

WATER CODE  
 F-14 East of Boone's Lane  
 H-06 West of Boone's Lane

# PROJECT NO. W-4-8032

## WATER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

### DEPARTMENT OF PUBLIC WORKS

ITEM	QUANTITIES		
	BID	AS-BUILT	MADE-BY
30" W	4,600 LF		
24" V	1		
F.H.	5		



*Benjamin J. H. H. H.*

FOR GENERAL NOTES  
 SEE DRAWING NO. 6.

U.S. Route 40 Water Main  
 Project No. W-4-8032  
 Contract No. 773-W

<b>WHITMAN, REQUARDT &amp; ASSOCIATES</b> ENGINEERS 2315 ST. PAUL ST. BALTIMORE, MARYLAND	<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND		<b>CONTRACT NO. 773-W</b> <b>PROJECT NO. W-4-8032</b>	<b>LOCATION MAP</b>	<b>U.S. ROUTE 40 WATER MAIN</b> <b>ELECTION DISTRICT</b> <b>ELLCOTT CITY NO.2</b>	<b>DRAWING NO. 1</b> <b>OF 6</b>	<b>SCALE</b> <b>1" = 600'</b>
	DIRECTOR OF PUBLIC WORKS — DATE _____ CHIEF - BUREAU OF UTILITIES — DATE _____	CHIEF - BUREAU OF ENGINEERING — DATE _____ CHIEF - UTILITIES DIVISION — DATE _____					

BALTIMORE NATIONAL PIKE U.S. ROUTE # 40

W.R. & A. B.M. \* W-5 Elev. 375.57  
 10 Penny Nail Median side of 18" Oak  
 40'± right of Sta. 8+20 between P.I. \* W-28 & P.I. \* W-29.

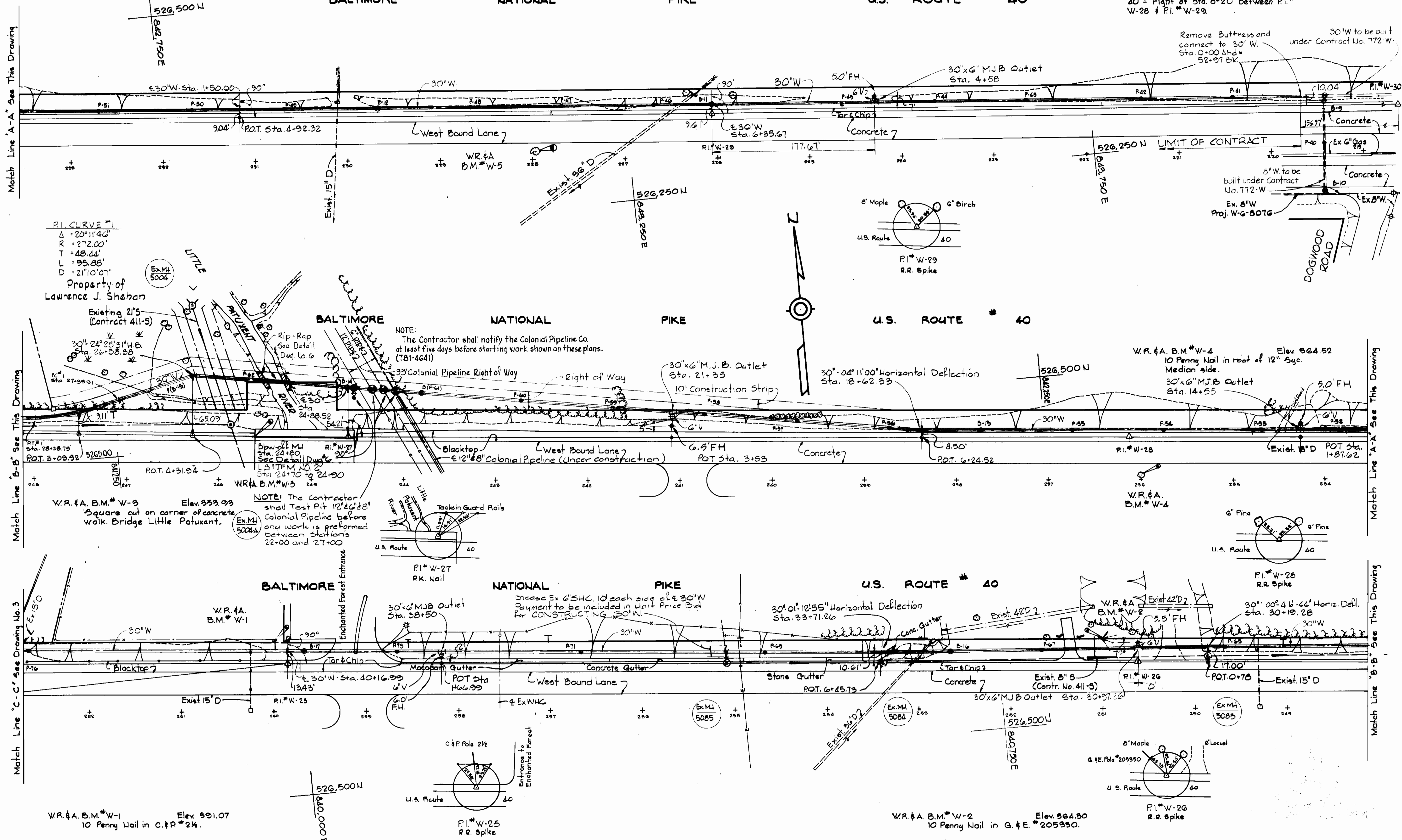
Match Line 'A-A' See This Drawing

Match Line 'B-B' See This Drawing

Match Line 'C-C' See Drawing No. 3

Match Line 'A-A' See This Drawing

Match Line 'B-B' See This Drawing



P.I. CURVE #1  
 Δ = 20°11'46"  
 R = 272.00'  
 T = 48.44'  
 L = 95.88'  
 D = 21°10'07"  
 Property of Lawrence J. Shehan  
 Existing 21" S (Contract 411-5)

NOTE:  
 The Contractor shall notify the Colonial Pipeline Co. at least five days before starting work shown on these plans. (781-4641)  
 33" Colonial Pipeline Right of Way

NOTE:  
 The Contractor shall Test Pit 12" 6" 8" Colonial Pipeline before any work is performed between stations 22+00 and 27+00

Encase Ex. 6" SHC, 10' each side of 30" W. Payment to be included in Unit Price Bid for CONSTRUCTING 30" W.

