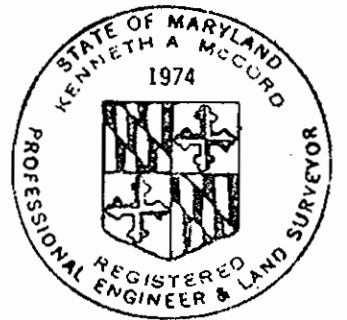


PROJECT NO. WP 8034
SOUTHWEST TRANSMISSION MAIN
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

QUANTITIES	
36" Water	6390.70 LF

Price Brothers Pipe Co.
 36" Prestressed concrete Cylinder Pipe
 (P.C.C.P.)
 As-Built
 Stakeout - Fb # 5838
 Diary #1 " # 5839
 Diary #2 " # 5823



Kenneth M. Lord
 Baltimore Beltway To
 Halethorpe Farms Road
 Contract No. 333-W

CITY OF BALTIMORE		BALTIMORE COUNTY	
<i>Francis M. ...</i>	3/27/74	<i>... Kretschmer</i>	3/19/74
DIRECTOR	DATE	CHIEF WATER DIV.	DATE
DEPT. OF PUBLIC WORKS		BUREAU OF ENGINEERING	

C.W.O.40760

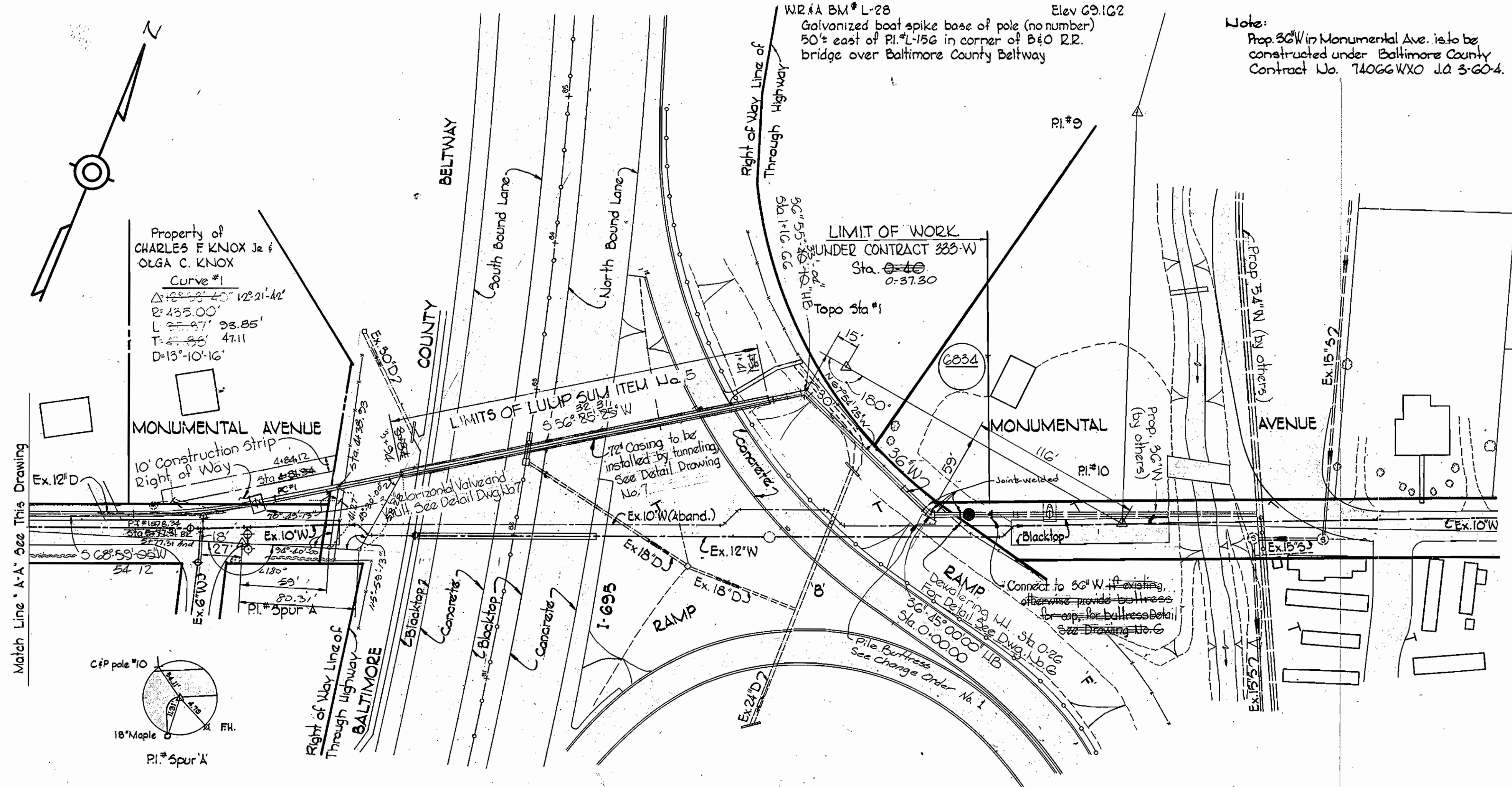
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	HOWARD COUNTY		CONTRACT NO. 333 - W	LOCATION PLAN	SOUTHWEST TRANSMISSION MAIN	DRAWING NO. 1 OF 7	SCALE 1" = 600'
	<i>...</i> DIRECTOR DEPT. OF PUBLIC WORKS	4/1/74 DATE					

W. O. 6257-2

AS BUILT
March 7, 1978

JUNE 20, 1974
MARCH 18, 1975

WS 333-W/1



GENERAL NOTES

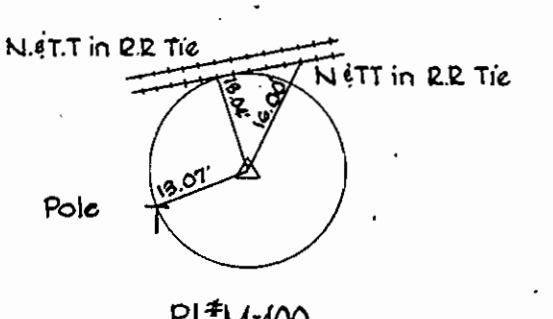
1. Approximate location of existing mains are shown. The Contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately.
2. All pipe elevations shown are invert elevations.
3. The Contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in vicinity of utilities.
4. For all standard details see standards bound in Specifications.
5. All horizontal and vertical controls are based on Maryland State Datum.
6. Pressure Note
 Normal Operating Pressure 147 p.s.i.
 Test Pressure 220 p.s.i.

CONTRACTOR
 NOTIFY BALTIMORE CITY - BUREAU
 OF UTILITY OPERATIONS 336-0326
 THREE DAYS BEFORE STARTING WORK



Kenneth A. McCord

Note:
 Contractor shall make arrangements with Property Owners for moving materials and equipment stored within right of way.



CITY OF BALTIMORE		BALTIMORE COUNTY	
<i>James W. White</i> DIRECTOR	7/2/74 DATE	<i>W. J. Kretschmer</i> CHIEF, WATER DIV. BUREAU OF ENGINEERING	9/9/74 DATE
<i>Mark D. White</i> DIRECTOR	7/19/74 DATE		

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 1304 ST. PAUL ST.
 BALTIMORE, MARYLAND

HOWARD COUNTY
William A. Altman 11/1/73
 DIRECTOR DATE
 DEPT. OF PUBLIC WORKS

W. J. Kretschmer 11-6-73
 CHIEF DATE
 BUREAU OF ENGINEERING

CONTRACT NO. 333-W

PLAN OF
 WATER MAINS

SOUTHWEST TRANSMISSION MAIN

DRAWING NO. 2 OF 7
 SCALE 1"=50'

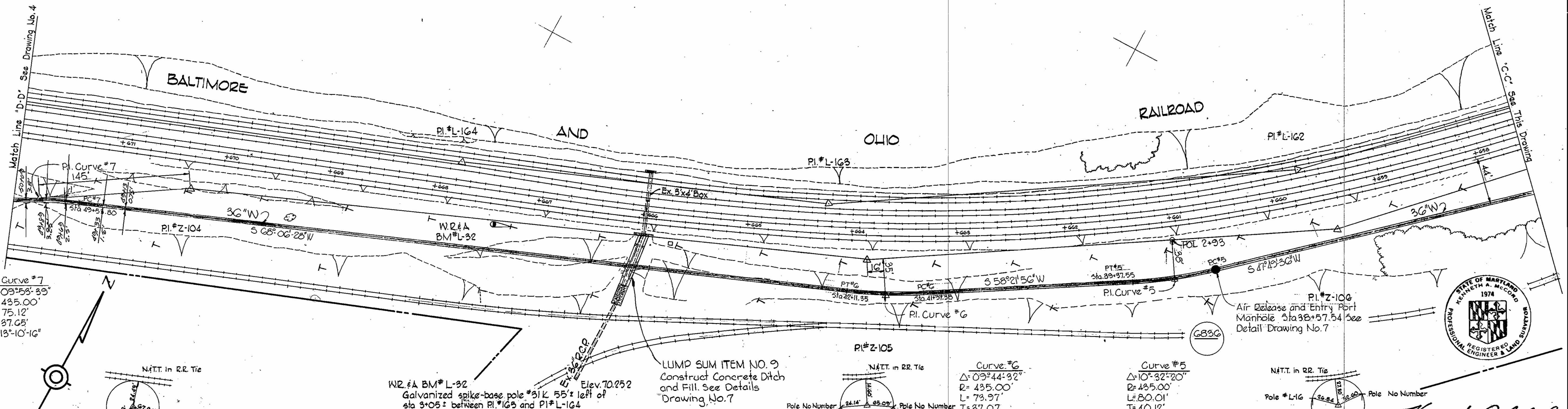
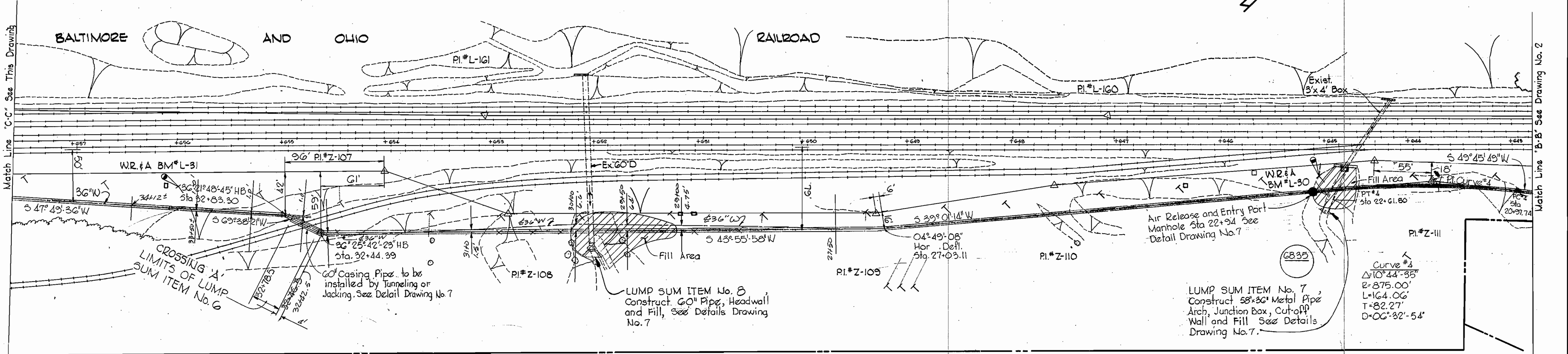
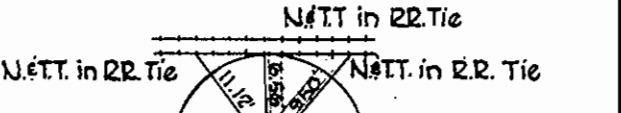
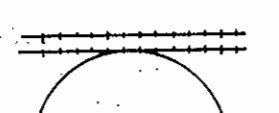
AS BUILT
 March 7, 1978

FB # 4462, 4938, 4940
 JUNE 20, 1974
 MARCH 18, 1975

WS 333-W/2

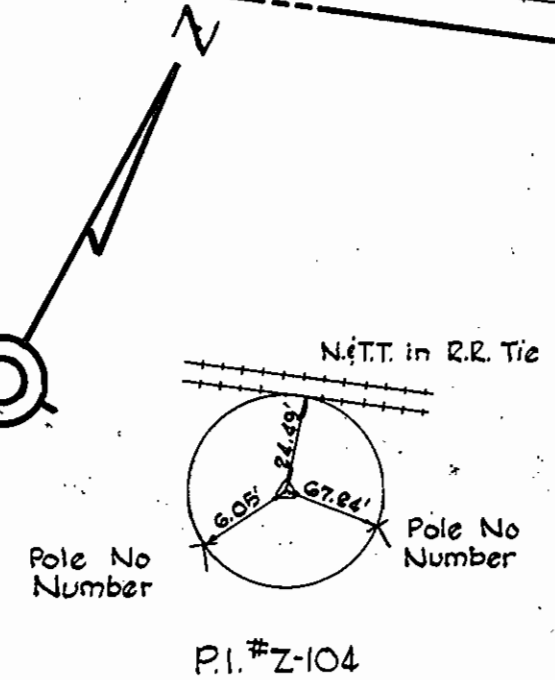
W.R.#A B.M. L-31 Elev. 69.870
Galvanized spike base of pole (no number) 65' left of sta. 2+90± between P.I.#L-161 & P.I.#L-162

W.R.#A B.M. L-30 Elev. 68.559
Galvanized boat spike in base of pole (no number) 55' left of sta 2+45± between P.I.#L-159 and P.I.#L-160



