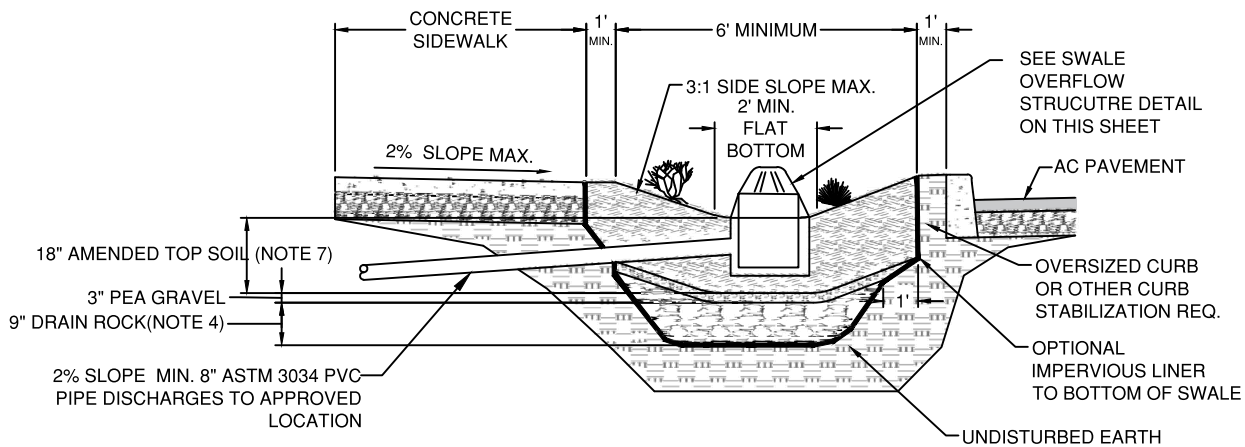


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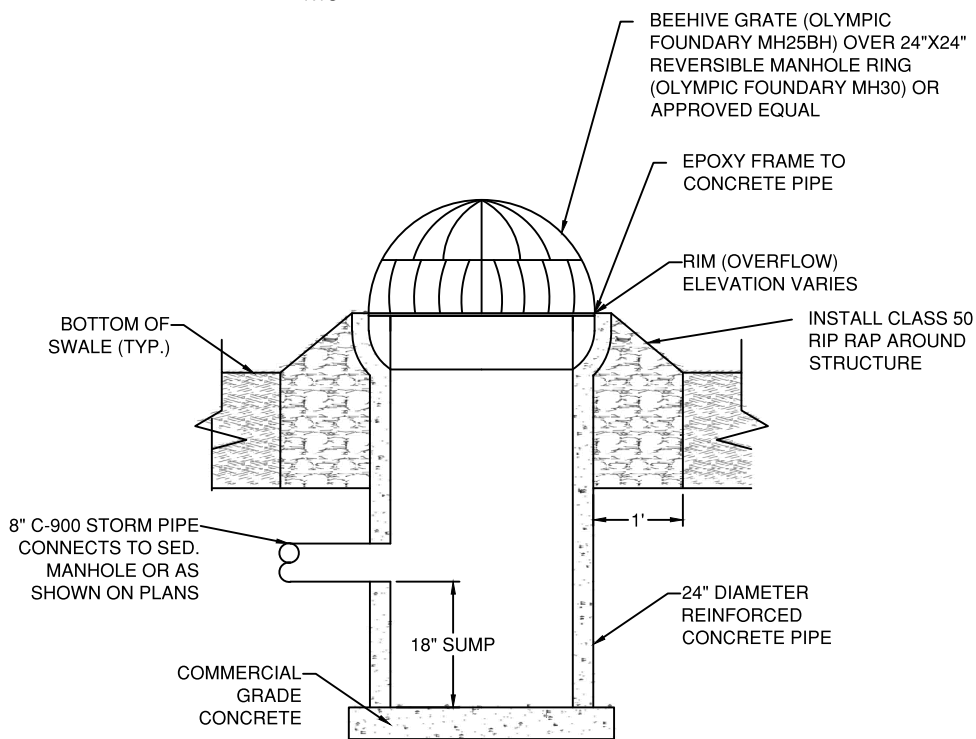
**CITY OF BEND STANDARD DRAWINGS**  
**Stormwater (STRM)**

---



**VEGETATED SWALE WITH OPTIONAL ROCK STORAGE RESERVOIR**

NTS



**SWALE OVERFLOW STRUCTURE**

NTS

**NOTES:**

1. AMENDED TOPSOIL SHALL CONTAIN 20-30% TOPSOIL, 50-65% CLEAN SAND AND 5-20% COMPOST OR PEAT MOSS.
2. VOLUME AND DEPTH TO BE DETERMINED BY ENGINEER.
3. DRAIN ROCK AS REQUIRED FOR DRAINAGE CAPACITY. PEA GRAVEL TO BE USED TO PREVENT SOIL MIGRATION INTO DRAINAGE LAYER.
4. OPTIONAL ROCK RESERVOIR TO BE CONSTRUCTED WITH WASHED DRAIN ROCK WITH 40% VOIDS. NOT TO BE USED IN TREE WELLS.
5. AVOID COMPACTING SWALE AREA DURING CONSTRUCTION.
6. ADD HIGH POINT FLOW BYPASS TO AN APPROVED DISPOSAL POINT AS NECESSARY. OVERFLOW SHOULD PASS THROUGH A SEDIMENTATION MANHOLE OR PRE-TREATMENT PRIOR TO DISCHARGING TO A DRYWELL OR UIC.
7. AMENDED TOP SOIL CAN BE REPLACED WITH DRAIN ROCK FOR ROCK SWALES. ROCK SWALES CANNOT BE USED TO MEET PRETREATMENT REQUIREMENTS.
8. INSTALL CHECK DAMS AS REQUIRED AND PER DWG STRM-4.

DRAWN AJD	
DIV STORM	
REV	DATE



CITY OF BEND

**CITY OF BEND**

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

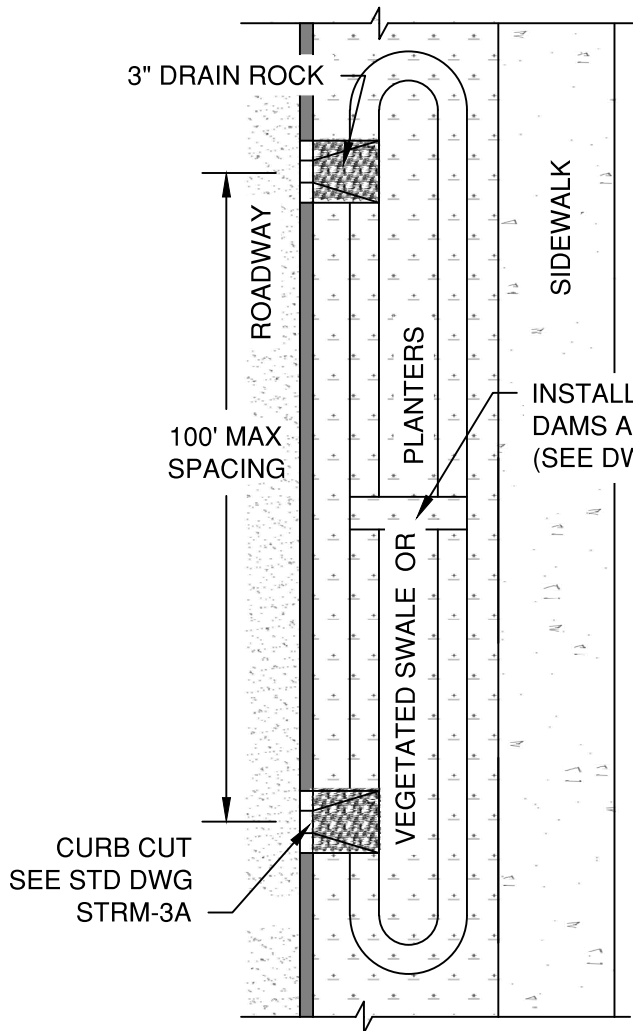
**VEGETATED SWALE DETAIL**

SCALE NTS

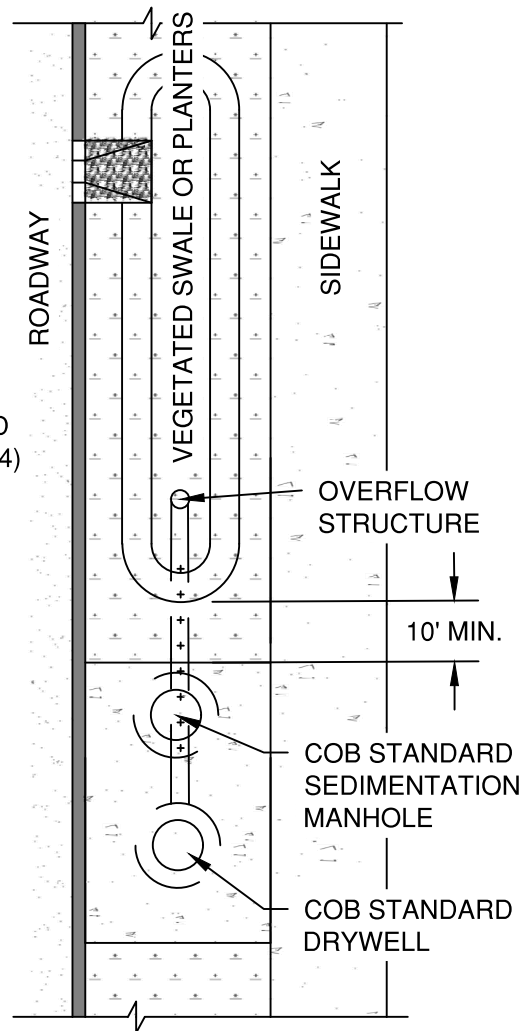
DATE 01/31/2022

APPR

STD DWG STRM-2



VEGETATED SWALE/ PLANTER  
NTS



VEGETATED SWALE/ PLANTERS  
W/ DRYWELL OVERFLOW  
NTS

NOTES:

1. SWALE/SURFACE INFILTRATION FACILITIES NOT PERMITTED WITHIN PUES OR OVER FRANCHISE UTILITIES
2. VOLUME AND DEPTH TO BE DETERMINED BY ENGINEER.

DRAWN AJD	
DIV STORM	
REV	DATE



CITY OF BEND

CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

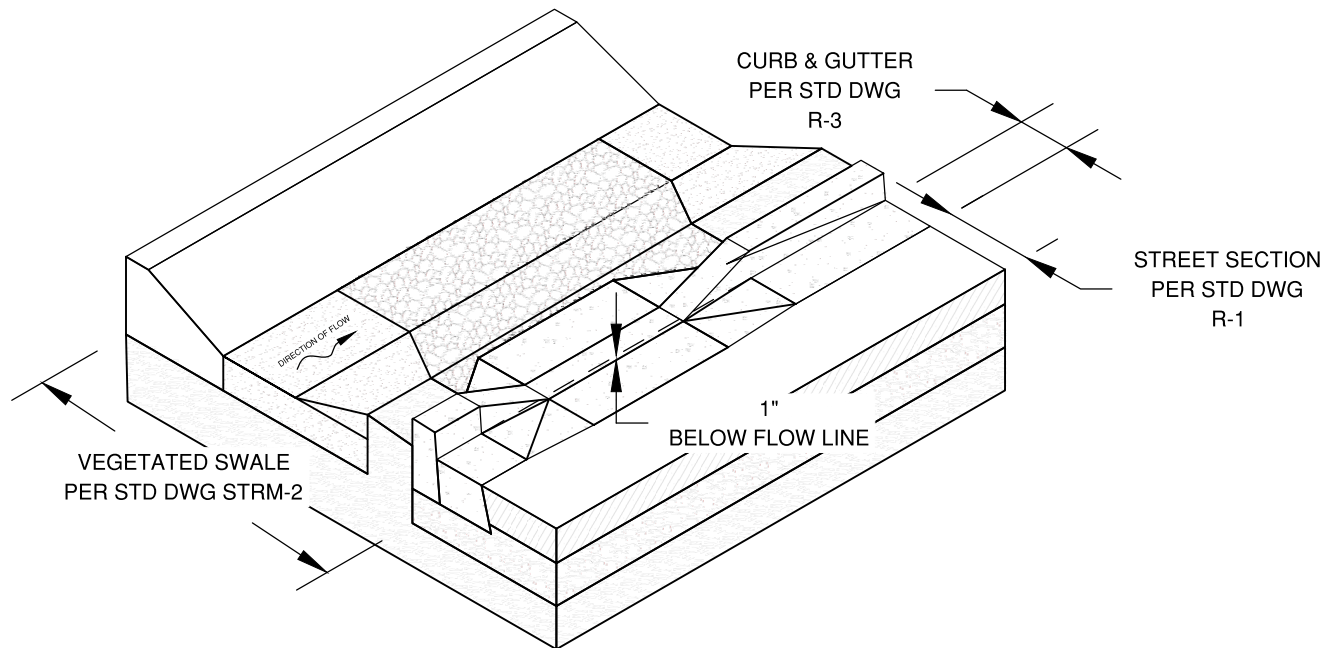
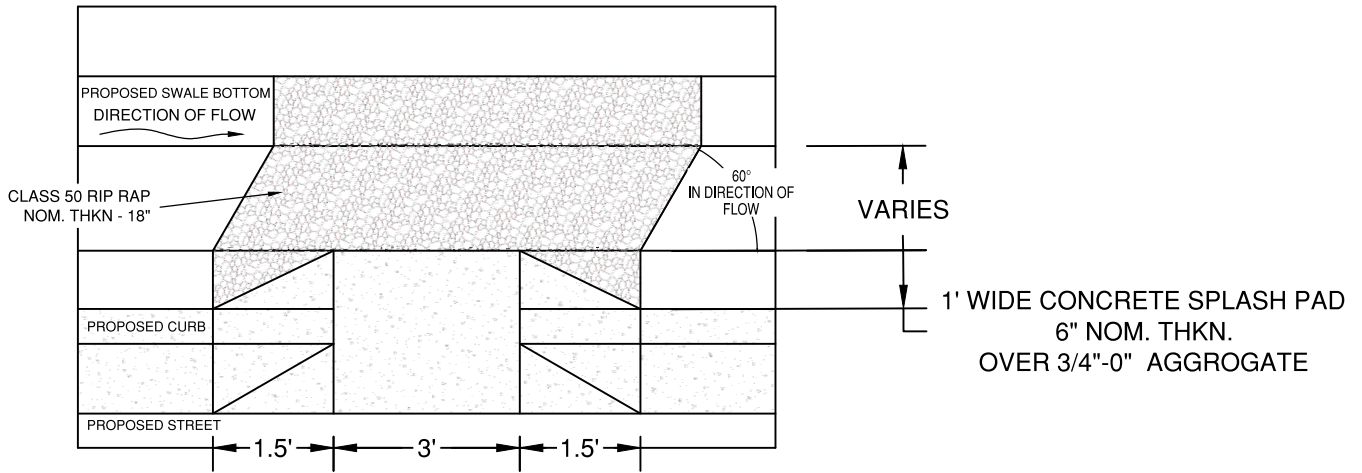
TYPICAL SWALE LAYOUT

