

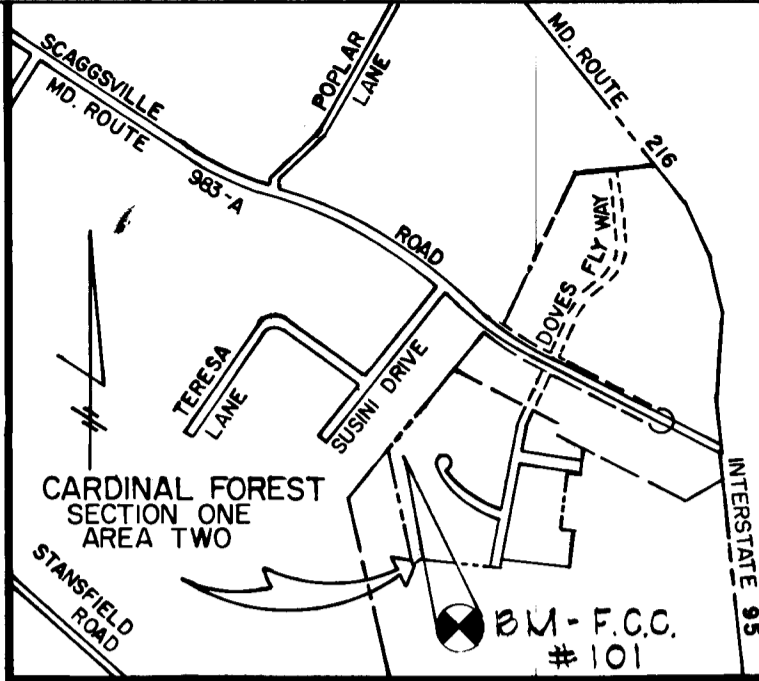
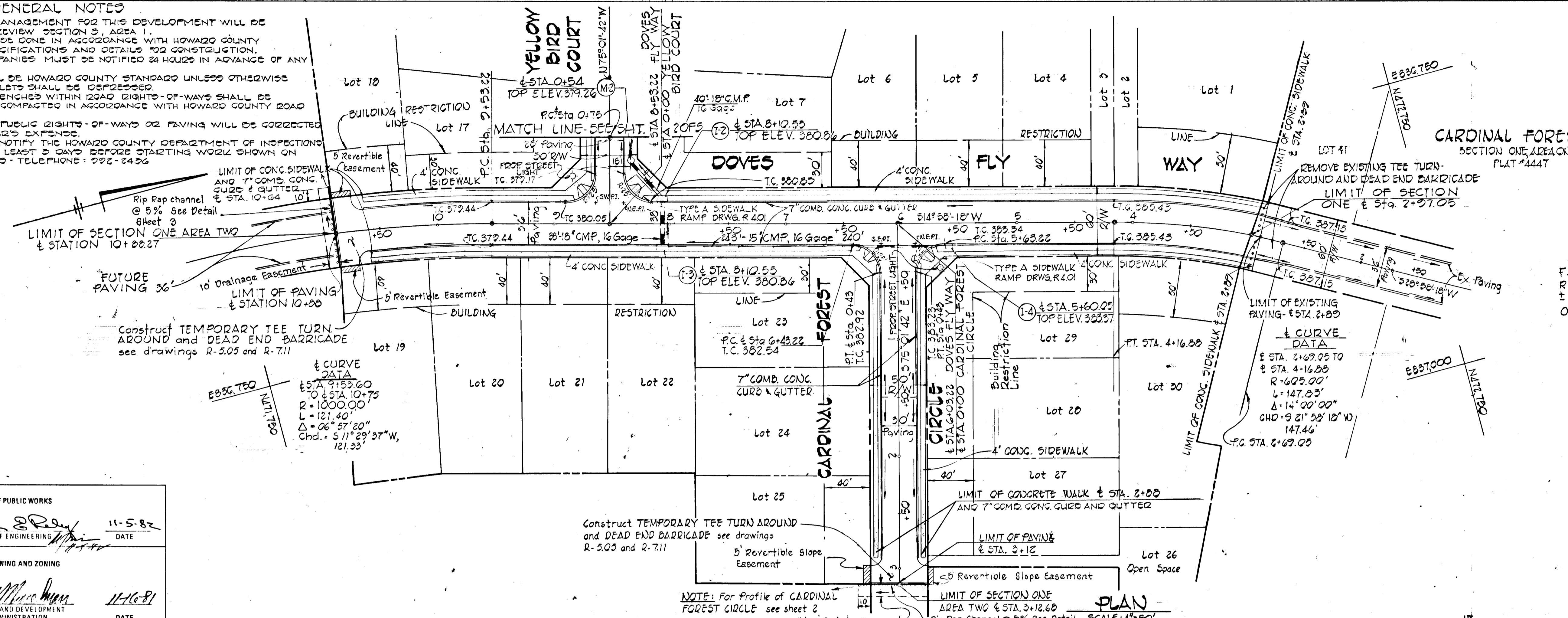
GENERAL NOTES

- 1) STORM WATER MANAGEMENT FOR THIS DEVELOPMENT WILL BE PROVIDED AT LAKEVIEW SECTION 3, AREA 1.
- 2) ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- 3) ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HOURS IN ADVANCE OF ANY CONSTRUCTION.
- 4) ALL INLETS SHALL BE HOWARD COUNTY STANDARD UNLESS OTHERWISE SHOWN. ALL INLETS SHALL BE DEFENDED.
- 5) STORM DRAIN TRENCHES WITHIN ROAD RIGHTS-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- 6) ANY DAMAGE TO PUBLIC RIGHTS-OF-WAYS OR PAVING WILL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- 7) CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS - TELEPHONE: 292-2436

DATE	
BY	
PLAN	
SURVEYED	PLOTTED
GRADES CHECKED	ALIGNMENT CHECKED
NOTE BOOK NO.	RI-OF-WAY CHECKED

APPROVED
DEPARTMENT OF PUBLIC WORKS
K. R. ... 11-5-82
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
OFFICE OF PLANNING AND ZONING
J. ... 11-16-81
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

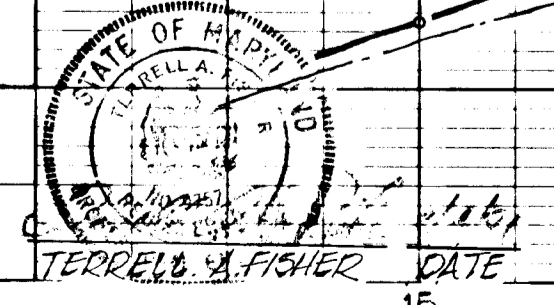
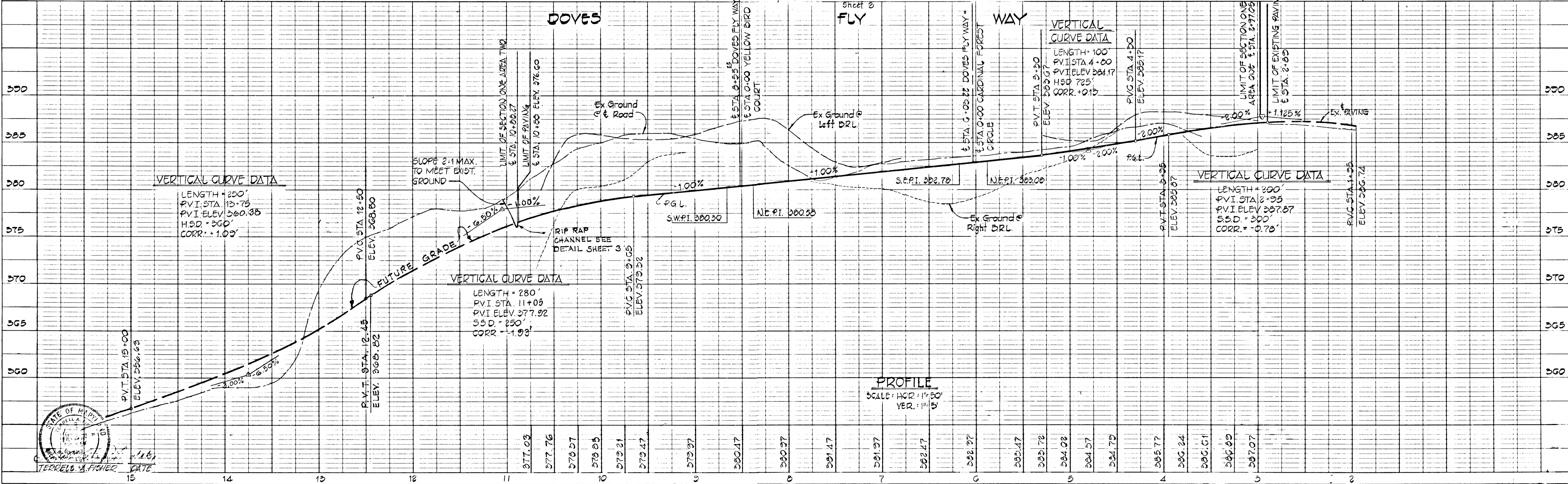


VICINITY MAP
SCALE: 1" = 800'

BENCH MARK
F.C.C. # 101 ELEV. 302.59
RAILROAD SPIKE SET IN 20" OAK TREE
± 50' EAST OF STONE FOUND AT REAR
OF LOT 11.

SECTION ONE, AREA TWO
CARDINAL FOREST
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DOVES FLY WAY
PLAN AND PROFILE
CARDINAL FOREST CIRCLE
PLAN
OWNER AND DEVELOPER
FOXLEIGH JOINT VENTURE
SUITE 103, 5501 TWIN KNOLLS ROAD
COLUMBIA, MARYLAND 21045
SCALE AS SHOWN DATE FEB 3, 1981 DWG. NO. 1 OF 5
DES. C. J. C. DRN. W. K. F. CHK. R. B. C.
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

DATE	
BY	
PROFILE	
SURVEYED	PLOTTED
GRADES CHECKED	STRUCTURE NOTATING OK'D
NOTE BOOK NO.	



722

DATE	
BY	
SURVEYED	
ALIGNED	
NOTE BOOK	
NO.	

