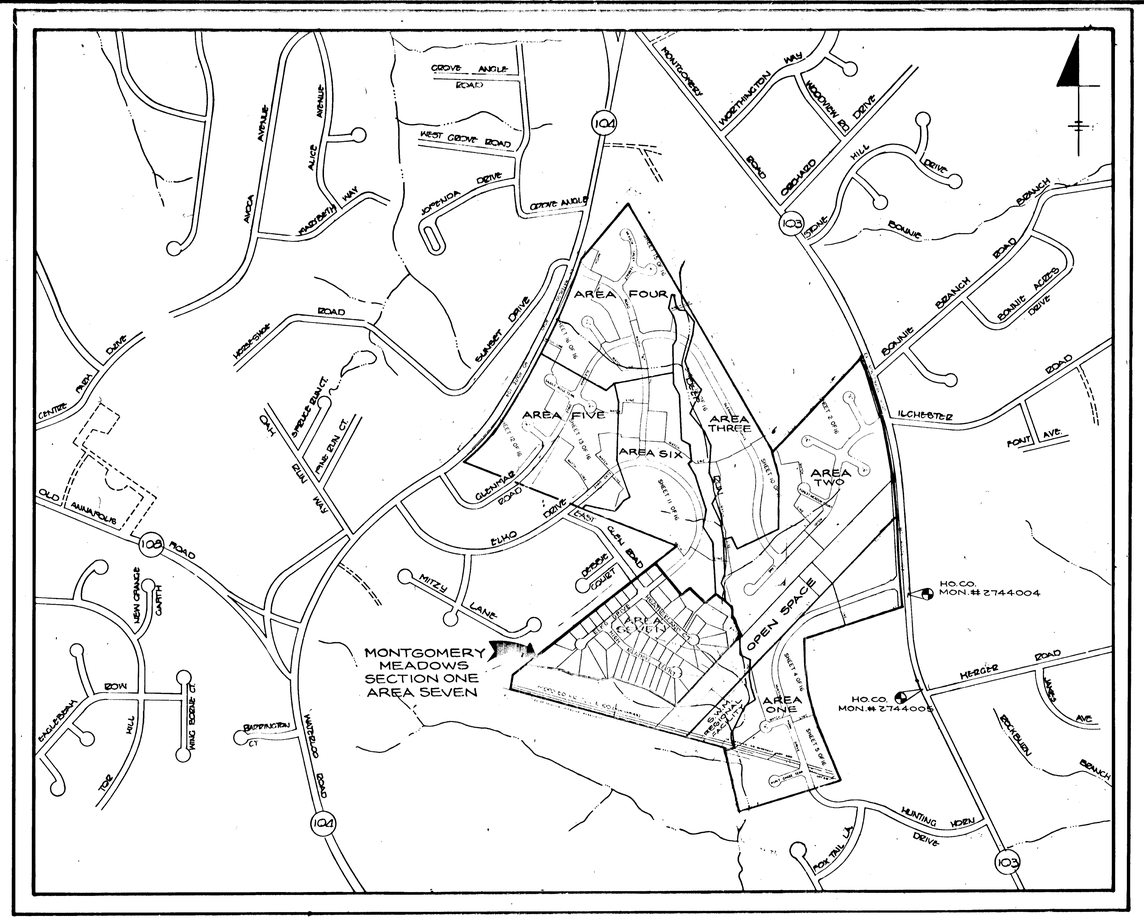
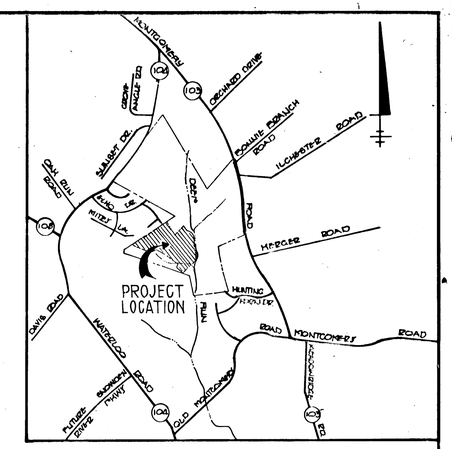
INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	PLAN & PROFILE – ELKO DRIVE
3	PLAN & PROFILE – COURT / EASTGLEN ROAD
4	PLAN & PROFILE – HIGH MEADOW COURT
5	STORM DRAIN PROFILES
6	ROAD SECTIONS & DETAILS, NOTES, STORM STRUCTURE SCHED.
7	GRADING & SEDIMENT CONTROL PLAN/DRAINAIGE AREA MAP
8	GRADING & SEDIMENT CONTROL PLAN/DRAINAGE AREA MAP
9	SEDIMENT CONTROL NOTES AND DETAILS
10	SEDIMENT CONTROL DETAILS
11	OFFSITE DRAINAGE AREA MAP (EXISTING CONDITION)
12	OFFSITE DRAINAGE AREA MAP (PROPOSED CONDITION)



LOCATION MAP

SCALE: 1" = 600'



VICINITY MAP

SCALE: 1" = 2,000'

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 24HRS. 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, 1984 REVISED EDITION.
8. STREET TREES TO BE PROVIDED AS REQUIRED BY SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. SEE DRAINAGE AREA, LANDSCAPING, AND GRADING & SEDIMENT CONTROL PLANS SHEETS 7, 8 AND 9 OF 9.
9. PERMANENT STORMWATER MANAGEMENT FACILITIES FOR THIS PROJECT WILL BE CONSTRUCTED UNDER F-89-44. AND IS SHEDABLE.

"I certify that this plan for [redacted] 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. [redacted]"

7-26-89

DEVELOPER'S CERTIFICATE

"I/We 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. [redacted] I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Kenneth D. Mohler — 7/27/89
VP, NNL ASSOC., GENERAL PARTNER

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for [redacted] soil erosion and sediment control.

8/3/89
U.S. Soil Conservation Service — Date

These plans for [redacted] soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

8/4/89
Howard Soil Conservation District — Date

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING,

2/23/89
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

8/10/89
CHIEF, LAND DEVELOPMENT DIVISION — DATE

8.8.89
CHIEF, BUREAU OF HIGHWAYS — DATE

8-11-89
CHIEF, BUREAU OF ENGINEERING — DATE

MONTGOMERY MEADOWS
SECTION ONE, AREA SEVEN
ROAD CONSTRUCTION DRAWINGS
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

		date
DESIGNED	M.BRIDDELL	5-6-88
DRAWN	M.MERCIL	5-6-88
CHECKED	M.BRIDDELL	5-6-88
APPROVED	T.L. WILEY	

REVISIONS

DATE	BY	DESCRIPTION
6/08	MRS	DELETE REFERENCE TO SMALL POND AND SEMI-PERMANENT STORMWATER MANAGEMENT

Dewberry & Davis
ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
3300 N. RIDGE ROAD
SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

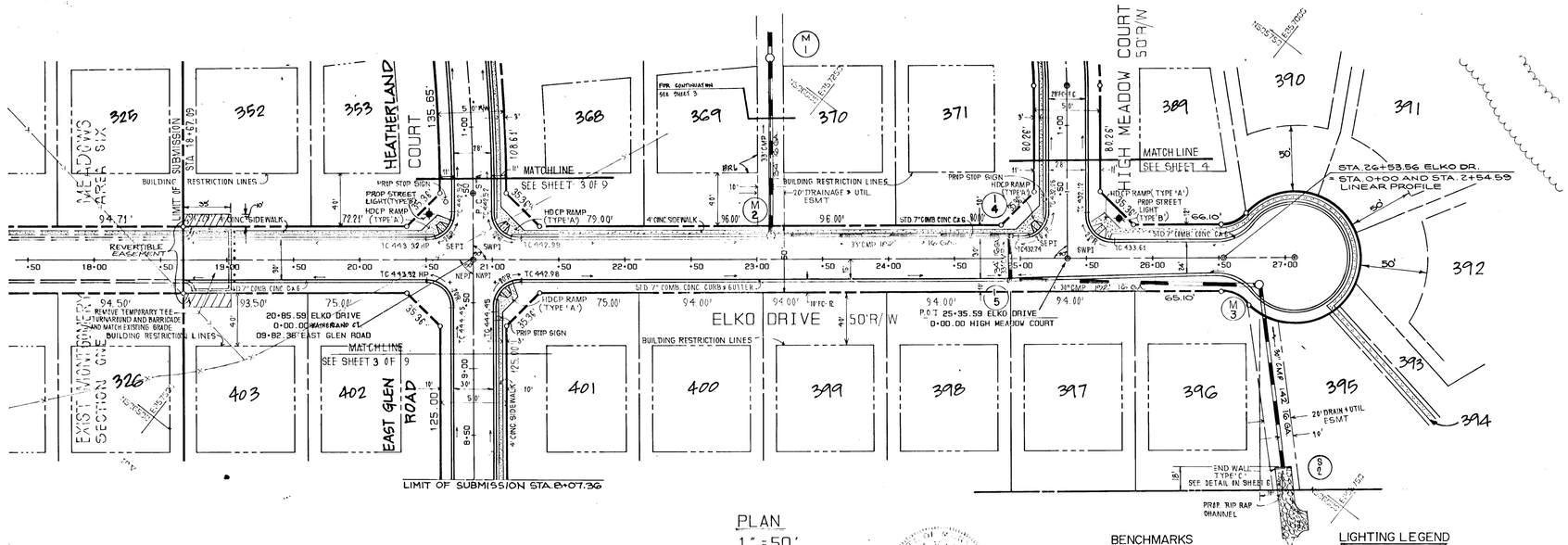
OWNER / DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

TITLE SHEET
MONTGOMERY MEADOWS
SECTION ONE, AREA SEVEN
LOTS 352 THRU LOTS 406
TAX MAP 31 PARCEL 423
1st. ELECTION DISTRICT HOWARD CO., MARYLAND

SCALE: AS SHOWN | CONTRACT NO. | FILE NO. | SHEET 1 OF 12

F-89-47

1443



PLAN
1" = 50'

NOTES

1. FOR STORM DRAIN PROFILES SEE SHEET 5 OF 9
2. FOR GRADING PLAN SEE SHEETS 7 AND 8 OF 9
3. STRUCTURE S-2 COVERED BY EXISTING STORMWATER EASEMENT UNDER GLENMAR DEVELOPMENT.

BENCHMARKS

HOWARD CO. MON.# 2744004-ELEV. 415.967
3/4" REBAR 0.8' BELOW SURFACE, 7± WEST OF MD ROUTE 103 AND 1400'± SOUTH OF INTERSECTION OF ILCHESTER ROAD.

HOWARD CO. MON.# 2744005-ELEV. 419.625
3/4" REBAR 0.6' BELOW SURFACE, 10± WEST OF EDGE OF MD ROUTE 103 AND 80± NORTH OF ℄ OF KERGER ROAD

LIGHTING LEGEND

- TYPE 'A' - 150 WATT HIGH PRESSURE SODIUM VAPOR LAMP MOUNTED ON A 25' HIGH GALVONIZED STEEL POLE
- TYPE 'B' - 100 WATT HIGH PRESSURE SODIUM VAPOR POST TOP MOUNTED ON A 14' HIGH FIBERGLASS BRONZE POLE

MONTGOMERY MEADOWS

SECTION ONE AREA SEVEN
LOTS 362 THRU 406
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PLAN AND PROFILE

ELKO DRIVE

STA. 18+67.09 TO 27+15.81

OWNER / DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

SCALE: AS SHOWN	DATE 5-6-1988	SHEET 2 OF 12
DESIGNED BY MDB	DRAWN BY MING	CHECKED BY BRIDDELL

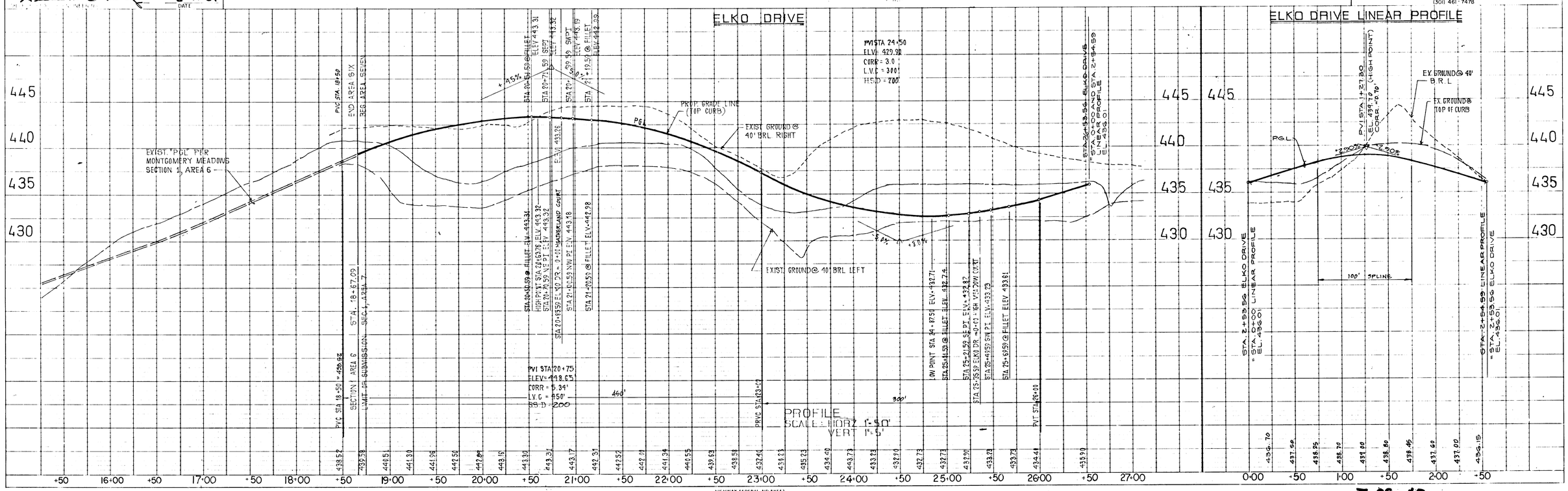
DEWBERRY & DAVIS
ENGINEERS ARCHITECTS PLANNERS SURVEYORS
3300 NORTH RIDGE ROAD
ELLICOTT CITY, MARYLAND 21043
(301) 461-7478

