VICINITY MAP

#### (N) NEW CL CENTERLINE MANHOLE NTS NOT TO SCALE CO CLEANOUT PCC PORTLAND CEMENT CONCRETE CATCH BASIN (E) EXISTING WATER VALVE PL PROPERTY LINE EP EDGE OF PAVEMENT FIRE HYDRANT POC POINT OF CONNECTION FD FOUND WATER METER PVC POLYVINYL CHLORIDE FF FINISH FLOOR STREET LIGHT FG FINISH GRADE RCP REINFORCED CONCRETE PIPE FL FLOWLINE POWER VAULT HB HOSEBIB POWER POLE SS SANITARY SEWER HP HIGH POINT TC TOP OF CURB MONUMENT PER COF DETAIL S-2 INV INVERT LF LINEAR FEET MONUMENT PER COF DETAIL S−1 WM WATER METER LP LIGHT POST TIP TOP OF IRON PIPE CRN CROWN OF PIPE REBAR AND PLASTIC CAP BIP BOTTOM OF IRON PIPE (E) CONTOUR EXISTING AERIAL TELEPHONE LINES PROPOSED STORM DRAIN

EXISTING AERIAL POWER LINE

EXISTING BURIED POWER LINE

EXISTING STORM DRAIN

PROPOSED SEWER

EXISTING SEWERLINE

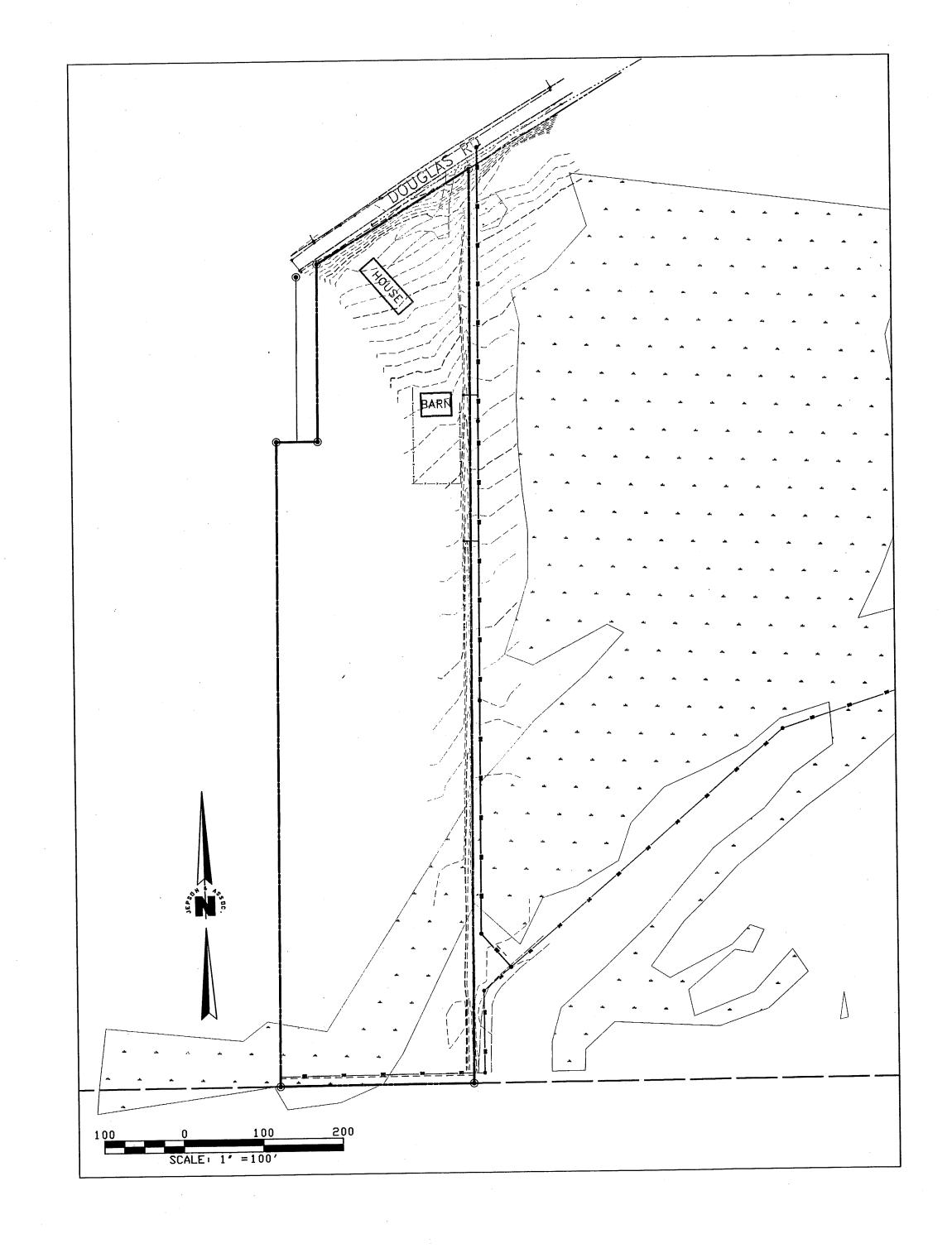
EXISTING WATERLINE

(N)RETAINING WALL

PROPOSED WATERLINE

# DOUGLAS ROAD SEWER EXTENSION AS-BUILT DRAWINGS

A PTN. OF THE SE 1/4 OF THE NW 1/4 OF SEC. 30, TWP. 39N, R2E OF W.M. CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON



#### **ENGINEER'S CERTIFICATE**

"I HEREBY CERTIFY THAT THE IMPROVEMENTS IN "DOUGLAS ROAD SEWER EXTENSION" HAVE BEEN INSPECTED BY RONALD T. JEPSON AND ASSOCIATES AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINERRING PRACTICE."

RONALD T. JEPSON, P.Z., L.S. CERTIFICATE NO. 9361

