

These specifications are appropriate to ponds within the scope of the Standard Specifications for Construction, Article 378.

I. SITE PREPARATION

Areas under the borrow areas, embankment, and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas 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 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 areas or areas. It shall be free of roots, stumps, wood, rubbish, over-size stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides a satisfactory settlement to the design elevation. The fill height shall 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 4-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. To compact various 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 can be obtained with the equipment used.

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 governed by the equipment used for excavation, 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. The 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.

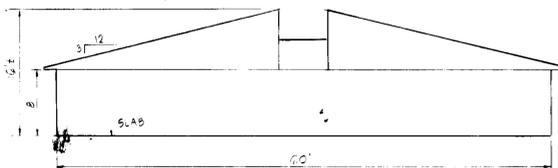
BATH HOUSE  
SEPTIC SYSTEM

- BATHHOUSE
- SLAB G17.0
- INV OUT G14.2
- SEPTIC TANK
- EX GR G19.0
- FIN GR G16.9
- INV IN G14.1
- INV OUT G13.8
- DISTRIBUTION BOX
- EX GR G16.0
- FIN GR G16.0
- INV IN G12.0
- WELL
- EX GR G81.0
- FIN GR G80.5

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 the contractor drive equipment 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.

(FOR PIPE CONDUITS - SEE SHEET 2 OF 3)



BUILDING ELEVATION  
NOT TO SCALE

JCO	ADDITION OF 30' X 36' ROOF OVER EX. CONC. SLAB ADJACENT TO EX. BATHHOUSE	4-11-89
BY	REVISION	DATE
APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT		
<i>James W. Bell</i>	COUNTY HEALTH OFFICER	4-15-83
APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING		
<i>William M. Hagan</i>	PLANNING DIRECTOR	4-15-83
<i>A. C. Lewis</i>	CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION	4-15-83
APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS		
<i>John W. Bell</i>	DIRECTOR	DATE
<i>John W. Bell</i>	CHIEF BUREAU OF ENGINEERING	4-15-83

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.

*J. Hal...* 15 APRIL 1983  
U.S. SOIL CONSERVATION SERVICE

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

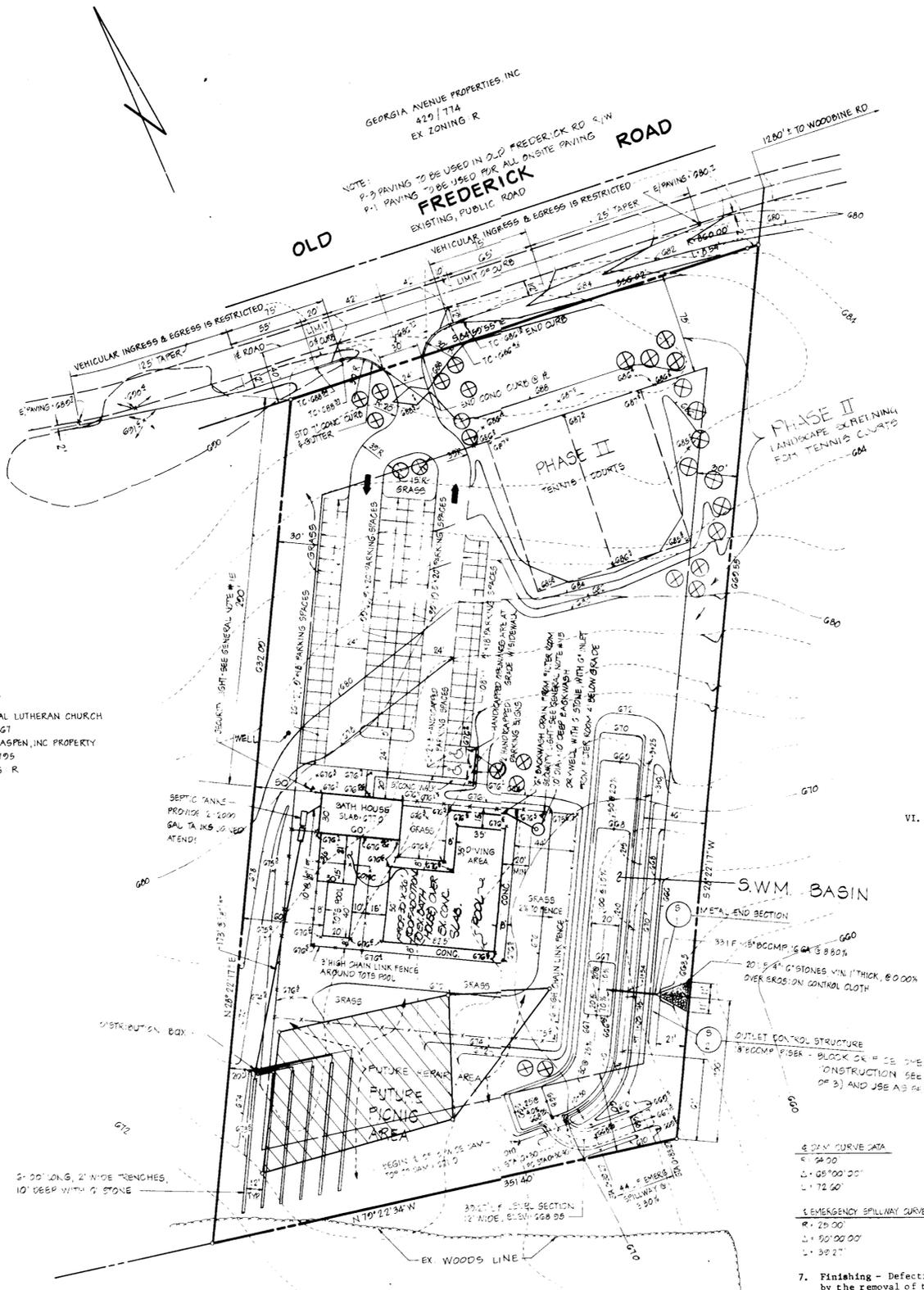
*Robert Zick...* 15 APRIL 1983  
HOWARD SOIL CONSERVATION DISTRICT

