

# SITE DEVELOPMENT PLAN

## CHRIST EPISCOPAL CHURCH

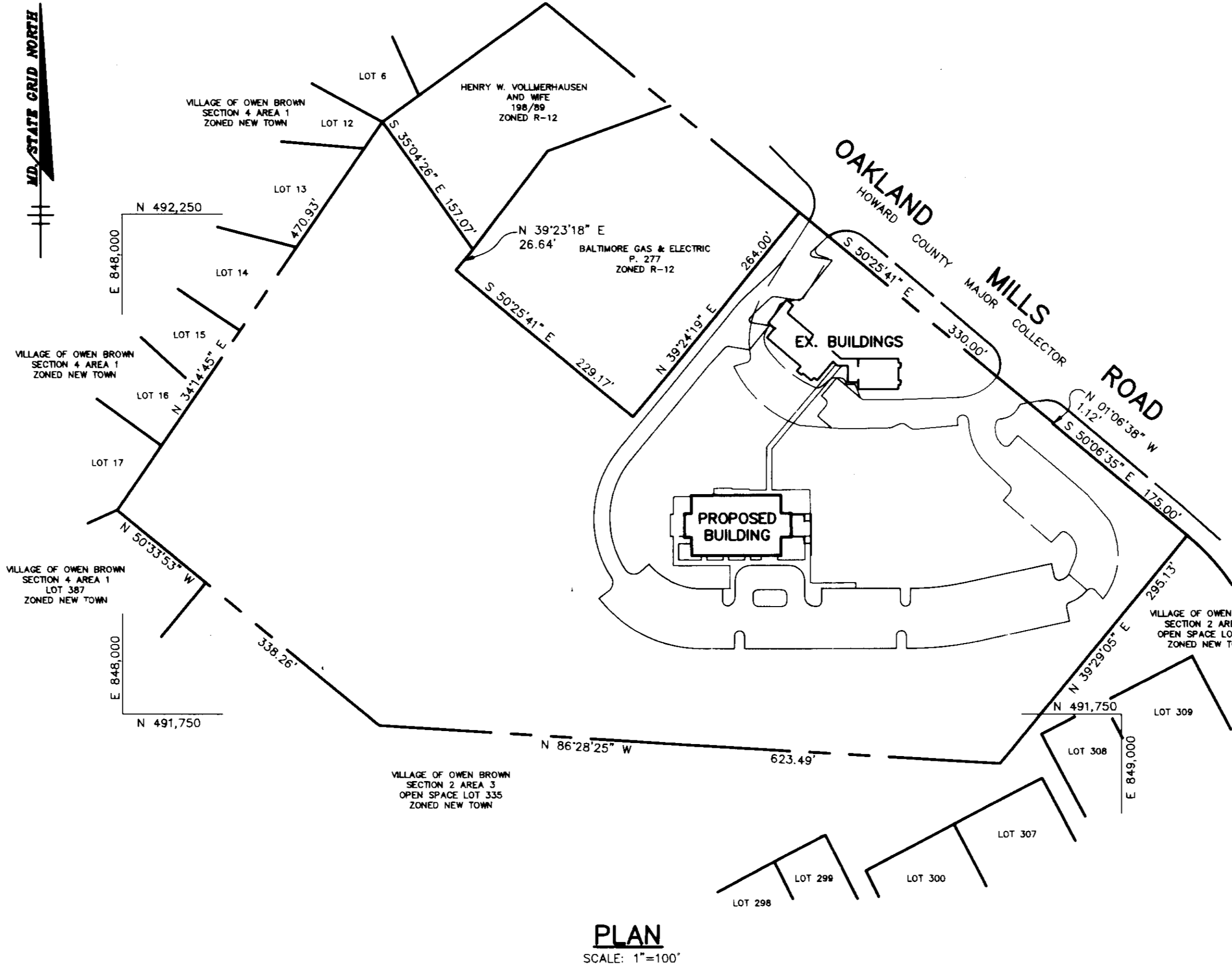
### 6th ELECTION DISTRICT

## HOWARD COUNTY, MARYLAND

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### GENERAL NOTES

- ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS M.S.H.A. STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. 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.
- THE CONTRACTOR SHALL TEST ALL EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF CONSTRUCTION INSPECTION AT (410) 792-7272 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
  - MISS UTILITY 1-800-252-7777
  - C&P TELEPHONE COMPANY 722-9976
  - HOWARD COUNTY BUREAU OF UTILITIES 312-4800
  - ATAF CABLE LOCATION DIVISION 393-3553
  - BALTIMORE GAS & ELECTRIC COMPANY 682-1121
  - STATE HIGHWAY ADMINISTRATION 531-5533
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- NO PIPE SHALL BE LAD UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SURFACE.
- TOPS TAKEN FROM FIELD RIN SURVEY DATED FEB. 1991 BY RIEMER MUEGGE AND ASSOCIATES, INC. CONTOURS SHOWN AT 2 FOOT INTERVAL.
- VERTICAL CONTROL ESTABLISHED USING HO. CO. MONUMENT #2442003 & 2442002 HORIZONTAL CONTROL ESTABLISHED FROM MARYLAND STATE COORDINATE SYSTEM (DATED AUGUST, 1991).
- WETLANDS DELINEATION PERFORMED BY RIEMER MUEGGE AND ASSOCIATES, INC. (DATED AUGUST, 1991).
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN DETAIL Q2.01 (TRENCH IN ROCK OR TRENCH IN EARTH AS DETERMINED BY FIELD CONDITIONS) IN VOL. IV OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS.
- THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ADJACENT TO ADJACENT PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
- THE OWNER SHALL PROVIDE A SEPARATE AND INDEPENDENT SEWER CONNECTION FOR EACH TENANT OR OCCUPANT OF ANY BUILDING SHOWN ON THIS SITE DEVELOPMENT PLAN WHO WILL DISCHARGE NON-DOMESTIC WASTE TO THE PUBLIC SEWERAGE SYSTEM IF THIS WASTE IS REGULATED UNDER SECTION 18.122A OF THE HOWARD COUNTY CODE. EACH SEPARATE AND INDEPENDENT SEWER CONNECTION SHALL INCLUDE A STANDARD MANHOLE AND OTHER WASTE PRETREATMENT DEVICES AS REQUIRED AND APPROVED BY HOWARD COUNTY. WASTE LINES ON THE INTERIOR OF THE BUILDING SHALL BE DESIGNED, CONSTRUCTED FOR NON-DOMESTIC WASTE THAT NON-DOMESTIC WASTE WILL BE DISCHARGED TO THE SEPARATE AND INDEPENDENT SEWER CONNECTION. NO PLAN SHALL DISCHARGE REGULATED NON-DOMESTIC WASTE TO THE PUBLIC SEWERAGE SYSTEM PRIOR TO INSTALLATION OF THE SEPARATE AND INDEPENDENT SEWER CONNECTION AND RELATED INTERIOR WASTE LINES. THE ABOVE REQUIREMENTS SHALL APPLY TO ALL INITIAL AND FUTURE OCCUPANTS OR TENANTS.
- THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE. ANY PAVEMENT SECTION DETERMINED BY THE GEOTECHNICAL ENGINEER THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARD, SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
- STORMWATER MANAGEMENT FOR THIS DEVELOPMENT IS PROVIDED BY AN EXTENDED DETENTION FACILITY. THIS FACILITY WILL BE PRIVATELY OWNED AND MAINTAINED.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED 25 FOOT WETLANDS/75 FOOT STREAM BUFFERS, EXCEPT FOR THE SEWER CROSSING AS SHOWN IN CONTRACT NO. 24-3197-D.
- PROPOSED WATER AND SEWER FOR THIS DEVELOPMENT WILL BE PUBLIC, CONTRACT NO. 24-3197-D, PATIENT DRAINAGE AREA.
- REF.: SEP-91-09 WAS TO PROVIDE 28 ADDITIONAL PARKING SPACES AND STORMWATER MANAGEMENT FACILITY.
- AN ELEVATOR WILL BE PROVIDED WITHIN THE BUILDING.



PLAN  
SCALE: 1"=30'

### DA-91-25 CONDITIONS OF APPROVAL

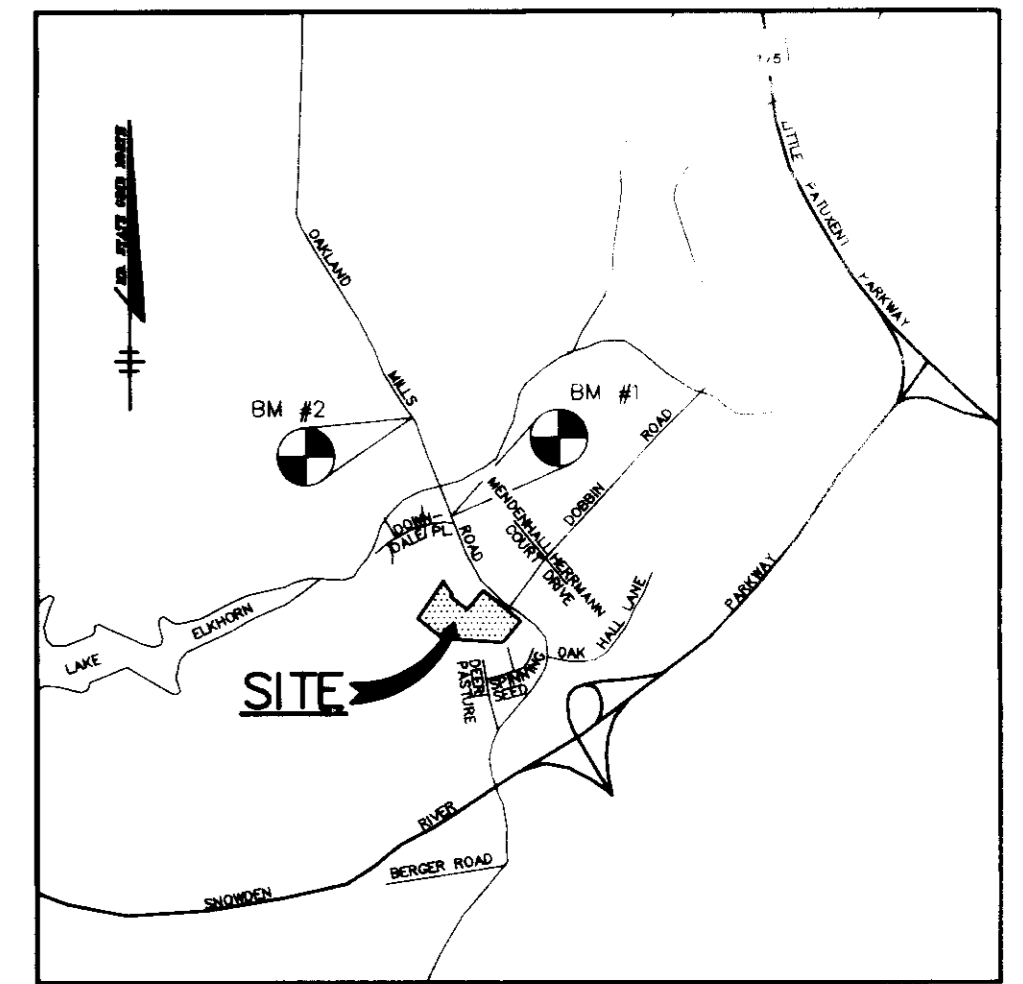
- THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND COUNTY LAWS AND REGULATIONS.
- THE GRANTED SPECIAL EXCEPTION SHALL APPLY SOLELY TO THE PROPOSED BUILDING, DRIVEWAY AND PARKING AREA AS INDICATED ON THE PLAN SUBMITTED WITH THE PETITION AND PETITIONER'S EXHIBIT NUMBER ONE, AND NOT TO ANY OTHER STRUCTURES, ADDITIONS, BUILDINGS OR USES.
- ALL EXTERIOR LIGHTING SHALL BE DIRECTED DOWNWARDS AND INWARDS SO AS NOT TO SHINE OR REFLECT ONTO ADJACENT PROPERTIES.
- THE PETITIONER SHALL COMPLY WITH ALL REQUIREMENTS OF THE DEPARTMENT OF PUBLIC WORKS CONCERNING DRIVEWAY ACCESS AND CIRCULATION.
- IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 126. F 41 B OF THE ZONING REGULATIONS, THE SETBACK SHALL BE INCREASED ONE (1) FOOT FOR EACH FOOT THAT BUILDING 5 EXCEEDS THE REQUIRED HEIGHT LIMITATION.

### SITE ANALYSIS

AREA OF PARCEL: 9.00 Ac. (392,161 sq. ft.)  
 PRESENT ZONING: R-12 (BA CASE #89-34E)  
 PROPOSED USE: WORSHIP AND FELLOWSHIP SPACES, CLASSROOMS, NURSERY (CHURCH USE ONLY), ADMINISTRATION, AND SUPPORT AREAS  
 FLOOR SPACE: LOWER LEVEL: 5,822.7 sq. ft.  
 MAIN LEVEL: 5,822.7 sq. ft.  
 PARKING REQUIRED: 1 SPACE/3 SEATS (MAX. 350 SEATS PROPOSED) 117 SPACES  
 PARKING PROVIDED: EXISTING - 42  
 PROPOSED - 82  
 125 TOTAL  
 OPEN SPACE TO REMAIN ON SITE: 7.44 Ac. (323,975 sq. ft.) 82.61% OF GROSS AREA  
 BUILDING COVERAGE (INCLUDES EX. STRUCTURES TO REMAIN): 0.23 Ac. (9,808 sq. ft.) 2.50% OF GROSS AREA  
 REF.: BA CASE# 89-34E: REQUEST FOR A SPECIAL EXCEPTION TO EXPAND AN EXISTING RELIGIOUS FACILITY TO INCLUDE TWO TEMPORARY MODULAR CLASSROOMS AND TO EXPAND AN EXISTING PARKING AREA. REQUEST WAS GRANTED JANUARY 18, 1990.  
 BA CASE# 91-25E: REQUEST FOR A SPECIAL EXCEPTION TO EXPAND AN EXISTING RELIGIOUS FACILITY. REQUEST WAS GRANTED JULY 23, 1991.  
 PARKING DRIVEWAY & SIDEWALK AREA: 1.04 Ac. (50,978 sq. ft.) 14.00% OF GROSS AREA

### BENCH MARKS

BM #1 ELEV. 343.14  
 HO. CO. MON. 2442003 N 492,888.98; E 848,313.09  
 CONCRETE MONUMENT APPROX. 8'± OFF THE WEST EDGE OF PAVING ON OAKLAND MILLS ROAD, AND APPROX. 74'± NORTH OF Q. OF DOWDALE PL.  
 BM #2 ELEV. 329.35  
 HO. CO. MON. 2442002 N 493,886.22; E 848,018.02  
 CONCRETE MONUMENT APPROX. 23.4'± OFF THE EAST EDGE OF PAVING OF OAKLAND MILLS ROAD, AND APPROX. 0.38 MI.± NORTH OF DOBBIN ROAD.



