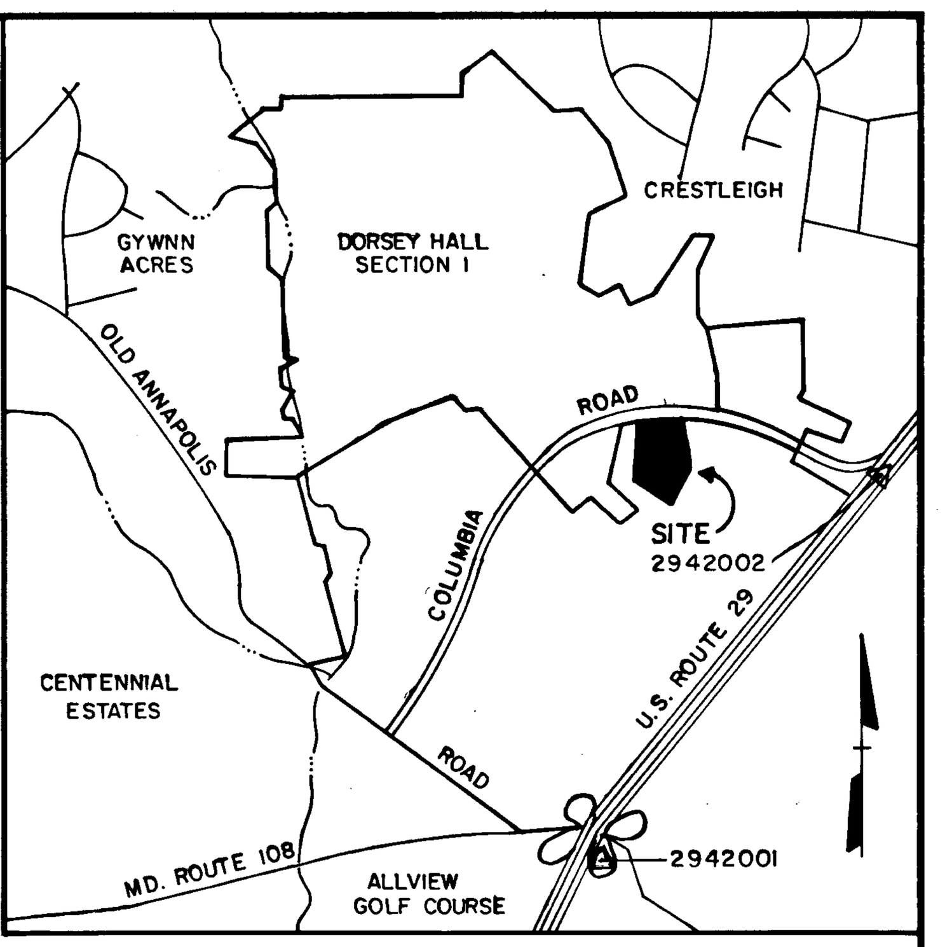
DORSEY HALL

SECTION 2-AREA 2 PARCEL D

2ND. ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

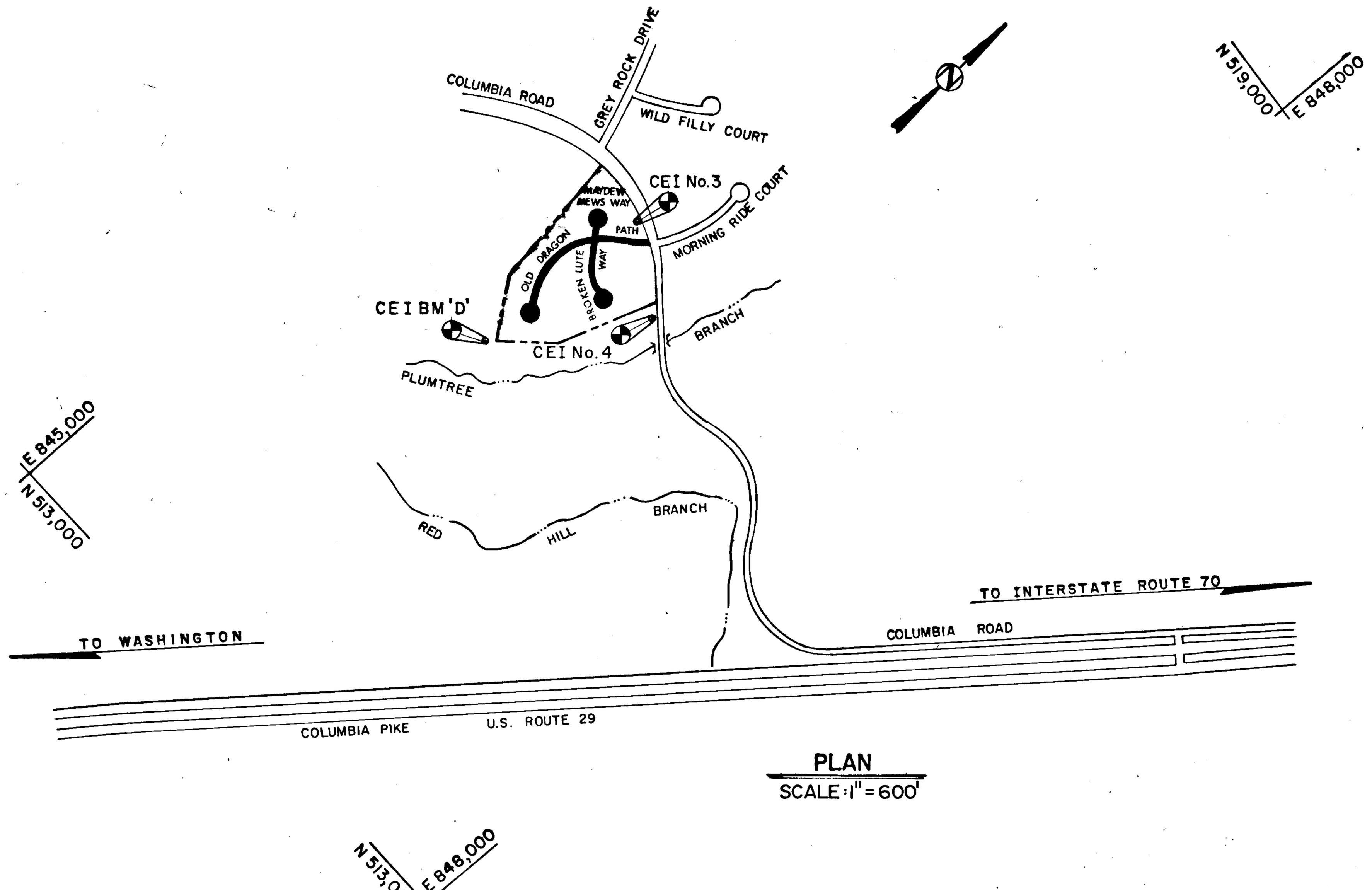


VICINITY MAP

SCALE: 1" = 2,000'

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITIES SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF CONSTRUCTION.
3. ALL INLETS SHALL BE HOWARD COUNTY STANDARDS UNLESS OTHERWISE SHOWN.
4. STORM DRAIN TRENCHES WITHIN ROAD RIGHTS OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
5. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE.
6. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES WHERE DIRECTED BY THE ENGINEER A MINIMUM OF TWO WEEKS IN ADVANCE OF ANY CONSTRUCTION.
7. TEMPORARY COMPACTED 18" HIGH EARTH FILL DIVERSION DIKES SHALL BE CONSTRUCTED ABOVE THE LIPS OF FILL SLOPES ON THE R.O.W. CONCURRENTLY WITH THE INITIAL GRADING AND DIRECTED TO UNDISTURBED SOD AREAS AT THE END OF EACH DAY.
8. CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE NO. 992-2436.
9. ALL DISTURBED SLOPE AREAS TO BE STABILIZED AS SOON AS GRADING IS COMPLETED.
10. ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3500 p.s.i.
11. ALL SWALES AND SLOPES SHALL BE PERMANENTLY SEEDED. SEE THE SEED SPECIFICATIONS ON SHEET 7.
12. INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1978 OR LATEST REVISION.
13. STABILENKA (FILTER CLOTH T-100) OR EQUAL SHALL BE PLACED UNDER ALL STONE RIPRAP (FULL WIDTH AND LENGTH OF STONE).
14. STONE FOR RIPRAP SHALL BE AS SPECIFIED ON THE DRAWINGS. ALL RIPRAP SHALL BE UNPAVED.
15. CONTRACTOR TO NOTIFY "MISS UTILITY" PHONE (1) 539-0100 AT LEAST THREE (3) DAYS BEFORE STARTING WORK SHOWN ON THIS/THESE DRAWING(S).
16. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME III STANDARDS. 30 MPH.
17. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929.
18. ALL COORDINATES BASED ON MARYLAND STATE GRID SYSTEM.
19. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
20. CONTRACTOR TO RESTORE ALL EXISTING PAVING, SIDEWALKS OR LAWNS AFFECTED BY THE CONSTRUCTION SHOWN HEREON TO A CONDITION COMPARABLE TO THAT EXISTING PRIOR TO CONSTRUCTION.
21. REFER TO APPROVED GP 86-40 FOR SEDIMENT CONTROL DEVICES THAT ARE TO BE MAINTAINED DURING CONSTRUCTION OF THIS CONTRACT. SEE DRAWINGS 6 THRU 7 FOR ANY REVISIONS REQUIRED BY THIS WORK.
22. ALL STORM DRAIN BEDDING TO BE CLASS 'C' EXCEPT WHERE OTHERWISE NOTED.
23. TOP OF INLET ELEVATIONS SHOWN ARE GIVEN AT THE TOP OF CURB AT THE CENTER OF THE INLET.
24. STREET TREES **(81 TOTAL)**
THE LOCATION, TYPE AND NUMBER OF TREES SHOWN ON THIS PLAN ARE TENTATIVE AND ARE USED FOR BOND PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMMODATE FIELD CONDITIONS AND BUILDERS LANDSCAPE PROGRAM. BOND RELEASE IS CONTINGENT UPON SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS, AS APPROVED BY THE OFFICE OF PLANNING AND ZONING.



PLAN

SCALE: 1" = 600'

Bench Marks

VERTICAL → CEI BENCH MARK NO. 3 — ELEV. 356.346

X-CUT ON NORTHWEST FLANGE BOLT OF FIRE HYDRANT. SOUTH SIDE OF OLD COLUMBIA ROAD 30'± WEST OF MORNING RIDE COURT.

VERTICAL → CEI BENCH MARK NO. 4 — ELEV. 341.450

X-CUT ON NORTHWEST FLANGE BOLT OF FIRE HYDRANT. SOUTH SIDE OF OLD COLUMBIA ROAD 455'± EAST OF MORNING RIDE COURT.

CEI BENCH MARK 'D' — ELEV. 332.02

□ CUT ON RIM OF SANITARY MANHOLE. STA. 10+75± "OLD DRAGON PATH" EXTENDED - 182'± RIGHT - NEAR PROPERTY CORNER NO. 807.