WHITMAN, REQUARDT & ASSOCIATES  
 ENGINEERS  
 2315 ST. PAUL ST.  
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE  
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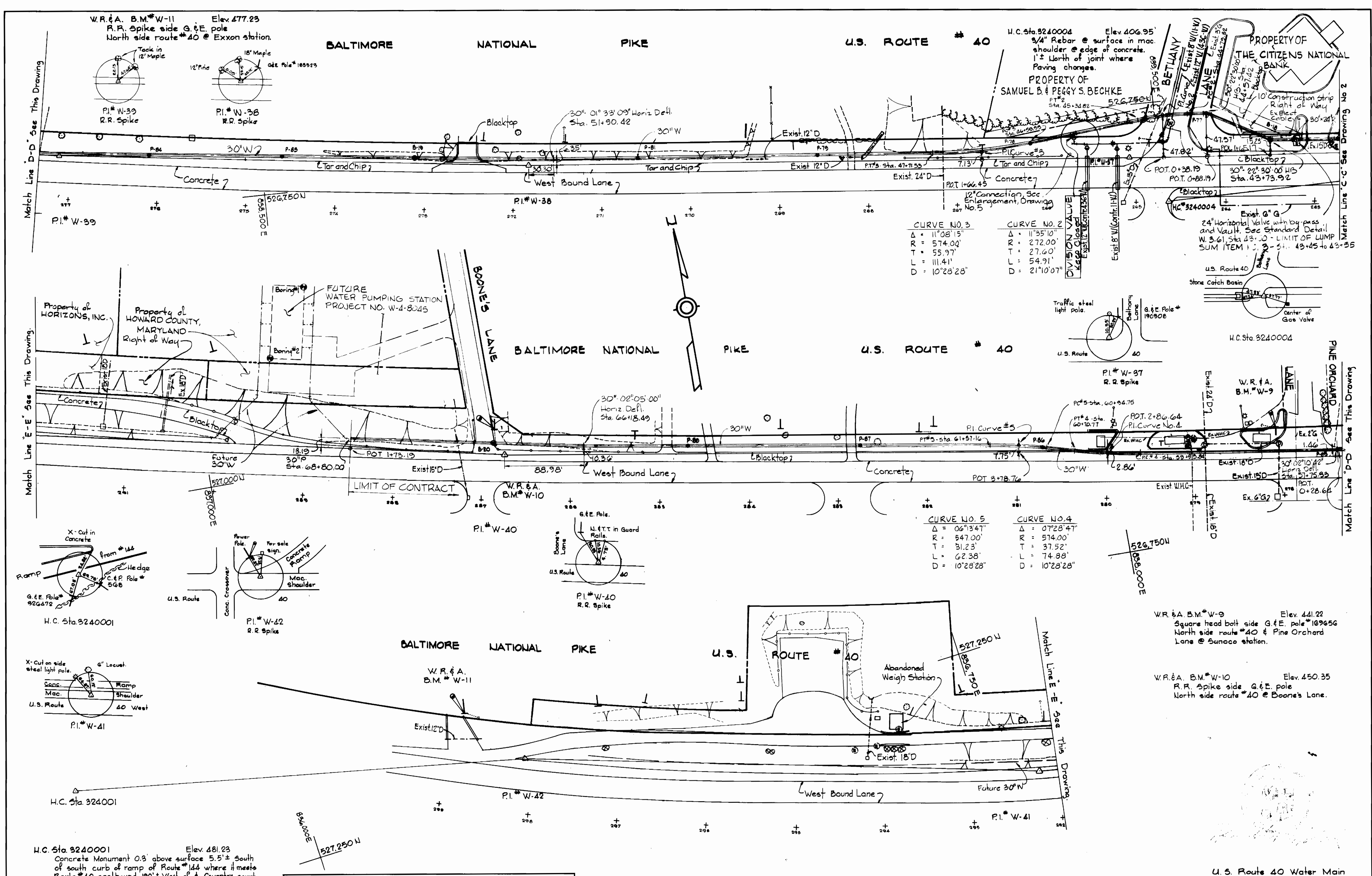
CONTRACT NO. 773-W  
 PROJECT NO. W-4-8032

