCH COURT, SHORTEN TANGLE WOOD COURT AND REVISE THE LOT LAYOUT. (SEE F-93-69 RESUB. PLAT)

1041

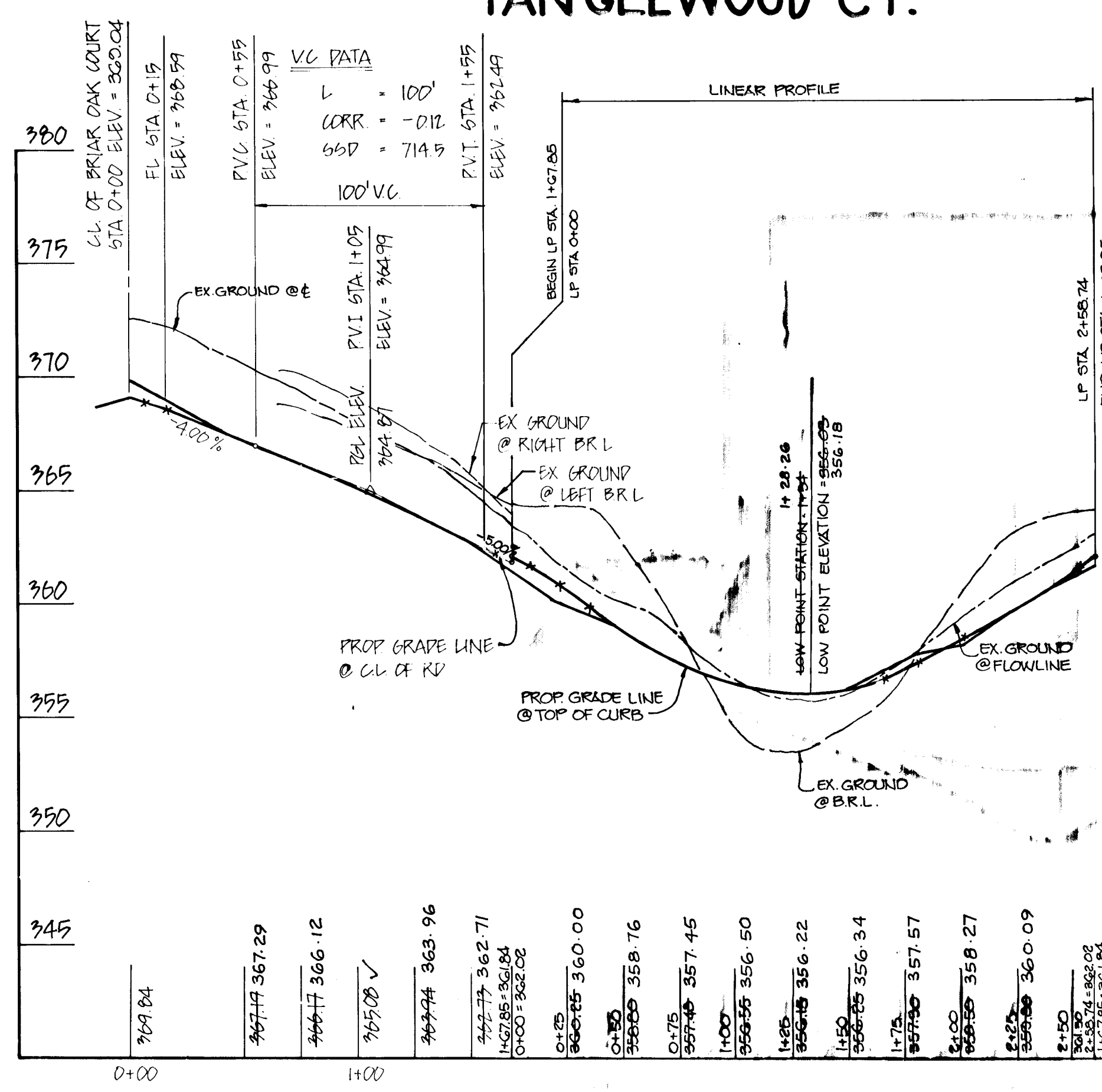
ROAD PROFILE BRIAR OAK COURT



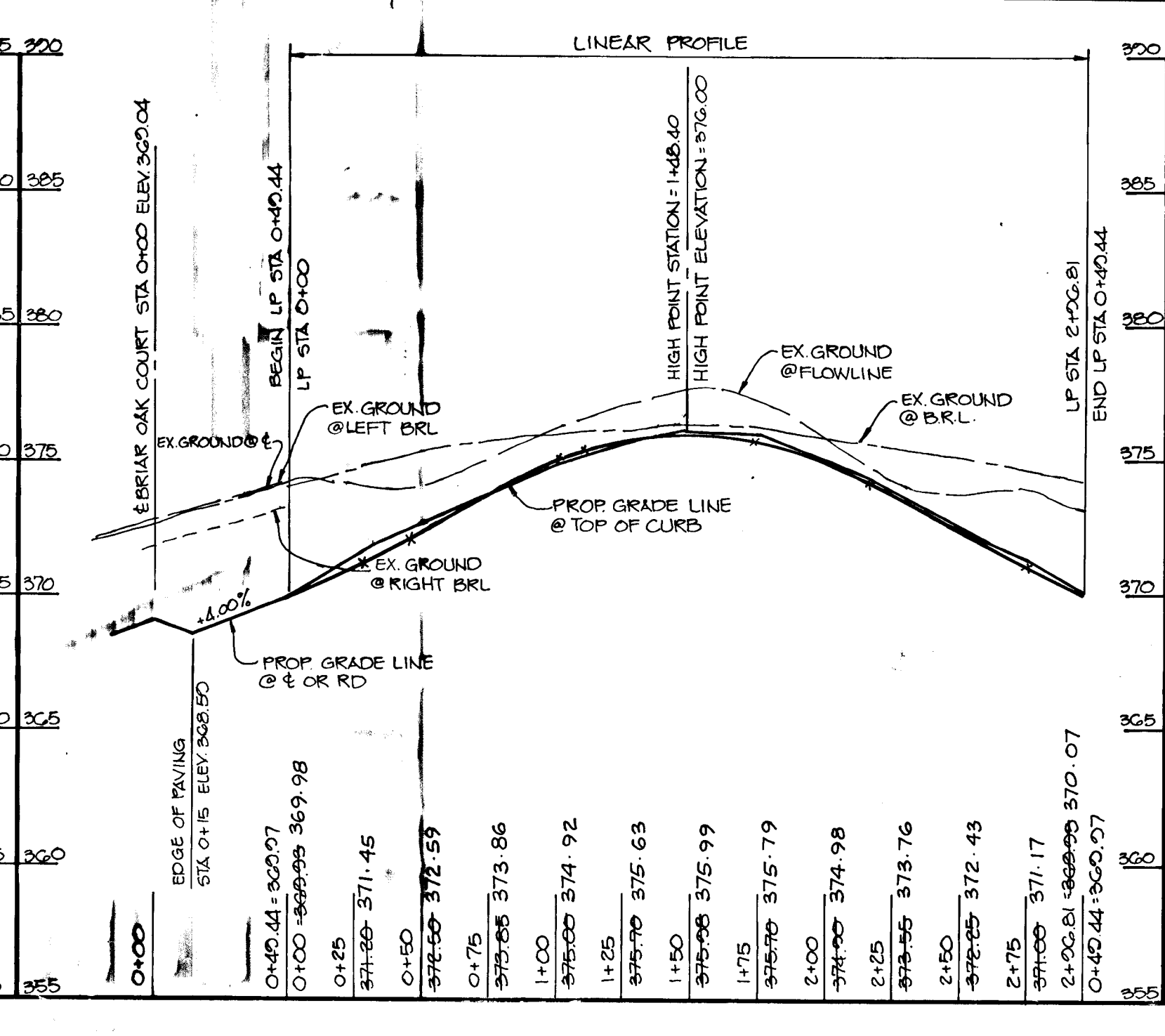
ROAD PROFILE BRIAR OAK COURT (CONTINUED)



ROAD PROFILE TANGLEWOOD CT.



SWEET BIRCH COURT



NOTES:

- DESIGN SPEED = 30 MPH
- PROPOSED RD GRADE REFLECT THE RD &

SCALE: 1" = 20' VERT, 1" = 50' HORIZ

AS-BUILT CERTIFICATE

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER J. REID #19949
DATE: 1-7-00

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Land Development Division M.K. 4/1/93 DATE

Chief, Bureau of Highways 3/23/98 DATE

Chief, Bureau of Engineering M.K. 4-5-93 DATE

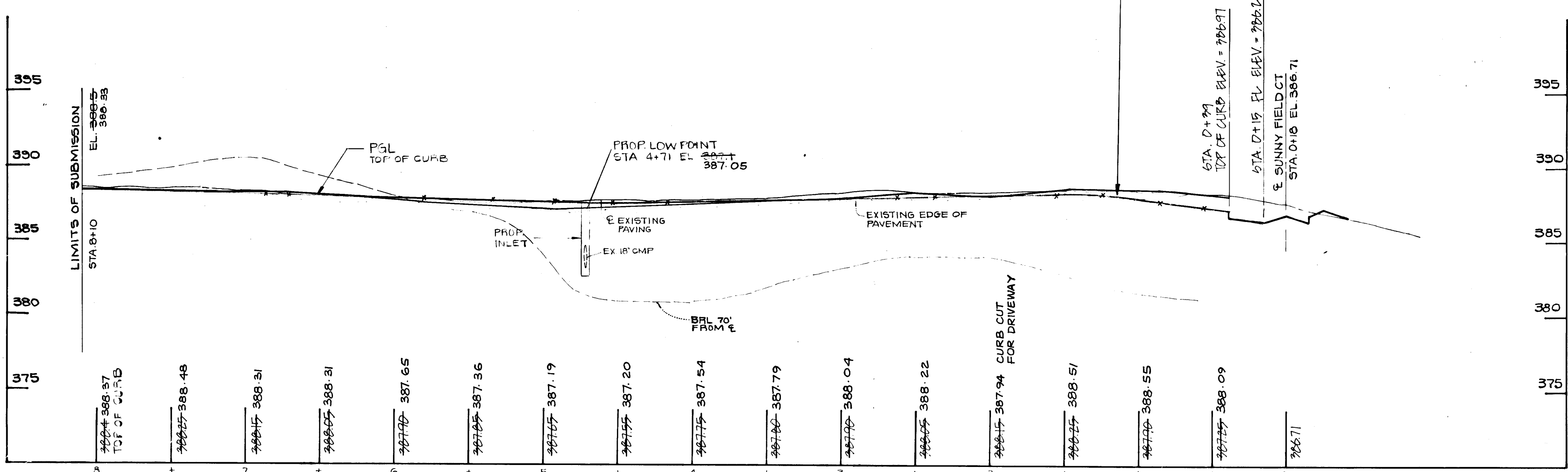
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Chief, Division of Community Planning and Land Development-DATE

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
410-997-8900 FAX: 410-997-9222

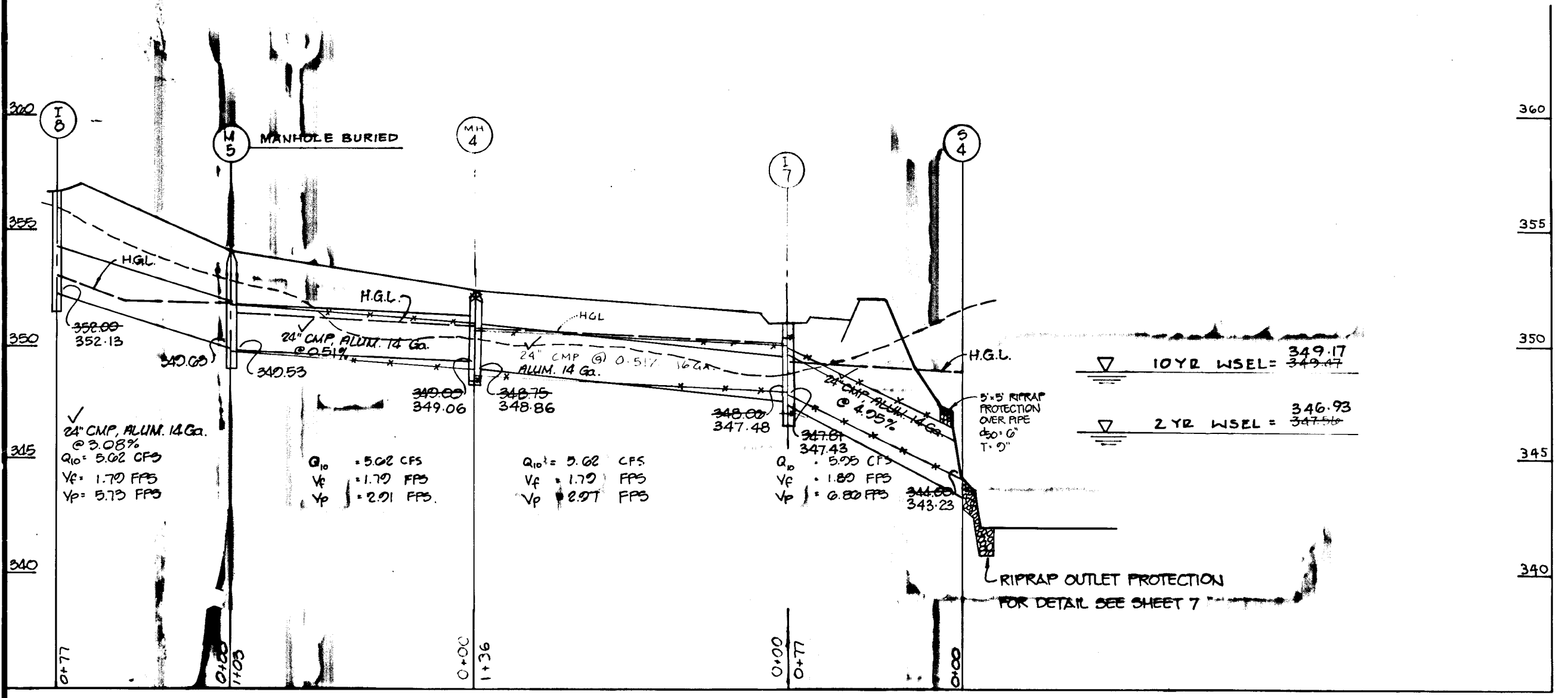
OWNER/ Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043	PROJECT NAME SUNNY FIELD ESTATES Section I Lots 46-67
Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	T.M.#31 P.57,58,518,757 1 Elect. Dist. Ho.Co.,MD
DEVELOPER KORIN DEVELOPMENT COMPANY, INC. 8808 Centre Park Drive Columbia MD 21045 301-740-1300	TITLE ROAD PROFILE Final Plan WP-89-184 S-89-06, P-89-52, F-89-232 1-93-69
DATE 5-0-00 PROJECT PS88101	SCALE 1" = 50' DRAWING 2 OF 14

NOTE: PGL ALONG TOP OF PROPOSED CURB. IMPROVEMENT TO KERGER ROAD TIE TO SUNNYFIELD COURT AT STATION 0+41. KERGER ROAD IMPROVEMENTS FROM STATION 0+15 TO 1+23 TO BE DONE AT 1.23% SLOPE.



**PROFILE
KERGER ROAD**

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



**STORMDRAIN
PROFILE**

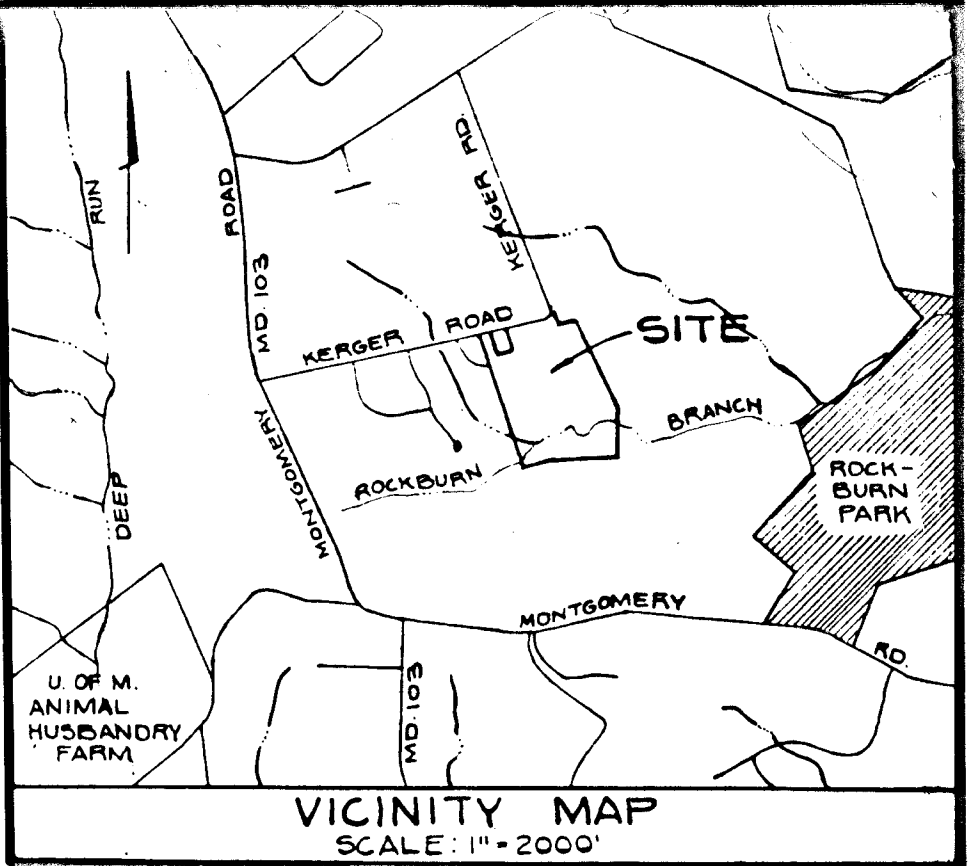
SCALE
VERT. 1"=5'
HORZ. 1"=10'

		AS-BUILT CERTIFICATE
CHRISTOPHER J. REID #19949		1-7-00 DATE
		3-2-93 DATE
APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS		
		4/1/93 DATE
		3/23/93 DATE
		4-5-98 DATE
APPROVED : HOWARD COUNTY DEPT. OF PLANNING AND ZONING		
		4/19/93 DATE
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX: 410-997-9282		
OWNER/ Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043 Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	PROJECT NAME SUNNY FIELD ESTATES Section I Lots 40-67 T.M.#31 P.57,58,518,757 1 Elect. Dist. Ho.Co.,MD	
		TITLE Final Plan WP-89-18# S-89-06, P-89-52, F-89-232 F-93-69
DES. DW DRW. RT CHK. RA/DW		DATE 5-9-00 PROJECT PS88101 SCALE 1"=50' DRAWING 3 OF 14

DUNTEACHIN' FARM
SEC. 1 F-20-38

REFER TO COMPUTATIONS
SHT 26 FOR OFF-SITE
DRAINAGE.

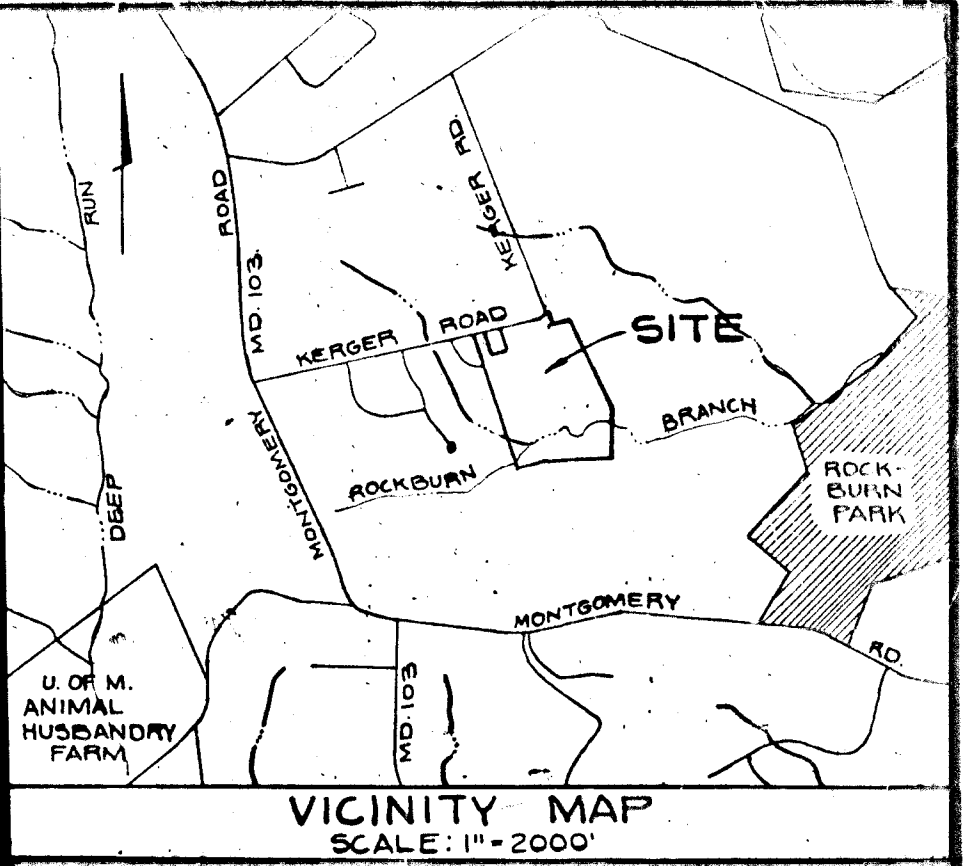
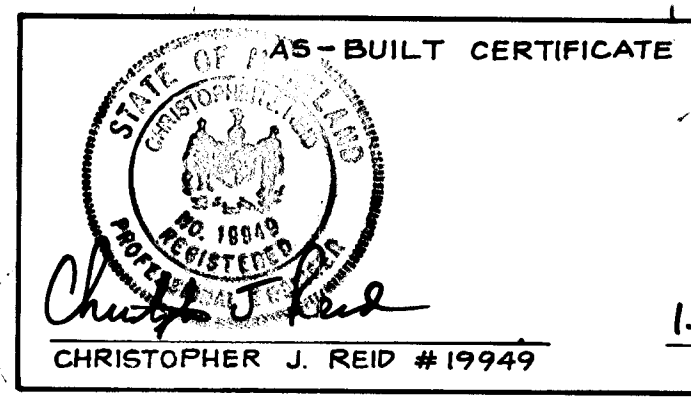
REFER TO COMPUTATIONS
SHT 26 FOR OFF-SITE
DRAINAGE.



AS-BUILT CERTIFICATE	
CHRISTOPHER J. REID #19949 DATE 1-7-00	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
[Signature] CHIEF, LAND DEVELOPMENT DIVISION M.K.	4/1/93 DATE
[Signature] CHIEF, BUREAU OF HIGHWAYS	3/23/93 DATE
[Signature] CHIEF, BUREAU OF ENGINEERING M.K.	4-5-93 DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
[Signature] CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE	4/19/93 DATE
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8800 FAX: 410-997-9282	
OWNER Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043 Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	PROJECT NAME SUNNY FIELD ESTATES Section 1 Lots 40-61 T.M. #1: P. 57, 58, 518, 757 Elect. Dist. Ho. Co., MD
KOREN DEVELOPMENT COMPANY, INC. 8800 Centre Park Drive, Columbia, MD 21045 301-740-1010	
TITLE DRAINAGE AREA Final Plan WP-89-184 S-89-06, P-89-52, F-89-292 F-93-69 DATE 5-0-00 PROJECT PS88101	
DES. DW DRW. RT CHK. RA/pw	SCALE 1"=50' DRAWING 4 OF 14

DUNTEACHIN FARM
SEC. 1 F-90-38

	#1	#2	#3	#4
DRAINAGE AREA	28.4 AC	1.0 AC	0.89 AC	4.20 AC
DISTURBED AREA	5.6 AC	0.51 AC	0.89 AC	1.58 AC
STORAGE REQUIRED	1,120 CF	1800 CF	1,611 CF	7560 CF
STORAGE PROVIDED	1,500 CF	2100 CF	335.5 CF	7492 CF
CREST ELEV.	349.70	336.0	334.0	349.0
CLEANOUT ELEV.	345.70	329.0	332.5	347.0
BOTTOM ELEV.	343.20	329.0	332.5	345.0
TRAP DIMENSIONS	80' X 75'	19' X 19'	15' X 20'	29' X 44'



HARRY C. RUTH T. DEWEES
246/1131 P.227

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."
J. Parekh 3.2.95
Signature of Engineer Date
Print name below signature
JAYKANT D. PAREKH

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."
C. Wayne Cooper 3/1/95
Signature of Developer Date
Print name below signature

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.
Janette Hahn 3/16/95
Howard Soil Conservation District
These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
Robert W. Zuckerman 3/16/95
Howard Soil Conservation District

