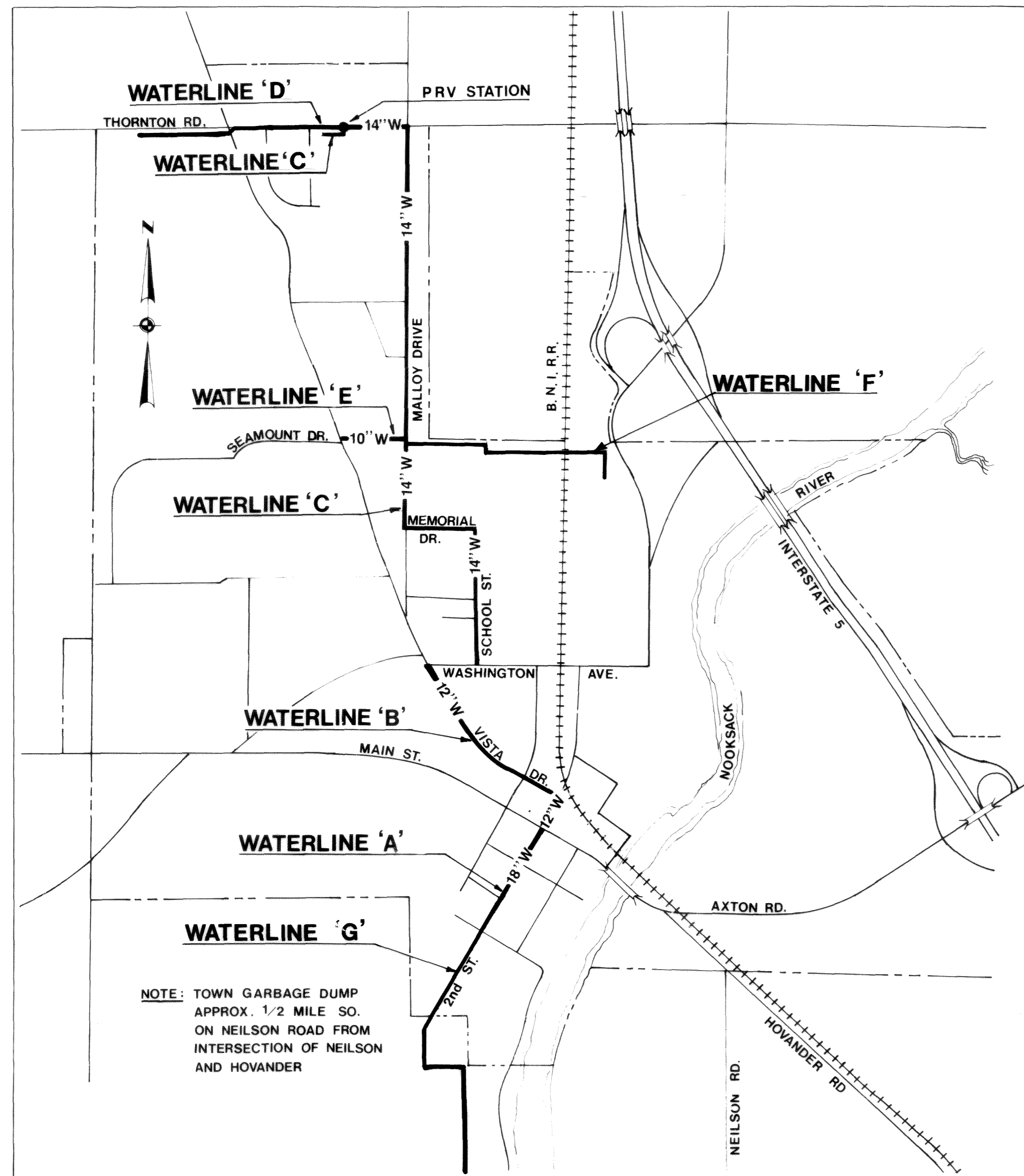


TOWN OF FERNDALE, WASHINGTON

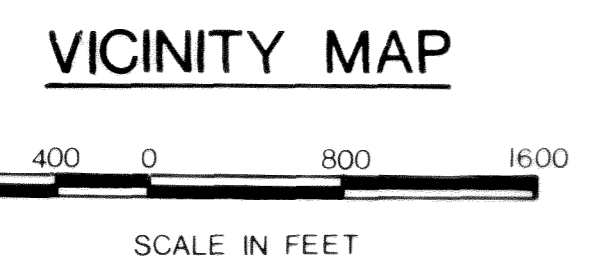
1973 WATER SYSTEM IMPROVEMENTS

TRANSMISSION FACILITIES

002141.001 2-2-06 KL



NOTE: TOWN GARBAGE DUMP APPROX. 1/2 MILE SO. ON NEILSON ROAD FROM INTERSECTION OF NEILSON AND HOVANDER



INDEX TO DRAWINGS

SHEET NO.	TITLE	FILE NO.
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1B	PLAN AND PROFILE	72 S 446.002
2	PLAN AND PROFILE	72 S 446.002
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5A	PLAN AND PROFILE	72 S 446.002
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6	DETAILS	72 S 446.002
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EXISTING	LEGEND	THIS CONTRACT
	WATERLINE W/SIZE & VALVE	
	HYDRANTS	
	HYDRANTS TO BE REMOVED	
	BLOW-OFF OR AIR & VACUUM RELIEF ASSEMBLY	
	STORM SEWER	
	SANITARY SEWER	
	UNDERGROUND TELEPHONE	
	GAS LINE W/SIZE	
	CATCH BASIN	
	STREET RIGHT-OF-WAY	
	FENCES	
	DITCHES	
	RETAINING WALL	
	ROAD OR DRIVEWAY	
	SIDEWALK	
	HOUSE OR BUILDING	
	TELEPHONE OR POWER POLE	
	SURVEY CONTROL LINE W/1/4 PT.	

GENERAL NOTES

- ALL STATIONING IS APPROXIMATE ONLY. WATERLINES TO BE LOCATED FROM SURVEY CONTROL LINES AS DIMENSIONED ON PLANS.
- ALL WATER LINE DIMENSIONS ARE HORIZONTAL DISTANCES.
- ALL ELEVATIONS ARE ABOVE MEAN SEA LEVEL.
- FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL 1/6
- ALL BLOW-OFFS SHALL BE IN ACCORDANCE WITH DETAIL 2/6 UNLESS OTHERWISE NOTED.
- ALL AIR AND VACUUM RELIEF VALVES SHALL BE IN ACCORDANCE WITH DETAIL 3/6 UNLESS OTHERWISE NOTED.
- ALL TRENCHING, BEDDING, BACKFILL, AND SURFACE RESTORATION SHALL BE IN ACCORDANCE WITH DETAIL 6/6 OR 7/6 UNLESS OTHERWISE NOTED.
- ALL HORIZONTAL WATER-MAIN BENDS SHALL BE BLOCKED IN ACCORDANCE WITH DETAIL 4/6 UNLESS OTHERWISE NOTED.
- ALL VERTICAL WATER-MAIN BENDS SHALL BE BLOCKED IN ACCORDANCE WITH DETAIL 5/6 UNLESS OTHERWISE NOTED.

