

RUMSEY ROAD


12-INCH WATER MAIN LOOP

CAPITAL PROJECT W-8242

CONTRACT NO. 44-4145

GENERAL NOTES:

PART I

- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. 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, NAD 83/91.
- ALL VERTICAL CONTROLS ARE BASED ON NGVD 29.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. 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 MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- 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.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL  AT THE LOCATIONS OF THE TEST PITS. 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 LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

AT&T.....	1-800-526-2000
BCE (CONTRACTOR SERVICES).....	410-850-4620
BCE (UNDERGROUND DAMAGE CONTROL).....	410-787-9068
BUREAU OF UTILITIES.....	410-313-4900
BELL ATLANTIC MARYLAND, INC.....	1-800-621-9900
COLONIAL PIPELINE CO.....	410-795-1390
MISS UTILITY.....	1-800-257-7777
STATE HIGHWAY ADMINISTRATION.....	410-531-5533
- 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.
- 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, REPLACE TREES IN KIND.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-7450 AT LEAST TEN WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD 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.

PART II WATER

- ALL DUCTILE IRON PIPES TO BE USED ON THE PUBLIC WATER SYSTEM SHALL BE CLASS 54. DUCTILE IRON FITTINGS SHALL MEET THE REQUIREMENTS OF THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND SHALL BE EXTERIOR EPOXY COATED IN ACCORDANCE WITH AWWA C116.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE RESTRAINED AND 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 INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY BUREAU OF UTILITIES, 410-313-4900, AT LEAST 10 DAYS PRIOR TO WATER MAIN SHUT DOWNS.
- THE CONTRACTOR SHALL PROVIDE SURVEY CONSTRUCTION STAKE OUT FOR ALL NECESSARY LINES, GRADES AND ELEVATIONS OF THE PROPOSED FACILITIES.
- ALL WATER HOUSE CONNECTIONS SHALL BE COPPER MEETING THE REQUIREMENTS OF AND CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- ALL FIRE HYDRANT LEADS INCLUDING THE TEE SHALL BE DUCTILE IRON CLASS 54 MEETING THE REQUIREMENTS OF AND CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- ALL WATER MAINS CONSTRUCTED IN FILL AREAS SHALL BE RESTRAINED DUCTILE IRON PIPE CLASS 54 MEETING THE REQUIREMENTS OF AND CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- ALL WATER MAINS WITHIN CASING PIPES SHALL BE RESTRAINED DUCTILE IRON PIPE CLASS 54 MEETING THE REQUIREMENTS OF AND CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- THE FOLLOWING NOTE IS ADDED TO HOWARD COUNTY STANDARD DETAIL W2.22. BUTTRESSES AND ANCHORAGES FOR VERTICAL BENDS. "WHEN ANCHORING PVC PIPE, THE STRAPPING IN CONTACT WITH THE PIPE SURFACE SHALL BE 1-INCH WIDE BY 1/4-INCH THICK STEEL. THE REMAINING PORTION OF THE STRAP SHALL BE REINFORCING BAR SIZED IN ACCORDANCE WITH THE PERTINENT CHART SHOWN ON THE DETAIL."
- EXCEPT AS INDICATED ON THE PLAN AND NOTED ABOVE, ALL PUBLIC WATER MAINS SHALL BE POLYVINYLCHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA C900 DR18, PRESSURE CLASS 150 AND HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND ALL SUBSEQUENT AMENDMENTS THERETO.

QUANTITIES				
ITEM	QUANTITIES		TYPE MATERIAL Δ	SUPPLIER Δ
	ESTIMATED	AS BUILT Δ		
12" WATER	1294 L.F.	1293 L.F.	PVC	J.M. MFG.
8" WATER	22 L.F.	22 L.F.	PVC	J.M. MFG.
12" X 12" TAPPING SLEEVE & VALVE	1 EA.	1 EA.	SS. SLEEVE C.I. VALVE	MUELLER CO.
AIR RELEASE VALVE & MANHOLE	1 EA.	1 EA.	1" BRASS 24"x9" MFG	J.M. MFG. CAPITAL FOUNDRY
8" GATE VALVE	1 EA.	1 EA.	C.I.	MUELLER CO.
6" GATE VALVE	1 EA.	1 EA.	C.I.	MUELLER CO.

BENCHMARKS \oplus				
NO.	ELEV.	NORTHING	EASTING	DESCRIPTION
30FA	441.62'	568621.336	1361563.982	STANDARD CONCRETE MONUMENT ON NORTH SIDE OF MD 108, 54.6' EAST OF 6" EVERGREEN, 42.6' WEST OF END OF CURB NOSEDOWN, AND 60.8' NORTH OF 4'x4' ORANGE POST R/W MARKER.
30IA	499.82'	567750.958	1364842.598	STANDARD CONCRETE MONUMENT ON NORTH SIDE OF MD 108, 37.3' SOUTH EAST OF G&E POLE #501371, 97.1' SOUTH WEST OF SD INLET ALONG WEST SIDE OF HIGH SCHOOL EXIT, 49' WEST OF END OF SIDEWALK.

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

DEVELOPER'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 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 COUNTY SOIL CONSERVATION DISTRICT."

Paul D. Reppon 11/10/04
SIGNATURE OF DEVELOPER DATE
PRINT NAME BELOW SIGNATURE

ENGINEER'S CERTIFICATION

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 HOWARD COUNTY SOIL CONSERVATION DISTRICT.

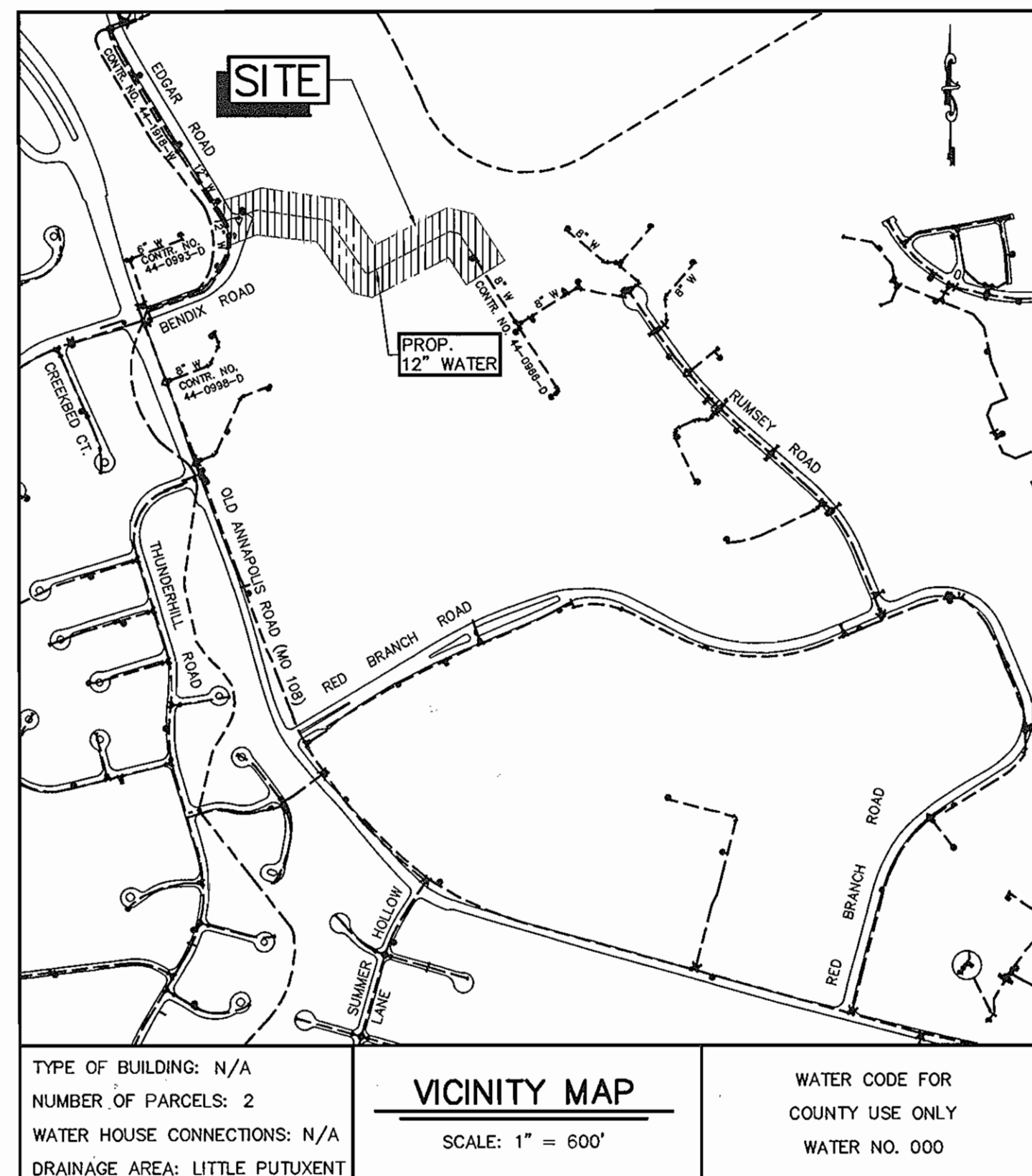
Wallace Montgomery DATE 11/5/04
WALLACE, MONTGOMERY & ASSOCIATES, LLP
110 WEST ROAD - SUITE 300
TOWSON, MARYLAND 21204
(410) 494-9093