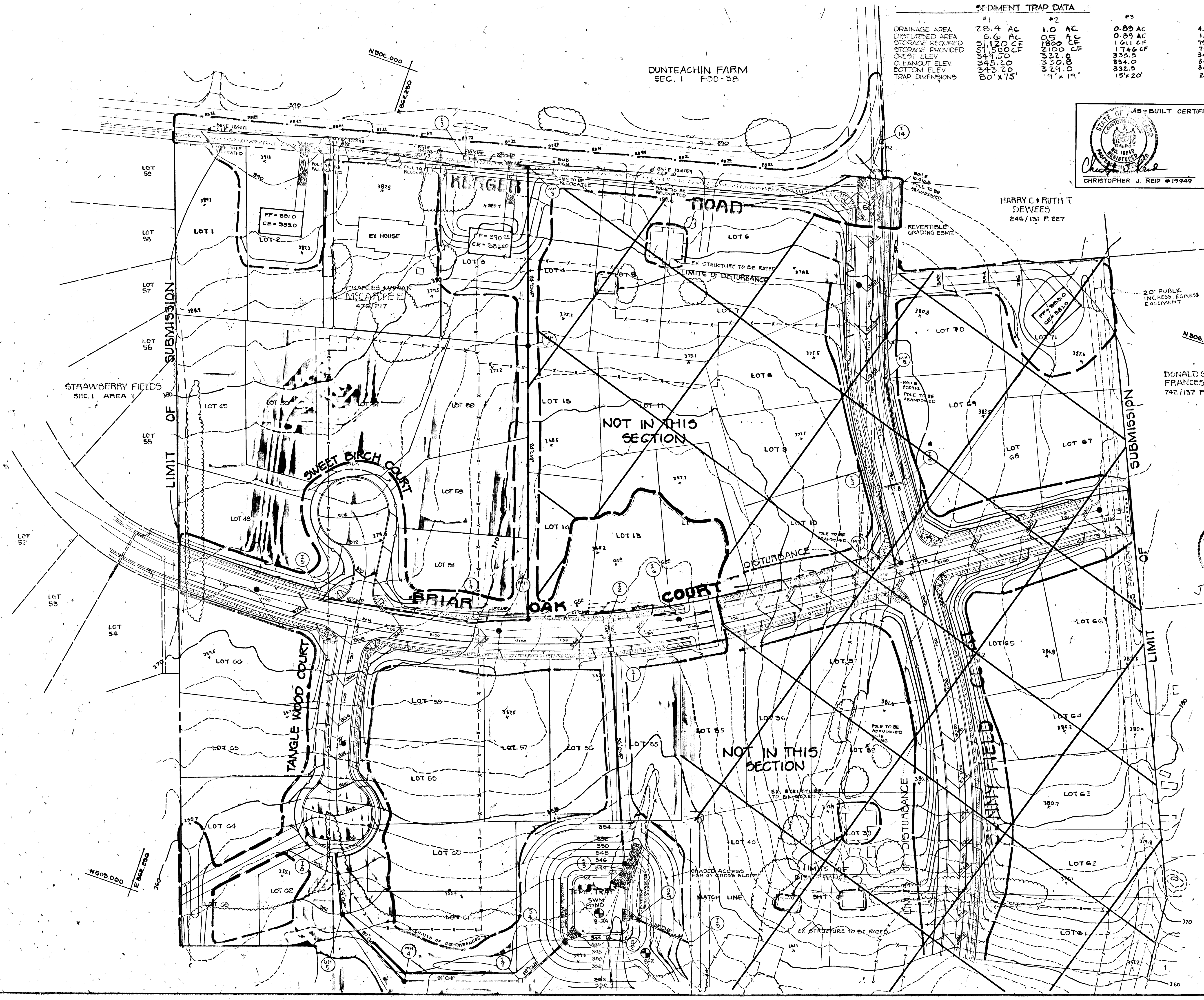
APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chad Dorman 4/1/95
CHIEF, LAND DEVELOPMENT DIVISION M.K. DATE
John M. Benjamin 3/23/95
CHIEF, BUREAU OF HIGHWAY DATE
James E. Reed 4-5-95
CHIEF, BUREAU OF ENGINEERING M.K. DATE

APPROVED : HOWARD COUNTY, DEPT. OF PLANNING AND ZONING
Emma J. Honan 4/19/95
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

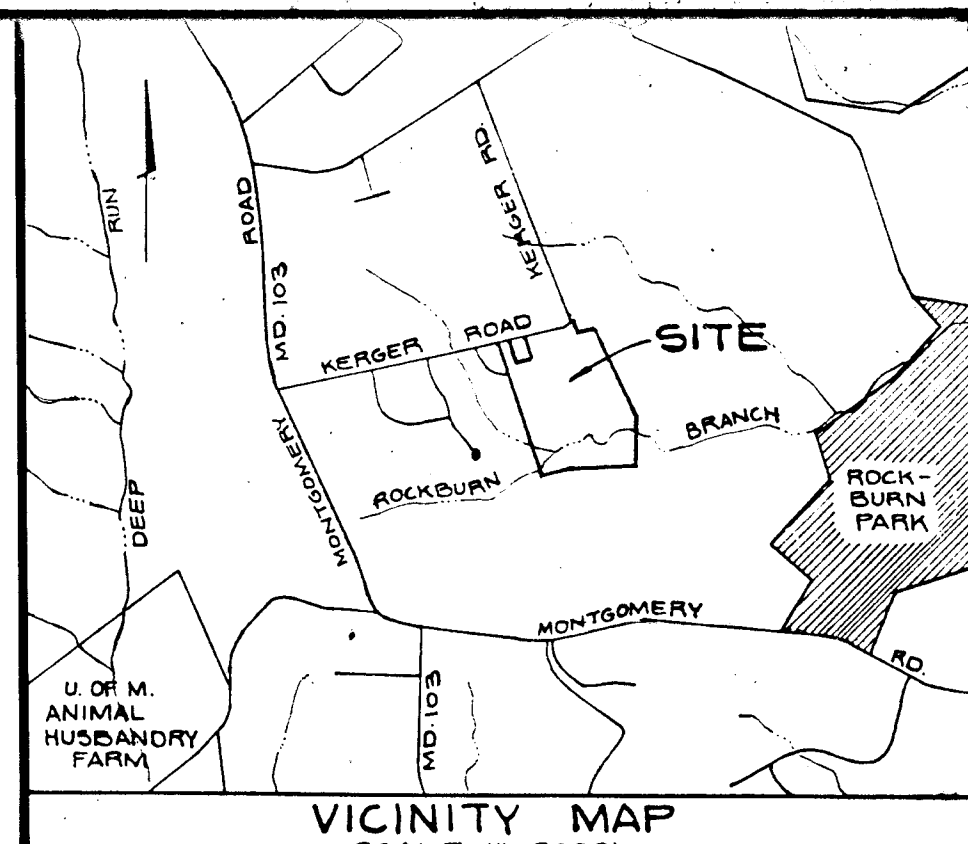
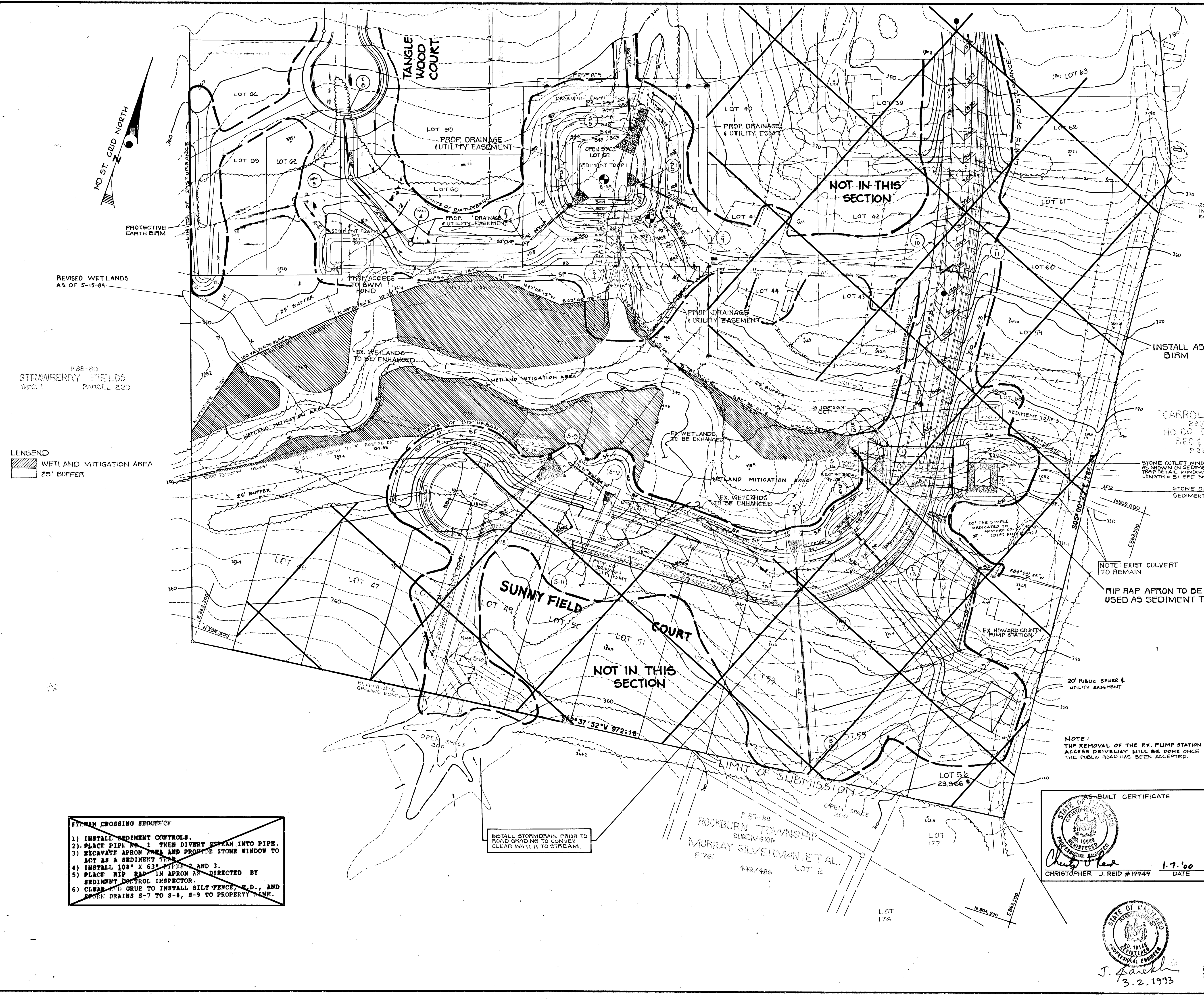
RIEMER MUEGGE & ASSOCIATES, INC.
Planners, Engineers, Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, MD 21046
410-997-8900 FAX: 410-997-9282

OWNER/DEVELOPER Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043 Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	PROJECT NAME SUNNY FIELD ESTATES Section I Lots 40-61 T.M.#31 P. 57, 58, 518; 757 1 Elect. Dist. Ho. Co., MD
---	---

DESIGNER KOREN DEVELOPMENT COMPANY, INC. 8908 Centre Park Drive Columbia, MD 21045 301740-1010	TITLE GRADING & SEDIMENT CONTROL Final Plan WP-89-184 S-89-06, P-89-52, F-89-232
DATE 5.0.00 PROJECT P8881C1	SCALE 1"=50' DRAWING 5 OF 14



7167



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."
 Signature of Engineer: *J. Parekh* 3.2.93
 Print name below signature: JAYKANT D. PAREKH

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."
 Signature of Developer: *C. Doyle* 3/1/93
 Print name below signature: CAROL F. DOYLE
 HO. CO. DEPT. OF REC. & PARKS P 229

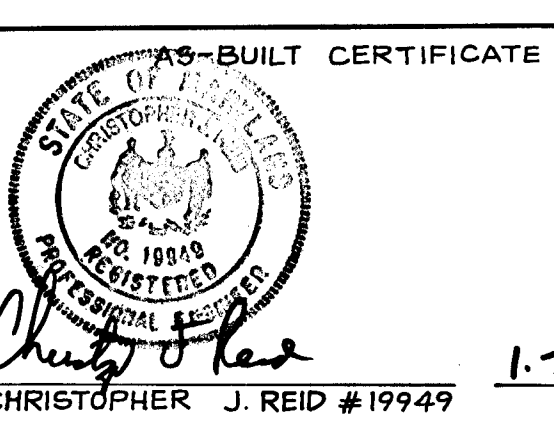
These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
 Signature: *James M. Helms* 3/16/93
 Print name below signature: JAMES M. HELMS
 HOWARD SOIL CONSERVATION DISTRICT
 These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
 Signature: *Robert W. Zibner* 3/16/93
 Print name below signature: ROBERT W. ZIBNER
 HOWARD SOIL CONSERVATION DISTRICT

REVISED WETLANDS AS OF 5-15-89
 F-88-80 STRAWBERRY FIELDS SEC. 1 PARCEL 223

LEGEND
 WETLAND MITIGATION AREA
 25' BUFFER

- STREAM CROSSING SEQUENCE**
- 1) INSTALL SEDIMENT CONTROLS.
 - 2) PLACE PIPE NO. 1 THEN DIVERT STREAM INTO PIPE.
 - 3) EXCAVATE APRON AREA AND PROTECT STONE WINDOW TO ACT AS A SEDIMENT TRAP.
 - 4) INSTALL 100" X 63" PIPES 2 AND 3.
 - 5) PLACE RIP RAP IN APRON AS DIRECTED BY SEDIMENT CONTROL INSPECTOR.
 - 6) CLEAR AND GRUE TO INSTALL SILT FENCE, S.D., AND STORM DRAINS 5-7 TO 5-8, 5-9 TO PROPERTY LINE.

INSTALL STORMDRAIN PRIOR TO ROAD GRADING TO CONVEY CLEAR WATER TO STREAM.

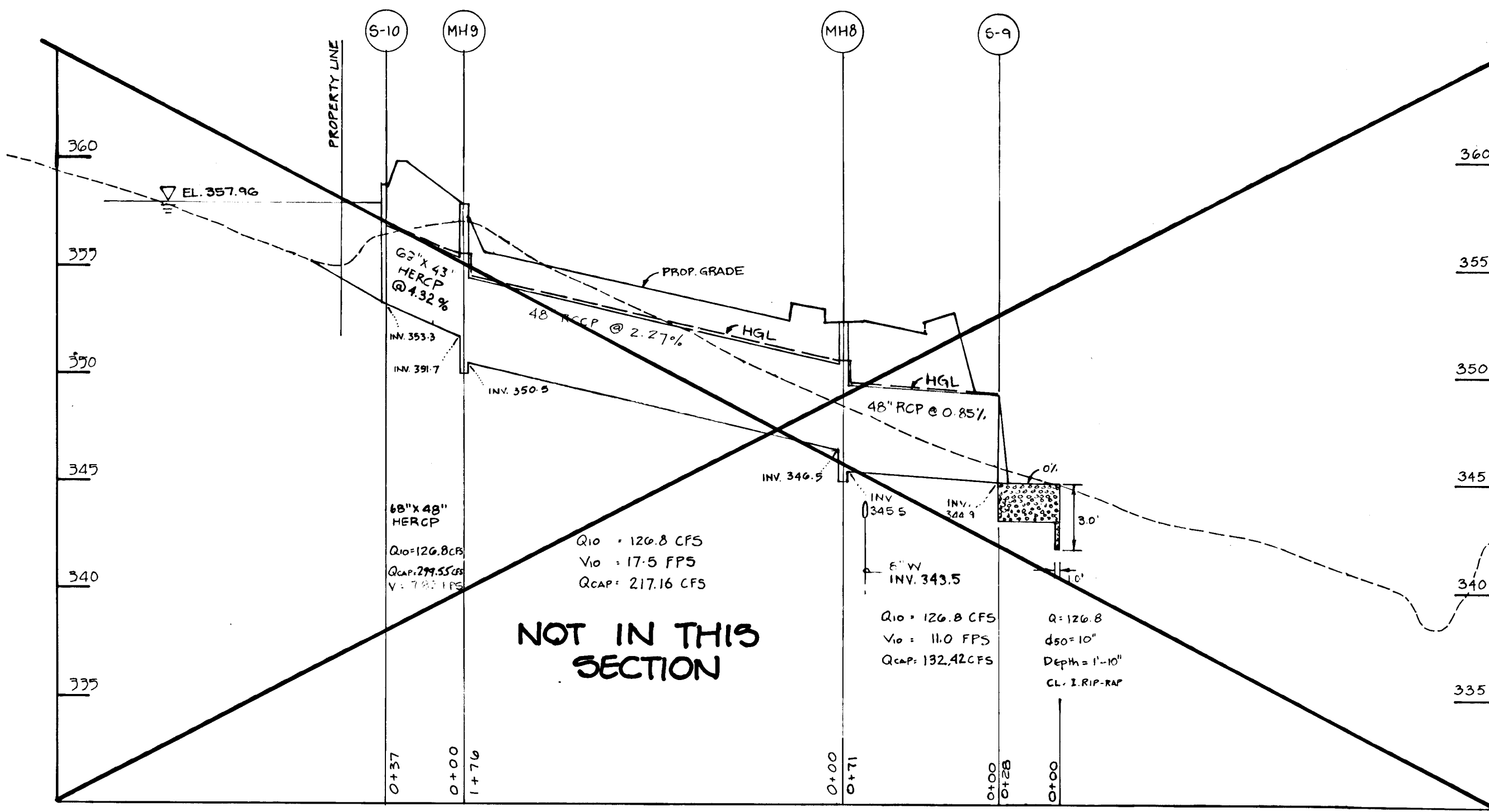


APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division M.K. 4/1/93
 Chief, Bureau of Highways 3/23/93
 Chief, Bureau of Engineering M.K. 4-5-93

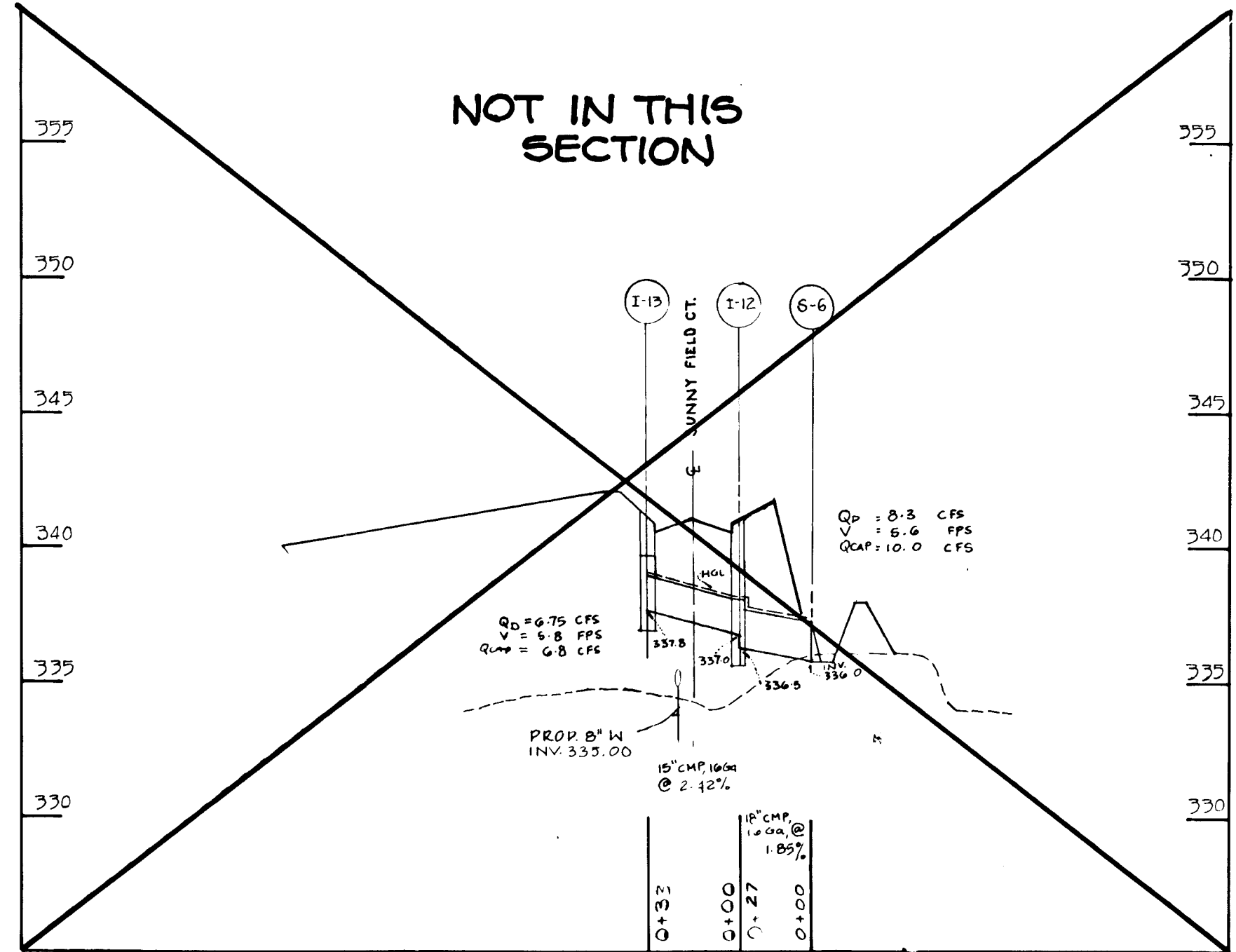
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
 Chief, Division of Community Planning and Land Development DATE 4/19/93

RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045 410-997-8900 FAX: 410-997-9282	
OWNER/ Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043	PROJECT NAME SUNNY FIELD ESTATES Section I Lots 40-67
Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	T.M.#31 P.57,58,518,757 1 Elect. Dist. Ho.Co.,MD
DEVELOPER KOREN DEVELOPMENT COMPANY, INC. 8808 Centre Park Drive • Columbia, MD 21045 301-740-3010	TITLE GRADING & SEDIMENT CONTROL Final Plan WP-89-184 S-89-06, P-89-52, F-89-232 F-93-69
DATE 5-2-93 PROJECT PS88101	SCALE 1"=50' DRAWING 6 OF 14

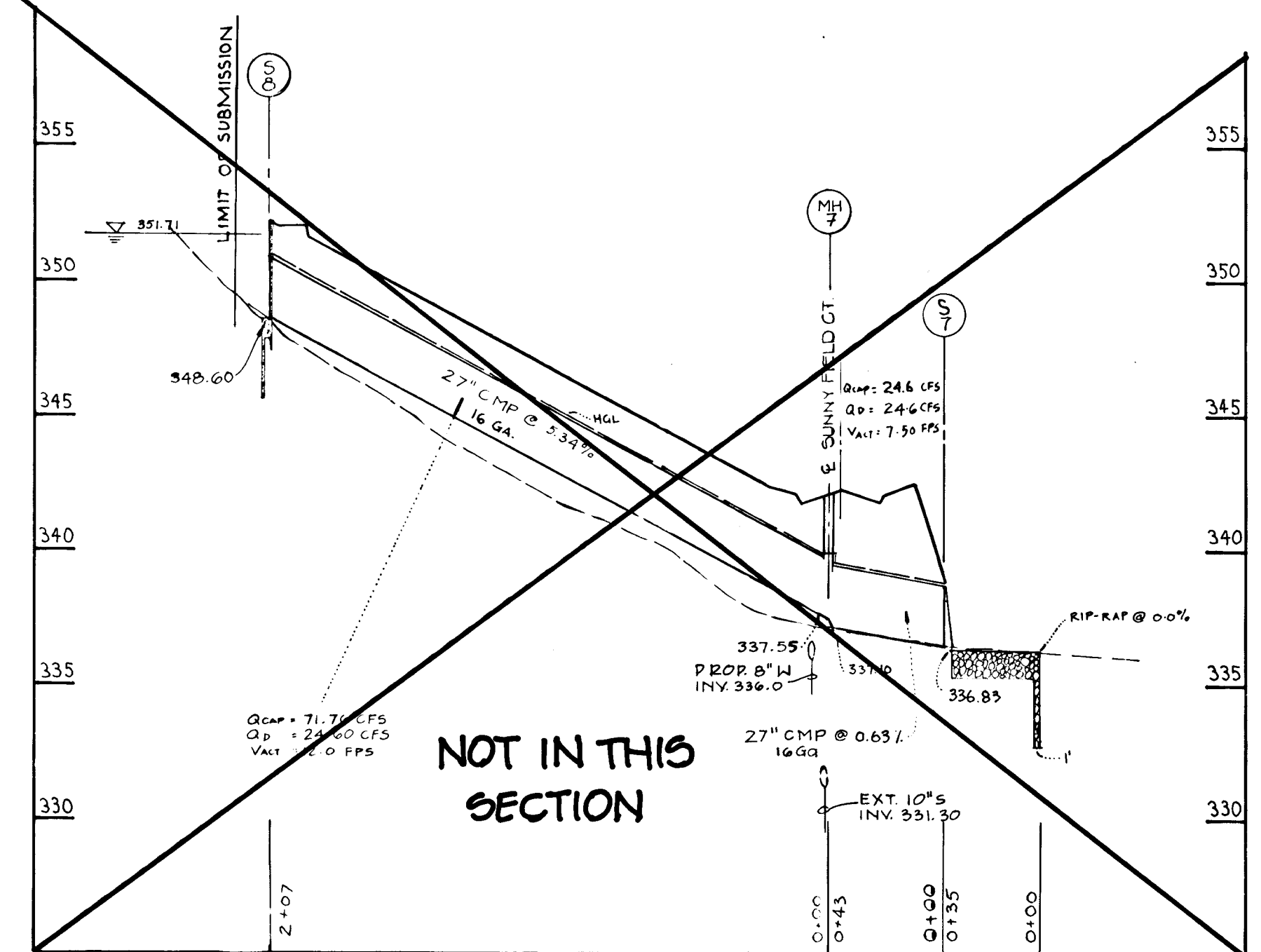
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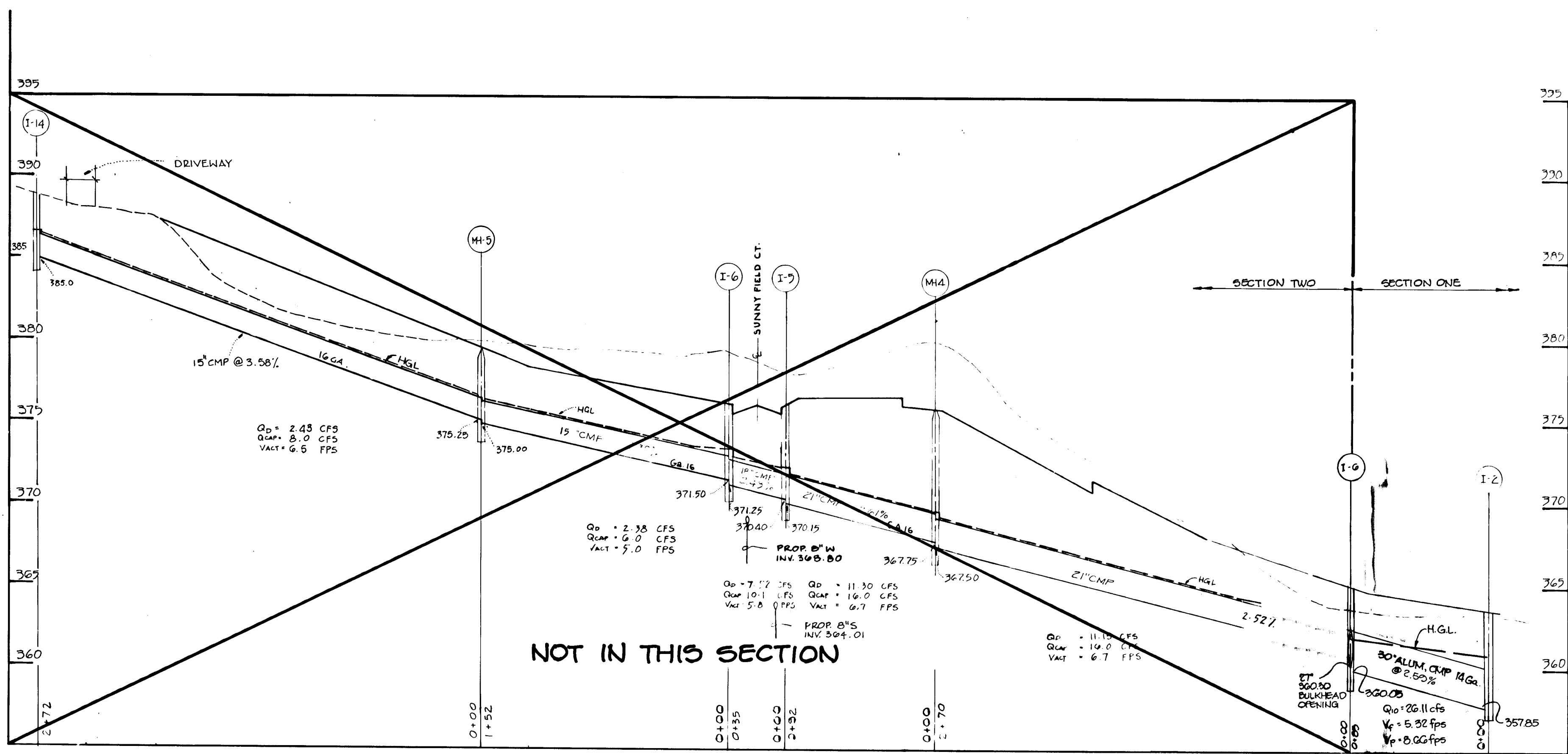
STORMDRAIN PROFILE
SCALE: 1" = 50' HORIZ.
5' VERT.



