THE TOWNHOMES OF TIMBERLAND

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 6/16/89

APPROVED
DEPARTMENT OF PUBLIC WORKS
Granville W. Weedon
CHIEF, BUREAU OF HIGHWAYS — DATE 6/15/89

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 6/16/89

APPROVED
OFFICE OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/28/89

GENERAL NOTES

1.) ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS, AND DETAILS FOR CONSTRUCTION.
2.) ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HOURS IN ADVANCE OF ANY CONSTRUCTION.
3.) ALL INLETS SHALL BE HOWARD COUNTY STANDARDS UNLESS OTHERWISE SHOWN. ALL "A" INLETS SHALL BE DEPRESSED.
4.) STORM DRAIN TRENCHES WITHIN ROAD RIGHTS-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
5.) ANY DAMAGE TO PUBLIC RIGHTS-OF-WAYS OR PAVING WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
6.) CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPT. OF INSPECTION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TELEPHONE: 792-7272.
7.) ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT REVISED EDITION.
8.) EXISTING STRUCTURE ON OPEN SPACE LOT 108

Bench Marks

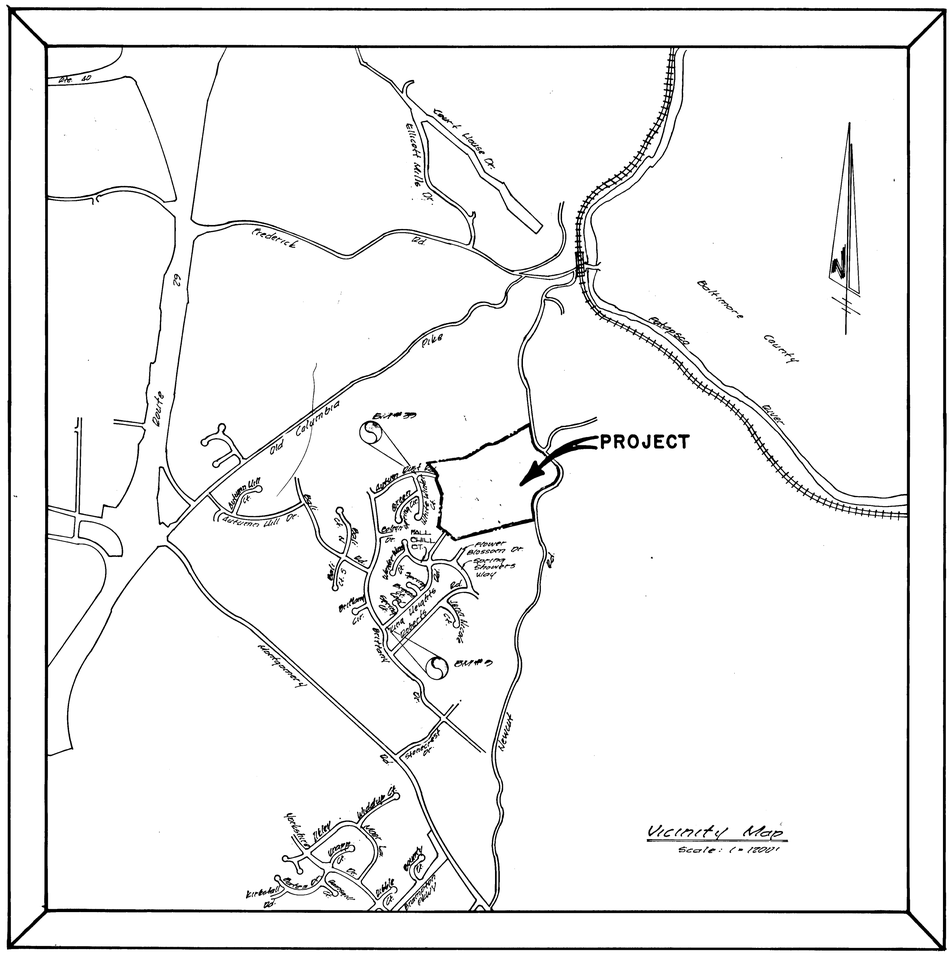
BM #7 Elev. = 491.84
Railroad spike found on east side of 36" pole on building 75' west of ℄ Kings Heights Road

BM #39 Elev. = 544.63
Monument and north corner of intersection of Kings Winter Court and Autumn Wind Road.

Street Lamps

INSTALL 100 WATT TRADITIONAIRE VAPOR LIGHTS ATOP 14' BLACK 14' FIBERGLASS POLES. AS SHOWN ON PLAN.

Locations:
1. Autumn Wind Road and Timberland Circle Intersection (as shown on plan)
2. Timber Trail Court ℄ STA 0+40 Lt.
3. End of Timber Valley Court
4. Timberland Circle and Timberland Circle Intersection (as shown on plan)
5. Timberland Circle ℄ sta. 14+55 Lt.
6. Timber Valley Court and Timberland Circle Intersection (as shown on plan)
7. Timberland Circle ℄ sta. 6+85 Lt.
8. Timberland Circle ℄ sta. 3+75 Lt.



INDEX OF SHEETS

1. TITLE SHEET
2. AUTUMN WIND ROAD: PLAN & PROFILE – TIMBER TRAIL COURT: PLAN
3. TIMBERLAND CIRCLE: PLAN — TIMBER PINE COURT, TIMBER HILL COURT AND TIMBER VALLEY COURT: PLANS
4. TIMBERLAND CIRCLE AND TIMBER VALLEY COURT: ROAD PROFILES
5. TIMBER TRAIL COURT, TIMBER PINE COURT AND TIMBER HILL COURT: ROAD PROFILES
6. STORM DRAIN PROFILES
7. STORM DRAIN PROFILES AND DETAILS
8. STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
9. STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
10. STORMWATER MANAGEMENT POND: NOTES AND DETAILS
11. DRAINAGE AREA MAP

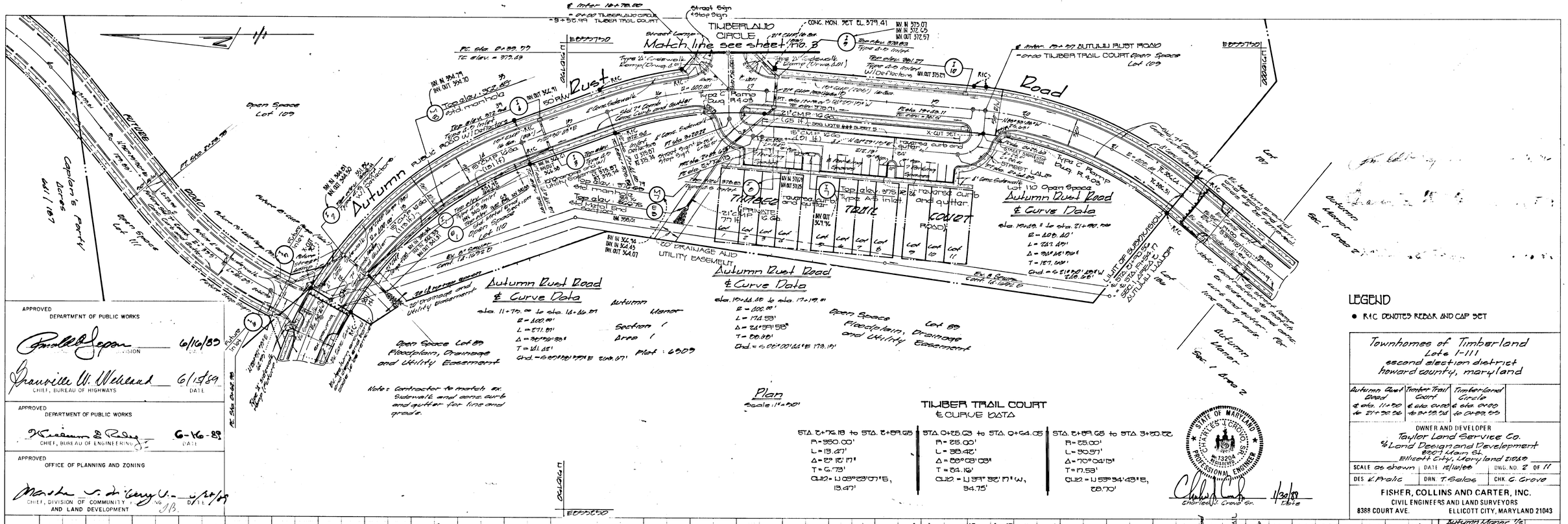
STATE OF MARYLAND — CHARLES J. CROVO, SR. — No. 7300 — REGISTERED PROFESSIONAL ENGINEER

Charles J. Crovo Sr. — Date 1/3/89

FISHER, COLLINS AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLICOTT CITY, MARYLAND 21043
TELEPHONE: (301) 461-2855

1450

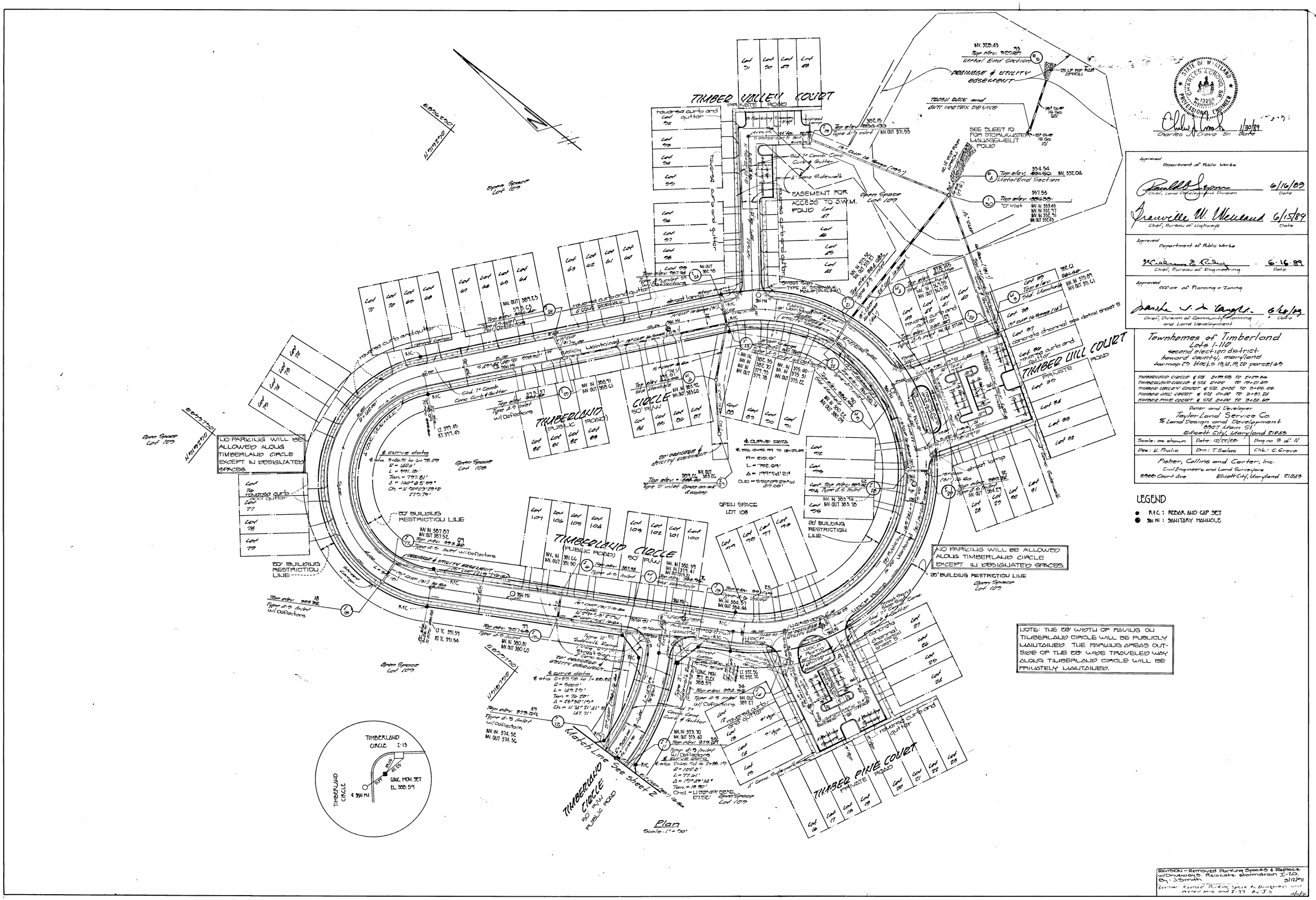
F89-151



1450

F89-151

96-21-2 LILIUGAV



STATE OF MARYLAND
CHARLES N. GROVE, JR.
No. 13208
PROFESSIONAL ENGINEER

Charles N. Grove Sr. 1/30/89

Approved
Department of Public Works
Chief, Land Development Division — 6/16/89 Date

Granville W. Wenland — 6/15/89
Chief, Bureau of Highways — Date

Approved
Department of Public Works
Chief, Bureau of Engineering — 6-16-89 Date

Approved
Office of Planning + Zoning
Chief, Division of Community Planning and Land Development — 6/16/89 Date

Townhomes of Timberland
Lots 1-112
second election district
howard county, maryland
tax map 27 block 13, 14, 19, 20 parcel 69

TIMBERLAND CIRCLE ℄ STA. 0+59.68 TO 2+59.66
TIMBERLAND CIRCLE ℄ STA. 0+00 TO 1+51.00
TIMBER VALLEY COURT ℄ STA. 0+00 TO 3+05.06
TIMBER HILL COURT ℄ STA. 0+00 TO 3+97.21
TIMBER PINE COURT ℄ STA. 0+00 TO 3+25.69

Owner and Developer
Taylor Land Service Co.
℄ Land Design and Development
8307 Main St.
Ellicott City, Maryland 21043

Scale: as shown	Date: 12/20/88	Dwg no 3 of 11
Des.: K. Frolio	Drn.: T. Sellers	Chk.: C. Grove

Faber, Collins and Carter, Inc.
Civil Engineers and Land Surveyors
8300 Court Ave. Ellicott City, Maryland 21043

