

RESTORATION SCHEDULE

LOCATION	DISTANCE	TYPE
Sta. 0+00 to 0+30	90'	Seed & Mulch
Sta. 1+15 to 3+30	275'	Seed & Mulch

QUANTITIES

ITEM	UNIT	ESTIMATE	AS BUILT	SUPPLIER
8" WATER MAIN	L.F.	390	385	GRIFFIN PIPE PRODUCTS
8" VALVE	EA.	2	2	GRIFFIN PIPE PRODUCTS
6" VALVE	EA.	2	2	GRIFFIN PIPE PRODUCTS
1 1/4" AIR RELEASE / VACUUM VALVE	EA.	1	1	MUELLER COMPANY
FIRE HYDRANT	EA.	2	2	MUELLER COMPANY
8" x 6" TEE	EA.	2	2	GRIFFIN PIPE PRODUCTS
20" STEEL CASING PIPE	L.F.	25	25	EVERN STEEL AND EQUIPMENT INC.

NO	TYPE	EX. GROUND	COVER	TOPELEV.
T.P.#1	8" WATER	357.3	3.8'	353.47
	1/2" GAS	357.3	2.3'	354.98
	TELE. CABLE	357.3	2.0'	354.29
T.P.#2	1/2" GAS	358.6	4.0'	349.60
T.P.#3	8" GAS	384.4	4.9'	379.45

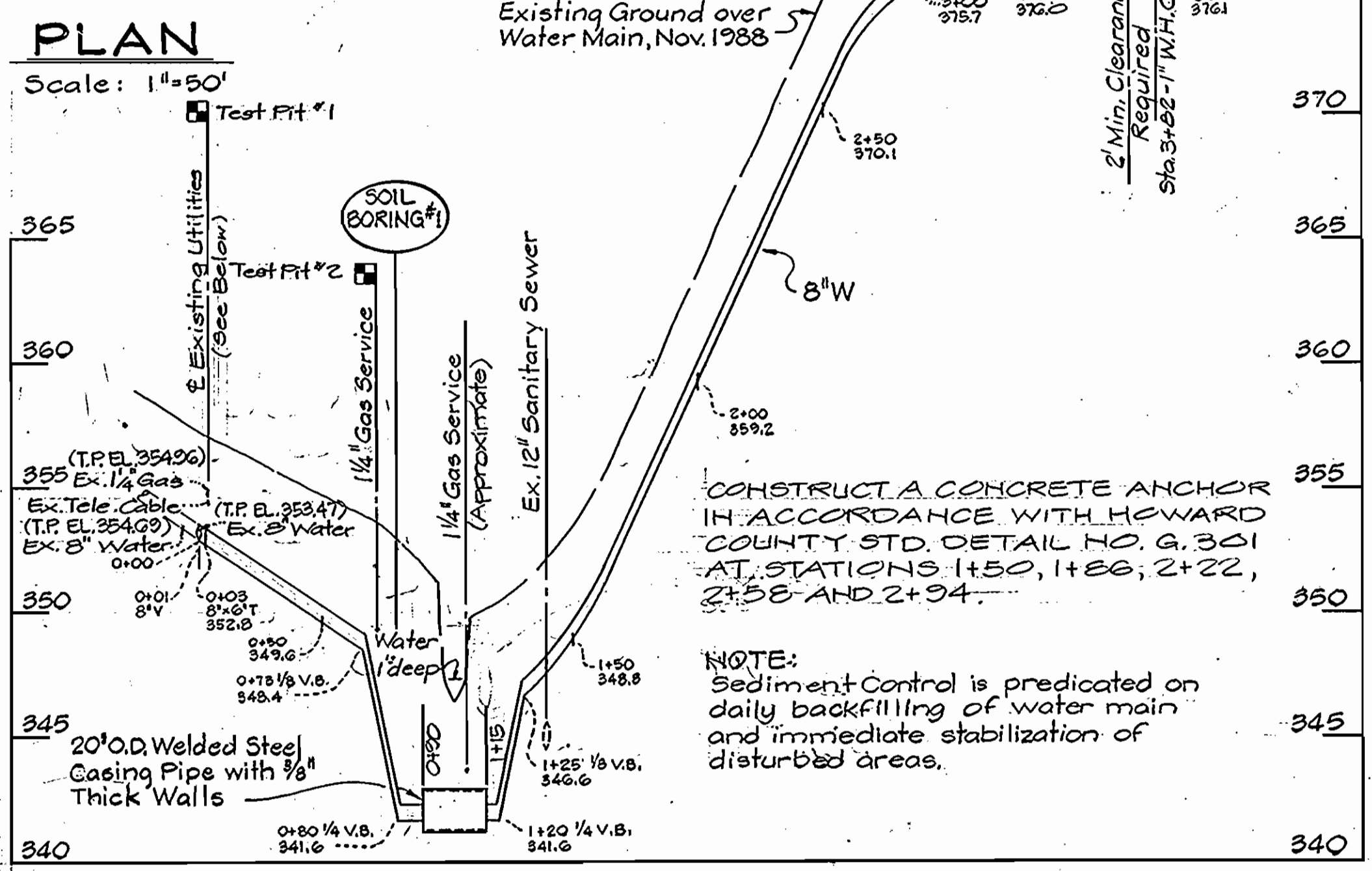
NOTE: ALL MATERIAL SHIP FROM BELAIR ROAD SUPPLY CO. INC.

