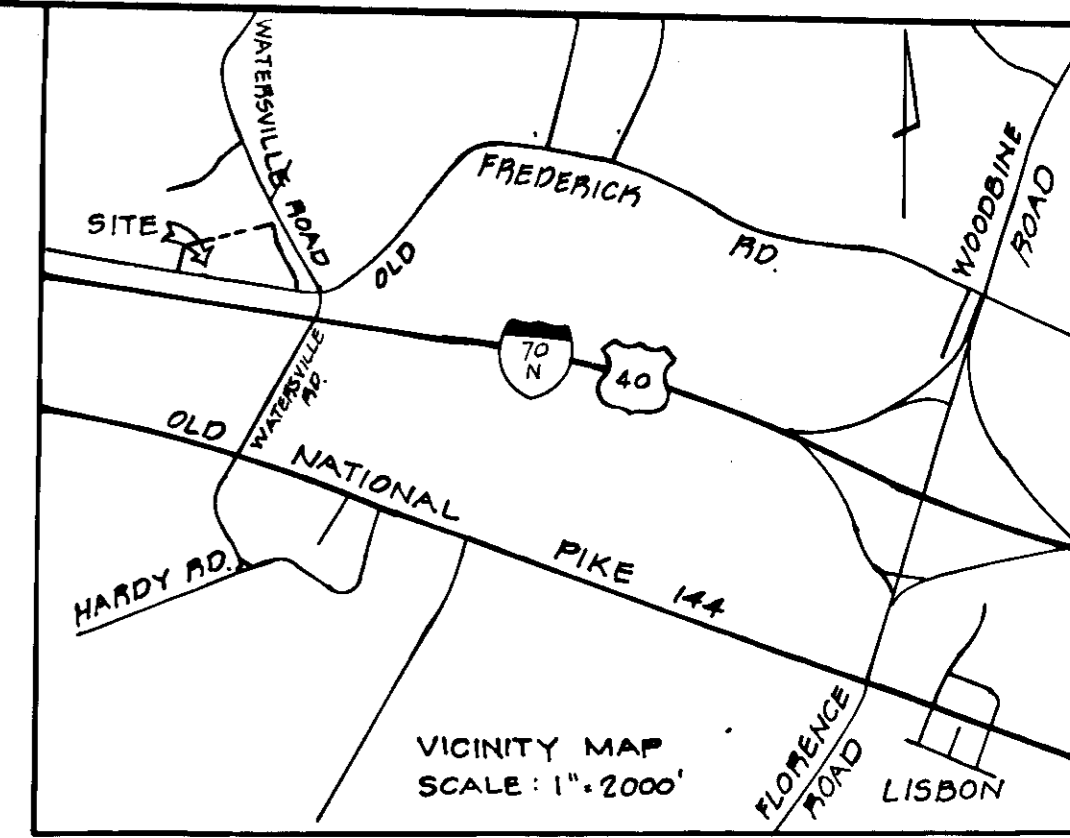


BLDG. SCHEMATIC
SOUTH ELEVATION

NOTE: LIGHTING TO BE INCANDESCENCE, 100 WATT, PAR 38, STONCO POWERBEAM (150L) WALL-MOUNTED UP-DOWN DIRECTIONAL LIGHTING. LIGHTING SHALL BE DIRECTED / REFLECTED AWAY FROM RESIDENTIAL PROPERTY AND PUBLIC R/W



GENERAL NOTES

1. TAX MAP 287; PARCEL NO. 172
2. DEED REFERENCE: 680/001
3. EXISTING ZONING: R; SUBJECT TO O.A. CASE NO 70-10.
4. HORIZONTAL CONTROL IS ASSUMED.
5. VERTICAL CONTROL IS ASSUMED.
6. PROPOSED SITE USE: CHURCH & SCHOOL FACILITY
7. TOTAL AREA OF SITE: 14.029 AC.
8. TOTAL AREA PROJECT AREA: 5.84 AC.

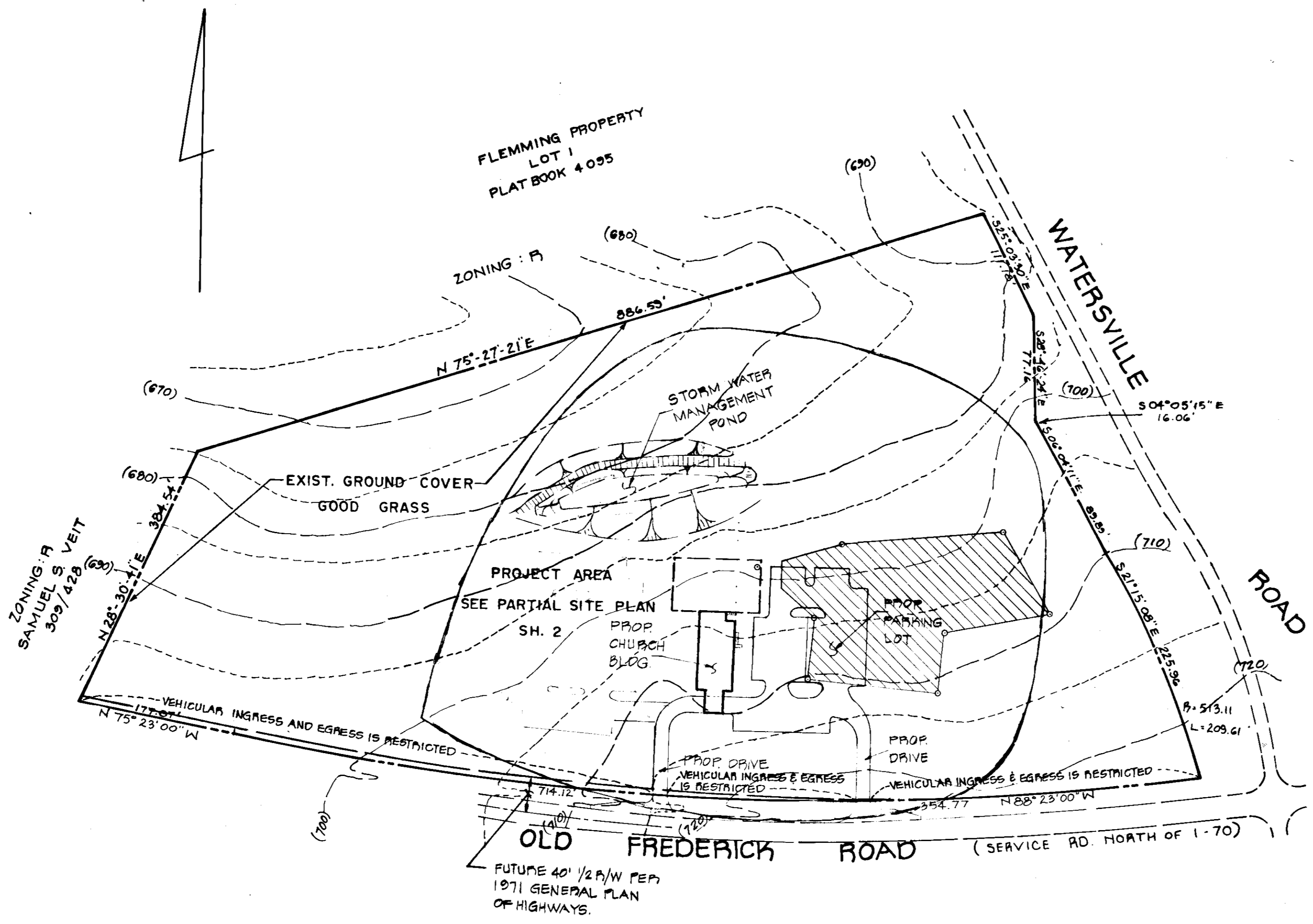
9. TOPOGRAPHY IS FIELD RUN BY BOENDER ASSOCIATES, INC.
10. WATERSVILLE RD. & OLD FREDERICK RD. ARE EXISTING PUBLIC ROADS.
11. PRIVATE WATER AND PRIVATE SEWER ARE TO BE UTILIZED.
12. SITE BUILDING COVERAGE: PHASE I 0.02AC @ 0.6%; PHASE II 0.22AC @ 1.0%
13. OPEN SPACE IN PARKING LOT 6.4%
14. PARKING REQUIREMENTS:

TOTAL SEATING, PHASE I = 140
 TOTAL PUBLIC FLOOR SPACE PHASE I = 4330 SF
 TOTAL PUBLIC FLOOR SPACE PHASE II = 6000 SF
 $140 / 3 = 47$ PARKING SPACES
 $4330 / 100 = 44$ PARKING SPACES

USE 47 PARKING SPACES, PHASE I
 PARKING SPACES PROVIDED, 52, INCLUDING 3 H'CAPPED.
 TOTAL REQ'D. SPACES AFTER PHASE II: 47+60 = 107
 ADD 55 PARKING SPACES PHASE II
 SCHOOL USE: STAFF MEMBERS - 5
 PARKING SPACES REQUIRED AS DETERMINED IN APPROVAL OF SPECIAL EXCEPTION.

INDEX OF SHEETS

1. SITE PLAN
2. PARTIAL SITE PLAN & STORM WATER MANAGEMENT PLAN
3. DRAINAGE AREA MAP
4. SEDIMENT CONTROL PLAN
5. SEDIMENT CONTROL DETAILS & SPECIFICATIONS - AND ONSITE ROAD DETAILS, & M.S.H.A. DETAILS
6. STORM DRAIN & STORM WATER MANAGEMENT PROFILES, SECTIONS & DETAILS.
7. POND CONSTRUCTION SPECIFICATIONS AND ANTI-SEEP COLLAR DETAIL.



APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.
 HOWARD COUNTY HEALTH DEPARTMENT.
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.
 PLANNING DIRECTOR: [Signature] DATE: 12-7-79
 APPROVED FOR DRAINAGE SYSTEMS AND PUBLIC ROADS.
 DIRECTOR: [Signature] DATE: 12-6-79
 APPROVED FOR PROFESSIONAL ENGINEERING.
 [Signature] DATE: 12-5-79

APPROVED
 DIVISION OF LAND DEVELOPMENT
 HOWARD COUNTY, MARYLAND
 DATE: 9-19-79
 [Signature]

CONTRACT PURCHASER & DEVELOPER
 CHURCH OF THE OPEN BIBLE
 LISBON, MARYLAND
 OWNER
 GA. CONN. INC. & CONN. ASPEN, INC.
 5% SILVER SPRING FARMS
 10,000 SWEEPSTAKES DR.
 DAMASCUS, MD. 20750



Robert May Jr.
 7/30/79

TITLE SITE PLAN			
PROJECT CHURCH OF THE OPEN BIBLE			
LOCATION 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND			
DATE: JULY, 1975	DESIGN BY: W.H.N.	DRAWN BY: G.E.W./W.H.N.	CHECKED BY: B.L.M.
SCALE: 1" = 100'	JOB NO.: 7925	DRAWING NO.: 1 OF 7	
boender associates SUITE 102-107 TOWN & COUNTRY PROFESSIONAL BUILDING ELLCOTT CITY, MARYLAND 21043 BALTIMORE 301-468-7777 SALISBURY 301-748-1288		engineers surveyors planners	

PRIVATE DRAIN NOTES

ALL PRIVATE DRAINS SHALL BE GOVERNED BY THE HOWARD COUNTY PLUMBING CODE. THE CONTRACTOR SHALL BE ALLOWED TO USE ANY APPROVED MATERIAL UNLESS OTHERWISE SPECIFIED. PRIVATE DRAINS ARE DENOTED PD.

PRIVATE WATER & SEWER SPECIFICATIONS

PROP. CHURCH BLDG

FF: 716.17
 BSMIT: 707.5
 SUB BSMIT: 697.93
 INV. OUT: 706.25
 NOTE: SEWER SERVICE AVAILABLE TO FF & BSMIT ONLY.
 10 FT. S.H.C @ 1/8" : 1'

SEPTIC TANK

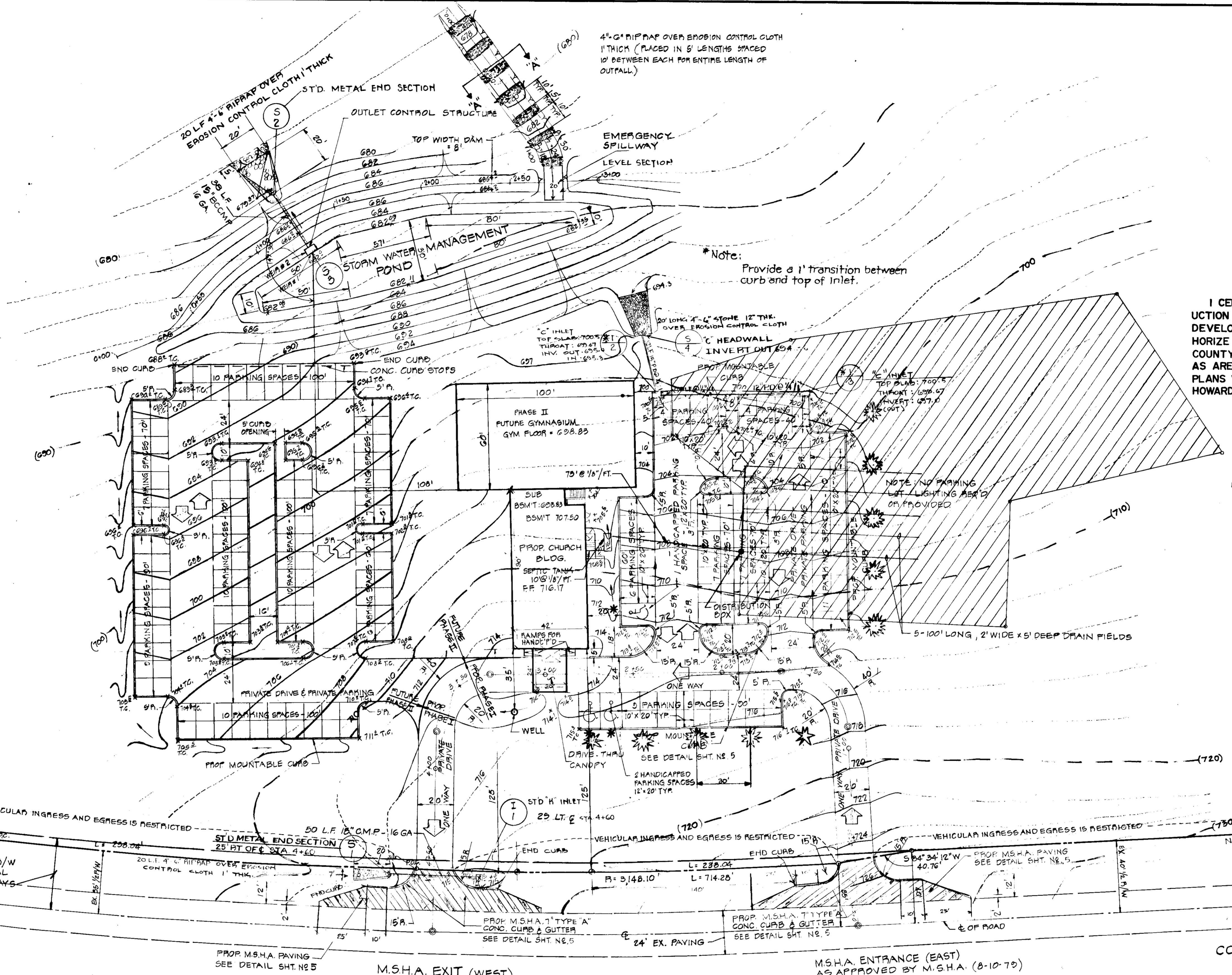
EX. GP: 708.0
 PROP. GP: 706.5
 INV. IN: 706.05
 INV. OUT: 705.75
 75 FT. S.H.C @ 1/8" : 1'