LEGEND
- R.I.C. : REBAR AND CAP SET
- SAN MH : SANITARY MANHOLE

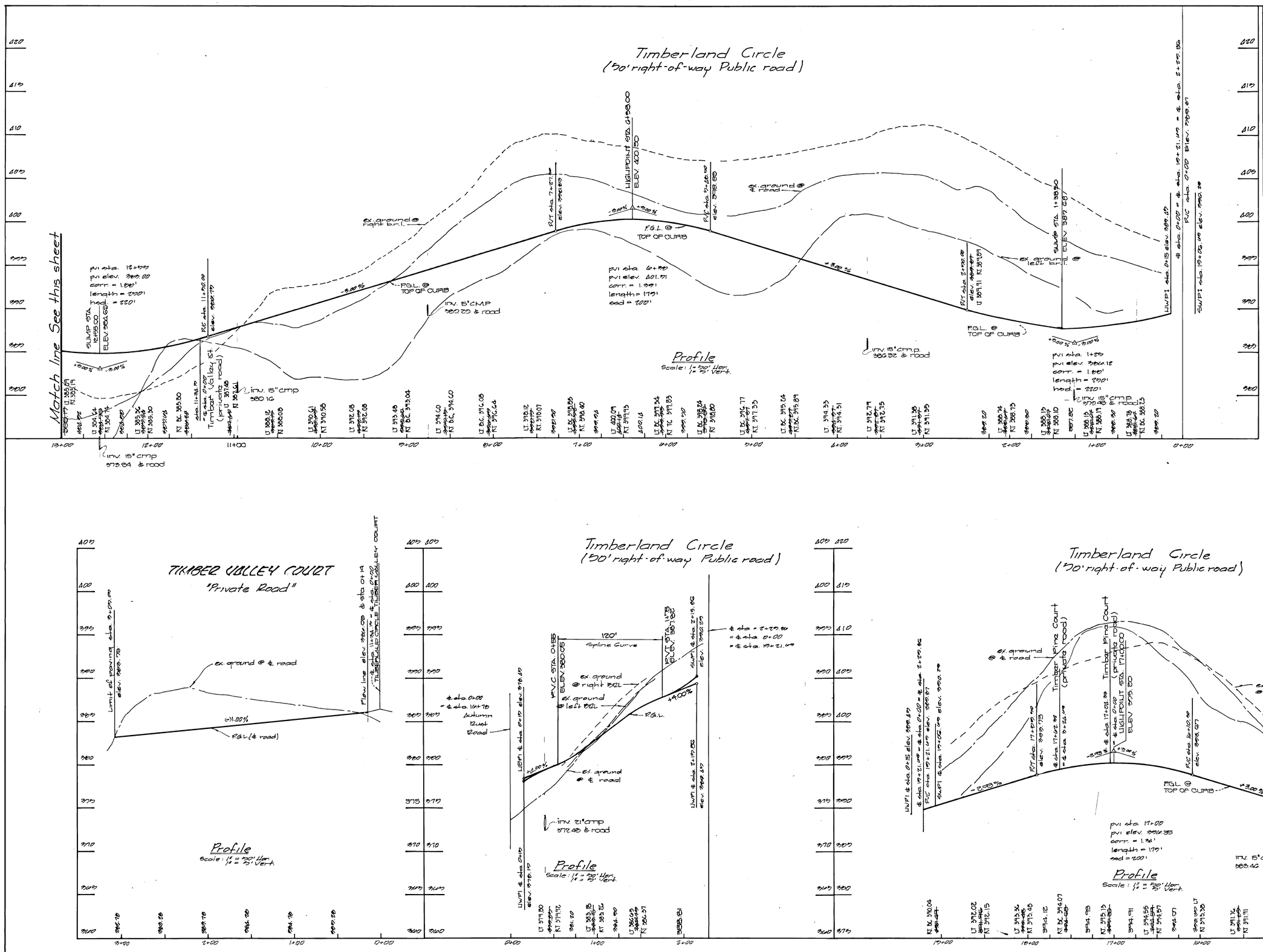
NOTE: THE 28' WIDTH OF PAVING ON TIMBERLAND CIRCLE WILL BE PUBLICLY MAINTAINED. THE PARKING AREAS OUTSIDE OF THE 28' WIDE TRAVELED WAY ALONG TIMBERLAND CIRCLE WILL BE PRIVATELY MAINTAINED.

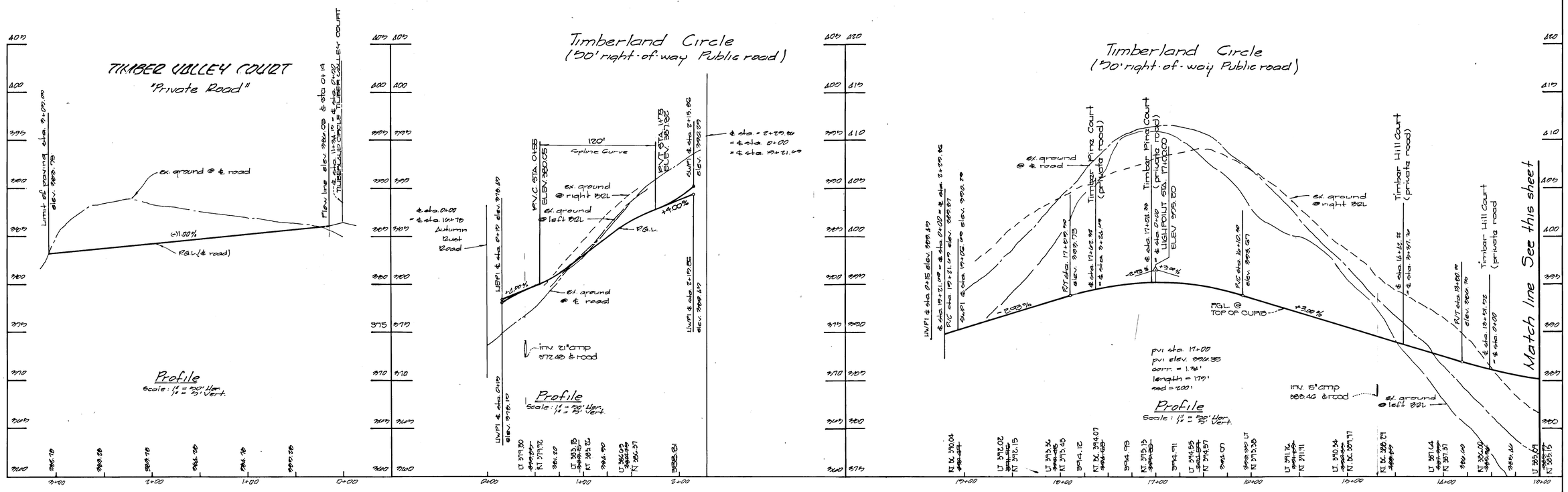
REVISION - Removed Parking Spaces & Replace w/Driveways Relocate stormdrain I-20. By: J. Smith 3/12/91
Revision: Revised Parking Space to Driveways and Relocated Manhole and I-77 By: J.S. 1/11/96

1450

AS BUILT 2-13-97

F89-151





Approved:
Department of Public Works
Chief, Land Development Division — 6/16/89 Date
Chief, Bureau of Highways — 6/15/89 Date

Approved:
Department of Public Works
Chief, Bureau of Engineering — 6/16/89 Date

Approved:
Office of Planning and Zoning
Chief, Division of Community Planning and Land Development — 6/28/89 Date

STATE OF MARYLAND — CHARLES E. CROVO — No. 13204 — REGISTERED PROFESSIONAL ENGINEER
CHARLES E. CROVO 50 Carte — 1/30/89

Townhomes of Timberland
Lots 1-110
second election district
howard county, maryland
tax map 37 blocks 18, 14, 19, 20 parcel 23

ROAD PROFILES

Owner and Developer:
Taylor Land Service Co.
c/o Land Design and Development
8907 Main St.
Ellicott City, Maryland 21043

Scale: as shown	Date: 12/16/88	Dwg. no. 1 of 11
Des. K. Fralic	Drn. T. Salas	Chk. C. Crovo

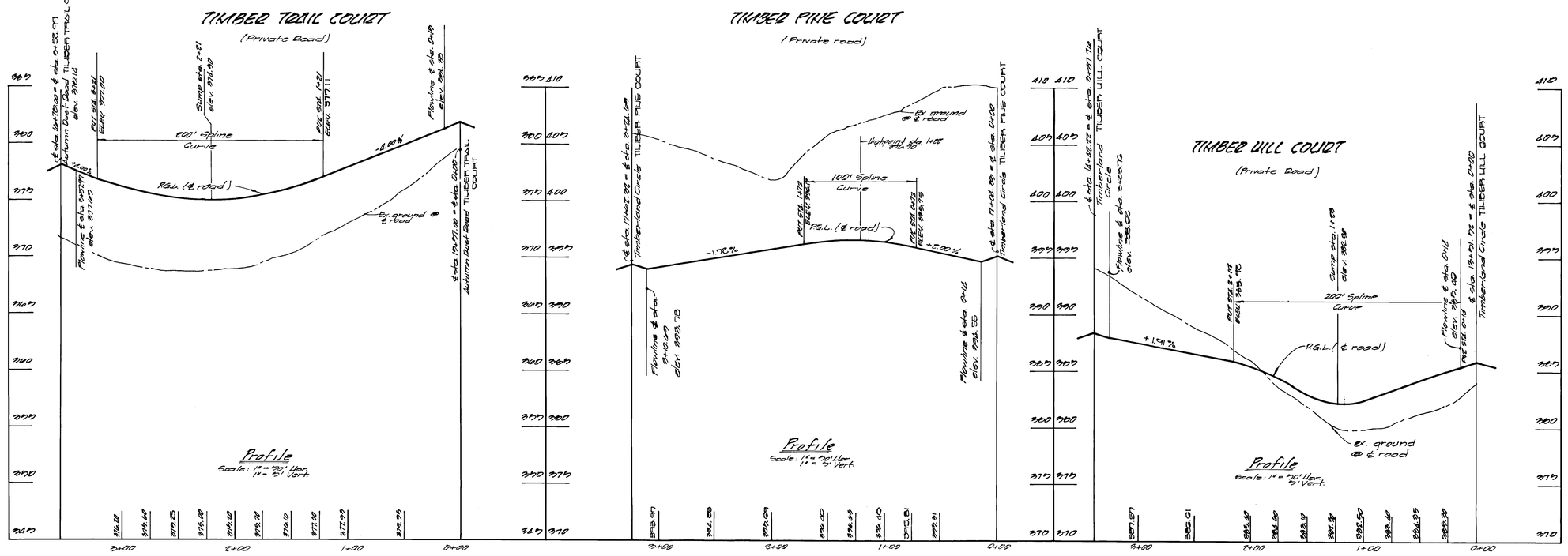
Fisher, Collins & Carter, Inc.
Civil Engineers and Land Surveyors
8360 Court Ave. Ellicott City, MD 21043

Revised by: U.S. Changed sta 1+38.50 to 1+00 and P.G.L. @ Top of Curb 10/17/90

1450

AS BUILT 2-13-97

F89-151



Approved:
Department of Public Works
Chief, Land Development Division — Date 6/16/89
Chief, Bureau of Highways — Date 6/16/89

Approved:
Department of Public Works
Chief, Bureau of Engineering — Date 6/16/89

Approved:
Office of Planning and Zoning
Chief, Division of Community Planning and Land Development — Date 6/22/89

STATE OF MARYLAND — CHARLES T. CROVO — No. 13204 — PROFESSIONAL ENGINEER
Charles T. Crovo Sr. — Date 11/30/89

Townhomes of Timberland
Lots 1-110
second election district
howard county, maryland
tax map 27 blocks 10,14,19,20 parcel 67

ROAD PROFILES

Owner and Developer
Taylor Land Service Co.
c/o Land Design and Development
8077 Main St.
Ellicott City, Maryland 21043

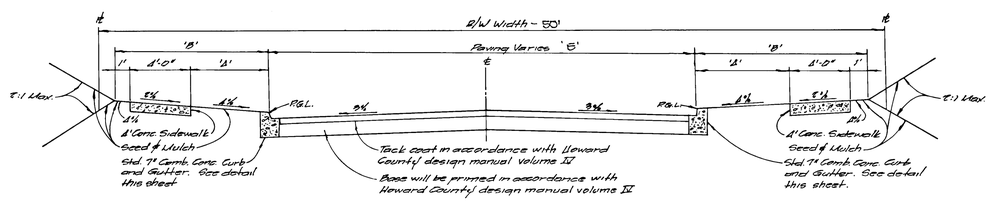
Scale: as shown	Date: 12/20/88	Dwg. no. 5 of 11
Des. K. Prale	Drn. T. Salas	Chk. C. Crovo

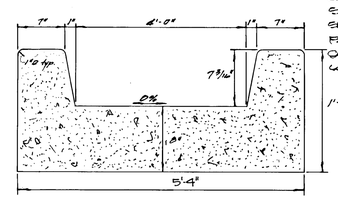
Fisher, Collins & Carter, Inc.
Civil Engineers and Land Surveyors
8900 Court Ave. — Ellicott City, MD 21043

NOTE:
*** THE CURB & GUTTER ALONG THE EAST SIDE OF TIMBER TRAIL COURT FROM ℄ STA. 0+60.05 TO ℄ STA. 2+76.18 SHALL BE REVERSE CURB & GUTTER. THE PAVING SHALL HAVE AN UPGRADE SLOPE OF 5% FROM THE P.G.L. TO THE REVERSE CURB AND GUTTER WITHIN THESE LIMITS.
* PAVING SECTION SHALL BE IN ACCORDANCE WITH P-2 SECTION. Dwg. P-2.01
** PAVING SECTION SHALL BE IN ACCORDANCE WITH P-1 SECTION Dwg. P-2.01

Typical Roadway Section

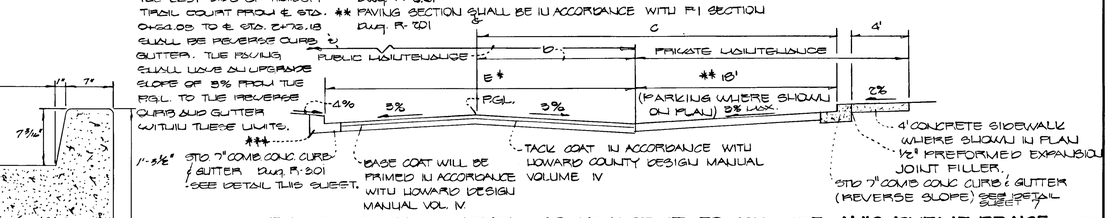
All materials and construction shall be in accordance with Howard County Design Manual Volume IV standard specification and details for construction.





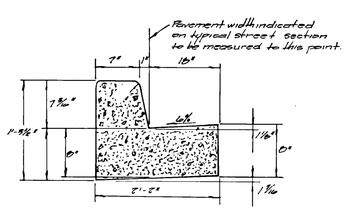
STD 7" COMB. CONC. CURB & GUTTER Dwg. P-301 SEE DETAIL THIS SHEET.