SCALE NTS

DATE 01/31/2022

APPR

STD DWG STRM-3



DRAWN AJD  
DIV STORM  
REV DATE



CITY OF BEND

CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

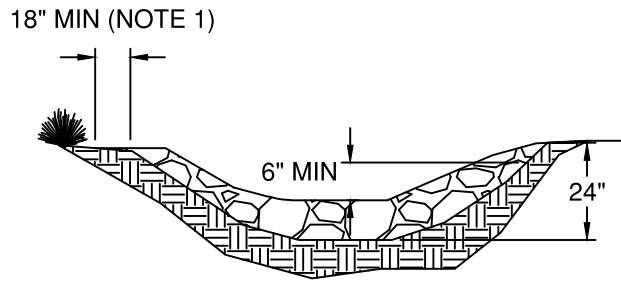
TYPICAL CURB CUT

SCALE NTS

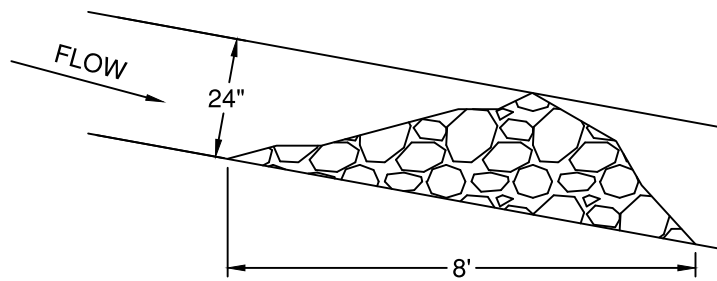
DATE 01/31/2022

APPR

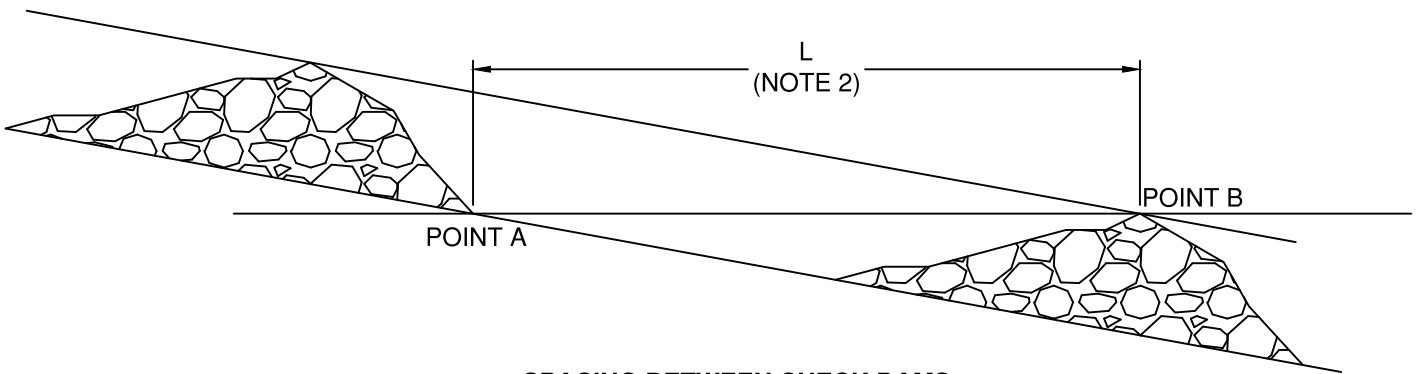
STD DWG STRM-3A



**CHANNEL CROSS SECTION**



**CHECK DAM PROFILE**



**SPACING BETWEEN CHECK DAMS**

**NOTES:**

1. KEY STONE INTO THE CHANNEL BANKS AND EXTEND DAM A MINIMUM OF 18" TO PREVENT FLOW AROUND DAM.
2. L IS EQUAL TO THE DISTANCE SUCH THAT 'POINT A' AND 'POINT B' ARE OF EQUAL ELEVATION.
3. CHECK DAMS SHALL BE INSTALLED PER CENTRAL OREGON STORMWATER MANUAL (COSM) REQUIREMENTS.

DRAWN LJC	
DIV STORM	
REV	DATE



CITY OF BEND

**CITY OF BEND**

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

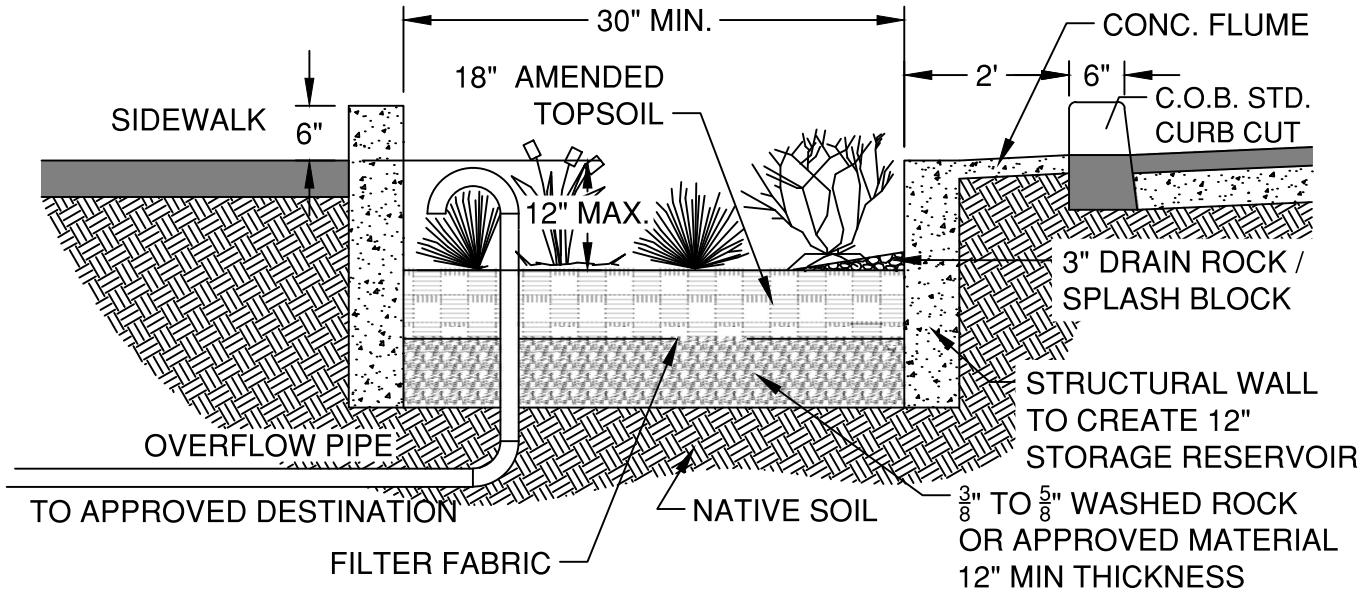
**CHECK DAM DETAIL**

SCALE NTS

DATE 12/1/17

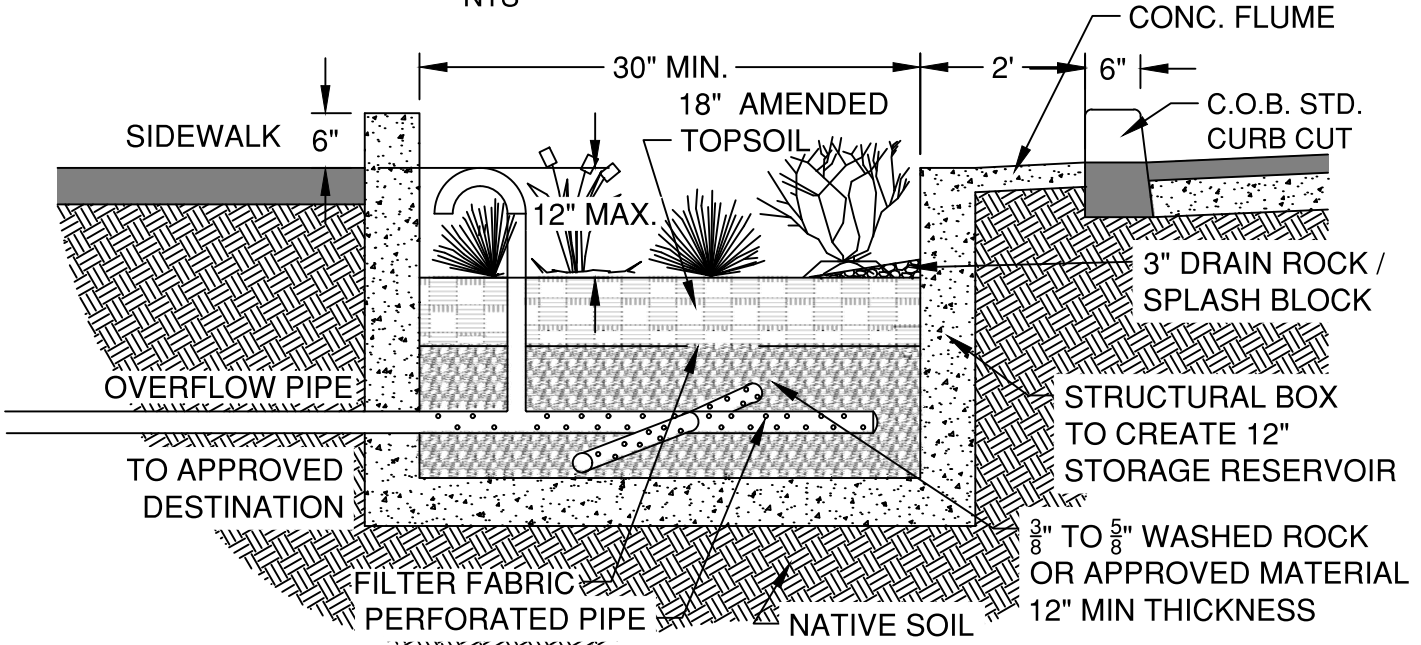
APPR

STD DWG STRM-4



INFILTRATION PLANTER TYPICAL SECTION

NTS



FLOW-THROUGH PLANTER TYPICAL SECTION

NTS

NOTE:

1. NOT FOR USE ALONG STREETS WITH POSTED SPEED ABOVE 25 MPH, UNLESS OUTSIDE THE CLEAR ZONE.
2. AMENDED TOPSOIL PER SPECIFICATION 01040
3. VOLUME AND DEPTH TO BE DETERMINED BY ENGINEER.
4. USE INFILTRATION PLANTER IF EXISTING SITE HAS AN INFILTRATION RATES > 0.5 IN/HR.
5. PLACE OVERFLOW PIPE 2" BELOW TOP OF PLANTER.
6. TO AVOID UIC REGULATION DO NOT USE PERFORATED PIPE OUTSIDE OF THE FLOW-THROUGH PLANTER OR WITH THE INFILTRATION PLANTER.

