

CURB & GUTTER LEGEND:
 Std. 7" Comb. Curb & Gutter
 Rev. 7" Comb. Curb & Gutter
 Std. 6" Comb. Curb & Gutter
 Rev. 6" Comb. Curb & Gutter

B.M.#1 B.B. FH EL=363.10
 B.M.#2 B.B. FH EL=356.46
 B.M.#3 Cut Nail EL=350.03

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

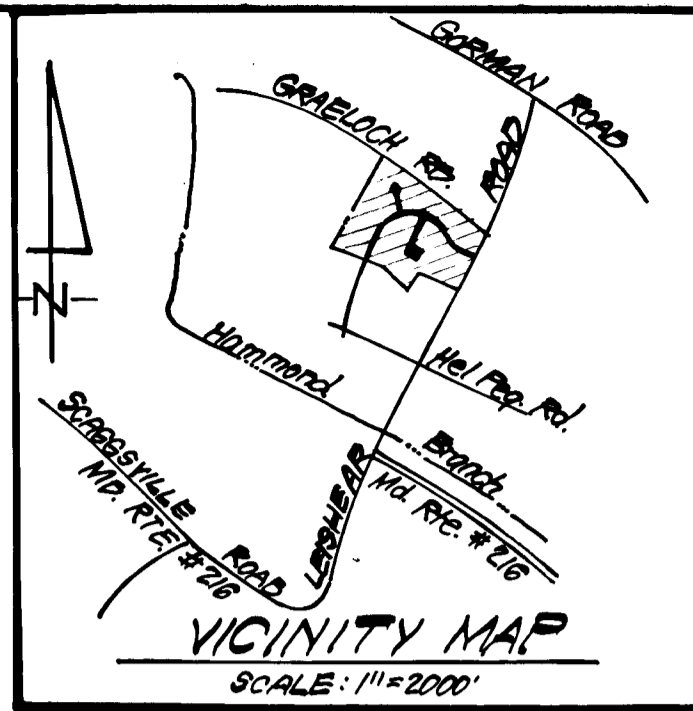
Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 6" Comb. Curb & Gutter to Ex. Mod. Comb. Curb & Gutter around fillet.

Transition from 7" Comb. Curb & Gutter to Modified Combination Curb & Gutter around Fillets.

GENERAL NOTES

- All storm drain & paving shall be constructed in accordance with the latest details and specifications of Howard Co. & Md. S.H.A.
- Types of storm drain structures refer to the standard details of Howard County & Maryland State Highway Administration.
- Trench Compaction for storm drains within road or street right of way limits shall be in accordance with the latest Howard Co. Road Code.
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elevation of the mains by digging test pits, by hand, at all utility crossings, well in advance of construction.
- All utility companies shall be notified 24 hrs in advance of construction.
- All traffic control services, parking, and signing to be done in accordance with the "Manual of Uniform Traffic Control Devices", 1971 Edition.
- Sag and Crest Vertical Curves were designed in accordance with "A Policy on Geometric Design of Rural Highways", 1966, by A.A.S.H.O.
- Provide Concrete Sidewalk Ramps in Curbs, where shown in plan. (Max 12:1 Slope) See Ho. Co. Std. Sidewalk Ramp, Type A. R-4.0.
- All Fillet Radii to be 5', Unless shown otherwise.
- Design Speed: 25 mph
- Zoning: RSC.
- Trench bedding for Storm Drainage shall be class "C". See Ho. Co. Std. # SD. 2.03.
- All Inverts for storm drain structures to be fully developed.
- Survey is based on Howard County Control Stations 204, 202 & 204, 000.
- Stop signs (R1-1 - 30" x 30" Octagon) to be provided where shown in plan view.



CURVE DATA
 PC 0155.00 to PT 1119.24
 R=200.00'
 Δ=18°24'07"
 L=92.40'
 Δ=24.24'
 CHD=357°07'41"N
 63.96'

CURVE DATA
 PC 4140.76 to PT 4180.03
 R=25.00'
 Δ=90°00'05"
 L=25.01'
 Δ=39.27'
 CHD=N02°55'30"E
 35.36'

Note: Paving to be warped as necessary to provide positive drainage to I-3

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.

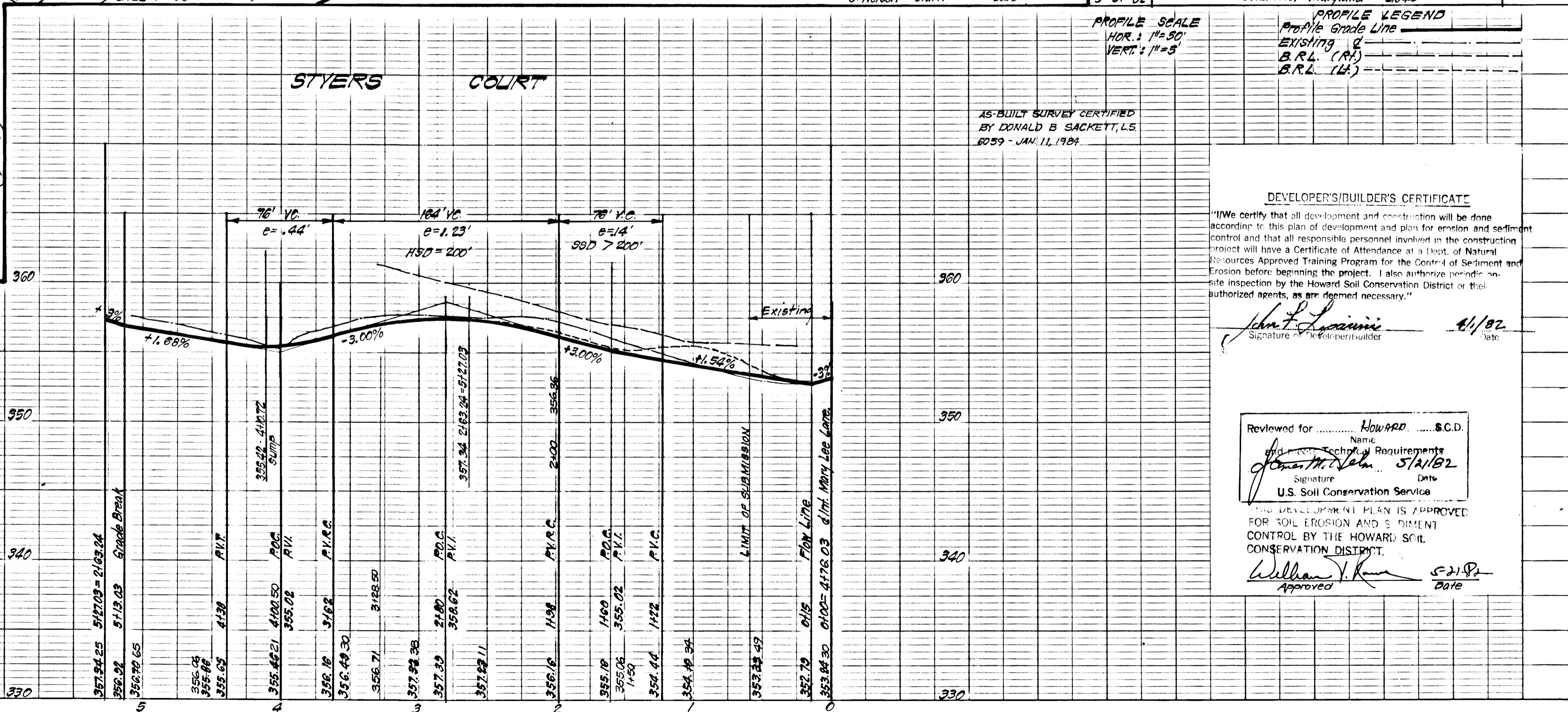
G. Nelson Clark 4-2-82
 G. Nelson Clark Date

APPROVED: Department of Public Works
William J. ... 5-21-82
 Chief, Bureau of Engineering
 APPROVED: Howard County Office of Planning and Zoning
William J. ... 5-21-82
 Chief, Division of Land Development & Zoning Administration

CLARK FINEFROCK & SACKETT
 ENGINEERS - PLANNERS - SURVEYORS
 11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20906 (301) 893-3400

DESIGNED J.L.S.	ROAD CONSTRUCTION PLANS STYERS COURT	SCALE As Shown
DRAWN K.I.M.	MURRAY HILL	DRAWING 1074
CHECKED J.L.S.	SECTION ONE 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 82-003
DATE 3-31-82	FOR: BRANTLY DEVELOPMENT SUITE 105 5501 TWIN KNOLLS ROAD COLUMBIA, MARYLAND 21045	FILE NO. 82-003-D

NOTE: FOR PROFILES OF WICKER COURT & GRIFFITH COURT SEE SHEET 2.