TRENCH/DISTRIBUTION BOX

EX. GP: 708.0
 PROP. GP: 707.5
 INV. IN: 705.0

WELL

EX. GP: 715.4
 PROP. GP: 713.7



CERTIFICATION BY THE DEVELOPER

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR A POND AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATIONS FROM THESE PLANS WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

J. Hub Parvula
 DEVELOPER
 July 30, 1979
 DATE

NOTE: AN "AS BUILT" OF THE POND WILL BE SUBMITTED TO THE HOWARD SOIL CONSERVATION DISTRICT WITHIN 30 DAYS OF COMPLETION OF POND CONSTRUCTION.

CERTIFICATION OF THE ENGINEER

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

Rodolph May Jr.
 RODOLPH L. MAY JR.

CONTRACT PURCHASER & DEVELOPER
 CHURCH OF THE OPEN BIBLE
 LISBON, MARYLAND

OWNER
 GA. CONN. INC. & CONN. ASPEN, INC.
 1/2 SILVER SPRING FARMS
 10,000 SWEEPSTAKES DR.
 DAMASCUS, MD. 20750

LEGEND:
 * HANDICAPPED PARKING SIGN (SHOWN 3 PLACES)
 * WHITE PINE 2 1/2" CALIPER 6" HIGH 30" O.C.

PARTIAL SITE PLAN &

TITLE			
STORM WATER MANAGEMENT PLAN			
CHURCH OF THE OPEN BIBLE			
PROJECT		LOCATION	
4TH ELECTION DISTRICT		HOWARD COUNTY, MARYLAND	
DATE: JULY, 1979	DESIGN BY: W.H.N.	DRAWN BY: W.H.N.	CHECKED BY: P.L.M.
SCALE: 1" = 30'	JOB NO.: 7525	DRAWING NO.: 2 OF 7	

boender associates
 SUITE 102-107 TOWN & COUNTRY PROFESSIONAL BUILDING
 ELLICOTT CITY, MARYLAND 21043
 BALTIMORE 301-465-7777 SALISBURY 301-748-1286

engineers
 surveyors
 planners

SDP-80-18

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

William G. Lewis 11-9-79
 COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

Donald L. Harris 12-7-79
 PLANNING DIRECTOR DATE

William M. Woodman 12-7-79
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED FOR DRAINAGE SYSTEMS AND PUBLIC ROADS. J. STUHM

William F. Nunnally 12-6-79
 DIRECTOR DATE

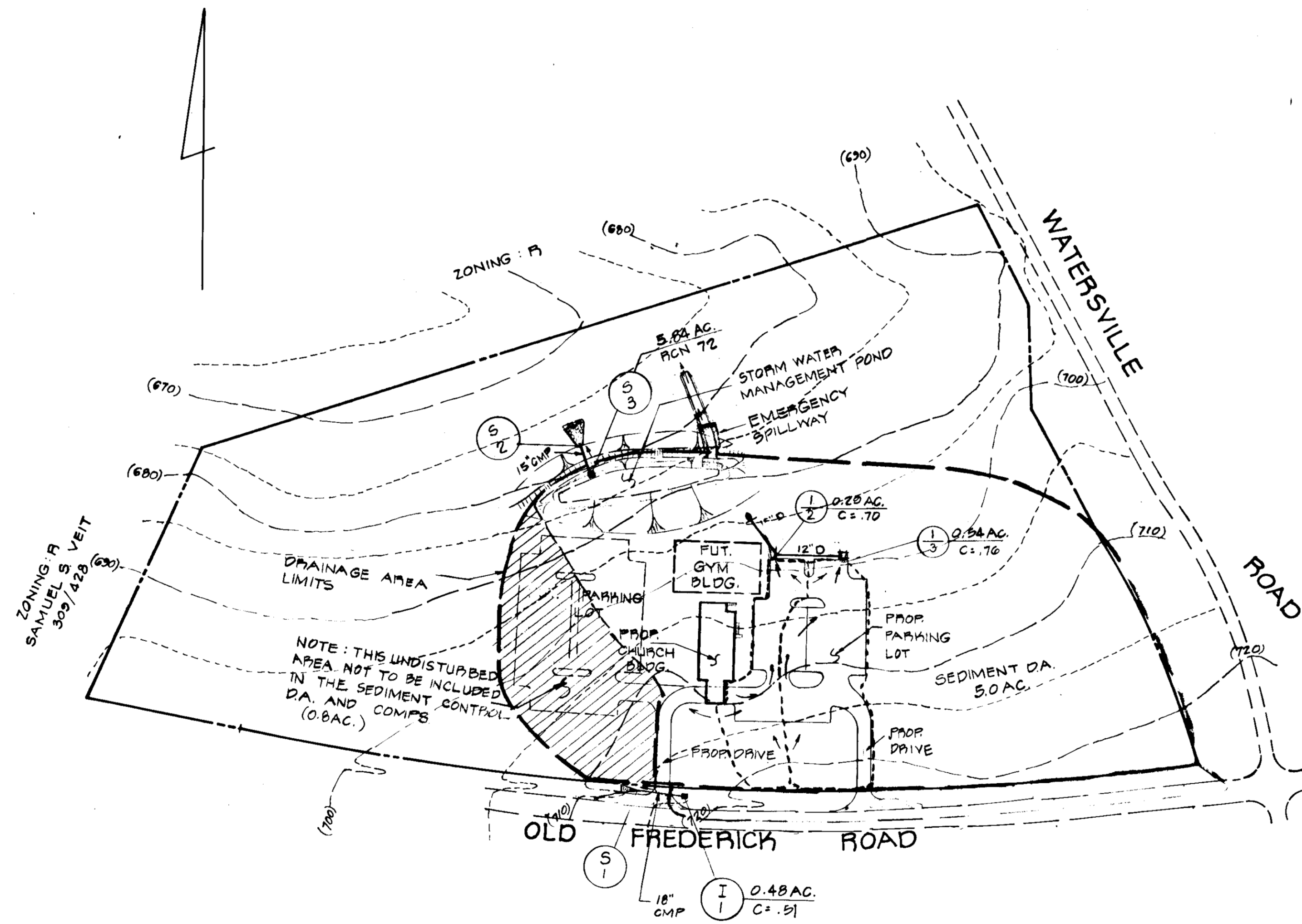
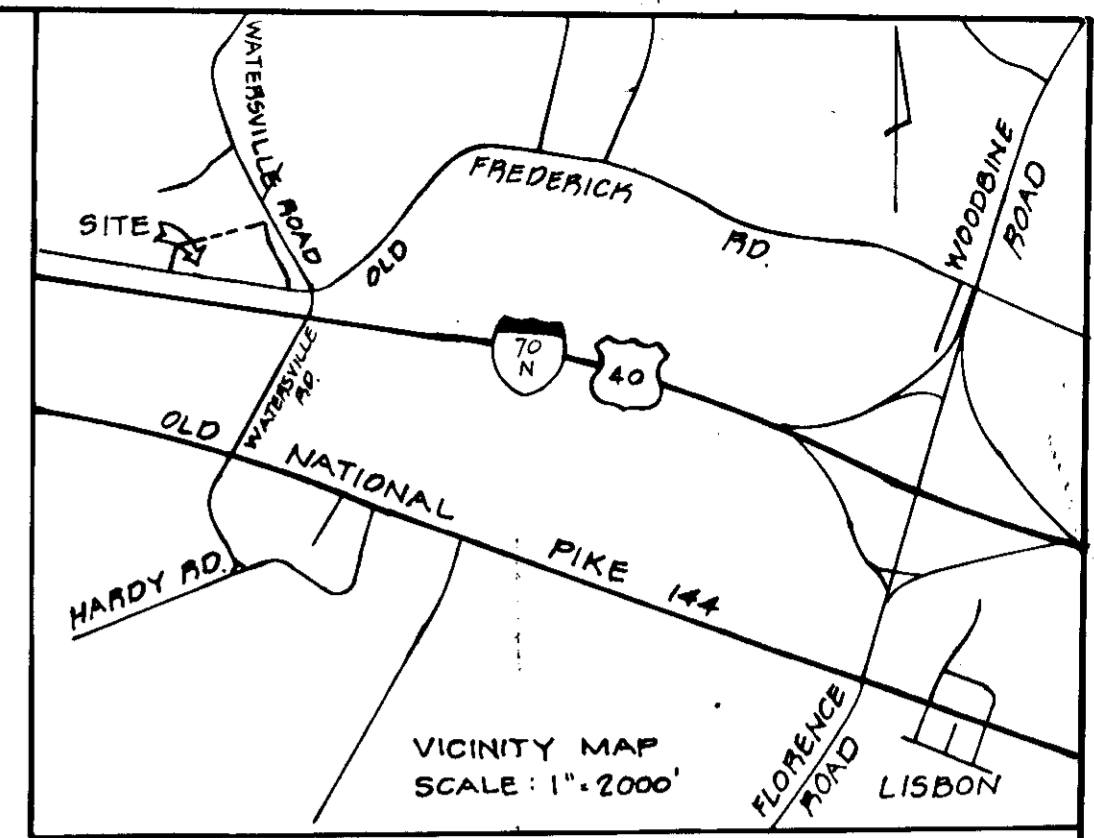
W.O. P. H. H. H. 12-5-79
 CHIEF, DEPT. OF ENGINEERING DATE

APPROVED
 DIVISION OF LAND DEVELOPMENT
 HOWARD COUNTY, MARYLAND
 DATE 9-19-79
afm



Rodolph May Jr.
 7/30/79

REV. 11-2-79 ADD "AS BUILT" NOTE
 REV. 8/2/75 REMOVE GRADING FOR FUT. PARKING - W.N.



APPROVED
DIVISION OF LAND DEVELOPMENT

HOWARD COUNTY, MARYLAND
DATE 9-19-79



Rodolph May Jr.
7/30/79

CONTRACT PURCHASER & DEVELOPER
CHURCH OF THE OPEN BIBLE
LISBON, MARYLAND

OWNER

GA. CONN. INC. & CONN. ASPEN, INC.
% SILVER SPRING FARMS
10,000 SWEEPSTAKES DR.
DAMASCUS, MD. 20750

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

Samuel S. Veit 11-9-79
DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

Samuel S. Veit 12-7-79
DATE

PLANNING DIRECTOR

Samuel S. Veit 12-7-79
DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: FOR DRAINAGE SYSTEMS AND PUBLIC ROADS. STORM