CONCRETE CHANNEL DETAIL

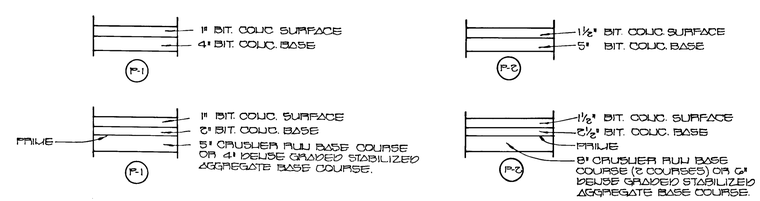


TYPICAL SECTION - PARKING ADJACENT TO PRIVATE AND PUBLIC ROADS
Not to Scale

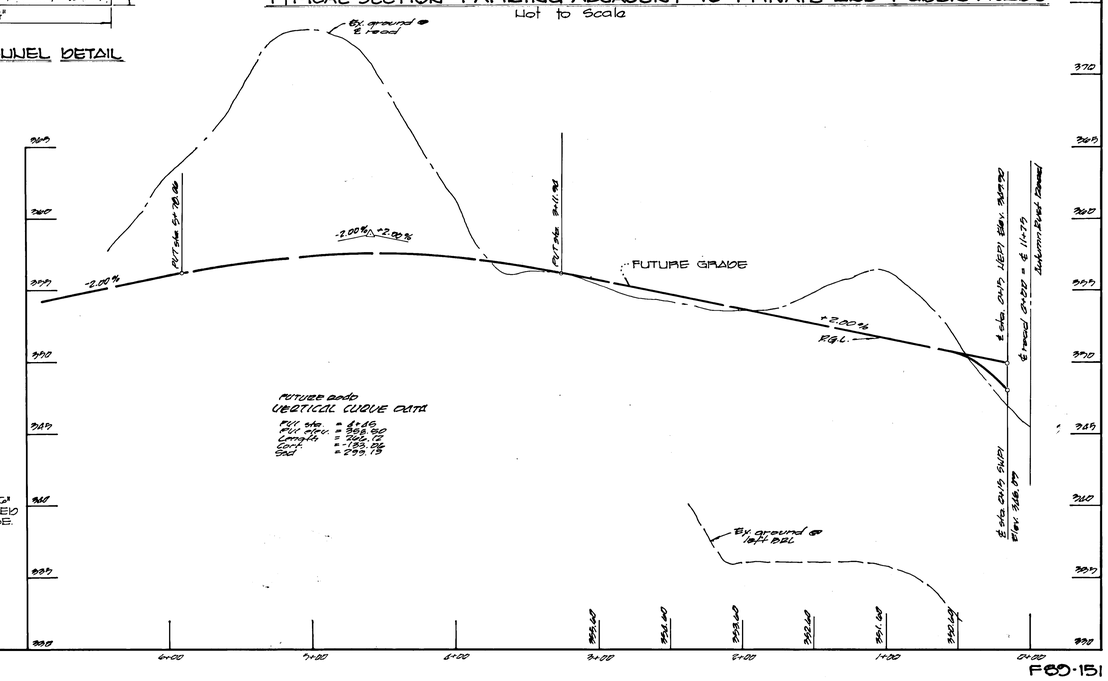
Paving Width	R/W	Classification	'A'	'B'	Design Speed	Zoning	℄ sta. limits	Paving Section	'C'	'D'	'E'
Autumn Dust Road	70'	local	4'	9'	30 mph	R-20	11+70 to 21+70.96	P-2	33'	14'	30'
Timberland Circle	70'	local	4'	9'	30 mph	R-20	0+00 to 7+29.86	P-2	32'	14'	30'
Timberland Circle	70'	local	4'	9'	30 mph	R-20	0+00 to 19+21.69	P-2	32'	14'	28'
Timber Trail Court	–	private	–	–	30 mph	R-20	0+00 to 3+49.74	P-1 & 2	30'	12'	24'
Timber Pine Court	–	private	–	–	30 mph	R-20	0+00 to 3+24.69	P-1 & 2	30'	12'	24'
Timber Hill Court	–	private	–	–	30 mph	R-20	0+00 to 2+37.74	P-1 & 2	30'	12	24'
Timber Valley Court	–	private	–	–	30 mph	R-20	0+00 to 3+07.09	P-1 & 2	30'	12'	24'



Standard 7" Comb. Conc. Curb & Gutter
No scale

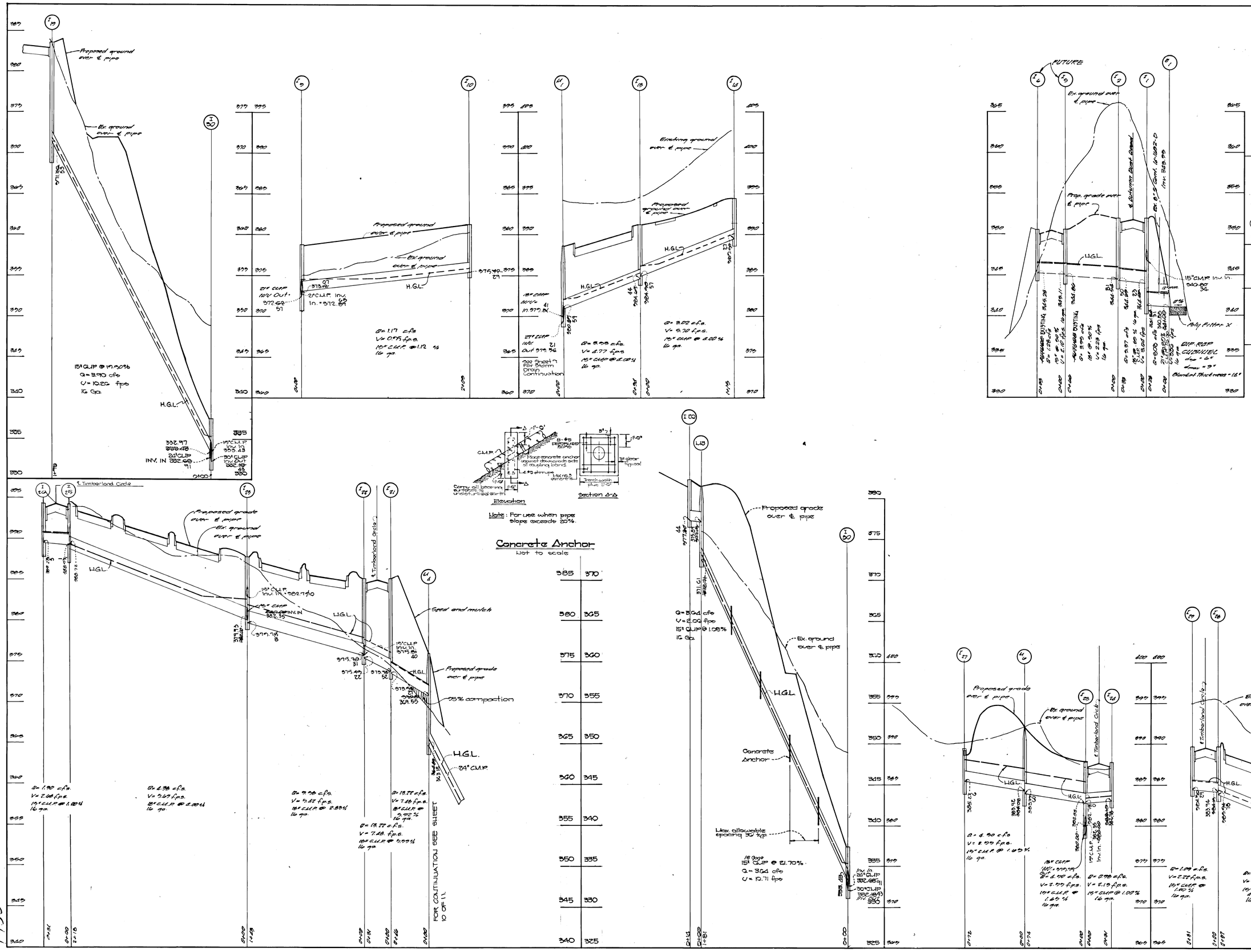


Paving Sections P-1 & P-2



1450

F60-151



STATE OF MARYLAND
CHARLES T. CREVO
No. 13204
REGISTERED
PROFESSIONAL ENGINEER

Charles T. Crevo Jr. 11/30/89
Date

Approved
Department of Public Works
Chief, Land Development Division 6/16/89
Date

Chief, Bureau of Highways 6/15/89
Date

Approved
Department of Public Works
Chief, Bureau of Engineering 6-16-89
Date

Approved
Office of Planning + Zoning
Chief, Division of Community Planning and Land Development 6/20/89
Date

Townhomes of Timberland
Lots 1-110,
second election district
howard county, maryland
tax map 37, blocks 19, 14, 19, 20 parcel 67

STORM DRAIN PROFILES

Owner and Developer
Taylor Land Service Co.
c/o Land Design and Development
8227 Main St.
Ellicott City, Maryland 21043

Scale: as shown	Date: Jan. 26, 1989	Drg. no. 6 of 11
Des. V. Fralic	Drn. T. Sales	Chk. C. Crevo

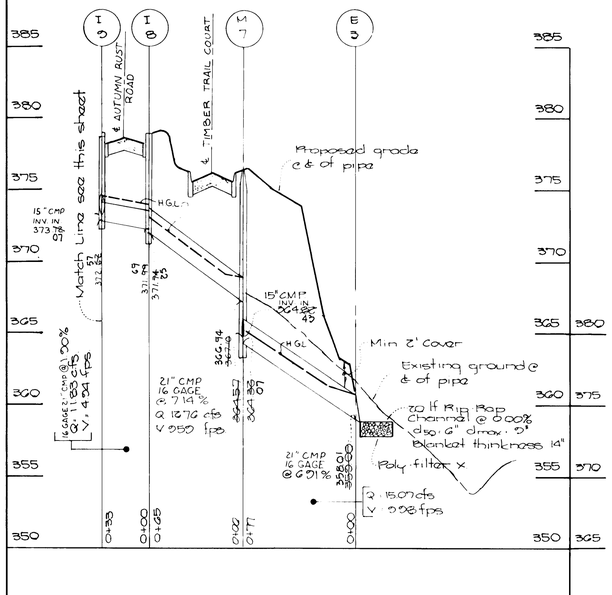
Fisher, Collins & Carter, Inc.
Civil Engineers and Land Surveyors
8228 Court Ave. Ellicott City, Maryland 21043

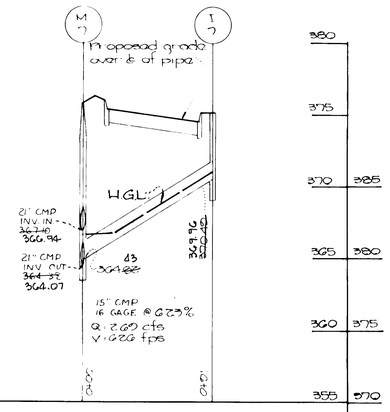
on October 17, 1990

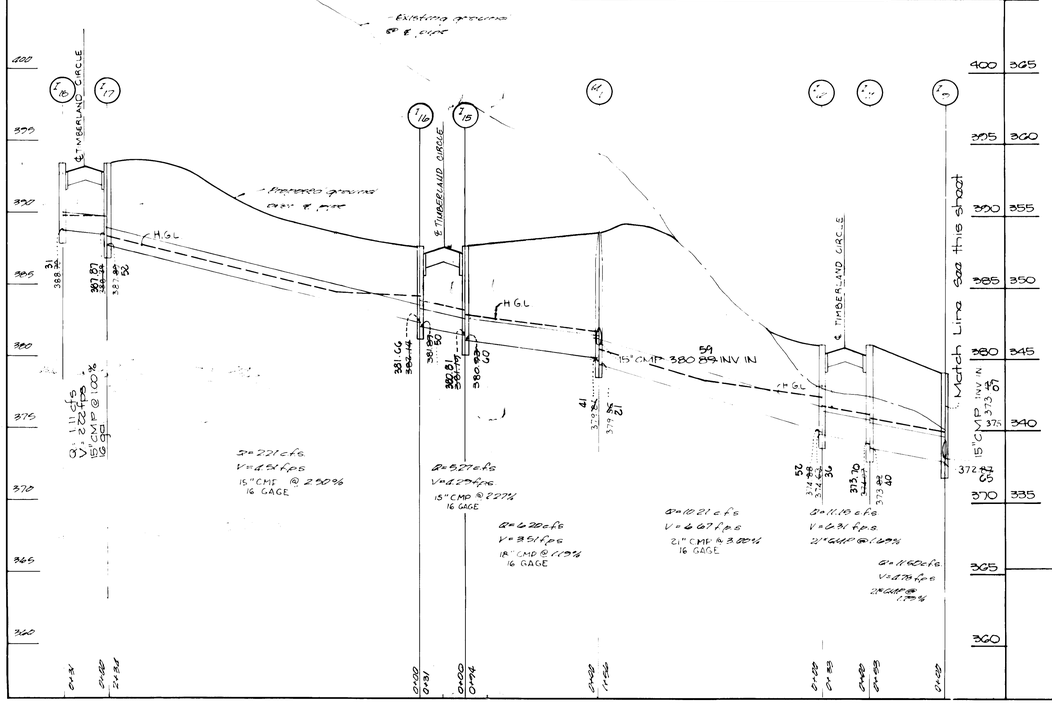
14-59

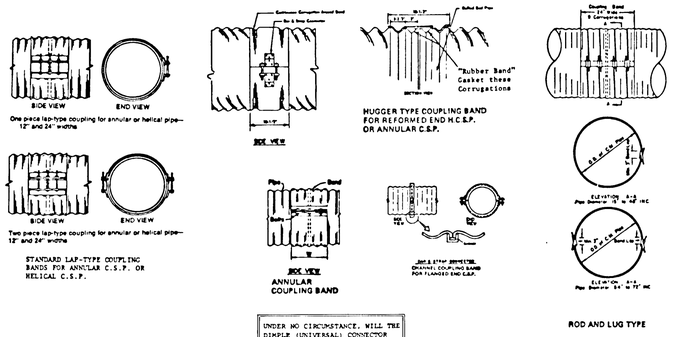
AS BUILT 2-13-97

F80-151







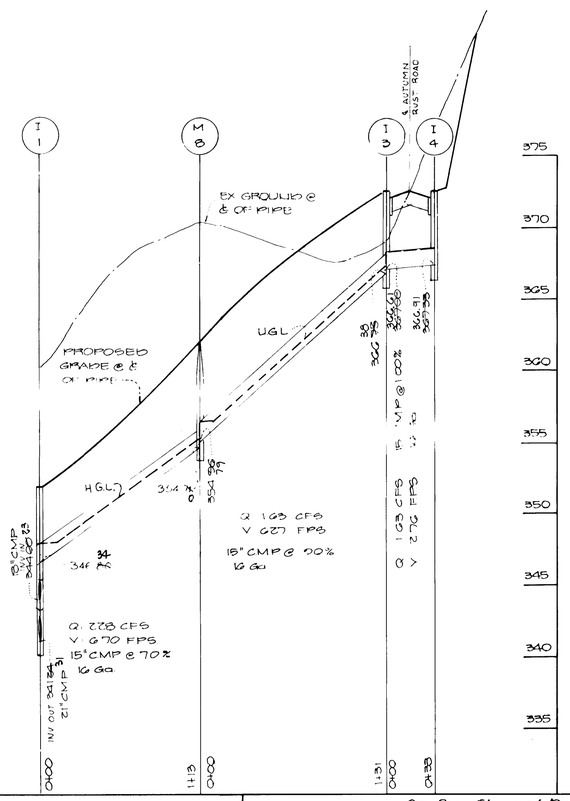


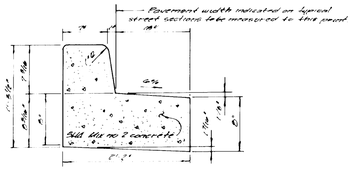
UNDER NO CIRCUMSTANCE, WILL THE DIMPLE (UNIVERSAL) CONNECTOR BAND BE ACCEPTABLE FOR USE IN ANY SEDIMENT CONTROL OR STORM-WATER MANAGEMENT STRUCTURE.