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

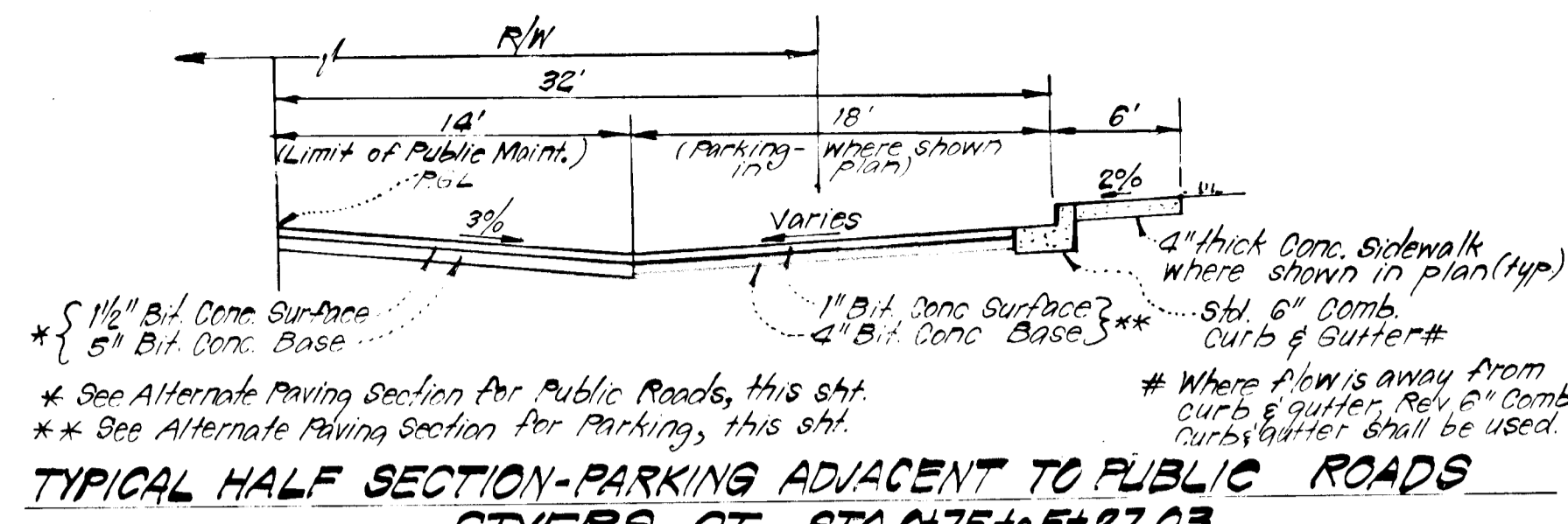
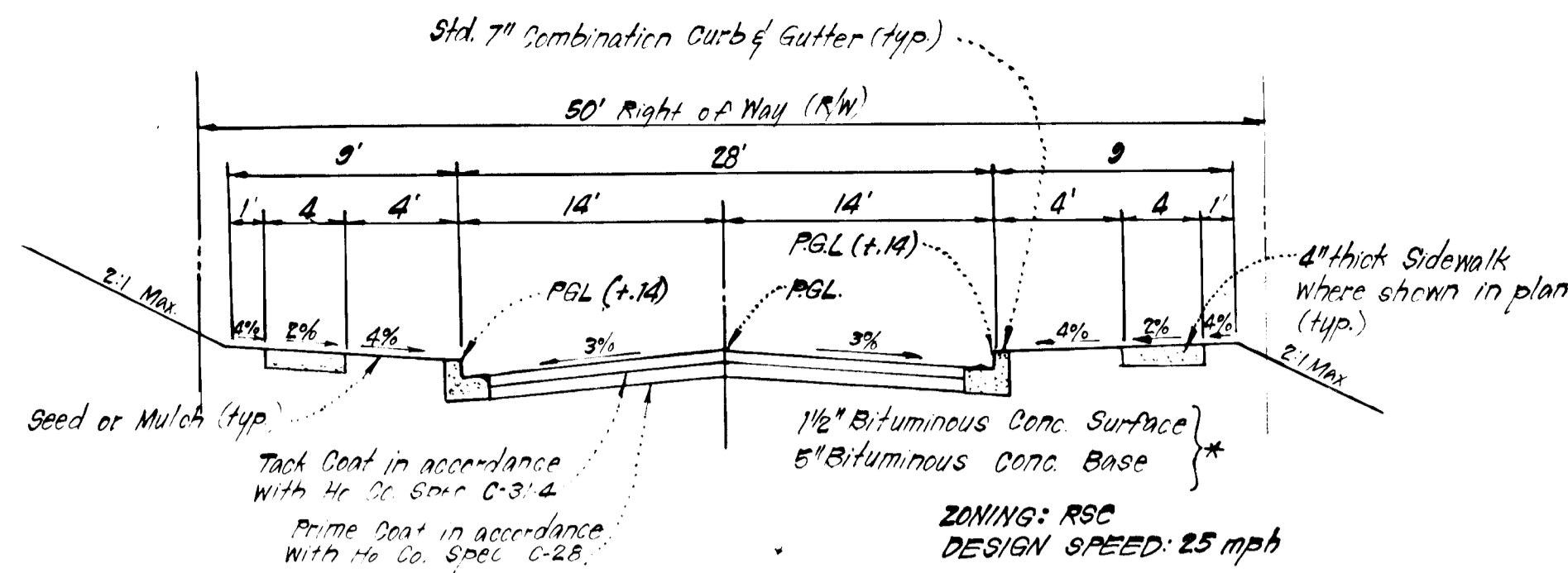
PROFILE LEGEND
 Profile Grade Line
 Existing (E)
 B.R.L. (R)
 B.R.L. (L)

AS-BUILT SURVEY CERTIFIED
 BY DONALD B. SACKETT, L.S.
 6059 - JAN. 11, 1984

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."

John F. ... 4/1/82
 Signature of Developer/Builder Date

Reviewed for Howard S.C.D.
 Name
John M. ... 5/11/82
 Signature Date
 U.S. Soil Conservation Service
 THE DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
William J. ... 5-21-82
 Approved Date



STRUCTURE SCHEDULE						
No.	TYPE	INVERT IN	INVERT OUT	TOP ELEVATION	REMARKS	LOCATION
				HIGHER - LOWER		
S-1	Metal End Section	338.42	338.30		No. Co. Std. 50/15.61 Dia=15"	See Plan
I-3	A-10 Inlet	-	349.00	354.99 354.50	No. Co. Std. 50/4.02 W=2'6"	See Plan
*EX-18	A-10 Inlet	-	-	353.92 353.27	No. Co. Std. 50/4.02 W=2'6"	2 Inlet 13'28" Mary Lee La. 15' Lt.

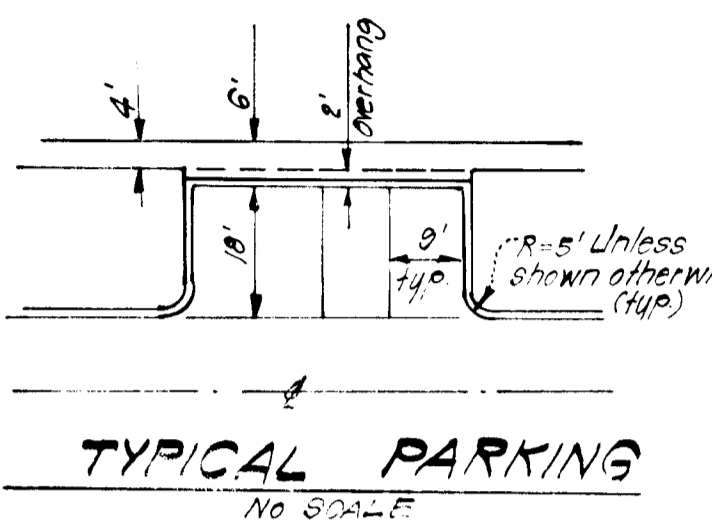
* Convert Ex. A-5 w/Deflector to A-10 Inlet.