VICINITY MAP  
SCALE: 1"=2000'

### AS BUILT CERTIFICATE

ARTHUR E. MUEGGE #8707	DATE
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.	
<i>James M. Bledsoe</i> 9/18/92 COUNTY HEALTH OFFICER	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>James S. Keith</i> 9/25/92 DIRECTOR	DATE
<i>E. Muegge</i> 9/24/92 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	DATE
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.	
<i>James M. Bledsoe</i> 9.26.92 DIRECTOR	DATE
<i>James S. Keith</i> 9.26.92 CHIEF, BUREAU OF ENGINEERING	DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
 VESTRY OF CHRIST EPISCOPAL CHURCH  
 6800 OAKLAND MILLS ROAD  
 COLUMBIA, MARYLAND 21045

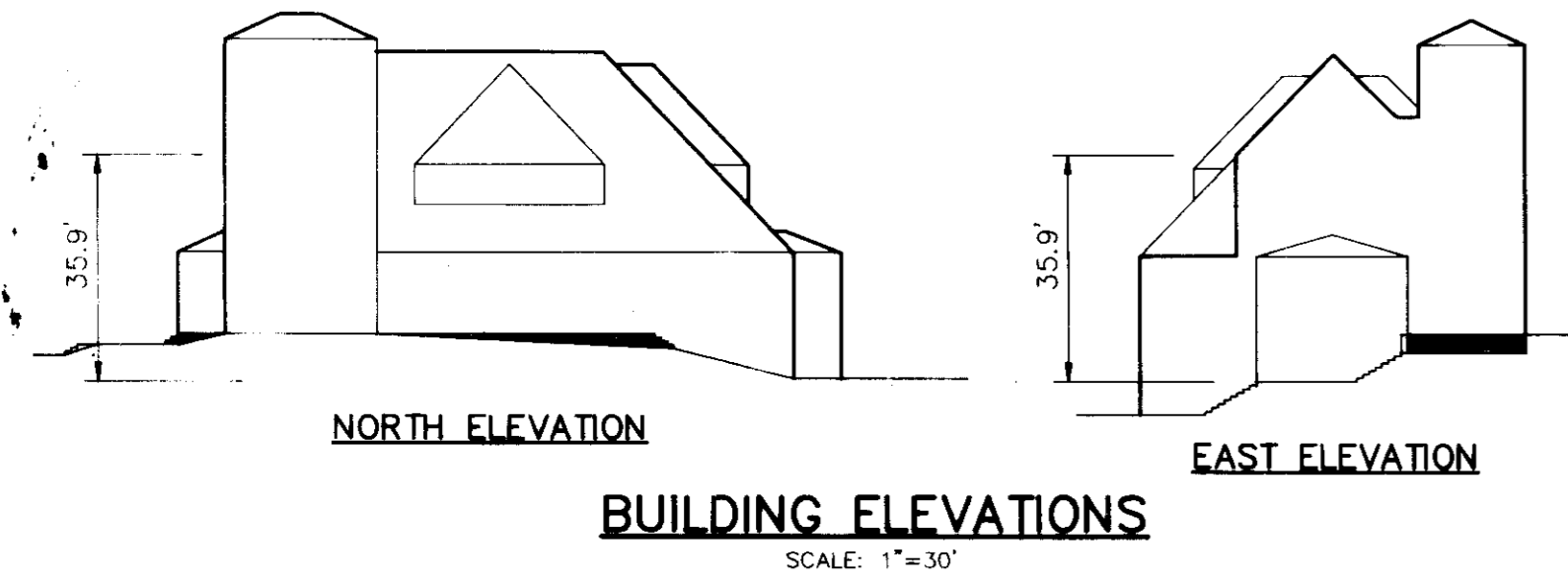
PROJECT  
**CHRIST EPISCOPAL CHURCH**

AREA  
 TAX MAPS 36 & 42 PARCEL 342 ZONED R 12  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE  
**TITLE SHEET**

RIEMER MUEGGE & ASSOCIATES, INC.  
 A Land Planning, Engineering and Consulting Firm  
 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
 410-997-8900 FAX: 410-997-9282

DATE	DATE
9/25/92	BA CASE# 91-25E & 89-34E
<i>James S. Keith</i>	DESIGNED BY: JS
<i>Arthur E. Muegge</i>	DRAWN BY: CB
	PROJECT NO.: 7774
	DATE: AUGUST 31, 1992
	SCALE: AS SHOWN
	DRAWING NO. OF



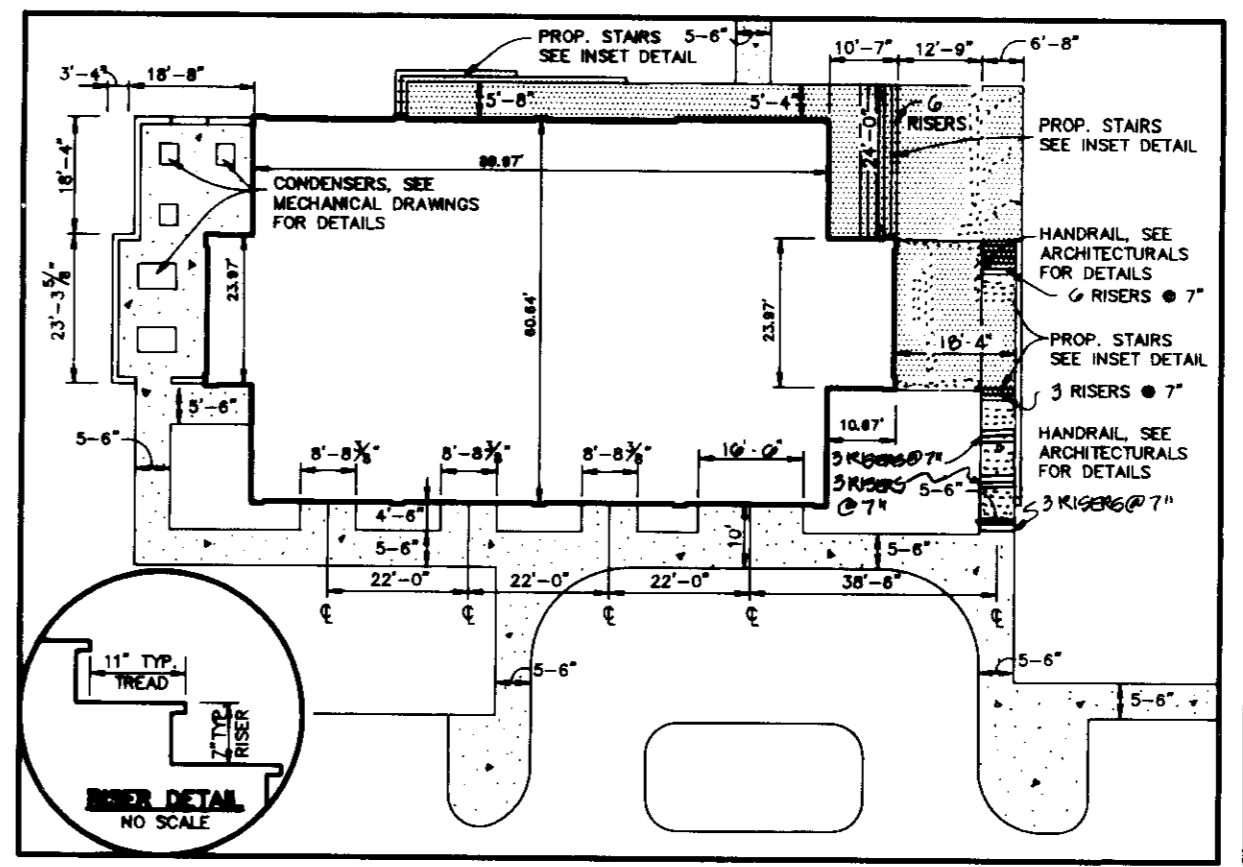
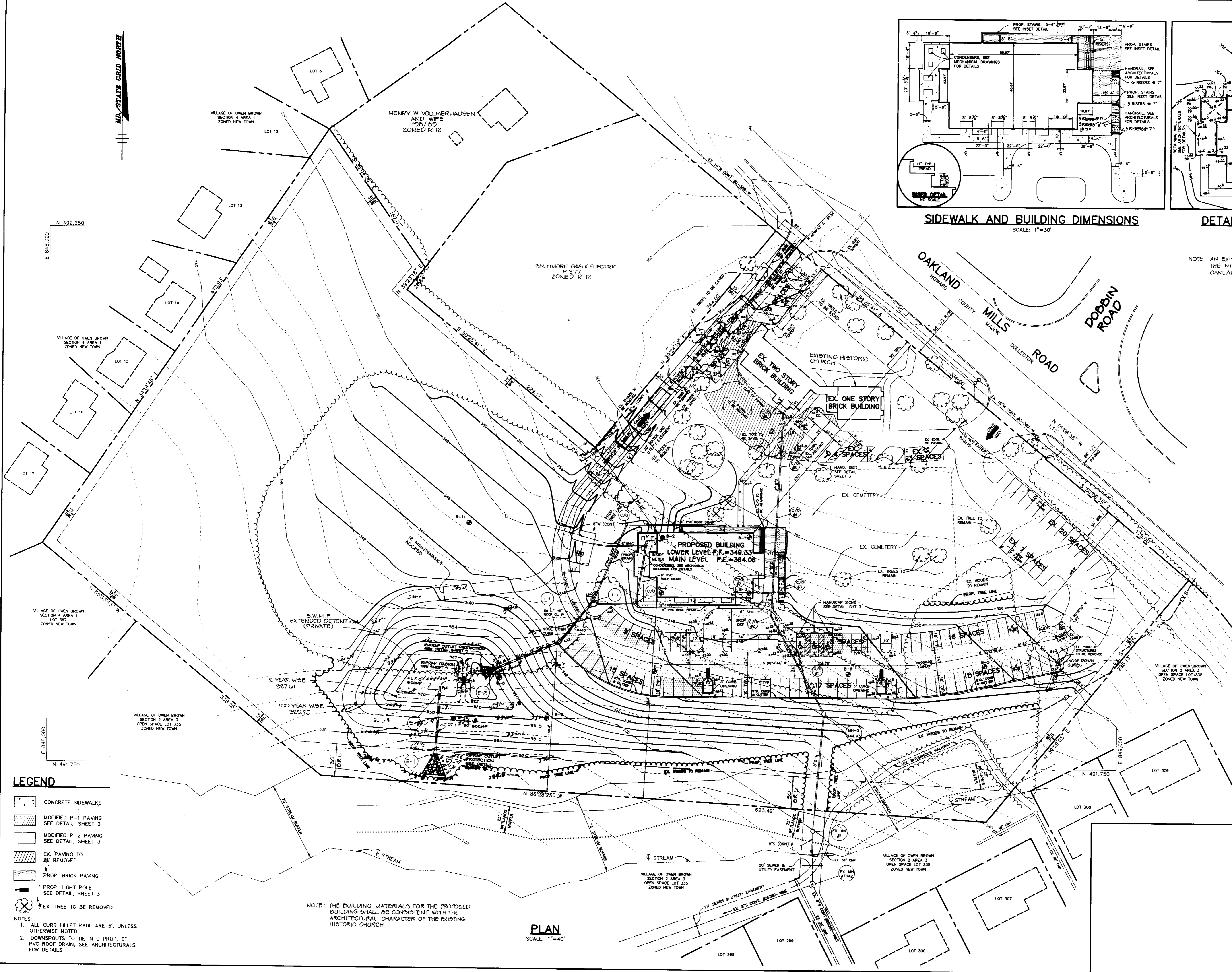
BUILDING ELEVATIONS  
SCALE: 1"=30'

### ADDRESS CHART

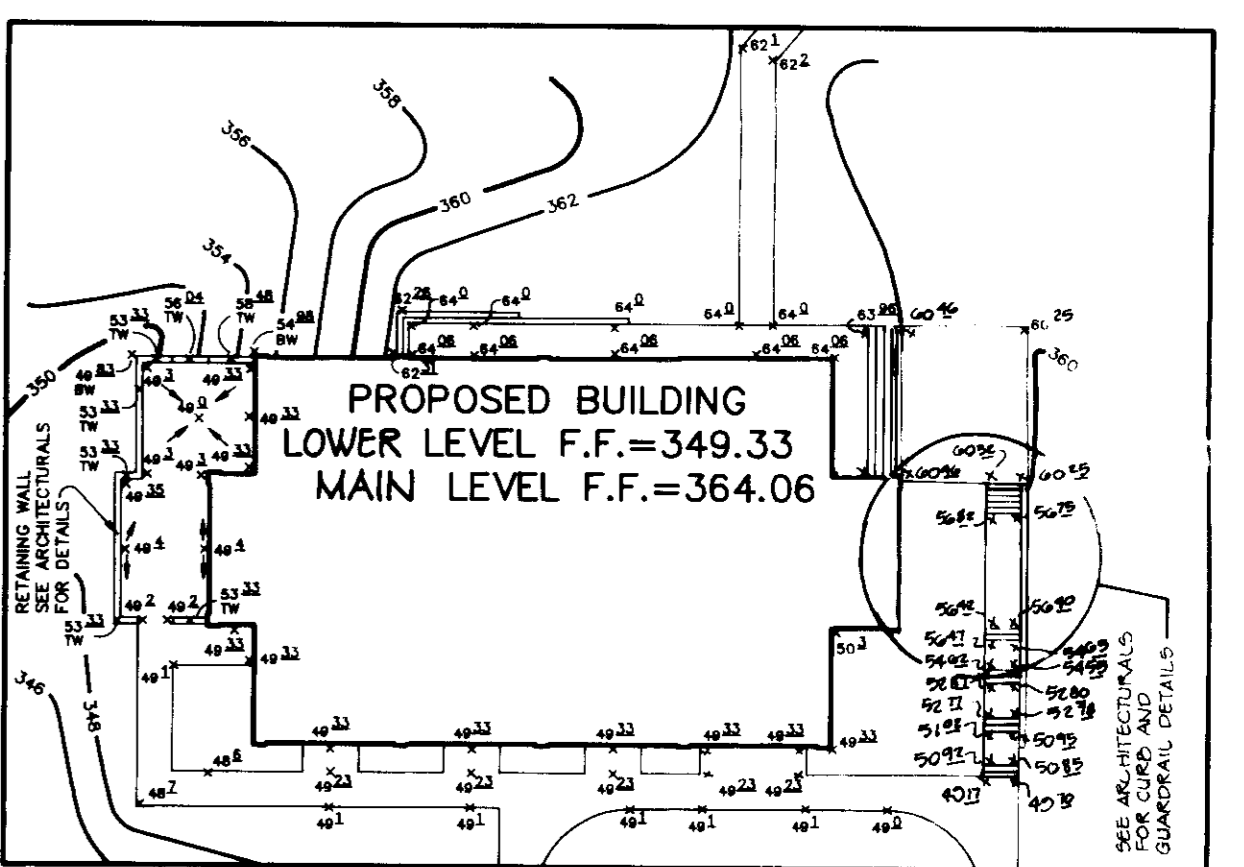
PARCEL NUMBER	STREET ADDRESS
342	6800 OAKLAND MILLS ROAD

SUBDIVISION NAME	SECT./AREA	PARCEL
CHRIST EPISCOPAL CHURCH		342
PLAT # - 400/G2B	BLOCK # - 5	ZONING - R-12
TAX MAP NO. - 42	ELECT. DIST. - 6th	CENSUS TRACT - 6067.02
WATER CODE - E 12	SEWER CODE - 5332600	