APPROVE: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Frank S. Lo Cassio — CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 8/13/89

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Ronald W. Lapon — 8/10/89 DATE
Charles Newcomb for GWW — 8-9-89 DATE
William E. Riley — 8-11-89 DATE

PLAN: SURVEYED ___ PLOTTED ___ NOTE BOOK ___ AS-BUILT CHECKED ___ No. ___ BY ___ DATE ___

PROFILE: SURVEYED ___ PLOTTED ___ NOTE BOOK ___ GRADES CHECKED ___ No. ___ STRUCTURE NOTATIONS CHECKED ___ BY ___ DATE ___

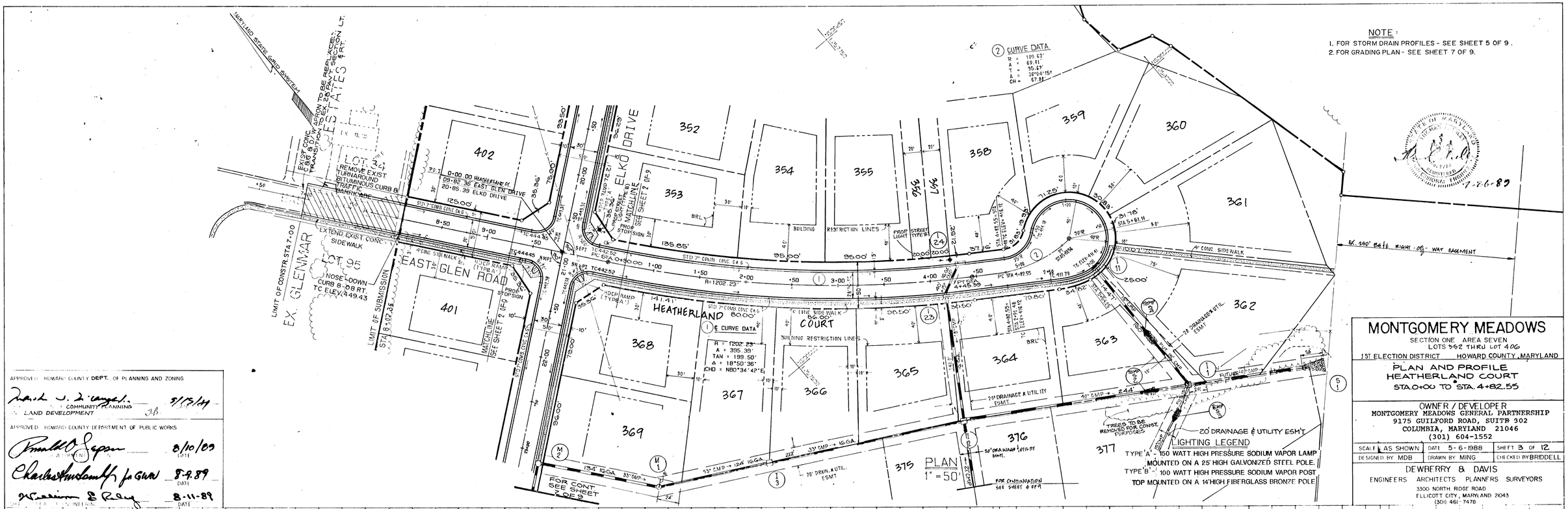


HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
PRINTED IN U.S.A.

1443

F-89-47

NOTE:
1. FOR STORM DRAIN PROFILES - SEE SHEET 5 OF 9.
2. FOR GRADING PLAN - SEE SHEET 7 OF 9.



NOTE:
1. FOR STORM DRAIN PROFILES - SEE SHEET 5 OF 9.
2. FOR GRADING PLAN - SEE SHEET 7 OF 9.

LIGHTING LEGEND

TYPE 'A' - 150 WATT HIGH PRESSURE SODIUM VAPOR LAMP MOUNTED ON A 25' HIGH GALVONIZED STEEL POLE.

TYPE 'B' - 100 WATT HIGH PRESSURE SODIUM VAPOR POST TOP MOUNTED ON A 14' HIGH FIBERGLASS BRONZE POLE

MONTGOMERY MEADOWS

SECTION ONE AREA SEVEN
LOTS 362 THRU LOT 406
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PLAN AND PROFILE HEATHERLAND COURT

STA. 0+00 TO STA. 4+82.55

OWNER / DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

SCALE 1" AS SHOWN	DATE 5-6-1988	SHEET 3 OF 12
DESIGNED BY MDB	DRAWN BY MING	CHECKED BY BRIDDELL

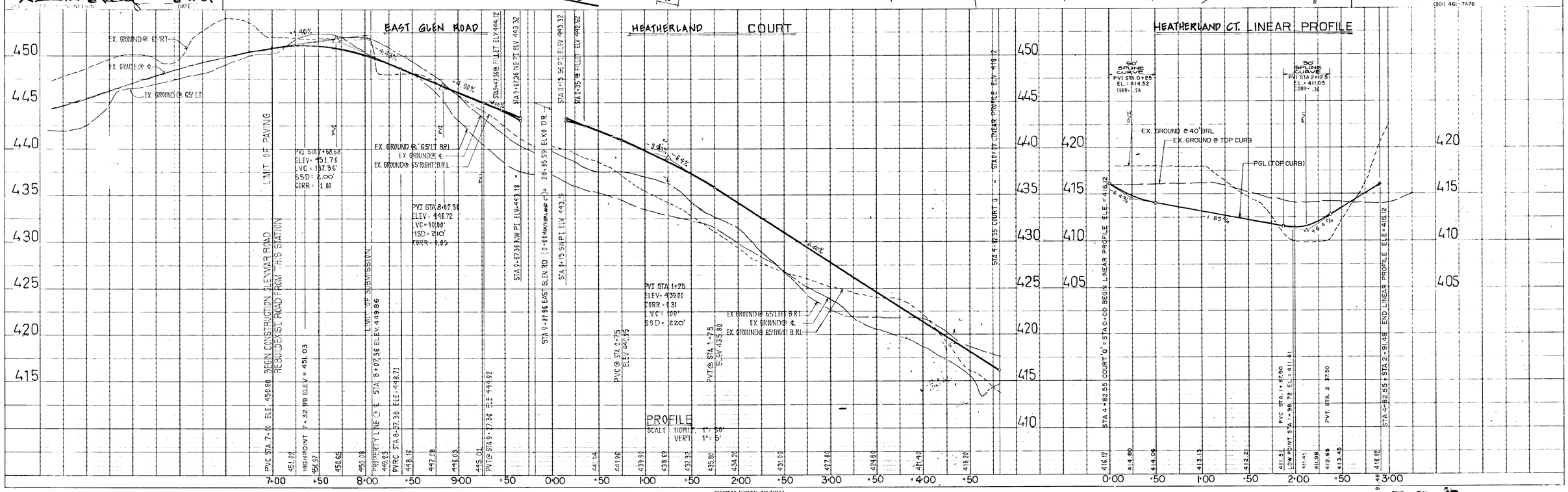
DEWBERRY & DAVIS
ENGINEERS ARCHITECTS PLANNERS SURVEYORS
3300 NORTH RIDGE ROAD
ELLICOTT CITY, MARYLAND 21043
(301) 461-7478

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
COMMUNITY PLANNING & LAND DEVELOPMENT — 8/18/89

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — 8/10/89 DATE
CHIEF, DIVISION OF ENGINEERING — 8-9-89 DATE
CHIEF, BUREAU OF ENGINEERING — 8-11-89 DATE

PLAN: SURVEYED ___ PLOTTED ___ NOTE BOOK ___ ALIGNMENT CHECKED ___ No. ___ RT. OF WAY CHECKED ___ BY ___ DATE ___

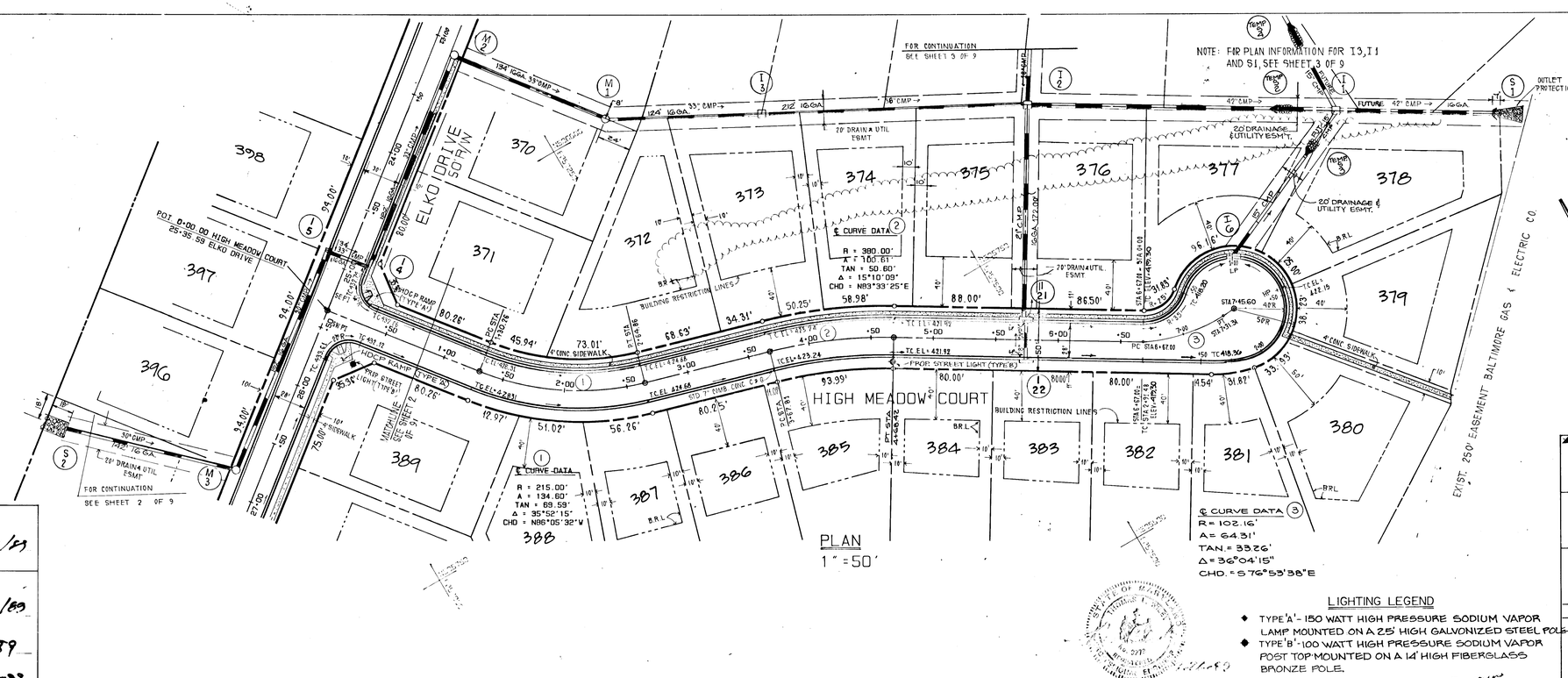
PROFILE: SURVEYED ___ PLOTTED ___ NOTE BOOK ___ GRADES CHECKED ___ No. ___ STRUCTURE NOTATIONS CHECKED ___ BY ___ DATE ___



1443

HIGHWAY (FEDERAL AID SHEET)
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
PRINTED IN U.S.A.

F-89-47



PLAN
1" = 50'

NOTES

1. FOR STORM DRAIN PROFILES SEE SHEET 5 OF 9.
2. FOR GRADING PLAN SEE SHEET 7 OF 9.

LIGHTING LEGEND

- TYPE 'A' - 150 WATT HIGH PRESSURE SODIUM VAPOR LAMP MOUNTED ON A 25' HIGH GALVANIZED STEEL POLE
- TYPE 'B' - 100 WATT HIGH PRESSURE SODIUM VAPOR POST TOP MOUNTED ON A 14' HIGH FIBERGLASS BRONZE POLE.