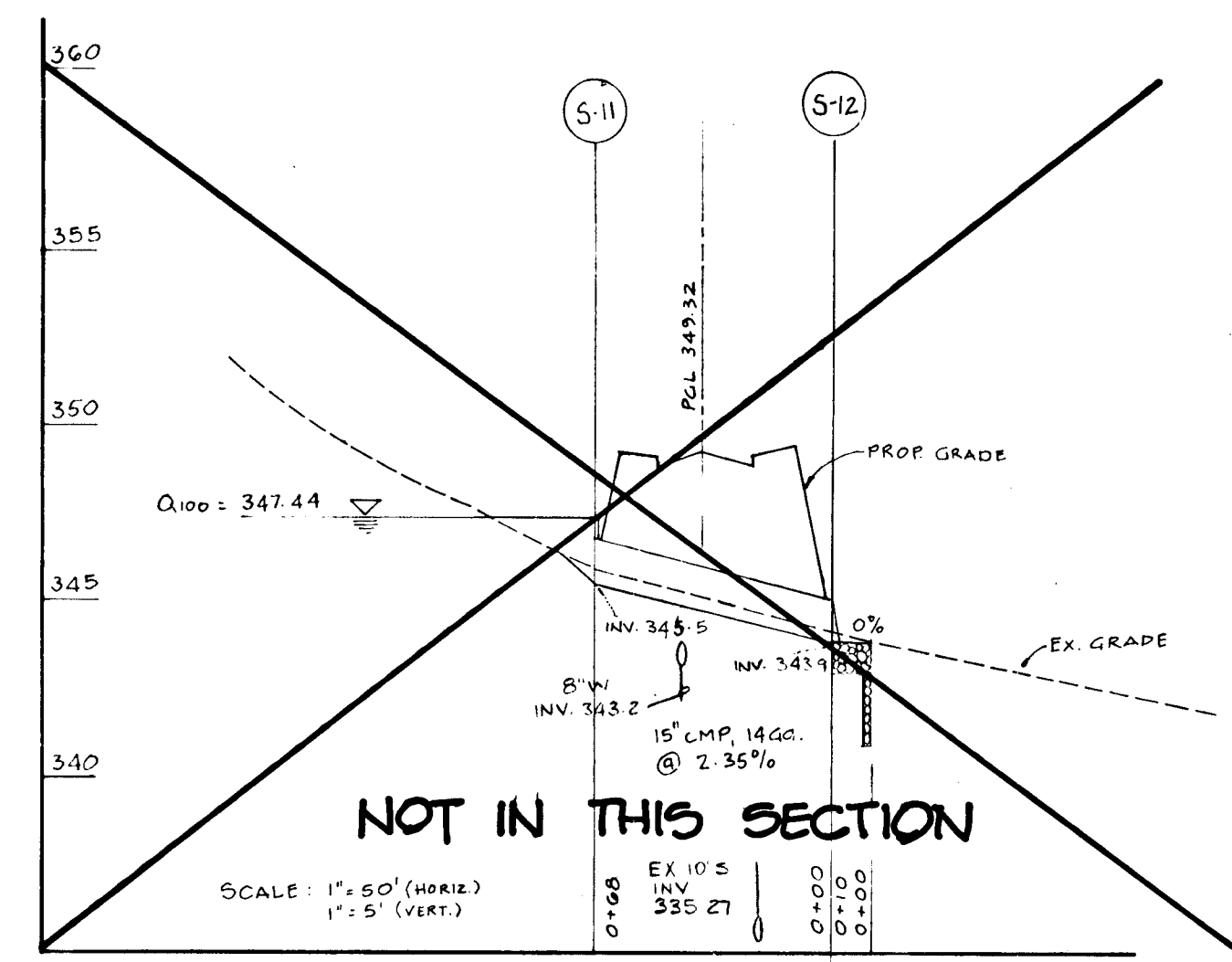
STORMDRAIN PROFILE
SCALE: 1" = 50' HORIZ.
5' VERT.



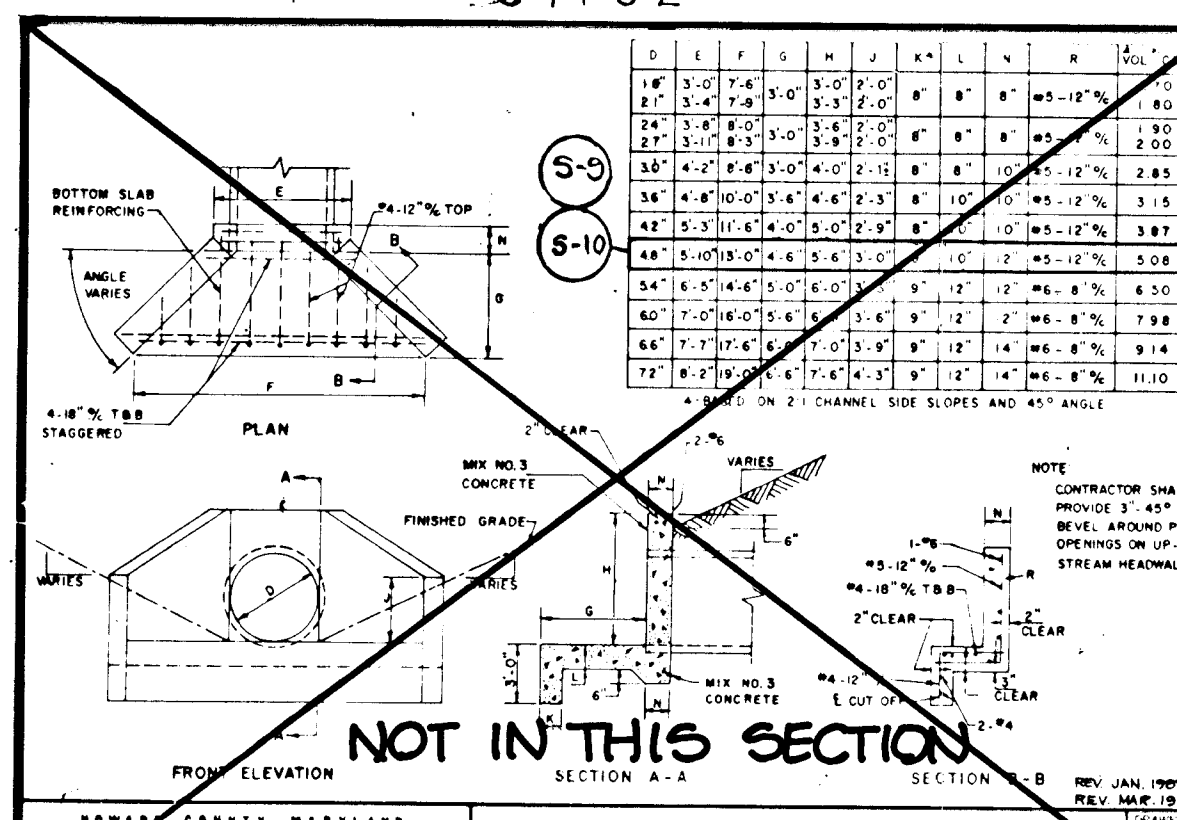
STORMDRAIN PROFILE
SCALE: 1" = 50' HORIZ.
5' VERT.



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



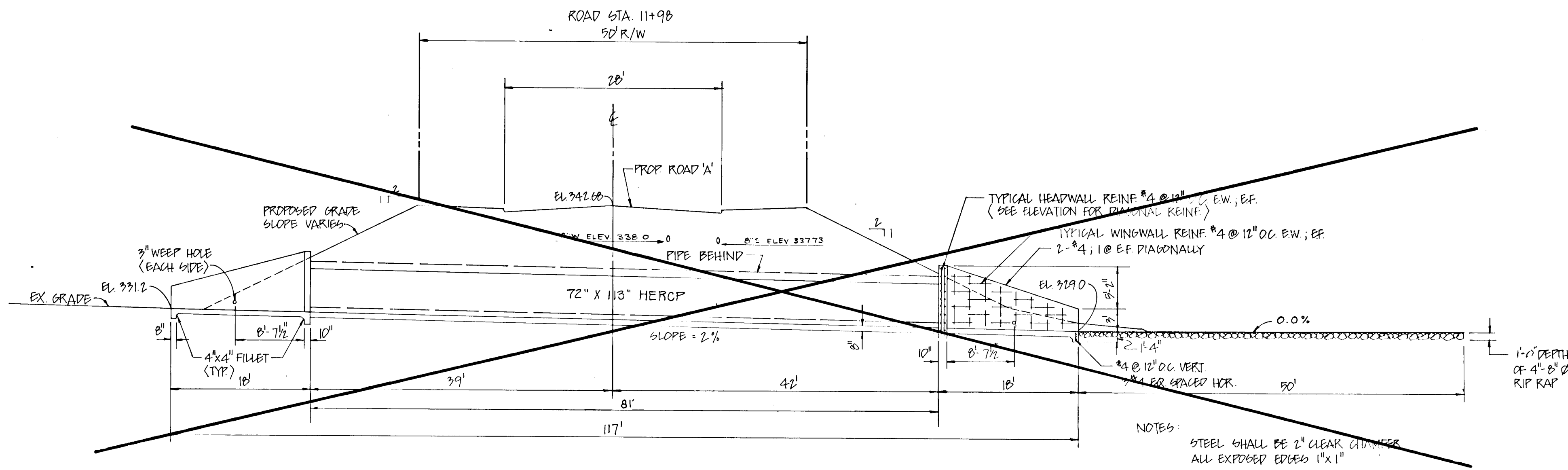
STORMDRAIN PROFILE
SCALE: 1" = 50' HORIZ.
5' VERT.



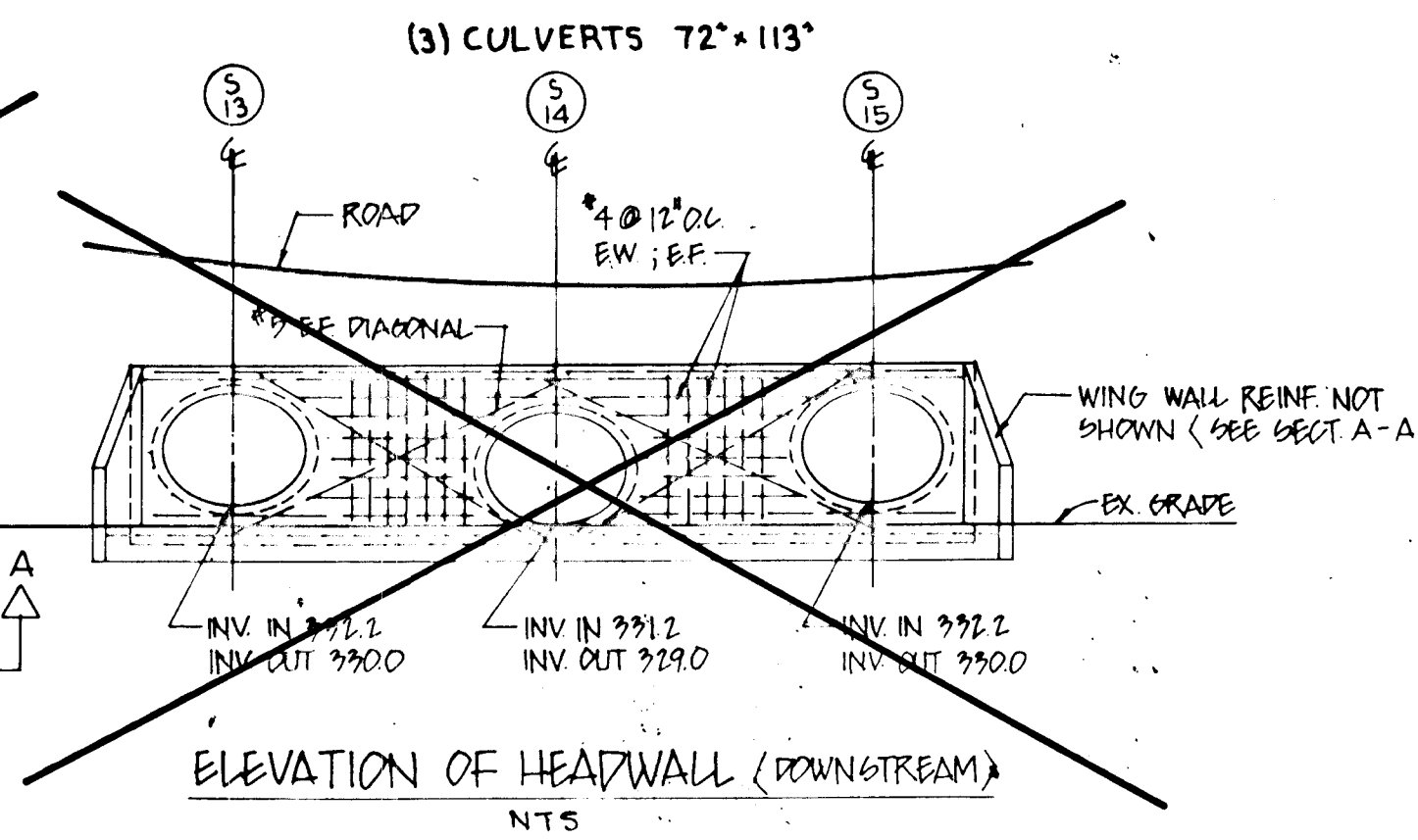
NOT IN THIS SECTION

<p>AS-BUILT CERTIFICATE</p> <p><i>Christopher J. Reid</i> CHRISTOPHER J. REID # 19949</p> <p><i>J. Farrell</i> 3.2.93</p>		<p>1-7-'00 DATE</p>
<p>APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS</p> <p><i>Mark Damm</i> CHIEF, LAND DEVELOPMENT DIVISION M.K.</p> <p><i>Olaf M. Jensen</i> CHIEF, BUREAU OF HIGHWAYS</p> <p><i>Michael B. Ryan</i> CHIEF, BUREAU OF ENGINEERING</p>		<p>4/1/93 DATE</p> <p>3/23/93 DATE</p> <p>4-5-93 DATE</p>
<p>APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING</p> <p><i>Alma J. Holmatt</i> CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT</p>		<p>4/9/93 DATE</p>
<p>RIEMER MUEGG & ASSOCIATES, INC. Planners • Engineers • Surveyors 8810 Centre Park Drive • Suite 300 • Columbia, MD 21045 410-997-8900 • FAX: 410-997-9282</p>		
<p>OWNER/ Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043</p> <p>Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043</p>	<p>PROJECT NAME SUNNY FIELD ESTATES Section I Lots 40-67</p> <p>T.M.#31 P.57,58,518,757 1 Elect. Dist. Ho.Co.,MD</p>	
<p>DEVELOPER KORIN DEVELOPMENT COMPANY, INC. 8808 Centre Park Drive, Columbia MD 21045 301-243-0100</p>		
<p>TITLE STORM DRAIN PROFILE Final Plan S-89-06, P-89-52, F-89-232 F-93-69, WP-89-184</p>		
<p>DES. DW DRW. RT CHK. RA/DW</p>		<p>DATE 5-9-93 SCALE 1" = 5' VERT. PROJECT PS88101 DRAWING 8 OF 14</p>

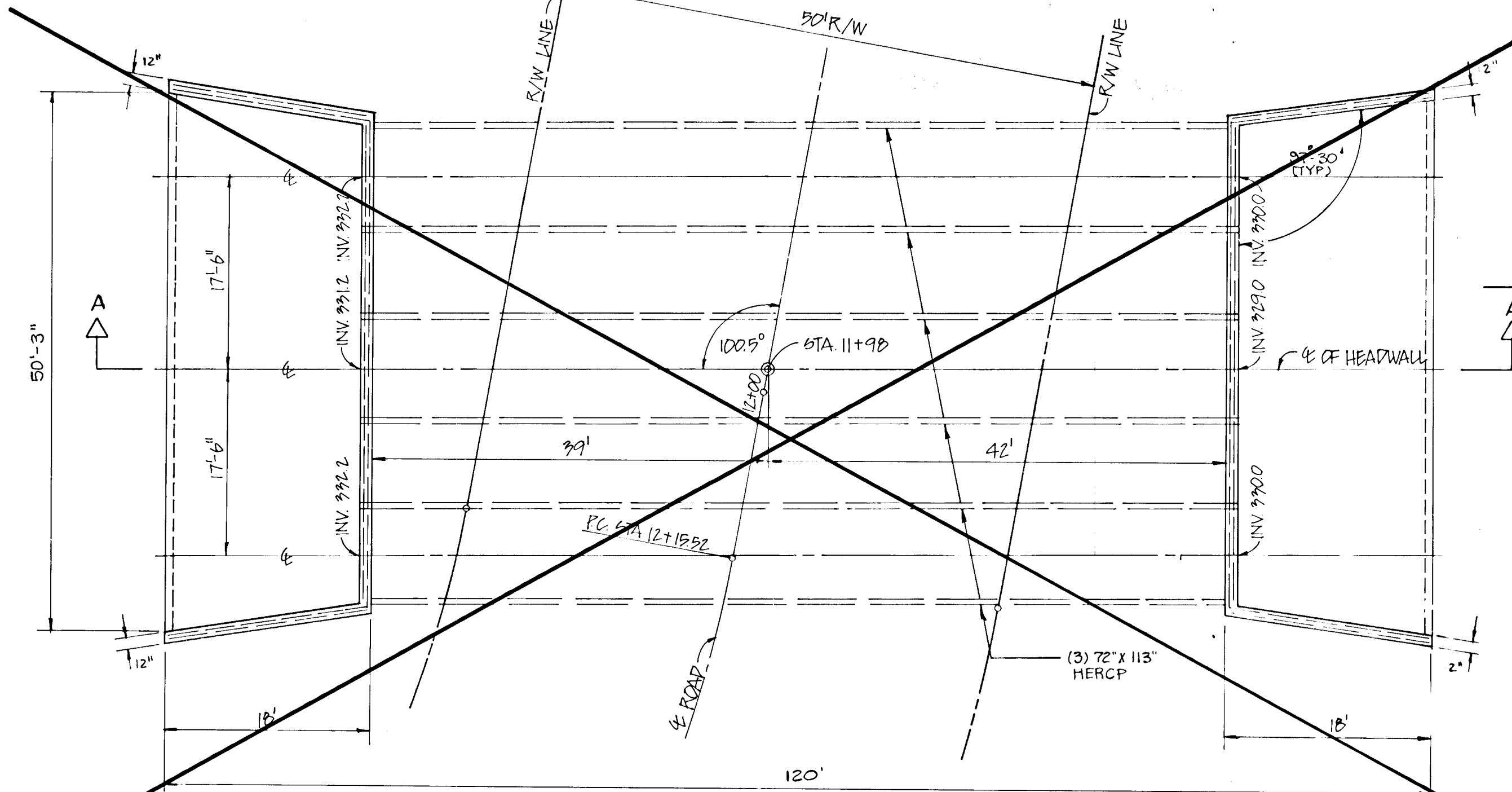
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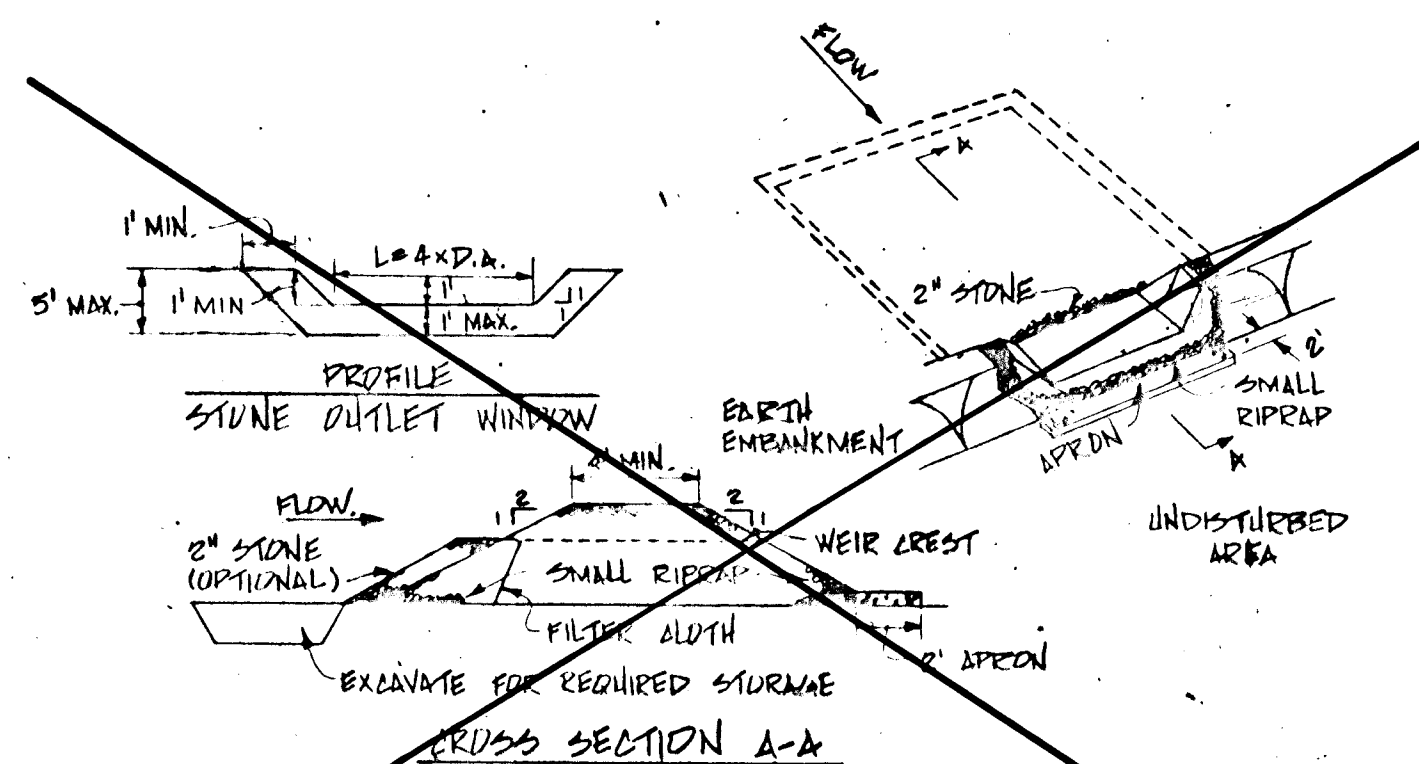
SECTION A-A
SCALE: 1" = 10'



ELEVATION OF HEADWALL (DOWNSTREAM)
NTS



PLAN VIEW OF HEADWALL
SCALE: 1" = 10'



CROSS SECTION A-A
STONE OUTLET SEDIMENT TRAP 2
NOT TO SCALE

AS-BUILT CERTIFICATE

Christopher J. Reid #19949
DATE 1.7.00

CONSTRUCTION SPECIFICATIONS FOR 4-2

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY WEEDS AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROCKS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROLLING CALCULUS MATERIAL OR OTHER OBSTACULAR MATERIAL. THE EMBANKMENT SHALL BE UNDISTURBED BY TRAFFIC WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL DIRT 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" MAGNETITE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP BE EMBEDDED FILTER WITH IN THE RIPRAP.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DEPTN 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 THAT EROSION AND WATER POLLUTION IS MINIMIZED.
8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

ITEM	TYPE	LOCATION	INV. IN	INV. OUT	TOP	DETAIL
1-1	A-5	BRIAR OAK CT. STA. 5:00 SO. LF. LT.	858.98	858.27	864.07	SD 4.01
1-2	A-10	BRIAR OAK CT. STA. 5:00 SO. LF. LT.	857.80	857.16	863.55	SD 4.02
1-3	A-5	KERGER ROAD STA. 4:71 18 LF. LT.	882.82	882.70	887.10	SD 4.01
1-4	A-10	BRIAR OAK CT. STA. 3:50 15 LF. LT.	868.41	868.21	866.55	SD 4.02
1-5	A-5	SUPPLY FIELD STA. 3:55 15 LF. LT.	318.48	318.15	319.91	SD 4.01
1-6	A-5	SUPPLY FIELD STA. 3:55 15 LF. LT.	318.58	318.35	319.91	SD 4.01
1-7	YARD	SEE SH. 1 OF 14 INLET	847.48	847.43	851.13	SD 4.11
1-8	A-10	TANGLEWOOD CT. LF. STA. 14:34	N/A	852.13	856.14	SD 4.02
1-9	YARD	SEE SH. 1 OF 14 INLET	849.88	849.88	855.58	SD 4.11
1-10	A-10	SUPPLY FIELD STA. 3:57 15 LF. LT.	317.39	317.11	318.81	SD 4.02
1-11	A-10	SUPPLY FIELD STA. 3:57 15 LF. LT.	N/A	317.78	318.81	SD 4.02
1-12	A-10	SUPPLY FIELD STA. 3:57 15 LF. LT.	317.0	316.78	318.81	SD 4.02
1-13	A-10	SUPPLY FIELD STA. 3:57 15 LF. LT.	N/A	317.80	318.81	SD 4.02
1-14	A-10	SUPPLY FIELD STA. 3:57 15 LF. LT.	N/A	317.80	318.81	SD 4.02
1-15	A-10	SUPPLY FIELD STA. 3:57 15 LF. LT.	N/A	317.80	318.81	SD 4.02
1-16	A-10	SUPPLY FIELD STA. 3:57 15 LF. LT.	N/A	317.80	318.81	SD 4.02
1-17	A-10	SUPPLY FIELD STA. 3:57 15 LF. LT.	N/A	317.80	318.81	SD 4.02
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STATE OF MARYLAND PROFESSIONAL ENGINEER