FOR BENCH MARK LOCATIONS SEE SHEET No. 6 OF 7

HORIZONTAL	NORTH	EAST
C.E.I #107	516,283.091	846,311.326
C.E.I #108	515,867.879	846,788.878

AS-BUILT SURVEY CERTIFIED BY RICHARD LANE, MD. PLS. No. 301 ON 5-19-88

DEPARTMENT OF PUBLIC WORKS

[illegible] 7-15-86

CHIEF, BUREAU OF ENGINEERING — DATE

DEPARTMENT OF PLANNING AND ZONING

[illegible] 7-17-86

CHIEF, DIV. OF LAND DEVEL. AND ZONING ADMIN. — DATE

Date	No	Revision Description
5-15-86	⚠	PER HOWARD COUNTY COMMENTS (F-86-164)

4/8/86

Date

STATE OF MARYLAND — REGISTERED PROFESSIONAL ENGINEER — No. 6906

[illegible]

Professional Engr. No. 6906

OWNER AND DEVELOPER

COLUMBIA INDUSTRIAL DEVELOPMENT CORPORATION

C/O

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION

THE ROUSE COMPANY

10275 Little Patuxent Parkway

Columbia, Maryland 21044

CENTURY ENGINEERING, INC.

CONSULTING ENGINEERS • PLANNERS

TOWSON, MARYLAND 21204

AREA

DORSEY HALL

SECTION 2-AREA 2 TAX MAP 30 - PART OF PARCEL 12

2nd ELECTION DISTRICT OF HOWARD COUNTY, MD.

TITLE

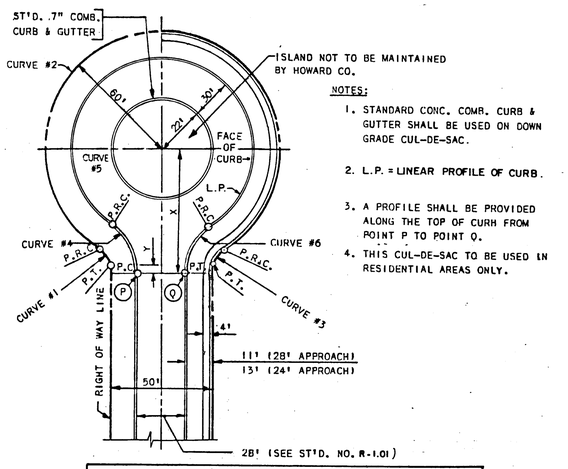
TITLE SHEET

Des By	J.R.H.	Scale	AS SHOWN	Proj No	85-0118
Drn By	H.W.	Date	3-31-86	Drawing No.	1 OF 7
Chk By	J.P.K.	Approved			

F-86-164

AS-BUILT 5-19-88

771



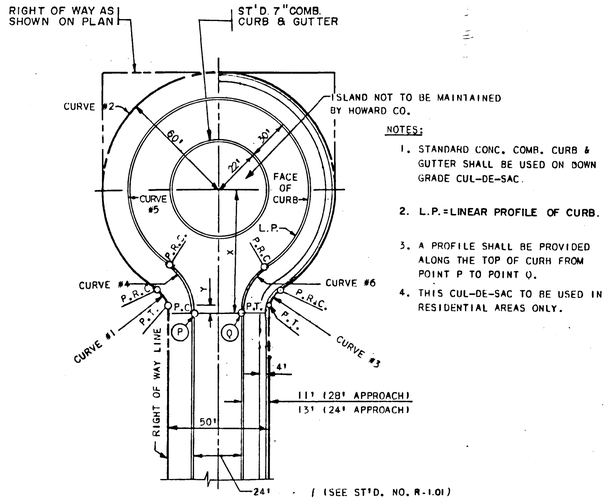
NOTES:

1. STANDARD CONC. COMB. CURB & GUTTER SHALL BE USED ON DOWN GRADE CUL-DE-SAC.
2. L.P. = LINEAR PROFILE OF CURB.
3. A PROFILE SHALL BE PROVIDED ALONG THE TOP OF CURB FROM POINT P TO POINT Q.
4. THIS CUL-DE-SAC TO BE USED IN RESIDENTIAL AREAS ONLY.

CURVE DATA				
	CURVE NO.			
	1&3	2	4&6	5
	28' APPROACH: X=74.48'; Y=5.75' L.P.=336.97'			
Δ	53°58'05"	287°56'10"	54°03'31"	288°07'02"
R	25.00'	60.00'	40.00'	52.00'
L	23.55'	301.53'	37.74'	261.49'
T	12.73'	—	20.41'	—
LC	22.69'	—	36.36'	—

CUL-DE-SAC FOR 28' PAVEMENT WIDTH

NO SCALE



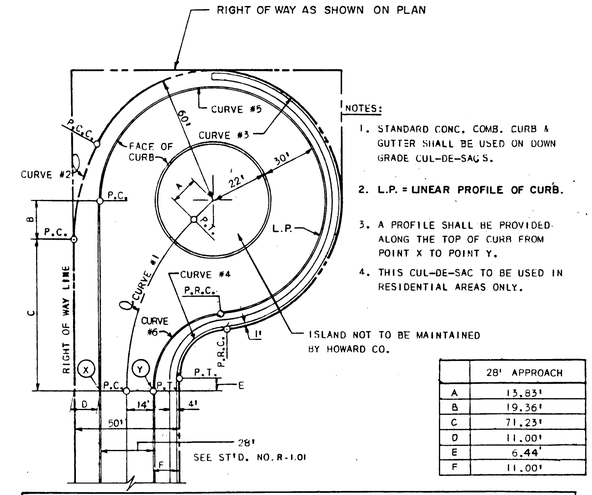
NOTES:

1. STANDARD CONC. COMB. CURB & GUTTER SHALL BE USED ON DOWN GRADE CUL-DE-SAC.
2. L.P. = LINEAR PROFILE OF CURB.
3. A PROFILE SHALL BE PROVIDED ALONG THE TOP OF CURB FROM POINT P TO POINT Q.
4. THIS CUL-DE-SAC TO BE USED IN RESIDENTIAL AREAS ONLY.

CURVE DATA				
	CURVE NO.			
	1&3	2	4&6	5
	24' APPROACH: X=75.89'; Y=7.16' L.P. 341.85'			
Δ	53°58'05"	287°56'10"	55°34'57"	291°09'55"
R	25.00'	60.00'	40.00'	52.00'
L	23.55'	301.53'	38.80'	264.25'
T	12.73'	–	21.08'	–
LC	22.69'	–	37.30'	–

CUL-DE-SAC FOR 24' PAVEMENT WIDTH

NO SCALE



NOTES:

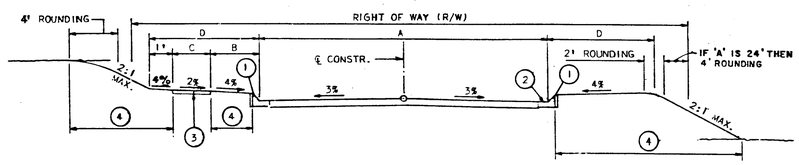
1. STANDARD CONC. COMB. CURB & GUTTER SHALL BE USED ON DOWN GRADE CUL-DE-SACS.
2. L.P. = LINEAR PROFILE OF CURB.
3. A PROFILE SHALL BE PROVIDED ALONG THE TOP OF CURB FROM POINT X TO POINT Y.
4. THIS CUL-DE-SAC TO BE USED IN RESIDENTIAL AREAS ONLY.

	28' APPROACH
A	15.83'
B	19.36'
C	71.23'
D	11.00'
E	6.44'
F	11.00'

CURVE DATA						
	CURVE NO.					
	1	2	3	4	5	6
	28' APPROACH L.P. = 382.58'					
Δ	39°59'32"	28°57'18"	234°17'19"	83°14'37"	259°59'05"	79°59'04"
R	124.48'	100.00'	60.00'	25.00'	52.00'	40.00'
L	86.89'	50.54'	245.35'	36.32'	235.95'	55.84'
T	45.30'	25.82'	–	22.21'	–	33.55'
L.C.	85.14'	50.00'	–	33.21'	–	51.41'

OFFSET CUL-DE-SAC FOR 28' PAVEMENT WIDTH

NO SCALE



ROAD NAMES & STATIONS	A	B	C	D	R/W	PAVING SECTION
OLD DRAGON PATH: LOCAL ROAD STA. 0+00 TO STA. 3+40.48 DESIGN SPEED 30MPH	30'	1'	4'	9'	50'	P-2
OLD DRAGON PATH: CUL-DE-SAC STA. 3+40.48 TO STA. 8+83.14 DESIGN SPEED 30MPH	28'	1'	4'	9'	50'	P-2
BROKEN LUTE WAY: CUL-DE-SAC STA. 0+00 TO STA. 2+86.60 DESIGN SPEED 30 MPH	28'	1'	4'	9'	50'	P-2
MAYDEW MEWS: CUL-DE-SAC STA. 0+00 TO STA. 0+36.35 DESIGN SPEED 30MPH	24'	5'	4'	10'	50'	P-2

(1) PROFILE GRADE LINE (PGL).

(2) TYPE OF CURB VARIES (MOD. COMB. CURB & GUTTER OR ST'D. COMB. CURB & GUTTER).

(3) 4" CONCRETE SIDEWALK

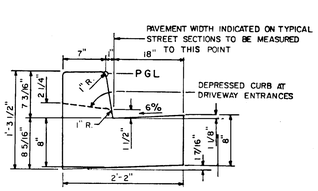
(4) INDICATES 2" TOPSOIL, SEED AND MULCH.

(5) DITCH CROSS SECTION SLOPE MAY BE FLATTENED TO PROVIDE A SWALE AT OR NEAR THE CREST OF VERTICAL CURVES WHERE QUANTITY OF SWALE FLOW IS SMALL, AS APPROVED BY DPW.

(6) DESIGN SPEED FOR ALL ROADS - 30 MPH SEE GENERAL NOTE No. 16 ON SHEET No. 1

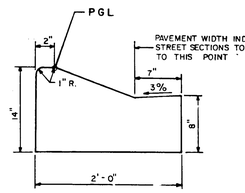
TYPICAL ROADWAY SECTION

NO SCALE



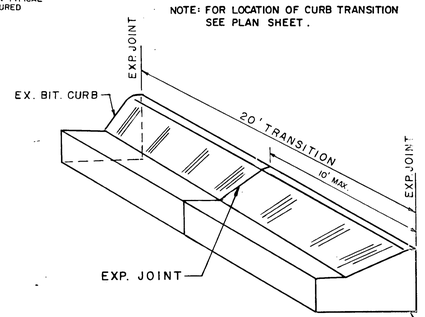
STANDARD 7" COMBINATION CURB AND GUTTER

NO SCALE



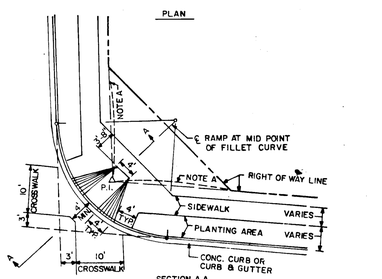
MODIFIED COMBINATION CURB AND GUTTER

NO SCALE



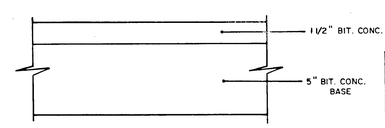
CONCRETE CURB & GUTTER TRANSITION

NO SCALE



SIDEWALK RAMP

NO SCALE



NOTE:
A TACK COAT WILL BE APPLIED IN ACCORDANCE WITH SECTION 33.07-3 AS PROVIDED IN THE MD S.R.C. SPECIFICATIONS.