PLAN OF  
 WATER MAINS

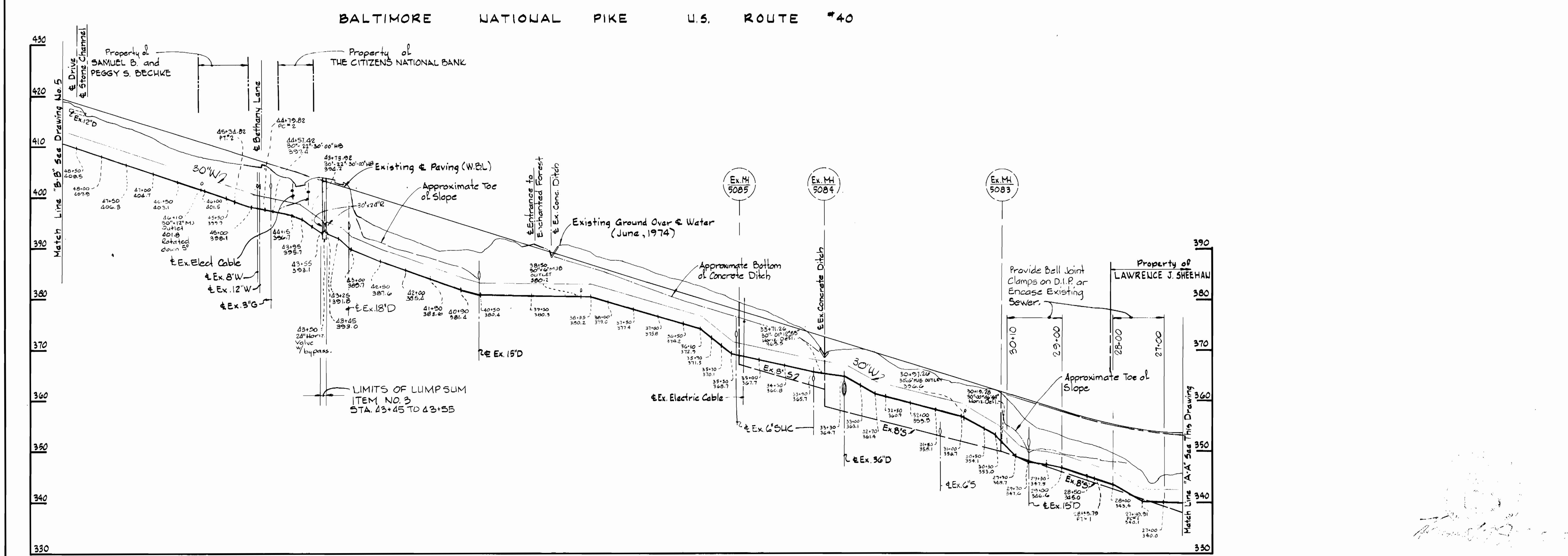
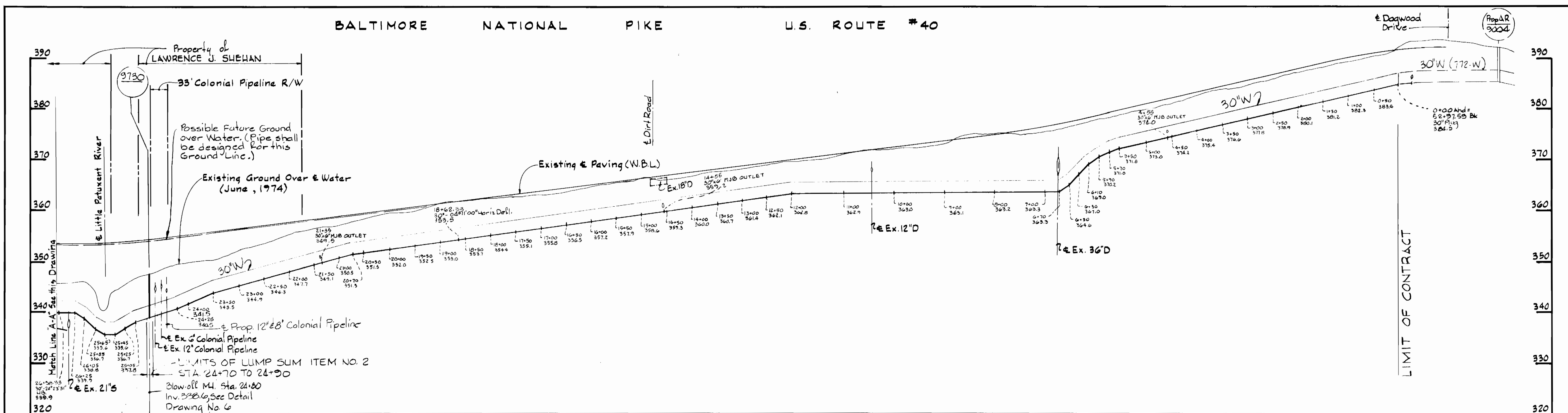
U.S. ROUTE 40 WATER MAIN  
 ELECTION DISTRICT  
 ELLICOTT CITY NO. 2