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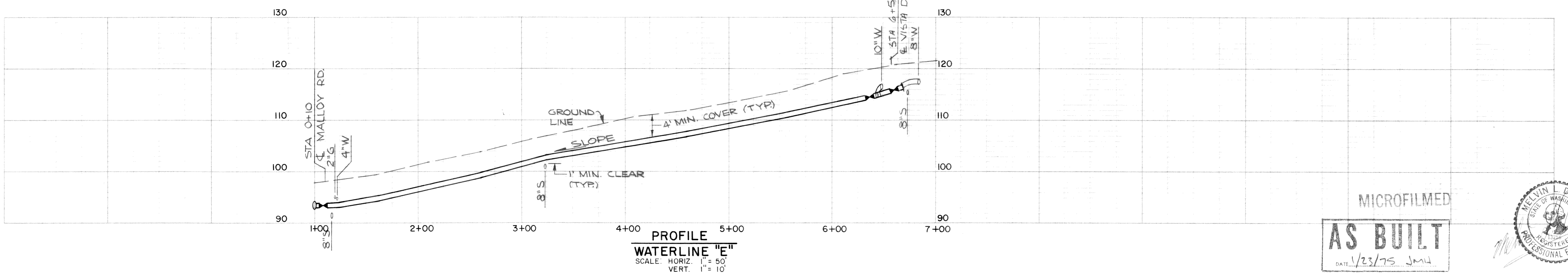
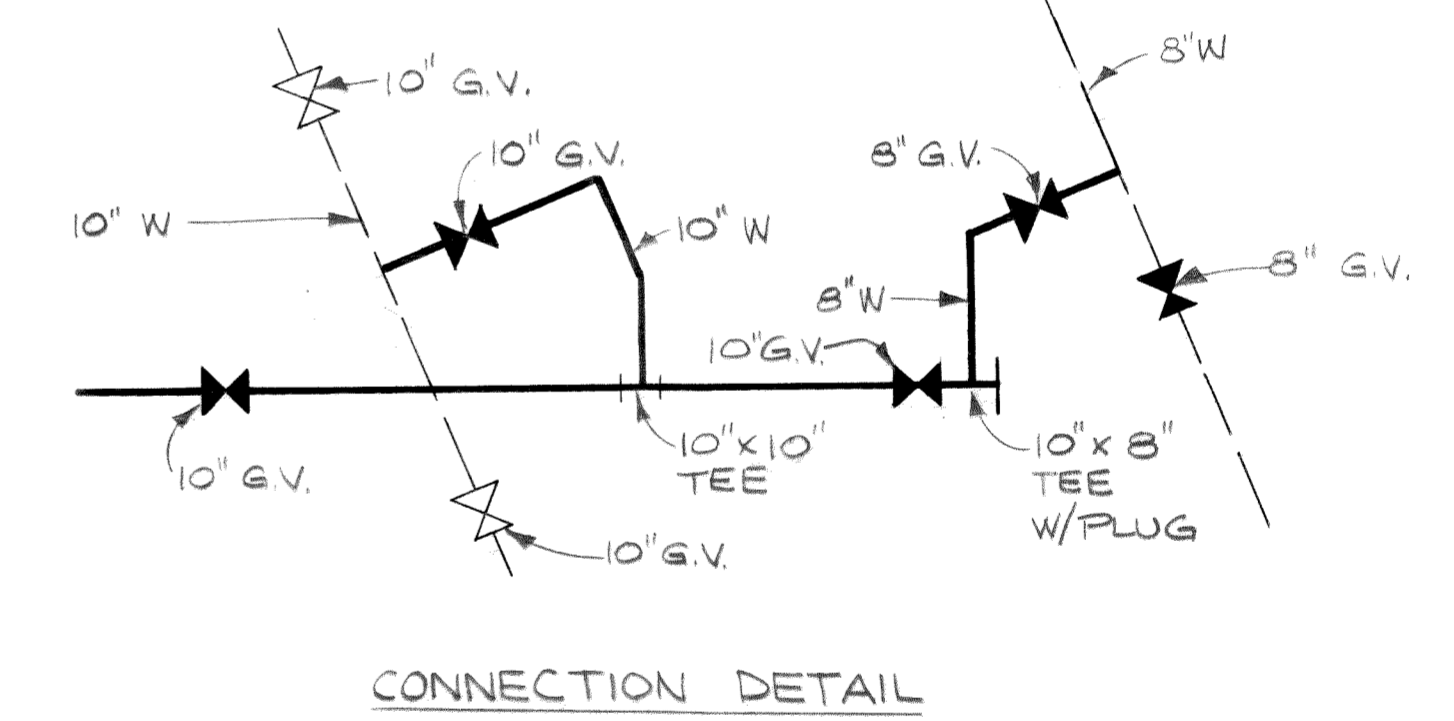
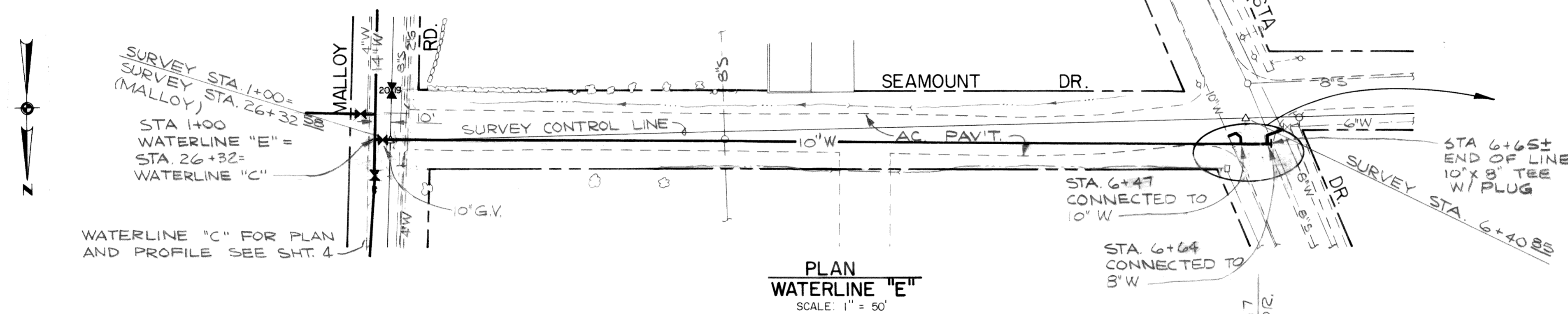
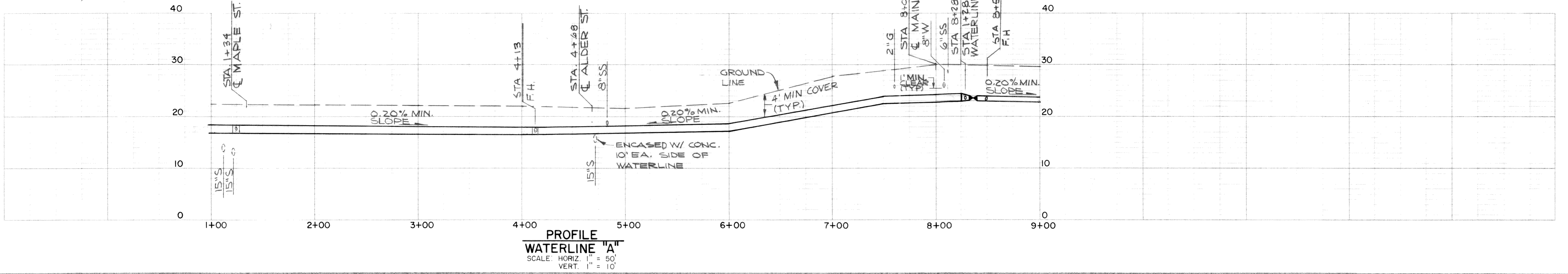
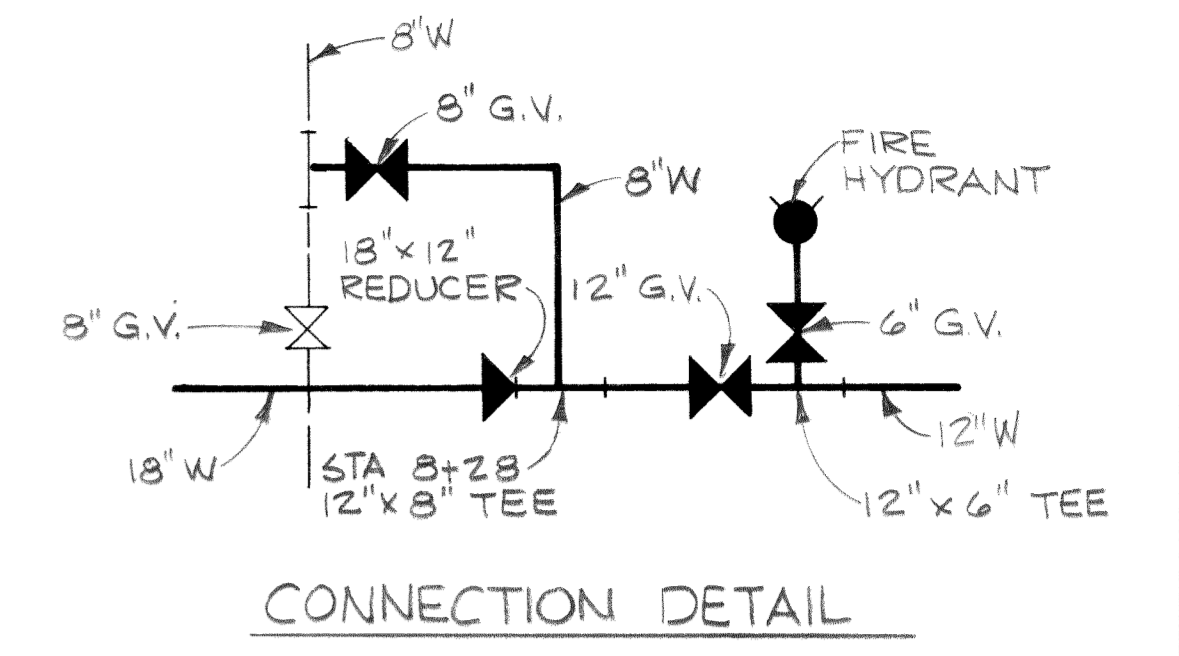
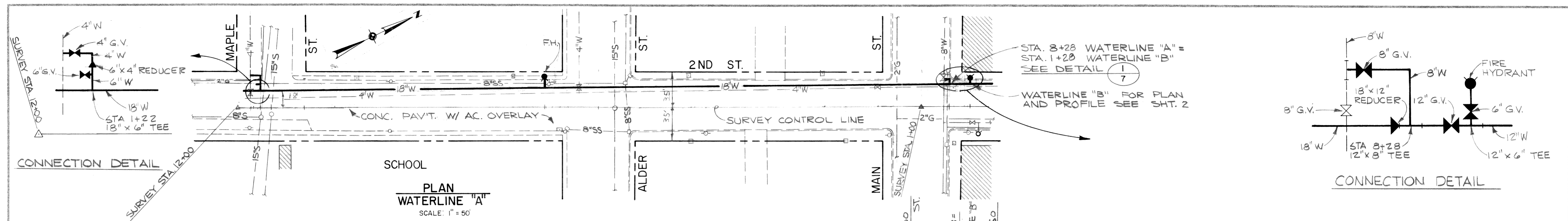
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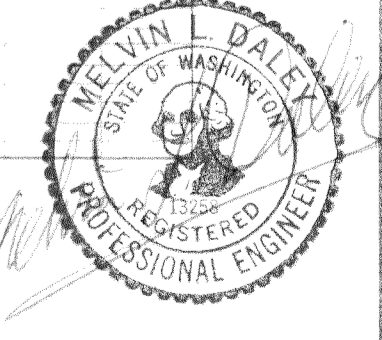
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AS BUILT

DATE: 1/23/75 JMH

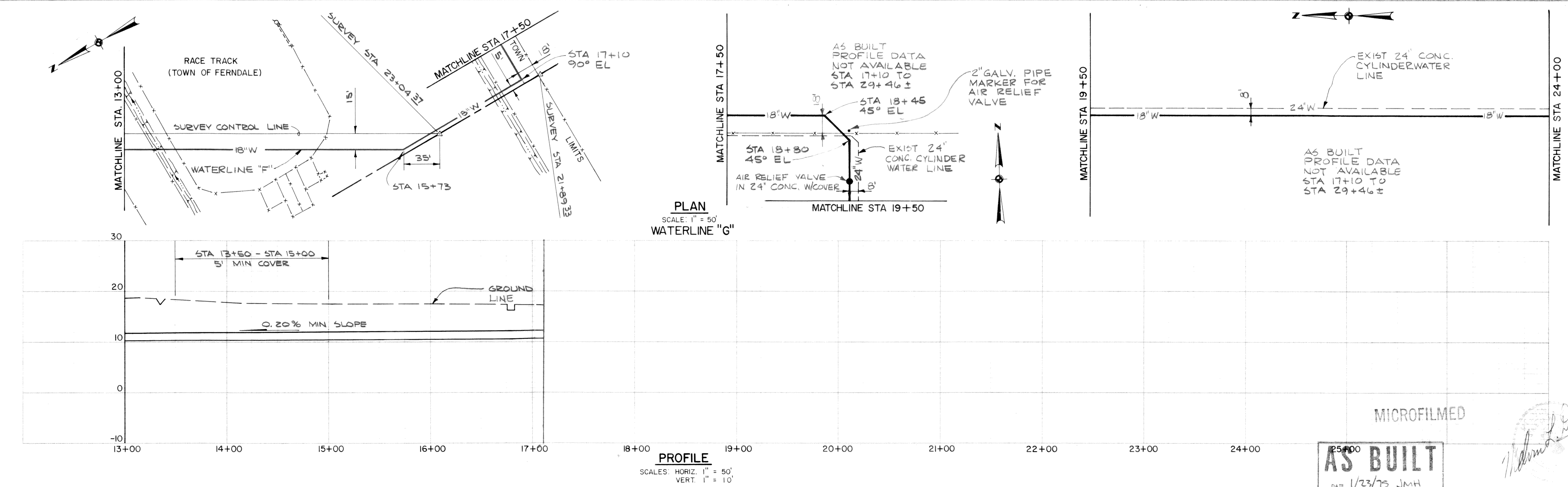
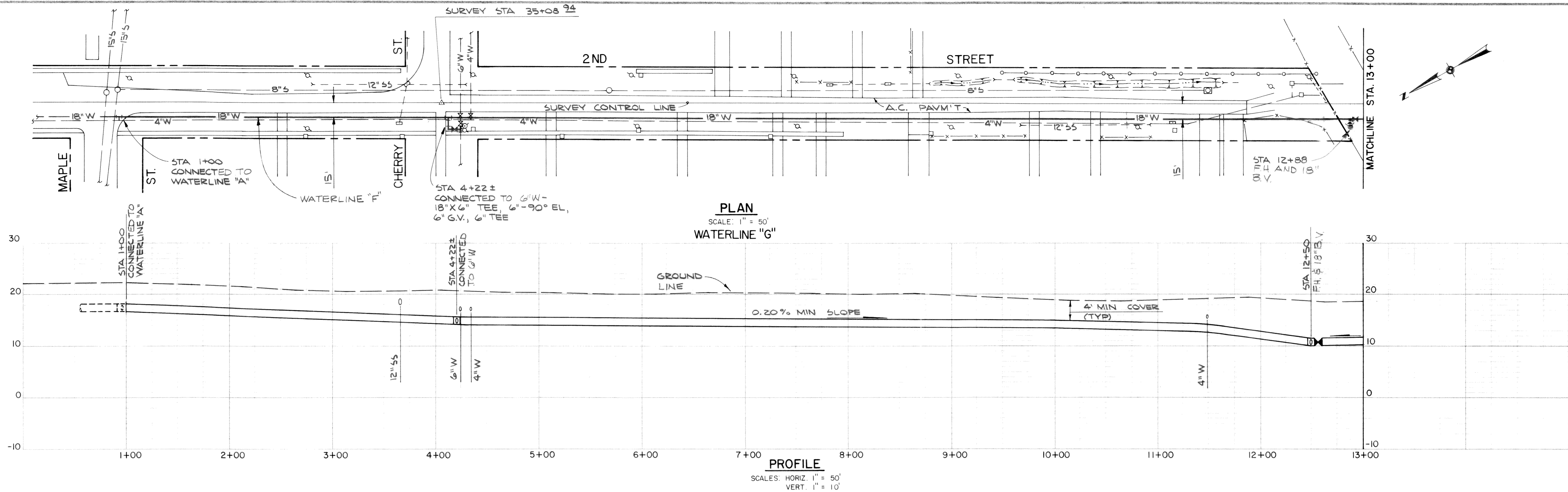
00204 COZ 2-2-06 KL



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AS BUILT
 DATE: 1/23/75 JML


DESIGNED: JMH	APPROVED: <i>Donnie N. Pothel</i>	 Stevens, Thompson & Runyan, Inc. Engineers / Planners PORTLAND • SEATTLE • BOISE • ANCHORAGE	TOWN OF FERNDAL, WASHINGTON 1973 WATER SYSTEM IMPROVEMENTS TRANSMISSION FACILITIES	PLAN AND PROFILE 1 7	
DRAWN: FLH	SCALE: NOTED				DATE: AUG. 1973
DATE: _____	NO. _____	REVISION: _____	BY: _____	CHECKED: RVH	FILE: 72-S-446.002

00264 003 2-2-00 KL



DESIGNED	JMH	APPROVED	
DRAWN	FLH	SCALE	AS SHOWN
CHECKED		DATE	AUG 1973
		FILE	72-S-446.502

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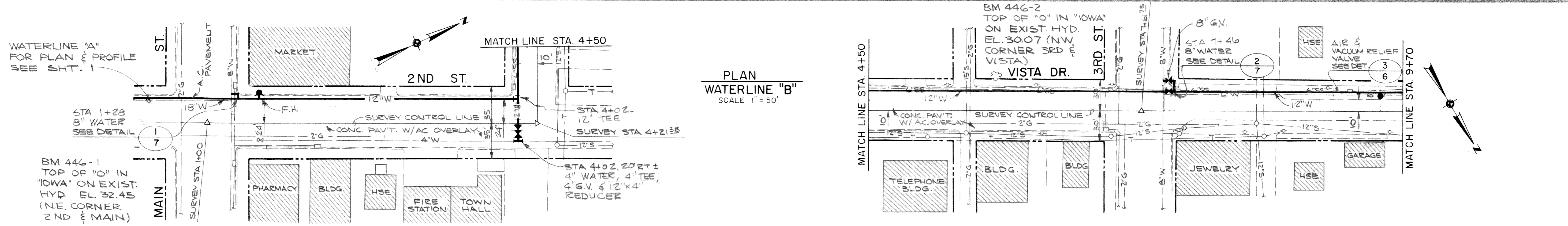
TOWN OF FERDALE, WASHINGTON
1973 WATER SYSTEM IMPROVEMENTS
TRANSMISSION FACILITIES