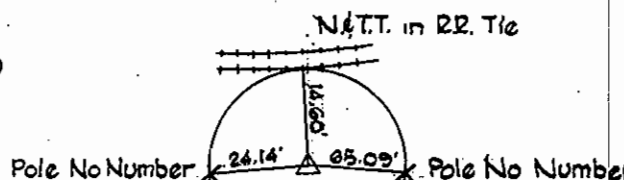
CONTRACTOR NOTIFY BALTIMORE CITY - BUREAU OF UTILITY OPERATIONS - 332-0336 THREE DAYS BEFORE STARTING WORK

Curve #7
Δ=09°58'-33"
R=435.00'
L=75.12'
T=37.05'
D=13°10'-16"



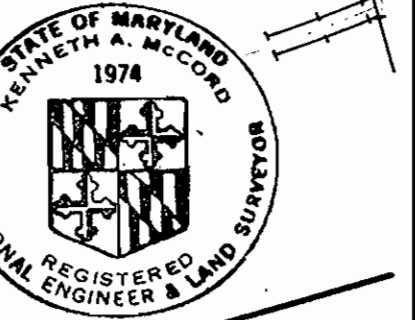
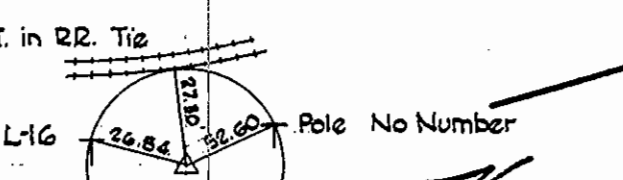
W.R.#A B.M. L-32 Elev. 70.252
Galvanized spike-base pole #31L 55' left of sta 3+05± between P.I.#L-163 and P.I.#L-164

LUMP SUM ITEM NO. 9 Construct Concrete Ditch and Fill. See Details Drawing No. 7



Curve #6
Δ=09°44'-32"
R=435.00'
L=73.97'
T=37.07'
D=13°10'-16"

Curve #5
Δ=10°32'-20"
R=435.00'
L=80.01'
T=40.12'
D=13°10'-16"



Kenneth M. Melrod
Baltimore Beltway To Halethorpe Farms Road
Contract No. 333-W

CITY OF BALTIMORE		BALTIMORE COUNTY	
<i>[Signature]</i> DIRECTOR DEPT. OF PUBLIC WORKS	<i>[Signature]</i> DATE 8/27/74 CHIEF, WATER DIV. BUREAU OF ENGINEERING	<i>[Signature]</i> DIRECTOR DEPT. OF PUBLIC WORKS	<i>[Signature]</i> DATE 11/6/74 CHIEF BUREAU OF ENGINEERING

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
1304 ST. PAUL ST.
BALTIMORE, MARYLAND

HOWARD COUNTY
DIRECTOR DATE
CHIEF DATE

CONTRACT NO. 333-W

PLAN OF WATER MAINS

SOUTHWEST TRANSMISSION MAIN

DRAWING NO. 3 OF 7 SCALE 1"=50'

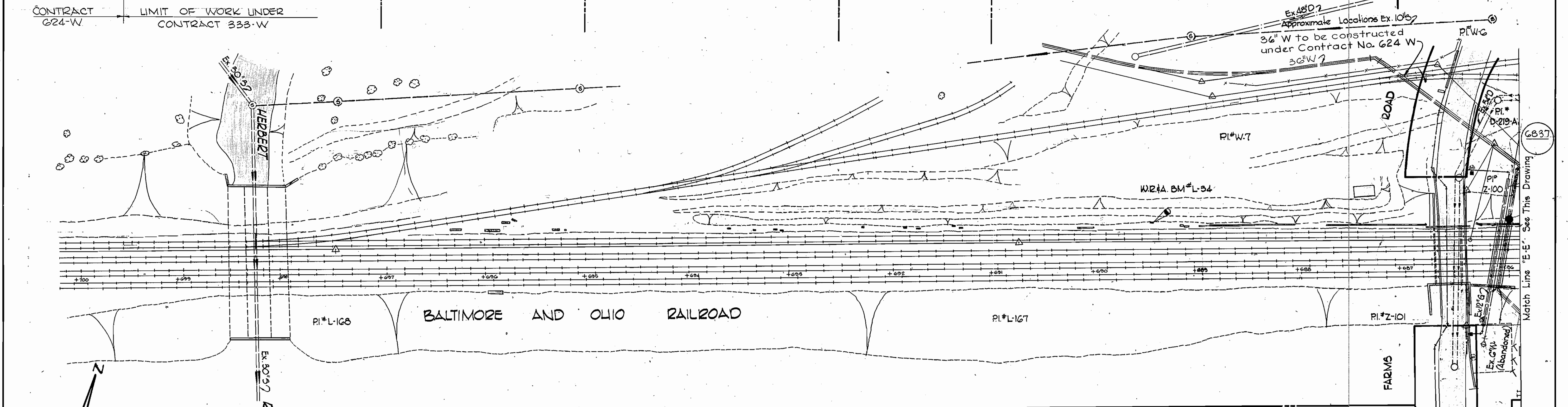
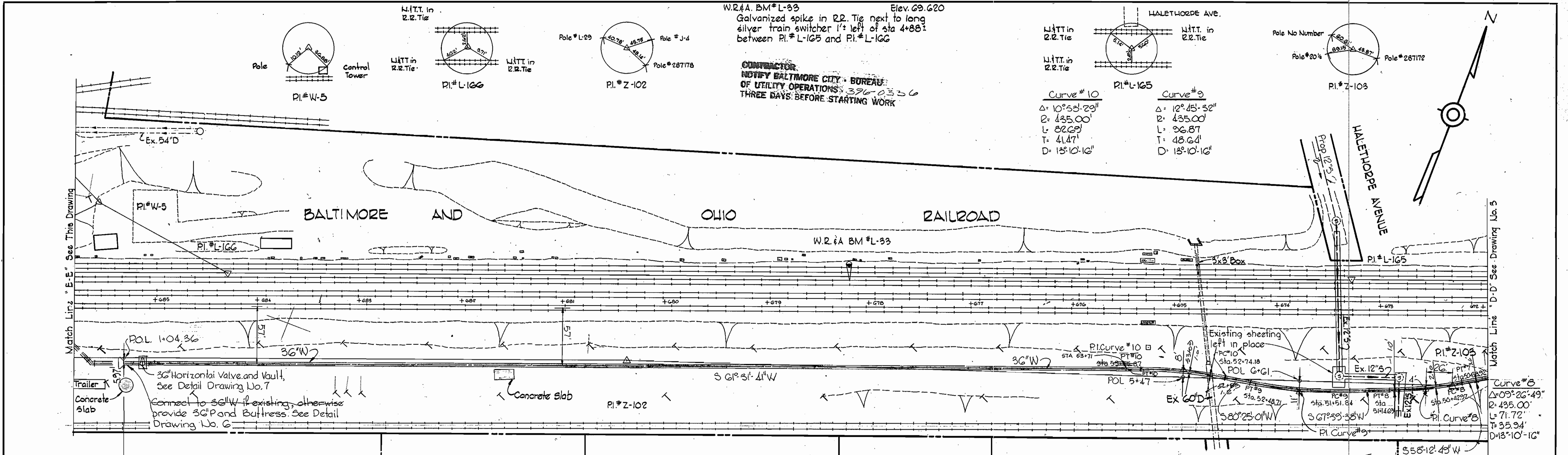
W. O. 0257-2

March 7, 1973 AS BUILT

FB. 4402, 4496, 4938, 4940
JUNE 20, 1974
MARCH 18, 1975

WS 333-W/3

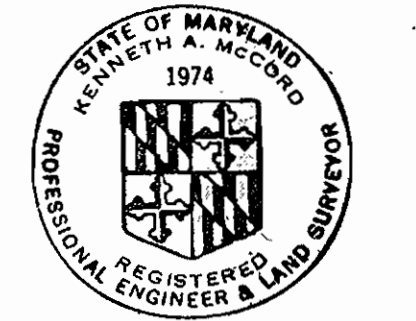
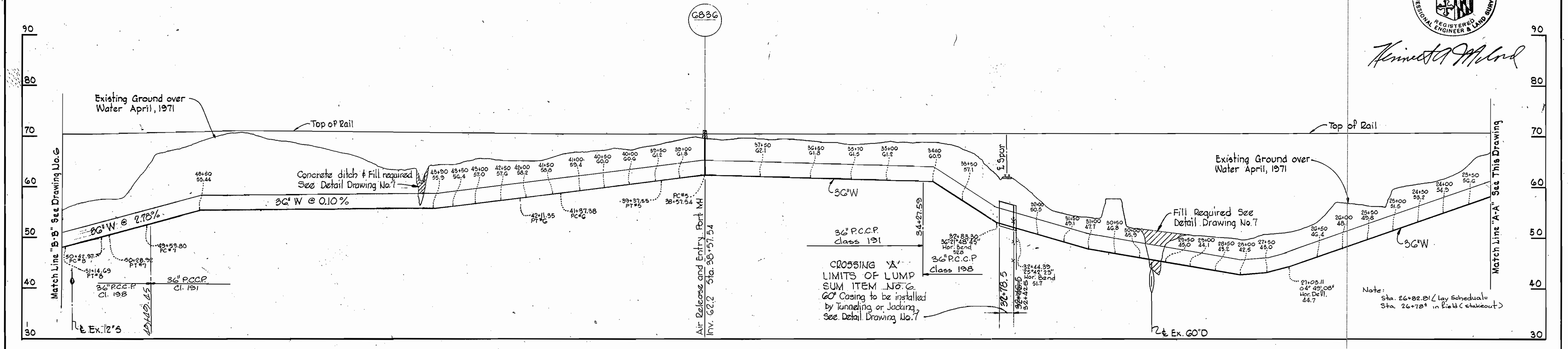
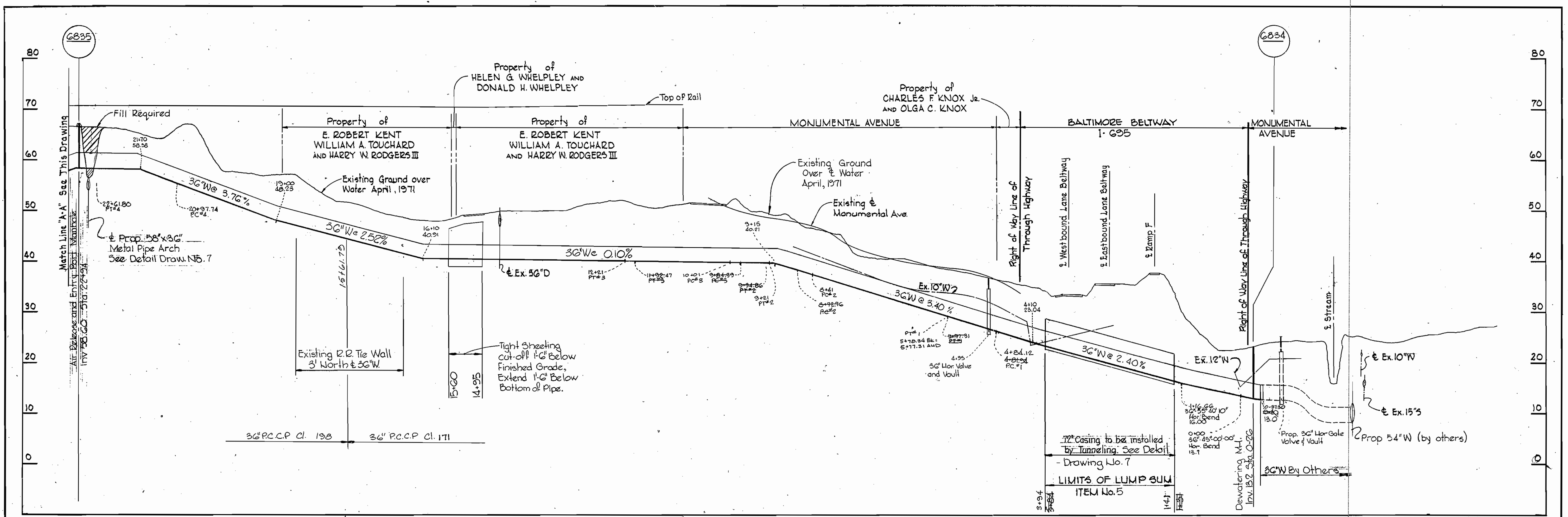
WS 333-W/4



CITY OF BALTIMORE Director: <i>Frank J. Quinn</i> 8/1/64 DEPT. OF PUBLIC WORKS		BALTIMORE COUNTY Director: <i>Wm. S. ...</i> 3/9/74 DEPT. OF PUBLIC WORKS		HOWARD COUNTY Director: <i>William A. Mott</i> 4/1/72 DEPT. OF PUBLIC WORKS		BALTIMORE COUNTY Director: <i>Wm. S. ...</i> 3/9/74 DEPT. OF PUBLIC WORKS		HOWARD COUNTY Chief: <i>W. O. ...</i> 11-4-72 BUREAU OF ENGINEERING		CONTRACT NO. 333-W		PLAN OF WATER MAINS	
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND		CONTRACT NO. 333-W		PLAN OF WATER MAINS		SOUTHWEST TRANSMISSION MAIN		DRAWING NO. 4 OF 7		SCALE 1" = 50'			

W. O. G257-2
 AS BUILT
 March 7, 1978
 FB#4462, 4469, 4496, 4938, 4940
 JUNE 20, 1974
 MARCH 18, 1975

WS 333-W/5



Kenneth A. McCord

CITY OF BALTIMORE		BALTIMORE COUNTY	
<i>James W. Lantz</i> DIRECTOR DEPT. OF PUBLIC WORKS	8/27/74 DATE	<i>William A. O'Leary</i> CHIEF, WATER DIV. BUREAU OF ENGINEERING	7/6/74 DATE

