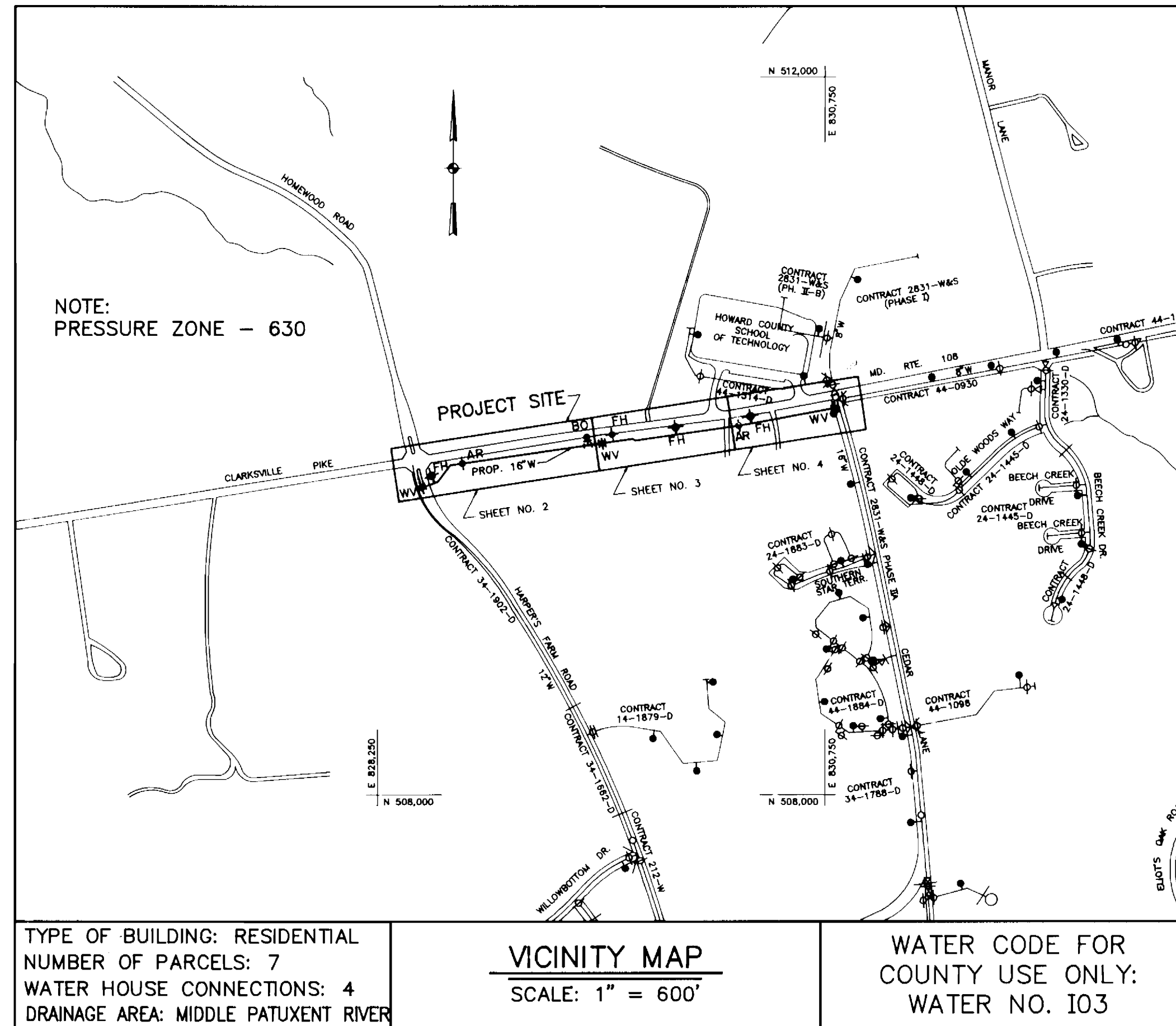


# MD. ROUTE 108 WATER MAIN HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIER
	ESTIM.	AS BUILT		
16" WATER	2,396 LF			
12" VALVE (RSGV)	2 EA			
16" VALVE (RSGV)	1 EA			
6" FIRE HYDRANT	4 EA			
3/4" WATER HOUSE CONNECTION	40 LF			
1 1/2" AIR RELEASE VALVE	2 EA			
BLOWOFF VALVE	1 EA			
CLASS I RIPRAP	10 SY			
GEOTEXTILE CLASS 'C' FOR SSF	2,316 LF			
30" STEEL CASING PIPE(JACK & BORE)	61.5 LF			

**NOTE:**  
"SEDIMENT CONTROL TO BE IMPLEMENTED IN ACCORDANCE WITH VOLUME 4, ARTICLE 15 OF THE HOWARD COUNTY DESIGN MANUAL AND THESE PLANS."



TYPE OF BUILDING: RESIDENTIAL  
NUMBER OF PARCELS: 7  
WATER HOUSE CONNECTIONS: 4  
DRAINAGE AREA: MIDDLE PATUXENT RIVER

**VICINITY MAP**  
SCALE: 1" = 600'

WATER CODE FOR COUNTY USE ONLY:  
WATER NO. 103

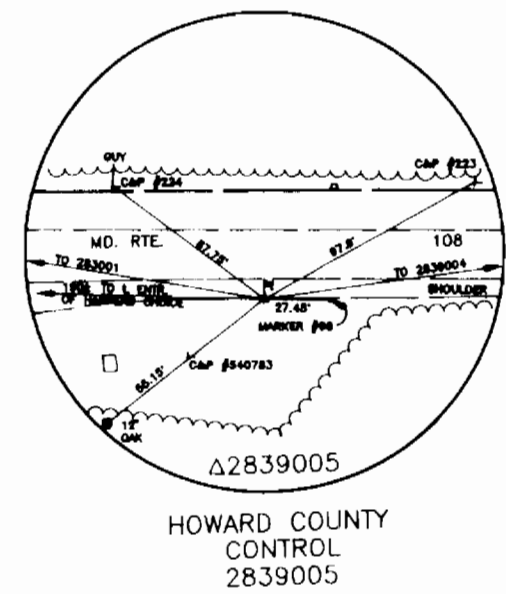
**GENERAL NOTES:**

1. APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS, SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
2. ALL HORIZONTAL CONTROLS BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS BASED ON U.S.G.S. DATUM.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
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, ANY COST INCURRED BY THE OWNER FOR 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. 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 [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 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.
8. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
BALTO. GAS & ELECTRIC CO.- CONTRACTOR SERVICE 850-4620  
BALTO. GAS & ELECTRIC CO.- UNDERGROUND DAMAGE CONTROL 859-9004  
BALTO. GAS & ELECTRIC CO.- TROUBLE SHOOTING 298-9001  
BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS- 313-4900  
C & P TELEPHONE CO.- 597-8585  
STATE HIGHWAY ADMINISTRATION 531-5533  
MISS UTILITY 1-800-257-7777
9. 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.
10. CONTRACTOR SHALL REMOVE TREES, 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.
11. ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
12. TOPS OF ALL WATER MAINS TO HAVE A MIN. OF 3.5' COVER UNLESS OTHERWISE NOTED.
13. WATER VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
14. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
15. 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 1003 FROM THE STANDARD SPECS.
16. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM. CALL HOWARD COUNTY BUREAU OF UTILITIES AT 313-4900. COORDINATE THE TIE-IN TO THE EXISTING WATER MAINS AT LEAST FIVE WORKING DAYS PRIOR TO SCHEDULING.
17. ALL WATER HOUSE CONNECTION SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
18. EXCAVATED TRENCH LENGTH WILL BE LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACKFILLED AND STABILIZED IN ONE DAY, WHICHEVER IS SHORTER.
19. THE CONTRACTOR SHALL IMPLEMENT THE EROSION AND SEDIMENT CONTROL MEASURES ON SHEET 5 AND IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL, VOL. IV.

<b>DEVELOPER'S CERTIFICATION</b>	
<p>"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 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."</p>	
<p>Signature of Developer: <i>[Signature]</i> PRINT NAME BELOW SIGNATURE</p>	<p>DATE: 11-18-91</p>
<p><b>ENGINEER'S CERTIFICATION</b></p> <p>"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 COUNTY SOIL CONSERVATION DISTRICT."</p> <p>Signature: <i>[Signature]</i> DATE: 11-18-91</p> <p>WALLACE, MONTGOMERY &amp; ASSOCIATES 1544 YORK ROAD LUTHERVILLE, MARYLAND 21093 (301) 494-9093</p>	<p>REVIEWED FOR HOWARD COUNTY S.C.D. MEETS TECHNICAL REQUIREMENTS.</p> <p>Signature: <i>[Signature]</i> DATE: 11/18/91</p> <p>SOIL CONSERVATION SERVICE</p> <p>THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.</p> <p>Signature: <i>[Signature]</i> DATE: 11/18/91</p> <p>APPROVED: HOWARD S.C.D.</p>