PLAN AND PROFILE

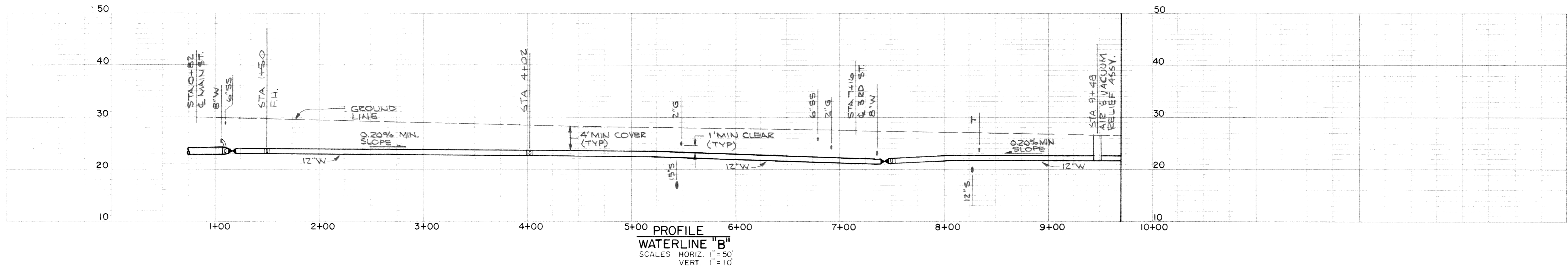
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AS BUILT
DATE: 1/23/75 JMH

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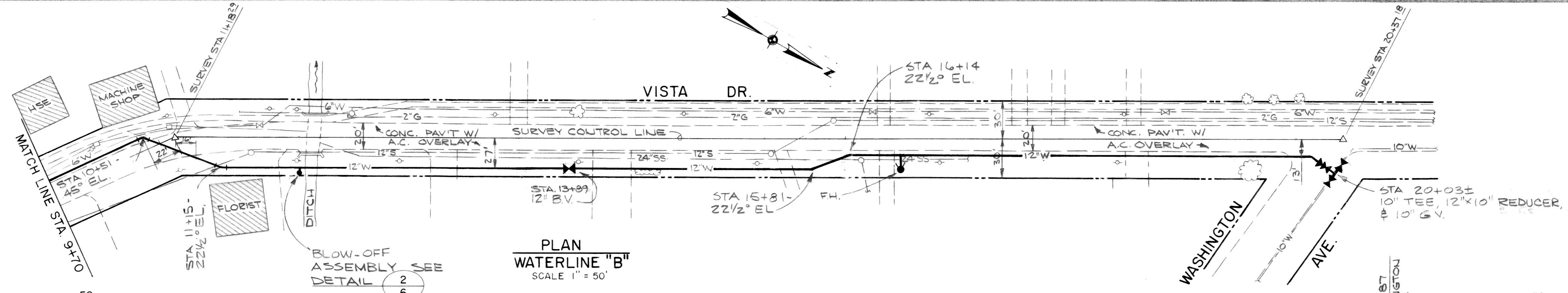
002104.005 22.06.12



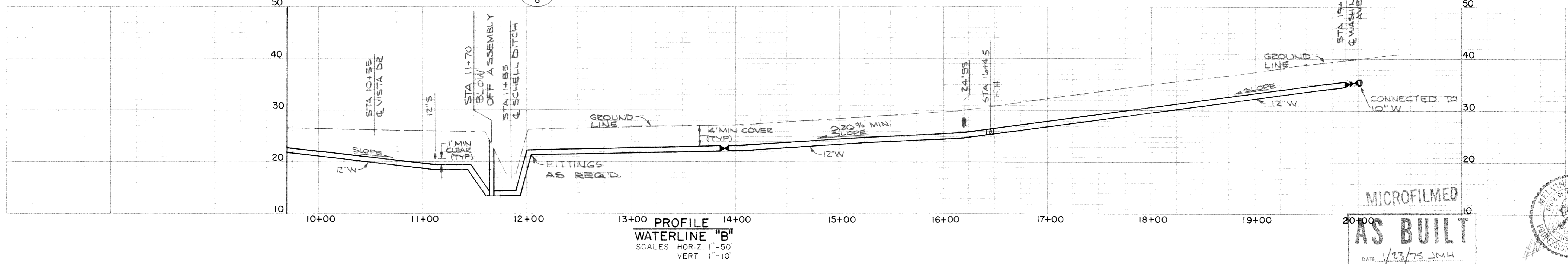
PLAN
WATERLINE "B"
SCALE 1" = 50'



PROFILE
WATERLINE "B"
SCALES HORIZ. 1" = 50'
VERT. 1" = 10'

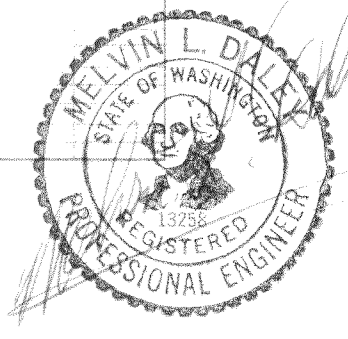


PLAN
WATERLINE "B"
SCALE 1" = 50'



PROFILE
WATERLINE "B"
SCALES HORIZ. 1" = 50'
VERT. 1" = 10'

MICROFILMED
AS BUILT
DATE 1/23/75 JMH



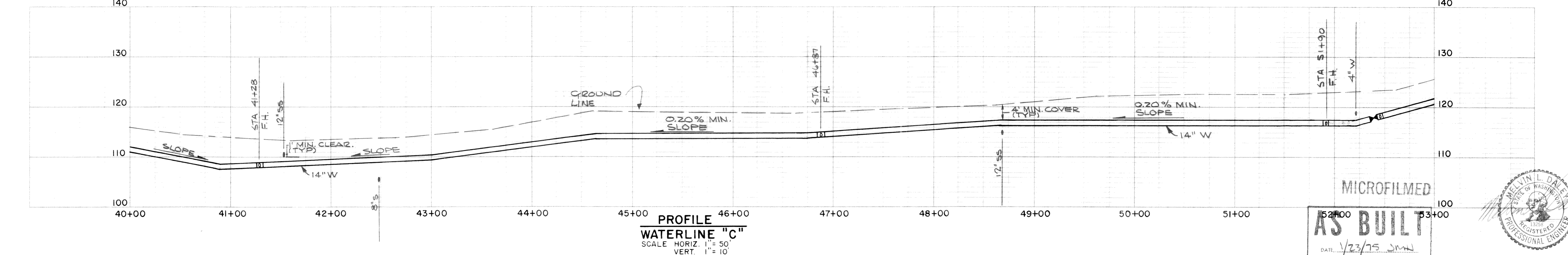
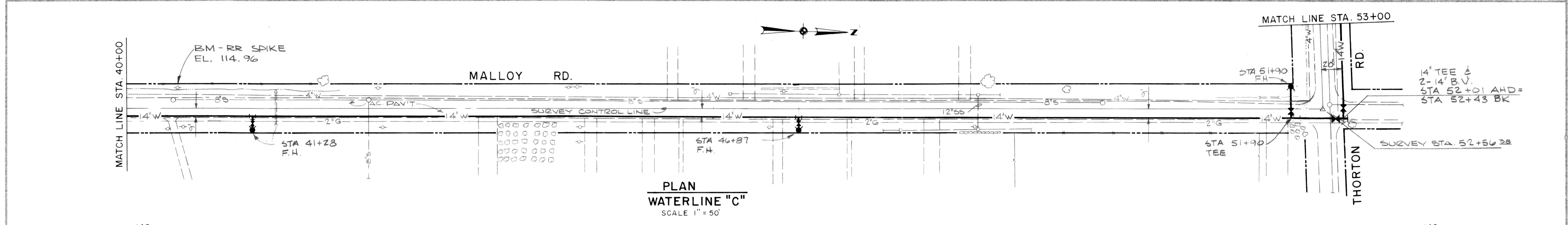
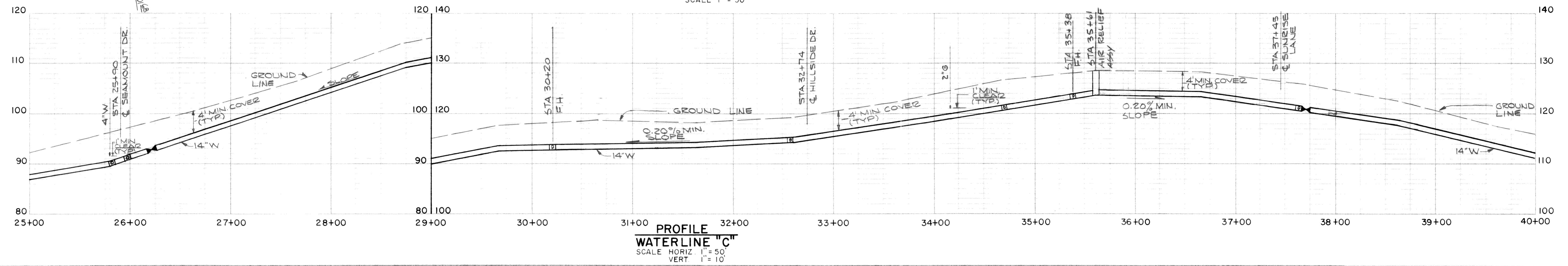
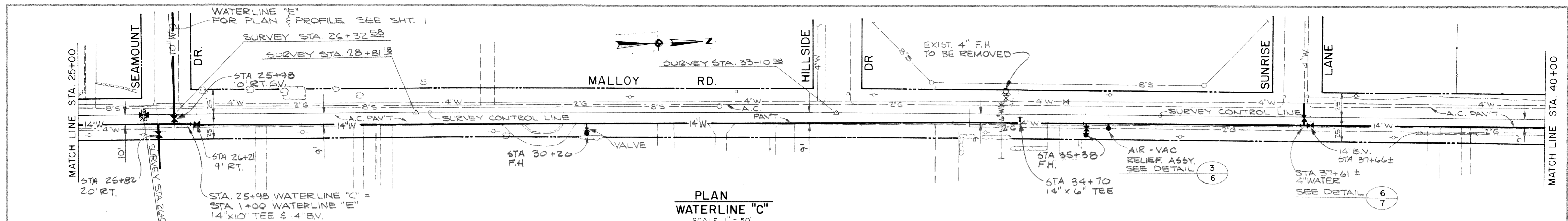
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DRAWN	JMH	SCALE	NOTED
DATE		DATE	AUG. 1973
REVISION		FILE	72-S-446.002

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TOWN OF FERDALE, WASHINGTON
1973 WATER SYSTEM IMPROVEMENTS
TRANSMISSION FACILITIES

PLAN AND PROFILE

002164.007 2.2.06

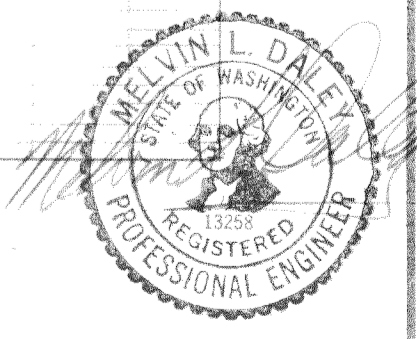


DESIGNED	JMH	APPROVED	<i>Alvin H. Piche</i>
DRAWN	JMH	SCALE	NOTED
DATE		DATE	AUG. 1973
NO.		FILE	72-S-446.002
REVISION		CHECKED	<i>D.V.H.</i>

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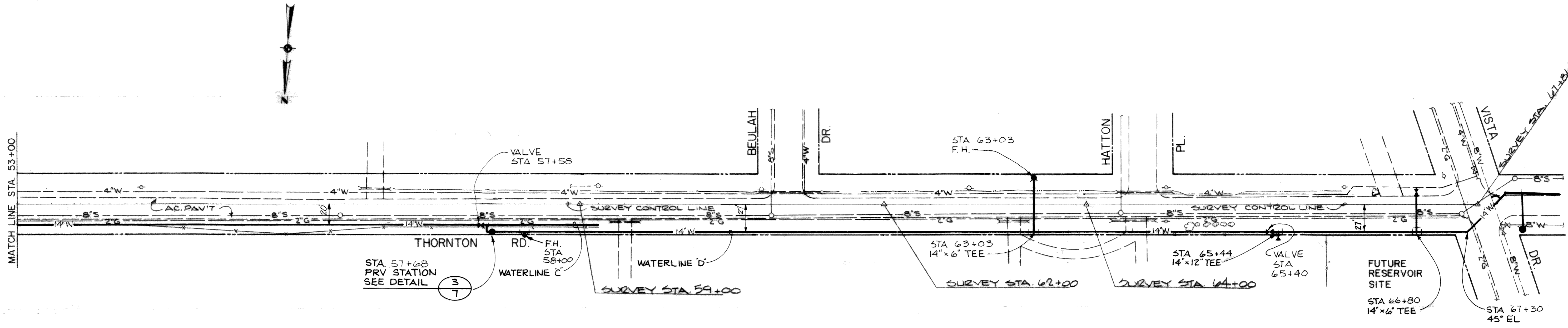
TOWN OF FERNDAL, WASHINGTON
1973 WATER SYSTEM IMPROVEMENTS
TRANSMISSION FACILITIES