PIPE SCHEDULE		
SIZE	LENGTH	TYPE
15"	BCCMP 160000	186LF

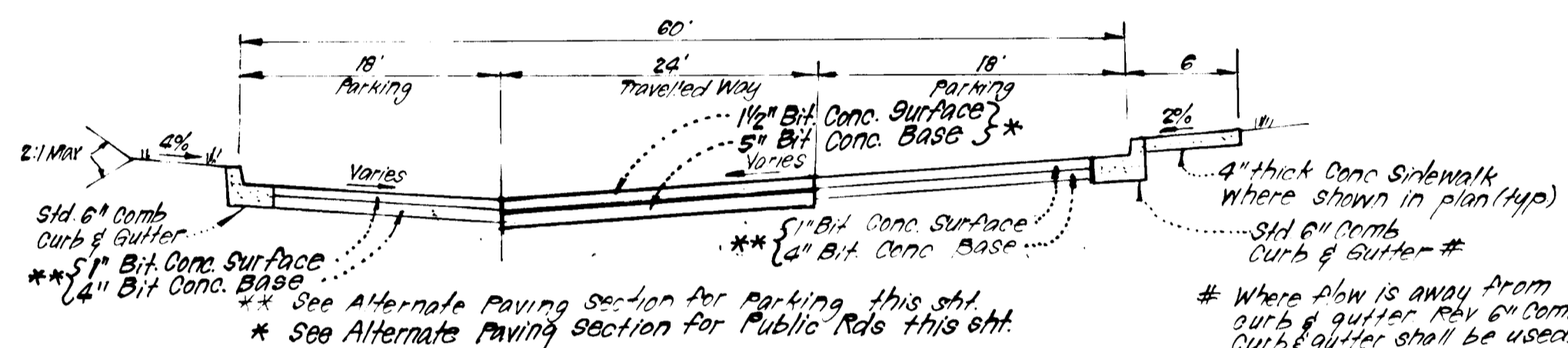
* 29 3/4" x 1/2" Corrugations

TYPICAL PAVING SECTION - PUBLIC ROADS
STYERS CT. STA. 0160 to 0175
NO SCALE

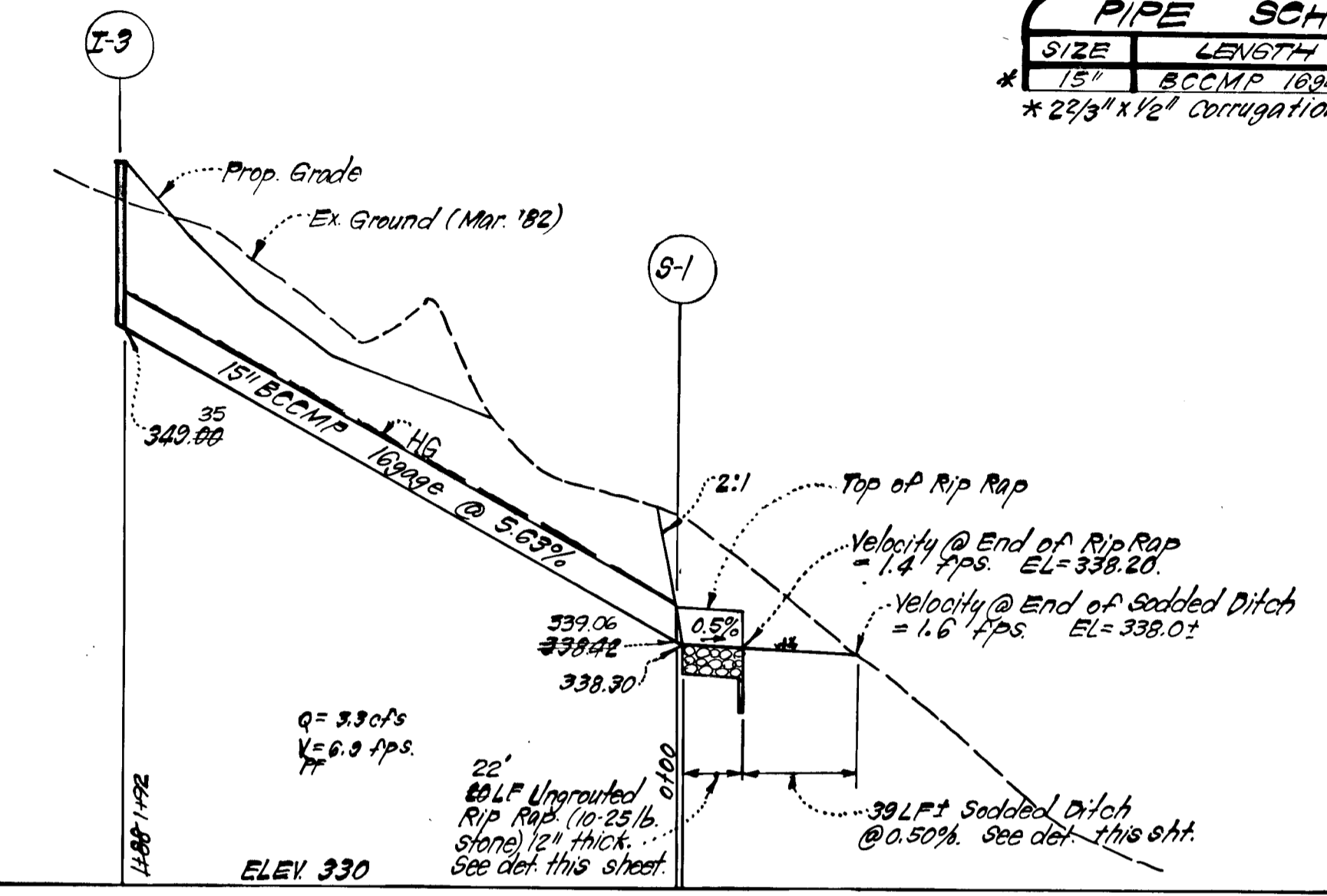
TYPICAL HALF SECTION - PARKING ADJACENT TO PUBLIC ROADS
STYERS CT. STA. 0175 to 51-27.03
NO SCALE