DAILY BACKFILL SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED: *[Signature]* DATE: 5/26/89
 HOWARD S.C.D. DATE: 5/26/89



PROFILE
 Scale: Horiz. 1"=50' Vert. 1"=5'

BENCH MARK

B.M. No. 1 Elev. 358.18
 Railroad Spike Set, 18" Hardwood
 4" Above Ground.

B.M. No. 2 Elev. 385.06
 Railroad Spike Set, 14" Hardwood

TRAVERSE INFO

Ho. Co. #2842006 = N 510,930.620
 E 847,796.310

H.E.C. TRAV. P.I. #101 = N 511,199,587
 E 846,519,595
 S 31°12'21" W, 100.78'

H.E.C. TRAV. P.I. #102 = N 511,062,073
 E 846,436,295
 S 09°38'42" W, 246.12'

H.E.C. TRAV. P.I. #103 = N 510,819,433
 E 846,395,060

NUMBER OF LOTS: 1
 TYPE OF BUILDING: CHURCH
 NUMBER OF W.H.C.: 1
 DRAINAGE AREA: PATUKENT

VICINITY MAP
 Scale: 1"=600'

- GENERAL NOTES**
- Approximate Location of existing Mains are shown. The Contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
 - All Horizontal Controls are based on Maryland State Coordinates.
 - All Vertical Controls are based on U.S.G.S. Datum.
 - All pipe Elevations shown are invert Elevations.
 - Clear all utilities by a minimum of 6" Clear all poles by 2'-0" minimum or tunnel as required.
 - For Details not shown on the drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction. The contractor shall have a copy of Volume IV on the job.
 - Where Test Pits have been made on existing utilities, they are noted by the symbol at the location of the test pit. A note or notes containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which tests have not been dug shall be located by the contractor two weeks in advance of construction operations at the owners expense.
 - Contractor shall notify the following utilities companies or agencies at least five working days before starting work shown on these plans:
 C & P Telephone Company 1-800-257-7777
 State Highway Administration 531-5533
 Baltimore Gas & Electric Co.-Contractor Services 850-4820
 Baltimore Gas & Electric Co.-Underground Damage Control ... 550-3004
 Baltimore Gas & Electric Co.-Trouble Shooting 296-3001
 Miss Utility 1-800-257-7777
 Colonial Pipeline Co. 795-1300
 Bureau of Utilities, Howard County Dept. of Public Works... 292-2366
 - Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
 - Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price for construction of the main.
 - All water mains shall be D.I.P. unless otherwise noted.
 - Tops of all water mains to have a minimum of 3'-1/2" cover unless otherwise noted.
 - Valves adjacent to trees shall be strapped to trees.
 - All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
 - Fire Hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be strapped and buttressed with concrete in accordance with standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1005 the Standard Specifications.
 - The contractor shall not operate any water main valves on the existing water system.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE: 6-9-89
 CHIEF, BUREAU OF UTILITIES DATE: 6-9-89

HICKS ENGINEERING CO. INC.
 ENGINEERS - SURVEYORS - PLANNERS
 200 E. JOPPA ROAD - SUITE 402
 TOWSON MARYLAND 21204

DONALD D. HICKS, P.E. REG. NO. 8678

DES: T.A.W.
 DRN: L.A.W.
 CHK: D.E.H.

