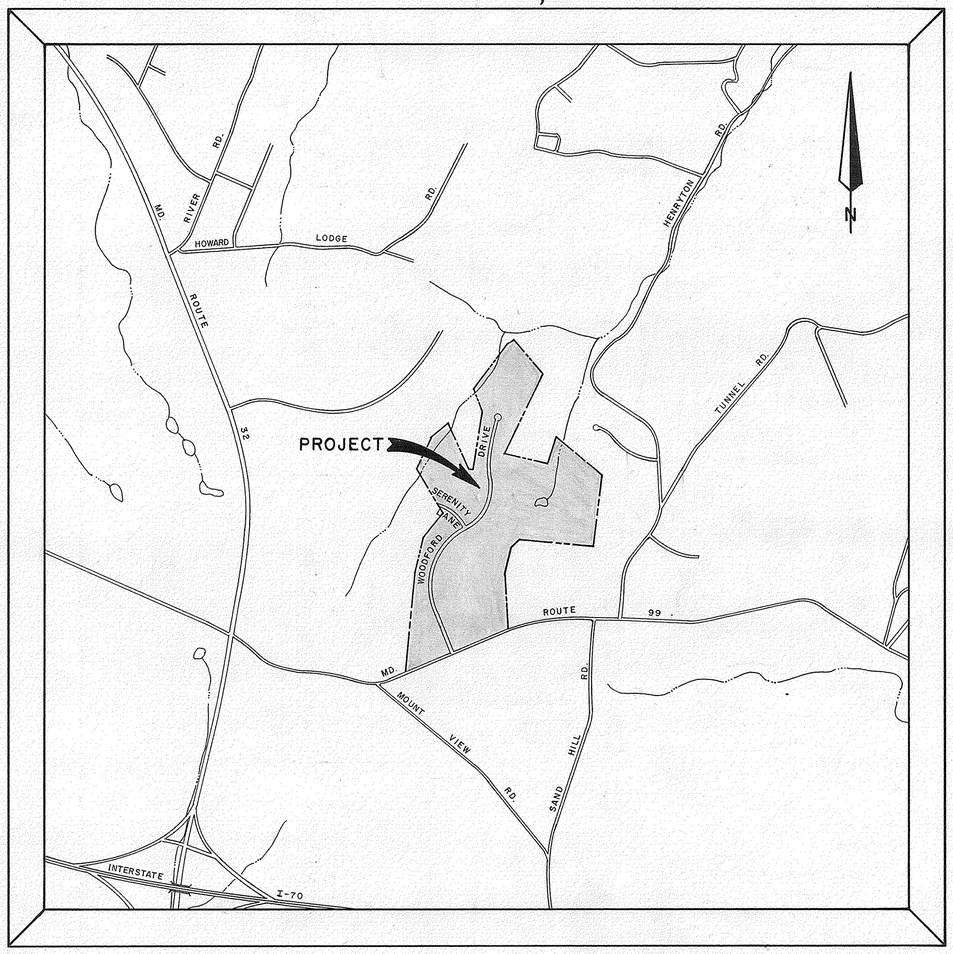
GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HRS. IN ADVANCE OF ANY CONSTRUCTION.
3. STORM DRAINAGE TRENCHES WITHIN ROAD RIGHT-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE
4. ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.
5. CONTRACTOR TO NOTIFY THE HOWARD COUNTY INSPECTION AND SURVEY DIVISION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TELEPHONE 792-7272.
6. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION, CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
7. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT REVISED EDITION.
8. FOR DRIVEWAY CULVERTS, SEE DRAINAGE AREA MAP, SHEET NUMBER 17.

SPRING VALLEY CHASE

SECTION ONE
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND



VICINITY MAP

SCALE: 1" = 1200'

APPROVED:
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED:
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 4/2/90

INDEX OF SHEETS

SHEET 1 TITLE SHEET
SHEETS 2-8 ROAD PLANS
SHEETS 9-10 STORM DRAIN PROFILES AND DETAILS
SHEETS 11-15 SEDIMENT CONTROL PLANS
SHEETS 16-18 DRAINAGE AREA MAPS
SHEET 19 STORM WATER MANAGEMENT NOTES AND DETAILS
SHEET 20-22 GRADING AND SEDIMENT CONTROLS FOR THE SCHOOL SITE
SHEET 23-24 STORMWATER MANAGEMENT NOTES AND DETAILS FOR THE SCHOOL SITE

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

OWNER AND DEVELOPER

MS. SUSAN BAKER
C/O ALBEE FARM
12150 ROUTE 99
MARRIOTTSVILLE, MD. 21104

MILLER BUILT CORPORATION
10480 LITTLE PATUXENT PARKWAY
SUITE 600
COLUMBIA, MARYLAND 21044

STATE OF MARYLAND — CHARLES J. CROVO, SR. — No. 13204 — REGISTERED PROFESSIONAL ENGINEER

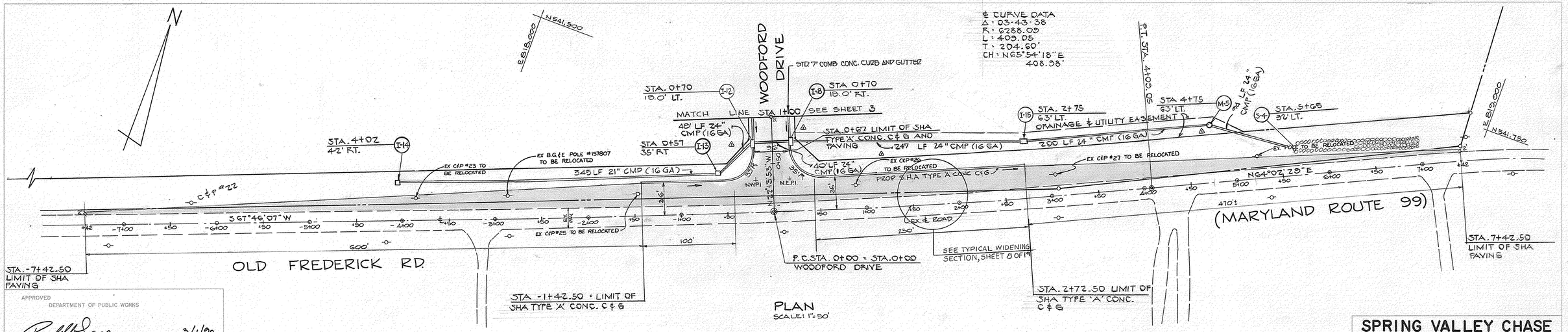
CHARLES J. CROVO SR. — DATE 7/12/89

NUM.	DATE	DESCRIPTION
△	6-22-92	REVISED SHEET NUMBERS ON SHEETS 1-24.

REVISION

F 90-24

1549



PLAN
SCALE: 1"=50'

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/24/90

NOTE: ALL DISTURBED OR NEW PAVING REQUIRED WITHIN S.H.A. RIGHT OF WAY SHALL BE PLACED AS FOLLOWS:
3" (NOMINAL) BITUMINOUS CONCRETE SURFACE (2-1½" COURSES) ON:
4" (NOMINAL) BITUMINOUS CONCRETE BASE ON ONE OF THE FOLLOWING:
6" GRADED AGGREGATE BASE, OR
7" BANK RUN GRAVEL BASE.

FOR CURB WITHIN S.H.A. USE TYPE 'A' CONC. CURB & GUTTER

ALL WORK ON MD. RTE 99 SHALL BE DONE IN ACCORDANCE WITH S.H.A. REQUIREMENTS.

UTILITIES AND OTHER OBSTRUCTIONS AS SHOWN HEREON HAVE BEEN LOCATED BY ACTUAL FIELD MEASUREMENT SUPPLEMENTED BY INFORMATION OBTAINED FROM VARIOUS AGENCIES INVOLVED. HOWEVER, WE DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF THE INFORMATION RECEIVED. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION AND MUST NOTIFY THE UTILITY COMPANIES INVOLVED THRU MISS UTILITY AT 1-800-257-7777 PRIOR TO COMMENCING WORK.

STATE OF MARYLAND — CHARLES J. CROVO — No. 12208 — REGISTERED PROFESSIONAL ENGINEER

CHARLES J. CROVO, SR. — DATE 7/19/89

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

PLAN AND PROFILE OLD FREDERICK ROAD MD. ROUTE 99

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

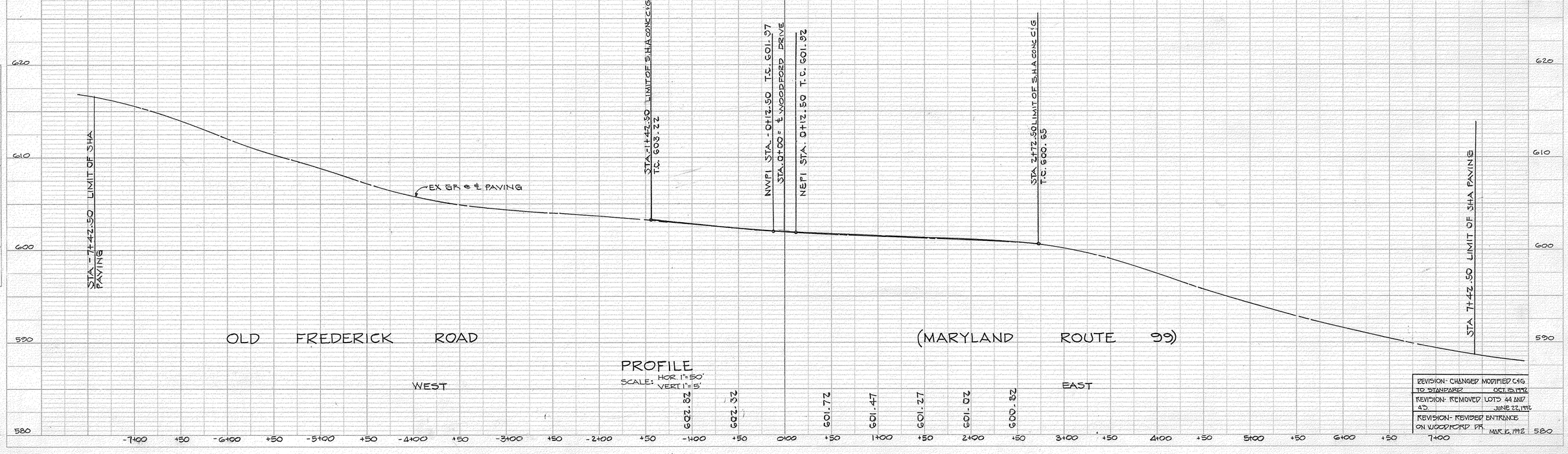
SCALE AS SHOWN	DATE 6-15-89	DWG. NO. 2 OF 24
DES. OB	DRN. EM	CHK. CC

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043
630

DATE	REVISION	NUMBER
3-2-92	REVISE STORM DRAINS & CURB	1

PLAN — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R/W CHECKED — NOTE BOOK NO. — BY — DATE

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD — NOTE BOOK NO. — BY — DATE

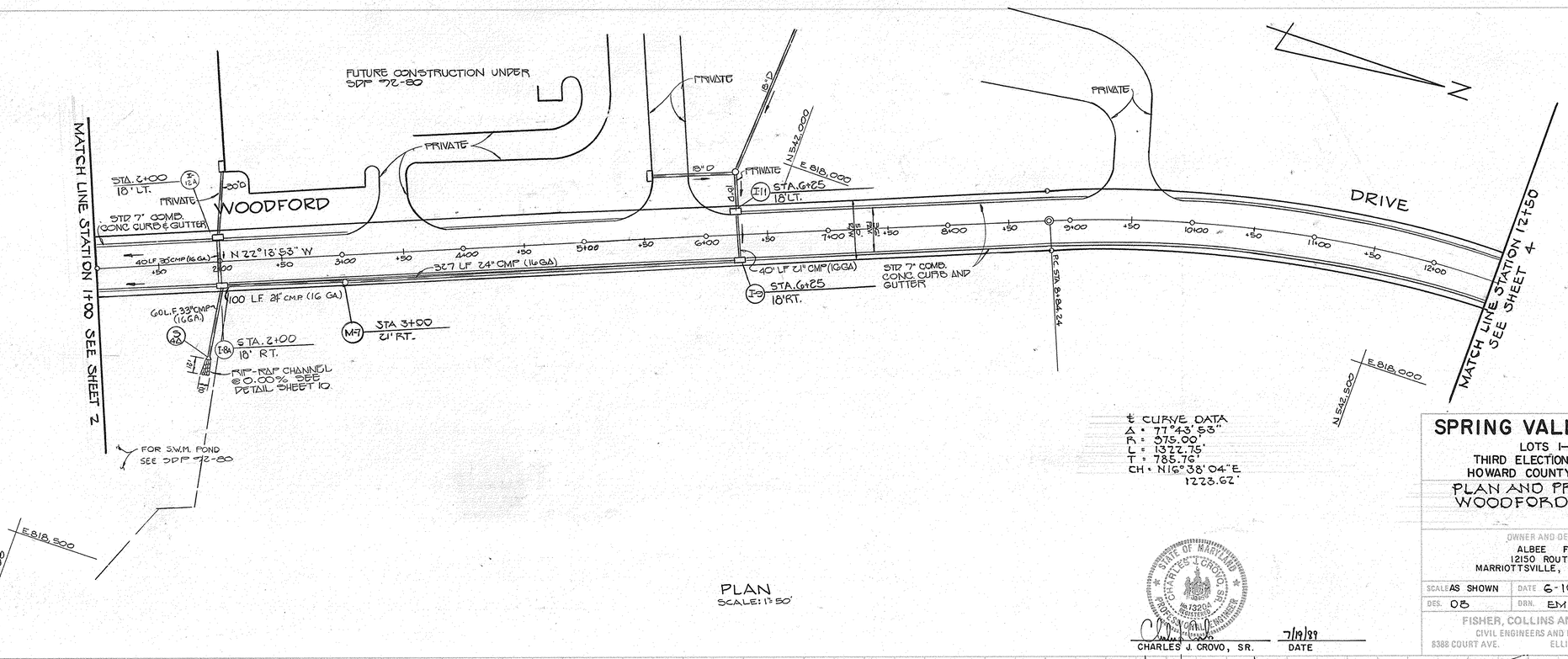


DATE	REVISION	NUMBER
3-2-92	REVISE STORM DRAINS & CURB	1

REVISION- CHANGED MODIFIED C&G TO STANDARD — OCT. 15, 1992
REVISION- REMOVED LOTS 44 AND 45 — JUNE 22, 1992
REVISION- REVISED ENTRANCE ON WOODFORD DR. — MAR. 16, 1992

1549

F 90-24



PLAN
SCALE: 1" = 50'

℄ CURVE DATA
Δ = 77°43'53"
R = 375.00'
L = 1372.75'
T = 785.76'
CH = N16°38'04"E
1223.62'

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 3/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 4/22/90

