

PLANT SCHEDULE				
KEY	PLANT NAME	SIZE	QUANT.	REMARKS
(R)	Acer Rubrum 'Red Sunset'	2 1/2" CAL	27	B & B. HEAVY HEADS
(S)	Acer Saccharum 'Green Mt'	" 11	13	"

- NOTES:
- Contractor shall verify location of underground utilities prior to digging.
 - Final location of trees may be adjusted slightly to accommodate field conditions.
 - Planting procedure shall comply with "Landscape Specs. for Baltimore-Washington Metropolitan Areas."
 - 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 H.C. Subdivision Regulations.

CURB & GUTTER LEGEND

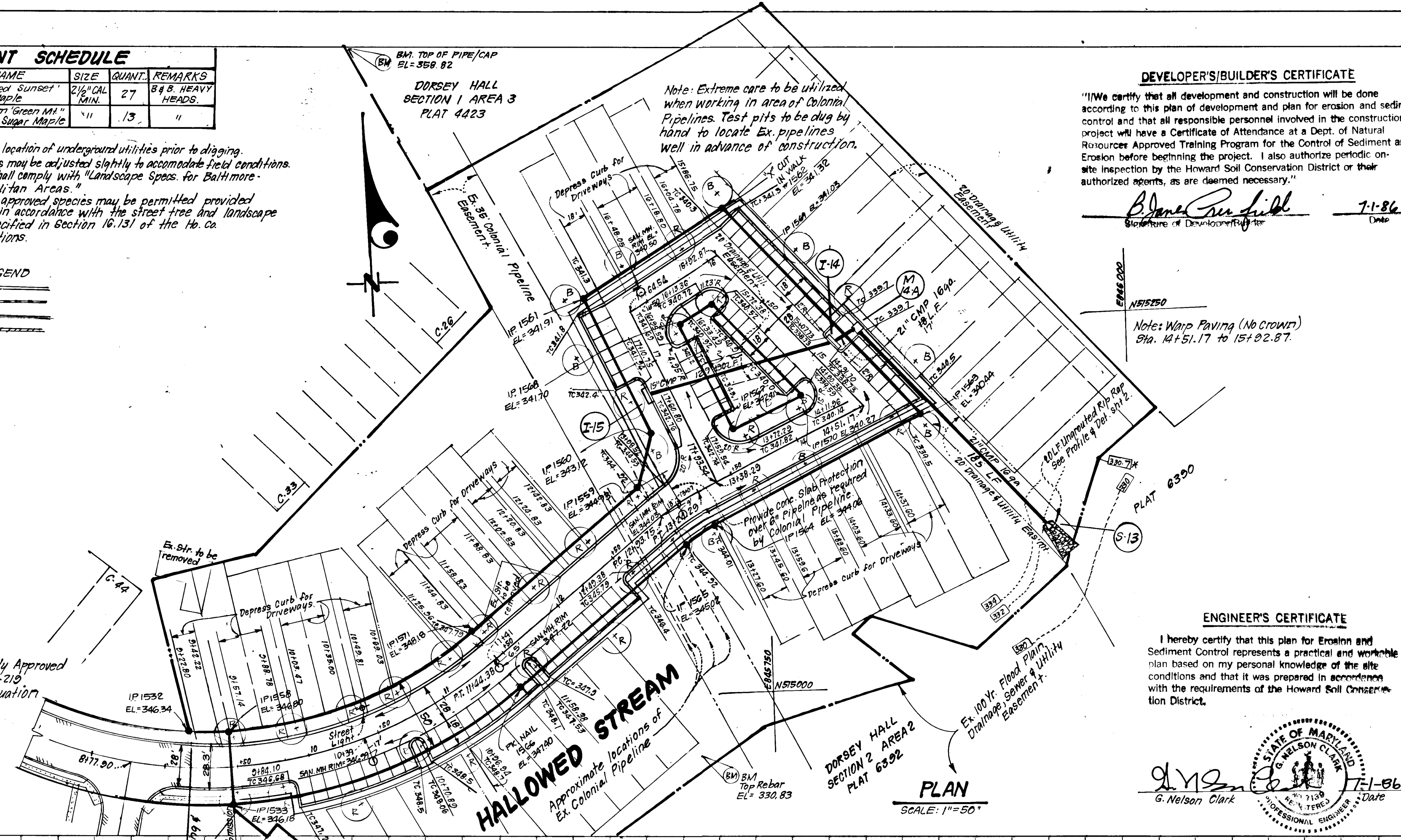
Std. 7" C&G	=====
Rev. 7" C&G	=====
Rev. 6" C&G	=====
Std. 6" C&G	=====

Reviewed for... *Howard*...
Name
and meets Technical Requirements
Signature
U.S. Soil Conservation Service

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

Stephen L. Schulz 10/23/86
Approved Date

CENTERLINE CURVE DATA				
STATIONS	RADIUS	Δ	ARC TAN	CHORD & BEARING
PC 6167.90 to PT 11444.38	300.00'	90° 00' 00"	476.48	305.28 127.95 S83°27'20"E
PC 12123.75 to PT 13124.29	125.00'	14° 00' 00"	30.54	15.35 30.47 N58°02'40"E



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 work. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

James R. Hill 7-1-86
Signature of Developer/Builder Date

- GENERAL NOTES
- All storm drain & paving shall be constructed in accordance with the latest edition and specifications of Howard County & MDSA.
 - Types of storm drainage refer to the Standard Details of H.C. & MDSA.
 - Trench, compaction for storm drains within road or street right-of-way limits shall be in accordance with "H.C. Design Manual, Vol. IX" 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 24 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 "H.C. Design Manual," Vol. III.
 - Provide Concrete Sidewalk Ramps, H.C. Std. Type A, R-4.01 where shown in plan.
 - Design Speed: 30 mph Zoning: RSC
 - The contractor or developer shall contact the Construction Inspection/Survey Division 24 hrs. in advance of commencement of work. Ph. 772-7272.
 - Storm Water Management Provided in Central Facility in Dorsey Hall Section 2 Area 1. P-85-16.
 - Provide 175 Watt Mercury Vapor Lamp Post Top Fixture on 14' Gray Fiberglass Pole. Sta. 10150 Hallowed Stream.

