

NOTE:
RELOCATE BGL POLES
(900132, 164170, 164169, 164168
164171) TO 1 FOOT SOUTH OF
PROPOSED SIDEWALK.

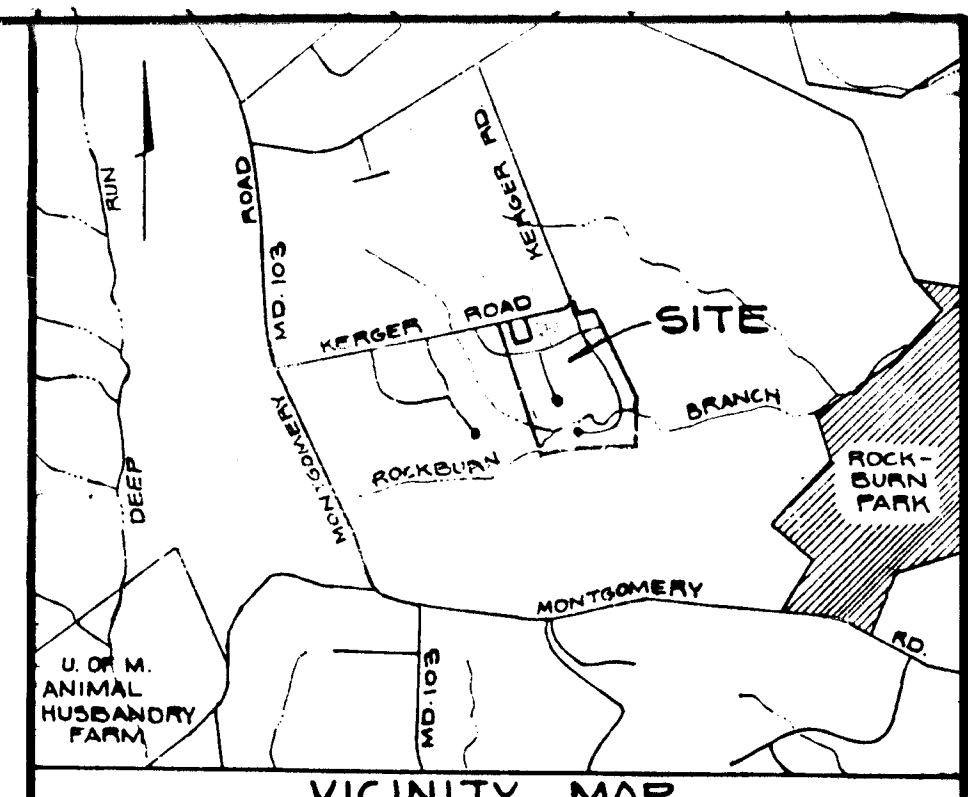
CONCRETE CURB & GUTTER
TRANSITION (HO CO STD DETAIL
R-102) BEGIN AT STA 7+00
& CONTINUE TO LIMIT OF
SUBMISSION.

LEGEND
EXIST PAVING TO BE
BUILT PER HO CO D'TAILS
PROP PAVING TO BE
BUILT PER HO CO D'TAILS

HO CO BENCHMARK # 2744 005
LOCATED 3155' DOWN KERGER RD,
880' NORTHWEST OF INTERSECTION
OF KERGER ROAD & MONTGOMERY RD.

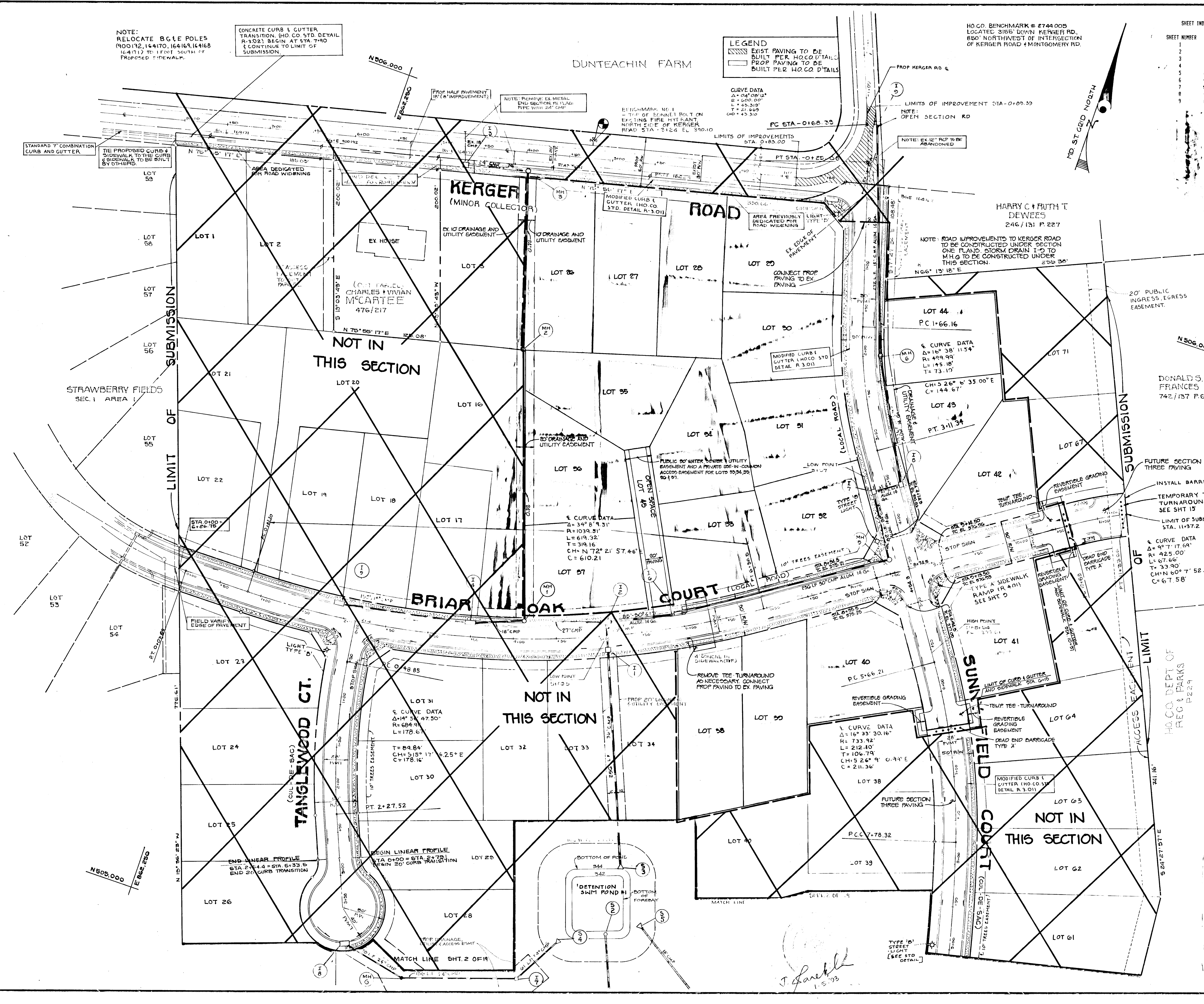
SHEET INDEX

SHEET NUMBER	DESCRIPTION
1	Road Plan Views
2	Road Profiles
3	Road Profiles
4	Drainage Area Map
5	Grading & Sediment Control
6	Storm Drain Profiles
7	Street Tree Design
8	Sediment Control Details
9	Detail Sheet



- GENERAL NOTES
1. ALL CMP STORM DRAINS TO BE ALUMINIZED 14 GA. AS PER COUNTY REQUIREMENTS.
 2. ALL WORK SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR ROAD CONSTRUCTION, 1985 AMENDMENTS.
 3. APPROXIMATE LOCATION OF EXISTING SEWERS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTION TO PROTECT UTILITIES, AND MAINTAIN UNINTERRUPTED SERVICE.
 4. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AS DIRECTED BY THE ENGINEER A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION.
 5. 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 BUR. OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION	792-2417
 6. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
 7. ALL STREET CURB RETURNS SHALL HAVE A 20' RADIUS UNLESS OTHERWISE STATED.
 8. STORM DRAIN TRENCHES WITHIN ROAD R-O-W SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
 9. INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1988 EDITION.
 10. 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.
 11. 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
 12. ALL ELEVATIONS SHOWN HEREIN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929, AND HO CO. BENCH MARK.
 13. ALL FILL AREAS UNDER ROADS AND STRUCTURES ARE TO BE COMPACTED 95% OF MAXIMUM OBTAINABLE DENSITY DETERMINED BY MARSHALL PROCTOR.
 14. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 15. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM WITH PLAN DIMENSIONS.
 16. SUBJECT PROPERTY IS ZONED R-20 PER THE 8-2-85 COMPREHENSIVE ZONING PLAN, SUBJECT TO 8-89-06, P-89-22, WP-89-184, E-92-232, WP-89-184, WAIVER TO 16.121.2.10, 12/8/89, PERMISSIOIN TO EXCEED MAXIMUM LENGTH OF 655' WP-91-153, WAIVER TO 16.121.4.4, 5/16/91, EXTENSION TO SUBMISSION REQUIREMENT.



APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chad Dammer 1/20/02 DATE
CHIEF, LAND DEVELOPMENT DIVISION M.K.

Ola M. Toman 1/24/02 DATE
CHIEF, BUREAU OF HIGHWAYS

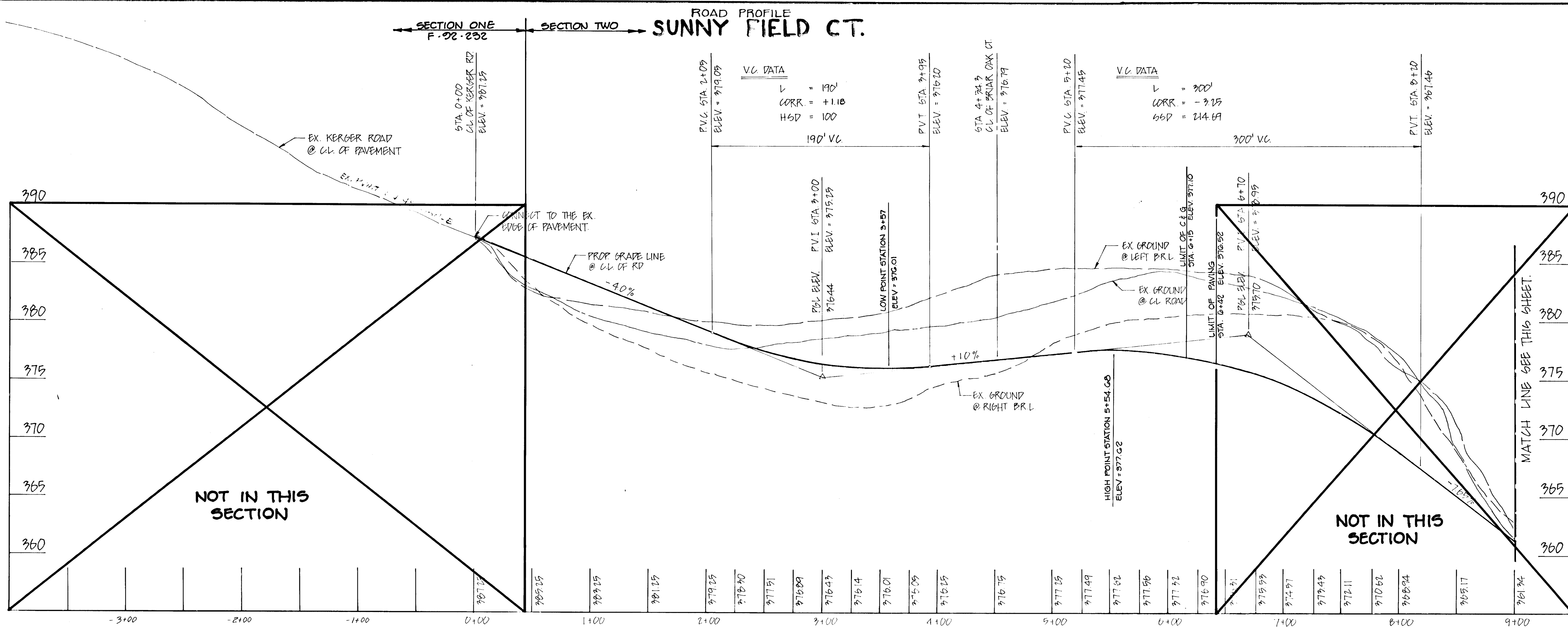
William E. Ray 1-29-93 DATE
CHIEF, BUREAU OF ENGINEERING

APPROVED : HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Anna J. Solomash 2/19/02 DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

RIEMER MUEGGEL & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
301-997-8900 FAX: 301-997-9282

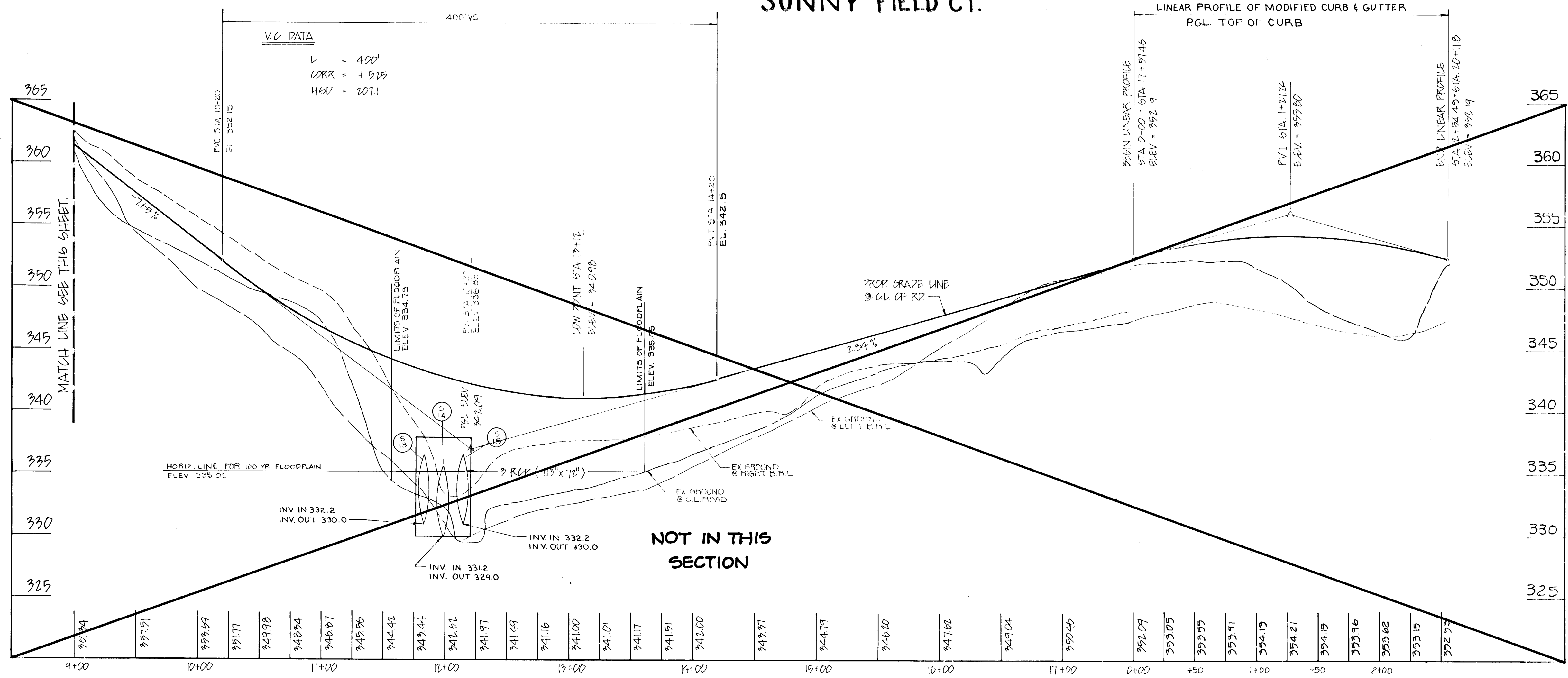
OWNER/	PROJECT NAME
Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043	SUNNY FIELD ESTATES Section Two Lots 26-47
Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	T.M.#31 P.57,58,518,757 1 Elect. Dist. Ho.Co., MD
DEVELOPER	TITLE ROAD CONSTRUCTION DRAWING Final Plan WP-89-184 S-89-06, P-89-52, P-89-232
LANDCON, INC. % KOREN DEVELOPMENT COMPANY, INC. 8804 Centre Park Drive Columbia MD 21045 301-740-1010	DATE 7-21-02 PROJECT #888101
DES. DW. DRW. RT. CHK. RA/DW	SCALE 1"=50' DRAWING 1 OF 9



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

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

ROAD PROFILE
SUNNY FIELD CT.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John J. Danvers 1/20/93
 CHIEF, DEPARTMENT DIVISION M.K.
Calvin M. Taylor 1/20/93
 CHIEF, BUREAU OF HIGHWAYS
William B. Ray 1-29-93
 CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Anna J. Holmuth 2/4/93
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT-DATE

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
 301-997-8800 FAX: 301-997-8882

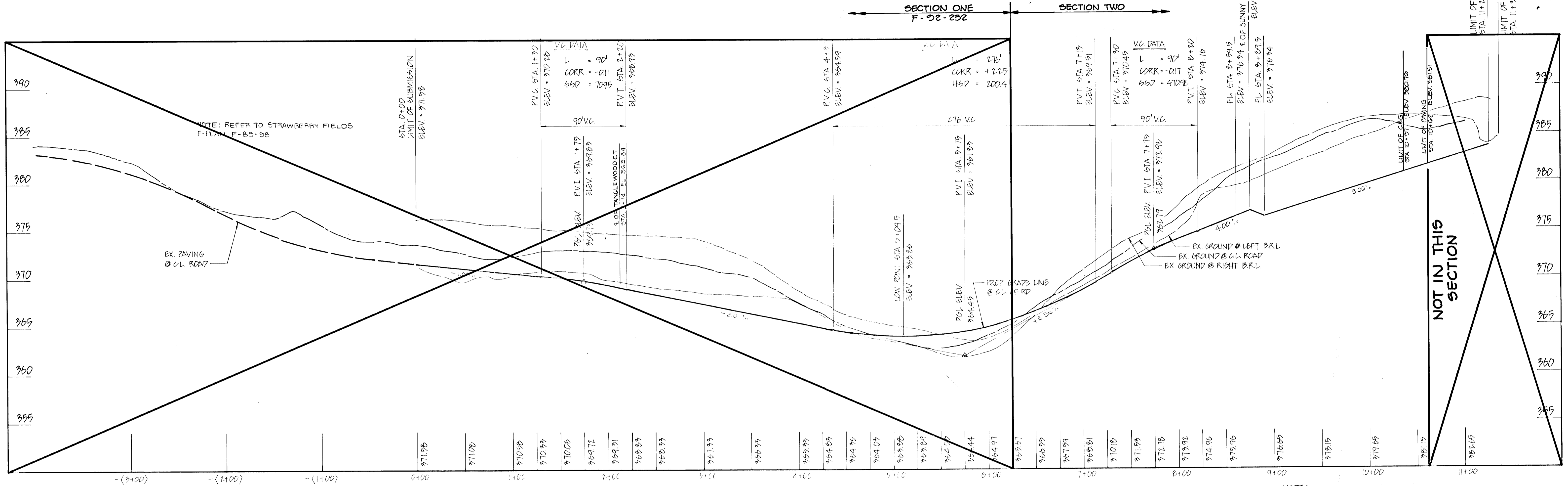
OWNER/ Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043	PROJECT NAME SUNNY FIELD ESTATES Section Two Lots 26-47
Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	T.M.#31 P.57,58,518,757 1 Elect. Dist. Ho.Co.,MD

DEVELOPER LANDCON, INC. % KOPIN DEVELOPMENT COMPANY INC. 8838 Centre Park Drive, Columbia MD 21045 301-740-1010	TITLE ROAD PROFILE
	Final Plan WP-89-184, S-89-06, P-89-52, F-89-232
DATE 7-21-92	PROJECT PS88101

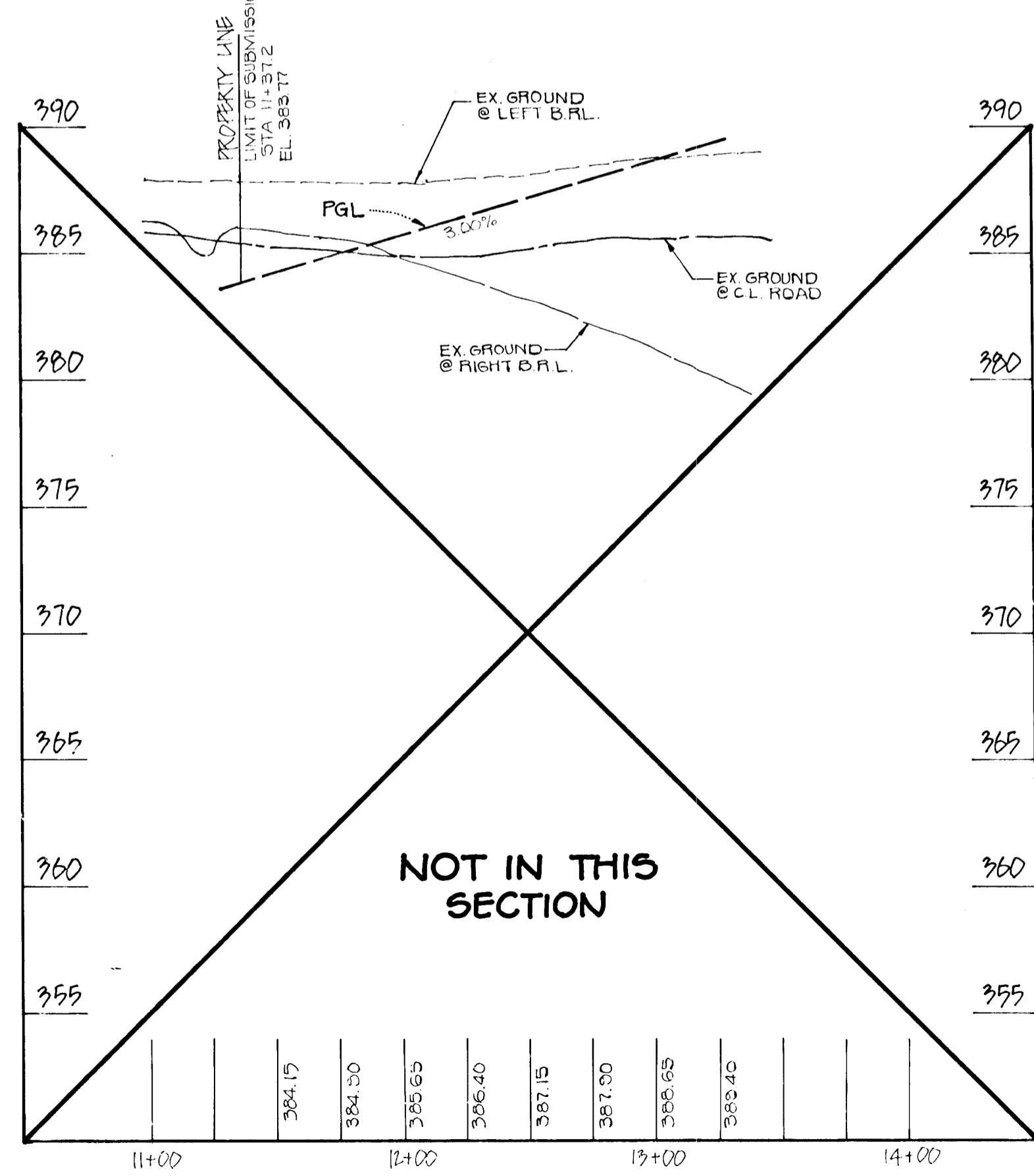
DES. DW	DRN. RT	CHK. DW/RA	SCALE AS SHOWN	DRAWING 2 OF 2
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1641

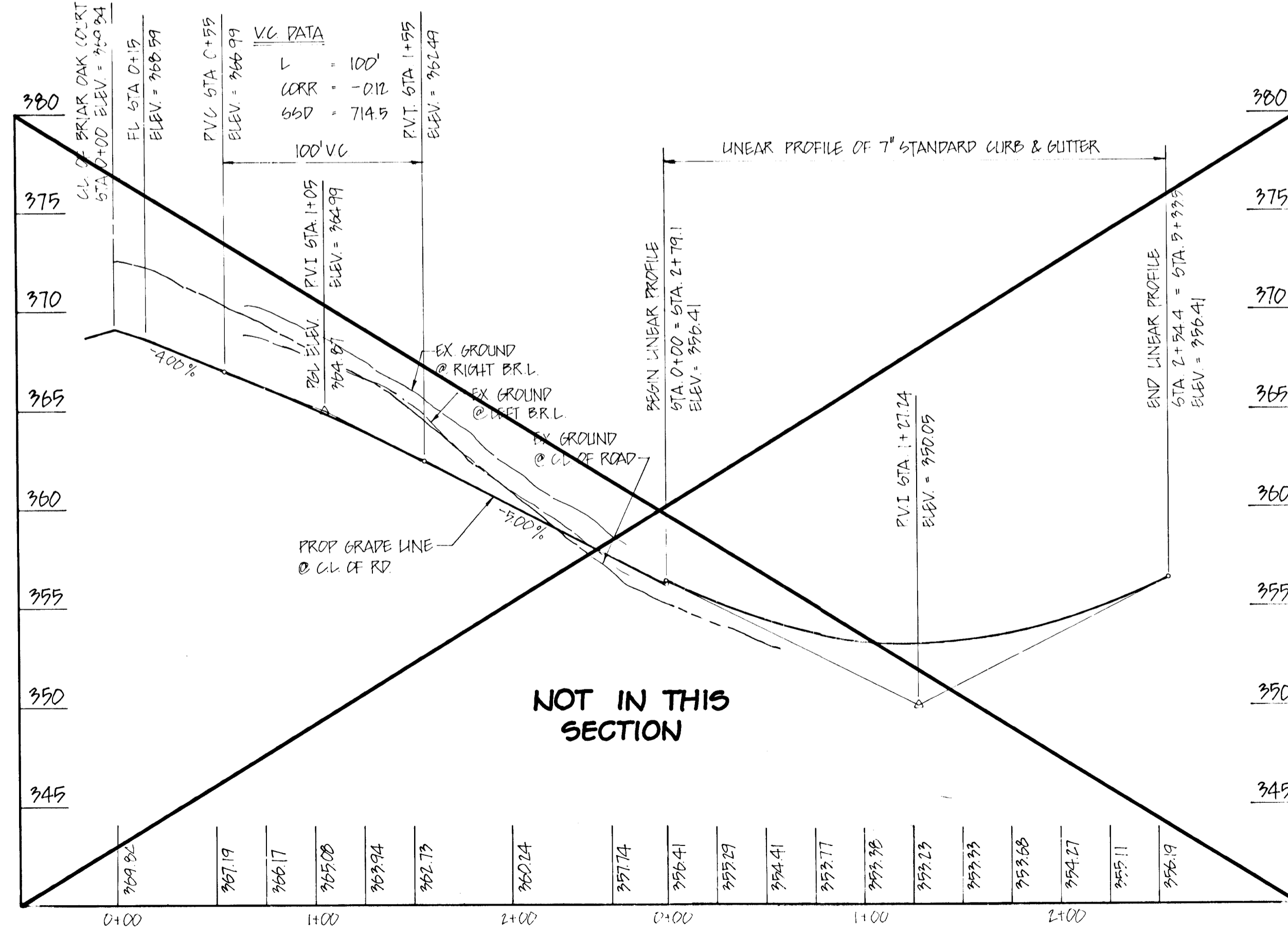
ROAD PROFILE BRIAR OAK COURT



ROAD PROFILE
BRIAR OAK COURT
(CONTINUED)

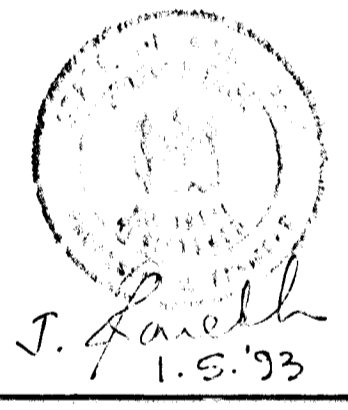


ROAD PROFILE
TANGLEWOOD CT.