DRAWN AJD	
DIV STORM	
REV	DATE



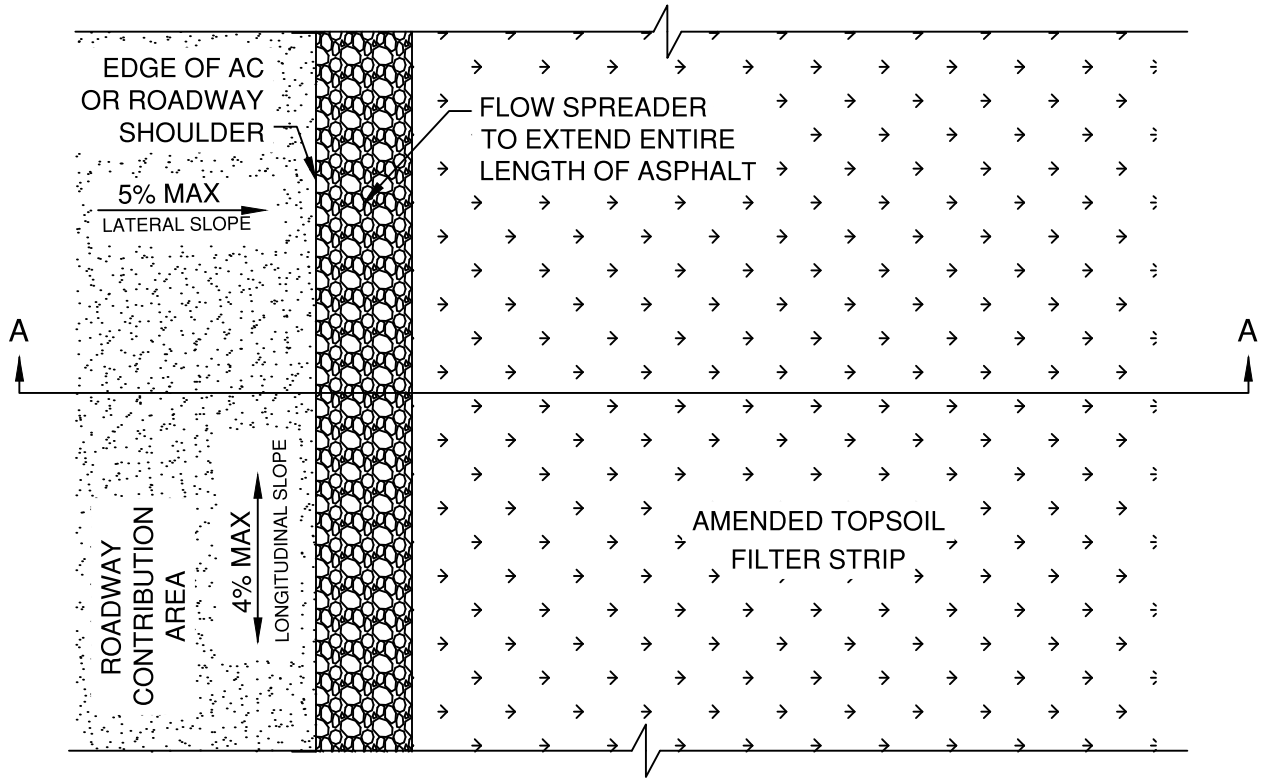
CITY OF BEND

CITY OF BEND  
STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

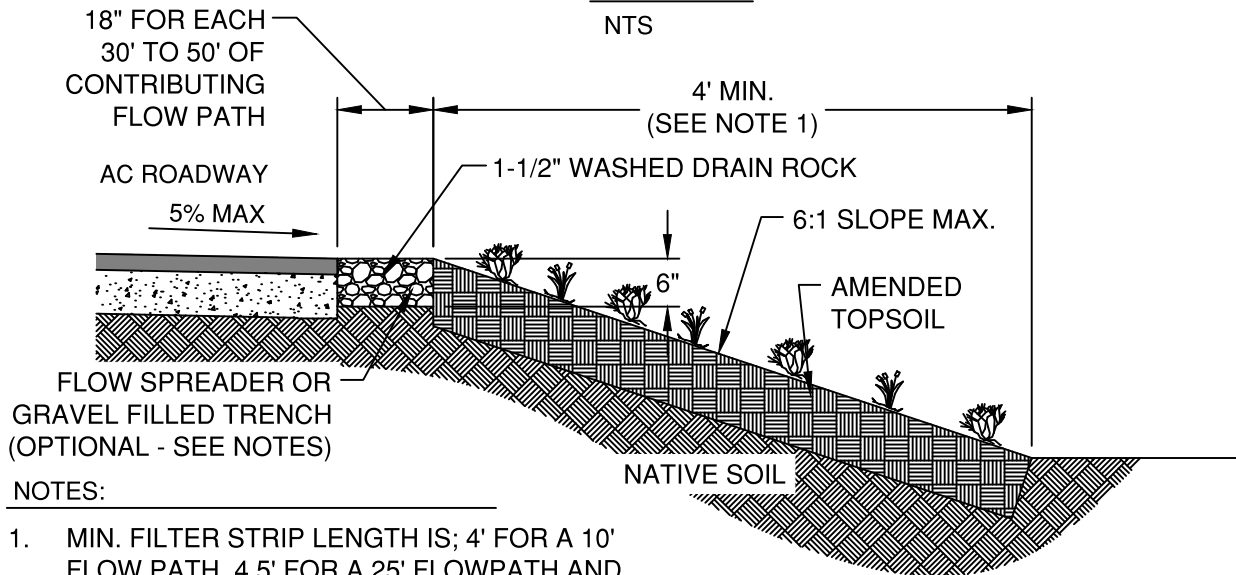
STORMWATER PLANTER DETAIL

SCALE NTS
DATE 01/31/2022
APPR
STD DWG STRM-5



PLAN VIEW

NTS



SECTION A-A

NTS

NOTES:

1. MIN. FILTER STRIP LENGTH IS; 4' FOR A 10' FLOW PATH, 4.5' FOR A 25' FLOWPATH AND 5.5' FOR A 30' FLOWPATH
2. AMENDED TOPSOIL PER SPECIFICATION 01040
3. FLOW SPREADER IS OPTIONAL. IF USED THE GRAVEL MUST BE WIDER THAN DEEP TO AVOID UIC REGULATIONS.

DRAWN AJD	
DIV STORM	
REV	DATE



CITY OF BEND

CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

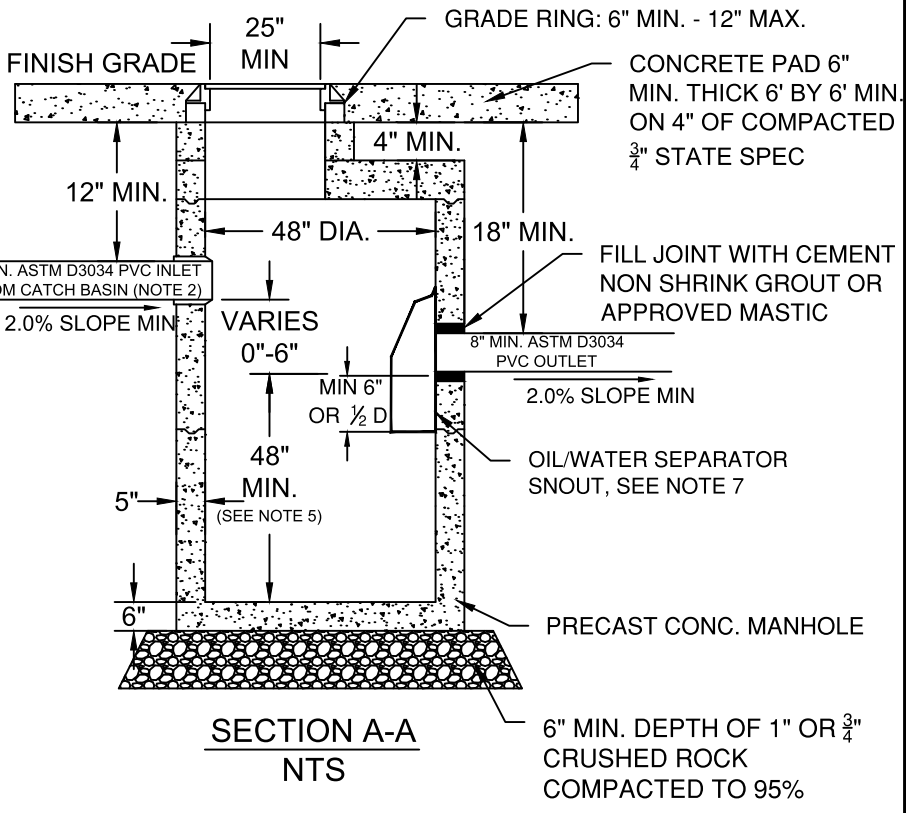
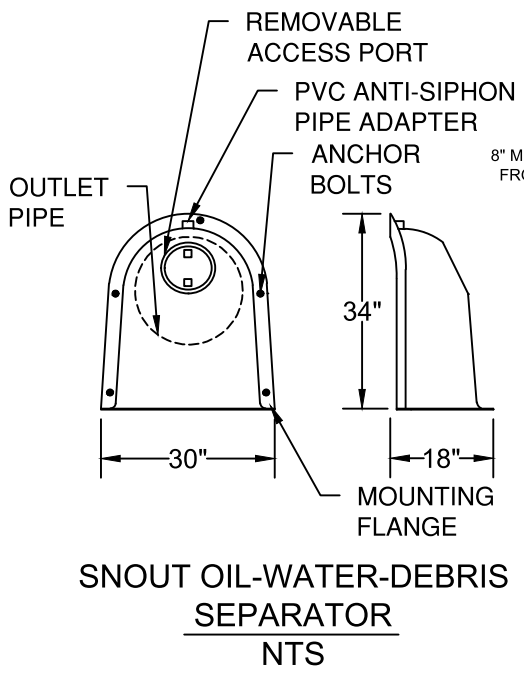
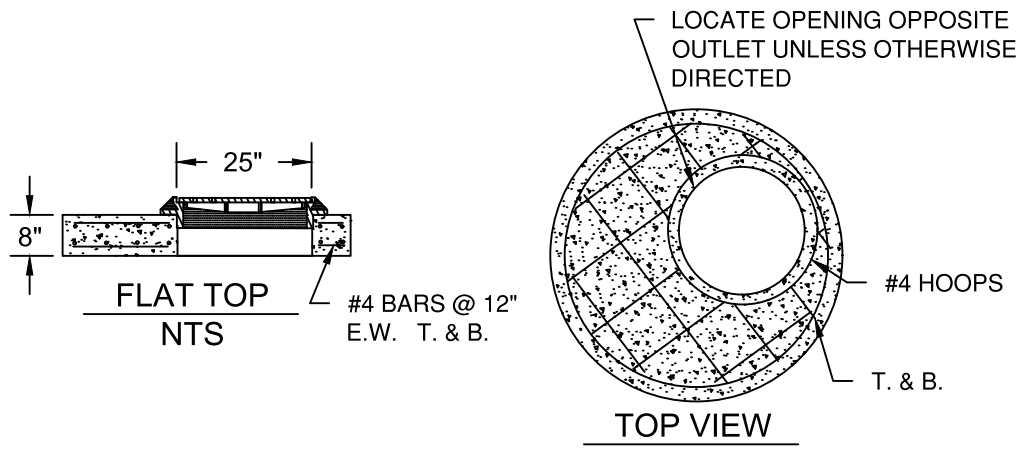
STORMWATER FILTER DETAIL

SCALE NTS

DATE 01/31/2022

APPR

STD DWG STRM-6



- NOTES:
1. ALL PRE-CAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF ASTM C-478.
  2. AWWA C900 PIPE SHALL BE USED WITHIN TRAVEL AREAS. ASTM D3034 PIPE WHERE STORM PIPE WILL BE INSTALLED PERSANITARY SEWER REQUIREMENTS OR OUTSIDE OF TRAVEL AREAS.
  3. MANHOLES SHALL BE PLACED OUTSIDE SIDEWALK, APRONS & STREET SURFACES UNLESS APPROVED BY THE CITY ENGINEER.
  4. A 3 POINT MECHANICAL ADJUSTMENT SYSTEM SUCH AS RAD'S OR APPROVED EQUAL SHALL BE USED TO ADJUST MANHOLE FRAME AND COVER TO FINISH GRADE.
  5. SUMP SIZE TO BE DESIGNED IN ACCORDANCE WITH COSM - 20 CF OF SUMP VOLUME FOR EACH 1.0 CFS DESIGN FLOW - NOT LESS THAN 48" DEPTH.
  6. MANHOLES WITH MORE THAN 3 CONNECTIONS, OR PIPES 12" OR LARGER TO BE 60" MANHOLES
  7. OIL/WATER SEPARATOR SNOUT BMP 24R, OR APPROVED EQUAL. SECURE TO MANHOLE WITH FIVE (5) 5/8"x1-12" STAINLESS STEEL RED HEAD BOLTS, WASHERS AND NUTS, OR AS APPROVED BY MANUFACTURER.