COUPLERES FOR CORRUGATED STEEL PIPES

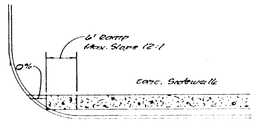
NOT TO SCALE

STRUCTURE SCHEDULE						
STRUCT.	TYPE	TOP ELEVATION	INV. IN.	INV. OUT	LOCATION	REMARKS
I-1	A 5 W/DEFLECTORS	391.92	386.89	341.31	℄ ROAD 12+22 RT 15'	S.D. 4.01 & S.D. 4.83
I-2	A 5 W/DEFLECTORS	391.86	366.61	344.50	℄ ROAD 12+22 LT 15'	S.D. 4.01 & S.D. 4.83
I-3	A 5 W/DEFLECTORS	372.52		366.38	℄ ROAD 14+73 RT 15'	S.D. 4.01 & S.D. 4.83
I-4	A 5 W/DEFLECTORS	372.54		366.41	℄ ROAD 14+73 LT 15'	S.D. 4.01 & S.D. 4.83
I-5	FUTURE SYSTEM					
I-6	FUTURE SYSTEM					
I-7	A 5 W/DEFLECTORS	370.52		369.96	℄ ROAD 2+21 LT 12'	S.D. 4.01
I-8	A 5 W/DEFLECTORS	378.37	371.96	371.25	℄ ROAD 17+31 RT 15'	S.D. 4.01
I-9	A 5 W/DEFLECTORS	378.83	373.07	372.57	℄ ROAD 17+31 LT 15'	S.D. 4.01
I-10	A 5 W/DEFLECTORS	381.72	3.70	375.29	℄ ROAD 19+34 LT 15'	S.D. 4.01 & S.D. 4.83
I-11	A 5 W/DEFLECTORS	379.75		373.40	℄ ROAD 0+43 RT 15'	S.D. 4.01 & S.D. 4.83
I-12	A 5 W/DEFLECTORS	379.74		374.36	℄ ROAD 0+43 LT 15'	S.D. 4.01 & S.D. 4.83
I-13	A 5	391.75	384.95	384.44	℄ ROAD 18+74 LT 14'	S.D. 4.01
I-14	A 5 W/DEFLECTORS	394.57	0.81	389.56	℄ ROAD 2+82 LT 12'	S.D. 4.01 & S.D. 4.83
I-15	A 5	387.02		380.60	℄ ROAD 1+38.50 LT 14'	S.D. 4.01
I-16	A 5	387.68		381.50	℄ ROAD 1+38.50 RT 14'	S.D. 4.01
I-17	A 5 W/DEFLECTORS	393.74	1.01	387.62	℄ ROAD 3+65 RT 14'	S.D. 4.01 & S.D. 4.83
I-18	A 5 W/DEFLECTORS	393.78		388.81	℄ ROAD 3+65 LT 14'	S.D. 4.01 & S.D. 4.83
I-19	A 5	384.44		371.65	℄ ROAD 3+05.05 RT 9' N518,268.5 E856,405	S.D. 4.01
I-20	A 5	382.28		377.30		S.D. 4.01
I-21	A 5	384.62	373.82	373.22	℄ ROAD 12+55 LT 14'	S.D. 4.01
I-22	A 5	384.64	375.80	375.22	℄ ROAD 12+55 RT 14'	S.D. 4.01
I-23	A 5 W/DEFLECTORS	387.74	382.40	379.76	℄ ROAD 10+97 RT 14'	S.D. 4.01 & S.D. 4.83
I-24	A 5 W/DEFLECTORS	387.74		382.48	℄ ROAD 10+97 LT 14'	S.D. 4.01 & S.D. 4.83
I-25	A 5 W/DEFLECTORS	394.23	388.74	388.96	℄ ROAD 8+86 RT 14'	S.D. 4.01 & S.D. 4.83
I-26	A 5 W/DEFLECTORS	394.44		389.83	℄ ROAD 8+75 LT 14'	S.D. 4.01 & S.D. 4.83
I-27	'D' INLET	389.55		385.26	℄ ROAD 10+54 RT 155'	S.D. 4.11 OPENINGS ON ALL 4 SIDES
I-28	A 5	389.72	383.94	383.94	℄ ROAD 14+69 RT 14'	S.D. 4.01
I-29	A 5	389.45		384.62	℄ ROAD 14+69 LT 14'	S.D. 4.01
I-30	'D' INLET	337.77	333.43	337.45		S.D. 4.11 OPENINGS ON ALL 4 SIDES
M-1	STD. MANHOLE	388.94	380.89	379.56	ROAD 0+46 LT 14'	G 5.01
M-3	STD. MANHOLE	381.26	377.15	376.61	N518,533.84 E856,488.70	G 5.01
M-4	STD. MANHOLE	373.86	370.89	364.48		G 5.01
M-5	STD. MANHOLE	386.75	380.46	380.27	ROAD 13+73 RT 20'	G 5.01
M-6	STD. MANHOLE	376.02	384.02	383.07	ROAD 10+75 RT #4'	G 5.01
M-7	STD. MANHOLE	376.68	367.10	364.30	ROAD 3+01 LT 20'	G 5.01
M-8	STD. MANHOLE	362.46	354.96	354.74	ROAD 13+37 RT 21'	G 5.01
E-1	METAL END SECTION	342.75		340.00	ROAD 12+17 RT 45'	SD 5.61
E-3	METAL END SECTION	359.70		358.01	ROAD 16+10 RT 122'	SD 5.61
E-4	METAL END SECTION	334.54		332.00	N518,695.71 E856,623.78	SD 5.61
E-5	METAL END SECTION	329.82		328.37		SD 5.61



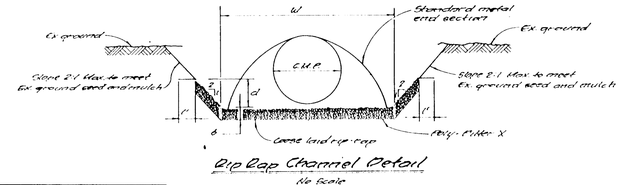


Reverse Standard 7" Comb. Curb and Gutter



Sidewalk Ramp

No Scale



Rip Rap Channel Detail

No Scale

Rip Rap Channel Design Data															
Structure	Q	V	d	d²/g	S	S^1/2	n	Q	W	d	W	Rip Rap Size d50	Rip Rap Size d max	L
E-1	3.72 cfs	2.68	0.48	0.14	0.60	.071	.04	6.02	1.59	0.60'	8.0'	6"	9"	18"
E-3	7.46 cfs	5.53	0.33	0.17	0.50	.071	.04	15.07	2.21	1.05	5.0'	6"	9"	18"
E-4	6.90 cfs	10.44	0.43	0.33	1.00	.10	.04	20.18	2.72	0.77	7.0'	6"	9"	18"

Charles J. Crove Sr. 1/30/89
Charles J. Crove Sr. Date

Approved
Department of Public Works

Chief, Land Development Division — Date

Chief, Bureau of Engineering — Date

Approved:
Department of Public Works

Chief, Bureau of Engineering — Date

Approved
Office of Planning + Zoning

Chief, Division of Community Planning and Land Development — Date

Townhomes of Timberland

Lots 1-110
second election district
howard county, maryland
tax map 26 blocks 19, 16, 19, 20 parcel 66

STORMDRAIN PROFILES AND DETAILS

Owner and Developer
Taylor Land Service Co.
%Land Design and Development
8907 Main St.
Ellicott City, Maryland 21043

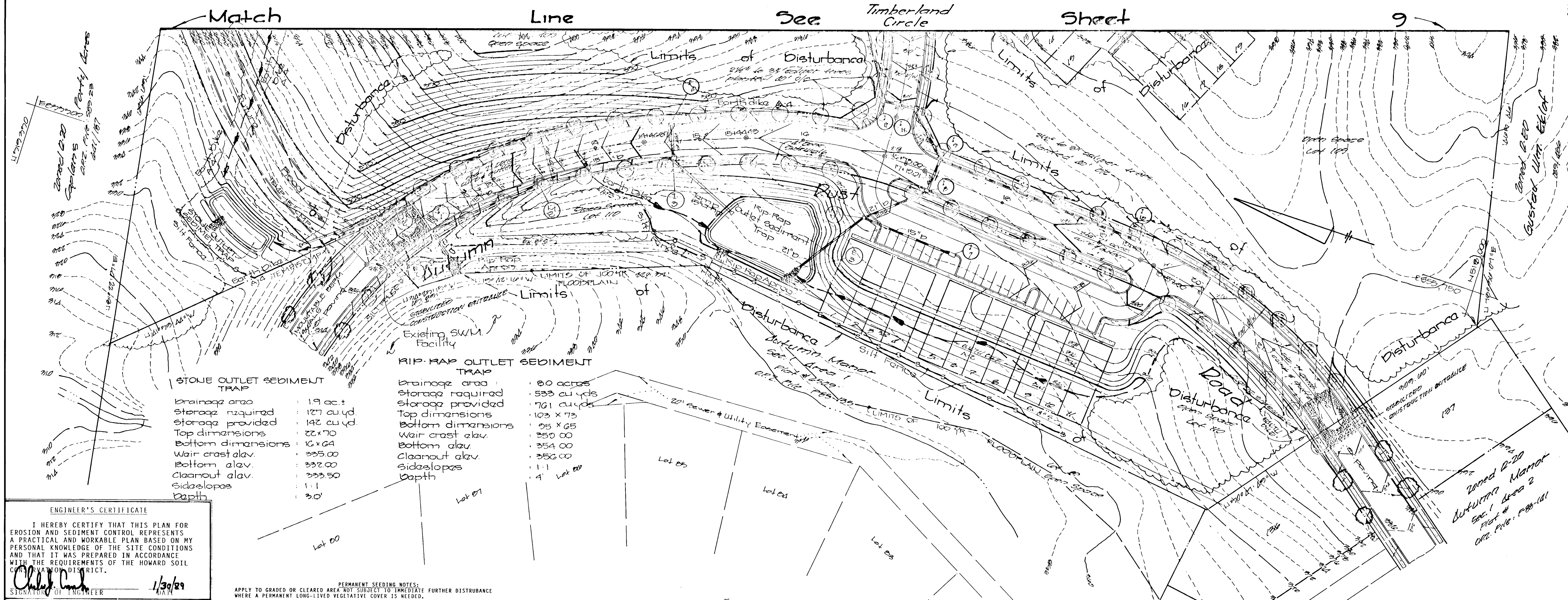
Scale as shown	Date Jan. 26, 1989	Dwg. no. 7 of 11
Des.: E. Profic	Drn. T. Sales	Chk.: C. Crove

Fisher, Collins & Carter, Inc
Civil Engineers and Land Surveyors
8888 Court Ave. Ellicott City, Maryland 21043

Revision - Revised Structure Schedule I-20
By: J. Smith March 12, 1991

AS BUILT 2-13-97

F89-151



STONE OUTLET SEDIMENT TRAP

Drainage area	1.9 ac.±
Storage required	127 cu.yd.
Storage provided	142 cu.yd.
Top dimensions	22x70
Bottom dimensions	16x64
Weir crest elev.	335.00
Bottom elev.	332.00
Cleanout elev.	333.50
Sideslopes	1:1
Depth	3.0'

RIP-RAP OUTLET SEDIMENT TRAP

Drainage area	8.0 acres
Storage required	533 cu.yds
Storage provided	761 cu.yds
Top dimensions	103 x 73
Bottom dimensions	95 x 65
Weir crest elev.	350.00
Bottom elev.	354.00
Cleanout elev.	356.00
Sideslopes	1:1
Depth	4'

CONSTRUCTION SEQUENCE

1. OBTAIN GRADING PERMIT.
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM AND SWALE.
3. CONSTRUCT RIP-RAP TRAPS, STONE OUTLET TRAPS AND STORMWATER MANAGEMENT FACILITY AS SHOWN ON PLAN, STABILIZE TRAPS AND PONDS USING TEMPORARY SEEDING. *
4. INSTALL SILT FENCE AND EARTH DIKES AS SHOWN ON PLAN. STABILIZE USING TEMPORARY SEEDING.
5. CLEAR AND GRUB TO LIMITS OF DISTURBANCE GRADE ROADS TO SUBGRADE.
6. CONSTRUCT PERMANENT STORMDRAIN SYSTEM.
7. CONSTRUCT TEMPORARY STROMDRAIN SYSTEM AS SHOWN ON PLAN.
   a) TEMPORARY 15" CMP TO STONE OUTLET TRAP NO. 1. CONTRACTOR TO BRICK-UP PERMANENT STORM DRAIN AT I-2 TOWARDS I-1 UNIT PERMANENT SEEDING IS IN PLACE.
   b) TEMPORARY 15" CMP TO RIP-RAP OUTLET TRAP NO. 2 CONTRACTOR TO BRICK-UP PERMANENT STORM DRAIN AT I-3 TOWARDS M-8 UNTIL PERMANENT SEEDING IS IN PLACE.
8. CONSTRUCT GRADE STABILIZATION STRUCTURE AS SHOWN ON PLAN.
9. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFAL AND ON A DAILY BASIS.
10. SEDIMENT TRAPS AND PONDS SHALL BE DEWATERED BY PUMPING.
11. SEDIMENT SHALL BE REMOVED FROM THE TRAPS AND PONDS WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED. SEDIMENT MUST BE PLACED UP HILL FROM TRAPS AND PONDS.
12. REMOVE SEDIMENT FROM EXISTING ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE ON A DAILY BASIS.
13. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN a) 7 CALENDAR DAYS FOR PERIMETER SEDIMENT CONTROL STRUCTURES; DIKES, SWALES, DITCH PERIMETER SLOPES GREATER THAN 3:1 b) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
14. CONSTRUCT WATER AND SEWER UTILITIES.
15. CONSTRUCT CURB AND GUTTER AND BASE COURSE OF ROAD.
16. REMOVE STONE CONSTRUCTION ENTRANCE CLEAN BASE COURSE. APPLY TACK COAT TO BASE COURSE AND LAY SURFACE COURSE.
17. CONSTRUCT SIDEWALKS.
18. COMPLETE STABILIZATION OF ALL DISTURBED AREAS SHALL BE DONE PRIOR TO REMOVAL OF ALL SEDIMENT CONTROL STRUCTURES.
19. REMOVE ALL SILT FENCE, STONE OUTLET TRAPS AND RIP-RAP OUTLET TRAPS.
20. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
21. NOTIFY HOWARD COUNTY OFFICE OF INSPECTION AT DURATION OF PROJECT (301-992-2437).