### SURVEYOR'S CERTIFICATE

"I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS AND AS-BUILT COMMENTS REFLECTING MATERIALS ACTUALLY USED DURING CONSTRUCTION ACCURATELY REFLECT EXISTING CONDITIONS AS DETERMINED BY ME OF UNDER MY DIRECT SUPERVISION ON THIS DATE 1/27/09..."

RONALD T. JEPSON, F.E., L.S. CERTIFICATE NO. 9361

BY Toll Cule
GITY OF FERNDALE

## AS-BUIL7

### CIVIL IMPROVEMENTS DATA

OWNERS/DEVELOPERS:

TEK CONSTRUCTION

ONCHETANT.

RONALD T. JEPSON & ASSOCIATES 222 GRAND AVE., SUITE 'C' BELLINGHAM, WASHINGTON 98225 (360) 733-5,60 FAX: 360-647-8939

#### SURVEY EQUIPMENT & PROCEDURE

THIS SURVEY WAS COMPLETED AND ACCOMPLISHED BY FIELD
TRAVERSE USING A TOPCON GPT-8200A SERIES TOTAL STATION ON 11/2007.
THE ACCURACY MEETS OR EXCEEDS THE STANDARDS CONTAINED IN WAC 331-130-09

#### BASIS OF BEARINGS

FERNDALE GPS MONUMENTATION NETWORK AND THE NORTHWEST CORNER AND WEST QUARTER CORNER BEARING BEING S 01° 33' 41" W

#### PROJECT BENCHMARK

ERN 07 COORDINATE NORTH 679459.13 EASTING 1211031.14 FLEV 147.15

	6	5	4	3	2	1
	7	8	9	10	11	. 1
	18	17	16	15	14	1
	19	20	21	22	23	2
	30	29	28	27	26	2
-	31	32	33	34	35	3

SECTION 30 OWNSHIP 39 NORTH

### SHEET INDEX

OF 3 TITLE SHEET

F 3 SEWER PLAN AND PROFILE

3 OF 3 CONSTRUCTION DETAILS

#### Construction Stormwater Pollution Prevention

Element 1 Mark Clearing Limits: The clearing limits will be marked per the plan with silt fencing (BMP C233).