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

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

PLAN AND PROFILE WOODFORD DRIVE

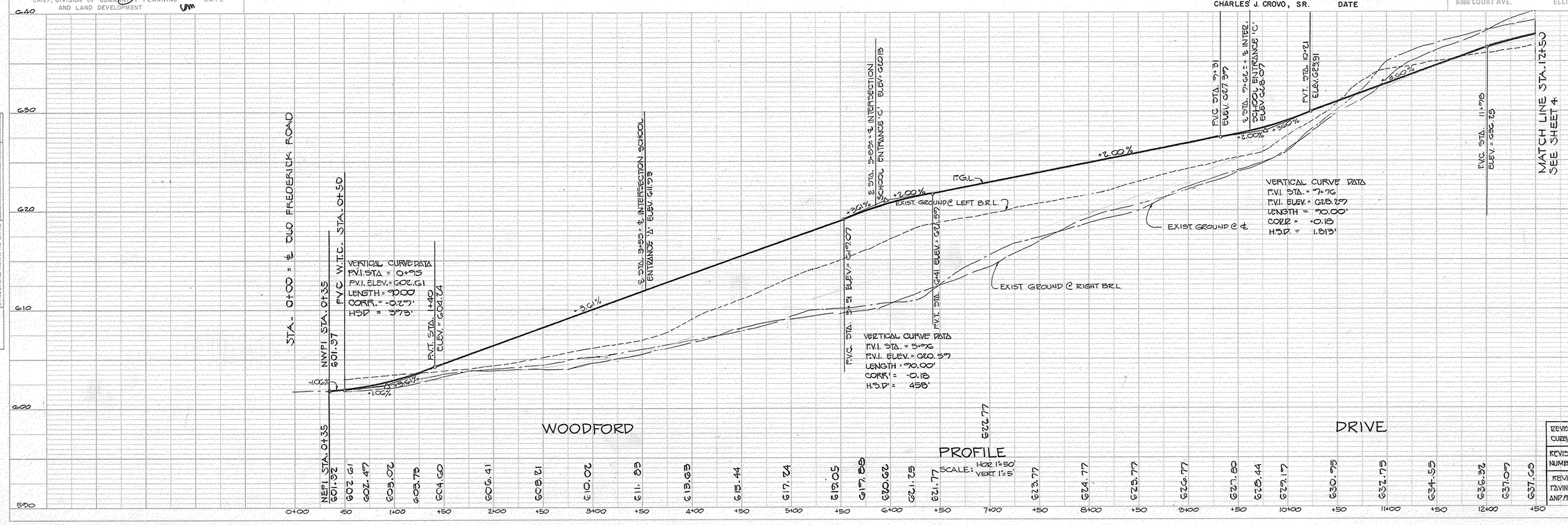
OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE AS SHOWN	DATE 6-16-89	DWG. NO. 3 OF 24
DES. OB	DRN. EM	CHK. CC

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

STATE OF MARYLAND — CHARLES J. CROVO — No. 13204 — REGISTERED PROFESSIONAL ENGINEER

CHARLES J. CROVO, SR. — DATE 7/19/89

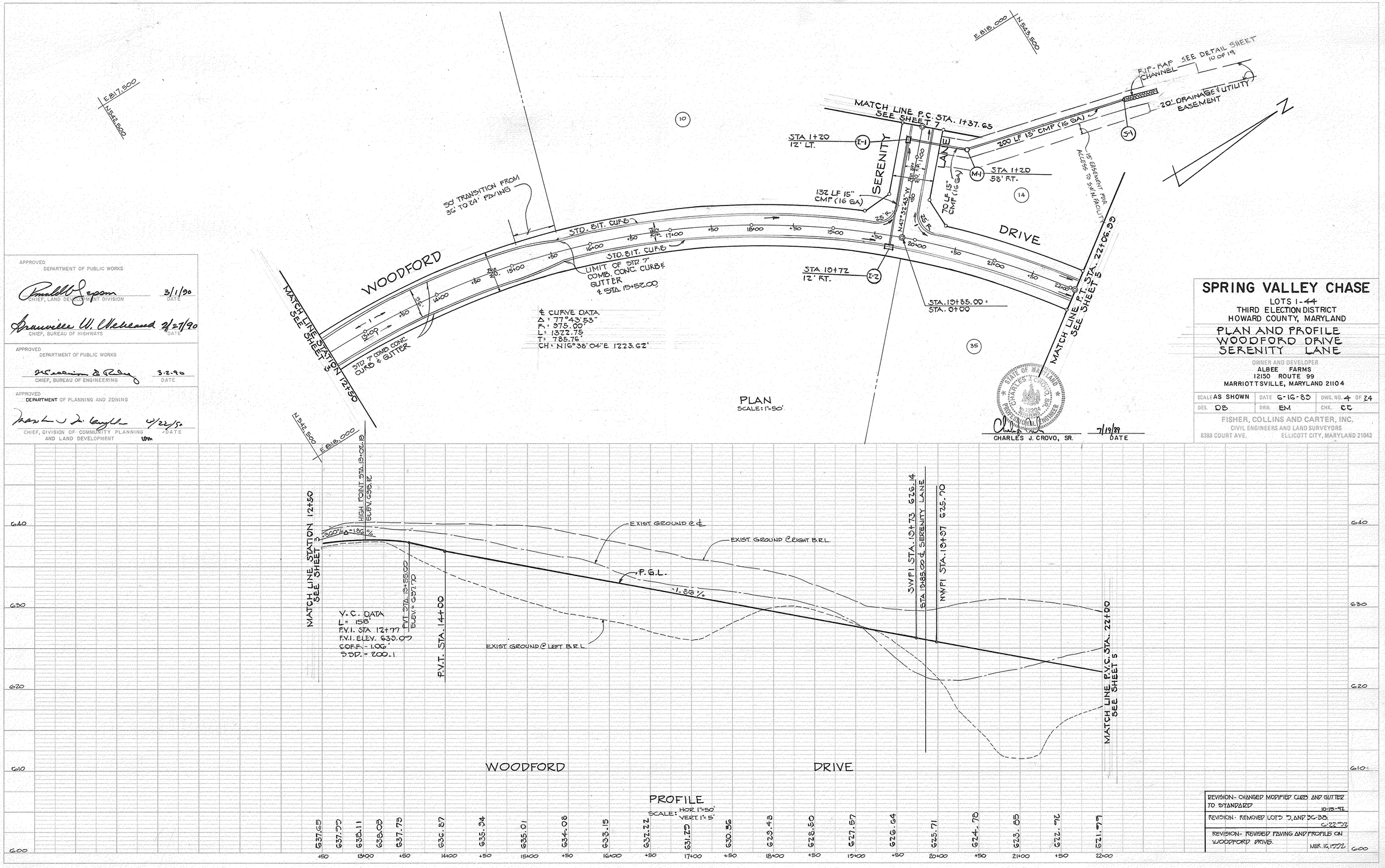


PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M.'s NOTED
STRUCTURE NOTATIONS CHKD.
NOTE BOOK NO.
BY
DATE

REVISION: CHANGED NOS. CURB/GUTTER TO STD.	10-15-92
REVISION: REMOVED LOT NUMBERS 39-44	6-22-92
REVISION - REVISED PAVING, CURB AND GUTTER, AND PROFILE ON WOODFORD	MAR. 14, 92

1549

F 90-24



APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — 3/1/90 DATE
CHIEF, BUREAU OF HIGHWAYS — 2/27/90 DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — 3.2.90 DATE

APPROVED
DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 4/22/90 DATE

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
R/W CHECKED
NOTE BOOK NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M.'S NOTED
STRUCTURE NOTATIONS CHK'D
NOTE BOOK NO.
BY
DATE

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

PLAN AND PROFILE WOODFORD DRIVE SERENITY LANE

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

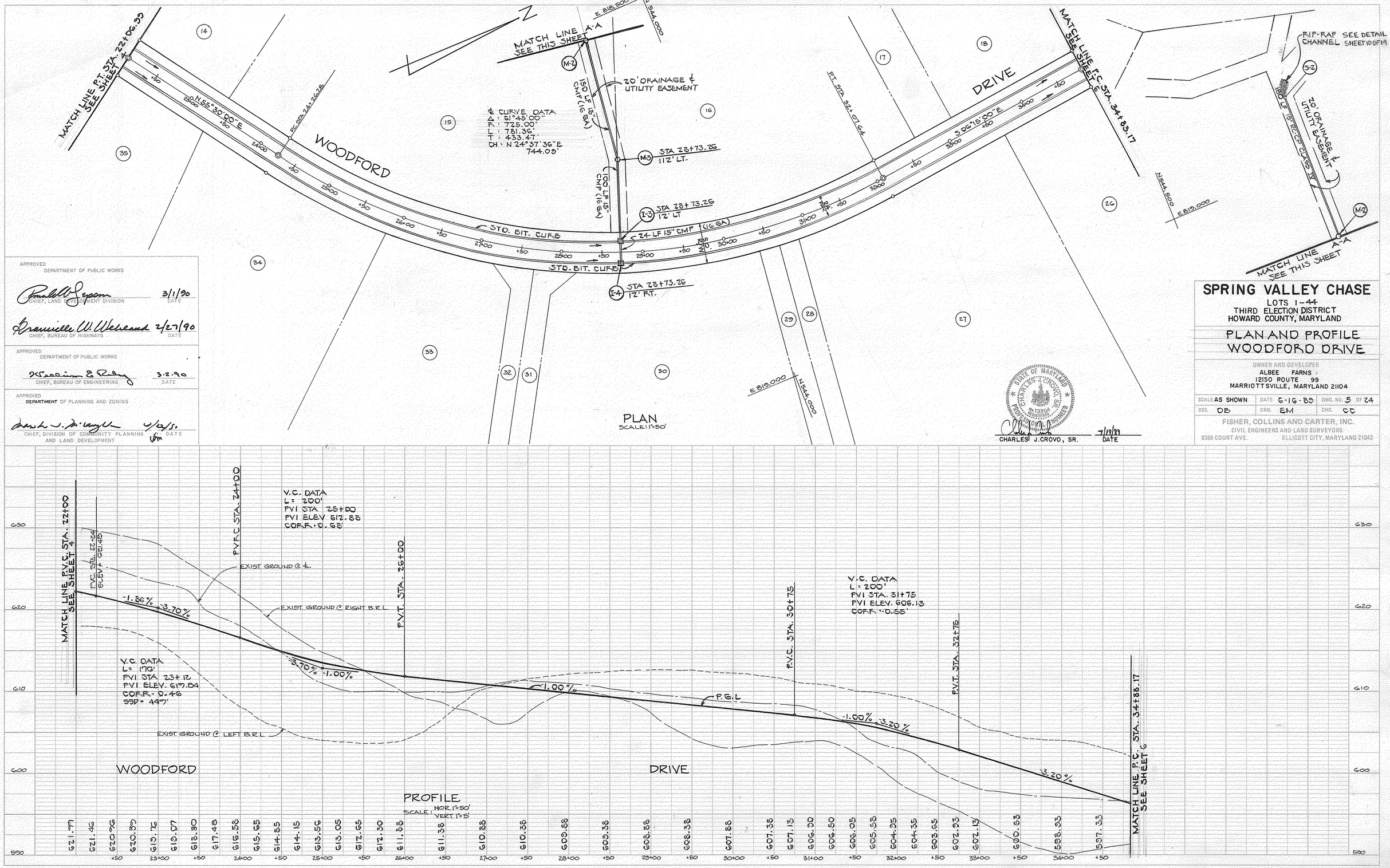
SCALE AS SHOWN	DATE 6-16-89	DWG. NO. 4 OF 24
DES. DB	DRN. EM	CHK. CC

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

REVISION - CHANGED MODIFIED CURB AND GUTTER TO STANDARD — 10-13-92
REVISION - REMOVED LOTS 7, AND 36-38. — 6-22-92
REVISION - REVISED PAVING AND PROFILES ON WOODFORD DRIVE. — MAR. 16, 1992

1549

F 90-24



APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3.2.90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 4/12/90

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

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

PLAN AND PROFILE
WOODFORD DRIVE

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

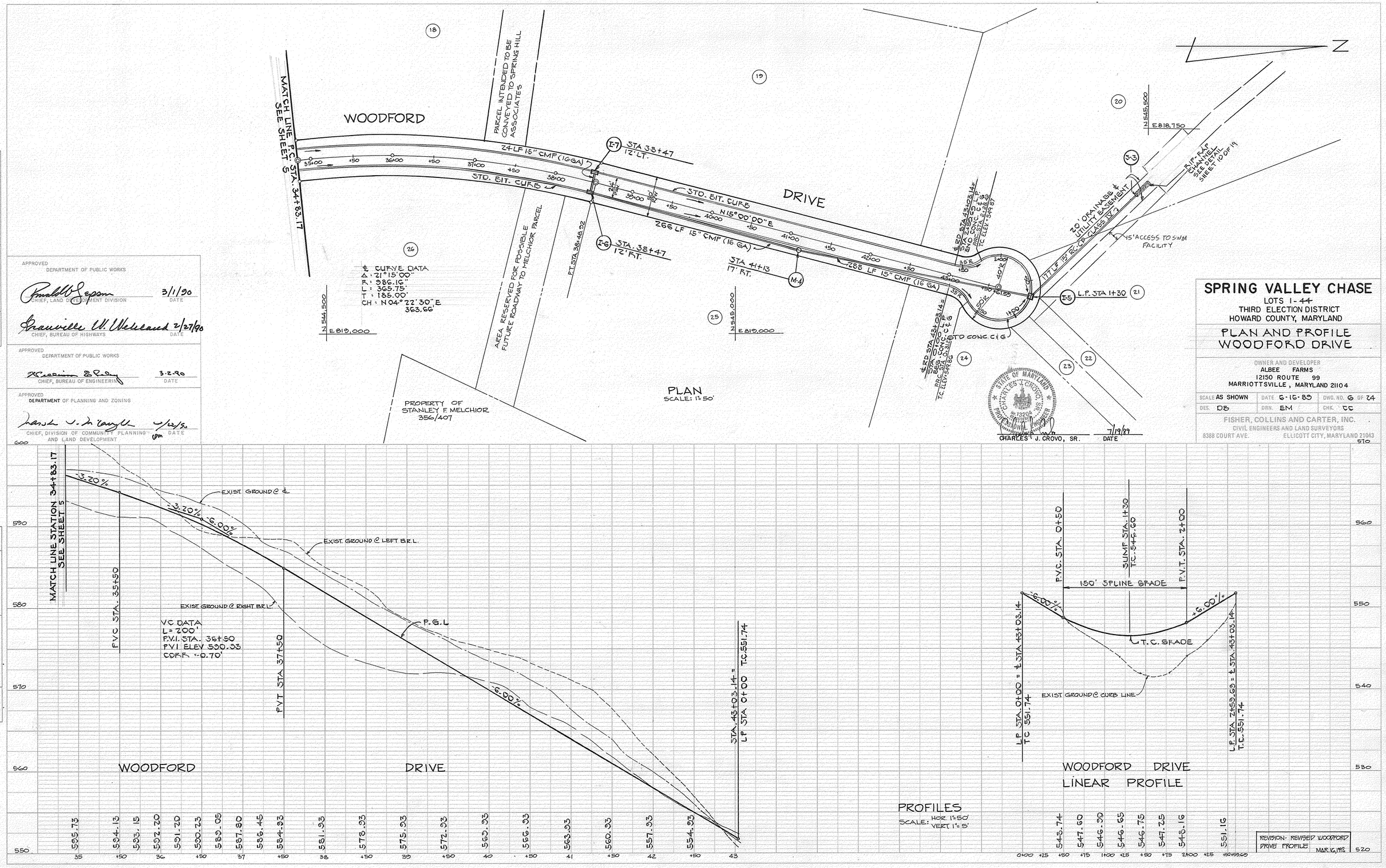
SCALE AS SHOWN	DATE 6-16-89	DWG. NO. 5 OF 24
DES. OB	DRN. EM	CHK. CC

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

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

1549

F 90-24



SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

PLAN AND PROFILE WOODFORD DRIVE

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE AS SHOWN	DATE 6-16-89	DWG. NO. 6 OF 24
DES. DB	DRN. EM	CHK. CC

