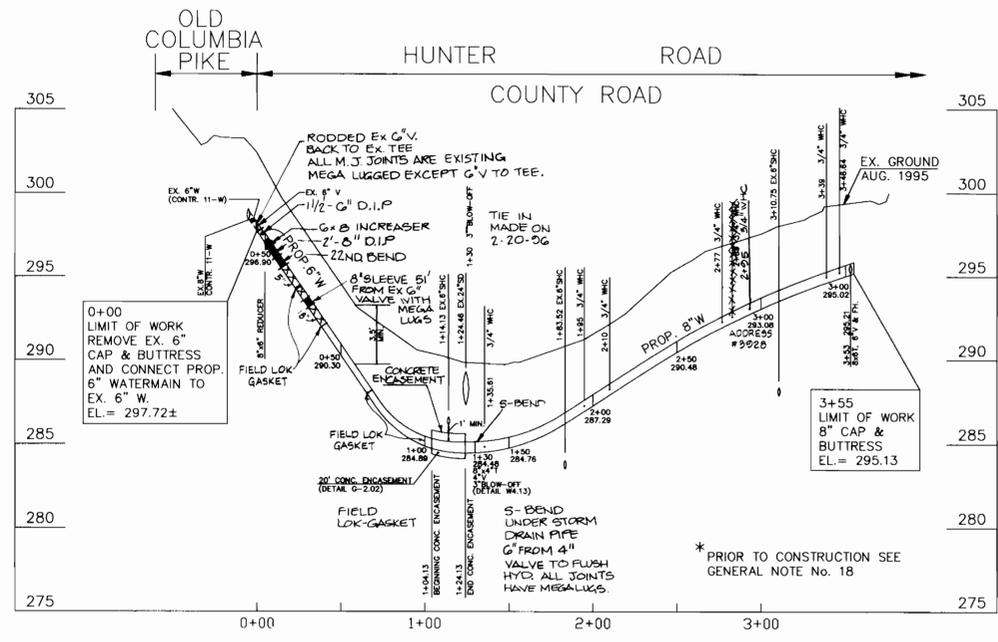
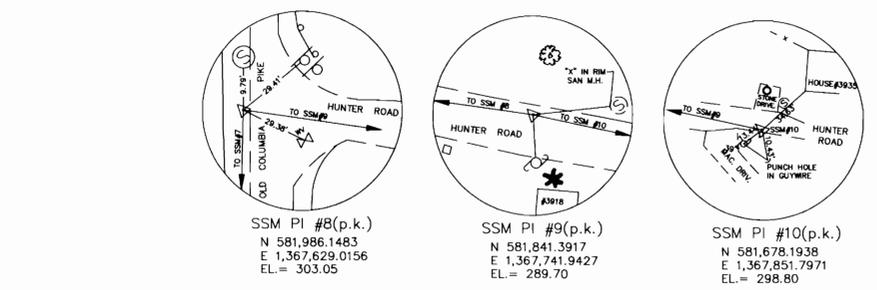
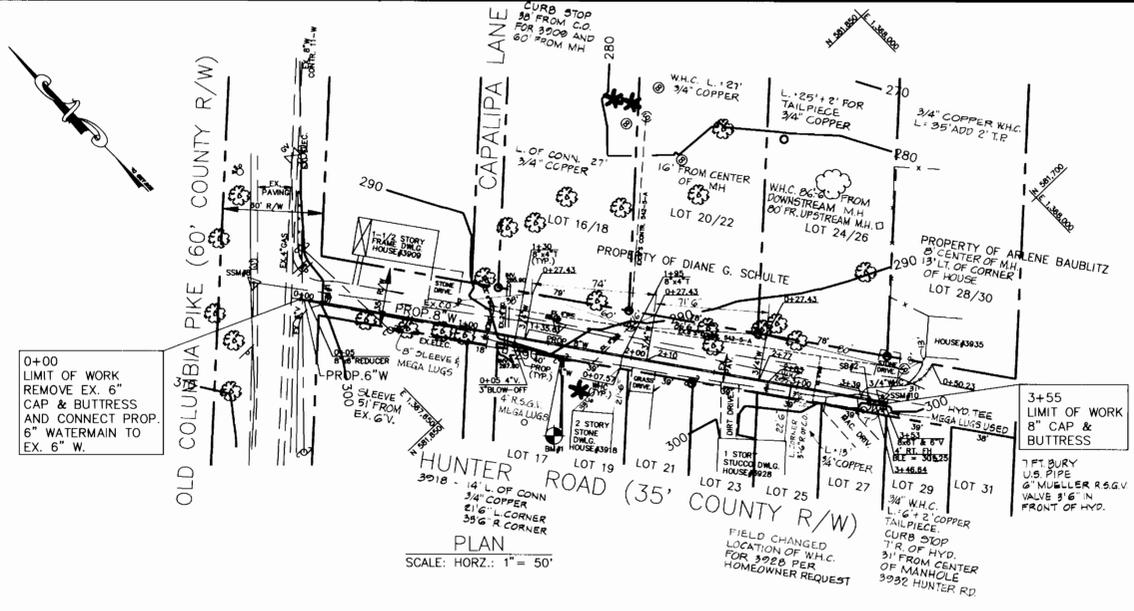


