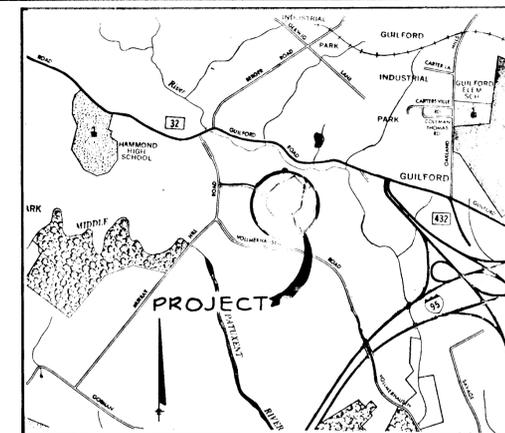


SHEET INDEX

NO	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE - CLOCKTOWER LANE
3	PROFILE AND DETAILS
4	STORM DRAIN PROFILES AND DETAILS
5	DRAINAGE AREA MAP
6	MASS GRADING PLAN & SEDIMENT CONTROL PLAN
7	SEDIMENT CONTROL DETAILS

ROADWAY, STORM DRAIN & STORM WATER MANAGEMENT LOTS D-2 THROUGH D-69 VILLAGE OF KINGS CONTRIVANCE SECTION 3, AREA 1 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

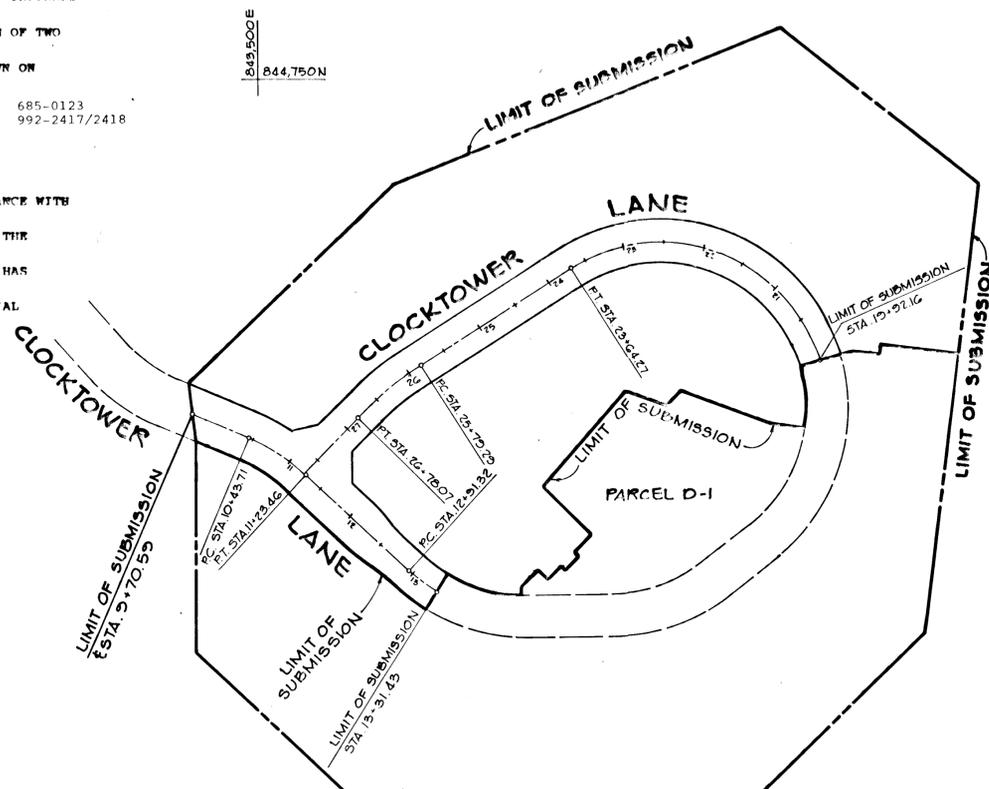


VICINITY MAP
Scale: 1" = 2000'

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.

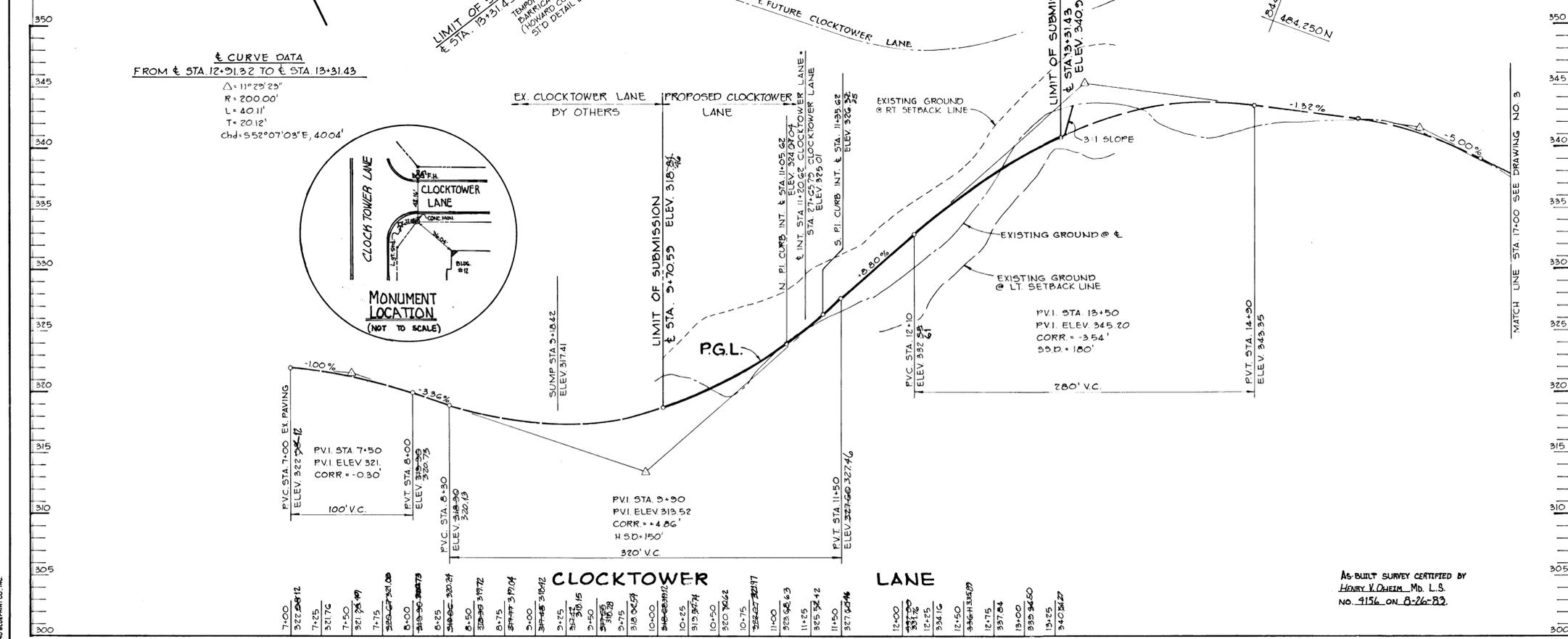
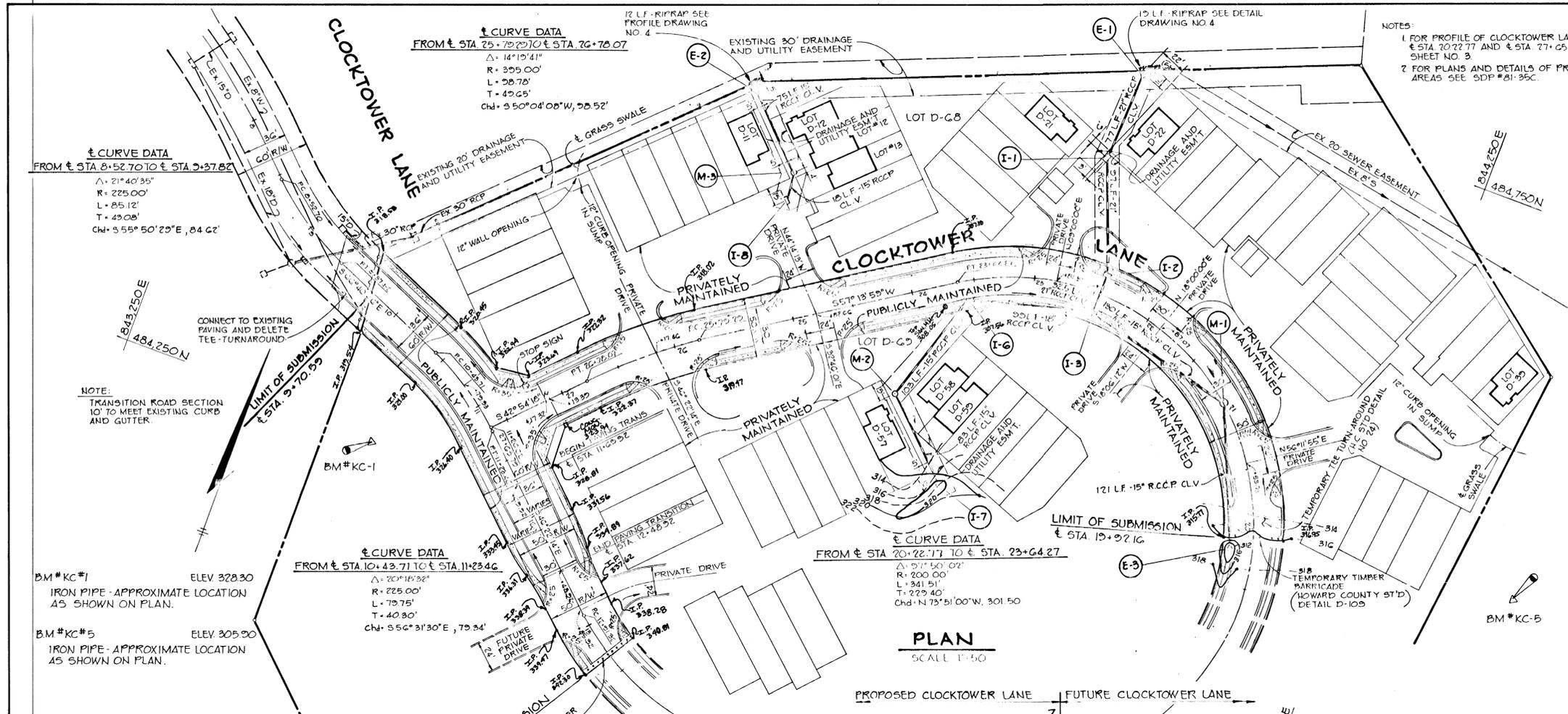
C & P TELEPHONE COMPANY	725-9976	BALTIMORE GAS AND ELECTRIC COMPANY	685-0123
HOWARD COUNTY BUREAU OF UTILITIES	992-2366	HOWARD COUNTY CONSTRUCTION/INSPECTION	992-2417/2418
AT&T CABLE LOCATION DIVISION	393-3553	SURVEY DIVISION	
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL STREET CURB RETURNS SHALL HAVE 35.0' RADII UNLESS OTHERWISE NOTED.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1971 EDITION.
- 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.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:
 ALL 60' RIGHT-OF-WAY'S AND 50' RIGHT-OF-WAY'S 30 M.P.H. (CREST CURVES)
 25 M.P.H. (SUMMIT CURVES)
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G. S. MEAN SEA LEVEL DATUM 1929.
- ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED AS PER HOWARD COUNTY CONSTRUCTION CODE.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- STORM WATER MANAGEMENT AND SEDIMENT CONTROL FACILITIES FOR THE SUBJECT PROPERTY PROVIDED BY OTHERS UNDER "F-79-44c", VILLAGE OF KINGS CONTRIVANCE, SECTION 3, AREA 1, POND NO. 3.
- SUBJECT PROPERTY ZONED N.T. PER 10-03-77 COMPREHENSIVE ZONING PLAN.
- FOR BENCH MARKS SEE SHEET NO 2.



