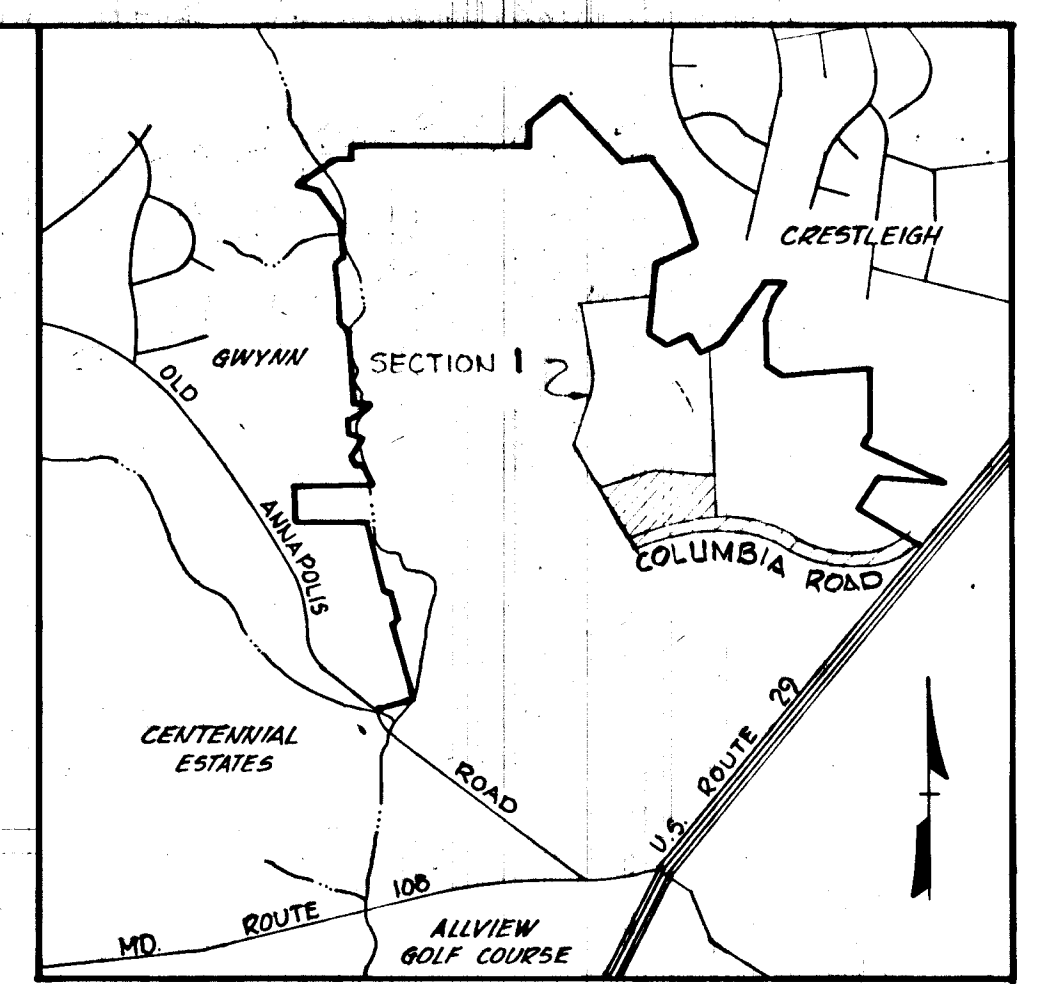
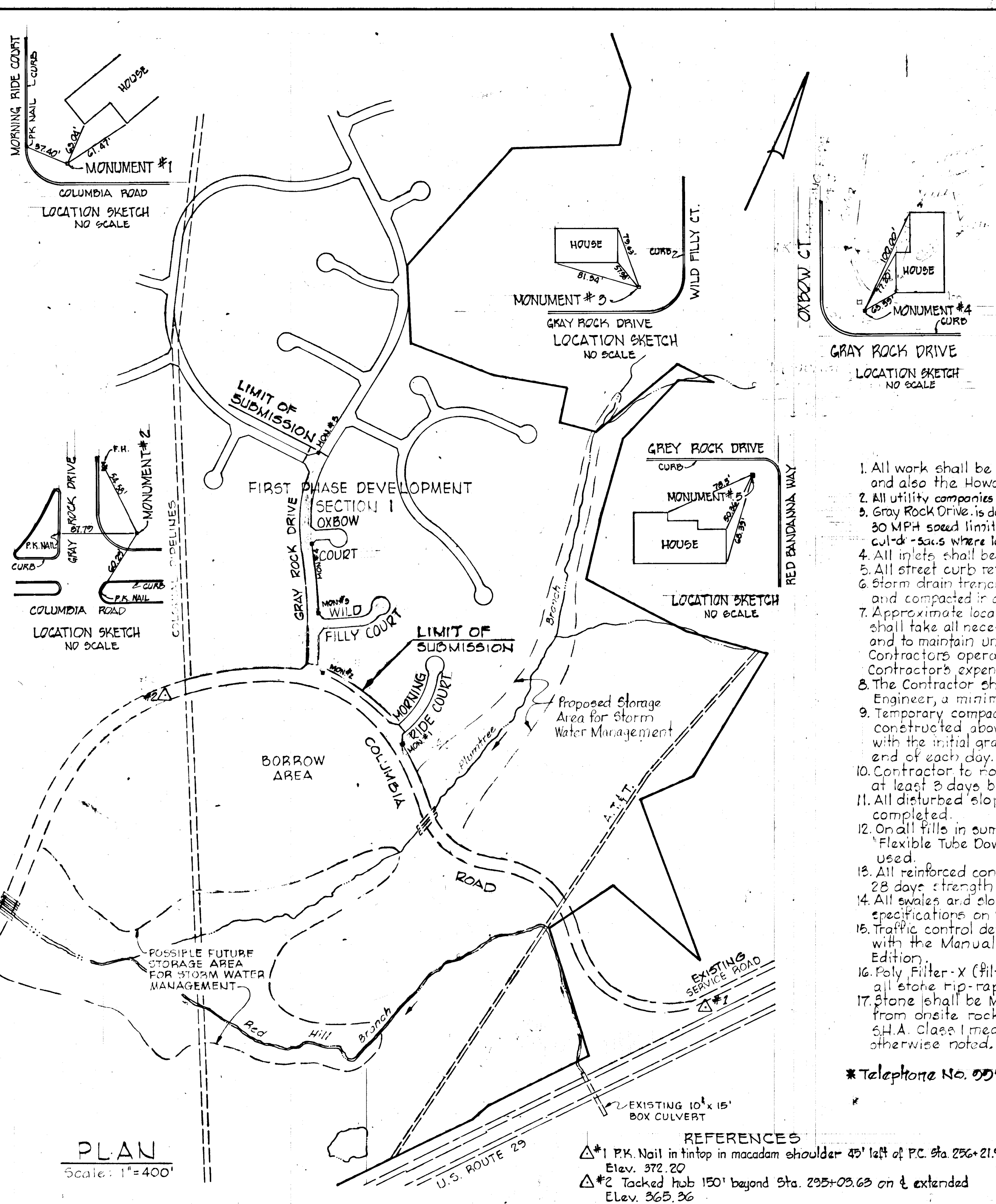


ESTIMATE OF QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITIES
1	Topsoil Stripping Under Fills	CY	1,000
2	Unclassified Excavation (Roadway)	CY	10,500
3	Bit. Conc. Surface Course (1 1/2" Th.)	SY	2,200
4	Bit. Conc. Base Course (5" Th.)	SY	2,200
5	Std. 7" Comb. Curb and Gutter	LF	555
6	Mountable Curb	LF	4,115
7	Barrier Curb	LF	265
8	Concrete Sidewalk (4" Th.)	LF	3,375
9	R/W and Slope Stabilization	SY	5,300
10	Transition Curb at "A" Inlets	LF	38
11	Std. A-5 Inlets	Ea.	7
12	Std. A-10 Inlets	Ea.	1
13	Type "D" Inlets	Ea.	6
14	Standard Manhole	Ea.	4
15	Std. Type "B" Manhole	Ea.	2
16	Special Manhole (MH-4)	Ea.	1
17	Type "A" Headwall (S-5)	Ea.	1
18	15" RCP CL. IV	LF	400
19	18" RCP CL. IV	LF	266
20	27" RCP CL. IV	LF	45
21	27" x 42" RCP CL. IV	LF	86
22	29" x 45" RCP CL. IV	LF	49
23	15" RCP CL. III	LF	532
24	18" RCP CL. III	LF	44
25	24" RCP CL. III	LF	226
26	27" RCP CL. III	LF	481
27	Ditch Excavation	CY	325
28	Rip-Rap Ditch (Md. SHA Cl. I Medium Rip-Rap) 2" Th.	SY	105
29	Poly Filter X Cloth	SY	115
30	Ditch Stabilization (Seeding)	SY	180
SEDIMENT CONTROL			
31	Sediment Traps (Incl. Excavation, Stone & Inlet Treatment)	Ea.	4
32	Diversion Dike (Earth)	LF	2,440
33	Straw Bale Dike	LF	260
34	Clean Water Inlet (Incl. Temp. 15" CMP)	Ea.	3
35	Temp. 15" CMP Cross Road Drain	LF	20

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	GRAY ROCK DRIVE - STA. C 00 TO STA. 12+00
3	MORNING ZIDE COURT & WILD FILLY COURT
4	OXBOW COURT
5	ROAD DETAILS
6	STORM DRAIN PROFILES
7	STORM DRAIN DETAILS
8	DRAINAGE AND A MAP
9	SEDIMENT CONTROL
10	SEDIMENT CONTROL
11	SEDIMENT CONTROL
4A	STORM DRAIN PLAN



GENERAL NOTES

- All work shall be performed in accordance with the SPECIFICATIONS and also the Howard Co. Road Construction Code and Standard Specifications.
- All utility companies shall be notified 24 hours in advance of construction.
- Gray Rock Drive is designed for 35 MPH speed limit, all other roads are designed for 30 MPH speed limit in accordance with AASHTO standards, except in short cut-d-cuts where length dictates a higher design speed.
- All inlets shall be Howard County standard unless otherwise shown.
- All street curb returns shall have a 30'0" radii unless otherwise noted.
- Storm drain trenches within road right-of-way shall be back filled and compacted in accordance with Howard County Road Code.
- Approximate location of existing utilities are shown. The Contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to Contractor's operations shall be repaired immediately at the Contractor's expense.
- The Contractor shall test pit existing utilities where directed by the Engineer, a minimum of two weeks in advance of any construction.
- Temporary compacted 18" high Earth Fill Diversion Dikes shall be constructed above the lips of fill slopes on the R.O.W. concurrently with the initial grading and directed to undisturbed soil areas at the end of each day.
- Contractor to notify the Howard County Dept of Inspections and Permits at least 3 days before starting work shown on these drawings.
- All disturbed slope areas to be stabilized as soon as grading is completed.
- On all fills in sump areas, Reliance Plastic & Chemical Company Flexible Tube Down Drains and Pans or approved equal shall be used.
- All reinforced concrete for storm drain structures shall have a minimum 28 day strength of 3500 psi.
- All swales and slopes shall be permanently seeded. See the exact specifications on this sheet.
- Traffic control devices and their installation shall be in accordance with the Manual on Uniform Traffic Control Devices, 1971 Revised Edition.
- Poly Filter-X (Filter cloth blanket) or equal shall be placed under all stone rip-rap (full width and length of stone).
- Stone shall be Maryland S.H.A. Class I medium Rip Rap, Stone from onsite rock excavation may be substituted for the Maryland S.H.A. Class I medium rip-rap. Rip Rap shall be unpaved unless otherwise noted.

* Telephone No. 502-2436

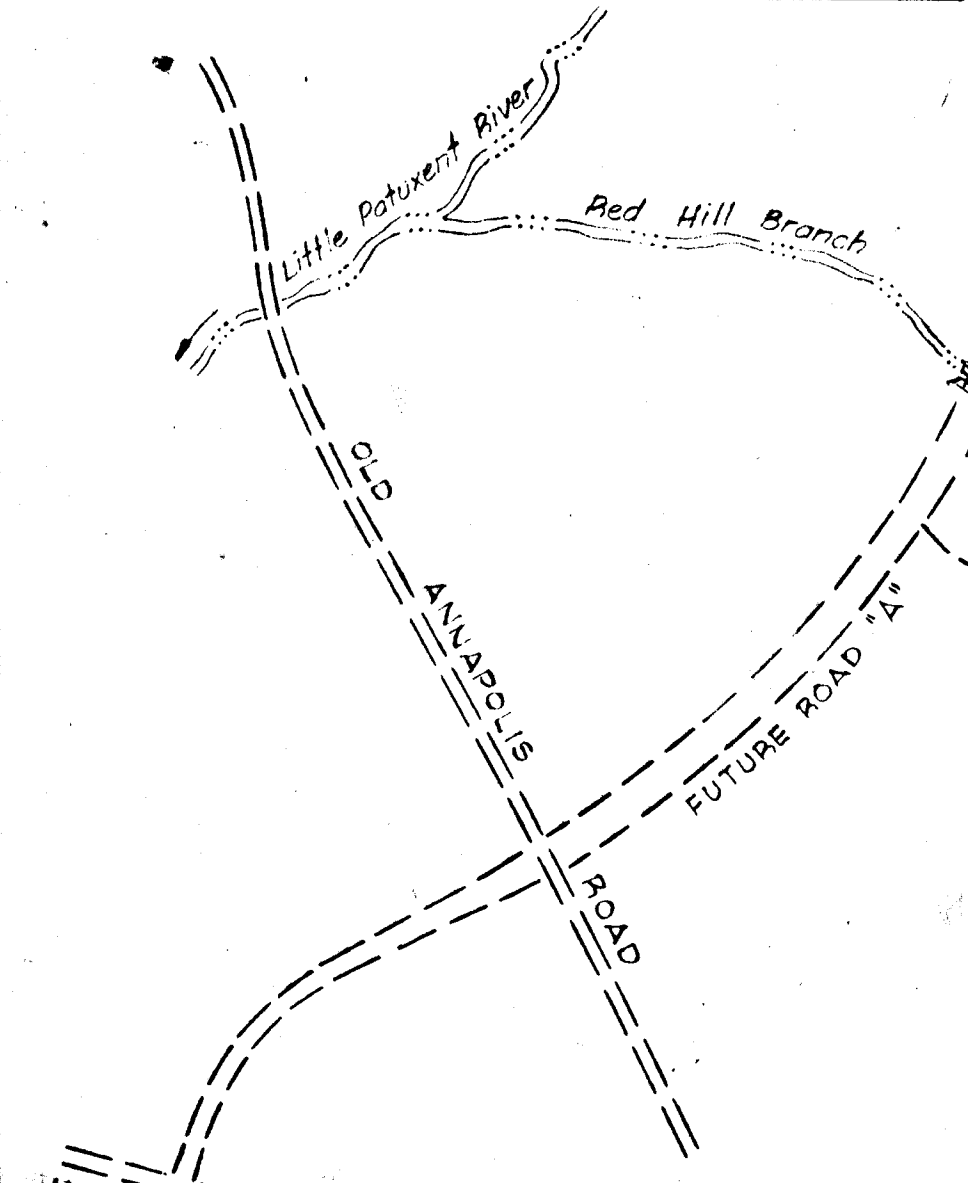
SEQUENCE OF CONSTRUCTION

- Obtain Grading Permit
- Clear and grub wooded areas
- Construct Diversion Dikes along proposed roadways and at Sediment Traps.
- Strip and grade roads and seed topsoil stockpile.
- Install storm drain pipes. Place Poly Filter GB Cloth around end of downstream pipe at all inlet and manhole locations prior to laying upstream pipe.
- Build inlets and manholes and install wood planking and stone filters at inlets to complete sediment trap construction. Block inlets as noted.
- Install clean water inlets and temporary piping as required.
- Construct all utilities.
- Final grade roads, construct curb and gutter and seed all disturbed areas as per specification this sheet.
- Remove sediment traps, finish curb and gutter and pave roads.
- Remove diversion dikes and clean water inlets after construction is complete and grass is established.

PERMANENT SEEDING (SEE GENERAL NOTES)

LIME = 2 TONS/ACRE AGRICULTURAL GROUND LIMESTONE
 FERTILIZER = 1000 LBS/ACRE (10-10-10)
 SEEDING = 100 LBS/ACRE OF THE FOLLOWING:
 20% KENTUCKY BLUE GRASS, 20% MERION BLUE GRASS,
 55% CREEPING RED FESCUE, 5% REDTOP.

Mulch Required - Mulch area with straw at the of 75 lbs./1000 s.f. or 1.5 tons/acre.
 Anchor with asphalt at the rate of 480 gallons/acre.
 Stabilization of slopes steeper than 3:1 shall be planted with crownvetch including 15 lbs/acre (0.34 lbs./1000 s.f.)
 Kentucky 31 Tall Fescue 40 lbs./acres (1 lb./1000 s.f.)



CERTIFICATION BY THE DEVELOPER

"I certify that all development and/or construction will be done according to this plan of development and plan for 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 E. Woodford 9/29/78
 Date

CERTIFICATION BY THE ENGINEER

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

Kenneth A. McCord 9/29/78
 Date

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21202
Kenneth A. McCord
 KENNETH A. McCORD
 Registered Engineer
 NO. 1974

DEPARTMENT OF PUBLIC WORKS
W. O. P. Hubert 8-13-79
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING AND ZONING
J. Repley (air) jch 8/3/79
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 COLUMBIA, MARYLAND

REVIEWED FOR _____ SCD
 NAME
 AND MEETS TECHNICAL REQUIREMENTS
 SIGNATURE DATE
 U.S. SOIL CONSERVATION SERVICE

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

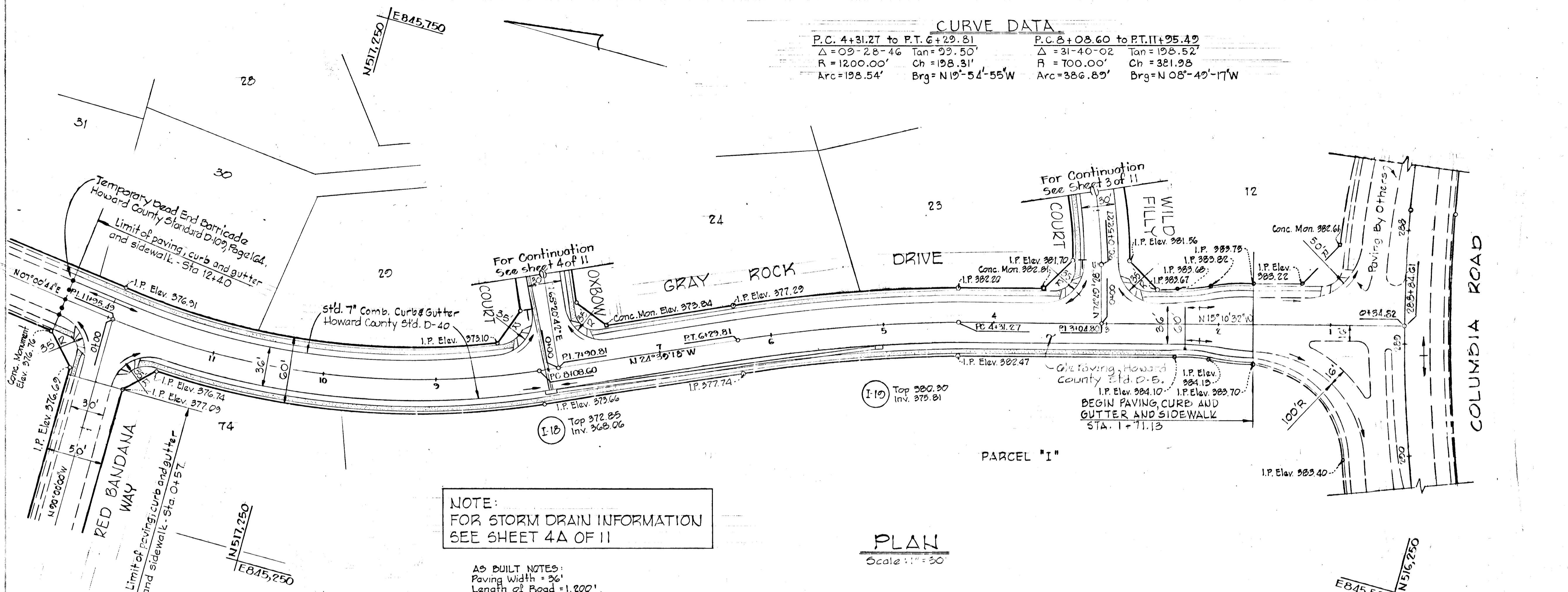
DORSEY HALL
 SECTION 1 AREA 2
ROAD CONSTRUCTION PLANS
 2ND ELECTION DISTRICT OF HOWARD COUNTY MD.
 OWNER AND DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.
 COLUMBIA MARYLAND
 Date _____ Scale: As Shown

771

Original Paper As Built signed and sealed by
 KENNETH A. McCORD PE # 1974 September 10, 1981

CURVE DATA

P.C. 4+31.27 to P.T. 6+29.81	P.C. 8+08.60 to P.T. 11+25.49
$\Delta = 09^{\circ} 28' 46''$ Tan = 99.50'	$\Delta = 31^{\circ} 40' 02''$ Tan = 198.52'
R = 1200.00' Ch = 198.31'	R = 700.00' Ch = 381.98'
Arc = 198.54' Brg = N19°54'55"W	Arc = 386.89' Brg = N08°49'17"W

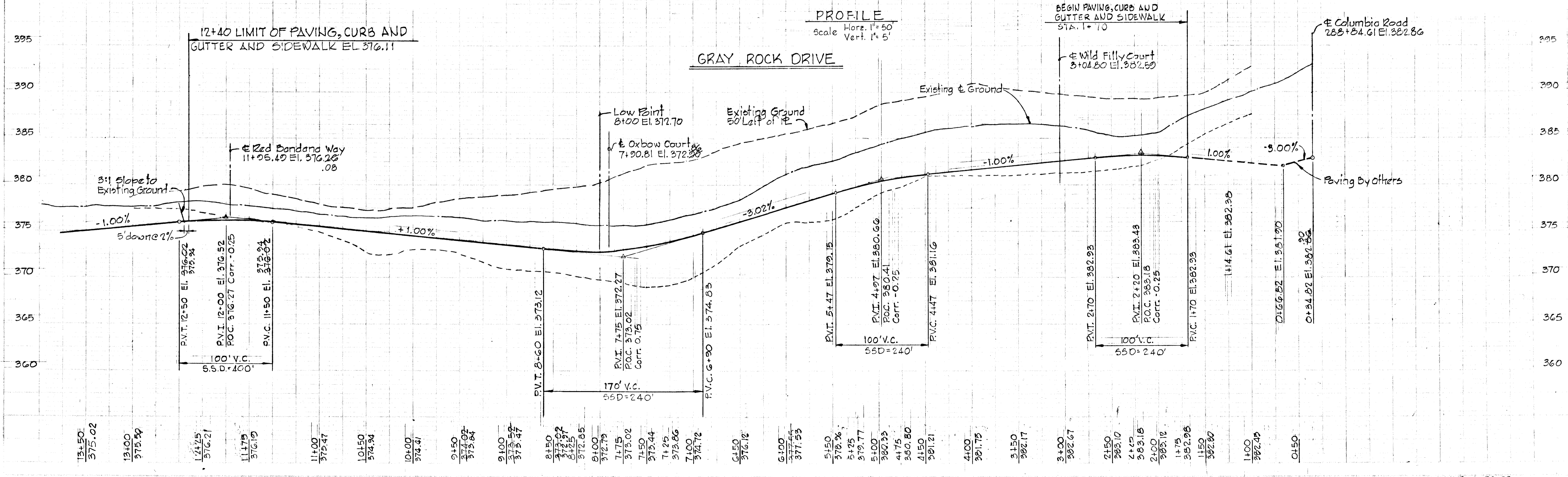


NOTE:
 FOR STORM DRAIN INFORMATION
 SEE SHEET 4A OF 11

AS BUILT NOTES:
 Paving Width = 36'
 Length of Road = 1,200'
 No Sewer Mts in Road R/W

PLAN
 Scale: 1" = 50'

Rev. Date	Rev. No.	Revision Description
		DORSEY HALL 2ND ELECTION DISTRICT HOWARD COUNTY MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.
		PROJECT AREA SECTION 1 AREA 2
		PROJECT TITLE PLAN AND PROFILE GRAY ROCK DRIVE STATION 0+00 TO STATION 12+40
		SCALE: AS SHOWN DATE
		WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202
		<i>Kenneth A. McCord</i> KENNETH A. McCORD Registered Engineer No. 1974



13+50 375.02	13+00 375.59	12+25 376.21	11+75 376.19	11+00 375.47	10+50 374.34	10+00 374.41	9+50 373.47	9+00 373.47	8+50 373.02	8+25 372.85	8+00 372.79	7+75 373.02	7+50 373.44	7+25 373.86	7+00 374.72	6+50 376.72	6+00 377.53	5+50 378.36	5+25 379.77	5+00 380.39	4+75 380.80	4+50 381.21	4+00 381.73	3+50 382.17	3+00 382.66	2+50 383.10	2+25 383.18	2+00 383.12	1+75 382.98	1+50 382.80	1+00 382.49	01+50
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NOTE:
For Curb & gutter details
See Sheet 5 of 11.

