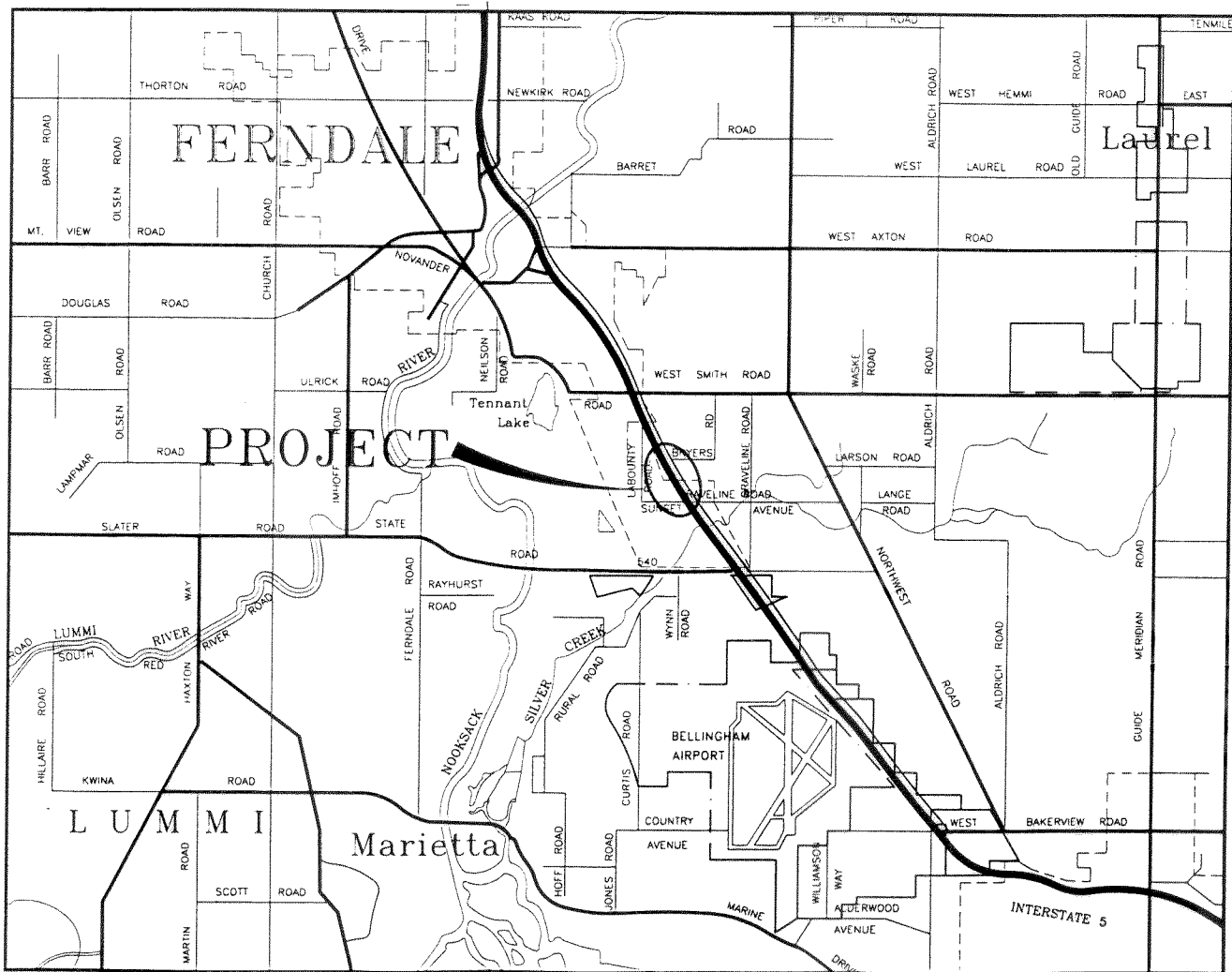


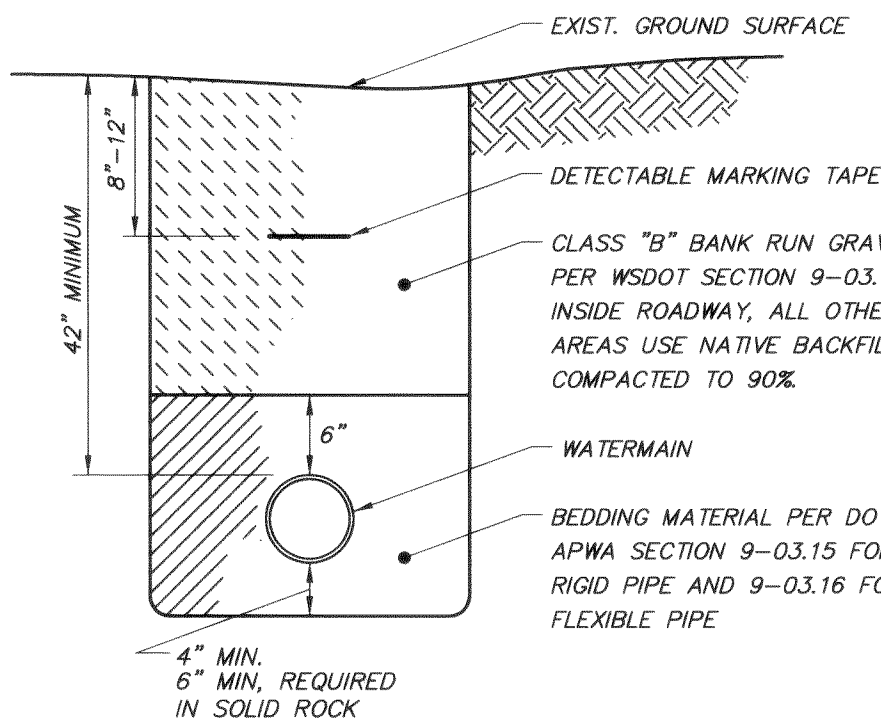
SEC 33, T39N, R2E, W.M.