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 11-17-04
U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R. Robinson 11-17-04
APPROVED DATE
HOWARD SOIL CONSERVATION DISTRICT



TYPE OF BUILDING: N/A
NUMBER OF PARCELS: 2
WATER HOUSE CONNECTIONS: N/A
DRAINAGE AREA: LITTLE PUTUXENT

VICINITY MAP
SCALE: 1" = 600'

WATER CODE FOR COUNTY USE ONLY
WATER NO. 000

INDEX OF SHEETS	
SHEET	DESCRIPTION
1	TITLE SHEET
2	PLAN & DETAIL SHEET
3	PROFILE SHEET & DETAILS
4	SEDIMENT CONTROL NOTES & DETAILS

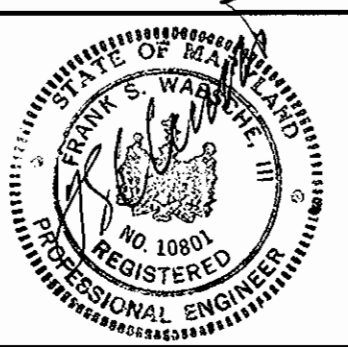
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John P. Reppon 11/5/04 *Paul D. Reppon* 11/10/04
DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE

Robert R. Reppon 11-12-04 *Paul D. Reppon* 11-8-04
CHIEF, BUREAU OF UTILITIES DATE CHIEF, UTILITY DESIGN DIVISION DATE

WALLACE, MONTGOMERY & ASSOCIATES, LLP
CIVIL AND STRUCTURAL ENGINEERS
110 WEST ROAD
TOWSON, MARYLAND 21204



DES: WCW				
DRN: RJD/KJP				
CHK: LAF				
DATE: OCTOBER 2004	RD BY NO.	Δ AS BUILT	REVISION	8/05

TITLE SHEET

600' SCALE MAP NO. 43 BLOCK NO. 8

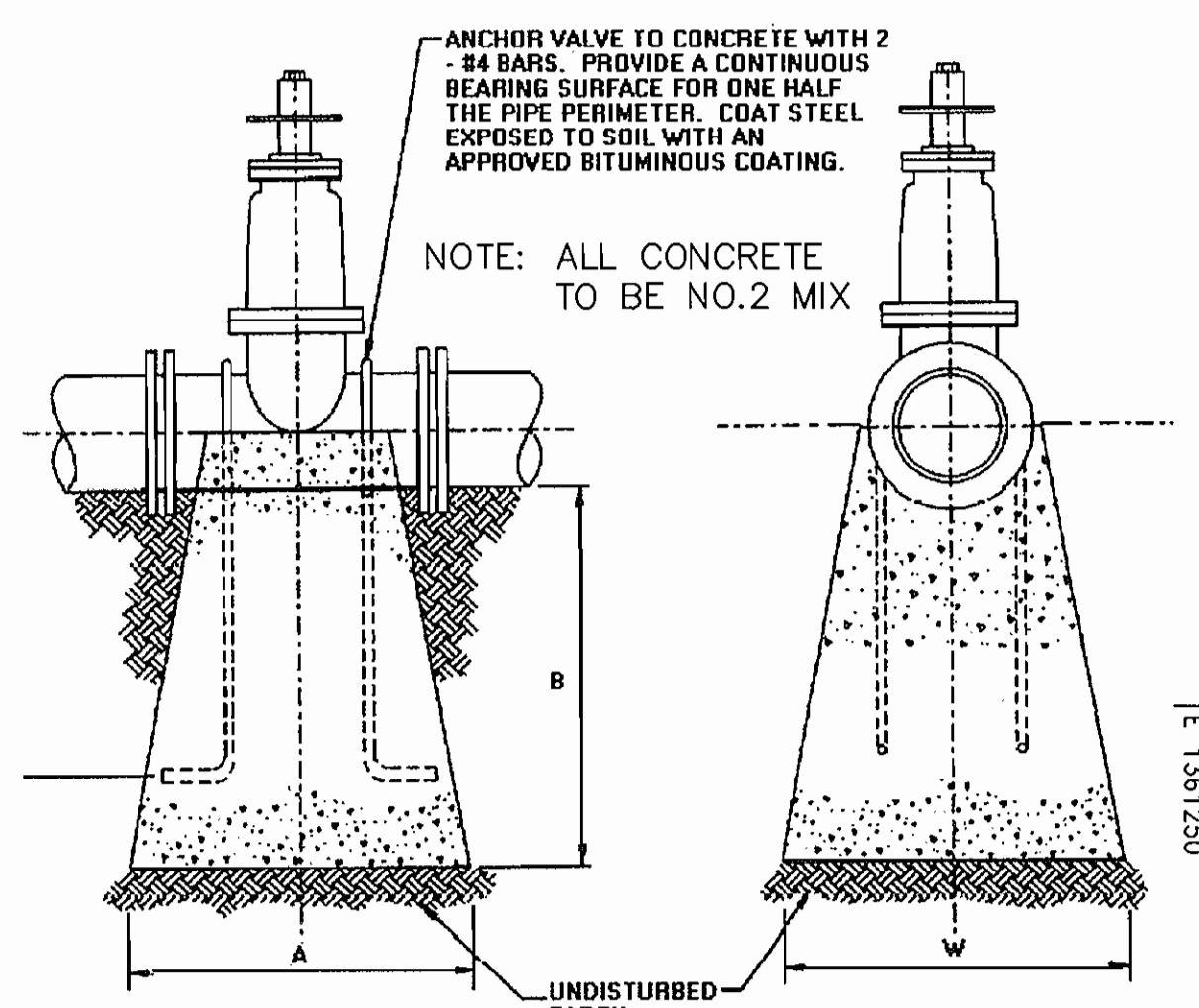
RUMSEY ROAD
12-INCH WATER MAIN LOOP
CAPITAL PROJECT W-8242
CONTRACT No. 44-4145
ELECTION DISTRICT No.2
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 4