CURVE DATA

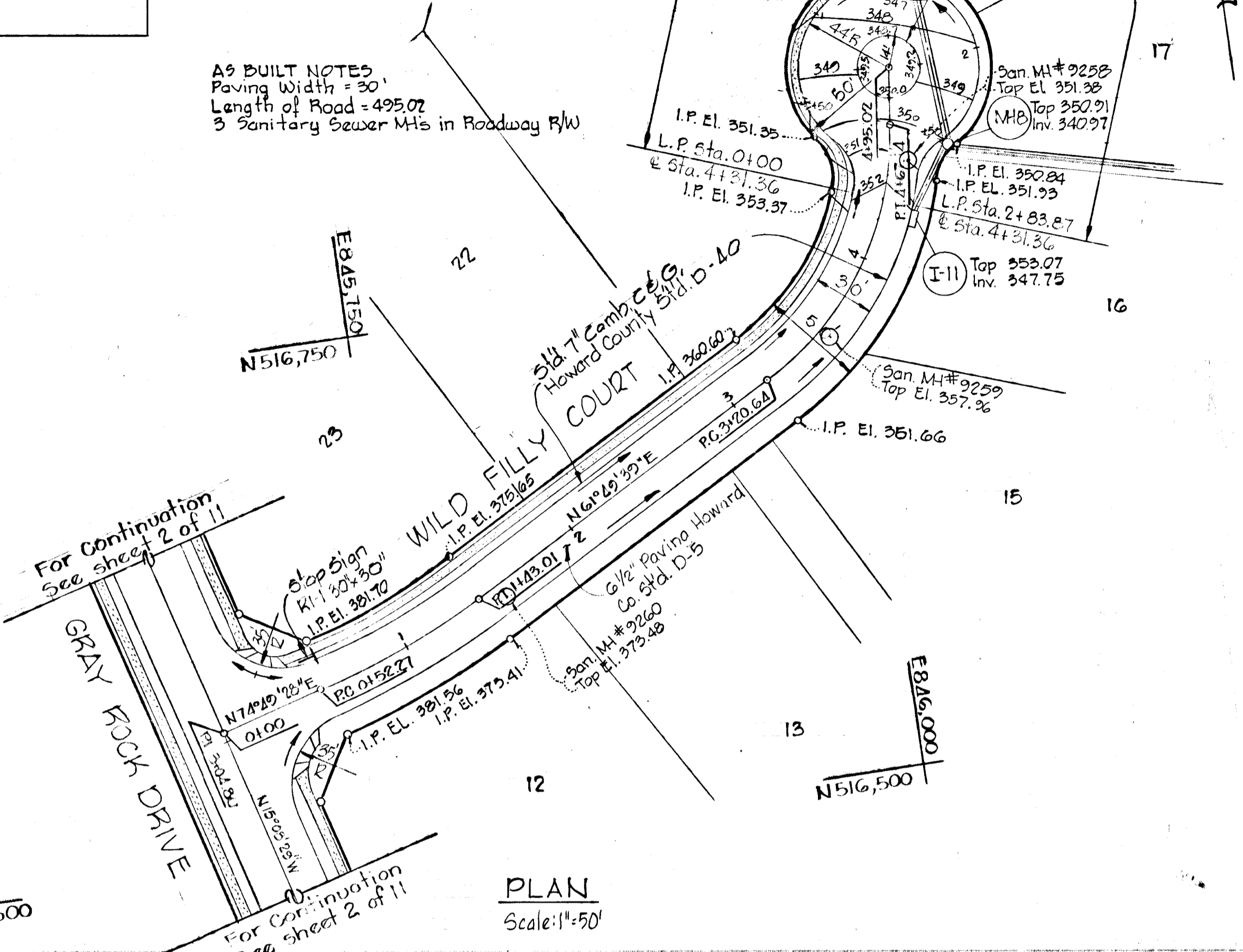
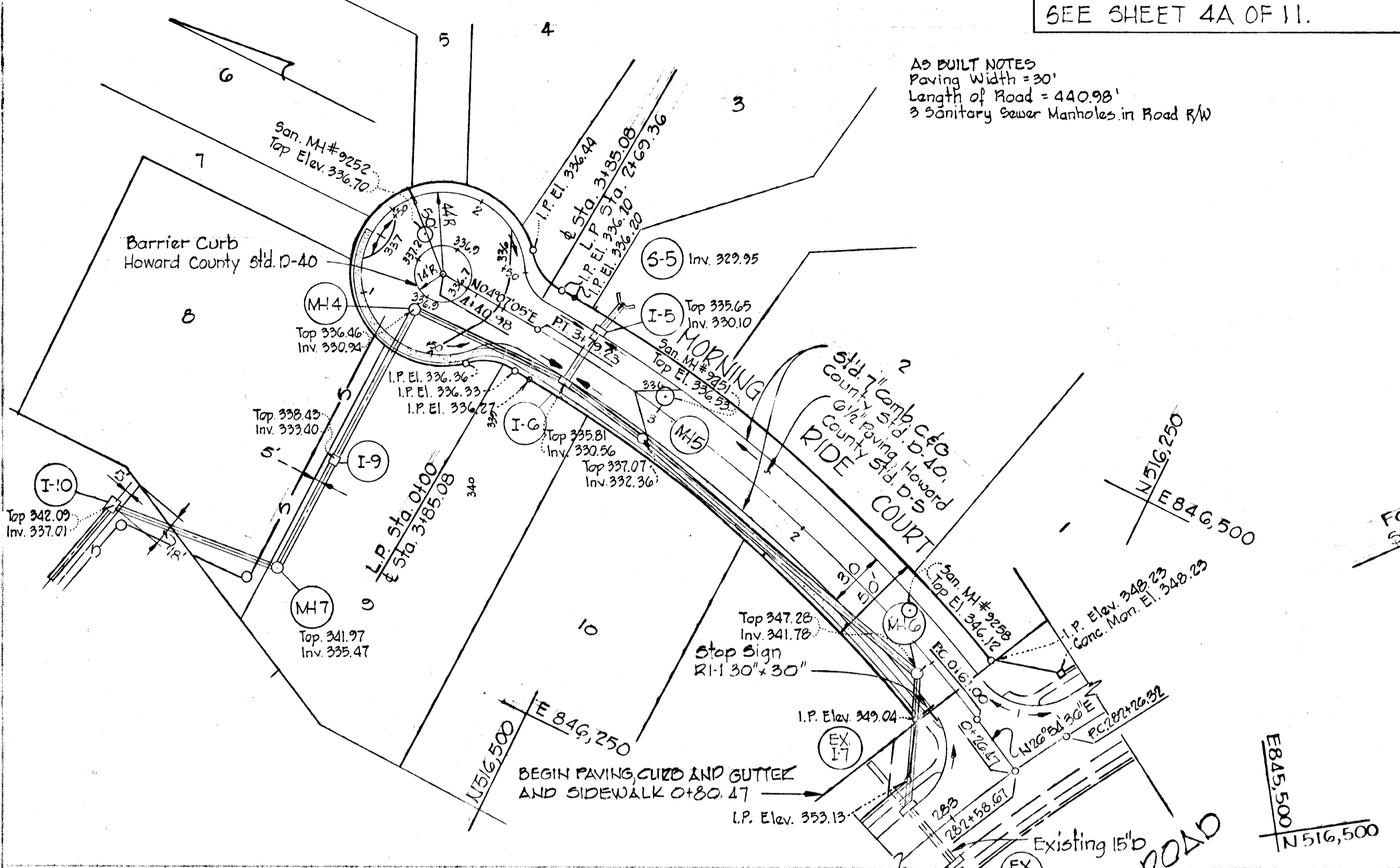
PC: 0+61.00	to	PT: 3+79.23
$\Delta = 22^\circ 47' 30''$	Tan	161.25'
$R = 800.00'$	Ch.	316.14'
Arc = 318.23'	Brg.	N 15° 30' 51" E

ORIGINAL PAPER AS-BUILT signed & sealed by
KENNETH A. MCCORD PE #1974 Sept 10 '81

NOTE:
FOR STORM DRAIN INFORMATION
SEE SHEET 4A OF 11.

AS BUILT NOTES
Paving Width = 30'
Length of Road = 440.98'
3 Sanitary Sewer Manholes in Road R/W

AS BUILT NOTES
Paving Width = 30'
Length of Road = 495.07'
3 Sanitary Sewer Mts in Roadway R/W



DEPARTMENT OF PUBLIC WORKS
W.D. Fallert 8-13-79
CHIEF, BUREAU OF ENGINEERING DATE
OFFICE OF PLANNING AND ZONING
William Charles Keady 8/3/79
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

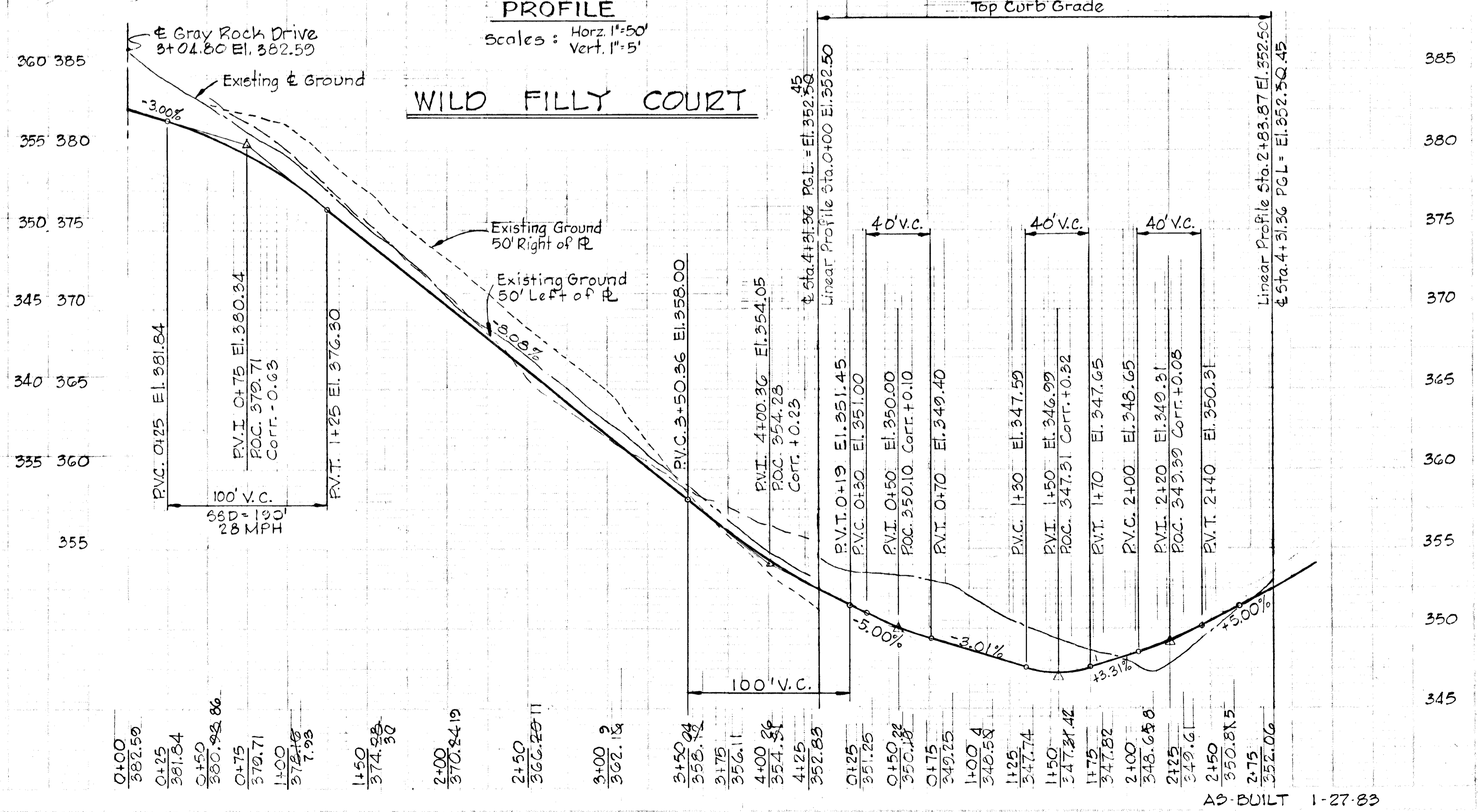
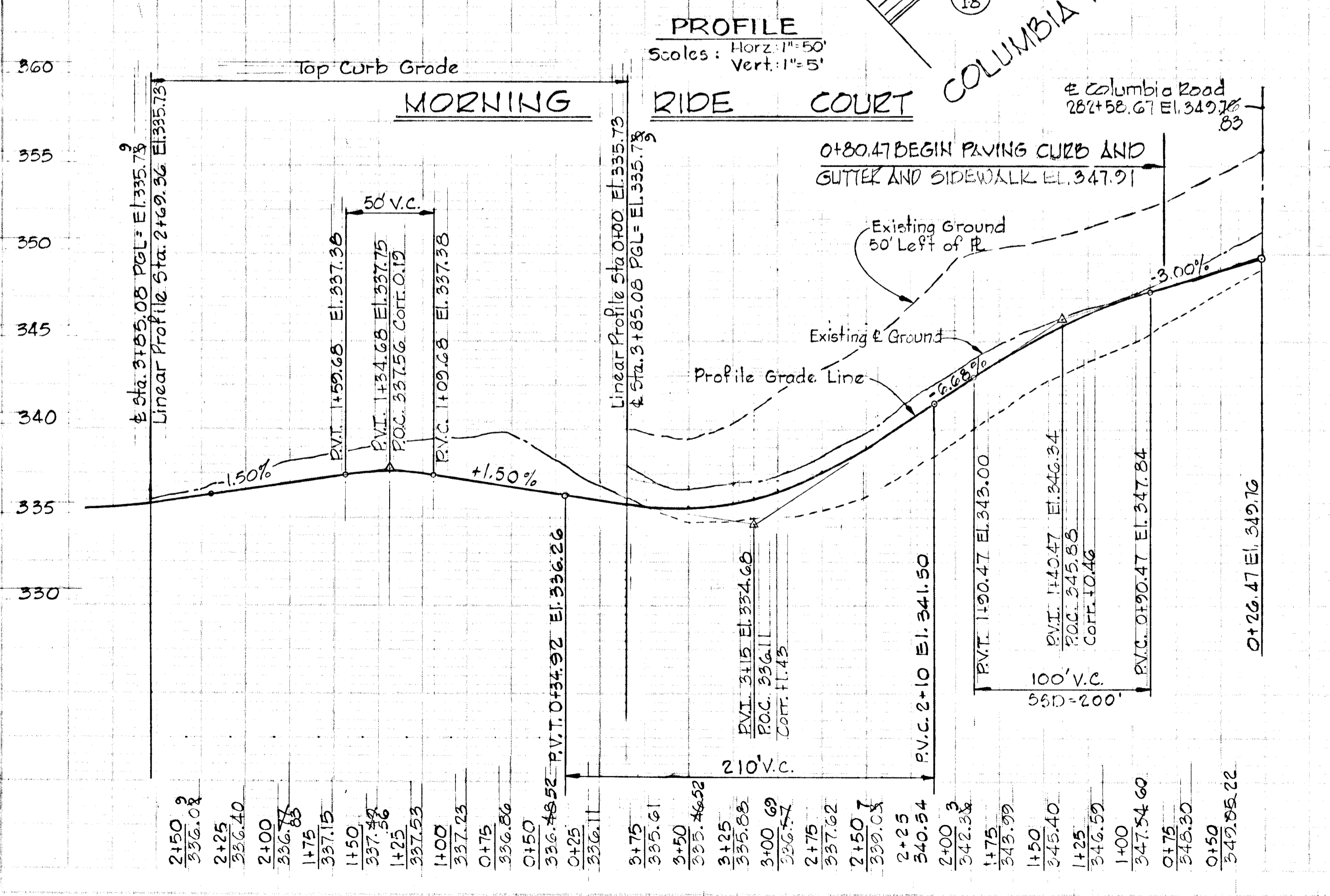
PC: 0+62.27 to PT: 1+43.01

$\Delta = 125^\circ 49'$	Tan = 45.50'
$R = 400.00'$	Ch. = 90.54'
Arc = 90.74'	Brg. = N 65° 10' 23" E

PC: 3+20.64 to PT: 4+67.14

$\Delta = 55^\circ 51' 28''$	Tan = 79.63'
$R = 150.00'$	Ch. = 140.74'
Arc = 146.50'	Brg. = N 33° 50' 55" E

Rev. Date	Rev. No.	Revision Description
		DORSEY HALL 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.
		PROJECT AREA SECTION 1 AREA 2
		PROJECT TITLE PLAN AND PROFILE -MORNING RIDE COURT AND WILD FILLY COURT
		SCALE: AS SHOWN DATE
		WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202
		<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974

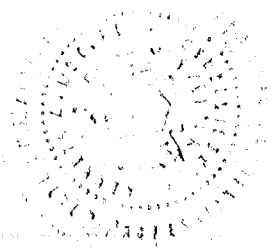


ORIGINAL PAPER AS-BUILT SIGNED AND SEALED BY KENNETH A. McCORD, P.E. #1974-9-10-81

Note:
 For Cul-de-sac Curve Data, See sheet 2 of 17

Rev. Date	Rev. No.	Revision Description
		DORSEY HALL 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.
		PROJECT AREA SECTION 1 AREA 2
		PROJECT TITLE PLAN AND PROFILE OXBOW COURT
		SCALE: AS SHOWN DATE
		WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202

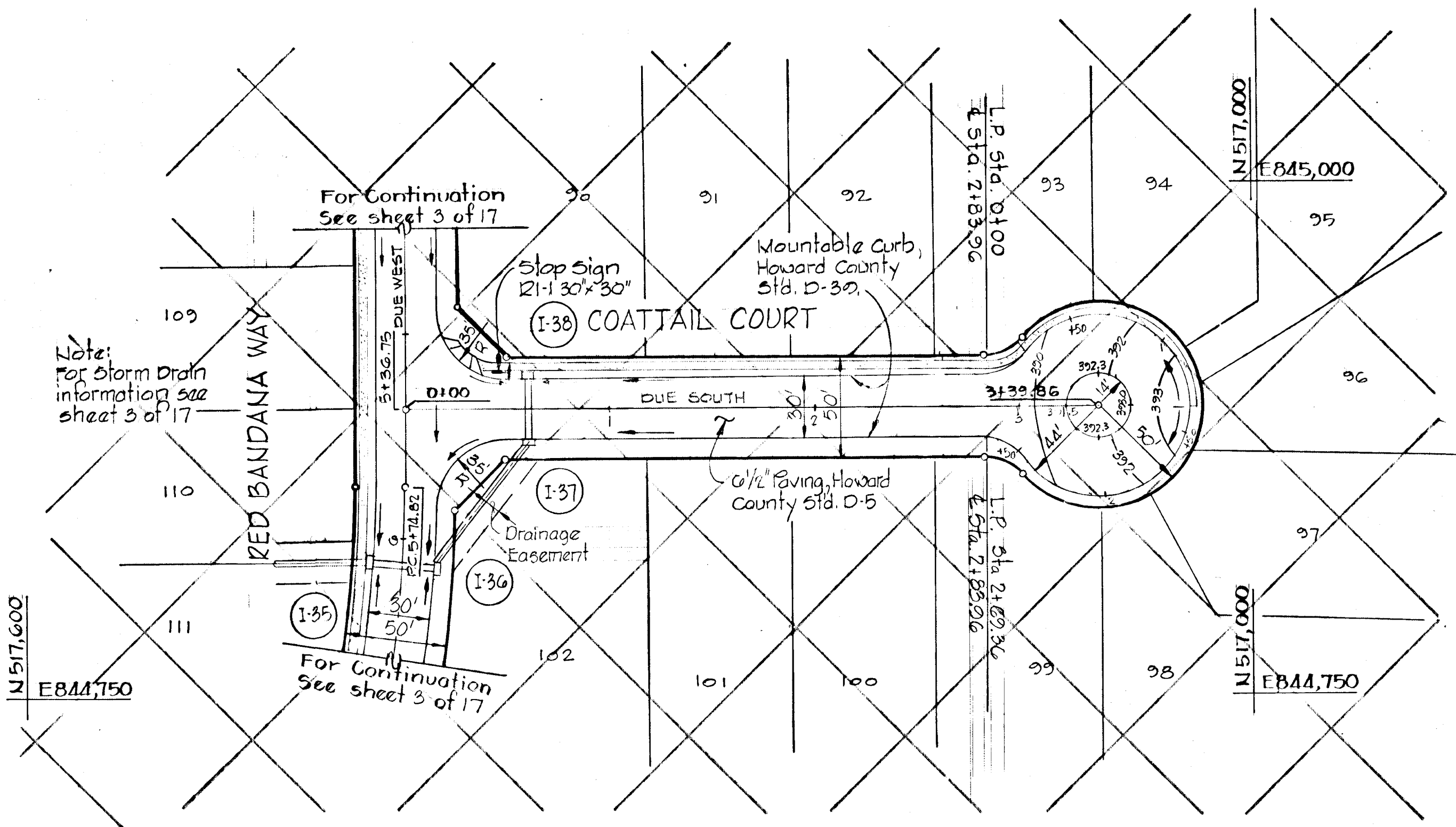
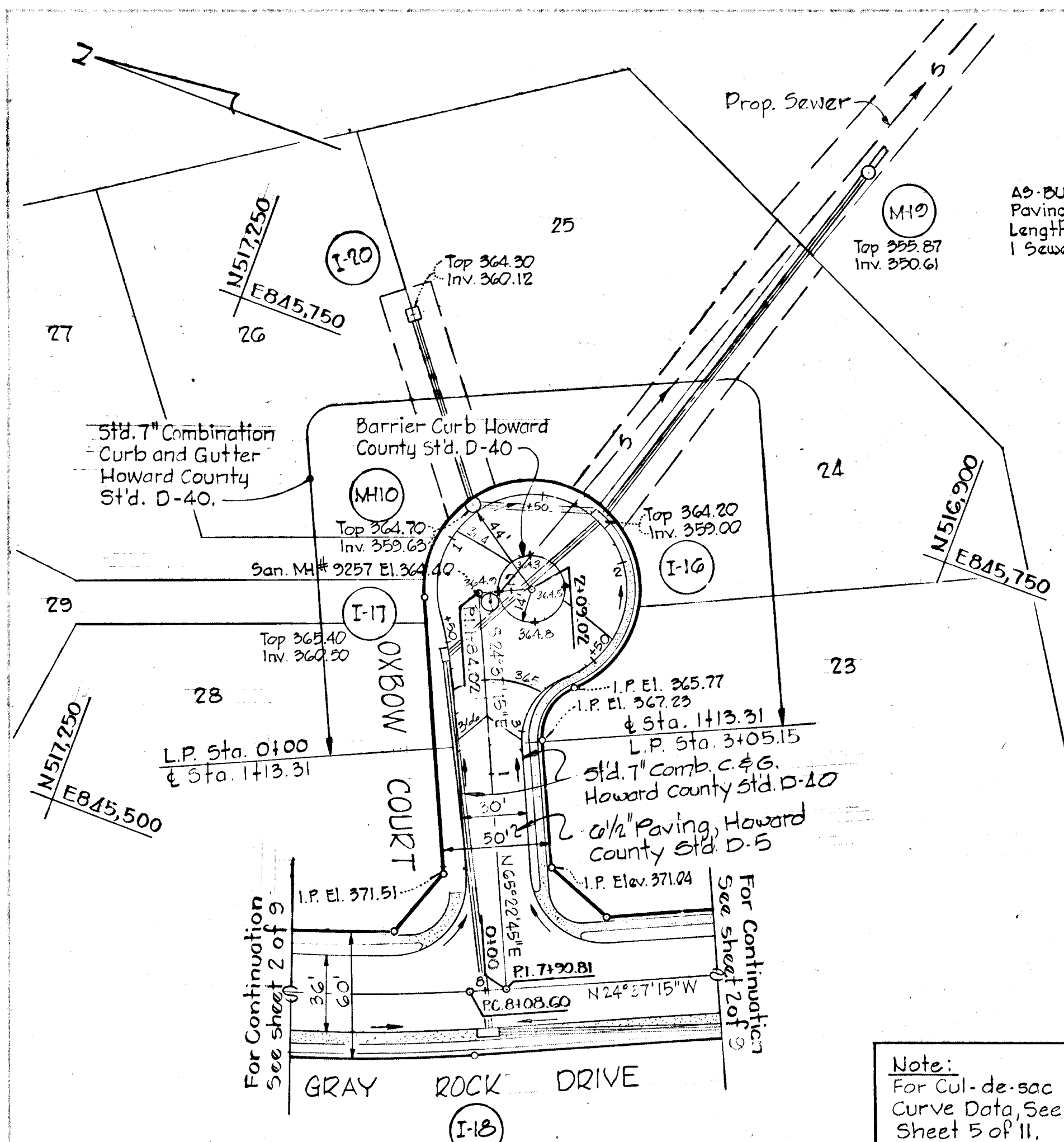
Kenneth A. McCord
 KENNETH A. McCORD
 Registered Engineer
 No. 1974