MD STATE GRID NORTH



**SIDEWALK AND BUILDING DIMENSIONS**  
SCALE: 1"=30'



**DETAIL OF GRADING NEAR BUILDING**  
SCALE: 1"=30'

NOTE: AN EXISTING TRAFFIC SIGNAL IS LOCATED AT THE INTERSECTION OF DOBBINS ROAD AND OAKLAND MILLS ROAD

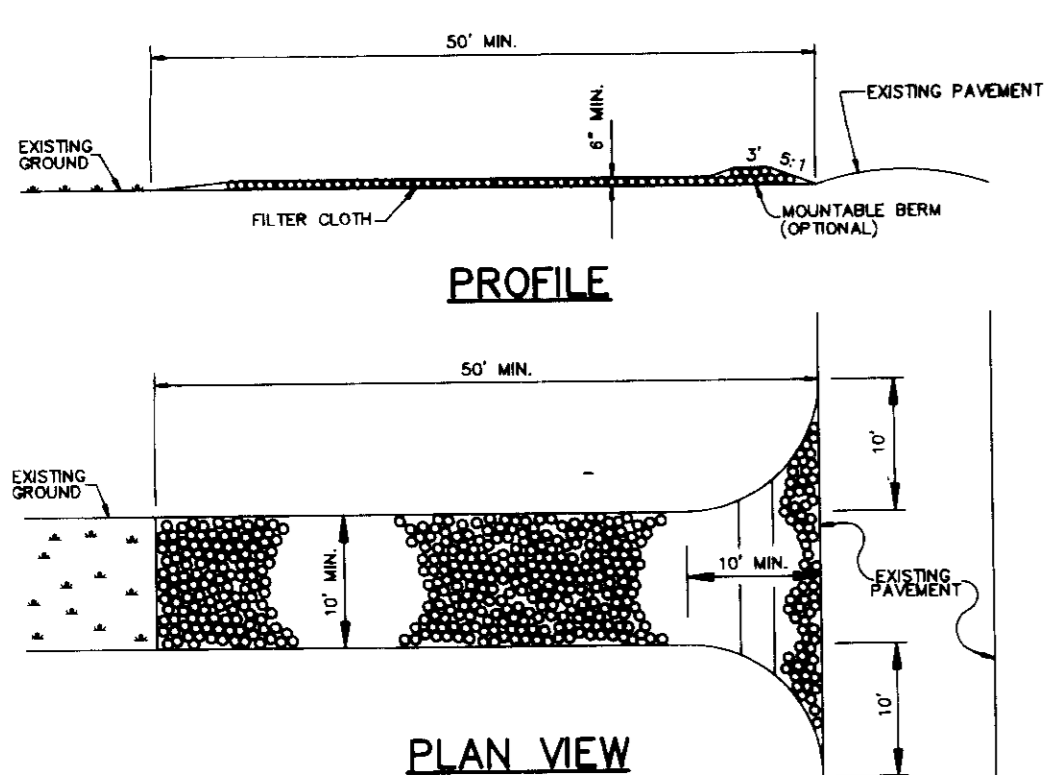
- LEGEND**
- CONCRETE SIDEWALKS
  - MODIFIED P-1 PAVING SEE DETAIL, SHEET 3
  - MODIFIED P-2 PAVING SEE DETAIL, SHEET 3
  - EX. PAVING TO BE REMOVED
  - PROP. BRICK PAVING
  - PROP. LIGHT POLE SEE DETAIL, SHEET 3
  - EX. TREE TO BE REMOVED

- NOTES:**
1. ALL CURB FILLET RADII ARE 5', UNLESS OTHERWISE NOTED.
  2. DOWNSPOUTS TO BE INTO PROP. 6" PVC ROOF DRAIN, SEE ARCHITECTURALS FOR DETAILS.

NOTE: THE BUILDING MATERIALS FOR THE PROPOSED BUILDING SHALL BE CONSISTENT WITH THE ARCHITECTURAL CHARACTER OF THE EXISTING HISTORIC CHURCH.

**PLAN**  
SCALE: 1"=40'

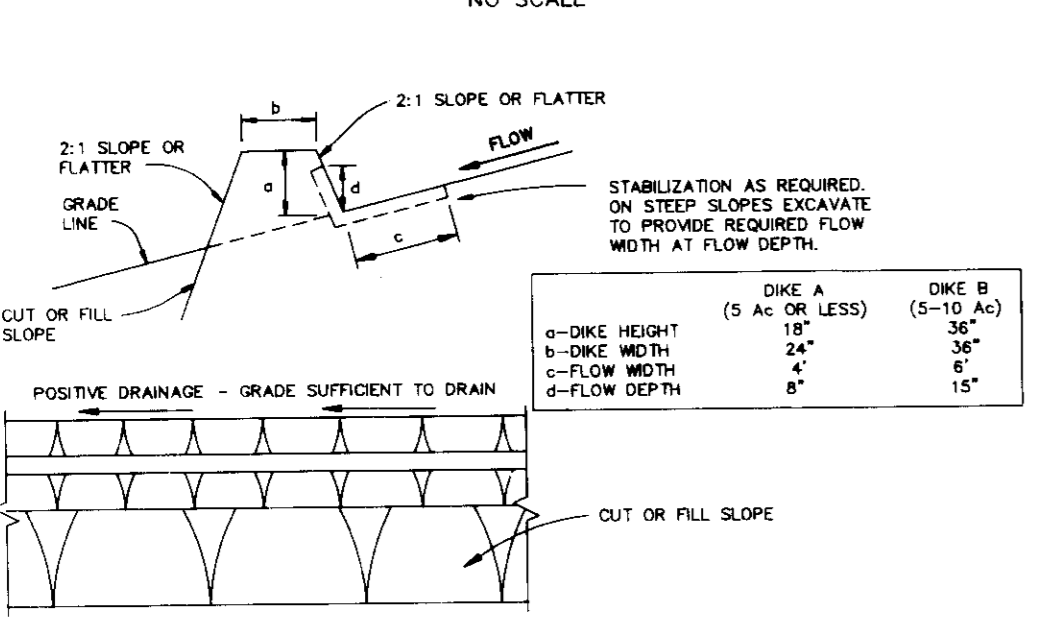
AS BUILT CERTIFICATE	
DAVID COESNER #1444 ARTHUR E. MUEGGE #8707	
9/16/92	DATE
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.	
JOYCE M. BRADFORD COUNTY HEALTH OFFICER	
9/18/92	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
LEWIS SMITH DIRECTOR	
9/21/92	DATE
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.	
CAMERON M. LEWIS DIRECTOR	
9/16/92	DATE
ARTHUR E. MUEGGE CHIEF, BUREAU OF ENGINEERING	
9/16/92	DATE
7-22-92	REVISE RIGORS TO BUILDING
DATE NO.	REVISION
OWNER / DEVELOPER	
VESTRY OF CHRIST EPISCOPAL CHURCH 6800 OAKLAND MILLS ROAD COLUMBIA, MARYLAND 21047	
PROJECT	
<b>CHRIST EPISCOPAL CHURCH</b>	
AREA	
TAX MAPS 36 & 42 PARCEL 142 ZONED R-12 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
<b>SITE DEVELOPMENT PLAN</b>	
<b>RIEMER MUEGGE &amp; ASSOCIATES, INC.</b> A Land Planning, Engineering and Consulting Firm 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045 410-997-8900 FAX: 410-997-9282	
8/31/92	DATE
BA CASE# 91-257 & 99-148	DESIGNED BY: CB
DRAWN BY: CB	PROJECT NO: 77704
DATE: AUGUST 21, 1992	SCALE: AS SHOWN
DRAWING NO. 01	OF 01



**CONSTRUCTION SPECIFICATIONS**

- Stone Size - Use 2" stone, or recycled or recycled concrete equivalent.
- Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).
- Thickness - Not less than 6" (6) inches.
- Width - Not less than 50' (50) feet.
- Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter cloth will not be required on a single family residence lot.
- Surface Water - All surface water flowing or diverted toward construction entrance shall be placed across the entrance. If dikes are impractical, a mounitable berm with top edge to public right-of-way must be removed immediately.
- 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 cleaned by any measure used to trap sediment. All sediment applied, dropped, washed or tracked onto public right-of-way must be removed immediately.
- Warning - Signs shall be placed to remove sediment prior to entrance onto public right-of-way. When watering is required, it shall be done on an area stabilizer with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided until such rain.

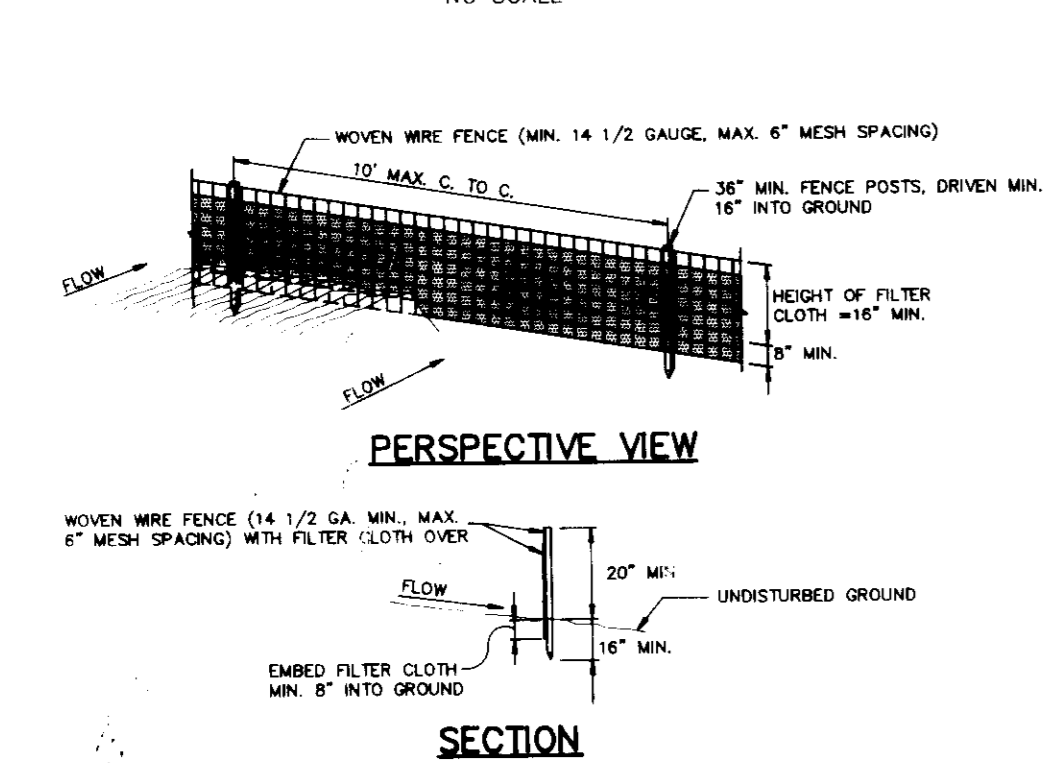
**STABILIZED CONSTRUCTION ENTRANCE**



**CONSTRUCTION SPECIFICATIONS**

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

**EARTH DIKE**



**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
- Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" of top and bottom.
- When two sections of filter cloth abut each other they shall be overlapped by six inches and stapled.
- Post-tensioning shall be performed as needed and material removed when "bulges" develop in the silt fence.

**SILT FENCE DETAIL**

**TEMPORARY SEEDING**  
Seedbed Preparation: When the area to be seeded has been recently loosened to the extent that no adequate seedbed exists, no additional treatment is required. However, when the area to be seeded is packed, crusted, and hard, the top 3 inches of soil shall be loosened by raking, disking or other acceptable means before seeding.

**Soil Amendments:**  
For temporary seedings, fertilizer shall be applied at the rate of 600 LBS per acre (15 LBS/1000 SF), using 10-10-10 or equivalent. Soils which are highly acidic should be limed.

**Seeding:**  
For the period March 1 thru April 30 and August 15 thru November 15. Seed with 2 1/2 BU per acre (3.2 LBS/1000 SF) of annual ryegrass.  
For the period May 1 thru August 14. Seed with 3 LBS per acre (.07 LBS/1000 SF) of Heeping Lowgrass.  
For the period November 16 thru February 28, protect site by: Applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use seed.

Apply seed uniformly with a cyclone seeder, drill, outdrum seeder or hydroseeder (slurry includes seed and fertilizer).

Mulching: See Mulching Specification.

**PERMANENT SEEDING**  
Seedbed Preparation: Flat areas and slopes up to 3:1 slope shall be loose and friable to a depth of at least 3 inches. The top layer of soil shall be loosened by raking, disking or other acceptable means before seeding. Slopes steeper than 3:1 shall have the top 1 to 3 inches of soil loose and friable before seeding.

**Soil Amendments:** Use one of the following schedules:  
Lime and fertilizer according to soil tests. Lime and fertilizer needs can be determined by a soil testing laboratory, such as the University of Maryland's Soil Testing Laboratory.

In lieu of soil test results, use one of the following schedules:  
1) **Acceptable** - Apply 2 tons per acre dolomitic limestone (92 LBS/1000 SF) and 600 LBS per acre (10-10-10 fertilizer (14 LBS/1000 SF) before seeding. Horrow or disc into upper three inches of soil.  
2) **Acceptable** - Apply 2 tons per acre dolomitic limestone (92 LBS/1000 SF) and 1000 LBS per acre (10-10-10 fertilizer (23 LBS/1000 SF) before seeding. Horrow or disc into upper three inches of soil.

On slopes steeper than 3:1 slope, the lime and fertilizer shall be worked the best way possible. On sloping land, the final harrowing or disking operation should be in the contour wherever feasible. In other areas, it should be made in drop any disc area to make the soil surface smooth after disking.

**Seeding:**  
For the period March 1 thru April 30, and August 1 thru October 15. Seed with 60 LBS per acre (1.4 LBS/1000 SF) of Kentucky 31 Tall Fescue.  
For the period May 1 thru July 31. Seed with 80 LBS Kentucky 31 Tall Fescue per acre and 2 LBS per acre (.05 LBS/1000 SF) of Heeping Lowgrass.  
For the period October 16 thru February 28, protect site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring.  
Option (2) Use seed.

Option (3) Seed with 80 LBS/acre (1.4 LBS/1000 SF) Kentucky 31 Tall Fescue and mulch with 2 tons per acre straw mulch.

Apply seed uniformly with a cyclone seeder, drill, outdrum seeder or hydroseeder (slurry includes seed and fertilizer) on a firm, moist seedbed. Minimum seeding depth shall be 1/2" to 1" and fertilizer shall be 1/2" to 1" below the seed. Do not use any other than hydroseeder method of application. Note: If hydroseeding is used and the seed and fertilizer is mixed, they shall be mixed on site and the seeding shall be immediate without interruption.

Mulching: See Mulching Specification.

**Irrigation:**  
If soil moisture is deficient, supply new seedlings with adequate water for plant growth until they are firmly established, if feasible. This is especially true when seedlings are more site in the planting season, in abnormally dry or hot seasons, or on adverse sites.

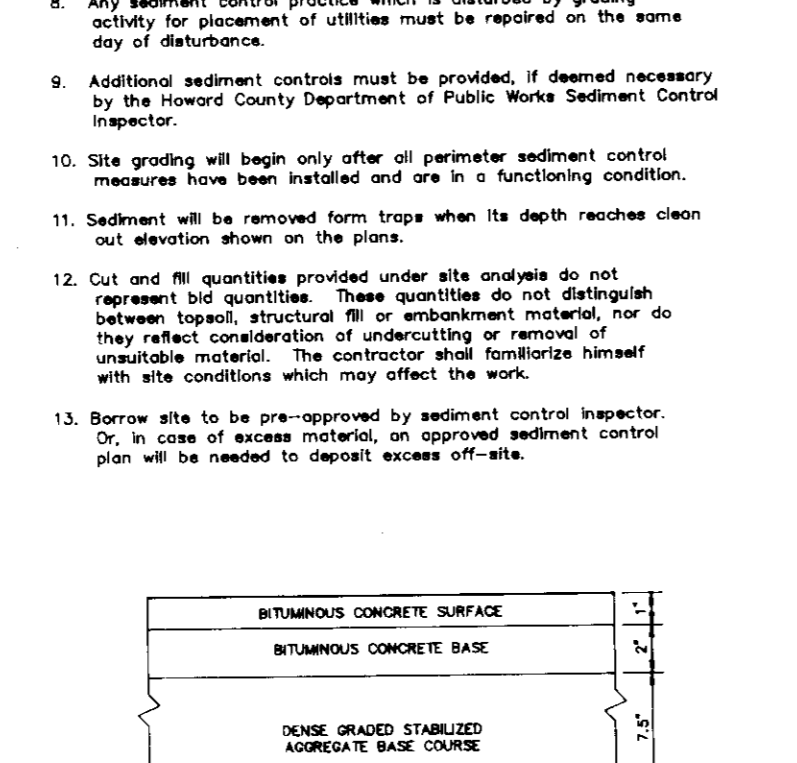
**Maintenance:**  
Irrigation - If soil moisture becomes deficient, irrigate to prevent loss of stand of protective vegetation, if feasible.  
Repairs - Inspect all seeded areas for failures and make necessary repairs, replacements, and reseeding within the planting season, if possible.  
1) If stand is inadequate for erosion control, overseed and fertilize using half of the rates originally seeded.  
2) If stand is over 80% damaged, reestablish following original time, fertilizer, seedbed preparation and seeding recommendations.