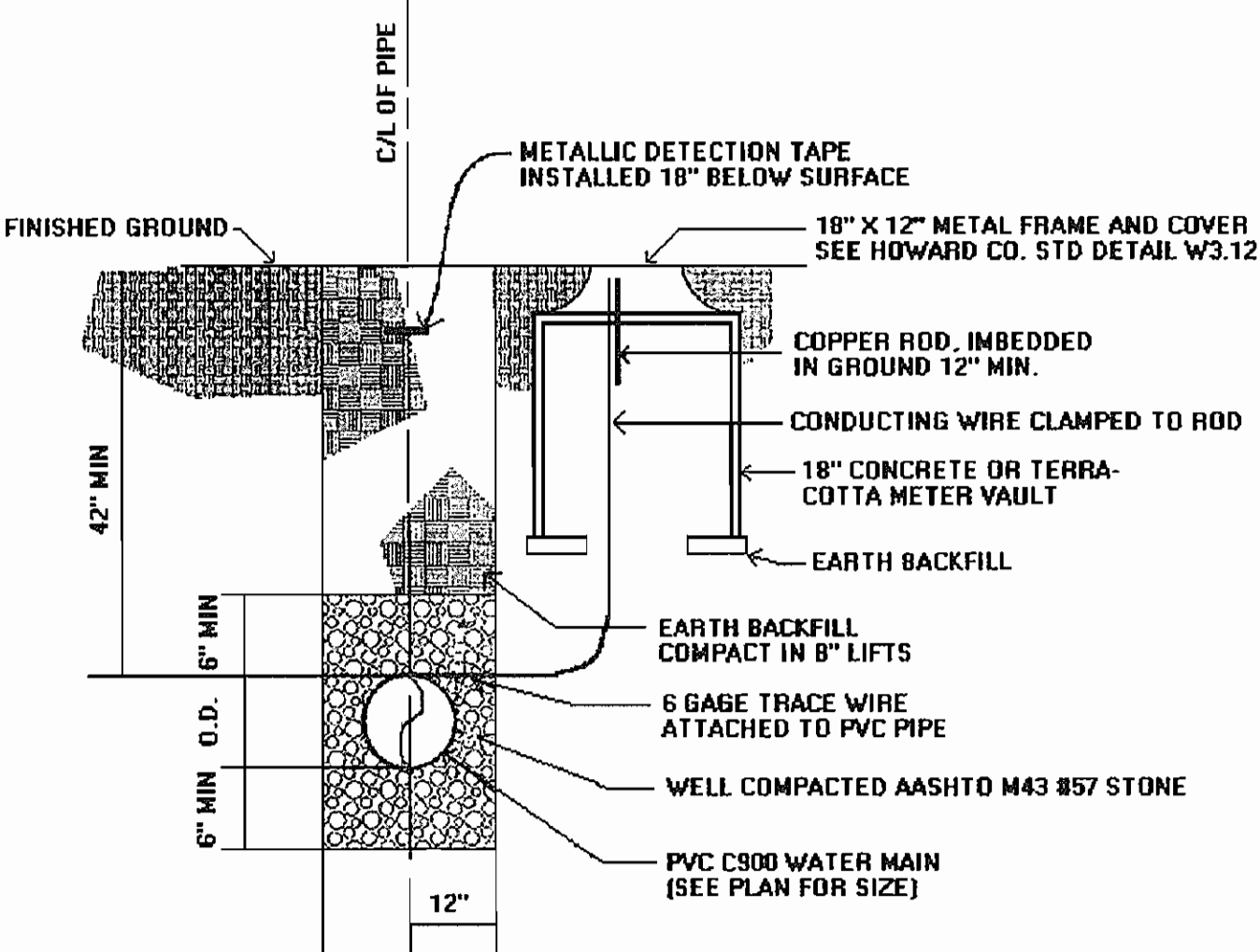
DAILY STABILIZATION NOTE

ALL DISTURBED AREAS NOT DIRECTED TO A SEDIMENT CONTROL DEVICE SHALL BE STABILIZED AT THE END OF EACH WORK DAY. THE CONTRACTOR SHALL NOT DISTURB AN AREA GREATER THAN THAT WHICH CAN BE STABILIZED AT THE END OF EACH WORK DAY.

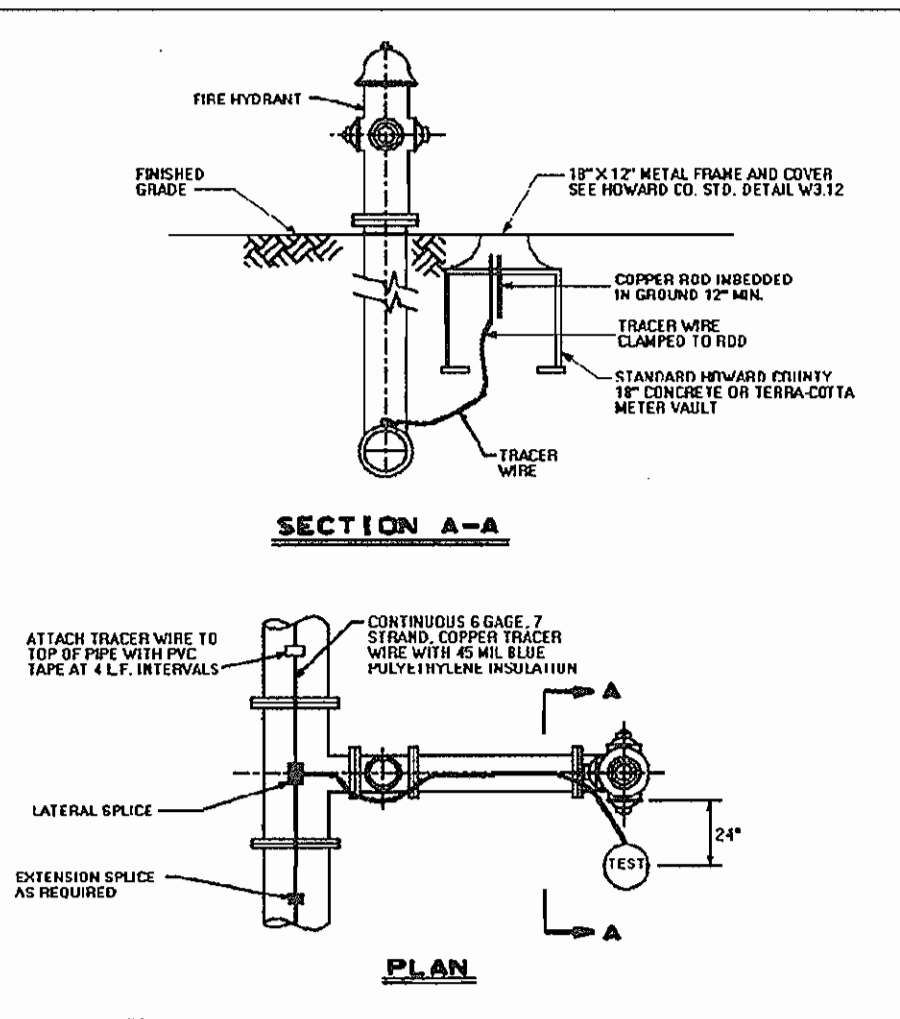
PIPE SIZE	A	B	W
6"	10"	1'-6"	1'-0"
8"	1'-0"	2'-0"	2'-0"
12"	1'-0"	2'-0"	3'-0"



