

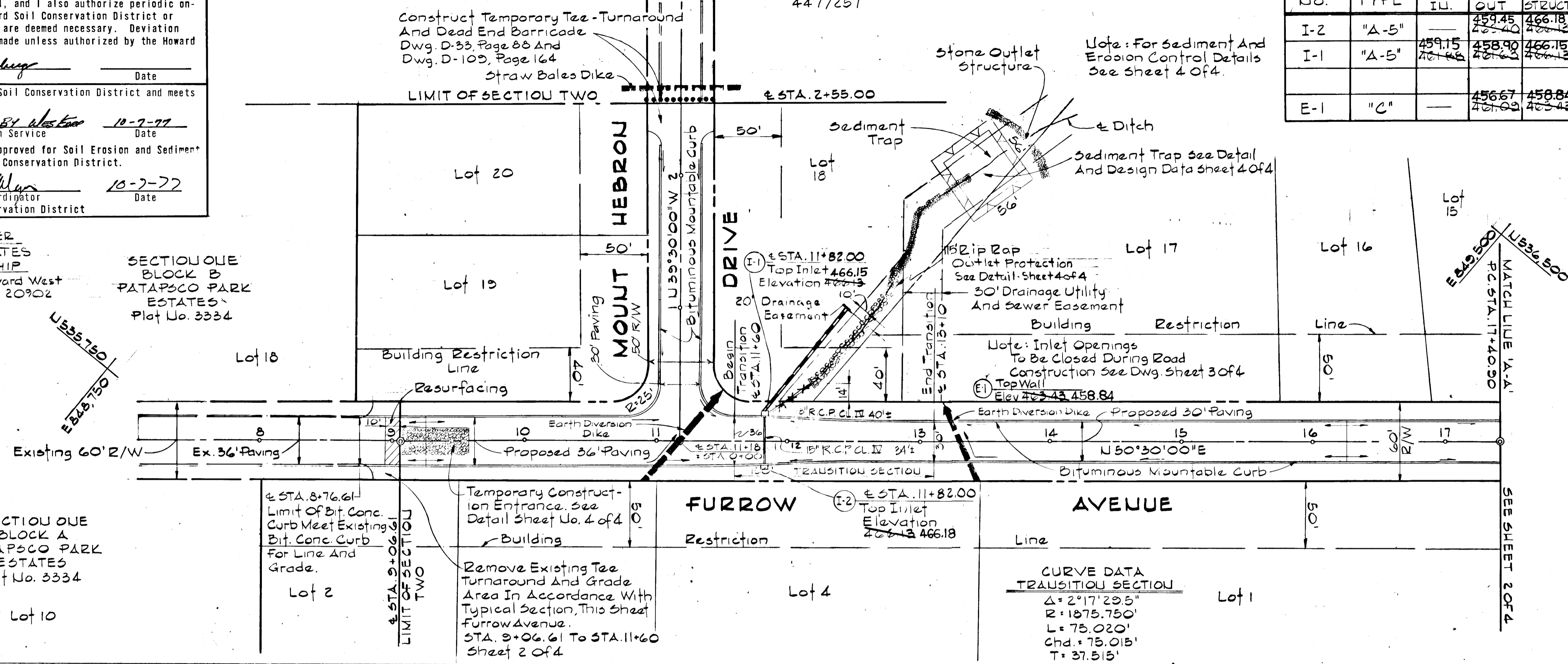
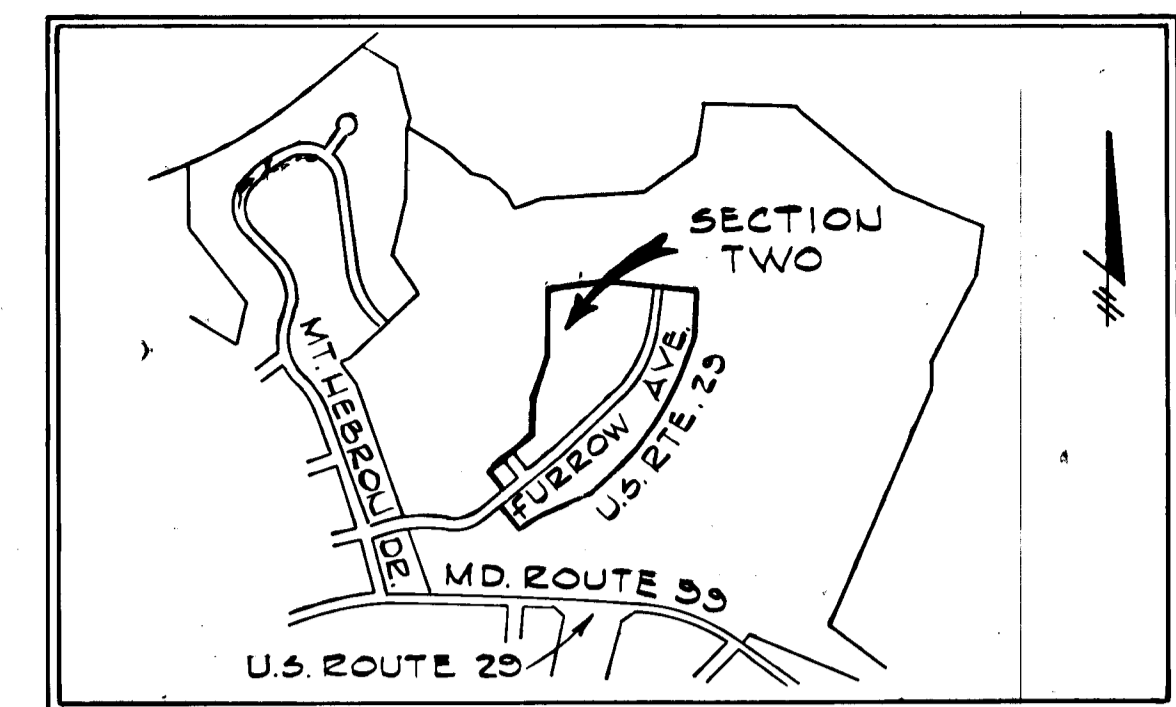
DEVELOPER'S CERTIFICATE
 I certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control, and I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District.
John D. Hillen
 Date: 10-7-77

Reviewed for Howard County Soil Conservation District and meets Technical Requirements.
John D. Hillen
 District Coordinator
 Date: 10-7-77