Shay F. Nummy 12-6-79
DATE

DIRECTOR

W. O. Libbe 12-5-79
DATE

CHIEF, BUREAU OF ENGINEERING

REV. 8/2/78 : REV. D.A.'S TO REFLECT PRESENT/FUTURE AREAS; BY:WN

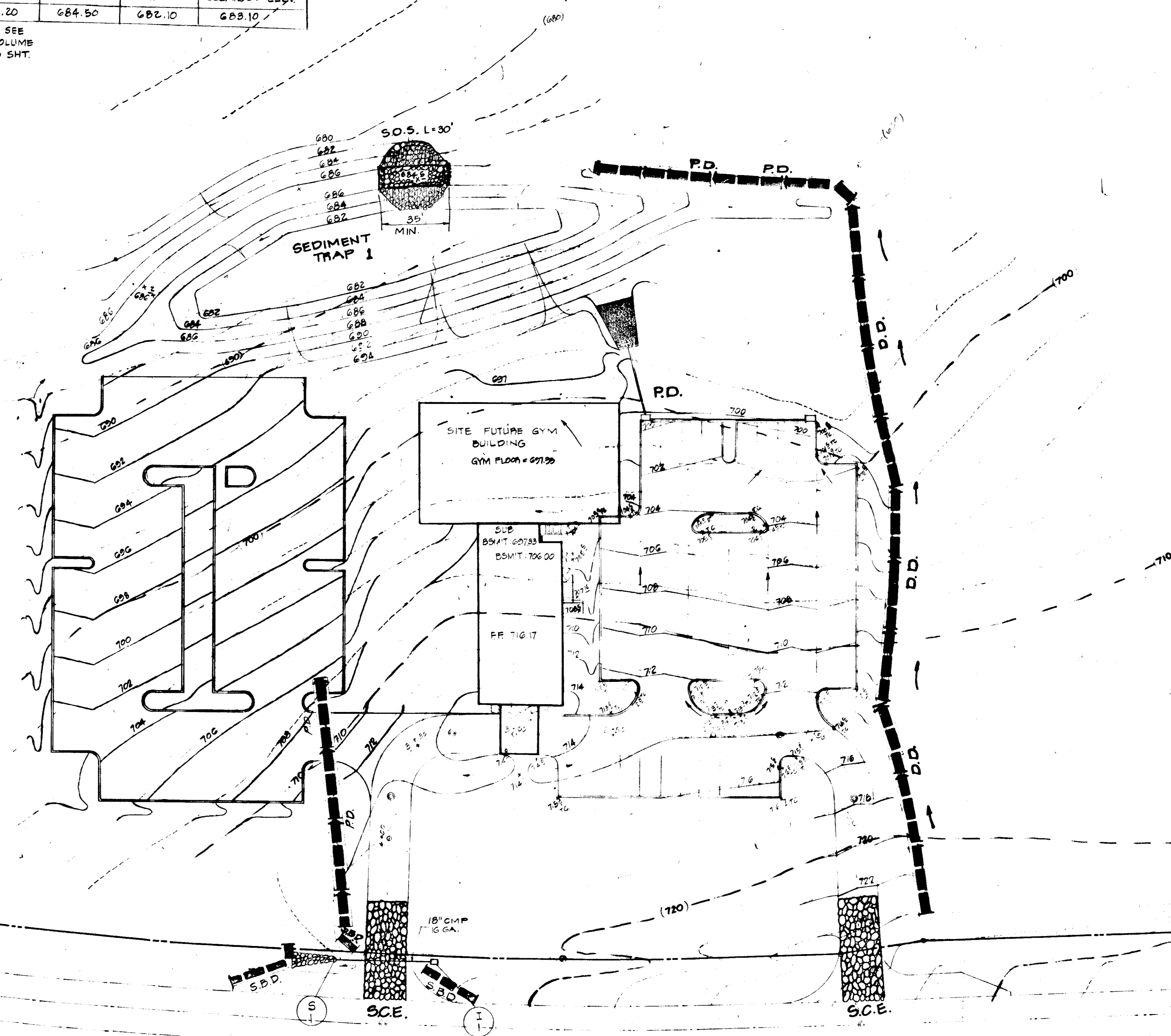
TITLE DRAINAGE AREA MAP			
PROJECT CHURCH OF THE OPEN BIBLE			
LOCATION 4TH ELECTION DISTRICT		HOWARD COUNTY, MARYLAND	
DATE: JULY, 1979	DESIGN BY: W.H.N.	DRAWN BY: W.H.N.	CHECKED BY: B.L.M.
SCALE: 1" = 100'	JOB NO.: 7923	DRAWING NO.: 3 OF 7	
boender associates engineers/surveyors/planners			
SUITE 102-107 TOWN & COUNTRY PROFESSIONAL BUILDING ELLCOTT CITY, MARYLAND 21042 BALTIMORE 301-468-7777 SALISBURY 301-746-1286			

SDP-80-18

SEDIMENT TRAP NO. 1

D.A.	VOLUME REQ'D	VOLUME PROV'D	TOP BERM	CREST ELEV.	BOTT. ELEV.	CLEANOUT ELEV.
5.0 AC.	2000 CF	15,000 C.F.	686.20	684.50	682.10	683.10

FOR DIMEN'S SEE ATTACHED VOLUME PARAMETER SHT. IN COMPS.



SITE ANALYSIS

TOTAL AREA PARCEL : 14.025 AC.
 PROJECT AREA : 5.00 AC.
 AREA PAVED : 0.611 AC.
 AREA BLDG : 0.026 AC.
 AREA REVEGETATED : 3.695 AC.
 PROJECT AREA UNDISTURBED : 0.598 AC.
 UNDISTURBED AREA OF SITE : 0.029 AC.
 OUTSIDE PROJECT AREA : 0.627 AC.
 TOTAL UNDISTURBED AREA : 0.627 AC.

CONSTRUCTION SEQUENCE

1. OBTAIN GRADING PERMIT.
2. NOTIFY HOWARD COUNTY BUREAU OF LICENSE, INSPECTIONS AND PERMITS 24 HRS. PRIOR TO GRADING OPERATIONS - PH. 502-2435.
3. INSTALL TEMPORARY SEDIMENT CONTROL MEASURES - P.D., D.D., S.O.S., S.D., S.C.E. & SEDIMENT TRAP #1. (SEE SEDIMENT TRAP SCHEDULE FOR DIMEN'S & CLEANOUT ELEV'S).
4. CONSTRUCT DRAINS & INLETS. BLOCK UPSTREAM END OF PIPE EACH NIGHT. WHEN COMPLETE, OPEN PIPES.
5. BEGIN EARTHWORK, CONSTRUCT BLDG., DRIVES PARKING PAVING, MAINTAINING SEDIMENT CONTROL MEASURES.
6. STABILIZE PAVING WITH BASE COURSE, AND LANDSCAPE AREAS WITH TEMPORARY OR PERMANENT STABILIZATION MEASURES.
7. CONVERT SEDIMENT BASIN TO STORM WATER MANAGEMENT POND & INSTALL RIPRAP OUTLETS.
8. REMOVE TEMPORARY SEDIMENT CONTROL MEASURES WITH APPROVAL OF THE HOWARD COUNTY BUREAU OF LICENSE, INSPECTIONS AND PERMITS.

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

James M. Deib 11-5-79
 COUNTY SOIL CONSERVATION SERVICE DATE

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

William V. Rame 11-5-79
 HO. CO. SOIL CONSERVATION DISTRICT DATE

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

James M. Deib 11-9-79
 COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

James M. Deib 12-7-79
 PLANNING DIRECTOR DATE

William V. Rame 12-7-79
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED FOR DRAINAGE SYSTEMS AND PUBLIC ROADS - STORM

William V. Rame 12-6-79
 DIRECTOR DATE

William V. Rame 12-5-79
 CHIEF, BUREAU OF ENGINEERING DATE

DEVELOPER'S CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HO. CO. SOIL CONSERVATION DISTRICT OF THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HO. CO. SOIL CONSERVATION DISTRICT.

William V. Rame 7/30/79
 DEVELOPER PASTOR ROSENSTEEL DATE

ENGINEER'S CERTIFICATE

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

Rodolph L. May Jr. 7/30/79
 ENGINEER RODOLPH L. MAY JR. DATE



APPROVED
 DIVISION OF LAND DEVELOPMENT

HOWARD COUNTY, MARYLAND
 DATE 9-19-79
WJM



CONTRACT PURCHASER & DEVELOPER
 CHURCH OF THE OPEN BIBLE
 LISBON, MARYLAND

OWNER
 GA. CONN INC & CONN. ASPEN, INC.
 1/6 SILVER SPRING FARMS
 10,000 SWEEPSTAKES DR
 DAMASCUS, MD 20750

SEDIMENT CONTROL PLAN
 CHURCH OF THE OPEN BIBLE

PROJECT LOCATION: 4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

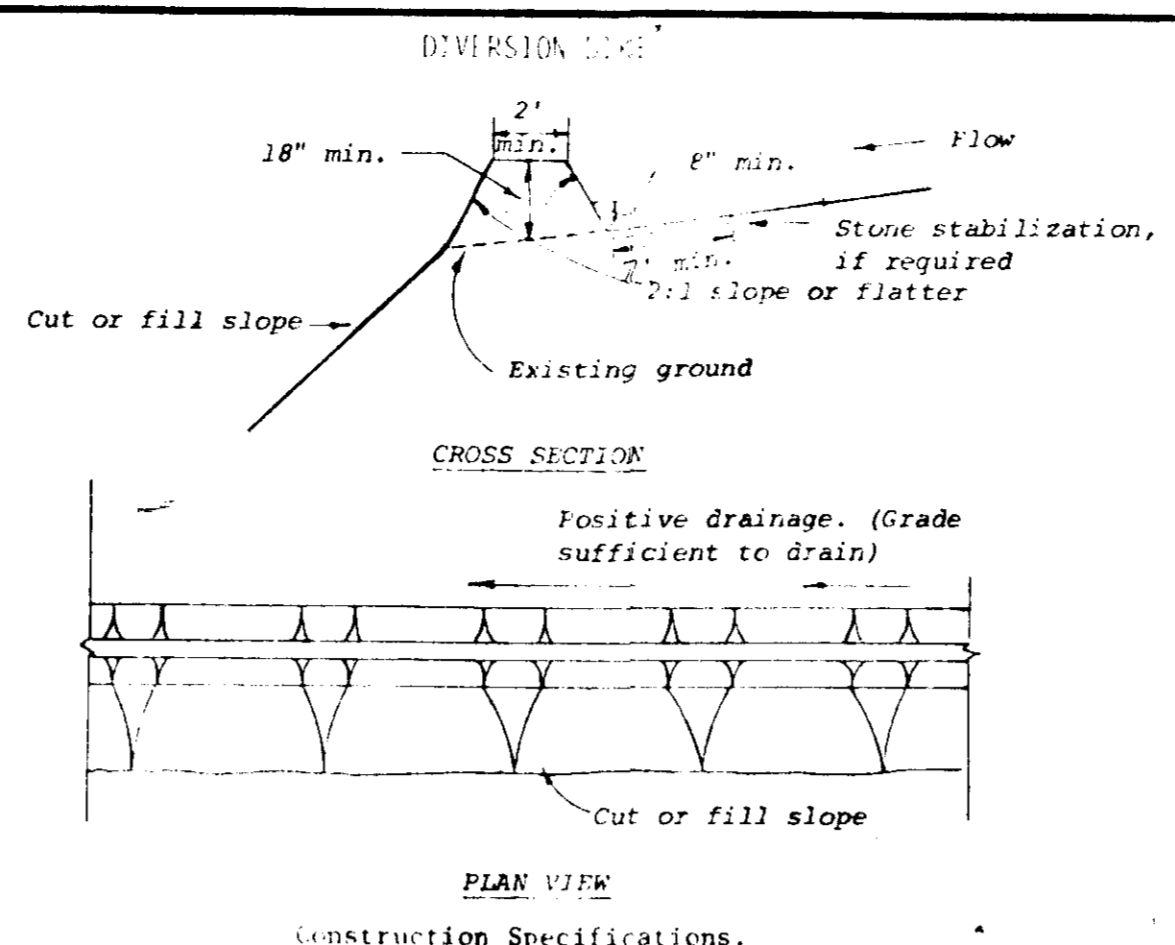
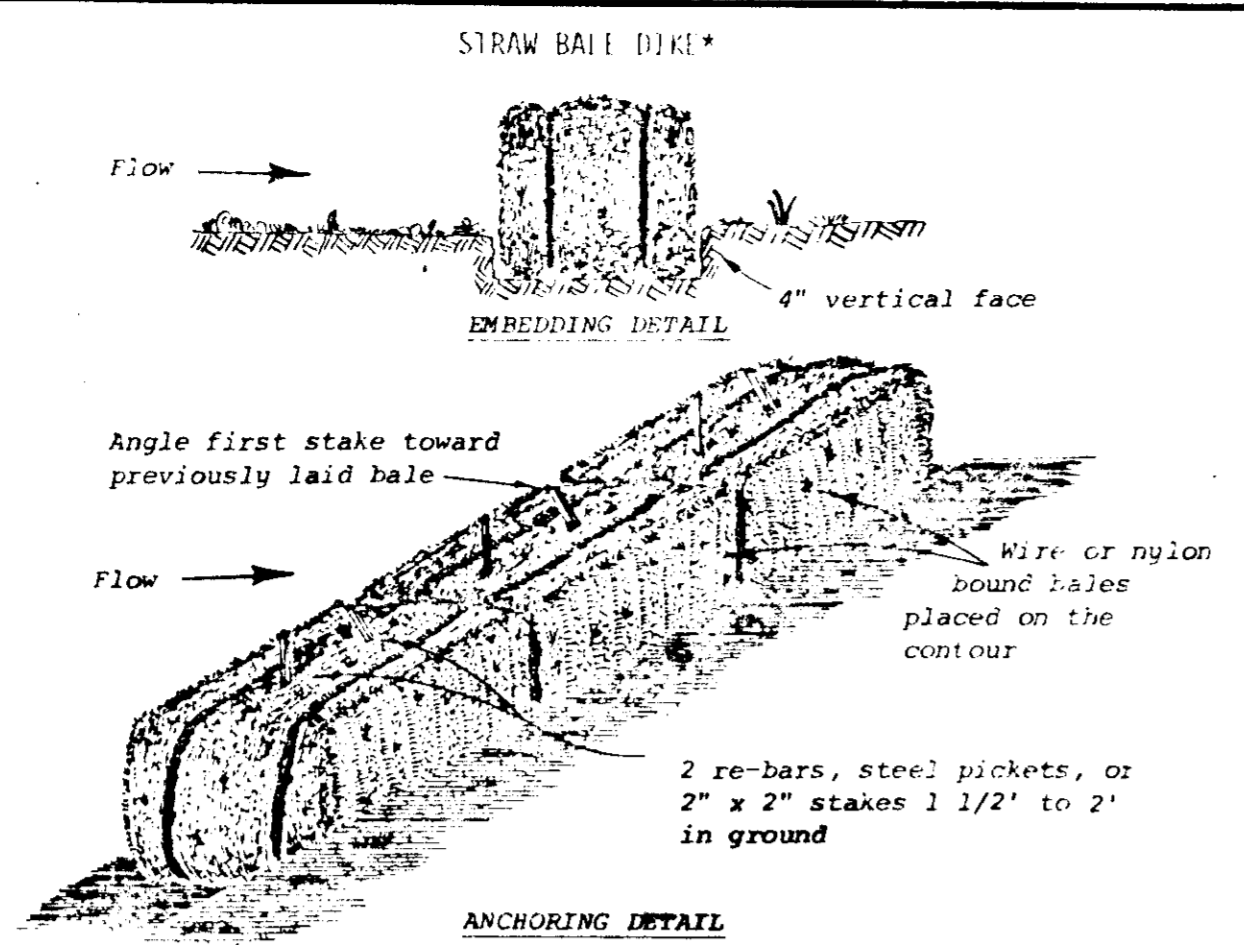
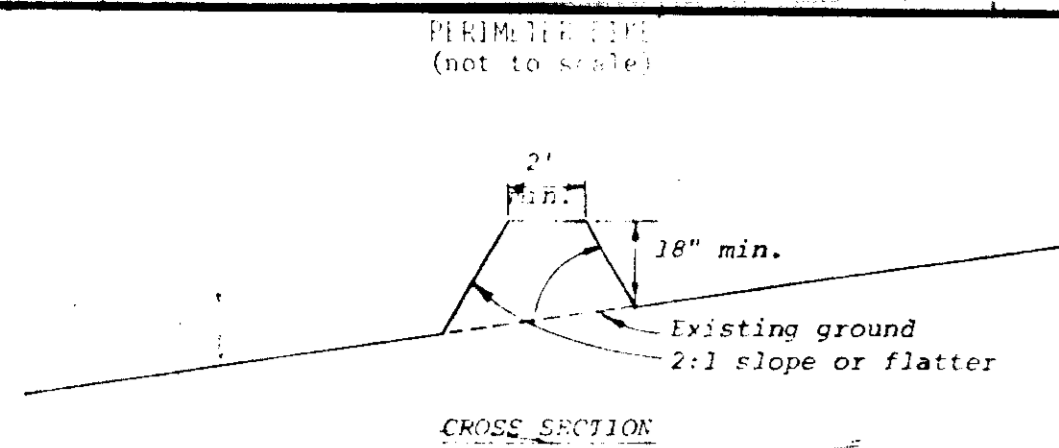
DATE: JULY, 1979 DESIGN BY: WHN DRAWN BY: WHN CHECKED BY: P.L.M.

