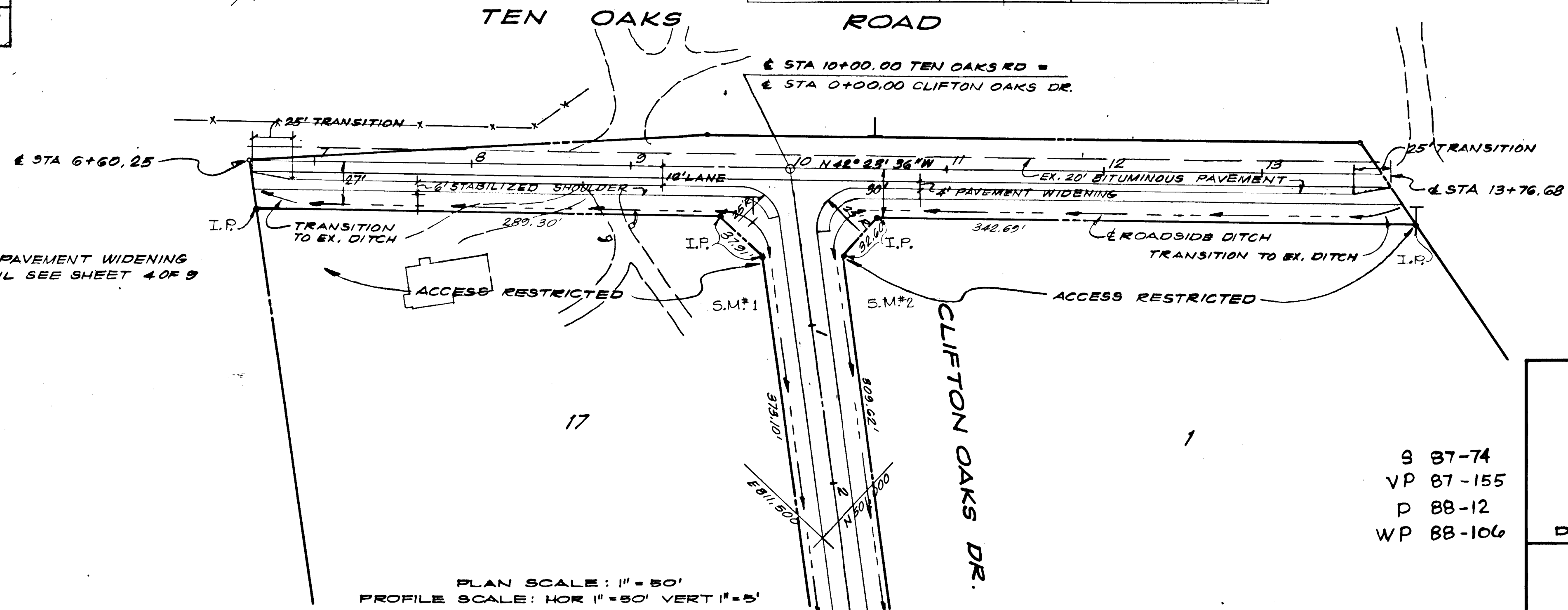
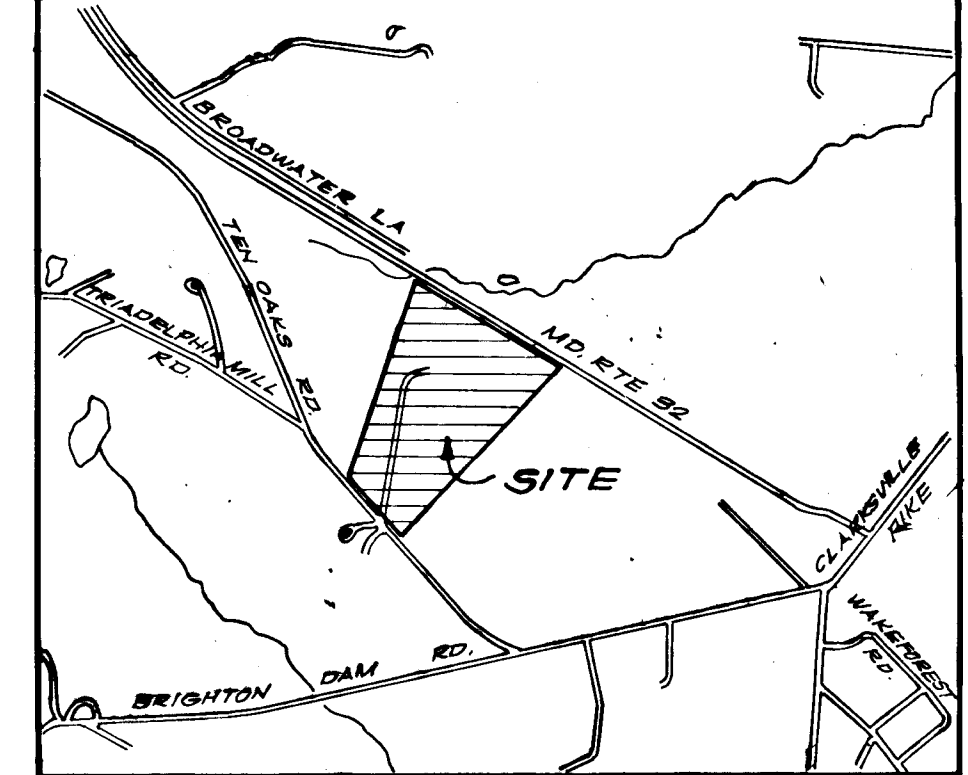
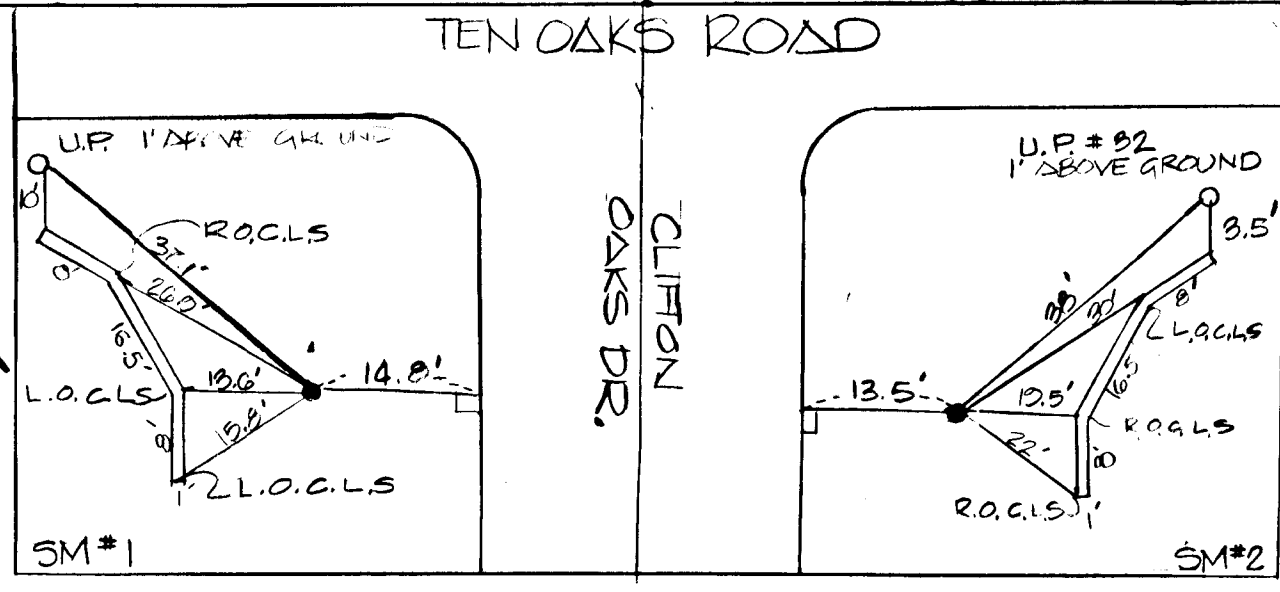


FOR PUBLIC STORM DRAINAGE SYSTEMS & PUBLIC ROADS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DATE: 6/30/88
 CHIEF, LAND DEVELOPMENT DIVISION
 CHIEF, BUREAU OF ENGINEERING
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 DATE: 7/8/88
 DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT

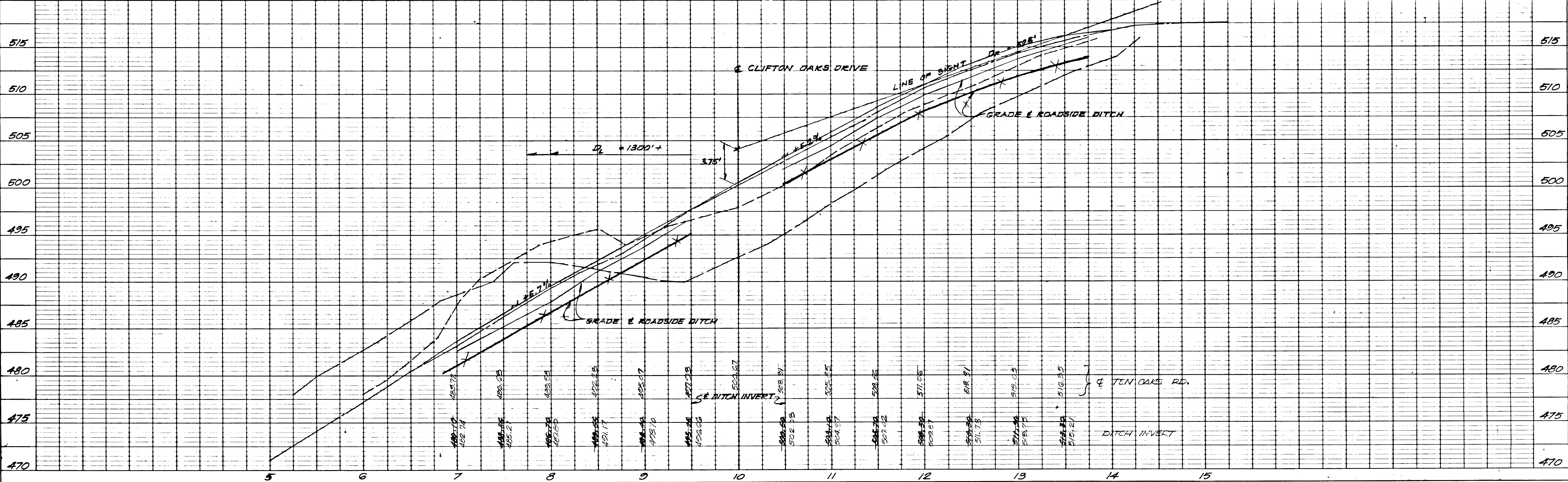


**PUBLIC IMPROVEMENTS TO
 TEN OAKS ROAD**
 STA 6+60.25 TO STA 13+76.68
WESTSIDE SUBDIVISION
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 1988 SCALE: AS SHOWN
 ADVANCE RESOURCE CONSULTANTS, INC.
 7940 AIRPARK ROAD
 GAITHERSBURG, MARYLAND 20879
 (301) 840-0740

FOR PAVEMENT WIDENING
 DETAIL SEE SHEET 4 OF 9

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

S 87-74
 VP 87-155
 P 88-12
 WP 88-106



HIGHWAY FEDERAL AID SHEET
 PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
 PRINTED IN U.S.A.

AS BUILT
 F-88-215 SHEET 1 OF 9

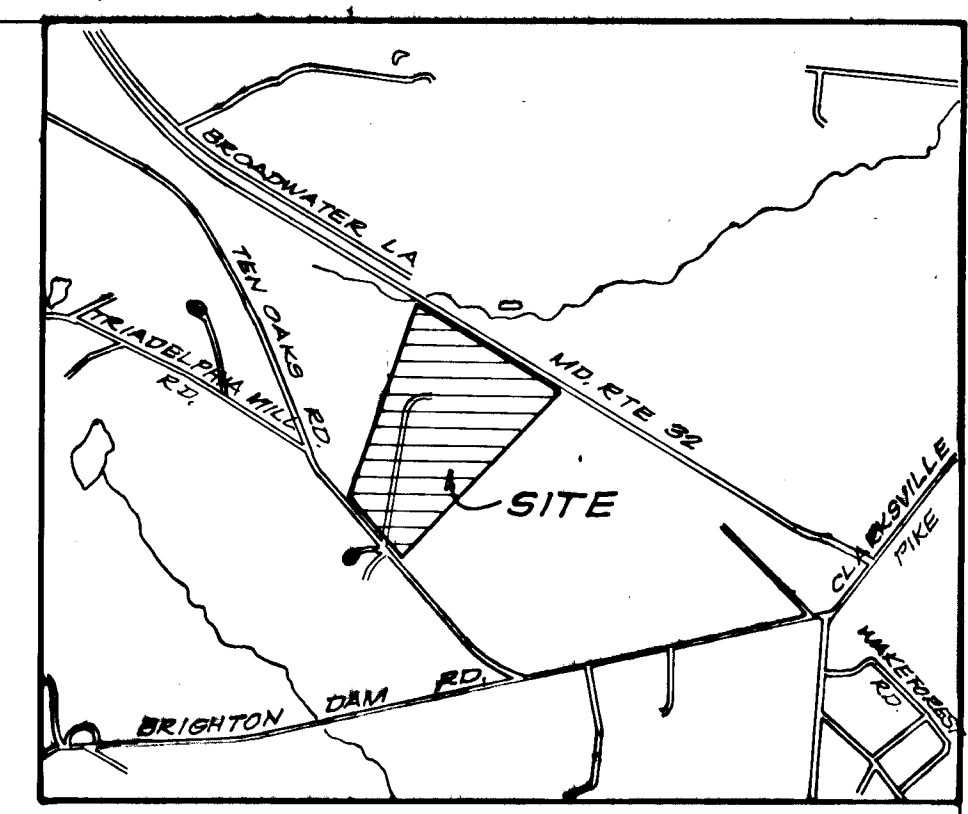
1355

FOR PUBLIC STORM DRAINAGE SYSTEMS & PUBLIC ROADS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division
 Chief, Bureau of Engineering
 Chief, Bureau of Highways