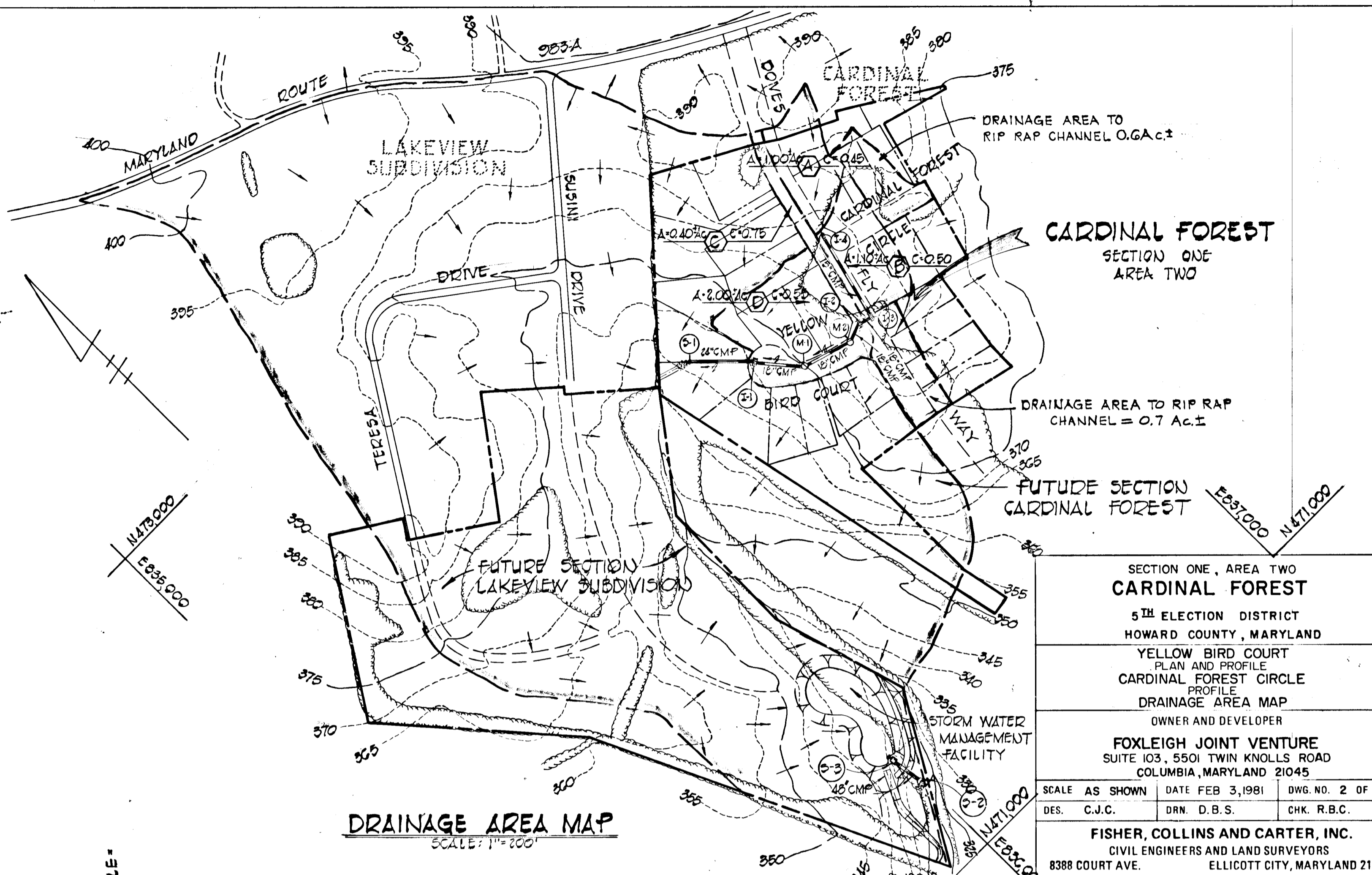
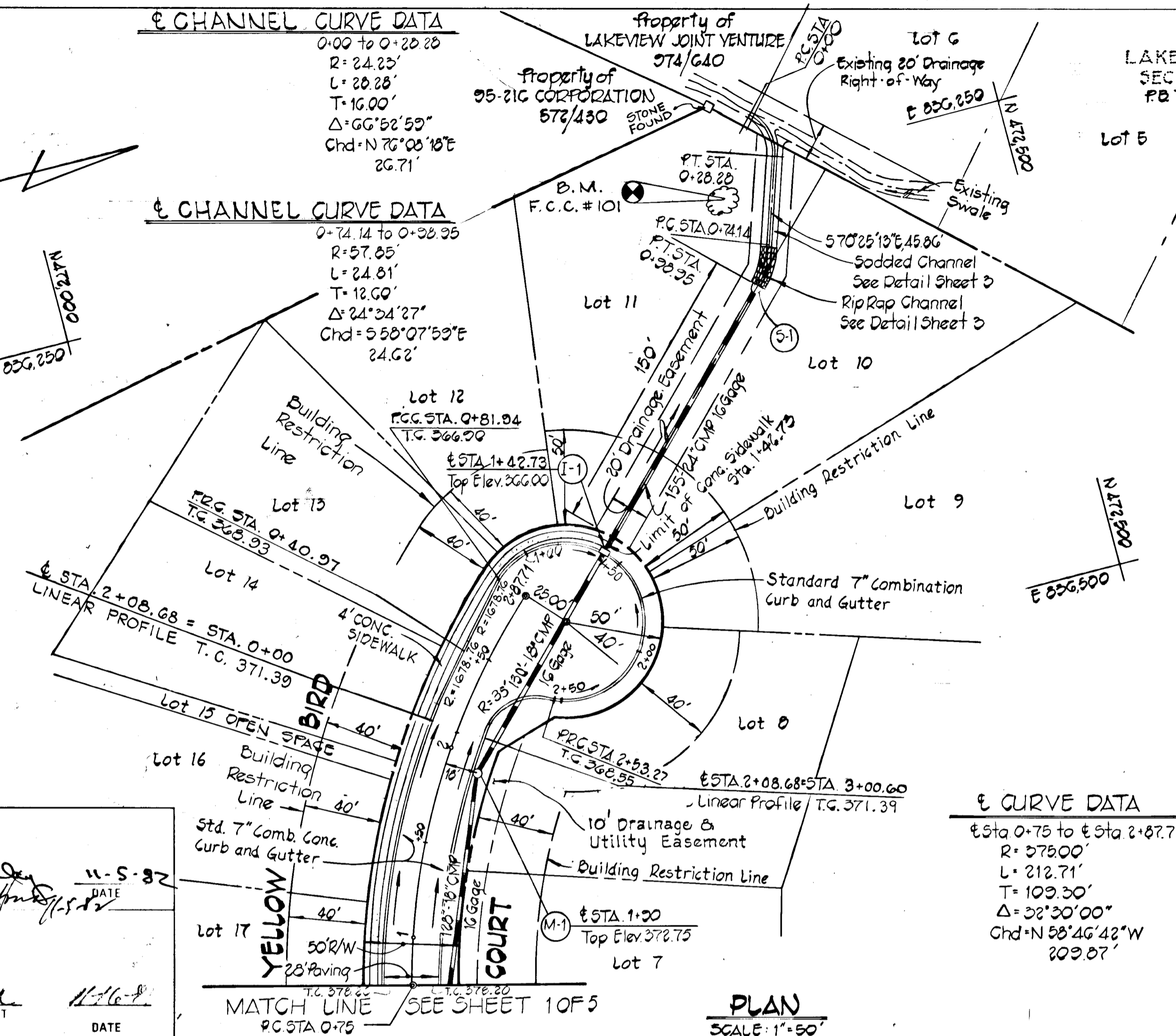
APPROVED
DEPARTMENT OF PUBLIC WORKS
William R. ...
CHIEF, BUREAU OF ENGINEERING
DATE 11-5-92

APPROVED
OFFICE OF PLANNING AND ZONING
William ...
CHIEF, DIVISION OF COMMUNITY PLANNING AND ZONING ADMINISTRATION
DATE 11-6-92

CHANNEL CURVE DATA
0+00 to 0+28.28
R=24.25'
L=28.28'
T=16.00'
Δ=66°52'59"
Chd=N 70°06'10"E
26.71'

CHANNEL CURVE DATA
0+74.14 to 0+38.95
R=57.85'
L=24.01'
T=12.00'
Δ=24°34'27"
Chd=N 58°07'53"E
24.62'

CURVE DATA
Sta 0+75 to Sta 2+87.71
R=575.00'
L=212.71'
T=103.30'
Δ=28°30'00"
Chd=N 58°46'42"W
202.87'