2" X 20" LONG, 2" WIDE TRENCHES,  
10' DEEP WITH 1/2" STONE

⊗ DENOTES PHASE 2 PARKING TO BE ADDED WHEN MEMBERSHIP EXCEEDS 200. NOTE: SWM BASIN IS 8' X 28' TO ACCOMMODATE PHASE 2 PARKING

⊗ DENOTES WHITE PINES MIN 2 1/2" CAL. 2" HIGH 34' PROVIDED

REV. 3-15-83. ADDED DETAIL AND DECAL LINES. SHOWN PHASE 2 PARKING - J.J.B.



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 may be adjusted to produce a plastic and workable mix that will not produce 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 supplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

(CONTINUED - SEE NOTES 7, 8 AND 9 BELOW)

VI. STABILIZATION

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

APPROVED  
DIVISION OF LAND...  
HOWARD COUNTY...  
3-4-83  
J.J.B.

I 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 THIRTY DAYS OF COMPLETION.

*Virginia Parrish* 3/14/83  
VIRGINIA PARRISH, SECRETARY, WEST HOWARD SWIM CLUB, INC.

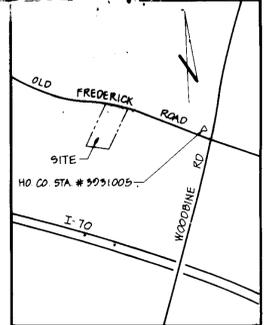
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE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

*James J. Yeager* P.E. 4/19/83  
ENGINEER

ARCHITECT: MICHAEL E. BOHLINGER, AIA  
800 N. CHARLES ST  
BALTIMORE, MD 21201  
752-1130

OWNER & DEVELOPER: WEST HOWARD SWIM CLUB, INC.  
% ROBERT PARRISH, PRESIDENT  
15800 UNION CHAPEL RD  
WOODBINE, MD 21107

TITLE SITE DEVELOPMENT PLAN					
PROJECT LOT 2 - CONNECTICUT ASPEN, INC. PROP.					
LOCATION 4TH ELECTION DISTRICT		TAX MAP 7		HOWARD COUNTY, MD	
DATE JAN 1983	SCALE 1" = 50'	DESIGN BY J.J.B.	DRAWN BY J.J.B.	CHECKED BY L.L.Y.	DRAWING NO. 1 OF 3
boender associates			engineers surveyors planners		
3525 COURTHOUSE SQUARE - SUITE A ELLCOTT CITY, MARYLAND 21103 301-465-7777					



