SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET.
2	ROAD PLAN AND PROFILE.
3	ROAD PLAN AND PROFILE.
4	ROAD PLAN AND PROFILE, STORM DRAIN PROFILES AND DETAILS.
5	GRADING AND SEDIMENT CONTROL PLAN.
6	GRADING AND SEDIMENT CONTROL NOTES AND DETAILS.
7	S.W.M. PROFILES, STREAM DIVERSION NOTES AND DETAILS.
8	DRAINAGE AREA MAP
9	DRAINAGE AREA MAP
10	ROAD PLAN - UNION CHAPEL ROAD

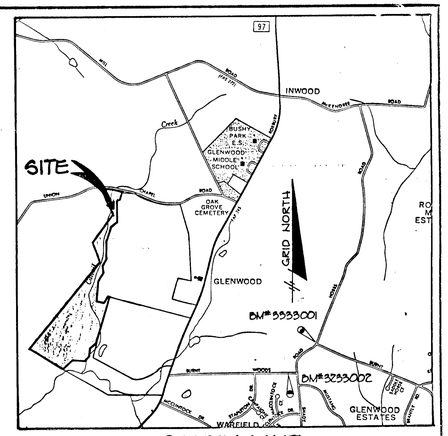
ROADWAY & STORM DRAIN

WELLINGTON

SECTION 2, AREA 1

4th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1"=2000'

BENCH MARK DISCRIPTION

BM# 3333002
CONCRETE MONUMENT 0.5' BELOW SURFACE 2.3' OFF ℄ BURNT WOODS ROAD

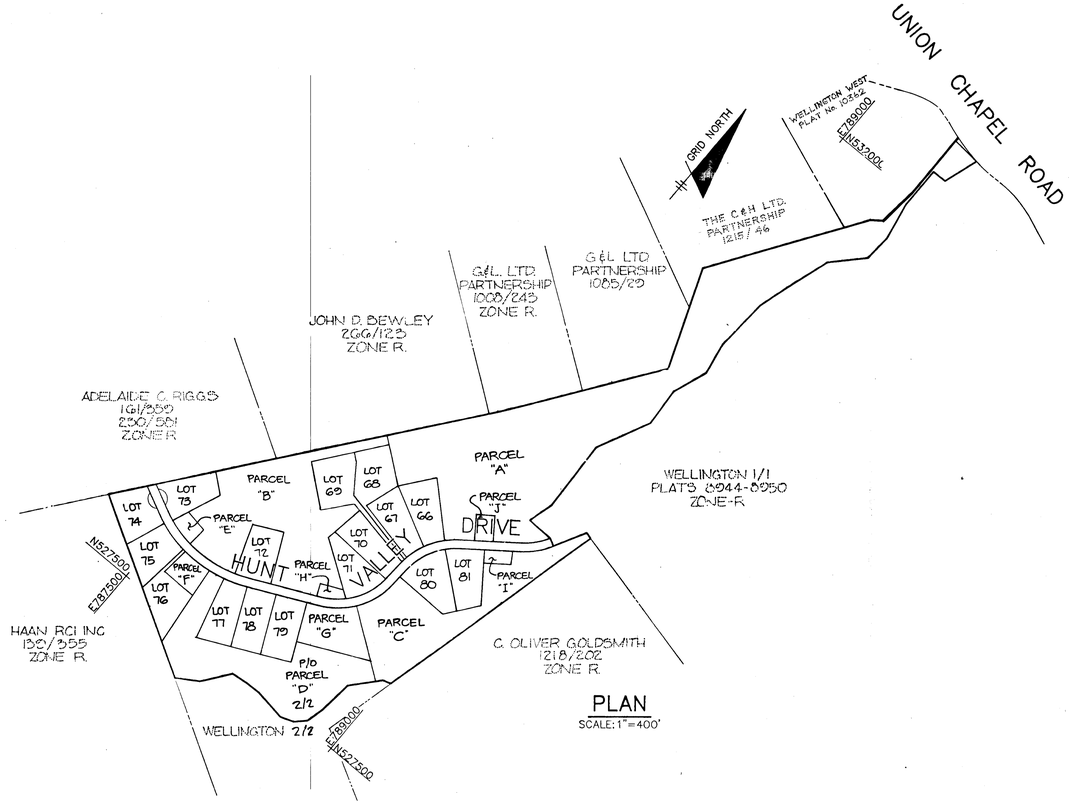
BM# 3333001
CONCRETE MONUMENT 0.5' BELOW SURFACE 1' FROM WITNESS POST.

GENERAL NOTES:

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

BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 OR 3554
BALTIMORE GAS AND ELECTRIC	539-8000 EXT. 691
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION INSPECTION SURVEY DIVISION	992-2417 OR 2418

5. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
6. ALL STREET CURB RETURNS SHALL HAVE 20.0' RADII UNLESS OTHERWISE NOTED.
7. STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
8. INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1988 EDITION.
9. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
10. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:
    ALL CUL-DE-SAC DESIGNED FOR 30 M.P.H., ALL LOCAL STREETS DESIGNED FOR 30 M.P.H.
11. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM 95% OF MAXIMUM OBTAINABLE DENSITY DETERMINED BY MARSHALL PROCTER.
12. ALL PIPE ELEVATIONS SHOWN ARE INVERT ℄ ELEVATIONS.
13. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
14. SUBJECT PROPERTY ZONED RC-DEO,10-18-93 COMPREHENSIVE ZONING PLAN.
15. TOPO TAKEN FROM FIELD RUN SURVEY BY TRACY, SCHULTE & ASSOCIATES DATED SEPT. 1988. AND AERIAL PHOTOGRAMMETRY
16. ALL STORM DRAIN BANDS AND STRAPS SHALL BE WATER TIGHT.
17. DRIVEWAY FOR LOT 76 SHALL BE SHARED WITH ACCESS DRIVE TO SWM POND NO. 4. DRIVEWAY SHALL BE 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.



PLAN
SCALE: 1"=400'

NO	DATE	REVISION
3	12-4-95	REVISION DUE TO RE-SUBDIVISION, LOTS, TREES GUARDRAIL, INFILTRATION TRENCH STATION

Peter A. Tallio

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 12/12/90

CHIEF, BUREAU OF HIGHWAYS — DATE 12/7/90

CHIEF, BUREAU OF ENGINEERING — DATE 12-13-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 12/13/90

NO	DATE	REVISION
2	12-9-92	ELIMINATE OFFSITE IMPROVEMENT TO UNION CHAPEL ROAD (SHEET 10 OF 10)
1	7-1-93	CORRECT PROFILE FOR TWIN 108" CULVERT (SHT 4) AND STRUCTURE SCHEDULE (SHEET 6)

TRACY, SCHULTE & ASSOCIATES INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

STATE OF MARYLAND JAMES KENNETH TRACY NO. 5555 REGISTERED PROFESSIONAL ENGINEER

James K. Tracy

OWNER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244
DEVELOPER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244
DES. SJB	DRN FDM/JCA
PROJECT	WELLINGTON SECTION TWO, AREA ONE
LOCATION	TAX MAP 14&21, PARCELS 73&74 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	F 90-67 P 88-50 S 88-56 SP-96-03 — TITLE SHEET
DATE	SEPT. 29, 1988 OCT 12, 1990 — PROJECT NO. 0035
SCALE	AS SHOWN — DRAWING 1 OF 10

11184

F-90-67

PRESERVATION PARCEL 'A'

E789000 N532000

GRID NORTH

LOT 66

LOT 67

LOT 70

LOT 71

LOT 80

LOT 81

BRL

20' LANDSCAPE EDGE

STORMWATER MANAGEMENT FACILITY, ACCESS TO SWMF, DRAINAGE AND UTILITY EASEMENT

PRESERV PARCEL 'J'

SWM FACILITY NO. 8 DETENTION

LIMIT OF NECESSARY GUARDRAIL
STD GUARDRAIL HO. CO. 7.01
TURN DOWN END

WETLAND BUFFER

CL CURVE DATA
CL STA. 48+56.37 TO CL STA.52+85.72
HUNT VALLEY DRIVE

RADIUS	=	400.00'
LENGTH	=	429.35'
TANGENT	=	237.97'
CHORD	=	409.03'
BEARING	=	N 33°38'51" E
DELTA	=	61°30'00"

CL CURVE DATA
CL STA. 43+91.03 TO CL STA. 47+40.09
HUNT VALLEY DRIVE

RADIUS	=	400.00'
LENGTH	=	349.07'
TANGENT	=	186.52'
CHORD	=	338.09'
BEARING	=	S 27°53'51" W
DELTA	=	50°00'00"

CL CURVE DATA
CL STA. 38+66.97 TO CL STA.40+48.89
HUNT VALLEY DRIVE

RADIUS	=	416.94'
LENGTH	=	183.83'
TANGENT	=	93.44'
CHORD	=	182.35'
BEARING	=	N 40°15'58" E
DELTA	=	25°15'45"

PC = 48+56.37

PT = 47+40.09

PC = 43+91.03

PT = 40+48.89

HUNT VALLEY DRIVE

P-2 PAVING

60'

MATCH LINE SEE SHEET 3

STA. 50+17.50

PRESERVATION PARCEL 'C'

FOREST CONSERVATION ESM'T

PRESERVATION PARCEL 'I'

PRESERVATION PARCEL 'C'

STORMWATER MANAGEMENT FACILITY, ACCESS TO SWMF, DRAINAGE AND UTILITY EASEMENT

SWM FACILITY NO. 8 DETENTION

ST. GEORGE'S CHURCH

100 YEAR FLOODPLAIN

LIMIT OF WETLANDS

ME-1

ME-2

ME-3

ME-4

LIMIT OF NECESSARY GUARDRAIL

STD GUARDRAIL HO. CO. STD 7.01 TURN DOWN END

TEMPORARY TEE TURN AROUND INSTALLED UNDER F-89-127 TO BE REMOVED

TEMPORARY DEAD END BARRICADE TO BE REMOVED

10' TREE MAINT. ESM'T

LIMIT OF SUBMISSION

STA. 38+66.97

THE DEPENDENCE
SECTION 1, AREA 1
F-85-127

PLAN
SCALE 1"=50'

MATCH LINE SEE SHEET 3 OF 7

PRVC. ℄ STA. 50+17.50
ELEV. 515.20

-5.60%

+2.00%

P.G.L.

H.P. ℄ STA. 48+46.82
ELEV. 523.56

P.V.I. STA. = 47+05.00
P.V.I. ELEV. = 531.66
S.S.D. = 200'
CORR. = -8.12'

PVC. ℄ STA. 45+72.50
ELEV. 511.64

V.C. = 445.00'

EX. GROUND 100' RIGHT OF ℄

EX. GROUND @ ℄

EX. GROUND 100' LEFT OF ℄

V.C. = 450.00'

PVT. ℄ STA. 44+25.00
ELEV. 498.36

P.V.I. STA. = 42+00.00
P.V.I. ELEV. = 478.11
S.S.D. = 210'
CORR. = +5.85'

PVC. ℄ STA. 39+75.00
ELEV. 481.26

SUMP ℄ STA. 40+35.58
ELEV. 480.84

LIMIT OF SUBMISSION
℄ STA. 38+66.97
ELEV. 482.77

WELLINGTON
SECT. 1-AREA 1

+3.00%

-1.40%

℄ 108" BCCMP 14 Ga

46.15

46.65

HUNT VALLEY DRIVE

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

Peter A. Tallberg

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 12/12/90

CHIEF, BUREAU OF HIGHWAYS — DATE 12/7/90

CHIEF, BUREAU OF ENGINEERING — DATE 12-13-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 12/13/90

NO	DATE	REVISION
2	7-1-93	CORRECT PROFILE FOR TWIN 108" CULVERT (SHEET 4) AND STRUCTURE SCHEDULE (SHEET 6)
3	12-4-95	REV. DUE TO RESUB., LOTS, TREES, GUARDRAIL, INFILTRATION TRENCH STA.