PLAN AND PROFILE

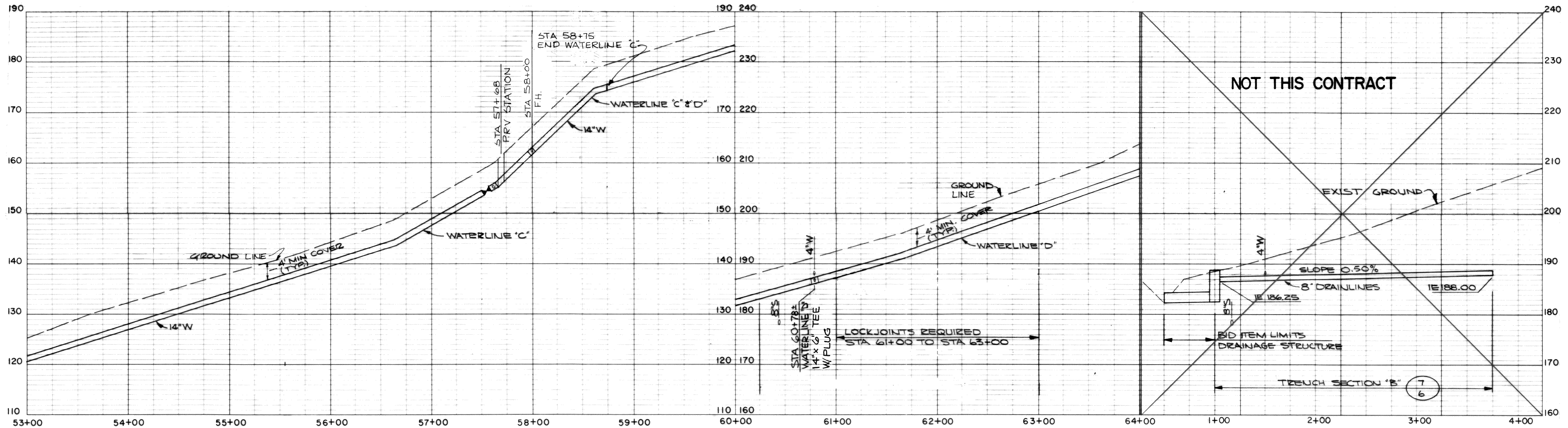


MICROFILMED
AS BUILT
DATE 1/23/75 JMH

00264.008 2.2.06 KL



PLAN
WATERLINES "C" & "D" & DRAINLINES
SCALE: 1" = 50'



PROFILE
WATERLINES "C" & "D"
SCALES: HORIZ. 1" = 50'
VERT. 1" = 10'

PROFILE
DRAINLINES
SCALES: HORIZ. 1" = 50'
VERT. 1" = 10'

AS BUILT
DATE: 1/23/75 JMH

MICROFILMED



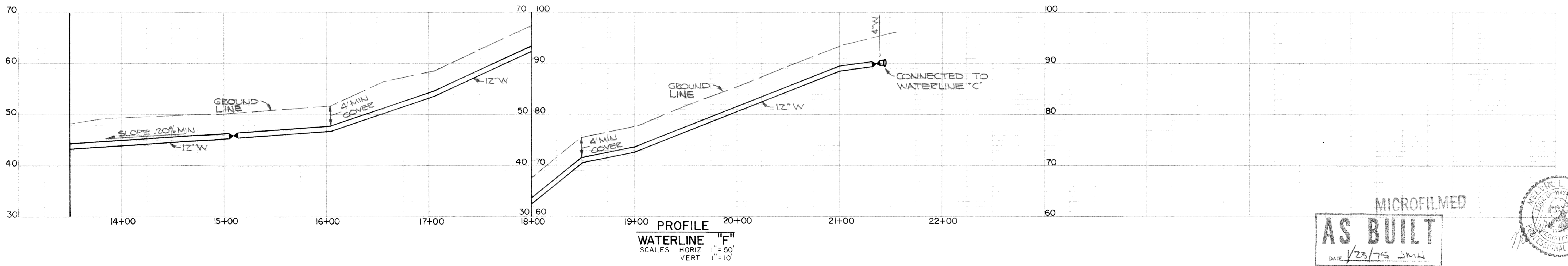
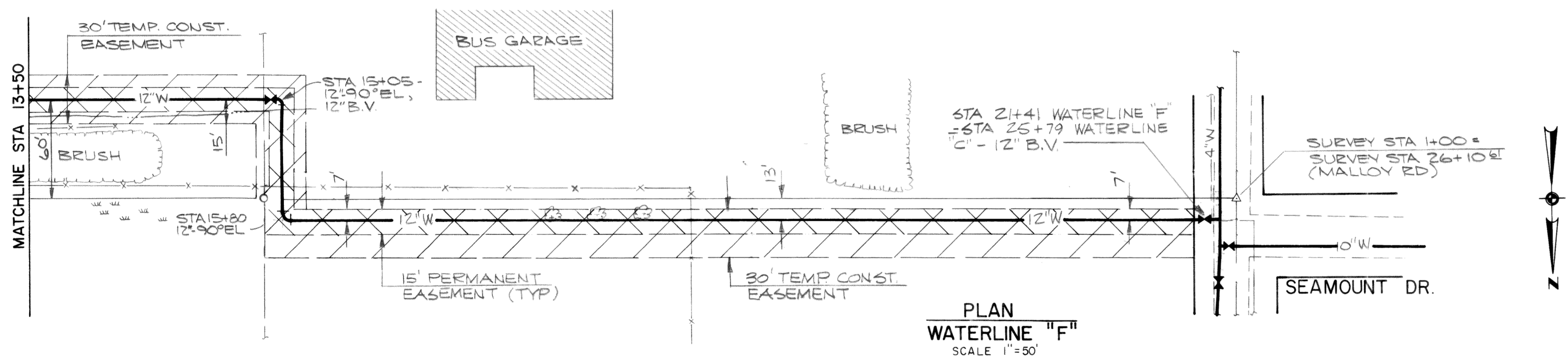
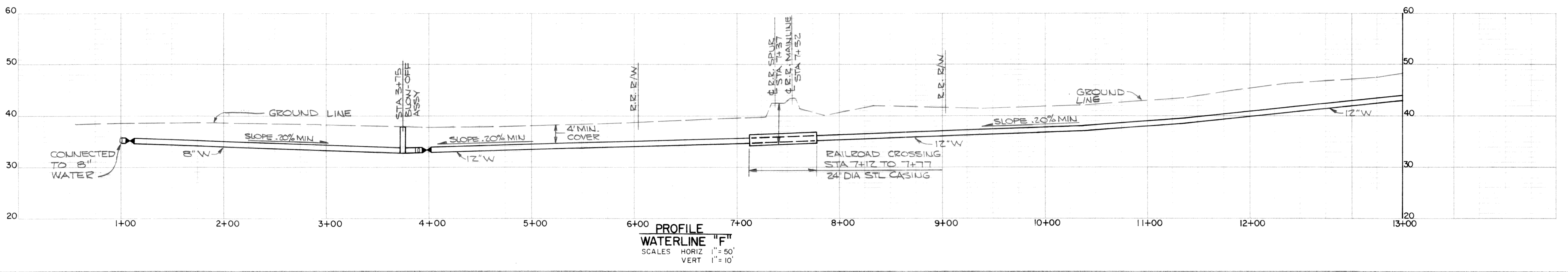
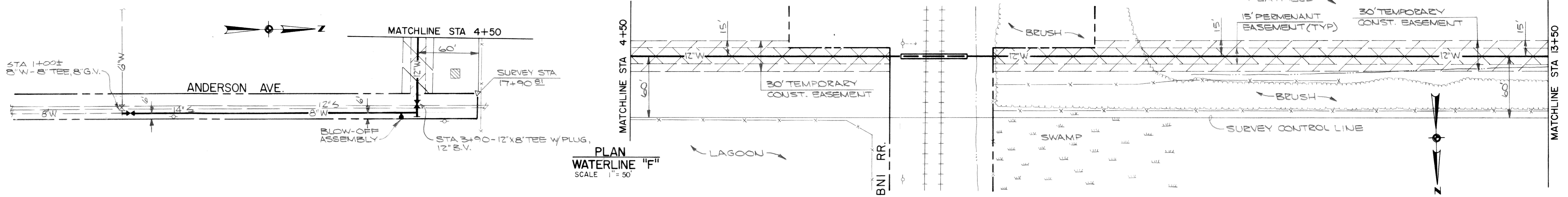
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DRAWN	JMH	SCALE	NOTED
DATE		DATE	AUG. 1973
NO.		CHECKED	DVH
REVISION		FILE	72-S-446.002

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TOWN OF FERDALE, WASHINGTON
1973 WATER SYSTEM IMPROVEMENTS
TRANSMISSION FACILITIES

PLAN AND PROFILE

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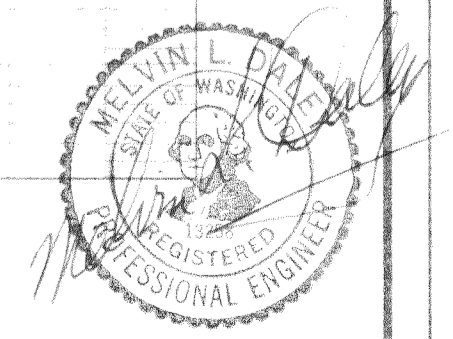


DESIGNED JMH	APPROVED
DRAWN JMH	SCALE NOTED
CHECKED	DATE SEPT. 1973
BY	FILE 72-S-446.502

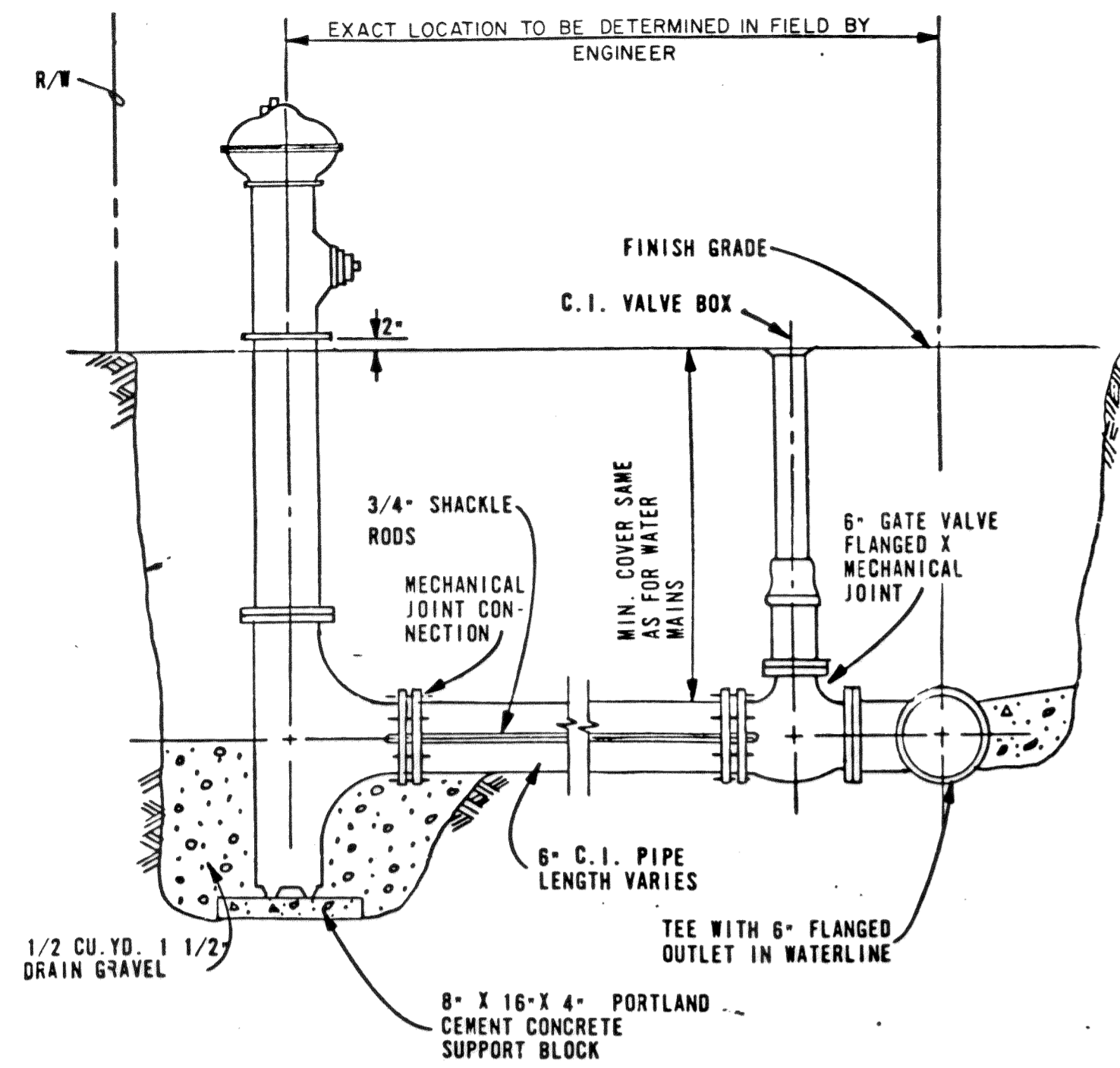
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1973 WATER SYSTEM IMPROVEMENTS
TRANSMISSION FACILITIES