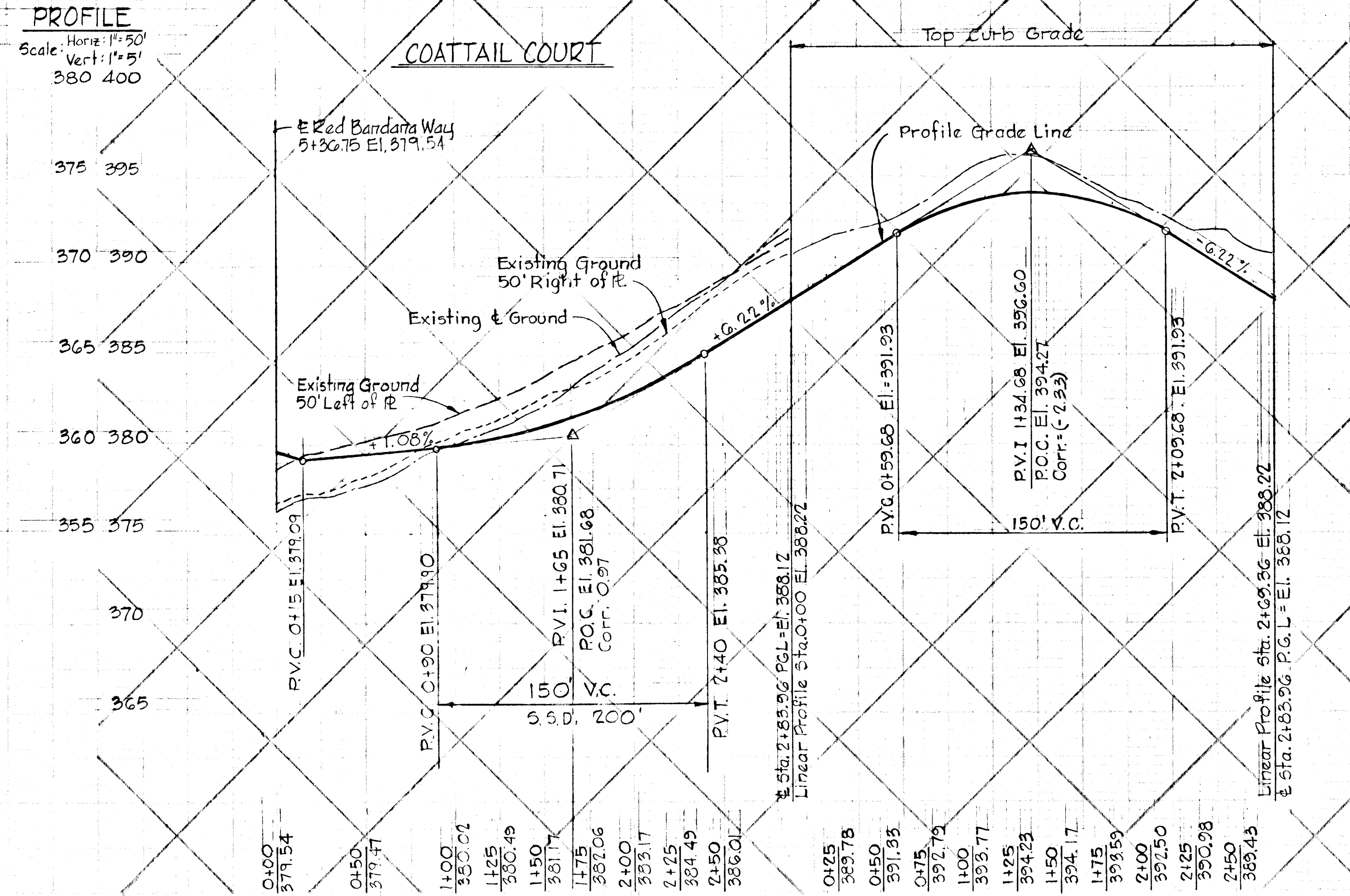
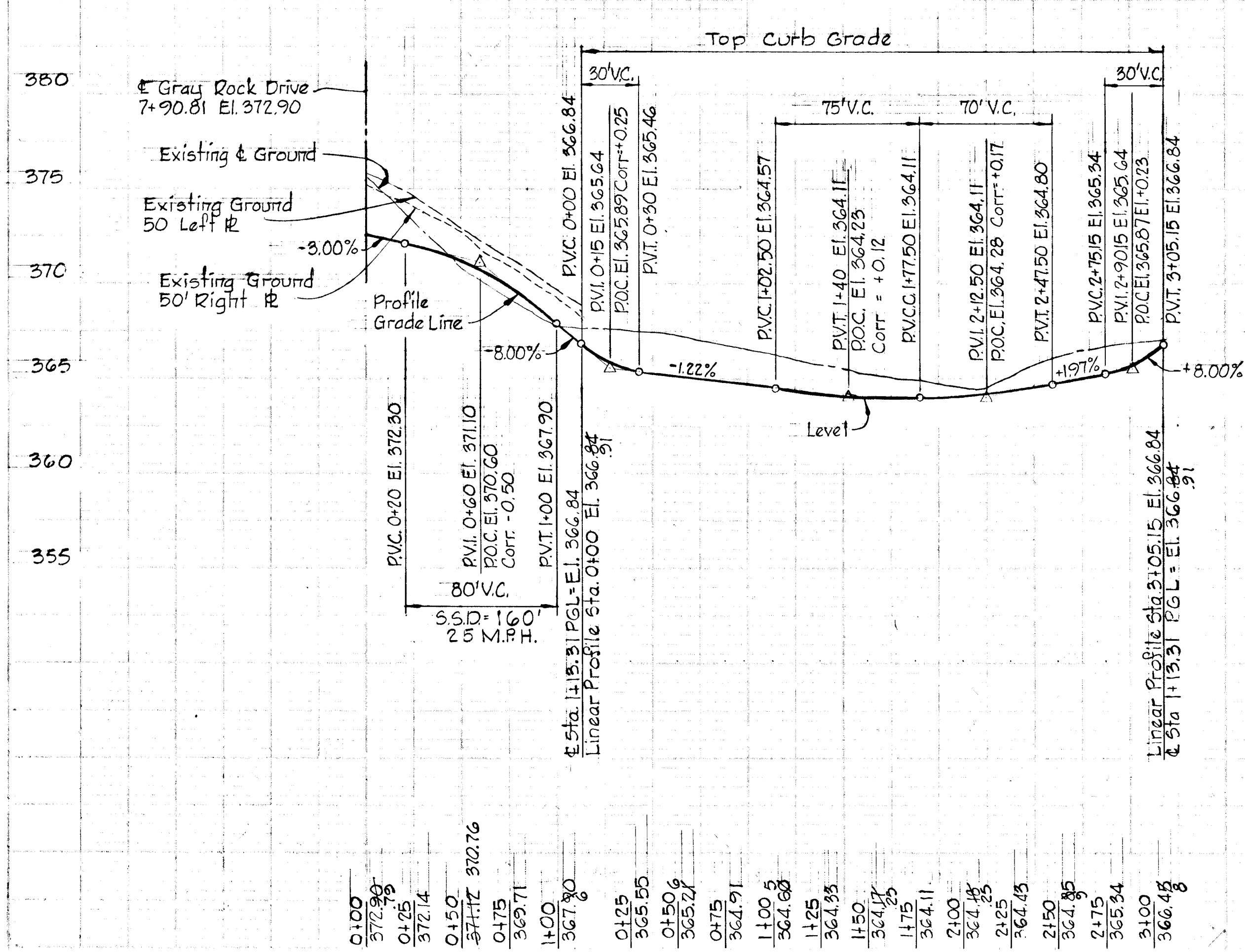
NOTE:
 FOR STORM DRAIN INFORMATION
 SEE SHEET 4A OF 11

AS-BUILT NOTES
 Paving Width = 30'
 Length of Road = 210'
 1 Sewer MA in R/W

Note:
 For Cul-de-sac Curve Data, See Sheet 5 of 11.



PLAN
 Scale: 1" = 50'

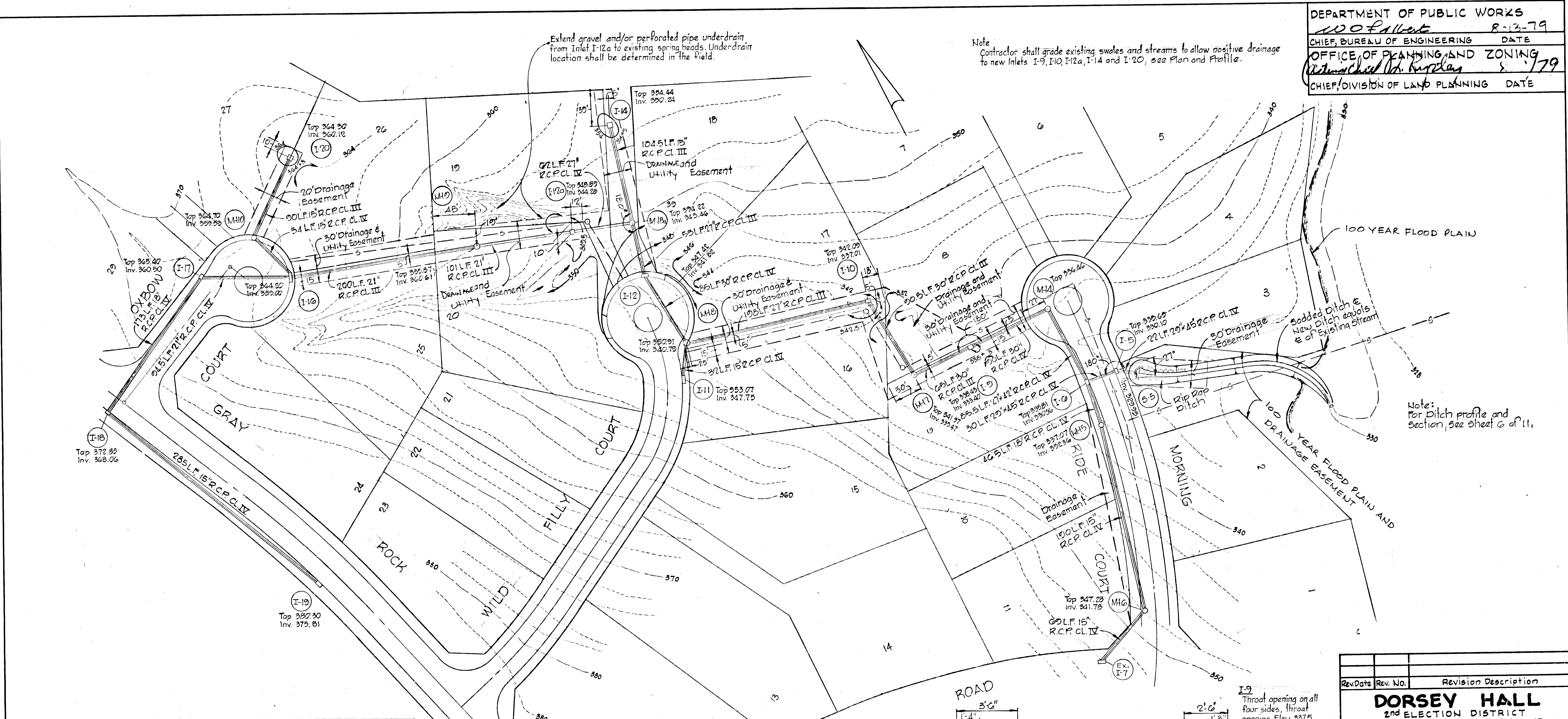


F-79-89

7/25/79

"X" - "W"

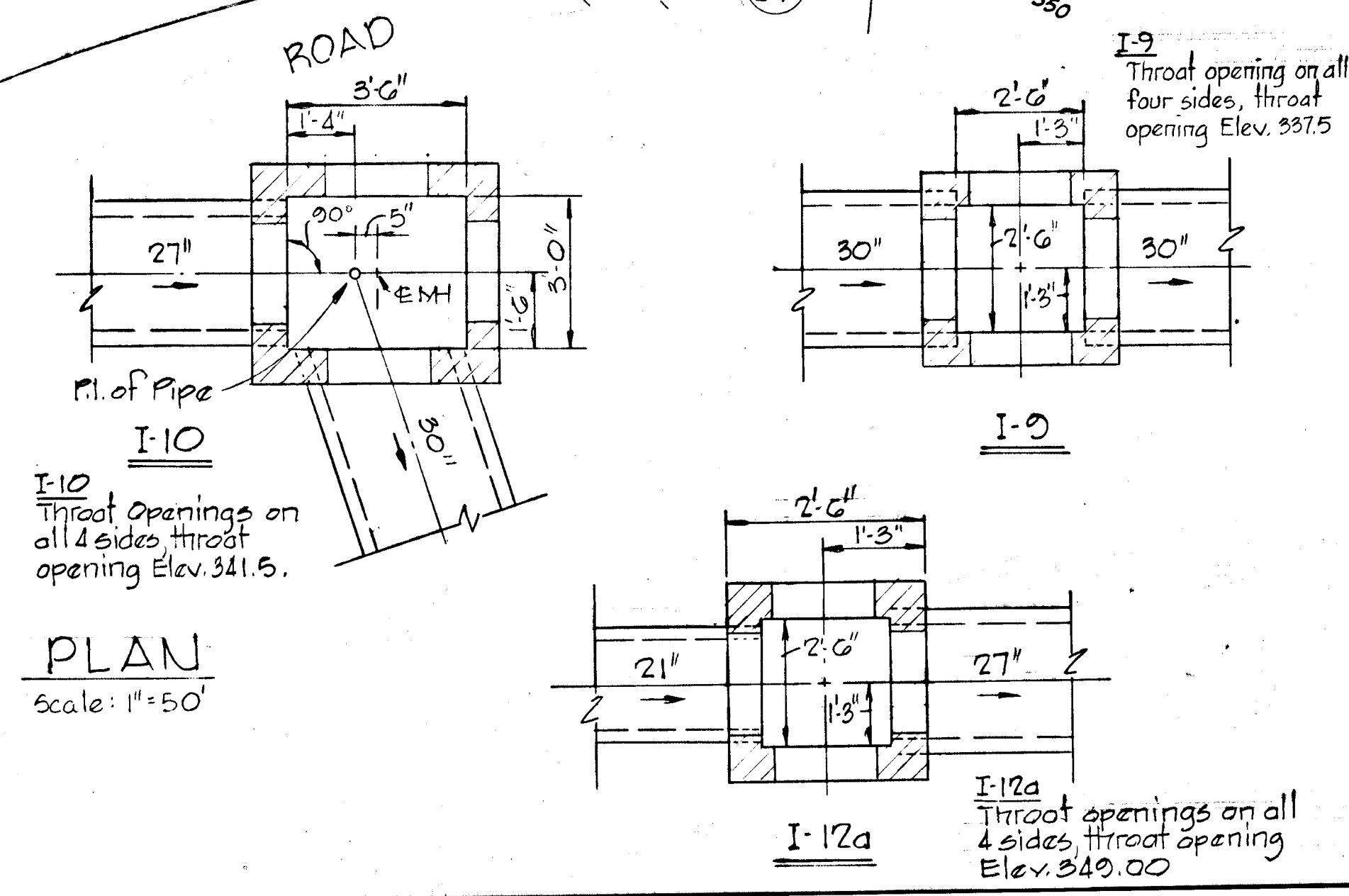
Note: Contractor shall grade existing swales and streams to allow positive drainage to new Inlets I-9, I-10, I-12a, I-14 and I-20, see Plan and Profile.



STORM DRAIN STRUCTURE SCHEDULE					
NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	LOCATION
* I-5	Std. A-5 Inlet, width: 2.5'	335.64	330.20	330.00	At Inlet 16.17 Right of Sta. 3151
I-6	Std. A-5 Inlet, width: 4.0'	335.64	330.47	330.27	At Inlet 16.92 Left of Sta. 3151
I-9	Type D Inlet, see det. this sheet	338.33	333.65	333.35	See Plan and Profile
I-10	Type D Inlet, see det. this sheet	342.33	337.21	337.01	See Plan and Profile
* I-11	Std. A-10 Inlet, width: 2.5'	353.01	—	347.40	At Inlet 10.17 Right of Sta. 4+25
I-12	Std. A-5 Inlet, width: 2.5'	347.51	341.77	341.52	At Inlet 1.25 back L.P. Sta. 1+50
I-12a	Std. Type D Inlet	340.50	344.42	343.92	See Plan and Profile
I-14	Std. Type D Inlet	354.50	—	350.24	See Plan and Profile
I-16	Std. A-10 Inlet, width: 2.5'	364.11	359.09	358.89	At Inlet 1.25 back L.P. Sta. 1+01.25
I-17	Std. A-5 Inlet, width: 2.5'	365.29	360.50	360.25	At Inlet 1.25 back L.P. Sta. 0+44
I-18	Std. A-10 Inlet, width: 2.5'	372.83	368.32	368.07	At Inlet 10.17 Left of Sta. 8+00
I-19	Std. A-5 Inlet, width: 2.5'	380.30	—	375.50	At Inlet 10.17 Left of Sta. 5+05
I-20	Std. Type D Inlet	364.33	—	359.90	See Plan and Profile
M44	Special Manhole, see det. sheet	332.40	331.03	330.85	See Plan and Profile
M45	Type B Manhole, see det. sheet	336.90	332.23	331.98	At Manhole 18.0' Left of Sta. 2+97
M46	Std. Manhole	347.24	341.68	341.61	At Manhole 10.0' Left of Sta. 1+00
M47	Std. Manhole	342.25	335.53	335.35	See Plan and Profile
M48	Std. Manhole	350.70	341.12	340.97	See Plan and Profile
M49	Std. Manhole	349.50	343.62	343.42	See Plan and Profile
M49	Std. Manhole	356.00	351.00	350.80	See Plan and Profile
M49	Std. Manhole	364.43	359.53	359.33	At Manhole 3.0' back L.P. Sta. 1+10.93
M51	Type A Headwall, see det. sheet	—	329.95	329.95	See Plan and Profile

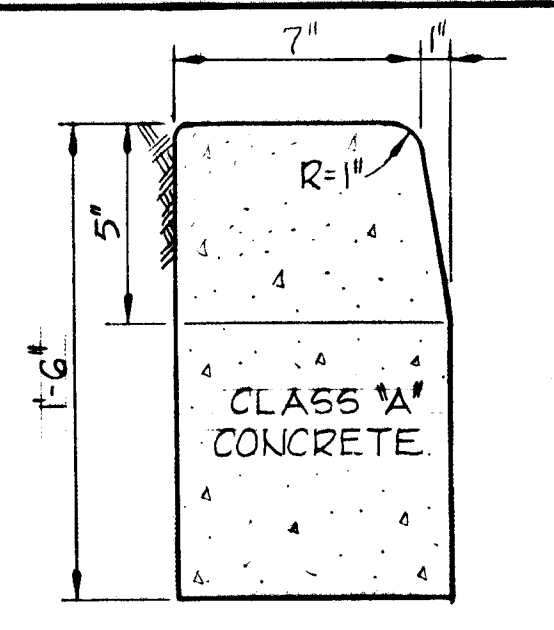
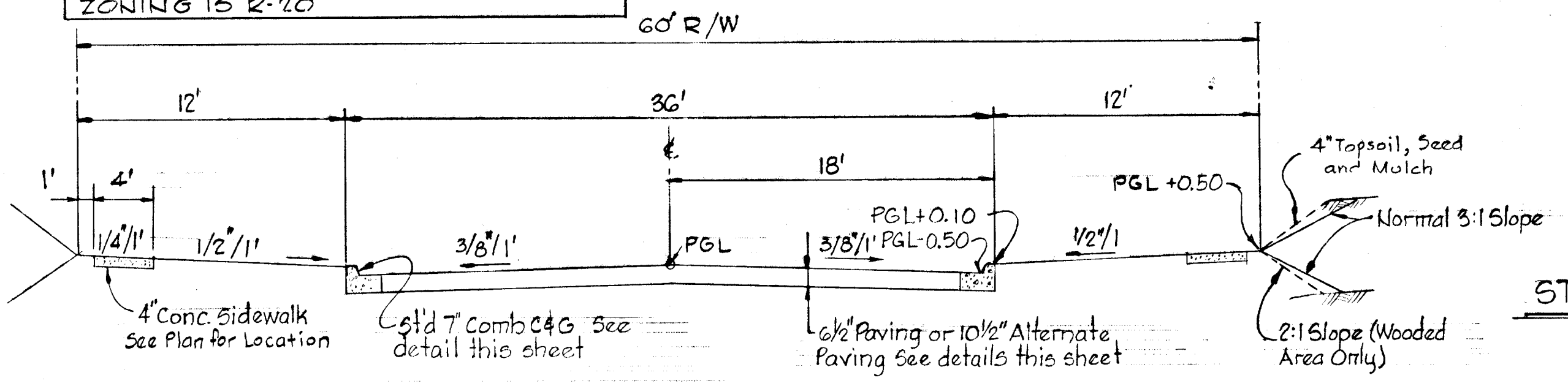
Throat Op'g: 349.00
 Throat Op'g: 353.67
 Throat Op'g: 363.50

NOTES:
 1. Standard A-5 Inlet, Howard County Dwg. G4-A, Page 119-A.
 2. Standard Type D Inlet, similar to Howard County Dwg. G4-C, Page 119-C.
 3. Standard Manhole, Howard County Dwg. D-103, Page 158.
 4. * Denotes Inlet with detector, see detail sheet 7 of 11.
 5. For storm drain profiles, see sheet 6 of 11.
 6. D Inlets I-12a, I-14 and I-20 have standard 2'-6" square inside dimension, all four sides open.

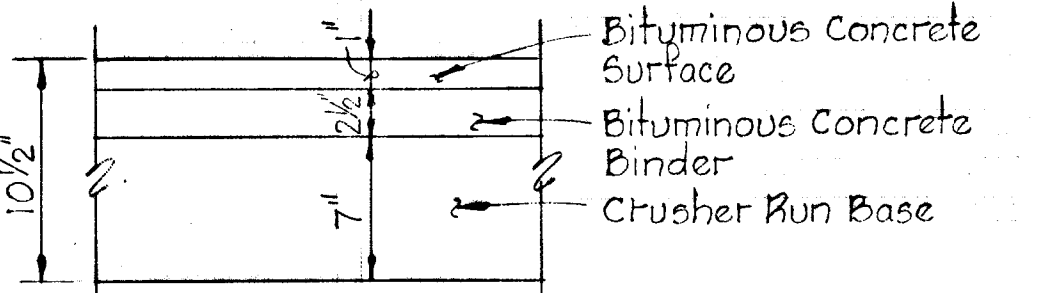


Rev. Date	Rev. No.	Revision Description
DORSEY HALL 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA SECTION 1 AREA 2		
PROJECT TITLE STORM DRAIN PLAN		
SCALE: AS SHOWN		DATE
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

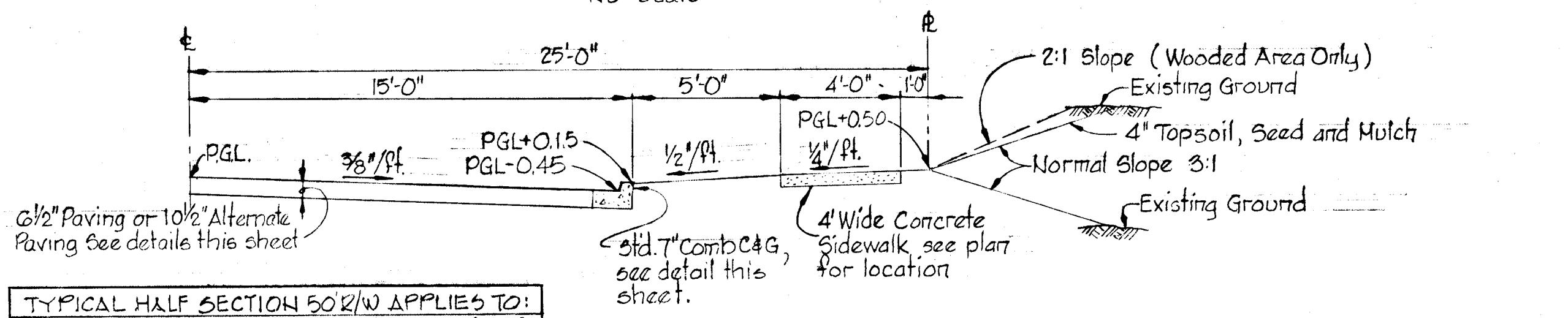
TYPICAL HALF SECTION 60' R/W APPLIES TO:
 GRAY ROCK DRIVE STA. 0+80 TO 12+40
 DESIGN SPEED 15.35 M.P.H.
 ZONING IS R-20



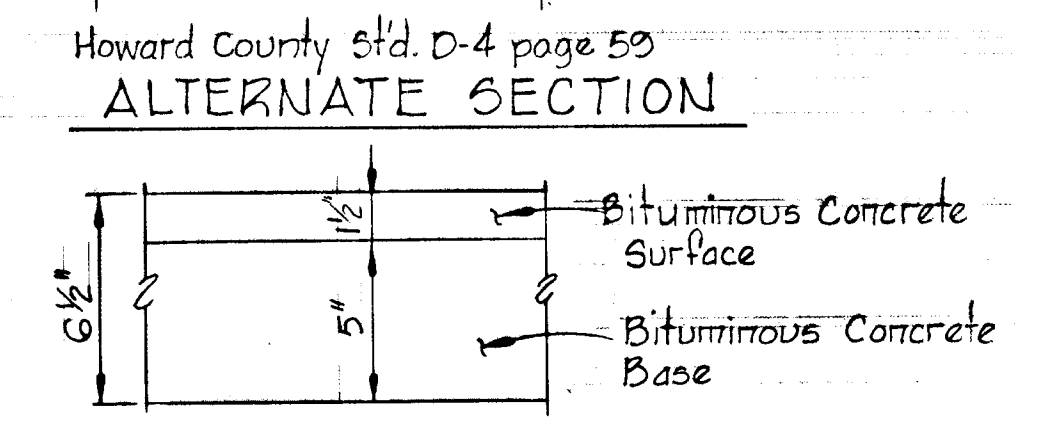
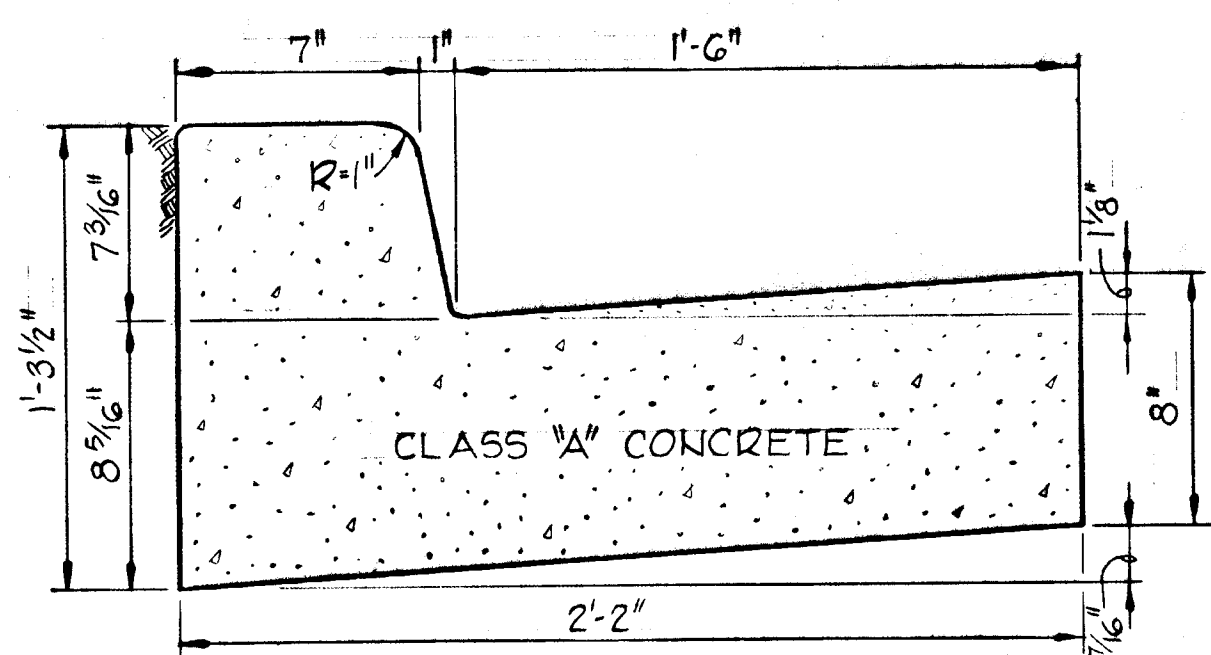
NOTE:
 ONLY ONE OF THE PAVING SECTIONS SHOWN SHALL BE USED FOR THE ROAD CONSTRUCTION PROPOSED UNDER THIS SUBMISSION.