TRILLIUM CORPORATION PACIFIC INDUSTRIAL PARK

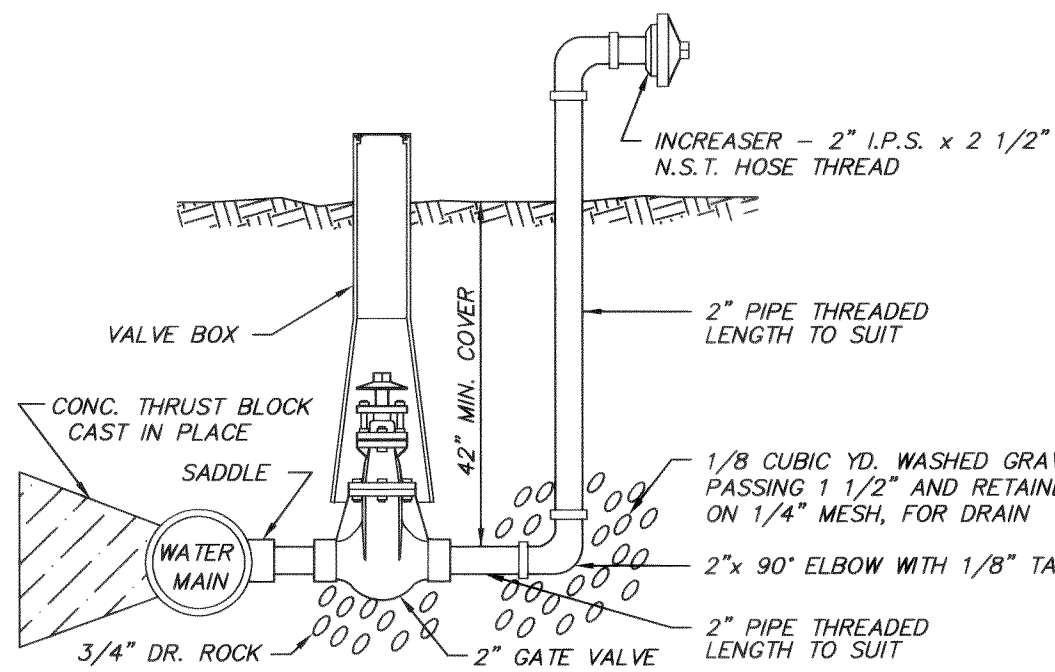
PACIFIC HIGHWAY WATER MAIN EXTENTION FROM BYERS ROAD TO SUNSET AVENUE



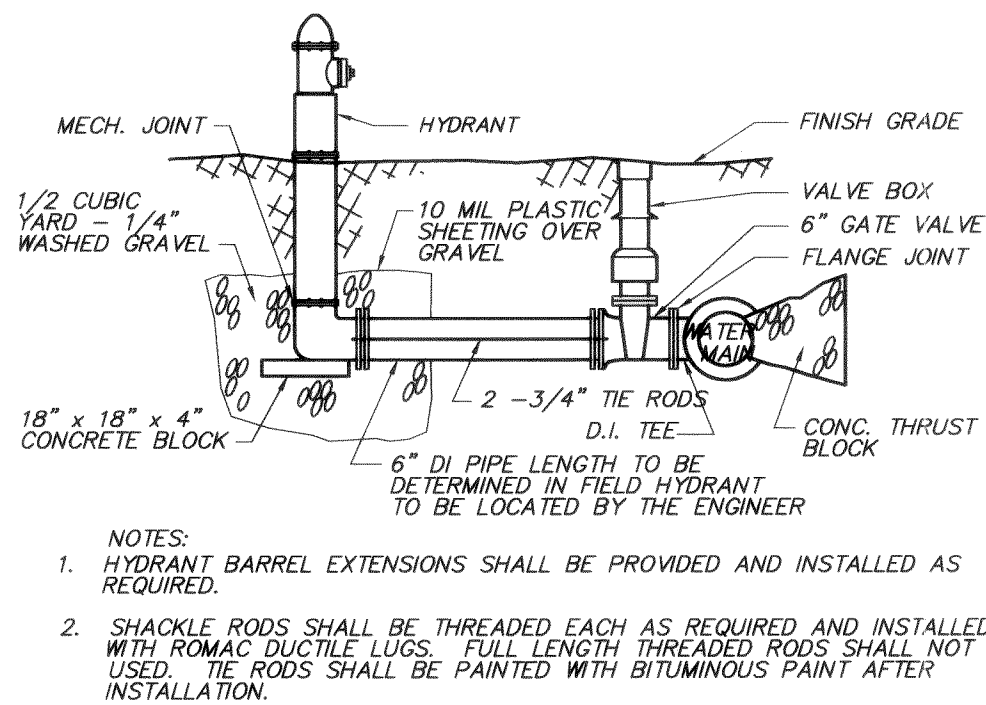
VICINITY MAP



WATERMAIN TRENCH
(NOT TO SCALE)



BLOW-OFF ASSEMBLY
(NOT TO SCALE)



FIRE HYDRANT ASSEMBLY
(NOT TO SCALE)

SPECIFICATIONS

ALL WORK AND MATERIALS SHALL CONFORM TO THE 1994 EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) AND THE WASHINGTON STATE CHAPTER OF AMERICAN PUBLIC WORKS ASSOCIATION (APWA), THE CITY OF FERNDALE'S ORDINANCE NO. 676 AND ACCORDING TO THE INSTRUCTIONS AND RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIALS INVOLVED. IN CASE OF A CONFLICT BETWEEN THE ABOVE STANDARD AND RECOMMENDATIONS, THE MORE STRINGENT ONE WILL APPLY.

REFERENCES HEREINAFTER TO DIVISION AND SECTIONS SHALL REFER TO THE STANDARD SPECIFICATIONS MENTIONED ABOVE.

DIVISION 2: EARTHWORK

- CLEARING, GRUBBING AND ROADSIDE CLEANUP
CLEARING, GRUBBING AND ROADSIDE CLEANUP SHALL CONFORM TO SECTION 2-01 USING DISPOSAL METHOD NO. 2.
- ROADWAY EXCAVATION AND EMBANKMENT
ROADWAY EXCAVATION AND EMBANKMENT SHALL CONFORM TO SECTION 2-03, USING COMPACTION METHOD B. COMPACTION LAYER FOR GRANULAR MATERIALS SHALL NOT EXCEED 12 INCHES IN DEPTH. LAYERS FOR NON-GRANULAR MATERIAL SHALL NOT EXCEED 4 INCHES IN DEPTH.
- SUBGRADE PREPARATION
SUBGRADE PREPARATIONS SHALL CONFORM TO SECTION 2-06.
- DITCH AND CHANNEL EXCAVATION
DITCH AND CHANNEL EXCAVATION SHALL CONFORM TO SECTION 2-10.
- TRIMMING AND CLEANUP
TRIMMING AND CLEANUP SHALL CONFORM TO SECTION 2-11.

DIVISION 3: (NOT USED)

DIVISION 4: BASES

- ASPHALT TREATED BASE
ASPHALT TREATED BASE SHALL CONFORM TO SECTION 4-06.

