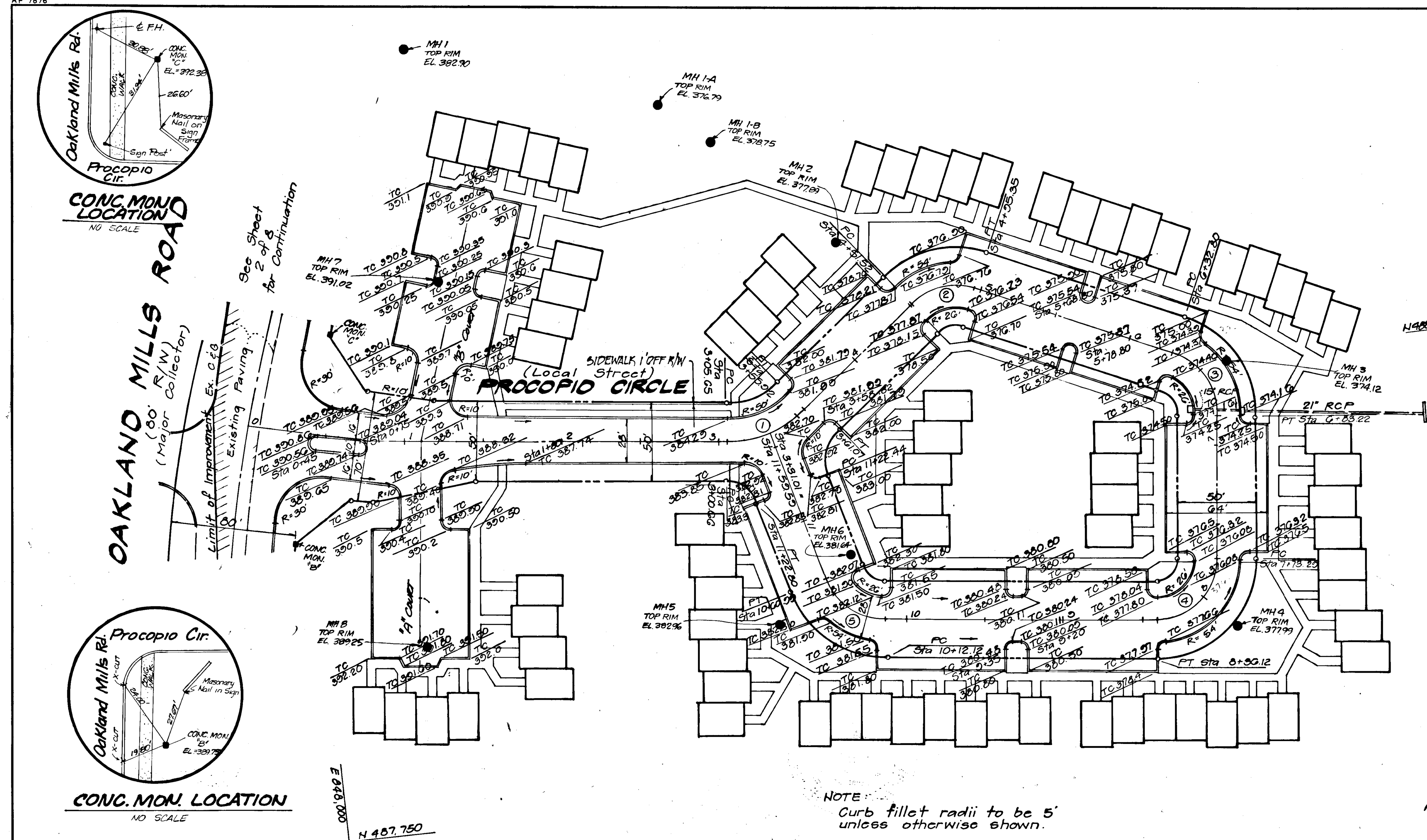
NOTE: SEE SDP-83-201 FOR DEVELOPMENT PLANS



APPROVED BY HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING 10-19-83 DATE:

APPROVED: 12-14-83

CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION DATE:

℄ CURVE DATA

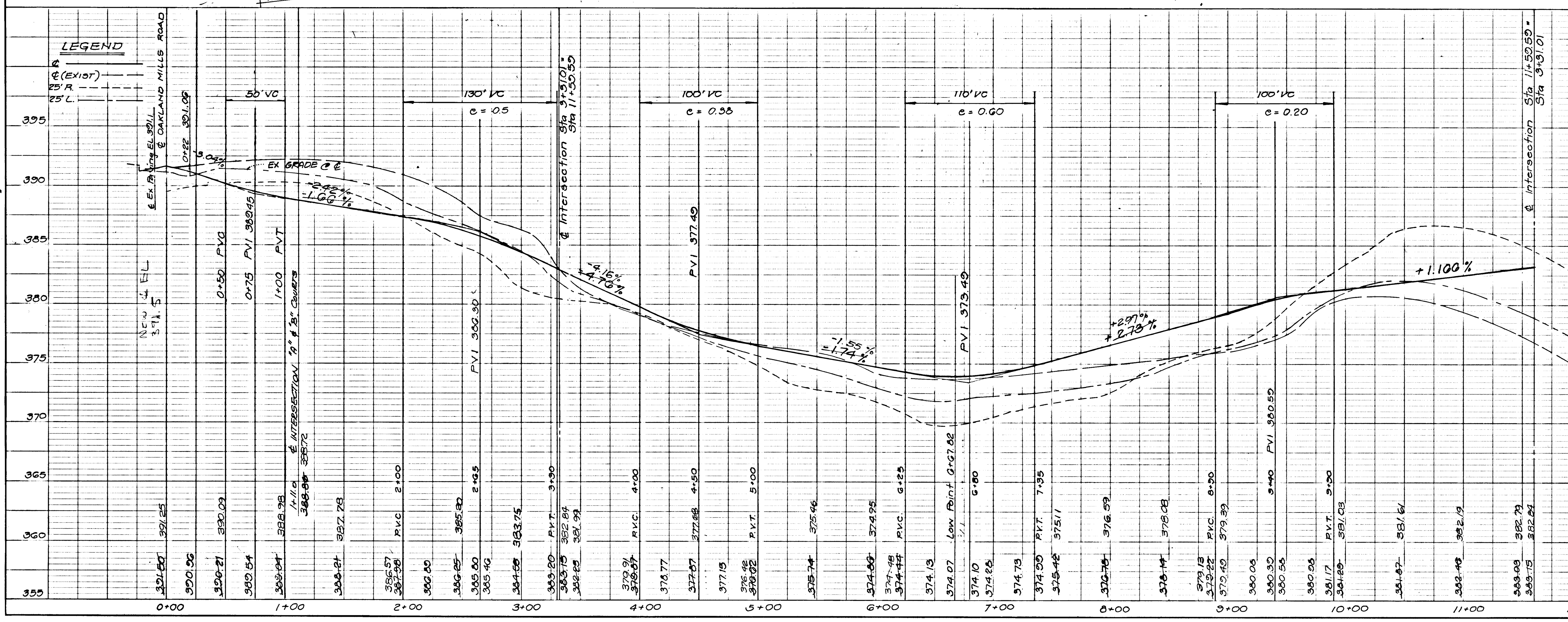
No	Radius	Δ	Arc	Tan.	Chord	Chord Bearing
1	64.00	45°00'00"	50.27	26.51	48.98	N 73°49'26" E
2	40.00	62°47'07"	43.83	24.41	41.67	N 82°43'00" E
3	40.00	72°12'53"	50.42	29.18	47.14	S 29°47'00" E
4	40.00	90°00'00"	62.83	40.00	56.57	S 51°19'26" W
5	40.00	70°00'00"	48.87	28.00	45.89	N 48°40'34" W

Grade Establishment & Paving Plan
OAK VIEW VILLAGE
(Formerly Oakland Mills Est.)
COLUMBIA
HOWARD COUNTY, MARYLAND
Scale: Horiz.: 1"=50'
Vert.: 1"=5'
May, 1983

by: I.P.D.S. Ltd.
Engineers
802 Sligo Ave.
Silver Spring, Maryland
20910
(301) 585-5676

DEVELOPER
H & A CONSTRUCTION
c/o Albert Procopio
14923 Cherrywood Dr.
Laural, Maryland
20707

STATE OF MARYLAND — REGISTERED PROFESSIONAL ENGINEER — NO. 13514
10.10.83



AS-BUILT SURVEY CERTIFIED BY PAUL C. OSCANYAN MD. REG. P.E. No. 7849 ON MAY, 1986

GRADE ESTABLISHMENT & PAVING PLAN

DATE	REVISION
7/14/83	
8/15/83	
2/28/84	Reloc. S.W. 1+65 to 3+05

OAK VIEW VILLAGE
LOTS 1-75

COLUMBIA
6th Election District
Howard County, Maryland

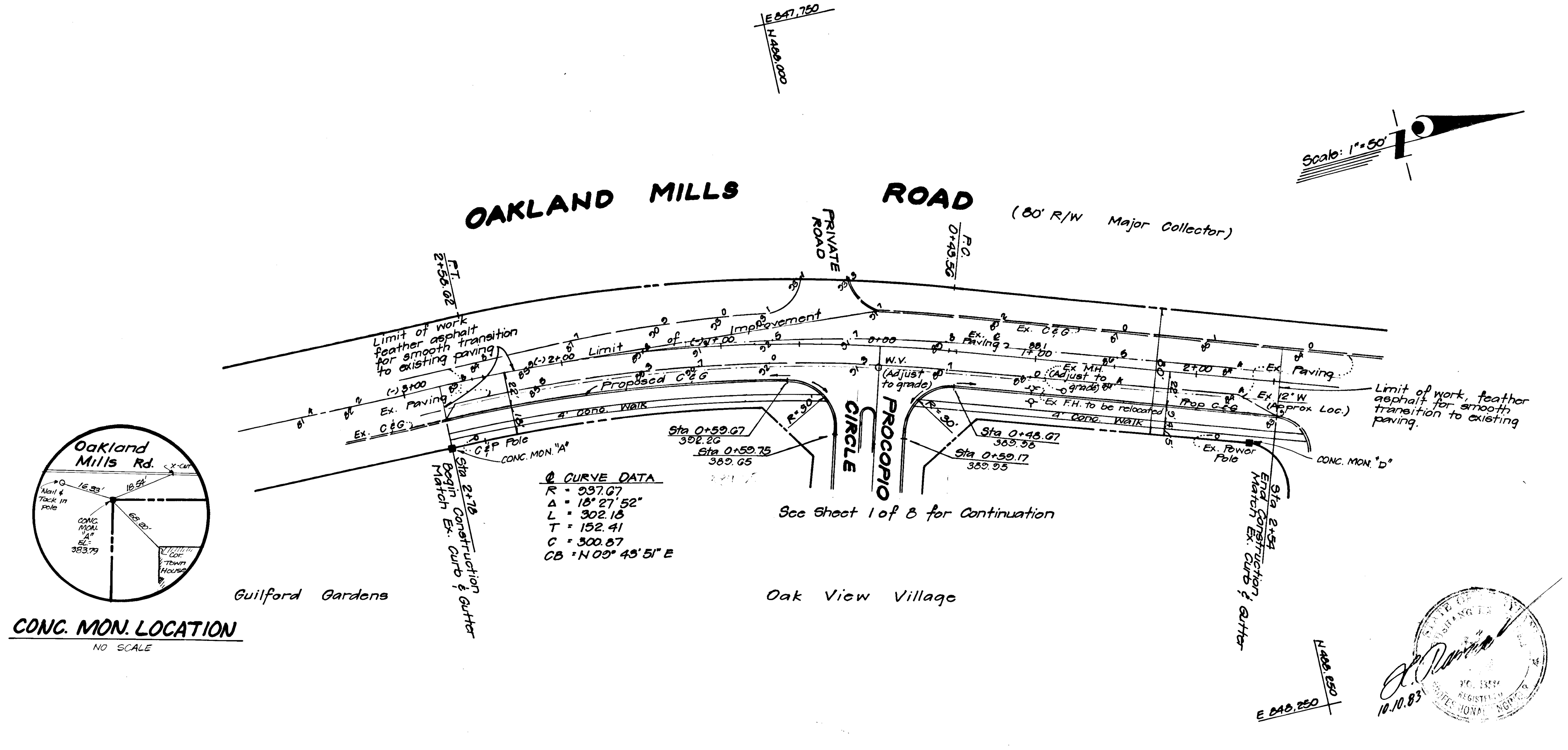
SCALE: HORIZ: 1"=50' VERT: 1"=5'
DATE: May, 1983
DESIGN: [illegible]
DRAWN: MK
CHECKED: MK

