

CATTAIL CREEK ~~SYCAMORE VALLEY~~

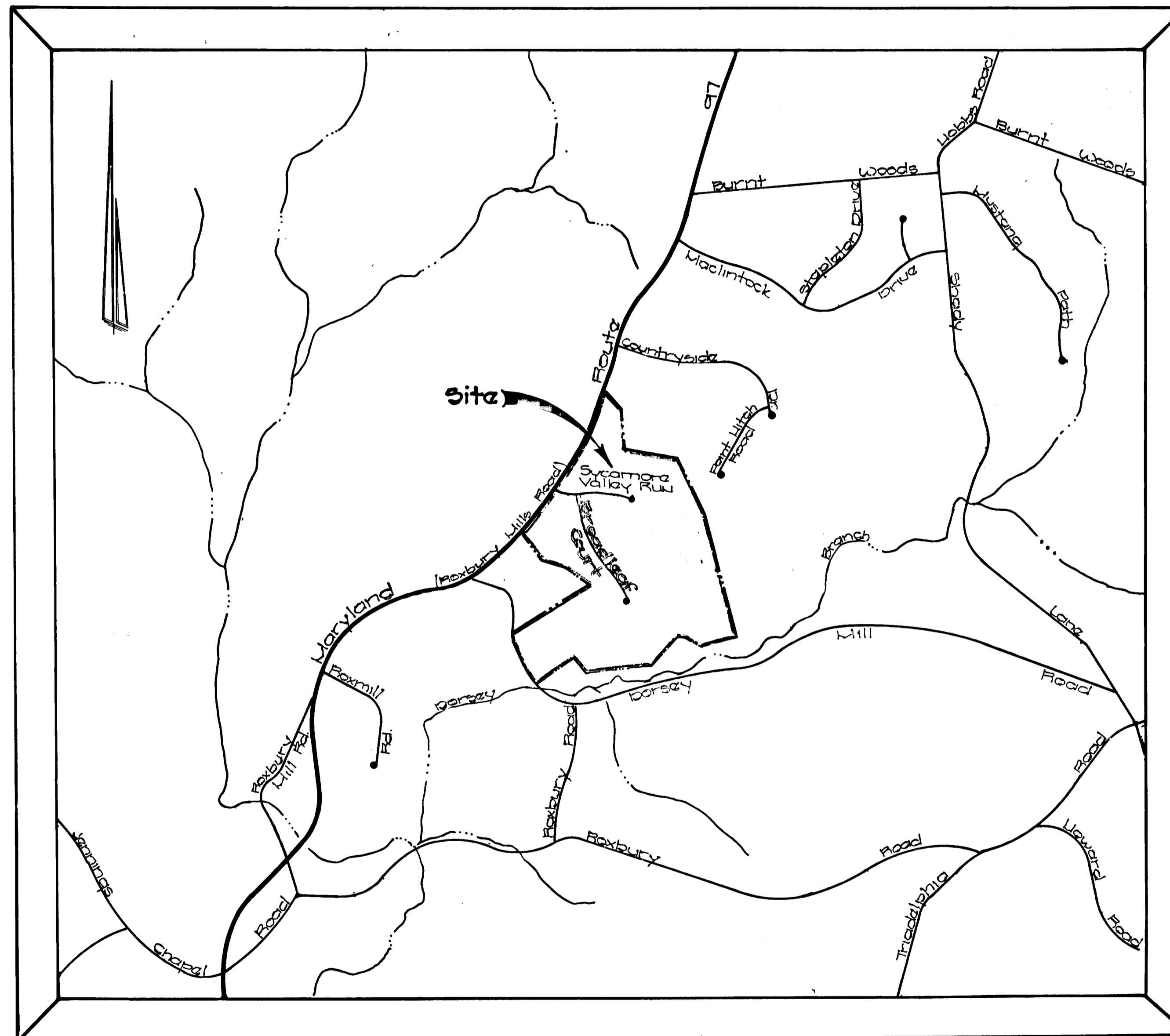
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED
DEPARTMENT OF PUBLIC WORKS
Emilio Jasso 4/18/90
CHIEF, LAND DEVELOPMENT DIVISION DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
Janice W. Wessand 3/20/90
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
William E. Riley 4-19-90
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
DEPT. OF PLANNING AND ZONING
Paul S. Langell 4/20/90
CHIEF, DIVISION OF COMMUNITY PLANNING DATE
AND LAND DEVELOPMENT



Vicinity Map
Scale: 1" = 1200'

THE COORDINATES SHOWN HEREON ARE BASED ON THE MARYLAND STATE GRID SYSTEM AND DERIVED FROM THE FOLLOWING HOWARD COUNTY CONTROL STATIONS:

STA 3122002	N 522310.687
	E 788447.553
STA 3232003	N 522810.762
	E 787655.657

GENERAL NOTES

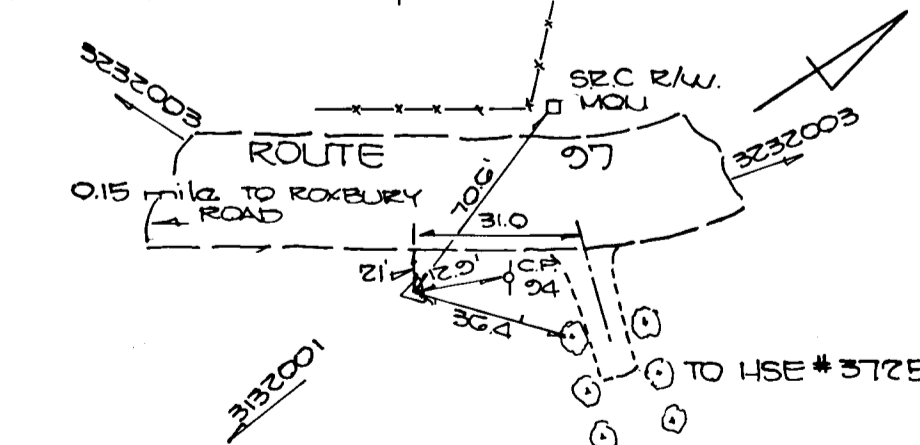
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HRS. IN ADVANCE OF ANY CONSTRUCTION.
3. STORM DRAINAGE TRENCHES WITHIN ROAD RIGHTS-OF-WAY SHALL BE BACKFILLED AND COMPLETED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODES.
4. ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE COMPLETED AT THE CONTRACTORS EXPENSE.
5. CONTRACTOR TO NOTIFY THE HOWARD COUNTY INSPECTION AND SURVEY DIVISION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE: 792-7272.
6. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION; CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
7. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT REVISED EDITION.
8. THIS PLAN IS SUBJECT TO THE CONDITIONS OF WP 89-171.

SHEET INDEX

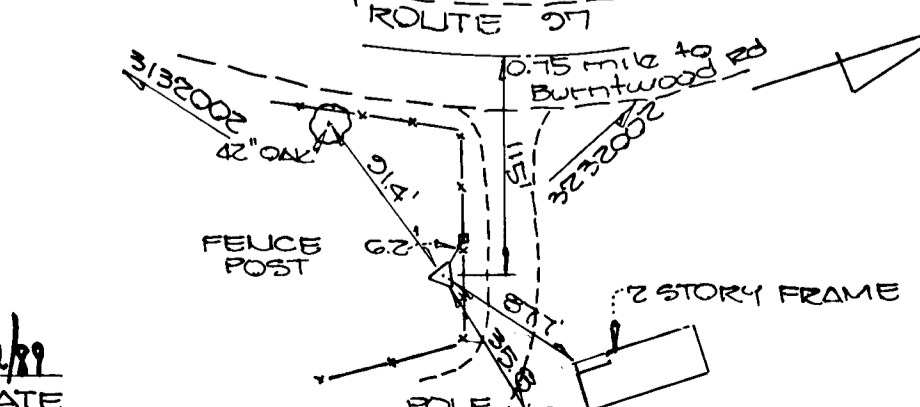
1. TITLE SHEET
2. SYCAMORE VALLEY RUN and BROADLEAF COURT
- PLAN AND PROFILE
3. SYCAMORE VALLEY RUN
- PLAN AND PROFILE
4. BROADLEAF COURT
- PLAN AND PROFILE
5. BROADLEAF COURT - LINEAR PROFILE
- ROAD SECTION DETAIL - STORMDRAIN PROFILE
6. GRADING AND SEDIMENT CONTROL PLAN
7. GRADING AND SEDIMENT CONTROL PLAN
8. SEDIMENT CONTROL DETAILS AND DRAINAGE AREA MAP
9. STORMDRAIN PROFILES

BENCH MARKS

STATION 3122002 ELEV. 476.658
3/4" REINFORCING ROD .04' BELOW SURFACE ON GRASSY KNOLL



STATION 3232003 ELEV. 515.882
3/4" REINFORCING ROD .03' BELOW SURFACE ROUTE 97



Fisher, Collins & Carter, inc.
Civil Engineers & Land Surveyors
8285 Court Avenue
Ellicott City, Maryland 21043
Telephone: (301) 421-2555

Sycamore Valley Partnership
Land Design & Development, inc.
8307 Main Street
Ellicott City, Maryland 21043

STATE OF MARYLAND
DEPARTMENT OF PUBLIC WORKS
CHIEF ENGINEER
Charles J. Crovo 9/2/91
CHARLES J. CROVO SR. DATE

AS-BUILT

PLAN	BY	DATE
SURVEYED		
PLOTTED		
GRADES CHECKED		
STRUCTURE NOTATIONS CHK'D		
NOTE BOOK NO.		

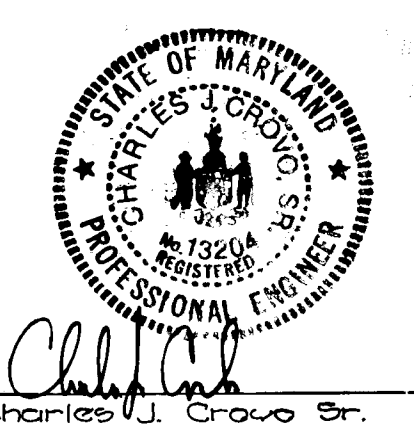
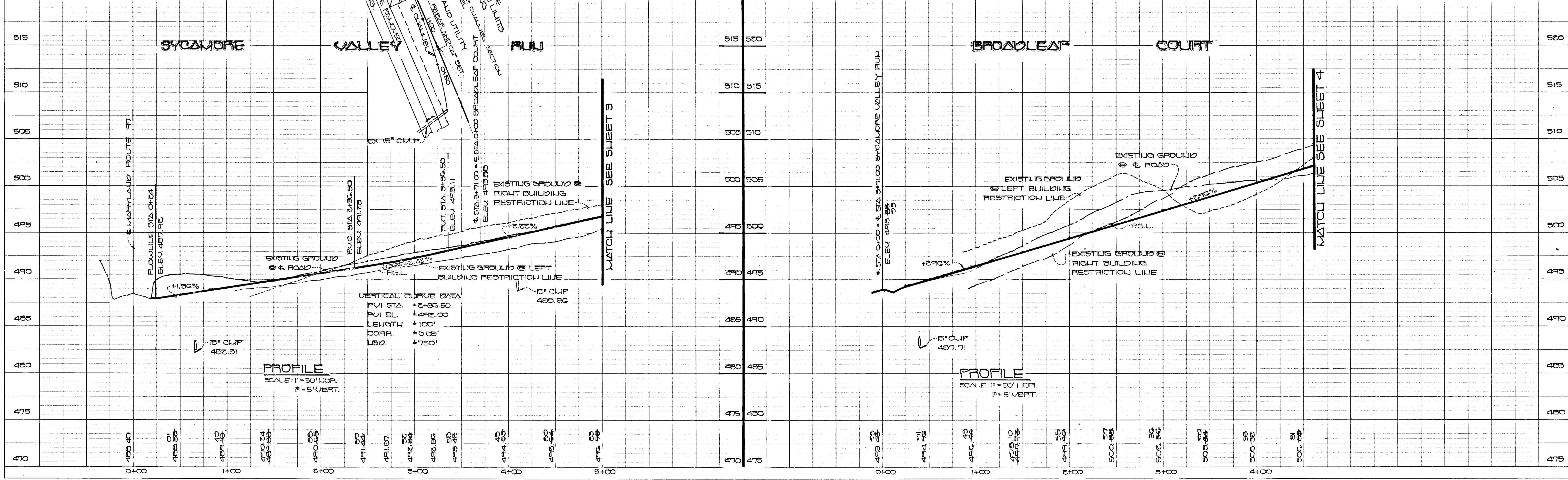
PROFILE	BY	DATE
SURVEYED		
PLOTTED		
GRADES CHECKED		
STRUCTURE NOTATIONS CHK'D		
NOTE BOOK NO.		