DIVISION 5: SURFACE TREATMENT AND PAVEMENT

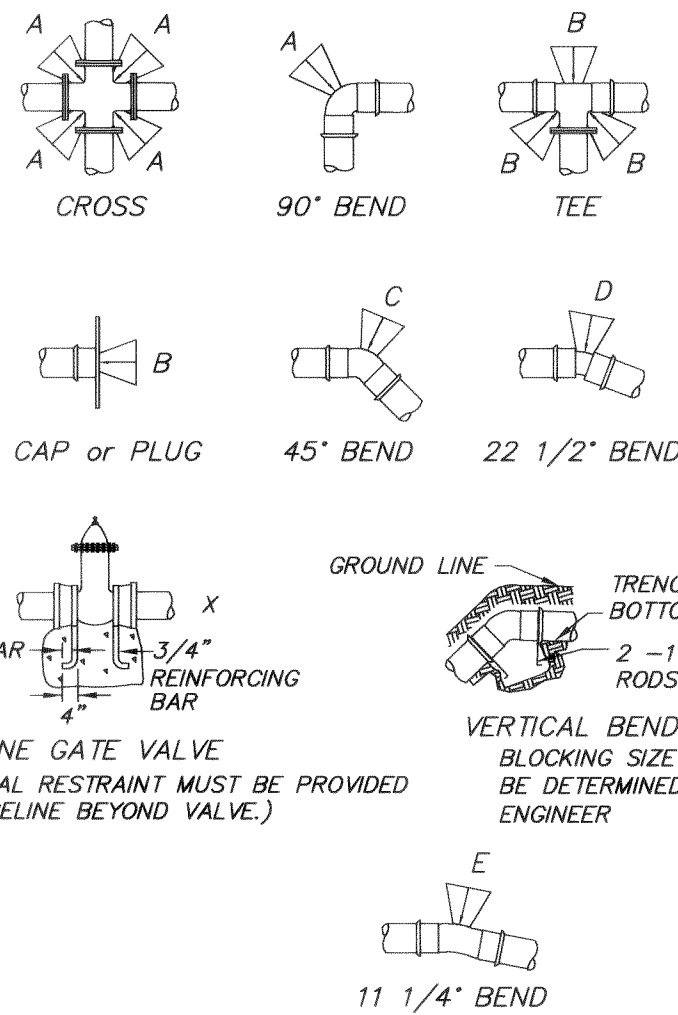
- ASPHALT CONCRETE PAVEMENT
ASPHALT CONCRETE PAVEMENT SHALL CONFORM TO SECTION 5-04. MATERIAL SHALL BE CLASS 3.

DIVISION 6: STRUCTURES

- CONCRETE STRUCTURES
CONCRETE WEIRS AND MISCELLANEOUS STRUCTURES SHALL CONFORM TO SECTION 6-02. CONCRETE SHALL BE CLASS 3000.

DIVISION 7: DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWER, WATER MAINS, AND CONDUITS

- STORM SEWERS
STORM SEWERS SHALL CONFORM TO SECTION 7-04. PIPE SHALL BE PVC CONFORMING TO SECTION 9-05.12. EXFILTRATION OR PRESSURE TESTING MAY BE REQUIRED BY THE ENGINEER.
- MANHOLES, INLETS AND CATCH BASINS
MANHOLES, INLETS AND CATCH BASINS SHALL CONFORM TO SECTION 7-05.
- WATER SYSTEM
ALL WATER PIPE MATERIALS AND INSTALLATION SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTION 7-09 TO 7-11, AWWA C600 AND C651. IN ADDITION, THE FOLLOWING PROVISIONS APPLY:
 - PIPELINES SHALL BE DUCTILE IRON CLASS 50, AND SHALL MEET THE REQUIREMENTS OF SECTION 9-30.1(1), WITH CEMENT LINING ACCORDING TO AWWA STANDARD H3-71, C151-71, AND CEMENT LINING C104-71.
 - ALL FITTINGS SHALL HAVE A MINIMUM PRESSURE RATING OF 350 PSI AND SHALL CONFORM TO SECTION 9-03.2.
 - EXCAVATION SHALL BE IN ACCORDANCE WITH SECTION 7-10.3(7) AND SHALL INCLUDE ALL MATERIALS OF WHATEVER NATURE ENCOUNTERED, INCLUDING SOLID ROCK EXCAVATION.



