

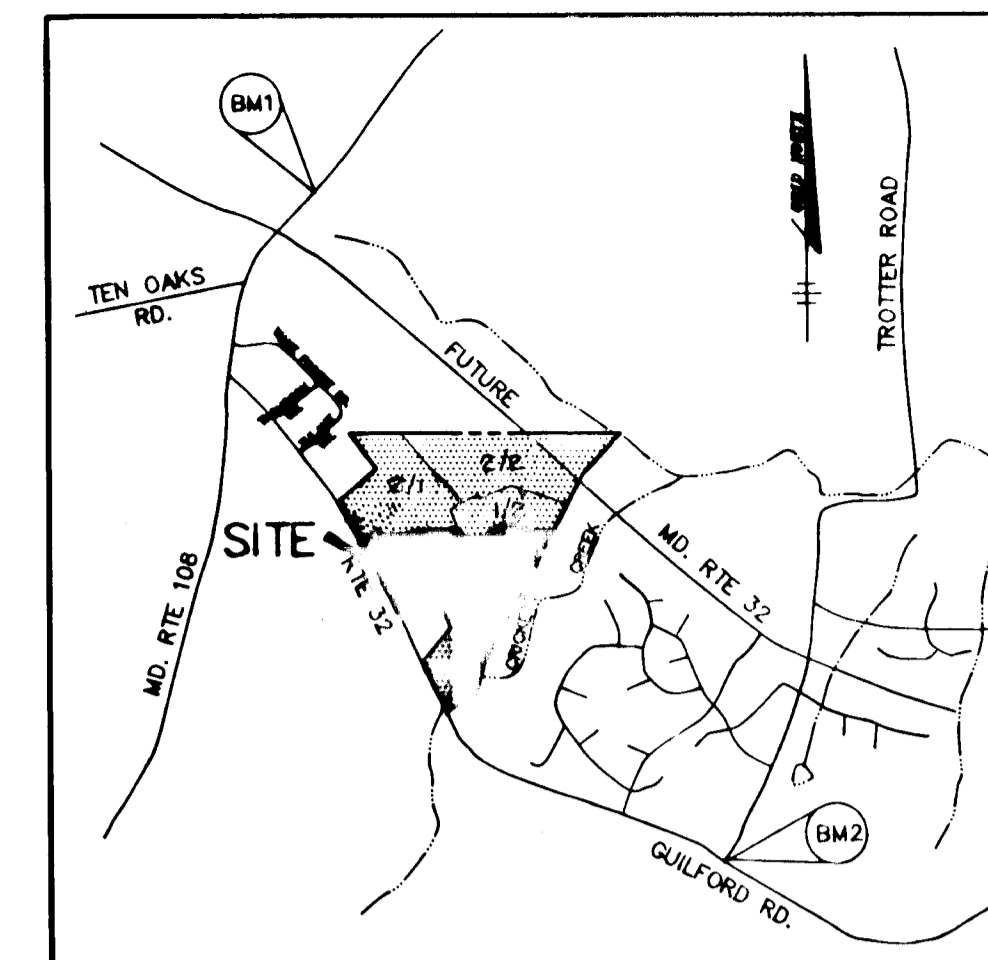
**SHEET INDEX**

- 1 TITLE SHEET
- 2 GRADING & SEDIMENT CONTROL PLAN
- 3 GRADING & SEDIMENT CONTROL PLAN
- 4 STORMWATER MANAGEMENT NOTED & PROFILES
- 5 STORMWATER MANAGEMENT NOTED & DETAILS
- 6 STORM DRAIN PROFILES
- 7 STORM DRAIN PROFILES
- 8 STORM DRAIN PROFILES

# CLARKS GLEN SECTION 1 AREA 1

## ROADWAYS, STORM DRAINS STORMWATER MANAGEMENT

### LOTS 1 - 64 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



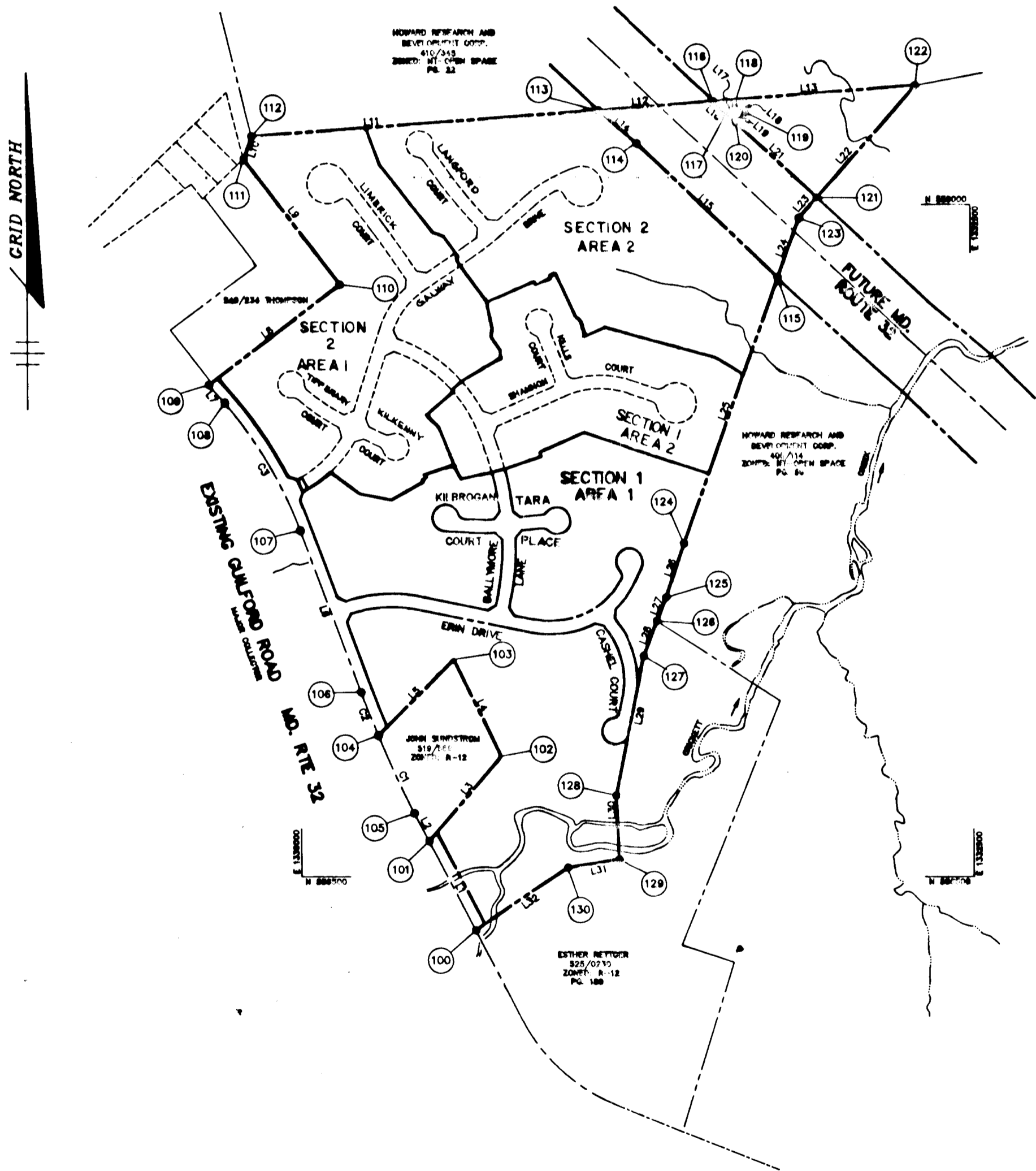
VICINITY MAP  
SCALE: 1" = 200'

**BENCHMARKS**

- BM1 HOWARD COUNTY MONUMENT NO. 2637003  
ELEV. 481.25  
CONCRETE MONUMENT
- BM2 HOWARD COUNTY MONUMENT NO. 2437003  
ELEV. 472.12  
CONCRETE MONUMENT

**GENERAL NOTES**

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
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. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
  - BELL TELEPHONE SYSTEM 393-3648
  - LONG DISTANCE CABLE DIVISION 393-3553 OR 3554
  - BALTIMORE GAS AND ELECTRIC CO. 539-8000
  - HOWARD COUNTY BUREAU OF UTILITIES 815-4950
  - COLONIAL PIPELINE 785-1300
6. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY CURB OR SIDEWALK.
7. ALL LOCAL STREET LIGHTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
8. ALL STREET CURB RISES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
9. ALL CURB RISES WITHIN ROAD RIGHT OF WAY SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, SECTION IV, L.6. STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST EDITION.
10. 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.
11. DESIGNED TRAFFIC SPEED: IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY ENGINEERS, STANDARD:
  - LAUREL PARK 30 MPH
  - CASHLE CORNER 30 MPH
  - OTHER AREAS 30 MPH
12. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
13. ALL AREAS WITHIN ROADWAY AND UNDER STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
14. ALL PIPE ELEVATIONS SHOWN ARE INVERT (I) ELEVATIONS.
15. PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAIN DIMENSIONS.
16. SUBJECT PROPERTY ZONED R-12 PER 10-18-83 COMPREHENSIVE ZONING PLAN.
17. NO PIPE SHALL BE LAD UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 8" OF FINISHED GRADE.
18. SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S. S-94-16, WP-94-31, P-94-25.
19. STORMWATER MANAGEMENT FACILITIES #1 AND #2 PROPOSED FOR THIS SITE ARE CLASS "A" HAZARD FACILITIES. WATER QUALITY FOR DRAIN #1 WILL BE EXTENDED DETENTION WATER QUALITY FOR DRAIN #2 WILL BE NET STORAGE. BOTH FACILITIES WILL BE DIPPED AND MAINTAINED BY HOWARD COUNTY.
20. TOPOGRAPHY SHOWN HEREON WAS PERFORMED BY WINGS AERIAL MAPPING COMPANY, MARCH 1994. ALL CONTOURS ARE TWO FOOT INTERVALS.
21. PUBLIC WATER AND SEWER SYSTEMS AS PER CONTRACT NO. 34-3394-D.
22. GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT AND PAVEMENT FOR THIS PROJECT IS PROVIDED BY GEO-TECHNOLOGY ASSOCIATES INC., JUNE 1994, AND WAS APPROVED ON NOV. 10, 1996.
23. ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB. STREET LIGHT PLACEMENT AND THE OF FUTURE POLE SELECTED SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, SECTION IV, L.6. AS NOTED ON THESE PLANS.
24. WP-94-31 - APPROVED 12-17-93 WAS A WAIVER TO SECTION 16.12(a)(8)(ii) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO ALLOW 8' ADJOINING PRESTENSES USING A SINGLE SHARED DRIVEWAY ACCESS FROM A PUBLIC ROAD.
25. THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. CONTRACTOR SHALL PROVIDE PAYMENT SECTION SHALL BE DETERMINED BY THE ENGINEER. ANY PAVEMENT TYPE BASED ON IN-SITU TESTING SHALL BE APPROVED BY THE ENGINEER. THE ENGINEER SHALL FIRST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS. THE ENGINEER SHALL PROVIDE A 20' TRANSITION WITH CONFORMING PAVEMENT TO EXISTING PAVEMENT.
26. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS & PROGRAMS.
27. SIDEWALK RAMPS SHALL BE INSTALLED AT ALL INTERSECTIONS AND AT ALL TRAFFIC SIGNALS TO THE CURRENT ADA COMPLIANCE STANDARD.
28. THE AFFORESTATION/REFORESTATION AREAS AND SOME ON-SITE AREAS IN FUTURE SECTION 2 HAVE SPECIFIC FINAL STABILIZATION (CONSIDERED) REQUIREMENTS. PLEASE REFER TO THE FOREST CONSERVATION PLANS, SHEETS 23, 24, 25, 26, 27, 28 FOR THE LOCATION OF THESE SPECIALLY SEEDING AREAS.
29. THE LOT DESIGN WILL COMPLY WITH THE USABLE YARD REQUIREMENTS OF SECTION 16.12(b)(ii) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
30. WETLAND DISTURBANCE AND RESTORATION SHALL BE PERFORMED IN ACCORDANCE WITH MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WHICH EMPLOY AN AERIAL PHOTOGRAPHIC SURVEY OF THE DAMPENMENT WATER QUALITY CRITERIA (WQC) CRITERIA. CRACKETS CAN BE CONDUCTED FROM MARCH 1 THROUGH JUNE 15, 1994.



PLAN  
SCALE: 1" = 400'

THIS PLAN IS FOR STORMWATER MANAGEMENT AND TEMPORARY STORMWATER MANAGEMENT ONLY. ALL OTHER INFORMATION IS PER P-95-83

**CURVE LISTINGS**

CURVE	RADIUS	LENGTH
C1	4000.00'	315.58'
C2	4000.00'	174.14'
C3	1516.00'	556.72'

**PROPERTY LINE LIST**

LINE	BEARING	DISTANCE
L1	S 27°30'14" E	377.31'
L2	S 27°30'14" E	116.73'
L3	S 40°34'50" E	412.82'
L4	S 22°54'26" E	450.00'
L5	S 44°44'20" W	391.83'
L6	S 20°04'21" E	640.38'
L7	N 40°00'41" W	88.95'
L8	N 56°00'00" W	612.42'
L9	S 37°12'21" E	586.47'
L10	N 19°19'37" E	90.00'
L11	N 85°37'21" E	1296.16'
L12	N 85°37'21" E	633.51'
L13	N 85°37'21" E	730.60'
L14	S 49°47'56" E	187.02'
L15	S 49°47'56" E	726.20'
L16	N 41°54'42" W	633.51'
L17	S 43°33'40" W	500.00'
L18	N 43°33'40" W	726.20'
L19	N 43°33'40" W	500.00'
L20	N 48°17'20" W	20.00'
L21	N 48°17'20" W	410.50'
L22	S 41°33'40" W	500.00'
L23	S 41°33'40" W	103.22'
L24	S 18°33'40" W	234.93'
L25	S 18°33'40" W	1048.10'
L26	S 18°33'40" W	213.96'
L27	S 21°41'30" W	52.00'
L28	S 21°41'30" W	138.38'
L29	S 11°14'11" W	138.00'
L30	S 02°16'43" E	240.50'
L31	S 8°51'00" W	187.86'
L32	S 8°51'00" W	417.42'

**COORDINATE LIST**

NO.	NORTHING	EASTING
100	556299.892	1330643.332
101	556635.817	1330471.526
102	556849.351	1330740.072
103	557309.657	1330606.350
104	557026.083	1330785.902
105	556739.746	1330418.372
106	557185.295	1330222.594
107	557288.189	1330602.806
108	558261.915	1329725.163
109	558328.438	1329672.852
110	548101.948	1330153.422
111	559166.349	1329799.054
112	559293.278	1329926.636
113	559351.720	1331115.236
114	559930.971	1331226.122
115	558728.243	1331782.467
116	559384.803	1331542.538
117	559441.303	1331583.990
118	559377.924	1331628.129
119	559343.785	1331664.660
120	559307.254	1331630.821
121	548076.782	1331830.646
122	559442.304	1331795.938
123	558848.539	1331116.106
124	557742.548	1331477.795
125	557840.604	1331321.885
126	557454.031	1331323.245
127	557324.140	1331272.783
128	548667.588	1331854.819
129	548667.588	1331750.500
130	548667.588	1330881.279

AS BUILT CERTIFICATE

DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Richard Blood* 8/4/95 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

*Bob Damman* 8/4/95 DATE  
CHIEF DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*Andrew M. Quaker* 8-1-95 DATE  
CHIEF, BUREAU OF HIGHWAYS

---

DATE NO. \_\_\_\_\_ REVISION \_\_\_\_\_

OWNERS / DEVELOPER  
WILBEN LIMITED PARTNERSHIP  
C/O ANDREW L. ISAACSON  
5450 WHITELY PARK  
TERRACE # 410  
BETHESDA, MD 20814  
301-530-1123

PROJECT  
**CLARKS GLEN  
SECTION 1 AREA 1**

AREA  
TAX MAP NO. 35 PARCEL 205  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
**TITLE SHEET**

**RIEMER MUEGGE & ASSOCIATES, INC.**  
Planners • Engineers • Surveyors  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21046  
410-907-8900 FAX: 410-907-9282