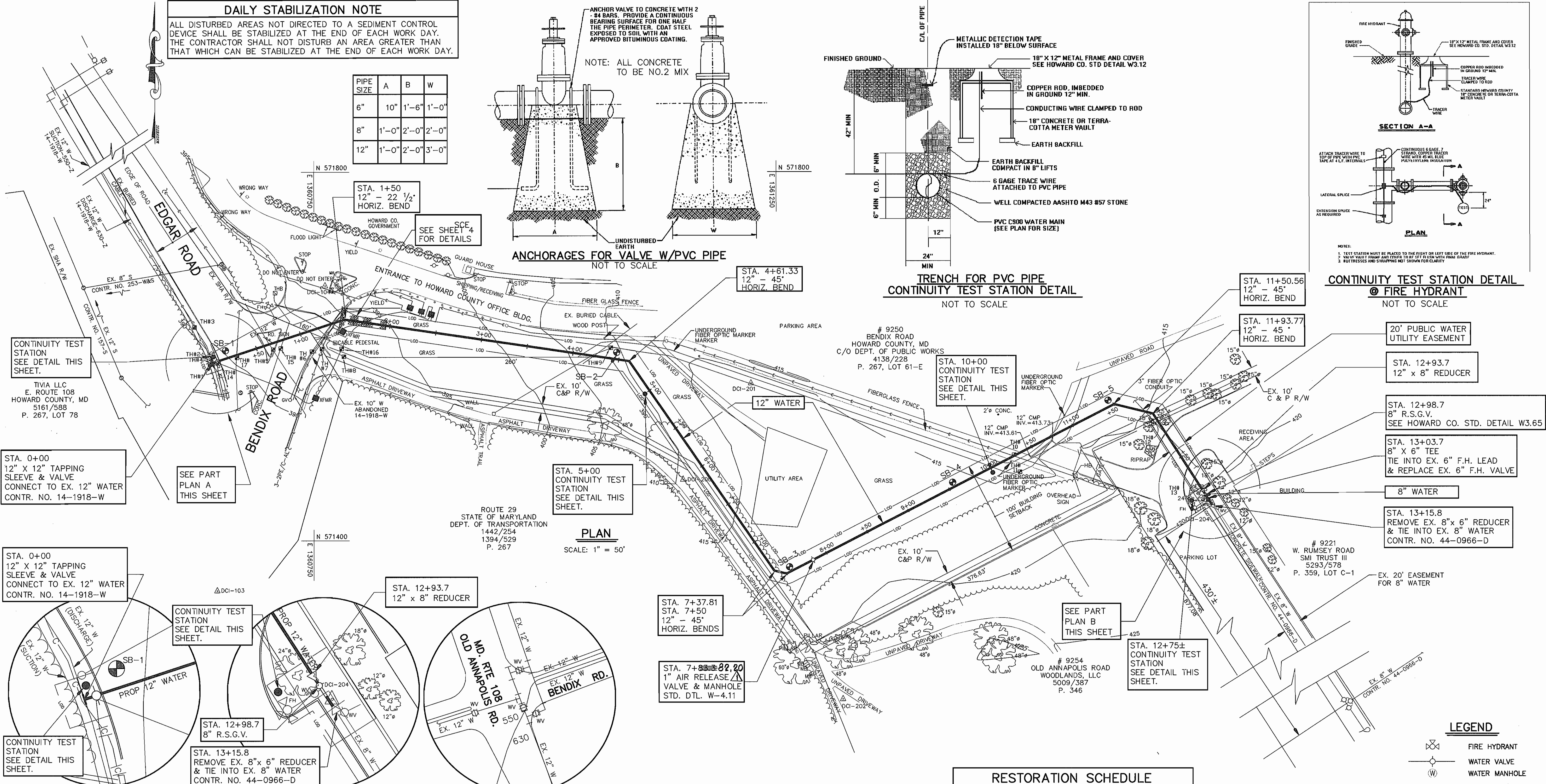
ANCHORAGES FOR VALVE W/PVC PIPE
NOT TO SCALE



TRENCH FOR PVC PIPE
CONTINUITY TEST STATION DETAIL
NOT TO SCALE



CONTINUITY TEST STATION DETAIL
① FIRE HYDRANT
NOT TO SCALE



PLAN
SCALE: 1" = 50'

STA. 0+00
12" X 12" TAPPING
SLEEVE & VALVE
CONNECT TO EX. 12" WATER
CONTR. NO. 14-1918-W

SEE PART
PLAN A
THIS SHEET

STA. 0+00
12" X 12" TAPPING
SLEEVE & VALVE
CONNECT TO EX. 12" WATER
CONTR. NO. 14-1918-W

CONTINUITY TEST
STATION
SEE DETAIL THIS
SHEET.

STA. 12+93.7
12" x 8" REDUCER

STA. 12+98.7
8" R.S.G.V.

STA. 13+15.8
REMOVE EX. 8" x 6" REDUCER
& TIE INTO EX. 8" WATER
CONTR. NO. 44-0966-D

STA. 12+93.7
12" x 8" REDUCER

STA. 7+37.81
STA. 7+50
12" - 45"
HORIZ. BENDS

STA. 7+82.20
1" AIR RELEASE
VALVE & MANHOLE
STD. DTL. W-4.11

STA. 12+75±
CONTINUITY TEST
STATION
SEE DETAIL THIS
SHEET.

STA. 11+50.56
12" - 45"
HORIZ. BEND

STA. 11+93.77
12" - 45"
HORIZ. BEND

20' PUBLIC WATER
UTILITY EASEMENT

STA. 12+93.7
12" x 8" REDUCER

STA. 12+98.7
8" R.S.G.V.
SEE HOWARD CO. STD. DETAIL W3.65

STA. 13+03.7
8" x 6" TEE
TIE INTO EX. 6" F.H. LEAD
& REPLACE EX. 6" F.H. VALVE

8" WATER

STA. 13+15.8
REMOVE EX. 8" x 6" REDUCER
& TIE INTO EX. 8" WATER
CONTR. NO. 44-0966-D

EX. 20' EASEMENT
FOR 8" WATER

PART PLAN A
SCALE: 1" = 20'

PART PLAN B
SCALE: 1" = 20'