<u>Element 2 Establish Construction Access</u>: Construction equipment will access through the existing gravel driveway. Soil tracked onto paved areas shall be swept up and disposed of on a regular basis.

Element 3 Control Flow Rates: All flows will be directed through silt fence

Element 4 Install Sediment Controls: Runoff from disturbed areas will be collected by silt fencing.

<u>Element 5 Stabilize Soils</u>: All exposed and unworked soils shall be stabilized and will not remain exposed and unworked for more than seven days (two days if construction takes place between October 1 through April 30th).

<u>Element 6 Protect Slopes</u>: Hydroseeding and/or jute netting will protect fill slopes.

Element 7 Protect Drain Inlets: NA

Element 8 Stabilize Channels and Outlet: The channel immediately to the west will be protected by silt fence.

Element 9 Control Pollutants: All pollutants including waste materials and construction debris, that occur on-site shall be handled and disposed of in a manner that does not cause contamination of stormwater.

Element 10 Control De-Watering: De-watering is not anticipated for proposed construction.

Element 11 Maintain BMPs: All temporary and permanent erosion and sediment control BMPs shall be maintained by and repaired as needed to assure continued performance of their intended function. Sediment control BMPs shall be inspected weekly or after a runoff-producing storm event during the dry season (daily if construction takes place during the wet season).

Element 12 Manage the Project: All BMPs shall be inspected and maintained by the Contractor's Certified Erosion and Sediment Control Lead.

REVISIONS

DESIGNED BY XXX
DRAWN BY XXX
DATE: 1/27/09-

ENGINEER

RCE: 9361

P361

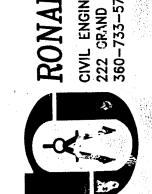
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SON & ESSOC.