SCALE: 1" = 30' JOB NO: 7923 DRAWING NO: 4 OF 7

boender associates
 SUITE 102-107 TOWN & COUNTRY PROFESSIONAL BUILDING
 ELLICOTT CITY, MARYLAND 21043
 BALTIMORE 201-687-7777 SALISBURY 301-749-1388

engineers/surveyors/planners

SITE ANALYSIS & SEQUENCE REV'S.
 REV. B 3-79 REMOVE P.S., TRASH PACH, SED. BASIN W/SCHEDULE & OUTLET PIPE -WN.



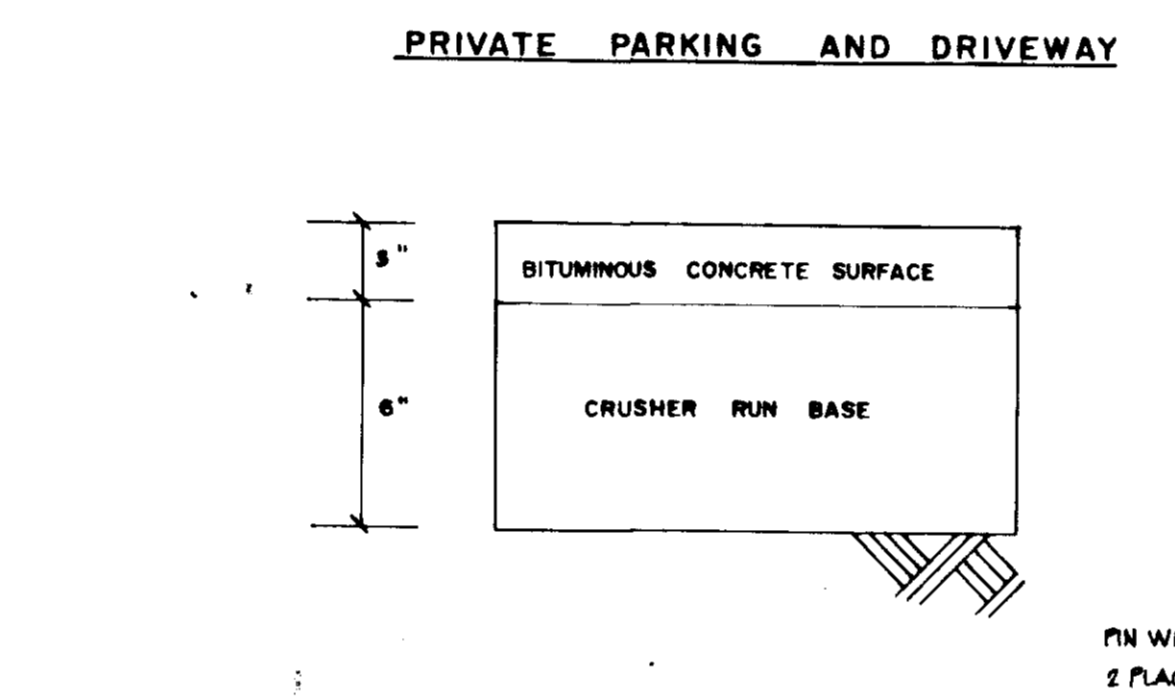
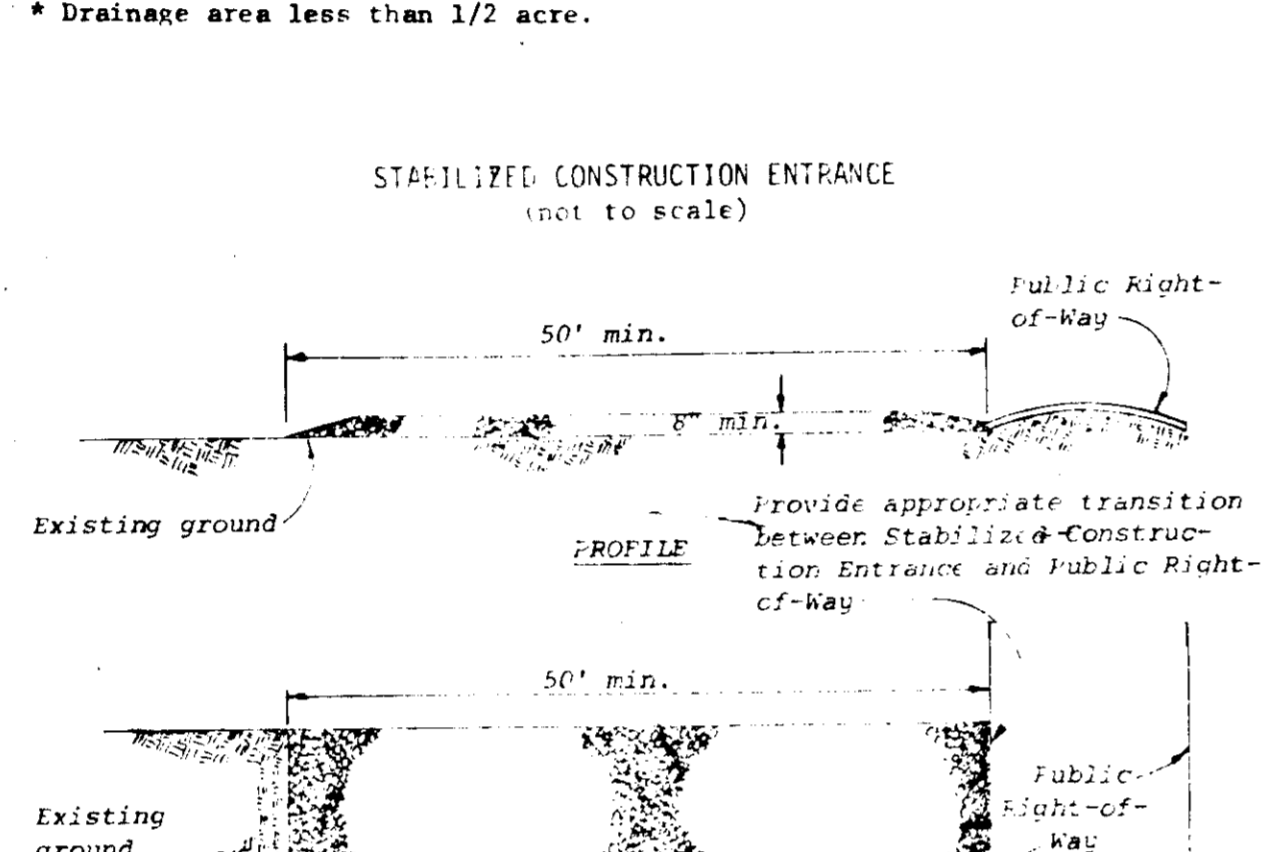
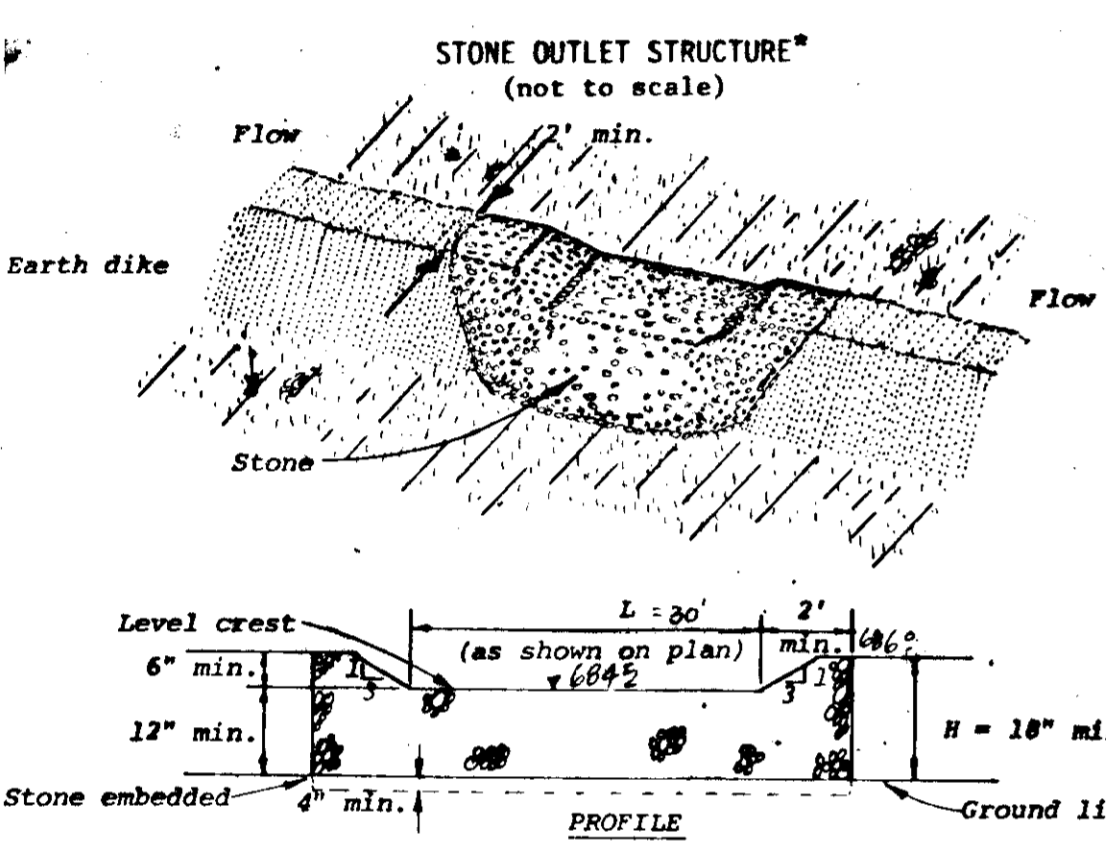
- Construction Specifications**
- All dikes shall be machine compacted.
 - All perimeter dikes shall have positive drainage to an outlet.
 - A. Diverted runoff from a protected or stabilized upland area shall outlet directly onto an undisturbed stabilized area or into a level spreader or grade stabilization structure.
 - B. Diverted runoff from a disturbed or exposed upland area shall be conveyed to a sediment trapping device such as a sediment trap or a sediment basin or to an area protected by any of these practices.
 - Stabilization, when required, shall be done in accordance with Standard and Specifications for Grassed Waterway. The minimum area to be stabilized shall be the channel flow area.
 - Periodic inspection and required maintenance shall be provided.

- Construction Specifications**
- Bales shall be placed in a row with ends tightly abutting the adjacent bales.
 - Each bale shall be embedded in the soil a minimum of 4 inches.
 - Bales shall be securely anchored in place by stakes or re-bars driven through the bales. The first stake in each bale shall be angled toward previously laid bale to force bales together.
 - Inspection shall be frequent and repair or replacement shall be made promptly as needed.
 - Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.

- Construction Specifications**
- All dikes shall be machine compacted.
 - All diversion dikes shall have positive drainage to an outlet.
 - A. Diverted runoff from a protected or stabilized area shall outlet directly to an undisturbed stabilized area or into a level spreader or grade stabilization structure.
 - B. Diverted runoff from a disturbed or exposed upland area shall be conveyed to a sediment trapping device such as a sediment trap or a sediment basin or to an area protected by any of these practices.
 - Stabilization, as specified by the plans, shall be: (1) in accordance with Standard and Specifications for Grassed Waterway, and the area to be stabilized shall be the channel (flow area); or (2) the flow area shall be lined with stone that meets MSHA size No. 2 or AASHTO M43 size No. 2 or 24 which is placed in a 3 inch thick layer and pressed into the soil. The area covered by the stone shall be as shown on the drawing above.
 - Periodic inspection and required maintenance shall be provided.

