

THE FOLLOWING LATEST VERSION OF THE OREGON STANDARD DRAWINGS  
PUBLISHED BY APWA/ODOT TO BE USED AS A CITY OF MILWAUKIE  
STANDARD WITH MILWAUKIE SPECIFIC REQUIREMENTS AS NOTED

OREGON STANDARD DRAWING NUMBER	OREGON STANDARD DRAWING NAME	MILWAUKIE EXCEPTION TO DRAWING
RD317	CULVERT EMBANKMENT PROTECTION AND RIPRAP PADS	NO EXCEPTION TAKEN
RD335	STANDARD STORM SEWER MANHOLE	NO MANHOLE STEPS
RD339	PIPE TO STRUCTURE CONNECTIONS	NO EXCEPTION TAKEN
RD340	STORM SEWER POLLUTION CONTROL MANHOLE	NO MANHOLE STEPS
RD344	STANDARD MANHOLE BASE SECTION	NO EXCEPTION TAKEN
RD345	PIPE TO MANHOLE CONNECTIONS	NO EXCEPTION TAKEN
RD360	MANHOLE FRAME ADJUSTMENT	CIRCULAR CUT
RD363	GUTTER TRANSITION AT INLET	NO EXCEPTION TAKEN
RD366	CONCRETE INLETS TYPE CG-1, CG-2	UNLESS OTHERWISE SHOWN ON PLANS, SUMP REQUIRED ON ALL INLETS
RD370	DITCH INLET TYPE D	NO EXCEPTION TAKEN
RD372	CONCRETE INLET TOP, OPTION 1 TYPE CG-3	NO EXCEPTION TAKEN
DET1300	SEDIMENTATION MANHOLE	NO EXCEPTION TAKEN
DET1302	POLLUTION CONTROL MANHOLE	NO EXCEPTION TAKEN

NOTES:

- STANDARD DRAWING PUBLISHED BY APWA/ODOT NOT LISTED MUST NOT BE USED WITHOUT PRIOR APPROVAL BY THE PUBLIC WORKS DEPARTMENT



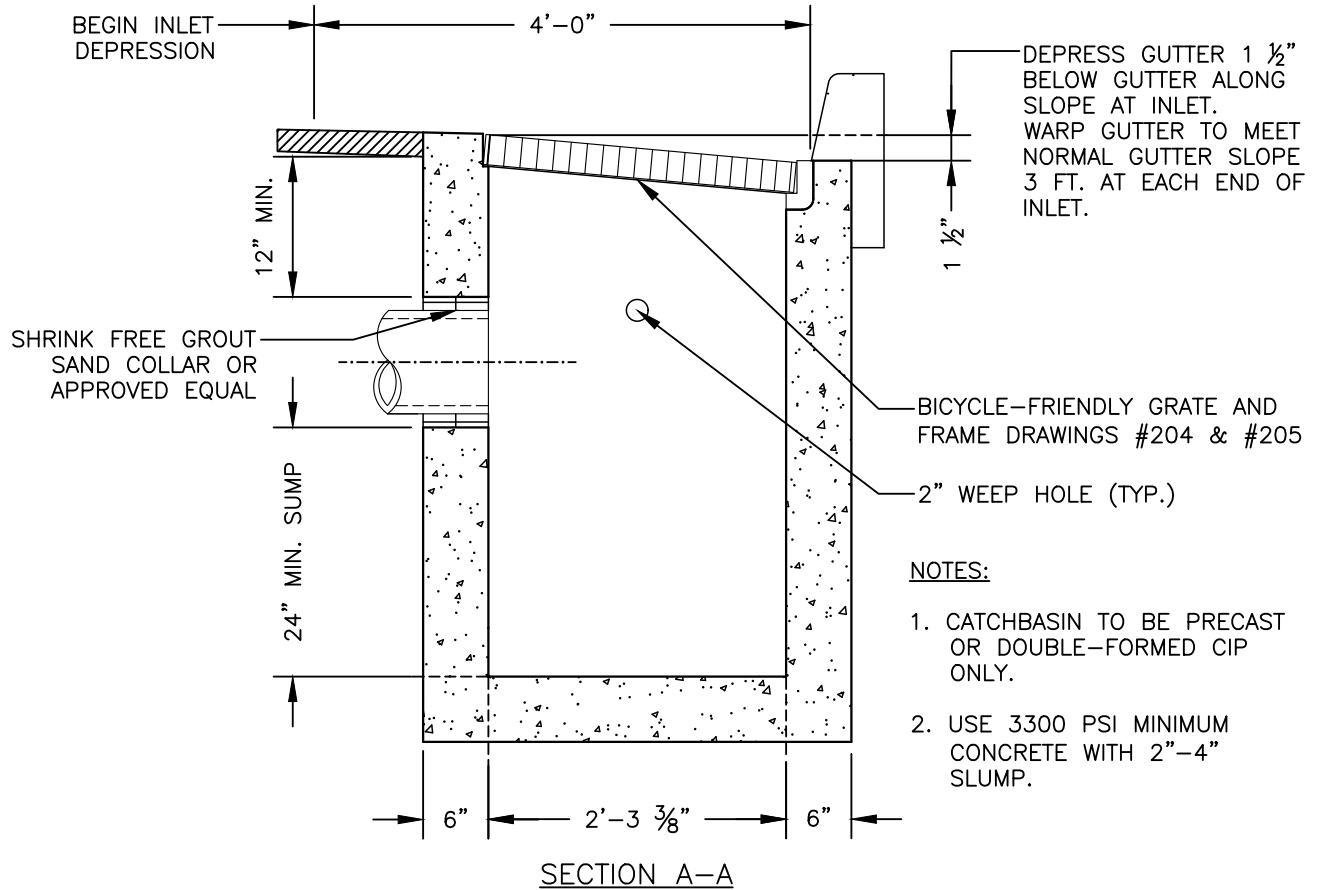
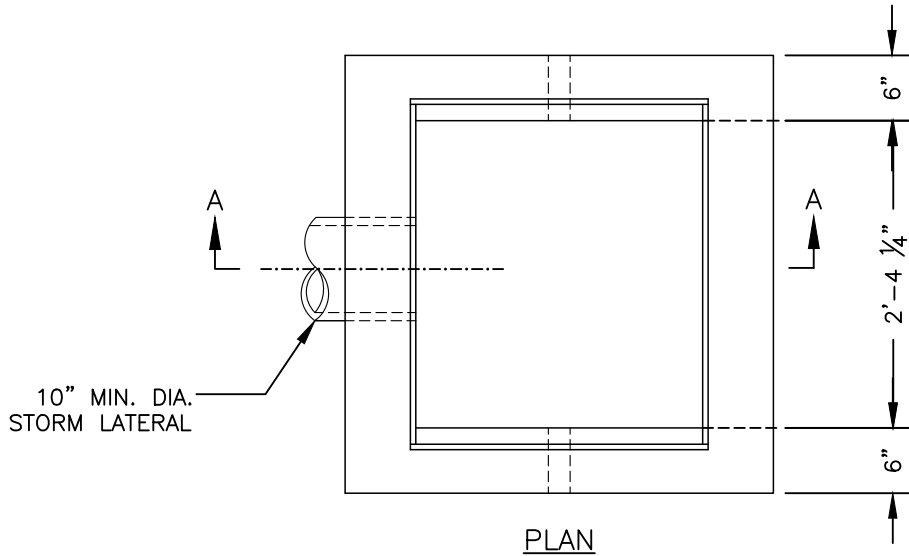
**CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.**  
**ACCEPTABLE OREGON STANDARD DRAWINGS, STORM**

DRAWING NO.

**200**

APPROVED	<i>Janice Darby</i>	NO.	REVISIONS	DATE	BY
		1	NEW DRAWING	11/18	TAP
		2	RENUMBERED DRAWING, UPDATED NOTES	08/19	TAP
		3	ADDED RD 366	11/23	BB
CITY ENGINEER	DATE				

03/2024



CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.

