

SUPERELEVATION	RUNOFF DATA			
STATION	TC (L)	EL. (L)	TC (R)	EL. (R)
27+85.08	288.00	287.90	288.04	
28+00.00	287.81	287.81	288.04	
28+15.00	287.79	287.69	288.44	
28+30.00	287.77	287.67	288.25	
28+45.00	287.82	287.72	288.05	
28+60.00	287.85	287.75	288.04	
28+75.00	288.08	287.85	288.02	
28+90.00	288.21	287.92	288.02	
29+05.00	288.45	288.00	288.16	
29+20.00	288.09	288.34	288.44	
29+35.00	288.22	288.49	288.59	
29+50.00	288.52	288.69	288.79	
29+65.00	288.74	288.85	288.95	
29+80.00	308.30	307.26	307.36	
29+95.00	308.45	307.92	307.62	
30+10.00	308.62	307.88	307.98	

Reviewed for: Howard S.C.D.
 Name: *John W. ...*
 Signature: *John W. ...*
 Date: 5-20-87
 U.S. Soil Conservation Service
 THE DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.



PLAN
 SCALE: 1"=50'

DEVELOPER'S/BUILDER'S CERTIFICATE

"I 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 Dept. 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 of their authorized agents, as are deemed necessary."

Richard Arzuel
 Signature of Developer/Builder
 11/24/86
 Date

STREET TREE TABLE

SYM	SIZE	QUANT	REMARKS
+	Shade Trees 3" to 6" DBH, Maples to be specified by others	2 1/2"	182

STREET TREE NOTES:
 1. Contractor shall verify location of underground utilities prior to digging.
 2. Final location of trees may be adjusted slightly to accommodate field conditions.
 3. Planting procedure shall comply with "Landscape Specs. for Baltimore-Washington Metropolitan Area."
 4. Substitution of the approved species may be permitted provided that the planting is in accordance with the street tree and landscape requirements as specified in Section 16.131 of the Ho. Co. Subdivision Regulations.

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.

G. Nelson Clark
 Signature of Engineer
 11-27-86
 Date

GENERAL NOTES

- All storm drain & paving shall be constructed in accordance with the latest edition and specifications of Howard County & MD SHA.
- Types of storm drainage refer to the Standard Details of Ho. Co. & MD SHA.
- Trench compaction for storm drains within road or street right of way limits shall be in accordance with "Ho. Co. Design Manual, Vol. III, Std. G-2.01."
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elevation of mains by digging test pits, by hand, at all utility crossings, well in advance of construction.
- All utility companies shall be notified 48 hrs. in advance of construction.
- All traffic services, parking and signing to be done in accordance with the "Manual of Uniform Traffic Control Devices," 1978 Edition.
- Sag and Crest Vertical Curves were designed in accordance with "Ho. Co. Design Manual," Vol. III.
- Provide Conc. Sidewalk Ramps Ho. Co. Std. Type A R-401 where shown in plan.
- Design Speed: See table Std. 7. Zoning: RSA-8
- The contractor or developer shall contact the Construction Inspection (Survey) Division 24 hrs. in advance of commencement of work Ph. 792-7272.
- Street lights to be provided at the following locations:
 - 250 Watt Mercury Vapor Lamp Pendant, Mounted fixtures on a 30 Ft. Galv. Steel Pole @ Intersections of Village Drive & Old Stockbridge Drive
 - 250 Watt Mercury Vapor Lamp Pendant, Mounted fixtures on a 25 Ft. Galv. Steel Pole: Sta's: 5+00, 9+20.33, 13+47.22, 17+46.28, 22+00 U. Side.
- See Sta's 8 and 9 for Benchmarks and references.

7-30-87 Revise sidewalk between 26+00 & 28+15; add guardrail & note
 DATE REVISION

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. ...
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
John W. ...
 Chief, Division of Land Development & Zoning Administration
 5-20-87
 Date

CLARK · FINEFROCK & SACKETT
 ENGINEERS · PLANNERS · SURVEYORS

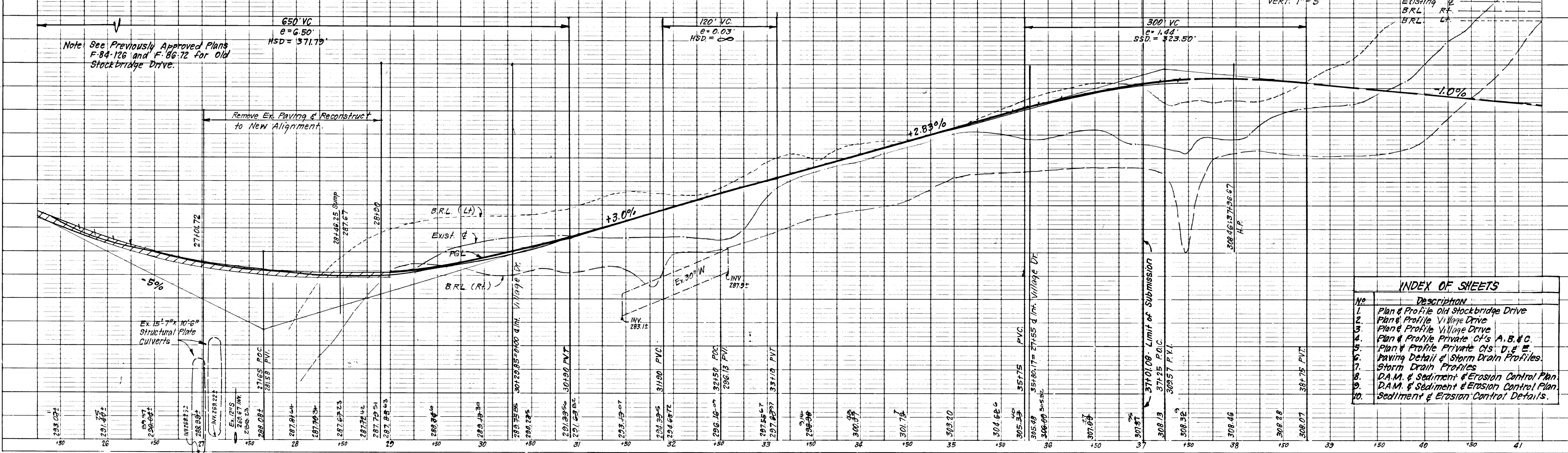
11316 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED	JLS	ROAD CONSTRUCTION PLANS OLD STOCKBRIDGE DRIVE	SCALE As Shown
DRAWN	KIW	WOODLAND VILLAGE SECTION THREE 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 1 OF 10
CHECKED	JLS		JOB NO. 85-148
DATE	11-13-86	FOR: CHATEAU WOODLAND, INC. 8100 Wooded Glen Ct. Ellicott City, Md. 21043	FILE NO. 85-148-D

CENTERLINE CURVE DATA

STATIONS	RADIUS	Δ	ARC	TAN	CHORD & BEARING
PC 27+01.72 to PT 28+16.75	637.00'	11° 14' 45"	125.03'	62.72'	124.83' S83° 03' 52" W
PC 28+16.75 to PT 37+01.08	637.00'	66° 30' 00"	739.33'	417.64'	698.53' N69° 19' 30" W

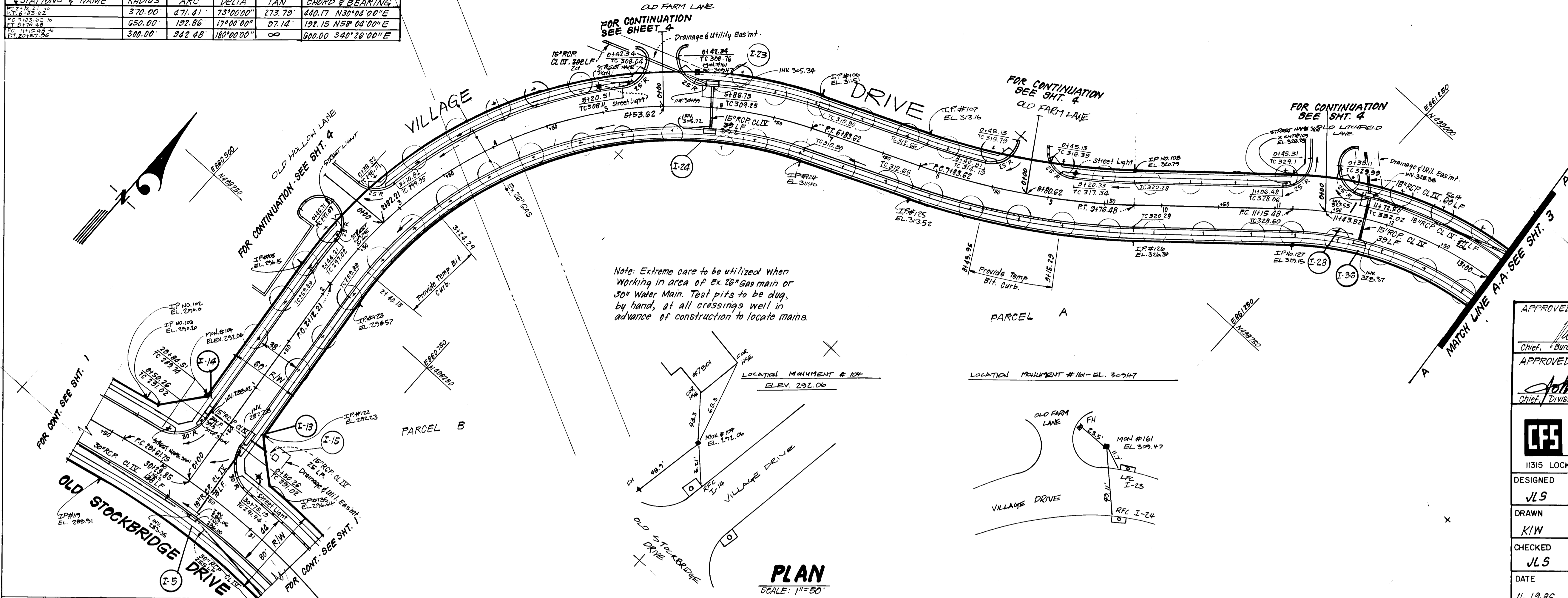
PROFILE - OLD STOCKBRIDGE DRIVE



INDEX OF SHEETS

No.	Description
1.	Plan & Profile Old Stockbridge Drive
2.	Plan & Profile Village Drive
3.	Plan & Profile Village Drive
4.	Plan & Profile Private Cts. A, B, & C
5.	Plan & Profile Private Cts. D, E, & F
6.	Paving Detail & Storm Drain Profiles
7.	Storm Drain Profiles
8.	D.A.M. & Sediment & Erosion Control Plan
9.	D.A.M. & Sediment & Erosion Control Plan
10.	Sediment & Erosion Control Details

CENTERLINE CURVE DATA				
STATIONS & NAME	RADIUS	ARC	DELTA	TAN CHORD & BEARING
ST. 15+00 TO 15+25	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 15+25 TO 15+50	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 15+50 TO 15+75	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 15+75 TO 16+00	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 16+00 TO 16+25	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 16+25 TO 16+50	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 16+50 TO 16+75	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 16+75 TO 17+00	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 17+00 TO 17+25	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 17+25 TO 17+50	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 17+50 TO 17+75	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 17+75 TO 18+00	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 18+00 TO 18+25	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 18+25 TO 18+50	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 18+50 TO 18+75	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 18+75 TO 19+00	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 19+00 TO 19+25	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 19+25 TO 19+50	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 19+50 TO 19+75	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E
ST. 19+75 TO 20+00	370.00	471.41	73°00'00"	273.79' 440.17' N30°04'00"E



PLAN
SCALE: 1"=50'

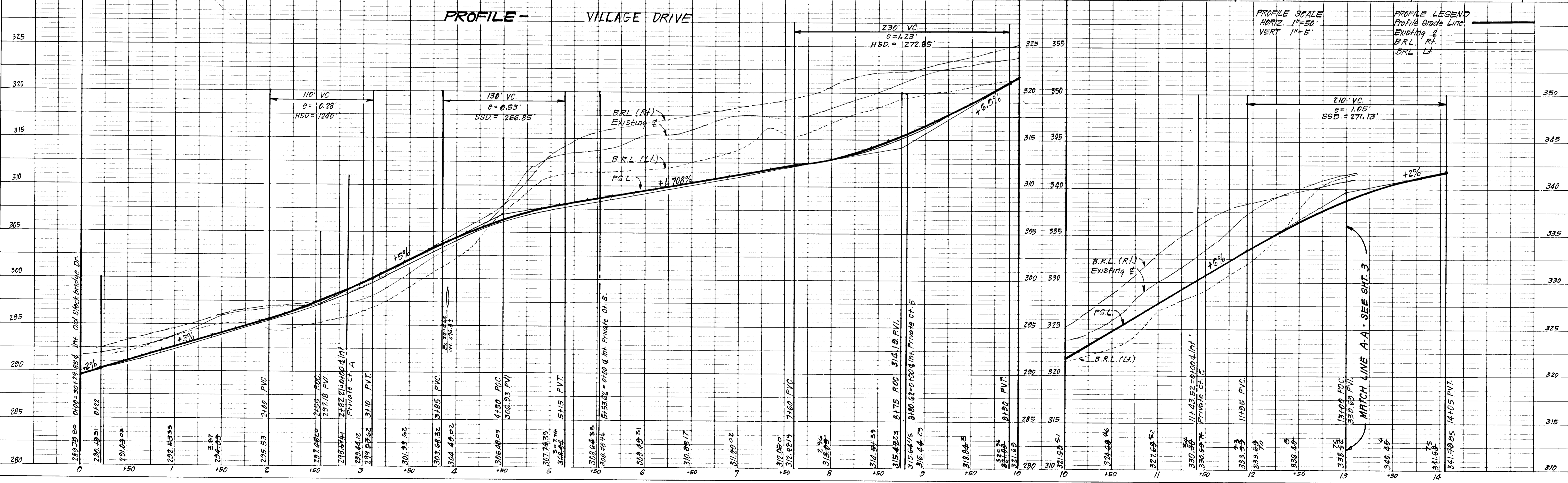
APPROVED: DEPARTMENT OF PUBLIC WORKS.
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING.
 Chief, Division of Land Development & Zoning Administration.

