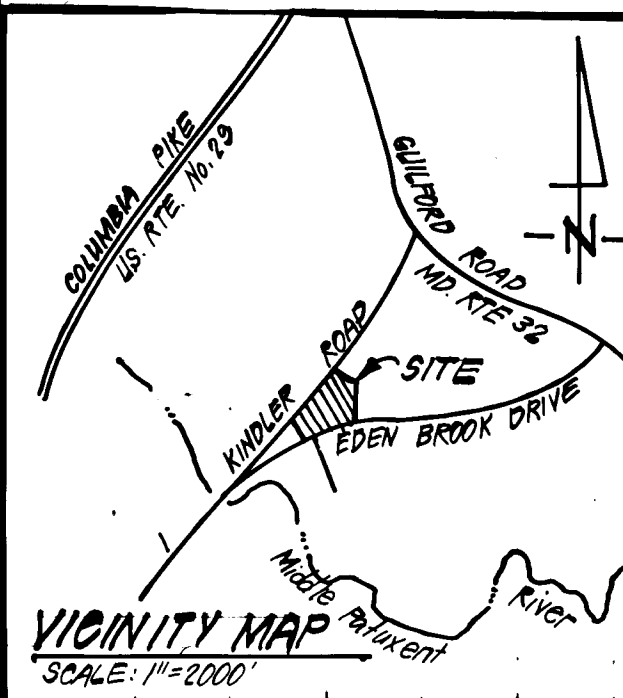
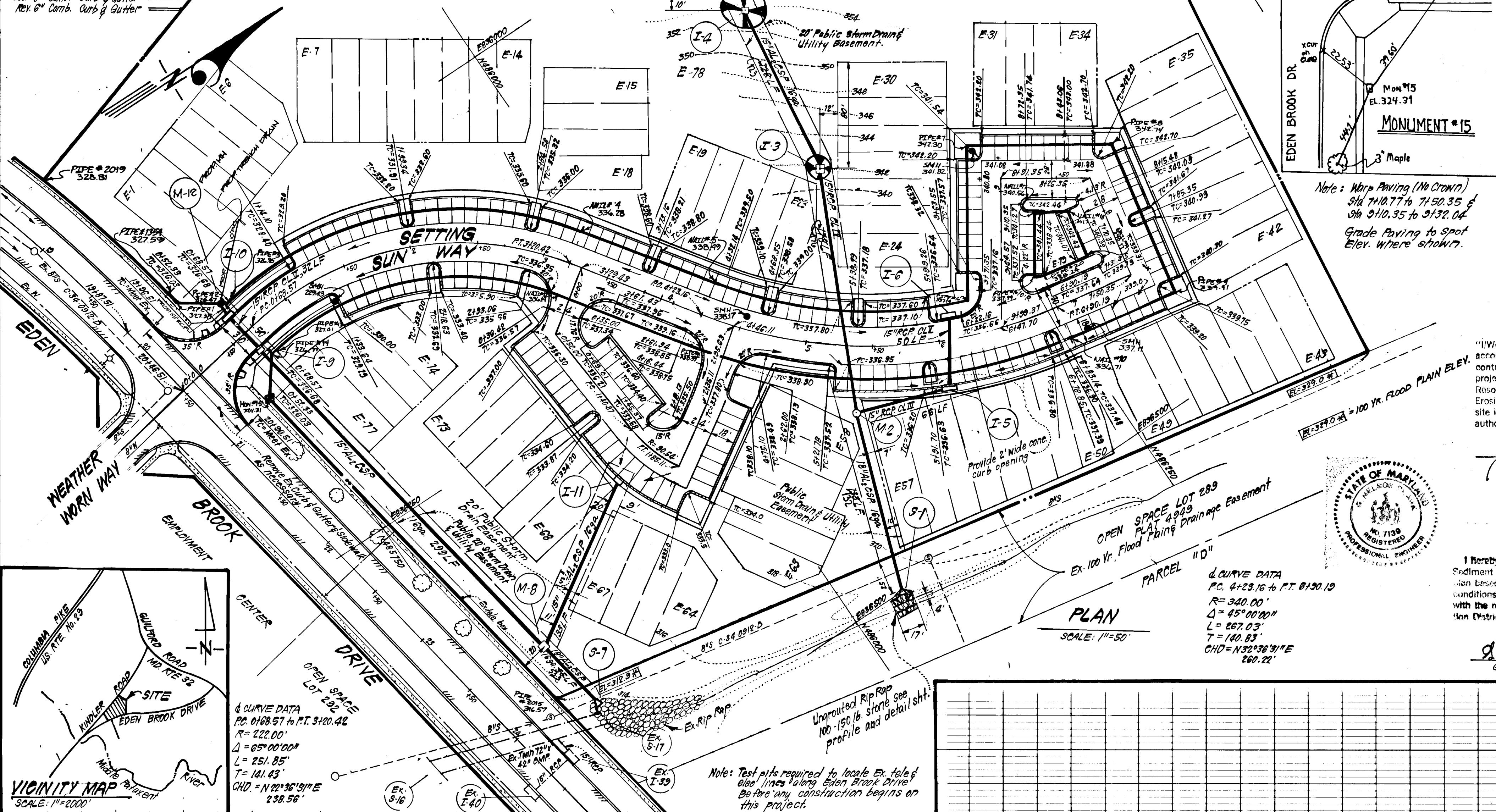


CURB & GUTTER LEGEND:
 5' x 7" Comb. Curb & Gutter
 6" x 7" Comb. Curb & Gutter
 8" x 6" Comb. Curb & Gutter
 8" x 6" Comb. Curb & Gutter

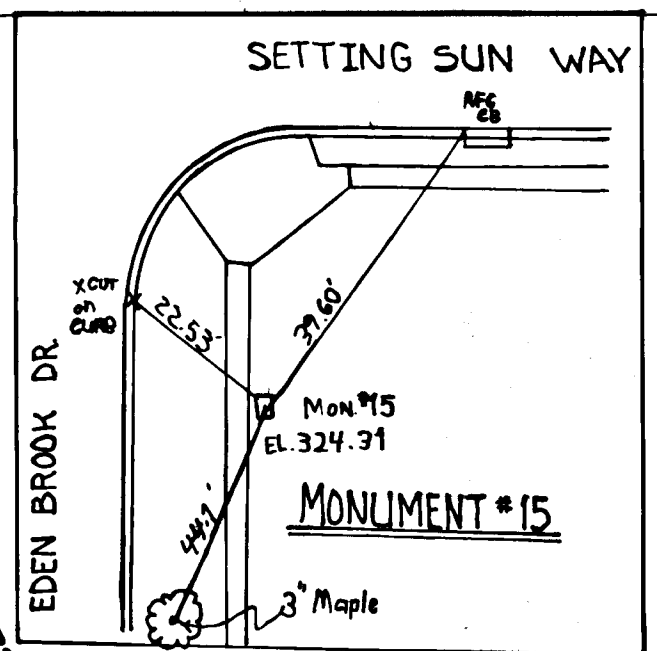
OPEN SPACE LOT 289
 PLAT 4931



PLAN
 SCALE: 1"=50'

PARCEL
 & CURVE DATA
 PC: 4+23.16 to PT: 6+30.19
 R=340.00'
 Δ=45°00'00"
 L=267.03'
 T=140.83'
 CHD=N32°36'31"E
 260.22'

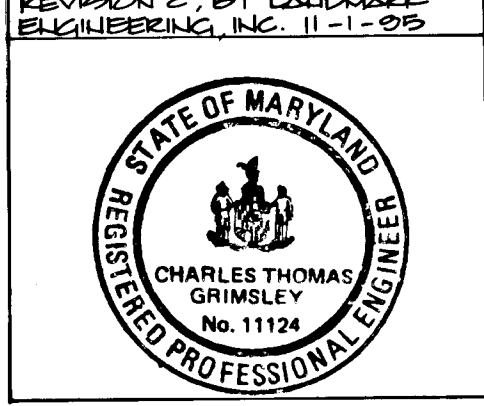
Note: Test pits required to locate ex. tele & elec. lines along Eden Brook Drive before any construction begins on this project.



Note: Work Paving (1/4 Crown)
 Sid 710.77 to 7130.35 &
 Sid 2110.35 to 2132.04
 Grade Paving to Spot Elev. Where shown.

