

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

APPROVED: *[Signature]* 2/12/93  
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F-95-44.

APPROVED: *[Signature]* 2/12/93  
S. SOIL CONSERVATION SERVICE DATE

PLAN REFERENCE NUMBERS:  
P- 72-05  
F- 95-44

**SEQUENCE OF CONSTRUCTION FOR SEWER MAIN INSTALLATION**

- OBTAIN THE REQUIRED GRADING PERMIT
- INSTALL SEDIMENT AND EROSION CONTROL MEASURES AS INDICATED.
- CUT AND REMOVE EXISTING TREES; ONLY WITHIN THE 20' SEWER AND UTILITY EASEMENT AND ONLY AS NECESSARY FOR THE SEWER MAIN INSTALLATION.
- REMOVE AND STOCKPILE TOPSOIL; SEE (a) OF CMP/W/TW#.
- COMPLETE CLEARING AND GRUBBING WITHIN THE SEWER AND UTILITY EASEMENT; SEE (b) OF CMP/W/TW#.
- EXCAVATE SEWER MAIN TRENCH; SEE (b) OF CMP/W/TW# SEE NOTE REGARDING LENGTH OF OPEN TRENCH.
- INSTALL SEWER MAIN; SEE (c) OF CMP/W/TW#.
- BACKFILL AND COMPACT SEWER MAIN TRENCH; SEE (d) OF CMP/W/TW#.
- REPLACE TOPSOIL, RESTORE AND STABILIZE SEWER MAIN TRENCH AND ALL DISTURBED AREAS; SEE (a), (c) AND (d) OF CMP/W/TW#.
- FOLLOWING APPROVAL FROM INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL DEVICES.

\* CMP/W/TW# DENOTES CONDITIONS AND MANAGEMENT PRACTICES FOR WORKING IN NON-TIDAL WETLANDS, AS LISTED ON SHEET 2 OF 2 OF THESE PLANS.

SEE SHEET 20P-2 FOR PROFILES OF WATER & SEWER MAINS

NOTE: THE LENGTH OF OPEN SEWER MAIN TRENCH SHALL BE LIMITED TO THREE (3) PIPE LENGTHS OR TO THAT WHICH WILL BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

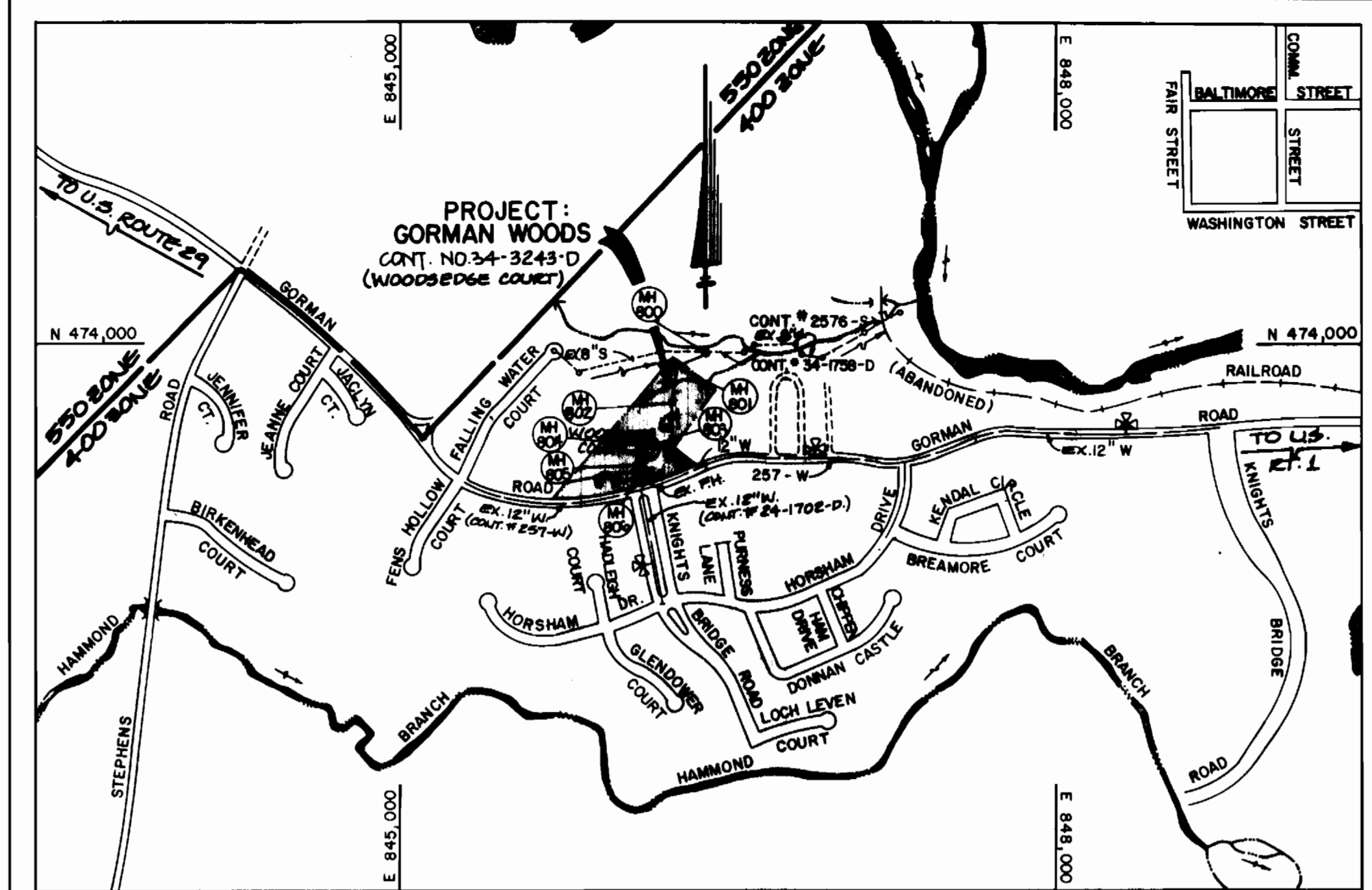
**SHC INVERTS @ PROPERTY LINE**

STATION	LOT	ELEVATION
0+35 RT	MH 802 TO MH 805	232.47
0+45 LT	5	232.64
0+75	MH 803 TO MH 804	231.05
1+60 RT	4	231.79
2+30 RT	MH 804 TO MH 805	232.17
0+10 LT	2B	230.60
0+20 RT	2	230.60
0+50 LT	1B	242.65
0+80 RT	1	244.75
0+30 RT	1A	249.77
0+10 RT	2A	253.39

NOTE: W.T. DENOTES WATERTIGHT MANHOLE FRAME & COVER, STD DETAIL G.5.52.