SEDIMENT CONTROL NOTES

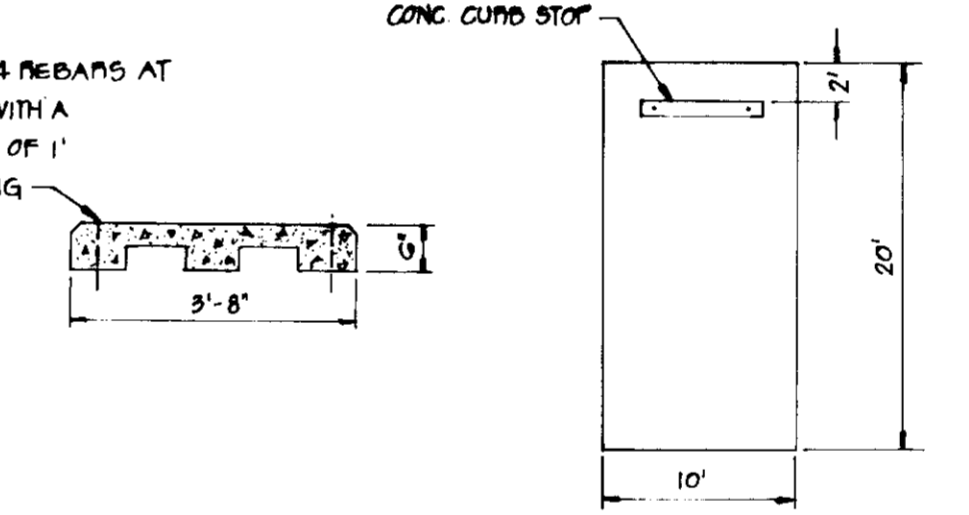
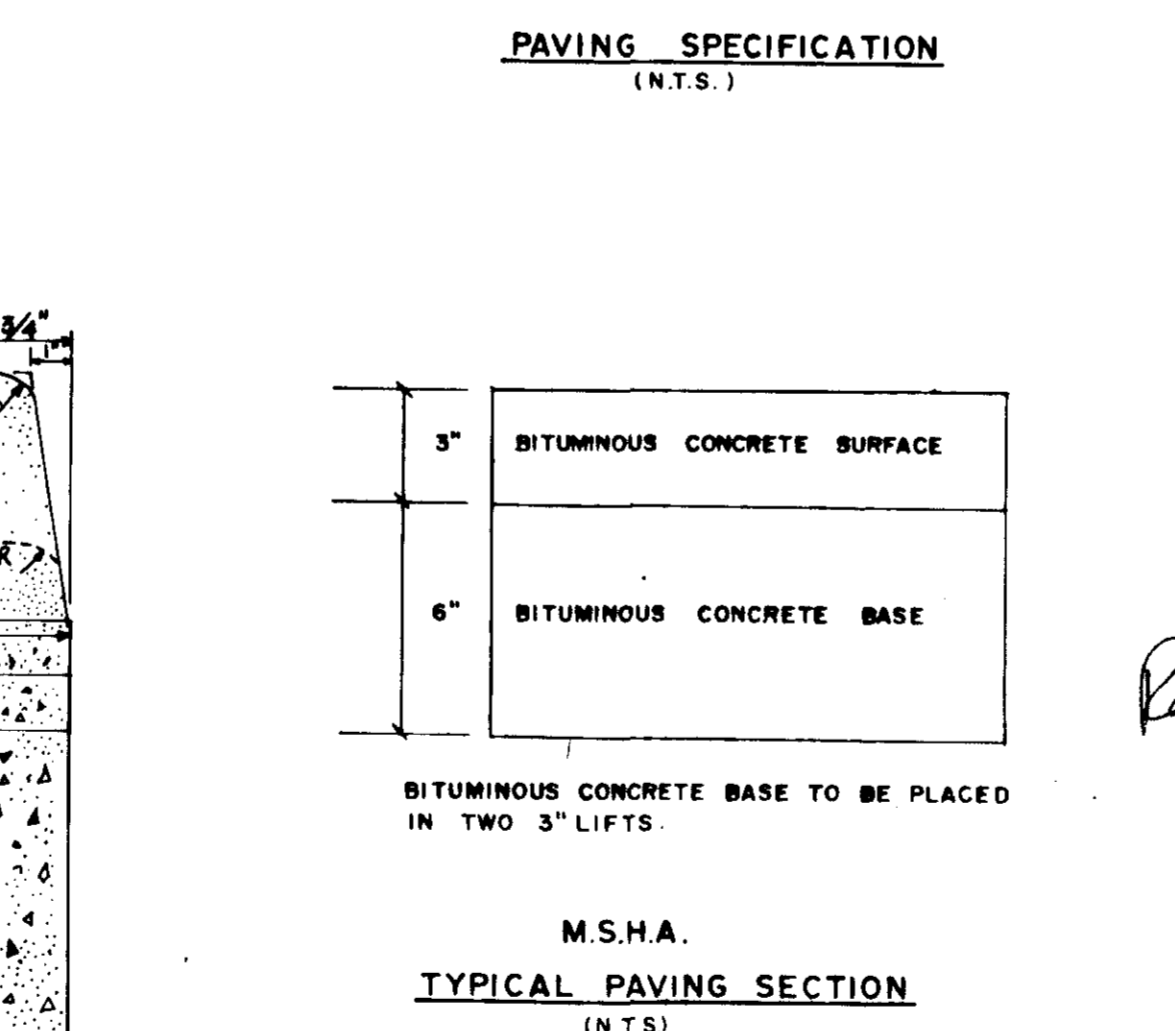
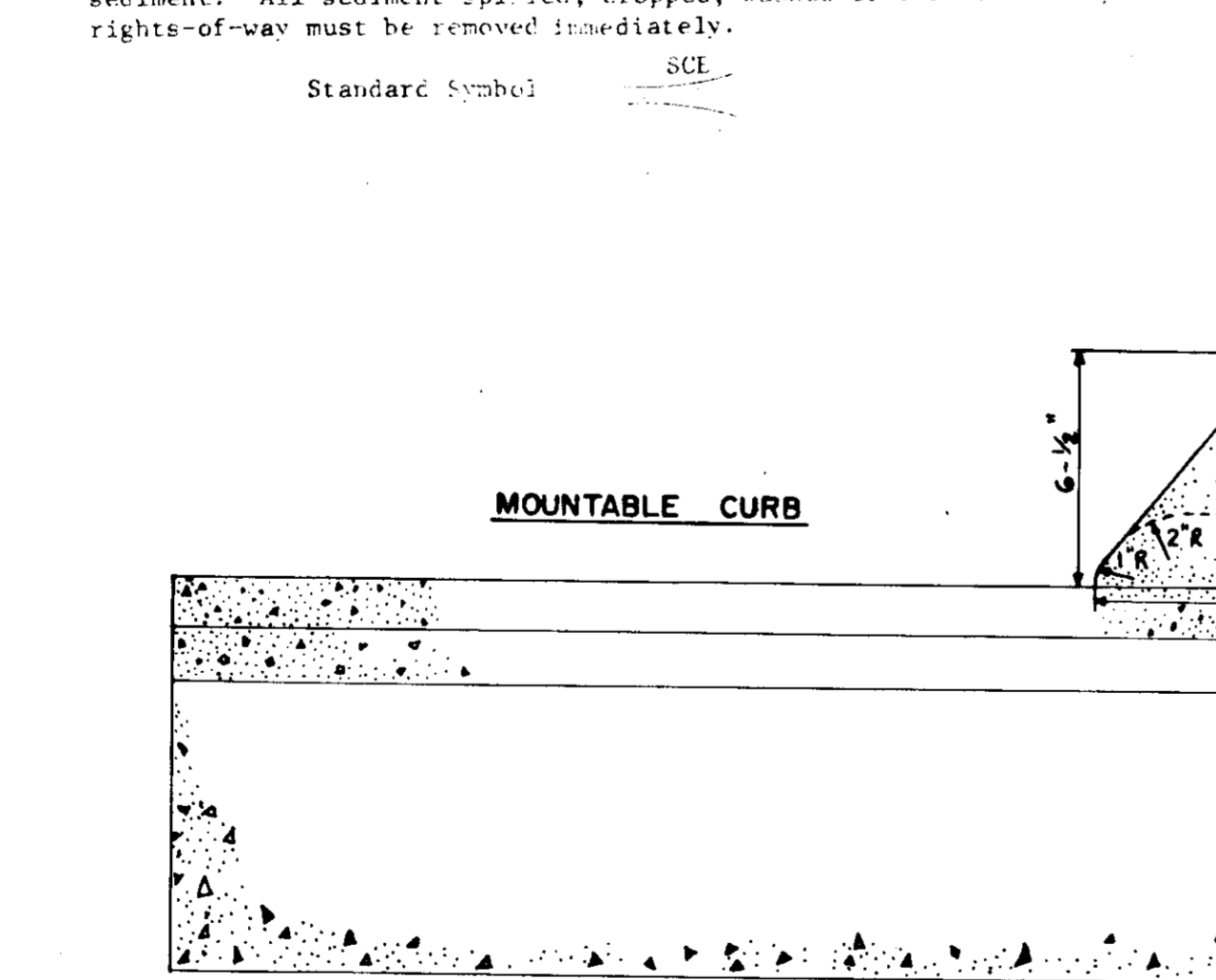
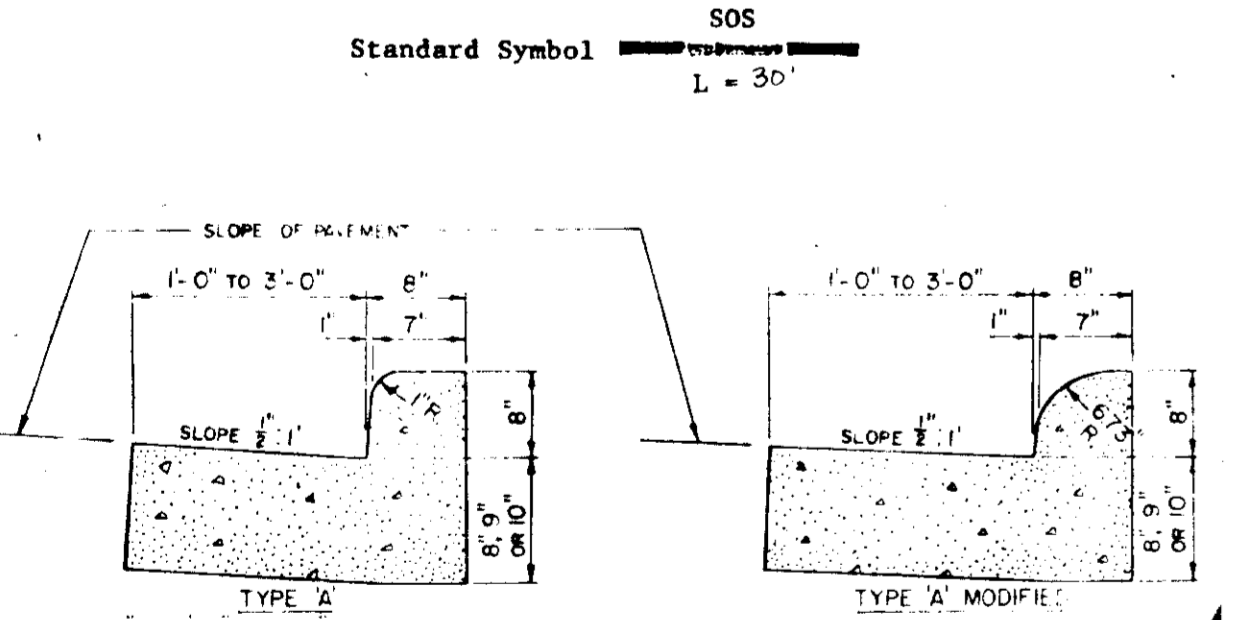
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS" PREPARED BY THE U.S.D.A. SOIL CONSERVATION SERVICE.
- APPLY FOR GRADING PERMIT.
- NOTIFY THE BUREAU OF LICENSE INSPECTIONS AND PERMITS 24 HRS. PRIOR TO GRADING OPERATIONS.
- CONSTRUCTION SHALL ADHERE TO THE CONSTRUCTION SEQUENCE.
- CUT AND FILL SLOPES SHALL BE 2:1 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./1000 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. OF PULVERIZED DOLOMIC LIMESTONE.
500 LBS./AC. OF 10-10-10 FERTILIZER.
SEED: 85 LBS./AC. OF KENTUCKY 31 TALL FESCUE,
40 LBS./AC. OF KENTUCKY BLUE GRASS,
25 LBS./AC. OF ANNUAL RYEGRASS.
NOTE: SEEDING MAY BE DONE BETWEEN MARCH 1 - MAY 1, OR AUG. 1 - OCT. 1 ONLY.
MULCH ALL DISTURBED AREAS IMMEDIATELY AFTER GRADING.
MULCH: 2 TONS/AC. OF UNWEATHERED WHEATSTRAW. TIE MULCH DOWN WITH 480 GAL./AC. OF LIQUID ASPHALT.



- Construction Specifications**
- The stone shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet MSHA Size No. 2 or AASHTO designation M43 Size No. 2 or 24.
 - The crest of the stone dike shall be at least six inches lower than the lowest elevation of the top of the earth dike and shall be level.
 - The stone outlet structure shall be embedded into the soil a minimum of four inches.
 - The minimum length, in feet, of the crest of the stone outlet structure shall be equal to six times the number of acres of contributing drainage area.
 - The stone outlet structure shall be inspected after each rain, and the stone shall be replaced when the structure ceases to function as intended due to silt accumulation among the stone, washout, construction traffic damage, etc.

- Construction Specifications**
- Stone size - Use MSHA size No. 2 (2-1/2" to 1") or AASHTO designation M43, size No. 2 (2-1/2" to 1-1/2"). Use crushed stone.
 - Length - As effective, but not less than 50 feet.
 - Thickness - Not less than eight (8) inches.
 - Width - Not less than full width of all points of ingress or egress.
 - Washing - When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch, or watercourse through use of sand bags, gravel, boards or other approved methods.
 - Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanup of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.

- CLEARING AND GRADING: ARTICLE C-1**
SUBGRADE: ARTICLE C-2
BASE COURSE: ARTICLE C-33
SURFACE COURSE: ARTICLE C-3
- TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
 - BASE WILL BE PRIMED IN ACCORDANCE WITH SECTION C-30-3AS PROVIDED IN THE HOWARD CO. ROAD CONST. CODE AND STANDARD SPECIFICATIONS.
 - TACK COAT IS IN ACCORDANCE WITH SECTION C-31-4 OF THE HOWARD CO. ROAD CONST. CODE AND STANDARD SPECIFICATIONS.