C.W.O.40760

CONTRACTOR
NOTIFY BALTIMORE CITY BUREAU
OF UTILITY OPERATIONS
THREE DAYS BEFORE STARTING WORK

CONTRACTOR
NOTIFY BALTIMORE CITY BUREAU
OF UTILITY OPERATIONS - 326-0336
THREE DAYS BEFORE STARTING WORK

Baltimore Beltway To
Halethorpe Farms Road
Contract No. 333-W

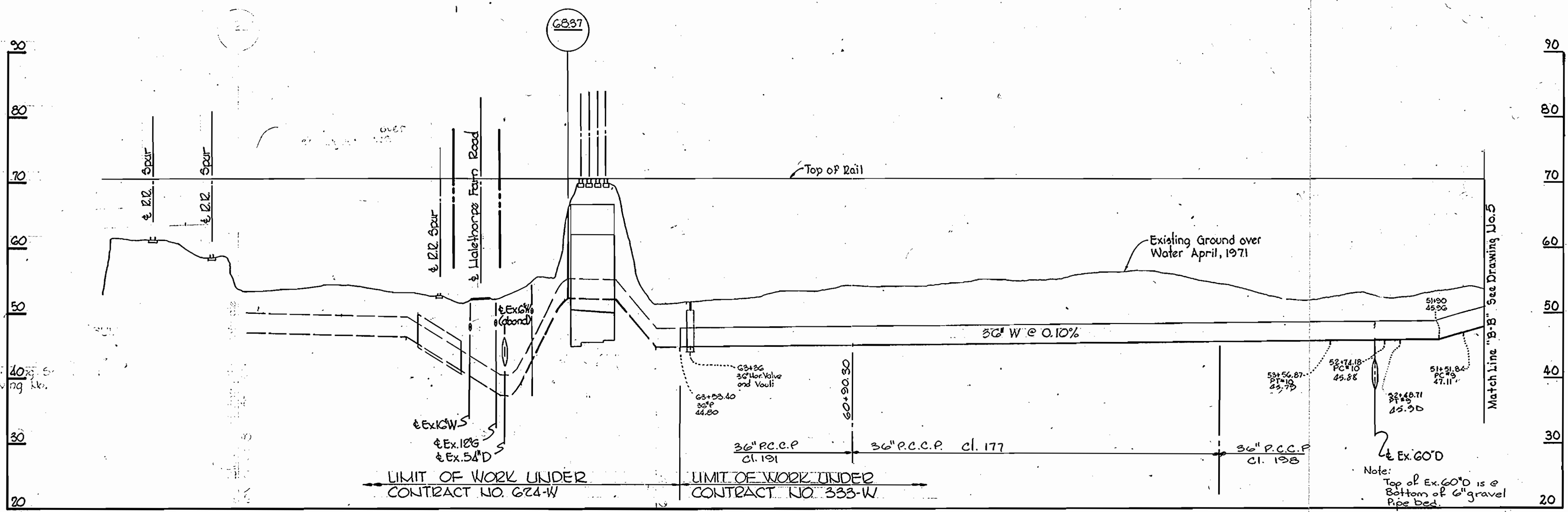
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	HOWARD COUNTY		CONTRACT NO. 333-W	PROFILES OF WATER MAINS	SOUTHWEST TRANSMISSION MAIN	DRAWING NO. 5 OF 7	SCALE H:1"=100' V:1"=10'
	<i>William A. O'Leary</i> DIRECTOR DEPT. OF PUBLIC WORKS	<i>William A. O'Leary</i> CHIEF BUREAU OF ENGINEERING					