LOCATION MAP
SCALE: 1" = 100'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>William C. Relyea</i>	12-31-80 DATE
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING	
<i>Phillip M. Hanson</i>	12-31-80 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	
12-8-80	REVISOR AS PER H.C. COMMENTS DATED 12-1-80
10-21-80	REVISOR AS PER H.C. COMMENTS DATED 9-2-80
DATE	NO. REVISION
OWNER/DEVELOPER	
CHESAPEAKE HOMES INC. 7133 RUTHERFORD ROAD BALTIMORE, MARYLAND 21207	
PROJECT:	
VILLAGE OF KINGS CONTRIVANCE SECTION 3, AREA 1 LOTS D-2 THRU D-69	
AREA:	
TAX MAP NO 42 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE:	
TITLE SHEET	
Riemer - Tracy & Associates, Inc. 8659 Baltimore National Pike Essex City, Maryland 21043 (301) 461-2690 Land Planning, Design & Civil Engineering	
7-31-80 DATE	PARCEL 300
	DESIGNED BY: L.J.D.
<i>James K. Tracy</i>	DRAWN BY: T.E.S.
PROFESSIONAL ENGR. NO. 1166	PROJECT NO: 1879
DATE: 7-31-80	SCALE: 1" = 100'
DRAWING NO. 1 OF 7	DECEMBER 8, 1980

MAYLAND BLUEPRINT CO. INC.



TYPICAL HANDICAPPED RAMP
NO SCALE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING <i>John W. Marshall</i> 12-18-80 CHIEF, DIVISION OF LAND DEVELOPMENT DATE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS <i>W. Edwin S. Rely</i> 12-31-80 CHIEF, BUREAU OF ENGINEERING DATE	
12-8-80	REVISD AS PER HC COMMENTS DATED 12-1-80
10-21-80	REVISD AS PER HC COMMENTS DATED 9-2-80
DATE	NO. REVISION
OWNER/DEVELOPER CHESAPEAKE HOMES INC. 7133 RUTHERFORD ROAD BALTIMORE, MARYLAND 21207	
PROJECT VILLAGE OF KINGS CONTRIVANCE SECTION 3, AREA 1 LOTS D-2 THRU D-23	
AREA TAX MAP NO. 42 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE PLAN AND PROFILE OF CLOCKTOWER LANE	
 Riemer-Tracy & Associates, Inc. 8659 Baltimore National Pike Ellicott City, Maryland 21043 (301) 461-2690 Land Planning, Design & Civil Engineering	
DATE 12-31-80	PARCEL 300
DESIGNED BY: L.J.D.	
DRAWN BY: T.E.S.	
PROJECT NO: 1073	
DATE: 7-31-80	
SCALE: AS SHOWN	
DRAWING NO. 7 OF 7	