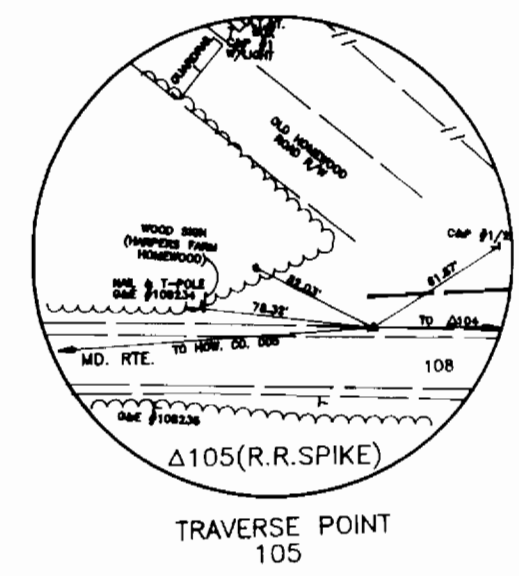
INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
2	PLAN & PROFILE STA. 0+00 TO STA. 8+00
3	PLAN & PROFILE STA. 8+00 TO STA. 17+50
4	PLAN & PROFILE STA. 17+50 TO STA. 23+96.0
5	SEDIMENT CONTROL MEASURES & TRAVERSE INFO.
6	DETAILS FOR PROPOSED WATER MAIN

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p>Signature: <i>[Signature]</i> DATE: 11-13-91</p> <p>Signature: <i>[Signature]</i> DATE: 11-12-91</p>	<p>WALLACE, MONTGOMERY &amp; ASSOCIATES 1544 YORK ROAD LUTHERVILLE, MARYLAND 21093 (301) 494-9093</p>	<p>DES: WEA</p> <p>DRN: j.l.b.</p> <p>CHK: DMA</p> <p>DATE: 11/11/91</p>	<p style="text-align: center;">TITLE SHEET INDEX OF DRAWINGS GENERAL NOTES</p>	<p>MD. ROUTE 108 WEST WATER MAIN EXTENSION CAPITAL PROJECT W-8172 CONTRACT NO. 44-3023 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 6</p>
<p>600' SCALE MAP NO. 29 BLOCK NO.</p>					

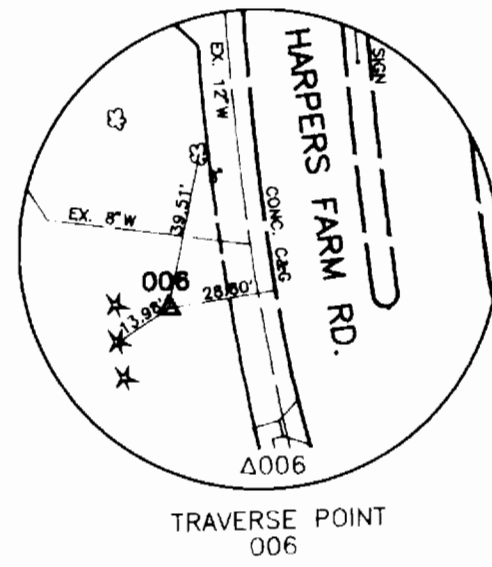


HOWARD COUNTY CONTROL 2839005

STA. 0+65.9  
16" x 6" TEE  
6" VALVE - 5.0' LT., TOP ELEV. 466.2  
6" FH - 8.0' LT.  
BURY LINE ELEV. 466.2 (5.2' BURY)  
HOWARD COUNTY DETAIL NO. (W 1.11)

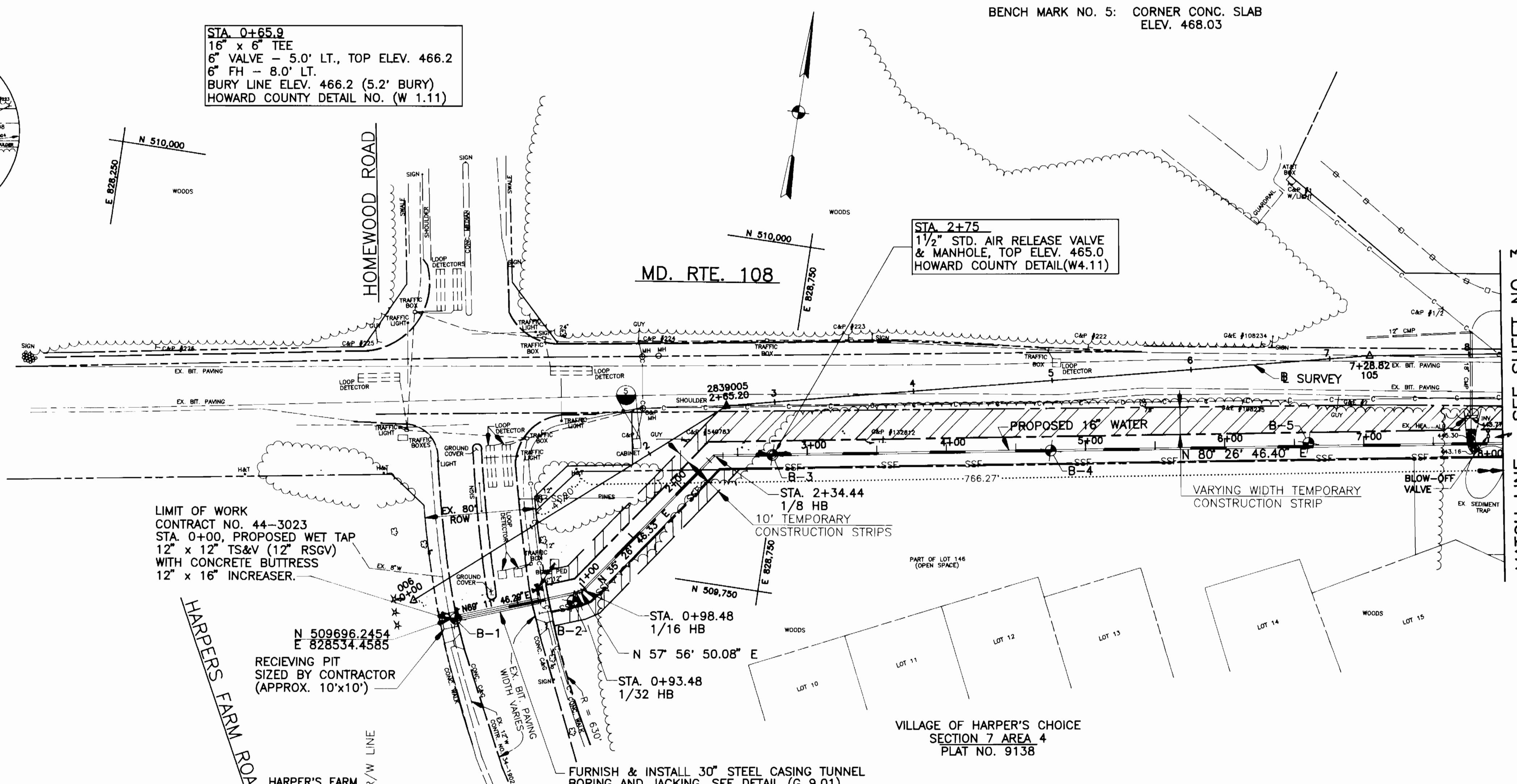


TRAVERSE POINT 105



TRAVERSE POINT 006

BENCH MARK NO. 5: CORNER CONC. SLAB  
ELEV. 468.03



BORING SCHEDULE

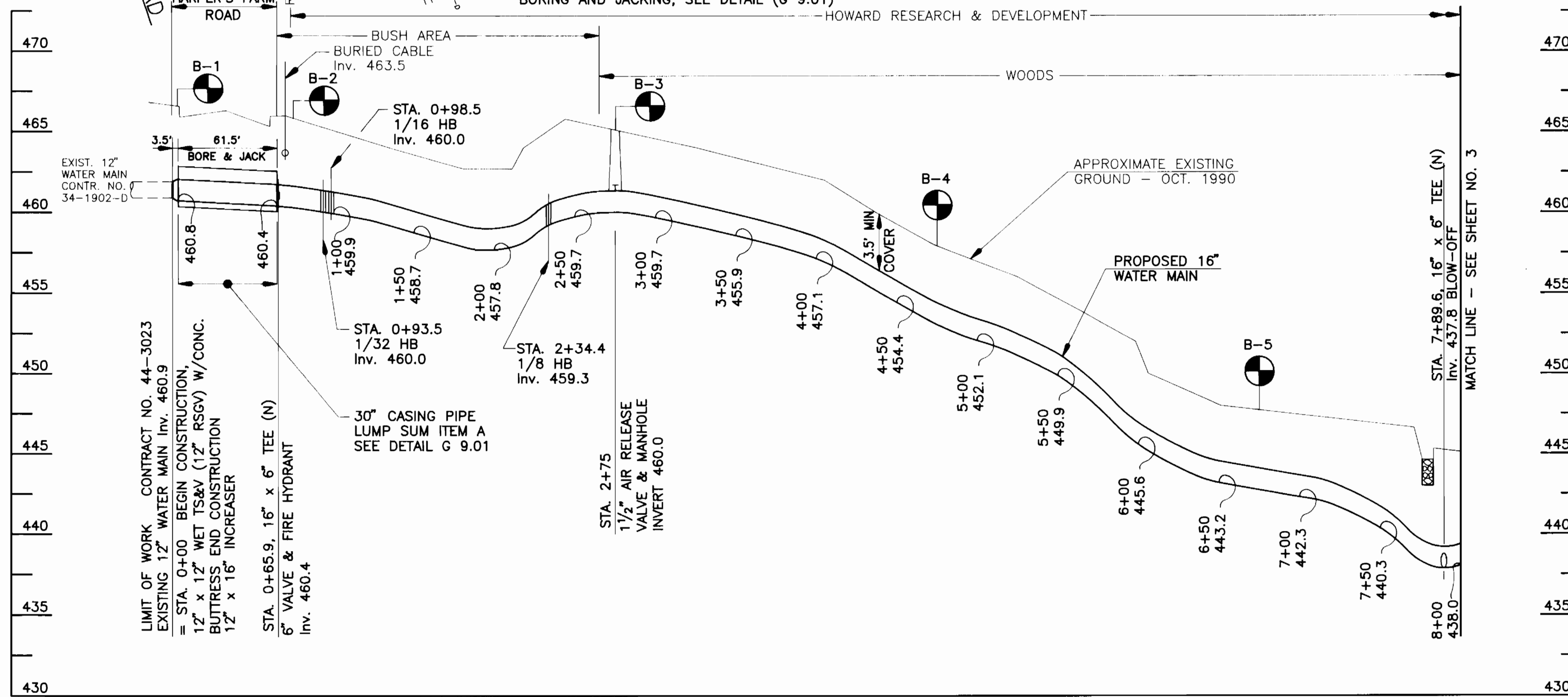
BORING	LOCATION	DEPTH
B-1	STA. 0+04	8'
B-2	STA. 0+89	9'
B-3	STA. 2+75	8'
B-4	STA. 4+75	9'
B-5	STA. 6+60	8'