DATE: 6/30/88
 DATE: 7/1/88
 DATE: 7/1/88

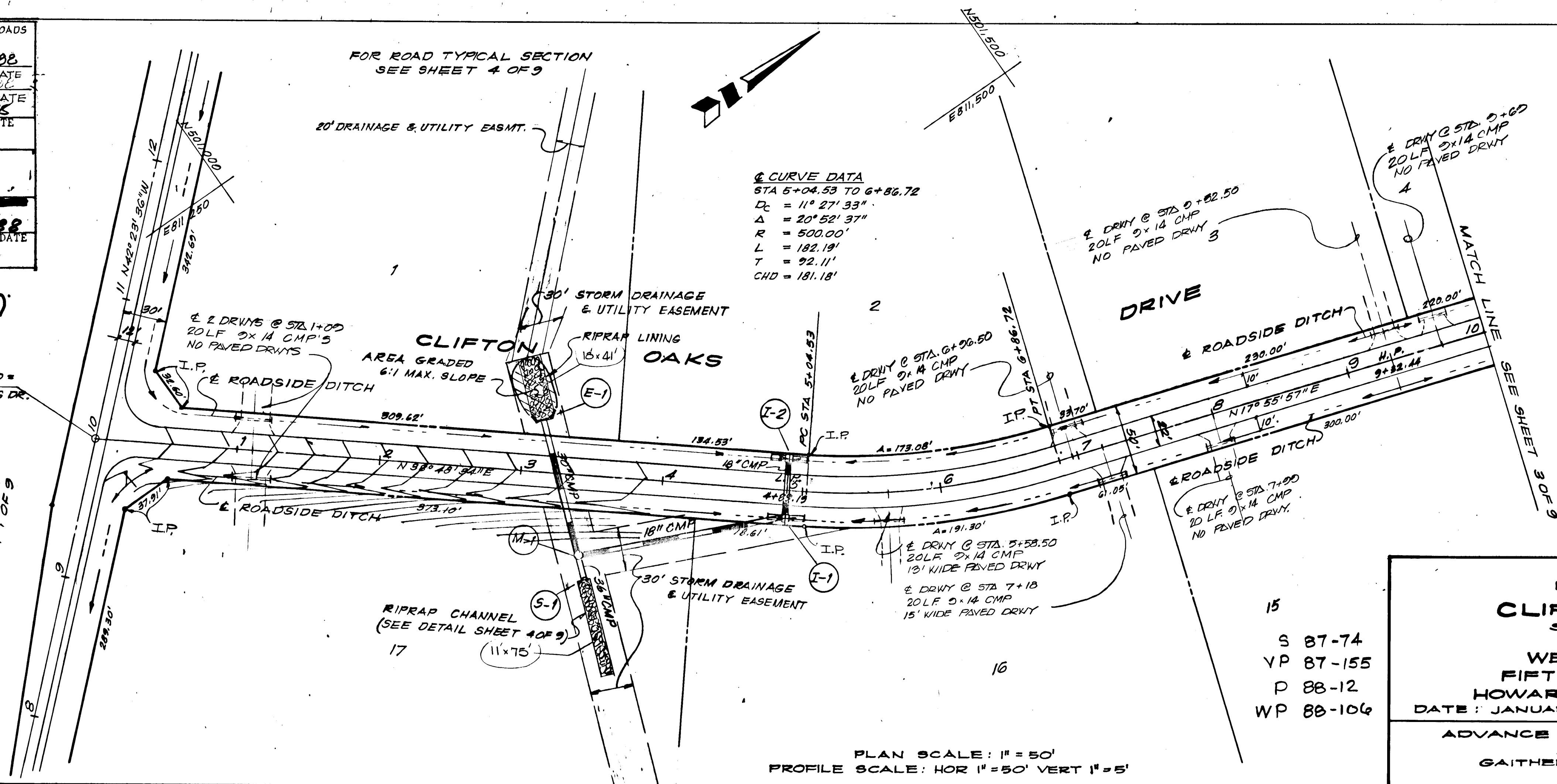
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 DATE: 7/6/88

FOR ROAD TYPICAL SECTION
 SEE SHEET 4 OF 9



PLAN
 SHEET NO.
 DATE

TEN OAKS RD.
 FOR IMPROVEMENTS
 SEE SHEET 1 OF 9



CURVE DATA
 STA 5+04.53 TO 6+86.72
 Δ = 11° 27' 33"
 R = 500.00'
 L = 182.19'
 T = 92.11'
 CHD = 181.18'

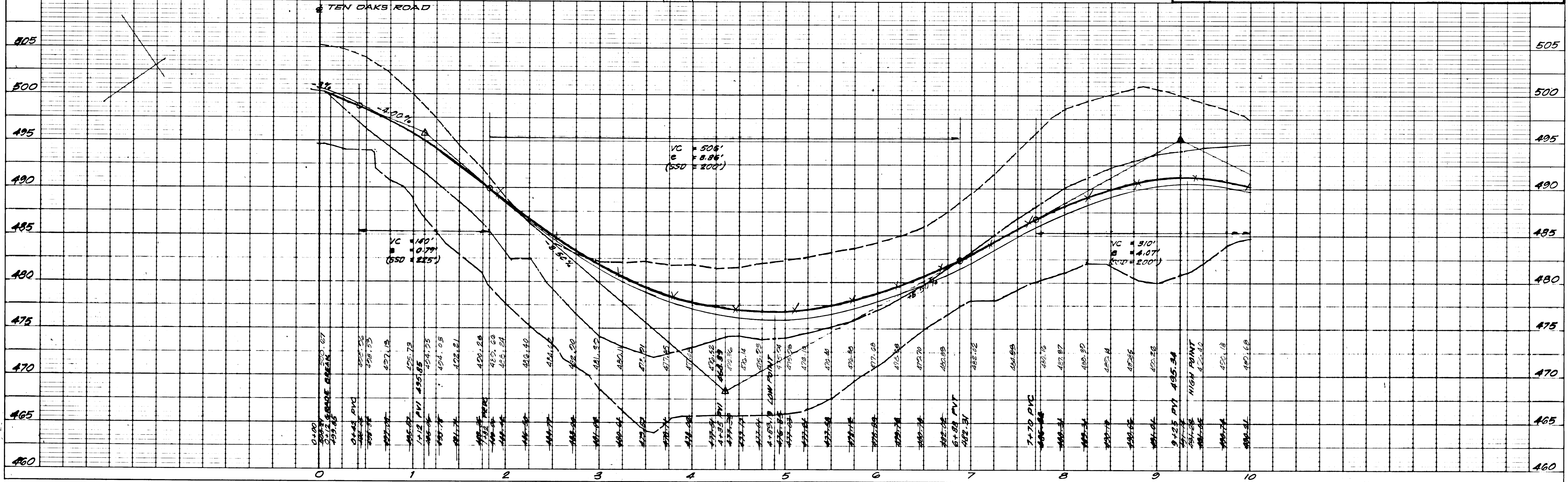
15
 S 87-74
 VP 87-155
 P 88-12
 WP 88-106

PLAN AND PROFILE
CLIFTON OAKS DRIVE
 STATION 0+00 TO 10+00
 WESTSIDE SUBDIVISION
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 1988
 SCALE: AS SHOWN

ADVANCE RESOURCE CONSULTANTS, INC.
 7940 AIRPARK ROAD
 GAITHERSBURG, MARYLAND 20879
 (301) 840-0746

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

PROFILE
 SHEET NO.
 DATE

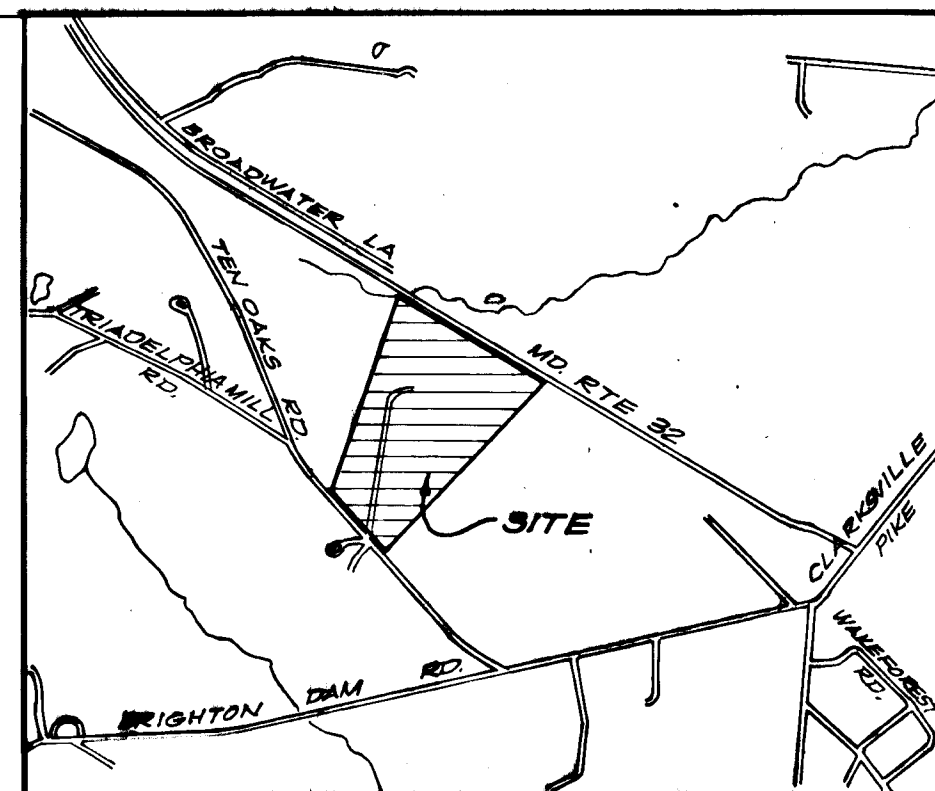


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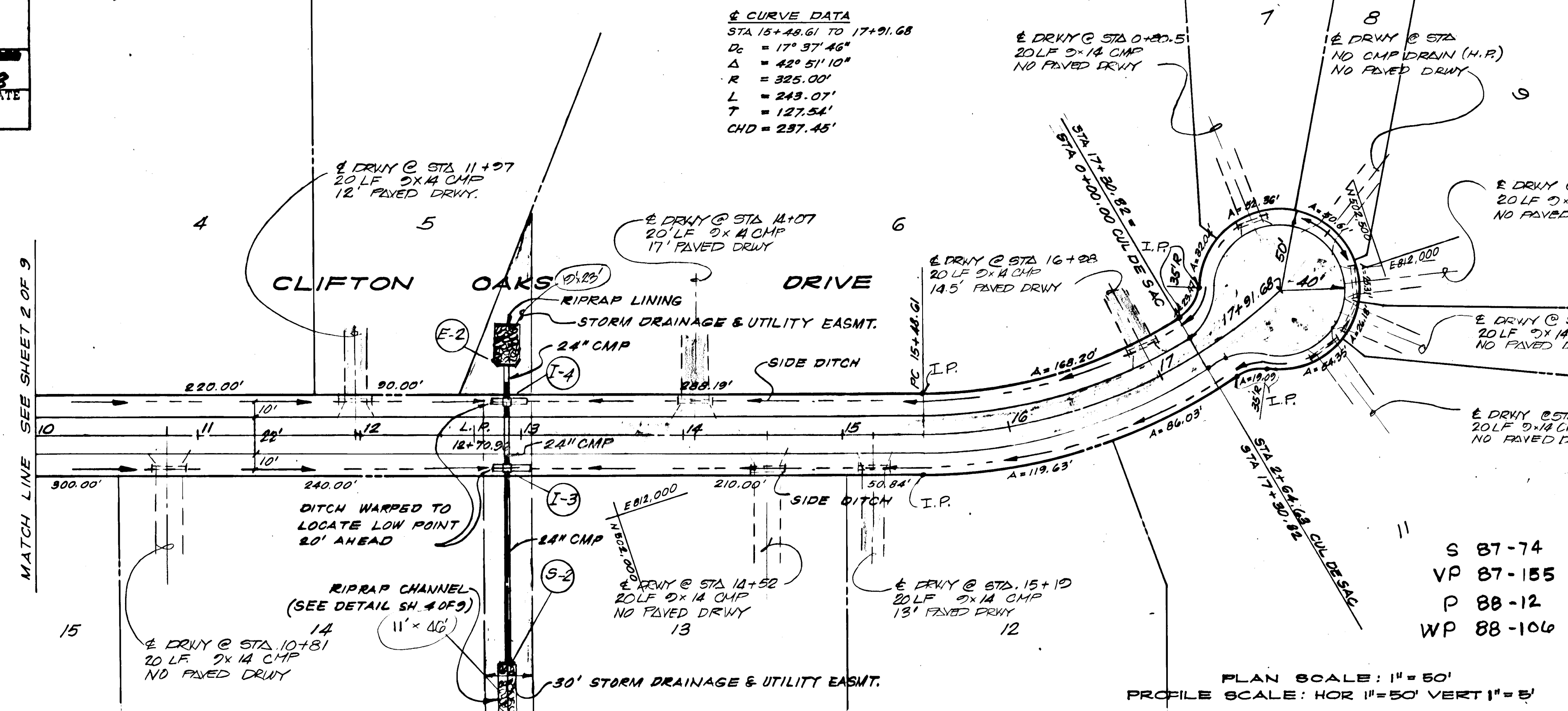
APPROVED: FOR PUBLIC STORM DRAINAGE SYSTEMS & PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DATE: 6/30/88
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE: 7/1/88
 CHIEF, BUREAU OF ENGINEERING
 DATE: 7/1/88
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 DATE: 7/8/88
 CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT

FOR ROAD TYPICAL SECTION
 SEE SHEET 4 OF 9



PLAN
 SHEETS
 PLotted
 NOTE BOOK
 NO. OF WAY ORDERED

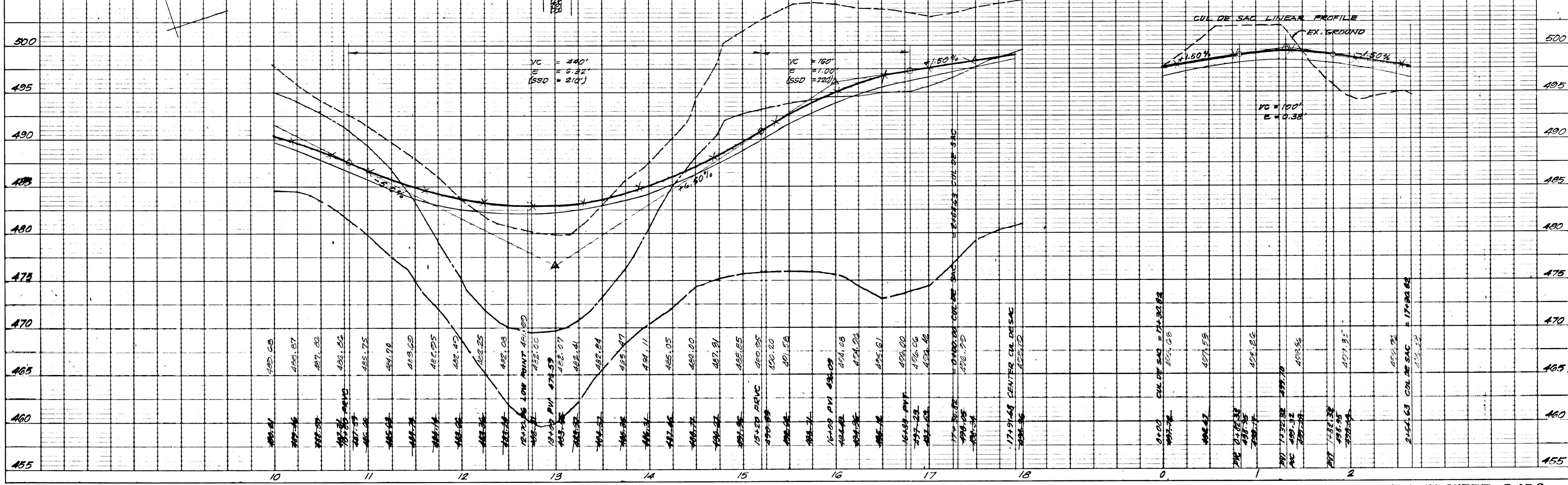


PLAN AND PROFILE
 CLIFTON OAKS DRIVE
 STATION 10+00 TO 17+91.68

WESTSIDE SUBDIVISION
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 1988 SCALE: AS SHOWN

