00111.001 2.3.04 KE

CITY OF FERNDALE WASHINGTON

WATER DISTRIBUTION SYSTEM

INSTALLATION

FERNDALE UTILITY LOCAL IMPROVEMENT

DISTRICT NO. 5

ATTORNEY: **RICHARD LANGABEER**

SUPERINTENDENT: **JOHN ELEY**

CLERK: **ROLAND SIGNETT**

MAYOR: **CECIL BARR**

CITY COUNCIL:

- **J.A. IRWIN**
- X **HAROLD REIMER**
- **GARY GIBBONS**
- X **WALTER TANGUY**
- **JON DONNELLAN**

X **WATER COMMITTEE**

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

AS BUILT

RONALD T. JEPSON — STATE OF WASHINGTON — REGISTERED — LAND SURVEYOR
May 8, 1984

JOB NO. 79006

0011.002 2:3.06 KR

FERNDALE UTILITY LOCAL IMPROVEMENT DISTRICT NO. 5

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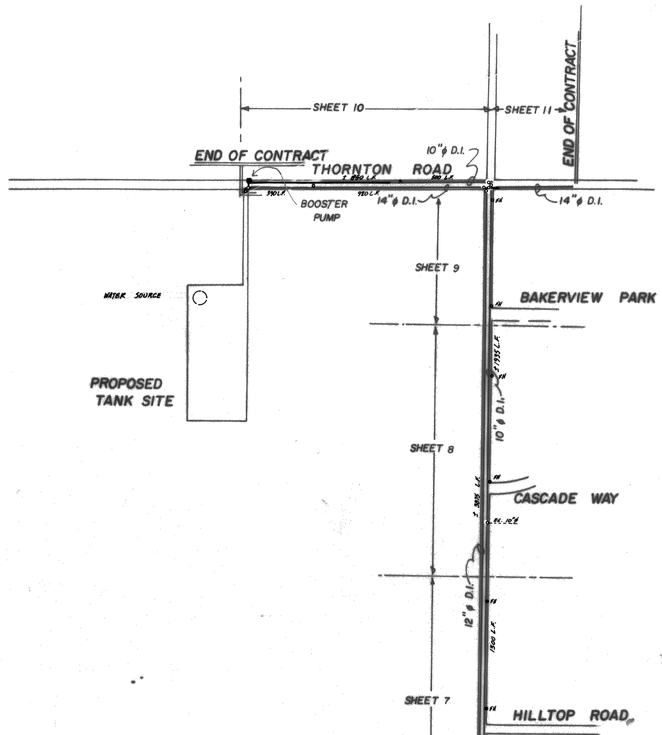
RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

RONALD T. JEPSON REGISTERED ENGINEER & LAND SURVEYOR STATE OF WASHINGTON
May 8, 80

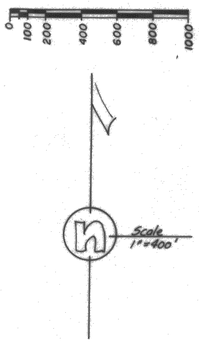
AS BUILT

JOB NO. 79008

BRUNING 44-132 44375







00111.003 2.3.06 KR

AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE 1"=400' DATE July 1979
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REVISIONS

FERNDALE U.L.I.D. NO. 5
Overall Plan

SHEET OF

JOB NO. 7900B

CITY OF FERNDALE WASHINGTON

PIPELINE INSTALLATION

WATER DISTRIBUTION SYSTEM

INSTALLATION

FERNDALE UTILITY LOCAL IMPROVEMENT

DISTRICT NO. 5

ATTORNEY: RICHARD LANGABEER

MAYOR: CECIL BARR

SUPERINTENDENT: JOHN ELEY

CITY COUNCIL:

J.A. IRWIN

X HAROLD REIMER

GARY GIBBONS

X WALTER TANGUY

JON DONNELLAN

X WATER COMMITTEE

CLERK: ROLAND SIGNETT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

AS BUILT



May 5, 1980

JOB NO. 7900

001100 pd 2.3.00 RR

00111.005 2.306 KR

"BAKER VIEW WATER ASSOC."

CONNECT TO "THORNTON ROAD WATER ASSOCIATION" CONNECT TO EXISTING 4"ϕ WITH P.R.V. METER VALVE.

SHEET P11

SHEET P12

END OF CONTRACT STA. 4100 ± (300 L.F.)

END OF CONTRACT

STA. 1+90.0 ±

STA. 0+00 ±

STA. 3+00 ± 10"ϕ D.I. 410 L.F.

CONNECT TO EXISTING 10"ϕ A.C. "BAKER VIEW WATER ASSOC." MAIN

CONNECT TO EXISTING 10"ϕ D.I.

VISTA DRIVE

EXISTING 1.0 MG (RES.#1) RESERVOIR & BOOSTER STATION

ALTITUDE VALVE STATION SHEETS A1-2

THORNTON ROAD

HATTON PL.

STA. 92+60

STA. 92+10

36 L.F. 10"ϕ

THORNTON ROAD PUMPING STATION SHEETS W1-2

14"ϕ D.I. 1920 L.F.

14"ϕ D.I.

EX. 14"ϕ

1.5 MG RESERVOIR (RES.# 2)

PROPOSED TANK SITE SHEETS R1-3

SHEET P10

785 L.F.

CONNECT TO EXISTING 6"ϕ

BAKERVIEW PARK

EX. 8"ϕ STA. 44+95

STA. 45+00

10"ϕ D.I. 1295 L.F.

SHEET P9

CASCADE WAY

EX. 8"ϕ STA. 32+40

1850 L.F.

CONNECT TO EXISTING CITY 8"ϕ

STA. 30+50

12"ϕ D.I. 3700 L.F.

"MT. VIEW WATER ASSOC." CONNECT WITH P.R.V. METER VALVE.

EX. 8"ϕ STA. 26+15

SHEET P8

CONNECT TO EXISTING METER VALVE

CONNECT TO "CENTRAL CITY WATER ASSOCIATION"

HILLTOP ROAD

EX. 6"ϕ STA. 22+30

CRESTLINE ROAD

CHURCH ROAD

STA. 15+00

HEIGHTS DR.

STA. 13+40 12"x12"x8" TUFTOR CONNECTION

SHEET P7

1850 L.F.

CONNECT TO EXISTING

EX. 8"ϕ STA. 8+25

CONNECT TO CITY'S EXISTING 8"ϕ

HENDRICKSON ROAD

SHEET P13

1835 L.F.

EX. 8"ϕ

STA. 16+35

CONNECT TO EXISTING

CONNECT TO EXISTING

EX. 8"ϕ

P.R.V.

NORWAY DRIVE

P.R.V.

CHURCH ROAD PUMPING STATION SHEETS N1-4 (A or B)

STA. 0400 ℄ ROAD

STA. 12+10

1935 L.F.

12"ϕ D.I.

EXISTING 8"ϕ CITY STA. 11+76

STA. 11+05

MT. BAKER AVE.

HAMLIN

STERLING AVE.

EX. 12"ϕ

CONNECT TO EXISTING

MT. VIEW ROAD

EX. 8"ϕ

600 L.F.

805 L.F.

400 L.F.

935 L.F.

45 L.F. 12"ϕ

CONNECT TO EX. CITY 8"ϕ

EX. 8"ϕ

CONNECT TO EXISTING 8"ϕ

STA. 41+10

STA. 34+00

STA. 29+15

STA. 8+25

STA. 0+00

SHEET P6

SHEET P5

DOUGLAS ROAD

SHEET P4

SHEET P3

SHEET P2

BEGINNING OF CONTRACT

EXISTING 8"ϕ

VISTA DRIVE

EBIR LANE

P.R.V.

EXISTING 8"ϕ

SCHOOL ST.

STA. 0+00

CONNECT TO EXISTING

EX. 8"ϕ

STA. 8+64

EX. 10"ϕ

REPLACE EX. 10"ϕ W/ 8"ϕ

WASHINGTON AVE.

VISTA DRIVE

EX. 8"ϕ

SHEET P14

MAIN

1ST

ALDER FRONT

FERNDALE ROAD

P.U.D. INDUSTRIAL WATER TREATMENT PLANT

CITY OF FERNDALE WATER TREATMENT PLANT

NOOKSACK RIVER

PROJECT SITE

FERNDALE

MARIETTA

LUMMI BAY

VICINITY MAP

0 100 200 400 600 800 1000

Scale 1"=400'

FIRE HYDRANT ASSEMBLY LOCATIONS

MOUNTAIN VIEW ROAD STATIONS	CHRUCH ROAD STATIONS	HENDRICKSON ROAD STATIONS
0+15	0+60	0+80
3+10	6+75	3+80
8+85	12+75	6+80
14+40	18+95	9+80
19+85	23+70	12+80
25+00	29+85	
28+10	35+95	
30+70	41+90	
36+00	45+50	
41+40	51+60	

AS BUILT

May 3, 1990.

RONALD T. JEPSON & ASSOC., INC.

REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

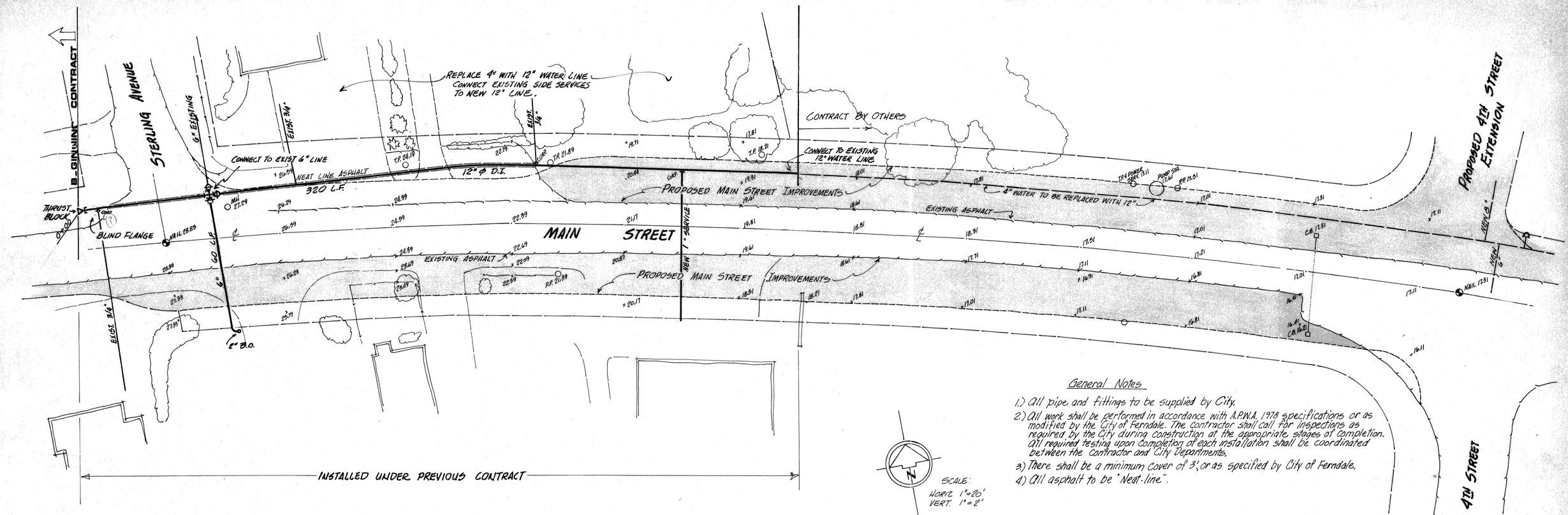
SCALE 1"=400' DATE July 1979
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REVISIONS
4-27-90 STATIONING

FERNDALE U.L.I.D. NO. 5
Overall Plan

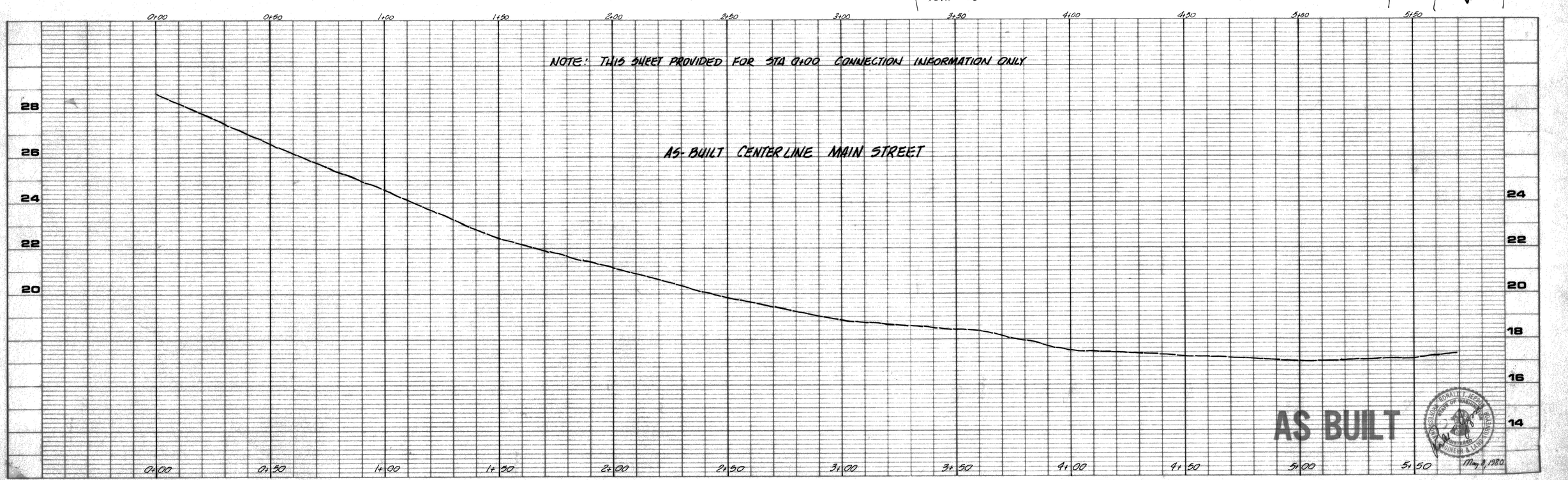
SHEET P1 OF P15

JOB NO. 79008



General Notes

1.) All pipe and fittings to be supplied by City.
2.) All work shall be performed in accordance with A.P.W.A. 1978 specifications or as modified by the City of Ferndale. The contractor shall call for inspections as required by the City during construction at the appropriate stages of completion. All required testing upon completion of each installation shall be coordinated between the contractor and City Departments.
3.) There shall be a minimum cover of 3', or as specified by City of Ferndale.
4.) All asphalt to be "Neat-line".



AS BUILT
May 7, 1980

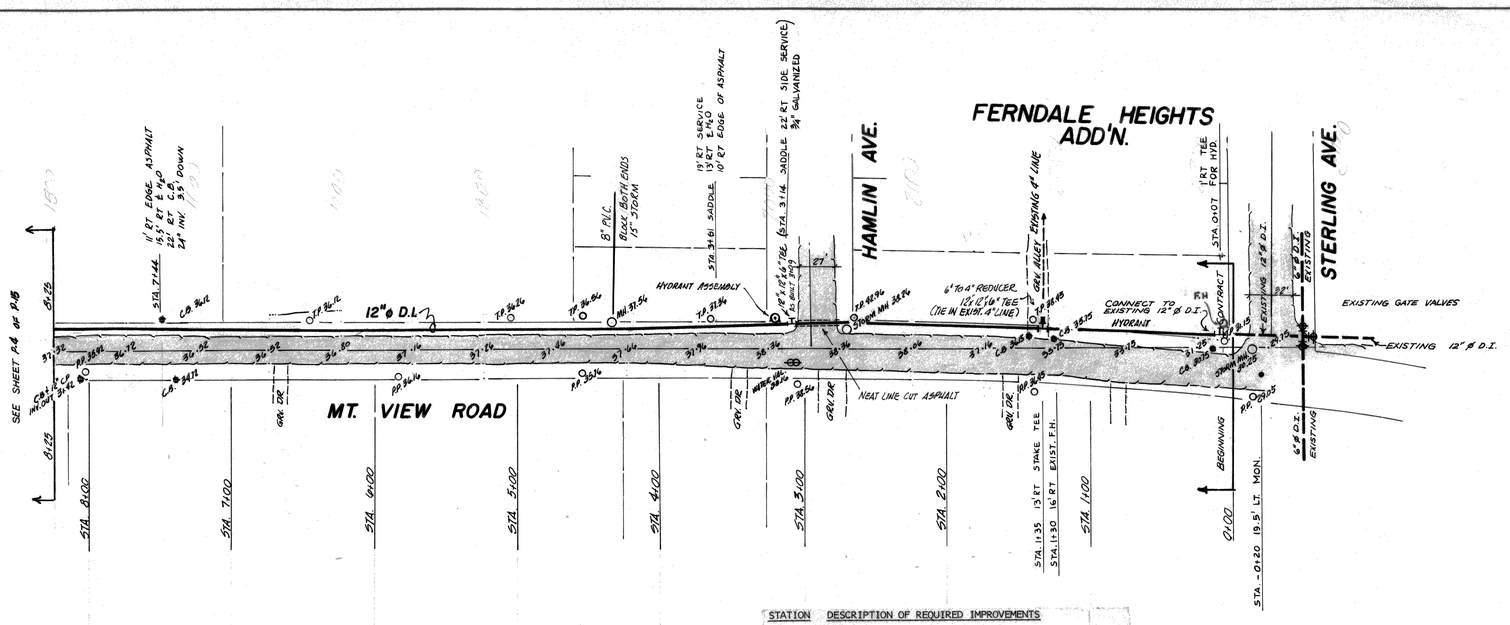
RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=20' DATE 14 JUNE 79
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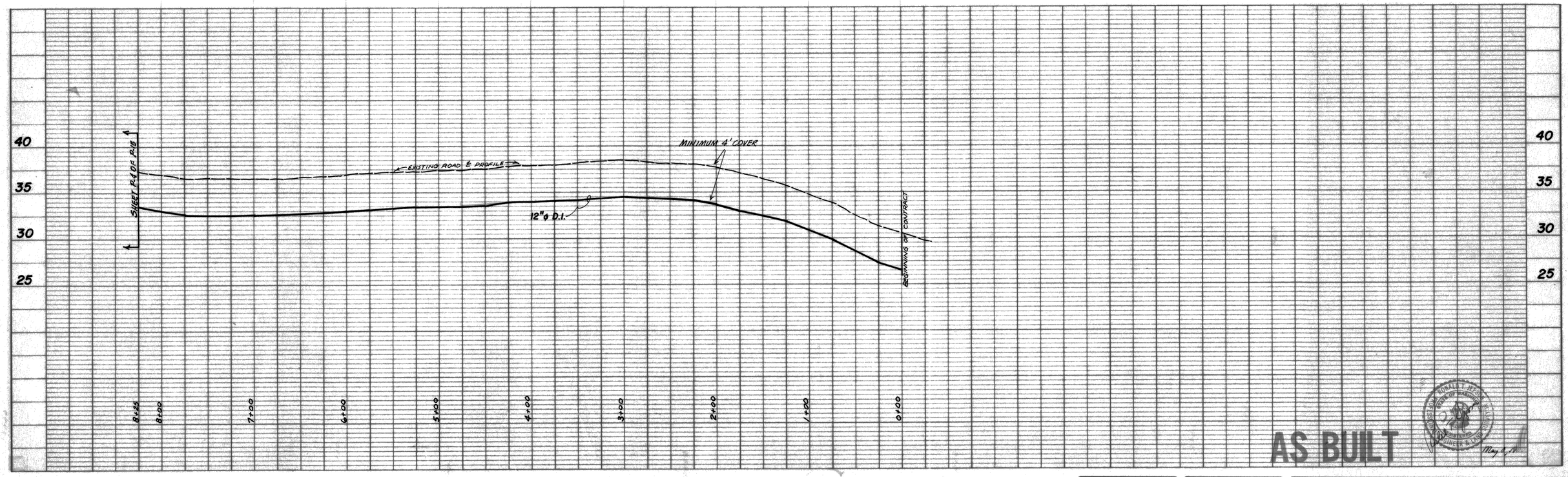
WATER MAIN EXTENSION
4TH STREET TO STERLING AVENUE

SHEET P2 P15

JOB NO. 79008



STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
0+00	CONNECT TO EXISTING 12" DIA. D.I. PIPE, BEGINNING OF CONTRACT.
0+15	INSTALL FIRE HYDRANT ASSEMBLY.
1+10	REMOVE EXISTING FIRE HYDRANT AND DELIVER TO OWNER.
1+20	1. INSTALL 12" X 12" X 6" "T". 2. INSTALL 6" TO 4" REDUCER. 3. CONNECT TO EXISTING 4" WATER MAIN.
2+65	NEAT LINE CUT ASPHALT ACROSS HAMLIN AVENUE.
3+10	INSTALL FIRE HYDRANT ASSEMBLY



AS BUILT

May 2, 19

RONALD T. JEPSON & ASSOC., INC.

REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=50' DATE JUNE 79
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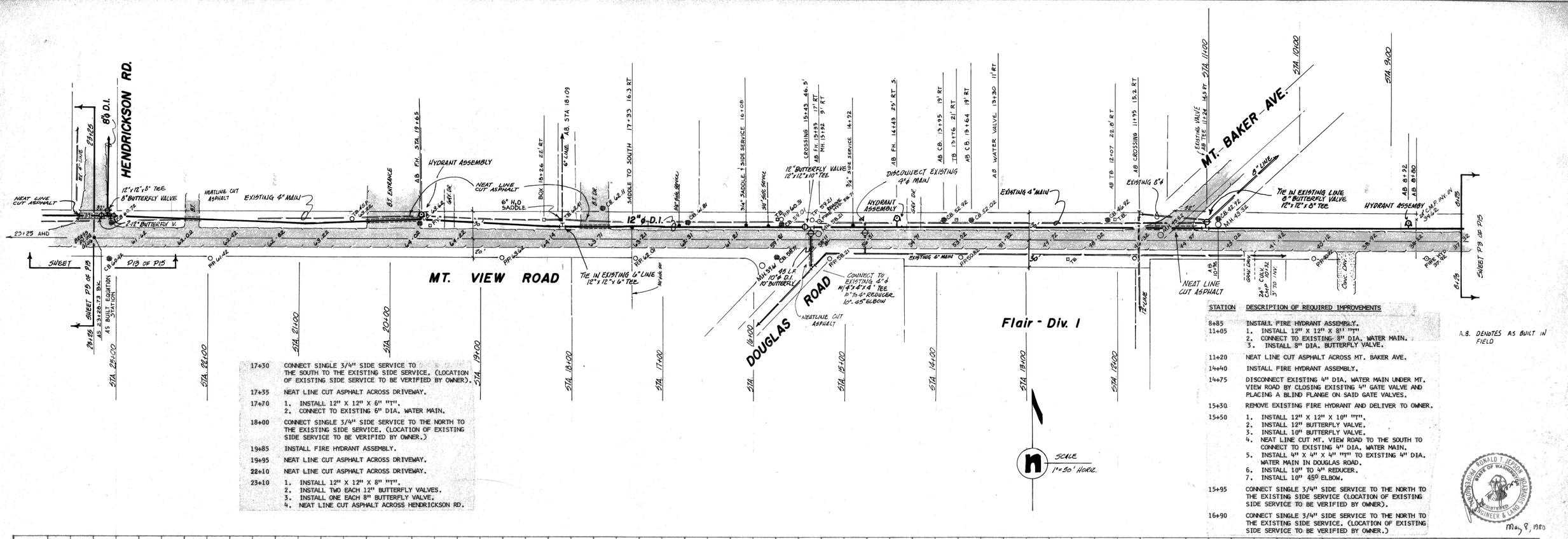
REVISIONS
3/81 AS BUILT

FERNDALE ULID NO. 5

SHEET P3 P15

JOB NO. 79008

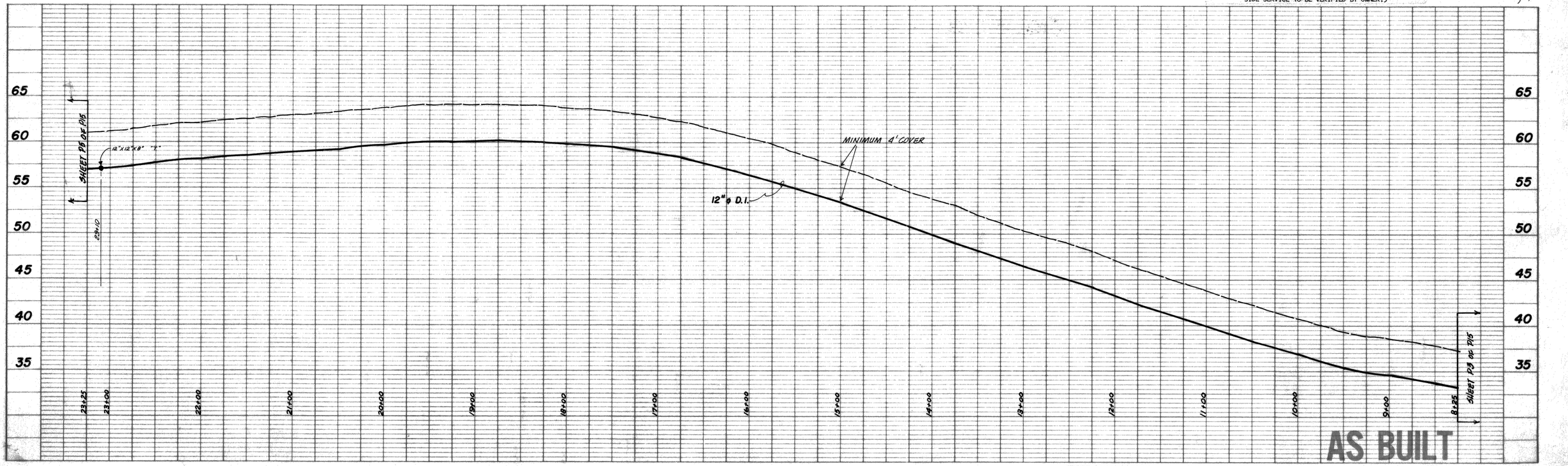
001|1.007 2.3.06 KR



STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
8+85	INSTALL FIRE HYDRANT ASSEMBLY.
11+05	1. INSTALL 12" X 12" X 8" "T". 2. CONNECT TO EXISTING 8" DIA. WATER MAIN. 3. INSTALL 8" DIA. BUTTERFLY VALVE.
11+20	NEAT LINE CUT ASPHALT ACROSS MT. BAKER AVE.
14+40	INSTALL FIRE HYDRANT ASSEMBLY.
14+75	DISCONNECT EXISTING 4" DIA. WATER MAIN UNDER MT. VIEW ROAD BY CLOSING EXISITNG 4" GATE VALVE AND PLACING A BLIND FLANGE ON SAID GATE VALVES.
15+30	REMOVE EXISTING FIRE HYDRANT AND DELIVER TO OWNER.
15+50	1. INSTALL 12" X 12" X 10" "T". 2. INSTALL 12" BUTTERFLY VALVE. 3. INSTALL 10" BUTTERFLY VALVE. 4. NEAT LINE CUT MT. VIEW ROAD TO THE SOUTH TO CONNECT TO EXISTING 4" DIA. WATER MAIN. 5. INSTALL 4" X 4" X 4" "T" TO EXISTING 4" DIA. WATER MAIN IN DOUGLAS ROAD. 6. INSTALL 10" TO 4" REDUCER. 7. INSTALL 10" 45° ELBOW.
15+95	CONNECT SINGLE 3/4" SIDE SERVICE TO THE NORTH TO THE EXISTING SIDE SERVICE (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER).
16+90	CONNECT SINGLE 3/4" SIDE SERVICE TO THE NORTH TO THE EXISTING SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)

A.B. DENOTES AS BUILT IN FIELD

STATION	DESCRIPTION
17+30	CONNECT SINGLE 3/4" SIDE SERVICE TO THE SOUTH TO THE EXISTING SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER).
17+35	NEAT LINE CUT ASPHALT ACROSS DRIVEWAY.
17+70	1. INSTALL 12" X 12" X 6" "T". 2. CONNECT TO EXISTING 6" DIA. WATER MAIN.
18+00	CONNECT SINGLE 3/4" SIDE SERVICE TO THE NORTH TO THE EXISTING SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
19+85	INSTALL FIRE HYDRANT ASSEMBLY.
19+95	NEAT LINE CUT ASPHALT ACROSS DRIVEWAY.
22+10	NEAT LINE CUT ASPHALT ACROSS DRIVEWAY.
23+10	1. INSTALL 12" X 12" X 8" "T". 2. INSTALL TWO EACH 12" BUTTERFLY VALVES. 3. INSTALL ONE EACH 8" BUTTERFLY VALVE. 4. NEAT LINE CUT ASPHALT ACROSS HENDRICKSON RD.



AS BUILT

00111.008 2.3.00 KR

REGISTERED PROFESSIONAL ENGINEER
RONALD T. JEPSON
STATE OF WASHINGTON
REGISTERED ENGINEER & LAND SURVEYOR
May 8, 1980

RONALD T. JEPSON & ASSOC., INC.

REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=50' DATE JUNE '79
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REVISION 3/81 AS BUILT

FERNDALE U.L.I.D NO. 5

SHEET P4 OF P15

JOB NO. 79008

ENN'S SHORT PLAT

HENDRICKSON RD.

MT. VIEW ROAD

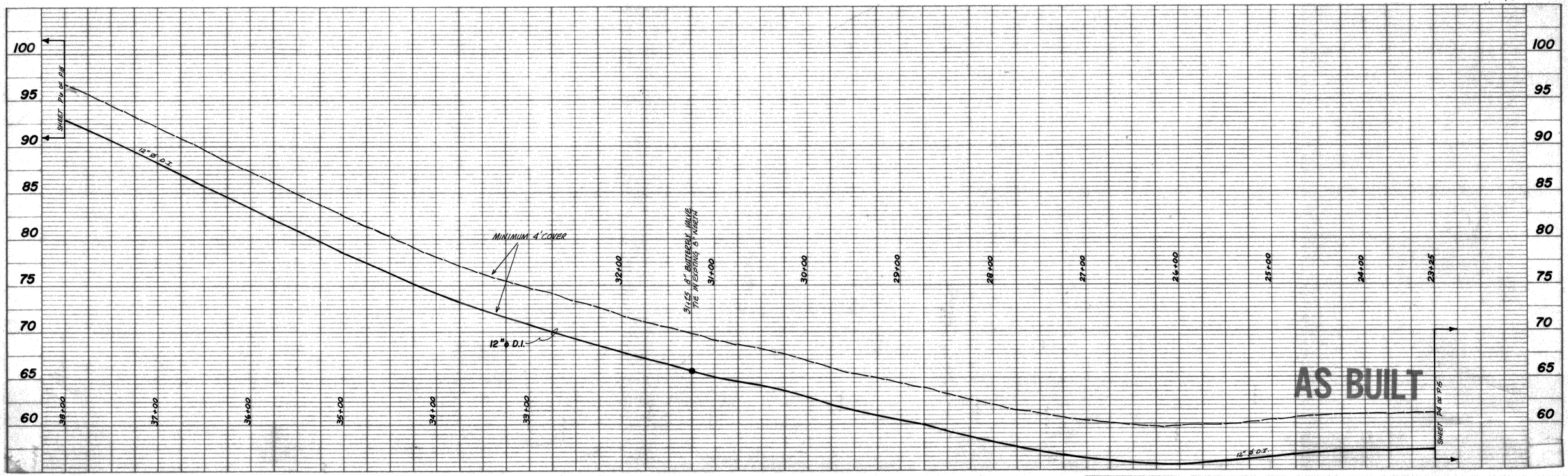
AS BUILT
ALL 20.4 RT
23+19.2 12" VALVE
23+17.8 8" VALVE
23+16.3 RELEASE VALVE
23+13.8 12" VALVE

1-8" BUTTERFLY VALVE
2-12" BUTTERFLY VALVES
12"x12"x8" TEE

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
23+45	DISCONNECT EXISTING 4" DIA. WATER MAIN BY CLOSING EXISTING 4" GATE VALVE AND INSTALLING AND PLACING BLIND FLANGE ON SAID GATE VALVE.
25+00	INSTALL FIRE HYDRANT ASSEMBLY.
25+05	NEAT LINE CUT ASPHALT DRIVEWAY.
27+45	CONNECT SINGLE 2" SIDE SERVICE TO THE SOUTH TO THE EXISTING 2" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
28+10	INSTALL FIRE HYDRANT ASSEMBLY.
30+70	INSTALL FIRE HYDRANT ASSEMBLY.
31+25	1. INSTALL 12" X 12" X 8" "T". 2. INSTALL 12" BUTTERFLY VALVE. 3. CONNECT TO EXISTING 8" GATE VALVE.
33+90	NEAT LINE CUT ASPHALT ACROSS DRIVEWAY.
36+00	INSTALL FIRE HYDRANT ASSEMBLY.
36+15	NEAT LINE CUT CONCRETE DRIVEWAY.
36+35	CONNECT SINGLE 3/4" SIDE SERVICE TO THE NORTH TO THE EXISTING SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)

SCALE 1"=30' HORIZ.