**NOTE REGARDING CONSTRUCTION FENCE**

PRIOR TO CONSTRUCTION OF THE SEWER MAIN FROM MH #800 TO MH #801, A FENCE SHALL BE PLACED ALONG THE OUTSIDE EDGES OF THE CONSTRUCTION STRIPS. THE FENCE SHALL BE ORANGE PLASTIC MESH, 4' IN HEIGHT, & SECURED TO METAL POSTS AT 10 FOOT INTERVALS. THE FENCE SHALL NOT BE ATTACHED TO ANY TREES OR OTHER VEGETATION & SHALL BE REMOVED AFTER COMPLETION OF CONSTRUCTION.



**TYPE OF BUILDING** RESIDENTIAL DETACHED  
**NUMBER OF LOTS** 8 (6 BUILDABLE)  
**NO. OF WATER HOUSE CONNECTIONS** 10  
**NO. OF SEWER HOUSE CONNECTIONS** 10  
**DRAINAGE AREA** PATUENT  
**TREATMENT PLANT** LITTLE PATUENT WATER QUALITY MANAGEMENT CENTER

**WATER & SEWER CODE FOR COUNTY USE ONLY**  
 WATER NO. 603  
 SEWER NO. 610000  
 WATER TEST GRADIENT 3.80

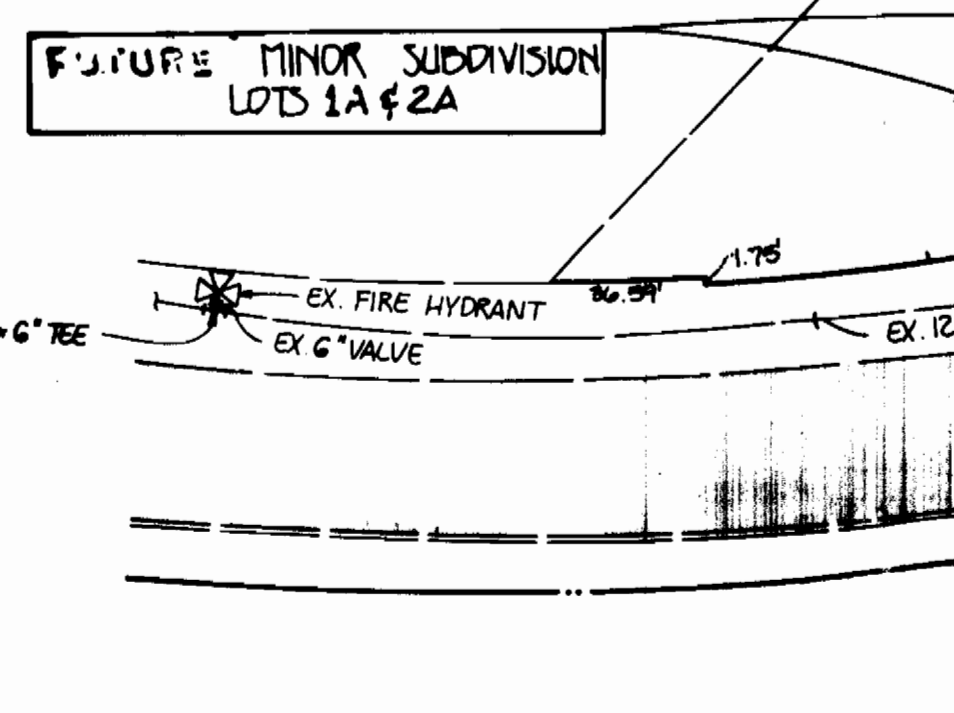
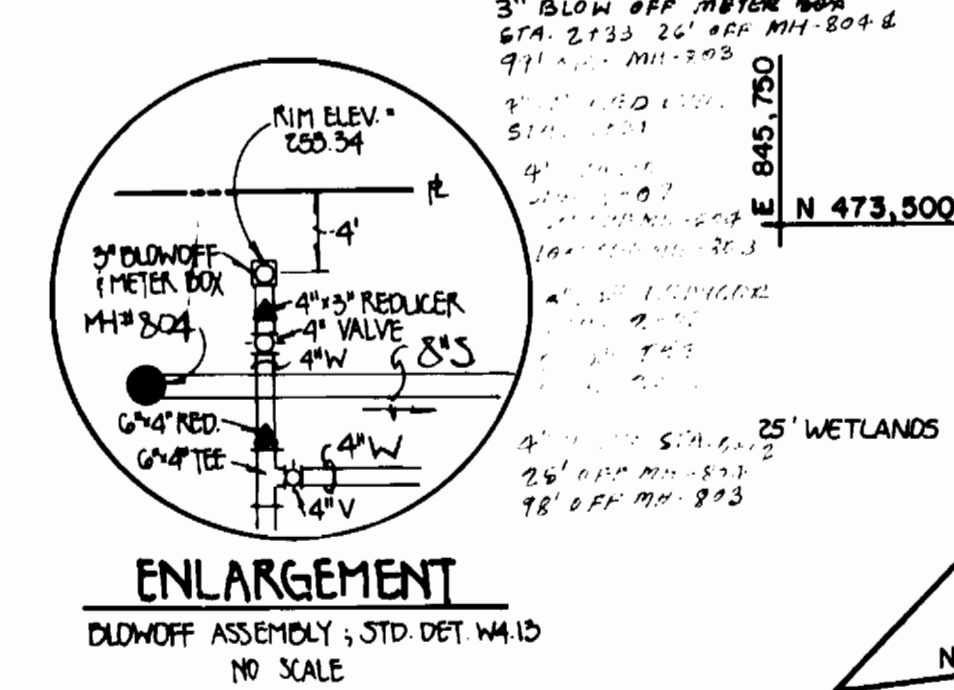
**QUANTITIES**

ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
8" SEWER	590 LF.	2 1/2"	PVC	JMI
4" SEWER	275 LF.	2 1/2"	PVC	JMI
MANHOLES	7 EACH	2 1/2"	11" x 11"	JMI
6" WATER	213 LF.	2 1/2"	PVC	JMI
4" WATER	90 LF.	2 1/2"	PVC	JMI
10" x 6" TAPPING SLEEVE & VALVE	1 EACH	1"	10"	JMI
4" VALVE	1 EACH	1"	4"	JMI
1" WHC	85 LF.	1"	1"	JMI
3/4" WHC	217 LF.	1"	1"	JMI
8" SEWER (D.I.P.)	185 LF.	1"	1"	JMI

