

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HRS IN ADVANCE OF ANY CONSTRUCTION.
3. STORM DRAINAGE TRENCHES WITHIN ROAD RIGHT-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
4. ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
5. CONTRACTOR TO NOTIFY THE HOWARD COUNTY INSPECTION AND SURVEY DIVISION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TELEPHONE 792-7272.
6. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
7. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT REVISED EDITION.

DATE	
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○ DENOTES 250-WATT MERCURY VAPOR LAMP PENDANT MOUNTED FIXTURES ON A 25-FOOT GALVANIZED STEEL POLE LOCATED NO LESS THAN 6' FROM EDGE OF THE PAVEMENT @ STA. 4+27.38 AND 9+21

APPROVED

DEPARTMENT OF PUBLIC WORKS

Paul J. ... 7/10/88 DATE
CHIEF, LAND DEVELOPMENT DIVISION

Dorville W. ... 7/21/88 DATE
CHIEF, BUREAU OF HIGHWAYS

APPROVED

DEPARTMENT OF PUBLIC WORKS

... 7-22-88 DATE
CHIEF, BUREAU OF ENGINEERING

APPROVED

OFFICE OF PLANNING AND ZONING

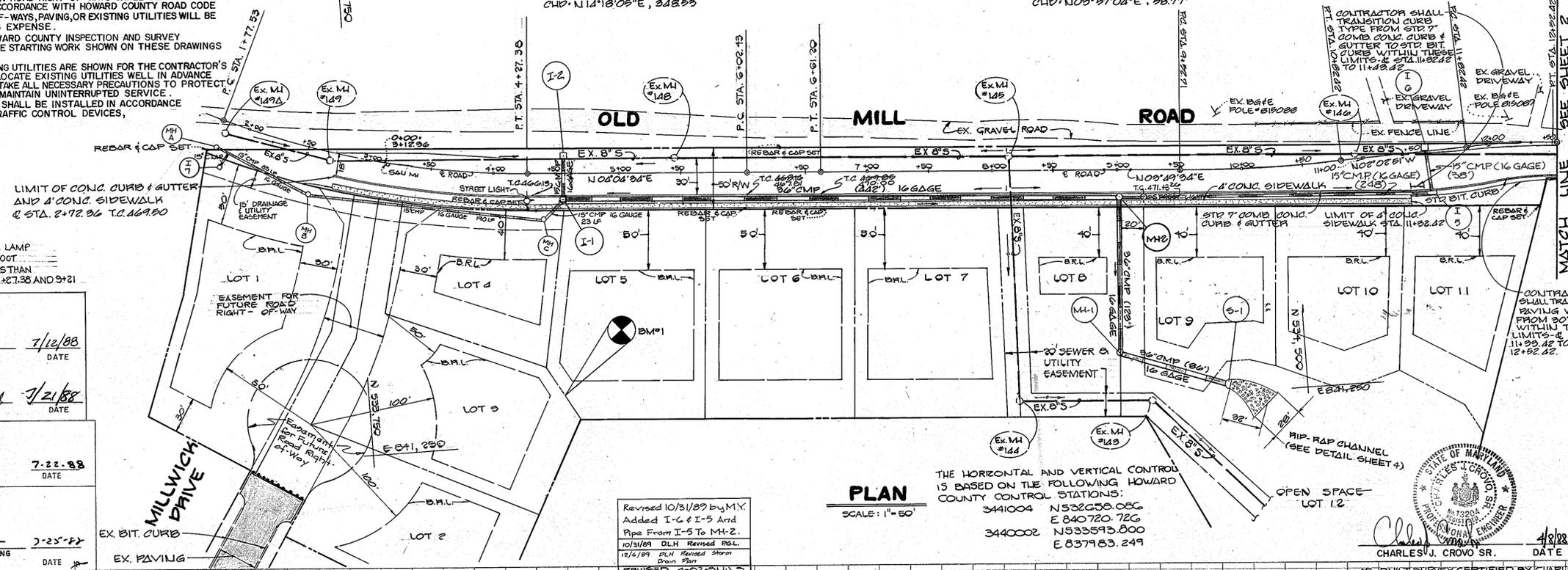
... 7-25-88 DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

Curve Data
 @ STA. 1+77.89 TO @ STA. 4+27.38
 R = 700.00'
 L = 249.89'
 Δ = 20° 27' 02"
 T = 126.27'
 CHD = N11° 18' 05" E, 348.53

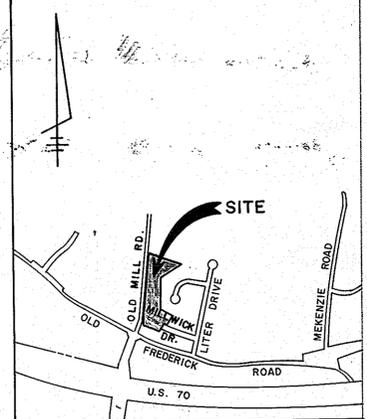
Curve Data
 @ STA. 6+02.49 TO @ STA. 6+61.20
 R = 18470.00'
 L = 98.77'
 Δ = 00° 15' 00"
 T = 29.39'
 CHD = N09° 37' 04" E, 98.77'

Curve Data
 @ STA. 9+82.71 TO STA. 10+82.82
 R = 1,269.28'
 L = 129.71'
 Δ = 05° 22' 25"
 T = 64.91'
 CHD = N00° 28' 21" E, 129.65'

Curve Data
 @ STA. 11+82.82 TO STA. 12+82.82
 R = 608.00'
 L = 70.00'
 Δ = 06° 37' 48"
 T = 38.04'
 CHD = N01° 16' 01" E, 69.96'



Revised 10/31/87 by M.Y.
 Added I-6 & I-5 And
 Pipe From I-5 To MH-2.
 10/31/89 DLH Revised R.O.L.
 12/4/89 DLH Revised Storm
 Drain Plan
 REVISED 4-22-91 U.S.
 REMOVED MAC-PATH
 ON LOT 2.