ENGINEERING – SI'RVE'S AND AVENUE, SUITE C, BELL 33-5760 FAX 360-647-8939



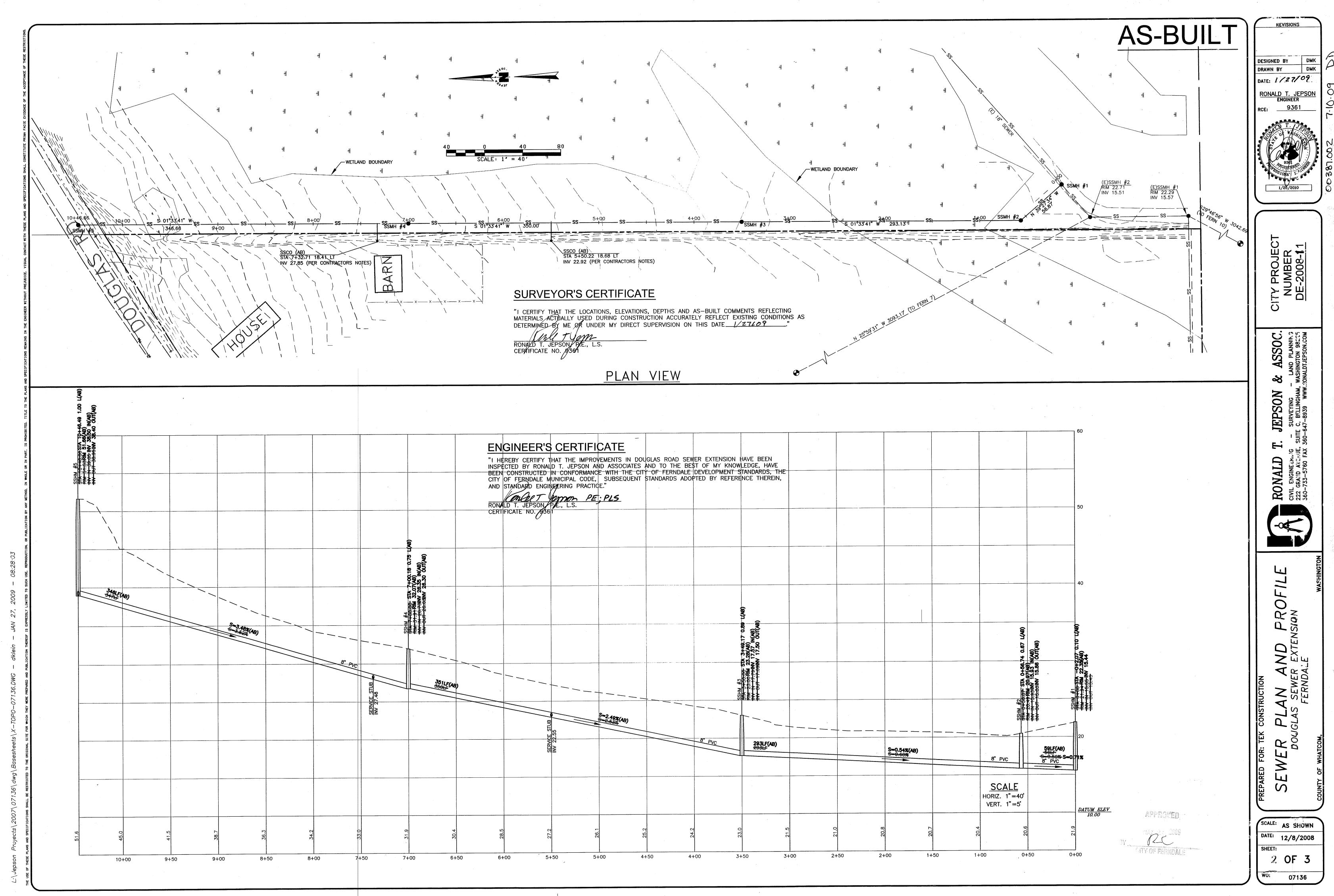
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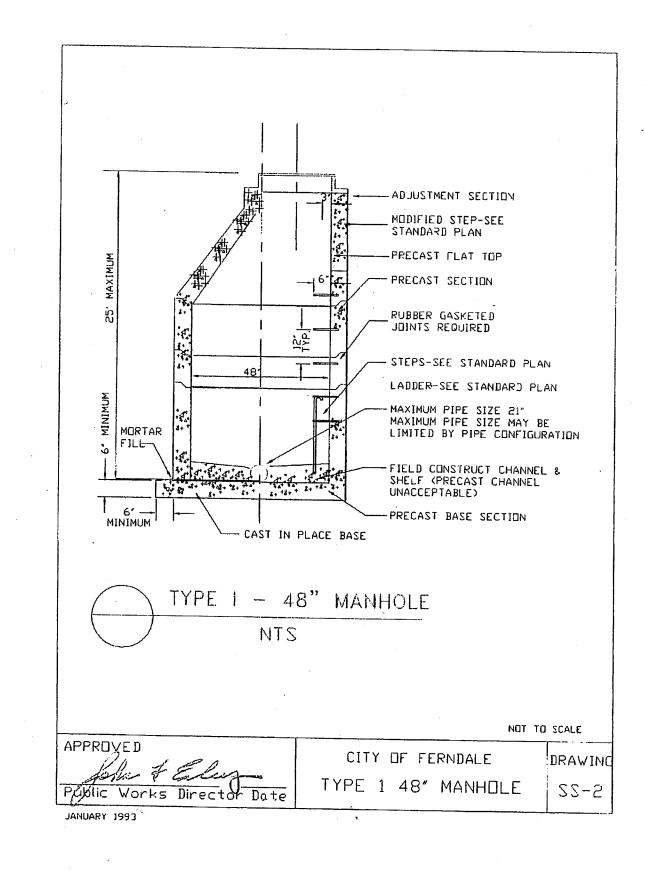
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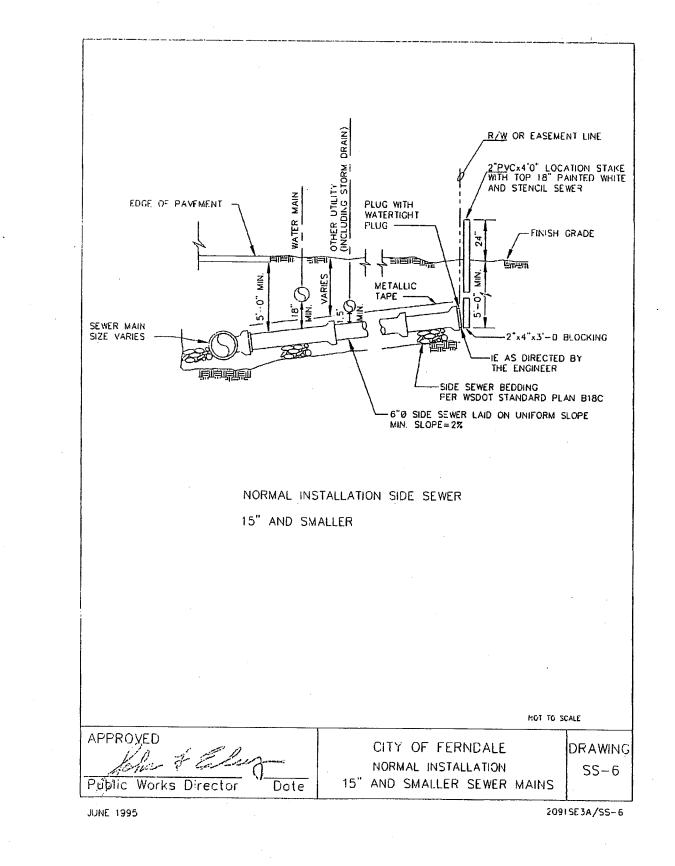
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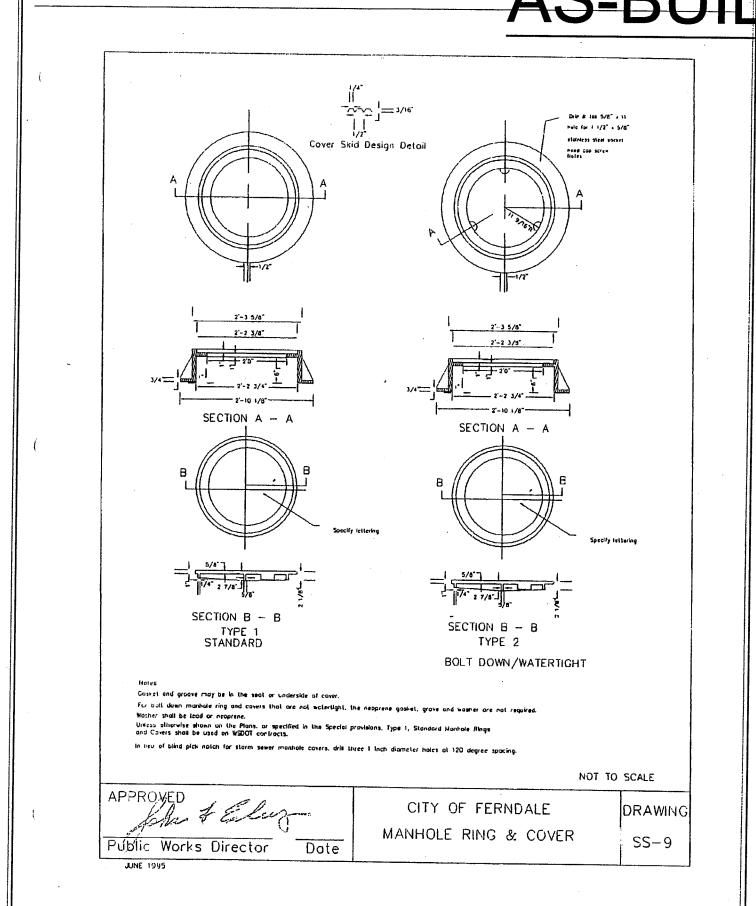
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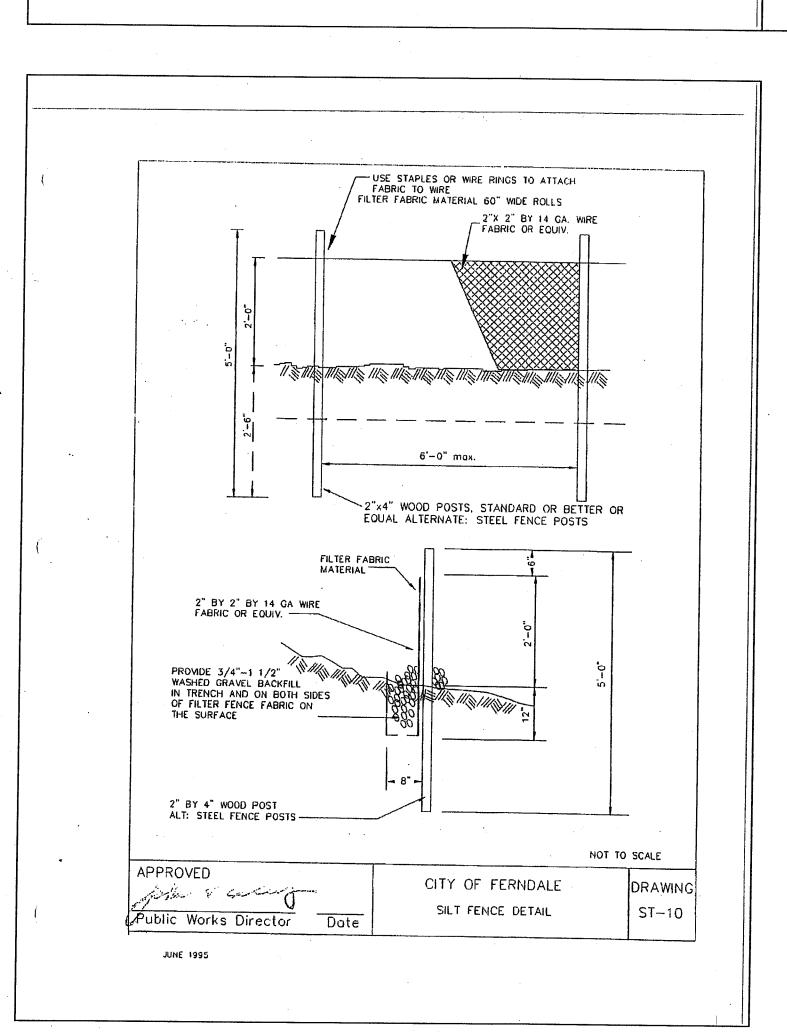
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- 1. ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND TO THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE STATE OF WASHINGTON, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. WORK AND MATERIALS SHALL ALSO CONFORM TO THE CITY OF FERNDALE DEVELOPMENT STANDARDS. IN CASE OF A CONFLICT BETWEEN PLANS, REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.
- 2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER CONSTRUCTION DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- 3. THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERNDALE AND WHATCOM COUNTY PRIOR TO COMMENCING WORK WITHIN PUBLIC RIGHTS-OF-WAY.
- 4. THE CONTRACTOR SHALL SCHEDULE A PRE—CONSTRUCTION MEETING WITH REPRESENTATIVES OF THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT AND THE PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
- 5. ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE. REPRESENTATIVES FROM THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT MUST INSPECT ALL WORK. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOWS:
  - A. PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES.