CLARK · FINEFROCK & SACKETT INC.
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED: JLS
 DRAWN: KIN
 CHECKED: JLS
 DATE: 11-19-86

ROAD CONSTRUCTION PLANS
 VILLAGE DRIVE
WOODLAND VILLAGE
 SECTION THREE
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 FOR: CHATEAU WOODLAND, INC.
 8100 Wooded Glen Ct.
 Ellicott City, Md. 21043

SCALE: As Shown
 DRAWING: 2 OF 10
 JOB NO.: 85-148
 FILE NO.: 85-148-D



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

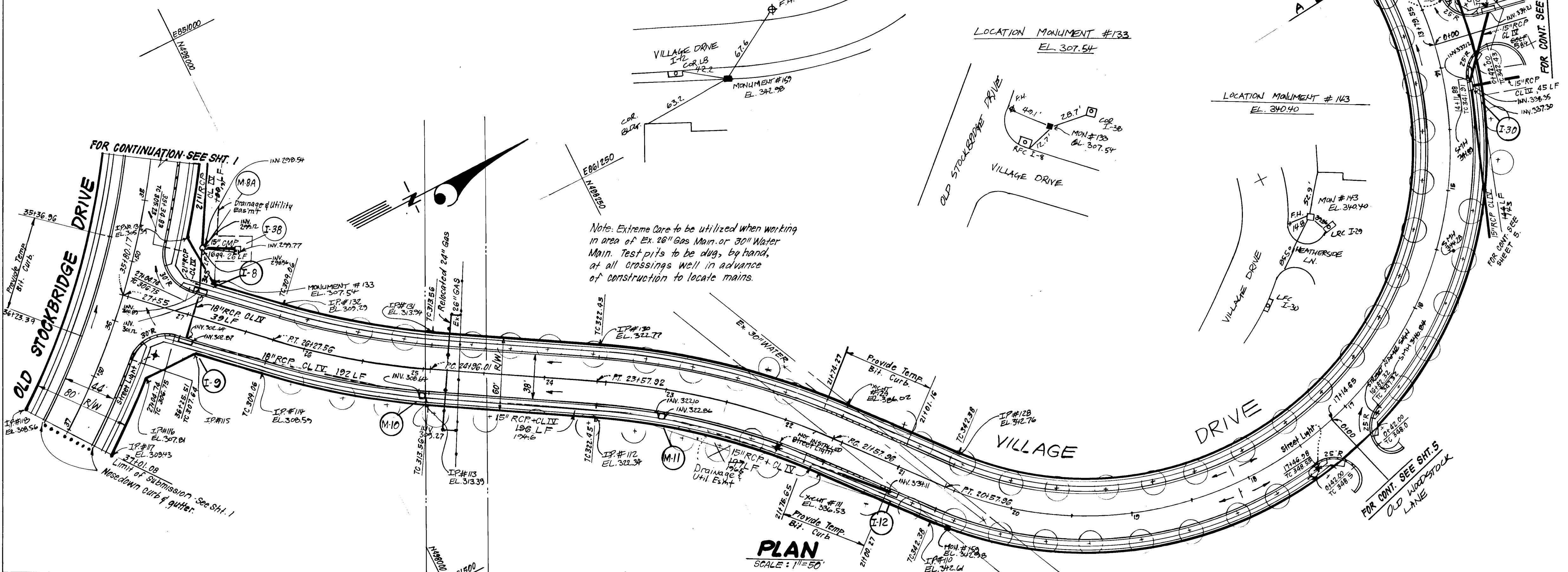
PROFILE LEGEND
 Profile Grade Line
 Existing &
 B.R.L. RT
 B.R.L. LT

STATIONS & NAME	RADIUS	ARC	DELTA	TAN	CHORD & BEARING
PC 271.33	300.00	242.48	180°00'00"	∞	600.00 S40°26'00" E
PT 271.33	603.00	129.96	19°00'00"	100.91	129.05 S40°04'00" W
PT 271.33	603.00	131.55	12°30'00"	66.04	131.29 S36°49'00" W

LOCATION MONUMENT #159
EL. 342.98

LOCATION MONUMENT #133
EL. 307.54

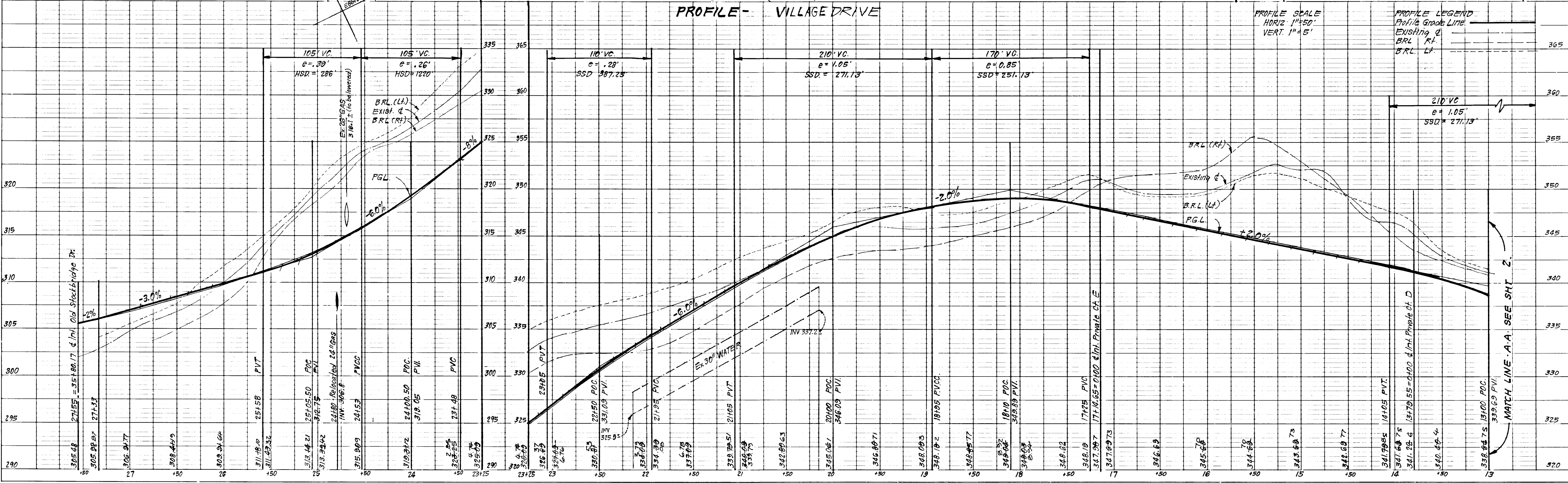
LOCATION MONUMENT #143
EL. 340.40



Note: Extreme Care to be utilized when working in area of Ex. 26" Gas Main or 30" Water Main. Test pits to be dug by hand, at all crossings well in advance of construction to locate mains.

PLAN
SCALE: 1"=50'

PROFILE - VILLAGE DRIVE



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

PROFILE LEGEND
Profile Grade Line
Existing G.
BRL (RT)
BRL (LT)
P.G.L.

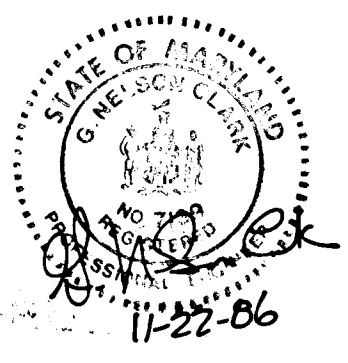
APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] 5-25-87
Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
[Signature] 5-20-87
Chief, Division of Land Development & Zoning Administration

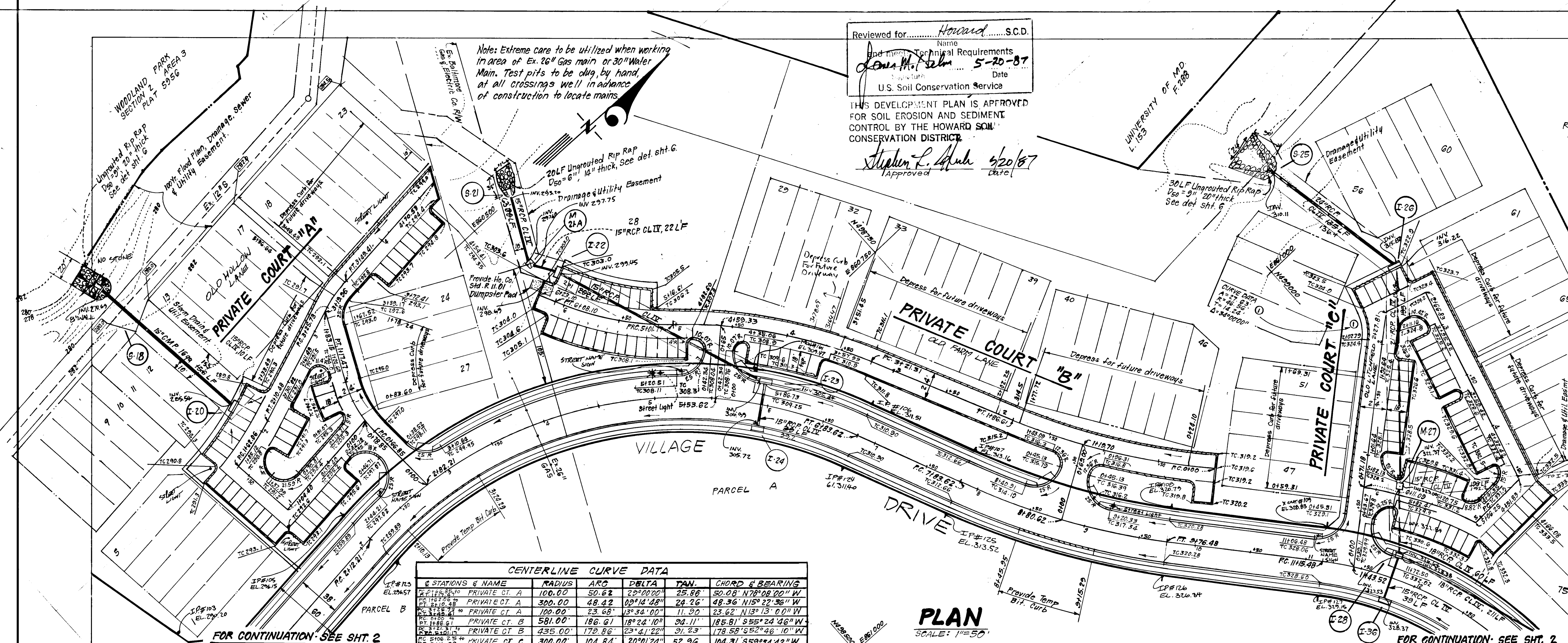
CLARK · FINEFROCK & SACKETT INC.
ENGINEERS · PLANNERS · SURVEYORS
1135 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED JLS	ROAD CONSTRUCTION PLANS VILLAGE DRIVE	SCALE As Shown
DRAWN KIW		DRAWING 3 OF 10
CHECKED JLS		JOB NO. 85-148
DATE 11-13-86		FILE NO. 85-148-D

WOODLAND VILLAGE
SECTION THREE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
FOR: CHATEAU WOODLAND, INC
8100 Wooded Glen Ct.
Ellicott City, Md. 21043



1266



CENTERLINE CURVE DATA

STATIONS & NAME	RADIUS	ARC	DELTA	TAN.	CHORD & BEARING
PC 1185.30** PRIVATE CT. A	100.00	50.62	23°00'00"	25.86	50.00 N78°08'00" W
PT 1216.48** PRIVATE CT. A	100.00	48.42	19°14'28"	22.26	48.36 N15°23'38" W
PC 1216.48** PRIVATE CT. A	100.00	33.68	13°34'10"	11.90	33.62 N13°15'00" W
PC 1216.48** PRIVATE CT. B	581.00	186.61	18°41'10"	96.11	185.81 S55°24'40" W
PC 1216.48** PRIVATE CT. B	435.00	178.86	23°41'22"	91.23	178.58 S52°48'10" W
PC 1216.48** PRIVATE CT. C	300.00	104.84	20°01'24"	52.96	104.31 S59°14'42" W
PC 1216.48** PRIVATE CT. B	255.00	106.93	24°01'34"	54.26	106.15 S52°56'16" W

PLAN
 SCALE: 1"=50'

DEVELOPER'S/BUILDER'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 Dept. 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/Builder: Ronald Azrael
 Date: 11/24/86

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: G. Nelson Clark
 Date: 11-22-86

APPROVED: DEPARTMENT OF PUBLIC WORKS.
 Chief, Bureau of Engineering: William H. ... 5-25-87
 Date: 5-25-87

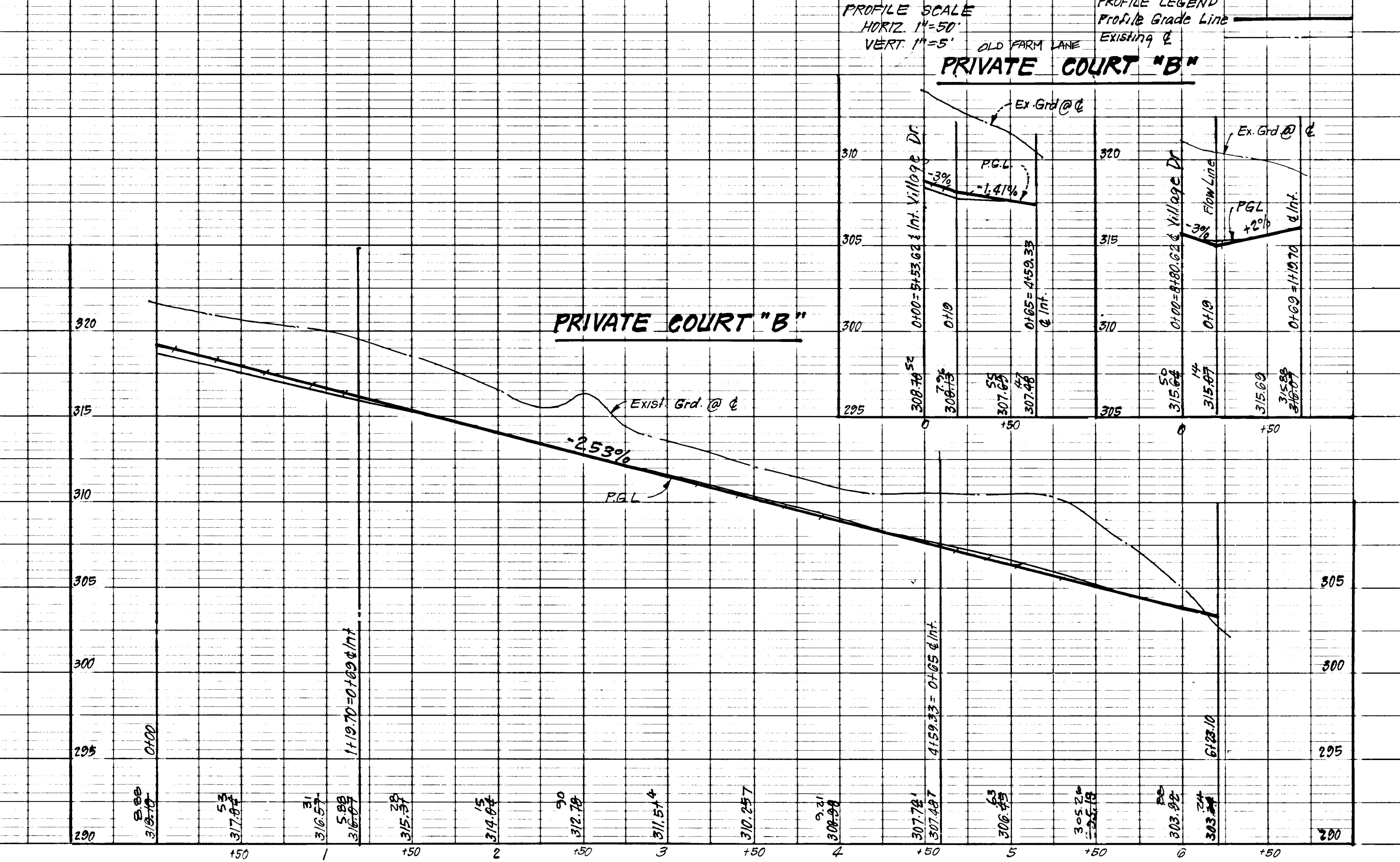
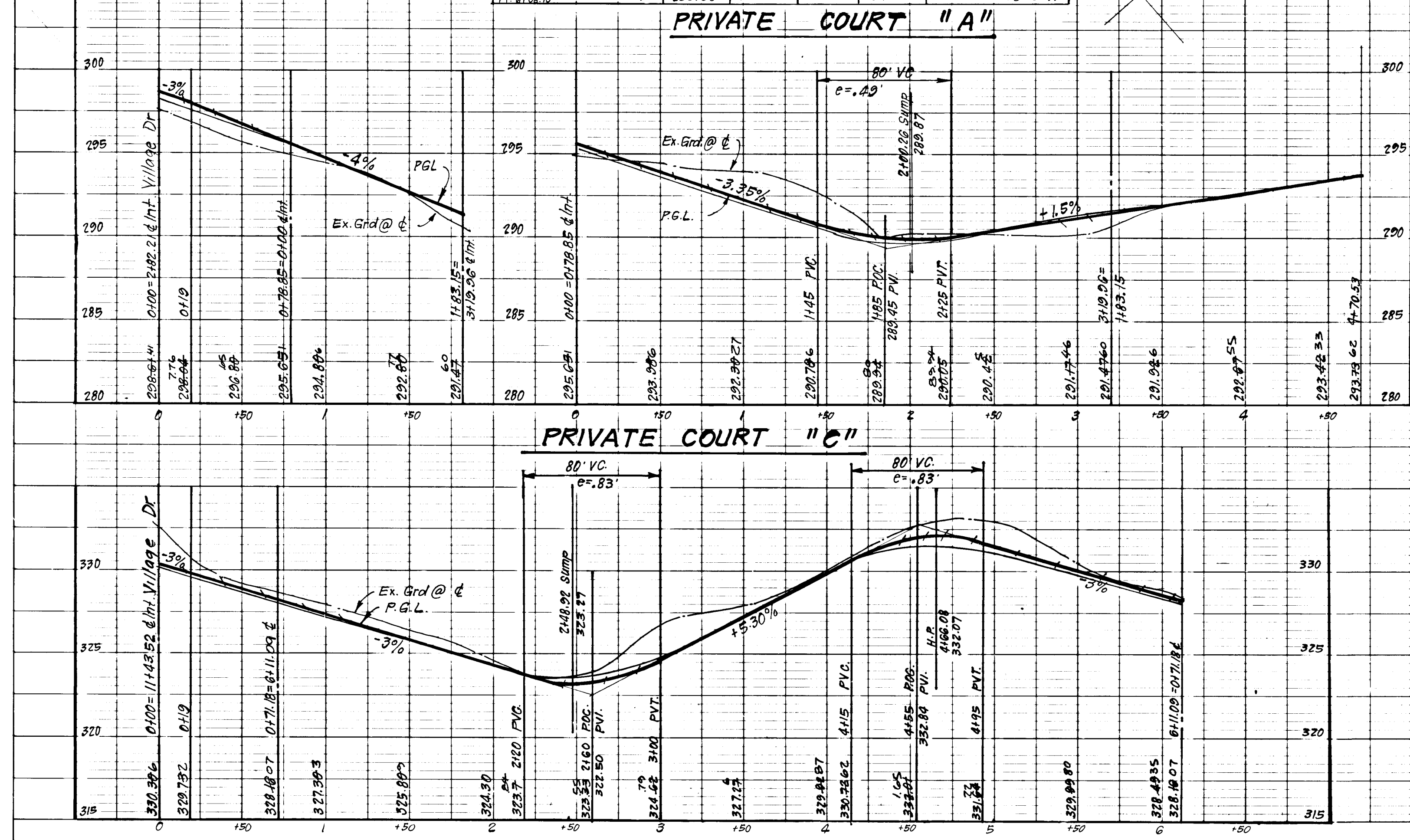
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING.
 Chief, Division of Land Development & Zoning Administration: John Muschman
 Date: 5-28-87