G-2 Catchbasin

DRAWING NO.

201

APPROVED

*Janice Jankel*

03/2024

CITY ENGINEER

DATE

NO.

REVISIONS

DATE

BY

2

RENUMBERED DRAWING

11/18

TAP

3

RENUMBERED DRAWING

08/19

TAP

4

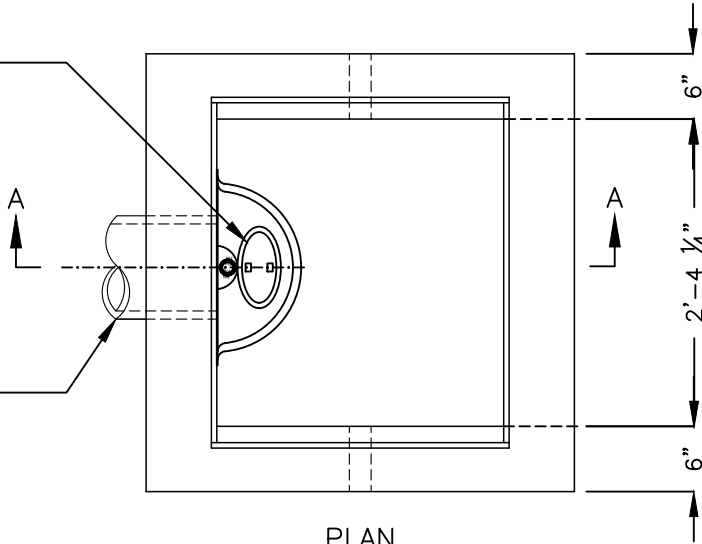
NOTE CHANGES

11/23

BB

4" MIN. DIA.  
TRAPDOOR ACCESS  
POINT FOR STORM  
PIPE MAINTENANCE

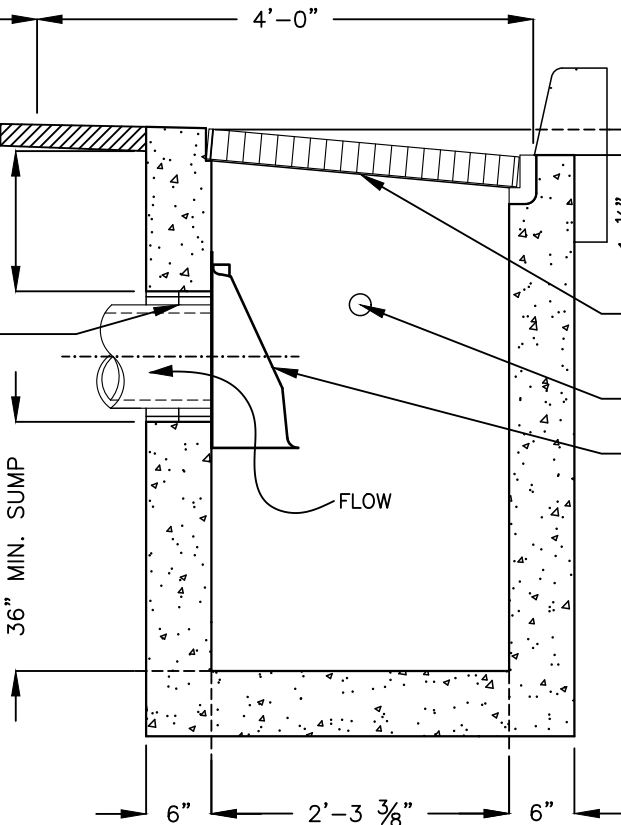
10" MIN. DIA.  
STORM LATERAL



BEGIN INLET  
DEPRESSION

12" MIN.  
SHRINK FREE GROUT  
SAND COLLAR OR  
APPROVED EQUAL

12" MIN.



DEPRESS GUTTER 1 1/2"  
BELOW GUTTER ALONG  
SLOPE AT INLET.  
WARP GUTTER TO MEET  
NORMAL GUTTER SLOPE  
3 FT. AT EACH END OF  
INLET.

BICYCLE-FRIENDLY GRATE AND  
FRAME DRAWINGS #204 & #205

2" WEEP HOLE (TYP.)

DEBRIS TRAP

FLOW

**NOTES:**

1. CATCHBASIN TO BE PRECAST OR DOUBLE-FORMED CIP ONLY.
2. USE 3300 PSI MINIMUM CONCRETE WITH 2"-4" SLUMP.
3. TRAPPED CATCHBASIN REQUIRED IN PARKING LOTS. MIN. 4" DIA. TRAPDOOR ACCESS REQUIRED



CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.

**G-2 Trapped Catchbasin**

DRAWING NO.

**202**

APPROVED

*Janice Darbey*

03/2024

CITY ENGINEER

DATE

NO.

REVISIONS

DATE

BY

2 RENUMBERED DRAWING, ADDED NOTE

11/18

TAP

3 RENUMBERED DRAWING

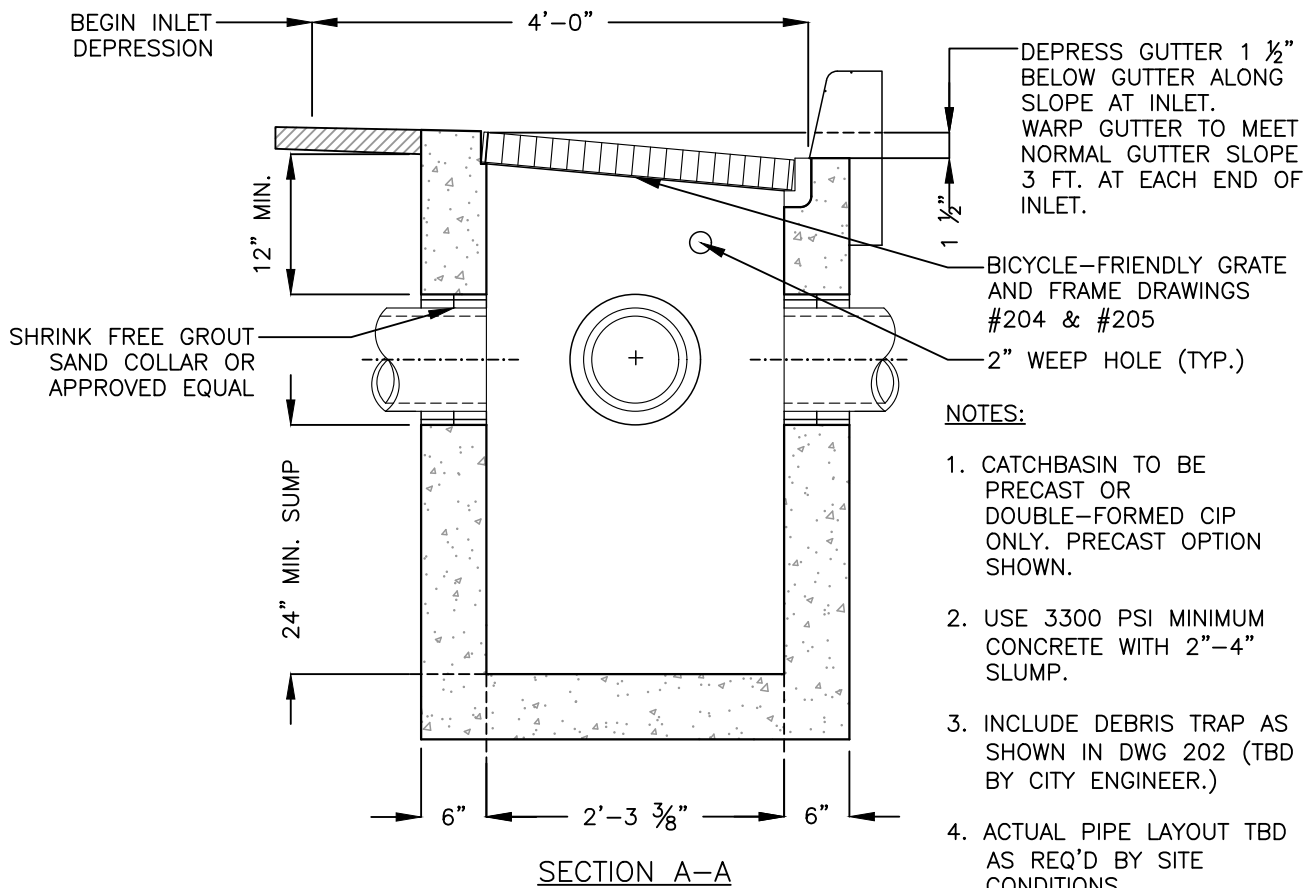
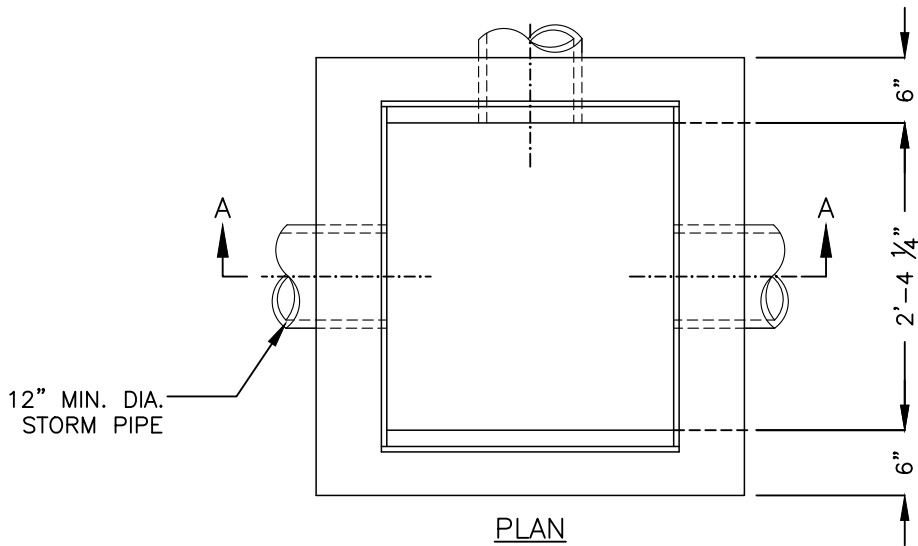
08/19