U.S. Route 40 Water Main  
 Project No. W-4-8032  
 Contract No. 773-W

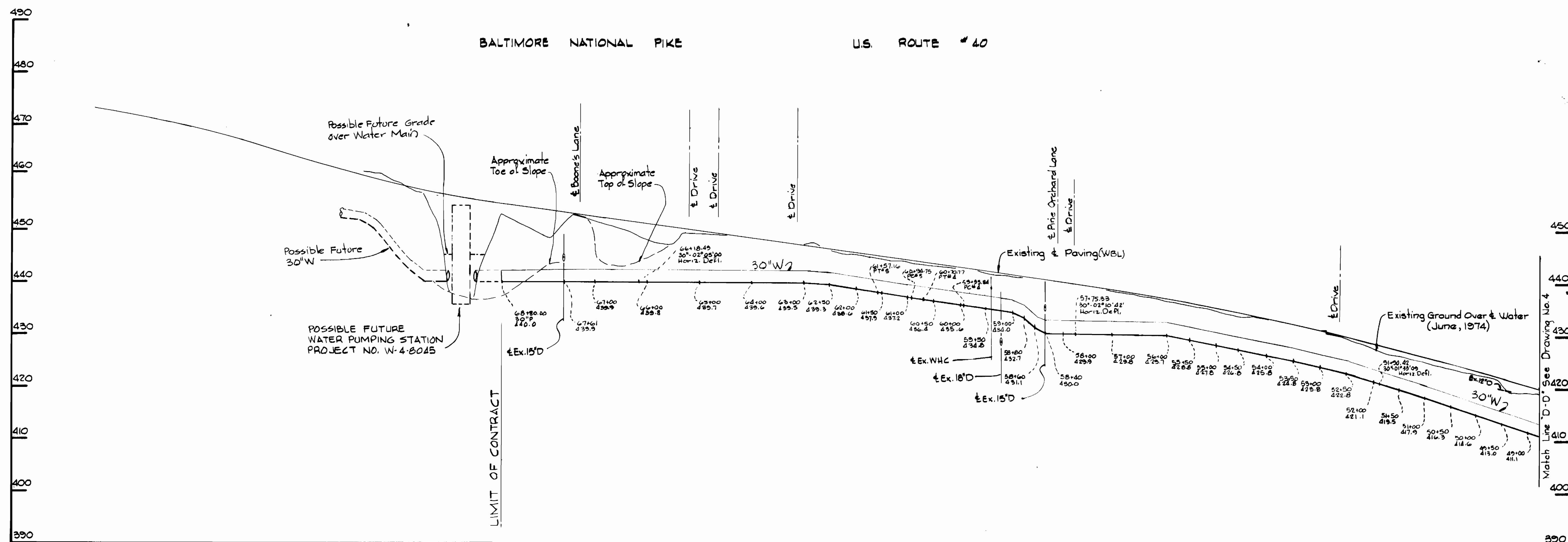
DRAWING NO. 2 OF 6	SCALE 1" = 50'
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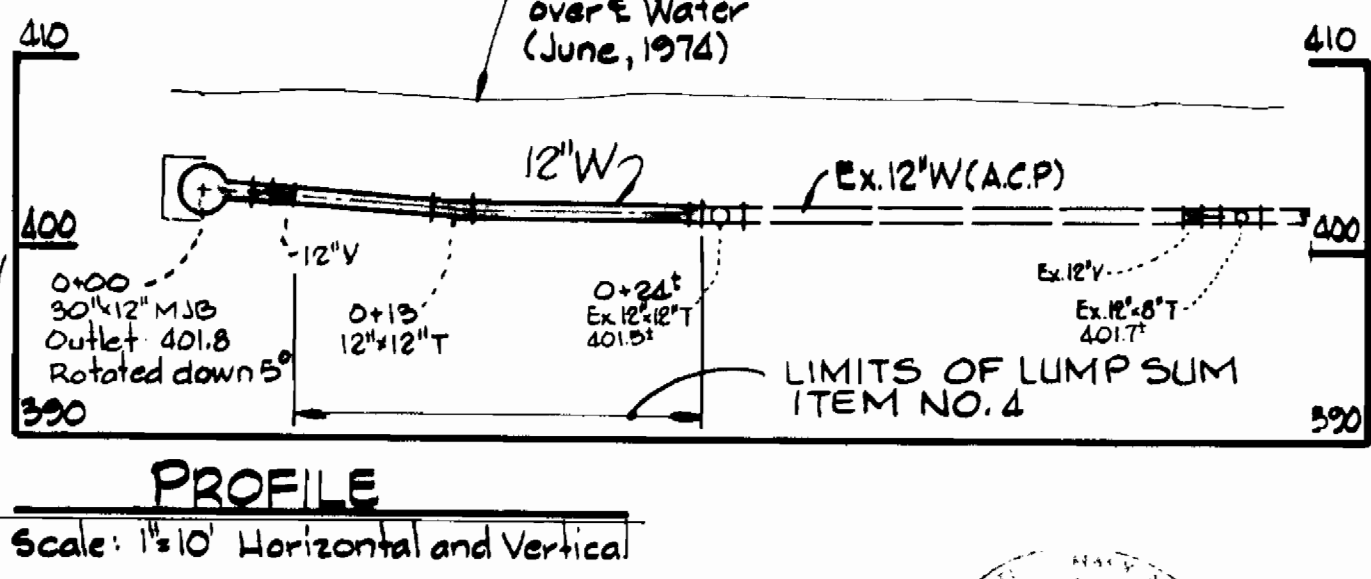
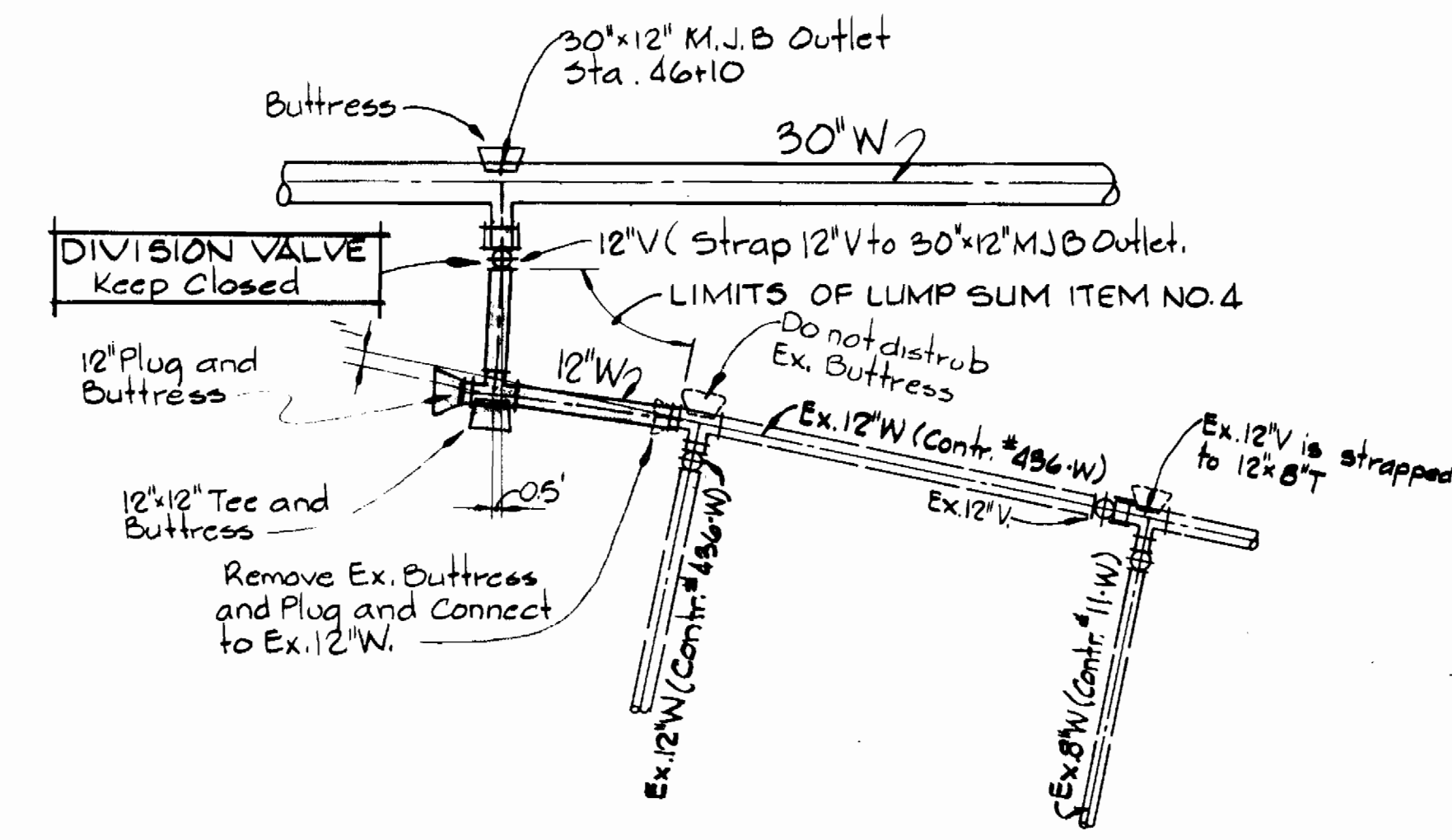
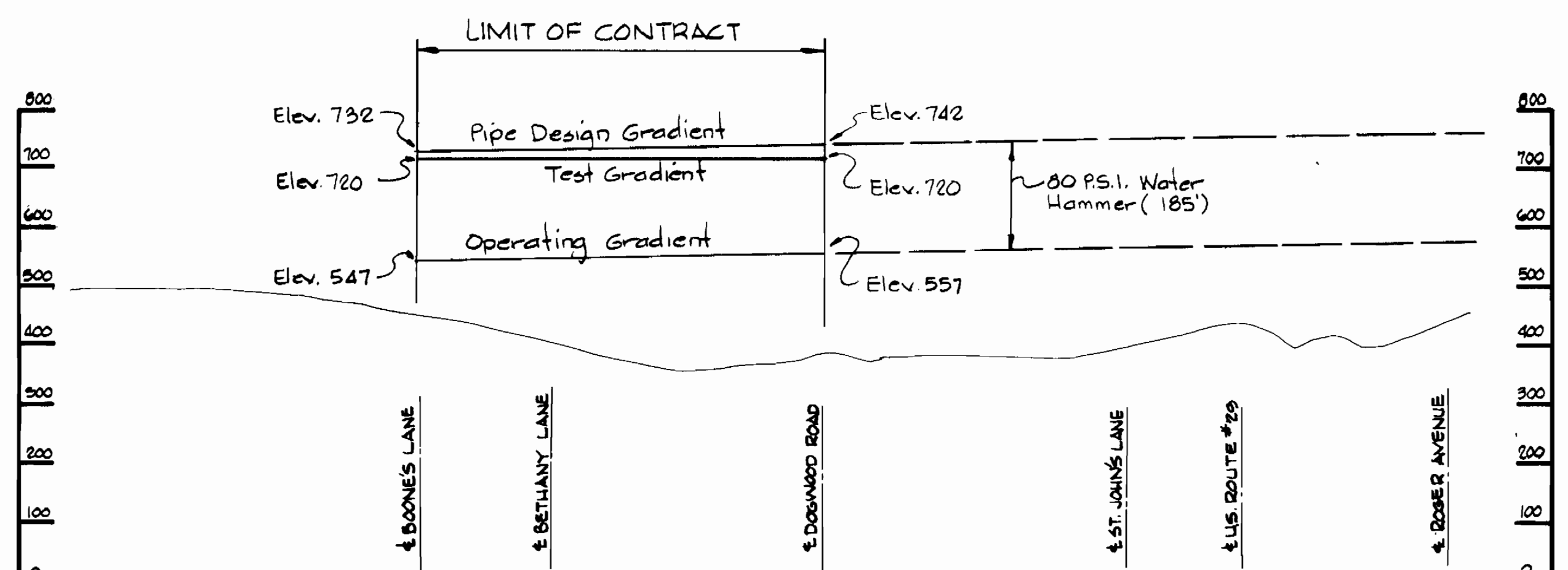
<b>WHITMAN, REQUARDT &amp; ASSOCIATES</b> ENGINEERS 2315 ST. PAUL ST. BALTIMORE, MARYLAND	<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND		<b>CONTRACT NO. 773-W-</b> <b>PROJECT NO. W-4-8032</b>	<b>PLAN OF</b> <b>WATER MAINS</b>	<b>U.S. ROUTE 40 WATER MAIN</b> <b>ELECTION DISTRICT</b> <b>ELLCOTT CITY NO.2</b>	<b>DRAWING</b> <b>NO. 3</b> <b>OF 6</b>	<b>SCALE</b> <b>1" = 50'</b>	527-250 N 527-250 E
	DIRECTOR OF PUBLIC WORKS _____ DATE CHIEF - BUREAU OF UTILITIES _____ DATE	CHIEF - BUREAU OF ENGINEERING _____ DATE CHIEF - UTILITIES DIVISION _____ DATE						F.B. # 5671 June 4, 1981



WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 2315 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		CONTRACT NO. <u>773-W</u> PROJECT NO. <u>W-4-8032</u>	PROFILES OF WATER MAINS	U.S. ROUTE 40 WATER MAIN ELECTION DISTRICT ELLICOTT CITY NO.2	DRAWING NO. <u>4</u>	SCALE <u>H:1"=100'</u>
	DIRECTOR OF PUBLIC WORKS _____ DATE _____	CHIEF - BUREAU OF ENGINEERING _____ DATE _____				OF <u>6</u>	V:1"=10'
CHIEF - BUREAU OF UTILITIES _____ DATE _____		CHIEF - UTILITIES DIVISION _____ DATE _____					

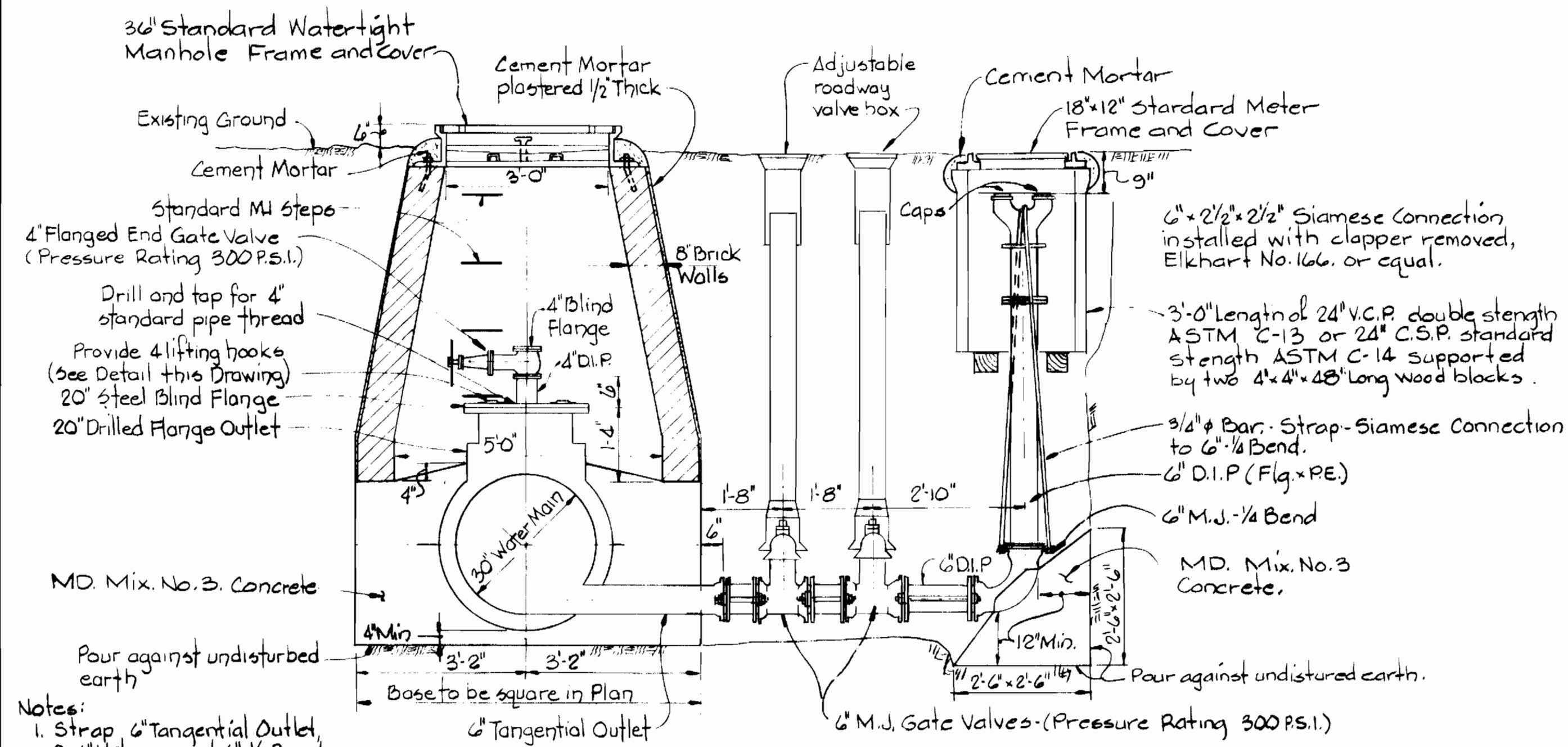


**PROFILE**  
Scale: Horizontal 1"=200'  
Vertical 1"=10'



U.S. Route #40 Water Main  
 Project No. W-4-8032  
 Contract No. 773-W

<b>WHITMAN, REQUARDT &amp; ASSOCIATES</b> ENGINEERS 2315 ST. PAUL ST. BALTIMORE, MARYLAND	<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND		<b>CONTRACT NO. 773-W</b> <b>PROJECT NO. W-4-8032</b>	<b>PROFILE OF WATER MAIN AND</b> <b>HYDRAULIC GRADIENT</b>	<b>U.S. ROUTE 40 WATER MAIN</b> <b>ELECTION DISTRICT</b> <b>ELLCOTT CITY NO. 2</b>	<b>DRAWING</b> <b>NO. 5</b> <b>OF 6</b>	<b>SCALE</b> <b>AS</b> <b>SHOWN</b>
	DIRECTOR OF PUBLIC WORKS _____ DATE	CHIEF - BUREAU OF ENGINEERING _____ DATE					
	CHIEF - BUREAU OF UTILITIES _____ DATE	CHIEF - UTILITIES DIVISION _____ DATE					