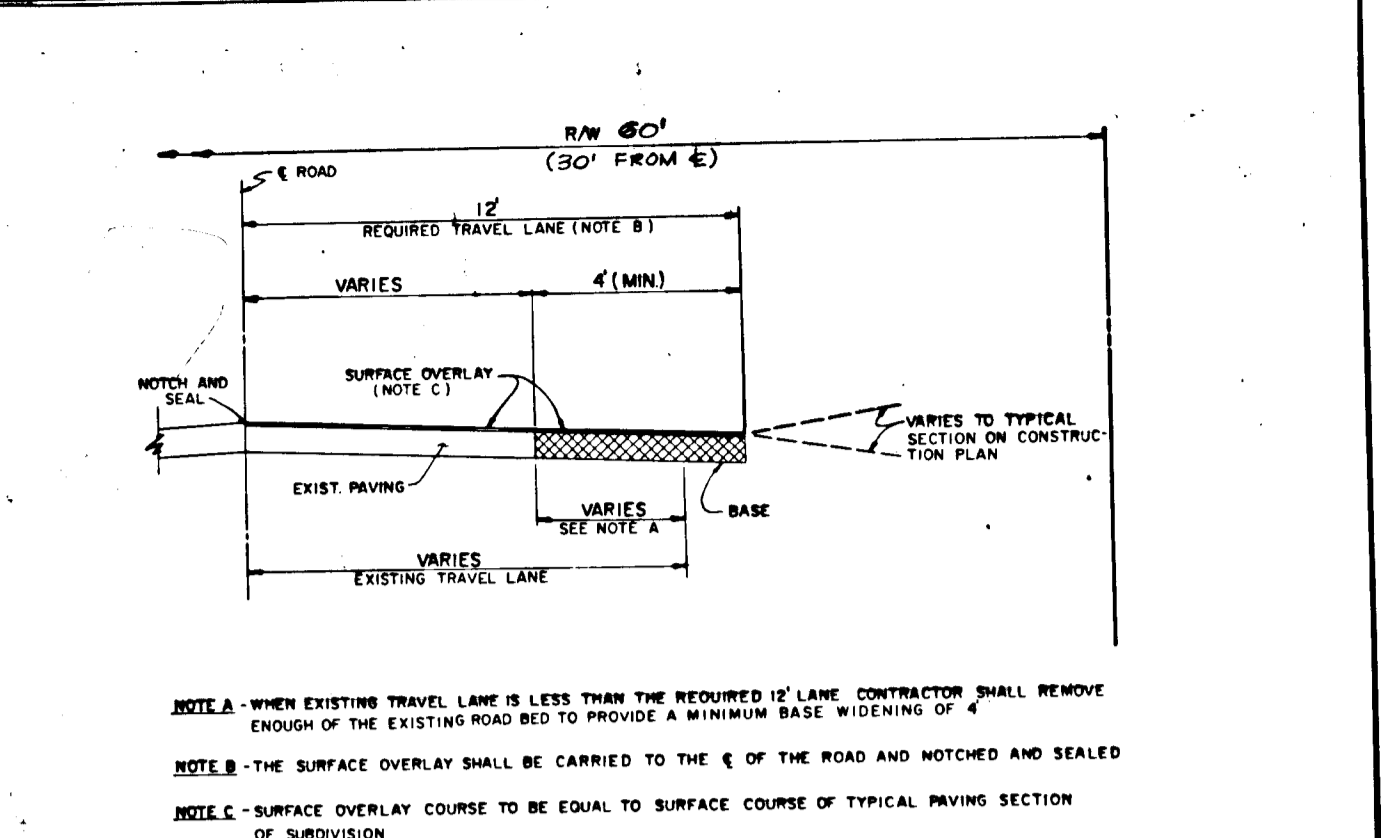
ADVANCE RESOURCE CONSULTANTS, INC.
 7940 AIRPARK ROAD
 GAITHERSBURG, MARYLAND 20879
 (301) 840-0746

PROFILE
 SHEETS
 Plotted
 NOTE BOOK
 NO. OF WAY ORDERED



1355

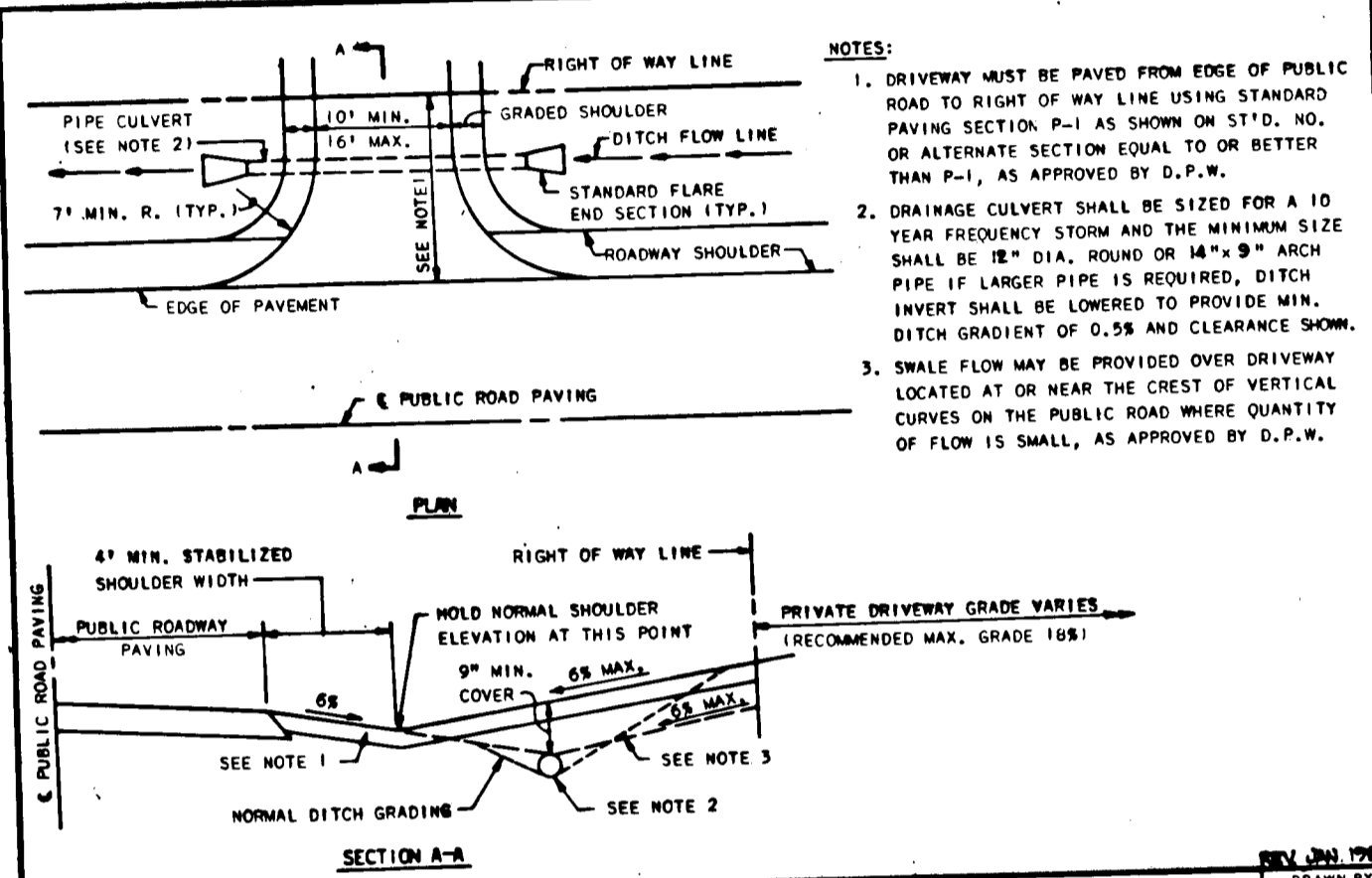
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DATE: 6/30/88
 CHIEF, LAND DEVELOPMENT DIVISION
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 DATE: 7/1/88
 CHIEF, BUREAU OF ENGINEERING
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 DATE: 7/1/88
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 DATE: 7/2/88
 CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT



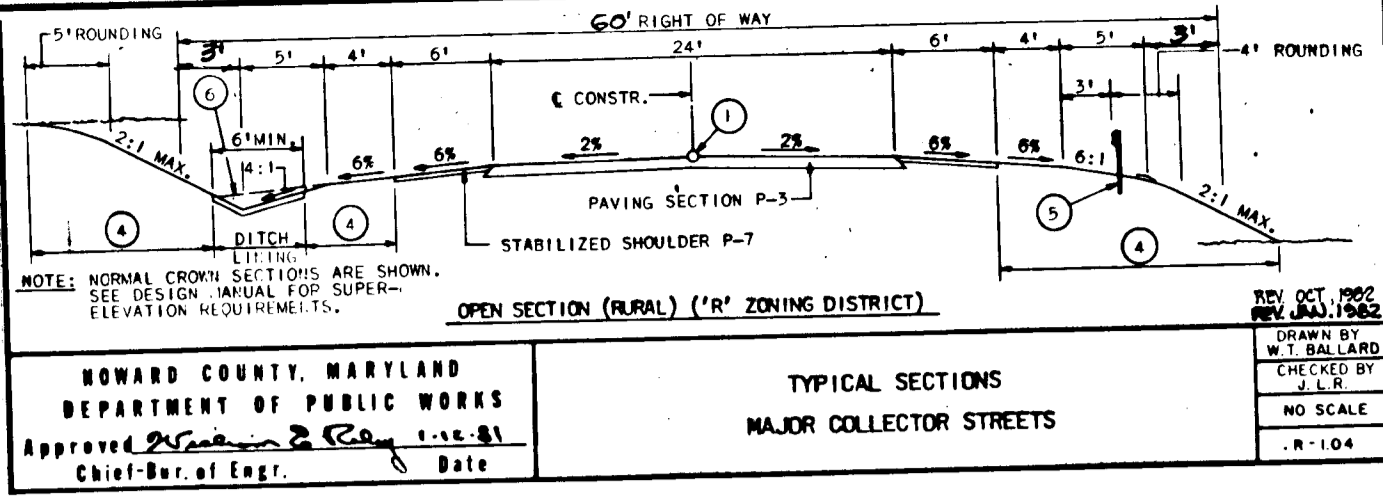
HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 WIDENING STRIPS ALONG EXISTING ROADWAYS
 NO SCALE

STRUCTURE SCHEDULE

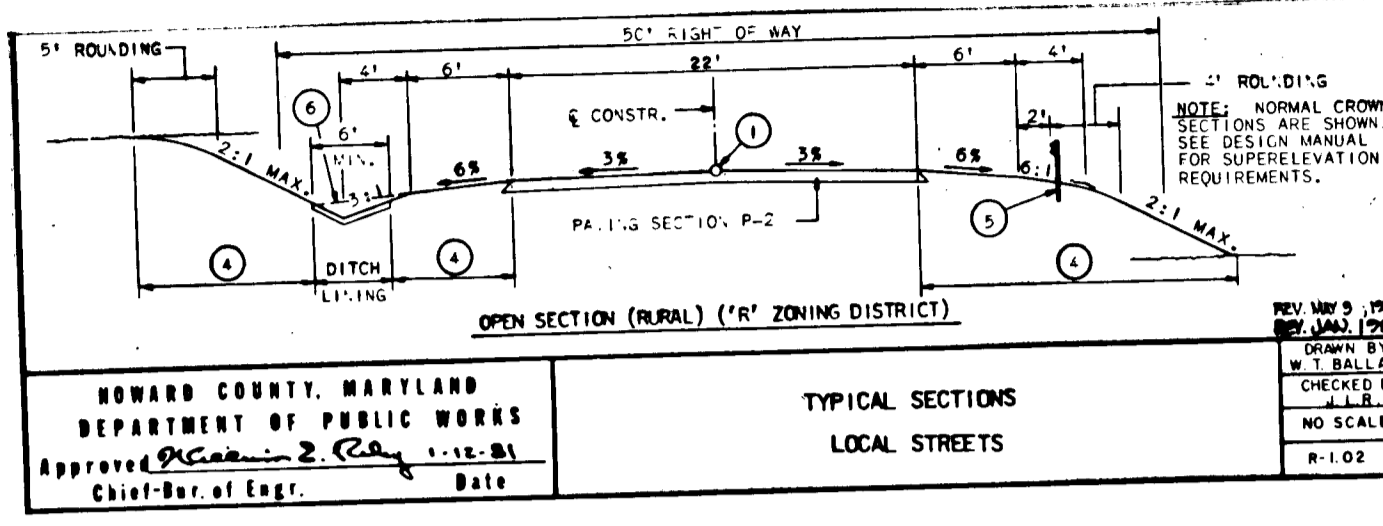
NO.	TYPE	INV. IN	INV. OUT	TOP ELEV.	REMARKS
I-1	K INLET - GRATE	470.27	460.44	474.48	STD. DRG. SD-418
I-2	K INLET - GRATE	471.36	471.36	474.48	STD. DRG. SD-418
I-3	K INLET - GRATE	467.40	463.64	480.04	STD. DRG. SD-418
I-4	K INLET - GRATE	472.00	470.82	480.67	STD. DRG. SD-418
S-1	36" STD. MET. END SEC.	472.00	462.88	465.88	STD. DRG. SD-5-61
S-2	24" STD. MET. END SEC.	472.00	465.15	465.15	STD. DRG. SD-5-61
E-1	24" x 18" HEADWALL	472.00	472.75	472.75	STD. DRG. SD-5-11
E-2	24" x 18" HEADWALL	474.00	472.24	472.24	STD. DRG. SD-5-11
M-1	15" BRICK MANHOLE	469.44	469.44	469.44	STD. DRG. 6-5-02



HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 RESIDENTIAL DRIVEWAY ENTRANCE
 CONNECTION TO OPEN SECTION ROADWAY
 NO SCALE



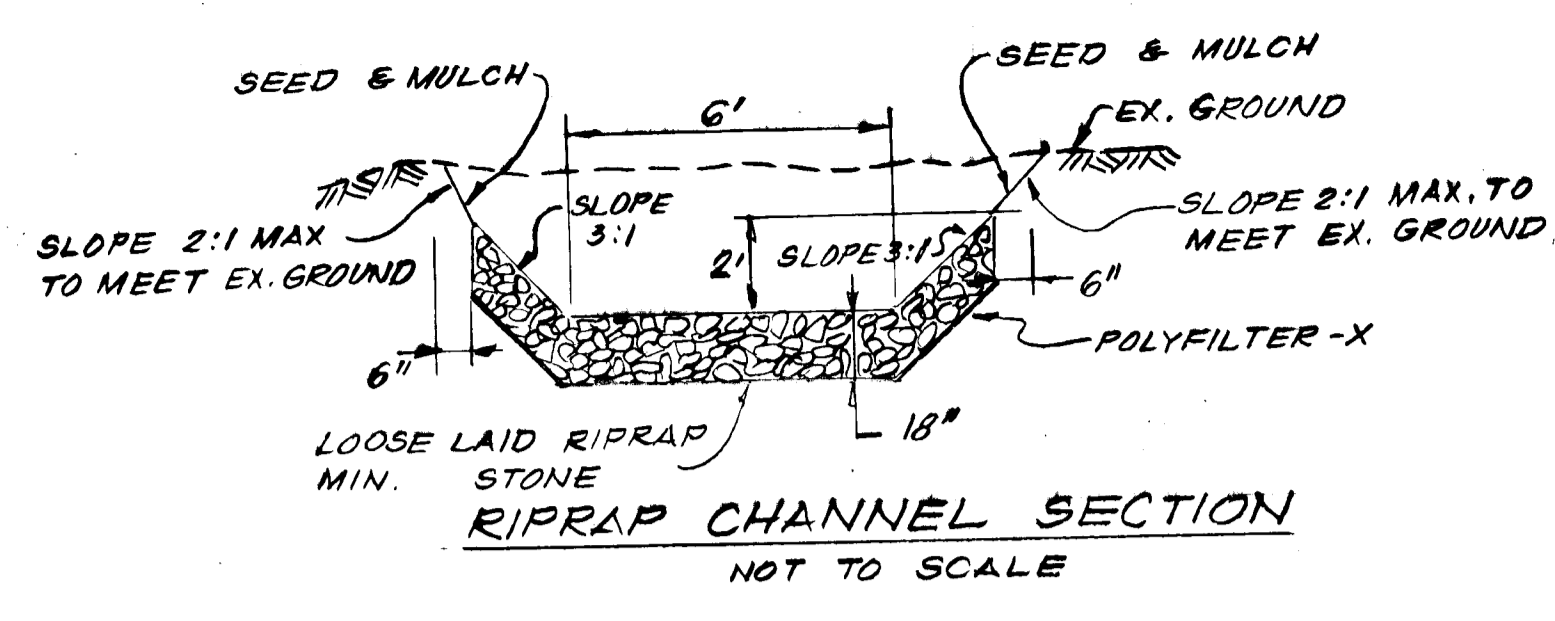
HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 TYPICAL SECTIONS
 MAJOR COLLECTOR STREETS
 NO SCALE