TAP

4 NOTE CHANGES

11/23

BB



CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.

G-2 Catchbasin Flow Through

DRAWING NO.

203

APPROVED

*Janice Darby*

03/2024

CITY ENGINEER

DATE

NO.

REVISIONS

DATE

BY

1 ADJUST MIN. PIPE SIZE, FORMATTING

12/10

MCP

2 RENUMBERED DRAWING, UPDATED NOTES

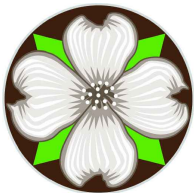
08/19

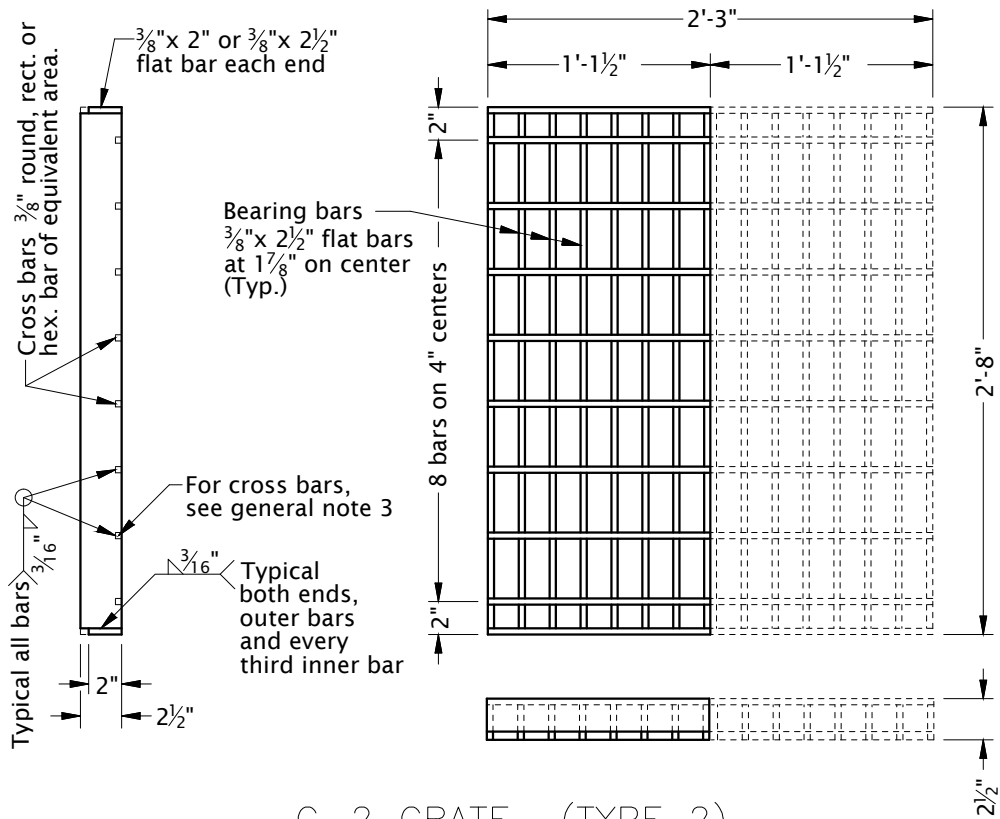
TAP

3 NOTES CHANGED

11/23

BB



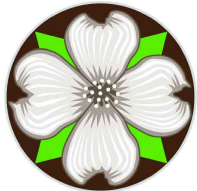


G-2 GRATE (TYPE 2)

(Bicycle-friendly)  
 (2 grates required per inlet, as shown)

**NOTES:**

1. FOR INLET DETAILS, SEE APPROPRIATE INLET STANDARD DRAWING (S).
2. 3/8" CROSS BARS MUST BE FLUSH WITH THE TOP OF GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED TO BEARING BARS.
3. HOT DIP GALVANIZE AFTER FABRICATION.



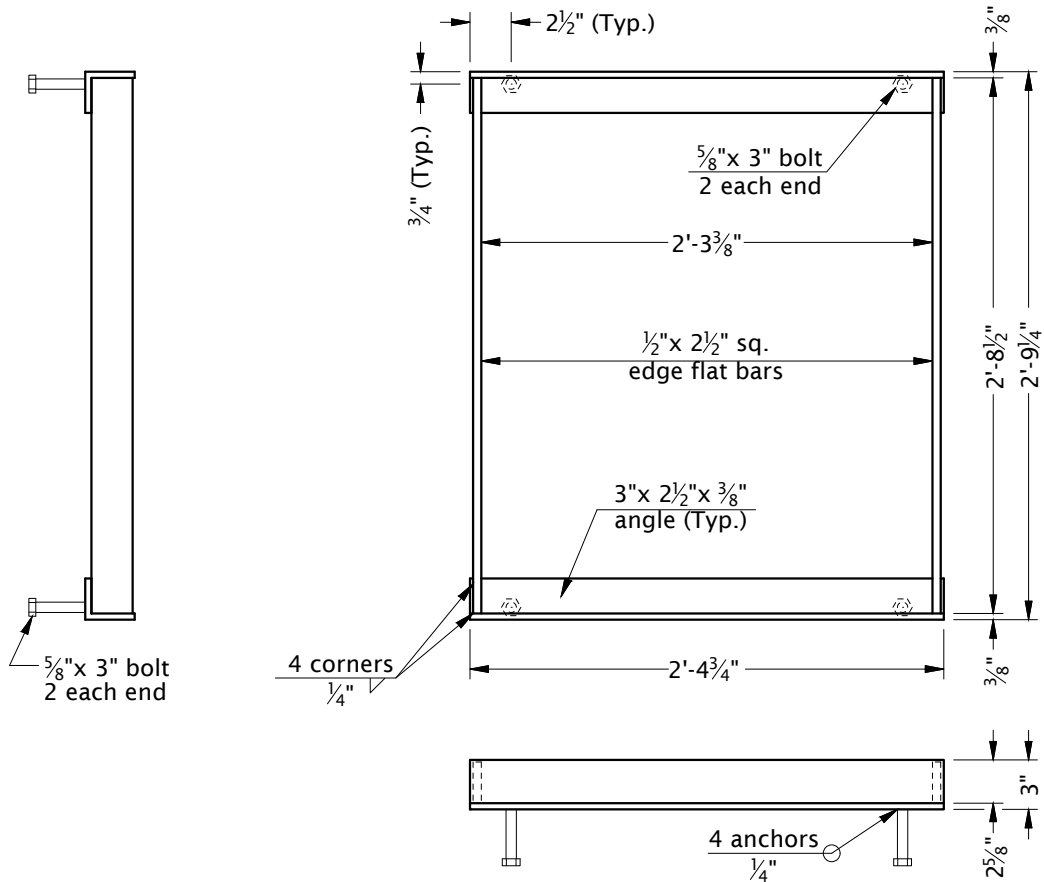
CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.