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

CHARLES J. CROVO, SR. 7/19/89 DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION 3/1/90 DATE

CHIEF, BUREAU OF HIGHWAYS 2/27/90 DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING 3-2-90 DATE

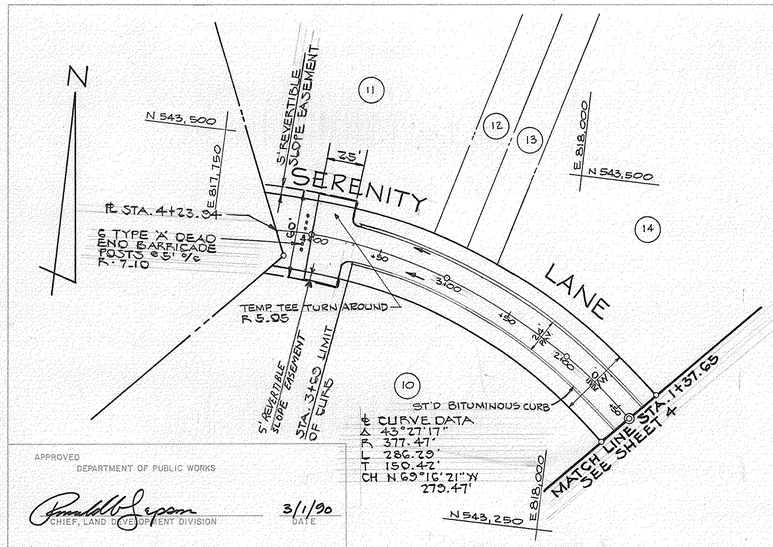
APPROVED
DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT 4/22/90 DATE

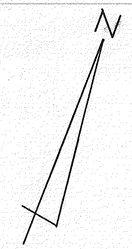
PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, NOTE BOOK NO., BY, DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M.'s NOTED, STRUCTURE NOTATNS CH'KD, NOTE BOOK NO., BY, DATE

1549

F 90-24





APPROVED
DEPARTMENT OF PUBLIC WORKS

[signature] 3/1/90
CHIEF, LAND DEVELOPMENT DIVISION — DATE

[signature] 2/27/90
CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS

[signature] 3-2-90
CHIEF, BUREAU OF ENGINEERING — DATE

APPROVED
DEPARTMENT OF PLANNING AND ZONING

[signature] 3/22/90
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

PLAN
SCALE: 1"=50'

STATE OF MARYLAND — CHARLES J. CROVO, SR. — No. 13204 — REGISTERED PROFESSIONAL ENGINEER

[signature] 7/19/89
CHARLES J. CROVO, SR. — DATE

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

PLAN AND PROFILE

SERENITY LANE

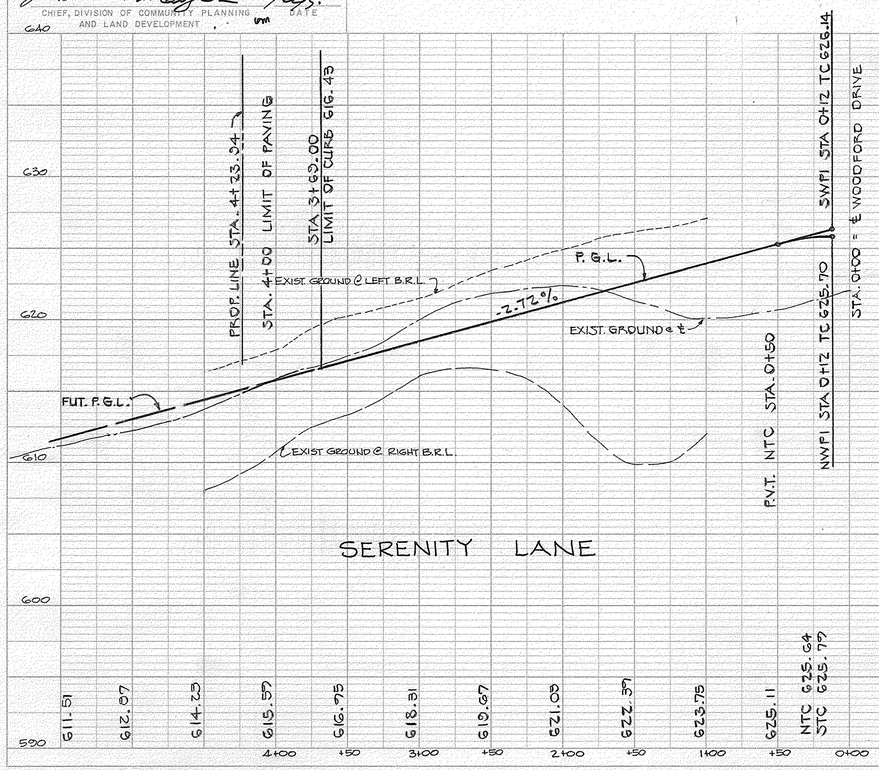
OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE AS SHOWN	DATE 6-16-89	DWG. NO. 7 OF 24
DES. DB	DRN. EM	CHK. CC

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

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

PROFILE — NOTE BOOK NO. — SURVEYED — PLOTTED — GRADES CHECKED — B.M.'s NOTED — STRUCTURE NOTATNS CH'KD — BY — DATE

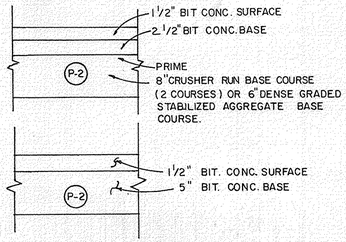


PROFILE
SCALE: HOR. 1"=50' VERT. 1"=5'

REVISION - REMOVED MODIFIED CURB DETAIL — OCT. 15, 1992
REVISION - REMOVED ALVA CT. PLAN & PROFILE. REVISED PROFILE ON SERENITY LANE. — MAR. 16, 1992

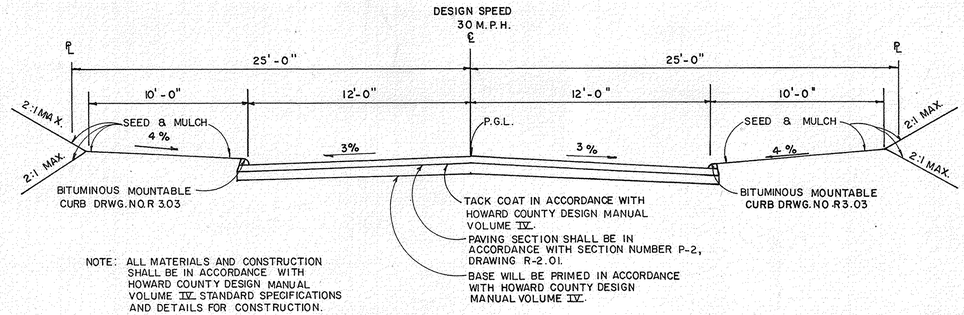
1549

F 90-24



PAVING SECTION P-2

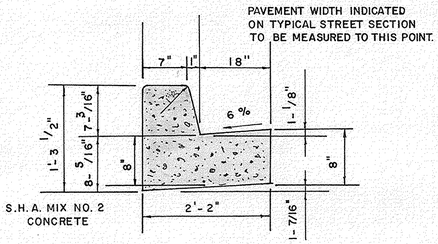
NO SCALE



NOTE: ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV. STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.

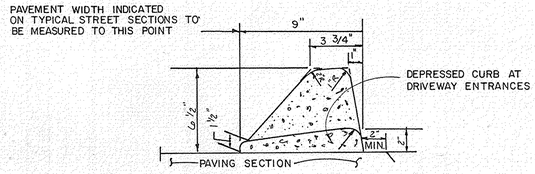
TYPICAL ROADWAY SECTION

NO SCALE



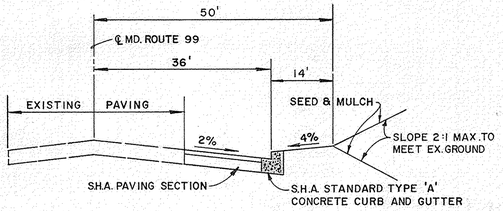
STANDARD 7" COMB. CONC. CURB & GUTTER

NO SCALE



STANDARD BITUMINOUS CURB

NO SCALE



TYPICAL WIDENING SECTION ALONG MARYLAND ROUTE 99

NO SCALE

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 4/22/90

STATE OF MARYLAND
CHARLES J. CROVO, SR.
No. 13304
PROFESSIONAL ENGINEER

CHARLES J. CROVO, SR. — DATE 7/18/89

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DETAILS

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE AS SHOWN	DATE 6-16-89	DWG. NO. 8 OF 24
DES. DB	DRN. EM	CHK. C.C.

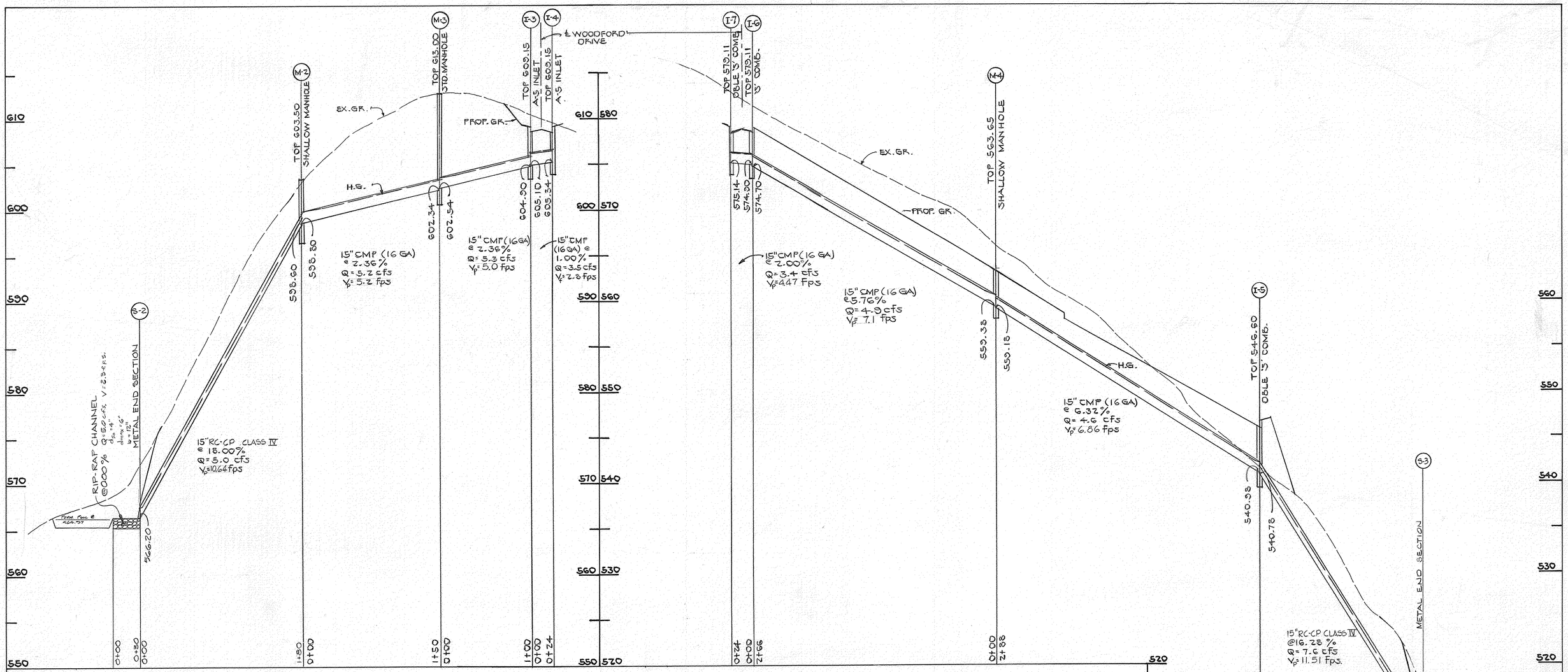
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

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

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / B.M.'s NOTED / STRUCTURE NOTATIONS CHKD / NOTE BOOK NO. / BY / DATE

1549

F 90-24



APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 4/24/90

DATE	REVISION	
6-10-04	REVISE OUTFALL ON S-3	1

7/19/89

SPRING VALLEY CHASE
LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

STORM DRAIN PROFILES & DETAILS

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99,
MARRIOTTSVILLE, MARYLAND 21104