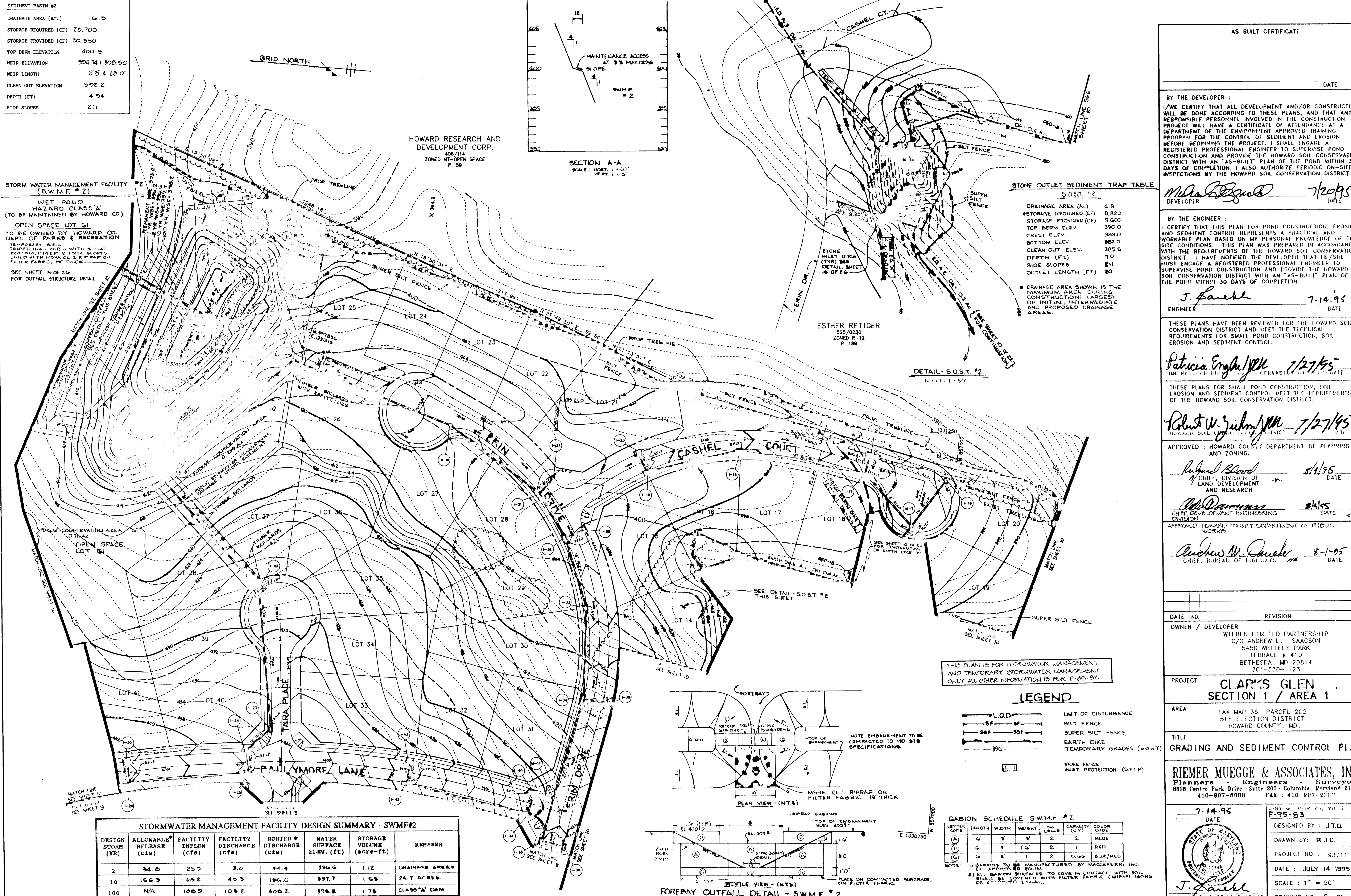
7.14.95  
DATE  
DESIGNED BY: A.A.P.  
DRAWN BY: J.C.O.  
PROJECT NO: 93211  
DATE: JULY 14, 1995  
SCALE: AS SHOWN  
DRAWING NO. 1 OF 8

JAYKART D. PAREKH #19148

1739

SEDIMENT BASIN #2	
DRAINAGE AREA (AC.)	16.5
STORAGE REQUIRED (CF)	29,700
STORAGE PROVIDED (CF)	30,350
TOP BERM ELEVATION	400.3
WEIR ELEVATION	394.74 / 398.50
WEIR LENGTH	2'5" x 20'0"
CLEAN OUT ELEVATION	392.2
DEPTH (FT)	4.04
SIDE SLOPES	2:1

STORM WATER MANAGEMENT FACILITY (S.W.M.F. #2)  
 WET POND HAZARD CLASS 'A' (TO BE MAINTAINED BY HOWARD CO.)  
 OPEN SPACE LOT G1 TO BE OWNED BY HOWARD CO. DEPT. OF PARKS & RECREATION  
 TEMPORARY 5:1 TRAPEZOIDAL DITCH WITH 3' FLAT BOTTOM, 1' DEEP, 2:1 SIDE SLOPES, LINED WITH MSHA CL. 1 RIPRAP OR FILTER FABRIC, 19" THICK  
 SEE SHEET 15 OF 26 FOR OUTFALL STRUCTURE DETAIL



STONE OUTLET SEDIMENT TRAP TABLE  
 S.O.S.T. #2

DRAINAGE AREA (AC.)	4.9
STORAGE REQUIRED (CF)	9,820
STORAGE PROVIDED (CF)	9,600
TOP BERM ELEV.	390.0
CREST ELEV.	389.0
BOTTOM ELEV.	382.0
CLEAN OUT ELEV.	385.5
DEPTH (FT)	7.0
SIDE SLOPES	2:1
OUTLET LENGTH (FT)	80

\* DRAINAGE AREA SHOWN IS THE MAXIMUM AREA DURING CONSTRUCTION. LARGEST OF INITIAL, INTERMEDIATE AND PROPOSED DRAINAGE AREAS.

STORMWATER MANAGEMENT FACILITY DESIGN SUMMARY - SWMF#2

DESIGN STORM (YR)	ALLOWABLE RELEASE (cfs)	FACILITY INFLOW (cfs)	FACILITY DISCHARGE (cfs)	ROUTED DISCHARGE (cfs)	WATER SURFACE EL. (ft)	STORAGE VOLUME (acre-ft)	REMARKS
2	34.0	25.0	3.0	4.4	396.6	1.12	DRAINAGE AREA =
10	156.3	63.2	4.3	156.0	397.7	1.53	24.7 ACRES
100	N/A	100.0	108.2	400.2	398.8	1.73	CLASS 'A' DAM

\* AT DESIGN POINT - WHERE CRICKETT CREEK INTERSECTS PROPOSED ROUTE 32.

AS BUILT CERTIFICATE

DATE \_\_\_\_\_

BY THE DEVELOPER:  
 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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND 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.

DEVELOPER: *M. J. B. B.* DATE: 7/20/95

BY THE ENGINEER:  
 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/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

ENGINEER: *J. Saehl* DATE: 7-14-95

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.

*Patricia Engbl/PLK* 7/27/95  
 HOWARD SOIL CONSERVATION DISTRICT

*Robert W. Zickm/PLM* 7/27/95  
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Richard Blood* 8/1/95  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

*John Damman* 8/1/95  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*Andrew M. Daniels* 8-1-95  
 CHIEF, BUREAU OF HIGHWAYS

DATE NO.	REVISION

OWNER / DEVELOPER: WILBEN LIMITED PARTNERSHIP  
 C/O ANDREW L. ISAACSON  
 5450 WHITELEY PARK TERRACE # 410  
 BETHESDA, MD 20814  
 301-530-1123

PROJECT: CLARIS GLEN SECTION 1 / AREA 1

AREA: TAX MAP 35 PARCEL 205  
 5th ELECTION DISTRICT  
 HOWARD COUNTY, MD.

TITLE: GRADING AND SEDIMENT CONTROL PLAN

RIEMER MUEGGE & ASSOCIATES, INC.  
 Planners Engineers Surveyors  
 8818 Centre Park Drive - Suite 200 - Columbia, Maryland 21045  
 410-907-8000 FAX: 410-907-8100

DATE: 7-14-95  
 F-95-83

DESIGNED BY: J.T.D.

DRAWN BY: R.J.C.

PROJECT NO: 93211

DATE: JULY 14, 1995

SCALE: 1" = 50'

JAYKANT D. PAREKH # 19148 DRAWING NO. 2 OF 3

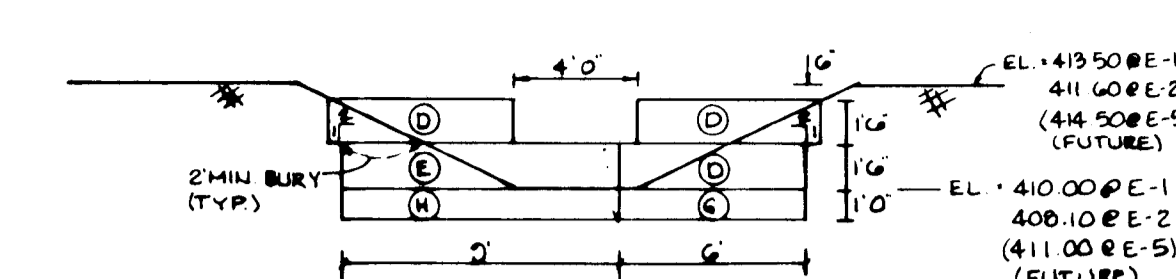
F-96-11

1739

**GABION SCHEDULE S.W.M.F.#1**

LETTER CODE	LENGTH	WIDTH	HEIGHT	NO. CELLS	CAPACITY (CY)	COLOR CODE
D	6'	3'	1'6"	2	1.8	RED
E	8'	3'	1'6"	3	1.5	GREEN
G	6'	3'	1'	2	0.66	BLUE/RED
H	9'	3'	1'	3	1.0	BLUE/YELLOW

NOTE: 1) GABIONS ARE TO BE MANUFACTURED BY MACCAFERRI, INC. OR APPROVED EQUAL.  
2) ALL GABION SURFACES TO COME IN CONTACT WITH SOIL SHALL BE COVERED WITH FILTER FABRIC (MIRAFIL 140 MC OR APPROVED EQUAL).



**AS BUILT CERTIFICATE**

DATE \_\_\_\_\_

BY THE DEVELOPER:

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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND 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.

*Mihail Bogdan* 7/20/95  
DEVELOPER DATE

BY THE ENGINEER:

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/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*J. Sarell* 7.14.95  
ENGINEER DATE

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

*Patricia Englund* 7/27/95  
NATURAL RESOURCES CONSERVATION DISTRICT DATE

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

*Robert W. Zehm* 7/27/95  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Richard Blood* 8/4/95  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*John Damm* 8/4/95  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*Robert M. Danks* 8-1-95  
CHIEF, BUREAU OF HIGHWAYS DATE

SEDDIMENT BASIN #1

DRAINAGE AREA (AC.)	0.8
STORAGE REQUIRED (CF)	15,840
STORAGE PROVIDED (CF)	57,460
TOP BERM ELEVATION	415.0
WEIR ELEVATION	411.0 TO ORIFICE INV. 410.0
WEIR LENGTH	20'
CLEAN OUT ELEVATION	408.5
DEPTH (FT)	3.0'
SIDE SLOPES	3:1 INSIDE 4:1 OUTSIDE

MOUNTABLE BERM TO DIVERT SEDIMENT-LOADED WATER TO INLETS I-10 & I-11.

DATE	NO.	REVISION

OWNER / DEVELOPER: WILBEN LIMITED PARTNERSHIP  
C/O ANDREW L. ISAACSON  
5450 WHITELY PARK TERRACE # 410  
BETHESDA, MD 20814  
301-530-1123

PROJECT: CLARKS GLEN SECTION 1 / AREA 1

AREA: TAX MAP 35 PARCEL 205  
5th ELECTION DISTRICT  
HOWARD COUNTY, MD.

TITLE: GRADING AND SEDIMENT CONTROL PLAN

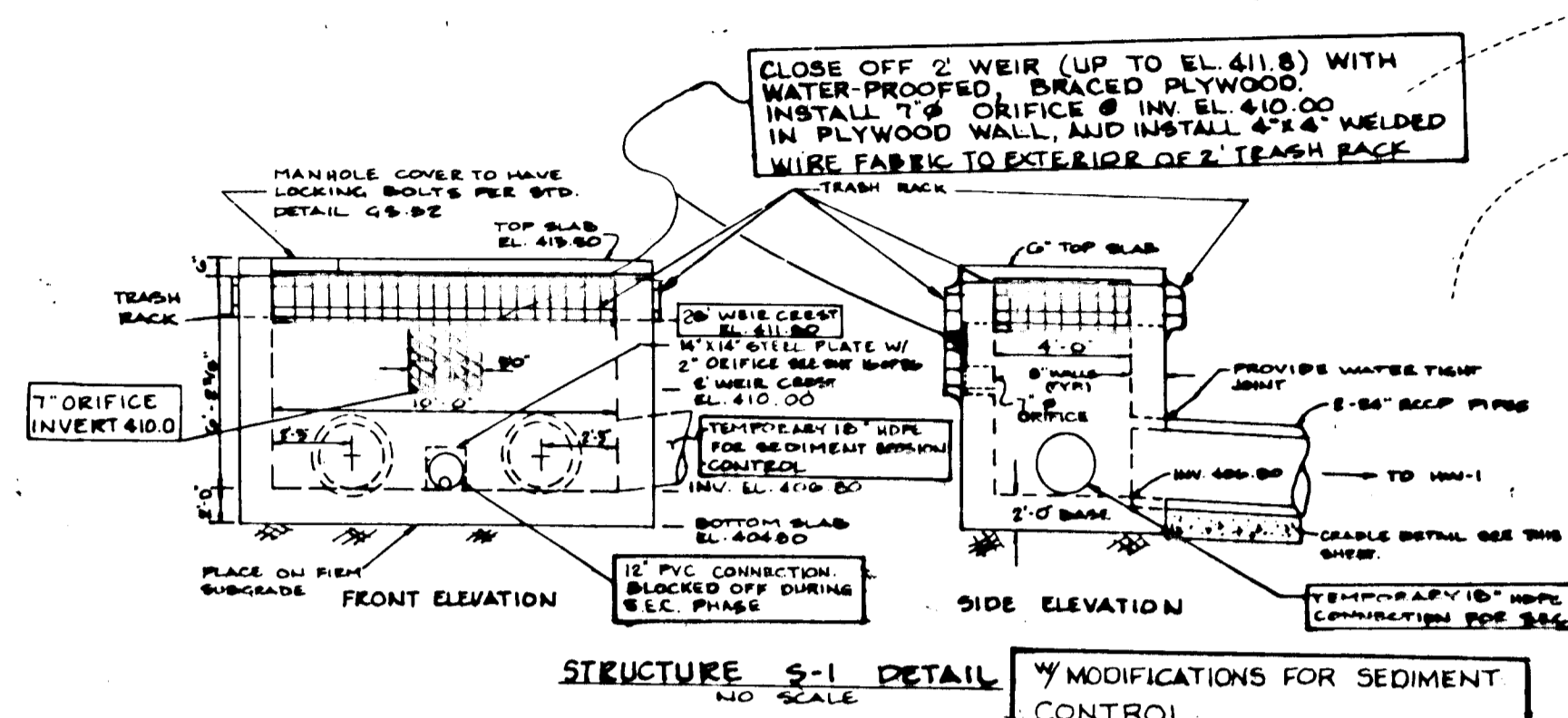
RIEMER MUEGGE & ASSOCIATES, INC.  
Planners & Engineers - Surveyors  
8818 Centre Park Drive - Suite 200 - Columbia, Maryland 21048  
410-997-8900 FAX: 410-997-2912

DATE: 7.14.95  
DESIGNED BY: J.T.D.  
DRAWN BY: R.J.C.  
PROJECT NO.: 93211  
DATE: JULY 14, 1995  
SCALE: 1" = 50'  
DRAWING NO.: 3 OF 10

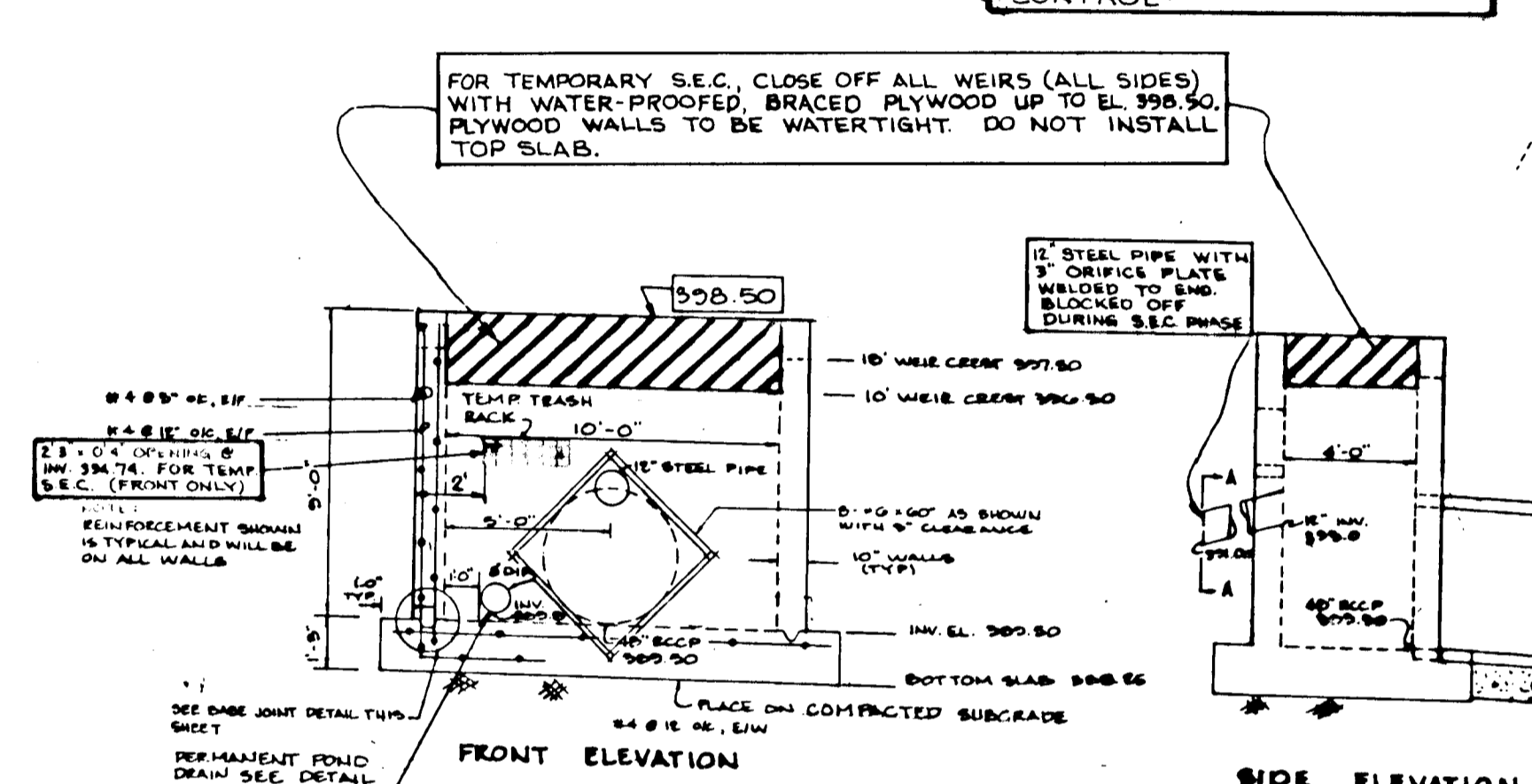
JAYKANT G. PAREKH # 19148

- NOTES**
- FOR CONSTRUCTION DETAILS NOT SHOWN FOR STRUCTURES S-1 & S-2, SEE SHEET 5 OF 10
  - THE RISER STRUCTURE DETAILS BELOW ARE FOR THE SEDIMENT EROSION BASINS AND PRIOR TO CONVERSION TO PERMANENT DAM FACILITIES.
  - ALL SEDIMENT EROSION CONTROL MODIFICATIONS ARE ENCLOSED IN BOXES BELOW.