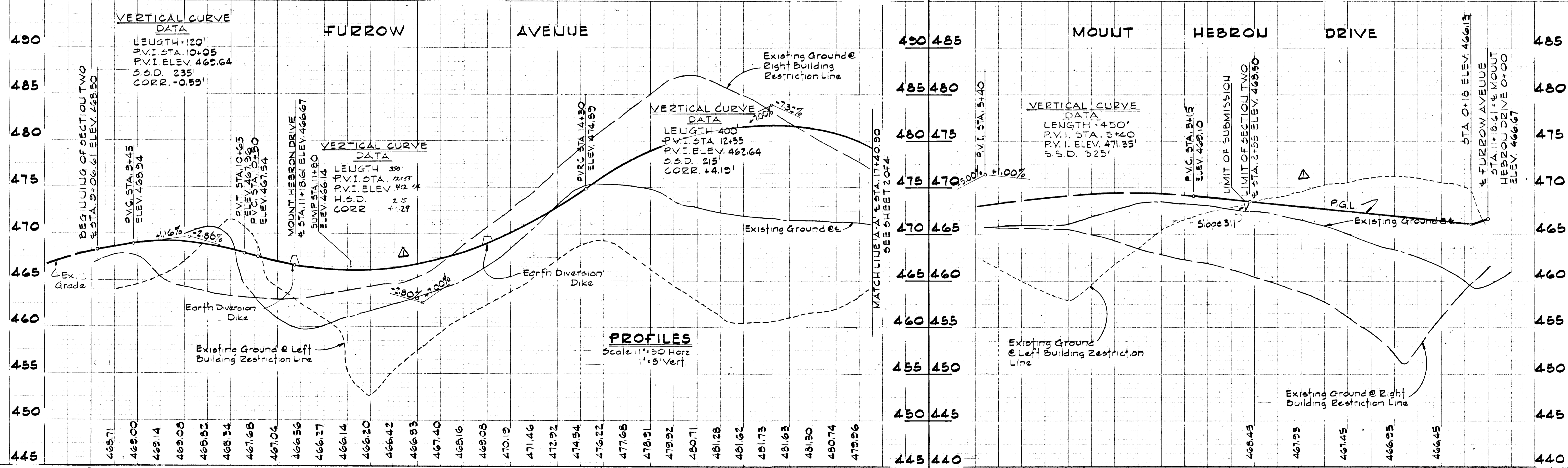
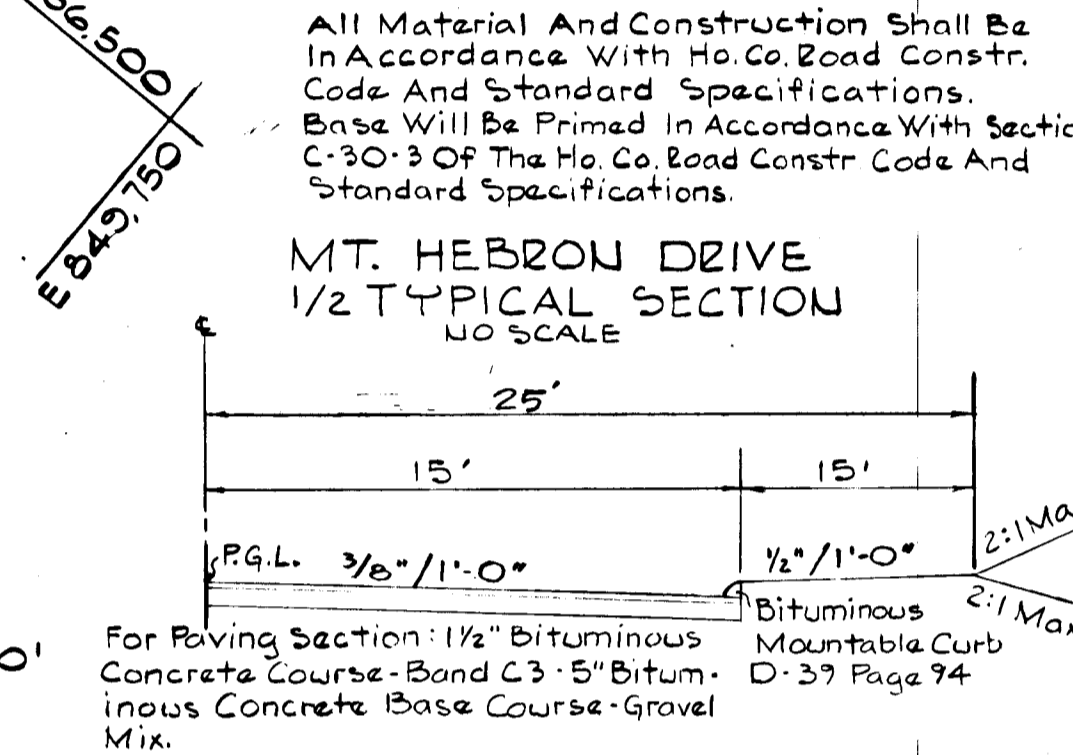
PATAPSCO ASSOCIATES
 LIMITED PARTNERSHIP
 447/237

STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	INV. IN.	INV. OUT.	TOP OF STRUCT.	Pg. AND DWG. NO.
I-2	"A-5"	459.45	466.18	466.18	113A D-64A
I-1	"A-5"	459.15	458.90	466.15	113A D-64A
E-1	"C"	456.67	458.84	462.43	107 D-52



No	Date	Revision
1	12/29/77	Road Grades Revised



APPROVED: Department of Public Works
John D. Hillen
 Chief, Bureau of Highways
 Date: 9/28/77

APPROVED: Office of Planning and Zoning
John D. Hillen
 Chief, Division of Land Development
 Date: 10/12/77

PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS
 1023 North Calvert Street
 Baltimore, Maryland 21202 301/837-0194

ENGINEER'S CERTIFICATE
 I 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.
 Date: 6-17-77
 Cay G. Weiner, Jr.



PLAN AND PROFILE
 MOUNT HEBRON DRIVE AND FURROW AVENUE
 PATAPSCO PARK ESTATES SECTION TWO
 Second Election District
 June 17, 1977
 Scale: As Shown

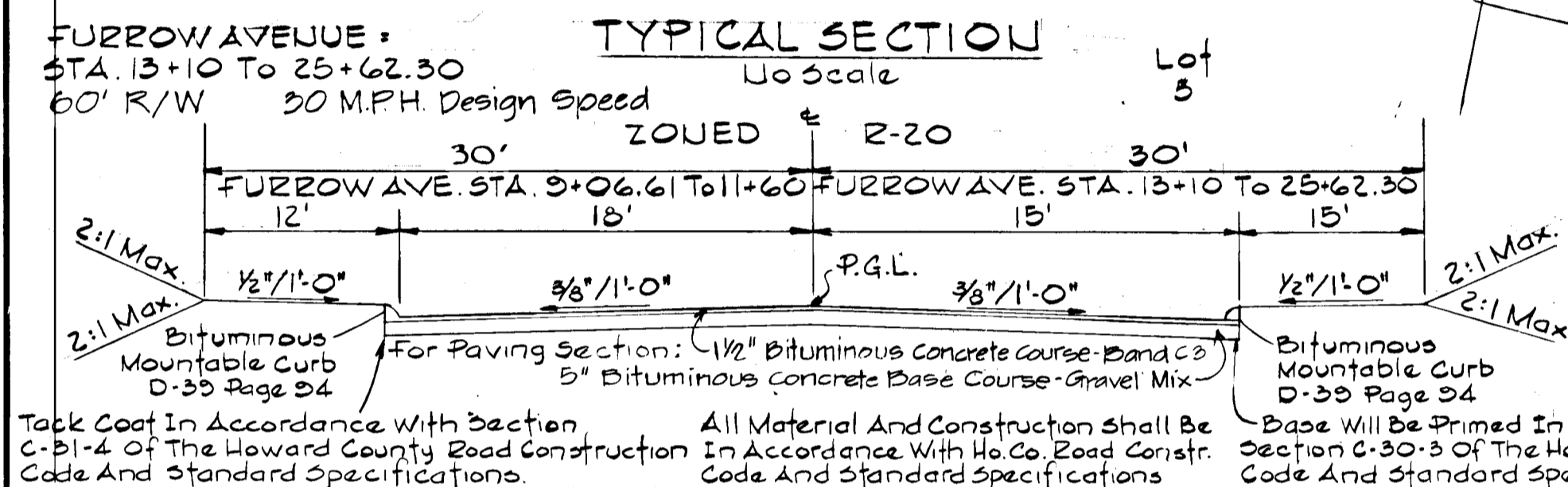
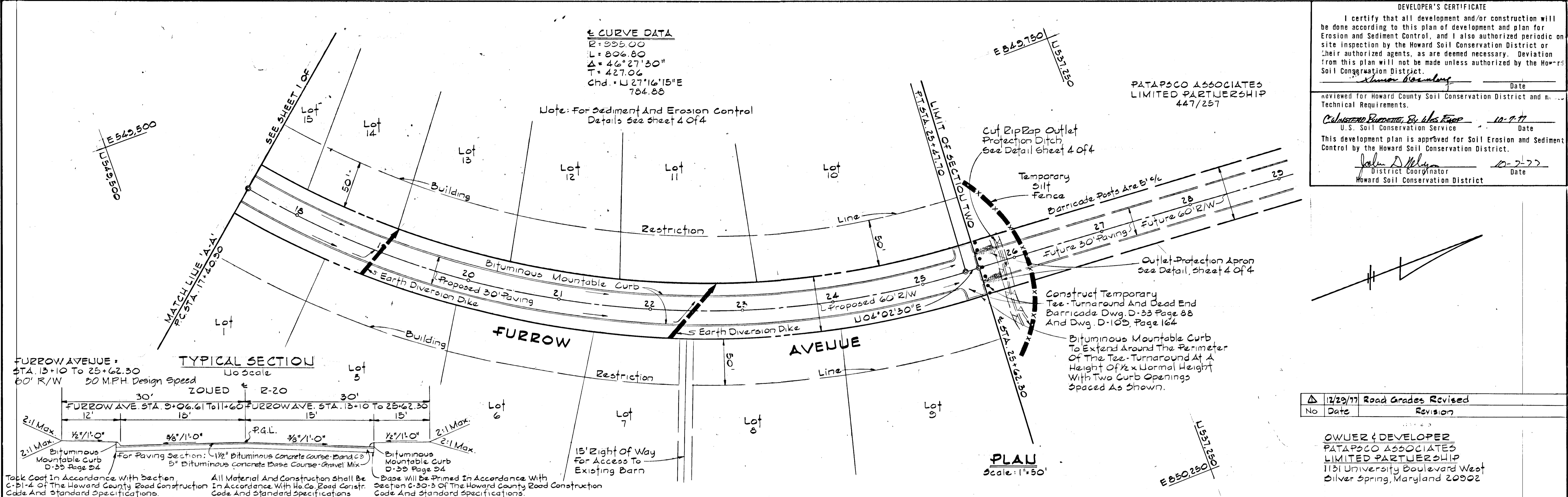
DESIGNED: A.E.L.
 DRAFTED: P.A.Z.
 CHECKED: P.B.C.
 SHEET 1 OF 4