CARDINAL FOREST
SECTION ONE
AREA TWO

DRAINAGE AREA TO RIP RAP CHANNEL = 0.7 AC.±

FUTURE SECTION
CARDINAL FOREST

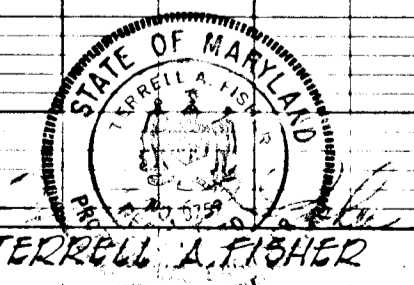
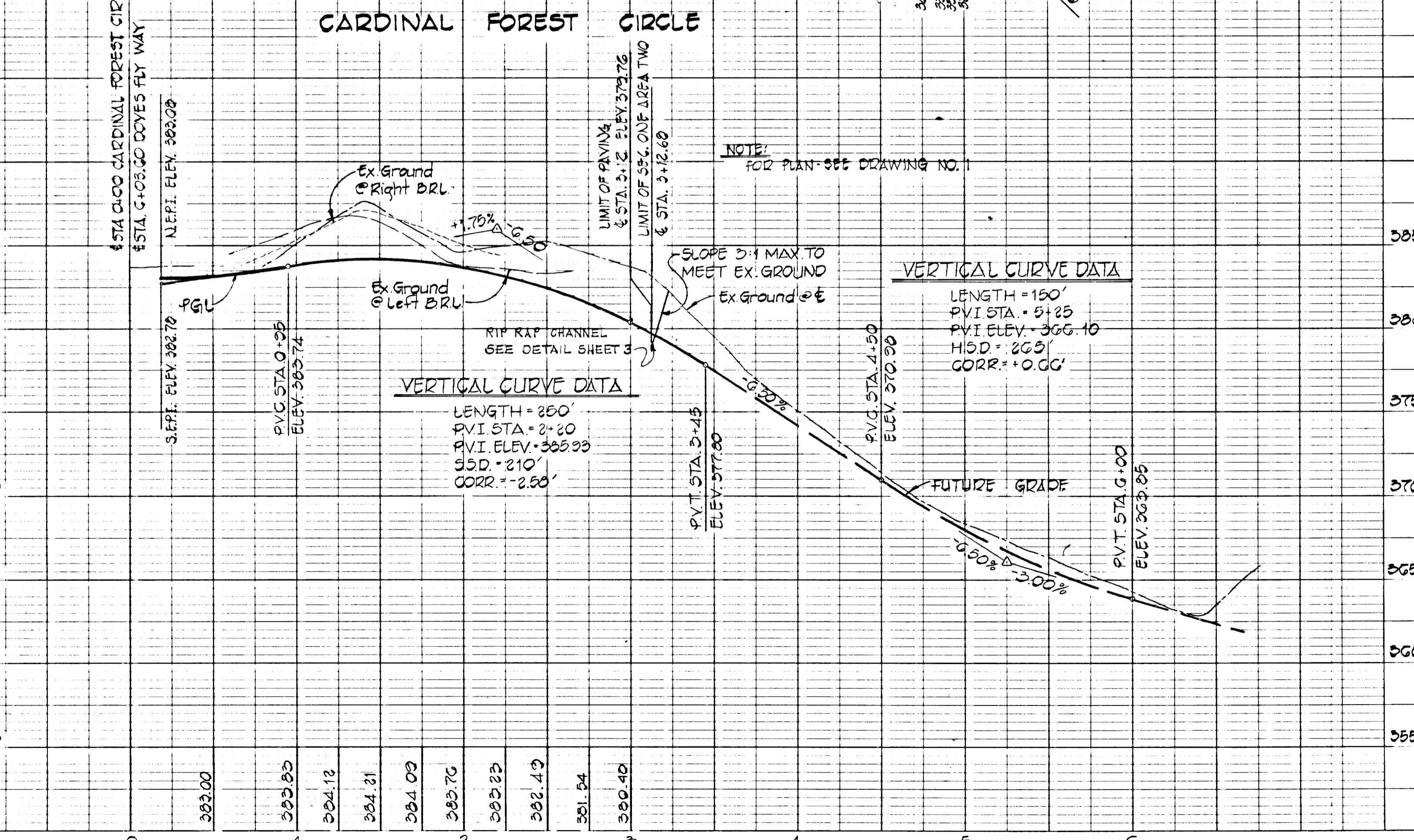
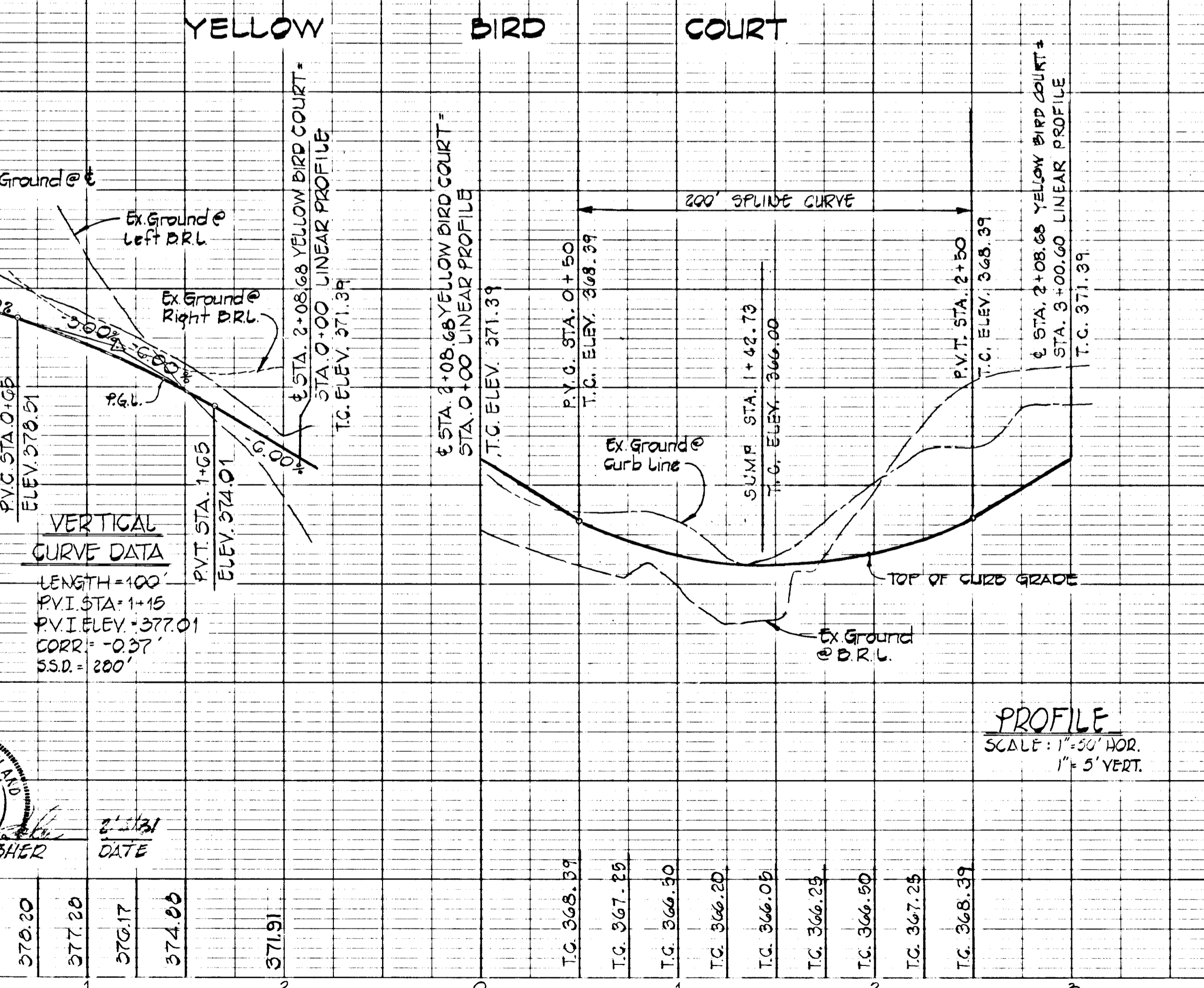
SECTION ONE, AREA TWO
CARDINAL FOREST
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
YELLOW BIRD COURT
PLAN AND PROFILE
CARDINAL FOREST CIRCLE
PROFILE
DRAINAGE AREA MAP
OWNER AND DEVELOPER

FOXLEIGH JOINT VENTURE
SUITE 103, 5501 TWIN KNOLLS ROAD
COLUMBIA, MARYLAND 21045

SCALE AS SHOWN DATE FEB 3, 1991 DWG. NO. 2 OF 5
DES. G.J.C. DRN. D.B.S. CHK. R.B.C.

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

DATE	
BY	
SURVEYED	
GRADES CHECKED	
NOTE BOOK	
NO.	



728

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.

David A. Palko 11/23/81
 DATE

PLANNING DEPARTMENT'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL 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 DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

John M. Palko 11/24/81
 DATE

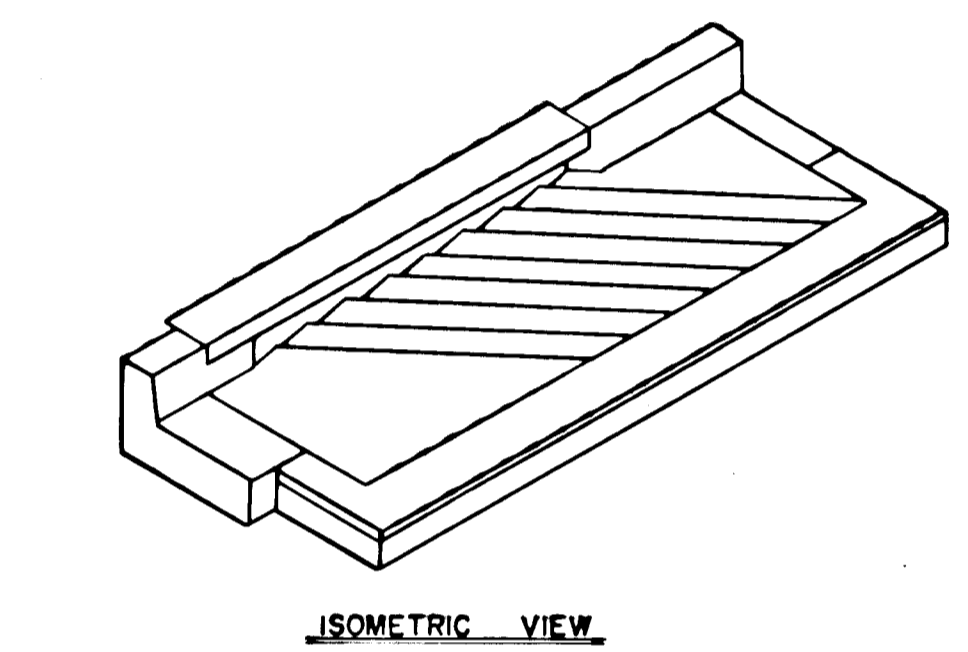
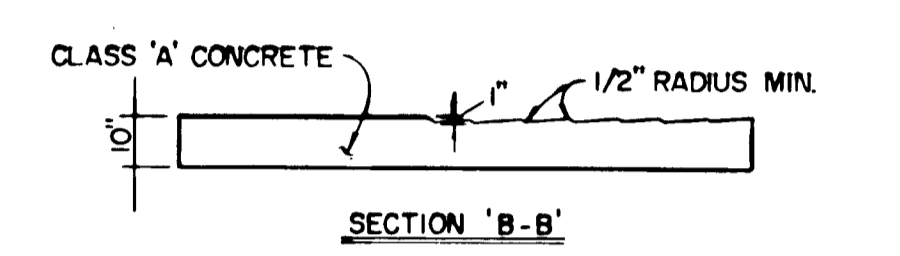
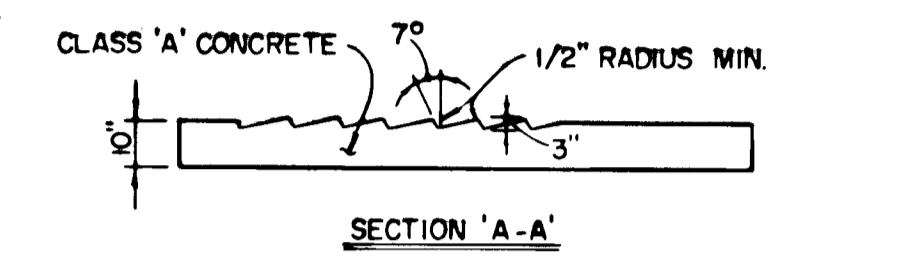
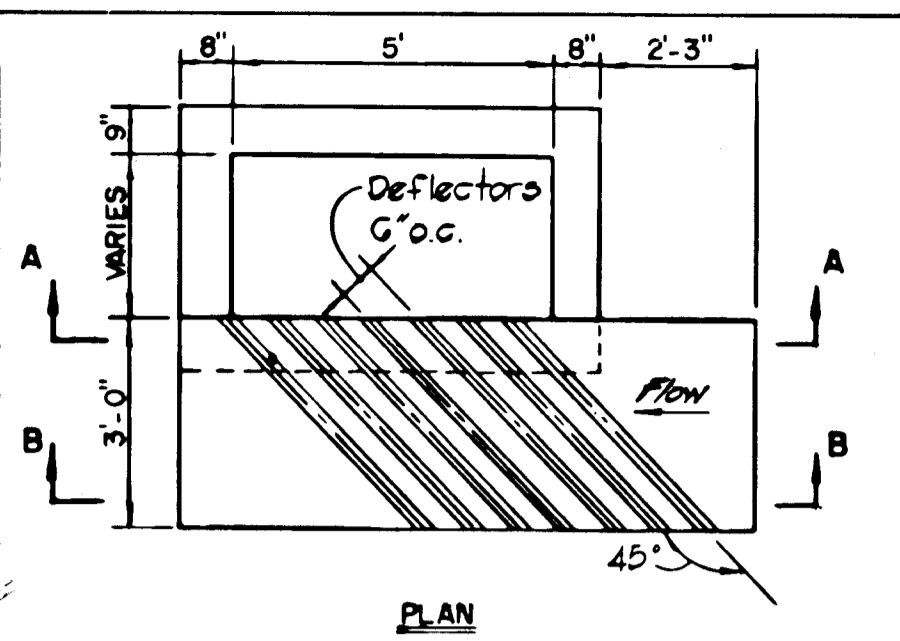
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James Mitchell 11-12-81
 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
William J. Howe 11-12-81
 DATE