CLARK · FINEFROCK & SACKETT
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED: JLS
 DRAWN: JLS
 CHECKED: JLS
 DATE: 11-19-86

SCALE: As Shown
 DRAWING: 4 OF 10
 JOB NO.: 85-148
 FILE NO.: 85-148-D

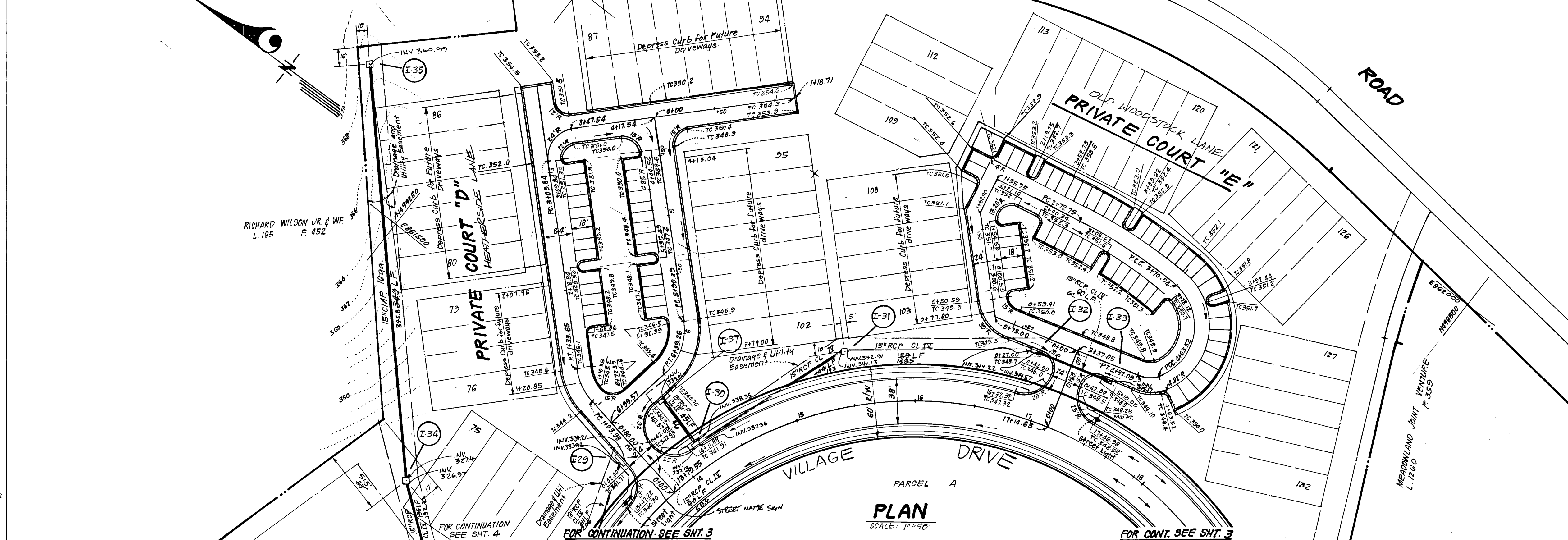
FOR: CHATEAU WOODLAND, INC.
 8100 Wooded Glen Ct.
 Ellicott City, Md. 21043



AS-BUILT DEL. B.P. 1 F-87-87

CENTERLINE CURVE DATA					
STATIONS & NAME	RADIUS	ARC	DELTA	TAN	CHORD & BEARING
PC 11+00.00 TO PT 11+50.00 PRIVATE CT. D	50.00	29.67	34°00'00"	15.29	29.24 N27°00'00"E
PT 11+50.00 TO PC 12+00.00 PRIVATE CT. D	50.00	48.87	56°00'00"	26.58	46.95 S72°00'00"W
PC 12+00.00 TO PT 12+50.00 PRIVATE CT. E	415.00	97.29	13°25'55"	48.87	97.07 S04°17'02"E
PT 12+50.00 TO PC 13+00.00 PRIVATE CT. E	45.00	95.48	110°01'04"	76.42	77.55 S01°56'27"W
PC 13+00.00 TO PT 13+50.00 PRIVATE CT. E	25.00	18.57	42°33'01"	9.74	18.14 N37°16'31"W
PT 13+50.00 TO PC 14+00.00 PRIVATE CT. D	24.00	37.70	30°00'00"	24.00	33.94 N01°00'00"W

Note: Extreme care to be utilized when working in area of Ex. 20" Gas main or 30" Water Main. Test pits to be dug, by hand, at all crossings well in advance of construction to locate mains.



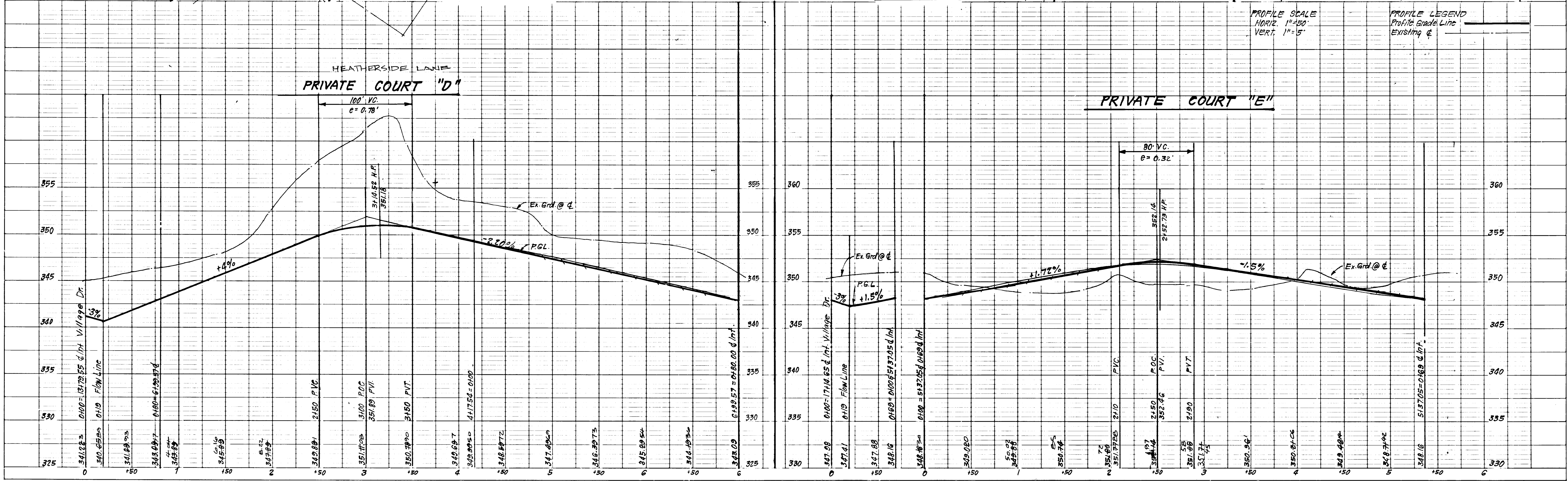
APPROVED: DEPARTMENT OF PUBLIC WORKS
Michael J. ... 5-15-97
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
John W. Muschman 5-20-97
 Chief, Division of Land Development & Zoning Administration

CLARK · FINEFROCK & SACKETT
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