STA. 7+89.6  
16" x 6" TEE, 6" x 4" REDUCER  
4" VALVE - 5' LT., TOP ELEV. 445.2  
BLOWOFF VALVE - 9' LT.  
TOP ELEV. 446.0 (7.9' BURY)  
HOWARD COUNTY DETAIL (W 4.13)

STA. 7+77±  
PLACE RIPRAP ON STREAM BOTTOM,  
10' RT. & LT. OF WATER MAIN, SEE  
DETAIL SHEET 6

WATER MAIN STAKEOUT

TRAV. STATION	OFFSET	DESCRIPTION
0+15.24	25.72' RT.	12"x12" TS&V, STA. 0+00
1+03.21	57.37' RT.	1/32 H.B., STA. 0+93.48
1+08.15	58.11' RT.	1/16 H.B., STA. 0+98.48
2+38.62	25.66' RT.	1/8 H.B., STA. 2+32.93
2+95.46	37.63' RT.	1 1/2" AIR RELEASE VALVE 2+50
8+13.25	64.28' RT.	16" x 6" TEE FOR BLOWOFF, STA. 7+89.6



REFERENCES

FOR TRAVERSE DESCRIPTION 5  
FOR SEEDING NOTES 5  
FOR WATER MAIN GEOMETRY 5  
FOR DETAILS 6

SEE SHEET

SCALE: 1 IN. = 50 FT. HORIZ.  
1 IN. = 5 FT. VERT.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: Robert D. ...  
Chief, Bureau of Engineering: ...  
Chief, Bureau of Utilities: ...

WALLACE, MONTGOMERY & ASSOCIATES  
1544 YORK ROAD  
LUTHERVILLE, MARYLAND 21093  
(301) 494-9093

DES: WEA	BY: NO.	REVISION	DATE
DRN: j.l.b.			
CHK: DMA			
DATE: 11/11/91			

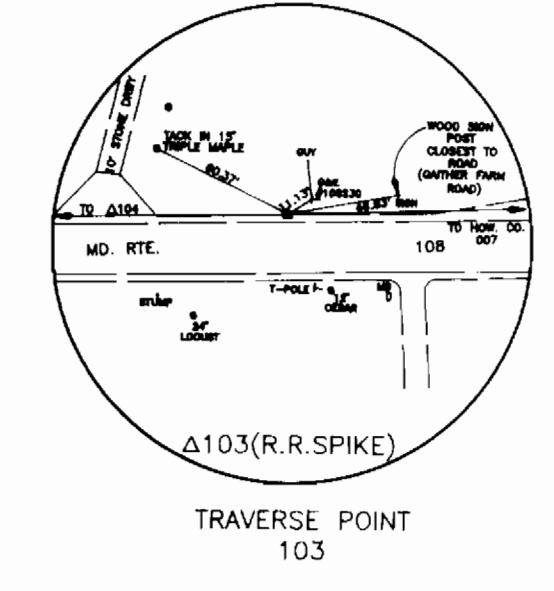
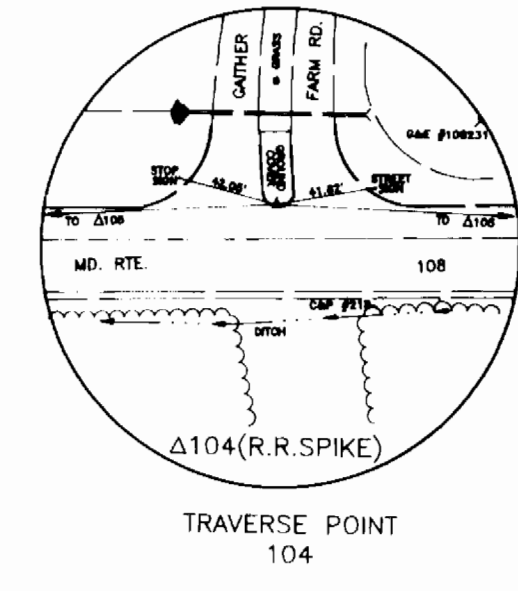
MD. ROUTE 108 WEST WATER MAIN EXTENSION  
CAPITAL PROJECT W-8172  
CONTRACT NO. 44-3023  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 6

BENCH MARK NO. 3: HOWARD CO. 2839007  
ELEV. 479.19  
BENCH MARK NO. 4: POLE NO. 203833  
ELEV. 465.10

STA. 8+30.9  
16" x 6" TEE  
6" VALVE - 16.2' LT, TOP ELEV. 449  
6" FH - 19.2' LT.  
BURY LINE ELEV. 449.5 (9.8' BURY)  
HOWARD COUNTY DETAIL (W 1.11)

STA. 13+67.8  
16" x 6" TEE  
6" VALVE - 10.5' LT, TOP ELEV. 463.8  
6" FH - 45.9' LT.  
BURY LINE ELEV. 463.2 (3.57' BURY)  
HOWARD COUNTY DETAIL (W 1.11)



