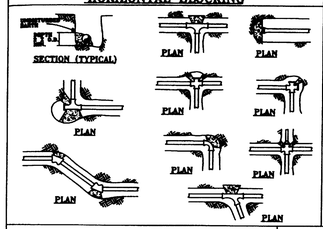
THRUST BLOCKING

HORIZONTAL BLOCKING



VERTICAL BLOCKING

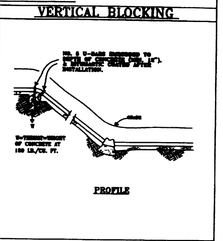


TABLE A
THRUST AT FITTINGS IN POUNDS AT 150 POUNDS PER SQUARE INCH OF WATER PRESSURE

PIPE SIZE	PLUG OR TEE	90° BEND	45° BEND	22 1/2° BEND
4"	2780	3920	2130	1060
6"	5700	8060	4370	2210
8"	9870	13,950	7560	3830
10"	16,130	22,800	12,360	6260
12"	22,970	32,460	17,580	8910

TABLE B
SAFE BEARING LOAD OF VARIOUS SOILS

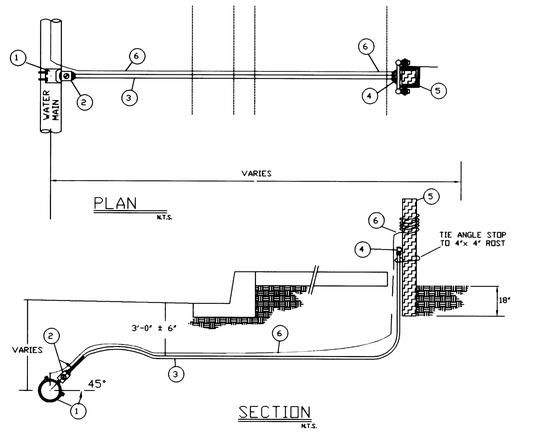
SOIL TYPE	SAFE BEARING LOAD, LB./SQ. FT.
MULCH, PEAT, ETC...	0
CLAY	1000
SAND	2000
SAND & GRAVEL	3000
SAND & GRAVEL CEMENTED WITH CLAY	4000
HARD SHALE	10,000

NOTES:

1. THRUST BLOCKING SHALL BE PLACED BETWEEN UNDISTURBED EARTH AND THE FITTING TO BE ANCHORED. THE MINIMUM BEARING AREA AGAINST UNDISTURBED EARTH FOR THRUST BLOCKING SHALL BE CALCULATED BY DIVIDING THE THRUST (TABLE A) BY THE SAFE BEARING LOAD (TABLE B). EXAMPLE: A 6", 45° HORIZONTAL BEND WILL BE BLOCKED AGAINST CLAY. THE REQUIRED BLOCKING AREA AGAINST UNDISTURBED EARTH, A=4370 lb./1000 lb./sq.ft.=4.37 sq. ft..
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 psi AT 28 DAYS.
3. THRUST BLOCKING SHALL BE PLACED SO THAT THE PIPE AND FITTING JOINTS WILL BE ACCESSIBLE FOR REPAIRS. INSTALL 6 mil POLYETHYLENE SHEETING BETWEEN CONTACT POINTS OF CONCRETE AND FITTINGS.
4. THRUST BLOCKING FOR PIPES LARGER THAN 12", PRESSURES GREATER THAN 150 psi OR OTHER SITUATIONS NOT SHOWN HERE ON SHALL BE AS DIRECTED BY THE ENGINEER.

CITY OF ROSEBURG	WATER DEPARTMENT	DATE: 10/10/1983 REV: 5-11-1999	STANDARD DWG. NO. 102

TYPICAL DUAL 5/8" x 3/4" METER INSTALLATION ASSEMBLY

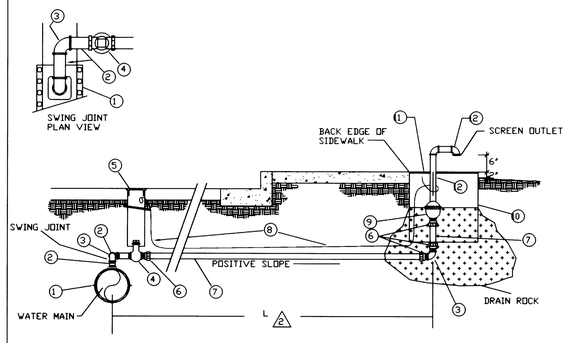


ITEM	SIZE	DESCRIPTION	TYPE ⚠	QTY
1	AS REQ'D	SERVICE SADDLE	FORD, CC THD. ⚠2	1
2	1"	CORP STOP	FORD, F1001 (CC x PACK JOINT)	1
3	1"	SERVICE PIPE	200 p.s.i. POLYETHYLENE SIDR7 (PE 3408)	AS REQ'D
4	1"	BRANCH VALVE ASSEMBLY	FORD, KV63-42W (PACK JOINT)	1
5	4"x 4"	WOODEN	48" - POST BURIED 18" DEEP	1
6	NO. 12	TONE WIRE	ELECTRICAL THHN STRANDED COPPER WIRE, COIL 12" IN METER BOX.	AS REQ'D

NOTES:
⚠ OR APPROVED EQUAL. SEE GENERAL SPECIFICATIONS.
⚠2 TYPE AS APPROVED BY MANUFACTURER FOR WATER MAIN TYPE & SIZE.