DATE: BY NO. REVISION DATE

8" WATER MAIN
 CONTRACT NO. 44-1910

600' SCALE MAP NO. 30 BLOCK NO. 10

CANVASBACK DRIVE WATER EXTENSION
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT W-8689

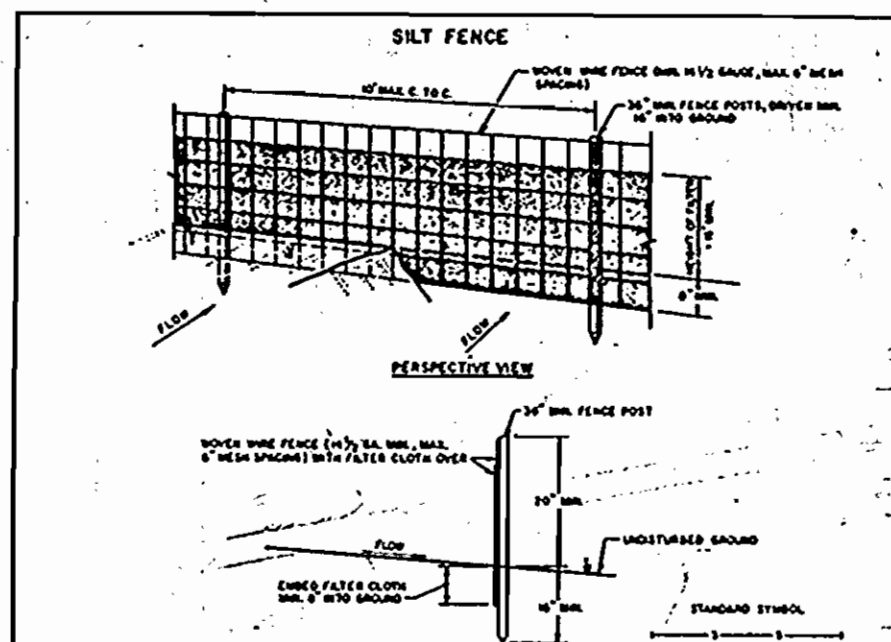
SCALE AS SHOWN
 SHEET 1 OF 2

SEDIMENT CONTROL NOTES

- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- 2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (Sec. 54), temporary seedings (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- 7) Site Analysis:
 - Total Area of Site: 0.35 Acres
 - Area Disturbed: 0.35 Acres
 - Area to be roofed or paved: 0.35 Acres
 - Area to be vegetatively stabilized: 0.35 Acres
 - Total Cut: 100 Cu. yds
 - Total Fill: 100 Cu. yds
 - Offsite waste/borrow area location: UNDETERMINED AT THIS TIME
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment controls must be provided, if deemed necessary by the Howard County DPM sediment control inspector.
- 10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