May 8, 1980



RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=30' DATE JUNE '79
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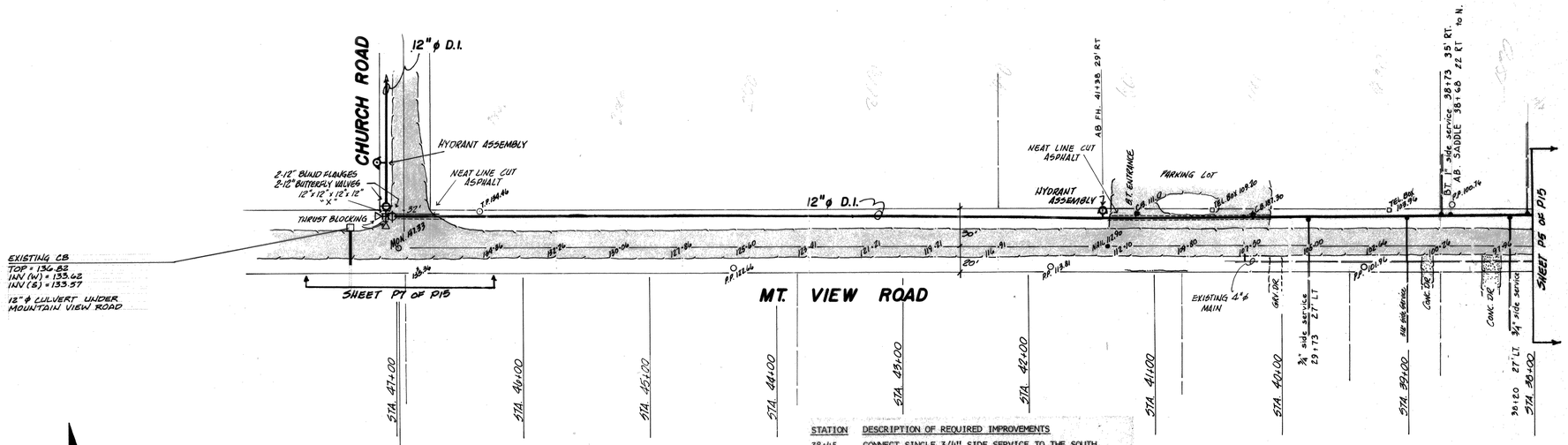
REVISIONS
3/81 AS BUILT

FERNDALE U.L.I.D. NO. 5

SHEET P5 OF P15

JOB NO. 79008

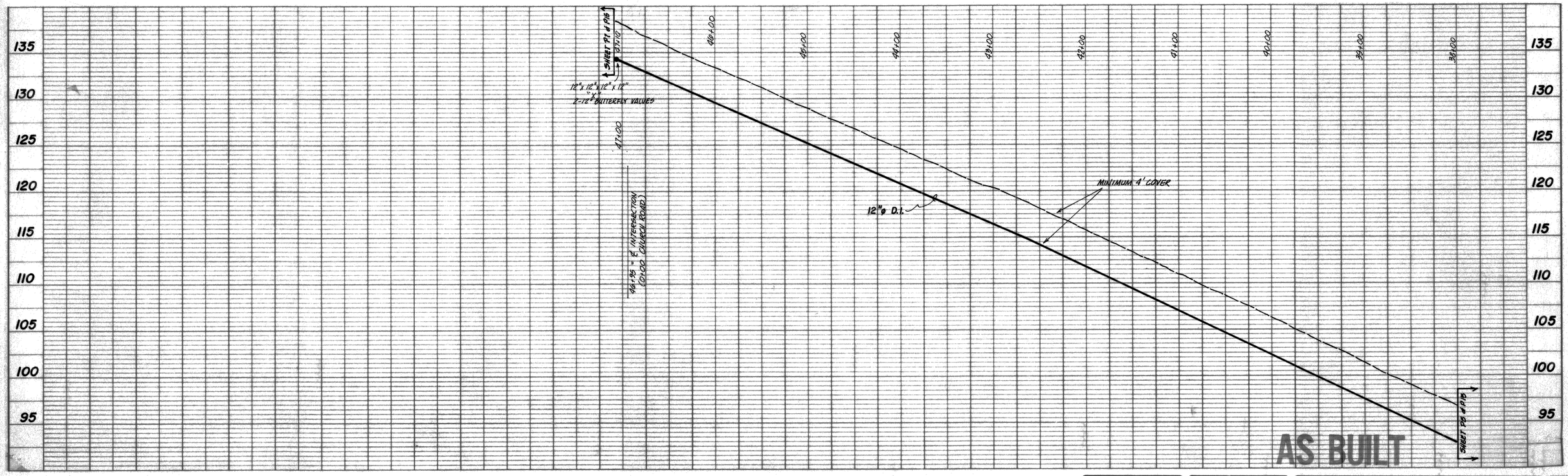
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STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
38+45	CONNECT SINGLE 3/4" SIDE SERVICE TO THE SOUTH TO THE EXISTING SIDE SERVICE. (LOCATION OF THE EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER).
39+00	CONNECT SINGLE 3/4" SIDE SERVICE TO THE SOUTH TO THE EXISTING SIDE SERVICE. (LOCATION OF THE EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
39+90	CONNECT SINGLE 3/4" SIDE SERVICE TO THE SOUTH TO THE EXISTING SIDE SERVICE. (LOCATION OF THE EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
40+05	NEAT LINE CUT ASPHALT ACROSS DRIVEWAY.
40+30	CONNECT SINGLE 1" SIDE SERVICE TO THE NORTH TO THE EXISTING SIDE SERVICE. (LOCATION OF THE EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
41+40	INSTALL FIRE HYDRANT ASSEMBLY.
46+75	NEAT LINE CUT ASPHALT ACROSS CHURCH ROAD.
47+10	1. INSTALL 12" X 12" X 12" X 12" "X" 2. INSTALL 2 EACH, 12" DIA. BUTTERFLY VALVES 3. INSTALL 2 EACH, 12" BLIND FLANGES

SCALE
1"=50' HORIZ.

REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR
RONALD T. JEPSON
STATE OF WASHINGTON
May 8, 1980



AS BUILT

RONALD T. JEPSON & ASSOC., INC.

REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE 1"=50' DATE JUNE '79
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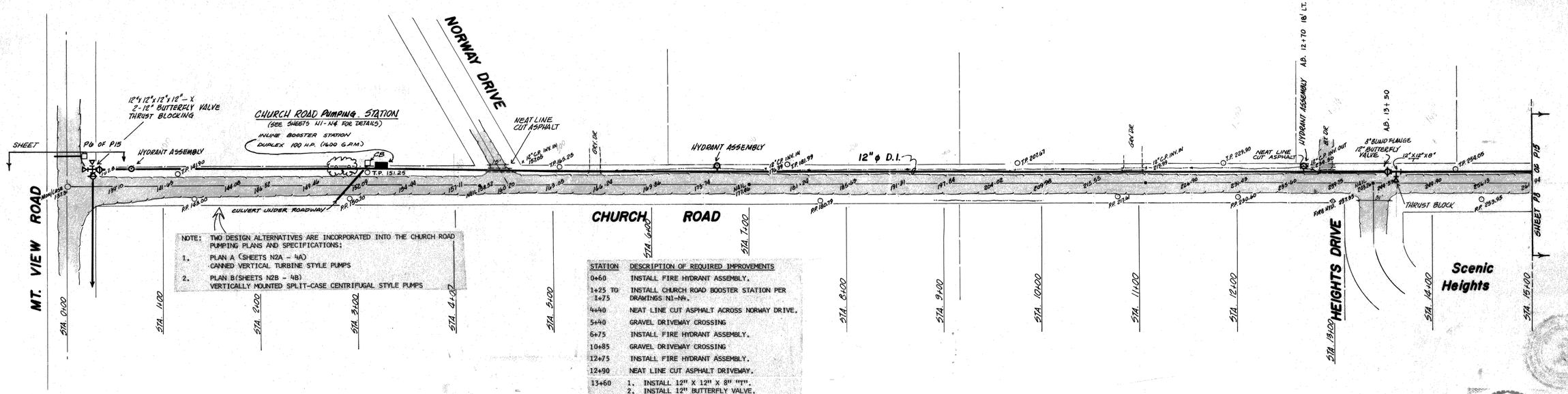
REVISIONS
AS BUILT 3/81

FERNDALE U.L.I.D. NO. 5

SHEET P6 OF P15

JOB NO. 79008

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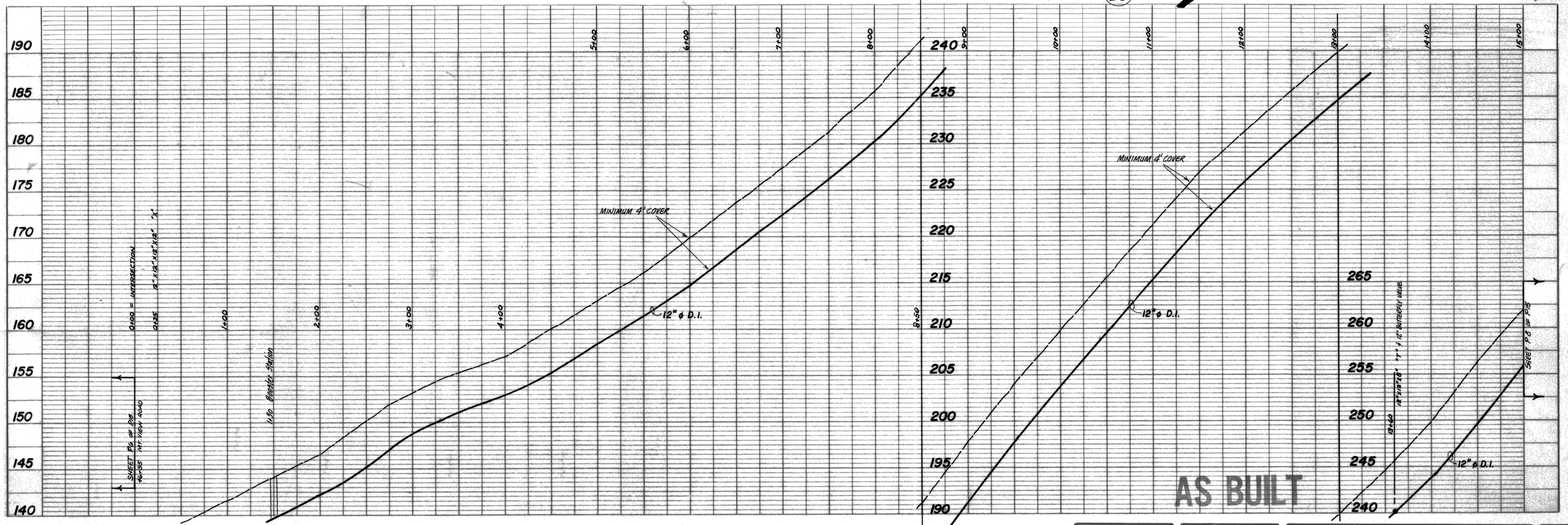


NOTE: TWO DESIGN ALTERNATIVES ARE INCORPORATED INTO THE CHURCH ROAD PUMPING PLANS AND SPECIFICATIONS:

1. PLAN A (SHEETS N2A - 4A) CANNED VERTICAL TURBINE STYLE PUMPS
2. PLAN B (SHEETS N2B - 4B) VERTICALLY MOUNTED SPLIT-CASE CENTRIFUGAL STYLE PUMPS

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
0+60	INSTALL FIRE HYDRANT ASSEMBLY.
1+25 TO 1+75	INSTALL CHURCH ROAD BOOSTER STATION PER DRAWINGS N1-N4.
4+40	NEAT LINE CUT ASPHALT ACROSS NORWAY DRIVE.
5+40	GRAVEL DRIVEWAY CROSSING
6+75	INSTALL FIRE HYDRANT ASSEMBLY.
10+85	GRAVEL DRIVEWAY CROSSING
12+75	INSTALL FIRE HYDRANT ASSEMBLY.
12+90	NEAT LINE CUT ASPHALT DRIVEWAY.
13+60	1. INSTALL 12" X 12" X 8" "T". 2. INSTALL 12" BUTTERFLY VALVE. 3. INSTALL 8" BLIND FLANGE.

SCALE 1"=50' HORIZ.



AS BUILT

May 8, 1980

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

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REVISIONS
AS BUILT 3/81

FERNDALE U.L.I.D. NO. 5

SHEET P7 OF P15

JOB NO. 79008

0811.012 2.3.06 KR

12" WATER MAIN

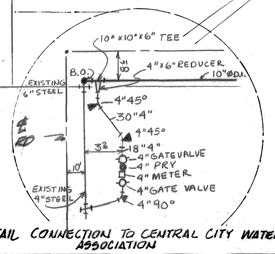
STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
16+30	NEAT LINE CUT ASPHALT DRIVEWAY.
17+90	NEAT LINE CUT ASPHALT DRIVEWAY.
18+95	INSTALL FIRE HYDRANT ASSEMBLY.
19+00	GRAVEL DRIVEWAY CROSSING
20+30	GRAVEL DRIVEWAY CROSSING
24+60	GRAVEL DRIVEWAY CROSSING
27+70	GRAVEL DRIVEWAY CROSSING
29+50	GRAVEL DRIVEWAY CROSSING

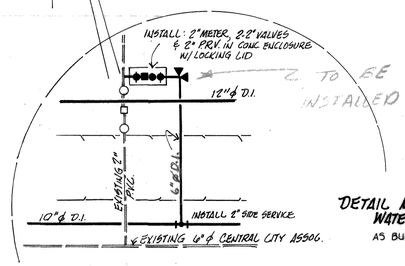
10" WATER MAIN

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
22+90	1. INSTALL 10"X10"X6" TEE. 2. INSTALL CONCRETE ENCLOSURE W/LOCKING LID. 3. INSTALL 2" BLOW OFF ASSEMBLY. 4. INSTALL 4" PRESSURE REDUCING VALVE. 5. INSTALL 2 - 4" DIA. BUTTERFLY VALVES. 6. INSTALL 4" WATER METER. 7. INSTALL 2 - 6"X4" REDUCERS. 8. TIE-IN TO EXISTING 6" WATER MAIN. (LOCATION OF EXISTING WATER MAIN TO BE VERIFIED BY OWNER)
23+70	INSTALL FIRE HYDRANT ASSEMBLY.
23+75	NEAT LINE CUT CONCRETE DRIVEWAY.
24+80	NEAT LINE CUT ASPHALT DRIVEWAY.
26+15	INSTALL 2" SIDE SERVICE TO MT. VIEW WATER ASSOC. 1. INSTALL 2" TAP TO 10" DIA. D.I. 2. CROSS CHURCH ROAD WITH 2" P.V.C. 3. INSTALL CONCRETE ENCLOSURE W/LOCKING LID. 4. INSTALL 2" PRESSURE REDUCING VALVE. 5. INSTALL 2 - 2" BUTTERFLY VALVES 6. INSTALL 2" WATER METER. 7. TIE INTO EXISTING 2" WATER MAIN.
27+00	GRAVEL DRIVEWAY CROSSING
28+10	GRAVEL DRIVEWAY CROSSING
29+85	INSTALL FIRE HYDRANT ASSEMBLY

CHURCH ROAD
CRESTLINE ROAD
HILLTOP ROAD
Allview Heights
NEAT LINE CUT ASPHALT
HYDRANT ASSEMBLY
12" ϕ D.I.
10" ϕ D.I.
EXISTING 6" ϕ LINE (CENTRAL CITY WATER ASSOC.)
SEE DETAIL BELOW HYDRANT ASSEMBLY
EXISTING 6" 4' DOWN INV. 10.8± RT.
EXISTING 6" LINE
SEE DETAIL BELOW
ELEV. 8" ALLVIEW WATER ASSOC. 26103 + 26109 CROSSING ENCLOSED 4" GALVANIZED 26103 EAST 2" STEEL 1.0
A.B. 18+27 19' LT.
A.B. 24+15 18' RT.
A.B. 29+56 18.5 R.T.
SHEET 97 OF P15
SHEET 99 OF P15

DETAIL CONNECTION TO CENTRAL CITY WATER ASSOCIATION



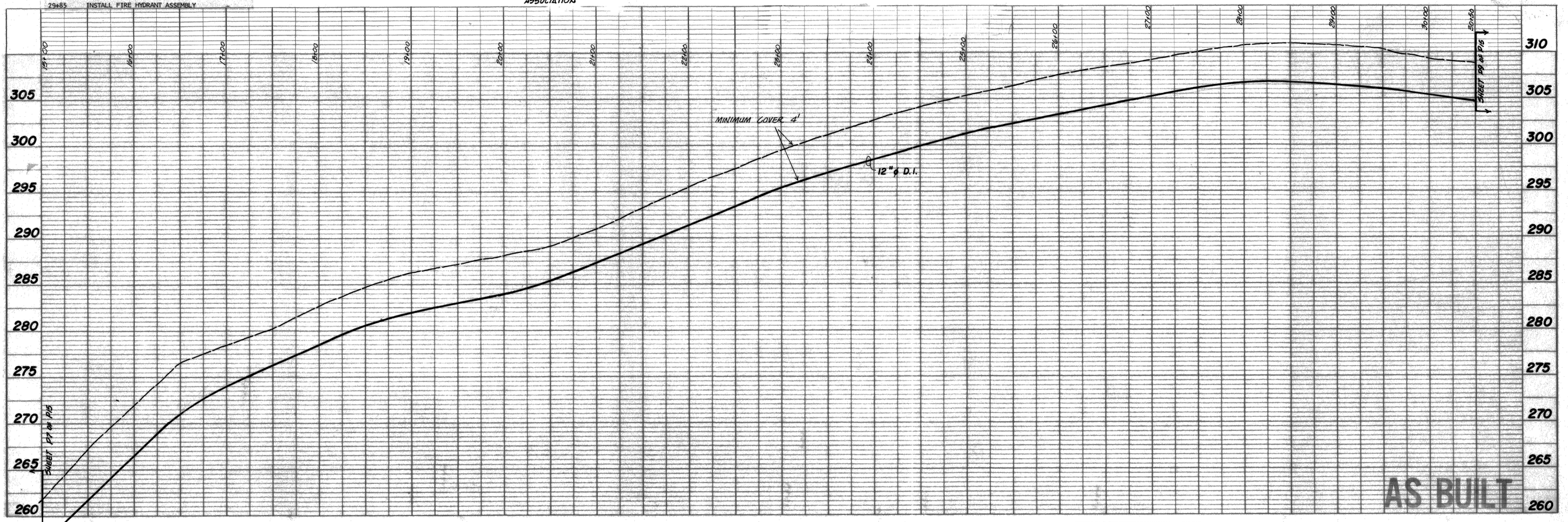


2" TO BE INSTALLED BY CITY

DETAIL MT. VIEW WATER ASSOCIATION
AS BUILT REVERSED

Scale: 1"=50'

RONALD T. JEPSON REGISTERED ENGINEER & LAND SURVEYOR — May 8, 1980



AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=50' DATE JUNE '79
DRAWN BY dc
CHECKED BY
APPROVED

REVISIONS
AS BUILT 3/81

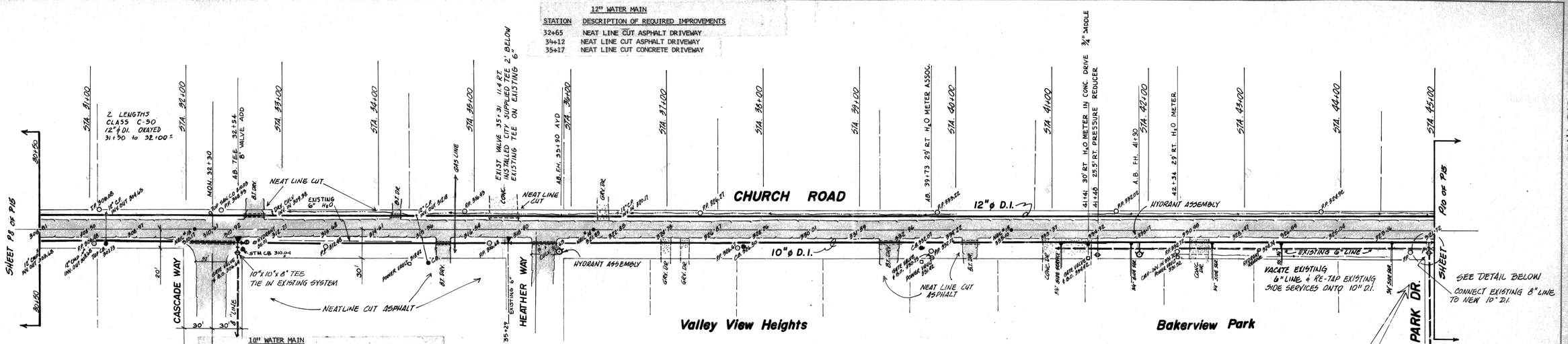
FERNDALE U.L.I.D. NO. 5

SHEET P8 OF P15

JOB NO. 79008

12" WATER MAIN

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
32+65	NEAT LINE CUT ASPHALT DRIVEWAY
34+12	NEAT LINE CUT ASPHALT DRIVEWAY
35+17	NEAT LINE CUT CONCRETE DRIVEWAY



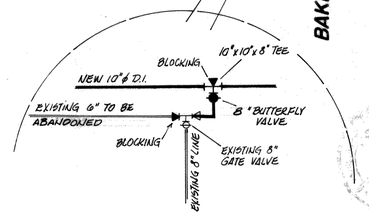
10" WATER MAIN

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
32+10	NEAT LINE CUT ASPHALT ACROSS ROAD
32+60	1. INSTALL 10" X 10" X 8" "T". 2. INSTALL 10" BUTTERFLY VALVE. 3. TIE-IN TO EXISTING 8" DIA. WATER MAIN. 4. REMOVE EXISTING B.O. ASSY. AND DELIVER TO OWNER
34+65	NEAT LINE CUT ASPHALT DRIVEWAY
35+60	NEAT LINE CUT ASPHALT ACROSS CASCADE WAY.
35+95	INSTALL FIRE HYDRANT ASSEMBLY.
36+95	GRAVEL DRIVEWAY CROSSING
37+15	GRAVEL DRIVEWAY CROSSING
39+20	NEAT LINE CUT ASPHALT DRIVEWAY
40+05	NEAT LINE CUT ASPHALT DRIVEWAY
40+75	NEAT LINE CUT CONCRETE DRIVEWAY
41+10	CONNECT SINGLE 3/4" SIDE SERVICE TO THE EAST TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER)

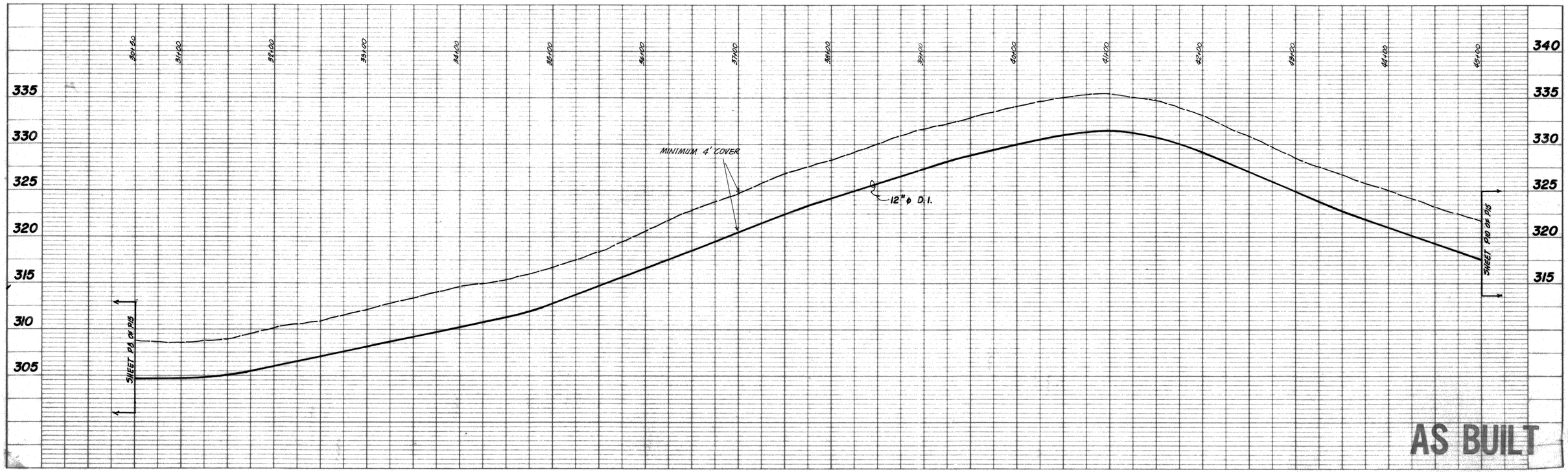
10" WATER MAIN (CONT.)

41+80	CONNECT SINGLE 3/4" SIDE SERVICE TO EAST TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER)
41+90	INSTALL FIRE HYDRANT ASSEMBLY.
42+45	NEAT LINE CUT CONCRETE DRIVEWAY
42+65	CONNECT SINGLE 3/4" SIDE SERVICE TO EAST TO THE EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER)
43+15	REMOVE EXISTING FIRE HYDRANT AND DELIVER TO OWNER.
43+40	CONNECT SINGLE 3/4" SIDE SERVICE TO THE EAST TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER)
44+55	CONNECT SINGLE 3/4" SIDE SERVICE TO THE EAST TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER)
44+95	1. INSTALL 10" X 10" X 8" "T" 2. INSTALL 10" BUTTERFLY VALVE 3. TIE-IN TO EXISTING 8" DIA. WATER 4. BLIND FLANGE EXISTING TEE.

SCALE 1"=50' HORIZ.



REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR — RONALD T. JEPSON — STATE OF WASHINGTON — May 8, 1980



AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=50' DATE JUNE '79
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REVISIONS
AS BUILT 9/81

FERNDALE U.L.I.D. NO. 5

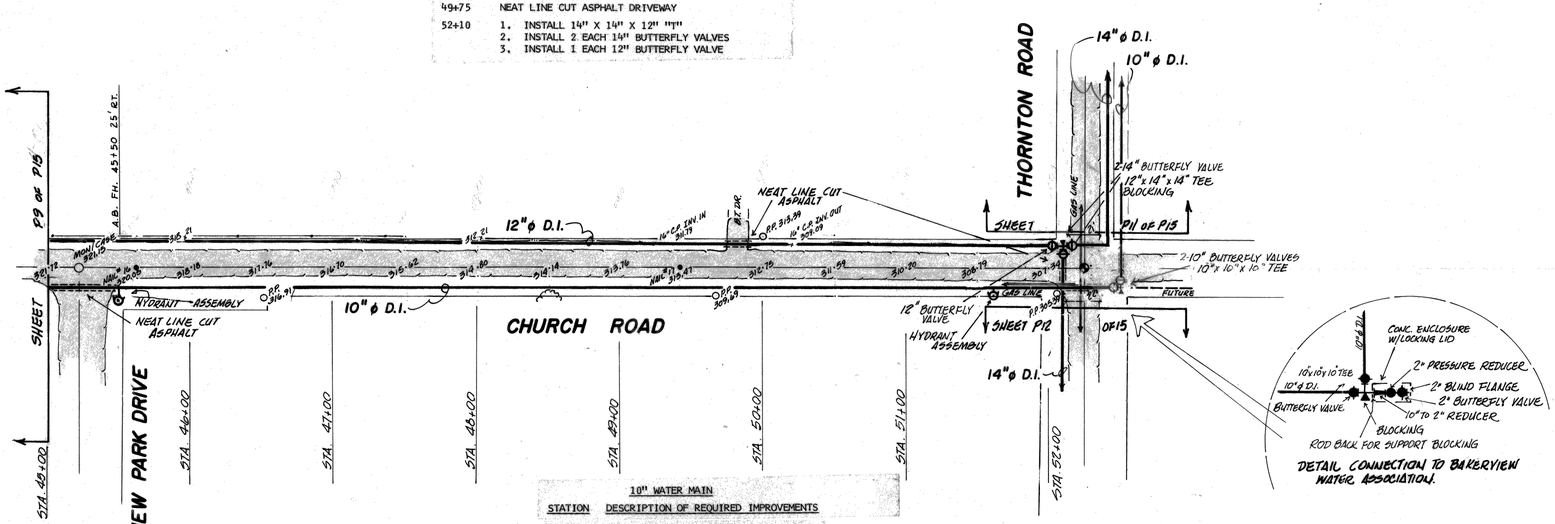
SHEET P9 P15

JOB NO. 79008

0011.014 2:3:06 KR

12" WATER MAIN

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
49+75	NEAT LINE CUT ASPHALT DRIVEWAY
52+10	1. INSTALL 14" X 14" X 12" "T" 2. INSTALL 2 EACH 14" BUTTERFLY VALVES 3. INSTALL 1 EACH 12" BUTTERFLY VALVE

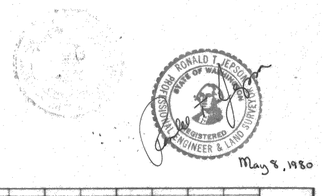


DETAIL CONNECTION TO BAKERVIEW WATER ASSOCIATION.