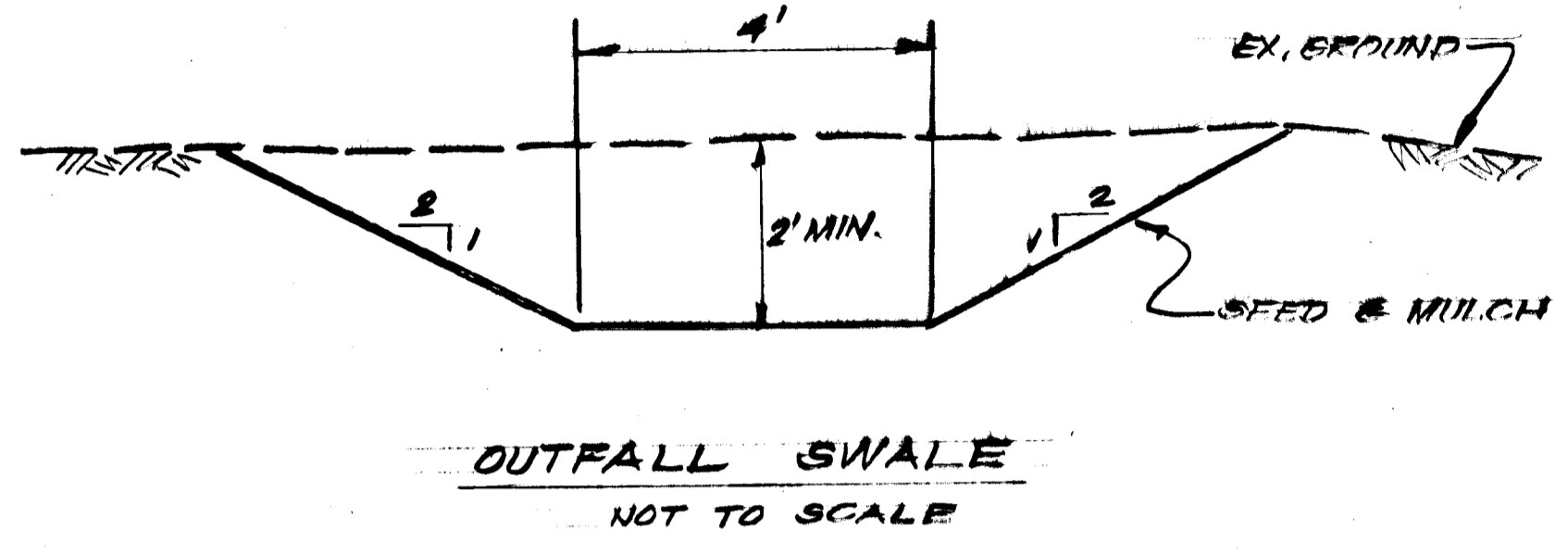
HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 TYPICAL SECTIONS
 LOCAL STREETS
 NO SCALE

- 1. PROFILE GRADE LINE (PGL) - SEE DESIGN MANUAL.
- 2. STD. CONC. CURB & GUTTER.
- 3. 4" CONCRETE SIDEWALK AS REQUIRED BY SUB-DIVISION REGULATIONS.
- 4. INDICATES 2" TOPSOIL, SEED AND MULCH.
- 5. GUARDRAIL WHERE REQUIRED BY THE DESIGN MANUAL.
- 6. DITCH CROSS SECTION SLOPE MAY BE FLATTENED TO PROVIDE A SWALE AT OR NEAR THE CREST OF VERTICAL CURVES WHERE QUANTITY OF SWALE FLOW IS SMALL, AS APPROVED BY DPW.

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
P-2	RESIDENTIAL ZONES LOCAL COLLECTOR STREETS, ALLEYS AND PRIVATE ROADS SERVING INDIVIDUAL LOTS PARKING AREAS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	1 1/2" BIT. CONC. SURFACE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 2 1/2" BIT. CONC. BASE PRIME 8" CRUSHER RUN BASE COURSE 12 COURSES OR 8" DENSE GRADED STABILIZED AGGREGATE BASE COURSE
P-3	RESIDENTIAL ZONES MINOR AND MAJOR COLLECTORS COMMERCIAL-INDUSTRIAL ZONES LOCAL AND COLLECTOR STREETS ALLEYS PARKING AREAS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH MORE THAN 10 HEAVY TRUCKS PER DAY	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 4 1/2" BIT. CONC. BASE PRIME 8" CRUSHER RUN BASE COURSE OR 4 1/2" DENSE GRADED STABILIZED AGGREGATE BASE COURSE

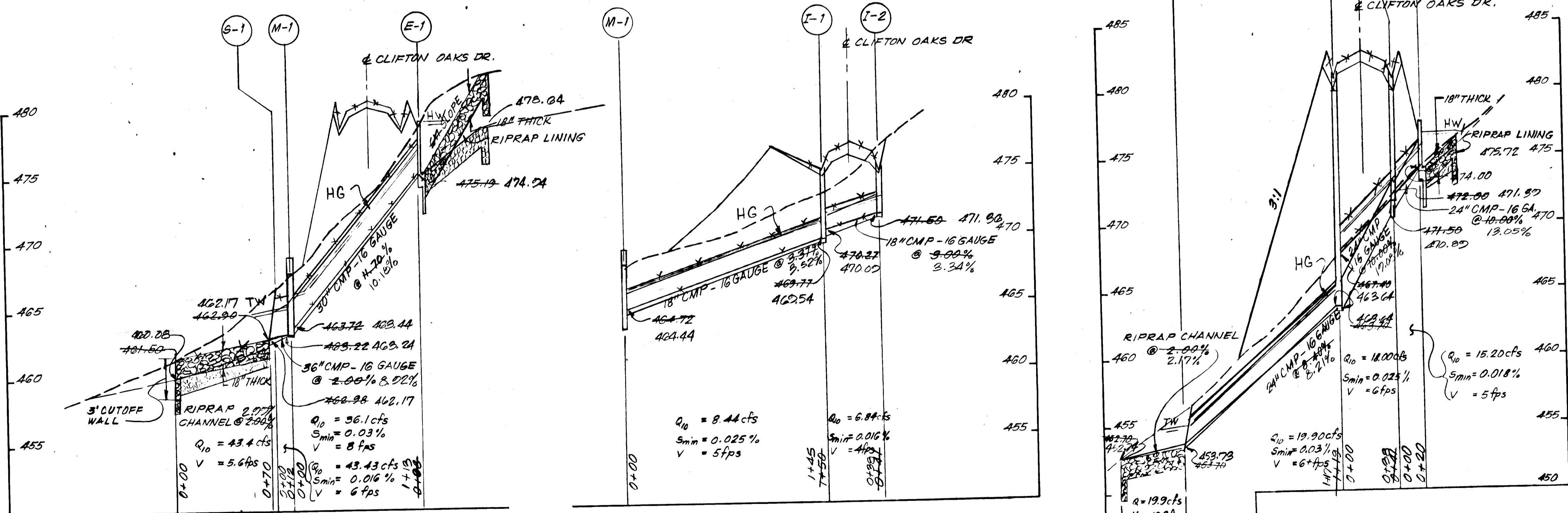


SEED & MULCH
 SLOPE 2:1 MAX TO MEET EX. GROUND
 SLOPE 3:1
 SLOPE 2:1 MAX TO MEET EX. GROUND
 POLYFILTER-X
 LOOSE LAID RIPRAP
 MIN. STONE
 RIPRAP CHANNEL SECTION
 NOT TO SCALE



OUTFALL SWALE
 NOT TO SCALE

- GENERAL NOTES**
- All construction shall be in accordance with the latest standards and specifications of Howard County, Maryland and the Maryland State Highway Administration.
 - Information concerning underground utilities was obtained from available records, however, the contractor must determine the exact location and elevation of all utilities prior to construction. The contractor shall take all necessary precautions to protect existing services and maintain uninterrupted supply. Any damages incurred shall be repaired immediately to the satisfaction of the engineer at the contractor's expense.
 - The contractor shall notify:
 "MISS UTILITY"
 1-301-559-0100
 at least 48 hours prior to start of any construction.
 - All horizontal and vertical controls are based upon Howard County control.
 - Installation of traffic control devices to be in accordance with the latest edition of the manual of uniform control devices.
 - All pipe elevations shown are invert elevations.
 - Maintain a clearance of at least 6 inches from all utilities.



STORM DRAIN PROFILES
 SCALE: HOR. 1" = 50', VERT. 1" = 5'

S 87-74
 VP 87-155
 P 88-12
 WP 88-106

OWNER/DEVELOPER:	NO.	REVISIONS	DATE



Advance Resource Consultants, Inc.
 7940 Airpark Road
 Gaithersburg, Maryland 20879
 (301) 840-0740

STORM DRAIN PROFILES & CONSTRUCTION DETAILS
 FOR
 TEN OAKS ROAD AND CLIFTON OAKS DRIVE
 WESTSIDE SUBDIVISION
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

DWN	SHEET
ACM	4
CHKD	OF
RHP	9
DATE	
JAN 88	
SCALE	PROJECT NO.
AS SHOWN	

F 88-215
 DEL. 6/10/91

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 FOR PUBLIC STORM DRAINAGE SYSTEMS & PUBLIC ROADS
 CHIEF, LAND DEVELOPMENT DIVISION
 CHIEF, BUREAU OF ENGINEERING
 CHIEF, BUREAU OF HIGHWAYS

6/30/88 DATE
 7/1/88 DATE
 7/1/88 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT

7/6/88 DATE

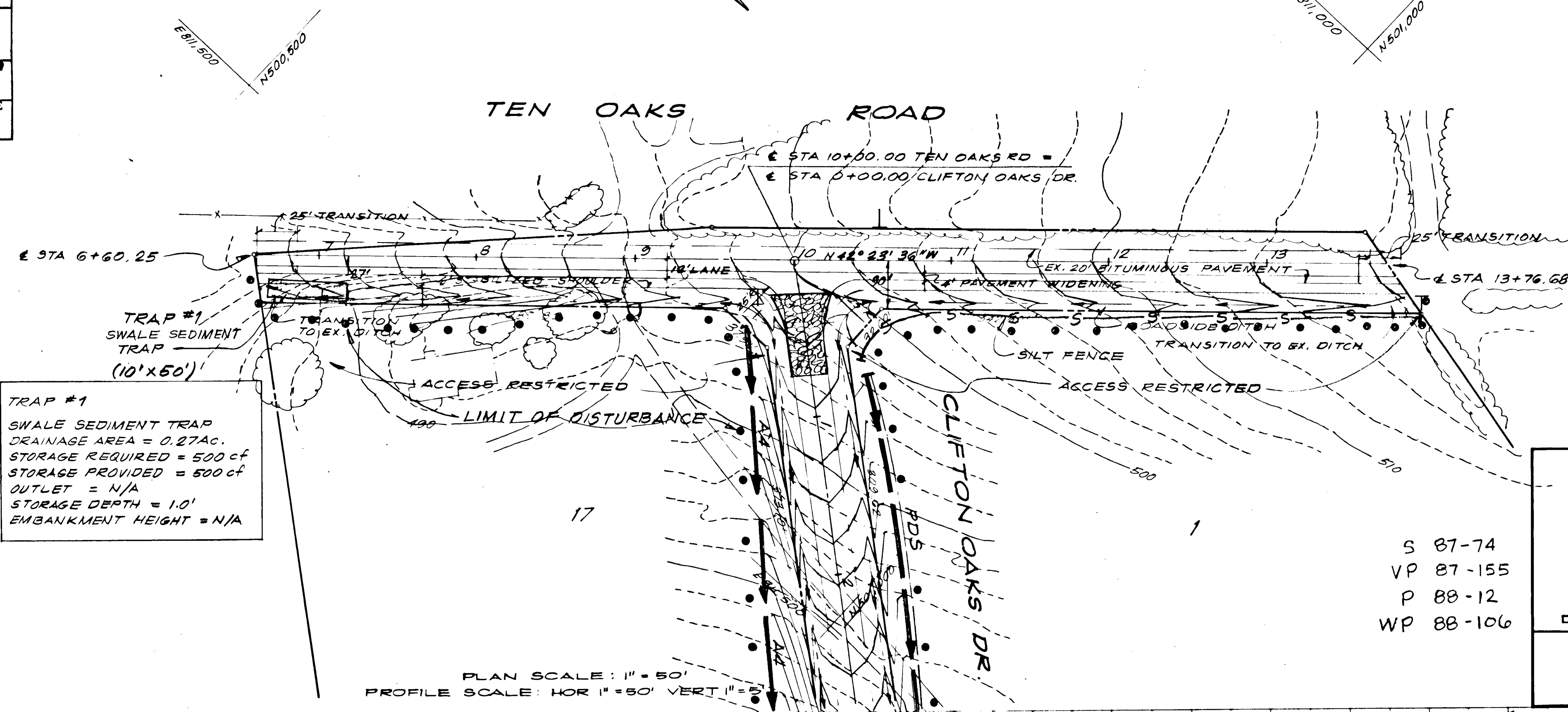
Reviewed for HOWARD S.C.D. and meets Technical Requirements
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

By the Developer:
 "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 District."