THRUST BLOCK TABLE						
PIPE SIZE	MIN. BEARING AREA AGAINST UNDISTURBED SQUARE FEET					
	A	B	C	D	E	X
4"	2	2	2	2	2	NONE
6"	4	3	2	2	2	NONE
8"	7	5	4	2	2	3
10"	11	8	6	3	2	4
12"	16	12	9	5	3	6
20"	45	34	25	13	8	17

NOTES

- SQUARE FEET OF CONCRETE THRUST BLOCK AREA IS BASED ON 200 P.S.I. INTERNAL PRESSURE. A SOIL SAFE BEARING OF 3000 POUNDS PER SQUARE FOOT AND A FACTOR OF SAFETY OF 1.5.
- BEARING AREA MUST BE ADJUSTED FOR INTERNAL PRESSURES AND LOWER SOIL BEARING VALUES.
- CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF 1/4 SQUARE FOOT BEARING AGAINST THE FITTING.
- BLOCK SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING JOINT.
- THE CONTRACTOR SHALL INSTALL BLOCK WHICH IS ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY STAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.

THRUST BLOCK SCHEDULE
(NOT TO SCALE)

AS-BUILT

1.	CHANGE TITLE, ADD G.V.	CJP	8/14/96
NO.	REVISIONS	BY	DATE

Wilson Engineering
CONSULTING ENGINEERS & SURVEYORS

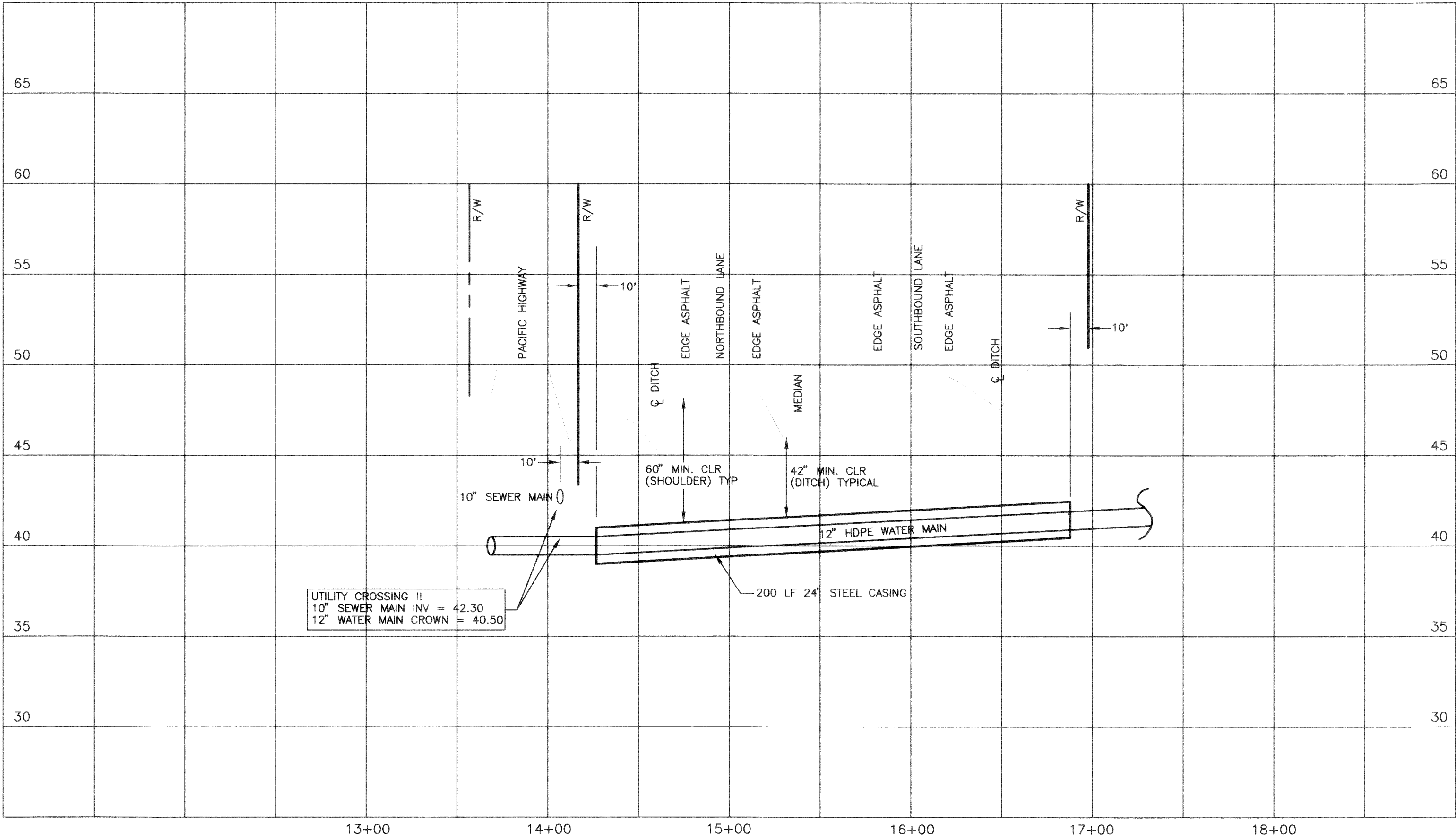
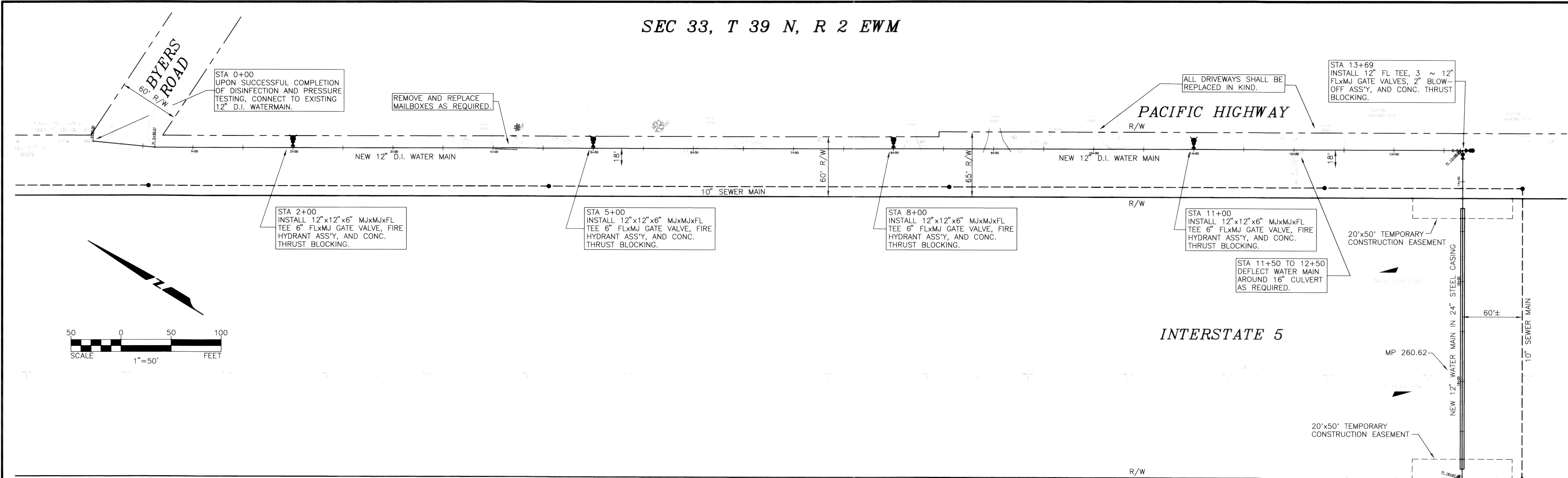
805 DUPONT STREET
BELLINGHAM, WA 98225
(360) 733-6100
FAX: (360) 647-9061