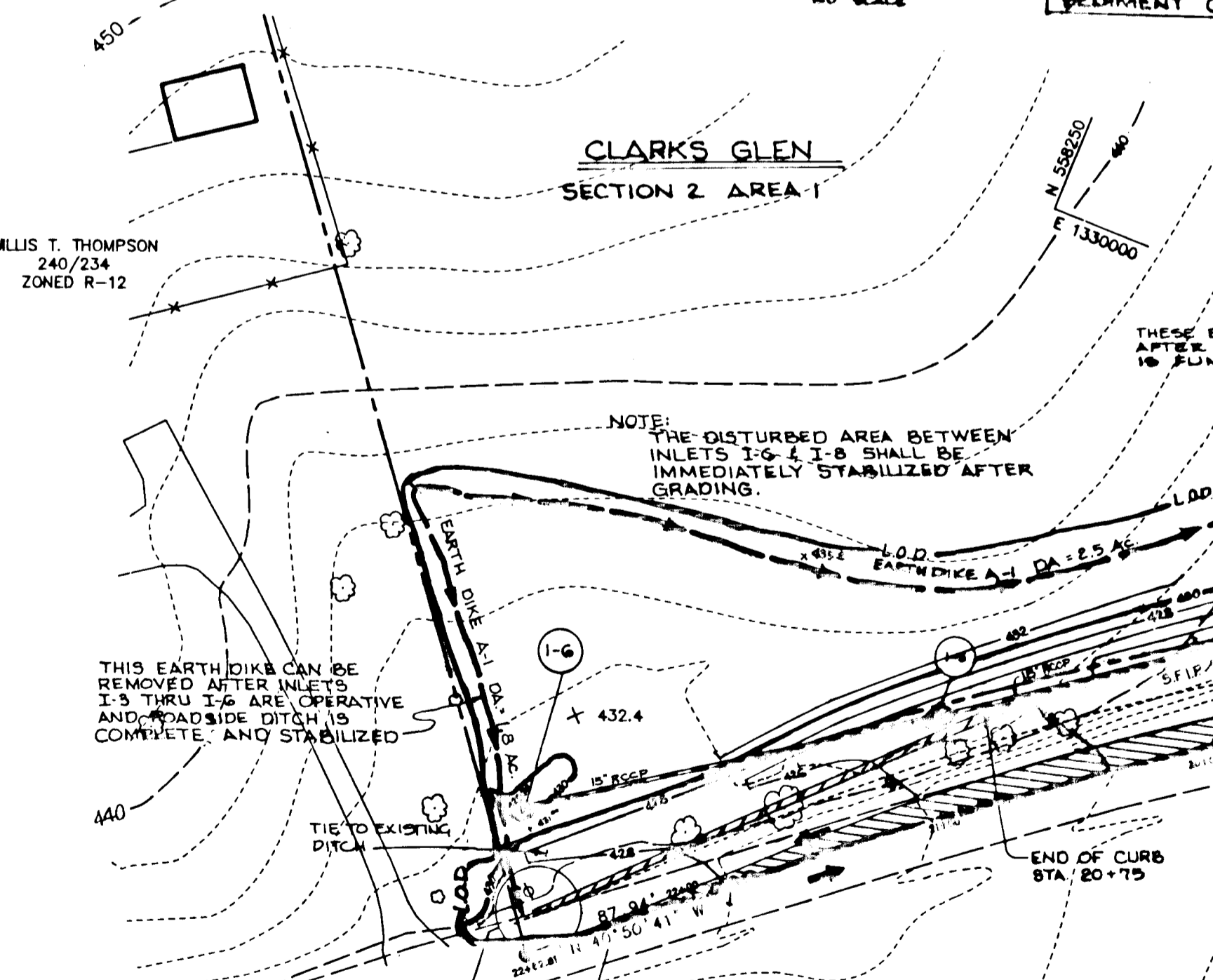
**TEMPORARY TRASH RACK DETAIL FOR S-2**  
N.T.S.



**STRUCTURE S-1 DETAIL**  
NO SCALE



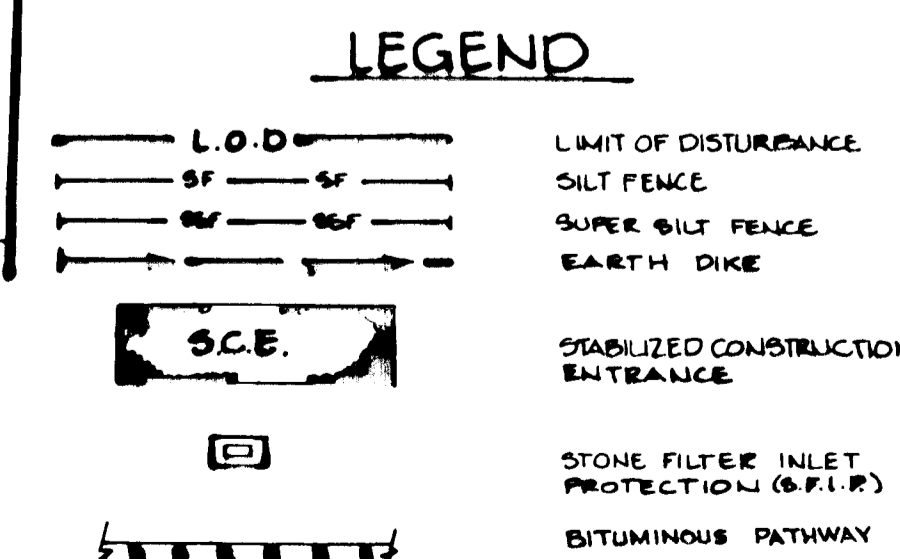
**STRUCTURE S-2 DETAIL**  
NO SCALE



**STORMWATER MANAGEMENT FACILITY DESIGN SUMMARY - SWMF#1**

DESIGN STORM (YR)	ALLOWABLE REBASIN (cfs)	FACILITY INFLOW (cfs)	FACILITY DISCHARGE (cfs)	ROUTED DISCHARGE (cfs)	WATER SURFACE ELEV. (ft)	STORAGE VOLUME (acre-ft)	REMARKS
2	84.8	87.1	1.7	34.4	410.3	1.11	DRAINAGE AREA *
10	156.3	682	14.0	156.0	411.6	1.68	28.0 ACRES.
100	N/A	111.7	67.7	408.2	412.8	3.22	CLASS "A" DAM