* THE STORMWATER MANAGEMENT POND WILL BE USED AS A SEDIMENT BASIN UNTIL SUCH TIME AS THE AREA DRAINING TO THE POND IS STABILIZED, INSTALL BLOCKING DEVICE (SEE DETAIL THIS SHEET) CONTRACTOR SHALL REMOVE SEDIMENT FROM POND WHEN THE CLEANOUT ELEVATION (331.00) HAS BEEN REACHED

ENGINEER'S CERTIFICATE

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

[signature] 1/30/89
SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY".

DeBruce Taylor 1/30/89
SIGNATURE OF DEVELOPER — DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[signature] 6/9/89
U.S. SOIL CONSERVATION DISTRICT — DATE

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

Robert W. Zeihen 6/9/89
DISTRICT — DATE
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: OFFICE OF PLANNING AND ZONING

[signature] 6/22/89
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

[signature] 6-16-89
CHIEF, BUREAU OF ENGINEERING — DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

[signature]
CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

[signature]
CHIEF, LAND DEVELOPMENT DIVISION — DATE

PERMANENT SEEDING NOTES:

APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER DISTRUBANCE 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, IF NOT PREVIOUSLY LOOSENED.
SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULE.
1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE-INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER 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. HARROW 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 WILL ANCHORED STRAW.
MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OR 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 FEET OR HIGHTER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.
MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES:

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, IF NOT PREVIOUSLY LOOSENED.
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 2 1/2 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 1 1/2 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.

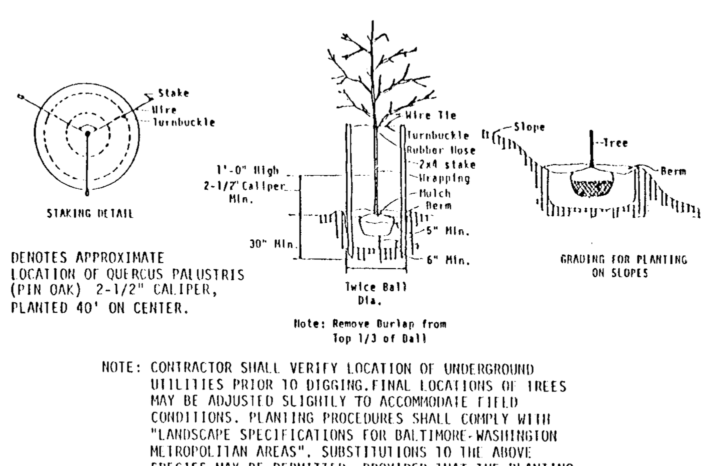
REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEDIMENT CONTROL NOTES:

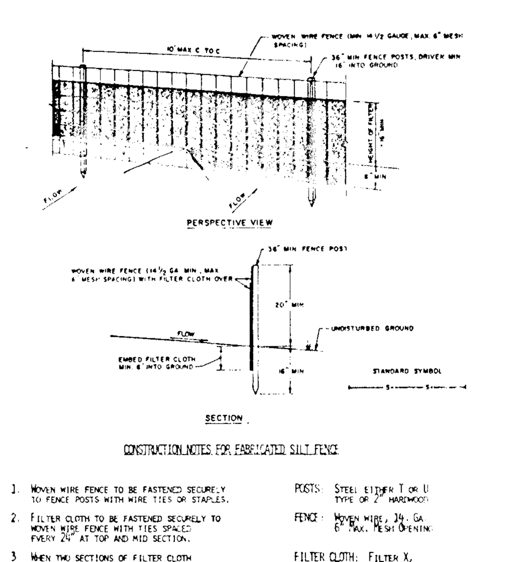
1) A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (992-2437).
2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND 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, CHAPTER 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	5.34	ACRES
AREA DISTURBED	1.8	ACRES
AREA TO BE ROOFED OR PAVED	.64	ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.24	ACRES
TOTAL CUT	35,000	CU.YDS.
TOTAL FILL	35,000	CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION		CU.YDS.

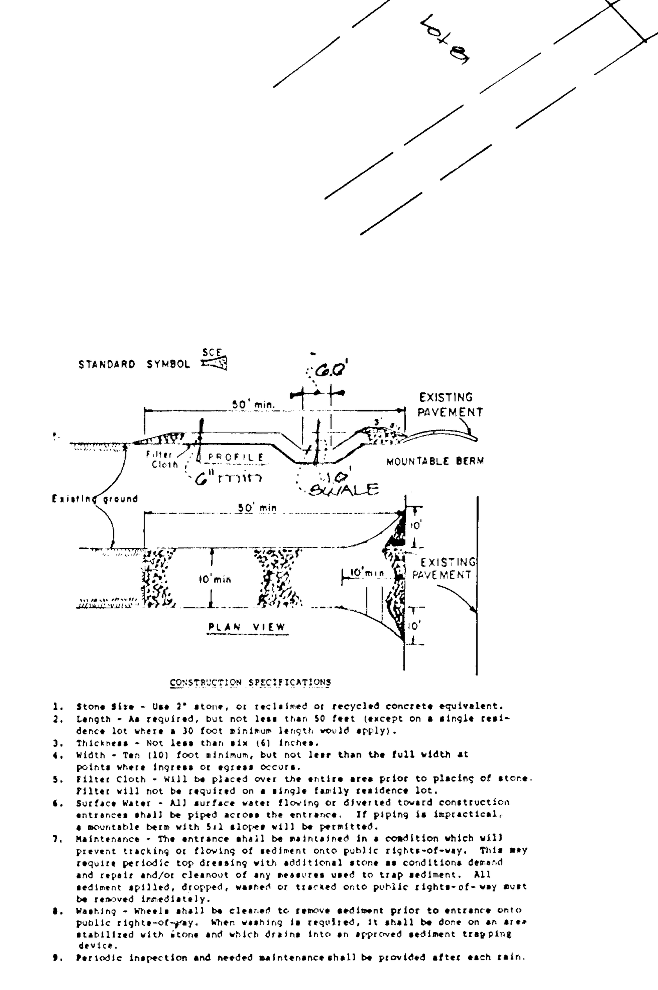
8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.



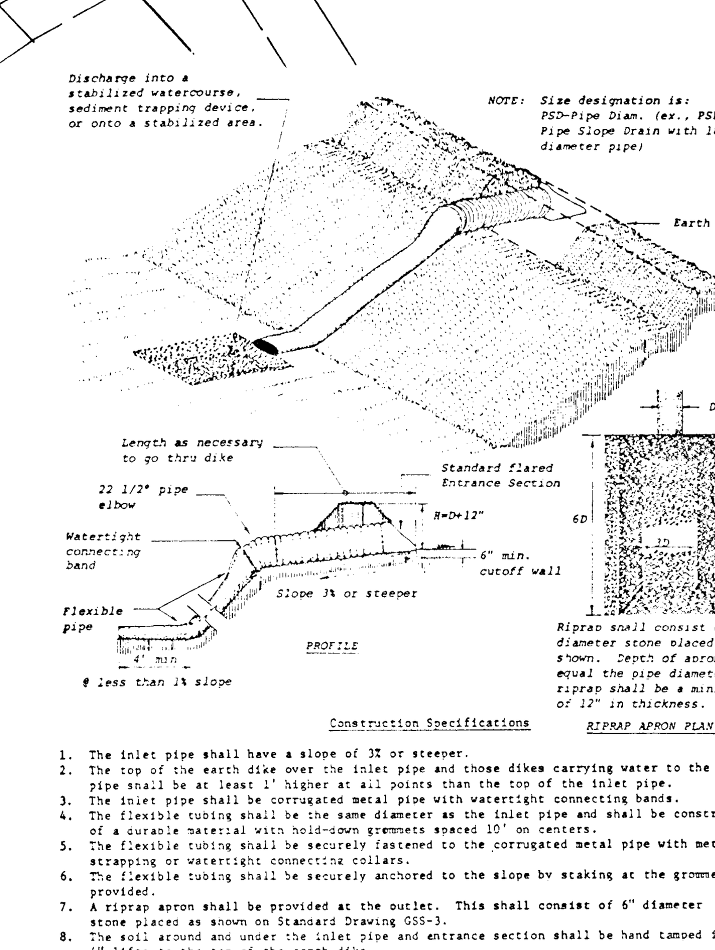
Tree Planting Detail
No Scale



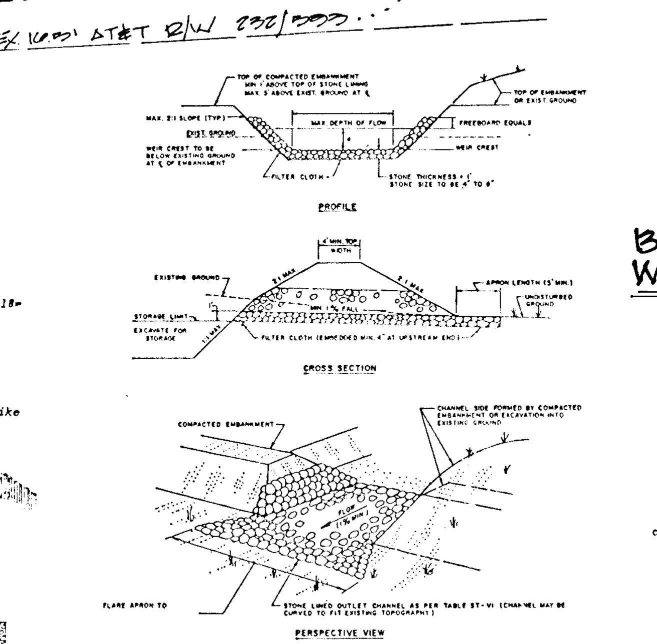
Silt Fence
No scale



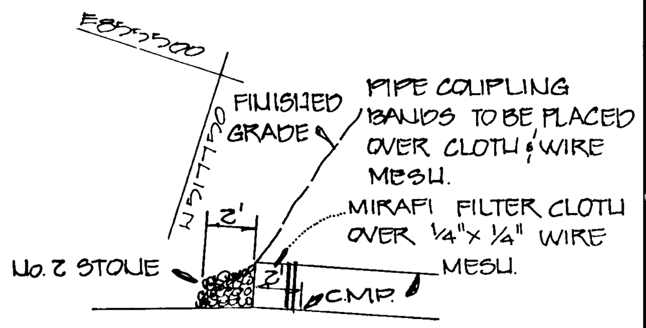
Stabilized Construction Entrance
No Scale



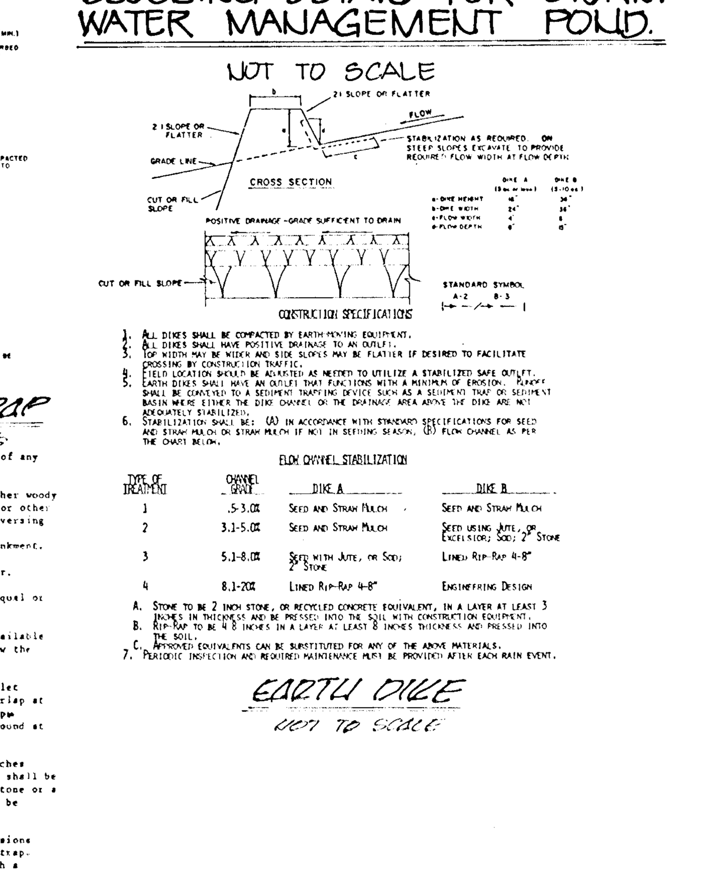
GRADE STABILIZATION STRUCTURE
PIPE SLOPE DRAIN (FLEXIBLE)
NOT TO SCALE



RIP RAP OUTLET SEDIMENT TRAP



BLOCKING DETAIL FOR STORM-WATER MANAGEMENT POND
NOT TO SCALE



EARTH DIKE
NOT TO SCALE

Fisher, Collins & Carter, Inc.
civil engineers and land surveyors
8380 court avenue
ellicott city, maryland 21043
telephone: (301) 461-2855

Owner and Developer
Taylor Land Service Co Inc.
c/o Land Design and Development
8307 Main Street
ellicott city, maryland 21043

Charles J. Crovo Sr. — 1/30/89 Date

Street tree, grading & sediment control plan
The Townhomes of Timberland
lots 1-110
second election district
Howard County, Maryland
tax map: 25 p/o parcel: 65
scale: 1" = 50' sheet 8 of 11
date: January 25, 1989