GENERAL NOTES

1. TAX MAP 7 PART OF PARCEL 84
2. PLAT REFERENCE 5383
3. EX. ZONING R
4. SITE USE PRIVATE RECREATIONAL FACILITY - SWIM CLUB
5. TOTAL AREA OF SITE: 5,000 AC
6. LOT COVERAGE - STRUCTURES: 8,445 SQ FT OR 3.2%
7. OPEN SPACE PROVIDED: 3.7 AC
8. PRIVATE WATER AND PRIVATE SEWERAGE ARE TO BE UTILIZED
9. HORIZONTAL AND VERTICAL DATUM BASED ON HOWARD COUNTY CONTROL STATIONS 3091004 AND 3091005
10. OLD FREDERICK ROAD IS AN EXISTING PUBLIC ROAD. PROPOSED PARKING AND DRIVEWAYS ARE TO BE PRIVATE.
11. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV
12. TOP SHOWN HEREON WAS FIELD RUN BY BOENDER ASSOCIATES
13. SUBJECT TO BA CASE NO. 82-31E
14. PARKING TABULATIONS:  
REQ'D: 79 SPACES (SEE BA CASE NO. 82-31E DECISION AND ORDER AND EXHIBIT NO. 2)  
PROVIDED: 79 SPACES
15. SECURITY LIGHTS WILL BE 100 WATT, SODIUM VAPOR TYPE, MOUNTED ON 15' HIGH POLES. LIGHT TO BE DIRECTED/REFLECTED DOWNWARD AND AWAY FROM PUBLIC R/W AND SURROUNDING PROPERTIES. TWO LIGHTS TO BE PROVIDED FOR ADDITIONAL DATA, CONSULT WITH THE ARCHITECT LISTED BELOW.

4-8-83

**SEDIMENT CONTROL NOTES**

- CONSTRUCTION SHALL BE IN ACCORDANCE WITH "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS" PREPARED BY THE U.S.D.A. SOIL CONSERVATION SERVICE.
- APPLY FOR GRADING PERMIT.
- NOTIFY THE BUREAU OF LICENSE INSPECTIONS AND PERMITS 24 HRS. PRIOR TO GRADING OPERATIONS.
- CONSTRUCTION SHALL ADHERE TO THE CONSTRUCTION SEQUENCE.
- CUT AND FILL SLOPES SHALL BE 3:1 MAXIMUM.
- ELEVATIONS MARKED THUS (X) SHALL BE FINISHED GRADE.
- ANY EXCESS MATERIAL SHALL BE STOCKPILED IN A CLEARED LOCATION ON SITE WHICH IS PROTECTED BY SEDIMENT CONTROL STRUCTURE(S). MAXIMUM FILL SLOPE SHALL BE 3:1. STOCKPILED MATERIAL SHALL BE STABILIZED ACCORDING TO SEEDING SPECIFICATIONS BELOW.
- SEDIMENT CONTROL STRUCTURES SHALL BE REMOVED ONLY WITH PERMISSION OF THE BUREAU OF LICENSE, INSPECTIONS AND PERMITS.
- STABILIZATION MEASURES  
**TEMPORARY STABILIZATION:**  
 APPLY: 2000 LBS./AC. OR 46 LBS. OF PULVERIZED DOLOMIC LIMESTONE. 500 LBS./AC. OR 11.5 LBS./100 SQ. FT. OF 10-10-10 FERTILIZER. PLANT WITH RYEGRASS AT 40 LBS./AC. MULCH ALL DISTURBED AREAS IMMEDIATELY AFTER GRADING.  
**PERMANENT STABILIZATION:**  
 APPLY: 2000 LBS./AC. PULVERIZED DOLOMIC LIMESTONE.  
 500 LBS./AC. 10-10-10 FERTILIZER.  
 SEED: 85% RYEGRASS, 15% BLUEGRASS.  
 NOTE: SEEDING TO BE COMPLETED BY MARCH 1 - MAY 1, OR AUG. 1 - OCT. 1. SEEDING TO BE COMPLETED IMMEDIATELY AFTER GRADING.  
 MULCH: STRAW OR WOOD SHAVINGS.