THIS PLAN IS FOR STORMWATER MANAGEMENT AND TEMPORARY STORMWATER MANAGEMENT ONLY. ALL OTHER INFORMATION IS PER F-05-83

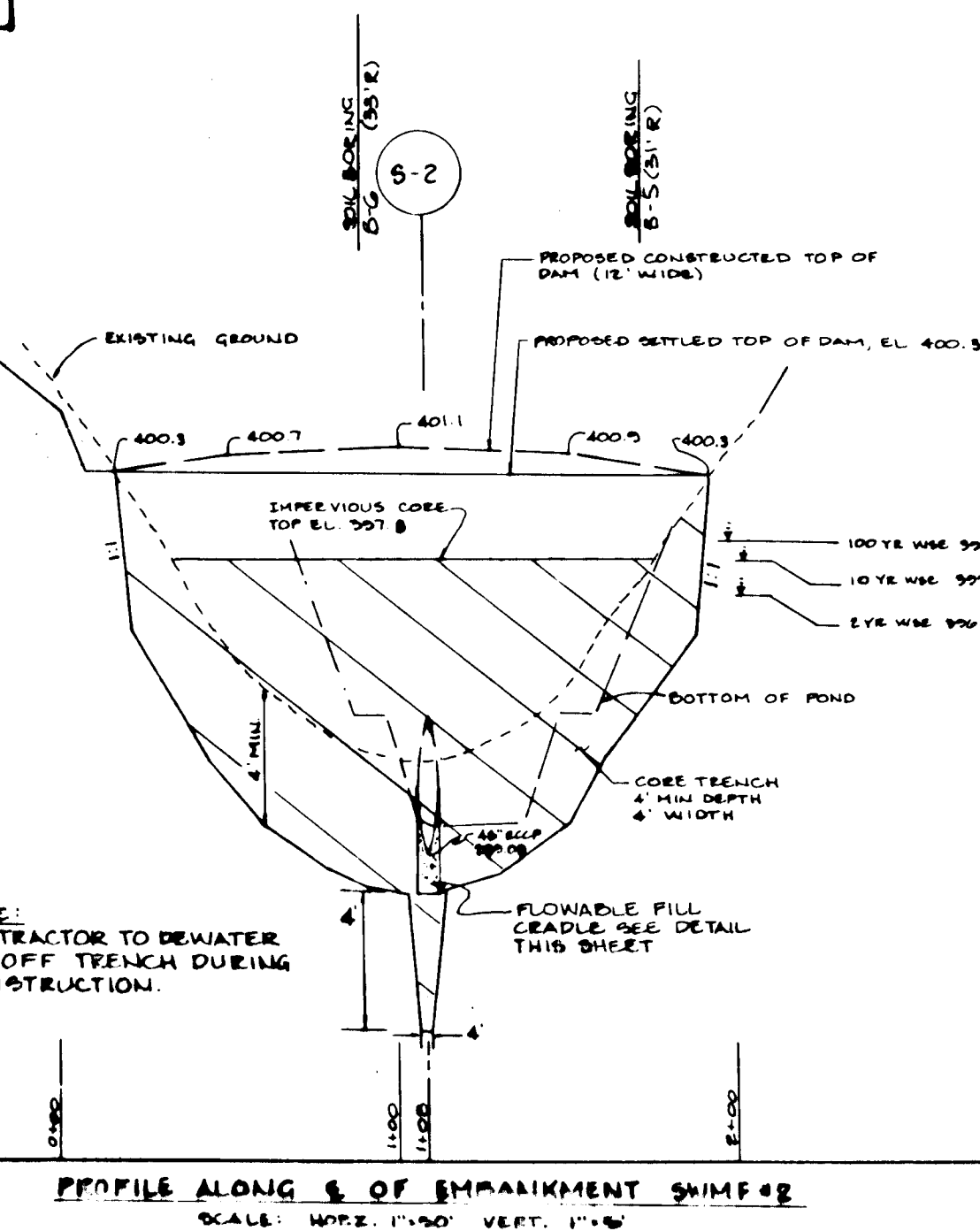
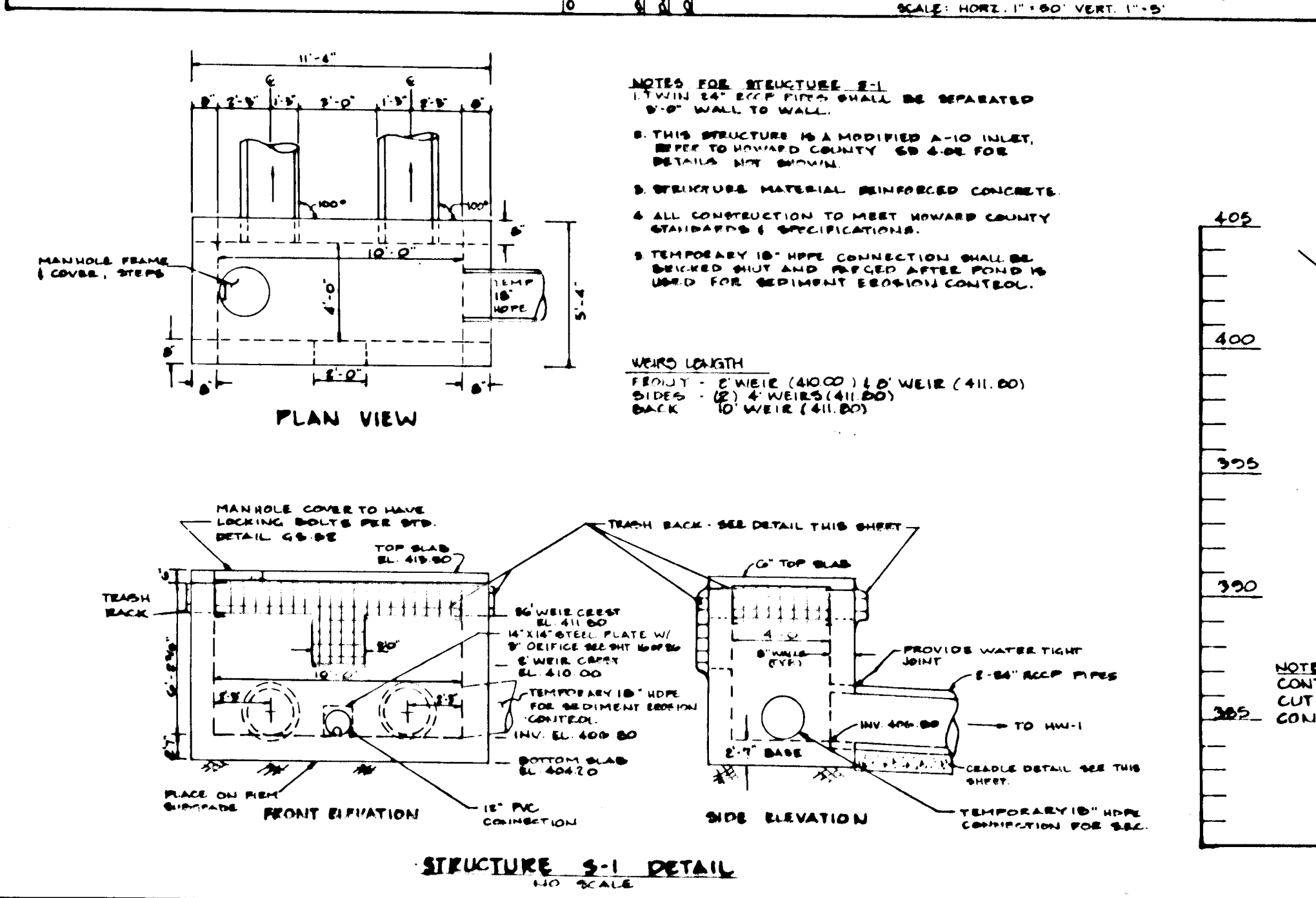
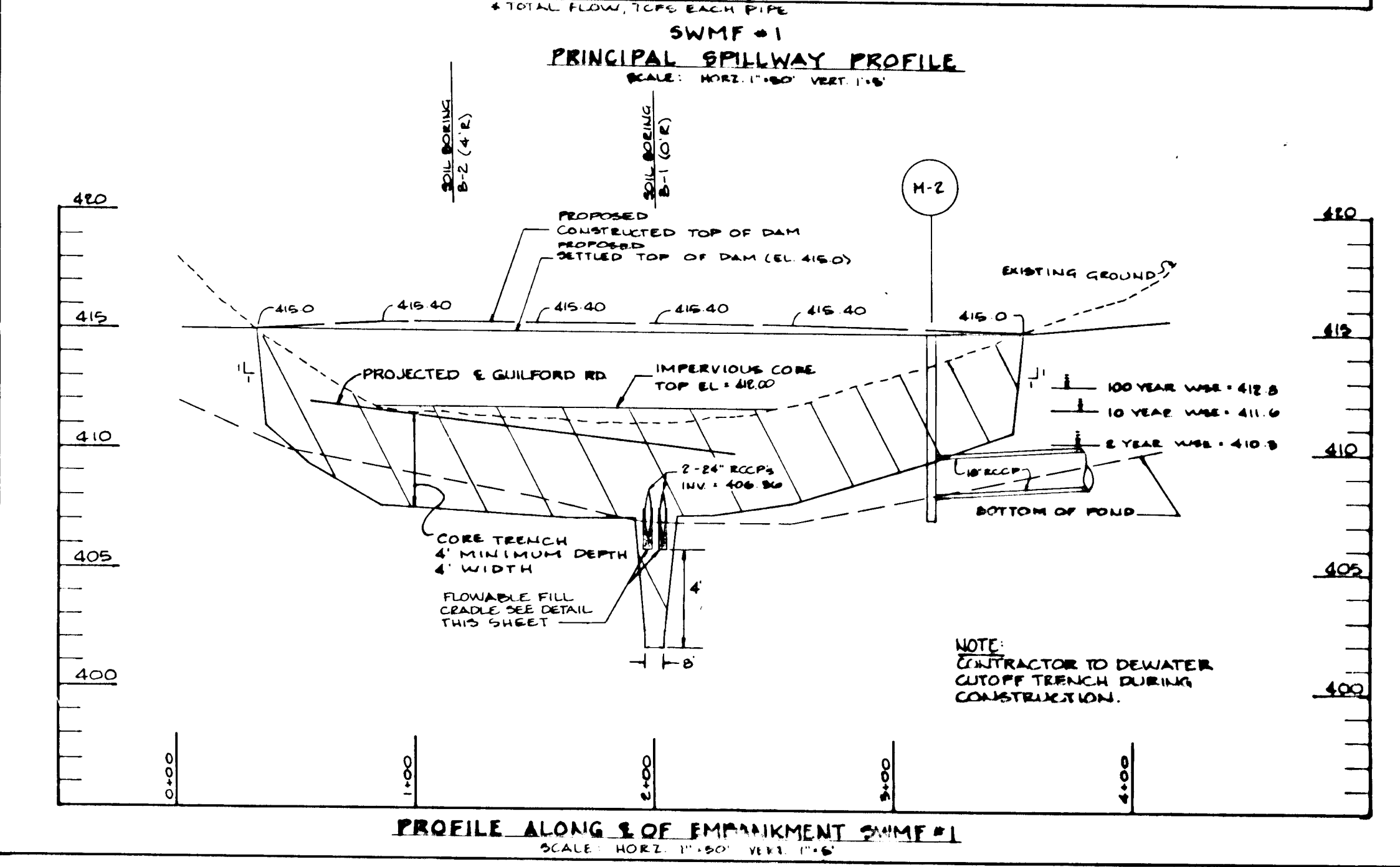
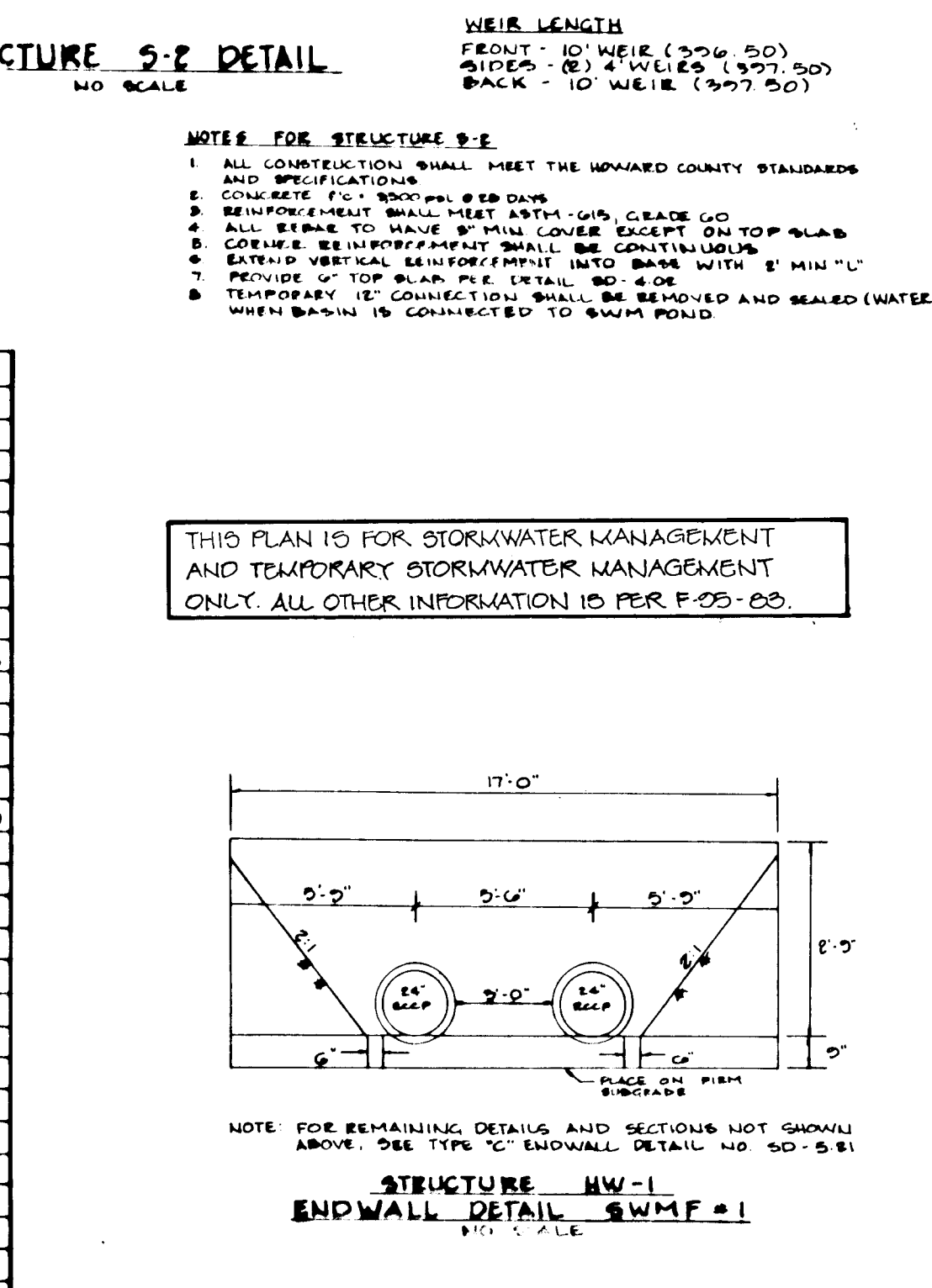
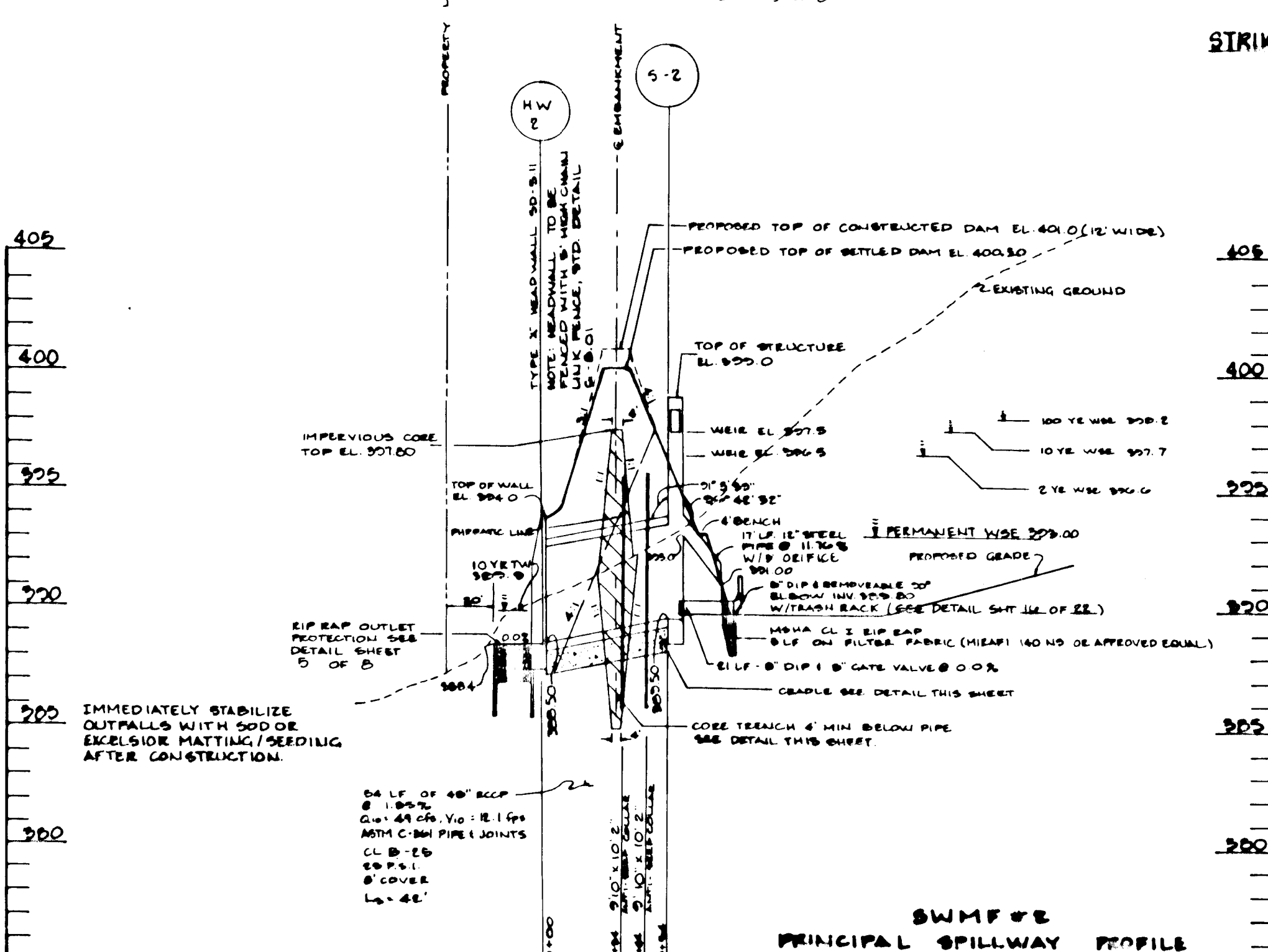
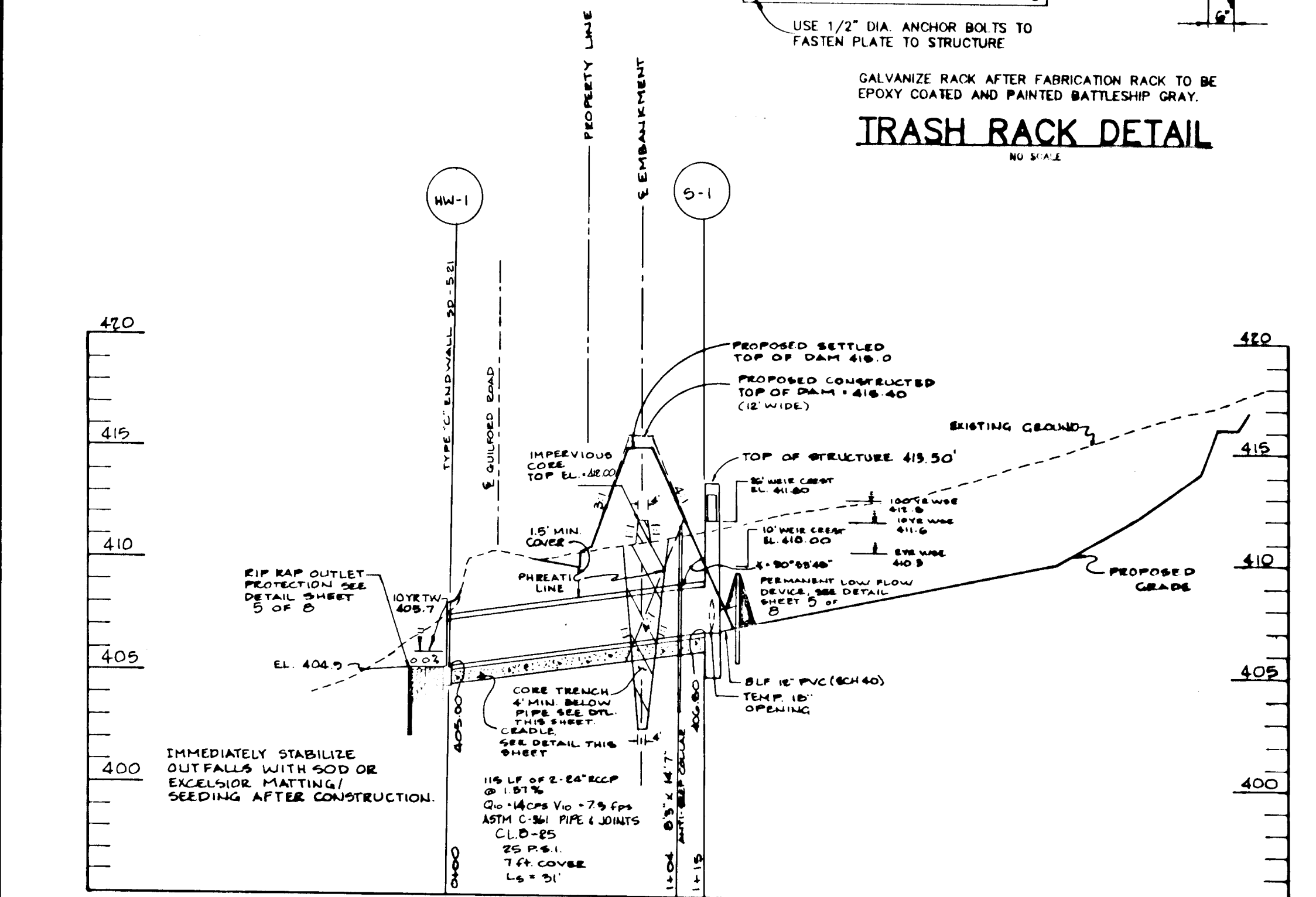
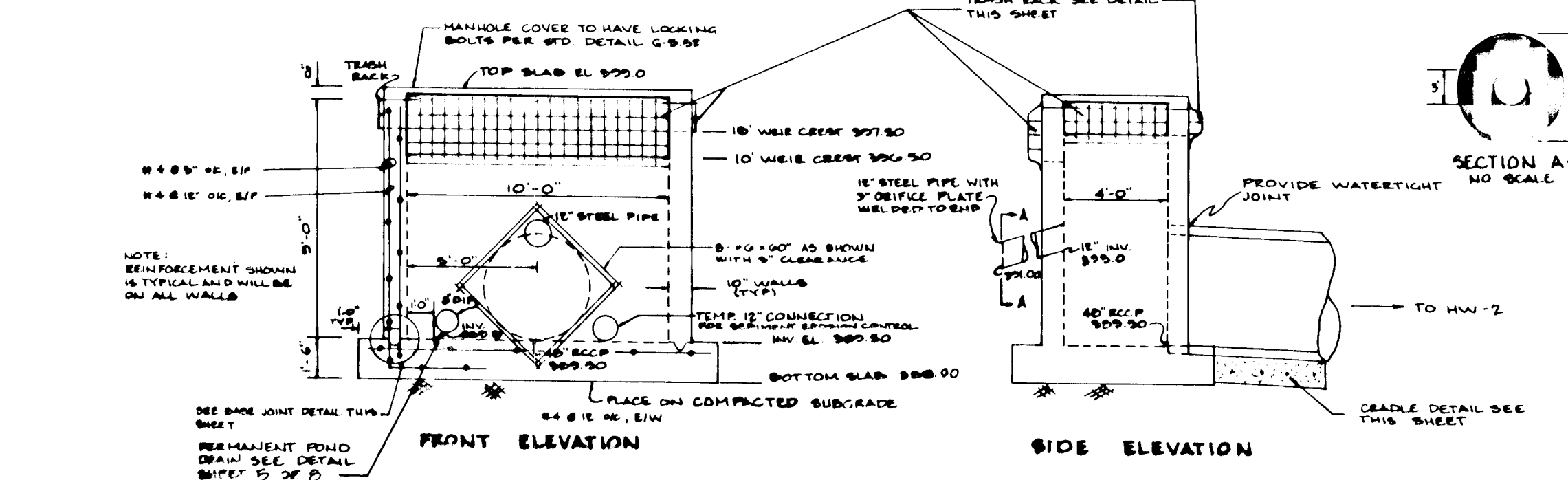
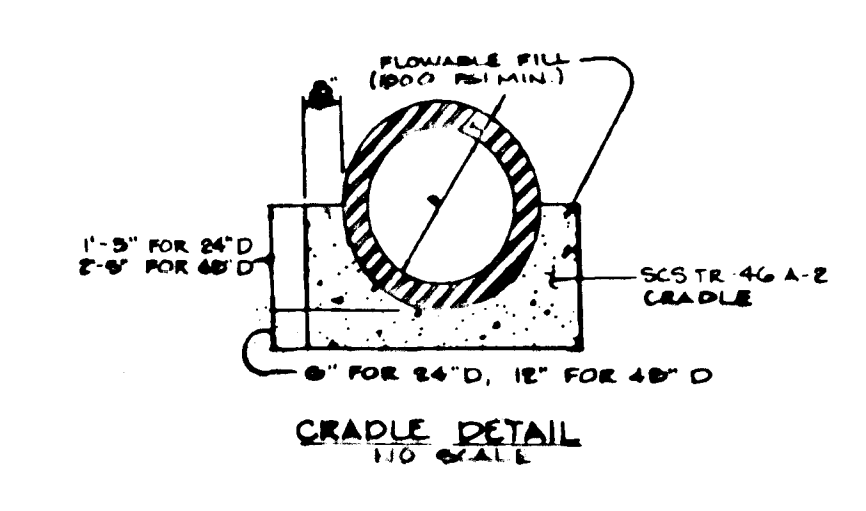
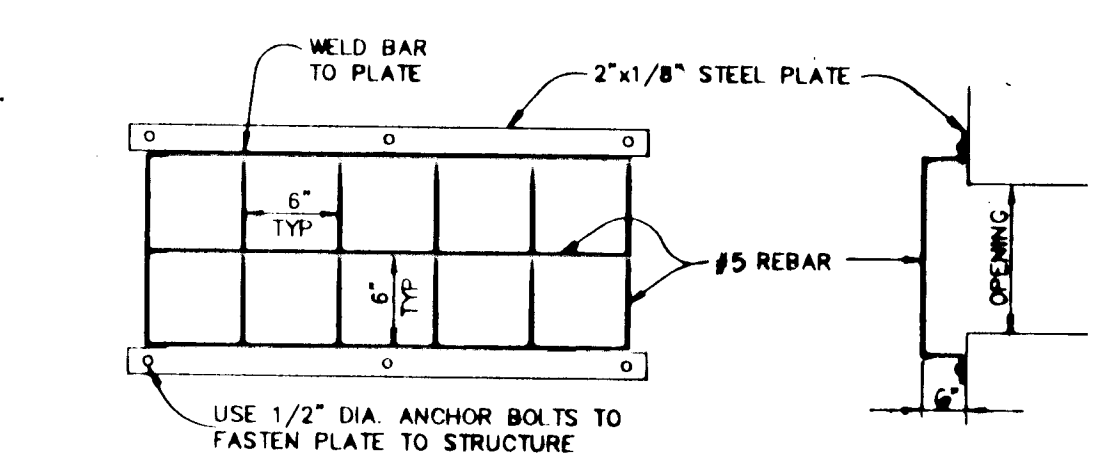
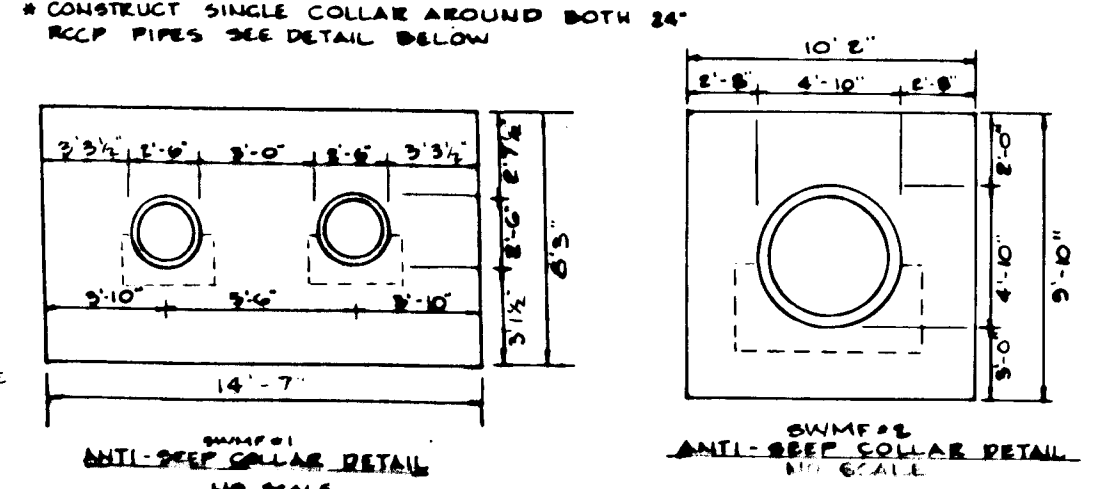
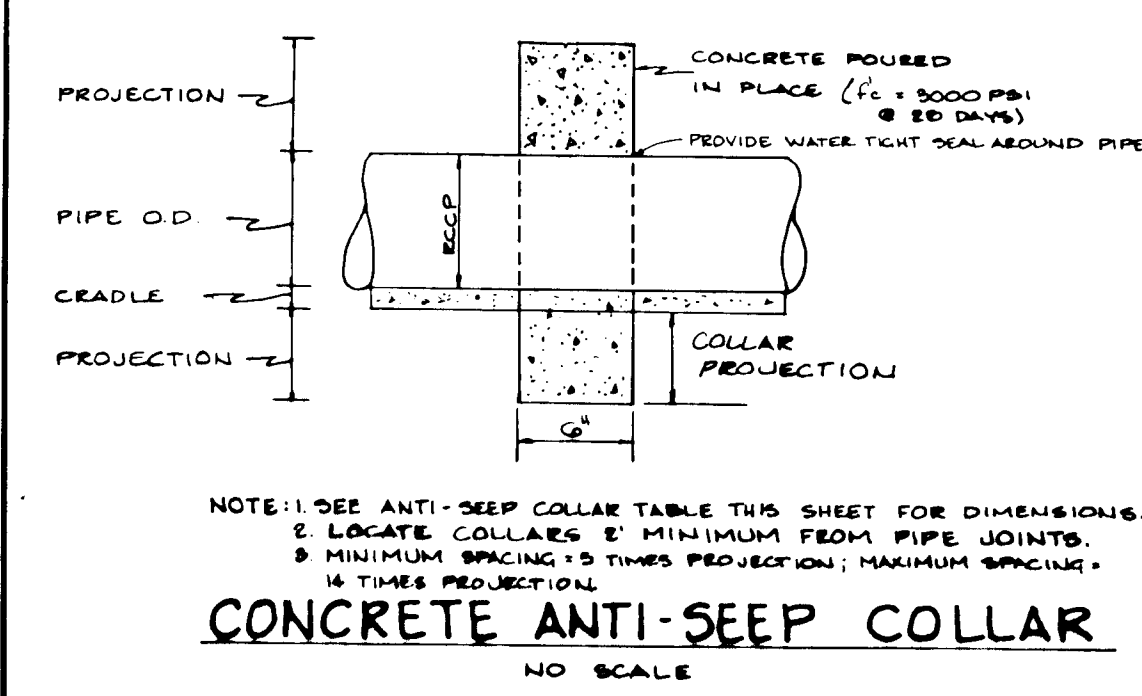
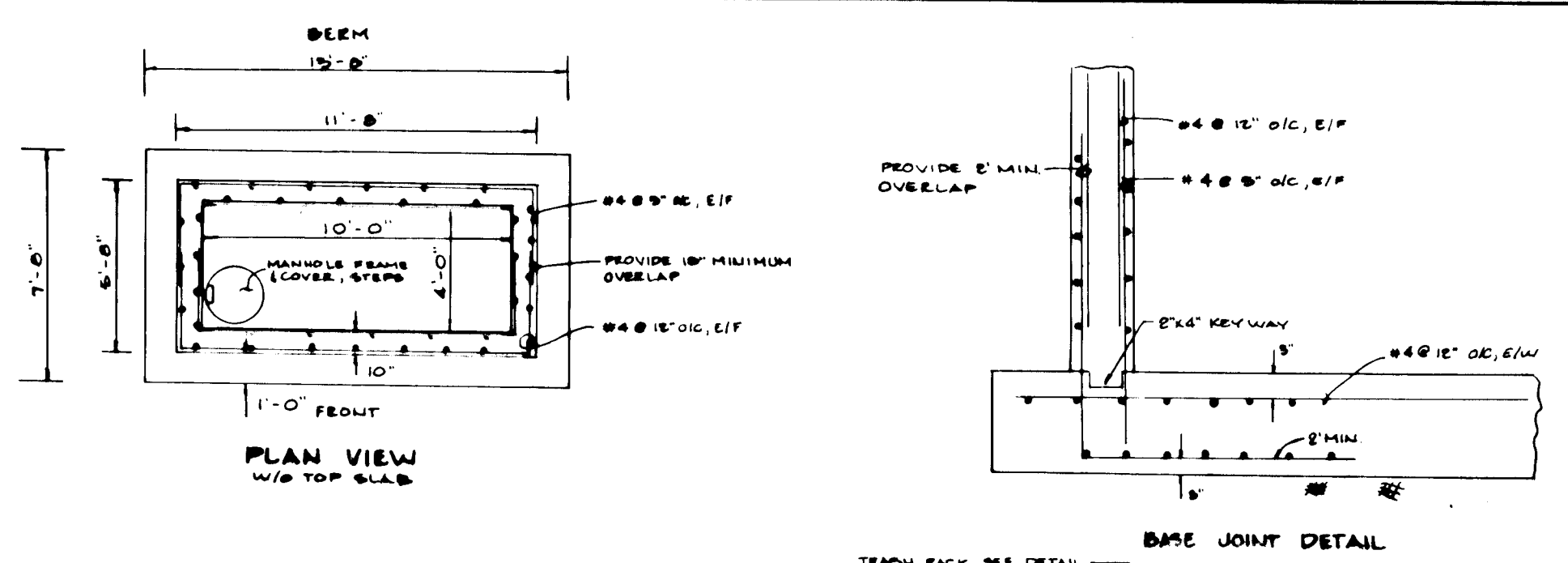
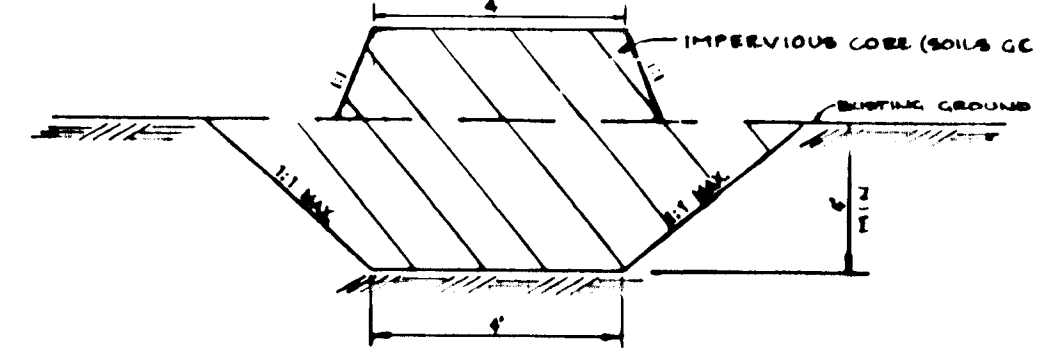