APPROVED
DIVISION OF LAND DEVELOPMENT
HOWARD COUNTY, MARYLAND
DATE 9-19-79
JWM

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

APPROVED FOR THE COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE 11-9-79

APPROVED FOR THE COUNTY DEPARTMENT OF PUBLIC WORKS
DATE 12-7-79

APPROVED FOR THE COUNTY DEPARTMENT OF PUBLIC ROADS
DATE 12-6-79

APPROVED FOR THE COUNTY DEPARTMENT OF PUBLIC UTILITIES
DATE 12-5-79

REVIEWED FOR HO CO. S.C.D. AND MEETS TECHNICAL REQUIREMENTS

APPROVED FOR THE HOWARD COUNTY SOIL CONSERVATION SERVICE
DATE 11-5-79

THIS DEVELOPMENT IS APPROVED SOIL EROSION AND SEDIMENT CONTROL BY THE HO CO. SOIL CONSERVATION DISTRICT.

APPROVED FOR THE HOWARD COUNTY SOIL CONSERVATION DISTRICT
DATE 11-2-79

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
STANDARD TYPES OF CONCRETE CURB
COMBINATION CONCRETE CURB & GUTTER
STANDARD NO. MD-620.02

DESIGN OF OUTLET PROTECTION
MAXIMUM TAILWATER CONDITION (TW ≥ 0.5 diam.)

ENGINEER'S CERTIFICATE
FOR SOIL EROSION AND SEDIMENT CONTROL REPRESENTS A PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND SINGLE WITH THE REQUIREMENTS OF THE SOIL CONSERVATION DISTRICT.

APPROVED FOR THE HOWARD COUNTY SOIL CONSERVATION DISTRICT
DATE 7-30-79

STIPULE	TYPE	L	W
4-1	18	20	10
4-2	15	20	10
4-3	15	20	10

STANDARD SEDIMENT CONTROL, ONSITE PAVING DETAILS AND MARYLAND STATE ROAD DETAILS.

PROJECT: CHURCH OF THE OPEN BIBLE

LOCATION: 4TH ELECTION DISTRICT HOWARD CO., MD.

DATE: JULY, 1979 DESIGN BY: W.H.N. DRAWN BY: G.E.W. CHECKED BY: R.L.M.

SCALE: JOB NO.: 7923 DRAWING NO.: 5 OF 7

boender associates
engineers/surveyors/planners

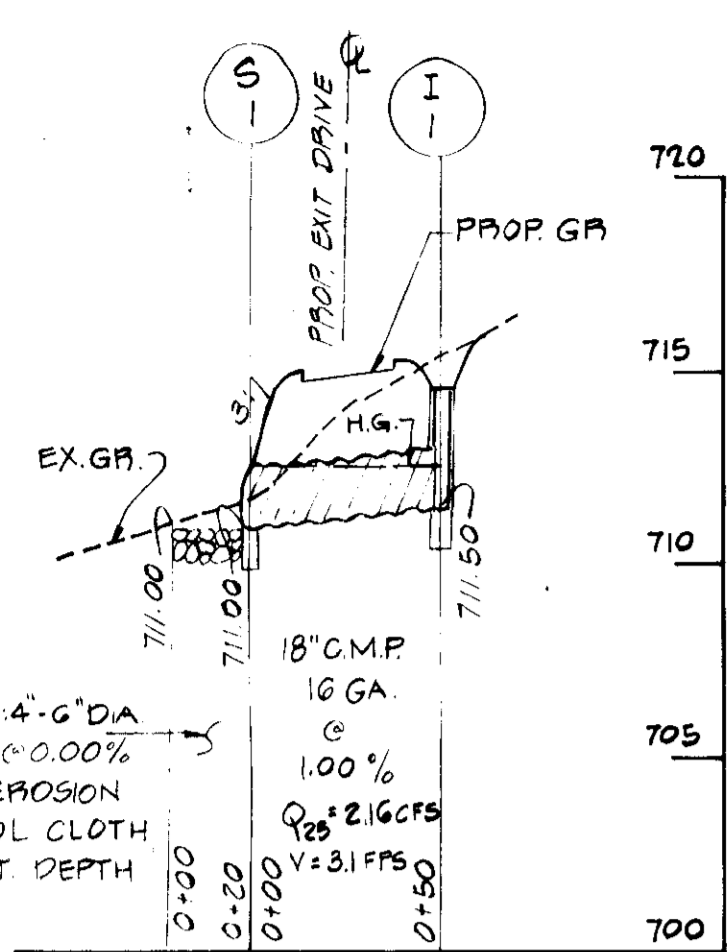
SUITE 102-107 TOWN & COUNTRY PROFESSIONAL BUILDING
ELLIOTT CITY, MARYLAND 21043
BALTIMORE 301-468-7777 ELLICOTT CITY 301-746-1306

Professional Engineer
Rodolph May Jr.
7/30/79

ADD 506 SPEC. 4
REV. 8-2-70 REMOVE P.S., TRASH MACH, WISER
BY: W.N.

STRUCTURE SCHEDULE

NO	DESCRIPTION	INVERT ELEV	TOP ELEV	REMARKS
I-1	STD K INLET - SINGLE GRATE	715.0	714.50	M.S.H.A. STD 378.03
S-1	STD. METAL END SECTION	711.00	712.50	M.S.H.A. STD 370.01
S-2	STD METAL END SECTION	711.00	712.50	M.S.H.A. STD 370.01
S-3	MODIFIED A-5 INLET	682.00	689.00	SEE DETAIL THIS SHEET
12	STD C INLET	695.5	700.5	HO CO. STD. G4C P.119C
13	STD C INLET	697.0	700.5	HO CO. STD. G4C P.119C



PROFILE
HOR: 1" = 50'
VER: 1" = 5'

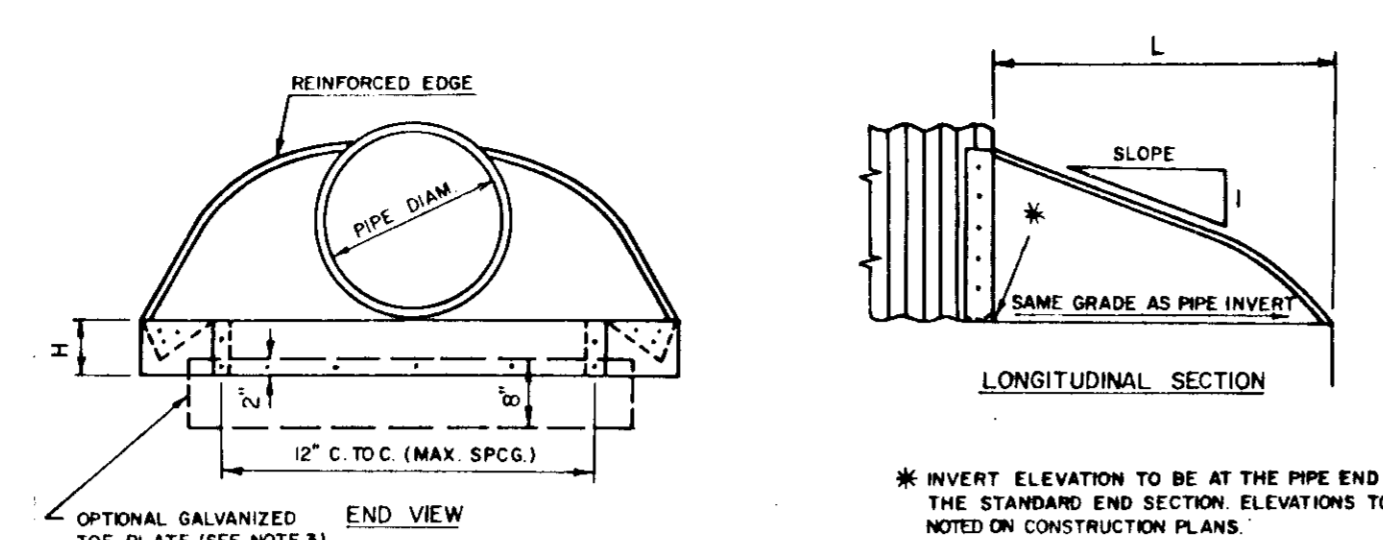
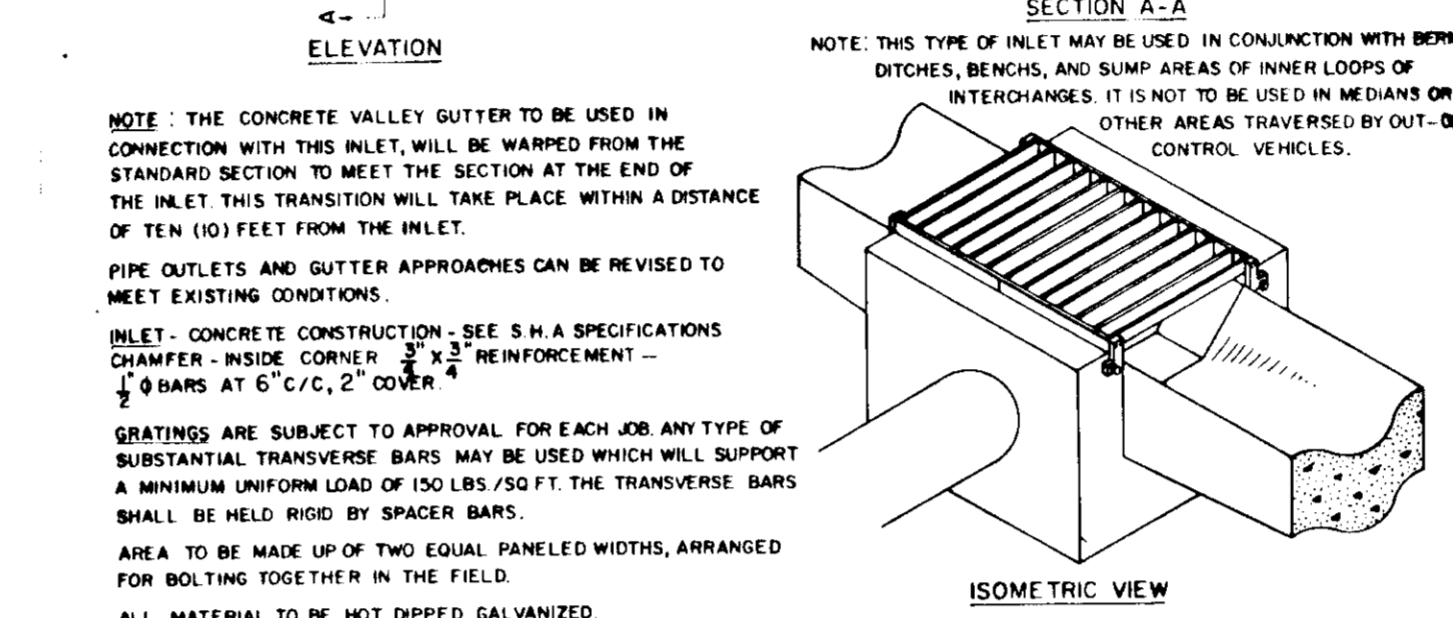
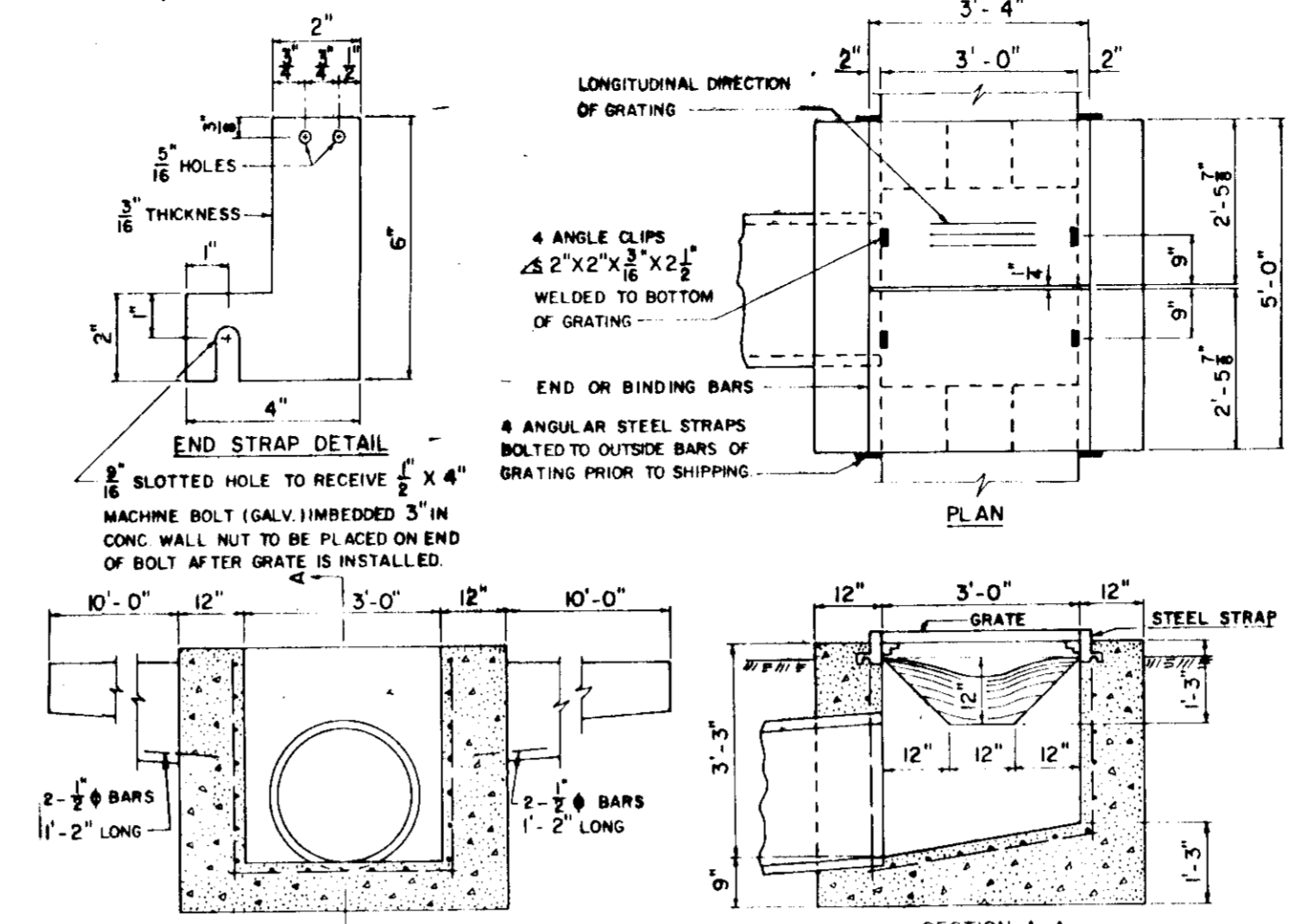


TABLE OF DIMENSIONS

PIPE DIAM	GA.	A	B	H	L	W	APPROX. SLOPE	BODY
16"	16	6"	0"	0"	3"	3"	2%	IPC
15"	16	7"	8"	0"	12"	30"	2 1/2%	26

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
STANDARD METAL END SECTION
ROUND METAL PIPE
STANDARD NO. MD - 370.01



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
STANDARD TYPE K INLET
NON-TRAFFIC AREAS
STANDARD NO. MD - 378.03

APPROVED
DIVISION OF LAND DEVELOPMENT
HOWARD COUNTY, MARYLAND
DATE 9-19-79
JMM

CERTIFICATION OF THE ENGINEER

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

Rodolph May Jr.
RODOLPH L. MAY JR.
7-30-79
DATE



CERTIFICATION BY THE DEVELOPER

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR A POND AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATIONS FROM THESE PLANS WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

J. H. P...
DEVELOPER
July 29 1979
DATE

THESE PLANS FOR SMALL POND CONSTRUCTION MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

Robert W. Ziehm
APPROVED HO. CO. S.C.D.
11-2-79
DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION.