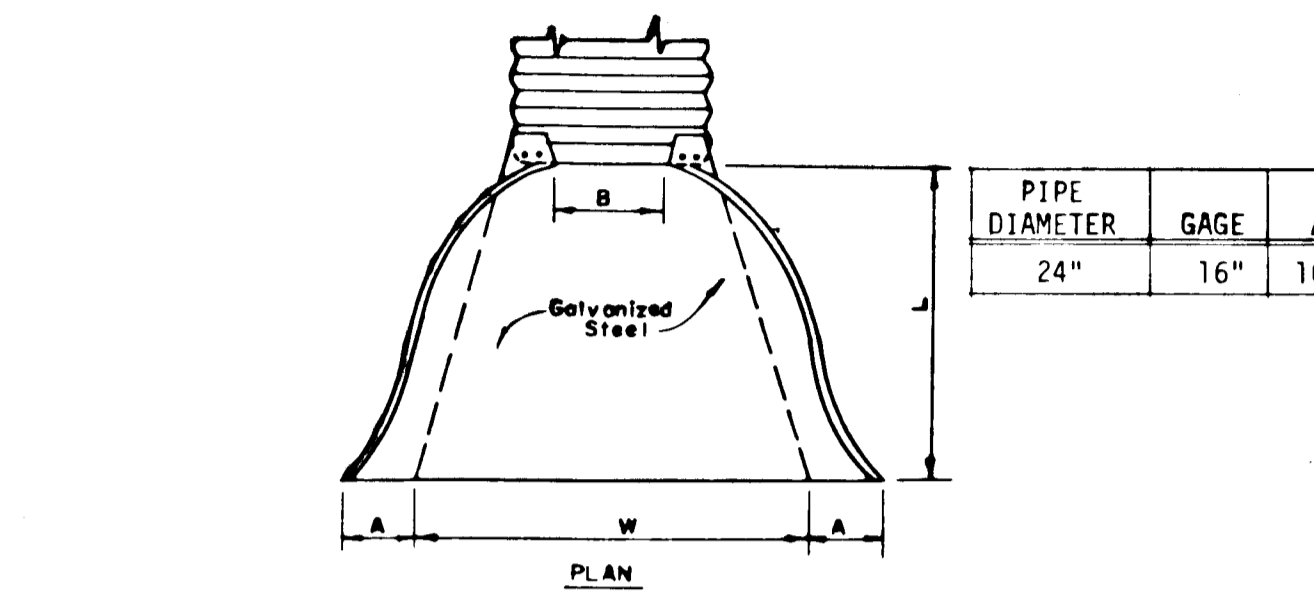
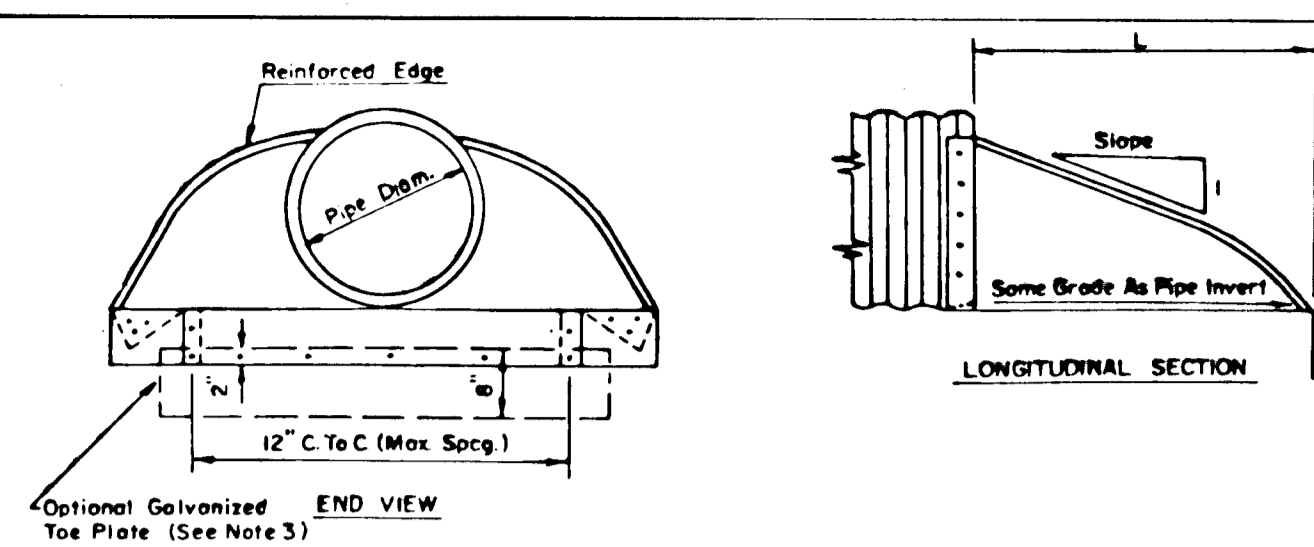
DATE _____
 BY _____
 SURVEYED _____
 ALIGNED _____
 CHECKED _____
 RT. OF WAY CHECKED _____
 NO. _____

APPROVED
 DEPARTMENT OF PUBLIC WORKS
W. S. Palko 11-5-82
 CHIEF, BUREAU OF ENGINEERING
 DATE

APPROVED
 OFFICE OF PLANNING AND ZONING
William J. Howe 11-16-81
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
 DATE