\* AT DESIGN POINT - WHERE CRICKETT CREEK INTERSECTS PROPOSED ROUTE 32.

1739

### ANTI-SEEP COLLAR TABLE

SWMF FACILITY	NO. OF COLLARS	PROJECTION	COLLAR DIMENSION
SWMF #1	1	2'-7 1/2"	HORIZ. 14" TYP. VERT. 8" D
SWMF #2	2	2'-0"	10" x 8" x 10"



BY THE DEVELOPER:  
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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND 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.

*Mukul Singh* 7/20/95  
DEVELOPER  
PRINT NAME BELOW SIGNATURE DATE

BY THE ENGINEER:  
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/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*J. Farrell* 7-14-95  
ENGINEER  
PRINT NAME BELOW SIGNATURE 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.

*Patricia Englynn* 7/27/95  
US NATURE RESOURCES SERVICE  
HOWARD SOIL CONSERVATION DISTRICT DATE

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

*Robert W. Zahm* 7/27/95  
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Richard Blood* 8/1/95  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*John D. ...* 8/4/95  
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. ...* 8-1-95  
CHIEF, BUREAU OF HIGHWAYS DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
WILBEN LIMITED PARTNERSHIP  
210 ANDREW L. BRACSON  
5450 WHITELEY PARK  
TERRACE # 410  
BETHESDA, MD 20814  
301-530-1125

PROJECT  
**CLARKS GLEN SECTION I, AREA I**

AREA  
TAX MAP 35 PARCEL 205  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
**STORMWATER MANAGEMENT NOTES AND PROFILES**

RIEMER MUEGGE & ASSOCIATES, INC.  
Planners Engineers Surveyors  
8718 Centre Park Drive, Suite 200 • Columbia, Maryland 21045  
410-907-8700 FAX: 410-907-8702

7-14-95 DATE  
F-95-83  
DESIGNED BY: JTD/AAP  
DRAWN BY: BBD  
PROJECT NO.: 03211  
DATE: JULY 14, 1995  
SCALE: AS SHOWN  
DRAWING NO. 4 OF 0

*J. Farrell*  
JAYKANT D. PAREKH # 19148

1731

**STORMWATER MANAGEMENT POND SPECIFICATIONS**

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

**SITE PREPARATION**  
Area 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 steep banks shall be sloped to no steeper than 1:1.

Area to be covered by the reservoir will be cleared of trees, brush, logs, fence, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 30 foot radius around the structure shall be cleared.

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

**EARTH FILL**  
Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 8" frozen or other objectionable material. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification SC, SH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

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

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

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted or necessary to obtain the required density to be certified by the Engineer at the time of construction. All compaction is to be determined by ASTM D-1557, T-99.

**Cutoff Trench** - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or steeper.

The back fill shall be compacted with construction equipment, rollers, or hand tampers to ensure maximum density and minimum permeability.

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

**PIPE CONDUITS**  
All pipes shall be circular in cross section.

**Reinforced Concrete Pipe** - All of the following criteria shall apply for reinforced concrete pipe:  
1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA Specification C-300.

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 side of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.

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

**Polyvinyl Chloride (PVC) Pipe** - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:  
1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.

2. Joints and connections to anti-seep collars shall be completely watertight.  
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such materials shall be removed and replaced with suitable earth compacted to provide adequate support.

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

**CONCRETE**  
Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 606, Mix No. 3.

**ROCK RIPRAP**  
All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be placed and surrounded in shape. The least dimension of an individual rock fragment shall be not less than one-third the greatest dimension of the fragment.

The rock shall have the following properties:  
1. Bulk specific gravity (saturated surface-dry basis) not less than 2.5.  
2. Absorption not more than three percent.  
3. Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 86.

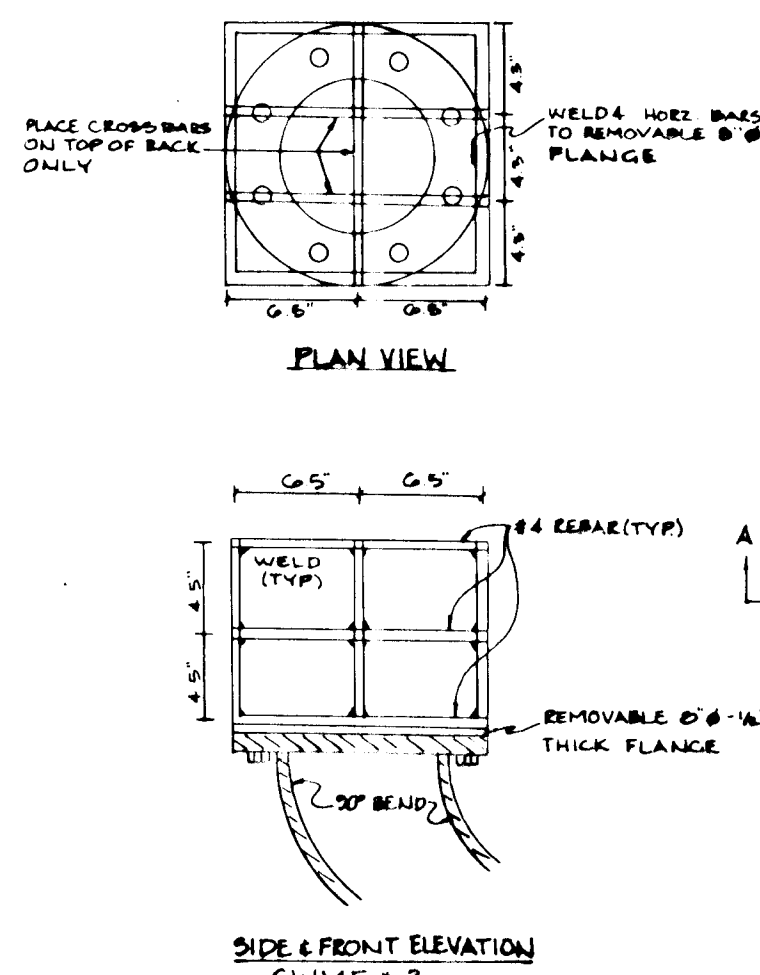
**RIPRAP**  
The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will leave the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller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

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

**STABILIZATION**  
All borrow areas shall be graded to provide proper drainage and left in a stable condition. All exposed surfaces of the embankment, roadway, and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Stormwater Conservation Service Standards and Specifications for Critical Area Planting (MS-347) or as shown on the accompanying drawings.

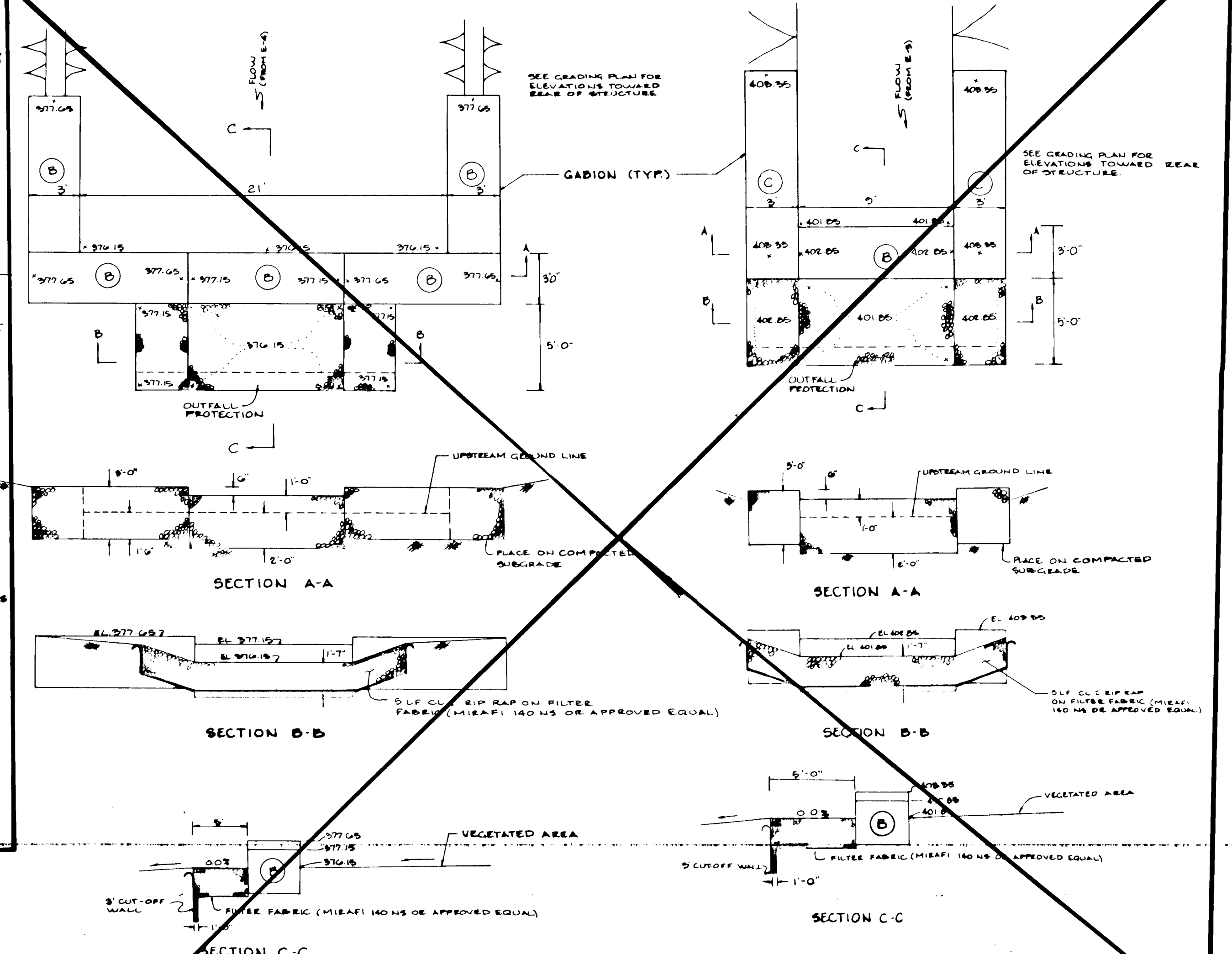
**EROSION AND SEDIMENT CONTROL**  
Construction operations shall be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall show erosion and sediment control measures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

CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT PREPARED BY GEO-TECHNOLOGY ASSOCIATES, INC. FOR FURTHER CONSTRUCTION REQUIREMENTS.