DEVELOPER'S CERTIFICATE
 I certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control, and I also authorized periodic on site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District.
James H. ... Date _____
 Reviewed for Howard County Soil Conservation District and met Technical Requirements.
Christine ... Date 10-9-77
 U.S. Soil Conservation Service
 This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
John D. ... Date 10-2-77
 District Coordinator
 Howard Soil Conservation District

CURVE DATA
 R = 335.00
 L = 806.80
 Δ = 46° 27' 30"
 T = 427.06
 Chd. = N 27° 16' 15" E
 784.88

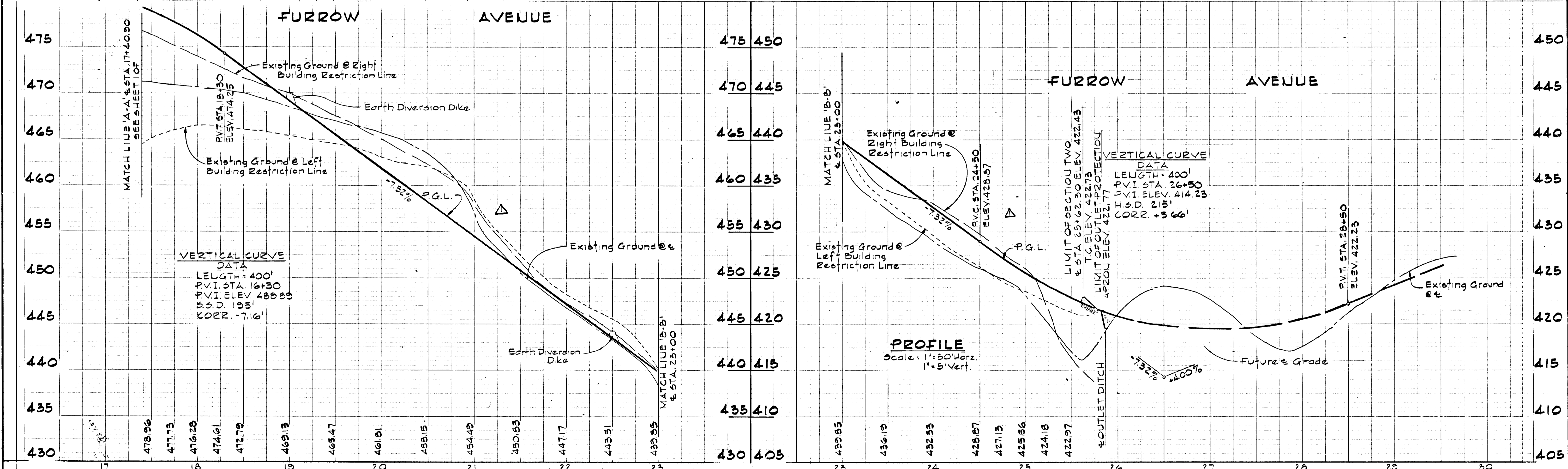
Note: For Sediment and Erosion Control Details see sheet 4 of 4

PATAPSCO ASSOCIATES
 LIMITED PARTNERSHIP
 447/257



No	Date	Revision
1	12/29/77	Road Grades Revised

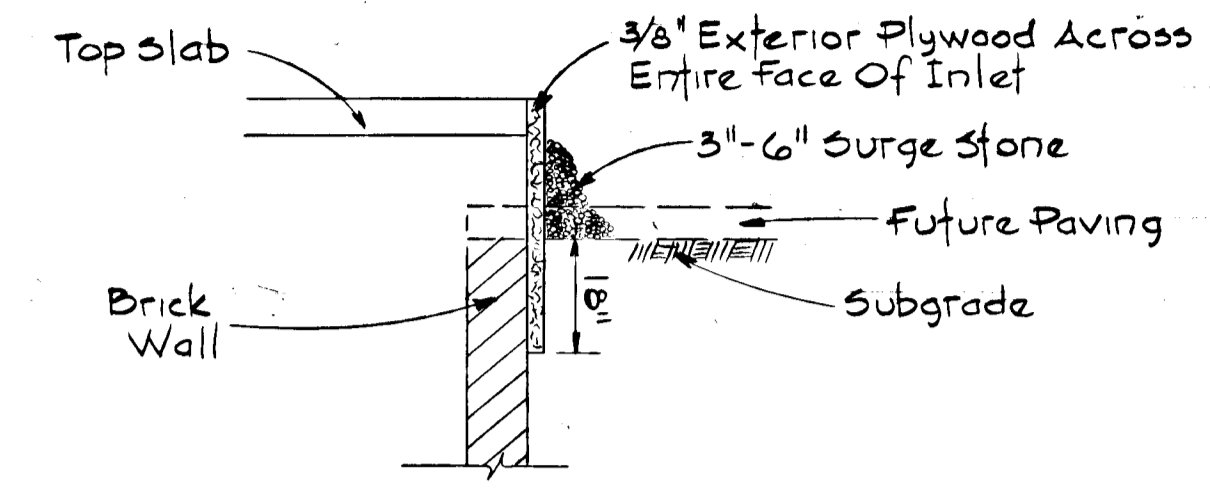
OWNER & DEVELOPER
 PATAPSCO ASSOCIATES
 LIMITED PARTNERSHIP
 1131 University Boulevard West
 Silver Spring, Maryland 20902