APPROVED
DEPARTMENT OF PUBLIC WORKS
Paul D. Jepsen 4/18/90
DIVISION

APPROVED
DEPARTMENT OF PUBLIC WORKS
Lawrence W. Welland 3/20/90
CHIEF, BUREAU OF HIGHWAYS

APPROVED
DEPARTMENT OF PUBLIC WORKS
William B. Rely 4-18-90
CHIEF, BUREAU OF ENGINEERING

APPROVED
DEPT. OF PLANNING AND ZONING
Frank S. Sawyer 4/30/90
CHIEF, DIVISION OF COMM. PLANNING AND LAND DEVELOPMENT



SYCAMORE VALLEY
Lots 1-35
Fourth Election District
Howard County, Maryland

**SYCAMORE VALLEY RUN
BROADLEAF COURT**
PLAN & PROFILE

OWNER AND DEVELOPER
SYCAMORE VALLEY PARTNERSHIP
5807 Main Street
Ellicott City, Maryland 21043

SCALE: As shown DATE: SEPT. 14, 89 DWG. NO. 2 OF 9
DES: K. Frolic DRN: T. Balas CHK: CC-06-89

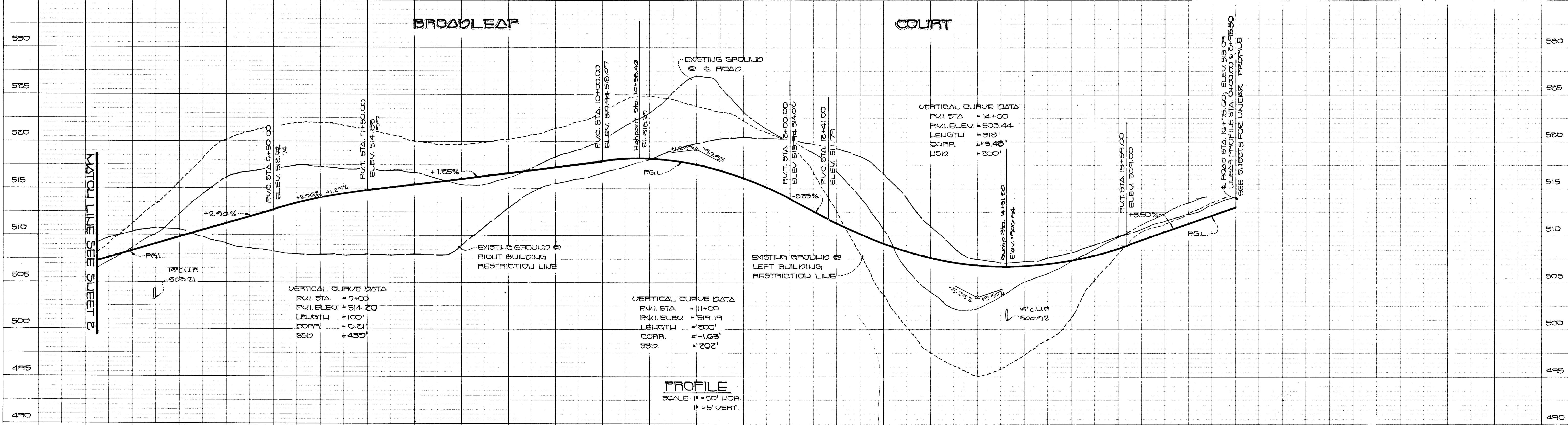
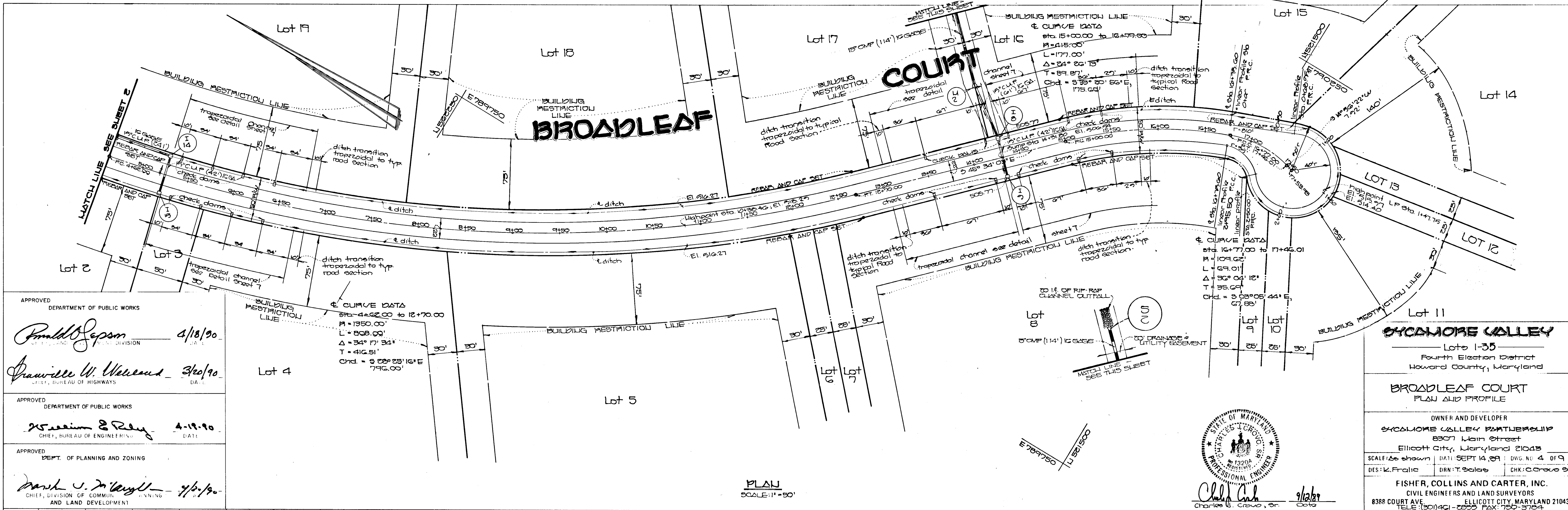
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELICOTT CITY, MARYLAND 21043
TEL: (301) 461-2855 FAX: 750-5754

1564

F 70-54
AS-BUILT

DATE	
BY	
SURVEYED	
PLOTTED	
CHECKED	
RT. OF WAY CHECKED	
NOTE BOOK NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
CHECKED	
STRUCTURE NOTATIONS CHKD	
NOTE BOOK NO.	



APPROVED
DEPARTMENT OF PUBLIC WORKS

Donald J. Lepson 4/18/90
DATE

Francis W. Velez 3/20/90
DATE
CHIEF, BUREAU OF HIGHWAYS

APPROVED
DEPARTMENT OF PUBLIC WORKS

William E. Kelly 4-19-90
DATE
CHIEF, BUREAU OF ENGINEERING

APPROVED
DEPT. OF PLANNING AND ZONING

Frank J. Mitzel 7/6/90
DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

SCYALONE VALLEY
Lots 1-35
Fourth Election District
Howard County, Maryland

BROADLEAF COURT
PLAN AND PROFILE

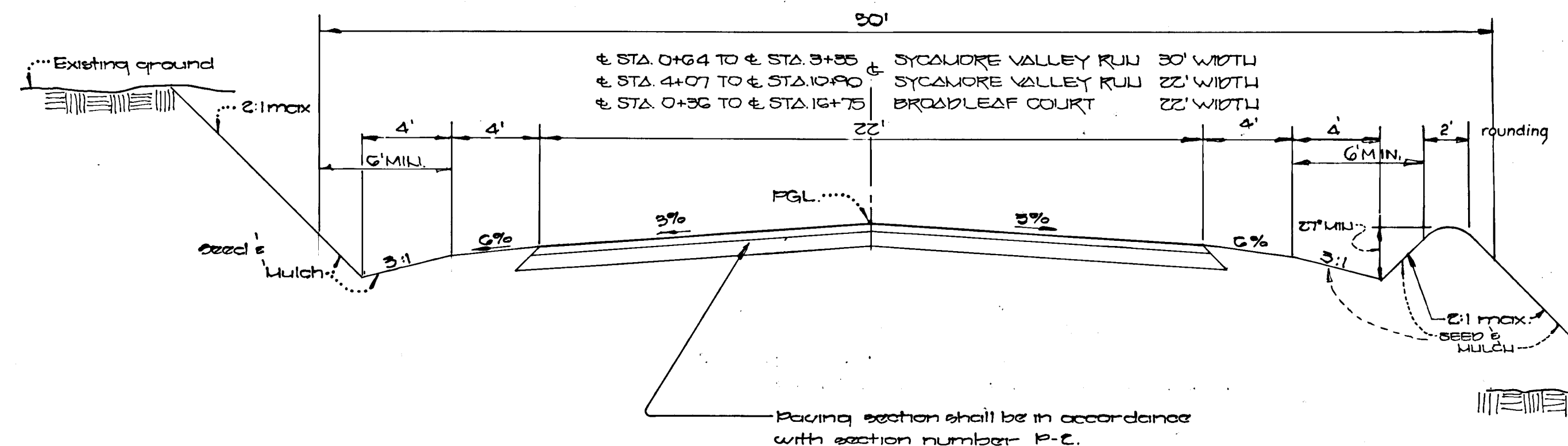
OWNER AND DEVELOPER
SCYALONE VALLEY PARTNERSHIP
8307 Main Street
Ellicott City, Maryland 21043

SCALE: As shown DATE: SEPT 14, 89 DWG. NO. 4 OF 9
DES: K. Fralic DRN: T. Balas CHK: Carlos S.

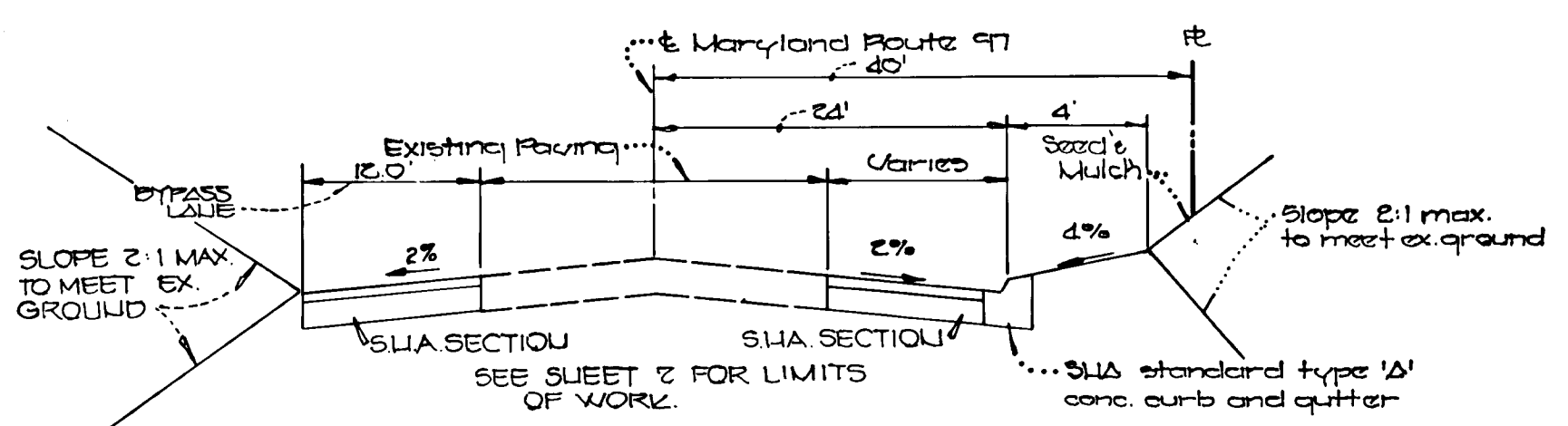
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELICOTT CITY, MARYLAND 21043
TEL: (301) 401-0555 FAX: 750-5754

Professional Engineer Seal: *Charles L. Crowe, Jr.* 9/12/87

LIMIT & STA 0+62.75 TO & STA. 10+90 LIMIT & STA 0+00 TO & STA. 10+50
Sycamore Valley Run and Broadleaf Court
 Classification: CUL. DE. SAC. Zoned: R Design speed: 30mph