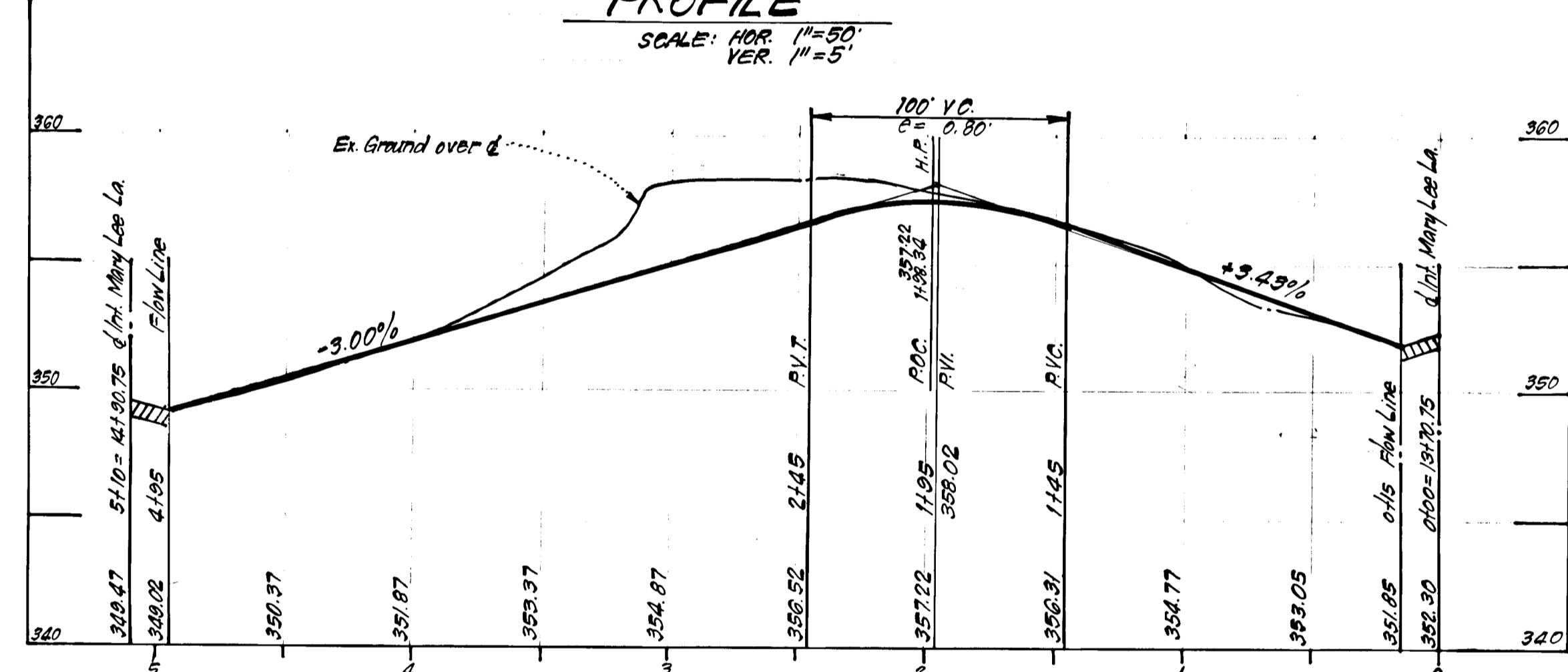
TYPICAL PARKING
NO SCALE



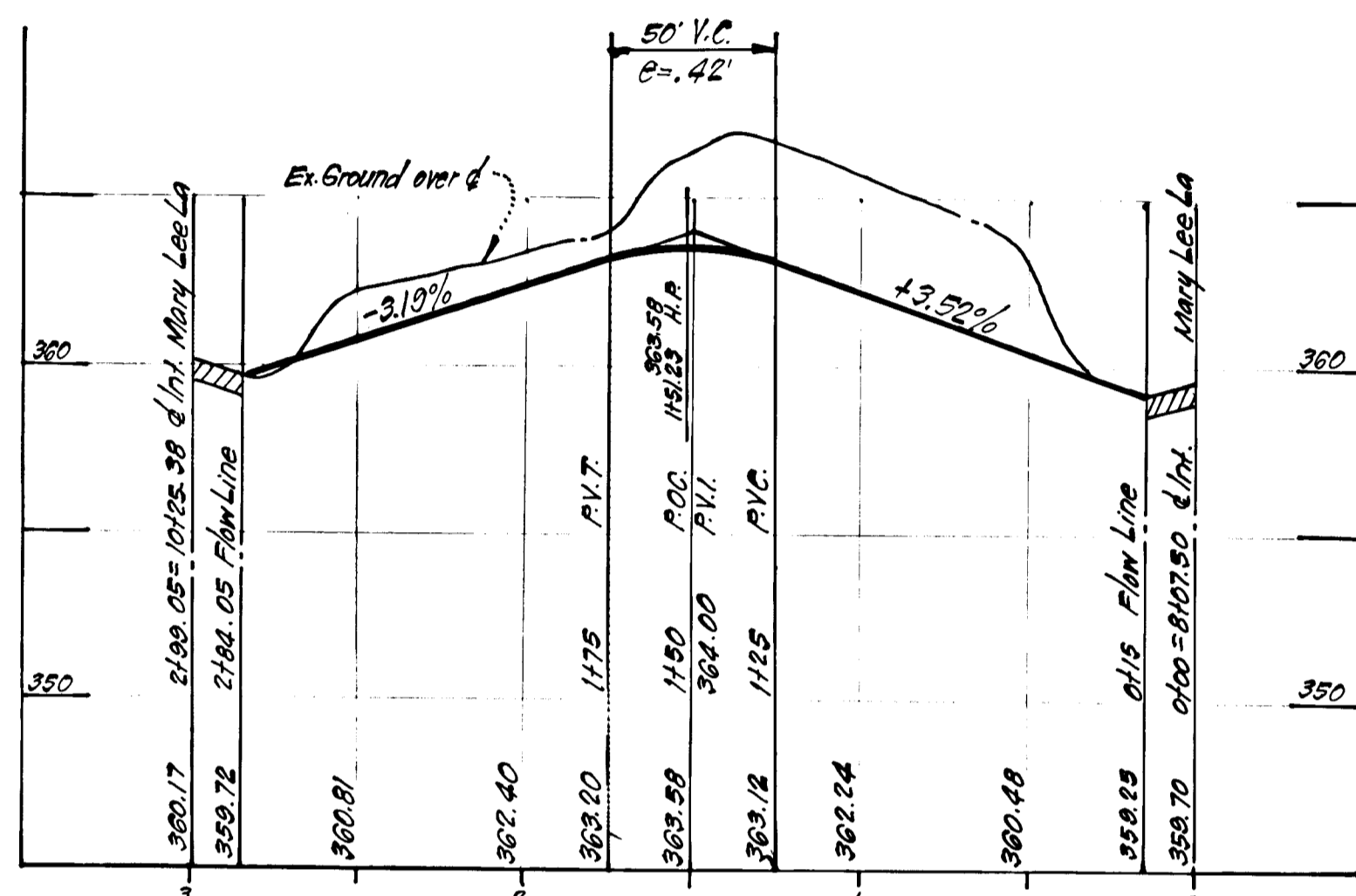
TYPICAL SECTION - PRIVATE DRIVE & PARKING
NO SCALE



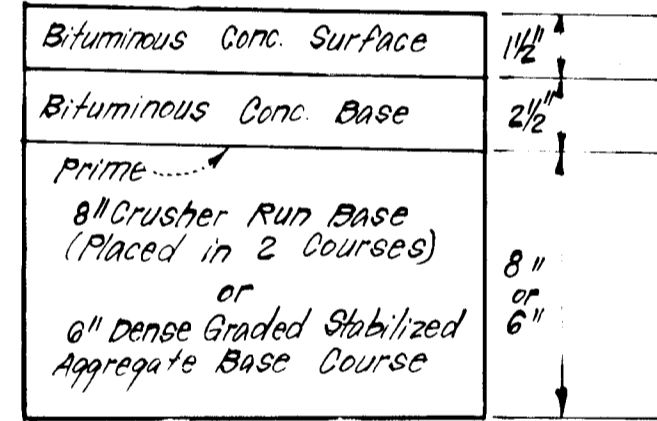
PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'



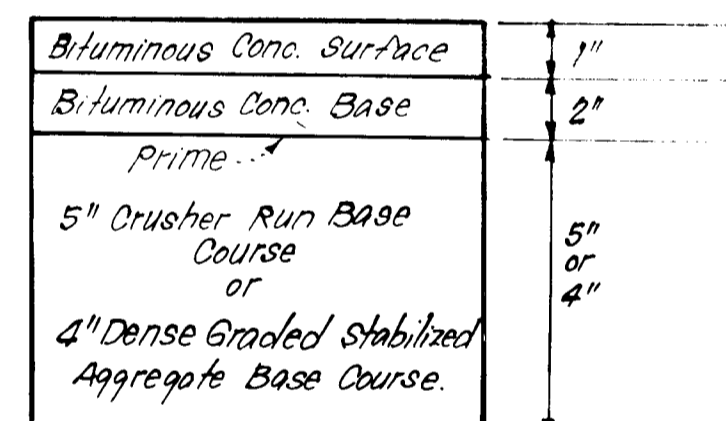
GRIFFITH COURT
(SEE SHEET 1 FOR PLAN)
SCALE: HOR. 1"=50' VER. 1"=5'



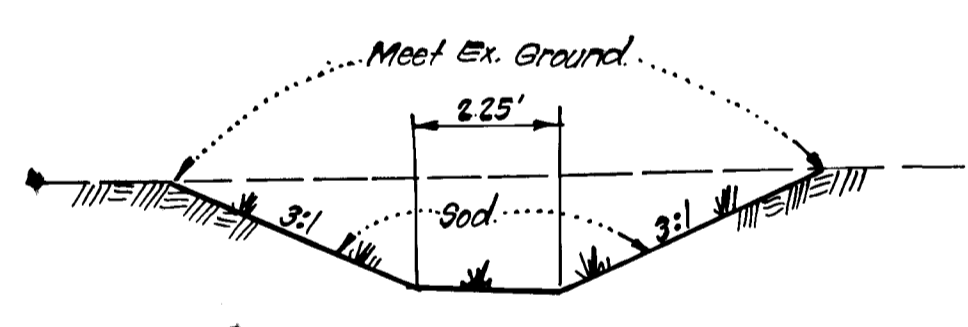
WICKER COURT
(SEE SHEET 1 FOR PLAN)
SCALE: HOR. 1"=50' VER. 1"=5'



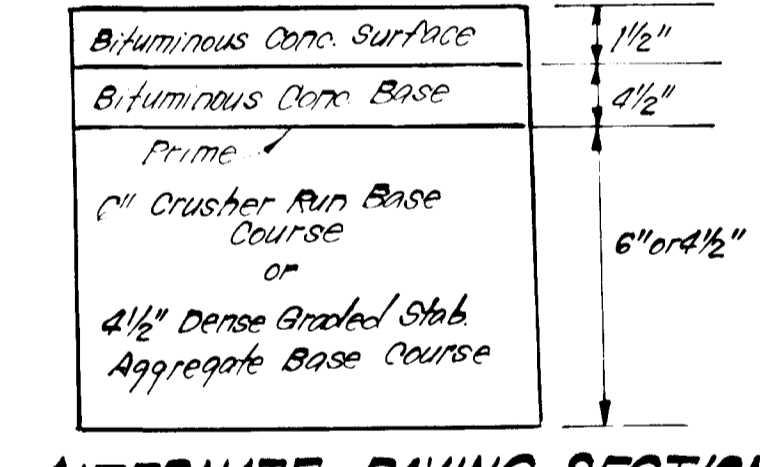
ALTERNATE PAVING SECTION FOR PUBLIC ROADS



ALTERNATE PAVING SECTION FOR PARKING AREAS
NO SCALE

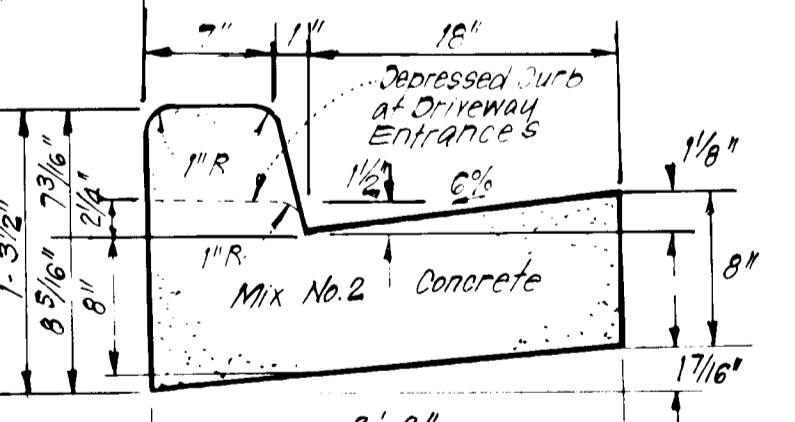


SODDED DITCH DETAIL
NO SCALE

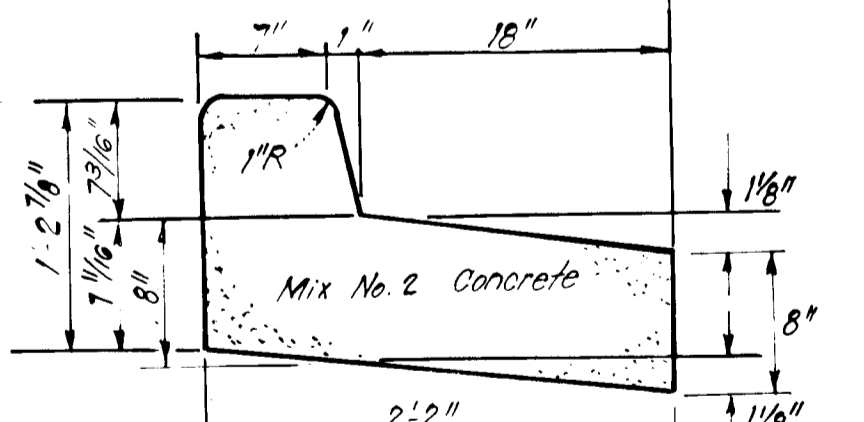


ALTERNATE PAVING SECTION FOR ENTRANCES TO PUBLIC ROADS
NO SCALE

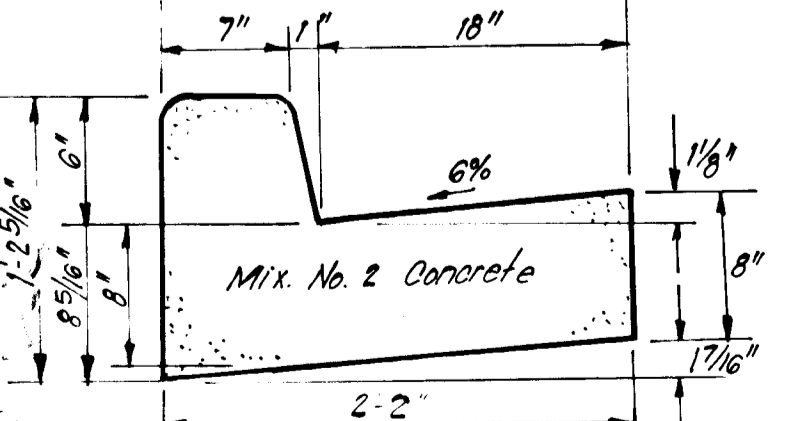
- GENERAL SODDING NOTES:
1. Apply 10-10-10 Fertilizer @ 1000#/acre (25#/1000sq ft)
 2. Apply Ground Agricultural Limestone @ 2000#/acre (50#/1000sq ft)
 3. Incorporate both Lime and Fertilizer into soil by discing. Firm up after incorporation.
 4. Lay sod to a tight fit. Roll to insure contact with underlying soil. Water as necessary for 1st 2 weeks, in summer, to ensure establishment.
 5. All sod to be used must be certified by the state of Maryland.
 6. Sod to be pegged and stapled.