NAME OF UTILITY CONTRACTOR: \_\_\_\_\_  
 SURVEY & DRAFTING DIVISION AS-BUILT DATE: \_\_\_\_\_

**MANHOLE TABULATION CHART**

MH	& RD STATION	DISTANCE	SLOPE	RIM ELEVATION
800	-----	-----	-----	232.25
801	-----	-----	-----	232.50
802	-----	-----	-----	242.00
803	-----	-----	-----	250.40
804	IN CURVE S/C	9' LT	-7.0%	239.65
805	1+51	7' LT	-5.6%	240.00
806	0+63	7' LT	-5.6%	244.75



SEE SHEET 2 FOR THE LIST OF CONDITIONS, CONDITIONS & MANAGEMENT PRACTICES FOR WORKING IN NON-TIDAL WETLANDS, WHICH APPLY TO ALL UTILITY WORK WITHIN THE NON-TIDAL WETLANDS AND BUFFERS AS SHOWN ON THIS PLAN.

NOTE: SET RIMS OF MH#800 & #801 1'-0" ABOVE EXISTING GROUND, STANDARD DETAIL G.5.41.

NOTE: SET RIMS OF MH#802 & #803 PUSH W/ PROPOSED FINISHED GRADE.

NOTE: A LETTER OF EXEMPTION, 92-WT-0722, DATED 1/19/93 HAS BEEN ISSUED BY THE NON-TIDAL WETLANDS DIVISION OF THE MD. WATER RESOURCES ADMINISTRATION TO ALLOW INSTALLATION OF THE 8" SEWER MAIN WITHIN THE WETLANDS & WETLAND BUFFER AREAS AS INDICATED.

- 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 ARE INVERT ELEVATIONS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 6'
  - 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 (1991 AMENDMENTS). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
  - 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 TEST PITS HAVE NOT BEEN DUG SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
  - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES 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. - UNDER GROUND DAMAGE CONTROL - 858-9004
    - BALTIMORE GAS & ELECTRIC CO. - TROUBLE SHOOTING - 298-9001
    - MISS UTILITY - 257-7777
    - COLONIAL PIPELINE CO. - 795-1390
    - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
  - 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 TREE, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
  - ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., OR P.V.C. UNLESS OTHERWISE NOTED.
  - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
  - T.B. DENOTES TEST BORING.
  - MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
  - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G.5.52.
  - WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTINGS, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
  - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CAN NOT BE SERVED.
  - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN SPECIFICATIONS.
  - MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLES, FRAMES AND COVERS STANDARD DETAIL G.5.5.
  - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
  - WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
  - ALL WATER MAINS TO BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
  - TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
  - 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 ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
  - CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
  - ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH ANWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
  - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.

**ENGINEER'S CERTIFICATE**

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

SIGNATURE OF ENGINEER: *[Signature]* DATE: 01/18/93

**BENCHMARKS**

BM#1: TOP OF BOLT ON FIRE HYDRANT LOCATED AT THE NORTHEAST INTERSECTION OF GORMAN ROAD & KNIGHTS BRIDGE ROAD. ELEV. 269.70

BM#2: TOP NORTHWEST CORNER OF EX. INLET LOCATED AT THE SOUTHWEST INTERSECTION OF GORMAN ROAD & KNIGHTS BRIDGE ROAD. ELEV. 240.50

**DEVELOPER'S CERTIFICATE**

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENTION AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZES PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS DEEMED NECESSARY.

SIGNATURE OF DEVELOPER: \_\_\_\_\_ DATE: \_\_\_\_\_

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

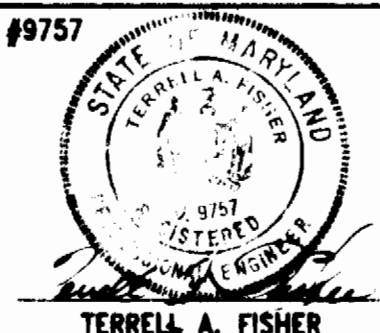
*[Signature]* 2/12/93  
 DIRECTOR OF PUBLIC WORKS DATE

*[Signature]* 2/22/93  
 CHIEF, BUREAU OF ENGINEERING DATE

*[Signature]* 2/2/93  
 CHIEF, BUREAU OF UTILITIES DATE

*[Signature]* 2/12/93  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 971 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21042  
 (410) 461-2855



DES: MM  
 DRWN: SH  
 CHK: PWK  
 DATE: 01/18/93

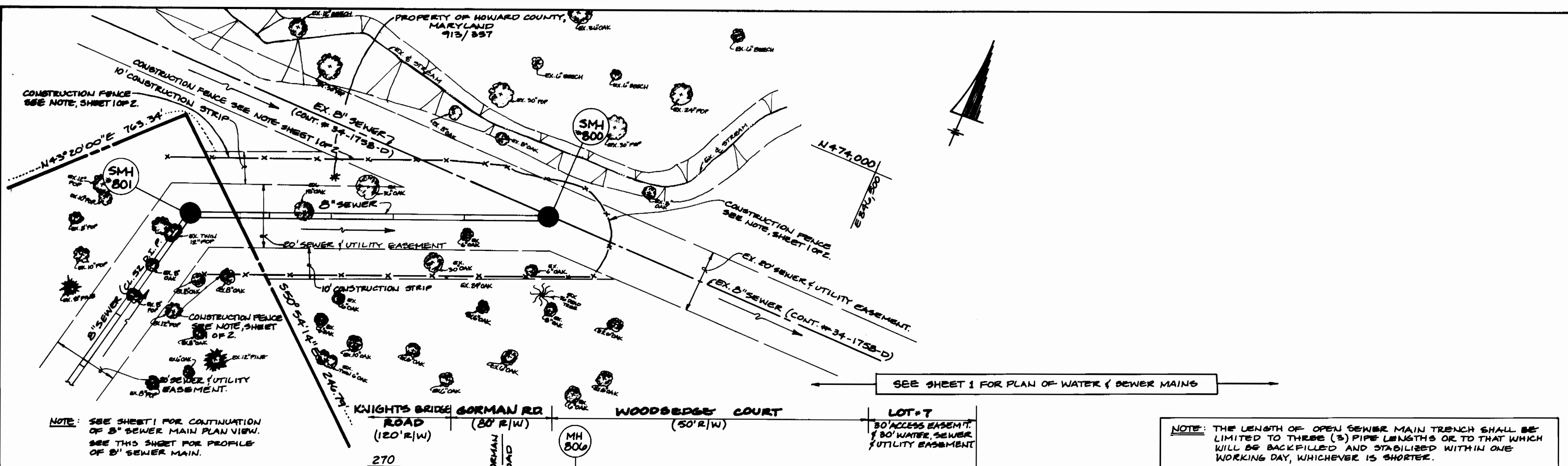
BY	NO.	REVISION	DATE

**WATER AND SEWER MAINS PLAN**

600' SCALE MAP NO. 47 BLOCK NO. 16

**GORMAN WOODS**  
 LOTS 1-8  
 CONTRACT NO. 34-3243-D  
 SIXTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 1 OF 3