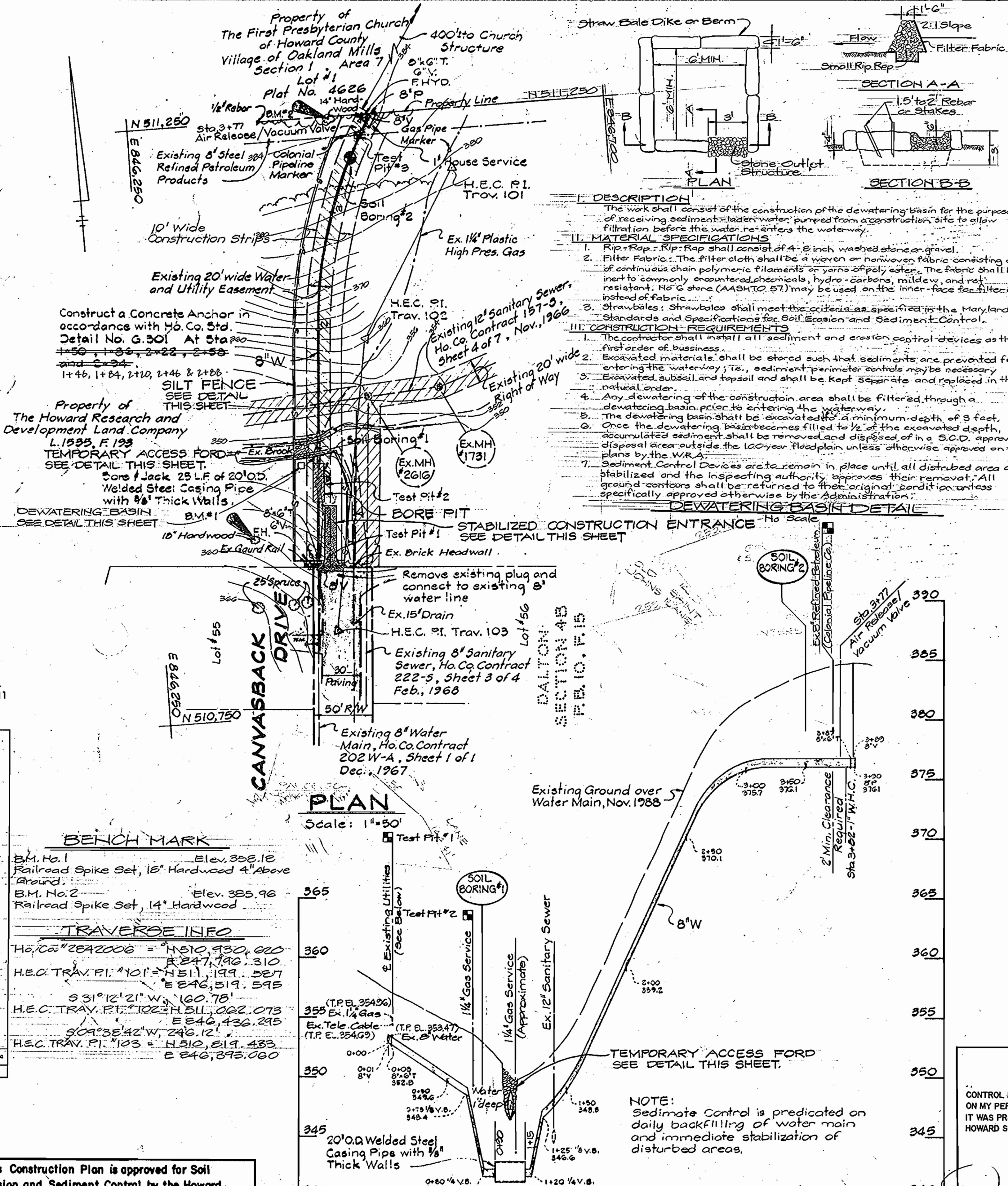
SEQUENCE OF CONSTRUCTION

1. Obtain Construction Permit. Contact Howard County Department of Inspections and Permits - (301) - 992-2437.
2. Install Sediment Control Measures as shown on this plan or as may be directed.
3. Excavate for and install proposed water main and related facilities.
4. Complete grading, stabilize areas disturbed by the contractor's operations.
5. Remove Sediment Control Devices, after proper authorization from Sediment Control Inspector, and restore all areas that may require additional stabilization.



CONSTRUCTION NOTES FOR PERIMETER SILT FENCE

1. Silt fence shall be installed according to the specifications of the Howard County Department of Inspections and Permits.
2. Filter cloth shall be fastened securely to the aggregate fill with 1/4" gal. nails.
3. No two sections of filter cloth shall be overlapped.
4. Maintenance shall be performed as needed to keep the silt fence in good working order.



BENCH MARK

BM. No. 1 Elev. 358.10
Railroad Spike Set, 18" Hardwood 4" Above Ground.