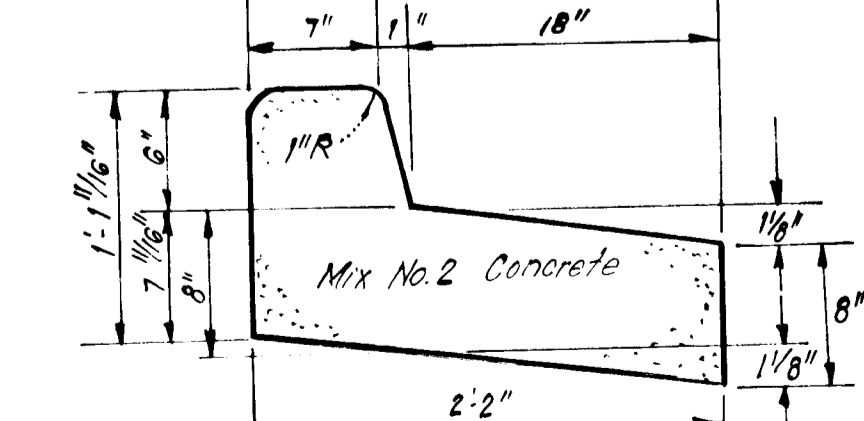
STANDARD 7" COMBINATION CURB & GUTTER
NO SCALE



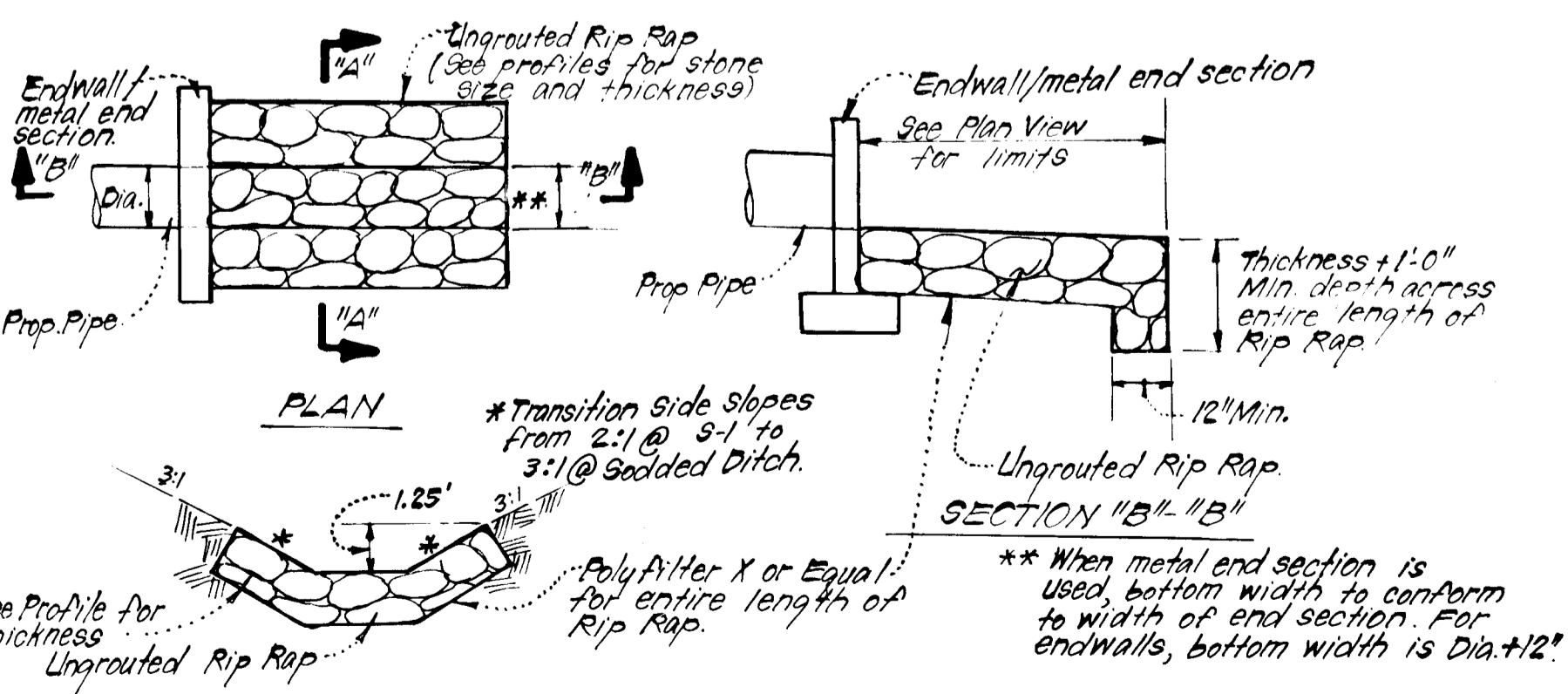
REVERSE 7" COMBINATION CURB & GUTTER
NO SCALE



STANDARD 6" COMBINATION CURB & GUTTER
NO SCALE



REVERSE 6" COMBINATION CURB & GUTTER
NO SCALE



UNGROUTED RIP RAP PAVING DETAILS
NO SCALE

AS-BUILT SURVEY CERTIFIED BY
DONALD B. SACKETT, L.S. 6059
JAN. 11, 82

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: *John P. ...* Date: 4/1/82



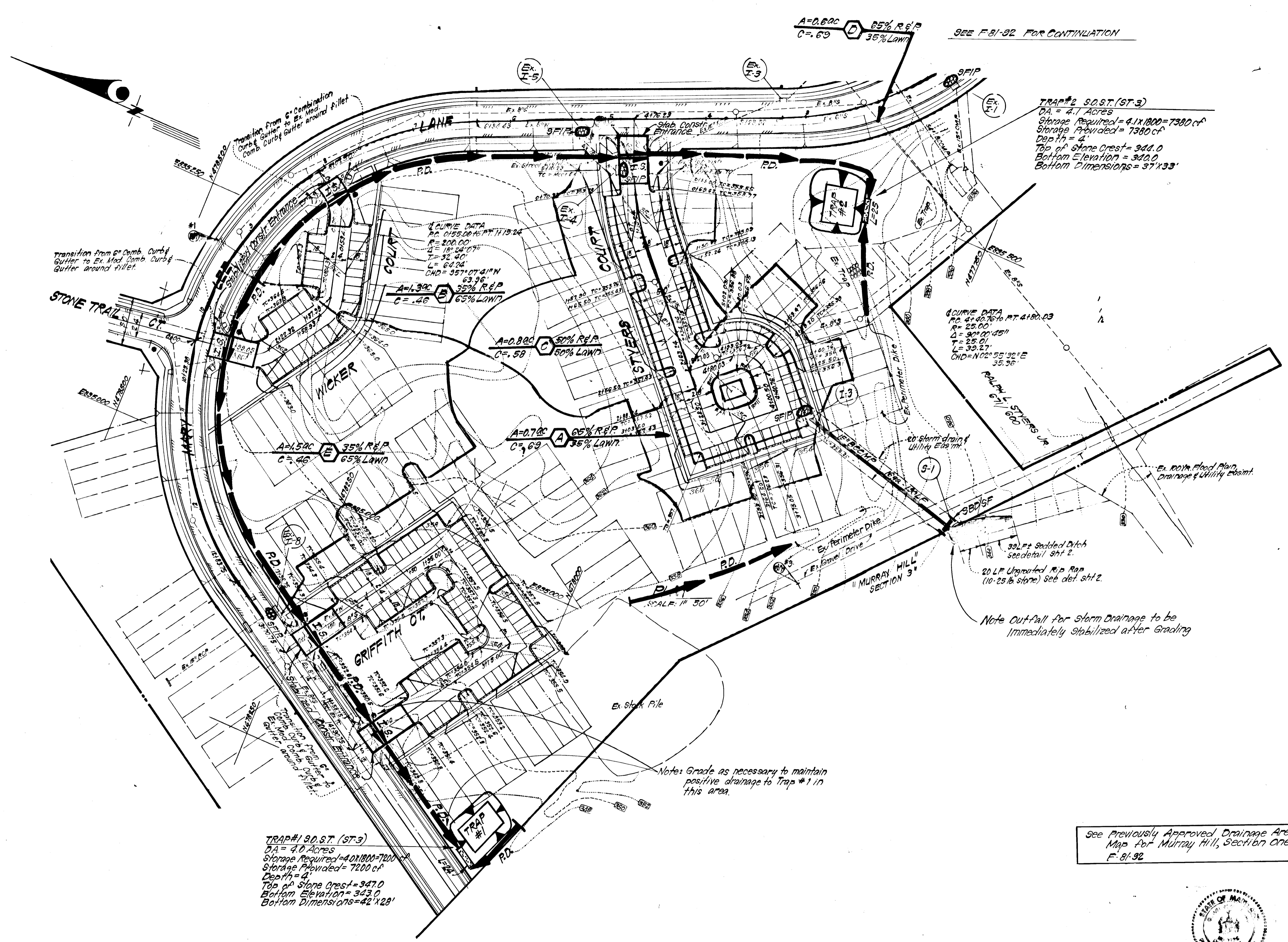
Reviewed for: *Howard* S.C.D.
Name: *Howard*
Signature: *John P. ...* Date: 5/21/82
U.S. Soil Conservation Service
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

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 P. ...* Date: 4-1-82
G. Nelson Clark

APPROVED: Department of Public Works
Donald B. Sackett 5/26/82
Chief, Bureau of Engineering
APPROVED: Howard County Office of Planning and Zoning
William ... 5/21/82
Chief, Division of Land Development & Zoning Administration