**SEDIMENT CONTROL NOTES**

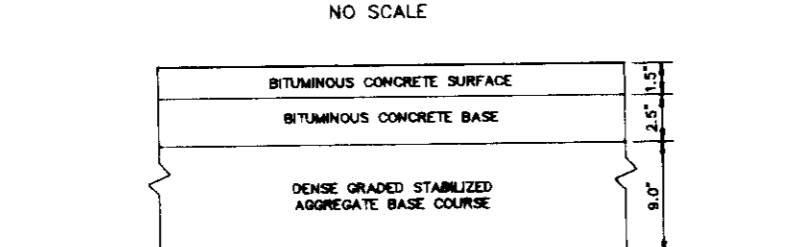
- A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction (311-2437).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within (3) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1 (3) 14 days as to other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around the perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL - Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permanent seedings (Sec. 51), and (Sec. 54), temporary seedings (Sec. 50) and mulching (Sec. 52). Temporary stabilization (Sec. 51, 53) shall only be done when recommended seeding sites do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:  
Total Area of Site: 4.13 acres  
Area to be seeded or paved: 1.12 acres  
Area to be vegetatively stabilized: 3.01 acres  
Total Cut: 4978 cu. yds.  
Total Fill: 5069 cu. yds.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Department of Public Works Sediment Control Inspector.
- Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
- Sediment will be removed from traps when its depth reaches clean out elevation shown on the plans.
- Cut and fill quantities provided under site analysis do not represent bid quantities. These quantities do not distinguish between topsoil, structural fill or embankment material, nor do they reflect consideration of undercutting or removal of unstable material. The contractor shall familiarize himself with site conditions which may affect the work.
- Borrow site to be pre-approved by sediment control inspector. Or, in case of excess material, an approved sediment control plan will be needed to deposit excess off-site.

**SEDIMENT CONTROL NOTES**

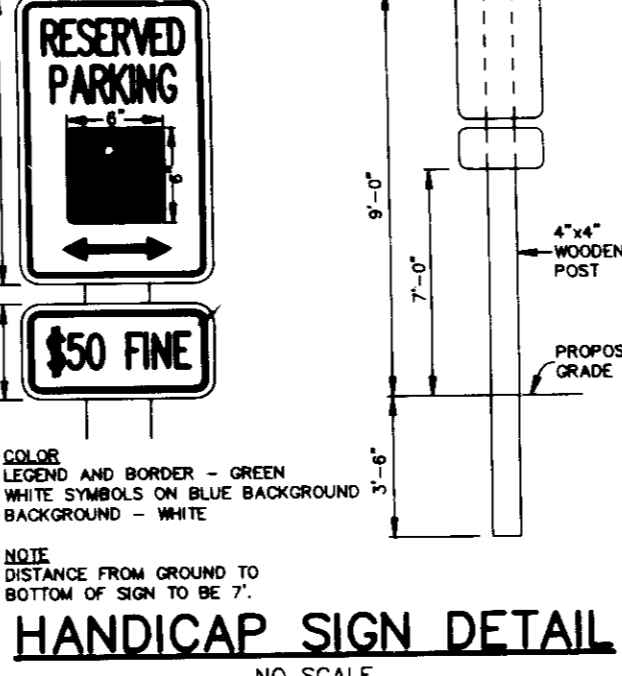
- A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction (311-2437).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within (3) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1 (3) 14 days as to other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around the perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL - Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permanent seedings (Sec. 51), and (Sec. 54), temporary seedings (Sec. 50) and mulching (Sec. 52). Temporary stabilization (Sec. 51, 53) shall only be done when recommended seeding sites do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:  
Total Area of Site: 4.13 acres  
Area to be seeded or paved: 1.12 acres  
Area to be vegetatively stabilized: 3.01 acres  
Total Cut: 4978 cu. yds.  
Total Fill: 5069 cu. yds.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Department of Public Works Sediment Control Inspector.
- Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
- Sediment will be removed from traps when its depth reaches clean out elevation shown on the plans.
- Cut and fill quantities provided under site analysis do not represent bid quantities. These quantities do not distinguish between topsoil, structural fill or embankment material, nor do they reflect consideration of undercutting or removal of unstable material. The contractor shall familiarize himself with site conditions which may affect the work.
- Borrow site to be pre-approved by sediment control inspector. Or, in case of excess material, an approved sediment control plan will be needed to deposit excess off-site.



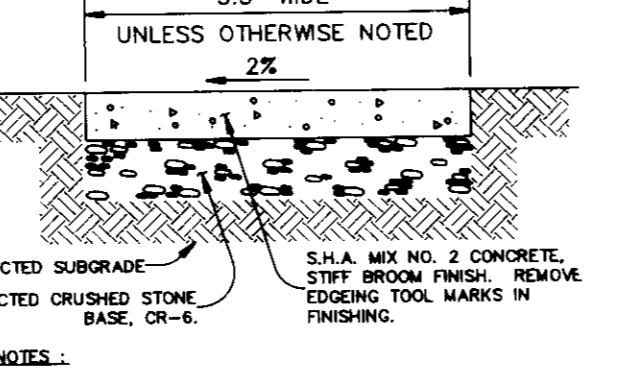
**MODIFIED P-1 PAVING**



**MODIFIED P-2 PAVING**



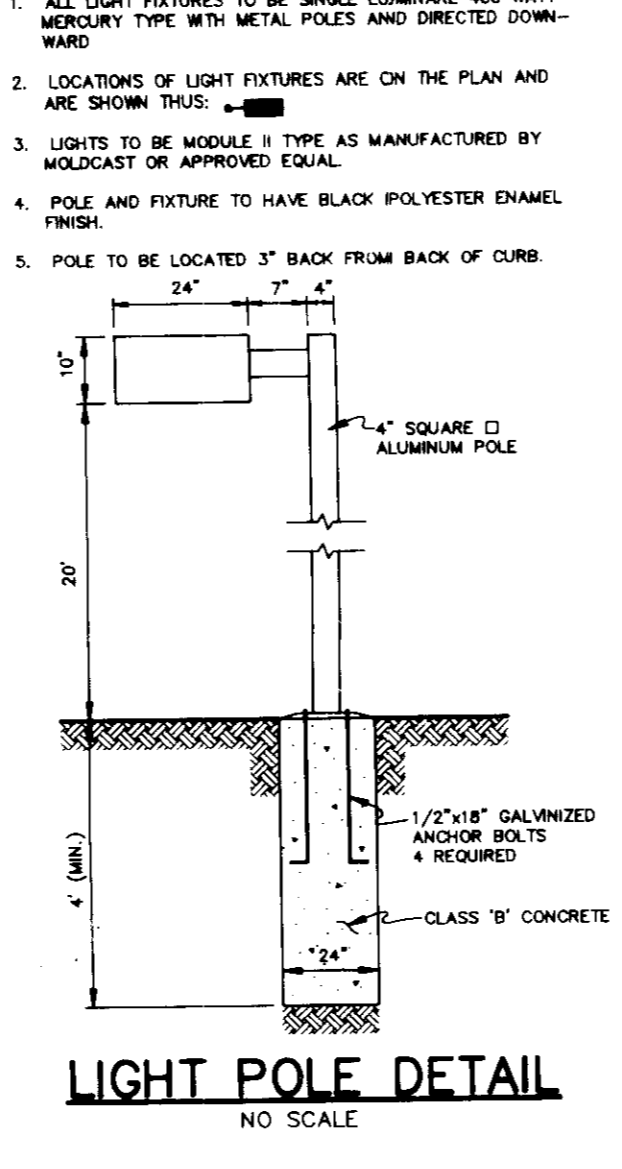
**HANDICAP SIGN DETAIL**



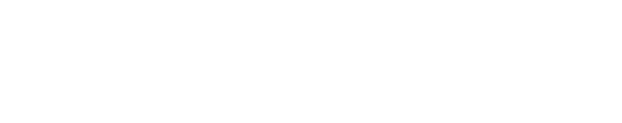
**LIGHT POLE DETAIL**



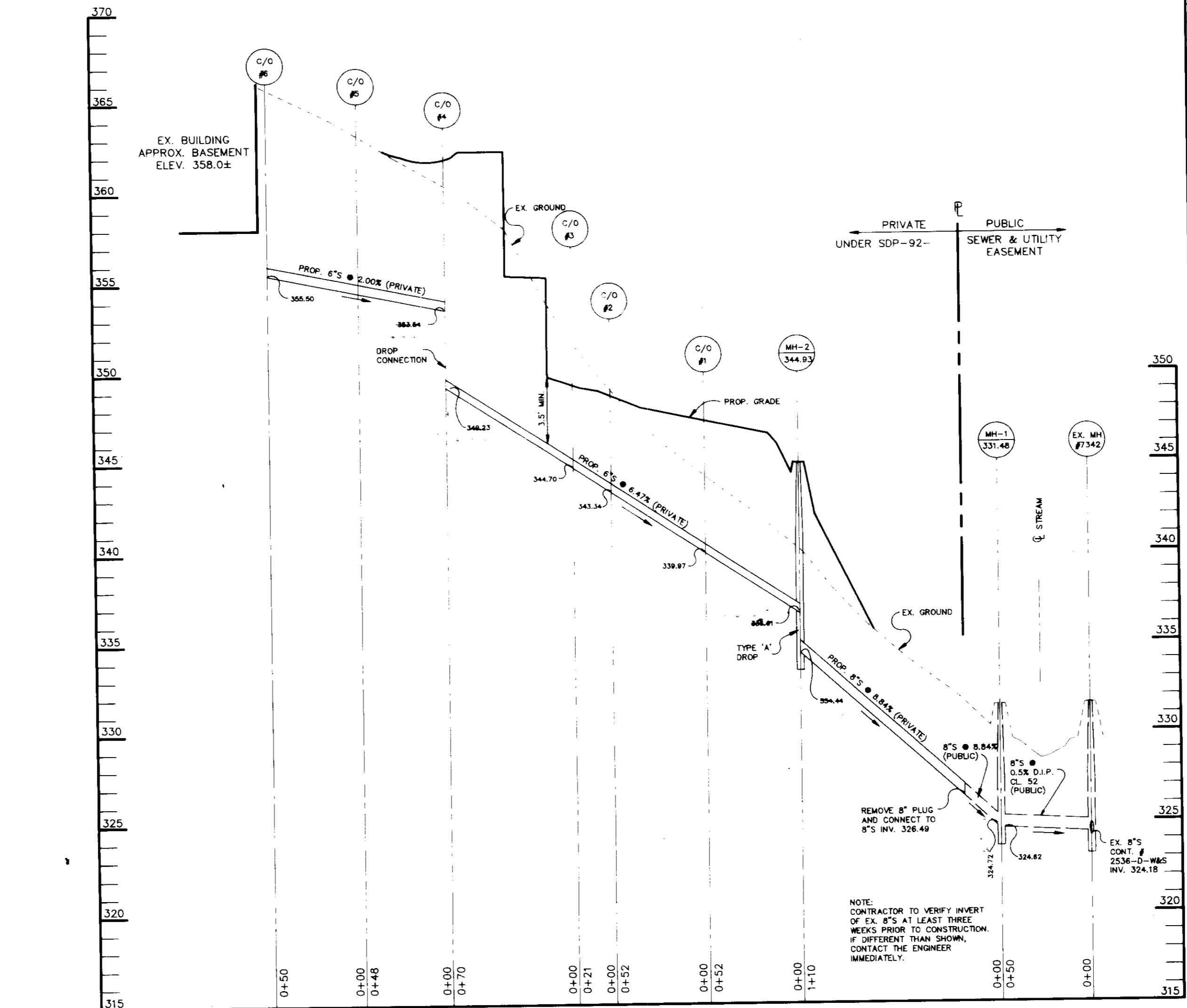
**SIDEWALK DETAIL**



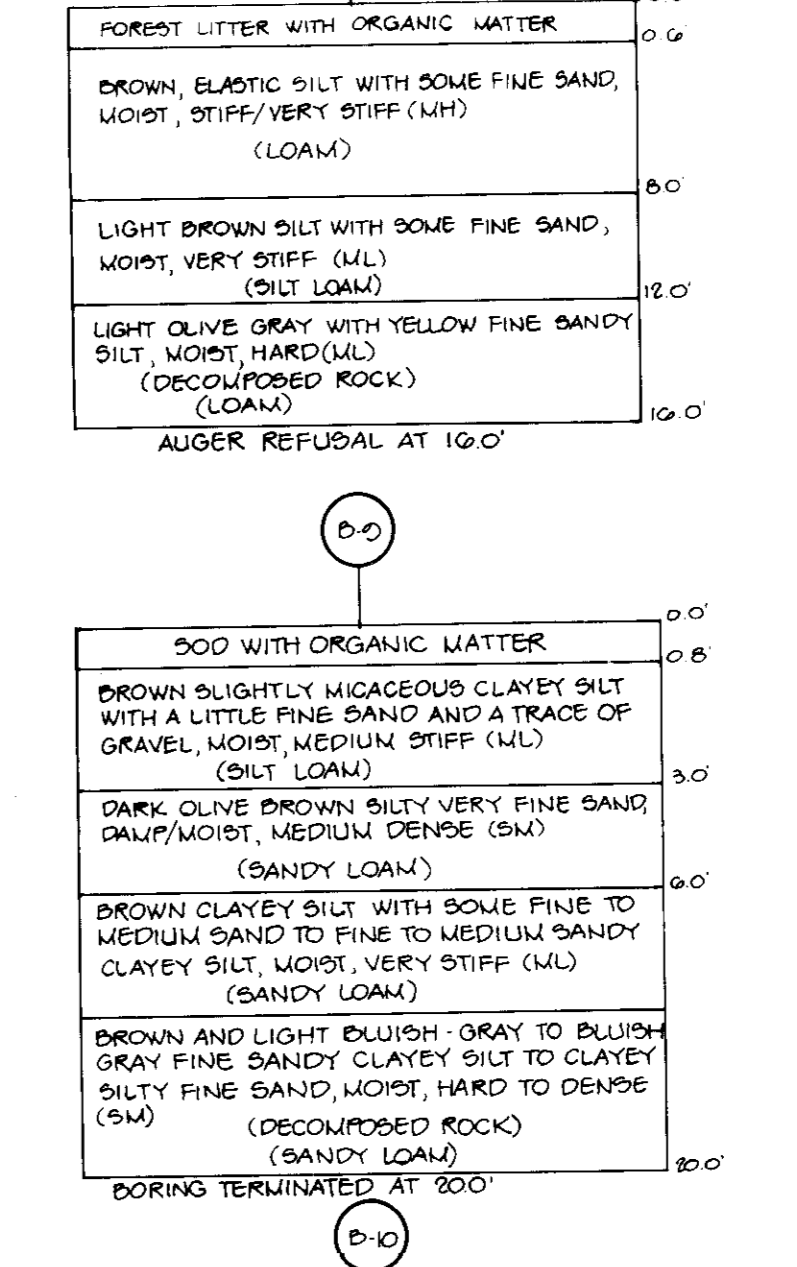
**STORM DRAIN PROFILE**



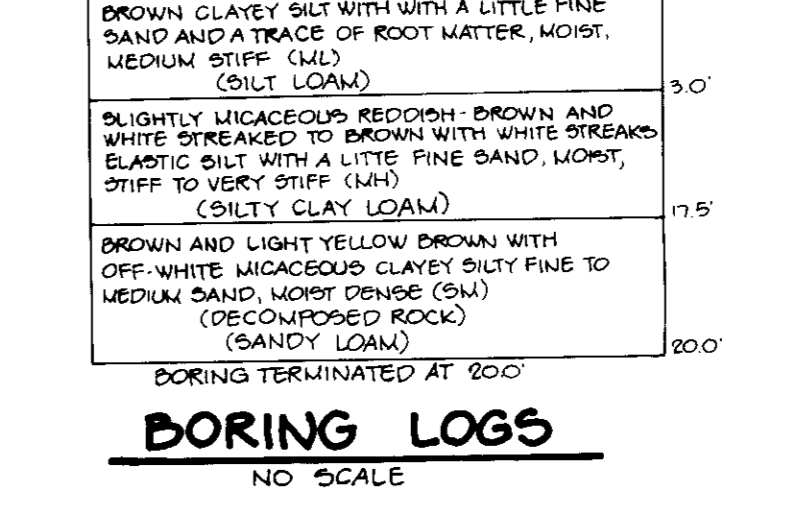
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
I-1	TYPE 'DBL. 'S'	SEE PLAN	342.70	339.45	336.45	HO. CO. STD. DETAIL SD 4.23
I-2	YARD INLET	SEE PLAN	343.70	341.20	340.45	HO. CO. STD. DETAIL SD 4.14
E-1	30" METAL END SECTION	SEE PLAN			325.00	HO. CO. STD. DETAIL SD 5.61
E-2	TYPE 'C'	SEE PLAN			326.00	HO. CO. STD. DETAIL SD 5.21