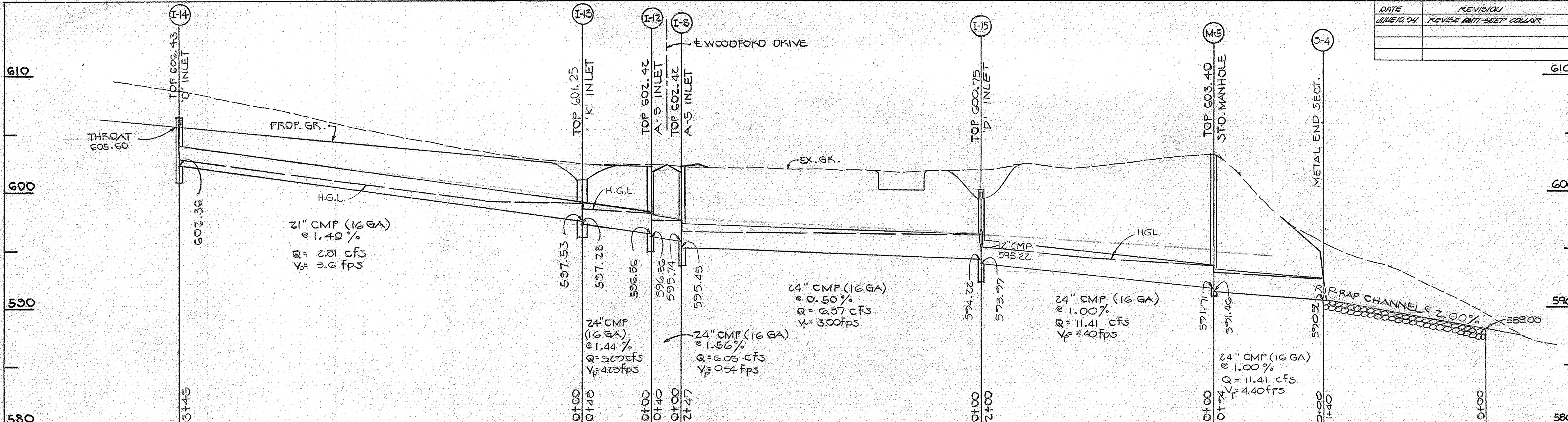
SCALE: AS SHOWN	DATE: 6-16-89	DWG. NO. 9 OF 24
DES: DB	DRN: EM	CK: CC

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8588 COURT AVE. ELLICOTT CITY, MARYLAND 21043

F 90-24

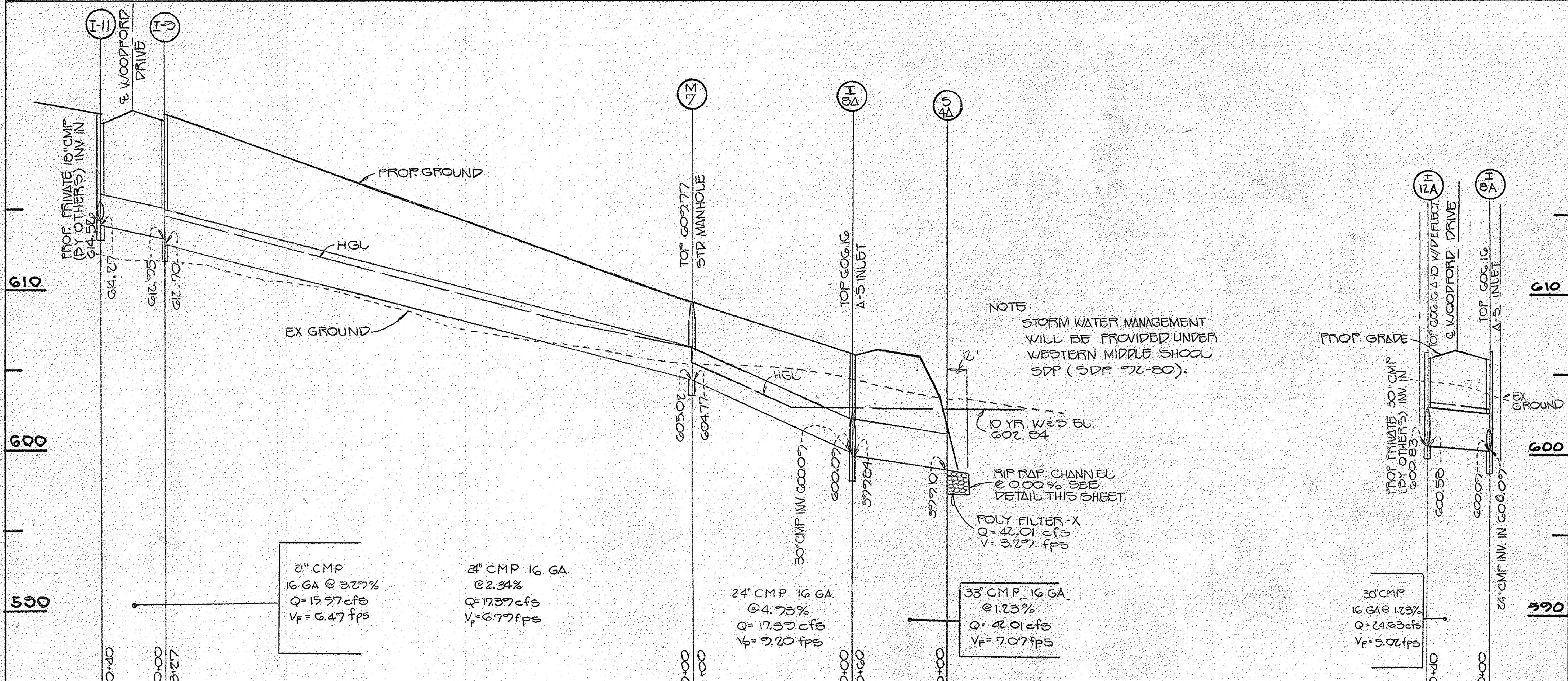
15149

DATE	REVISION	No.
JUNE 10, 94	REVISE ANTI-SEEP COLLAR	△



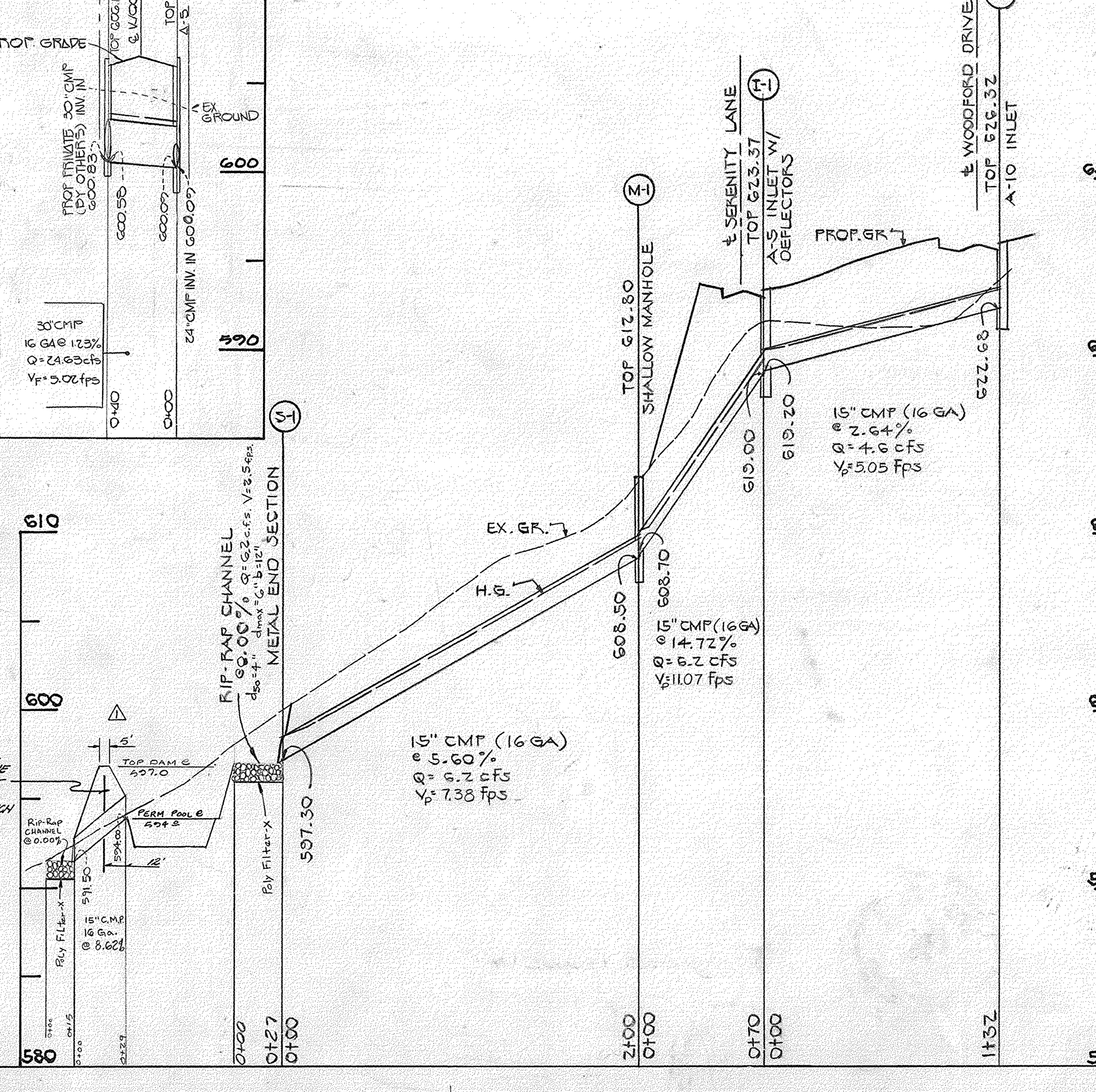
STRUCTURE SCHEDULE					
NO.	TYPE	INV. IN.	INV. OUT	TOP	REMARKS
I-1	A-5 W/ DEFLECTORS	619.20	619.00	623.37	SD 4.01
I-2	A-10	—	622.68	626.32	SD 4.02
I-3	A-5	605.10	604.90	609.15	SD 4.01
I-4	A-5	-	605.34	609.15	SD 4.01
I-5	DBLE 'S' COMB.	540.98	540.78	546.60	SD 4.34
I-6	'S' COMB	574.90	574.70	579.11	SD 4.32
I-7	DBLE 'S' COMB.	-	575.14	579.11	SD 4.34
I-8	A-5	595.74	595.45	602.42	SD 4.01
I-9	A-5 W/ DEFLECTORS	612.95	612.70	621.04	SD 4.01
		—			
I-11	A-10 W/ DEFLECTORS	614.52	614.27	621.04	SD 4.02
I-12	A-5	596.56	596.36	602.42	SD 4.01
I-13	'K'	597.53	597.28	601.25	Md.378.11**
I-14	'D' INLET	—	602.36	606.43	Md.-375.11*
M-1	SHALLOW MH	608.70	608.50	612.80	G 5.05
M-2	SHALLOW MH	598.80	598.60	603.50	G 5.05
M-3	STD. MH	602.54	602.34	613.00	G 5.01
M-4	SHALLOW MH	559.38	559.18	563.65	G 5.05
M-5	STD. MH	591.71	591.46	603.40	G 5.02
I-15	'D' INLET	595.22 594.22	593.97	600.75	Md.375.11**
M-7	STD. MH	605.02	604.77	609.77	G 5.02
S-1	METAL END SECT.	-	597.30	-	SD 5.61
S-2	" " "	-	559.00	-	"
S-3	" " "	-	595.78	-	"
S-4	" " "	-	590.52	-	"
I-12A	A-10 W/ DEFLECTORS	600.83	600.58	606.16	SD. 4.02
I-8A	A-5	600.09 600.09	599.84	606.16	SD 4.01
S-4A	METAL END SECT.	599.10	599.00	—	SD 5.61
S-5	" " "	——	528.50	-	"

* THROAT 605.60
** DOUBLE OPENING
*** SINGLE OPENING



PROFILES
SCALE: HORZ. 1" = 50'
VERT 1" = 5'

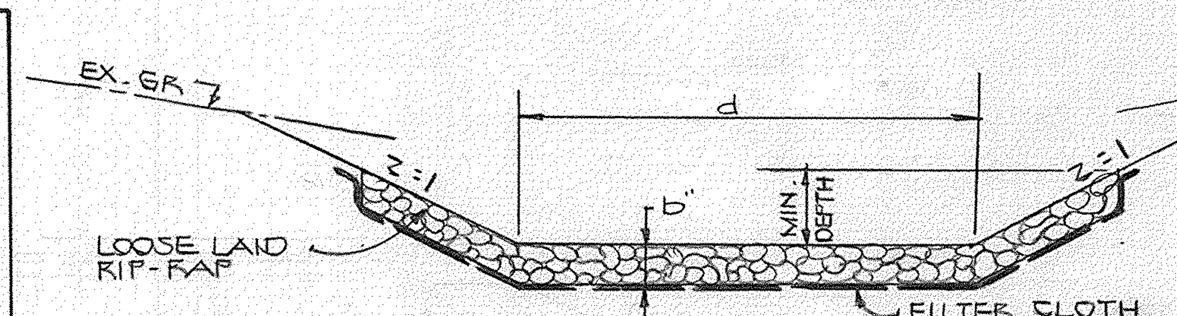
NOTE:
1. Vp DENOTES PARTIAL FLOW VELOCITY.
2. VF DENOTES FULL FLOW VELOCITY.
3. STORM DRAIN BEDDING CLASS 'C' WILL BE USED.



5.25'x5.25' ANTI-SEEP COLLAR. SEE DETAIL SHEET 15. CONTRACTOR SHALL BACKFILL THE CUT TRENCH, REQUIRED FOR PLACEMENT OF COLLAR WITH RELATIVE IMPERVIOUS MATERIAL, NOT NECESSARILY THAT WHICH WAS REMOVED, IN ORDER TO CONTROL DAM WASH-OUT.