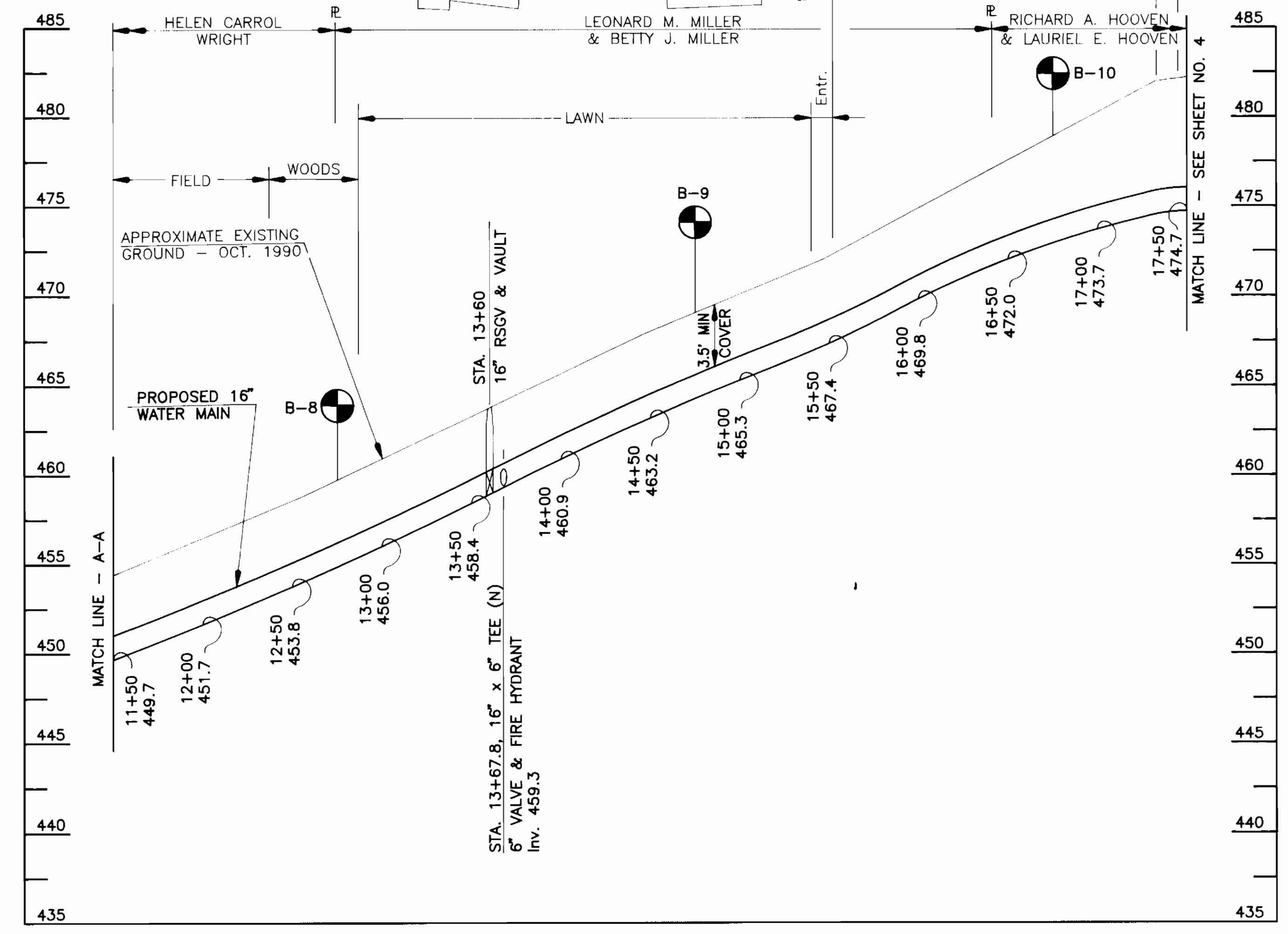
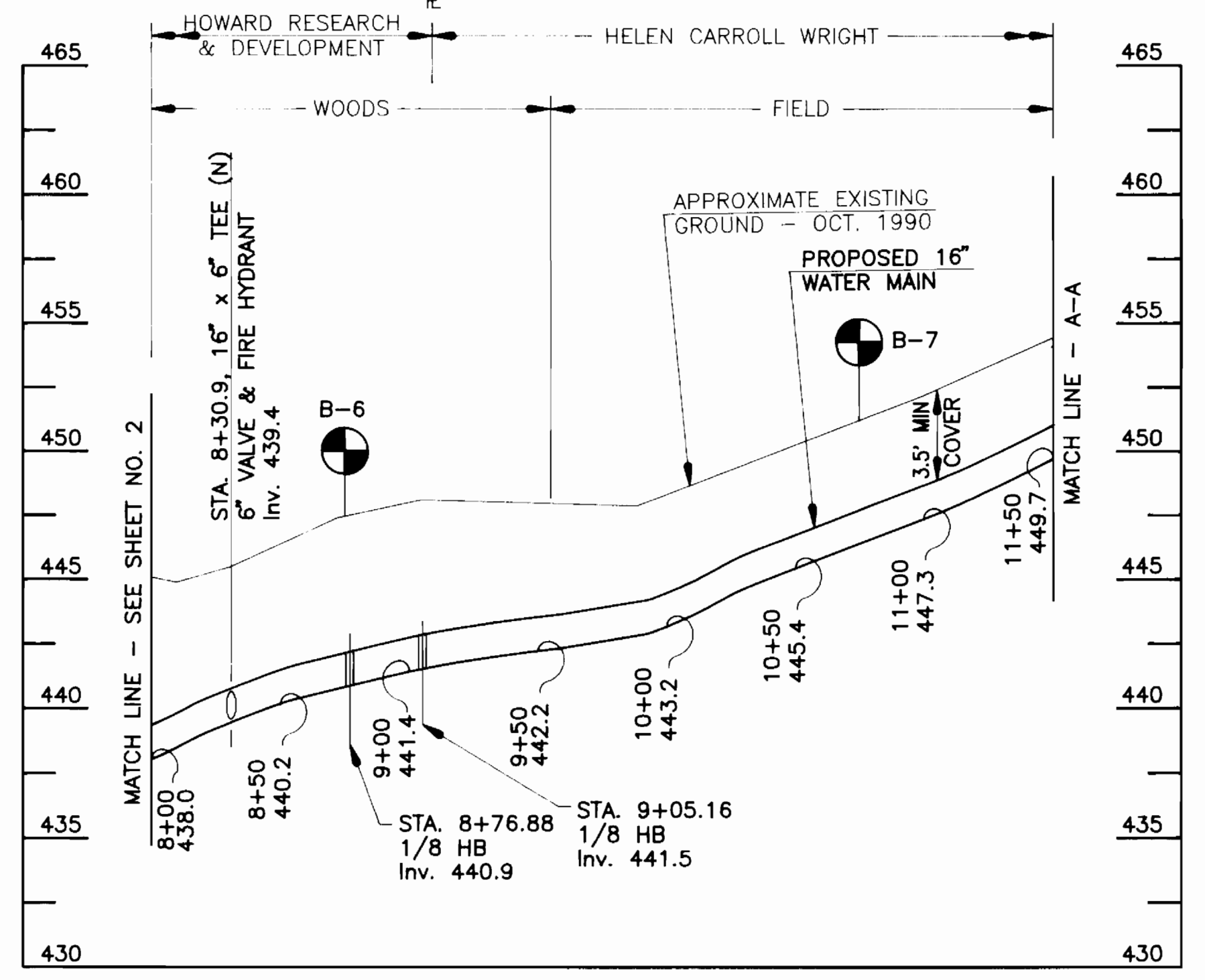
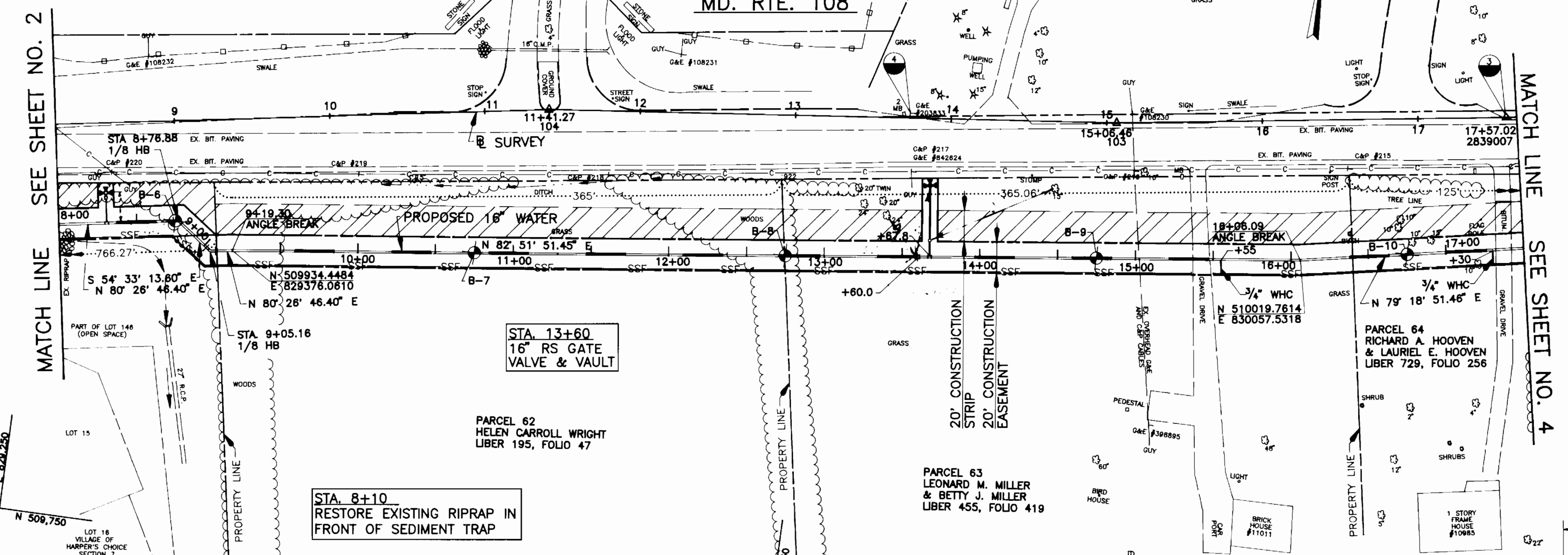
**BORING SCHEDULE**

BORING	LOCATION	DEPTH
B-6	STA. 8+75	13'
B-7	STA. 10+75	8'
B-8	STA. 12+75	9'
B-9	STA. 14+75	8'
B-10	STA. 16+75	10'

STA. 15+55 RT.  
STA. 17+30 RT.  
3/4" WATER HOUSE CONNECTION  
PLACE BALL VALVE AT EASEMENT LINE  
HOWARD COUNTY DETAIL (W 3.21)

**WATER MAIN STAKEOUT**

TRAV. STATION	OFFSET	DESCRIPTION
8+54.55	64.25' RT.	FH TEE, STA. 8+30.9
9+00.53	64.22' RT.	1/8 H.B., STA. 8+76.88
9+20.54	84.21' RT.	1/8 H.B., STA. 9+05.16
9+34.69	84.20' RT.	ANGLE BREAK, STA. 9+19.30
13+80.47	89.03' RT.	16" RS GATE VALVE
13+88.26	88.90' RT.	FH TEE, STA. 13+67.8
16+23.22	89.70' RT.	ANGLE BREAK, STA. 16+06.09



SCALE { 1 IN. = 50 FT. HORIZ.  
1 IN. = 5 FT. VERT.

**REFERENCES**  
FOR TRAVERSE DESCRIPTION  
FOR SEEDING NOTES  
FOR WATER MAIN GEOMETRY  
FOR DETAILS

**SEE SHEET**  
5  
6

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS  
*Robert B. ...*  
DATE: 11-13-91

CHIEF, BUREAU OF ENGINEERING  
*...*  
DATE: 11-12-91

WALLACE, MONTGOMERY  
& ASSOCIATES  
1544 YORK ROAD  
LUTHERVILLE, MARYLAND 21093  
(301) 494-9093

DES: WEA					
DRN: j.l.b.					
CHK: DMA					
DATE: 11/11/91	BY	NO.	REVISION	DATE	600' SCALE MAP NO. 29 BLOCK NO.