**CONSTRUCTION SEQUENCE**

- OBTAIN GRADING PERMIT.
- NOTIFY THE HOWARD COUNTY BUREAU OF LICENSE, INSPECTIONS AND PERMITS AND THE CONSTRUCTION INSPECTION/SURVEYS DIVISION 24 HOURS PRIOR TO BEGINNING GRADING OPERATIONS.
- INSTALL TEMPORARY SEDIMENT CONTROL MEASURES (S.C.E., D.D., S.F. AND TRAP NO. 2).
- CONSTRUCT S.W.M. BASIN, BLOCK ORIFICE (SEE DETAIL, THIS SHEET) AND USE FOR TRAP NO. 1.
- ROUGH GRADE SITE. INSTALL SEPTIC SYSTEM. APPLY TEMPORARY STABILIZATION. APPLY BASE COURSE FOR AREAS TO BE PAVED.
- CONSTRUCT BATH HOUSE, POOLS AND UTILITIES. MAINTAIN ALL SEDIMENT CONTROL MEASURES.
- PLACE FENCE AND FINE GRADE AND PAVE. APPLY PERMANENT STABILIZATION MEASURES.
- RESTORE S.W.M. BASIN TO ORIGINAL SIZE BY:
  - PUMP STANDING WATER, IF ANY, THRU PRINCIPAL SPILLWAY.
  - SHAPE BASIN TO ORIGINAL SIZE BY REMOVING EXCESS SEDIMENT AND STABILIZE POND AREA.
  - EXCESS SEDIMENT TO BE REMOVED FROM SITE AND DEPOSITED ON A SITE WITH EXISTING AND APPROVED EROSION CONTROL MEASURES.
- REMOVE BLOCKING AT S-2 AND OTHER TEMPORARY SEDIMENT CONTROL MEASURES (S.C.E., S.F., D.D. AND SEDIMENT TRAP NO. 2) WITH APPROVAL OF THE HOWARD COUNTY BUREAU OF LICENSE, INSPECTIONS AND PERMITS.

**IV. Pipe Details**

**A. Permanent Metal Pipe**

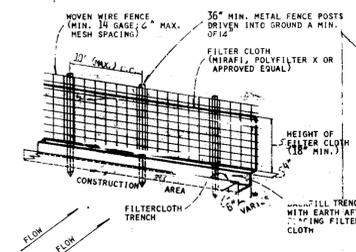
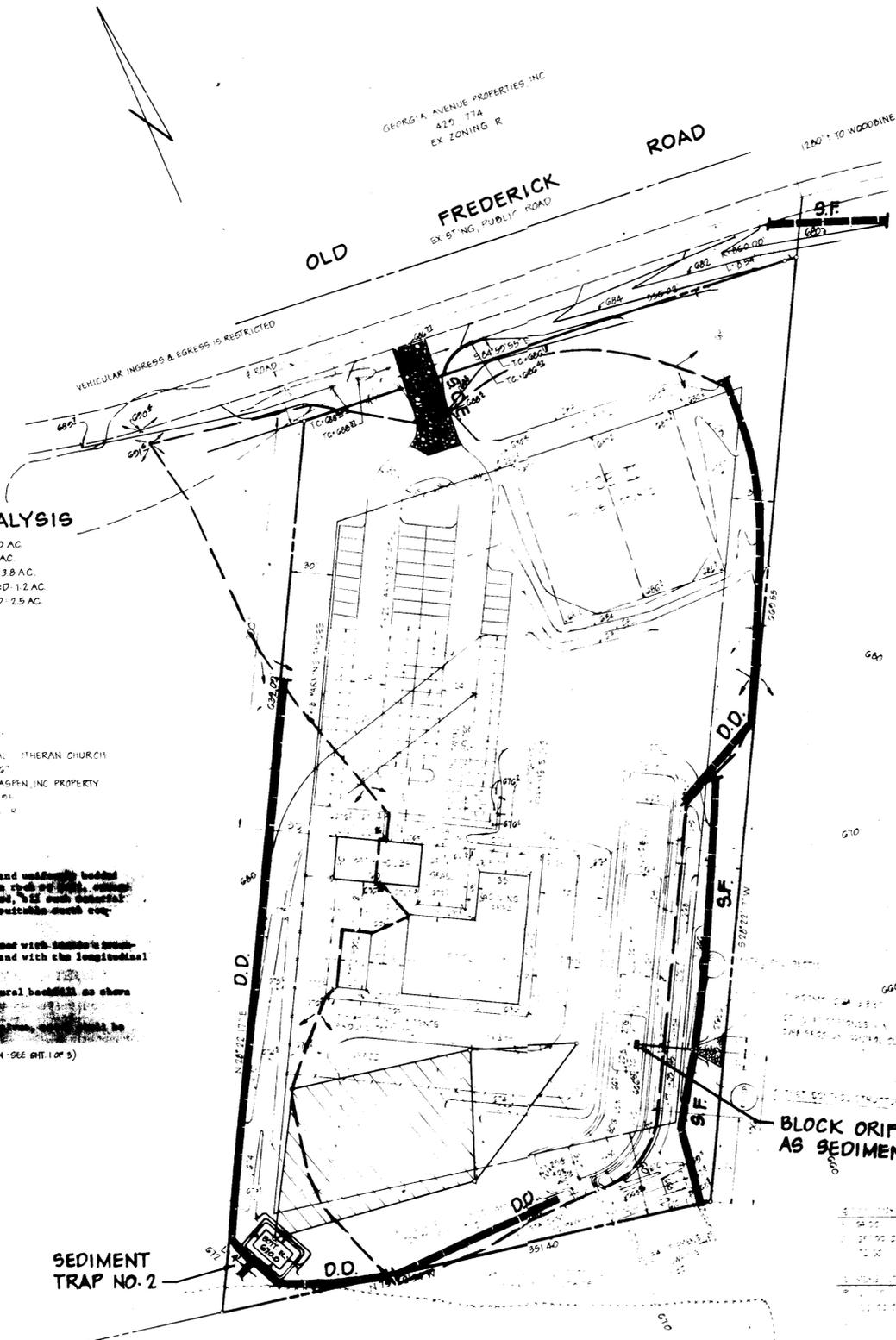
- Materials** - Pipes shall be galvanized and fully bituminous coated and shall conform to the requirements of ASTM Specification M-183 Type A with unannealed coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
- Installation** - Pipes shall be installed in accordance with the requirements of ASTM Specification M-183 Type A. Coupling bands, end sections, etc. must be constructed of the same material as the pipe. Holes must be fabricated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness. All joints and surfaces that are to be in contact with water shall be painted with its own coat of zinc chromate primer. The dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be less than 9 and greater than 4.
- Installation** - All connections with pipes must be completely watertight. The pipe, pipe or barrel connection to the other shall be welded all around when the pipe and water are under pressure. Coupling bands shall be connected to the pipe in such a manner as to be completely watertight.

- bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length on a bed of sand, gravel or other suitable bedding material. All such material shall be removed and replaced with suitable material compacted to provide adequate support.
  - Laying pipe** - The pipe shall be laid with the longitudinal lap pointing downstream and with the longitudinal lap at the sides.
  - Backfilling** shall conform to general backfill as shown above.
  - Other details** shall conform to the details shown on this sheet or as shown on other sheets.
- (FOR ALL CONCRETE AND STEEL STABILIZATION - SEE DET. 1 OF 3)

**SITE ANALYSIS**

AREA OF SITE: 9.0 AC  
 AREA PAVED: 1.3 AC  
 AREA DISTURBED: 3.8 AC  
 AREA UNDISTURBED: 1.2 AC  
 AREA REVEGETATED: 2.5 AC

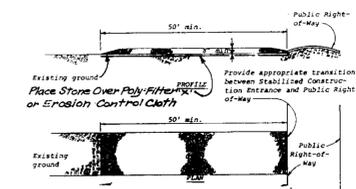
MARY EVANGELICAL LUTHERAN CHURCH  
 0500 427  
 1011 CONNECTICUT ASPEN, INC. PROPERTY  
 PLAT 4794  
 EX ZONING R



**SILT FENCE - S.F.**  
NOT TO SCALE



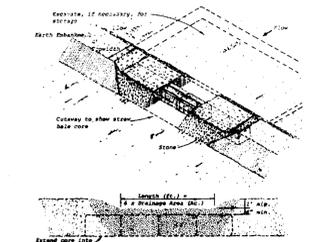
**VICINITY MAP**  
SCALE 1" = 1200'



**STABILIZED CONSTRUCTION ENTRANCE**

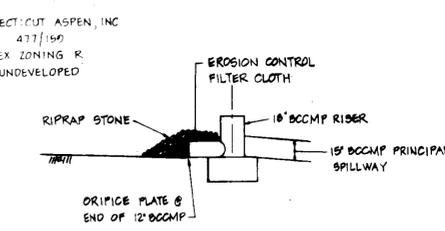
**S.C.E.**

SEE SCS MANUAL, PG. A-1001 FOR SPECS  
NOT TO SCALE



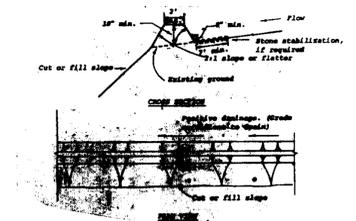
**STONE OUTLET SEDIMENT TRAP**

SEE SCS MANUAL, PG. A-2001 FOR SPECS  
NOT TO SCALE



**BLOCKING DETAIL AT S-2**

NOT TO SCALE



**DIVERSION DIKE - D.D.**

SEE SCS MANUAL, PG. A-1001 FOR SPECS  
NOT TO SCALE

APPROVED  
 DIVISION OF LAND DEVELOPMENT &  
 ZONING ADMINISTRATION  
 HOWARD COUNTY, MARYLAND  
 DATE 3-4-83  
 JTB

BLOCK ORIFICE - USE S.W.M. BASIN AS SEDIMENT TRAP NO. 1

William S. Hartz  
 3-31-83

*James J. Goggin* 3/19/83  
 ENGINEER  
*James J. Goggin* P.E. 4/26/83  
 ENGINEER