W. O. 6257-2

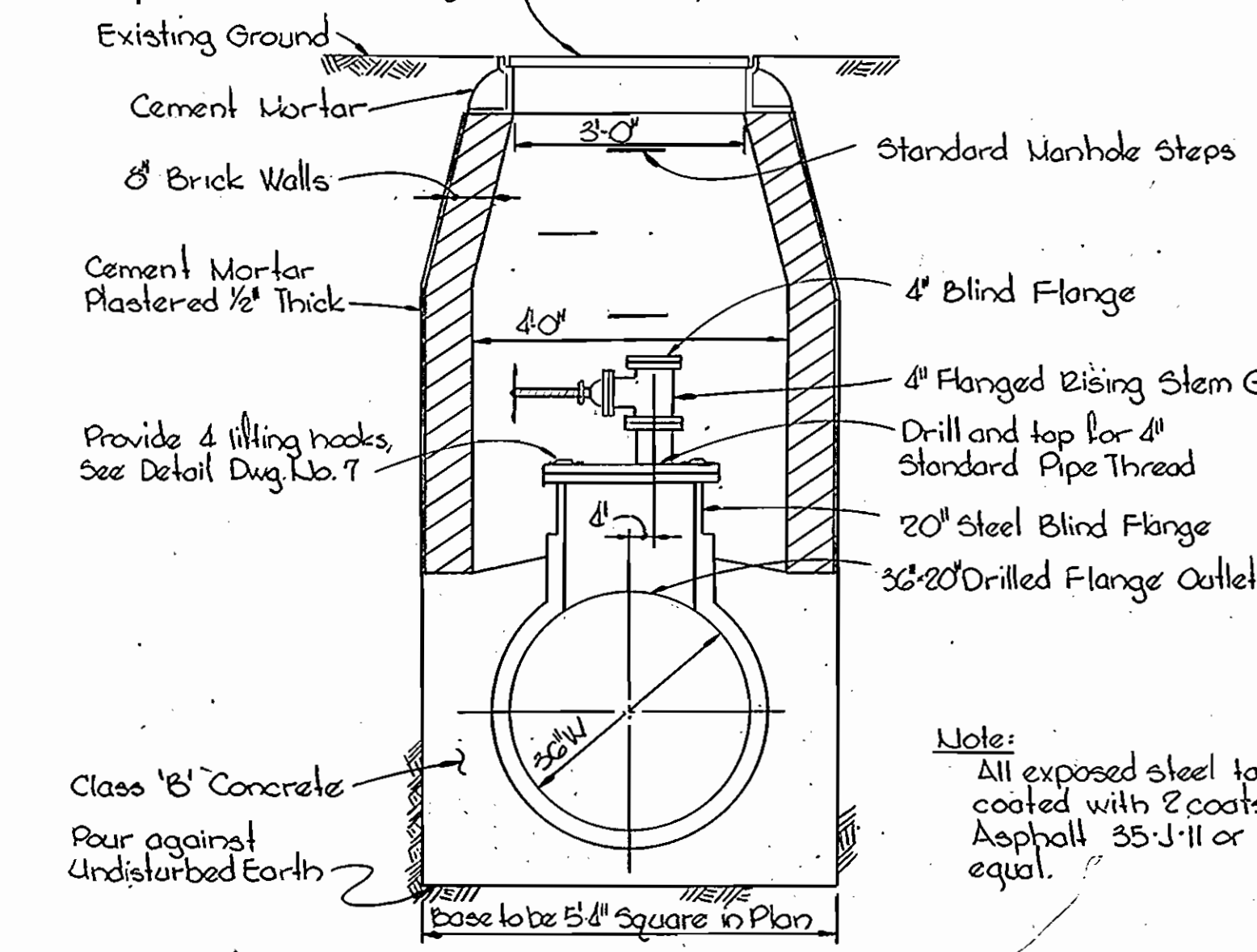
AS BUILT
March 7, 1978

JUNE 20, 1974

MARCH 18, 1975

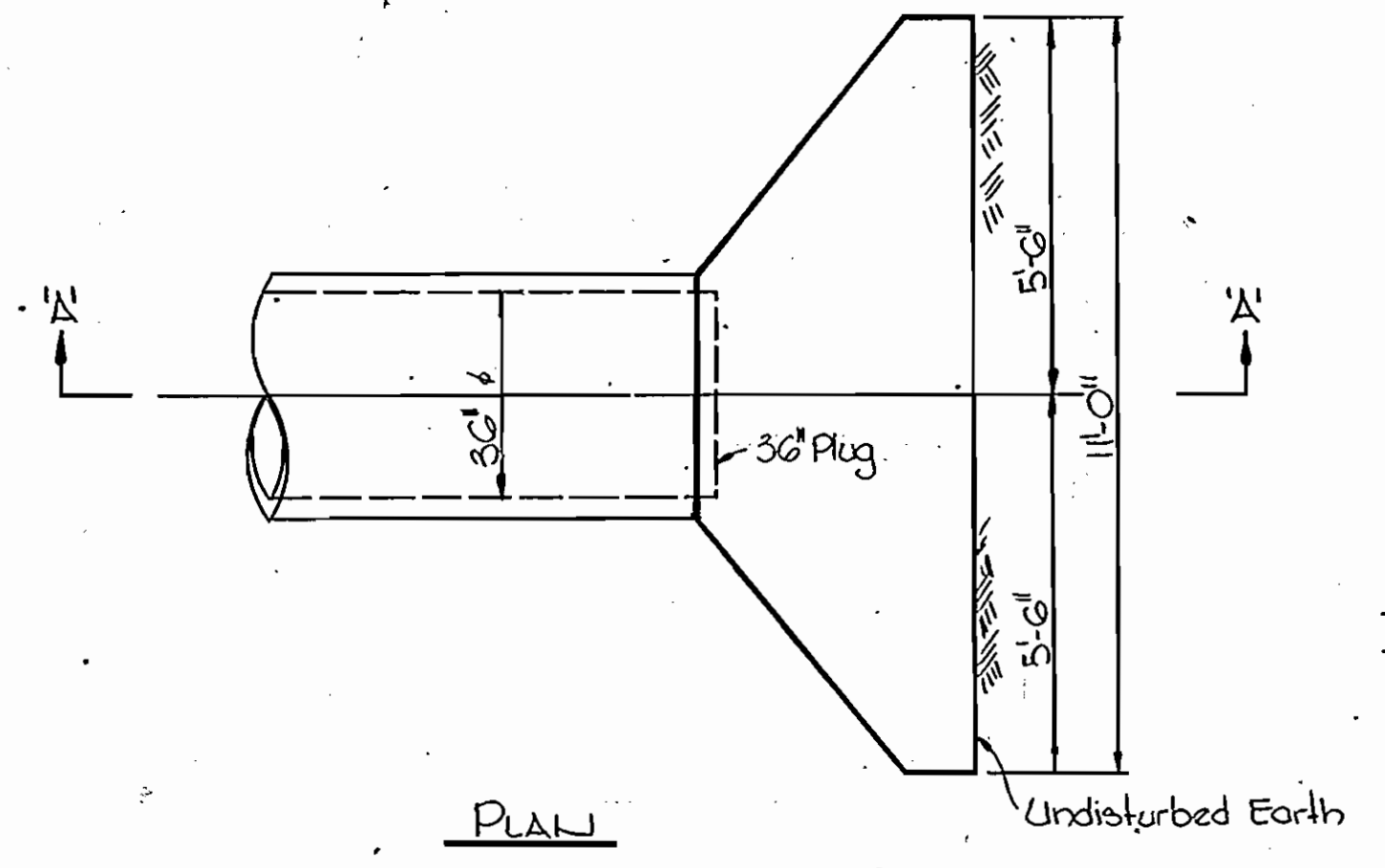


36\"/>

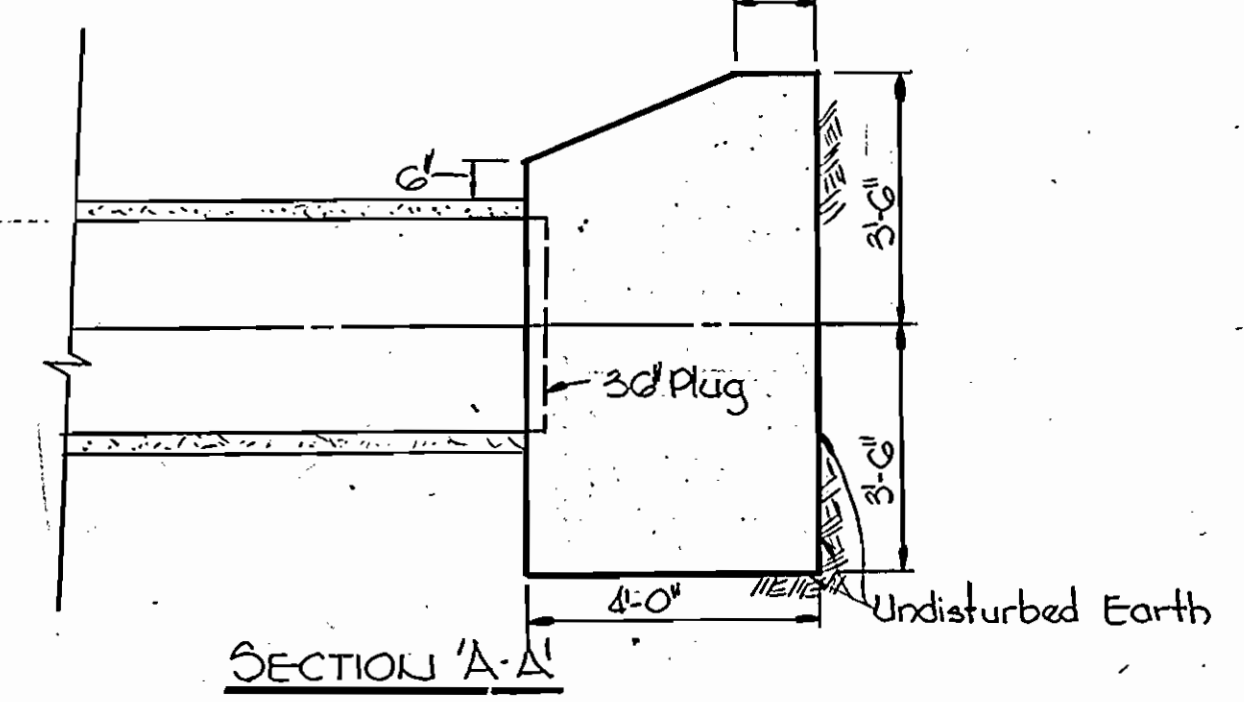


DEWATERING MANHOLE
Scale: 1/2\"/>

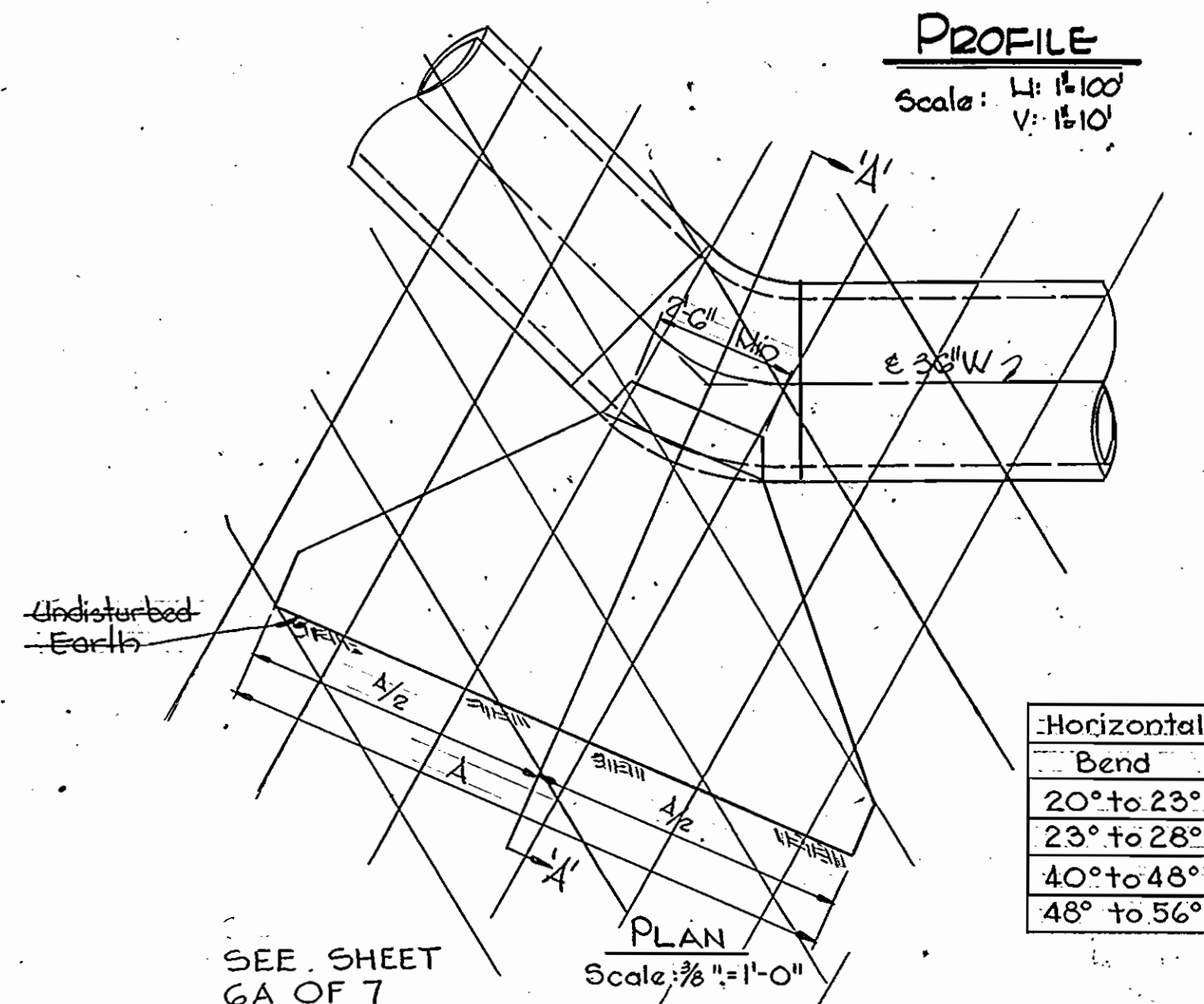
Note:
All exposed steel to be coated with 2 coats Mobile Asphalt 35-J-11 or approved equal.



PLAN
Scale: 3/8\"/>



BUTRESS DETAIL FOR 36\"/>

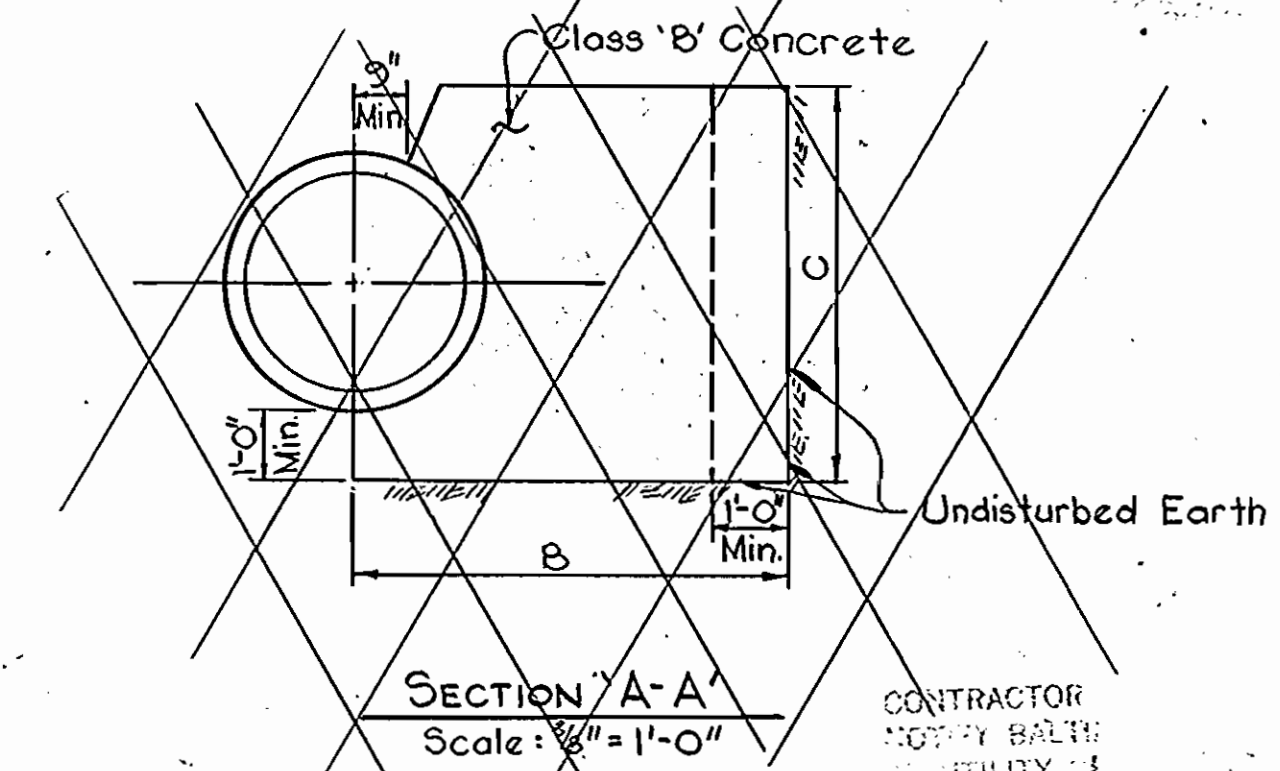


PROFILE
Scale: H: 1\"/>

PLAN
Scale: 3/8\"/>

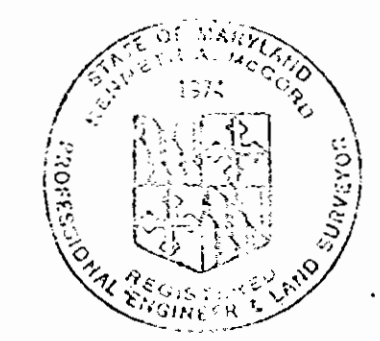
Horizontal Buttress Schedule			
Bend	A	B	C
20° to 23°	5'-0"	5'-6"	5'-6"
23° to 28°	6'-0"	5'-6"	5'-6"
40° to 48°	10'-6"	5'-9"	5'-6"
48° to 56°	11'-0"	6'-0"	5'-6"

SEE SHEET GA OF 7



SECTION A-A
Scale: 1/2\"/>

CONTRACTOR
NOTIFY BALTIMORE CITY BUREAU OF UTILITY OPERATIONS 336-0336 THREE DAYS BEFORE STARTING WORK.



Handwritten signature

CITY OF BALTIMORE		BALTIMORE COUNTY	
<i>James M. Jett</i> 8/27/74	<i>John P. Kretschmer</i> 8/9/74	<i>Walter S. Kretschmer</i> 7/19/74	
DIRECTOR	DEPT. OF ENGINEERING	DIRECTOR	DEPT. OF PUBLIC WORKS

C.W.O. 40760

Baltimore Beltway To
Halethorpe Farms Road
Contract No. 333-W

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
1304 ST. PAUL ST.
BALTIMORE, MARYLAND

HOWARD COUNTY	
<i>William J. O'Connell</i> 11-5-73	<i>W. O'Connell</i> 11-5-73
DIRECTOR	CHIEF
DEPT. OF PUBLIC WORKS	BUREAU OF ENGINEERING

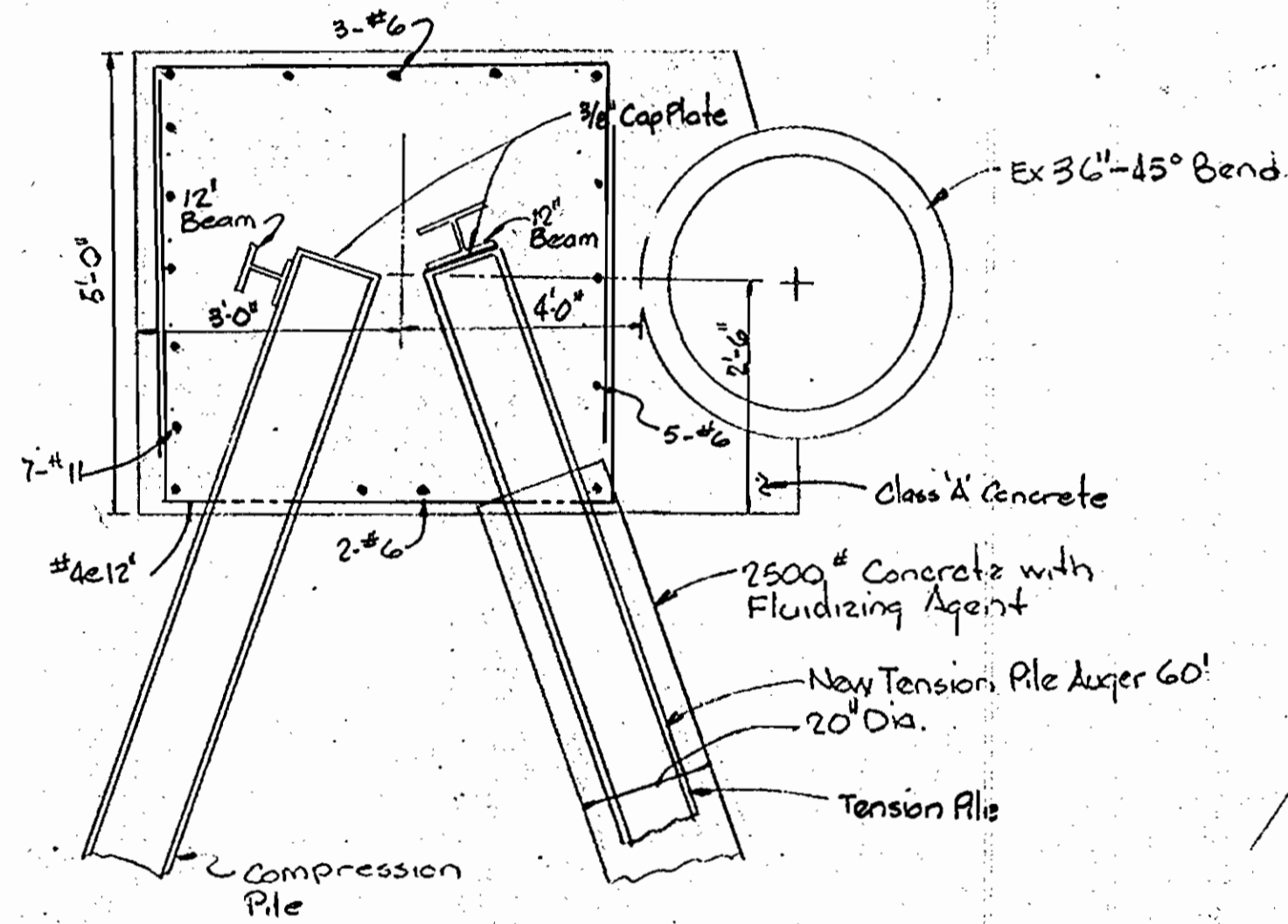
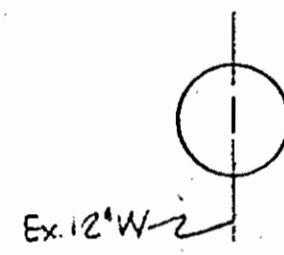
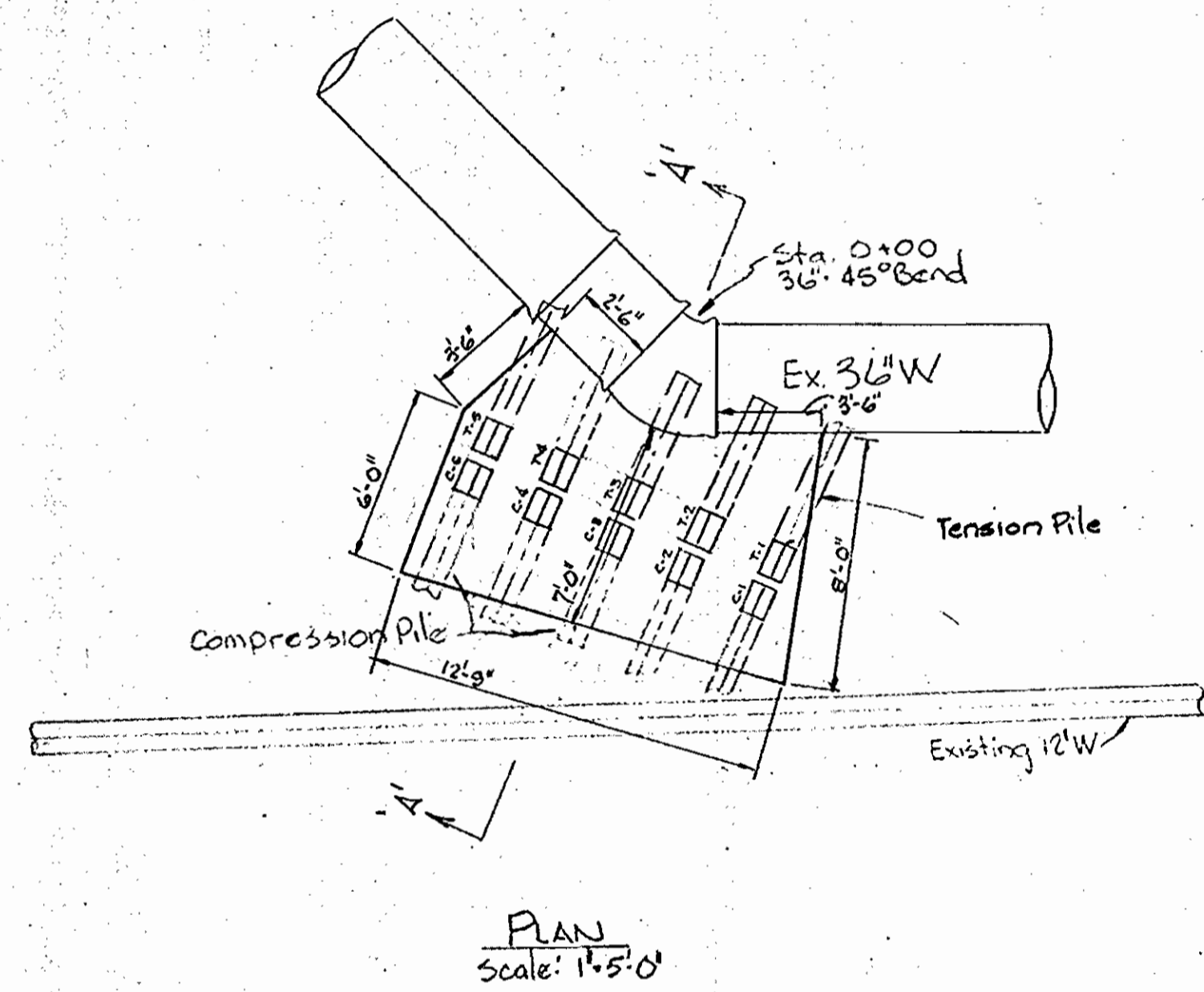
CONTRACT NO. 333-W