APPROVED: Department of Public Works <i>John ...</i> Chief, Bureau of Highways Date: 9/29/77	APPROVED: Office of Planning and Zoning <i>John ...</i> Chief, Division of Land Development Date: 10-10-77	PURDUM & JESCHKE CONSULTING ENGINEERS LAND SURVEYORS 1023 North Calvert Street Baltimore, Maryland 21202 301/837-0194	ENGINEER'S CERTIFICATE I 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. <i>Cay G. Weinel, Jr.</i> Date: 6-17-77	PLAN AND PROFILE FURROW AVENUE PATAPSCO PARK ESTATES SECTION TWO Second Election District June 17, 1977 Howard County, Maryland Scale: As Shown	DESIGNED: <u>A.E.L.</u> DRAFTED: <u>P.A.Z.</u> CHECKED: <u>P.B.C.</u> SHEET 2 OF 4
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As Built Sept 15, 1978 F-78-04

DEVELOPER'S CERTIFICATE
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John Kosmberg _____ Date
 Reviewed for Howard County Soil Conservation District and meet Technical Requirements.
Calvin Burman, Sr. U.S. E.S. 10-9-77 Date
 U.S. Soil Conservation Service
 This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
John Myers 10-9-77 Date
 District Coordinator
 Howard Soil Conservation District

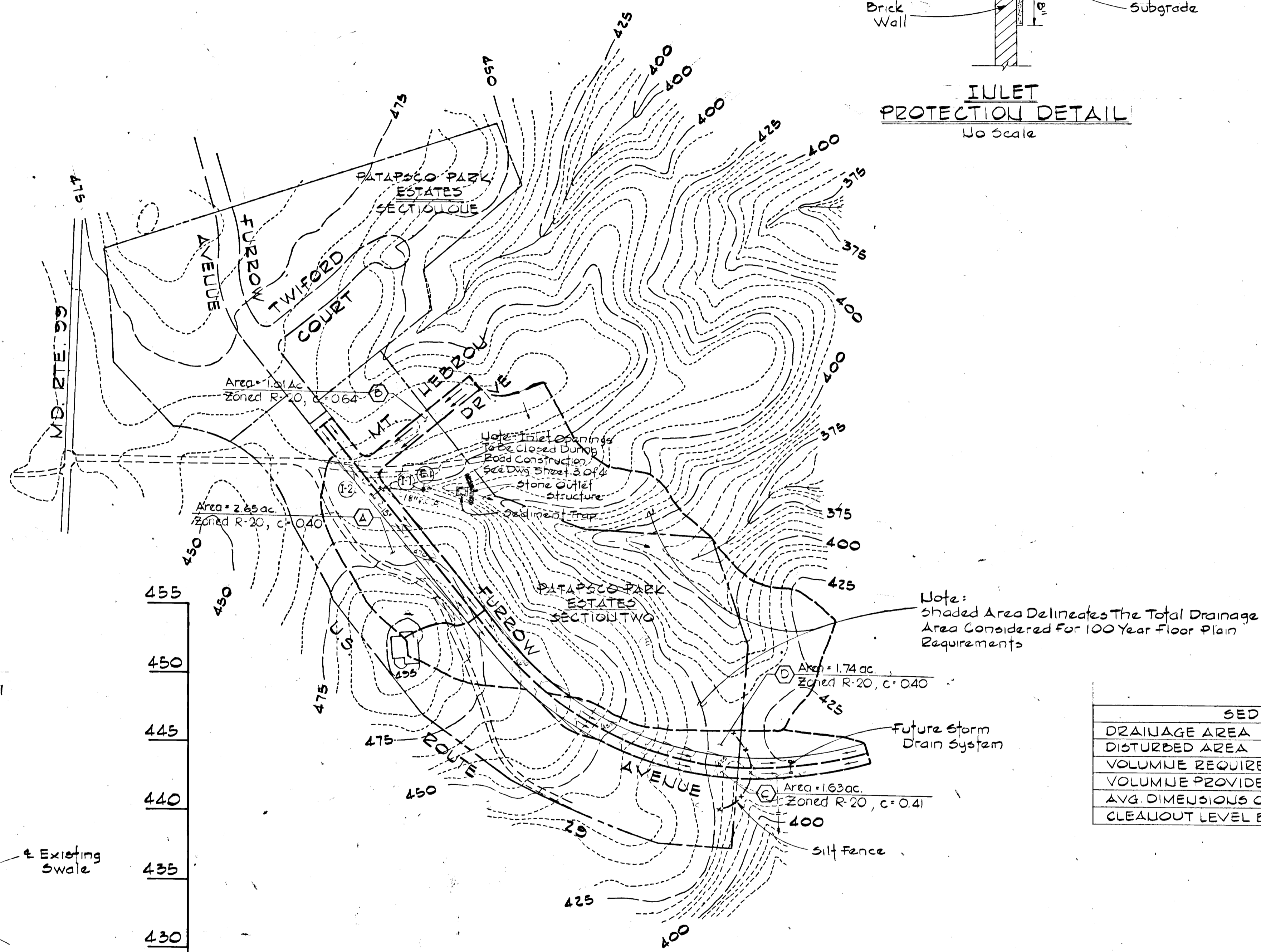


INLET PROTECTION DETAIL
 No Scale

- GENERAL NOTES
1. Present Zoning - R-20.
 2. Total Number of Lots - 19
 3. Total area of submission - 21.658 Ac.±
 4. Design speed of roads - 30 mph
 5. Contours shown hereon are based on photogrammetry by Photo Service, Inc., Silver Spring, Md. dated October, 1965.
 6. Public water and private sewerage systems will be utilized.
 7. All sediment & erosion control devices shown hereon shall be constructed according to specifications shown in the U.S.D.A. Soil Conservation Service "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" unless otherwise noted.
 8. All road construction details unless otherwise noted, will be constructed in accordance with the Howard County Road Construction Code and Standard Specifications.
 9. Fill areas to be compacted to a minimum 95% compaction.