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division: *4/1/93*
 Chief, Bureau of Highway: *3/23/93*
 Chief, Bureau of Engineering: *4.5.93*

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
 Chief, Division of Community Planning and Land Development: *4/19/93*

RIEMER MUEGGE & ASSOCIATES, INC.
 Planners Engineers Surveyors
 8818 Centre Park Drive Suite 200 Columbia, MD 21045
 410-997-8900 FAX: 410-997-9282

OWNER/
 Charles & Vivian McCartee
 5365 Kerger Road
 Ellicott City, Md. 21043

PROJECT NAME
 SUNNYFIELD ESTATES
 Section I
 Lots 40-67

Mark & Laura Clay
 5341 Kerger Road
 Ellicott City, Md. 21043

T.M. #31 P. 57, 58, 518, 757
 1 Elect. Dist. Ho.Co., MD

DEVELOPER
 KOREN DEVELOPMENT COMPANY, INC.
 8808 Centre Park Drive Columbia MD 21045
 301-740-1010

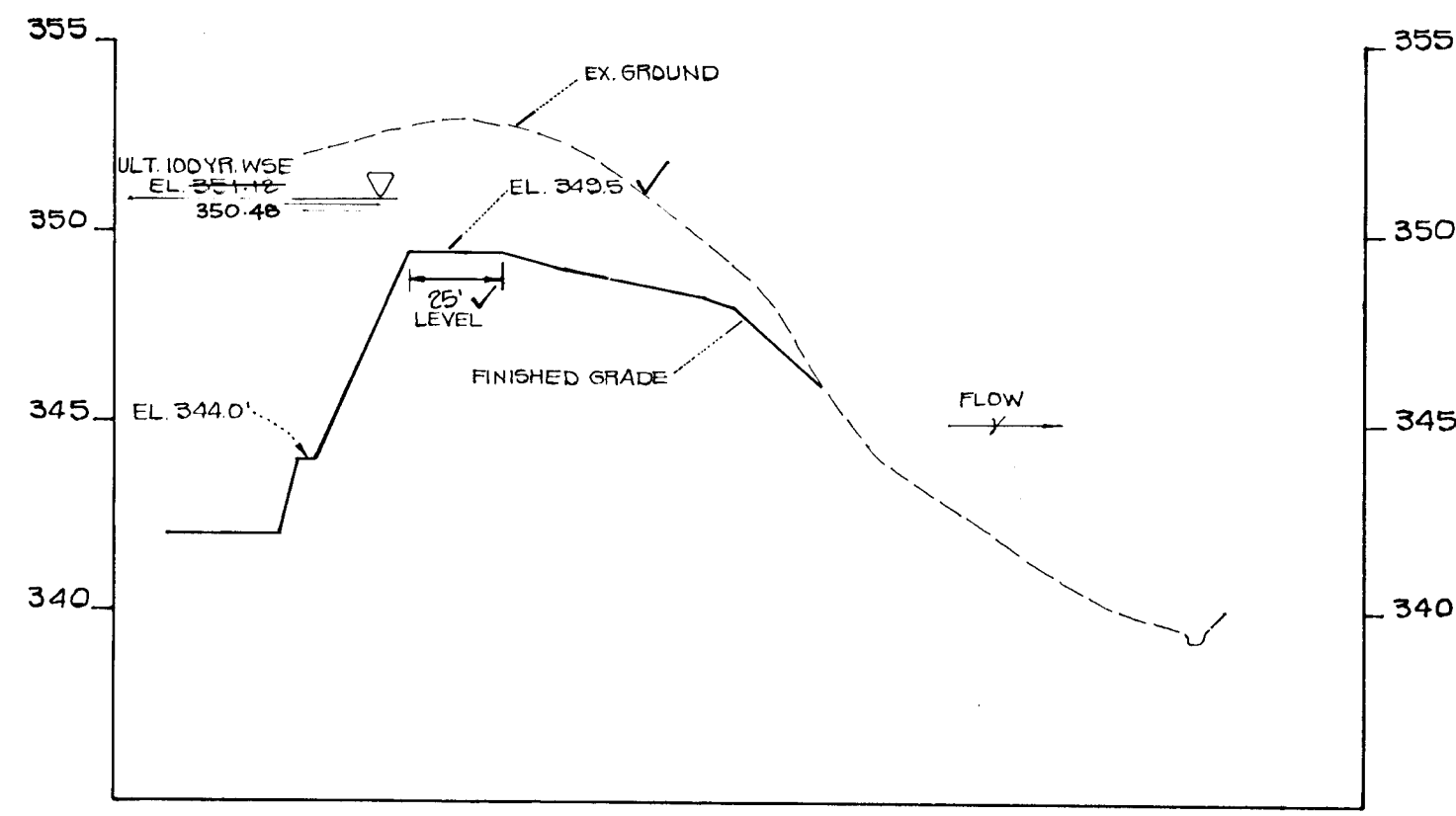
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 Final Plan
 WP-89-184 S-89-06, P-89-52, P-89-232
 7-19-89

DATE 3-0-93 PROJECT PS88101

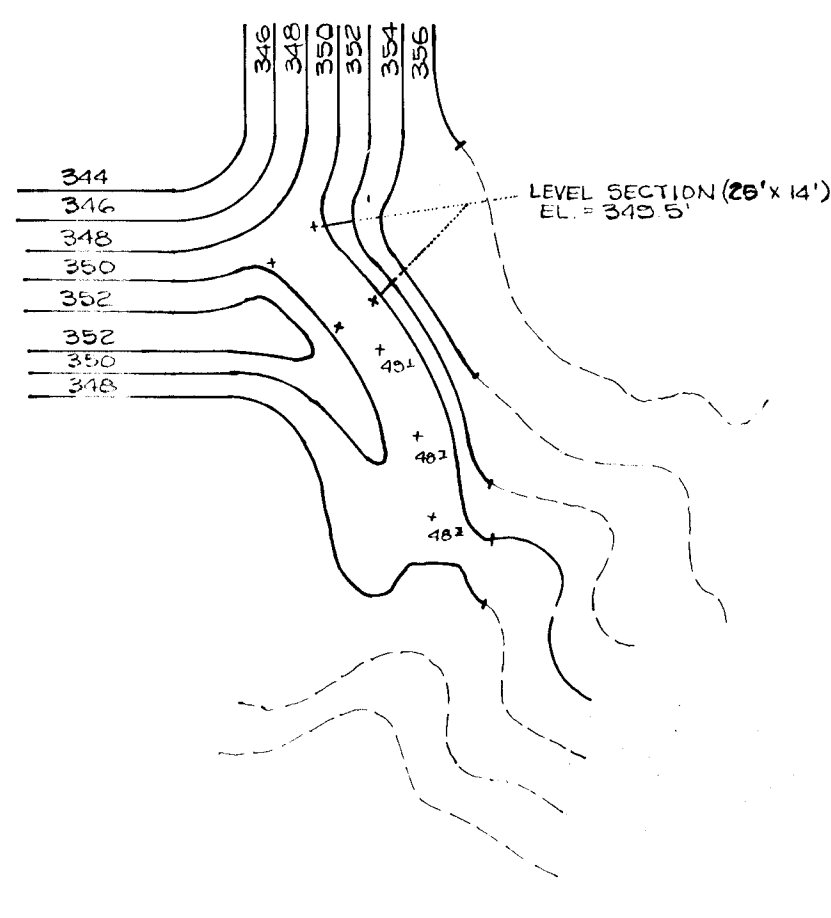
DES. DW. DRW. RT. CHK. RA/DW SCALE 1"=50' DRAWING 2 OF 14

AS-BUILT 01/05/00 F-89-232

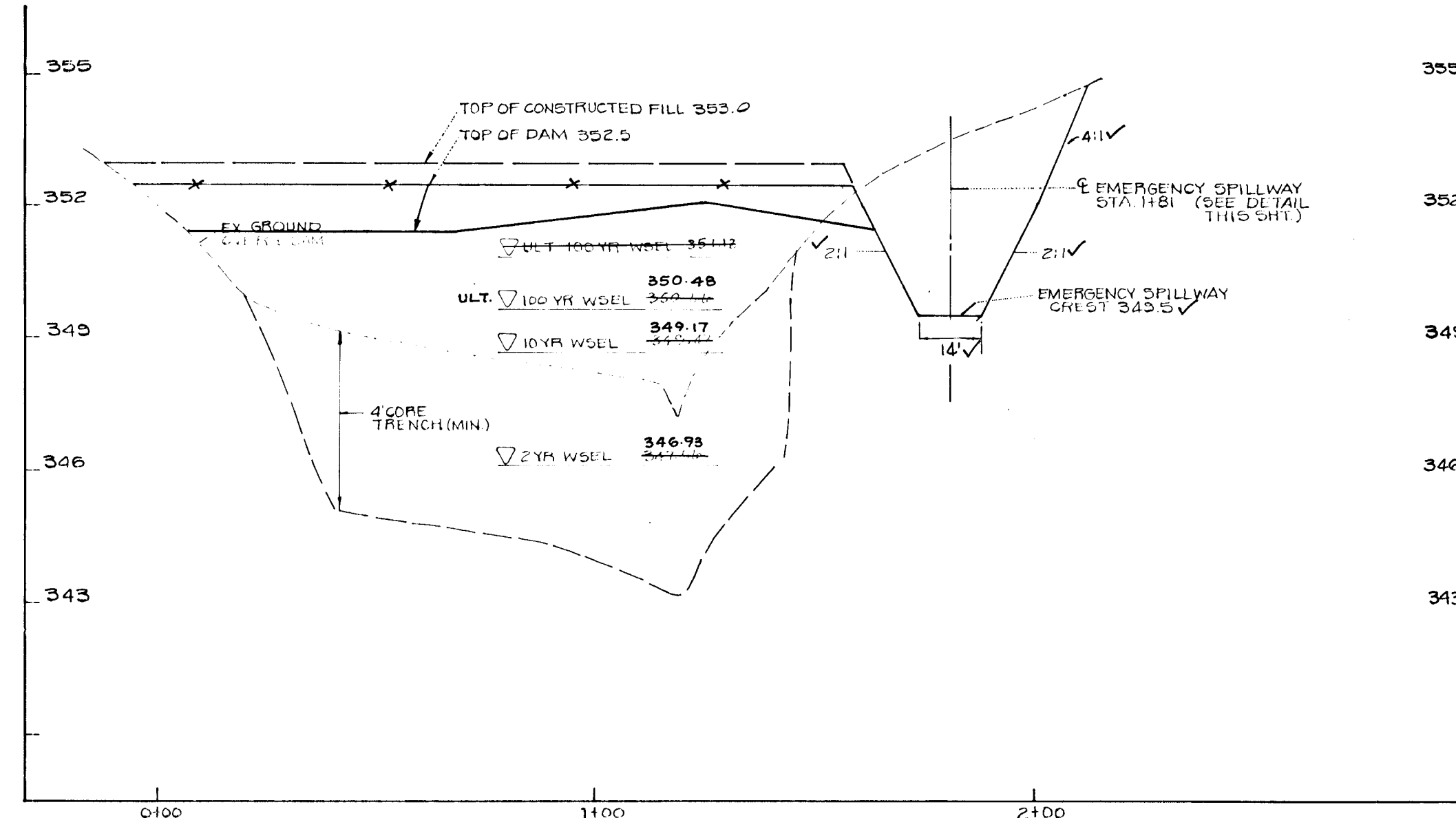
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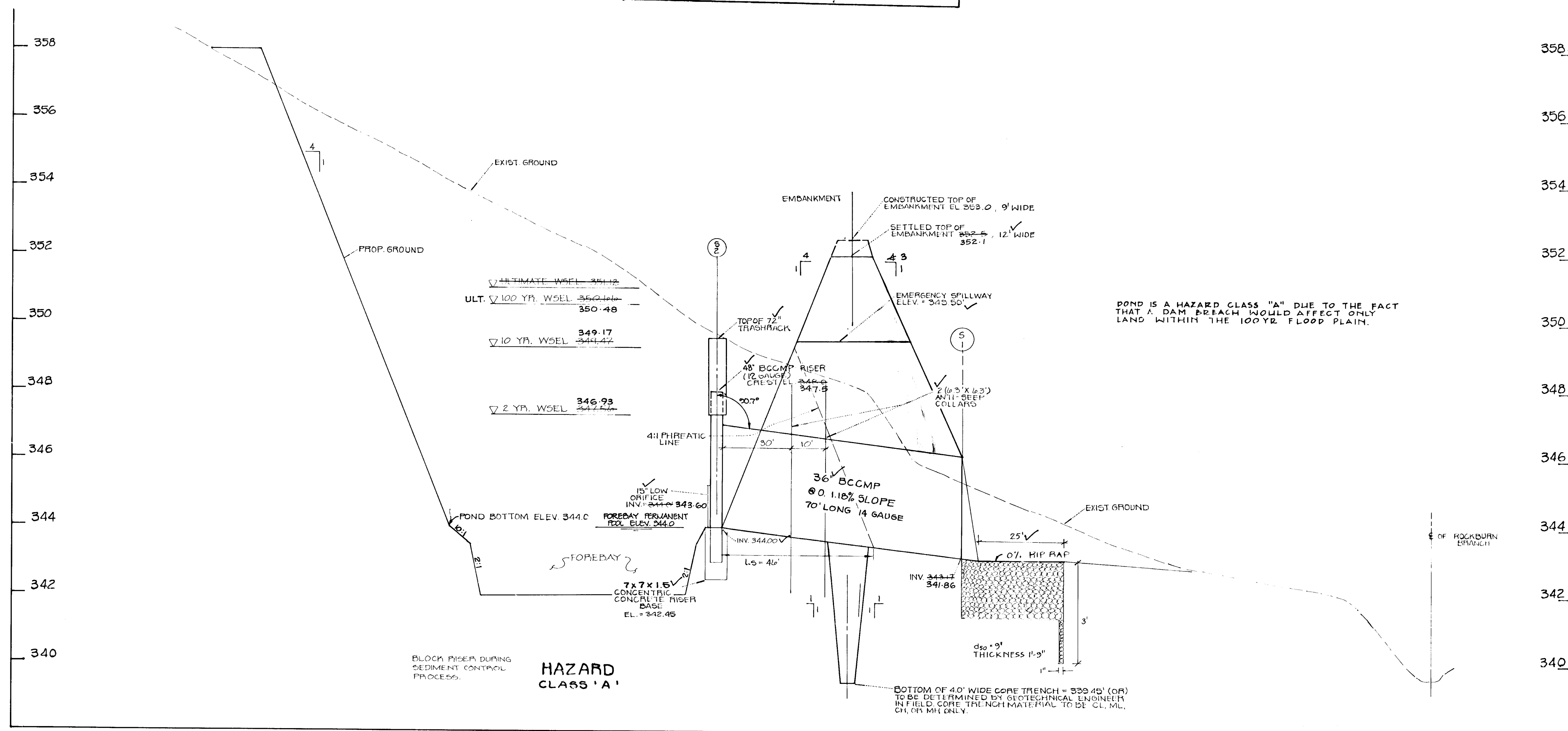
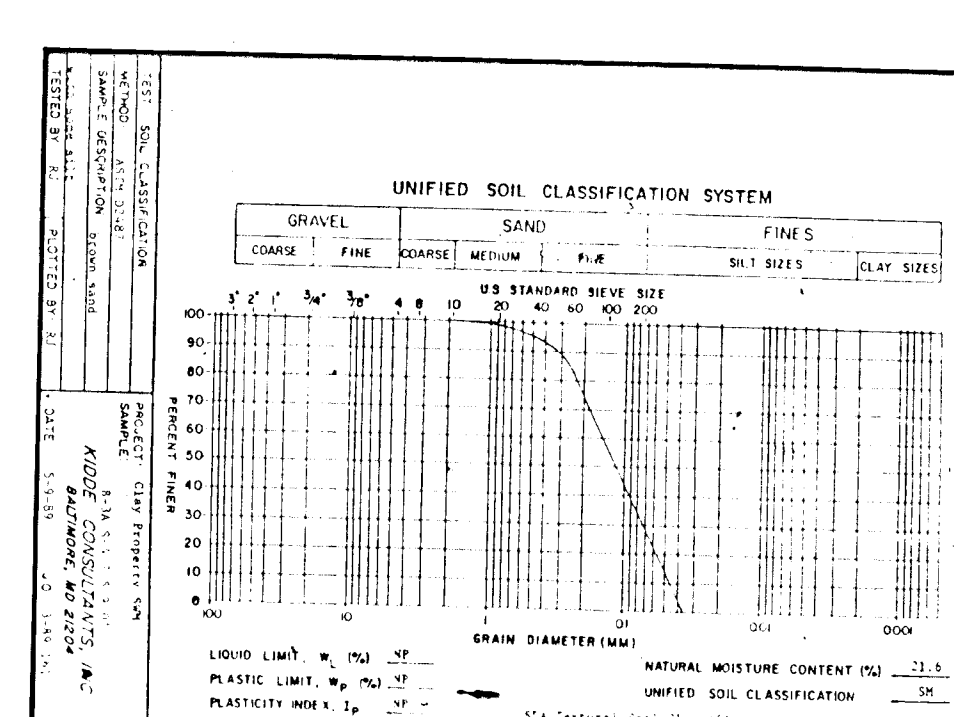
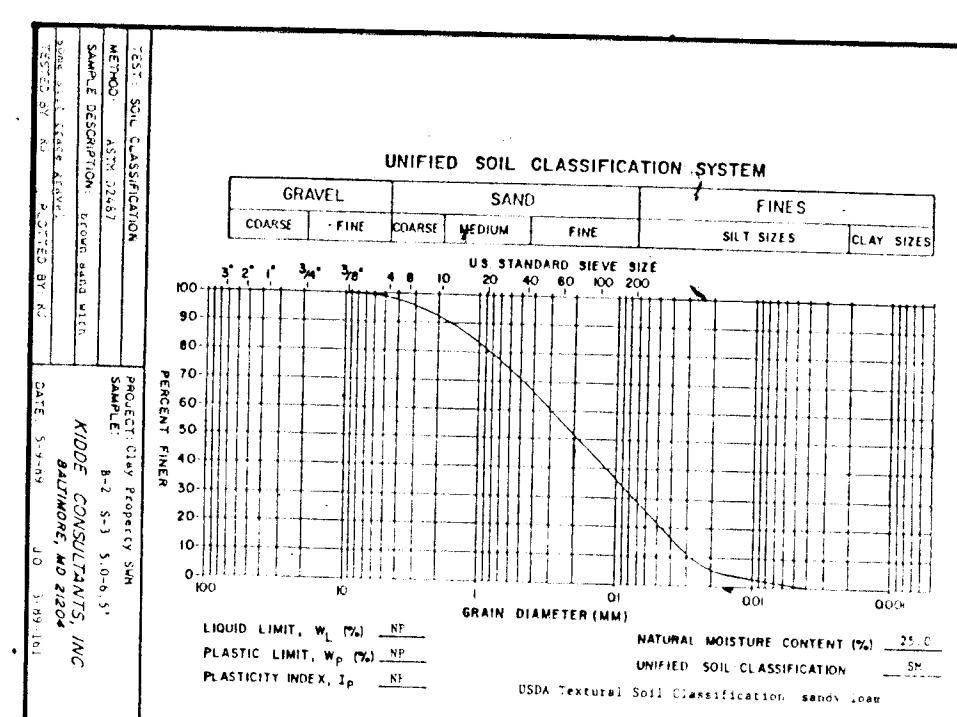
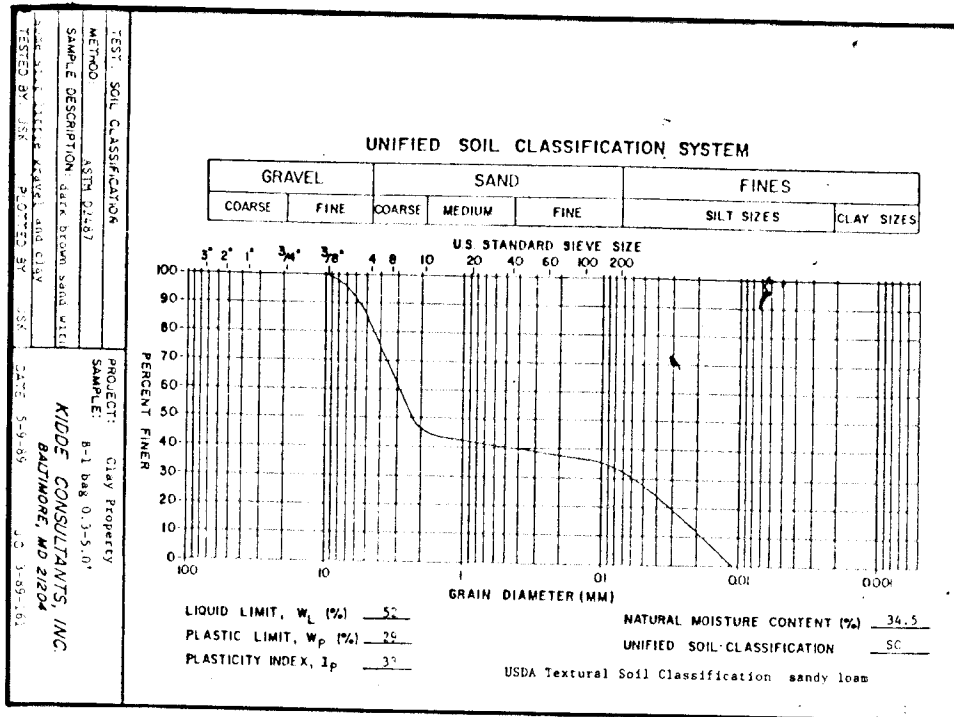
PROFILE ALONG E EARTH SPILLWAY
SCALE: 1" = 50' HORIZ
1" = 5' VERT




PLAN OF EARTH SPILLWAY
SCALE: 1" = 50'



STORMWATER MANAGEMENT POND @ E DAM
SCALE: 1" = 3' HORIZ
1" = 30' VERT



S.W.M. POND - PROFILE THROUGH PRINCIPLE SPILLWAY
SCALE: VERT. 1" = 2"
HORIZ. 1" = 20'

AS-BUILT CERTIFICATE

 Signature of Engineer: *Christopher J. Reid*
 Print name below signature: CHRISTOPHER J. REID #19949
 Date: 1.7.00

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."
 Signature of Engineer: *J. Farrell*
 Print name below signature: JAYKANT D. PAREKH
 Date: 3.2.93

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."
 Signature of Developer: *C. Wayne Caples*
 Print name below signature: C. WAYNE CAPLES
 Date: 3/1/93

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.
 Signature: *J. M. Helton*
 Date: 3/16/93

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
 Signature: *Robert W. Sisk*
 Date: 3/16/93

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 J. Farrell
 3.2.93

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Signature: *Charles D. Danner*
 Title: CHIEF, LAND DEVELOPMENT DIVISION M.K.
 Date: 4/1/93
 Signature: *Alan M. Dungan*
 Title: CHIEF, BUREAU OF HIGHWAYS
 Date: 3/23/93
 Signature: *William S. Reay*
 Title: CHIEF, BUREAU OF ENGINEERING
 Date: 4.5.93