OWNER & DEVELOPER  
 WEST HOWARD SWIM CLUB, INC.  
 % ROBERT PARKISH, PRESIDENT  
 15890 UNION CHAPEL RD  
 WOODBINE, MD 21797

4-15-83  
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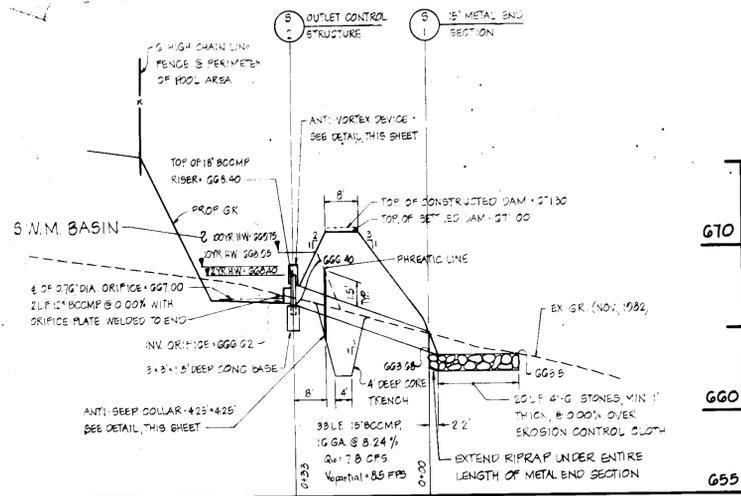
**SEDIMENT TRAP SCHEDULE**

TRAP	D.A.	STORAGE REQ'D	STORAGE PROVIDED	BOTTOM SIZE	BOTTOM ELEV.	SPILLWAY ELEV.	C.O. ELEV.
1	4.3AC	7,740CF	9,589CF	-	466.62	468.05	467.8
2	0.8AC	1,080CF	1,190CF	15' x 25'	470.0	472.0	471.0

\* SEE SCS MANUAL, PG. 20.07 FOR DETAIL & CONSTRUCTION SPECS.  
 \*\* SEE S.W.M. COMPS

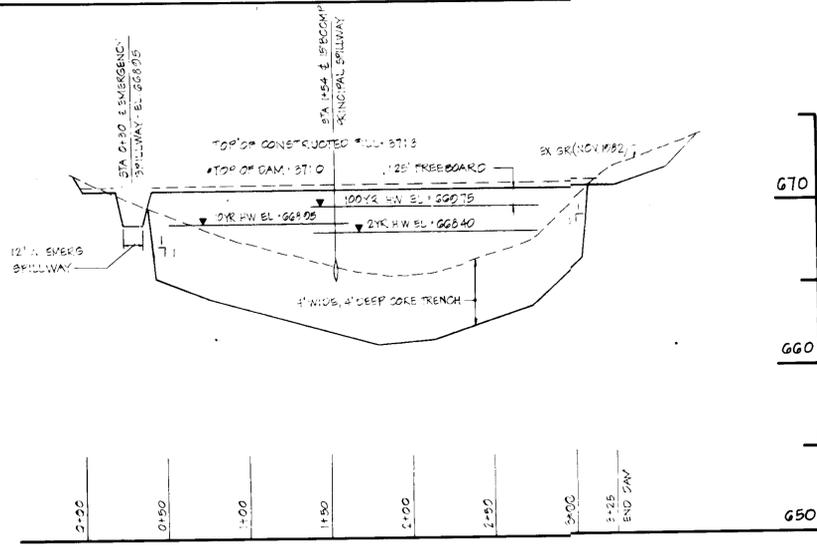
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT...  
*J. Helwig* 15 APRIL 1983  
 U.S. SOIL CONSERVATION SERVICE  
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL...  
*Robert Zickler* 15 APRIL 1983