MONTGOMERY MEADOWS

SECTION ONE AREA SEVEN
LOTS 382 THRU 406
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PLAN AND PROFILE

HIGH MEADOW COURT

STA 0+00 TO STA 6+67

OWNER / DEVELOPER
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

SCALE AS SHOWN	DATE 5-6-1988	SHEET 4 OF 12
DESIGNED BY MDB	DRAWN BY MING	CHECKED BY MDB

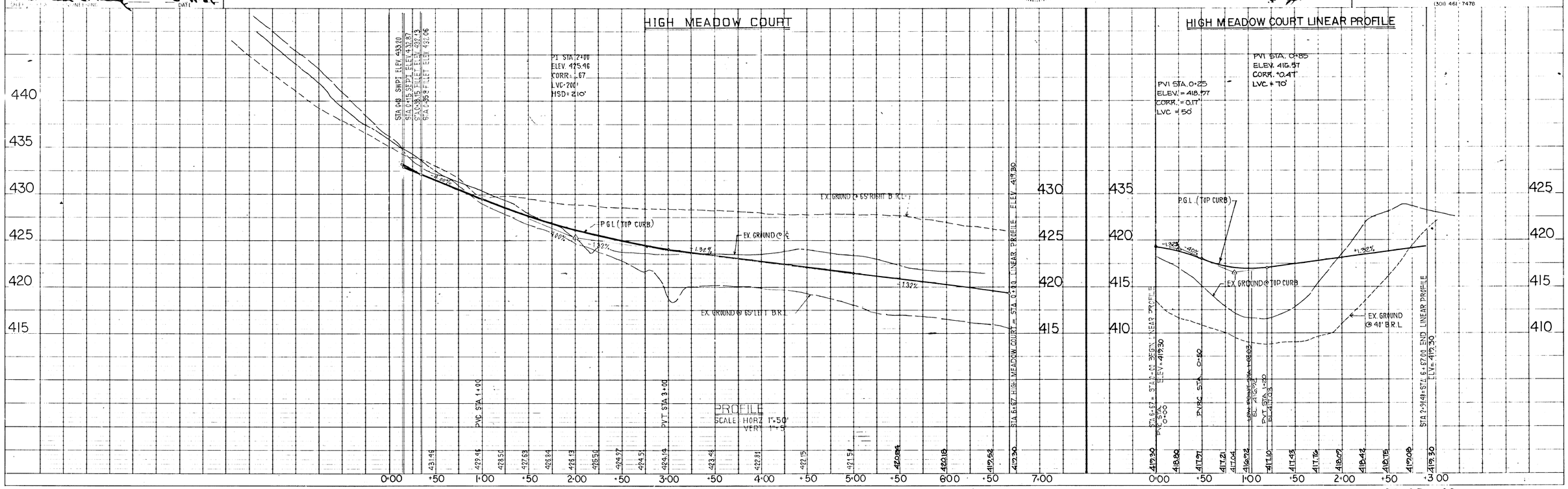
DEWBERRY & DAVIS
ENGINEERS ARCHITECTS PLANNERS SURVEYORS
3300 NORTH RIDGE ROAD
ELLICOTT CITY, MARYLAND 21043
(301) 461-7478

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Frank V. Lengyel — CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 9/7/89 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Ronald G. Lapan — CHIEF, DIVISION OF ENGINEERING — 8/10/89 DATE
Charles Hoeksmith for GWW — DIRECTOR — 8-8-89 DATE
Kenneth A. Reay — CHIEF, DIVISION OF ENGINEERING — 8-11-89 DATE

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

PROFILE — SURVEYED / PLOTTED / NOTE BOOK / GRADES CHECKED / R/W MAP CHECKED / STRUCTURE NOTATIONS CHECKED / No. / BY / DATE



HIGHWAY FEDERAL AID SHEET
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
PRINTED IN U.S.A.

1443

F-89-47

APPROVED HOWARD COUNTY DEPT OF PLANNING AND ZONING

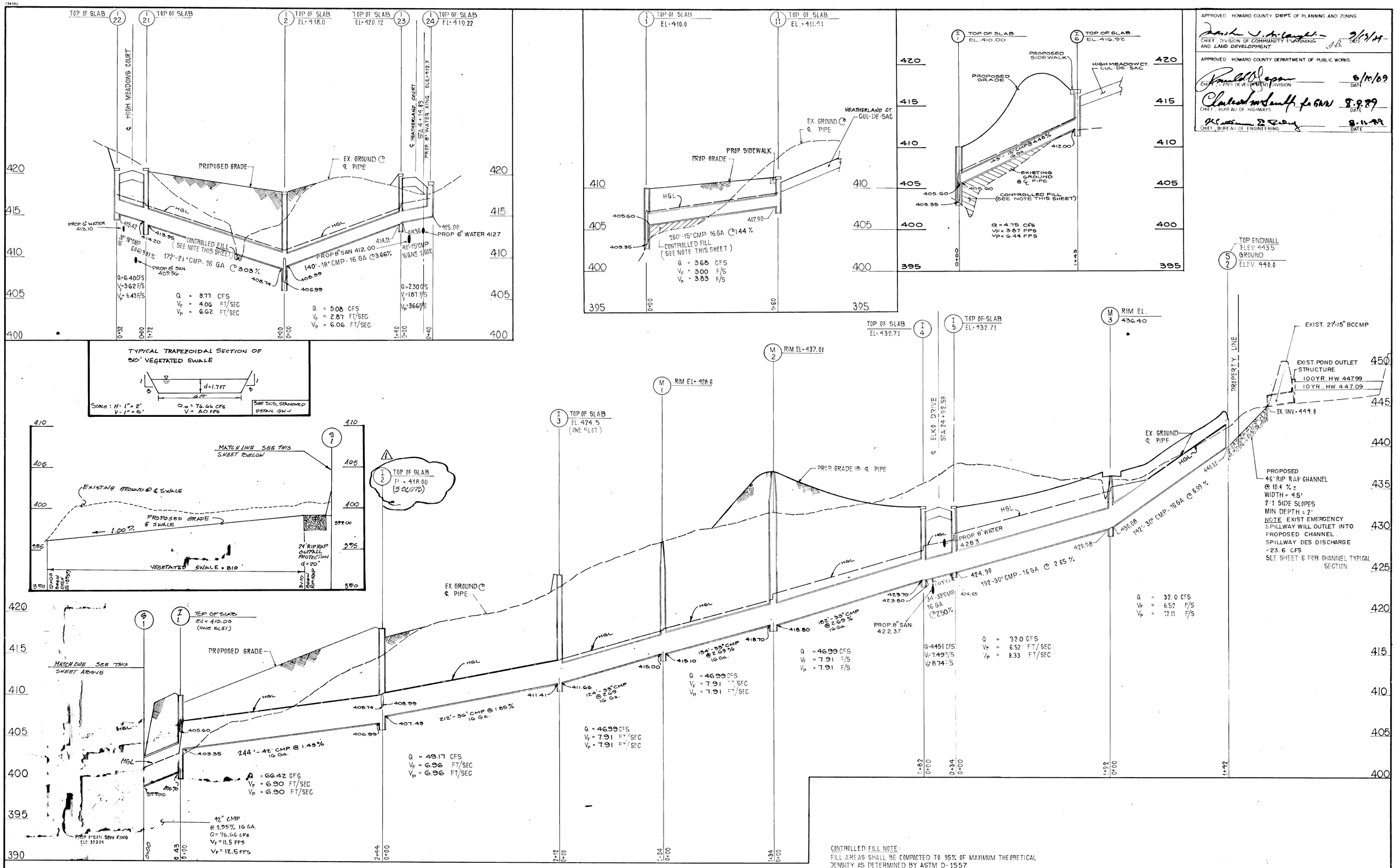
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 9/3/89

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/10/89

CHIEF, BUREAU OF HIGHWAYS — DATE 8.9.89

CHIEF, BUREAU OF ENGINEERING — DATE 8-11-89



DESIGNED	MDB	date
DRAWN	MM	date
CHECKED	MDB	date
APPROVED		date

REVISIONS

DATE	BY	DESCRIPTION
2.16.90	WAJ	PER HOWARD CO COMMENTS DATED 12-14-89
9-18-90	WEO	PER HOWARD CO COMMENTS 9-18-90
6-10-93	M.R.S.	ADD OPENINGS/SLOTS TO INLETS 12-13

Dewberry & Davis

ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS

3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

OWNER & DEVELOPER

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

STORM DRAIN PROFILES
MONTGOMERY MEADOWS

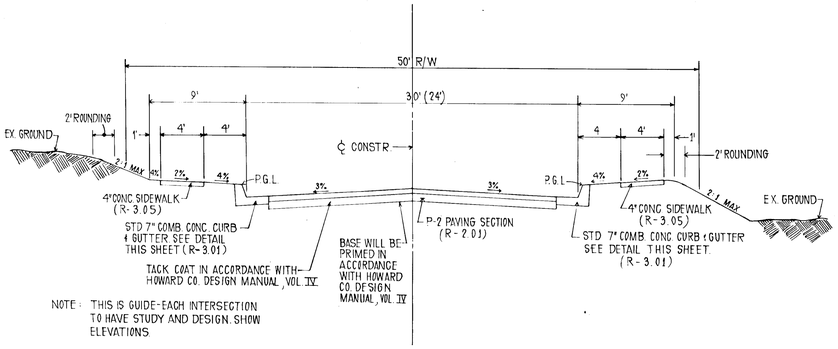
SECTION ONE AREA SEVEN
LOT 392 TO LOT 406

TAX MAP | PARCEL | BLOCK
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
MAY 6, 1988

HORIZ. 1"=50' VERT. 1"=5' | CONTRACT NO. | FILE NO. | SHEET 5 OF 12

1443

F-89-47



NOTE: THIS IS GUIDE-EACH INTERSECTION TO HAVE STUDY AND DESIGN. SHOW ELEVATIONS.

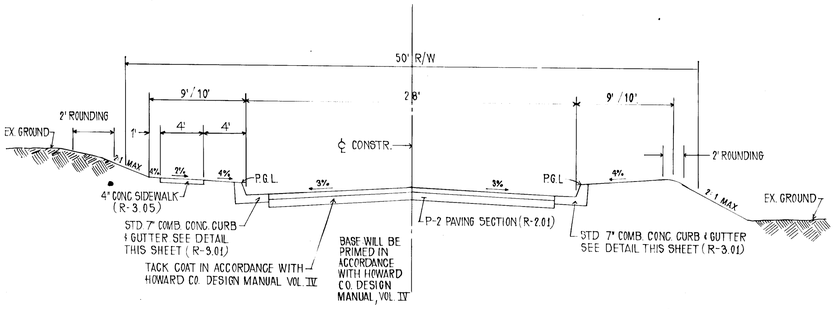
DESIGN SPEED: 30 MPH ZONED: R-20

ELKO DRIVE STA. 18+67.09 TO 27+72.59

EAST GLEN ROAD STA. 7+00 TO 9+82.36

LOCAL STREETS

NO SCALE



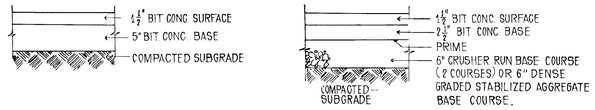
DESIGN SPEED: 25 MPH ZONED: R-20

HIGH MEADOW COURT STA. 0+00 TO 7+42.55

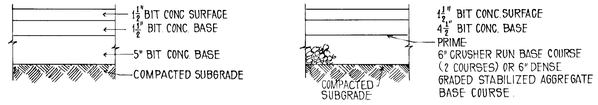
HEATHERLAND COURT STA. 0+00 TO 5+61.11

Cul-De-Sac STREETS TYPICAL SECTION

NO SCALE



P-2 PAVING
(LOCAL AND CUL-DE-SAC STREETS)



P-3 PAVING
(MINOR COLLECTOR STREETS)

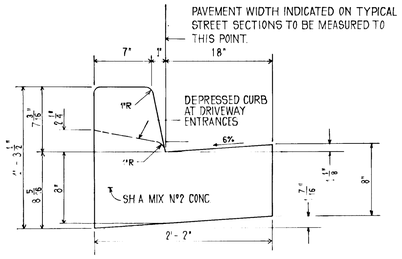
PAVING SECTIONS

NO SCALE

STRUCTURE SCHEDULE

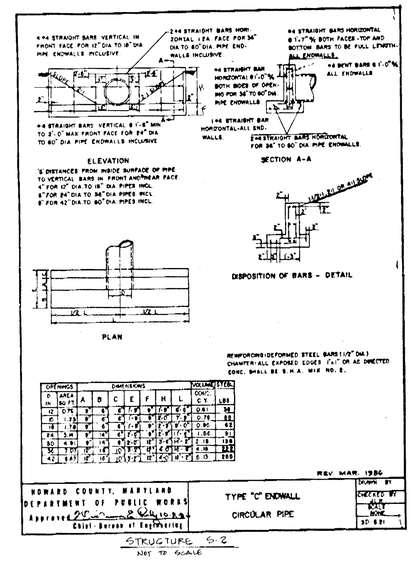
STRUCTURE Nº	LOCATION	TOP ELEV.	INV. IN	INV. OUT	STR. TYPE	REMARKS
S 1	NORTHEAST PROPERTY CORNER LOT 318	–	400.30(42")	400.30(42")	MTL END SEC	SD 5.61
I 1	" " "	410.00	403.35(42")	402.85(42")	'D' INLET	SD 4.11 *
I 2	" " "	418.00	407.49(36")	406.99(42")	'D' INLET	SD 4.11 *
I 3	" " "	424.50	411.66(33")	411.41(36")	'D' INLET	SD 4.11 *
M 1	" " "	428.60	415.10(33")	415.00(33")	MANHOLE	G 5.02
M 2	23+10.59 ELKO DR., 18' LT.	437.01	418.80 (33")	418.70 (33")	MANHOLE	G 5.02
I 4	24+92.59 ELKO DR., 15' LT.	432.71	423.80(33")	423.70(33")	A-5 SUMP	SD 4.01
I 5	24+92.59 ELKO DR., 15' RT	432.71	424.90(30")	424.65(33")	A-10 SUMP	SD 4.02
M 3	26+80.59 ELKO DR., 20' RT	434.14	430.08(30")	429.98(30")	MANHOLE	G 5.02
S 2	SEE SHEET 8 OF 9	–	440.00(90")	–	'C' ENDWALL	SD 5.21
I 11	2+00 HEATHERLAND COURT LIN. PROFILE	411.41	–	407.90(15")	A-5 SUMP	SD 4.01
I 21	5+74.46 HIGH MEADOW ., 14' LT.	420.52	414.20(18")	413.95 (21")	A-10 WIDE FL	SD 4.02
I 22	5+74.46 HIGH MEADOW ., 14' RT	420.52	–	415.42(18")	A-10 SUMP	SD 4.02
I 23	4+14.89 HEATHERLAND COURT ., 14' RT	420.12	414.36(15")	414.11(18")	A-5 W/DEFL	SD 4.01
I 24	4+34 " " ., 14' LT	419.22	–	415.00(15")	A-5W/DEFL	SD 4.01
I 6	1+02.63 HIGH MEADOW CT. LIN. PROFILE	416.72		412.00(15")	A-5 SUMP	SD 4.01