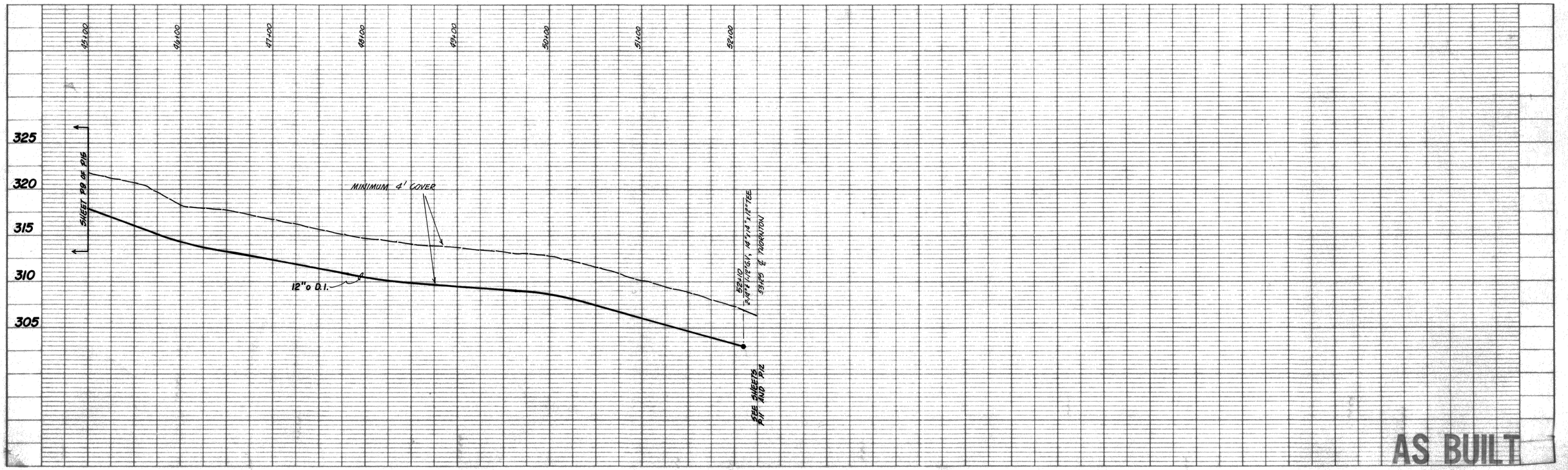
10" WATER MAIN

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
45+00	NEAT LINE ACROSS BAKERVIEW PARK DRIVE
45+50	INSTALL FIRE HYDRANT ASSEMBLY
51+60	INSTALL FIRE HYDRANT ASSEMBLY
52+10	NEAT LINE CUT ASPHALT ACROSS THORNTON ROAD
52+40	1. INSTALL 10" X 10" X 10" "T" 2. INSTALL 2 EACH 10" BUTTERFLY VALVES 3. INSTALL 10" TO 2" REDUCER 4. INSTALL 2" PRESSURE REDUCER VALVE 5. INSTALL 2" BLIND FLANGE FOR CONNECTION TO BAKERVIEW WATER ASSOC. 6. INSTALL CONCRETE ENCLOSURE W/LOCKING LID.

SCALE 1"=50' HORIZ



May 8, 1980



AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=50' DATE JUNE '79
DRAWN BY AL
CHECKED BY
APPROVED

REVISIONS
14' MOVED NORTH DEC. '80
AS BUILT 3/81

FERNDALE U.L.I.D. NO. 5

SHEET P10 P15

JOB NO. 79008

00111.015 2.3.06 KR

10" WATER MAIN

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
0+10	NEAT LINE CUT ACROSS CHURCH ROAD
4+90	1. INSTALL 10" X 10" X 10" X 10" "X". 2. INSTALL 10" BUTTERFLY VALVE. 3. INSTALL 10" BLIND FLANGE 4. INSTALL 10" TO 4" REDUCER. 5. INSTALL 4" PRESSURE REDUCER. 6. INSTALL 4" BUTTERFLY VALVE. 7. INSTALL 4" WATER METER 8. INSTALL 4" X 4" X 4" TEE TO EXISTING 4" DIA. THORNTON WATER ASSOC. WATER MAIN
12+90	1. INSTALL 10" x 10" x 10" TEE. 2. INSTALL BLINDFLANGE (WEST) AND THRUST BLOCKS.
12+90 to 13+30	INSTALL THORNTON ROAD BOOSTER STATION PER DRAWINGS W1-W2.
13+30	END OF CONTRACT.

14" WATER MAIN

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
7+85	NEAT LINE CUT ASPHALT DRIVEWAY
12+00	GRAVEL DRIVEWAY CROSSING
13+30	1. INSTALL 14" X 14" X 14" X 14" "X". 2. INSTALL 2 EACH 14" BUTTERFLY VALVES 3. INSTALL 14" TO 10" REDUCER 4. INSTALL 14" BLIND FLANGE 5. INSTALL 18" TO 14" REDUCER 6. INSTALL 14"X10" REDUCER. 7. INSTALL 10" ELBOW.
13+30	END OF CONTRACT

THORNTON ROAD PUMPING STATION (SEE SHEETS W1-W2 FOR DETAILS)

END OF CONTRACT

Tank Site

INSTALLED BY OTHERS

EXISTING SIDE SERVICES 12+39 20' L.F.

EXISTING 5-S, 8-104 20' L.F.

EXISTING GATE VALVE & BOX FOR THORNTON WAT. ASSOC.

TEL. BOX 333.8

EXISTING 4" ϕ WATER MAIN THORNTON ROAD WATER ASSOC.

CROSS 4Ø 4+91 25° RT

SEE DETAIL BELOW

10" ϕ D.I.

25' OFF ℄

10'

14" ϕ D.I.

THORNTON ROAD

NOTE: EXISTING SIDE SERVICES NOT CONNECTED

STA. 13+00 · STA. 12+00 · STA. 11+00 · STA. 10+00 · STA. 9+00 · STA. 8+00 · STA. 7+00 · STA. 6+00 · STA. 5+00 · STA. 4+00 · STA. 3+00 · STA. 2+00 · STA. 1+00 · STA. 0+00

BLOCKING
BLIND FLANGE
10" BUTTERFLY VALVE
10"x10"x10"x10" "X"
10" ϕ
10" TO 4" REDUCER
14" ϕ
4" BUTTERFLY VALVES
PRESSURE REDUCING VALVE
4" WATER METER
4"x4"x4" TEE BLOCKING
4" ϕ THORNTON WATER ASSOC.
CONC. ENCLOSURE W/LOCKING LID

SEE P-10 FOR DETAILS

2-10" BUTTERFLY VALVES PLUG & BLOCKING 10"x 10"x 10" TEE

NEAT LINE CUT ASPHALT

PIC 04+18

14"x14"x12" TEE
2-14" ϕ 1-12" BUTTERFLY VALVES

12" ϕ D.I.

SHEET P10 of 15

14" ϕ D.I.

SHEET

10" ϕ D.I.

CHURCH ROAD

SCALE
1" = 50' HORIZ.

RONALD T. JEPSON
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR
May 8, 1980

355 350 345 340 335 330 325 320 315 310 305

END OF CONTRACT

INTERSECTION OF CHURCH & THORNTON

14" ϕ D.I.

MINIMUM 4' COVER

AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=50 DATE JUNE '79
DRAWN BY AL
CHECKED BY
APPROVED

REVISIONS
AS BUILT 5/81

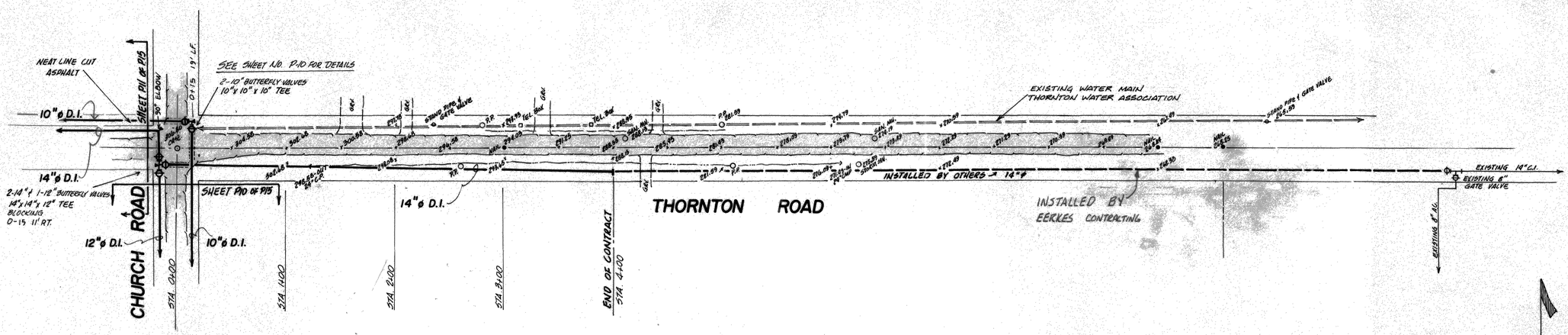
FERNDALE U.L.I.D. NO. 5

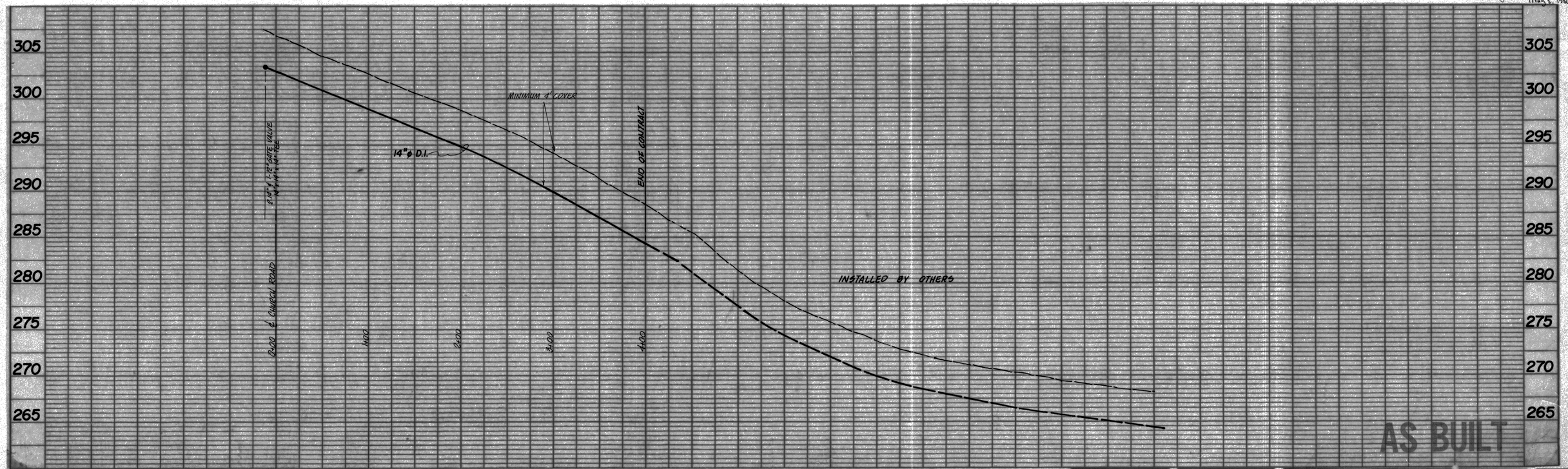
SHEET P11 of P15

JOB NO. 79008

14

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
0+10	NEAT LINE CUT ASPHALT ACROSS CHURCH ROAD.
4+00	CONNECT TO EXISTING 14" DIA. WATER MAIN WHICH IS INSTALLED BY OTHERS.





RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE 1"=50' DATE Aug. 1979
DRAWN BY Anne
CHECKED BY
APPROVED

REVISIONS
10"ø MOVED NORTH DEC '80
AS BUILT 3/81

FERNDALE U.L.I.D. NO. 5

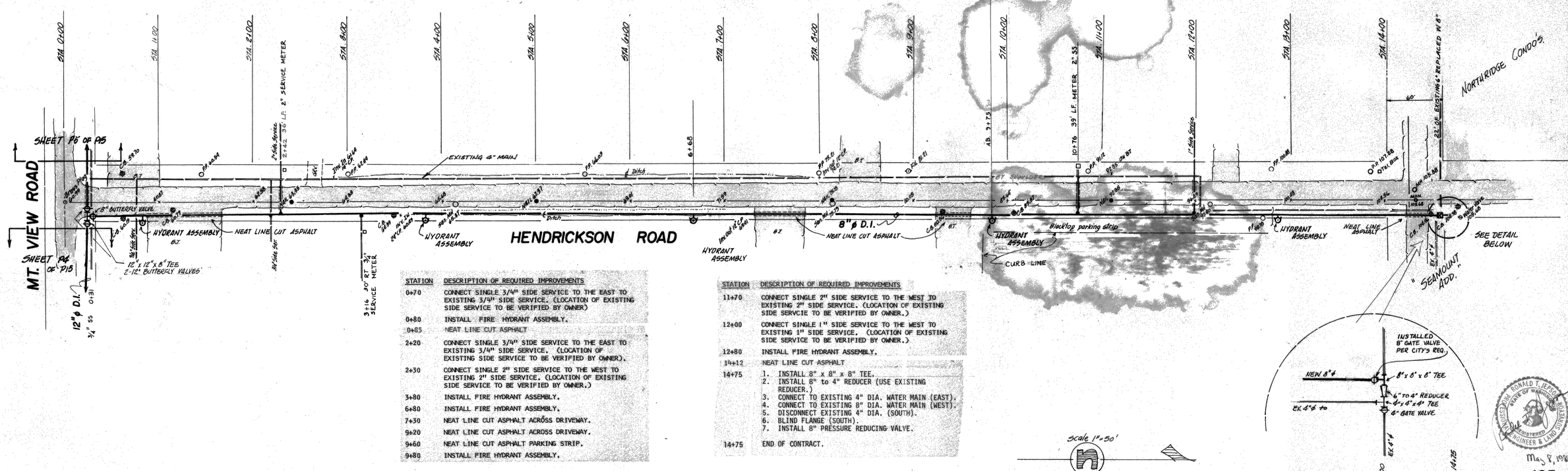
SHEET P 12 OF P 15

JOB NO. 79008

0011.016 2.3.06 KR

May 8, 1980

00111.017 2.3.06 KR



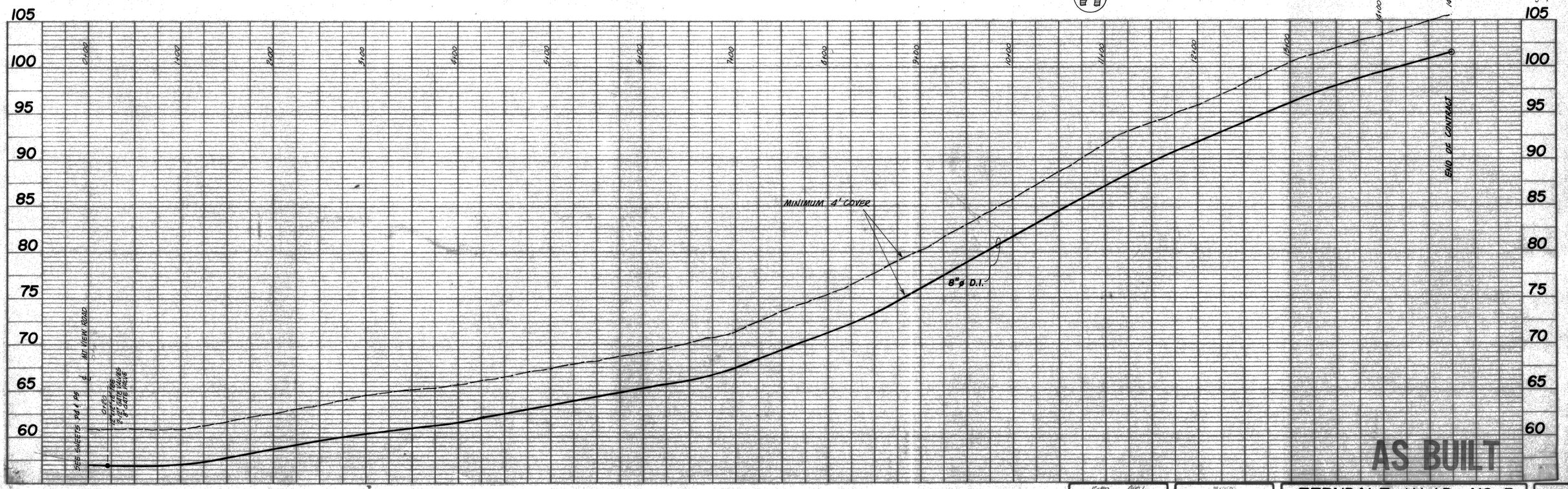
STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
0+70	CONNECT SINGLE 3/4" SIDE SERVICE TO THE EAST TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER)
0+80	INSTALL FIRE HYDRANT ASSEMBLY.
0+85	NEAT LINE CUT ASPHALT
2+20	CONNECT SINGLE 3/4" SIDE SERVICE TO THE EAST TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER).
2+30	CONNECT SINGLE 2" SIDE SERVICE TO THE WEST TO EXISTING 2" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
3+80	INSTALL FIRE HYDRANT ASSEMBLY.
6+80	INSTALL FIRE HYDRANT ASSEMBLY.
7+30	NEAT LINE CUT ASPHALT ACROSS DRIVEWAY.
9+20	NEAT LINE CUT ASPHALT ACROSS DRIVEWAY.
9+60	NEAT LINE CUT ASPHALT PARKING STRIP.
9+80	INSTALL FIRE HYDRANT ASSEMBLY.

STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
11+70	CONNECT SINGLE 2" SIDE SERVICE TO THE WEST TO EXISTING 2" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVCIE TO BE VERIFIED BY OWNER.)
12+00	CONNECT SINGLE 1" SIDE SERVICE TO THE WEST TO EXISTING 1" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
12+80	INSTALL FIRE HYDRANT ASSEMBLY.
14+12	NEAT LINE CUT ASPHALT
14+75	1. INSTALL 8" x 8" x 8" TEE. 2. INSTALL 8" to 4" REDUCER (USE EXISTING REDUCER.) 3. CONNECT TO EXISTING 4" DIA. WATER MAIN (EAST). 4. CONNECT TO EXISTING 8" DIA. WATER MAIN (WEST). 5. DISCONNECT EXISTING 4" DIA. (SOUTH). 6. BLIND FLANGE (SOUTH). 7. INSTALL 8" PRESSURE REDUCING VALVE.
14+75	END OF CONTRACT.

Scale 1"=50'



May 8, 1980



AS BUILT

RONALD T. JEPSON & ASSOC., INC.

REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=50' DATE AUG 6
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APPROVED

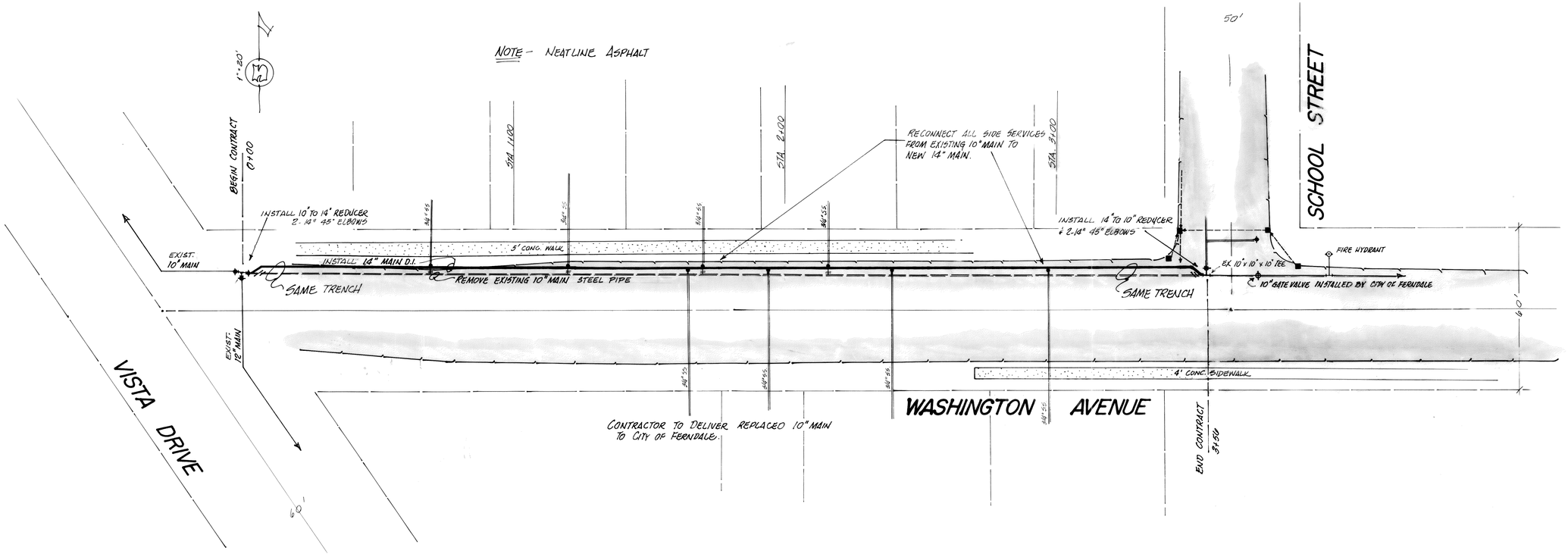
REVISIONS:
AS BUILT 3/81

FERNDALE U.L.I.D. NO. 5

SHEET P 13 P 15

JOB NO. 79008

16



STATION	DESCRIPTION OF REQUIRED IMPROVEMENTS
0+00	1. CONNECT TO EXISTING 10" GATE VALVE. 2. INSTALL 14" TO 10" REDUCER. 3. INSTALL 45° - 14" ELBOW, 2 EACH 4. NEAT LINE CUT ASPHALT ALONG WASHINGTON AVE.
0+70	CONNECT SINGLE 3/4" SIDE SERVICE TO NORTH TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
1+20	CONNECT SINGLE 3/4" SIDE SERVICE TO NORTH TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
1+65	CONNECT SINGLE 3/4" SIDE SERVICE TO SOUTH TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
1+70	CONNECT SINGLE 3/4" SIDE SERVICE TO SOUTH TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
1+75	CONNECT SINGLE 3/4" SIDE SERVICE TO NORTH TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
1+95	CONNECT SINGLE 3/4" SIDE SERVICE TO SOUTH TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
2+25	CONNECT SINGLE 3/4" SIDE SERVICE TO NORTH TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
2+40	CONNECT SINGLE 3/4" SIDE SERVICE TO SOUTH TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
2+95	CONNECT SINGLE 3/4" SIDE SERVICE TO SOUTH TO EXISTING 3/4" SIDE SERVICE. (LOCATION OF EXISTING SIDE SERVICE TO BE VERIFIED BY OWNER.)
3+56	1. CONNECT TO EXISTING 10" X 10" X 10" TEE. 2. INSTALL 14" - 45° ELBOWS, 2 EACH 3. INSTALL 14" TO 10" REDUCER.
3+56	END OF CONTRACT.

REGISTERED PROFESSIONAL ENGINEER RONALD T. JEPSON STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR

May 8, 1981

00111.018 2.306 KK

AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE 1"=20' DATE February 1980
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APPROVED RTJ

REVISIONS
AS BUILT 5/81

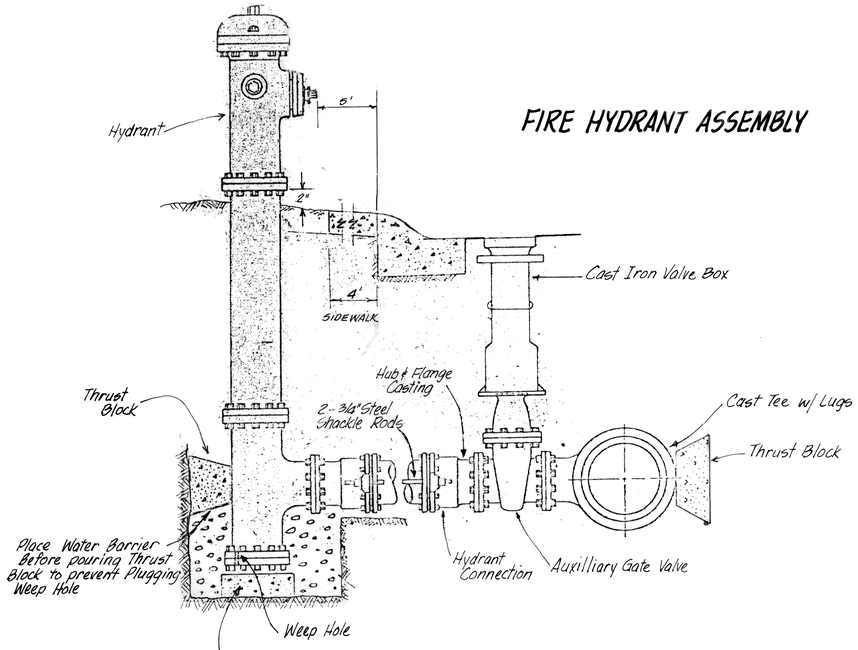
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SHEET P14 P15

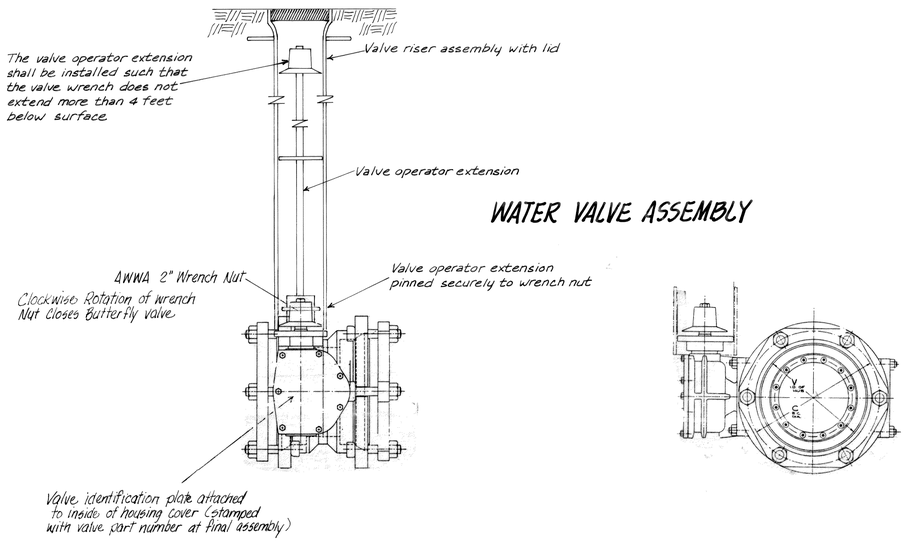
JOB NO. 79008

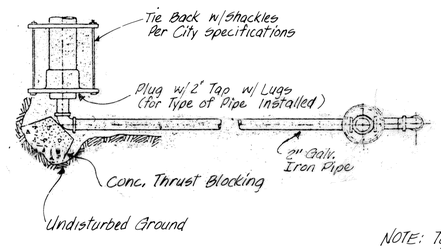
BRUNING 44-132-44375

FIRE HYDRANT ASSEMBLY

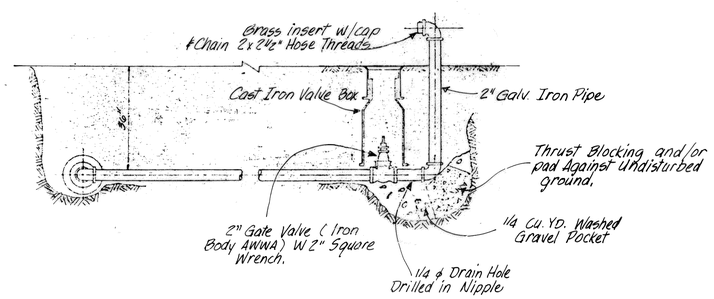


WATER VALVE ASSEMBLY





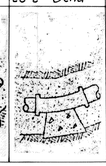
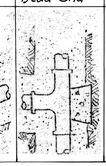
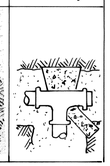
NOTE: Turn Nozzle towards Gutter



BLOW OFF ASSEMBLY

THRUST BLOCKING

Minimum Bearing in Sq. Ft.

	5 ft²	3 ft²	2 ft²	5 ft²	5 ft²
Fitting	90° Bend	45° Bend	11¼° Bend or 22½° Bend	Tee or Dead End	Tee w/ Plug
Illustration					

AS BUILT

May 8, 1980

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE N/S DATE Sept 1979
DRAWN BY AC
CHECKED BY
APPROVED

REVISIONS

FERNDALE U.L.I.D. NO. 5
DETAIL SHEET

SHEET P15 OF P15

JOB NO. 79006

00111.019 2-3.06 KK

0011.020 2.306 KR

CITY OF FERNDALE WASHINGTON

"CHURCH ROAD PUMPING STATION"

WATER DISTRIBUTION SYSTEM

INSTALLATION

FERNDALE UTILITY LOCAL IMPROVEMENT

DISTRICT NO. 5

ATTORNEY: RICHARD LANGABEER

SUPERINTENDENT: JOHN ELEY

CLERK: ROLAND SIGNETT

MAYOR: CECIL BARR

CITY COUNCIL:

- J.A. IRWIN
- X HAROLD REIMER
- GARY GIBBONS
- X WALTER TANGUY
- JON DONNELLAN

X WATER COMMITTEE

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

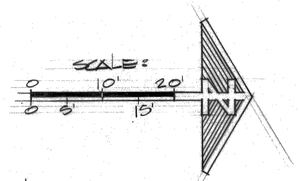
AS BUILT

G. R. PARROTT STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER May 9, 1980

RONALD T. JEPSON STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER May 9, 1980

JOB NO. 79008

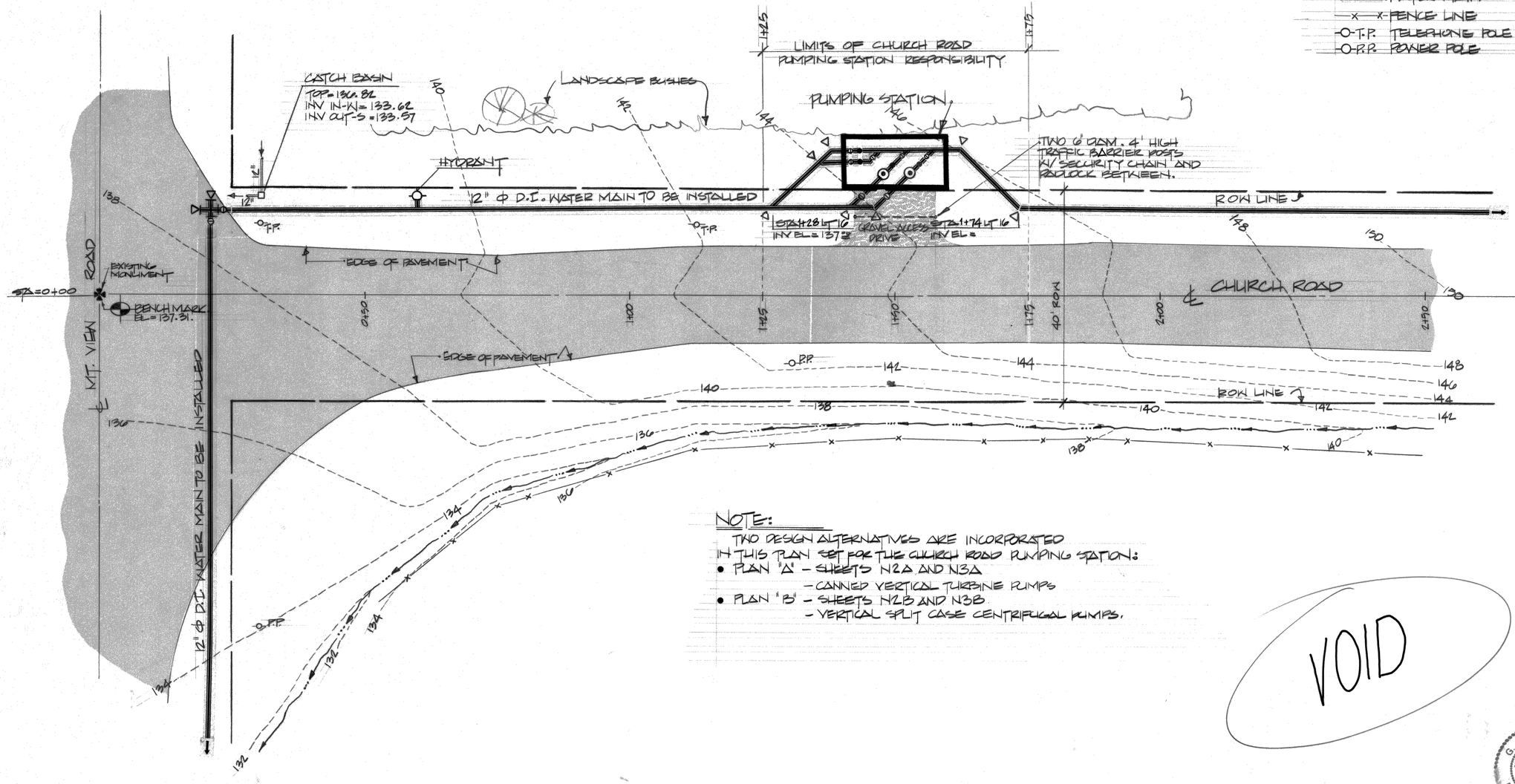
SEC. 24, TWP. 39N, RGE. 2E, W.M., WHATCOM COUNTY, WASHINGTON.