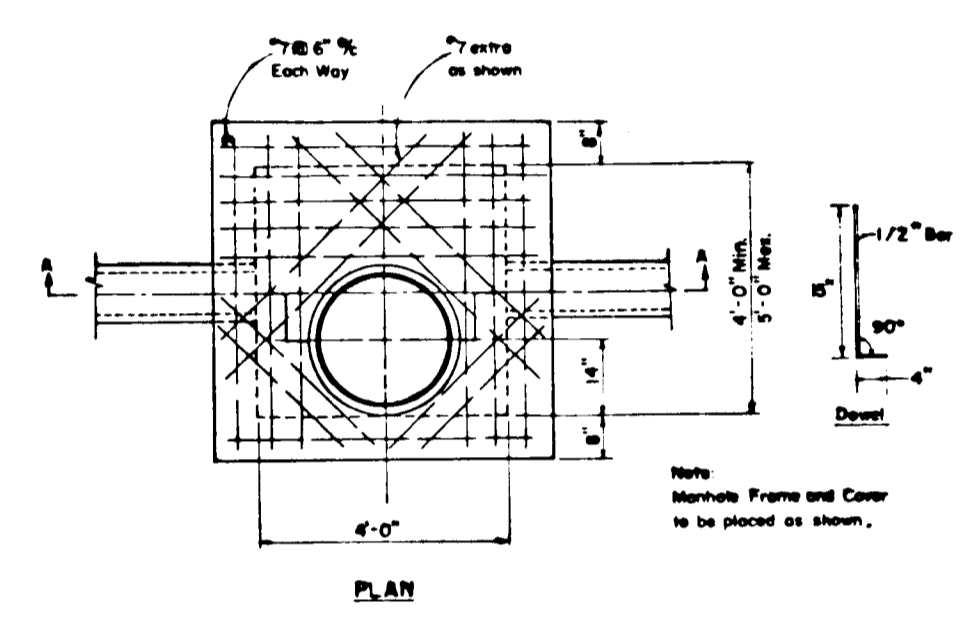


TYPE 'A' INLET W/ DEFLECTORS
 NO SCALE

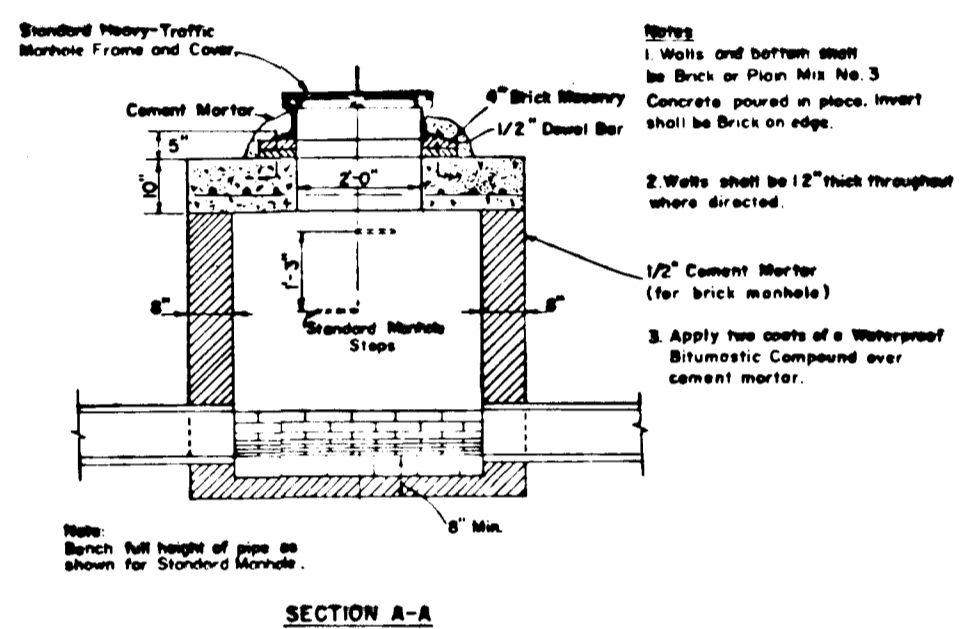


STANDARD METAL END SECTION
 NO SCALE

PIPE DIAMETER	GAGE	A	B, MAX.	L	W
24"	16"	10"	13"	41"	48"

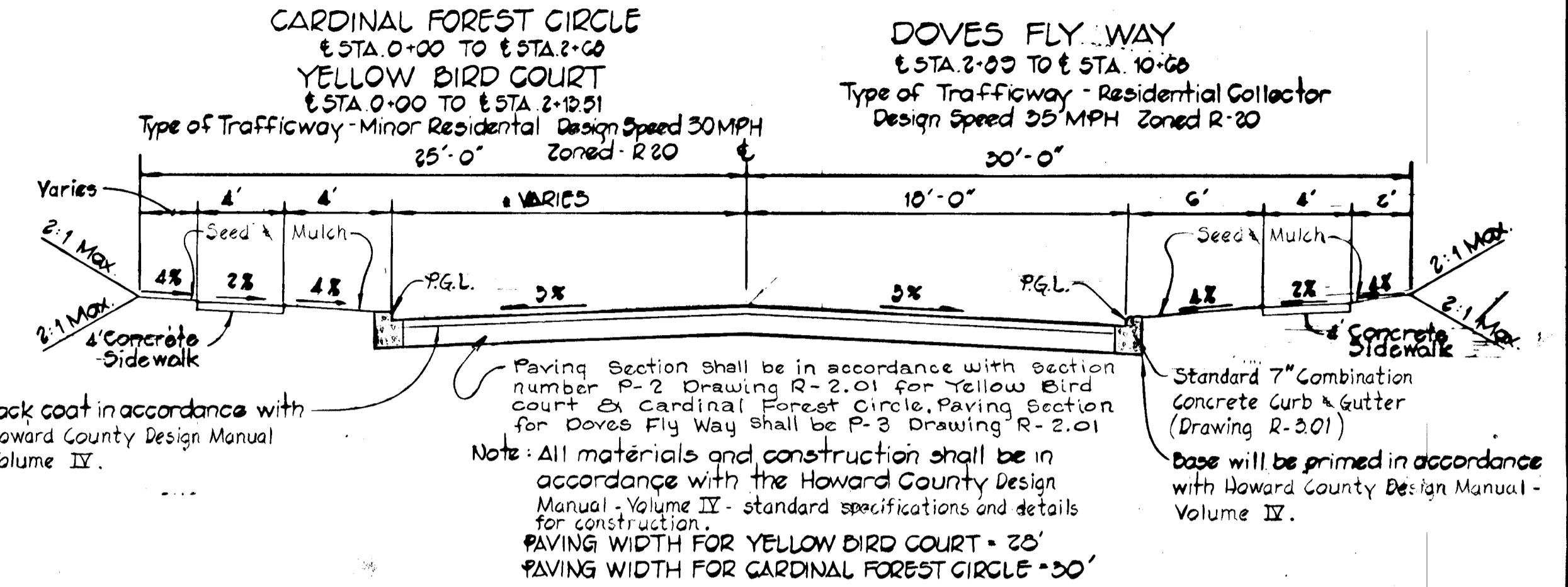


SHALLOW MANHOLE AT M-2
 NO SCALE

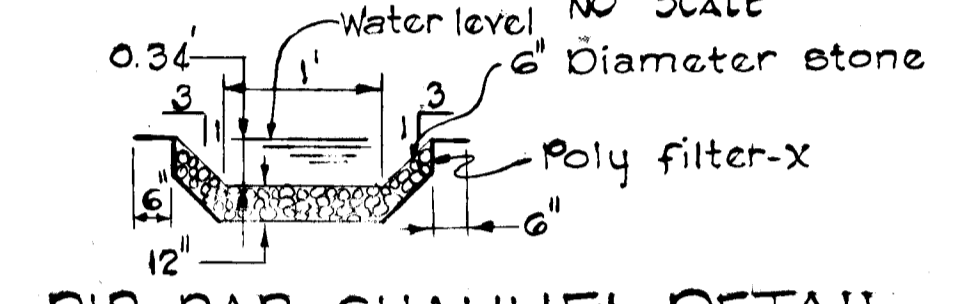


STRUCTURE SCHEDULE

NO.	TYPE	INVERT IN	INVERT OUT	TOP ELEV.	REMARKS
I-1	A-5	361.55	361.05	366.00	DRAWING S.D.401
I-2	A-5 WITH DEFLECTORS	376.04	375.79	380.86	DRAWING S.D.401
I-3	A-10 WITH DEFLECTORS	376.67	376.42	380.86	DRAWING S.D.402
I-4	A-5 WITH DEFLECTORS	-	379.15	383.37	DRAWING S.D.401
M-1	STANDARD	365.76	365.51	372.75	DRAWING G.501
M-2	SHALLOW MANHOLE	374.76	374.51	379.26	SEE DETAIL THIS SHEET
S-1	METAL END SECTION	-	359.32	361.32	SEE DETAIL THIS SHEET



TYPICAL ROADWAY HALF SECTIONS



RIP RAP CHANNEL DETAIL @ TEE TURN AROUNDS
 NO SCALE

SECTION ONE, AREA TWO
CARDINAL FOREST
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

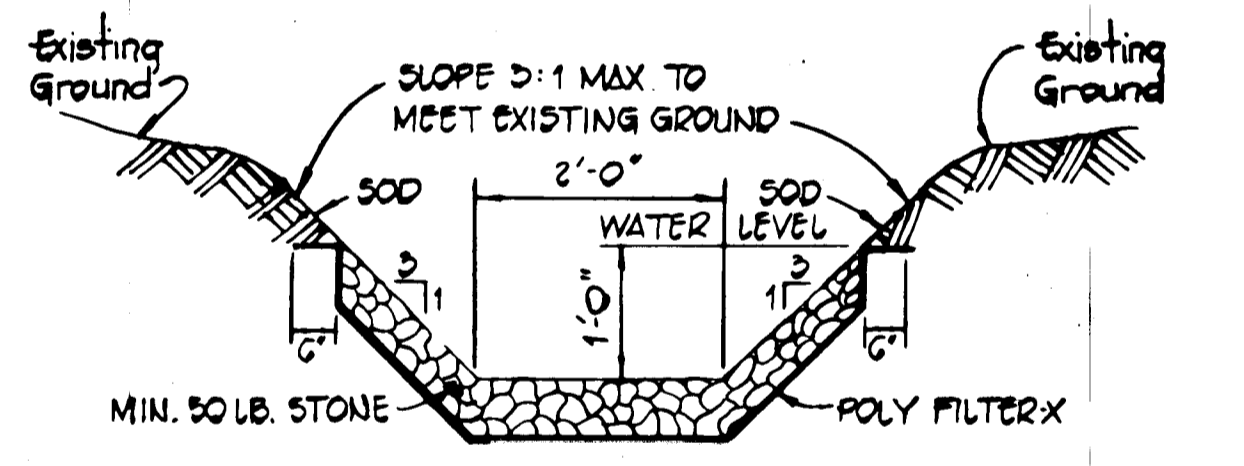
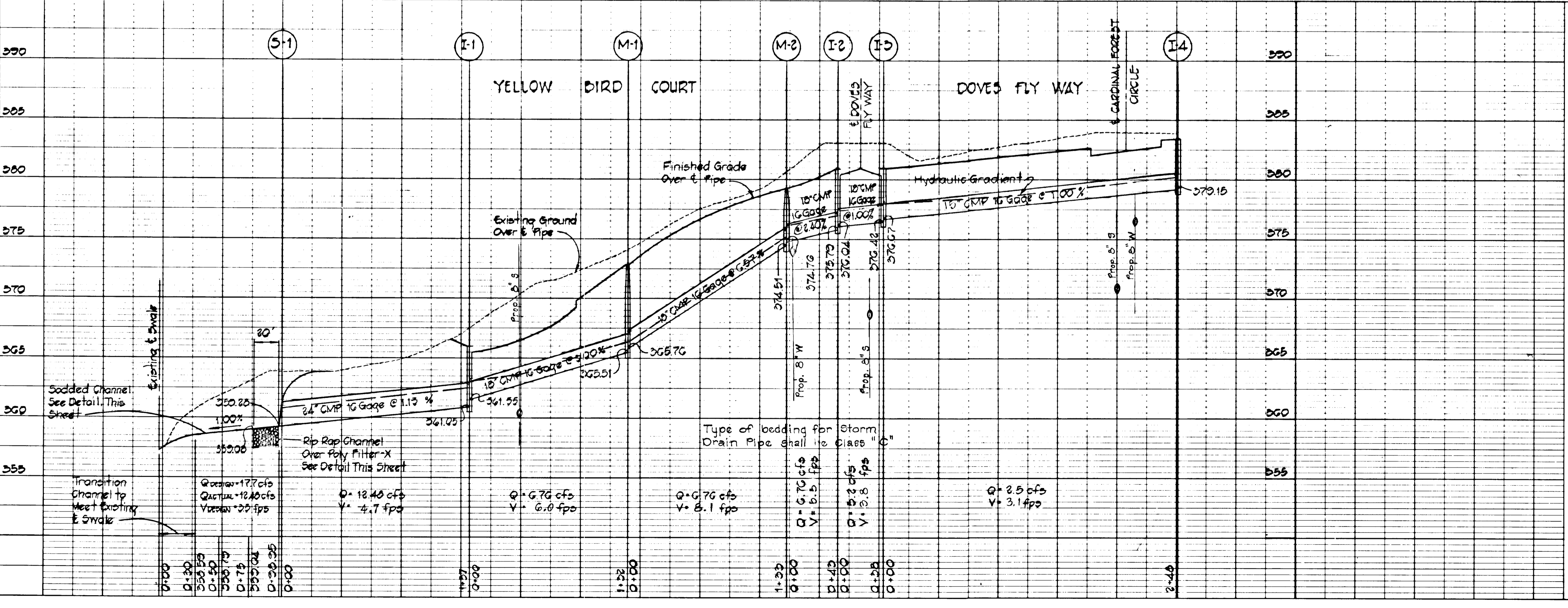
STORM DRAIN
 DETAILS & PROFILES
 AND
 TYPICAL ROAD SECTION