SITE ANALYSIS

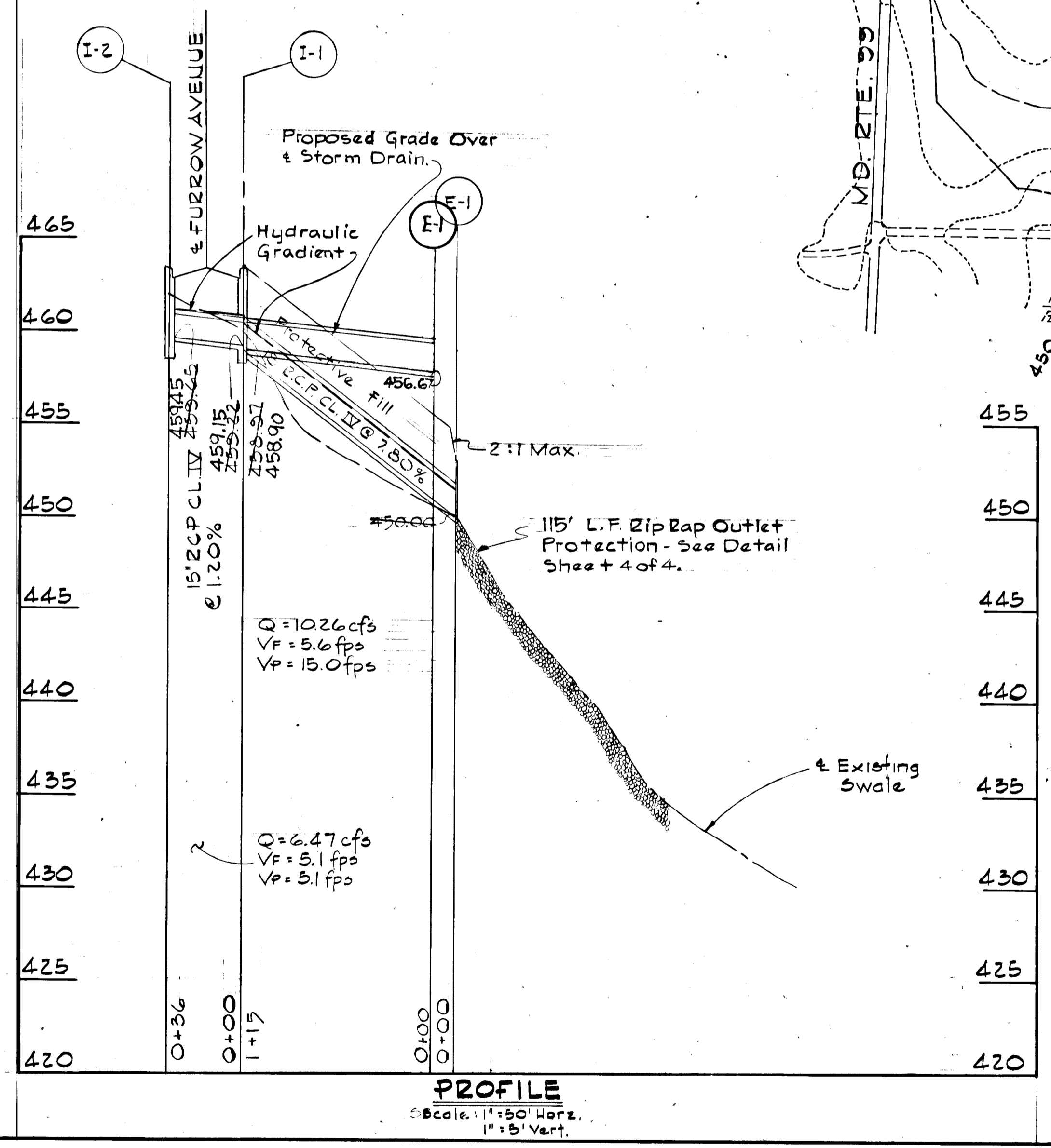
Total Area Of Site	21.658 Ac.±
Total Area Disturbed	2.82 Ac.±
Total Area Paved	1.38 Ac.±
Total Area Vegetated	1.44 Ac.±



DRAINAGE AREA MAP
 Scale: 1" = 200'

SEDIMENT TRAP

DRAINAGE AREA	4.00 Ac.±
DISTURBED AREA	1.00 Ac.±
VOLUME REQUIRED	268 C.Y.
VOLUME PROVIDED	278 C.Y.
AVG. DIMENSIONS OF TRAP	50' x 80' x 3' DP.
CLEAROUT LEVEL BELOW WEIR	1.0'



APPROVED: Department of Public Works
W. W. Williams, P.E. 9/18/77 Date
 Chief, Bureau of Highways

APPROVED: Office of Planning and Zoning
John Myers 10-9-77 Date
 Chief, Division of Land Development

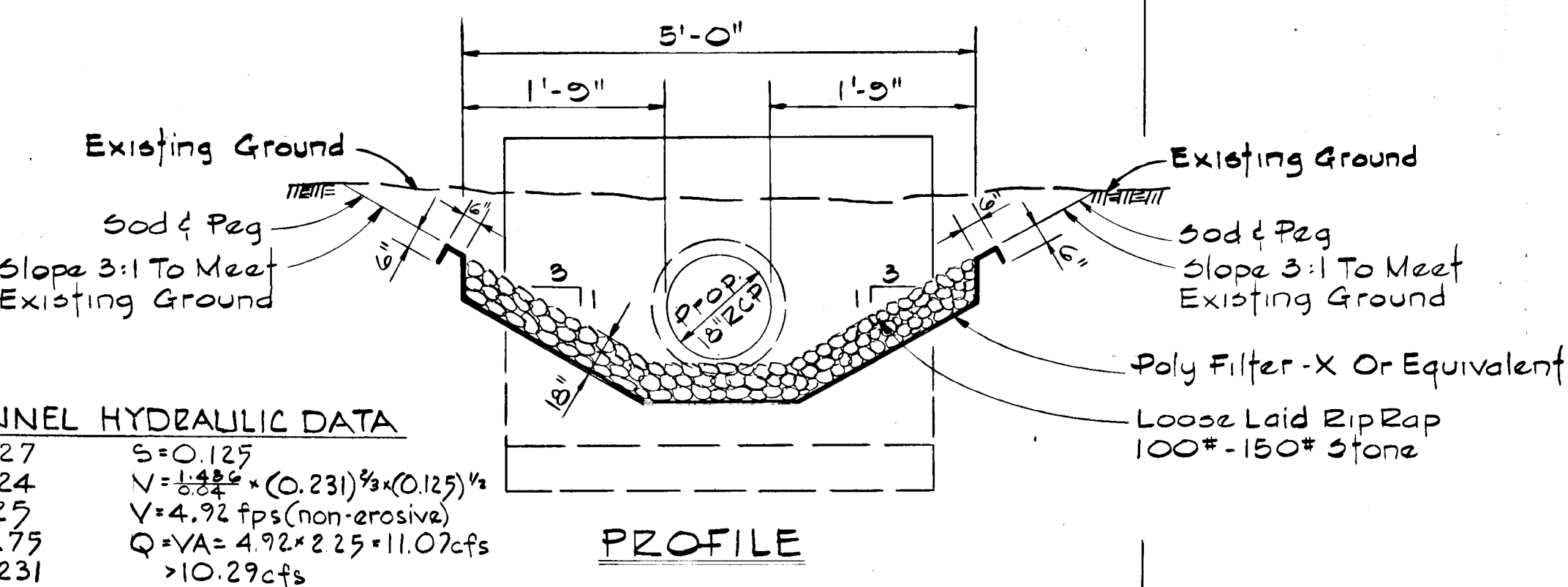
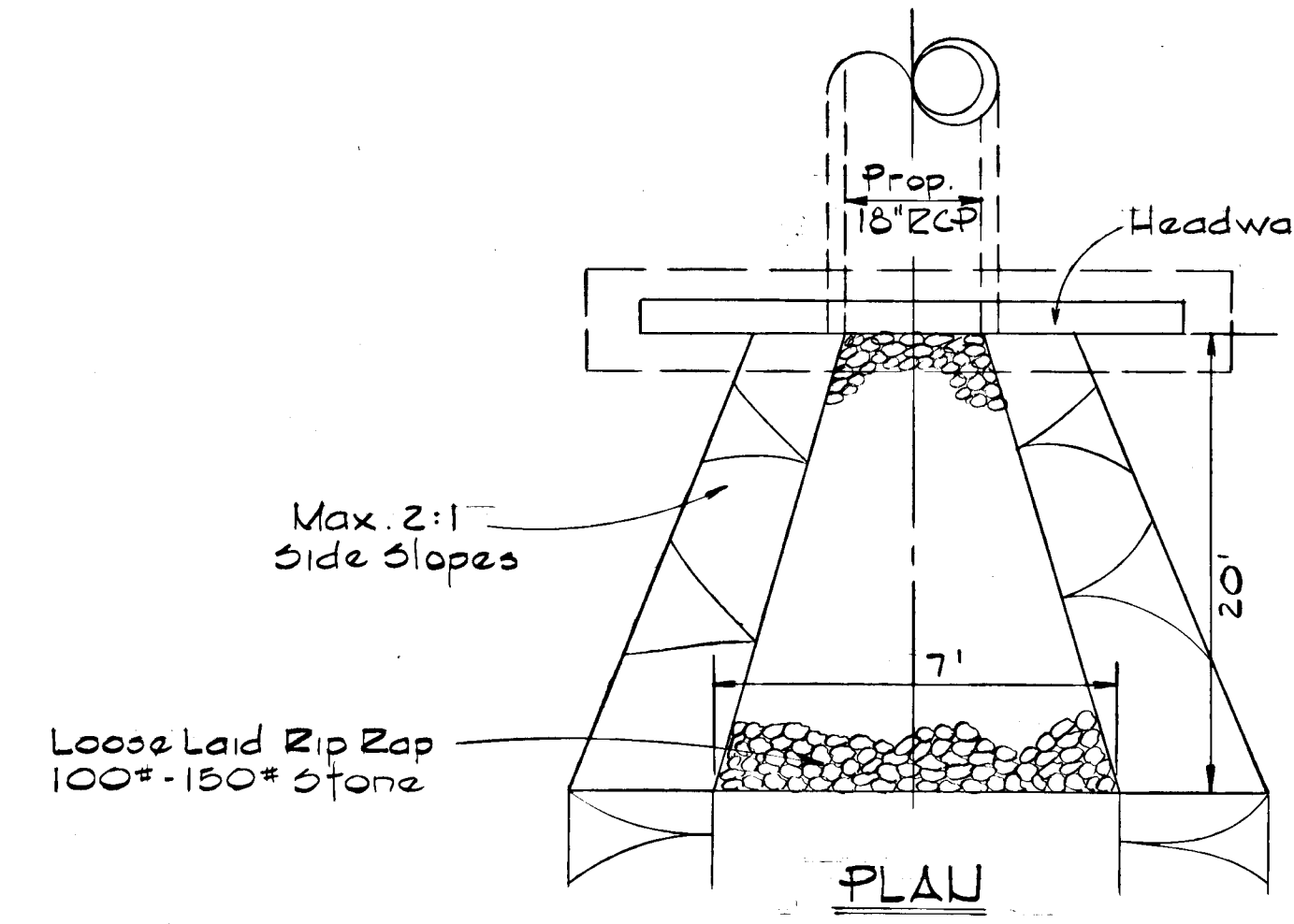
PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS
 1023 North Calvert Street
 Baltimore, Maryland 21202 301/837-0194