Jana M. Helms
U.S. SOIL CONSERVATION SERVICE
11-5-79
DATE

PRIVATE ATTEST
COUNTY CLERK

Juan Brown 11-9-79
Thomas L. Harris 12-7-79
John M. ... 12-7-79

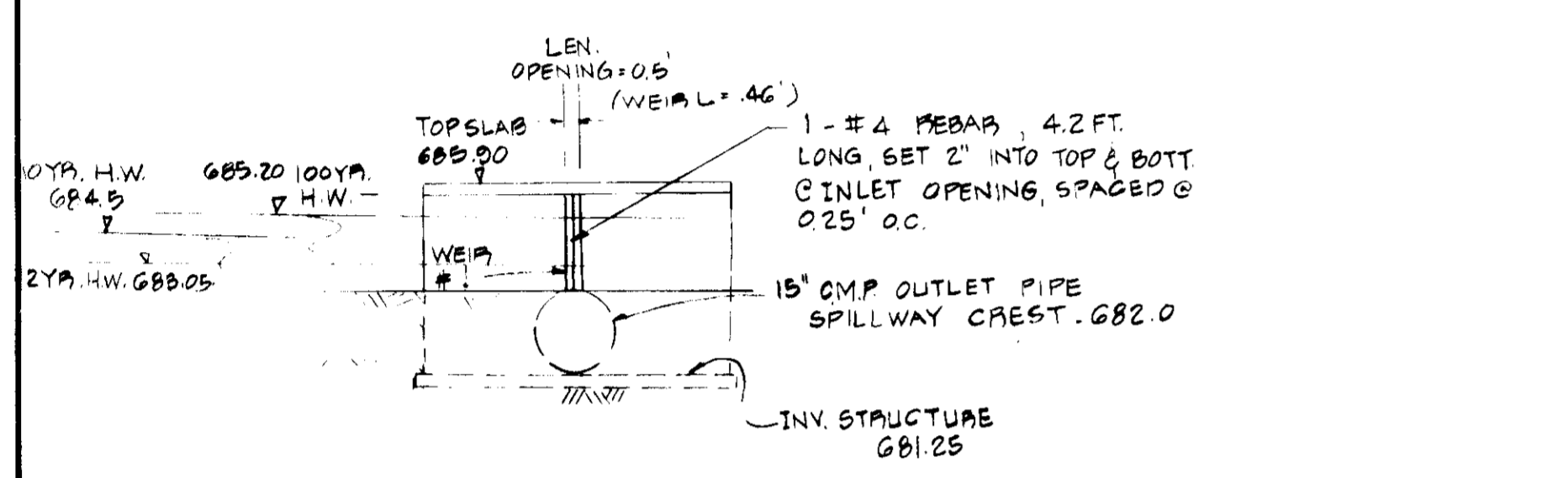
APPL. ...
George F. Nimmey 12-6-79
W. O. ... 12-5-79

CONTRACT PURCHASER & DEVELOPER
CHURCH OF THE OPEN BIBLE
LISBON, MARYLAND

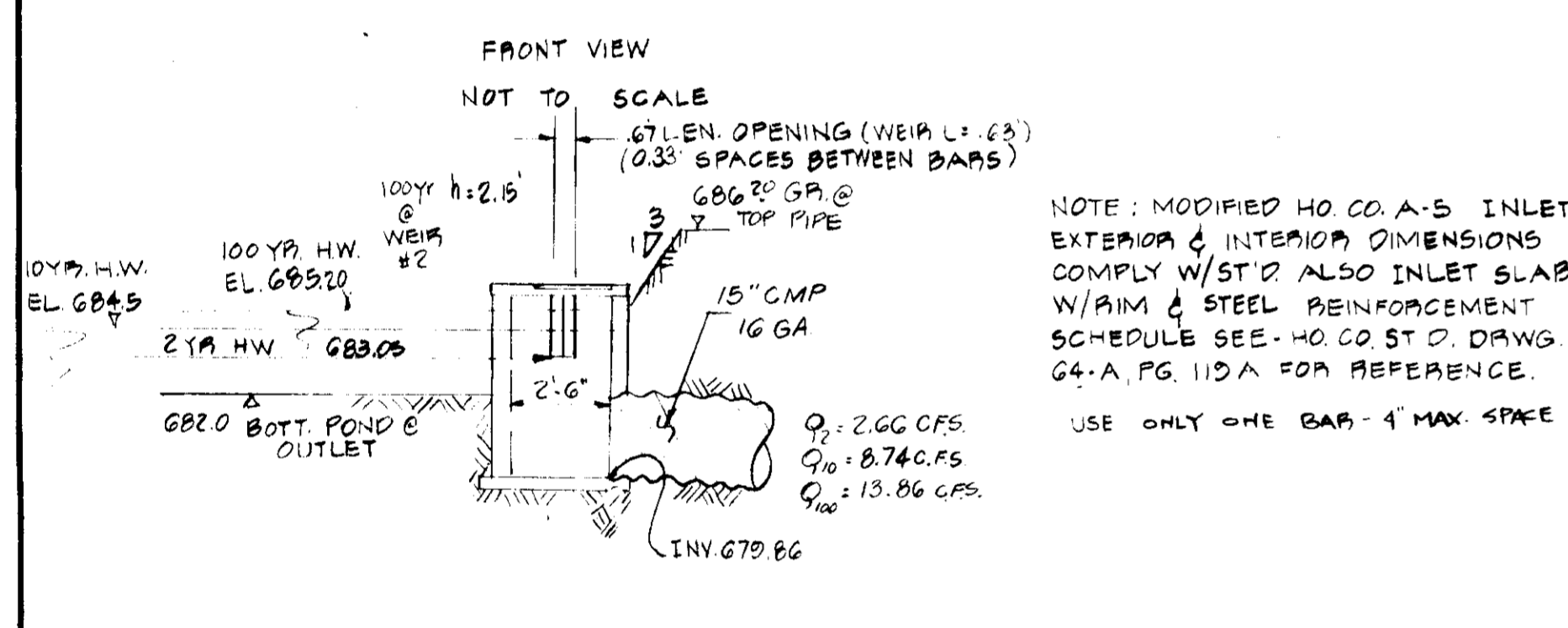
TITLE	STORM DRAIN, S.W.M. PROFILES, SECTIONS, & DETAILS		
PROJECT	CHURCH OF THE OPEN BIBLE		
LOCATION	4TH ELECTION DISTRICT	HOWARD CO., MD.	
DATE	JULY, 1979	DESIGN BY: W.H.N.	CHECKED BY: P.L.M.
SCALE:	AS SHOWN	JOB NO.: 7923	DRAWING NO.: 6 OF 7

boender associates
SUITE 102-107 TOWN & COUNTRY PROFESSIONAL BUILDING
ELLICOTT CITY, MARYLAND 21043
BALTIMORE 301-465-7777 SALISBURY 301-748-1288