G-2 Catchbasin Grate

DRAWING NO.

204

APPROVED	<i>Jennifer Darby</i>	03/2024	NO.	REVISIONS	DATE	BY
			2	DRAWING RENUMBERED	11/18	TAP
			3	DRAWING RENUMBERED, NOTE CHANGED	08/19	TAP
			4	NOTE CHANGED	11/23	BB
CITY ENGINEER		DATE				



G-2 FRAME

**NOTES:**

1. FOR INLET DETAILS, SEE APPROPRIATE INLET STANDARD DRAWING (S).
2. 3/8" CROSS BARS MUST BE FLUSH WITH THE TOP OF GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED TO BEARING BARS.
3. HOT DIP GALVANIZE AFTER FABRICATION.



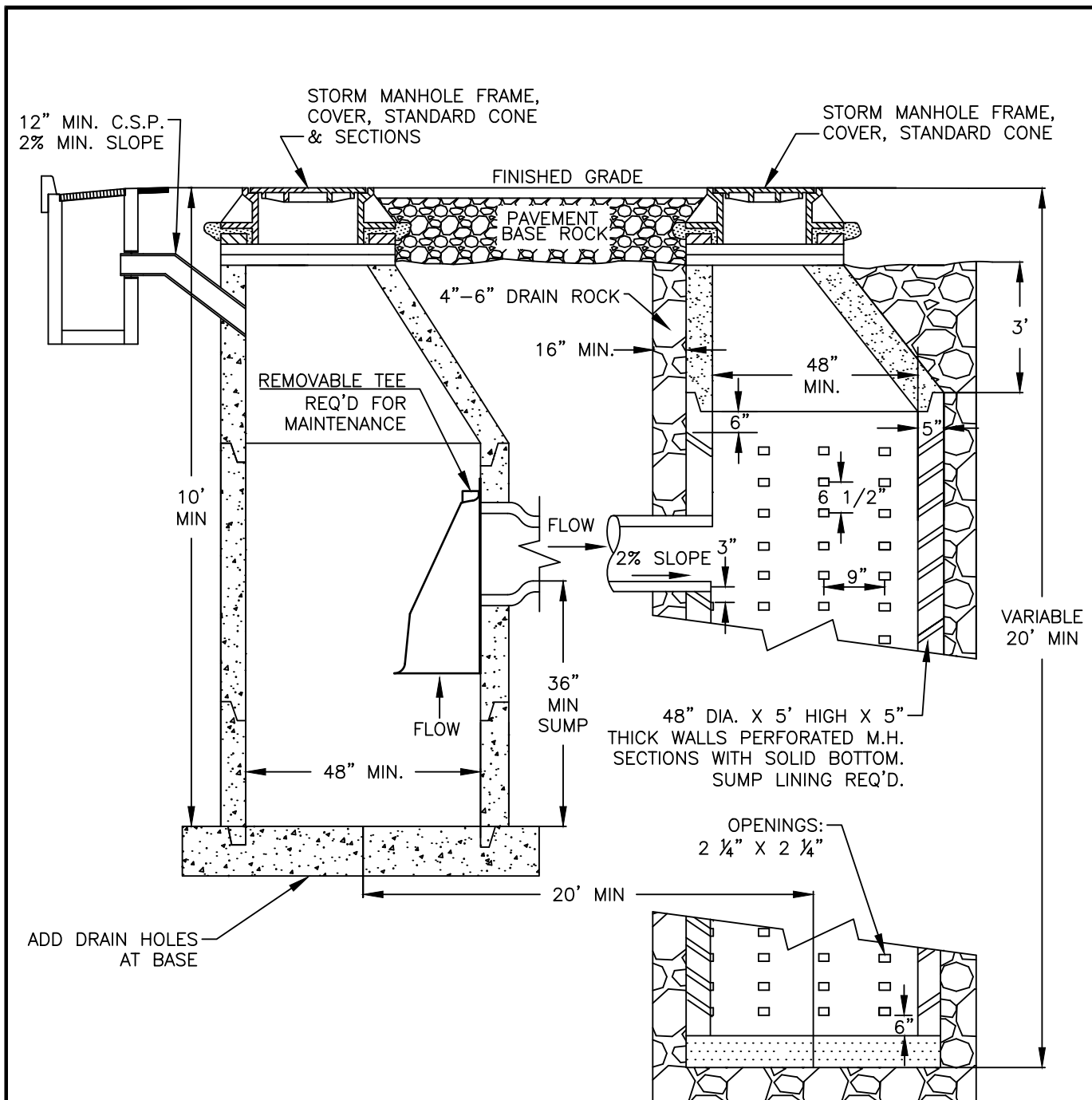
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**G-2 Catchbasin Frame**

DRAWING NO.

205

APPROVED	<i>Jennifer Darby</i>	NO.	REVISIONS	DATE	BY
		1	RECREATED DRAWING	12/10	MCP
		2	DRAWING RENUMBERED	11/18	TAP
		3	DRAWING RENUMBERED, NOTE CHANGED	08/19	TAP
CITY ENGINEER	DATE	03/2024			



INFILTRATION TESTS BY A QUALIFIED SOILS ENGINEER MUST VERIFY DEPTH AND SUITABILITY OF SUMP INSTALLATION.

SEE SPECIFICATIONS FOR BEDDING AND PIPE ZONE MATERIAL.

THIS DETAIL REQUIRED FOR DRAINAGE OF IMPERVIOUS SURFACE WITH AREA GREATER THAN 2500 SQ. FT.



CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.

Sedimentation Manhole Drywell

DRAWING NO.

206

APPROVED

*Jennifer Darby*

03/2024

CITY ENGINEER

DATE

NO.