**CONDITIONS & MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS**

- a) REMOVE EXCESS FILL OR CONSTRUCTION MATERIAL OR DEBRIS TO AN UPLAND DISPOSAL AREA.
- b) PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF THE NONTIDAL WETLAND;
- c) RECTIFY ANY NONTIDAL WETLANDS TEMPORARILY IMPACTED BY ANY PROPOSED REPAIR AND MAINTENANCE ACTIVITY OR INSTALLATION OF THE UTILITY LINE. WETLANDS AND THEIR 25 FOOT ADJACENT BUFFER WILL NOT BE MOVED OR OTHERWISE MANAGED TO PRECLUDE THE RE-ESTABLISHMENT OF THE FOREST VEGETATION. STABILIZATION TO TEMPORARILY IMPACTED NONTIDAL WETLAND AREAS SHALL BE ANNUAL RYE OR MILLET AND MULCH. ALL TEMPORARY FILLS SHALL BE REMOVED IN THEIR ENTIRETY ON OR BEFORE THE COMPLETION OF CONSTRUCTION;
- d) AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS OF NONTIDAL WETLANDS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS;
- e) TO PROTECT IMPORTANT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM AS FOLLOWS:
  - 1) CLASS I WATERS. IN-STREAM WORK MAY NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.
- f) SEE SHEET 1 FOR SEQUENCE OF CONSTRUCTION FOR SEWER MAIN INSTALLATION.

**ENGINEER'S CERTIFICATE**

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

SIGNATURE OF ENGINEER \_\_\_\_\_ DATE 01/18/93

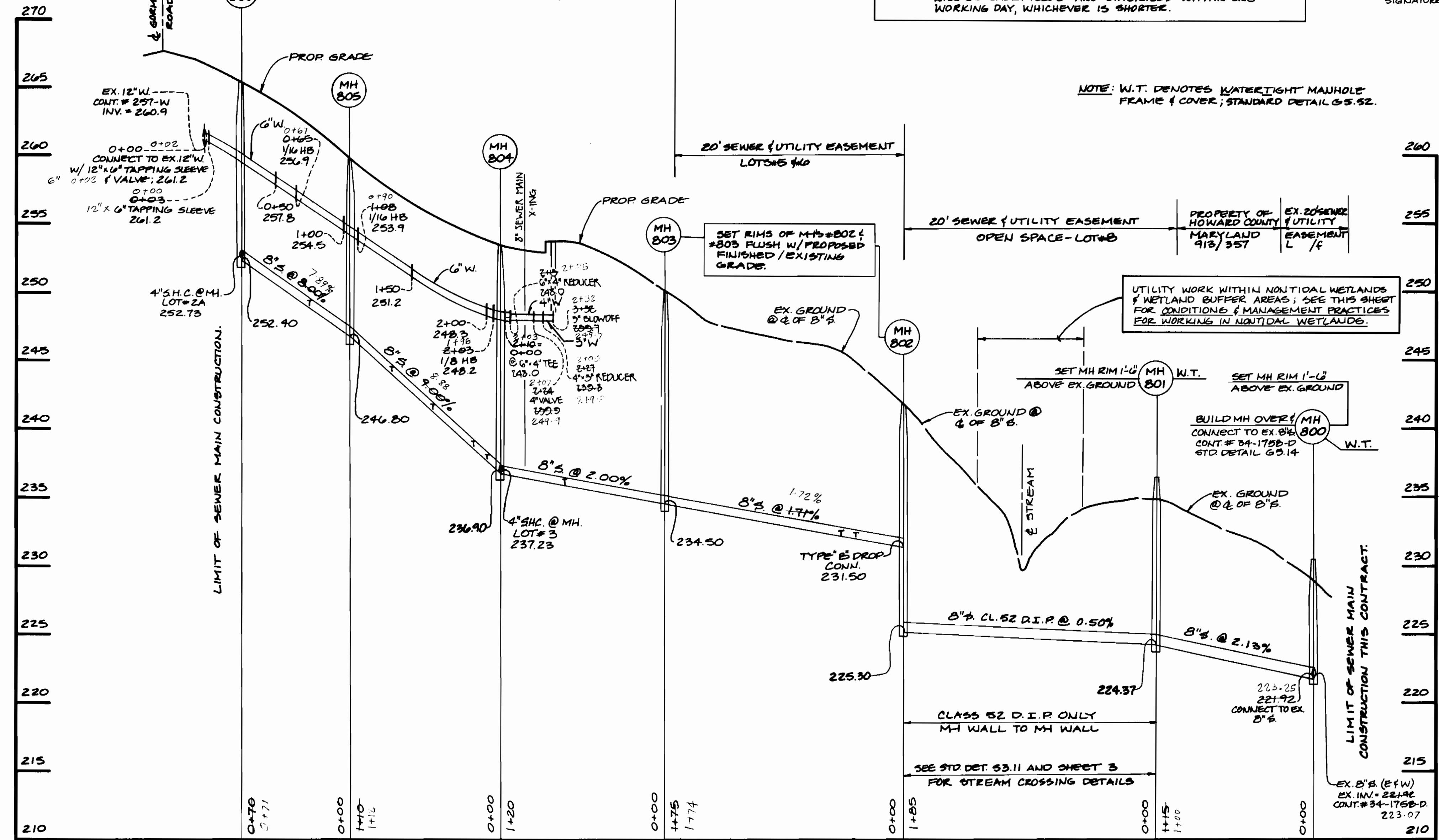
**DEVELOPER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_