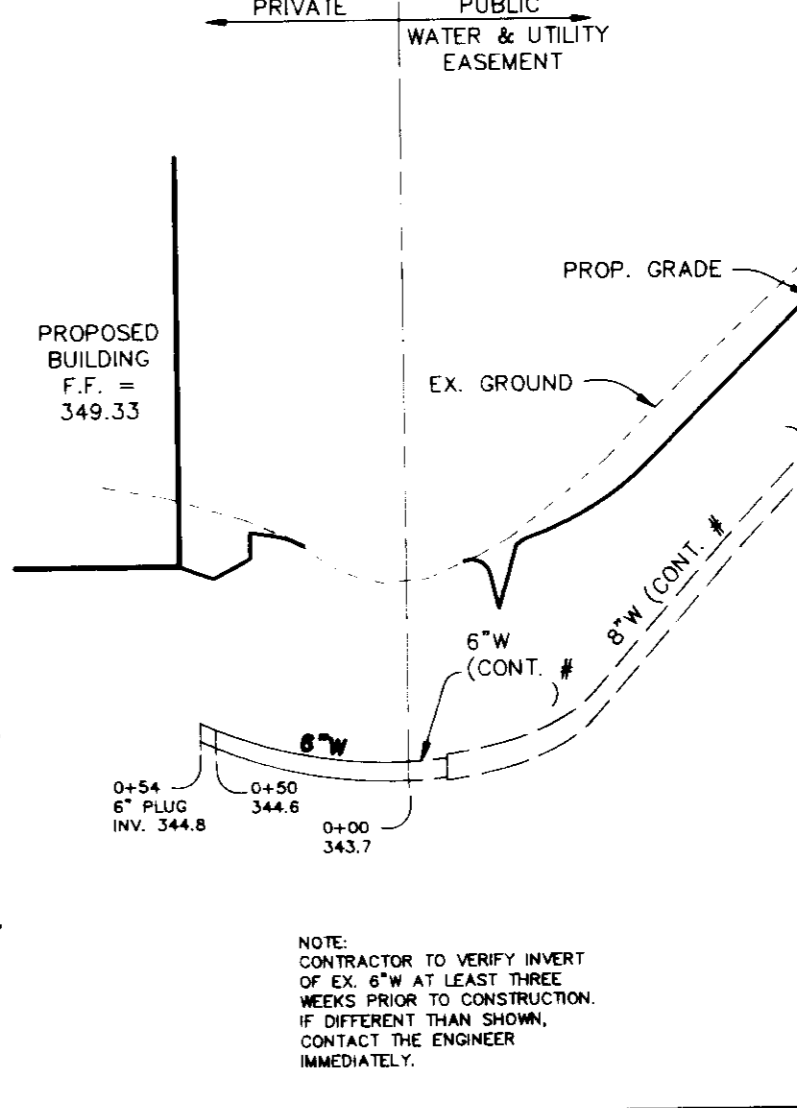
**SEWER PROFILE**



**BORING LOGS**



**WATER PROFILE**



**AS BUILT CERTIFICATE**

DATE: 8/10/92  
DESIGNED BY: [Signature]  
DRAWN BY: [Signature]  
PROJECT NO.: [Number]  
DATE: AUGUST 31, 1992  
SCALE: AS SHOWN  
DRAWING NO. 3 OF 4

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 WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: [Signature] DATE: [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 MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

ENGINEER: [Signature] DATE: 8/31/92

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.

James M. Helm / J.M. [Signature] DATE: 9/10/92  
S.O. SOIL CONSERVATION SERVICE

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

Robert J. Zichow [Signature] DATE: 9/15/92  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
James M. Boyd [Signature] DATE: 9/18/92  
COUNTY HEALTH OFFICER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
James M. Boyd [Signature] DATE: 9/23/92  
DIRECTOR

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
James M. Boyd [Signature] DATE: 9/24/92  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
James M. Boyd [Signature] DATE: 9/26/92  
DIRECTOR

DATE NO. REVISION

OWNER / DEVELOPER  
CHRIST EPISCOPAL CHURCH  
1000 E. PARK AND MARYLAND AVENUE  
FREDERICK, MARYLAND 21704

PROJECT  
**CHRIST EPISCOPAL CHURCH**

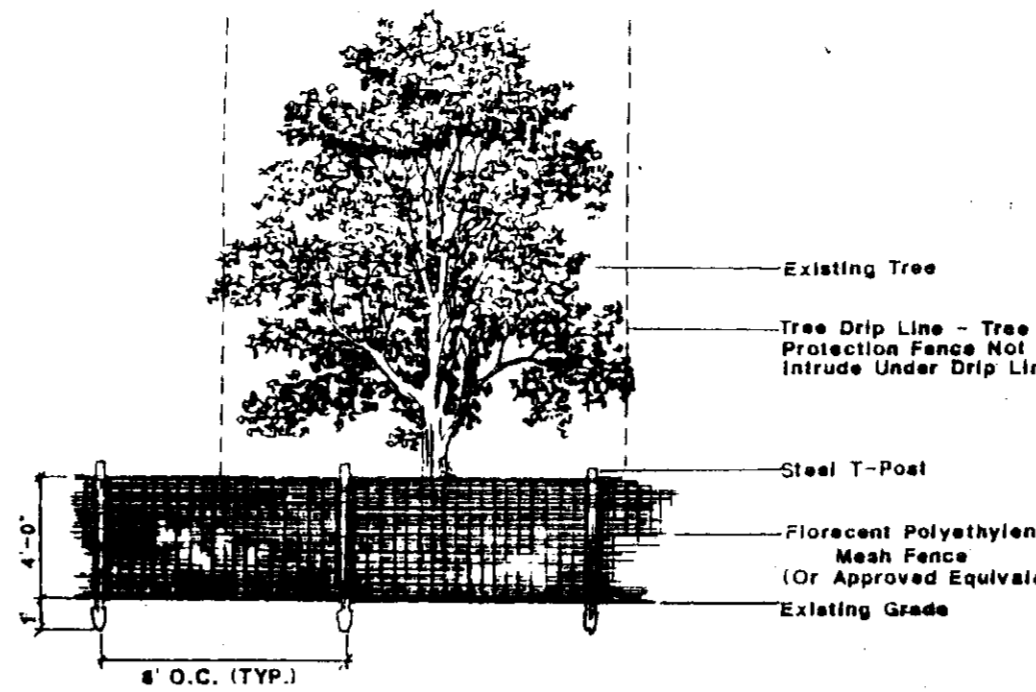
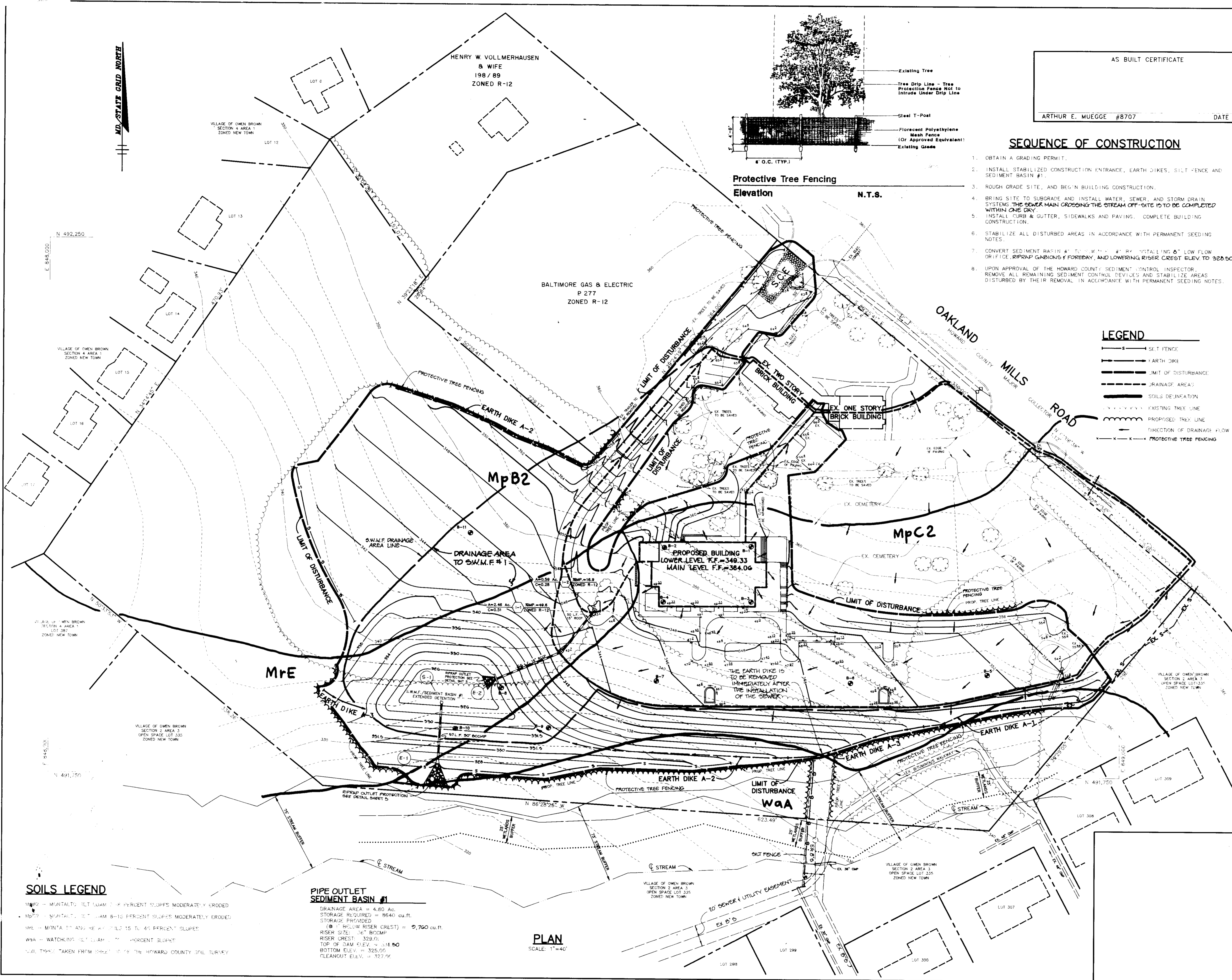
AREA  
TAX MAPS 36 & 42 FARLE 742 ZONED R-1  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
**DETAILS**

RIEMER MUEGGE & ASSOCIATES, INC.  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX: 410-997-9282

DATE: 8/10/92  
DESIGNED BY: [Signature]  
DRAWN BY: [Signature]  
PROJECT NO.: [Number]  
DATE: AUGUST 31, 1992  
SCALE: AS SHOWN  
DRAWING NO. 3 OF 4

BA CASE# 91-25E & 94-34E  
ARTHUR E. MUEGGE #8707



AS BUILT CERTIFICATE  
 ARTHUR E. MUEGGE #8707 DATE

**SEQUENCE OF CONSTRUCTION**

1. OBTAIN A GRADING PERMIT.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, EARTH DIKES, SILT FENCE AND SEDIMENT BASIN #1.
3. ROUGH GRADE SITE, AND BEGIN BUILDING CONSTRUCTION.
4. BRING SITE TO SUBGRADE AND INSTALL WATER, SEWER, AND STORM DRAIN SYSTEMS THE SEWER MAIN CROSSING THE STREAM OFF-SITE IS TO BE COMPLETED WITHIN ONE DAY.
5. INSTALL CURB & GUTTER, SIDEWALKS AND PAVING. COMPLETE BUILDING CONSTRUCTION.
6. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
7. CONVERT SEDIMENT BASIN #1 TO SW.M.F. #1 BY INSTALLING A LOW FLOW ORIFICE, RIPRAP GABIONS & FOREBAY, AND LOWERING RISER CREST ELEV. TO 328.50.
8. UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE AREAS DISTURBED BY THEIR REMOVAL IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

**LEGEND**

- SILT FENCE
- EARTH DIKE
- LIMIT OF DISTURBANCE
- DRAINAGE AREA
- SOILS DEMARCATION
- EXISTING TREE LINE
- PROPOSED TREE LINE
- DIRECTION OF DRAINAGE FLOW
- PROTECTIVE TREE FENCING

**SOILS LEGEND**

MpB2 - MONTAULT SILT LOAM 3-15 PERCENT SLOPES MODERATELY ERODED  
 MpC2 - MONTAULT SILT LOAM 8-15 PERCENT SLOPES MODERATELY ERODED  
 MrE - MONTAULT ANDREAN SILT LOAM 15 TO 45 PERCENT SLOPES  
 Waa - WATCHUNG SILT LOAM 15 PERCENT SLOPES  
 (SOIL TYPES TAKEN FROM SHEET 10 OF THE HOWARD COUNTY SOIL SURVEY)

**PIPE OUTLET SEDIMENT BASIN #1**

DRAINAGE AREA = 4.80 AC.  
 STORAGE REQUIRED = 9640 cu.ft.  
 STORAGE PROVIDED  
 (12" RISE/LW RISER CREST) = 9,760 cu.ft.  
 RISER SIZE: 36" R.C.C.P.  
 RISER CREST: 329.0'  
 TOP OF DAM ELEV. = 328.00  
 BOTTOM ELEV. = 325.00  
 CLEANOUT ELEV. = 327.00

**PLAN**  
 SCALE: 1"=40'

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 WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Arthur E. Muegge* 9/15/92  
 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 MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*Arthur E. Muegge* 9/15/92  
 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.

*James M. Helms* 9/15/92  
 SOIL CONSERVATION SERVICE DATE

*Rolando J. Ziehm* 9/15/92  
 HOWARD SOIL CONSERVATION DISTRICT DATE

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

*George M. Boyd* 9/15/92  
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James S. Scott* 9/25/92  
 DIRECTOR DATE

*Ernest H. Howard* 9/24/92  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND PUBLIC PLAZAS.

*James M. Helms* 9/16/92  
 DIRECTOR DATE

*Richard S. R. R.* 9/16/92  
 CHIEF, BUREAU OF ENGINEERING DATE

7-22-93 REVISE RISERS TO BUILDING  
 DATE NO. REVISION

OWNER / DEVELOPER  
 CHRIST EPISCOPAL CHURCH

PROJECT  
 CHRIST EPISCOPAL CHURCH

AREA  
 2.15 AC. ZONED R-12

TITLE  
 SEDIMENT CONTROL PLAN, DRAINAGE AREA MAP & SOILS MAP

RIEMER MUEGGE & ASSOCIATES, INC.  
 A Land Planning, Engineering and Consulting Firm  
 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
 410-997-8900 • FAX: 410-997-9282

8/31/92 DATE  
 DESIGNED BY  
 DRAWN BY  
 PROJECT NO.  
 DATE AUGUST 31, 1992  
 SCALE  
 DRAWING NO.