F89-151

APPROVED: OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE

ENGINEER'S CERTIFICATE

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

SIGNATURE OF ENGINEER — DATE 1/30/89

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

6/9/89

HOW. SOIL CONSERVATION DISTRICT — DATE

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

APPROVED: Robert W. Zielke 6/9/89

DISTRICT CHAIRMAN — DATE

HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

6/16/89

CHIEF, LAND DEVELOPMENT DIVISION — DATE

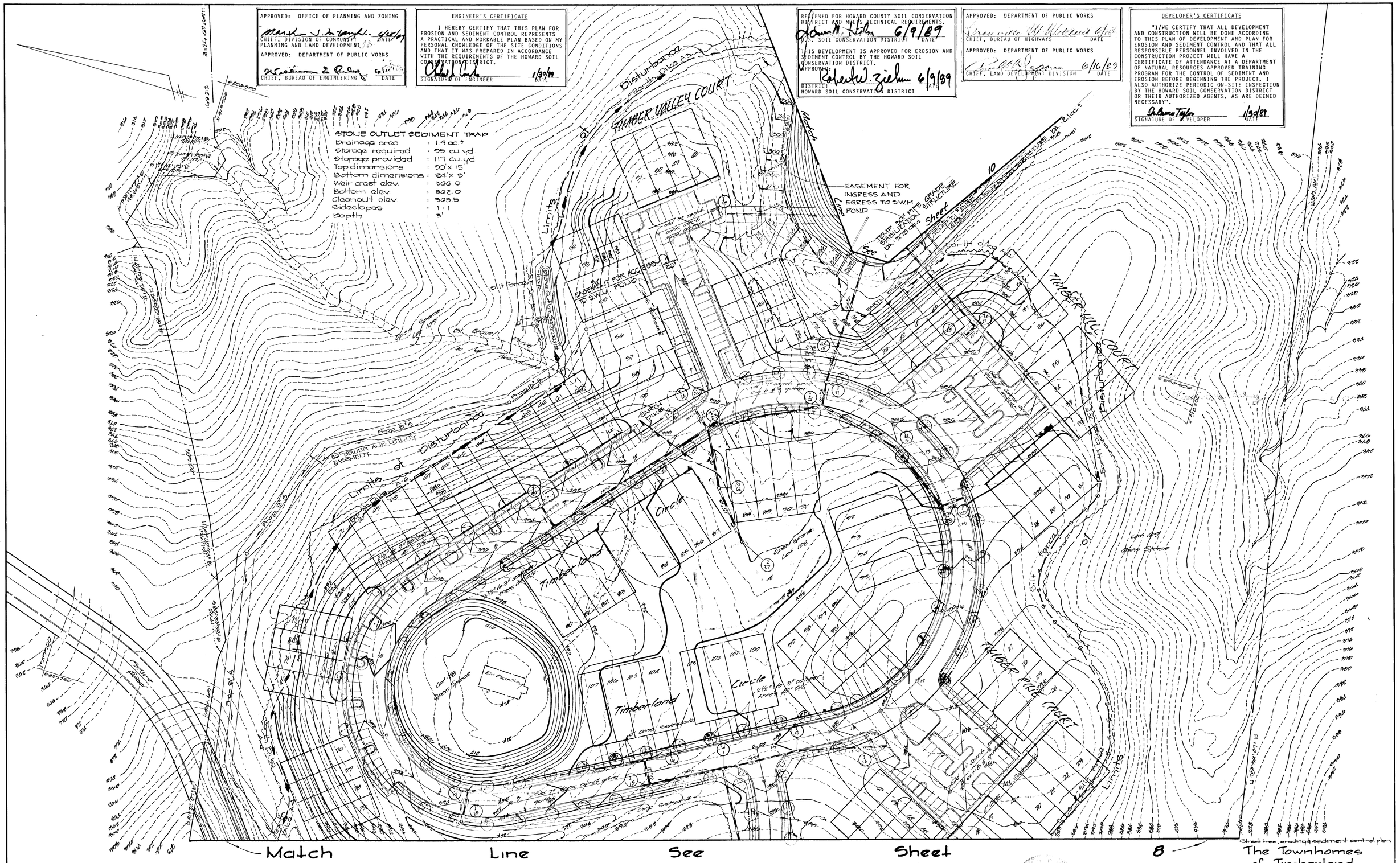
DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY".

SIGNATURE OF DEVELOPER — DATE 1/30/89

STONE OUTLET SEDIMENT TRAP

Drainage area	1.4 ac ±
Storage required	95 cu yd
Storage provided	117 cu yd
Top dimensions	20' x 15'
Bottom dimensions	8' x 3'
Weir crest elev.	366.0
Bottom elev.	362.0
Cleanout elev.	363.5
Sideslopes	1:1
Depth	3'



Street tree, grading & sediment control plan

The Townhomes of Timberland

lots 1-110
second election district
Howard County, Maryland
tax map: 29 p/o parcel: 199
scale: 1" = 50' (sheet 7 of 11)
date: January 29, 1989

Fisher, Collins & Carter, Inc.
civil engineers and land surveyors
8300 court avenue
ellicott city, maryland 21043
telephone: (301) 461-2855

Revised Tree & Grading Plan and F-17-86 R1 JC 10/3/86

Owner and Developer
Taylor Land Service Co. Inc.
c/o Land Design and Development
8307 Main Street
ellicott city, maryland 21043

Charles J. Crovo Sr. — Date 1/30/89

F89-151

STORMWATER MANAGEMENT FACILITY SPECIFICATIONS

I. SITE PREPARATION

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

II. EARTH FILL

Material

The fill material shall be taken from approved designated borrow area or areas. It shall be free from roots, stumps, wood, rubbish, 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 at least 10 percent above the design elevation (including freeboard) unless otherwise shown on the plans. All fill material shall be CL or ML, as approved by Soils Engineer.

Placement

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

Core Trench

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

III. STRUCTURAL BACKFILL

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

IV. PIPE CONDUITS

A. CORRUGATED METAL PIPE

1. Materials - Metal Pipe - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211, with watertight coupling bands.
2. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the control structure shall be mortared all around. Watertight coupling bands shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight.
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.

V. CONCRETE

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

VI. STABILIZATION

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

Fertilizer:	10-10-10	@ 11.5 lbs./1000 sq.ft.
Seed:	Crownvetch inoculated	@ 0.5 lbs./1000 sq.ft.
	'KY-31' Tall Fescue	@ 1.5 lbs./1000 sq.ft.
Mulch:	Straw	@ 80 lbs./1000 sq.ft.
Asphalt Tie-down:	Slopes	@ 8 gal./1000 sq.ft.
	Flat areas	@ 5 gal./1000 sq.ft.

OPERATION AND MAINTENANCE SPECIFICATIONS

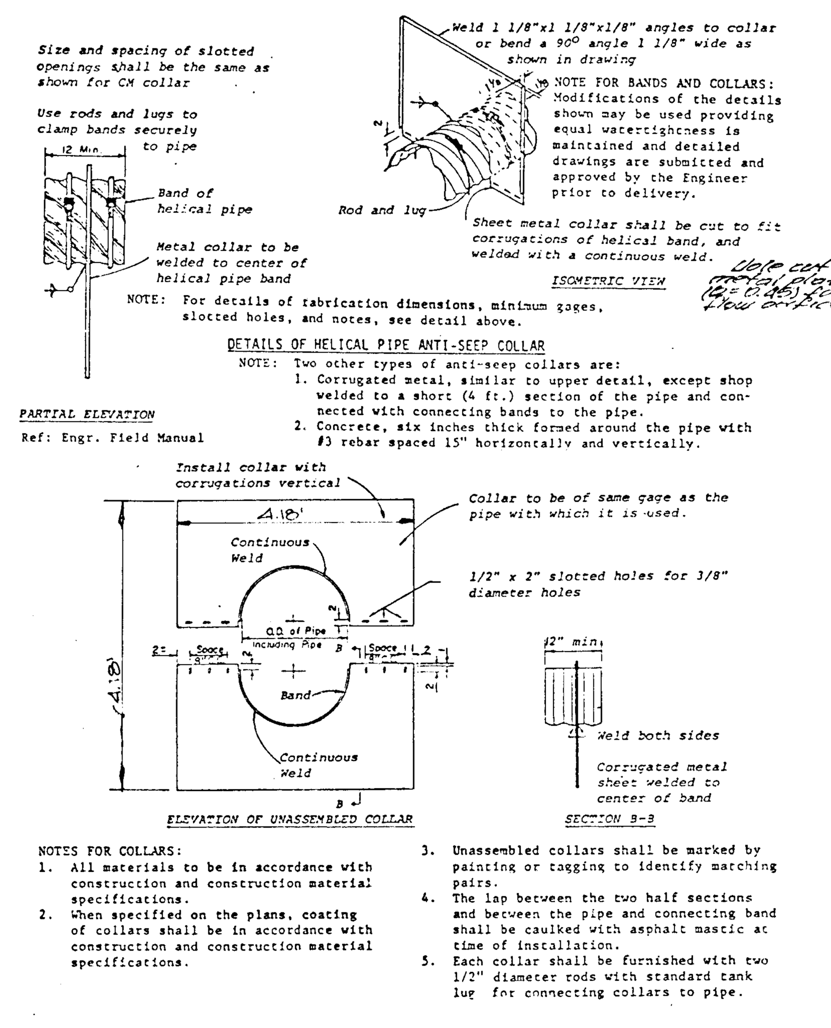
I HEREBY CERTIFY THAT I WILL OPERATE AND MAINTAIN THE COMPLETED POND IN ACCORDANCE WITH THE FOLLOWING:

1. PERIODIC INSPECTIONS OF THE FACILITY WILL BE MADE TO IDENTIFY POTENTIAL PROBLEMS THAT MAY AFFECT ITS SAFETY. THESE INSPECTIONS WILL BE MADE AFTER PERIODS OF HEAVY RAINFALL AND AT LEAST TWICE ANNUALLY. INSPECTION REPORTS SHALL BE KEPT UNTIL THE NEXT SUBSEQUENT INSPECTION. INSPECTIONS ITEMS TO BE LOOKED AT INCLUDE
   a) SPILLWAY AND OUTLET WORKS;
   b) RIP-RAP;
   c) VEGETATIVE COVER;
   d) CRACKS IN THE FILL;
   e) SLOPE FAILURES; AND
   f) SEEPAGE AND OTHER SIGNS OF DISTRESS.
2. PROBLEMS IDENTIFIED DURING INSPECTIONS WILL BE PROMPTLY CORRECTED. MAJOR PROBLEMS WILL BE BROUGHT TO THE ATTENTION OF THE SOIL CONSERVATION DISTRICT AND THE DAM SAFETY DIVISION OF THE MARYLAND WATER RESOURCES ADMINISTRATION. AS A VERY MINIMUM, GRASSY VEGETATION WILL BE MAINTAINED IN A DENSE AND HEALTHY STATE, AND WOODY VEGETATION WILL NOT BE PERMITTED TO GROW ON THE EMBANKMENT.

ALL EXPOSED AREAS OF THE EMBANKMENT AND POND SHALL BE STABILIZED BY:

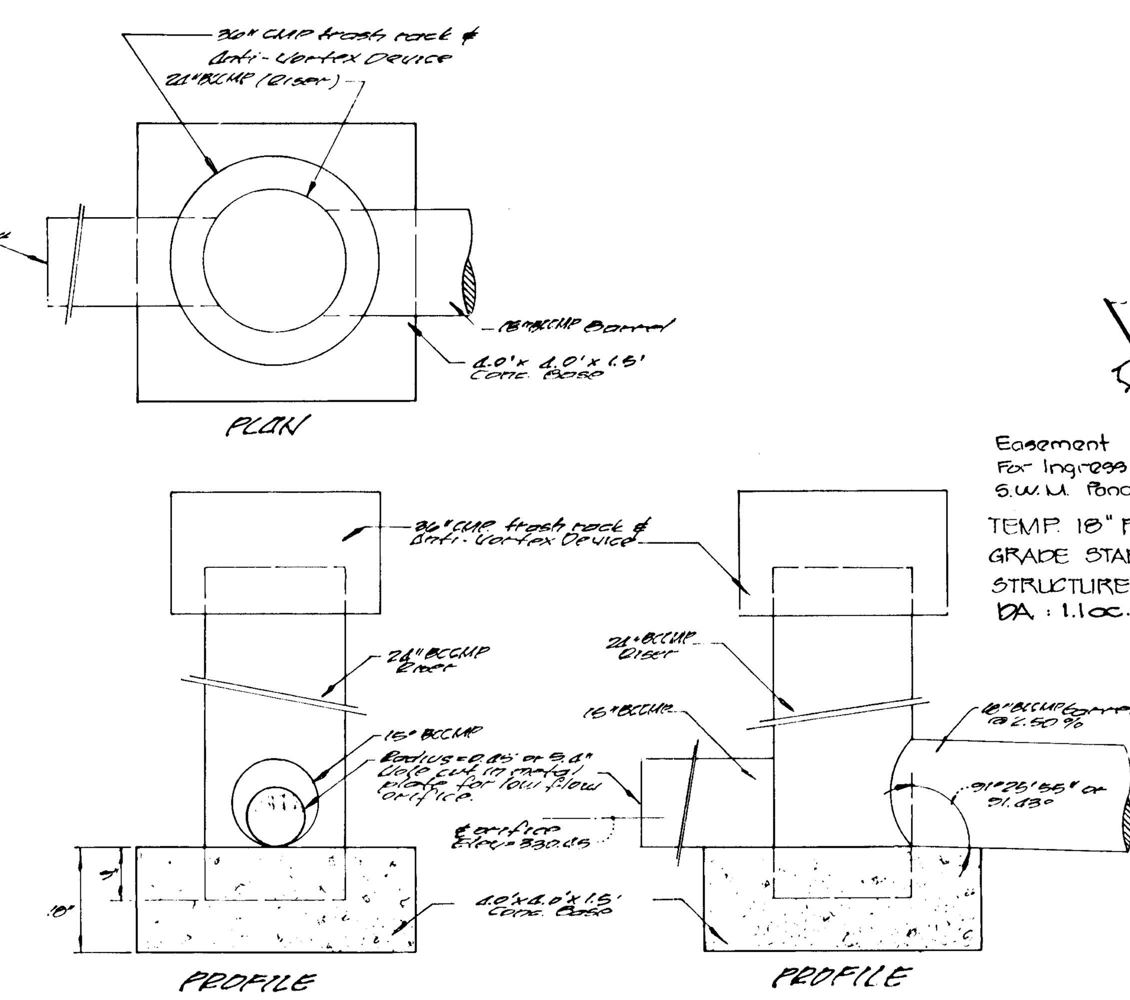
A. SPREADING 4" TOPSOIL (INCLUDING BOTTOM OF POND)
B. WORKING IN 1 TON OF GROUND LIMESTONE AND 1,000 POUNDS OF 10-10-10 FERTILIZER PER ACRE (INCLUDING BOTTOM OF POND).
C. SEED WITH 40 LBS/ACRE OF "KENTUCKY 31" TALL FESCUE, AND 15 LBS./ACRE OF CROWNVETCH INOCULATED.
D. MULCH WITH 1 1/2 TONS STRAW PRE ACRE.
E. TIE DOWN MULCH WITH EMULSIFIED ASPHALT @ 348 GALLONS/ACRE.