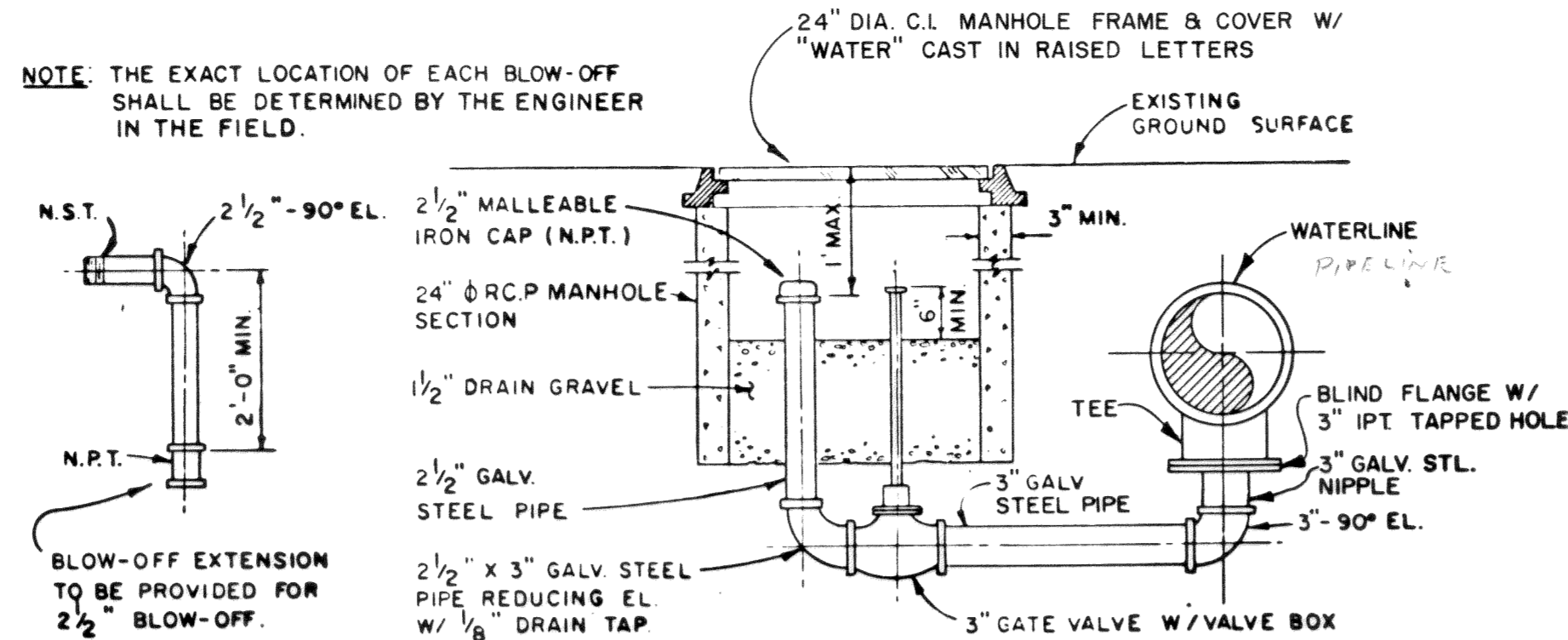
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AS BUILT
DATE 1/23/75 JMH



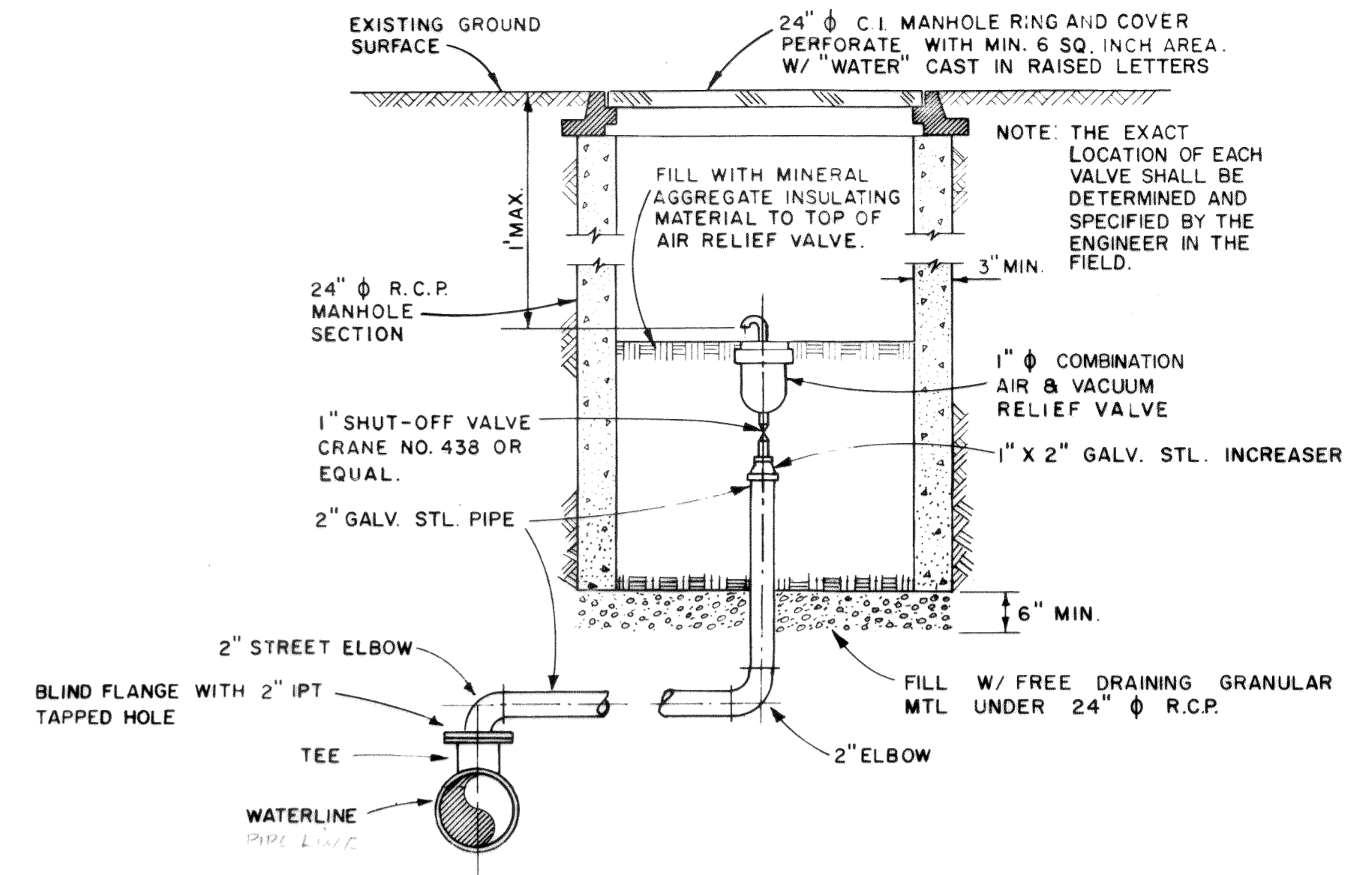
02264.D10 2.2-06 KR



TYPICAL FIRE HYDRANT DETAIL 1
NO SCALE 1-5

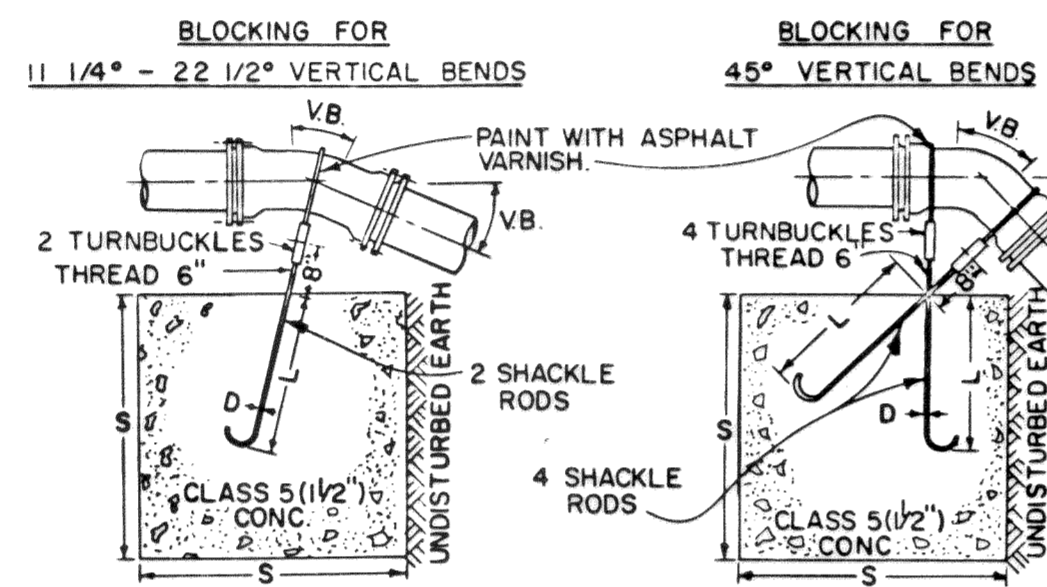


2 1/2\"/>



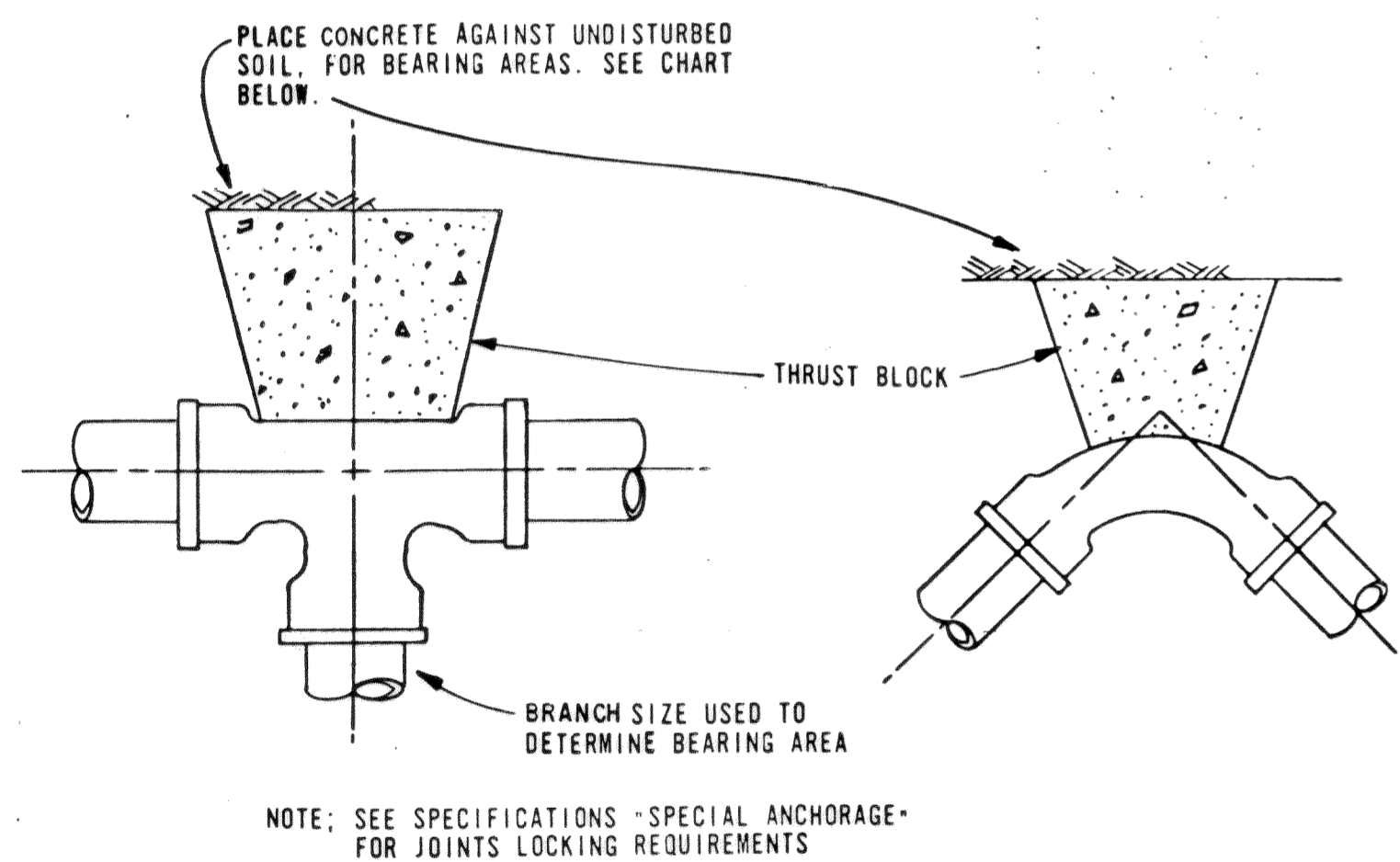
TYPICAL AIR AND VACUUM RELIEF VALVE DETAIL 3
2

NOTES: 1. FOR CONCAVE VERTICAL BENDS USE THRUST BLOCKING PER DETAIL 4
2. FOR BLOCKING REQUIREMENTS FOR PIPE SIZES NOT SHOWN IN TABLE, INTERPOLATE BETWEEN GIVEN PIPE SIZES.