REVISIONS

DATE

BY

4 ADDED NOTE REGARDING DRAIN HOLE

11/18

TAP

5 RENUMBERED DRAWING, NOTE UPDATED

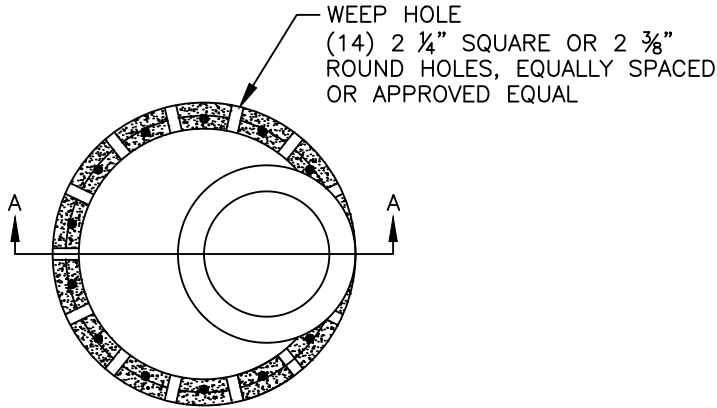
08/19

TAP

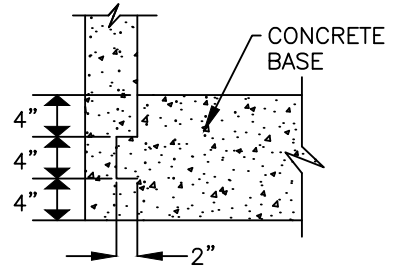
6 CHANGED DRAWING ORIENTATION

11/23

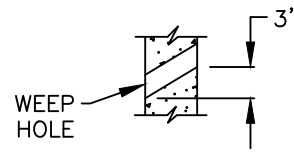
TAP



PLAN



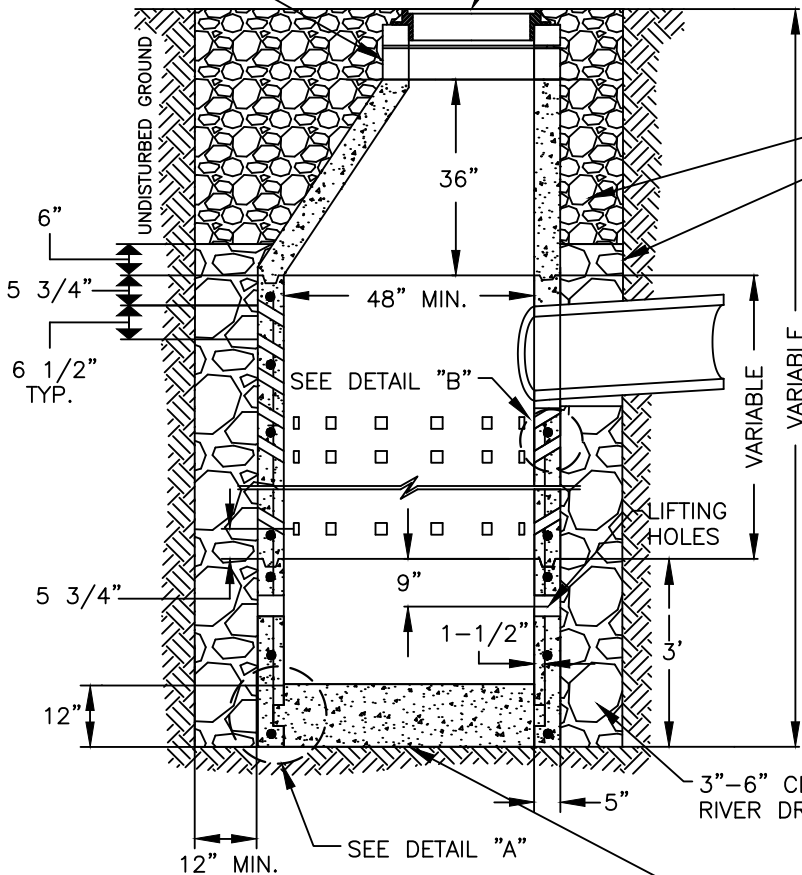
DETAIL "A"



DETAIL "B"

GRADE RINGS  
MINIMUM 3"  
MAXIMUM 12"

STORM MANHOLE  
FRAME AND COVER  
SEE DRAWING #208



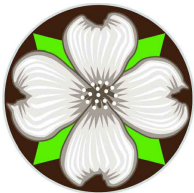
1"-0" OR 3/4"-0" CRUSHED ROCK  
GEOTEXTILE FABRIC - AMOCO NONWOVEN  
GEOTEXTILE NO. 4545, OR APPROVED EQUAL  
INSTALLED AROUND DRAIN ROCK

NOTES:

1. ALL PRECAST SECTIONS MUST CONFORM TO REQUIREMENTS OF ASTM C 478.
2. INVERT MUST BE LEVEL AND SMOOTH.
3. PROVIDE A MIN. OF 6" OF 1"-0" OR 3/4"-0" CLEAN CRUSHED ROCK UNDER ALL PIPES.
4. USE OF THIS SUMP TO INCLUDE TRAPPED CATCH BASIN AND REQUIRES CITY APPROVAL.

ADD DRAIN HOLES AT BASE

SECTION A-A



CITY OF MILWAUKIE, OREGON - PUBLIC WORKS DEPT.

Drywell - Right-of-Way

DRAWING NO.

207

APPROVED

*Janice Darby*

03/2024

CITY ENGINEER

DATE

NO.

REVISIONS

DATE

BY

5 DRAWING NUMBER CHANGED, ADDED NOTE

11/18 TAP

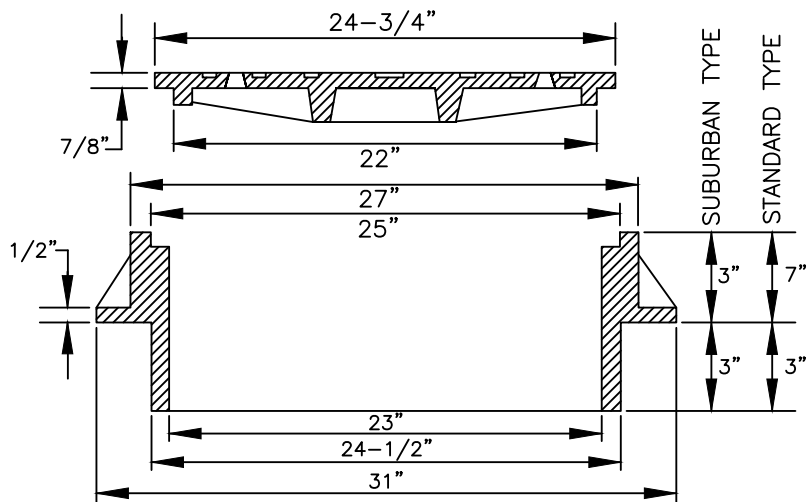
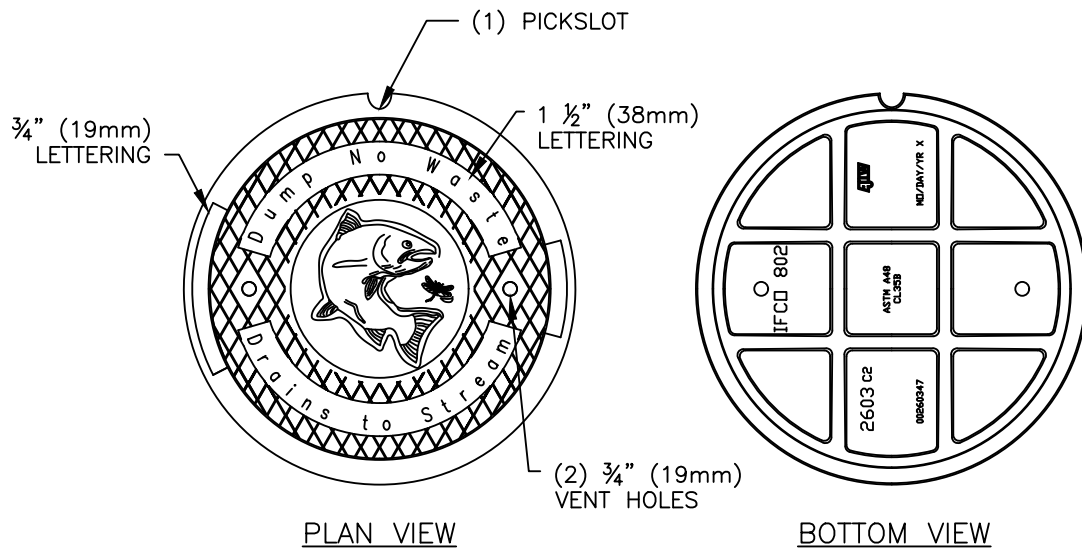
6 RENUMBERED DRAWING, UPDATED NOTES

08/19 TAP

7 UPDATED NOTES

11/23 TAP





**NOTES:**

1. USE SUBURBAN TYPE ONLY IN NON-TRAFFIC AREAS, AND ONLY WITH APPROVAL BY THE CITY.
2. COVER AND FRAME TO BE GRAY CAST IRON ASTM A-48 CLASS 30.
3. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
4. NOTCH COVER FOR LIFTING HOOK.