CLARK · FINEFROCK & SACKETT
ENGINEERS · PLANNERS · SURVEYORS
11314 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 (301) 593-1400

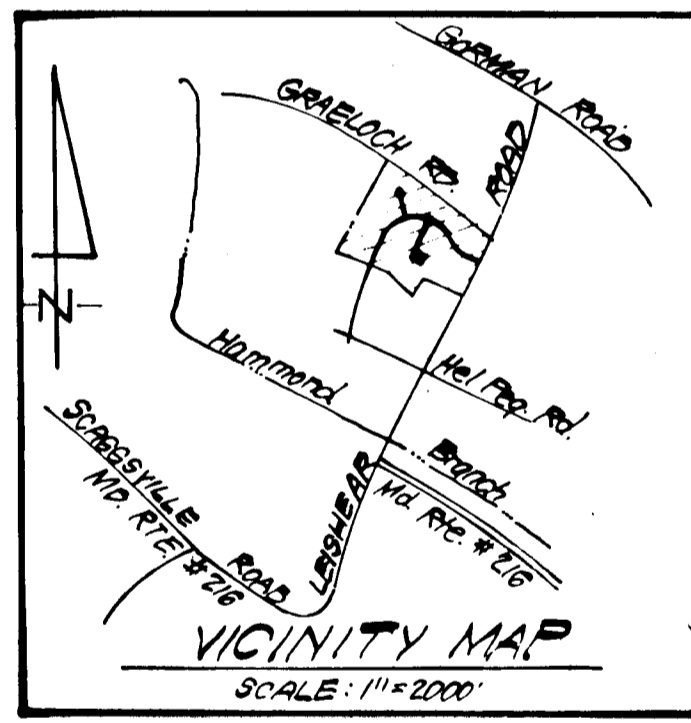
DESIGNED	J.L.S.	ROAD CONSTRUCTION PLANS PROFILES AND DETAILS	SCALE
DRAWN	K.I.W.	MURRAY HILL	AS SHOWN
CHECKED	J.L.S.	SECTION ONE 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	20-F4
DATE	3-31-82	FOR: BRANTLY DEVELOPMENT Suite 105 5501 Twin Knolls Rd. Columbia, Maryland 21045	JOB NO. 82-009
			FILE NO. 82-009-D



SEE F-81-92 FOR CONTINUATION

- CONSTRUCTION SEQUENCE:**
1. Install Stabilized Construction Entrances, and S.F.I.P.'s at Existing Inlets.
 2. Construct remainder of Sediment & Erosion Control Measures
 3. Rough Grade site
 4. Adjust Existing Utilities and construct prop. utilities.
 5. Construct storm drainage and install S.F.I.P.
 6. Fine Grade and construct paving, sidewalks, etc.
 7. Stabilize all other disturbed areas onsite in accordance with stds & specs.
 8. Remove sediment & erosion control measures after all areas draining to them have been stabilized.

- LEGEND:**
1. Contour Interval 2 FT
 2. Existing Contour
 3. Proposed Contour
 4. Direction of Drainage
 5. Perimeter Dike
 6. Straw Bale Dike or Silt Fence
 7. Stone Filter Inlet Protection S.F.I.P.
 8. Stabilized Construction Entrance
 9. Interceptor Swale
 10. Sediment Trap



See Previously Approved Drainage Area Map For Murray Hill, Section One F-81-92

TRAP #1 S.O.S.T. (ST-3)
 DA = 4.0 ACRES
 Storage Required = 4,018,000 = 7200 cf
 Storage Provided = 7200 cf
 Depth = 4'
 Top of Stone Crest = 347.0
 Bottom Elevation = 343.0
 Bottom Dimensions = 42' X 28'

Reviewed for HOWARD, R.C.D.
 and meets Technical Requirements
 of Howard County, 5/28/82
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Approved: [Signature] Date: 5/28/82

DEVELOPER'S/BUILDER'S CERTIFICATE
 "I/We certify that all development and construction will be done according to this plan of development and plans for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Class of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize my/our on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."
 [Signature] Date: 4-1-82

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] Date: 4-1-82

APPROVED: Department of Public Works [Signature] Chief, Bureau of Engineering APPROVED: Howard County Office of Planning and Zoning [Signature] Chief, Division of Land Development & Zoning Administration		
CLARK FINEFROCK & SACKETT ENGINEERS • PLANNERS • SURVEYORS 11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20906 (301) 593-3400		
DESIGNED J.L.S.	ROAD CONSTRUCTION PLANS SEDIMENT & EROSION CONTROL PLANS DRAINAGE AREA MAP	SCALE As Shown
DRAWN K.I.M.	MURRAY HILL	DRAWING 3 OF 4
CHECKED J.L.S.	SECTION ONE 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 82-003
DATE 3-31-82	FOR: BRANTLY DEVELOPMENT SUITE 105 5501 TWIN KNOLLS ROAD COLUMBIA MARYLAND 21045	FILE NO. 82-003-D

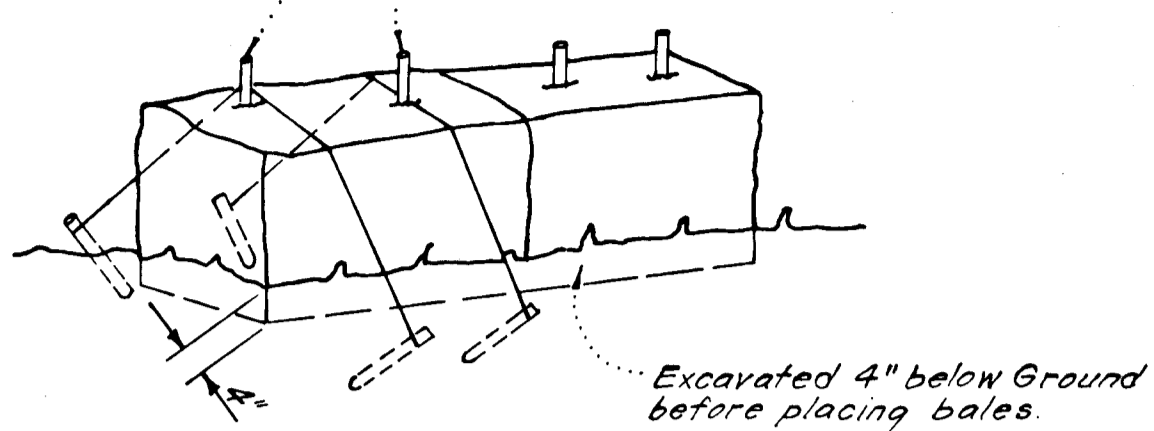
GENERAL NOTES

- Grading Permits shall be obtained prior to installation of Sediment Control & Grading.
- All Sediment and Erosion Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of the existing surface of the site. See note #6 for stabilization except that the seed mixture will be annual rye applied at a rate of 14 lbs/1000 sf.
- Notify the Bureau of Inspections and Permits at least 24 hrs. before starting any work.
- All Sediment Control Practices to conform to the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" and shall be adjusted to meet actual field conditions.
- Stabilization of Disturbed ground to be done as soon after construction as possible.
- All disturbed area to be stabilized in accordance with the following Specifications:
 - Seed - certified 85% germination applied at the rate of 3 1/2 lbs/1000 sf. Mixture - 40% Kentucky Blue, 20% chewing Fescue, 20% Kentucky 31 and 20% annual rye.
 - Fertilizer - 10-10-10 applied at a rate of 23 lbs/1000 sf. Ground Agricultural Lime or Dolomitic Lime applied at a rate of 20 lbs/1000 sf.
 - Mulch - Weed free grain straw applied at a rate of 70-90 lbs/1000 sf. Mulch shall be secured to the ground by any approved method i.e.; asphalt tacks, chemical binder etc.
 - All Sod used shall be Maryland State Certified.
- All structural Sediment Control Measures are to remain in place until permission for their removal has been obtained from the Bureau of Inspections and Permits.
- On-Site Inspection and Maintenance of all Sediment Control Measures including clean out of Sediment Traps and Dikes, and proper establishment of all planned vegetative measures will be the responsibility of the developer or his representative on the site, on a continuing day to day basis.
- It will be the developers responsibility to provide additional Sediment & Erosion Control Devices to protect stabilized areas during construction.
- The Contractor shall keep all public roads free of sediment deposits left from traffic leaving construction site.
- Approval of this plan is conditional upon the approval of Sediment Control Plan for the off-site waste or borrow area prior to the import of any borrow or export of waste to or from this site.
- All pipes to be blocked at the end of each day. See detail this sheet.
- Total Amount of Straw Bales or Silt Fence shown = 20 L.F.
- SITE ANALYSIS:

A. Total Area:	7.382	Acres
B. Area to be Roofed:	0	Acres
C. Area to be Paved:	1.551	Acres
D. Area to be Seeded:	1.553	Acres
E. Area Undisturbed:	4.285	Acres

All bales shall be tied with non-weathering materials, i.e., wire, nylon.

Two rebars or wooden stakes driven through each hole 1 1/2"-2" into ground. Rebars to be driven flush with top of bales.