Reviewed for: HOWARD S.C.D.
 Name
 and meets Technical Requirements
 Signature: *James M. Kellmer* Date: 1-5-84
 U.S. Soil Conservation Service

APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *W. J. Stone* Date: 1-5-84



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 are deemed necessary.

Signature: *John L. Troutman* Date: 9/28/83
 Title: *John L. Troutman*

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: *D. Nelson Clark* Date: 9-27-83
 Title: *D. Nelson Clark*

GENERAL NOTES:

- All storm Drain & Paving shall be constructed in accordance with the latest details and specifications of Howard County & Md. S.H.A.
- Types of storm drain structures refer to the Standard Details of Howard County and Maryland State Highway Administration.
- Trench compaction for storm Drains within Road or street right of way limits shall be in accordance with Howard Co. Design Manual, Volume II.
- 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 designated in accordance with "A Policy on Geometric Design of Rural Highways, 1965 by A.A.S.H.O.
- Provide concrete sidewalk ramps in curbs, where shown in plan. (Max. 12:1 Slope, see Ho. Co. Std. Type A R-8.0).
- Design Speed: 30 mph Zoning: RSC

| NO | REVISION | DATE |
|----|---|---------|
| 1 | Revised Storm drainage | 6-18-84 |
| 2 | REVISED STORM DRAIN TO EXTEND FROM I-10 TO NEW M-12 BY LANDMARK ENGINEERING, INC. | 11-1-85 |

OWNER: THE HOWARD RESEARCH & DEVELOPMENT CORP
 The Rouse Company Bldg. Col. Md. 2044

APPROVED: Department of Public Works
 Signature: *John M. ...* Date: 1-10-84
 Chief Bureau of Engineering

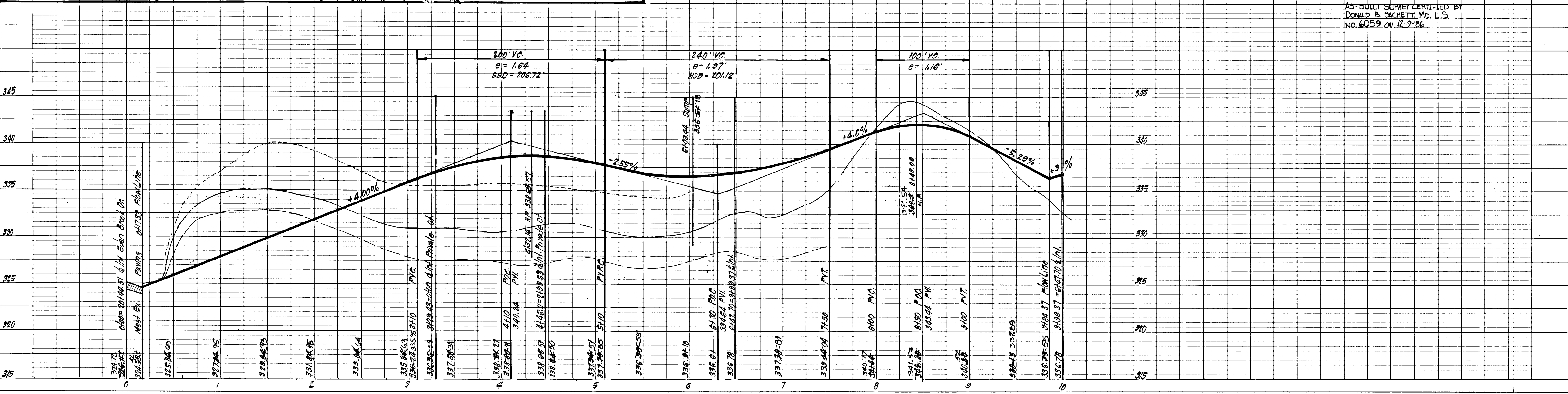
APPROVED: Howard County Office of Planning and Zoning
 Signature: *John M. ...* Date: 1-6-84
 Chief, Division of Land Development & Zoning Administration

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

| DESIGNED | ROAD CONSTRUCTION PLANS SETTING SUN WAY | SCALE |
|----------|---|----------|
| VLS | | AS SHOWN |
| DRAWN | COLUMBIA | DRAWING |
| KIV | VILLAGE OF KINGS CONTRIVANCE | 10-F4 |
| CHECKED | SECTION 2 LOTS E1-E77 AREA 3 | JOB NO. |
| VLS | 6TH ELECTION DISTRICT | 83-023 |
| DATE | HOWARD COUNTY, MARYLAND | FILE NO. |
| 9-26-83 | FOR THE TROUTMAN COMPANY Wild Lake Village Green #300 Columbia, Md. 21044 | 83-023-D |