GRAY ROCK DRIVE
 STA. 0+80± TO STA. 12+40±
 No Scale



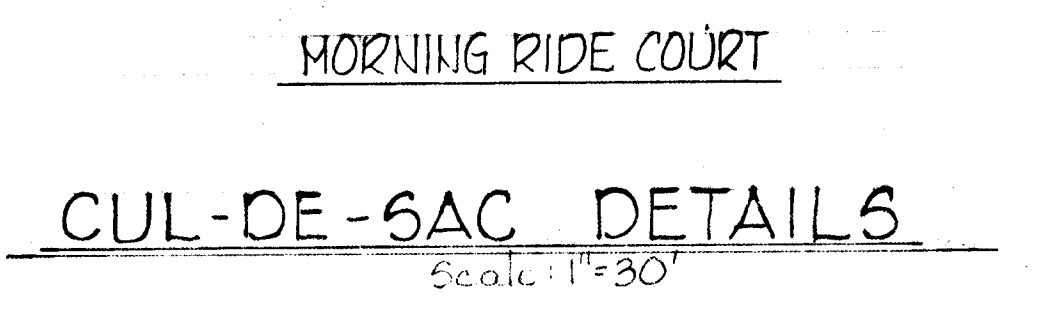
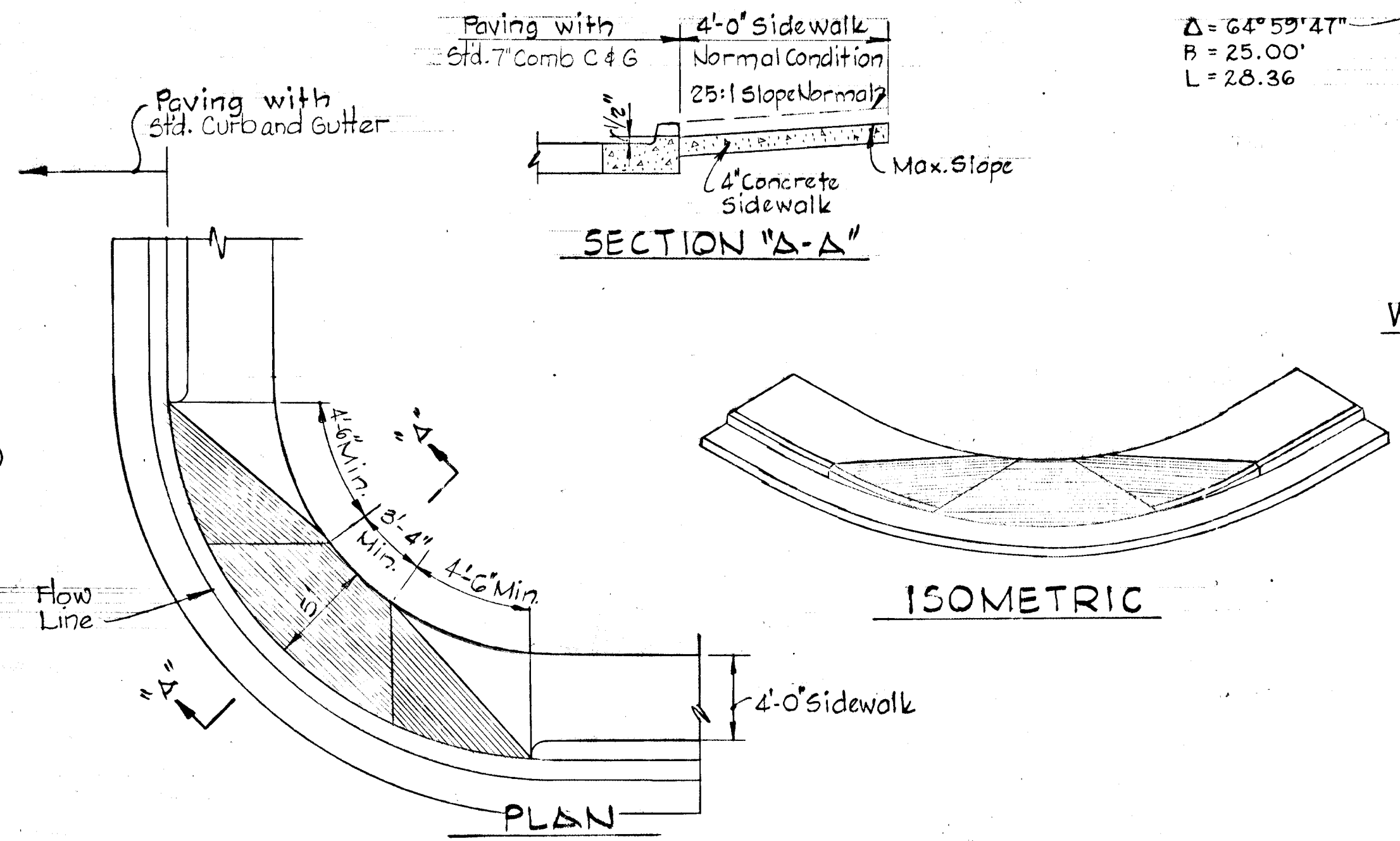
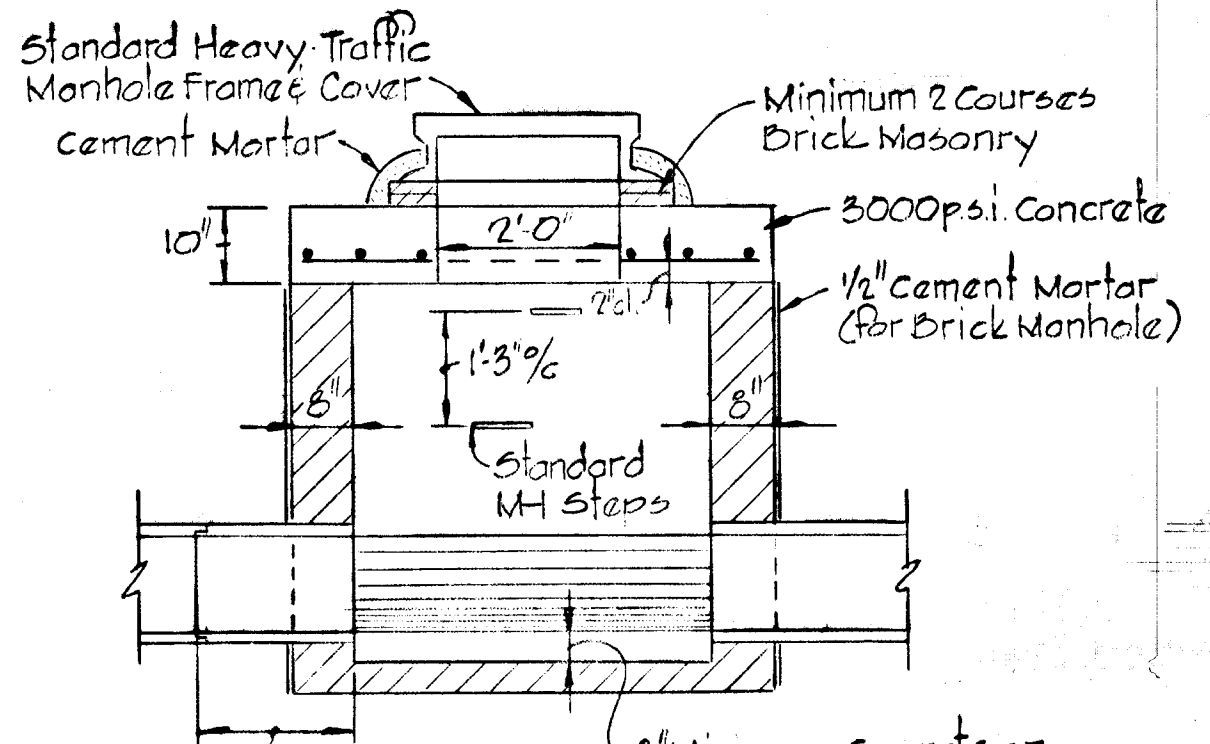
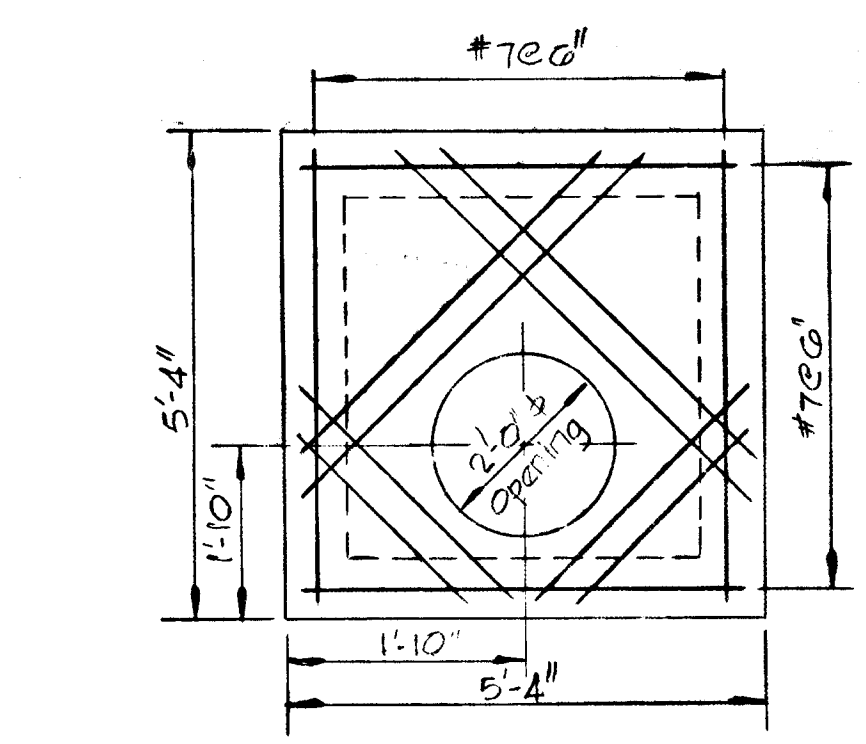
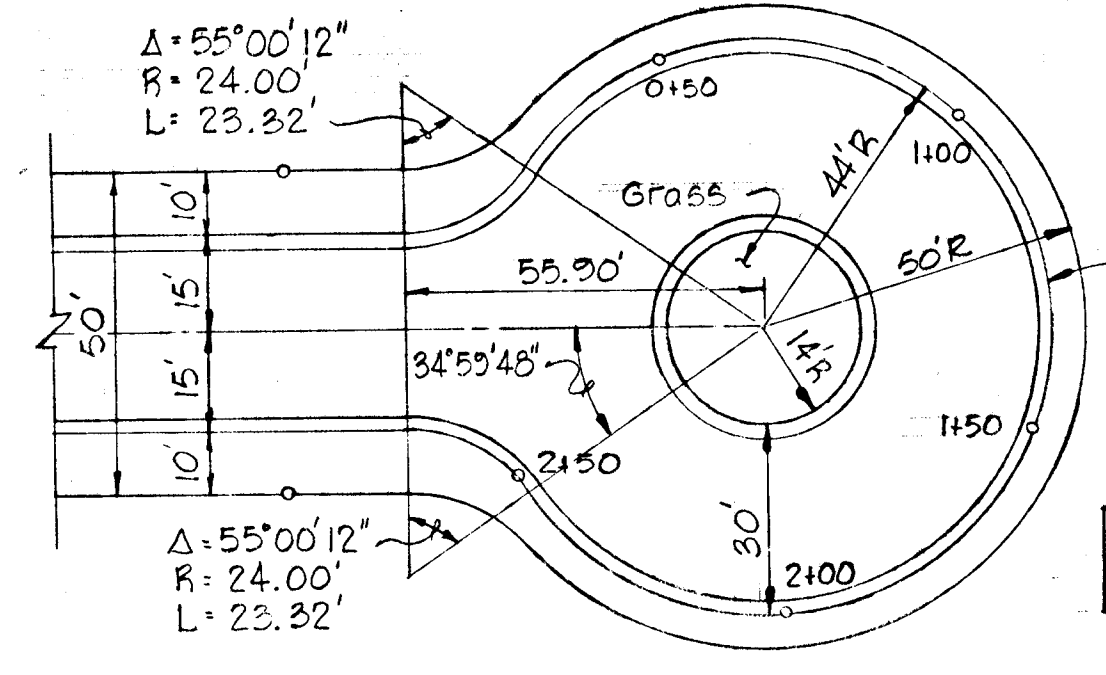
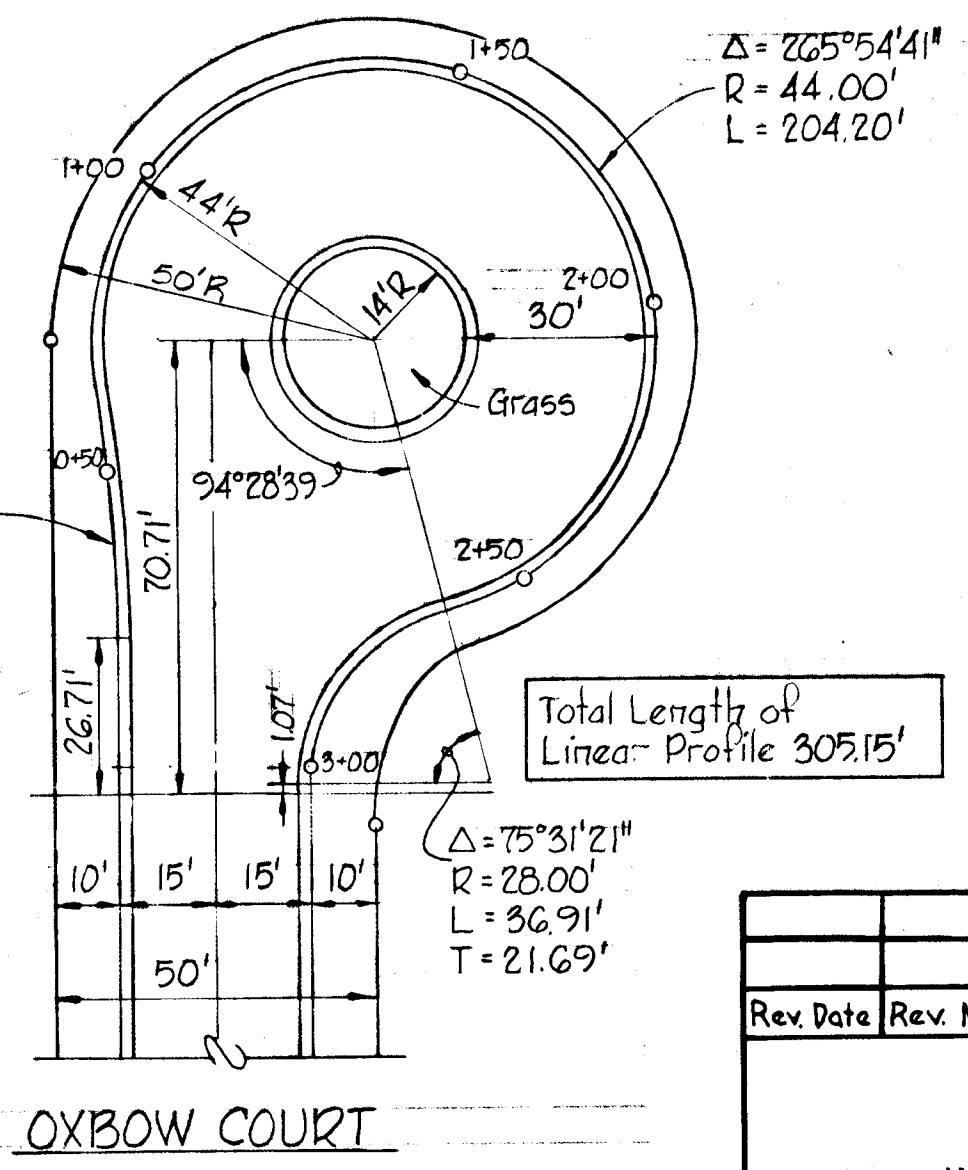
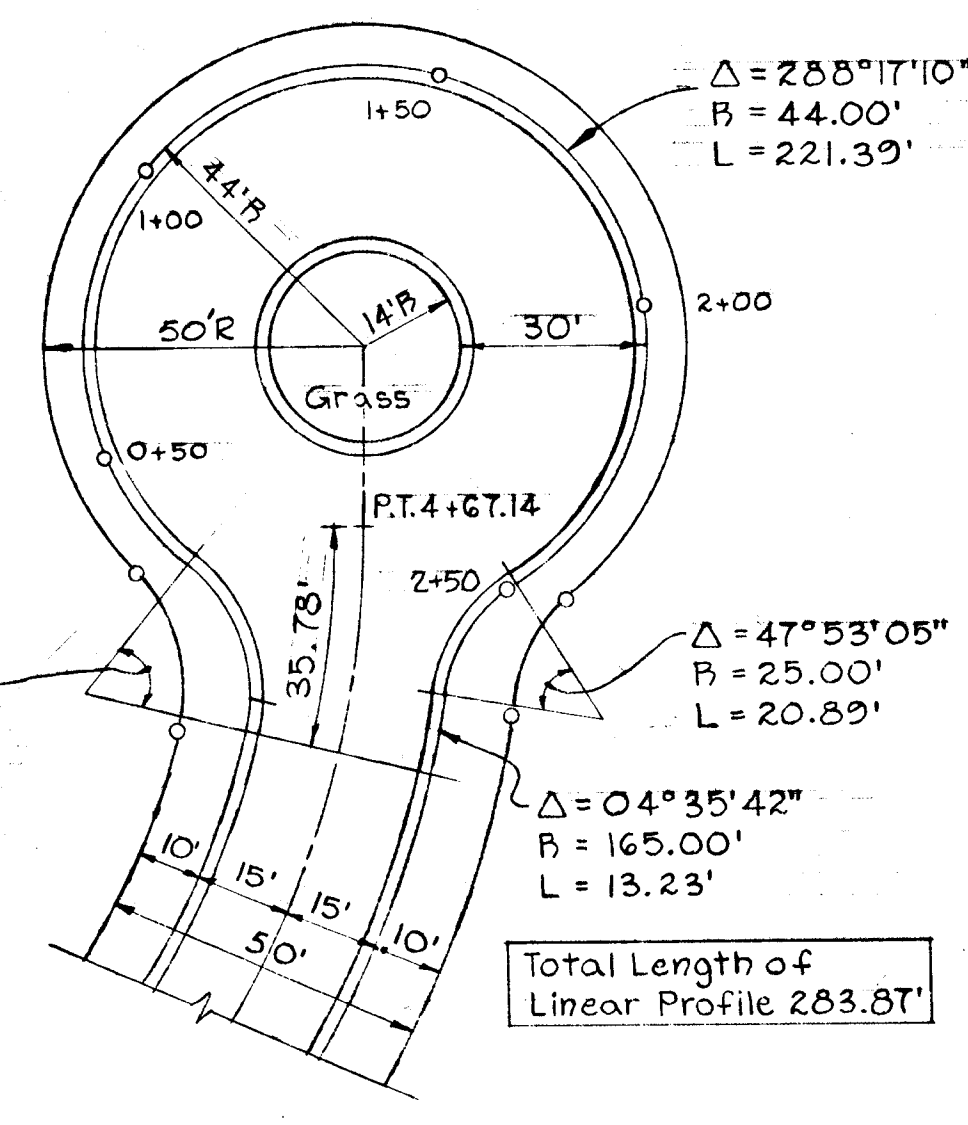
TYPICAL HALF SECTION 50' R/W APPLIES TO:
 MORNING RIDE COURT 0+80.47 TO 3+85.08
 WILD FILLY COURT 0+00.00 TO 4+31.36
 OXBOW COURT 0+00.00 TO 1+13.31
 DESIGN SPEED 15.30 M.P.H.
 ZONING IS R-20