OWNER: HOWARD RESEARCH & DEVEL. LAND CO.
10275 Little Patuxent Parkway
Columbia, Md. 21044

APPROVED: DEPARTMENT OF PUBLIC WORKS

William E. R... 10-28-86
Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

John W. ... 10-24-86
Chief, Division of Land Development and Zoning Administration Date

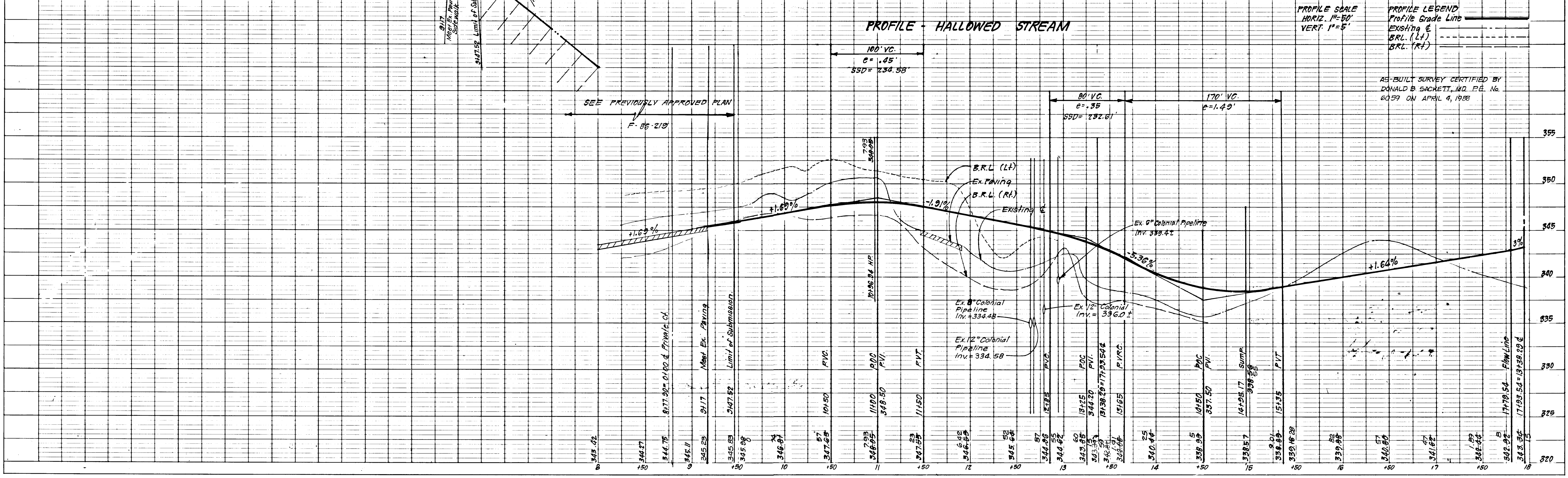
CLARK · FINEFROCK & SACKETT
ENGINEERS · PLANNERS · SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

DESIGNED	JLS	ROAD CONSTRUCTION PLANS HALLOWED STREAM	SCALE As Shown
DRAWN	KIW	DORSEY HALL	DRAWING 1 of 3
CHECKED	JLS	SECTION 2 AREA 2 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 85-101
DATE	6-27-86	FOR: COLUMBIA BUILDERS, INC. 3 Lakefront North Suite 200 Columbia, Md. 21044	FILE NO. 85-101-D

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.

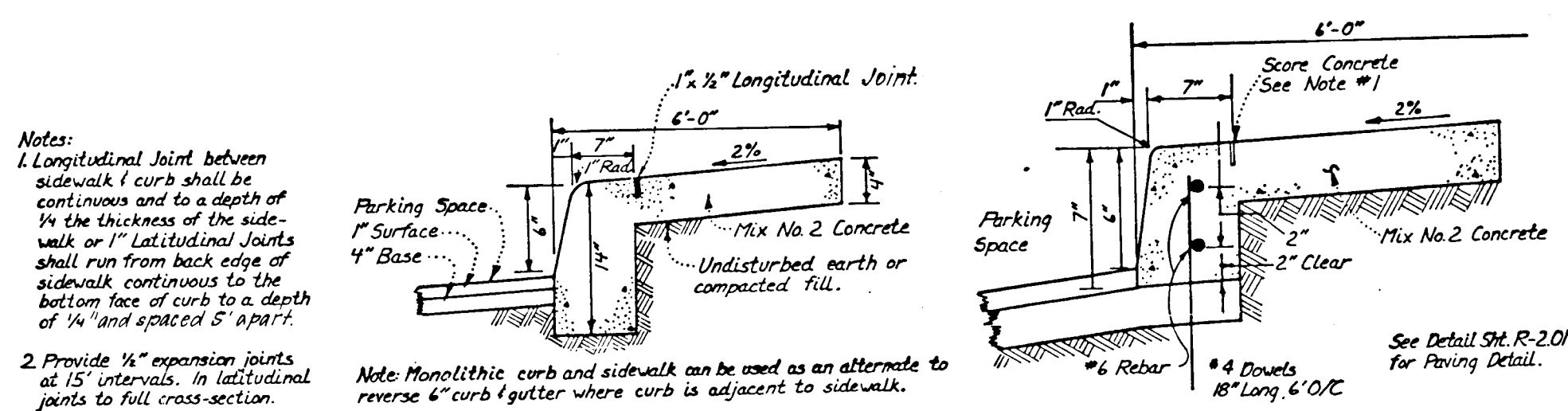
G. Nelson Clark 7-1-86
G. Nelson Clark Date



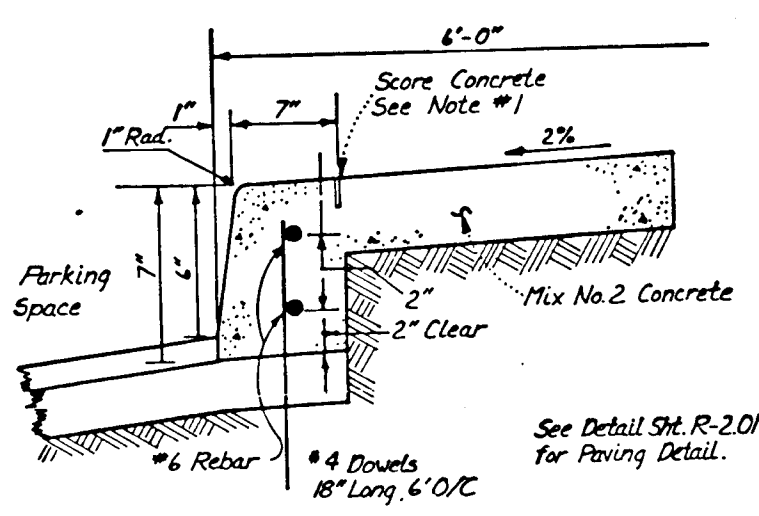
PROFILE SCALE
HORIZ. 1"=50'
VERT. 1"=5'