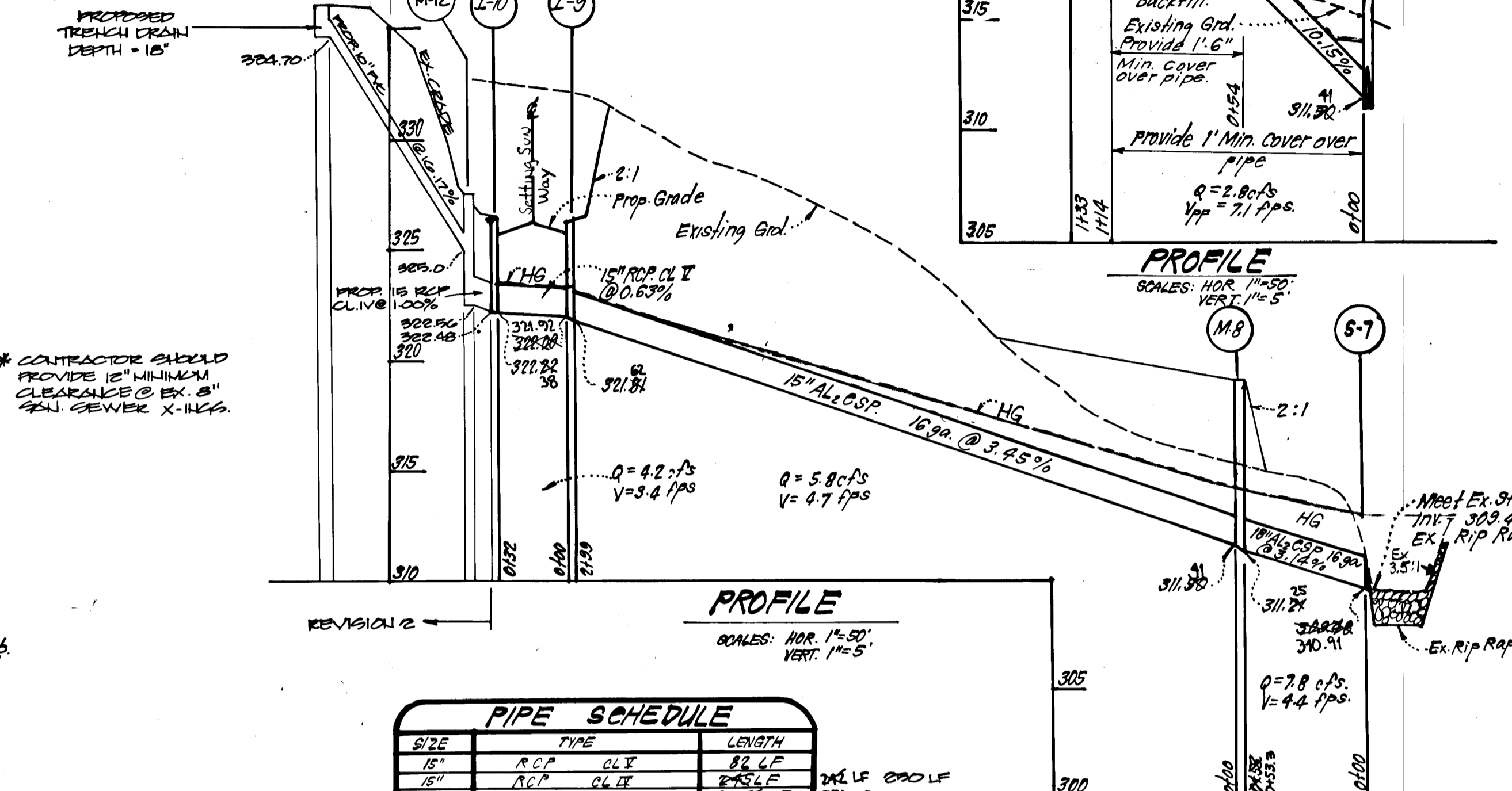
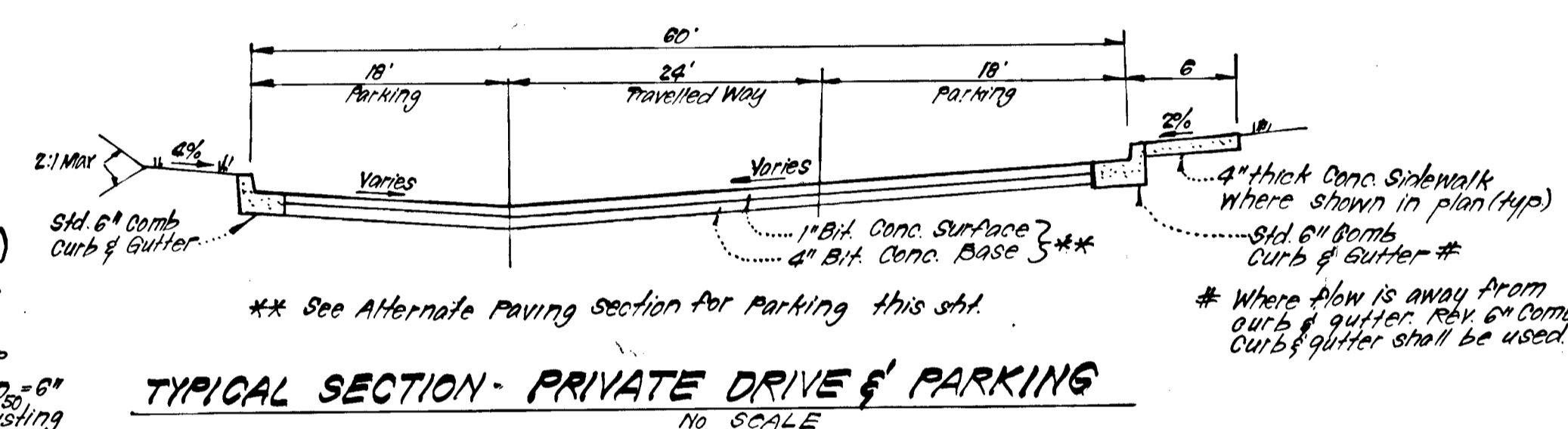
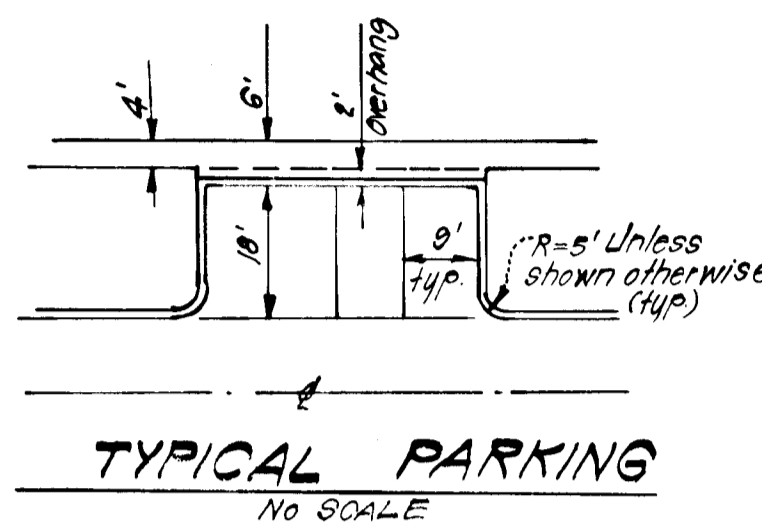
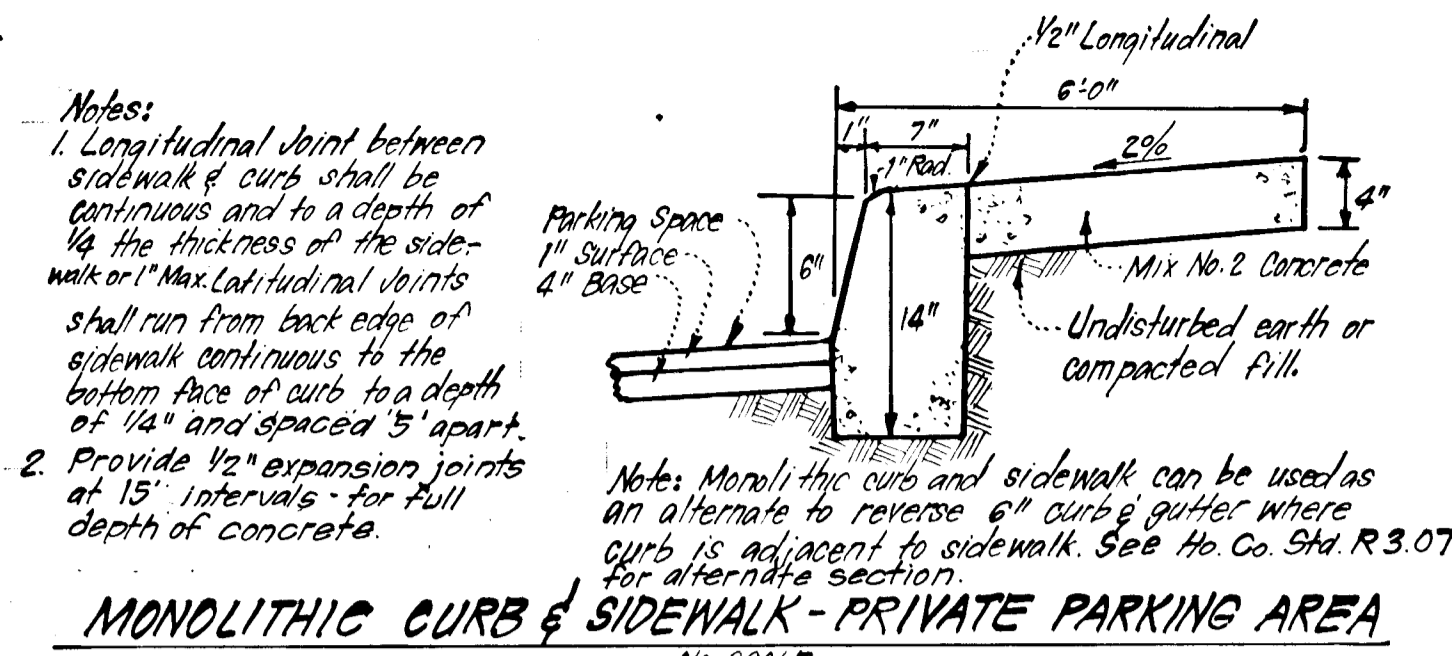
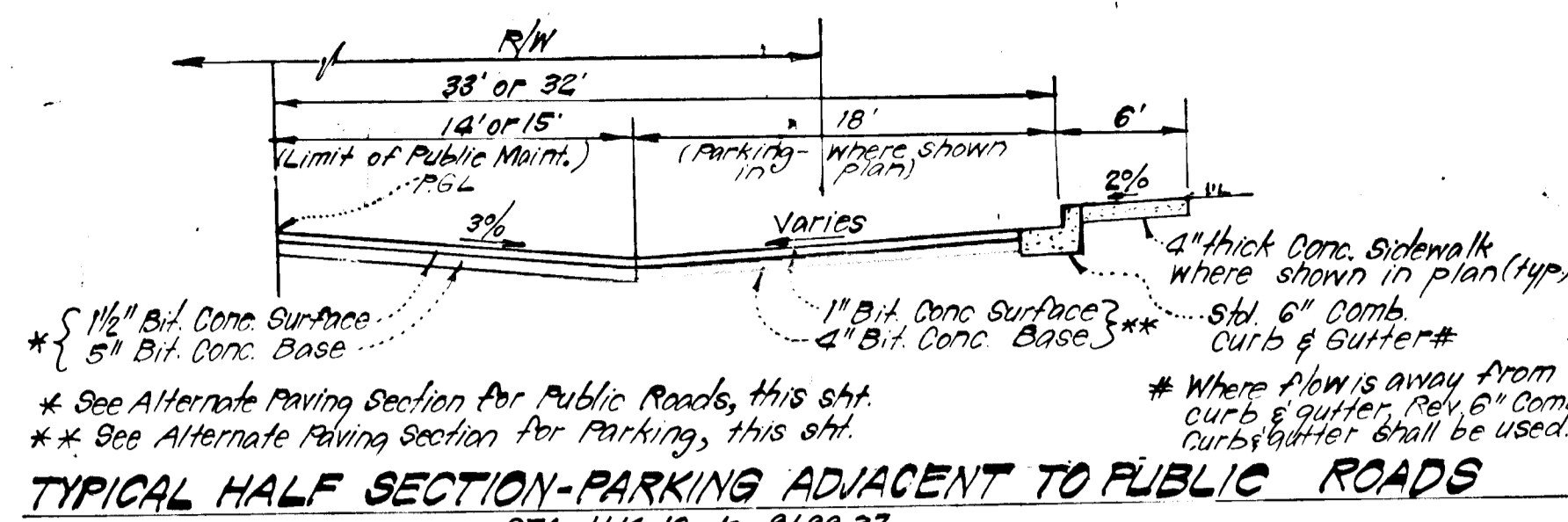
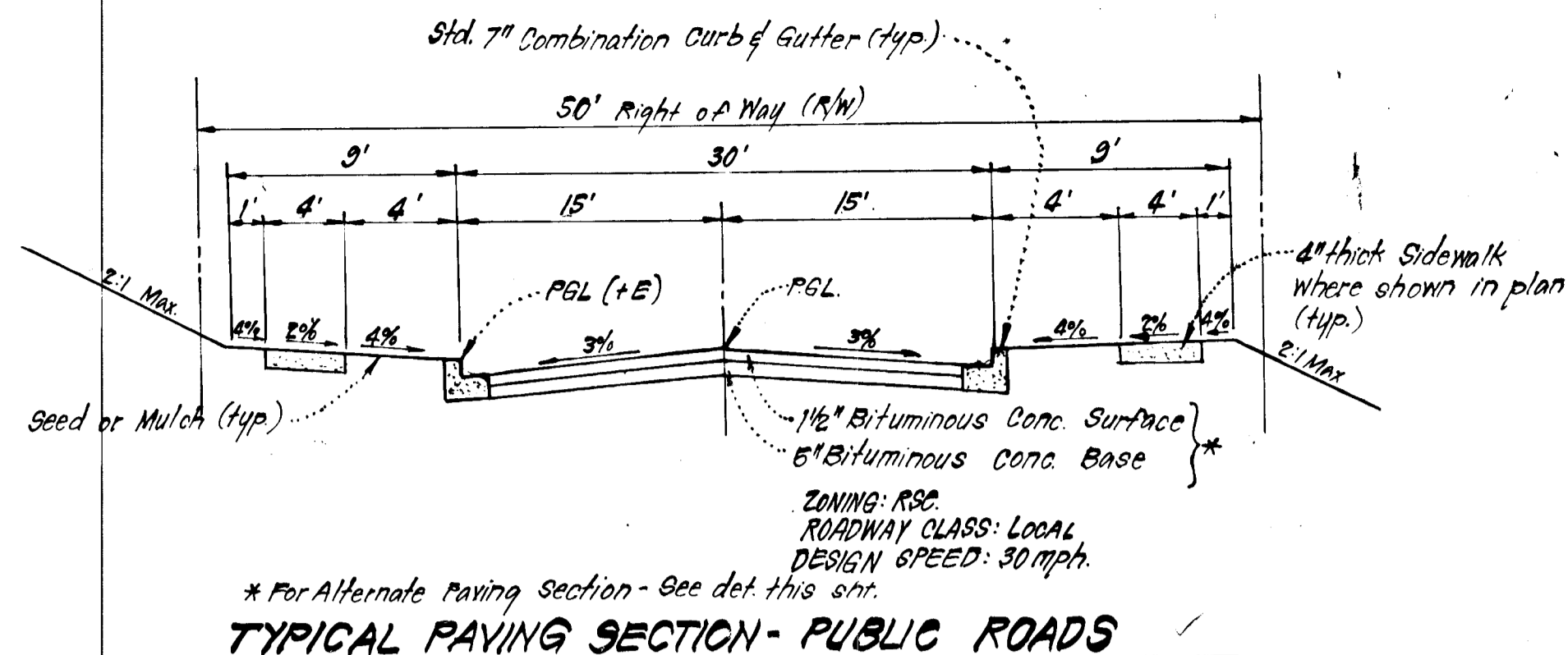
| PROFILE SCALE | PROFILE LEGEND: |
|---------------|--------------------|
| HOR 1"=30' | Profile Grade Line |
| VER 1"=5' | Existing (M) |
| | B.R.L. (M) |
| | B.R.L. (L) |