* MODIFY SD 4.11 TO 3'-6" WALL TO WALL INNER DIMENSION (ALL SIDES)



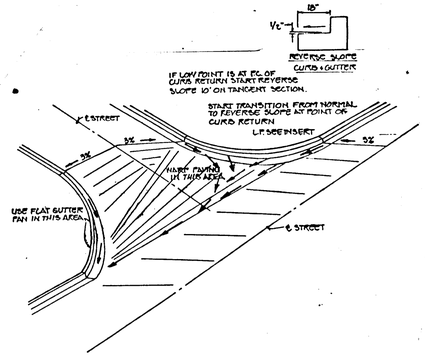
STANDARD 7" COMBINATION CURB & GUTTER

NO SCALE



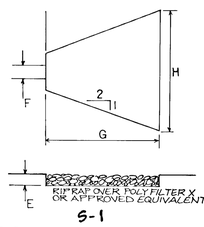
STRUCTURE S-2

NOT TO SCALE



TYPICAL INTERSECTION GRADING DETAIL

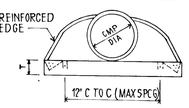
NOT TO SCALE



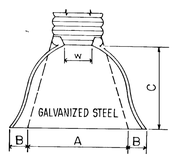
S-1

RIP RAP OUTFALL PROTECTION

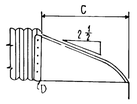
NO SCALE



CMP END SECTION



END VIEW



LONGITUDINAL SECTION

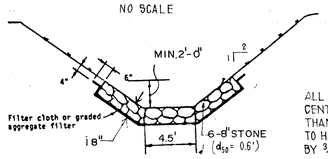
CMP/S-1	DIM.
A	54"
B	11"
C	46"
D	400.00
E	20"
F	42"
G	24'
H	28.5'
T	11"
W	22"

ALL 3 PIECE BODIES TO HAVE 12 GA. SIDES AND 10 GA. CENTER PANELS. WIDTH OF CENTER PANELS TO BE GREATER THAN 20% OF THE PIPE PERIPHERY. MUTIPLE PANEL BODIES TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY 3/8" GALVANIZED RIVETS OR BOLTS.

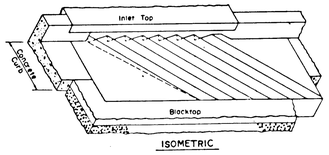
PLAN

TYPICAL METAL END SECTION

NO SCALE

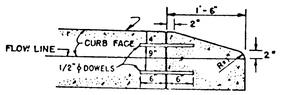


TYPICAL SECTION:
RIPRAP DITCH FROM EX. SWM POND TO S-2



ISOMETRIC

INLET DEFLECTORS



NOSE DOWN CURB

TYPICAL SECTION NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.
2. ALL DISTURBED AREAS TO BE STABILIZED WITH 2" TOP SOIL SEED AND MULCH.

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/10/89

CHIEF, BUREAU OF HIGHWAYS — DATE 8-9-89

CHIEF, BUREAU OF ENGINEERING — DATE 8-11-89

APPROVED HOWARD COUNTY DEPT. OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/13/89

DESIGNED	MDB	5-6-88 date
DRAWN	MM	5-6-88 date
CHECKED	MDB	5-6-88 date
APPROVED		date

REVISIONS

DATE	BY	DESCRIPTION
6-10-03	M.R.G.	MODIFY INLETS I-1, I-2, I-3 TO ALLOW FOR CLEARENCE OF 36" - 42" CMP

Dewberry & Davis

ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS

3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

ROAD SECTIONS, STRUCTURE SCHEDULE & DETAIL

MONGOMERY MEADOWS

SECTION ONE, AREA SEVEN

LOT 352 THRU LOT 406

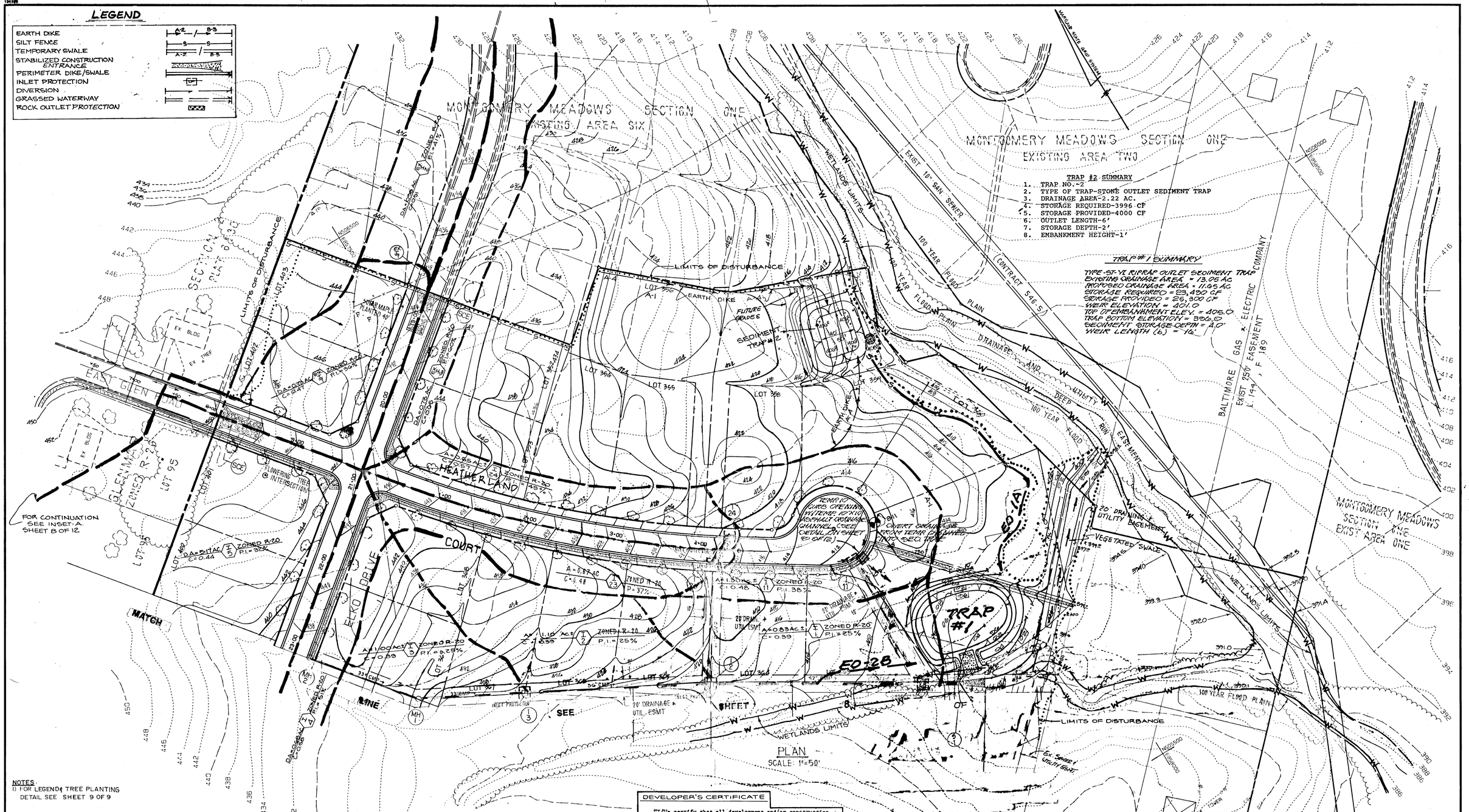
1ST ELECTION DISTRICT HOWARD COUNTY, MD

SCALE: NONE | CONTRACT NO. | FILE NO. | SHEET 6 OF 12

F-89-47

LEGEND

EARTH DIKE	A-2 / B-3
SILT FENCE	S / S
TEMPORARY SWALE	A-2 / B-5
STABILIZED CONSTRUCTION ENTRANCE	
PERIMETER DIKE/SWALE	
INLET PROTECTION	
DIVERSION	
GRASSED WATERWAY	
ROCK OUTLET PROTECTION	



TRAP #2 SUMMARY

1. TRAP NO.-2
2. TYPE OF TRAP-STONE OUTLET SEDIMENT TRAP
3. DRAINAGE AREA-2.22 AC.
4. STORAGE REQUIRED-3996 CF
5. STORAGE PROVIDED-4000 CF
6. OUTLET LENGTH-6'
7. STORAGE DEPTH-2'
8. EMBANKMENT HEIGHT-1'

TRAP #1 SUMMARY

TYPE-ST-VI RIPRAP OUTLET SEDIMENT TRAP
EXISTING DRAINAGE AREA = 13.05 AC
PROPOSED DRAINAGE AREA = 11.65 AC
STORAGE REQUIRED = 23,490 CF
STORAGE PROVIDED = 26,300 CF
WEIR ELEVATION = 401.0
TOP EMBANKMENT ELEV. = 405.0
TRAP BOTTOM ELEVATION = 396.0
SEDIMENT STORAGE DEPTH = 4.0'
WEIR LENGTH (b) = 16'

NOTES:
1) FOR LEGEND, TREE PLANTING DETAIL SEE SHEET 9 OF 9

LANDSCAPE TABULATION

SYMBOL	NUMBER	NAME	SIZE	REMARK
	113	ACER SACCHARUM (SUGAR MAPLE)	2½" CALIPER	B & B
	4	CRATEAGUS PHAENOPYRUM (WASHINGTON HAWTHORN)	2½" CALIPER	B & B

NOTE:
STREET TREE 2½" MIN. CALIPER 40' ON CENTER (SEE PLANTING DETAIL SHEET 9 OF 9)

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. ~~Where pond is to be built, the developer shall be responsible for providing the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.~~"

DATE 7-26-89

DEVELOPER'S CERTIFICATE

"I/We 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 further agree to give the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.~~ I also authorize periodic on-site inspections by the Howard Soil Conservation District."

DATE 7/27/89

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/10/89
CHIEF, BUREAU OF HIGHWAYS — DATE 8-9-89
CHIEF, BUREAU OF ENGINEERING — DATE 8-11-89

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for ~~pond construction~~, soil erosion ~~and~~ sediment control.

U.S. Soil Conservation Service — DATE 8/3/89

These plans for ~~pond construction~~, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard Soil Conservation District — DATE 8/4/89

APPROVED HOWARD COUNTY DEPT. OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/9/89

DESIGNED	MDB	5-6-88 date
DRAWN	MM	5-6-88 date
CHECKED	MDB	5-6-88 date
APPROVED		date

REVISIONS

DATE	BY	DESCRIPTION
8-16-90	WAJ	PER HOWARD CO COMMENTS DATED 12-14-89
7-28-90	NEO	PER HOWARD CO COMMENTS DATED 9-18-90
6/5/08	MRS	DELETE SEMI-PERMANENT SWM POND, ADD TRAP #1 & EARTH DIKE

Dewberry & Davis
ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

OWNER & DEVELOPER

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

LANDSCAPE PLAN, DRAINAGE AREA MAP AND GRADING & SEDIMENT CONTROL PLAN
MONGOMERY MEADOWS
SECTION ONE AREA SEVEN

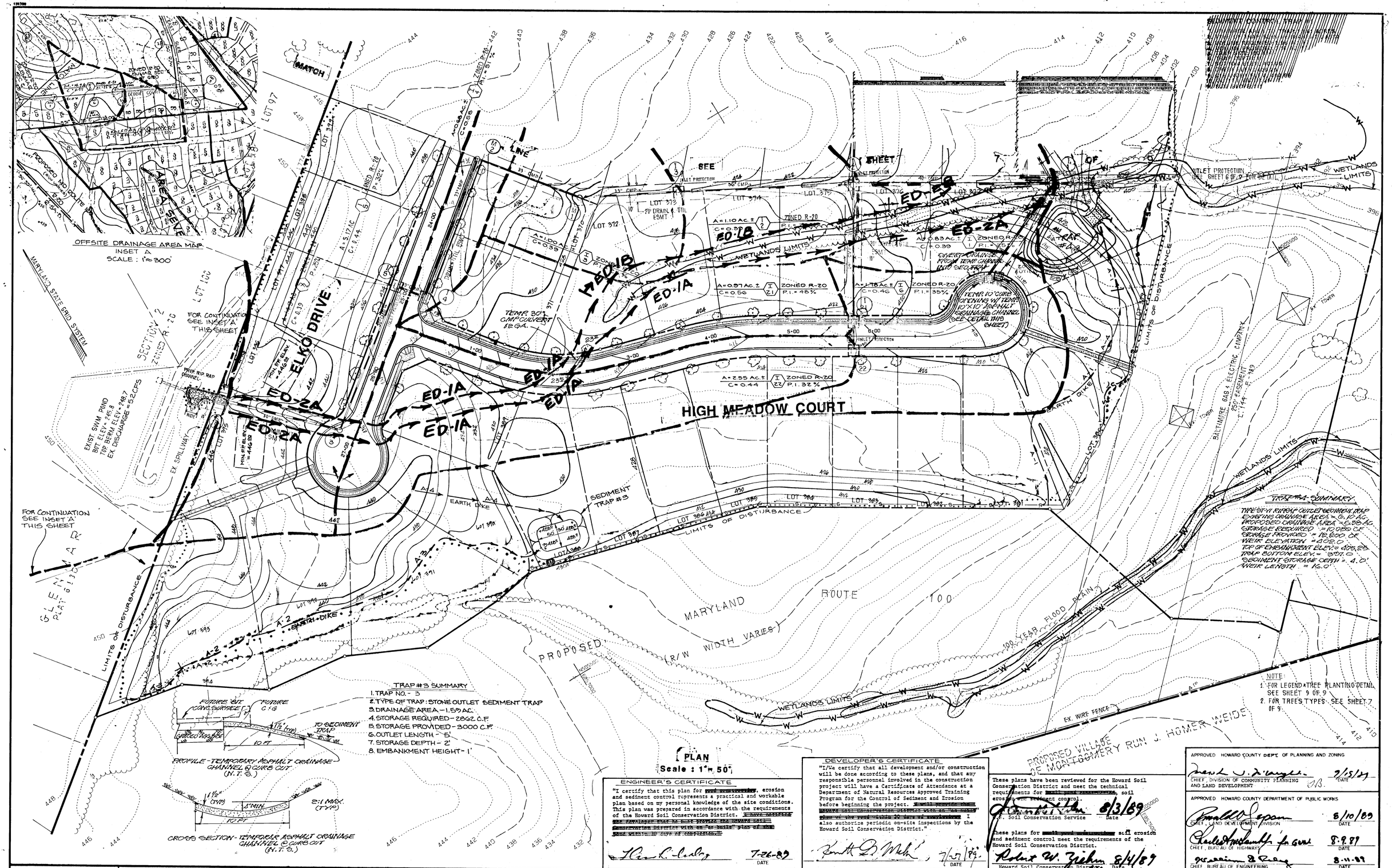
LOT 392 TO LOT 406

TAX MAP | PARCEL | BLOCK
1ST ELECTION DISTRICT | HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' | MAY 6, 1988

SCALE: AS SHOWN | CONTRACT NO. | FILE NO. | SHEET 7 OF 12

1443

F-89-47



PLAN
Scale : 1" = 50'