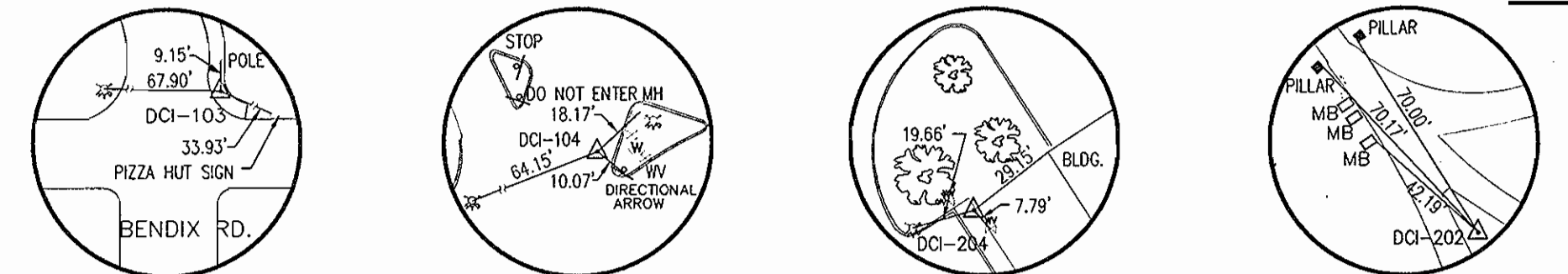
EX. WATER MAINS/VALVES
BENDIX RD. AND MD. ROUTE 108
NOT TO SCALE

RESTORATION SCHEDULE

STATION	TO STATION	DISTANCE	MATERIAL
0+00	0+07	45.8 FT.	PERMANENT SEEDING
0+07	0+08	1 FT.	CONC. CURB & GUTTER
0+08	0+58	50 FT.	BITUMINOUS PAVEMENT
0+58	0+74	16 FT.	C.C.&G., IN-KIND REPLACEMENT
0+74	1+36	62 FT.	BITUMINOUS PAVEMENT
1+36	1+37	1 FT.	CONC. CURB & GUTTER
1+37	10+36	899 FT.	PERMANENT SEEDING
10+36	10+76	40 FT.	BITUMINOUS PAVEMENT
10+76	12+18	142 FT.	PERMANENT SEEDING
12+18	12+19	1 FT.	CONC. CURB & GUTTER
12+19	12+63	44 FT.	BITUMINOUS PAVEMENT
12+63	13+26	63 FT.	PERMANENT SEEDING
12+63	12+64	1 FT.	CONC. CURB & GUTTER
12+88	13+27	39 FT.	SIDEWALK

RESTORATION NOTES:

1. SAW CUT THE EXISTING BITUMINOUS PAVING, CURB AND GUTTER, AND SIDEWALK.
2. REPAIR BITUMINOUS PAVING IN ACCORDANCE WITH STANDARD DETAIL G4.01.
3. REPAIR CURB AND GUTTER IN ACCORDANCE WITH STANDARD DETAIL R 3.01 AND MATCH EXISTING CONDITIONS.
4. REPAIR CONCRETE SIDEWALK IN ACCORDANCE WITH STANDARD DETAIL R 3.05 AND MATCH EXISTING CONDITIONS.



DCI-103 : X-CUT ON SIDEWALK
NORTHING = 571345.6732
EASTING = 1360645.5978
ELEVATION = 389.85 FT.

DCI-104 : P.K. NAIL
NORTHING = 571676.5898
EASTING = 1360762.0920
ELEVATION = 395.48 FT.

DCI-204 : P.K. NAIL IN SDWK.
NORTHING = 571440.2826
EASTING = 1361721.5997
ELEVATION = 421.10 FT.

DCI-202 : HUB & TACK
NORTHING = 571227.7586
EASTING = 1361322.1159
ELEVATION = 421.20 FT.

LEGEND

- ⊗ FIRE HYDRANT
- ⊕ WATER VALVE
- ⊙ WATER MANHOLE
- TREE LINE/WOODS
- ⊙ EXISTING TREE
- TRAVERSE POINT
- EXISTING CONTOUR
- METAL FENCE
- PLASTIC/FIBER GLASS FENCE
- TRANSFORMER
- ⊙ POST
- GUARD RAIL
- ⊙ TEST HOLE LOCATION
- ⊙ SOIL BORING LOCATION