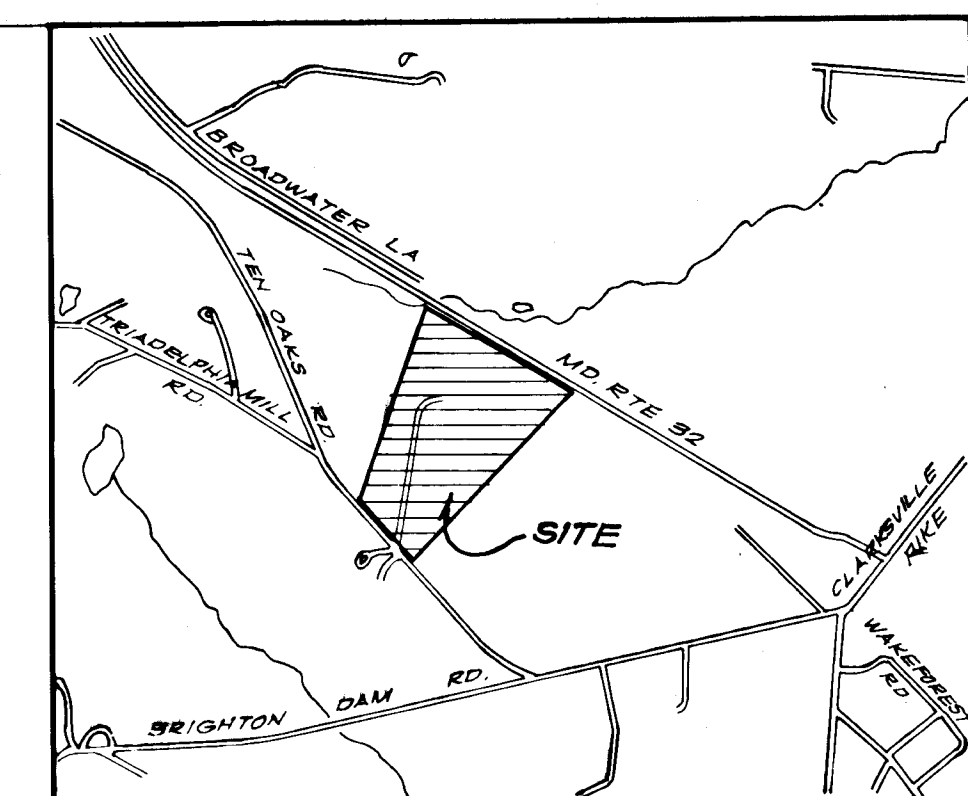
Signature of Developer _____ Date _____
 Print name below signature _____
 _____ BRL LEFT
 _____ BRL RIGHT

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."
 Signature of Engineer _____ Date _____
 Print name below signature _____

TRAP #1
 SWALE SEDIMENT TRAP
 (10'x50')
 DRAINAGE AREA = 0.27 AC.
 STORAGE REQUIRED = 500 CF
 STORAGE PROVIDED = 500 CF
 OUTLET = N/A
 STORAGE DEPTH = 1.0'
 EMBANKMENT HEIGHT = N/A



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



- LEGEND**
- EARTH DIKE
 - LIMIT OF DISTURBANCE
 - SILTY FENCE
 - STONE OUTLET STRUCTURE
 - STRAW BALE DIKE
 - INLET PROTECTION
 - STABILIZED CONSTR. ENTRANCE
 - PERIMETER DIKE/SWALE

SEDIMENT CONTROL PLAN
 PUBLIC IMPROVEMENTS TO
TEN OAKS ROAD
 STA 6+00.25 TO STA 13+76.68
 WESTSIDE SUBDIVISION
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 1988
 SCALE: AS SHOWN
 ADVANCE RESOURCE CONSULTANTS, INC.
 7940 AIRPARK ROAD
 GAITHERSBURG, MARYLAND 20879
 (301) 840-0740

S 87-74
 VP 87-155
 P 88-12
 WP 88-106

DATE _____
 BY _____
 PLAN SURVEYED
 NOTE BOOK PLOTTED
 ALIGNMENT CHECKED
 BY: _____
 NO. _____

DATE _____
 BY _____
 PROFILE SURVEYED
 NOTE BOOK PLOTTED
 GRAVITY CHECKED
 BY: _____
 NO. _____

1355

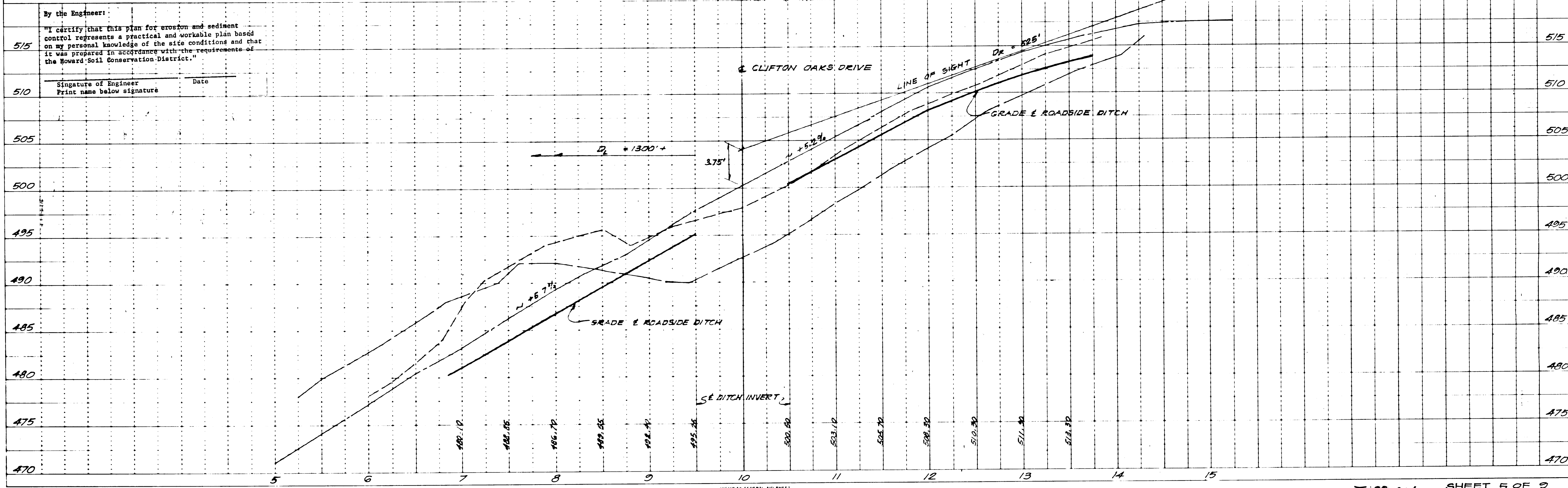


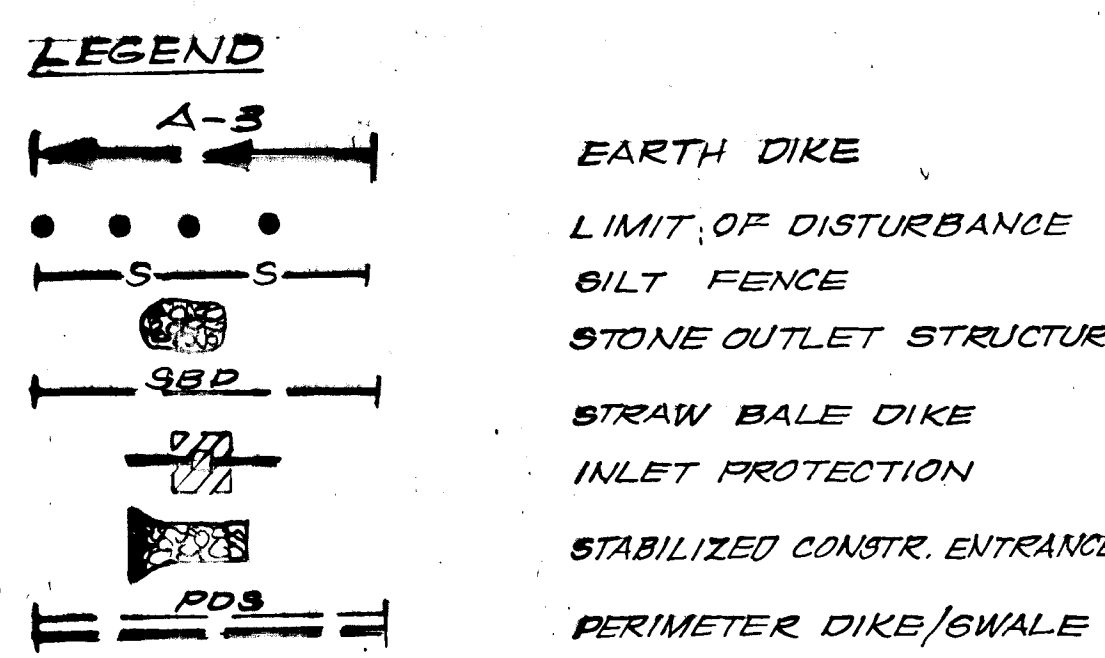
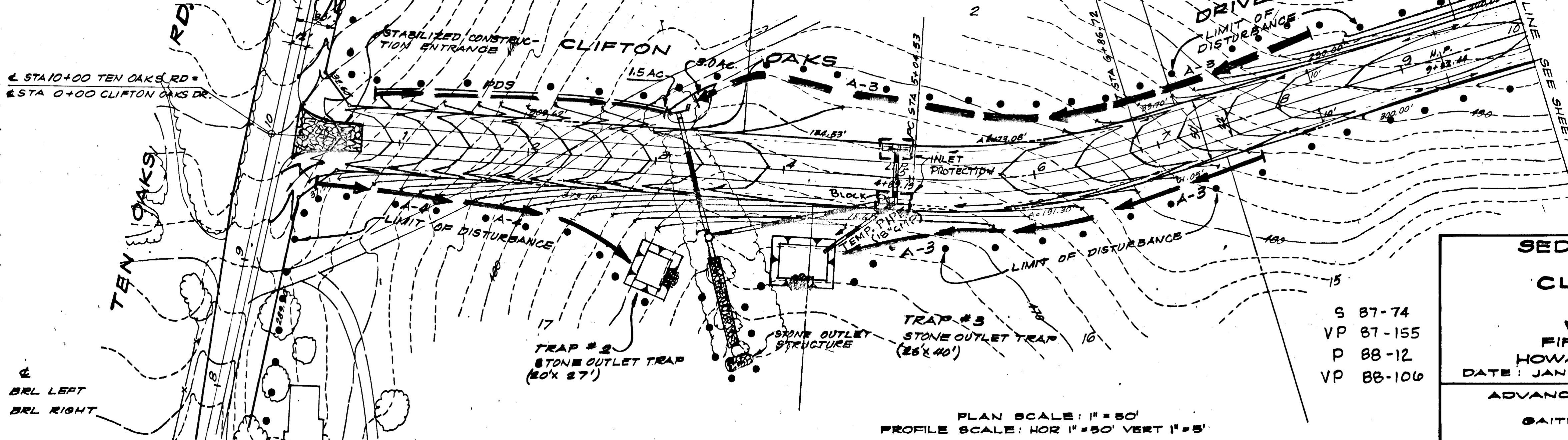
PLATE 1-SINGLE PLAN AND PROFILE FULL LINE
 PRINTED IN U.S.A.

AS-BUILT
 DEC. 6 1991

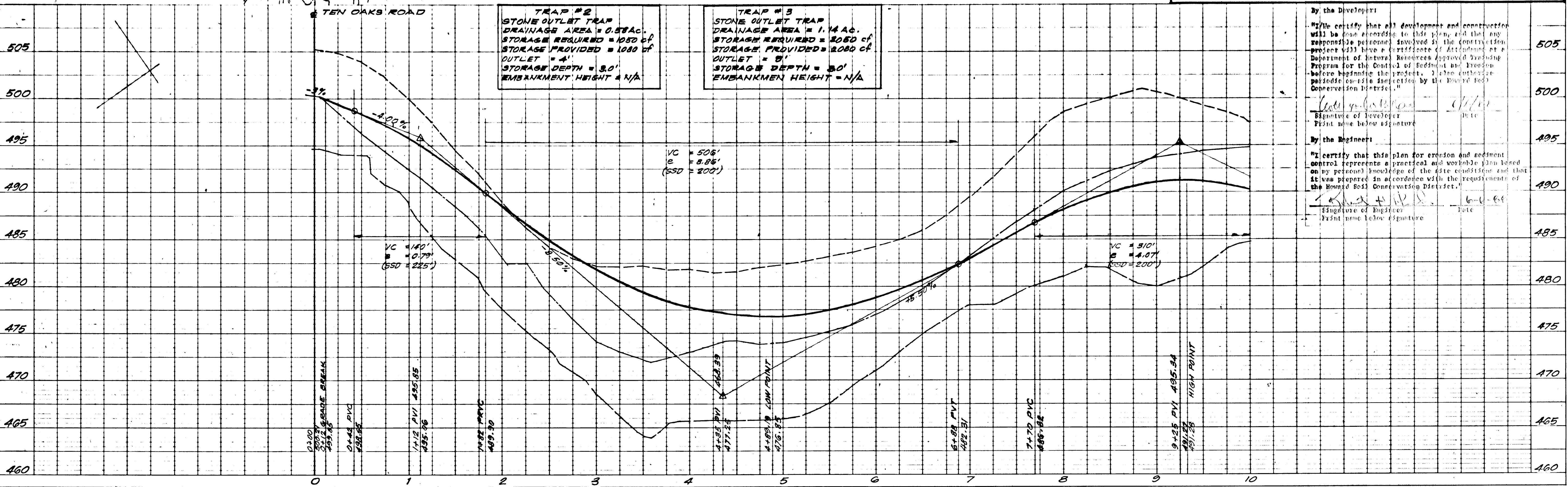
FOR PUBLIC STORM DRAINAGE SYSTEMS & PUBLIC ROADS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE 6/30/88
 CHIEF, BUREAU OF ENGINEERING
 DATE 7/1/88
 CHIEF, BUREAU OF HIGHWAYS
 DATE 7/1/88
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF COMMUNITY DEVELOPMENT & LAND PLANNING
 DATE 7/2/88

Reviewed for HOWARD S.C.D. and
 meet Technical Requirements
 U.S. Soil Conservation Service
 DATE 6/8/88
 THIS DEVELOPMENT PLAN IS APPROVED
 FOR SOIL EROSION AND SEDIMENT CONTROL
 BY THE HOWARD SOIL CONSERVATION
 DISTRICT
 HOWARD S.C.D. DATE

CURVE DATA
 STA 5+04.53 TO 6+86.72
 Δ = 11° 27' 33"
 Δ = 20° 52' 37"
 R = 500.00'
 L = 182.19'
 T = 92.11'
 CHD = 181.18'



SEDIMENT CONTROL PLAN
 PLAN AND PROFILE
 CLIFTON OAKS DRIVE
 STATION 0+00 TO 10+00
 WESTSIDE SUBDIVISION
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 1988 SCALE: AS SHOWN
 ADVANCE RESOURCE CONSULTANTS, INC.
 7940 AIRPARK ROAD
 GAITHERSBURG, MARYLAND 20879
 (301) 840-0746



By the Developer:
 "I 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 Erosion and Sedimentation before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
 Signature of Developer
 Print name below signature

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."
 Signature of Engineer
 Print name below signature