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

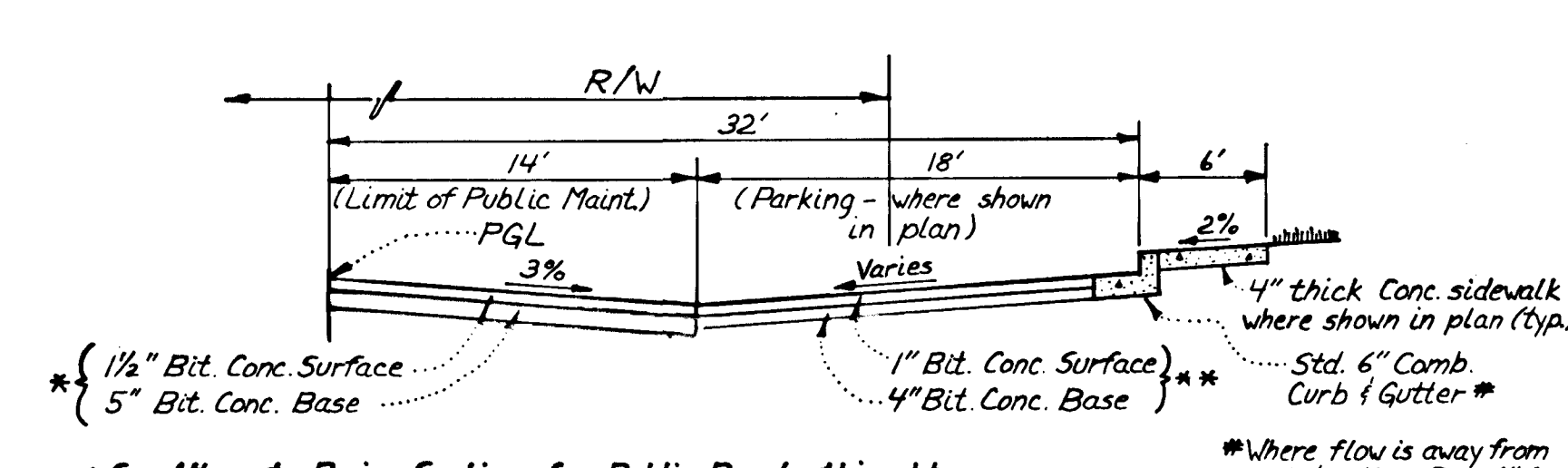
AS-BUILT SURVEY CERTIFIED BY
DONALD B. SACKETT, M.D. P.E. No. 6059 ON APRIL 9, 1988