SCALE
1" = 20' VERT.
1" = 100' HORIZ.

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



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND USE DIVISION M.K. *1/20/93* DATE

CHIEF, BUREAU OF HIGHWAYS *1/22/93* DATE

CHIEF, BUREAU OF ENGINEERING *1-29-93* DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

CHIEF, BUREAU OF COMMUNITY PLANNING AND LAND DEVELOPMENT *2/1/93* DATE

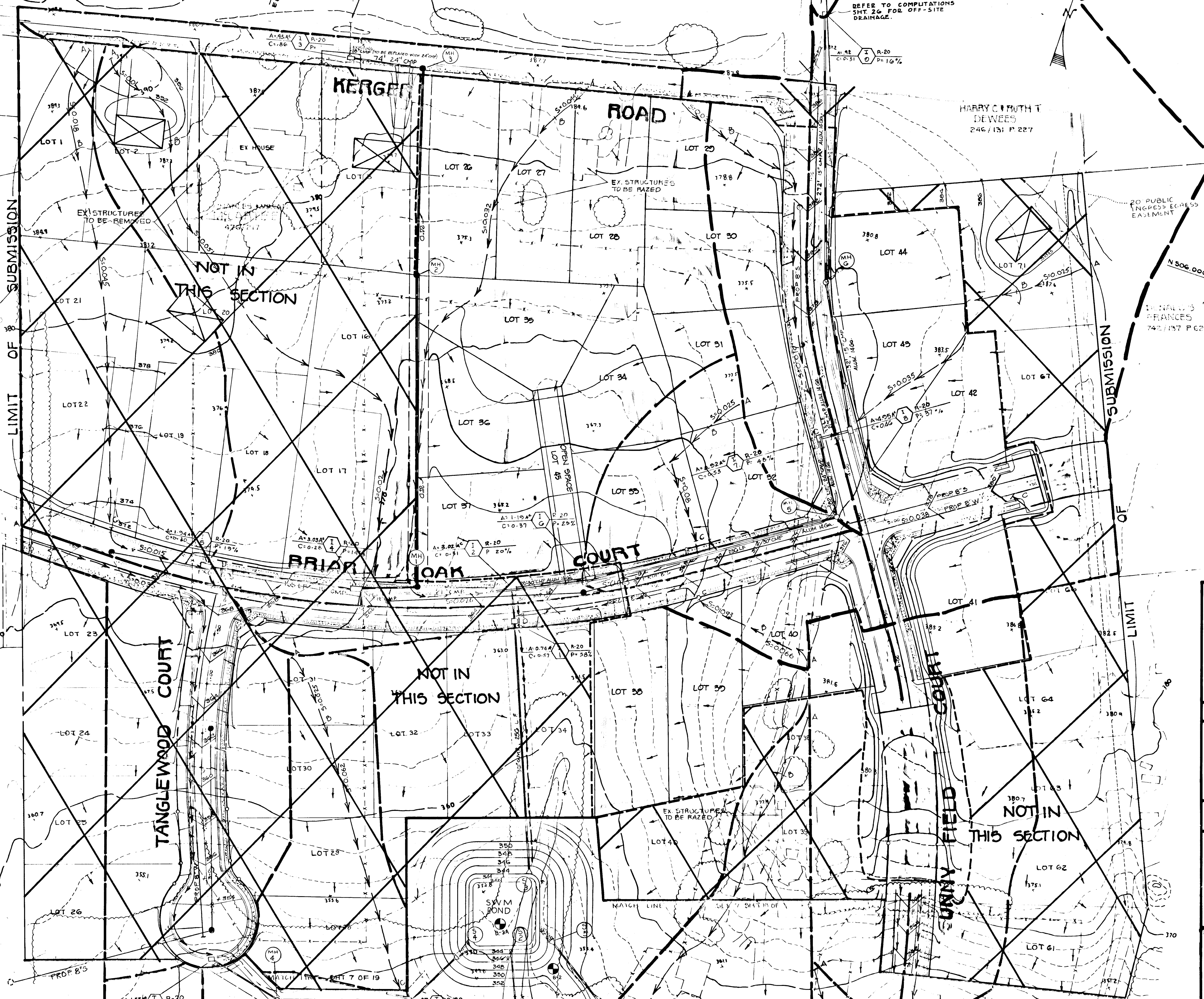
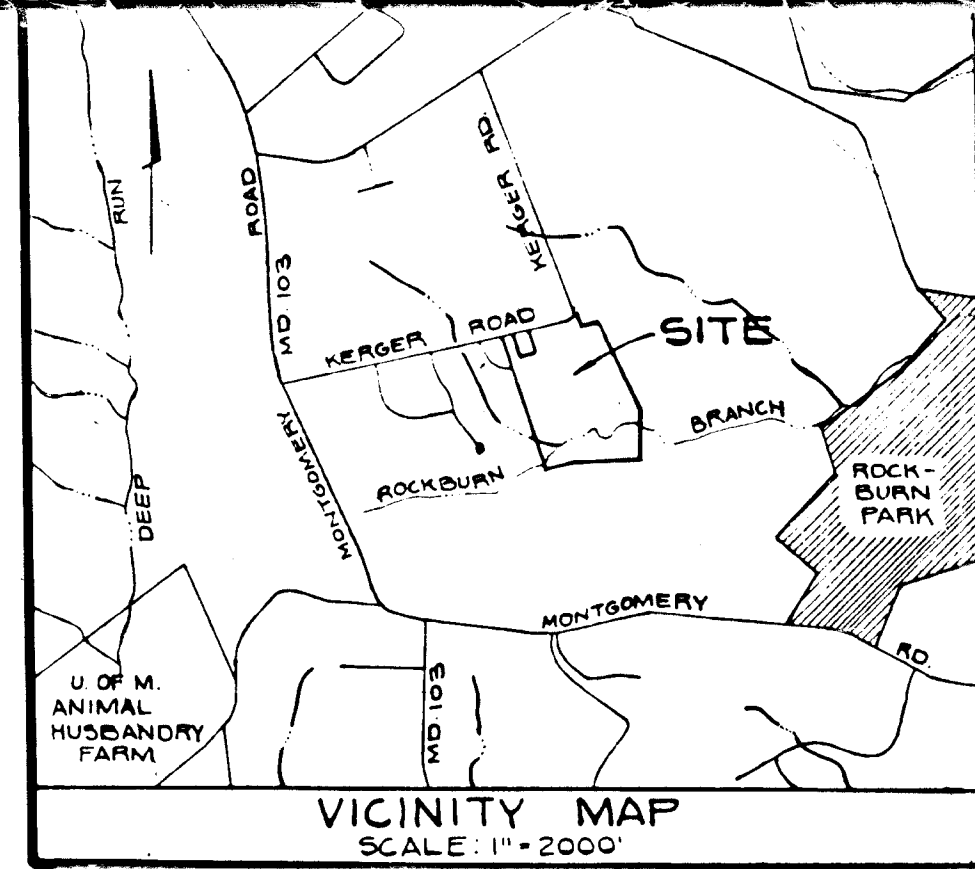
RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
301-997-8900 FAX: 301-997-8282

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 Two Lots 26-47 T.M.#31 P.57, 58, 518, 757 1 Elect. Dist. Ho.Co., MD
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DEVELOPER LANDCON, INC. % KORIN DEVELOPMENT COMPANY, INC. <small>8808 Centre Park Drive Columbia MD 21045 301-740-1010</small>	TITLE ROAD PROFILE Final Plan WP-89-184 S-89-06, P-89-52, F-89-232 DATE 7-21-02 PROJECT PS88101
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1641

DUNTEACHIN' FARM
SEC. 1 F-30-38



STRUCTURE SCHEDULE

ITEM	TYPE	LOCATION	INV. IN	INV. OUT	TOP	DETAIL
M-5	SD.MH.	BRIAR OAK CT. 8+50, 13' LT.	307.50	306.75	370.00	G. 5.05
M-6	SD.MH.	SUNNY FIELD CT. 2+00, 21' LT.	315.25	315.00	370.30	G. 5.05
I-7	A-5	SUNNY FIELD CT. 3+57, 15' RT.	370.15	369.00	375.00	SD. 4.01
I-8	A-5	SUNNY FIELD CT. 3+57, 15' LT.	371.50	371.00	375.00	SD. 4.01
I-9	5' INLET	KERGER ROAD 0+70, 12' RT.	-	385.0	387.65	SD. 4.22

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

John Danner 1/20/93
CHIEF, LAND DEVELOPMENT DIVISION M.K. DATE

Alan M. Ferguson 1/24/93
CHIEF, BUREAU OF HIGHWAYS DATE

William E. Ray 1-22-93
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Anna J. Holcomb 2/10/93
PLANNING DIVISION OF HOWARD COUNTY PLANNING AND LAND DEVELOPMENT DATE

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
301-997-8900 • FAX: 301-997-9288

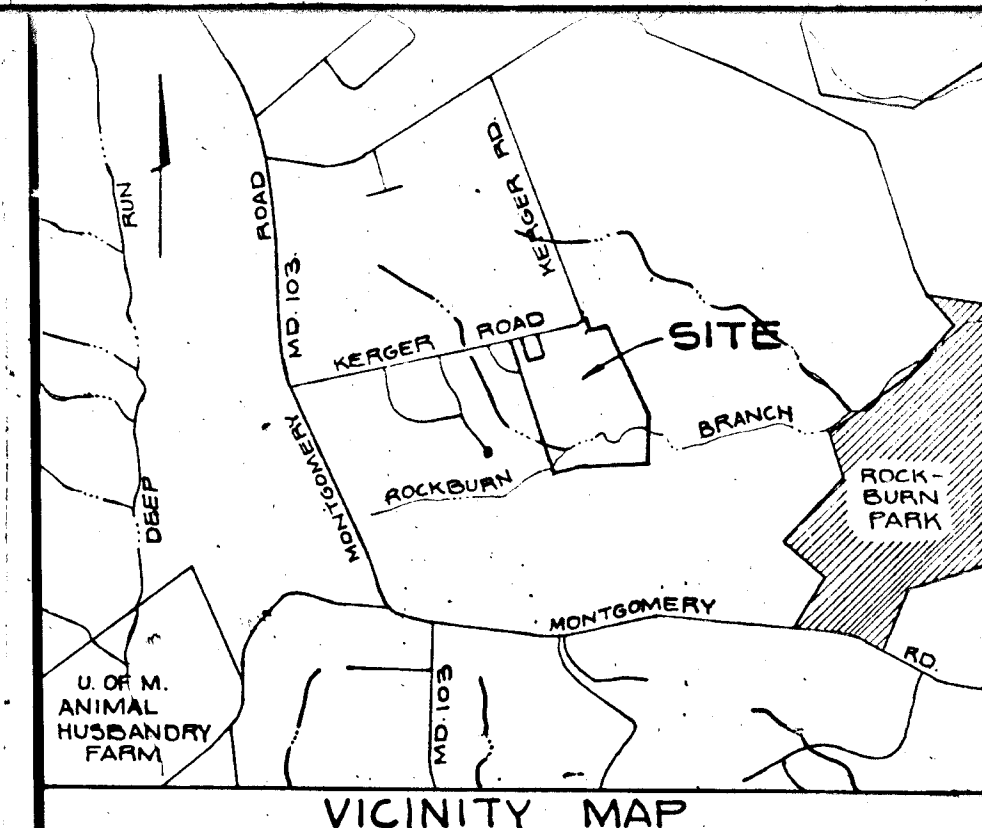
OWNER Charles & Vivian McCarree 5365 Kerger Road Ellicott City, Md. 21043	PROJECT NAME SUNNY FIELD ESTATES Section Two Lots 26-47
Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	T.M. #21 P. 57, 58, 518, 757 Elect. Dist. Ho. Co., MD
DEVELOPER LANDCON, INC. % KOPEN DEVELOPMENT COMPANY, INC. 8806 Centre Park Drive Columbia MD 21045 301/740-1010	TITLE DRAINAGE AREA Final Plan WP-89-104 S-89-06, P-89-52, F-89232
DATE 7-21-92	PROJECT PS88101

DEB. DW DRW. RT. CHK. RA/DW SCALE 1"=50' DRAWING 4 OF 9

1641

DUNTEACHIN FARM
SEC. 1 F-30-38

- SEQUENCE OF CONSTRUCTION**
1. OBTAIN A GRADING PERMIT.
 2. CLEAR AND GRAD AREA FOR AND INSTALL STABILIZED CONSTRUCTION ENTRANCE (S.C.E.) (1/2 DAY)
 3. INSTALL SILT FENCE (1/2 DAY)
 4. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR THAT SEDIMENT BASIN #1 (P-92-232) IS FUNCTIONING, BEGIN ROAD GRADING.
 5. INSTALL UTILITIES IE WATER SEWER, STORM DRAINS, ETC. AS ROAD IS BROUGHT TO SUBGRADE.
 6. STABILIZE ALL SLOPES IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
 7. COMPLETE ALL ROADWAY CONSTRUCTION AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
 8. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR REMOVE ALL SEDIMENT CONTROL DEVICES AND STABILIZE ALL DISTURBED AREAS AS PER PERMANENT SEEDING NOTES.



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. Parikh* Date: 1.5.93
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. Frances* Date: 7/21/92
Print name below signature: DONALD S. FRANCES

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* Date: 1/12/93
Signature: *John R. Robinson* Date: 1/12/93



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Land Development Division M.K. Date: 1/29/93
Chief, Bureau of Highway Date: 1/29/93
Chief, Bureau of Engineering Date: 1-29-93

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Chief, Division of Community Planning and Land Development Date: 2/4/93

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
301-997-8900 FAX: 301-997-9282

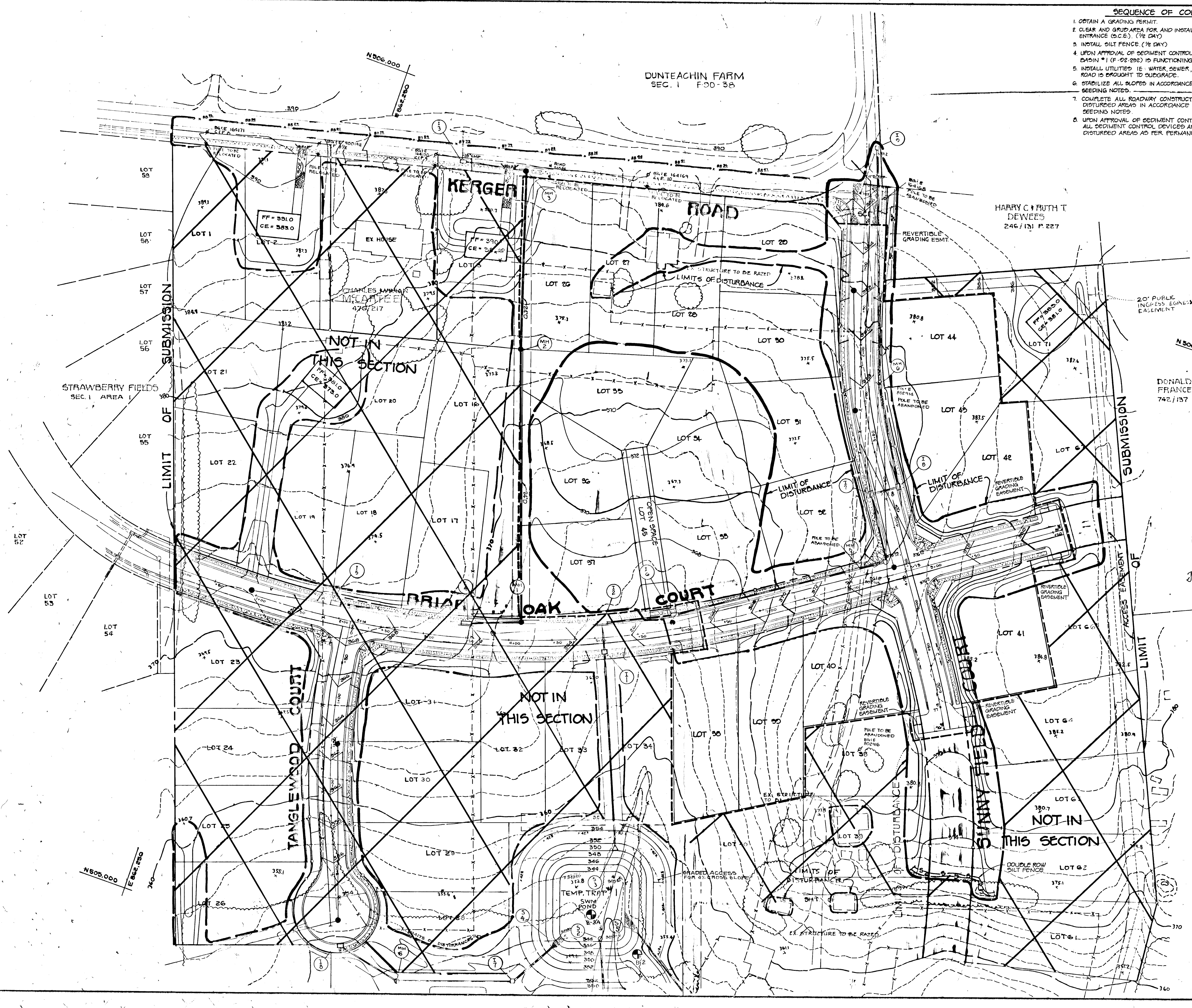
OWNER/DEVELOPER
Charles & Vivian McCartee
5365 Kerger Road
Ellicott City, Md. 21043
Mark & Laura Clay
5341 Kerger Road
Ellicott City, Md. 21043

PROJECT NAME
SUNNY FIELD ESTATES
Section Two
Lots 26-47
T.M.#31 P.57,58,518;757
1 Elect. Dist. Ho.Co.,MD

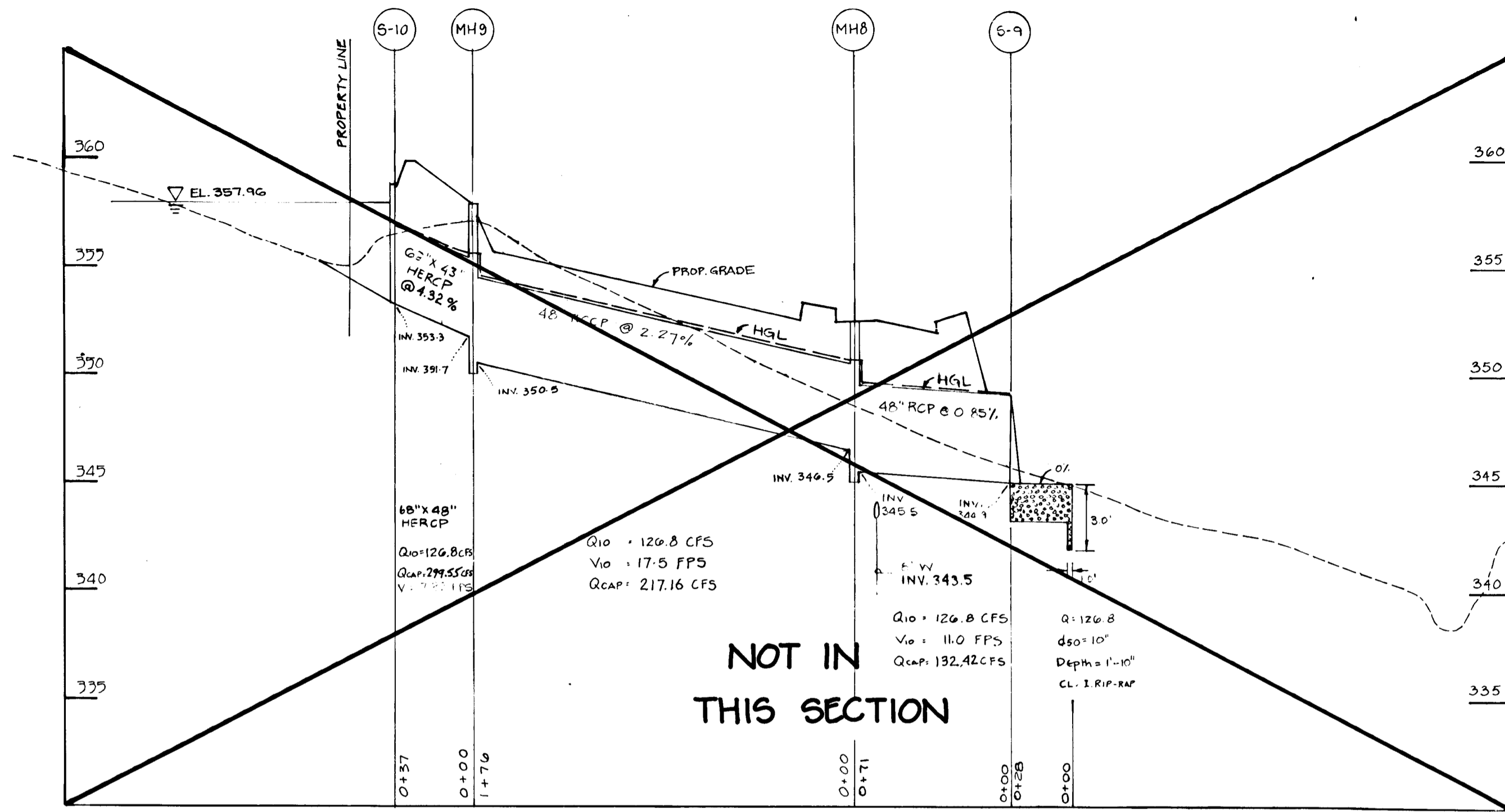
DEVELOPER
LANDCON, INC. %
KOPFN
DEVELOPMENT COMPANY, INC.
8808 Centre Park Drive Columbia MD 21045
301-740-1010

TITLE GRADING & SEDIMENT CONTROL
Final Plan
WP-89-184 S-89-06, P-89-52, F-89-232

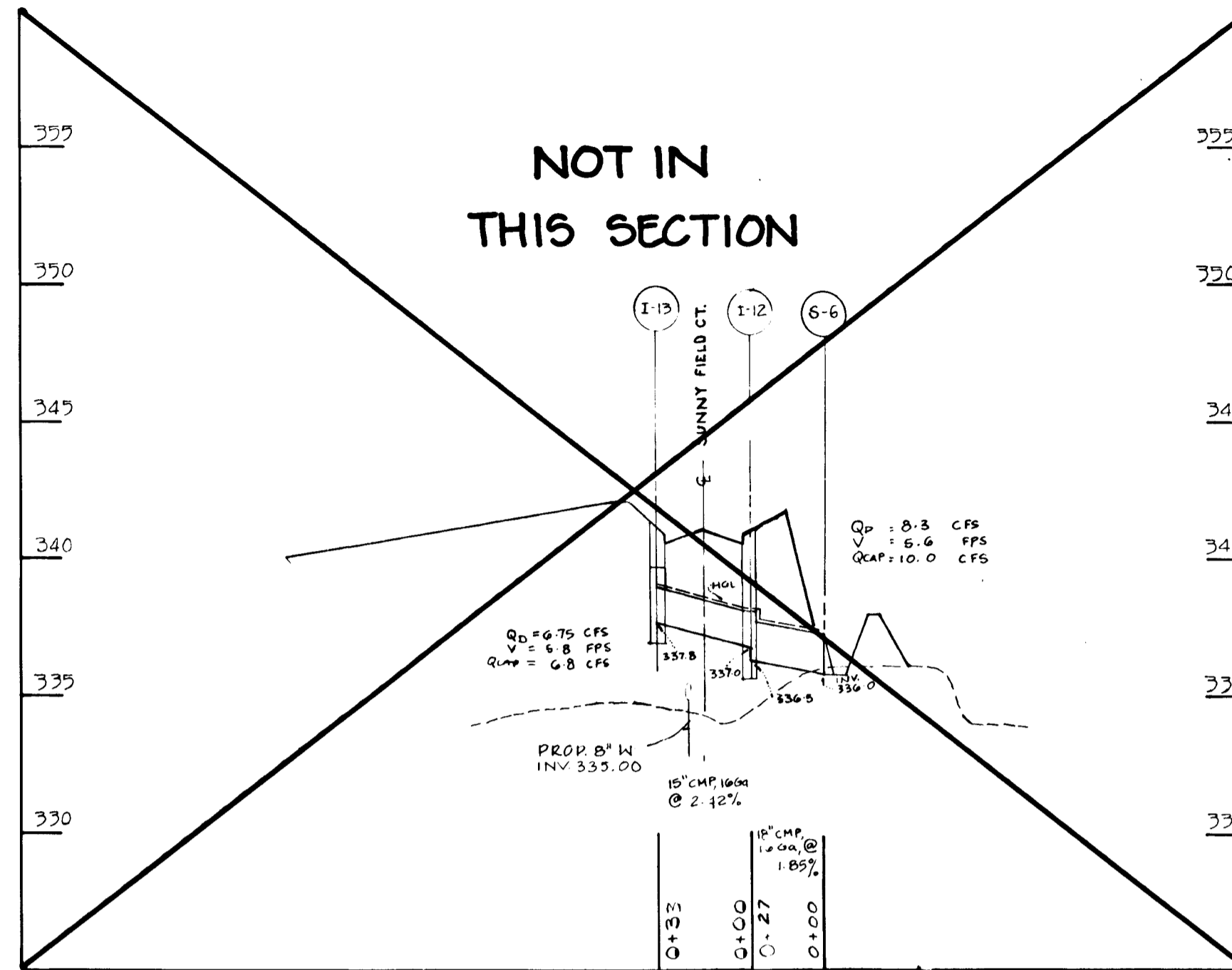
DATE 7-21-92 PROJECT PS88101
SCALE 1"=50' DRAWING 5 OF 2