AS-BUILT SURVEY CERTIFIED BY
 DONALD B. SACKETT MD. U.S.
 NO. 6059 ON 12-9-86



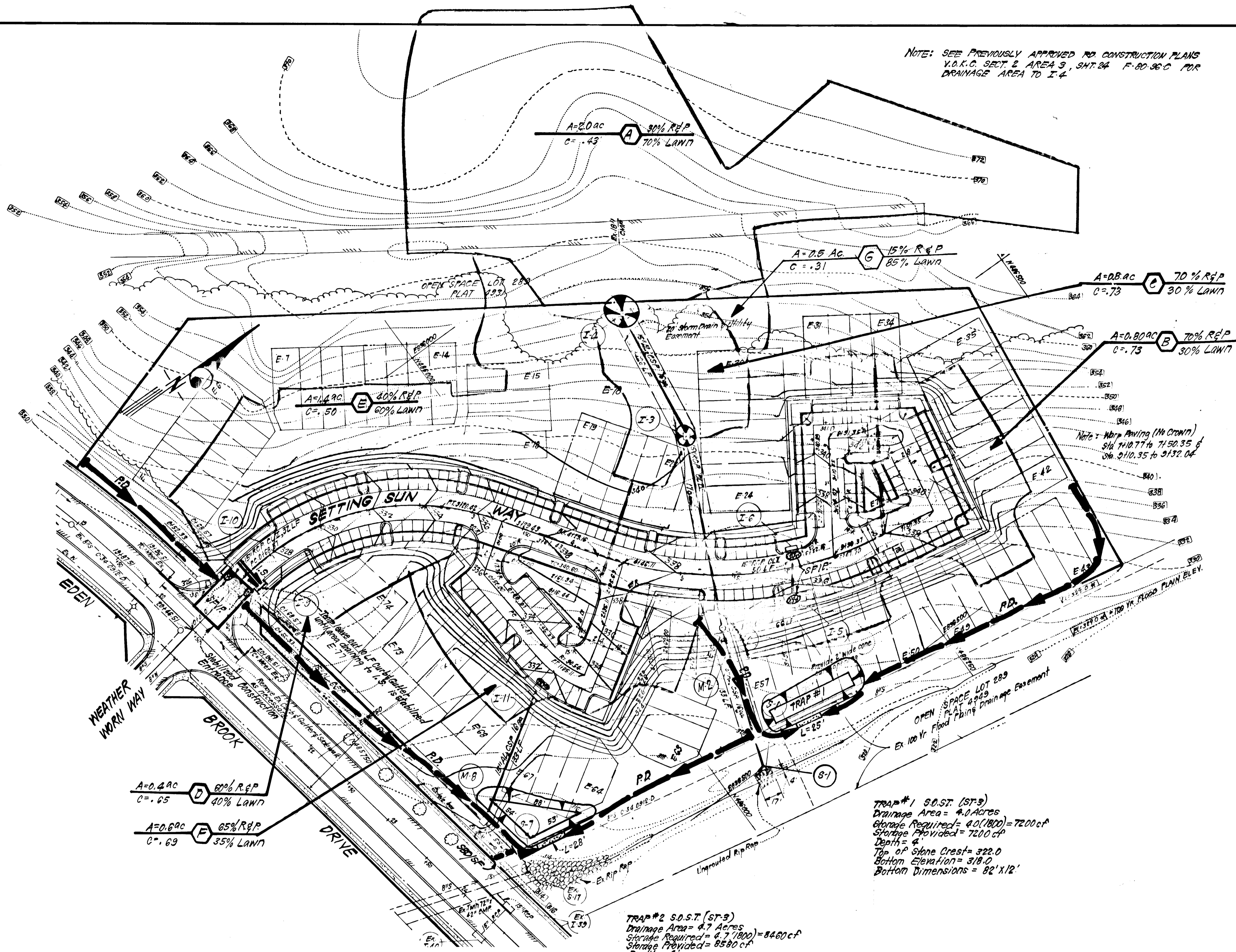
AS-BUILT 12-9-86

84-35



| NO. | REVISION | DATE |
|-----|---|---------|
| 1 | Revised grading in area of Trap #2 & storm drainage area. | 6-18-84 |

