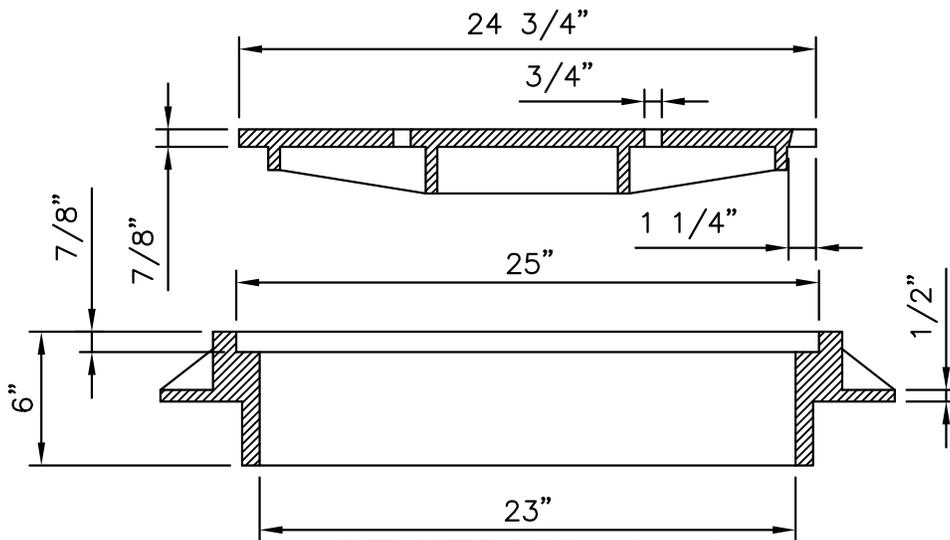


TOP VIEW



SECTION A-A

NOTES:

1. RING AND COVER TO BE MACHINED TO A TRUE 25" AND A TRUE BEARING ALL AROUND.
2. CASTINGS TO BE: D & L FOUNDRY AND SUPPLY MODEL A-2107, EAST JORDAN IRONWORKS CATALOG #2603B5 OR APPROVED EQUAL. MANHOLE COVER TO BE BAS-RELIEF CASTING, PAINTINGS AND COATINGS SHALL NOT BE ACCEPTABLE.
3. MINIMUM TOTAL WEIGHT OF RING AND COVER IS 275 LBS.

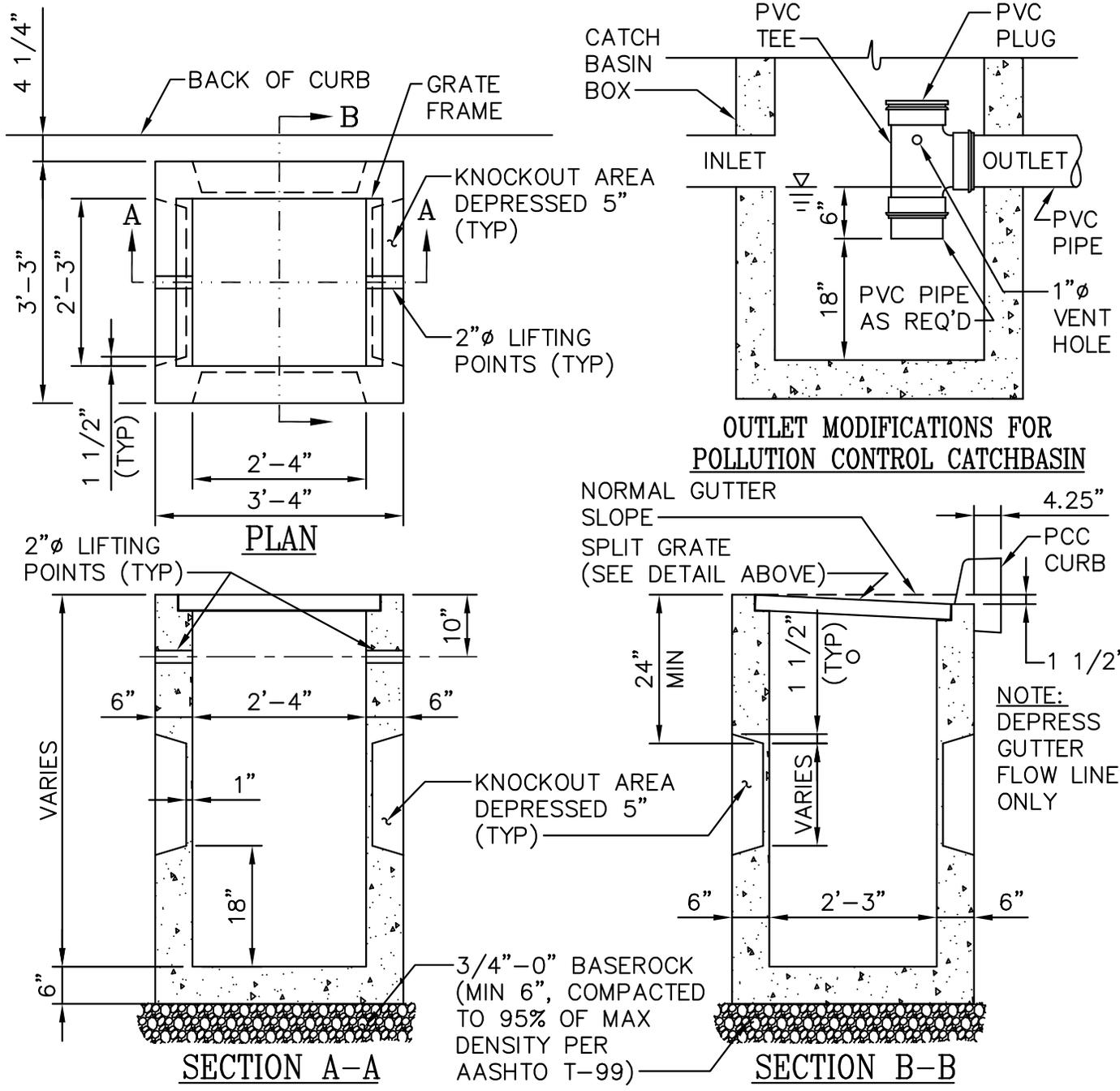
CITY OF KLAMATH FALLS

MK	Date	Revision:
2	6/06	4th EDITION
1	6/05	3rd EDITION

STORM WATER SYSTEM
STANDARD MANHOLE RING & COVER

Approved By: Mark Willrett

Drwn. By: GDG
Date: 1/2002
Drwg. No.: **4-100**



CONSTRUCTION NOTES:

1. GRATE AND FRAME MAY EACH BE OF CAST IRON OR WELDED STEEL CONSTRUCTION.
2. FOR PRECAST BOX, CURB MUST BE HAND FORMED 10' EACH SIDE OF CATCH BASIN.
3. CONCRETE STRENGTH SHALL BE 5000 PSI WITH FIBER MESH.
4. CATCH BASIN AND GRATE SHALL MEET HS20 LOADING.
5. A MINIMUM SUMP DEPTH OF 18" IS REQUIRED.
6. OUTLET PIPE SHALL HAVE A MINIMUM OF 24" OF COVER.
7. FOR POLLUTION CONTROL CATCH BASIN, MODIFY AS SHOWN. ALTERNATIVE DESIGNS WILL BE CONSIDERED ON A CASE BY CASE BASIS.

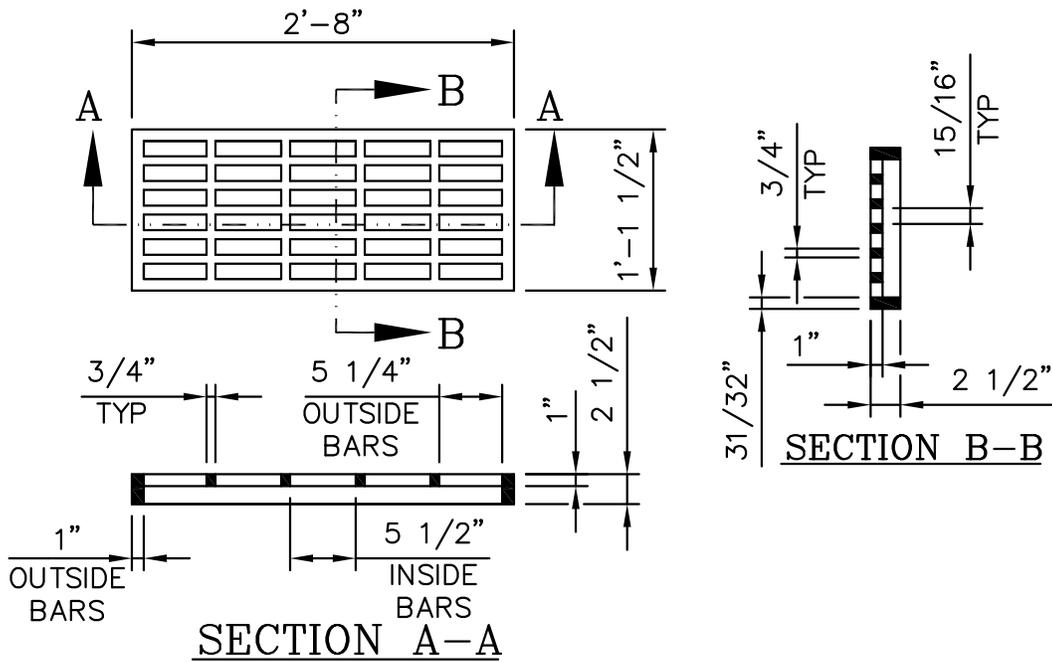
CITY OF KLAMATH FALLS

MK	Date	Revision:

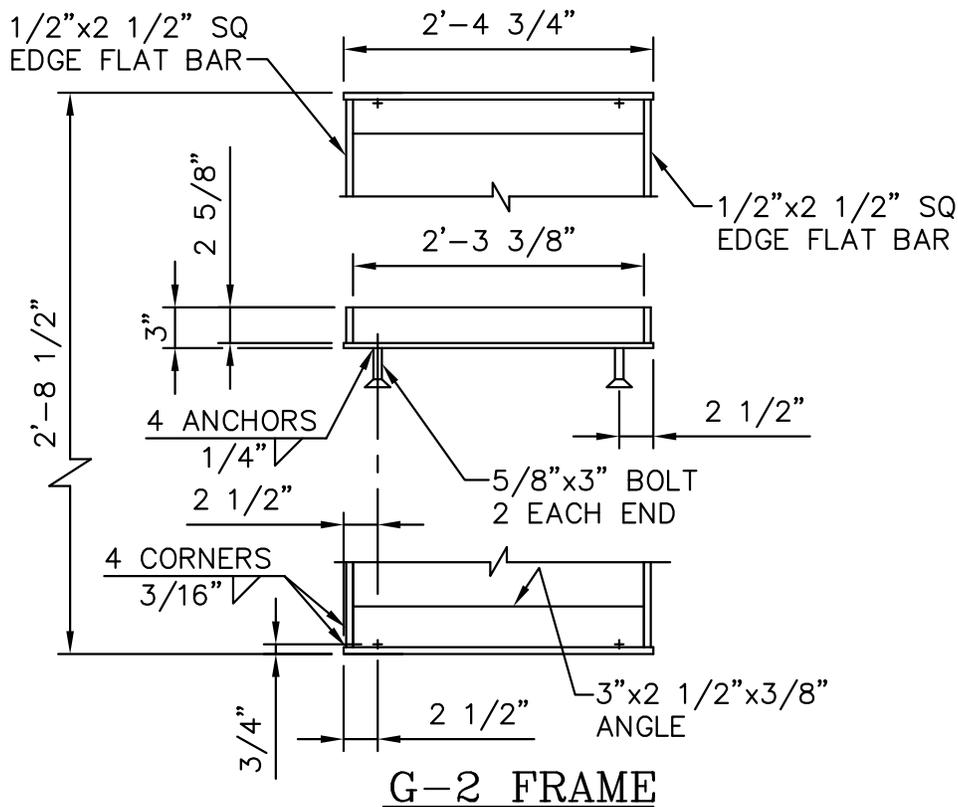
STANDARD CATCH BASIN

Approved By: Mike Kuenzi

Drwn. By: GDG
 Date: 1/2002
 Drwg. No.: **4-105**



G-2 CATCH BASIN 2 EACH/UNIT



NOTES:

1. CATCH BASIN, FRAME AND GRATES SHALL MEET H20 LOADING

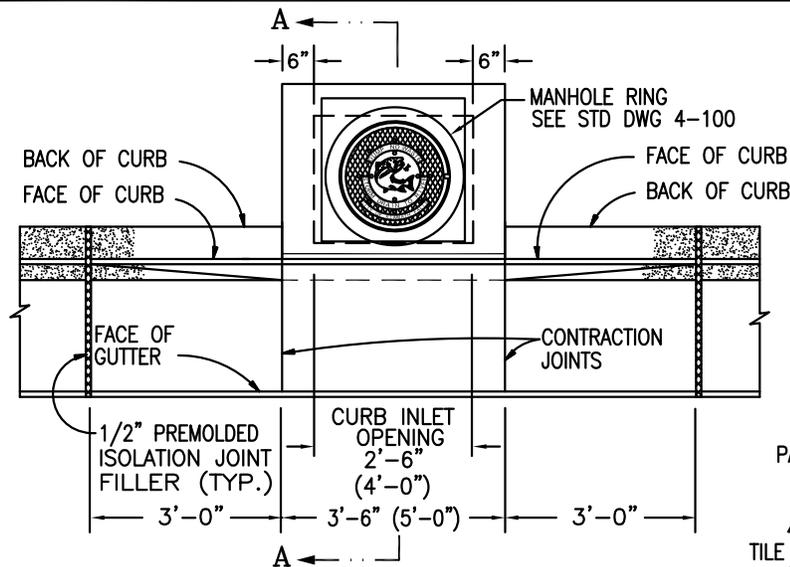
CITY OF KLAMATH FALLS

MK	Date	Revision:

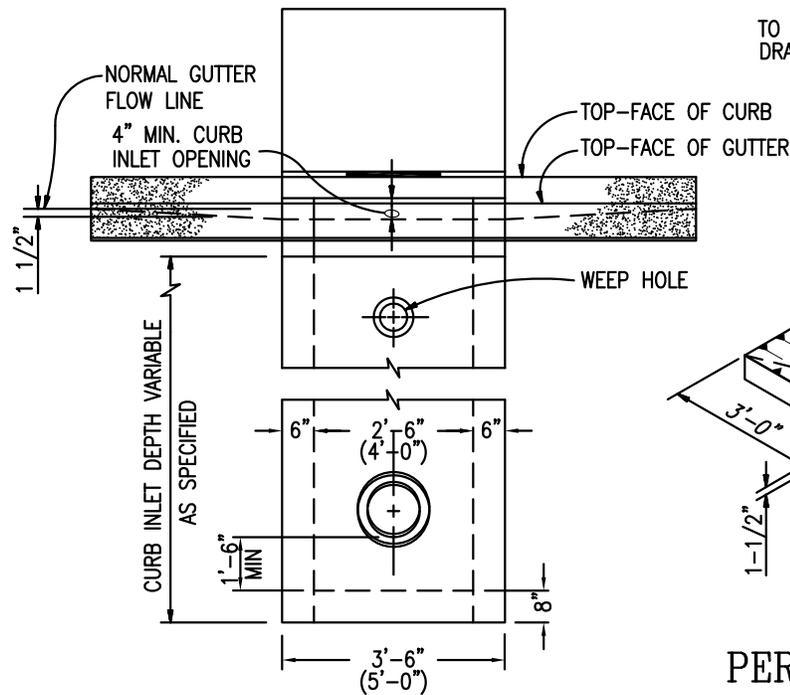
**CATCH BASIN FRAME + GRATE
TYPE G-2, CAST IRON**

Approved By: Mike Kuenzi

Drwn. By: GDG
Date: 1/2002
Drwg. No.: **4-110**

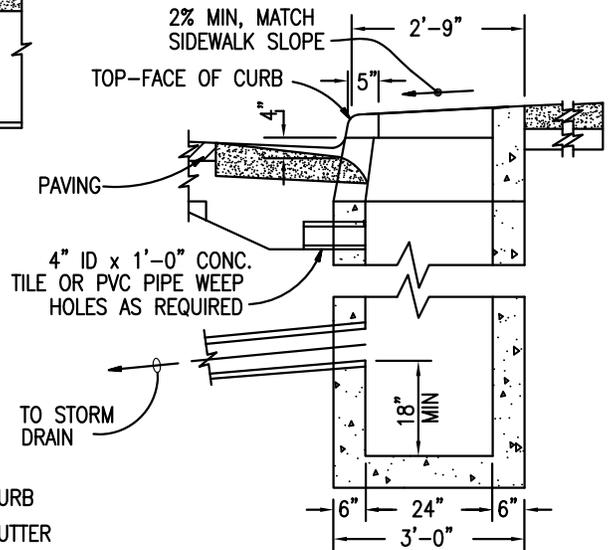


PLAN VIEW

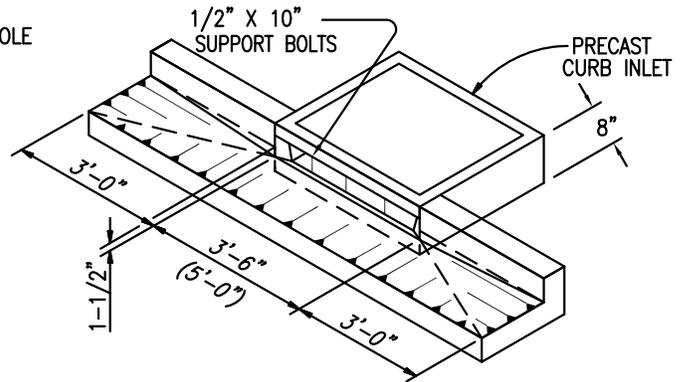


FRONT VIEW

OPTIONAL COVER



SECTION A-A



PERSPECTIVE VIEW SHOWING DEPRESSED GUTTER AT CURB INLET

CONSTRUCTION NOTES:

1. CURB INLET TOP AND BASE SHALL MEET H20 LOADING
2. CONCRETE STRENGTH SHALL BE 4000 PSI. (SEE STD. DWG. 8-100 FOR CONC. SPECS.)
3. ALL FABRICATED METAL PARTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
4. FOR STEEP GRADES USE STD. PRECAST INLET WITH 4'-0" OR TWO 2'-6" OPENING INLETS.
5. CURB INLET BASE MAY BE PRECAST OR CAST-IN-PLACE.
6. DIMENSIONS SHOWN ABOVE IN PARENTHESES ARE FOR 4A INLETS. A 1 1/2" "A" INLET SHALL HAVE A CURB INLET OPENING WIDTH OF 1'-6" AND AN OUTSIDE WIDTH OF 2'-6". ALL OTHER DIMENSIONS AND DETAILS SHALL BE AS SHOWN.

CITY OF KLAMATH FALLS

Date	Revision:
3/3/10	5th EDITION
2/6/06	4th EDITION
1/6/05	3rd EDITION

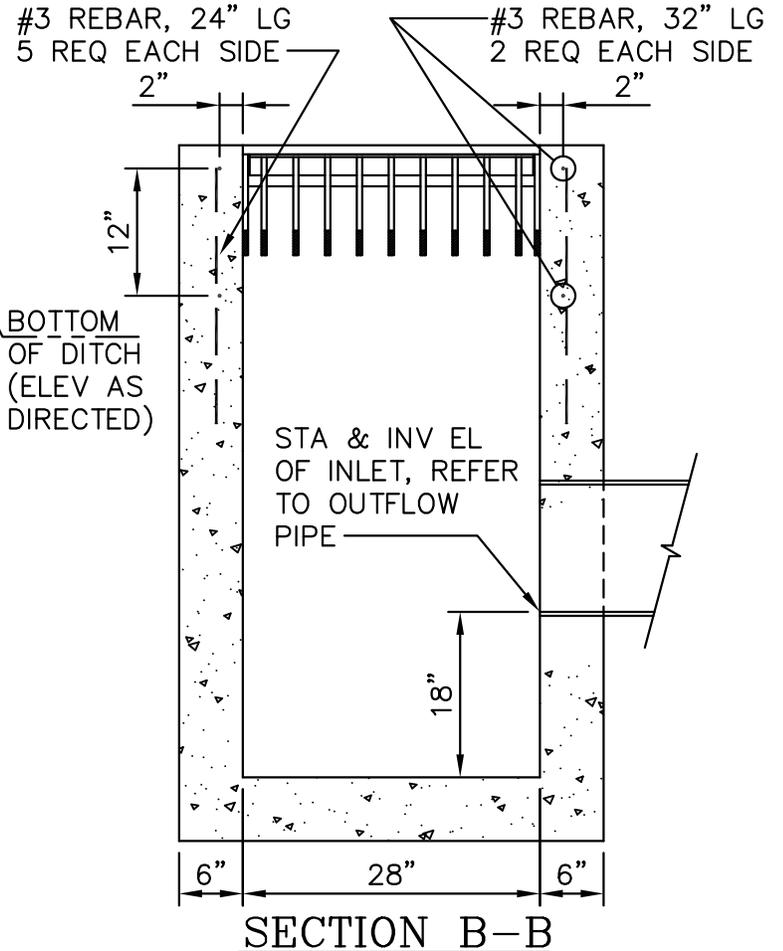
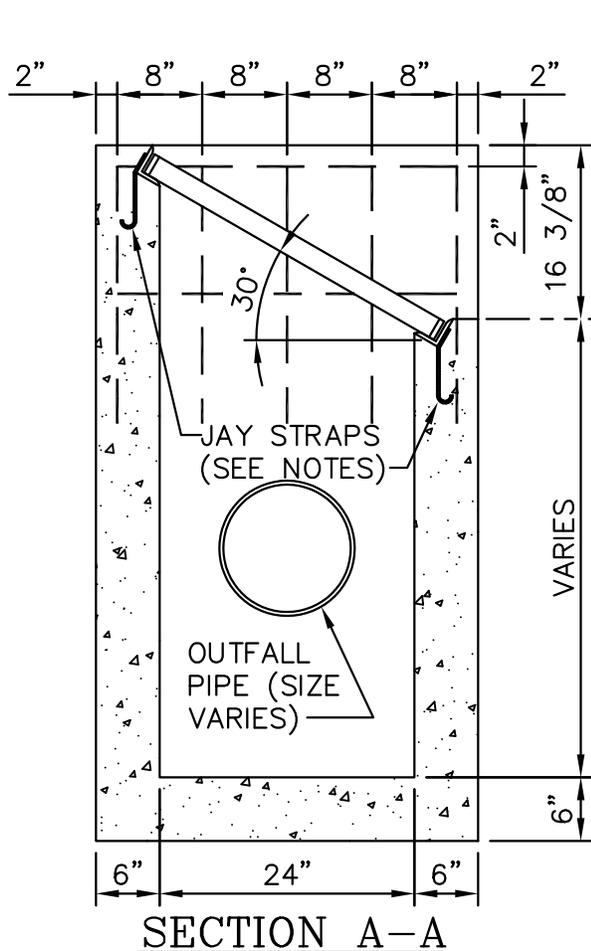
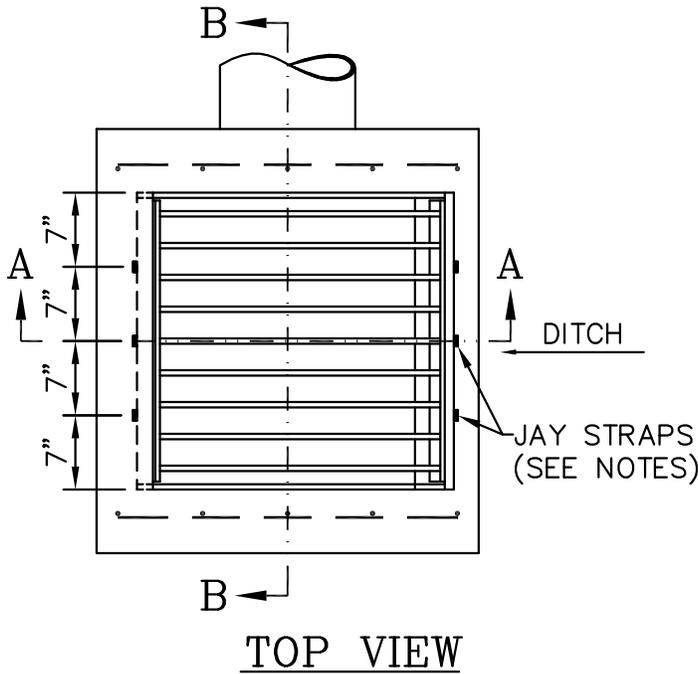
PRECAST CURB INLET