1021

SHEET 1 OF 8
F
F-83-135

AS-BUILT
MAY, 1986

NOVA BLUE
FAIRFAX, VIRGINIA



APPROVED BY HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — 10-19-83 DATE:

APPROVED:

CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION — 12-14-83 DATE:

GRADE ESTABLISHMENT

OAKLAND MILLS ROAD

COLUMBIA

6th Election District

Howard County, Maryland

Scale: Hor: 1"=50' May, 1983

Vert: 1"=5'

DEVELOPER

H & A CONSTRUCTION
c/o Albert Procopio
14923 Cherrywood Drive
Laural, Maryland
20707

10.10.83

I. P. D. S. Ltd.
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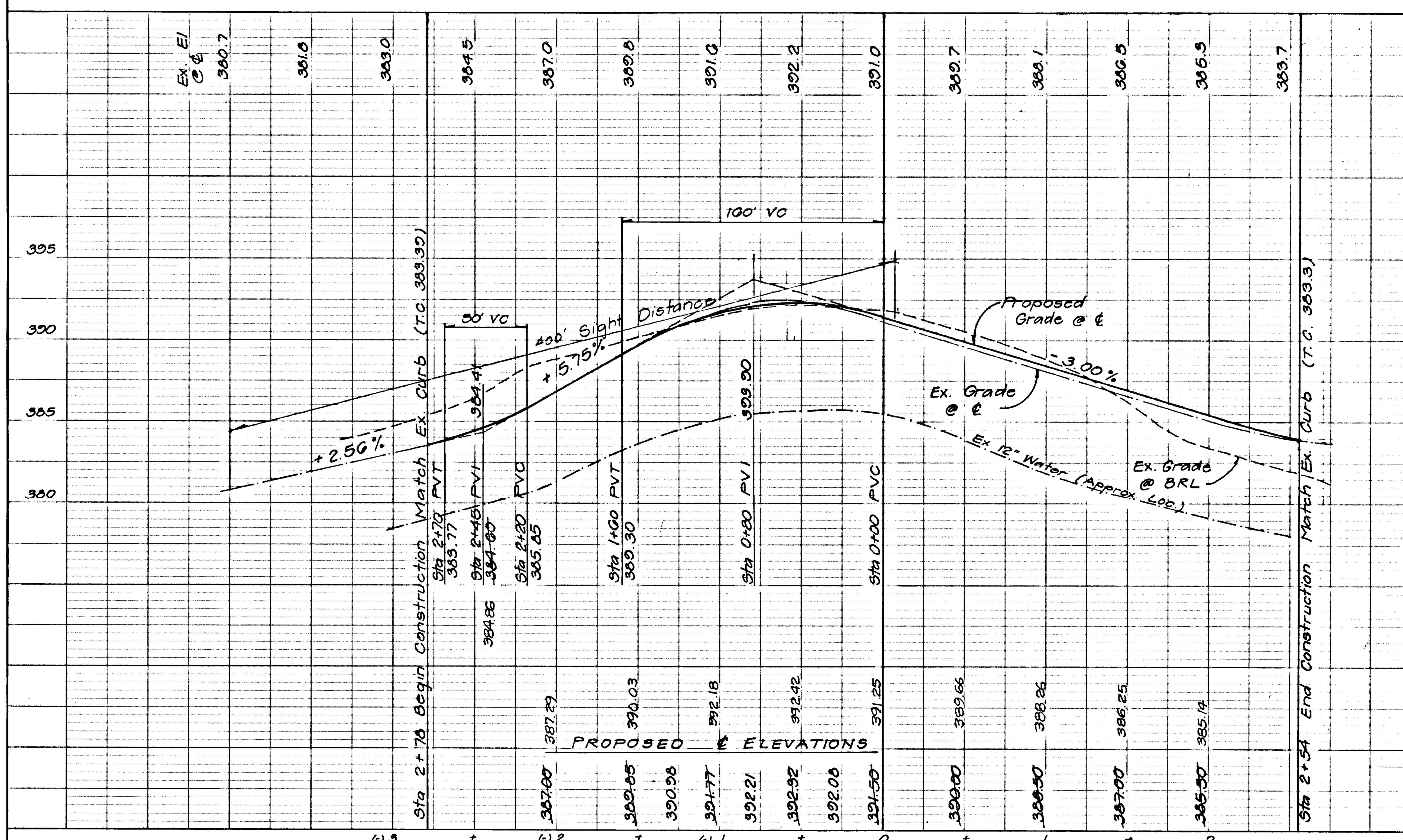
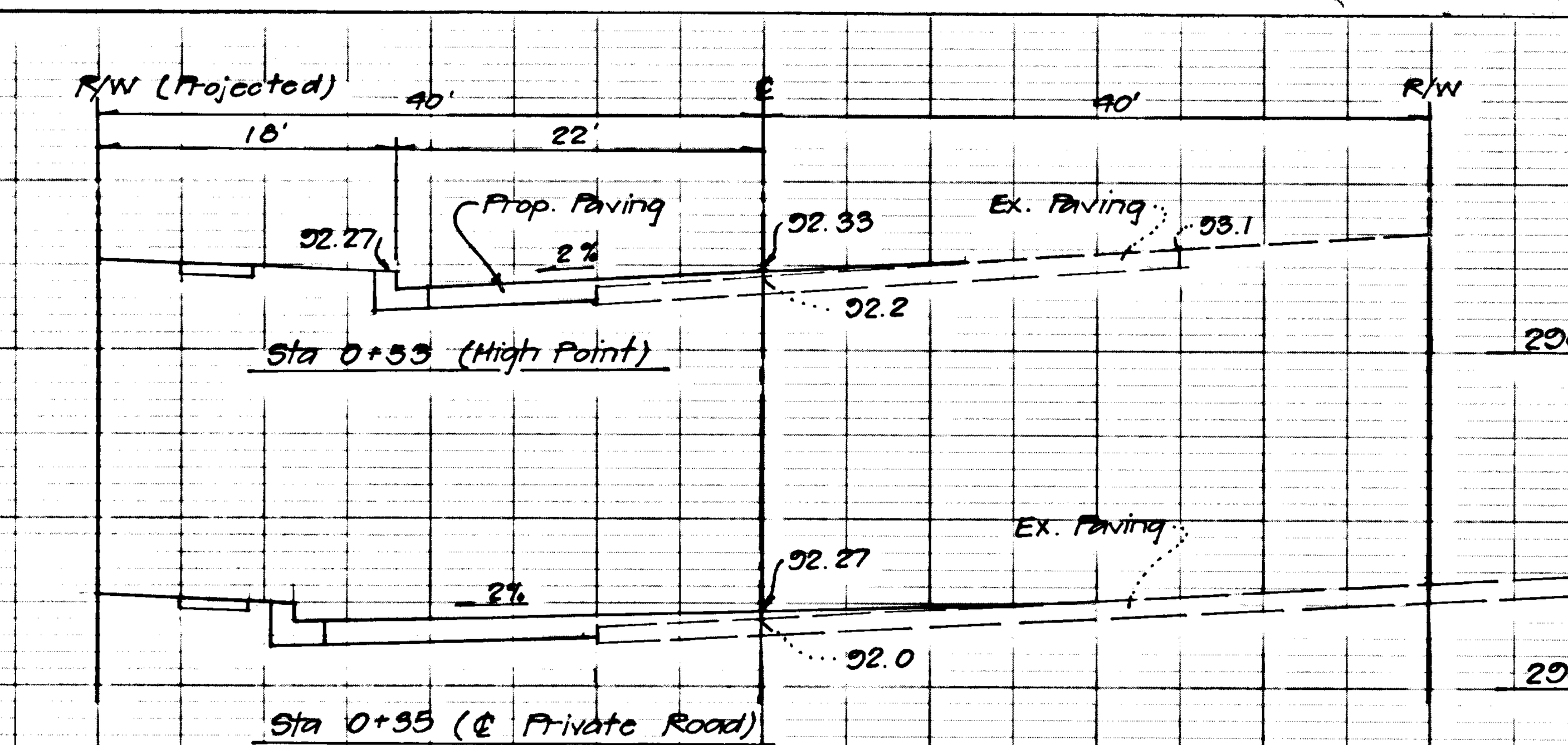




CROSS SECTIONS

Scale: Hor 1"=10'
Vert 1"=5'

AS-BUILT SURVEY CERTIFIED BY PAUL C. OSCANYAN, MD. REG. P.E. No. 7843 ON MAY, 1986

NOTE:
In order to maintain traffic flow, construction is to occur only on one side of ℄ at any time. Manual control of traffic is to be maintained during construction periods and roadway is to be open and properly marked while construction is not in progress

DATE	REVISION

GRADE ESTABLISHMENT

OAKLAND MILLS ROAD
COLUMBIA
Howard County, Maryland

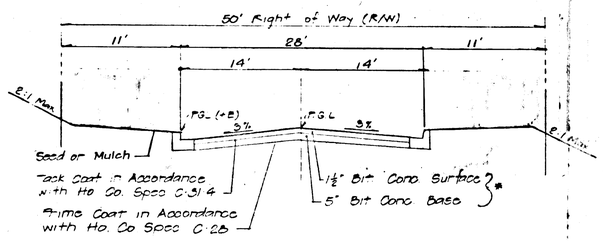
SCALE: HORIZ: 1"=50' VERT: 1"=5'
DATE: May, 1983
DESIGN: mbk
DRAWN: mbk
CHECKED: ST

1021

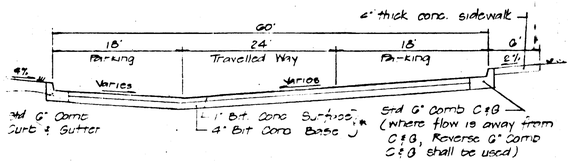
AS-BUILT MAY, 1986

F

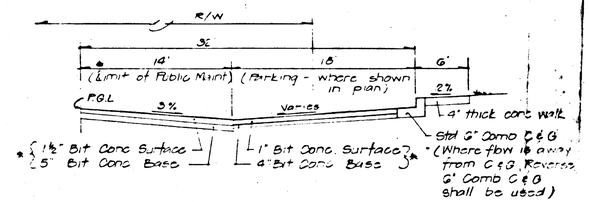
F-83-136



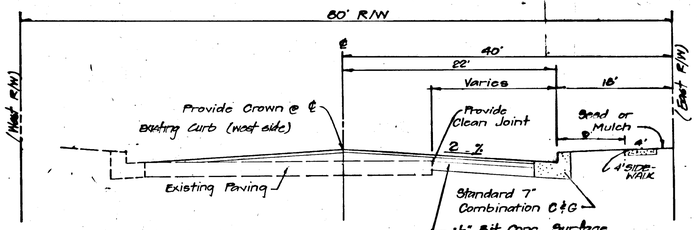
TYPICAL PAVING SECTION - PUBLIC ROADS (A)



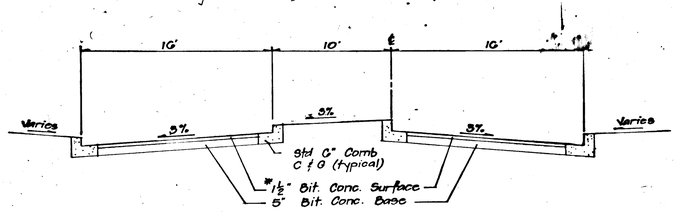
TYPICAL SECTION - PRIVATE DRIVE & PARKING (B)



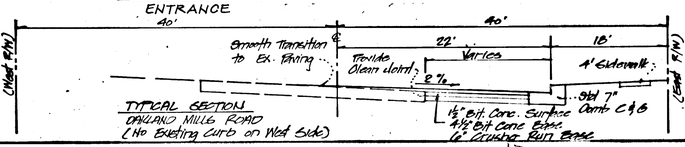
TYPICAL HALF SECTION - PARKING ADJACENT to PUBLIC ROADS (C) * See alternate paving sections



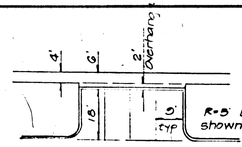
TYPICAL SECTION
OAKLAND MILLS ROAD
(Where existing curb occurs)



TYPICAL SECTION (D)



TYPICAL SECTION
OAKLAND MILLS ROAD
(No Existing Curb on West Side)



TYPICAL PARKING

ALTERNATE PAVING SECTIONS

Bit Conc. Surface	1½"
Bit Conc Base	4½"
Prime	
6" Crusher Run Base	6"
...	