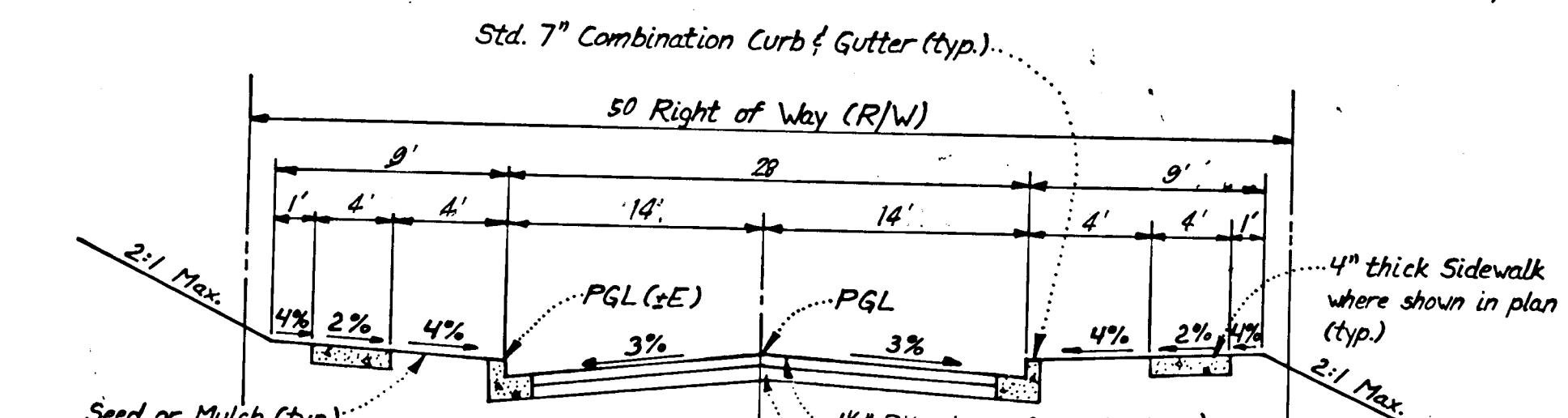
MONOLITHIC CURB & SIDEWALK - PRIVATE PARKING AREA
NO SCALE



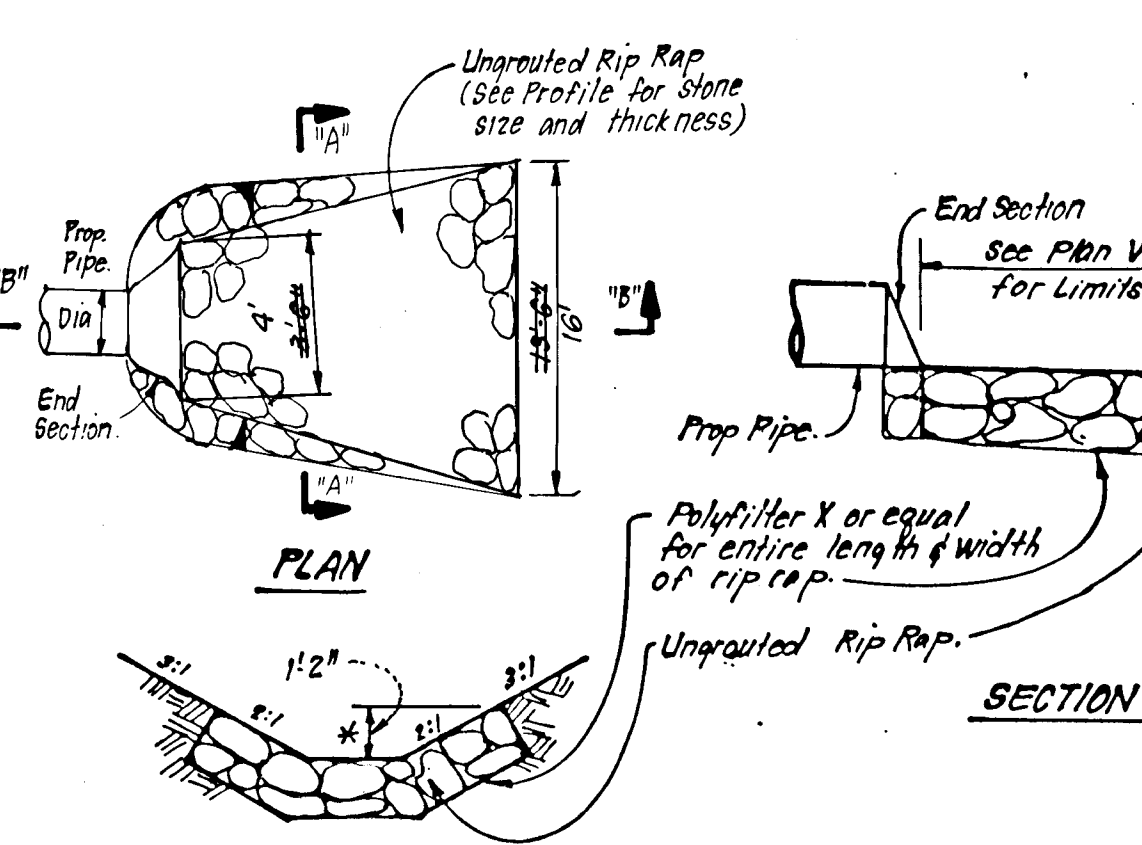
ALTERNATE SECTION
NO SCALE



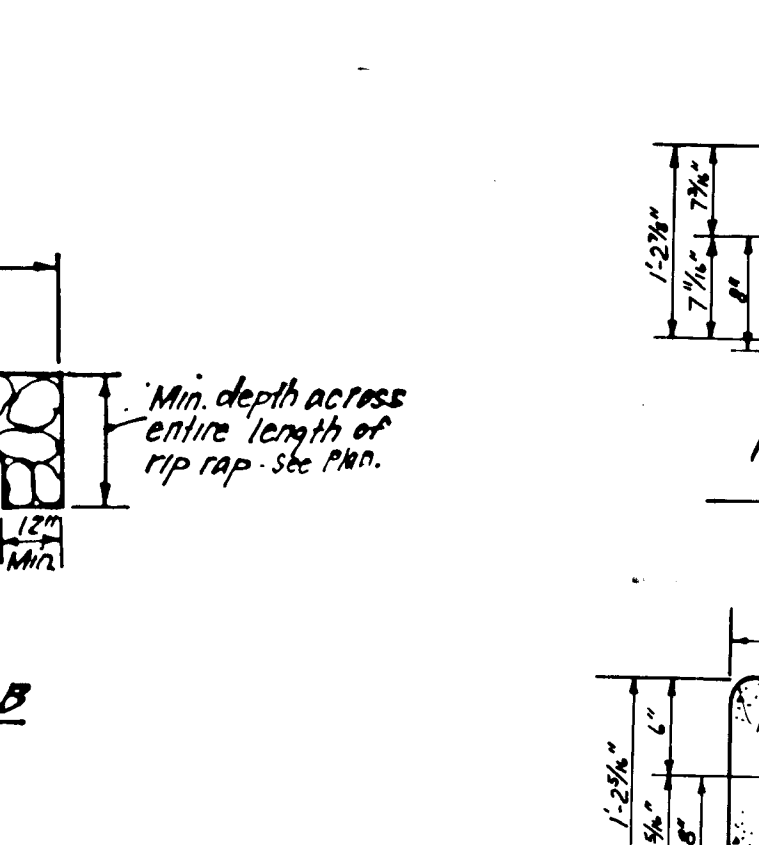
TYPICAL HALF SECTION PARKING ADJACENT TO PUBLIC ROADS
HALLOWED STREAM STA. 9+84.10 TO 12+49.38;
STA. 14+51.17 TO 17+59.54
NO SCALE



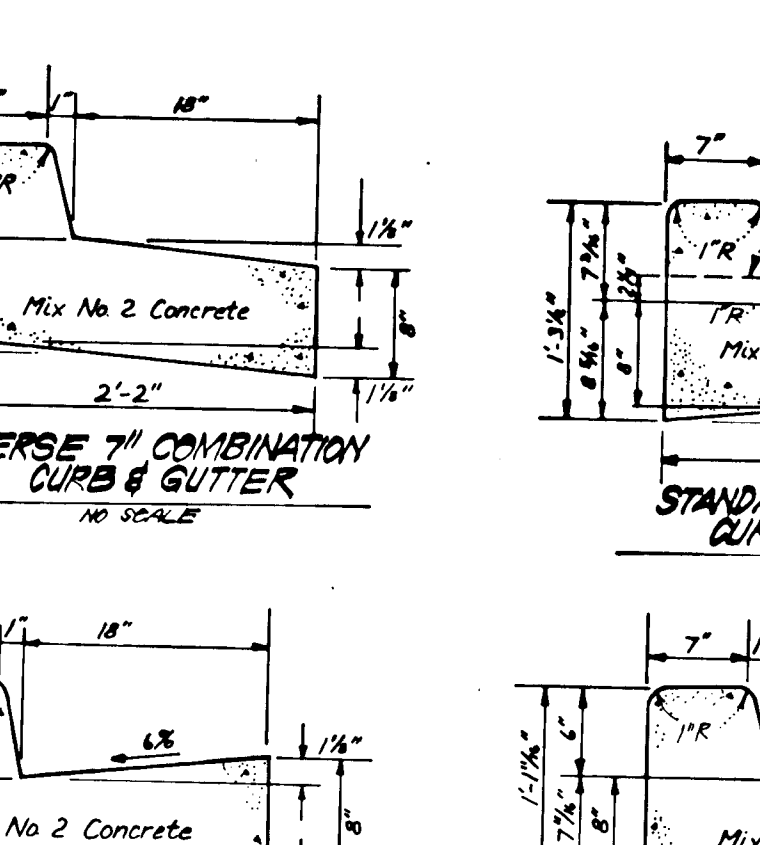
TYPICAL PAVING SECTION - HALLOWED STREAM
STA. 9+17.7 TO 9+84.10 & 12+49.38 TO 14+51.17 & 17+59.54 TO 17+83.54
NO SCALE