B.M. CITY OF FERNDALE DATUM.
BENCH MARK: TOP OF MON AT INTERSECTION OF MT VIEW ROAD AND CHURCH ROAD.
EL = 137.31

LEGEND

- SURVEY MONUMENT.
- BENCH MARK
- FIRE HYDRANT
- STORM DRAINAGE CATCH BASIN
- THRUST BLOCK (SEE SCHEDULE SHT N2)
- BUTTERFLY VALVE
- PUMP
- CONTROL VALVE
- DRAINAGE COURSE
- WATER MAIN
- x—x FENCE LINE
- T.P. TELEPHONE POLE
- P.P. POWER POLE



NOTE:
TWO DESIGN ALTERNATIVES ARE INCORPORATED IN THIS PLAN SET FOR THE CHURCH ROAD PUMPING STATION:
- PLAN "A" – SHEETS N2A AND N3A
  - CANNED VERTICAL TURBINE PUMPS
- PLAN "B" – SHEETS N2B AND N3B
  - VERTICAL SPLIT CASE CENTRIFUGAL PUMPS.

VOID

DESIGNED BY:

G. R. PARROTT STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER
May 9, 1980

NORTHWEST ENGINEERING COMPANY
Seattle, Washington • 206-523-6000
D. Mitch 470003.2

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1"=10' DATE 4/23/80
DRAWN BY GMB
CHECKED BY GRP 5/6/80
APPROVED

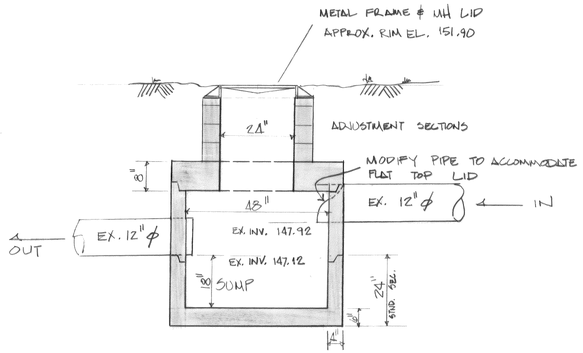
REVISIONS

FERNDALE L.I.D. No. 5
CHURCH ROAD PUMPING STATION
SITE PLAN

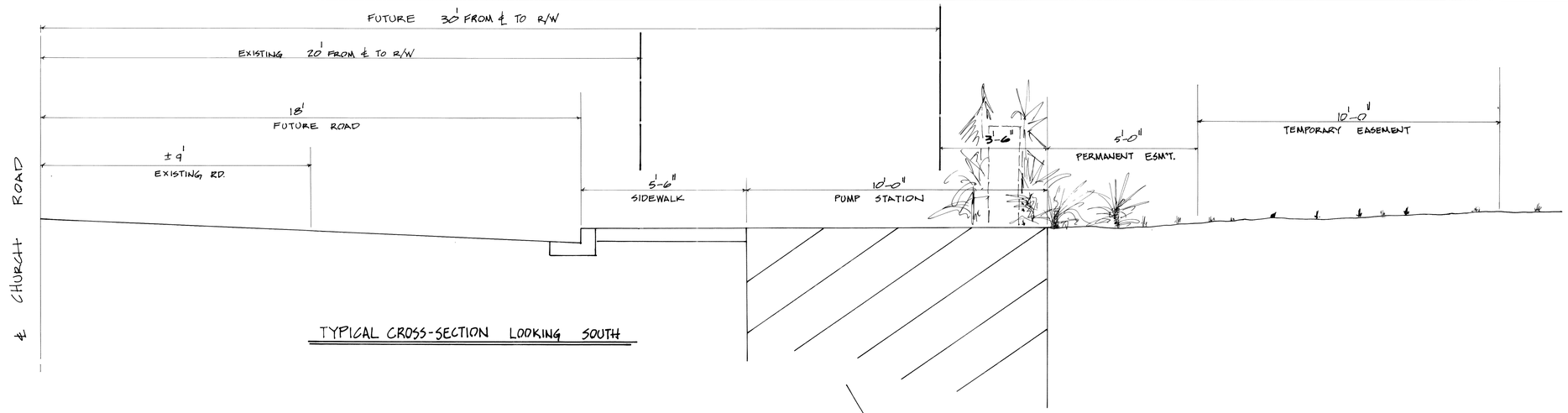
SHEET N1 OF 4

JOB NO. 79008

00111.021 2.3.00 KR

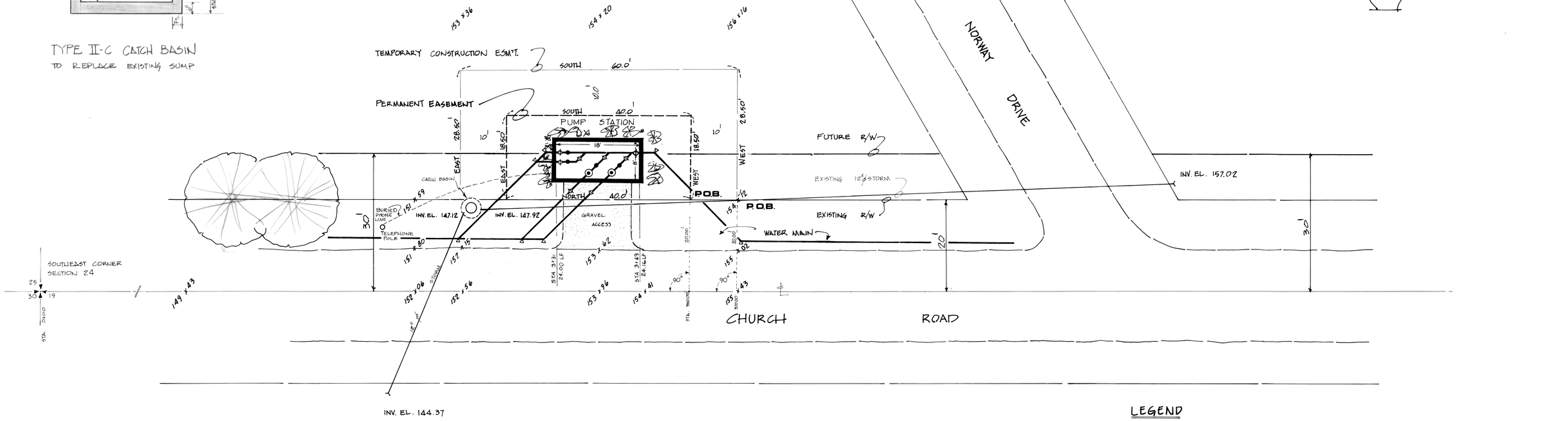


TYPE II-C CATCH BASIN
TO REPLACE EXISTING SUMP



TYPICAL CROSS-SECTION LOOKING SOUTH

SCALE 1"=10'-0"



LEGEND

- THRUST BLOCK
- CONTROL VALVE
- BUTTERFLY VALVE
- PUMP
- WATER MAIN

RAYMOND D. WEDEN — STATE OF WASHINGTON — REGISTERED PROFESSIONAL LAND SURVEYOR

AS BUILT

RAYMOND D. WEDEN & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS PHONE 671-8200, 354-3723
1844-A IRON ST. BELLINGHAM, WASHINGTON 98225

SCALE 1"=10' DATE 1-16-81
DRAWN BY BDC
CHECKED BY RDW
APPROVED

REVISIONS
AS BUILT 3/81

FERNDALE U.L.I.D. No. 5
CHURCH ROAD PUMPING STATION
SITE PLAN

SHEET N1 OF 4

JOB NO. 79008

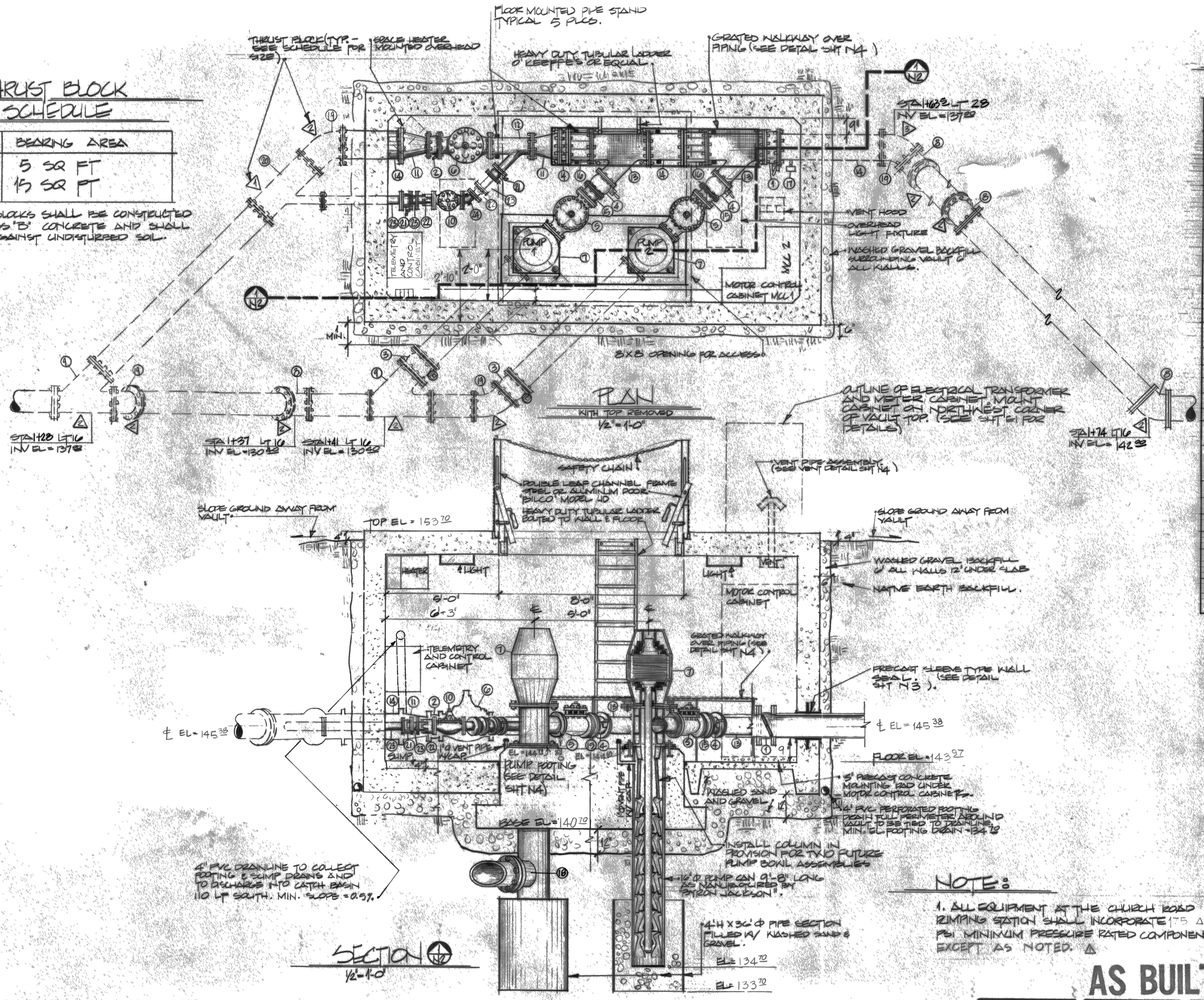
00111.022 2:30 06 KR

BRUNING 44-132 44375-1

THRUST BLOCK SCHEDULE

STYLE No.	BEARING AREA
1	5 SQ FT
2	15 SQ FT

THRUST BLOCKS SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE AND SHALL BEAR AGAINST UNDISTURBED SOIL.



SECTION
1/2" = 1'-0"

EQUIPMENT SCHEDULE

ITEM No.	DESCRIPTION	No. REQ'D
1	12" DIA. FL. BUTTERFLY VALVE W/CRANK OPERATOR	1
2	8" DIA. FL. BUTTERFLY VALVE W/CRANK OPERATOR	1
3	12" DIA. MJ. BUTTERFLY VALVE W/BURIED OPERATOR EXTENSION, AND INDICATING TYPE RISER CAP	2
4	8" DIA. MJ x FL BUTTERFLY VALVE W/CRANK OPERATOR	2
5	8" DIA. BOOSTER TYPE PUMP CONTROL VALVE W/LIMIT SWITCH, CLAYTON MODEL 60-01	2
6	8" DIA. PRESSURE REDUCING VALVE AND SOLENOID SHUTOFF VALVE. CLAYTON MODEL 93-01 OR APPROVED EQUAL.	1
7	800 GPM CANNED VERTICAL TURBINE PUMP W/100 HP MOTOR. BYRON JACKSON 12-GL OR APPROVED EQUAL.	2
8	12" DIA. MJ 45° ELL	5
9	12"X12" MJ WYE	2
10 △	8" DIA. SURGE ANTICIPATOR VALVE. CLAYTON MODEL 52-03 TO BE SALVAGED FROM WTP 250 ANSI PSI.	1
11	12"X8" FL. REDUCER	2
12	8"X4" FL. WYE	1
13	12"X8" FL. WYE	2
14	12" DIA. FLXPE PIPE, LENGTH AS REQ'D	4
15	8" DIA. FLXPE PIPE, LENGTH AS REQ'D	2
16	12" DIA. FLXMJ COUPLING ADAPTER DRESSER STYLE 127 OR APPROVED EQUAL	2
17	4" DIA. PRESSURE GAUGE, 0-250 PSI. CONNECTION ASSEMBLY TO INCLUDE 4 TAP, GAUGE, ISOLATION VALVE, AND HOSE TYPE SERVICE CONNECTION	1
18	MJ CONNECTION TO PUMP CAN SUCTION BELL	2
19	MJXPE 12" DIA. 45° ELL	3
20	12"X4" MJ WYE	1
21	4" DIA. FL BUTTERFLY VALVE W/CRANK OPERATOR	2
22	4" DIA. FLXMJ COUPLING ADAPTER, DRESSER STYLE 127 OR APPROVED EQUAL	2
23	4" DIA. FLXPE PIPE, LENGTH AS REQ'D	3
24 △	4" DIA. 45° ELL 250 ANSI PSI.	1

NOTE:

1. ALL EQUIPMENT AT THE CHURCH ROAD PUMPING STATION SHALL INCORPORATE 175 ANSI PSI MINIMUM PRESSURE RATED COMPONENTS. EXCEPT AS NOTED. △

AS BUILT

G. R. PARROTT — REGISTERED PROFESSIONAL ENGINEER — May 9, 1980

D. Mitch

DESIGNED BY:

NORTHWEST ENGINEERING COMPANY
Seattle, Washington • 206-523-6000
470003.2

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

SCALE 1/2"=1'-0" DATE 3/26/80
DRAWN BY BMD
CHECKED BY GRP 5/16/80
APPROVED

REVISIONS
AS BUILT 4-81

FERNDALE U.L.I.D. NO. 5.
CHURCH ROAD PUMPING STATION
PLAN "A"

SHEET NO. N2A 4

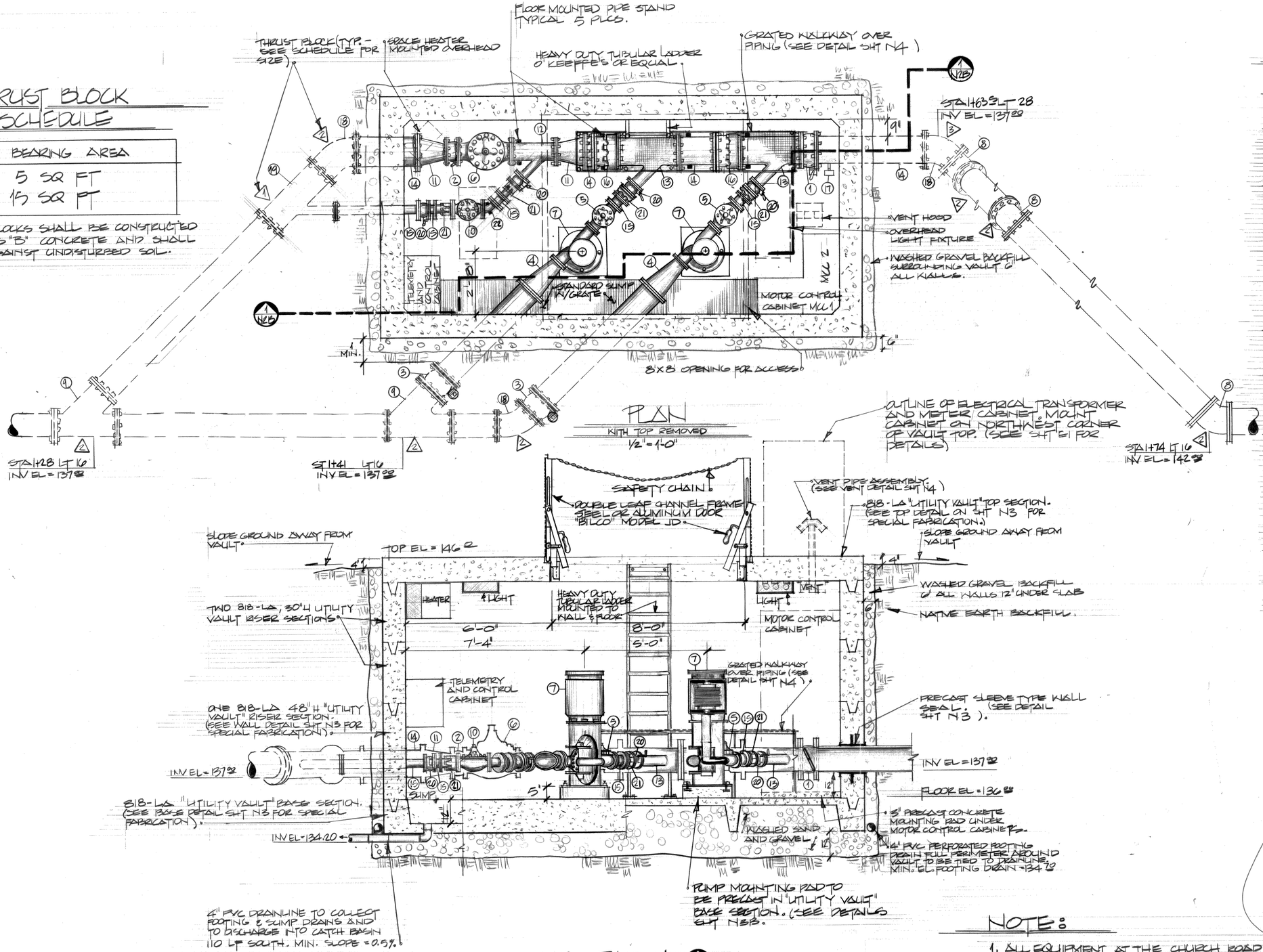
JOB NO. 79008

00111.023 2.3.00 MR

THRUST BLOCK SCHEDULE

STYLE No.	BEARING AREA
1	5 SQ FT
2	15 SQ FT

THRUST BLOCKS SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE AND SHALL BEAR AGAINST UNDISTURBED SOIL.



SECTION (4/N2B)
1/2" = 1'-0"

EQUIPMENT SCHEDULE

ITEM No.	DESCRIPTION	No. REQ'D
1	12" DIA. FL. BUTTERFLY VALVE W/CRANK OPERATOR	1
2	8" DIA. FL. BUTTERFLY VALVE W/CRANK OPERATOR	1
3	12" DIA. MJ. BUTTERFLY VALVE W/BURIED OPERATOR, EXTENSION, AND INDICATING TYPE RISER CAP	2
4	12"X8" TAPER REDUCER, L=18"	2
5	4" DIA. BOOSTER TYPE PUMP CONTROL VALVE W/LIMIT SWITCH, CLAYTON MODEL 60-01	2
6	8" DIA. PRESSURE REDUCING VALVE AND SOLENOID SHUTOFF VALVE. CLAYTON MODEL 93-01 OR APPROVED EQUAL.	1
7	800 GPM VERTICALLY MOUNTED SPLIT-CASE CENTRIFUGAL STYLE PUMP W/125 HP MOTOR, 4014 KRVS PACO PUMP OR APPROVED EQUAL	2
8	12" DIA. MJ 45° ELL	4
9	12"X12" MJ WYE	2
10	4" DIA. SURGE ANTICIPATOR VALVE, CLAYTON MODEL 52-03 TO BE SALVAGED FROM WTP	1
11	12"X8" FL. REDUCER	2
12	8"X4" FL. WYE	1
13	12"X4" FL. WYE	2
14	12" DIA. FLXPE PIPE, LENGTH AS REQ'D	4
15	4" DIA. FLXPE PIPE, LENGTH AS REQ'D	5
16	12" DIA. FLXMJ COUPLING ADAPTER DRESSER STYLE 127 OR APPROVED EQUAL	2
17	4" DIA., PRESSURE CAGE, 0-250 PSI. CONNECTION ASSEMBLY TO INCLUDE TAP, GAUGE, ISOLATION VALVE, AND HOSE TYPE SERVICE CONNECTION.	1
18	MJXPE 12" DIA. 45° ELL	3
19	12"X4" MJ WYE	1
20	4" DIA. FL. BUTTERFLY VALVE W/CRANK OPERATOR	4
21	4" DIA. FLXMJ COUPLING ADAPTER, DRESSER STYLE 127 OR APPROVED EQUAL	4
22	4" DIA. 45° ELL	1

VOID 4/1/01

NOTE:

1. ALL EQUIPMENT AT THE CHURCH ROAD PUMPING STATION SHALL INCORPORATE 250 PSI MINIMUM PRESSURE RATED COMPONENTS.

G. R. PARROTT — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER
May 9, 1980

DESIGNED BY:
NORTHWEST ENGINEERING COMPANY
Seattle, Washington • 206-523-6000
470003.2

D. Mitch

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE 1/2"=1'-0" DATE 3/26/80
DRAWN BY SMD
CHECKED BY GRP 5/6/80
APPROVED
REVISIONS

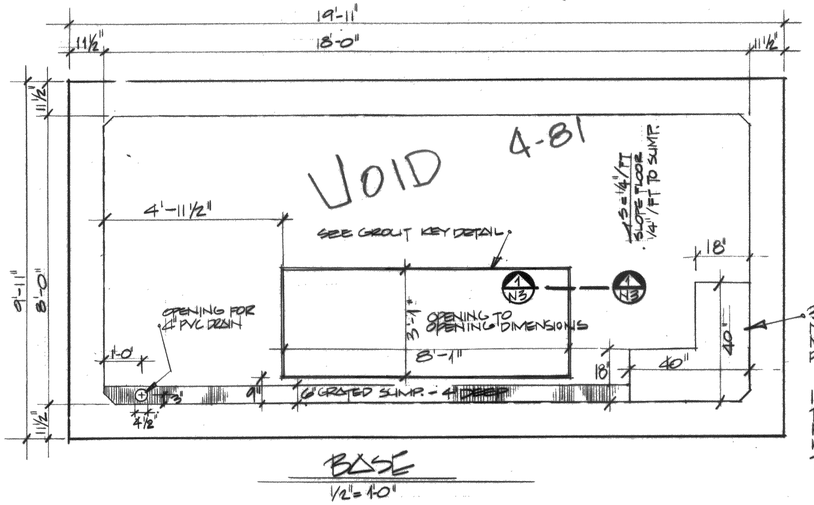
FERNDALE U.L.I.D. NO. 5.
CHURCH ROAD PUMPING STATION
PLAN "B"

SHEET N2B OF 4

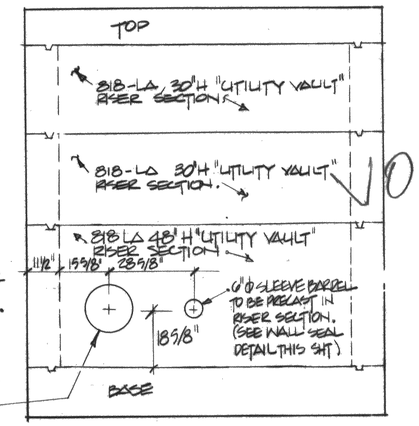
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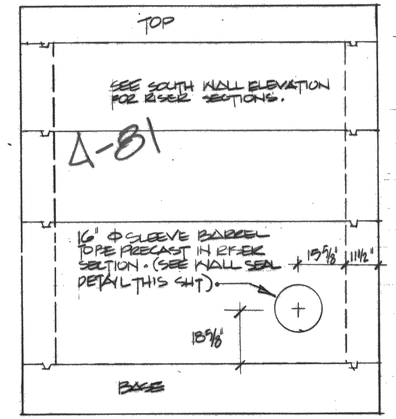
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BASE
1/2"= 1'-0"



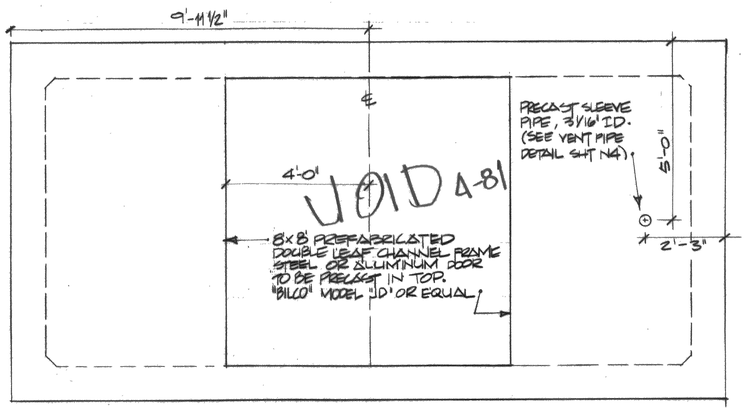
SOUTH WALL ELEVATION
1/2"= 1'-0"



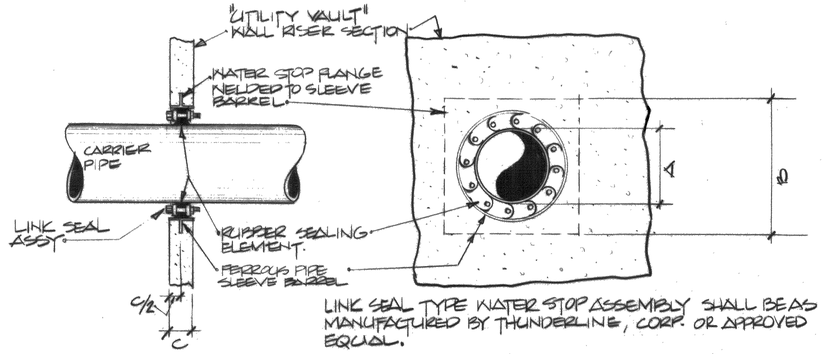
NORTH WALL ELEVATION
1/2"= 1'-0"

UTILITY VAULT NOTES

1. ALL OPENINGS IN THE UTILITY VAULT SHALL BE PRECAST.
2. FIELD INSTALLED OPENINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
3. SEE ELECTRICAL PLAN, SHTS E1,2 FOR ELECTRICAL CONDUIT OPENINGS.
4. UTILITY VAULT FABRICATION TOLERANCES SHALL BE AS FOLLOWS:
   CONCRETE : 1/4 INCH
   STEEL : 1/16 INCH



TOP
1/2"= 1'-0"



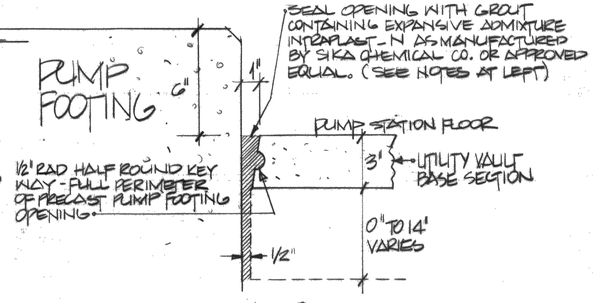
LINK SEAL TYPE WATER STOP ASSEMBLY SHALL BE AS MANUFACTURED BY THUNDERLINE, CORP. OR APPROVED EQUAL.

CARRIER PIPE SIZE (NOMINAL)	SLEEVE BARREL SIZE (NOMINAL)	DIMENSIONS (IN) A	D	C	LINK SEAL MODEL
4"	6"	4.8	11	4	LS-200-C
10"	14"	11.1	21	4	LS-400-C
12"	16"	13.2	23.9	4	LS-400-C
1 1/4"	3 1/2"	1.6	6	4	LS-200-C

WALL SEAL DETAIL
N.T.S.

GROUT NOTES

1. GROUT SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. GROUT MUST BE PLACED WITHIN 30 MIN. OF MIXING TO AVOID LOSING THE EFFECT OF THE EXPANSIVE ADMIXTURE.
3. GROUT SHALL BE WELL TAMPED AND PACKED INTO KEY WAY OPENING TO INSURE POSITIVE WATER SEAL.