RIP-RAP CHANNEL DESIGN DETAIL

NO SCALE



BELOW STRUCT.	MIN. DEPTH	A	P	r	r2/3	S	S1/2	n	K	V	Q	Rip-Rap Size d50	d max	b	d
S-4A	1.89'	12.81#	11.45	1.12	1.07	0.005	0.071	0.035	42.5	3.29	42.01	4"	6"	9"	3.0
S-1	0.60'	2.5#	5.7'	0.44	0.578	0.01	0.10	0.035	42.5	2.5	6.2	4"	6"	12"	3.0'
S-2	0.55'	2.25#	5.5'	0.41	0.552	"	"	"	"	2.3	5.0	4"	6"	12"	3.0'
S-3	0.70'	3.1#	6.1'	0.51	0.638	"	"	"	"	2.7	7.6	4"	6"	12"	3.0'
S-4	1.04'	7.203#	8.651'	0.833	0.189	0.0200	0.1414	"	42.5	1.13	30.0	6"	9"	12"	4.0'
S-5	1.70'	20.23#	16.10'	1.23	1.17	0.005	0.07	0.035	"	3.07	62.18	12"	18"	27"	8.5'

APPROVED
DEPARTMENT OF PUBLIC WORKS

[signature] 3/1/90
CHIEF, LAND DEVELOPMENT DIVISION — DATE

[signature] 2/27/90
CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS

[signature] 3-2-90
CHIEF, BUREAU OF ENGINEERING — DATE

APPROVED
DEPARTMENT OF PLANNING AND ZONING

[signature] 3/22/90
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE

1549

[seal and signature] 7/19/89

REVISED: REMOVED RISER BASE DETAIL. 6-22-92

REVISED: STRUCTURE SCHEDULE, RIP-RAP DATA (S-4A) AND PROFILES I-14 TO S-4, I-11 TO S-4A AND I-12 TO I-8 MAR 16, 1992

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

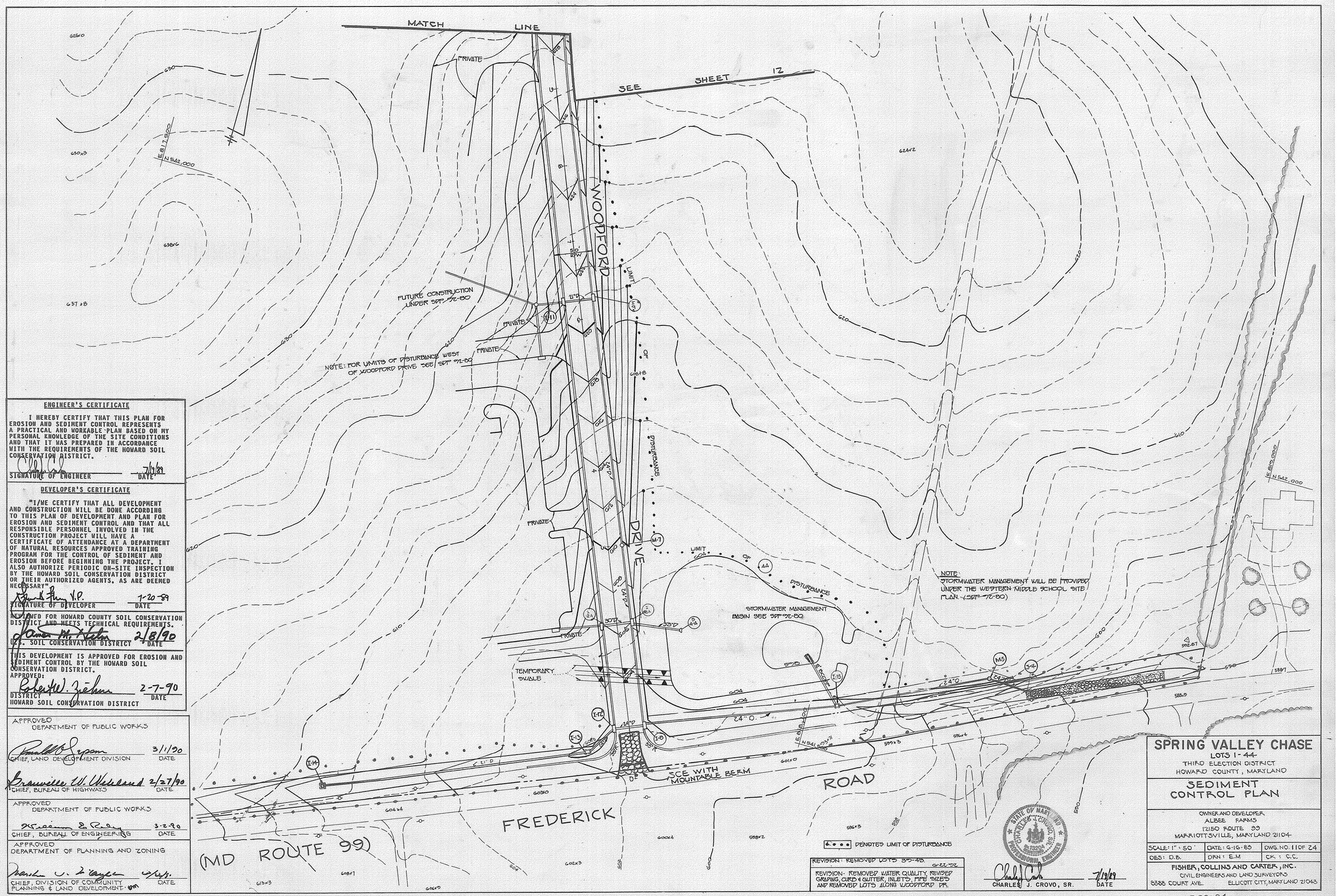
STORM DRAIN PROFILES & DETAILS

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE: AS SHOWN	DATE: 6-16-89	DWG NO 10 OF 24
DES: DB	DRN: E.M.	CK: CC

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

F 90-24



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 7/13/89

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 1-20-89

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

U.S. SOIL CONSERVATION DISTRICT — DATE 2/8/90

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

DISTRICT HOWARD SOIL CONSERVATION DISTRICT — DATE 2-7-90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE

REVISION: REMOVED LOTS 35-45. 6-22-92

REVISION: REMOVED WATER QUALITY, REVISED GRADING, CURB & GUTTER, INLETS, PIPE SIZES AND REMOVED LOTS ALONG WOODFORD DR.

STATE OF MARYLAND — CHARLES J. CROVO, SR. — No. 13204 — PROFESSIONAL ENGINEER

CHARLES J. CROVO, SR. — DATE 7/13/89

SPRING VALLEY CHASE

LOTS 1-44

THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL PLAN

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE: 1" = 50'	DATE: 6-16-89	DWG. NO. 11 OF 24
DES: D.B.	DRN: E.M	CK: C.C.

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

F 90-24

1549

PERMANENT SEEDING NOTES:

APPLY TO GRADED OR CLEARED AREAS WHERE A PERMANENT LONG-LIVE VEGETATIVE COVER IS NEEDED. SUBJECT TO IMMEDIATE FURTHER DISTURBANCE

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	199.98	ACRES
AREA DISTURBED	99.750	ACRES
AREA TO BE ROOFED OR PAVED	3.5	ACRES
AREA TO BE VEGETATIVELY STABILIZED	94.450	ACRES
TOTAL CUT	53,000	CU.YDS.
TOTAL FILL	53,000	CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	NA	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.

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS

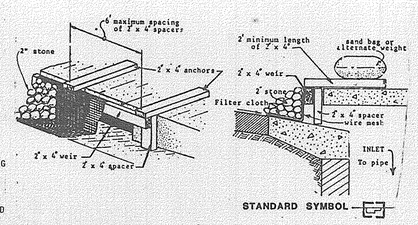
CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 2/22/90

1549

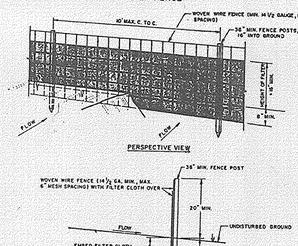
CURB INLET PROTECTION DETAIL



B. Curb Inlet Protection.

1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.
2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
3. Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' spacr).
4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

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 OVER-LAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

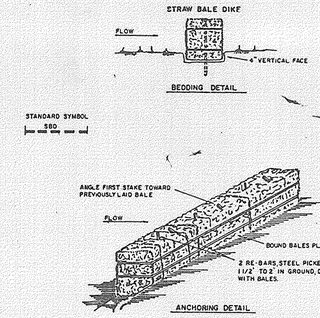
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14½ GA. 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABI-LINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

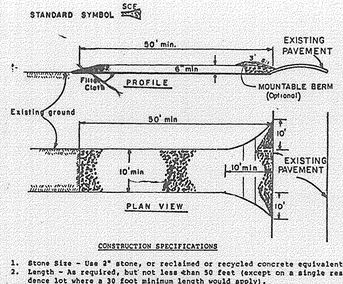
STRAW BALE DIKE



CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STABILIZED CONSTRUCTION ENTRANCE
not to scale



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 flow 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.

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 7/19/89

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 7-20-89

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

U.S. SOIL CONSERVATION DISTRICT — DATE 2/8/90

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

DISTRICT
HOWARD SOIL CONSERVATION DISTRICT — DATE 2/7/90

● ● ● DENOTES LIMITS OF DISTURBANCE

STATE OF MARYLAND — CHARLES J. CROVO — No. 13204 — REGISTERED PROFESSIONAL ENGINEER

CHARLES J. CROVO SR. — DATE 7/19/89

REVISION - REVISE SEDIMENT CONTROL NOTES 6-22-92
REVISION - REVISED GRADING, CURB, GUTTER AND PAVING WIDTH. MAR. 16, 1992

SPRING VALLEY CHASE
LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

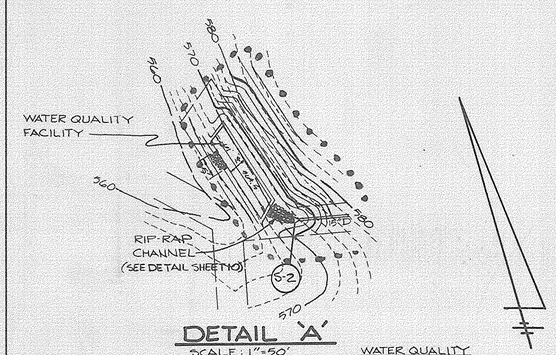
SEDIMENT CONTROL PLAN

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE: 1" = 50'	DATE: 6-16-89	DWG NO 12 OF 24
DES.: D.B.	DRN.: E.M.	CK.: C.C.

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

F 90-24



DETAIL 'A'

SCALE: 1"=50'

WATER QUALITY
STOR. REQ'D 33 CU. YDS.
STOR. PRV'D 37 CU. YDS.
TOP DIM. 18'X65'
BOTTOM DIM. 14'X61'
SIDE SLOPE 2:1
DEPTH 1.0'
BOTTOM ELEV. 564.5
CLEAN OUT ELEV. 565.0
WEIR CREST ELEV. 565.3

TRAP NO. 1 R.O.S.T. (ST-V1)

DRAIN. AREA = 8.3 AC.
VOL. REQUIRED = 8.3 x 1800 = 16,070 CF
VOL. PROVIDED = 16,080 CF
SIZE 60' x 67' x 4'
BOTTOM TRAP 584.00
CREST WEIR 588.00
TOP STONE CHANNEL 592.00
TOP EMBANKMENT 593.00
WIDTH OF WEIR - 10'
CLEANOUT ELEVATION 586.00

WATER QUALITY
STOR. REQ'D 31 CU. YDS.
STOR. PRV'D 40 CU. YDS.
TOP DIM. 45 x 27'
BOTTOM DIM. 41 x 23
DEPTH 1.5
BOTTOM ELEV. 592.5
CLEANOUT ELEV. 593.0

WATER QUALITY & STORMWATER MANAGEMENT FACILITY WILL BE CONSTRUCTED AFTER THE REMOVAL OF THE TRAP

TOP 593.0

RIP-RAP CHANNEL

15" RAP CHANNEL SEE DETAIL SECTION 15" D

SEE DETAIL 'A' THIS SHEET

MATCH LINE SEE SHEET 14

SEE SHEET 19 OF 19

DRIVE

MOUNTABLE BERM

20' DRAINAGE & UTILITY EASEMENT

15' EASEMENT FOR ACCESS TO SWM FACILITY

EX. STRUCTURE TO BE RAZED

EX. HOUSE TO REMAIN

EX. STRUCTURES TO BE RAZED

EX. STRUCTURES TO REMAIN

EX. STRUCTURE TO BE RAZED

SERENITY LANE

WOODFORD

SEE SHEET 12

MATCH LINE

DENOTES LIMITS OF DISTURBANCE

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 7/13/89

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 7-20-89

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

U.S. SOIL CONSERVATION DISTRICT — DATE 2/8/90

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

DISTRICT CHAIRMAN, HOWARD SOIL CONSERVATION DISTRICT — DATE 2-7-90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 3/2/90

STATE OF MARYLAND — CHARLES J. CROVO SR. — No. 13204 REGISTERED PROFESSIONAL ENGINEER

CHARLES J. CROVO SR. — DATE 7/13/89

REVISION: REMOVED LOT 36. 6-22-89
REVISION - REVISED GRADING ON WOODFORD DRIVE. MAR. 16, 1990

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL PLAN

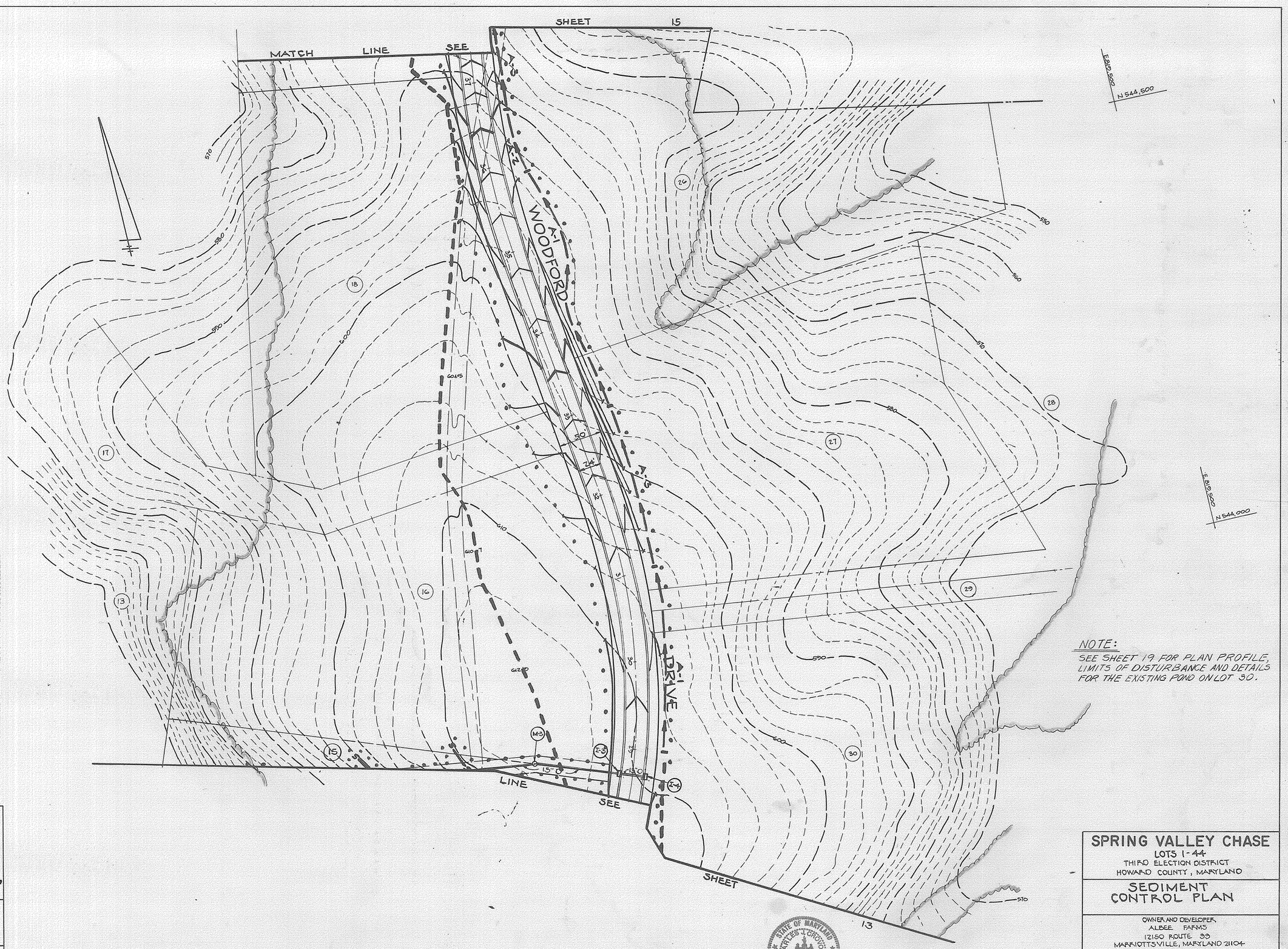
OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE: 1" = 50'	DATE: 6-16-89	DWG NO. 13 OF 24
DES: D.B.	DRN: E.M.	CK: C.C.