AS BUILT 7/8/96



**SURVEY CONTROL**

1. HOWARD COUNTY STATION 24FB 3/4" REBAR w/ALUMINUM CAP ON NORTH SIDE OF MANAHAN DR. NORTH(83) 582,652.1033 EAST (83) 1,364,255.938 ELEV. 422.63	2. HOWARD COUNTY STATION 2413 CONC. MON. NW. COR. RTE. No. 1 AND HICKS ROAD NORTH(83) 580,648,9105 EAST (83) 1,364,974.459 ELEV. 403.829
3. SSM PI #8 LARGE P.K. NAIL IN PAVING N 581,986.1483 E 1,367,629.0156 EL = 303.05	4. SSM PI #9 LARGE P.K. IN MACADAM N 581,841.3917 E 1,367,741.9427 EL = 289.70
4. SSM PI #8 LARGE P.K. NAIL IN MACADAM N 581,678.1938 E 1,367,851.7971 EL = 298.80	5. BENCH MARK (BM#1) R.R. SPIKE ON ROAD SIDE OF T. POLE BGE #20174 ON HUNTER ROAD IN FRONT OF HOUSE #3918. N 581,827.66 E 1,367,729.39 EL = 291.05

**QUANTITIES**

ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
8" W	L.F.	350	352 L.F.	WATER PRO
6" W	L.F.	14	4 L.F.	WATER PRO
4" W	L.F.	5	5	WATER PRO
FH	EA.	1	1	W.F. WILSON STOCK
6" V	EA.	1	1	WATER PRO
4" V	EA.	1	1	WATER PRO
3/4" W	L.F.	155	151 L.F.	WATER PRO
8"x6" TEE	EA.	1	1	WATER PRO
8"x4" TEE	EA.	1	1	WATER PRO
8"x6" REDUCER	EA.	1	1	WATER PRO
3" BLOWOFF	EA.	1	1	WATER PRO

NAME OF UTILITY CONTRACTOR: W.F. WILSON

**STAKEOUT SCHEDULE**

STRUCTURE	DISTANCE	OFFSET
0+00 LIMIT OF WORK	SSM#8 TO SSM#9	RT. 5.84
0+05 8"x6" REDUCER	SSM#8 TO SSM#9	RT. 5.97
1+30 8"x4" TEE	SSM#8 TO SSM#9	RT. 10.12
1+30 RT. 5.0 3" BLOW-OFF	SSM#8 TO SSM#9	RT. 15.62
1+35.6 LT. 27.43 3/4" WHC @ P.L.	SSM#8 TO SSM#9	LT. 17.03
1+95 WHC @ 8" W	SSM#9 TO SSM#10	RT. 9.44
1+95 RT. 7.57 3/4" WHC @ P.L.	SSM#9 TO SSM#10	RT. 16.99
2+10 3/4" @ 8" W	SSM#9 TO SSM#10	RT. 8.89
2+10 RT. 27.43 3/4" WHC @ P.L.	SSM#9 TO SSM#10	LT. 18.42
2+77 WHC @ 8" W	SSM#9 TO SSM#10	RT. 6.39
2+77 LT. 27.43 3/4" WHC @ P.L.	SSM#9 TO SSM#10	LT. 20.94
2+83 WHC @ 8" W	SSM#9 TO SSM#10	RT. 6.18
2+83 LT. 7.57 3/4" WHC @ P.L.	SSM#9 TO SSM#10	RT. 13.74
3+39 WHC @ 8" W	SSM#9 TO SSM#10	RT. 4.08
3+39 LT. 50.23 3/4" WHC @ P.L.	SSM#9 TO SSM#10	LT. 24.45
3+46.64 WHC @ 8" W	SSM#9 TO SSM#10	RT. 3.80
3+53 RT. 8x6T & 6" V	SSM#9 TO SSM#10	RT. 3.58
3+53 RT. 4.0' FH.	SSM#9 TO SSM#10	RT. 7.57
3+46.64 RT. 7.57 3/4" WHC @ P.L.	SSM#9 TO SSM#10	RT. 11.37
3+55 8" CAP & BUTTRISS	SSM#9 TO SSM#10	RT. 3.50