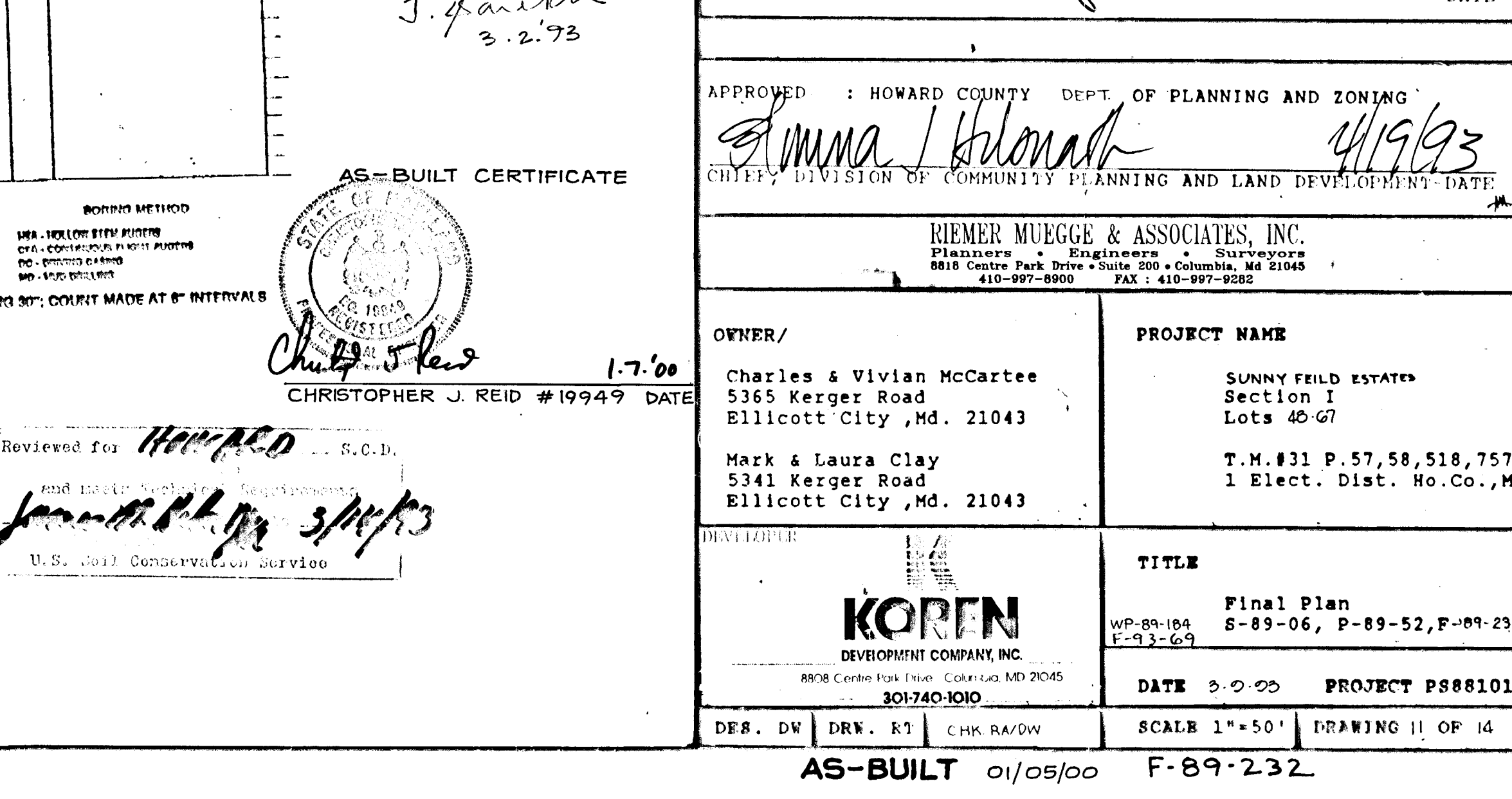
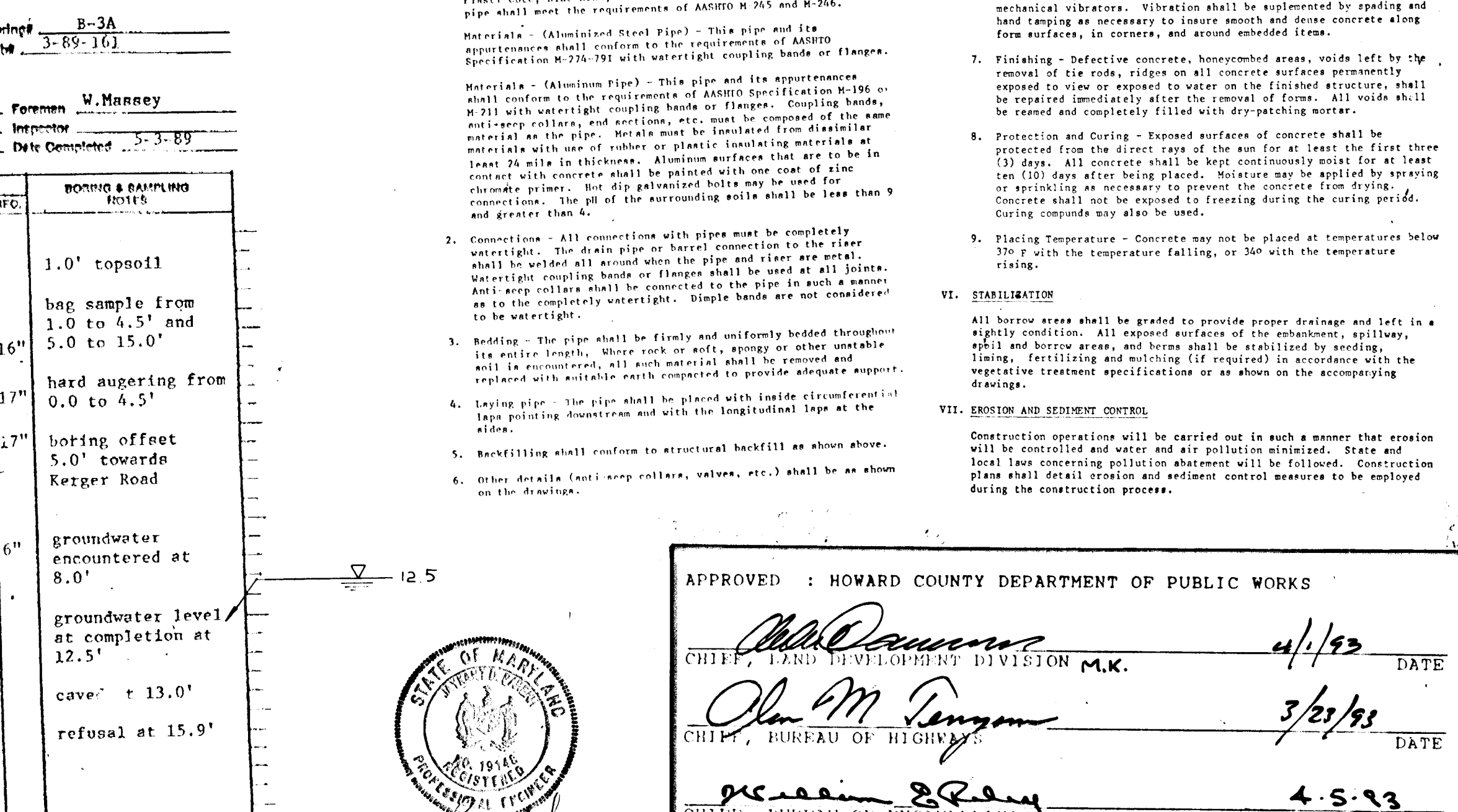
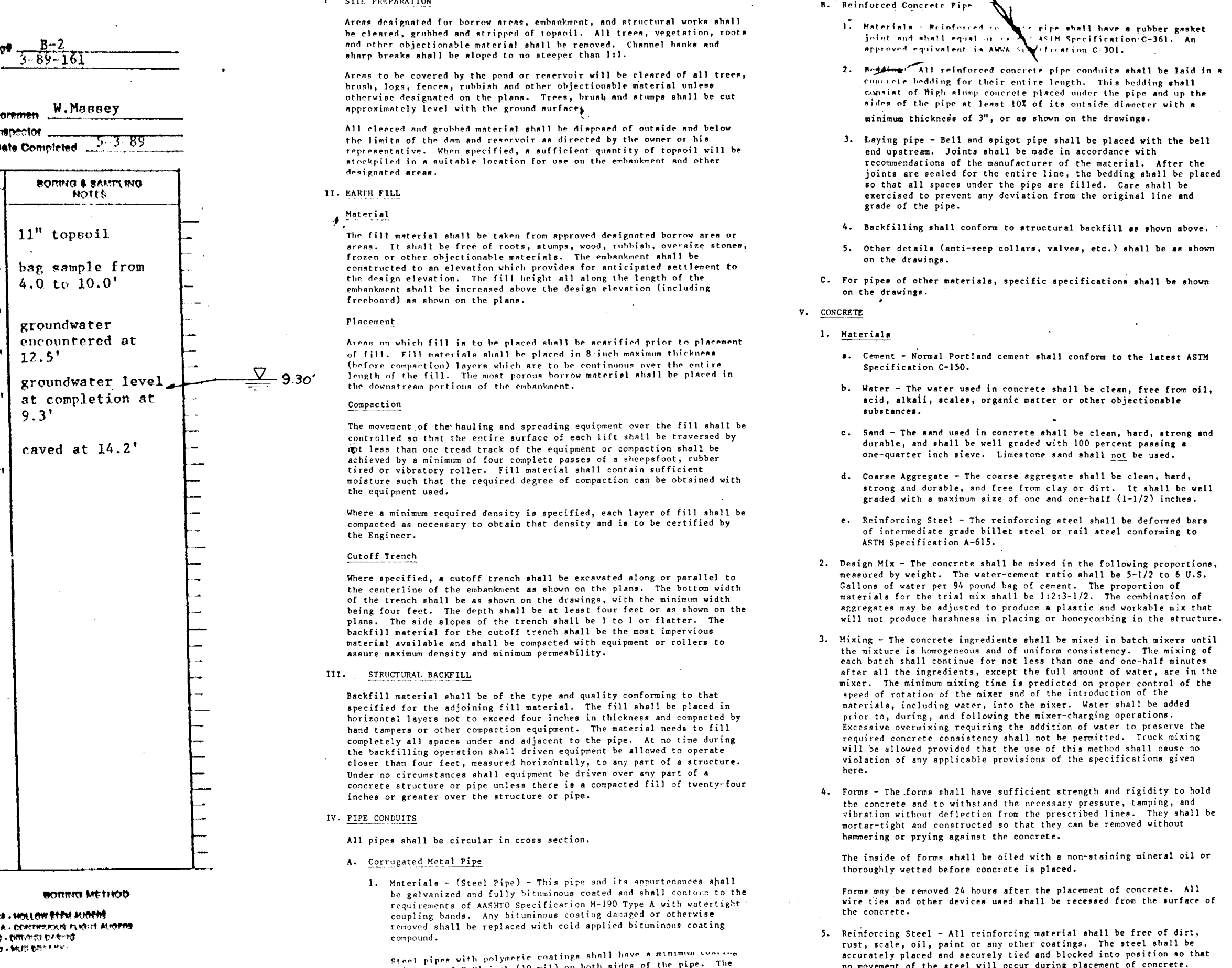
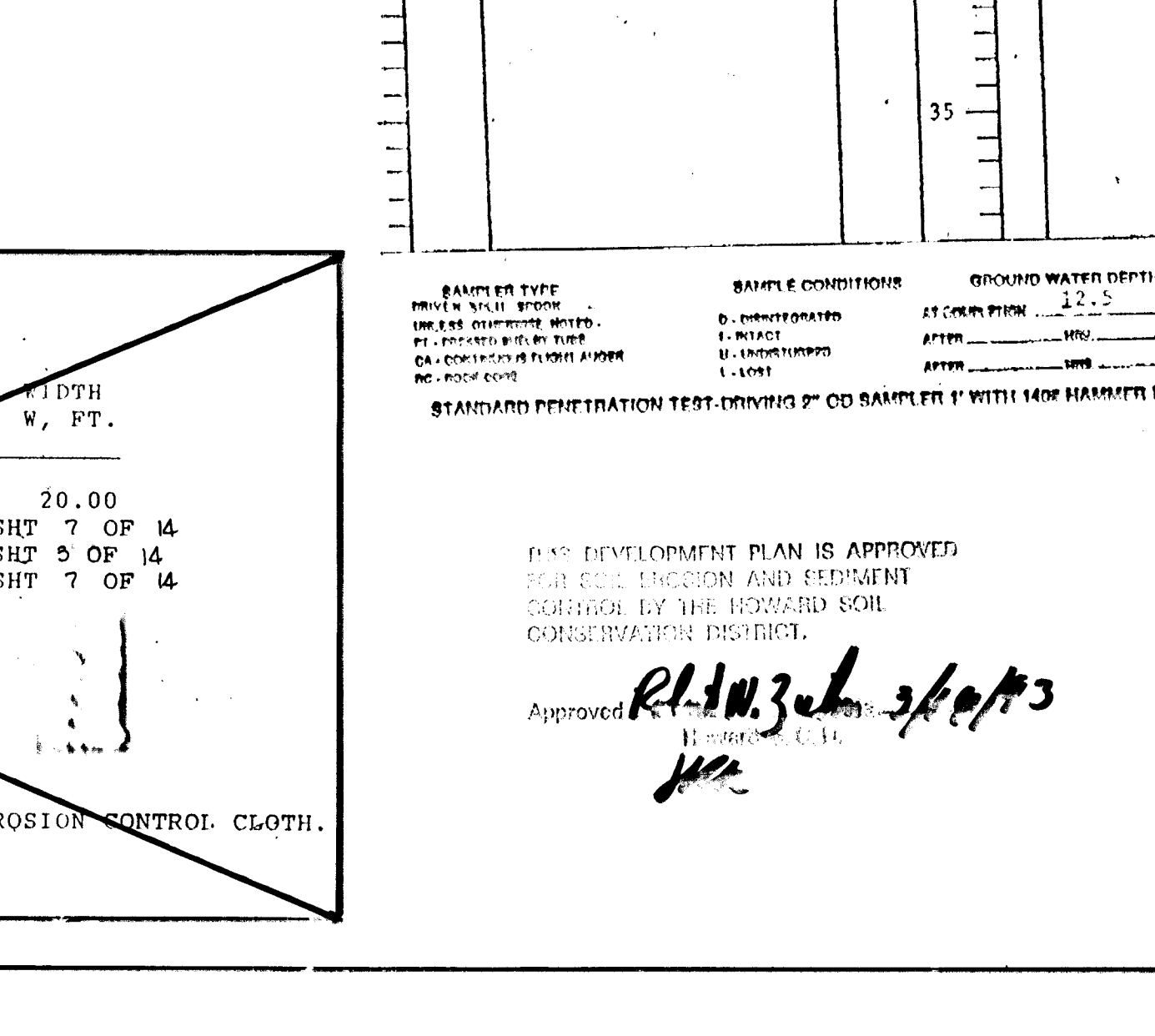
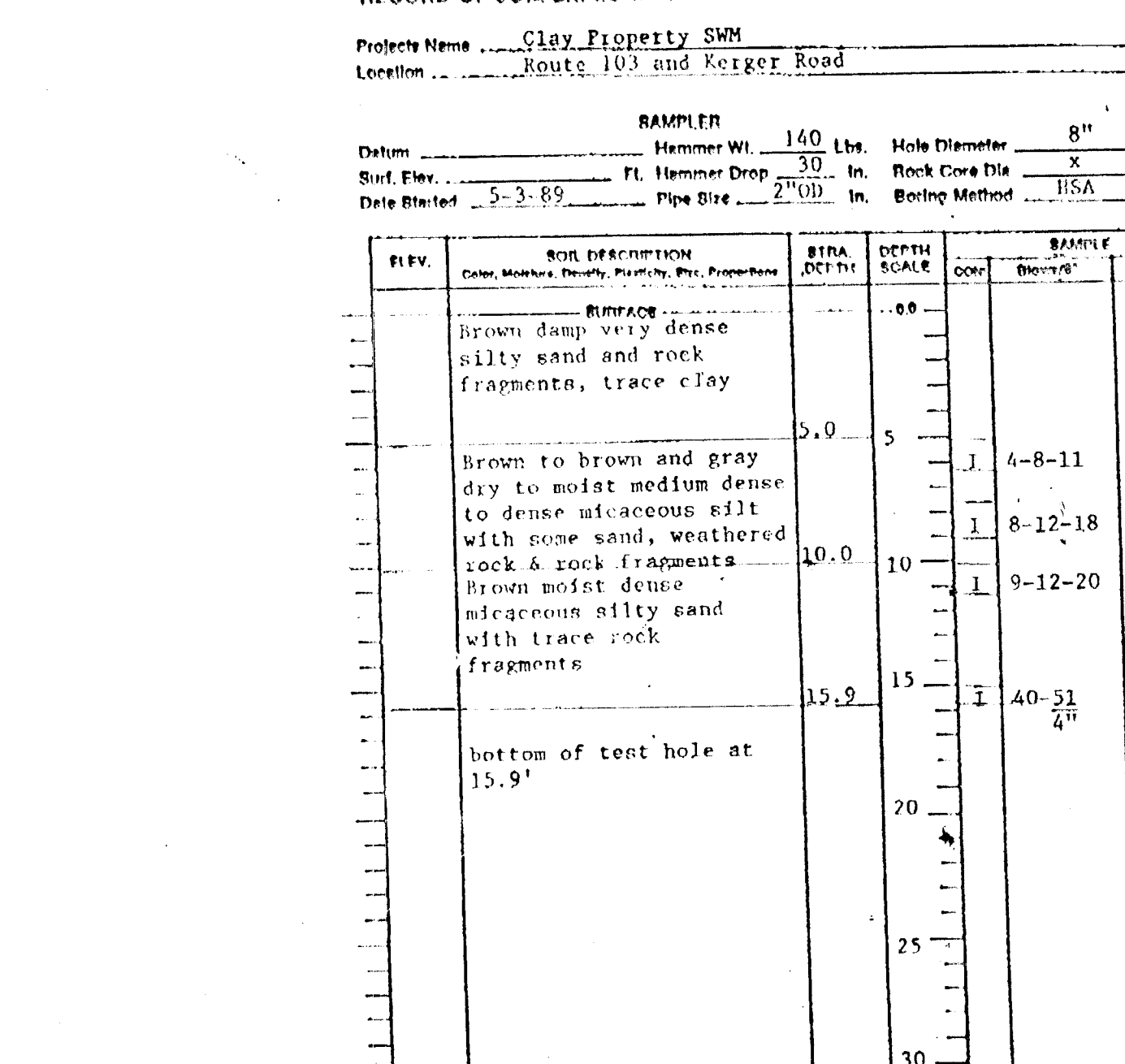
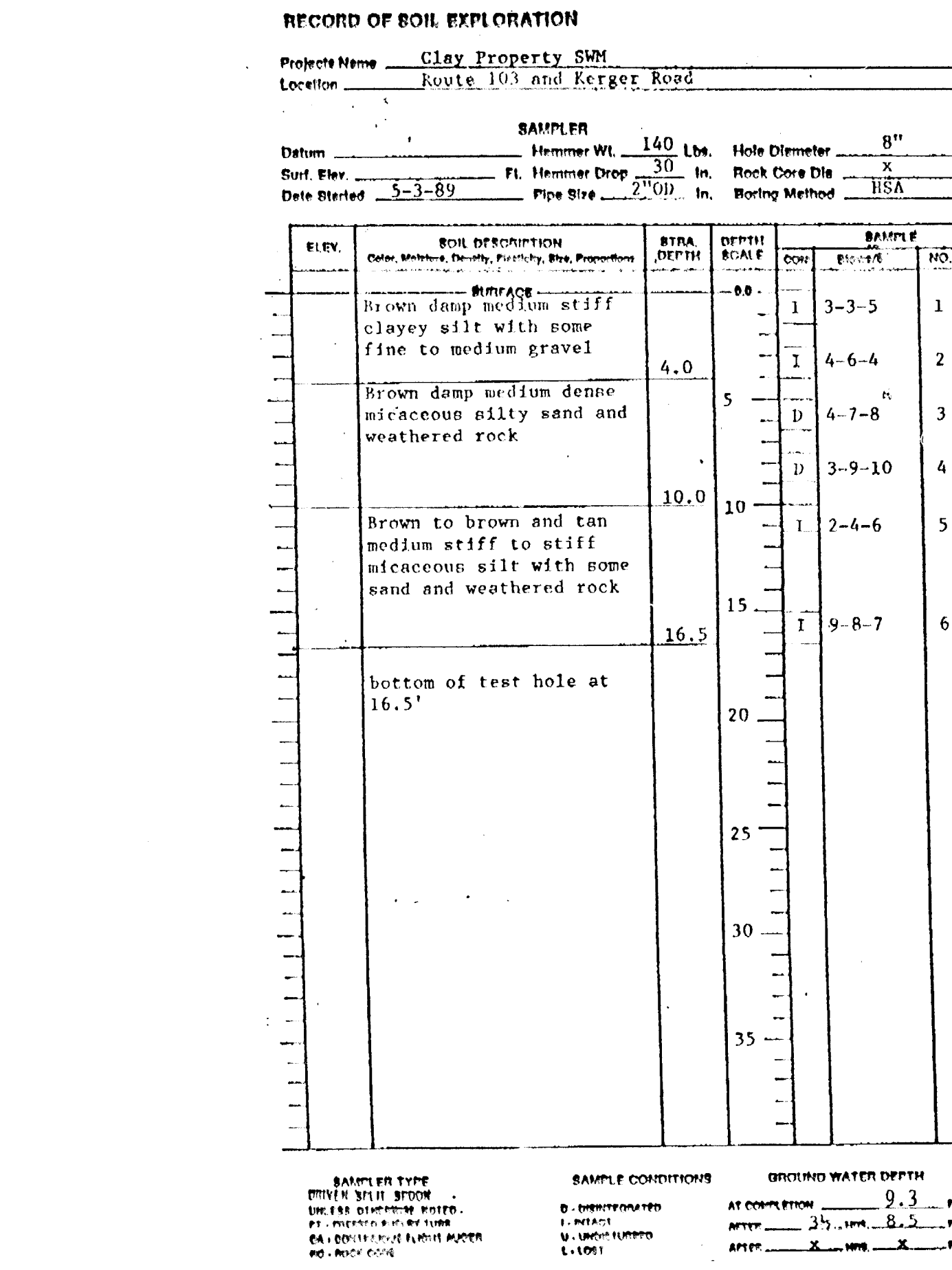
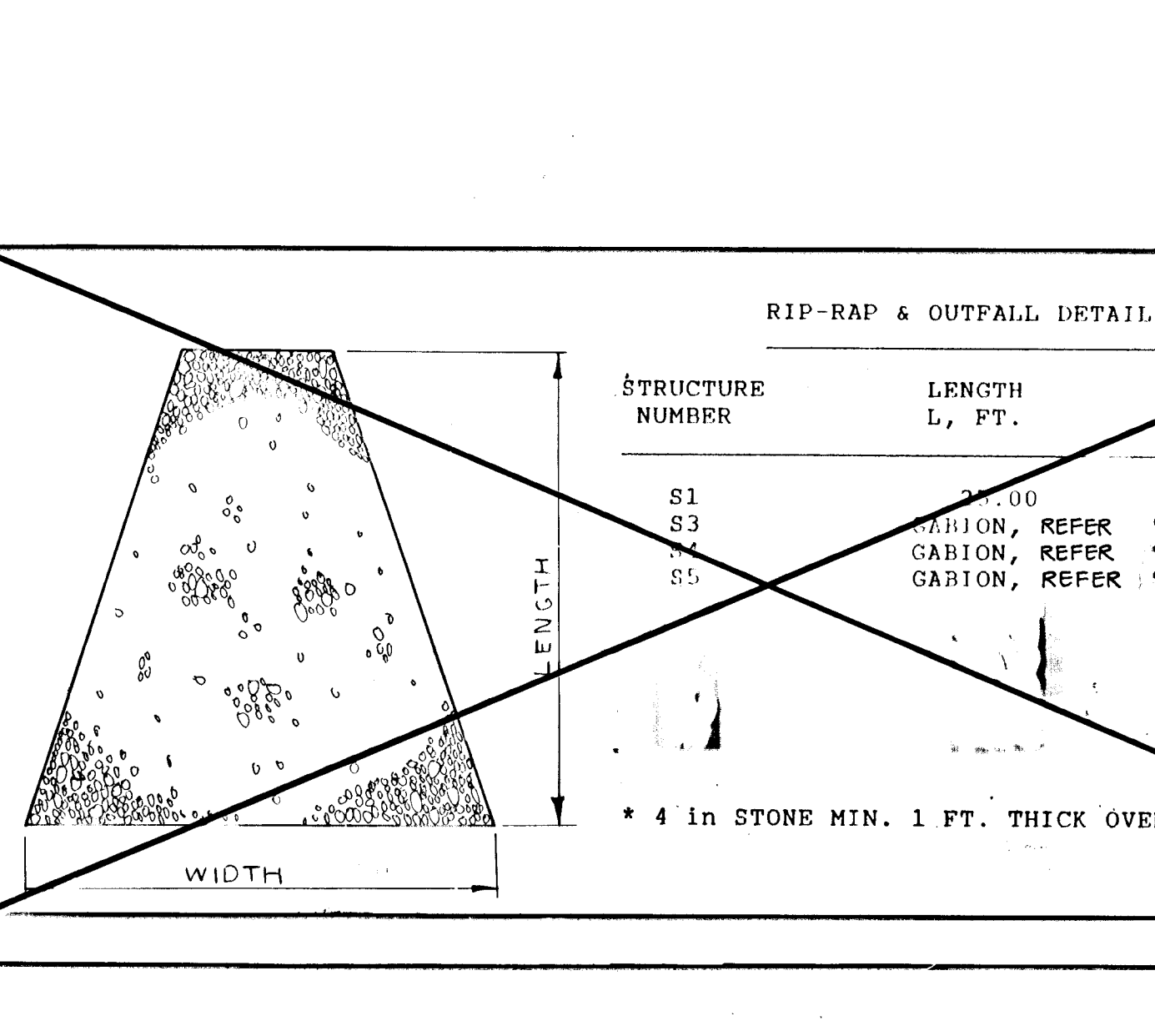
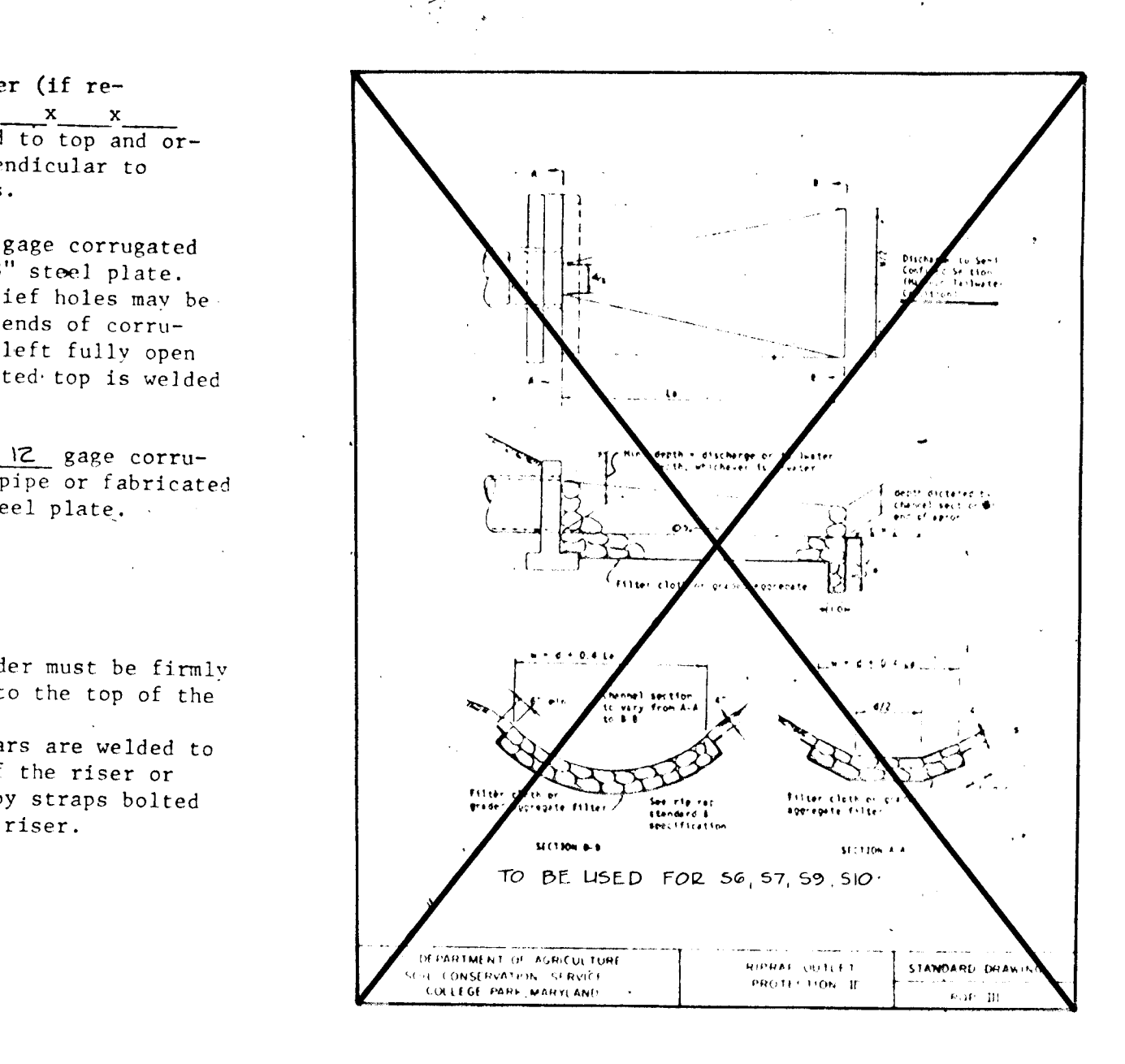
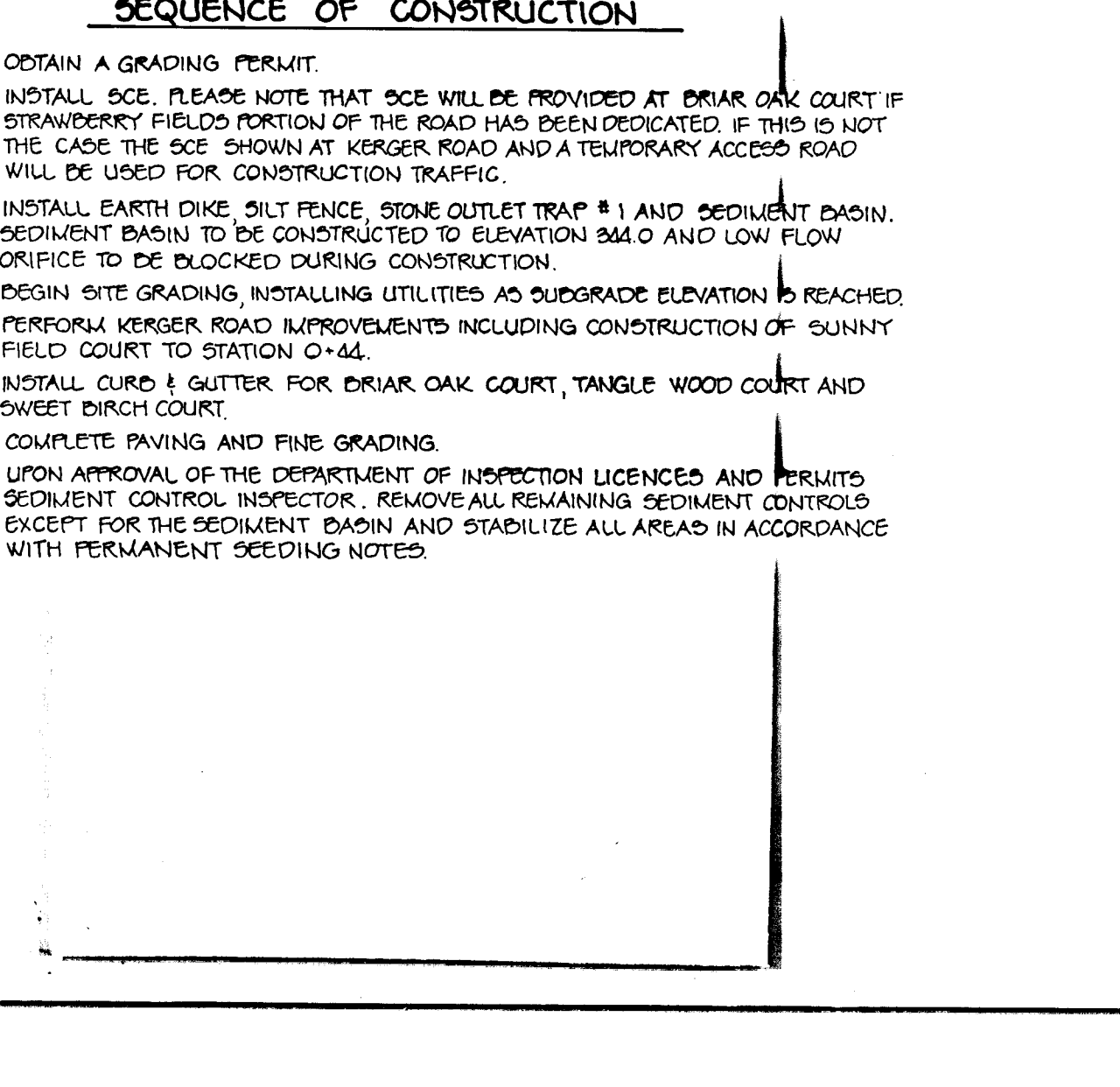
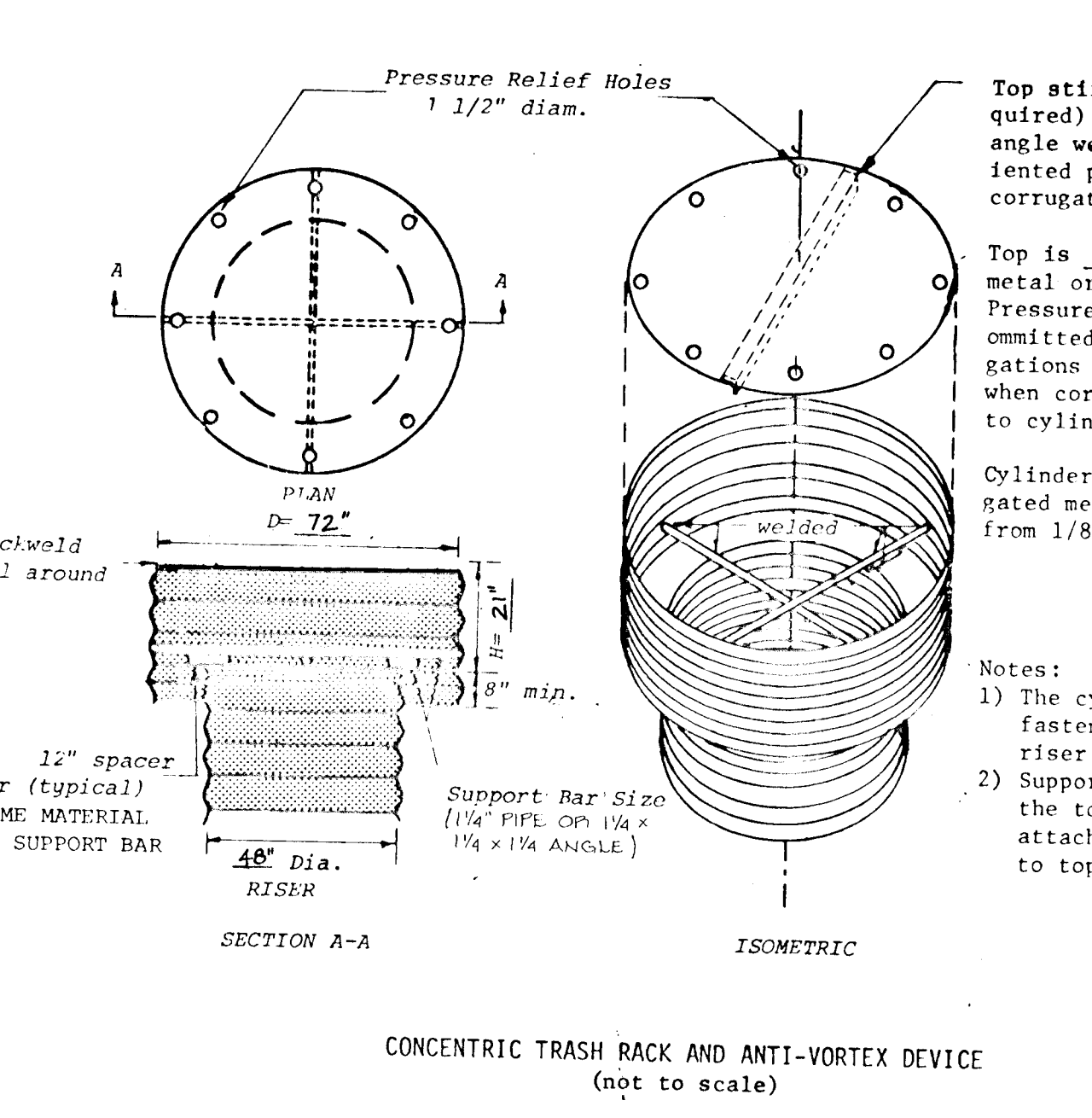
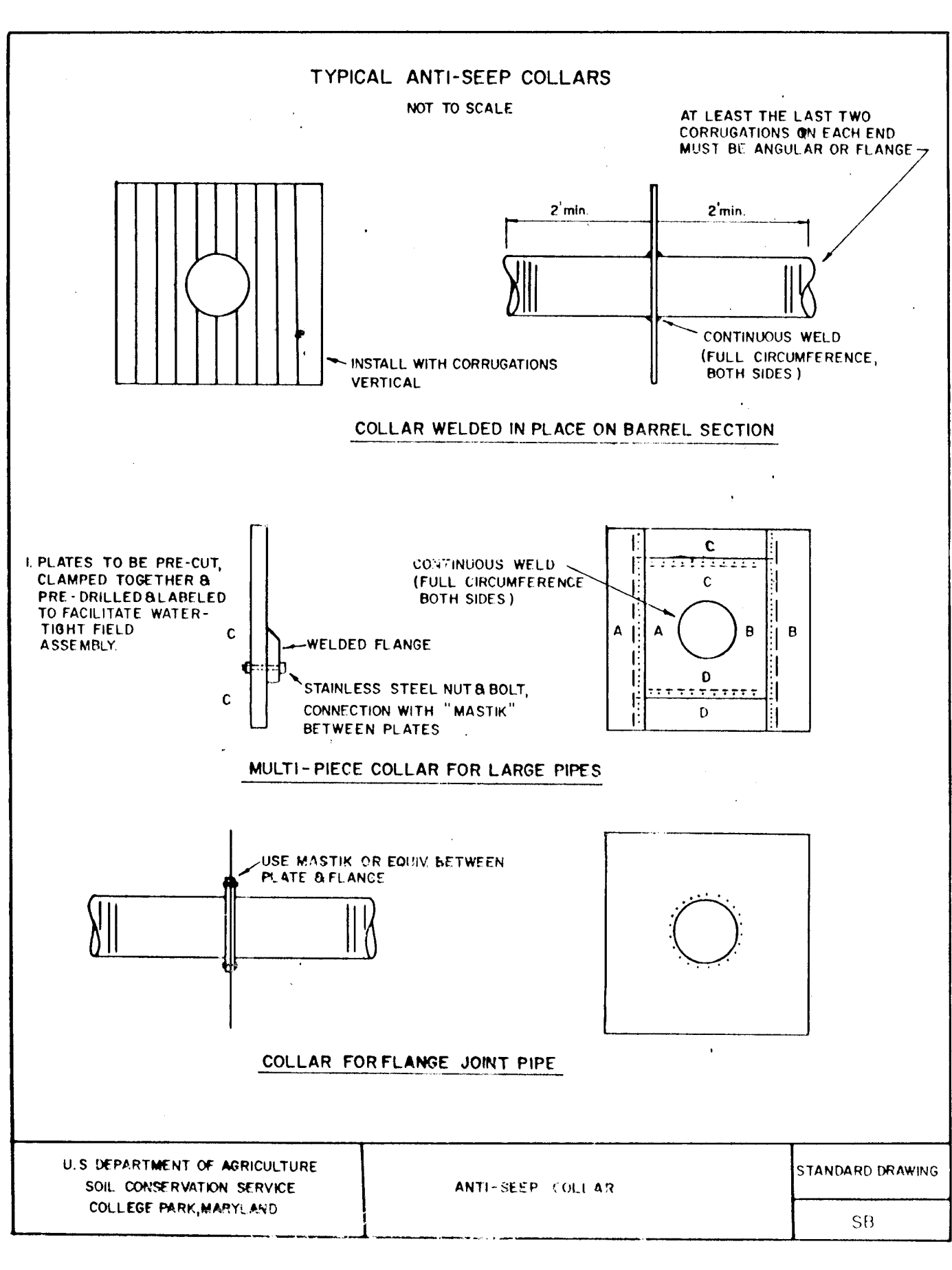
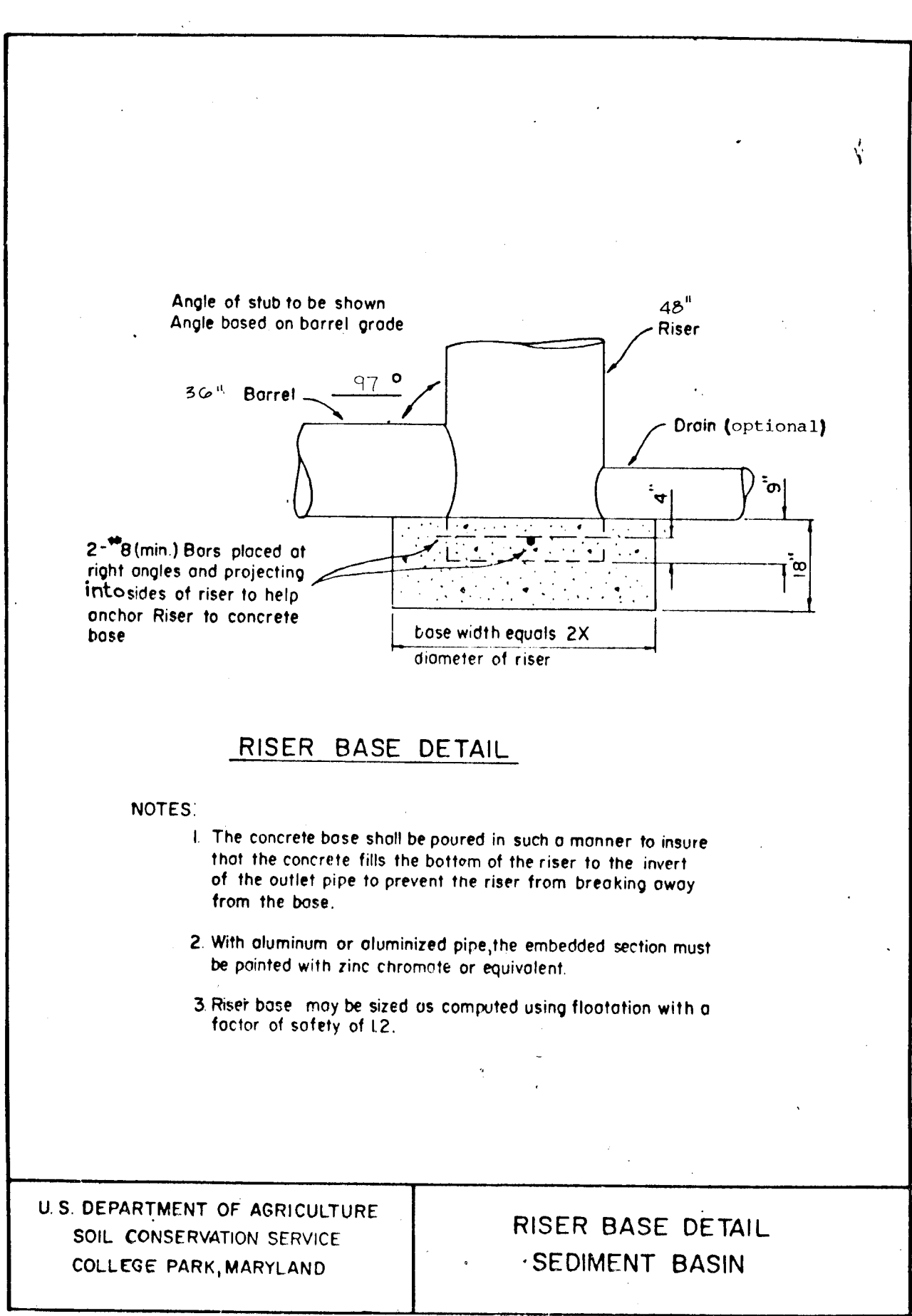
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
 Signature: *Olivera Helonath*
 Title: CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 Date: 4/19/93