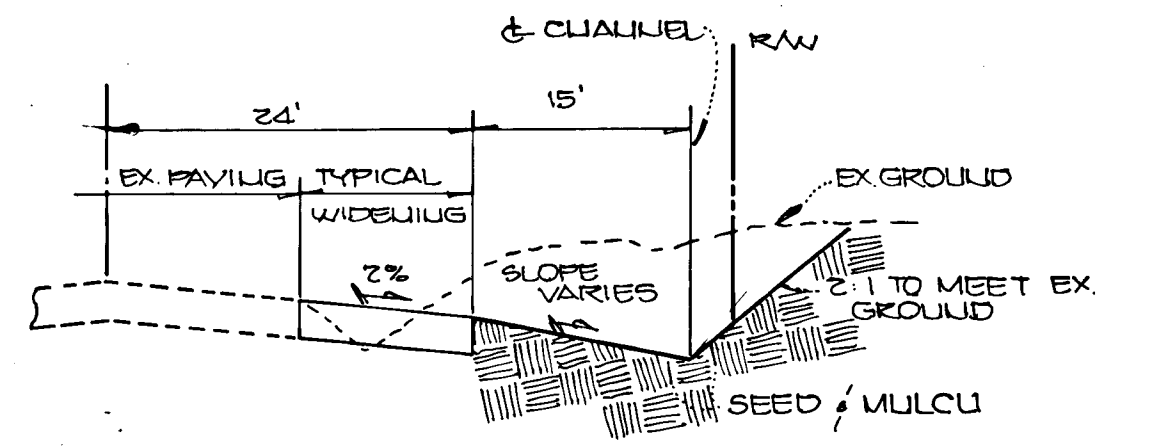
Typical Roadway Section
 Not to scale



Typical widening section along Maryland Route 97
 Not to scale

* S11A section shall be 3" (nominal) bituminous concrete surfaces in 2-1/2" layers utilizing a mix mixture plus 4" (nominal) bituminous concrete base, plus 6" dense graded aggregate base

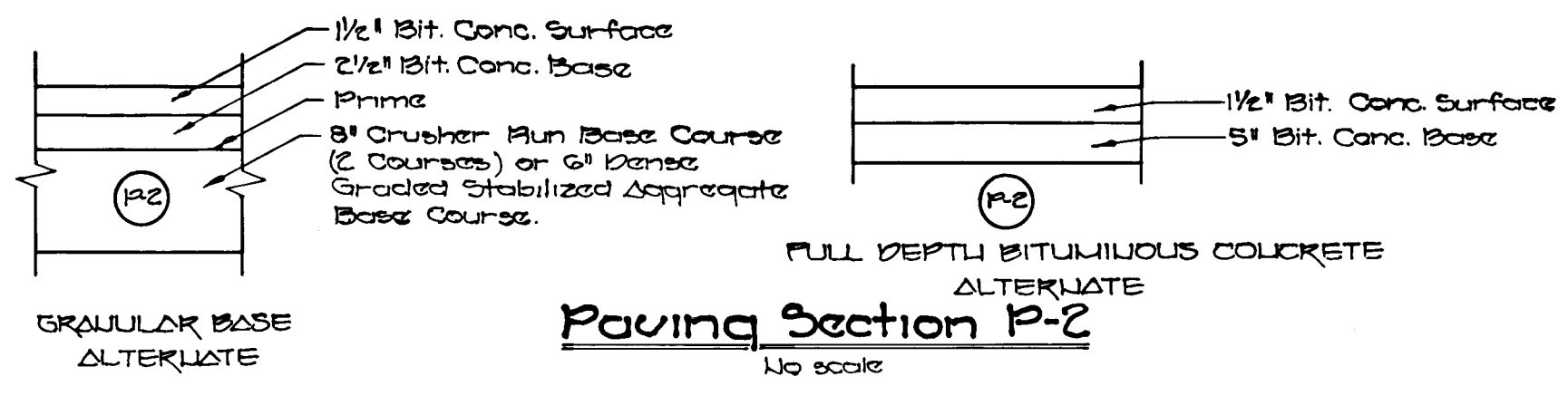
* THIS PAVING SECTION WILL BE USED FOR BOTH WIDENING AND BY-PASS LAJE.



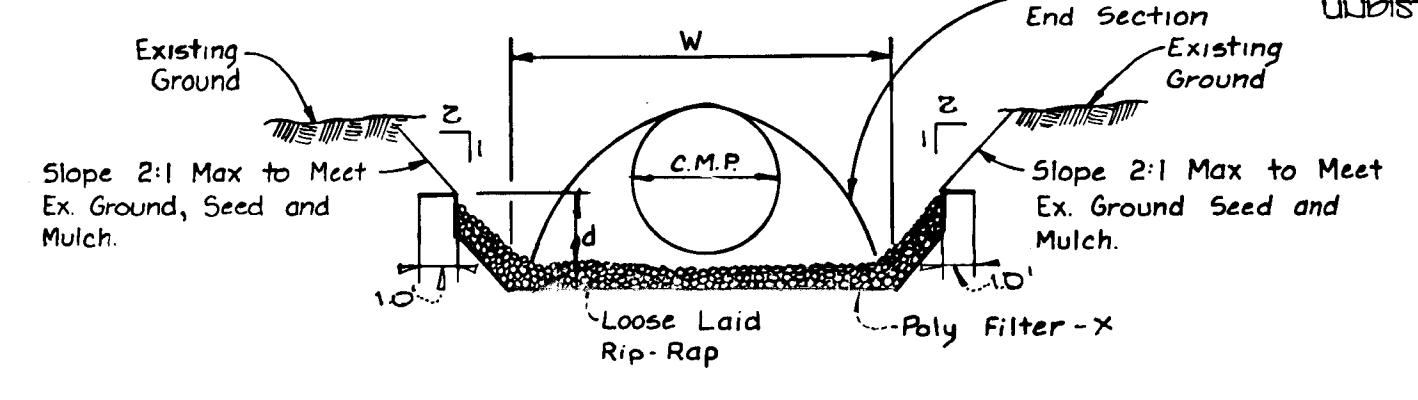
TYPICAL SECTION @ GRASS CHANNEl
 NOT TO SCALE

RIP RAP CHANNEL DESIGN DATA

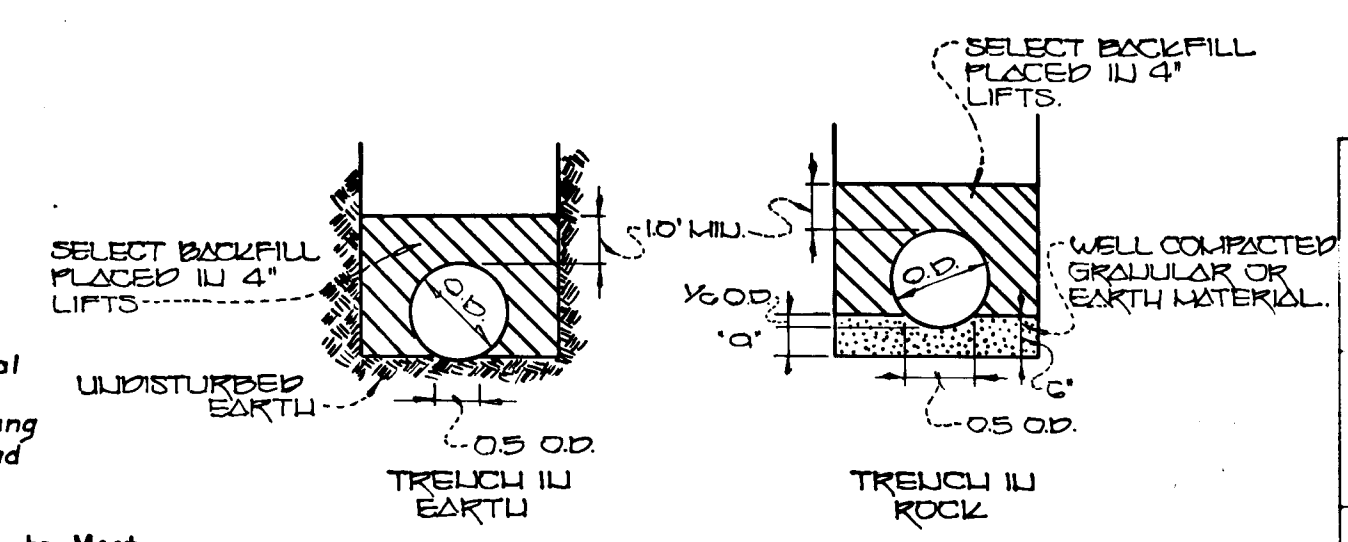
STRUCTURE	AREA #	WETTED PERIMETER	HYDRAULIC RADIUS "r"	"r" 2/3"	SLOPE "S"	S 1/2	n	Q cfs	V fps	d	w	RIP RAP SIZE	BLANKET THICKNESS	
												d 50	d MAX	
S-1	5.73	9.20	0.62'	0.72	0.005	0.070	0.040	10.77	1.88	0.79	5.67	6"	9"	14"
S-2	3.04	6.44	0.47'	0.60	0.005	0.070	0.040	4.87	1.56	0.62	3.67	6"	9"	14"
S-3	4.50	7.82	0.59'	0.70	0.005	0.070	0.040	7.85	1.82	0.78	4.83	6"	9"	14"



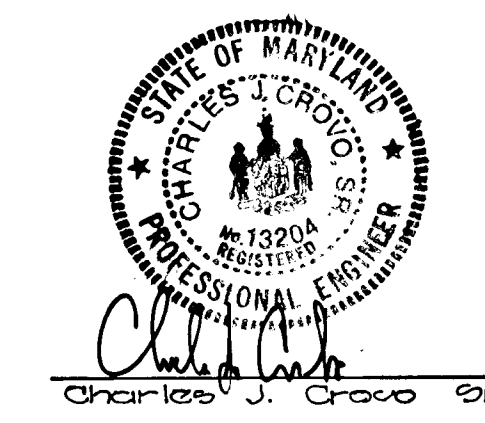
Paving Section P-2
 No scale



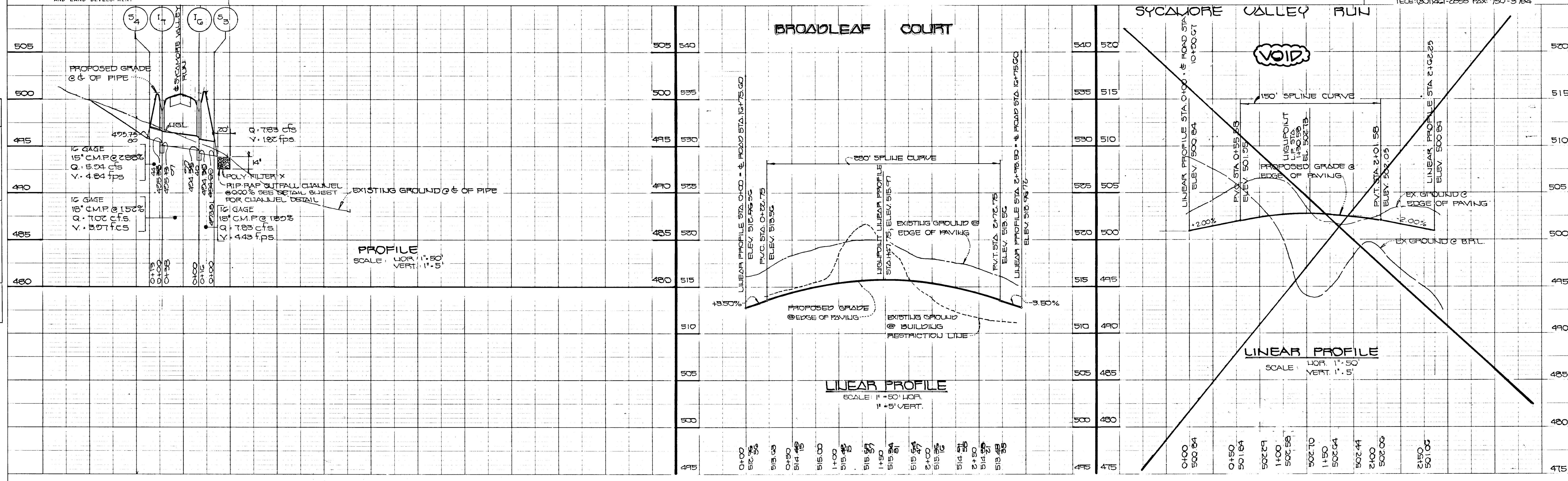
RIP-RAP CHANNEL DETAIL
 NOT TO SCALE



PIPE BEDDING DETAIL
 NOT TO SCALE



SYCAMORE VALLEY
 Lots 1-35
 Fourth Election District
 Howard County, Maryland
 ROAD SECTION DETAILS
 LINEAR PROFILE
 OWNER AND DEVELOPER
SYCAMORE VALLEY PARTNERSHIP
 8307 Main Street
 Ellicott City, Maryland 21043
 SCALE: As shown DATE: SEPT. 14, 89 DWG. NO. 5 019
 DES: T. Balise DRN: T. Balise CHK: C. Crook Sr.
FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043
 TELE: (301) 421-2855 FAX: 752-5784