FULL DEPTH BIT. CONC. P-2

NO SCALE

DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 7-18-86

DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIV. OF LAND DEVEL. AND ZONING ADM. — DATE 7-17-86

Date	No	Revision Description

OWNER AND DEVELOPER

COLUMBIA INDUSTRIAL DEVELOPMENT CORPORATION

C/O

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE COMPANY
10275 Little Patuxent Parkway
Columbia, Maryland 21044

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS • PLANNERS
TOWSON, MARYLAND 21204

4/20/86 Date

STATE OF MARYLAND — JAMES P. KRUEGE — REGISTERED PROFESSIONAL ENGINEER

James P. Krueger
Professional Engr. No. 6906

AREA: DORSEY HALL
SECTION 2-AREA 2 TAX MAP 30-PART OF PARCEL 12
2nd ELECTION DISTRICT OF HOWARD COUNTY, MD.

TITLE: DETAIL SHEET

Des By R.F	Scale AS SHOWN	Proj No 85-0118
Drn By R.F.	Date 3-31-86	Drawing No. 2 OF 7
Chk By J.P.K.	Approved	

F-86-164

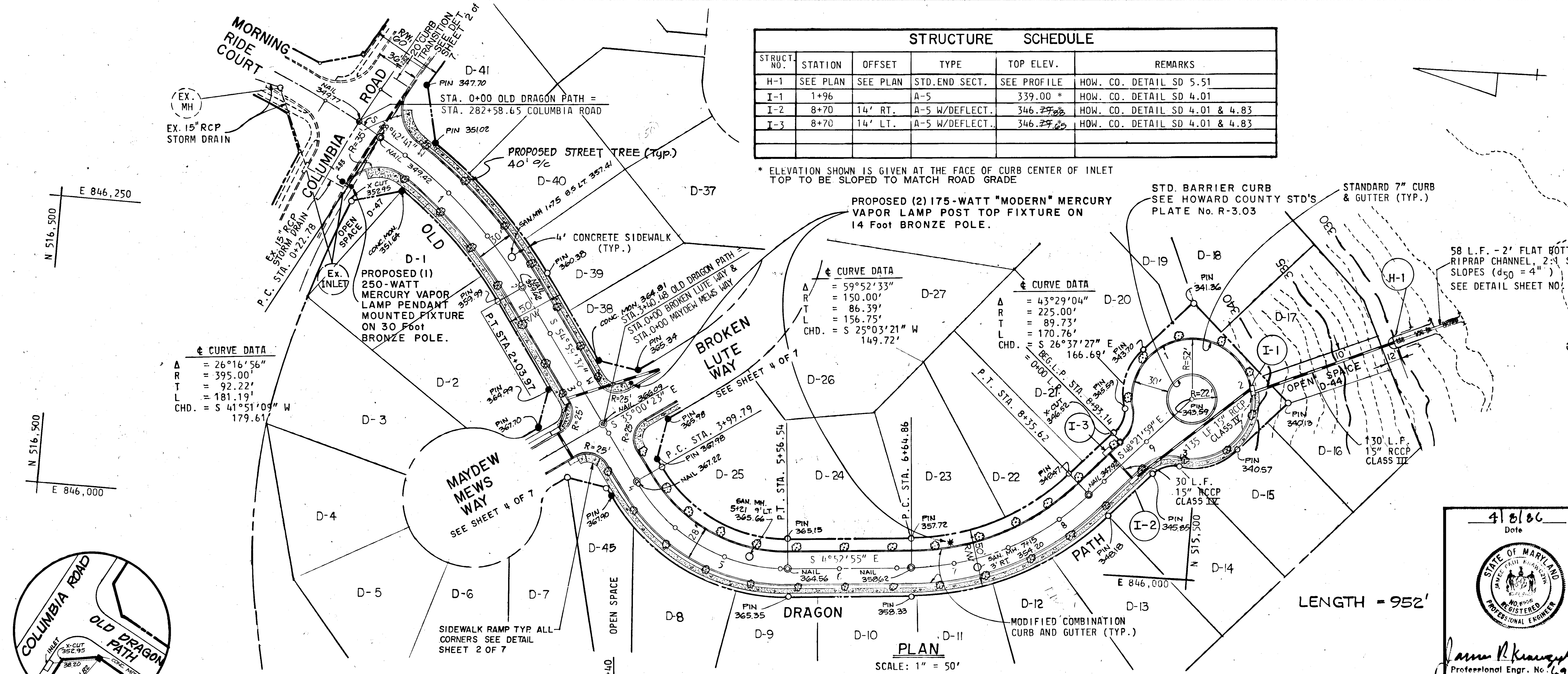
771

BRUNING 44 13

STRUCTURE SCHEDULE

STRUCT. NO.	STATION	OFFSET	TYPE	TOP ELEV.	REMARKS
H-1	SEE PLAN	SEE PLAN	STD. END SECT.	SEE PROFILE	HOW. CO. DETAIL SD 5.51
I-1	1+96		A-5	339.00 *	HOW. CO. DETAIL SD 4.01
I-2	8+70	14' RT.	A-5 W/DEFLECT.	346.~~79~~ 88	HOW. CO. DETAIL SD 4.01 & 4.83
I-3	8+70	14' LT.	A-5 W/DEFLECT.	346.~~79~~ 65	HOW. CO. DETAIL SD 4.01 & 4.83

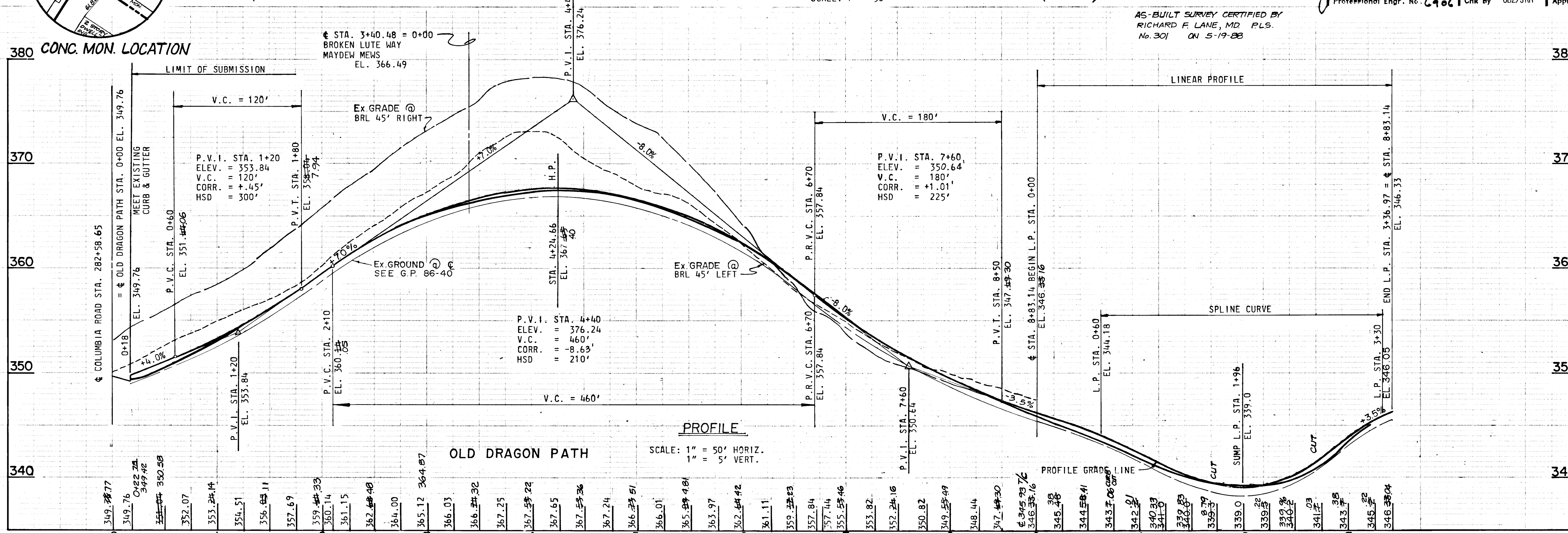
* ELEVATION SHOWN IS GIVEN AT THE FACE OF CURB CENTER OF INLET TOP TO BE SLOPED TO MATCH ROAD GRADE



PLAN

SCALE: 1" = 50'

AS-BUILT SURVEY CERTIFIED BY RICHARD F. LANE, MD. P.L.S. No. 301 ON 5-19-88



PROFILE

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

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	GRADES CHECKED		
	3.4.8 NOTED		
	STRUCTURE NOTAT'NS CHK'D		

DEPARTMENT OF PUBLIC WORKS

[illegible] 7-15-86
CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PLANNING AND ZONING

[illegible] 7-17-86
CHIEF DIV. OF LAND DEVEL. AND ZONING ADM. DATE

Date	No	Revision Description

OWNER AND DEVELOPER

COLUMBIA INDUSTRIAL DEVELOPMENT CORPORATION

C/O

THE HOWARD RESEARCH & DEVELOPMENT CORPORATION

THE ROUSE COMPANY
10275 Little Patuxent Parkway
Columbia, Maryland 21044

CENTURY ENGINEERING, INC.

CONSULTING ENGINEERS – PLANNERS
TOWSON, MARYLAND 21204

4/8/86
Date

STATE OF MARYLAND JAMES PAUL KRAWCZYK NO. 6906 REGISTERED PROFESSIONAL ENGINEER

[illegible]
Professional Engr. No. 6906

AREA DORSEY HALL
SECTION 2-AREA 2 TAX MAP 30-PART OF PARCEL 12
2nd ELECTION DISTRICT OF HOWARD COUNTY, MD.

TITLE
ROAD PLAN AND PROFILE OLD DRAGON PATH

Des By	GBZ	Scale	AS SHOWN	Proj No	85-0118
Drn By	JMP/FEM	Date	4-1-86	PARCEL D	
Chk By	GBZ/JRH	Approved			