COVER MAY BE PURCHASED FROM THE CITY'S MANUFACTURER, OLYMIC FOUNDRY.



**CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.**

**Storm Manhole Frame and Cover**

DRAWING NO.

**208**

APPROVED

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03/2024

CITY ENGINEER

DATE

NO.

REVISIONS

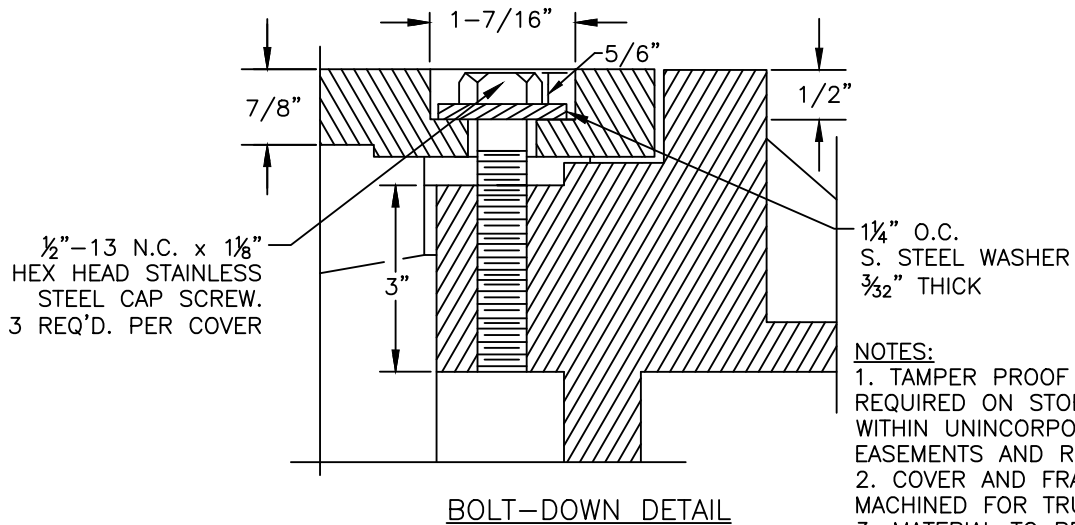
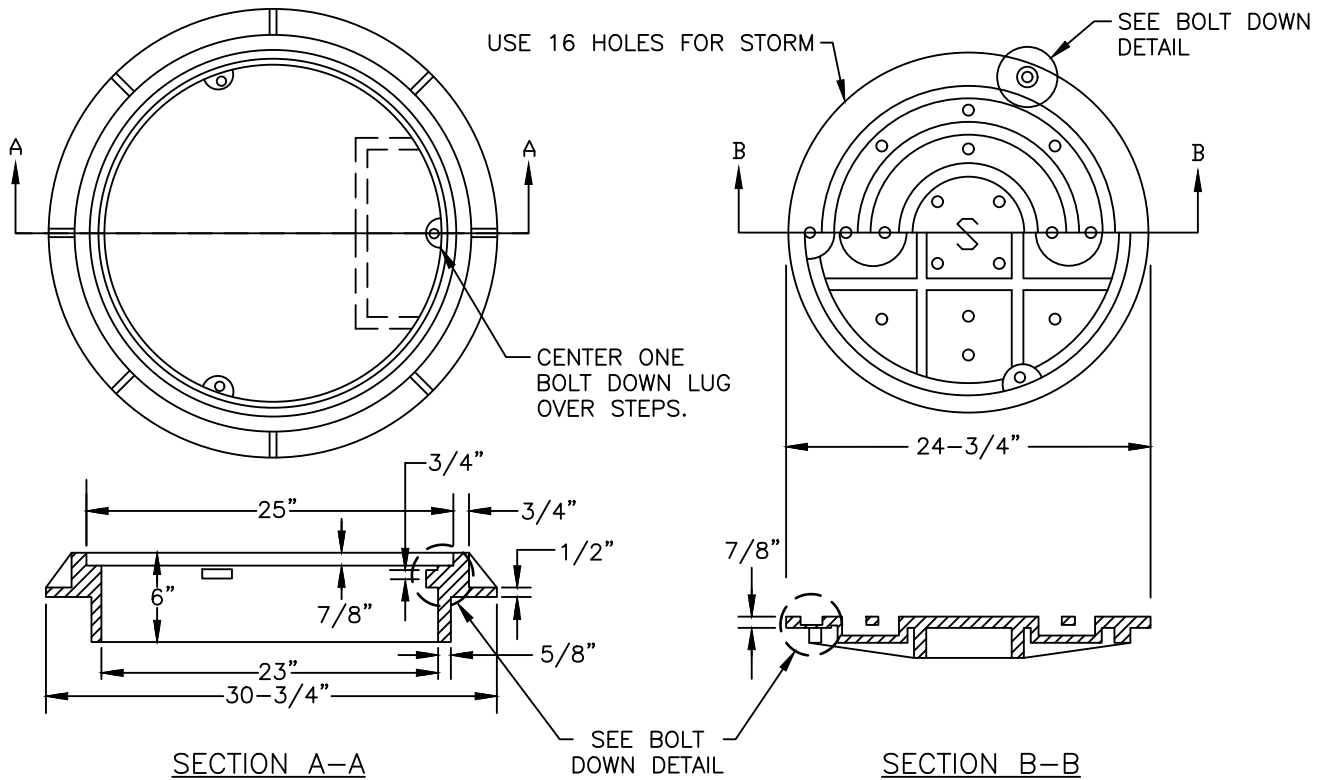
DATE

BY

4	CHANGED DRAWING NUMBER	11/18	TAP
5	RENUMBERED DRAWING, NOTE CHANGED	08/19	TAP
6	NOTES CHANGED	11/23	BB

TAMPERPROOF MANHOLE RING

3-BOLT DOWN COVER



- NOTES:
1. TAMPER PROOF COVER REQUIRED ON STORM MANHOLES WITHIN UNINCORPORATED EASEMENTS AND RIGHTS-OF-WAY.
  2. COVER AND FRAME TO BE MACHINED FOR TRUE BEARING.
  3. MATERIAL TO BE GREAT CAST IRON ASTM A-48 CLASS 30.



CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.

Storm Manhole Tamperproof Cover

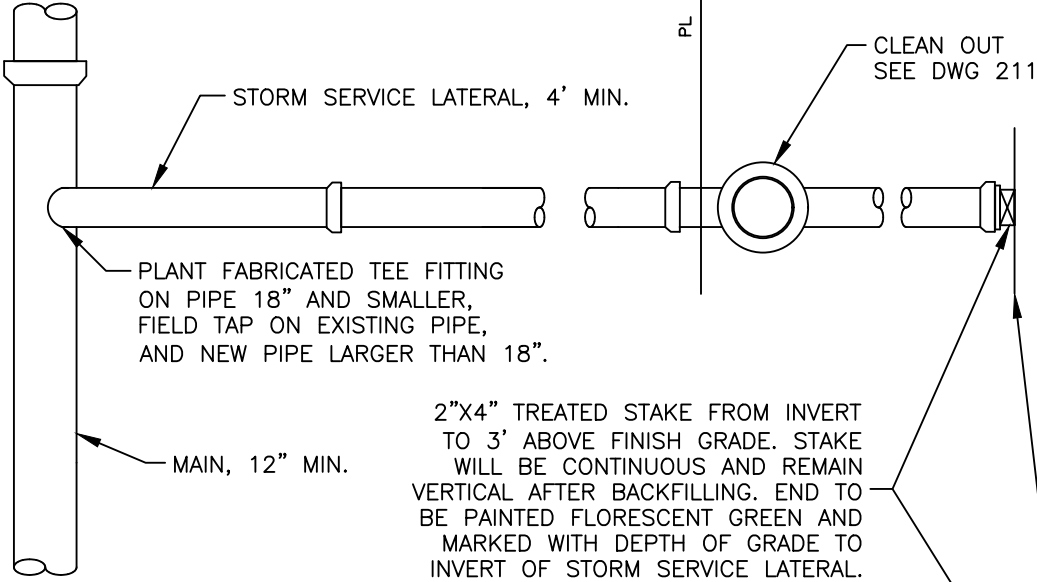
DRAWING NO.