**POND CONSTRUCTION SPECIFICATIONS**

These specifications are applicable to all ponds within the scope of the Standard for Practice M-318. All references to ASTM and AASHTO specifications apply to the most recent version.

**SITE PREPARATION**

Areas designated for erosion control, embankment, and structural work shall be cleared, grubbed and stripped of topsoil, brush, stumps, logs, and other objectionable material. The contractor shall use heavy machinery to clear areas to be excavated. The contractor shall use heavy machinery to clear areas to be excavated. The contractor shall use heavy machinery to clear areas to be excavated.

**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 excavated by the permanent works. The contractor shall use heavy machinery to clear areas to be excavated.

**STABILIZATION**

All borrow areas shall be graded to provide proper drainage and left in a slightly convex condition. All exposed surfaces of the embankment, spillway, spill and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

**EROSION AND SEDIMENT CONTROL**

Construction operations will be carried out in such a manner that erosion will be controlled and soil loss or pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

**CUT-OFF 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 not less than 4 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 flatter.

**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 used to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall any equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be used on any part of a concrete structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe.

**PIPE CONNECTIONS**

All connections with pipes must be completely watertight. The joint pipe or hose connections shall be made in accordance with the requirements of AASHTO Specification M-190 Type A, with weather-resistant coating bands. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied aluminum coating compound. Steel pipes with galvanized coating shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings are approved: 1. 1/2" wide by 3/8" thick galvanized steel tape; 2. 1/2" wide by 3/8" thick galvanized steel tape with a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings are approved: 1. 1/2" wide by 3/8" thick galvanized steel tape with a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe.

**BEDDING**

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

**BUCKLING**

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

**REINFORCED CONCRETE PIPE**

All 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 ANMA Specification C-302.

**BEDDING**

The bedding for reinforced concrete pipe shall be laid in a concrete bedding for their entire length. The bedding shall consist of the manufacturer of the material. After the joints are needed for the entire length, the bedding shall be placed so that all spaces under the pipe are filled. The bedding shall be placed so that all spaces under the pipe are filled. The bedding shall be placed so that all spaces under the pipe are filled.

**BUCKLING**

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

**GLASS FIBER REINFORCED PLASTIC (FRP) PIPE**

All FRP pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 by ASTM D-2241.

**BEDDING**

The bedding for FRP pipe shall be laid in a concrete bedding for their entire length. The bedding shall consist of the manufacturer of the material. After the joints are needed for the entire length, the bedding shall be placed so that all spaces under the pipe are filled. The bedding shall be placed so that all spaces under the pipe are filled.

**BUCKLING**

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

**ROCK**

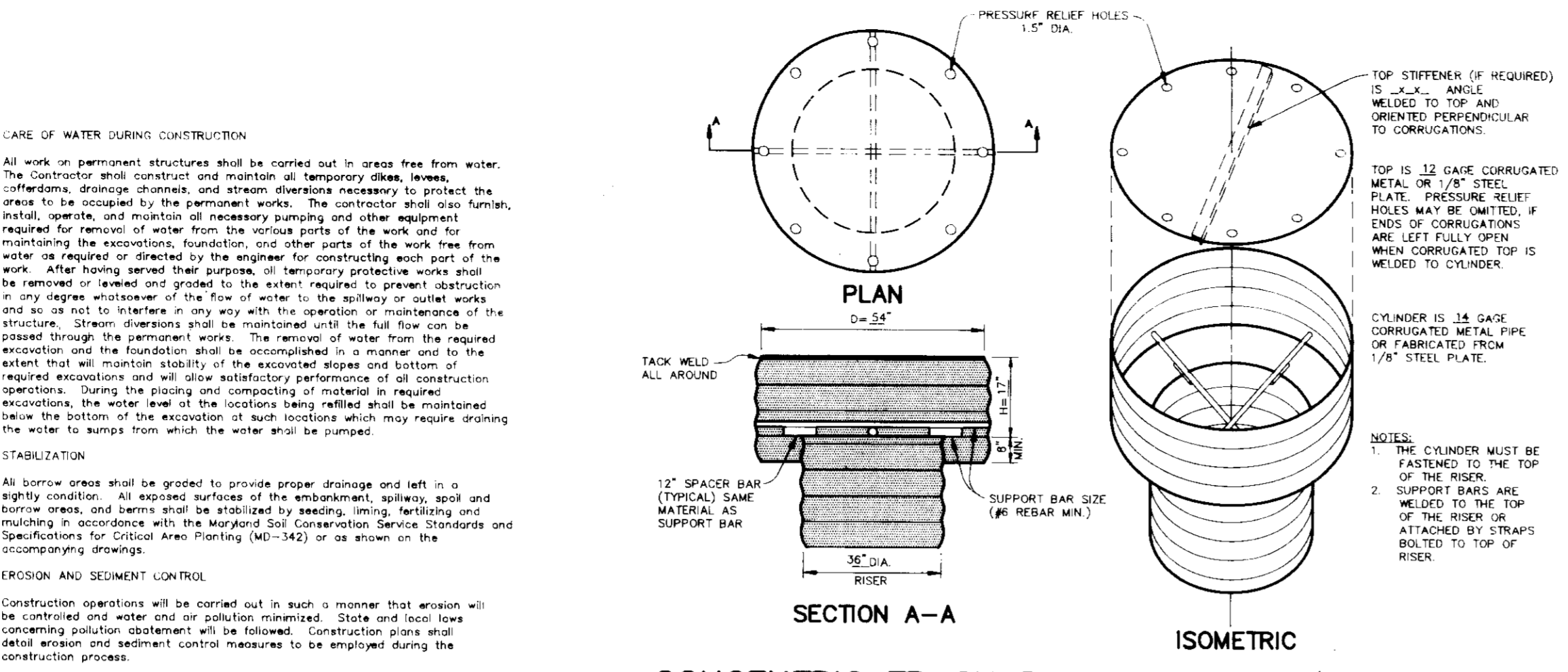
All rock shall be dense, sound, and free from cracks, seams, and other defects which would reduce its strength. The rock fragments shall be angular and uniform in shape. The maximum dimension of individual rock fragments shall not be more than one-third the smallest dimension of the project.

**ROCK SPECIFIC GRAVITY**

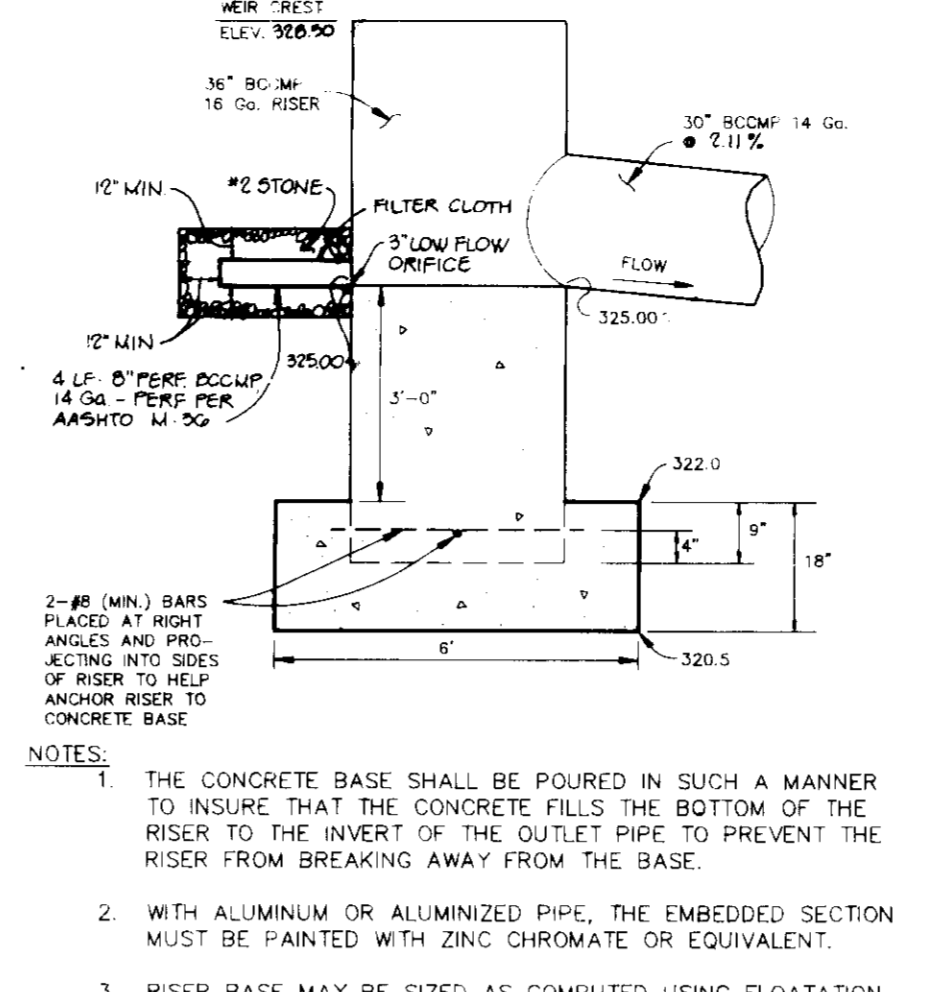
Rock specific gravity (saturated surface-dry basis) not less than 2.5. Rock specific gravity (saturated surface-dry basis) not less than 2.5. Rock specific gravity (saturated surface-dry basis) not less than 2.5.

**ROCK ABSORPTION**

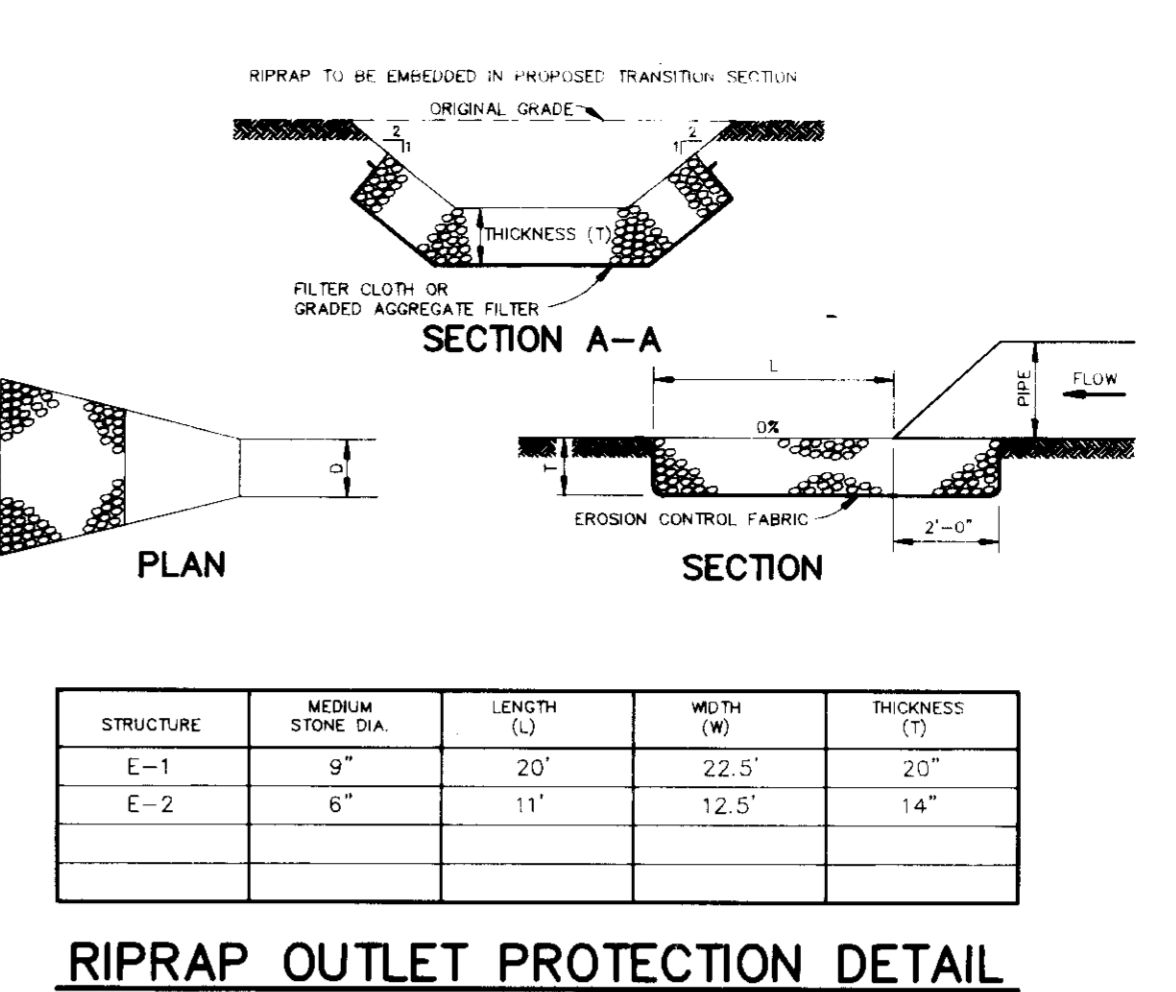
Rock absorption (height loss in 24 hours) not more than 20 percent when saturated. Rock absorption (height loss in 24 hours) not more than 20 percent when saturated. Rock absorption (height loss in 24 hours) not more than 20 percent when saturated.



**CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE**

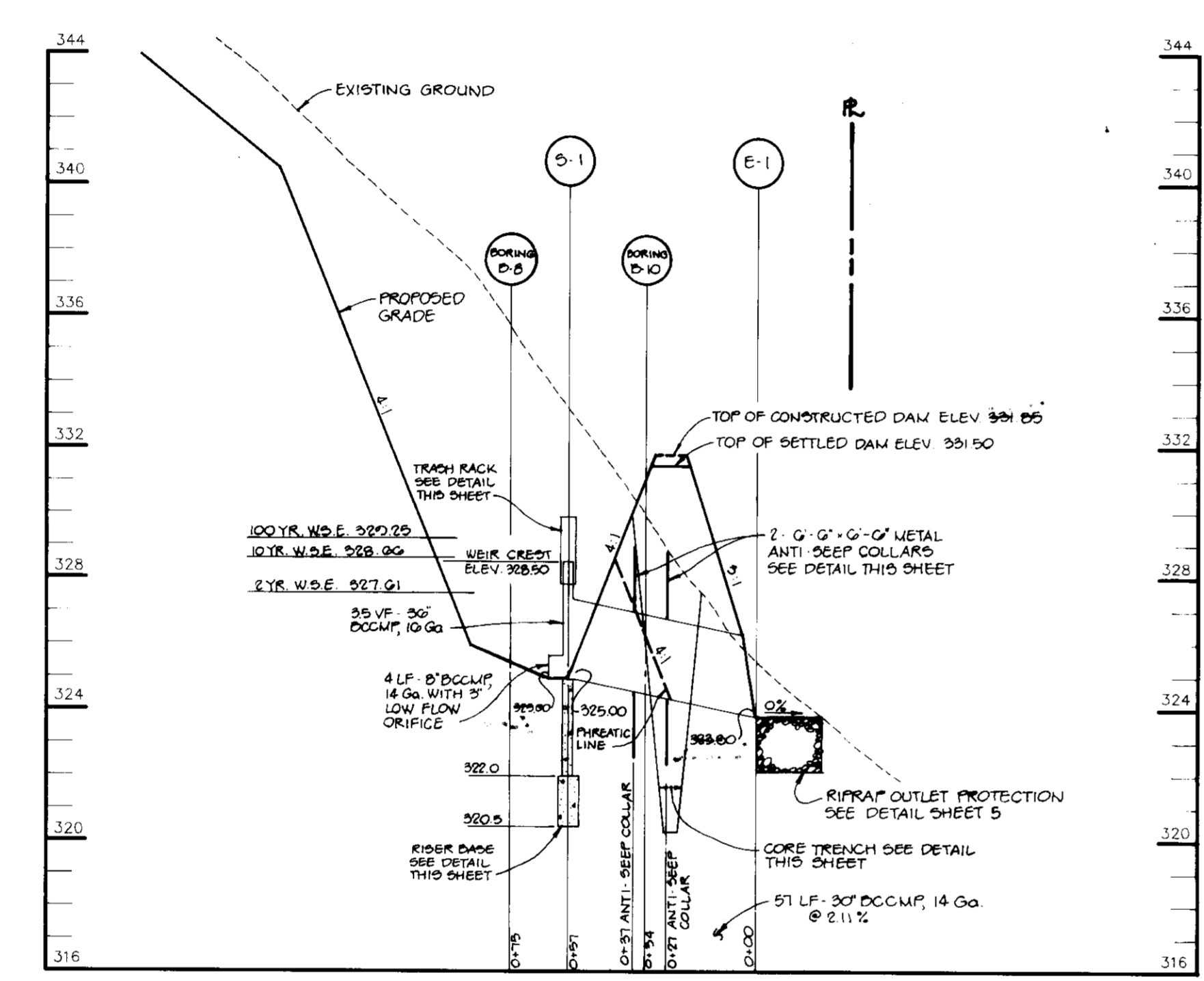


**RISER BASE DETAIL**

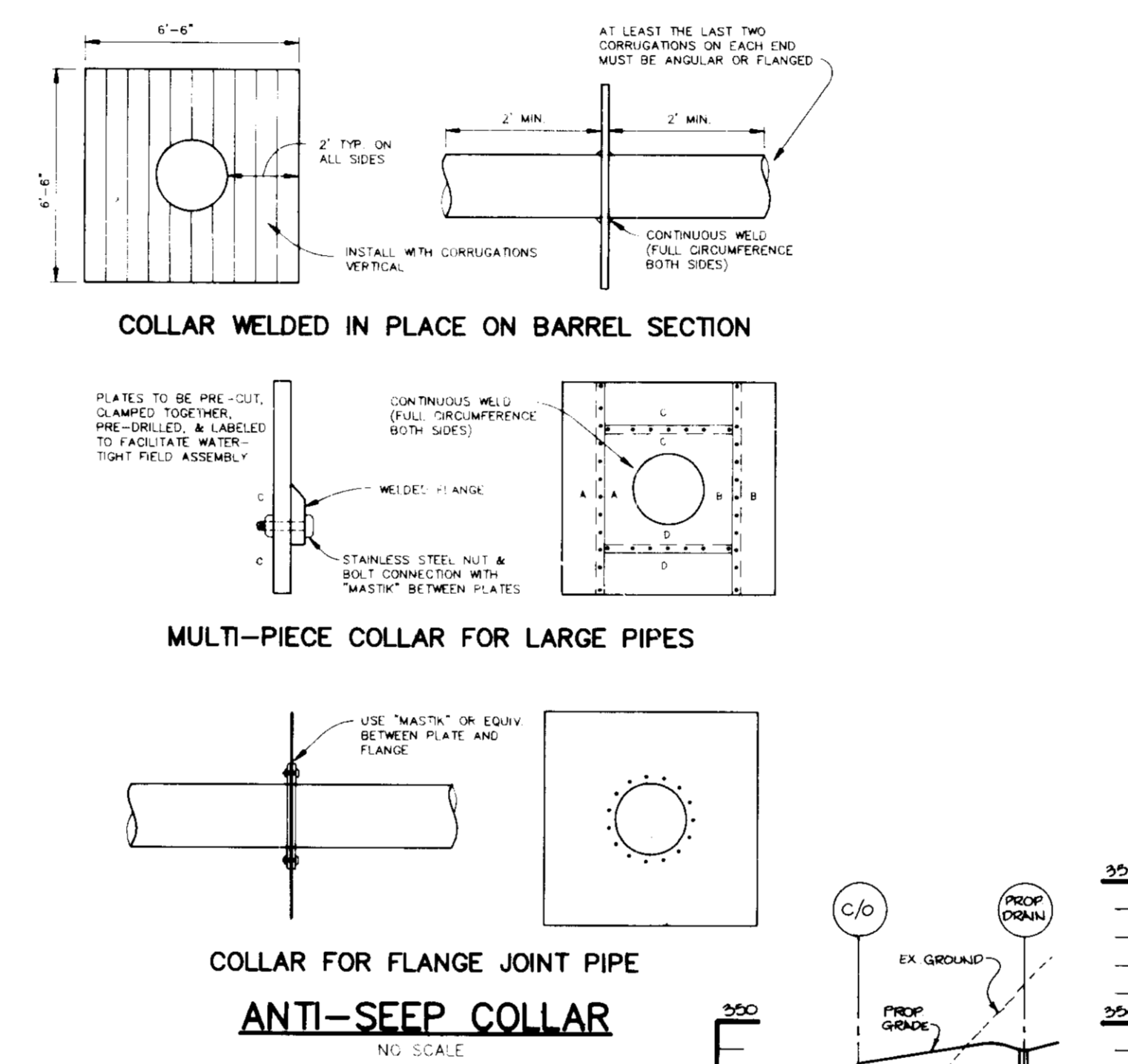


**RIPRAP OUTLET PROTECTION DETAIL**

STRUCTURE	STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	9"	20'	22.5'	20"
E-2	6"	11'	12.5'	14"