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

LINEAR PROFILE
 SCALE: HOR. 1" = 50'
 VERT. 1" = 5'

LINEAR PROFILE
 SCALE: HOR. 1" = 50'
 VERT. 1" = 5'

1564

ENGINEER'S CERTIFICATE
 I HEREBY 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. Helm* DATE: 9/19/90

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 ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS DEEMED NECESSARY.
 Signature of Developer: *James M. Helm* DATE: 9/19/90

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MET TECHNICAL REQUIREMENTS:
James M. Helm DATE: 9/19/90

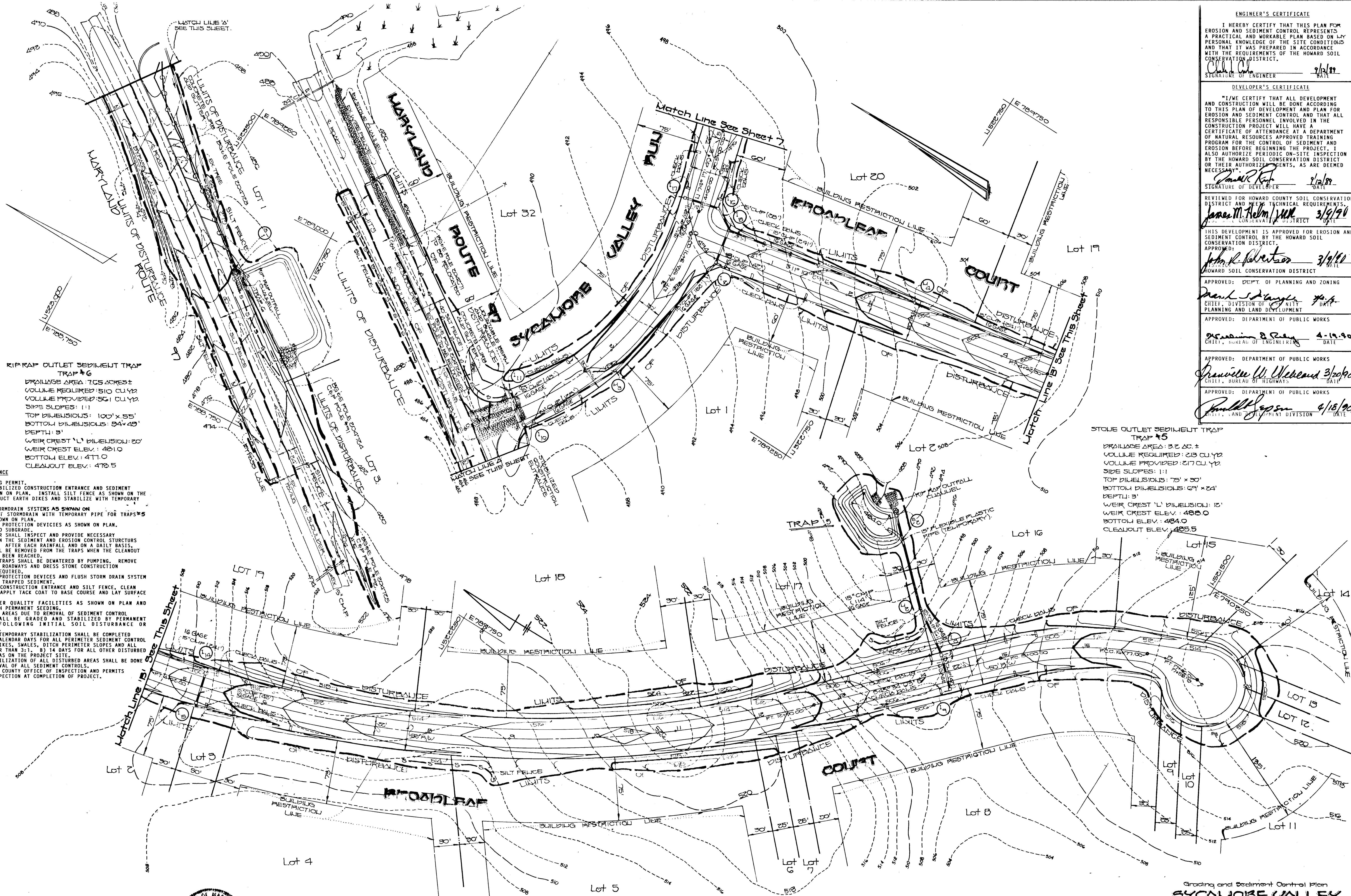
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *John R. Robertson* DATE: 9/19/90
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPT. OF PLANNING AND ZONING
Frank S. Dangle DATE: 9/19/90
 CHIEF, DIVISION OF PLANNING AND LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS
William B. Rely DATE: 4-19-90
 CHIEF, BUREAU OF ENGINEERING

APPROVED: DEPARTMENT OF PUBLIC WORKS
Frank W. Weiland DATE: 3/20/90
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PUBLIC WORKS
Paul J. Soper DATE: 4/18/90
 CHIEF, AND DEVELOPMENT DIVISION



RIP-RAP OUTLET SEDIMENT TRAP TRAP #6
 DRAINAGE AREA: 765 ACRES ±
 VOLUME REQUIRED: 510 CU YD
 VOLUME PROVIDED: 501 CU YD
 SIDE SLOPES: 1:1
 TOP DIMENSIONS: 100' x 55'
 BOTTOM DIMENSIONS: 84' x 49'
 DEPTH: 5'
 WEIR CREST 'L' DIMENSION: 20'
 WEIR CREST ELEV.: 481.0
 BOTTOM ELEV.: 471.0
 CLEANOUT ELEV.: 478.5

STONE OUTLET SEDIMENT TRAP TRAP #5
 DRAINAGE AREA: 32 AC ±
 VOLUME REQUIRED: 213 CU YD
 VOLUME PROVIDED: 217 CU YD
 SIDE SLOPES: 1:1
 TOP DIMENSIONS: 75' x 30'
 BOTTOM DIMENSIONS: 69' x 24'
 DEPTH: 5'
 WEIR CREST 'L' DIMENSION: 12'
 WEIR CREST ELEV.: 488.0
 BOTTOM ELEV.: 484.0
 CLEANOUT ELEV.: 485.5

- CONSTRUCTION SEQUENCE**
- OBTAIN GRADING PERMIT.
 - CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT TRAPS AS SHOWN ON PLAN. INSTALL SILT FENCE AS SHOWN ON PLAN. CONSTRUCT EARTH DICES AND STABILIZE WITH TEMPORARY SEEDING.
 - CONSTRUCT STORMDRAIN SYSTEMS AS SHOWN ON PLAN. DIVERT STORMDRAIN WITH TEMPORARY PIPE FOR TRAPS #5 AND #6 AS SHOWN ON PLAN.
 - INSTALL INLET PROTECTION DEVICES AS SHOWN ON PLAN.
 - GRADE ROADS TO SUBGRADE.
 - THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON. AFTER EACH RAINFALL AND ON A DAILY BASIS, SEDIMENT SHALL BE REMOVED FROM THE TRAPS WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
 - THE SEDIMENT TRAPS SHALL BE Dewatered BY PUMPING. REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED.
 - REMOVE INLET PROTECTION DEVICES AND FLUSH STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT.
 - REMOVE STONE CONSTRUCTION ENTRANCE AND SILT FENCE. CLEAN BASE COURSE, APPLY TACK COAT TO BASE COURSE AND LAY SURFACE COURSE.
 - INSTALL WATER QUALITY FACILITIES AS SHOWN ON PLAN AND STABILIZE WITH PERMANENT SEEDING.
 - ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING, FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE.
 - PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. B) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - COMPLETE STABILIZATION OF ALL DISTURBED AREAS SHALL BE DONE PRIOR TO REMOVAL OF ALL SEDIMENT CONTROLS.
 - NOTIFY HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS FOR FINAL INSPECTION AT COMPLETION OF PROJECT.

Fisher, Collins & Carter, inc.
 Civil Engineers and Land Surveyors
 8388 Court Avenue
 Ellicott City, Maryland 21043
 Telephone (301)461-2855 FAX: 750-3784



OWNER AND DEVELOPER
 Sycamore Valley Partnership
 8307 Main Street
 Ellicott City, Maryland 21043

Grading and Sediment Control Plan
SYCAMORE VALLEY
 Lots 1-35
 Fourth Election District
 Howard County, Maryland
AS-BUILT
 Scale: 1" = 50'
 SEPTEMBER 14, 1991
 SHEET 0F 09

1564

I HEREBY 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: *[Signature]* DATE: 9/12/89

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 ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Signature of Developer: *[Signature]* DATE: 9/12/89

REVIEWED BY HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. DATE: 3/19/90