PUBLIC ROADS

Bit Conc. Surface	1"
Bit Conc Base	2"
Prime	
5" Crusher Run Base Course or 4" Dense Graded Stabilized Aggregate Base Crs	5" or 4"

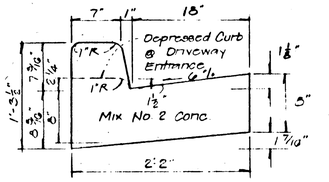
PARKING AREAS

Bit Conc Surface	1½"
Bit Conc Base	4½"
Prime	
6" Crusher Run Base Course or 4½" Dense Graded Stabilized Aggregate Base Crs	6" or 4½"

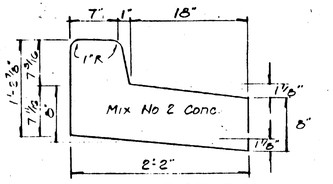
ENTRANCES to PUBLIC ROADS

PAVING SECTIONS

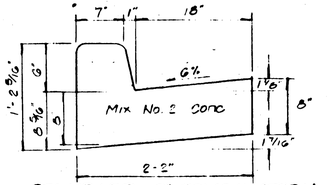
Sta	to	Sta.	SECTION
0+00		0+45	Transition
0+45		0+75	"D"
0+75		1+80	Transition
1+80		3+55.52	"A"
3+55.52		4+51.52	"C"
4+51.52		4+91.58	"A"
4+91.58		5+12.06	"B"
5+12.06		6+30.06	"C"
6+30.06		6+55.06	"B"
6+55.06		6+85.22	"A"
6+85.22		7+73.20	"C"
7+73.20		8+36.12	"A"
8+36.12		8+45.12	"B"
8+45.12		10+08.12	"C"
10+08.12		10+17.12	"B"
10+17.12		10+41.44	"A"
10+41.44		10+50.44	"B"
10+50.44		11+22.44	"C"
11+22.44		11+50.50	A



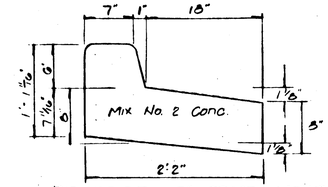
STANDARD 7" COMBINATION CURB & GUTTER



REVERSE 7" COMBINATION CURB & GUTTER



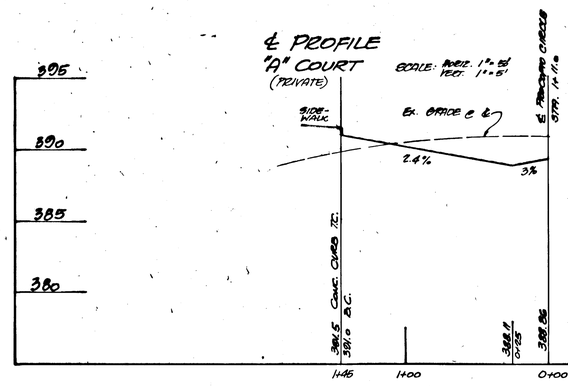
STANDARD 6" COMBINATION CURB & GUTTER

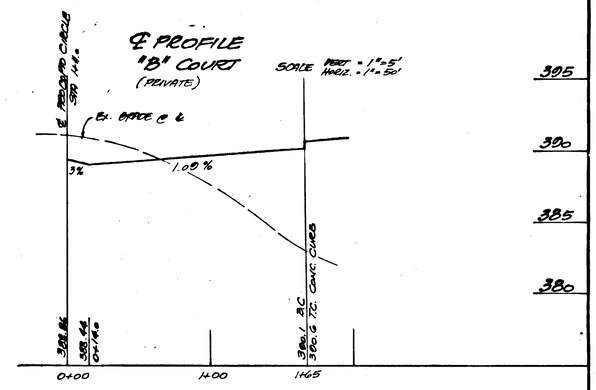


REVERSE 6" COMBINATION CURB & GUTTER

CURB & GUTTER DETAILS

no scale





APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 12-8-83

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.
HOWARD COUNTY HEALTH OFFICER — DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR — DATE 10-17-83
CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION

NO. 13514 REGISTERED PROFESSIONAL ENGINEER

PAVING SECTIONS & DETAILS & PROFILES

OAK VIEW VILLAGE LOTS 1-75

COLUMBIA, ELECTION DISTRICT #6, HOWARD COUNTY, MD
TAX MAP # 42-7211 AND 42-7191, PARCELS # 35 AND 38

REVISIONS
8/15/83
7/19/83 Planners

DATE 5-16-83

SCALE AS SHOWN

SHEET F
3 OF 8

IPPS
The Interprofessional PLANNING & DESIGN STUDIO, LTD.
Engineers • Architects • Surveyors
Planners & Landscape Architects
802 Sligo Avenue
Silver Spring, Md
20910
(301) 585 5676

DEVELOPER
H&A CONSTRUCTION COMPANY
C/o MR. ALBERT PROCOPIO
14921 CHERRYWOOD DRIVE
LAUREL, MARYLAND 20707

AS-BUILT MAY, 1986 F-83-135

1021

STRUCTURE SCHEDULE

Nº	TYPE	TOP ELEVATION	REMARKS
I-1	A-10 ~~B-15~~	374.08 ~~373.9~~	
I-2	A-10 ~~B-10~~	374.01 ~~373.9~~	
EW	C	367.22 ~~368.00~~	

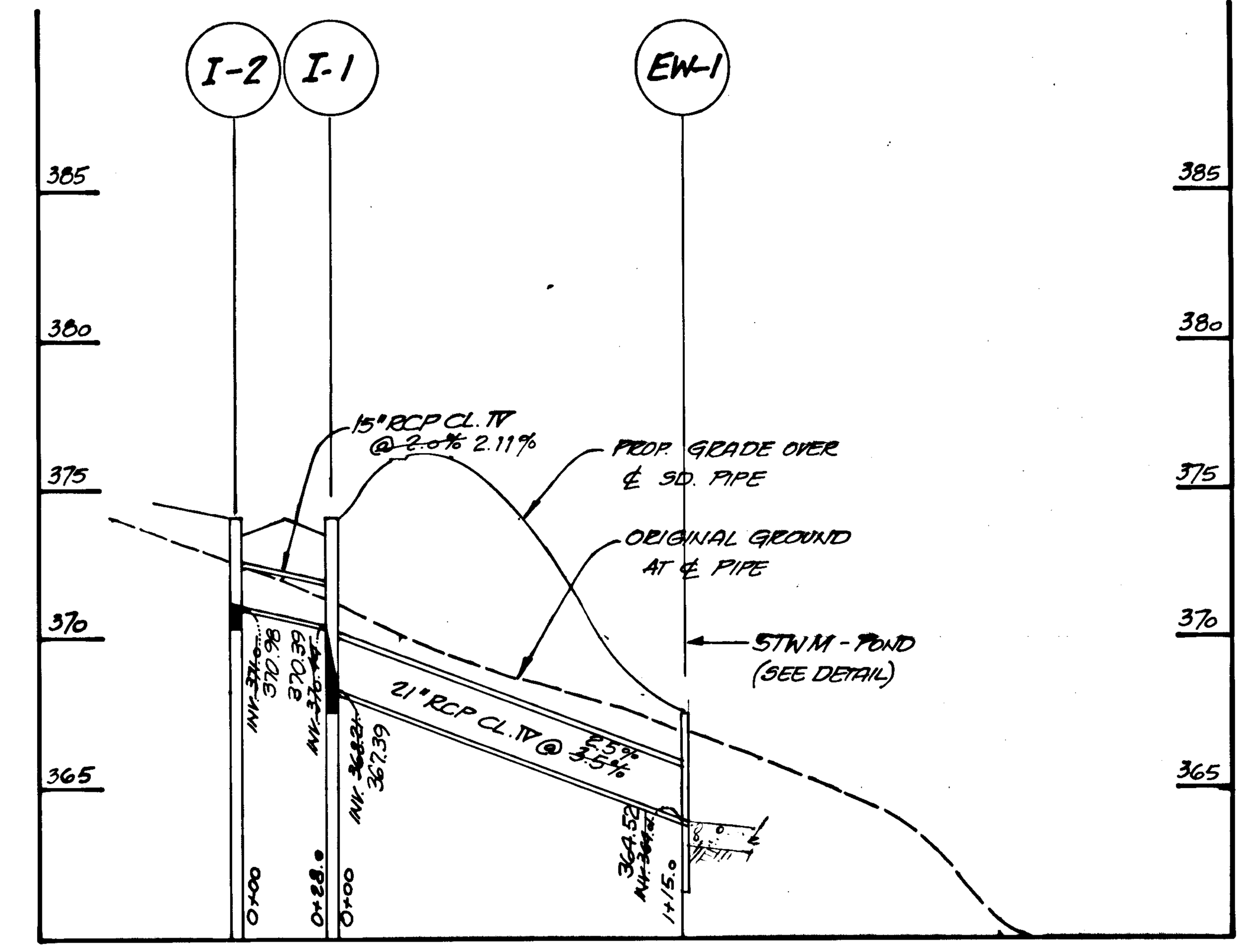
PIPE SCHEDULE

SIZE	PIPE	LENGTH
15"	RCP CLASS IV	28LF.
21"	RCP CLASS IV	115 L.F.

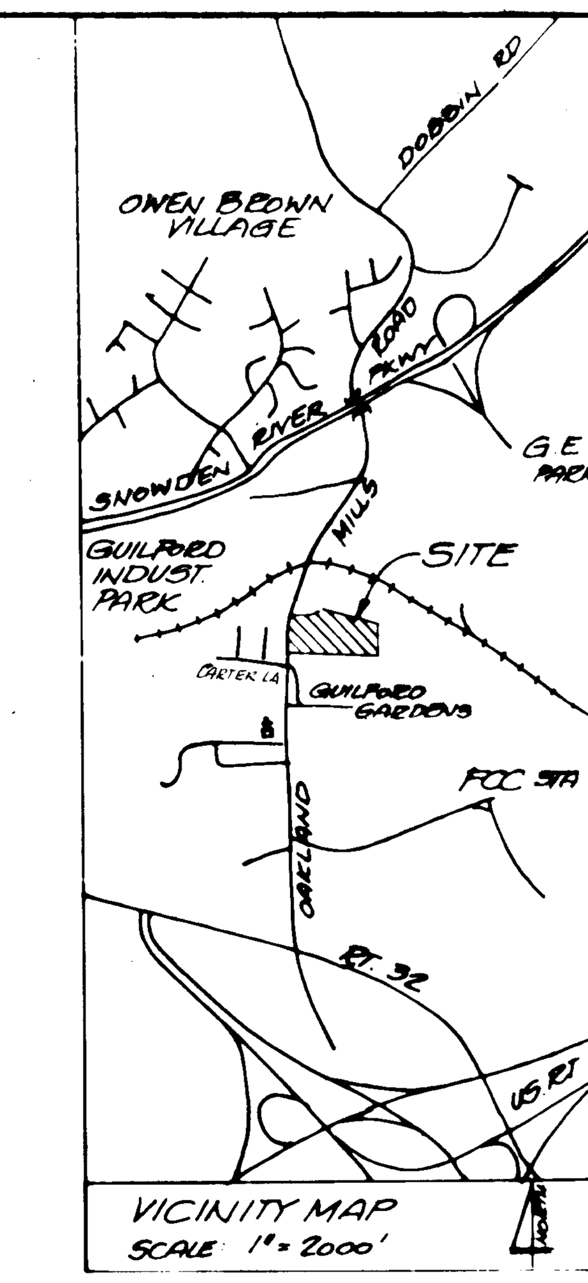
DRAINAGE DATA

DRAINAGE AREA	IMPERVIOUS AREA	PERVIOUS AREA	TOTAL AREA IN AC.	
A	0.03	2.63	2.66	
B	0.49	2.84	3.33	
C	0.75	0.4	1.15	
D	0.95	0.59	1.54	
E	0.72	0.4	1.12	
			9.80 Ac	