CITY OF ROSEBURG	WATER DEPARTMENT	DATE: 10/7/1983 REV: 4/6/2001	STANDARD DWG. NO. 109A

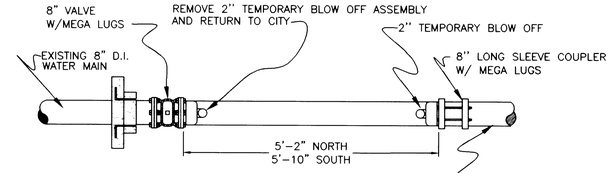
TYPICAL 2" COMBINATION AIR RELEASE VALVE ASSEMBLY



ITEM NO.	QTY.	DESCRIPTION ⚠1
①	1	SERVICE SADDLE PER PLANS & SPECIFICATIONS,FORD FS 202, MAIN SIZE X 2" IPT
②	3	BRASS NIPPLE, 2" IPT X 4"
③	3	BRASS 90° ELL, 2" IPT
④	1	IBBM GATE VALVE, 2" FIPT
⑤	1	VALVE BOX AND LID (SEE STD. DWG. NO. 103)
⑥	4	2" 200 psi MIPT x PE PJ ADAPTER
⑦	AS REQ'D	2" 200 psi PE SIDR7 (PE 3408) PIPE (OD TO FIT CL 200 FITTINGS)
⑧	AS REQ'D	NO. 12 THHN STRANDED COPPER TONE WIRE, BLUE INSULATION
⑨	1	COMBINATION AIR RELIEF VALVE, APCO 145C
⑩	2	CONCRETE METER BOXES, BROOKS NO. 37, STACKED
⑪	1	FAB. DIAMOND PLATE COVER, 3/8" X 16" X 23"
⑫	AS REQ'D	2" SCH 80 PVC PIPE AND FITTINGS

⚠1 OR APPROVED EQUAL
⚠2 L = 13' UNLESS NOTED OTHERWISE ON PLAN, OMIT TONE WIRE WHERE L IS LESS THAN 10'.

CITY OF ROSEBURG	WATER DEPARTMENT	DATE: 10/13/1983 REV: 4/5/2001	STANDARD DWG. NO. 107B

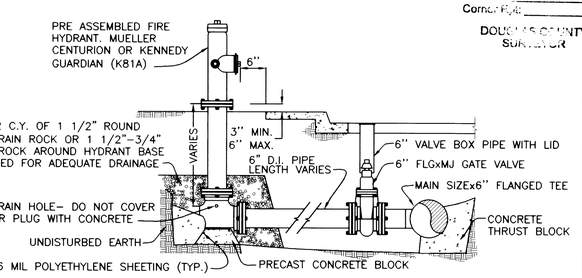


NOTES:
ALL PIPE AND FITTINGS FOR TIE-IN TO BE CLEAN AND WIPED w/CHLORINE PRIOR TO INSTALLATION

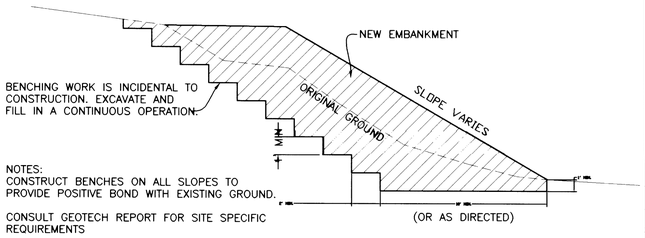
CONTRACTOR TO ALIGN NEW MAINLINE IN BOTH ALIGNMENT AND GRADE w/EXISTING 8" WATERLINE. CONNECTION TO EXISTING WATERLINE CAN ONLY BE MADE AFTER INSTALLATION. TESTING & DISINFECTION OF NEW WATERLINE HAS BEEN COMPLETED.