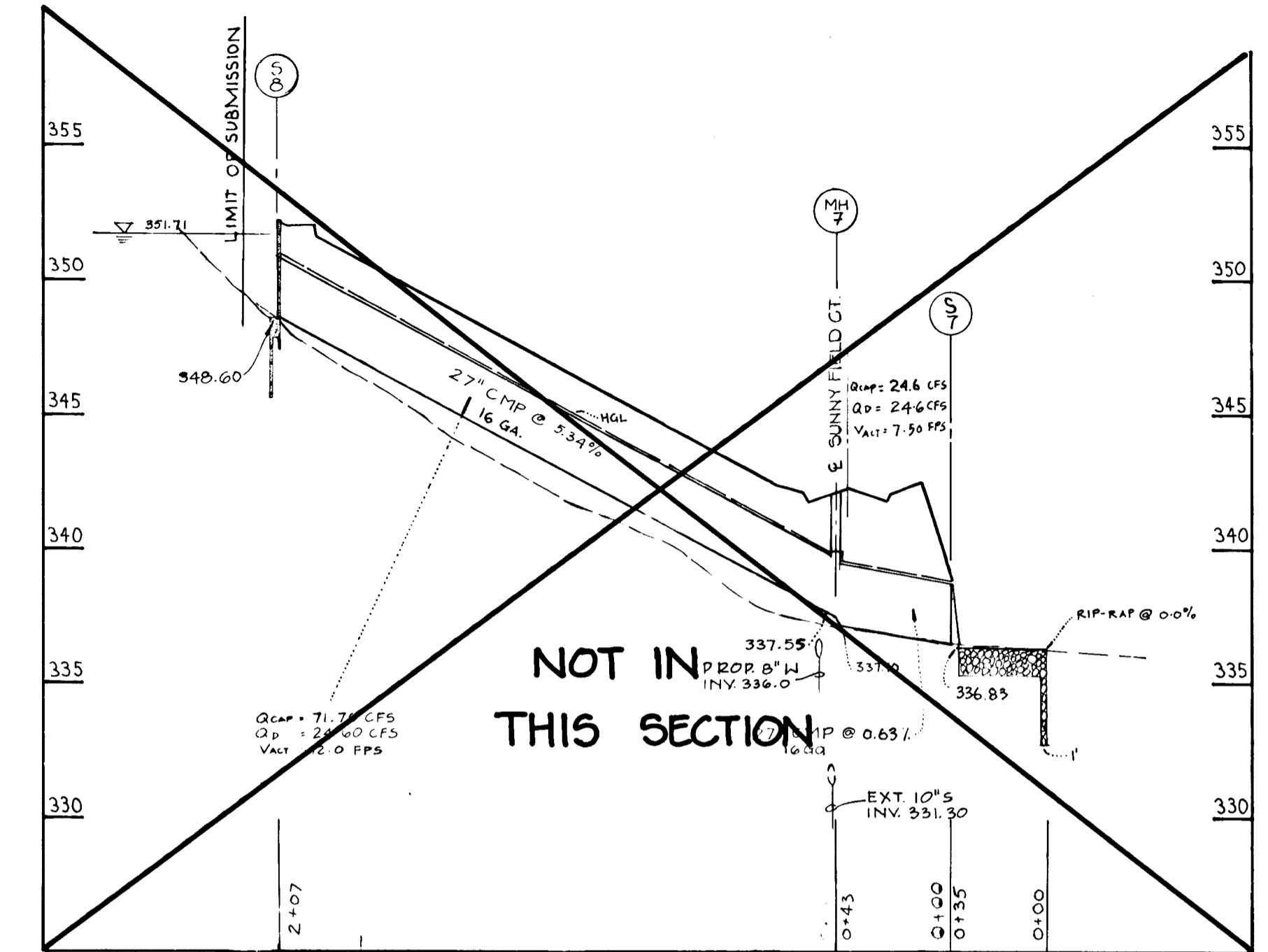
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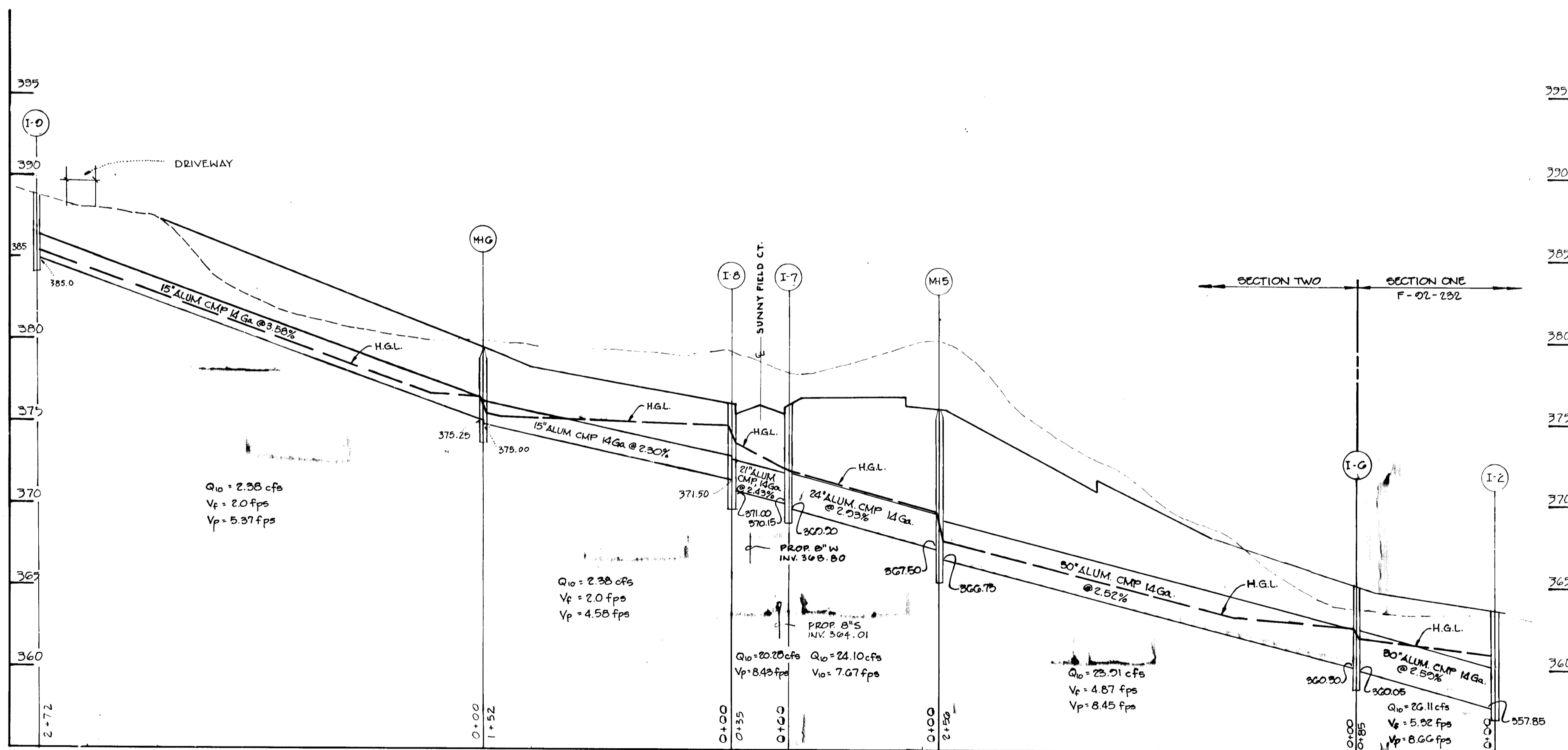
STORMDRAIN PROFILE
SCALE: 1" = 50' HORZ.
5' VERT.



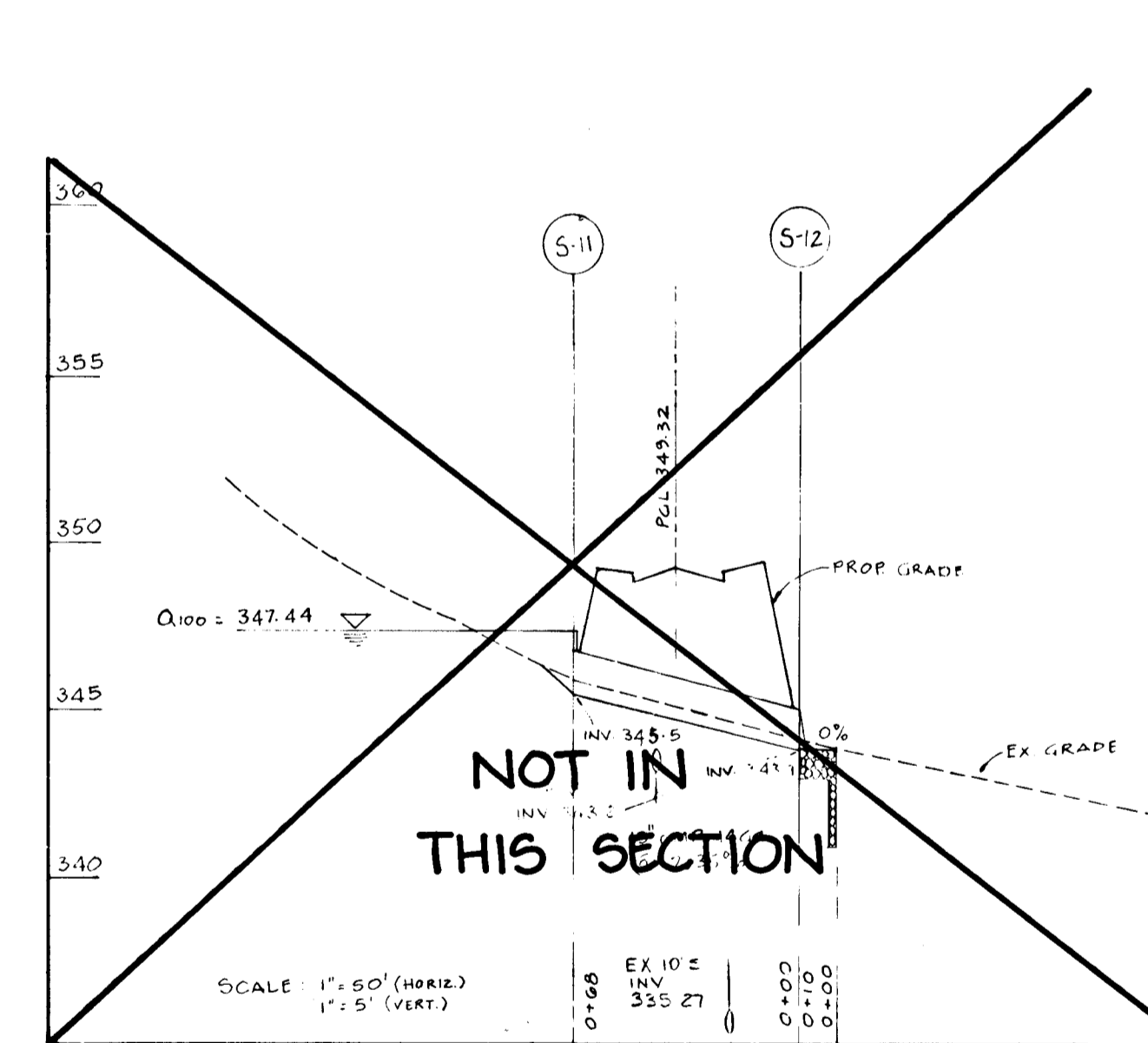
STORMDRAIN PROFILE
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5' VERT.



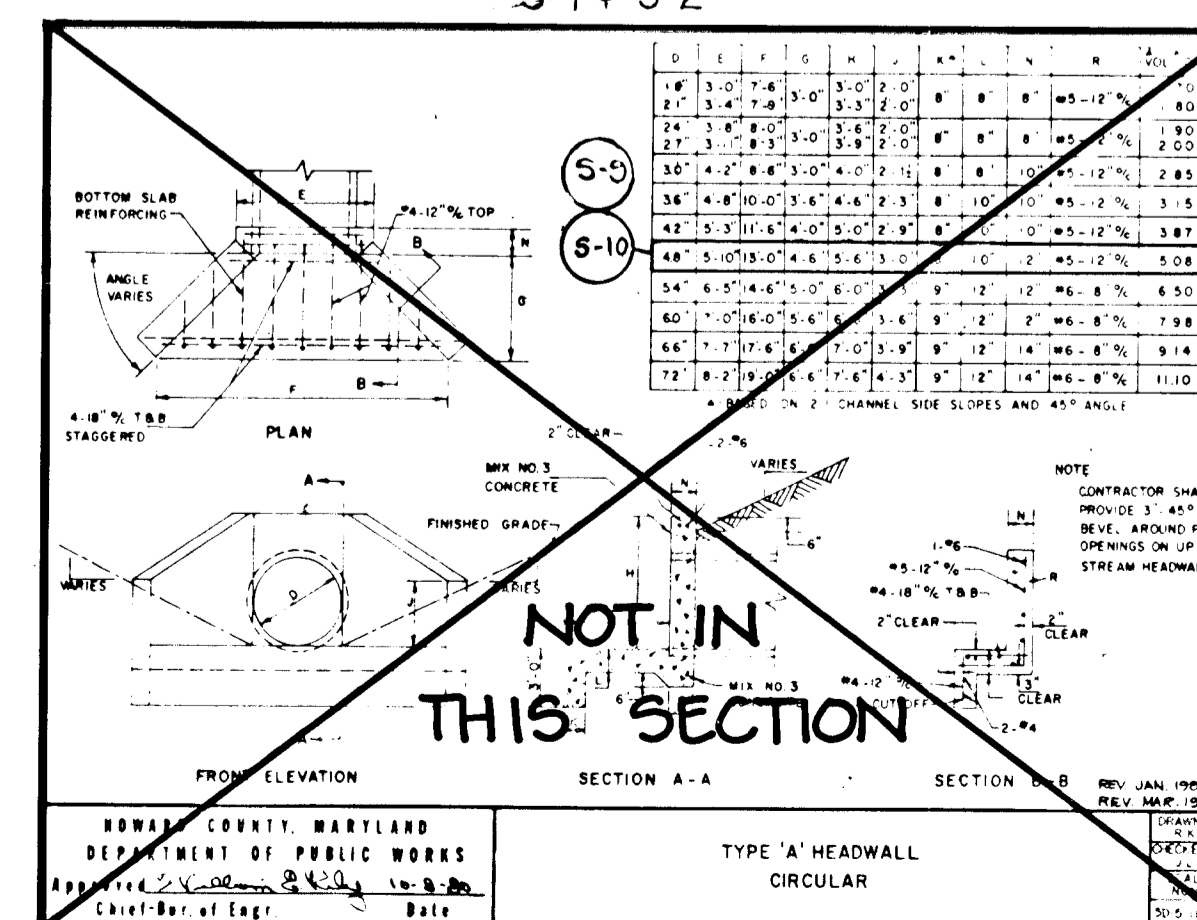
STORMDRAIN PROFILE
SCALE: 1" = 50' HORZ.
5' VERT.



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



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



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Howard Cummins 1/20/03 DATE
 CHIEF, LAND DEVELOPMENT DIVISION M.K.
Alan M. Pagan 1/20/03 DATE
 CHIEF, BUREAU OF HIGHWAYS
Kevin S. Pagan 1-22-03 DATE
 CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Stanna Holmuth 2/14/03 DATE
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 8818 Centre Park Drive • Suite 500 • Columbia, Md 21045
 301-997-8800 • FAX: 301-997-8282

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 TWO
 Lots 26-47
 T.M.#31 P.57,58,518,757
 1 Elect. Dist. Ho.Co.,MD

DEVELOPER
KOREN
 KOREN, INC. %
 DEVELOPMENT COMPANY, INC.
 8508 Centre Park Drive, Columbia MD 21045
 301-740-1010

TITLE STORM DRAIN PROFILE
 Final Plan
 S-89-06, P-89-52, F-89-252
 WP-89-182

DATE 7-21-02 PROJECT PS88101

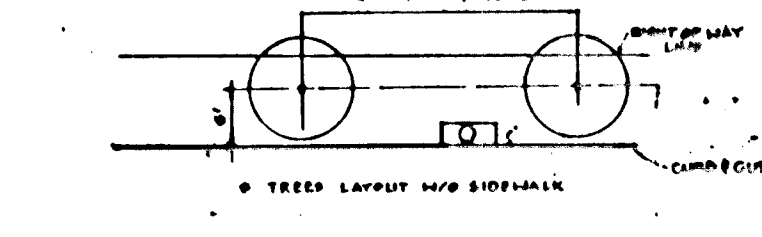
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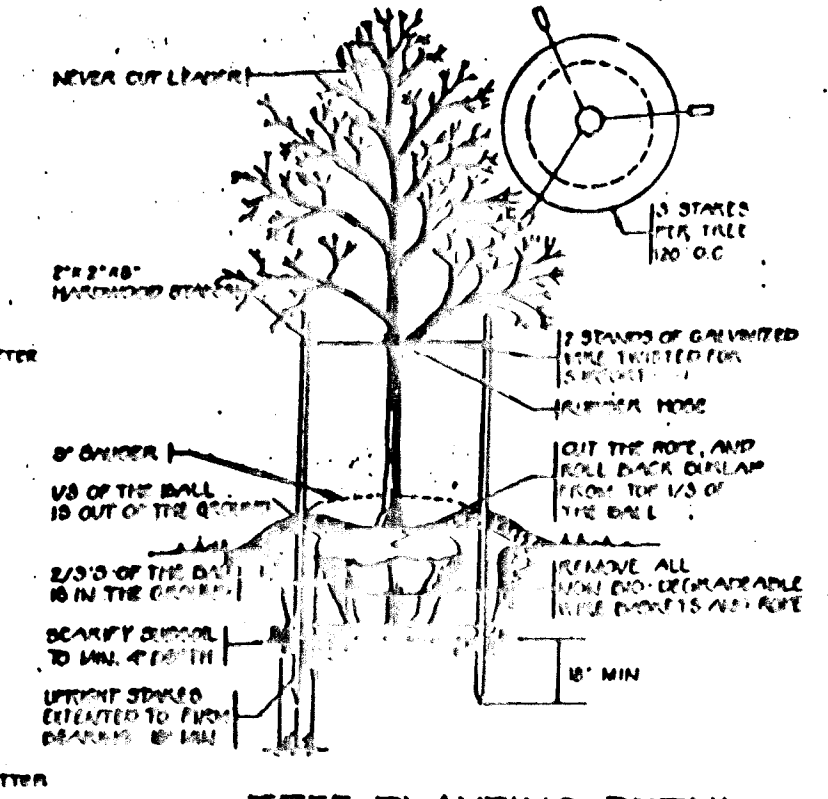
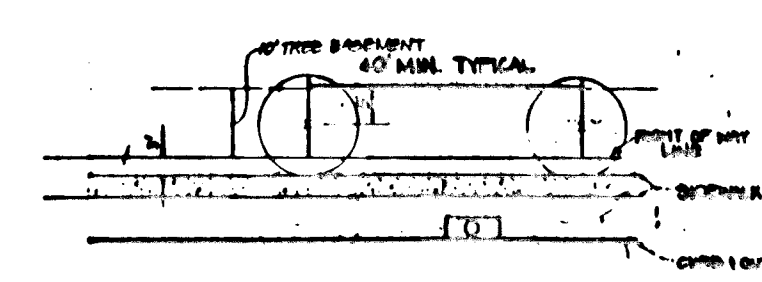
1.100 10' 0" SECTION, UNIFORM AND UNIFORM BY STREET TREE.

NOTE: The distance between the curb and sidewalk is less than or equal to 6 feet. Trees shall be planted in the middle of the tree spacing.

NOTE: Trees shall be planted 6 feet behind the curb when there are no sidewalks.



NOTE: TREES CANNOT BE PLANTED WITHIN 6' OF EDGE OF DRIVEWAY.



TYPICAL STREET TREE PLANTING

TREE PLANTING DETAIL

HARRY C + RUTH T DEWEES
246 / 151 P. 227

N 806.000
E 262.250

DONALD S FRANCES
742 / 157 P. 628



PLANT LIST			
SYMBOL	QUANTITY	NAME	REMARKS
(Circle symbol)	52	SUGAR MAPLE	2 1/2" Min. Caliper @ 4'0" Full Head

LENGTH OF PROPOSED ROADS

BRIAR OAK COURT	435' + 20	21.75
SUNNY FIELD COURT	557' + 20	29.85
TOTAL REQUIRED		51.60
TOTAL PROVIDED		52.0

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John Danner 1/28/02
 CHIEF, LAND DEVELOPMENT DIVISION M.K.
Alan Payne 1/22/02
 CHIEF, BUREAU OF HIGHWAYS
William B. Ryan 1-29-93
 CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Thomas J. Blomack 2/1/02
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

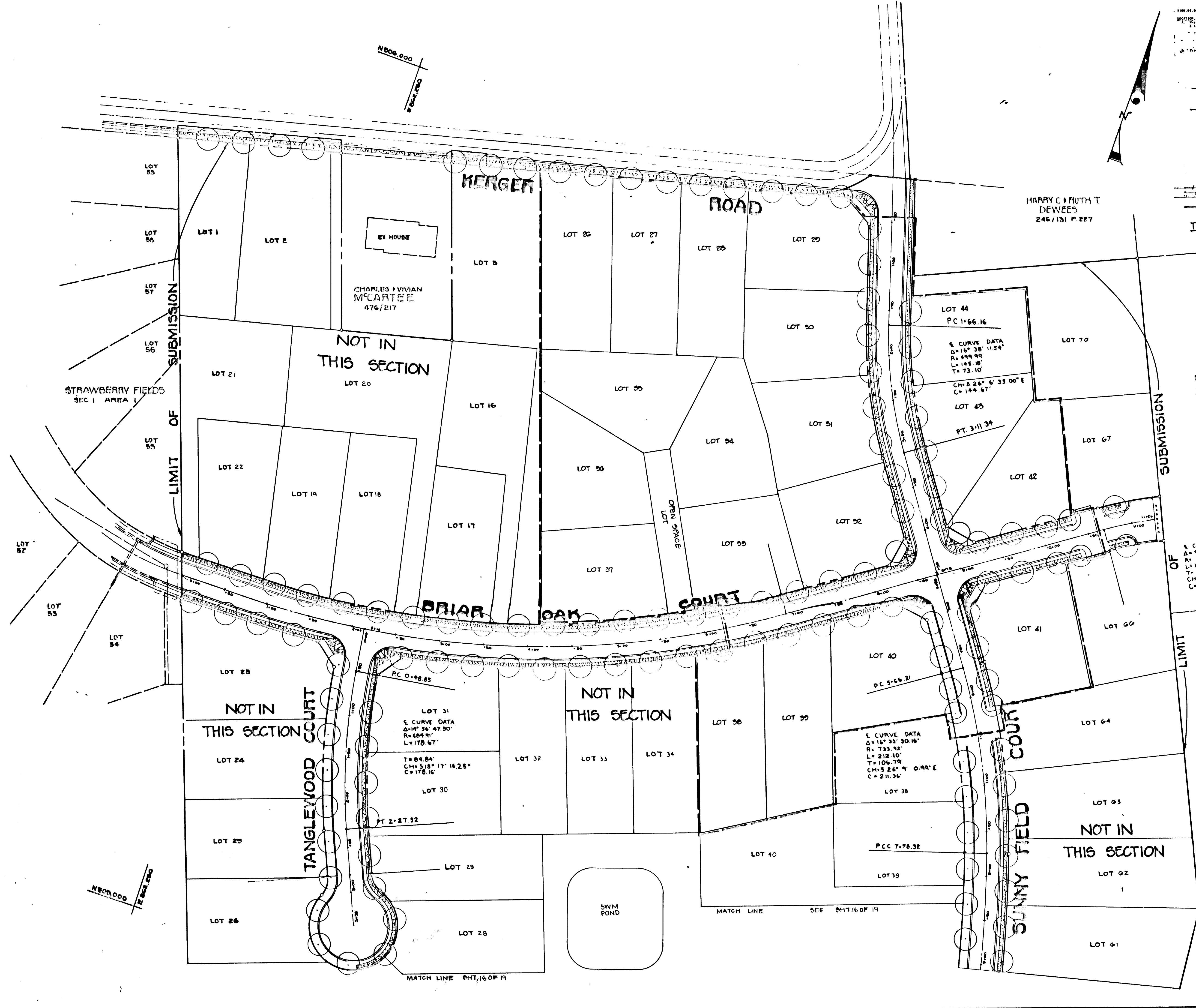
RIEMER MUEGGE & ASSOCIATES, INC.
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 301-992-8900 FAX: 301-992-8902