**RESTORATION SCHEDULE**

LOCATION	DISTANCE	TYPE
0+00 TO 3+36	336 LF.	MACADAM
3+36 TO 3+55	18 LF.	SEEDING
1+30 3" BLOW-OFF	4.50 LF.	MACADAM
0+45 TO 0+45	0.50 LF.	SEEDING
1+35.6 3/4" WHC	12.73 LF.	MACADAM
0+00 TO 0+12.73	14.70 LF.	SEEDING
0+12.73 TO 0+27.43	14.70 LF.	SEEDING
1+95 4/3" WHC	5.68 LF.	MACADAM
0+00 TO 0+05.68	1.89 LF.	SEEDING
0+05.68 TO 0+07.57	1.89 LF.	SEEDING
2+10 3/4" WHC	11.93 LF.	MACADAM
0+00 TO 0+11.5	11.5 LF.	SEEDING
0+11.5 TO 0+27.43	15.93 LF.	SEEDING
2+77 3/4" WHC	14.8 LF.	MACADAM
0+00 TO 0+14.8	12.63 LF.	SEEDING
0+14.8 TO 0+27.43	12.63 LF.	SEEDING
2+83 3/4" WHC	24.00 LF.	MACADAM
0+00 TO 0+24	3.43 LF.	SEEDING
0+24 TO 0+27.43	3.43 LF.	SEEDING
3+39 3/4" WHC	33.57 LF.	MACADAM
0+00 TO 0+33.57	26.66 LF.	SEEDING
0+33.57 TO 0+50.23	26.66 LF.	SEEDING
3+53 8x6T - FH.	7 LF.	SEEDING
0+00 TO 0+07	7 LF.	SEEDING

**PERMANENT SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS 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, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

**SOIL AMENDMENTS:** IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 500 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING. APPLY 400 LBS PER ACRE 30-0-0 UREA-FORM FERTILIZER (9 LBS/1000 SQ FT.).
- 2) 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. HARROW OR DISK 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 (0.5 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 GRAIN 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 HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT.) FOR ANCHORING.

**MAINTENANCE -** INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

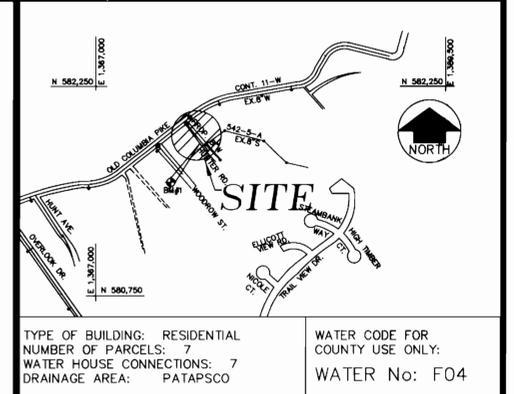
REFER TO THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR DATE AND METHODS NOT COVERED.