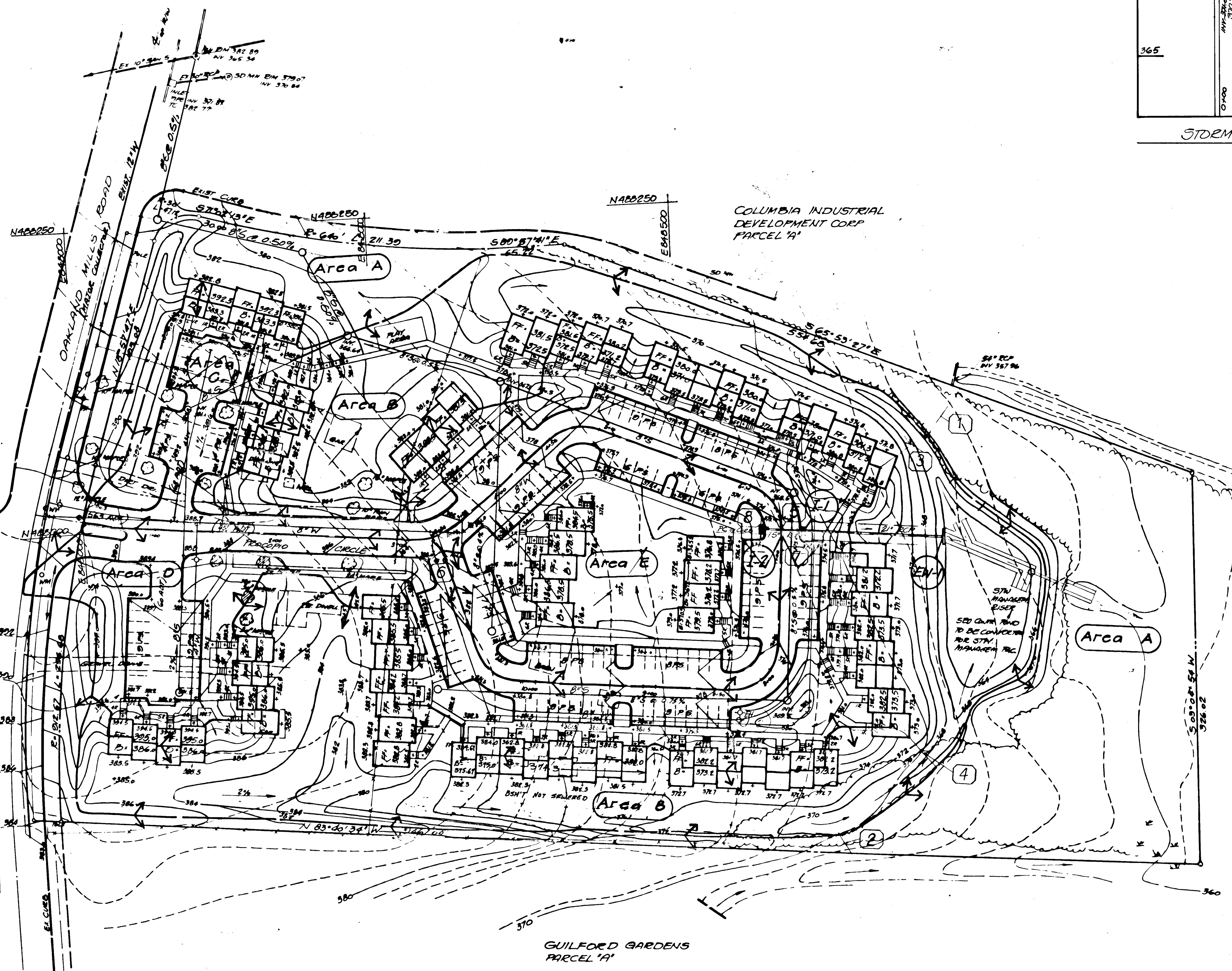
NOTE: FOR STORMWATER MANAGEMENT STRUCTURES, SCHEDULES & NOTES SEE STORMW. MANAGEMENT PLAN.



STORMDRAIN PROFILE SCALE: VERT 1" = 5'; HORIZ 1" = 50'



VICINITY MAP
SCALE 1" = 2000'



NOTE: SEE SDP-83-201 FOR DEVELOPMENT PLANS

I/We hereby certify that any Clearing, Grading, Construction And/Or Development will be done pursuant to this plan, and that any 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 Erosion before beginning the project.

Owner [signature] Date 8/2/83

AS-BUILT SURVEY CERTIFIED BY PAUL C. OSCANYAN MD REG. P.E. No. 7893 ON MAY, 1986

The contractor or developer shall contact the Construction Inspection/Survey Division, 24 hours in advance of commencement of work at 792-7272.

(No) SWALE & GUTTER FLOW CHECK PIONTS SEE COMPUTATIONS

1021

STORM DRAINAGE PLAN & DRAINAGE AREA MAP

OAK VIEW VILLAGE LOTS 1-75

COLUMBIA, 6th ELECTION DISTRICT, HOWARD Co., MD.
TAX MAP # 42-7211 & 42-7191; PARCELS # 35 & 38

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM-DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[signature] 10.19.83
CHIEF, BUREAU OF ENGINEERING DATE

~~APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY~~
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
~~PLANNING DIRECTOR~~ ~~DATE~~
[signature] 10-17-83
CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION DATE

NO. 13514 REGISTERED PROFESSIONAL ENGINEER

OWNER/DEVELOPER
H & A CONSTRUCTION COMPANY
c/o MR. ALBERT PROCOPIO
14921 CHERRYWOOD DR.
LAUREL, MARYLAND 20707

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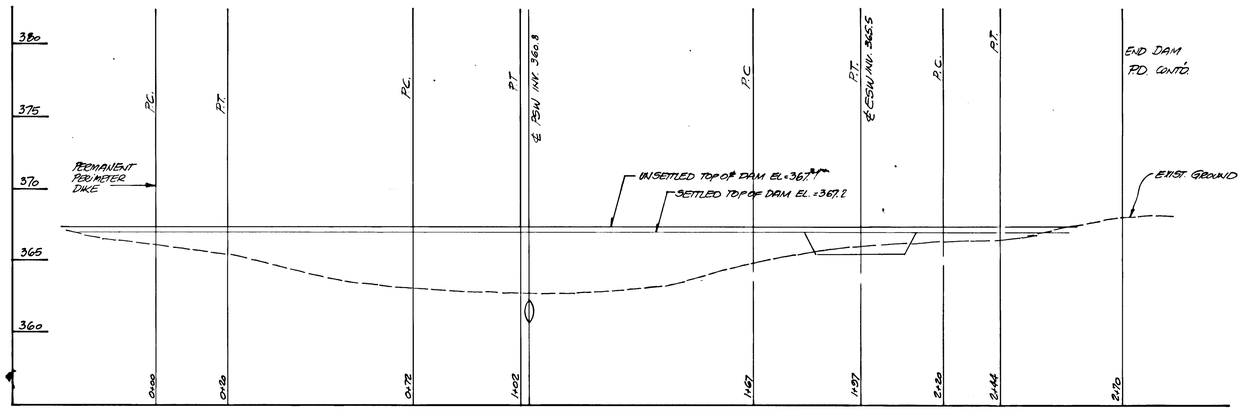
Planners & Landscape Architects
802 Sligo Avenue
Silver Spring, Md. 20910
(301) 585-5676

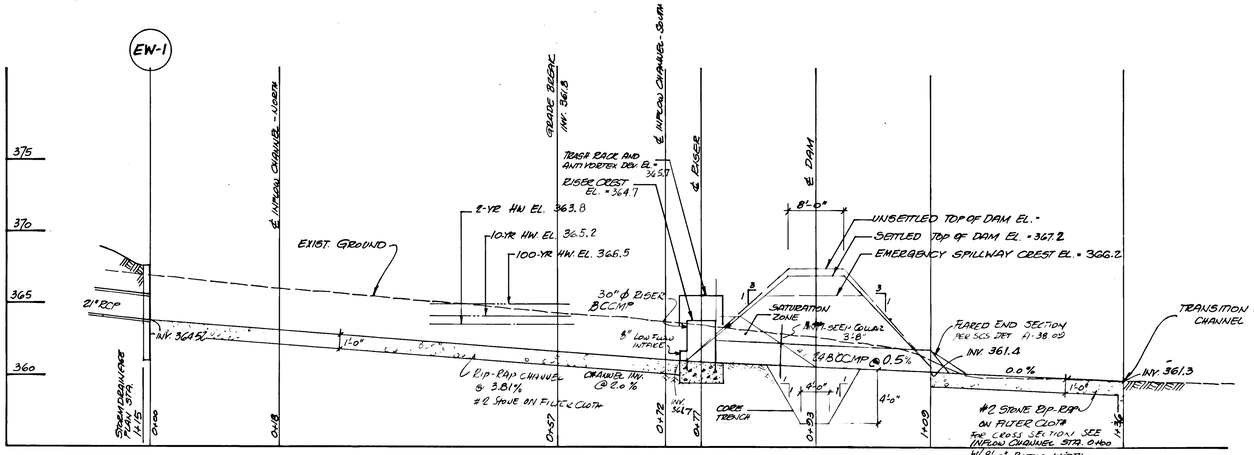
scale: 1" = 50'-0"
revisions: 7-14-83, 8/15/83, 1/9/85
date: 4-25-83, 3-15-83
job number:
F
SHEET: 4 OF 8

AS-BUILT MAY, 1986



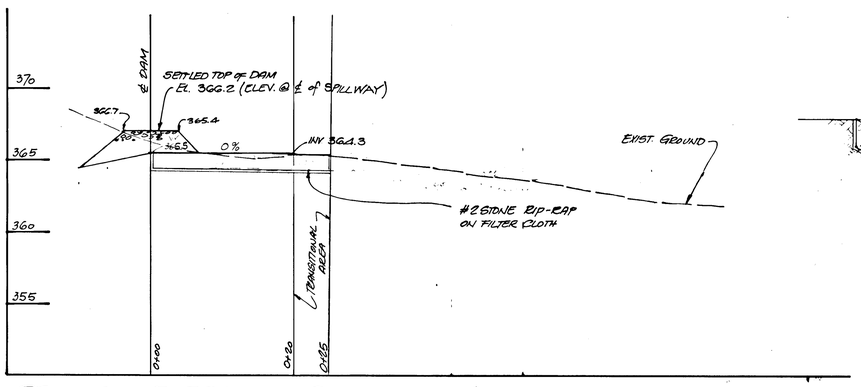
PROFILE AT ℄ DAM

SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'



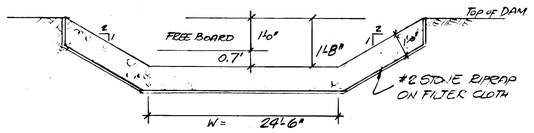
PROFILE OF PRINIPAL SPILLWAY ℄ PILOT CHANNEL AT ℄

SCALE: VERT. 1" = 5'
HORIZ. 1" = 10'



PROFILE OF EMERGENCY SPILLWAY AT ℄

SCALE: VERT. 1" = 5'
HORIZ. 1" = 10'