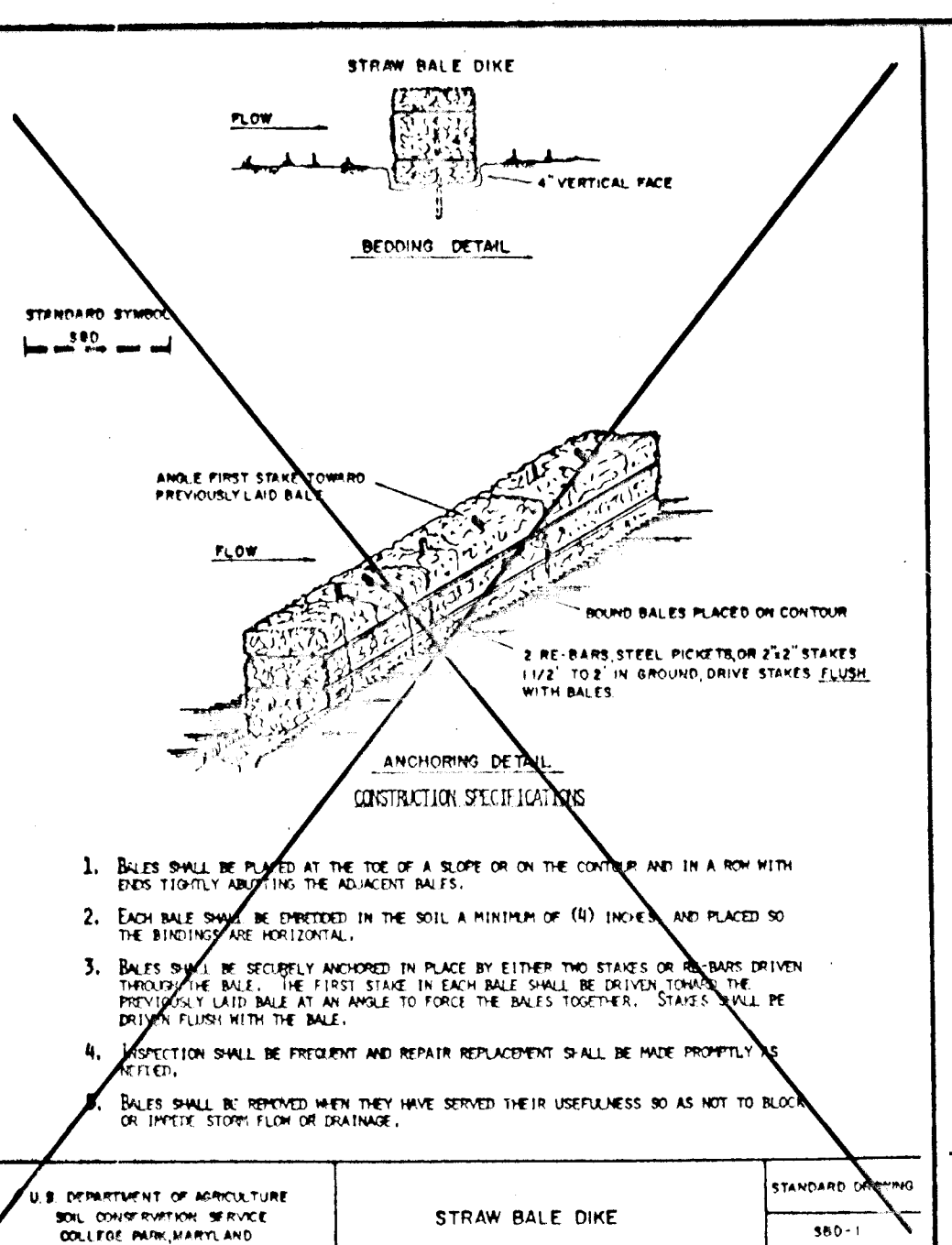
OWNER	PROJECT NAME
Charles & Vivian McCartee 5365 Kerger Road Ellicott City, Md. 21043	SUNNY FIELD ESTATES Section Two Lots 26-47
Mark & Laura Clay 5341 Kerger Road Ellicott City, Md. 21043	T.M. 831 P. 57, 58, 518, 757 1 Elect. Dist. Ho.Co., M

PREPARED BY	TITLE
LANDCON, INC. 96 KOREN DEVELOPMENT CONSULTING 888 Centre Park Drive, Columbia, MD 21045 301-760-1010	STREET TREE Final Plan 89 WP-89-184, B-89-06, P-89-57, P-M-235
DATE 7-21-02 PROJECT #88301	

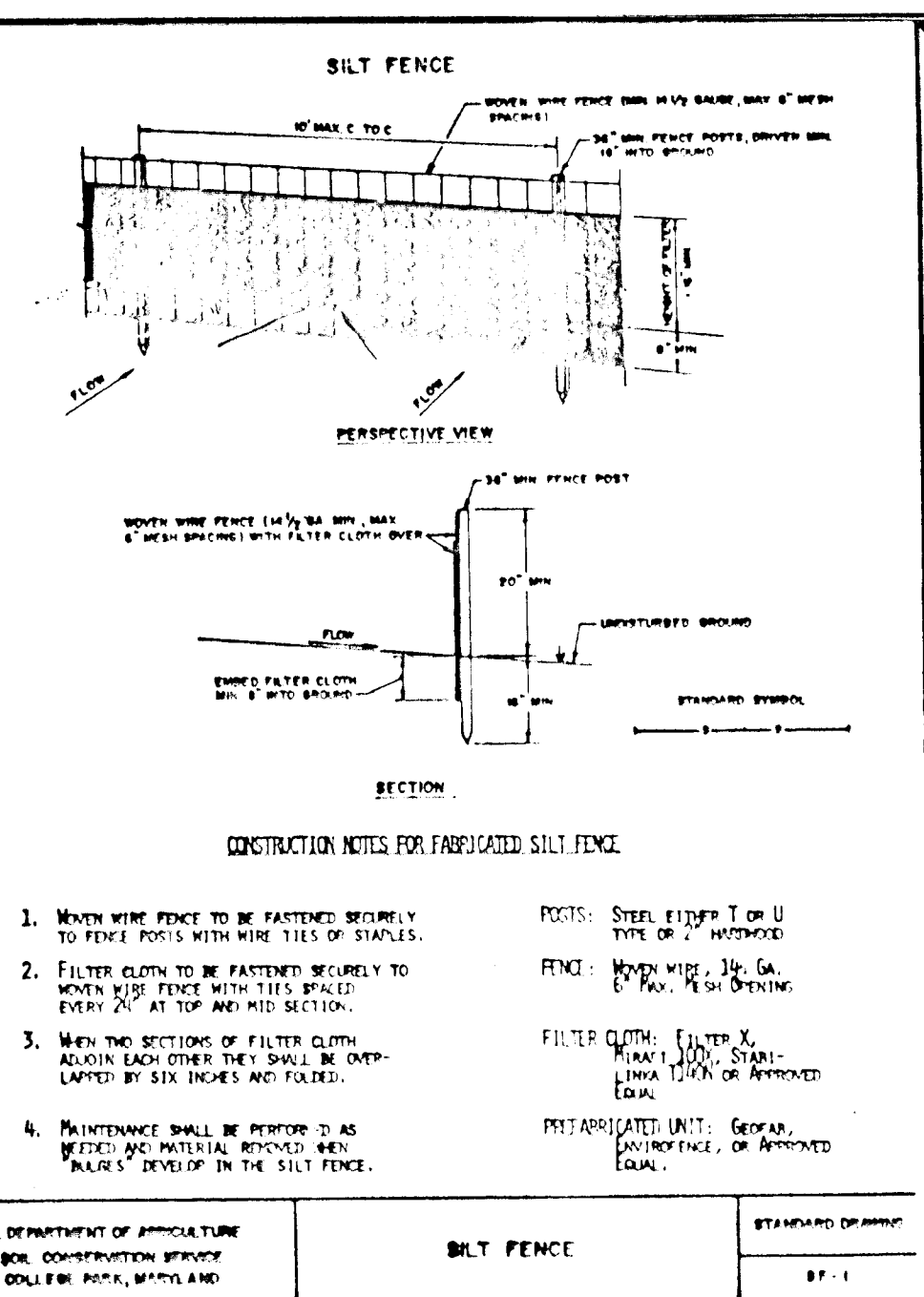
DES. BY: E.C. BY: C.K. RA/DW: E.C. 311-501 10/21/02

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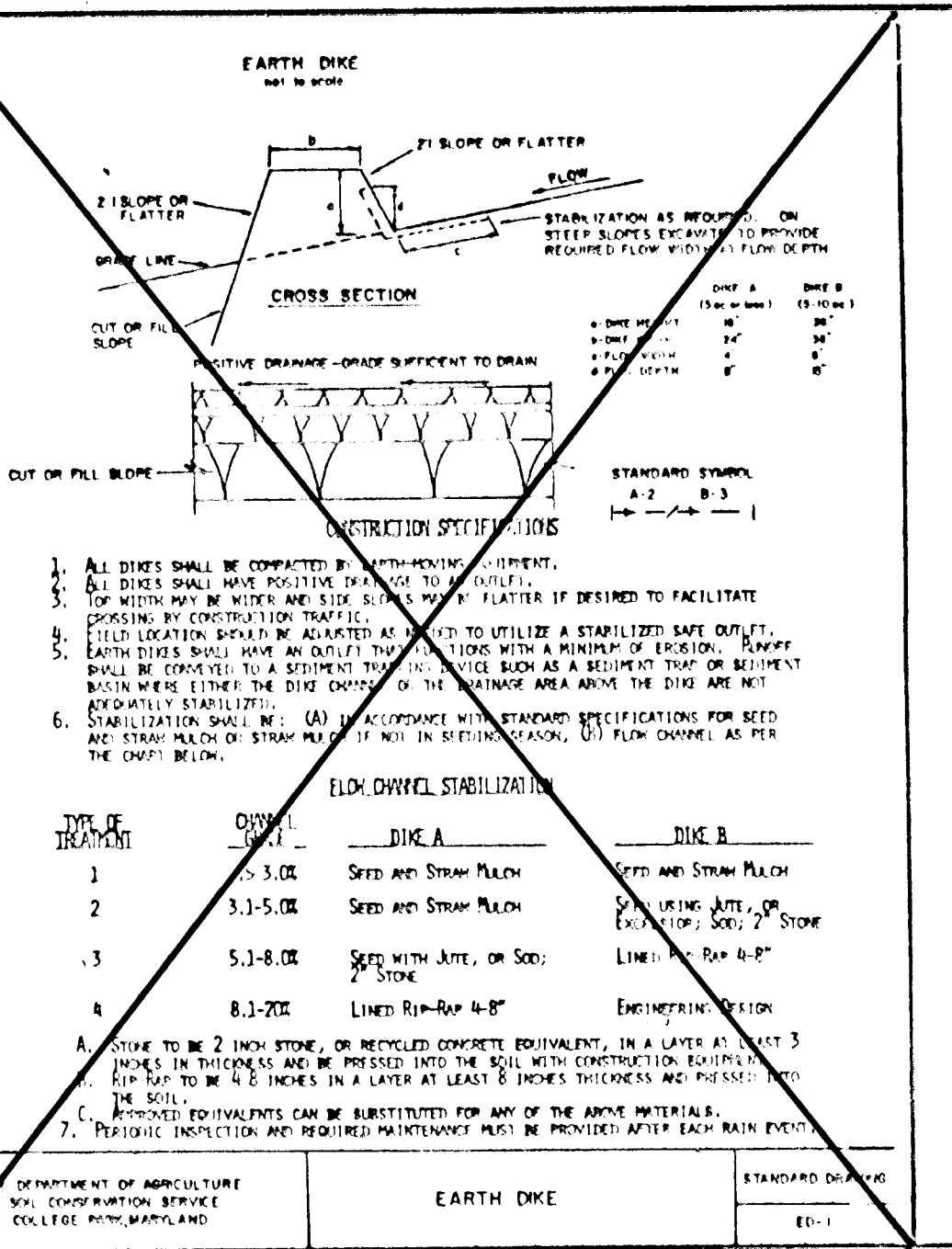




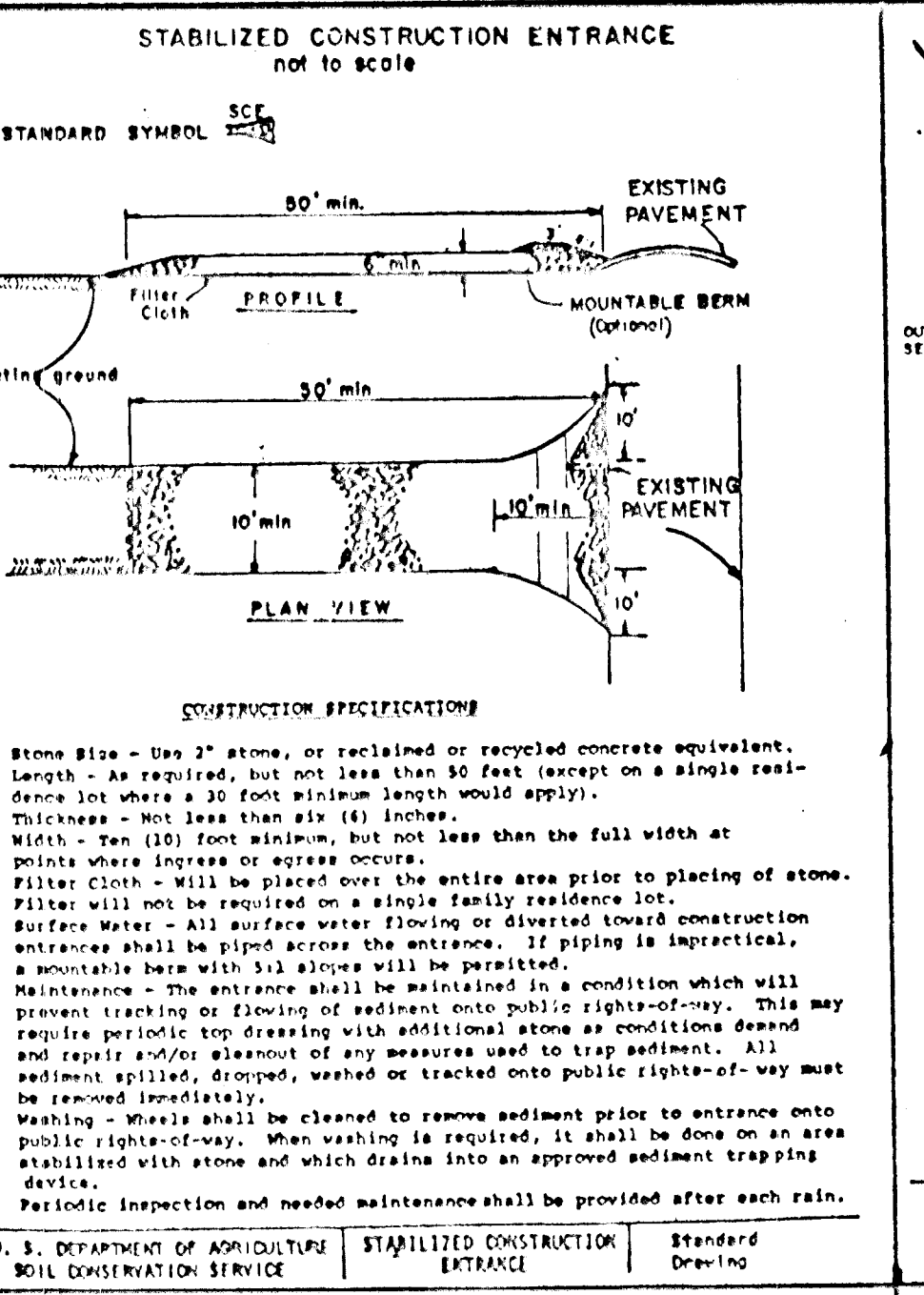
STRAW BALE DIKE
STANDARD DRAWING
SBD-1



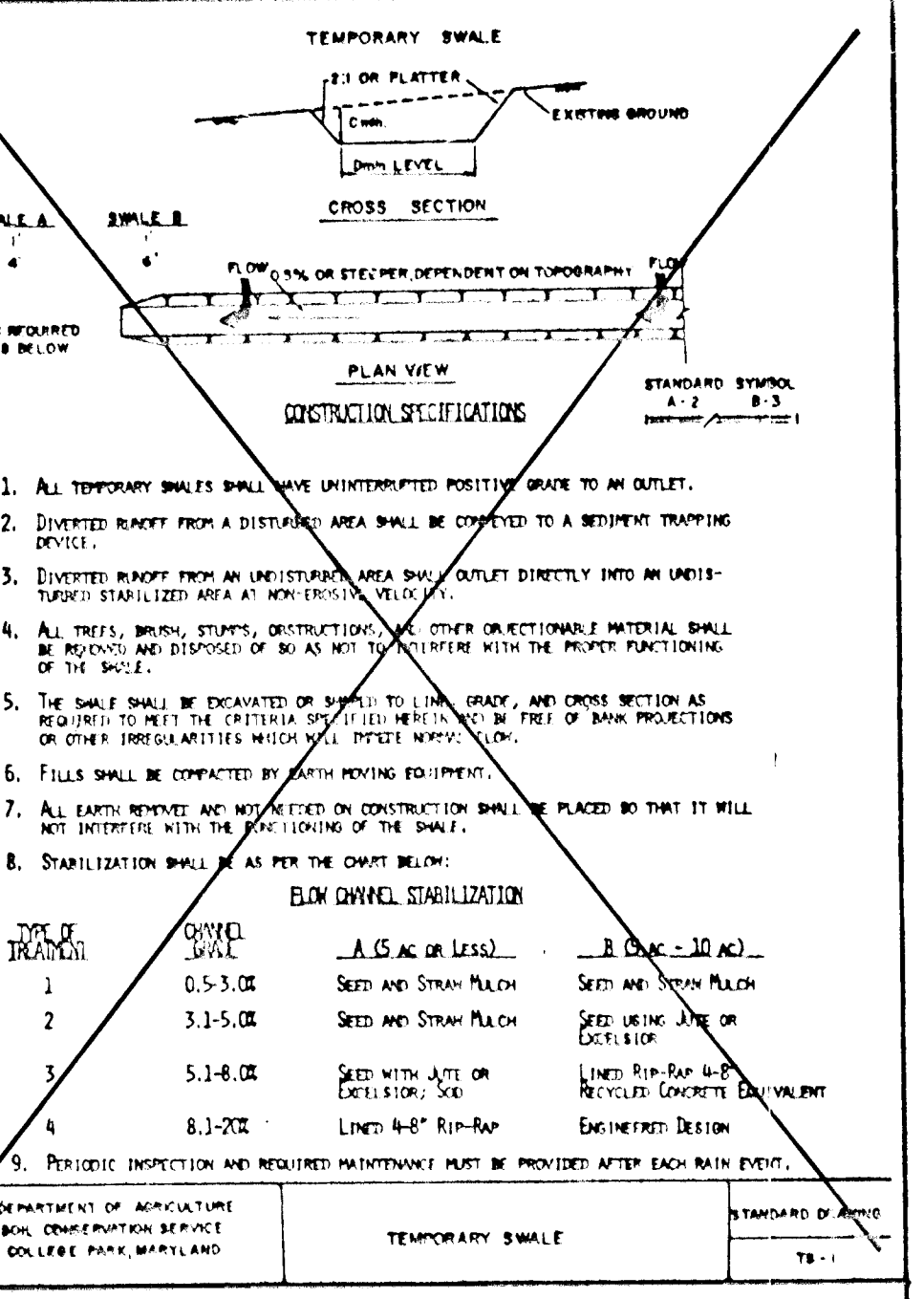
SILT FENCE
STANDARD DRAWING
SIF-1



EARTH DIKE
STANDARD DRAWING
ED-1



STABILIZED CONSTRUCTION ENTRANCE
STANDARD DRAWING
SCE-1



TEMPORARY SWALE
STANDARD DRAWING
TS-1

PERMANENT SEEDING NOTES

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

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

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

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 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 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use seed. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

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

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

TEMPORARY SEEDING NOTES

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

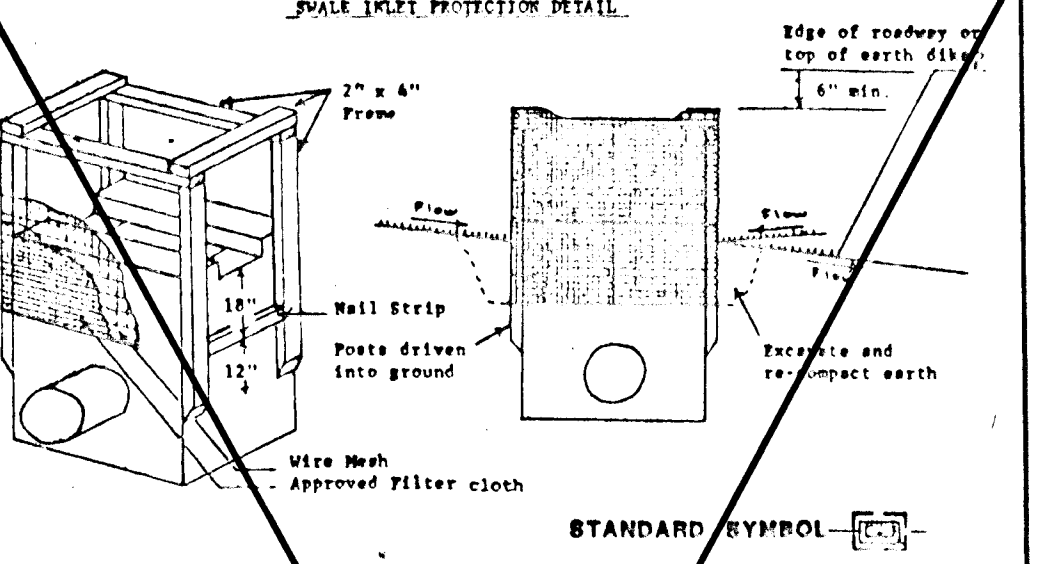
Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

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

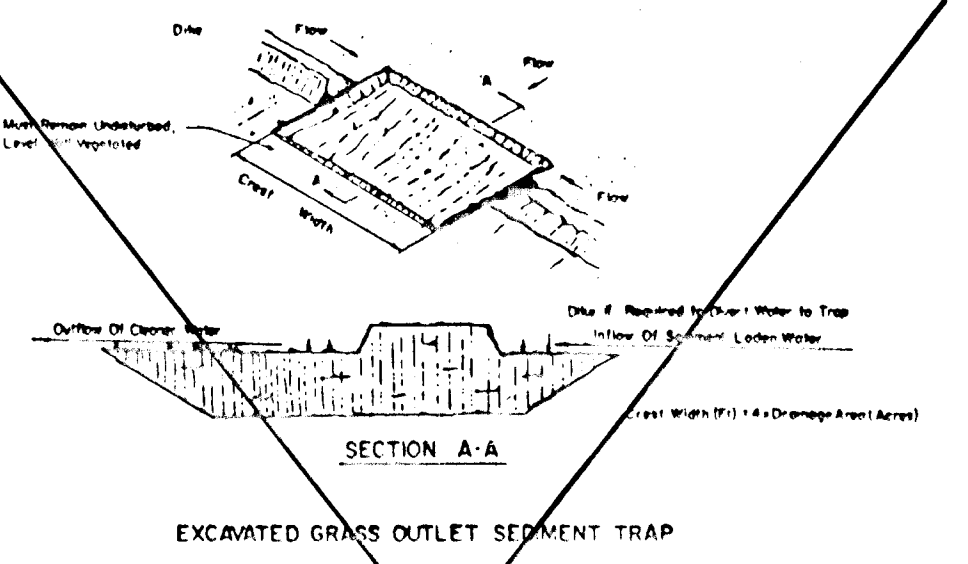
Seeding - For periods March 1 thru April 30 and from August 15 thru November 15, seed with 24 bushel per acre annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

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

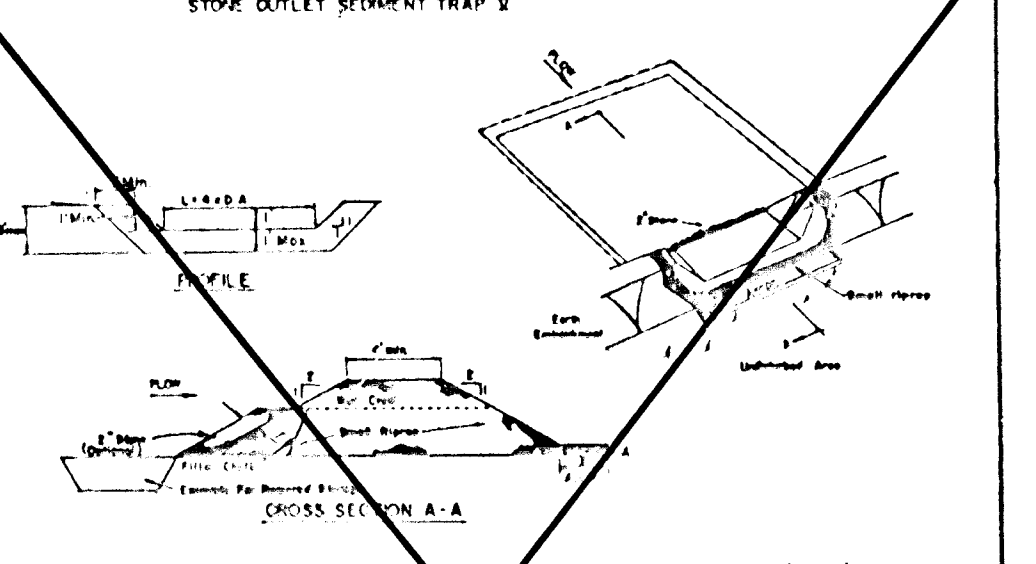
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.