BENCH MARKS

B.M.#1
1/2" REBAR ON LOT LINE BETWEEN LOT#3 & #5
TRAVERSE STA. "6" ELEV. 475.04

B.M.#2
1/2" REBAR SET AT @ STA. 12+90, 16.5' INTO SOUTH BOUND LANE; TRAVERSE STA. "11" ELEV. 470.67

OLD MILL LOTS 1 THRU 12
 SECOND ELECTION DISTRICT
 HOWARD COUNTY MARYLAND

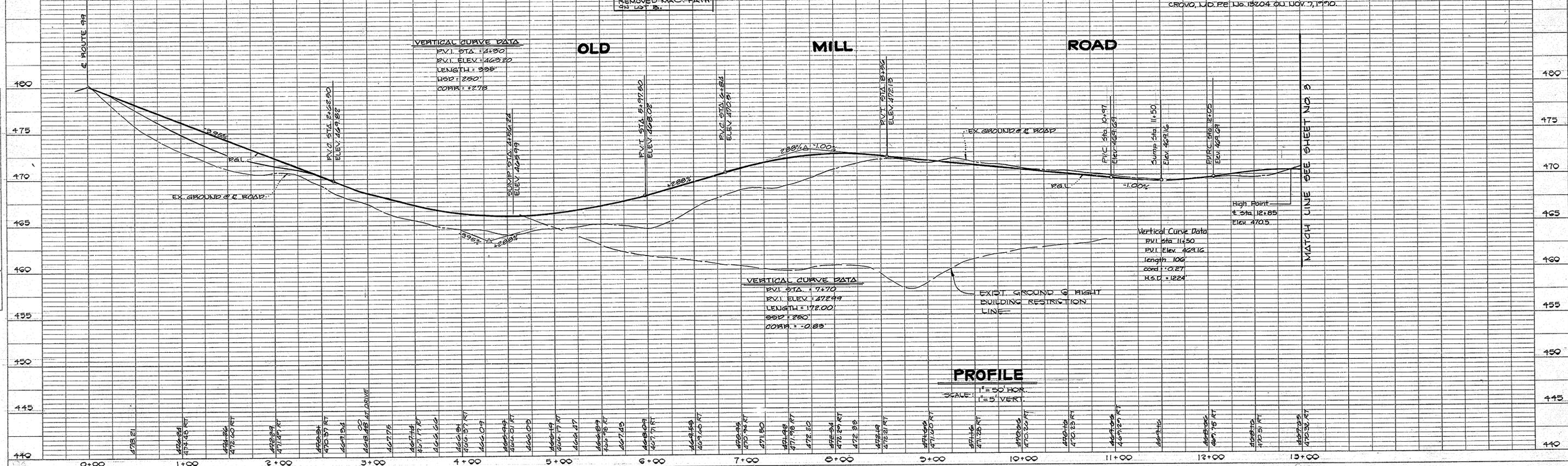
OLD MILL ROAD
 PLAN AND PROFILE

OWNER AND DEVELOPER
 PORTEN SULLIVAN CORP.
 SUITE 900
 3 BETHESDA METRO CENTER
 BETHESDA, MARYLAND 20814

SCALE AS SHOWN DATE JAN. 29 1988 DWG. NO. 1 OF 7
 DESIGNED BY DRN. W. C. BAUER CHK. C. J. CROVO SR.
 FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

1372

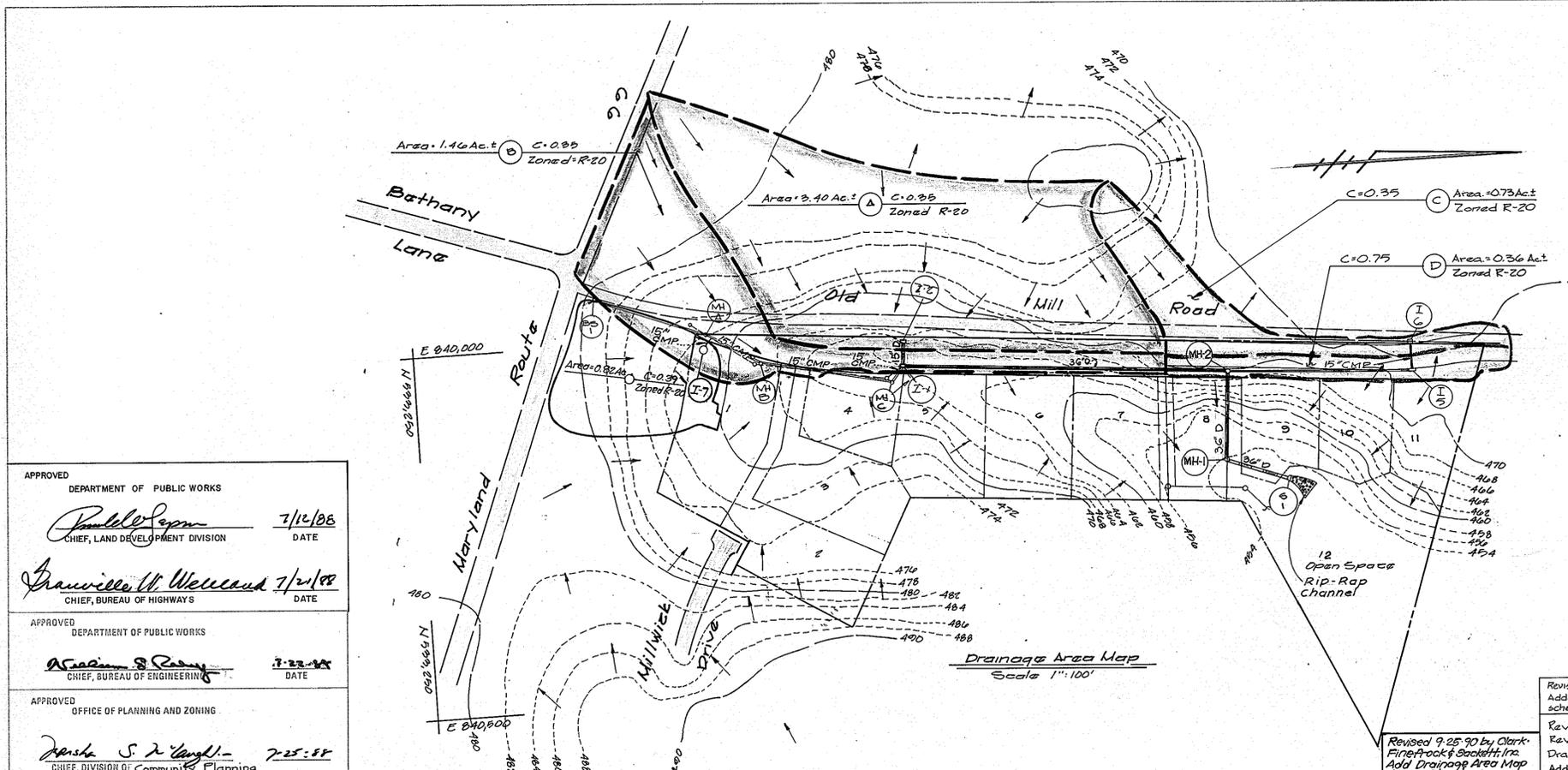
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REVISIONS	
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DESCRIPTION	
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STRUCTURE SCHEDULE						
STRUCT.	TYPE	TOP ELEV.	INV. IN.	INV. OUT.	ROAD STATION	REMARKS
I-1	A-5	446.05	457.25	475.36	4+56.24 OLD MILL RD.	S.D. 4.01
I-2	'D' INLET	445.56	458.52	469.90	4+56.24 OLD MILL RD.	S.D. 4.11
MH-1	STD. MANHOLE	454.15	448.48	448.24	0+01.36 @ 1417' FROM E OLD MILL ROAD	G. 5.02
MH-2	STD. MANHOLE	471.80	455.26	455.50	0+01.36 @ 2117' FROM E OLD MILL ROAD	G. 5.02
S-1	STD. METAL END SECTION	448.18	445.56	445.00	-----	S.D. 5.01 & S.D. 5.02
I-5	'K' INLET	467.12	464.64	464.41	11+50.00 OLD MILL ROAD	S.D. 4.13
I-6	A-5	468.75	-----	464.77	11+50.00 OLD MILL ROAD	S.D. 4.01
MH-A	STD. MANHOLE	471.50	467.50	467.50	1+75 2174' RT FROM E OLD MILL ROAD	G. 5.02
MH-B	STD. MANHOLE	470.50	465.50	465.30	2+40 38' RT FROM E OLD MILL ROAD	G. 5.02
MH-C	STD. MANHOLE	466.50	461.50	461.30	4+40 38' RT FROM E OLD MILL ROAD	G. 5.02
NOTE TOP ELEV FOR MH-A, MH-B, MH-C SHOULD BE VERIFIED BY THE CONTRACTOR ON THE SITE.						
I-7	Yard Inlet	466.50	-----	466.75	2+88 40' RT FROM E OLD MILL RD.	S.D. 4.14

APPROVED
DEPARTMENT OF PUBLIC WORKS
Paul J. [Signature] 7/12/88
CHIEF, LAND DEVELOPMENT DIVISION DATE

Stanley W. Welland 7/2/88
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
William S. [Signature] 7-22-88
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
OFFICE OF PLANNING AND ZONING
Janice S. [Signature] 7-25-88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