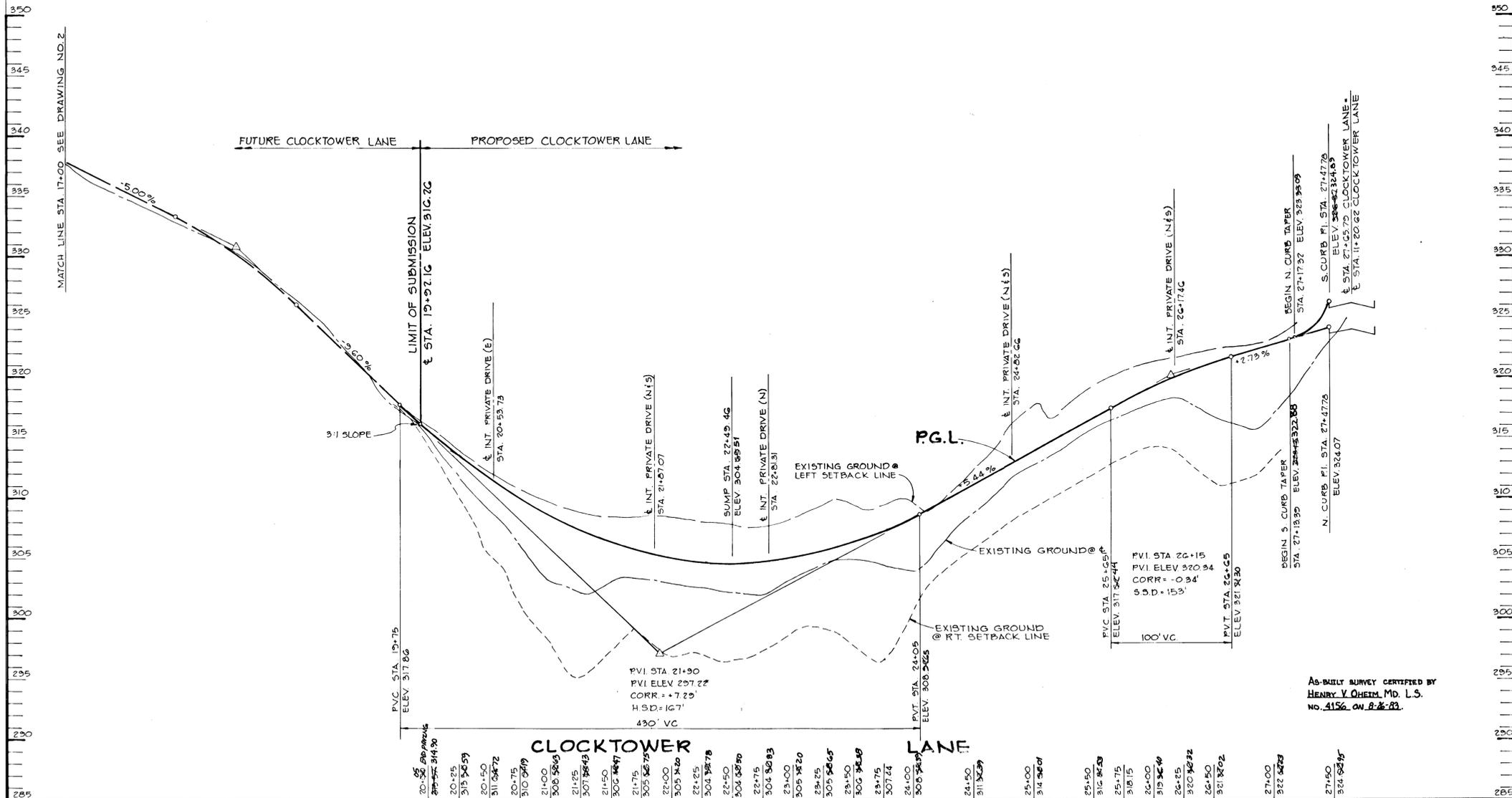
AS-BUILT 8-26-83

F-81-13

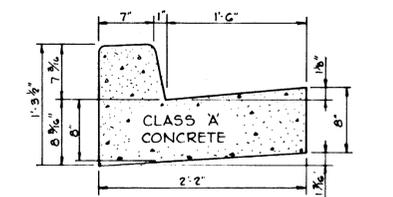
DECEMBER 8, 1980

MAYLAND BLUEPRINT CO., INC.

44.5



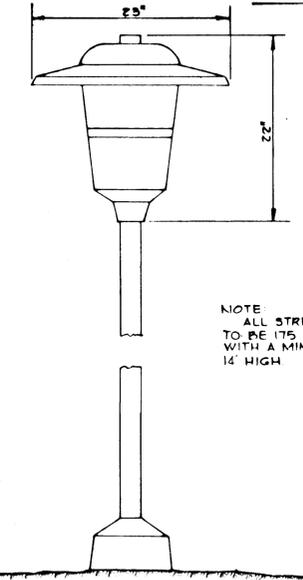
AS-BUILT SURVEY CERTIFIED BY
HENRY V. OHELY, MD. L.S.
NO. 4156 ON 8-26-83



HOWARD COUNTY STANDARD (DRAWING D-40, PAGE 96)

STANDARD 7" COMB. CURB AND GUTTER

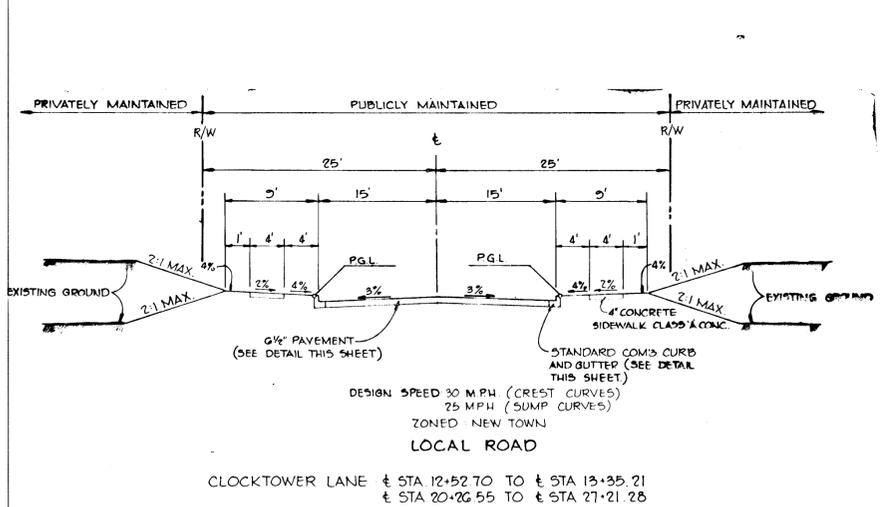
NO SCALE



NOTE
ALL STREET LIGHT FIXTURES
TO BE 175 WATT MERCURY TYPE
WITH A MINIMUM OF 1,700 LUMEN,
14' HIGH

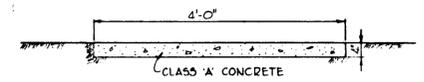
DETAIL - LIGHTING FIXTURE

NO SCALE



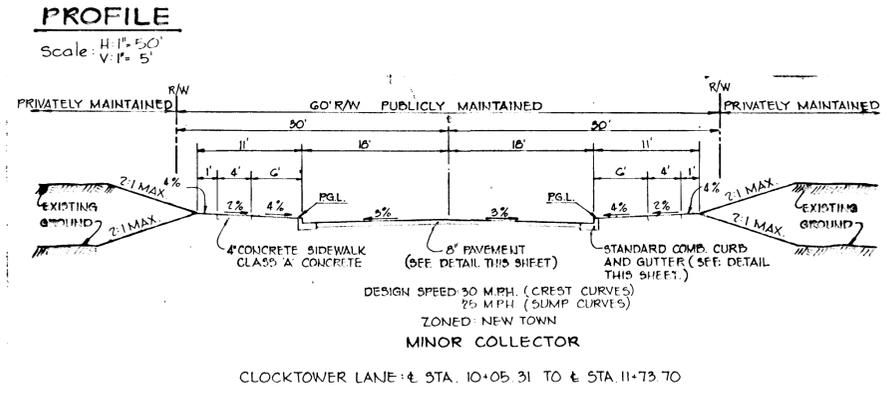
TYPICAL SECTION 50' R/W

NO SCALE



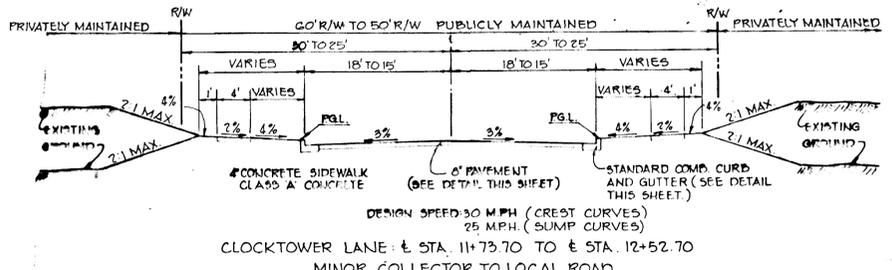
SIDEWALK DETAIL

NO SCALE



TYPICAL SECTION 60' R/W

NO SCALE



TYPICAL TRANSITION SECTION

NO SCALE

BITUMINOUS CONCRETE SURFACE (BAND C-3)	1 1/2"
BITUMINOUS CONCRETE BINDER (BAND A-3)	1 1/2"
BITUMINOUS CONCRETE BASE (BAND C-2 OR G-5)	2"

HOWARD COUNTY STANDARD (DRAWING D-113, PAGE 165 C)

CLEARING AND GRADING	ARTICLE C-1
SUBGRADE	ARTICLE C-2
BASE COURSE	ARTICLE C-31 OR C-35
BINDER COURSE	ARTICLE C-31
SURFACE COURSE	ARTICLE C-31

(8" PAVING)

BITUMINOUS CONCRETE SURFACE (BAND C-3)	1 1/2"
BITUMINOUS CONCRETE BASE (PLACE IN ONE COURSE)	1 1/2"

HOWARD COUNTY STANDARD (DRAWING D-114, PAGE 165 d)

CLEARING AND GRADING	ARTICLE C-1
SUBGRADE	ARTICLE C-2
BASE COURSE	ARTICLE C-35
SURFACE COURSE	ARTICLE C-31

6 1/2" PAVEMENT

- NOTES:
- A TACK COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-31-4 OF THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.
 - BASE WILL BE PRIMED IN ACCORDANCE WITH SECTION C-30-5 OF THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.
 - TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.