TRACY, SCHULTE & ASSOCIATES INC.
planning • architecture • engineering
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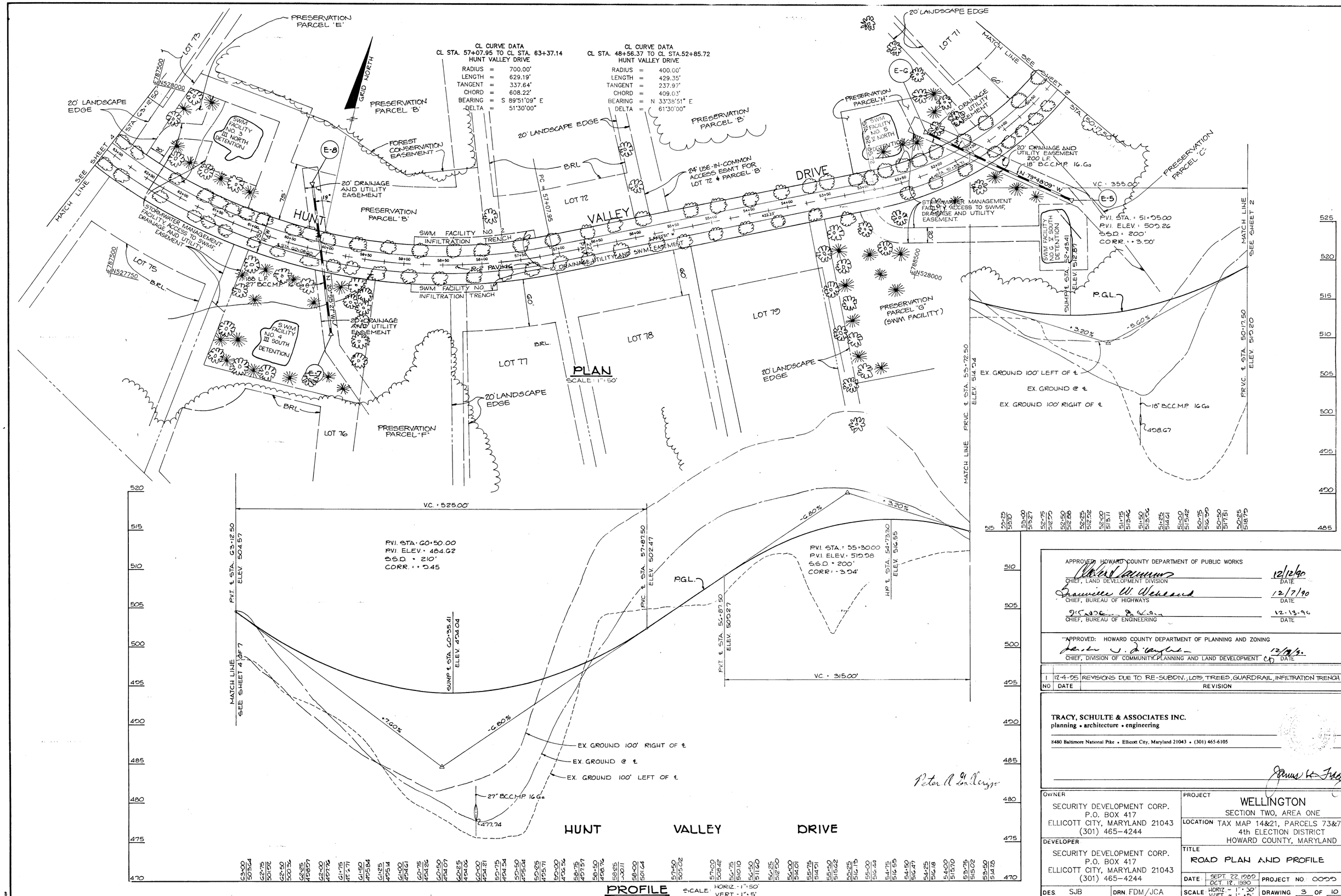
James K. Tracy

OWNER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244
DEVELOPER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244
PROJECT	WELLINGTON SECTION TWO, AREA ONE
LOCATION	TAX MAP 14&21, PARCELS 73&74 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	ROAD PLAN AND PROFILE
DATE	SEPT. 22, 1989; OCT 12, 1990
PROJECT NO.	00DD
SCALE	HORIZ - 1"=50' VERT - 1"=5'
DRAWING	2 OF 10
DES.	SJB
DRN.	FDM/JCA

1488

F-90-67



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 12/12/90

CHIEF, BUREAU OF HIGHWAYS — DATE 12/7/90

CHIEF, BUREAU OF ENGINEERING — DATE 12-13-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 12/18/90

NO	DATE	REVISION
1	12-4-95	REVISIONS DUE TO RE-SUBDIV., LOTS, TREES, GUARDRAIL, INFILTRATION TRENCH STA.

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DEVELOPER
SECURITY DEVELOPMENT CORP.
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21043
(301) 465-4244

PROJECT
WELLINGTON
SECTION TWO, AREA ONE

LOCATION TAX MAP 14&21, PARCELS 73&74
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
ROAD PLAN AND PROFILE

DATE: SEPT. 22, 1989 / OCT. 12, 1990 — PROJECT NO. 0099

DES. SJB — DRN. FDM/JCA — SCALE: HORIZ. = 1"=50' VERT. = 1"=5' — DRAWING 3 OF 10

F-90-67

1488

LINEAR PROFILE
FOR TEMPORARY CUL-DE-SAC
STA. 63+51.10 TO STA. 63+87.30

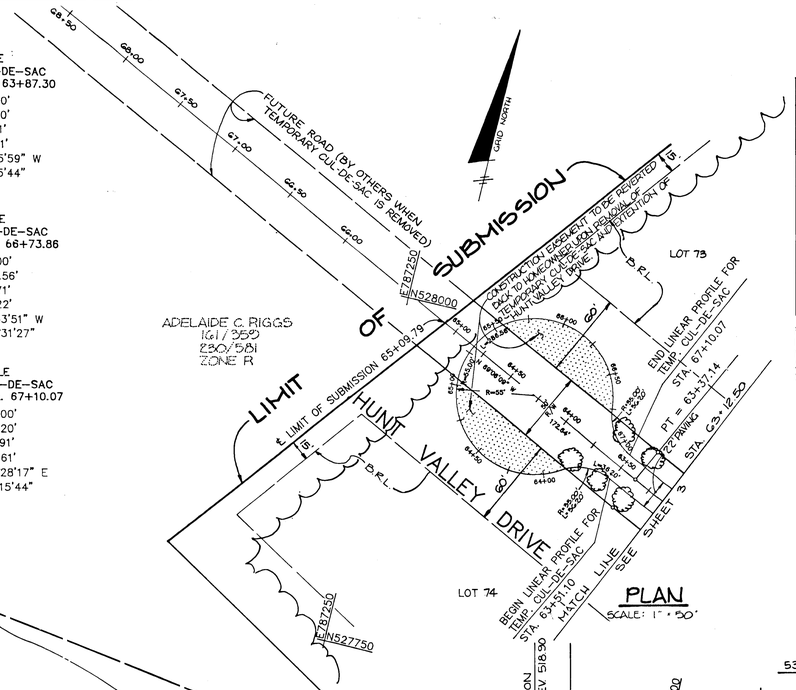
RADIUS	=	35.00'
LENGTH	=	36.20'
TANGENT	=	19.91'
CHORD	=	34.61'
BEARING	=	S 86°15'59" W
DELTA	=	59°15'44"

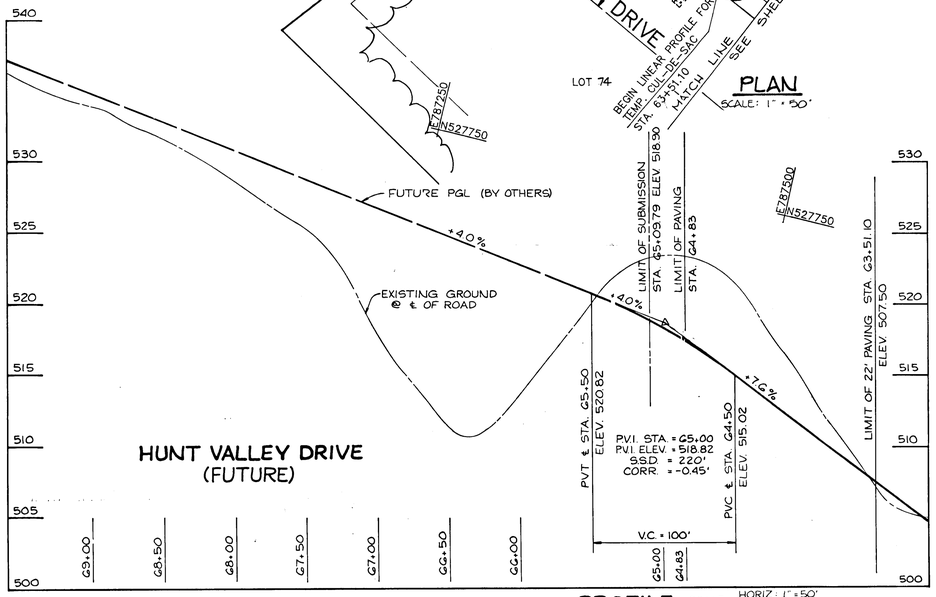
LINEAR PROFILE
FOR TEMPORARY CUL-DE-SAC
STA. 63+87.30 TO STA. 66+73.86

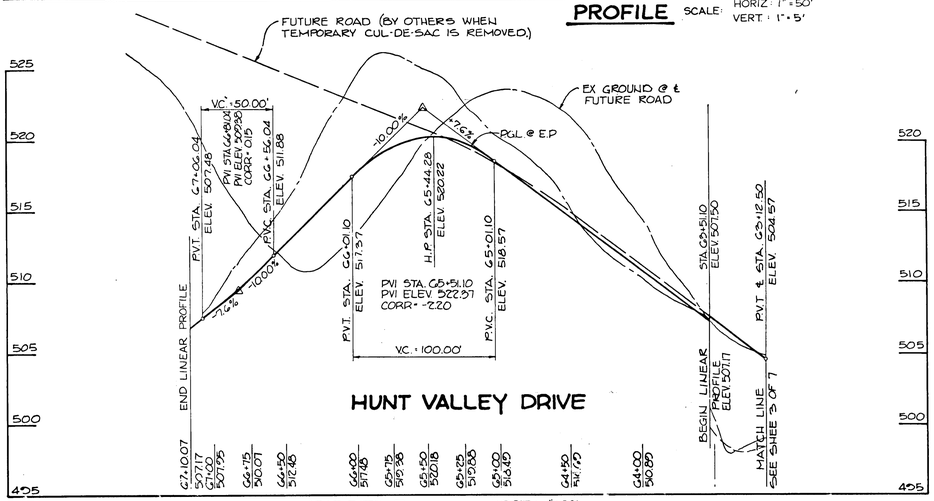
RADIUS	=	55.00'
LENGTH	=	286.56'
TANGENT	=	32.71'
CHORD	=	56.22'
BEARING	=	S 25°53'51" W
DELTA	=	298°31'27"

LINEAR PROFILE
FOR TEMPORARY CUL-DE-SAC
STA. 66+73.86 TO STA. 67+10.07

RADIUS	=	35.00'
LENGTH	=	36.20'
TANGENT	=	19.91'
CHORD	=	34.61'
BEARING	=	S 34°28'17" E
DELTA	=	59°15'44"



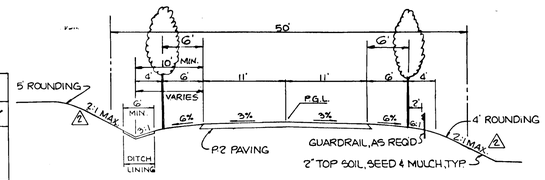




PLANT LIST			
LOCATION	SYMBOL	NAME	QUANTITY
STREET TREES		ACER RUBRUM 'RED SUNSET' RED SUNSET RED MAPLE	137
LANDSCAPE TREES		PINUS STROBUS (EASTERN WHITE PINE)	48
(PERIMETER SWM)		ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	71

FINANCIAL SURETY FOR THE REQUIRED 112 (48+71) LANDSCAPE TREES IS TO BE POSTED AS PART OF THE DEVELOPERS AGREEMENT IN THE AMOUNT OF $11,900.00. ALL LANDSCAPE PLANTING IS THE RESPONSIBILITY OF THE DEVELOPER.