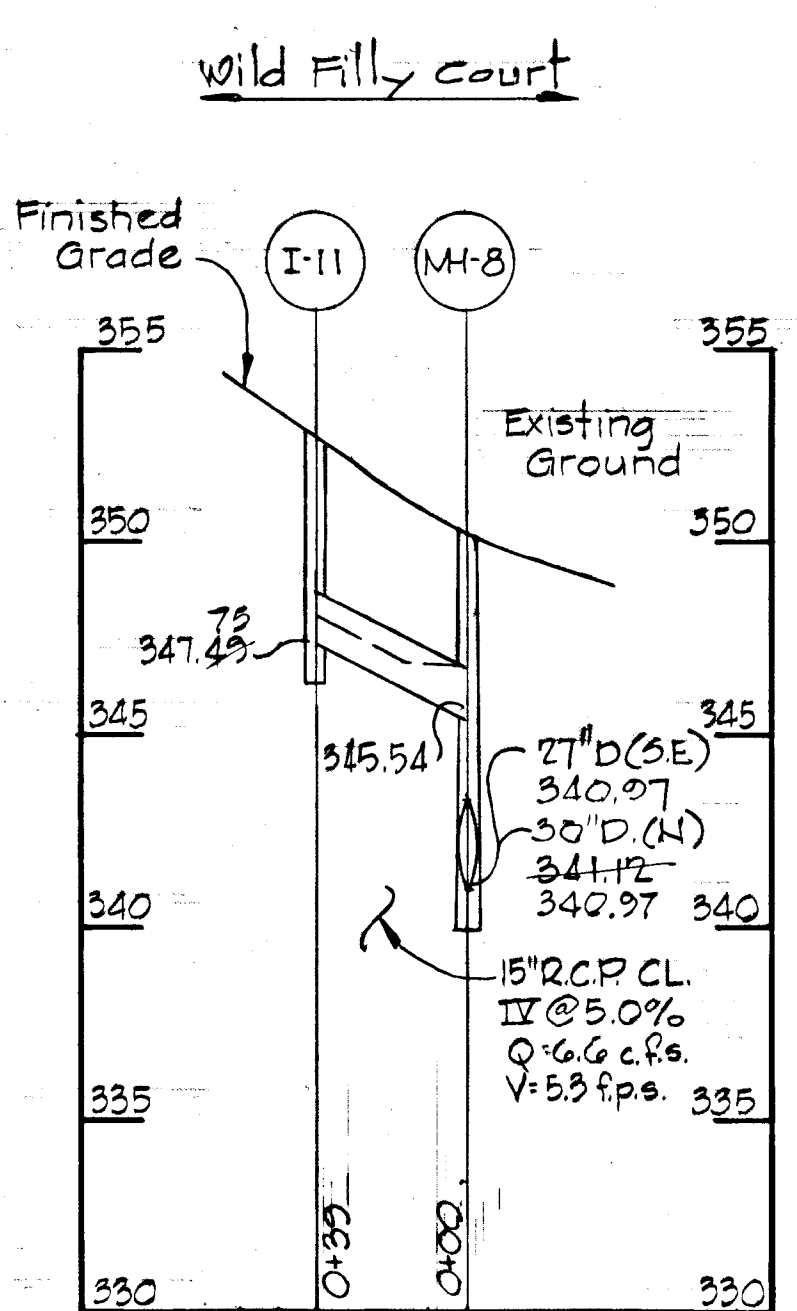
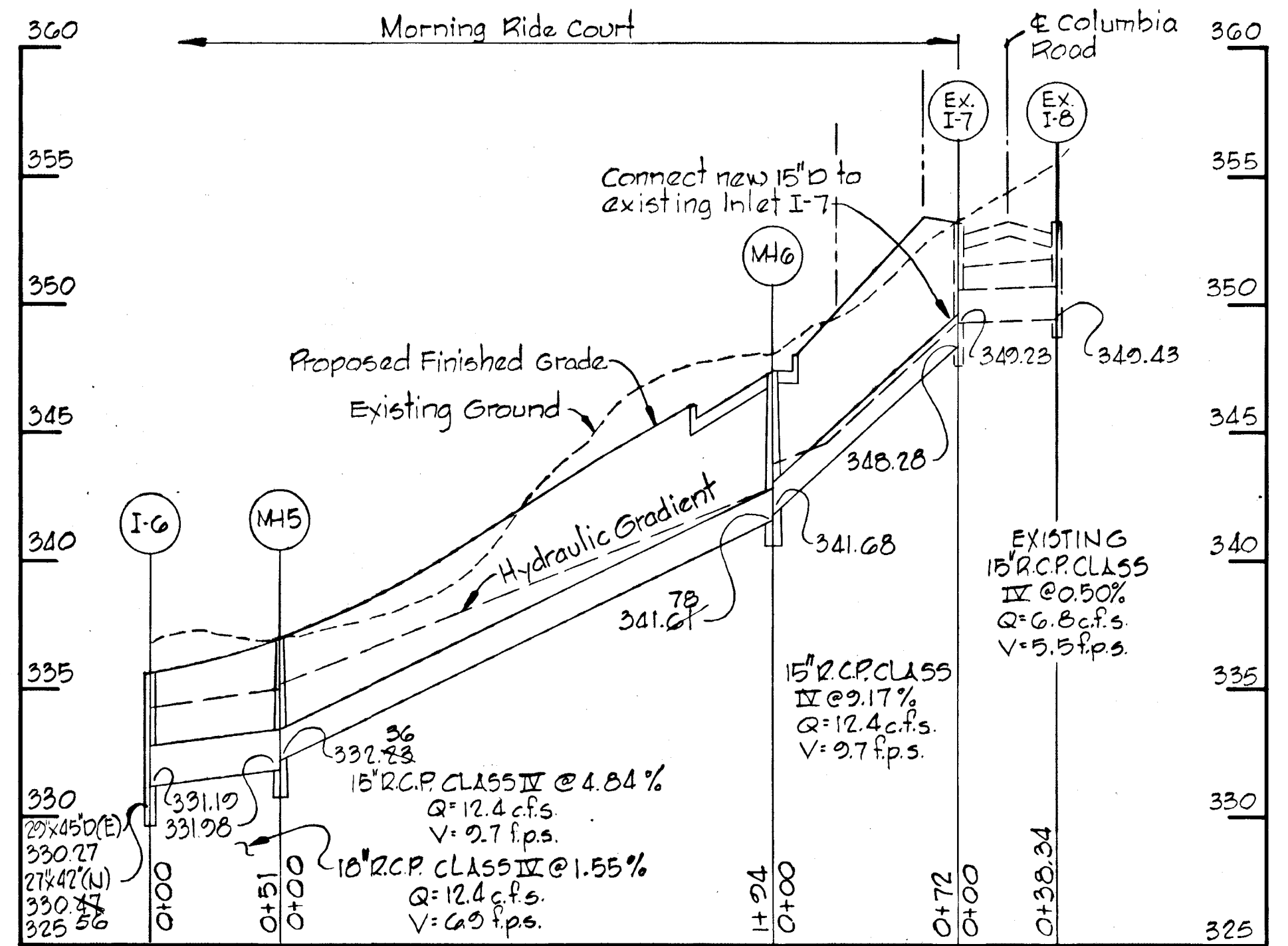
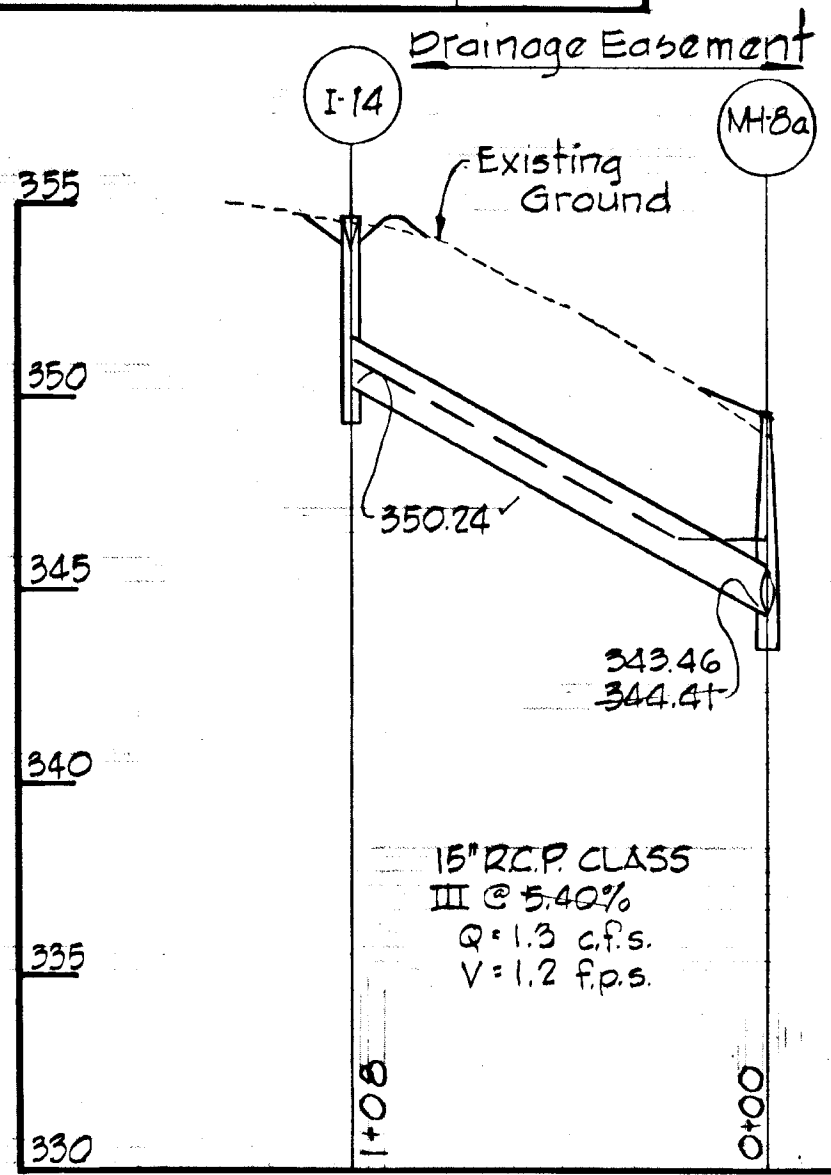
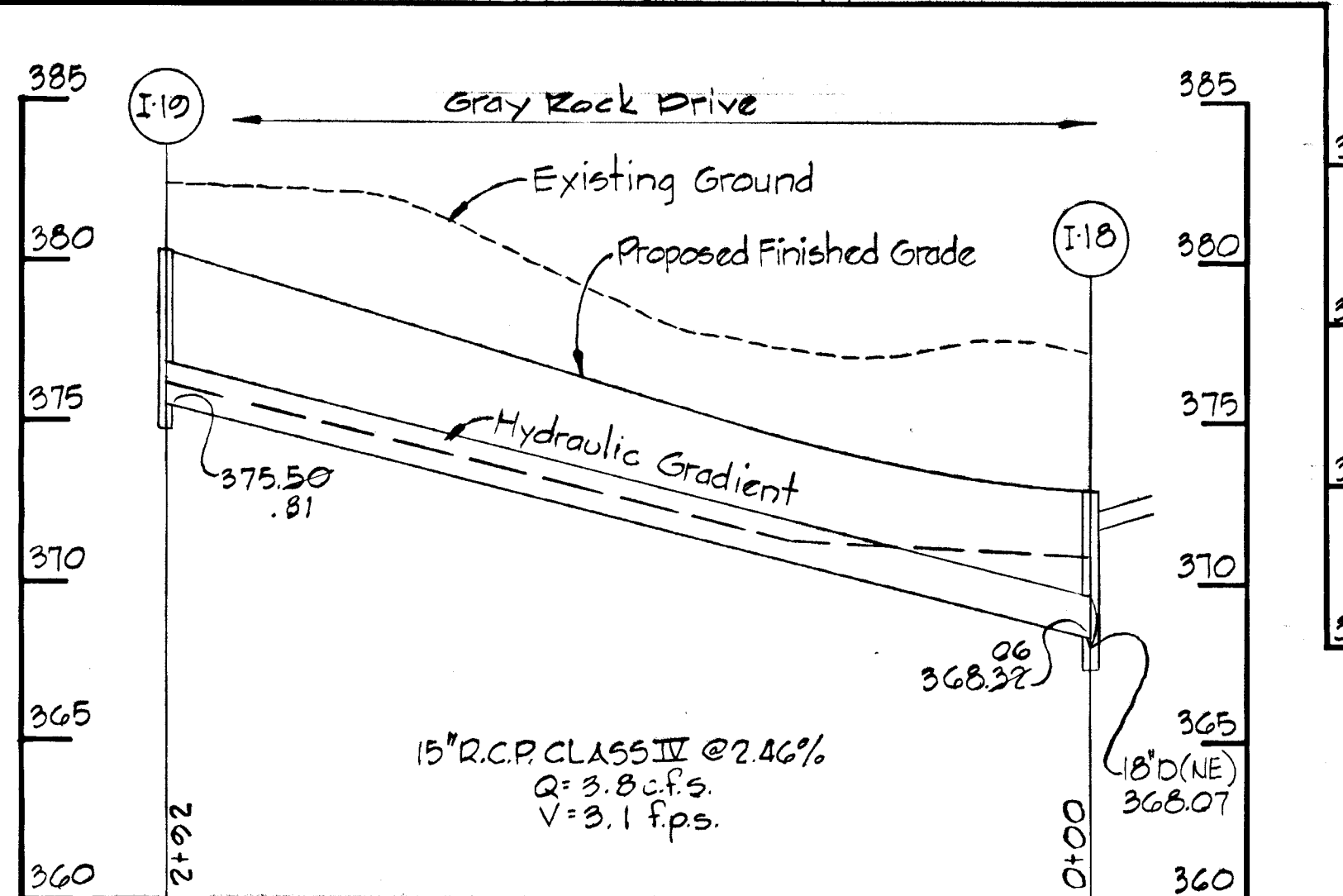
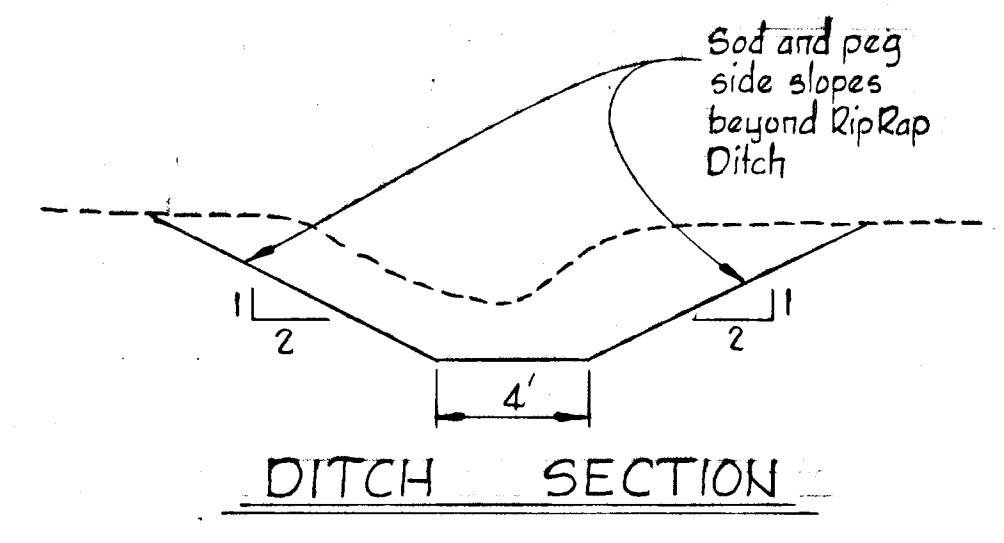
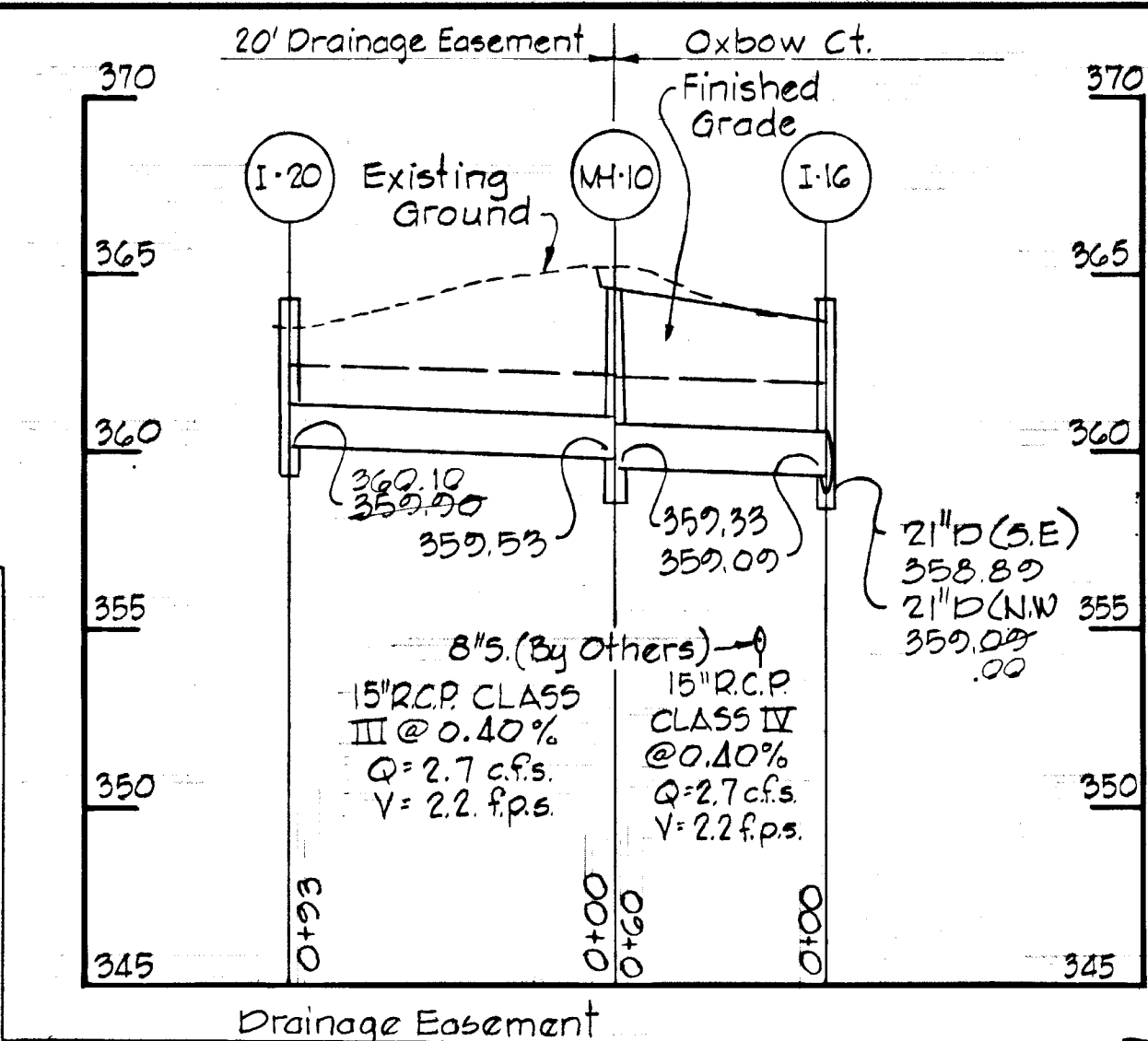
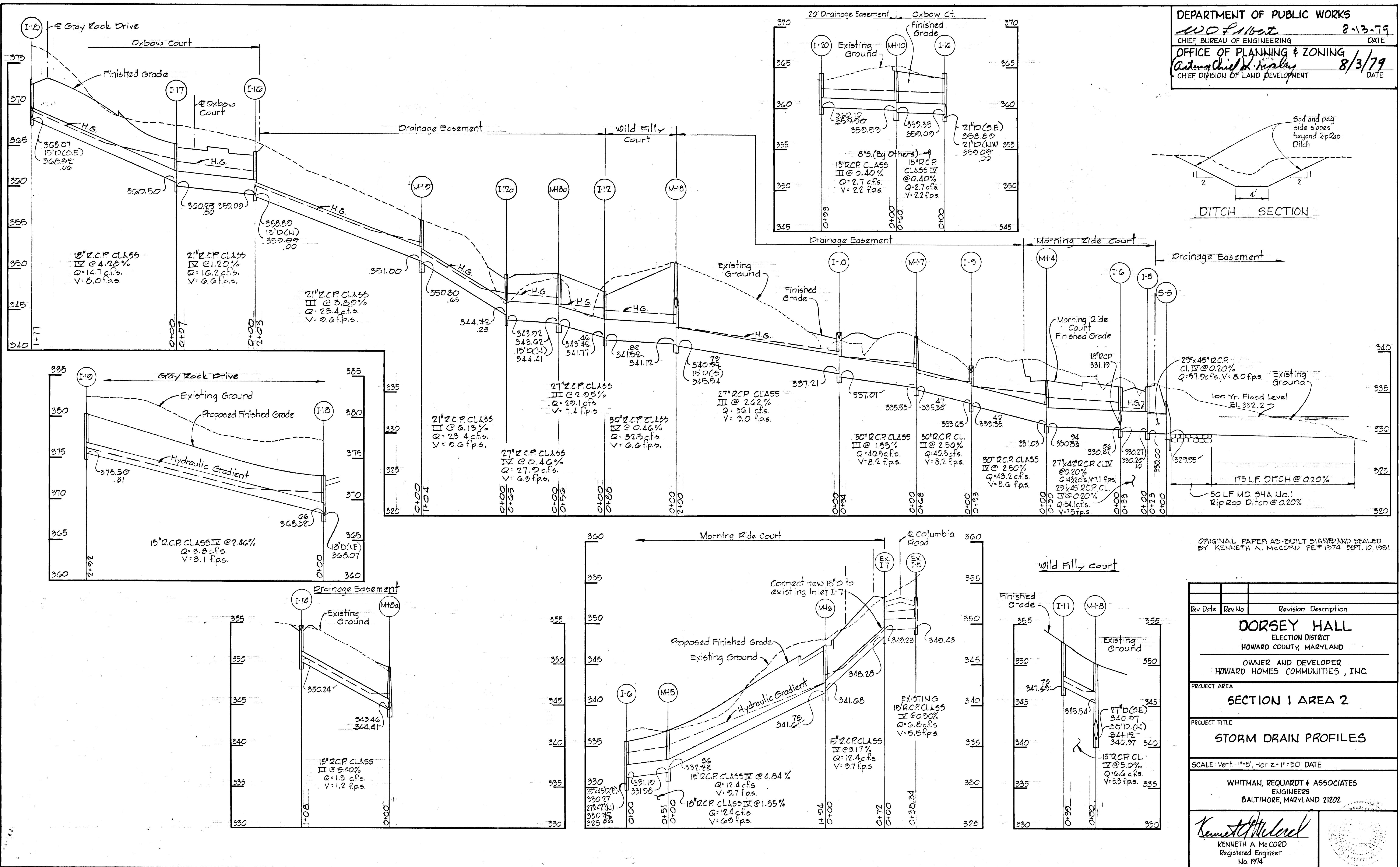
NOTES
 1. Base will be primed in accordance with C-30-C as provided in the Howard County Road Construction Code and Standard Specifications
 2. Tack Coat is required in accordance with Section C-31-4 of the Howard County Road Construction Code and Standard Specifications
 HOWARD COUNTY
 TYPICAL PAVING SECTIONS
 No Scale

GENERAL NOTES

- All dimensions are to back of curb.
- See plans for sidewalk locations.
- Paving is 6" Bituminous Concrete or Alternate as shown.
- Standard 7" Combination Curb and Gutter shall be used on all Cul-de-Sacs.

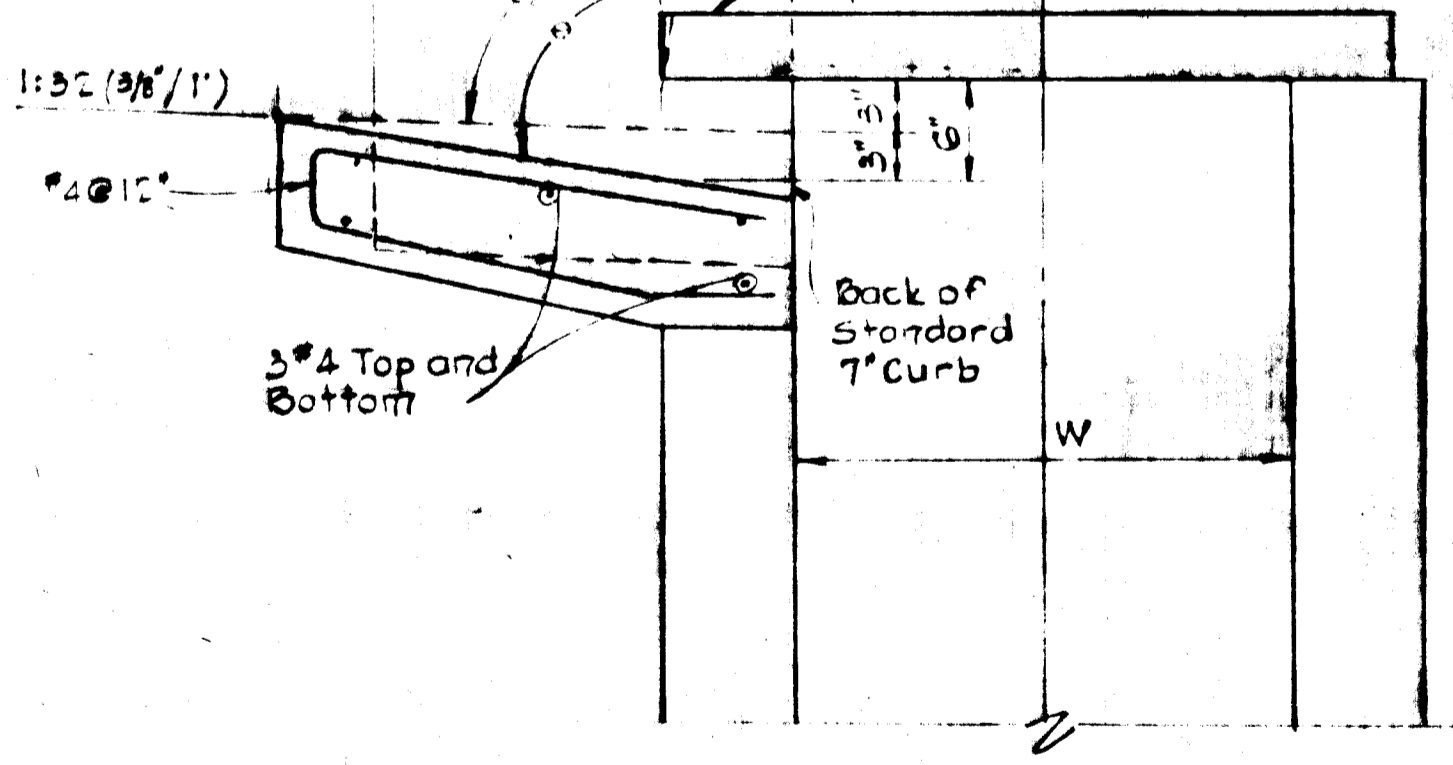
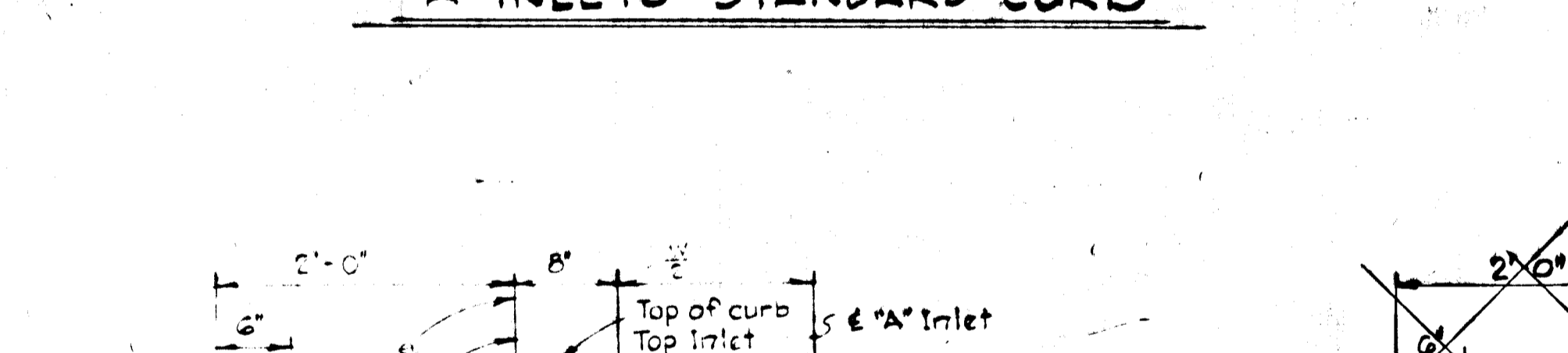
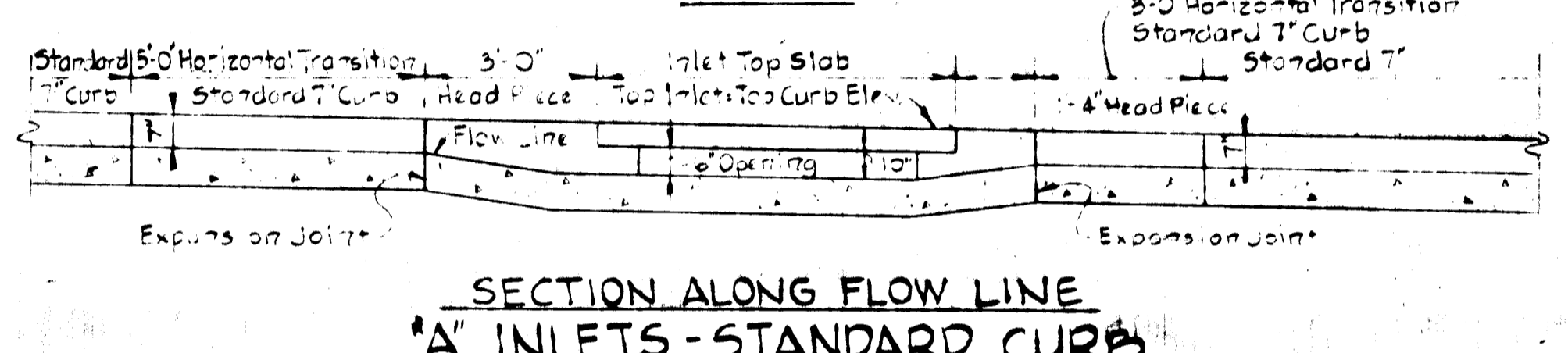
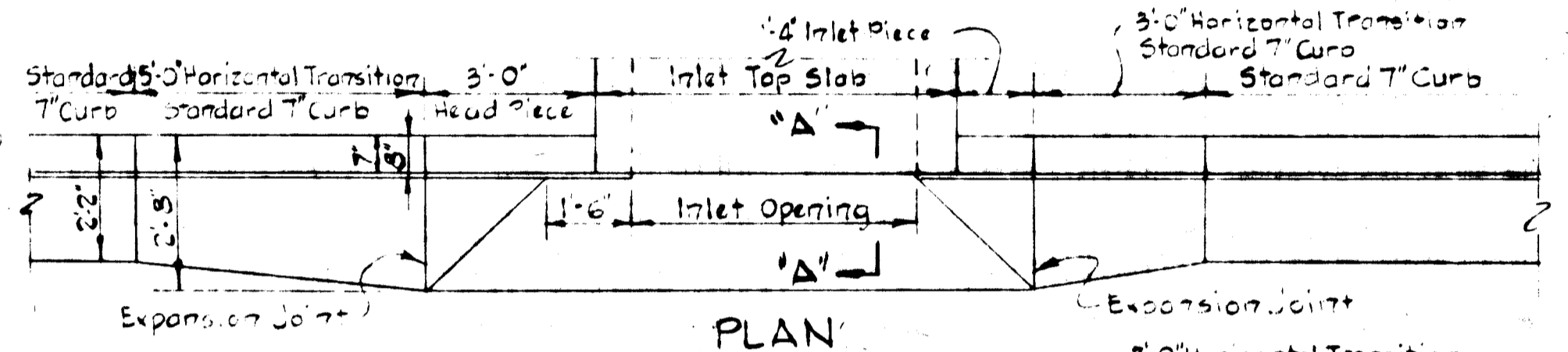
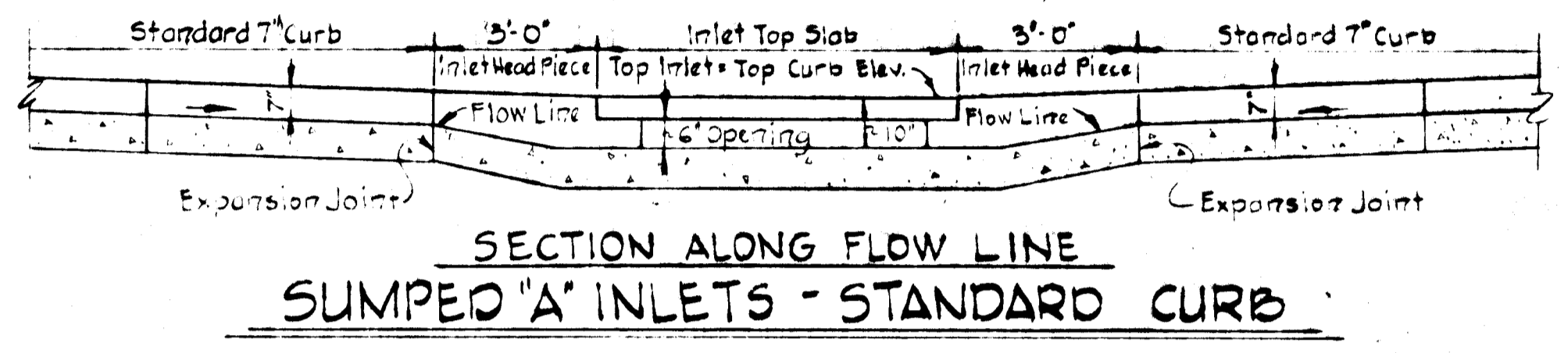
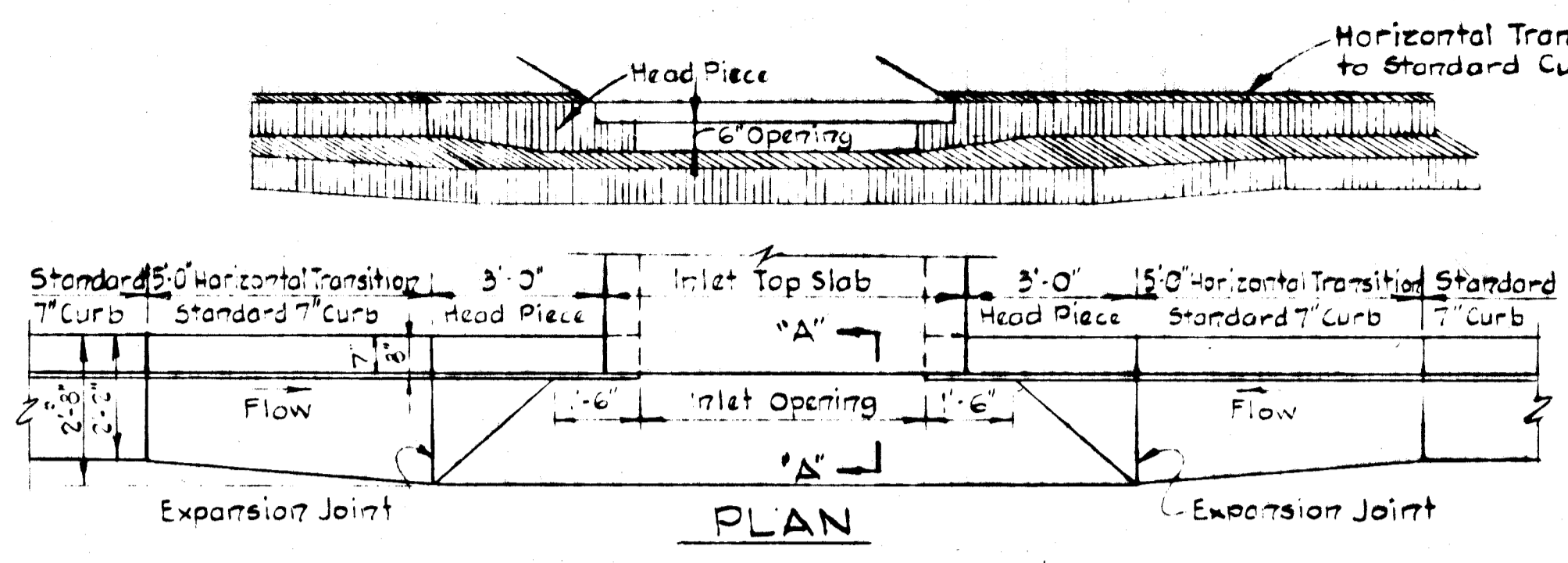