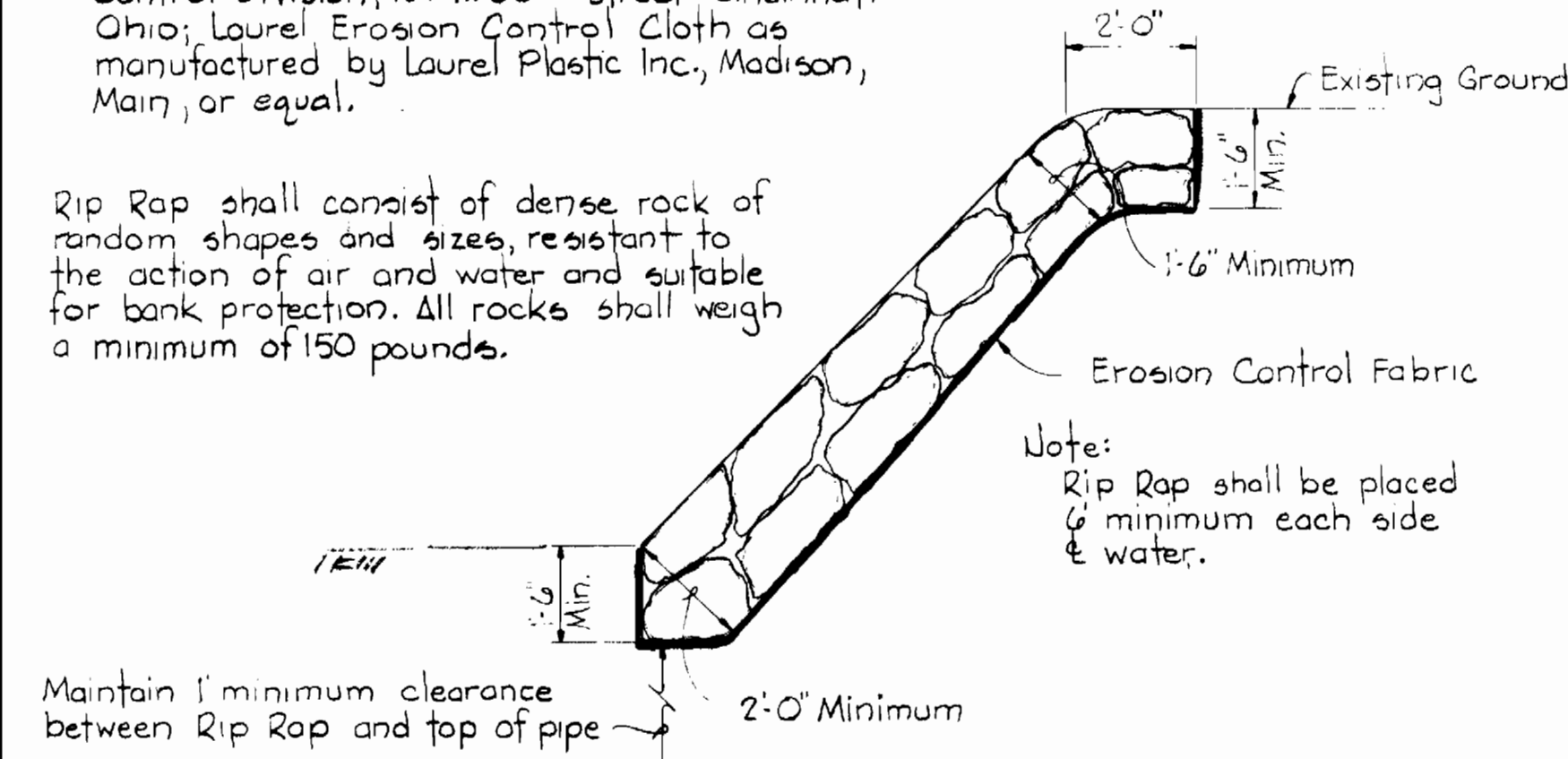


- Notes:
1. Strap 6" Tangential Outlet, 2-6" Valves and 6" 1/4 Bend. See Standard Detail W-2.15
  2. Paint all exposed steel w/2 coats Mobile Asphalt 35-J-11 or equal.

LUMP SUM ITEM NO. 2  
**BLOWOFF DETAIL**  
Scale: 1/2" = 1'-0"

Note:  
Erosion Control Fabric shall be Poly Filter-X as manufactured by Cottage Mills Inc. Erosion Control Division, 124 W. 66th Street Cincinnati Ohio; Laurel Erosion Control Cloth as manufactured by Laurel Plastic Inc, Madison, Main, or equal.

Rip Rap shall consist of dense rock of random shapes and sizes, resistant to the action of air and water and suitable for bank protection. All rocks shall weigh a minimum of 150 pounds.