NOTE: SEE PREVIOUSLY APPROVED RD. CONSTRUCTION PLANS V.O.C. SECT. 2 AREA 3, SHT. 24 F-80-96-C FOR DRAINAGE AREA TO I-4



A=0.4 AC D 60% R&P
C=.65 40% LAWN

A=0.6 AC F 65% R&P
C=.69 35% LAWN

A=1.4 AC E 40% R&P
C=.50 60% LAWN

A=2.0 AC A 80% R&P
C=.43 70% LAWN

A=2.5 AC G 15% R&P
C=.31 85% LAWN

A=0.8 AC C 70% R&P
C=.73 30% LAWN

A=0.80 AC B 70% R&P
C=.73 30% LAWN

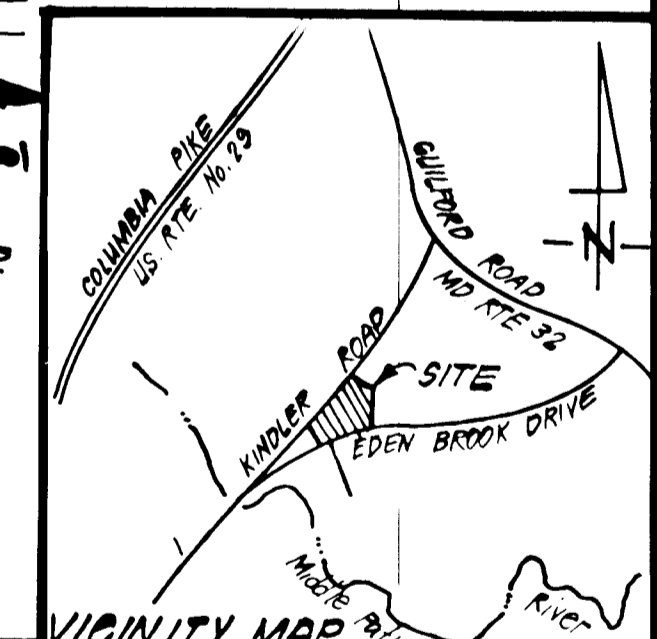
Note: With Paving (No Crown)
S14 710.77 to 7150.35 E
S16 710.35 to 7152.04

TRAP #1 S.O.S.T. (ST-3)
Drainage Area = 4.0 Acres
Storage Required = 40(1800) = 7200 cf
Storage Provided = 7200 cf
Depth = 4'
Top of Stone Crest = 322.0
Bottom Elevation = 318.0
Bottom Dimensions = 82' x 12'

TRAP #2 S.O.S.T. (ST-3)
Drainage Area = 4.7 Acres
Storage Required = 4.7(1800) = 8460 cf
Storage Provided = 8580 cf
Depth = 4'
Top of Stone Crest = 316.0
Bottom Elevation = 312.0
Bottom Dimensions = See Plan

LEGEND:

- Contour Interval 2 FT
- Existing Contour
- Proposed Contour
- Perimeter Dike
- Storm Bate Dike or Silt Fence
- Interceptor Swale
- Stone Filter Inlet Protection



445

DEVELOPER'S/BUILDER'S CERTIFICATE
 "I/We certify that all development and construction will be done according to the 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 L. Troutman 9/23/83
 Signature of Developer/Builder
 JOHN TROUTMAN

Reviewed for... Howard Co. S.C.D.
 Name: James M. Helmer 1/5/84
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Approved: [Signature] 1-5-84 Date



ENGINEERS 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 8-27-83 Date

OWNER: The HOWARD RESEARCH DEVELOPER CORP.
 The Rouse Company Bldg. Cal. Met. Bldg.

APPROVED: Department of Public Works
 [Signature] 1-10-84 Date
 Chief, Bureau of Engineering

APPROVED: Howard County Office of Planning and Zoning
 [Signature] 1-6-84 Date
 Chief, Division of Land Development & Zoning Administration

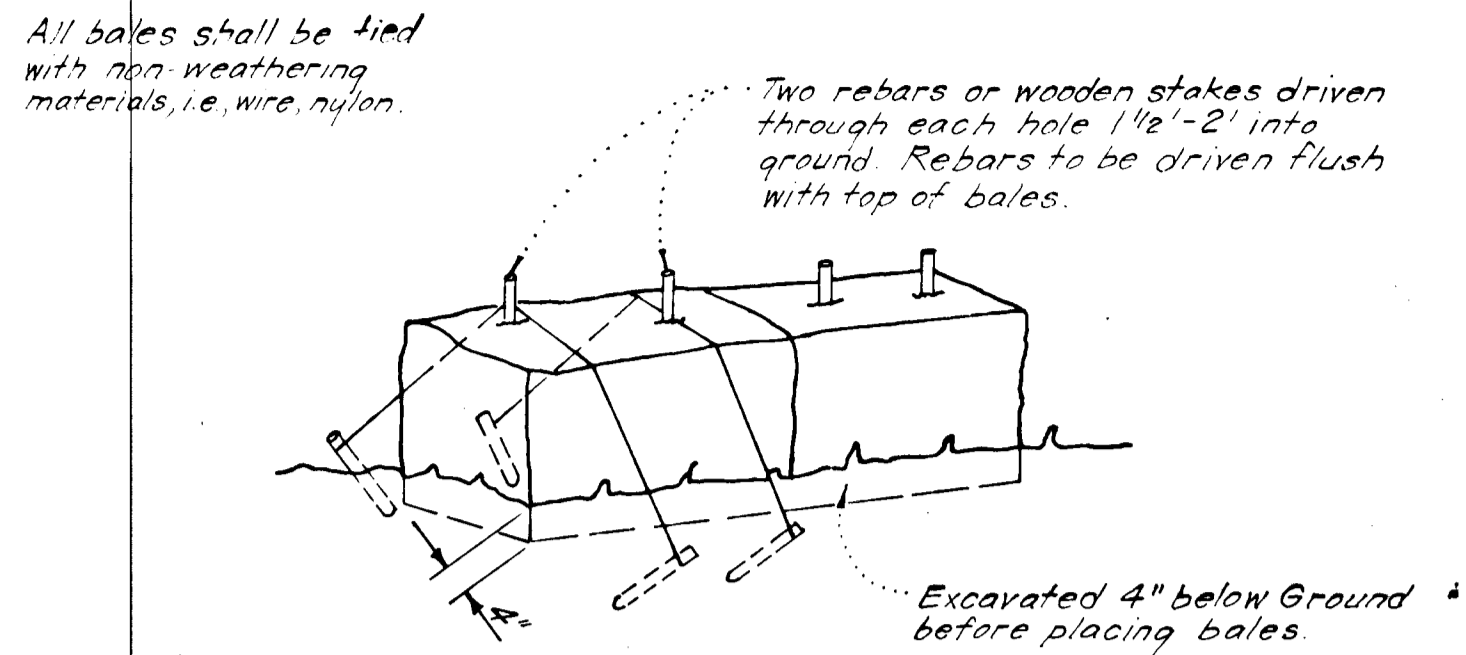
CLARK · FINEFROCK & SACKETT
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · 301 593 3400

| | | |
|--------------|---|-------------------|
| DESIGNED VLS | ROAD CONSTRUCTION PLANS SEDIMENT & EROSION CONTROL PLAN & DRAINAGE AREA MAP COLUMBIA | SCALE 1"=50' |
| DRAWN KIW | VILLAGE OF KINGS CONTRIVANCE SECTION 2 AREA 3 | DRAWING 3 OF 4 |
| CHECKED VLS | 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND | JOB NO. 83-023 |
| DATE 9-26-83 | FOR: THE TROUTMAN COMPANY Wild Lake Village Green #300 Columbia, Md 21024 | FILE NO. 83-023-D |