ENGINEER'S CERTIFICATE

"I certify that this plan for ~~soil conservation~~, 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 attached the developer's bid to back provide the required soil conservation District with an "as built" plan of the land plan, 30 days of completion.~~"

7-26-89
DATE

DEVELOPER'S CERTIFICATE

"I/We 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/We agree to the payment of conservation District with an "as built" plan of the road within 30 days of completion.~~ I also authorize periodic on-site inspections by the Howard Soil Conservation District."

7/27/89
DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for ~~soil and sediment control~~, soil erosion ~~and~~ sediment control.

8/3/89
U.S. Soil Conservation Service — Date

These plans for ~~soil and sediment control~~ soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

8/4/89
Howard Soil Conservation District — Date

APPROVED HOWARD COUNTY DEPT OF PLANNING AND ZONING

7/5/89
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

8/10/89
CHIEF, LAND DEVELOPMENT DIVISION — DATE

8-9-89
CHIEF, BUREAU OF HIGHWAYS — DATE

8-11-89
CHIEF, BUREAU OF ENGINEERING — DATE

DESIGNED	MDB	5-6-88 date
DRAWN	MM	5-6-88 date
CHECKED	MDB	5-6-88 date
APPROVED		date

REVISIONS

DATE	BY	DESCRIPTION
9-28-90	WEO	REVISED AS PER HOWARD CO. COMMENTS 7/18/90
6/10/03	M.RB	ADD TRAPT DRAINAGE CHANNEL & DOLEARTH DIKES

Dewberry & Davis

ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

OWNER & DEVELOPER

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

LANDSCAPE PLAN, DRAINAGE AREA MAP AND GRADING & SEDIMENT CONTROL PLAN
MONTGOMERY MEADOWS
SECTION ONE AREA SEVEN
LOT 352 TO LOT 406

TAX MAP	PARCEL	BLOCK
16T ELECTION DISTRICT		HOWARD COUNTY, MARYLAND

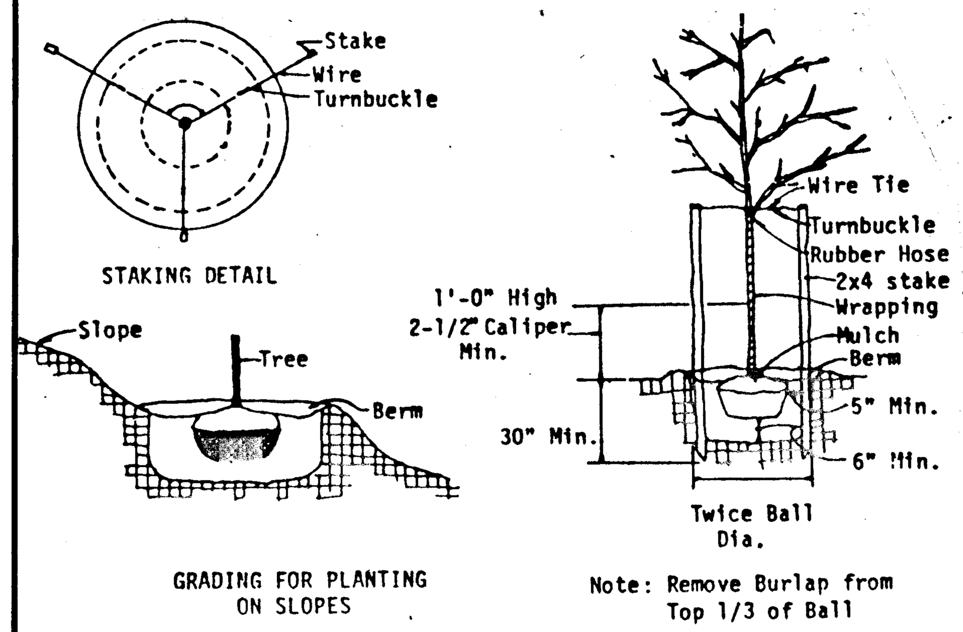
SCALE: 1" = 50'
MAY 6, 1988

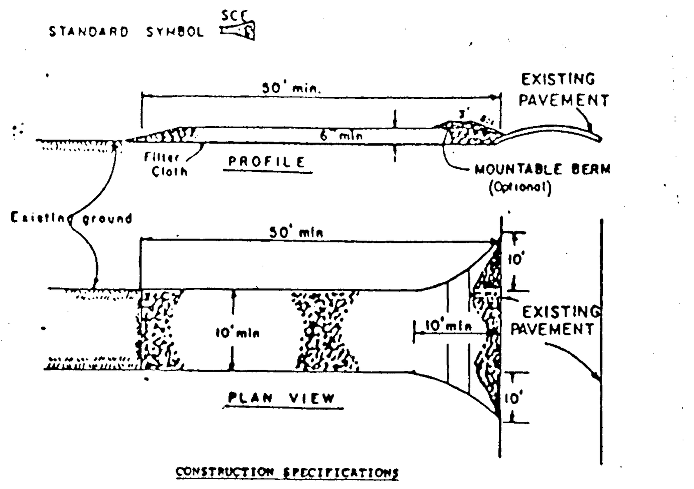
SCALE: AS SHOWN | CONTRACT NO. | FILE NO. | SHEET 8 OF 12

1443

F-89-47

134350



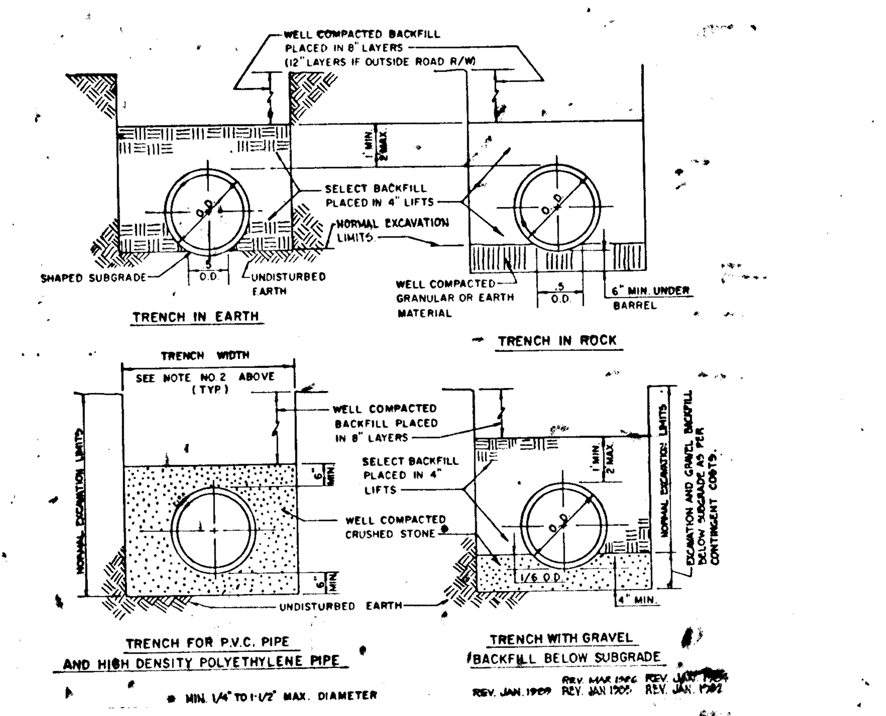


CONSTRUCTION SPECIFICATIONS

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

NOTES:
1. WITHIN ROAD RIGHT-OF-WAY, TRENCH COMPACTION DENSITY SHALL BE 95% AS DETERMINED BY A.A.S.H.T.O. T-180-A
2. FOR PAY WIDTHS SEE DETAIL G 2.02-A

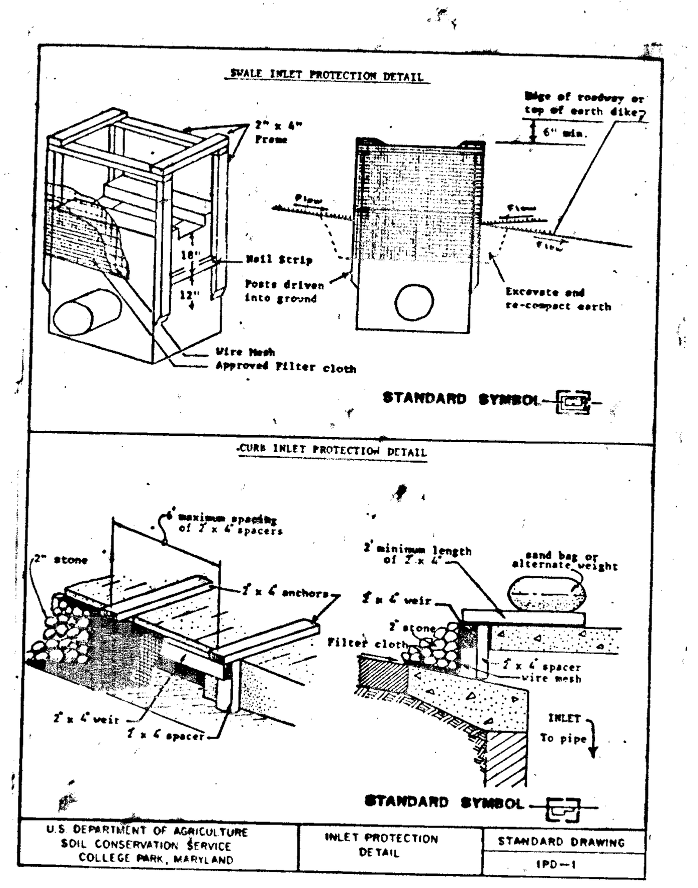


TRENCH BEDDING DETAILS

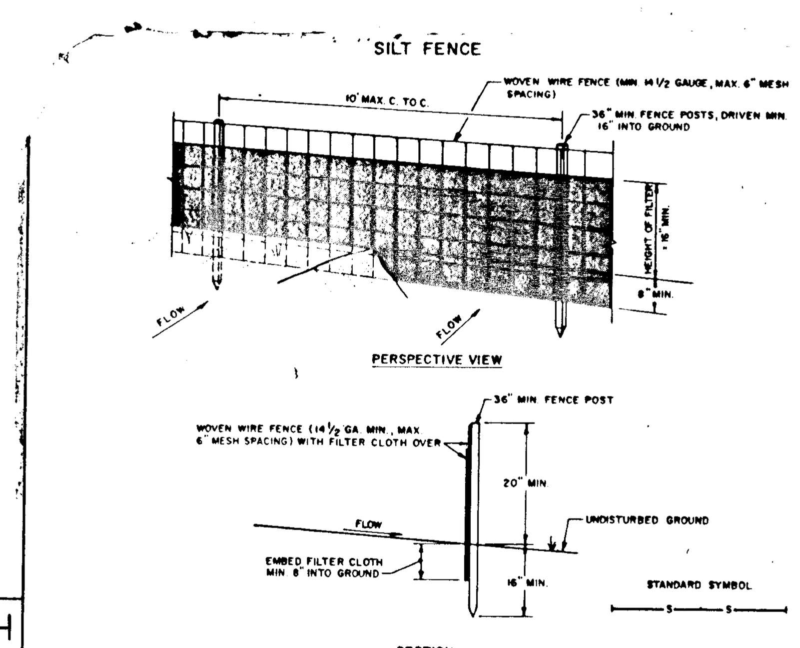
TRENCH PAYMENT WIDTHS FOR WATER MAIN AND STORM DRAIN CONSTRUCTION

PIPE DIAMETER	TRENCH WIDTH
6"-16"	36"
18"-21"	42"
24"	48"
27"-30"	60"
33"-36"	66"
42"	78"
48"	84"
54"	96"
60"	102"
66"	108"
72"	120"
78"	132"
84"	138"
90"	144"
102"	156"
108"	168"

NOTES:
1. No additional payment width shall be established where sheeting or trench shields are utilized during construction. The above payment widths are standard for all site conditions.
2. Trench widths for pipe having a nominal inside diameter (or equal periphery for arch pipe) larger than 108 inches shall be specified in the Special Provisions, or detailed on the Contract Drawings.
3. Pipe diameters are referenced to nominal inside diameter.
4. Trench widths for arch pipe shall be the same as the nominal circular pipe diameter having equal periphery.