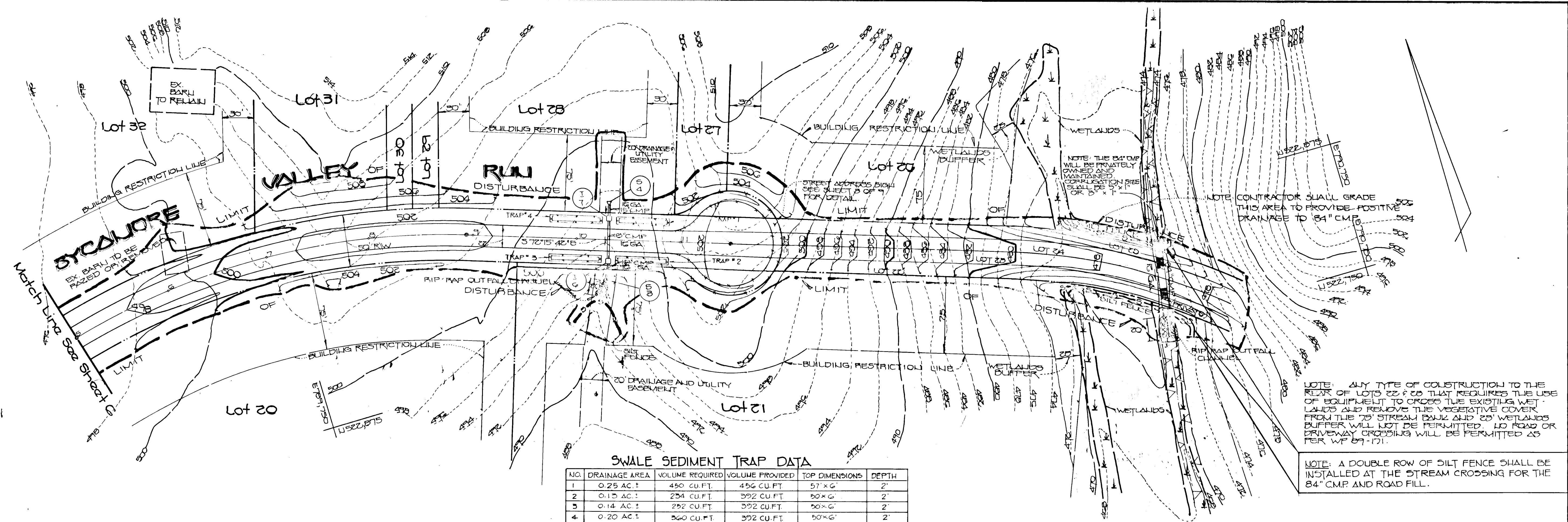
APPROVED: *[Signature]* DATE: 3/19/90

APPROVED: DEPT. OF PLANNING AND ZONING CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT. DATE: 4/10/90

APPROVED: DEPARTMENT OF PUBLIC WORKS CHIEF, BUREAU OF ENGINEERING. DATE: 4/10/90

APPROVED: DEPARTMENT OF PUBLIC WORKS CHIEF, BUREAU OF HIGHWAYS. DATE: 4/10/90

APPROVED: DEPARTMENT OF PUBLIC WORKS CHIEF, LAND MANAGEMENT DIVISION. DATE: 4/10/90



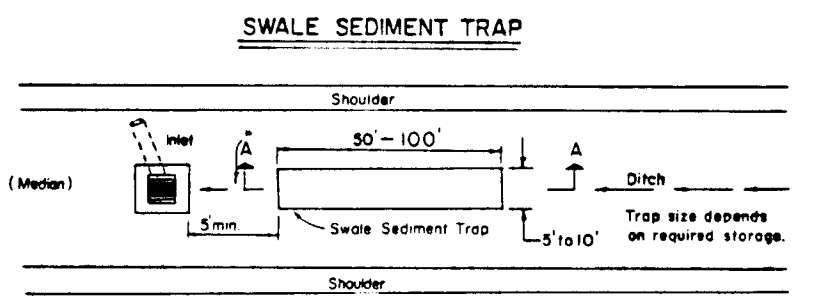
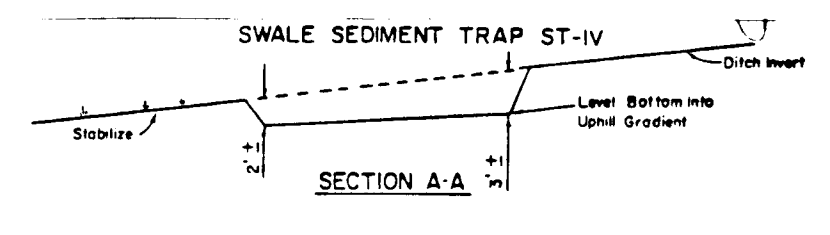
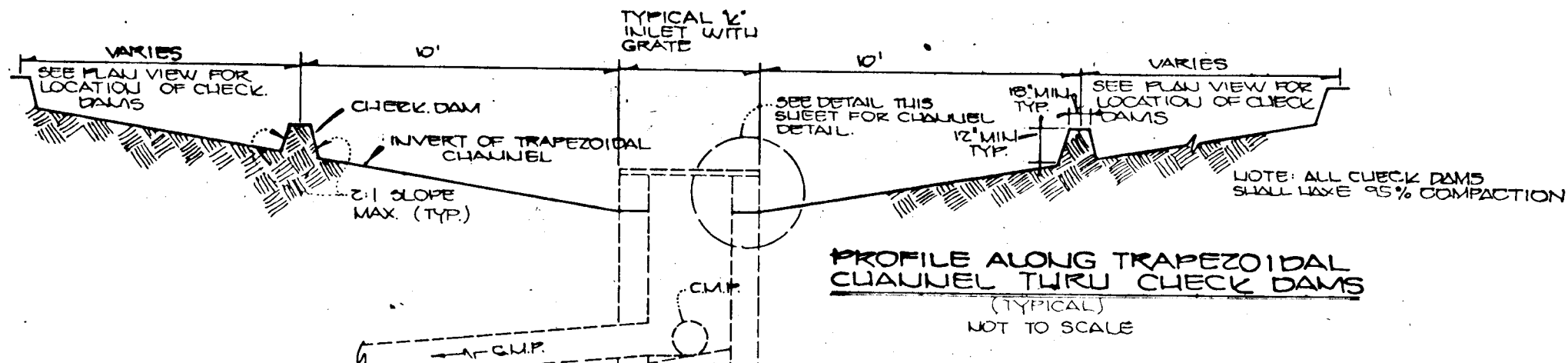
SWALE SEDIMENT TRAP DATA

NO.	DRAINAGE AREA	VOLUME REQUIRED	VOLUME PROVIDED	TOP DIMENSIONS	DEPTH
1	0.25 AC ±	450 CU.FT.	456 CU.FT.	57' x 6'	2'
2	0.15 AC ±	254 CU.FT.	252 CU.FT.	50' x 6'	2'
3	0.14 AC ±	252 CU.FT.	252 CU.FT.	50' x 6'	2'
4	0.20 AC ±	360 CU.FT.	352 CU.FT.	50' x 6'	2'

STRUCTURE SCHEDULE

STRUCT.	INLET TYPE	* TOP STRUCTURE	INV. IN.	INV. OUT.	ROAD STATION	OFFSET	REMARKS
1-6	K INLET & GRATE	499.85	494.57	494.56	SYCAMORE VALLEY RUN 10+30	21' LT.	DWG. S.D. 4.12 & S.D. 4.13
1-7	K INLET & GRATE	499.89	495.38	495.35	SYCAMORE VALLEY RUN 10+30	21' LT.	DWG. S.D. 4.12 & S.D. 4.13
1-8	K INLET & GRATE	505.89	500.78	498.48	BROADLEAF COURT 14+31.80	19' LT.	DWG. S.D. 4.12 & S.D. 4.13
1-9	K INLET & GRATE	505.89	501.42	501.42	BROADLEAF COURT 14+31.80	19' RT.	DWG. S.D. 4.12 & S.D. 4.13
1-10	K INLET & GRATE	487.82	487.80	480.80	SYCAMORE VALLEY RUN 0+67C	21.5' RT.	DWG. S.D. 4.12 & S.D. 4.13
1-11	K INLET & GRATE	487.82	482.52	482.52	SYCAMORE VALLEY RUN 0+67C	21.5' LT.	DWG. S.D. 4.12 & S.D. 4.13
1-12	K INLET & GRATE	494.01	487.34	487.09	BROADLEAF COURT 0+40	19' RT.	DWG. S.D. 4.12 & S.D. 4.13
1-13	K INLET & GRATE	484.01	488.44	488.06	BROADLEAF COURT 0+40	19' LT.	DWG. S.D. 4.12 & S.D. 4.13
1-14	K INLET & GRATE	507.50	503.00	503.00	BROADLEAF COURT 5+25.23	19' LT.	DWG. S.D. 4.12 & S.D. 4.13
1-15	K INLET & GRATE	508.38	503.42	503.42	BROADLEAF COURT 5+25.23	19' RT.	DWG. S.D. 4.12 & S.D. 4.13
1-16	K INLET & GRATE	493.96	488.45	488.36	SYCAMORE VALLEY RUN 4+10	21' RT.	DWG. S.D. 4.12 & S.D. 4.13
1-17	K INLET & GRATE	493.96	488.36	488.36	SYCAMORE VALLEY RUN 4+10	21' LT.	DWG. S.D. 4.12 & S.D. 4.13
M-2	STD. MH PRECAST	482.54	482.54	482.54	BROADLEAF COURT 14+20	80' LT.	DWG. G. 5.12
M-3	STD. MH PRECAST	500.86	495.42	495.42	SYCAMORE VALLEY RUN 1+86	21.5' RT.	DWG. G. 5.12
M-4	STD. MH PRECAST	500.86	495.42	495.42	BROADLEAF COURT 2+82	19' LT.	DWG. G. 5.12
S-1	METAL END SEC	480.85	478.45	478.45	BROADLEAF COURT 14+20	195' LT.	DWG. S.D. 5.61
S-2	METAL END SEC	480.85	478.45	478.45	BROADLEAF COURT 14+20	195' LT.	DWG. S.D. 5.61
S-3	METAL END SEC	480.85	478.45	478.45	SYCAMORE VALLEY RUN 10+27	38' RT.	DWG. S.D. 5.61
S-4	METAL END SEC	497.88	495.75	495.75	SYCAMORE VALLEY RUN 10+30	32' LT.	DWG. S.D. 5.61

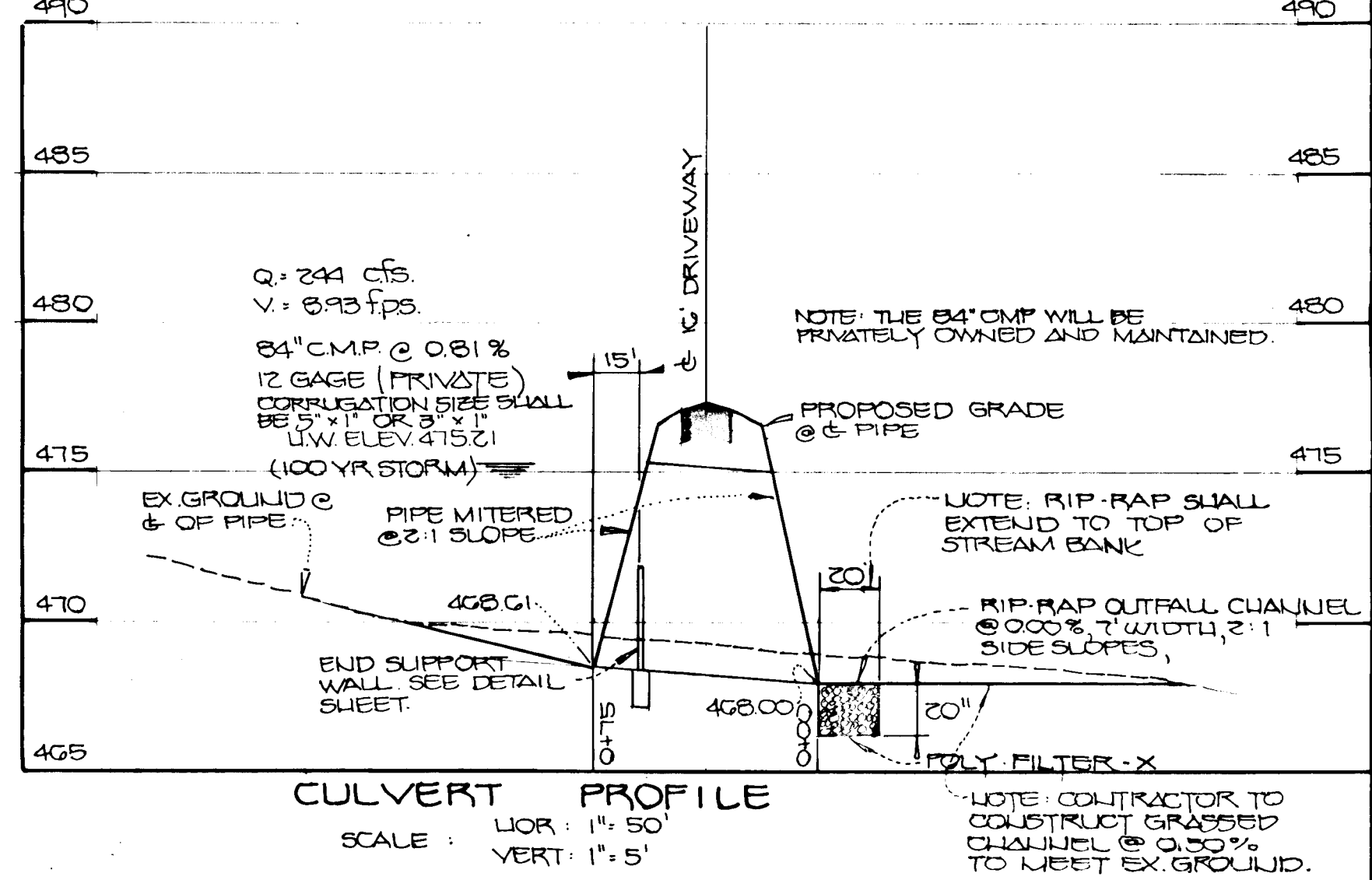
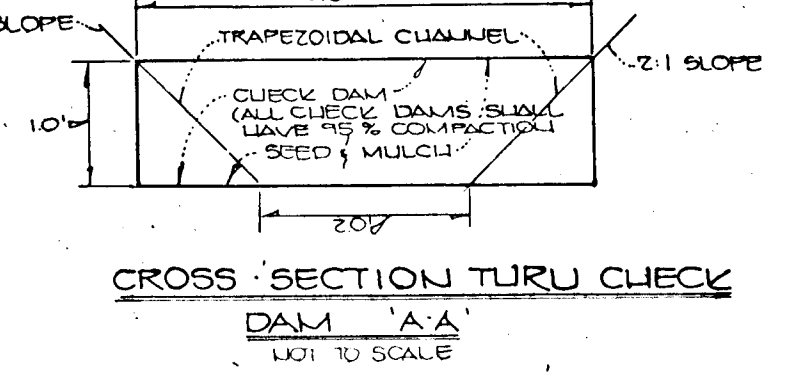
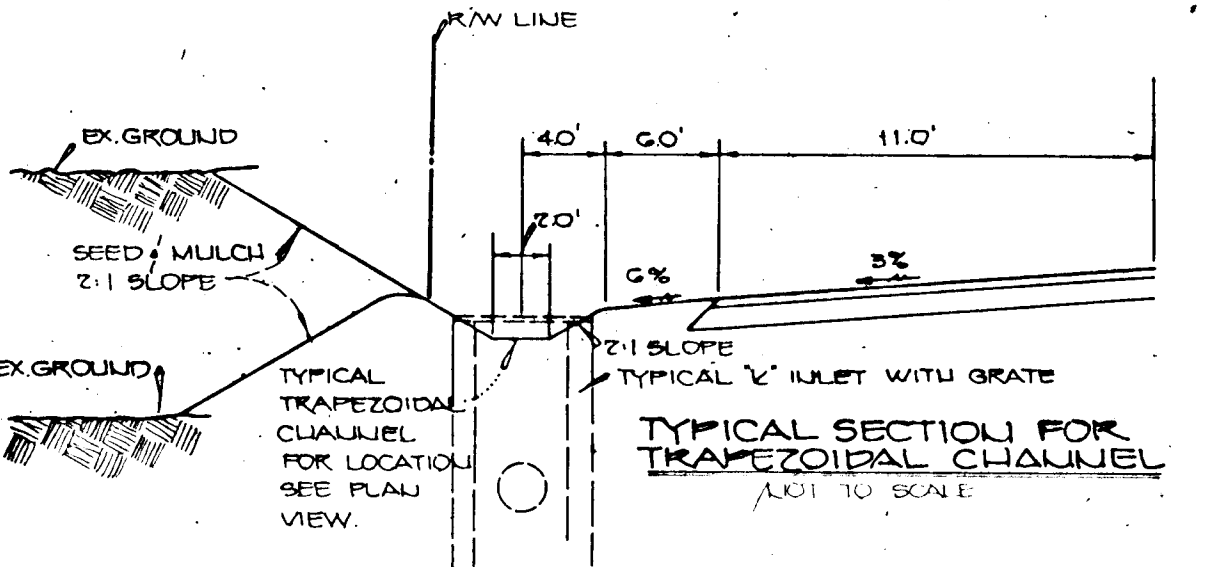
* ELEVATION AT TOP OF GRATE FOR "K" INLETS



CONSTRUCTION SPECIFICATION FOR ST-IV

- The swale sediment trap shall be constructed in accordance with the dimensions provided on the design drawings or sized to provide the minimum storage necessary 1800 cubic feet of storage for each acre of drainage area.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The structure shall be inspected after each rain and repairs made as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
- The sediment trap shall be removed and area stabilized when the contributory drainage area has been properly stabilized.
- The swale sediment trap will be properly backfilled and the swale or ditch reconstructed.