PROFILE AND DETAILS OF
WATER MAINS

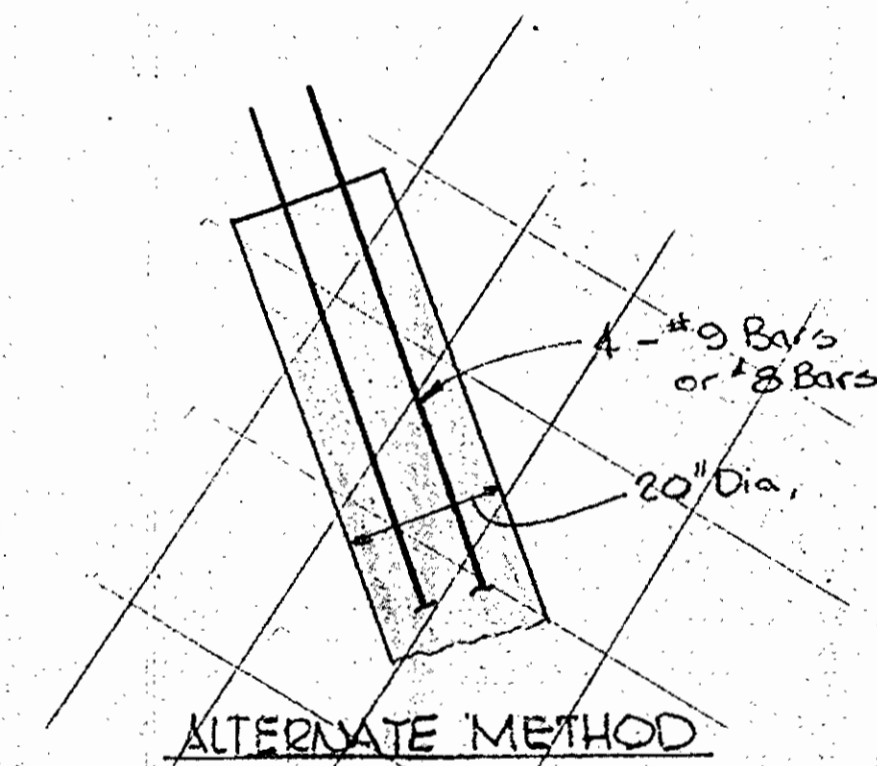
SOUTHWEST TRANSMISSION MAIN

DRAWING NO. 6 OF 7 SCALE AS SHOWN

MS 333-W/6



- Notes:
1. Provide casing if required to prevent hole from shifting.
 2. Cut holes in web of H Beam to allow concrete to flow all around.
 3. Provide Plate on bottom of H Beam (18" Dia.)
 4. Concrete must be deposited from bottom up to displace water in hole.
 5. If alternate is selected spacers must be provided to insure centering of steel.



WHELAN, SQUARDI AND ASSOCIATES
ENGINEERS
1111 N. CHARLES STREET
BALTIMORE, MD. 21201

REVISED PILE BUTTRESS
FOR 45° BENDS

HOWARD COUNTY, MARYLAND
CONTRACT NO. 333-W

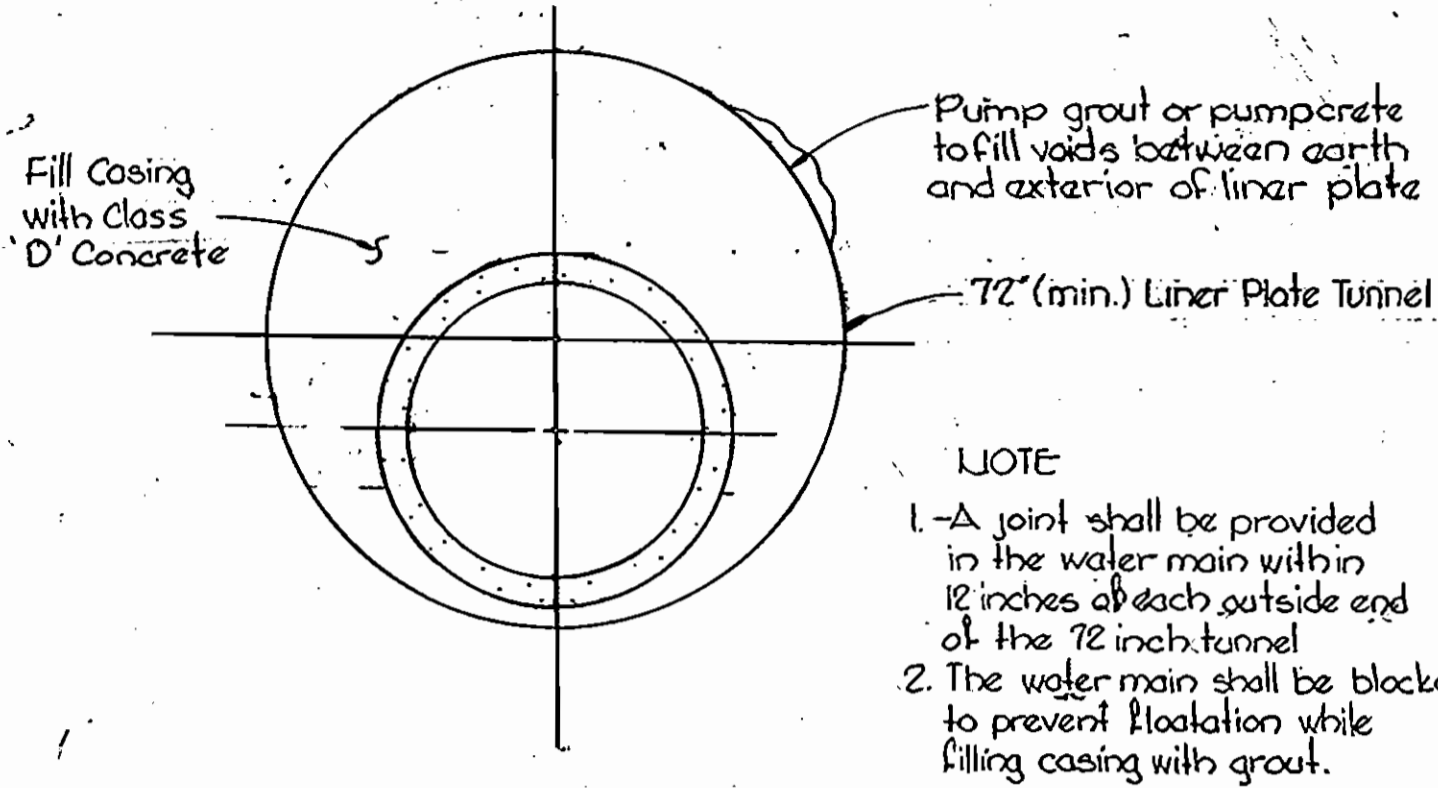
September 16, 1976

AS BUILT March 17, 1978

CONTRACT NO. <u>333-W</u>	SOUTHWEST TRANSMISSION MAIN	DRAWING NO. <u>6A</u> OF <u>7</u>	SCALE AS SHOWN
---------------------------	-----------------------------	--------------------------------------	----------------