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Cay G. Weinel, Jr. 6-17-77 Date



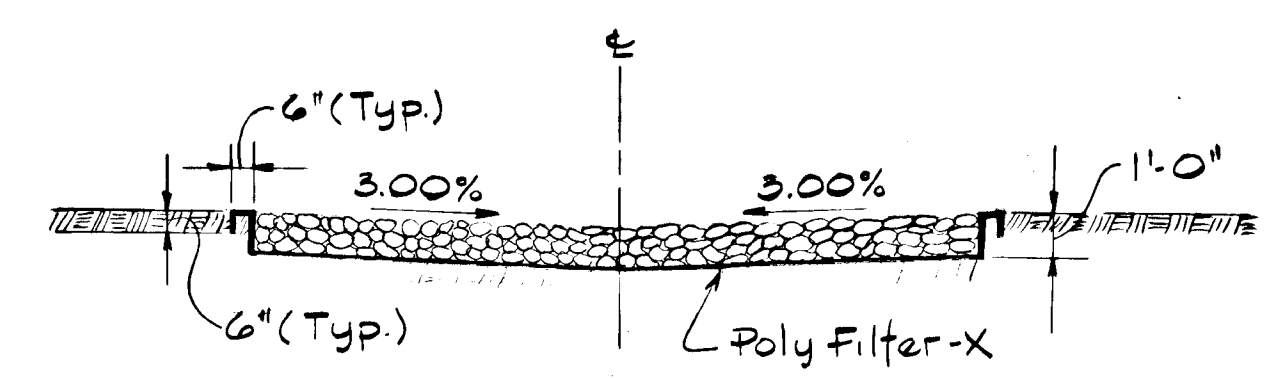
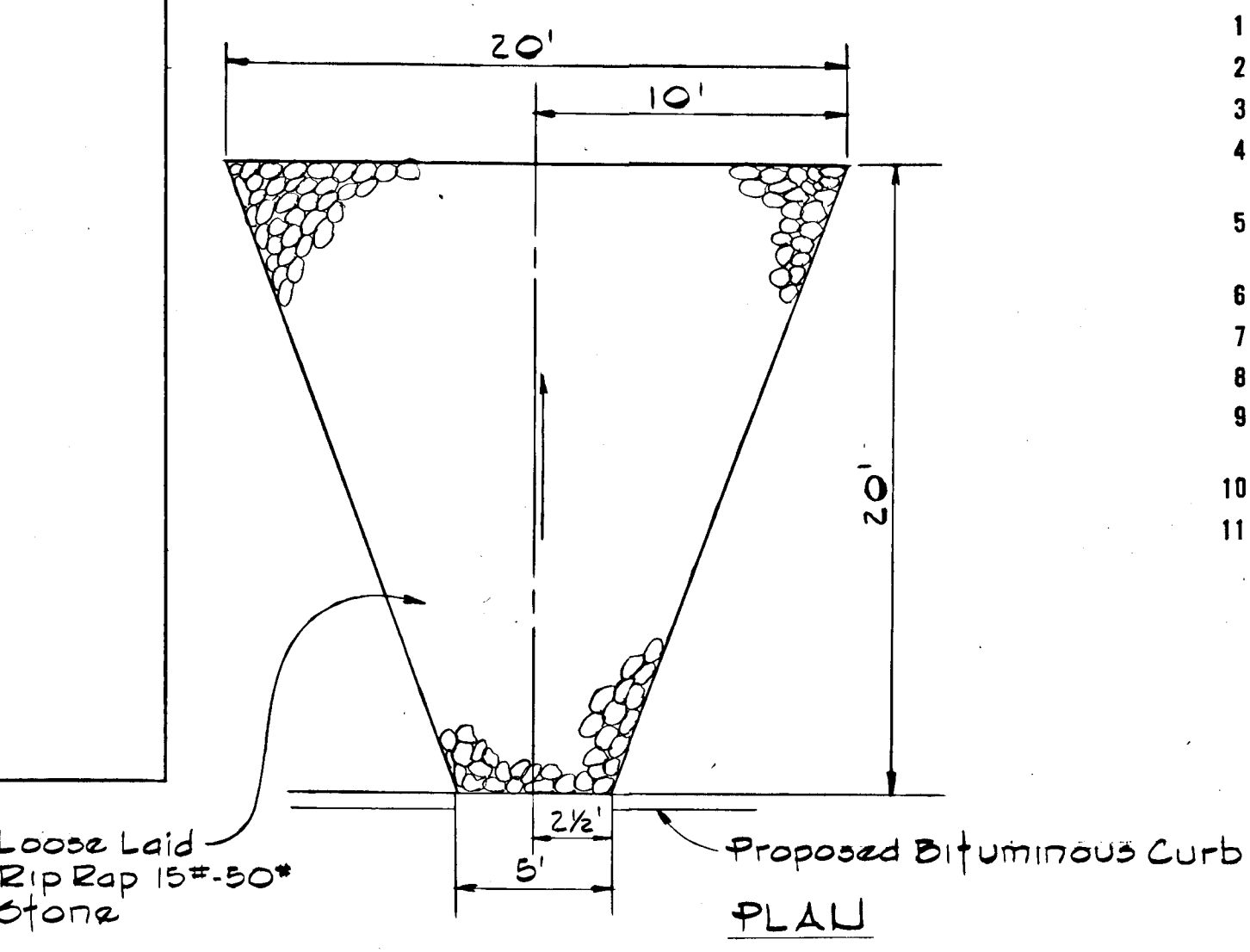
DRAINAGE AREA MAP AND STORM DRAIN PROFILE
 PATAPSCO PARK ESTATES SECTION TWO
 Second Election District June 17, 1977
 Howard County, Maryland
 Scale: As Shown