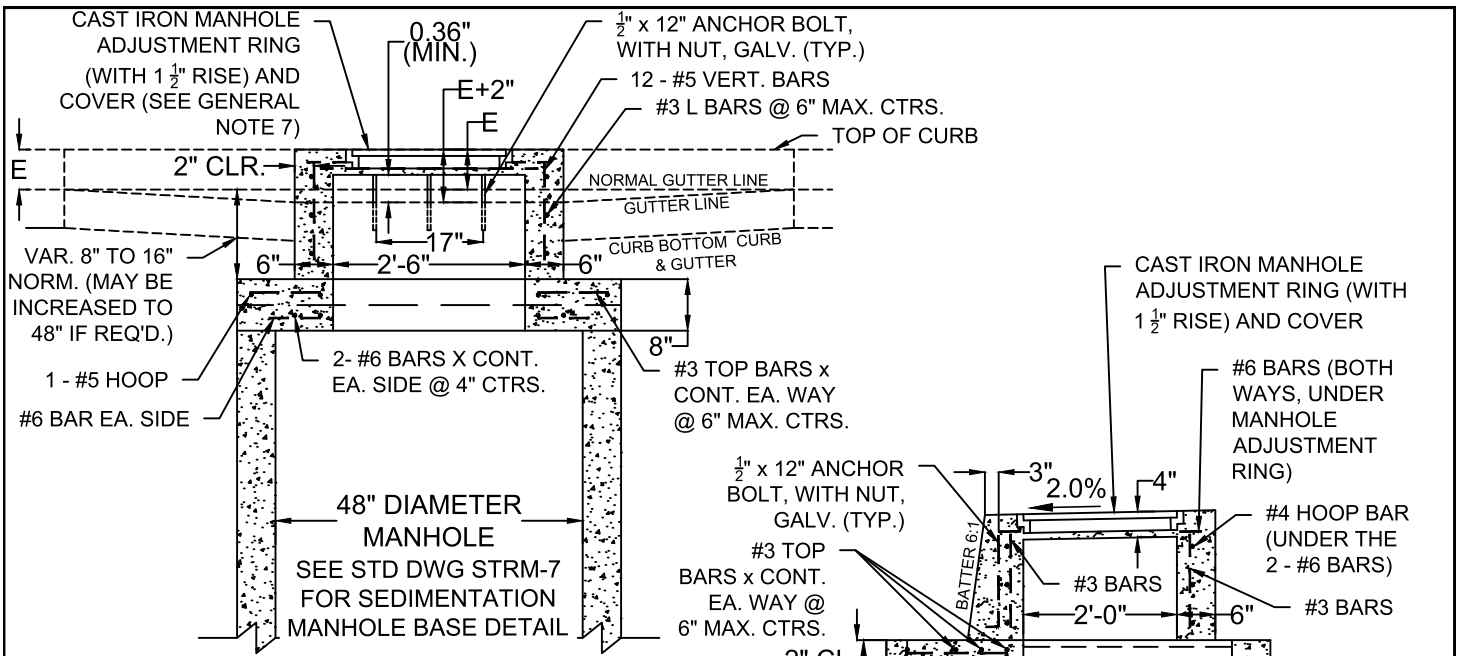
DRAWN	AJD
DIV	STORM
REV	DATE



**CITY OF BEND**  
STANDARD DRAWING  
710 NW WALL ST., BEND, OREGON 97701

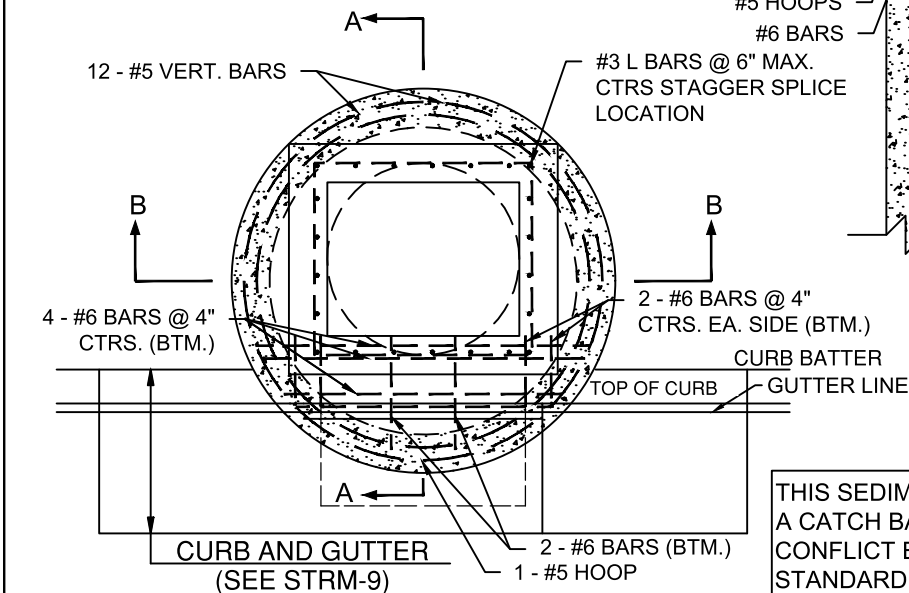
**STORMWATER SEDIMENTATION MANHOLE**

SCALE	NTS
DATE	11/01/2024
APPR	
STD DWG	STRM-7



**SECTION B-B**

NTS




**SECTION A-A**

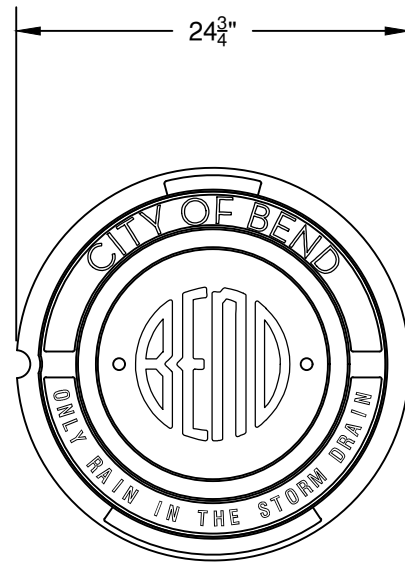
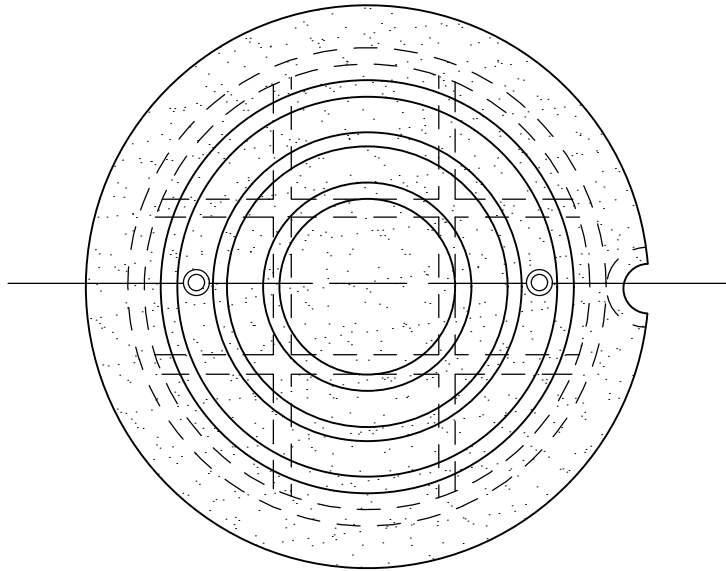
NTS

THIS SEDIMENTATION MANHOLE OPTION IS USED WHEN A CATCH BASIN OR INLET ARE PROPOSED AND A CONFLICT EXISTS PREVENTING INSTALLATION OF THE STANDARD SEDIMENTATION MANHOLE (STRM-7).

**NOTES:**

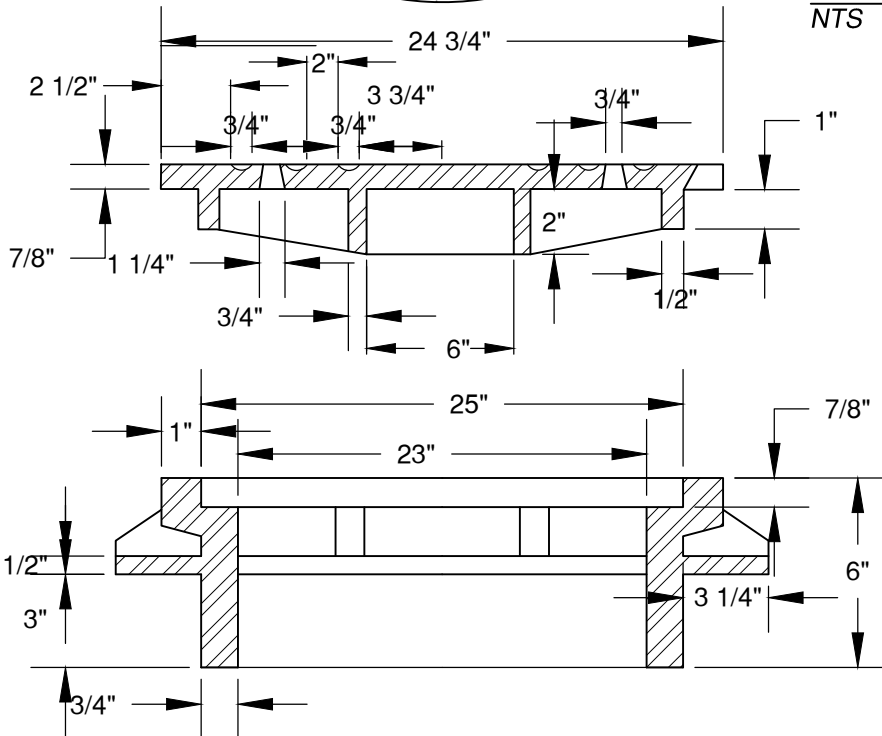
1. ALL REINFORCEMENT TO BE PLACED A MINIMUM OF 2" CLEAR OF NEAREST FACE OF CONCRETE UNLESS OTHERWISE SHOWN OR NOTED.
2. ALL PRECAST PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478.
3. ALL CONCRETE SHALL BE COMMERCIAL GRADE CONCRETE.
4. INLET TOP MAY BE CAST-IN-PLACE OR PRECAST. ALL PRECAST INLETS SHALL CONFORM TO REQUIREMENTS OF ASTM C913.
5. VARY ANCHOR BOLT LENGTH AND REINFORCING BAR PLACEMENT AS REQUIRED BY CURB EXPOSURE E.
6. SEE COB STD DWG R-3 FOR CURB DETAILS.
7. SEE ODOT STD DWG RD356 FOR MANHOLE ADJUSTMENT RING. SEE COB STD DWG STRM-8 FOR CAST IRON MANHOLE ADJUSTMENT RING AND COVER.
8. SUMP SIZE TO BE DESIGNED IN ACCORDANCE WITH COSM - 20 CF OF SUMP VOLUME FOR EACH 1.0 CFS DESIGN FLOW - NOT LESS THAN 48" DEPTH.

DRAWN A.JD			<b>CITY OF BEND</b> STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701		SCALE NTS
DIV STORM					DATE 11/01/2024
REV	DATE		<b>STORMWATER SEDIMENTATION MANHOLE - ALTERNATE</b>		APPR
		STD DWG STRM-7A			



**STORMWATER MANHOLE LID DETAIL**

NTS



**NOTE:**

1. MANHOLE LID ONLY TO BE USED ON CITY OF BEND PUBLIC DRYWELLS AND SEDIMENTATION MANHOLES. PRIVATELY OWNED DRYWELLS AND SEDIMENT MANHOLES SHALL NOT USE A CITY OF BEND MANHOLE LID.
2. HINGED MANHOLE LIDS ARE NOT PERMITTED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
3. ALL MANHOLE LIDS SHALL BE PLACED OUTSIDE THE PATH OF TRAVEL OF SIDEWALKS AND DRIVEWAY APRONS.