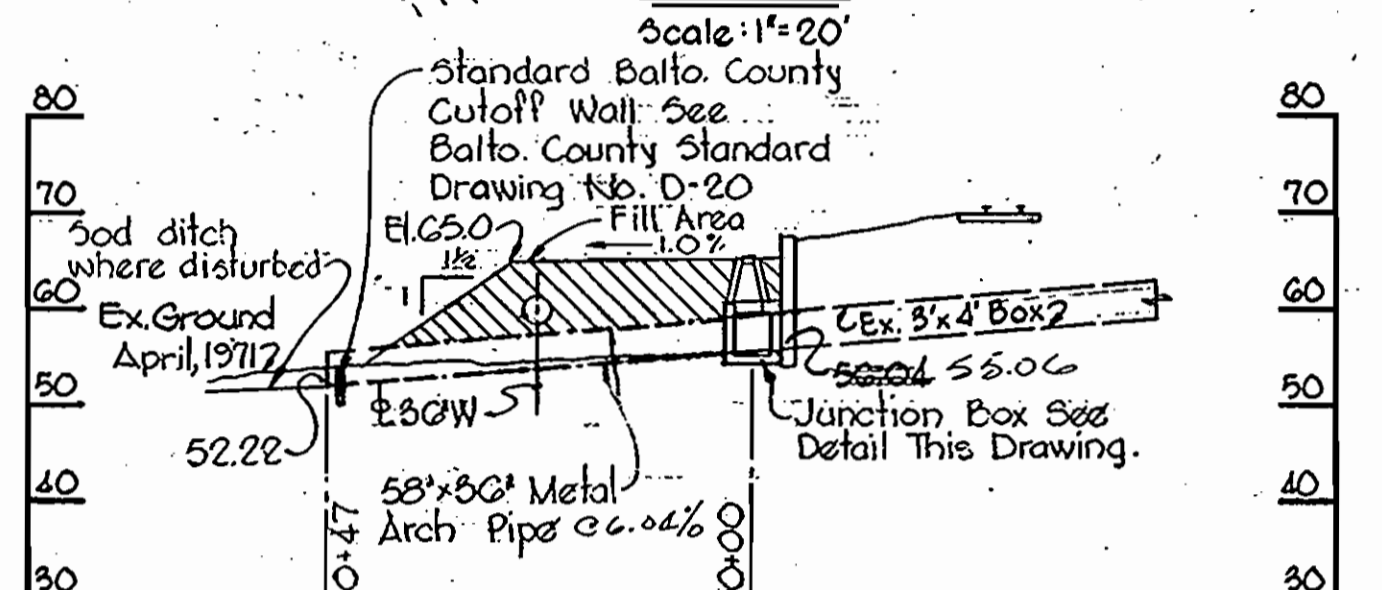
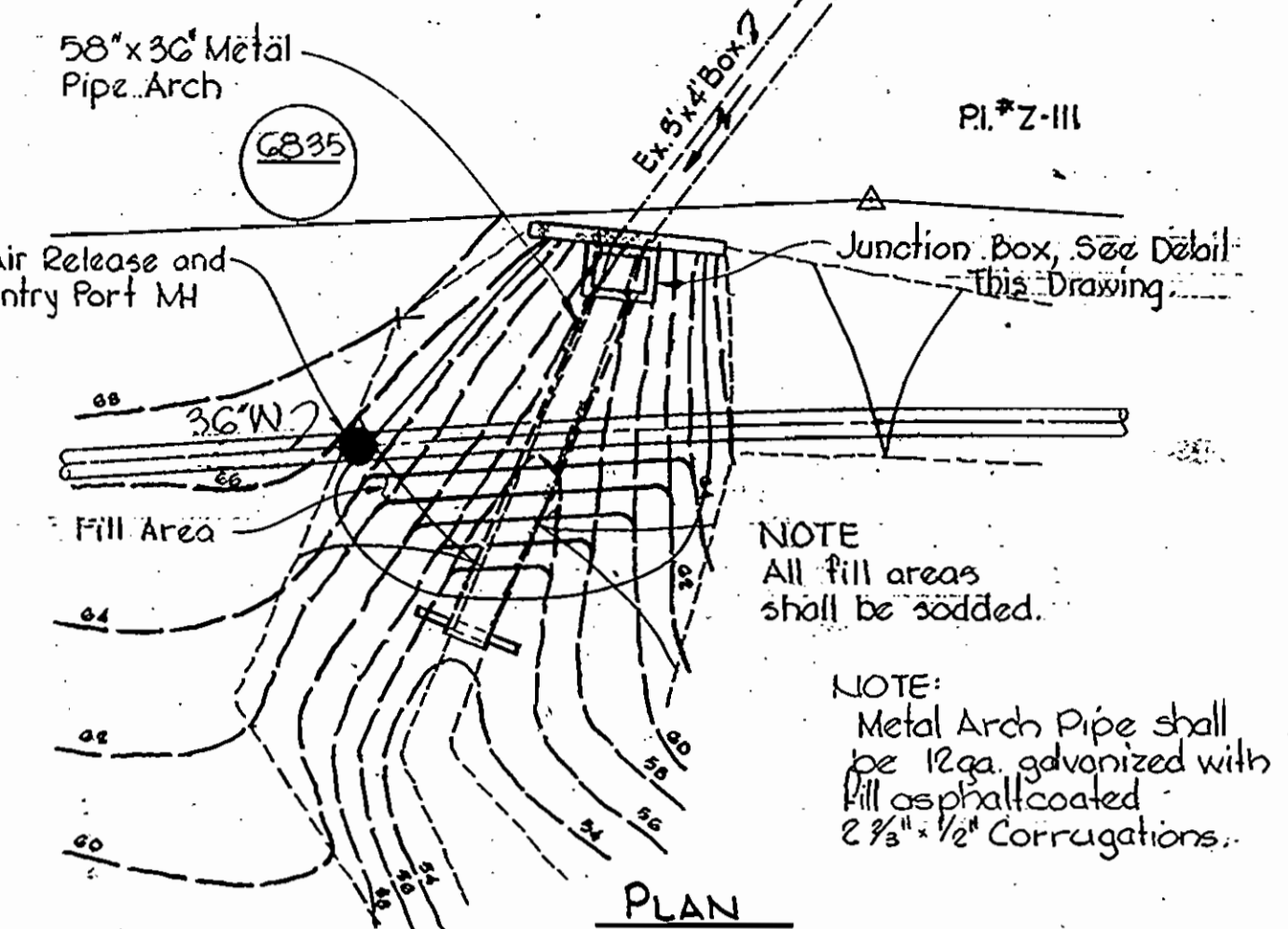
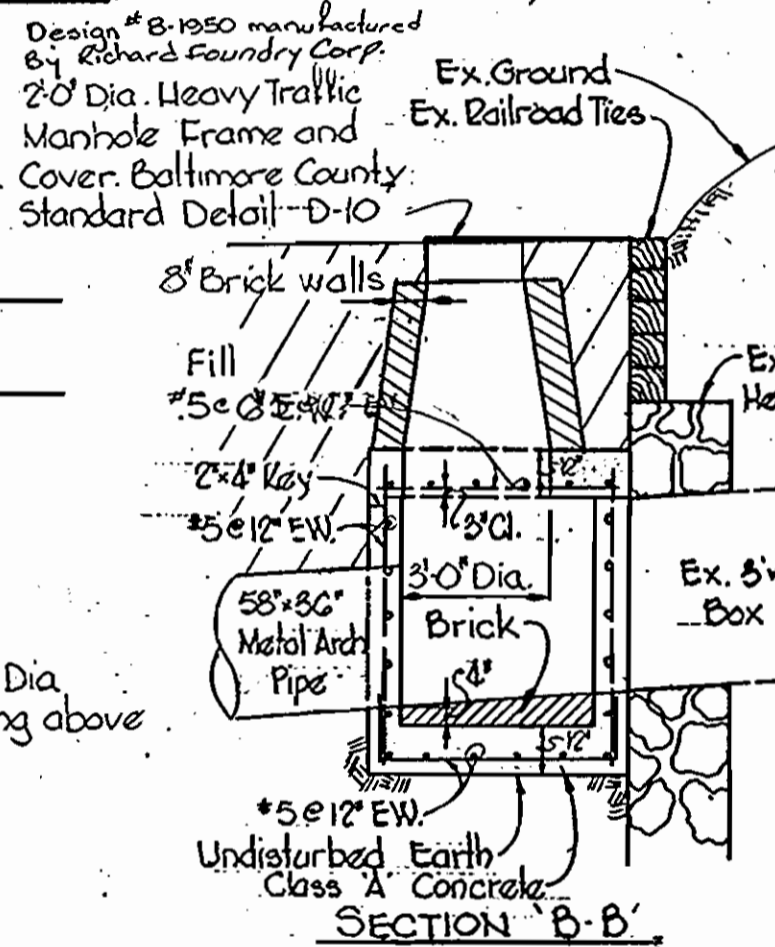
MINIMUM LINER PLATE REQUIREMENTS

ARMCO	14 Gage	T-1044"
COMMERCIAL	12 Gage	T-1046"
REPUBLIC	12 Gage	T-105"

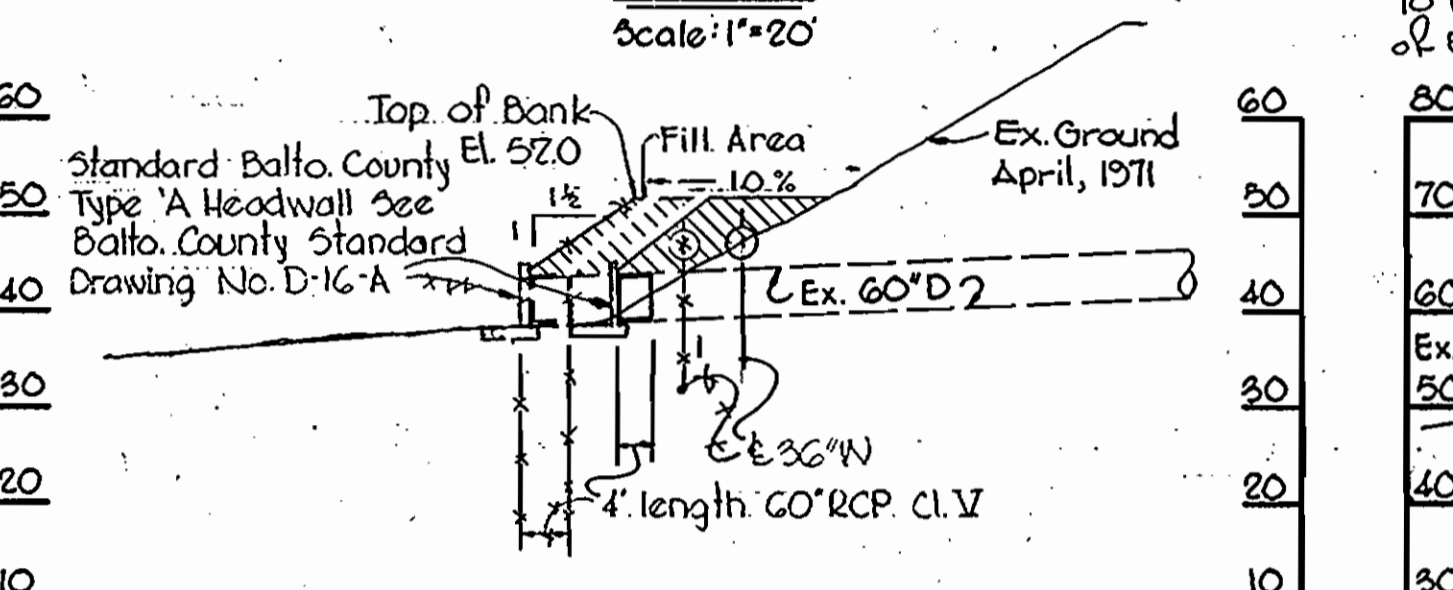
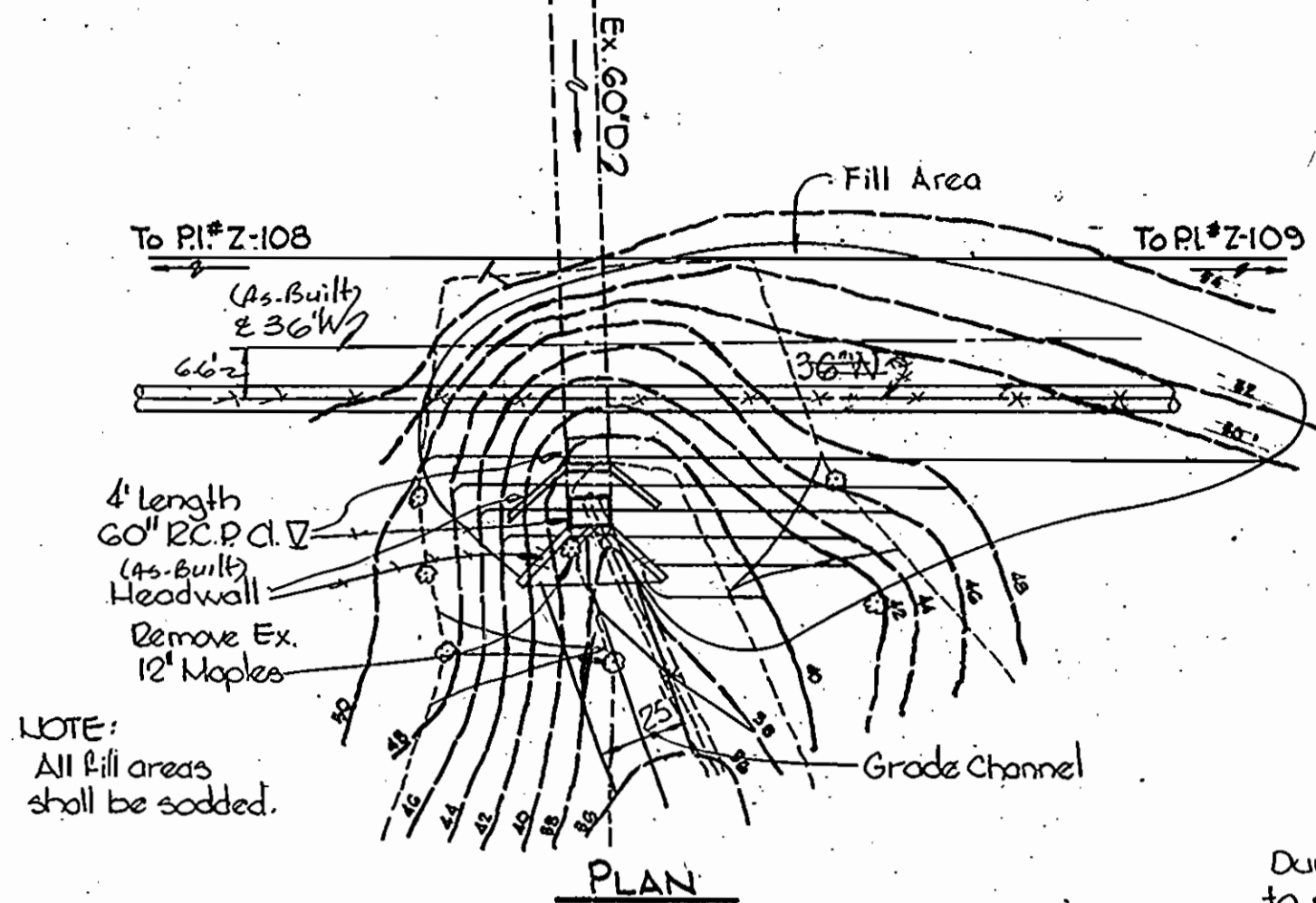