OLD MILL
LOTS 1 THRU 12
SECOND ELECTION DISTRICT
HOWARD COUNTY MARYLAND

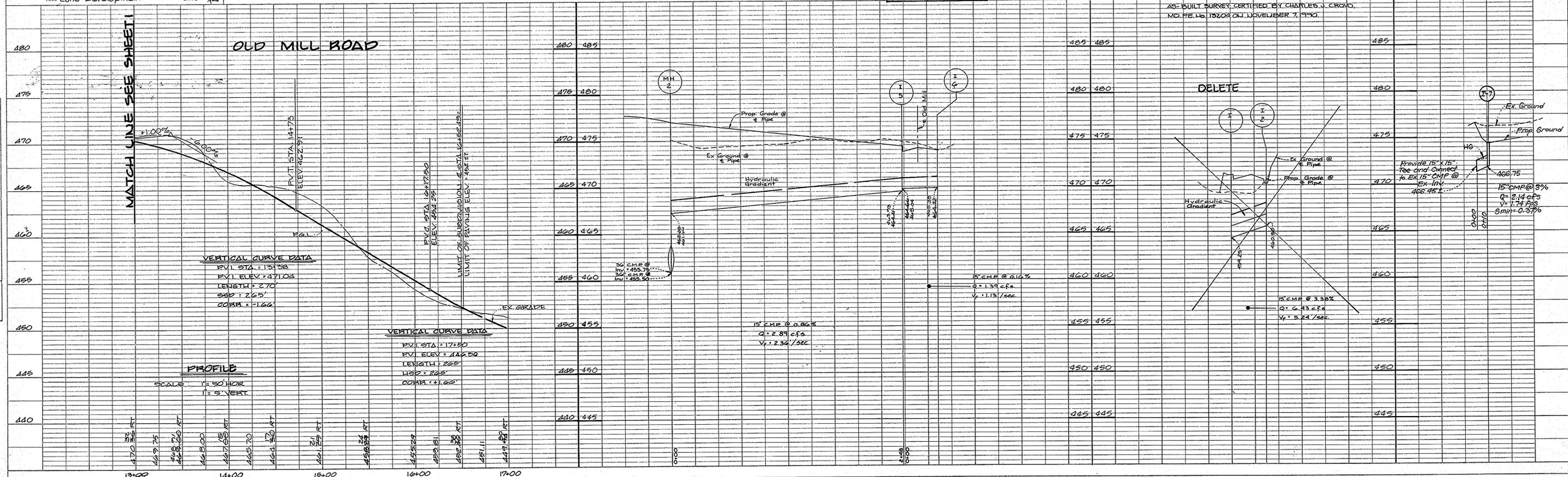
DRAINAGE AREA MAP | **OLD MILL ROAD PROFILE**

OWNER AND DEVELOPER
PORTEN SULLIVAN CORP.
SUITE 900
3 BETHESDA METRO CENTER
BETHESDA, MARYLAND 20814

SCALE AS SHOWN | DATE JAN. 29, 1988 | DWG. NO. 3 OF 7
DES. R.C. SHUMAKER | DRN. W. C. B. | CHK. C. J. CROVO SR.

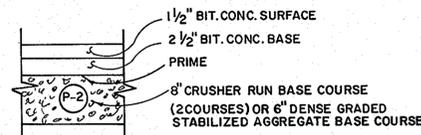
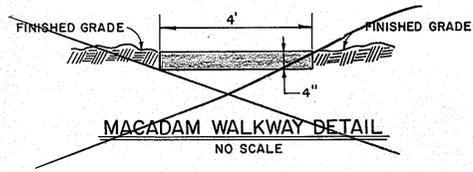
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. | ELLICOTT CITY, MARYLAND 21043

CHARLES J. CROVO SR. 4/8/88
DATE

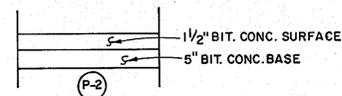


DATE
BY
SURVEYED
PLOTTED
ALIGNMENT CHECKED
NOTE BOOK
RT. OF WPT CHECKED
RD.

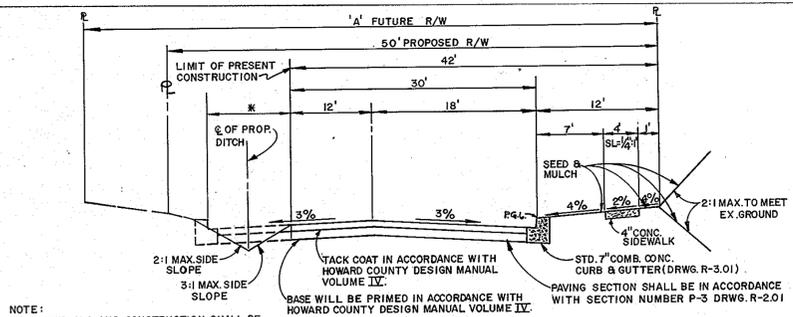
DATE
BY
SURVEYED
PLOTTED
GRADES CHECKED
NOTE BOOK
NO.
STRUCTURE NOTATIONS CHVD



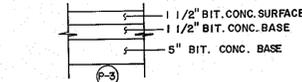
PAVING SECTION P-2
NO SCALE



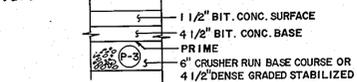
PAVING SECTION P-2
NO SCALE



OLD MILL ROAD
TYPICAL ROADWAY SECTION
NO SCALE
STA. 0+00 TO STA. 11+32.42



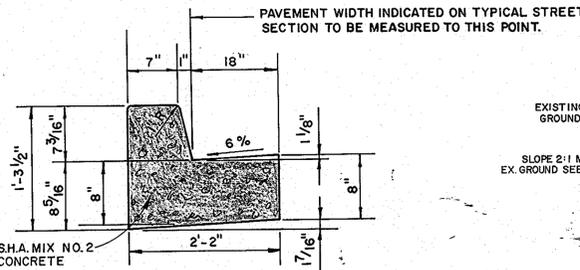
PAVING SECTION P-3
NO SCALE



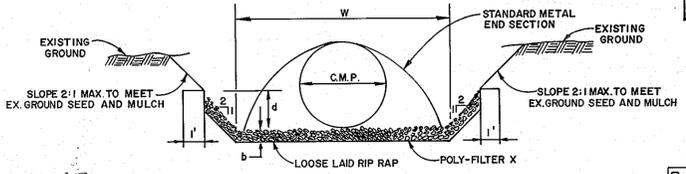
PAVING SECTION P-3
NO SCALE

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	A	STATION LIMITS
OLD MILL ROAD	MINOR COLLECTOR	35 M.P.H.	R-20	60	2+72.36 TO 11+32.42

STRUCTURE	RIP RAP CHANNEL DESIGN DATA										RIP RAP SIZE			
	A ¹	P ¹	R	R 2/3	S	S 1/2	n	Q	V	d'	W'	d 50	d MAX.	b
S-1	7.12	11.54	0.62	0.7227	2.0	0.141	.04	26.98	3.79	0.73	8.3	4"	6"	9"

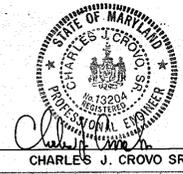


STANDARD SLOPE 7" COMB. CONC. CURB & GUTTER
NO SCALE



RIP RAP CHANNEL DETAIL
NO SCALE

Revised 10/31/89 by M.Y.
Revised Rip-Rap Channel
Design Data.
Revised 12/6/89 ECH
Revised Rip-Roadway Seed
Design Data.



CHARLES J. CROVO SR.
DATE 4/8/88

OLD MILL
LOTS 1 THRU 12
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

**STORM DRAIN PROFILES,
ROAD SECTIONS & DETAILS**

OWNER AND DEVELOPER
PORTEN SULLIVAN CORP.
SUITE 900
3 BETHESDA METRO CENTER
BETHESDA, MARYLAND 20814

SCALE AS SHOWN DATE JAN. 29, 1988 DWG. NO. 4 OF 7
DES. R.C. SHUMAKER DRN. SUREE B. CHK. C. J. CROVO SR.