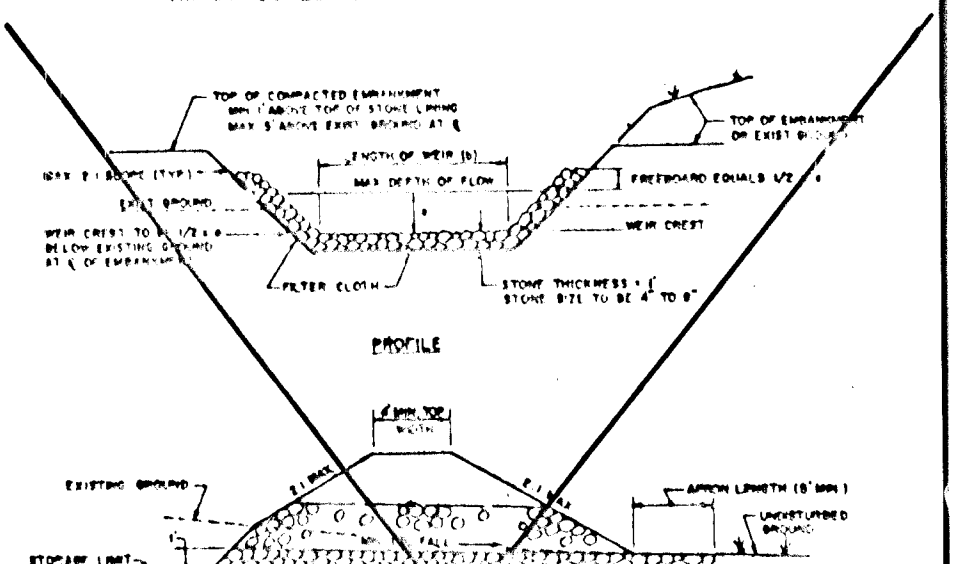
SMALL INLET PROTECTION DETAIL
STANDARD DRAWING
SIPD-1



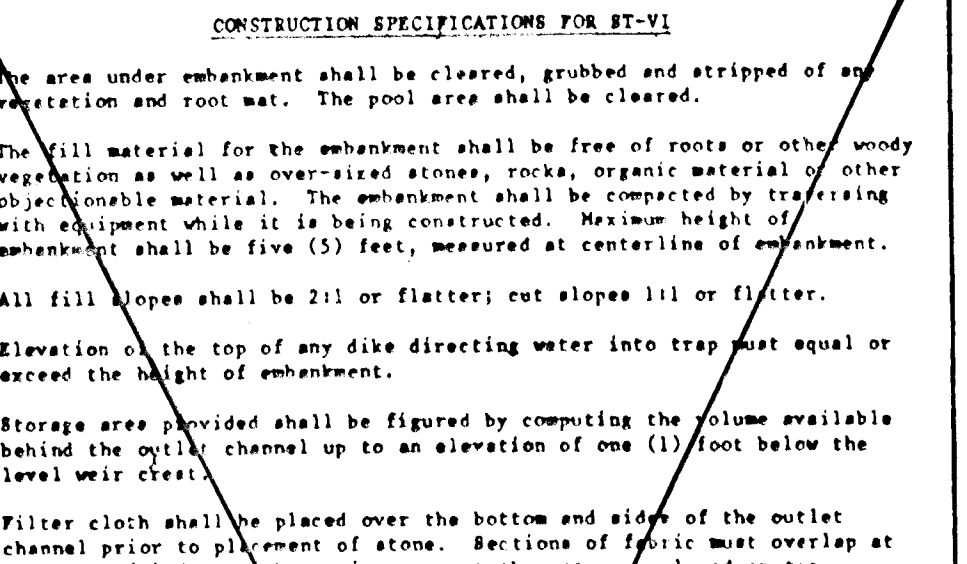
EXCAVATED GRASS OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-II



STONE OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-3



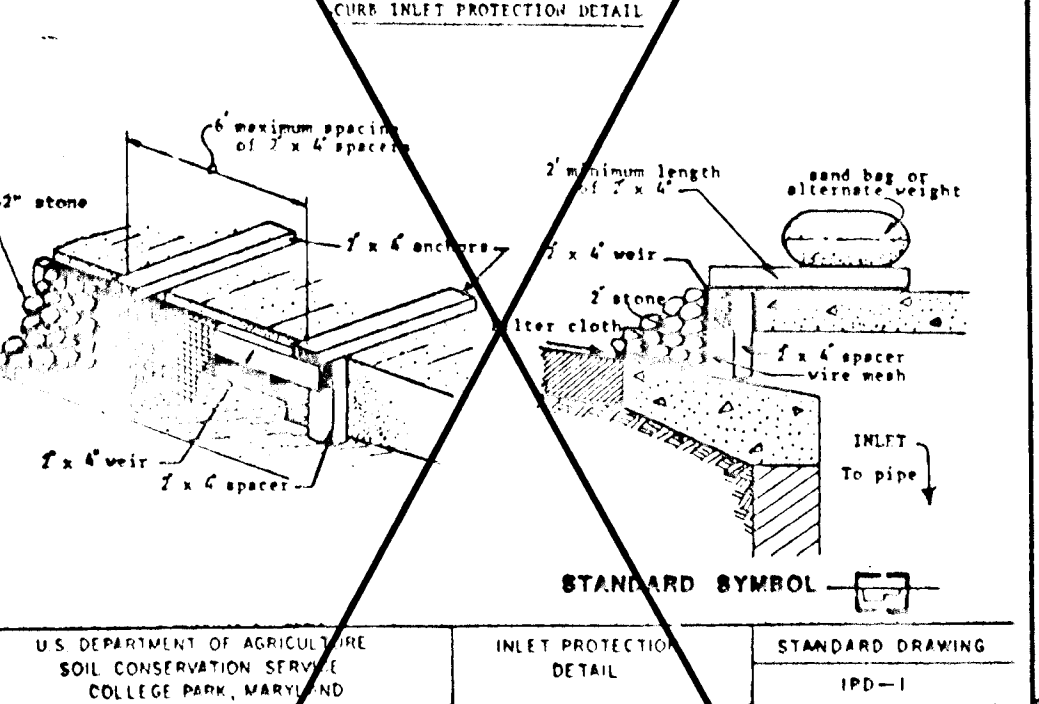
RIPRAP OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-VI



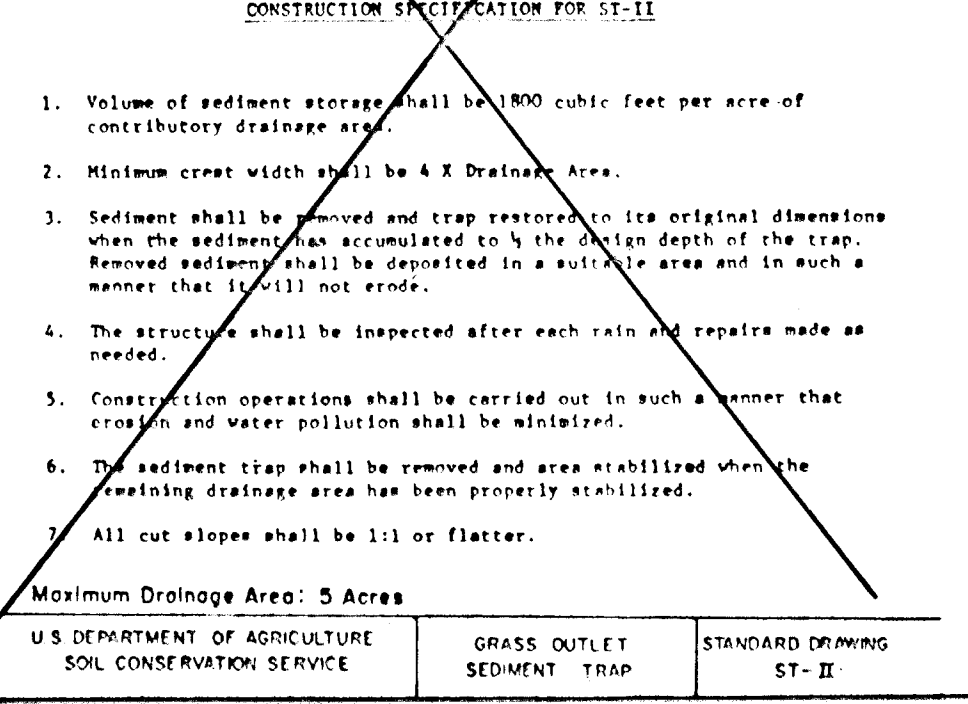
RIPRAP OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-VI

CONSTRUCTION SPECIFICATIONS FOR ST-VI

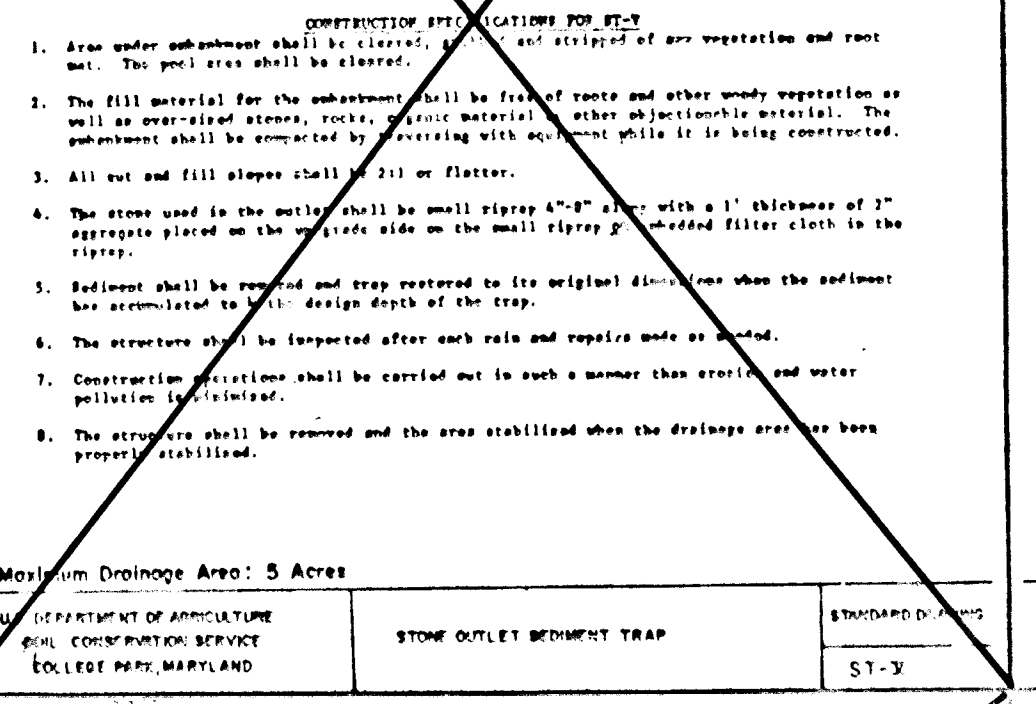
1. The area under enhancement shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the enhancement shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The enhancement shall be compacted by treading with equipment while it is being constructed. Maximum height of enhancement shall be five (5) feet, measured at centerline of enhancement.
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 enhancement.
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 lesser aggregate shall be placed on the upstream face of the outlet.
8. Sediment shall be removed and trap returned 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.



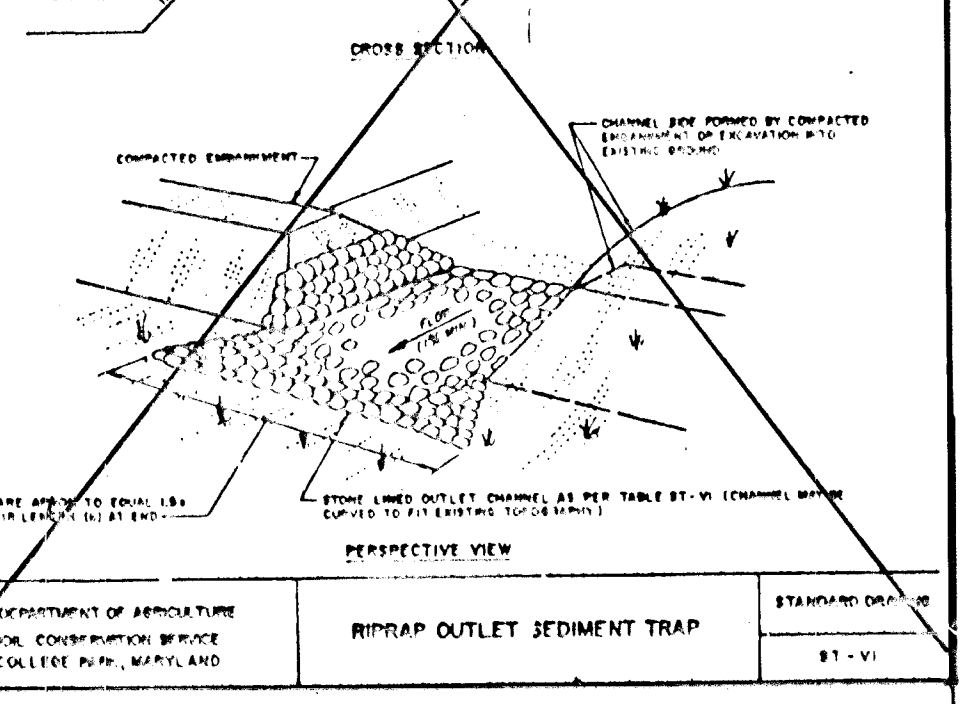
FOUR INLET PROTECTION DETAIL
STANDARD DRAWING
IPD-1



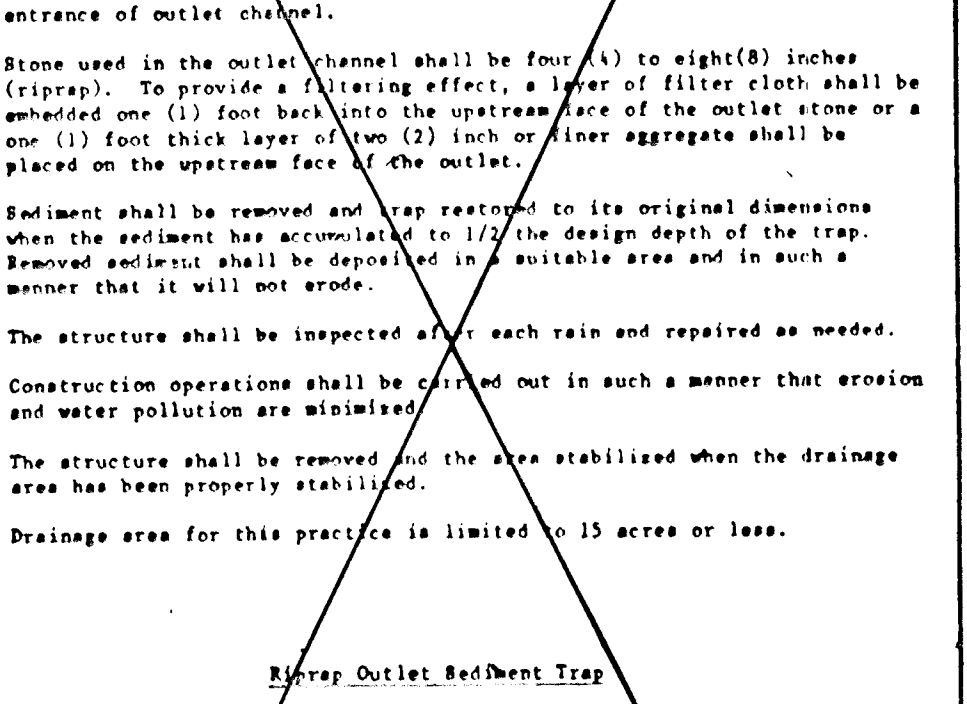
EXCAVATED GRASS OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-II



STONE OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-3



RIPRAP OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-VI



RIPRAP OUTLET SEDIMENT TRAP
STANDARD DRAWING
ST-VI

SEDIMENT CONTROL NOTES

- 1) 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)
- 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) 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.
- 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 SECTION TWO 10.787 Acres
Area Disturbed 3.42 Acres
Area to be roofed or paved 0.86 Acres
Area to be vegetatively stabilized 2.86 Acres
Total Cut 5000 Cu. yds
Total Fill 2000 Cu. yds
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.

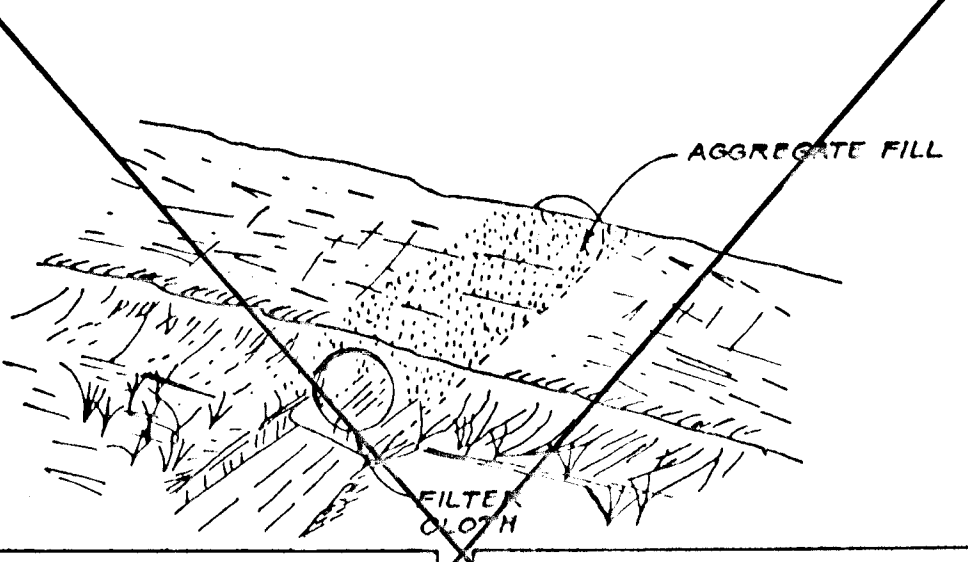
Construction Specifications

Materials

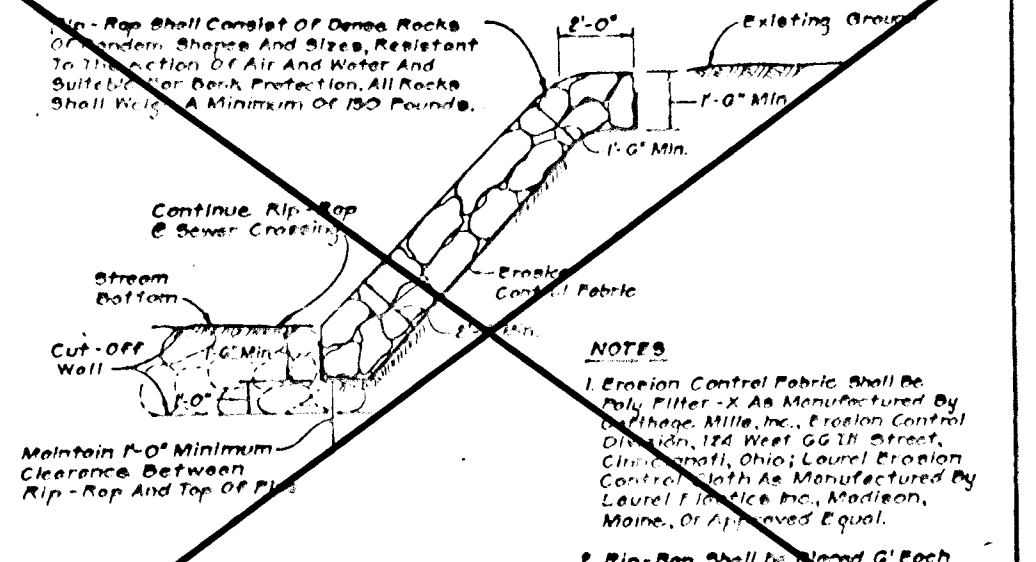
- A. Wooden frame is to be constructed of 2"x4" construction grade lumber.
- B. Plywood is to be a minimum thickness of 1/4" construction grade lumber.

Installation

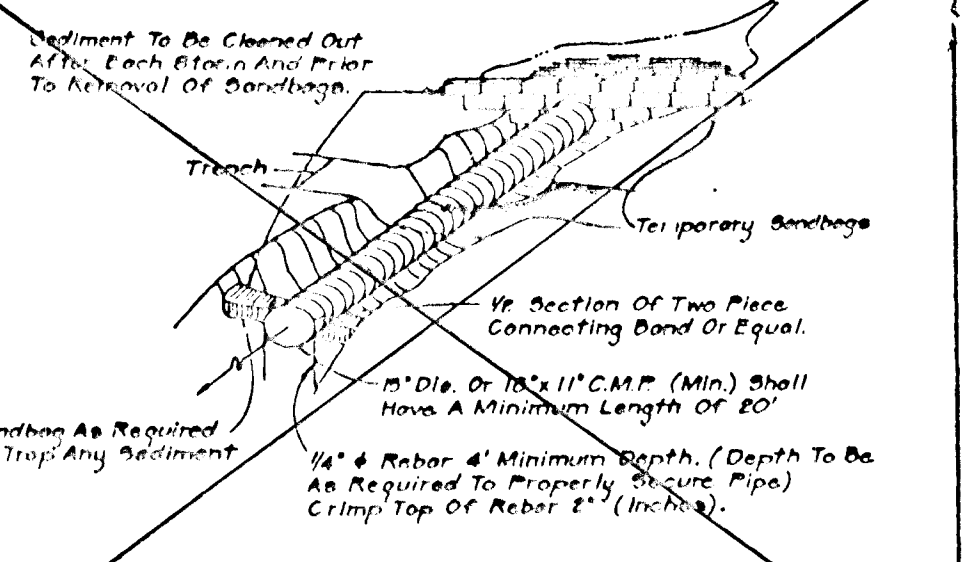
1. Cut plywood to extend a minimum of 6" past throat along curb.
2. Attach to anchors in a secure manner which will insure a water tight fit against throat.
3. Brace securely using sandbags or alternate weight. If not watertight, use approved filter cloth under plywood and attach securely.



AGGREGATE FILL
STANDARD DRAWING
AF-1



RIP-RAP DETAIL
STANDARD DRAWING
RRD-1



RIP-RAP DETAIL
STANDARD DRAWING
RRD-1

Riprap Outlet Sediment Trap
ST-VI (for Stone Lined Channel)

Contributing Drainage Area (Acres)	Depth of Channel (Feet)	Length of Trap (Feet)
1	1.5	10.0
2	1.5	12.0
3	1.5	14.0
4	1.5	16.0
5	1.5	18.0
6	1.5	20.0
7	1.5	22.0
8	1.5	24.0
9	1.5	26.0
10	2.0	20.0
11	2.0	22.0
12	2.0	24.0
13	2.0	26.0
14	2.0	28.0
15	2.0	30.0

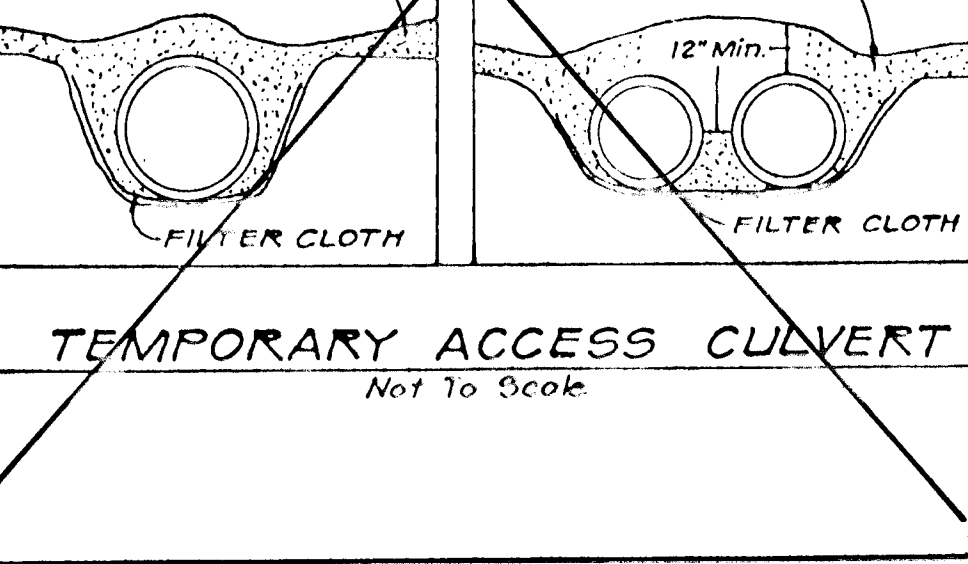
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

John R. Roberts 1/12/93
SIGNATURE DATE

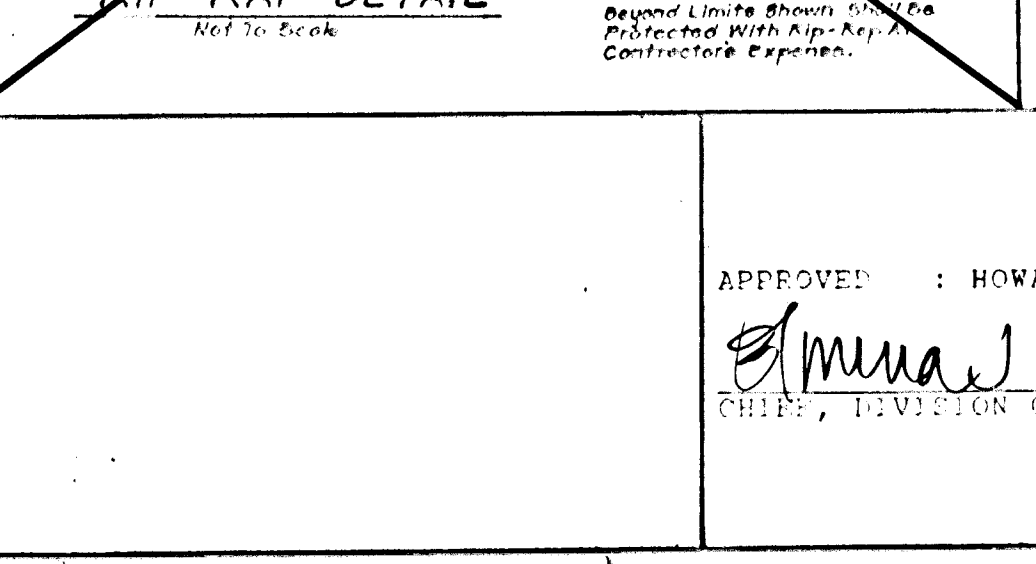
U.S. SOIL CONSERVATION SERVICE

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

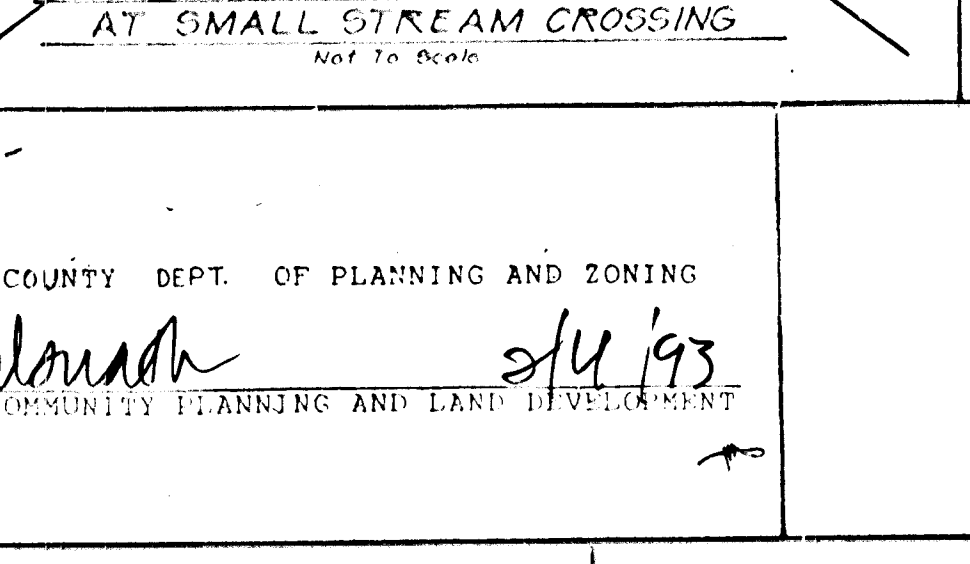
James M. Nelson 1/12/93
APPROVED HOWARD S.C.D. DATE



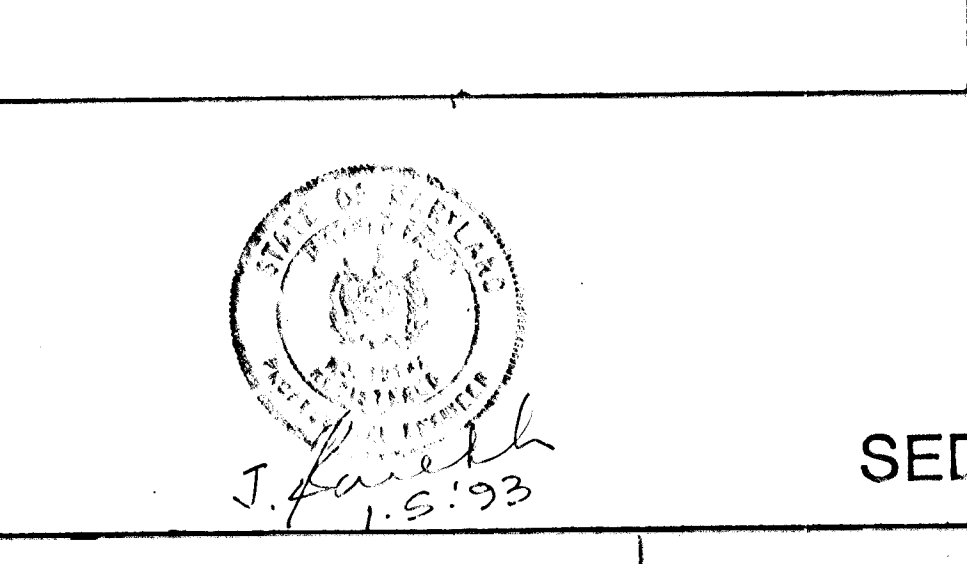
TEMPORARY ACCESS CULVERT
STANDARD DRAWING
TAC-1



RIP-RAP DETAIL
STANDARD DRAWING
RRD-1



RIP-RAP DETAIL
STANDARD DRAWING
RRD-1



RIP-RAP DETAIL
STANDARD DRAWING
RRD-1

SOIL CONSERVATION MEASURES AT SMALL STREAM CROSSING
Not to Scale

1. Sediment to be cleaned out after each storm and prior to removal of sandbags.

2. Temporary Benches

3. Section of Two Pieces Connecting End to Equal.

4. 1/4" Dia. or 1/2" I.D. (Min) shall Have a Minimum Length of 20'.