72" CASING UNDER BALTIMORE BELTWAY

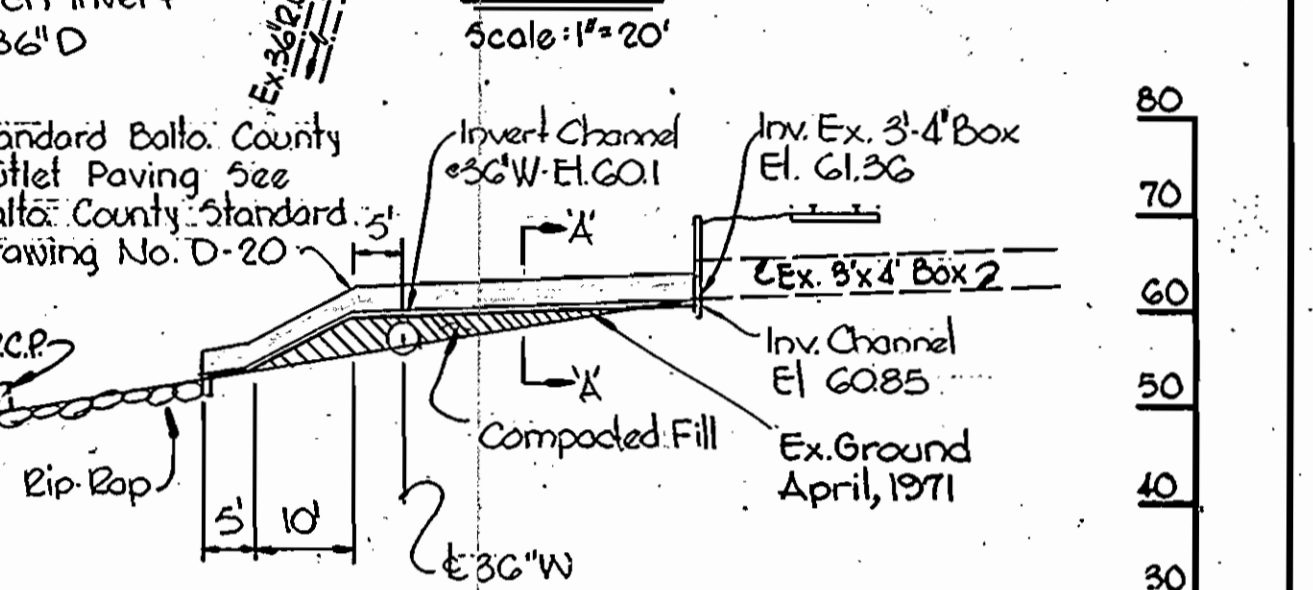
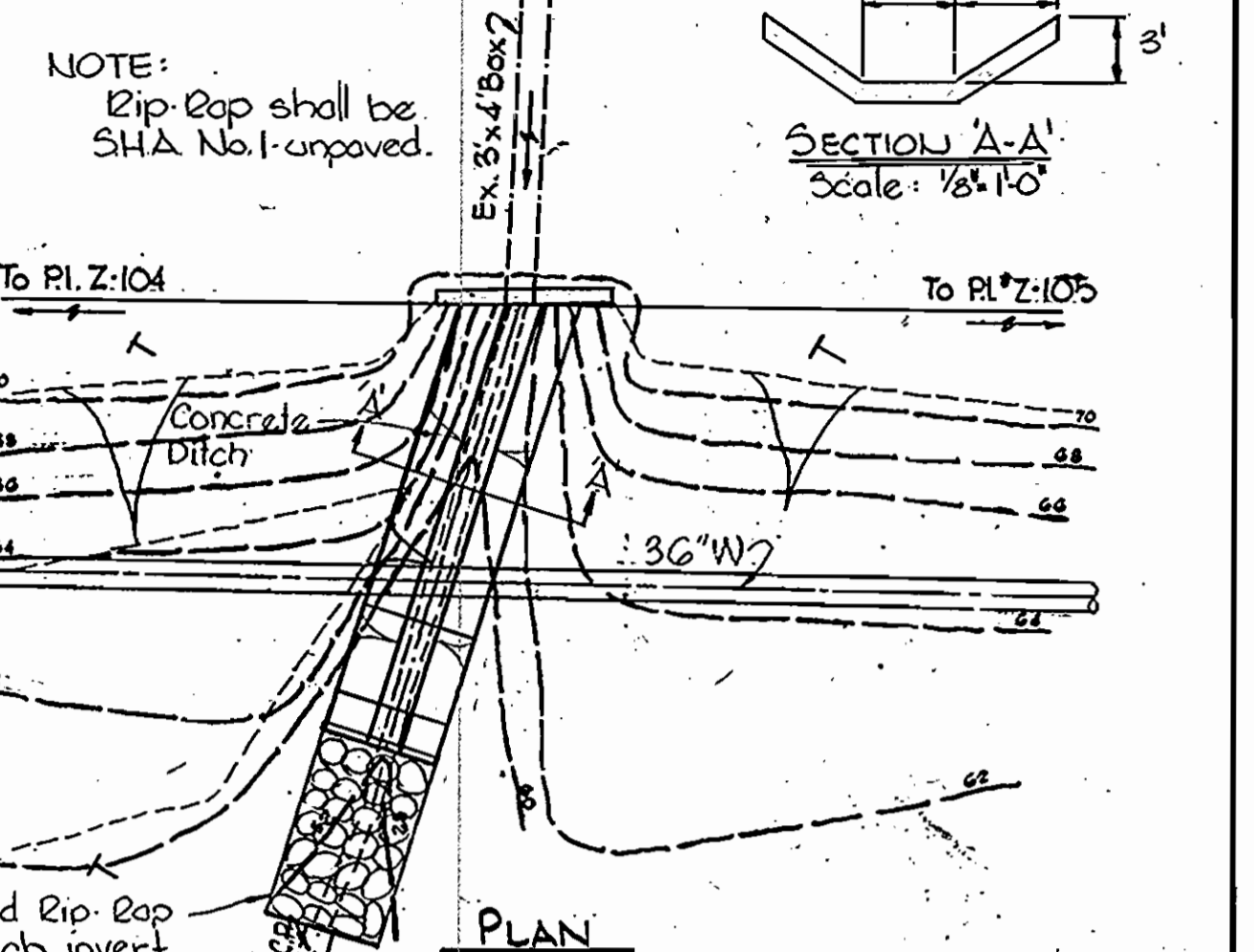
Scale: 1/2" = 1'-0"



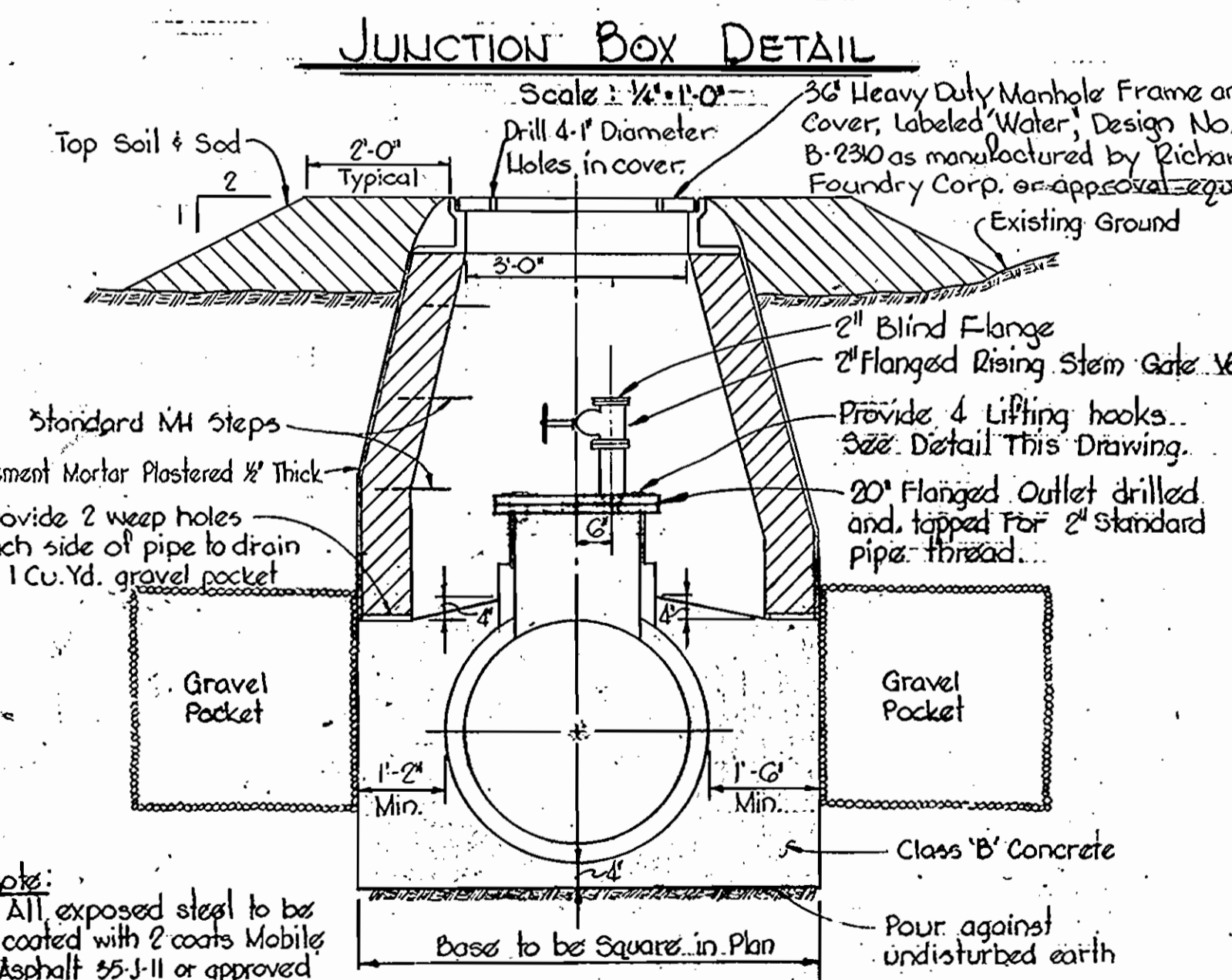
RAILROAD STA. 645+00
LUMP SUM ITEM No. 7



RAILROAD STA. 652+00
LUMP SUM ITEM No. 8

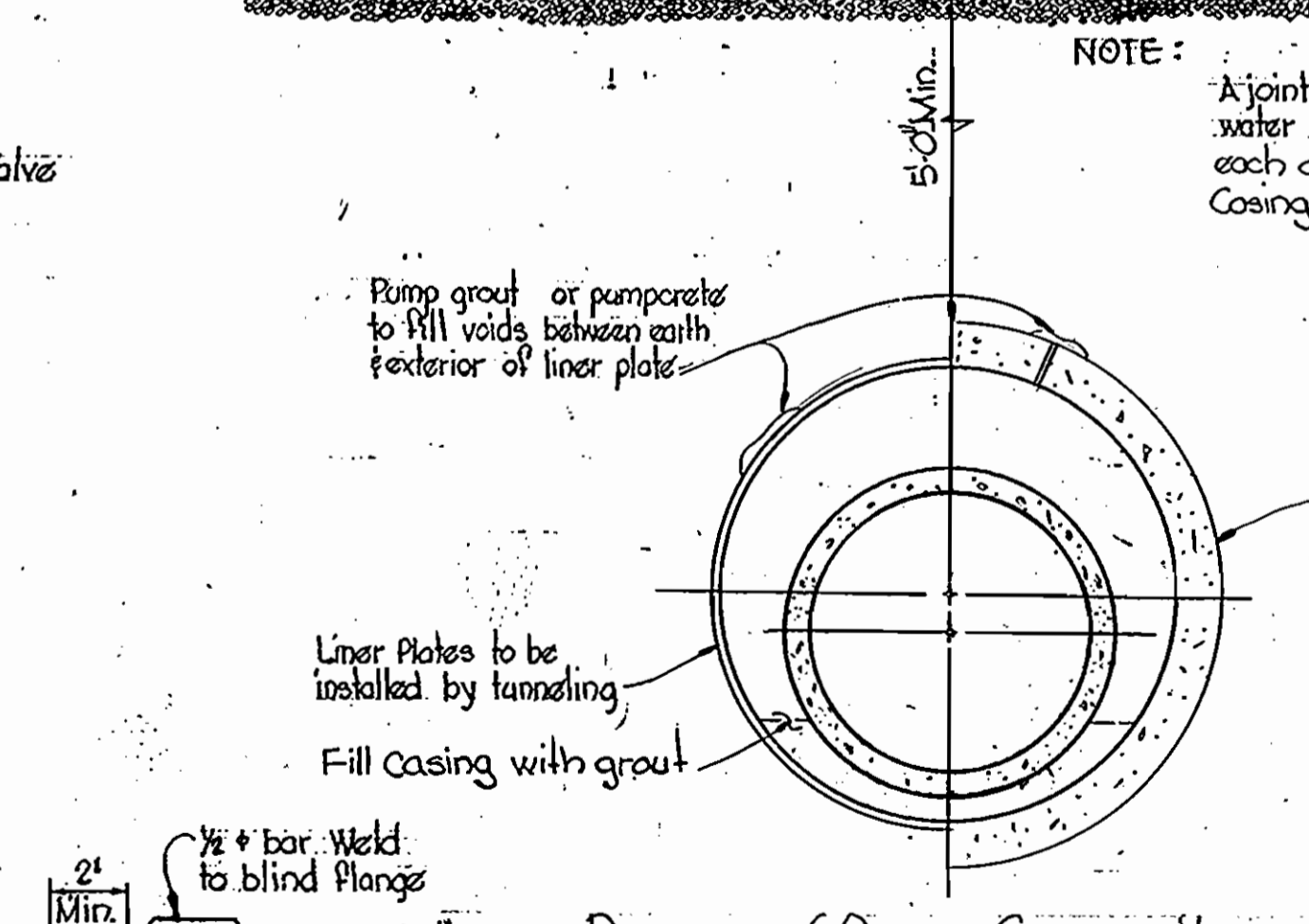
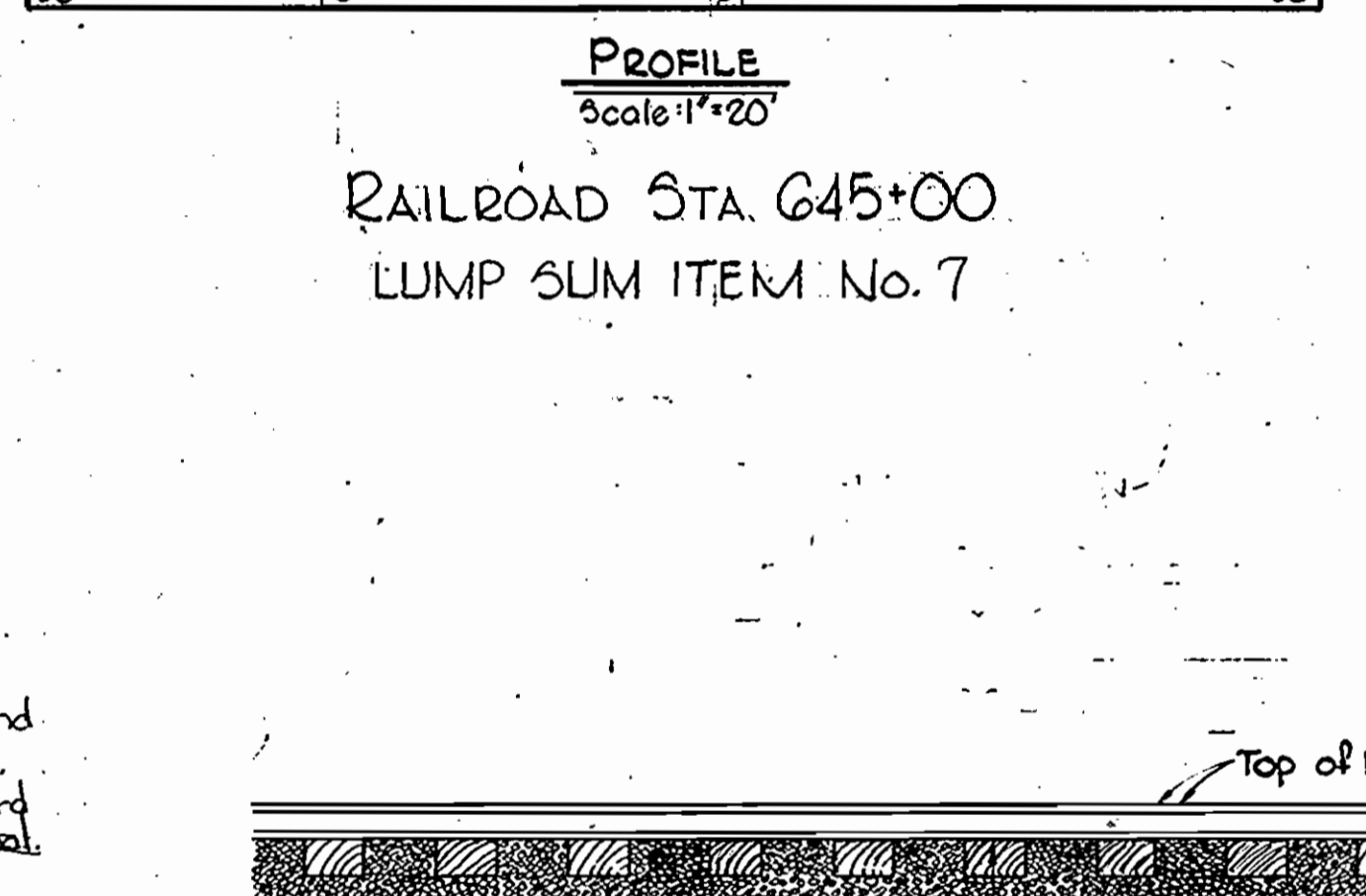