Maximum Drainage Area: 2 Acres



CULVERT PROFILE

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

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERS & LAND SURVEYORS
2308 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043
TELE: (301)461-2855 FAX: (301)750-3784



OWNER/DEVELOPER:
SYCAMORE VALLEY PARTNERSHIP
2307 MALL STREET
ELLCOTT CITY, MARYLAND 21043

AS-BUILT
11/17/92

GRADING & SEDIMENT CONTROL PLAN
SYCAMORE VALLEY
LOTS 1-35
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' DATE: SEPTEMBER 14, 1989
SHEET 7 OF 9

I HEREBY 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: 3/14/90

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 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."

Signature of Developer
DATE: 3/14/90

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT TECHNICAL REQUIREMENTS.
Signature of District Engineer
DATE: 3/14/90

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Signature of District Engineer
DATE: 3/14/90

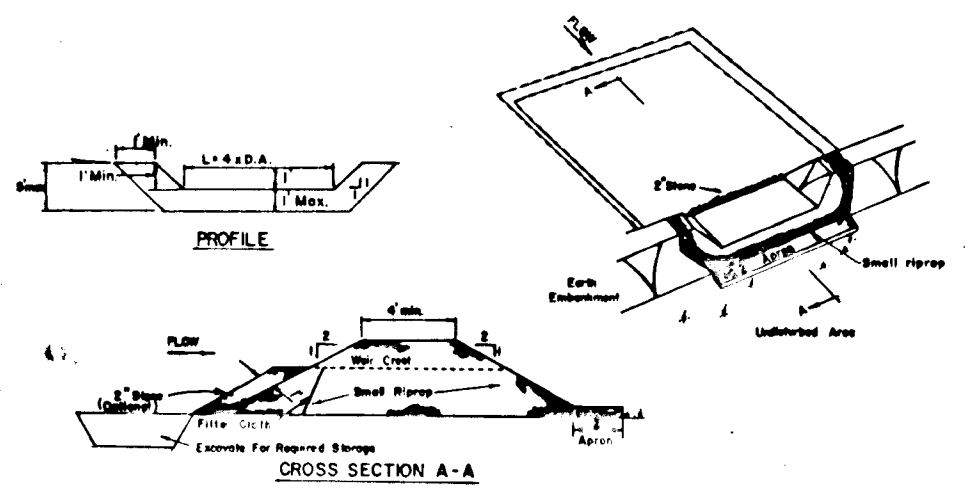
APPROVED: DEPT. OF PLANNING AND ZONING
Signature of Planning and Zoning
DATE: 3/14/90

APPROVED: DEPARTMENT OF PUBLIC WORKS
Signature of Department of Public Works
DATE: 3/14/90

APPROVED: DEPARTMENT OF PUBLIC WORKS
Signature of Department of Public Works
DATE: 4-11-90

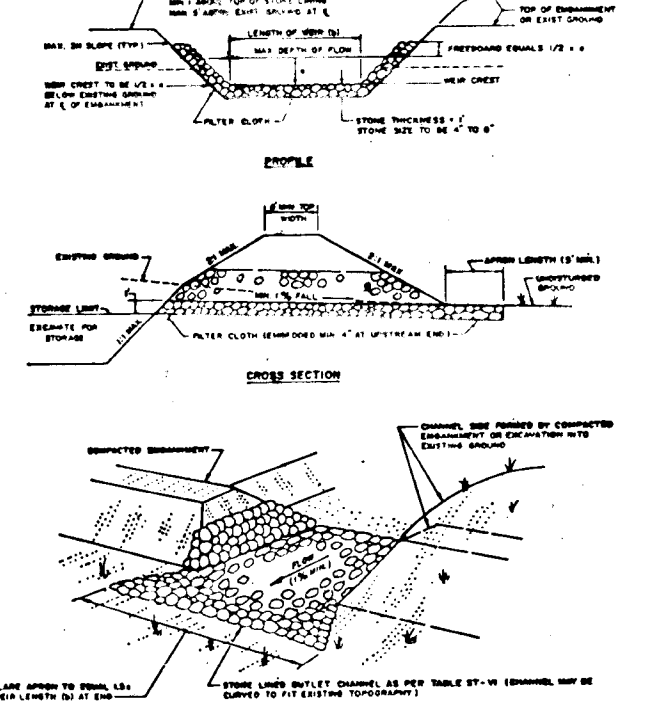
APPROVED: DEPARTMENT OF PUBLIC WORKS
Signature of Department of Public Works
DATE: 3/14/90

APPROVED: DEPARTMENT OF PUBLIC WORKS
Signature of Department of Public Works
DATE: 4/13/90



- CROSS SECTION A-A
- OPTION: A one foot layer of 2" stones may be placed on the upstream side of the trap in place of the embedded filter cloth.
- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil area shall be cleared.
 - The fill material for the embankment shall be free of roots and other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
 - All cut and fill slopes shall be 2:1 or flatter.
 - The stone area in the outlet shall be small steps 4" x 4" along with a 1" thickness of 2" aggregate placed on the up-drain side on the small steps 25 embedded filter cloth in the traps.
 - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to the design depth of the trap.
 - The structure shall be inspected after each rain and repairs made as needed.
 - Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
 - The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

STONE OUTLET SEDIMENT TRAP
LOT TO SCALE



DRAINAGE AREA SCHEDULE

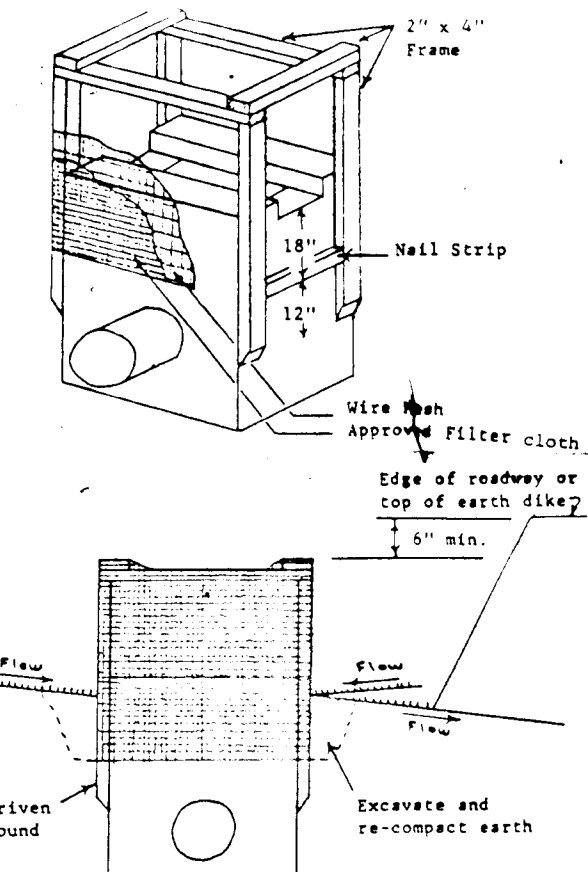
DRAINAGE AREA	AREA (AC ²)	"C"	ZONE	STRUCTURE
F	0.27	0.58	"	I-G
G	0.45	0.47	"	I-7
L	4.58	0.24	"	S-4
I	0.31	0.48	"	I-17
J	1.00	0.32	"	I-16
K	0.24	0.54	"	I-11
L	0.73	0.33	"	I-10
M	0.64	0.36	"	I-13
N	0.33	0.48	"	I-12
O	0.82	0.35	"	I-14
P	0.42	0.45	"	I-15
Q	1.35	0.38	"	I-9
R	0.60	0.52	R	I-8

- 7) SITE ANALYSIS:
- TOTAL AREA OF SITE: 162.7 ACRES
 - AREA TO BE ROOFED OR PAVED: 2.0 ACRES
 - AREA TO BE VEGETATIVELY STABILIZED: 2.0 ACRES
 - TOTAL CUT: 162.7 CU. YDS.
 - OFF-SITE WASTE/DRAINAGE AREA LOCATION: [Blank]
- 8) ANY SEDIMENT CONTROL STRUCTURE WHICH IS DISTURBED BY CONSTRUCTION ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- 9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT INSPECTOR.
- 10) ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVED, MUST NOT BE ALLOWED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

* "R" RURAL MIN. 3 ACRE LOTS
** MIN. "C" FACTOR 0.24

Fisher, Collins & Carter, Inc.
Civil Engineers and Land Surveyors
8388 Court Avenue
Ellicott City, Maryland 21043
Telephone: (301) 461-2855 FAX: 750-3784

- A swale, ditchline or yard inlet protection.
- Excavate completely around inlet to a depth of 18" below notch elevation.
 - Drive 2 x 4 post 1' into ground at four corners of inlet. Assemble top portion of 2 x 4 frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
 - Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
 - Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
 - Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
 - If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
 - This structure must be inspected frequently and the filter fabric replaced when clogged.



INLET PROTECTION DETAIL
NOT TO SCALE

PERMANENT SEEDING NOTES:
APPLY TO GRADED OR CLEARED AREAS SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED, SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING.
- 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. PER ACRE AND 2 LBS. PER ACRE (0.5 LBS/1000 SQ. FT.) OF PERENNIAL RYEGRASS. 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 SOIL. OPTION (3) SEED WITH 80 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WILL 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 OR FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

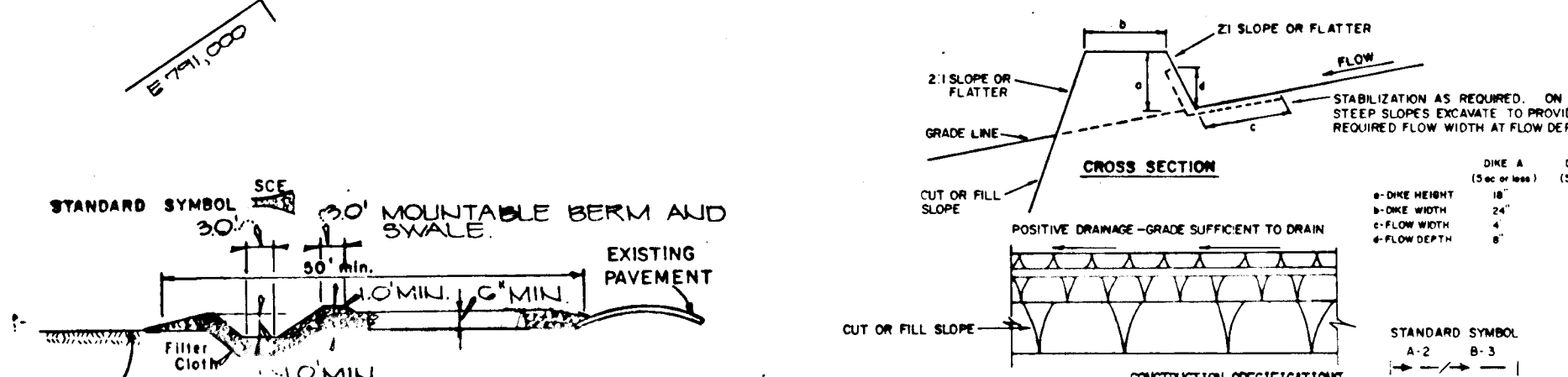
TEMPORARY SEEDING NOTES:
APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED, SOIL AMENDMENTS: APPLY 600 LBS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ. FT.) BEFORE SEEDING.