DRAWN	AJD
DIV	STORM
REV	DATE



**CITY OF BEND**

**CITY OF BEND**

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

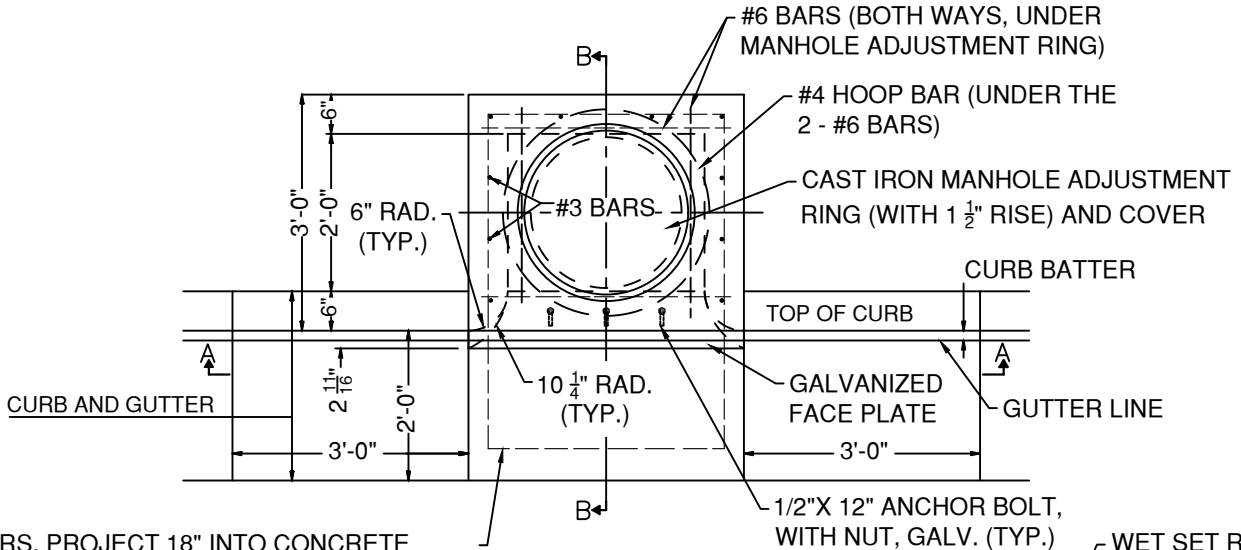
**STORMWATER MANHOLE LID DETAIL**

SCALE NTS

DATE 01/31/2022

APPR

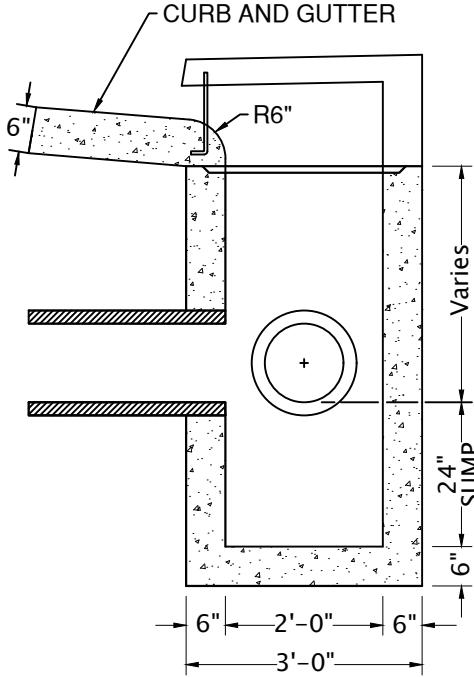
STD DWG STRM-8



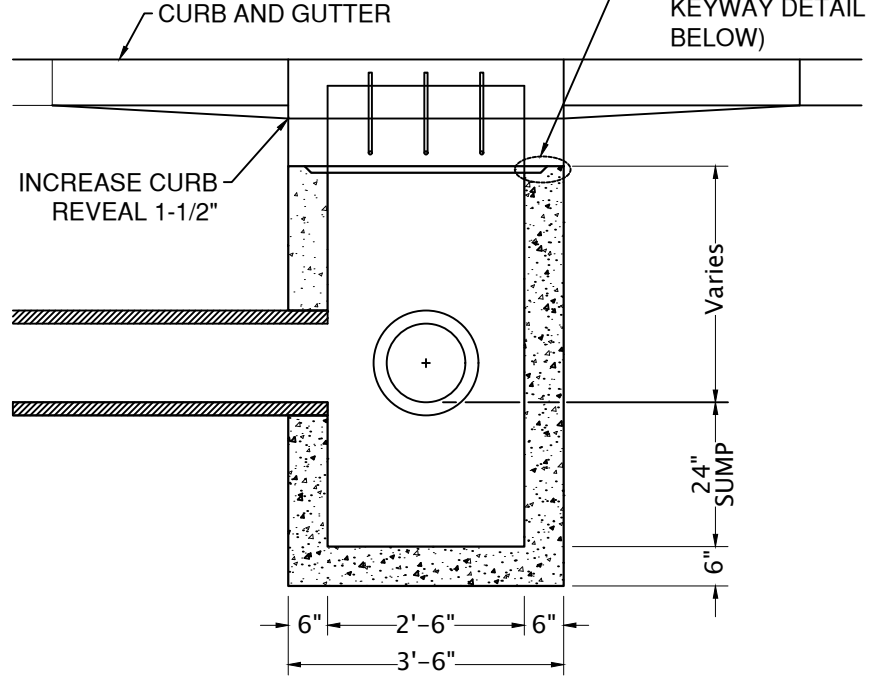
#3 BARS, PROJECT 18" INTO CONCRETE GUTTER PAN (BEND TO MATCH GUTTER PAN. SEE SECTION B-B)

**PLAN VIEW**

WET SET RISER INTO GROUT PER SECTION 00470.42 (SEE KEYWAY DETAIL BELOW)



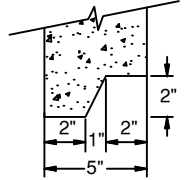
**SECTION B - B**



**SECTION A - A**

**NOTES:**

1. REMOVE SUFFICIENT CURB TO POUR BACK WALL. TOP SECTION MAY BE POURED MONOLITHIC WITH SIDEWALK.
2. CURB INLETS TO BE USED ON ARTERIAL AND COLLECTOR ROADWAYS.
3. "E" = CURB EXPOSURE.
4. SEE COB STD DWG STRM-8 FOR CAST IRON MANHOLE ADJUSTMENT RING AND COVER.
5. ALL PIPE CONNECTIONS TO BE GROUTED PER SPECIFICATION SECTION 00470.40.



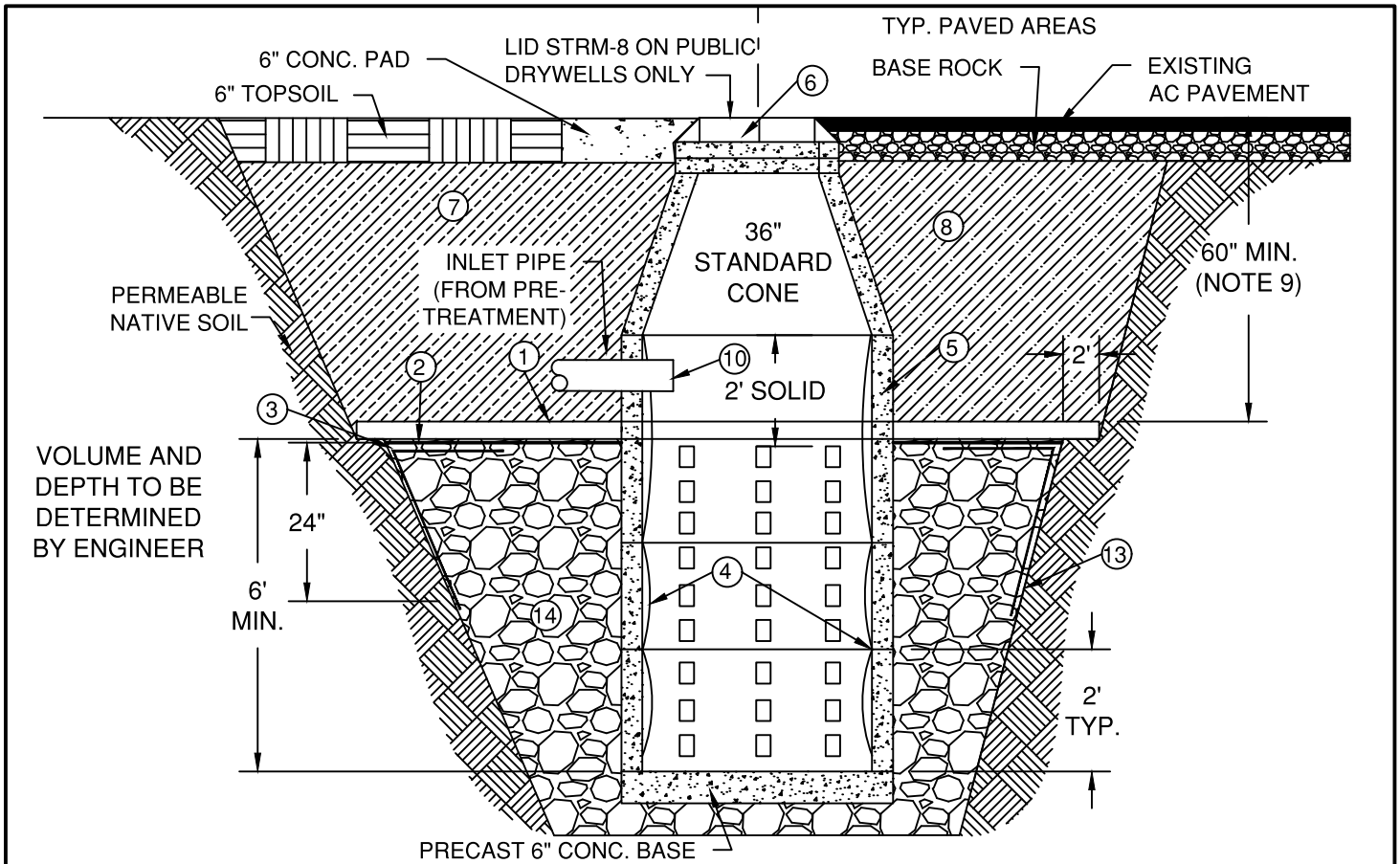
**KEYWAY DETAIL**

DRAWN	AJD
DIV	STORM
REV	DATE



**CITY OF BEND**  
 STANDARD DRAWING  
 710 NW WALL ST., BEND, OREGON 97701  
**STANDARD CURB INLET**

SCALE	NTS
DATE	04/16/2026
APPR	
STD DWG	STRM-9



**NOTES:**

\* SEE ALSO THE CITY OF BEND STANDARDS AND SPECIFICATIONS FOR DESIGN CRITERIA

1. 6" CONCRETE CAP, SECTION 00440 COMMERCIAL GRADE CONCRETE, EXTEND TO UNDISTURBED MATERIAL 2' MIN. REQUIRED WITHIN ALL CITY OF BEND RIGHT OF WAY UNLESS NOTED OTHERWISE.
2. MOISTURE BARRIER-2 LAYERS OF 4 MIL POLY. ON ALL ROCK INSTALLATIONS.
3. NONWOVEN GEOFABRIC CONFORMING TO DRAINAGE GEOTEXTILE, OREGON TABLE 02320-1 REQUIRED ON ALL EARTH OR GRAVEL EXCAVATIONS TO 24" INTO ROCK. LAP 24" WITH MOISTURE BARRIER.
4. LINE INSIDE OF PERFORATED BARREL WITH HEAVY WEIGHT VINYL SCREEN, SUCH AS FULL FLOW VINYL SCREEN THAT MEETS THE REQUIREMENTS OF SPECIFICATION SECTION 00470. LINER SHALL BE FULLY AND CONTINUOUSLY ANCHORED, TOP AND BOTTOM OF EACH SECTION. ATTACH BY OVERLAPPING 12" MIN. BETWEEN JOINT OF MANHOLE CONE AND PERFORATED BARREL SECTION. INLET PIPE SHALL BE EXTENDED THROUGH THE SCREEN IF SCREEN IS ATTACHED ABOVE THE PIPE.
5. PRE-CAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478. ALL CONCRETE SHALL BE COMMERCIAL GRADE CONCRETE
6. STANDARD RING AND COVER REQUIRED IN RIGHT-OF-WAY AREAS. NO SLOTTED COVERS WILL BE ALLOWED IN LIEU OF A CATCH BASIN.
7. CLASS "A" BACKFILL COMPACTED TO 95.0% OPTIMUM DRY DENSITY (AASHTO T-99).
8. CLASS "B" BACKFILL COMPACTED TO 95.0% OPTIMUM DRY DENSITY (AASHTO T-99).
9. PERFORATIONS TO BE 60" BELOW EXISTING UNDISTURBED GROUND.
10. INLET PIPE MUST BE DESIGNED SO IT CAN BE PLUGGED IN CASE OF SPILL. ALL PIPE PENETRATIONS ARE TO BE GROUTED OR WATER-TIGHT SEALED. PIPE INLETS NOT TO ENTER DRYWELL WITH PERFORATED BARREL.
11. DRYWELL RIMS TO BE PLACED OUTSIDE OF SIDEWALK, APRON & STREET SURFACES UNLESS APPROVED BY THE CITY ENGINEER.
12. PLANS SHALL PROVIDE VOLUME AND AREA OF ROCK PLACEMENT. ROCK PLACEMENT SHALL BE OUTSIDE WATER/SEWER TRENCHES. WHERE ROCK ENTERS PRIVATE PROPERTY, A DRAINAGE EASEMENT SHALL BE RECORDED.
13. GEOFABRIC TO BE EXTENDED FROM THE CONCRETE CAP TO BOTTOM OF DRYWELL STRUCTURE. WHERE THE EXCAVATION IS WITHIN SOLID ROCK (NO SIDEWALL SLOUGHING), GEOFABRIC CAN BE WAIVED AT ENGINEER'S DISCRETION
14. CLEAN 2"-3" CRUSHED OR RIVER RUN DRAIN ROCK PER SECTION 00470.18.