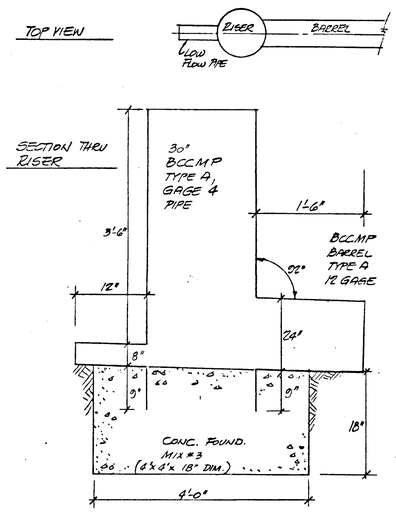


TYPICAL CROSS SECTION OF EMERGENCY SPILLWAY

NO SCALE

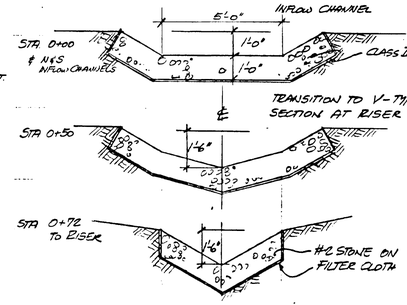
RISER ASSEMBLY DETAIL

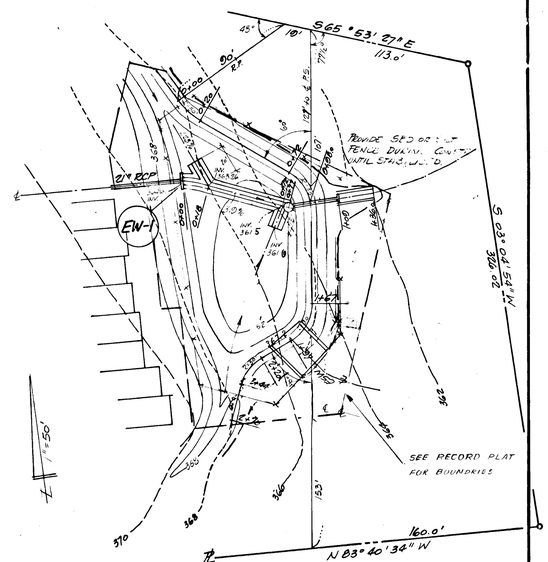
NO SCALE



RISER ASSEMBLY SHALL BE SHOP WELDED & FABRICATED ALL WELDS SHALL BE CONTINUOUS AND COATED WITH BITUMINOUS ASPHALT

TYPICAL SECTIONS INFLOW - PILOT CHANNEL





PLAN VIEW SWM - POND

SCALE 1" = 50'

STRUCTURE DATA

TYPE	= DRY EMBANKMENT
LOCATION	= URBAN
STRUCTURE CLASS	= "A"
DRAINAGE AREA	= 7.14 Ac.

DESIGN DATA

DRAINAGE AREA	= 7.14 Ac
SOIL GROUP	= B

STORM	DEVEL. Q	STOR. VOL.	HW ELEV.
2 YR	20.32 CFS	12,414 CFT	363.8 ft
10 YR	48.94 CFS	26,914 CFT	365.2 ft
100 YR	85.22 CFS	42,610 CFT	366.5 ft

HYDROLOGIC CRITERIA

PRINCIPLE SPILLWAY	100 YR > 10 YR REQ.
EMERGENCY SPILLWAY	
FREE BOARD	100 YR HW + 1' REQ.

RISER FLOATATION TEST

VOL RISER $(1.25)^2 \times 4.08' \times 3.14 \times 62.5 = 1251$ LB

$1251 \times 1.5 = 1876.6$ LB UPLIFT

CONCRETE 87.6 LB/CF

$\frac{1876.6}{87.6} = 21.42$ CF OF CONC REQ.

PROPOSED 4' x 4' x 18" BASE

$\frac{24\ CF}{21.42} = 1.12$ - OK

AS-BUILT SURVEY CERTIFIED BY BY PAUL C. OSCANYAN MD. REG. P.E. No. 7843 ON MAY, 1986

AS - BUILT MAY 1986

STORMWATER MANAGEMENT PLAN & PROFILES & DETAILS

OAK VIEW VILLAGE LOTS 1-75
COLUMBIA, ELECTION DISTRICT #6, HOWARD COUNTY, MD.
TAX MAP # 42-7211 AND 42-7101, PARCELS # 35 AND 38

REVISIONS
4/2/84
8/15/83
July 14, 1983

DATE 5-16-83

SCALE AS SHOWN

SHEET F 5 OF 8

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM-DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF - BUREAU OF ENGINEERING — DATE 10-19-83

~~APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.~~
~~COUNTY HEALTH OFFICER — DATE~~

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR — DATE
CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION — DATE 10-17-83

NO. 13514 REGISTERED PROFESSIONAL ENGINEER

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The Interprofessional PLANNING & DESIGN STUDIO, LTD.
Engineers • Architects • Surveyors
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802 Sligo Avenue
Silver Spring Md
20910
(301) 585 5676

OWNERS
Bernard Goldberg and Bruno Raich
3001 Park Ave
Ellicott City, Maryland
21043
(301) 465-2772

#1021

AS-BUILT MAY, 1986 F-83-135

CONSTRUCTION SPECIFICATION

I. SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no deeper than 1:1.

Areas to be covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

II. EARTH FILL

MATERIAL

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize 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 above the design elevation (including freeboard) as shown on the plans.

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.

COMPACTION

The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used. Compact to 95% of AASHTO T-99 density.

Where a minimum required density is specified, each layer of fill shall be compacted as necessary to obtainthat density and is to be certified by the Engineer.

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 as shown on the drawings, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 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.

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 four 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 four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

IV. PIPE CONDUITS

A. CORRUGATED METAL PIPE

1. Materials -(Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with water tight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

2. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded 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.

3. 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.

4. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.

5. Backfilling shall conform to structural backfill as shown above.

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B. REINFORCED CONCRETE PIPE

1. Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. An approved equivalent is AWWA Specification C-301.

2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3"., or as shown on the drawings.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and the grade of the pipe.

4. Backfilling shall conform to structural backfill as shown above.

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

V. CONCRETE STRUCTURES

Concrete structures shall meet minimum requirements set forth in the latest Maryland State Highway Administration "Specifications for Materials, Highways, Bridges, and incidental Structures", as amended.

A. CONCRETE

Article 20.07 (Portland Cement Concrete Mixtures), Mix No.3.

B. Article 20.10 (Reinforcement).

VI. STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing mulching or sodding in accordance with the specifications shown hereon.

A. SOD

1. Specifications - Sod shall be "KY-31" Tall Fescue or Kentucky Bluegrass/ Fescue mixture or approved equal. Class of turfgrass sod shall be Maryland or Virginia state certified or approved sod.

2. Site Preparation - Where soil is acid or composed of heavy clays, ground limestone shall be spread at the rate of 100 lbs./1000 sq. ft. In all soils 5-10-5 fertilizer or approved equal shall be applied and mixed into the top 3" of soil with the required lime. Slow release nitrogen, at the rate of 3.5 lbs./1000Sq. ft., shall be applied to the prepared soil immediately prior to sod installation. This material shall be approximately one-third immediately available and two-thirds water insoluble nitrogen. Urea formaldehyde (UF) and isobutylidene (IBDU) meet these standards.

3. Sod Installation-The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Insure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots. On sloping areas where erosion may be a problem, sod shall be laid with long edges parallel to the contour and with staggered joints. Secure the sod by tamping and pegging or other approved methods. As sodding is completed in any one section, the entire area shall be rolled or tamped to insure solid contact or roots with the soil surface. Sod shall be watered immediately after rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

B. PERMANENT SEEDING

All disturbed areas shall be stabilized as follows:

1. Seedbed Preparation - Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

2. Soil Amendments - Apply 2 tons per acre dolomitic limestone (185 lbs./1000 sq. ft.) and 600 lbs. per acre 0-20-20 fertilizer (14 lbs./1000 sq. ft.). Harrow or disc lime and fertilizer into upper three inches of soil. At time of seeding, apply 400 lbs. per acre (9.2 lbs./1000 sq. ft.) of 38-0-0 ureaform fertilizer and 500 lbs. per acre (11.5 lbs./1000 sq. ft.) of 10-20-20 fertilizer.

3. Seeding - For the periods March 1, thru April 30, and August 1 thru October 15, seed with 87 lbs. per acre Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 87 lbs. per acre Kentucky 31 Tall Fescue and 2 lbs. per acre 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 with 87 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

4. Mulching - Apply 1.5 to 2 tons per acre of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using 200 gallons per acre of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons per acre for anchoring.

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

C. TEMPORARY SEEDING

1. Seedbed Preparation - Loosen upper 3 inches of soil by discing, raking or other acceptable means before seeding.

2. Soil Amendments - Apply 600 lbs. per acre of 10-20-10 fertilizer.

3. Seeding - For periods March 1 thru April 30, and from August 15 thru November 15, seed with 2.5 bushels per acre annual rye. For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass.

4. Mulching - Same as permanent seeding.

VII. EROSION & SEDIMENT CONTROL

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized, as shown on these plans and as set forth in the latest "Standards & Specifications for Soil Erosion and Sediment Control in Developing Areas" of the Soil Conservation Service of Maryland, Howard County Soil Conservation District, as amended.

VIII. FENCING

Fencing shall be 42" high chain link fence constructed in accordance with the latest Maryland State Highway Administration Standard Details 690.01 and 690.02. The specifications for a 6'-0" fence shall be used, substituting 42" fabric and 6'-8" line posts.

IX. INSPECTION

Contractor shall notify the engineer a minimum of 5 working days prior to starting any work shown on these plans.

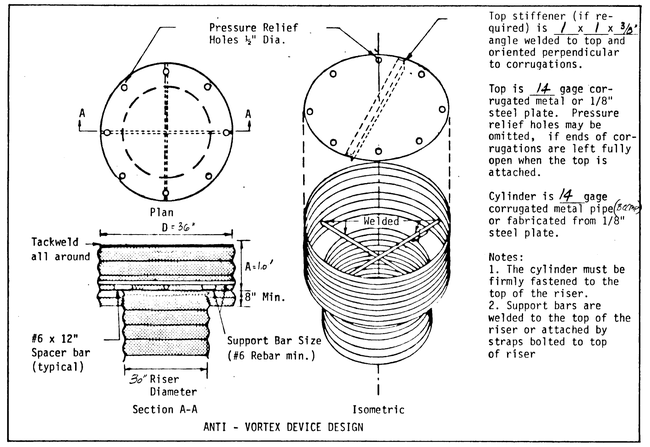
X. GENERAL

Unless otherwise noted, all materials and construction practices shall conform to the following:

1. "Standard Specifications and Details for Construction" of the Howard County Maryland Department of Public Works, as amended.

2. "Specifications for Materials, Highways, Bridges, and Incidental Structures" of the Maryland State Highway Administration, as amended.

3. "Standard and Specificatins for Ponds" of the Soil Conservation Service of Maryland (MD-378), July, 1981 and as amended.



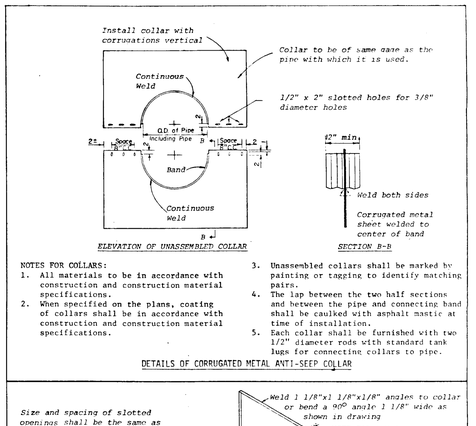
ANTI - VORTEX DEVICE DESIGN

Top stiffener (if required) is 1 x 1 x 3/16" angle welded to top and oriented perpendicular to corrugations.

Top is 14 gage corrugated metal or 1/8" steel plate. Pressure relief holes may be omitted, if ends of corrugations are left fully open when the top is attached.

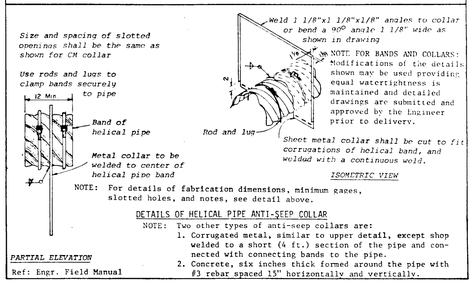
Cylinder is 14 gage corrugated metal pipe (from) or fabricated from 1/8" steel plate.