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, 14 GA. 6" MAX. MESH OPENING
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	SILT FENCE	STANDARD DRAWING SF-1

LEGEND

EARTH DIKE	A-2 / B-3
SILT FENCE	S S
TEMPORARY SWALE	A-2 / B-3
STABILIZED CONSTRUCTION ENTRANCE	
PERIMETER DIKE/SWALE	
INLET PROTECTION	
DIVERSION	
GRASSED WATERWAY	
ROCK OUTLET PROTECTION	

SEDIMENT CONTROL NOTES:

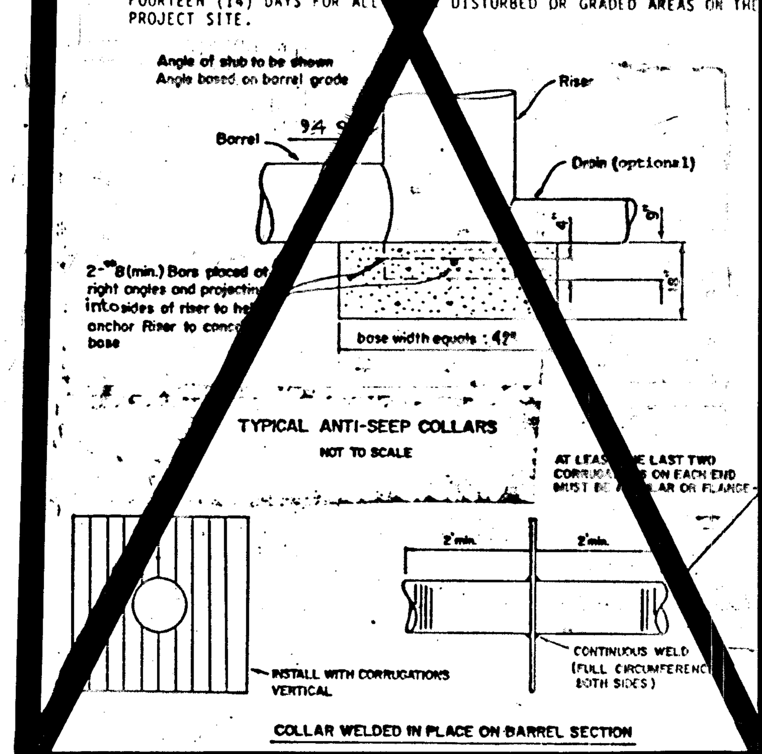
1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (992-2437)
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND 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 DISTRUBED 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) AND (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:

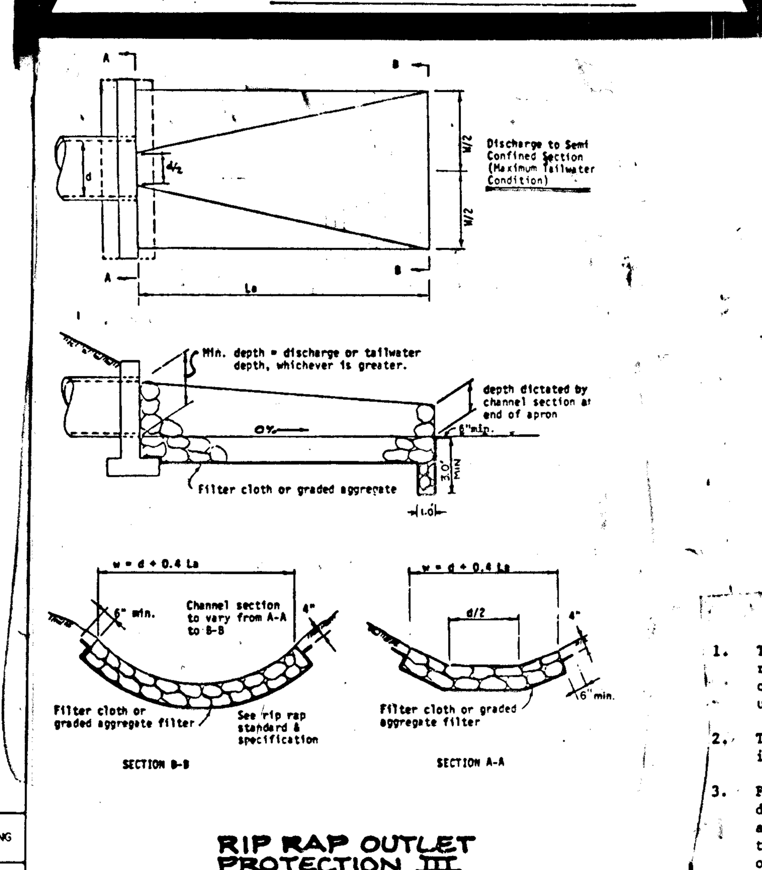
TOTAL AREA OF SITE	23.0	ACRES
AREA DISTURBED	10.1	ACRES
AREA TO BE ROOFED OR PAVED	4.8	ACRES
AREA TO BE VEGETATIVELY STABILIZED	5.3	ACRES
TOTAL CUT	48000	CU.YDS.
TOTAL FILL	46000	CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	—	

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

CONSTRUCTION SEQUENCE ⚠1

1. OBTAIN GRADING PERMIT.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, EARTH DIKES, SILT ... AND SEDIMENT BASINS.
3. START CLEARING AND GRUBBING START FILLING AND REGRADING ALONG ... ALL.
4. CONSTRUCT STORM DRAIN SYSTEM WITH INLET PROTECTIONS. TEMPORARILY CONSTRUCT ONLY 100' FROM I-1 TO I-2 AND DITCH OUT TO TEMP. SEDIMENT BASIN.
5. GRADE ROADS TO SUBGRADE, CONSTRUCT CURB AND LAY BASE COURSE.
6. FINE GRADE AND PERMANENTLY STABILIZE ALL DISTURBED AREAS WITH PERMANENT STABILIZATION MEASURES. COMPLETE STORM DRAIN FROM I-12 TO I-13.
7. DURING CONSTRUCTION AND AFTER EACH RAINFALL, ... CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ... THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON.
8. REMOVE CONSTRUCTION ENTRANCE.
9. CLEAN BASE COURSE ... APPLY TACK COAT ... BASE COURSES AND LAY SURFACE COURSE. STABILIZE ALL SHOULDERS USING PERMANENT SEEDING.
10. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
11. FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) SEVEN (7) CALENDER DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES ... SLOPES GREATER THAN 3:1; B) FOURTEEN (14) DAYS FOR ALL ... DISTURBED OR GRADED AREAS ON THE PROJECT SITE.





RIP RAP OUTLET PROTECTION III
N.T.S.

PERMANENT SEEDING NOTES:

APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULE.

1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQUARE FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. 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/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 1½ TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 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 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.

SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.)

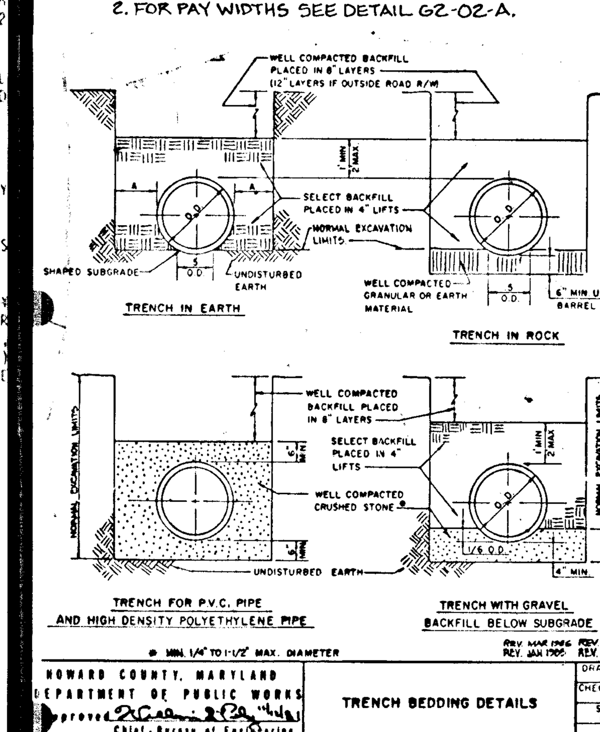
SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2½ BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

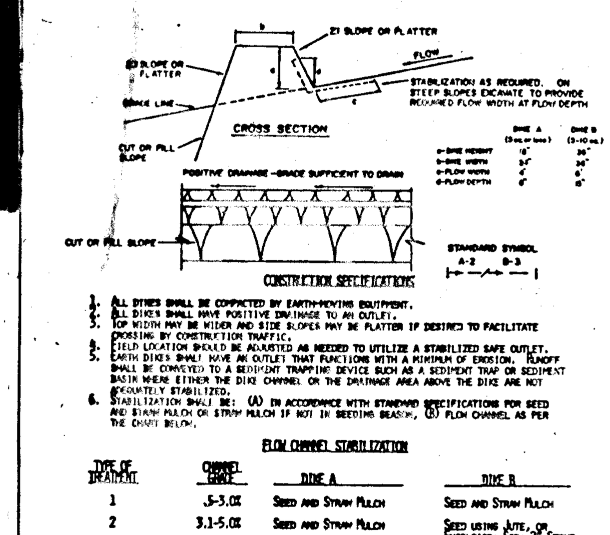
MULCHING: APPLY 1½ TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

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

⚠1 SEE SHEET 10 OF 12 FOR REVISED CONSTRUCTION SEQUENCE

1. WITHIN ROAD RIGHT-OF-WAY, TRENCH COMPACTION DENSITY SHALL BE 95% AS DETERMINED BY A.A.S.H.T.O. T-180-A
2. FOR PAY WIDTHS SEE DETAIL G2-02-A.





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 THICK 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

CONSTRUCTION SPECIFICATIONS

1. The subgrade for the filter, riprap or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
3. Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
4. Stone for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for riprap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogenous with the smaller stones and spalls filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.

TRENCH PAYMENT WIDTHS FOR WATER MAIN AND STORM DRAIN CONSTRUCTION

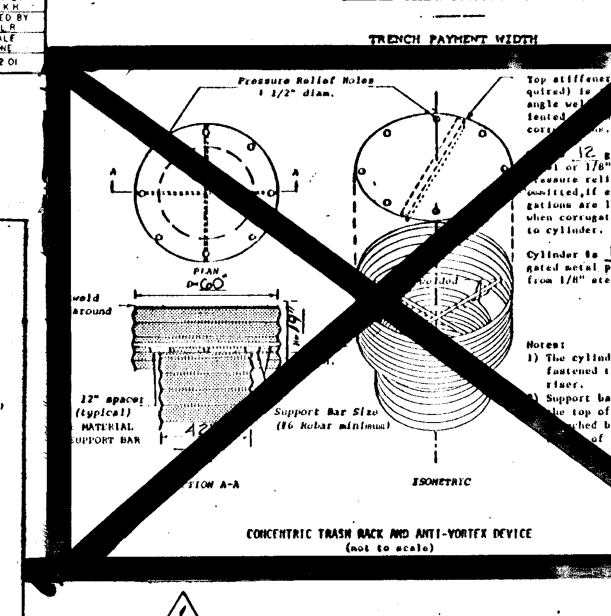
NOTES:
1. No additional payment width shall be established where sheeting or trench shields are utilized during construction. The above payment widths are standard for all site conditions.
2. Trench widths for pipe having a nominal inside diameter (or equal periphery for arch pipe) larger than 108 inches shall be specified in the Special Provisions, or detailed on the Contract Drawings.
3. Pipe diameters are referenced to nominal inside diameter.
4. Trench widths for arch pipe shall be the same as the nominal circular pipe diameter having equal periphery.

TRENCH PAYMENT WIDTHS FOR SEWER MAIN CONSTRUCTION

PIPE DIAMETER	TRENCH WIDTH
[illegible]	[illegible]

NOTES:
1. No additional payment width shall be established where sheeting or trench shields are utilized during construction. The above payment widths are standard for all site conditions.
2. Trench widths for sewer mains larger than 48" Diameter shall be as specified in the Special Provisions, and/or detailed on the Contract Drawings.

TRENCH PAYMENT WIDTH



⚠1

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for [redacted], soil erosion and sediment control.

SOIL CONSERVATION SERVICE — 8/3/89 DATE

These plans for [redacted], soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

HOWARD SOIL CONSERVATION DISTRICT — 8/4/89 DATE

APPROVED HOWARD COUNTY DEPT. OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 7/13/89 DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — 8/10/89 DATE

CHIEF, BUREAU OF HIGHWAYS — 8-9-89 DATE

CHIEF, BUREAU OF ENGINEERING — 8-11-89 DATE

ENGINEER'S CERTIFICATE

"I certify that this plan for [redacted], 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. [redacted]"

THOMAS L. WILEY, REG. MD. NO. 9278 — 7-26-89 DATE

DEVELOPER'S CERTIFICATE

"I/We 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. [redacted] I also authorize periodic on-site inspections by the Howard Soil Conservation District."

KENNETH G. MALM, V.P., NVL ASSOC., GEN. PARTNER — 7/27/89 DATE

CONSTRUCTION SPECIFICATIONS FOR SEMI-PERMANENT SWM BASIN

These specifications are appropriate to ponds within the scope of the Standard for Practice 378.

I. 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 pond or 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.

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.

II. EARTH FILL

Material

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Placement

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

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.

Where a minimum required density is specified, each layer of fill shall be compacted as necessary to obtain that density and is to be certified by the Engineer.