Rev. Date	Rev. No.	Revision Description
DORSEY HILL 2 ND ELECTION DISTRICT HOWARD COUNTY MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA SECTION 1 AREA 2		
PROJECT TITLE ROADWAY DETAILS		
SCALE: As Shown		DATE
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

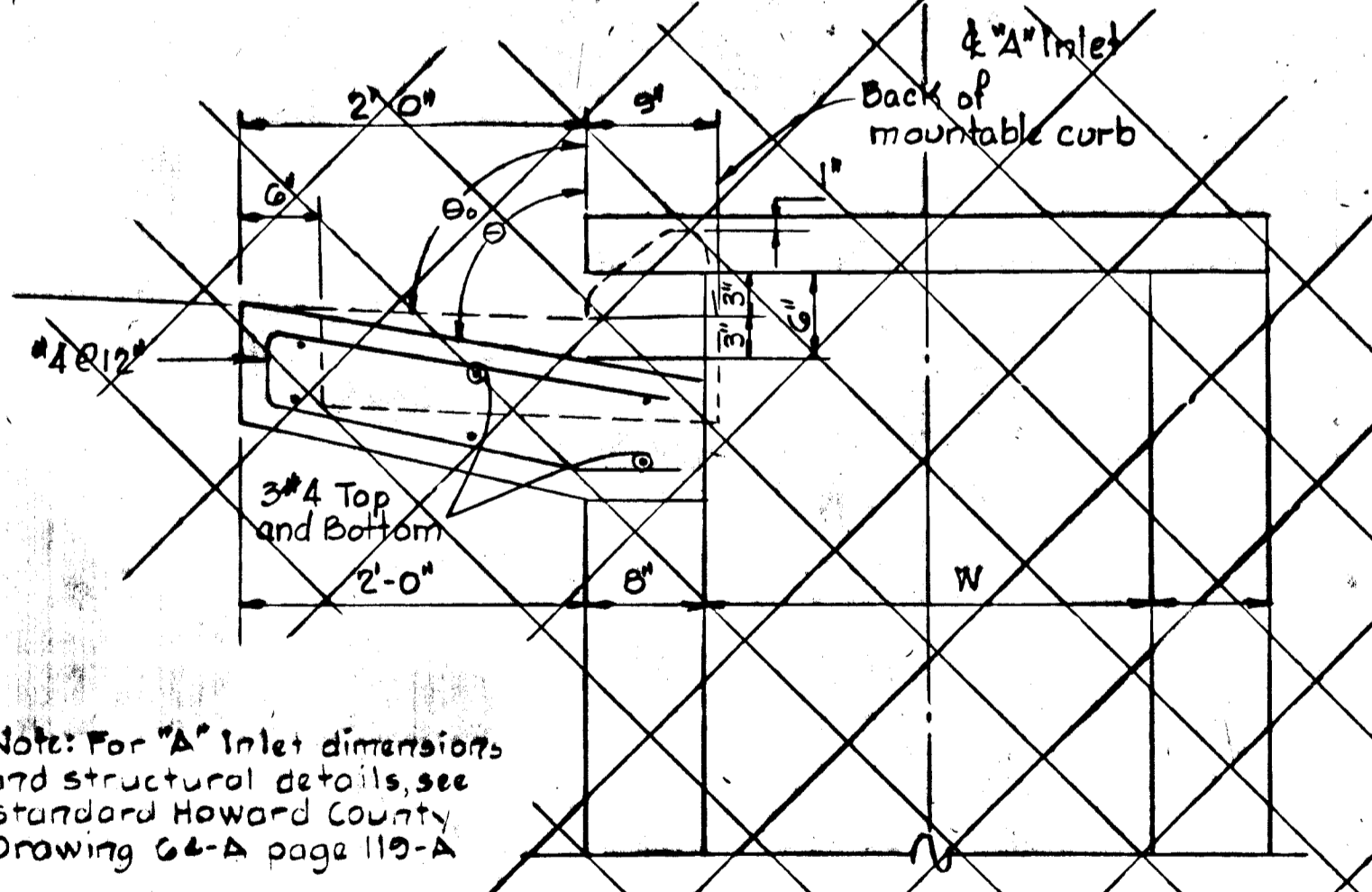


ORIGINAL PAPER AS-BUILT SIGNED AND SEALED BY KENNETH A. MCCORD PE# 1974 SEPT. 10, 1981.

Rev. Date	Rev. No.	Revision Description
DORSEY HALL ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD HOMES COMMUNITIES, INC.		
PROJECT AREA SECTION 1 AREA 2		
PROJECT TITLE STORM DRAIN PROFILES		
SCALE: Vert. - 1"=5', Horiz. - 1"=50' DATE		
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

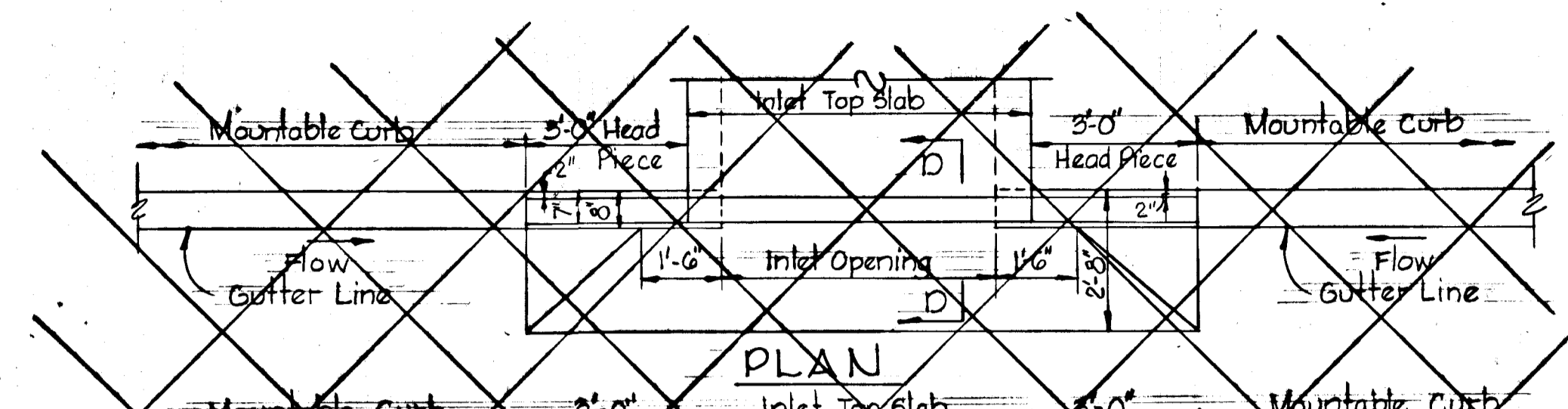


SECTION C-C
 "A" INLET-STANDARD CURB

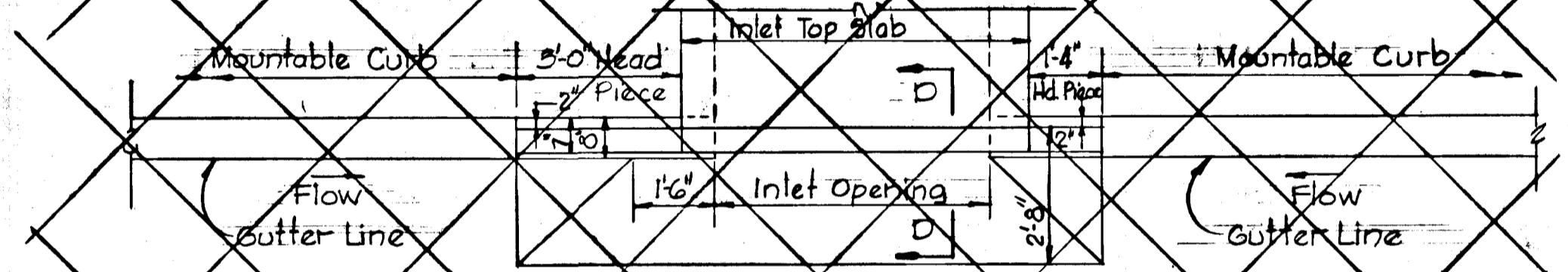


SECTION D-D
 "A" INLET - MOUNTABLE CURB

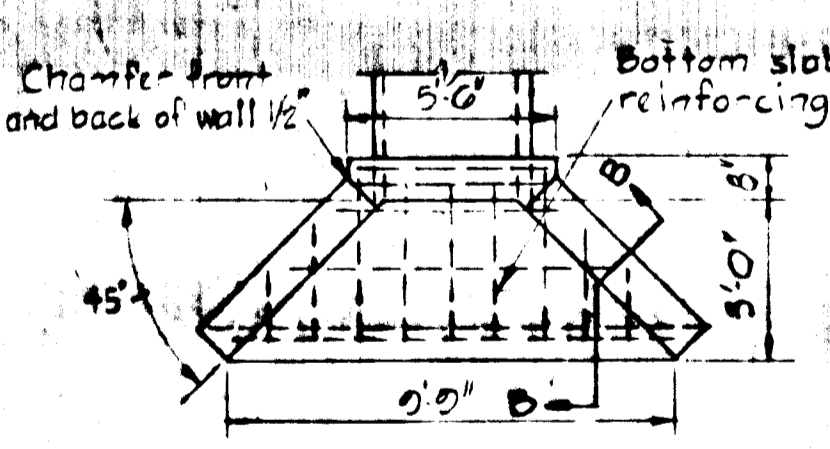
Note: For "A" Inlet dimensions and structural details, see standard Howard County Drawing G-6-A page 110-A



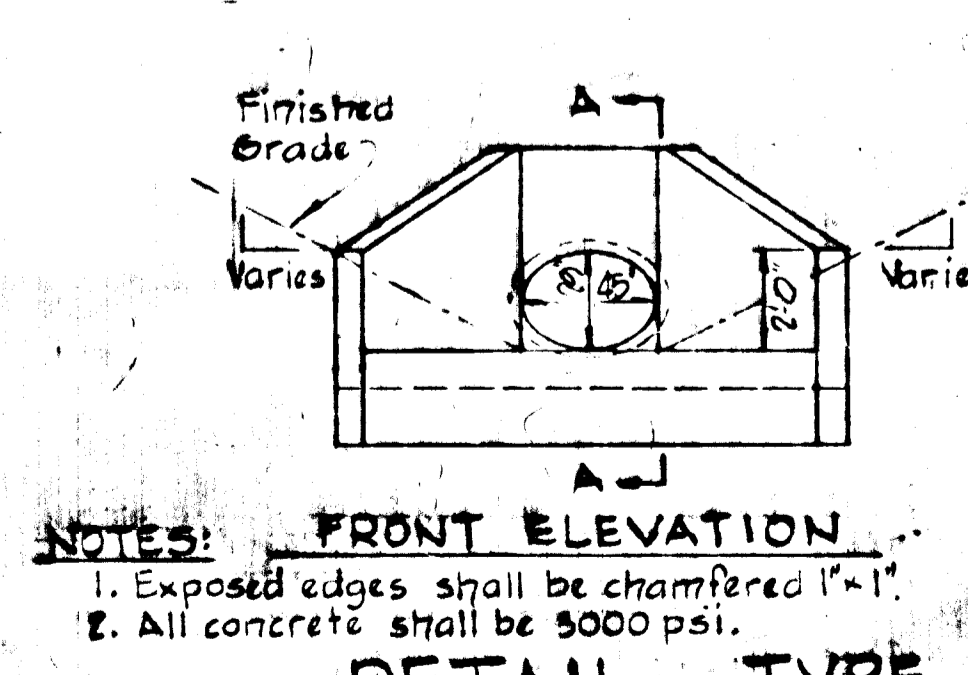
SECTION ALONG FLOW LINE
 SUMPED "A" INLETS-MOUNTABLE CURB



SECTION ALONG FLOW LINE
 "A" INLETS-MOUNTABLE CURB

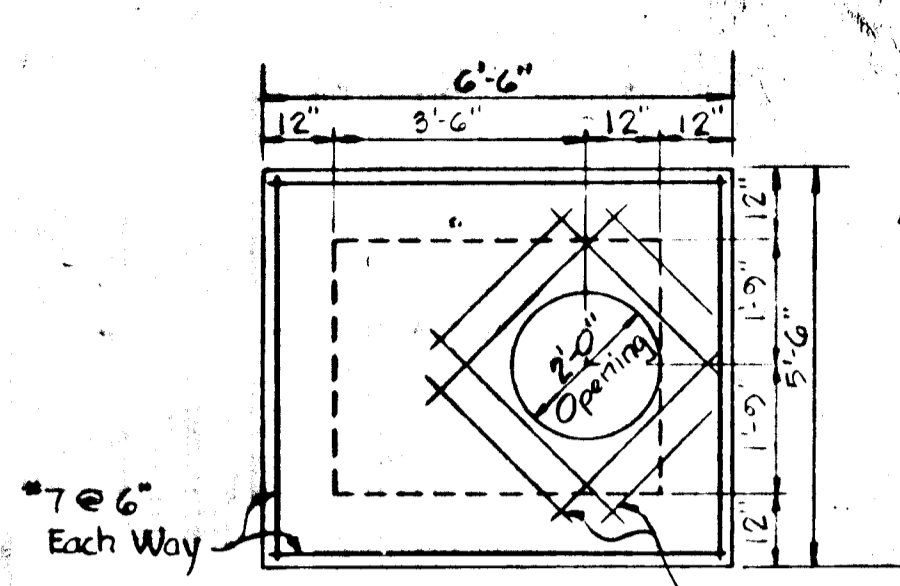


FRONT ELEVATION

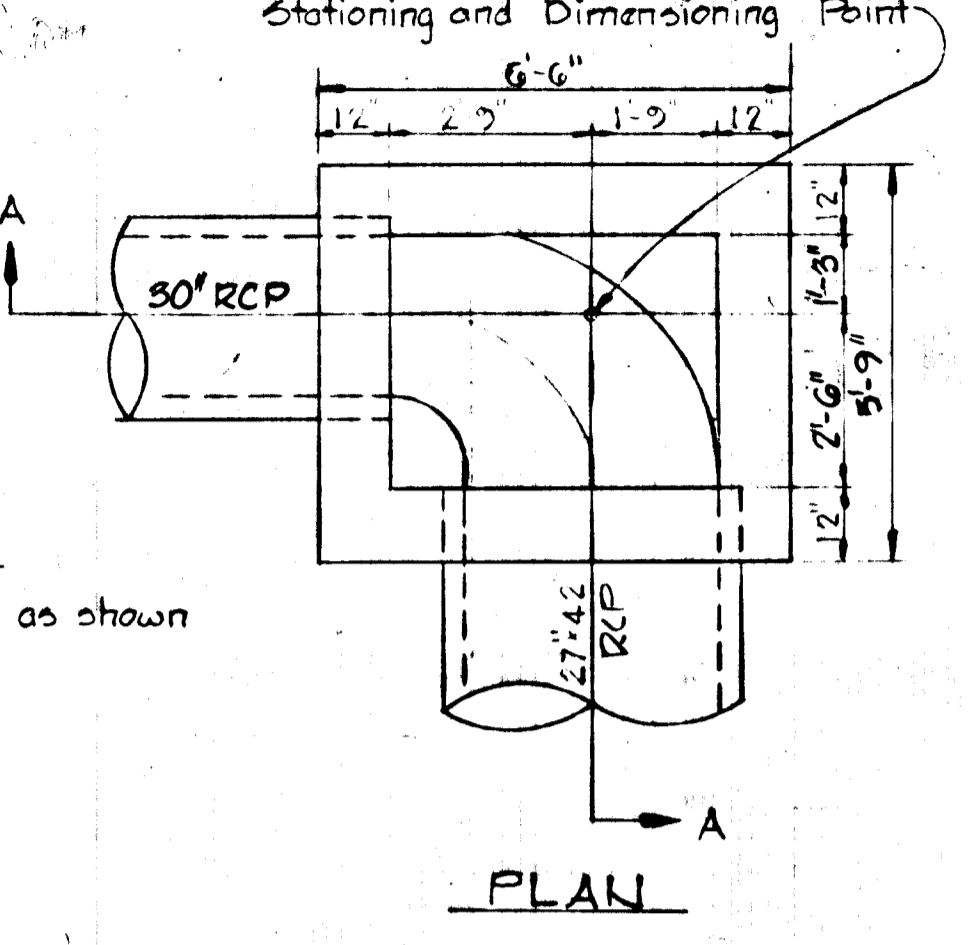


DETAIL - TYPE "A" HEADWALL

NOTES:
 1. Exposed edges shall be chamfered 1" x 1".
 2. All concrete shall be 3000 psi.

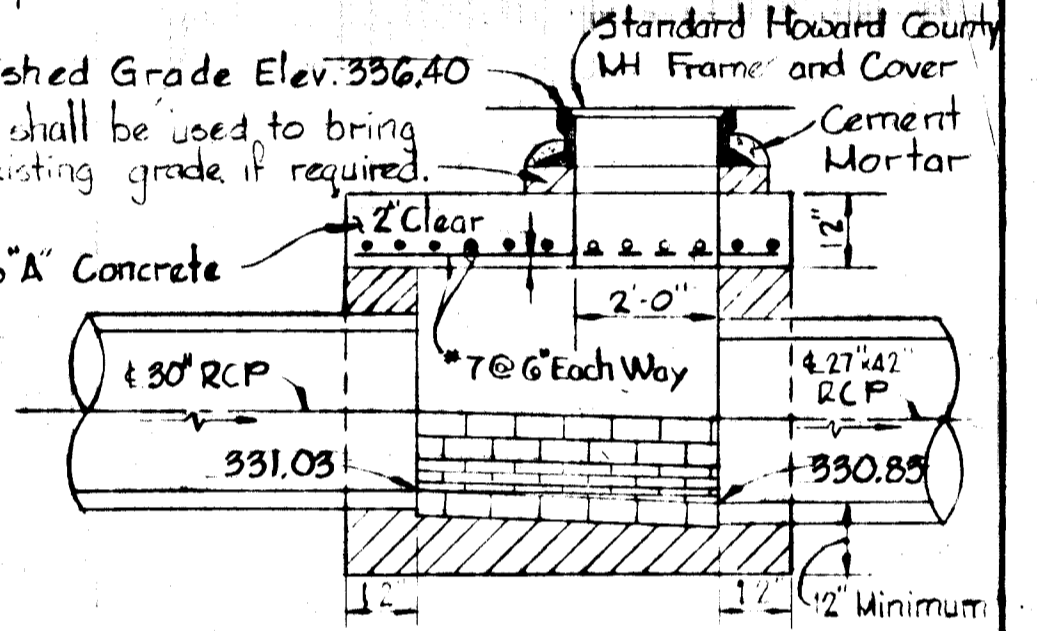


TOP SLAB PLAN



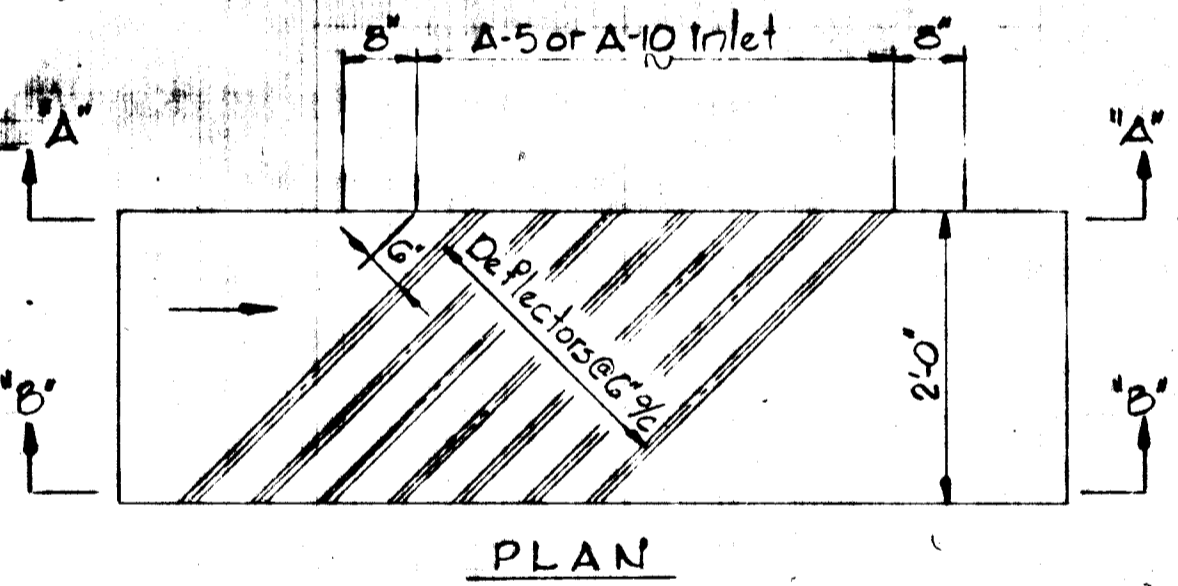
PLAN

Note: Walls, bottom slab and invert shall be brick or plain Class "A" concrete poured in place.