1355

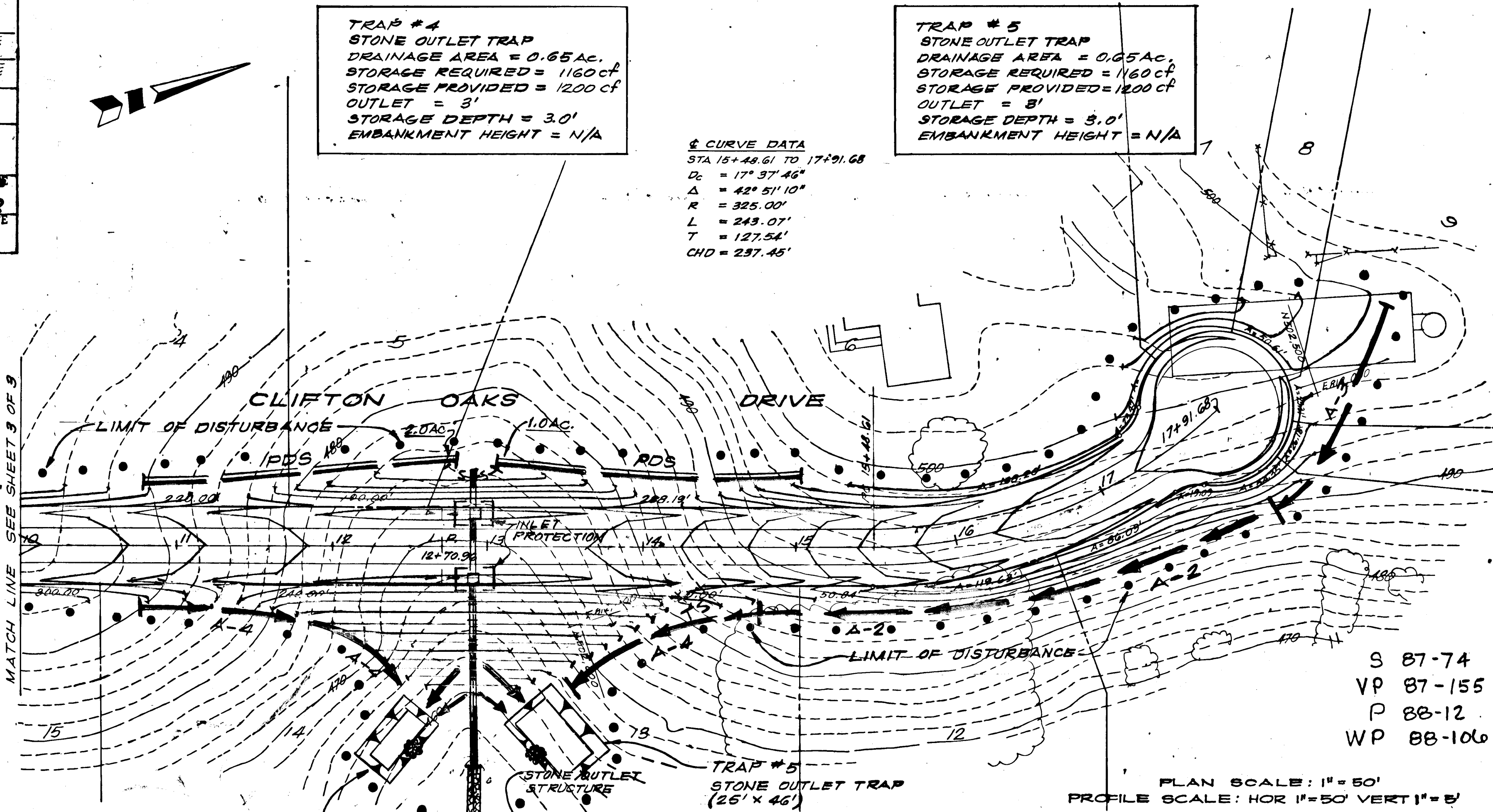
FOR PUBLIC STORM DRAINAGE SYSTEMS & PUBLIC ROADS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 CHIEF, LAND DEVELOPMENT DIVISION
 CHIEF, BUREAU OF ENGINEERING
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 6/30/88
 DATE: 7/1/88
 DATE: 7/1/88
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT
 DATE: 7/8/88

TRAP #4
 STONE OUTLET TRAP
 DRAINAGE AREA = 0.65 AC.
 STORAGE REQUIRED = 1160 CF
 STORAGE PROVIDED = 1200 CF
 OUTLET = 3'
 STORAGE DEPTH = 3.0'
 EMBANKMENT HEIGHT = N/A

TRAP #5
 STONE OUTLET TRAP
 DRAINAGE AREA = 0.65 AC.
 STORAGE REQUIRED = 1160 CF
 STORAGE PROVIDED = 1200 CF
 OUTLET = 3'
 STORAGE DEPTH = 3.0'
 EMBANKMENT HEIGHT = N/A

§ CURVE DATA
 STA 15+48.61 TO 17+91.68
 Dc = 17° 37' 46"
 Δ = 42° 51' 10"
 R = 325.00'
 L = 243.07'
 T = 127.54'
 CHD = 237.45'

Reviewed for HOWARD S.C.D. and met/checked Requirements
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 HOWARD S.C.D. DATE

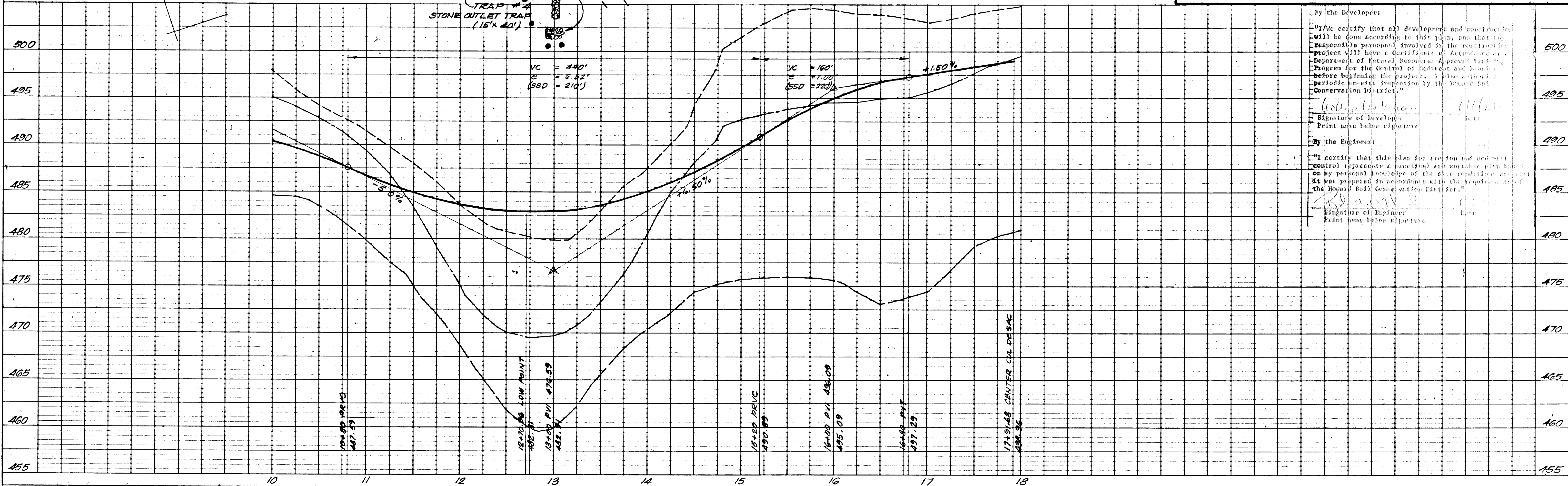


- LEGEND
- 1-3 EARTH DIKE
 - LIMIT OF DISTURBANCE
 - S-S- SILT FENCE
 - STONE OUTLET STRUCTURE
 - SBD STRAW BALE DIKE
 - INLET PROTECTION
 - STABILIZED CONSTR. ENTRANCE
 - PDS PERIMETER DIKE/SWALE

SEDIMENT CONTROL PLAN
 PLAN AND PROFILE
 CLIFTON OAKS DRIVE
 STATION 10+00 TO 17+91.68
 WESTSIDE SUBDIVISION
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 1988 SCALE: AS SHOWN
 ADVANCE RESOURCE CONSULTANTS, INC.
 7940 AIRPARK ROAD
 GAITHERSBURG, MARYLAND 20879
 (301) 840-0746

S 87-74
 VP 87-155
 P 88-12
 WP 88-106

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



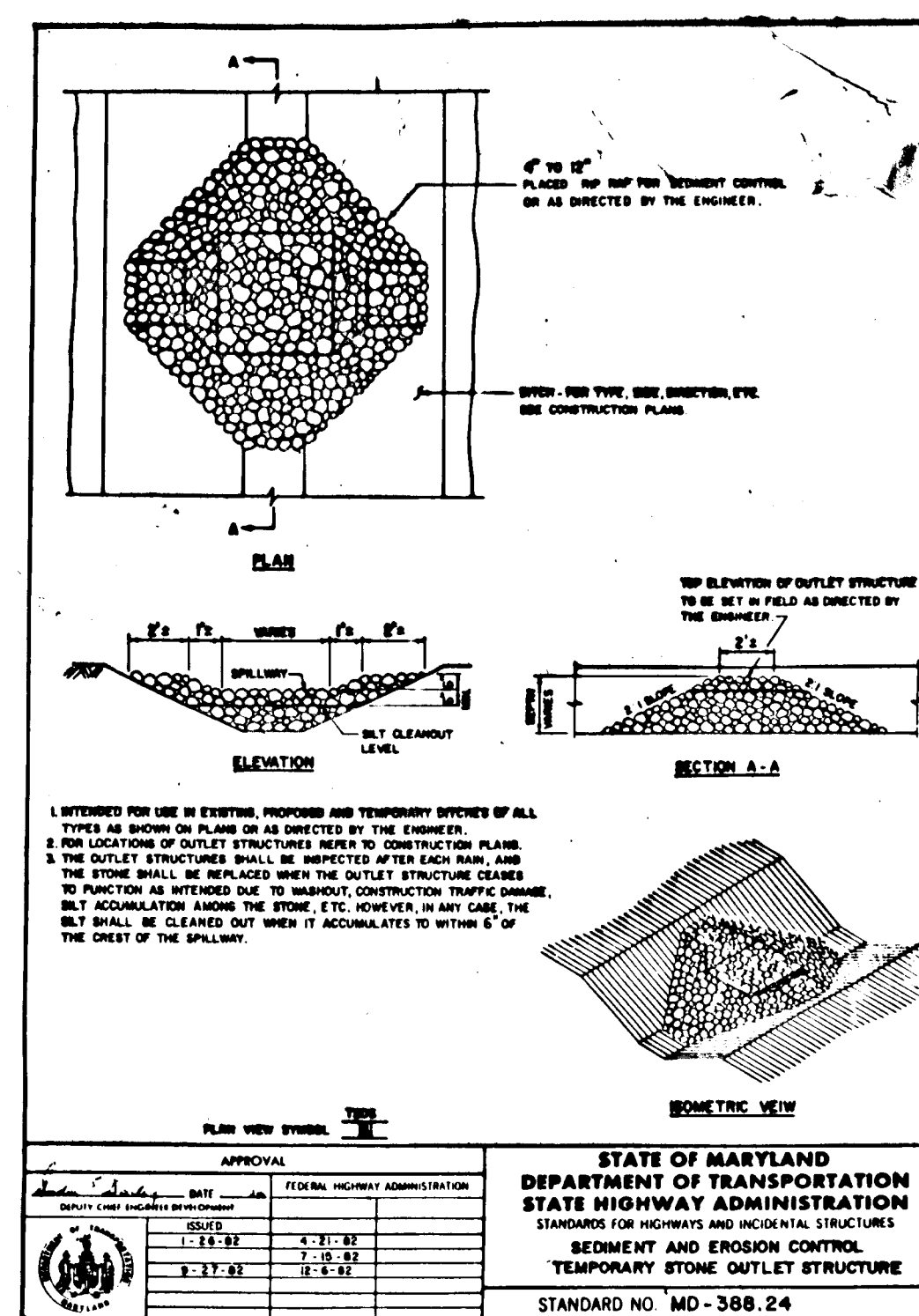
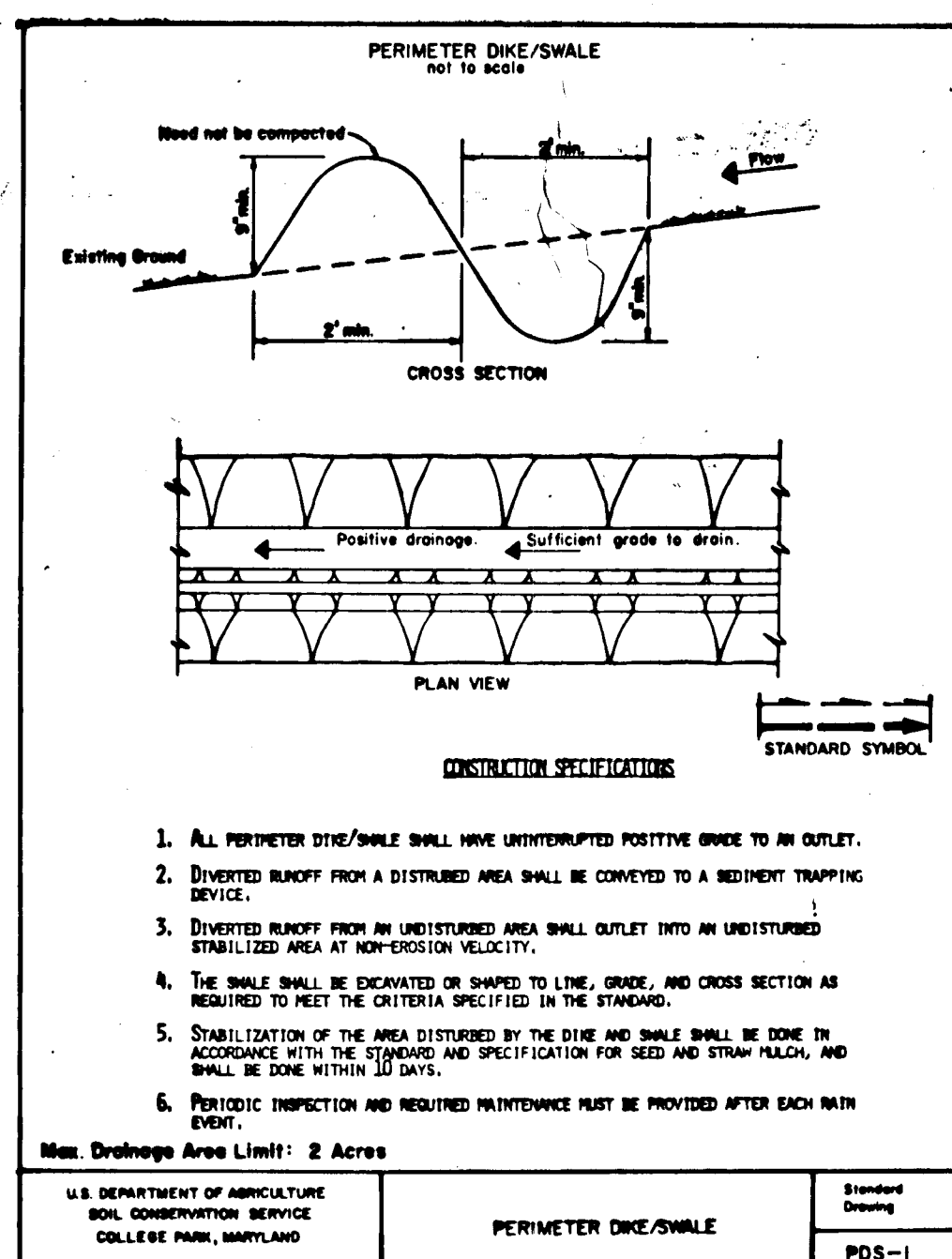
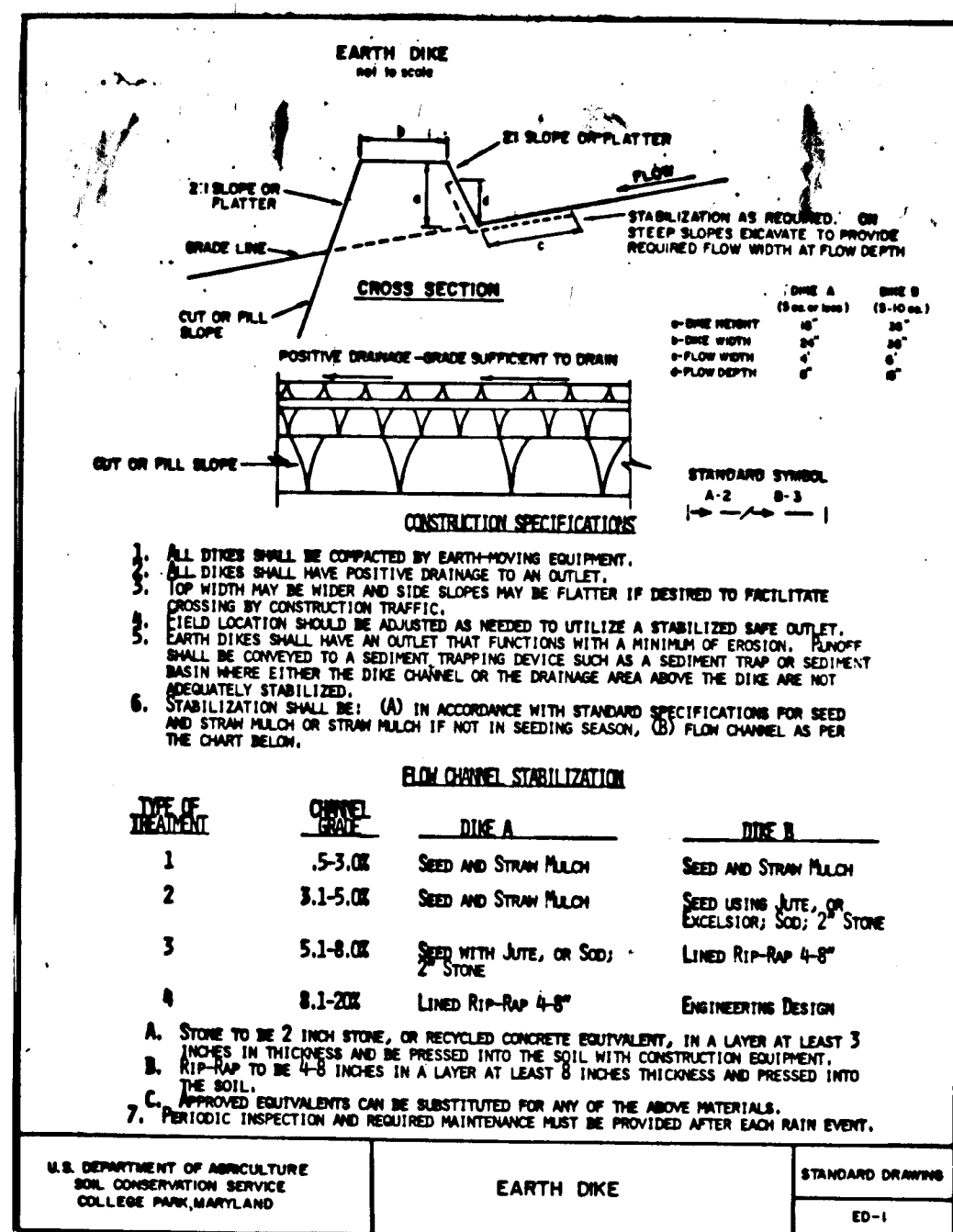
By the Developer:
 "I certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance or Department of Natural Resources Approved Training Program for the Control of Erosion and Sedimentation before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District."
 Signature of Developer
 Print name below signature