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

APPROVED
DEPARTMENT OF PUBLIC WORKS
William B. Reidy 7-22-88
CHIEF, BUREAU OF ENGINEERING DATE

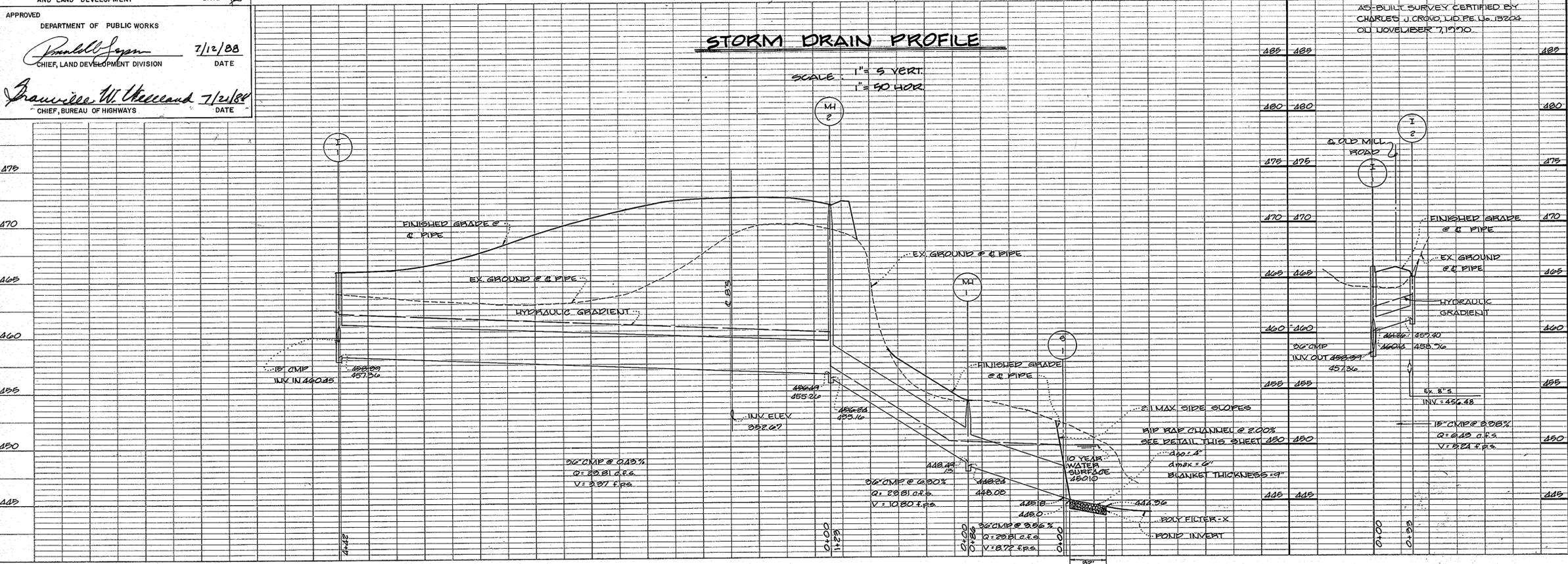
APPROVED
OFFICE OF PLANNING AND ZONING
Trisha S. Doughty 7-25-88
CHIEF DIVISION OF COMMUNITY PLANNING
AND LAND DEVELOPMENT DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
Ronald L. Jagan 7/12/88
CHIEF, LAND DEVELOPMENT DIVISION DATE

Francis W. Keenan 7/12/88
CHIEF, BUREAU OF HIGHWAYS DATE

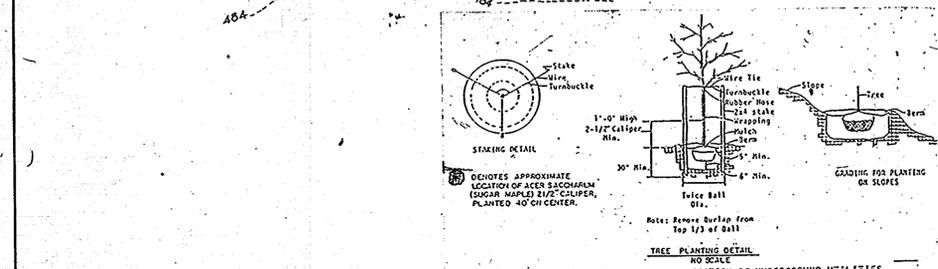
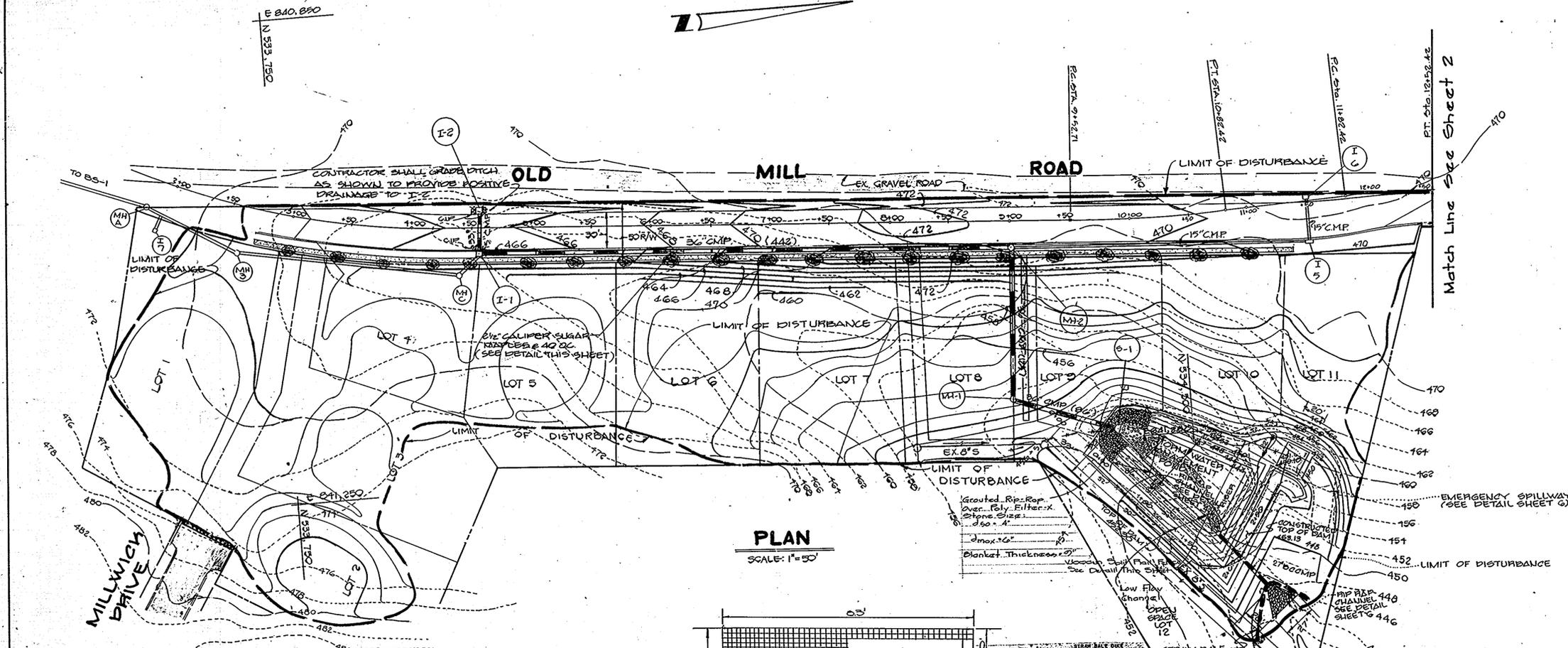
STORM DRAIN PROFILE