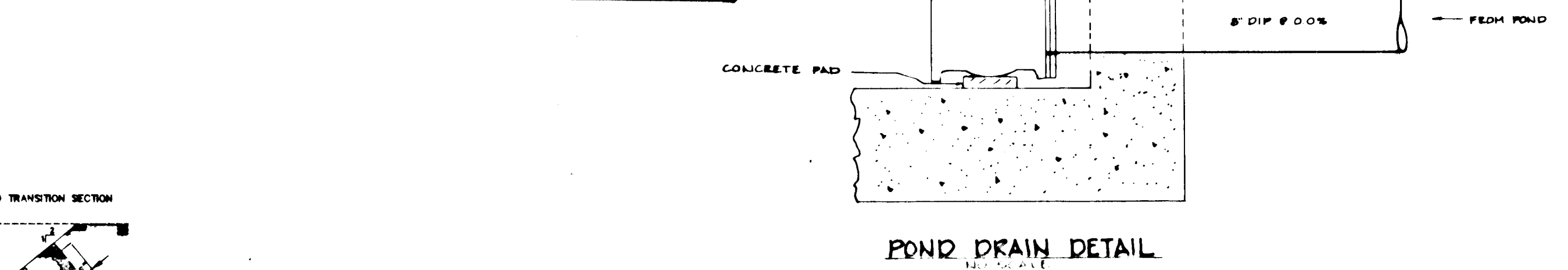
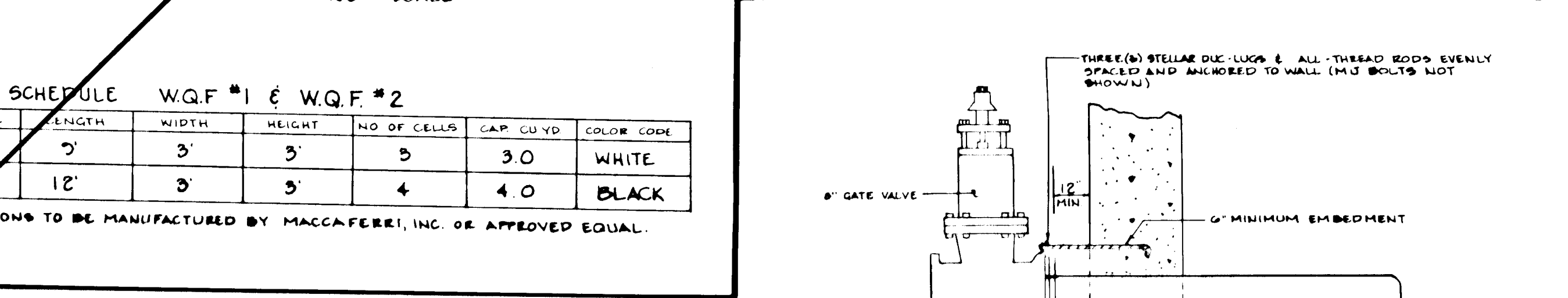


**POND DRAIN TRASH RACK DETAIL**  
SWMF # 2  
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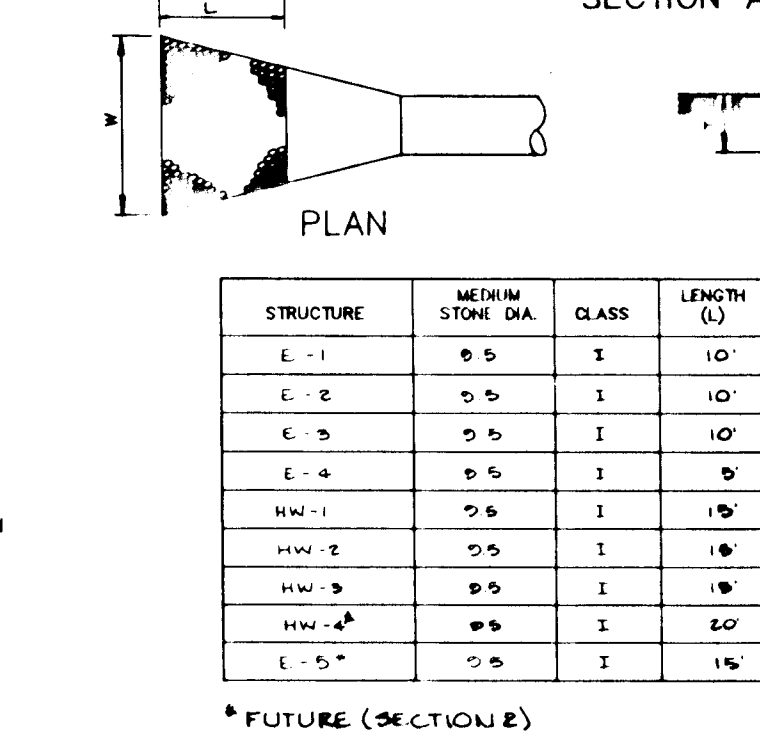
- NOTES**
1. ALL REBAR TO BE #4
  2. FABRICATOR SHALL VERIFY 8" x 20" BEND FLANGE DIMENSIONS.
  3. AFTER FABRICATION, TRASH RACK TO BE HOT-DIPPED GALVANIZED.
  4. TRASH RACK TO BE INSTALLED WITH 4 BOLTS
  5. WELD AT SUFFICIENT NUMBER OF CORNERS TO PROVIDE STURDY STRUCTURE.
  6. FLANGE HOLES ARE 7/8" Ø



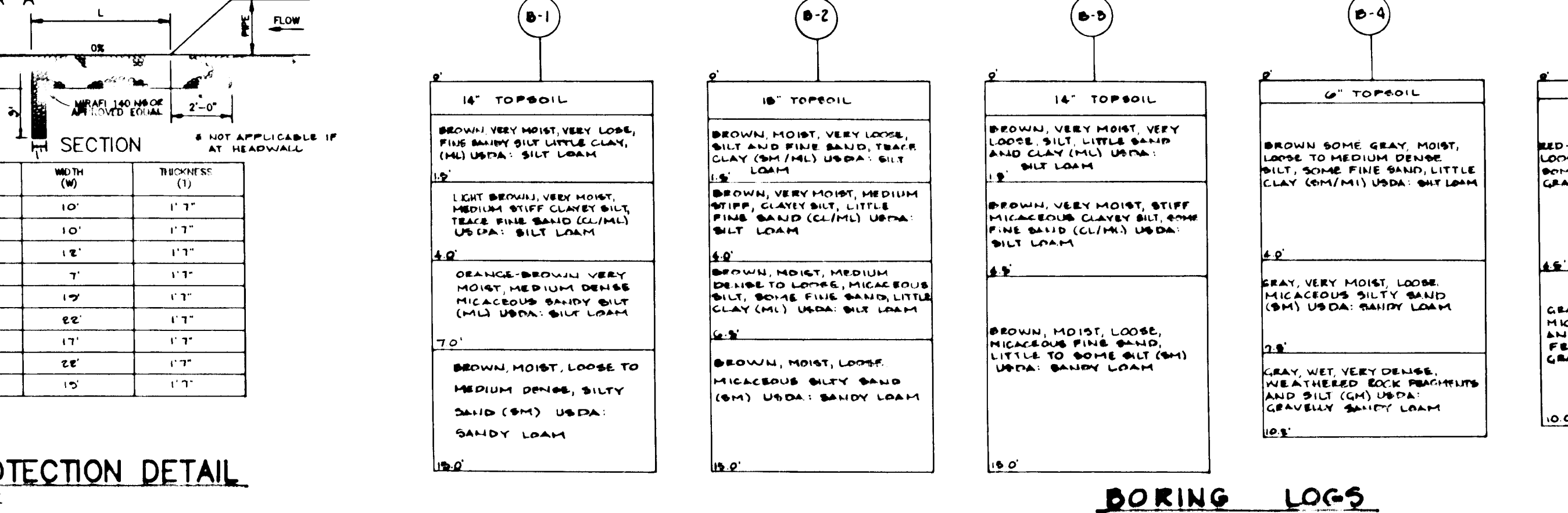
**WATER QUALITY FACILITY # 2**  
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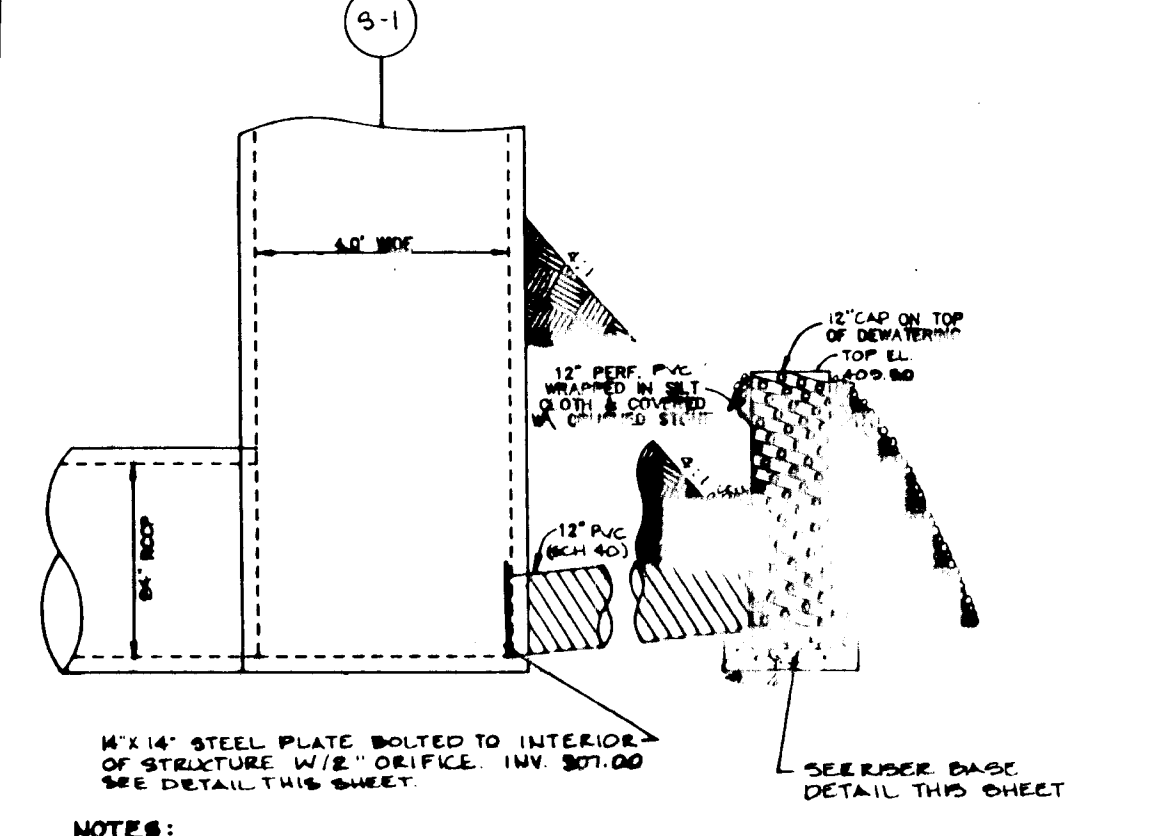
**POND DRAIN DETAIL**  
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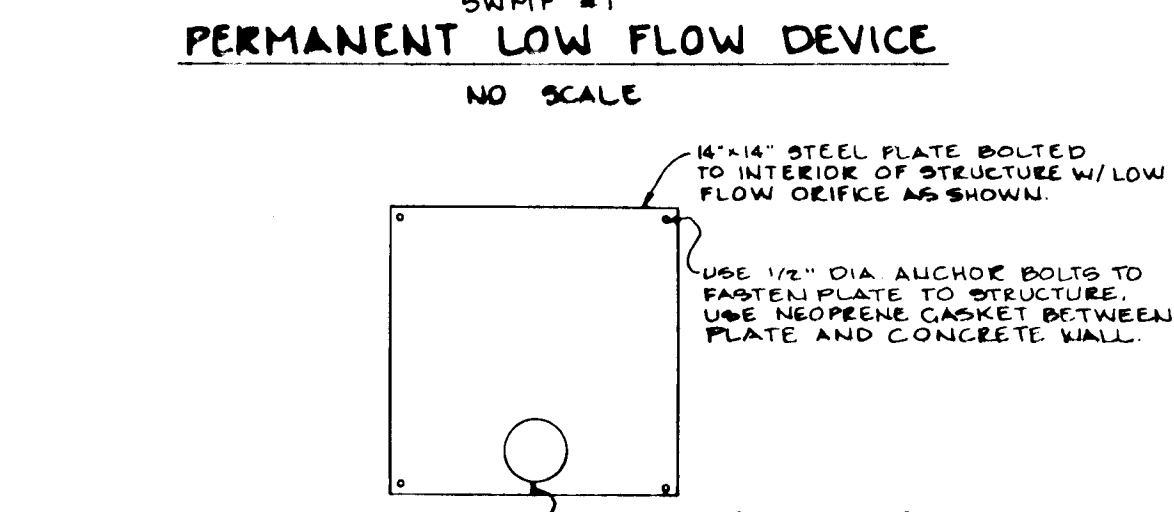
**RIPRAP OUTLET PROTECTION DETAIL**  
NO SCALE



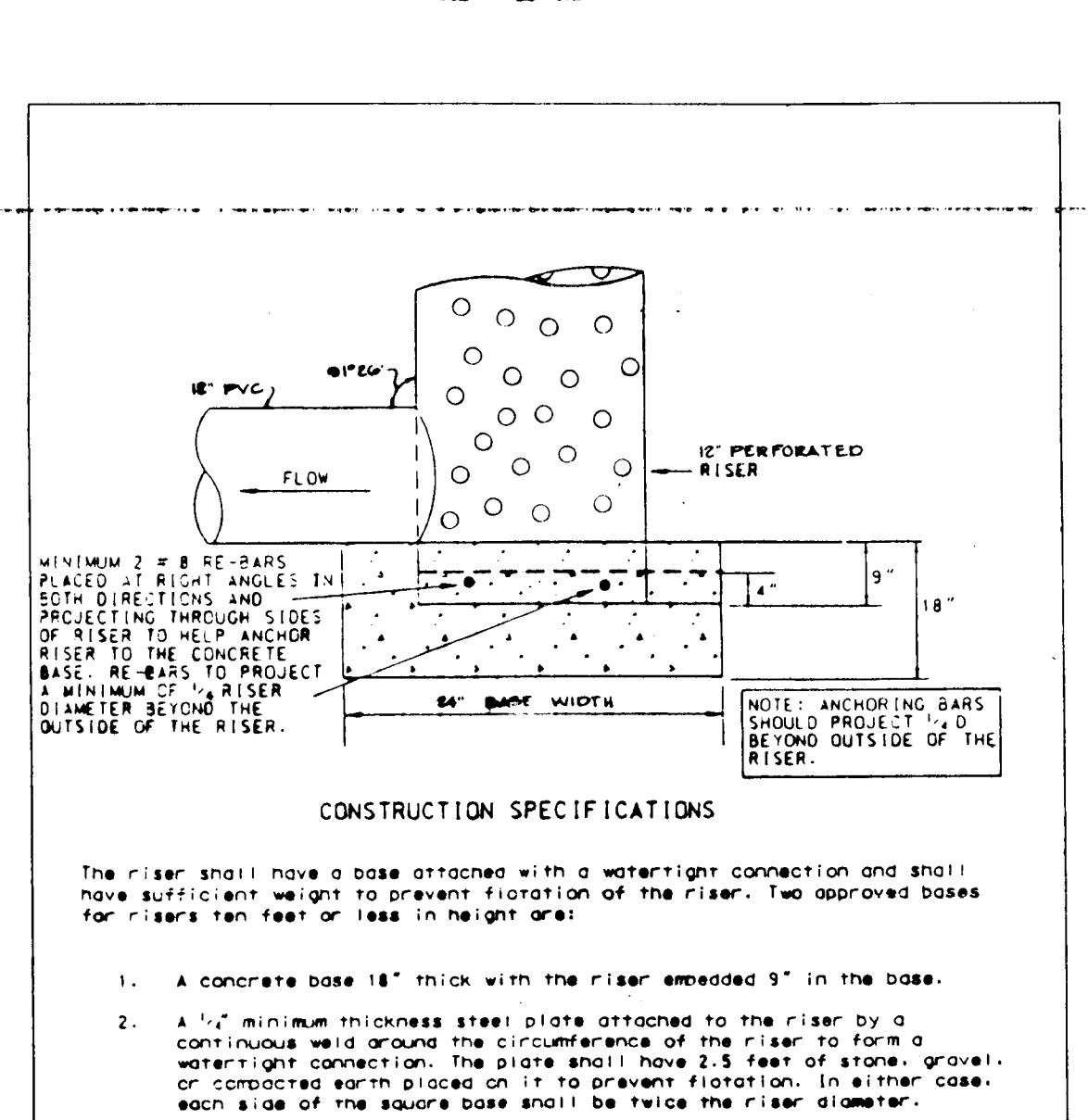
**BORING LOGS**  
NO SCALE



**PERMANENT LOW FLOW DEVICE**  
NO SCALE



**ORIFICE PLATE DETAIL**  
NO SCALE



**RISER BASE DETAIL**  
NO SCALE

THIS PLAN IS FOR STORMWATER MANAGEMENT AND TEMPORARY STORMWATER MANAGEMENT ONLY. ALL OTHER INFORMATION IS PER F-05-83.