VERTICAL THRUST BLOCK DETAIL 5
NO SCALE 1-5

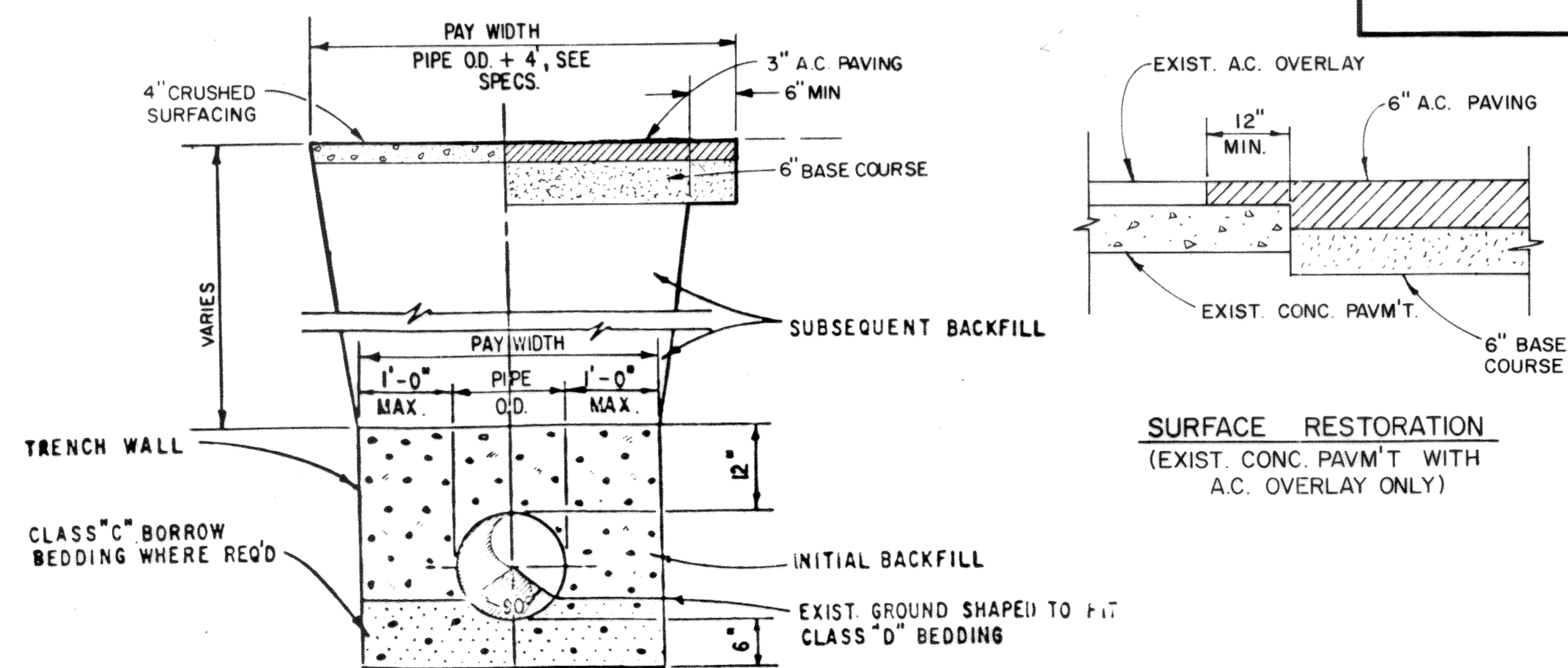
PIPE SIZE NOM. DIAMETER - INCHES	VB	S	D	L
8"	11 1/4	16	2.5	5/8
	22 1/2	47	3.6	7/8
	45	123	5.0	1 1/8
12"	11 1/4	32	3.2	5/8
	22 1/2	88	4.5	7/8
	45	232	6.1	3/4
16"	11 1/4	70	4.1	7/8
	22 1/2	184	5.7	1 1/8
	45	478	7.8	1 1/4
20"	11 1/4	91	4.5	7/8
	22 1/2	225	6.1	1 1/4
	45	560	8.2	1 1/2



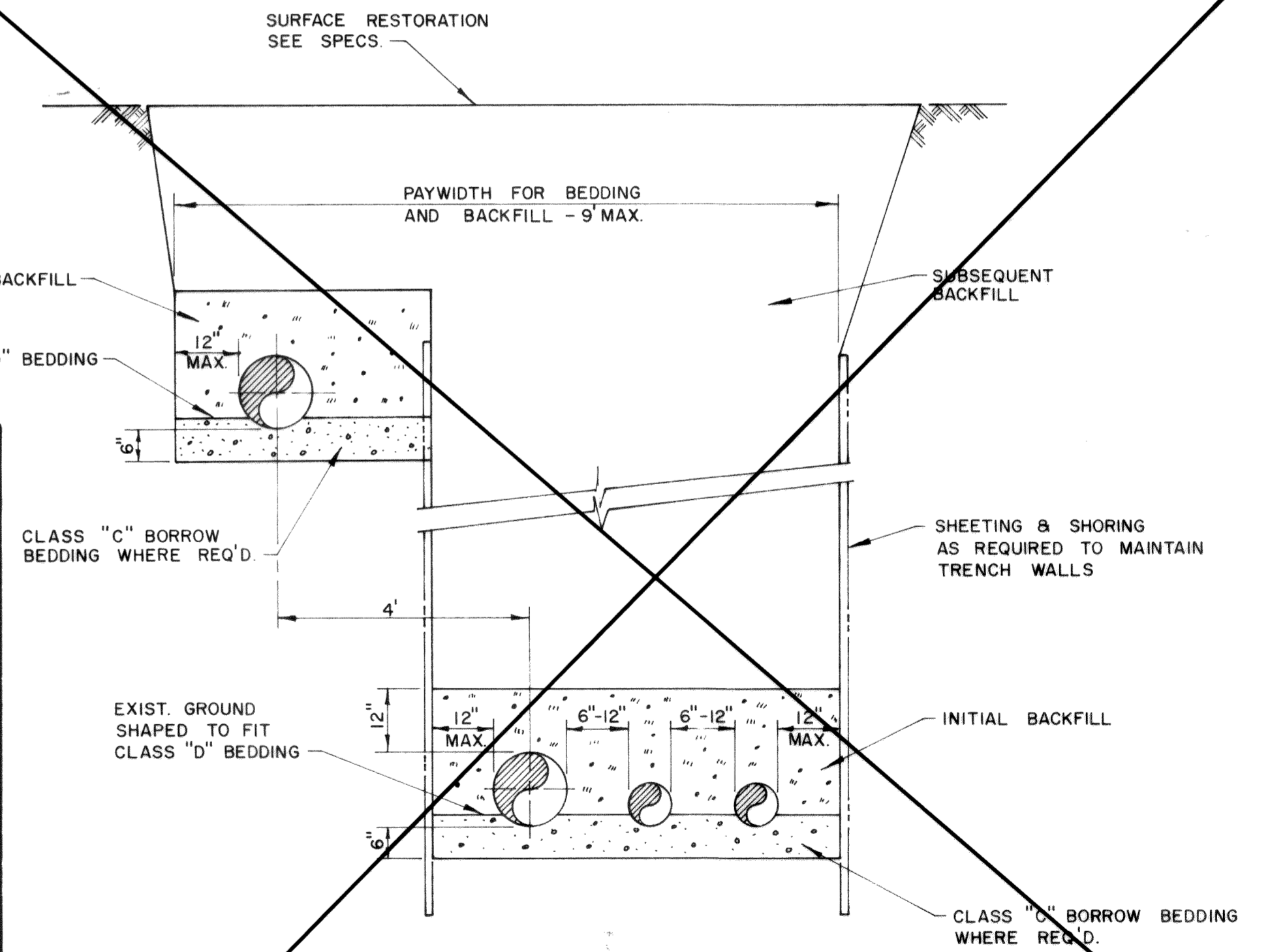
NOTE: SEE SPECIFICATIONS - SPECIAL ANCHORAGE - FOR JOINTS LOCKING REQUIREMENTS

FITTING OR BRANCH SIZE	90°	45°	22 1/2°	11 1/4°	TEES & BENDS
8"	4.6	2.5	2.0	2.0	4.6
10"	6.0	3.0	2.0	2.0	6.0
12"	10.4	5.7	2.9	2.0	10.4
16"	18.4	10.0	5.1	2.6	18.4
18"	23.7	12.8	6.6	3.4	23.7
20"	29.0	15.6	8.0	4.1	29.0

THRUST BLOCK DETAIL 4
NO SCALE 1-5



TYPICAL TRENCH SECTION - A 6
NO SCALE 1-5



TYPICAL TRENCH SECTION - B 7
5

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AS BUILT
DATE 1/23/75 JMH

DESIGNED JMH	APPROVED [Signature]
DRAWN JMH	SCALE NONE DATE AUG. 1973
CHECKED [Signature]	FILE 72-S-446.002

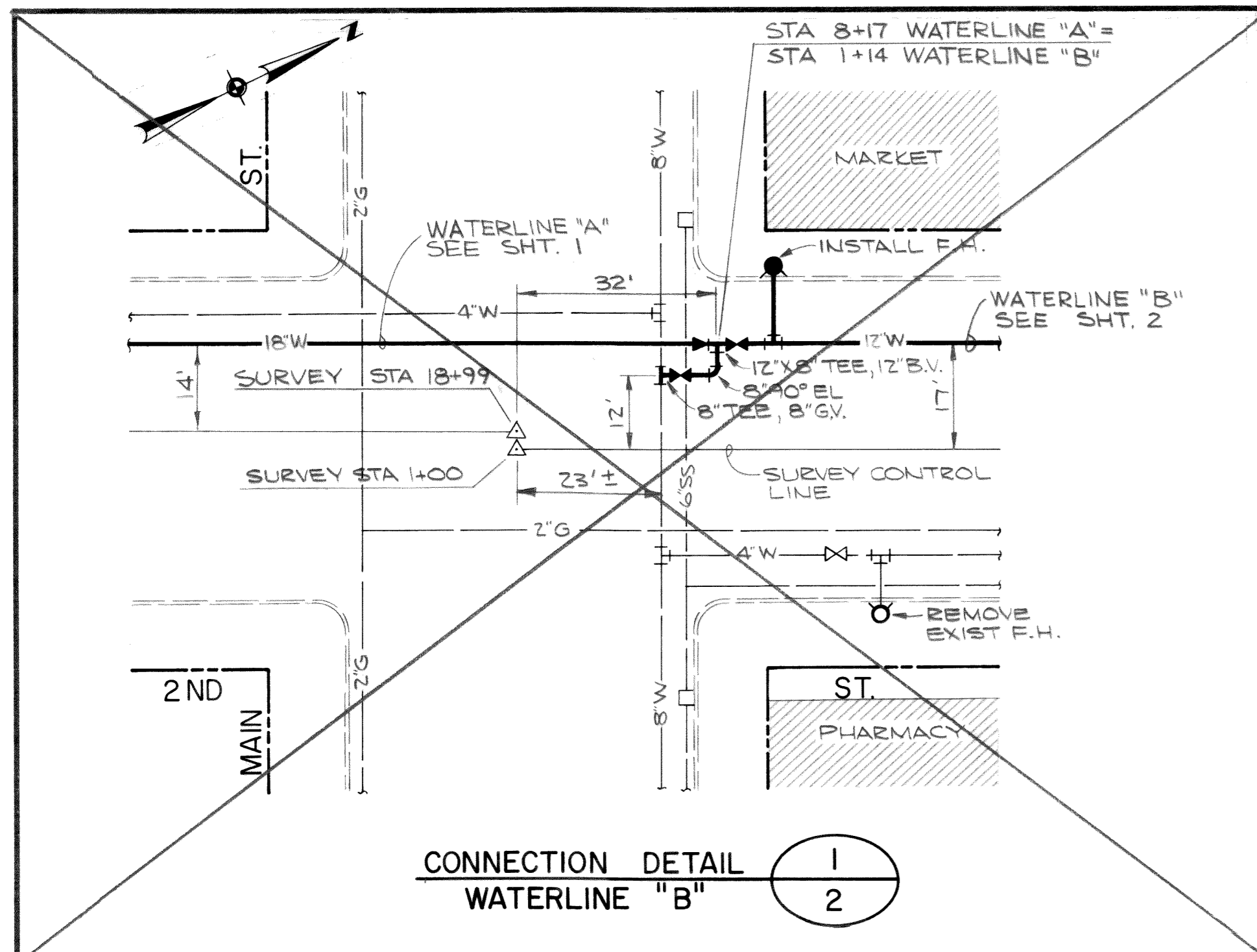
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1973 WATER SYSTEM IMPROVEMENTS
TRANSMISSION FACILITIES