**PROFILE THRU PRINCIPLE SPILLWAY**

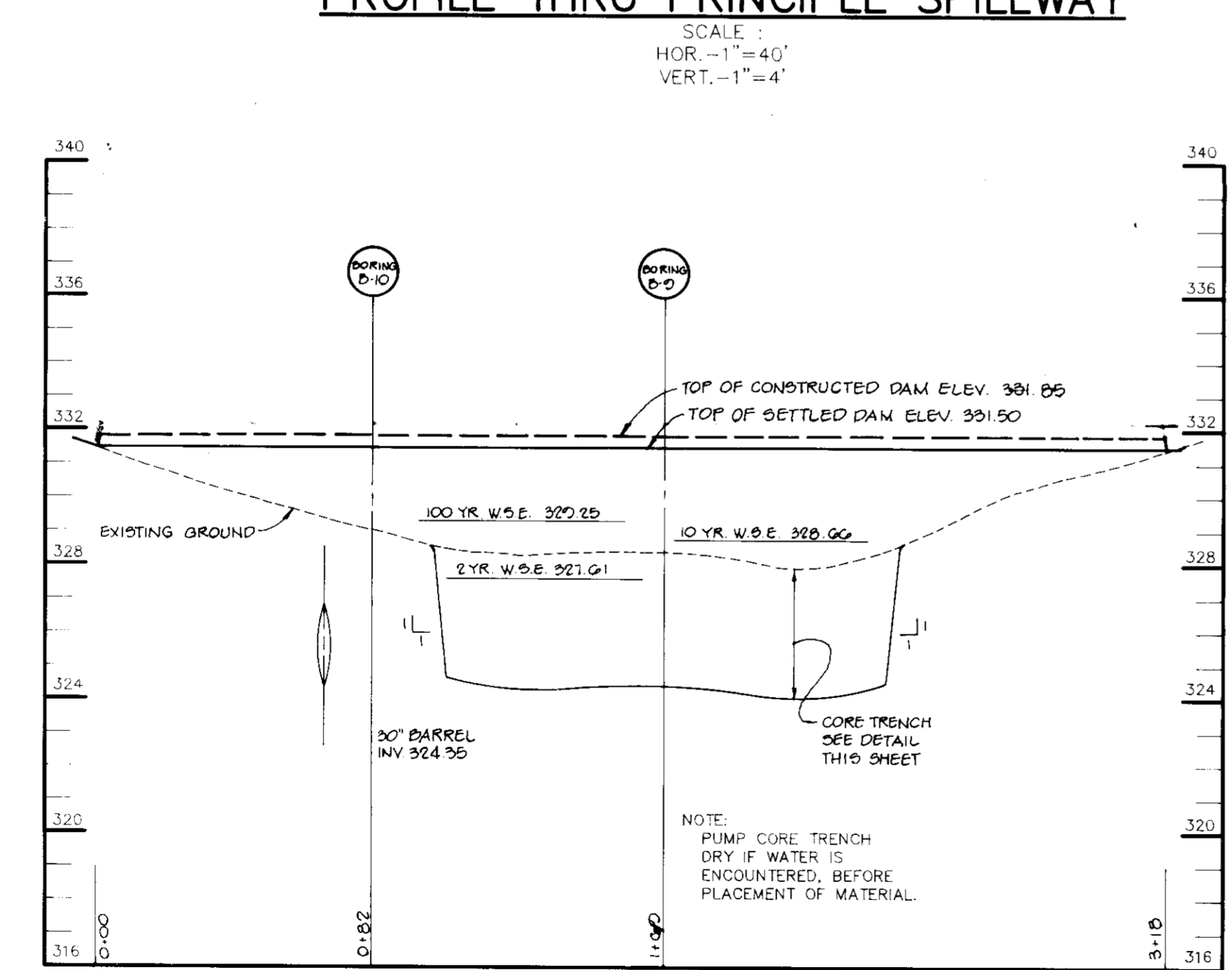


**COLLAR WELDED IN PLACE ON BARREL SECTION**

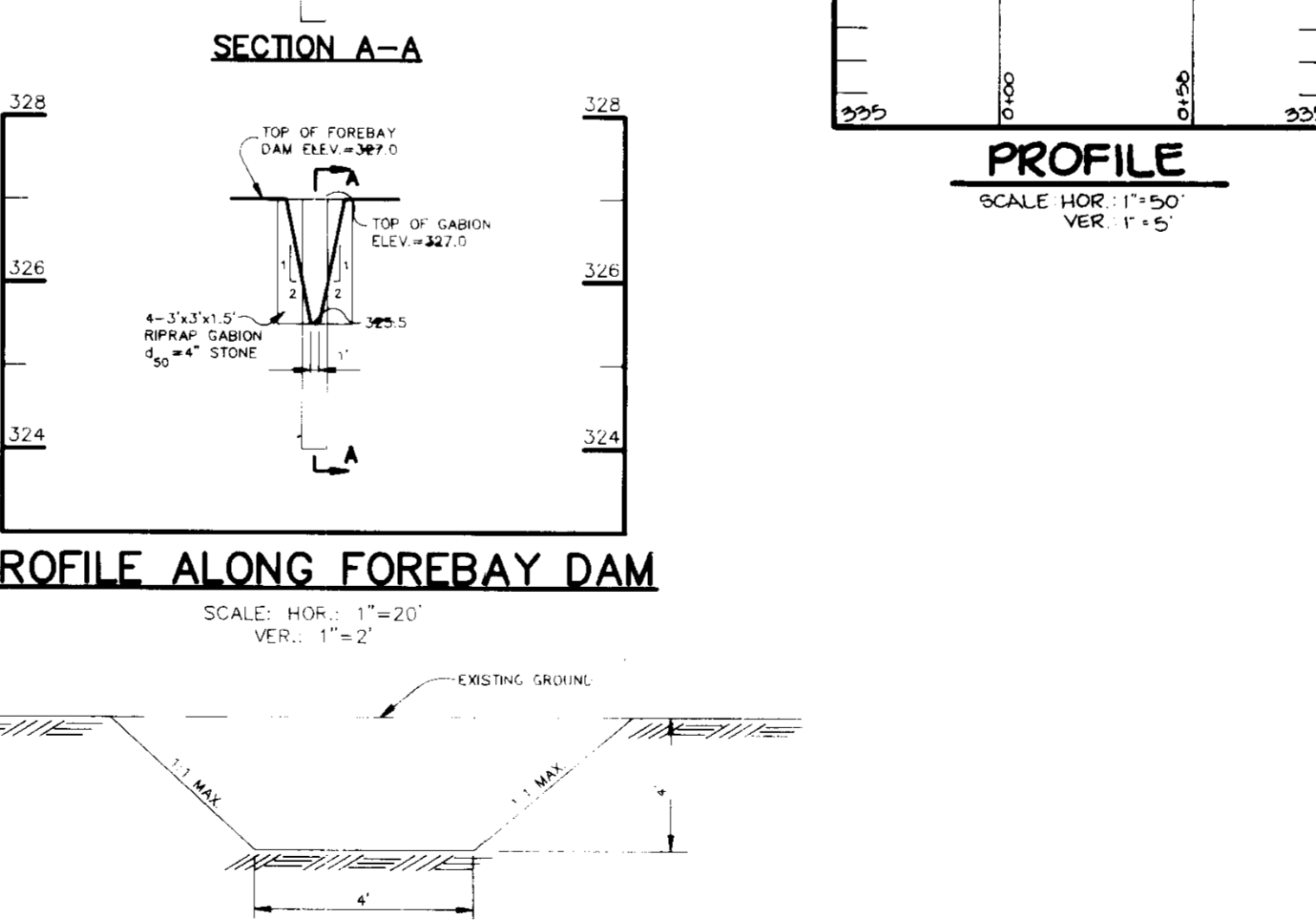
**MULTI-PIECE COLLAR FOR LARGE PIPES**

**COLLAR FOR FLANGE JOINT PIPE**

**ANTI-SEEP COLLAR**

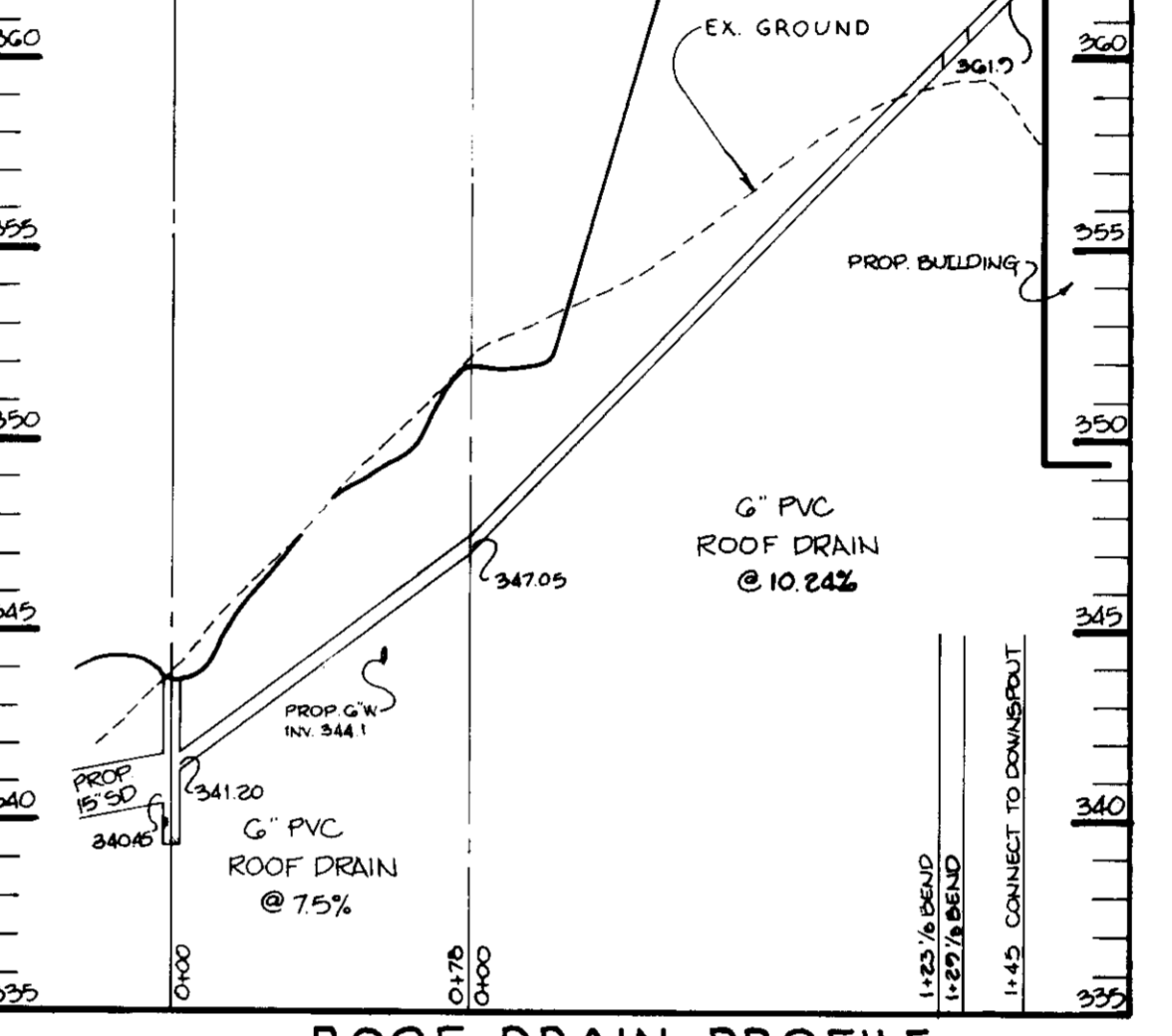


**PROFILE THRU Q DAM**

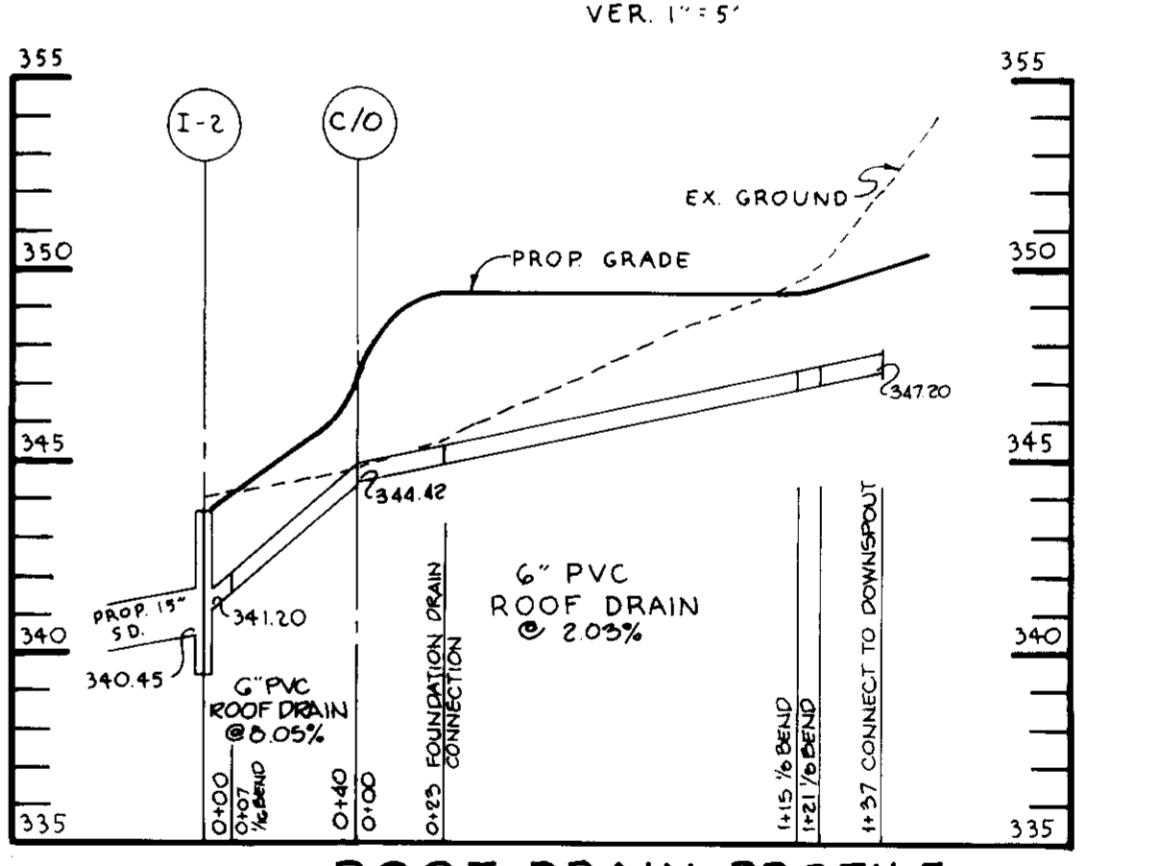


**PROFILE ALONG FOREBAY DAM**

**CORE TRENCH DETAIL**



**ROOF DRAIN PROFILE**



**ROOF DRAIN PROFILE**



AS BUILT CERTIFICATE

DAVID W. COOPER, INC. #19940

ARTHUR E. MUEGGE #8707

DATE: 8/10/92

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 will provide the Howard Soil Conservation District with an "AS-BUILT" plan of the pond within 30 days of completion. I also authorize periodic site inspections by the Howard Soil Conservation District.

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 must provide the Howard Soil Conservation District with an "AS-BUILT" plan of the pond within 30 days of completion.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT. Engineer: James M. Hylton, 9/15/92.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Director: James M. Hylton, 9/18/92.

APPROVED: CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT. Director: James M. Hylton, 9/25/92.

APPROVED: CHIEF, BUREAU OF ENGINEERING. Director: James M. Hylton, 9/26/92.

OWNER / DEVELOPER: CHRIST EPISCOPAL CHURCH. AREA: TAX MAP NO. 10, ZONED R-10. TITLE: S.W.M. NOTES AND DETAILS.

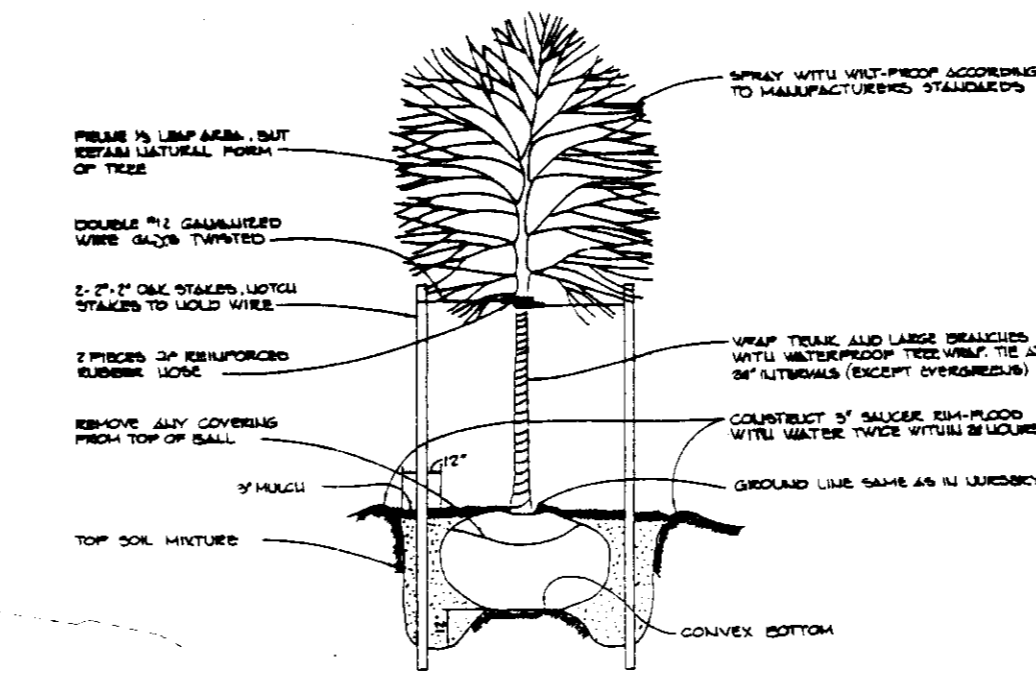
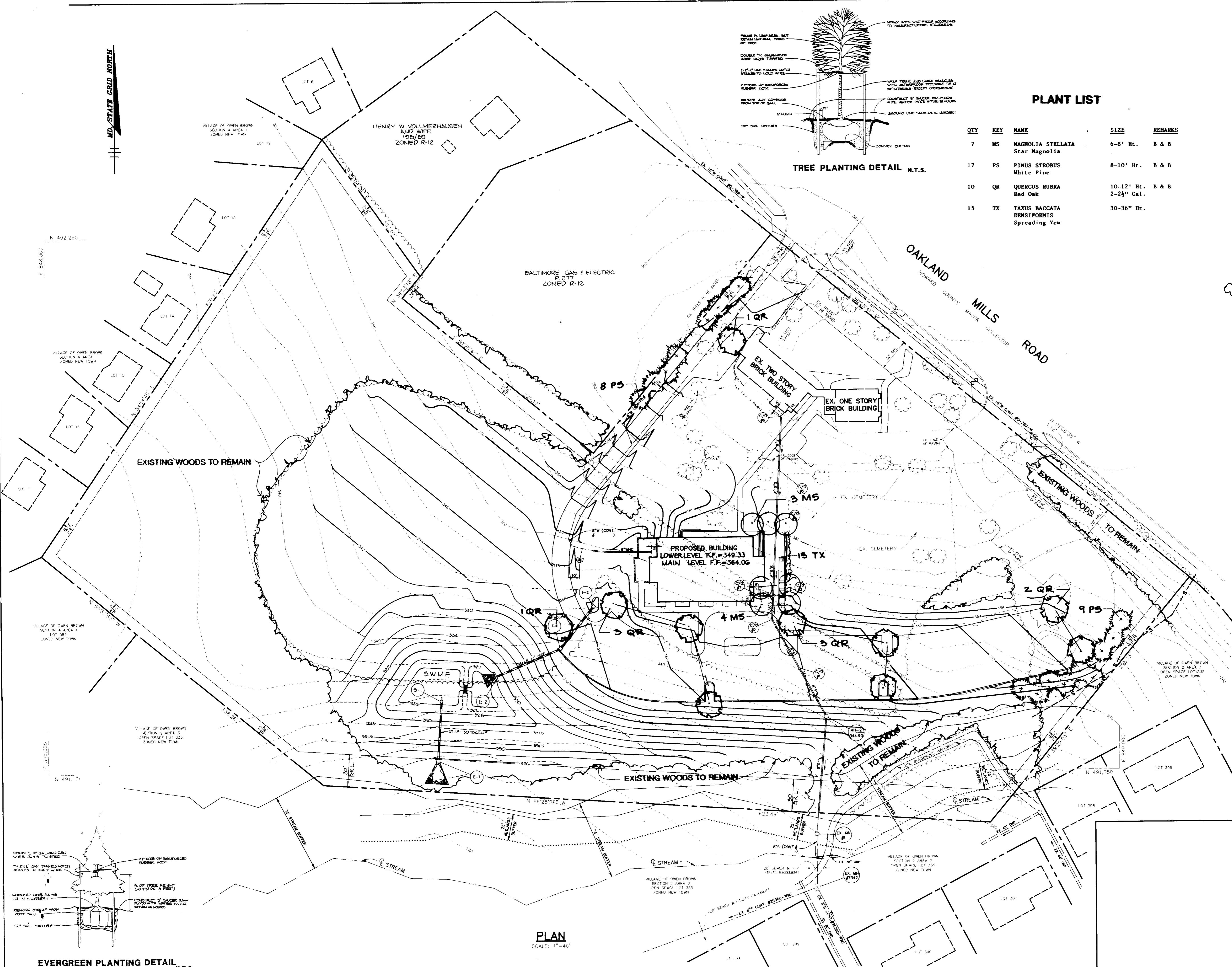
PROJECT: CHRIST EPISCOPAL CHURCH. AREA: TAX MAP NO. 10, ZONED R-10. TITLE: S.W.M. NOTES AND DETAILS.

RIEMER MUEGGE & ASSOCIATES, INC. A Land Planning, Engineering and Consulting Firm. 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045. 410-997-8900. FAX: 410-997-9282.

DESIGNED BY: ARTHUR E. MUEGGE. DRAWN BY: ARTHUR E. MUEGGE. PROJECT NO.: SWM-92-05. DATE: AUGUST 31, 1992. SCALE: AS SHOWN. DRAWING NO.: OF 11.

SDP-92-85

MD STATE GRID NORTH

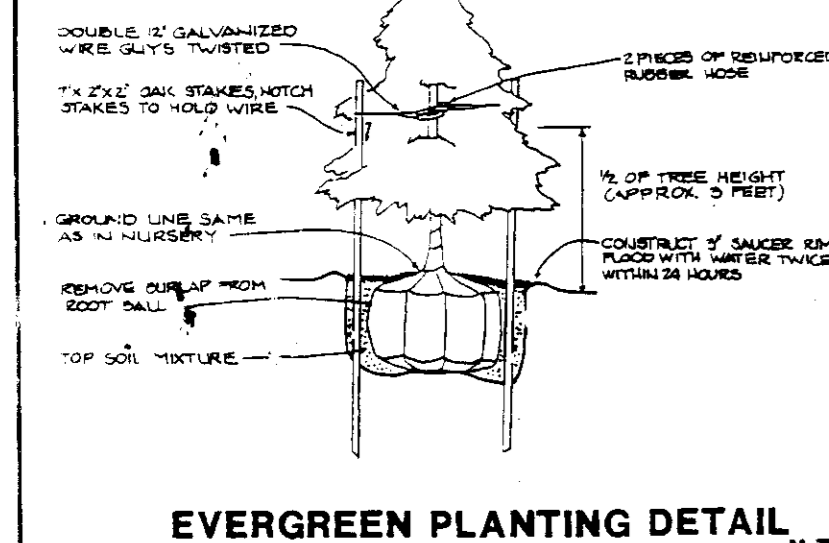


**PLANT LIST**

QTY	KEY	NAME	SIZE	REMARKS
7	MS	MAGNOLIA STELLATA Star Magnolia	6-8' Ht.	B & B
17	PS	PINUS STROBUS White Pine	8-10' Ht.	B & B
10	QR	QUERCUS RUBRA Red Oak	10-12' Ht. 2-2 1/2" Cal.	B & B
15	TX	TAXUS BACCATA DENSIFORMIS Spreading Yew	30-36" Ht.	

**LEGEND**

- PROP. EVERGREEN TREE
- PROP. FLOWERING TREE
- PROP. SHADE TREE
- EXISTING WOODS TO REMAIN
- EXISTING TREES TO BE REMOVED



**PLAN**  
SCALE: 1"=40'

ARTHUR E. MUEGGE #8707 DATE

APPROVED: FOR PUBLIC WATER AND SEWERAGE SYSTEMS, HOWARD COUNTY DEPARTMENT.

*Joyce M. Boyd* per *John* 9/18/92  
COUNTY HEALTH OFFICER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James Woods* 9/25/92  
DIRECTOR

*Melanie Muser* 9/24/92  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: FOR PUBLIC WATER AND SEWERAGE DRAINAGE SYSTEM.

*James A. Irwin* 9/16/92  
DIRECTOR

*William B. Reilly* 9/16/92  
CHIEF, BUREAU OF ENGINEERING

7-22-92 REVISE RIVERS TO BUILDING  
DATE NO. REVISED

OWNER / DEVELOPER

PROJECT  
**CHRIST EPISCOPAL CHURCH**

AREA  
TAX MAPS OF & ZONED R-12  
HOWARD COUNTY

TITLE  
**LANDSCAPE PLAN**

RIEMER, MUEGGE & ASSOCIATES, INC.  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md. 21045  
410-997-8900 FAX 410-997-8987

8-31-92  
MELANIE MUSER #55  
AUGUST 31, 1992