BY THE DEVELOPER:  
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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND 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.  
*Michael J. Ziegler* 7/20/95  
DEVELOPER DATE  
PRINT NAME BELOW SIGNATURE

BY THE ENGINEER:  
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/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
*J. Farrell* 7.14.95  
ENGINEER DATE  
PRINT NAME BELOW SIGNATURE

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.  
*Patricia Engle JPM* 7/27/95  
US NATURAL RESOURCES CONSERVATION DISTRICT DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
*Robert W. Ziegler JPM* 7/27/95  
HOWARD SOIL CONSERVATION DISTRICT DATE  
AS BUILT CERTIFICATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*Richard Blood* 8/1/95  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Andrew M. Lavelle* 8-1-95  
CHIEF, BUREAU OF HIGHWAYS DATE

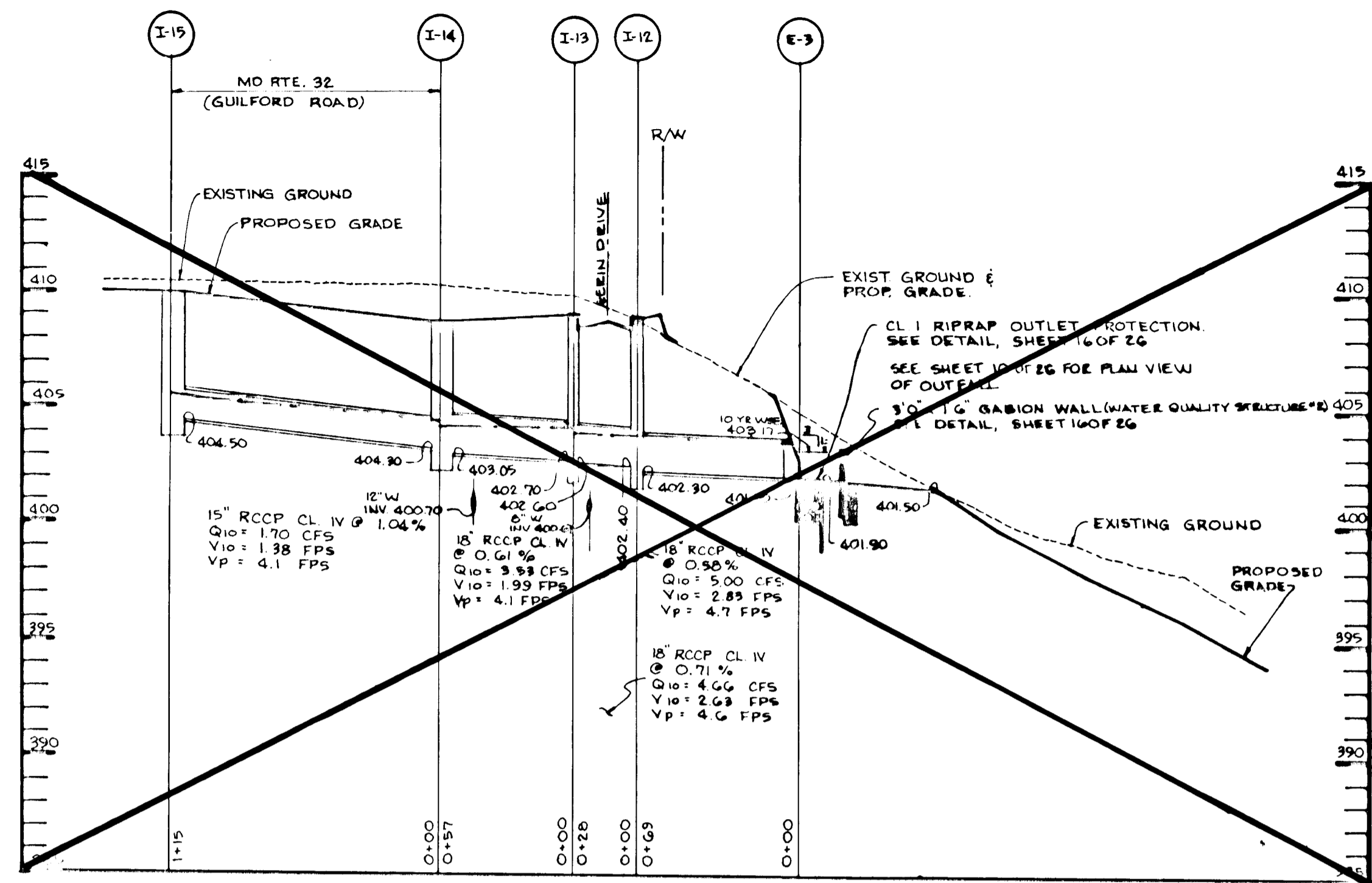
DATE	NO.	REVISION

OWNER / DEVELOPER  
WILBEN LIMITED PARTNERSHIP  
C/O ANDREW L. ISAACSON  
5450 WHITELY PARK  
TERRACE # 410  
BETHESDA, MD 20814  
301-530-1129

PROJECT: CLARKS GLEN SECTION 1, AREA 1  
AREA: TAX MAP 35 PARCEL 205 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
TITLE: STORMWATER MANAGEMENT NOTES AND DETAILS

RIEMER MUEGGE & ASSOCIATES, INC.  
Planners • Engineers • Surveyors  
8818 Centre Park Drive • Suite 200 • Columbia, Maryland 21045  
410-997-8800 FAX: 410-997-9282  
7.14.95  
DESIGNED BY: AAP  
DRAWN BY: BRD  
PROJECT NO.: 03211  
DATE: JULY 14, 1995  
SCALE: AS SHOWN  
DRAWING NO.: 5 OF 8  
*J. Farrell*  
JAYKANT D. PAREKH # 19148

1731



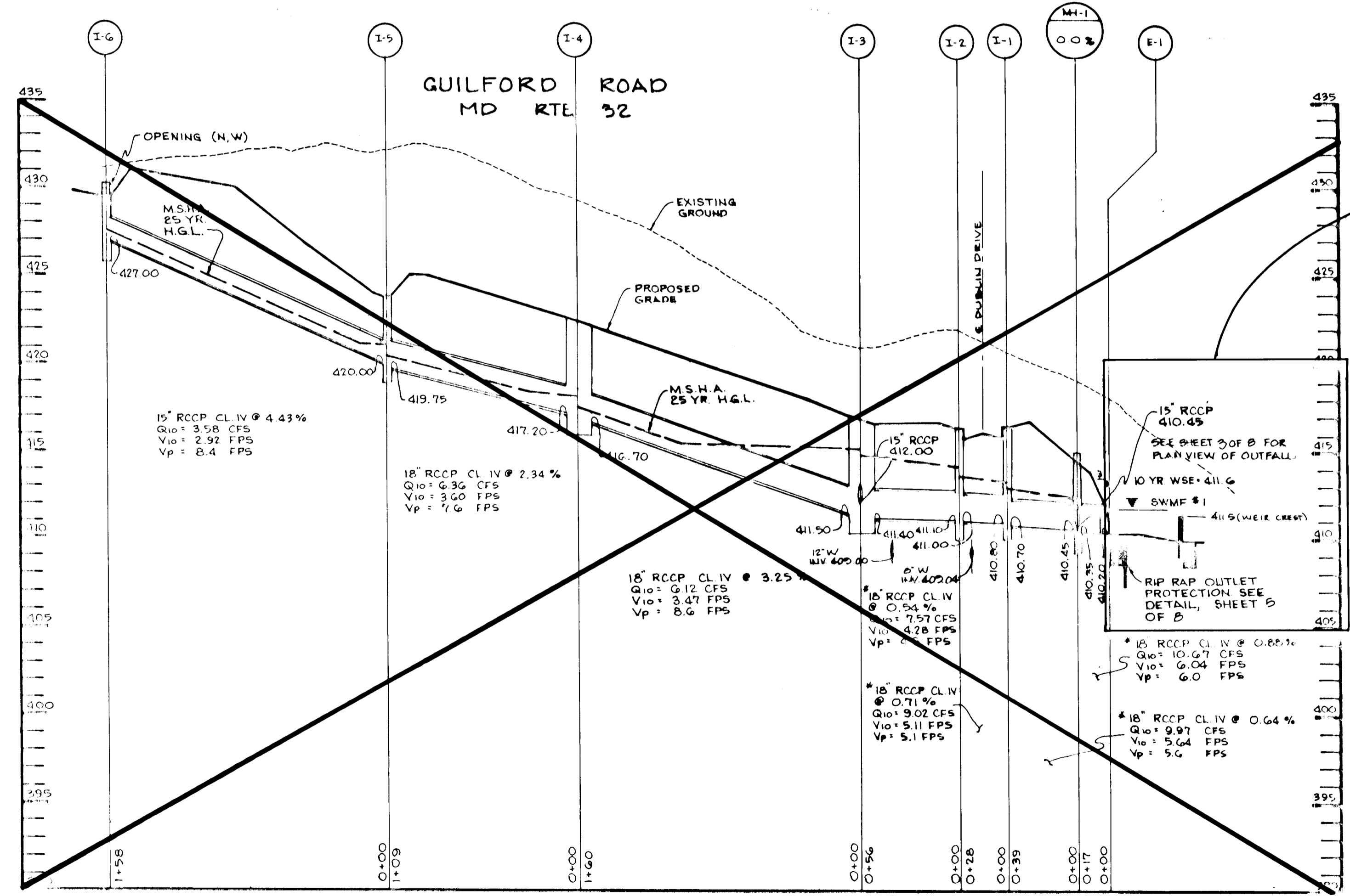
STORM DRAIN PROFILE

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

INLET	TYPE	LOCATION	INV. IN	INV. OUT	TOP OF CURB / INV. ELEV.	REMARKS
I-1	A-10	DIREX DRIVE STA. 0+80	410.80	410.70	416.45	HO. CO. STD. DTL. SD 4.02
I-2	A-10	DIREX DRIVE STA. 0+80	411.10	411.0	416.45	HO. CO. STD. DTL. SD 4.02
I-3	COG 15	MARYLAND ROUTE STA. 18+30	412.00	411.40	416.82	MSHA STD. DTL. MD 374.31
I-4	COG 15	MARYLAND ROUTE STA. 18+30	412.00	411.70	422.46	MSHA STD. DTL. MD 374.31
I-5	INLET	MARYLAND ROUTE STA. 20+80	420.00	418.75	423.78	MSHA STD. DTL. MD 378.05
I-6	D-INLET	MARYLAND ROUTE STA. 22+44	-	-	427.00	THREAT ELEV = 429.50
I-7	COG 20	MARYLAND ROUTE STA. 17+16	-	-	410.87	MSHA STD. DTL. MD 374.31
I-8	D-INLET	MARYLAND ROUTE STA. 18+50	-	-	413.47	THREAT ELEV = 419.50
I-9	A-10	REXINGTON STA. 14+18	-	-	425.80	HO. CO. STD. DTL. SD 4.02
I-10	A-10	REXINGTON STA. 14+18	410.15	410.70	427.70	HO. CO. STD. DTL. SD 4.02
I-11	A-10	REXINGTON STA. 14+18	412.20	410.28	417.70	HO. CO. STD. DTL. SD 4.02
I-12	A-5	REXINGTON STA. 14+18	402.40	402.30	408.86	HO. CO. STD. DTL. SD 4.01
I-13	A-10	REXINGTON STA. 14+18	402.70	402.80	408.86	HO. CO. STD. DTL. SD 4.02
I-14	COG 15	MARYLAND ROUTE STA. 13+50	403.30	403.70	408.77	MSHA STD. DTL. MD 374.31
I-15	COG 15	MARYLAND ROUTE STA. 14+85	-	-	408.81	MSHA STD. DTL. MD 374.31
I-16	A-5	CASSETT DRIVE STA. 4+00	389.50	389.58	389.58	HO. CO. STD. DTL. SD 4.01
I-17	A-5	CASSETT DRIVE STA. 4+00	382.85	382.80	387.43	HO. CO. STD. DTL. SD 4.01
I-18	A-5	CASSETT DRIVE STA. 2+43	395.34	384.20	400.89	HO. CO. STD. DTL. SD 4.01
I-19	A-5	CASSETT DRIVE STA. 1+18	395.34	384.70	403.19	HO. CO. STD. DTL. SD 4.01
I-20	A-5	CASSETT DRIVE STA. 1+18	395.34	384.70	403.19	HO. CO. STD. DTL. SD 4.01
I-21	A-5	CASSETT DRIVE STA. 4+06	383.40	383.40	387.43	HO. CO. STD. DTL. SD 4.01
I-22	A-10	TARA PLACE STA. 14+02	423.00	422.50	428.03	HO. CO. STD. DTL. SD 4.02
I-23	A-5	TARA PLACE STA. 14+02	431.00	430.80	436.83	HO. CO. STD. DTL. SD 4.01
I-24	A-5	BATTERY LANE STA. 4+00	433.80	433.80	438.33	HO. CO. STD. DTL. SD 4.01
I-25	A-5	BATTERY LANE STA. 4+00	433.84	433.84	438.33	HO. CO. STD. DTL. SD 4.01
I-26	A-5	BATTERY LANE STA. 5+46	438.30	438.30	442.81	HO. CO. STD. DTL. SD 4.01
I-27	A-10	BATTERY LANE STA. 5+46	438.25	438.45	442.81	HO. CO. STD. DTL. SD 4.02
I-28	A-10	BATTERY LANE STA. 5+46	438.25	438.45	442.81	HO. CO. STD. DTL. SD 4.02
I-29	A-10	BATTERY LANE STA. 5+46	438.25	438.45	442.81	HO. CO. STD. DTL. SD 4.02
I-30	A-10	BATTERY LANE STA. 5+46	438.25	438.45	442.81	HO. CO. STD. DTL. SD 4.02
I-31	A-10	BATTERY LANE STA. 10+80	400.80	400.80	405.17	HO. CO. STD. DTL. SD 4.02
I-32	A-10	BATTERY LANE STA. 10+80	400.80	400.80	405.17	HO. CO. STD. DTL. SD 4.02
I-33	A-5	BATTERY LANE STA. 8+88	403.20	403.20	407.88	HO. CO. STD. DTL. SD 4.01
I-34	A-5	BATTERY LANE STA. 7+76	403.20	403.20	407.88	HO. CO. STD. DTL. SD 4.01
I-35	A-10	BATTERY LANE STA. 5+84	407.80	407.85	412.40	HO. CO. STD. DTL. SD 4.02
I-36	A-5	BATTERY LANE STA. 5+84	416.70	416.45	420.86	HO. CO. STD. DTL. SD 4.01
I-37	A-5	BATTERY LANE STA. 5+84	416.70	416.45	420.86	HO. CO. STD. DTL. SD 4.01
I-38	A-5	BATTERY LANE STA. 10+85	401.00	401.00	406.24	HO. CO. STD. DTL. SD 4.01
I-39	A-5	BATTERY LANE STA. 9+82	401.40	401.40	406.86	HO. CO. STD. DTL. SD 4.01
I-40	A-10	BATTERY LANE STA. 7+76	408.10	412.40	412.40	HO. CO. STD. DTL. SD 4.01
I-41	A-10	BATTERY LANE STA. 0+43	416.10	416.00	420.80	HO. CO. STD. DTL. SD 4.02
I-42	A-10	BATTERY LANE STA. 0+43	416.40	416.30	420.80	HO. CO. STD. DTL. SD 4.02
I-43	A-10	BATTERY LANE STA. 1+86	424.85	424.30	428.17	HO. CO. STD. DTL. SD 4.02
I-44	A-10	BATTERY LANE STA. 1+86	424.85	424.75	428.17	HO. CO. STD. DTL. SD 4.02

NOTE: ALL INLET TOP BLANS SHALL BE SET @ ROAD GRADE GIVEN ELEVATION IS AT @ OF INLET.

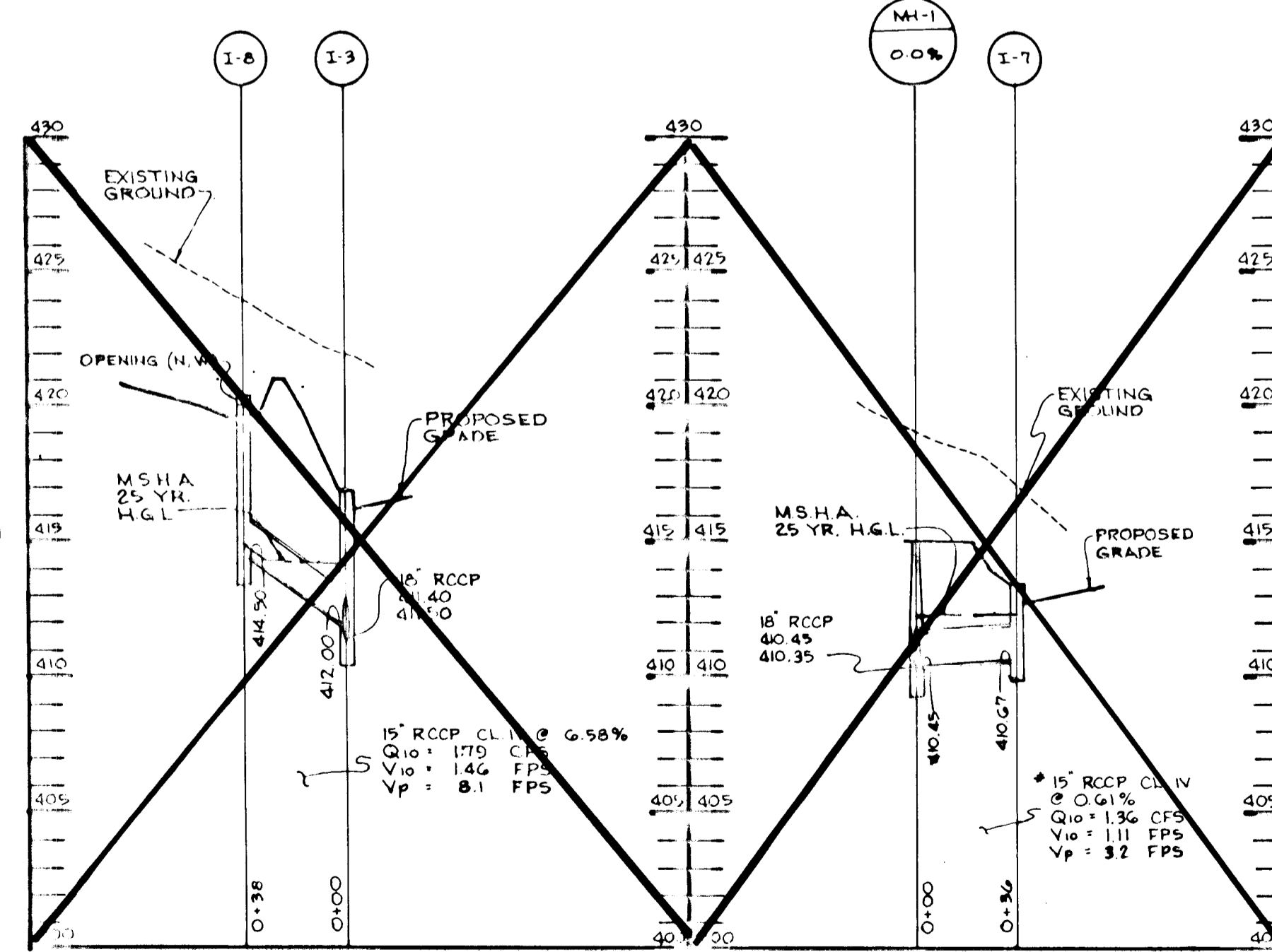
INLET	TYPE	LOCATION	INV. IN	INV. OUT	TOP OF CURB / INV. ELEV.	REMARKS
M-1	SHALLOW MANHOLE	N 50° 30' E 130.00	410.45	410.35	415.00	HO. CO. STD. DTL. SD 5.12
M-2	SHALLOW MANHOLE	N 50° 30' E 130.00	408.34	408.24	415.00	HO. CO. STD. DTL. SD 5.12
M-3	SHALLOW MANHOLE	N 50° 30' E 130.00	408.00	408.00	415.30	HO. CO. STD. DTL. SD 5.12
M-4	SHALLOW MANHOLE	N 50° 30' E 130.00	409.00	411.00	417.00	HO. CO. STD. DTL. SD 5.12
M-5	SHALLOW MANHOLE	N 50° 30' E 130.00	377.00	376.50	411.60	HO. CO. STD. DTL. SD 5.12
M-6	STANDARD MANHOLE	N 50° 30' E 130.00	388.10	386.50	397.00	HO. CO. STD. DTL. SD 5.12
M-7	SHALLOW MANHOLE	CASSETT DRIVE STA. 1+91	382.50	381.00	384.85	HO. CO. STD. DTL. SD 5.12
M-8	STANDARD MANHOLE	CASSETT DRIVE STA. 1+91	387.10	387.10	387.00	HO. CO. STD. DTL. SD 5.12
M-9	STANDARD MANHOLE	CASSETT DRIVE STA. 1+91	387.10	387.10	387.00	HO. CO. STD. DTL. SD 5.12
M-10	STANDARD MANHOLE	CASSETT DRIVE STA. 1+91	387.10	387.10	387.00	HO. CO. STD. DTL. SD 5.12
M-11	SHALLOW MANHOLE	CASSETT DRIVE STA. 1+91	414.41	413.90	418.66	HO. CO. STD. DTL. SD 5.12
M-12	SHALLOW MANHOLE	CASSETT DRIVE STA. 1+91	414.41	413.90	418.66	HO. CO. STD. DTL. SD 5.12
M-13	SHALLOW MANHOLE	CASSETT DRIVE STA. 1+91	414.41	413.90	418.66	HO. CO. STD. DTL. SD 5.12
M-14	SHALLOW MANHOLE	CASSETT DRIVE STA. 1+91	414.41	413.90	418.66	HO. CO. STD. DTL. SD 5.12
E-1	END SECTION	N 50° 30' E 130.00	-	410.20	-	HO. CO. STD. DTL. SD 5.12
E-2	END SECTION	N 50° 30' E 130.00	-	408.14	-	HO. CO. STD. DTL. SD 5.12
E-3	END SECTION	N 50° 30' E 130.00	-	401.80	-	HO. CO. STD. DTL. SD 5.12
E-4	END SECTION	N 50° 30' E 130.00	-	376.40	-	HO. CO. STD. DTL. SD 5.12
E-5	END SECTION	N 50° 30' E 130.00	-	386.50	-	HO. CO. STD. DTL. SD 5.12