NOTE: AT THE TIME WHEN HUNT VALLEY DRIVE IS TO BE EXTENDED BY OTHERS, THE TEMPORARY CUL-DE-SAC SHALL BE REMOVED AND HUNT VALLEY DRIVE SHALL BE CONSTRUCTED AS PER TYPICAL SECTION.



TYPICAL SECTION

HUNT VALLEY DRIVE
DESIGN SPEED - 30 MPH.
ZONED - R
ROAD CLASSIFICATION - LOCAL
FOR TYPICAL SECTION STA 57+37 STA 58+80 NORTH
STA 57+83 - STA 58+80 SOUTH
SEE DETAIL SHEET G

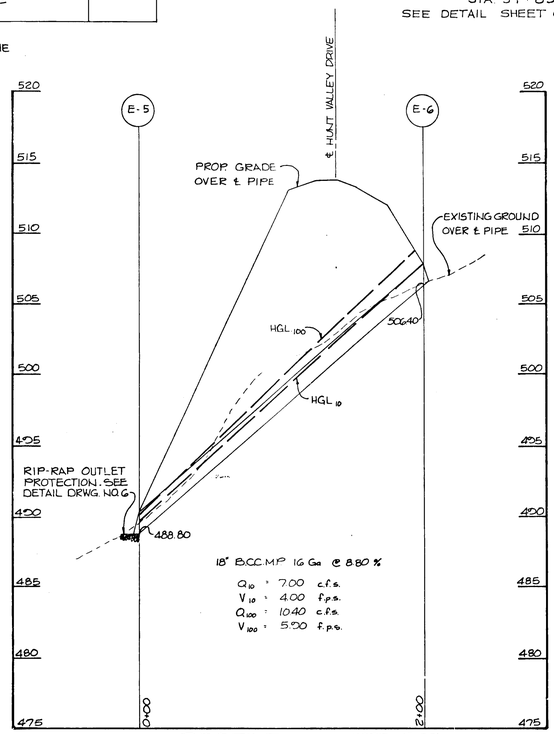
BITUMINOUS CONCRETE SURFACE (1.5")
BITUMINOUS CONCRETE BASE (2.5")
* 8" CRUSHER RUN BASE COURSE (2 COURSES) OR 6" DENSE GRADED STABILIZED AGGREGATE BASE COURSE (*)

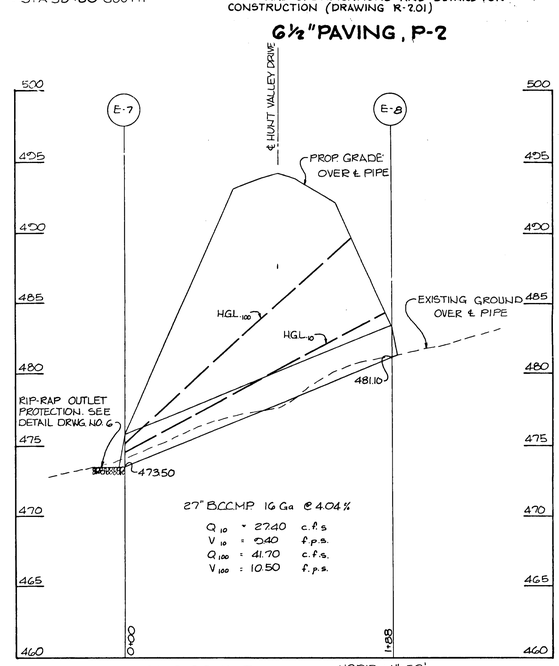
(ALTERNATE)

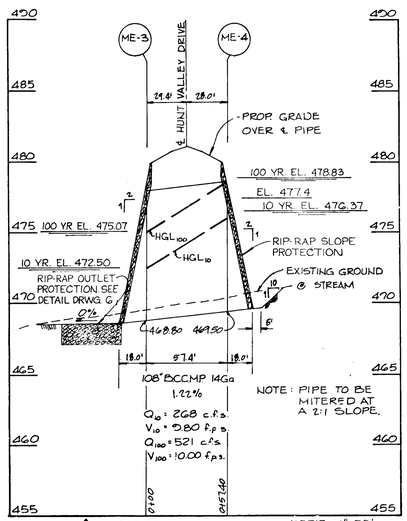
BITUMINOUS CONCRETE SURFACE (1.5")
BITUMINOUS CONCRETE BASE (5")

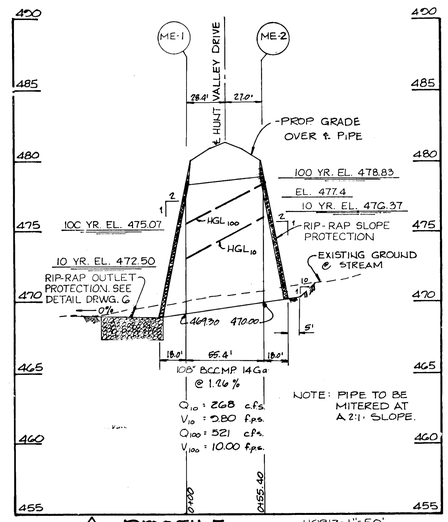
HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

G½" PAVING, P-2









APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 12/12/90

CHIEF, BUREAU OF HIGHWAYS — DATE 12/7/90

CHIEF, BUREAU OF ENGINEERING — DATE 12-13-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 12/13/90

NO	DATE	REVISION
3	12-4-90	REV. DUE TO RESUB., LOTS, TREES, GUARDRAIL, INFILTRATION TRENCH, STATION
2	7-1-93	CORRECT PROFILE FOR TWIN 108" CULVERT (SHT. 4) & STRUCTURE SCHEDULE (SHT. G)

TRACY, SCHULTE & ASSOCIATES INC.
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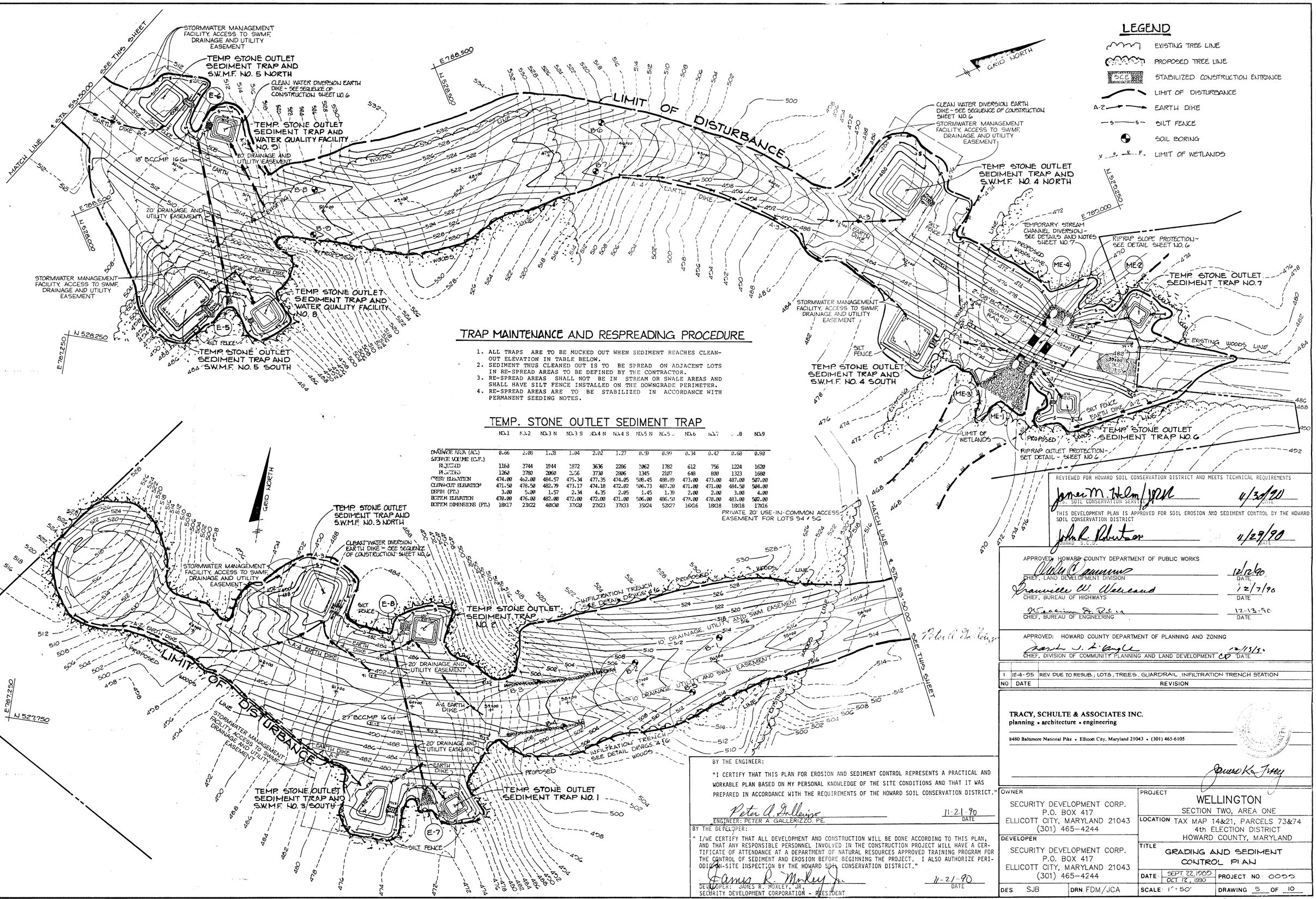
OWNER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	PROJECT: WELLINGTON SECTION TWO, AREA ONE
	LOCATION: TAX MAP 14&21, PARCELS 73&74 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	TITLE: ROAD PLAN AND PROFILE, STORM DRAIN PROFILES AND DETAILS
	DATE: SEPT. 22, 1989 OCT 12, 1990 — PROJECT NO. 00093
DES. SJB — DRN. FDM/JCA	SCALE: AS SHOWN — DRAWING 4 OF 10

14488

F-90-67



LEGEND

- EXISTING TREE LINE
- PROPOSED TREE LINE
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- A-2 — EARTH DIKE
- S — S — SILT FENCE
- SOIL BORING
- W — W — LIMIT OF WETLANDS