5. 1/4" x 4" Rebar 4' Minimum Depth. (Depth to Be as Required to Properly Secure Pipe.)

6. 1/4" x 4" Rebar 4' Minimum Depth. (Depth to Be as Required to Properly Secure Pipe.)

7. 1/4" x 4" Rebar 4' Minimum Depth. (Depth to Be as Required to Properly Secure Pipe.)

8. 1/4" x 4" Rebar 4' Minimum Depth. (Depth to Be as Required to Properly Secure Pipe.)

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11. 1/4" x 4" Rebar 4' Minimum Depth. (Depth to Be as Required to Properly Secure Pipe.)

12. 1/4" x 4" Rebar 4' Minimum Depth. (Depth to Be as Required to Properly Secure Pipe.)

13. 1/4" x 4" Rebar 4' Minimum Depth. (Depth to Be as Required to Properly Secure Pipe.)

14. 1/4" x 4" Rebar 4' Minimum Depth. (Depth to Be as Required to Properly Secure Pipe.)

15. 1/4" x 4" Rebar 4' Minimum Depth. (Depth to Be as Required to Properly Secure Pipe.)

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

John R. Roberts 1/20/93
CHIEF, LAND DEVELOPMENT DIVISION M.K. DATE

John M. Tamm 1/24/93
CHIEF, BUREAU OF HIGHWAYS DATE

James M. Nelson 1-27-93
CHIEF, BUREAU OF ENGINEERING DATE

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 at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation Service."

Signature: *James M. Nelson* Date: 1/27/93
Name: James M. Nelson Phone No.:
Firm: 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. L. Smith* Date: 1-5-93
Name: J. L. Smith
Firm: Registered Professional Engineer # 10140