BM. No. 2 Elev. 385.96
Railroad Spike Set, 14" Hardwood

TRAVERSE INFO

Ho. Co. 2022006 = H. 510, 930, 020
= E. 241, 790, 310

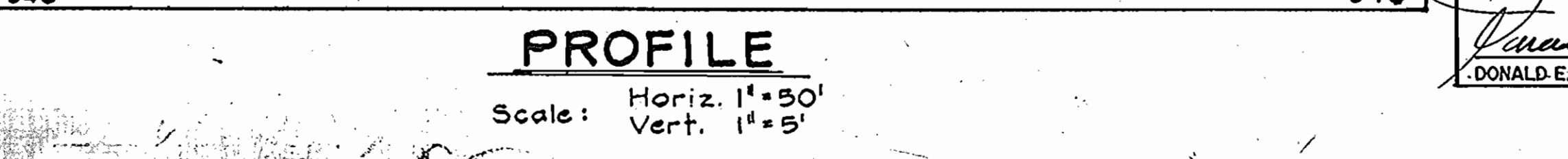
H.E.C. TRAV. FI. 101 = H. 511, 199, 527
= E. 246, 519, 595

331°12'21" W, 160.78'

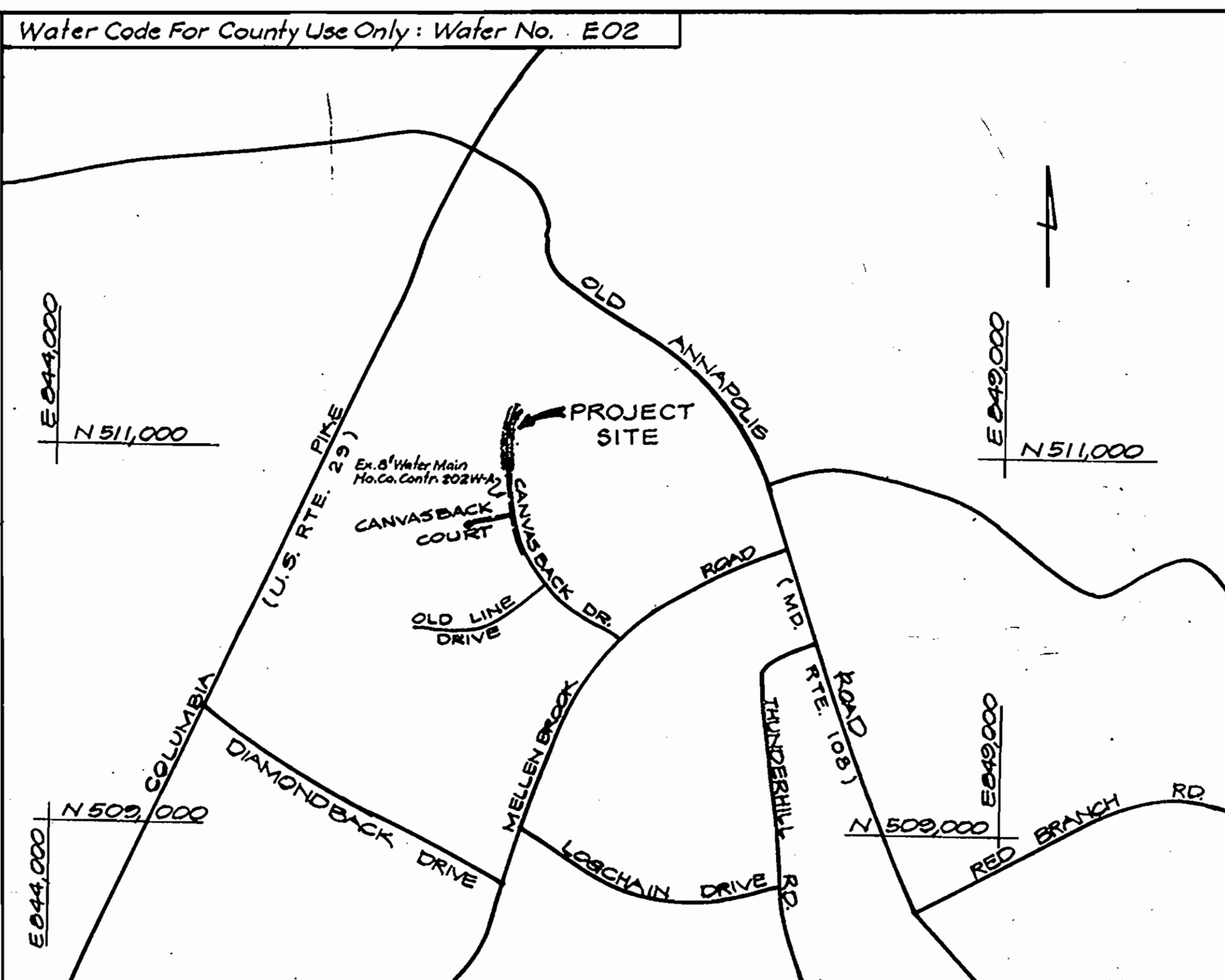
H.E.C. TRAV. FI. 102 = H. 511, 002, 073
= E. 246, 436, 295