WATER TIE-IN DETAIL

FILED
Date: 9/7/2006 By: JC
This survey consists of:
Map: 6/8
Narrative:
Corner Rec:
DOUGLAS COUNTY SURVEYOR

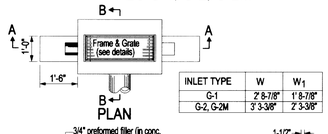


TYPICAL FIRE HYDRANT INSTALLATION
(THRUST BLOCKED)

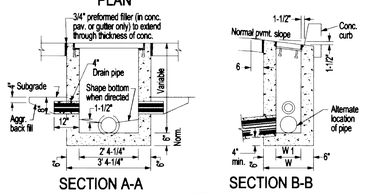


STANDARD EMBANKMENT CONSTRUCTION

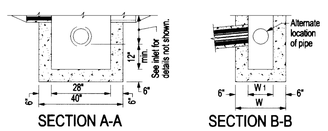
TYPES G-1, G-2, G-2M



INLET TYPE	W	W1
G-1	2' 8-7/8"	1' 8-7/8"
G-2, G-2M	3' 3-3/8"	2' 3-3/8"

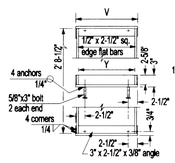


BASIN FOR INLETS
(Where called for on plans)

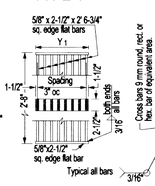


CURB INLET

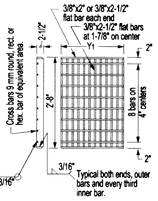
FRAME



GRATE TYPE 1



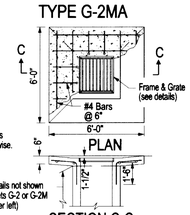
GRATE TYPE 2



INLET TYPE	FRAME V	FRAME Y	FRAME Y1	GRATE NO. OF BARS	GRATE TYPE	REMARKS
G-1	1' 10-3/4"	1' 9-3/8"	1' 9"	12	2	
G-2	2' 4-3/4"	2' 3-3/8"	1' 1-1/2"	8	2	2-Grates
G-2M, G-2MA	2' 4-3/4"	2' 3-3/8"	2' 3"	9	1	

NOTE:
3/8" cross bars shall be flush with the grate surface and may be fillet welded, resistance welded or electroforged to bearing bars.

TYPE G-2MA



NOTE:
All bars to be placed 2" clear of nearest face of concrete unless shown or noted otherwise.

For details not shown see inlets G-2 or G-2M (upper left)

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

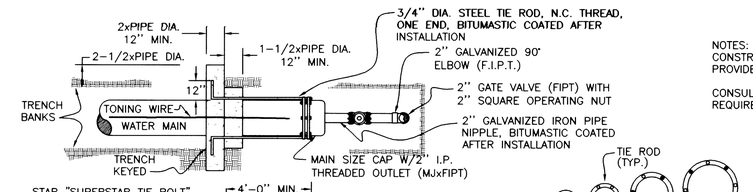
CONCRETE INLETS
TYPES G-1, G-2 & G-2M

2002

REVISIONS	
DATE	DESCRIPTION

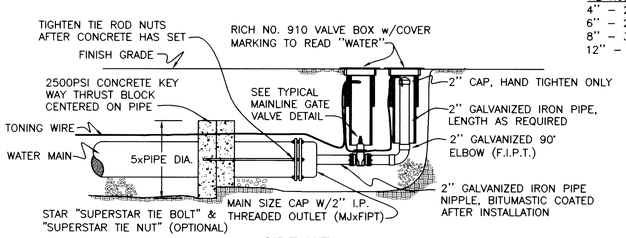
RD364

TYPICAL 2" BLOWOFF ASSEMBLY DETAIL



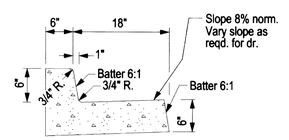
PLAN VIEW

TIE ROD PATTERN
4" – 2 TIE RODS
6" – 2 TIE RODS
8" – 3 TIE RODS
12" – 4 TIE RODS



SIDE VIEW

TYPICAL 2" BLOWOFF ASSEMBLY DETAIL



CURB AND GUTTER

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CITY OF ROSEBURG
Public Works Dept.
Development Plan Review

☐ Approved for Development ☐ Approved with Conditions

By _____

Date _____

REGISTERED PROFESSIONAL ENGINEER 18566 PE JULY 10 1990 STEVEN N LOKEN

EXPIRES: 12/31/2006

Rev.	Date	Dwg	Description
1	2/21/05	ANV	CITY OF ROSEBURG
2	12/13/05	JDL	AS-BUILT

i.e. ENGINEERING
741 SE Jackson Street
Roseburg, Oregon 97470
PHONE (541) 673-0166
FAX (541) 440-9392
iemail@ieengineering.com

Project Name:
TAFT HEIGHTS PHASE 3B
Title:
DETAILS

DES DMA	PROJECT NO. 1733-06
DWG ANV	DATE: JANUARY 11, 2005
CHK SNL	SCALE: AS SHOWN
APP SNL	SHEET: 6 OF 8

DO NOT DUPLICATE

R908DET1

Co. Rd. # 908A & 908B

CO RD #908A & 908B

86