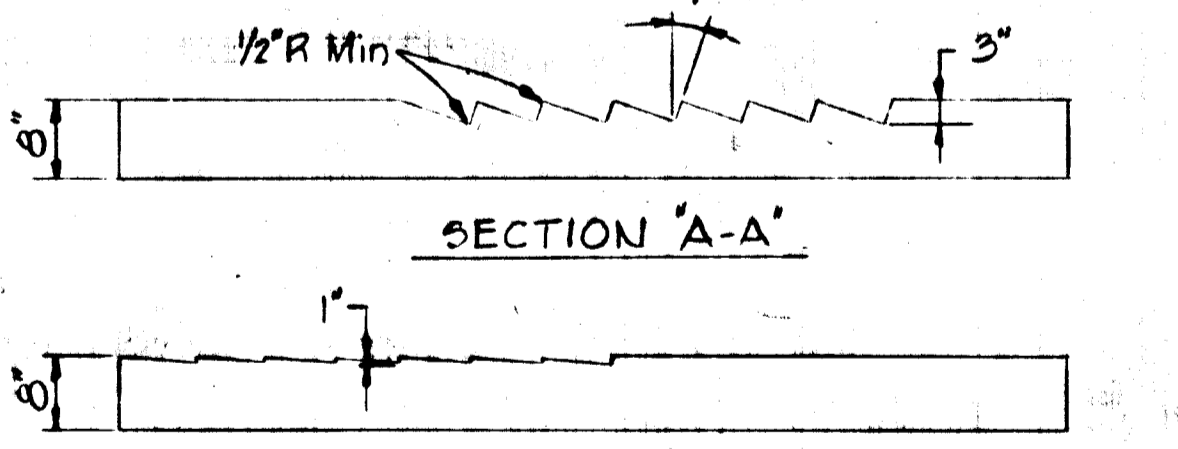


SECTION "A-A"

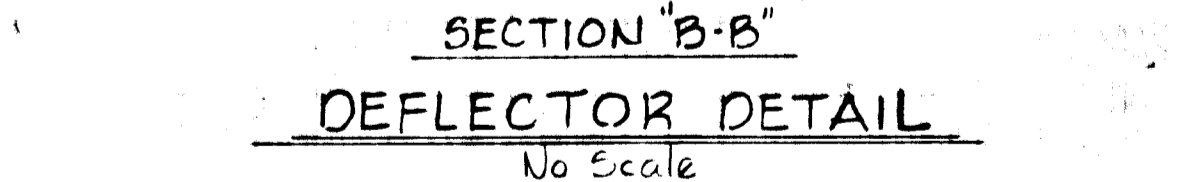
DETAIL UH 4
 Scale: 3/8" = 1'-0"



PLAN

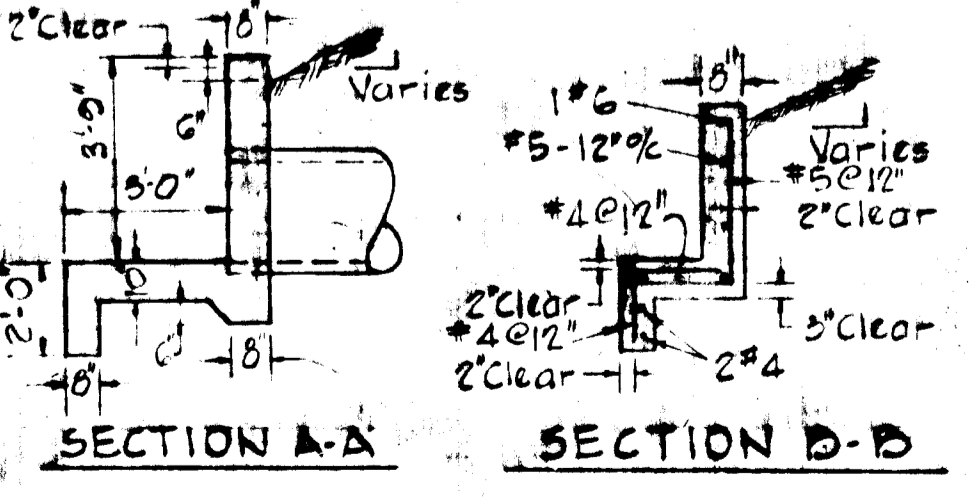


SECTION "A-A"



SECTION "B-B"

DEFLECTOR DETAIL
 No Scale

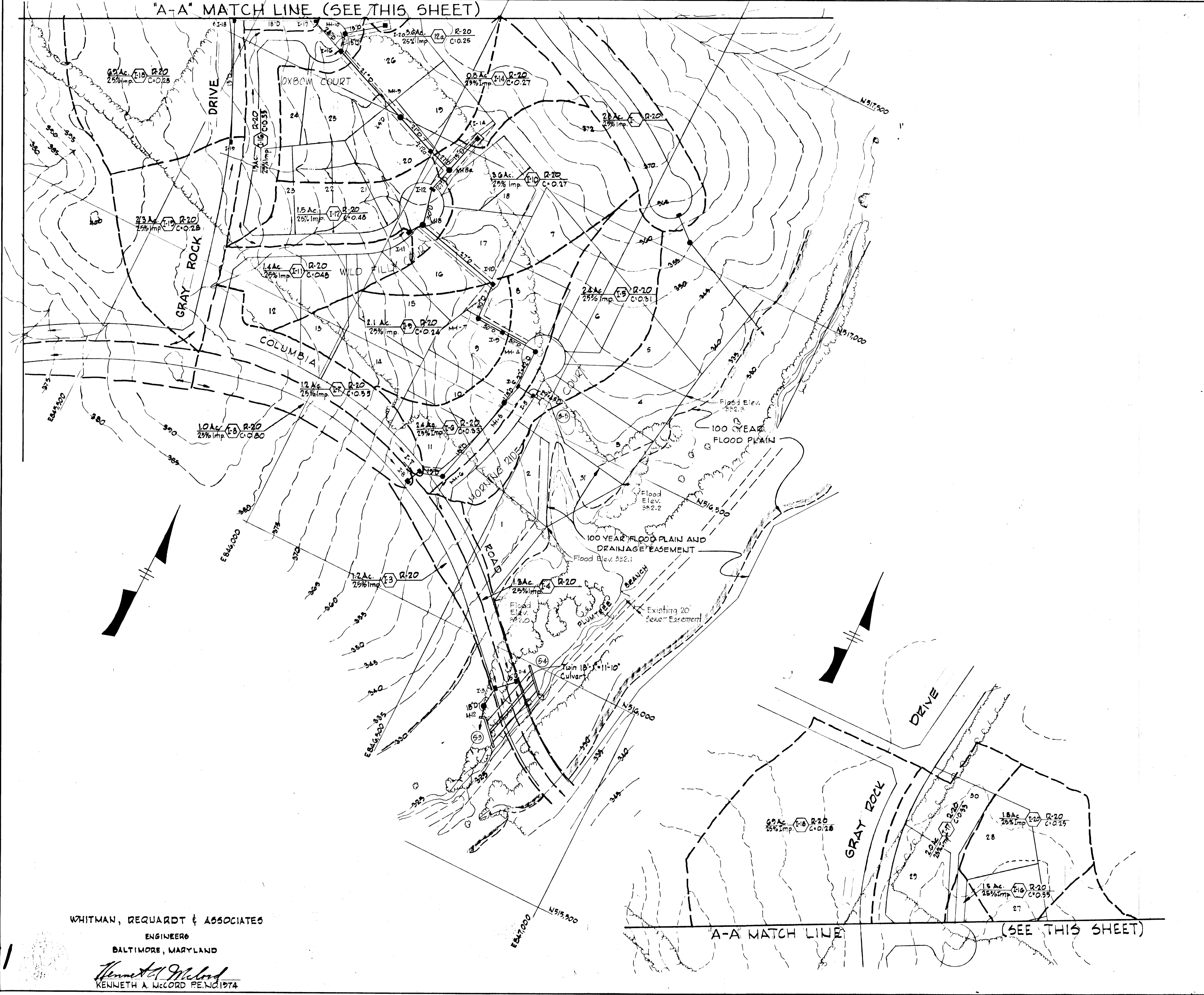


SECTION A-A SECTION B-B

Rev. Date	Rev. No.	Revision Description
DORSEY HALL		
2 ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER: HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA SECTION 1 AREA 2		
PROJECT TITLE STORM DRAIN DETAILS		
SCALE: As Shown		DATE:
WHITMAN, REQUIBART & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCard</i> KENNETH A. MCCARD Registered Engineer No. 1974		

"A-A" MATCH LINE (SEE THIS SHEET)

DEPARTMENT OF PUBLIC WORKS
W. O. Elliott 8-13-79
 CHIEF, BUREAU OF ENGINEERING
 OFFICE OF PLANNING AND ZONING
(Assistant Chief) J. R. Kipley 8/3/79
 CHIEF, DIVISION OF LAND DEVELOPMENT

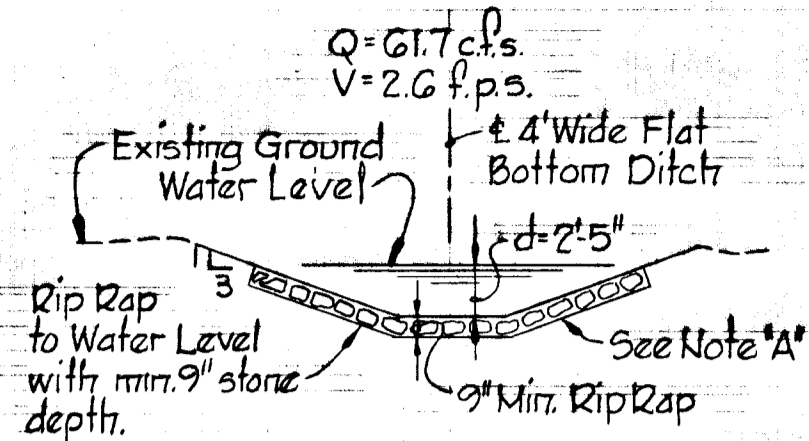


WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND
Kenneth A. McCord
 KENNETH A. MCCORD P.E. NO. 1974

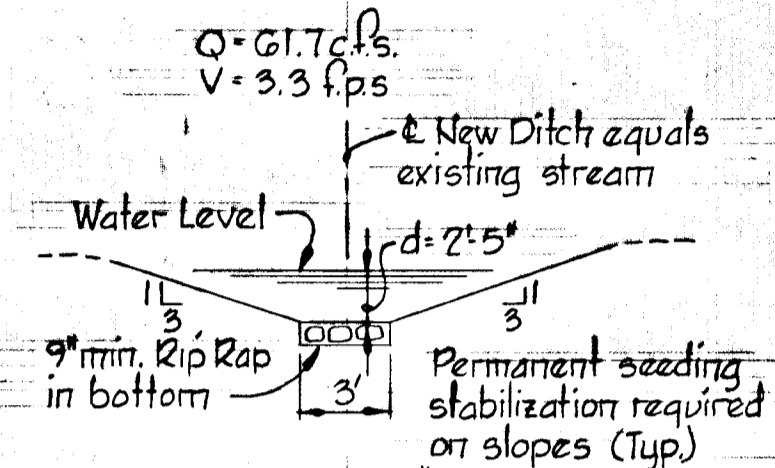
Rev. Date	Rev. No.	Revision Description
DORSEY HALL SECTION 1 AREA 2 DRAINAGE AREA MAP 2 ND ELECTION DISTRICT OF HOWARD COUNTY, MD OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP COLUMBIA, MARYLAND Date: _____ Scale: 1"=100'		

771

Note "A"
Plastic Filter Cloth shall be bedded and smooth surface and anchored with steel pins before placement of rip rap.



SECTION "A-A"

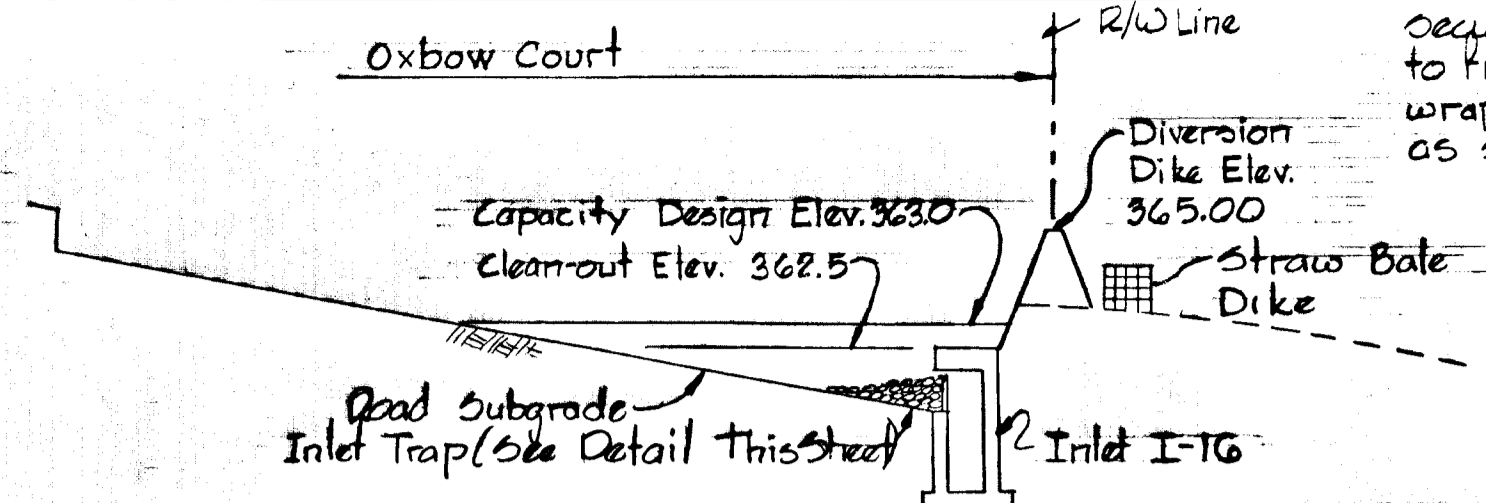


SECTION "B-B"

OUTFALL S-5
CHANNEL SECTIONS

**TRAP No. 4
DESIGN DATA**

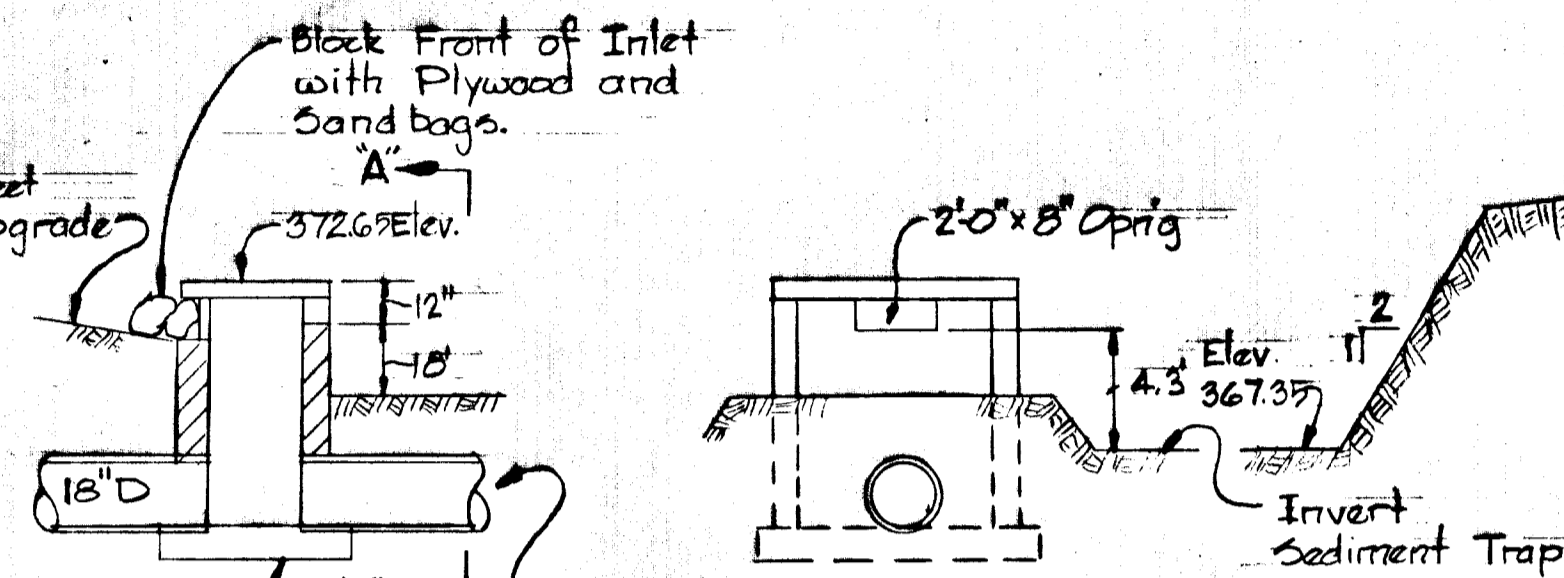
Drainage Area = 1.2 Ac.
Disturbed Area = 1.2 Ac.
Volume Req'd = 80 C.Y.
Volume Avail. = 117 C.Y.
Clean-out Elev. = 362.5



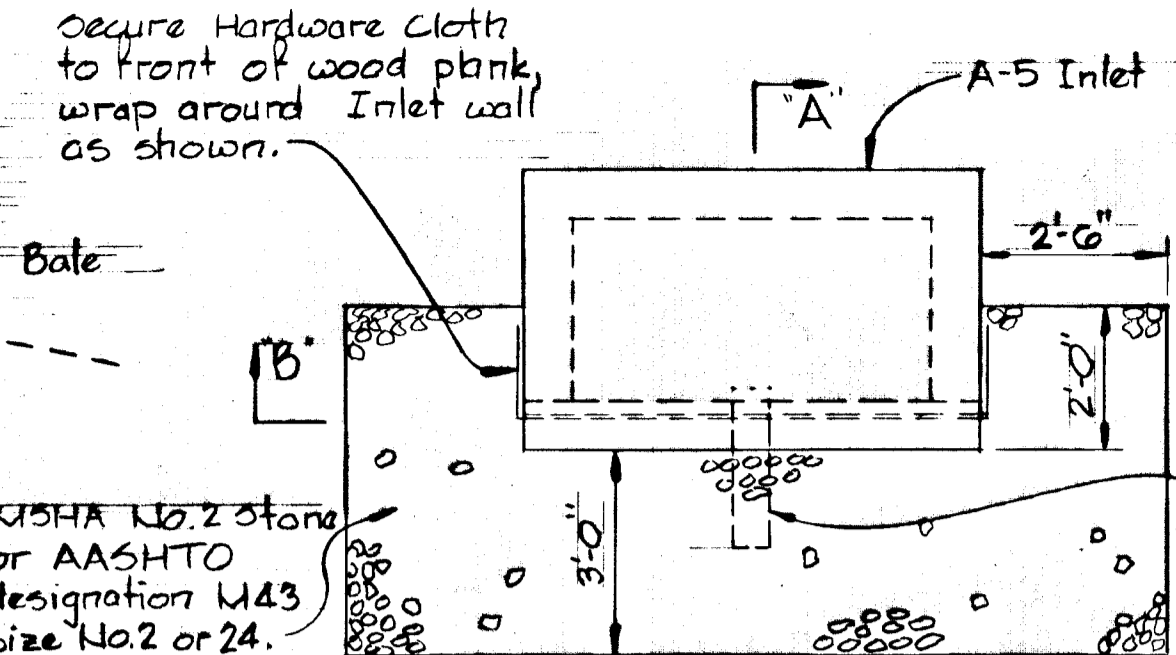
DETAIL-SEDIMENT TRAP No. 4
No Scale

**TRAP No. 3
DESIGN DATA**

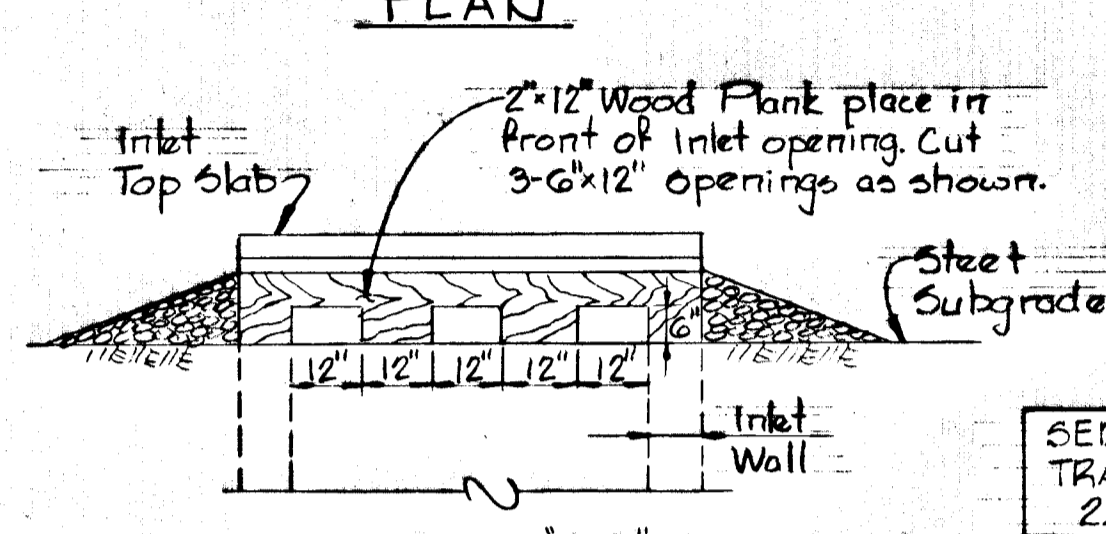
Drainage Area = 2.4 Ac.
Disturbed Area = 2.4 Ac.
Volume Req'd = 161 C.Y.
Volume Avail. = 166 C.Y.
Clean-out Elev. = 371.8



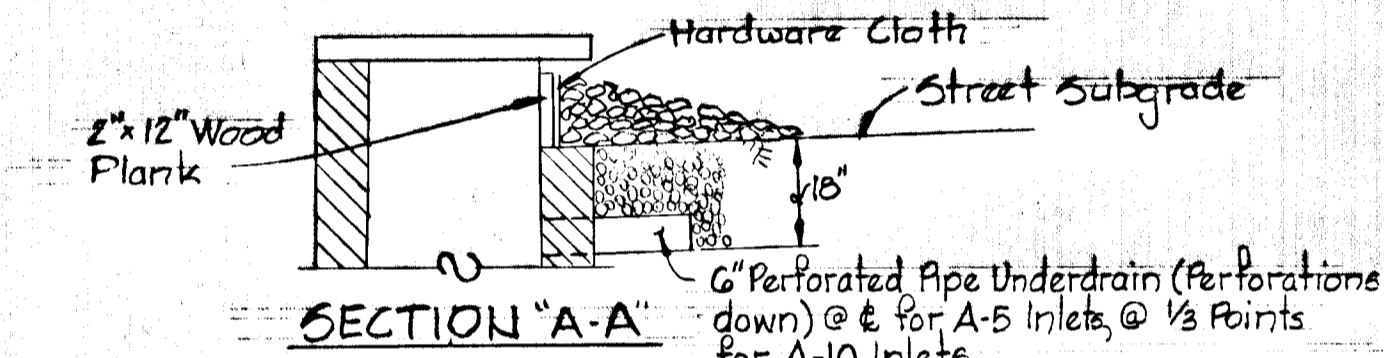
DETAIL-SEDIMENT TRAP No. 3
No Scale



PLAN

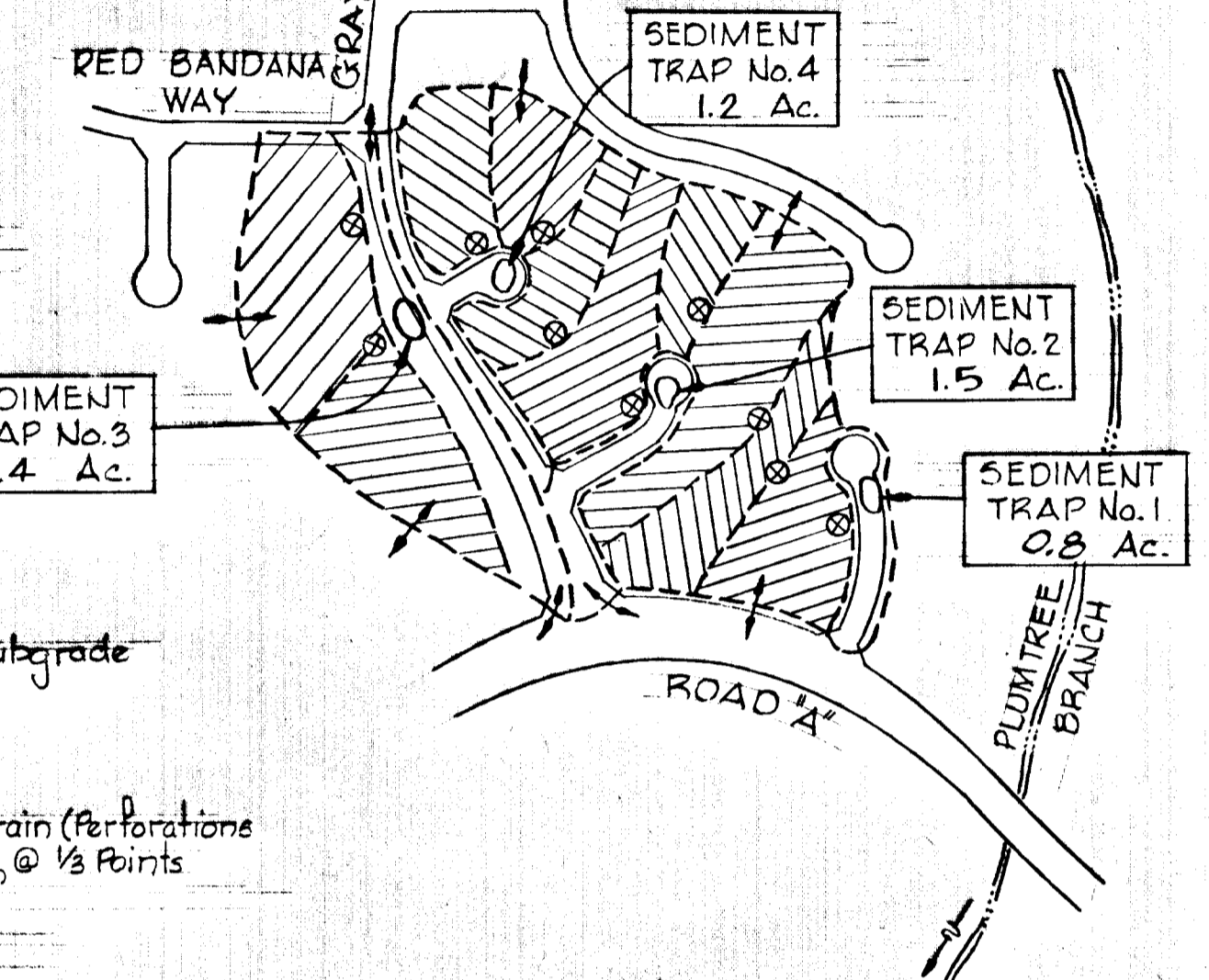


SECTION "B-B"

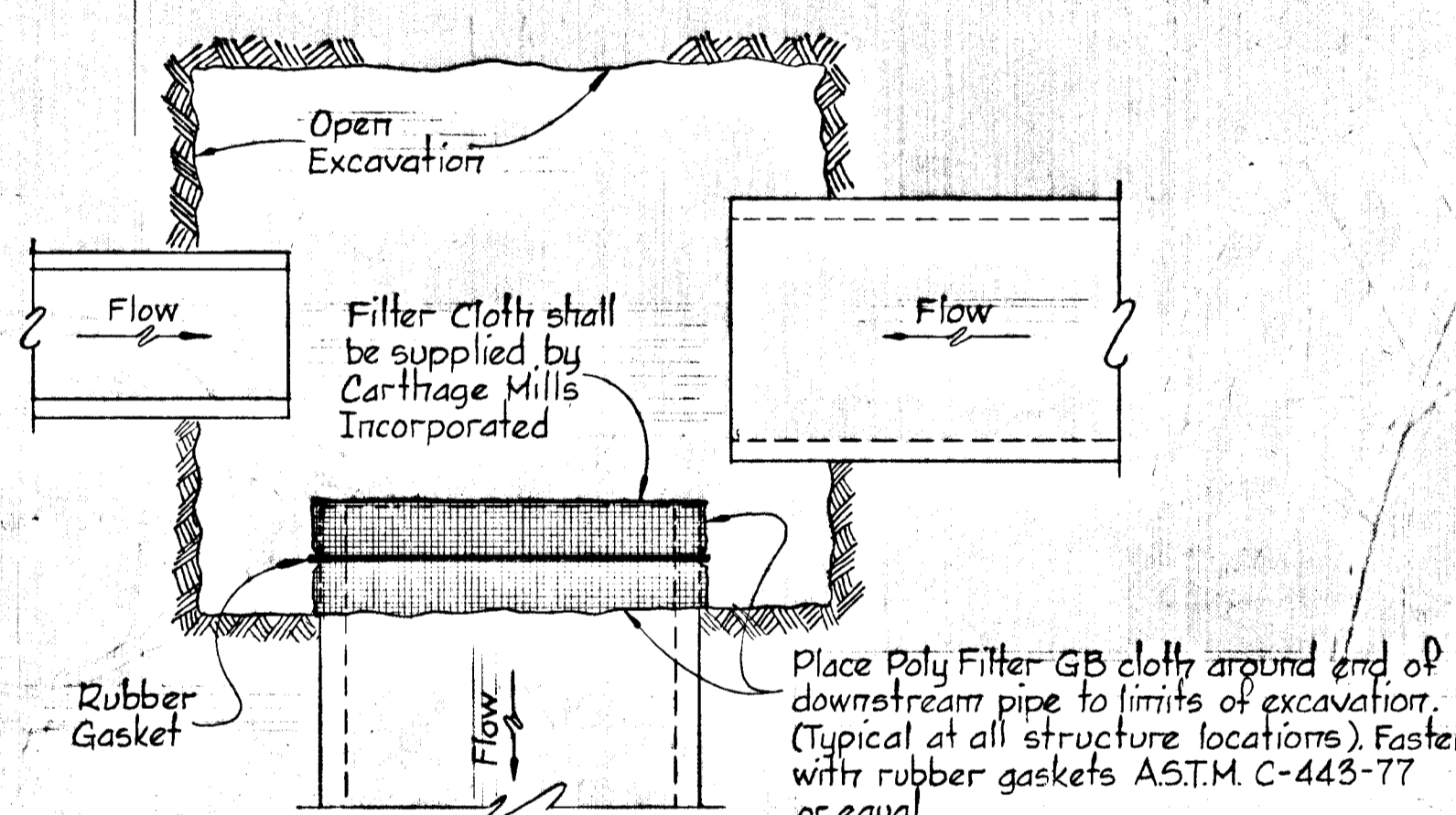


SECTION "A-A"