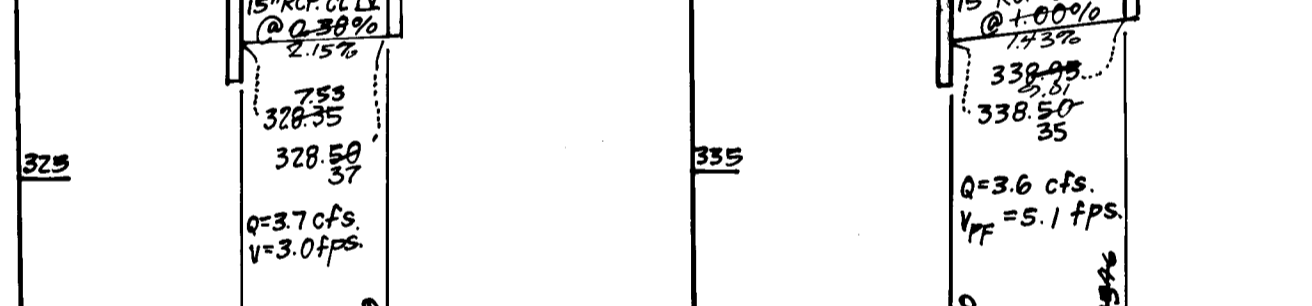
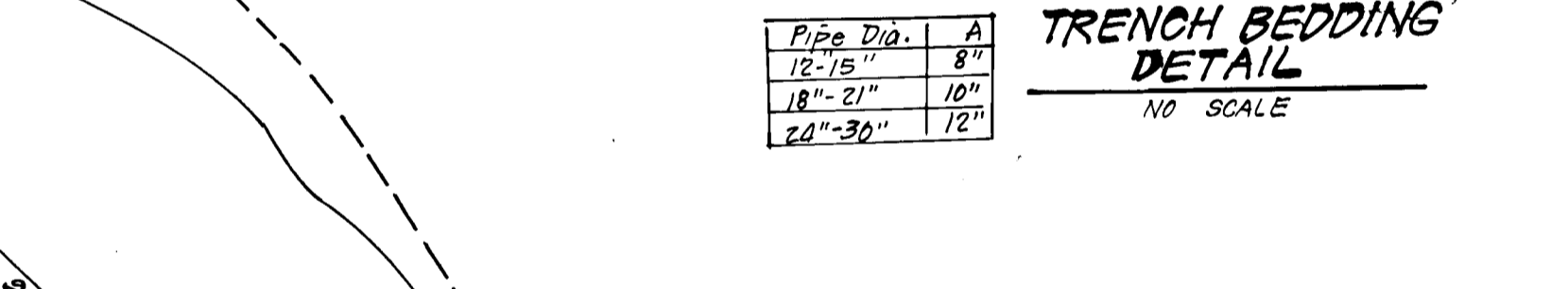
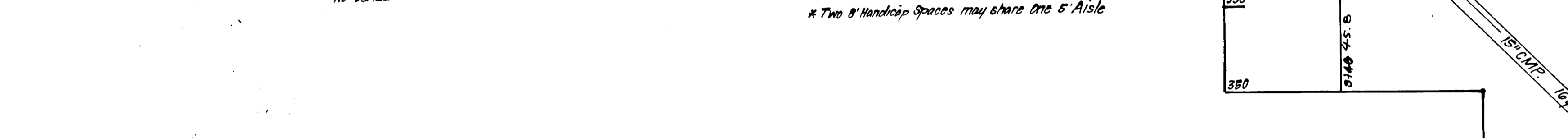
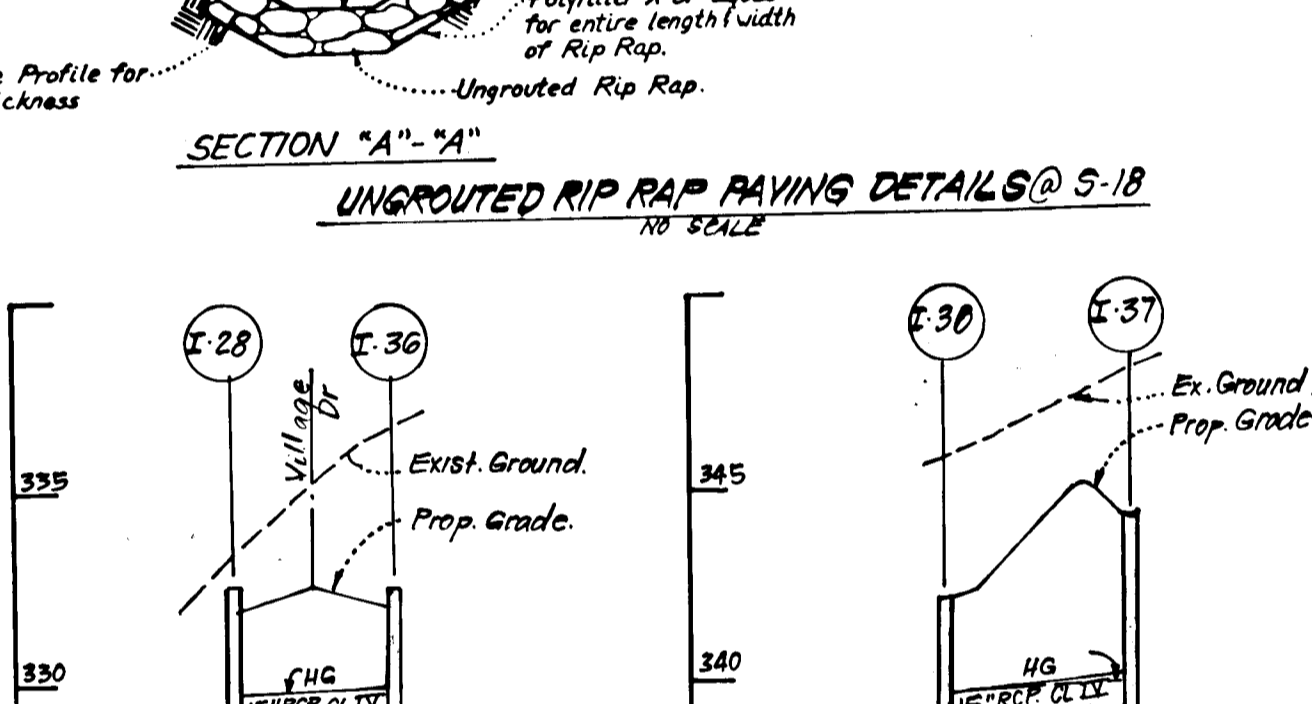
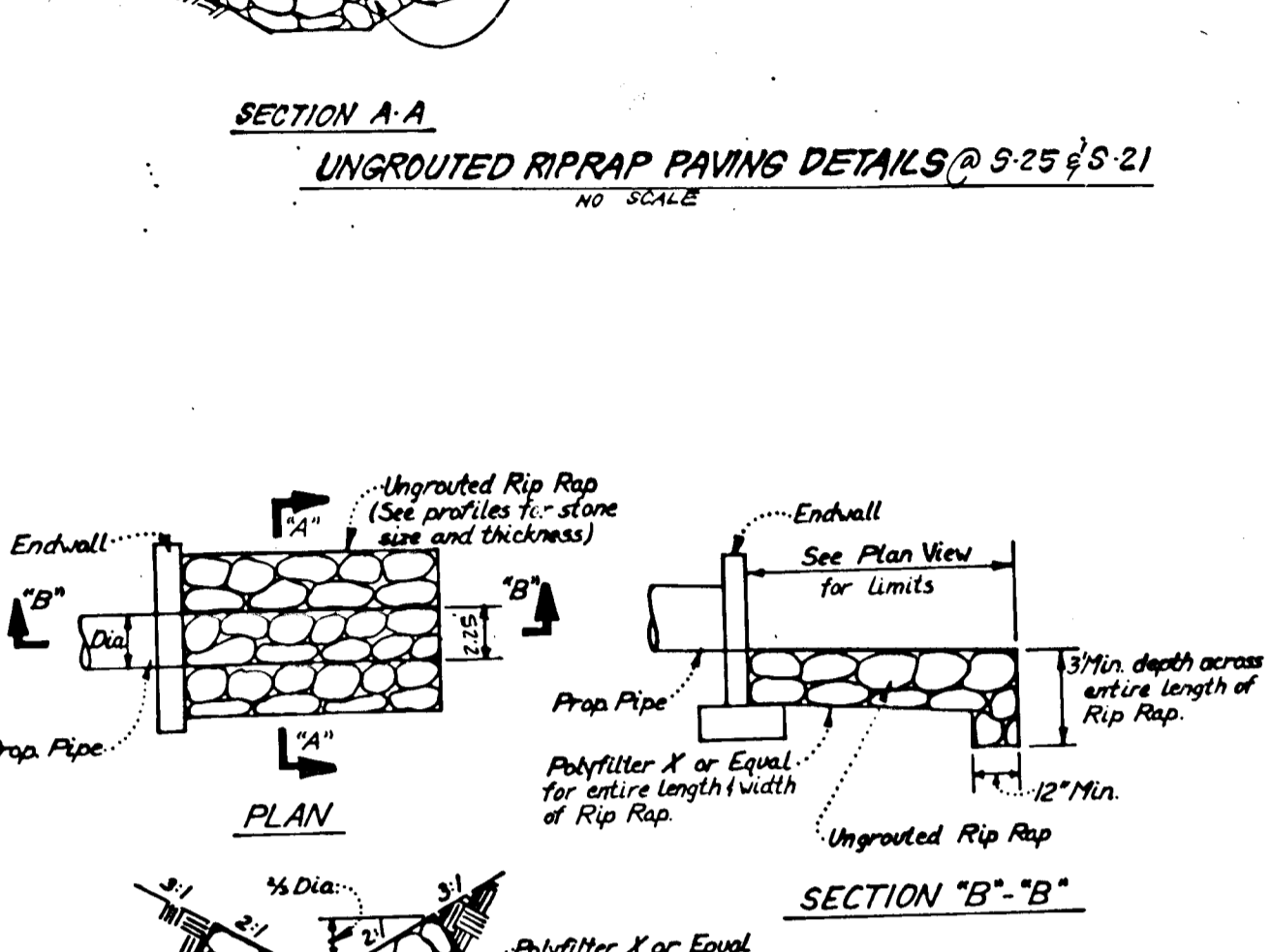
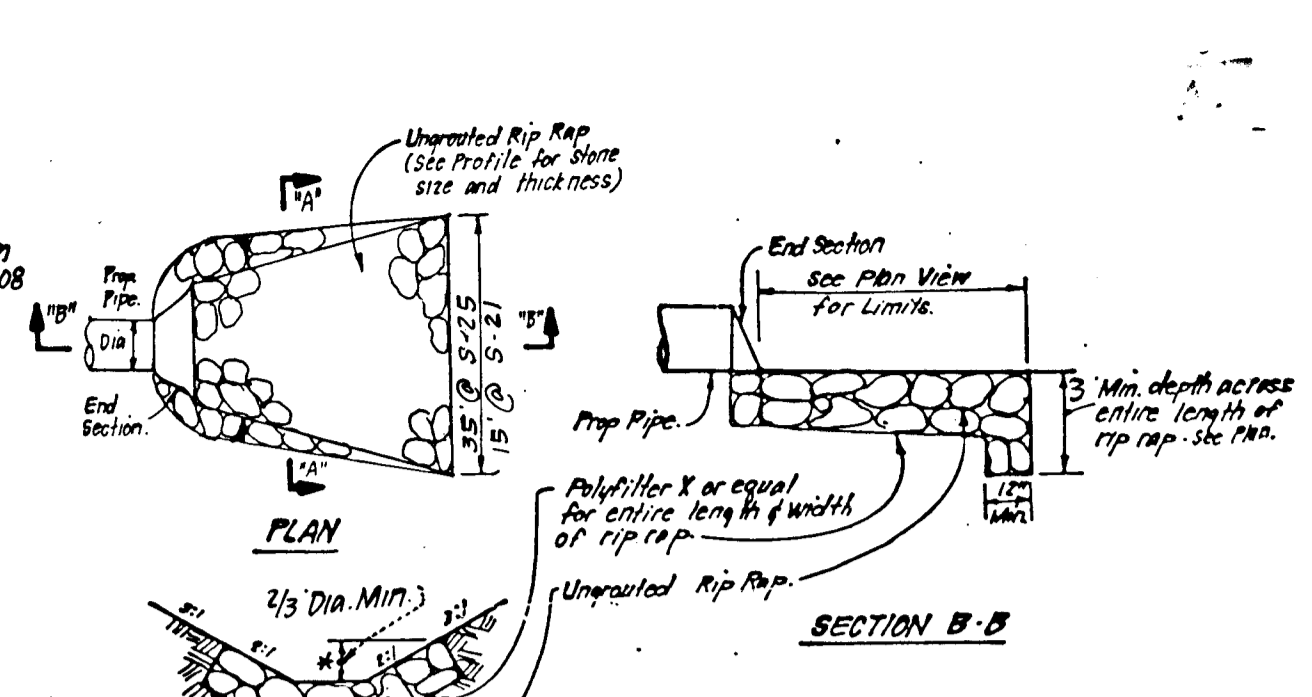
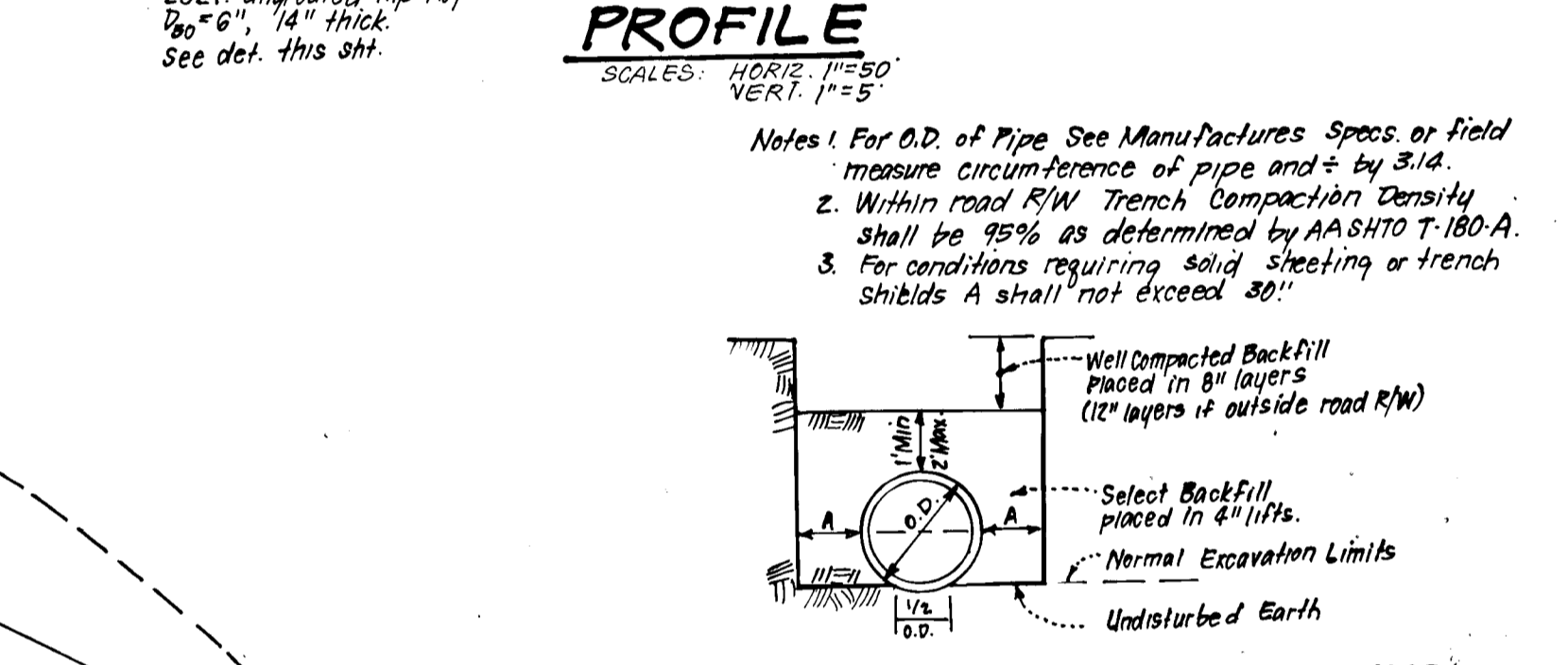
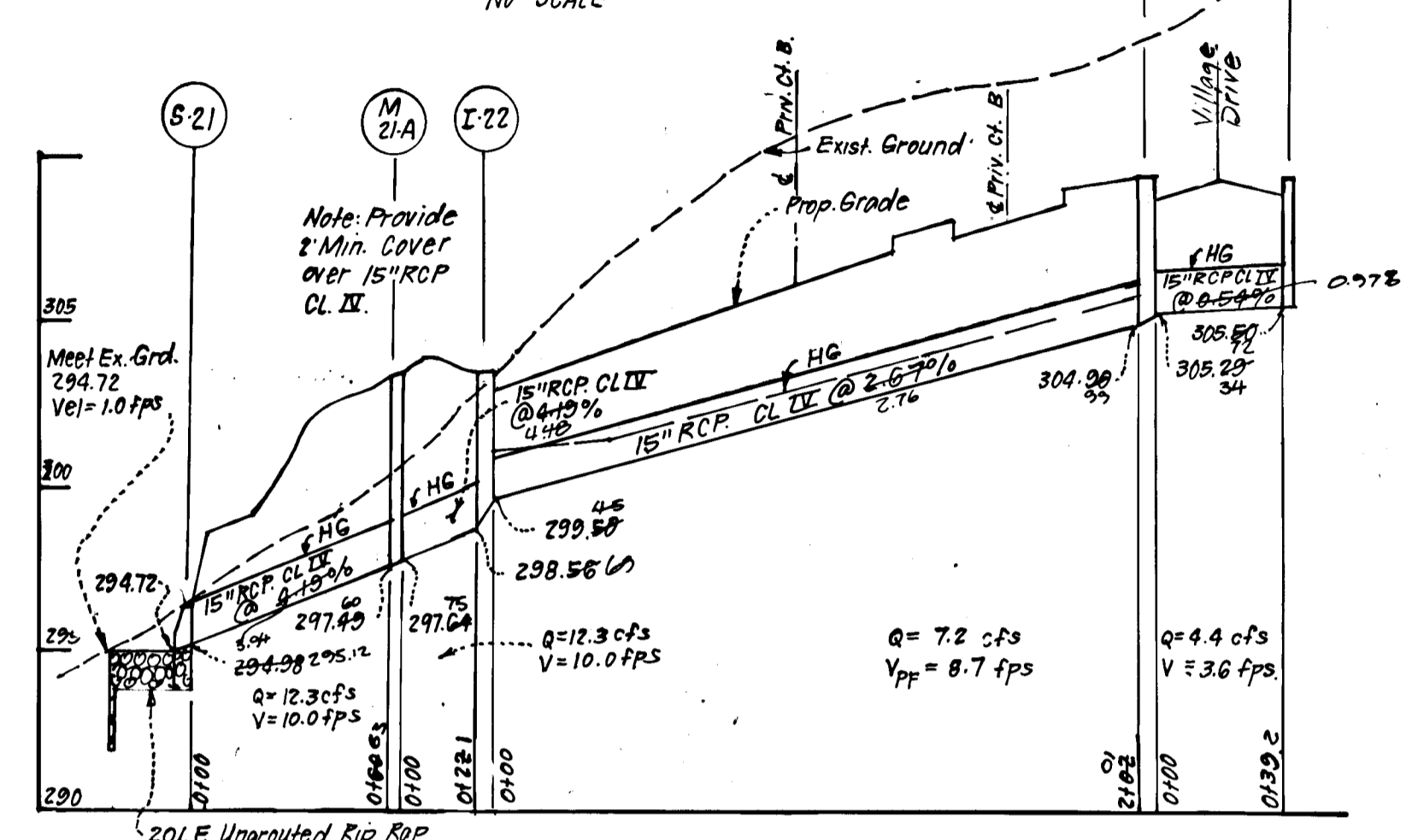
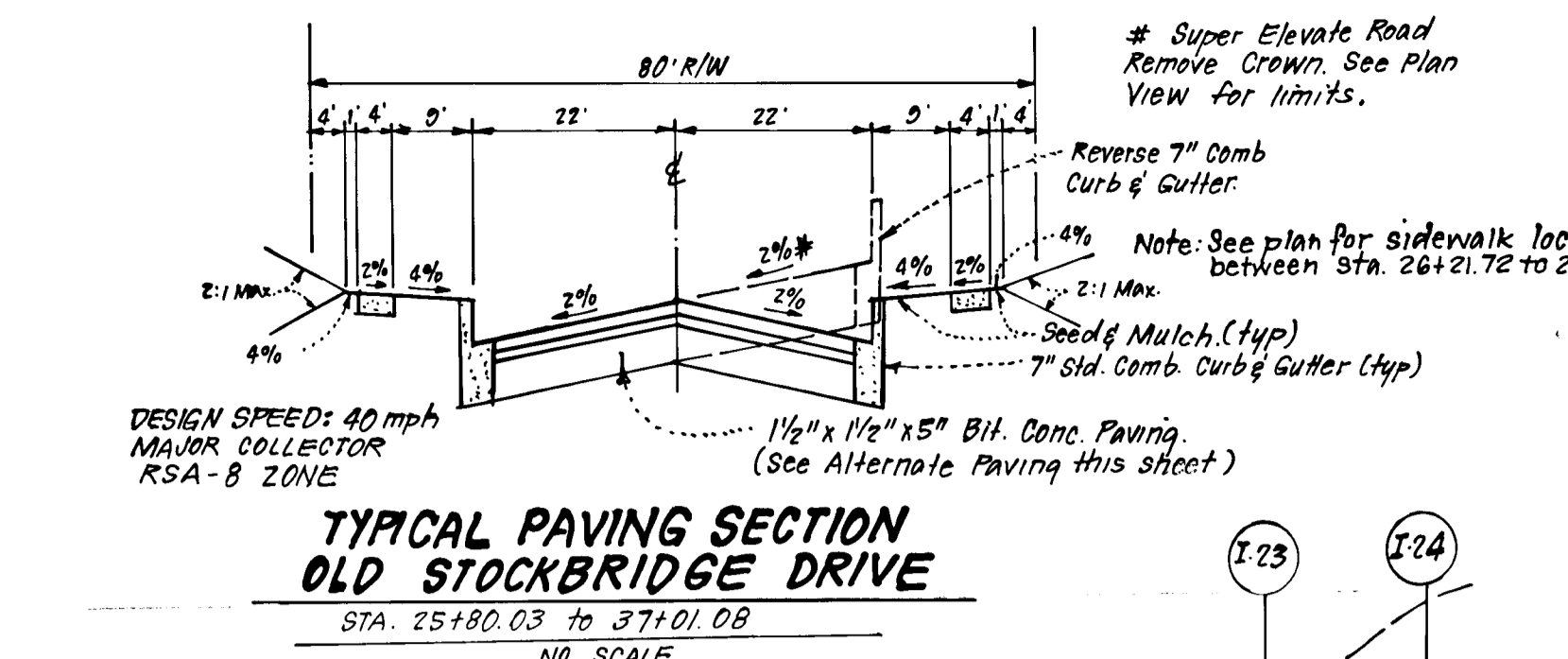
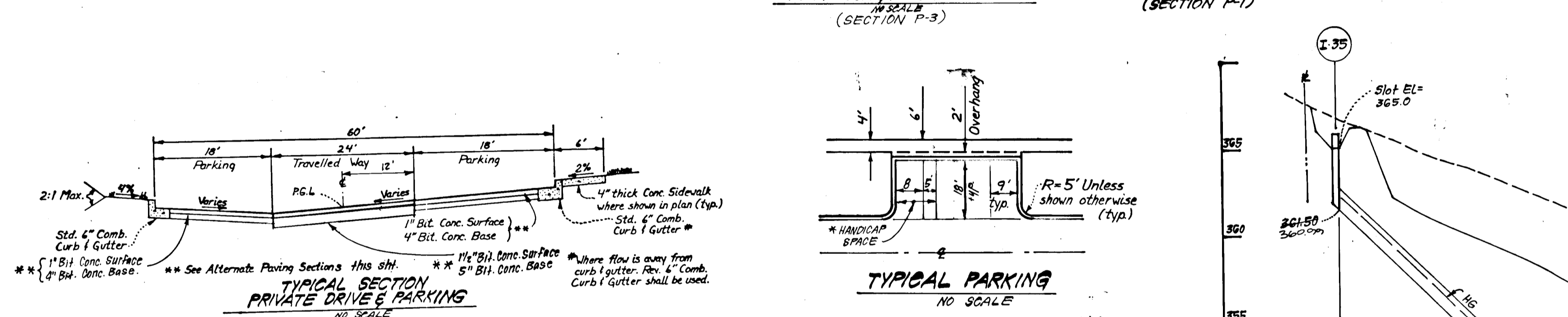
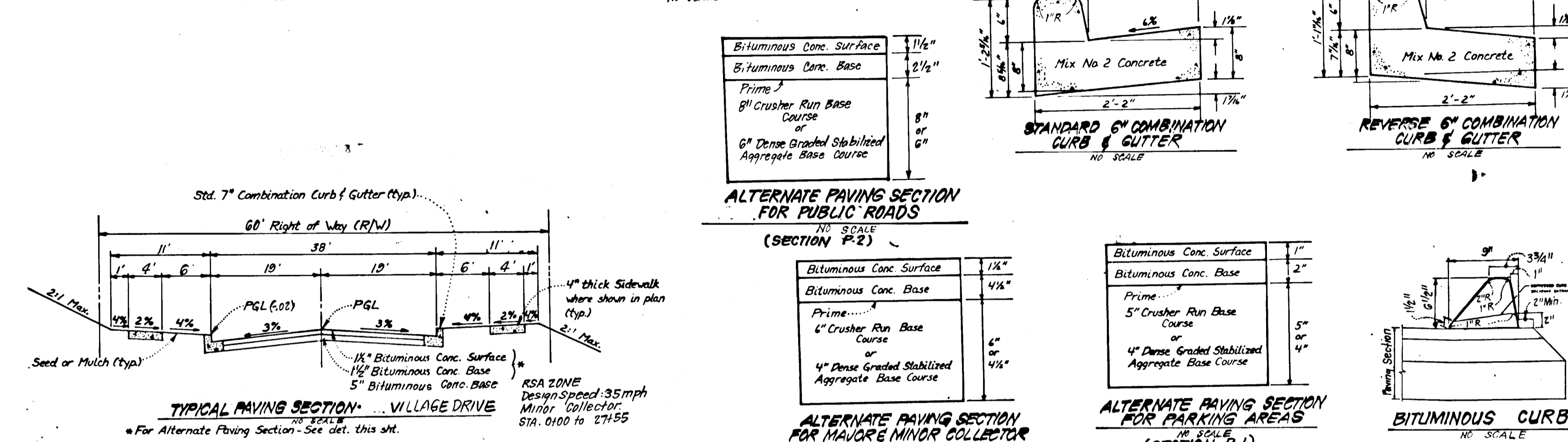
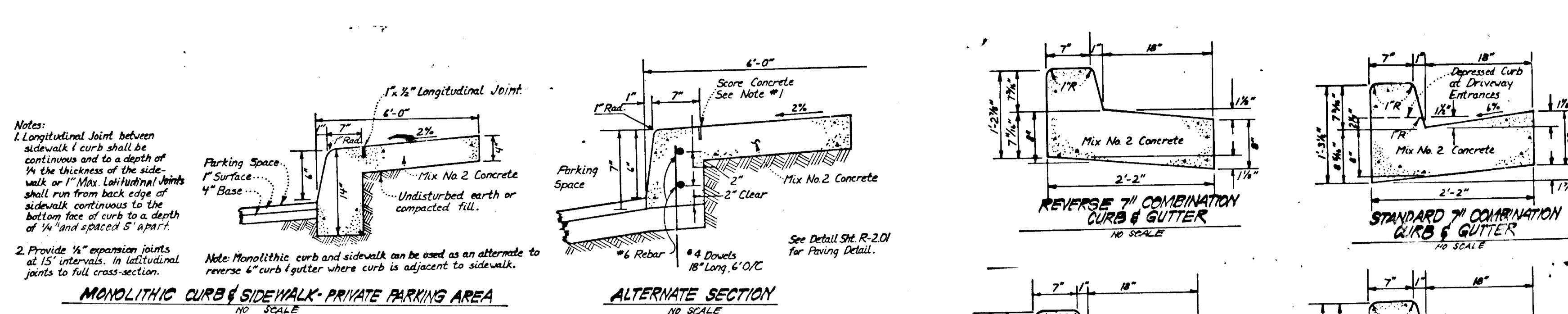
DESIGNED: JLS
 DRAWN: KTW
 CHECKED: JLS
 DATE: 11-19-86