TRAP MAINTENANCE AND RESPREADING PROCEDURE

1. ALL TRAPS ARE TO BE MUCKED OUT WHEN SEDIMENT REACHES CLEAN-OUT ELEVATION IN TABLE BELOW.
2. SEDIMENT THUS CLEANED OUT IS TO BE SPREAD ON ADJACENT LOTS IN RE-SPREAD AREAS TO BE DEFINED BY THE CONTRACTOR.
3. RE-SPREAD AREAS SHALL NOT BE IN STREAM OR SWALE AREAS AND SHALL HAVE SILT FENCE INSTALLED ON THE DOWNGRADE PERIMETER.
4. RE-SPREAD AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

TEMP. STONE OUTLET SEDIMENT TRAP

	NO.1	NO.2	NO.3 N	NO.3 S	NO.4 N	NO.4 S	NO.5 N	NO.5 S	NO.6	NO.7	NO.8	NO.9
DRAINAGE AREA (AC.)	0.66	2.08	1.38	1.04	2.02	1.27	0.59	0.99	0.34	0.42	0.68	0.90
STORAGE VOLUME (C.F.)												
REQUIRED	1188	3744	1944	1872	3636	2286	1062	1782	612	756	1224	1620
PLACED	1260	3780	2060	2.56	3730	2806	1345	2107	648	800	1323	1680
CREST ELEVATION	474.00	482.00	484.57	475.34	477.35	474.05	508.45	488.89	473.00	473.00	487.00	507.00
CLEAN-OUT ELEVATION	471.50	478.50	482.79	473.17	474.18	472.02	506.73	487.20	471.00	471.00	484.50	504.00
DEPTH (FT.)	3.00	5.00	1.57	2.34	4.35	2.05	1.45	1.39	2.00	2.00	3.00	4.00
BOTTOM ELEVATION	470.00	476.00	482.00	472.00	472.00	471.00	506.00	486.50	470.00	470.00	483.00	502.00
BOTTOM DIMENSIONS (FT.)	18X17	23X22	40X30	37X20	27X23	37X33	35X24	52X27	16X16	18X18	18X18	17X16

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

James M. Helm /JPR — U.S. SOIL CONSERVATION SERVICE — 4/30/90 DATE

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

John R. Robertson — HOWARD S.C.D. — 4/29/90 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Wesley C. Summers — CHIEF, LAND DEVELOPMENT DIVISION — 12/12/90 DATE

Granville W. Wellman — CHIEF, BUREAU OF HIGHWAYS — 12/7/90 DATE

Maccubbin & Reese — CHIEF, BUREAU OF ENGINEERING — 12-13-90 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Frank J. Englar — CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 12/13/90 DATE

NO	DATE	REVISION
1	12-4-90	REV. DUE TO RESUB.; LOTS, TREES, GUARDRAIL, INFILTRATION TRENCH STATION

BY THE ENGINEER:

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

Peter A. Gallerizzo — ENGINEER: PETER A GALLERIZZO, P.E. — 11-21-90 DATE

BY THE DEVELOPER:

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

James R. Moxley, Jr. — DEVELOPER: JAMES R. MOXLEY, JR. SECURITY DEVELOPMENT CORPORATION - PRESIDENT — 11-21-90 DATE

TRACY, SCHULTE & ASSOCIATES INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

Edward K. Tracy

OWNER
SECURITY DEVELOPMENT CORP.
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(301) 465-4244

DEVELOPER
SECURITY DEVELOPMENT CORP.
P.O. BOX 417
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(301) 465-4244

PROJECT: WELLINGTON
SECTION TWO, AREA ONE
LOCATION: TAX MAP 14&21, PARCELS 73&74
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: GRADING AND SEDIMENT CONTROL PLAN

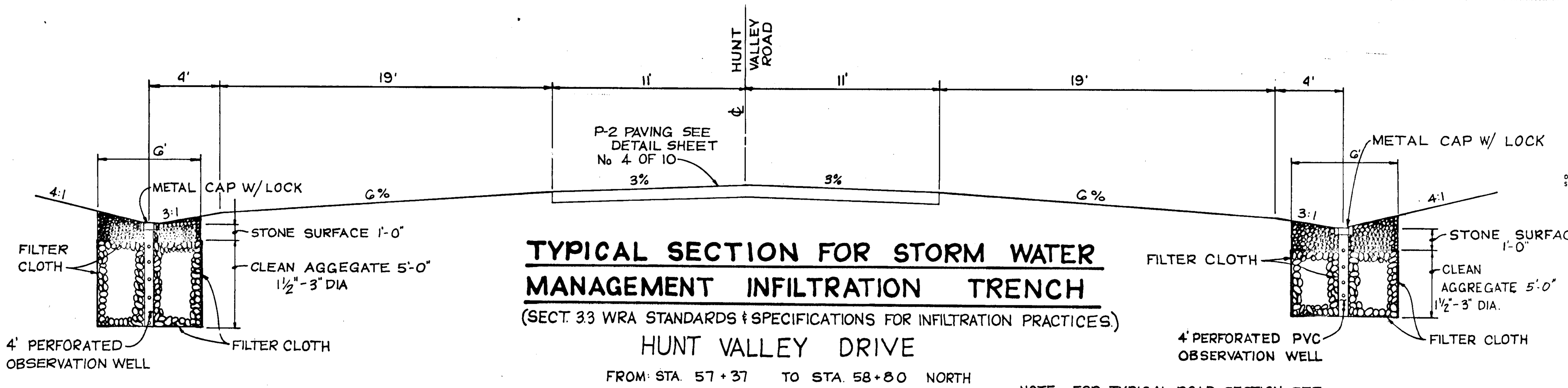
DES. SJB | DRN. FDM/JCA

DATE: SEPT. 22, 1990; OCT. 12, 1990 | PROJECT NO. 00-00

SCALE: 1" = 50' | DRAWING 5 OF 10

1488

F-90-67



TYPICAL SECTION FOR STORM WATER MANAGEMENT INFILTRATION TRENCH

(SECT. 3.3 WRA STANDARDS & SPECIFICATIONS FOR INFILTRATION PRACTICES)

HUNT VALLEY DRIVE

FROM: STA. 57+37 TO STA. 58+80 NORTH
STA 57+83 TO STA. 58+80 SOUTH

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

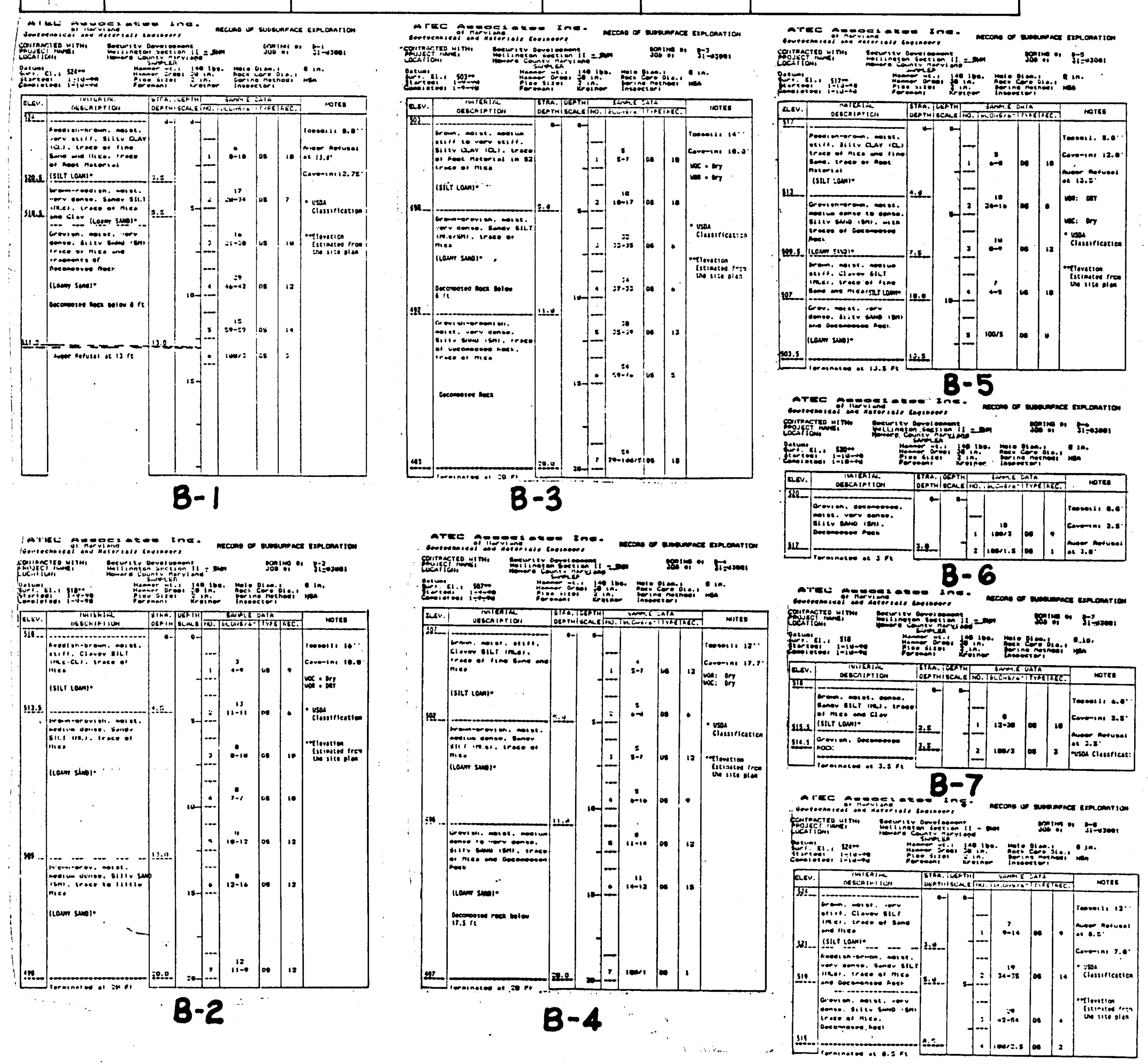
NOTE: FOR TYPICAL ROAD SECTION SEE DETAIL, SHEET No 4

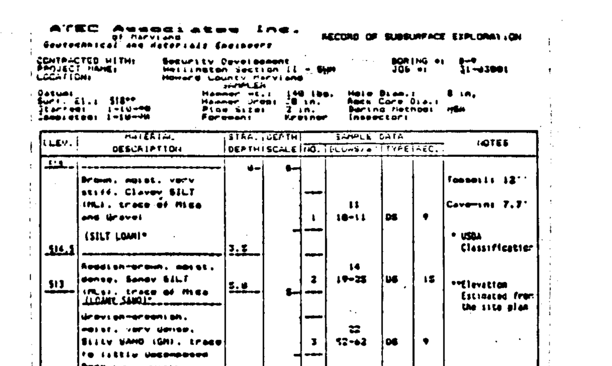
SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
3. INSTALL SILT FENCE BELOW SEDIMENT TRAPS 4N, 4S, 6, 7, AND WEST SIDE OF STREAM.
4. INSTALL CLEAN WATER DIVERSION DIKE WEST OF SWMF NUMBER 4 NORTH. STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
5. INSTALL SEDIMENT TRAPS 4N, 4S, 6 AND 7 AND REQUIRED DIKES AND SILT FENCE IN THE AREA.
6. DIVERT STREAM CHANNEL AT ROAD CROSSING STATION 40 + 00 AS PER CHANNEL DIVERSION NOTES AND DETAILS, SHEET NO. 7.
7. INSTALL TWIN 108 IN. BCCMP.
8. PLACE PROTECTIVE FILL BLANKET OVER 108 IN. PIPES TO A DEPTH OF 4 FEET.
9. INSTALL SILT FENCE BELOW REMAINING TRAPS AND INSTALL REMAINING TRAPS.
10. INSTALL REMAINING STORM DRAINS.
11. INSTALL CLEAN WATER DIVERSION EARTH DIKES NORTH OF SWMF NUMBER 3 NORTH AND NORTH OF WATER QUALITY FACILITY NUMBER 9. STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
12. GRADE ROADWAY AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
13. INSTALL INFILTRATION TRENCH NUMBER 1 AND 2. ENGINEER IS TO INSPECT OPEN TRENCH EXCAVATION FOR INFILTRATION SUITABILITY. COVER COMPLETED FACILITIES WITH FILTER CLOTH TO PREVENT CLOGGING WITH SEDIMENT. PEG EDGES 2 FEET FROM EDGE OF TRENCH.
14. PAVE ALL ROADWAYS, DRESS DITCHES AND STABILIZE AS NEEDED.
15. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL TEMPORARY SEDIMENT CONTROL DEVICES.
16. CONVERT APPLICABLE SEDIMENT TRAPS TO PERMANENT STORMWATER MANAGEMENT FACILITIES. SPREAD SEDIMENT OVER ADJACENT LOTS AND INSTALL SILT FENCE BELOW THESE AREAS. STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
17. WHEN THE AREA ADJACENT TO THE INFILTRATION TRENCHES IS FULLY STABILIZED, REMOVE TOP FILTER CLOTH.