TYPICAL PAVING SECTIONS

SCALE: 1" = 5'

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Shelley M. ... 12-18-80
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. ... 12-31-80
DATE

12-8-80 Δ REVISED AS PER H.C. COMMENTS DATED 12-1-80
10-21-80 Δ REVISED AS PER H.C. COMMENTS DATED 5-2-80
DATE NO REVISION

OWNER/DEVELOPER
CHESAPEAKE HOMES INC.
7133 RUTHERFORD ROAD
BALTIMORE, MARYLAND 21207

PROJECT:
VILLAGE OF KINGS CONTRIVANCE
SECTION 3, AREA 1 LOTS D-2 THRU D-60

AREA TAX MAP NO. 42
GTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

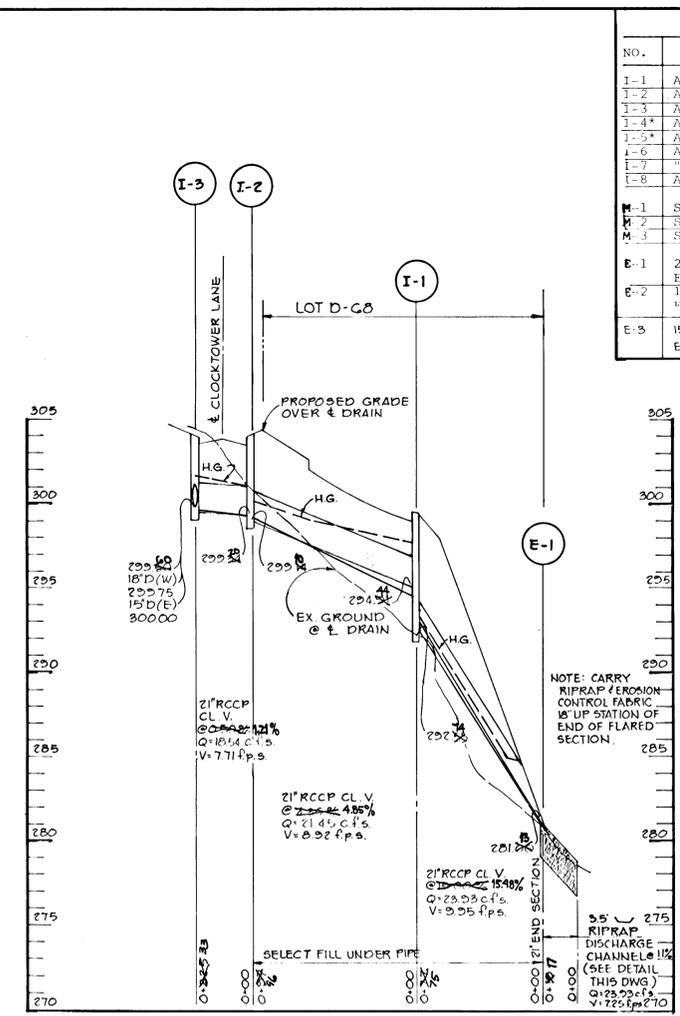
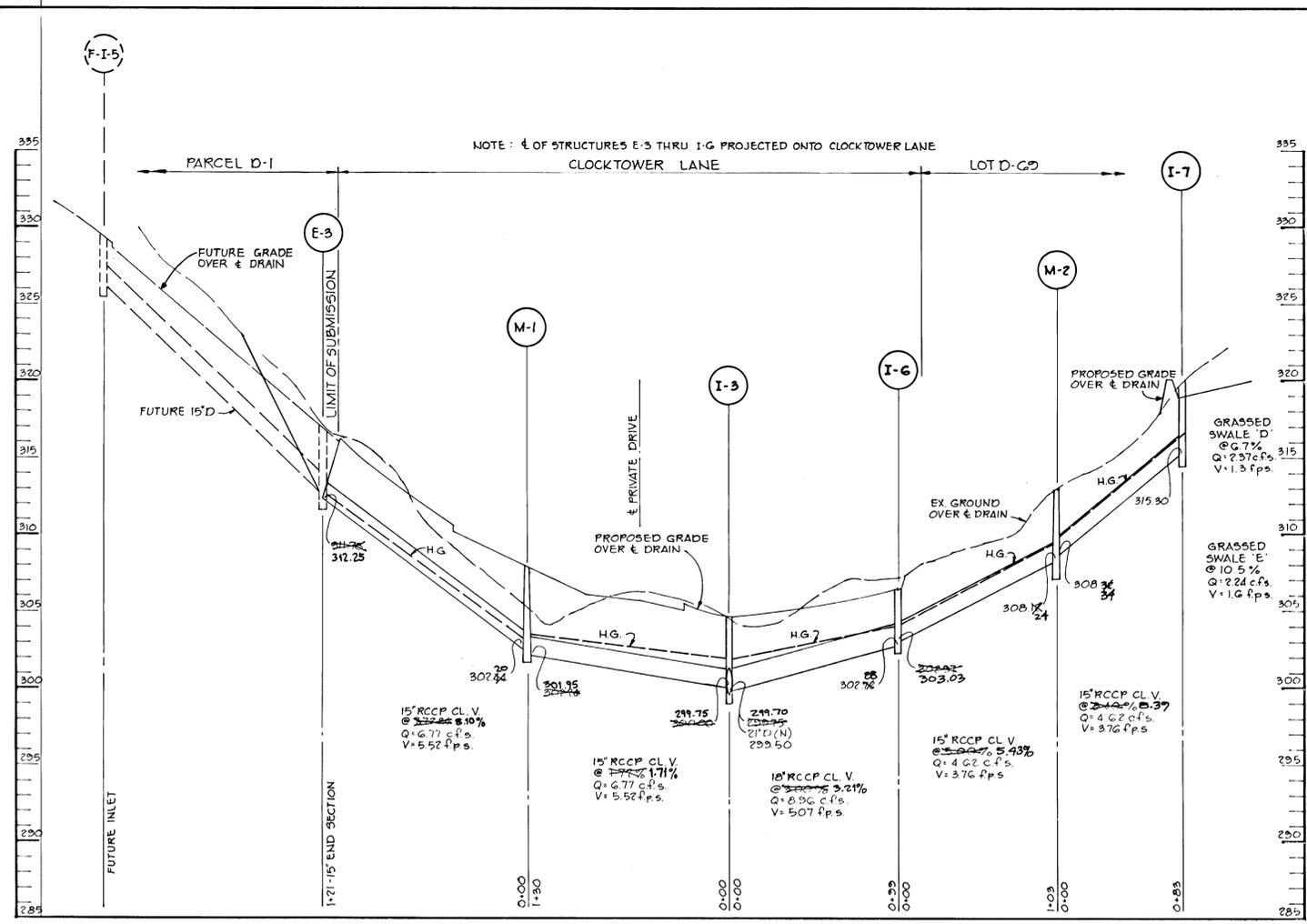
TITLE:
PROFILE OF CLOCKTOWER LANE AND DETAILS

Riemer, Tracy & Associates, Inc.
8659 Baltimore National Pike
Ellicott City, Maryland 21043
(301) 461-2690
Land Planning, Design & Civil Engineering

7-31-80
PARCEL 300
DESIGNED BY: L.J.D.
DRAWN BY: T.E.S.
PROJECT NO: 1879
DATE: 7-31-80
SCALE: AS SHOWN
DRAWING NO. 3 OF 7