FISHER, COLLINS & CARTER, INC.
Civil Engineers and Land Surveyors
8388 Court Avenue
Ellicott City, Maryland 21043
Telephone: (301) 461-2855



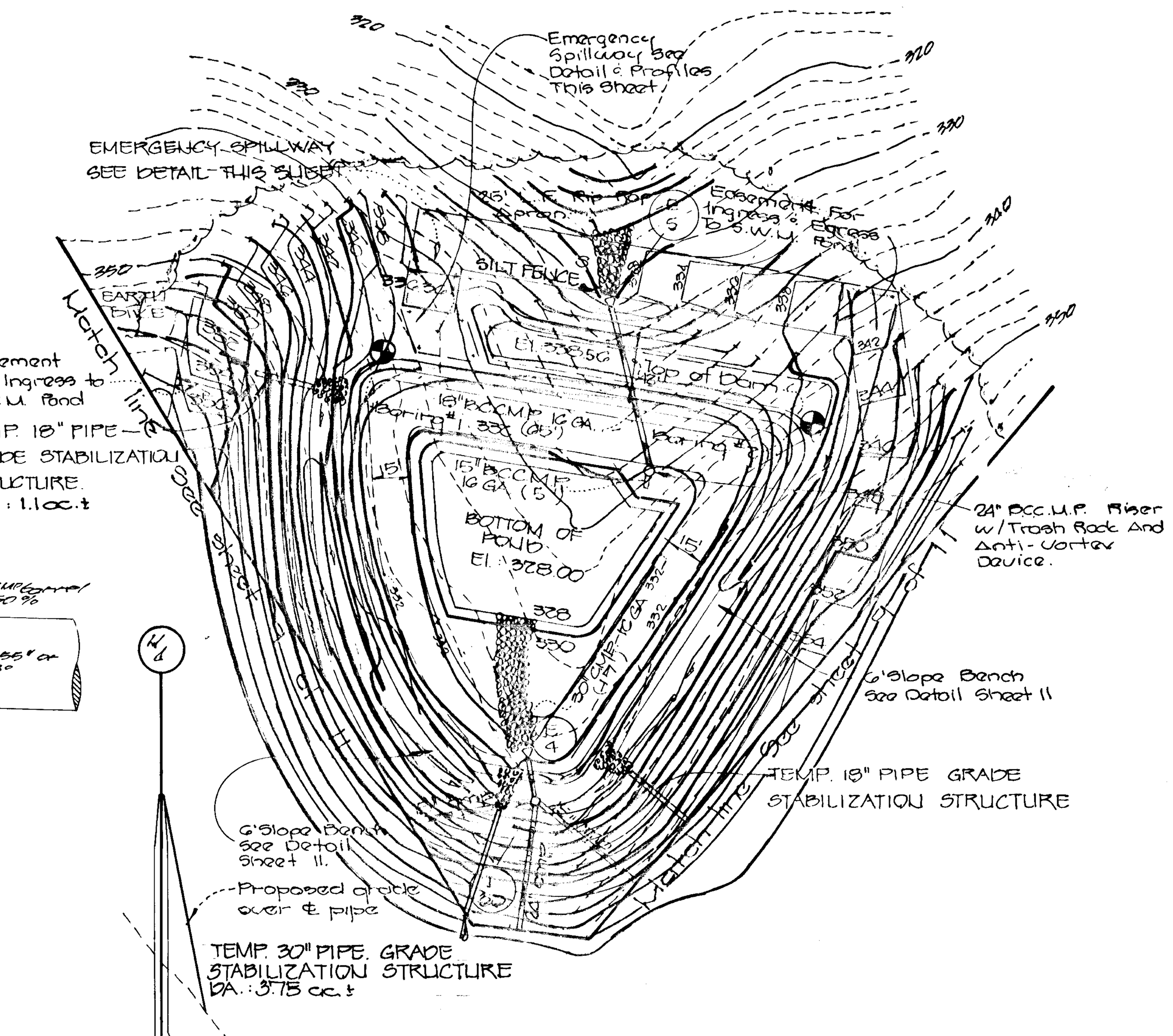
CORRUGATED METAL ANTI-SEEP COLLAR DETAILS

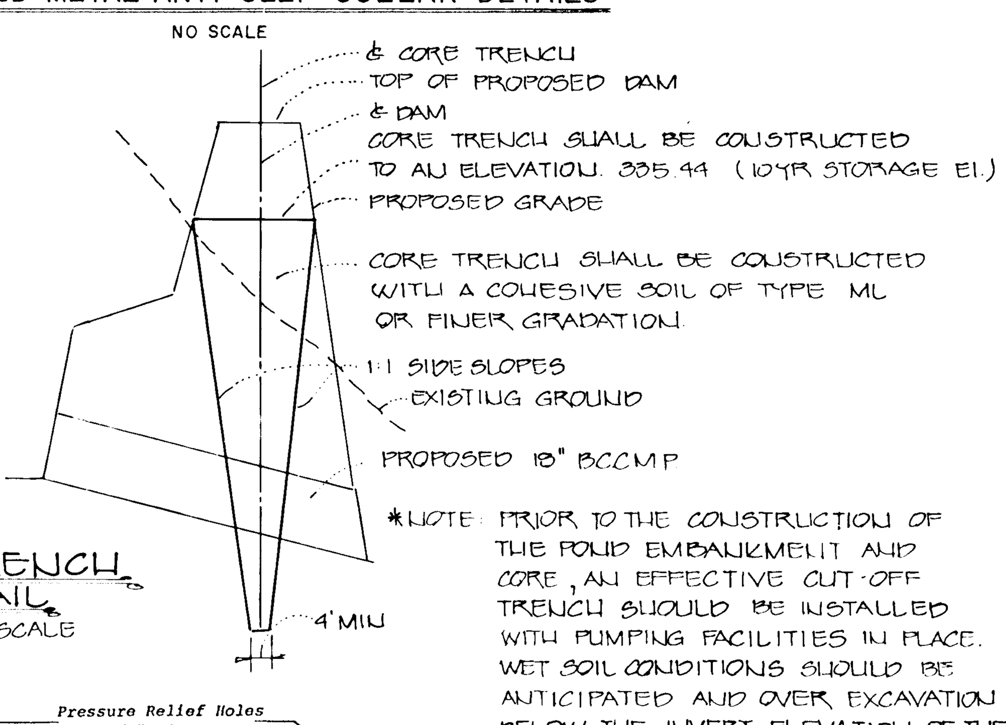
NO SCALE



STRUCTURE DETAILS

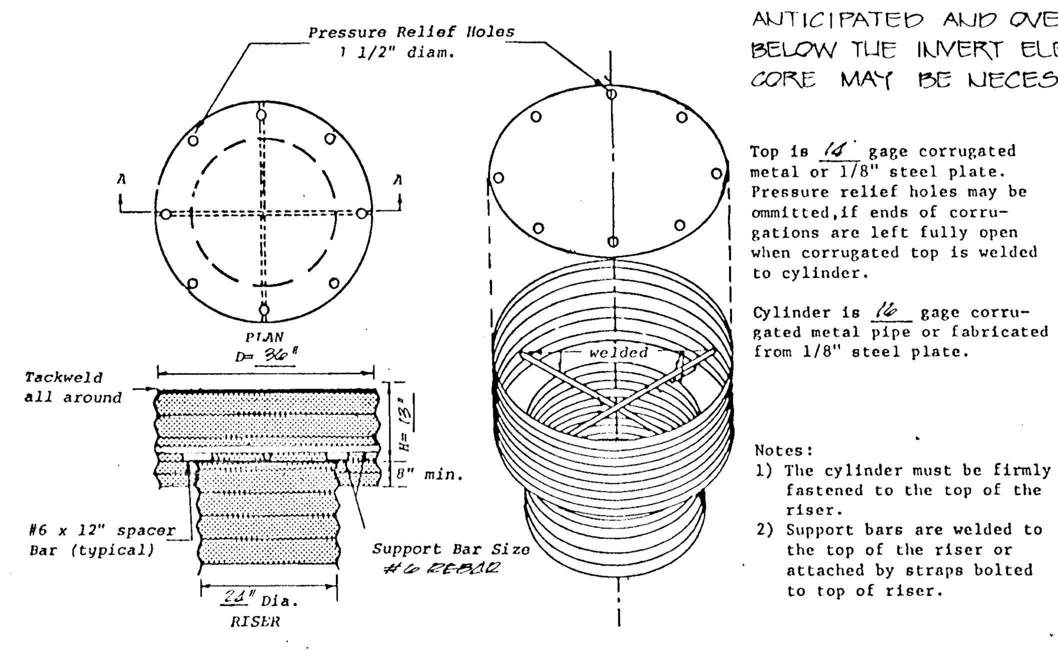
NO SCALE





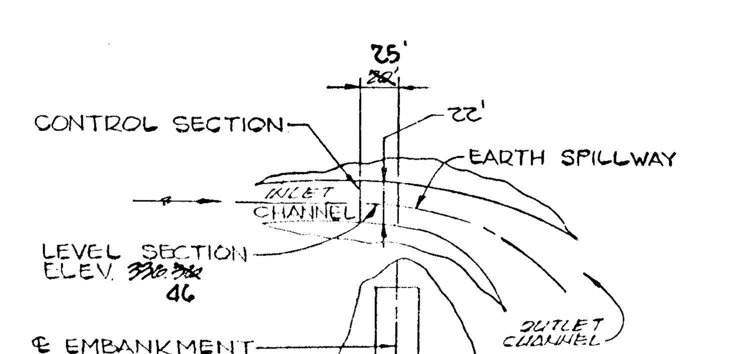
CORE TRENCH DETAIL

NOT TO SCALE



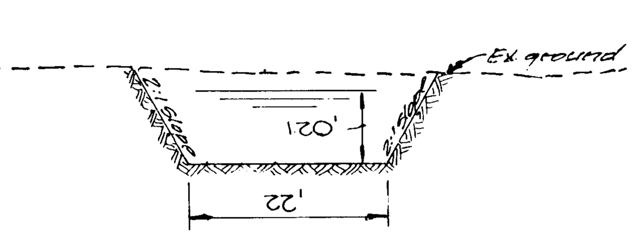
CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE DETAIL