Approved By: Mark Willrett

Drwn. By: GDG
 Date: 1/2002
 Drwg. No.: **4-115**

CONSTRUCTION NOTES:

1. GRATE:
OVERALL DIMENSIONS—2'-7 1/2"x2'-2 1/2"
MATERIALS:
TOP & BOTTOM BARS—
1/2"x2 1/2"x2'-2 1/2" (2 REQ)
CROSS BARS—
1/2"x2 1/2"x2'-6 1/2" (9 REQ)
BAR SPACING—3" O.C.
2. FRAME:
INSIDE DIMENSIONS—2'-8"x2'-3"
MATERIALS:
3"x2 1/2"x3/8"x2'-4" ANGLES (2 REQ)
1/2"x2 1/2"x2'-7 1/4" FLAT
BARS (2 REQ)
JAY STRAPS—1/4"x1"x8" (6 REQ)
3. GRATE & FRAME MAY BE OF CAST STEEL CONSTRUCTION.
4. SEE A.W.P.A. SPECIFICATIONS, SECTION 307, FOR DETAILED CONSTRUCTION MATERIALS REQUIREMENTS.



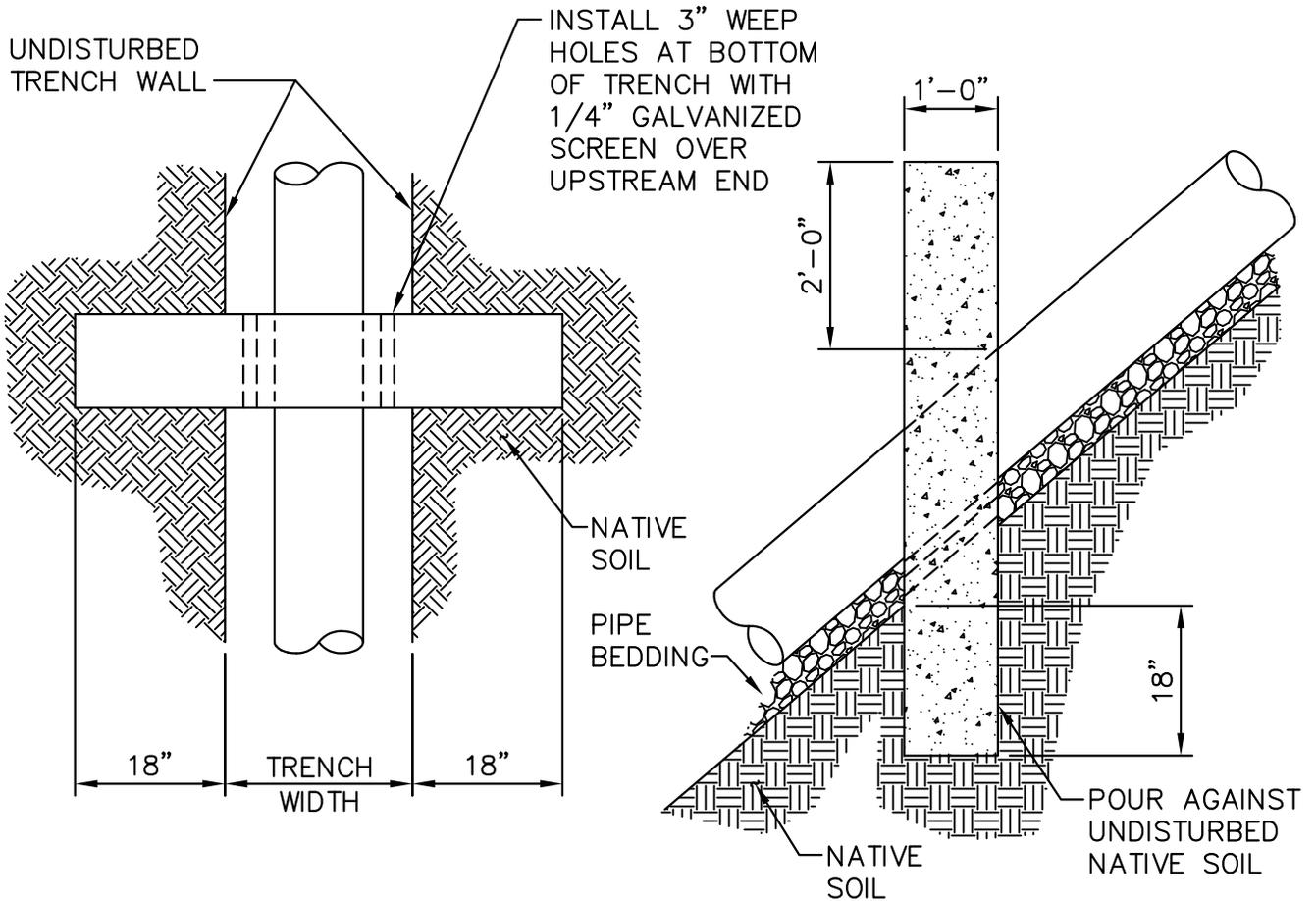
CITY OF KLAMATH FALLS

MK	Date	Revision:

STANDARD DITCH INLET

Approved By: Mike Kuenzi

Drwn. By: GDG
Date: 1/2002
Drwg. No.: **4-120**



CONSTRUCTION NOTES:

1. CONCRETE ANCHOR WALLS (CLASS 4000) SHALL BE CONSTRUCTED USING FORMS WHEN SEWERS, STORM DRAINS AND OTHER PIPE LINES ARE CONSTRUCTED WITH SLOPES OF 20% OR GREATER. REMOVE FORMS PRIOR TO BACKFILLING TRENCH. (SEE STD. DWG. 8-100 FOR CONC SPECS.)
2. SPACING OF ANCHOR WALLS SHALL BE:

<u>SLOPE:</u>	<u>SPACING:</u>
20-34%	35 FEET
35-50%	25 FEET
50+ %	15 FEET OR CONCRETE ENCASEMENT

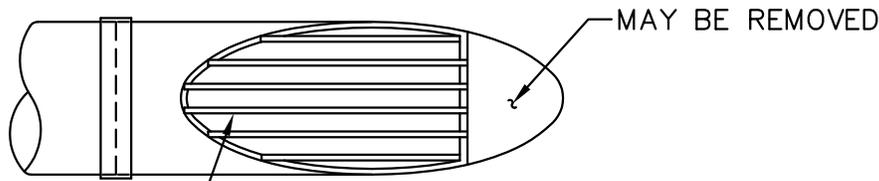
CITY OF KLAMATH FALLS

MK	Date	Revision:

PIPE ANCHOR

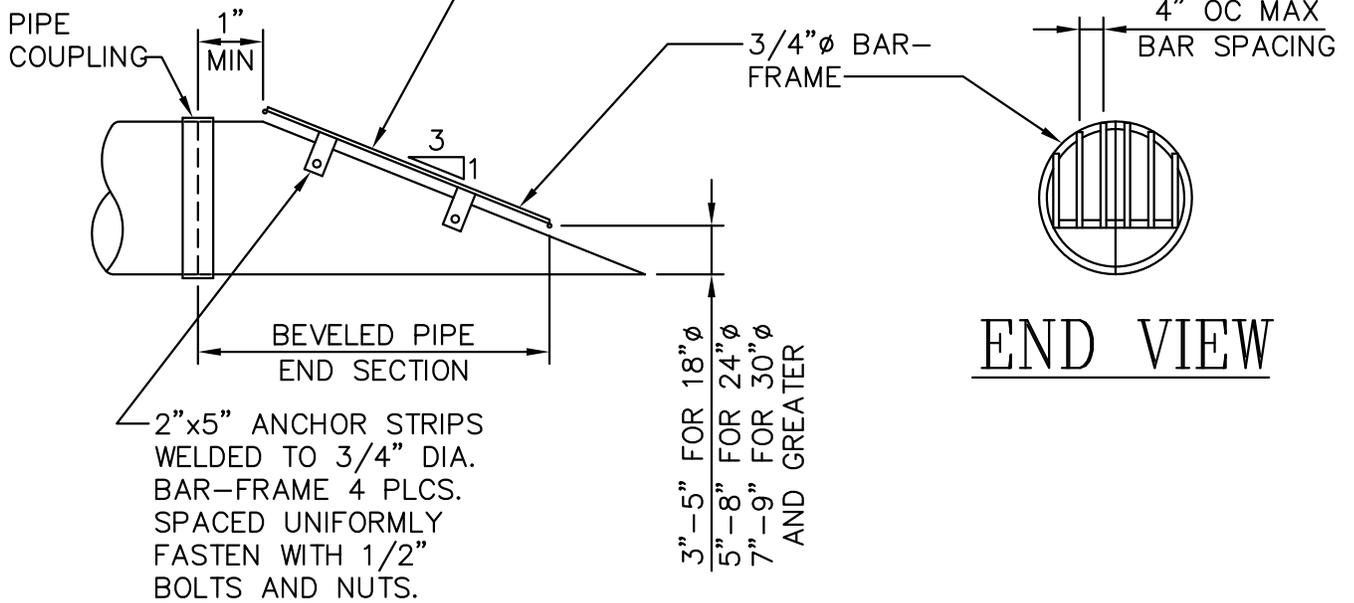
Approved By: Mike Kuenzi

Drwn. By: GDG
Date: 1/2002
Drwg. No.: 4-125



PLAN VIEW

3/4"φ SMOOTH BARS W/ENDS WELDED TO BAR-FRAME



END VIEW

PLAN VIEW

CONSTRUCTION NOTES

1. CMP END-SECTION SHOWN. FOR CONCRETE PIPE BEVELED END-SECTION.
2. ALL PARTS MUST BE ALUMINUM OR STAINLESS STEEL.

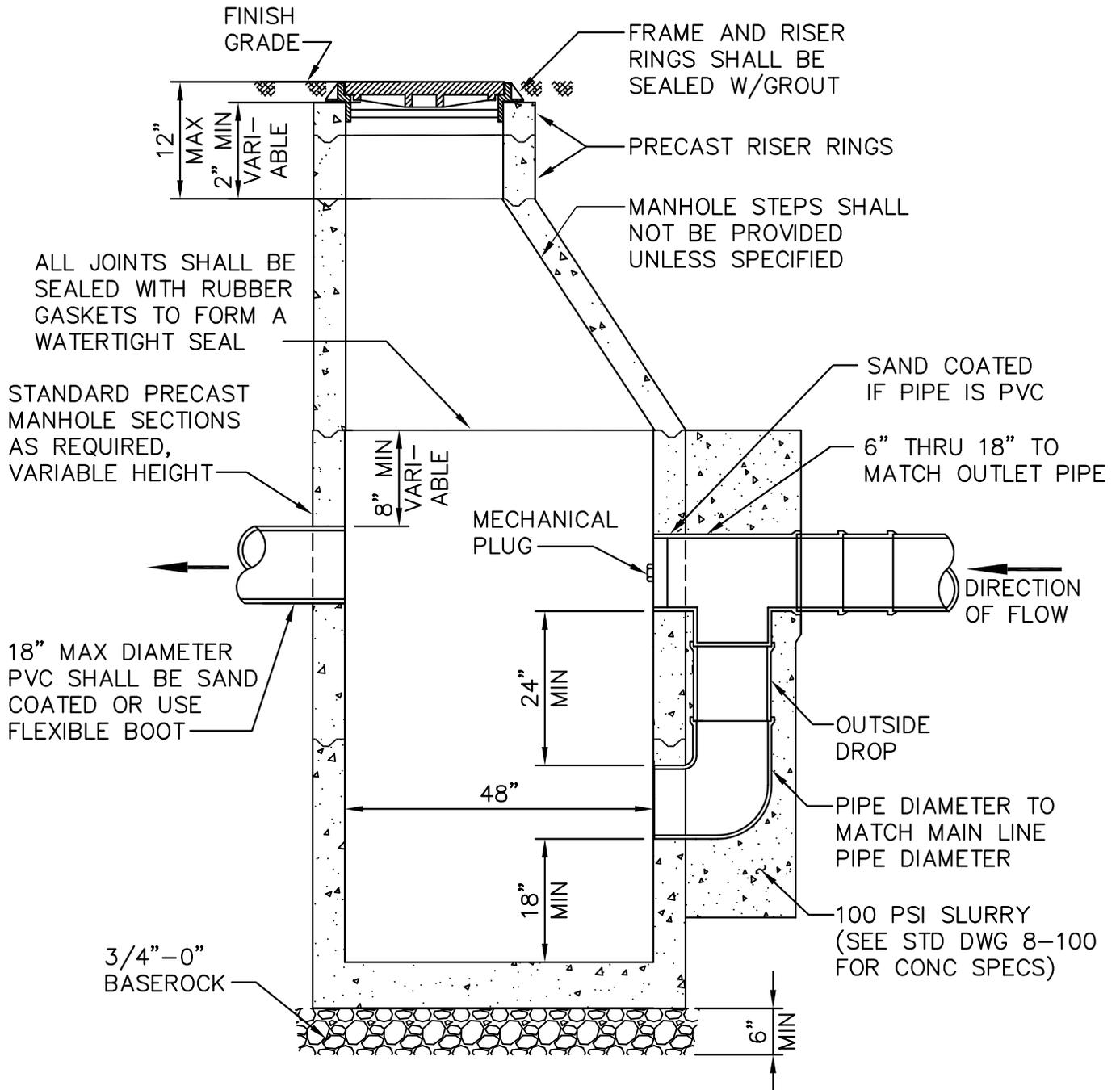
CITY OF KLAMATH FALLS

MK	Date	Revision:

PIPE END SECTION
TRASH RACK

Approved By: Mike Kuenzi

Drwn. By: GDG
Date: 1/2002
Drwg. No.: **4-130**



CONSTRUCTION NOTES:

1. MANHOLE SHALL BE PER CITY STANDARD DRAWING NO. 2-110.
2. RING AND COVER SHALL BE PER CITY STANDARD DRAWING NO. 4-100.

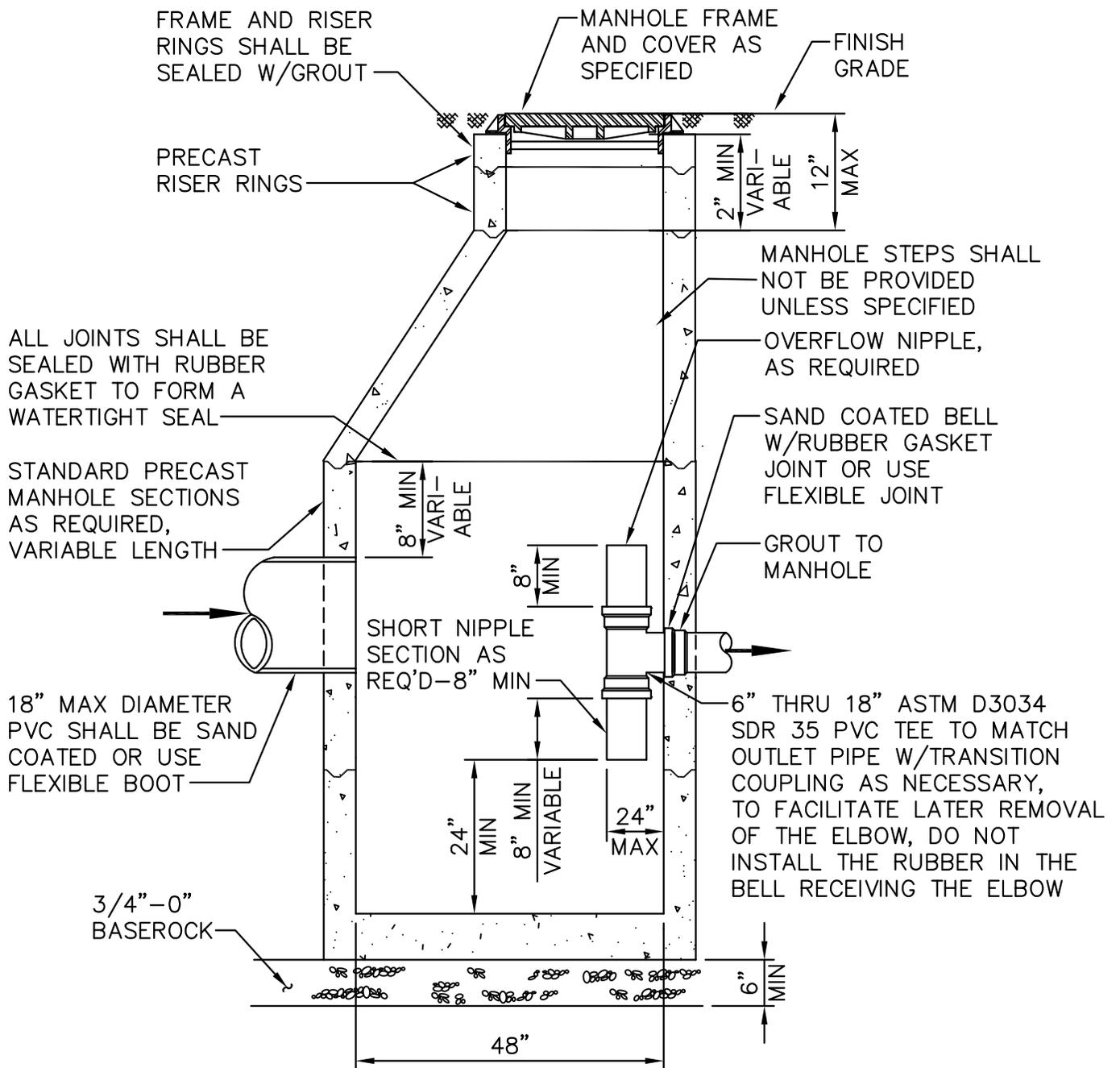
CITY OF KLAMATH FALLS

Date	Revision:
1 3/10	5th EDITION

POLLUTION CONTROL MANHOLE
WITH OUTSIDE DROP

Approved By: Don Wilcox

Drwn. By: GDG
Date: 1/2002
Drwg. No.: **4-135**



CONSTRUCTION NOTES:

1. ALL PRECAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF ASTM C 478.
2. THIS DESIGN MAY NOT BE USED FOR PUBLICLY-MAINTAINED FACILITIES.

CITY OF KLAMATH FALLS

Date	Revision:
1 3/10	5th EDITION

POLLUTION CONTROL MANHOLE
WITH TEE OVERFLOW

Approved By: Don Wilcox

Drwn. By: GDG
Date: 1/2002
Drwg. No.: **4-140**

STORM WATER SYSTEM CONSTRUCTION NOTES:

1. EXCEPT AS MODIFIED BY CITY STANDARDS AND THE APPROVED PROJECT DRAWINGS AND SPECIFICATIONS, MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE "OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE "OREGON STANDARD DRAWINGS (ENGLISH)".
2. STORM WATER INFRASTRUCTURE SHALL BE CONSTRUCTED AS SHOWN IN THE PLANS AND SPECIFICATIONS. PUBLIC WORKS SHALL APPROVE ALL MODIFICATIONS PRIOR TO CONSTRUCTION.
3. MAXIMUM DEVIATION FROM ESTABLISHED LINE AND GRADE SHALL NOT BE GREATER THAN 1/32 INCH PER INCH OF PIPE DIAMETER AND NOT EXCEED 1/2 INCH PER PIPE LENGTH. THE DIFFERENCE IN DEVIATION FROM ESTABLISHED LINE AND GRADE BETWEEN TWO SUCCESSIVE JOINTS SHALL NOT EXCEED 1/3 OF THE AMOUNTS SPECIFIED ABOVE.
4. NO STORM DRAIN PIPE IN THE PUBLIC RIGHT-OF-WAY SHALL BE LESS THAN 12 INCHES IN DIAMETER, EXCEPT THAT PRIVATE CONNECTIONS TO PUBLIC CATCH BASINS OR MANHOLES MAY BE 6 INCHES OR LARGER.
5. PIPE GRADE SHALL NOT BE MODIFIED WITHOUT THE APPROVAL OF THE CITY.
6. CHANGES OF PIPE SIZE ARE ALLOWED ONLY AT JUNCTIONS. STRUCTURES MUST BE LOCATED AT ALL JUNCTIONS.
7. MINIMUM COVER FOR STORM DRAIN PIPE IS 2 FEET, EXCEPT THAT 3 FEET OF COVER IS REQUIRED FOR PVC PIPE. PVC AND HDPE PIPE SHALL NOT BE EXPOSED WHERE DAMAGE MAY OCCUR FROM DITCH CLEANING, FIRE, OR TRAFFIC.
9. 6 INCHES MINIMUM VERTICAL AND 3 FEET MINIMUM HORIZONTAL CLEARANCE (BETWEEN OUTSIDE SURFACES) SHALL BE PROVIDED BETWEEN STORM DRAIN PIPES AND OTHER UTILITY PIPES AND CONDUITS, EXCEPT WATER LINES, WHICH REQUIRE A MINIMUM 12" VERTICAL SEPARATION, AND ONE FULL STICK OF WATER PIPE SHALL BE CENTERED OVER THE STORM CROSSING.
10. TRENCH EXCAVATION, BEDDING, AND PAVEMENT REPAIR SHALL CONFORM TO STANDARD DRAWING NO.'S 2-105.
11. THE COVER OR GRATING OF A MANHOLE OR CATCH BASIN SHALL NOT BE GROUTED TO FINAL GRADE UNTIL THE FINAL ELEVATION OF THE PAVEMENT, GUTTER, DITCH, OR SIDEWALK IN WHICH IT IS TO BE PLACED HAS BEEN ESTABLISHED, AND UNTIL PERMISSION THEREAFTER IS GIVEN BY THE CITY TO GROUT THE COVER OR GRATING IN PLACE.
12. LIDS, GRATES, AND COVERS SHALL BE SEATED PROPERLY TO PREVENT ROCKING.
13. PVC PIPE SHALL BE WHITE, WHILE HDPE PIPE SHALL BE BLACK. IN BOTH INSTANCES THE COLOR SHALL BE CONSISTENT THROUGHOUT THE ENTIRE COMPOSITION OF THE PIPE.
14. STORM LINE STUBS FOR FUTURE EXTENSIONS REQUIRE A PLUG PER MANUFACTURER SPECIFICATIONS.

CITY OF KLAMATH FALLS

MK	Date	Revision:	<h3 style="margin: 0;">STORM WATER SYSTEM CONSTRUCTION NOTES</h3>	Drwn. By: GDG
				Date: 1/2002
			Approved By: <u> <i>Mike Kuenzi</i> </u>	Drwg. No.: 4-145
1	6/04	2nd EDITION		