STRUCTURE SCHEDULE

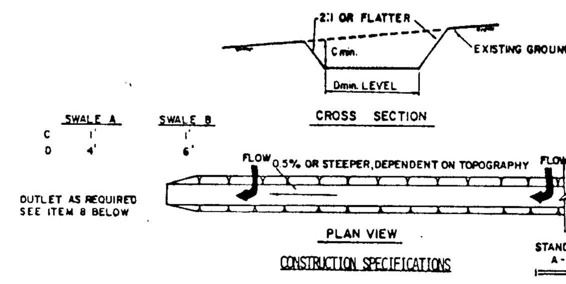
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV	REMARKS
△2 ME-1	108" MITERED END SECTION	27.59' LEFT OF ROAD STA. 39+93.60 HUNT VALLEY DR.	--	469.30		MITERED @ 2:1 SLOPE
ME-2	108" MITERED END SECTION	26.23' RIGHT OF ROAD STA. 39+79.94 HUNT VALLEY DR.	470.00	--		MITERED @ 2:1 SLOPE
ME-3	108" MITERED END SECTION	28.56' LEFT OF ROAD STA. 40+13.64 HUNT VALLEY DR.	--	468.80		MITERED @ 2:1 SLOPE
ME-4	108" MITERED END SECTION	27.20' RIGHT OF ROAD STA. 39+99.70 HUNT VALLEY DR.	469.50	--		MITERED @ 2:1 SLOPE
E-6	18" COATED METAL END SECTION	70' RIGHT OF ROAD STA. 52+18 HUNT VALLEY DR.	--	488.80		HO. CO. ST'D. DETAIL SD-5.61
E-5	18" COATED METAL END SECTION	92' LEFT OF ROAD STA. 51+02 HUNT VALLEY DR.	506.40	--		HO. CO. ST'D. DETAIL SD-5.61
E-8	27" COATED METAL END SECTION	79' RIGHT OF ROAD STA. 60+41 HUNT VALLEY DR.	--	473.50		HO. CO. ST'D. DETAIL SD-5.61
E-7	27" COATED METAL END SECTION	98' LEFT OF ROAD STA. 59+78 HUNT VALLEY DR.	481.10	--		HO. CO. ST'D. DETAIL SD-5.61





SEE SHEET 5 OF 10 FOR BORING LOCATIONS

SOIL BORING DATA



CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW:

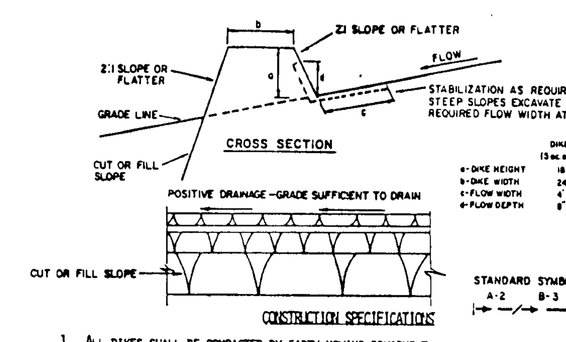
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC OR LESS)	B (5 AC - 10 AC)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1-8.0%	SEED WITH JUTE OR EXCELSIOR; SOD	LINED RIP-RAP 4-8" RECYCLED CONCRETE EQUIVALENT
4	8.1-20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

TEMPORARY SWALE

NO SCALE



CONSTRUCTION SPECIFICATIONS

1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

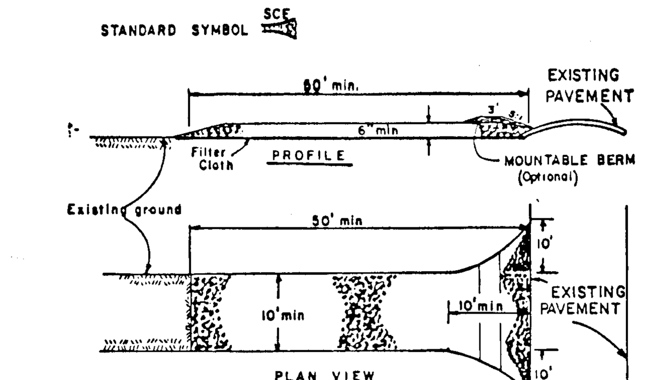
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE

NO SCALE

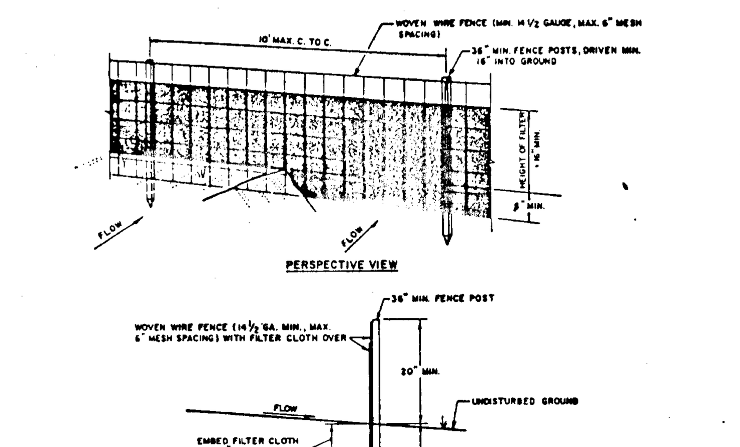


CONSTRUCTION SPECIFICATIONS

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 flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE

NO SCALE



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, STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE

NO SCALE

PERMANENT SEEDBED PREPARATION

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 SCHEDULES:

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 ACRE 30-0-0 UREAFORM FERTILIZER (9 lbs/10000 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 OF 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 PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW.

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 GALLONS PER ACRE (5 gal/1000 sq ft) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, 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 SEEDBED PREPARATION

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 BUSHELS 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 GALLONS PER ACRE (5 gal/1000 sq ft) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348 GALLONS 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.

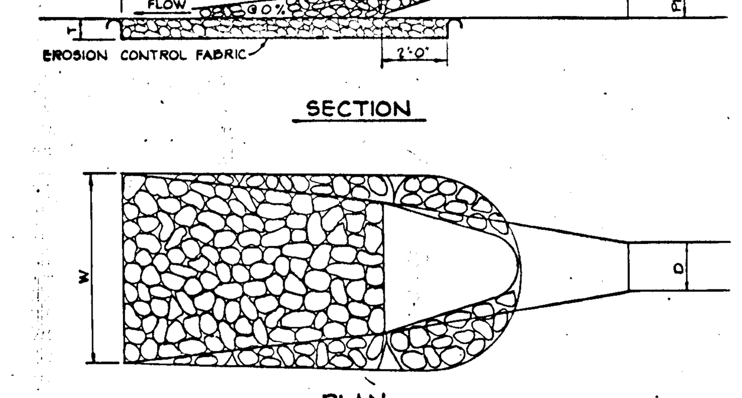
6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS:
TOTAL AREA OF SITE 85.156 ACRES
AREA DISTURBED 8.640 ACRES
AREA TO BE ROOFED OR PAVED 3.562 ACRES
AREA TO BE VEGETATIVELY STABILIZED 81.627 ACRES
TOTAL CUT 25.398 CU.YDS.
TOTAL FILL 26.156 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION LOTS 30 & 40 SECTION 1

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) ALL SEDIMENT TRAPS 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.



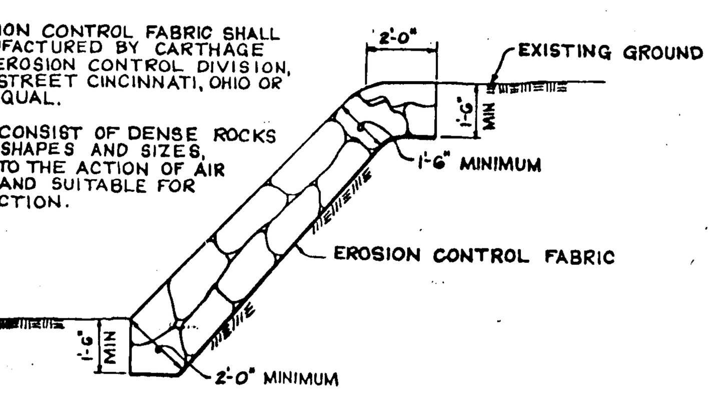
STRUCTURE	d - 50	LENGTH (L)	WIDTH (W)	THICKNESS (T)
ME-1	16"	41'	50'	1.5'
ME-3	16"	41'	50'	1.5'
E-5	6"	10'	12'	0.5'
E-7	8"	22'	24'	1.0'

OUTLET PROTECTION DETAIL

NO SCALE

NOTE: EROSION CONTROL FABRIC SHALL BE AS MANUFACTURED BY CARTHAGE MILLS, INC. EROSION CONTROL DIVISION, 124 W. 66TH STREET CINCINNATI, OHIO OR APPROVED EQUAL.

RIP RAP TO CONSIST OF DENSE ROCKS OF RANDOM SHAPES AND SIZES, RESISTANT TO THE ACTION OF AIR AND WATER AND SUITABLE FOR BANK PROTECTION.