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 1 THRU NOVEMBER 30, 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 (0.7 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 SOIL.

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 OR FLAT AREAS, ON SLOPES 8 FT. OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

REFER TO THE 1993 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

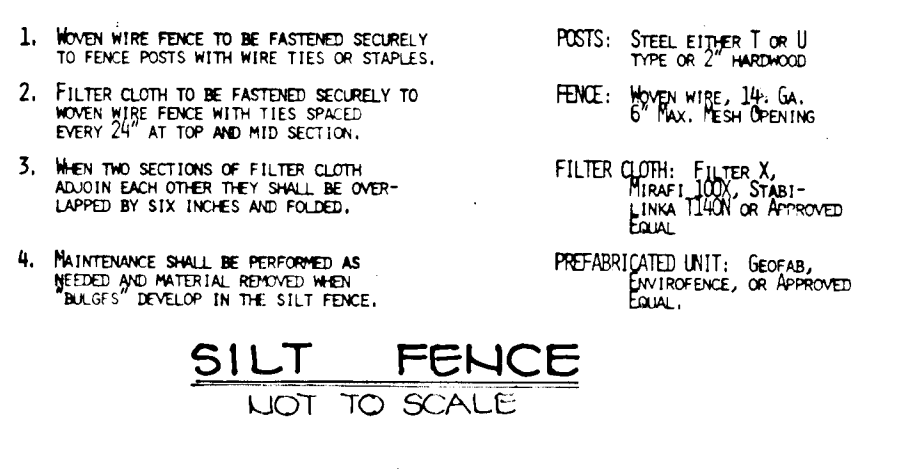


- CONSTRUCTION SPECIFICATIONS
- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
 - Length - As required, but not less than 30 feet (except on a single residence lot where a 10 foot minimum length would apply).
 - Thickness - Not less than six (6) inches.
 - Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
 - Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a slight slope or on a flat area. Filter cloth shall be secured to the stone with staples or wire ties. Filter cloth shall be secured to the stone with staples or wire ties. Filter cloth shall be secured to the stone with staples or wire ties.
 - Maintenance - The entrance shall be maintained in a condition which will prevent tracking of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanup of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public right-of-way must be removed immediately.
 - Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
 - Periodic inspection and needed maintenance shall be provided after each rain.

FIELD CHANNEL STABILIZATION

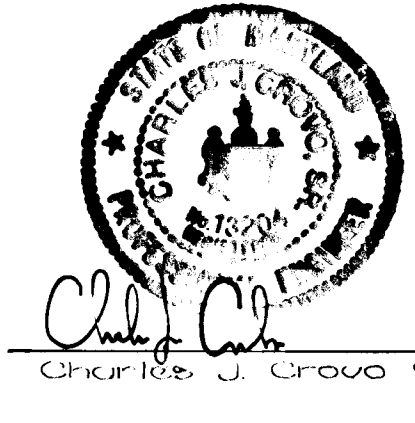
TYPE OF CHANNEL	CHANNEL	DIKE A	DIKE B
1	5-3.0'	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0'	SEED AND STRAW MULCH	SEED USING LIME OR EXCELSION; SOIL 2" STONE
3	5.1-8.0'	SEED WITH LIME, OR SOIL	LINED RIP-RAP 4-8"
4	8.1-20'	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



SILT FENCE
NOT TO SCALE

- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE
- When wire fence is to be fastened securely to fence posts with wire ties or staples.
 - Filter cloth to be fastened securely to wire fence with wire ties spaced every 24" at top and mid section.
 - When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
 - Maintenance shall be performed as needed and material removed when built up behind the silt fence.
- POSTS: STEEL EITHER T OR U TYPE OF 2" W/40MM
FENCE: WIRE MESH, 36" GAL. 18" W/40MM, 18" W/40MM
FILTER CLOTH: FILTER CLOTH, 100% POLYPROPYLENE, 100% STABILIZED, 100% STABILIZED, 100% STABILIZED
- PREPARED BY: GEORGE B. CRANE, INC.
DATE: 3/14/90

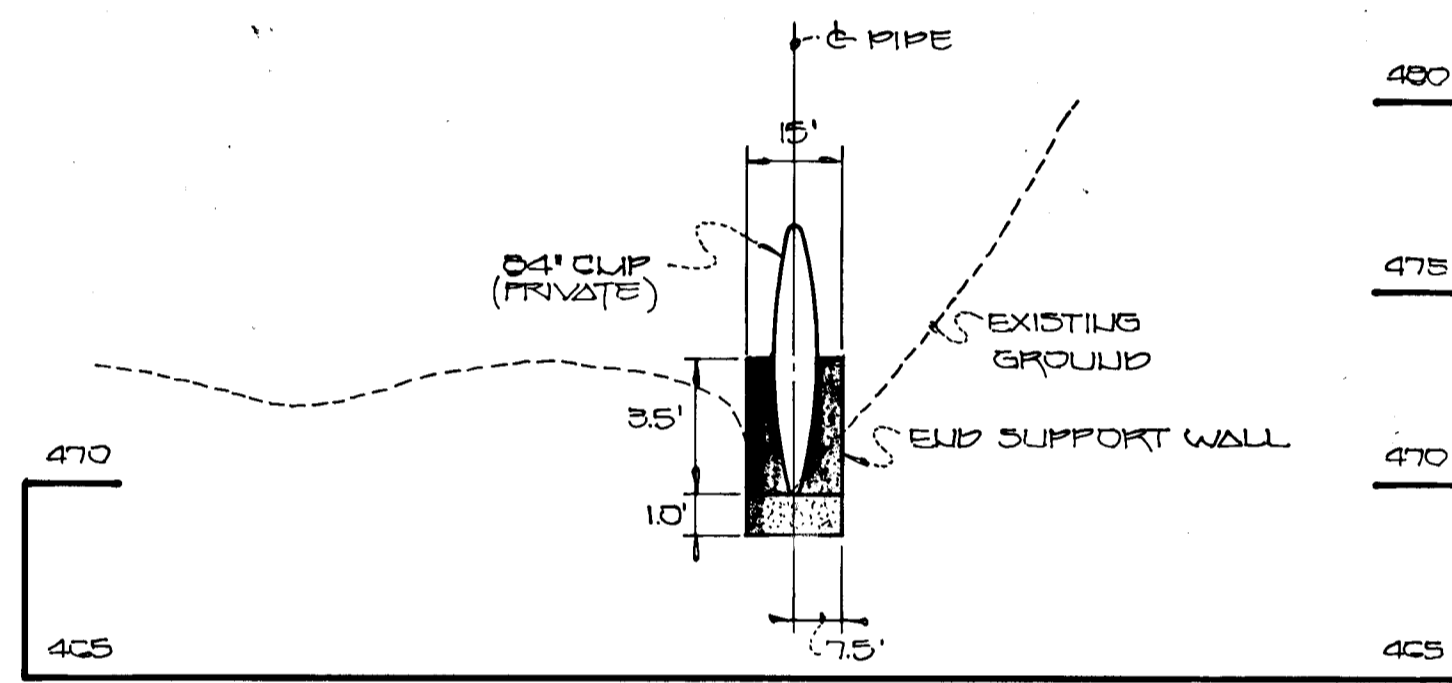
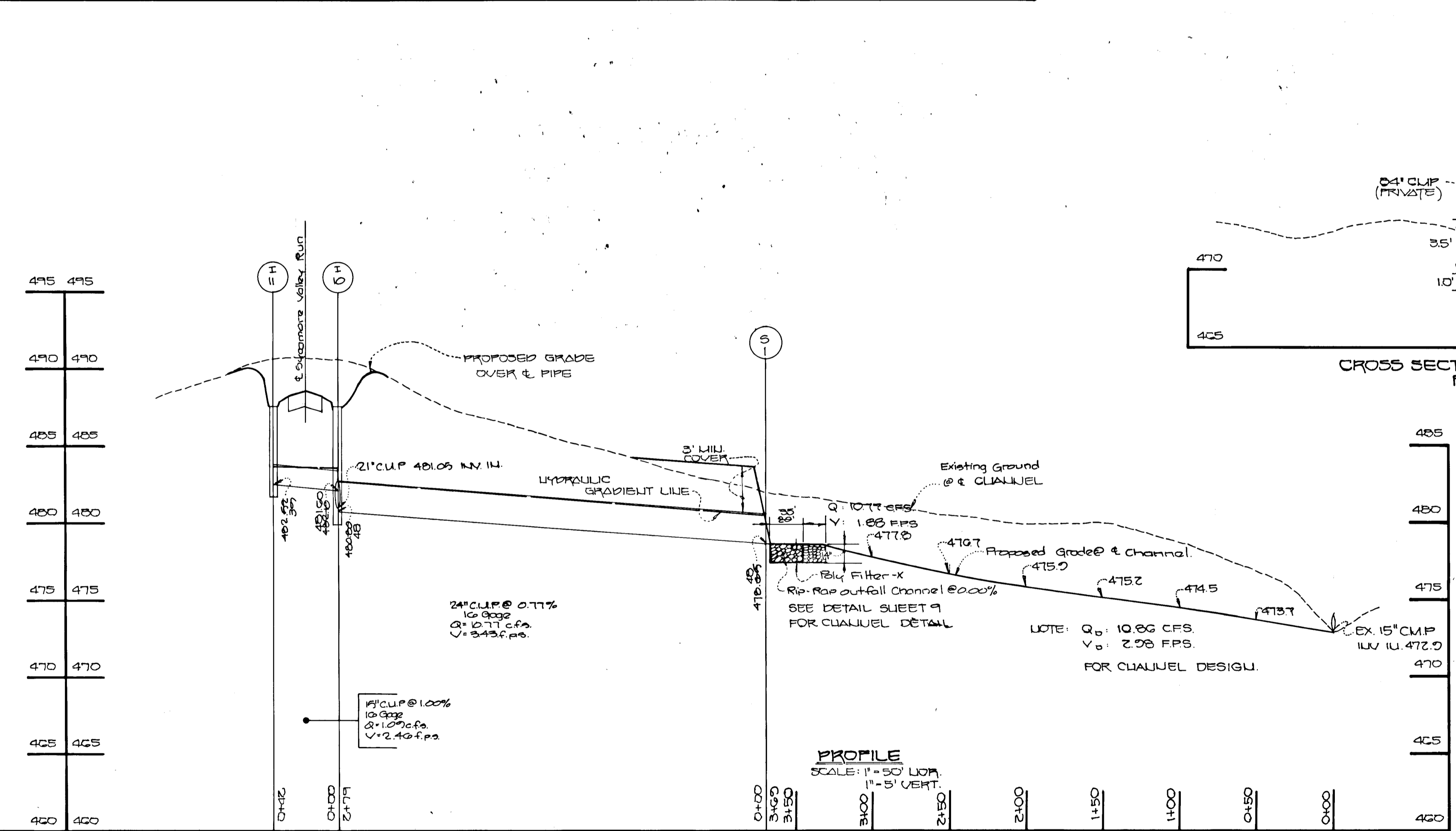
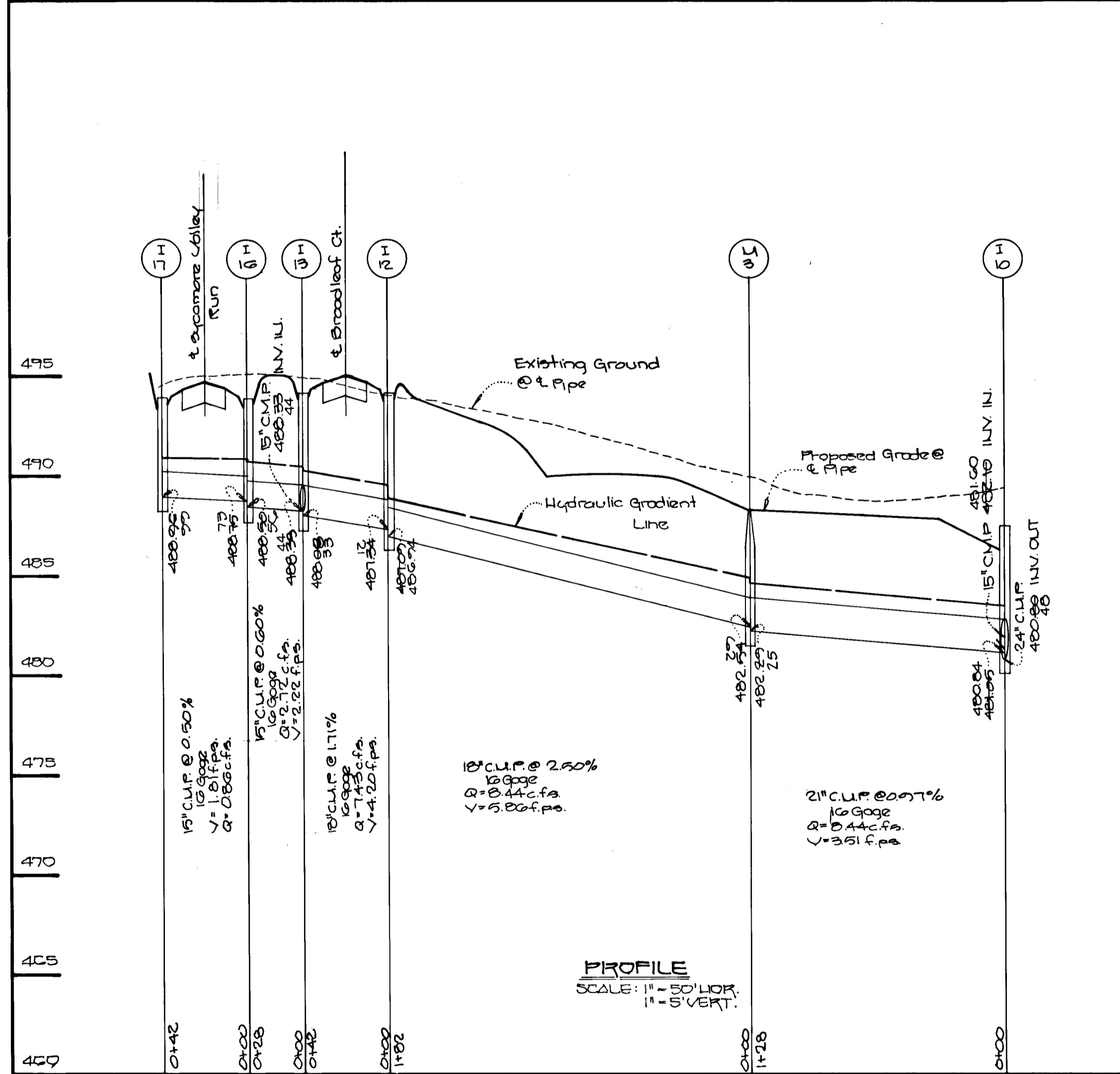
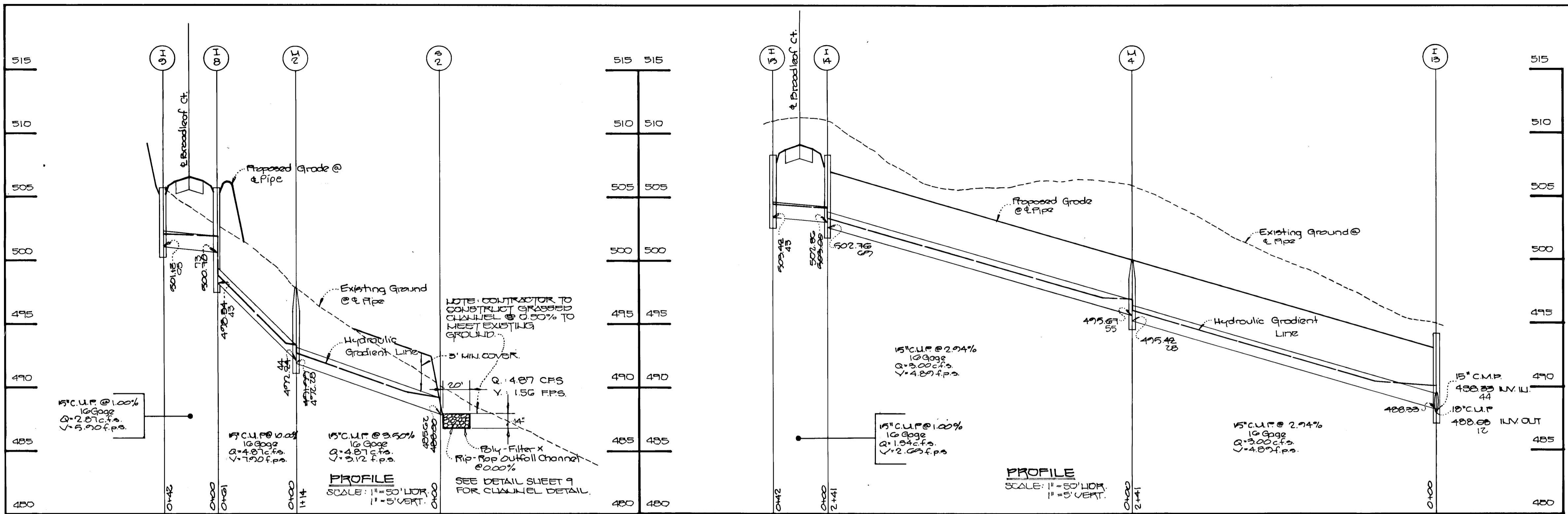