STORM DRAIN PROFILE

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

THIS PLAN IS FOR STORMWATER MANAGEMENT AND TEMPORARY STORMWATER MANAGEMENT ONLY. ALL OTHER INFORMATION IS PER F-05-B3.



STORM DRAIN PROFILE

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

AS BUILT CERTIFICATE

DATE: \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Richard Blood* 8/1/55  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

*Richard Blood* 8/1/55  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*Richard M. Daniels* 8-1-05  
CHIEF, BUREAU OF HIGHWAYS

DATE: \_\_\_\_\_

DATE: NO. \_\_\_\_\_ REVISION \_\_\_\_\_

OWNER / DEVELOPER: WILBEN LIMITED PARTNERSHIP  
c/o ANDREW L. WILBEN  
5450 VILLAGE TRAIL  
BETHESDA, MD 20814  
301-430-1123

PROJECT: CLARKS GLEN SECTION 1, AREA 1

AREA: TAX MAP N. 35 PARCEL 250  
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: STORMDRAIN PROFILES

RIEMER MUEGGE & ASSOCIATES, INC.  
Planners • Engineers • Surveyors  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-6900 FAX: 410-997-0282

7-14-95 DATE

DESIGNED BY: A.A.P.

DRAWN BY: R.J.C.

PROJECT NO.: 93211

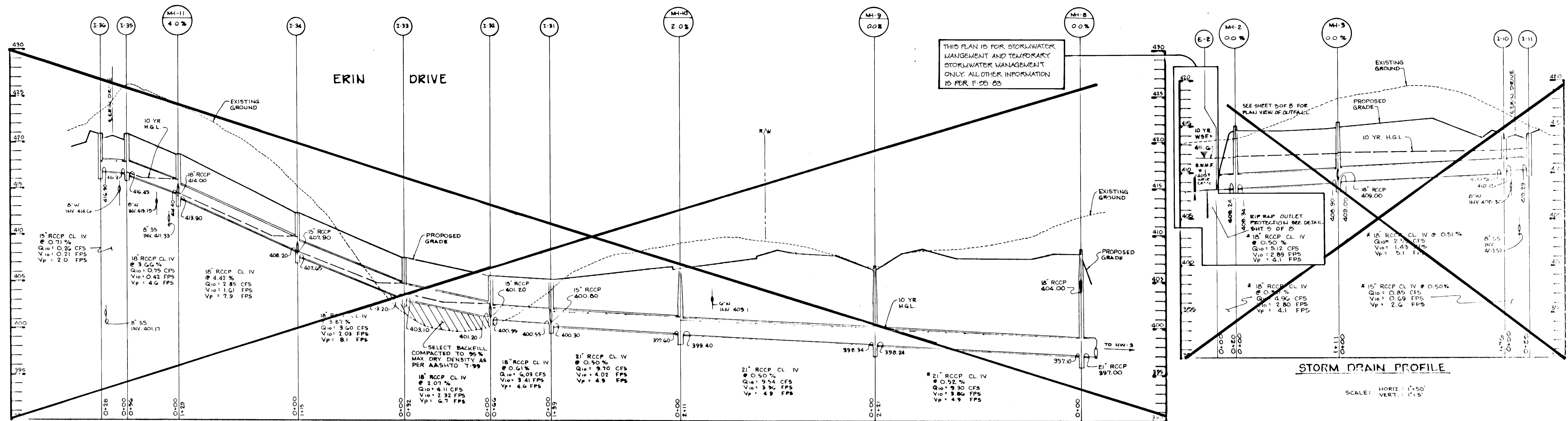
DATE: JULY 14, 1995

SCALE: AS SHOWN

DRAWING NO.: 6 OF 6

J. Farrell  
JAYKANT D. PAREKH # 19148

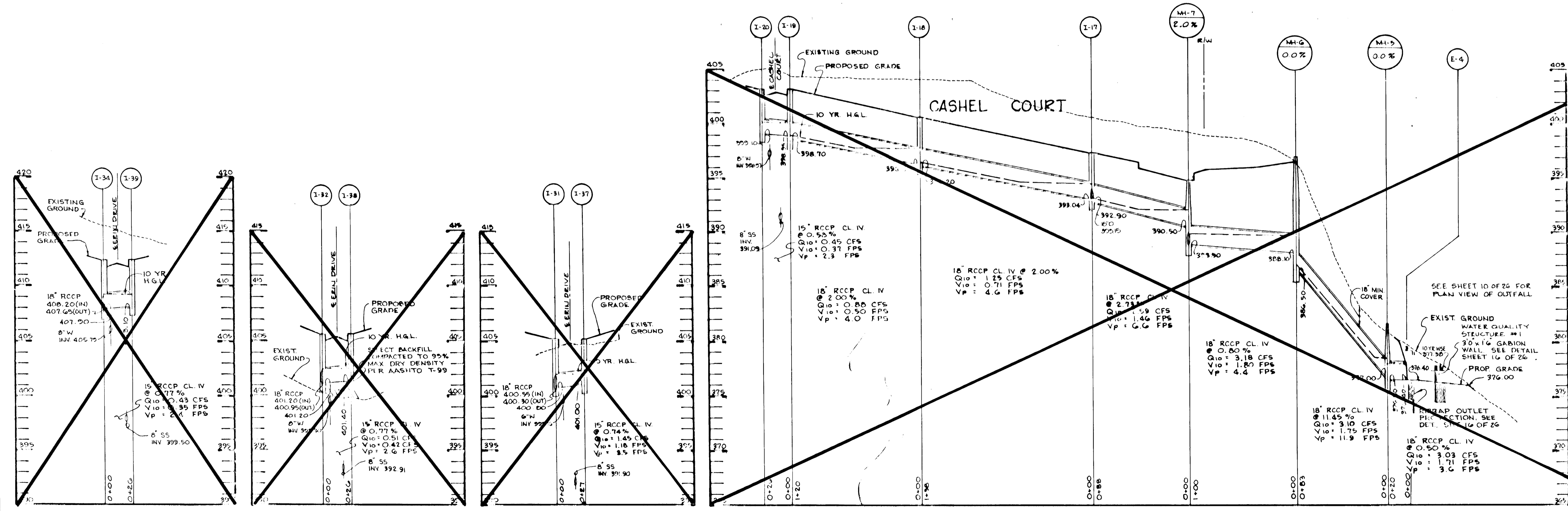
1739



STORM DRAIN PROFILE

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

\* PIPE TO HAVE ASTM C433 O-RING GASKET JOINTS \*



STORM DRAIN PROFILES

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

STORM DRAIN PROFILE

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

AS BUILT CERTIFICATE

DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Richard Blood* 8/4/95  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*William D. ...* 8/4/95  
CHIEF DEVELOPMENT ENGINEER DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*Andrew M. ...* 8-1-95  
CHIEF, BUREAU OF HIGHWAYS DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
WILBEN LIMITED PARTNERSHIP  
C/O ANDREW L. ISAACSON  
5450 WHITELEY PARK  
TERACE # 410  
BETHESDA, MD 20814  
301-550-1123

PROJECT CLARKS GLEN SECTION I, AREA I

AREA TAX MAP NO. 35 PARCEL 250 ZONED R-12  
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE STORMDRAIN PROFILES

RIEMER MUEGGE & ASSOCIATES, INC.  
Planners • Engineers • Surveyors  
818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-807-8990 FAX: 410-807-8989

7-14-95 DATE

DESIGNED BY: A.A.P.

DRAWN BY: R.J.C.

PROJECT NO: 93211

DATE: JULY 14, 1995

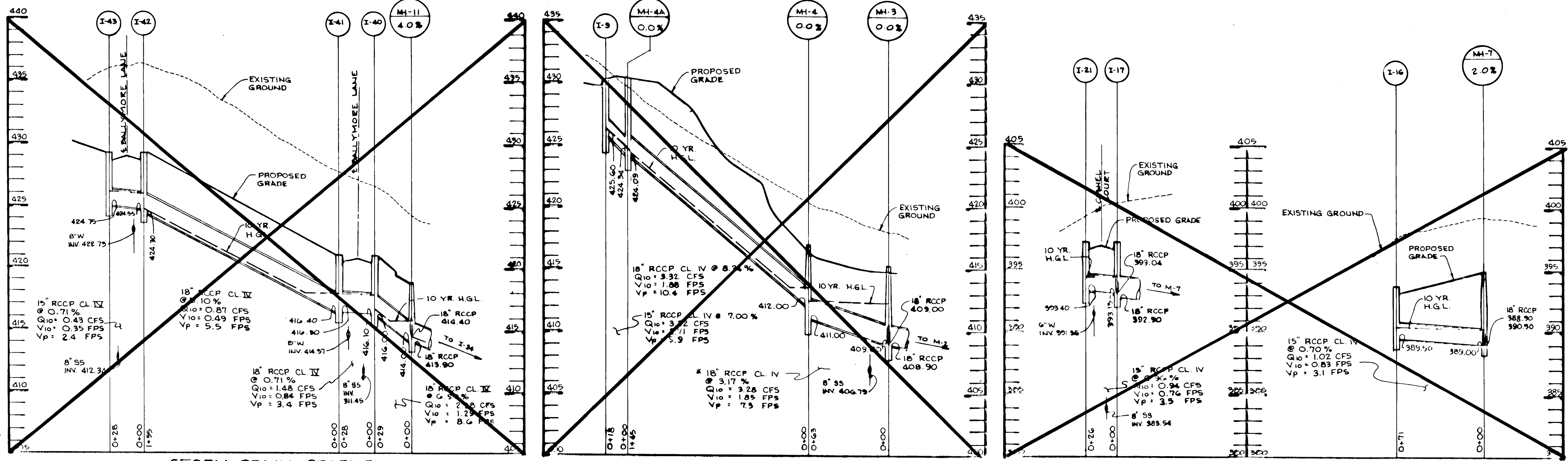
SCALE: AS SHOWN

DRAWING NO. 7 OF 8

JAYKANT D. PAREKH 19148

1739

1739



STORM DRAIN PROFILE

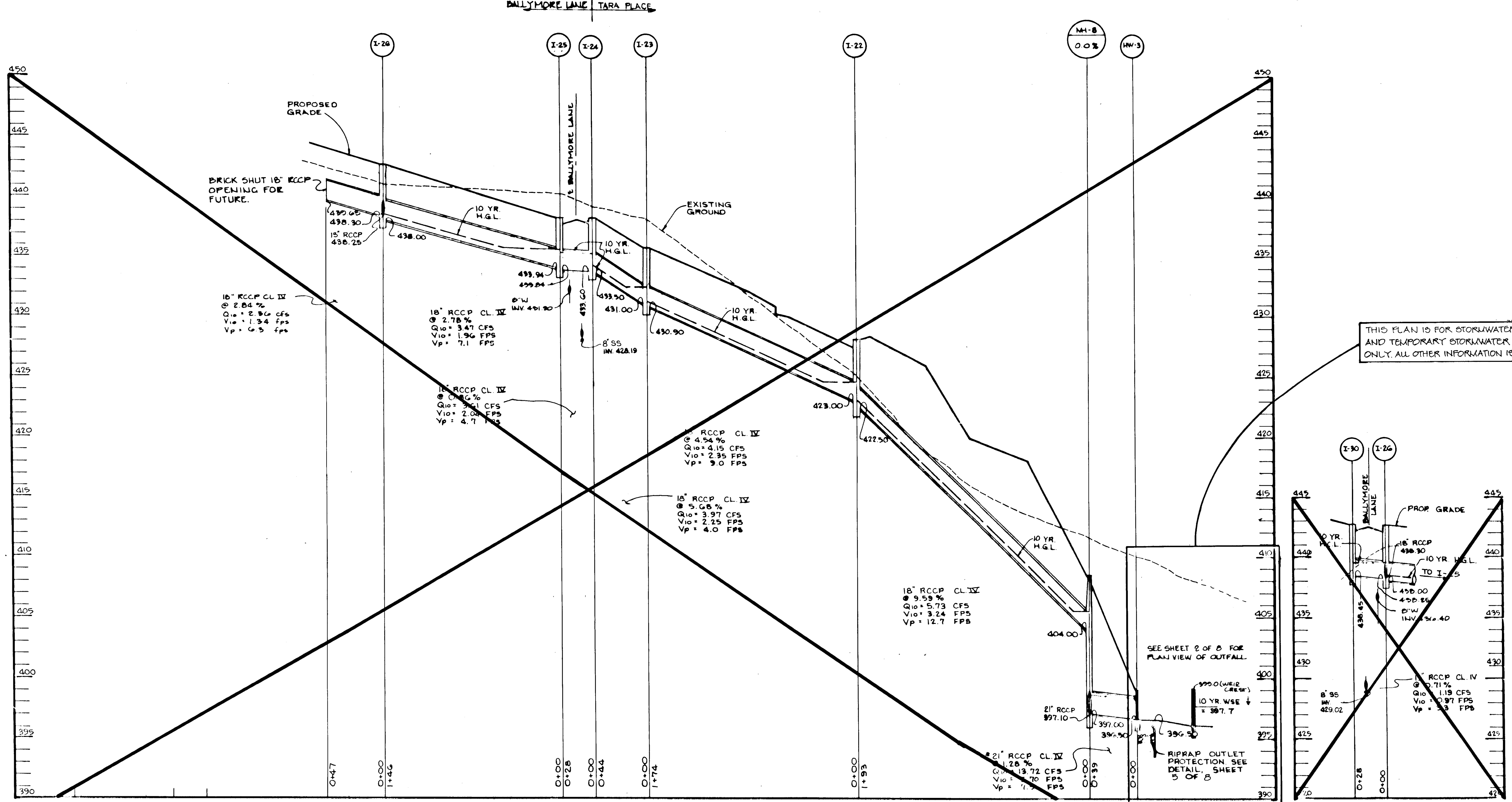
STORM DRAIN PROFILE

STORM DRAIN PROFILES

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

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

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



STORM DRAIN PROFILE

STORM DRAIN PROFILE

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

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

THIS PLAN IS FOR STORMWATER MANAGEMENT AND TEMPORARY STORMWATER MANAGEMENT ONLY. ALL OTHER INFORMATION IS PER F.O.D. 83.

AS BUILT CERTIFICATE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Richard Blood</i>	8/1/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	
<i>John Damm</i>	8/1/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.	
<i>Andrew M. Daniels</i>	8-1-95
CHIEF, BUREAU OF HIGHWAYS	
DATE NO.	REVISION
OWNERS / DEVELOPER	WILBEN LIMITED PARTNERSHIP C/O ANDREW L. ISAACSON 9450 WHITELY PARK TERRACE # 410 BETHESDA, MD 20814 301-530-1129
PROJECT	CLARKS GLEN SECTION I, AREA I
AREA	TAX MAP NO. 35 ZONED R-12 PARCEL 205 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	STORM DRAIN PROFILES
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX: 410-997-8282	
7-14-95 DATE	F-95-83 DATE
DESIGNED BY: A.A.R.	
DRAWN BY: R.J.C.	
PROJECT NO: 93211	
DATE: JULY 14, 1995	
SCALE: AS SHOWN	
DRAWING NO. 0 OF 0	
JAYKANT D. PAREKH #19148	