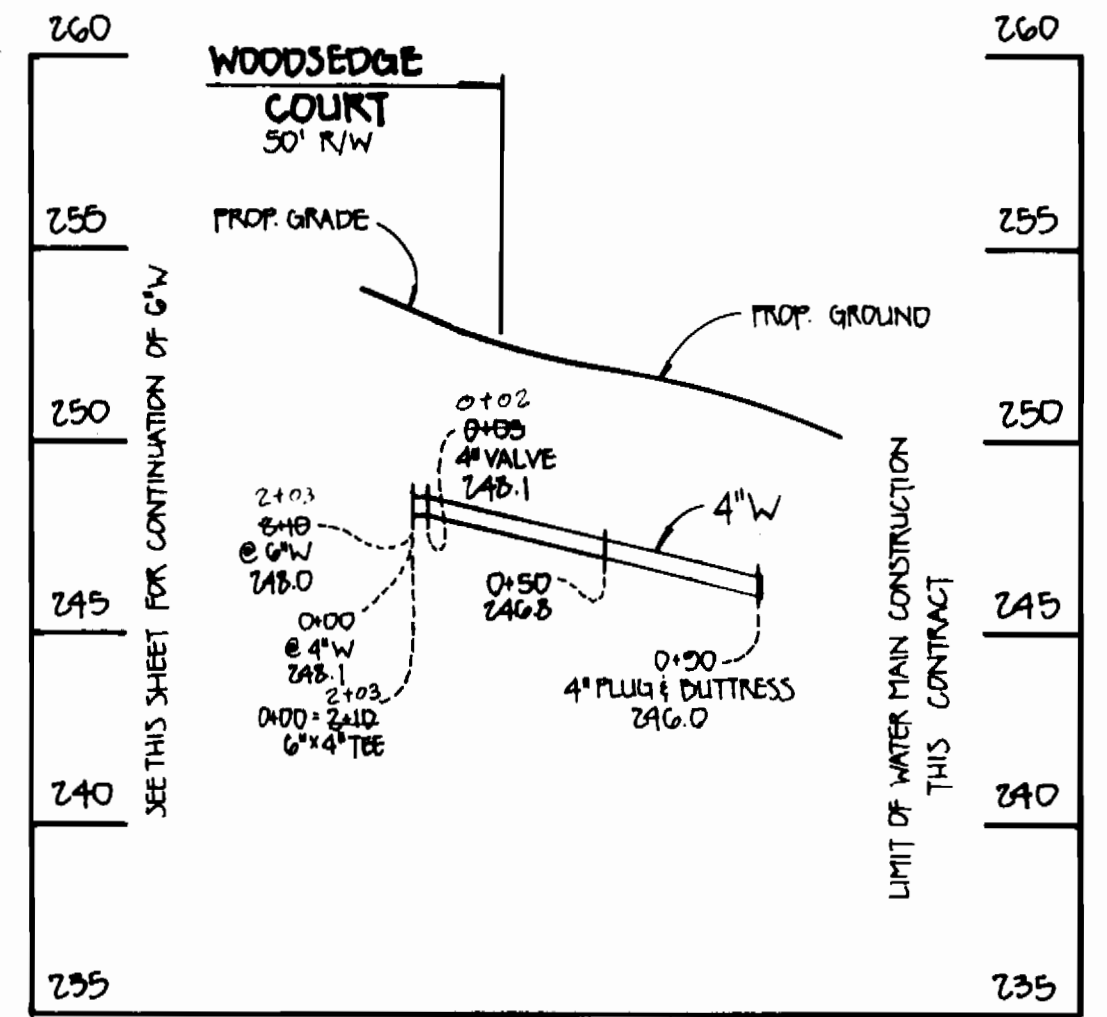
**PARTIAL PLAN**

SCALE: 1" = 20'



**WATER MAIN TABULATION CHART**

RD. STATION	AFFURTENANCE	DISTANCE
0+29	12" TAPPING SLEEVE (V)	6' RT.
0+32	6" TAPPING VALVE	6' RT.
0+97	1/16" H.B.	5.5' RT.
1+42	1/16" H.B.	5' RT.
1+42 (L.P.)	1/8" H.B.	14' RT.
1+55 (L.P.)	4" WATER	10' RT.
1+29 (L.P.)	6" 4" TEE	9' RT.



**PROFILES**

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

**NOTE:** A LETTER OF EXEMPTION 92-NJ-0722, DATED 11/15/92, HAS BEEN ISSUED BY THE NONTIDAL WETLANDS DIVISION OF THE MD. WATER RESOURCES ADMINISTRATION TO ALLOW INSTALLATION OF THE 8" SEWER MAIN WITHIN THE WETLANDS & WETLAND BUFFER AREAS AS INDICATED.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

2/17/93  
DIRECTOR OF PUBLIC WORKS

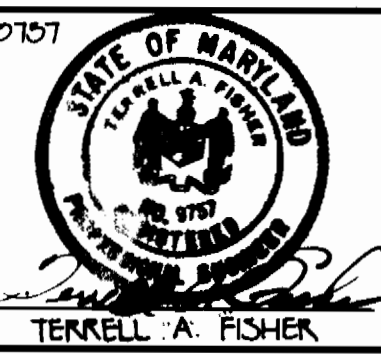
2/17/93  
CHIEF, BUREAU OF ENGINEERING

2/17/93  
CHIEF, BUREAU OF UTILITIES

FISHER, COLLINS, AND CARTER, INC.

CONSULTING ENGINEERS AND LAND SURVEYORS

9171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043  
(410) 461-2855



DES: M.J.M.				
DRN: M.S.V.				
CHK: P.W.K.				
DATE: 01/18/93	BY NO.	REVISION	DATE	600' SCALE MAP NO. 47 BLOCK NO. 10

WATER AND SEWER MAINS  
PROFILES

GORMAN WOODS  
LOTS 1-B  
CONTRACT NO. 34-3243-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 3

**EROSION AND SEDIMENT CONTROL NOTES:**

- ALL SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT CONTROL IN DEVELOPING AREAS.
- ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF BUSINESS.
- ALL EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE SEWER MAIN TRENCH.
- IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER MAIN TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
- THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
- ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

**NOTE:** THE LENGTH OF OPEN SEWER MAIN TRENCH SHALL BE LIMITED TO THREE (3) PIPE LENGTHS OR TO THAT WHICH WILL BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

**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 (992-2437).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL GREATER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 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.
- 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) SOD (SEC. 94), TEMPORARY SEEDING (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.
- 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 (GORMAN WOODS) 3.587 ACRES  
 AREA DISTURBED 0.250 ACRES  
 AREA TO BE ROOFED OR PAVED 0.250 ACRES  
 AREA TO BE VEGETATIVELY STABILIZED 0.250 ACRES  
 TOTAL CUT (TRENCH EXCAVATION) 1236 CU. YDS.  
 TOTAL FILL (TRENCH BACKFILL) 1236 CU. YDS.  
 OFFSITE WASTE/BORROW AREA LOCATION N/A 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 DPW SEDIMENT CONTROL INSPECTOR.  
 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.