209

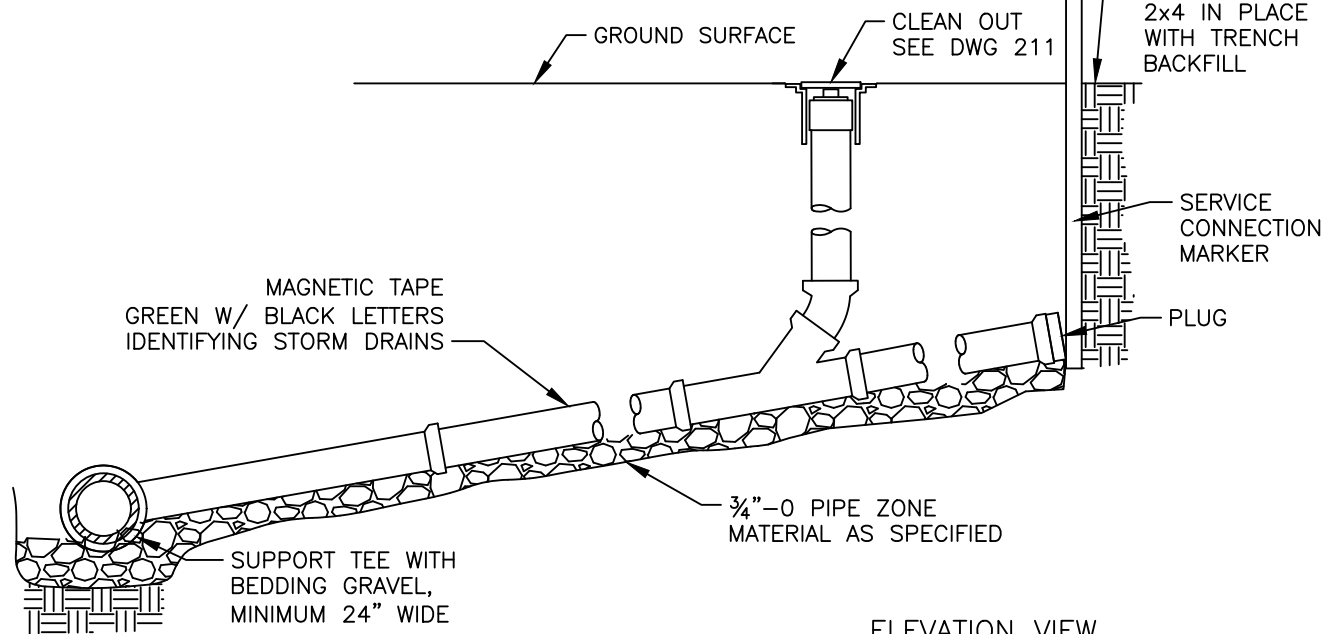
APPROVED *Janice Darby*  
CITY ENGINEER

03/2024  
DATE

NO.	REVISIONS	DATE	BY
2	CHANGED DRAWING NUMBER	11/18	TAP
3	TITLE AND NOTE CHANGE, RENUMBERED	08/19	TAP
4	TITLE CHANGE, ADDED NOTES	11/23	BB



PLAN VIEW



ELEVATION VIEW

**NOTE:** HOUSE SERVICE LATERALS MAY BE CONNECTED TO MAIN TRUNK ONLY IF TRUNK LINE OUTFALLS TO A REGIONAL WATER QUALITY FACILITY. THE CONNECTION WILL BE REVIEWED AND APPROVED BY THE CITY ENGINEER.



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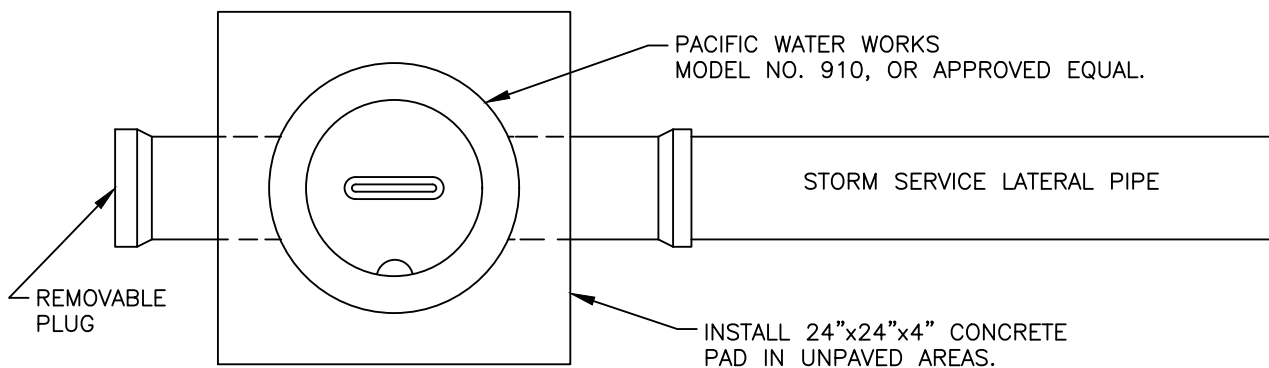
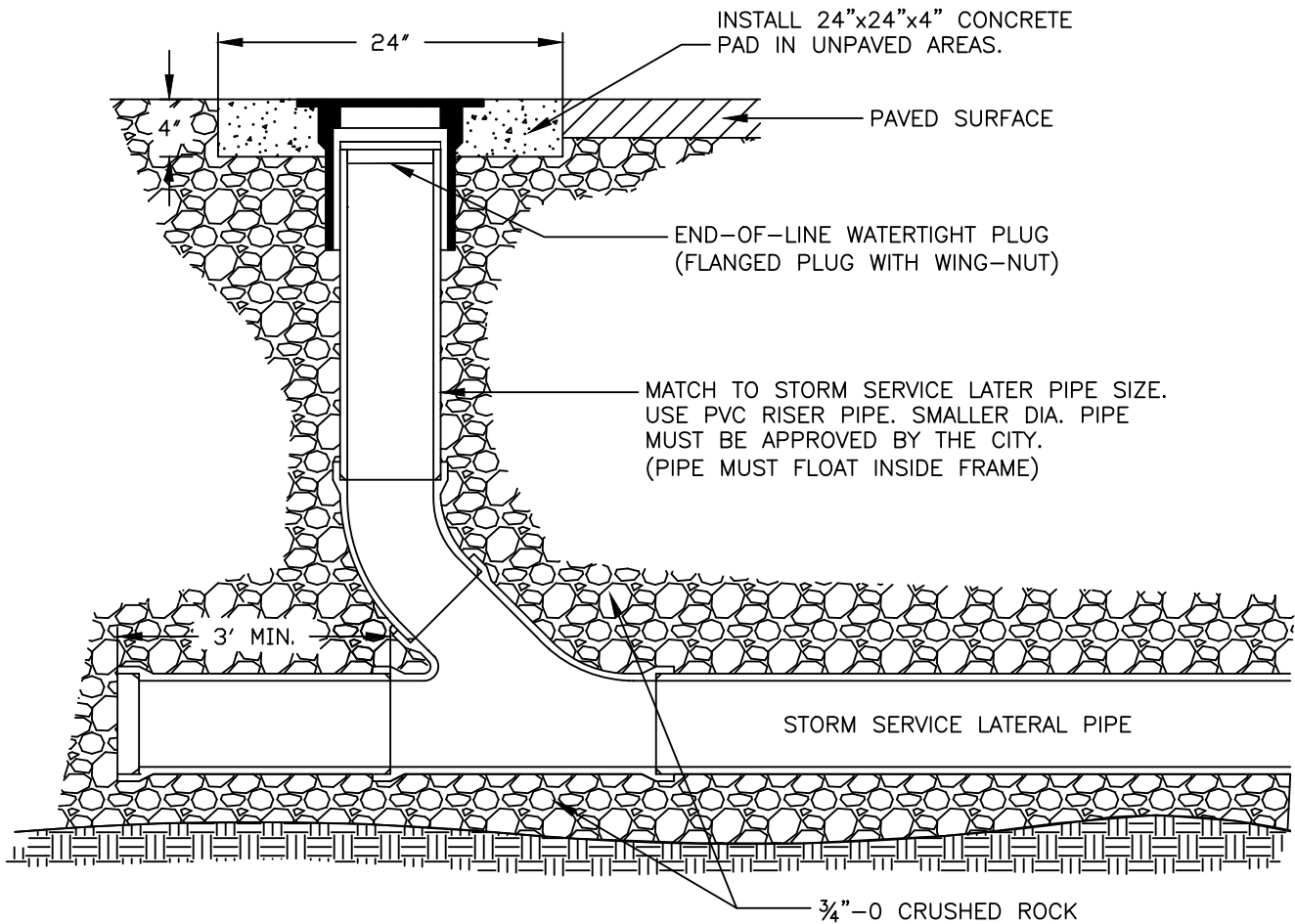
Storm Lateral Connection