GENERAL NOTES

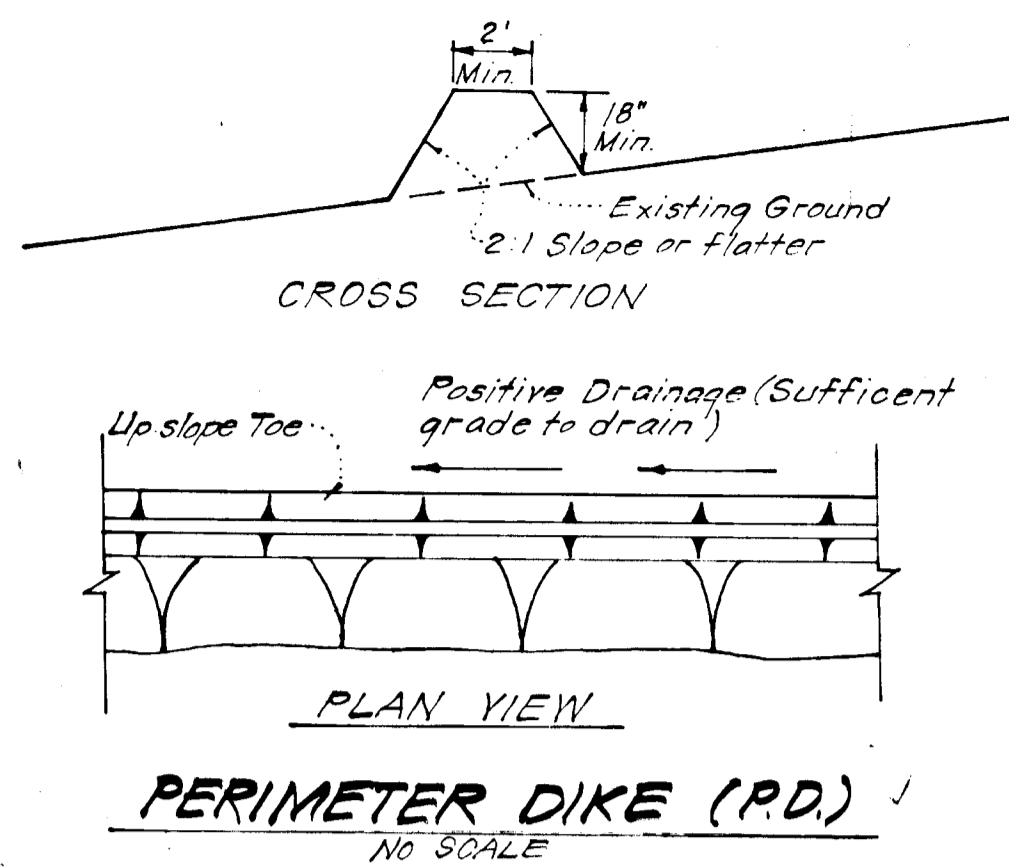
- Grading Permits shall be obtained prior to installation of Sediment Control & Grading.
- All Sediment and Erosion Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of the existing surface of the site. See note #6 for stabilization 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 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 90 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 = 25 L.F.
- SITE ANALYSIS:

| | | |
|-----------------------|-------|-------|
| A. Total Area: | 7.541 | Acres |
| B. Area to be Roofed: | NONE | Acres |
| C. Area to be Paved: | 1.600 | Acres |
| D. Area to be Seeded: | 2.700 | Acres |
| E. Area Undisturbed: | 3.241 | Acres |
- CONSTRUCTION SEQUENCE:
 - Install Sediment & Erosion Control Measures.
 - Construct Storm Drainage I-4 to S-1.
 - Clear & Rough Grade Site.
 - Construct remaining storm drainage & S.F.I.P's
 - Construct Utilities.
 - Construct Paving, Sidewalks, etc.
 - Stabilize all other disturbed areas on site in accordance with Stds. and Specs.
 - Remove sediment & erosion control measures after all areas draining to them have been stabilized.

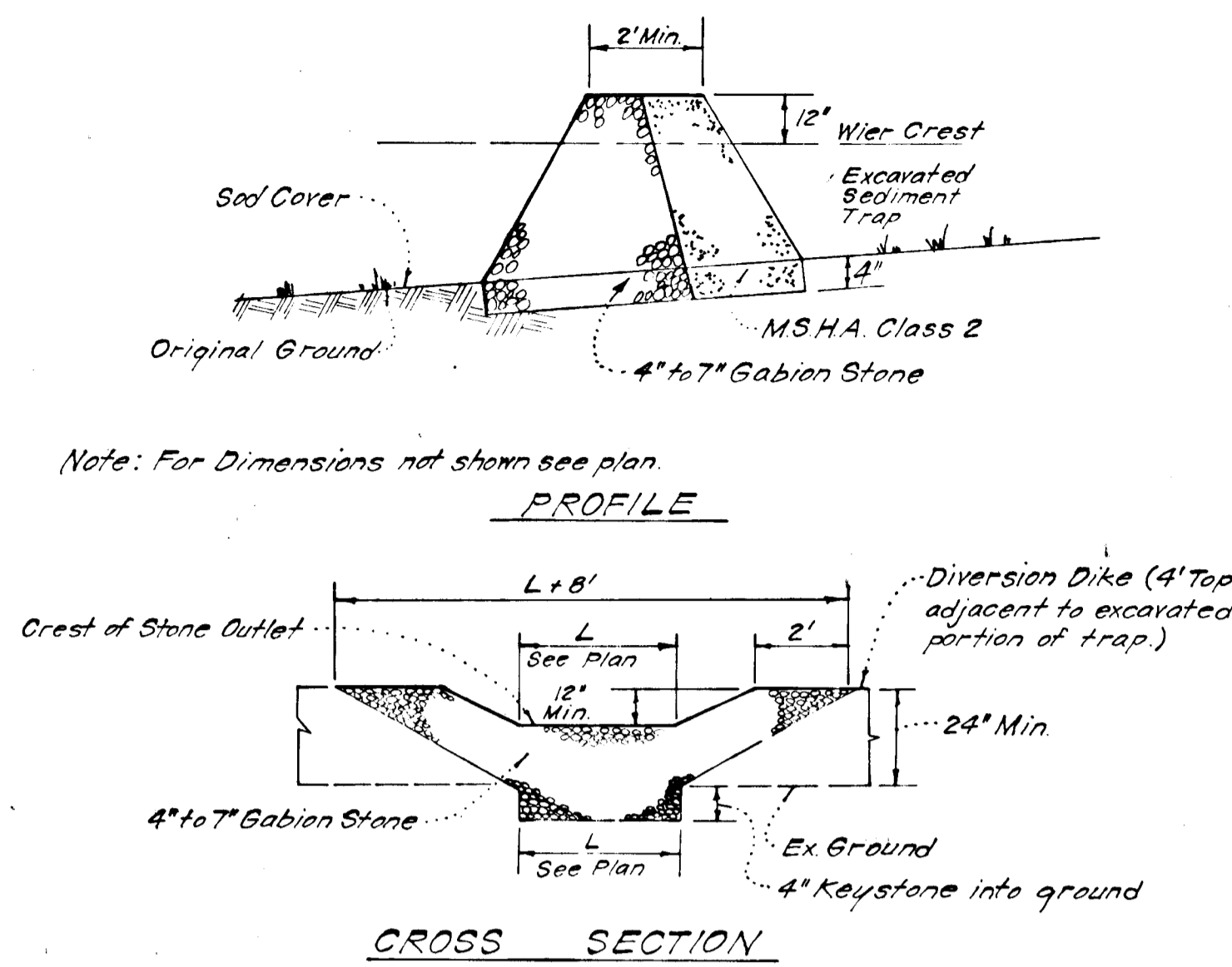


Note:
1. In lieu of the use of rebar each straw bale may be fastened to ground with pegs (4 per bale and wire or nylon as shown above.)