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 11/15/04
Date: 11-12-04

Chief, Bureau of Utilities: *[Signature]* 11-12-04
Date: 11-12-04

WALLACE, MONTGOMERY & ASSOCIATES, LLP
CIVIL AND STRUCTURAL ENGINEERS

110 WEST ROAD
TOWSON, MARYLAND 21204

Professional Engineer: *[Signature]* 11/10/04
Date: 11-12-04



DES: WCW	RD	AS BUILT	8/05
DRN: RJD/KJP	NO.		
CHK: LAF			
DATE: OCTOBER 2004	BY	NO.	REVISION

PLAN & DETAILS SHEET

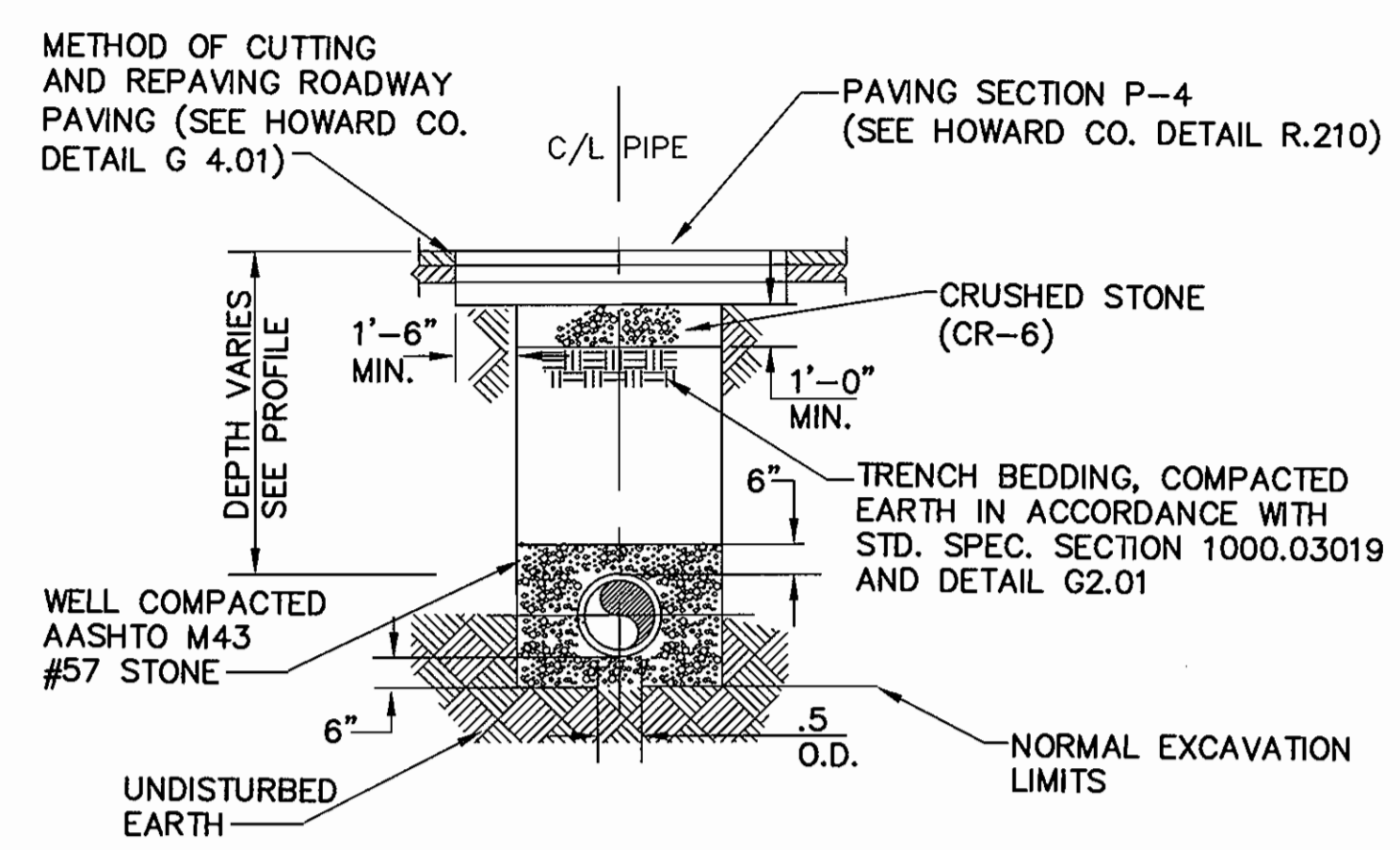
600' SCALE MAP NO. 43 BLOCK NO. 8

AS BUILT

RUMSEY ROAD
12-INCH WATER MAIN LOOP
CAPITAL PROJECT W-8242
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ELECTION DISTRICT No.2
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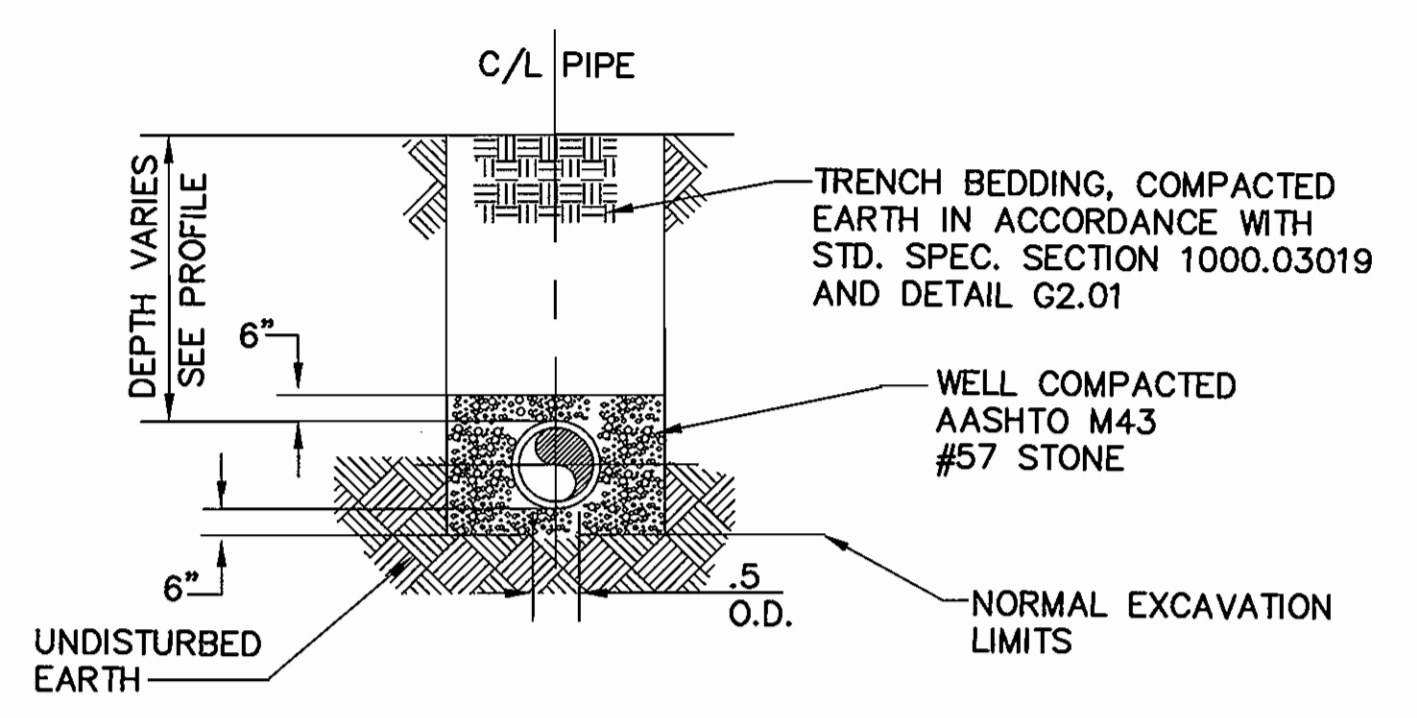
SCALE AS SHOWN
SHEET 2 OF 4

WATER MAIN STAKE-OUT TABLE			
STATION	DESCRIPTION	NORTH	EAST
12" WATER			
0+00	12" x 12" TS & V	571593.39	1360640.35
1+50	12"-22 1/2" HORIZ. BEND	571640.36	1360782.81
4+61.33	12"-45" HORIZ. BEND	571594.81	1361090.79
7+37.81	12"-45" HORIZ. BEND	571367.14	1361247.76
7+50	12"-45" HORIZ. BEND	571363.93	1361261.13
7+82.20	1" AIR RELEASE VALVE VAULT	571378.74	1361289.73
11+50.56	12"-45" HORIZ. BEND	571547.44	1361657.33
11+93.7	12"-45" HORIZ. BEND	571537.16	1361657.33
12+93.7	12" x 8" REDUCER	571450.05	1361713.55
12+98.7	8" R.S.G.V.	571449.00	1361714.26
13+03.7	8" x 6" F.H. TEE	571444.79	1361716.97
13+15.8	CONNECT TO EX. 8" W	571437.86	1361721.45



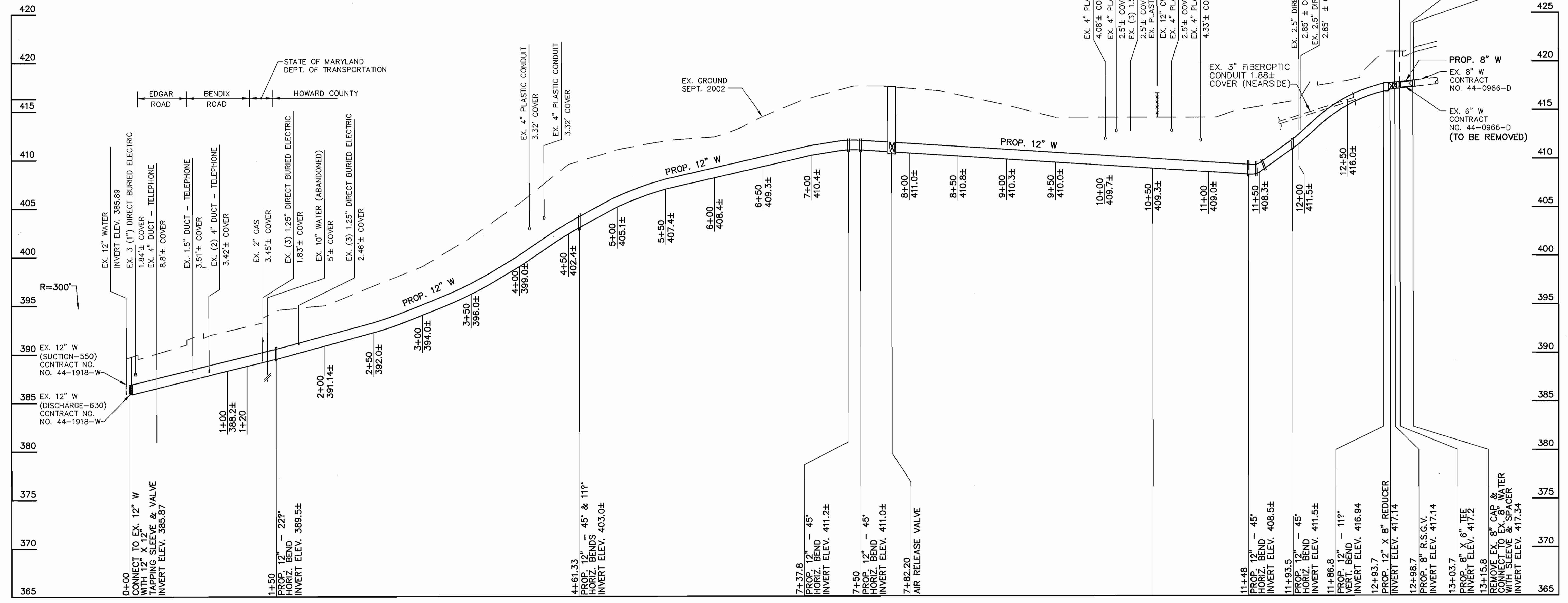
TRENCH DETAIL FOR ROADWAY & PARKING AREA

NOT TO SCALE
NOTE: FOR PAY WIDTHS SEE DETAIL G2.02-A



TRENCH DETAIL

NOT TO SCALE
NOTE: FOR PAY WIDTHS SEE DETAIL G2.02-A



PROFILE: 12" WATER MAIN

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

As-Built

AS BUILT REPLACEMENT SHEET

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 12-1-05
DIRECTOR OF PUBLIC WORKS DATE