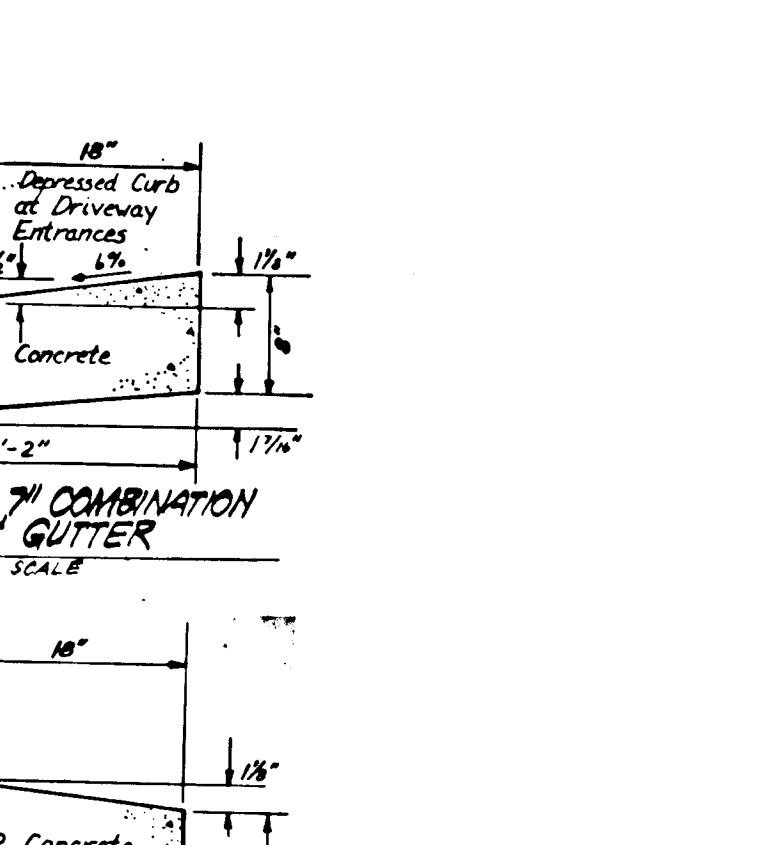
SECTION A-A
SECTION B-B
UNGROUTED RIPRAP PAVING DETAILS
NO SCALE



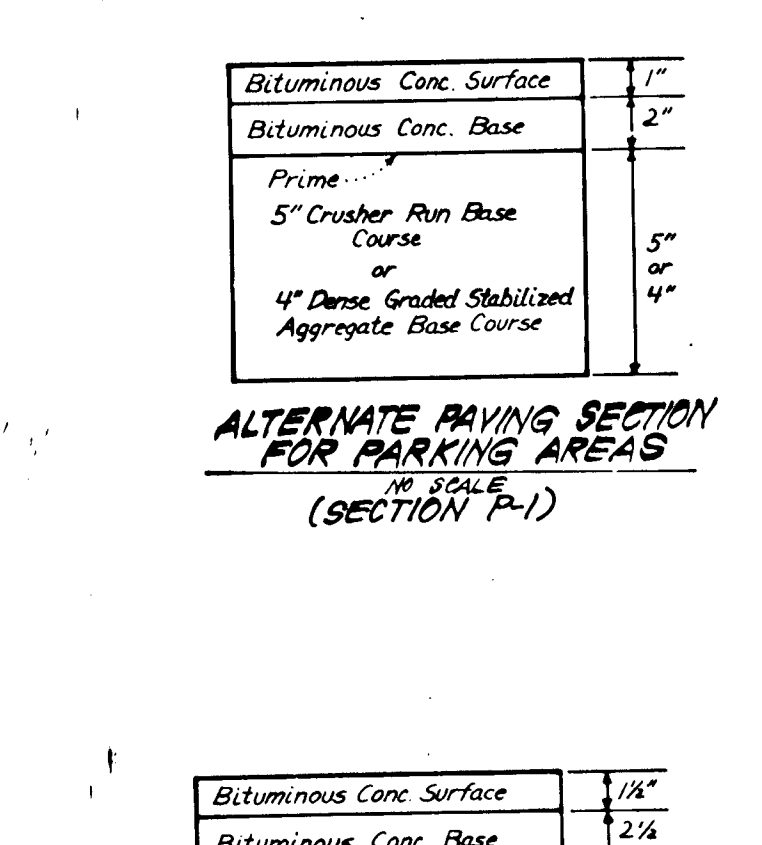
REVERSE 7 1/2 COMBINATION CURB & GUTTER
NO SCALE



STANDARD 7 1/2 COMBINATION CURB & GUTTER
NO SCALE



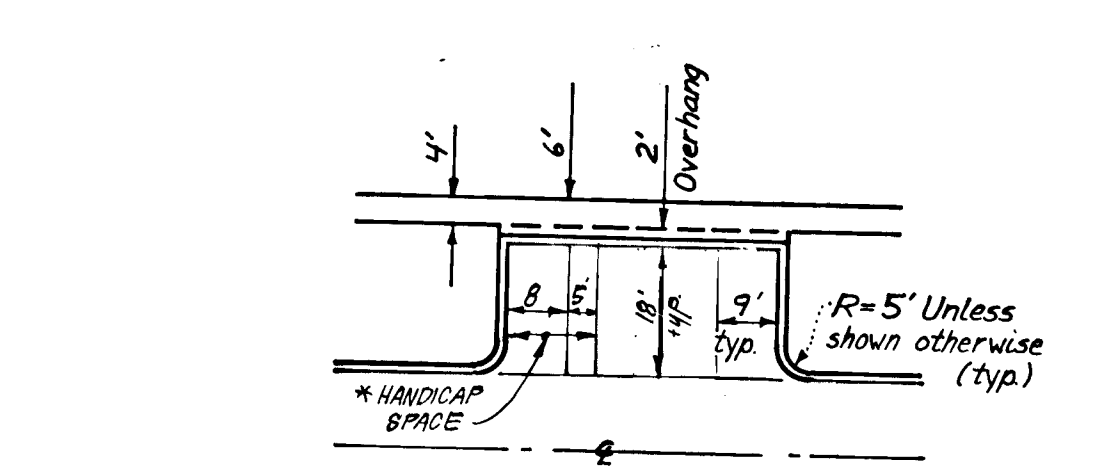
REVERSE 6 COMBINATION CURB & GUTTER
NO SCALE



ALTERNATE PAVING SECTION FOR PARKING AREAS (SECTION P-1)