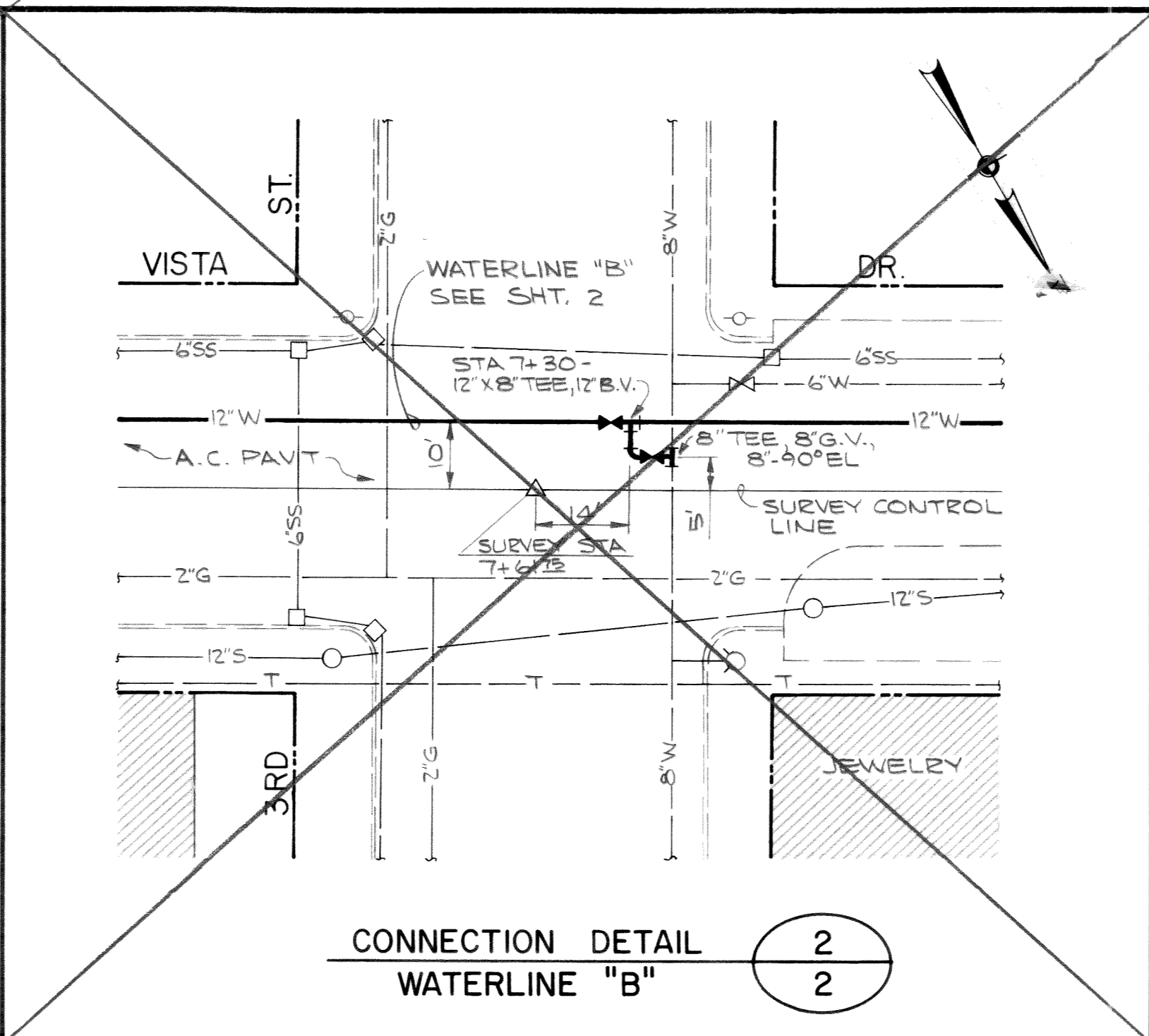
DETAILS 6
7

00264.011 2-2-66 RL

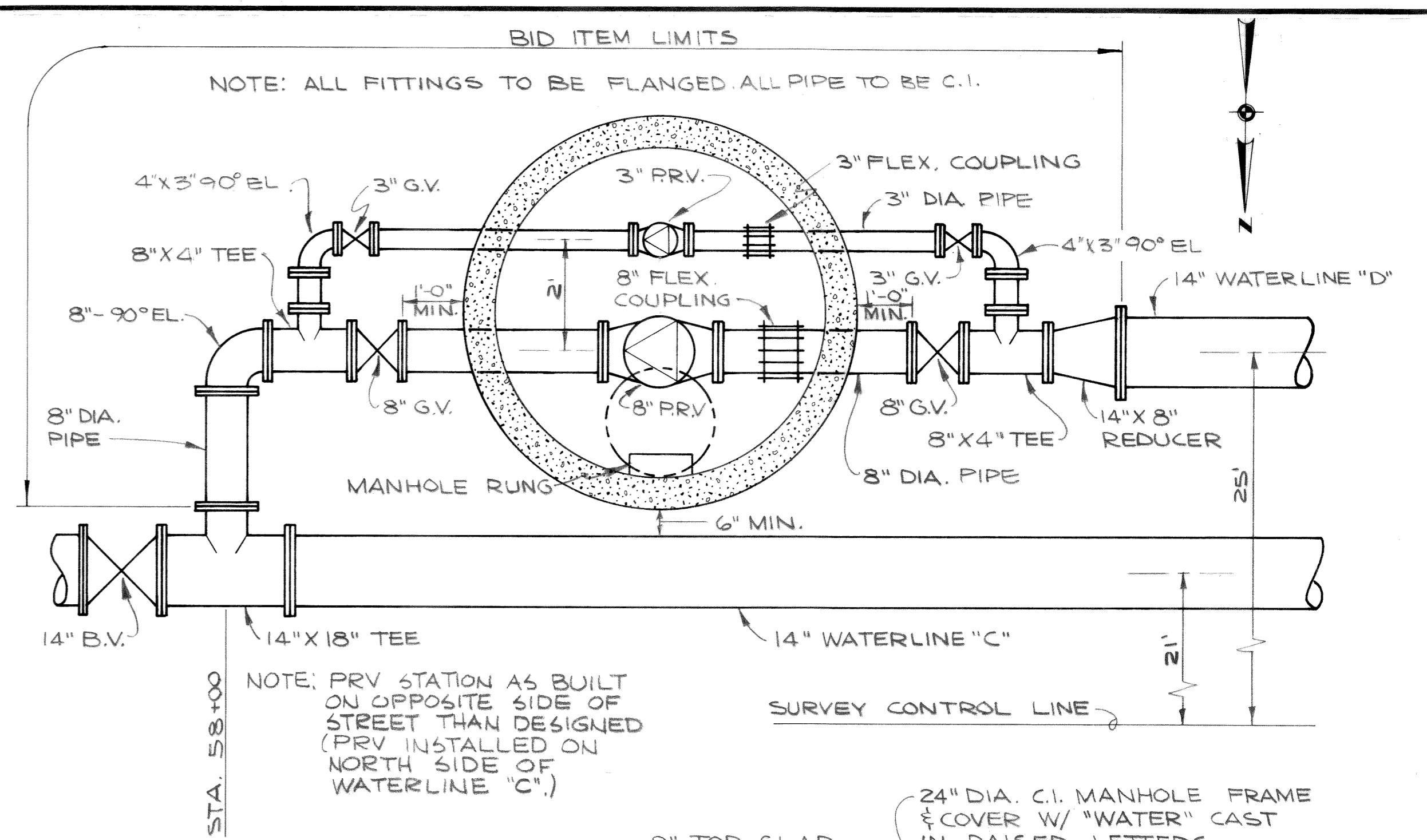
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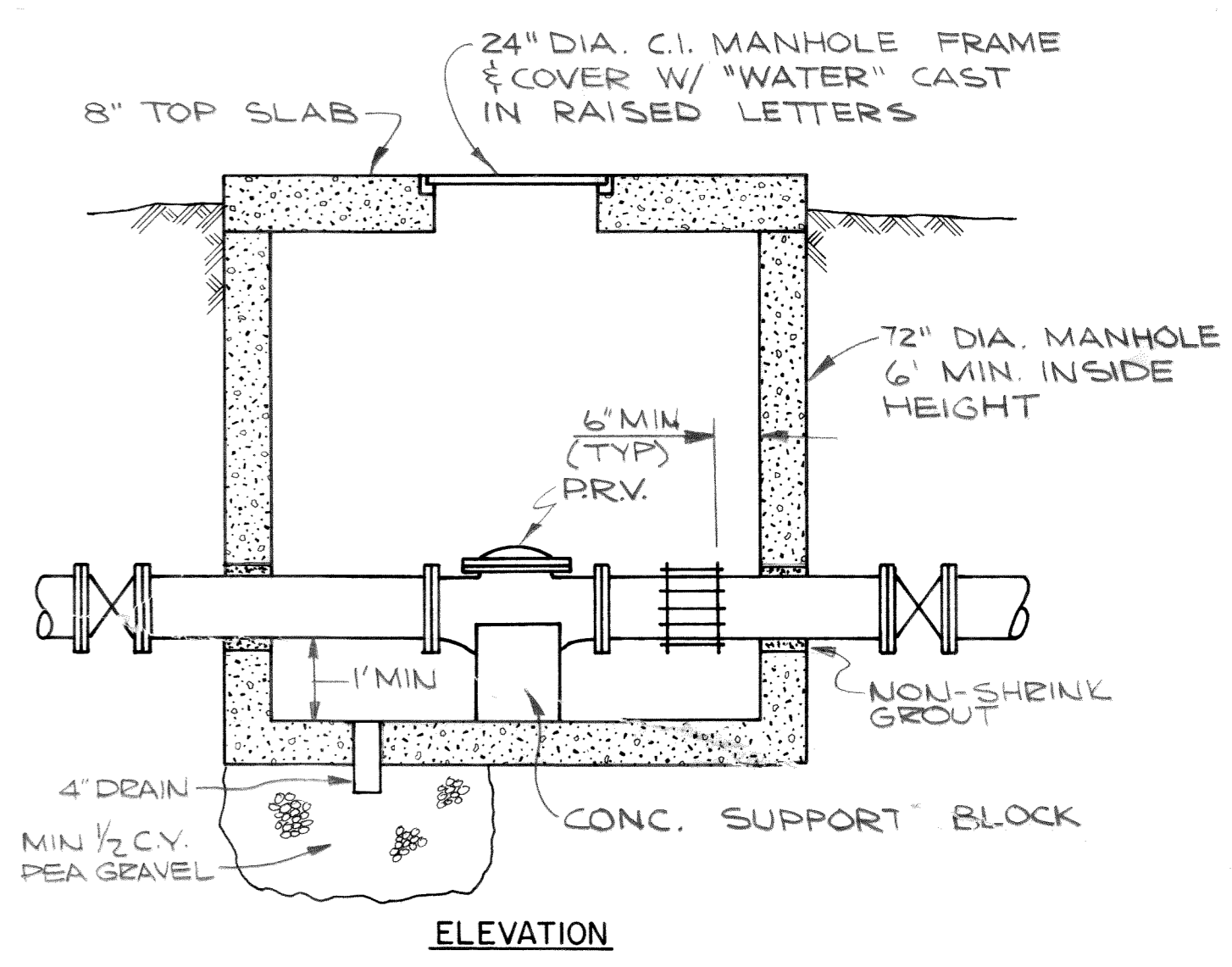
CONNECTION DETAIL 1
WATERLINE "B"