SLOPE PROTECTION

NO SCALE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
James M. Holm / JRR — U.S. SOIL CONSERVATION SERVICE — 11/30/90 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
John R. Robertson — HOWARD S.C.D. — 11/29/90 DATE

BY THE ENGINEER:
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
Peter A Gallerizzo — ENGINEER: PETER A. GALLERIZZO, P.E. — 11-21-90 DATE

BY THE DEVELOPER:
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
James R. Moxley Jr. — DEVELOPER: JAMES R. MOXLEY, JR. SECURITY DEVELOPMENT CORPORATION - PRESIDENT — 11-21-90 DATE

Peter A Gallerizzo

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — 12/12/90 DATE
Granville W. Wehland — CHIEF, BUREAU OF HIGHWAYS — 12/7/90 DATE
William E. ... — CHIEF, BUREAU OF ENGINEERING — 12-13-90 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT CD — 12/19/9. DATE

NO	DATE	REVISION
3	12-4-95	REV. DUE TO RESUB.; LOTS, TREES, GUARDRAIL, INFILTRATION TRENCH STATION
△2	7-1-93	CORRECT PROFILE FOR TWIN 108" CULVERT (SHT. 4) & STRUCTURE SCHEDULE (SHT 6)

TRACY, SCHULTE & ASSOCIATES INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

STATE OF MARYLAND JAMES KENNETH TRACY NO. 9605 REGISTERED PROFESSIONAL ENGINEER
James K. Tracy

OWNER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244

DEVELOPER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244

PROJECT: WELLINGTON SECTION TWO, AREA ONE

LOCATION: TAX MAP 14&21, PARCELS 73&74 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: GRADING AND SEDIMENT CONTROL NOTES AND DETAILS

DATE: 9-22-89 OCT 12, 1990 | PROJECT NO.: 0099

DES. SJB | DRN. FDM/JCA | SCALE: AS SHOWN | DRAWING 6 OF 10

F-90-67

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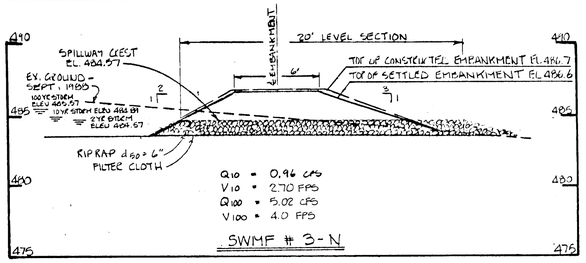
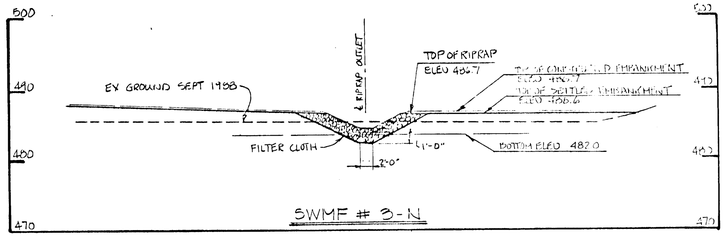
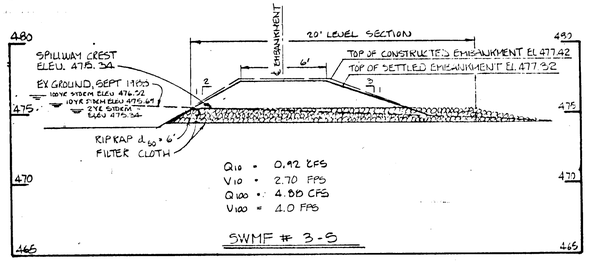
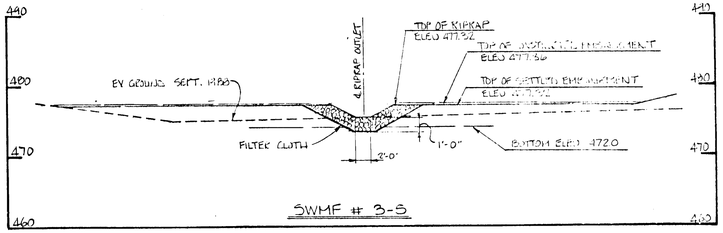
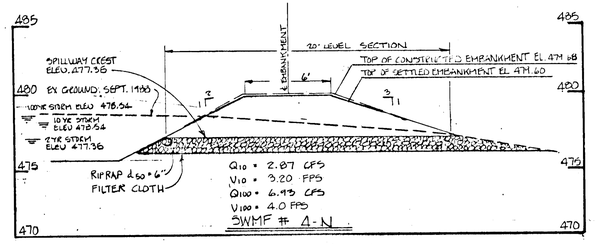
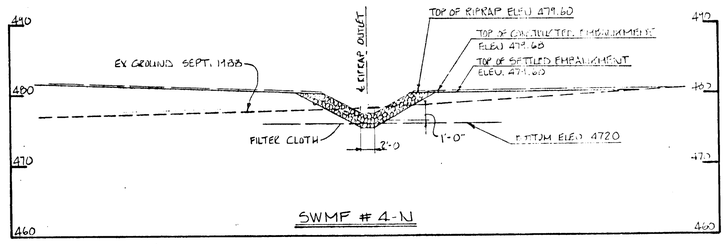


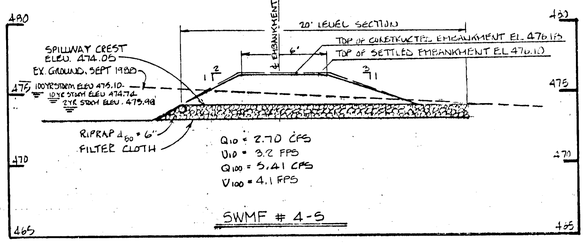


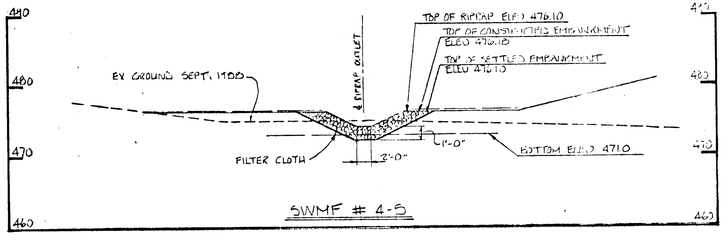


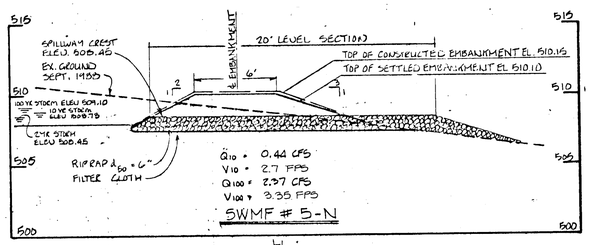


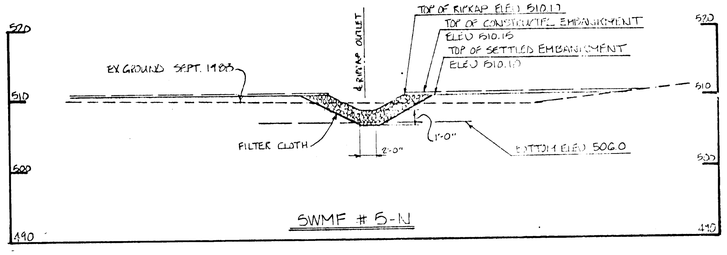


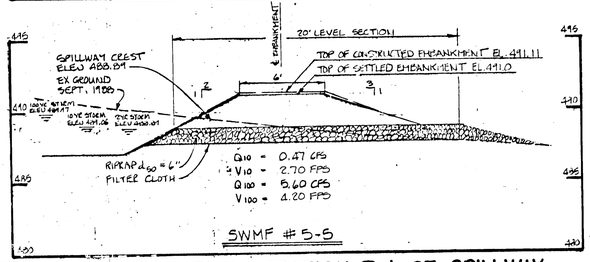


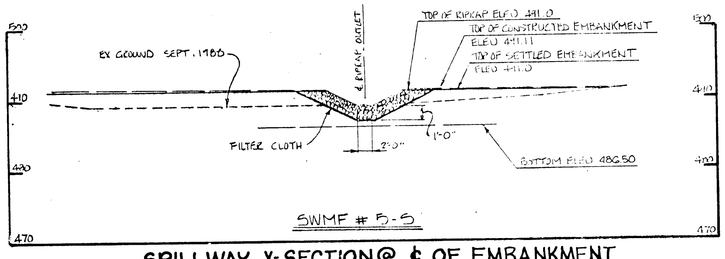










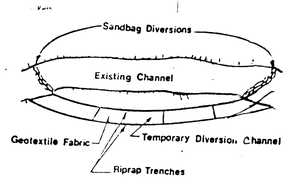


EMBANKMENT X-SECTION @ ℄ OF SPILLWAY

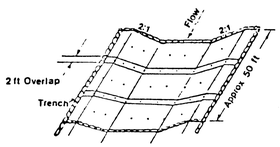
SCALE: HORIZ: 1"=5'
VERT: 1"=5'

SPILLWAY X-SECTION @ ℄ OF EMBANKMENT

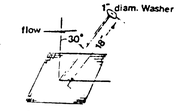
SCALE: HORIZ: 1"=10'
VERT: 1"=10'

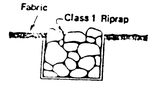


PLAN



CROSS SECTION





A. Channel Excavation

1. All erosion and sediment control devices shall be installed as the first order of business.
2. All disturbance resulting from construction of the channel shall be contained by appropriate sediment control measures.
3. Excavation of the channel shall begin at the downstream end and proceed upstream. All excavated materials shall be stockpiled outside of the floodplain and temporarily stabilized to prevent re-entry into the stream channel.
4. The process of excavation and stabilization with fabric shall be a continuous (uninterrupted) operation. All materials shall be on-site prior to channel construction.
5. The downstream and upstream connection to the natural channel shall be constructed under dry conditions. The stream shall be contained by sandbags along the opposing bank during the process of cutting the diversion channel into the natural stream channel. Excavation and stabilization shall be a continuous (uninterrupted) operation.
6. All debris (rocks, sticks, etc.) shall be removed and the channel surfaces made smooth so that the fabric will rest flush with the channel sides and bottom.

B. Stabilization with Geotextile Fabric

1. The fabric shall have a minimum width such that it is keyed in and anchored at the top of stream bank.
2. Fabric shall be placed so that it rests flush with the channel at all points of contact.
3. Fabric shall be placed such that one piece will line the entire channel. If this is not possible, fabric shall be placed so that transverse overlapping occurs in accordance with the details. Longitudinal overlaps shall not be allowed. Upstream sections shall overlap downstream sections. Overlap width shall equal 2 feet minimum.
4. The fabric shall be keyed into 2 x 2 feet trenches located at the upstream edge and at 50 feet intervals (the overlap nearest to each 50 feet increment). The key-in shall be from top of channel to top of channel. Class I riprap (MPD3.1) shall be carefully placed into the trench (zero drop height).
5. The fabric sections shall be secured with holddown pins (L = 18 inch minimum) and washer (diameter = 1.0 inch minimum). Overlaps shall be pinned along transverse and longitudinal axes with spacing equal to 3 feet maximum.
6. Sediment from surrounding areas of disturbance shall not be allowed to enter the diversion channel.

C. Removal of Diversion

1. Water shall not be allowed through the natural stream until all construction is completed.
2. After diversion of the stream through the natural stream bed, the temporary diversion channel shall be backfilled and stabilized. Points of tie-in to the natural channel shall be stabilized with riprap in accordance with MPD3.1.

D. Alternate Designs

1. The above design may be modified to allow sewing of the geotextile fabric. Sewing of the geotextile fabric, rather than overlapping, would eliminate the requirement for transverse placement of the fabric. Either transverse or longitudinal placement should work equally well.
2. The spacing of the pins could be either larger or smaller depending on the anticipated velocities and thickness and type of geotextile fabric.
3. The entire bottom of the channel could be riprapped if high velocities were anticipated. When the area is riprapped, it is not required that the geotextile fabric underneath the riprap be pinned.