NO SCALE

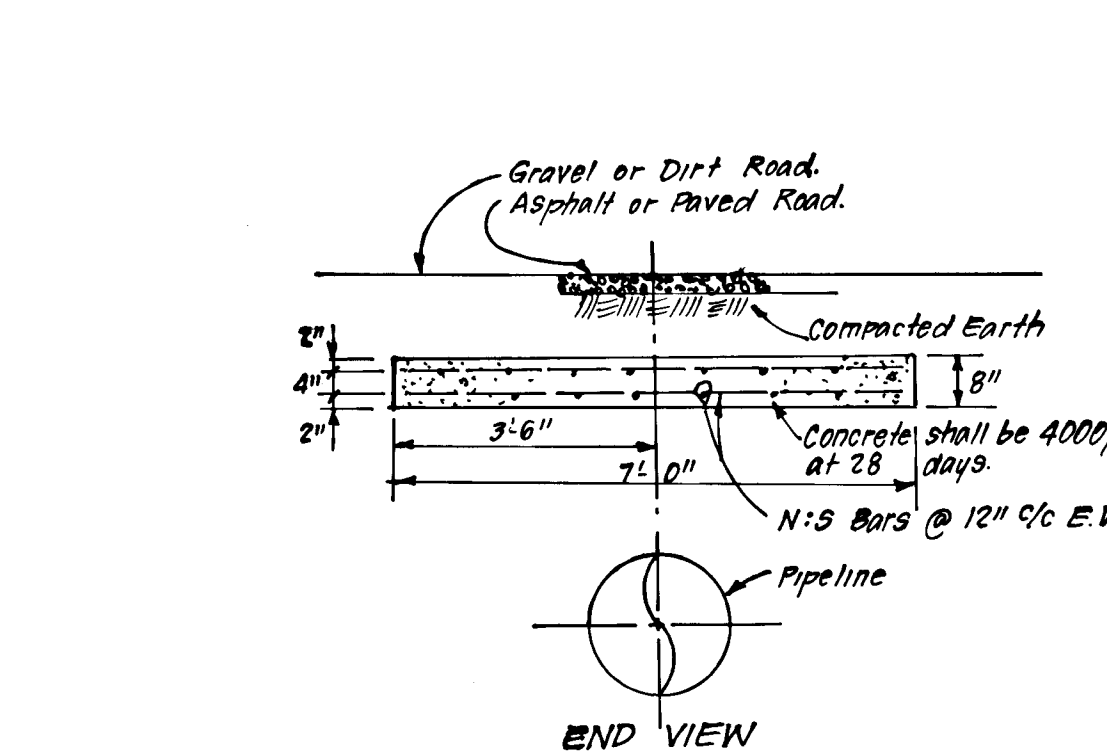


ALTERNATE PAVING SECTION FOR PUBLIC ROADS (SECTION P-2)
NO SCALE



TYPICAL PARKING
NO SCALE

* Two 8' Handicap Spaces may share one 5' Aisle



CONCRETE SLAB PROTECTION FOR PIPELINE UNDER HALLOWED STR.
NO SCALE

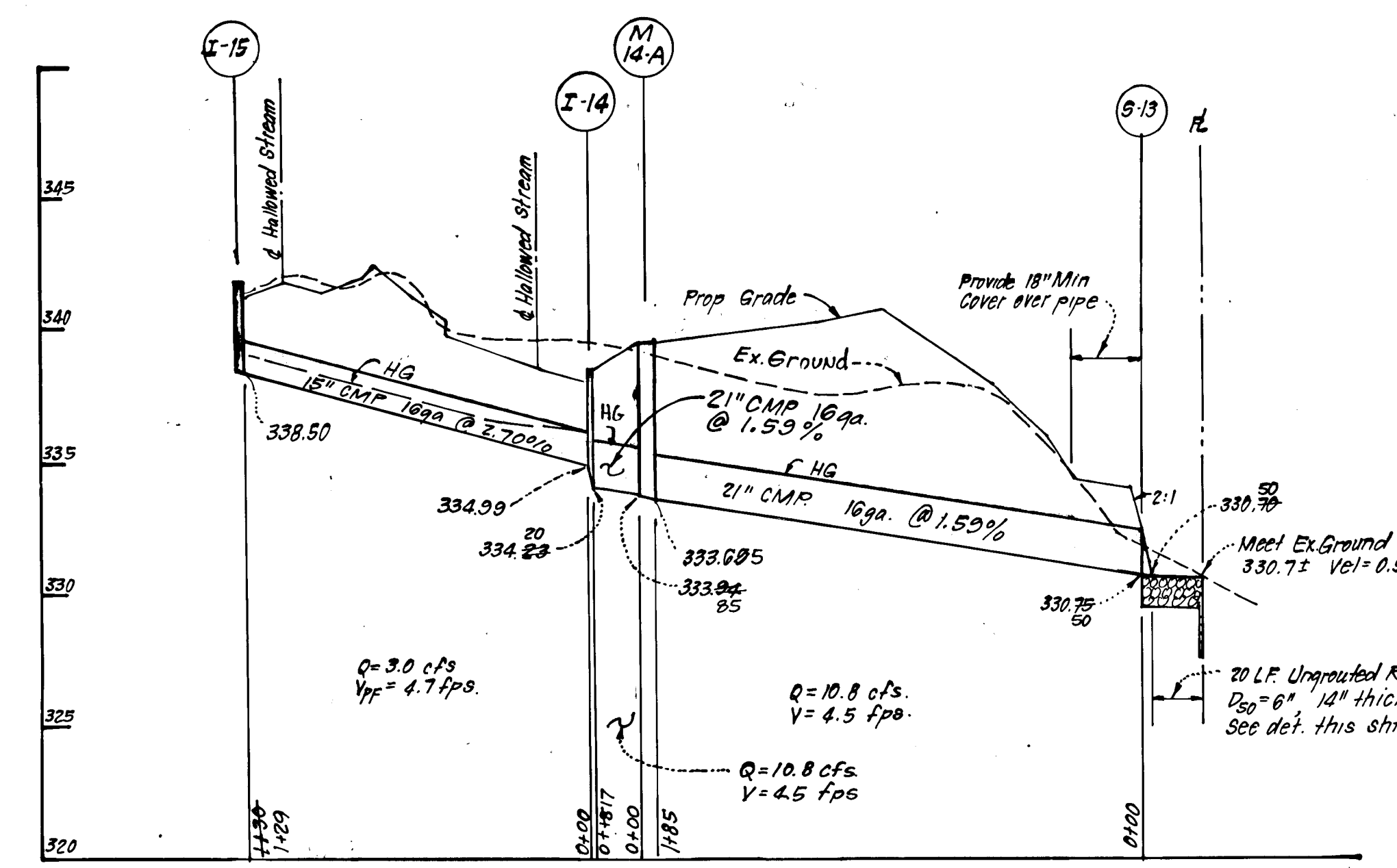
* Slab to be provided over Ex. 6" Colonial Pipeline where shown in plan.