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."
 Signature of Engineer
 Print name below signature

PLAN
 SURVEYED
 PLOTTED
 NOTE BOOK
 ALIGNMENT CHECKED
 FT. OF WAY CHECKED
 No.

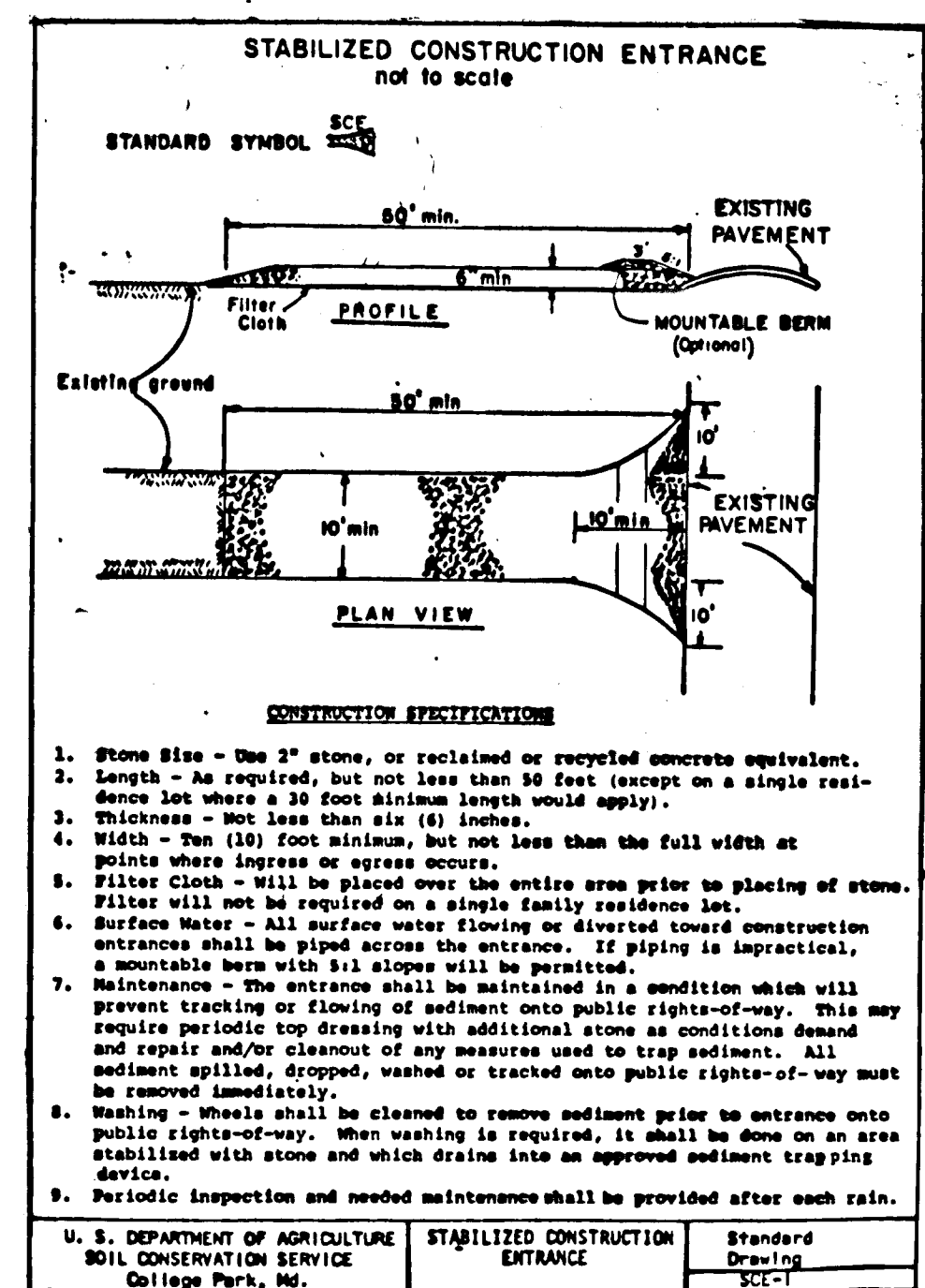
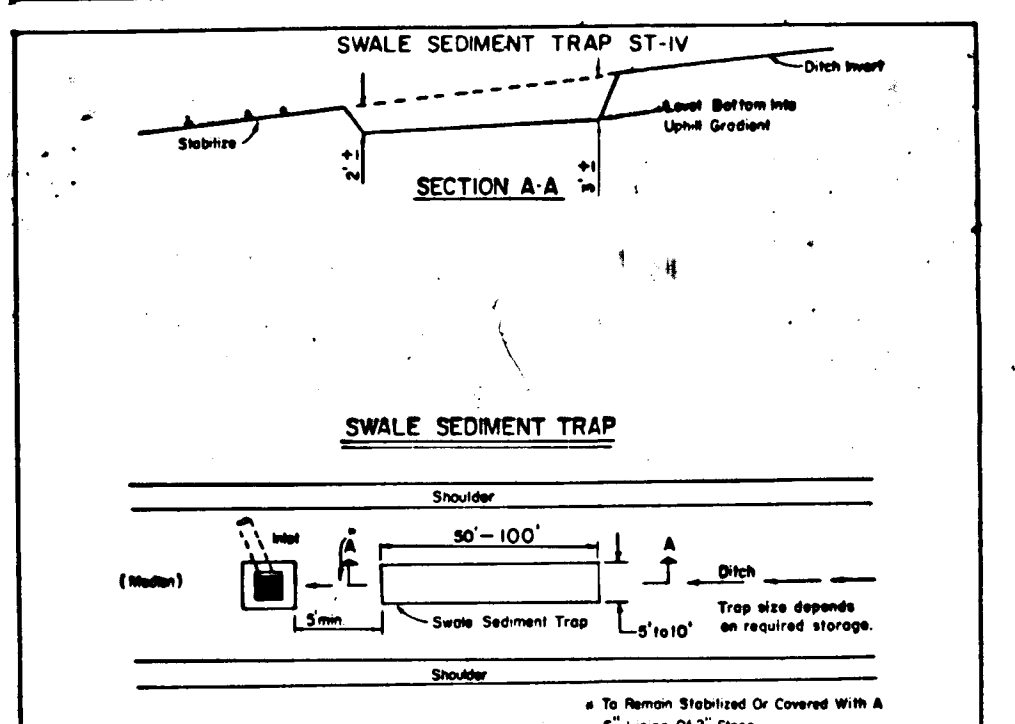
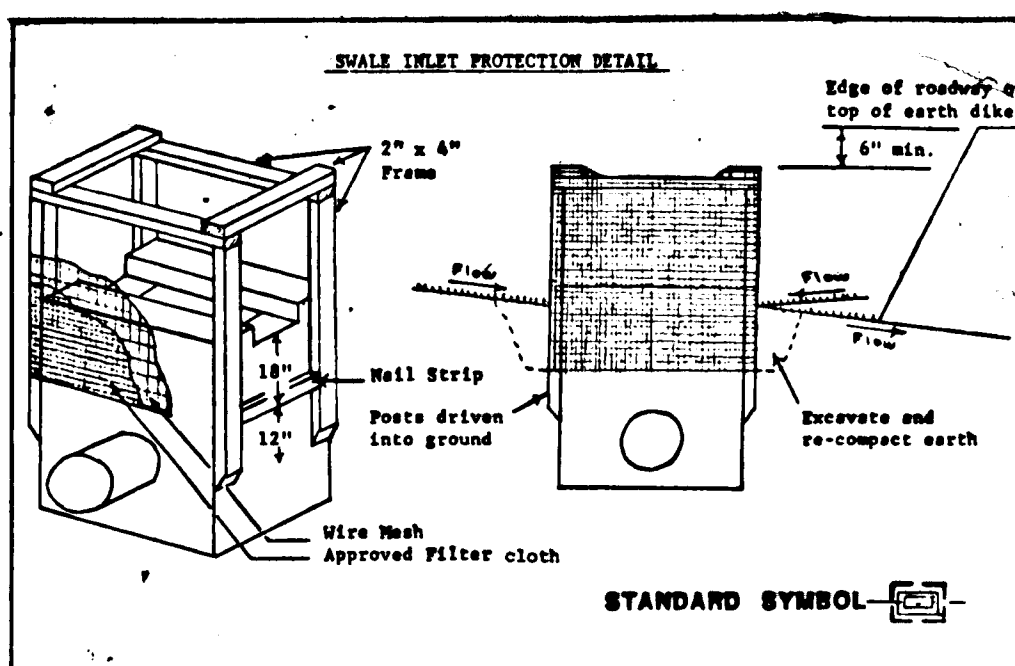
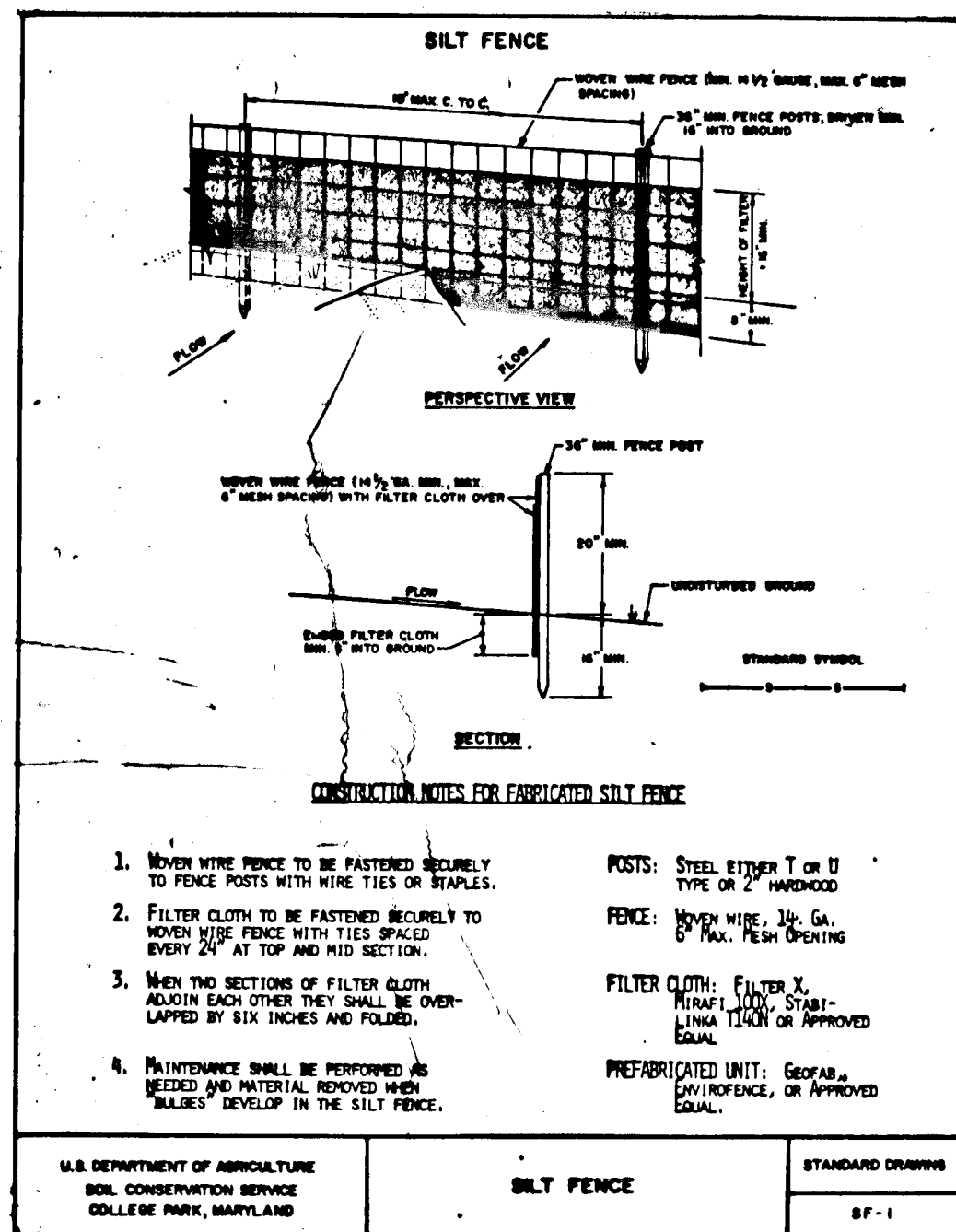
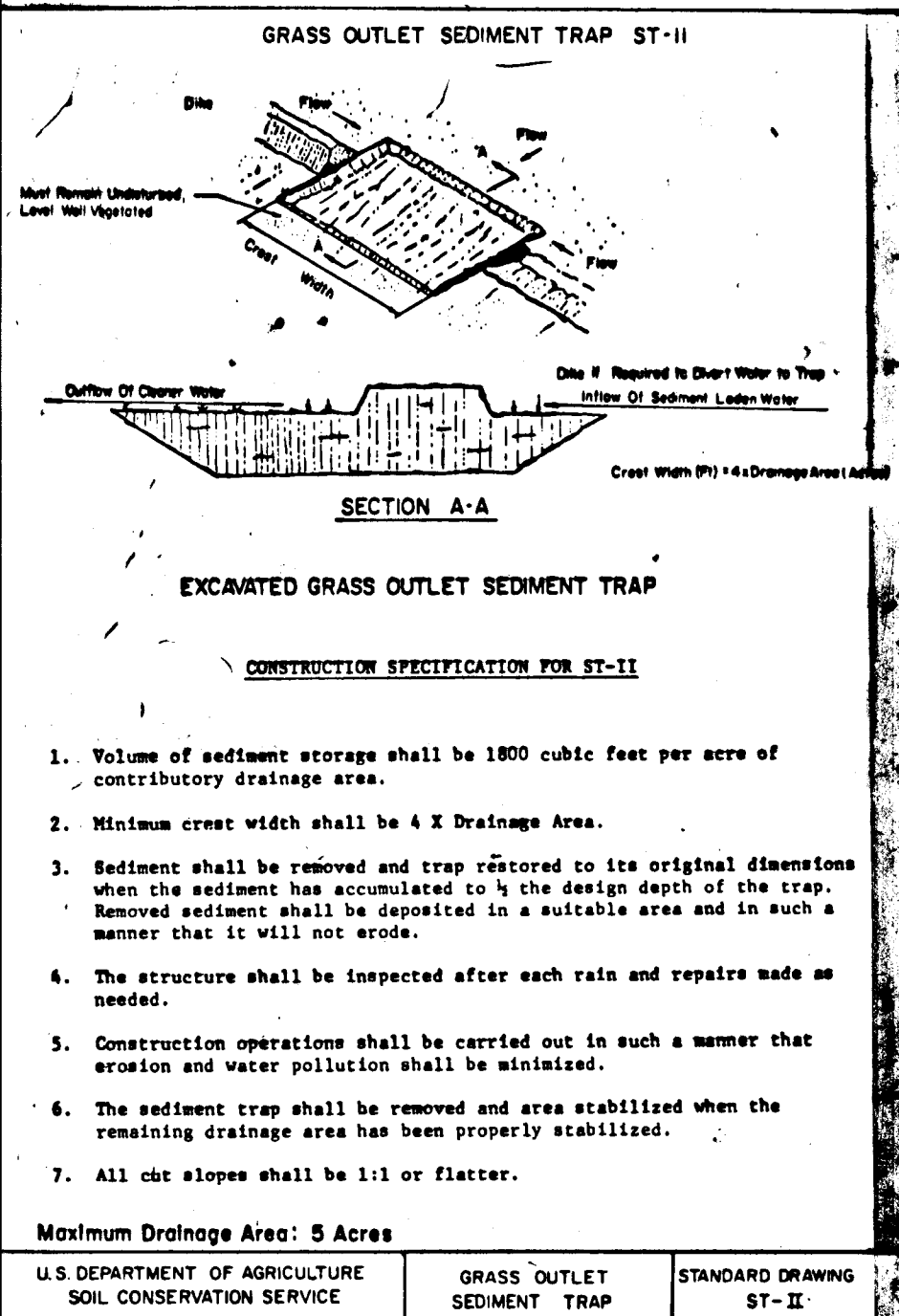
PROFILE
 SURVEYED
 PLOTTED
 NOTE BOOK
 GRADES CHECKED
 STRUCTURE NOTATIONS CHECKED
 No.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE 6/30/88
 CHIEF, BUREAU OF ENGINEERING
 DATE 7/1/88
 CHIEF, BUREAU OF HIGHWAYS
 DATE 7/1/88
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT
 DATE 7/6/88



SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 Total Area of Site 50.7 Acres
 Area Disturbed 5.1 Acres
 Area to be roofed or paved 1.0 Acres
 Area to be vegetatively stabilized 4.1 Acres
 Total Cut 5000 Cu. yds
 Total Fill 8200 Cu. yds
 Offsite waste/borrow area location Approved Site
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.



SEQUENCE OF CONSTRUCTION

- Obtain a grading permit.
- Construct stabilized construction entrance.
- Construct temporary stone outlet structures, and sediment traps.
- Construct all perimeter dikes.
- Install silt fence and straw bale dikes. INSTALL STORM DRAIN CULVERTS UNDER ROADWAY.
- Place roads to subgrade, stabilizing slope areas with permanent seeding.
- Construct storm drain systems and install inlet protection devices at inlets.
- Perform base paving.
- Upon stabilization of graded areas inlets shall be opened and all accumulated sediment shall be removed from the storm drain system.
- After each rainfall, the contractor shall inspect and provide necessary maintenance on the sediment and erosion control structures shown hereon.
- Clean base course, apply tack coat, lay surface course and stabilize shoulders.
- Permanent seeding shall be installed only after the entire drainage area has been stabilized and no further grading is to be done within the watershed.
- Remove earth dikes, storm bale dikes and silt fence only after their contributory drainage areas have been permanently stabilized with seed and mulch.
- Following initial soil disturbance; permanent or temporary stabilization shall be completed within:
 - seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and (b) fourteen days as to all other disturbed or graded areas on the project site.

PERMANENT SEEDING NOTES

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

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

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

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (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 with 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 sod. 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 redistributed where a short-term vegetative cover is needed.

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

Soil Amendments: Apply 60 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 2 1/2 bushel per acre of annual rye (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.

OWNER/DEVELOPER:	NO.	REVISIONS	DATE
RAO GROUP INC. 6570 ROUTE 32 CLARKSVILLE, MD 21029			

By the Developer:
 "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 District."
 Signature of Developer: William P. Shaw
 Date: 6/6/88

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."
 Signature of Engineer: James M. Pugh
 Date: 6-6-88
 Print name below signature: James M. Pugh

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."
 Signature of Engineer: James M. Pugh
 Date: 6-6-88
 Print name below signature: James M. Pugh

Reviewed for HOWARD S.C.D. and Metcalf Technical Requirements
 Signature: James M. Pugh 6-8-88
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 Signature: William P. Shaw 6/6/88
 Howard S.C.D. Date



Advance Resource Consultants, Inc.
 7940 Airpark Road
 Gaithersburg, Maryland 20879
 (301) 840-8746

SEDIMENT CONTROL DETAILS
 WESTSIDE SUBDIVISION
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

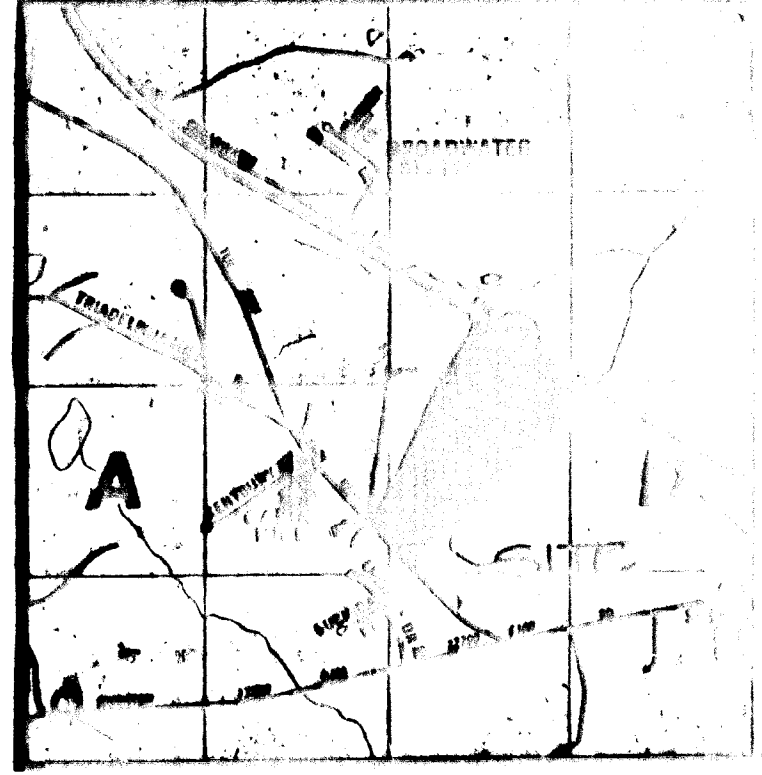
DWN	SHEET
ACM	8
CHKD	OF
RHP	9
DATE	
JAN 88	
SCALE	PROJECT NO.
NONE	

FOR PUBLIC STORM DRAINAGE SYSTEMS & PUBLIC ROADS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Paul Wilson 6/30/88 DATE
 CHIEF, LAND DEVELOPMENT DIVISION
John A. ... 7/1/88 DATE
 CHIEF, BUREAU OF ENGINEERING
Donald W. ... 7/1/88 DATE
 CHIEF, BUREAU OF HIGHWAYS

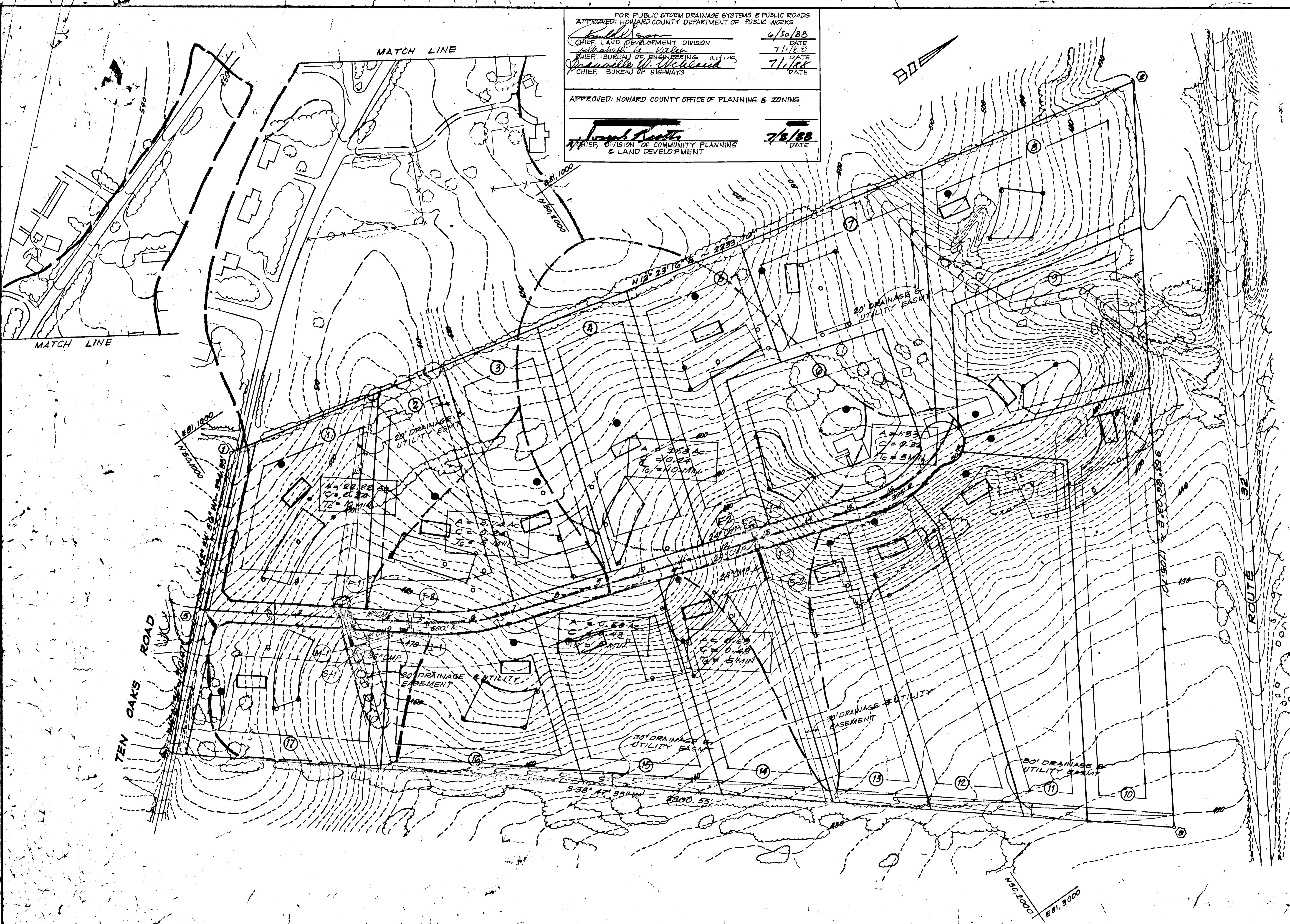
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Frank ... 7/2/88 DATE
 CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT



DRAINAGE VALUES

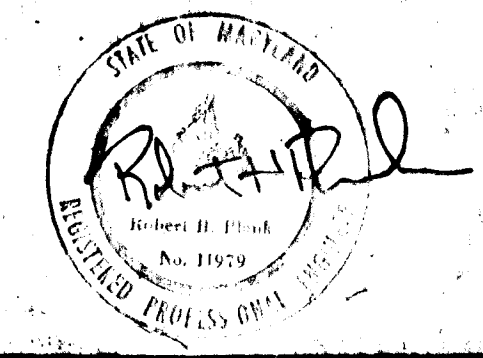
STRUC.	AREA	C	% R.F.P.	% LAWN
E-1	22.82Ac.	0.24	5%	95%
I-2	9.74Ac.	0.24	5%	95%
I-1	0.50Ac.	0.43	30%	70%
E-2	9.58Ac.	0.24	5%	95%
I-4	1.53Ac.	0.32	15%	85%
I-3	0.69Ac.	0.43	30%	70%



OWNER/DEVELOPER:	NO.	REVISIONS	DATE
PAC GROUP INC. 6720 ROUTE 82 CLARKVILLE, MD. 21029			

ARC Advance Resource Consultants, Inc.
 7940 Airpark Road
 Gaithersburg, Maryland 20879
 (301) 840-0746

DRAINAGE AREA MAP
 WESTSIDE SUBDIVISION
 8TH ELECTION DISTRICT
 TAXMAP 94 / PARCEL 9
 HOWARD COUNTY, MARYLAND



F-88-215