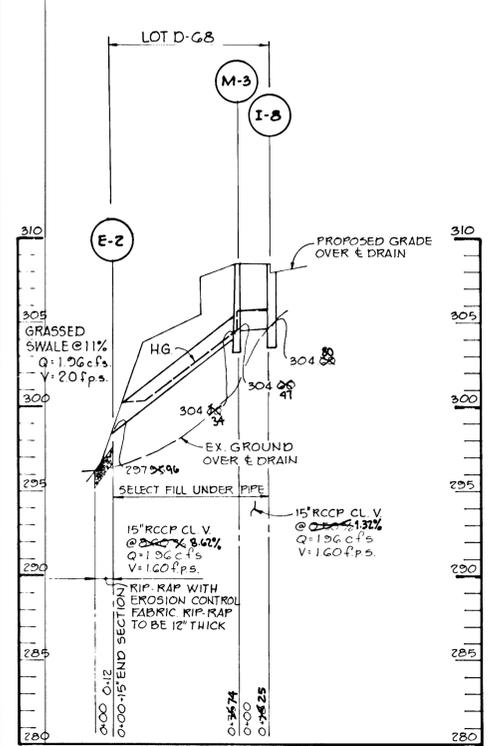
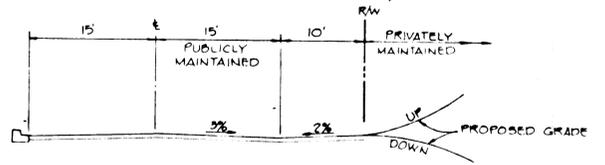
AS-BUILT 8-26-83

F-81-13 DECEMBER 8, 1980

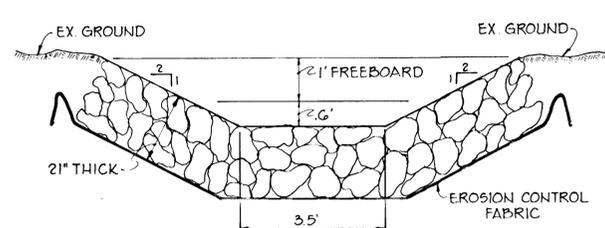


STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	REMARKS
I-1	A-5	SEE PLAN	294.54	292.57	299.06	H.C. STD. 64-A
I-2	A-5	Sta. 22+49.46 15' Lt.	299.50	299.50	304.55	H.C. STD. 64-A
I-3	A-5	Sta. 22+49.46 15' Lt.	299.50	299.50	304.55	H.C. STD. 64-A
I-4	A-5 w/Defltns	-	-	-	-	FUTURE
I-5	A-5 w/Defltns	-	-	-	-	FUTURE
I-6	A-5	Sta. 23+55 15' Lt.	309.07	302.88	306.73	H.C. STD. 64-A
I-7	"C"	SEE PLAN	-	-	315.30	H.C. STD. 64-A
I-8	A-5	SEE PLAN	-	-	304.80	H.C. STD. 64-A
M-1	Shallow Mnhl.	Sta. 21+15 @ E	302.86	301.95	307.85	SEE DETAIL
M-2	Shallow Mnhl.	SEE PLAN	308.24	308.24	312.69	SEE DETAIL
M-3	Shallow Mnhl.	SEE PLAN	304.24	304.24	308.22	SEE DETAIL
E-1	21" Conc. End Sect.	SEE PLAN	281.03	-	283.17	Flared Outlet
E-2	15" Conc. End Sect.	SEE PLAN	297.06	-	299.06	Flared Outlet
E-3	15" Conc. End Sect.	STA 19+52 LG	-	312.75	313.75	Flared Inlet (Temporary)

NOTE: ALL STORM DRAIN PIPE HAS CLASS 'C' BEDDING UNLESS OTHERWISE NOTED



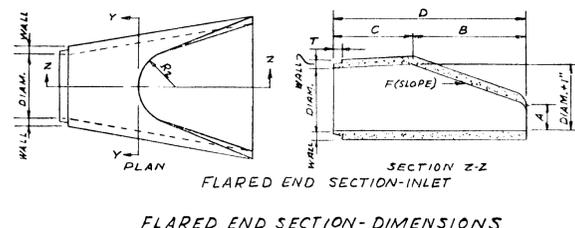
PROFILES
SCALE: HGS. 1"=5'
VERT. 1"=5'



NOTE: RIPRAP SHALL CONSIST OF DENSE ROCKS OF RANDOM SHAPE RESISTANT TO THE ACTION OF AIR AND WATER. 50% OF ROCKS, BY VOLUME, SHALL HAVE A MINIMUM WEIGHT OF 150 LB.

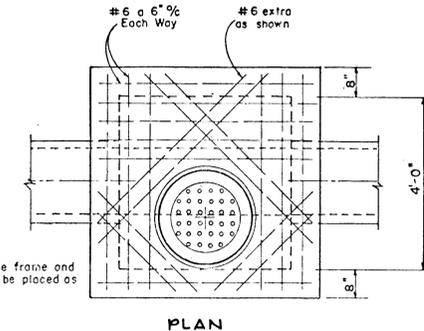
Q: 23.53
n: 0.035
b: 3.5'
z: 2
s: 11%

RIPRAP DISCHARGE CHANNEL @ E-1
NO SCALE

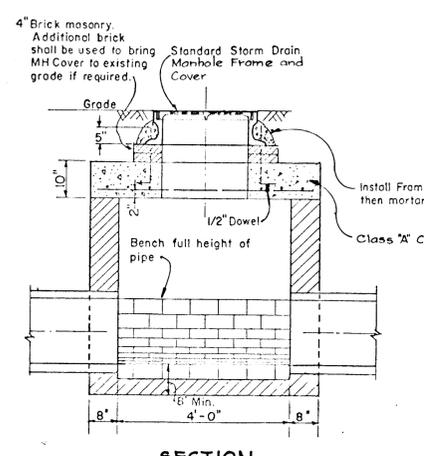


DIAM.	WALL	A	B	C	D	E	F	P	R ₁	R ₂	T
15"	2 1/4"	7"	27"	46"	73"	30"	3:1	24.45	12.23	11"	2"
21"	2 3/4"	10"	36"	57"	72"	42"	3:1				2 3/4"

TYPICAL CONCRETE END SECTION
NO SCALE



Note: Manhole frame and cover to be placed as shown.



Notes:
1. Walls, bottom slab and invert shall be brick or plain Class "A" Concrete poured in place.
2. Apply two coats of a Waterproof Bitumastic Compound over cement mortar.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Howard County 12-31-80
H.C. BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. McArthur 12-18-80
CHIEF, DIVISION OF LAND DEVELOPMENT