**STANDARD SEDIMENT CONTROL NOTES**

1. A MINIMUM OF 24 HOURS MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS, PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
  - a) 7 CALENDER DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER 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 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (Sec. 51), SOD (Sec. 52), 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.
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	NA	ACRES
AREA TO BE ROOFED OR PAVED	0.16	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.08	ACRES
TOTAL CUT	160	CU. YDS.
TOTAL FILL	160	CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION	NA	
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF THE DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY 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 PERMETER 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.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
12. CONTRACTOR SHALL PLACE EXCAVATED MATERIALS ON UPHILL SIDE OF TRENCH AND PLACE SILT FENCE ON DOWNHILL SIDE OF TRENCH.

NOTE: SEDIMENT CONTROL TO BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARDS AND SPECIFICATIONS (VOL.IV) OF THE HOWARD COUNTY DESIGN MANUAL AND THIS PLAN.



**SEQUENCE OF CONSTRUCTION**

1. OBTAIN GRADING PERMIT.
2. LAYOUT ALIGNMENT AT SITE. (1 DAY)
3. INSTALL SEDIMENT CONTROL DEVICE (STRAW BALES) PERPENDICULAR TO THE CURB ON THE DOWN-SLOPE SIDE OF CONSTRUCTION (SEE DETAILS IN THE SPECIFICATIONS).
4. EXCAVATE DITCH TO THE GRADE SPECIFIED ON THE PROFILE. (7 DAYS)
5. INSTALL WATER MAIN. (10 DAYS)
6. BACKFILL TRENCH AND RESURFACE WITH BITUMINOUS PAVING WHERE NEEDED. (3 DAYS)
7. CLEAN UP CONSTRUCTION SITE. (1 DAY)
8. REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR. (1 DAY)

**GENERAL NOTES**

1. APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING DRAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR EXPENSE.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
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 (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
7. 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 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 LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 

AT&T	865-3803
B&E (CONTRACTOR SERVICES)	850-4620
B&E - UNDERGROUND DAMAGE CONTROL	787-9068
BUREAU OF UTILITIES (DPU)	313-4900
CHESAPEAKE & POTOMAC TELEPHONE CO.	597-8585
COLONIAL PIPELINE CO.	795-1390
MISS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	531-5533
9. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
11. 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 SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(c) OF THE HOWARD COUNTY CODE.
12. ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
13. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
14. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
15. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
16. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
17. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
18. PRIOR TO LAYING ANY WATER MAINS UNDER THIS CONTRACT, THE CONTRACTOR SHALL TEST PIT AT THE INDICATED CROSSINGS AND WATER MAIN CONNECTIONS, AND SHALL DETERMINE ELEVATIONS AND HORIZONTAL LOCATIONS OF MAINS. THE INFORMATION SHALL BE TURNED OVER TO THE ENGINEER AND THE CONTRACTOR SHALL LAY THE WATER MAINS IN ACCORDANCE WITH THE ENGINEER'S INSTRUCTIONS.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: Alan M. Benjamin 10/14/95  
Chief, Bureau of Utilities: Michael A. Gwynne 10/19/95

Chief, Water and Sewer Design Division: [Signature] 10/13/95

**SSM**  
SPOTTS, STEVENS and MCCOY, INC.  
ENGINEERS + SURVEYORS + SCIENTISTS  
555 FAIRMOUNT AVENUE, STE. 230  
TOWSON, MARYLAND, 21286-5497  
(410)484-0500 FAX (410)296-3580



DES: FCL  
DRN: RPG  
CHK: TWW  
DATE: OCT. '95

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.  
Patricia Engler 10/14/95  
U.S. NATURAL RESOURCES SERVICE DATE

ENGINEER'S CERTIFICATION  
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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

SPOTTS, STEVENS & MCCOY, INC.  
555 FAIRMOUNT AVENUE, SUITE 230  
TOWSON, MARYLAND 21286

THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION & SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
Blair, K. Shi 10/16/95  
APPROVED DATE  
HOWARD COUNTY S.C.D.

8-INCH WATER MAIN  
PLAN, PROFILE & NOTES  
HUNTER ROAD

600' SCALE MAP NO. 25 BLOCK NO. 13

HUNTER ROAD WATER MAIN EXTENSION  
CAPITAL PROJECT No. W-8209  
CONTRACT No. 44-3473  
ELECTION DISTRICT No. 2  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 1  
FILE: B0156.DWG

AS BUILT 7/8/96