OWNER AND DEVELOPER
FOXLEIGH JOINT VENTURE
 SUITE 103, 5501 TWIN KNOLLS ROAD
 COLUMBIA, MARYLAND 21045

SCALE AS SHOWN DATE FEB. 4, 1981 DWG. NO. 3 OF 5
 DES. C.J.C. DRN. D.B.S. CHK. R.B.C.

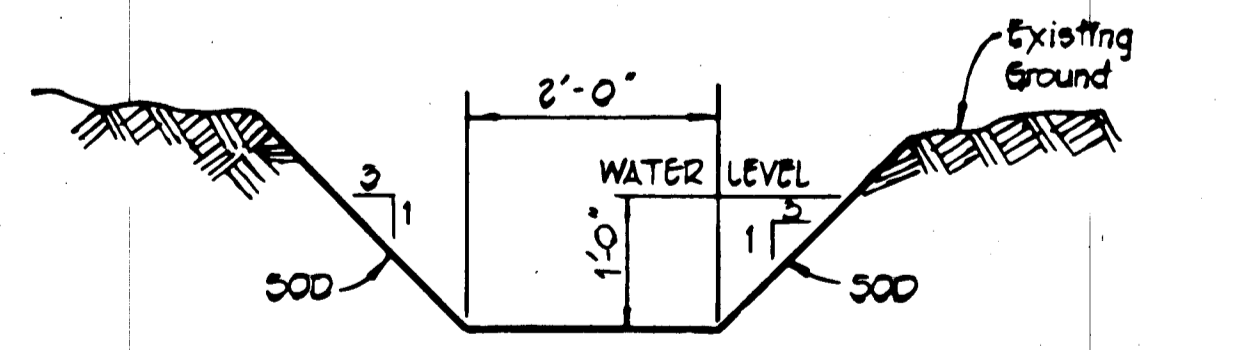
FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

DATE _____
 BY _____
 SURVEYED _____
 GRADES CHECKED _____
 8" M. NOTED _____
 STRUCTURE NOTATIONS CHECKED _____
 NO. _____



RIPRAP CHANNEL AND DESIGN DATA @ S-1
 NO SCALE

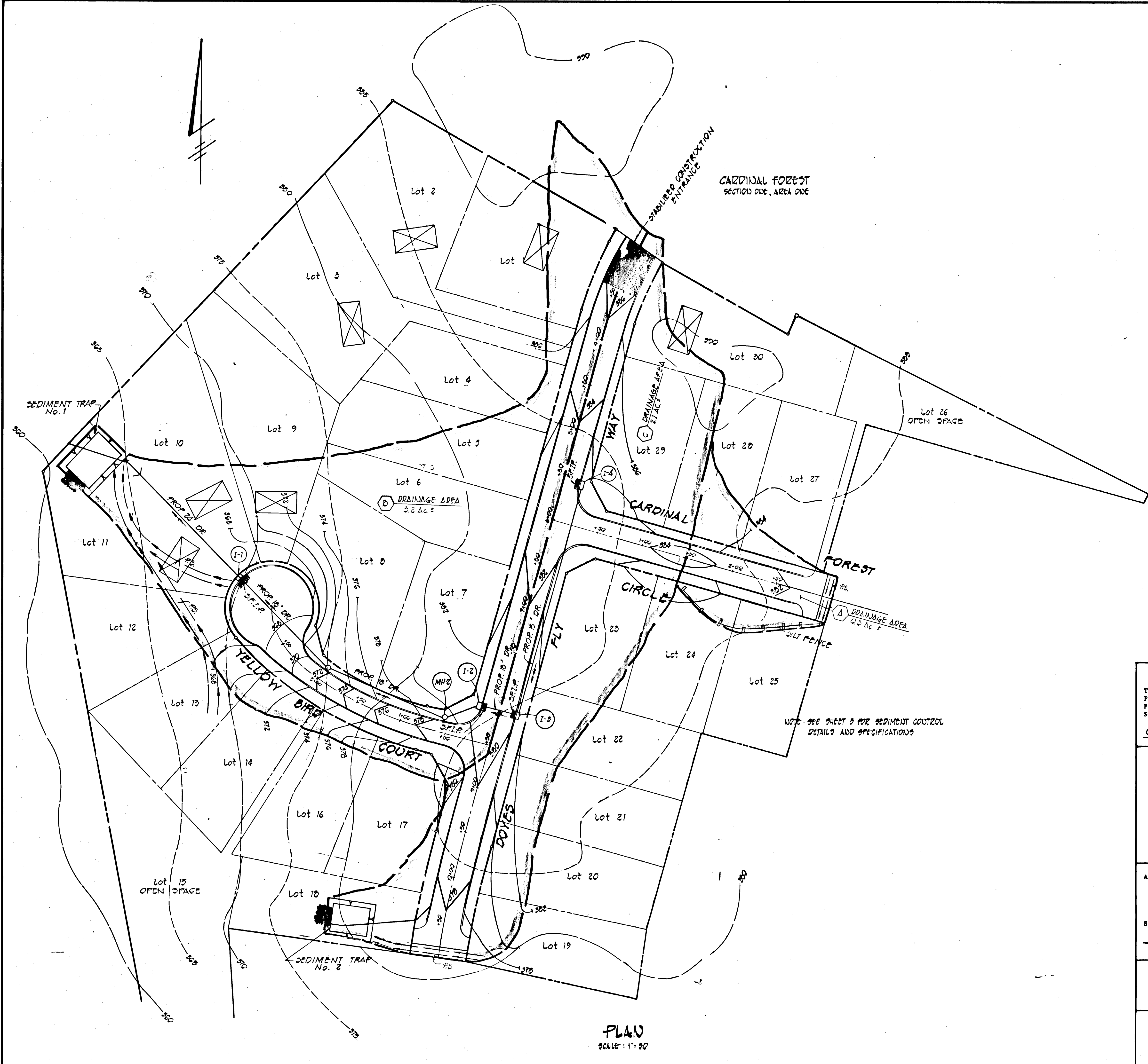
A = 5' V = 1.485
 P = 8.32' V = 1.485 * 0.7122 * 0.100 = 2.64 fps
 R = 0.6010 Q = A * V
 S = 1.00% Q = 5 * 2.64 = 13.2 cfs
 n = 0.04
 Water Depth = 1'



SODDED CHANNEL AND DESIGN DATA @ S-1
 NO SCALE

A = 5' V = 1.485
 P = 8.32' V = 1.485 * 0.7122 * 0.100 = 3.55 fps
 R = 0.6010 Q = A * V
 S = 1.00% Q = 5 * 3.55 = 17.7 cfs
 n = 0.05

729



☒ DENOTES APPROXIMATE LOCATION OF DWELLING.

NOTE: SEE SHEET 9 FOR SEDIMENT CONTROL DETAILS AND SPECIFICATIONS

PLAN
SCALE: 1" = 20'

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.
John Mikolasko 10/27/91
 Date

DEVELOPER'S CERTIFICATE
 "I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."
John Mikolasko 9/14/81
 Date

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
John Mikolasko 11-12-81
 U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
William V. Kwan 11-12-81
 DISTRICT COORDINATOR DATE
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS
William V. Kwan 11-5-82
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: OFFICE OF PLANNING AND ZONING
William V. Kwan 11-5-81
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

SITE ANALYSIS

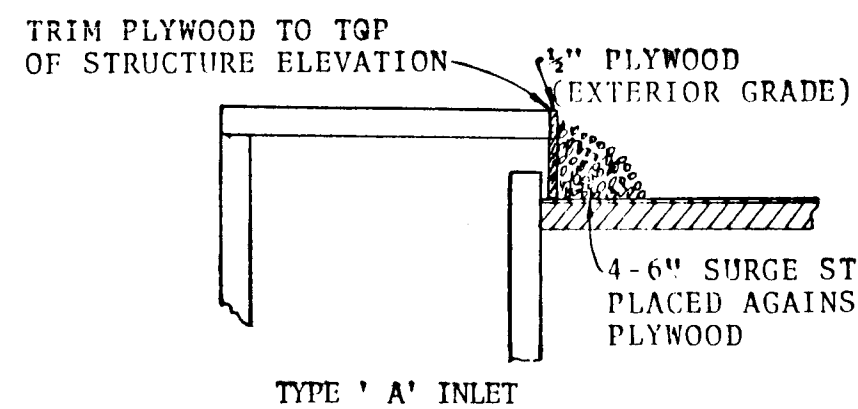
TOTAL AREA OF SECTION ONE AREA 2	14.1 AC ±
IMPERVIOUS AREA	1.3 AC ±
AREA TO BE VEGETATED	1.4 AC ±
UNDISTURBED AREA	11.4 AC ±

SECTION ONE, AREA TWO
CARDINAL FOREST
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