STRAW BALE DIKE DETAIL (S.B.D.)
NO SCALE

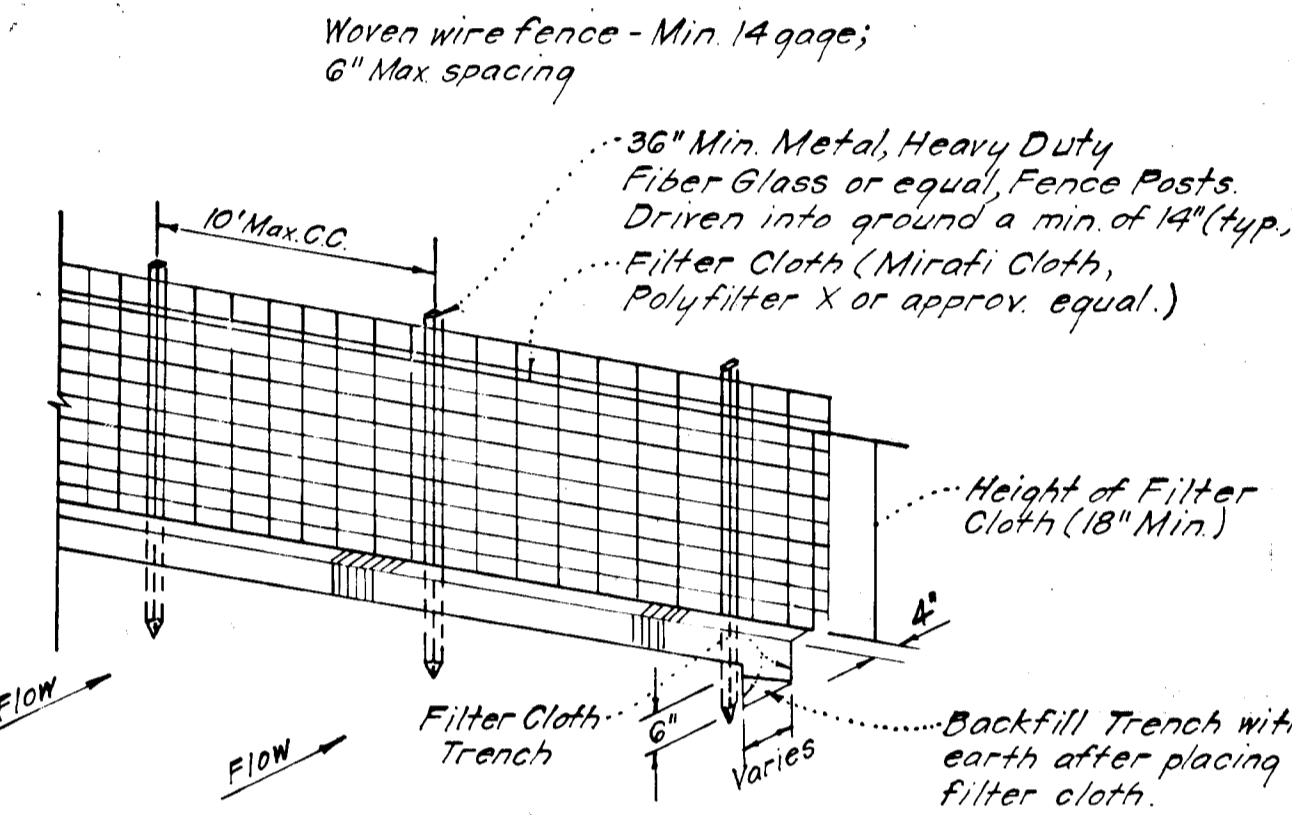


PERIMETER DIKE (P.D.)
NO SCALE



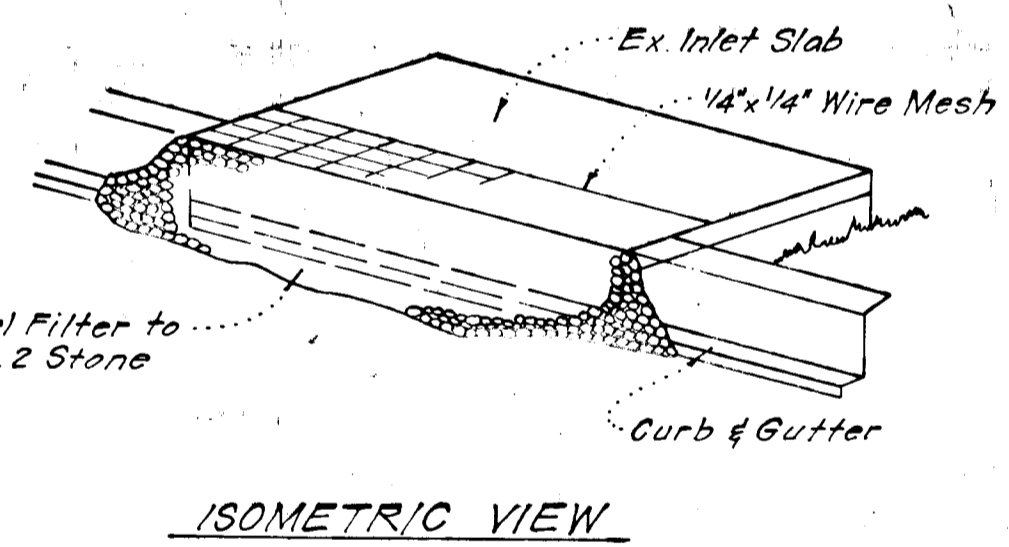
Notes:
1. Sediment Trap to be cleaned out when sediment reaches a level of 1ft. below crest of stone outlet.
2. Bottom of Sediment Trap to be level and constructed to the dimensions shown on plan.
3. Stone Outlet to be constructed through diversion dike adjacent to excavated.

DETAILS OF STONE FILTER OUTLET FOR STONE OUTLET SEDIMENT TRAP
NO SCALE

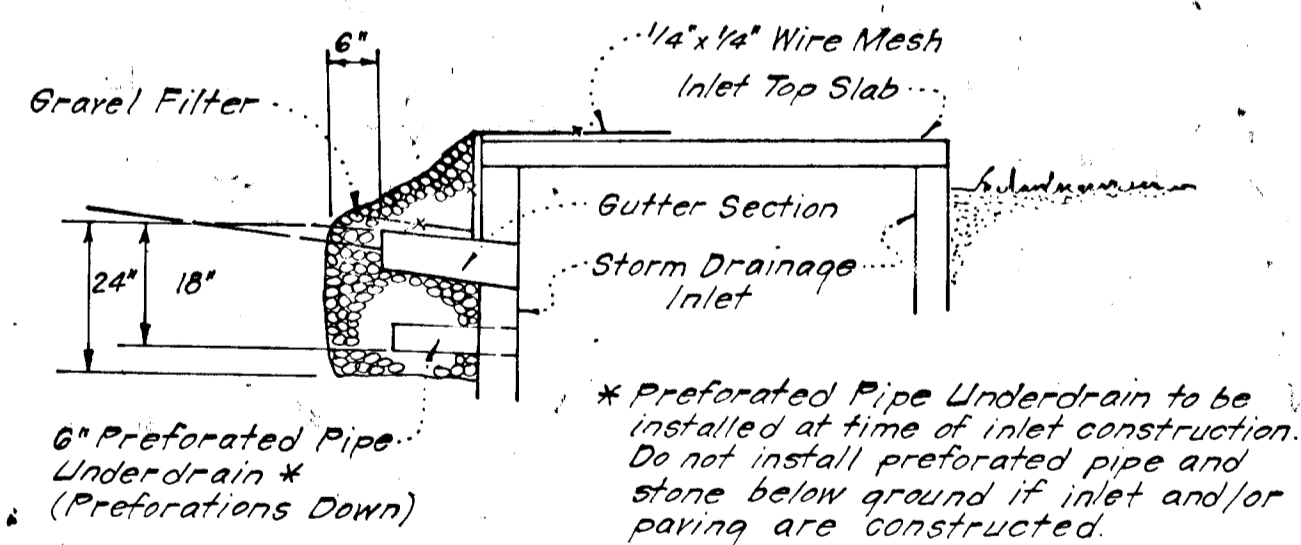


Notes:
1. Woven Wire Fence to be fastened securely to fence posts by use of wire ties.
2. Filter Cloth to be fastened securely to Woven Wire, by use of wire ties spaced every 24"x24".