MD. ROUTE 108 WEST WATER MAIN EXTENSION  
CAPITAL PROJECT W-8172  
CONTRACT NO. 44-3023  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

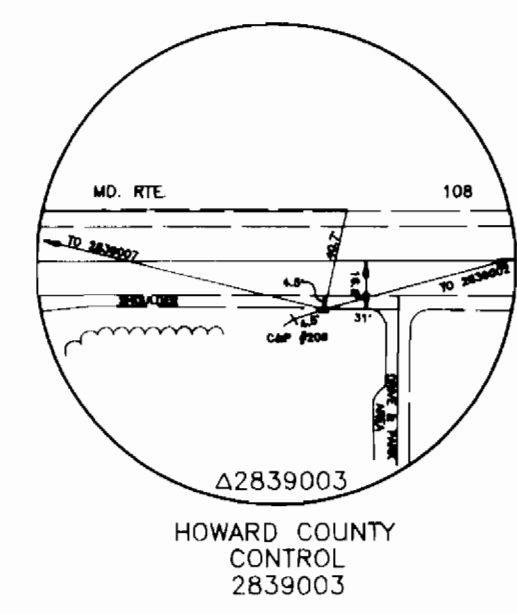
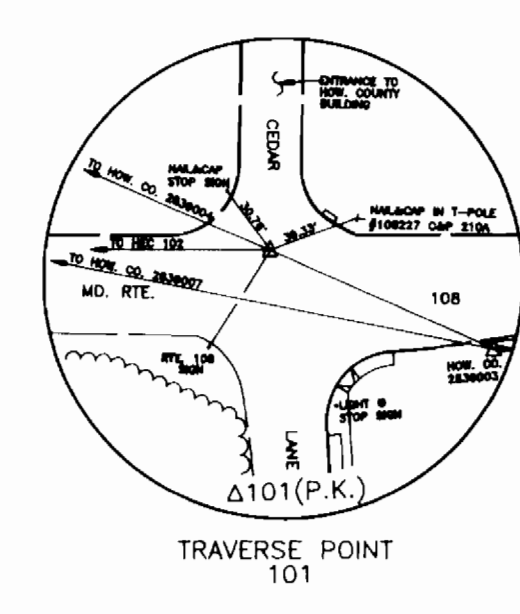
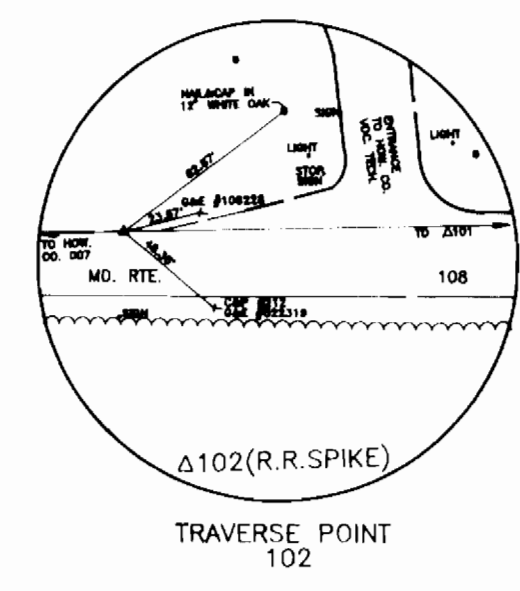
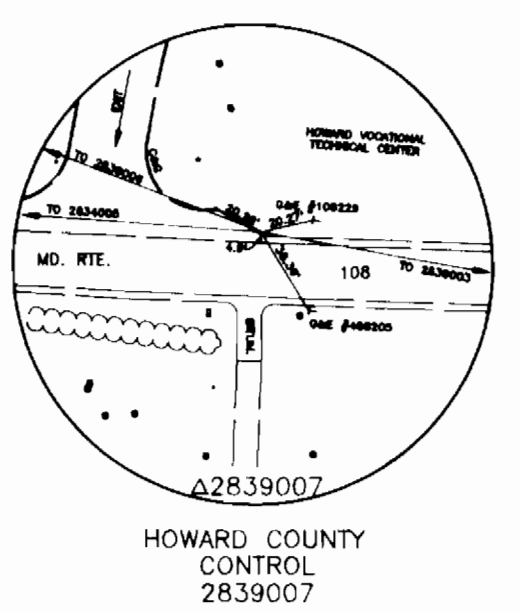
SCALE AS SHOWN  
SHEET 3 OF 6

STA. 18+17.7  
 16" x 6" TEE  
 6" VALVE - 10.5' LT. TOP ELEV. 482.6  
 6" F.H. - 41.8' LT.  
 BURY LINE ELEV. 482.1 (7.3' BURY)  
 HOWARD COUNTY DETAIL (W 1.11)

BENCH MARK NO. 1: NAIL & CAP IN POLE  
 NO. 108227, C&P 210A  
 ELEV. 470.69  
 BENCH MARK NO. 2: R.R. SPIKE SET IN POLE  
 NO. 345775  
 ELEV. 478.73

STA. 17+80.5  
 CONSTRUCT 1- 1 1/2" STD. AIR RELEASE  
 VALVE & MANHOLE. TOP ELEV. 482.7  
 HOWARD COUNTY DETAIL (W 4.11)

STA. 18+50 RT.  
 STA. 19+85 RT.  
 3/4" WATER HOUSE CONNECTION  
 PLACE BALL VALVE AT EASEMENT LINE  
 HOWARD COUNTY DETAIL (W 3.21)

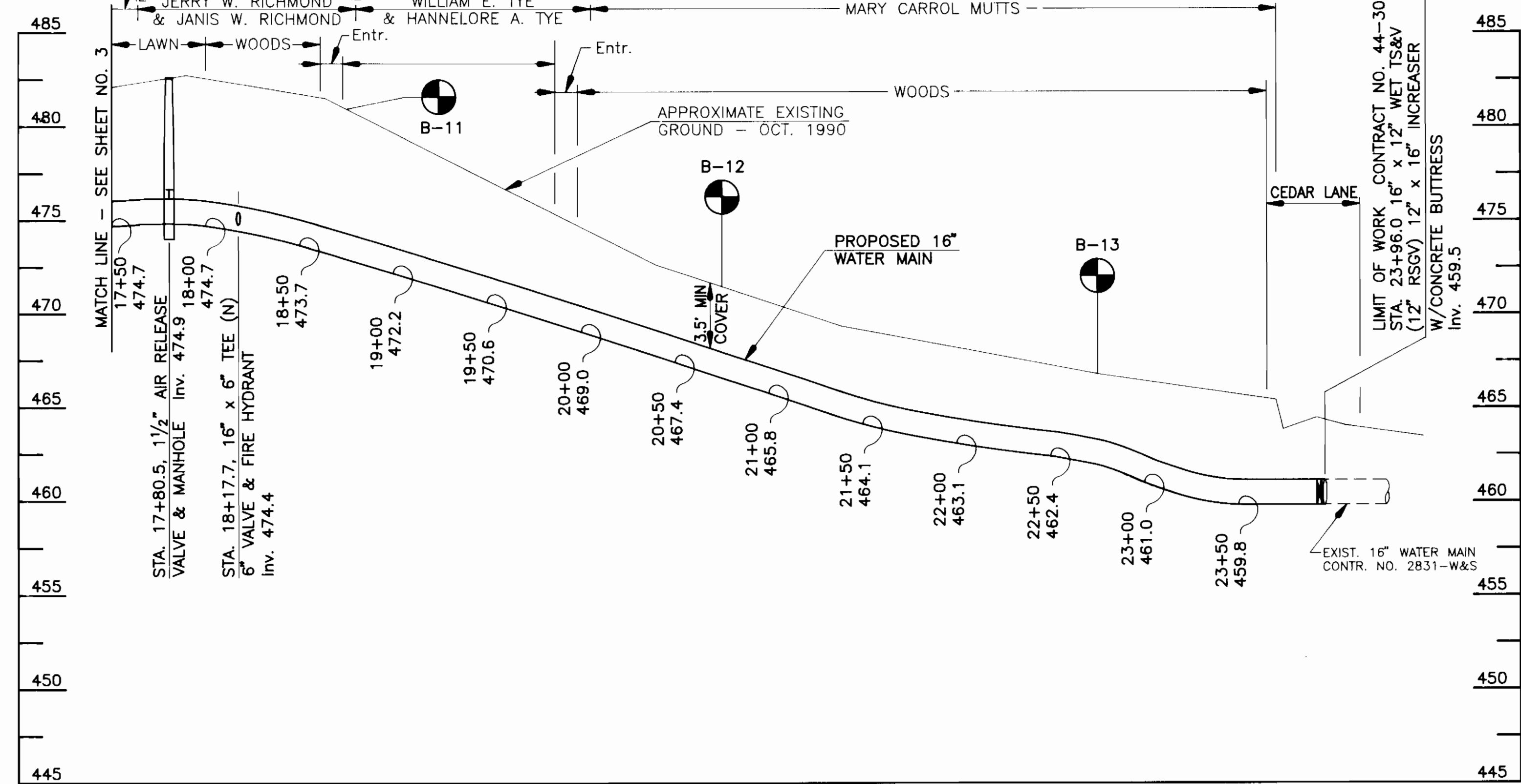
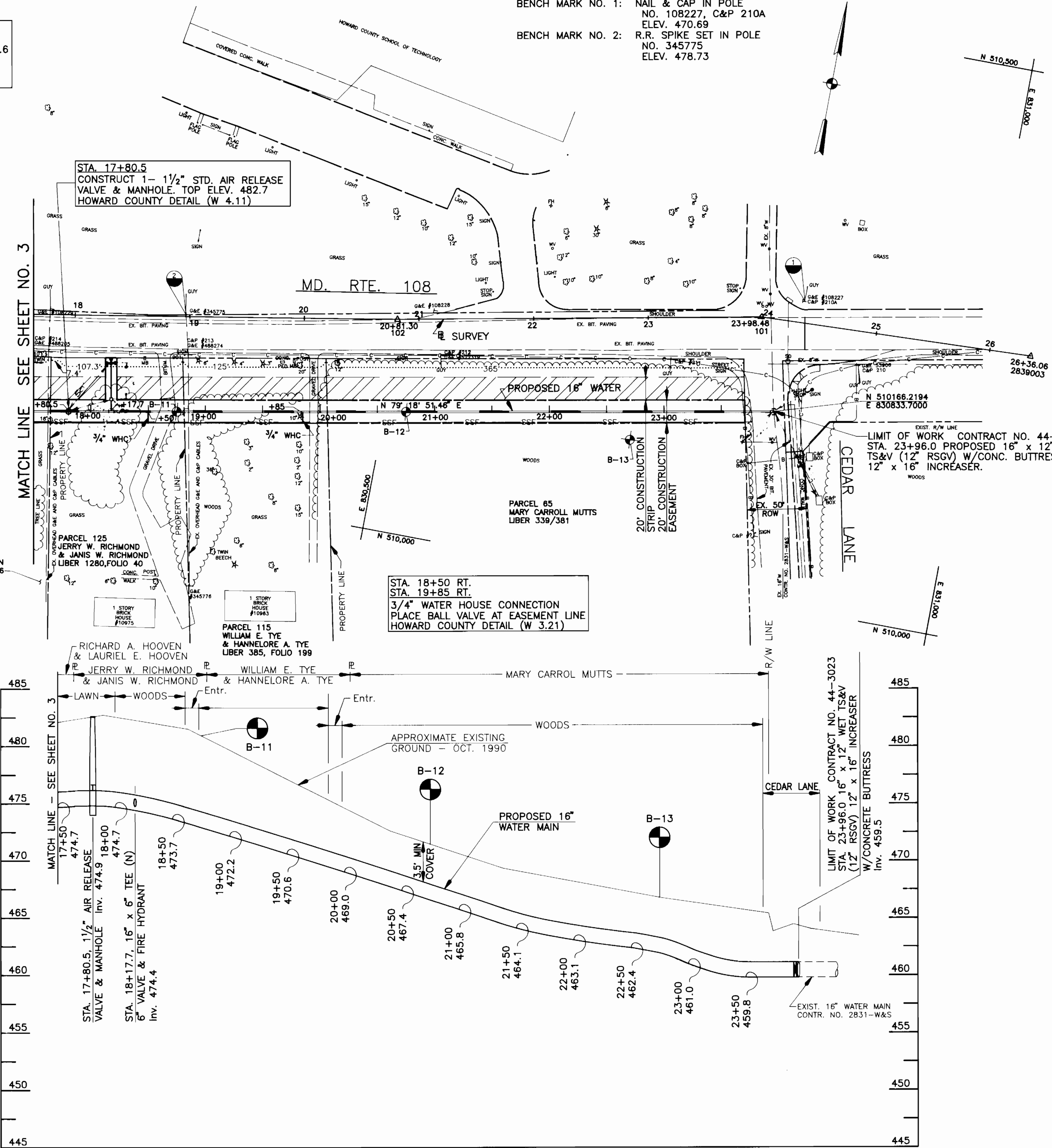