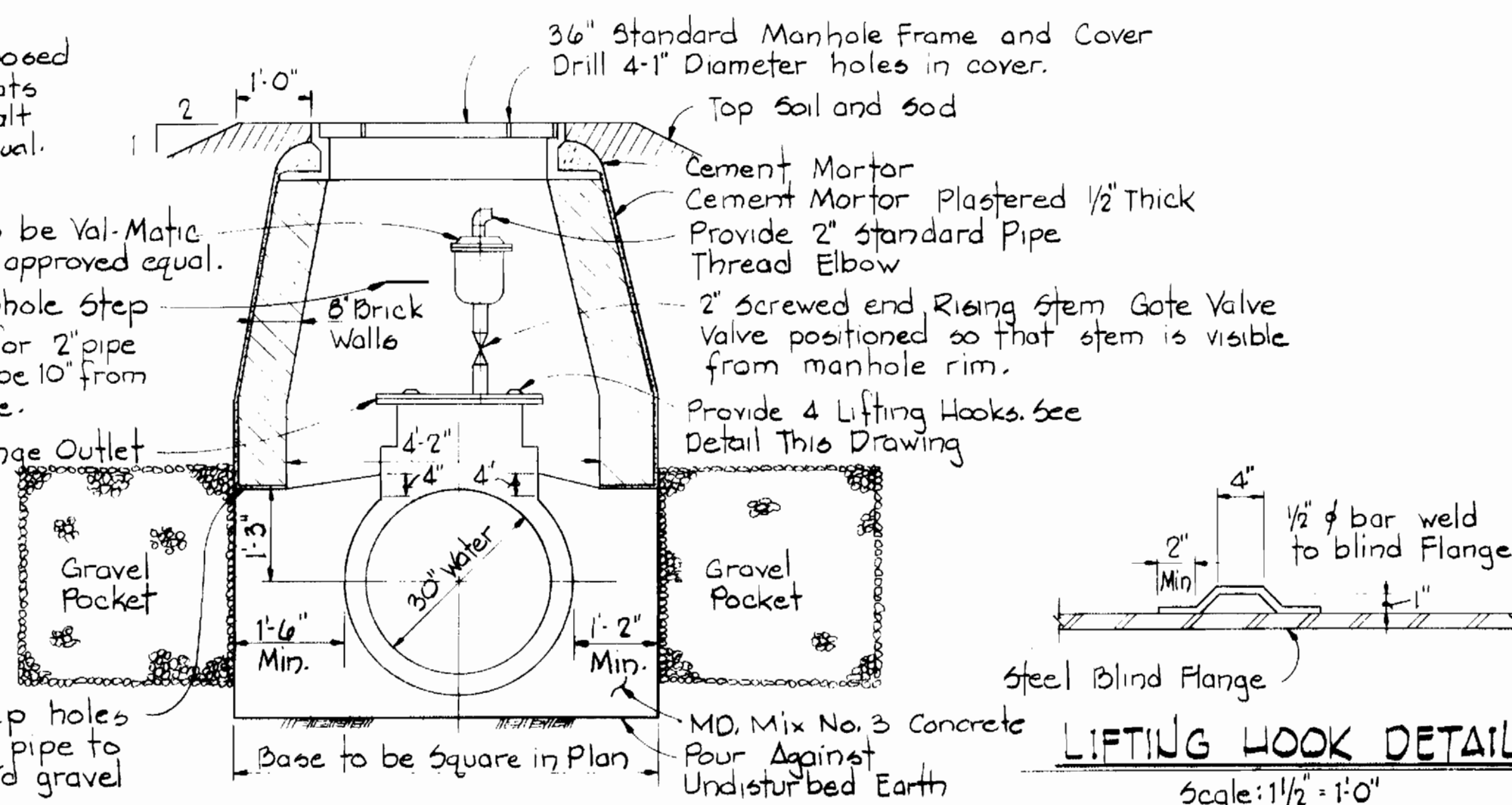


**RIP-RAP DETAIL**  
Scale: 3/8" = 1'-0"

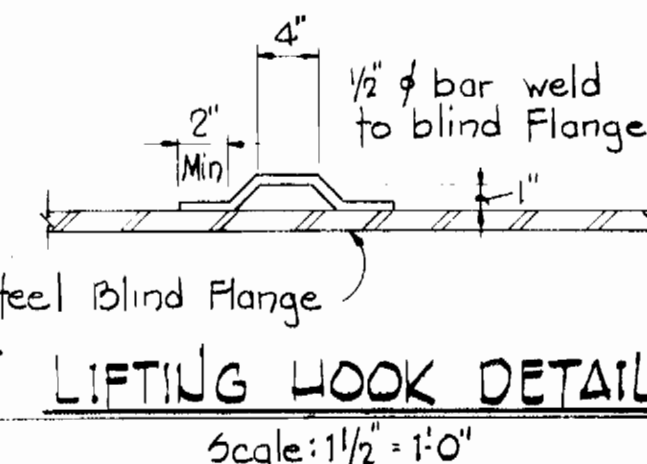
Note:  
Paint all exposed steel w/2 coats Mobile Asphalt 35-J-11 or equal.

2" Air Valve to be Val-Matic No. 202-C or approved equal.  
Standard Manhole Step  
Drill and tap for 2" pipe thread. Top to be 10" from edge of flange.  
20" Drilled Flange Outlet

Provide 2 weep holes each side of pipe to drain to 1 Cu. Yd gravel pocket.



NOT INCLUDED IN THIS CONTRACT  
**DETAIL OF AIR RELEASE AND ENTRY PORT MANHOLE**  
Scale: 1/2" = 1'-0"



**LIFTING HOOK DETAIL**  
Scale: 1/2" = 1'-0"

**GENERAL NOTES**

1. 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 DUE TO THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
2. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
3. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN VICINITY OF UTILITIES.
4. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.
  - BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION ENGINEERING DAMAGE CONTROL 234-5681.
  - UNDERGROUND GAS DISTRIBUTION ENGINEERING 234-5800
  - COLONIAL PIPELINE COMPANY 781-4641
  - CHESAPEAKE AND POTOMAC TELEPHONE COMPANY 393-3648.
  - MISS UTILITY - 1 - 559-0100
  - STATE HIGHWAY ADMINISTRATION - 531-5533
5. FOR DETAILS NOT SHOWN ON THE DRAWINGS, USE HOWARD COUNTY STANDARD DETAILS.
6. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE DATUM AND ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
7. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COSTS INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICE BID FOR CONSTRUCTING WATER MAINS.
8. PROFILE STATIONS MAY HAVE TO BE ADJUSTED AS REQUIRED TO CONFORM TO PLAN DIMENSIONS.
9. TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
10. PAYMENT FOR RIP-RAP WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTING RIP-RAP.
11. BLOCK ALL FITTINGS WITH CONCRETE.
12. ALL WATER MAINS SHALL HAVE A MINIMUM OF 3 1/2' COVER.
13. ALL WATER MAINS SHALL BE P.C.C.P. OR D.I.P. UNLESS OTHERWISE NOTED.
14. ALL VALVES SHALL BE STRAPPED TO TEES WHERE APPLICABLE
15. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED.  
SOIL AROUND THE HYDRANTS SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 5-15 OF THE STANDARD SPECIFICATIONS.
16. BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE SAME AS EDGE OF PAVING, CURB, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.
17. FOR MATERIALS AND CONSTRUCTION REQUIREMENTS, USE HOWARD COUNTY STANDARD SPECIFICATIONS.
18. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.



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**CONTRACT NO. 773-W**  
**PROJECT NO. W-4-8032**

**DETAILS OF**  
**WATER MAINS**

**U.S. ROUTE 40 WATER MAIN**  
**ELECTION DISTRICT**  
**ELLCOTT CITY NO. 2**

**DRAWING**  
**NO. 6**  
**OF 6**

**SCALE**  
**AS**  
**SHOWN**