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

F 90-24

1549



NOTE:
SEE SHEET 19 FOR PLAN PROFILE, LIMITS OF DISTURBANCE AND DETAILS FOR THE EXISTING POND ON LOT 30.

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 7/19/89

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 7-20-89

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

U.S. SOIL CONSERVATION DISTRICT — DATE 2/8/90

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

DISTRICT HOWARD SOIL CONSERVATION DISTRICT — DATE 2-7-90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 4/24/90

STATE OF MARYLAND CHARLES J. CROVO, SR. No. 13204 REGISTERED PROFESSIONAL ENGINEER

CHARLES J. CROVO SR — DATE 7/19/89

SPRING VALLEY CHASE
LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL PLAN

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

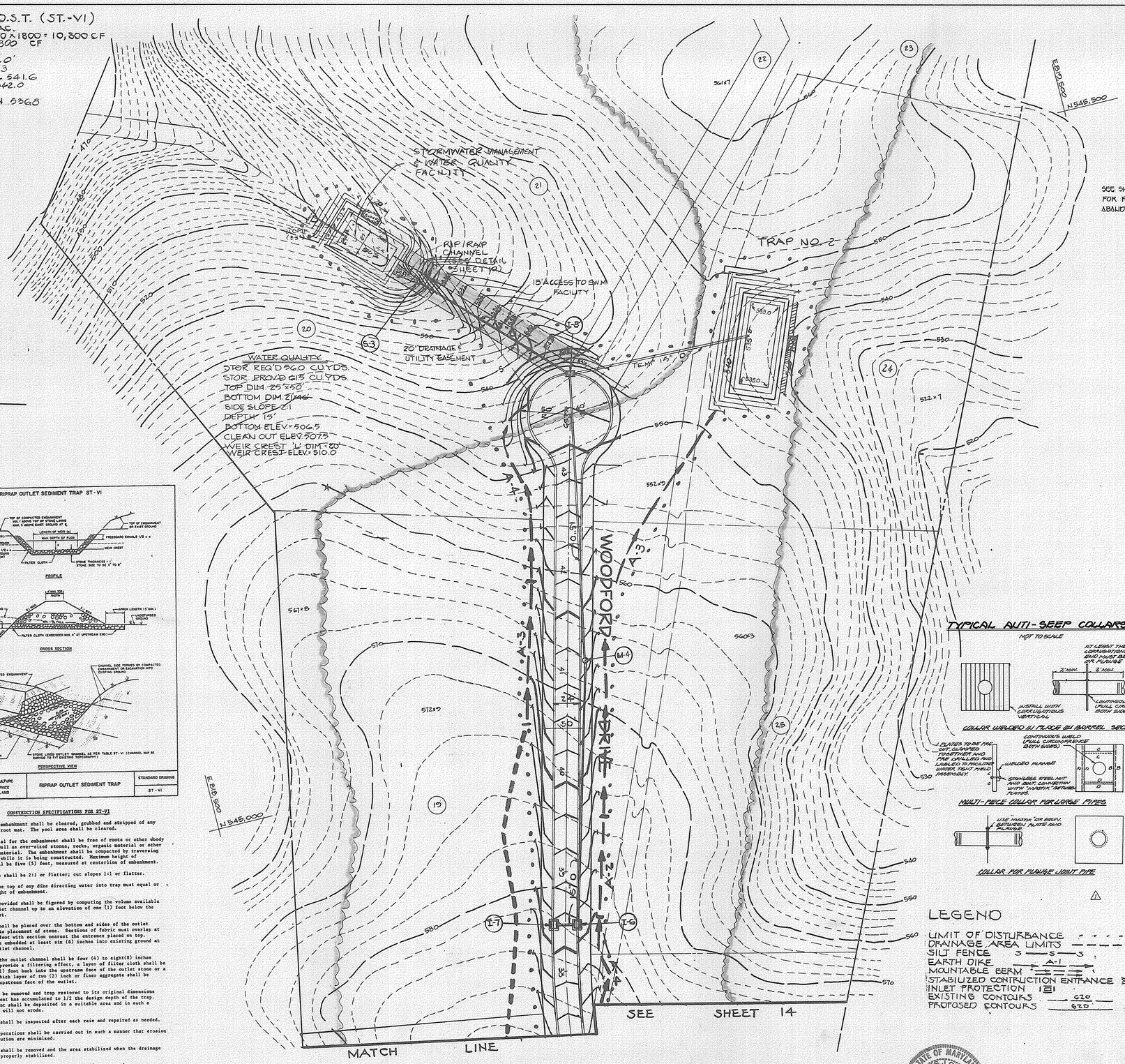
SCALE: 1" = 50'	DATE: 6-16-89	DWG. NO. 14 OF 24
DES: D.B.	DRN: EM	CK: C.C.

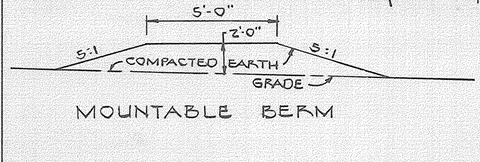
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

F 90-24

1549

TRAP NO. 2 R.O.S.T. (ST.-VI)
DRAIN. AREA = 6.0 AC.
VOL. REQUIRED = 6.0 x 1800 = 10,800 CF
VOL. PROVIDED = 10,800 CF
SIZE = 88 x 30 x 3.5'
BOTTOM TRAP = 535.0'
CREST WEIR = 539.3
TOP STONE CHANNEL 541.6
TOP EMBANKMENT 542.0
WIDTH WEIR = 14'
CLEANOUT ELEVATION 536.8





MOUNTABLE BERM

CONSTRUCTION SEQUENCE

1. OBTAIN GRADING PERMIT.
2. NOTIFY HOWARD COUNTY OFFICE OF PERMITS AND INSPECTION (992-2497) 24 HOURS BEFORE STARTING WORK.
3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.
4. CONSTRUCT RIP-RAP OUTLET SEDIMENT TRAPS AND STORMWATER MANAGEMENT/WATER QUALITY FACILITY AT PROPOSED S-3. STABILIZE THE TRAPS AND STORMWATER MANAGEMENT/WATER QUALITY FACILITY AT PROPOSED S-3 WITH TEMPORARY SWM. BASINS 1, 2 AND 3 WITH TEMPORARY SEEDING. TEMPORARY SWM. BASIN NO. 1 SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS OF THE SWM. POND SHOWN ON SHEETS 23-24.
5. INSTALL SILT FENCE AND EARTH DIKES AS SHOWN ON PLAN. STABILIZE USING TEMPORARY SEEDING.
6. RECONSTRUCT EXISTING POND USING THE FOLLOWING PROCEDURE:
   a) CONTRACTOR SHALL UNCLOG THE EXISTING TRASH RACK AND EXISTING SPILLWAY PIPE TO ALLOW POND TO DEWATER TO THE EXISTING RISER CREST. INSTALL SILT FENCE AS SHOWN ON PLAN VIEW (SHEET 19).
   b) IF THIS DOES NOT LOWER THE WATER LEVEL ENOUGH TO ALLOW FOR POND RECONSTRUCTION THE CONTRACTOR SHALL DEWATER THE POND UNTIL DESIRED WATER LEVEL IS REACHED BY PUMPING.
   c) CONTRACTOR SHALL THEN BLOCK-OFF THE EXISTING PRINCIPLE SPILLWAY BY FILLING THE ENTIRE STRUCTURE INCLUDING THE RISER PIPE WITH CONCRETE.
   d) CONTRACTOR SHALL THEN CONSTRUCT THE PROPOSED RISER BASE, RISER ASSEMBLY AND PRINCIPLE SPILLWAY INCLUDING TRASH GUARD AND ANTI-VORTEX DEVICE.
   e) CONTRACTOR SHALL THEN REBUILD THE DAM TO THE PROPOSED ELEVATION.
7. CLEAR AND GRUB TO LIMITS OF DISTURBANCE, GRADE ROADS TO SUBGRADE.
8. CONSTRUCT STORMDRAIN SYSTEM. INSTALL 30" PIPE AT I-8A AND BUILD TO OUTFALL INTO SWM BASIN NO 1.
9. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS.
10. SEDIMENT TRAPS AND PONDS SHALL BE DEWATERED BY PUMPING, EXCEPT FOR THE EX. POND ON LOT NO. 30.
11. SEDIMENT SHALL BE REMOVED FROM THE TRAPS AND PONDS WHEN THE CLEANOUT ELEVATIONS HAVE BEEN REACHED. SEDIMENT MUST BE PLACED UP HILL FROM THE 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 CURB AND GUTTER AND BASE COURSE OF ROAD.
15. REMOVE STONE CONSTRUCTION ENTRANCE CLEAN BASE COURSE. APPLY TACK COAT TO BASE COURSE AND LAY SURFACE COURSE.
*16. CONVERT RIP-RAP OUTLET SEDIMENT TRAP NUMBERS 1 AND 3 INTO STORMWATER MANAGEMENT/WATER QUALITY FACILITIES AS SHOWN ON PLAN. CONSTRUCT REMAINING STORM DRAIN OUTFALLS (S-3 AND S-4A) AND STABILIZE THE PONDS USING PERMANENT SEEDING.
17. REMOVE ALL SILT FENCE AND REMAINING RIP-RAP OUTLET SEDIMENT TRAP.
18. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.

NOTE: BEFORE CONVERTING RIP-RAP OUTLET SEDIMENT TRAPS TO STORM WATER MANAGEMENT/WATER QUALITY FACILITIES THE CONTRACTOR WILL HAVE DRAINAGE AREA GETTING TO THESE FACILITIES STABILIZED.

SEDIMENT CONTROLS ARE TO BE REMOVED ONLY AFTER RECEIVING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR.

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 7/19/89

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 7-20-89

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

U.S. SOIL CONSERVATION DISTRICT — DATE 2/8/90

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

DISTRICT HOWARD SOIL CONSERVATION DISTRICT — DATE 2-7-90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

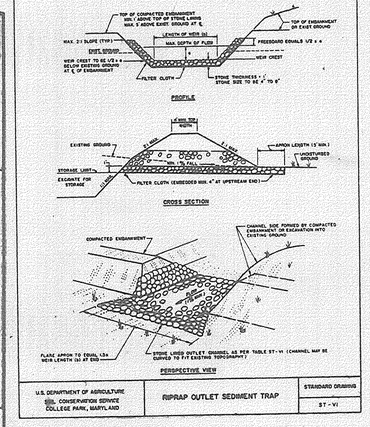
APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 4/22/90

RIPRAP OUTLET SEDIMENT TRAP ST-VI

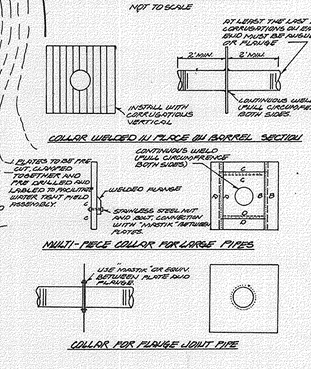


U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	RIPRAP OUTLET SEDIMENT TRAP	STANDARD DRAWING ST-VI

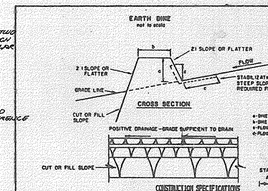
CONSTRUCTION SPECIFICATIONS FOR ST-VI

1. The 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 or 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. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
5. Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.
6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
7. Stone used in the outlet channel shall be four (4) to eight(8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
8. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
9. The structure shall be inspected after each rain and repaired as needed.
10. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
11. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
12. Drainage area for this practice is limited to 15 acres or less.

TYPICAL ANTI-SEEP COLLARS



EARTH DIKE



	DIKE A (Time in min)	DIKE B (Time in min)
a-DIKE HEIGHT	18"	24"
b-DIKE WIDTH	6'	8'
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	1'	1'

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. DIKE TO BE CHECKED AFTER EACH RAINFALL AND ANY SEDIMENT DEPOSITED REMOVED. RUNOFF SHALL BE CONVEYED TO A DESIGNED TRAPPING DEVICE WITH A MINIMUM OF 1800 CU. FT. OF 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 MAT & STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD & 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, ON 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	EARTH DIKE	STANDARD DRAWING ED-1

LEGEND

LIMIT OF DISTURBANCE
DRAINAGE AREA LIMITS
SILT FENCE — S S S
EARTH DIKE — A-1
MOUNTABLE BERM
STABILIZED CONSTRUCTION ENTRANCE — SCE
INLET PROTECTION
EXISTING CONTOURS — 620
PROPOSED CONTOURS — 620

DATE	REVISION	No.
JUNE 10, 94	ADD ANTI-SEEP COLLAR DETAIL	1
REVISION: REVISED CONSTRUCTION SEQ. NOTES 4 AND 6. 6-22-90		

STATE OF MARYLAND — CHARLES J. CROVO — No. 13204 — REGISTERED PROFESSIONAL ENGINEER

CHARLES J. CROVO SR. — DATE 7/19/89

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL PLAN

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE: 1" = 50'	DATE: 6-16-89	DWG. NO. 15 OF 24
DES: D.B.	DRN: E.M.	CK: C.C.

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

F 90-24

1549

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 3/1/90

CHIEF, BUREAU OF HIGHWAYS — DATE 2/27/90

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-90

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 3/2/90

REVISION: REMOVED LOTS 36-44 AND ADDED LOT 10.
MARCH 16, 1992
REVISION: REVISED GRADING, CURB, GUTTER & INLETS ALONG WOODFORD DR.