WATER MAIN STAKEOUT

TRAV. STATION	OFFSET	DESCRIPTION
17+95.20	83.88' RT.	AIR RELEASE MH, STA. 17+80.5
18+32.40	83.43' RT.	FH TEE, STA 18+17.7
24+21.49	79.92' RT.	16" x 12" TS&V, STA. 23+96.0

BORING SCHEDULE

BORING	LOCATION	DEPTH
B-11	STA. 18+75	11'
B-12	STA. 20+75	8'
B-13	STA. 22+75	9'



LIMIT OF WORK CONTRACT NO. 44-3023  
 STA. 23+96.0 PROPOSED 16" x 12" WET  
 TS&V (12" RSGV) 12" x 16" INCREASER  
 12" x 16" INCREASER.

LIMIT OF WORK CONTRACT NO. 44-3023  
 STA. 23+96.0 16" x 12" WET TS&V  
 (12" RSGV) 12" x 16" INCREASER  
 W/CONCRETE BUTTRESS  
 INV. 459.5

REFERENCES	SEE SHEET
FOR TRAVERSE DESCRIPTION	5
FOR SEEDING NOTES	5
FOR WATER MAIN GEOMETRY	5
FOR DETAILS	6

SCALE { 1 IN.=50 FT. HORIZ.  
 1 IN.=5 FT. VERT.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: [Signature] DATE: 11-18-91 Chief, Bureau of Engineering: [Signature] DATE: 11-12-91 Chief, Bureau of Utilities: [Signature] DATE: 11-13-91 Chief, Utility Design Division: [Signature] DATE: 11-12-91	WALLACE, MONTGOMERY & ASSOCIATES 1544 YORK ROAD LUTHERVILLE, MARYLAND 21093 (301) 494-9093	DES: WEA				MD. ROUTE 108 WEST WATER MAIN EXTENSION CAPITAL PROJECT W-8172 CONTRACT NO. 44-3023 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 4 OF 6
		DRN: j.l.b.	CHK: DMA	DATE: 11/11/91	BY NO. REVISION DATE		

**SEQUENCE OF CONSTRUCTION**

- OBTAIN GRADING PERMIT.
- LAYOUT ALIGNMENT AT SITE.
- INSTALL SEDIMENT CONTROL DEVICE (SLOPE SILT FENCE) ON DOWN SLOPE SIDE OF NEW CONSTRUCTION.
- EXCAVATE DITCH TO THE GRADE SPECIFIED ON THE PROFILE.
- INSTALL WATER MAIN.
- BACKFILL TRENCH AND RESURFACE WITH TEMPORARY BITUMINOUS PAVING WHERE NEEDED.
- CLEAN UP CONSTRUCTION SITE.
- REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR.

RESTORATION SCHEDULE		
LOCATION	LENGTH	MATERIAL
STA. 0+00 TO STA. 0+04	4'	PERMANENT SEEDING
STA. 0+61 TO STA. 7+58	697'	PERMANENT SEEDING
STA. 7+75 TO STA. 7+78	3'	RIPRAP
STA. 7+78 TO STA. 8+60	7'	2" TOPSOIL AND SOD
STA. 8+60 TO STA. 15+37	677'	PERMANENT SEEDING
STA. 15+37 TO STA. 15+47	10'	GRAVEL
STA. 15+47 TO STA. 17+32	185'	PERMANENT SEEDING
STA. 17+32 TO STA. 17+42	10'	GRAVEL
STA. 17+42 TO STA. 18+60	118'	PERMANENT SEEDING
STA. 18+60 TO STA. 18+73	13'	GRAVEL
STA. 18+73 TO STA. 19+92	119'	PERMANENT SEEDING
STA. 19+92 TO STA. 19+99	7'	GRAVEL
STA. 19+99 TO STA. 23+76	377'	PERMANENT SEEDING
STA. 23+76 TO STA. 23+96	20'	PAVEMENT

TRAVERSE DESCRIPTION				
POINT NO.	NORTH	EAST	BEARING	DISTANCE
006	509705.8629	828506.1476		
			N 49° 24' 43.0" E	265.20'
2839005	509878.4034	828707.5391		
			N 76° 00' 54" 16.8" E	483.63'
105	509983.4479	829159.1075		
			N 80° 28' 54.7" E	412.45'
104	510051.6504	829565.8785		
			N 83° 45' 2.6" E	365.19'
103	510091.4031	829928.9005		
			N 81° 34' 50.6" E	250.56'
2839007	510128.0893	830176.7618		
			N 80° 00' 38.5" E	324.28'
102	510184.3402	830496.1248		
			N 78° 57' 6.4" E	317.18'
101	510245.1234	830807.4279		
			N 87° 38' 49.3" E	237.57'
2839003	510254.8770	831044.7990		

**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 LOOSENEED.

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

- PREFERRED** - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 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 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. 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 (0.05 LBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, 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 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET 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.