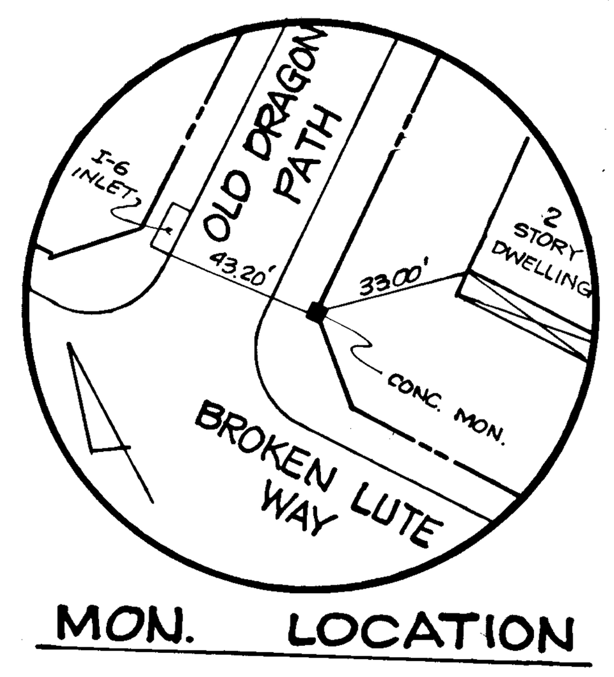
Drawing No. 3 OF 7

F-86-164
AS-BUILT 5-19-88

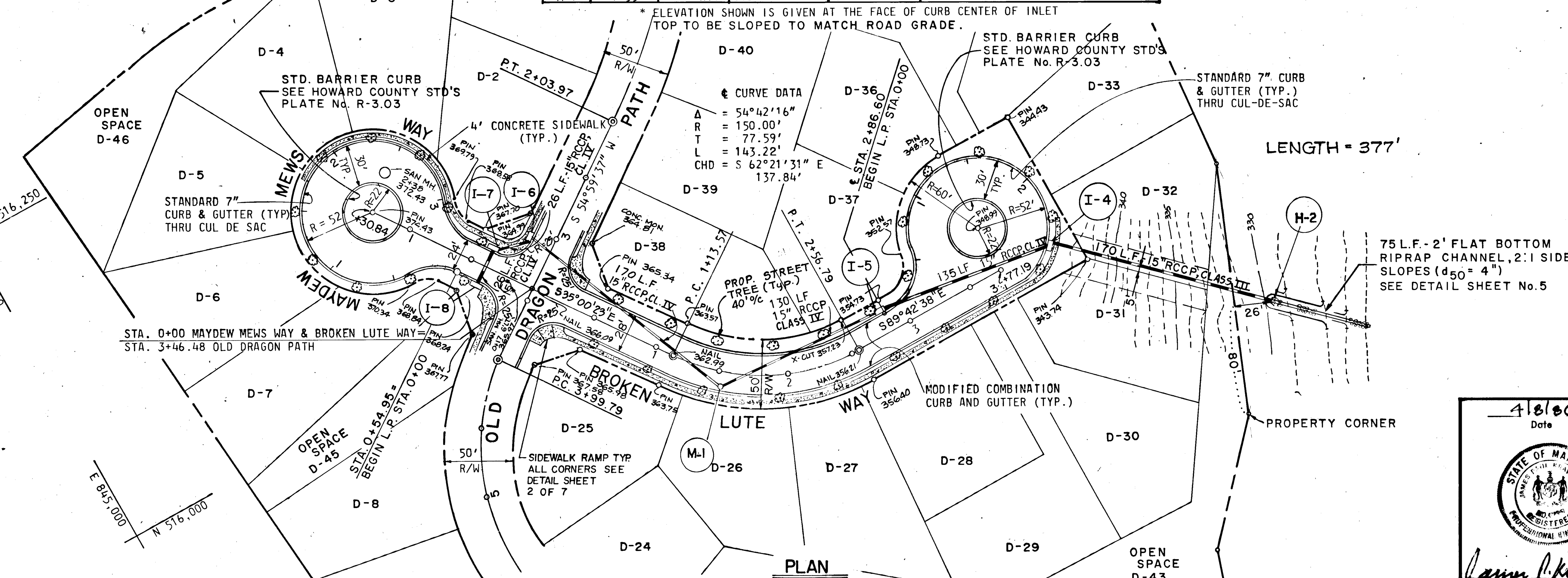
771

STRUCTURE SCHEDULE					
STRUCT. NO.	STATION	OFFSET	TYPE	TOP. ELEV.	REMARKS
I-4	2+50(L.P.)	——	A=5	343.~~20~~.02 *	HOW. CO. DETAIL SD 4.01
I-5	2+84	14' LT.	A=5 W/DEFLECT.	35~~5.04~~4.75 *	HOW. CO. DETAIL SD 4.01 & 4.83
I-6	3+07	14' RT.	A=5 W/DEFLECT.	365.45 *	HOW. CO. DETAIL SD 4.01 & 4.83
I-7	0+~~38~~43	12' RT.	A=5 W/DEFLECT.	367.~~41~~.20 *	HOW. CO. DETAIL SD 4.01 & 4.83
I-8	0+~~38~~43	12' LT.	A=5 W/DEFLECT.	367.~~41~~.33 *	HOW. CO. DETAIL SD 4.01 & 4.83
H-2	SEE PLAN	SEE PLAN	STD.END SECT.	SEE PROFILE	HOW. CO. DETAIL SD 5.51
M-1	1+53	10' RT.	STD. MANHOLE	361.~~01~~.09	HOW. CO. DETAIL G 5.01

* ELEVATION SHOWN IS GIVEN AT THE FACE OF CURB CENTER OF INLET TOP TO BE SLOPED TO MATCH ROAD GRADE.

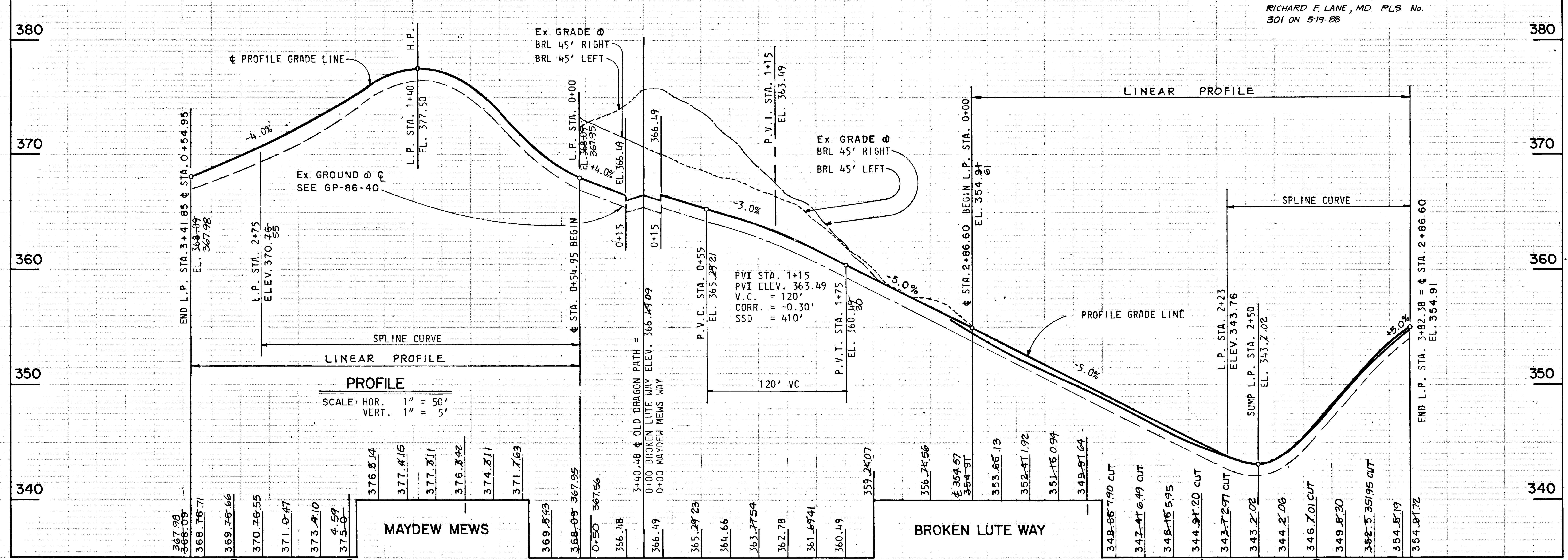


MON. LOCATION



PLAN

SCALE: 1" = 50'



PROFILE

SCALE: HOR. 1" = 50'
VERT. 1" = 5'

AS-BUILT SURVEY CERTIFIED BY RICHARD F. LANE, MD. PLS No. 301 ON 5-19-88

DEPARTMENT OF PUBLIC WORKS

[illegible] 7-15-86
CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PLANNING AND ZONING

[illegible] 7-17-86
CHIEF, DIV. OF LAND DEVELOP. AND ZONING ADM. DATE

Date	No	Revision Description

OWNER AND DEVELOPER

COLUMBIA INDUSTRIAL DEVELOPMENT CORPORATION

C/O

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION

THE ROUSE COMPANY
10275 Little Patuxent Parkway
Columbia, Maryland 21044

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS – PLANNERS
TOWSON, MARYLAND 21204

4/8/86
Date

STATE OF MARYLAND JAMES PAUL KRAWCZYK No. 6906 REGISTERED PROFESSIONAL ENGINEER

[illegible]
Professional Engr. No. 6906

AREA DORSEY HALL
SECTION 2 - AREA 2 TAX MAP 30 - PART OF PARCEL 12
2nd ELECTION DISTRICT OF HOWARD COUNTY, MD

TITLE ROAD PLAN AND PROFILES
BROKEN LUTE WAY & MAYDEW MEWS WAY

Des By	GBZ	Scale	AS SHOWN	Proj No 85-0118
Drn By	GBZ	Date	4-1-86	PARCEL D
Chk By	GBZ/JRH	Approved		