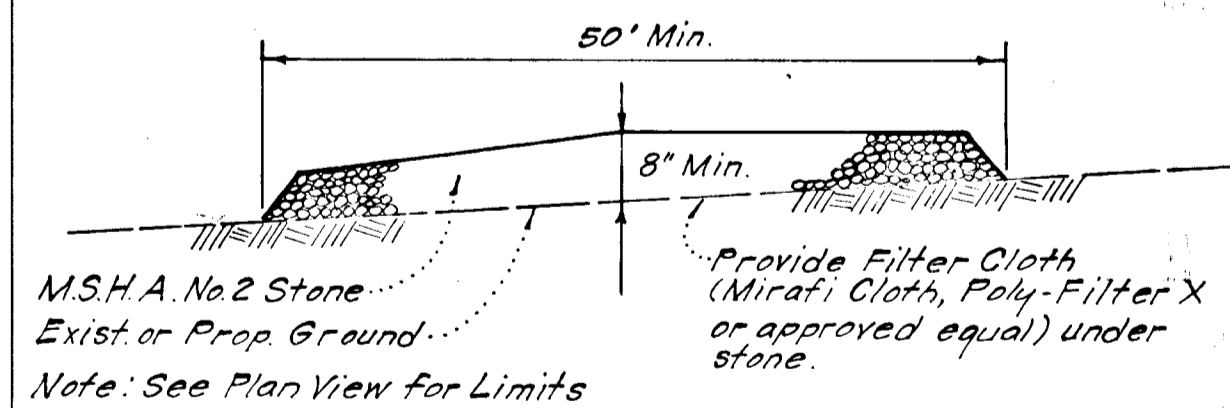
SILT FENCE DETAIL (S.F.)
NO SCALE



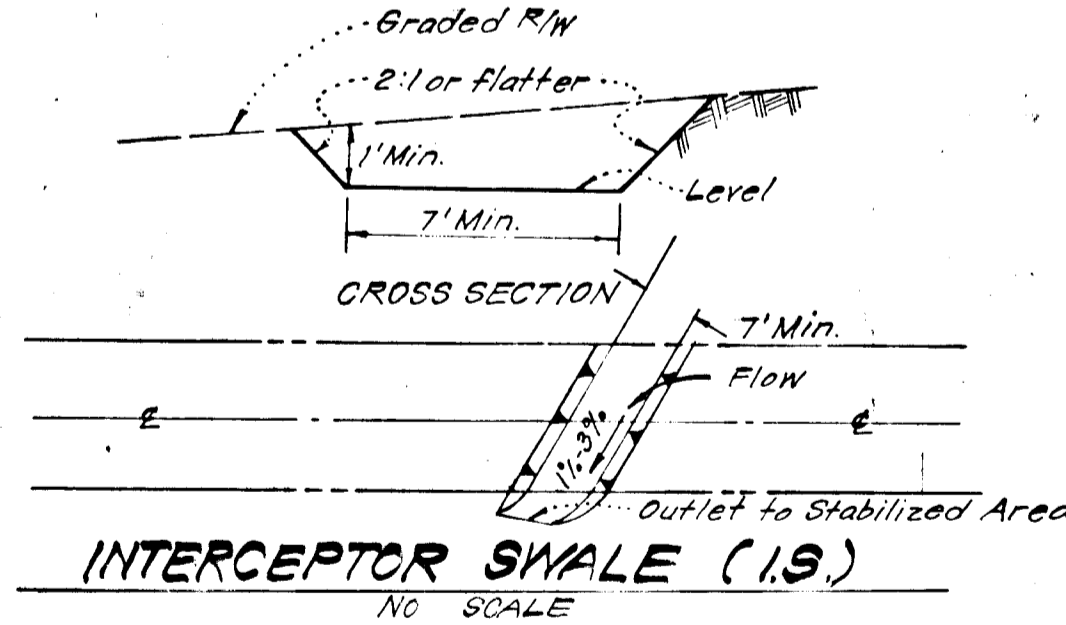
ISOMETRIC VIEW



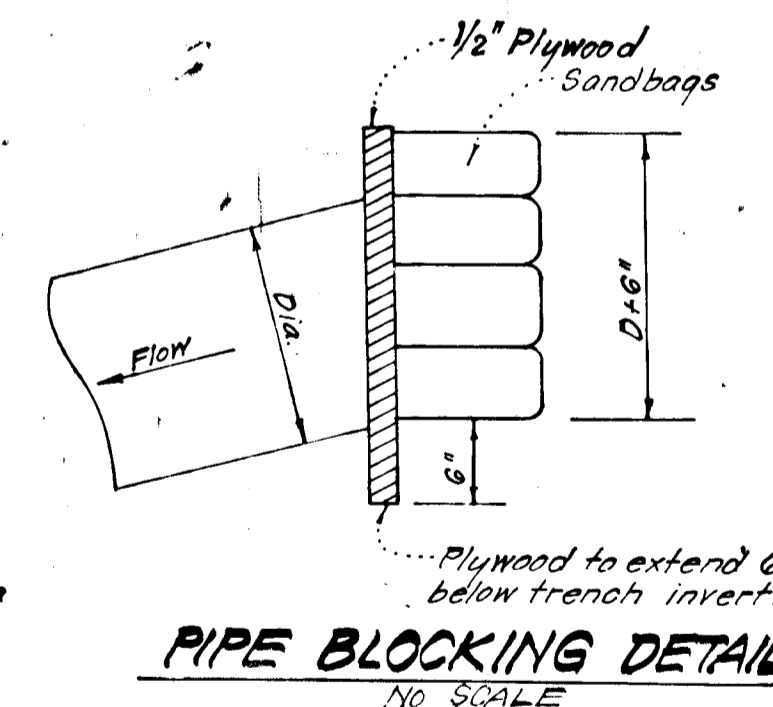
STONE FILTER INLET PROTECTION (S.F.I.P.)
NO SCALE



STABILIZED CONSTRUCTION ENTRANCE
NO SCALE



INTERCEPTOR SWALE (I.S.)
NO SCALE



PIPE BLOCKING DETAIL
NO SCALE

DEVELOPER'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 are deemed necessary."

John L. Troutman, Inc. 1/23/83
Signature: John L. Troutman, Inc. Date: 1/23/83

Reviewed for Howard S.C.D. Name: James D. Belmont
Signature: James D. Belmont Date: 1/23/83
U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Signature: [Signature] Date: 1-5-84



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: G. Nelson Clark Date: 1-27-83

| | | |
|--|--|----------|
| OWNER: THE HOWARD RESEARCH & DEVELOPMENT CORP. The Rouse Company, Bldg. Col. Md. 21044 | | |
| APPROVED: Department of Public Works | | |
| Signature: [Signature] Date: 1-10-84 Chief, Bureau of Engineering | | 1-10-84 |
| APPROVED: Howard County Office of Planning and Zoning | | |
| Signature: [Signature] Date: 1-6-84 Director of Land Development & Zoning Administration | | 1-6-84 |
| CLARK • FINROCK & SACKETT ENGINEERS • PLANNERS • SURVEYORS 11315 LOCKWOOD DRIVE SUITE 100 WILMINGTON, MARYLAND 21104 | | |
| DESIGNED | ROAD CONSTRUCTION PLANS SEDIMENT & EROSION CONTROL DETAILS | SCALE |
| DRAWN | COLUMBIA | As shown |
| K.I.N. | VILLAGE OF KINGS CONTRIVANCE | 4 OF 4 |
| CHECKED | SECTION 2 AREA 3 | JOB NO. |
| J.L.S. | 6TH ELECTION DISTRICT | 83-023 |
| DATE | HOWARD COUNTY, MARYLAND | FILE NO. |
| 3-26-83 | FOR: The Troutman Company Wide Lake Village Green #300 Columbia, Md. 21044 | 83-023-D |