**PERMANENT SEEDING NOTES:**

APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED, SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULE.

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARRON OR DISC INTO UPPER THREE-INCHES OF SOIL, AT TIME OF SEEDING. APPLY 400 LBS. PER 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.)
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ. FT.) BEFORE SEEDING. HARRON OR DISC INTO UPPER THREE-INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL BRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHTER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING. MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

**TEMPORARY SEEDING NOTES:**

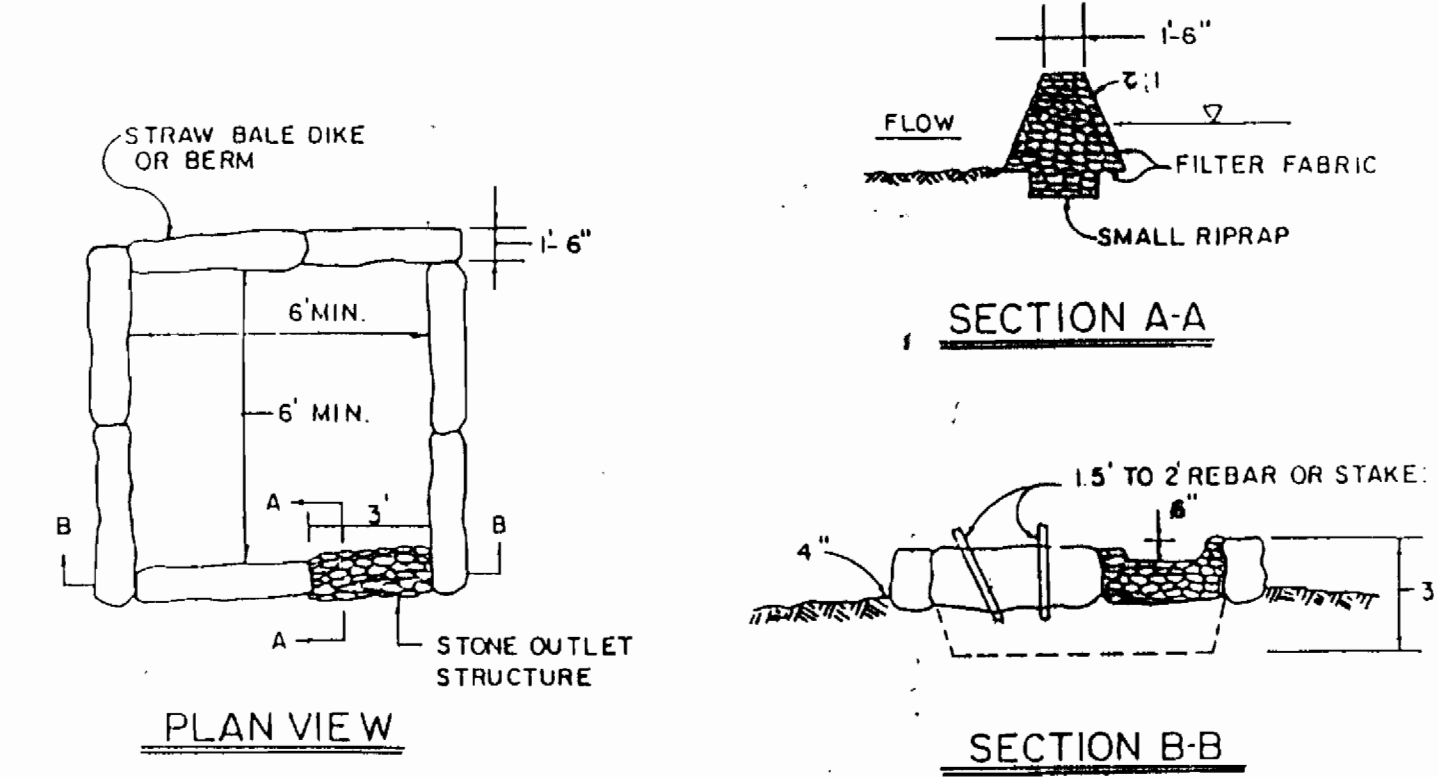
APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED, SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ. FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ. FT.). 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 SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL BRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHTER, USE 348 GAL PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