SCALE: As Shown
 DRAWING: 5 OF 10
 JOB NO.: 85-148
 FILE NO.: 85-148-D

WOODLAND VILLAGE
 SECTION THREE
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 FOR: CHATEAU WOODLAND, INC.
 8100 Wooded Glen Ct.
 Ellicott City, Md. 21043

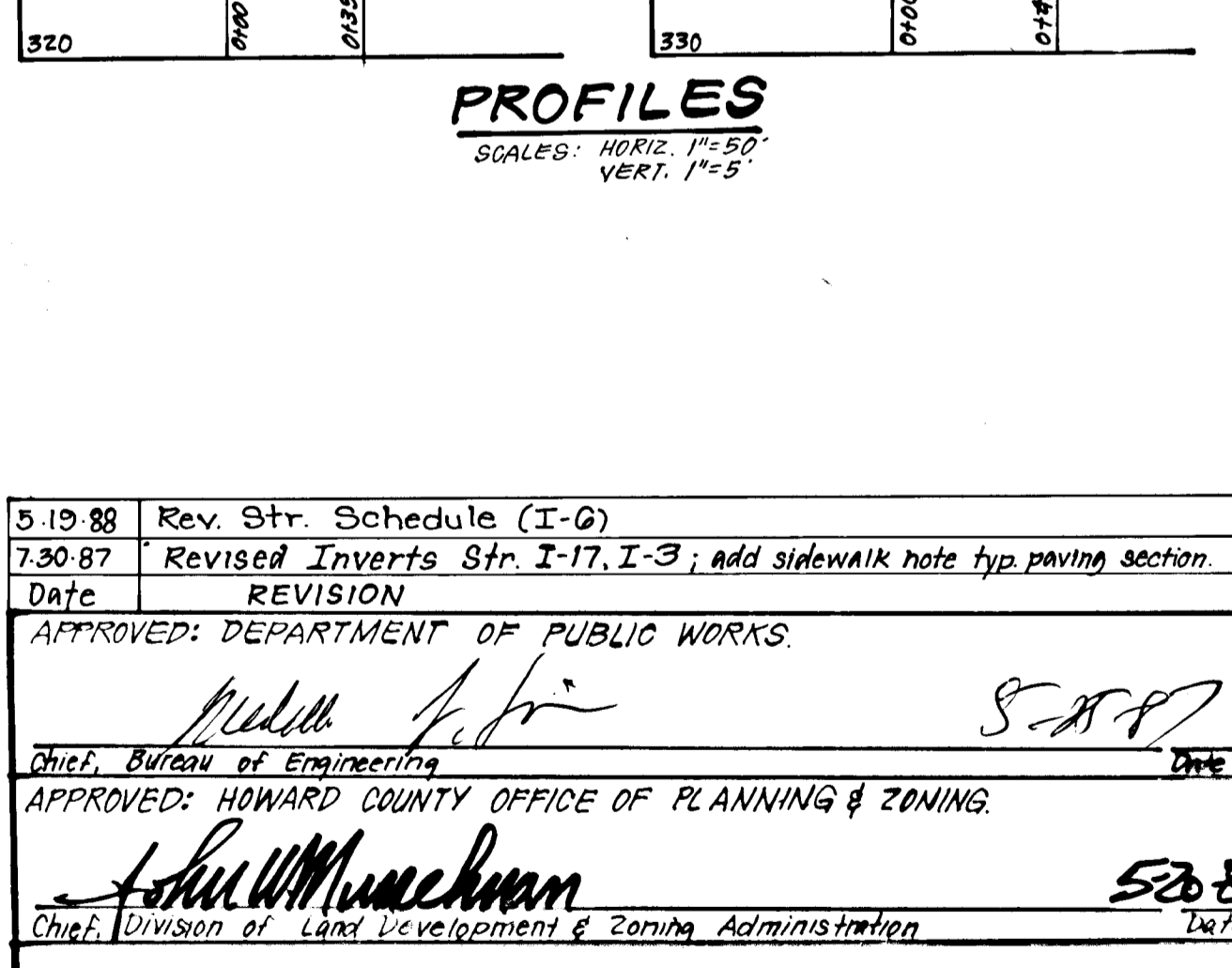
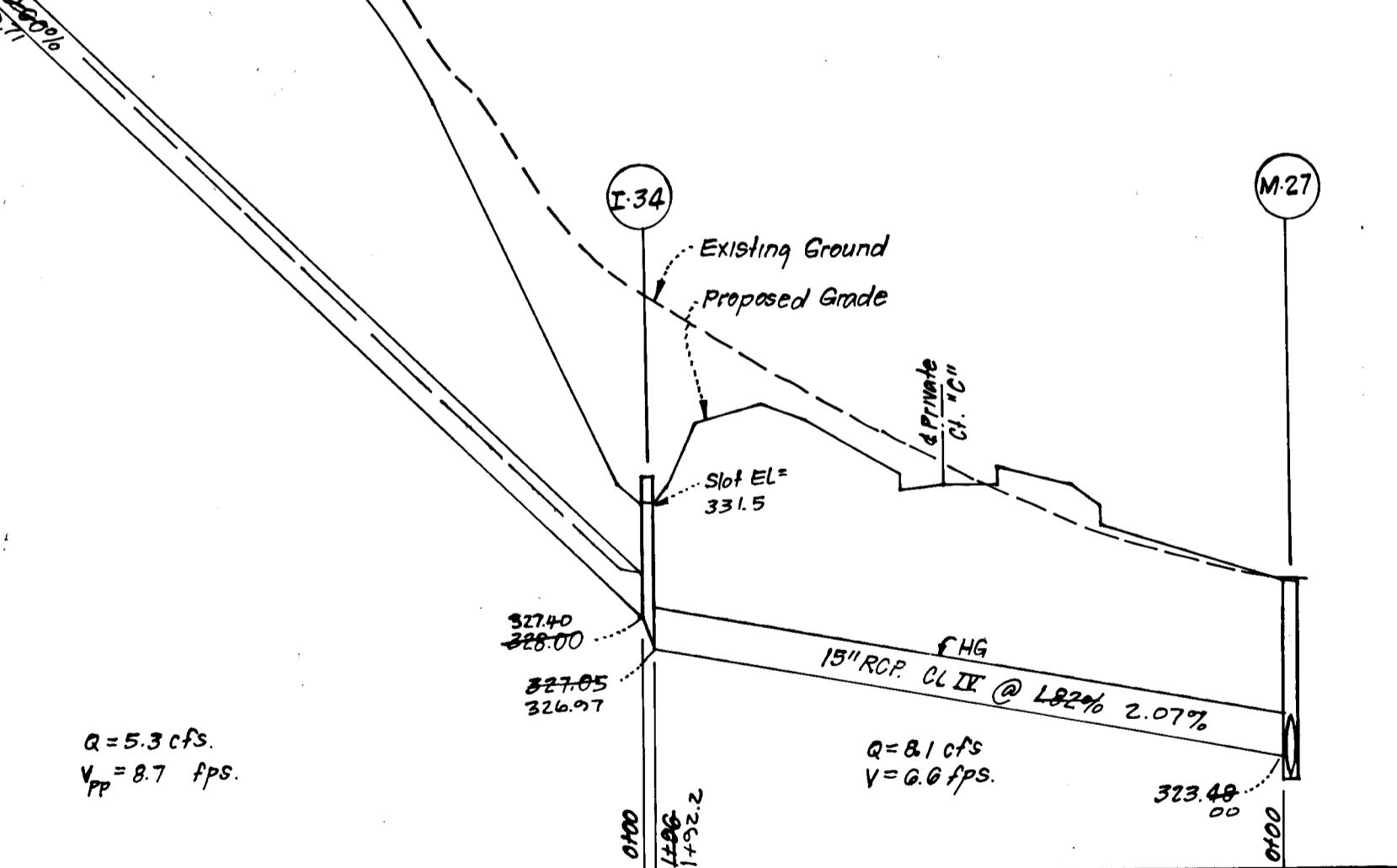


1266



STRUCTURE SCHEDULE									
STR. NO.	TYPE	INV. IN	INV. OUT	TOP ELEVATION		REMARKS	LOCATION		
				UPPER	LOWER				
1-1	C. ENDWALL	270.00	270.00	270.00	270.00	HO. CO. SID. SD. 5.21	30\"/>		

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
15"	R.C.P. CL. IV	156.5 LF
15"	C.M.P. 16.48	57.1 LF
18"	R.C.P. CL. IV	58.0 LF
21"	R.C.P. CL. IV	41.5 LF
24"	R.C.P. CL. IV	33.6 LF
30"	R.C.P. CL. IV	63.7 LF



o Modify to 4'-0" Sq. Provide Slots in all sides
 Δ All Inverts to be fully developed
 * See Ho. Co. Sid. 8-D. 4.3 for Inlet Deflectors
 # Provide Slots in all sides
 + Increase H dimension 12" to allow for Rip-Rap Construction
 ■ Modify Grate & Headpiece for 5' inside length, rear wall to be widened as necessary to support headpiece.

Note: Ho. Co. Sid. Precast Type A-10 Inlet SD 4.41 and Ho. Co. Sid. Precast Type A-5 Inlet SD 4.40 may be substituted for Standard A-10 and Standard A-5 where applicable.

PROFILE
 SCALES: HORIZ. 1"=50'
 VERT. 1"=5'

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.

DEVELOPER'S/BUILDER'S CERTIFICATE
 I 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 Dept. 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.