DRAWN AJD	
DIV STORM	
REV	DATE



**CITY OF BEND**

**CITY OF BEND**

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

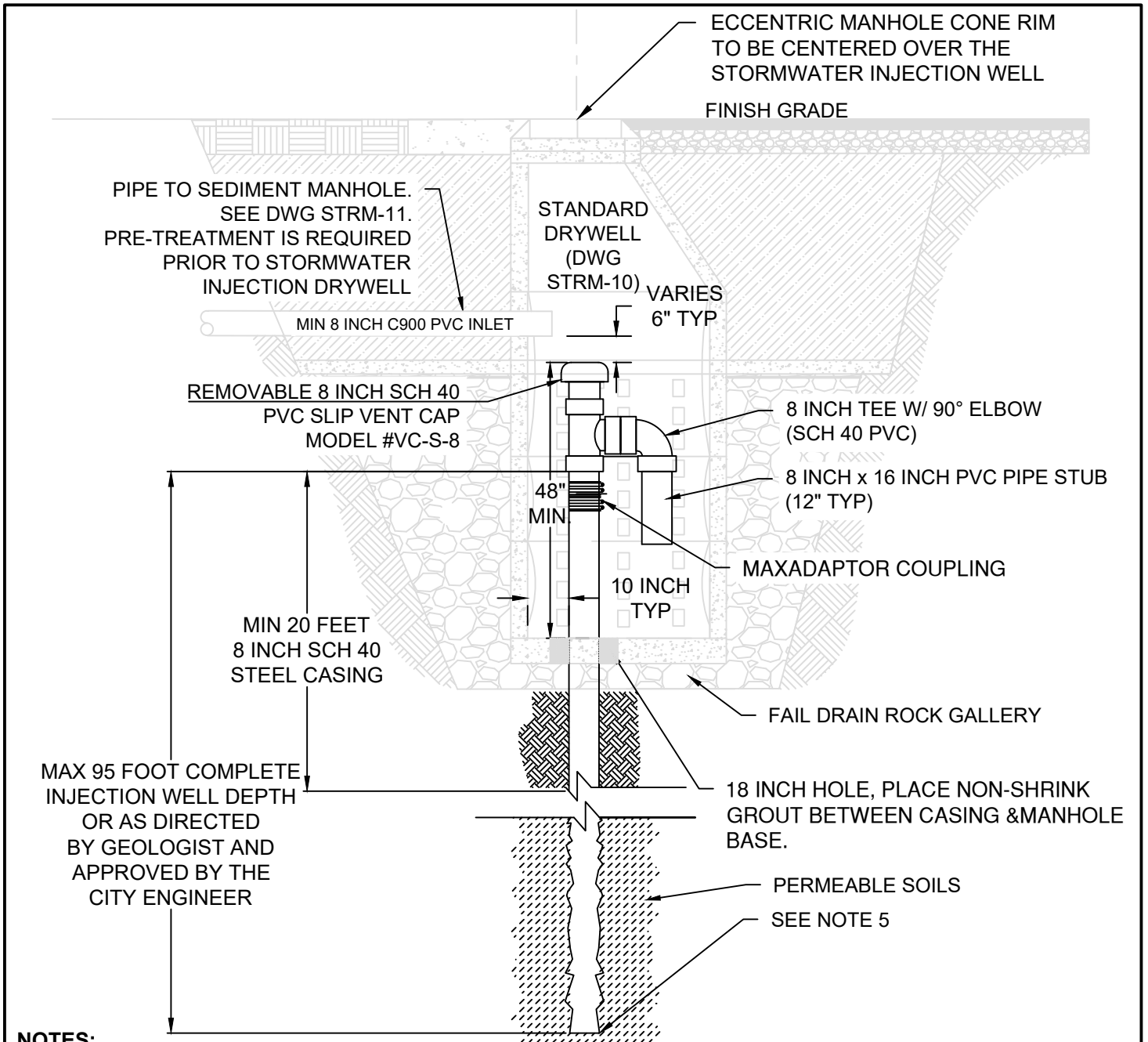
**STANDARD PRE-CAST DRYWELL**

SCALE NTS

DATE 03/22/2023


APPR

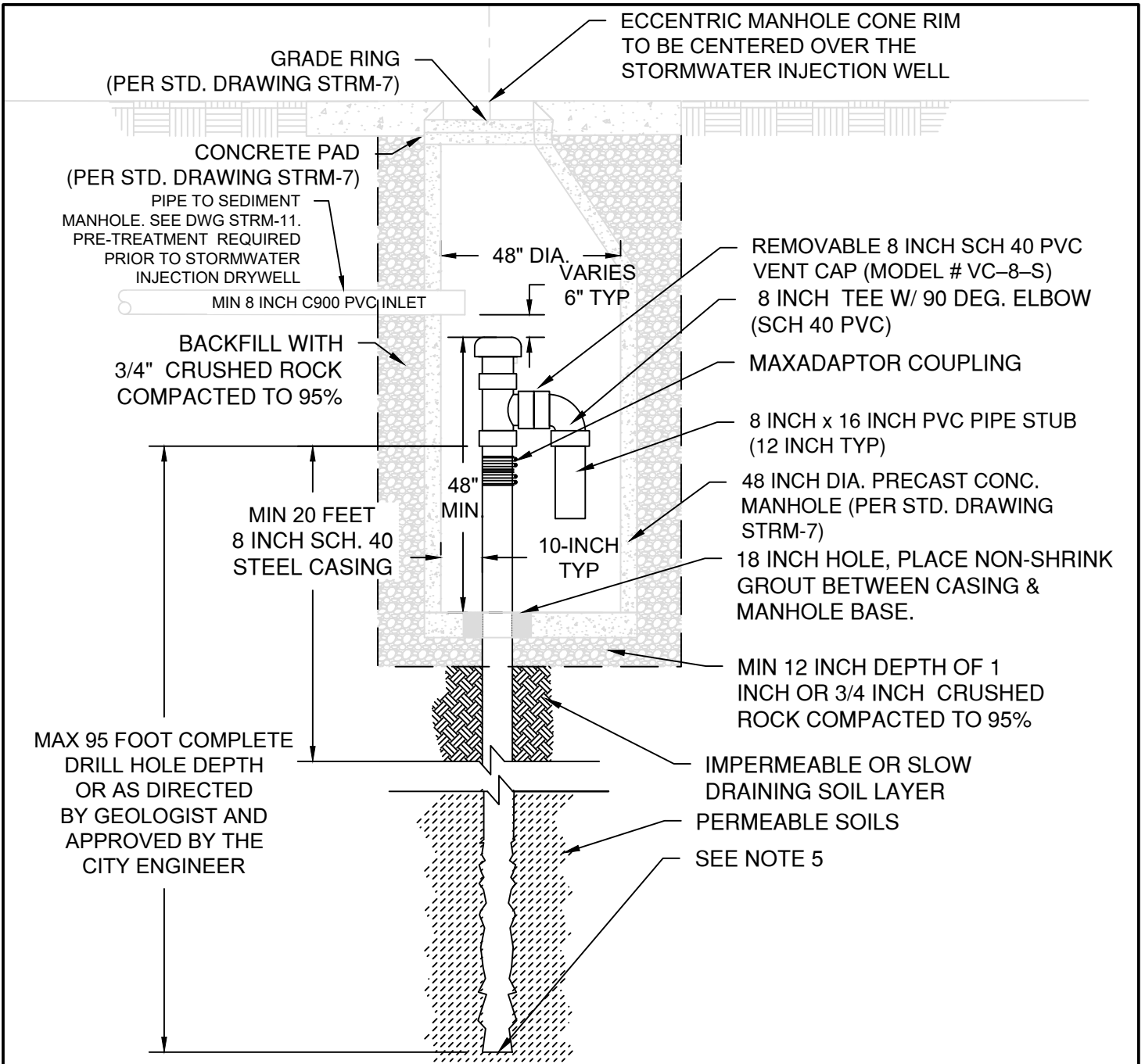
STD DWG STRM-10



**NOTES:**


1. MODIFIED DRYWELLS SHALL ONLY BE INSTALLED IN LOCATIONS WHERE THE GEOTECHNICAL REPORT AND FIELD EXPLORATION DEMONSTRATE THAT EXISTING DRYWELL HAS FAILED DUE TO POOR-DRAINING SOIL CONDITIONS.
2. STORMWATER INJECTION WELLS ARE ONLY ALLOWED ON ALLEYS, LOCAL ROADS, AND COLLECTOR ROADS WITHIN RESIDENTIAL LAND USE ZONES.
3. STORMWATER INJECTION WELLS ARE PROHIBITED IN 1 AND 2 YEAR DRINKING WATER PROTECTION TIME OF TRAVEL AREAS AND WITHIN 100 FEET OF PRIVATE WATER WELLS.
4. STORMWATER INJECTION WELLS ARE PROHIBITED IN THE OLD MILL AND NORTH BEND'S PERCHED GROUNDWATER AREAS.
5. STORMWATER INJECTION WELLS MUST MAINTAIN A MINIMUM VERTICAL SEPARATION OF 53 FEET FROM THE BOTTOM OF THE INJECTION WELL AND REGIONAL GROUNDWATER AQUIFER. REFER TO THE DIGITAL MAPS FOR GROUNDWATER DEPTH.