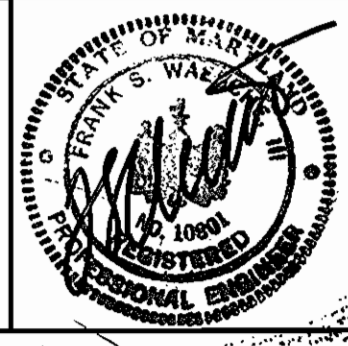
[Signature] 12-5-05
CHIEF, BUREAU OF UTILITIES DATE

[Signature] 12-1-05
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 12-2-05
CHIEF, UTILITY DESIGN DIVISION DATE

WALLACE,
MONTGOMERY
& ASSOCIATES, LLP

CIVIL AND STRUCTURAL ENGINEERS
110 WEST ROAD
TOWSON, MARYLAND 21204



DES: WCW			
DRN: RJD/KJP			
CHK: LAF			
DATE: OCTOBER 2004	R.D. <input checked="" type="checkbox"/>	AS BUILT	8/05
BY: NO.		REVISION	DATE

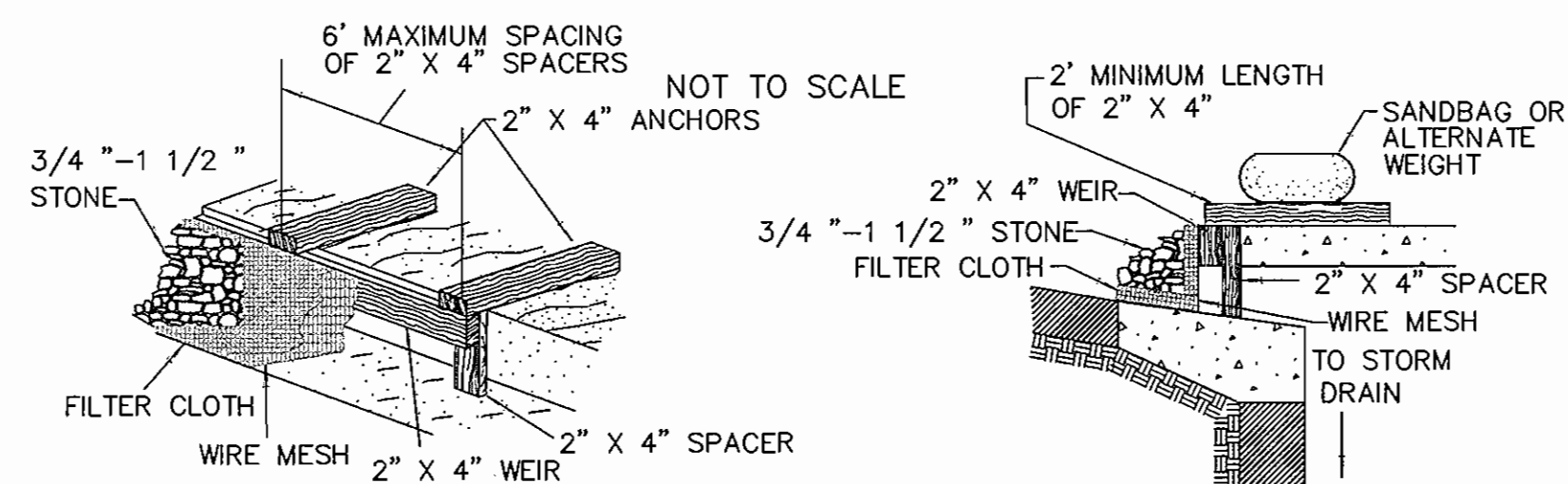
PROFILE SHEET & DETAILS

600' SCALE MAP NO. 43 BLOCK NO. 8

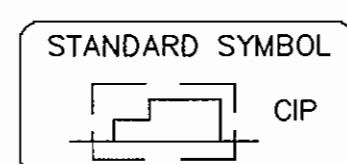
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SCALE AS SHOWN
SHEET 3 OF 4

M:_PROJ\2010035.01\Cadd\150units.dwg



MAX. DRAINAGE AREA = 1/4 ACRE

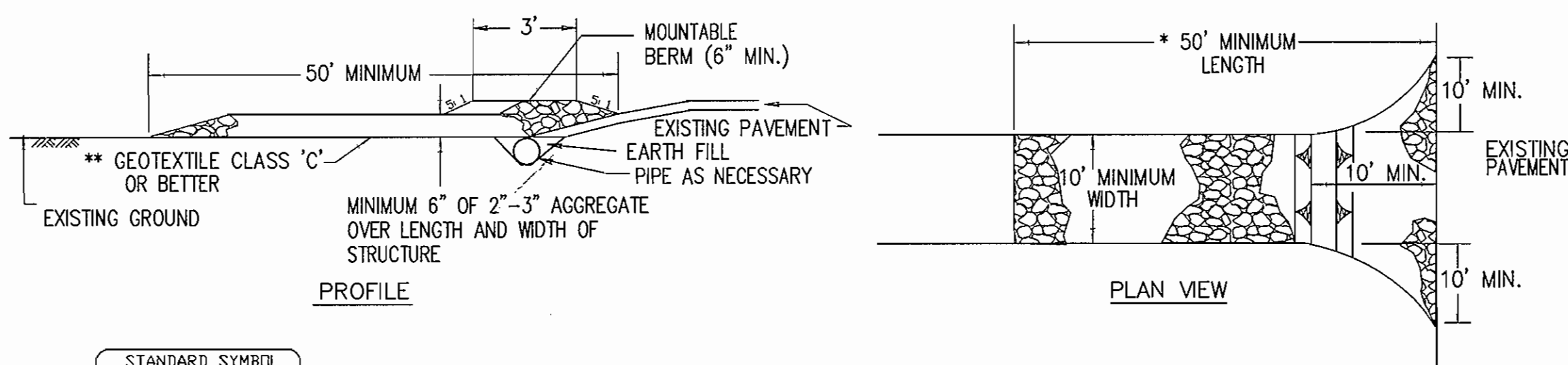


CONSTRUCTION SPECIFICATIONS

1. ATTACH A CONTINUOUS PIECE OF WIRE MESH (30" MINIMUM WIDTH BY THROAT LENGTH PLUS 4") TO THE 2" x 4" WEIR (MEASURING THROAT LENGTH PLUS 2") AS SHOWN ON THE STANDARD.
2. PLACE A CONTINUOUS PIECE OF GEOTEXTILE CLASS E THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH IT TO THE 2" x 4" WEIR.
3. SECURELY NAIL THE 2" x 4" WEIR TO A 9" LONG VERTICAL SPACER TO BE LOCATED BETWEEN THE WEIR AND THE INLET FACE (MAX. 4' APART).
4. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2' LENGTHS OF 2" x 4" TO THE TOP OF THE WEIR AT SPACER LOCATIONS). THESE 2" x 4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT.
5. THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1' BEYOND BOTH ENDS OF THE THROAT OPENING.
6. FORM THE 1/2" x 1/2" WIRE MESH AND THE GEOTEXTILE FABRIC TO THE CONCRETE GUTTER AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 3/4" x 1 1/2" STONE OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE.
7. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT.
8. ASSURE THAT STORM FLOW DOES NOT BYPASS THE INLET BY INSTALLING A TEMPORARY EARTH OR ASPHALT DIKE TO DIRECT FLOW TO THE INLET.