SECTION 4/N3
GROUT KEY DETAIL
3"= 1'-0"

DESIGNED BY:

NORTHWEST ENGINEERING COMPANY
Seattle, Washington • 206-523-6000

C. R. PARROTT — REGISTERED PROFESSIONAL ENGINEER
May 3, 1980

D. Mitch 470003.2

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

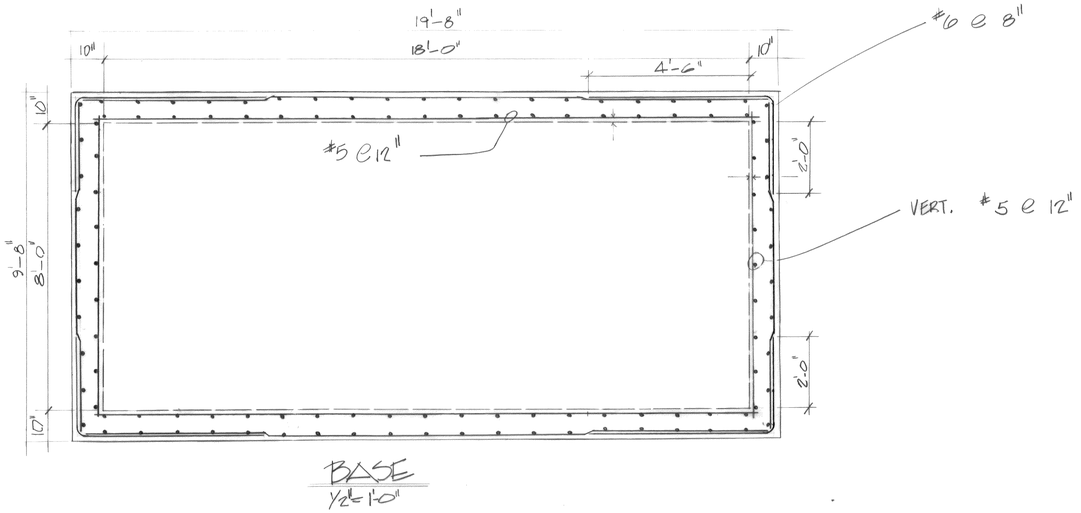
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DRAWN BY SMD
CHECKED BY GRP 5/6/80
APPROVED —

REVISIONS

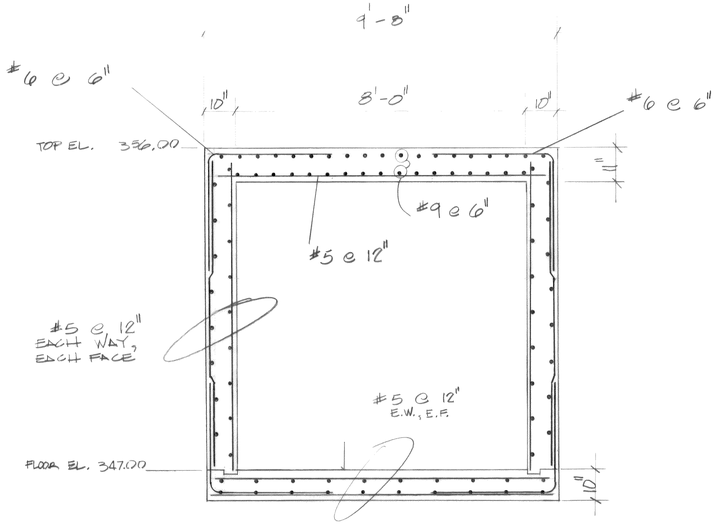
FERNDALE U.L.I.D. No. 3
CHURCH ROAD UTILITY VAULT FABRICATION DETAILS - PLAN "A"

SHEET N3A 4

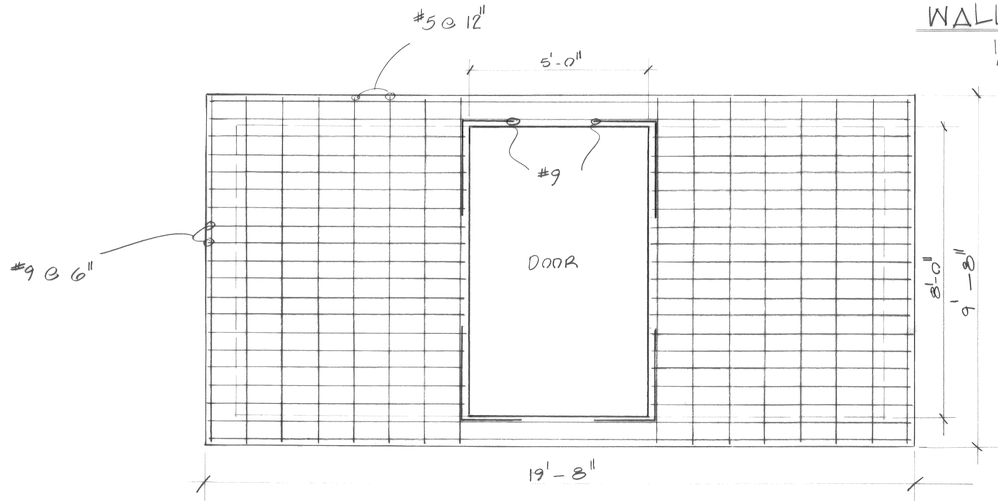
JOB NO. 79008



BASE
1/2" = 1'-0"



WALL ELEVATION
1/2" = 1'-0"



TOP DETAIL
1/2" = 1'-0"

Jan 12, 81

AS BUILT

RAYMOND D. WEDEN & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
PHONE 671-8200, 354-3723
1844-A IRON ST. BELLINGHAM, WASHINGTON 98225

SCALE 1/2"=1'-0" DATE
DRAWN BY
CHECKED BY
APPROVED

REVISIONS
BASED ON ORIGINAL PLAN 4/81

FERNDALE U.L.I.D. NO. 5
CHURCH ROAD UTILITY VAULT FABRICATION DETAILS — PLAN "A"

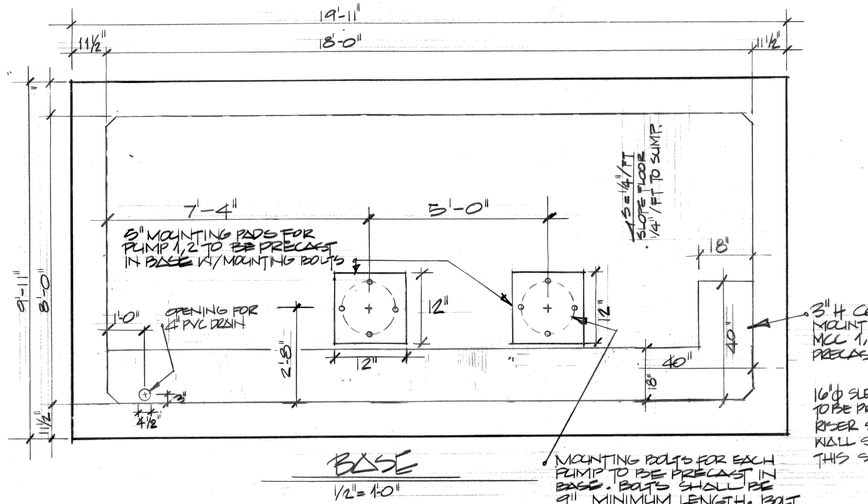
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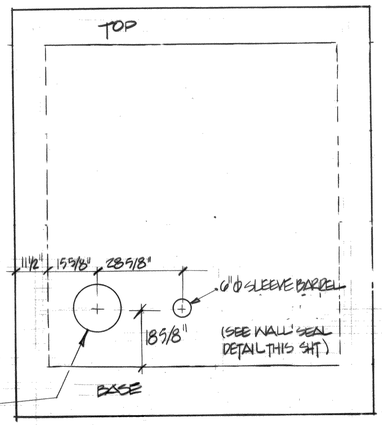
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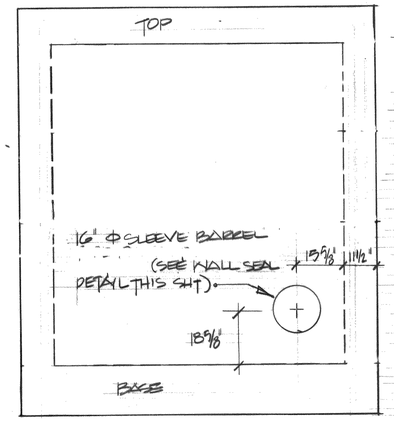
BASE

1/2" = 1'-0"



SOUTH WALL ELEVATION

1/2" = 1'-0"



NORTH WALL ELEVATION

1/2" = 1'-0"

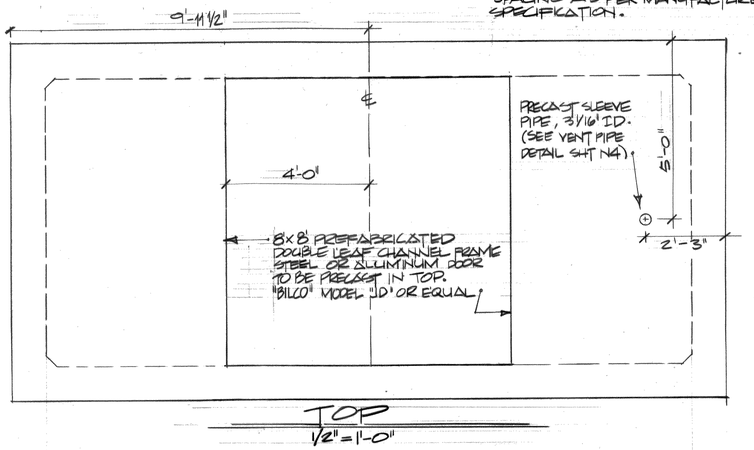
UTILITY VAULT NOTES

1. ALL OPENINGS IN THE UTILITY VAULT SHALL BE PRECAST.
2. FIELD INSTALLED OPENINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
3. SEE ELECTRICAL PLAN, SHTS E1,2 FOR ELECTRICAL CONDUIT OPENINGS
4. UTILITY VAULT FABRICATION TOLERANCES SHALL BE AS FOLLOWS:

   CONCRETE : ¼ INCH
   STEEL : 1/16 INCH

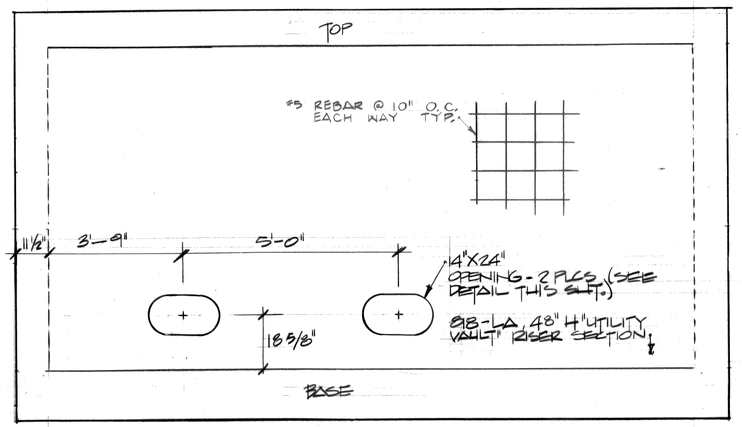
GROUT NOTES

1. GROUT SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. GROUT MUST BE PLACED WITHING 30 MIN. OF MIXING TO AVOID LOSING THE EFFECT OF THE EXPANSIVE ADMIXTURE.
3. GROUT SHALL BE WELL TAMPED AND RACKED INTO KEY WAY OPENING TO INSURE POSITIVE WATER SEAL.



TOP

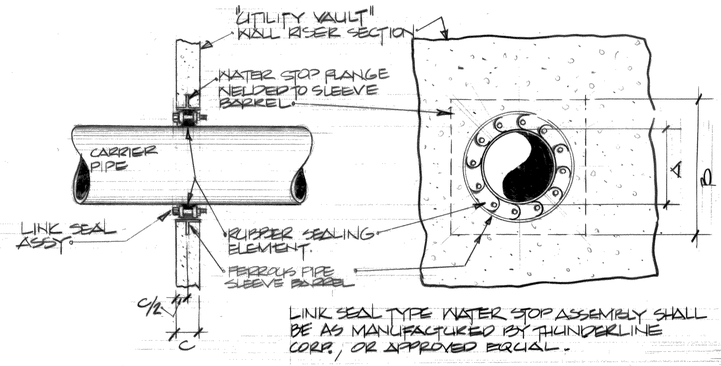
1/2" = 1'-0"



EAST WALL ELEVATION

1/2" = 1'-0"

REFER TO PAGE N-3A OF 4 FOR DETAILS OF VAULT

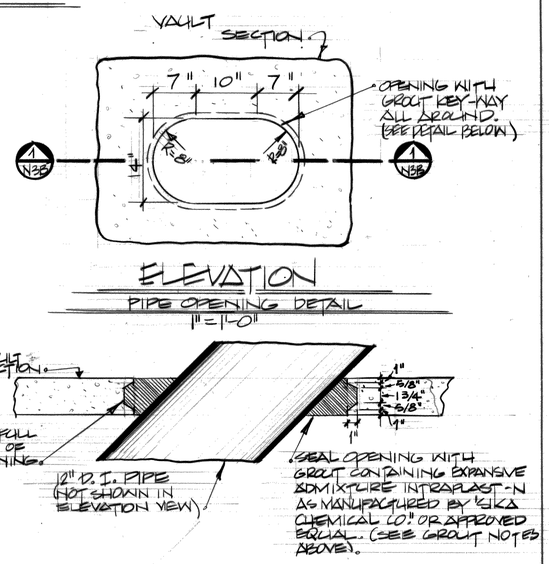


LINK SEAL TYPE WATER STOP ASSEMBLY SHALL BE AS MANUFACTURED BY THUNDERLINE CORP., OR APPROVED EQUAL.

CARRIER PIPE SIZE (NOMINAL)	SLEEVE BARREL SIZE (NOMINAL)	DIMENSIONS (IN) A	PD	C	LINK SEAL MODEL
4"	6"	4.8	11	4	LS-200-C
10"	14"	11.1	21	4	LS-400-C
12"	16"	13.2	23.9	4	LS-400-C
1¼"	3½"	1.6	6	4	LS-200-C

WALL SEAL DETAIL

N.T.S.



ELEVATION

PIPE OPENING DETAIL

1" = 1'-0"

SECTION (4 / N3B)

GROUT KEY DETAIL

1½" = 1'-0"

DESIGNED BY:

NORTHWEST ENGINEERING COMPANY
Seattle, Washington • 206-523-6000

D. Mitch

470003.2

G. R. PARROTT — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

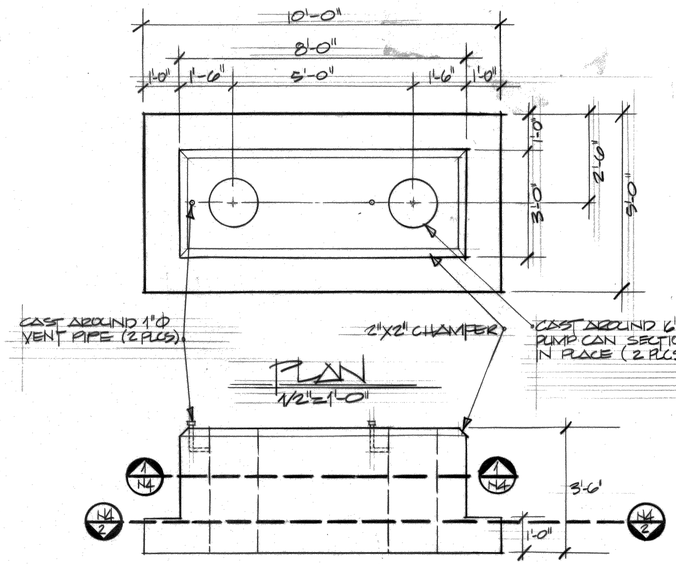
May 9, 1980

AS BUILT

SCALE	DATE 4/23/80	REVISIONS	FERNDALE U.L.I.D. NO. 3
DRAWN BY SMD		4/01 AS BUILT	CHURCH ROAD UTILITY VAULT FABRICATION
CHECKED BY GRP	5/6/80		DETAILS - PLAN "B"
APPROVED			SHEET N3B OF 4

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

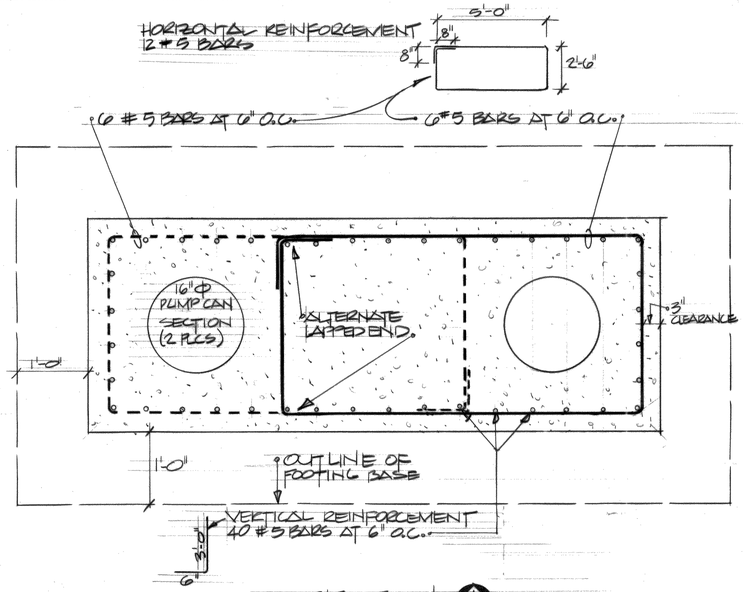
JOB NO. 79008



ELEVATION

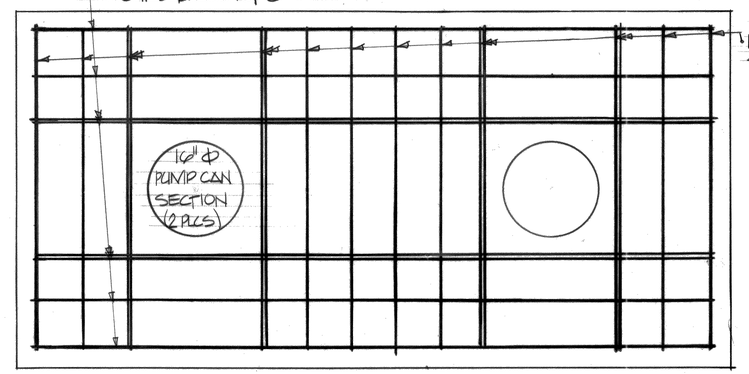
PUMP FOOTING DETAIL PLAN & ONLY

1/2" = 1'-0"



SECTION N4

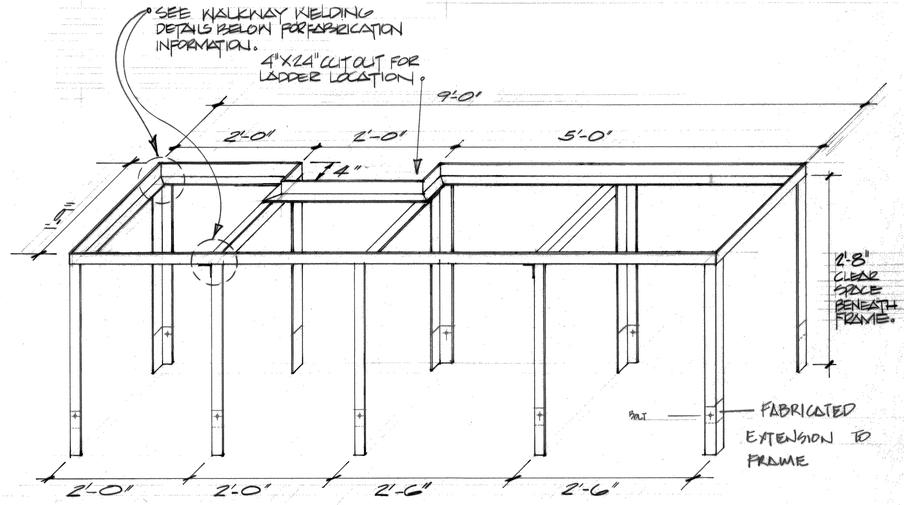
1" = 1'-0"



SECTION N4

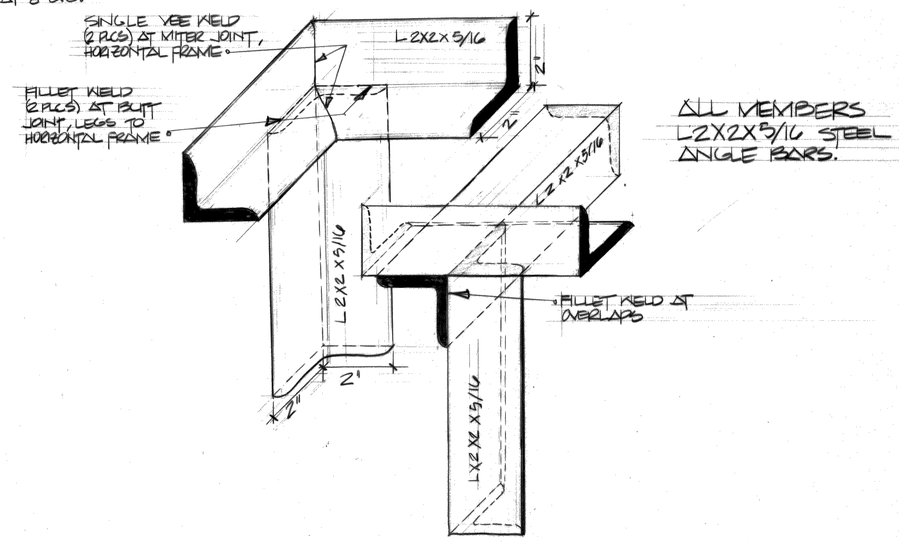
1" = 1'-0"

SET WALKWAY GRATE IN FRAME SO AS TO BE REMOVABLE FOR ACCESS TO PIPES.



WALKWAY FRAME DETAIL

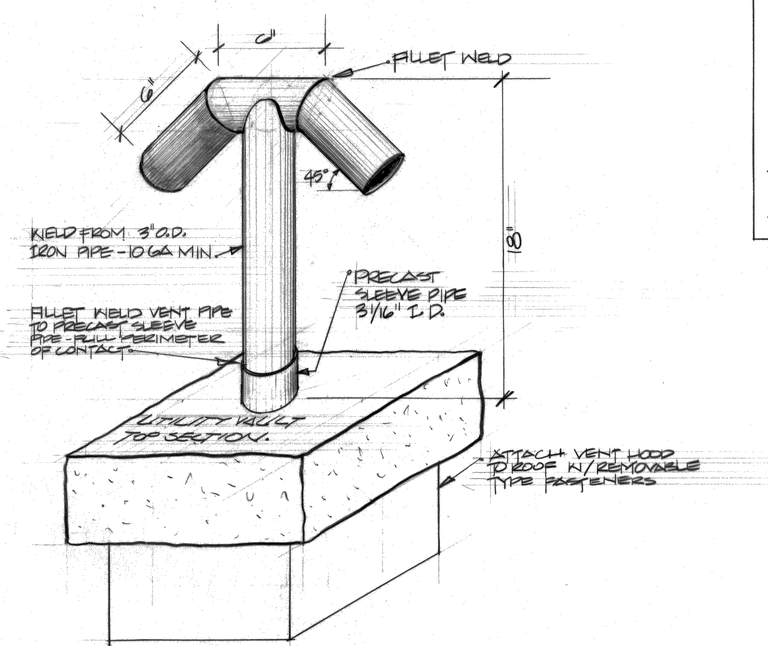
1" = 1'-0"



ALL MEMBERS L 2X2X 5/16 STEEL ANGLE BARS.

WALKWAY WELDING DETAILS

1/2" = 0'-1"



VENT PIPE DETAIL

3" = 1'-0"

DESIGNED BY:

NORTHWEST ENGINEERING COMPANY

Seattle, Washington • 206-523-6000

D. Mitch 470003.2

ED LEBERT 12556 REGISTERED PROFESSIONAL ENGINEER

G. R. PARROTT REGISTERED PROFESSIONAL ENGINEER

May 9, 1980

AS BUILT

RONALD T. JEPSON & ASSOC., INC.

REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE — DATE 4/7/80

DRAWN BY SMP

CHECKED BY GRP 5/6/80

APPROVED

REVISIONS

FERNDALE C.L.I.D. NO. 5

CHURCH ROAD PUMPING STATION

FOOTING, VENT & STEEL WALKWAY DETAILS

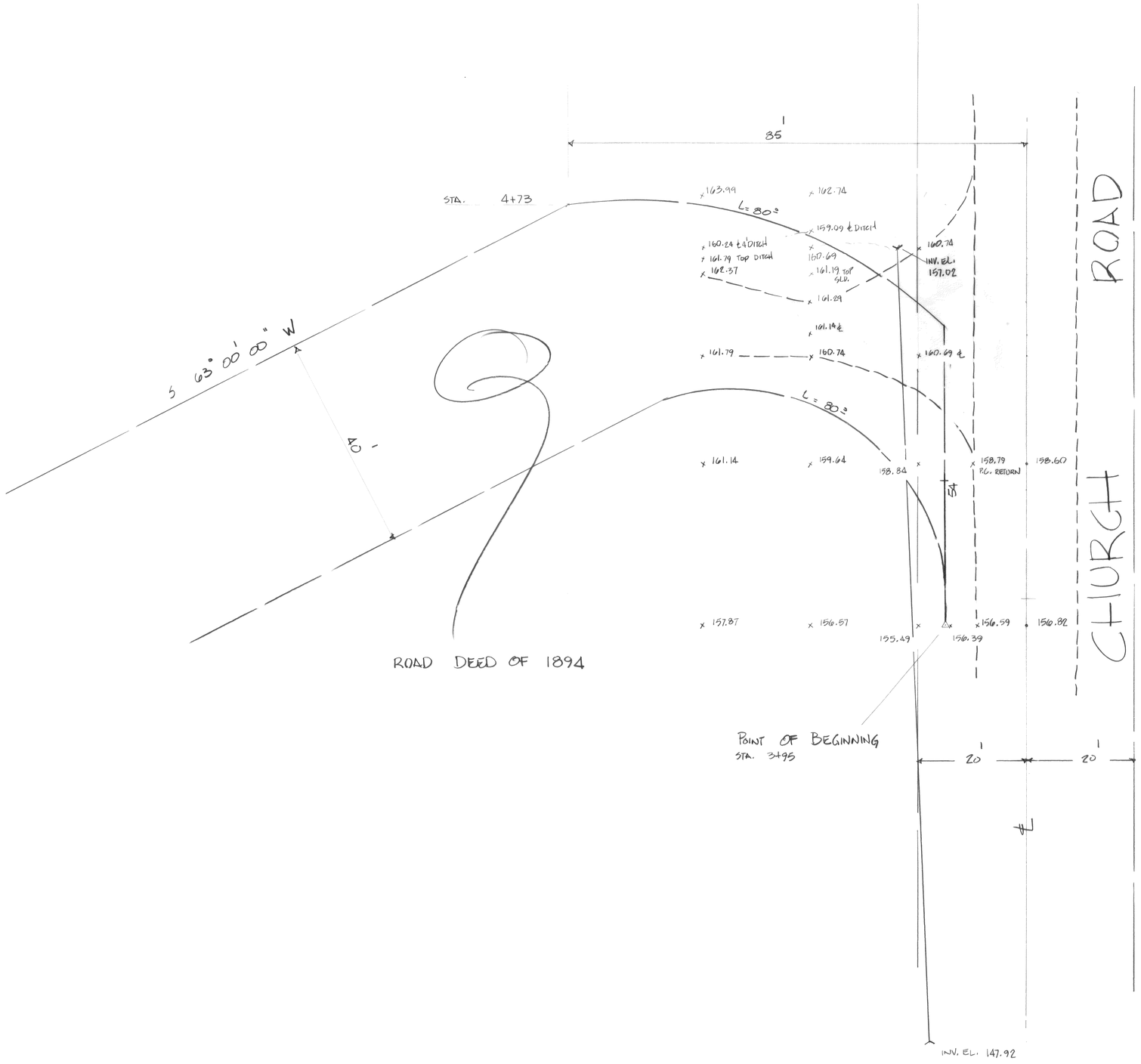
SHEET N4 OF 4

JOB NO. 79008

00111.028 2.3.06 KR

25

0011.029 2.3.06 KR



AS BUILT

RAYMOND D. WEDEN & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS PHONE 671-8200, 354-3723
1844-A IRON ST. BELLINGHAM, WASHINGTON 98225

SCALE 1"=10' DATE
DRAWN BY
CHECKED BY
APPROVED

REVISIONS

CHURCH RD. PUMP STA.