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



AS-BUILT SURVEY CERTIFIED BY
CHARLES J. CROVO, LICENSE NO. 13224
ON NOVEMBER 7, 1990

1372

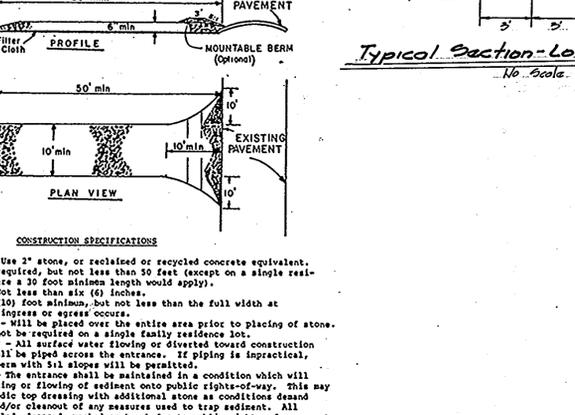
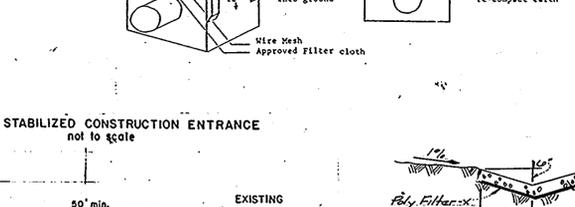
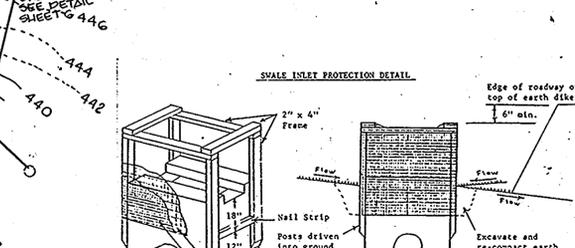
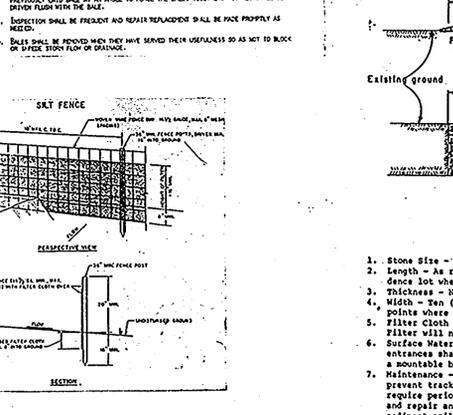
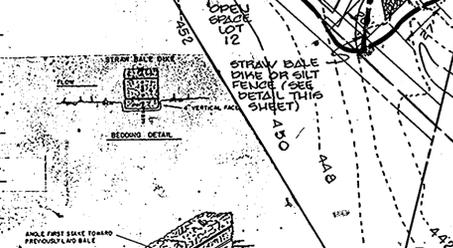
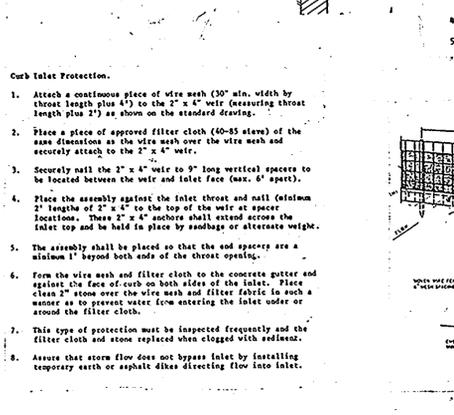
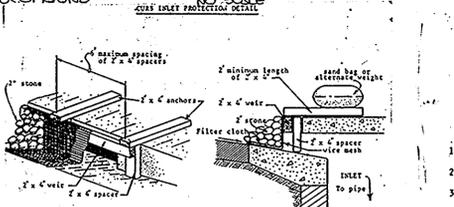
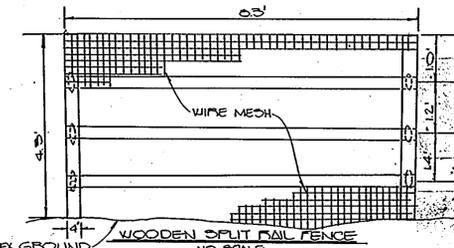


PERMANENT SEEDING NOTES:
 APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
 SEEDING PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PROHIBITIVELY WARPENED.
 SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (90 LBS/1000 SQ. FT.) AND 400 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING.
 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (90 LBS/1000 SQ. FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (25 LBS/1000 SQ. FT.) BEFORE SEEDING.
 3) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (90 LBS/1000 SQ. FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (25 LBS/1000 SQ. FT.) BEFORE SEEDING.
 4) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (90 LBS/1000 SQ. FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (25 LBS/1000 SQ. FT.) BEFORE SEEDING.
 SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 50 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF PERENNIAL RYEGRASS. FOR THE PERIOD MAY 1 THRU MAY 31, SEED WITH 50 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF PERENNIAL RYEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROJECT SITE BY OPTION (1) 2 TONS PER ACRE OF WEAVER STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE 500. OPTION (3) SEED WITH 50 LBS/ACRE PERENNIAL RYEGRASS AND MULCH WITH 2 TONS/ACRE WEAVER STRAW MULCH IMMEDIATELY AFTER SEEDING. MULCH MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.
 MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE REPAIRS, REPLACEMENTS AND ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PROHIBITIVELY WARPENED.
TEMPORARY SEEDING NOTES:
 APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
 SEEDING PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PROHIBITIVELY WARPENED.
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 25 BUSSEL 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 SEEDING UNIVERSALS (0.7 LBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROJECT SITE BY APPLYING 2 TONS PER ACRE OF WEAVER STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OR USE 500.
 ANCHORING: APPLY 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. MULCH MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL. ON SLOPES 8 FT. OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.
 REFER TO THE 1989 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 INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (899-2437).
 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, DICES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. b) 14 DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE.
 4) ALL SEDIMENT TRAPS/BASINS SHOW MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, SIGN 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) AND 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 MUST REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAVE BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 7) SITE AREAS:
 TOTAL AREA OF SITE: 715 ACRES
 AREA DISTURBED: 850 ACRES
 AREA TO BE ROOFED OR PAVED: 850 ACRES
 TOTAL PERIMETER STABILIZED: 850 ACRES
 TOTAL FILL: 850 CU. YDS.
 TOTAL WASTE/BORROW AREA LOCATION: 850 CU. YDS.
 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR OFFSET OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 10) ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF THE GRADING AND SEDIMENT CONTROL STRUCTURES, 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.

PLAN
 SCALE: 1" = 50'

Revised 10/31/89 by MYX
 Added I-6 To I-5 And A
 Pipe From I-5 To MH-2.
 Revised 5/24/91 by J.S.
 Added Split Rail Fence.



CONSTRUCTION SPECIFICATIONS:
 1. Stone Size - Use 2" stone, or recycled or recycled concrete equivalent.
 2. Length - As required, but not less than 30 feet (except on a single residential lot where a 30 foot minimum length would apply).
 3. Thickness - Not less than 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 flowing or diverted toward construction entrances shall be piped across the entrances. If piping is impractical, a mountable beam with six 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 repair and/or cleanout of any measure used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
 8. Washing - Should 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.

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 COUNTY SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: *Charles J. Crovo* DATE: 1/8/88

DEVELOPER'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 DEPARTMENT 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 SIGNATURE OF DEVELOPER: *Porten Sullivan Corp.* DATE: 6-8-88

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND METS/TECHNICAL REQUIREMENTS.
 U.S. SOIL CONSERVATION DISTRICT DATE: 7/7/88

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
 APPROVED: *Robert J. Zehner* DATE: 7/6/88
 DISTRICT HOWARD COUNTY SOIL CONSERVATION DISTRICT

APPROVED DEPARTMENT OF PUBLIC WORKS
Frederick W. Woodland DATE: 7/21/88
 CHIEF, BUREAU OF HIGHWAYS

APPROVED DEPARTMENT OF PUBLIC WORKS
William S. Ray DATE: 7-22-88
 CHIEF, BUREAU OF ENGINEERING

APPROVED DEPARTMENT OF PUBLIC WORKS
Paul W. Seaman DATE: 7/12/88
 CHIEF LAND DEVELOPMENT DIVISION

APPROVED OFFICE OF PLANNING AND ZONING
Harold S. Campbell DATE: 7-25-88
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

OWNER AND DEVELOPER
 PORTEN SULLIVAN CORP.
 SUITE 900
 3 BETHESDA METRO CENTER
 BETHESDA, MARYLAND 20814

STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
 OLD MILL
 LOTS 1-12
 2ND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN
 SHEET 5 OF 7
 JANUARY 23, 1988
 AS-BUILT

AS-BUILT SURVEY CERTIFIED BY
 CHARLES J. CROVO, L.D. PE No. 15204
 ON NOVEMBER 7, 1990.
 SIGNATURE: *Charles J. Crovo* DATE: 1/8/88
 CHARLES J. CROVO SR.