**TITLE** DRAINAGE AREA MAP & SEDIMENT CONTROL PLAN  
**PROJECT** LOT 2 - CONNECTICUT-ASPEN, INC. PROP.  
**LOCATION** 4TH ELECTION DISTRICT TAX MAP 7 HOWARD COUNTY, MD  
**DATE** JAN 1983  
**DESIGN BY** J.J.B.  
**DRAWN BY** J.J.B.  
**CHECKED BY** L.L.Y.  
**DATE** 2 OF 3 82193  
**boender associates**  
 3525 COURTHOUSE SQUARE SUITE A  
 ELLICOTT CITY, MARYLAND 21043  
 301-466-7777  
 engineers  
 surveyors  
 planners



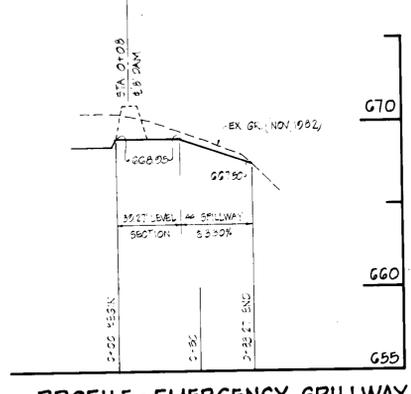
**PROFILE - PRINCIPAL SPILLWAY**

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



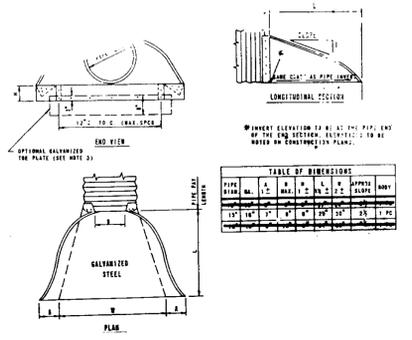
**PROFILE - TOP OF DAM**

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



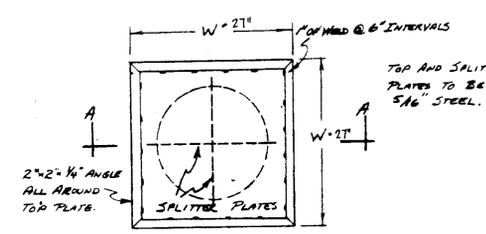
**PROFILE - EMERGENCY SPILLWAY**

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VERT 1" = 5'

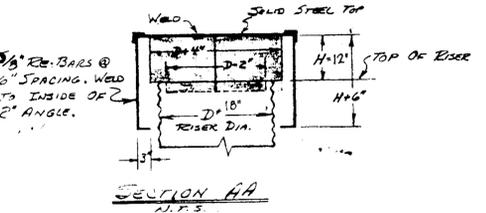


**STD. METAL END SECTION**

NOT TO SCALE



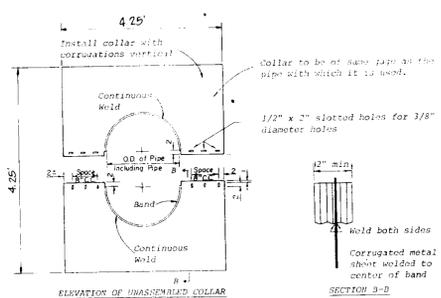
**PLAN VIEW OF TRASH GUARD - ANTI VORTEX DEVICE**



**SECTION AA**

- NOTES:**
1. PAINT AREA USING 2 COATS RED LEAD AND 2 COATS ALUMINUM.
  2. FASTEN ASSY TO RISER USING ANGLES BOLTED TO SPLITTER PLATES AND VERTICAL RISER PIPE.
  3. SET TOP OF ASSY. LEVEL WHEN INSTALLING ON RISER.

SIZE:  
RISER DIA (D) = 18"  
TOP PLATE (W) = 21"  
SPLITTER HEIGHT (H) = 12"



**ANTI-SEEP COLLAR DETAIL**

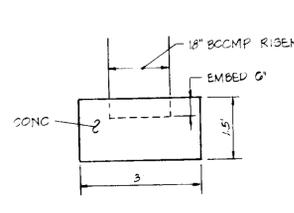
- NOTES FOR COLLARS:**
1. All materials to be in accordance with construction and construction material specifications.
  2. When specified on the plans, coating of collars shall be in accordance with construction and construction material specifications.
  3. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
  4. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at time of installation.
  5. Each collar shall be furnished with two 1/2\"/>