Drawing No. 4 OF 7

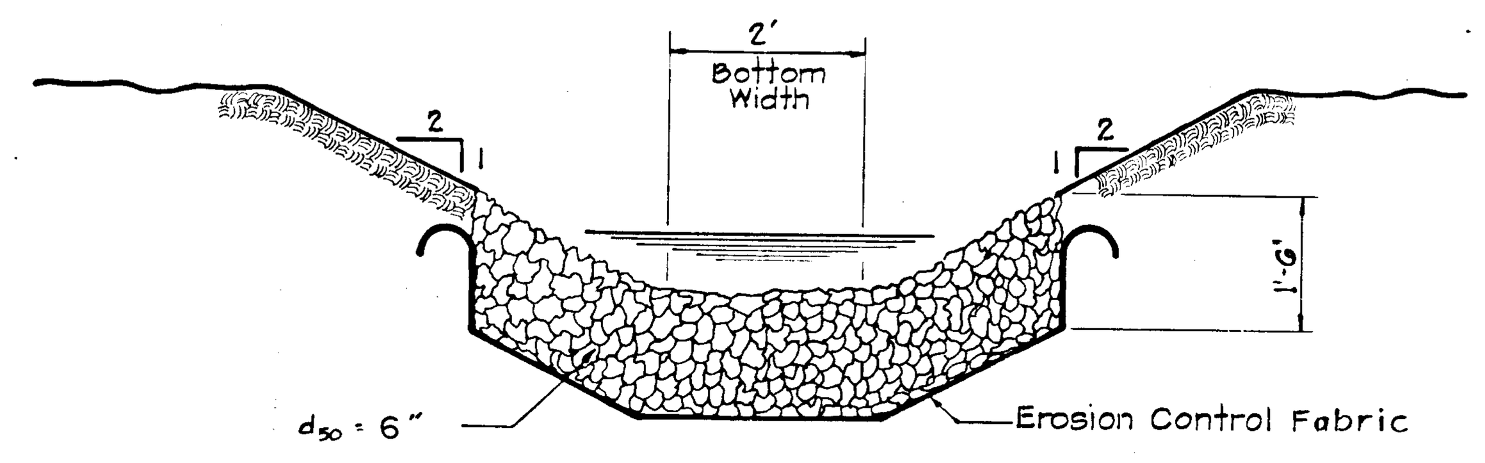
F-86-164

AS-BUILT 5-18-88

PLAN		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		

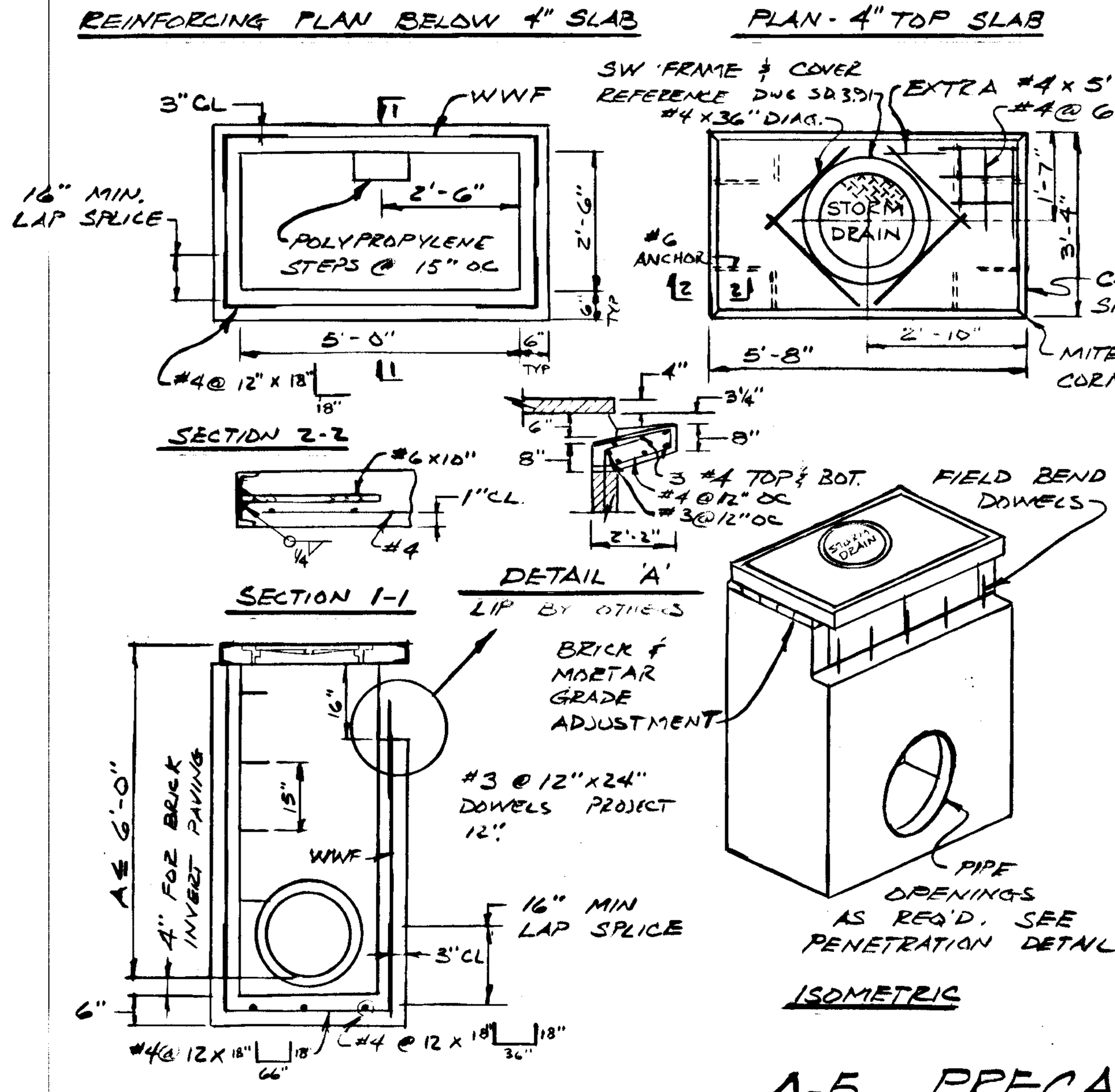
PROFILE		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	GRADES CHECKED		
	B.M.s NOTED		
	STRUCTURE NOTATNS CHKD		

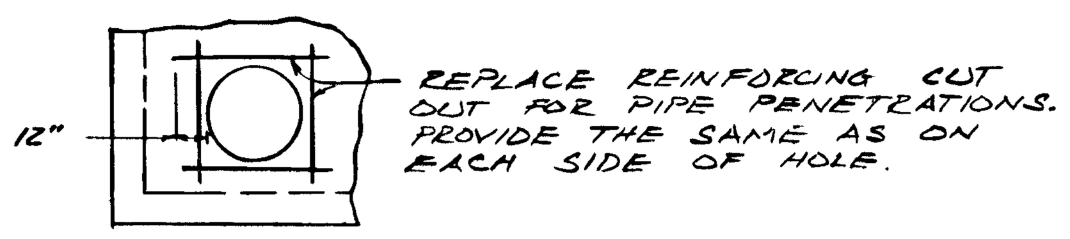
771



RIP-RAP CHANNEL

No Scale



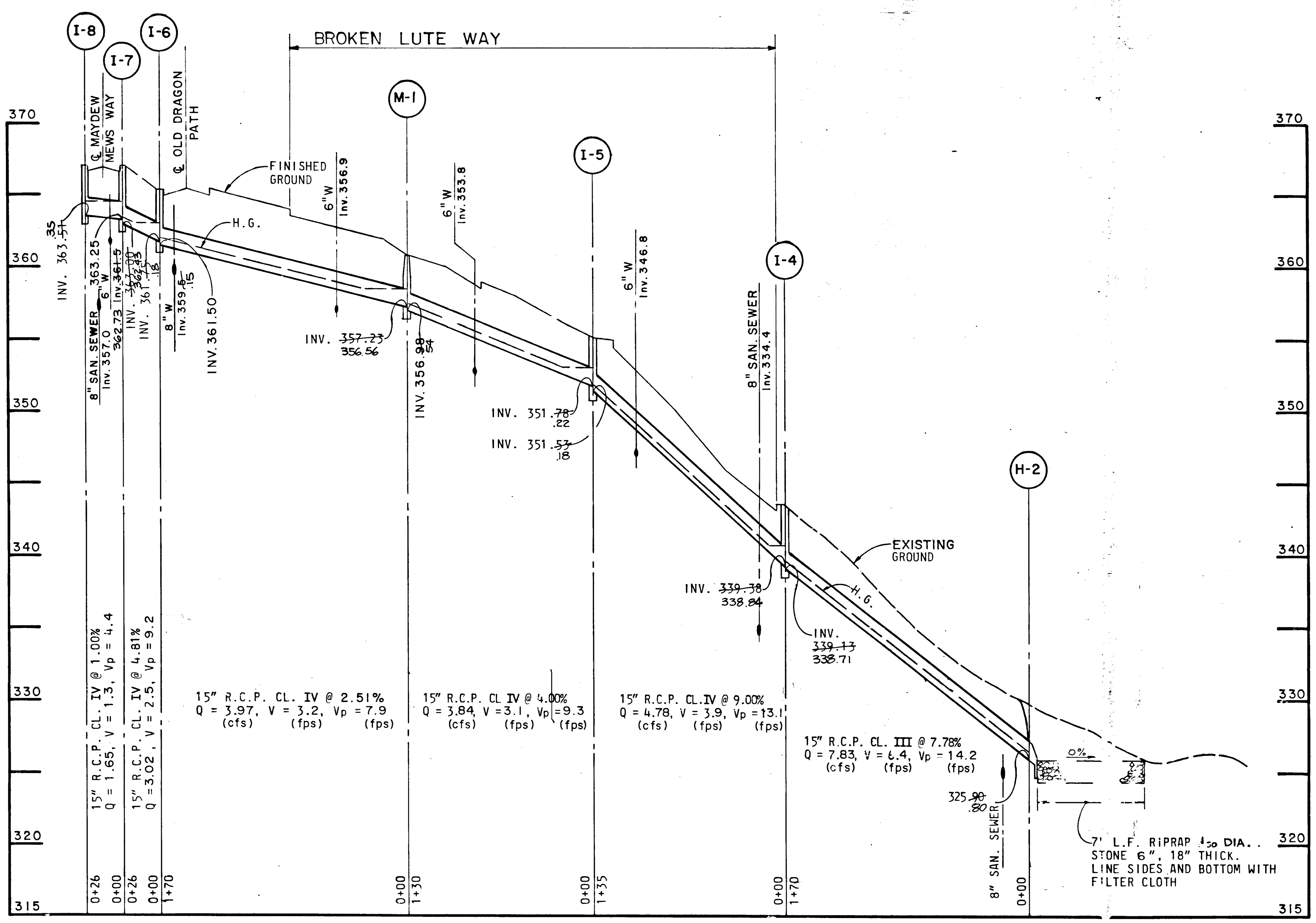


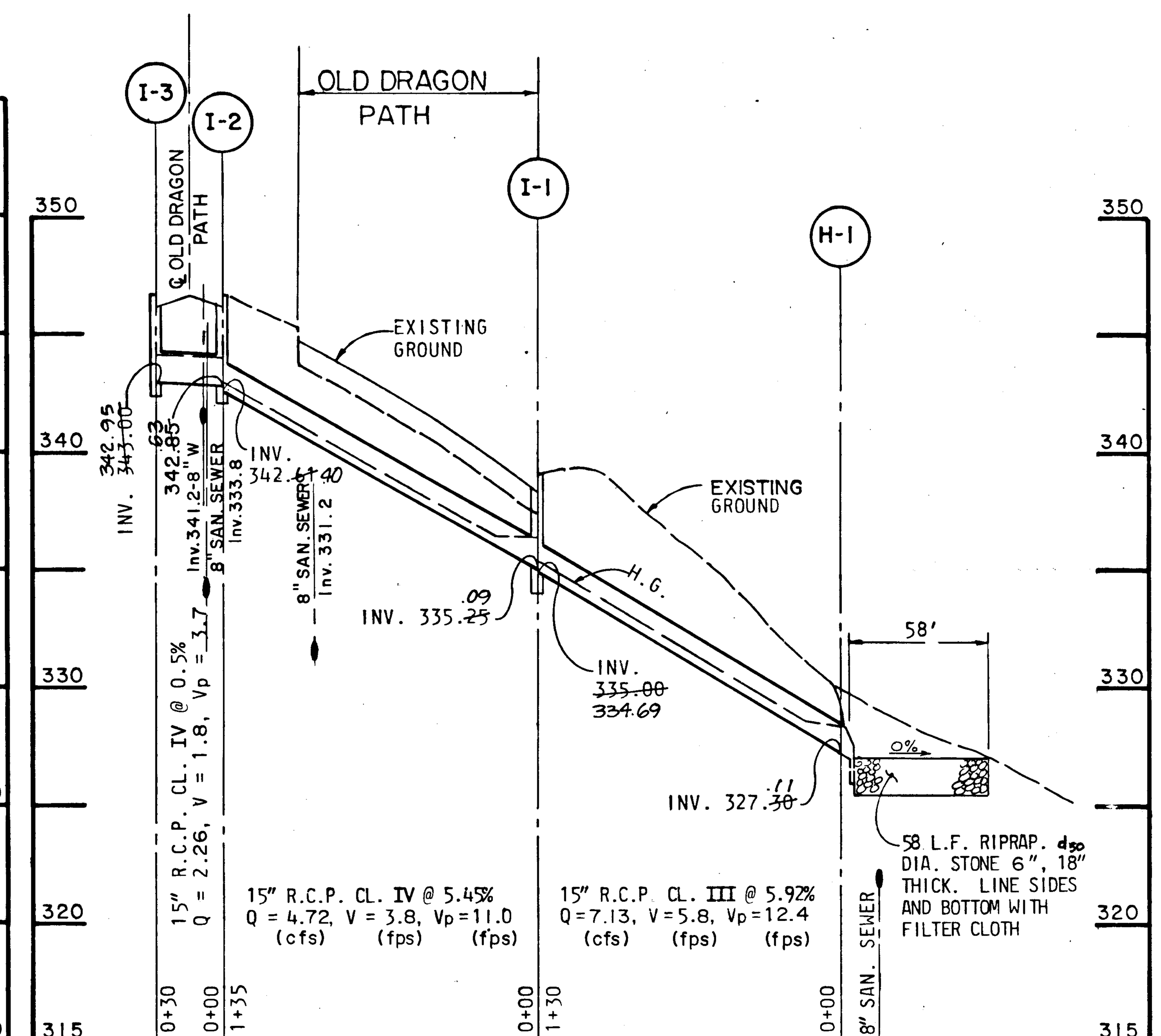
PIPE PENETRATION DETAIL

NOTES:

1. CONCRETE SHALL CONFORM TO MARYLAND DOT STANDARD SPECIFICATION FOR CONSTRUCTION & MATERIALS 1982, MIX NO. 6. IN ADDITION, F'_c = 4500 PSI @ 28 DAYS, CEMENT SHALL BE TYPE III AND PENNDOT #8 COARSE AGGREGATES ARE USED. WWF IS WWF4x4-W4 x W4 (.12 IN²/FT)
2. POLYPROPYLENE STEPS SHALL BE TYPE PS4 OR PS5 AS MANUFACTURED BY M.A. INDUSTRIES, INC. STEPS SHALL BE INSTALLED INLINE @ 15" OC WHERE A>3'-6".
3. REFERENCE DRAWING FOR TYPE A-5 INLET IS HOWARD CO. STANDARD DWG NO. SD-4.01.
4. REINFORCING SCHEDULE IS BASED ON USD METHOD AND DESIGN LOADS AS SPECIFIED IN AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, 12TH EDITION, 1977 AND INTERIM SPECIFICATIONS.
5. WEIGHTS:
   4" TOP SLAB = 950#
   MAX. INLET BOX WT. = 7200#
   RISER WT./VF = 1300#/VF

A-5 PRECAST INLET ⚠





PROFILES

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

AS-BUILT SURVEY CERTIFIED BY RICHARD LANE, MD. P.L.S No. 301 ON 5-19-88

DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 7-15-86

DEPARTMENT OF PLANNING AND ZONING

CHIEF DIV. OF LAND DEVEL. AND ZONING ADM. — DATE 7-17-86

Date	No	Revision Description
9/10/86	⚠	ADDED A-5 INLET DETAIL

OWNER AND DEVELOPER

COLUMBIA INDUSTRIAL DEVELOPMENT CORPORATION

C/O
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE COMPANY
10275 Little Patuxent Parkway
Columbia, Maryland 21044

CENTURY ENGINEERING, INC.

CONSULTING ENGINEERS • PLANNERS
32 WEST ROAD
TOWSON, MARYLAND 21204

4/7/86
Date

STATE OF MARYLAND REGISTERED PROFESSIONAL ENGINEER NO. 6906

Professional Engr. No. 6906

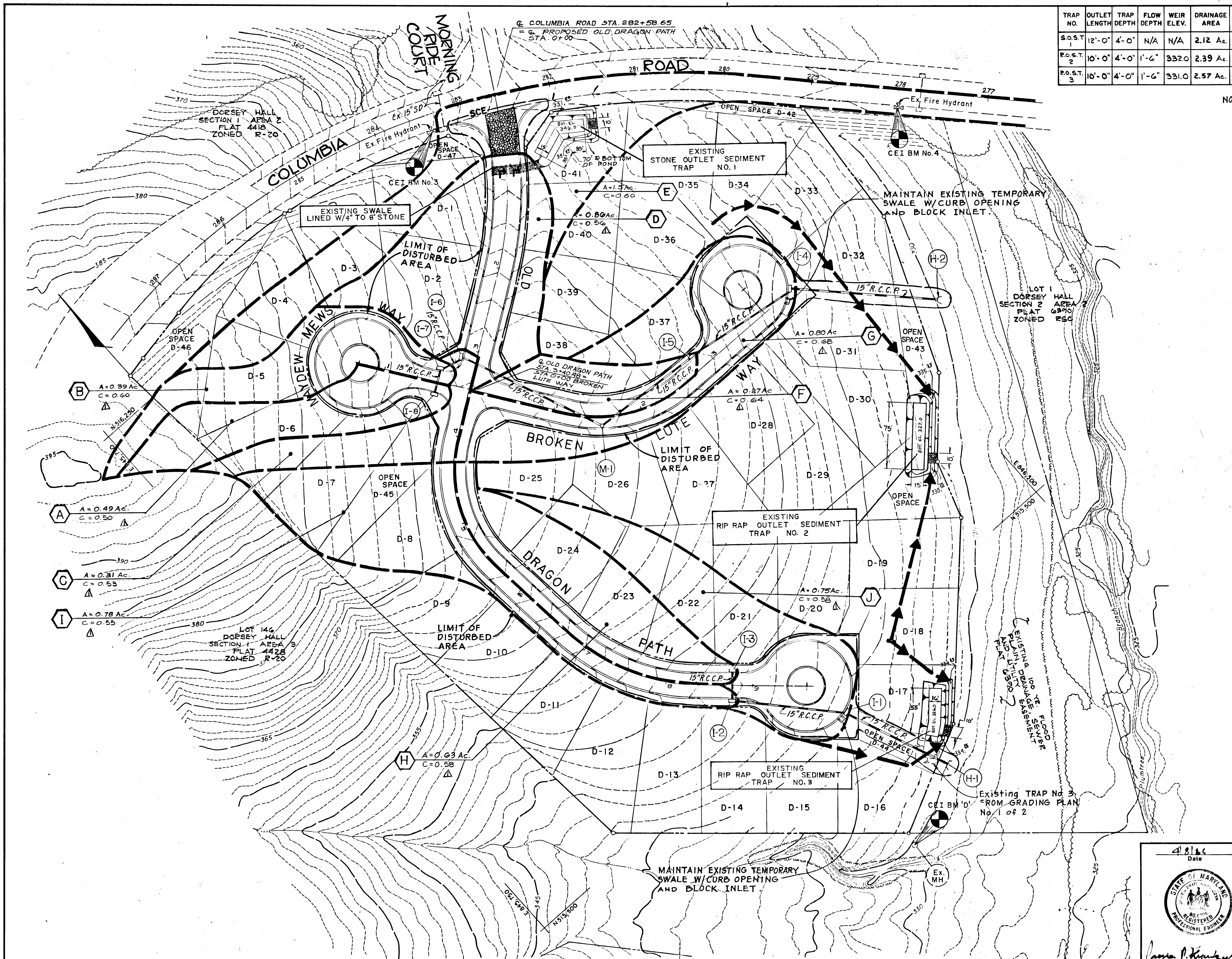
AREA: DORSEY HALL
SECTION 2 AREA 2 TAX MAP 30-PART OF PARCEL 12
2nd ELECTION DISTRICT OF HOWARD COUNTY, MD.

TITLE: STORM DRAIN PROFILES & DETAILS

Des By	KQ	Scale	AS SHOWN	Proj No	85-0118
Drn By	JD	Date	4-1-86	Drawing No.	5 OF 7
Chk By	JRH	Approved			

F-86-164

AS-BUILT 5-19-88



TRAP NO.	OUTLET LENGTH	TRAP DEPTH	FLOW DEPTH	WEIR ELEV.	DRAINAGE AREA	DISTURBED AREA	BOTTOM DIMENSION	VOLUME REQ'D	VOLUME PROV.	BOTTOM ELEVATION	CLEANOUT ELEVATION	EMBANKM'T ELEVATION
S.O.S.T. 1	12'-0"	4'-0"	N/A	N/A	2.12 Ac.	0.69 Ac.	70' x 15'	3816 c.f.	5624 c.f.	346.0	348.0	351.5
R.O.S.T. 2	10'-0"	4'-0"	1'-6"	332.0	2.39 Ac.	0.71 Ac.	75' x 15'	4302 c.f.	6004 c.f.	327.0	329.0	335.25
R.O.S.T. 3	10'-0"	4'-0"	1'-6"	331.0	2.57 Ac.	0.84 Ac.	55' x 16'	4624 c.f.	4720 c.f.	326.0	328.0	334.25

NOTE: SEE GP 86-40 FOR DETAILS OF EXISTING SEDIMENT CONTROL FACICITIES

DEPARTMENT OF PUBLIC WORKS

[illegible] 7-15-86

CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PLANNING AND ZONING

[illegible] 7-17-86

CHIEF, DIV. OF LAND DEVEL. AND ZONING ADM. DATE

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, 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."

[illegible] 4-8-86

SIGNATURE OF DEVELOPER DATE

BY THE ENGINEER:

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."

[illegible] 4/8/86

SIGNATURE OF ENGINEER DATE

REVIEWED FOR HOWARD S.C.D.
NAME
AND MEETS TECHNICAL REQUIREMENTS.

[illegible] 7-11-86

U.S. SOIL CONSERVATION SERVICE DATE

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

[illegible] 7/11/86

HOWARD S.C.D. DATE

Date	No	Revision Description
9/9/86	1	CHANGED 'C' FACTORS

OWNER AND DEVELOPER
COLUMBIA INDUSTRIAL DEVELOPMENT CORPORATION
C/O
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE COMPANY
10275 Little Patuxent Parkway
Columbia, Maryland 21044

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS • PLANNERS
TOWSON, MARYLAND 21204

4/8/86
Date

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
NO. 6906

[illegible]
Professional Engr. No. 6906

AREA
DORSEY HALL
SECTION 2-AREA 2 TAX MAP 30-PART OF PARCEL 12
2nd ELECTION DISTRICT OF HOWARD COUNTY, MD.

TITLE
DRAINAGE AREA & SEDIMENT CONTROL PLAN
DORSEY HALL-PARCEL "D"

Des By GBZ	Scale 1" = 50'	Proj No 85-0118
Drn By RF	Date 4-1-86	Drawing No. 6 OF 7
Chk By JRH	Approved	

F-86-164

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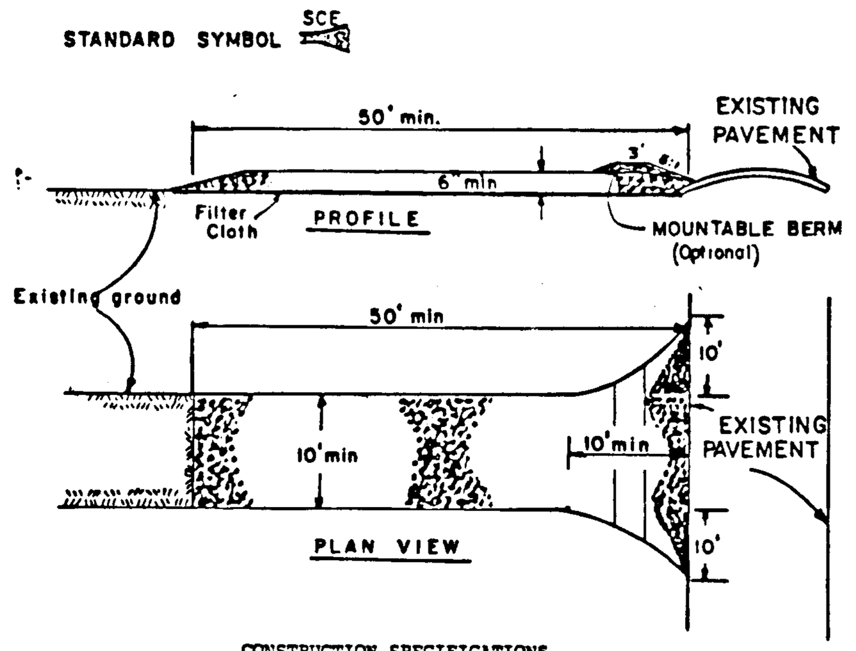
STABILIZED CONSTRUCTION ENTRANCE
not to scale