Reviewed for: *Harold* S.C.D.
 meets Topographic Requirements
 Approved: *James M. Ellis* 5-20-87
 U.S. Soil Conservation Service

Signature of Developer/Builder: *James M. Ellis* 11/24/86
 Signature of Engineer: *John W. Sackett* 11-22-86

5-19-88 Rev. Str. Schedule (I-G)
 7-30-87 Revised Inverts Str. I-17, I-3; add sidewalk note typ paving section.
 REVISION

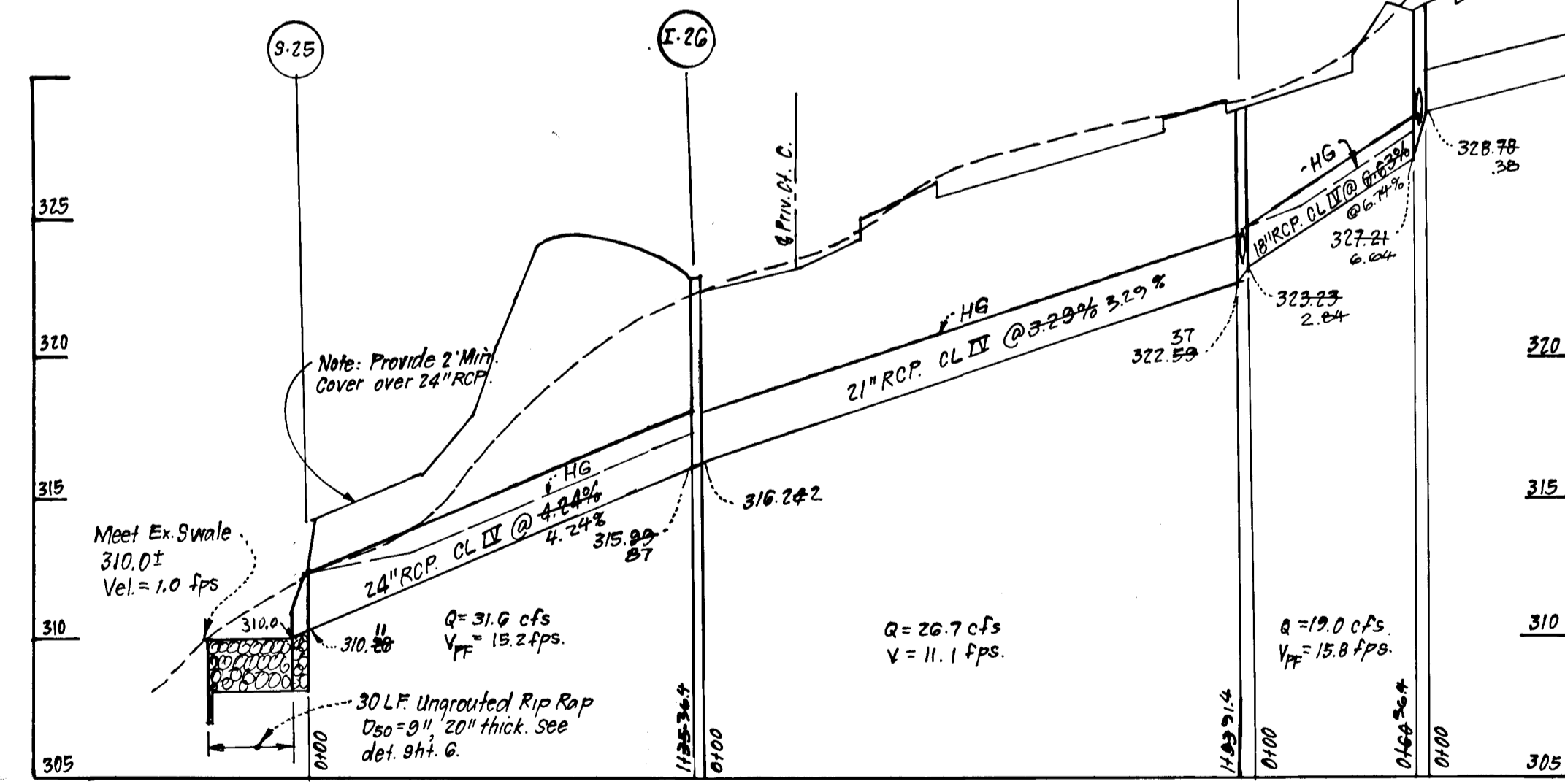
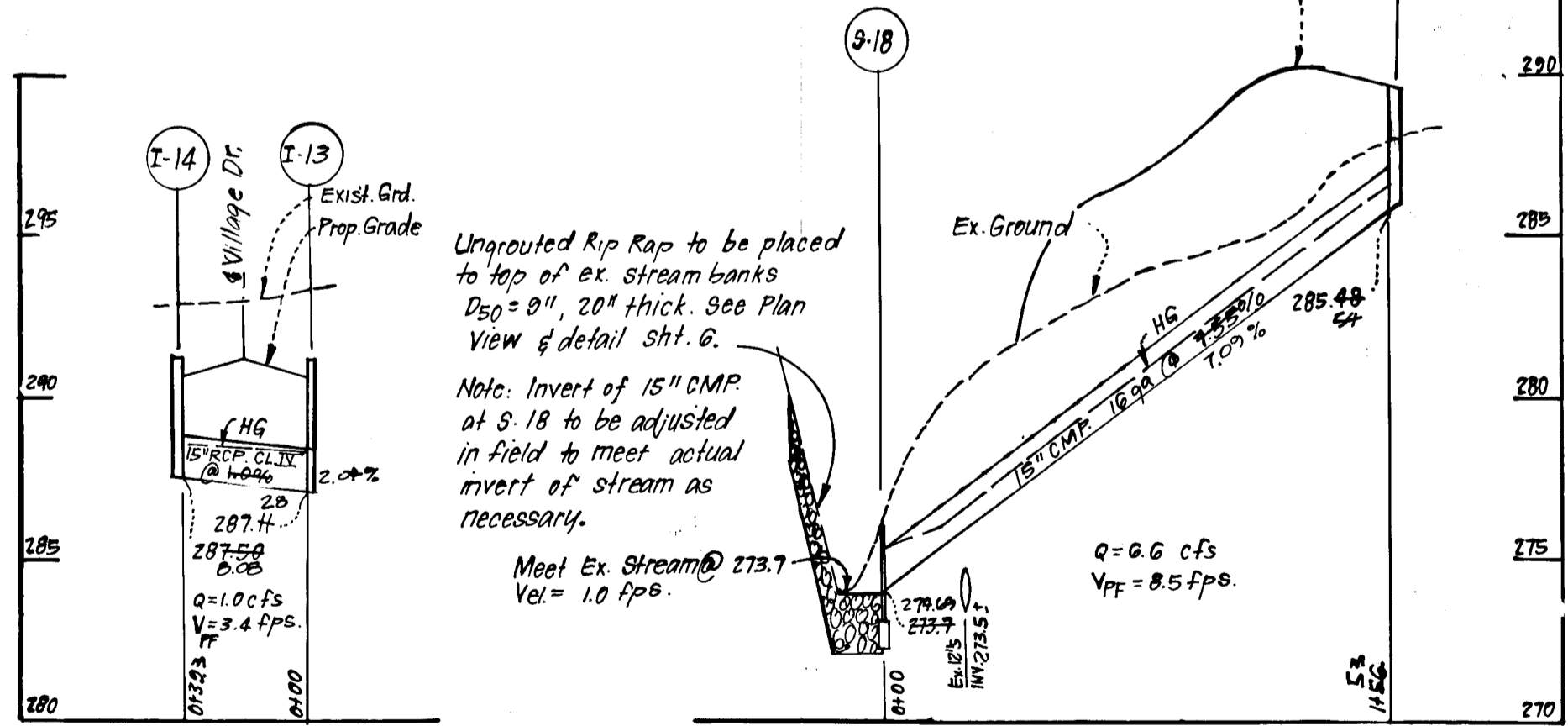
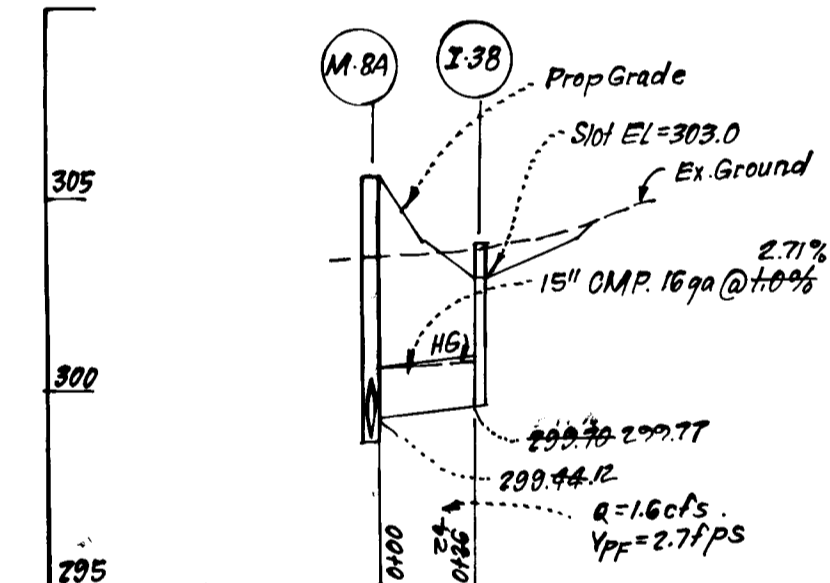
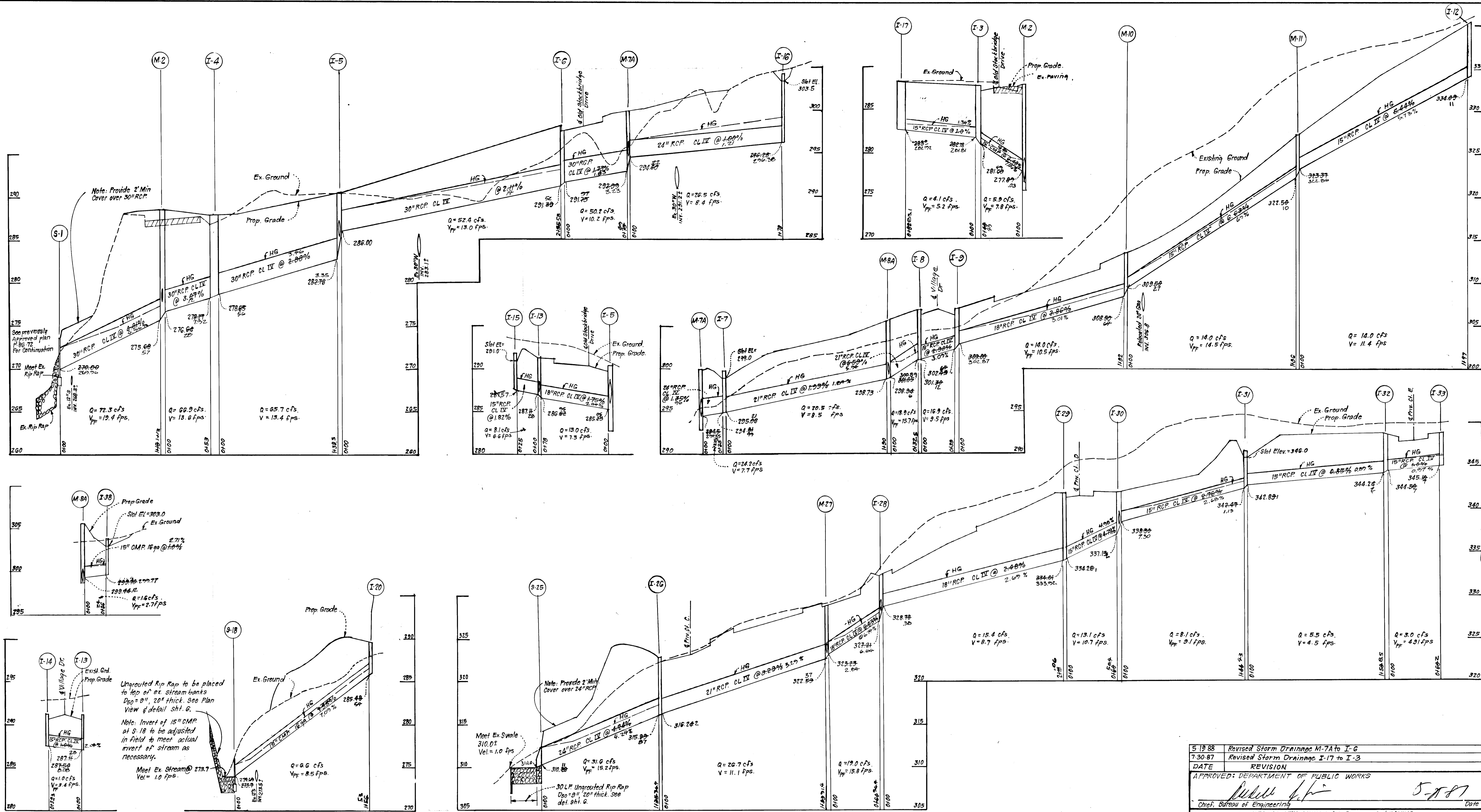
APPROVED: DEPARTMENT OF PUBLIC WORKS
John W. Sackett
 Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
John W. Sackett
 Chief, Division of Land Development & Zoning Administration

CLARK · FINEFROCK & SACKETT
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED	JLS	SCALE	As Shown
DRAWN	KIW	DRYING	6 OF 10
CHECKED	JLS	JOB NO.	85-148
DATE	11-19-86	FILE NO.	85-148-D

SECTION THREE
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 FOR: CHATEAU WOODLAND, INC.
 8100 Wooded Glen Ct.
 Ellicott City Md. 21033



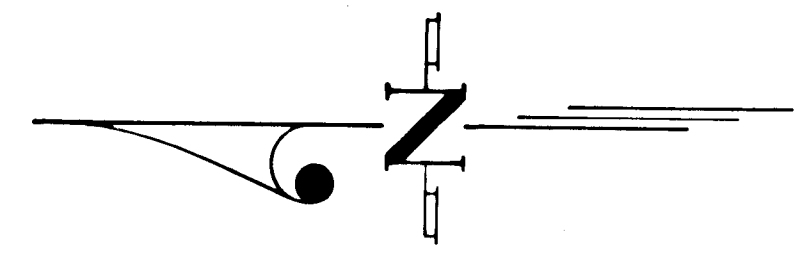
PROFILES
 SCALES: HORIZ. 1"=50'
 VERT. 1"=5'

Reviewed for... *Honored* S.C.D.
 Name
 and meets Technical Requirements
James M. Selva 5-20-87
 Signature Date
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED
 FOR SOIL EROSION AND SEDIMENT
 CONTROL BY THE HOWARD SOIL
 CONSERVATION DISTRICT.
Stephen L. Fisher 5/20/87
 Approved Date

DEVELOPER'S/BUILDER'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 Dept. 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."
Paul A. Zuel 11/24/86
 Signature of Developer/Builder Date

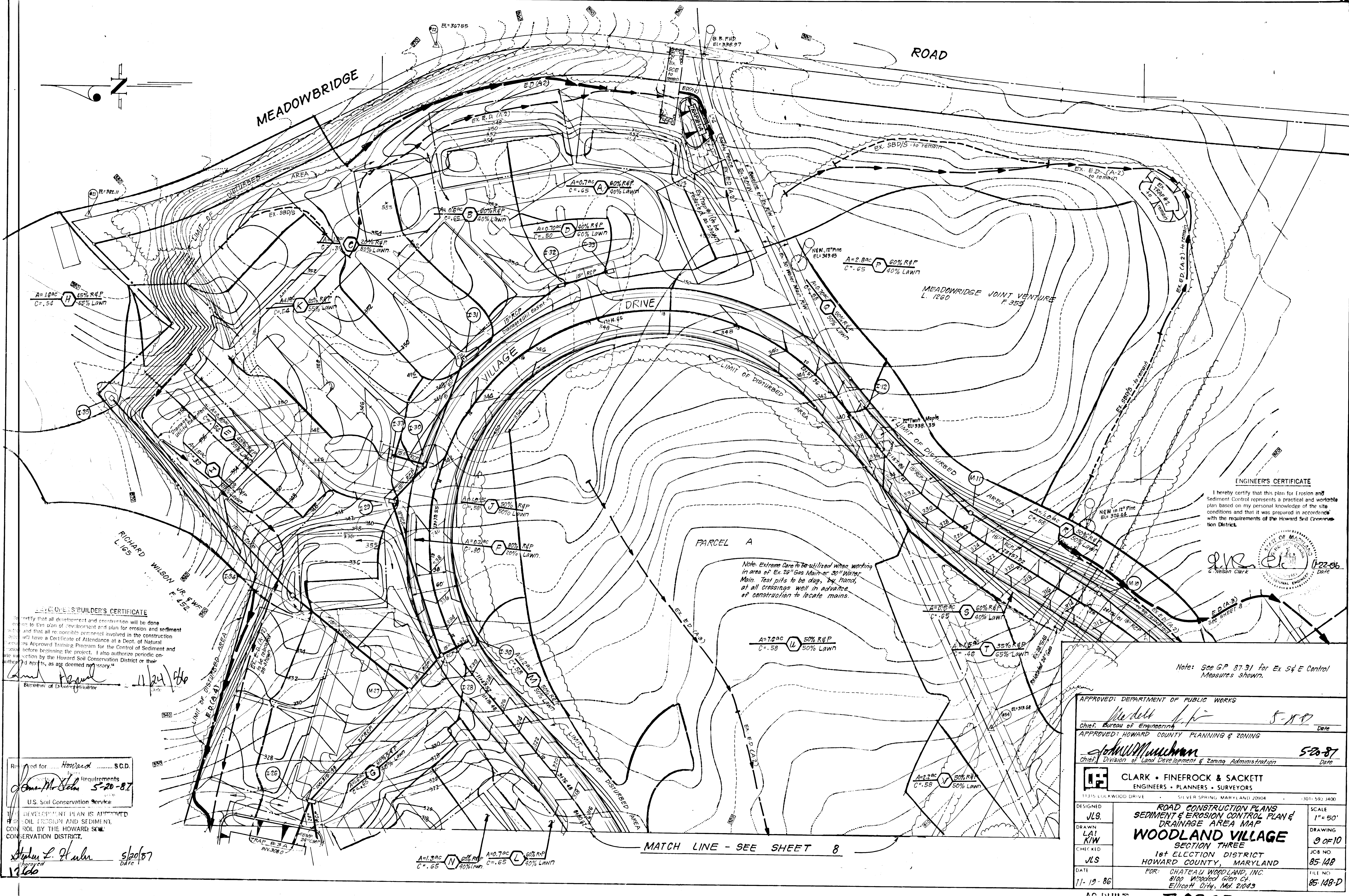
ENGINEER'S CERTIFICATE
 I hereby certify that this plan for Erosion and
 Sediment Control represents a practical and workable
 plan based on my personal knowledge of the site
 conditions and that it was prepared in accordance
 with the requirements of the Howard Soil Conserva-
 tion District.
G. Nelson Clark 11-22-86
 Signature Date