**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, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENEED.

**SOIL AMENDMENTS** - APPLY 60 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 OCTOBER 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 (0.07 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 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 GAL PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

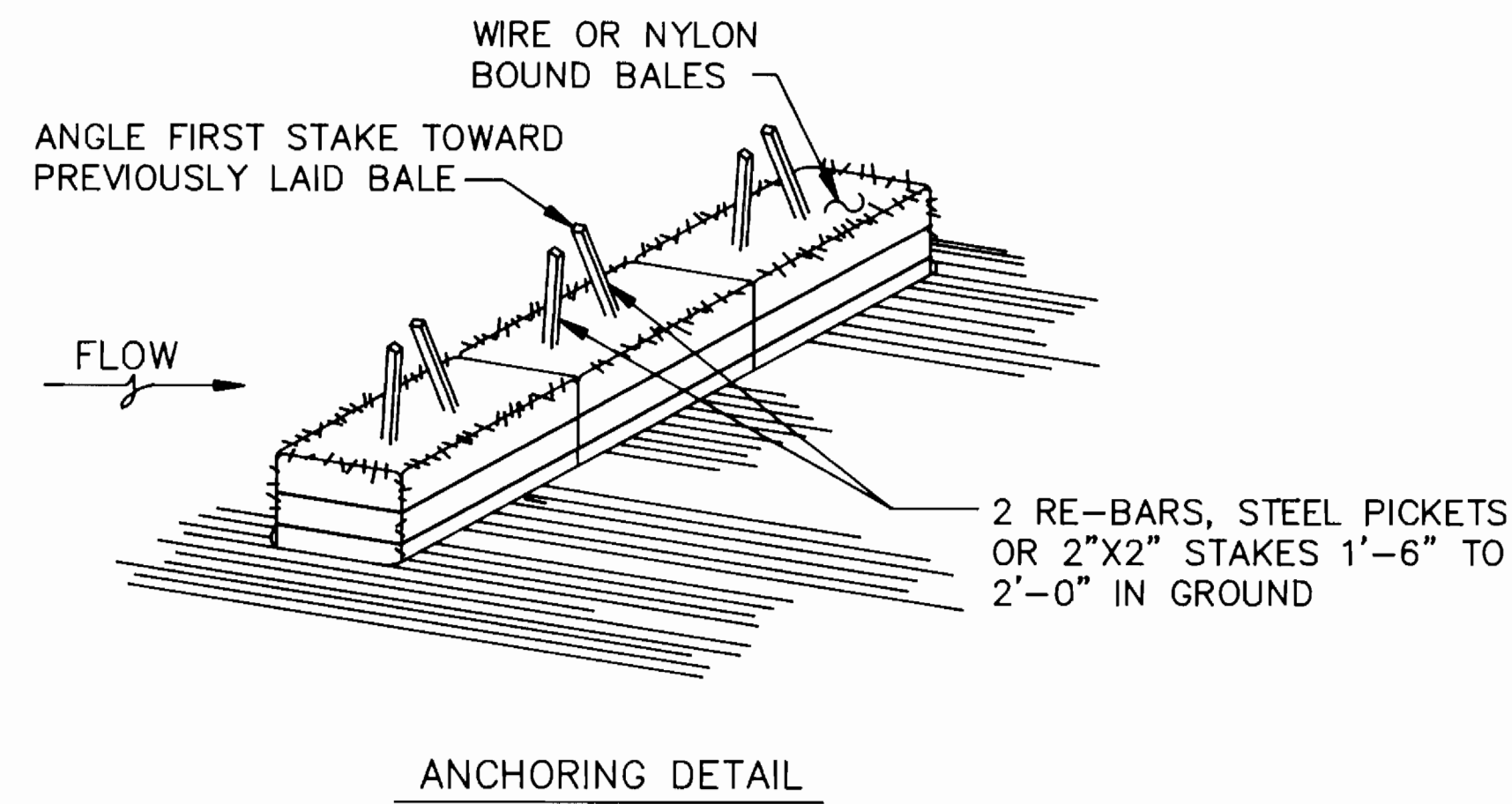
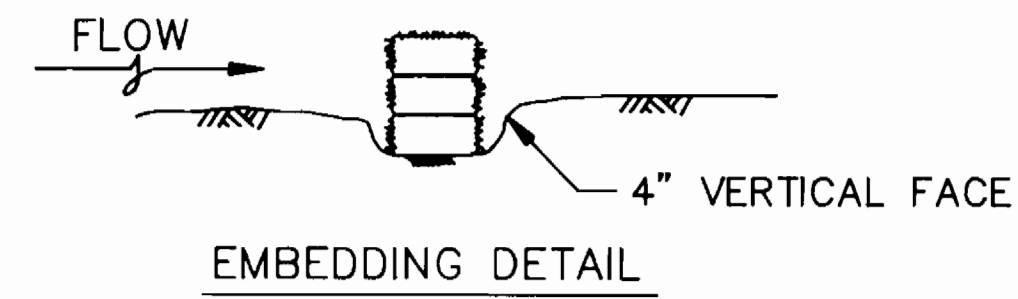
REFER OT THE "1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR RATE AND METHODS NOT COVERED.

**SEDIMENT CONTROL NOTES**

- 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. (880-3450)
- 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 STANDARD 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 SLOPES 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, CHAPER 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. 54), 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 11.0 ACRES  
 AREA DISTURBED 0.182 ACRES  
 AREA TO BE ROOFED OR PAVED 0.017 ACRES  
 AREA TO BE VEGETATIVELY STABILIZED 0.165 ACRES  
 TOTAL CUT 1335 CU. YDS.  
 TOTAL FILL 1335 CU. YDS.  
 OFFSITE WASTE/BORROW AREA LOCATION N.A.
- 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 PARIMETER 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.

PROPOSED 16" WATER GEOMETRY				
STATION	NORTH	EAST	BEARING	DISTANCE
0+00	509696.2454	828534.4585		
			N 69° 11' 46.3" E	93.48'
0+93.48	509729.4479	828621.8472		
			N 57° 56' 50.1" E	5.00'
0+98.48	509732.1014	828626.0850		
			N 35° 26' 46.3" E	134.44'
2+32.93	509841.6256	828704.0528		
			N 80° 26' 46.4" E	643.95'
8+76.88	509948.5044	829339.0731		
			S 54° 33' 13.6" E	28.28'
9+05.16	509932.1012	829362.1152		
			N 80° 26' 46.4" E	14.14'
9+19.30	509934.4484	829376.0610		
			N 82° 51' 51.4" E	686.79'
16+06.09	510019.7614	830057.5318		
			N 79° 18' 51.5" E	789.87'
23+95.96	510166.2194	830833.7000		

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works Chief, Bureau of Utilities 11-13-91	WALLACE, MONTGOMERY & ASSOCIATES 1544 YORK ROAD LUTHERVILLE, MARYLAND 21093 (301) 494-9093	DES: WEA			SEDIMENT CONTROL MEASURES & TRAVERSE INFORMATION	MD. ROUTE 108 WEST WATER MAIN EXTENSION CAPITAL PROJECT W-8172 CONTRACT NO. 44-3023 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
		DRN: WEA					DATE: 11/11/91

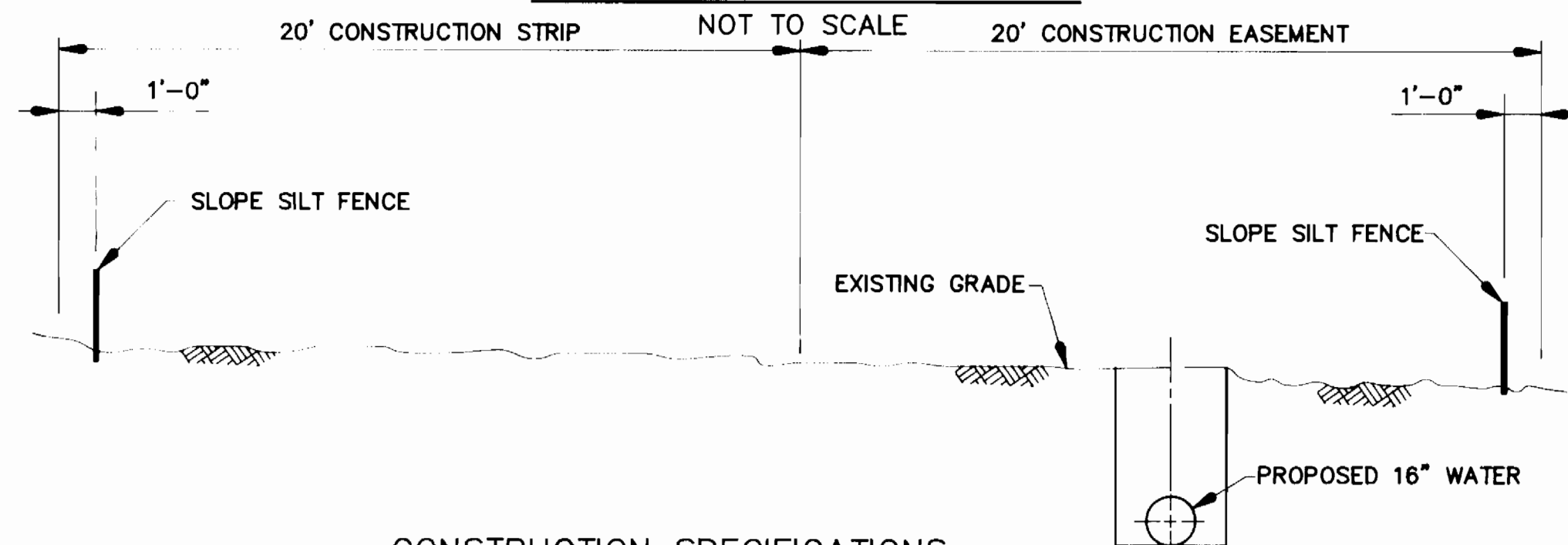


**CONSTRUCTION SPECIFICATIONS**

1. STRAW BALE DIKES ARE REQUIRED EVERY 250 FEET ON CONTINUOUS SLOPES OF 4% OR GREATER. THE DIKES SHALL CONFORM TO THE DETAIL SHOWN ABOVE AND SHALL BE CONSTRUCTED ACROSS THE CONSTRUCTION AREAS IMMEDIATELY AFTER THE BACKFILLING OF THE PIPE TRENCH AND PRIOR TO PLACING STABILIZATION IN ORDER TO PREVENT EROSION OF THE BACKFILLED AREAS.
2. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
3. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
4. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THRU THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STANDARD SYMBOL - ——— S.B.D. ———