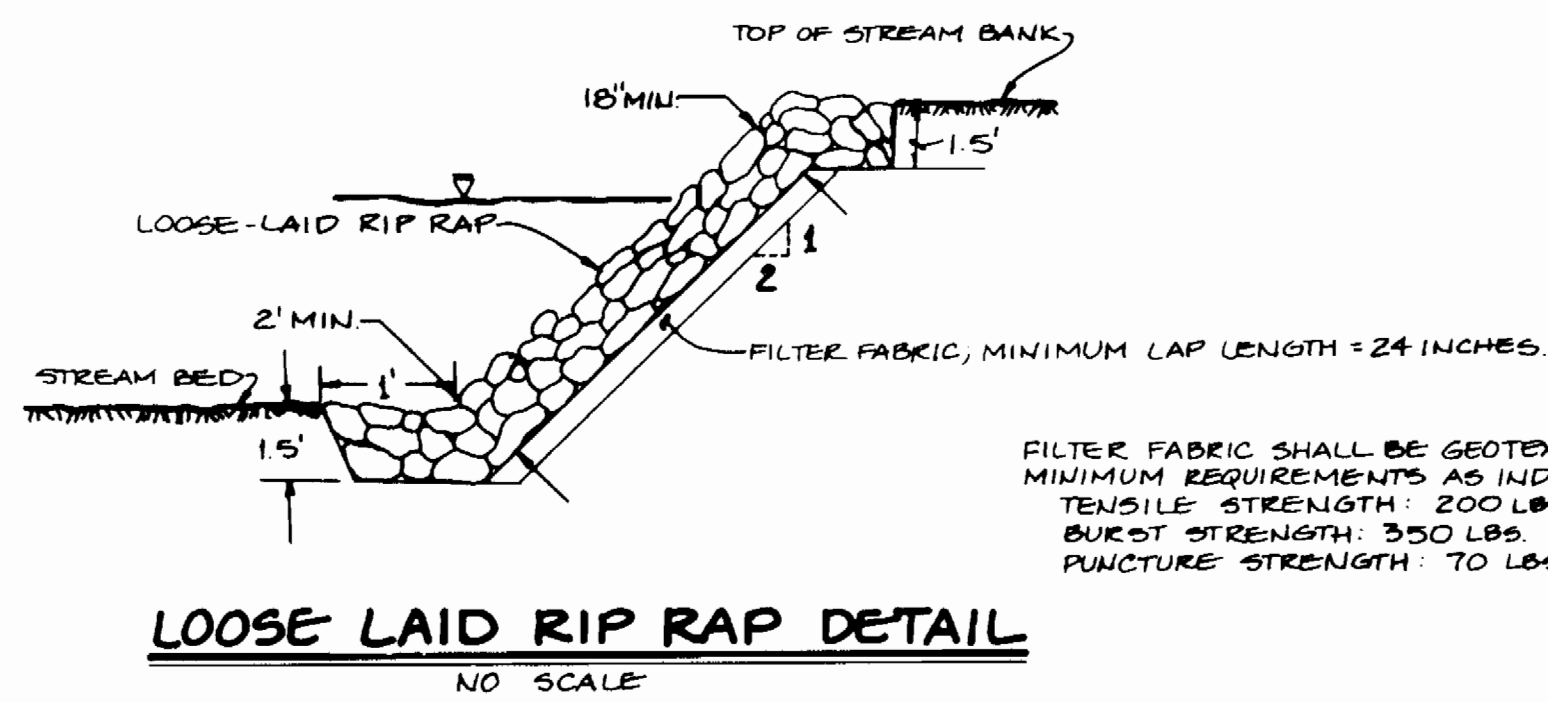
REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



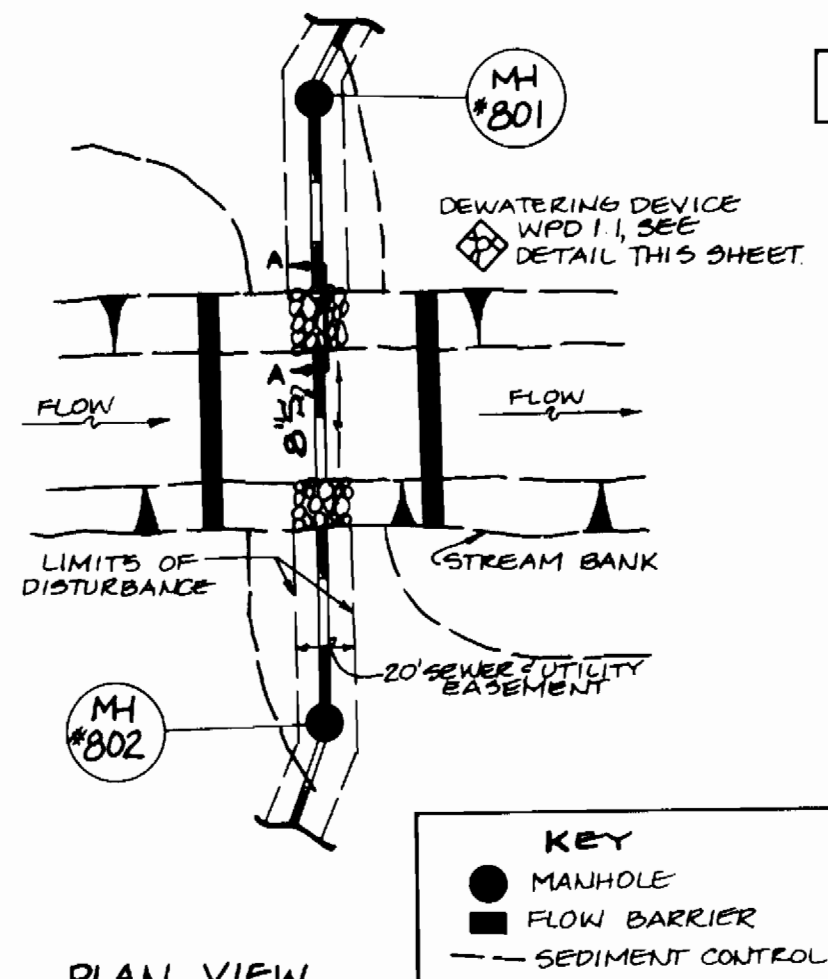
**NOTE:** ALL DEWATERING OF THE CONSTRUCTION AREA DURING THE SEWER MAIN INSTALLATION (RIP-RAP INSTALLATION SHALL BE PUMPED TO A DEWATERING BASIN ( WPD I.I - AS SHOWN ABOVE ) PRIOR TO RE-ENTERING THE STREAM.

**DEWATERING BASIN DETAIL, WPD I.I**

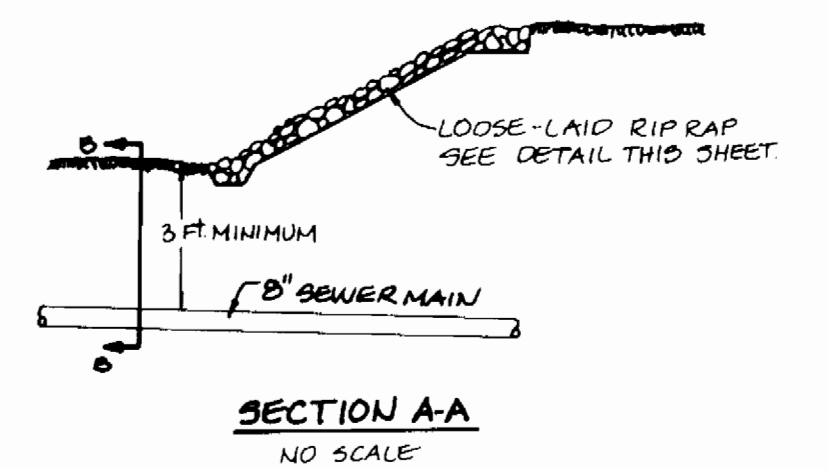
SEE SHEET I FOR "SEQUENCE OF CONSTRUCTION FOR SEWER MAIN INSTALLATION."