DESIGNED BY:	WAH
DRAWN BY:	WAH
CHECKED BY:	97

TRILLIUM CORPORATION
BELLINGHAM WASHINGTON
PACIFIC INDUSTRIAL PARK
PACIFIC HIGHWAY WATER MAIN EXTENSION

DATE	DEC. 1995	SHEET	1
SCALE	1"=50'	OF	
JOB NUMBER	95114		2

SEC 33, T 39 N, R 2 EWM



LEGEND

- WATER VALVE
- FIRE HYDRANT
- SIGN
- ANCHOR
- UTILITY POLE
- TELEPHONE PEDESTAL
- MAILBOX
- SEWER MANHOLE
- SEWER CLEANOUT
- FENCE
- CULVERT
- DITCH
- TREE

AS-BUILT

2.	CHANGE TITLE, ADD G.V.	CJP	8/14/96
1.	AS-BUILT	JAT	2/29/96
NO.	REVISIONS	BY	DATE

Wilson Engineering
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FAX: (360) 647-9061

DESIGNED BY:
WAH
DRAWN BY:
WAH
CHECKED BY:

TRILLIUM CORPORATION
FERNDALE WASHINGTON
PACIFIC INDUSTRIAL PARK
PACIFIC HIGHWAY WATER MAIN EXTENTION

DATE
DEC. 1995
SCALE
1"=50'
JOB NUMBER
95114
SHEET
2
OF
2