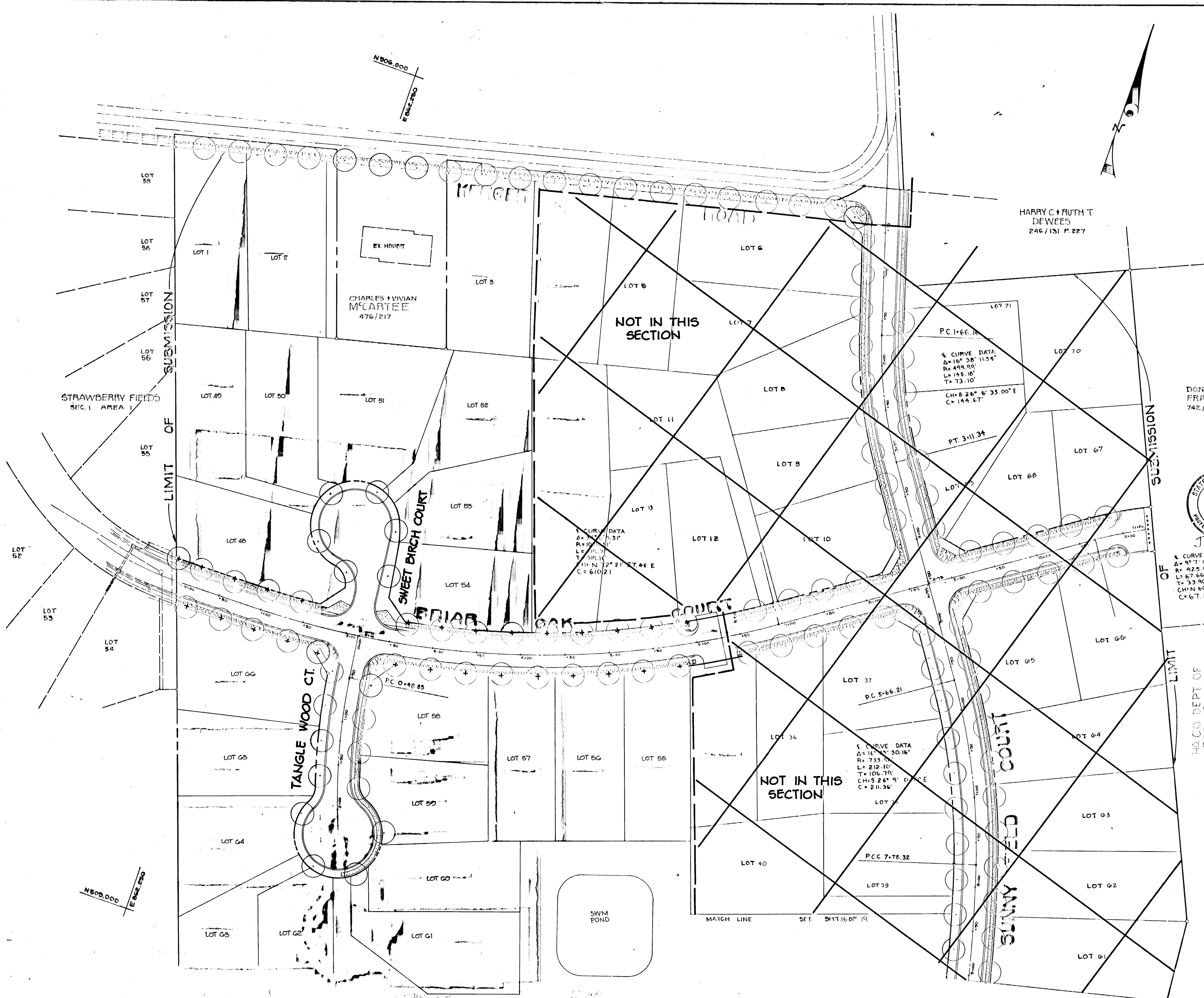
RIEMER MUEGGE & ASSOCIATES, INC.
 Planners • Engineers • Surveyors
 8018 Centre Park Drive • Suite 200 • Columbia, MD 21045
 410-997-0000 FAX: 410-997-9282

OWNER/
 Charles & Vivian McCartee
 5365 Kerger Road
 Ellicott City, Md. 21043
 Mark & Laura Clay
 5341 Kerger Road
 Ellicott City, Md. 21043
 PROJECT NAME
 SUNNY FIELD ESTATES
 Section I
 Lots 40-67
 T.M.#31 P.57,58,518,757
 1 Elect. Dist. Ho.Co.,MD

DEVELOPER:
 KORTN
 DEVELOPMENT COMPANY INC.
 8018 Centre Park Drive • Columbia MD 21045
 301-740-1010
 TITLE
 Final Plan
 WP-89-184, S-89-06, P-89-52, F-89-232
 1-92-69
 DATE 3.0.93 PROJECT P888101
 DES. DW. DRW. RT. CHK. RA/PW SCALE 1"=50' DRAWING NO OF 14

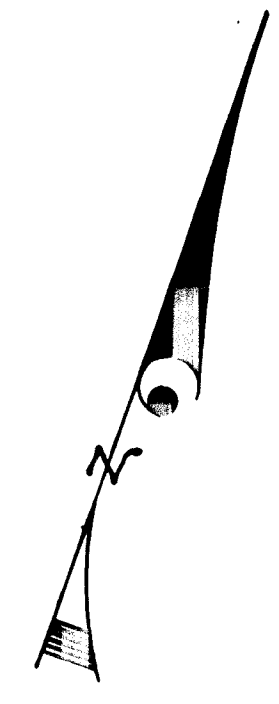
1641





PLANT LIST

SYMBOL	QUANTITY	NAME	REMARKS
○	30	SUGAR MAPLE	2 1/2" MIN. CAL., B#B FULL HEAD
+	28	NORTHERN RED OAK (QUERCUS RUBRA)	2 1/2" MIN. CAL., B#B FULL HEAD
LENGTH OF EXISTING KERGER ROAD = 40			
G55' ± 40 = 16.97			
LENGTH OF PROPOSED ROADS			
TANGLEWOOD COURT 228 ± 20 = 11.40			
BRIAR OAK COURT 630 ± 20 = 31.50			
SWEET BIRCH COURT 120 ± 20 = 6.45			
TOTAL REQUIRED = 65.72			
TOTAL PROVIDED = 66			

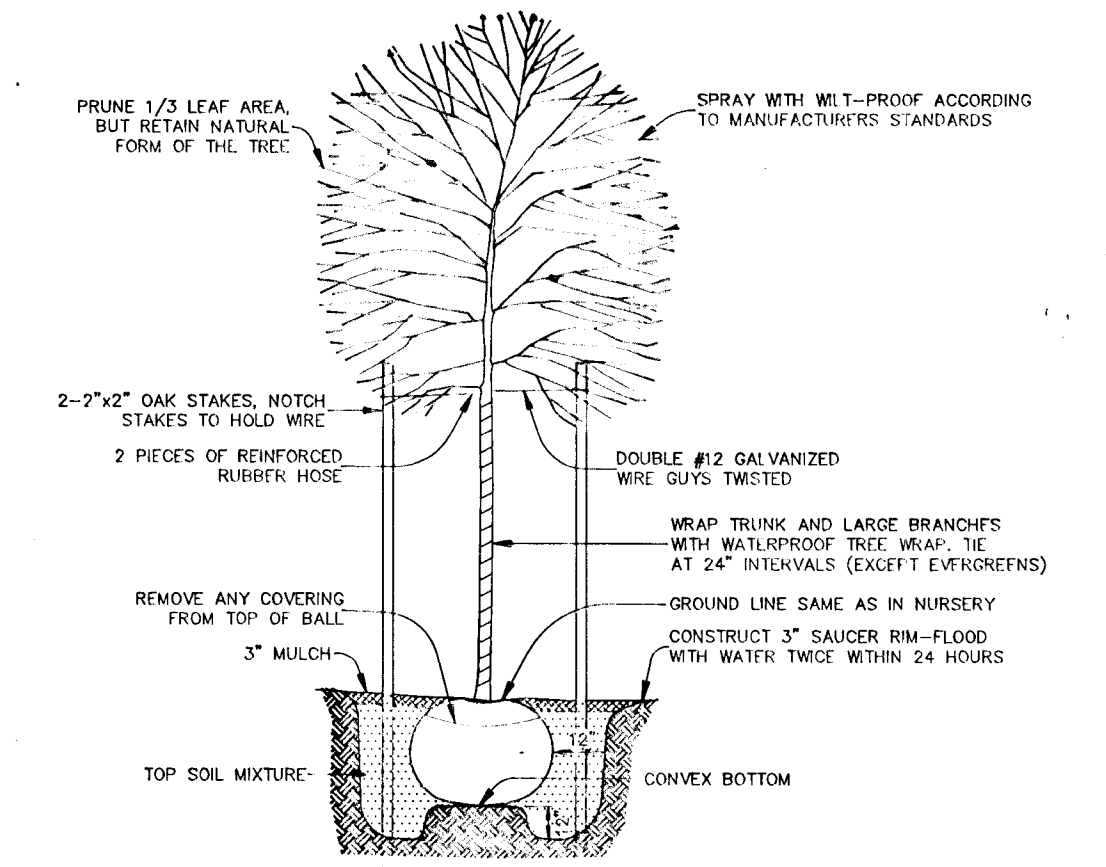


AS-BUILT CERTIFICATE

Christopher J. Reid
CHRISTOPHER J. REID #19949

1.7.00
DATE

DONALD S. FRANCES
742/157 P.628



STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
J. J. Smith
3.2.93

TREE PLANTING DETAIL
NO SCALE
NOTE: TREES CANNOT BE PLANTED WITHIN 4' OF EDGE OF THE SIDEWALK.

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Alan Dammes 4/1/93
CHIEF, LAND DEVELOPMENT DIVISION M.K.