STANDARD SYMBOL SCE

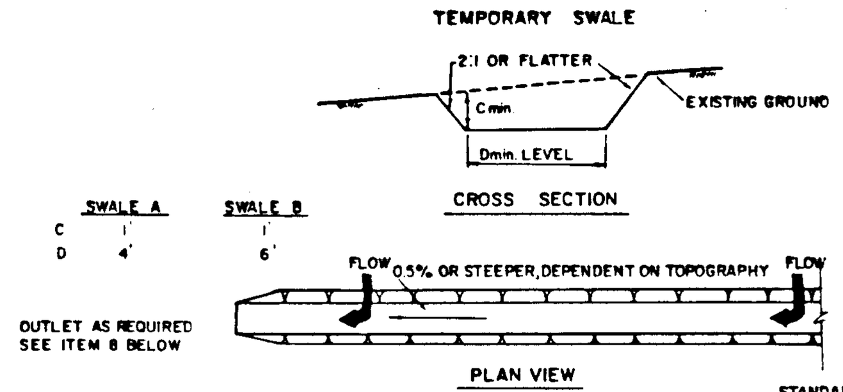


CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (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 entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment 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.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

TEMPORARY SWALE



CONSTRUCTION SPECIFICATIONS

1. All temporary swales shall have uninterrupted positive grade to an outlet.
2. Diverted runoff from a disturbed area shall be conveyed to a sediment trapping device.
3. Diverted runoff from an undisturbed area shall outlet directly into an undisturbed stabilized area at non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.
5. The swale shall be excavated or shaped to line, grade, and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fills shall be compacted by earth moving equipment.
7. All earth removed and not needed on construction shall be placed so that it will not interfere with the functioning of the swale.
8. Stabilization shall be as per the chart below:

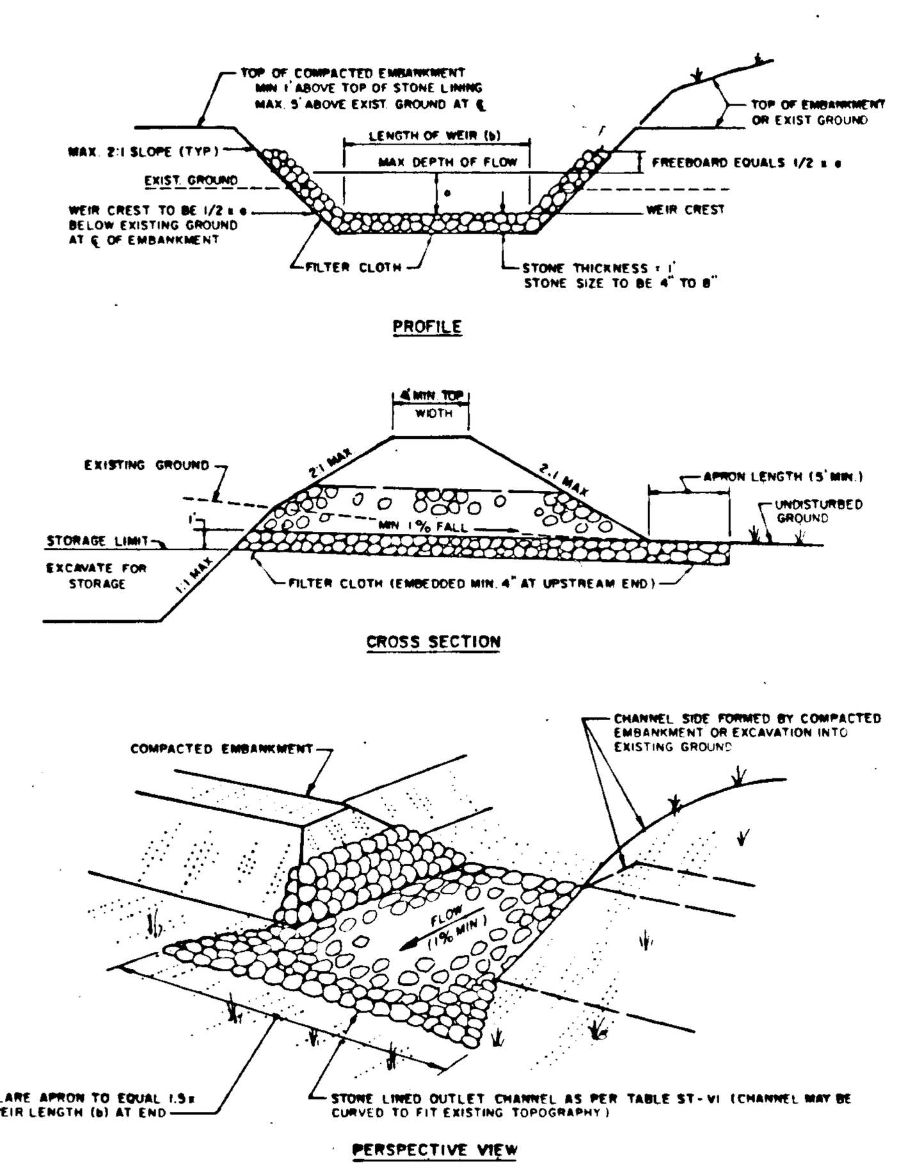
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC OR LESS)	B (5 AC - 10 AC)
1	0.5-3.0%	Seed and Straw Mulch	Seed and Straw Mulch
2	3.1-5.0%	Seed and Straw Mulch	Seed using Jute or Excelsior
3	5.1-8.0%	Seed with Jute or Excelsior; Sod	Lined Rip-Rap 4-8" Recycled Concrete Equivalent
4	8.1-20%	Lined 4-8" Rip-Rap	Engineered Design

9. Periodic inspection and required maintenance must be provided after each rain event.

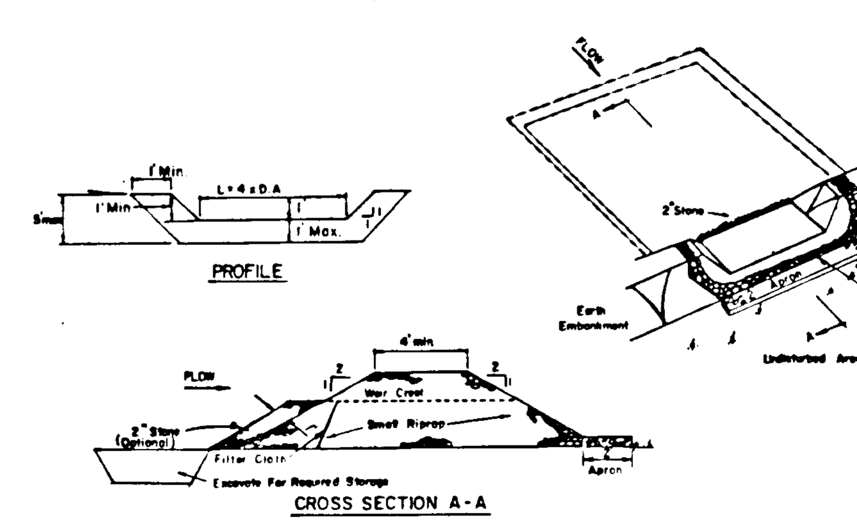
TEMPORARY SWALE DETAIL

RIPRAP OUTLET SEDIMENT TRAP ST-VI



RIPRAP OUTLET SEDIMENT TRAP DETAIL

STONE OUTLET SEDIMENT TRAP V



OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

CONSTRUCTION SPECIFICATIONS FOR ST-V

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small riprap 4"-8" along with a 1' thickness of 2" aggregate placed on the up-grade side on the small riprap on embedded filter cloth in the riprap.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner than erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

STONE OUTLET SEDIMENT TRAP DETAIL

SEDIMENT CONTROL NOTES

1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits pror to the start of any construction. (992-2437)
2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3) Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chaper 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52.) Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector
7) Site Analysis:
   - Total Area of Site 12.79 Acres
   - Area Disturbed 2.33 Acres
   - Area to be roofed or paved 1.97 Acres
   - Area to be vegetatively stabilized 10.82 Acres
   - Total Cut NA Cu. yds
   - Total Fill NA Cu. yds
   - Offsite waste/borrow area location NA
8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

SEDIMENT CONTROL NOTES

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. NOTIFY THE DPW SEDIMENT CONTROL INSPECTOR FOR HOWARD COUNTY 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
3. REFER TO APPROVED GP 86-40, FOR SEDIMENT CONTROL DEVICES THAT ARE TO BE MAINTAINED DURING CONSTRUCTION OF THIS CONTRACT.
4. FOR PROPOSED IMPROVEMENTS ALONG OLD DRAGON PATH, MAYDEW MEWS WAY AND BROKEN LUTE WAY:
   - A. PRIOR TO BEGINNING WORK ON OLD DRAGON PATH, MAYDEW MEWS WAY AND BROKEN LUTE WAY, PERIMETER CONTROLS, TRAPS, SWALES, SILT FENCES AND EARTH DIKES INDICATED TO BE INSTALLED UNDER CONTRACT GP 86-40 FOR PARCEL 'D' SHALL BE IN PLACE. MODIFICATIONS TO EXISTING DEVICES AND THE INSTALLATION OF NEW DEVICES, SHALL BE PERFORMED AS SHOWN ON SHEET 6 OF 7 OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR.
   - B. INSTALL PROPOSED STORM DRAINAGE. PROTECT PROPOSED INLETS AND PIPES FROM RECEIVING STORMWATER UNTIL ALL DISTURBED AREAS ARE STABILIZED.
   - C. PERFORM GRADING OPERATIONS AND STABILIZE ALL DISTURBED AREAS NOT TO BE PAVED.
   - D. **CONSTRUCT CURB & GUTTER AND PAVE ROADS. MAINTAIN TEMPORARY SWALES ON ALL ROADS W/CURB OPENING UNTIL THE DRAINAGE AREAS ARE COMPLETELY STABILIZED.**
5. STABILIZE ALL INACTIVE BUT DISTURBED OR FINISHED GRADED AREAS WITHIN 14 DAYS. CONTRACTOR SHALL STABILIZE SUCH AREAS IN ACCORDANCE WITH THE TEMPORARY OR PERMANENT SEEDING NOTES AS APPROPRIATE.
6. UPON STABILIZATION OF ALL DISTURBED AREAS AND AUTHORIZATION BY THE SEDIMENT CONTROL INSPECTOR, REMOVE REMAINING SEDIMENT CONTROL DEVICES.