DESIGNED: A.E.L.
 DRAFTED: P.A.Z.
 CHECKED: P.B.C.
 SHEET 3 OF 4



CHANNEL HYDRAULIC DATA
 $d=0.27$ $S=0.125$
 $n=0.24$ $V=4.92 \text{ fps (non-erosive)}$
 $A=2.25$ $Q=VA=4.92 \times 2.25 = 11.07 \text{ cfs}$
 $WP=9.75$ $R=0.231$
 $R > 10.29 \text{ cfs}$

ZIP RAP OUTLET PROTECTION
 No Scale



OUTLET PROTECTION APRON
 Scale: 3/4"=1'-0"

- CONSTRUCTION SEQUENCE**
1. Obtain grading permit.
 2. Construct temporary stabilized construction entrance.
 3. Place straw bale dikes where shown on plans.
 4. Construct diversion dikes and excavate sediment trap and place stone outlet structure as shown on plans.
 5. Stabilize diversion dikes using Temporary Seeding. (See Sediment Control Notes)
 6. Clear and grade roadways to subgrade.
 7. Install storm drainage system.
 8. Place pavement courses and bituminous concrete curbing.
 9. Fine grade slopes between curb and property lines, roadway supporting slopes and slopes along channel.
 10. Stabilize with permanent seeding and sodding as required.
 11. Remove sediment control devices.

- SEDIMENT CONTROL NOTES**
1. The developer shall notify the Ho. Co. Office of Inspections and Permits at least 24 hours prior to beginning any construction shown hereon (465-5000 Ext. 365).
 2. Dikes, sediment traps, etc., to be constructed prior to any onsite grading or disturbance to any existing surface material, and are to be stabilized as soon as constructed.
 3. All sediment control structures to remain in place until permission for their removal has been obtained from the Ho. Co. Office of Inspections and Permits (465-5000 Ext. 365)
 4. All graded areas not to be sodded shall be stabilized by seeding and mulching in accordance with the following:
 1. Site Preparation:
 - A. Harrow or disc in areas proposed to be seeded with the following materials at the specified rate, to a depth of 3".
 1. Pulverized limestone at 1 1/2 tons/acre.
 2. Commercial fertilizer 10-10-10 at 1/2 tons/acre.
 3. Super phosphate of 600 lbs./acre.
 2. Seeding:
 - A. Sow the following seed mixture at the rate of 200 lbs/acre with a mechanical spreader
 1. Temporary: Italian or Perennial Rye Grass
 2. Permanent: 40% Marion Blue Grass
 3. 40% South Dakota Blue Grass and 20% Penn Lawn Creeping Red Fescue
 - B. The seeded area shall then be raked with a York Rake (minimum of 2 passes), covered and compacted with Cultipacker or other approved method.
 3. Mulching:
 - A. Seeded areas shall be uniformly mulched immediately after seeding with unweathered small grain straw at the rate of 1 1/2 to 2 tons/acre.
 - B. Tie mulch down with liquid asphalt at 0.1 gal./s.y. or emulsified asphalt at 0.10 gal./s.y. on mulch netting.
 4. Sodding:
 - A. Apply 10-10-10 Fertilizer @ 1000 lbs./acre (25 lbs./1000)
 - B. Apply Ground Agricultural Limestone @ 1000 lbs./acre (50 lbs./1000)
 - C. Incorporate both limes and fertilizer into soil by discing. Firm up after incorporation.
 - D. Lay sod to a tight fit. Roll to ensure contact with underlying soil. Water as necessary for first two weeks (in summer) to ensure establishment.
 5. Critical area (2:1 slope) stabilization shall be Common Kentucky K-31 (certified) @ 40#/acre and Crownvetch scarified and inoculated @ 15#/acre.

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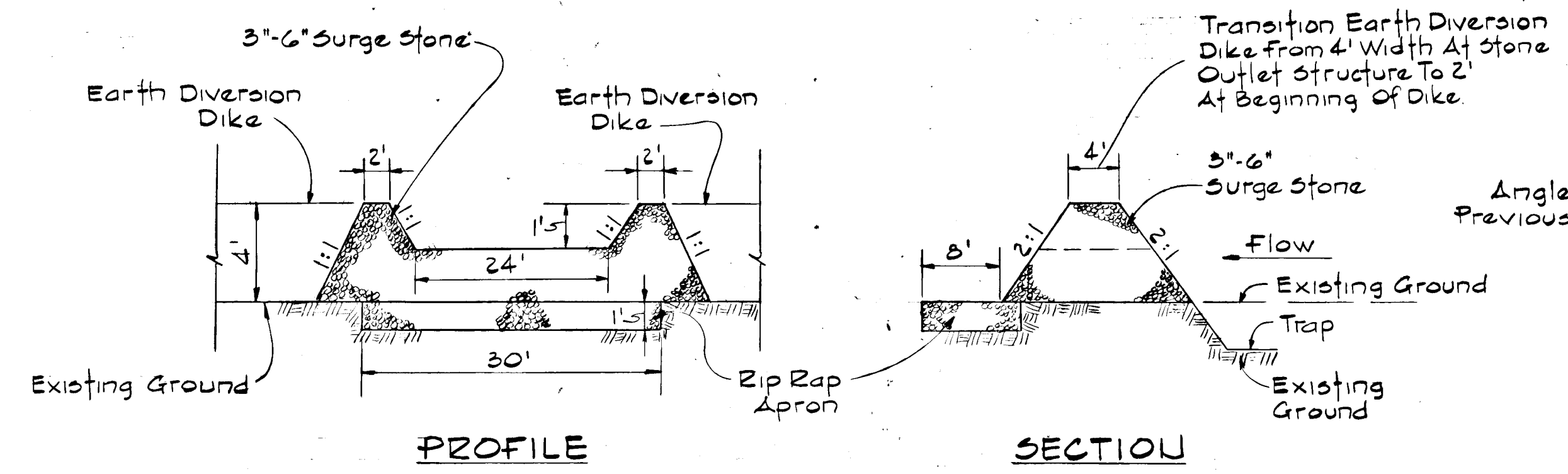
Simon Bowling Date _____

For Howard County Soil Conservation District and meets Technical Requirements.