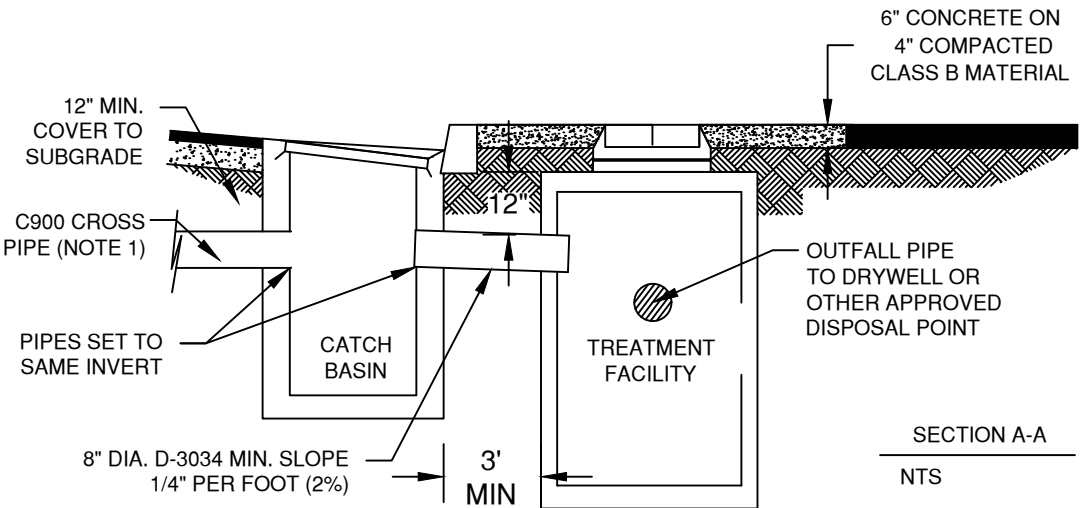
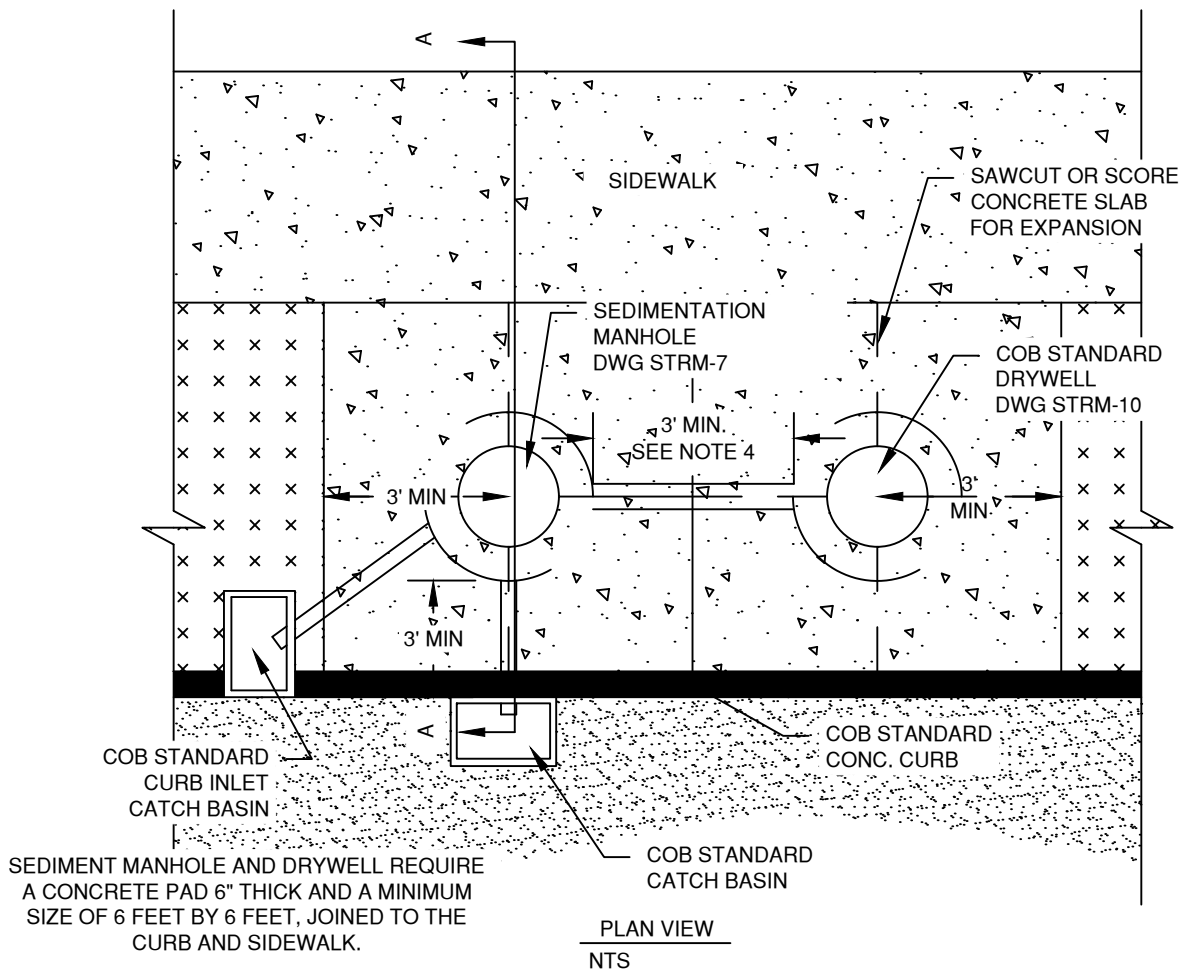
DRAWN CJH	 <b>CITY OF BEND</b>	<b>CITY OF BEND</b> STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE NTS
DIV STORM		<b>MODIFIED DRYWELL W/ STORM INJECTION WELL</b>	DATE 04/16/2026
REV DATE			APPR
			STD DWG STRM-10A



**NOTES:**

1. STORMWATER INJECTION WELLS SHALL ONLY BE INSTALLED IN LOCATIONS WHERE THE GEOTECHNICAL REPORT AND FIELD EXPLORATION DEMONSTRATE THAT STANDARD DRYWELLS ARE NOT FEASIBLE DUE TO POOR-DRAINING SOIL CONDITIONS.
2. STORMWATER INJECTION WELLS ARE ONLY ALLOWED ON LOCAL ALLEYWAYS, OR COLLECTOR ROADS WITHIN RESIDENTIAL LAND USE ZONES.
3. STORMWATER INJECTION WELLS ARE PROHIBITED IN 1 AND 2 YEAR DRINKING WATER PROTECTION TIME OF TRAVEL AREAS AND WITHIN 100 FEET OF PRIVATE WATER WELLS.
4. STORMWATER INJECTION WELLS ARE PROHIBITED IN THE OLD MILL AND NORTH BEND'S PERCHED GROUNDWATER AREAS.
5. STORMWATER INJECTION WELLS MUST MAINTAIN A MINIMUM VERTICAL SEPARATION OF 53 FEET FROM THE BOTTOM OF THE STORMWATER INJECTION WELL AND REGIONAL GROUNDWATER AQUIFER. REFER TO THE DIGITAL MAPS FOR GROUNDWATER DEPTH.

DRAWN CJH DIV STORM REV DATE	 <b>CITY OF BEND</b>	<b>CITY OF BEND</b> STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE NTS DATE 04/16/2026 APPR STD DWG STRM-10B
<b>STORMWATER INJECTION WELL</b>			



**NOTES:**

1. CROSS PIPE ELEV MAY REQUIRE OTHER UTILITIES (SEWER, WATER, ETC) TO BE LOWERED TO PROVIDE MINIMUM SEPARATIONS
2. ALL PIPE PENETRATIONS ARE TO BE GROUTED OR WATER TIGHT SEALED.
3. DRYWELL AND TREATMENT FACILITY NOT TO BE PLACED IN DRIVEWAY OR SIDEWALK UNLESS APPROVED BY THE CITY ENGINEER.
4. WHEN DRY UTILITIES OR WATER/SEWER SERVICES ARE TO BE INSTALLED BETWEEN THE SEDIMENTATION MANHOLE AND DRYWELL, UTILITIES MUST MAINTAIN A MIN 3' HORIZONTAL SEPARATION FROM THE OUTSIDE EDGE OF STRUCTURES. STRUCTURES TO BE SEPARATED BY A MIN 5'. UTILITIES MUST NOT BE INSTALLED ABOVE THE DRYWELL DRAINROCK GALLEY SLAB.

DRAWN AJD	
DIV STORM	
REV	DATE

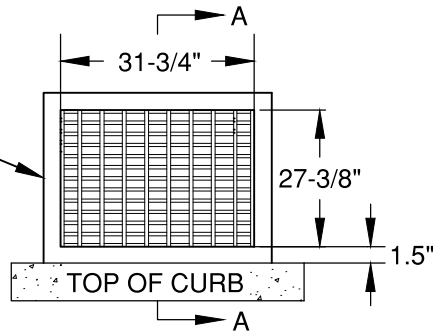


**CITY OF BEND**  
STANDARD DRAWING  
710 NW WALL ST., BEND, OREGON 97701

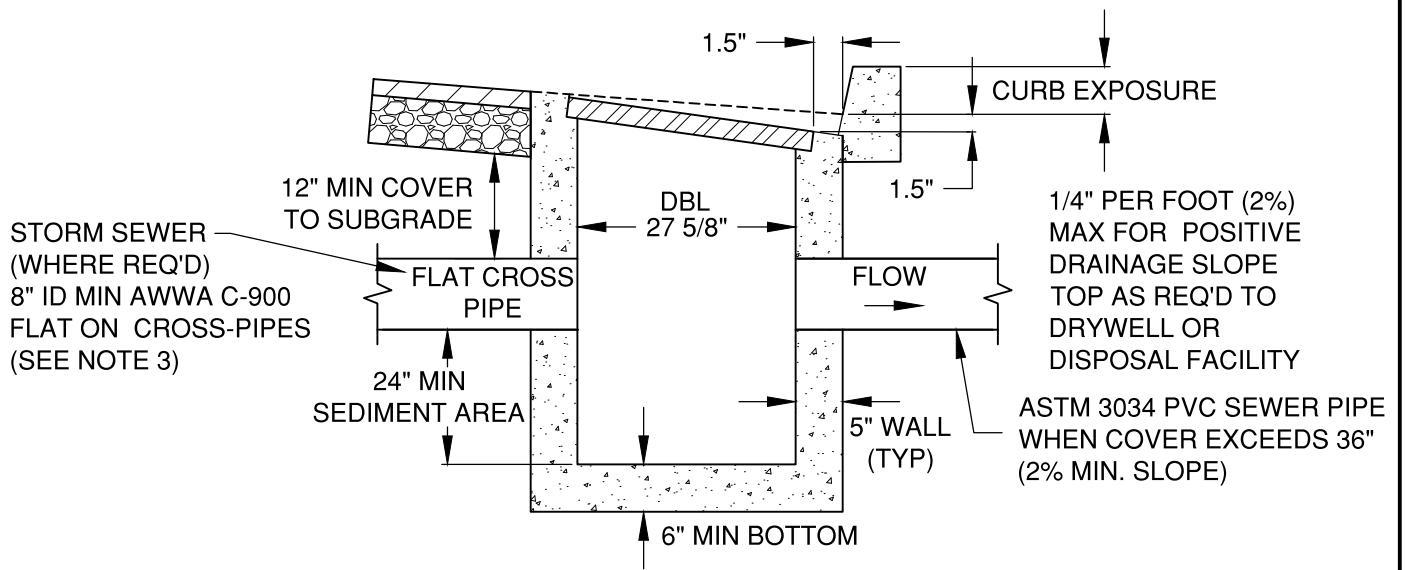
**DRYWALL W/ MANUFACTURED TREATMENT LAYOUT**

SCALE NTS
DATE 04/16/2026
APPR
STD DWG STRM-11

DETAIL SHOWING  
GRATE ORIENTATION  
TO CURB LINE. SEE  
STD DWG STRM-13A  
FOR GRATE DETAIL



**PLAN VIEW**



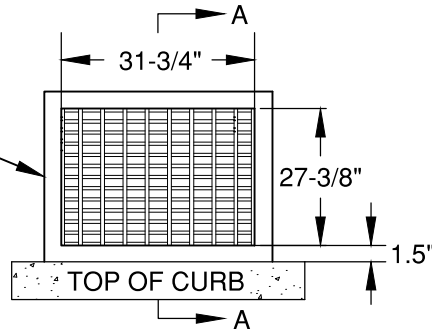
**SECTION A-A**

**NOTES:**

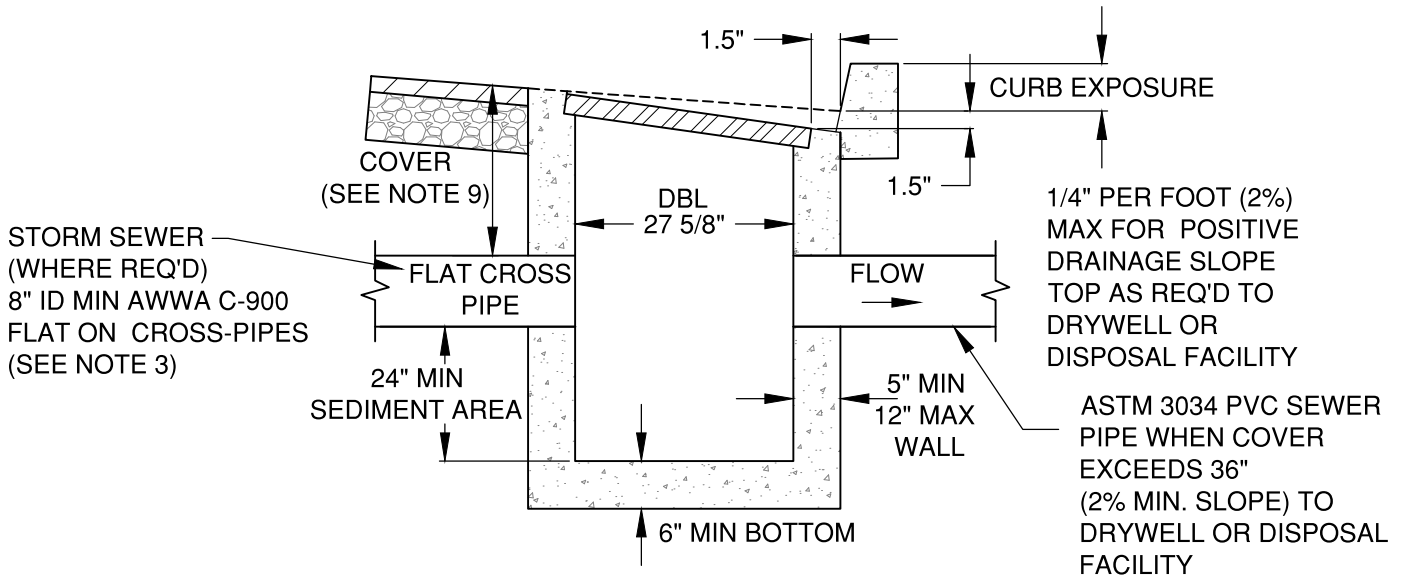
1. UNLESS OTHERWISE SPECIFIED, ALL CATCH BASINS TO BE DOUBLE CATCH BASIN
2. BACKFILL TO BE COMPACTED TO 95% OF OPTIMUM PER SPECIFICATION SECTION 00330.43
3. CROSS PIPE ELEV MAY REQUIRE OTHER UTILITIES (SEWER, WATER, ETC) TO BE LOWERED TO PROVIDE MINIMUM SEPARATIONS
4. ALL PIPE CONNECTIONS TO BE GROUTED PER SPECIFICATION SECTION 00470.40
5. CONTRACTOR IS RESPONSIBLE TO KEEP CATCH BASIN CLEAN AND FREE OF SEDIMENT DURING CONSTRUCTION
6. CONTRACTOR IS RESPONSIBLE TO COVER AND BARRICADE ALL CATCH BASINS UNTIL GRATE IS INSTALLED
7. STANDARD CATCH BASINS ARE LIMITED TO LOCAL STREETS AND SHALL NOT BE USED ON ARTERIAL & COLLECTOR ROADWAYS. CURB INLETS ARE TO BE USED ON ARTERIAL & COLLECTOR ROADWAYS.
8. SEE DRG R-11 FOR PAVEMENT RESURFACING