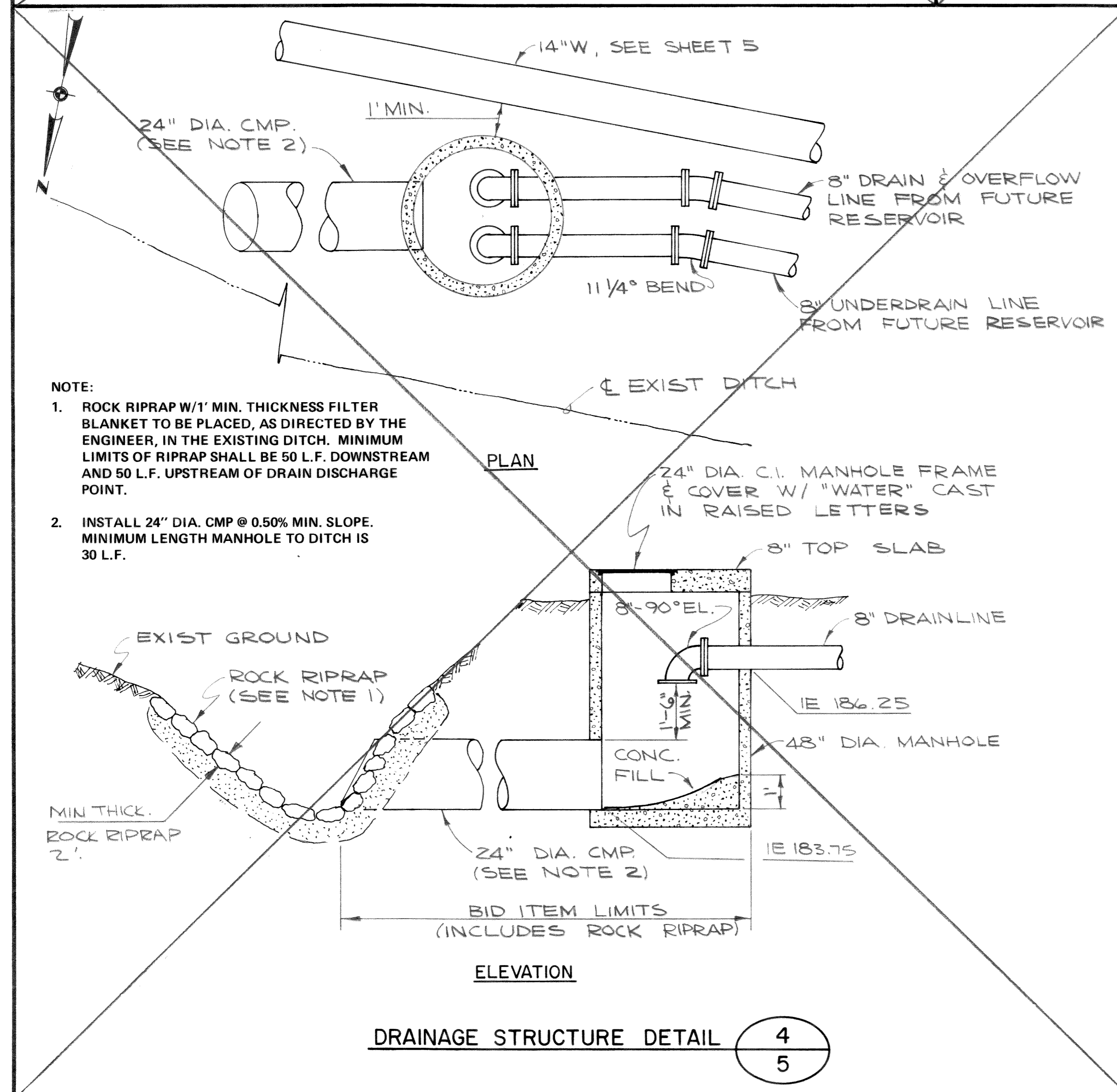
CONNECTION DETAIL 2
WATERLINE "B"



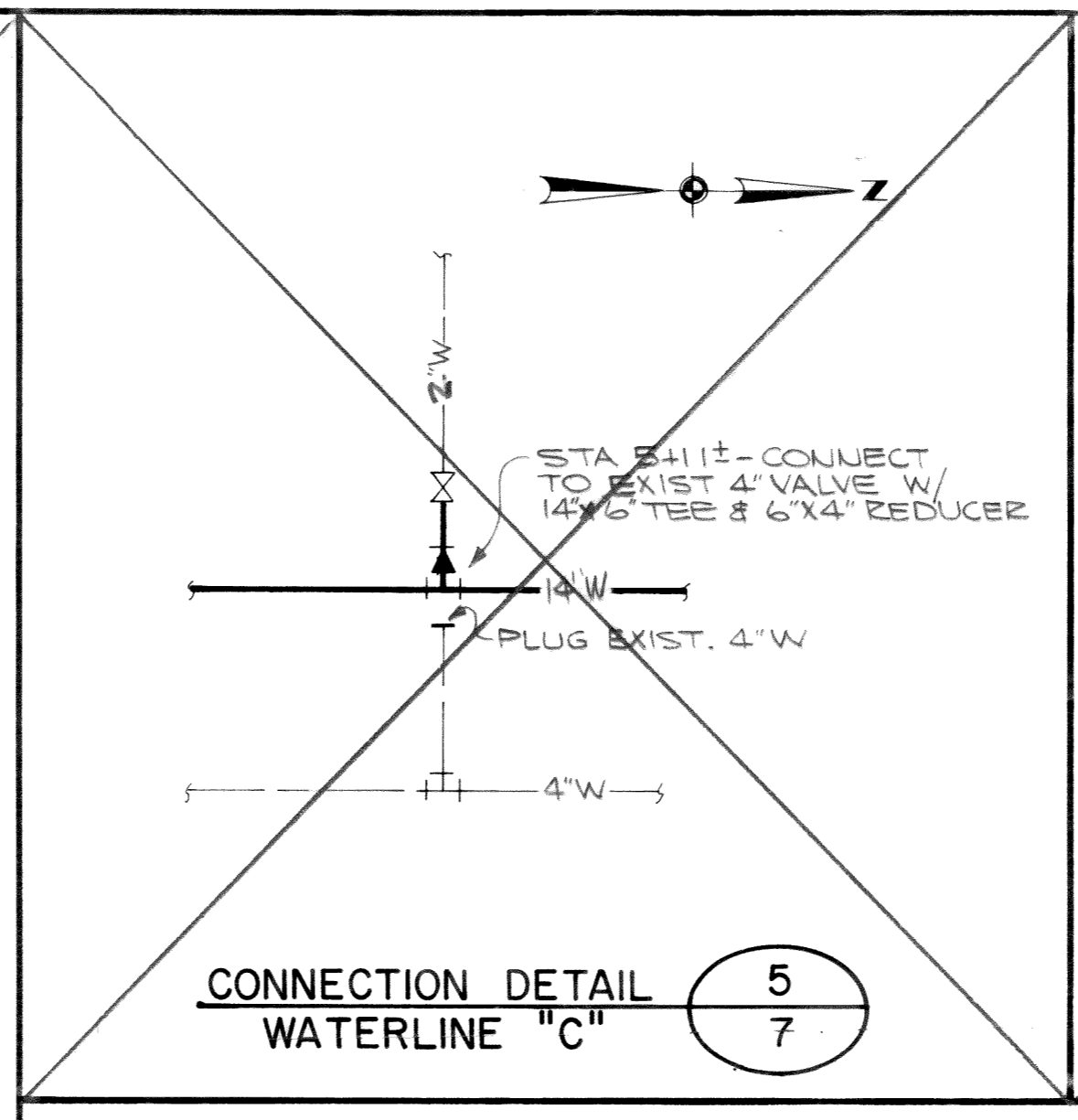
NOTE: PRV STATION AS BUILT ON OPPOSITE SIDE OF STREET THAN DESIGNED (PRV INSTALLED ON NORTH SIDE OF WATERLINE "C".)



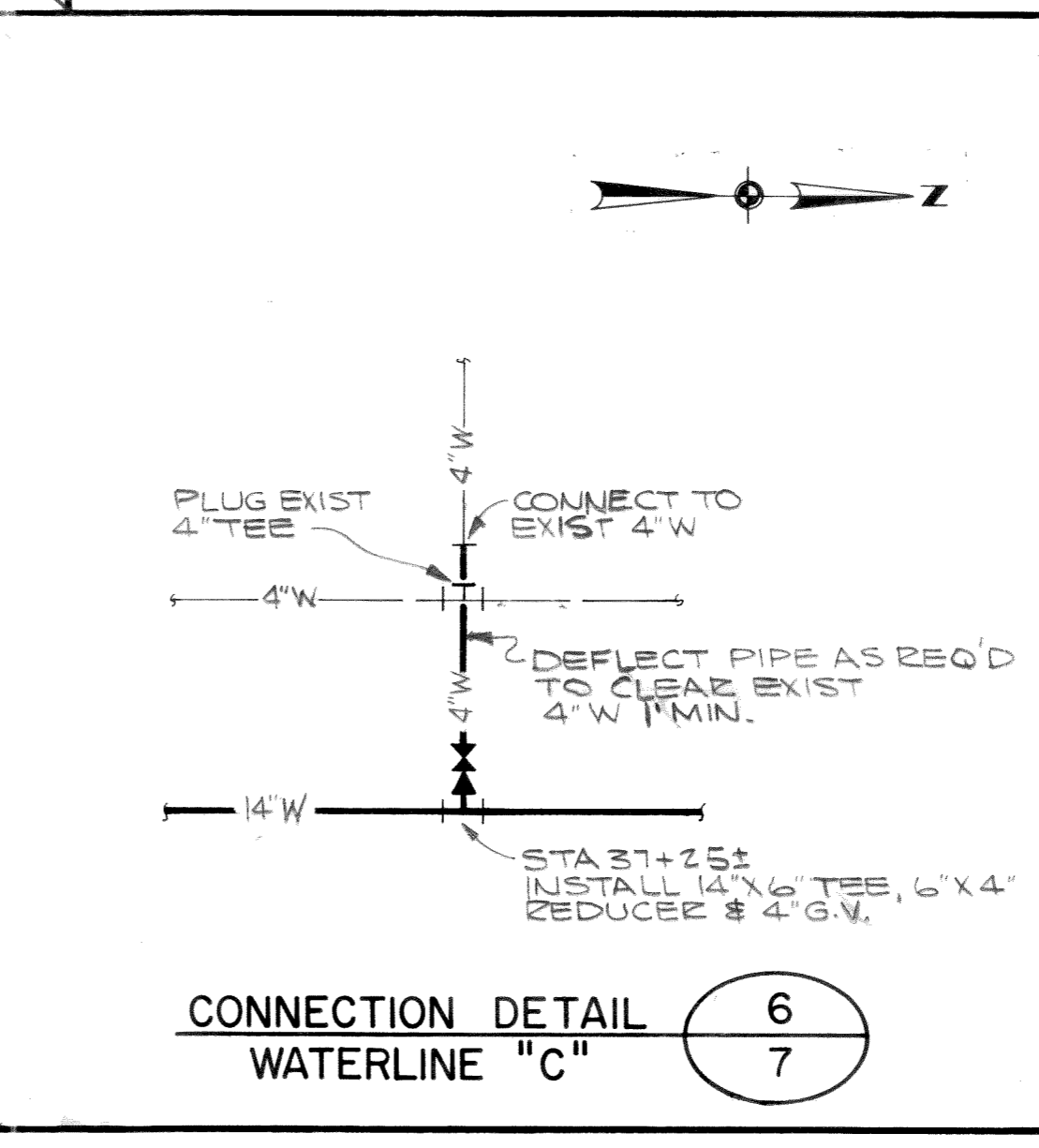
PRESSURE REDUCING STATION DETAIL 3
5



DRAINAGE STRUCTURE DETAIL 4
5



CONNECTION DETAIL 5
WATERLINE "C"



CONNECTION DETAIL 6
WATERLINE "C"

- NOTE:
- ROCK RIPRAP W/1' MIN. THICKNESS FILTER BLANKET TO BE PLACED, AS DIRECTED BY THE ENGINEER, IN THE EXISTING DITCH. MINIMUM LIMITS OF RIPRAP SHALL BE 50 L.F. DOWNSTREAM AND 50 L.F. UPSTREAM OF DRAIN DISCHARGE POINT.
 - INSTALL 24" DIA. CMP @ 0.50% MIN. SLOPE. MINIMUM LENGTH MANHOLE TO DITCH IS 30 L.F.

DESIGNED	JMH	APPROVED	<i>James White</i>
DRAWN	JMH	SCALE	NONE
DATE		FILE	72-S-446.002

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REGISTERED PROFESSIONAL ENGINEER

DETAILS 7
7