    B. PLACEMENT OF WATER MAIN AND BACKFILLING OF WATER MAIN TRENCH WITHIN ROAD RIGHTS—OF—WAY
  - OR IN WATERLINE EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE.

    C. PLACEMENT AND BACKFILLING OF UNDERGROUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN ROAD RIGHTS—OF—WAY OR IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE.
  - D. GRADING OF PUBLIC ROADWAY AT:

    1) COMPLETION OF EXCAVATION TO SUBGRADE.

    2) COMPLETION OF BALLAST COURSE PLACEMENT.
  - COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT.
     POURING OF CURB AND GUTTER AND SIDEWALK IN PUBLIC ROADWAY.
  - F. ASPHALT PAVING IN PROGRESS IN PUBLIC ROADWAY.
    G. OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT PLACEMENT.
    H. END OF MAINTENANCE PERIOD.
- 6. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND WASTE THAT MAY BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING SUB—SURFACE CONDITIONS AND SOILS TYPES.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT—OF—WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1—07.23—TRAFFIC CONTROL, SHALL APPLY.
- 8. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- 9. THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATIONS FROM THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE REVISED IMPROVEMENTS. THE CONTRACTOR SHALL KEEP RECORDS OF ALL DEVIATIONS AND SHALL FORWARD THEM TO THE ENGINEER AND TO THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT.
- 10. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE BASED UPON A COMBINATION OF FIELD RECONNAISSANCE, FIELD SURVEY AND UTILITY COMPANY RECORDS AND ARE SHOWN ON THESE PLANS IN AN APPROXIMATE WAY ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL OF THE VARIOUS UTILITY COMPANIES TO ARRANGE FOR FIELD LOCATIONS OF ALL EXISTING UTILITY FACILITIES PRIOR TO STARTING CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR COSTS INCURRED BECAUSE OF DAMAGE DONE TO EXISTING FACILITIES BY THE CONTRACTOR'S WORK FORCE, INCLUDING COSTS FOR REPAIRS, WHICH WILL BE CONTRACTOR'S SOLE RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT BETWEEN THE APPROVED PLANS AND THE LOCATION OF ANY EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT UTILITY LOCATION SERVICE AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. PHONE: 1–800–424–5555.
- 11. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE RESULTING FROM THE WORK. CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROPERTY DISRUPTED BY THE PROJECT IMMEDIATELY AFTER CONSTRUCTION.
- 12. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST BETWEEN ACTUAL FIELD CONDITIONS AND THE ASSUMED CONDITIONS SHOWN ON THE APPROVED PLANS PRIOR TO PROCEEDING WITH CONSTRUCTION, SO THAT NECESSARY PLAN OR DESIGN CHANGES CAN BE MADE. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR EXTRA WORK, INCLUDING REMOVAL AND RECONSTRUCTION OF NEWLY BUILT IMPROVEMENTS, MADE NECESSARY BY ERRORS OF DIMENSION OR GRADE ON THE APPROVED PLANS, UNLESS SUCH NOTIFICATION WAS GIVEN.
- 13. THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS.

- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING.
- 15. ALL MATERIALS TESTING REQUIREMENTS FOR THE IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED IN ACCORDANCE WITH THE INSTRUCTIONS OF THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR. CONTRACTOR SHOULD DETERMINE THESE REQUIREMENTS PRIOR TO THE START OF CONSTRUCTION.
- 16. ALL PORTLAND CEMENT CONCRETE SHALL BE APWA CLASS 3000, PER APWA STANDARD SPECIFICATIONS, SECTION 6-02.3(2)B.