Notes:
1. The cylinder must be firmly fastened to the top of the riser.
2. Support bars are welded to the top of the riser or attached by straps bolted to top of riser



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 lugs for connecting collars to pipe.

DETAILS OF CORRUGATED METAL ANTI-SEEP COLLAR



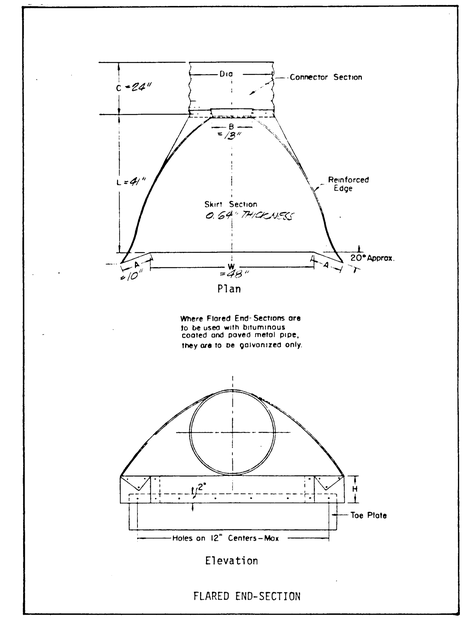
NOTE: For details of fabrication dimensions, minimum gages, slotted holes, and notes, see detail above.

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.

NOTE: MODIFICATIONS FOR BANDS AND COLLARS: Modifications of the details shown may be used providing equal watertightness is maintained and detailed drawings are submitted and approved by the Engineer prior to delivery.

Ref: Engr. Field Manual



The contractor or developer shall contact the Construction Inspection/Survey Division, 24 hours in advance of commencement of work at 792-7272.

I/We hereby certify that any Clearing, Grading, Construction And/Or Development will be done pursuant to this plan, and that any 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 Erosion before beginning the project.

Owner — Date 8/2/83

STORMWATER MANAGEMENT SPECS & DETAILS

OAK VIEW VILLAGE LOTS 1-75

COLUMBIA ELECTION DISTRICT #6, HOWARD COUNTY, MD
TAX MAP # 42-7211 AND 42-7191, PARCELS # 35 AND 38

DES. 7/14/83 8/16/83

DAT 5-16-83

SCALE

SHEET F 6 of 8

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM-DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF - BUREAU OF ENGINEERING — DATE 10-19-83

~~APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD CO.~~

~~COUNTY HEALTH OFFICER — DATE~~

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

~~PLANNING DIRECTOR~~ — ~~DATE~~

CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION — DATE 10-17-83

STATE OF MARYLAND — RUSHANG RAISI — NO. 12514 — REGISTERED PROFESSIONAL ENGINEER

IPDS
The Interprofessional PLANNING & DESIGN STUDIO, LTD.
Engineers • Architects • Surveyors
Planners & Landscape Architects
802 Sligo Avenue
Silver Spring Md
20910
(301) 585 5676

OWNERS
Bernard Goldberg and Bruno Roth
3091 Park Ave
Ellicott City, Maryland
21043
(301) 465 2772

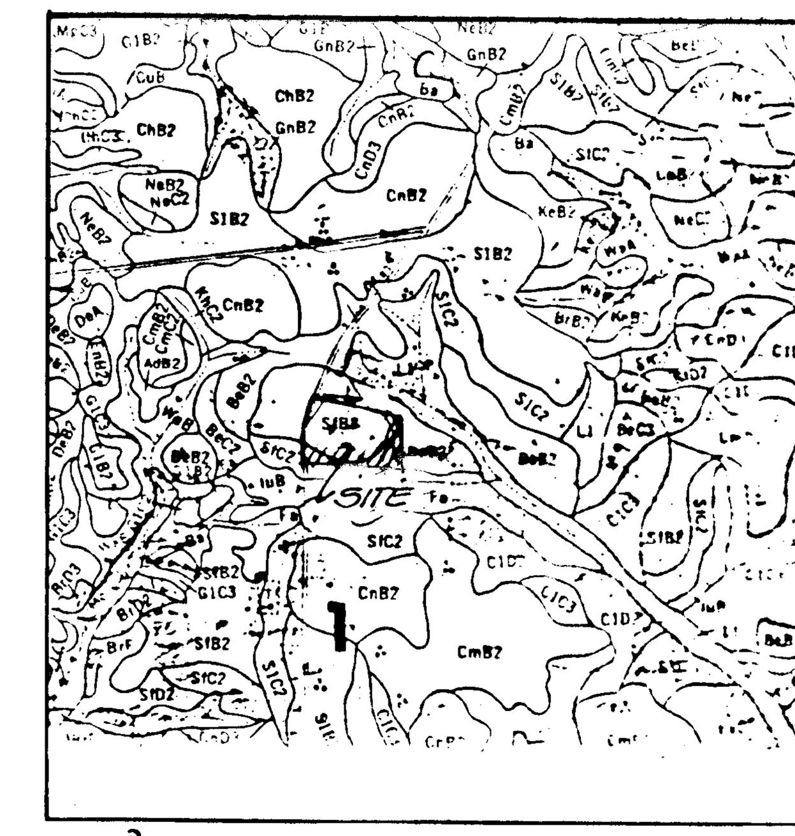
F-102/

AS-BUILT MAY, 1986 F-83-135

NOTE: Sediment basin shall be constructed as shown on storm water management plans, except that a 8" perforated pipe shall be installed at low flow intake and covered with filter cloth (poly filter GB or equal and approved) and #2 stone for protection.

This sediment basin shall be maintained until all areas in the development are stabilized-that is all roads, stormdrains and water and sewers, parking areas etc. are controled; and all areas to be revegetated and established with grass cover.

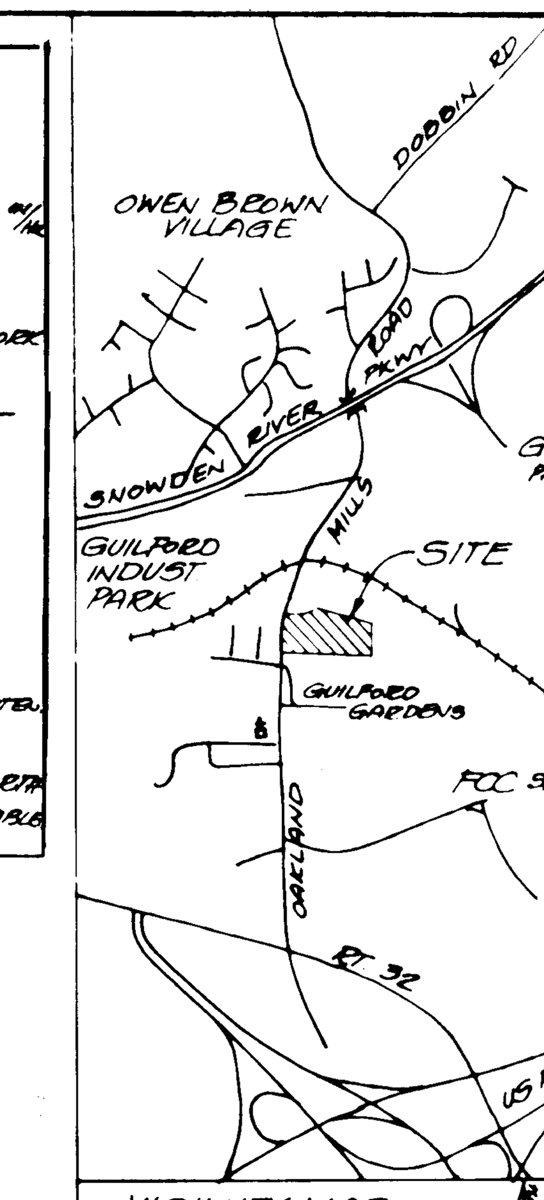
The contractor or developer shall contact the Construction Inspection/Survey Division, 24 hours in advance of commencement of work at 792-7272.



SOILS DATA

SFB2 AND SFC2
- DEPTH OF WATER TABLE = 5'
- PERMEABILITY = 2.0-6.3 IN/HR
- PH = 4.5-5.5
- LOW SHRINK-SWELL POTENTIAL
- GOOD SUITABILITY FOR EARTHWORK WHEN MOIST,
- MODERATE ERODABILITY & FROST ACTION POTENTIAL (ROADS)

BEB2
- DEPTH OF WATER TABLE = 1½-3'
- PERMEABILITY = 0.6-2.0 IN/HR.
- PH = 4.5-5.0
- LOW TO MODERATE SHRINK-SWELL POTEN.
- MOISTURE DENSITY 13% (OPTIMAL)
- POOR SUITABILITY FOR FILL & EARTH WORK, SEASONAL HIGH WATERTABLE



VICINITY MAP
SCALE 1" = 2000'

I/We hereby certify that any Clearing, Grading, Construction And/Or Development will be done pursuant to this plan, and that any 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 Erosion before beginning the project.