1372

POND SPECIFICATIONS

I. SITE PREPARATION

Areas under the embankment and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. To facilitate clean out and restoration, it is recommended that the permanent pool area be cleared of all brush and trees.

II. EARTH FILL

Material
The fill material shall be taken from approved designated borrow area or areas. It shall be free from roots, stumps, wood, rubbish, over-size stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased at least 10 percent above the design elevation (including freeboard) unless otherwise shown on the plans. All fill material shall be CL or ML, as approved by Soils Engineer.

Placement
Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.

Core Trench

Where specified, a core trench shall be excavated along or parallel to the centerline of the embankment, as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation with the minimum width being 4-feet. The depth shall be at least 4-feet or as shown on the plans. The side slopes of the core trench shall be 1:1 or flatter. The backfill material for the core trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability. Compact to 95% of AASHTO T-99 density. Materials shall be CL or ML as approved by Soils Engineer.

III. STRUCTURAL BACKFILL

Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed 4-inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than 4-feet to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a structure or pipe unless there is a compacted fill of 2-feet or greater over the structure or pipe.

IV. PIPE CONDUITS

A. CORRUGATED METAL PIPE

- Materials - Metal Pipe - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211, with watertight coupling bands.
- Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the control structure shall be mortared all around. Watertight coupling bands shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight.
- Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
- Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
- Backfilling shall conform to structural backfill as shown above.
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

V. CONCRETE

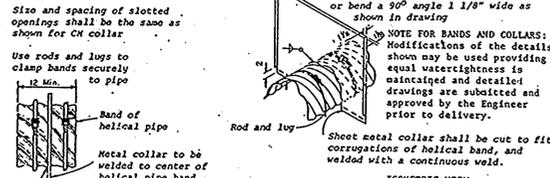
Concrete shall meet minimum requirements set forth in Maryland State Highway Administration Specifications for Materials, Highways, Bridges, and Incidental Structures, Article 20.07 (Portland Cement Concrete Mixtures), Mix No. 3.

VI. STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway and borrow areas shall be stabilized by permanent seeding and applying straw mulch in accordance with "Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas" immediately after finish grading.

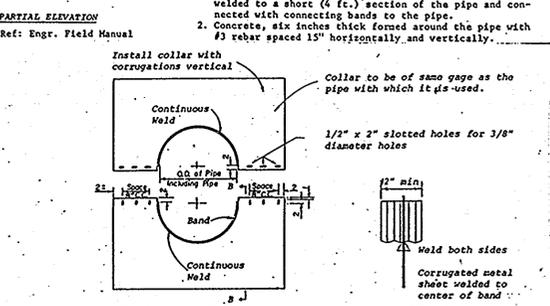
Fertilizer:	10-10-10	@ 11.5 lbs./1000 sq.ft.
Seed:	Crownvetch inoculated	@ 0.5 lbs./1000 sq.ft.
	'KY-31' Tall Fescue	@ 1.0 lbs./1000 sq.ft.
	Straw	@ 80 lbs./1000 sq.ft.
Mulch:	Slopes	@ 8 gal./1000 sq.ft.
Asphalt Tie-down:	Flat areas	@ 5 gal./1000 sq.ft.

- NOTES: 1.) ALL PIPE JOINTS SHALL BE WATERTIGHT.
2.) ALL WELDS SHALL BE CONTINUOUS AROUND THE DIAMETER OF THE PIPE.
3.) HAZARD CLASSIFICATION OF POND CLASS "A" BECAUSE SUDEN BREACH WOULD CAUSE NO DAMAGE DOWNSTREAM SINCE THERE ARE NO STRUCTURES LOCATED DOWNSTREAM.



NOTE: For details of fabrication dimensions, minimum gages, slotted holes, and notes, see detail above.

DETAILS OF HELICAL PIPE ANTI-SEEP COLLAR
NOTE: Two other types of anti-seep collars are:
1. Corrugated metal, similar to upper detail, except shop welded to a short (4 ft.) section of the pipe and connected with connecting bands to the pipe.
2. Concrete, six inches thick formed around the pipe with #3 rebar spaced 15" horizontally and vertically.



NOTES FOR COLLARS:
1. All materials to be in accordance with construction and construction material specifications.
2. When specified on the plans, coating of collars shall be in accordance with construction and construction material specifications.
3. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
4. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at time of installation.
5. Each collar shall be furnished with two 1/2" diameter rods with standard tank lug for connecting collars to pipe.

CORRUGATED METAL ANTI-SEEP COLLAR DETAILS

STORM WATER MANAGEMENT POND CERTIFICATION AND APPROVAL

DEVELOPER'S CERTIFICATE

"I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Signature of Developer: *Charles J. Crovo* DATE: 6/19/88

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Signature of Engineer: *Robert W. Ziehm* DATE: 4/8/88

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

U.S. SOIL CONSERVATION SERVICE DATE: 7/7/88

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: *Robert W. Ziehm* DATE: 7/6/88

APPROVED: DEPARTMENT OF PUBLIC WORKS

Signature: *Robert W. Ziehm* DATE: 7-22-88

APPROVED: OFFICE OF PLANNING AND ZONING

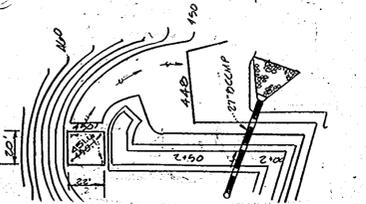
Signature: *Frank J. Z. Gough* DATE: 7-25-88

APPROVED: DEPARTMENT OF PUBLIC WORKS

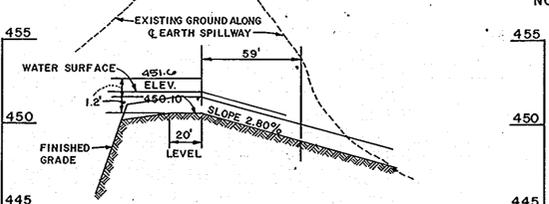
Signature: *Charles J. Crovo* DATE: 7/12/88

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERS & LAND SURVEYORS
6380 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043

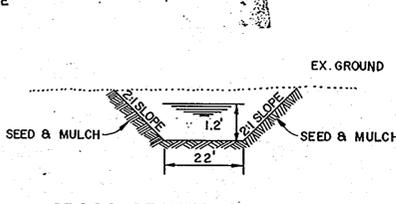
APPROVED: DEPARTMENT OF PUBLIC WORKS
Signature: *Robert W. Ziehm* DATE: 7/12/88