APPROVED : HOWARD COUNTY DEPT. OF PLANNING AND ZONING

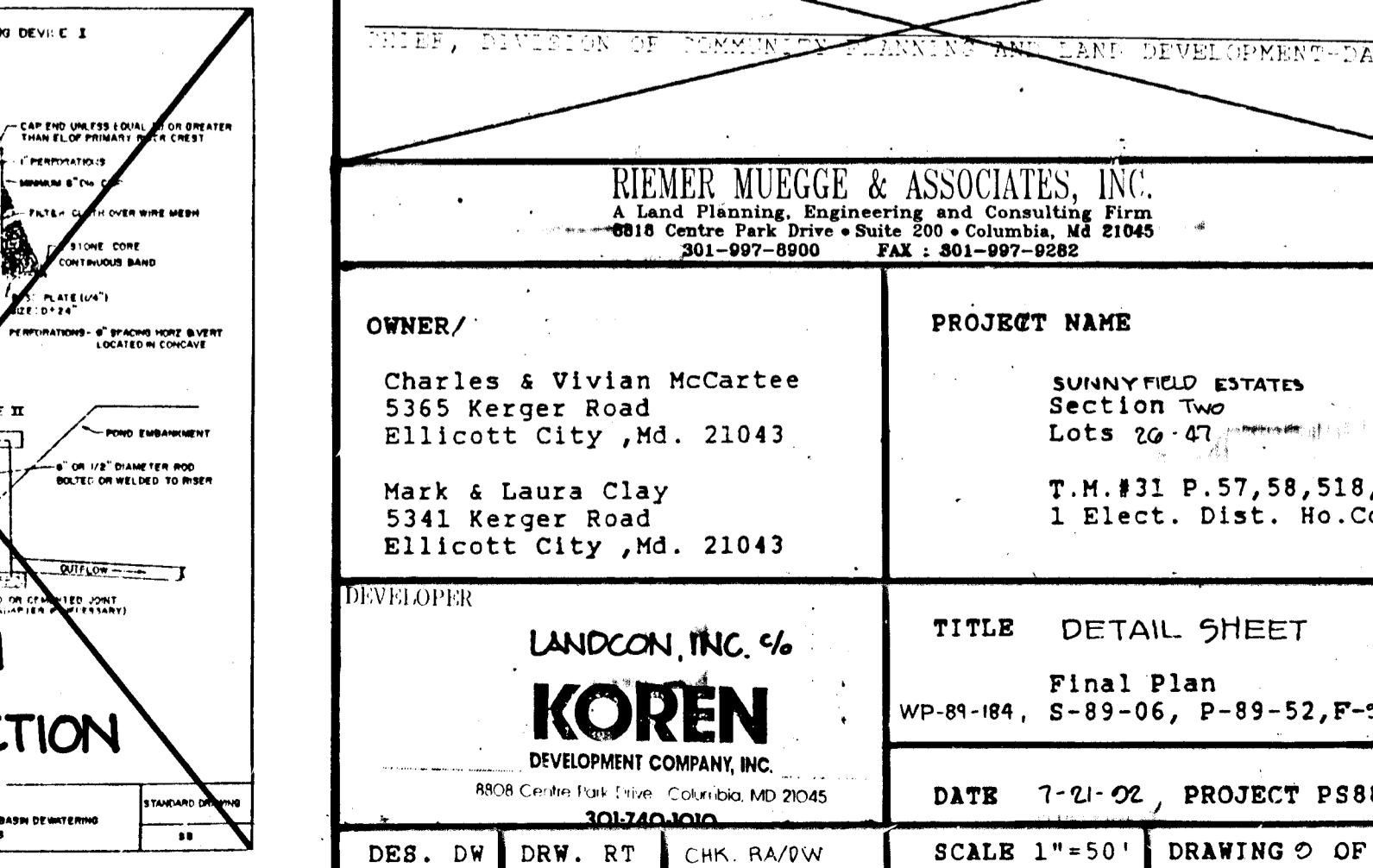
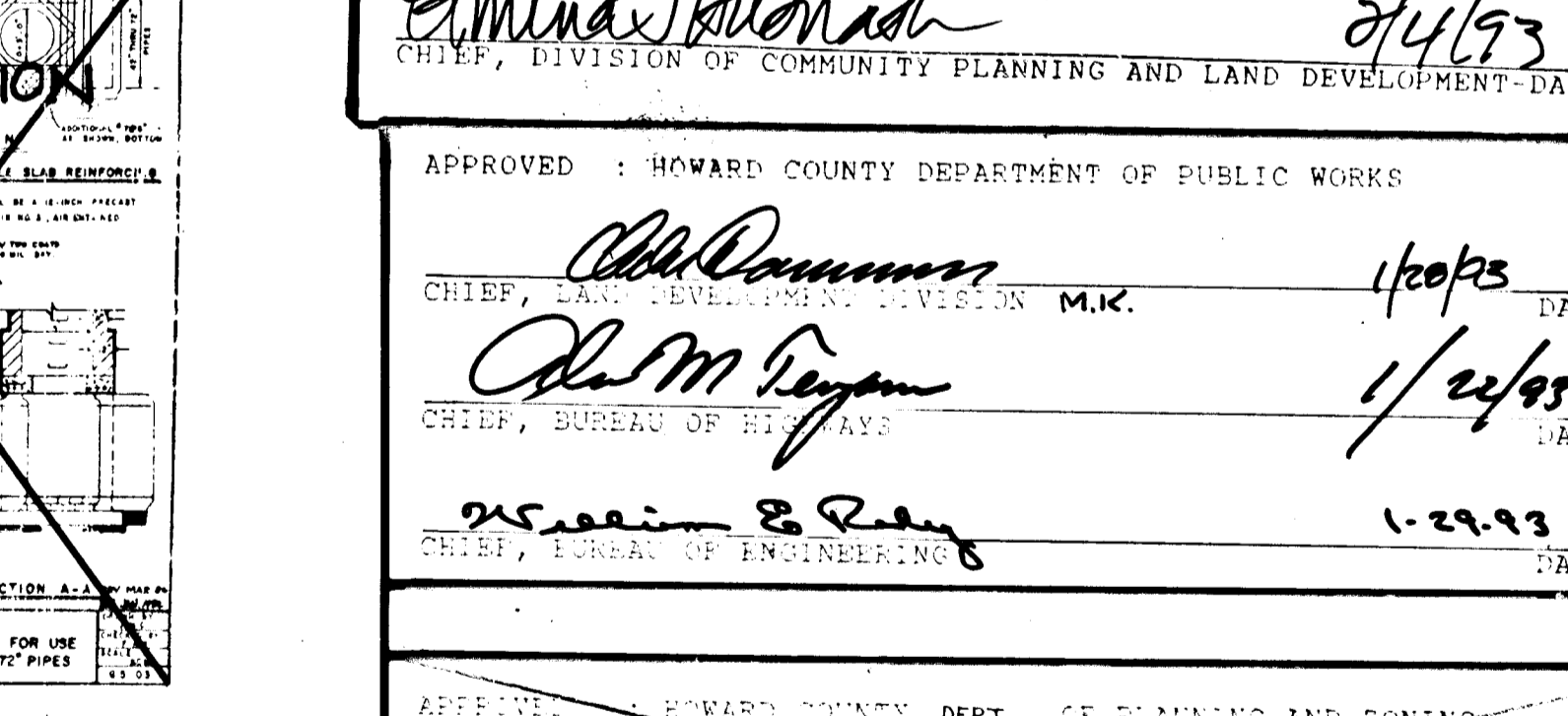
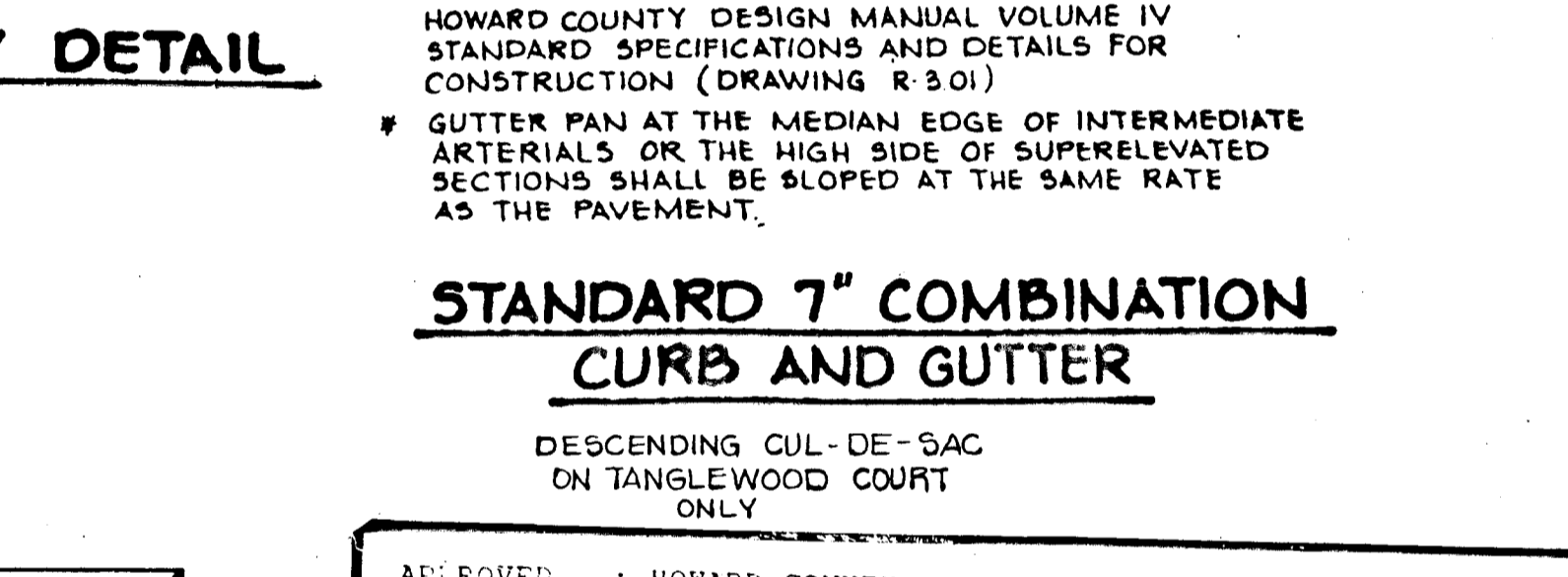
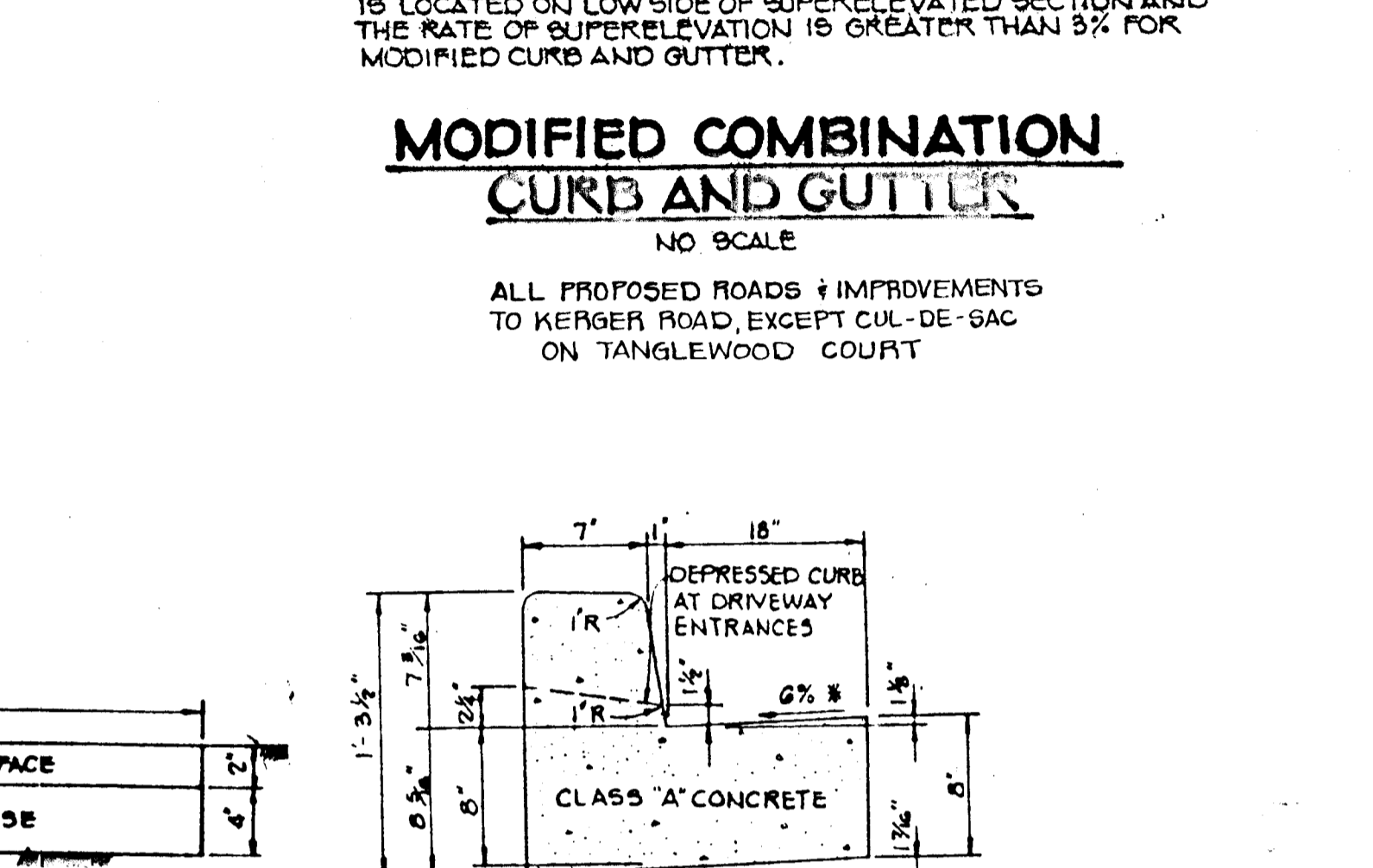
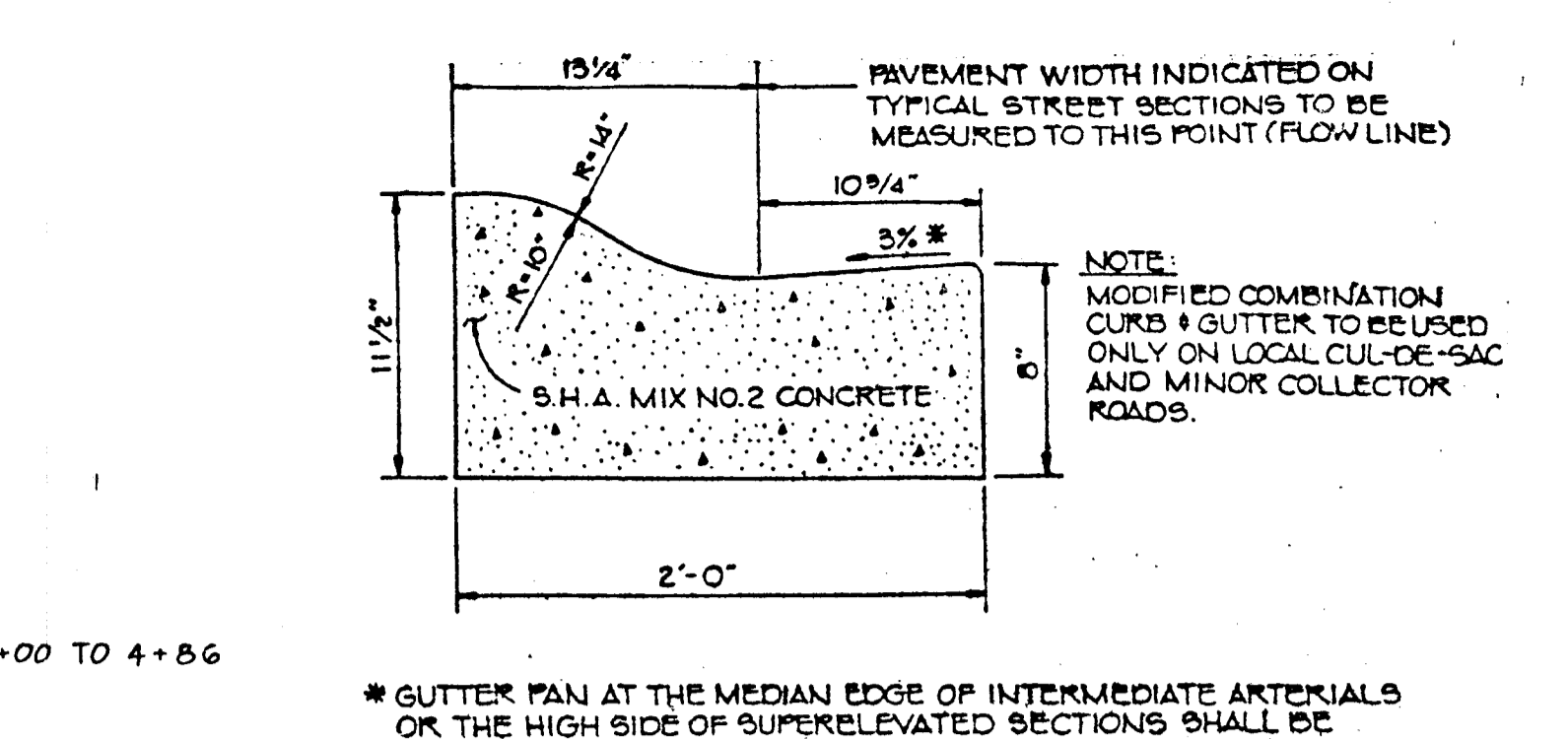
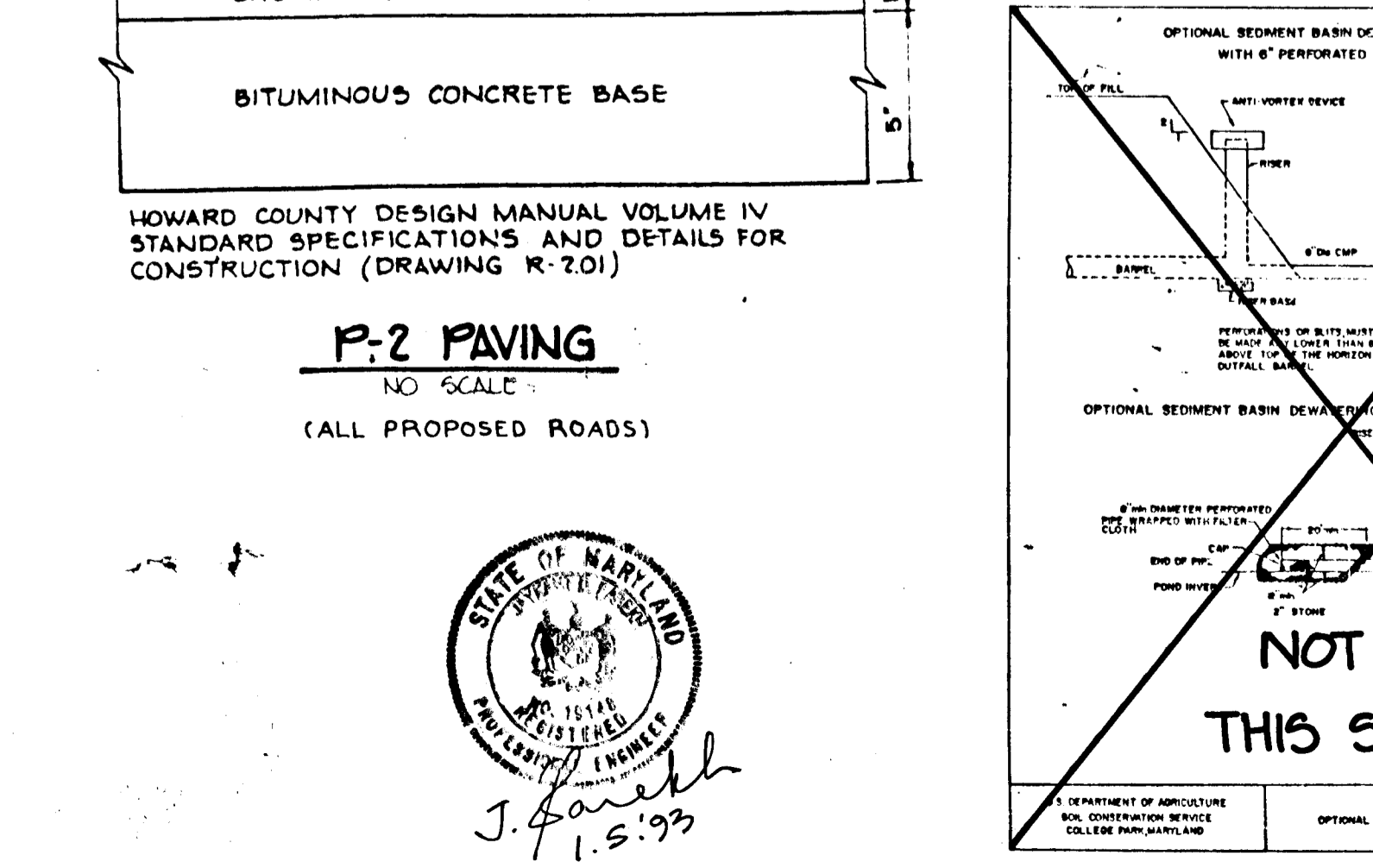
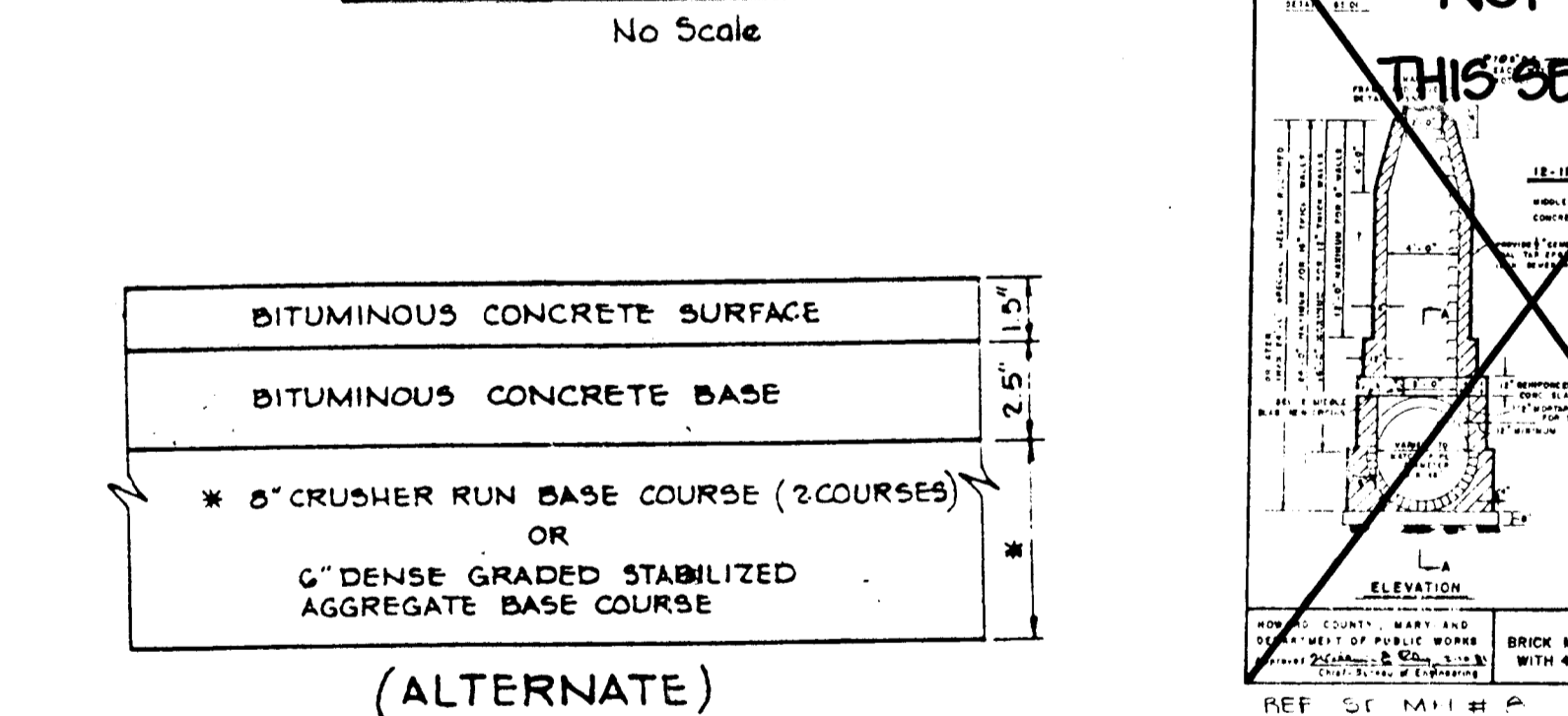
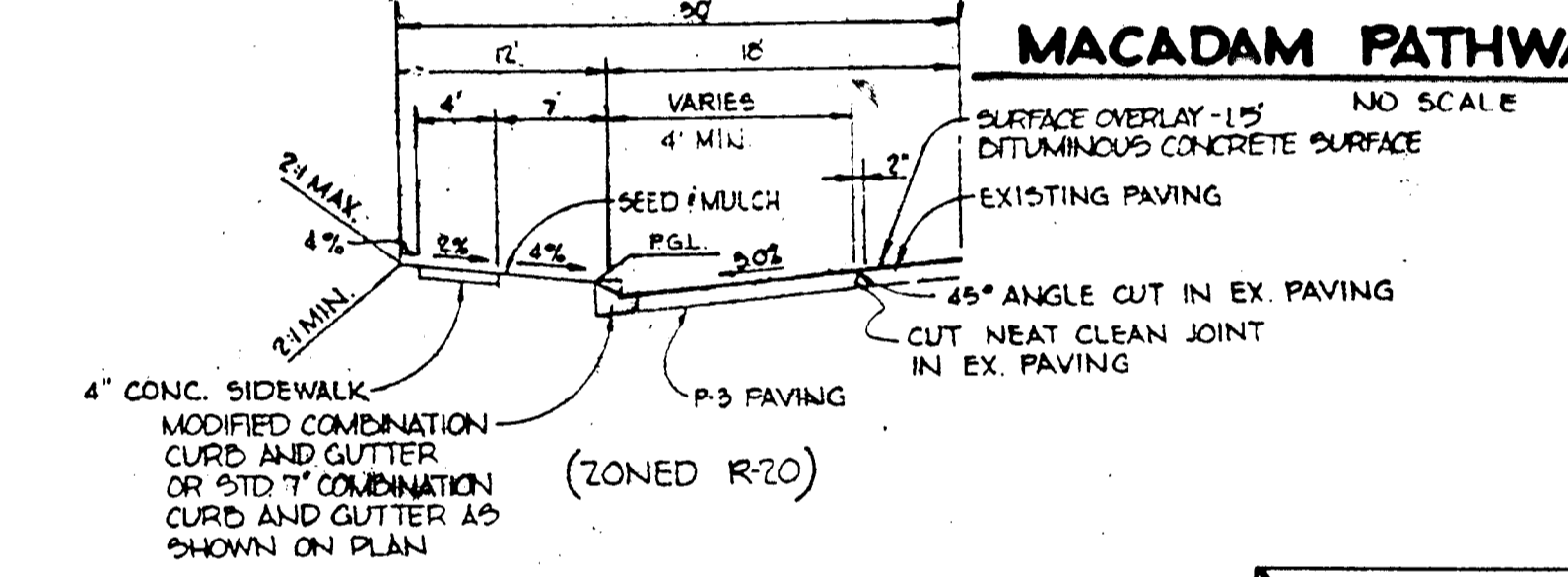
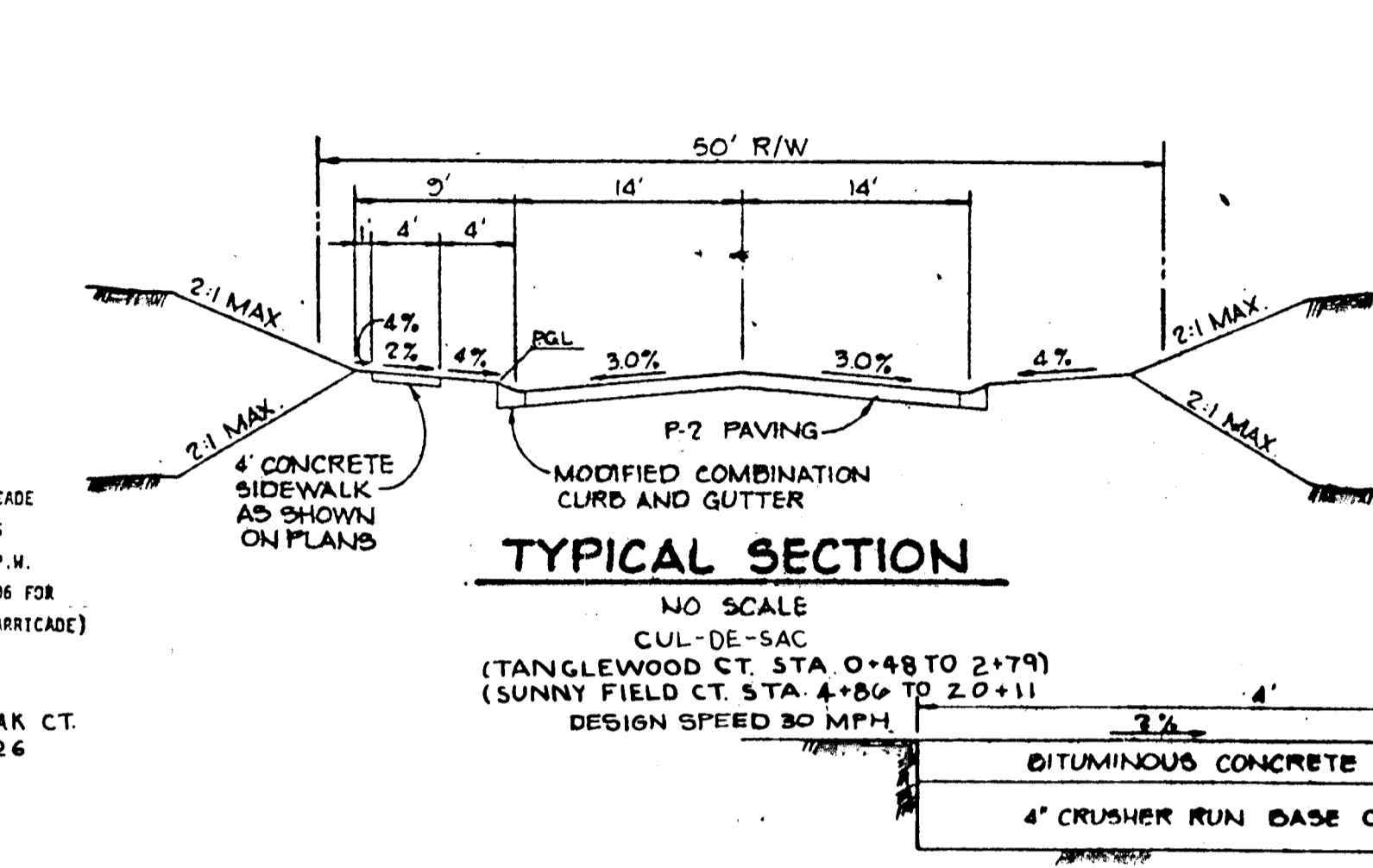
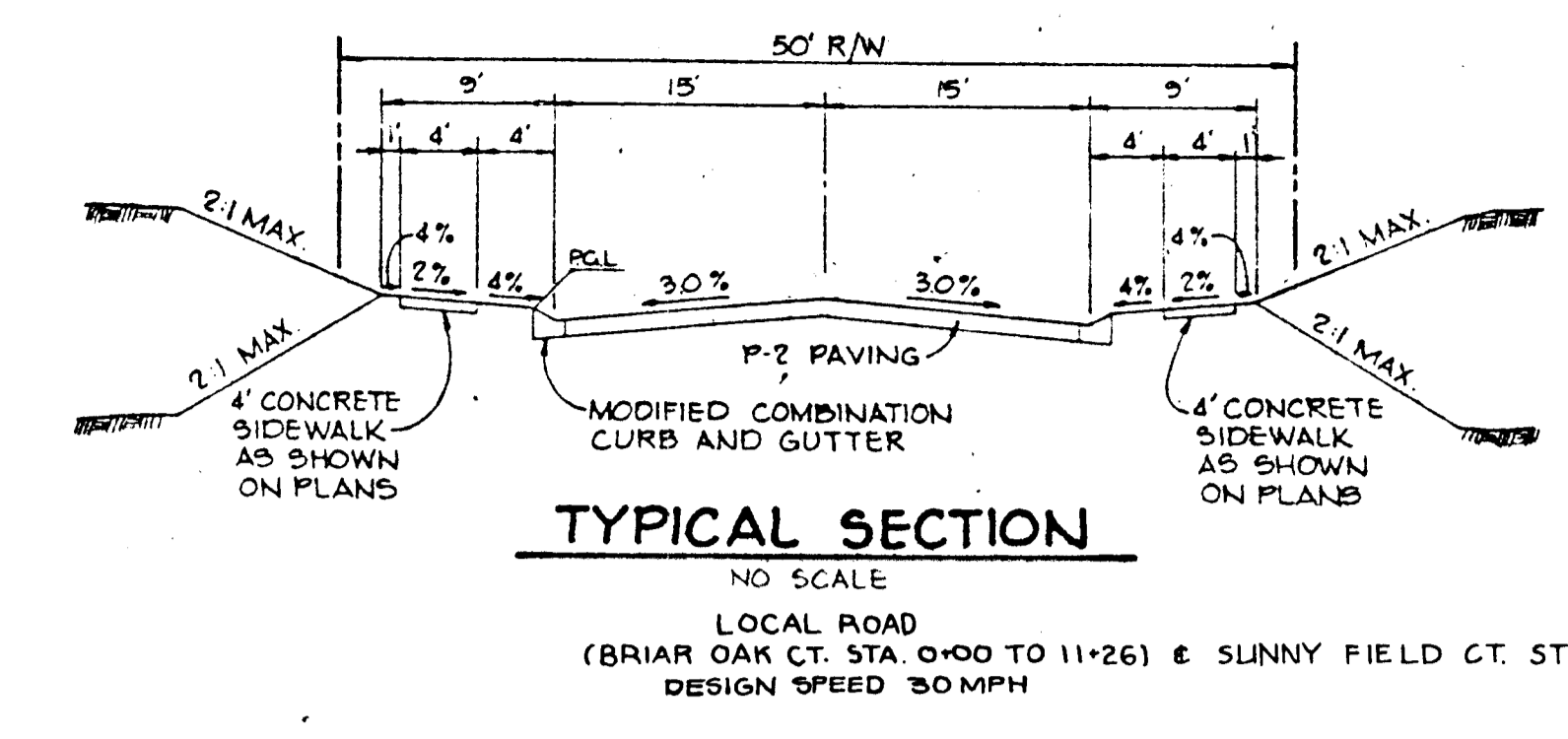
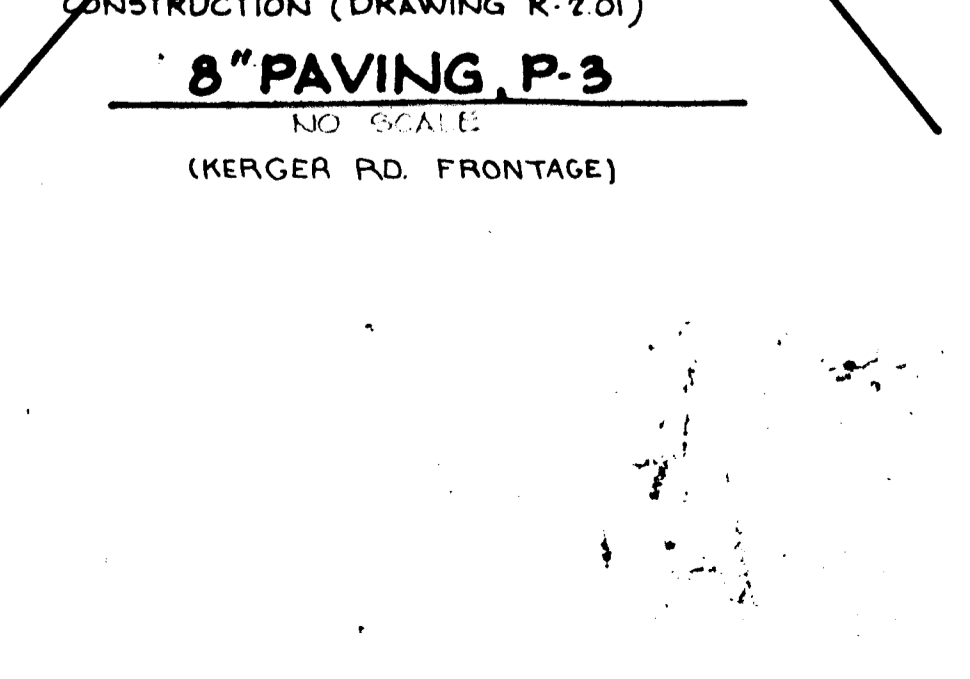
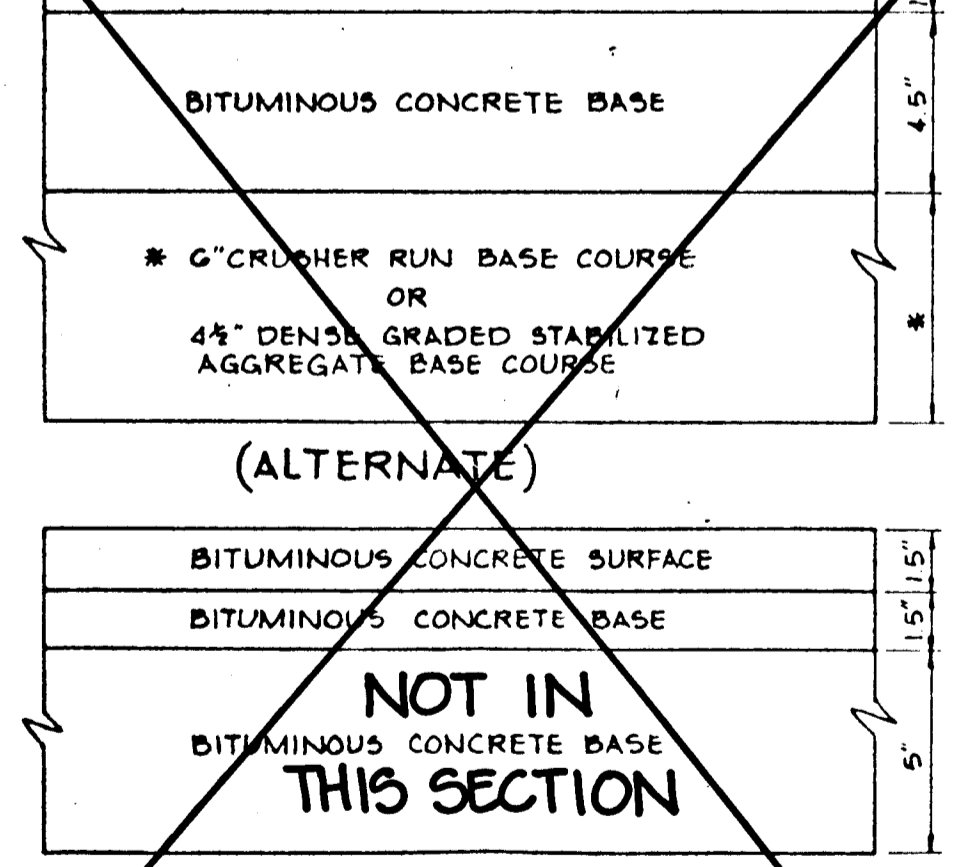
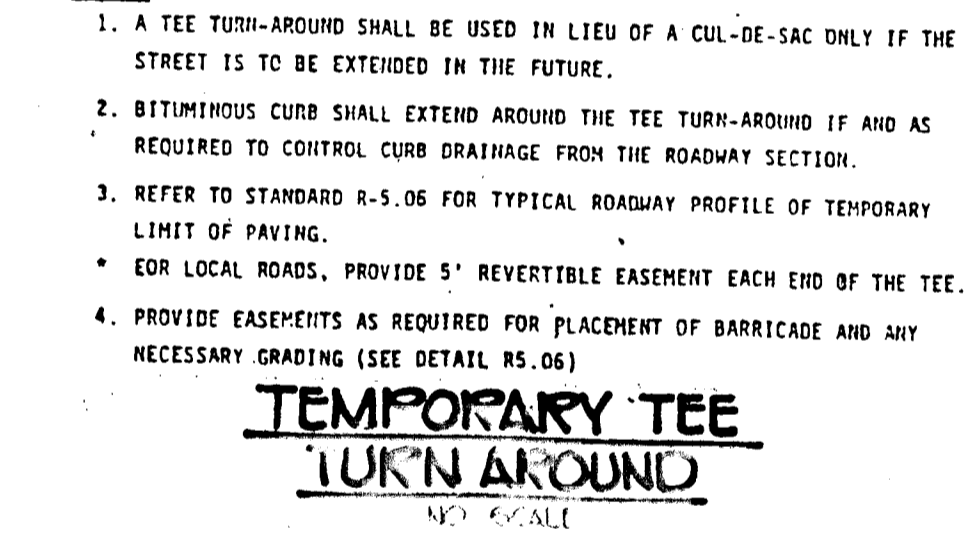
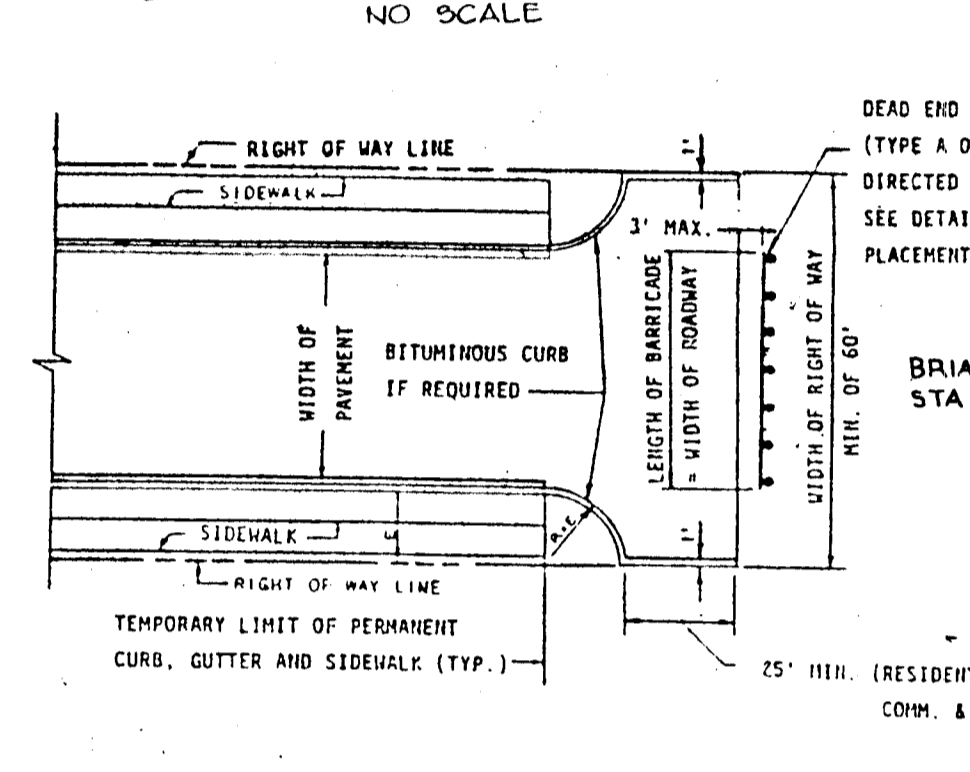
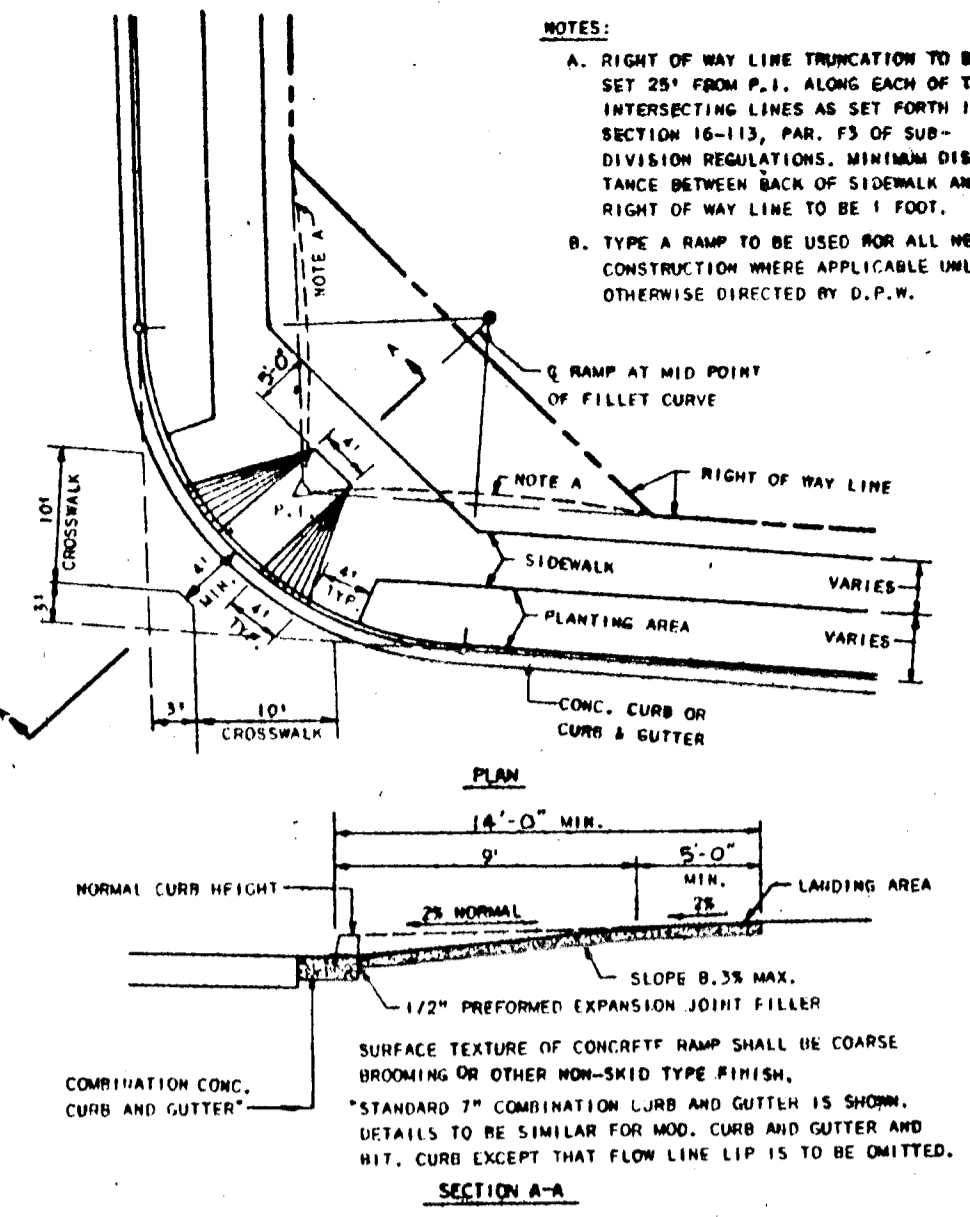
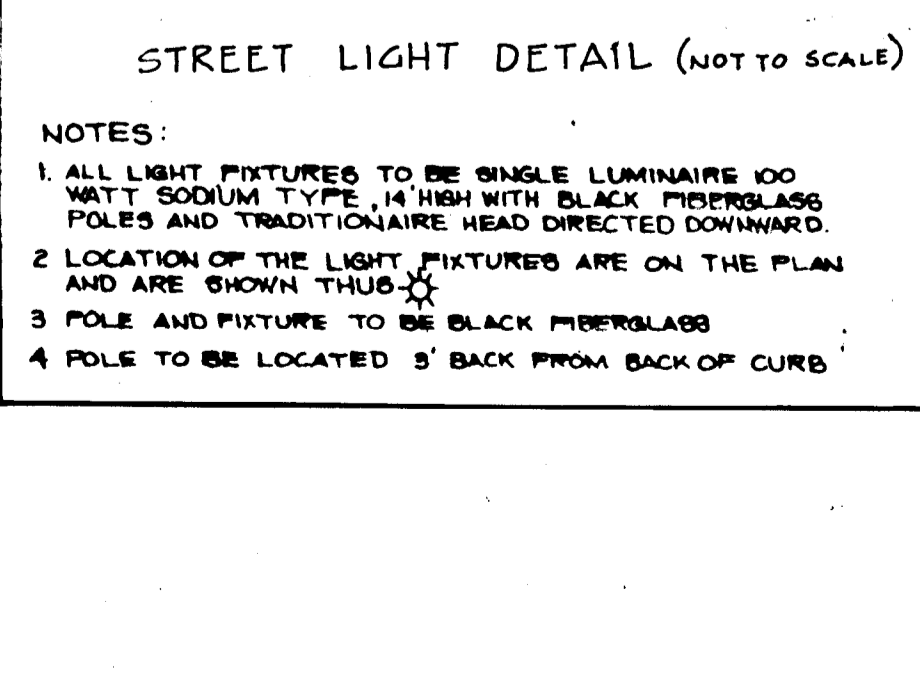
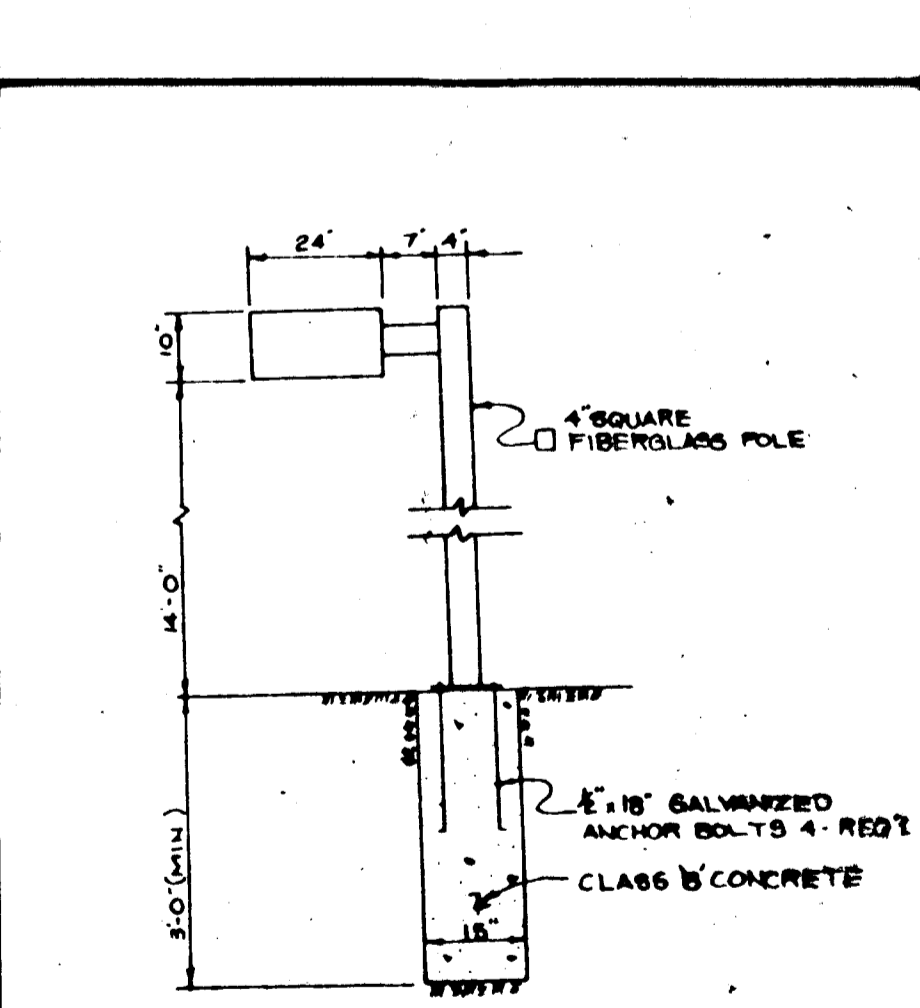
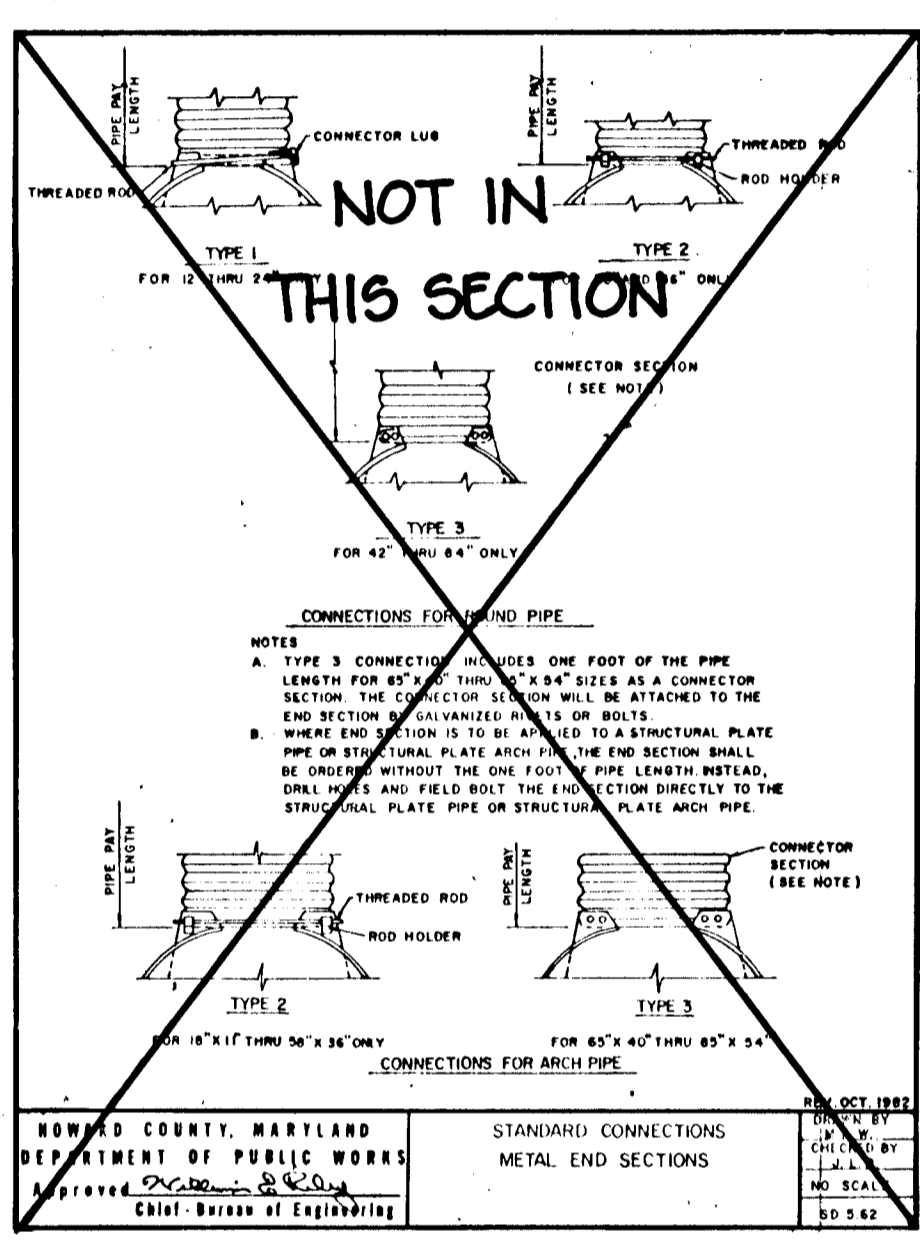
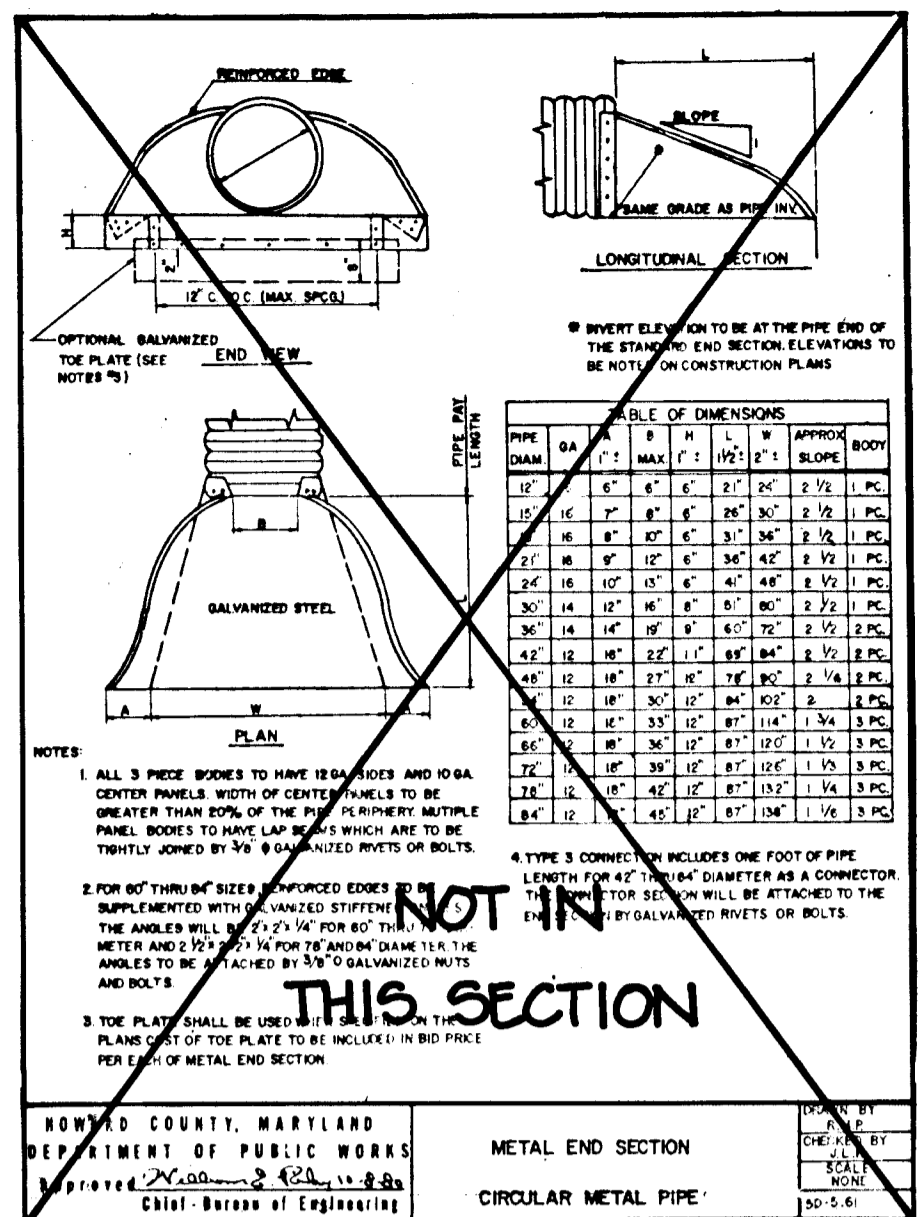
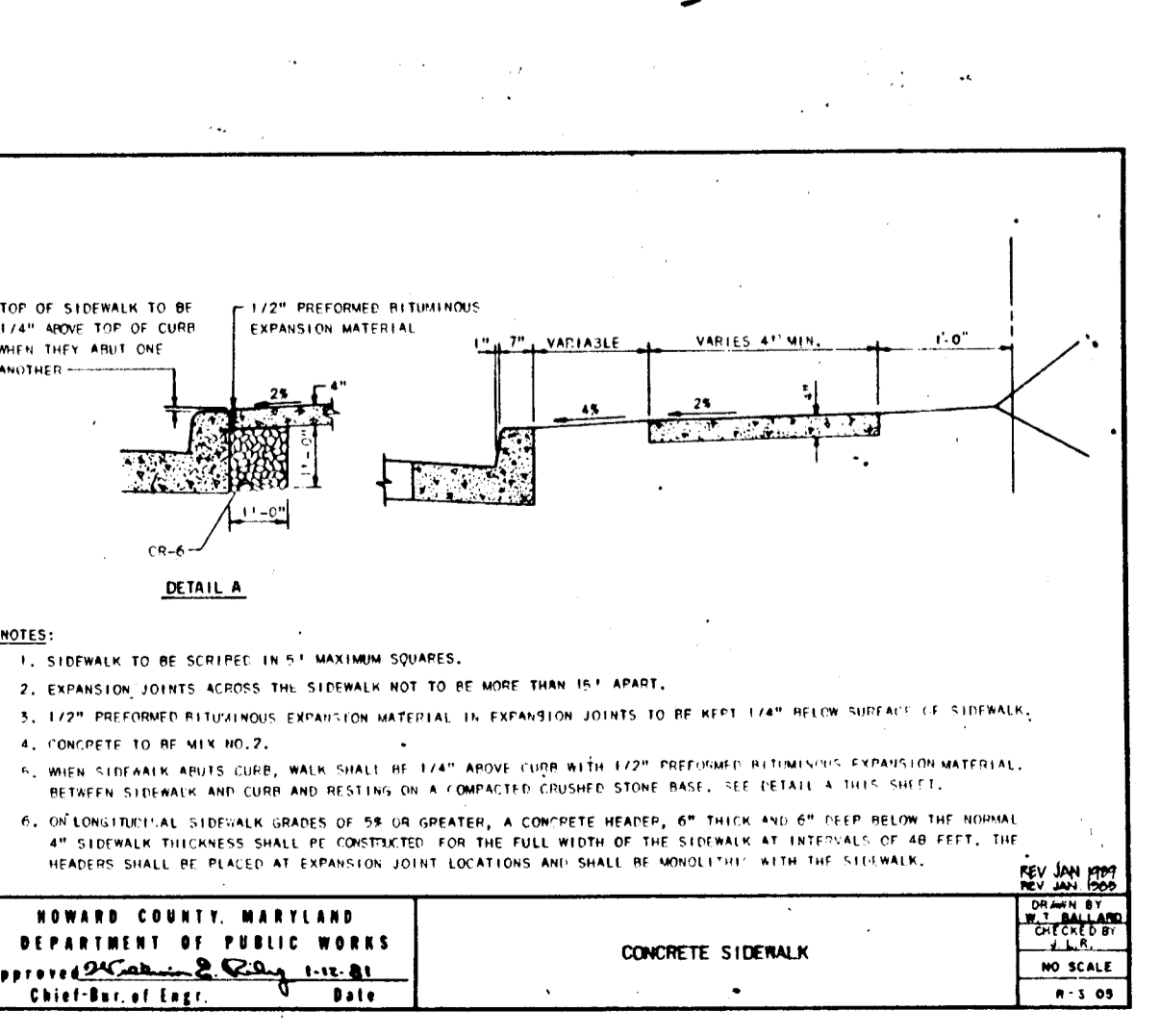
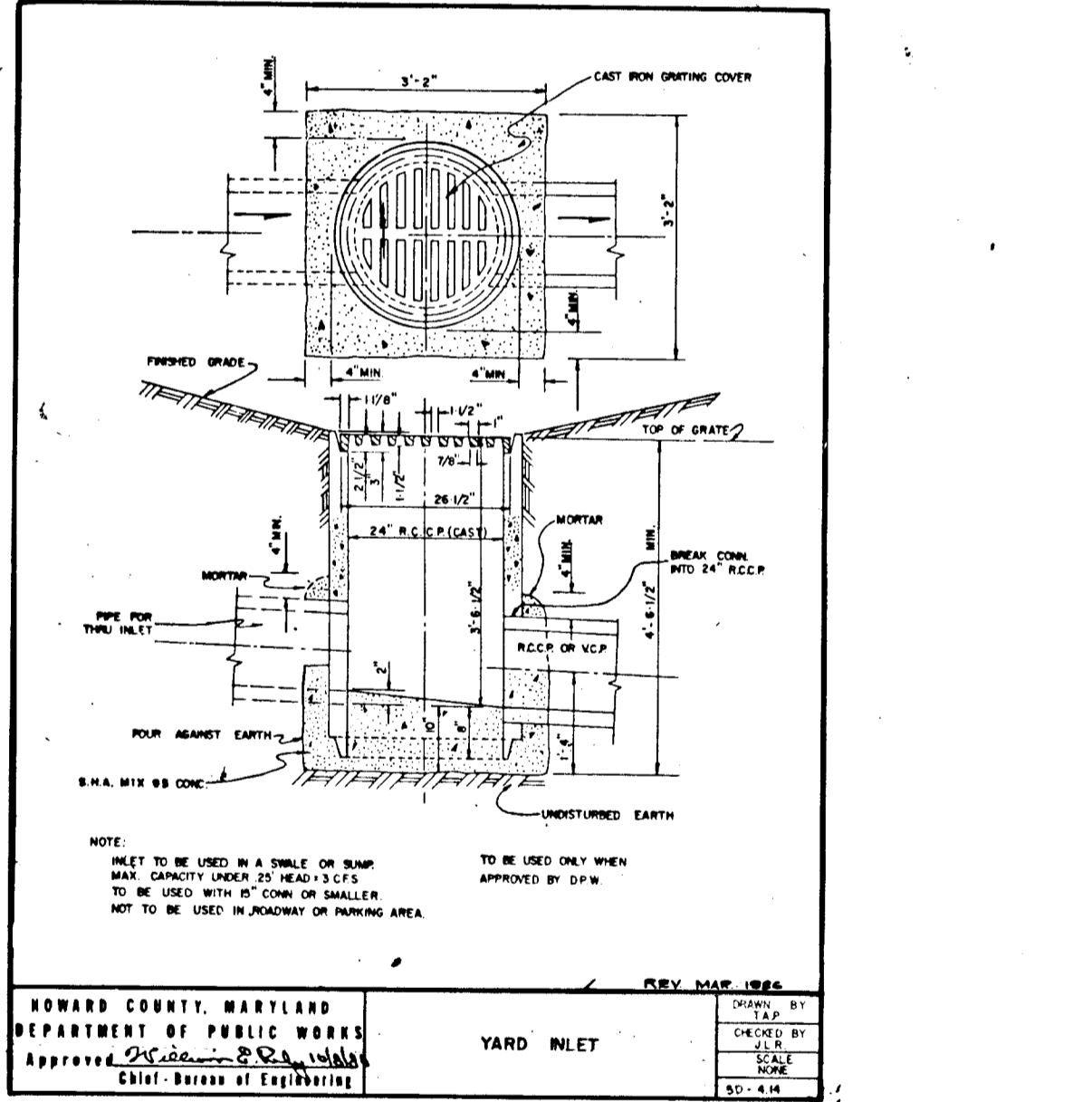
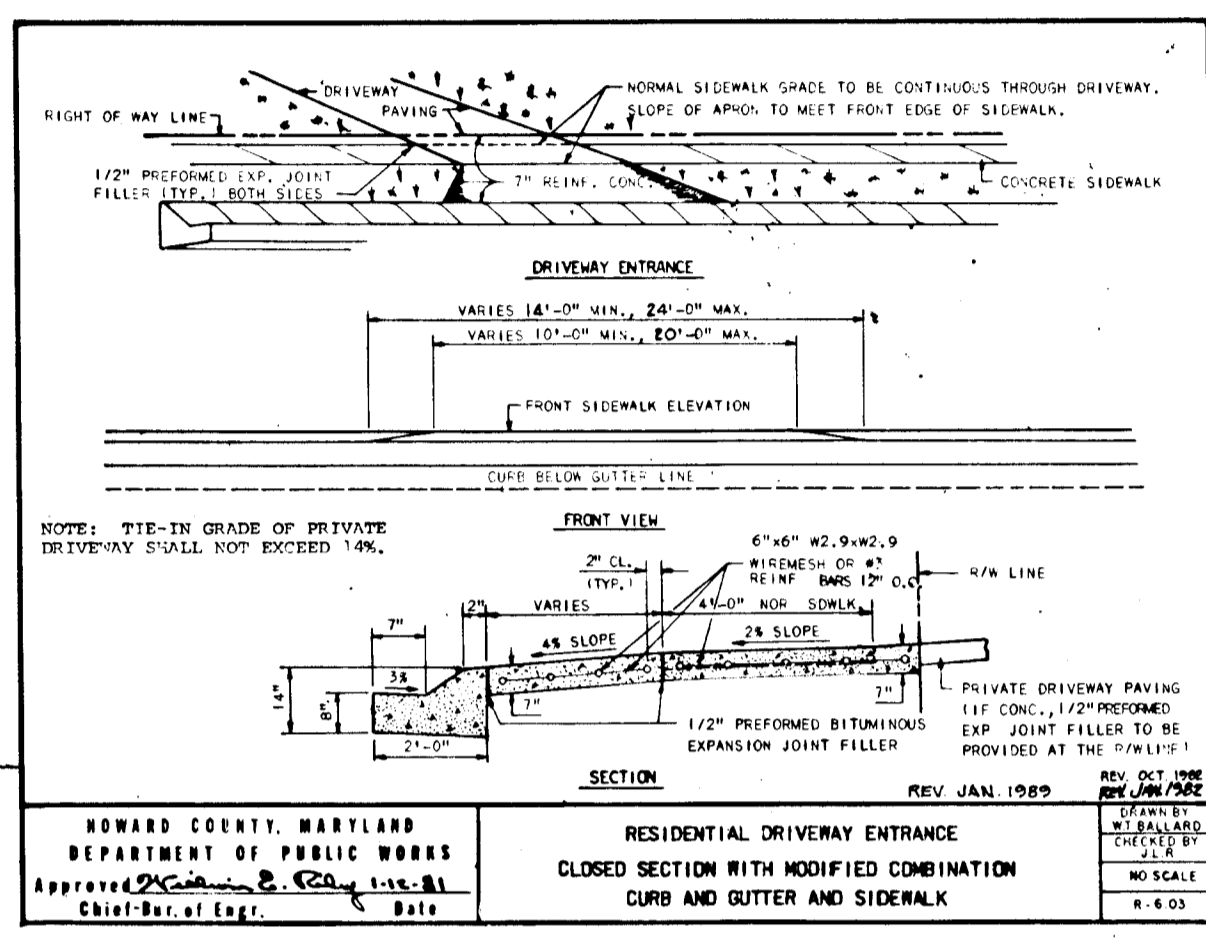
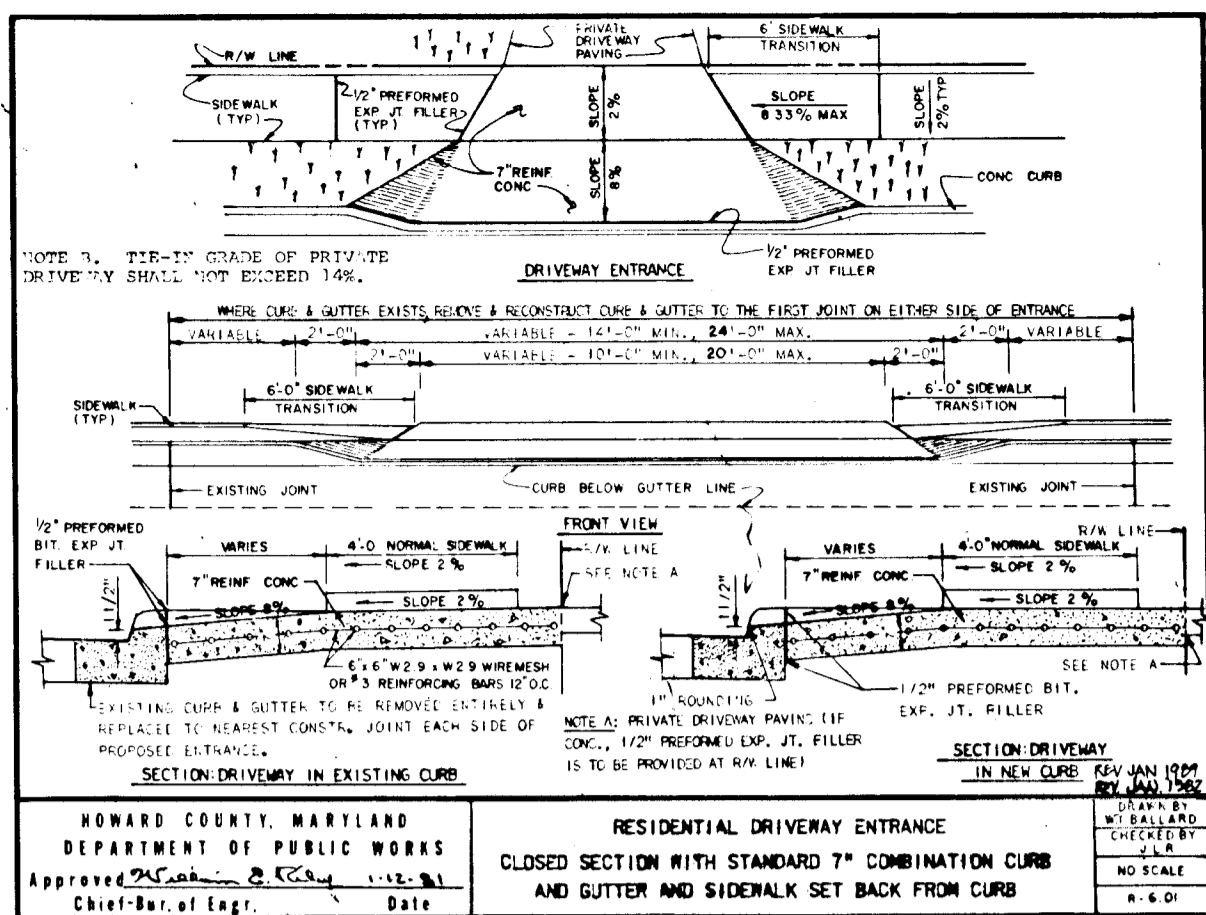
Anna M. Howard 2/4/93
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Center Park Drive • Suite 200 • Columbia, Md 21045