5-19-88	Revised Storm Drainage M-7A to I-6
7-30-87	Revised Storm Drainage I-17 to I-3
DATE	REVISION
APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>[Signature]</i>	5-25-87
Chief, Bureau of Engineering	
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING	
<i>[Signature]</i>	5-20-87
Chief, Division of Land Development & Zoning Administration	
CLARK • FINEFROCK • SACKETT, INC.	
ENGINEERS • PLANNERS • SURVEYORS	
11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593 3400	
DESIGNED	SCALE
ULS	As Shown
DRAWN	DRAWING
KIW	7 OF 10
CHECKED	JOB NO.
ULS	85-148
DATE	FILE NO.
11-19-86	85-148-D
FOR: CHATEAU WOODLAND, INC. 8100 Wooded Glen Ct. Ellicott City, Md. 21043	



MEADOWBRIDGE

ROAD



ERECTOR'S/BUILDER'S CERTIFICATE

I certify that all development and construction will be done in accordance with the plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Dept. 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.

Richard Wilson
Secretary of District

11/24/86
Date

Reviewed for Howard S.C.D. Requirements
John M. Schen 5-20-87
U.S. Soil Conservation Service

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

Stephen L. Hahn 5/20/87
1866
Date

Note: Extreme Care to be utilized when working in area of Ex. 26" Gas Main or 30" Water Main. Test pits to be dug, by hand, at all crossings well in advance of construction to locate mains.

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.

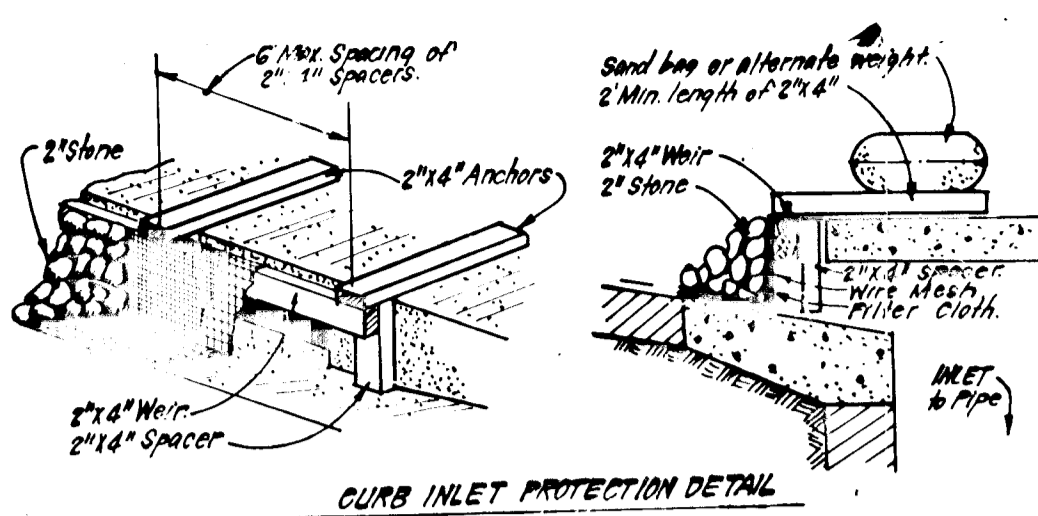
Neilson Clark
Professional Engineer
11-22-86
Date

Note: See GP 87-31 for Ex. S&E Control Measures shown.

APPROVED: DEPARTMENT OF PUBLIC WORKS		
Chief, Bureau of Engineering	<i>W. J. ...</i>	5-15-87 Date
APPROVED: HOWARD COUNTY PLANNING & ZONING		
Chief, Division of Land Development & Zoning Administration	<i>John W. Murchman</i>	5-20-87 Date
CLARK • FINEROCK & SACKETT ENGINEERS • PLANNERS • SURVEYORS 11315 LUCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 592-1400		
DESIGNED	JLS	SCALE 1" = 50'
DRAWN	LAI	DATE 9 OF 10
CHECKED	JLS	JOB NO. 85-148
DATE	11-19-86	FILE NO. 85-148-D

MATCH LINE - SEE SHEET 8

AS-BUILT 08-18-1991 F-87-87

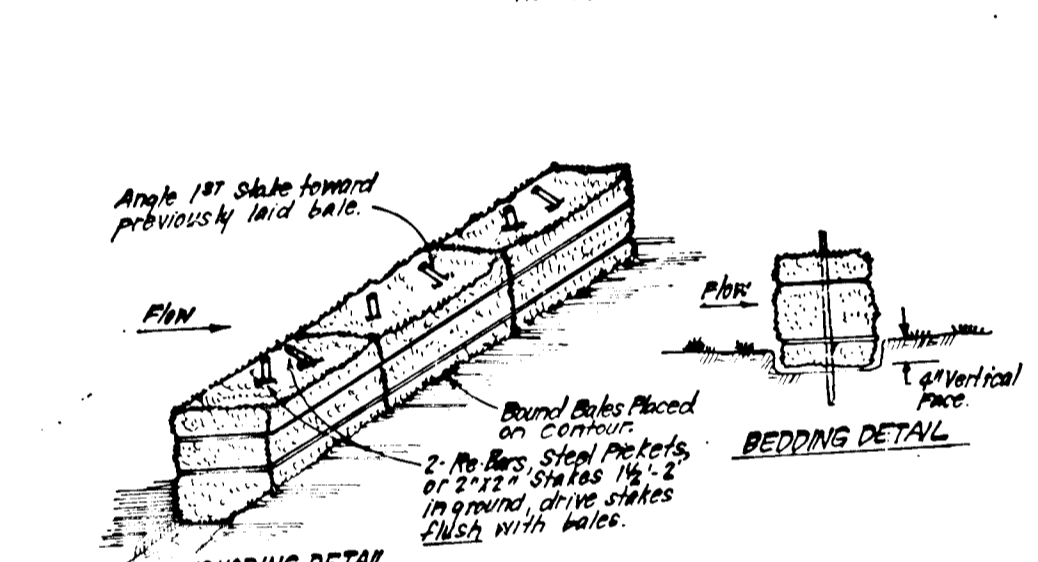


CONSTRUCTION SPECIFICATIONS:
 1. A wooden frame is to be constructed of 2x4 construction grade lumber.
 2. Wire mesh must be of sufficient strength to support filter cloth, and
 3. Filter cloth must be of a type approved for this purpose resistant to
 sunlight with a mesh size, ETC. 40-85, to allow sufficient passage of
 water and removal of sediments.
 4. Slope is to be 2" in 12" in size and clean since fines would clog the cloth.
 5. Slope is to be 2" in 12" in size and clean since fines would clog the cloth.

II. PROCEDURE: SMALL DITCH/INLET PROTECTION
 1. Excavate a trench around inlet to a depth of 12" to 18" notch elevation.
 2. Drive 2x4 posts 1/2" into ground at four corners of inlet. Place nail strips between
 posts on ends of inlet. Assemble top portion of 2x4 frame using end-to-end joint
 joints. Top of frame must be of same elevation as roadway surface to inlet.
 3. 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
 frame to 18" below inlet notch elev. Fasten securely to frame.
 4. Place 18" around inlet in compacted 2" layers until layer of earth is even with
 notch elevation on ends and top elevation on sides.
 5. If the inlet is not a low point, construct a compound earth dike in the
 ditch line below the top of this earth dike is to be at least 1" higher than the
 top of frame (see note).
 6. The dike shall be inspected frequently and filter to be replaced when clogged.

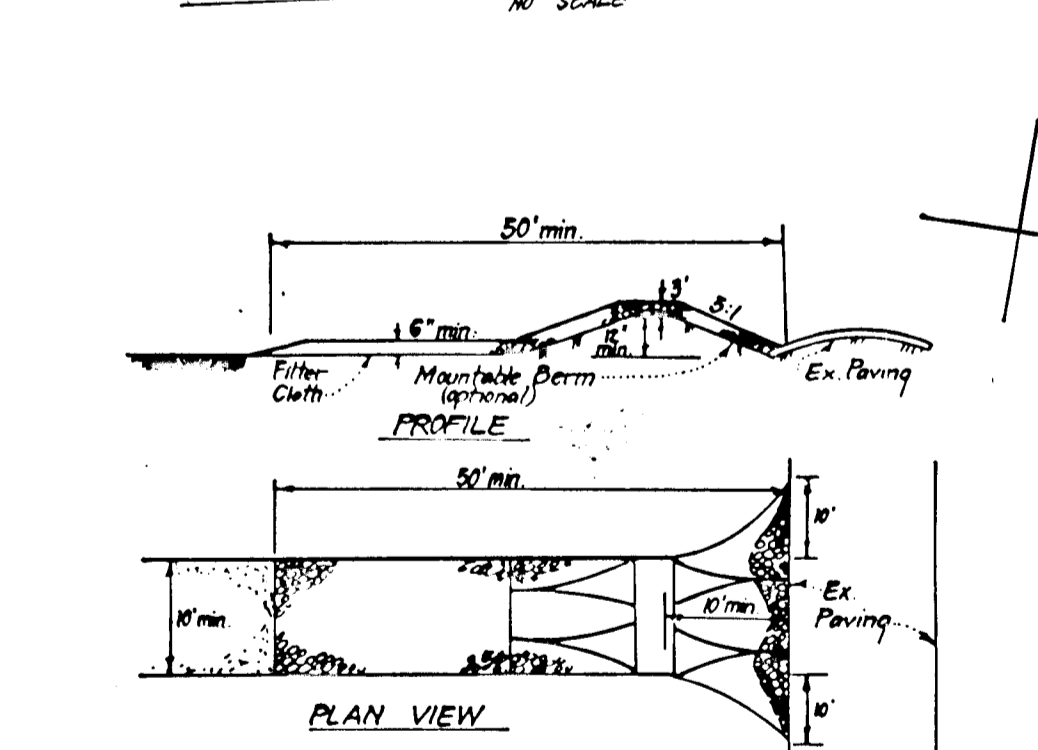
II. PROCEDURE: CURB INLET PROTECTION
 1. Attach a continuous piece of wire mesh (approx. width by throat length plus
 4" to the 2x4 wire (measuring throat length plus 2" as shown on site drawings).
 2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as
 the wire mesh over the wire mesh and securely attach to the 2x4 wire.
 3. Securely nail the 2x4 wire to a long vertical spacers to be located between
 the wire and inlet pipe (max 6" apart).
 4. Place the assembly against the inlet throat and nail (min 2" length of 2x4"
 to the top of the curb at upper locations. These 2x4" anchors shall extend
 across the inlet top and be held in place by sandbags or other means used by
 the contractor.
 5. The assembly shall be placed so that the end-spacers are a min. 1" beyond both
 ends of throat.
 6. From the wire mesh and filter cloth to the concrete gutter and against the face of
 curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter
 cloth in such a manner as to provide a water flow from entering the inlet under or
 around the filter cloth.
 7. This type of protection must be inspected frequently and the filter cloth and
 stone replaced when clogged with sediment.
 8. Assume that storm flow does not bypass inlet by installing temporary earth
 or asphalt dikes directing flow to inlet.

INLET PROTECTION DETAIL (I.P.R.)
NO SCALE



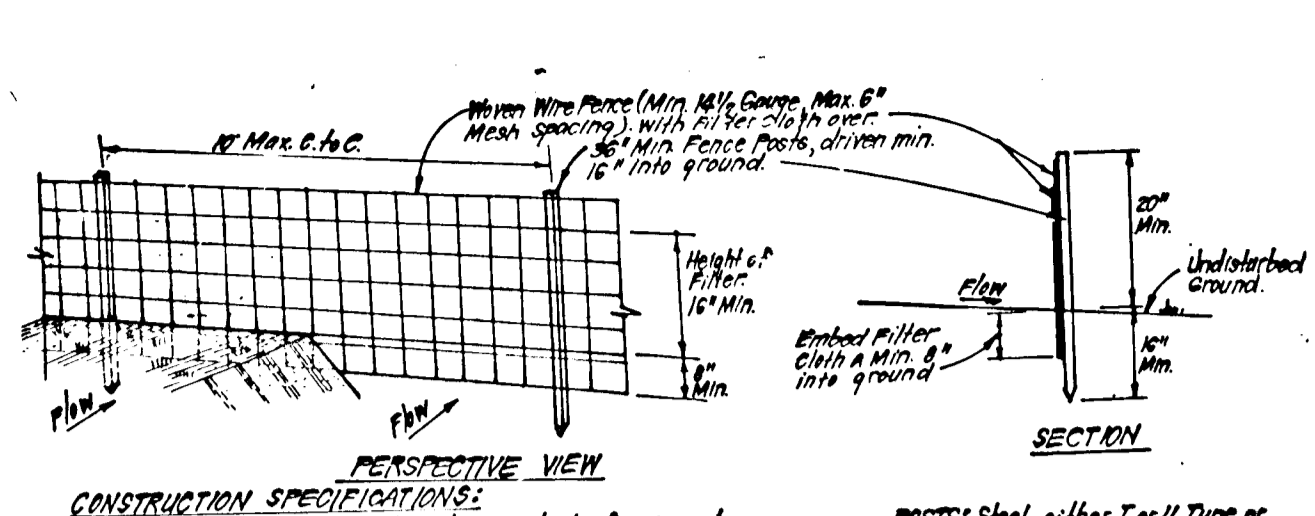
CONSTRUCTION SPECIFICATIONS:
 1. Bales shall be placed at the top of a slope or on the contour and in a row with ends
 tightly abutting. The adjacent bales shall be placed so the bindings are horizontal.
 2. Each bale shall be embedded in the soil a min. of 4" and placed so the bindings are
 horizontal.
 3. Bales shall be securely anchored in place by either 2 stakes or 1 stake driven thru the bale.
 The 1st stake in each bale shall be driven flush with the top made promptly as needed.
 4. Inspection shall be frequent and repair replacement driven flush with the top made promptly as needed.
 5. Bales shall be removed when they have served their usefulness so as not to block or impede
 storm flow or drainage.