309°35'42" W, 246.12'

H.E.C. TRAV. FI. 103 = H. 510, 219, 433
= E. 246, 375, 000

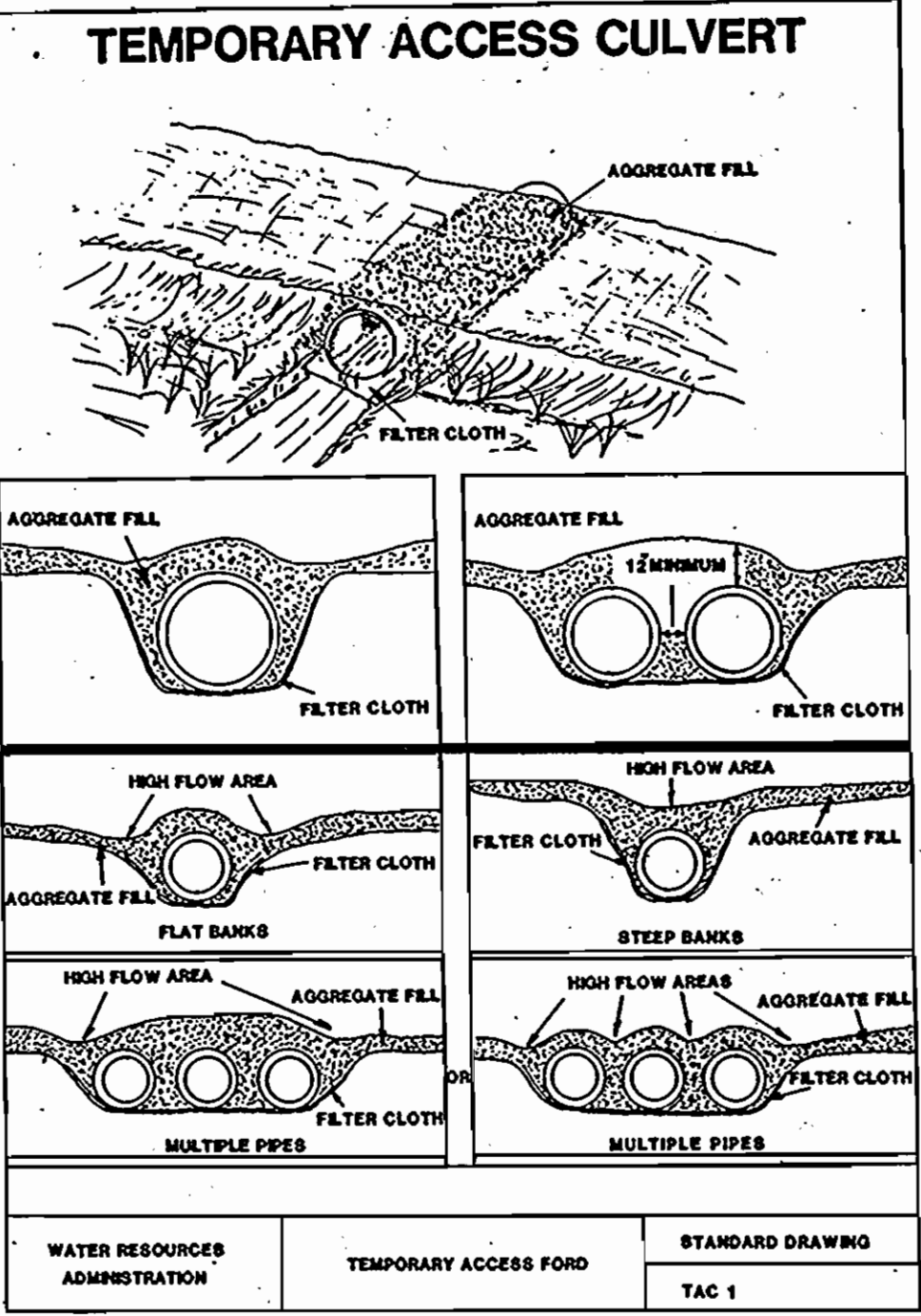


- DESCRIPTION**
- The work shall consist of the construction of the dewatering basin for the purpose of receiving sediment-laden water pumped from a construction site to allow filtration before the water re-enters the waterway.
- MATERIAL SPECIFICATIONS**
1. Rip-Rap: Rip-Rap shall consist of 4 to 6 inch washed stone or gravel.
 2. Filter Fabric: The filter cloth shall be a woven or nonwoven fabric consisting of continuous chain polymeric filaments or yarns of poly ester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, and resistant. No. 6 stone (AASHTO 57) may be used on the inner face for filtering instead of fabric.
 3. Strawbales: Strawbales shall meet the criteria as specified in the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- CONSTRUCTION REQUIREMENTS**
1. The contractor shall install all sediment and erosion control devices as the first order of business.
 2. Excavated materials shall be stored such that sediments are prevented from entering the waterway; i.e., sediment perimeter controls may be necessary.
 3. Excavated subsoil and topsoil shall be kept separate and replaced in their natural order.
 4. Any dewatering of the construction area shall be filtered through a dewatering basin prior to entering the waterway.
 5. The dewatering basin shall be excavated to a minimum depth of 3 feet.
 6. Once the dewatering basin becomes filled to 1/2 of the excavated depth, accumulated sediment shall be removed and disposed of in a S.C.D. approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the W.R.A.
 7. Sediment Control Devices are to remain in place until all disturbed area are stabilized and the inspecting authority approves their removal. All ground contours shall be returned to their original condition unless specifically approved otherwise by the Administration.