NOT TO SCALE  
SEE SCS MANUAL, PG A-10-25



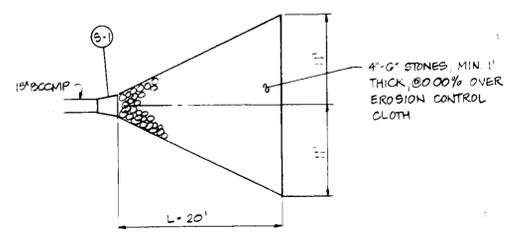
**HANDICAPPED SIGN DETAIL**

NOT TO SCALE  
SIGN TO BE PLACED AT A HEIGHT OF 8' ABOVE GRADE



**RISER BASE DETAIL**

NOT TO SCALE

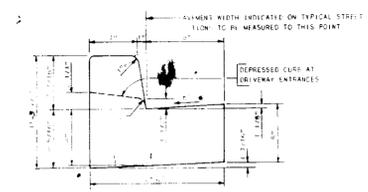


**RIPRAP DETAIL AT S-1**

NOT TO SCALE

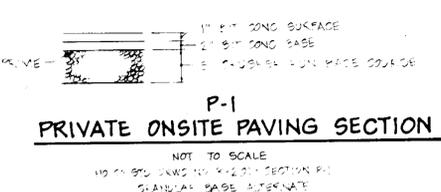
**TRASH RACK & ANTI-VORTEX DEVICE DETAIL**

NOT TO SCALE



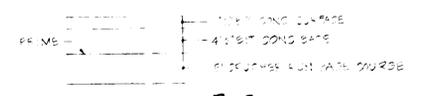
**STD. 7\"/>**

HO CO STD DRAWG R-301 - NOT TO SCALE



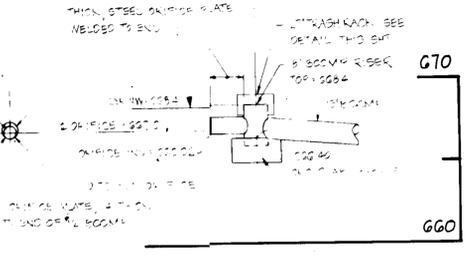
**P-1 PRIVATE ONSITE PAVING SECTION**

NOT TO SCALE  
HO CO STD DRAWG NO R-201 - SECTION P-1  
GRANULAR BASE ALTERNATE



**P-3 PAVING SECTION WITHIN PUBLIC R/W**

NOT TO SCALE  
HO CO STD DRAWG NO R-201 - SECTION P-3  
OLD FREDERICK RD - MAJOR COLLECTOR - ZONING R



**OUTLET CONTROL STRUCTURE DETAIL - S2**

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

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

*Joseph M. Boyd* 4-15-83  
COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

*William A. Hartel* 4-15-83  
PLANNING DIRECTOR, ACTING DATE

*Lois F. Dine* 4-15-83  
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*William A. Hartel* 4-15-83  
DIRECTOR DATE

*Michael S. ...* 4-15-83  
CHIEF, BUREAU OF ENGINEERING 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.

*J. Helm* 15 APRIL 1983  
U.S. SOIL CONSERVATION SERVICE DATE

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

*R. Zehm* 15 APRIL 1983  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED  
DIVISION OF LAND DEVELOPMENT &  
ZONING ADMINISTRATION  
HOWARD COUNTY, MARYLAND  
DATE 3-4-83  
170

I 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 THIRTY DAYS OF COMPLETION.

*Virginia Parrish* 3/14/83  
VIRGINIA PARRISH - SECRETARY WEST HOWARD SWIM CLUB, INC. DATE

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 COUNTY 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 THIRTY DAYS OF COMPLETION.

*Lois F. Dine* 11/26/83  
ENGINEER DATE

STATE OF MARYLAND  
WILLIAM A. HARTEL  
PLANNING DIRECTOR  
3-31-83

OWNER & DEVELOPER  
WEST HOWARD SWIM CLUB, INC  
% ROBERT PARRISH, PRESIDENT  
15800 UNION CHAPEL RD  
WOODBINE, MD 21797

TITLE		S.W.M. PROFILES & MISCELLANEOUS DETAILS	
PROJECT		LOT 2 - CONNECTICUT-ASPEN, INC. PROP.	
LOCATION	4TH ELECTION DISTRICT	TAX MAP 7	HOWARD COUNTY, MD
DATE	JAN 1983	SCALE	AS SHOWN
DESIGNED BY	JJB	CHECKED BY	LLY
DRAWN BY	JJB	DATE	5-07-83
boender associates		engineers surveyors planners	
365 COUNTRYHOUSE SQUARE, SUITE A ELICOTT CITY, MARYLAND 21043 301-465-7777		SDP-83-89	

REV 3-15-83 - ONSITE PAVING SECT. TO P-1, CHANGED TRASH RACK, EXTENDED RIPRAP UNDER S-1 - JJB