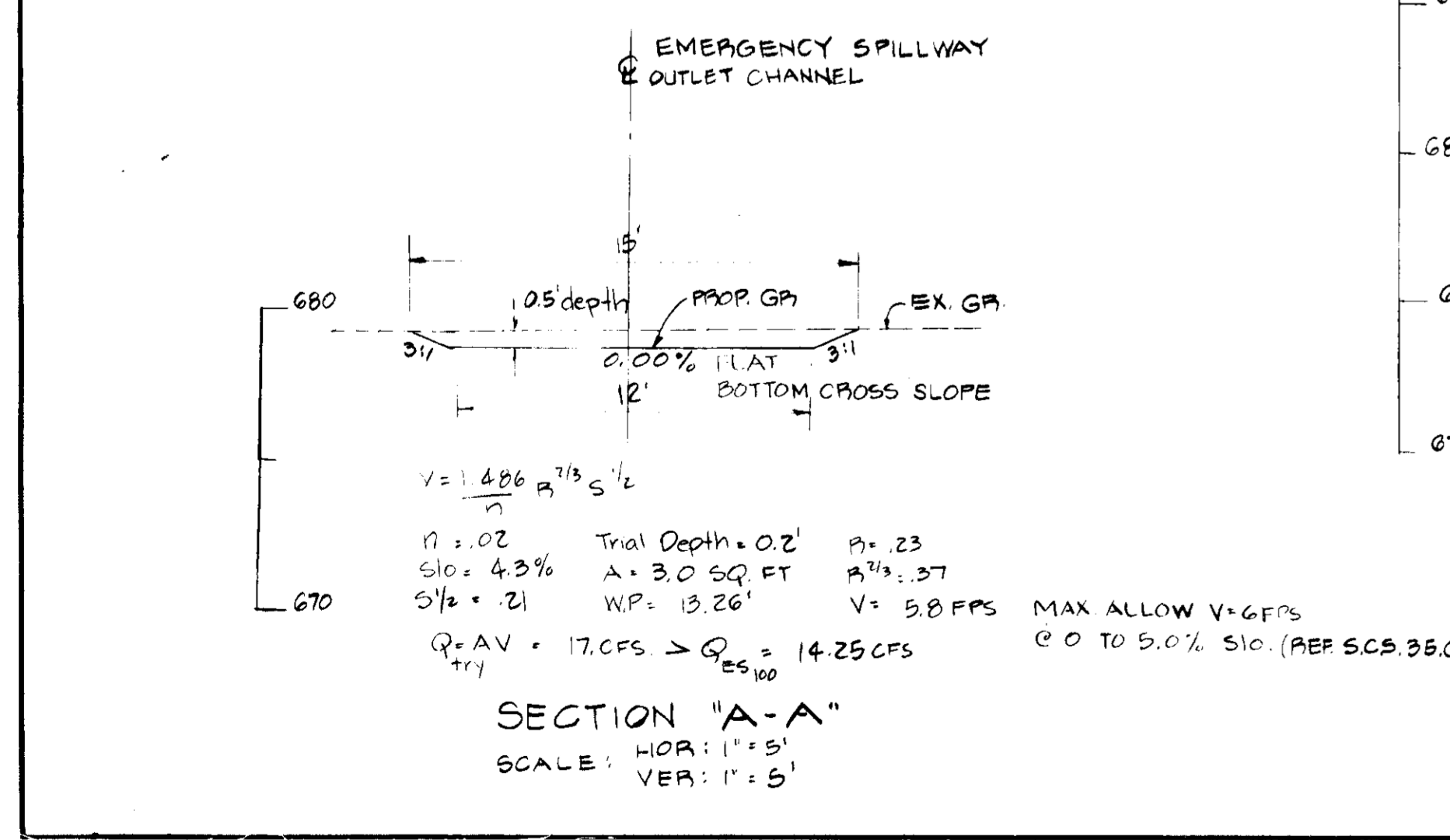
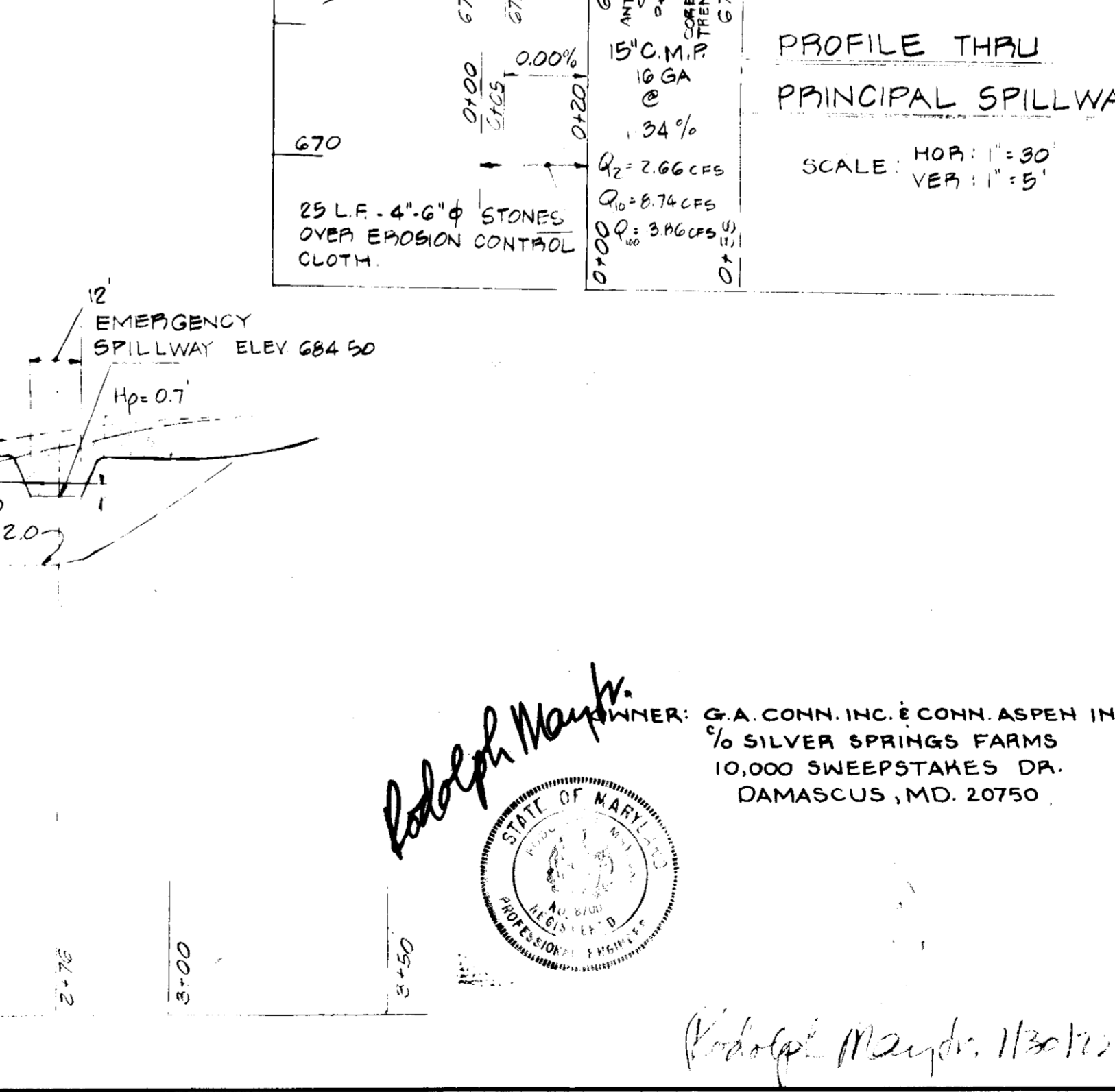
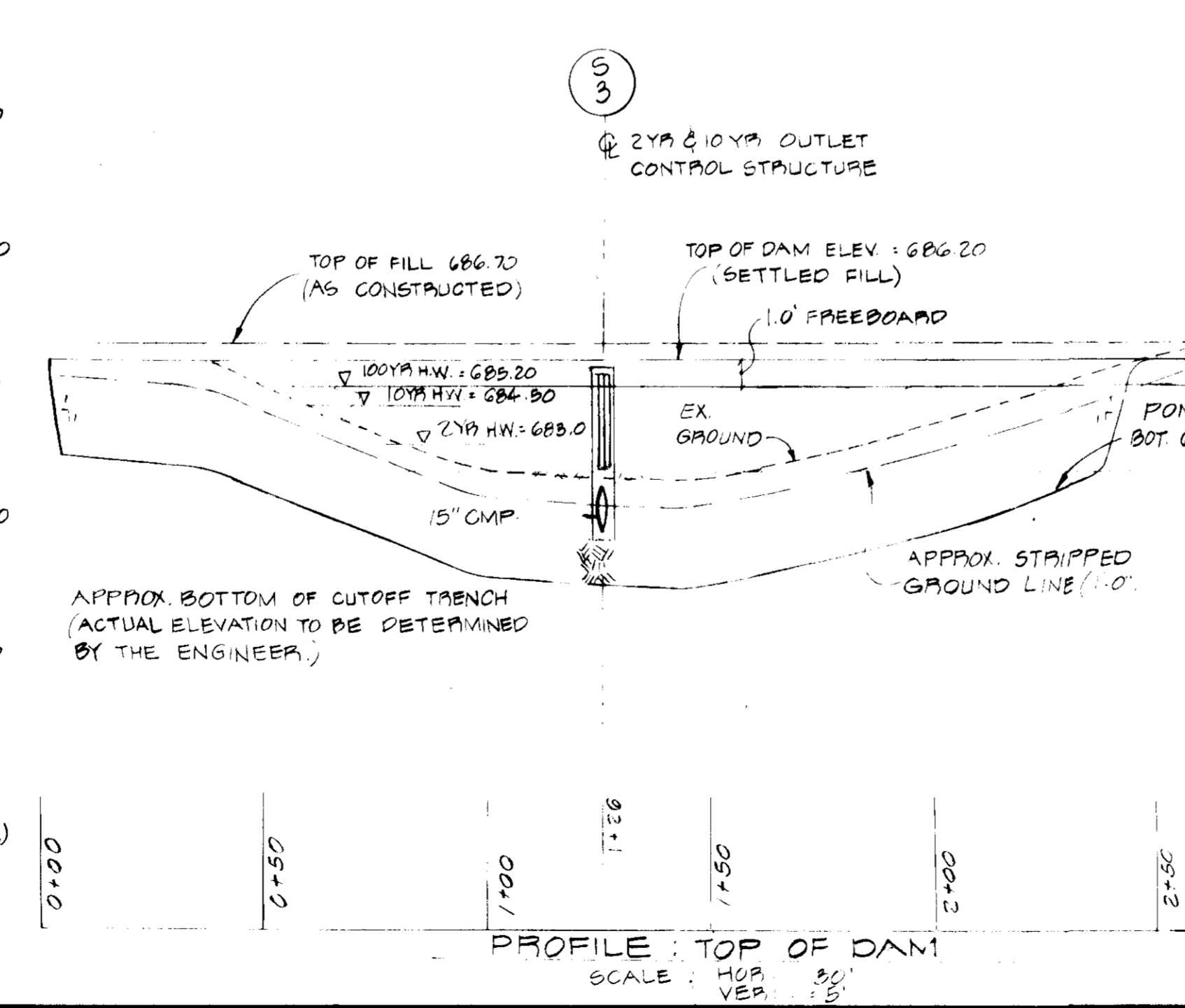
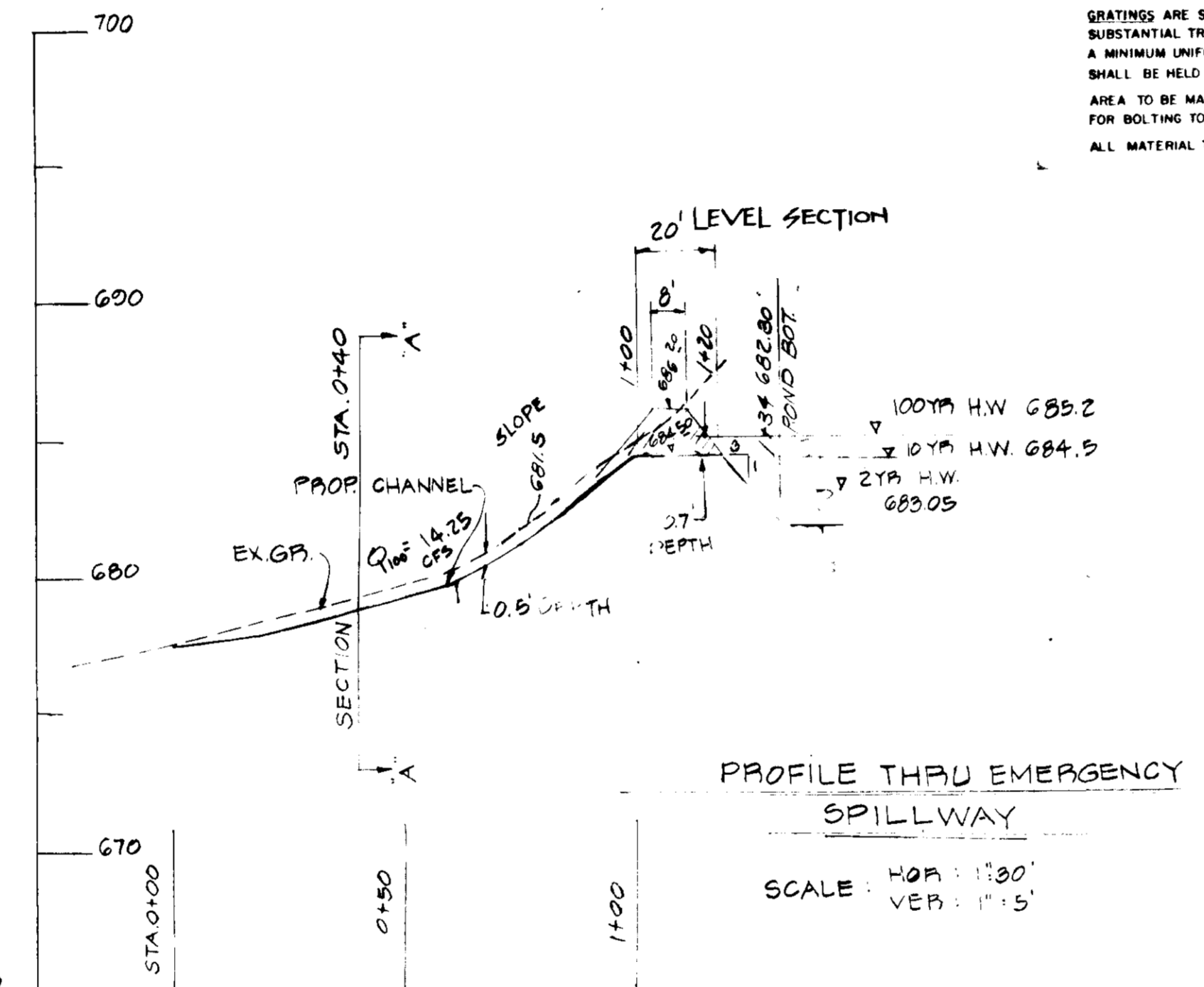
engineers
surveyors
planners



S-3 DETAIL
OUTLET CONTROL STRUCTURE



FRONT VIEW NOT TO SCALE
RIGHT SIDE VIEW NOT TO SCALE
NOTE: NO OPENINGS @ LEFT SIDE OF STRUCTURE.



OWNER: G.A. CONN. INC. & CONN. ASPEN INC.
% SILVER SPRINGS FARMS
10,000 SWEEPSTAKES DR.
DAMASCUS, MD. 20750.

Rodolph May Jr.
STATE OF MARYLAND
PROFESSIONAL ENGINEER
LICENSE NO. 11387

SOIL CONSERVATION SERVICE
MARYLAND
CONSTRUCTION SPECIFICATIONS
FOR
PONDS

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

APPROVED FOR USE IN MARYLAND

MAY 1977

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.

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 construction 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.

IV. PIPE CONDUITS

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.

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, 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.

Helically corrugated pipe in addition to the requirements above shall have either continuously welded seams or have lock seams which are caulked, during fabrication, with a neoprene bead.

- 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 shall be used at all joints. Anti-seep collars 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. 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.
- Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
- Backfilling shall conform to structural backfill as shown above.
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.
- 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.
- 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 compounds may also be used.
- Placing Temperature - Concrete may not be placed at temperatures below 37° F with the temperature falling, or 36° with the temperature rising.

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 borrow shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications shown on or accompanying the drawings.

VII. CONCRETE

1. Materials

- Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.
- Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
- 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.
- 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.
- Reinforcing Steel - The reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

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.

- 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.

Forms - The forms shall have sufficient strength and rigidity to hold the concrete and withstand the necessary pressure, tampering 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.

- 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.
- 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.

APPROVED
DIVISION OF LAND DEVELOPMENT

HOWARD COUNTY, MARYLAND

DATE 9-19-79

Jum

CERTIFICATION BY THE
DEVELOPER

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT & PLANS FOR A POND & I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD CO. SOIL CONSERVATION DISTRICT AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATIONS FROM THESE PLANS WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

J. M. Randall
DEVELOPER

DATE July 29, 1979

CERTIFICATION OF THE
ENGINEER

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

Rodolph L. May Jr.
RODOLPH L. MAY JR.

OWNER: GA. CONN. INC. & CONN. ASPEN, INC.
56 SILVER SPRINGS FARMS
10,000 SWEEPSTAKES DRIVE
DAMASCUS, MD. 20750

APPROVED FOR PRIVATE AND PRIVATE SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT	<i>Joyce F. Neumy</i> DATE 11-9-79
APPROVED FOR PLANNING AND ZONING HOWARD COUNTY PLANNING DEPARTMENT	<i>John W. M... DATE 12-7-79</i>
APPROVED FOR EROSION CONTROL, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY BUREAU OF ENGINEERING	<i>W. S. P. Mark DATE 12-5-79</i>



Rodolph May Jr.
7-30-79

CONTRACT PURCHASER & DEVELOPER
CHURCH OF THE OPEN BIBLE
LISBON, MARYLAND

THESE PLANS FOR SMALL POND CONSTRUCTION MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

APPROVED *Robert Zickow* HO. CO. S.C.D. DATE 11-2-79

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

APPROVED *James W. DeLoach* SOIL CONSERVATION SERVICE DATE 11-5-79

TITLE: POND CONSTRUCTION SPECIFICATIONS			
PROJECT: CHURCH OF THE OPEN BIBLE			
LOCATION: 4TH ELECTION DISTRICT		HOWARD CO., MD.	
DATE: JULY, 1979	DESIGN BY: G.E.W.	DRAWN BY: G.E.W.	CHECKED BY: R.L.M.
SCALE: AS NOTED	JOB NO.: 7923	DRAWING NO.: 70F7	
boender associates SUITE 102-107 TOWN & COUNTRY PROFESSIONAL BUILDING ELLCOTT CITY, MARYLAND 21043 BALTIMORE 301-460-7777 SALISBURY 301-740-1200			
engineers		surveyors	
planners			