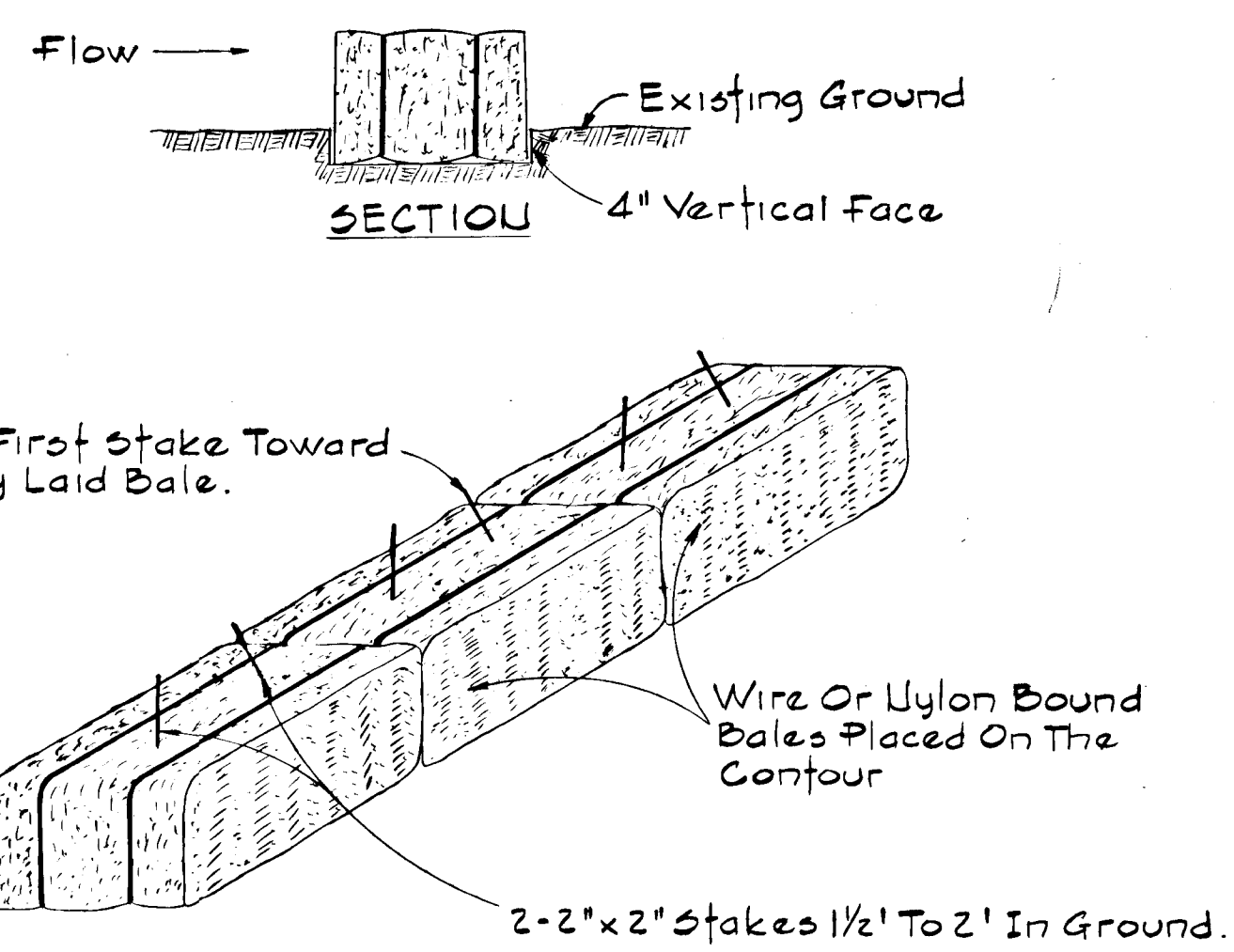
U.S. Soil Conservation Service Date _____

This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

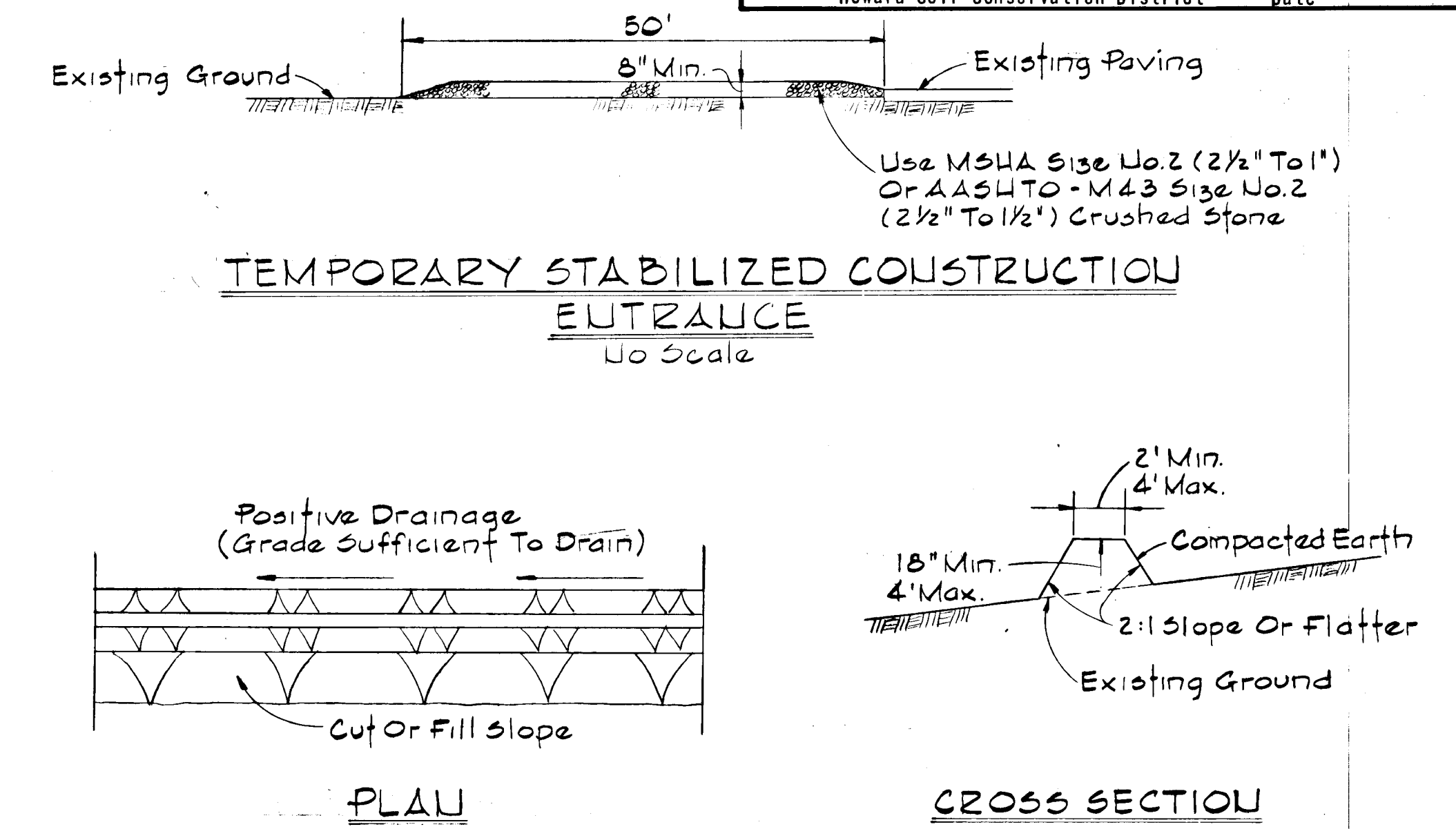
District Coordinator Date _____
 Howard Soil Conservation District



STONE OUTLET STRUCTURE
 No Scale



STRAW BALES DIKE DETAIL
 No Scale



TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
 No Scale

DIVERSION DIKE
 No Scale

APPROVED: Department of Public Works
W. W. Mullaney, Jr. 9/28/77
 Chief, Bureau of Highways Date

APPROVED: Office of Planning and Zoning
John M. ... 10-10-77
 Chief, Division of Land Development Date

PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS
 1023 North Calvert Street
 Baltimore, Maryland 21202 301/837-0194

ENGINEER'S CERTIFICATE
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Gay G. Weinel, Jr. 6-12-77
 Date

SEDIMENT & EROSION CONTROL DETAILS
 PATAPSCO PARK ESTATES SECTION TWO
 Second Election District June 17, 1977
 Howard County, Maryland
 Scale: As shown

DESIGNED: A.E.L.
 DRAFTED: P.A.Z.
 CHECKED: E.B.C.
 SHEET 4 OF 4