STRUCTURE SCHEDULE Δ							
No.	TYPE	INV. IN	INV. OUT	TOP ELEVATION		REMARKS	LOCATION
				UPPER	LOWER		
S-13	Metal End Section	330.350	330.350	-	-	H.C. S.H. S.D.S. 61 DIA=21" Sec. Plan	
I-14	A-10 Inlet	334.09	334.250	338.90	66	" S.D. 4.02 W=2'6" & Str. Sta. 14+99.72	14' Rt.
I-15	A-10 Inlet	-	338.50	344.99	341.84	" S.D. 4.02 W=2'6" & Str. Sta. 17+19.25	14' Rt.
M-14	Shallow MW	333.92	333.695	339.30	85	" S.D. 65.05 48" S.R.	At Str. Sta. 14+91.67 35.5' Rt.

Δ All inverts to be fully developed.

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
18"	CMP 16ga	130 LF
21"	CMP 16ga	203 LF

* 2 1/2" x 1/2" corrugations.



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

Reviewed for... P.E.H. and meets Technical Requirements... U.S. Soil Conservation Service

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

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."

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.

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Chief, Division of Land Development and Zoning Administration

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

DESIGNED: JLS
DRAWN: N/W
CHECKED: JLS
DATE: 6-24-86

ROAD CONSTRUCTION PLANS
PAVING DETAILS

DORSEY HALL
SECTION 2 AREA 2
2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: COLUMBIA BUILDERS, INC.
3 Lakefront North, Suite 200
Columbia, Md. 21044

SCALE: As Shown
DRAWING: 2 OF 3
JOB NO.: 85-101
FILE NO.: 85-101-D

PERMANENT SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

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

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching - Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance - Inspect all seeded areas and make needed repairs, replacements and reseeds.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft)

Seeding - For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

SEDIMENT CONTROL NOTES

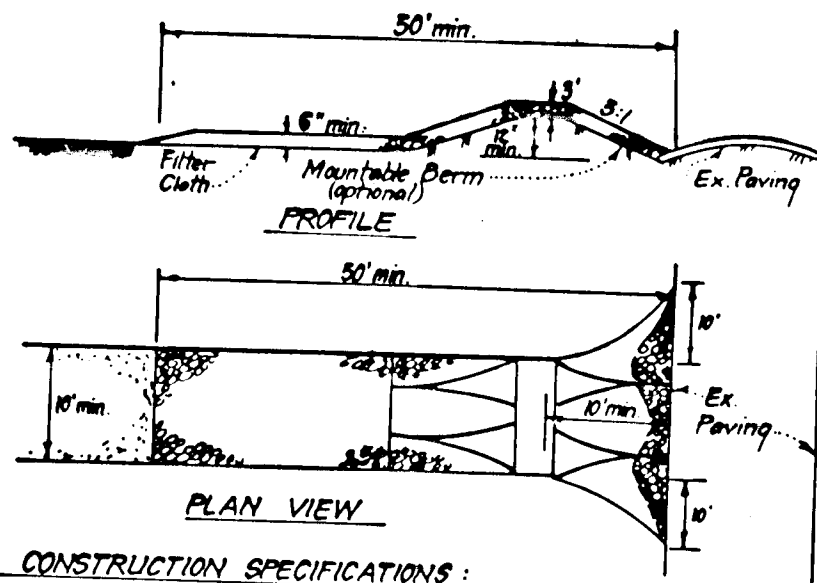
- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- 2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector
- 7) Site Analysis:

Total Area of Site	5.9166 Acres
Area Disturbed	1.30 Acres
Area to be roofed or paved	0.36 Acres
Area to be vegetatively stabilized	0.94 Acres
Total Cut	1180 Cu. yds
Total Fill	1180 Cu. yds
Offsite waste/borrow area location	N/A
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment control must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
- 10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- 11) If houses are to be constructed on an "As-Sold" basis, at random, Single Lot Sediment Control as shown below shall be implemented. N/A
- 12) All pipes to be blocked at the end of each day (see detail below).
- 13) The total amount of straw bale dikes/silt fence equals None L.F.

*** CONSTRUCTION SEQUENCE: NO. OF DAYS**

1. Obtain Grading Permit. 2 days
2. Clean-out and Restore existing Sediment & Erosion Control Measures. 7 days
3. Construct Storm Drainage. 30 days
4. Construct Utilities. 60 days
5. Fine grade and Construct paving. 90 days
6. Stabilize all other disturbed areas on site in accordance with stds and specs. 14 days
7. Upon approval of the Sediment control Inspector remove Sediment & Erosion Control measures and stabilize. 14 days

*Site mass graded as per previously approved plans F-86-219 Existing Sediment Control Measures to be Utilized.



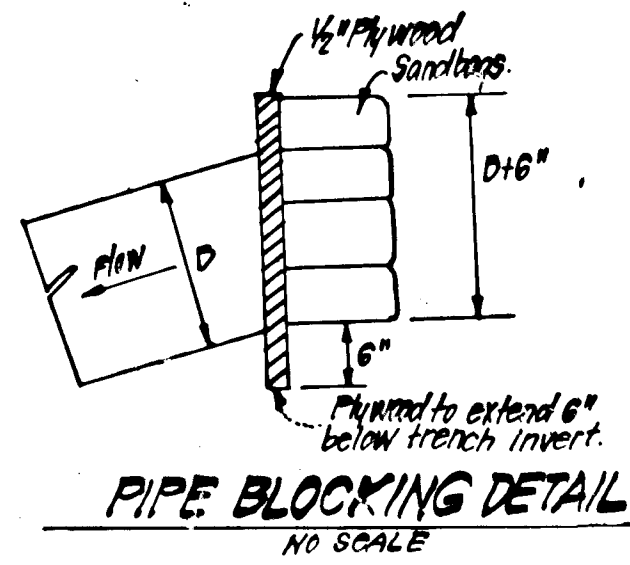
CONSTRUCTION SPECIFICATIONS:

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 simple residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) feet 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 flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a moundable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment into public rights-of-way. This may require periodic top dressing with additional stone. This shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
8. Warning - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-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.
9. Periodic inspection and needed maintenance shall be provided after each rain.