PLAN OF EARTH SPILLWAY

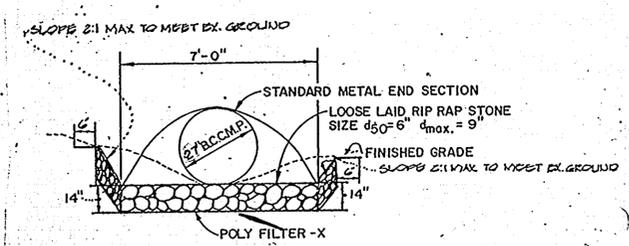


PROFILE ALONG C OF EARTH SPILLWAY

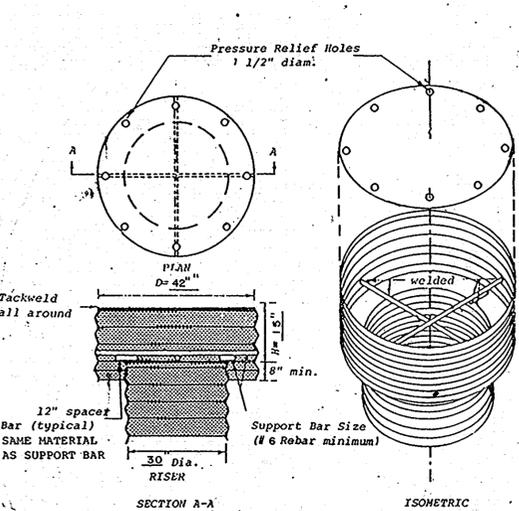


CROSS SECTION OF EARTH SPILLWAY AT CONTROL SECTION

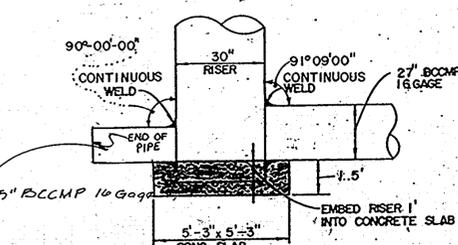
EMERGENCY SPILLWAY DETAILS



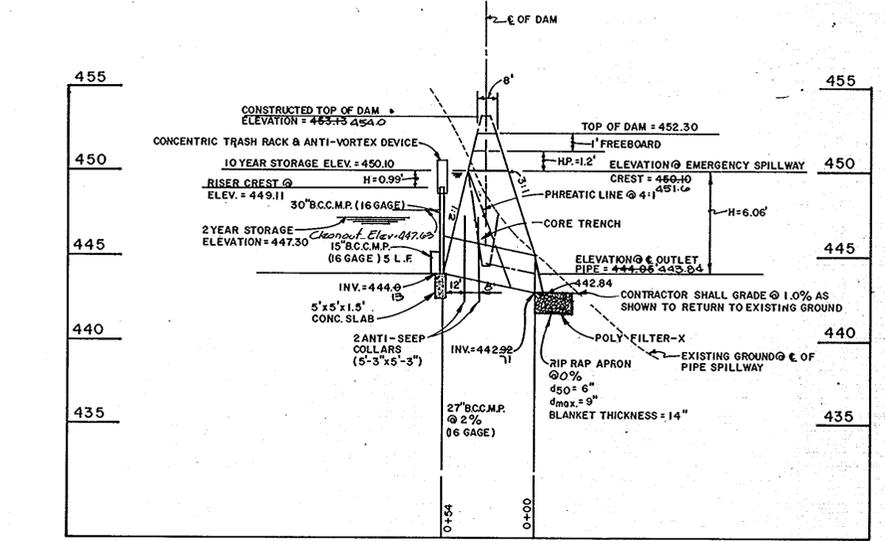
RIP RAP APRON DETAIL



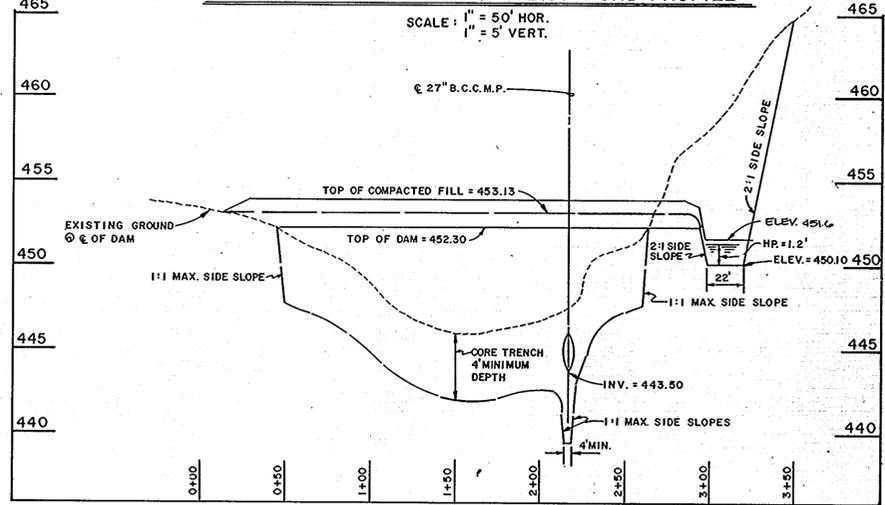
CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE DETAIL



RISER STRUCTURE DETAIL

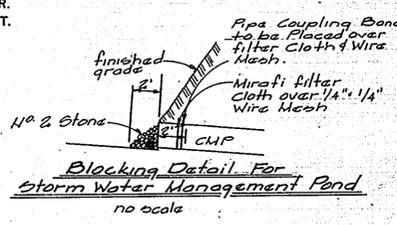


STORM WATER MANAGEMENT POND PROFILE



PROFILE ALONG C OF DAM

- CONSTRUCTION SEQUENCE**
- OBTAIN GRADING PERMIT.
 - CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND STRAW/BALE DIKE/SILT FENCE AS SHOWN ON PLAN.
 - NO GRADING, CAN BEGIN UNLESS PIPES AND APPURTENANCES NECESSARY TO FULLY CONSTRUCT STORM WATER MANAGEMENT POND ARE DELIVERED TO THE JOB SITE.
 - CONSTRUCT STORM WATER MANAGEMENT POND, STABILIZE THESE AREAS WITH TEMPORARY SEEDING.
 - THE ORIFICE PIPE ON THE POND SHALL BE BLOCKED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET THE PIPE SHALL REMAIN BLOCKED UNTIL SUCH TIME WHEN THE SEDIMENT BASIN TRANSITIONS TO FUNCTION AS A STORM WATER MANAGEMENT POND.
 - GRADE ROADS TO SUBGRADE.
 - CONSTRUCT STORM DRAIN SYSTEM AND INSTALL INLET PROTECTION DEVICES AT ALL INLETS.
 - THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON. AFTER EACH RAINFALL AND ON A DAILY BASIS.
 - SEDIMENT SHALL BE REMOVED FROM THE POND WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
 - THE POND SHALL BE DEWATERED BY PUMPING, THE SEDIMENT FROM THE BASIN SHALL BE PLACED UP-GRADE FROM THE SEDIMENT BASIN IN SUCH A MANNER AS NOT TO INTERFERE WITH THE CONSTRUCTION OPERATIONS OR CAUSE EROSION DOWNGRADE FROM THE SEDIMENT BASIN.
 - REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED.
 - REMOVE INLET PROTECTION DEVICES AND FLUSH STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. INSTALL RIP-RAP APRON.
 - REMOVE STONE CONSTRUCTION ENTRANCE AND STRAW BALE DIKE/SILT FENCE. CLEAN BASE COURSE, APPLY TACK COAT TO BASE COURSE AND LAY SURFACE COURSE.
 - ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
 - REMOVE STONE BLOCKS, DEVICES AND ACCUMULATED SEDIMENT FROM THE STORMWATER MANAGEMENT POND. THE POND SHALL BE GRADED IN ACCORDANCE WITH THIS PLAN AND STABILIZED USING PERMANENT SEEDING.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. 8) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - NOTIFY HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS FOR FINAL INSPECTION AT DURATION OF PROJECT.