NUMBER OF LOTS: 1
TYPE OF BUILDING: CHURCH
NUMBER OF W.H.C.: 1
DRAINAGE AREA: PATUXENT

VICINITY MAP
Scale: 1" = 600'



STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: 1/2" Dia. 1/2" x 1/2" x 1/2" 30' MIN. COMPACTED EARTH CASE.

CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 ft. (except on a single residence lot where a 30 ft. minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) ft. minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mounded berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flow 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 right-of-way must be removed immediately.
8. Washing - Trucks shall be cleaned prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL 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 SOIL CONSERVATION DISTRICT."

Donald E. Hicks, P.E. 5/19/89
DATE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, 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 THE SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Howard County
DEPARTMENT OF PUBLIC WORKS

7-14-89
DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

U.S. SOIL CONSERVATION SERVICE DATE

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED: [Signature]
HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE
[Signature] 6-9-89

CHIEF, BUREAU OF ENGINEERING DATE
[Signature] 5-25-89

CHIEF, UTILITY DESIGN DIVISION DATE

HICKS ENGINEERING CO. INC.
ENGINEERS - SURVEYORS - PLANNERS
200 E. JOPPA ROAD - SUITE 402
TOWSON MARYLAND 21204

DES: T.A.W.
DRN: L.A.W.
CHK: D.E.H.
DATE: BY NO. REVISION DATE

8" WATER MAIN
CONTRACT NO. 44-1910

600' SCALE MAP NO. 30 BLOCK NO. 10

CANVASBACK DRIVE WATER EXTENSION
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
AS-BUILT CAPITAL PROJECT W-8689

SCALE AS SHOWN
SHEET 2 OF 2
9/22/90