FABRIC BASED STREAM CHANNEL DIVERSION NOTES & DETAILS

NO SCALE

Peter A. Gallerizzo

BY THE DEVELOPER:

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

James R. Moxley Jr. — 11-21-90

DEVELOPER: JAMES R. MOXLEY JR. — DATE

SECURITY DEVELOPMENT CORPORATION - PRESIDENT

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

Peter A. Gallerizzo — 11-21-90

ENGINEER: PETER A. GALLERIZZO, P.E. — DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

James M. Helm Jr. — 11/30/90

U.S. SOIL CONSERVATION SERVICE — DATE

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

John L. Robertson — 11/29/90

HOWARD S.C.D. — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — 12/12/90 DATE

CHIEF, BUREAU OF HIGHWAYS — 12/7/90 DATE

CHIEF, BUREAU OF ENGINEERING — 12-13-90 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 12/13/90 DATE

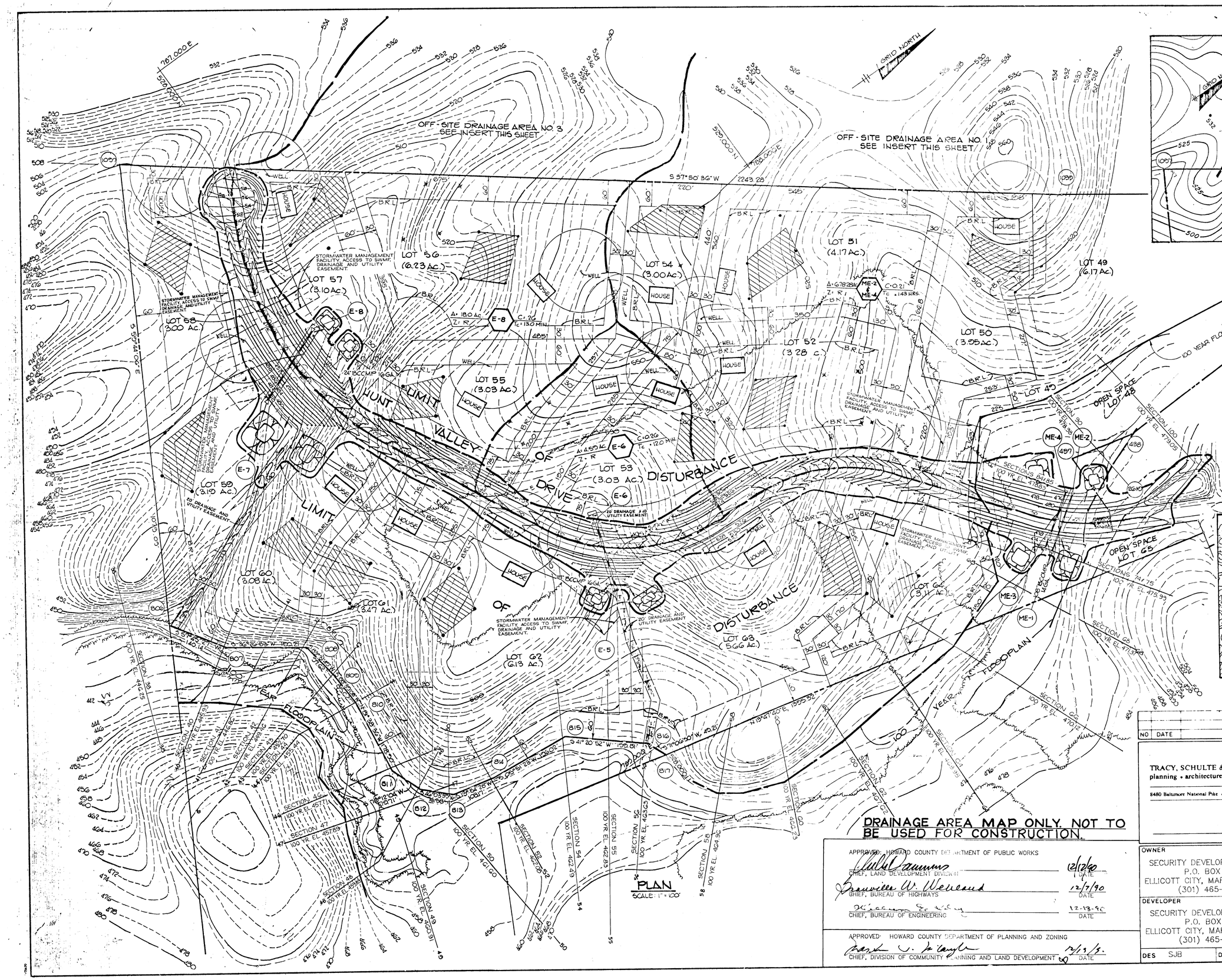
NO	DATE	REVISION

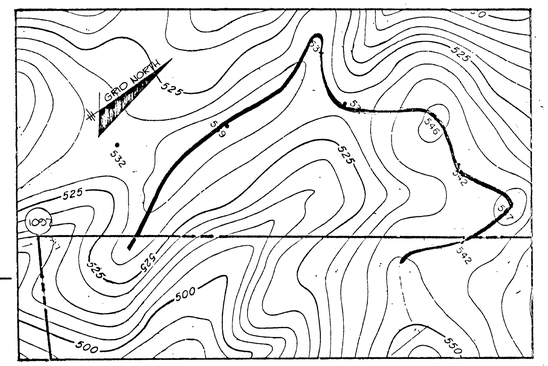
TRACY, SCHULTE & ASSOCIATES INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	PROJECT: WELLINGTON SECTION TWO, AREA ONE
DEVELOPER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	LOCATION: TAX MAP 14&21, PARCELS 73&74 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
	TITLE: S.W.M. PROFILES, STREAM DIVERSION NOTES AND DETAILS
DES.: SJB DRN.: FDM/JCA	DATE: SEPT. 22, 1989 / OCT. 12, 1990 — PROJECT NO.: 0099
	SCALE: AS SHOWN — DRAWING: 7 OF 10

F-90-67

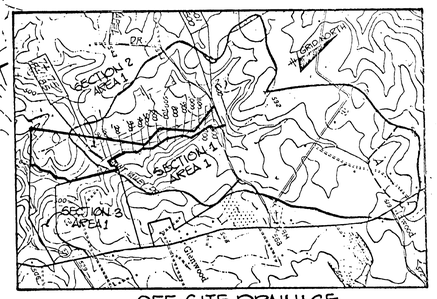
14881





OFF-SITE DRAINAGE AREA NO. 3
SCALE: 1" = 200'

NOTE:
1. STORMWATER MANAGEMENT FOR THE IMPERVIOUS ROADWAYS WILL BE PROVIDED IN THE ROADSIDE DITCHES. SEE DETAIL SHEET 1 OF 4.



OFF-SITE DRAINAGE AREA NO. 1
SCALE: 1" = 2000'

DRAINAGE AREA MAP ONLY. NOT TO BE USED FOR CONSTRUCTION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 12/12/90
CHIEF, BUREAU OF HIGHWAYS — DATE 12/7/90
CHIEF, BUREAU OF ENGINEERING — DATE 12-13-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 12/13/90

NO	DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

STATE OF MARYLAND — JAMES KENNETH TRACY — REGISTERED PROFESSIONAL ENGINEER

James K. Tracy

OWNER
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ELLICOTT CITY, MARYLAND 21043
(301) 465-4244

DEVELOPER
SECURITY DEVELOPMENT CORP.
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21043
(301) 465-4244

DES SJB | DRN FDM/JCA

PROJECT
WELLINGTON
SECTION TWO, AREA ONE

LOCATION TAX MAP 14&21, PARCELS 73&74
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

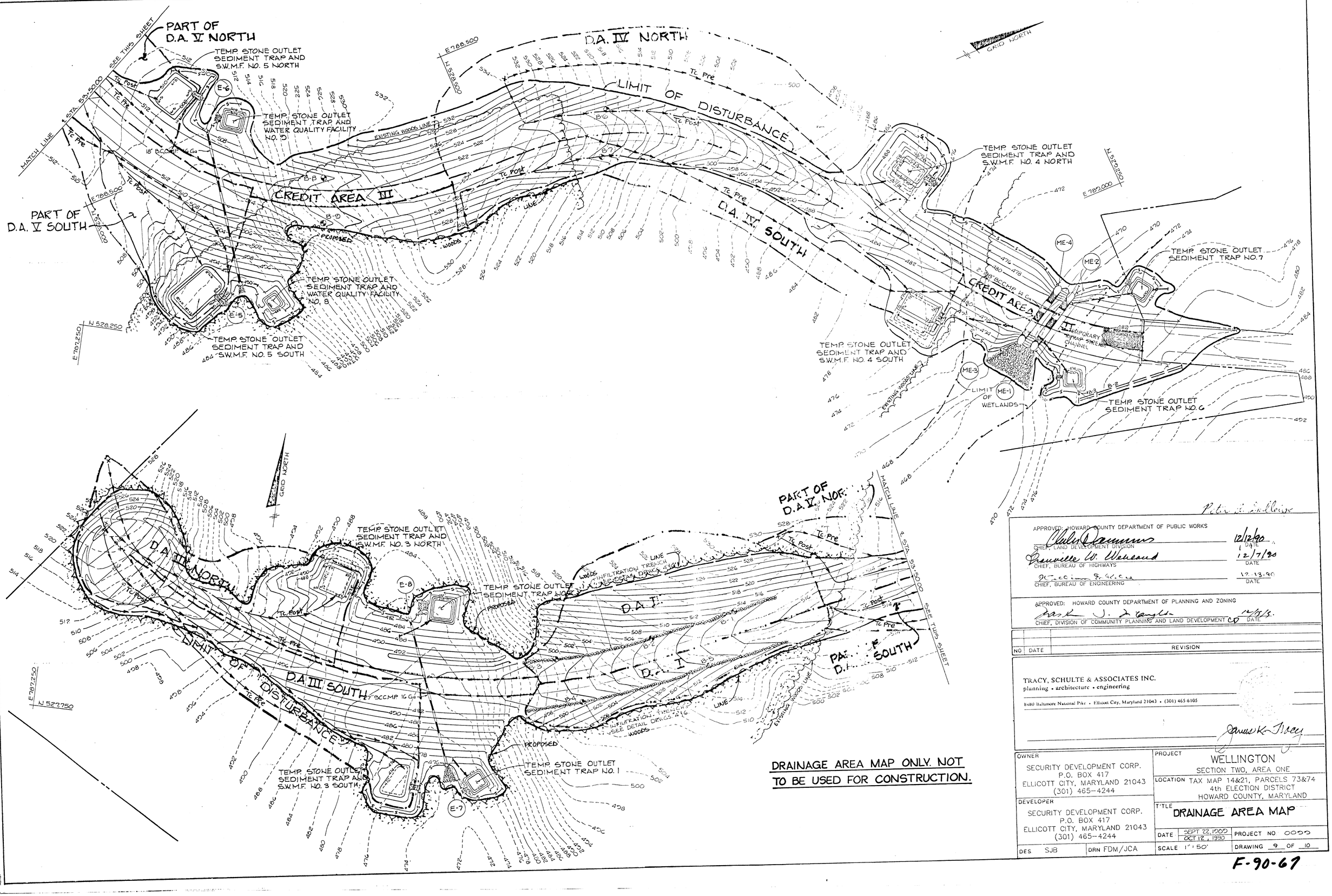
TITLE F80-75 DRAINAGE AREA MAP
S-88-54

DATE: SEPT 22,1989 / OCT 12, 1990 | PROJECT NO 00-90

SCALE: AS SHOWN | DRAWING 8 OF 10

F-90-67

8841



DRAINAGE AREA MAP ONLY. NOT TO BE USED FOR CONSTRUCTION.