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING SANITARY SEWER IMPROVEMENTS:

PIPE BEDDING
TRENCH BACKFILL
SS MANHOLE, TYPE 1-48"
SSMH RING & COVER, TYPE 2
SS CLEANOUTS
SIDE SEWERS

CITY OF FERNDALE STANDARD DETAIL (COFSD) SS-1
COFSD SS-15 & SS-1 & WSDOT STD. SPEC. SEC. 9-03.12
COFSD SS-2
COFSD SS-9 (BOLT DOWN/WATERTIGHT)
COFSD SS-5
COFSD SS-6, SS-8 & SS-13

2. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH A.P.W.A. STANDARD SPECIFICATIONS, 1996 EDITION, AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE.

- ALL WORK MUST BE INSPECTED TO THE SATISFACTION OF THE CITY OF FERNDALE. 24 HOUR NOTICE MUST BE GIVEN PRIOR TO STARTING WORK. TESTING OF THE SEWER SYSTEM AND ALL CONNECTIONS TO EXISTING MAINS SHALL BE DONE IN THE PRESENCE AND UNDER THE SUPERVISION OF A CITY OF FERNDALE REPRESENTATIVE.
   SANITARY SEWER MAINS SHALL BE A MINIMUM 8 INCH DIAMETER PVC PIPE (SDR-35) CONFORMING TO THE PROVISIONS OF ASTM D 3034 AND INSTALLED TO CITY SPECIFICATIONS.
- 5. SANITARY SEWER PIPE BEDDING SHALL BE PEA GRAVEL PER COFSD SS-1. ALL TRENCHES SHALL BE BACKFILLED WITH CLASS B BANK RUN GRAVEL OR SUITABLE NATURAL MATERIAL AS DIRECTED BY THE ENGINEER, AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
- 6. ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERNDALE SS-2, SS-3 OR SS-4, AND SHALL BE BE PRE-CHANNELED. MANHOLE CONES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL TO THE FLOW.
- 7. ALL SIDE SEWERS SHALL BE INSTALLED PER CITY OF FERNDALE STANDARD DETAILS SS-6, SS-8 OR SS-13, EXCEPT THAT SINGLE SIDE SEWERS SHALL HAVE A MINIMUM DIAMETER OF 4".
- 8. CONTRACTOR SHALL EXTEND SEWER STUBS BEYOND THE STREET RIGHT-OF-WAY LINE.
- 9. EACH SIDE SEWER STUB SHALL BE CAPPED WITH A WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION PER COFSD SS-14, WITH A 2" DIA. PVC PIPE WITH THE TOP 18" PAINTED WHITE AND STENCILED WITH THE WORD "SEWER". THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

#### **ENGINEER'S CERTIFICATE**

"I HEREBY CERTIFY THAT THE IMPROVEMENTS IN DOUGLAS ROAD SEWER EXTENSION HAVE BEEN INSPECTED BY RONALD T. JEPSON AND ASSOCIATES AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE."

RONALD T. JEPSON, F.E., L.S.
CERTIFICATE NO. 9361

PROVED

## SURVEYOR'S CERTIFICATE

"I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS AND AS-BUILT COMMENTS REFLECTING MATERIALS ACTUALLY USED DURING CONSTRUCTION ACCURATELY REFLECT EXISTING CONDITIONS AS DETERMINED BY ME OR UNDER MY DIRECT SUPERVISION ON THIS DATE 1/27/09."

D T. JEPSON, P.E., L.S. ICATE NO. 0361 DESIGNED BY XXX

DRAWN BY XXX

DATE: 1/27/09

RONALD T. JEPSON
ENGINEER

RCE: 9361

9361 PEGISTERED 1/25/2010

> PROJECT MBER 2008-11

CITY PROJ NUMBER DE-2008-

D T. JEPSON & ASSC RING - SURVEYING - LAND PLANI ENUE, SUITE C, BELLINGHAM, WASHINGTON 98 FAX 360-647-8939 WWW.RONALDTJEPSON.





CONSTRUCTION

TRUCTION DETAILS
IS ROAD SEWER EXTENSION

SCALE: AS SHOWN

DATE: 12/8/2008

SHEET:

NO

3 OF 3