**STRAW BALE DIKE DETAIL**



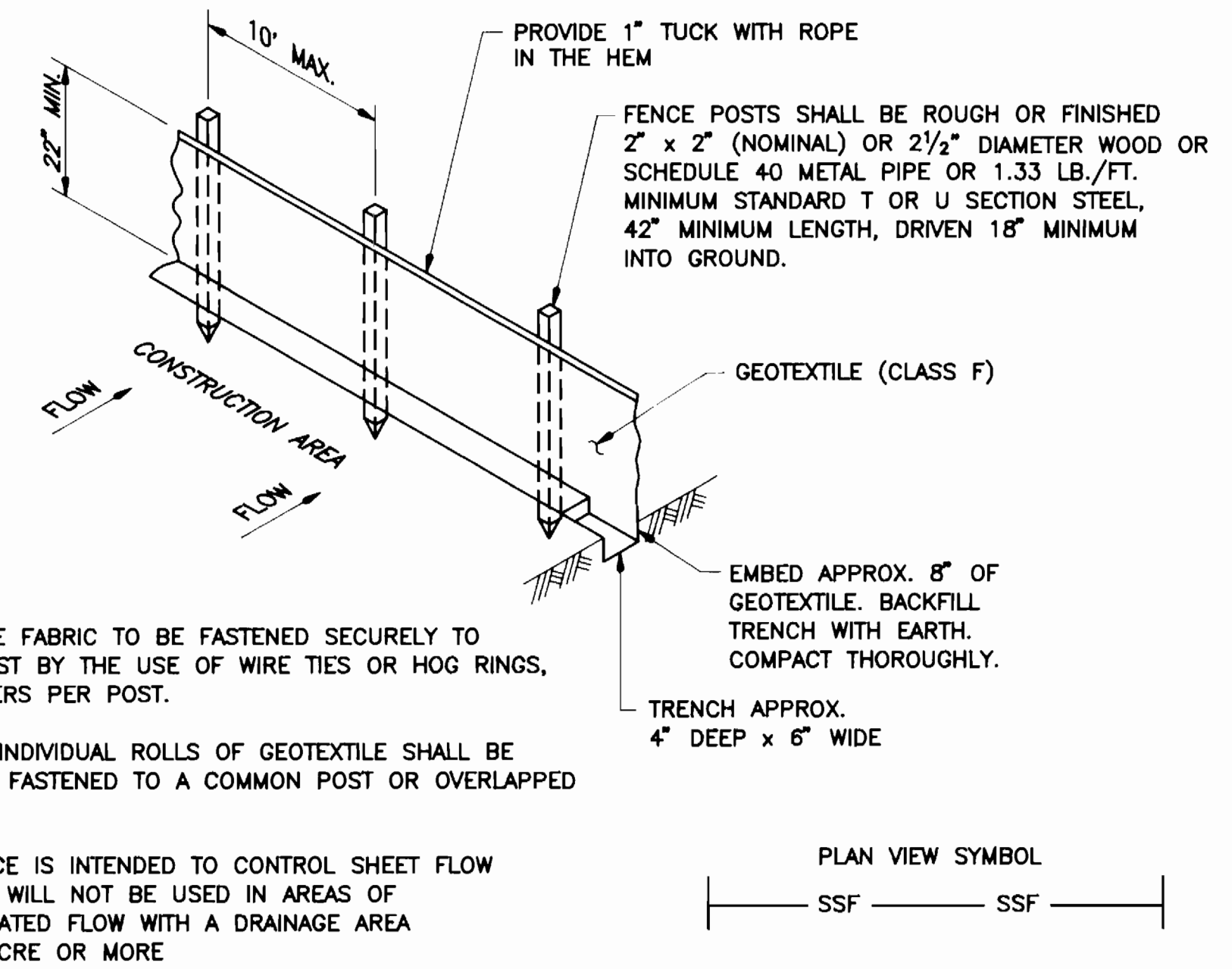
**CONSTRUCTION SPECIFICATIONS**

1. GEOTEXTILE FABRIC TO BE FASTENED SECURELY TO FENCE POST BY USE OF WIRE TIES OR HOG RINGS. 3 FASTENERS PER POST.
2. ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE SHALL BE SECURELY FASTENED TO A COMMON POST OR OVERLAPPED 3' (MIN).
3. THIS DEVICE IS INTENDED TO CONTROL SHEET FLOW ONLY. IT WILL NOT BE USED IN AREAS OF CONCENTRATED FLOW WITH A DRAINAGE AREA OF 1/2 ACRE OR MORE.

STANDARD SYMBOL - ——— SSF ——— SSF ———

**SLOPE SILT FENCE PLACEMENT**

NOT TO SCALE

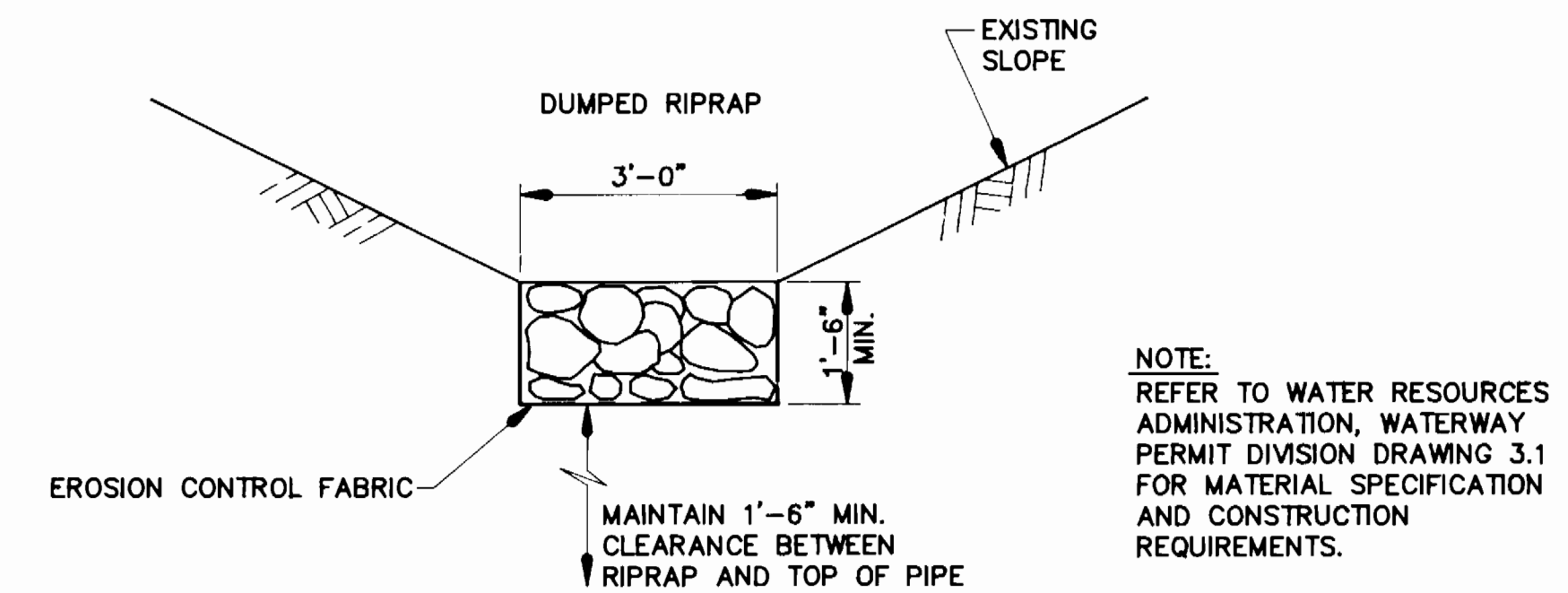


**NOTES:**

1. GEOTEXTILE FABRIC TO BE FASTENED SECURELY TO FENCE POST BY THE USE OF WIRE TIES OR HOG RINGS, 3 FASTENERS PER POST.
2. ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE SHALL BE SECURELY FASTENED TO A COMMON POST OR OVERLAPPED 3' (MIN).
3. THIS DEVICE IS INTENDED TO CONTROL SHEET FLOW ONLY. IT WILL NOT BE USED IN AREAS OF CONCENTRATED FLOW WITH A DRAINAGE AREA OF 1/2 ACRE OR MORE.

**SLOPE SILT FENCE (S.S.F.)**

NOT TO SCALE



**UNGRADED RIPRAP DETAIL**

NOT TO SCALE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

WALLACE, MONTGOMERY & ASSOCIATES  
1544 YORK ROAD  
LUTHERVILLE, MARYLAND 21093  
(301) 494-9093

DES: WEA  
DRN: WEA  
CHK: DMA  
DATE: 11/11/91

DETAILS FOR  
PROPOSED WATER MAIN

MD ROUTE 108 WATER EXTENSION  
CAPITAL PROJECT W-8172  
CONTRACT NO. 44-3023  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 6 OF 6