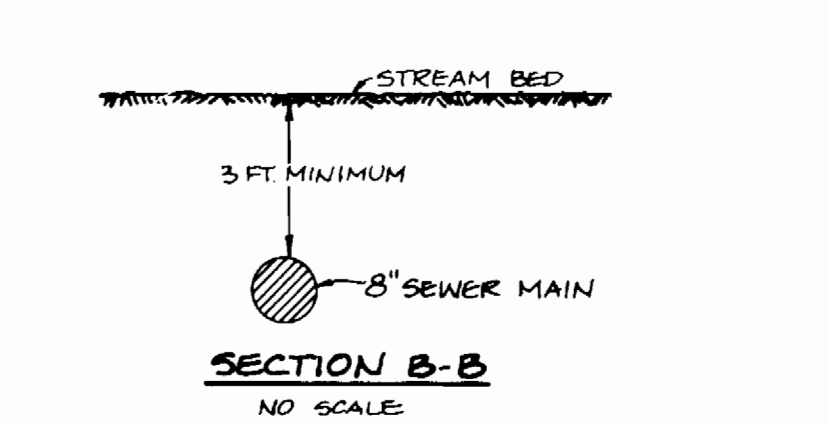
**LOOSE LAID RIP RAP DETAIL**  
NO SCALE



**UTILITY @ STREAM CROSSING DETAILS**  
NO SCALE



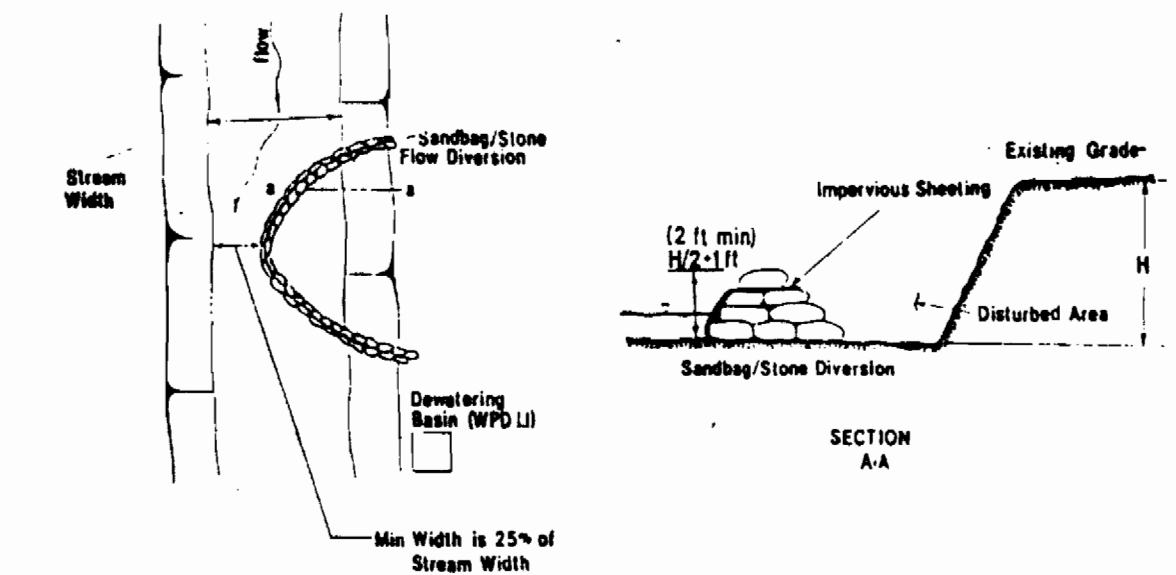
**SECTION A-A**  
NO SCALE



**SECTION B-B**  
NO SCALE

**UTILITY @ STREAM CROSSING DETAILS**

WPD 5.1



- Description**  
The work shall consist of installing flow diversions for the purpose of erosion control when construction activities take place within the stream channel such as bank stabilization or bridge abutment construction.
- Material Specifications**
  - Sandbags: Sandbags shall consist of materials which are resistant to ultraviolet radiation, tearing and puncture and woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).
  - Stone: Stone shall be washed and have a minimum diameter of 6 inches.
  - Sheeting: Sheeting shall consist of polyethylene or other material which is impervious and resistant to puncture and tearing.
- Construction Requirements**
  - All erosion and sediment control devices shall be installed as the first order of work.
  - The diversion structure shall be installed from upstream to downstream.
  - The height of the diversion structure shall be one half the distance from stream bed to stream bank plus one foot, as indicated on the cross-section view.
  - All excavated materials shall be disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the MRA.
  - All dewatering of the construction area shall be pumped to a dewatering basin prior to re-entering the stream.
  - Sheeting shall be overlapped such that the upstream portion covers the downstream portion with at least an 18-inch overlap.
  - Sediment control devices are to remain in place until all disturbed areas are stabilized in accordance with an approved sediment and erosion control plan and the inspecting authority approves their removal.

**SANDBAG/STONE DIVERSION @ STREAM**

**NOTE:** A LETTER OF EXEMPTION, 92-NI-0722, DATED 1/19/93, HAS BEEN ISSUED BY THE NONTIDAL WETLANDS DIVISION OF THE MD. WATER RESOURCES ADMINISTRATION TO ALLOW INSTALLATION OF THE 8" SEWER MAIN WITHIN THE WETLANDS & WETLAND BUFFER AREAS AS INDICATED.

**DEVELOPER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER: \_\_\_\_\_ DATE: \_\_\_\_\_

**ENGINEER'S CERTIFICATE**

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER: Paul W. Fisher DATE: 01/18/93

CONTRACT NO. 34-3243-D  
GORMAN WOODS  
LOTS 1-B  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: 2/17/93 Chief, Bureau of Engineering: 2/17/93 Chief, Bureau of Utilities: 2-8-93 Chief, Land Development Division: 2/17/93		FISHER, COLLINS, AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 9171 BALTIMORE NATIONAL PIKE SUITE 100 ELLICOTT CITY, MARYLAND 21043 (410) 461-2855 Terrell A. Fisher		DES: PWK DRN: SFH CHK: PWK DATE: 01/18/93		SEDIMENT & EROSION CONTROL DETAILS & NOTES 600' SCALE MAP NO. 47 BLOCK NO. 16		GORMAN WOODS LOTS 1-B CONTRACT NO. 34-3243-D SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		SCALE AS SHOWN SHEET 3 OF 3
--	--	---	--	--	--	---	--	--	--	--------------------------------