12-8-80 REVISD AS PER H.C. COMMENTS DATED 12-1-80
10-21-80 REVISD AS PER H.C. COMMENTS DATED 9-2-80

DATE NO REVISION

OWNER/DEVELOPER
CHESAPEAKE HOMES INC.
7133 RUTHERFORD ROAD
BALTIMORE, MARYLAND 21207

PROJECT:
VILLAGE OF KINGS CONTRIVANCE
SECTION 3, AREA 1 LOTS D-2 THRU D-63

AREA
TAX MAP NO. 42
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE:
STORM DRAIN PROFILES AND DETAILS

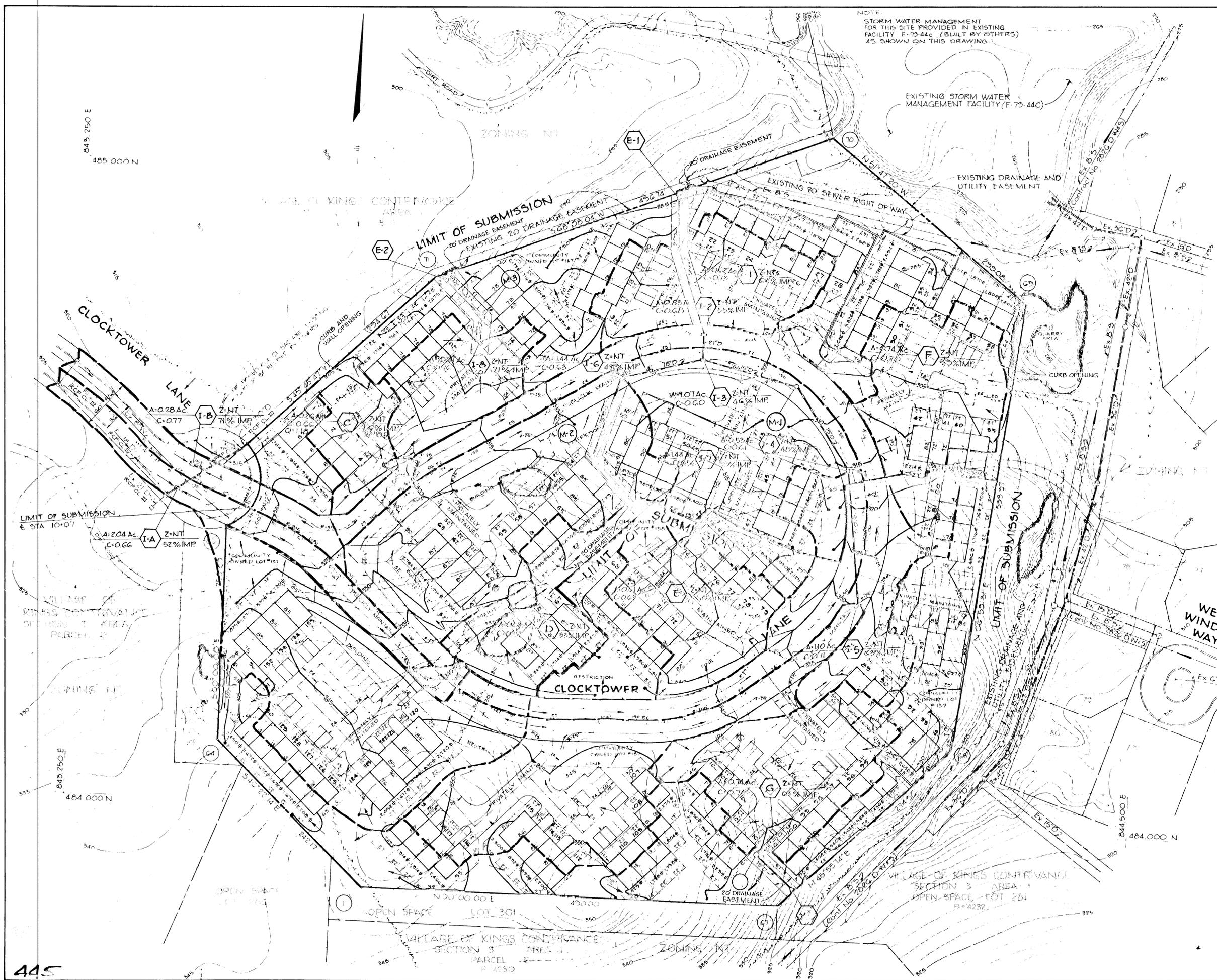
Riemer, Tracy & Associates, Inc.
8659 Baltimore National Pike
Ellicott City, Maryland 21045
(301) 461-2690
Land Planning, Design & Civil Engineering

7-31-80 DATE
STATE OF MARYLAND REGISTERED PROFESSIONAL ENGINEER

PARCEL 090
DESIGNED BY: J.K.T.
DRAWN BY: T.E.S.
PROJECT NO: 1873
DATE: 7-31-80
SCALE: AS SHOWN
DRAWING NO. 4 OF 7

AS-BUILT 8-26-83

8-1-83 DECEMBER 8, 1980



BY THE DEVELOPER:
 "I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL, AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."
 John Johnson 10/22/80
 DEVELOPER JOHN JOHNSON 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."
 James K. Tracy 10/22/80
 ENGINEER, JAMES K. TRACY DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
 James K. Tracy 11-17-80
 U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 William V. Rowe 11-17-80
 HOWARD S.C.D. DATE

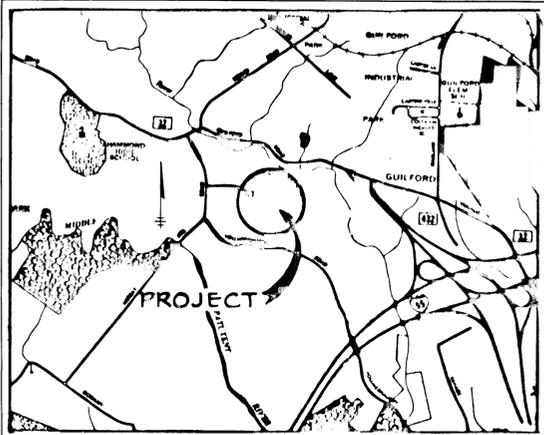
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING	
<i>William V. Rowe</i>	12-18-80
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>William E. Ray</i>	12-31-80
CHIEF, DEPT. OF PUBLIC WORKS	DATE
12-8-80	REVISD AS PER H.C. COMMENTS DATED 12-1-80
10-21-80	REVISD AS PER H.C. COMMENTS DATED 9-2-80
DATE	NO. REVISION
OWNER/DEVELOPER	
CHE SAPEAKE HOMES INC 733 RUTHERFORD ROAD BALTIMORE MARYLAND 21207	
PROJECT	
VILLAGE OF KINGS CONTRIVANCE SECTION 3, AREA 1 LOTS D-2 THRU D-60	
AREA	TAX MAP NO. 47 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	
DRAINAGE AREA MAP	
 Riemer-Tracy & Associates, Inc. Land Planning, Design & Engineering	
7-31-80	DATE
	
PARCEL 390	DESIGNED BY: RJW
1875	DRAWN BY: RJW
7-31-80	PROJECT NO:
1"=50'	DATE:
5 OF 7	SCALE:
11-566	DRAWING NO.:

AS-BUILT 8-26-83

F-81-13

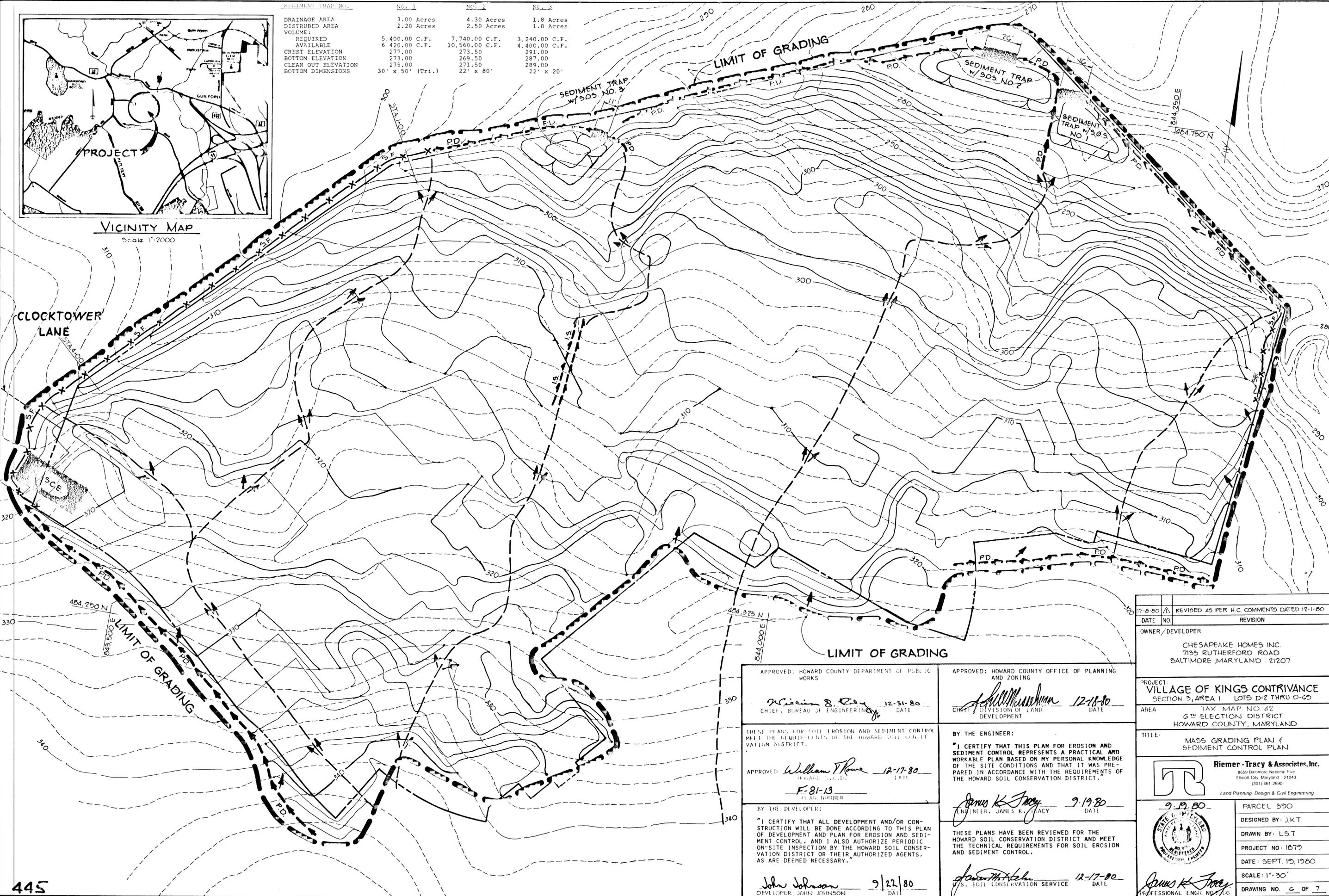
DECEMBER 8, 1980

445



VICINITY MAP
Scale 1"=2000

SEDIMENT TRAP NO.	NO. 1	NO. 2	NO. 3
DRAINAGE AREA	3.00 Acres	4.30 Acres	1.8 Acres
DISTRIBED AREA	2.20 Acres	2.50 Acres	1.8 Acres
VOLUME:			
REQUIRED	5,400.00 C.F.	7,740.00 C.F.	3,240.00 C.F.
AVAILABLE	6,420.00 C.F.	10,560.00 C.F.	4,400.00 C.F.
CREST ELEVATION	277.00	273.50	291.00
BOTTOM ELEVATION	273.00	269.50	287.00
CLEAN OUT ELEVATION	275.00	271.50	289.00
BOTTOM DIMENSIONS	30' x 50' (Tri.)	22' x 80'	22' x 20'