DRAWING NO.

210

APPROVED	<i>Janice Darby</i>	NO.	REVISIONS	DATE	BY
		3	CHANGED DRAWING NUMBER	11/18	TAP
		4	RENUMBERED DRAWING, NOTE CHANGED	08/19	TAP
		5	ADDED AND CLARIFIED NOTES	11/23	BB

CITY ENGINEER DATE 03/2024



CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.

Storm Lateral Cleanout

DRAWING NO.

211

APPROVED

*Janice Darby*

03/2024

CITY ENGINEER

DATE

NO.

REVISIONS

DATE

BY

2 CHANGED DRAWING NUMBER

11/18

TAP

3 RENUMBERED DRAWING

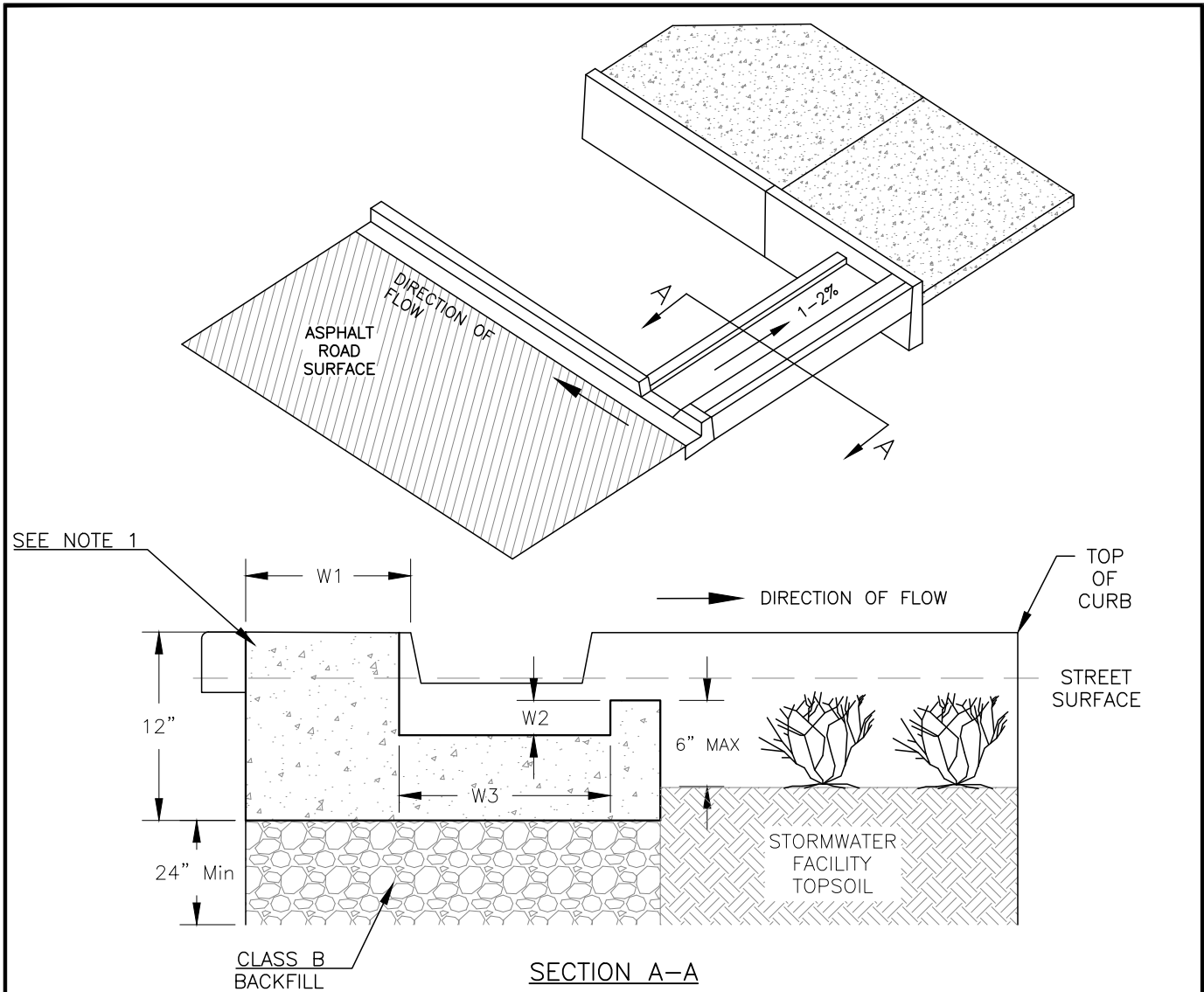
08/19

TAP

4 CHANGED NOTES

11/23

BB



SEE NOTE 1

**NOTES:**

1. CONCRETE MUST BE 3300 PSI AT 28 DAYS WITH A SLUMP RANGE OF 2" TO 4".
2. DIMENSION (W1) IS DISTANCE BETWEEN START OF THE PLANTER AND THE CURB OPENING. IF VALUE IS 3 FEET OR GREATER, THEN FOREBAY WILL NOT BE CONNECTED TO THE UPSTREAM END OF THE PLANTER.
3. DIMENSIONS (W3) WILL BE 6" WIDER THAN THE WIDTH OF THE CURB OPENING.
4. W2 WILL BE 2" ON ROADS WITH DEVELOPED CURBLINE, AND 4" ON ROADS WITH UNDEVELOPED ROAD SHOULDER.
5. IN RETROFIT APPLICATIONS FOREBAY WILL BE ATTACHED TO RAIN GARDEN WALLS WITH EPOXY SECURED #4 REBAR.



**CITY OF MILWAUKIE, OREGON – PUBLIC WORKS DEPT.**

**Sedimentation Forebay**

DRAWING NO.

**212**

APPROVED *Janice Darby*  
 CITY ENGINEER DATE 03/2024

NO.	REVISIONS	DATE	BY
1	NEW DRAWING	12/14	AJR
2	DRAWING NUMBER CHANGED	11/18	TAP
3	RENUMBERED DRAWING, NOTE CHANGED	08/19	TAP