SHEET

JOB NO. 79008

BRUNING 44-132 44375-1

001111.030 2-3-06 KR

CITY OF FERNDALE WASHINGTON

"THORNTON ROAD PUMPING STATION"

WATER DISTRIBUTION SYSTEM

INSTALLATION

FERNDALE UTILITY LOCAL IMPROVEMENT

DISTRICT NO. 5

ATTORNEY: **RICHARD LANGABEER**

SUPERINTENDENT: **JOHN ELEY**

CLERK: **ROLAND SIGNETT**

MAYOR: **CECIL BARR**

CITY COUNCIL:

- **J.A. IRWIN**
- X **HAROLD REIMER**
- **GARY GIBBONS**
- X **WALTER TANGUY**
- **JON DONNELLAN**

X WATER COMMITTEE

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

AS BUILT

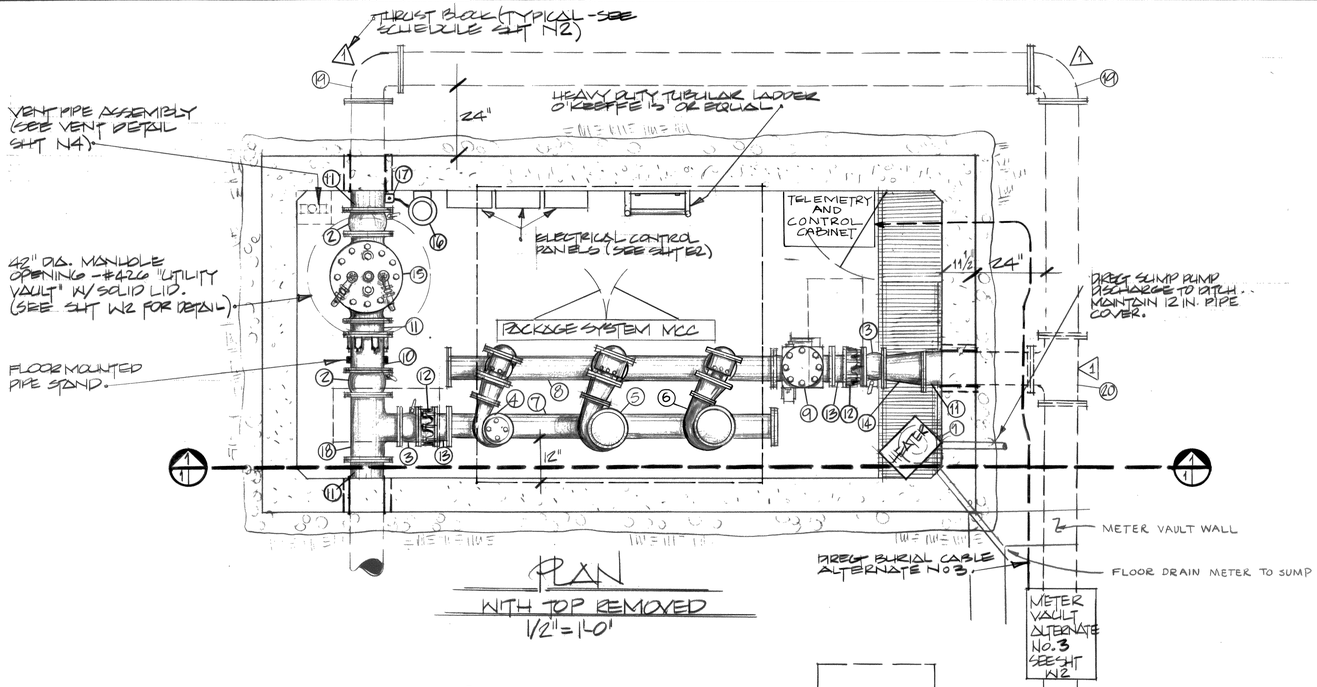
G. R. PARROTT STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER May 9, 1980

RONALD T. JEPSON STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR May 8, 1980

JOB NO. 79008

26

26



PLAN
WITH TOP REMOVED
1/2" = 1-0"

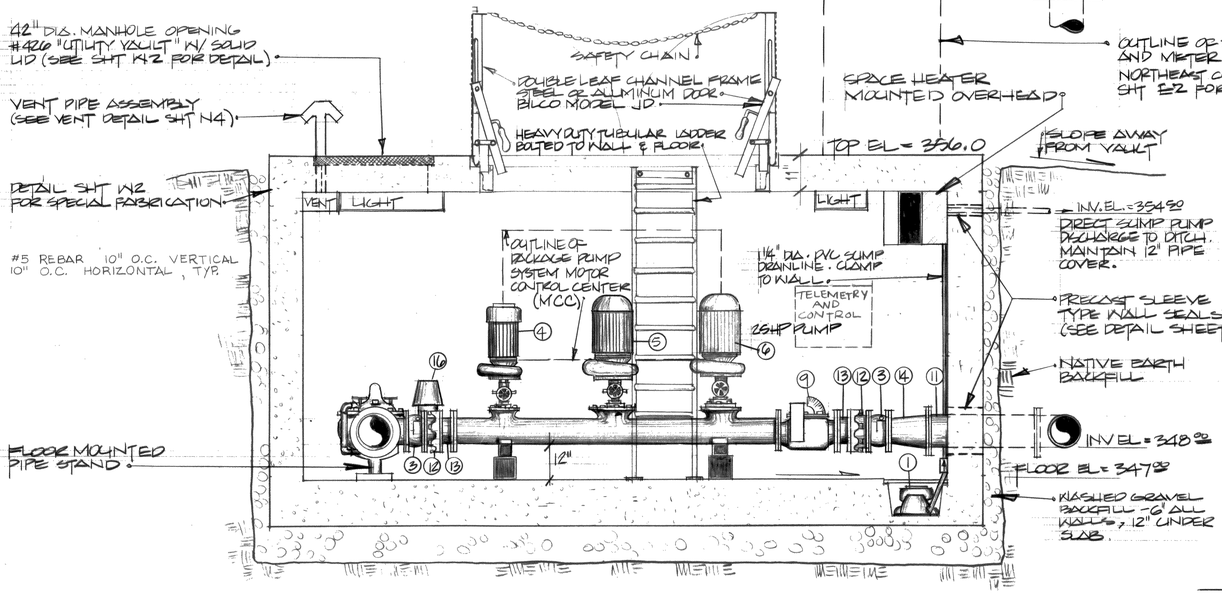
EQUIPMENT SCHEDULE

ITEM NO.	DESCRIPTION	NO. REQ'D
1	SUBMERSIBLE SCHMP PUMP - HYDROMATIC, 1/4 HP MODEL SP25AB K1 1/4" DIA. DISCHARGE, INTEGRAL DIAPHRAGM - TYPE LEVEL SWITCH, AND HCV-125 CHECK VALVE	1
2	10" DIA. FL BUTTERFLY VALVE W/CRANK OPERATOR	2
3	8" DIA FL BUTTERFLY VALVE W/ CRANK OPERATOR	2
4	200 GPM VERTICAL END SUCTION PUMP, 15 HP MOTOR, PACO PUMP	1
5	400 GPM VERTICAL END SUCTION PUMP 25 HP MOTOR, PACO PUMP	1
6	400 GPM VERTICAL END SUCTION PUMP 25 HP MOTOR, PACO PUMP. PROVIDE BLIND FLANGE ON SUCTION AND DISCHARGE MANIFOLDS.	0
7	8" DIA. SUCTION MANIFOLD	1
8	8" DIA. DISCHARGE MANIFOLD	1
9	8" DIA. FLOW SENSOR, PACO PUMP	1

NOTE: ITEMS 4 THROUGH 9 INCORPORATED IN PACOFLO 1 PACKAGE PUMP SYSTEM.

ITEM No.	DESCRIPTION	NO. REQ'D
10	10" DIA. FLXMJ COUPLING ADAPTER, DRESSER STYLE 127 OR APPROVED EQUAL	2
11	10" DIA. FLXPE PIPE, LENGTH AS REQUIRED	4
12	8" DIA. FLXMJ COUPLING ADAPTER, DRESSER STYLE 127 OR APPROVED EQUAL	1
13	8" DIA. FLXPE PIPE, LENGTH AS REQUIRED	1
14	8" X 10" FL REDUCER	1
15	10" DIA CHECK VALVE - CLAYTON MODEL 81-02	1
16	PRESSURE TRANSMITTER - TAYLOR SERIES 3300	1
17	PRESSURE TRANSMITTER CONNECTION ASSEMBLY TO INCLUDE: TAP, ISOLATION VALVE, AND HOSE TYPE SERVICE CONNECTION	1
18	10" X 10" X 8" FL TEE	1
19	10" DIA MJ 90° ELL	2
20	10" X 10" X 10" MJ TEE	1

NOTE: ITEM 16, PRESSURE TRANSMITTER TO BE FURNISHED AND INSTALLED UNDER CONTROL SYSTEM CONTRACT.



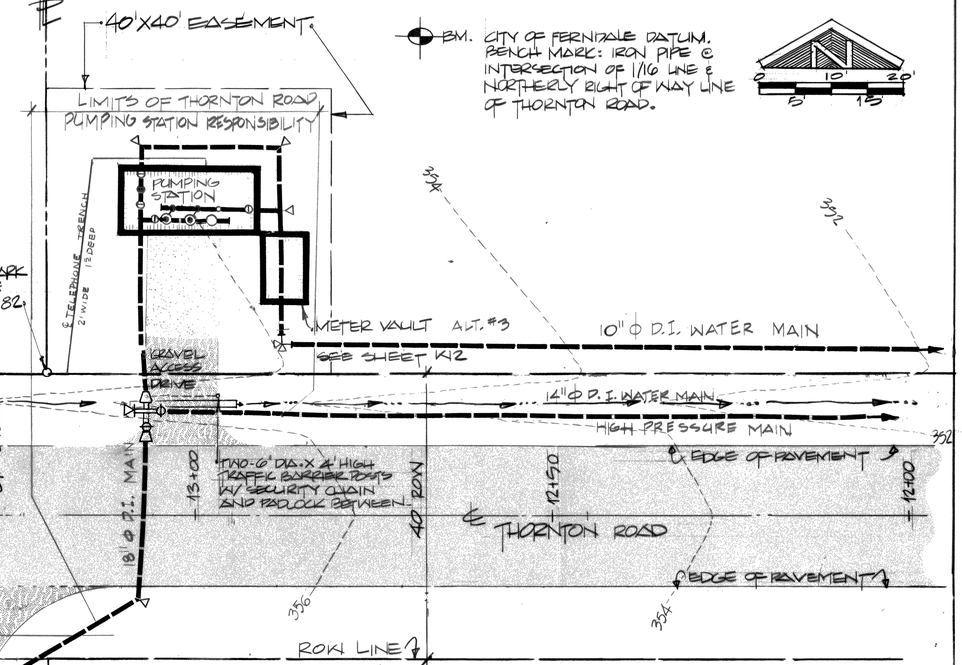
SECTION
1/2" = 1'-0"

NOTE:
ALL EQUIPMENT IN THE THORNTON ROAD PUMPING STATION SHALL INCORPORATE 125 PSI MINIMUM PRESSURE RATED COMPONENTS.

DIRECT BURIAL CABLE NOTES

1. CABLE SHALL BE FURNISHED ENTIRELY (IN PROVISION FOR TOTAL LENGTH) UNDER PIPELINE CONTRACT. TOTAL LENGTH = 925 FT
2. CABLE SHALL BE INSTALLED IN THE WATERMAIN TRENCH AS FAR AS THE 14"X14"X14"X14" "X", UNDER THE PIPELINE CONTRACT, EXCESS CABLE TO BE ROLLED UP. INSTALLATION LENGTH = 60'
3. CABLE SHALL BE INSTALLED FROM "X" TO THE 1.5 MG RESERVOIR UNDER THE RESERVOIR CONTRACT, SAME TRENCH AS THE WATER MAIN.
4. THE CABLE SHALL BE CONTINOUS AND UNSPLICED.
5. MIN BURIAL DEPTH = 2FT.

SEC. 13, T.W.P. 39N, RGE. 2 E, W.M., WHATCOM COUNTY, WASHINGTON.



BM. CITY OF FERNDALE DATUM. BENCH MARK: IRON PIPE @ INTERSECTION OF 1/16 LINE & NORTHERLY RIGHT OF WAY LINE OF THORNTON ROAD.

LEGEND

- BENCH MARK
- THRUST BLOCK
- BUTTERFLY VALVE
- PUMP
- CONTROL VALVE
- PIPE REDUCER
- DRAINAGE COURSE
- WATER MAIN

AS BUILT

DESIGNED BY:

NORTHWEST ENGINEERING COMPANY
Seattle, Washington • 206-523-6000
470003.2

G. R. PARRY — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON
May 9 1980

D. Mitch

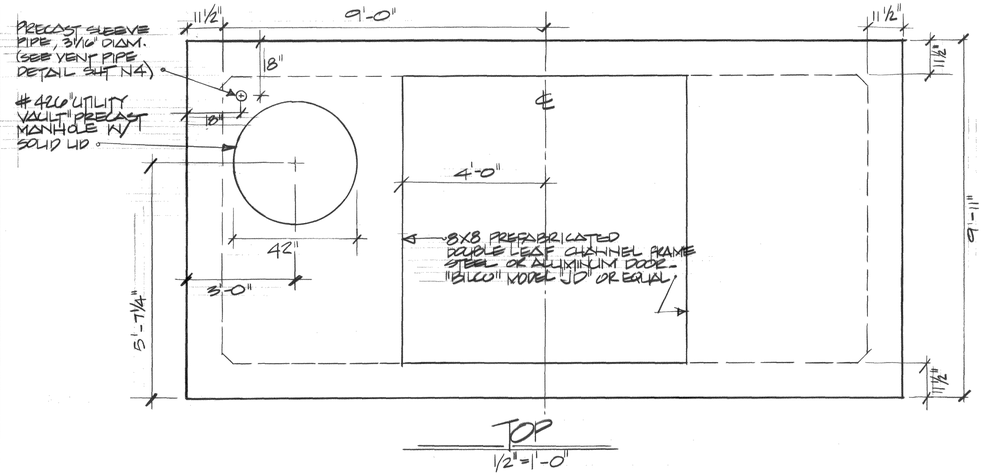
RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE	DATE 3/28/80
DRAWN BY SMP	REVISIONS AS BUILT 3/81
CHECKED BY GRP 5/6/80	
APPROVED	

FERNDALE U.L.I.D. No. 5
THORNTON ROAD PUMPING STATION & SITE PLAN.

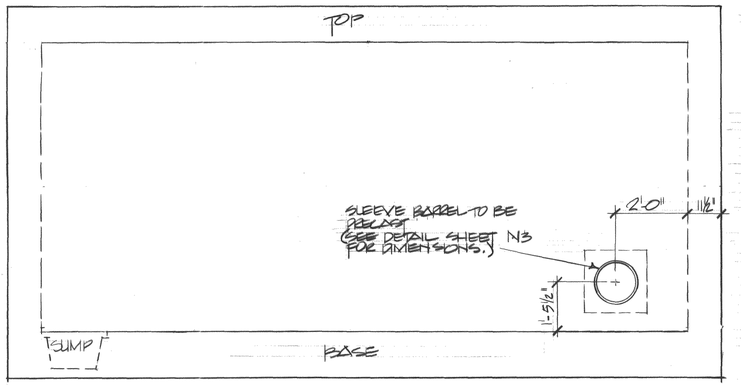
SHEET W1 OF 2

JOB NO. 79008



TOP

1/2"=1'-0"

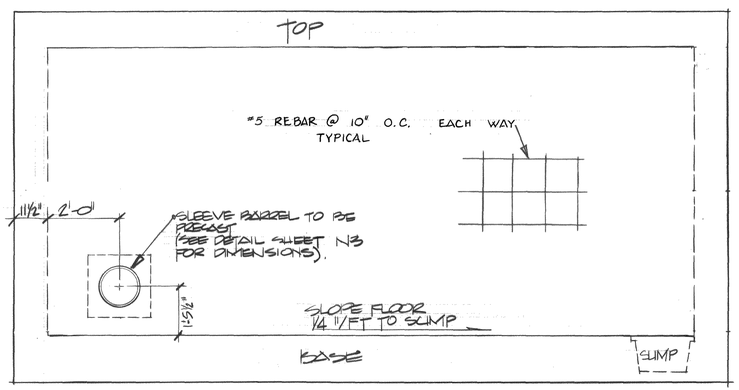


NORTH WALL ELEVATION

1/2" = 1'-0"

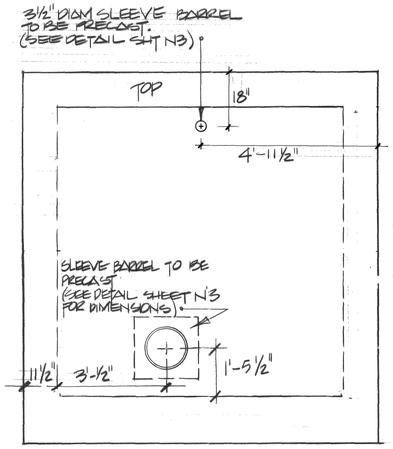
FLOW METER ASSEMBLY EQUIPMENT SCHEDULE

ITEM NO.	DESCRIPTION	NO. REQ'D
1	10" DIA. FLEXIBLE COUPLING TO FIT	2
2	10" DIA. D.I. PIPE, LENGTH AS REQ'D	2
3	10" X 10" X 4" FL. TEE	2
4	10" DIA. FL. BUTTERFLY VALVE W/ CRANK OPERATOR	2
5	10" DIA. FL. COUPLING ADAPTER DRESSER STYLE 127 OR APPROVED EQUAL	1
6	10" DIA. FLXPE D.I. PIPE 6" LONG MIN.	1
7	10" DIA. FLOW METER WITH TRANSMITTER SPARLING STYLE No. FM 112-101-111-50 OR APPROVED EQUAL.	1
8	4" DIA. FL. BUTTERFLY VALVE W/ CRANK OPERATOR	1
9	4" DIA. FLXFL D.I. PIPE LENGTH AS REQ'D	1
10	4" DIA. FLXMJ 90° BEND	2
11	4" DIA. PEXPE D.I. PIPE LENGTH AS REQ'D	1



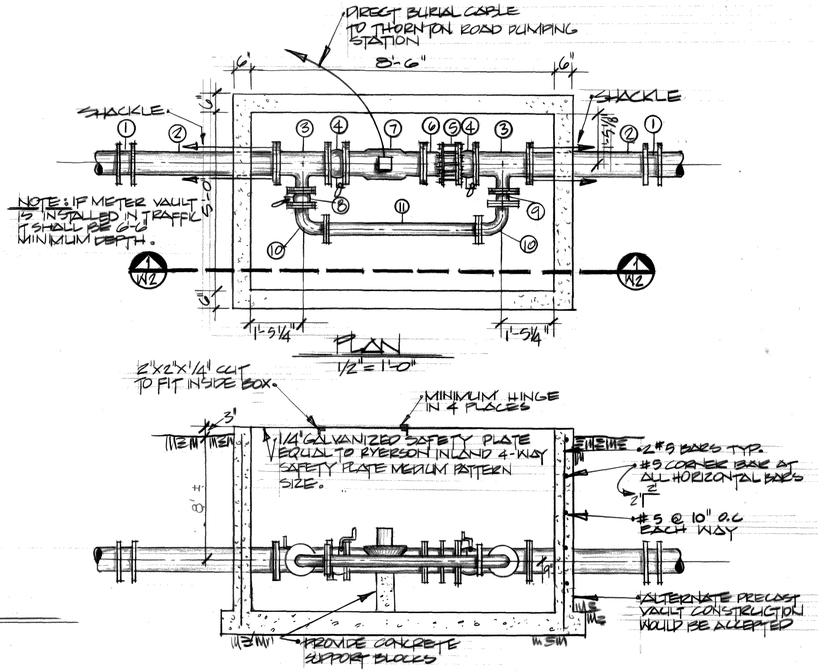
SOUTH WALL ELEVATION

1/2"=1'-0"



EAST WALL ELEVATION

1/2"=1'-0"



NOTE: AS-BUILT SOLID CONCRETE FLOOR DRAINAGE PROVIDED THRU SUMP OF ADJ. PUMP STATION.

SECTION W2

FLOW METER VAULT DETAILS ALTERNATE No. 3

1/2" = 1'-0"

AS BUILT

DESIGNED BY:

NORTHWEST ENGINEERING COMPANY

Seattle, Washington • 206-523-6000

D. Mitch 470003.2

G. R. PARROTT — REGISTERED PROFESSIONAL ENGINEER — May 9 1980

RONALD T. JEPSON & ASSOC., INC.

REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE 1/2"=1'-0" DATE 4/23/80
DRAWN BY SMP
CHECKED BY GRP 5/6/80
APPROVED

REVISIONS
4/81 AS BUILT

FERNDALE U.L.I.D. No. 5
THORNTON ROAD UTILITY VAULT FABRICATION DETAILS

SHEET W2 OF 2

JOB NO. 79008

00111.082 2:30:06 KR

00111.033 2.3.06 KR

CITY OF FERNDALE WASHINGTON

"ELECTRICAL"

WATER DISTRIBUTION SYSTEM

INSTALLATION

FERNDALE UTILITY LOCAL IMPROVEMENT

DISTRICT NO. 5

ATTORNEY: RICHARD LANGABEER

SUPERINTENDENT: JOHN ELEY

CLERK: ROLAND SIGNETT

MAYOR: CECIL BARR

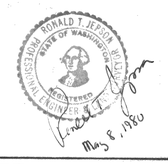
CITY COUNCIL:

J.A. IRWIN
X HAROLD REIMER
GARY GIBBONS
X WALTER TANGUY
JON DONNELLAN

X WATER COMMITTEE

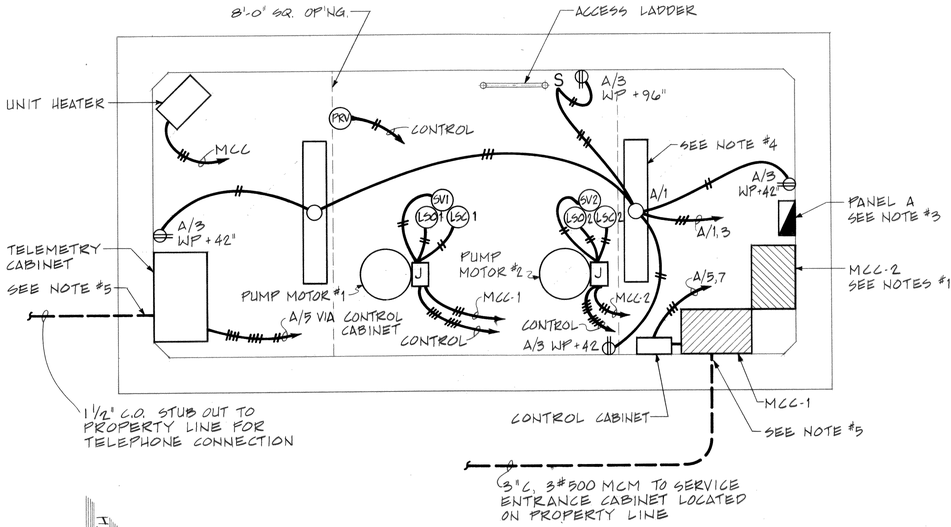
RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

AS BUILT



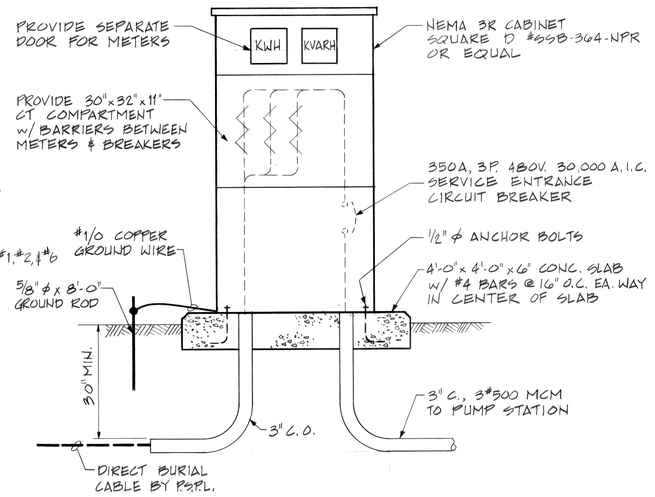
JOB NO. 79008

29



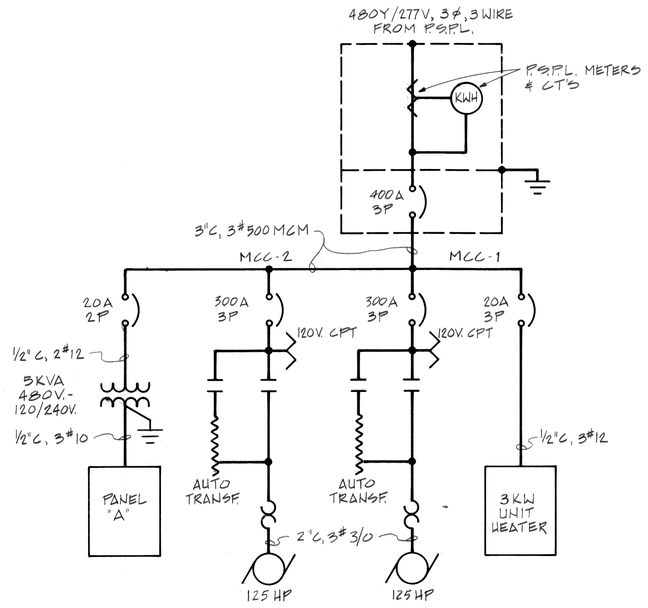
POWER & LIGHTING PLAN

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



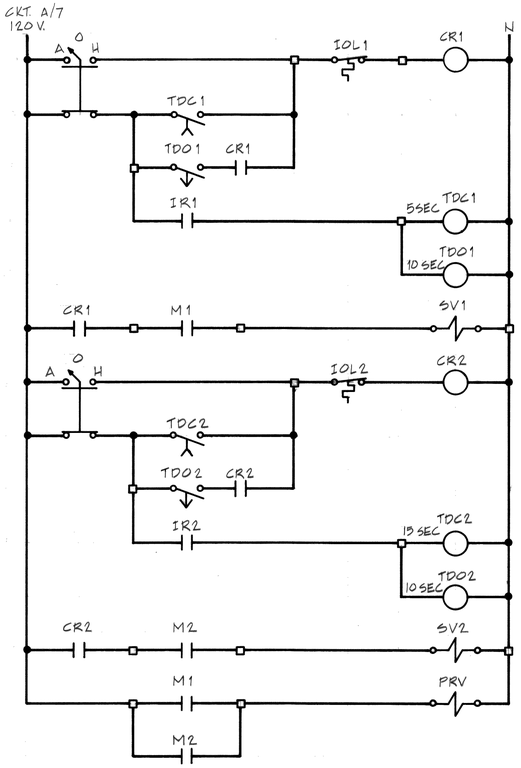
SERVICE ENTRANCE CABINET

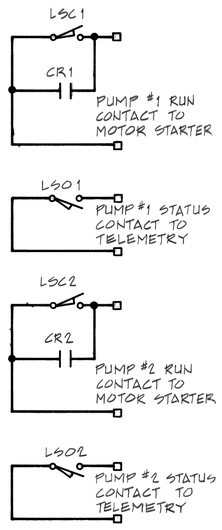
NOT TO SCALE



ONE LINE DIAGRAM

NOT TO SCALE





PUMP CONTROL DIAGRAM

NOT TO SCALE

PANEL SCHEDULE

NO.	LOCATION: CHURCH ROAD	120/240 VOLTS 1 PHASE 3 WIRE
A	SERVING: PUMP STATION	30 AMP with MAIN BREAKER

CKT NO	LOAD DESCRIPTION	KVA	TRIP AMPS		TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.
1	LIGHTS	0.2	20		20		SPARE	2
3	RECEPTACLES	1.0	20				SPACE	4
5	TELEMETRY	0.2	20				↓	6
7	PUMP CONTROL	0.2	20					8

REMARKS: 10,000 A.I.C.

CONNECTED LOAD: 1.6 KVA 8 AMPS

DEMAND LOAD: KVA AMPS

ELECTRAGENTS - BELLEVUE, WASH. FORM NO. PS-2M 1178

NOTES:

1. LOCATE 2 SECTIONS OF MOTOR CONTROL CENTER (MCC) AS SHOWN TO PROVIDE MIN. 42" WORKING SPACE BETWEEN MCC & PIPING.
2. MOUNT MCC'S ON 4" CONCRETE SLAB.
3. MOUNT 5KVA TRANSFORMER ABOVE PANEL "A".
4. SURFACE MOUNT FIXTURES ON CEILING.
5. SEAL TO PREVENT WATER ENTERING VAULT.
6. MCC MAXIMUM DEPTH FROM WALL = 14 IN.

LEGEND

○	FLUORESCENT LIGHT FIXTURE
S	SINGLE POLE TOGGLE SWITCH
⊜	DUPLEX RECEPTACLE
J	JUNCTION BOX
A/1,3	EXPOSED CONDUIT w/NUMBER OF WIRES # HOME RUN AS INDICATED
	UNDERGROUND CONDUIT
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	NORMALLY OPEN CONTACT TIME DELAY CLOSE ON ENERGIZATION
	NORMALLY OPEN CONTACT TIME DELAY OPEN ON DE-ENERGIZATION
LS OR	LIMIT SWITCH AS DESIGNATED
SV OR	SOLENOID VALVE
	THERMAL SWITCH NORMALLY CLOSED TO OPEN ON RISE IN TEMPERATURE
	CIRCUIT BREAKER
	TRANSFORMER
	OVERLOAD HEATER
A O H	AUTO-OFF-HAND SELECTOR SWITCH
CR1 ○	COIL AS DESIGNATED
	GROUND CONNECTION
	TERMINAL FOR EXTERNAL CONNECTION
	CONNECTION

KWH	KILOWATT HOUR METER
TDO	TIME DELAY OPEN AS INDICATED
TDC	TIME DELAY CLOSED AS INDICATED
CR	CONTROL RELAY
W.P	WEATHERPROOF
C.O.	CONDUIT ONLY
CT	CURRENT TRANSFORMER
IOL1 & IOL2	INTEGRAL THERMAL OVERLOADS IN MOTORS #1 & #2
M1 & M2	AUX. CONTACTS ON MOTOR STARTERS #1 & #2
LSC1 & LSC2	LIMIT SWITCH CONTACTS WHICH OPEN WHEN CONTROL VALVES #1 & #2 ARE FULLY CLOSED
LSO1 & LSO2	LIMIT SWITCH CONTACTS WHICH CLOSE WHEN CONTROL VALVES #1 & #2 ARE FULLY OPEN
SV1 & SV2	PILOT SOLENOID VALVES TO OPEN CONTROL VALVES #1 & #2
PRV	PILOT SOLENOID VALVE TO CLOSE PRESSURE REDUCING VALVE
IR1 & IR2	INTERPOSING RELAYS IN TELEMETRY FOR PUMPS #1 & #2

RAYMOND C. PETRICH STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER

AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE NOTED DATE 4-8-80
DRAWN BY EIS1/MD
CHECKED BY EIS1/ROP
APPROVED

REVISIONS 5/7/80 Dimn 10/14/80 2/25/14

FERNDALE U.L.I.D. No. 5
CHURCH ROAD PUMPING STATION
ELECTRICAL PLANS & DETAILS

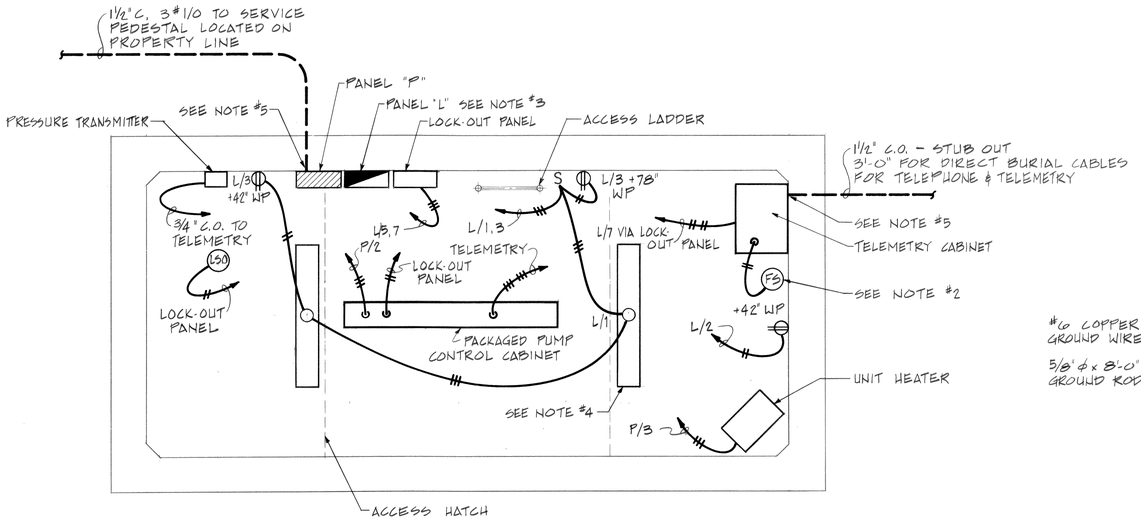
SHEET E-1 OF 2

00111.034 2-3-06 KR

JOB NO. _____

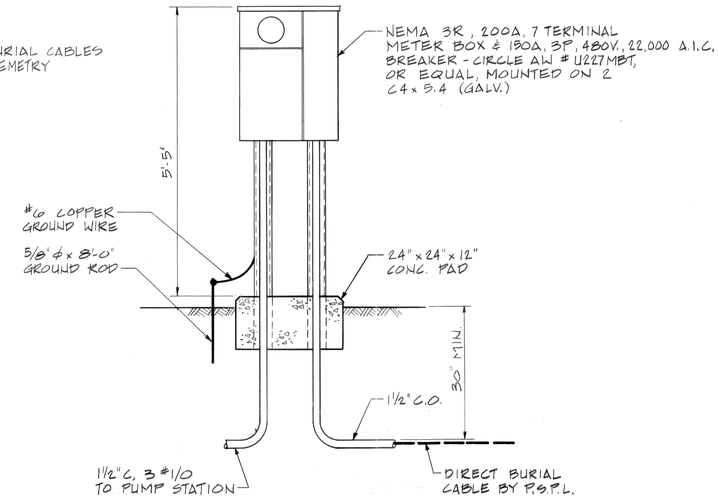
30

30



POWER & LIGHTING PLAN

SCALE: ½" = 1'-0"

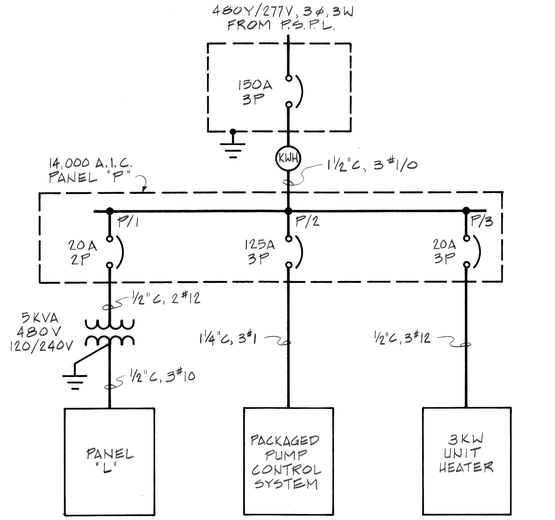


SERVICE PEDESTAL DETAIL

NOT TO SCALE

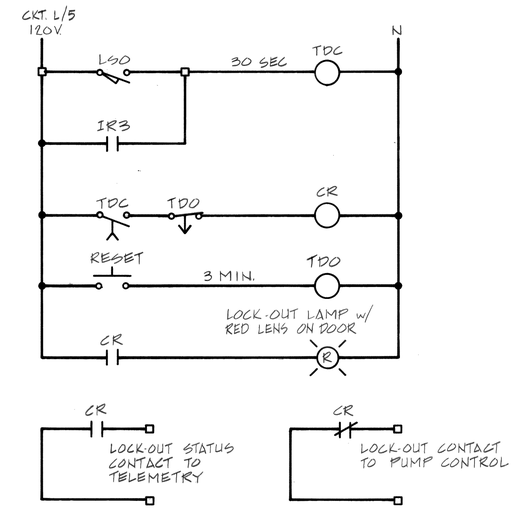
NOTES:

1. SEE SHT. E-1 FOR LEGEND.
2. FLOAT SWITCH TO CLOSE WHEN WATER IS 1" ABOVE FLOOR.
3. MOUNT 5KVA TRANSFORMER ABOVE PANEL "L".
4. SURFACE MOUNT FIXTURES ON CEILING.
5. SEAL TO PREVENT WATER ENTERING VAULT.