Alan M. Tangeman 3/23/93
CHIEF, BUREAU OF HIGHWAYS

William E. Riley 4-5-93
CHIEF, BUREAU OF ENGINEERING

APPROVED : HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Anna M. Blomath 4/19/93
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
410-997-8900 FAX: 410-997-9282

OWNER/
Charles & Vivian McCartee
5365 Kerger Road
Ellicott City, Md. 21043

PROJECT NAME
SUNNY FIELD ESTATES
Section 1
Lots 45-61

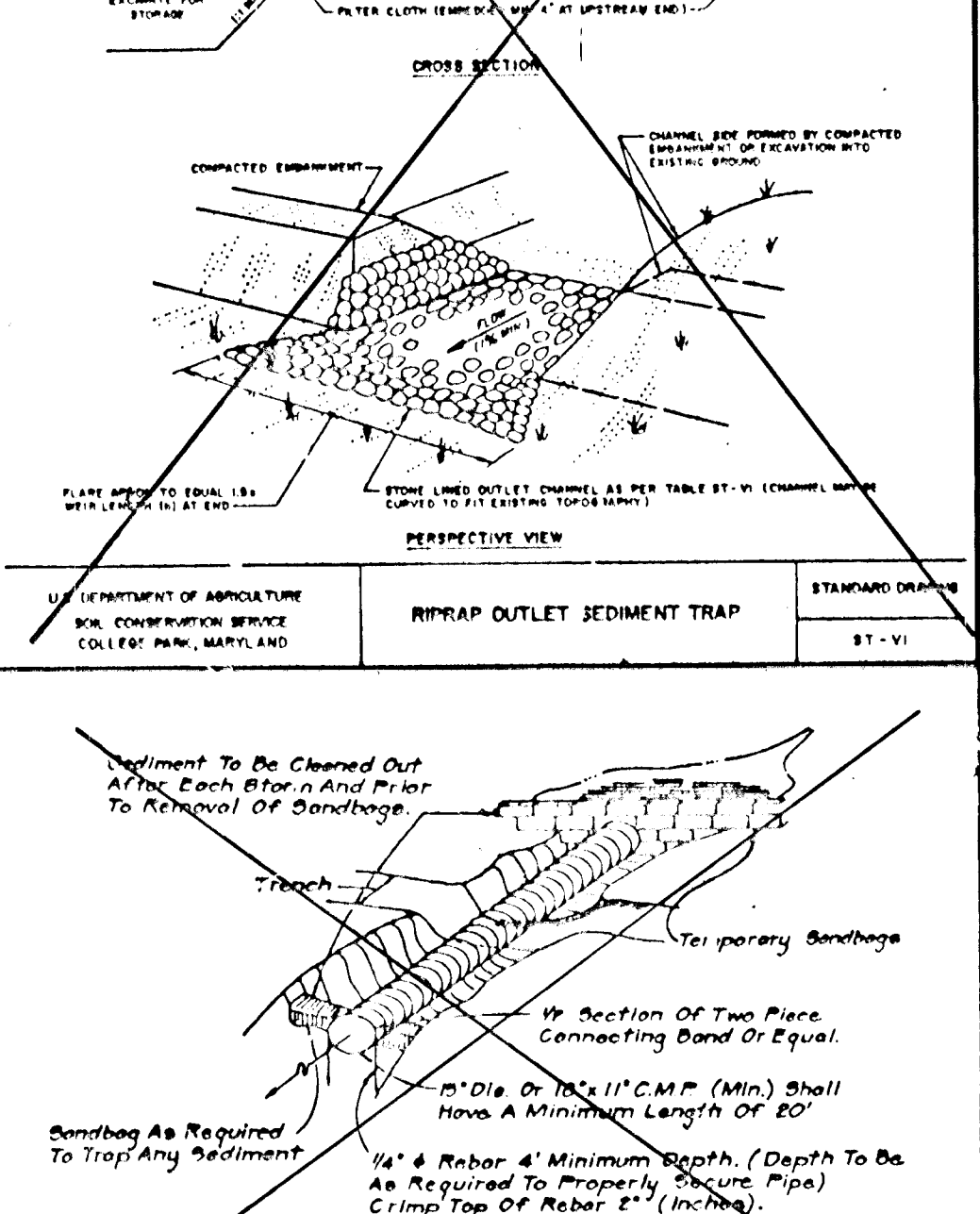
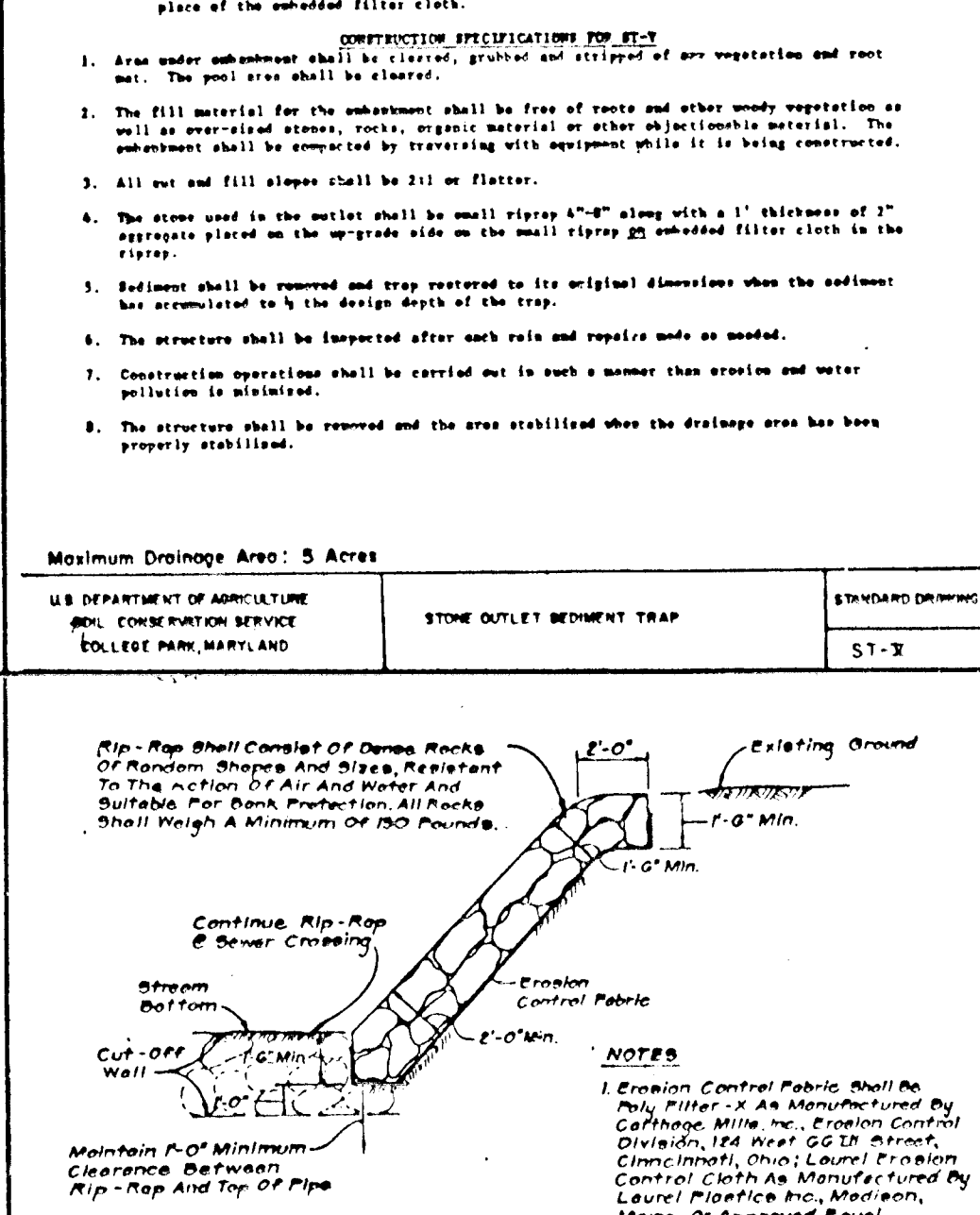
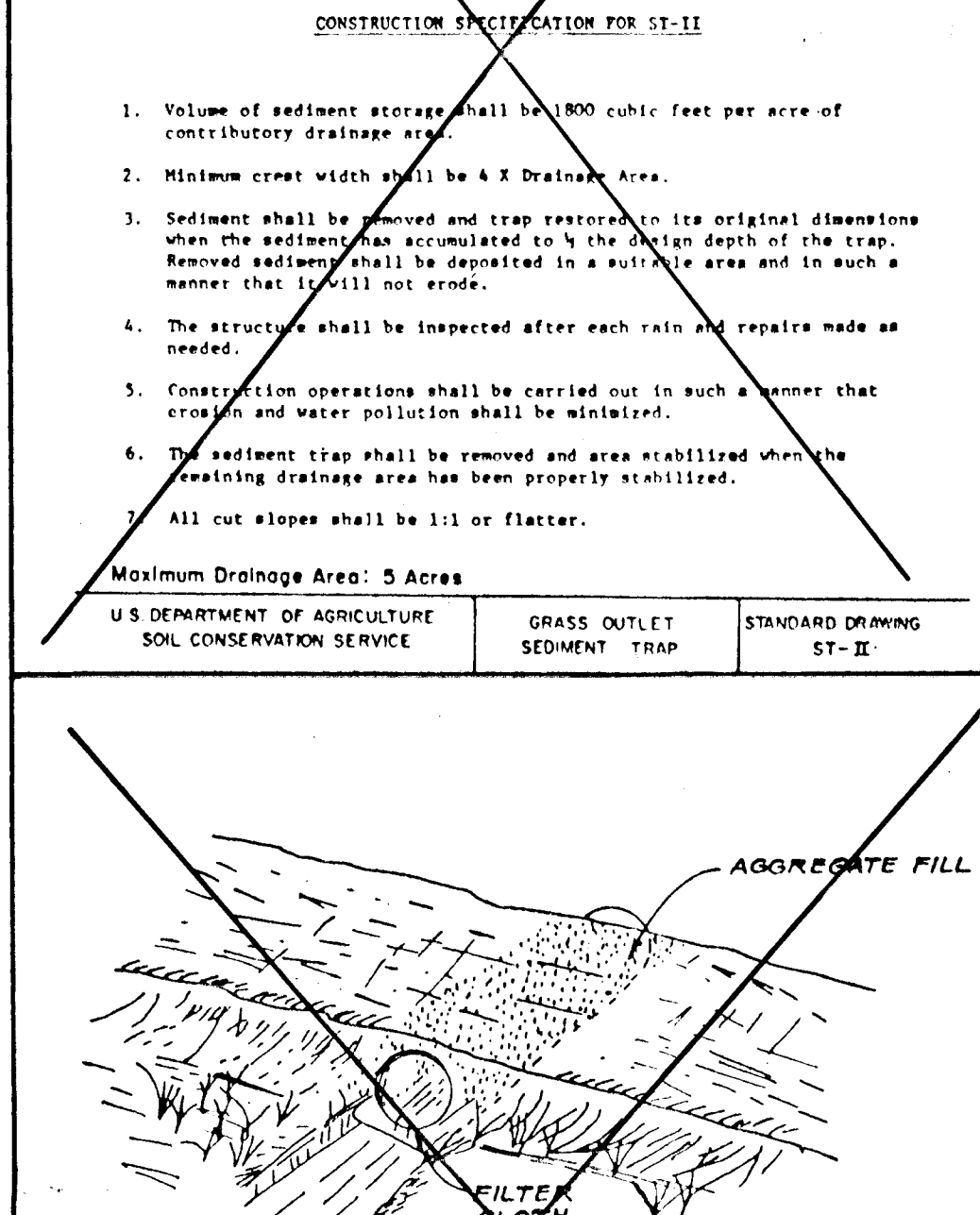
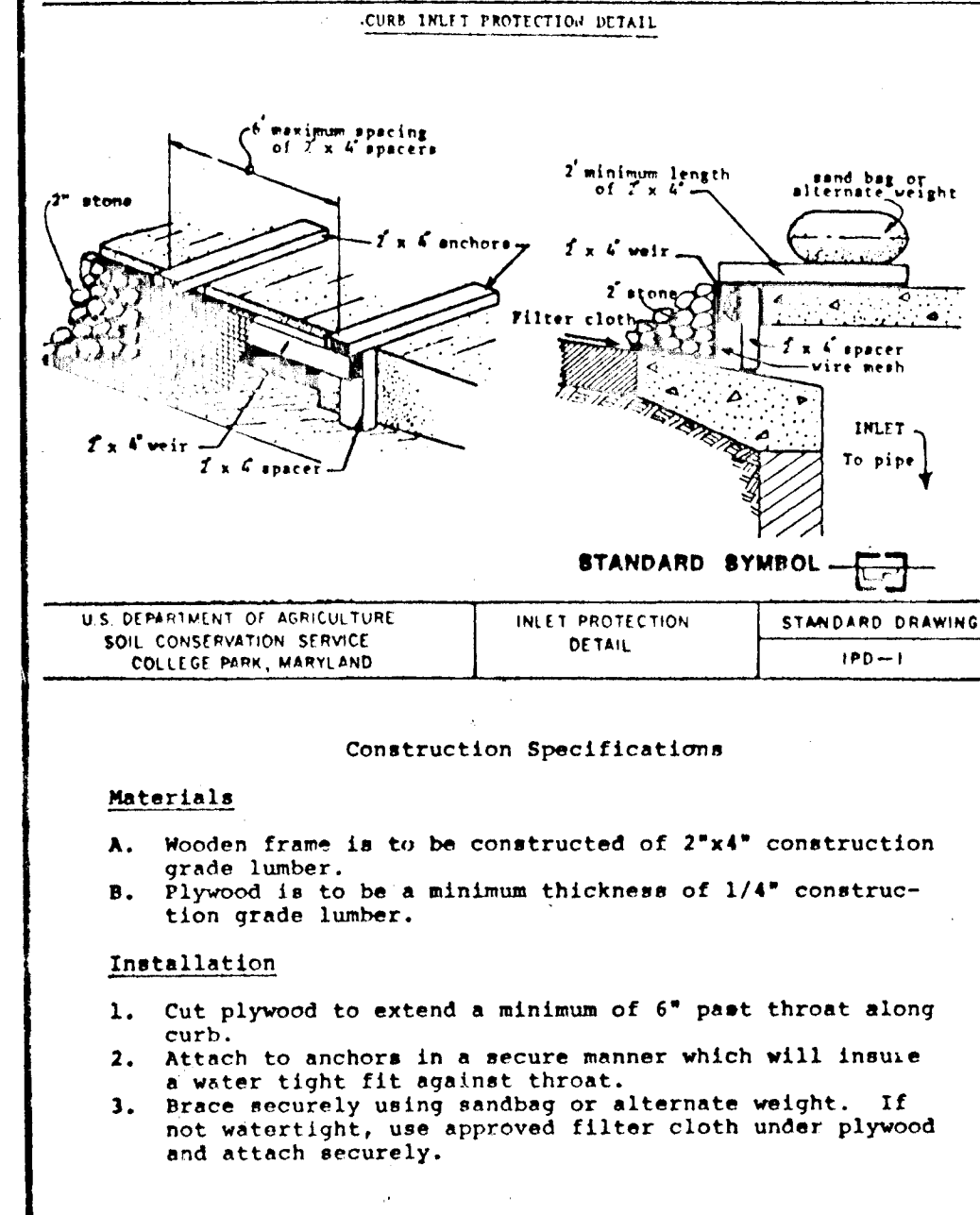
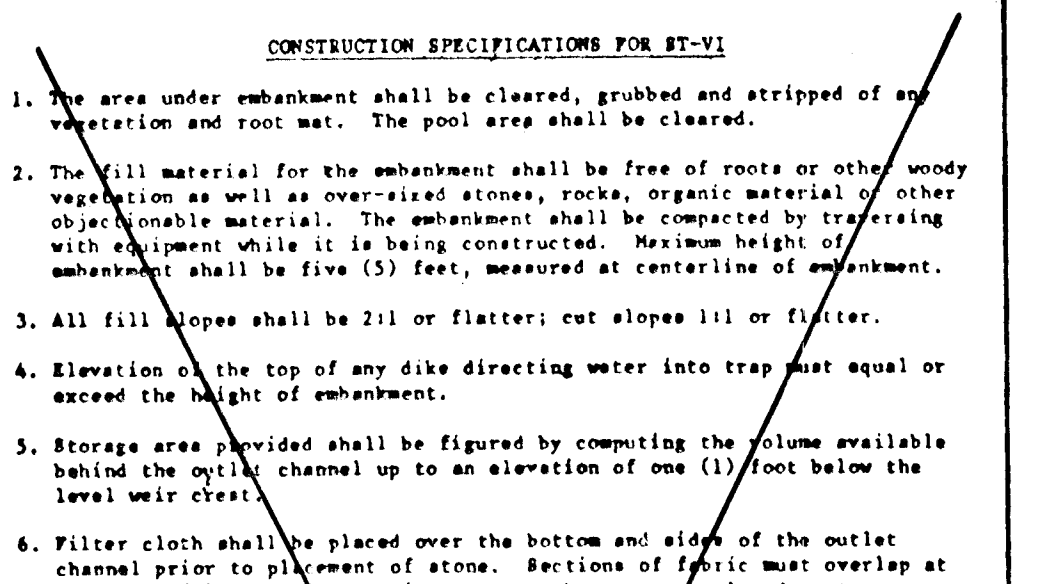
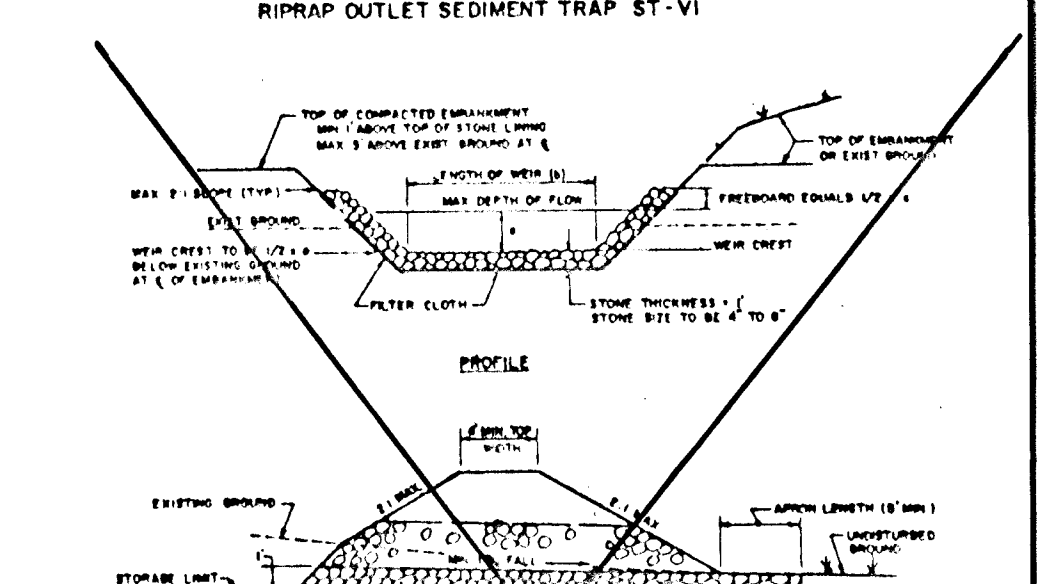
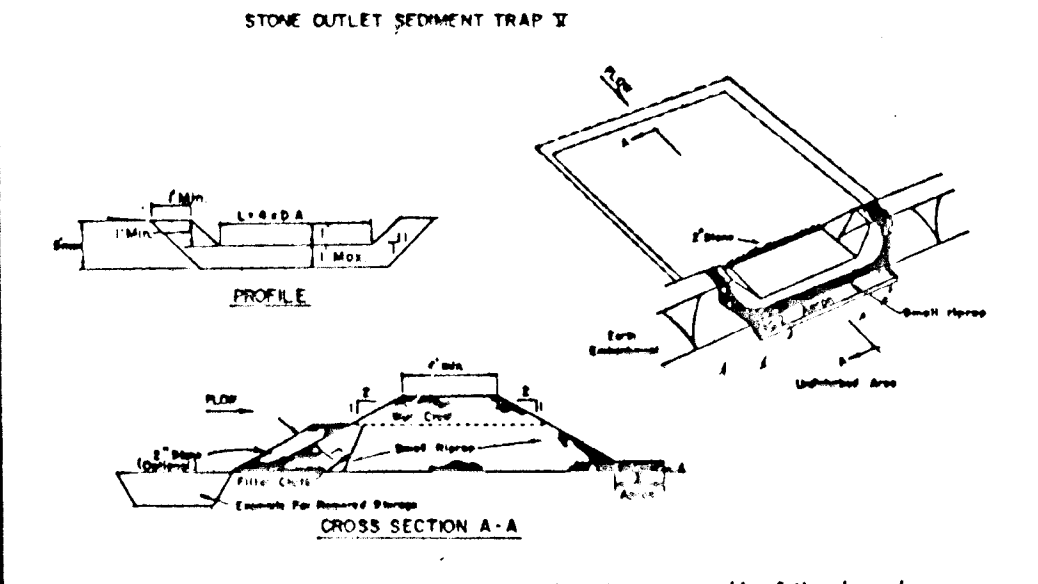
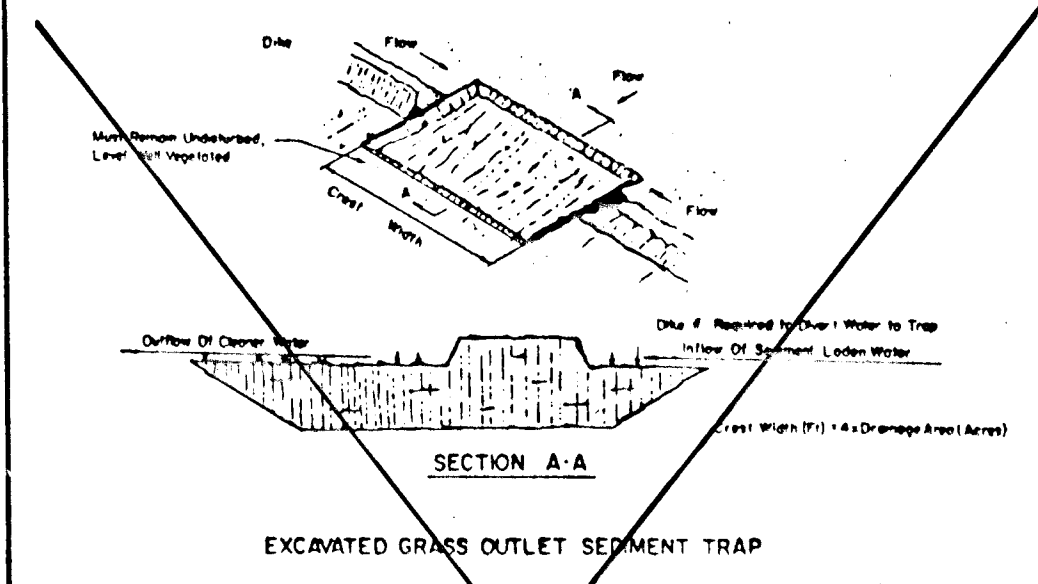
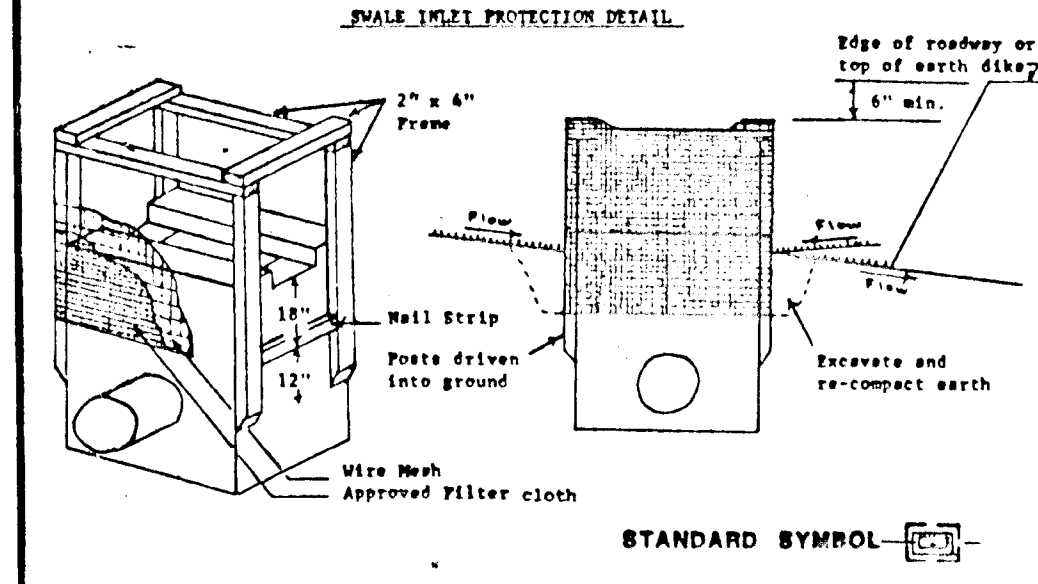
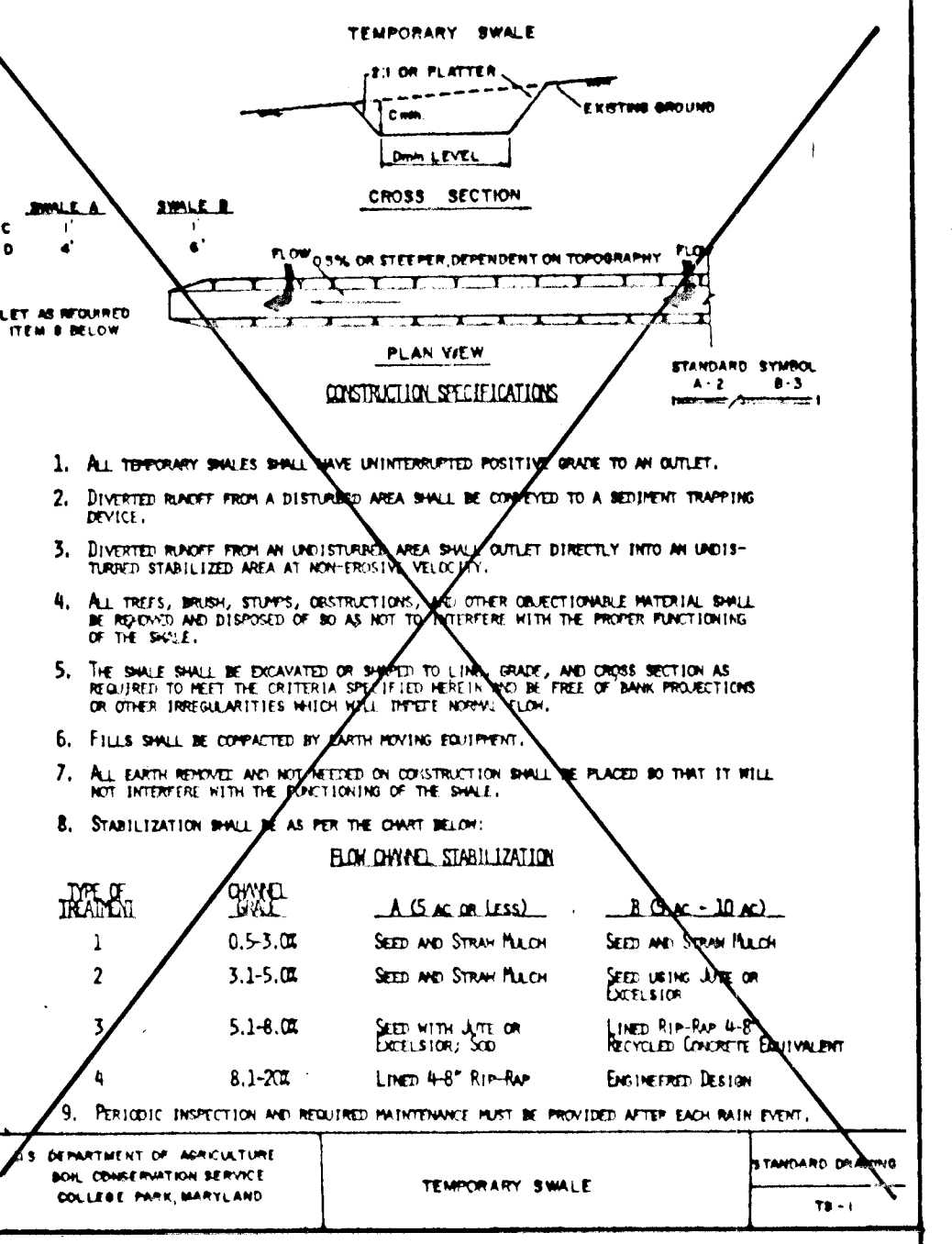
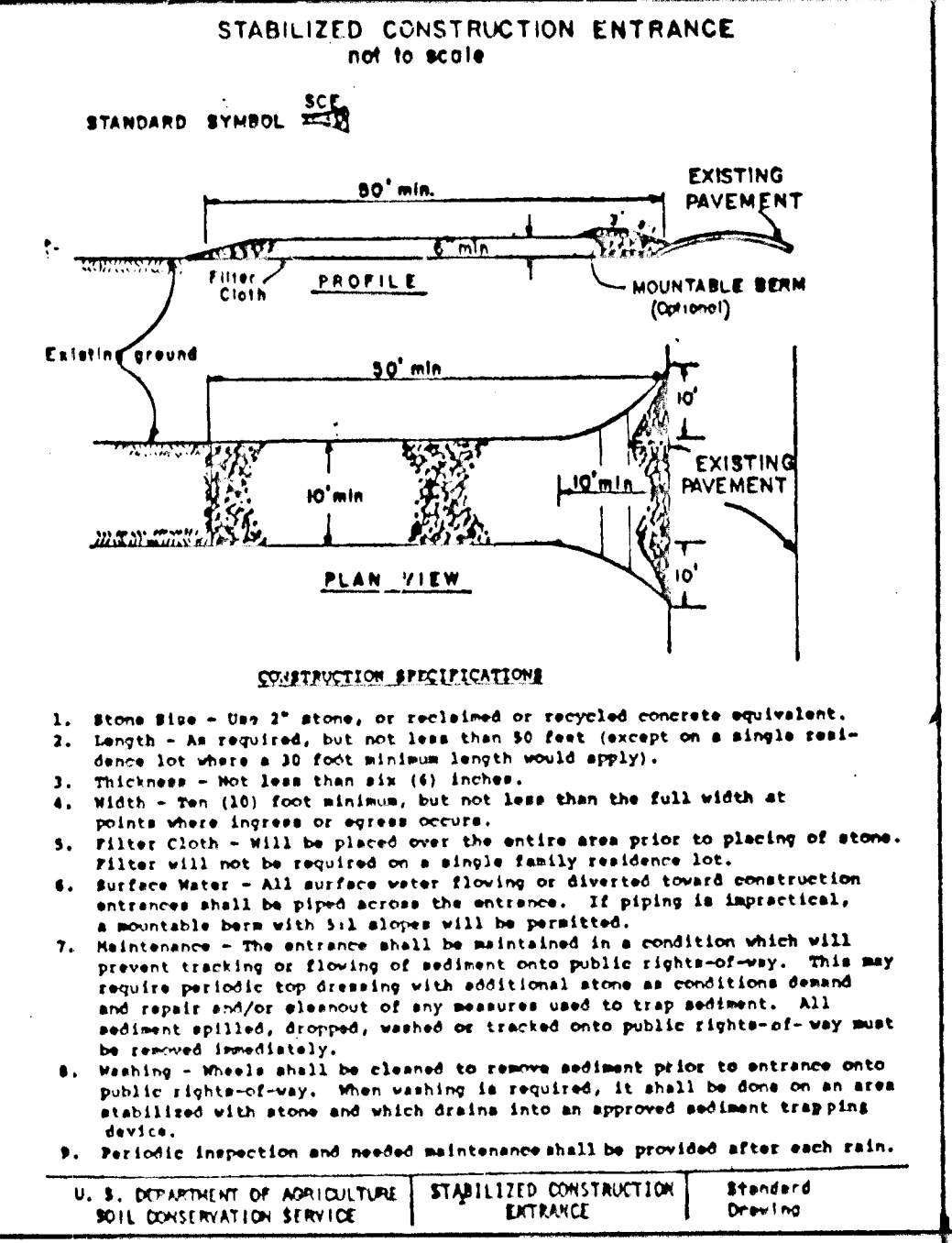
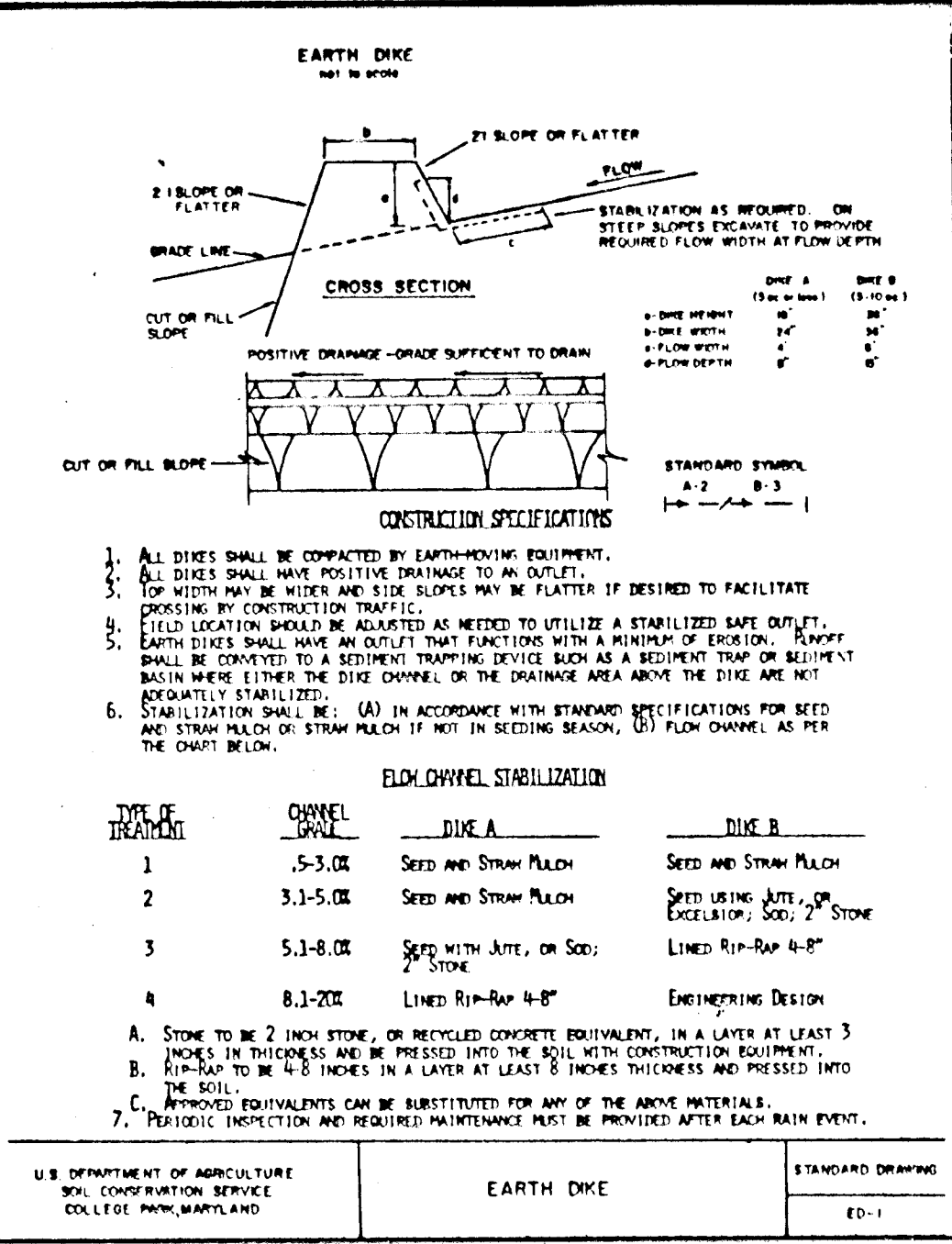
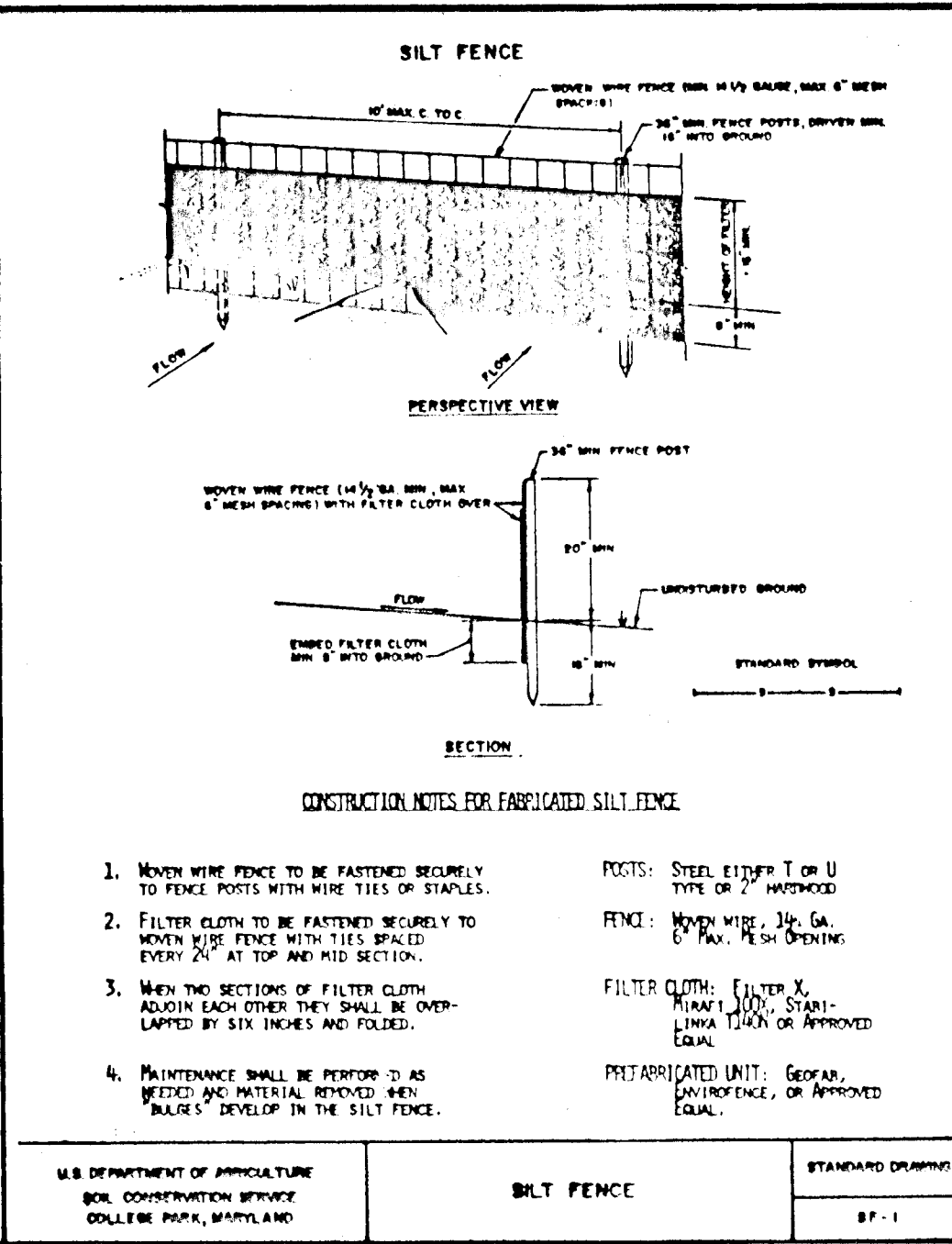
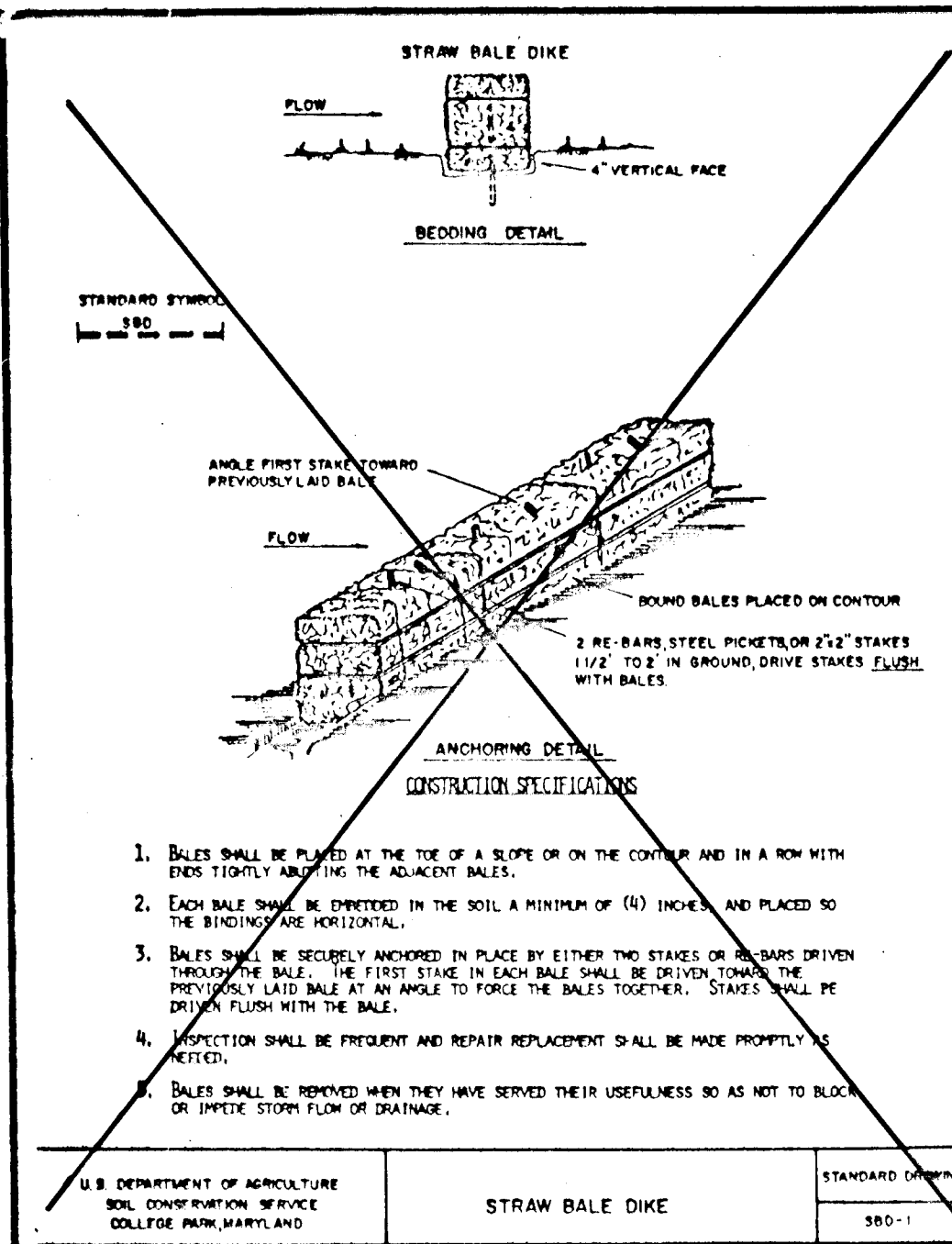
Merk & Laura Clay
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Ellicott City, Md. 21043