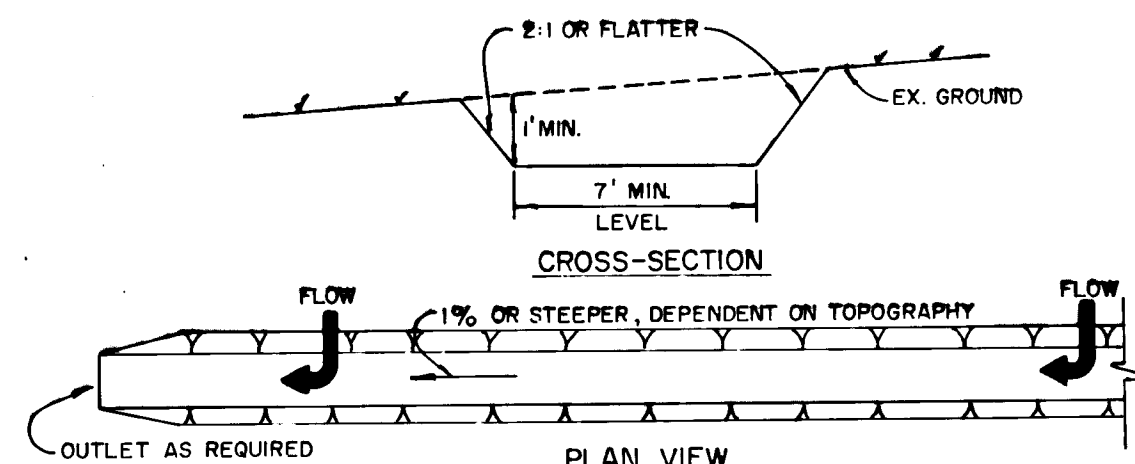
SEDIMENT CONTROL PLAN

OWNER AND DEVELOPER
FOXLEIGH JOINT VENTURE
 SUITE 103, 5501 TWIN KNOLLS ROAD
 COLUMBIA, MARYLAND 21045

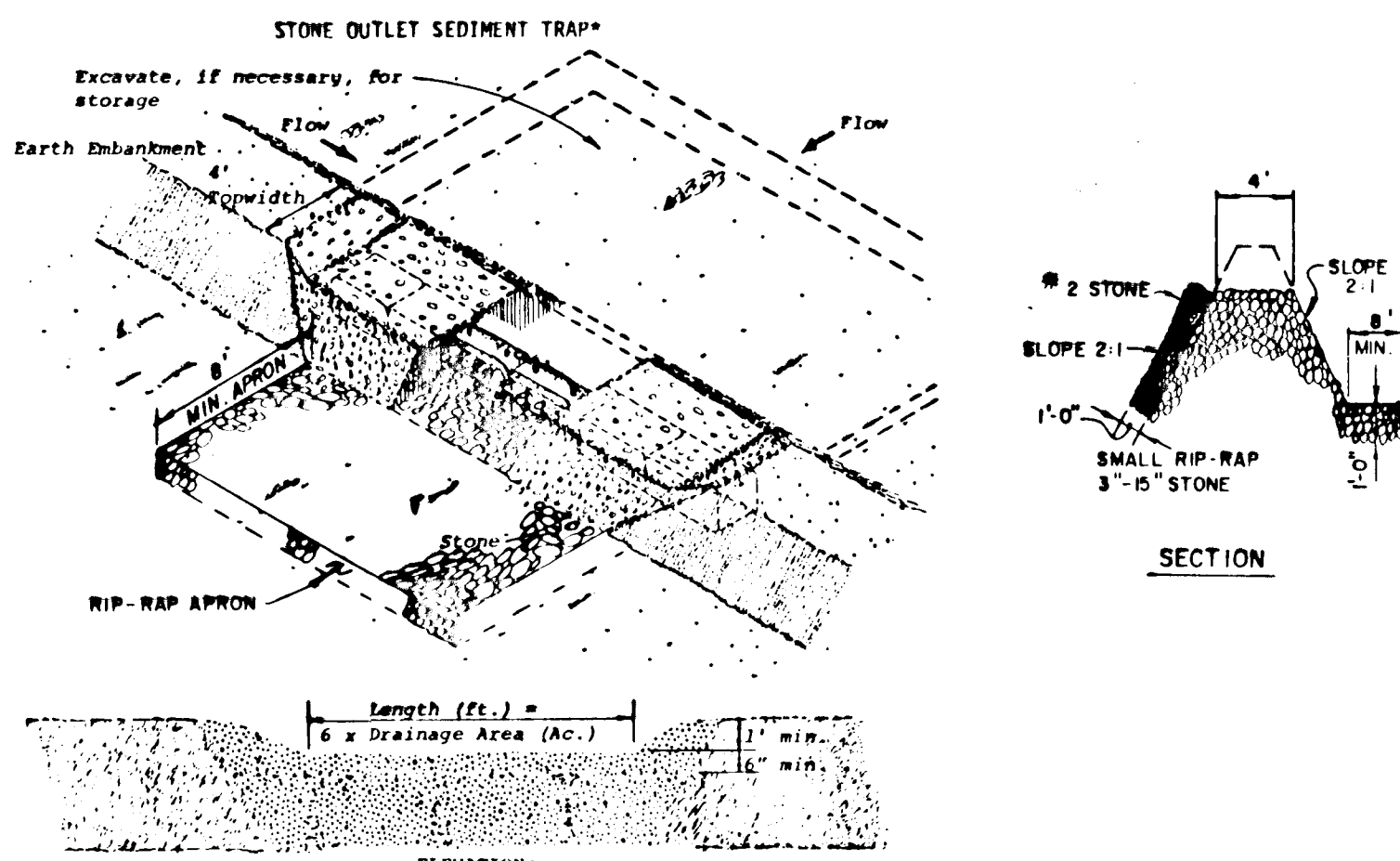
SCALE AS SHOWN	DATE: FEB 4, 1991	DWG NO. 4 OF 5
DES: CJC	DRN: KF & DB	CHK: R.C.
FISHER, COLLINS & CARTER, INC. CONSULTING ENGINEERS & LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043		