Cutoff Trench

Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be as shown on the drawings, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. Backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

III. STRUCTURAL BACKFILL

Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than 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 twenty-four inches or greater over the structure or pipe.

IV. PIPE CONDUITS

All pipes shall be circular in cross section.

A. 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 are commercially available: 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 - (Aluminized Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274-79I with watertight coupling bands or flanges.

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. 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. 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 less than 9 and greater than 4.

2. 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. Watertight coupling bands or flanges shall be used at all joints. 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.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.

5. Backfilling shall conform to structural backfill as shown above.

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B. Reinforced Concrete Pipe

1. Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. An approved equivalent is AWWA Specification C-301.

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", 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.

4. Backfilling shall conform to structural backfill as shown above.

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

C. For pipes of other materials, specific specifications shall be shown on the drawings.

V. CONCRETE

1. Materials

a. Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.

b. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.

c. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.

d. Coarse Aggregate - The coarse aggregate shall be clean, hard, strong and durable and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-1/2) inches.

e. Reinforcing Steel - The reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

2. Design Mix - The concrete shall be mixed in the following proportions, measured by weight. The water-cement ratio shall be 5-1/2 to 6 U.S. Gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-1/2. The combination of aggregates shall be adjusted to produce a plastic and workable mix that will not cause harshness in placing or honeycombing in the structure.

3. Mixing - The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.

4. Forms - The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.

Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

5. Reinforcing Steel - All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

6. Consolidating - Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be suplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

7. Finishing - Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.

8. Protection and Curing - Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compunds may also be used.

9. Placing Temperature - Concrete may not be placed at temperatures below 37° F with the temperature falling, or 34° with the temperature rising.

VI. STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications or as shown on the accompanying drawings.

VII. 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.

⚠1

DESIGNED	MDB	5-6-88	date
DRAWN	MM	5-6-88	date
CHECKED	MDB	5-6-88	date
APPROVED			date

REVISIONS

DATE	BY	DESCRIPTION	
6-9-93	MRS	DELETE SMALL POND SPECS AND DETAILS. REVISE CONSTRUCTION SEQUENCE	⚠1

1443

Dewberry & Davis
ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS
3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

OWNER & DEVELOPER

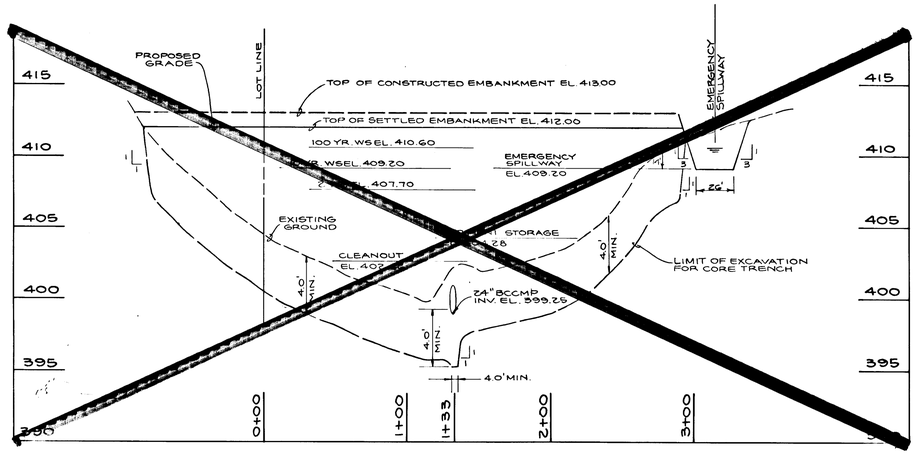
MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

SEDIMENT CONTROL DETAILS & NOTES
MONTGOMERY MEADOWS
SECTION ONE AREA SEVEN
LOT 352 THRU LOT 406
1ST ELECTION DISTRICT
HOWARD COUNTY, MD

SCALE As Shown | CONTRACT NO | FILE NO | SHEET 9 OF 12

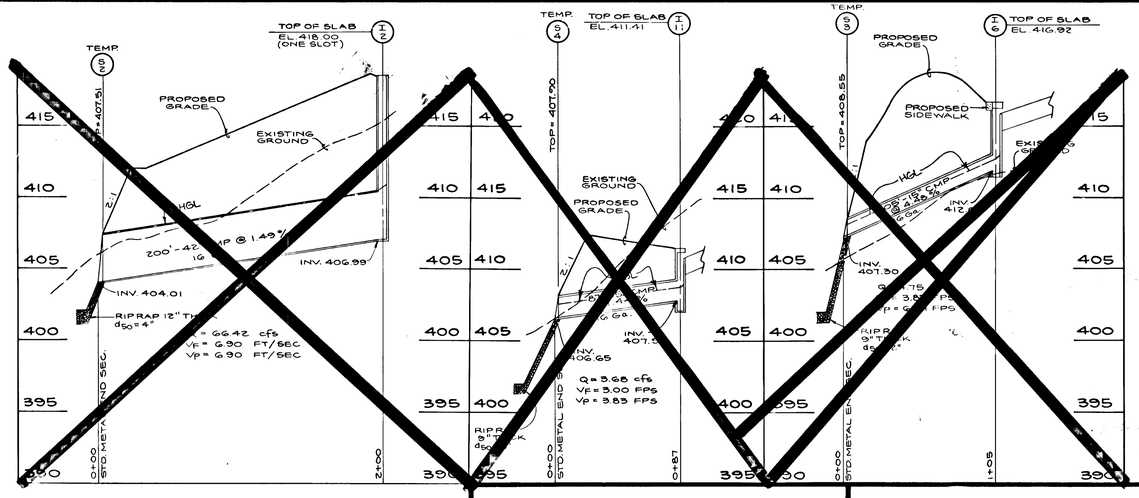
F-89-47

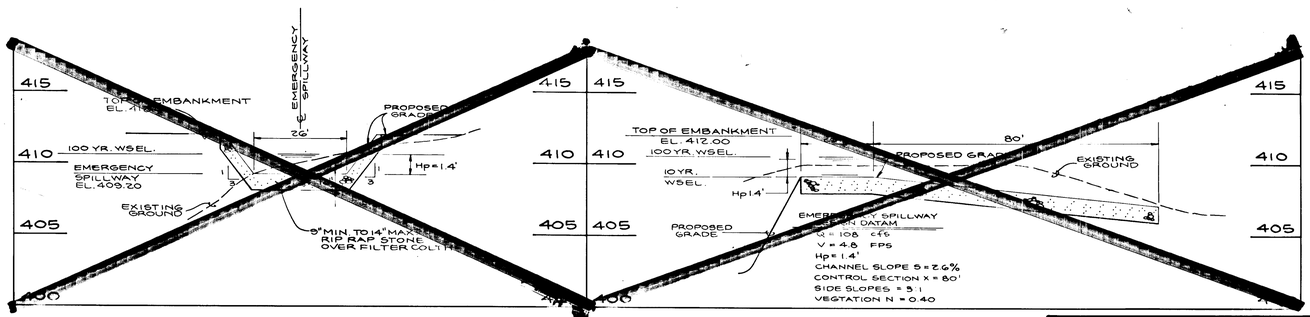
J&J COLUMBIA, MD



PROFILE ALONG ℄ OF EMBANKMENT

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



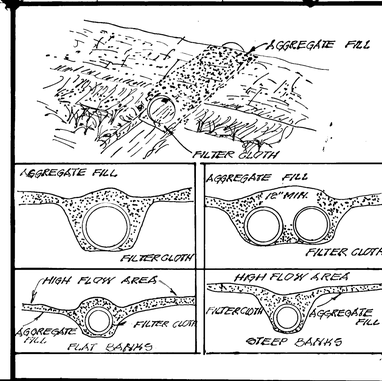


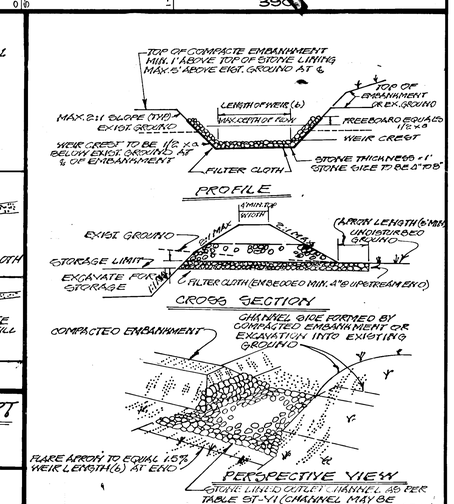
SECTION ALONG EMERENCY SPILLWAY

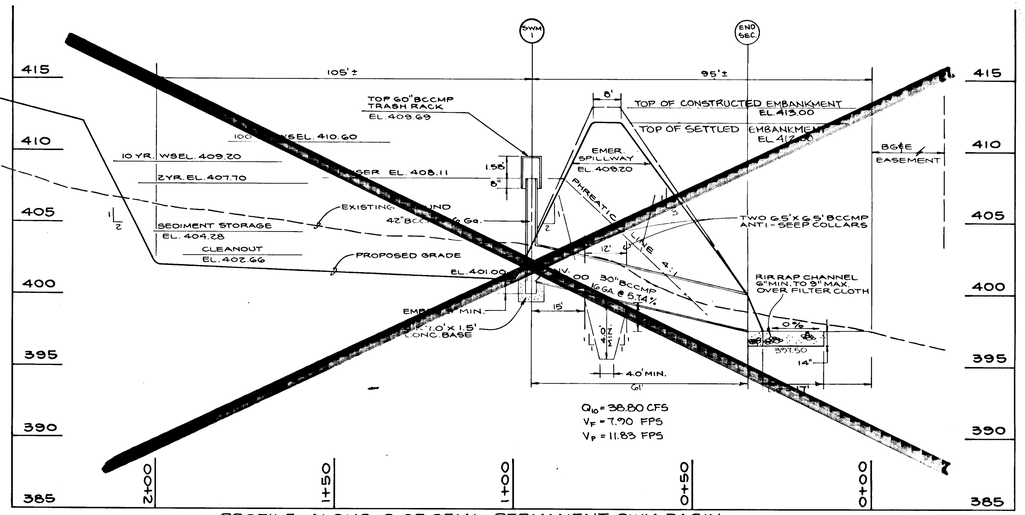
SCALE : 1" = 20' HORIZ.
1" = 5' VERT.

PROFILE ALONG ℄ EMERGENCY SPILLWAY

SCALE : 1" = 20' HORIZ.
1" = 5' VERT.







PROFILE ALONG ℄ OF SEMI-PERMANENT SWM BASIN

SCALE : 1" = 20' HORIZ. · 1" = 5' VERT.

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 PLACE 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 SPINE OR A ONE (1) FOOT THICK LAYER OF TWO (2) INCH OF 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.

TEMPORARY ACCESS CULVERT

CONSTRUCTION SEQUENCE

1.) OBTAIN GRADING PERMIT.

2.) INSTALL STABILIZED CONSTRUCTION ENTRANCE, EARTH DIKES, SILT FENCE AND SEDIMENT BASINS.

3.) ROUGH GRADE SITE, CONSTRUCT TEMPORARY CULVERT AT CROSSING OF EXISTING DITCH ALONG HIGH MEADOW CT.

4.) CONSTRUCT SEWER AND WATER.

5.) CONSTRUCT STORM DRAIN OUTFALL CHANNEL FROM DEEP RUN TO S1 CHANNEL TO BE STABILIZED PRIOR TO CONNECTION WITH EXISTING DITCH.

6.) CONSTRUCT STORM DRAIN SYSTEM, BLOCK INLETS. DIVERT SURFACE FLOW ALONG STORM DRAIN SYSTEM FROM I1-I3 TO TRAP NUMBER 1.

7.) FILL EXISTING DITCH. REMOVE ADJACENT EARTH DIKES.

8.) CONSTRUCT CURB & GUTTER, EXCEPT FOR THE TEMPORARY 10 FT. OPENINGS ON THE HEATHERLAND AND HIGH MEADOW CT. CUL-DE-SACS. SEE SHEET 7 AND SHEET 8 FOR THE 10 FT. OPENING LOCATIONS.

9.) CONSTRUCT BASE PAVEMENT. CONSTRUCT TEMPORARY 10 FT. X 10 FT. ASPHALT DRAINAGE CHANNELS DOWNSTREAM OF THE 10 FT. CURB OPENINGS ON HEATHERLAND AND HIGH MEADOW COURT.

10.) FINE GRADE RIGHT-OF-WAY, CONSTRUCT PAVEMENT SURFACE COURSE.

11.) PERMANENTLY STABILIZE DISTURBED AREA.

12.) UPON APPROVAL OF THE INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES.

13.) FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:

(a) SEVEN (7) CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1.