NOT TO SCALE



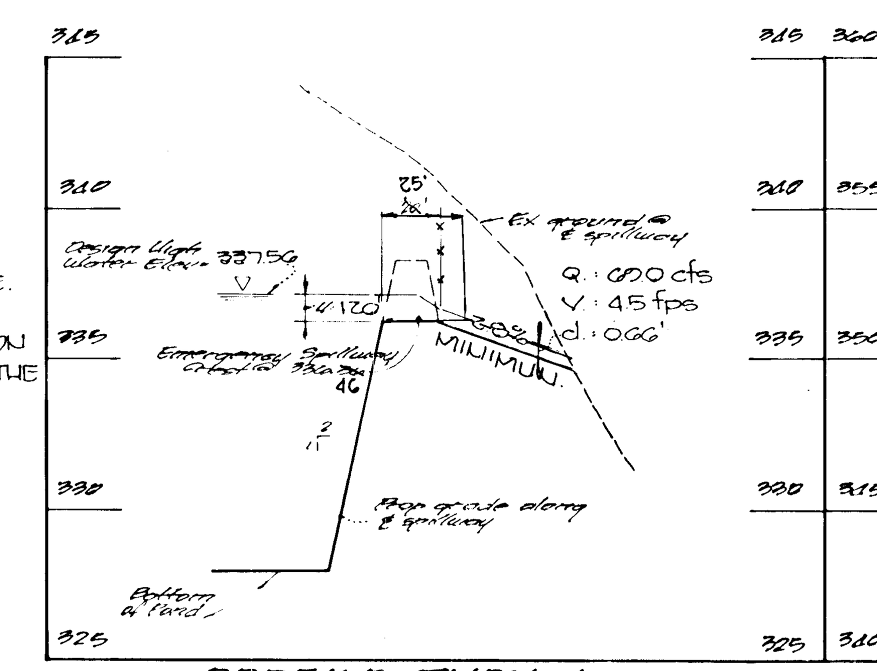
PLAN OF EARTH SPILLWAY AT POND

NO SCALE

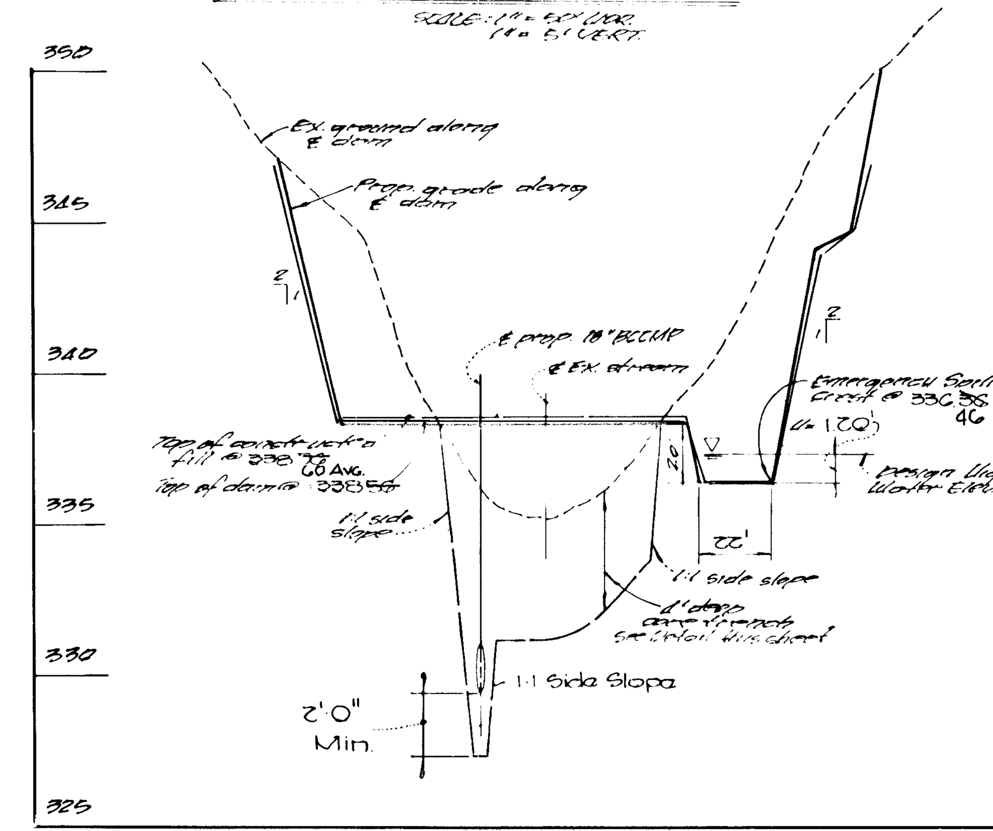


CROSS SECTION OF EARTH SPILLWAY AT CONTROL SECTION

NO SCALE

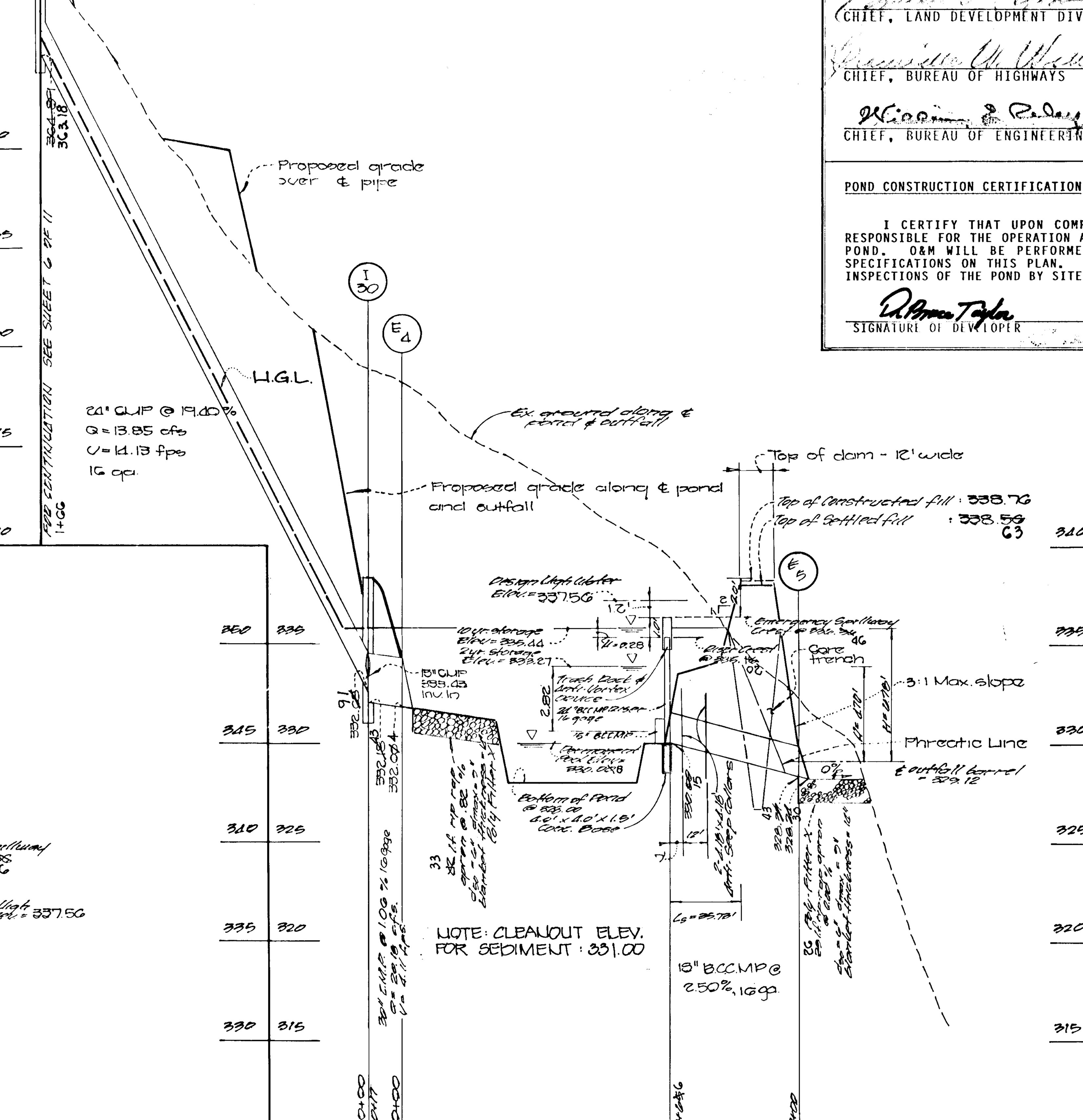


PROFILE THRU ℄ EMERGENCY SPILLWAY



PROFILE ALONG ℄ DAM

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



PROFILE THRU ℄ RISER AND BARREL

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

STORM WATER MANAGEMENT POND CERTIFICATION AND APPROVAL

DEVELOPER'S CERTIFICATE

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

D. Bruce Taylor — 1/30/89
SIGNATURE OF DEVELOPER — DATE

ENGINEER'S CERTIFICATE

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

[signature] — 1/30/89
SIGNATURE OF ENGINEER — DATE

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

[signature] — 6/9/89
U.S. SOIL CONSERVATION SERVICE — DATE

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

Robert W. Ziehm — 6/9/89
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED: OFFICE OF PLANNING AND ZONING

[signature] — 6/28/89
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[signature] — 6/16/89
CHIEF, LAND DEVELOPMENT DIVISION — DATE

[signature] — 6/15/89
CHIEF, BUREAU OF HIGHWAYS — DATE

[signature] — 6-14-89
CHIEF, BUREAU OF ENGINEERING — DATE

POND CONSTRUCTION CERTIFICATION

I CERTIFY THAT UPON COMPLETION OF CONSTRUCTION I WILL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE (O&M) OF THE SMALL POND. O&M WILL BE PERFORMED BY ME IN ACCORDANCE WITH THE SPECIFICATIONS ON THIS PLAN. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS OF THE POND BY SITE AND LOCAL AGENCIES.

D. Bruce Taylor — 1/30/89
SIGNATURE OF DEVELOPER — DATE

NOTES:
1. All pipe joints shall be watertight.
2. Hazard classification of pond class 'A'.
3. All welds shall be continuous around the diameter of the pipe.

Owner and Developer
Taylor Land Service Co.
c/o Land Design and Development
8307 Main Street
Ellicott City, Maryland 21043

[signature] — 1/30/89
CHARLES J. CROWD SR. — DATE

STORMWATER MANAGEMENT POND NOTES & DETAILS

TOWNHOMES OF TIMBERLAND

Lots 1-110

Second Election District

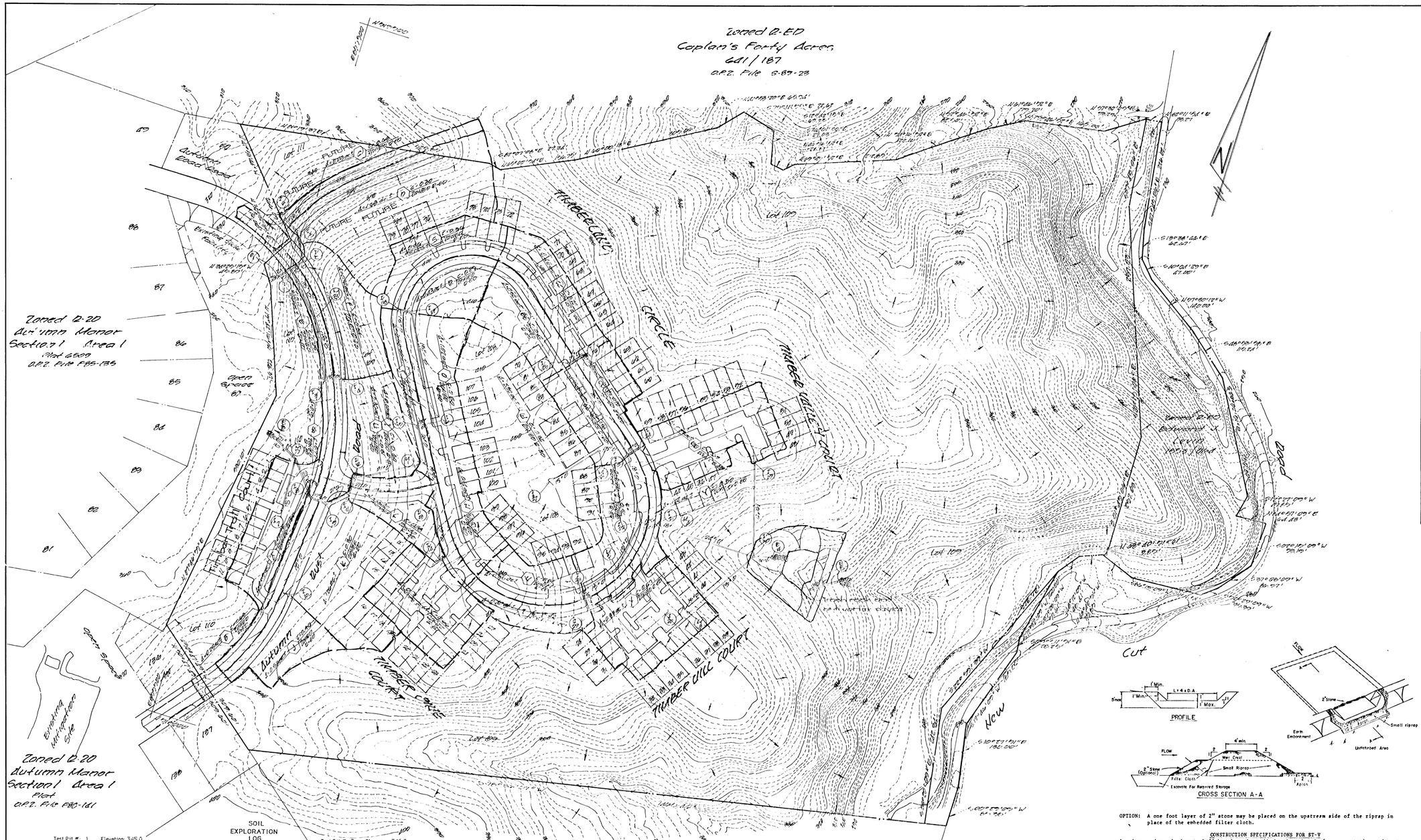
Howard County, Maryland

Tax Map 25 Blocks 13,14,19,20 Parcel 65

Scale: as shown Sheet 10 of 11

Date: January 25, 1989

ASBUILT 2-14-97 F89-151



Plan
Scale: 1" = 100'

APPROVED: HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS.

CHIEF: LAND DEVELOPMENT DIVISION — DATE 6/15/89

CHIEF: BUREAU OF HIGHWAYS — DATE 6/15/89

Charles Crowe Sr. 1/30/89

Townhomes of Timberland

Lots 1-110
second election district
howard county, maryland
tax map 30 blocks 18,19,19,20 parcel 69

Drainage Area Map

Owner and Developer
Taylor Land Service Co.
c/o Land Design and Development
8907 Main Street
Ellicott City, Maryland 21043

Scale: 1" = 100'	Date: 12/20/88	Dwg. No. 11 of 11
Des.: R. Drake	Drn.: T. Solan	Ckd.: C. Crowe

Fisher, Collins and Carter, Inc.
Civil Engineers and Land Surveyors
8888 Court Ave. Ellicott City, MD 21043

Approved:
Department of Public Works

Chief, Bureau of Engineering — Date

Approved:
Office of Planning and Zoning

Chief, Division of Comprehensive Planning and Land Development — Date 6/20/89

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION DISTRICT — DATE 6/9/89

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

Robert W. Zeihm 6/9/89
HOWARD SOIL CONSERVATION DISTRICT — DATE

SOIL EXPLORATION LOG

Test Pit #: 1 Elevation: 345.0

ELEV.	DESCRIPTION OF MATERIALS (Classification)	STRATA DEPTH	DEPTH SCALE	SAMPLE Cond.	Blows/6"	No.	Type	Rec.
342.5	0.5' to 1.0' Diameter Cobbles and topsoil (fill)	2.5	2.5					
338.5	Dark Brown micaceous course to fine SAND, some Silt, little Clay (SM-SC)	6.5	5					
	Dense Black/White micaceous SAND, some Silt, some fragmented rock (GM) (DECOMPOSED ROCK)		7.5					
	Test pit terminated at 9.0' Refusal at 9.0'		10		Backhoe refusal at 9.0'			
			15					
			20					
			25					

Test Pit #: 2 Elevation: 346.0

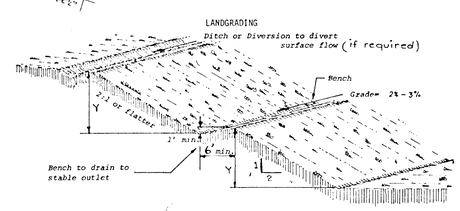
ELEV.	DESCRIPTION OF MATERIALS (Classification)	STRATA DEPTH	DEPTH SCALE	SAMPLE Cond.	Blows/6"	No.	Type	Rec.
	0.5' Topsoil							
343.0	Orange/Brown micaceous Sandy Clayey Silt (ML)	3.0	2.5					
338.0	Dark Brown micaceous to Green/Brown course to fine SAND, some Silt little Clay (SM-SC)	8.0	5					
	Dense Black/White micaceous SAND some Silt, some fragmented rock (GM) (DECOMPOSED ROCK)		7.5					
332.0	Test pit terminated at 14.0'	14.0	10					
			15					
			20					
			25					

SAMPLER TYPE
DS-Driven Split Spoon
PT-Pressed Shelby Tube
CA-Continuous Flight Auger
RC-Rock Core

GROUND WATER DEPTH
At Completion (ft) Dry
At 24 Hours (ft) 8.0'

CONDITIONS
D-Disintegrated
I-Intact
U-Undisturbed
L-Lost

SOIL TESTING PREPARED BY:
INVESTIGATIVE TESTING AND ENGINEERING INC.
8020 VERO ROAD, SUITE C
BALTIMORE MD 21227
ITE PROJECT NO 20-5012G
DATE TESTED: MARCH 15, 1980



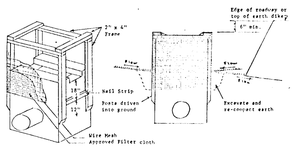
Slope Bench Detail
No Scale

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
Not to Scale



A swale, ditchline or yard inlet protection.

1. Excavate completely around inlet to a depth of 18" below notch elevation.
2. Drive 3 x 4 post 1' into ground at four corners of inlet. Place wall strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame using overlap joint shown. Top of frame (wale) must be 6" below edge of roadway adjacent to inlet.
3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
4. Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
6. If the inlet is an in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at level 6" higher than the top of frame (wale).
7. This structure must be inspected frequently and the filter fabric replaced when clogged.

Inlet Protection Detail
not to scale

F80-151