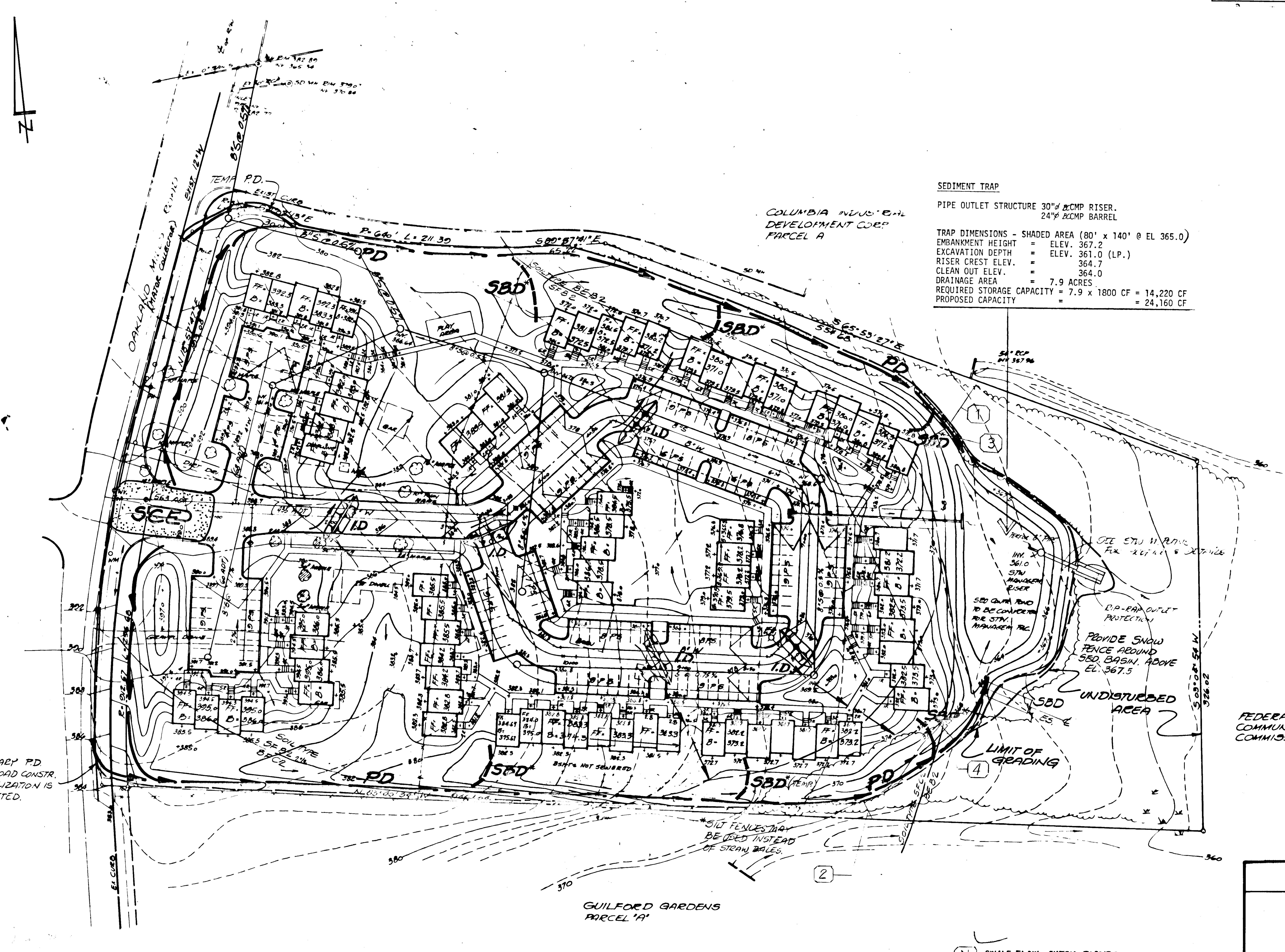
Owner 8/2/83 Date

SEDIMENT TRAP

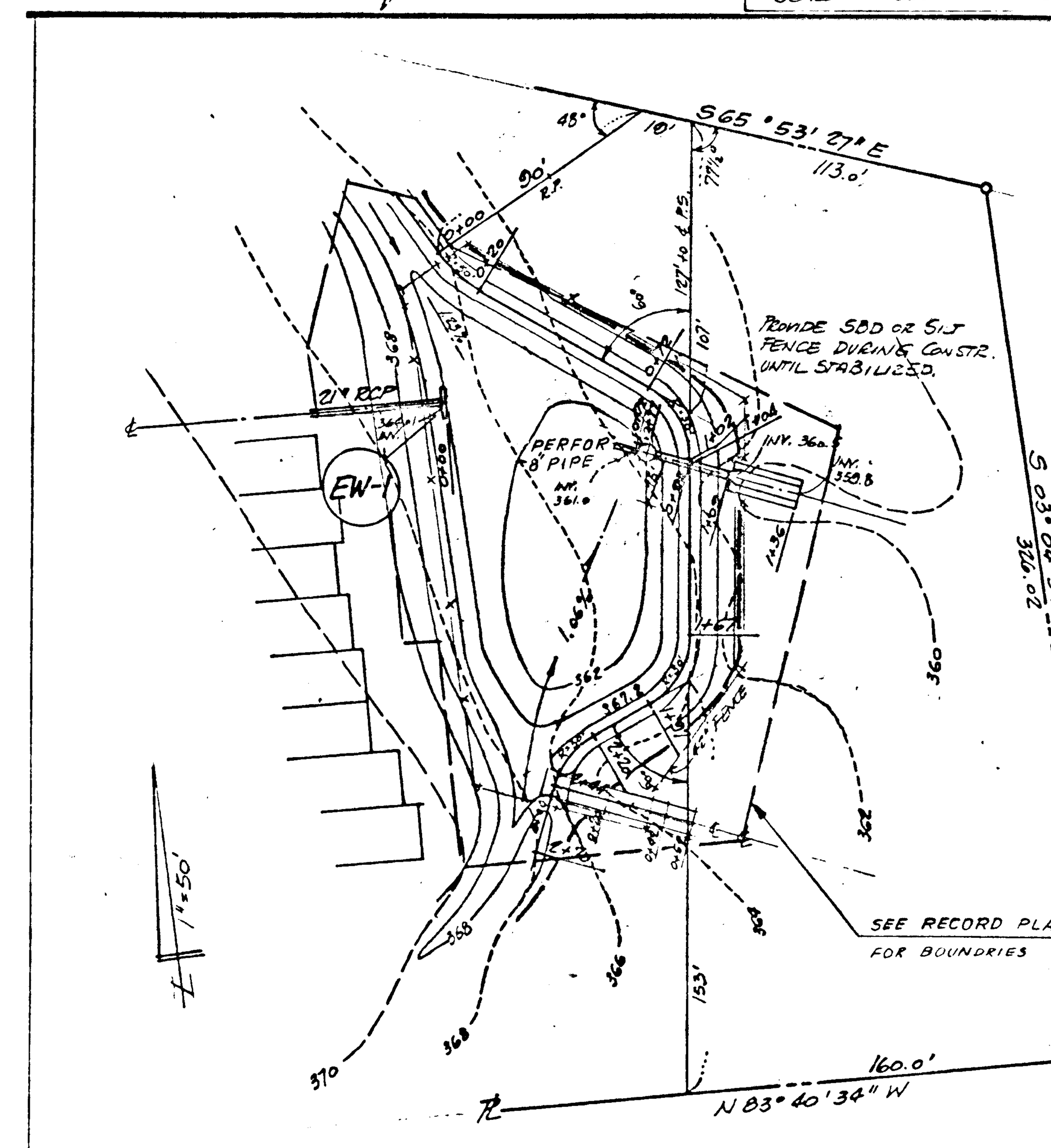
PIPE OUTLET STRUCTURE 30"⌀ BCCMP RISER. 24"⌀ BCCMP BARREL

TRAP DIMENSIONS - SHADED AREA (80' x 140' @ EL 365.0)

EMBANKMENT HEIGHT	=	ELEV. 367.2
EXCAVATION DEPTH	=	ELEV. 361.0 (LP.)
RISER CREST ELEV.	=	364.7
CLEAN OUT ELEV.	=	364.0
DRAINAGE AREA	=	7.9 ACRES
REQUIRED STORAGE CAPACITY	=	7.9 x 1800 CF = 14,220 CF
PROPOSED CAPACITY	=	= 24,160 CF



[No] SWALE FLOW CHECK PIONTS
SEE COMPUTATIONS



PLAN VIEW SED CONTR. POND TO BE CONVERT. FOR SWM
SCALE 1" = 50'

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

SIGNATURE — 10-14-83 DATE
U.S. SOIL CONSERVATION SERVICE

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

HOWARD SCD — 10-14-83 DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM-DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING 10-19-83 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR DATE
CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION 10-17-83 DATE

NO. 13514 REGISTERED PROFESSIONAL ENGINEER
Oct 1983

SEDIMENT CONTROL PLAN & DETAILS

OAK VIEW VILLAGE LOTS 1-75

COLUMBIA, 6TH ELECTION DISTRICT, HOWARD Co., MD.
TAX MAP # 42-7211 & 42-7191; PARCELS # 35 & 38

OWNERS
Bernard Goldberg and Bruno Reich
3691 Park Ave.
Ellicott City, Maryland 21043
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802 Sligo Avenue
Silver Spring, Md. 20910
(301) 585-5676

scale: 1" = 50'-0"
revisions: *2/6/84, 8-15-83, 7-15-83
date: 4-25-83, 3-15-83
job number:
F
SHEET: 7 of 8

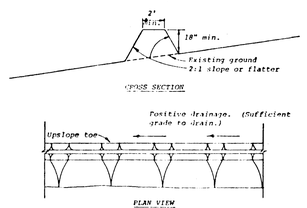
AS-BUILT MAY, 1986

*2/6/84 CHANGED GRADING TO RELOCATE SWALE
1/9/85 GRADING & BSM'T UNITS

F-83-135

USDA-SCS-Md July 1975

PERIMETER DIKE*
(not to scale)



Construction Specifications

1. All dikes shall be machine compacted.
2. All perimeter dikes shall have positive drainage to an outlet.
3. A. Diverted runoff from a protected or stabilized upland area shall outlet directly onto an undisturbed stabilized area or into a level spreader or grade stabilization structure.
   B. Diverted runoff from a disturbed or exposed upland area shall be conveyed to a sediment trapping device such as sediment trap or a sediment basin or to an area protected by any of these practices.
4. Stabilization, when required, shall be done in accordance with Standard and Specifications for Grassed Waterway. The minimum area to be stabilized shall be the channel flow area.
5. Periodic inspection and required maintenance shall be provided.

Standard Symbol PD

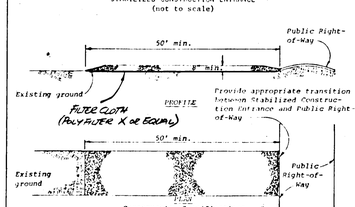
* Drainage area less than 5 acres

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	PERIMETER DIKE	Standard Drawing TD-1

12.03

USDA-SCS-Md July 1975

STABILIZED CONSTRUCTION ENTRANCE
(not to scale)



Construction Specifications

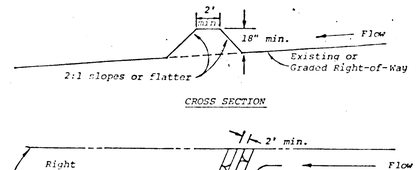
1. Stone size - Use MSHA size No. 2 (2-1/2" to 1") or AASHTO designation M43, size No. 2 (2-1/2" to 1-1/2"). Use crushed stone.
2. Length - As effective, but not less than 50 feet.
3. Thickness - Not less than eight (8) inches.
4. Width - Not less than full width of all points of ingress or egress.
5. Washing - When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch, or watercourse through use of sand bags, gravel, boards or other approved methods.
6. 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 measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.

Standard Symbol SCE

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STABILIZED CONSTRUCTION ENTRANCE	Standard Drawing SCE-1

16.03

INTERCEPTOR DIKE*
(not to scale)



Construction Specifications

1. All dikes shall be machine compacted.
2. All interceptor dikes shall have positive drainage to an outlet.
3. Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
4. Field location should be adjusted as needed to utilize a stabilized safe outlet.
5. Interceptor dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin when either the interceptor dike channel or the drainage area above the dike are not adequately stabilized.
6. Stabilization, as specified by the plans, shall be: (1) in accordance with Standard and Specifications for Grassed Waterway, and the area to be stabilized shall be the channel (flow area); or (2) the flow area shall be lined with stone that meets MSHA size No. 2 or AASHTO size No. 2 or 24 which is placed in a 3 inch thick layer and pressed into the soil. The area covered by the stone shall be as shown on Standard Drawing DD-1.
7. Periodic inspection and required maintenance must be provided.

* Drainage area less than 5 acres. Standard Symbol ID

SEDIMENT CONTROL NOTES

1. THE DEVELOPER SHALL NOTIFY THE HOWARD COUNTY SOIL CONSERVATION SERVICE AT LEAST 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION SHOWN HEREON.
2. SEDIMENT CONTROL MEASURE MUST BE INSTALLED PRIOR TO GRADING OPERATION AND STABILIZED ACCORDING TO NOTE " STABILIZATION"
3. ALL DISTURBED AREAS ON THE BALANCE OF THE SITE SHALL BE STABILIZED AS STATED ABOVE IN NOTE " STABILIZATION"
4. THE DEVELOPER SHALL INSTALL DEVICES, DETAILED ON THIS PLAN, TO PREVENT SEDIMENT FROM REACHING EXISTING STORM DRAINAGE SYSTEMS.
5. THE CONTRACTOR SHALL NOT BEGIN ANY CONSTRUCTION SHOWN ON THESE PLANS UNTIL AN APPROVED GRADING AND SEDIMENT CONTROL PLAN HAS BEEN PLACED ON FILE WITH THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
6. ALL SEDIMENT CONTROL MEASURES SHALL BE TAKEN IN STRICT ACCORDANCE WITH THE APPROVED PLANS AND THE CRITERIA & SPECIFICATIONS APPROVED BY THE HOWARD COUNTY S.C.D.
7. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD REQUIREMENTS & CONDITIONS AT THE TIME OF CONSTRUCTION & TO BE CONSTRUCTED & STABILIZED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL OF THE SITE.
8. PERIODIC INSPECTION & MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES SHALL BE PROVIDED BY DEVELOPER TO INSURE THAT THE INTENDED PURPOSE IS BEING ACCOMPLISHED. THE DEVELOPER WILL BE RESPONSIBLE FOR ALL SEDIMENT LEAVING THE PROPERTY AND FOR ANY DAMAGE CAUSED OFF SITE BY THE SAME.
9. THE DEVELOPER SHALL CLEAN OUT SEDIMENT BASINS WHEN SILT LEVEL REACHES THE CLEAN OUT POINT AS DESIGNATED. A PAINTED YELLOW LINE SHALL BE PLACED IN THE BASIN RISER AT THE ELEVATION COMPUTED AT THE TIME OF CONSTRUCTION.
10. DURING GRADING OPERATIONS THOSE AREAS WITHIN ± 1.0 FOOT OF FINISHED GRADE SHALL REMAIN UNDISTURBED AS WELL AS THOSE AREAS SHOWN ON THE SITE PLAN TO BE KEPT UNDISTURBED.
11. CUT & FILL SLOPES SHALL BE PROTECTED AGAINST STORMWATER RUNOFF BY SLOPING THE GROUND ALONG THEIR UPPER SIDE AWAY FROM THE SLOPE. SLOPES SHALL BE STABILIZED BY SEEDING & MULCHING AS SOON AS PRACTICAL AFTER GRADING. STABILIZATION SHALL BE IN ACCORDANCE WITH NOTE "STABILIZATION" & SCS SPECIFICATIONS. PERMANENT OR TEMPORARY STABILIZATION IS AS FOLLOWS:
    TEMPORARY- ALL BERMS, BASINS, INTERCEPTOR DIKES & OTHER REMOVABLE ELEMENTS UP TO ONE (1) YEAR.
    PERMANENT- ALL OTHER DISTURBED AND/OR ERODIBLE AREAS.
12. POLYFILTER-X SHALL BE INSTALLED UNDER ALL RIP-RAP TO HOLD SOIL IN PLACE.
13. ALL STORM DRAIN INLETS SHALL BE CLOSED DURING CONSTRUCTION OR STORM WATER SHALL BE DIVERTED INTO SEDIMENT BASINS.
14. ALL ELEVATIONS ON SEDIMENT STRUCTURES SHOWN THUS:
15. ALL STRUCTURAL SEDIMENT MEASURES ARE TO REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM HOWARD COUNTY S.C.D.