(b) FOURTEEN (14) CALENDAR DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

RIPRAP OUTLET SEDIMENT TRAP

APPROVED HOWARD COUNTY DEPT. OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	8/3/89 DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION	8/10/89 DATE
CHIEF, BUREAU OF HIGHWAYS	8-9-89 DATE
CHIEF, BUREAU OF ENGINEERING	8-11-89 DATE

STATE OF MARYLAND — PROFESSIONAL ENGINEER — REGISTRATION NO. 7-26-89

DESIGNED	D.R.R./D.E.T.	date
DRAWN	W.D.G.	date
CHECKED	B.D.B.	date
APPROVED		date

REVISIONS

DATE	BY	DESCRIPTION
		DELETE SEMI-PERMANENT SWM BASIN & PARK DELETE TEMPORARY STORM DRAIN DETAILS
6/27/89	MRC	ADD SEDIMENT CONTROL DETAILS ADD CONSTRUCTION SEQUENCE

Dewberry & Davis

ENGINEERS — ARCHITECTS — PLANNERS — SURVEYORS

3300 N. RIDGE ROAD, SUITE 100
ELLICOTT CITY, MD. 21043
(301) 461-7478

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

SEDIMENT CONTROL DETAILS

MONTGOMERY MEADOWS

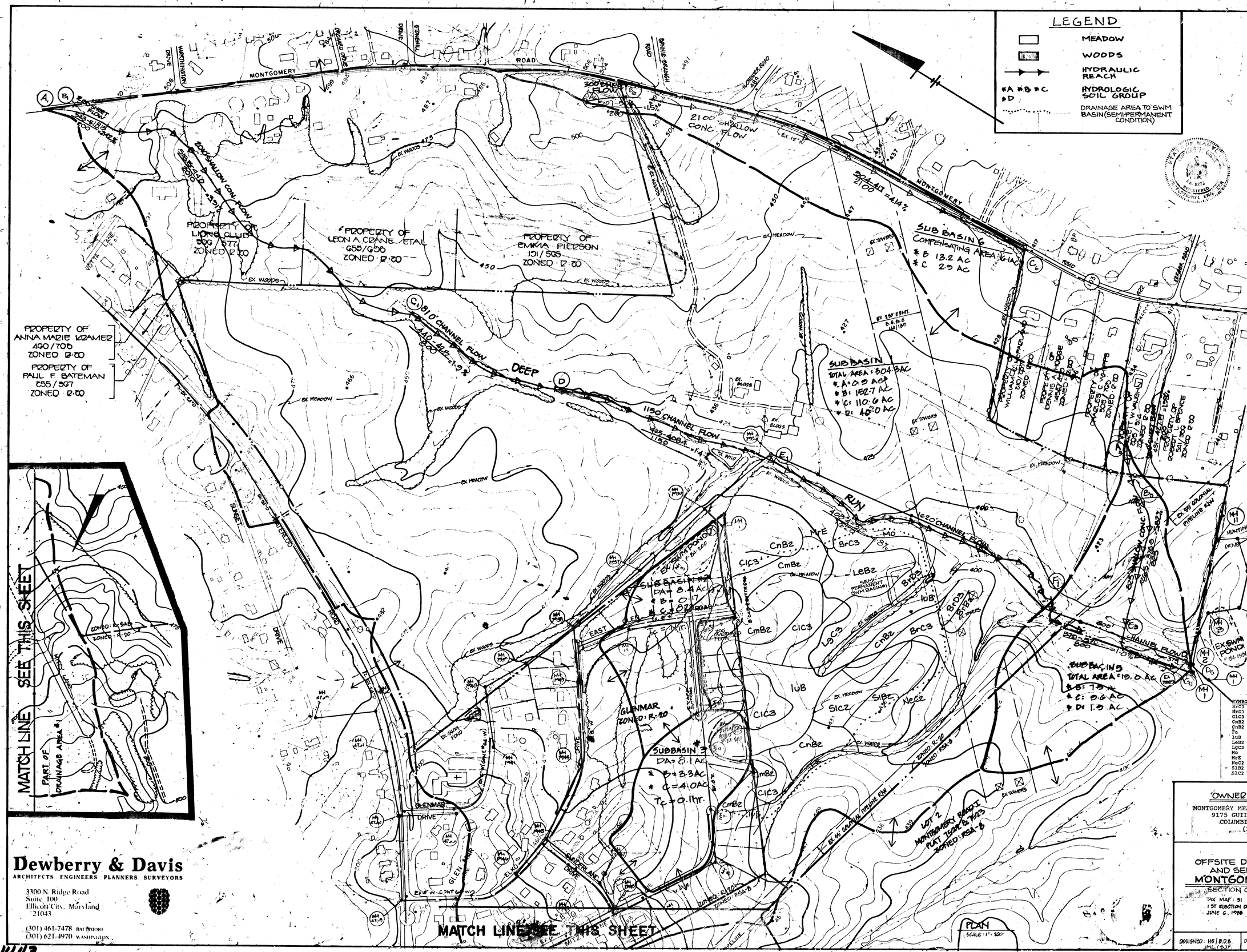
SECTION ONE, AREA SEVEN
LOTS 352 THRU LOTS 406
TAX MAP 31 PARCEL 423
1st. ELECTION DISTRICT HOWARD CO., MARYLAND

SCALE AS SHOWN | CONTRACT NO. | FILE NO. | SHEET 10 OF 12

1443

F-89-47

J&J COLUMBIA, MD.



*NOTE: HYDROLOGIC SOIL GROUPS ARE INDICATED AS A, B, C, D

SEE SHEET 3 OF 15 FOR SOILS MAP

DEVELOPER'S CERTIFICATE

"I/We 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. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

KENNETH G. MALM, V.P. NVL ASSOC. (GENERAL PARTNER) — Date 7/27/89

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."

THOMAS L. WILEY MD. REG NO. 9279 — Date 7-26-89

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.

Howard Soil Conservation Service — Date 8/8/89

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard Soil Conservation District — Date 8/8/89

APPROVED HOWARD COUNTY DEPT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/13/89

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/10/89

CHIEF, BUREAU OF HIGHWAYS — DATE 8-9-89

CHIEF, BUREAU OF ENGINEERING — DATE 8-11-89

SOILS LEGEND

SYMBOL	NAME
BrC3	BRANDYWINE LOAM, 8 TO 15% SLOPES, SEVERELY ERODED
BrD3	BRANDYWINE LOAM, 15 TO 25% SLOPES, SEVERELY ERODED
ClC3	CHILLUM GRAVELY LOAM, 5 TO 10% SLOPES, SEVERELY ERODED
CnB2	CHILLUM SILT LOAM, 1 TO 5% SLOPES, MODERATLEY ERODED
CnB2	CHILLUM-FAIRFAX LOAMS, 1 TO 5% SLOPES, MODERATELY ERODED
Fa	FALLSINGTON LOAM
lu8	LUKA LOAM, LOCAL ALLUVIUM, 1 TO 5% SLOPES
LeB2	LEGORE SILT LOAM, 3 TO 8% SLOPES, MODERATLEY ERODED
LgC3	LEGORE SILTY CLAY LOAM, 8 TO 15% SLOPES, SEVERELY ERODED
Mo	MIXED ALLUVIAL LAND
MrE	MONTALTO AND RELAY SOILS, 15 TO 45% SLOPES
NeC2	NESHAMINY SILT LOAM, 8 TO 15% SLOPES, MODERATLEY ERODED
SlB2	SASSAFRASS LOAM, 1 TO 5% SLOPES, MODERATELY ERODED
SlC2	SASSAFRASS LOAM, 5 TO 10% SLOPES, MODERATELY ERODED

OWNER AND DEVELOPER

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

OFFSITE DRAINAGE AREA MAP (EXISTING AND SEMI-PERMANENT CONDITION)
MONTGOMERY MEADOWS

SECTION ONE AREA SEVEN

TAX MAP: 31 LOT B52 TO LOT A56 PARCEL: 888
1ST ELECTION DISTRICT HOWARD COUNTY, MD.
JUNE 6, 1988 SCALE: 1" = 200'
SHEET 11 OF 12

DESIGNED: HS/B.D.B. JOHC/B.J.F.	DRAWN: WHF/DMP DATE: MAY 1989	CHECKED: B.D.B.	APPROVED: T.L.W.

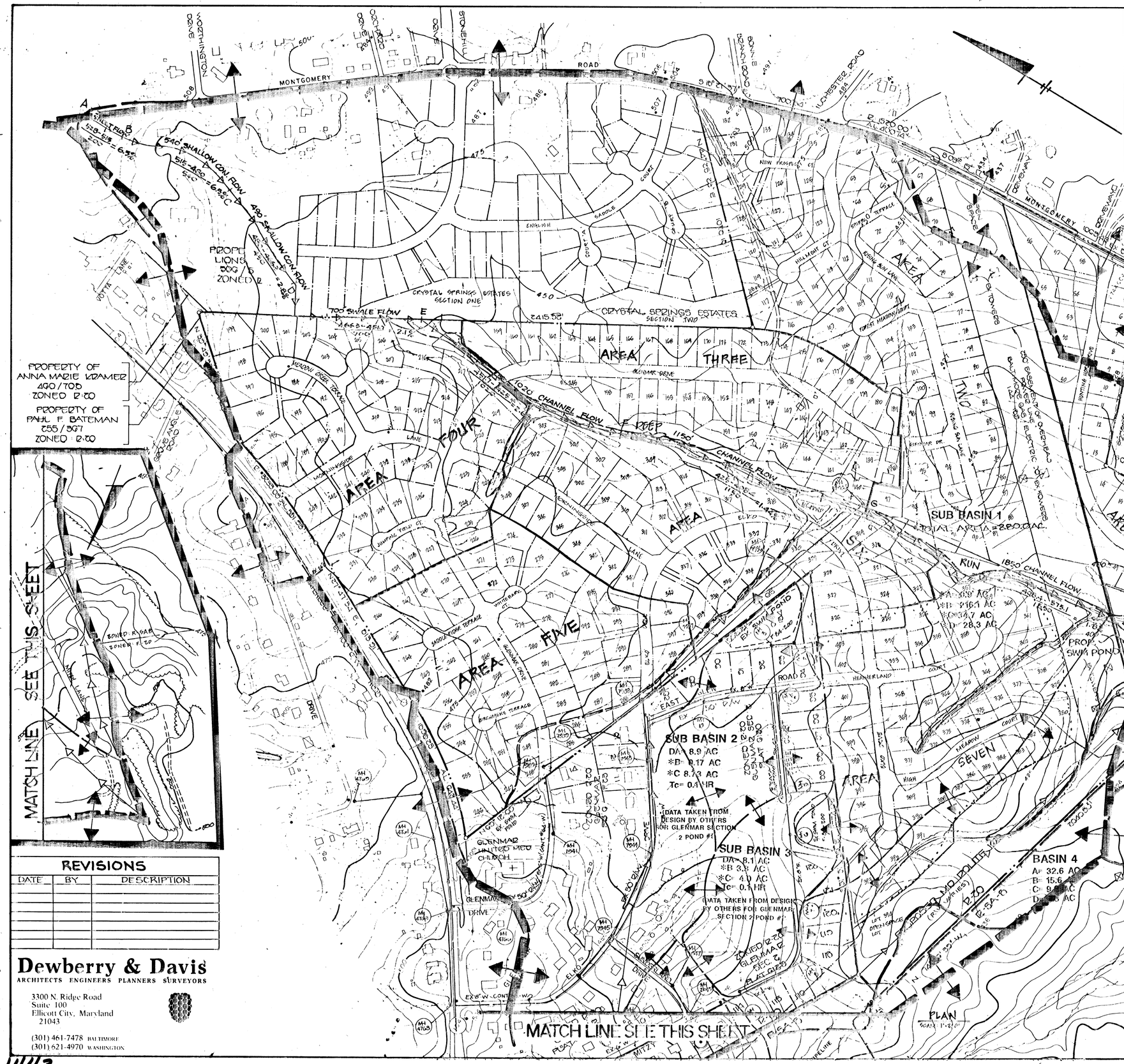
Dewberry & Davis
ARCHITECTS ENGINEERS PLANNERS SURVEYORS

3300 N. Ridge Road
Suite 100
Ellicott City, Maryland
21043

(301) 461-7478 BALTIMORE
(301) 621-4970 WASHINGTON

1443

F-89-47



LEGEND

- SWM REGIONAL FACILITY WATERSHED AREA (F-89-44)
- SUB BASIN DIVIDE
- HYDRAULIC REACH & COMPUTATION POINT (MAIN BRANCH)
- *A,*B,*C,*D HYDROLOGIC SOIL GROUPS
- DRAINAGE AREA TO SWM BASIN (SEMI-PERM. CONDITION)
- DRAINAGE AREA TO STORM-DRAIN STRUCTURES

DEVELOPER'S CERTIFICATE

"I/We 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. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

KENNETH G. MALM, V.P., NVL ASSOC. (GENERAL PARTNER) — Date 7/27/89

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."

THOMAS L. WILEY MD. REG. NO. 9275 — 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.

U.S. Soil Conservation Service — Date 8/2/89

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard Soil Conservation District — Date 8/1/89

APPROVED HOWARD COUNTY DEPT. OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND COMMUNITY PLANNING — DATE 5/15/89

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/10/89

CHIEF, BUREAU OF HIGHWAYS — DATE 8.9.89

CHIEF, BUREAU OF ENGINEERING — DATE 8-11-89

DRAINAGE AREA TABULATION
ALL AREAS ZONED R-20

INLET	AREA (AC)	C	PI
I-1	0.83	0.39	25%
I-2	1.10	0.39	25%
I-3	1.00	0.39	25%
I-4	0.68	0.58	51%
I-5	5.17	0.44	32%
I-6	1.78	0.46	35%
I-11	1.30	0.48	38%
I-21	0.97	0.56	48%
I-22	2.55	0.44	32%
I-23	0.67	0.48	37%
I-24	0.65	0.57	49%

REVISIONS

DATE	BY	DESCRIPTION

Dewberry & Davis
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
3300 N. Ridge Road
Suite 100
Ellicott City, Maryland
21043
(301) 461-7478 BALTIMORE
(301) 621-4970 WASHINGTON

OWNER AND DEVELOPER

MONTGOMERY MEADOWS GENERAL PARTNERSHIP
9175 GUILFORD ROAD, SUITE 302
COLUMBIA, MARYLAND 21046
(301) 604-1552

OFFSITE DRAINAGE AREA MAP (PROPOSED CONDITION)

MONTGOMERY MEADOWS
SECTION 1 AREA 7
TAX MAP 31 LOT 352 TO LOT 406 PARCEL 425
1ST ELECTION DIST. HOWARD COUNTY MD.
FEBRUARY 1, 1989 SCALE: 1"=200'
SHEET 12 OF 12

1443

F-89-47