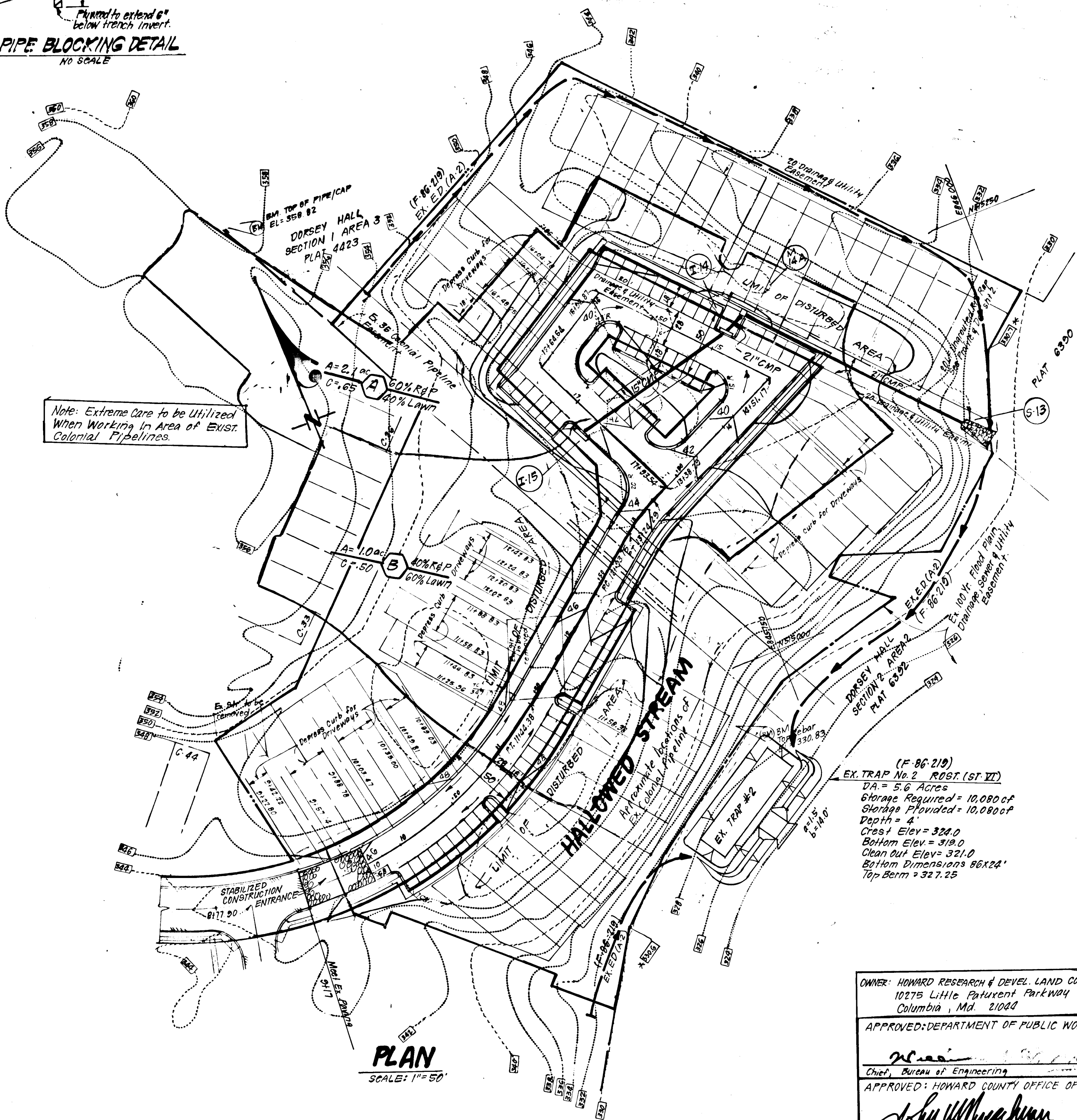
STABILIZED CONSTRUCTION ENTRANCE (SCE)

LEGEND:

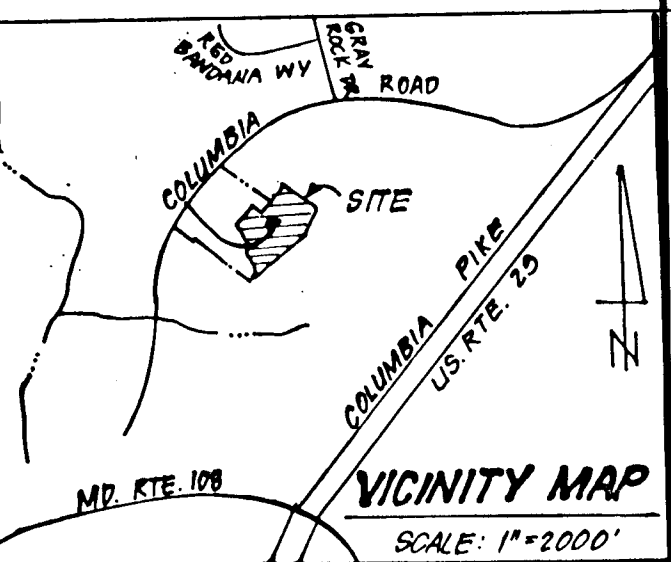
1. Existing Contour
2. Proposed Contour
3. Ex. Earth Dike
4. Prop. Storm Drain
5. 100 Yr. Flood Plain Elev.



Note: Extreme Care to be Utilized When Working in Area of EXIST. Colonial Pipelines.



AS-BUILT SURVEY CERTIFIED BY DONALD B. SACKETT, MD. P.E. No. 6059 ON 4-8-88



OWNER: HOWARD RESEARCH & DEVELOPMENT CO.
10275 Little Patuxent Parkway
Columbia, Md. 21044

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Chief, Division of Land Development and Zoning Administration

CLARK • FINEFROCK & SACKETT ENGINEERS • PLANNERS • SURVEYORS		11316 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 693-3400	
DESIGNED	JLS	SCALE	As Shown
DRAWN	KIW	DRAWING	3 OF 3
CHECKED	JLS	JOB NO.	85-101
DATE	6-26-86	FILE NO.	85-101-D

FOR: COLUMBIA BUILDERS, INC.
3 Late Front North, Suite 200
Columbia, Md. 21044

Reviewed for...
and meets Technical Requirements
Signature
U.S. Soil Conservation Service

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

Signature
Date: 10/23/86

DEVELOPER'S/BUILDER'S CERTIFICATE

"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
Date: 7-1-86

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 Districts.

Signature
Date: 7-1-86