SEQUENCE OF CONSTRUCTION

1. INSTALL SEDIMENT CONTROL DEVICES AND STABILIZE BERM. (10 DAYS)
2. GRADE LOTS AND STREETS. (30 DAYS)
3. BEGIN HOUSING CONSTRUCTION.
4. INSTALL WATER AND SEWER. (60 DAYS)
5. CONSTRUCT STORM DRAINAGE AND PAVEMENT. PROTECT ALL STORM DRAIN INLETS PER REQUIREMENTS OF S.C.S. (180 DAYS)
6. COMPLETE HOUSING CONSTRUCTION. (180 DAYS)
7. STABILIZE ALL DISTURBED AREAS PERMANENTLY AND REMOVE SEDIMENT CONTROL DEVICES. REPAIR AND STABILIZE AFTER SEDIMENT CONTROL FACILITIES HAVE BEEN REMOVED. (25 DAYS)
8. Sequence of conversion of sediment basin to stormwater management facility.

Upon stabilization of all areas the riser outlet sediment basin shall be converted to the stormwater management facility as shown on plans as follows:
1. Drain basin of all water (or pump out, if STANDING WATER IS PRESENT)
2. Clear basin of all sediment and remove perforated 8" pipe including filter cloth and #2 stone protection.
3. Install rip-rap channel and clean out outfall channel, if required.
4. Stabilizae remaining area of basin.

" STABILIZATION"

TEMPORARY (SEE NOTE 11 FOR APPLICABLE AREAS)
ACCORDING TO SCS " STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL IN URBANIZING AREAS" SEC. 3.000:
1. SITE PREPARATION-SD AS TO ALLOW USE OF CONVENTIONAL SEEDBED PREPARATION EQUIPMENT
2. APPLY:
   A. DOLOMITIC LIMESTONE 2000 LBS./AC.
   B. 10-10-10 FERTILIZER 500-800 LBS./AC.
3. HARROW TO A DEPTH OF 3"
4. SEED WITH KENTUCKY-31 AT RATE OF 60 LBS PER ACRE.
5. MULCH WITH STRAW AT A RATE OF 2.5 TONS/ACRE IMMEDIATELY AFTER SEEDING & TACK WITH ASPHALT.

PERMANENT STABILIZATION-ALL AREAS FLATTER THAN 3:1
ACCORDING TO TEMPORARY EXCEPT FOR FOLLOWING:
1. APPLY IN ADDITION TO LIMESTONE & FERTILIZER, 0-20-0 @500-1000 LBS./ACRE.
2. SEED WITH
   A. CERTIFIED MERION BLUEGRASS @ 40LBS/AC.
   B. COMMON KENTUCKY BLUEGRASS @ 40LBS/AC.
   C. PENNLAWN RED FESCUE @ 20LBS/AC.
3. MULCH AS IN " TEMPORARY"

PERMANENT STABILIZATION-AREAS STEEPER THAN 3:1
ACCORDING TO ABOVE EXCEPT FOR FOLLOWING:
1. SEED WITH
   A. KENTUCKY 31 @ 40 LBS./ACRE
   B. CROWN VETCH (INOCULATED) @ 40 LBS/ACRE
2. FERTILIZE & MULCH AS STATED ABOVE

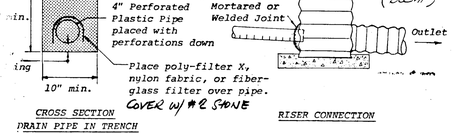
DEVELOPERS & ENGINEERS CERTIFICATIONS

I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT & PLAN FOR EROSION AND SEDIMENT CONTROL, AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY. DEVIATIONS FORM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD COUNTY S.C.D.

SIGNATURE OF DEVELOPER — DATE 12/12/83

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY S.C.D.

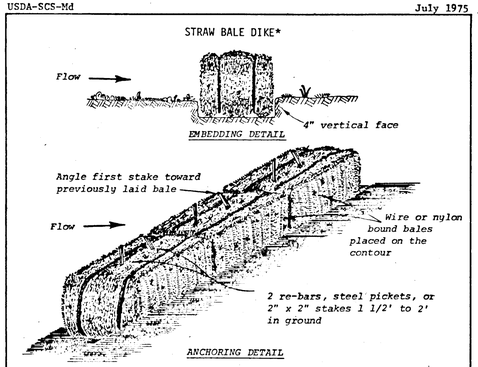
REGISTERED PROFESSIONAL ENGINEER — DATE 5-16-83



DEWATERING OF SEDIMENT BASIN W/ DRAIN IN PLACE OF LOW FLOW INTAKE FOR SWM RISER.

USDA-SCS-Md July 1975

STRAW BALE DIKE*



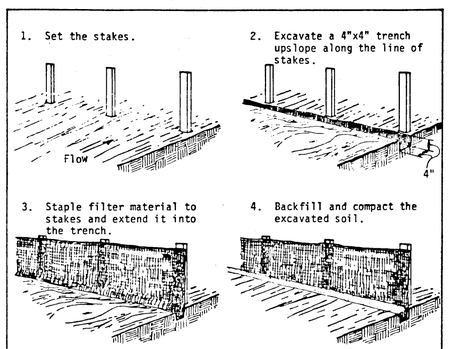
Construction Specifications

1. Bales shall be placed in a row with ends tightly abutting the adjacent bales.
2. Each bale shall be embedded in the soil a minimum of 4".
3. Bales shall be securely anchored in place by stakes or re-bars driven through the bales. The first stake in each bale shall be angled toward previously laid bale to force bales together.
4. Inspection shall be frequent and repair or replacement shall be made promptly as needed.
5. Bales shall be removed when they have served their usetulness so as not to block or impede storm flow or drainage.

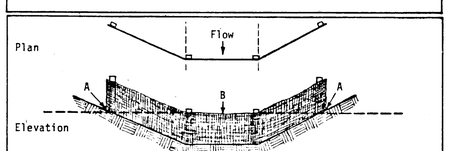
Standard Symbol SBD

* Drainage area less than 1/2 acre.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STRAW BALE DIKE	Standard Drawing SBD-1



CONSTRUCTION OF A FILTER BARRIER



Points A should be higher than point B

PROPER PLACEMENT OF A FILTER BARRIER IN A DRAINAGE WAY

CRITICAL AREA STABILIZATION W/ PERMANENT SEEDINGS

Minimum soil conditions needed for the establishment and maintenance of a long-lived vegetative cover:

A. Enough fine-grained materials (over 30 percent silt plus clay) to provide the capacity to hold at least a moderate amount of available moisture. Noticeable exception would be planting lovegrass and sericea lespedeza which can be planted on a sandier soil.

B. Sufficient pore space to permit adequate root penetration.

C. The soil shall be free from any material harmful to plant growth.

I. Site Preparation

A. Install needed erosion control practices such as interceptor dikes, berms and spreaders, contour ri ing, erosion stops, channel liners and sediment basins.

B. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, anchoring and maintenance.

II. Seedbed Preparation

Flat areas and slopes up to 3 to 1 grade shall be loose and friable to a depth of a t least 3 inches. The top layer of soil shall be loosened by raking, discing or other acceptable means before seeding.

Slopes steeper than 3 to 1 shall have the top 1-3 inches of soil loose and friable before seeding.

III. Soil Amendments

Apply 2 tons dolomitic limestone and 600 pounds 0-20-20, or equivalent per acre before seeding. Harrow or disc lime and 0-20-20, or equivalent fertilizer uniformly into the soil to minimum depth of 3 inches on slopes flatter than 3 to 1. On slopes of greater than 3 to 1 grade, the lime and fertilizer shall be worked in as directed by the contracting officer. On sloping land, the final harrowing or discing operation should be on the contour wherever feasible. No attempt should be made to drag any disced area to make the soil surface very smooth after discing. At time of seeding, apply 400 pounds 38-0-0 ureaform fertilizer and 500 pounds 10-20-20, or equivalent fertilizer per acre.

IV. Seeding

A. Mixture to be KY #31.

B. Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder or hydroseeder (slurry includes seed and fertilizer) on a firm, moist seedbed. Maximum seeding depth should be 1/4 inch on clayey soils and 1/2 inch on sandy soils, when using other than hydroseeder method of application.

V. Mulching

A. Materials and Amounts

1. Straw - Straw shall be unrotted small grain straw applied at the rate of 1-1/2 to 2 tons per acre, or 70 to 90 pounds per 1,000 sq. ft. Mulch materials shall be relatively free of all kinds of weeds and shall be free of prohibited noxious weeds which are: Canada thistle, Johnsongrass and quackgrass.

   Spread uniformly by hand or mechanically. For uniform distribution of hand spread mulch, divide area into approximately 1,000 sq. ft. section and place 70-90 lbs. of mulch in each section.

B. Mulch anchoring shall be accomplished immediately after mulch placement to minimize loss by wind or water.

Mulch Anchoring Tool - A tractor drawn implement designed to punch and ancnor mulch into the surface 2 inches of soil. This practice affords manimum erosion control but is limited to flatter slopes where equipment can operate safely. Tracking - primarily used on > 3:1 cut and fill slopes to cut the mulch into the soil with bulldozer cleats.

The developer is responsible for the acquisition of all required easements, rights, and/or rights-of-way pursuant to the discharge from the sediment and erosion control practices, stormwater management practices and the discharge of stormwater onto or across and grading or other work to be performed on adjacent or downstream properties affected by this plan.

All areas shall be permanently stabilized when site development work, grading and/or other related construction-related activities, cease to be continuous or ongoing for periods exceeding 49 days. These disturbed areas shall be stabilized in accordance with the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas." The inplace sediment control measures will be maintained on a continuing basis until the site is permanently stabilized and all permit requirements are met.

#1021

REVIEWED FOR Howard COUNTY S.C.D. AND MEETS TECHNICAL REQUIREMENTS

U.S. SOIL CONSERVATION SERVICE — DATE 10-19-83

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

APPROVED — DATE 10-14-83

HOWARD COUNTY SOIL CONSERVATION DISTRICT

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM-DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF - BUREAU OF ENGINEERING — DATE 10-19-83

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

PLANNING DIRECTOR — DATE 10-17-83

CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION

REGISTERED PROFESSIONAL ENGINEER NO. 13514 10.10.83

SEDIMENT CONTROL SPECS. & DETAILS

OAK VIEW VILLAGE LOTS 1-75

COLUMBIA, ELECTION DISTRICT #6, HOWARD COUNTY, MD.
TAX MAP # 42-72 AND 42-71, PARCELS # 35 AND 38

REVISIONS 7-14-83, 8-15-83

DATE: 5/16/1983

SCALE:

SHEET: F — 8 OF 8

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