ONE LINE DIAGRAM

NOT TO SCALE



BOOSTER PUMP LOCK-OUT DIAGRAM

NOT TO SCALE

PANEL SCHEDULE

NO. L — LOCATION: THORNTON ROAD PUMP STATION — 120/240 VOLTS 1 PHASE 3 WIRE — 30 AMP with MAIN BREAKER

CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS		TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.
1	LIGHTS	0.2	20		20	0.7	SUMP PUMP	2
3	RECEPTACLES	0.3	20				SPACE	4
5	LOCK-OUT PANEL	0.2	20					6
7	TELEMETRY	0.2	20					8

REMARKS: SURFACE MOUNTED 10,000 A.I.C. — CONNECTED LOAD: 1.8 KVA 9 AMPS — DEMAND LOAD: KVA AMPS

ELECTRACENTS - BELLEVUE, WASH. FORM NO. PS-2M 1178

L50 LIMIT SWITCH CONTACT TO CLOSE WHEN CHECK VALVE IS OPEN.

IR3 INTERPOSING RELAY IN TELEMETRY TO CLOSE ON LOW RESERVOIR LEVEL.

TDO NORMALLY CLOSED CONTACT WITH INSTANTANEOUS OPEN ON ENERGIZATION & TIME DELAY CLOSE ON DE-ENERGIZATION

RAYMOND G. PETRICH — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE NOTED DATE 4-8-80
DRAWN BY EIS1 / ND
CHECKED BY EIS1 / RGP
APPROVED

REVISIONS

FERNDALE U.L.I.D. No. 3
THORNTON ROAD PUMPING STATION
ELECTRICAL PLANS & DETAILS

SHEET E-2 of 2

JOB NO.

00111.035 2:3:06 KR

0011.036 2.3.06 KR

CITY OF FERNDALE WASHINGTON

"ALTITUDE VALVE STATION"

WATER DISTRIBUTION SYSTEM

INSTALLATION

FERNDALE UTILITY LOCAL IMPROVEMENT

DISTRICT NO. 5

ATTORNEY: RICHARD LANGABEER

SUPERINTENDENT: JOHN ELEY

CLERK: ROLAND SIGNETT

MAYOR: CECIL BARR

CITY COUNCIL:

J.A. IRWIN
X HAROLD REIMER
GARY GIBBONS
X WALTER TANGUY
JON DONNELLAN

X WATER COMMITTEE

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

AS BUILT

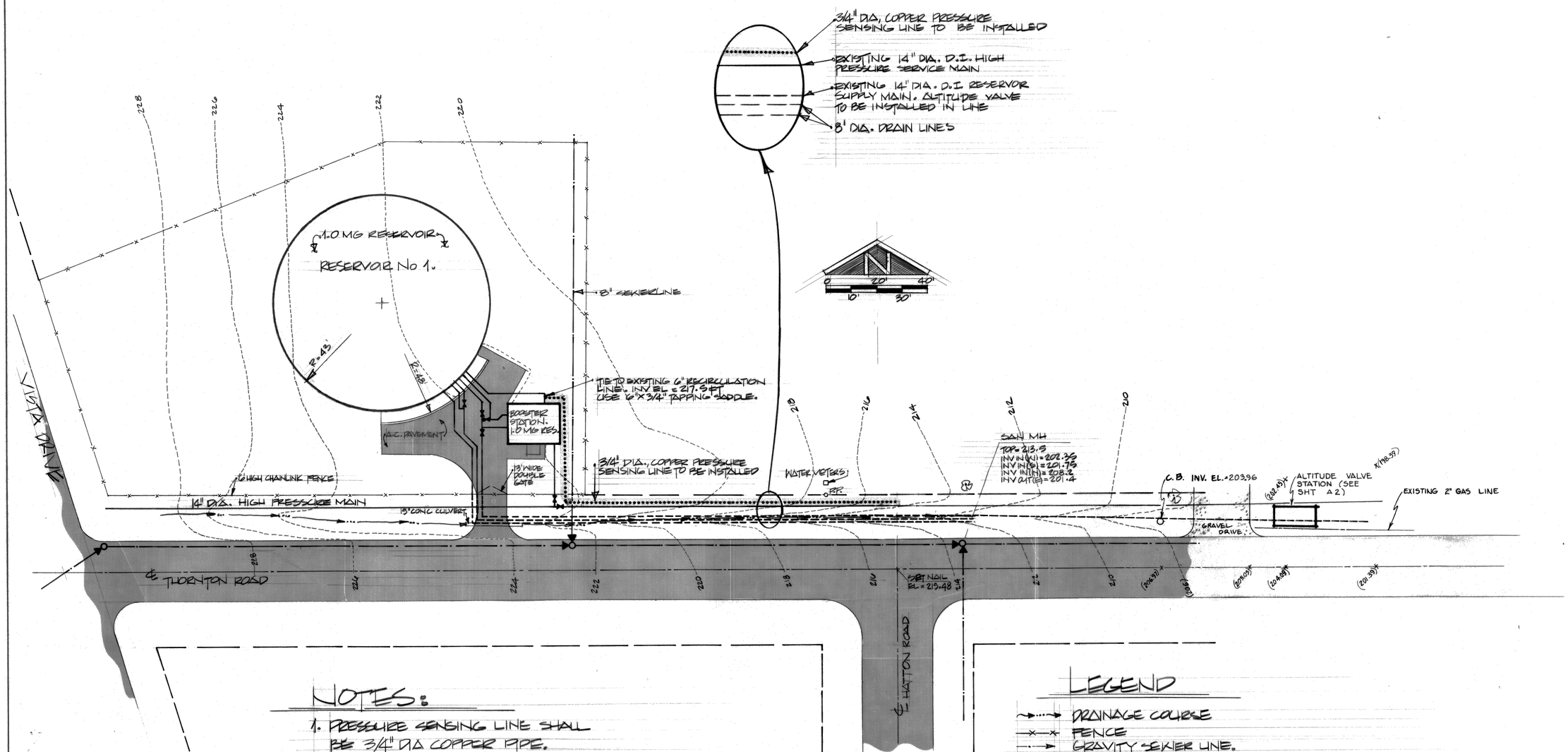
RONALD T. JEPSON REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR STATE OF WASHINGTON
May 8, 1980

JOB NO. 7900E

32

SEC 18, TWP 39 N., RGE 2 E., W.M., WHATCOM COUNTY, WASHINGTON.

C0111.037 2.3.06 RE



NOTES:

1. PRESSURE SENSING LINE SHALL BE 3/4" DIA COPPER PIPE.
2. PRESSURE SENSING LINE SHALL BE INSTALLED ON A POSITIVE SLOPE TO THE RESERVOIR CONNECTION
3. THE 8" DIA. DRAIN LINE PIPES SHALL BE EXTENDED THROUGH THE ALTITUDE VALVE STATION VAULT, IF DIMENSIONAL REQUIREMENTS DICTATE.
4. THE ALTITUDE VALVE SHALL BE ADJUSTED TO CLOSE TWO FEET BELOW OVERFLOW.
5. MINIMUM BURIAL DEPTH OF SENSING LINE = 2 FT.

LEGEND

- DRAINAGE COURSE
- FENCE
- GRAVITY SEWER LINE.
- WATER METER
- OPP POWER POLE
- (206) DENOTES AS-BUILT ELEV.

AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE 1"=20' DATE 8/16/80
DRAWN BY SMD
CHECKED BY
APPROVED

REVISIONS
4-01 AS BUILT

FERNDALE U.L.I.D. No 5.
ALTITUDE VALVE STATION
SITE PLAN

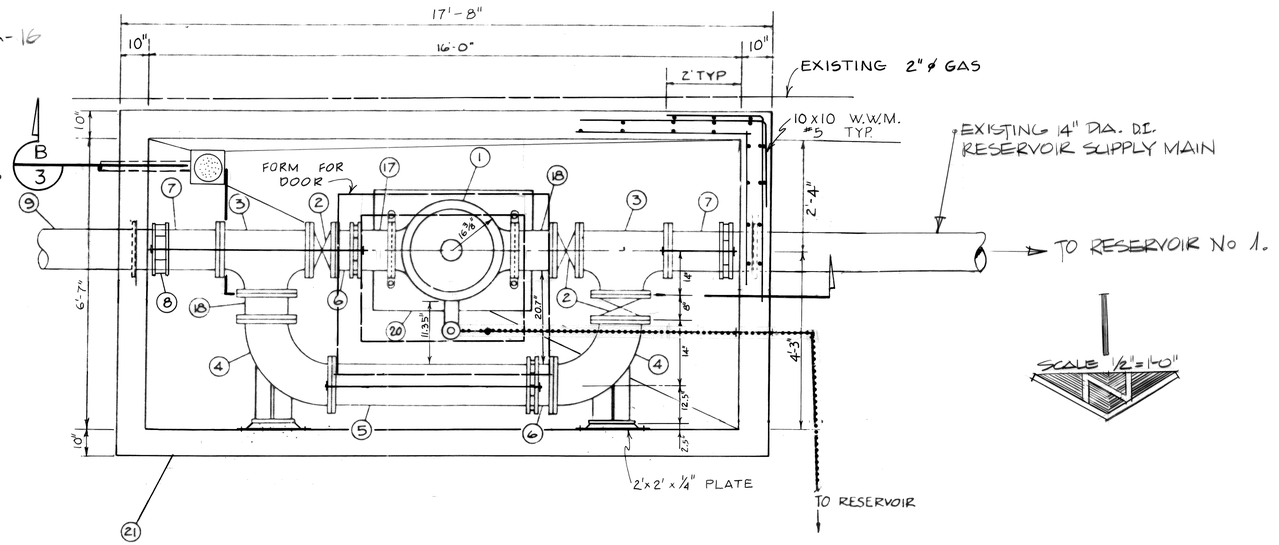
SHEET A1 OF 2

JOB NO. 79008

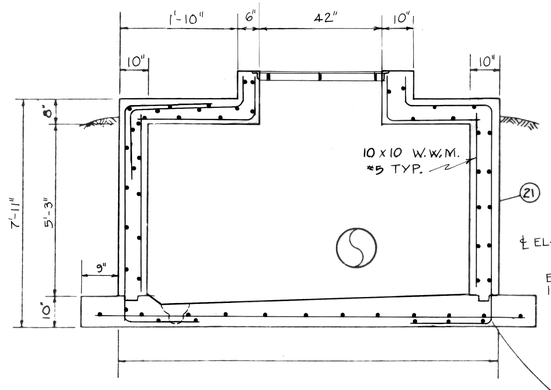
0011.038.2-2064KK

PIPING LEGEND

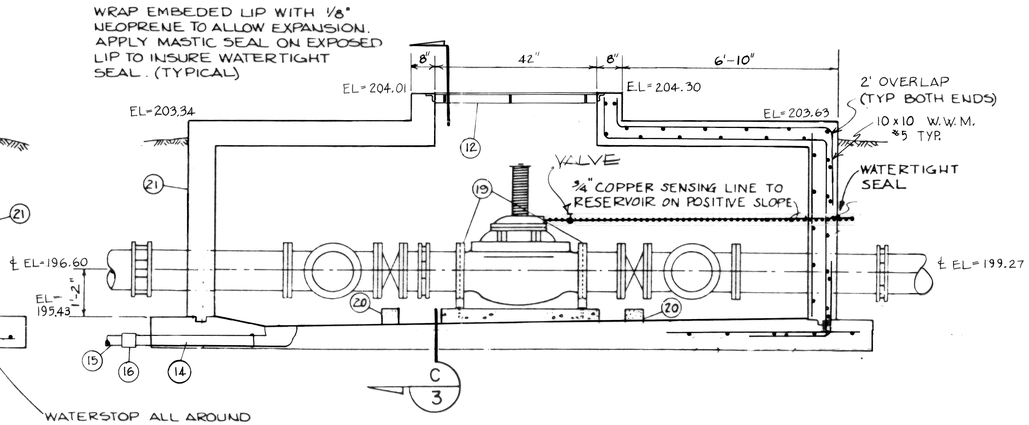
1. 14" ALTITUDE VALVE ASSY CLAYTON MODEL 210A-16
2. 14" BUTTERFLY VALVE ASSY, FL × FL
3. 14" C.I. TEE, ALL FL
4. 14" C.I. LONG RADIUS BASE BEND 90°
5. 14" D.I.P FL × PE
6. 14" COUPLING ADAPTER, SMITH-BLAIR #913
7. 14" C.I. WALL PIPE, FL × PE
8. 14" TRANSITION COUPLING, SMITH-BLAIR #433
9. 14" C.I. PIPE
10. 14" CPLG. ADAPT. W/ANCHOR STUDS, SMITH-BLAIR #913
11. 14" C.I. BLIND FLANGE
12. DOOR 42" × 42"
13. FLOOR DRAIN, OLYMPIC FDRY No 3307
14. 3" C.I.P, BELL × PE
15. 3"Ø P.V.C.
16. ADAPTER 3" C.I. TO 3" P.V.C.
17. 14" D.I.P, FL × PE
18. 14" D.I.P, FL × FL
19. HOLD-DOWN STRAP ASSY, 2" × 1/4" STL STRAP & FASTN'S
20. CONCRETE SUPPORT PAD
21. CAST-IN-PLACE CONCRETE VALVE BOX.



VALVE BOX & PIPING DETAIL



SECTION C 3



SECTION B 3

AS BUILT

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE NTS DATE Aug. 1973
DRAWN BY AC
CHECKED BY
APPROVED

REVISIONS
4/81 - AS BUILT

FERNDALE U.L.I.D. No. 5
ALTITUDE VALVE STATION

SHEET A2 OF 2

JOB NO. 79008

34

CITY OF FERNDALE WASHINGTON

"WATER TREATMENT PLANT MODIFICATIONS"

WATER DISTRIBUTION SYSTEM

INSTALLATION

FERNDALE UTILITY LOCAL IMPROVEMENT

DISTRICT NO. 5

ATTORNEY: RICHARD LANGABEER

SUPERINTENDENT: JOHN ELEY

CLERK: ROLAND SIGNETT

MAYOR: CECIL BARR

CITY COUNCIL:

- J.A. IRWIN
- X HAROLD REIMER
- GARY GIBBONS
- X WALTER TANGUY
- JON DONNELLAN

X WATER COMMITTEE



May 9 1980



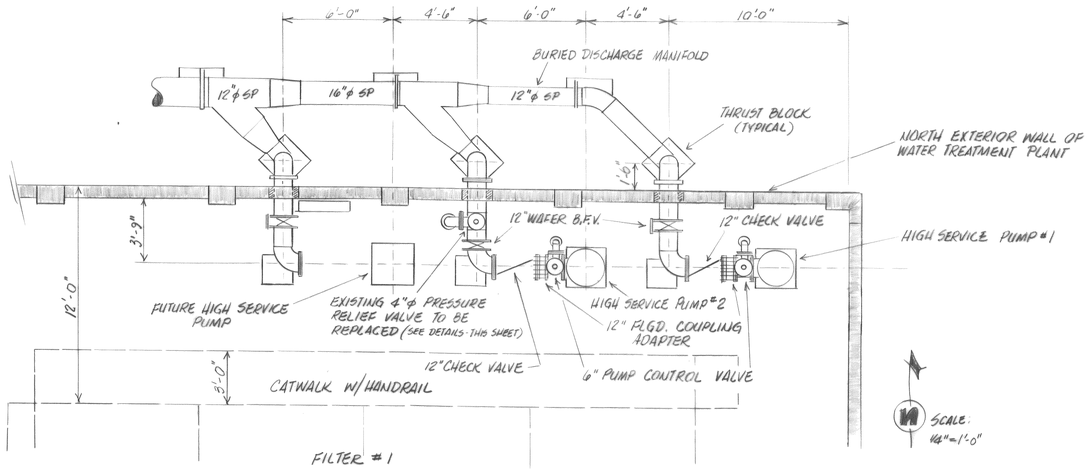
May 8, 1980

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE BELLINGHAM, WASHINGTON 98225

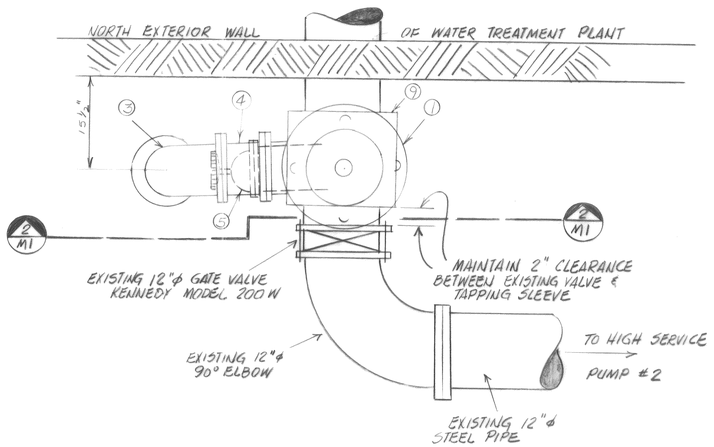
JOB NO. 79008

DA 0011020 0823.00

OC 111.040 2-3.06 KR



WATER TREATMENT PLANT - LOCATION DETAIL



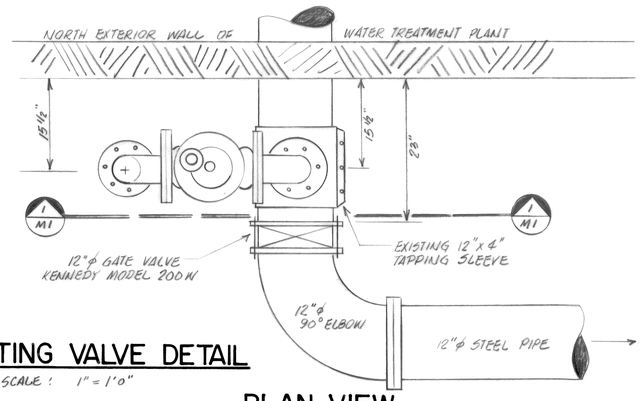
PLAN VIEW

EQUIPMENT SCHEDULE

ITEM NO.	DESCRIPTION
1.	8" DIA. SURGE ANTICIPATOR VALVE CLA-VAL MODEL 52-03 ANGLE VALVE OR APPROVED EQUAL
2	8"x 4" FL REDUCER
3	8" DIA. 90° ELBOW
4	8" DIA. FLXFL PIPE, LENGTH AS REQUIRED
5	8" DIA. FLXFL GATE VALVE
6	4" DIA. FLXMJ COUPLING ADAPTER DRESSER STYLE 127 OR APPROVED EQUAL.
7	8" DIA. FLXMJ COUPLING ADAPTER DRESSER STYLE 127 OR APPROVED EQUAL.
8	8" DIA. FLXPE PIPE, LEGHTH AS REQUIRED
9	12" x 8" TAPPING SLEEVE, ROCKWELL MODEL 622 OR APPROVED EQUAL.

VALVE INSTALLATION DETAIL

SCALE: 1" = 1'-0"

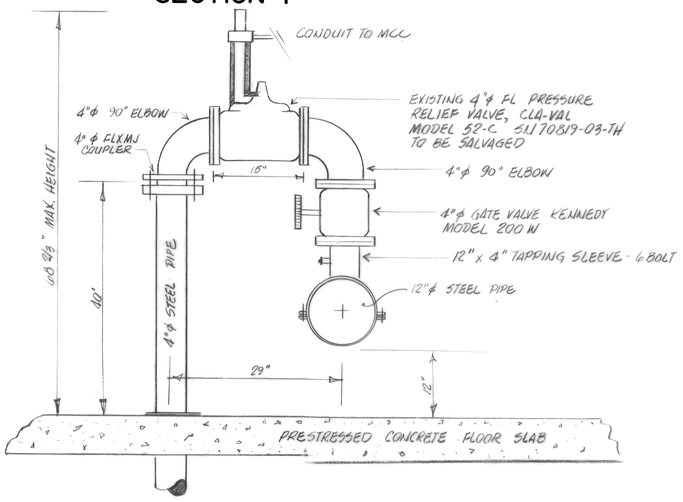


EXISTING VALVE DETAIL

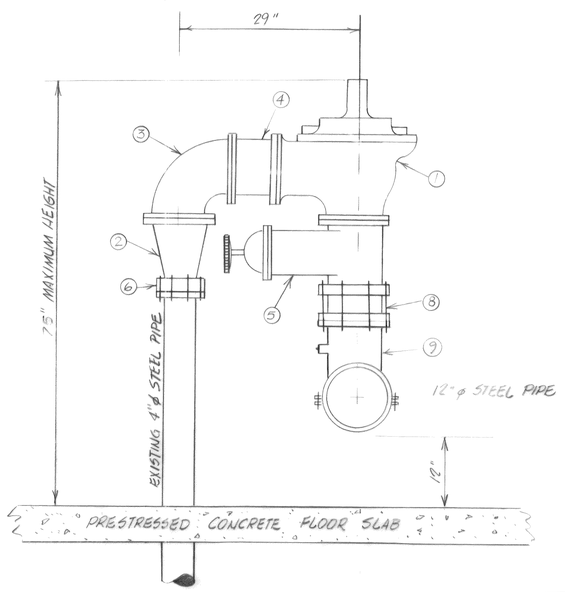
SCALE: 1" = 1'-0"

PLAN VIEW

SECTION 1



SECTION 2



NOTES:

1. THE 8" DIAMETER GATE VALVE SHALL BE RIGIDLY STRAPPED TO THE 12" DIAMETER DISCHARGE PIPE. TIE RODS AND BOLTS SHALL EXTEND FROM THE VALVE FLANGE TO LOOP UNDER THE 12" PIPE. THE CONTRACTOR SHALL INSURE THAT THE VALVE ASSEMBLY IS PREVENTED FROM BLOWING APART AT THE MECHANICAL JOINT DURING PRESSURE SURGES
2. ALL EQUIPMENT TO BE INSTALLED IN CONJUNKTION WITH THIS VALVE INSTALLATION SHALL INCORPORATE 350 PSI MINIMUM PRESSURE RATED COMPONENTS.
3. THE EXISTING 4" DIA. PRESSURE RELIEF VALVE SHALL BE SALVAGED, RETROFITTED AND RELOCATED AT THE CHURCH ROAD PUMPING STATION IN ACCORDANCE WITH THE SPECIFICATIONS.
4. ALL EQUIPMENT AND MATERIALS SALVAGED FROM THE EXISTING INSTALLATION SHALL BE DELIVERED TO THE CITY OF BERNDALE.

DESIGNED BY:

NORTHWEST ENGINEERING COMPANY
Seattle, Washington • 206-523-6000

D. Mitch **470003.2**

AS BUILT

G. R. PARRETT — REGISTERED PROFESSIONAL ENGINEER — May 9 1980

RONALD T. JEPSON — REGISTERED PROFESSIONAL ENGINEER — May 9, 1980

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE	DATE MAY 1980
DRAWN BY	ANNE
CHECKED BY	DMJ
APPROVED	RTJ

REVISIONS: AS-BUILT 7-15-81 DJC

WATER TREATMENT PLANT MODIFICATIONS

SHEET M1 1

JOB NO. 79008

BRUNING 44-132 44375

CITY OF FERNDALE WASHINGTON

"TELEMETRY & CONTOL SYSTEM"

WATER DISTRIBUTION SYSTEM

INSTALLATION

FERNDALE UTILITY LOCAL IMPROVEMENT

DISTRICT NO. 5

ATTORNEY: **RICHARD LANGABEER**

SUPERINTENDENT: **JOHN ELEY**

CLERK: **ROLAND SIGNETT**

MAYOR: **CECIL BARR**

CITY COUNCIL:

- **J.A. IRWIN**
- X **HAROLD REIMER**
- **GARY GIBBONS**
- X **WALTER TANGUY**
- **JON DONNELLAN**
- X **WATER COMMITTEE**

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

AS BUILT

G. R. PARROTT REGISTERED PROFESSIONAL ENGINEER May 9 1980

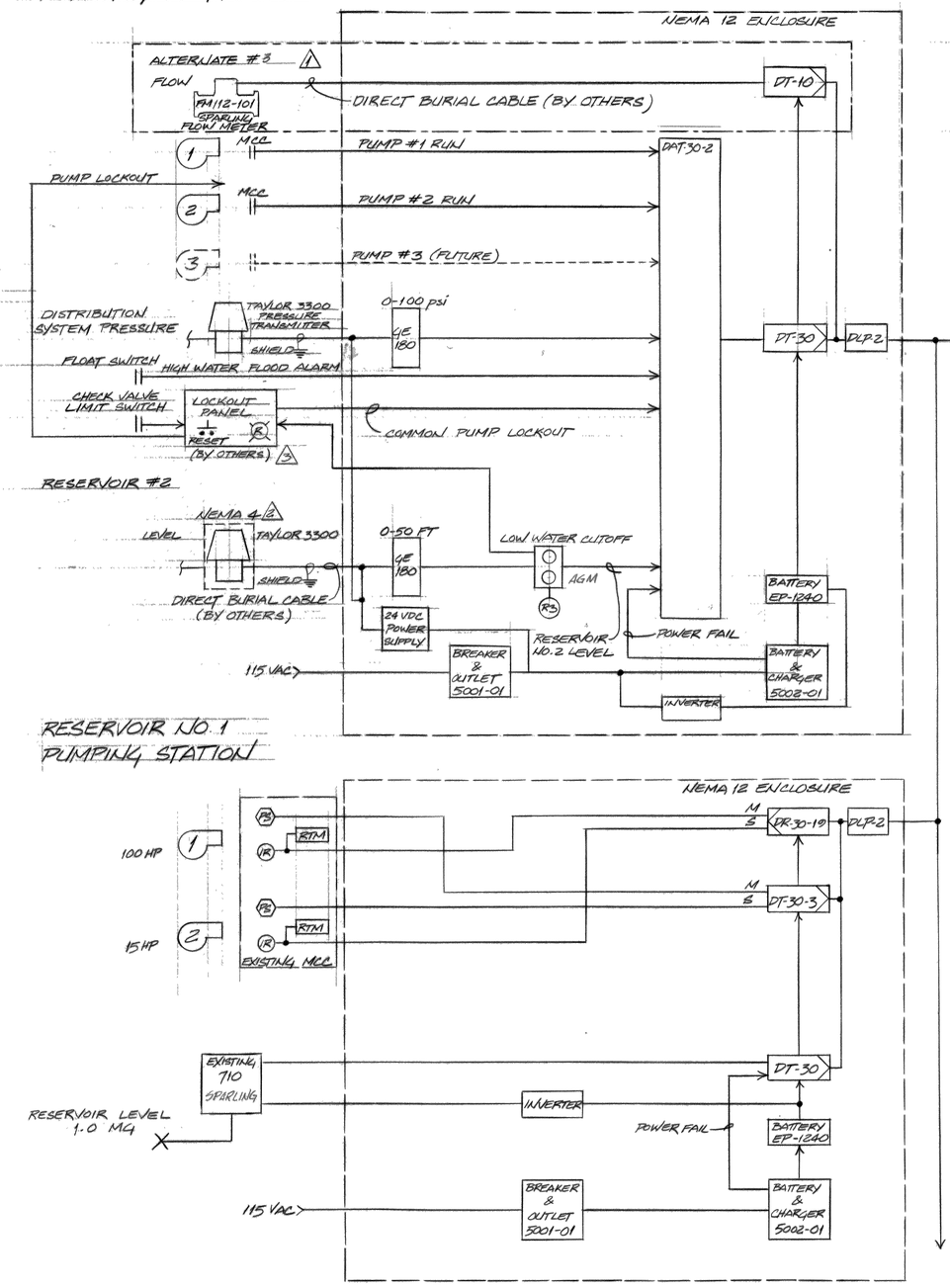
RONALD T. JEPSON REGISTERED ENGINEER & LAND SURVEYOR May 9, 1980

JOB NO. 79008

000 1140 2-3-06

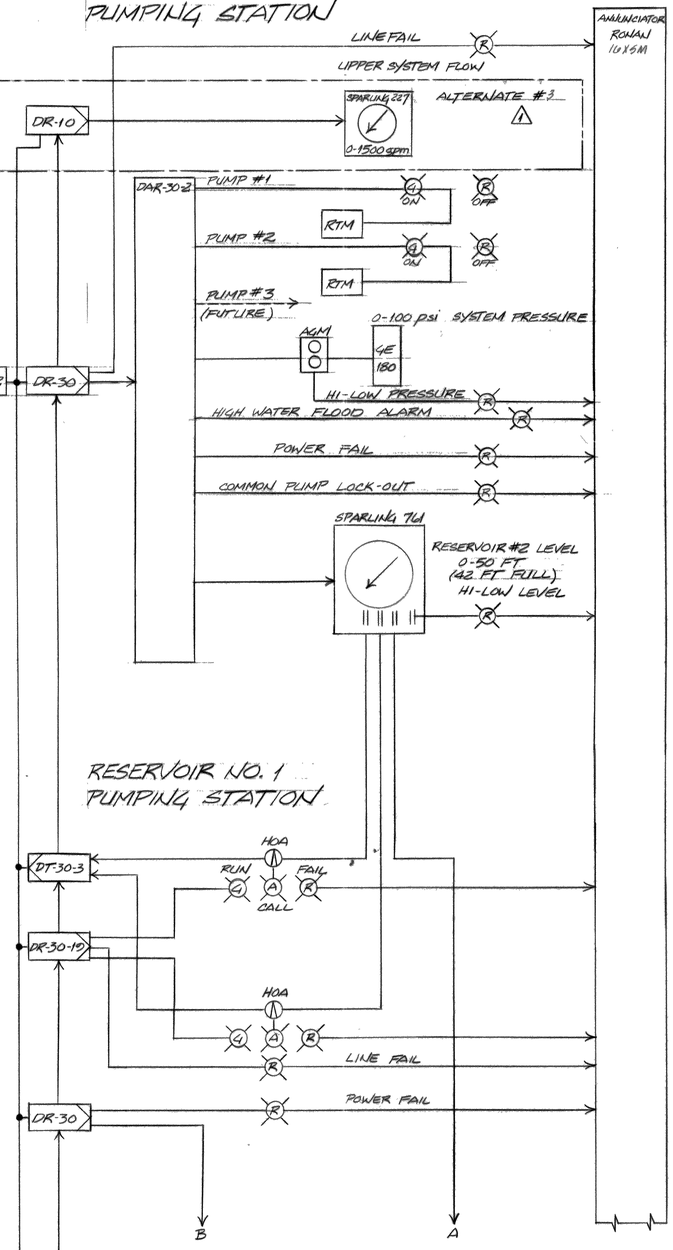
REMOTES

THORNTON ROAD PRESSURE BOOSTER PUMPING STATION



WATER TREATMENT PLANT HEADQUARTERS

THORNTON ROAD PUMPING STATION



EQUIPMENT SCHEDULE

ITEM	DESCRIPTION
DAQ ELECTRONICS INC	
DT-10	AM TONE TRANSMITTER
DT-30	FSK TONE TRANSMITTER
DAT-30-2	MULTIPLEXER TRANSMITTER
DR-10	AM TONE RECEIVER
DR-30	FSK TONE RECEIVER
DAR-30-2	SCANNER RECEIVER
DLP-2	LIGHTENING PROTECTOR
DP-115	12 VOLT DC. POWER SUPPLY
ENVIROTECH - SPARLING	
SPARLING FM112-101	PROPELLER TYPE FLOW METER W/SIGNAL TRANSMITTER
SPARLING 227	CIRCULAR CHART RECORDER
SPARLING 710	LEVEL TRANSMITTER
SPARLING 740	STRIP CHART RECORDER W/ADJUSTABLE SET-POINT PUMP CONTROL
SPARLING 761	CIRCULAR CHART RECORDER W/ADJUSTABLE SET POINT PUMP CONTROL
SPARLING AI-851	ALARM MODULE
STEAD AND BAGGERLY, INC.	
5001-01	110 VOLT AC CIRCUIT BREAKER & OUTLET
5002-01	BATTERY CHARGER AND POWER FAIL SWITCH OVER ASSEMBLY
OTHER MANUFACTURERS	
TAYLOR 3300	PRESSURE/LEVEL SENSOR AND SIGNAL TRANSMITTER - TAYLOR INSTRUMENTS
RONAN 16SXM	MULTI-POINT ALARM ANNUNCIATOR - RONAN ENGINEERING CO.
AGM	PULSE TO CURRENT, CURRENT TO PULSE CONVERTERS W/ADJUSTABLE SET POINTS - AGM ELECTRONICS, INC.
EP-1240	12 VOLT DC SOLID GEL BATTERY - EL POWER
GE-180	PRESSURE INDICATOR - GENERAL ELECTRIC COMPANY
MISCELLANEOUS	
RTM	RUNNING TIME METER
(R)	RELAY
(IR)	INTERPOSE RELAY LOCATED IN MOTOR CONTROL CENTER (MCC)
(PS)	PRESSURE SWITCH
(R)	RED LAMP ASSEMBLY, G=GREEN, A=AMBER
HOA	HAND-OFF-AUTOMATIC SELECTOR SWITCH
MCC	MOTOR CONTROL CENTER

SEE SHEET C-2 FOR NOTES.