T.M.#31 P.57,58,518,757
1 Elect. Dist. Ho.Co., MD

KORIN
DEVELOPMENT COMPANY, INC.
8808 Centre Park Drive, Columbia, MD 21045
301-740-1010

TITLE STREET TREE
Final Plan
WP-89-104, S-89-06, P-89-52, F-89-232
1-13-89

DATE 5-2-93 PROJECT #89100



Briarap Outlet Sediment Trap

STANDARD SYMBOL: ST-VI

Contributing Drainage Area (Acres)	Depth of Channel (Feet)	Length of Trap (Feet)
1	1.5	6.0
2	1.5	6.0
3	1.5	6.0
4	1.5	6.0
5	1.5	10.0
6	1.5	12.0
7	1.5	14.0
8	1.5	16.0
9	2.0	10.0
10	2.0	12.0
11	2.0	14.0
12	2.0	14.0
13	2.0	16.0
14	2.0	16.0
15	2.0	18.0

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COLLEGE PARK, MARYLAND

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

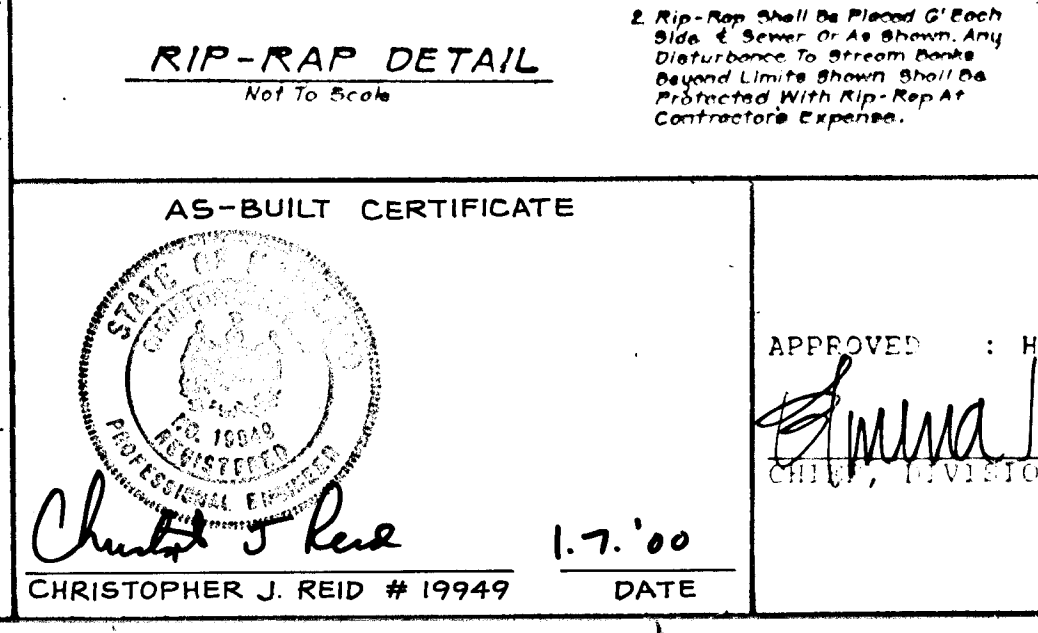
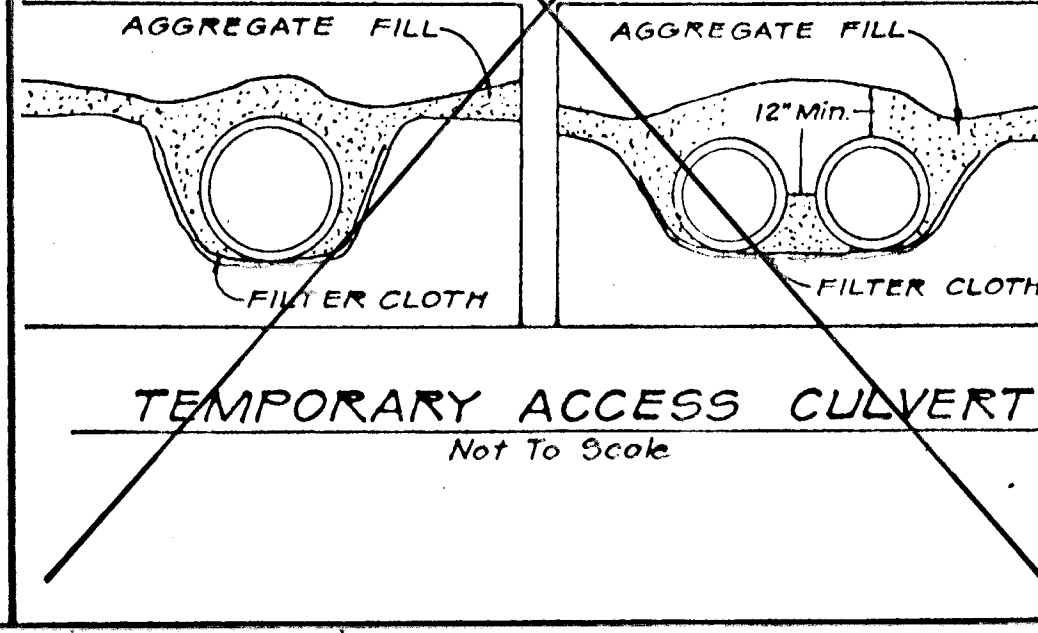
Robert W. Zaiton 3/16/93

U.S. SOIL CONSERVATION SERVICE

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

James M. Helton 3/16/93

Approved Howard SCD.



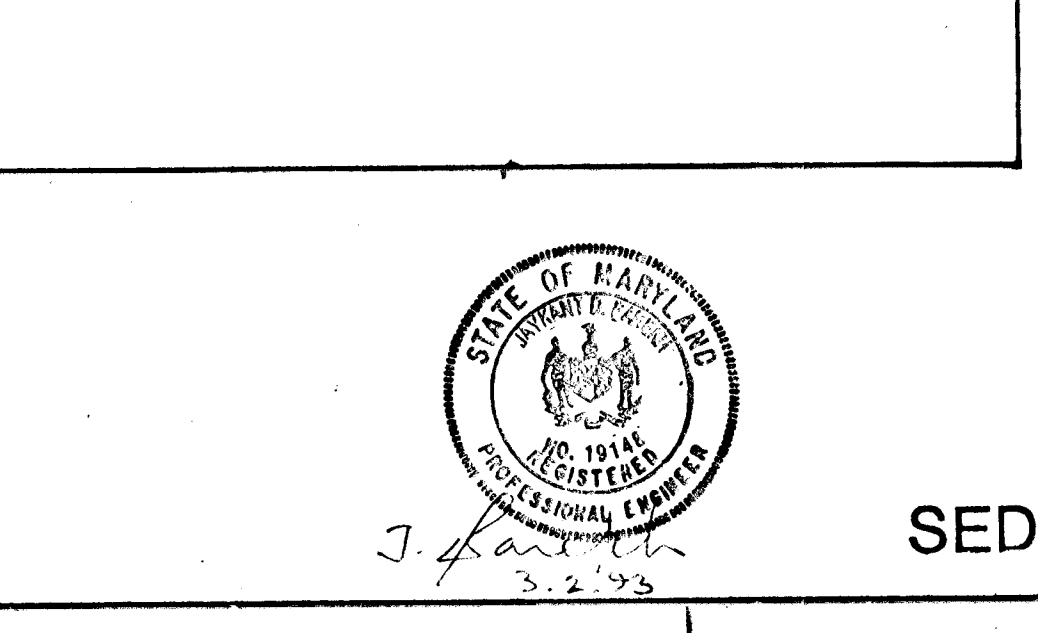
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Anna Helton 4/19/93

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

J. Smith 3.2.93

Registered Professional Engineer # 19148



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, disking or other acceptable means before seeding. If not previously loosened.

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

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 urea-form fertilizer (9 lbs/1000 sq ft).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (21 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 50 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre .05 lbs/1000 sq ft of weeping lovegrass. During the period of October 16 thru February 28, protect and seed with 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching - Apply 1/4 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

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

TEMPORARY SEEDING NOTES

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

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

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

Seeding - For periods March 1 thru April 30 and from August 15 thru November 15, seed with 25 bushel per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru October 15, seed with 3 lbs per acre of weeping lovegrass (0.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching - Apply 1/4 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.

SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- 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.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1; b) 14 days as to all other disturbed or graded areas on the project site.
- 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.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (Sec. 54), temporary seeding (Sec. 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.
- 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.
- Site Analysis:
Total Area of Site: 10.18 Acres
Area Disturbed: 5.86 Acres
Area to be roofed or paved: 1.21 Acres
Area to be vegetatively stabilized: 4.05 Acres
Total Cut: 8000 Cu. yds.
Total Fill: 2500 Cu. yds.
Offsite waste/borrow area location: _____
- Any sediment control practice which is disturbed by grading activities for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.

On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

NOTE: FOR SEQUENCE OF CONSTRUCTIONS, SEE SHEET 11 OF 14

SEDIMENT CONTROL DETAIL SHEET

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

John P. ... 4/1/93

John M. ... 3/23/93

John M. ... 4-5-93

DEVELOPER'S CERTIFICATION

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance as a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature: *Christy J. Reid* Date: 3/16/93

Name: *Christy J. Reid* Title: *Professional Engineer*

Firm: *Christy J. Reid* Complete Address: _____

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature: *J. Smith* Date: 3.2.93

Name: *J. Smith* Title: *Professional Engineer*

Firm: *Registered Professional Engineer # 19148* Complete Address: _____

RIEMER MUEGGE & ASSOCIATES, INC.

Planners • Engineers • Surveyors

8818 Centre Park Drive • Suite 200 • Columbia, Md 21045

410-997-8900 FAX: 410-997-9282

FINAL PLAN: SUNNYFIELD ESTATES SECTION I

TAX MAP 31 P. 57,58,518,757 FIRST ELECTION DISTRICT

HOWARD COUNTY, MARYLAND 21043

F-93-69

Drawing	DATE	REVISIONS	SHEET	DATE	JOB NUMBER
Check RA/DW			15 OF 14	3-2-93	
Design					
Check					

AS-BUILT 01/05/00 F-89-232

1641