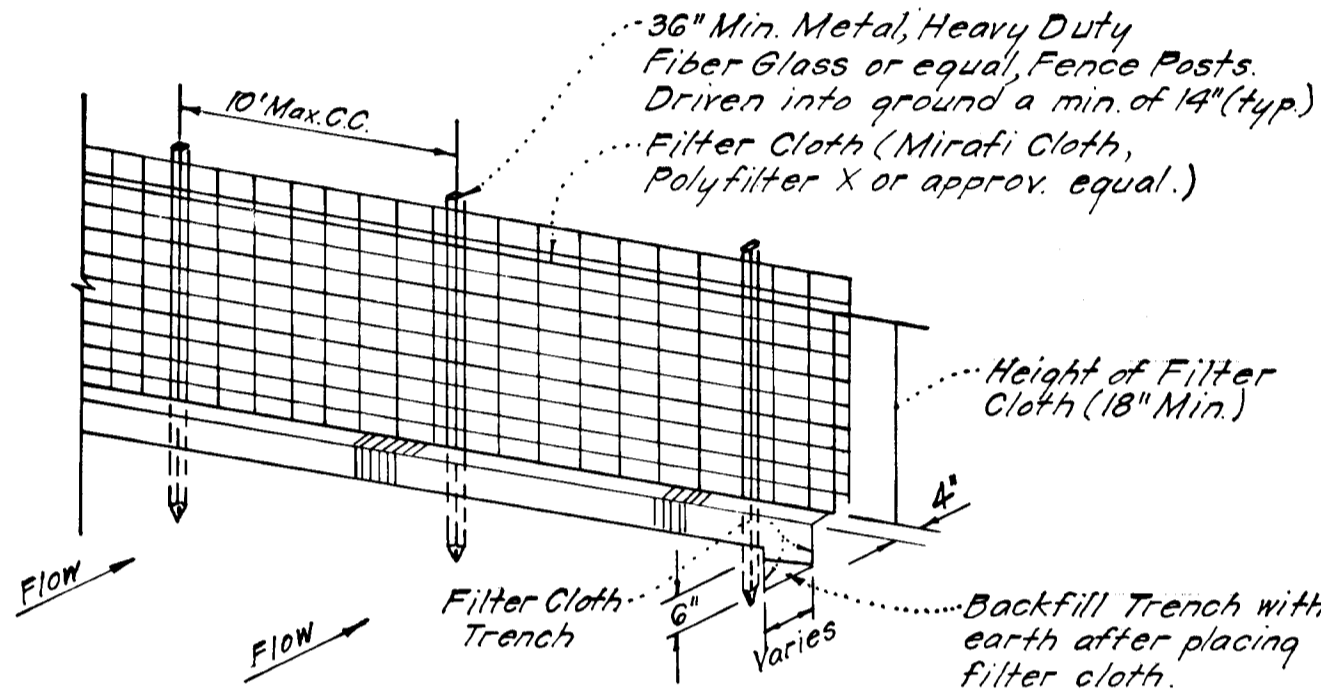


Note:
1. In lieu of the use of rebars each straw bale may be fastened to ground with pegs (4 per bale and wire or nylon as shown above.)

STRAW BALE DIKE DETAIL (S.B.D.)

No SCALE

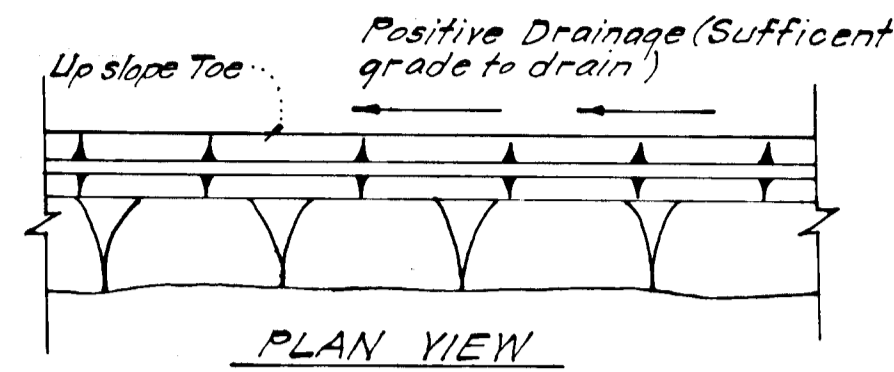
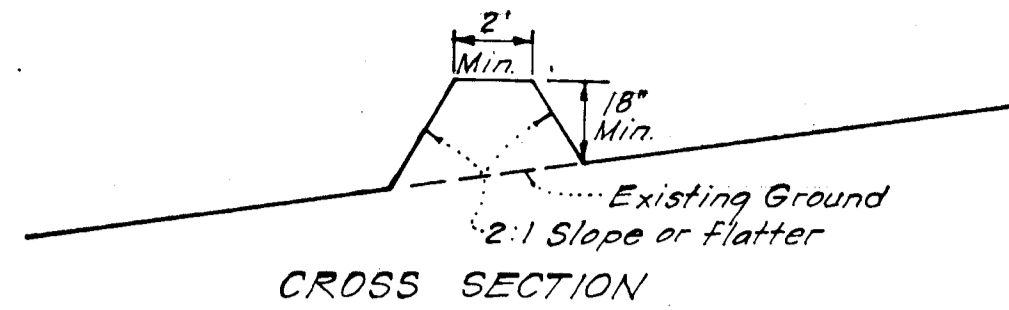
Woven wire fence - Min. 14 gage; 6" Max spacing



Notes:
1. Woven Wire Fence to be fastened securely to fence posts by use of wire ties.
2. Filter Cloths to be fastened securely to Woven Wire, by use of wire ties spaced every 24"x24".

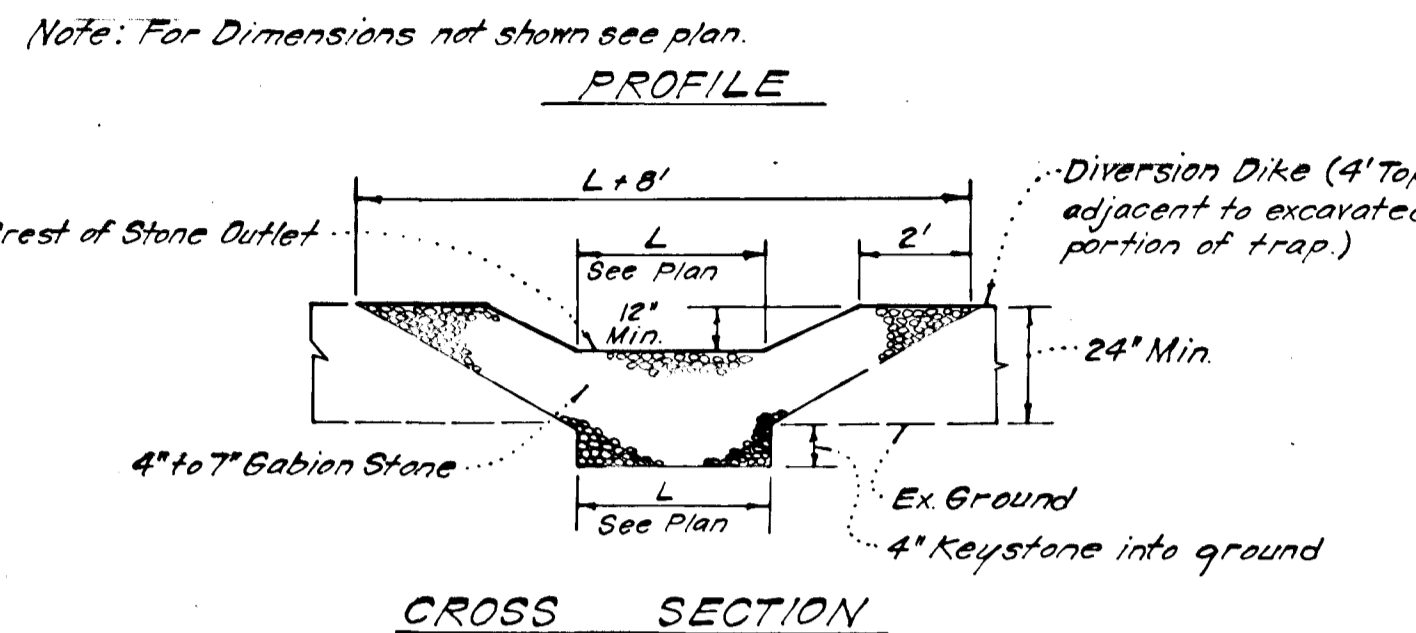
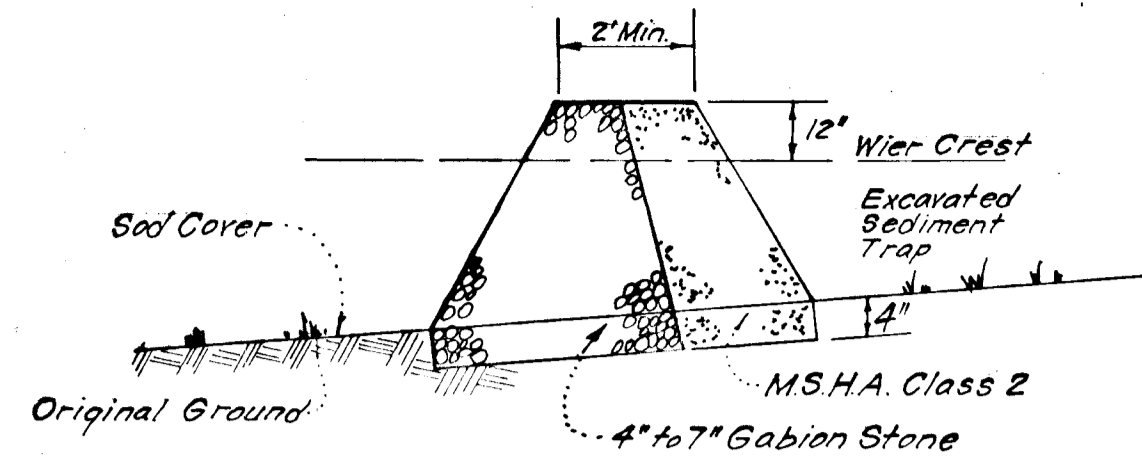
SILT FENCE DETAIL (S.F.)

No SCALE



PERIMETER DIKE (P.D.)