TEMPORARY SEEDING

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

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

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

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2½ bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1½ to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

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

PERMANENT SEEDING

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

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

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

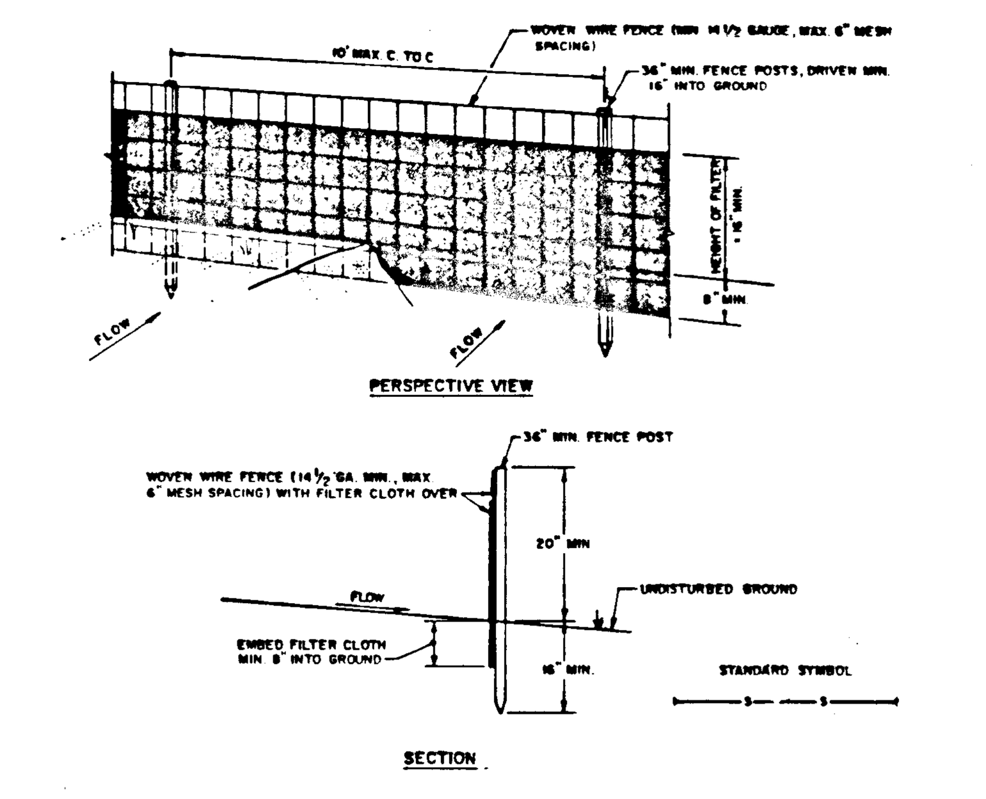
1. Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Barrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
2. Acceptable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

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

Mulching - Apply 1½ to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft. or higher, use 348 gals. per acre (8 gal/1000 sq ft) for anchoring.

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

SILT FENCE



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
4. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

POSTS: Steel either T or U type or 2" hardwood

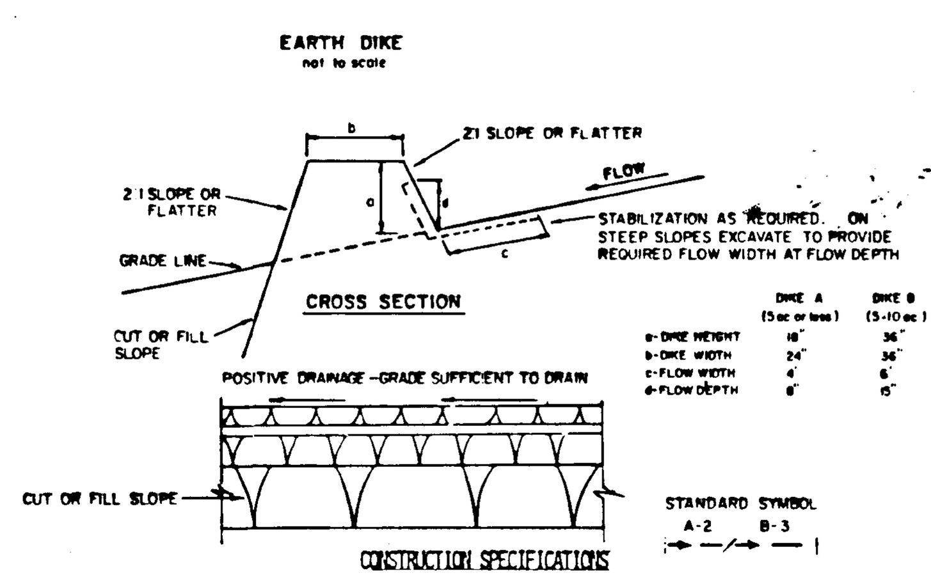
FENCE: Woven wire, 14 Ga. 6" Max. Mesh Opening

FILTER CLOTH: Filter X, Mirafi 100X, Stabilinka T140N or Approved Equal

PREFABRICATED UNIT: Geofab, Envirofence, or Approved Equal.

SILT FENCE DETAIL

EARTH DIKE
not to scale



	DIKE A (5 ac or less)	DIKE B (5-10 ac)
a-DIKE HEIGHT	18"	36"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	8"	15"

STANDARD SYMBOL A-2 B-3

CONSTRUCTION SPECIFICATIONS

1. All dikes shall be compacted by earth-moving equipment.
2. All 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. Earth 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 where either the dike channel or the drainage area above the dike are not adequately stabilized.
6. Stabilization shall be: (A) in accordance with standard specifications for seed and straw mulch or straw mulch if not in seeding season, (B) flow channel as per the chart below.

FLOW CHANNEL STABILIZATION

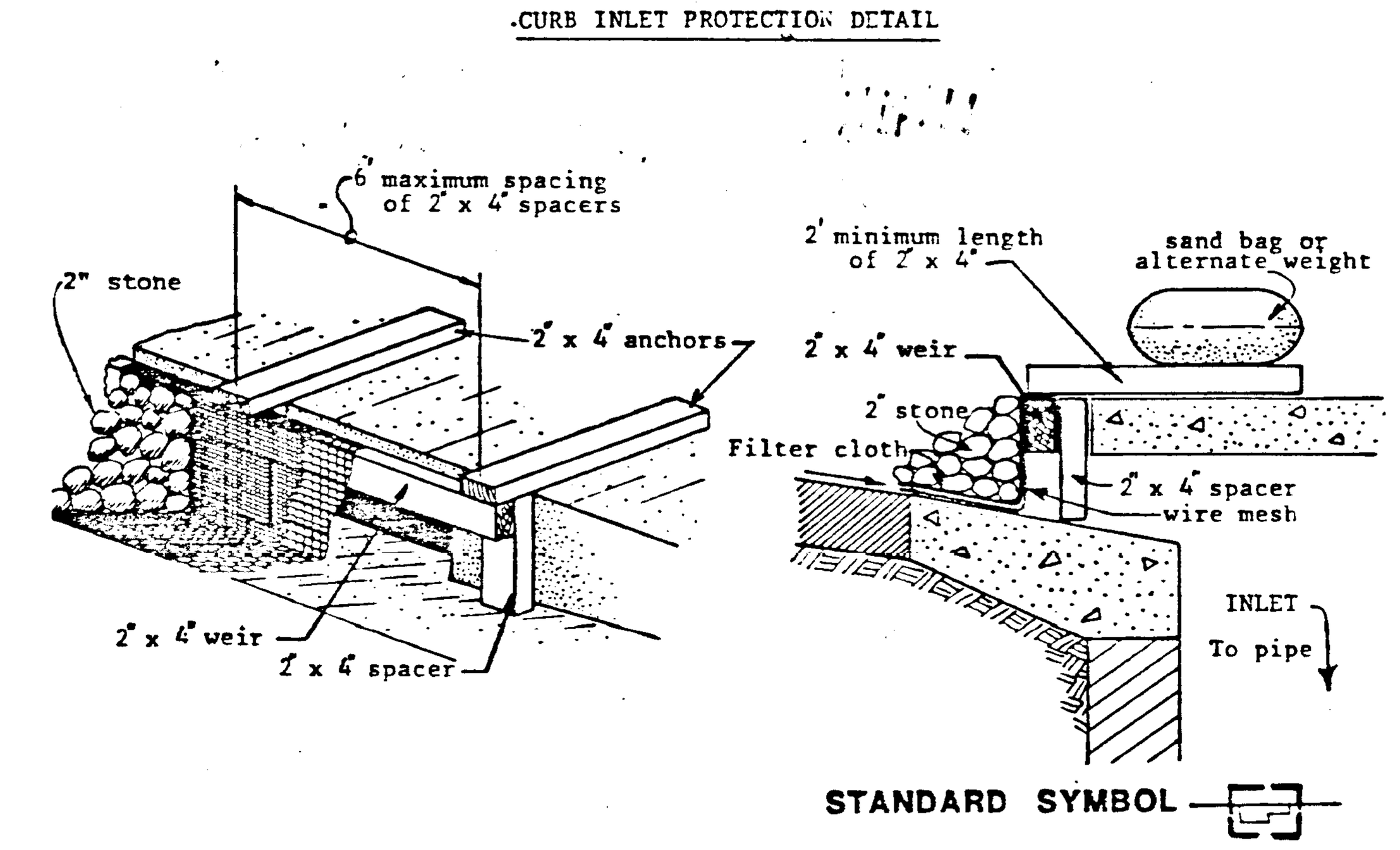
TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	.5-3.0%	Seed and Straw Mulch	Seed and Straw Mulch
2	3.1-5.0%	Seed and Straw Mulch	Seed using Jute, or Excelsior; Sod; 2" Stone
3	5.1-8.0%	Seed with Jute, or Sod; 2" Stone	Lined Rip-Rap 4-8"
4	8.1-20%	Lined Rip-Rap 4-8"	Engineering Design

A. Stone to be 2 inch stone, or recycled concrete equivalent, in a layer at least 3 inches in thickness and be pressed into the soil with construction equipment.
B. Rip-Rap to be 4-8 inches in a layer at least 8 inches thickness and pressed into the soil.
C. Approved equivalents can be substituted for any of the above materials.

7. Periodic inspection and required maintenance must be provided after each rain event.

EARTH DIKE DETAIL

CURB INLET PROTECTION DETAIL



STANDARD SYMBOL

INLET PROTECTION DETAIL

By the Developer:

"I/We certify that all development and construction will be done according to this plan, 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 Seidment and Erosion before beginning the project."

Gregory R. Klar 4-8-86
Signature of Developer Date
Gregory Klar

By the Engineer:

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."

James P. Krawczyk 4/8/86
Signature of Engineer Date
James P. Krawczyk

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements.

[illegible] 7-11-86
U.S. Soil Conservation Service Date

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

[illegible] 7/11/86
Howard S.C.D. Date

Date	No	Revision Description

OWNER AND DEVELOPER
COLUMBIA INDUSTRIAL DEVELOPMENT CORPORATION
C/O
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE COMPANY
10275 Little Patuxent Parkway
Columbia, Maryland 21044

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS • PLANNERS
32 WEST ROAD
TOWSON, MARYLAND 21204

DEPARTMENT OF PUBLIC WORKS
[illegible] 7-15-86
CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PLANNING AND ZONING
[illegible] 7-17-86
CHIEF, DIV. OF LAND DEVEL. AND ZONING ADM. DATE

4/8/86
Date

STATE OF MARYLAND
JAMES PAUL KRAWCZYK
NO. 6906
REGISTERED
PROFESSIONAL ENGINEER

James P. Krawczyk
Professional Engr. No. 6906

AREA DORSEY HALL
SECTION 2-AREA 2 TAX MAP 30-PART OF PARCEL 12
2nd ELECTION DISTRICT OF HOWARD COUNTY, MD.

TITLE
EROSION & SEDIMENT CONTROL DETAILS
DORSEY HALL - PARCEL 'D'

Des By G.B.Z.	Scale: NO SCALE	Proj No 85-0118
Drn By G.B.Z.	Date 2-20-86	Drawing No. 7 OF 7
Chk By J.P.K.	Approved	

F-86-164

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