TRAP @ INLETS I-5, I-6, I-11, I-12, and I-16
Scale 3/8" = 1'-0"



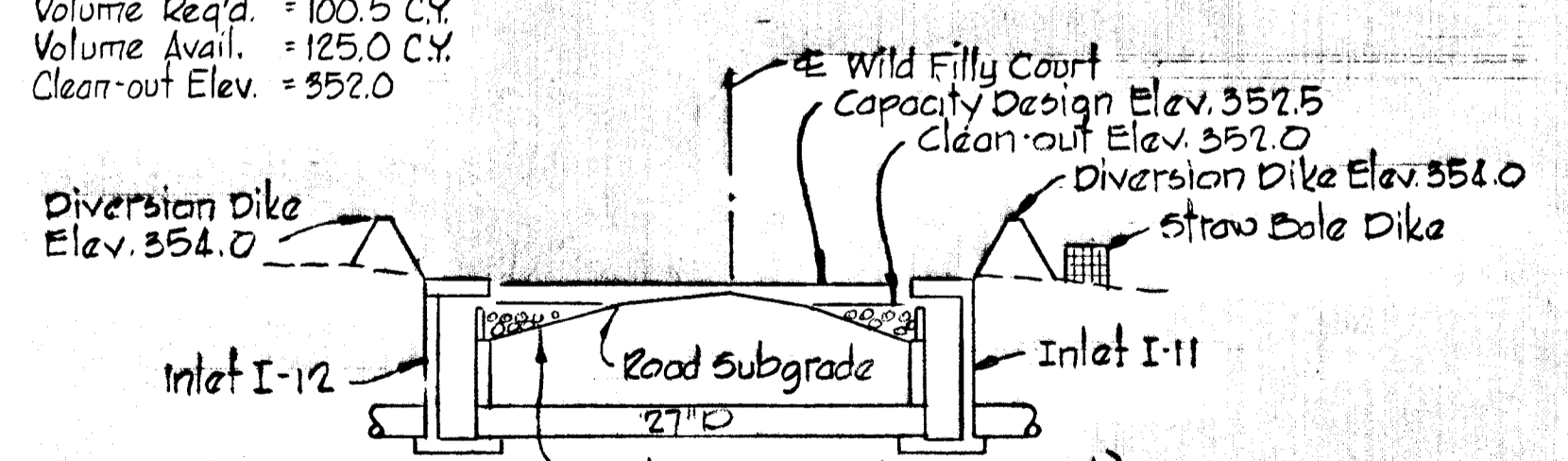
SEDIMENT CONTROL
DRAINAGE AREA MAP
Scale 1" = 400'



DETAIL A
No Scale

**TRAP No. 2
DESIGN DATA**

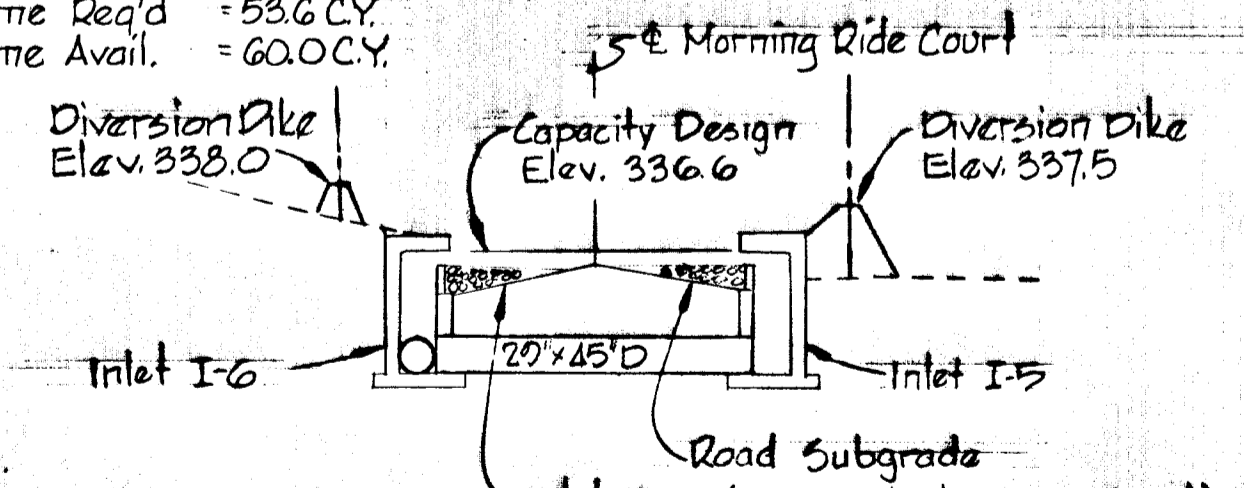
Drainage Area = 15 Ac.
Disturbed Area = 15 Ac.
Volume Req'd = 100.5 C.Y.
Volume Avail. = 125.0 C.Y.
Clean-out Elev. = 552.0



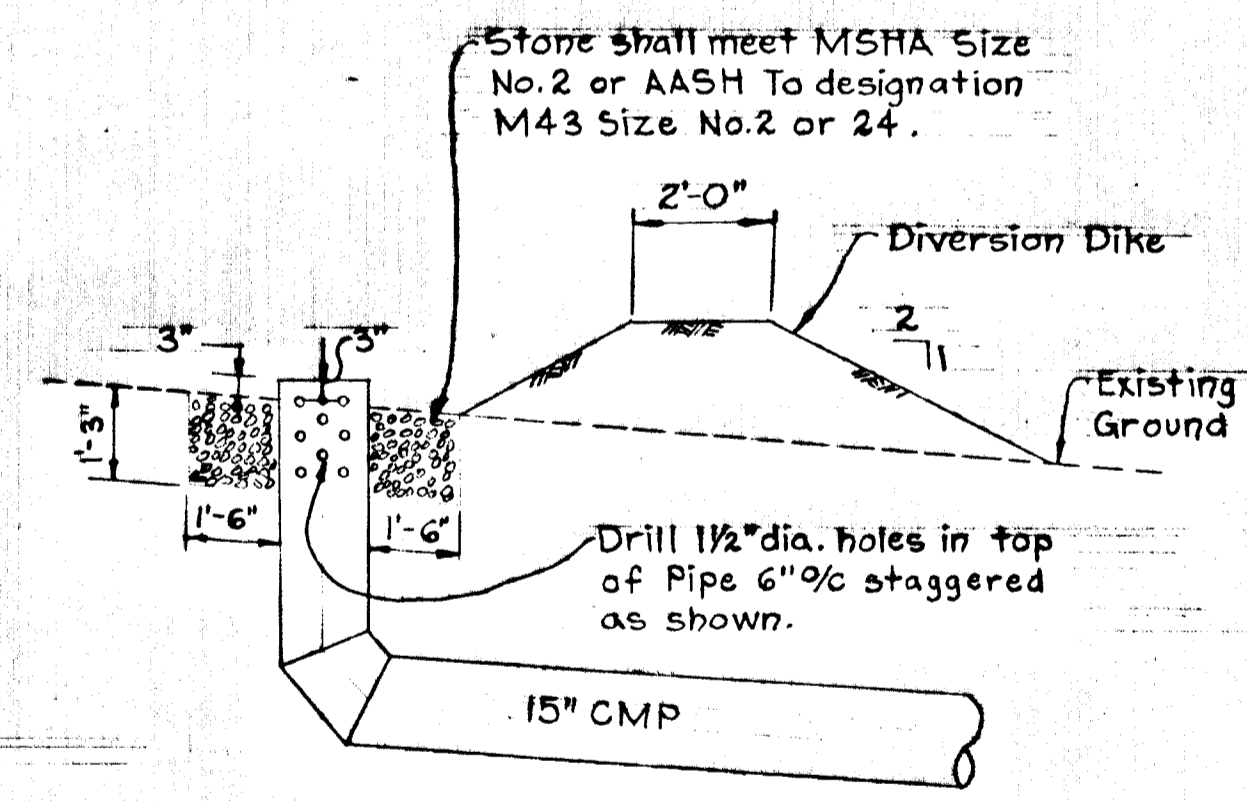
DETAIL SEDIMENT TRAP No. 2
No Scale

**TRAP No. 1
DESIGN DATA**

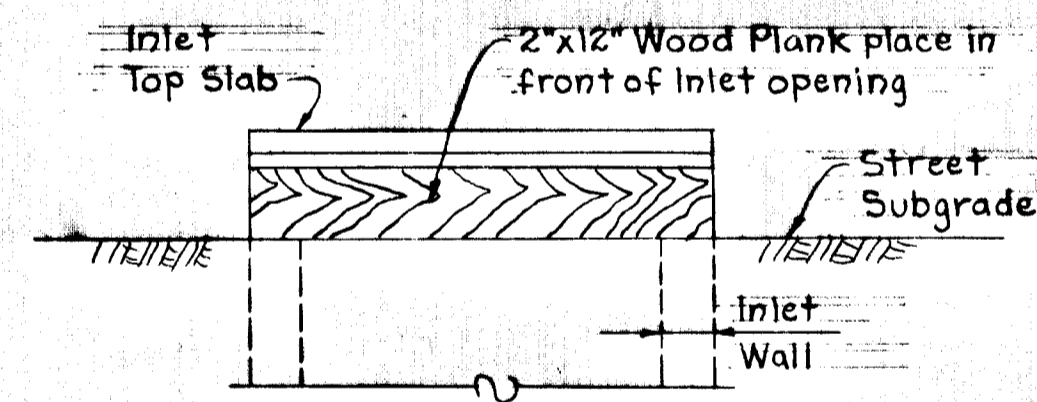
Drainage Area = 0.8 Ac.
Disturbed Area = 0.8 Ac.
Volume Req'd = 53.6 C.Y.
Volume Avail. = 60.0 C.Y.



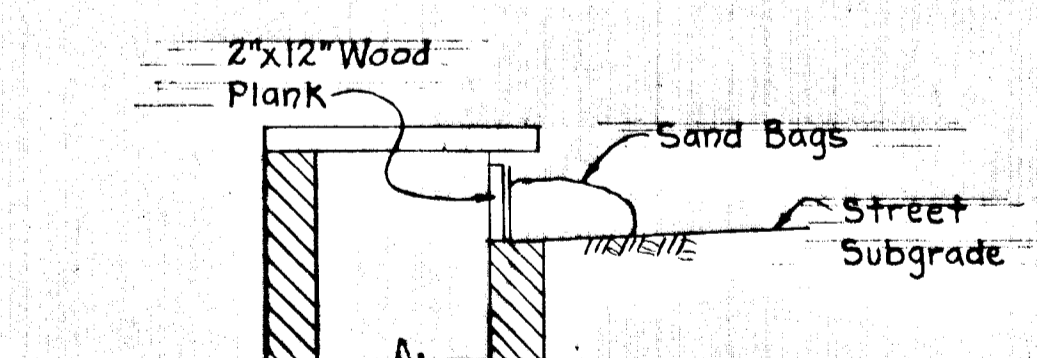
DETAIL SEDIMENT TRAP No. 1
No Scale



CLEAN WATER INLET
Scale: 3/8" = 1'-0"

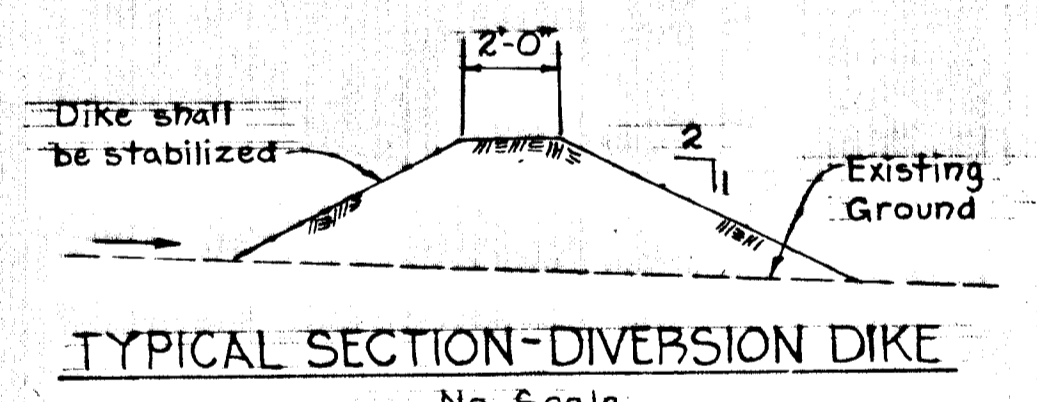


FRONT ELEVATION



SECTION

BLOCKED INLETS @ I-17, I-18, and I-19



TYPICAL SECTION-DIVERSION DIKE
No Scale

GENERAL NOTES

- See "Sequence of Construction" on sheet 1.
- Prior to starting any work, the Contractor shall notify the Howard Soil Conservation District at least 24 hours in advance of notice to begin.
- The sediment control measures shall be constructed as shown on these drawings.
- All diversion dikes shall be seeded as specified in notes 5 and 6. All other surfaces to be seeded shall be permanently seeded. See specifications on sheet 1.
- The diversion dikes shall be hydroseeded as follows: a. ground limestone (50#/1000#), one ton/acre b. Fertilizer - 10-10-10 (25#/1000#), 1/2 ton/acre c. Seed - Italian Rye Grass 40#/acre
- Mulch with straw at the rate of 50#/1000# or one ton per acre. Anchor with asphalt at the rate of 480 gallons/acre.

CERTIFICATION BY THE DEVELOPER

"I CERTIFY THAT ALL DEVELOPMENT AND OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR 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 E. Woodford 9-25-78
WALTER E. WOODFORD DATE:

CERTIFICATION BY THE ENGINEER

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

Kenneth A. McCord 9-25-78
KENNETH A. MCCORD, P.E. 1974 DATE:

REVIEWED FOR HOWARD S.C.D. NAME
Winston Burdette 8-2-79
AND MEETS TECHNICAL REQUIREMENTS SIGNATURE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT APPROVED
Wm. V. Rowe 8-2-79
HOWARD S.C.D. DATE

U.S. SOIL CONSERVATION SERVICE

DEPARTMENT OF PUBLIC WORKS
W. O. Falkert 8-13-79
CHIEF BUREAU OF ENGINEERING DATE
OFFICE OF PLANNING AND ZONING
Antony D. Ripley 8/3/79
CHIEF DIVISION OF LAND DEVELOPMENT DATE

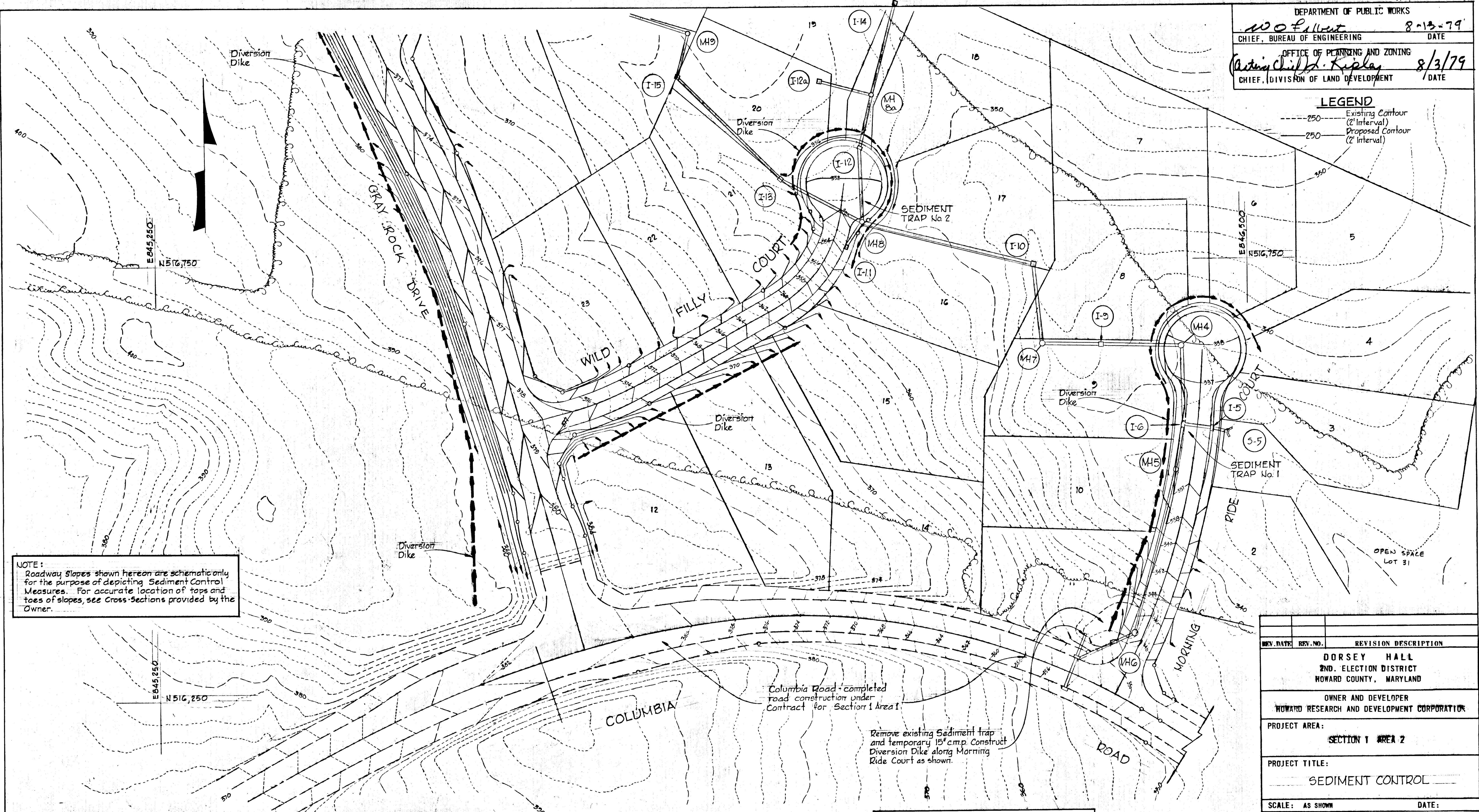
LEGEND

- Undisturbed Areas to be diverted from Sediment Traps
- Clean Water Inlets into Storm Drain System

Rev. Date	Rev. No.	Revision Description
DORSEY HALL 2 ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP.		
PROJECT AREA SECTION 1 AREA 2		
PROJECT TITLE SEDIMENT CONTROL		
SCALE As Shown		DATE
WHITMAN, REQUART & ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

DEPARTMENT OF PUBLIC WORKS
 W. O. Elliott 8-13-79
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING AND ZONING
 (Arthur) H. Ripley 8/3/79
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

LEGEND
 --- Existing Contour (2' Interval)
 - - - Proposed Contour (2' Interval)



NOTE:
 Roadway Slopes shown hereon are schematic only for the purpose of depicting Sediment Control Measures. For accurate location of taps and toes of slopes, see Cross-sections provided by the Owner.

Columbia Road - completed road construction under Contract for Section 1 Area 1

Remove existing Sediment trap and temporary 15' amp. Construct Diversion Dike along Morning Ride Court as shown.

Note:
 Immediately after storm drain pipe installation, the downstream pipe, at all inlet and manhole locations, shall be covered with a Filter Cloth. See Detail 'A' on Street 9. After construction of street inlets, block inlets as detailed. See Sediment trap details on Sheet 9.

REV. DATE	REV. NO.	REVISION DESCRIPTION
		DORSEY HALL 2ND. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORPORATION
		PROJECT AREA: SECTION 1 AREA 2
		PROJECT TITLE: SEDIMENT CONTROL
		SCALE: AS SHOWN DATE:
		WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202
		<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974

CERTIFICATION BY THE DEVELOPER
 "I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR 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 E. Woodford 3-10-79
 WALTER E. WOODFORD DATE

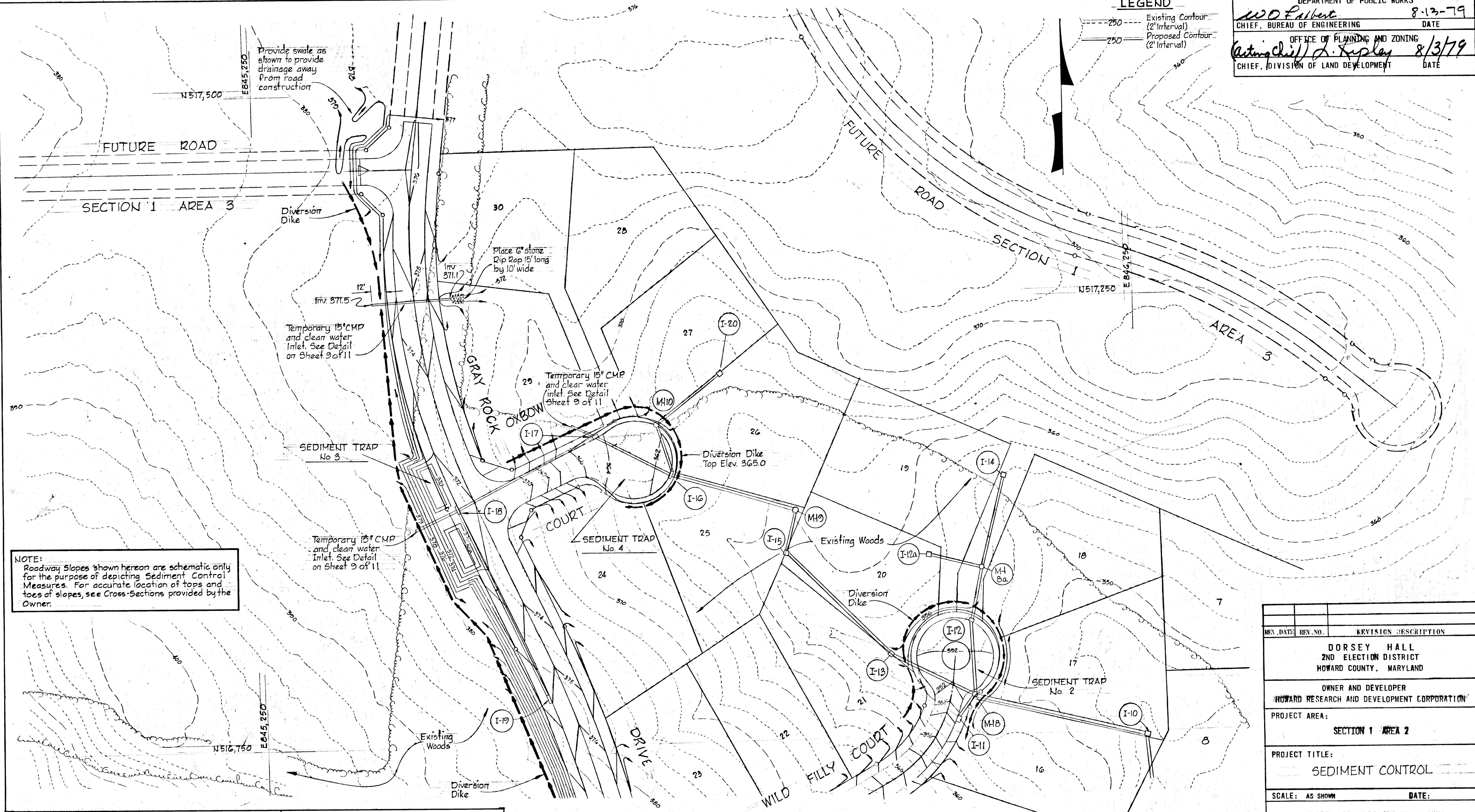
CERTIFICATION BY THE ENGINEER
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
Kenneth A. McCord 3-7-79
 KENNETH A. MCCORD PE 1974 DATE

REVIEWED FOR *Howard* S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS
CW Bennett 8-2-79
 SIGNATURE DATE
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED:
Wm I. Howe 8-2-79
 HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS
W.D. Falbert 8-13-79
 CHIEF, BUREAU OF ENGINEERING DATE
 OFFICE OF PLANNING AND ZONING
(Acting Chief) J. Ripley 8/3/79
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

LEGEND
 - - - - - Existing Contour (2' Interval)
 - - - - - Proposed Contour (2' Interval)



NOTE:
 Roadway Slopes shown hereon are schematic only for the purpose of depicting Sediment Control Measures. For accurate location of tops and toes of slopes, see Cross-Sections provided by the Owner.

REV. DATE	REV. NO.	REVISION DESCRIPTION
DORSEY HALL 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORPORATION		
PROJECT AREA: SECTION 1 AREA 2		
PROJECT TITLE: SEDIMENT CONTROL		
SCALE: AS SHOWN		DATE:
WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21202		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974		

CERTIFICATION BY THE DEVELOPER
 "I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR 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 E. Woodford 3-10-79
 WALTER E. WOODFORD DATE

CERTIFICATION BY THE ENGINEER
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
Kenneth A. McCord 3-7-79
 KENNETH A. MCCORD PE 1974 DATE

REVIEWED FOR *Howard S.C.D.*
 NAME
 AND MEETS TECHNICAL REQUIREMENTS
Chris Bumbette 8-2-79
 SIGNATURE DATE
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 APPROVED:
Wm. T. Rowe 8-2-79
 HOWARD S.C.D. DATE

Note:
 Immediately after storm drain pipe installation the downstream pipe at all inlet and manhole locations shall be covered with a Filter Cloth. See Detail 14 on Sheet 9. After construction of street inlets, block inlets as detailed. See Sediment Trap Details on Sheet 9.