STRAW BALE DIKE DETAIL (SBD)
NO SCALE



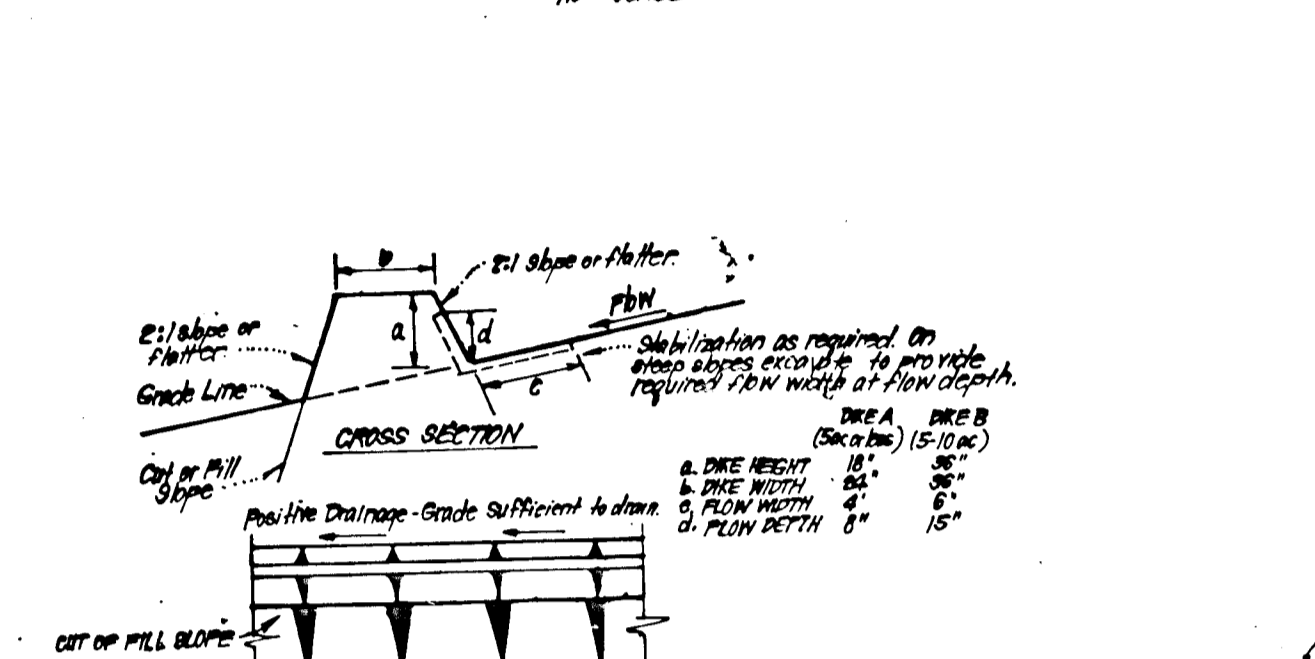
CONSTRUCTION SPECIFICATIONS:
 1. Stone size - Use 2" stone, or reclaimed or recycled concrete equivalent.
 2. Length - As required, but not less than 50 feet (except on a single residence lot
 where a 30 foot minimum length would apply).
 3. Thickness - Not less than six (6) inches.
 4. Width - Ten (10) foot minimum, but not less than the full width at points
 where ingress or egress occurs.
 5. Filter Cloth - Will be placed over the entire area prior to placing of stone.
 Filter will not be required on a single family residence lot.
 6. Surface Water - All surface water flows or discharges directed toward construction
 entrances shall be piped across the entrance. If piping is impractical, a mount-
 able berm with 5" slopes will be permitted.
 7. Maintenance - The entrance shall be maintained in a condition which will
 prevent tracking or flowing of sediment onto public rights-of-way. This
 may require periodic top dressing with additional stone as conditions demand
 and/or use of new filter cloth. If any measures used to trap sediment are
 sediment applied, approved method to track onto public rights-of-way
 must be removed immediately.
 8. Warning - Where it shall be cleaned to remove sediment prior to entrance
 onto public rights-of-way. After washing is required, it shall be done
 on an area stabilized with stone and which drains into an approved sediment
 trapping device.
 9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE (SCE)
NO SCALE



CONSTRUCTION SPECIFICATIONS:
 1. Weave wire fence to be fastened securely to force posts
 with wire ties or staples.
 2. Filter cloth to be fastened securely to weave wire fence
 with ties spaced every 30" at top and mid section.
 3. When 2 sections of filter cloth section each other they shall
 be overlapped by 6" and stapled.
 4. Maintenance shall be performed as needed and material
 removed when it begins to develop in soil force.

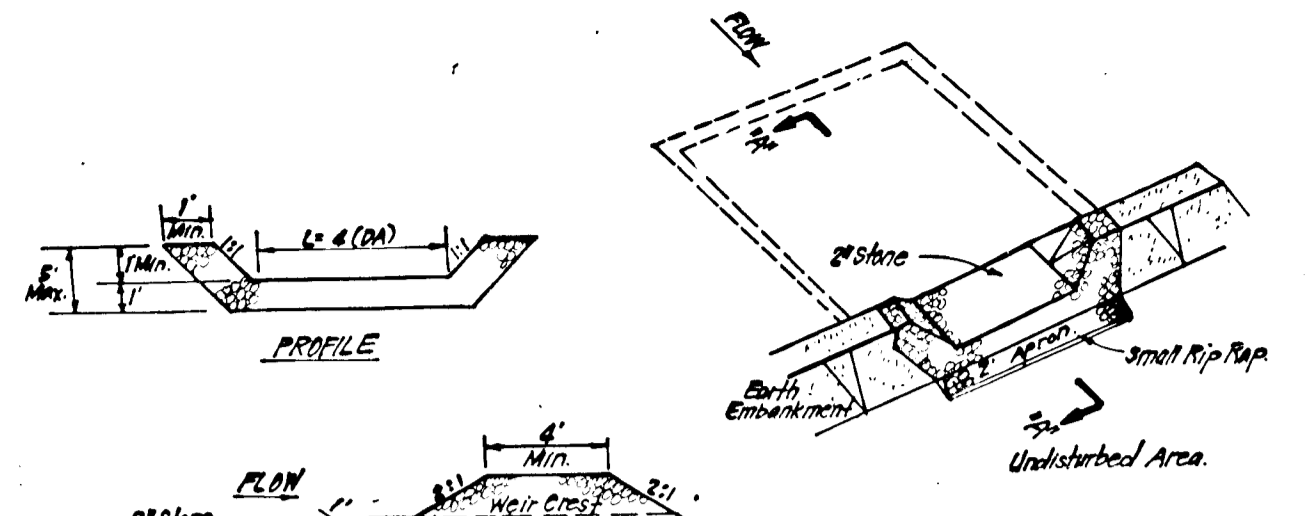
SILT FENCE DETAIL (S)
NO SCALE



CONSTRUCTION SPECIFICATIONS:
 1. All dikes shall be constructed by earth-moving equipment.
 2. All dikes shall have a slope of 1:1.
 3. Top width shall be 12" wider and side slopes may be flatter if desired to facilitate
 crossing by construction traffic.
 4. Final location shall be adjusted as needed to utilize a stabilized soil outlet.
 5. Earth dikes shall have an outlet that functions with a minimum of erosion. Runoff
 shall be conveyed to a sediment trapping device such as a sediment trap or sediment
 basin where either the dike channel or the drainage area above the dike is not
 adequately stabilized.
 6. Stabilization shall be: (A) in accordance with standard specifications for sand
 and straw mulch or straw mulch if not in seeding season, (B) flow channel as
 per chart below.

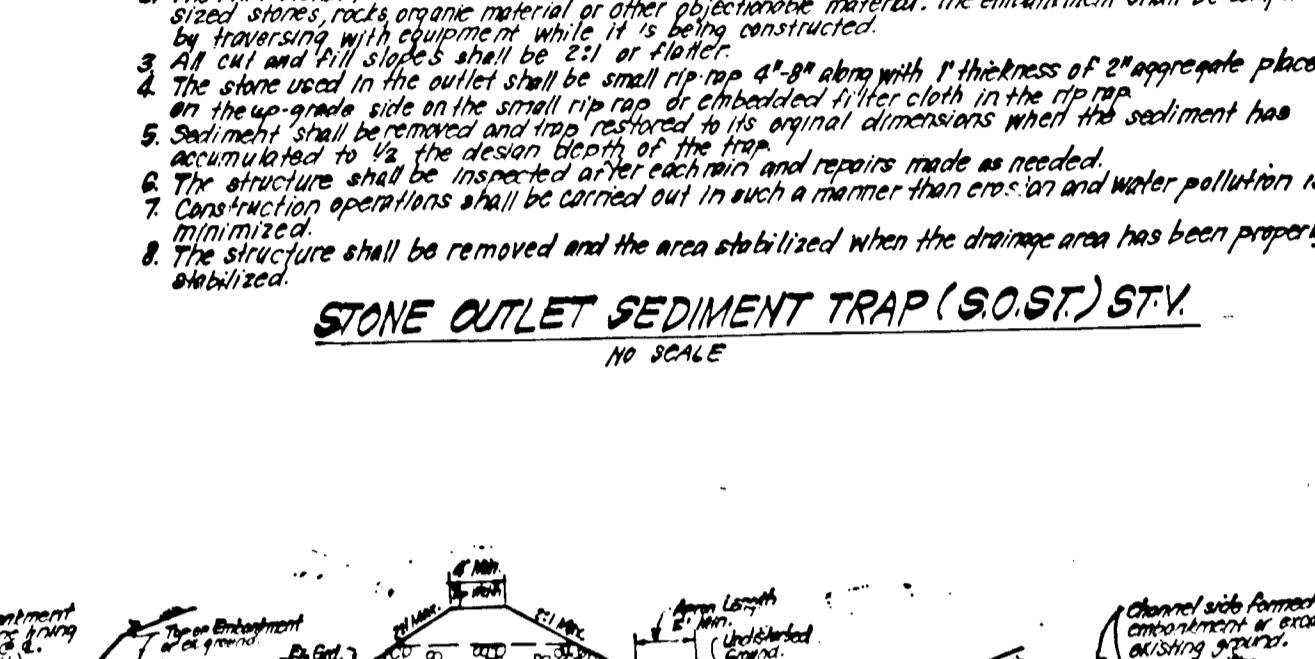
TYPE OF TREATMENT	CHANNEL	DIKE A	DIKE B
1	0.5 - 3.0% (Soil)	Soil or Straw Mulch	Soil or Straw Mulch
2	3.1 - 5.0% (Soil)	Soil or Straw Mulch	Soil or Straw Mulch
3	5.1 - 10.0% (Soil)	Soil or Straw Mulch	Soil or Straw Mulch
4	10.1 - 20.0% (Soil)	Soil or Straw Mulch	Soil or Straw Mulch

EARTH DIKE DETAIL (E.D.)
NO SCALE



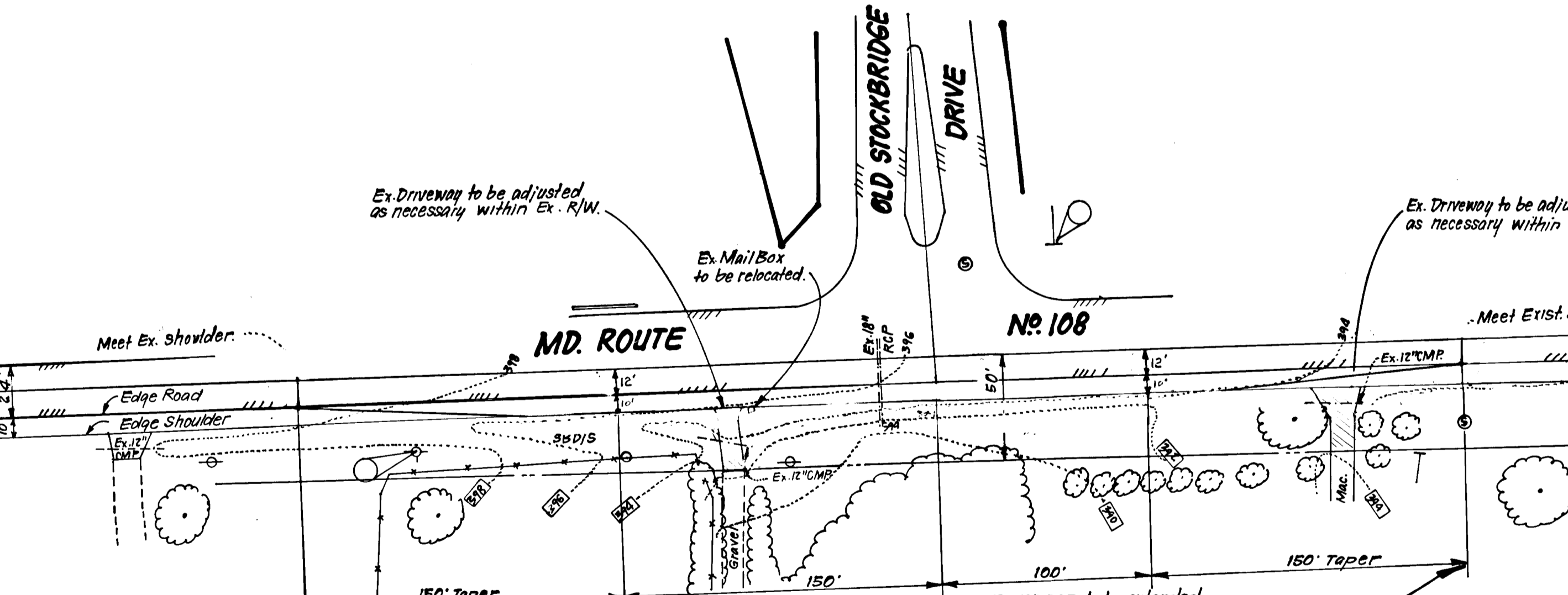
CONSTRUCTION SPECIFICATIONS:
 1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat.
 2. The fill material for the embankment shall be free of rocks and other heavy vegetation as well as over
 sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted
 by tamping with equipment while it is being constructed.
 3. All cut and fill slopes shall be 2:1 or flatter.
 4. The stone used in the outlet shall be small rip rap 4" to 8" in size with 1" thickness of 2" aggregate placed
 on top-grade side on the small rip rap to embed filter cloth in the rip rap.
 5. 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.
 6. The structure shall be inspected after each rain and repairs made as needed.
 7. Construction operations shall be carried out in such a manner that erosion and water pollution is
 minimized.
 8. The structure shall be removed and the area stabilized when the drainage area has been properly
 stabilized.

STONE OUTLET SEDIMENT TRAP (S.O.S.T.) ST.V.
NO SCALE



CONSTRUCTION SPECIFICATIONS:
 1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat.
 2. The fill material for the embankment shall be free of rocks and other heavy vegetation as well as over
 sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted
 by tamping with equipment while it is being constructed. The height of embankment shall be 2' measured
 from top-grade side on the small rip rap to embed filter cloth in the rip rap.
 3. All fill slopes shall be 2:1 or flatter.
 4. Elevation of the top of embankment shall be 2' above the outlet channel and shall be placed on a
 foundation of 1" below the outlet channel.
 5. Filter cloth shall be selected over the bottom and sides of the outlet channel and shall be placed on a
 foundation of 1" below the outlet channel.
 6. The structure shall be inspected after each rain and repairs made as needed.
 7. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
 8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
 9. The drainage area shall be stabilized to a minimum of 15 acres or less.
 10. Drainage area shall be stabilized to a minimum of 15 acres or less.

RIP RAP OUTLET SEDIMENT TRAP - ST.V.
NO SCALE



TYPICAL HALF SECTION - RTE. No. 108
No Scale

Reviewed for... Howard... S.C.D.
 and meets... Requirements
 Signature: *John M. Hahn* 5/20/87
 U.S. Soil Conservation Service
 Date: 5/20/87
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER'S/BUILDER'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 Dept. 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 approved necessary.
 Signature: *John M. Hahn* 5/20/87
 Date: 5/20/87

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: *John M. Hahn* 5/20/87
 Date: 5/20/87

11-1-88	Revised per SHA comments
DATE	REVISION
APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>John M. Hahn</i>	
Chief, Bureau of Engineering	
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING	
<i>John M. Hahn</i>	
Chief, Division of Land Development & Zoning Administration	
5/20/87	
DATE	
CLARK · FINEFROCK & SACKETT	
ENGINEERS · PLANNERS · SURVEYORS	
11818 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400	
DESIGNED	ROAD CONSTRUCTION PLANS
JLS	SEDIMENT & EROSION CONTROL DETAILS
DRAWN	SCALE
KIW	AS SHOWN
CHECKED	DRAWING
JLS	100' = 10'
DATE	JOB NO.
11-19-86	85-148
	FILE NO.
	85-148-D