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William S. Row 12-31-80
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John M. ... 12-18-80
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *William T. Rowe* 12-17-80
 HOWARD S.C.D. DATE
 F-81-13 PLAN NUMBER

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 K. Tracy 9-19-80
 ENGINEER, JAMES K. TRACY DATE

BY THE DEVELOPER:
 "I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL, AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."
John Johnson 9/22/80
 DEVELOPER, JOHN JOHNSON DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
John M. ... 12-17-80
 S. SOIL CONSERVATION SERVICE DATE

12-8-80	REVISION AS PER H.C. COMMENTS DATED 12-1-80
DATE NO.	REVISION
OWNER/DEVELOPER	
CHESAPEAKE HOMES INC. 7133 RUTHERFORD ROAD BALTIMORE, MARYLAND 21207	
PROJECT:	
VILLAGE OF KINGS CONTRIVANCE SECTION 2, AREA 1 LOTS D-2 THRU D-63	
AREA	
TAX MAP NO. 42 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE:	
MASS GRADING PLAN & SEDIMENT CONTROL PLAN	
 Riemer-Tracy & Associates, Inc. 8659 Baltimore National Pike Ellicott City, Maryland 21043 (301) 461-2690 Land Planning, Design & Civil Engineering	
9-19-80	PARCEL 390
DESIGNED BY: J.K.T.	
DRAWN BY: L.S.T.	
PROJECT NO: 1879	
DATE: SEPT. 19, 1980	
SCALE: 1"=30'	
DRAWING NO. 6 OF 7	

AS-BUILT 8-26-83

F-81-13 DECEMBER 8, 1980

MATLAND BLUEPRINT CO. INC.

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SEDIMENT CONTROL CONSTRUCTION NOTES
GENERAL NOTES

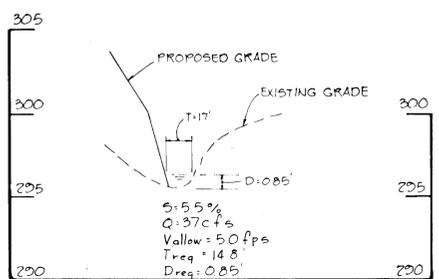
1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (922-2070).
2. ALL SEDIMENT CONTROL STRUCTURES WILL BE INSTALLED IN ACCORDANCE WITH "THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS" AS PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.
3. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
4. ALL DISTURBED AREAS ARE TO BE DRESSED AND STABILIZED ACCORDING TO THE TEMPORARY OR PERMANENT SEEDING SCHEDULES AS SOON AS PROPER WEATHER CONDITIONS EXIST FOR THE ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER.
5. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN THE DEPTH REACHES THE CLEAN OUT ELEVATION SHOWN ON THE PLANS.
6. FERTILIZER AND LIME RATES MAY BE CHANGED THROUGH AUTHORIZATION BY THE HOWARD SOIL CONSERVATION DISTRICT IF SOIL TESTS DETERMINE A REDUCTION IN THE SPECIFIED RATES IS JUSTIFIED.
7. 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.
8. REFERENCES CALLED FOR ON THE SEDIMENT CONTROL CONSTRUCTION PLAN AND DETAILS ARE MADE TO "THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS".
9. NO STORM DRAINS SHALL BE INSTALLED UNDER THIS CONTRACT.
10. SEDIMENT CONTROL WILL BE INSTALLED BEFORE CLEARING AND GRUBBING REMAINDER OF SITE.

TEMPORARY SEEDING

- AREA TO BE SEEDDED SHALL BE RECENTLY LOOSENEED. IF THE GROUND IS PACKED, CRUSTED OR HARD, THE TOP LAYER OF SOIL SHALL BE LOOSENEED BY DISCING, RACKING OR OTHER ACCEPTABLE MEANS.
- A. APPLY 10-20-10 FERTILIZER (OR EQUIVALENT) AT THE RATE OF 600 LBS. PER ACRE OR 15 LBS. PER 1000 SQ. FT.
 - B. WHERE SOIL IS KNOWN TO BE HIGHLY ACID, APPLY DOLOMITIC LIMESTONE AT THE RATE OF 1 TON PER ACRE.
 - C. WORK BOTH INTO SOIL AND SEED WITH CYCLONE SEEDER, DRILL, CULTIPAKER SEEDER OR HYDROSEEDER (SLURRY WILL INCLUDE SEED AND FERTILIZER) AT THE RATE OF 40 LBS. PER ACRE OF ITALIAN OR PERENNIAL RYEGRASS.
 - D. MULCH WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE AND ANCHOR WITH A CUTBACK ASPHALT OR EMULSIFIED ASPHALT AT THE RATE OF 5 GAL. PER 1000 SQ. FT.

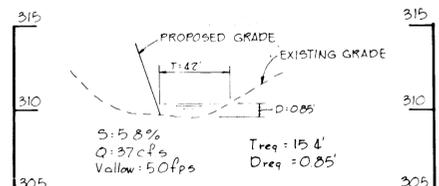
PERMANENT SEEDING

- FINAL STABILIZATION WILL TAKE PLACE AS SOON AS POSSIBLE AS WEATHER CONDITIONS PERMIT, AS FOLLOWS:
- A. APPLY DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE (ONE TON PER ACRE IF APPLICATION OF TON PER ACRE WAS MADE FOR TEMPORARY SEEDING).
 - B. APPLY 0-20-20 FERTILIZER AT THE RATE OF 600 LBS. PER ACRE HARROW OR DISC LIME AND 0-20-20 FERTILIZER INTO THE SOIL TO A MINIMUM DEPTH OF 3" LAWNS OR HIGH MAINTENANCE AREAS WILL BE DRAGGED AND LEVELED WITH A YORK RAKE. AT THE TIME OF SEEDING APPLY 400 POUNDS OF 38-0-0 UREAFORM FERTILIZER AND 500 LBS. OF 10-20-20 OR EQUIVALENT FERTILIZER PER ACRE.
 - C. SEED WITH A MIXTURE OF CERTIFIED "MERION" KENTUCKY BLUEGRASS - 40 LBS. PER ACRE; COMMON KENTUCKY BLUEGRASS @ 40 LBS. PER ACRE; RED FESCUE, PENNLAWN OR JAMESTOWN @ 20 LBS. PER ACRE.
 - D. MULCH WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE AND ANCHOR WITH CUTBACK ASPHALT OR EMULSIFIED ASPHALT AT THE RATE OF 5 GAL. PER 1000 SQ. FT.
 - E. SEED ALL SLOPES WITH A MIXTURE OF CERTIFIED KENTUCKY 31 TALL FESCUE @ 50 LBS. PER ACRE AND INOCULATED KOREAN LESPEDEZA @ 15 LBS. PER ACRE.
 - F. SEED SWALE SLOPE ALONG NORTH PROPERTY LINE WITH A "HIGH RATE SEEDING MIXTURE" OF "KENTUCKY 31" TALL FESCUE (270-260 LBS./ACRE).