SEDIMENT CONTROL DETAILS
AUG
Drainage Area Map
SYCAMORE VALLEY
Lots 1-35
Fourth Election District
Howard County, Maryland
Scale: AS SHOWN, SEPTEMBER 14, 1989
AS-BUILT SHEET 8 OF 9

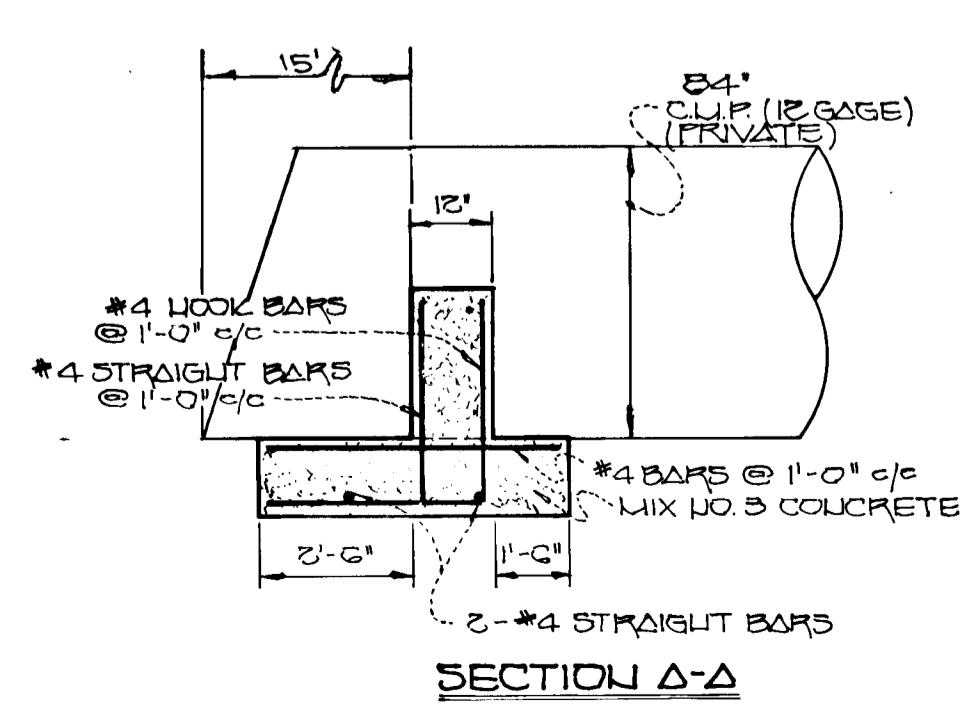
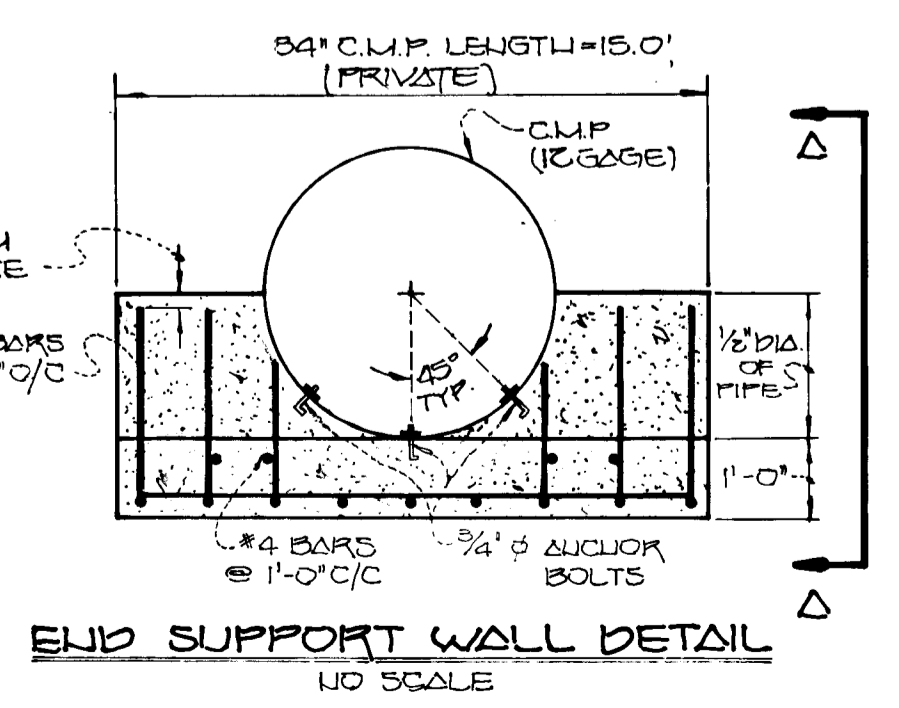
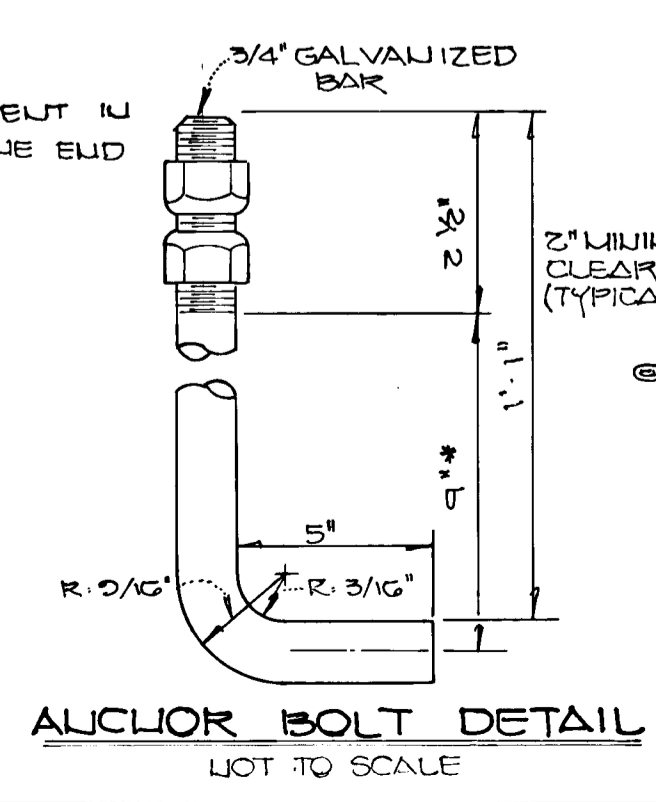
1564

APPROVED
 DEPARTMENT OF PUBLIC WORKS
Paul H. [Signature] 4/18/90
 CHIEF, LAND DEVELOPMENT DIVISION DATE
Francis W. [Signature] 3/20/90
 CHIEF, BUREAU OF HIGHWAYS DATE
William S. [Signature] 4-19-90
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
Mark V. [Signature] 7/21/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



CROSS SECTION @ END SUPPORT WALL FOR 24\"/>



NOTE: REINFORCING STEEL SHALL BE FREE FROM MUD, OIL AND OTHER NON-METALLIC COATINGS THAT ADVERSELY AFFECT BONDING CAPACITY. BARS SHALL BE SECURELY TIED TO PREVENT DISPLACEMENT DURING THE PLACEMENT OF CONCRETE.

FISHER, COLLINS AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 8588 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21045
 TELEPHONE: (301) 461-2855

OWNER AND DEVELOPER
 SYCAMORE VALLEY PARTNERSHIP
 70 LAUD DESIGN AND DEVELOPMENT, INC.
 8307 MAIN ST.
 ELLICOTT CITY, MARYLAND 21045



STORMDRAIN PROFILES
SYCAMORE VALLEY
 LOTS 1-35
 FOURTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: SEPTEMBER 14, 1989
 SHEET 9 OF 9

1564