DESIGNED BY:

NORTHWEST ENGINEERING COMPANY
Seattle, Washington • 206-523-6000
D. Mitch 470003.2

AS BUILT

G. R. PARROTT — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — May 9 1980

RONALD T. JEPSON — REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR — STATE OF WASHINGTON — May 8, 1980

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE: NTS DATE: 6-14-80
DRAWN BY: ACT
CHECKED BY:
APPROVED:

REVISIONS:

FERNDALE U.L.I.D. No 5
CONTROL SYSTEM - BLOCK DIAGRAM

SHEET C-1 OF 2

JOB NO.

00111.042 2.3.06 KR

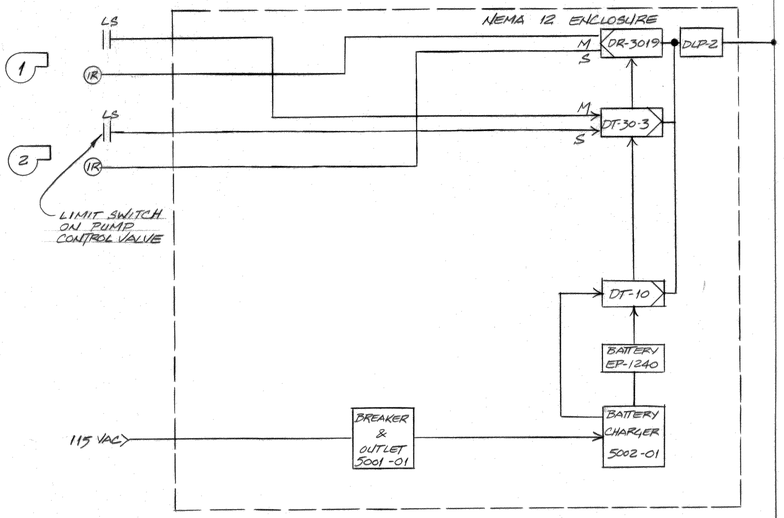
38

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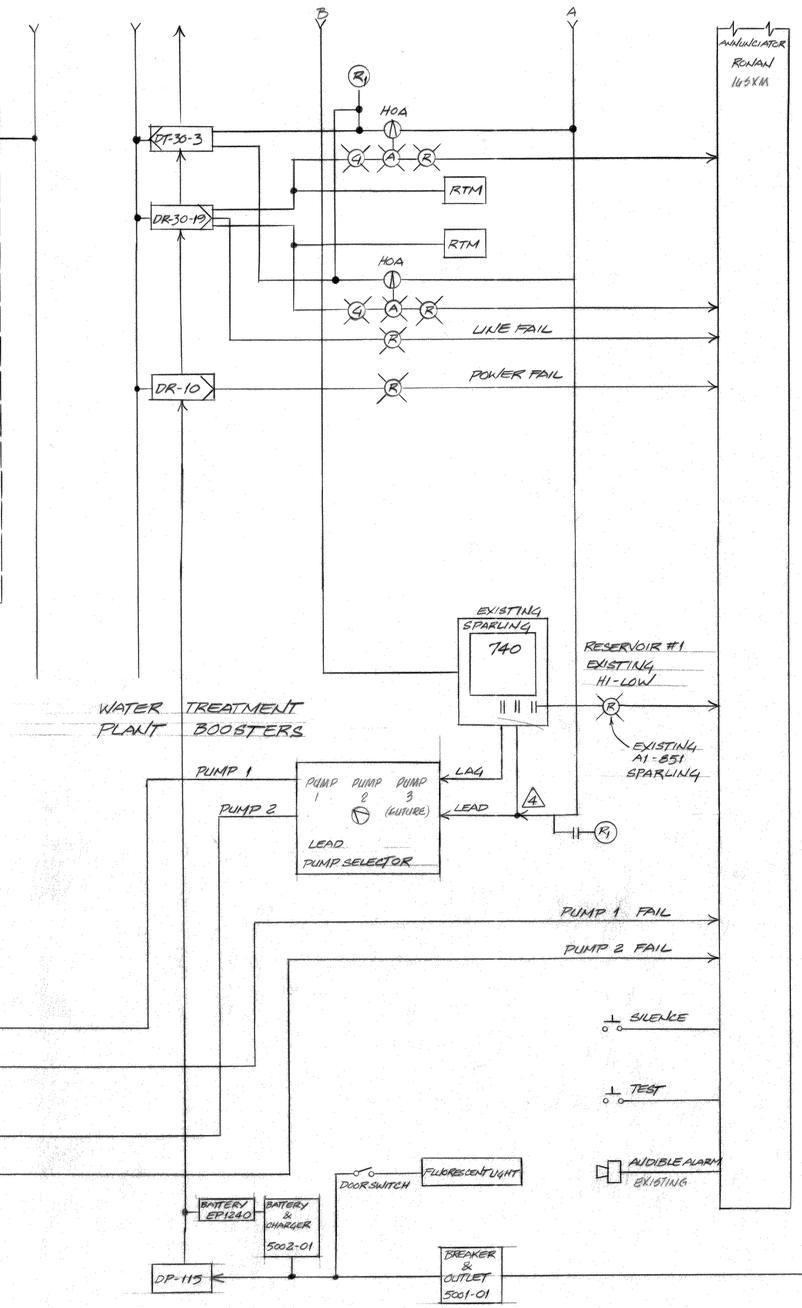
REMOTES

WATER TREATMENT PLANT HEADQUARTERS

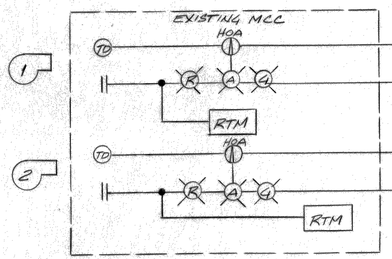
CHURCH ROAD LINE BOOSTER PUMPING STATION



CHURCH ROAD PUMPING STATION



WATER TREATMENT PLANT BOOSTERS



NOTES

1. ALTERNATE №3 SHALL BE BID AS A SEPARATE ITEM TO PROVIDE INDICATION AND RECORDING OF THORNTON ROAD PUMPING STATION FLOW AT THE WATER TREATMENT PLANT.
2. ENCLOSURE, TAP & VALVE ASS'Y AND DIRECT BURIAL CABLE AT RESERVOIR №2 (1.5MG) SHALL BE FURNISHED AND INSTALLED UNDER SEPARATE CONTRACT.
3. LOCK-OUT PANEL TO BE FURNISHED AND INSTALLED UNDER SEPARATE CONTRACT.
4. THE LEAD (WTP) PUMP SHALL BE CONTROLLED SUCH THAT IT MAY BE STARTED BY A COMMAND FROM EITHER RESERVOIR, AND MUST BE STOPPED BY A COMMAND FROM BOTH RESERVOIRS. THE LEAD PUMP MUST RUN WHENEVER ANY PUMP AT THE CHURCH ROAD PUMPING STATION RUNS, WHETHER BY A MANUAL COMMAND OR AN AUTOMATIC COMMAND FROM RESERVOIR NO. 2. IN THE AUTOMATIC MODE, THE LEAD (WTP) PUMP SHALL RUN BASED UPON ACTIVE RUN STATUS OF ANY PUMP AT THE CHURCH ROAD PUMPING STATION. LEAD (WTP) PUMP FAILURE SHALL LOCK OUT ALL PUMPS AT THE CHURCH ROAD PUMPING STATION.

DESIGNED BY:

NORTHWEST ENGINEERING COMPANY
Seattle, Washington • 206-523-6000
D. Mitch **470003.2**

AS BUILT

G. R. PARROTT — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER — May 9 1980

RONALD T. JEPSON — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR — May 8, 1980

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE NTS DATE 4-14-80 DRAWN BY ACT CHECKED BY APPROVED	REVISIONS	FERNDALE U.L.I.D. №5 CONTROL SYSTEM - BLOCK DIAGRAM	SHEET C-2 OF 2

JOB NO. _____

39

CITY OF FERNDALE WASHINGTON

1.5 MILLION GALLON RESERVOIR

INSTALLATION

FERNDALE UTILITY LOCAL IMPROVEMENT

DISTRICT NO. 5

ATTORNEY: RICHARD LANGABEER

SUPERINTENDENT: JOHN ELEY

CLERK: ROLAND SIGNETT

MAYOR: CECIL BARR

CITY COUNCIL:

- J.A. IRWIN
- X HAROLD REIMER
- GARY GIBBONS
- X WALTER TANGUY
- JON DONNELLAN
- X WATER COMMITTEE

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

AS BUILT

RONALD T. JEPSON — STATE OF WASHINGTON — REGISTERED ENGINEER & LAND SURVEYOR
May 5, 1980

JOB NO. 79008

0011.044 2.3.06 KR

WATER TANK SITE

AREA = 249,881 sq.ft.

5.73 AC.

N 0° 03' 43" E
653.197

6.00

34.00

EXISTING FENCES

331.475

AREA = 216,570 sq.ft.

4.97 AC.

331.372

N 89° 44' 41" E

662.950

N 0° 03' 10" E
653.725

100.00

65'

N 0° 03' 10" E
533.725
653.725

20.00

20.00

N 89° 50' 10" E

331.475

EXISTING FENCE

11.00

654.255
N 0° 02' 37" E

100.00

1308.510

P.O.B.

FUTURE

331.371

331.355

N 89° 44' 41" E

AREA = 166,914 sq.ft.

3.829 AC.

N 0° 02' 37" E
534.205

534.255

.381 AC.

30.00

20.00 20.00

1325.075

N 89° 39' 11" E

THORNTON (239)

24 13

24 19 18 13

CHURCH RD.

SCALE: 1" = 50'

DETAIL SCALE: 1" = 30'

SET PROP. COR.
10' SET BACK

N 0° 03' 10" E

EXISTING FENCE & PROP. LINE

EXT. FENCE POST

10' 20' 20'

9.00 11.00 20.00 21.00

THORNTON RD.

20' 20'

DETAIL SCALE: 1" = 30'

SET PROP COR.
10' SET BACK

N 0° 02' 37" E

EXISTING FENCE

EXT. FENCE POST

10' 20' 20'

9.00 11.00

THORNTON RD.

20' 20'

SECTION 24

2627.009 2650.15 1325.075

662.537

2654.682 2608.559 2655.440

2646.530 2633.460
N 89° 56' 51" W

2639.590 2628.530 2637.240

2655.550 2670.560

N

LEGEND

- SET IRON PIPE
- FND. 1/4 COR. - CONC. MON.
- FND. SEC. COR. - CASED CONC. MON.

LEGAL DESCRIPTION

A PORTION OF THE N.W. 1/4 OF THE N.E. 1/4 IN SECTION 24, TOWNSHIP 39 NORTH, RANGE 1 EAST OF W.M., WHATCOM COUNTY, WASHINGTON.

TOTAL ACREAGE = 6.11 AC.

AS BUILT

May 8, 1980

RONALD T. JEPSON & ASSOC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE: 1"=50' DATE: 12-12-79
DRAWN BY: RTJ
CHECKED BY: RTJ
APPROVED: RTJ

REVISIONS
12-26-79 DELETED EQUITY CHANGED LEGAL
ADDITIONAL ACC. LANDS
AS BUILT 5-8-80

CITY OF FERNDALE

WATER TANK SITE

SHEET R1 R3

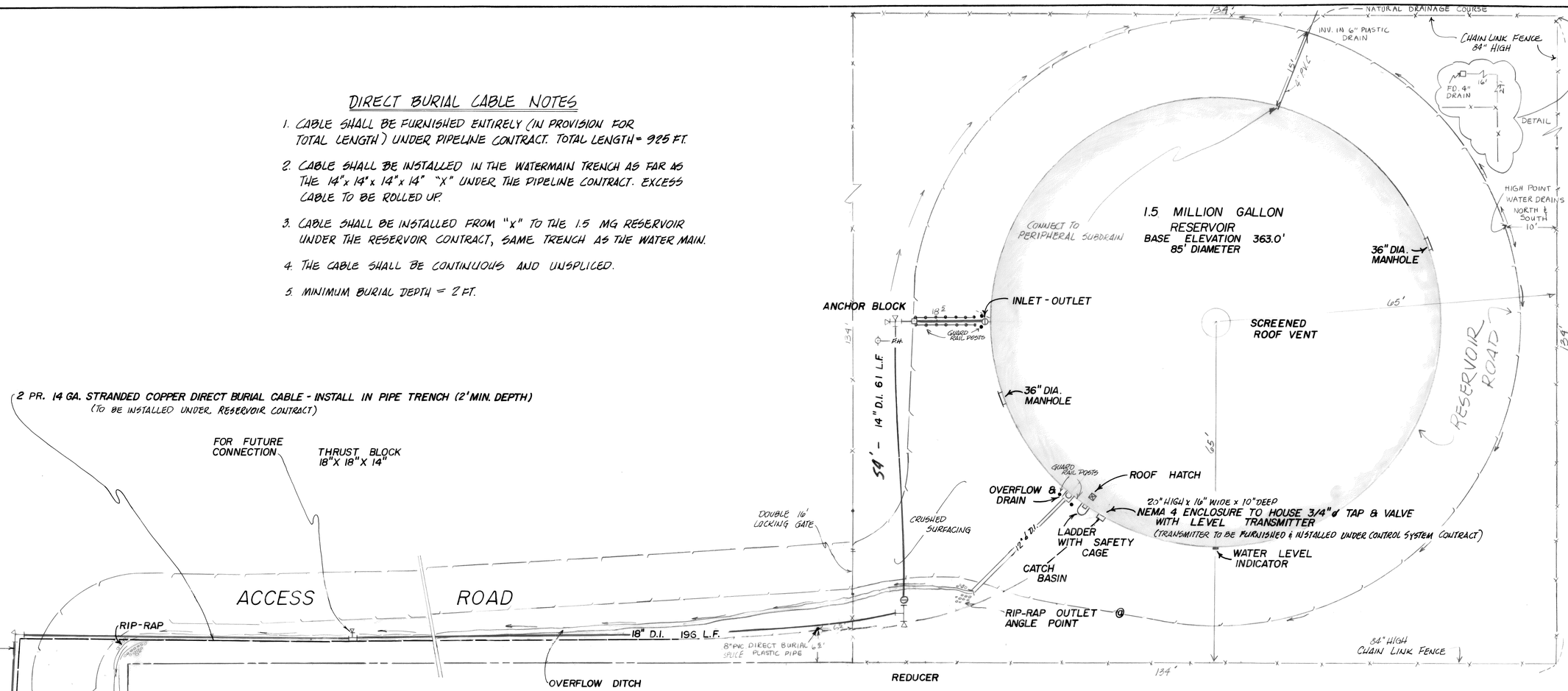
JOB NO. 79008

BRUNING 17658

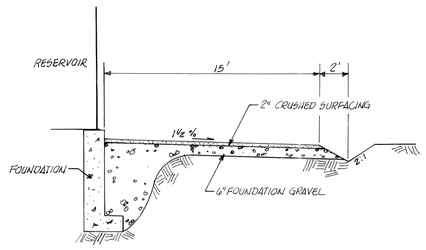
00111.045 2.3.06 KR

DIRECT BURIAL CABLE NOTES

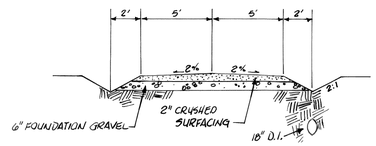
1. CABLE SHALL BE FURNISHED ENTIRELY (IN PROVISION FOR TOTAL LENGTH) UNDER PIPELINE CONTRACT. TOTAL LENGTH = 925 FT.
2. CABLE SHALL BE INSTALLED IN THE WATERMAIN TRENCH AS FAR AS THE 14"x 14"x 14"x 14" "X" UNDER THE PIPELINE CONTRACT. EXCESS CABLE TO BE ROLLED UP.
3. CABLE SHALL BE INSTALLED FROM "X" TO THE 1.5 MG RESERVOIR UNDER THE RESERVOIR CONTRACT, SAME TRENCH AS THE WATER MAIN.
4. THE CABLE SHALL BE CONTINUOUS AND UNSPLICED.
5. MINIMUM BURIAL DEPTH = 2 FT.



NOTE:
1. TRANSMITTER ENCLOSURE W/TAP & VALVE ASSEMBLY TO BE INSTALLED AND PAINTED UNDER RESERVOIR CONTRACT.
2. LEVEL TRANSMITTER TO BE FURNISHED AND INSTALLED UNDER THE (SEPARATE) TELEMETRY AND CONTROL CONTRACT.



TYPICAL RESERVIOR ROAD SECTION
NO SCALE



TYPICAL ACCESS ROAD SECTION
NO SCALE

AS BUILT

May 8, 1980

00111.046 2.3.06 KR

RONALD T. JEPSON & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE 1"=10' DATE May 1979
DRAWN BY
CHECKED BY
APPROVED

REVISIONS
AS BUILT 3/81
AS-BUILT 7/81

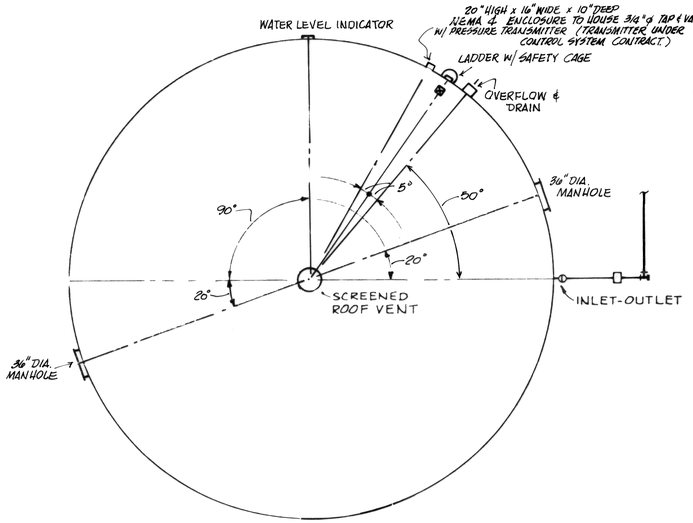
FERNDALE U.L.I.D. NO. 5
RESERVOIR PLANS

SHEET R2 OF R3

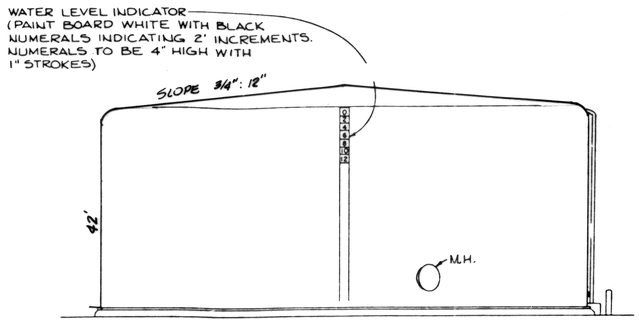
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5/2

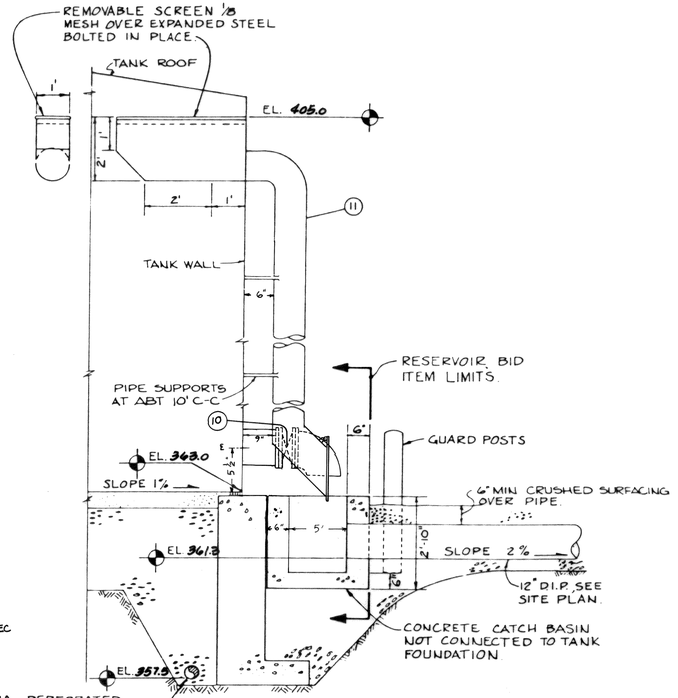
00111.047 2306 R



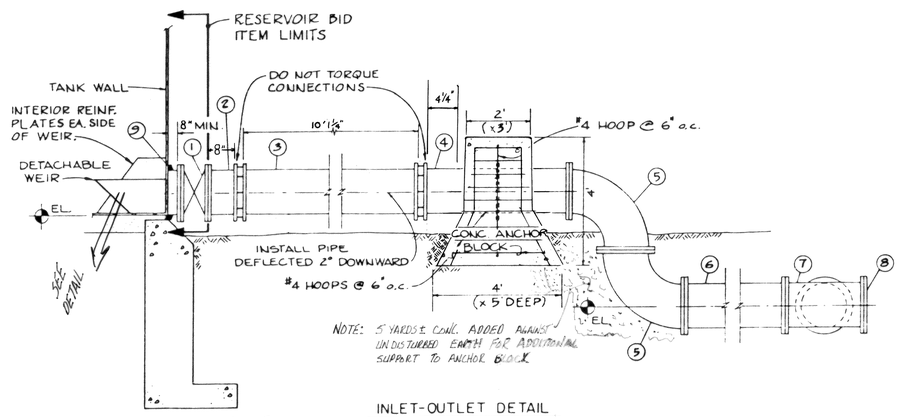
ORIENTATION PLAN
NO SCALE



TYPICAL ELEVATION OF RESERVOIR
NO SCALE



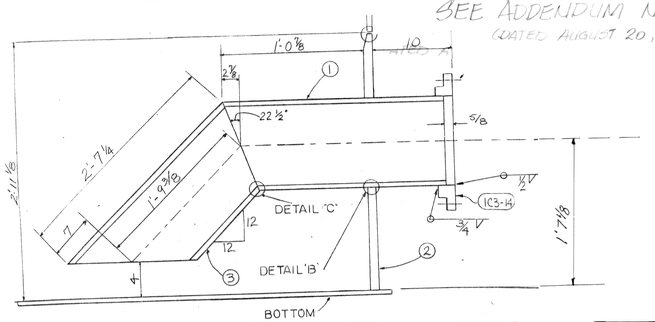
OVERFLOW & DRAIN DETAIL
NO SCALE

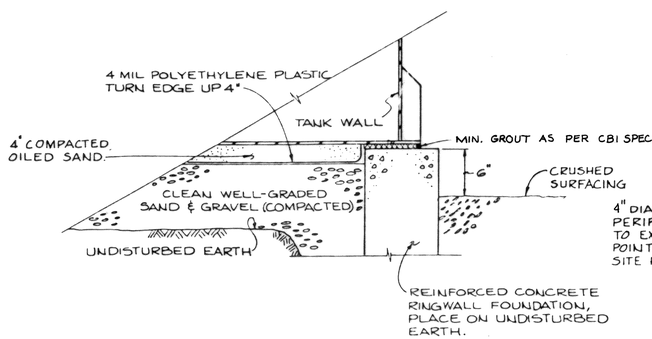


INLET-OUTLET DETAIL
NO SCALE

AS BUILT 14ø INLET-OUTLET NOZZLE

SEE ADDENDUM NO. 1
(DATED AUGUST 20, 1980)





TANK BASE DETAIL
NO SCALE

LEGEND

1. 14" BUTTERFLY VALVE ASSEMBLY, FL x FL
2. 14" ADAPTER COUPLING, FL x LOK-TYTE (SPIGOT END)
3. 14" D.I.P., LOK-TYTE
4. 14" D.I. WALL PIPE FL x LOK-TYTE (BELL END)
5. 14" C.I. LONG RADIUS BEND, 90°, FL x FL
6. 14" D.I.P., FL x FL
7. 14" C.I. TEE, FL x FL x FL
8. 14" BLIND FLANGE
9. 14" STEEL PIPE, FLANGED
10. 10" BUTTERFLY VALVE ASSEMBLY, FL - FL
11. 10" OVERFLOW, SCHED. 40 STEEL PIPE

AS BUILT

REGISTERED PROFESSIONAL ENGINEER STATE OF WASHINGTON RONALD T. JEPSON
May 8, 1980

RONALD T. JEPSON & ASSOC., INC.

REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS
1509 CORNWALL AVE. BELLINGHAM, WASHINGTON 98225

SCALE: NS DATE: May 1979
DRAWN BY: AC
CHECKED BY:
APPROVED:

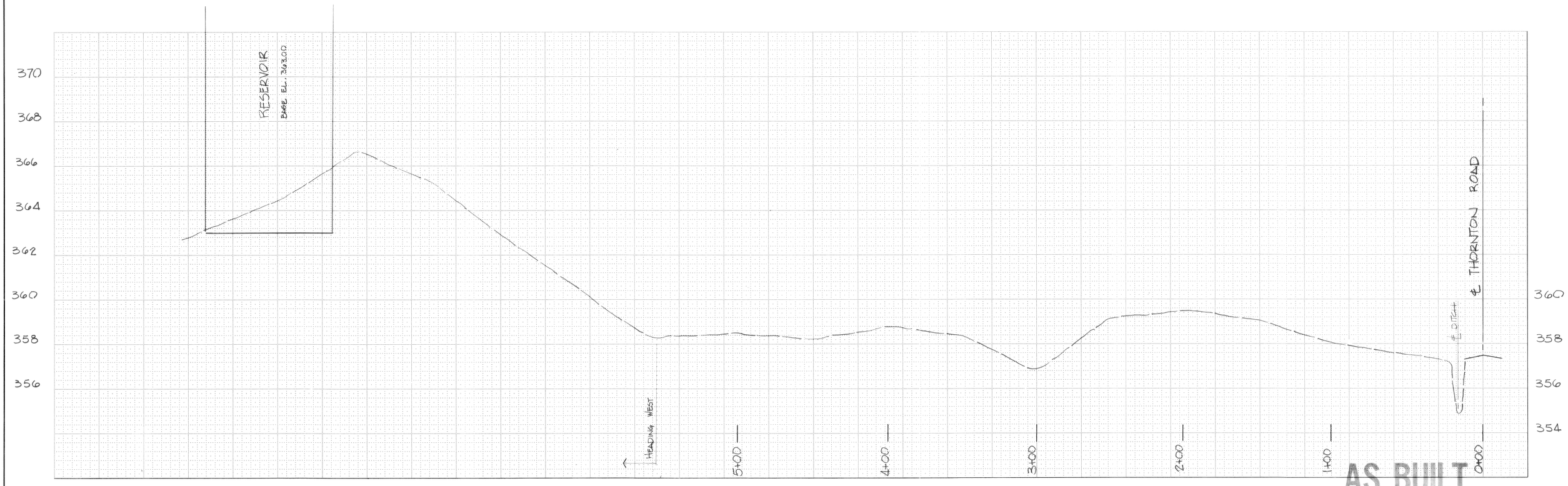
REVISIONS
AS BUILT 9/81

FERNDALE U.L.I.D. NO. 5
RESERVOIR PLANS

SHEET R3 R3

JOB NO. 79008

COM. Off 2.3067E



AS BUILT

RAYMOND D. WEDEN & ASSOC., INC.
REGISTERED PROFESSIONAL ENGINEERS AND LAND SURVEYORS PHONE 671-8200, 354-3723 1844-A IRON ST. BELLINGHAM, WASHINGTON 98225

SCALE 1"=30' DATE DEC. 1982
DRAWN BY BDG
CHECKED BY
APPROVED

REVISIONS

FERNDALE U.L.I.D. NO. 5
RESERVOIR ACCESS ROAD PROFILE

SHEET

JOB NO. 79003

BRUNING 44-132 44375-1