301-997-8900 • FAX : 301-997-9282

FINAL PLAN SUNNYFIELD ESTATES SECTION TWO
TAX MAP 31 P. 57,58,518,757 FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND 21043

DATE	REVISIONS	SHEET	DATE	JOB NUMBER
1/27/93		8 OF 9	SCALE	

F-93-08



NOTE: MODIFIED COMBINATION CURB & GUTTER TO BE USED ONLY ON LOCAL CUL-DE-SAC AND MINOR COLLECTOR ROADS.

ALL PROPOSED ROADS & IMPROVEMENTS TO KERGER ROAD, EXCEPT CUL-DE-SAC ON TANGLEWOOD COURT

HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-301)

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

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
201-997-8900 FAX: 201-997-9285

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

PROJECT NAME
SUNNYFIELD ESTATES
Section Two
Lots 20-47

DEVELOPER
LANDCON, INC. %
KOREN
DEVELOPMENT COMPANY, INC.
8508 Centre Park Drive • Columbia, MD 21045
301-997-8900

TITLE
DETAIL SHEET
Final Plan
WP-89-184, S-89-06, P-89-52, P-89-232

DATE
7-21-02, PROJECT P888101

SCALE
1"=50'

DRAWING
9 OF 9

1641

STATE OF MARYLAND
J. J. J. 1.5.93