CURB INLET PROTECTION (COG OR COS INLETS)

NOT TO SCALE



PROFILE

PLAN VIEW



CONSTRUCTION SPECIFICATIONS

1. LENGTH - MINIMUM OF 50' (*30 FOR SINGLE RESIDENCE LOT).
2. WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. ** THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
4. STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
5. SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
6. LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

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 LOOSENED.

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

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 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.)
- 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 (0.05 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.

MAINTENANCE OF TRAFFIC

FOR MAINTENANCE OF TRAFFIC REQUIREMENTS SEE SPECIFICATION DOCUMENT D, PARAGRAPH 16.

SEQUENCE OF CONSTRUCTION

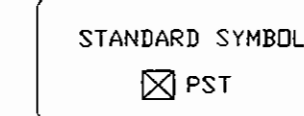
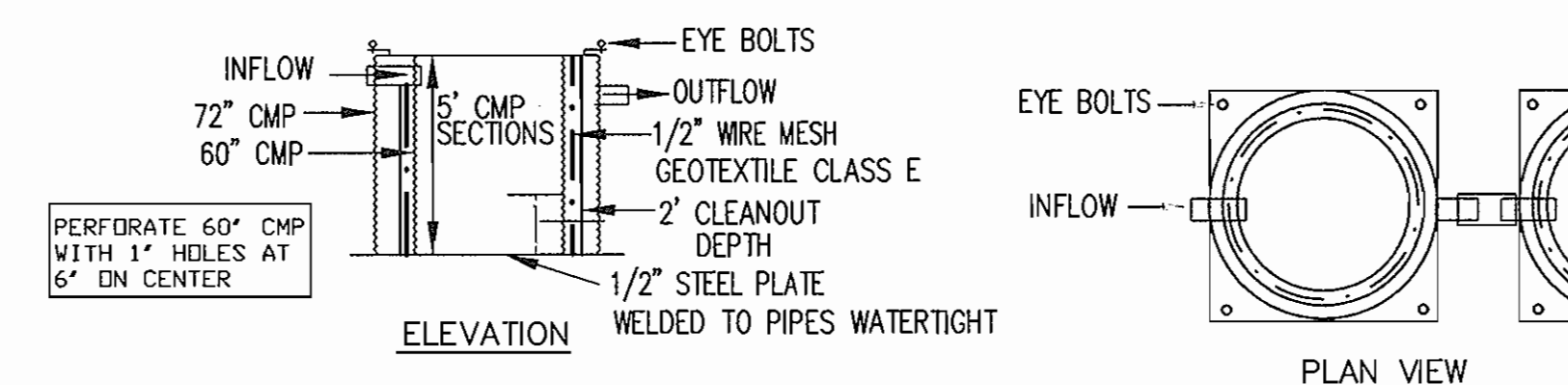
1. CONTACT HOWARD COUNTY BUREAU OF ENGINEERING, CONSTRUCTION INSPECTION DIVISION (410-313-1880) PRIOR TO STARTING DATE. (4 DAYS)
2. INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS PER SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL VOL. IV. (3 DAYS)
3. EXCAVATE AND INSTALL PROPOSED 12" RELOCATED WATER MAIN. (27 DAYS)
4. AREAS NOT DRAINING TO A SEDIMENT CONTROL DEVICE SHALL BE STABILIZED DAILY. AREAS TO BE PAVED SHALL BE STABILIZED WITH GRADED AGGREGATE BASE COURSE. AREAS TO BE VEGETATED SHALL BE STABILIZED WITH TOPSOIL, SEED & MULCH. RUNOFF COLLECTING IN DISTURBED AREAS SHALL BE DIRECTED TO A PORTABLE SEDIMENT TANK.
5. RESTORE TRENCHES TO THEIR ORIGINAL CONDITION AS PER HOWARD COUNTY STANDARDS WITH TEMPORARY PAVING HOWARD COUNTY STANDARD SPECIFICATION (3 DAY)
6. UPON PERMISSION FROM HOWARD COUNTY SEDIMENT CONTROL INSPECTION, REMOVE SEDIMENT CONTROL DEVICES. (2 DAY)
7. INSTALL PERMANENT PAVING PATCH OVER TRENCH. (1 DAY)

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY BUREAU OF ENGINEERING, CONSTRUCTION INSPECTION DIVISION 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 THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A.) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER 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 7 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING AND MULCHING (SEC. G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL 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	=	0.604	ACRES
AREA DISTURBED	=	0.604	ACRES
AREA TO BE ROOFED OR PAVED	=	0.014	ACRES
AREA TO BE VEGETATIVELY STABILIZED	=	0.512	ACRES
TOTAL CUT	=	N/A	CU. YDS.
TOTAL FILL	=	N/A	CU. YDS.

OFF SITE WASTE/BORROW AREA LOCATION: SITE WITH AN ACTIVE GRADING PERMIT AS APPROVED BY ENGINEERING.
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 CONTROL 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 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.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
12. PLACE EXCAVATED SOIL ON THE UPHILL SIDE OF THE TRENCHES.



CONSTRUCTION SPECIFICATIONS

1. THE FOLLOWING FORMULA SHOULD BE USED IN DETERMINING THE STORAGE VOLUME OF THE SEDIMENT TANK: 1 CUBIC FOOT FO STORAGE FOR EACH GALLON PER MINUTE OF PUMP DISCHARGE CAPACITY.
2. AN EXAMPLE OF A TYPICAL SEDIMENT TANK IS SHOWN ABOVE. OTHER CONTAINER DESIGNS CAN BE USED IF THE STORAGE VOLUME IS ADEQUATE AND APPROVAL IS OBTAINED FROM THE LOCAL APPROVING AGENCY.
3. TANKS MAY BE CONNECTED IN SERIES.

*CORRECTION:
THE 1/2" WIRE MESH AND GEOTEXTILE FABRIC MUST BE LOCATED ON THE INSIDE OF THE 60" CMP. THE MESH MUST BE LOCATED BETWEEN THE 60" CMP AND THE GEOTEXTILE FABRIC.

DETAIL 21 - PORTABLE SEDIMENT TANK

NOT TO SCALE

As-Built

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 11/10/04
DIRECTOR OF PUBLIC WORKS

[Signature] 11-12-04
CHIEF, BUREAU OF UTILITIES

[Signature] 11-8-04
CHIEF, UTILITY DESIGN DIVISION

WALLACE,
MONTGOMERY
& ASSOCIATES, LLP

CIVIL AND STRUCTURAL ENGINEERS

110 WEST ROAD
TOWSON, MARYLAND 21204



DES:	WCW				
DRN:	RJD/KJP				
CHK:	LAF				
DATE:	OCTOBER 2004	BY:	RD	NO.	AS BUILT
		REVISION		DATE	8/05

SEDIMENT CONTROL NOTES & DETAILS

600' SCALE MAP NO. 43 BLOCK NO. 8

RUMSEY ROAD
12-INCH WATER MAIN LOOP
CAPITAL PROJECT W-8242
CONTRACT No. 44-4145
ELECTION DISTRICT No.2
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 4 OF 4