Peter T. Sullivan

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 12/12/90

CHIEF, BUREAU OF HIGHWAYS — DATE 12/7/90

CHIEF, BUREAU OF ENGINEERING — DATE 12-13-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 12/13/90

NO	DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.
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8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105
James K. Tracy

OWNER
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(301) 465-4244

DEVELOPER
SECURITY DEVELOPMENT CORP.
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ELLICOTT CITY, MARYLAND 21043
(301) 465-4244

DES. SJB | DRN FDM/JCA

PROJECT
WELLINGTON
SECTION TWO, AREA ONE

LOCATION TAX MAP 14&21, PARCELS 73&74
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
DRAINAGE AREA MAP

DATE SEPT 22, 1990 / OCT 12, 1990 | PROJECT NO 00053

SCALE 1" = 50' | DRAWING 9 OF 10

F-90-67

88-11

CURVE DATA
UNION CHAPEL ROAD

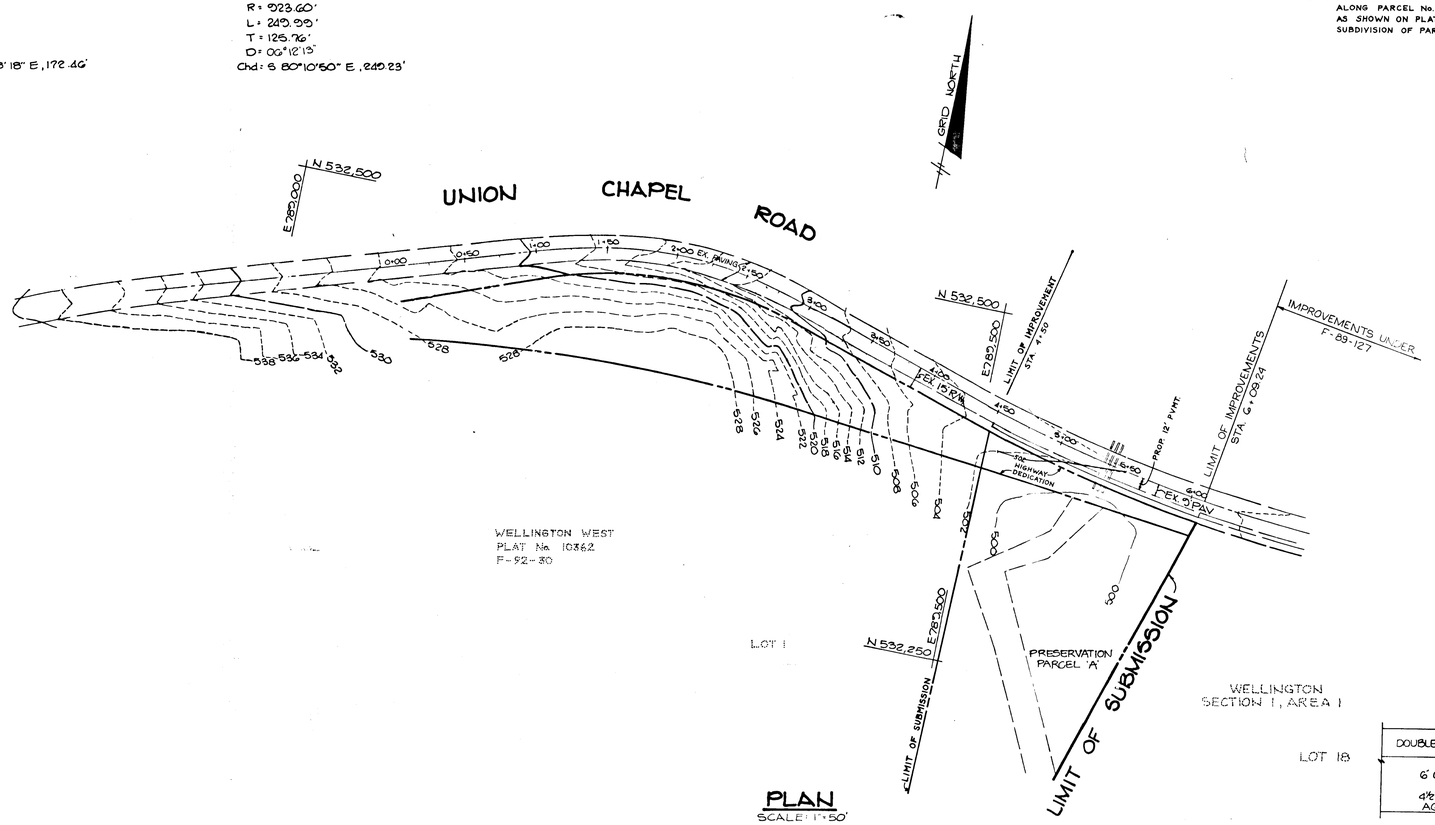
℄ STA. 1+14.74 TO ℄ STA. 2+80.92

Δ = 35°05'25"
R = 286.04'
L = 175.18'
T = 90.44'
D = 20°01'51"
Chd = S 85°58'18" E, 172.46'

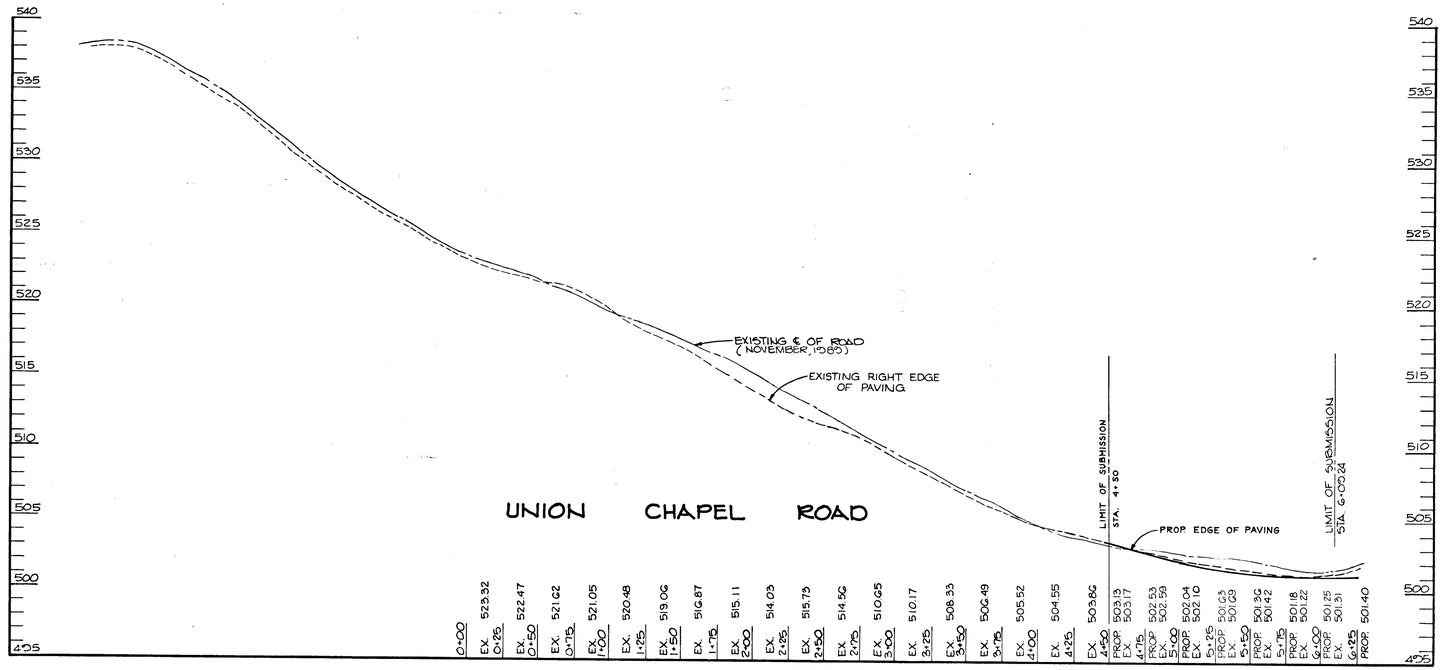
℄ STA. 4+37.99 TO ℄ STA. 6+09.24

Δ = 15°30'29"
R = 923.60'
L = 249.99'
T = 125.76'
D = 06°12'13"
Chd = S 80°10'50" E, 249.23'

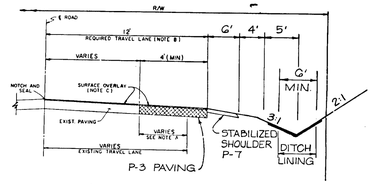
NOTE: UNION CHAPEL ROAD IMPROVEMENTS WILL BE REQUIRED ALONG PARCEL No. 222 WITHIN THE HIGHWAY DEDICATION AS SHOWN ON PLAT Nos. 10362 & 10363 (F-92-30) UPON SUBDIVISION OF PARCEL 222.



PLAN
SCALE: 1"=50'



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



NOTE A - WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE, CONTRACTOR SHALL REMOVE ENOUGH OF THE EXISTING ROAD BED TO PROVIDE A MINIMUM BASE WIDENING OF 4'

NOTE B - THE SURFACE OVERLAY SHALL BE CARRIED TO THE ℄ OF THE ROAD AND NOTCHED AND SEALED

NOTE C - SURFACE OVERLAY COURSE TO BE EQUAL TO SURFACE COURSE OF TYPICAL PAVING SECTION OF SUBDIVISION

NOTE D - ℄ OF ROAD TO BE MILLED AT DEPTH OF 1½" x 1' WIDE USING A MILLING MACHINE

ZONED R
UNION CHAPEL ROAD
DESIGN SPEED 50 MPH
ROAD CLASSIFICATION - MAJOR COLLECTOR
℄ STA. 4+50 TO 6+09.24

TYPICAL HALF SECTION
NO SCALE

DOUBLE BITUMINOUS SURFACE TREATMENT
6" CRUSHER RUN BASE COURSE OR 4½" DENSE GRADED STABILIZED AGGREGATE BASE COURSE (6")

P-7 PAVING
NO SCALE

BITUMINOUS CONCRETE SURFACE	1.5"
BITUMINOUS CONCRETE BASE	4.5"
* 6" CRUSHER RUN BASE COURSE OR 4½" DENSE GRADED STABILIZED AGGREGATE BASE COURSE	*

(ALTERNATE)

BITUMINOUS CONCRETE SURFACE	1.5"
BITUMINOUS CONCRETE BASE	1.5"
BITUMINOUS CONCRETE BASE	5"

HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

8" PAVING, P-3
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 12/12/90

CHIEF, BUREAU OF HIGHWAYS — DATE 12/7/90

CHIEF, BUREAU OF ENGINEERING — DATE 12-13-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 12/13/90

NO	DATE	REVISION
4	12-9-92	ELIMINATE OFFSITE IMPROVEMENTS TO UNION CHAPEL ROAD
3	12-4-92	REV. DUE TO RESUBDIV.; LOTS, TREES, GUARDRAIL, INFILTRATION TRENCH STATION

TRACY, SCHULTE & ASSOCIATES INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105
Peter A. Tallerico

OWNER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	PROJECT: WELLINGTON SECTION TWO, AREA ONE
DEVELOPER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	LOCATION: TAX MAP NO. 14 & 21 PARCEL NO. 73 & 74 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
	TITLE: PLAN AND PROFILE OF UNION CHAPEL ROAD
DES. SJB DRN. JCA	DATE: APRIL 24, 1990 / OCT 12, 1990 — PROJECT NO. 0099
	SCALE: AS SHOWN — DRAWING 10 OF 10

F-90-67

8814