CHARLES J. CROVO, SR. — DATE 7/12/89

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DRAINAGE AREA MAP

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

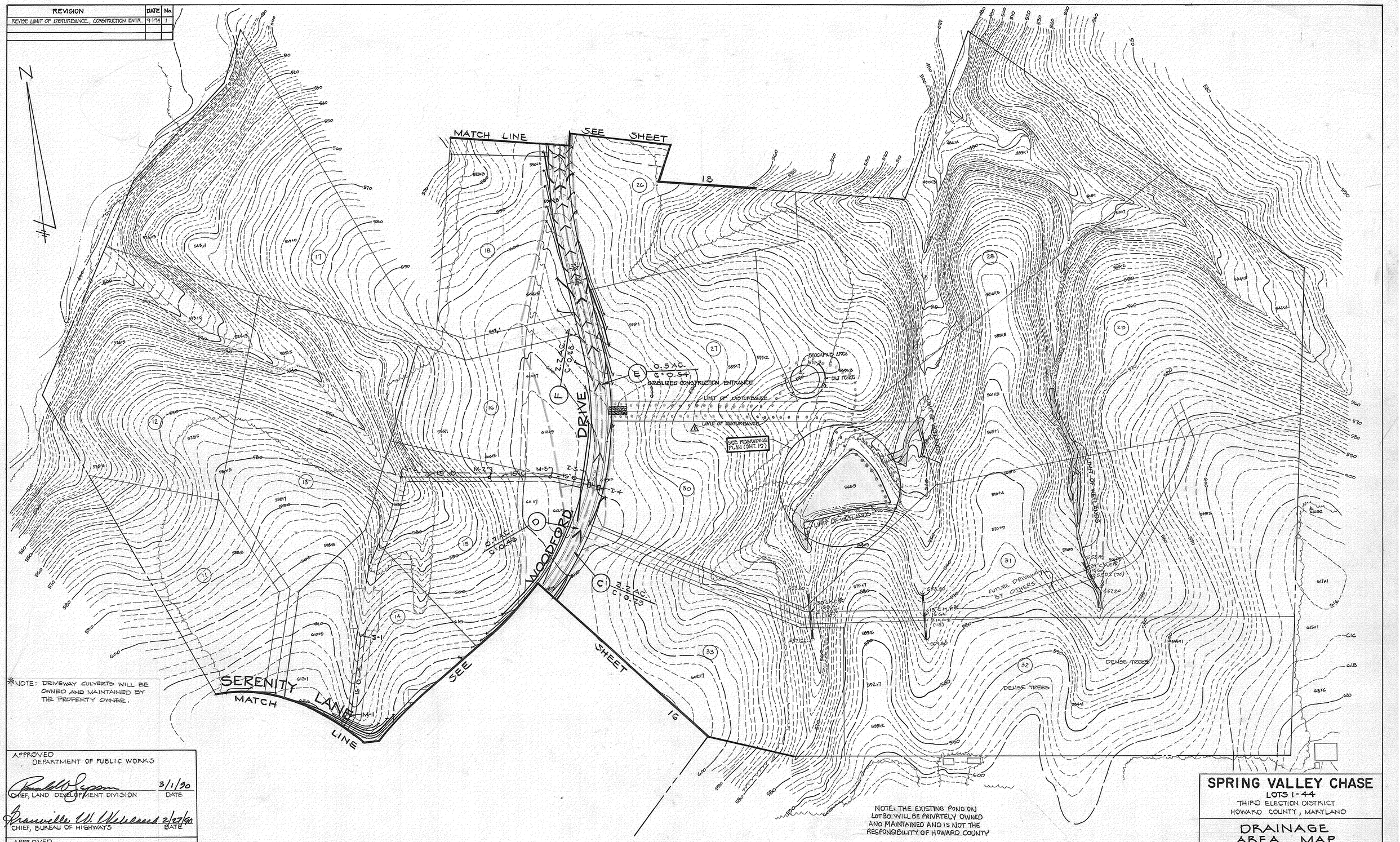
SCALE: 100'	DATE: 6-16-89	DWG. NO. 16 OF 24
DES. D.B.	DRN: E.M.	CK.: C.C.

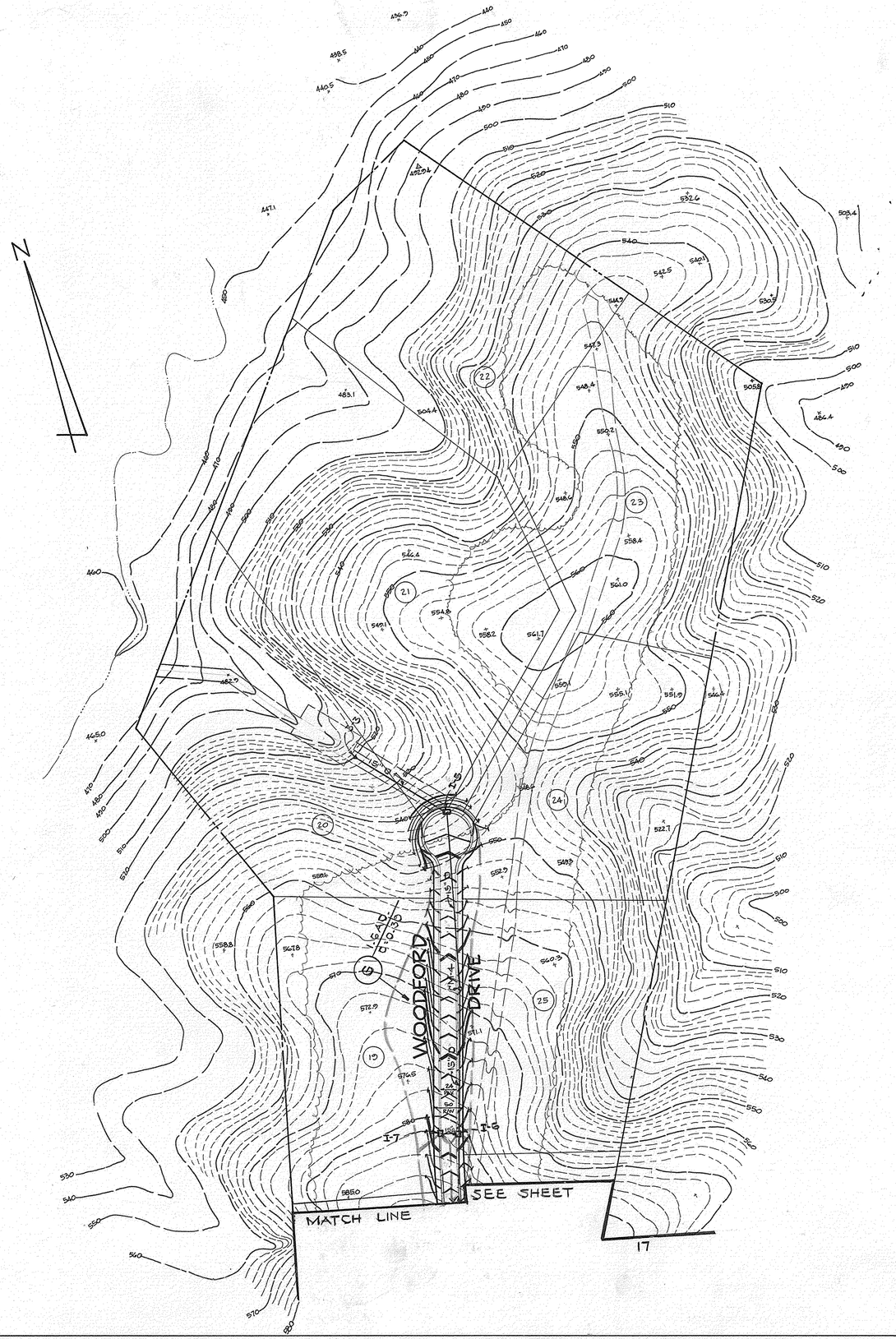
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. — ELLICOTT CITY, MARYLAND 21043

F 90-24

6751

REVISION	DATE	No.
REVISE LIMIT OF DISTURBANCE, CONSTRUCTION ENTR.	9-1-94	1





APPROVED
DEPARTMENT OF PUBLIC WORKS

3/1/90
CHIEF, LAND DEVELOPMENT DIVISION — DATE

CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS

3-2-90
CHIEF, BUREAU OF ENGINEERING — DATE

APPROVED
DEPARTMENT OF PLANNING AND ZONING

3/22/90
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE

7/12/89
CHARLES J. CROVO, SR. — DATE

SPRING VALLEY CHASE

LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DRAINAGE AREA MAP

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE: 1"=100'	DATE: 6-16-89	DWG. NO. 18 OF 24
DES: D.B.	DRN: E.M.	CK: C.C.

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

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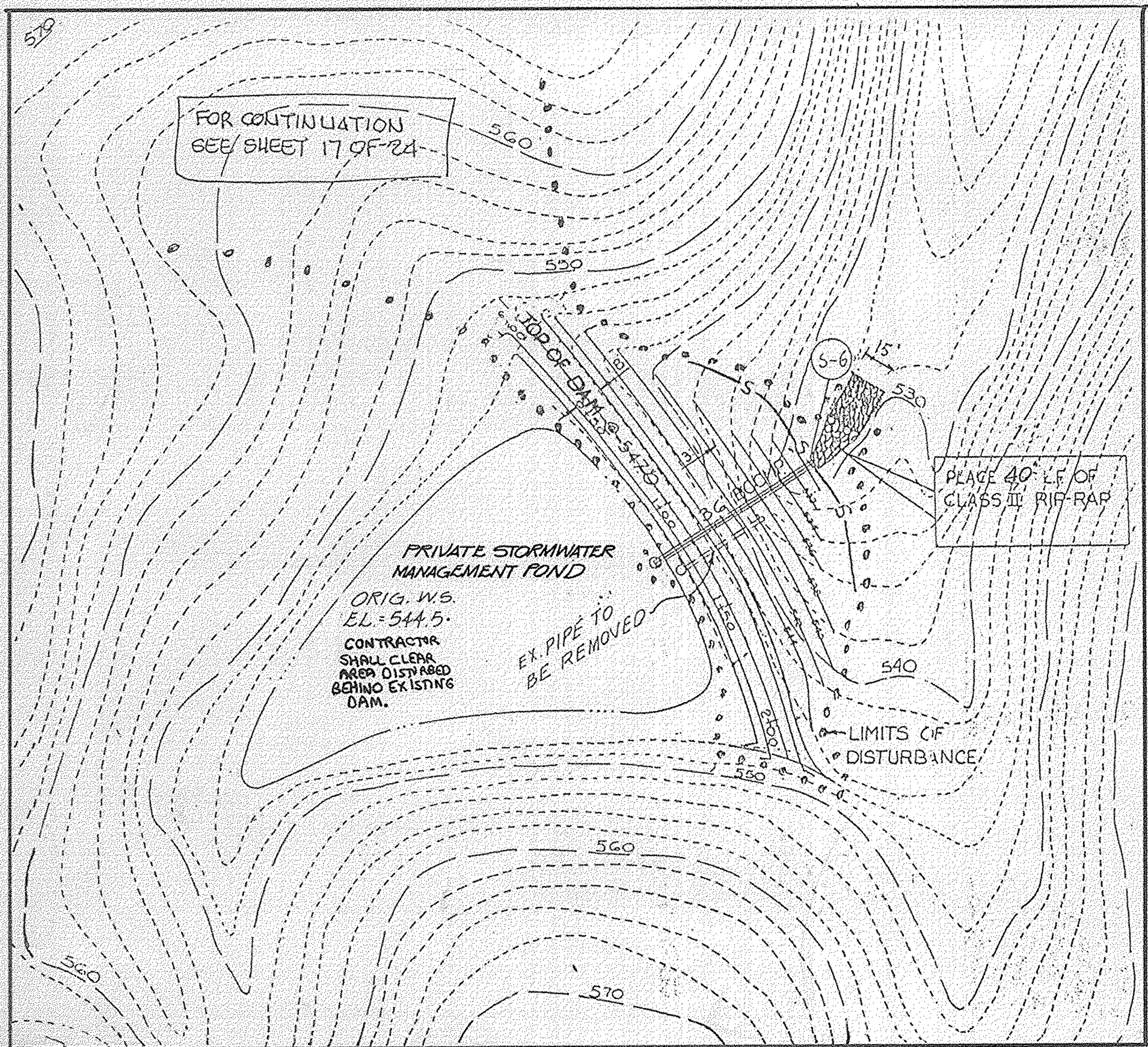
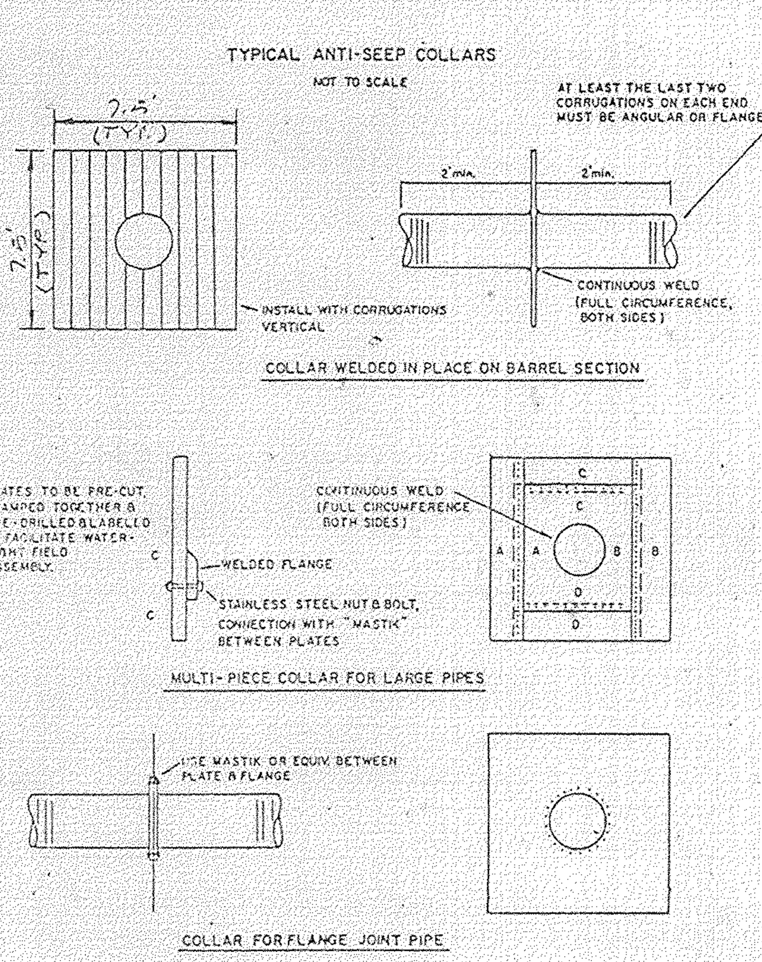


PLAN
SCALE: 1"=50'

OPERATION, MAINTENANCE AND INSPECTION

Inspection of the pond(s) shown hereon shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS "Standards And Specifications For Ponds" (MD-378). The pond owner(s) and any heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.