INLET PROTECTION DETAIL
NOT TO SCALE



PERIMETER SWALE
NOT TO SCALE

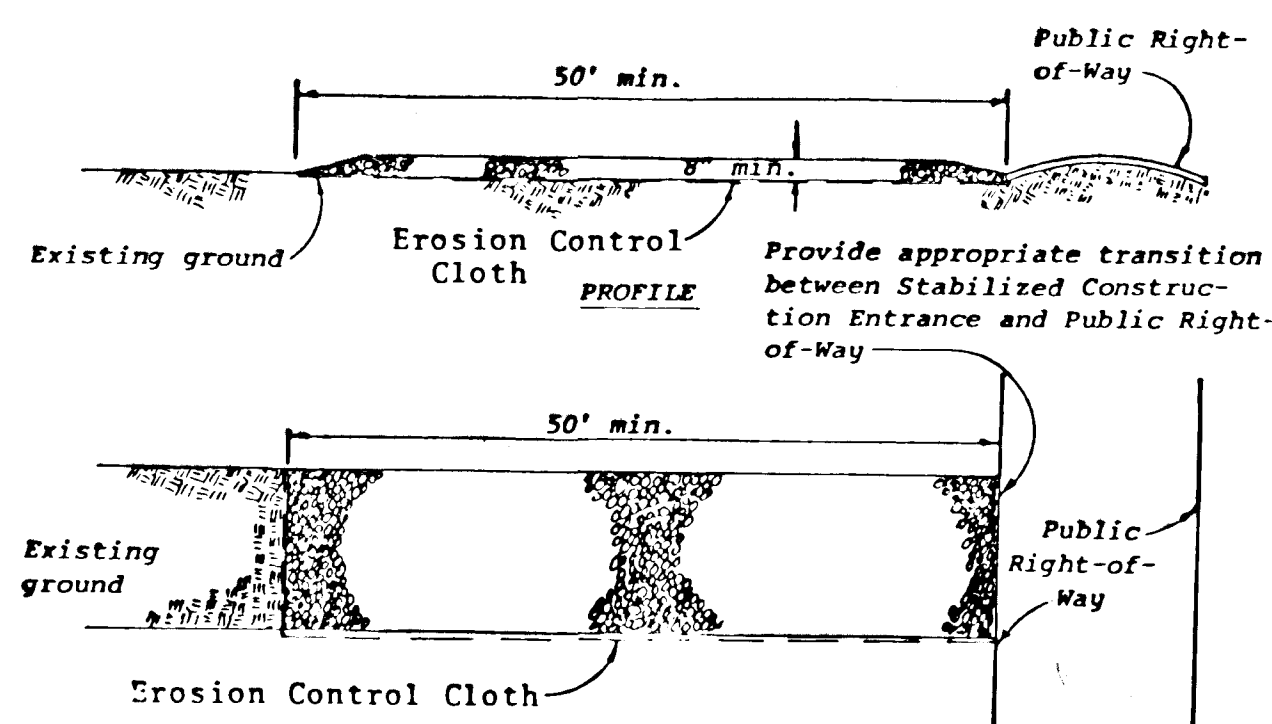


STONE OUTLET SEDIMENT TRAP

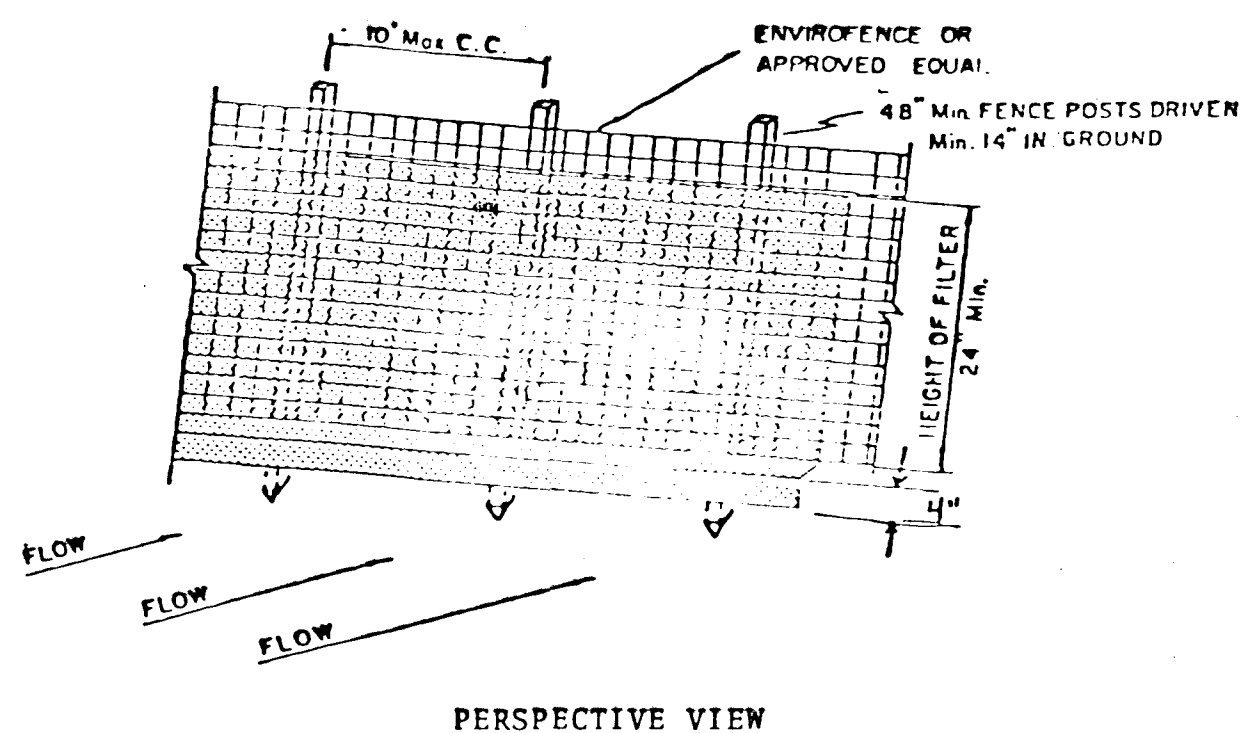
STONE OUTLET SEDIMENT TRAP DATA							
TRAP NO.	DRAINAGE AREA	STORAGE REQUIRED	SIZE OF TRAP L x W x D	STORAGE PROVIDED	TOP OF WEIR ELEV.	LENGTH OF STONE FILTER	BOTTOM TRAP ELEVATION
1	3.2 Ac.+-	5789 Cu. Ft.	50'x37'x2.5'	5838 Cu. Ft.	361.00	19.2'	358.00
2	2.1 Ac.+-	3799 Cu. Ft.	40'x30'x2.5'	4000 Cu. Ft.	378.00	12.6'	375.00

NOTES:

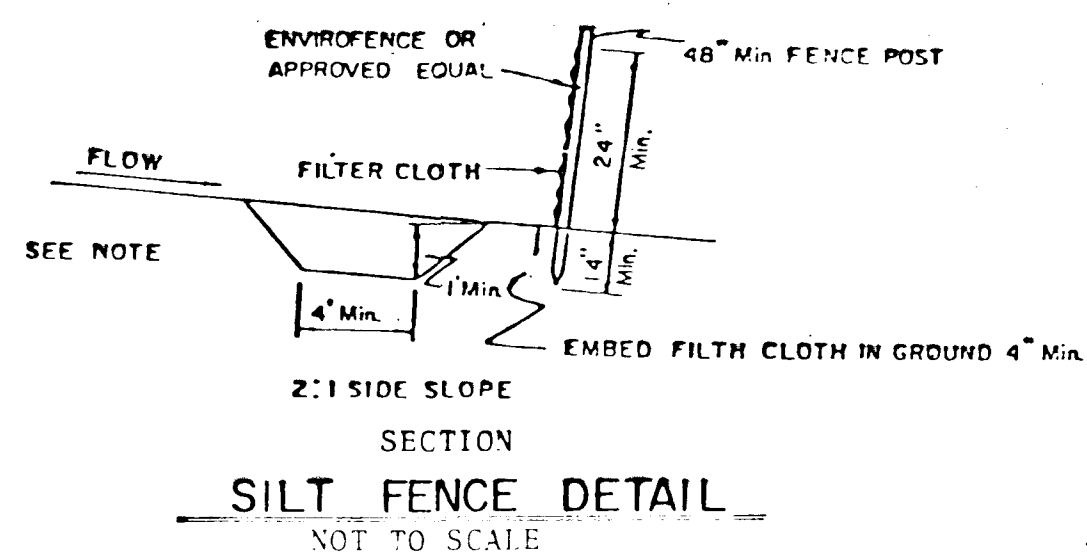
- 1). L AND D DIMENSIONS ARE AT BOTTOM OF TRAP.
- 2). SIDE SLOPES ARE 2:1



STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



PERSPECTIVE VIEW



SILT FENCE DETAIL
NOT TO SCALE

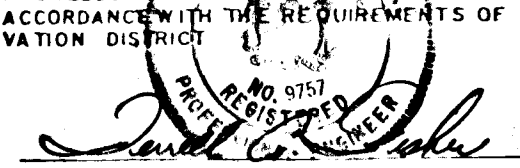
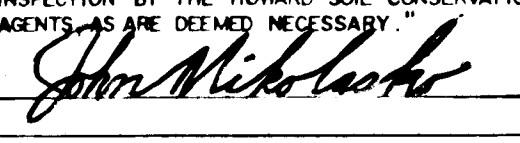

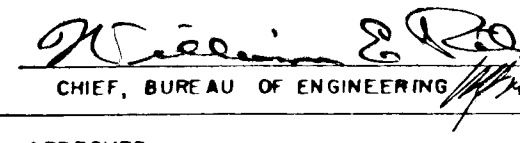

SPECIAL SEEDING - ALL 2:1 SLOPES SHALL BE SEEDD WITH THE FOLLOWING MIXTURE AT THE RATE OF 250 LBS./ACRE, 10% CROWN VETCH INNOCULATED, 40% K-31 KENTUCKY TALL FESCUE, 30% KENTUCKY BLUE GRASS AND 20% PENN LAWN CREEPING RED FESCUE.

SEDIMENT CONTROL NOTES

1. Specifications for the Sediment Control Details shown hereon are included in the U.S.D.A. Soil Conservation Service "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas."
2. The developer shall notify the Howard County Office of Inspections and Permits at least 24 hours prior to beginning any construction shown hereon (992-2433).
3. Sediment Control structures to be constructed prior to any on-site grading or disturbance to any existing surface material, and are to be stabilized as soon as constructed.
4. All sediment control structures to remain in place until permission for their removal has been obtained from the Howard County Office of Inspection and Permits (992-2433).
5. All graded areas not to be sodded shall be stabilized by seeding and mulching in accordance with the following:
 1. Site Preparation
 - A. Harrow or disc in areas proposed to be seeded the following materials
 - 1) Pulverized limestone at 2 tons/acre.
 - 2) Commercial fertilizer 10-10-10 at 3/4 tons/acre.
 - 3) Super phosphate at 600 lbs./acre.
 2. Seeding
 - A. Sow the following seed mixture at the rate of 200 lbs./acre with a mechanical spreader.
 - 1) Temporary: Italian or Perennial Rye Grass
 - 2) Permanent: 40% Merton Blue Grass, 40% South Dakota Blue Grass and 20% Penn Lawn Creeping Red Fescue.
 - B. The seeded area shall then be raked with a York Rake (a minimum of 2 passes) covered and compacted with Cultipacker or other approved method.
 3. Mulching
 - A. Seeded areas shall be uniformly mulched immediately after seeding with unweathered small grain straw at the rate of 1.172-2 tons/acre.
 - B. Tie mulch down with liquid asphalt at 0.1 gal./S.Y. or emulsified asphalt at 0.04 gal./S.Y. or mulch netting.
 6. A grading plan must be developed by the builder and approved before beginning construction of dwellings.

CONSTRUCTION SEQUENCE

- 1). OBTAIN GRADING PERMIT.
- 2). CONSTRUCT STONE CONSTRUCTION ENTRANCE AS INDICATED ON PLAN.
- 3). CONSTRUCT PERIMETER SWALES AND STONE OUTLET SEDIMENT TRAPS USING TEMPORARY SEEDING. (SEE SEDIMENT CONTROL NOTES).
- 4). INSTALL SILT FENCE.
- 5). PLACE DOWNS FLY WAY, CARDINAL FOREST CIRCLE, AND YELLOW BIRD COURT TO SUBGRADE STABILIZING SLOPE AREAS BETWEEN EXISTING GROUND AND BACK OF CURB USING PERMANENT SEEDING. (SEE SEDIMENT CONTROL NOTES)
- 6). CONSTRUCT STORM DRAIN SYSTEM.
- 7). INSTALL STONE FILTER INLET PROTECTION DEVICES AT ALL INLETS.
- 8). LAY BASE COURSE.
- 9). UPON STABILIZATION OF GRADED AREAS, INLETS SHALL BE OPENED AND ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM STORM DRAIN SYSTEM. DURING CONSTRUCTION SEDIMENT SHALL BE REMOVED FROM THE TRAPS WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED
- 10). DURING CONSTRUCTION AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON.
- 11). CLEAN BASE COURSE, APPLY TACK COAT TO BASE COURSE, LAY SURFACE COURSE, CONCRETE CURB, AND STABILIZE SHOULDERS USING PERMANENT SEEDING. (SEE SEDIMENT CONTROL NOTES).
- 12). THE SILT FENCE SHALL BE REMOVED AND THE SEDIMENT SHALL BE SPREAD ON LOT II AND STABILIZED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS.
- 13). THE SEDIMENT TRAPS SHALL BE BACKFILLED, GRADED, AND STABILIZED WITH THE PERMANENT SEEDING SPECIFICATIONS.
- 14). ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
- 15). INSTALL RIPRAP CHANNEL AND SODDED CHANNEL AT S-1.

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.  10/27/01	
DEVELOPER'S CERTIFICATE I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL 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 DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.  9/4/01	
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  11/21/02 DISTRICT ENGINEER HOWARD SOIL CONSERVATION DISTRICT	APPROVED: DEPARTMENT OF PUBLIC WORKS  11-5-02 CHIEF, BUREAU OF ENGINEERING AND PLANNING
APPROVED: OFFICE OF PLANNING AND ZONING  DATE	CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

SECTION ONE, AREA TWO CARDINAL FOREST 5 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SEDIMENT & EROSION CONTROL DETAILS
OWNER AND DEVELOPER FOXLEIGH JOINT VENTURE SUITE 103, 5501 TWIN KNOLLS ROAD COLUMBIA, MARYLAND 21045
SCALE: AS SHOWN DATE: FEB. 4, 1981 DWG. NO. 5 OF 5 DES. C.J.C. DRN. K.F. CHK. R.B.C.
FISHER, COLLINS AND CARTER, INC. CIVIL ENGINEERS AND LAND SURVEYORS 8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043