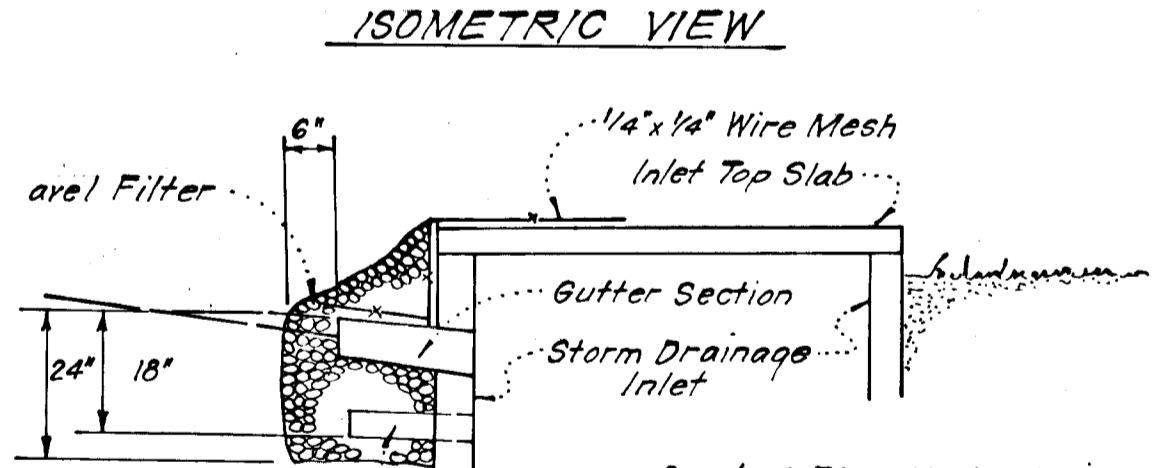
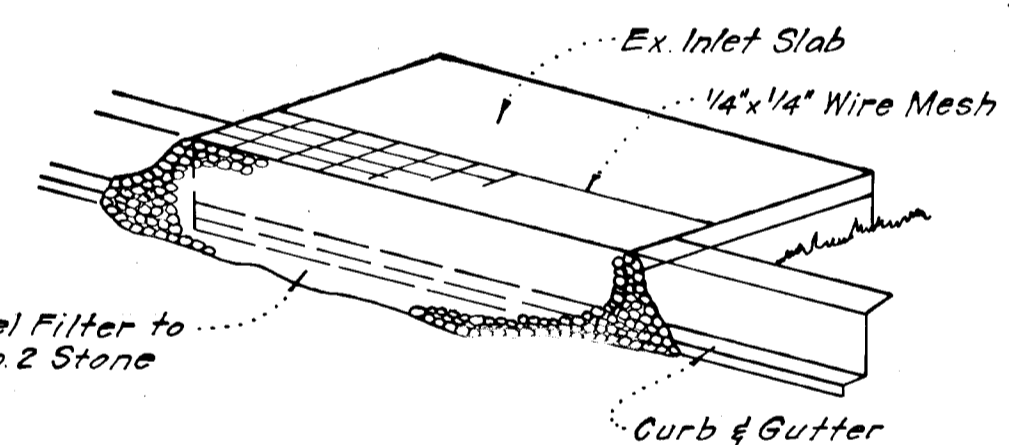
No SCALE



Notes:
1. Sediment Trap to be cleaned out when sediment reaches a level of 1ft. below crest of stone outlet.
2. Bottom of Sediment Trap to be level and constructed to the dimensions shown on plan.
3. Stone Outlet to be constructed through diversion dike adjacent to excavated.

DETAILS OF STONE FILTER OUTLET FOR STONE OUTLET SEDIMENT TRAP

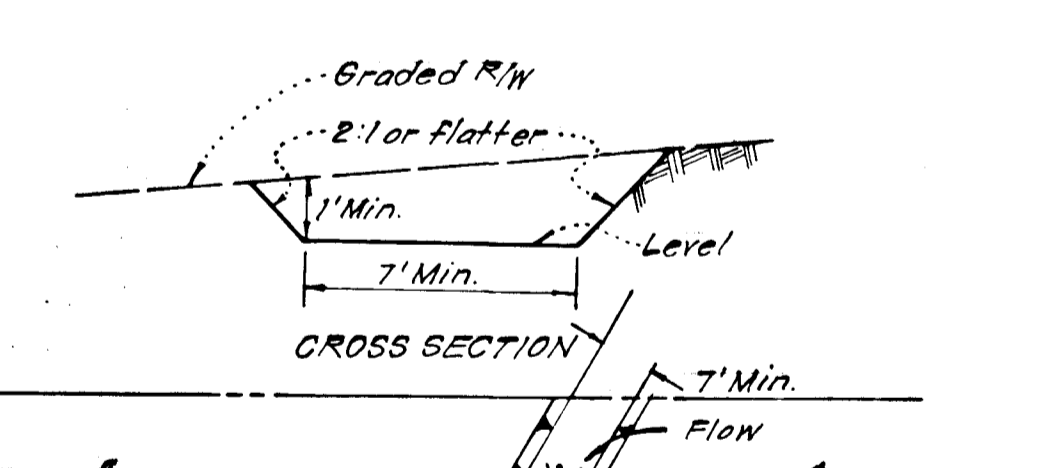
No SCALE



* 6" Preforated Pipe Underdrain to be installed at time of inlet construction. Do not install preforated pipe and stone below ground if inlet and/or paving are constructed.

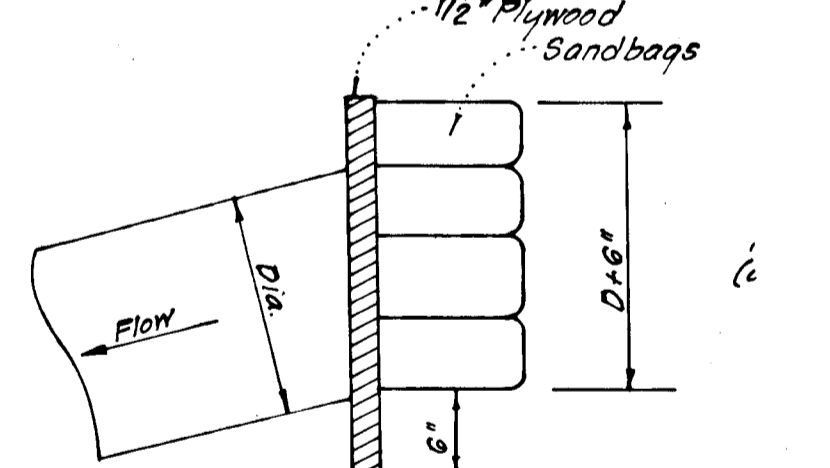
STONE FILTER INLET PROTECTION (S.F.I.P.)

No SCALE



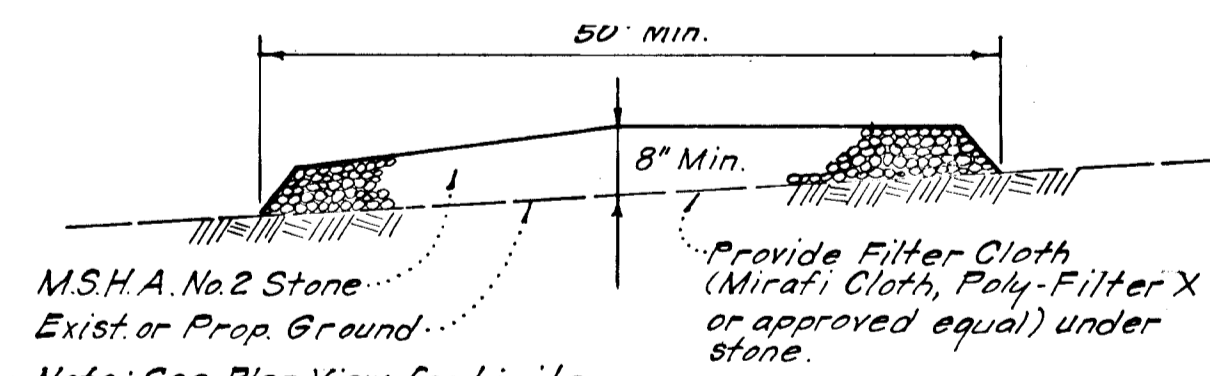
INTERCEPTOR SWALE (I.S.)

No SCALE



PIPE BLOCKING DETAIL

No SCALE



STABILIZED CONSTRUCTION ENTRANCE

No SCALE

Reviewed for HOWARD S.C.D. Name
and meets Technical Requirements
Signature [Signature] Date 5/21/82
U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] Date 5/21/82
Approved

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 persons, 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] Date 5/1/82
Signature of Developer/Builder

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] Date 4-1-82
G. Nelson Clark



APPROVED: Department of Public Works
[Signature] Date 5-21-82
Chief, Bureau of Engineering
APPROVED: Howard County Office of Planning and Zoning
[Signature] Date 5-21-82
Chief, Division of Land Development & Zoning Administration

CLARK • FINEPROCK & SACKETT ENGINEERS • PLANNERS • SURVEYORS 11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 301-593-3400		
DESIGNED	ROAD CONSTRUCTION PLANS	SCALE
<u>J.L.S.</u>	SEDIMENT & EROSION CONTROL PLAN	As Shown
DRAWN	MURRAY HILL	DRAWING
<u>R.I.W.</u>		4 OF 4
CHECKED	SECTION ONE	JOB NO.
<u>J.L.S.</u>	6TH ELECTION DISTRICT	82-009
DATE	HOWARD COUNTY, MARYLAND	FILE #
3-31-82	FOR: BRANTLY DEVELOPMENT	82-009-D
	Suite 105, 5501 Twin Knolls Rd	
	Columbia, Maryland 21045	