ANTI-SEEP COLLAR DETAIL
NOT TO SCALE

SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation

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

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

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

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench - The cutoff trench shall be excavated into impervious material 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 four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

   Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

   Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

   All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

   Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. 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.
5. Backfilling shall conform to "Structure Backfill."
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
2. Joints and connections to anti-seep collars shall 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. Backfilling shall conform to "Structure Backfill."
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
4. Backfilling shall conform to "Structure Backfill."
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

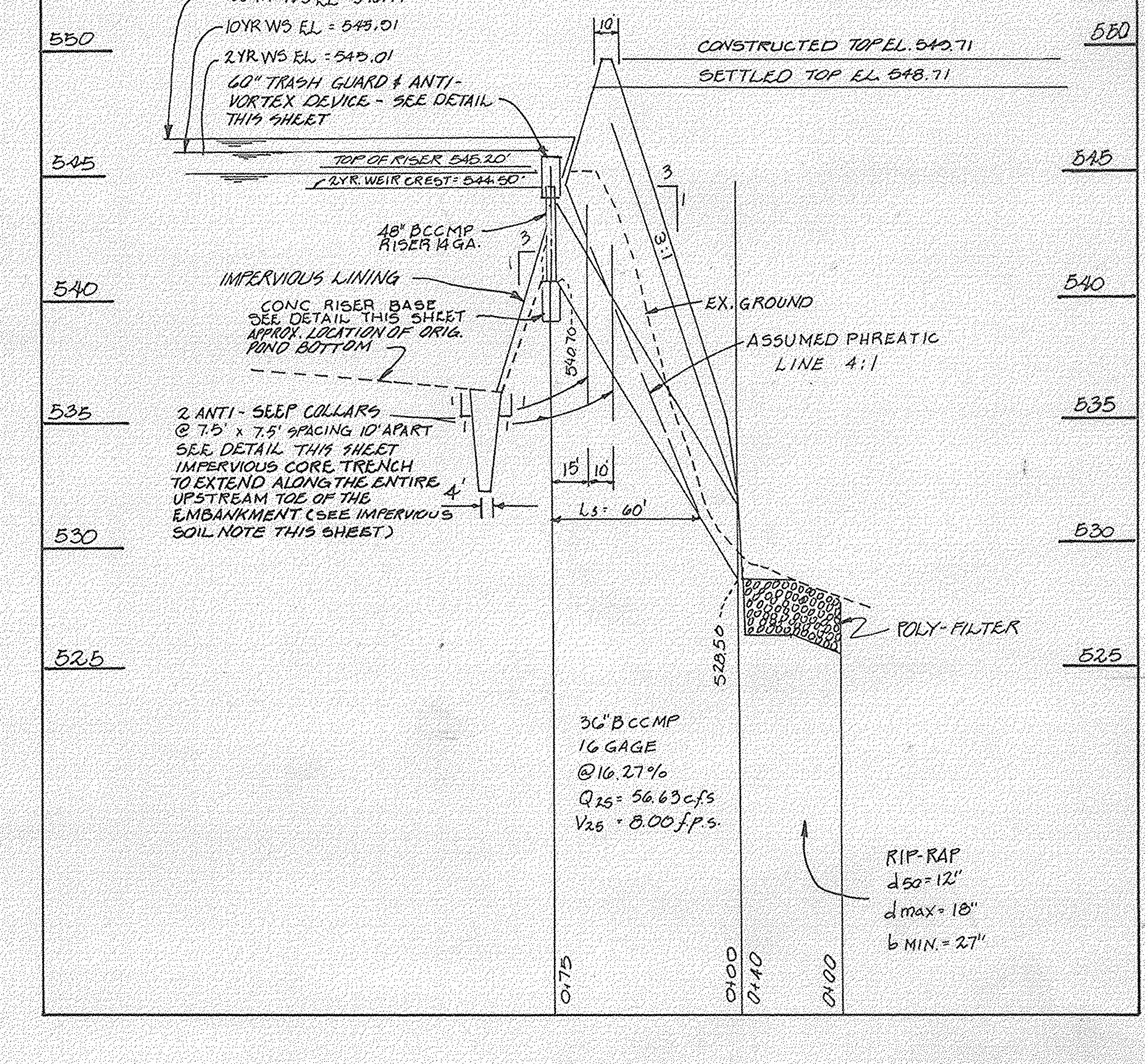
Stabilization

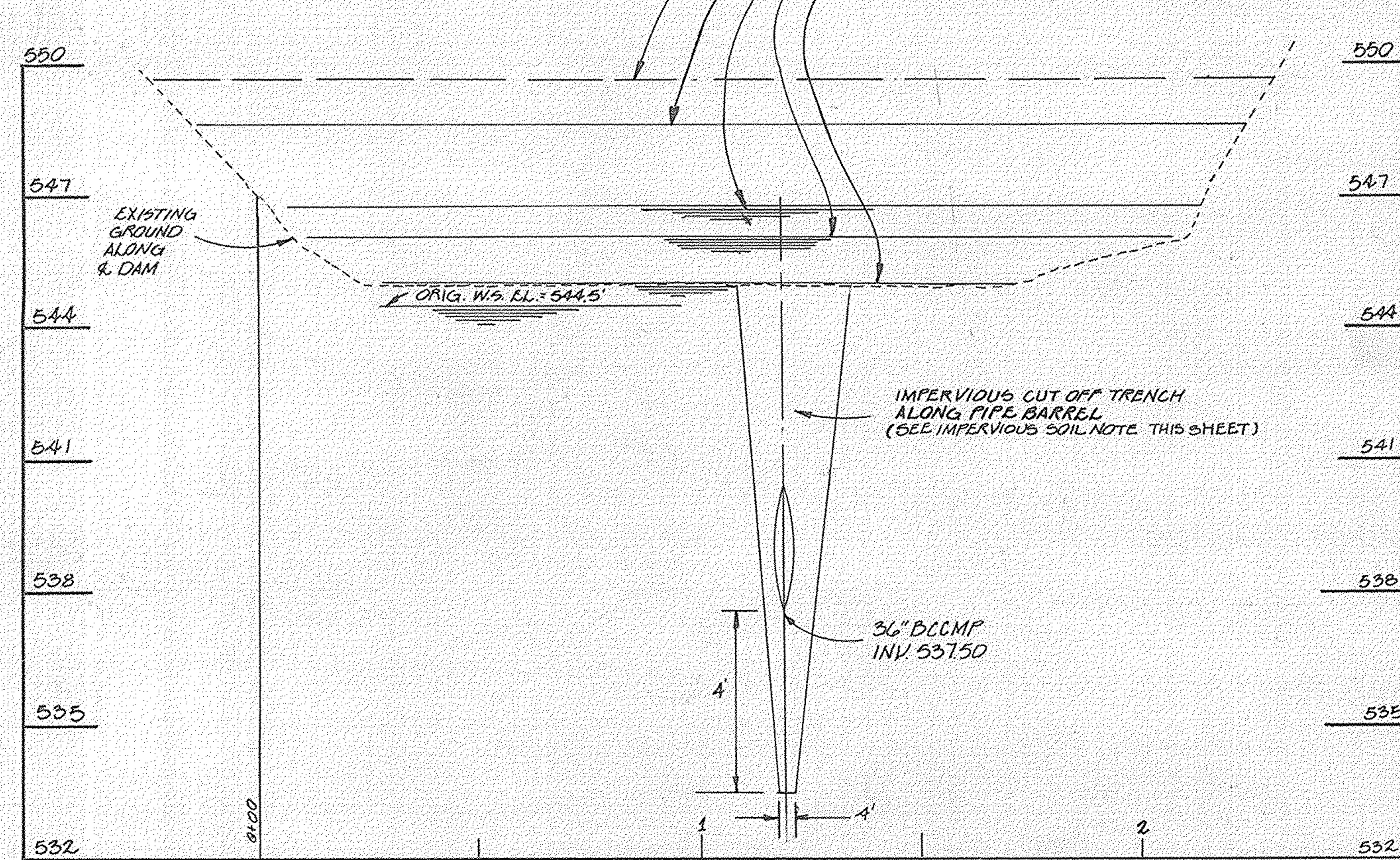
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

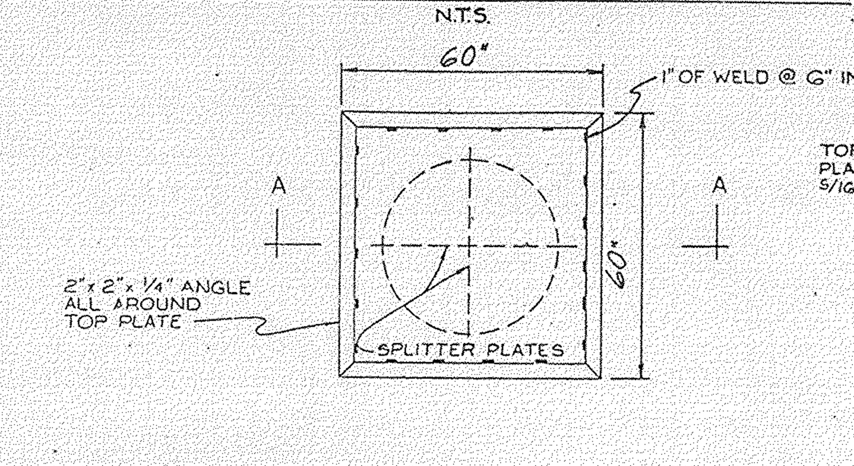
PROFILE THRU PRINCIPLE SPILLWAY
SCALE:
1"=50': HORZ.
1"=5 : VERT.



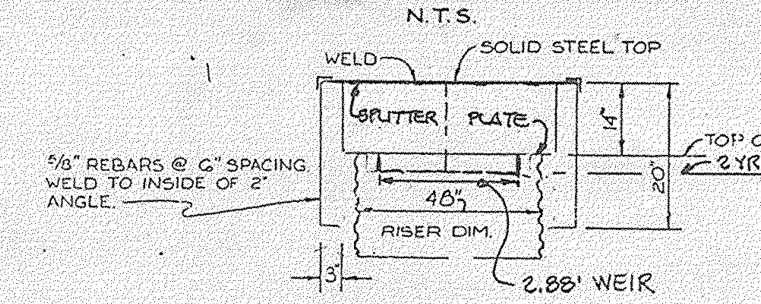


PROFILE ALONG ℄ OF EMBANKMENT
SCALE
1"=30' HOR.
1"=3' VERT.

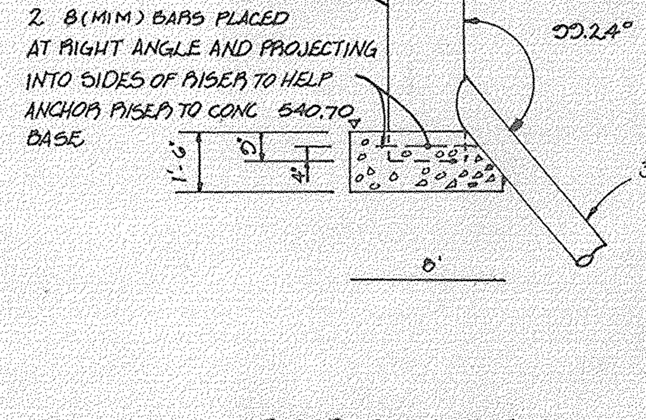
FABRICATION DETAILS FOR TRASH GUARD-ANTI VORTEX ASSEMBLY FOR RISER
N.T.S.



PLAN VIEW OF TRASH GUARD ANTI VORTEX DEVICE
N.T.S.



IMPERVIOUS SOIL NOTE:
ALL IMPERVIOUS SOIL IS TO BE OBTAINED FROM AN AREA WITH AN APPROVED SEDIMENT CONTROL PLAN.
ALL IMPERVIOUS SOIL MUST BE CERTIFIED IMPERVIOUS BY A GEO-TECHNICAL ENGINEER PRIOR TO PLACEMENT.



RISER BASE DETAIL
NOT TO SCALE

NOTES

1. THE CONCRETE BASE SHALL BE POURED IN SUCH A MANNER TO INSURE THAT THE CONCRETE FILLS THE BOTTOM OF THE RISER TO THE INVERT OF THE OUTLET PIPE TO PREVENT RISER FROM BREAKING AWAY FROM THE BASE.
2. WITH ALUMINUM OR ALUMINIZED PIPE, THE EMBEDDED SECTION MUST BE PAINTED WITH ZINC CHROMATE OR EQUIVALENT.
3. RISER BASE MAY BE SIZED AS COMPUTED USING FLOATATION WITH A FACTOR OF SAFETY OF 1.2.

STORM WATER MANAGEMENT POND CERTIFICATION AND APPROVAL

DEVELOPER'S CERTIFICATE

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

[signature], President — 8-23-94
SIGNATURE OF DEVELOPER — DATE
The Patuxent Land Co.

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] — 8/23/94
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] /cs — 8/24/94
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.

[signature] /cs. — 8/30/94
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[signature] — 9/20/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH. — DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
[signature] — 9/16/94
CHIEF, BUREAU OF ENGINEERING — DATE
APPROVED: DEPARTMENT OF PUBLIC WORKS
[signature] — 9/15/94
CHIEF, LAND DEVELOPMENT DIVISION — DATE

NOTE

1. THE EXISTING POND IS DESIGNED BY SCS.
2. ALL PIPE JOINTS SHALL BE WATERTIGHT.
3. HAZARD CLASS: A
4. ALL WELDS SHALL BE CONTINUOUS AROUND DIAMETER OF PIPE.
5. THE EXISTING ROOT MAT SHALL BE REMOVED FROM THE EXISTING EMBANKMENT PRIOR TO PLACING FILL.
6. SCARIFY AND STEP SLOPE AS NEW FILL IS BEING PLACED AGAINST EXISTING SLOPE.
7. NO SLOPES SHALL BE STEEPER THAN 2:1 EXCEPT EXCAVATIONS WHICH SHALL CONFORM TO THE LIMITS SHOWN OR THOSE ALLOWED BY SAFETY STANDARDS EXISTING AT THE TIME OF CONSTRUCTION.

SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT.
2. INSTALL SILT FENCE.
3. REMOVE ROOT MAT FROM EXISTING EMBANKMENT PRIOR TO PLACING FILL.
4. INSTALL THE CUT-OFF AND CORE TRENCHES, PER GEOTECH.
5. INSTALL BARREL PIPE AND APPURTENANCES.
6. PLACE STRUCTURAL FILL WITH IMPERVIOUS LINING, PER GEOTECH.
7. STABILIZE ALL DISTURBED AREAS PER PERMANENT SEEDING NOTES.
8. WHEN PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR REMOVE SEDIMENT CONTROL DEVICES.

NOTE TO CONTRACTOR

A GEOTECHNICAL ENGINEER IS TO BE PRESENT DURING THE CONSTRUCTION OF THE RIP-RAP PILOT CHANNEL IN ORDER TO INSURE THAT THE CONSTRUCTION OF THE EMBANKMENT IS STABLE AND NOT SUBJECT TO FAILURE OR EROSION.

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 WELL 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.

NO.	DATE	DESCRIPTION
1	8-8-94	REPLACED SHEET #19 OF #24 WITH THIS SHEET

REVISIONS

SPRING VALLEY CHASE
LOTS 1-44
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

PRIVATE STORMWATER MANAGEMENT POND AND DETAILS

OWNER AND DEVELOPER
ALBEE FARMS
12150 ROUTE 99
MARRIOTTSVILLE, MARYLAND 21104

SCALE: AS SHOWN	DATE: 8-16-94	DWG. NO. 19 OF 24
DES. C.M.	DRN. DLH	CK. C.C.

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

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