Blocking Detail For Storm Water Management Pond

STORM WATER MANAGEMENT POND PROFILES AND DETAILS

OLD MILL

LOTS 1 THRU 12

AS-BUILT SURVEY CERTIFIED BY CHARLES J. CROVO, L.D.P.E. No. 13204 OLI L107.7, 1790

SECOND ELECTION DISTRICT JANUARY 29, 1988 HOWARD COUNTY MARYLAND SCALE: AS SHOWN



Signature: *Charles J. Crovo* DATE: 4/8/88

SHEET 06 OF 67

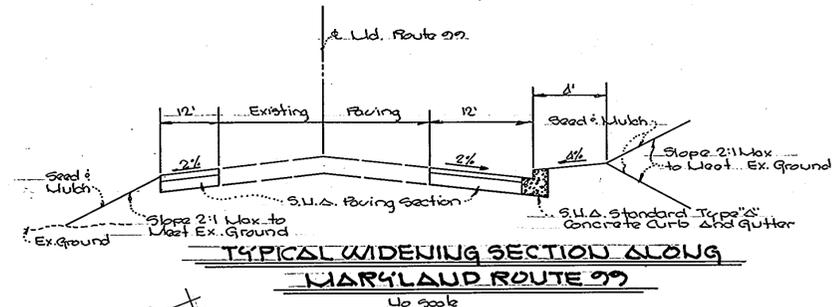
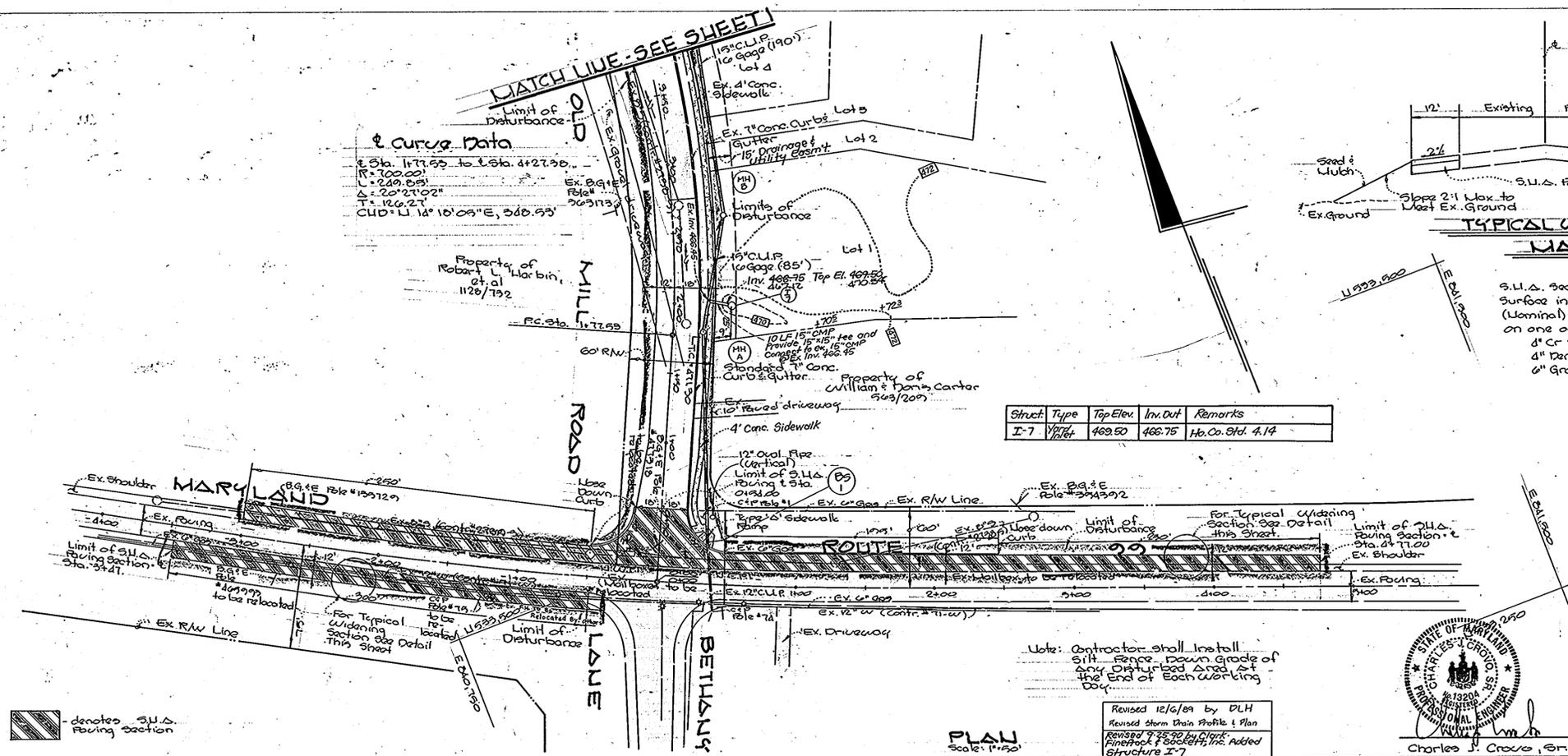
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DATE	
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APPROVED
DEPARTMENT OF PUBLIC WORKS
Charles J. Crovo
CHIEF, LAND DEVELOPMENT DIVISION
DATE: 2/1/89

Graville W. Weiland
CHIEF, BUREAU OF HIGHWAYS
DATE: 8/3/89

APPROVED
DEPARTMENT OF PUBLIC WORKS
William E. Rose
CHIEF, BUREAU OF ENGINEERING
DATE: 9-5-89



OLD MILL LOTS 1 THRU 12
SECOND ELECTION DISTRICT
HOWARD COUNTY, MD.

OLD MILL ROAD & MARYLAND RT. 99
PLAN AND PROFILE

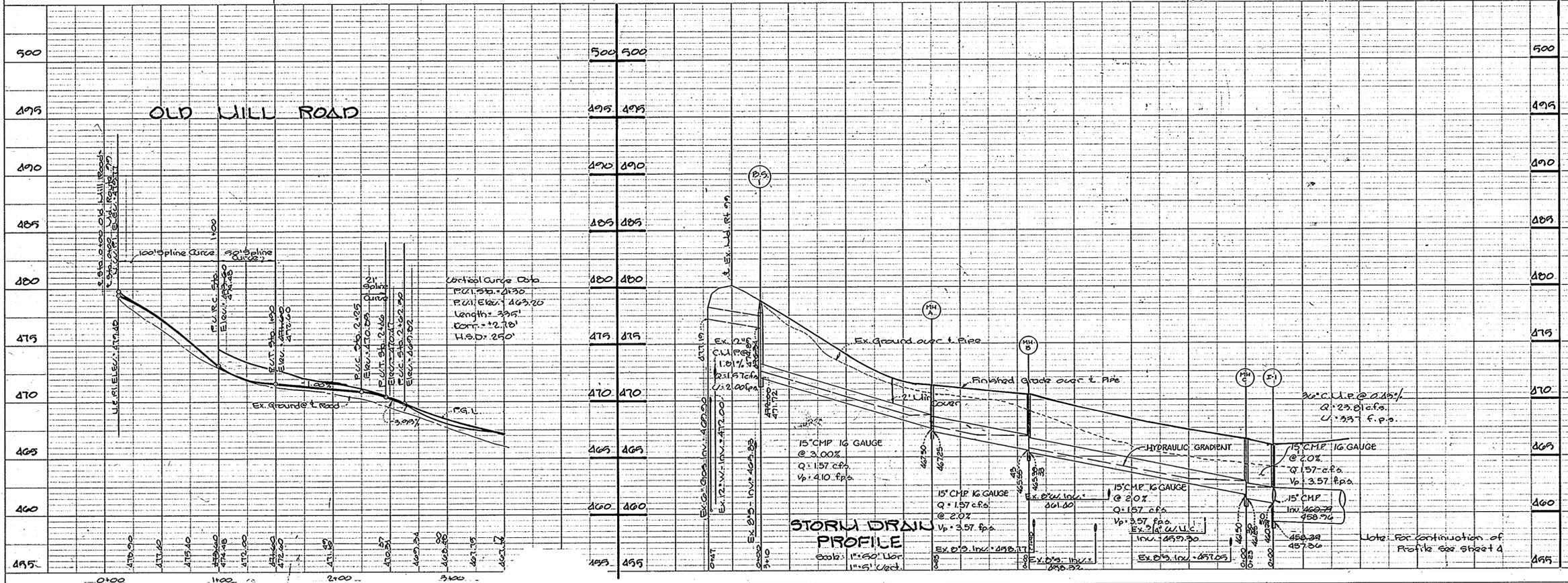
OWNER AND DEVELOPER
Forten Sullivan Corp.
Suite 200
3 Bethesda Metro Center
Bethesda, Maryland, 20814

SCALE As Shown | DATE March 19, 89 | DWG. NO. 7 OF 7
DES. W.C. Forrest | DRN. W.C. Forrest | CHK. C.J. Crovo, P.E.

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. | ELLICOTT CITY, MARYLAND 21043

AS-BUILT SURVEY CERTIFIED BY CHARLES J. CROVO,
MD. PE. No. 13204 ON NOVEMBER 7, 1990

STATE OF MARYLAND
PROFESSIONAL ENGINEER
No. 13204
Charles J. Crovo, P.E.
Date: 3/8/89



1322