RAILROAD STA. 666+00
LUMP SUM ITEM No. 9



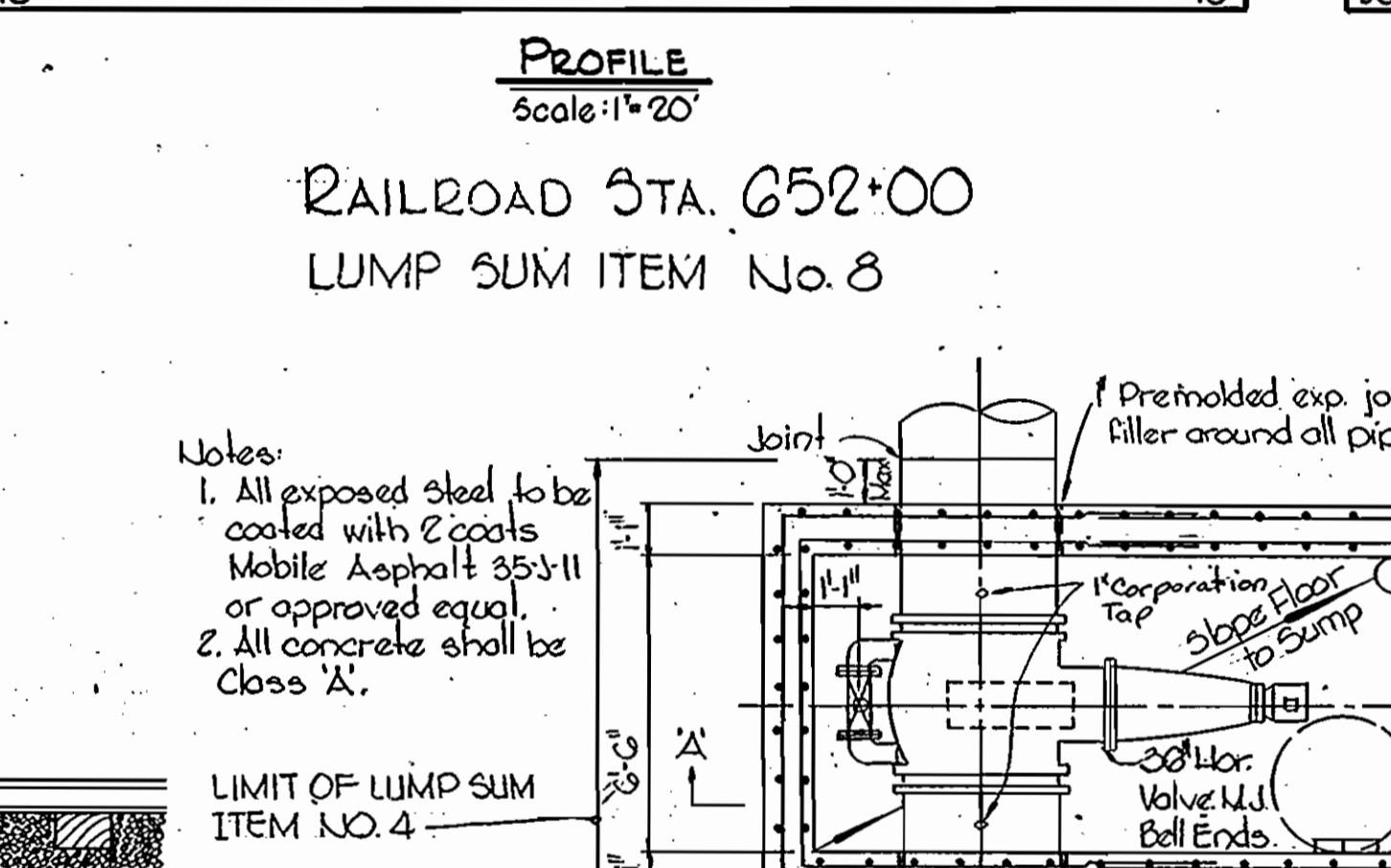
DETAIL OF AIR RELEASE AND ENTRY PORT MANHOLE

Scale: 1/2" = 1'-0"



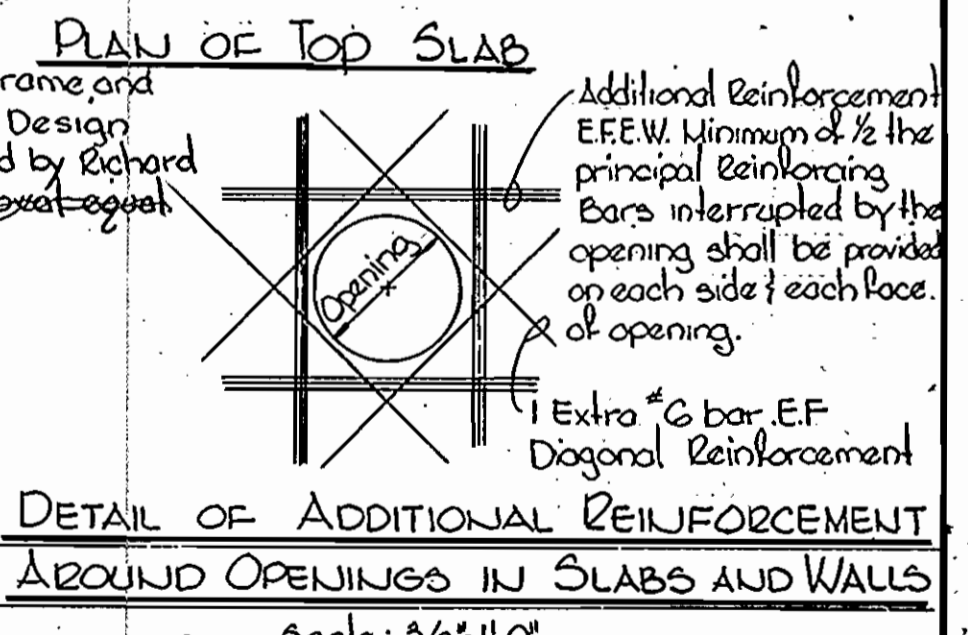
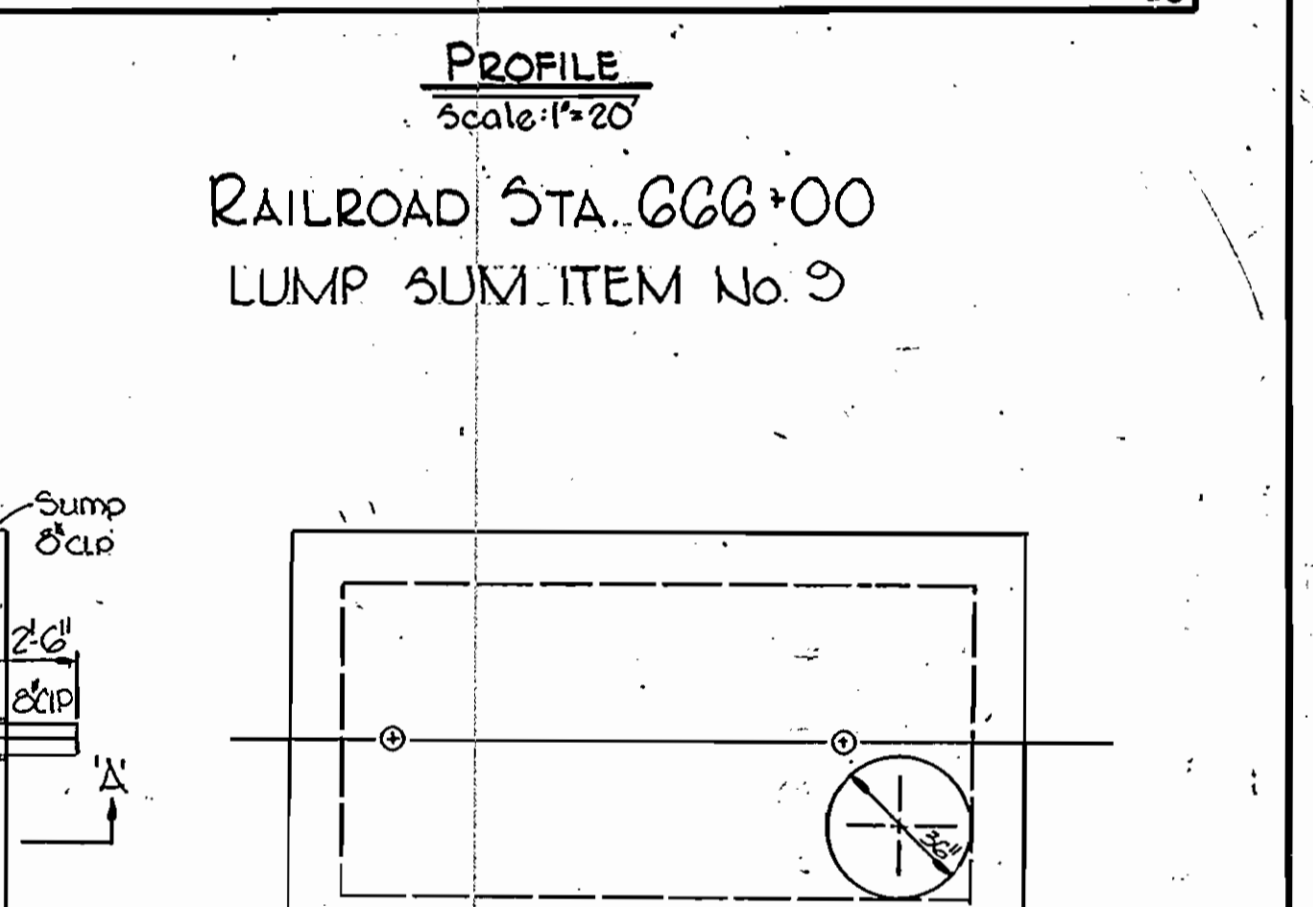
LIFTING HOOK DETAIL

Scale: 1 1/2" = 1'-0"



DETAIL OF 36" HORIZONTAL VALVE AND VAULT

Scale: 1/4" = 1'-0"



DETAIL OF ADDITIONAL REINFORCEMENT AROUND OPENINGS IN SLABS AND WALLS

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
1304 ST. PAUL ST.
BALTIMORE, MARYLAND

HOWARD COUNTY
BUREAU OF ENGINEERING
DATE: 11-6-73

CITY OF BALTIMORE
DEPT. OF PUBLIC WORKS
DATE: 8/9/74

BALTIMORE COUNTY
DEPT. OF PUBLIC WORKS
DATE: 7/1/74

CONTRACT NO. 333-W

DETAILS OF WATER MAINS

SOUTHWEST TRANSMISSION MAIN

DRAWING NO. 7 OF 7

SCALE AS SHOWN

CONTRACTOR: NOTIFY BALTIMORE CITY - BUREAU OF UTILITY OPERATIONS - 396-0330 THREE DAYS BEFORE STARTING WORK
Baltimore Beltway To Halethorpe Farms Road Contract No. 333-W

AS BUILT March 7, 1973
JUNE 20, 1974
MARCH 18, 1975

WS 333-W/7