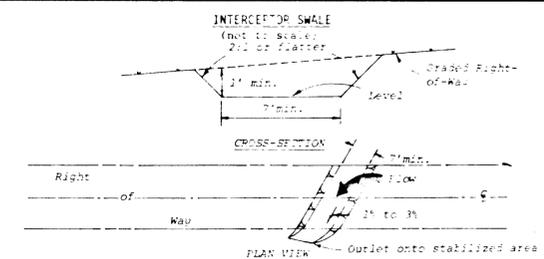
STA. 1+00

SCALE H 1"=50'
V 1"=5'



STA. 4+00

SCALE H 1"=50'
V 1"=5'



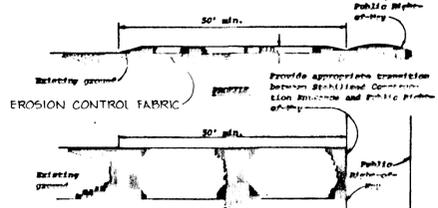
INTERCEPTOR SWALE

- Construction Specifications
1. 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.
 2. 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.
 3. Fills shall be compacted as needed to prevent unequal settlement that would cause damage in the complete swale.
 4. All earth removed and not needed in construction shall be spread or disposed of so that it will not interfere with the functioning of the swale.
 5. Interceptor swales shall have a minimum grade of one percent and the bottom shall be level.
 6. An interceptor swale shall have an outlet that functions with a minimum of erosion.
 7. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin.
 8. The on-site location may need to be adjusted to meet field conditions in order to utilize the most suitable outlet.
 9. Stabilization shall be: (1) in accordance with the Standard and Specifications for Grassed Waterway; or (2) by lining the flow area with stone that meets MSHA size No. 2 or AASHTO M-3 size No. 2 or 24 in a layer at least 3 inches in thickness and pressed into the soil. The lining shall extend across the bottom and up both sides of the channel a height of at least 8 inches vertically above the bottom.
 10. Periodic inspection and required maintenance shall be provided.

Standard Symbol ← IS

INTERCEPTOR SWALE

No Scale

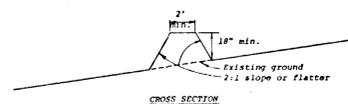


STABILIZED CONSTRUCTION ENTRANCE

- Construction Specifications
1. Stone size - Use MSHA size No. 2 (2-1/2" to 1") or AASHTO designation M3, 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. Working - When necessary, stone shall be placed to expose openings prior to entrance onto public right-of-way. When working is completed, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All openings shall be prevented from entering any stone ditches, ditches, or waterways through use of sand bags, gravel, boards or other approved methods.
 6. Retaining - The entrance shall be maintained in a condition which will prevent spreading or flowing of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any openings used as trap openings. All sediment applied, dropped, washed or eroded onto public right-of-way must be removed immediately.

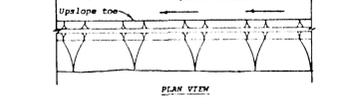
STABILIZED CONSTRUCTION ENTRANCE

No Scale



PERIMETER DIKE

No Scale



PERIMETER DIKE

No 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 a 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

PERIMETER DIKE

No Scale



STONE OUTLET STRUCTURE

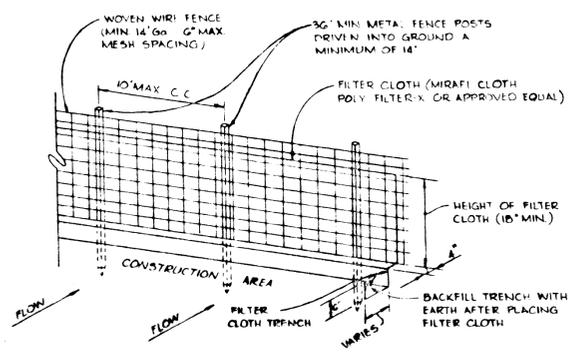
No Scale

- Construction Specifications
1. The stone shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet MSHA Size No. 2 or AASHTO designation M3 Size No. 2 or 24.
 2. The crest of the stone dike shall be at least six inches lower than the lowest elevation structure shall be submerged into the soil a minimum of four inches.
 3. The stone outlet structure shall be inspected after each rain, and the stone shall be replaced when the structure ceases to function as intended due to silt accumulation along the stone, without, construction traffic damage, etc.

Standard Symbol ← SO

STONE OUTLET STRUCTURE

No Scale



SILT FENCE

No Scale

- NOTES:
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS BY USE OF WIRE TIES.
 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE BY USE OF WIRE TIES SPACED EVERY 24" TO 36".
 3. SILT FENCE TO BE PLACED IN LIEU OF STRAW BAILS AND/OR DIVERSION DIKES AT THE OPTION OF THE DEVELOPER.

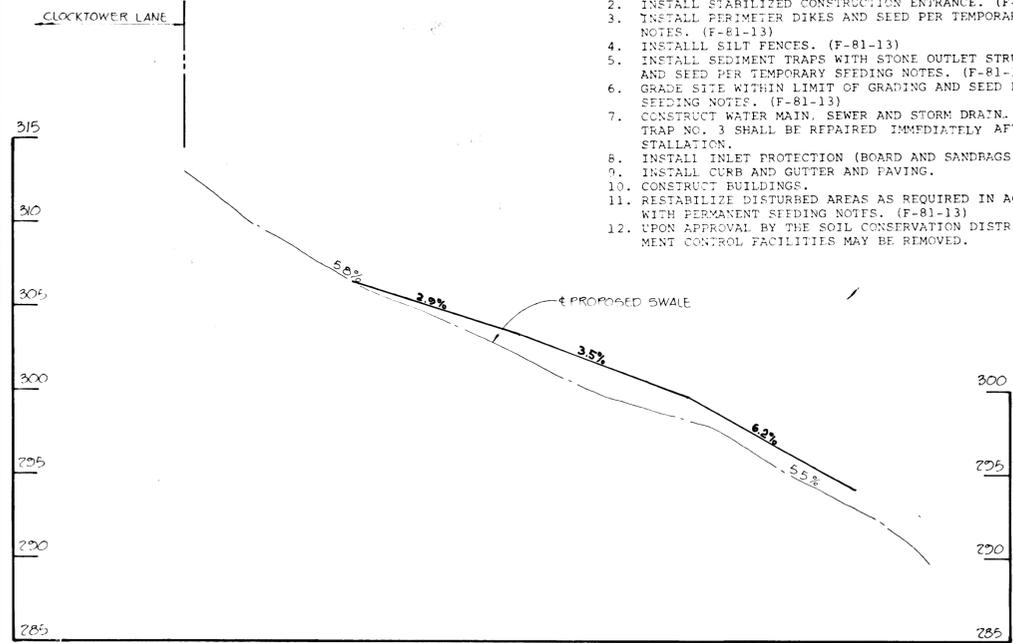
Standard Symbol ← SF

SILT FENCE

No Scale

SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT. (F-81-13)
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE. (F-81-13)
3. INSTALL PERIMETER DIKES AND SEED PER TEMPORARY SEEDING NOTES. (F-81-13)
4. INSTALL SILT FENCES. (F-81-13)
5. INSTALL SEDIMENT TRAPS WITH STONE OUTLET STRUCTURES AND SEED PER TEMPORARY SEEDING NOTES. (F-81-13)
6. GRADE SITE WITHIN LIMIT OF GRADING AND SEED PER PERMANENT SEEDING NOTES. (F-81-13)
7. CONSTRUCT WATER MAIN, SEWER AND STORM DRAIN. SEDIMENT TRAP NO. 3 SHALL BE REPAIRED IMMEDIATELY AFTER SEWER INSTALLATION.
8. INSTALL INLET PROTECTION (BOARD AND SANDBAGS AT INLET THROAT).
9. INSTALL CURB AND GUTTER AND PAVING.
10. CONSTRUCT BUILDINGS.
11. RESTABILIZE DISTURBED AREAS AS REQUIRED IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (F-81-13)
12. UPON APPROVAL BY THE SOIL CONSERVATION DISTRICT ALL SEDIMENT CONTROL FACILITIES MAY BE REMOVED.



SWALE PROFILE

SCALE H 1"=50'
V 1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: William T. Row

APPROVED: John Johnson

BY THE DEVELOPER:

BY THE ENGINEER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL, AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

DATE 12-18-80

DATE 12-17-80

DATE 9/22/80

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

DATE 12-17-80

DATE 12-17-80

U.S. SOIL CONSERVATION SERVICE

DATE 12-17-80

DATE 12-17-80