DRAWN AJD		<b>CITY OF BEND</b> STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE NTS
DIV STORM			DATE 03/22/2023
REV	DATE		APPR
		<b>STANDARD CATCH BASIN</b>	STD DWG STRM-12

DETAIL SHOWING  
GRATE ORIENTATION  
TO CURB LINE. SEE  
STD DWG STRM-13A  
FOR GRATE DETAIL



**PLAN VIEW**



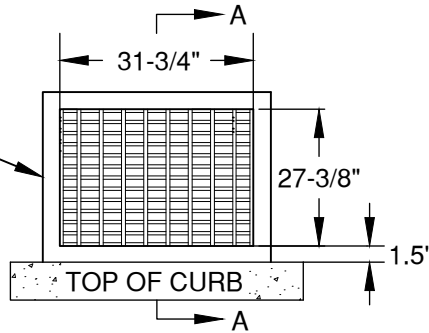
**SECTION A-A**

**NOTES:**

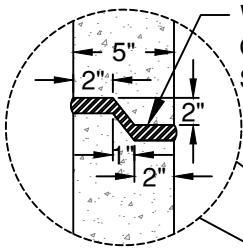
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8. SEE DRG R-11 FOR PAVEMENT RESURFACING
9. ON LOCAL ROADS, PIPE COVER IS TO BE 22-INCH FROM FINISHED GRADE TO TOP OF PIPE. ON COLLECTORS AND ARTERIAL STREET SECTIONS (STD DWG R-1), MAINTAIN MIN COVER OF 24-INCHES FROM GUTTER FINISHED GRADE.

<table border="1"> <tr><td>DRAWN</td><td>AJD</td></tr> <tr><td>DIV</td><td>STORM</td></tr> <tr><td>REV</td><td>DATE</td></tr> <tr><td> </td><td> </td></tr> </table>	DRAWN	AJD	DIV	STORM	REV	DATE			<p><b>CITY OF BEND</b> STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701</p>	<table border="1"> <tr><td>SCALE</td><td>NTS</td></tr> <tr><td>DATE</td><td>11/01/2024</td></tr> <tr><td>APPR</td><td> </td></tr> <tr><td>STD DWG</td><td>STRM-12A</td></tr> </table>	SCALE	NTS	DATE	11/01/2024	APPR		STD DWG	STRM-12A
DRAWN	AJD																	
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APPR																		
STD DWG	STRM-12A																	
<b>STANDARD CATCH BASIN</b>																		

DETAIL SHOWING  
GRATE ORIENTATION  
TO CURB LINE. SEE  
STD DWG STRM-13A  
FOR GRATE DETAIL



**PLAN VIEW**



WET SET RISER INTO  
GROUT PER SPEC  
SECTION 00470.42

**KEYWAY DETAIL**

8" MIN RISER  
HEIGHT

WITH  
RISER

WITHOUT  
RISER

COVER  
(SEE NOTE 9)

DBL  
27 5/8"

CURB EXPOSURE

STORM SEWER  
(WHERE REQ'D)  
8" ID MIN AWWA C-900  
FLAT ON CROSS-PIPES  
(SEE NOTE 3)

FLAT CROSS  
PIPE

FLOW

24" MIN  
SEDIMENT AREA

5" MIN  
SOLID WALL  
NO KNOCKOUTS

ASTM 3034 PVC SEWER  
PIPE WHEN COVER  
EXCEEDS 36"  
(2% MIN. SLOPE) TO  
DRYWELL OR DISPOSAL  
FACILITY.

6" MIN BOTTOM

**SECTION A-A**

NOTES:

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7. SEE DWG R-11 FOR PAVEMENT RESURFACING.
8. PRE-CAST BASINS SHALL NOT CONTAIN KNOCKOUTS. SAW-CUT OR CORE DRILL ALL PIPE PENETRATIONS AND GROUT PER SPECIFICATION SECTION 00470.40. GROUT SHOULD BE LEVELLED TO ALIGN FLUSH WITH THE INTERIOR WALL WITH NO EXTENSION OF GROUT ONTO THE INTERNAL SURFACE AREA OF THE CATCH BASIN.
9. ON LOCAL ROADS, PIPE COVER IS TO BE 22-INCH FROM FINISHED GRADE TO TOP OF PIPE. ON COLLECTORS AND ARTERIAL STREET SECTIONS (STD DWG R-1), MAINTAIN MIN COVER OF 24-INCHES FROM GUTTER FINISHED GRADE.

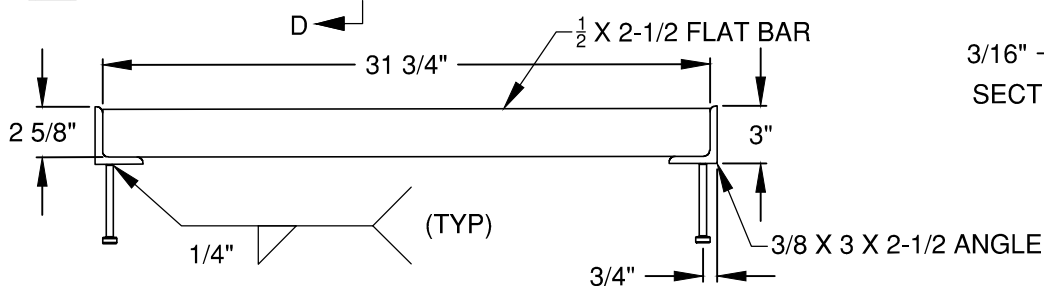
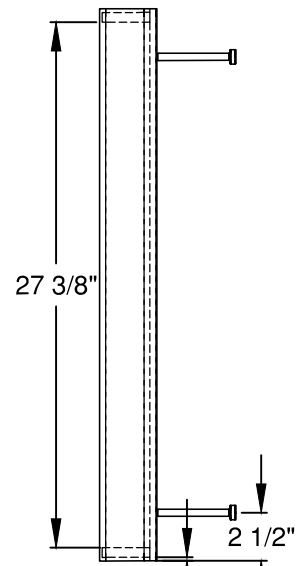
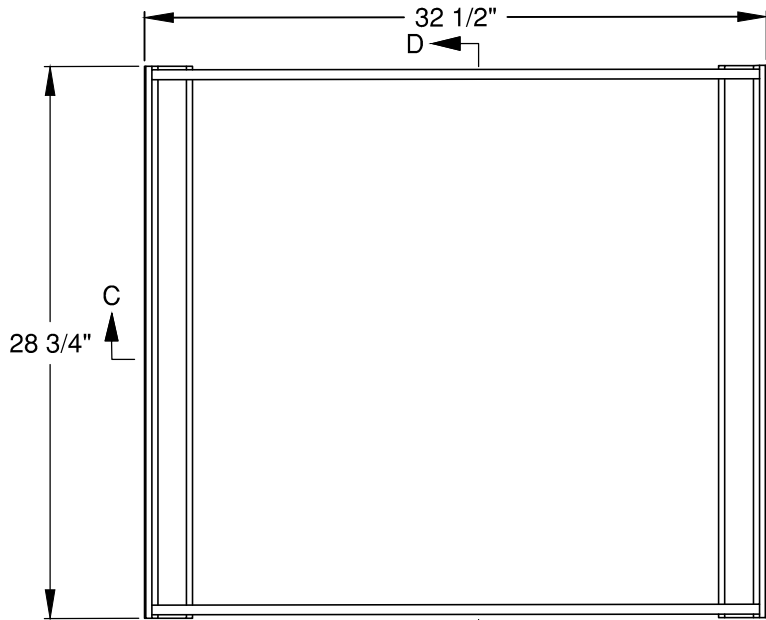
DRAWN CJH	
DIV STORM	
REV	DATE



**CITY OF BEND**  
STANDARD DRAWING  
710 NW WALL ST., BEND, OREGON 97701

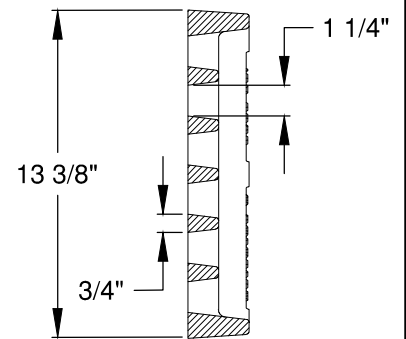
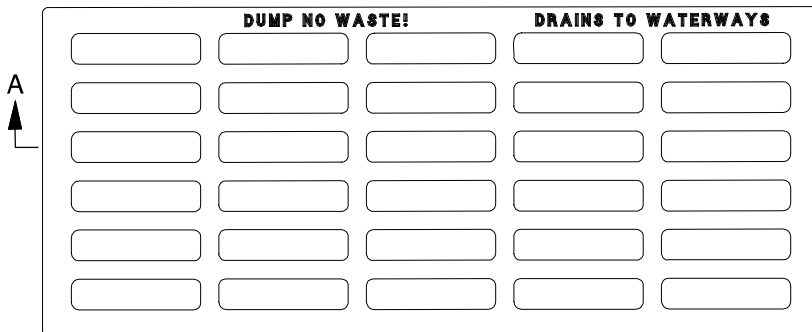
**STANDARD CATCH BASIN (PRE-CAST)**

SCALE NTS
DATE 04/16/2026
APPR
STD DWG STRM-12B

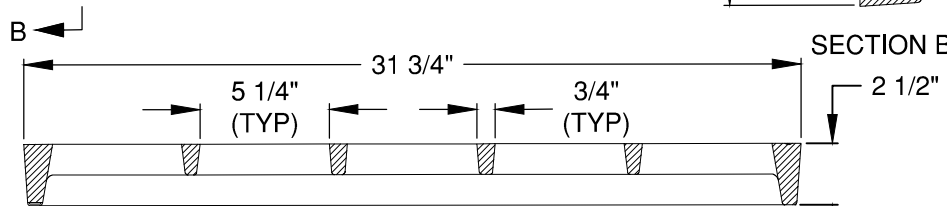


SECTION C-C

**STEEL FRAME**



SECTION B-B



SECTION A-A

**DUCTILE IRON GRATE**

DRAWN AJD  
DIV STORM  
REV DATE



CITY OF BEND

CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

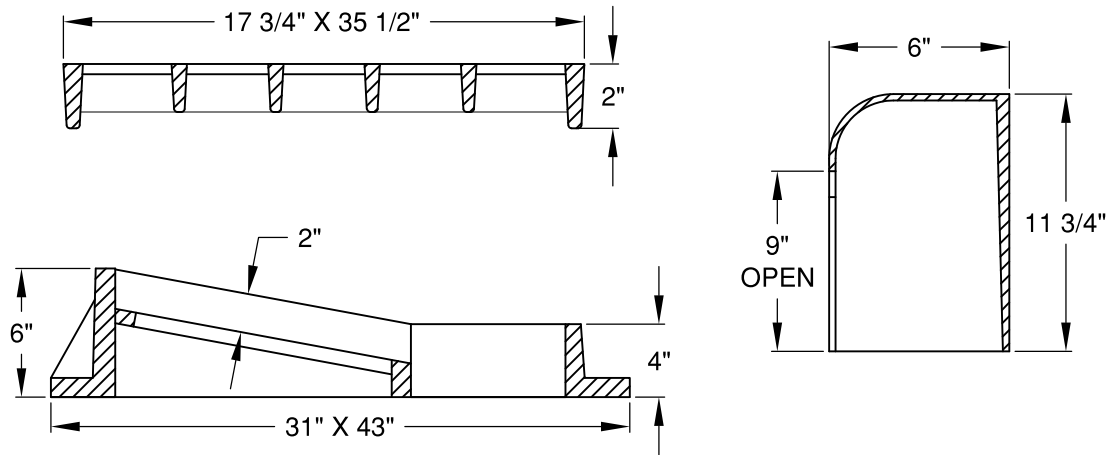
STORMWATER GRATE

SCALE NTS

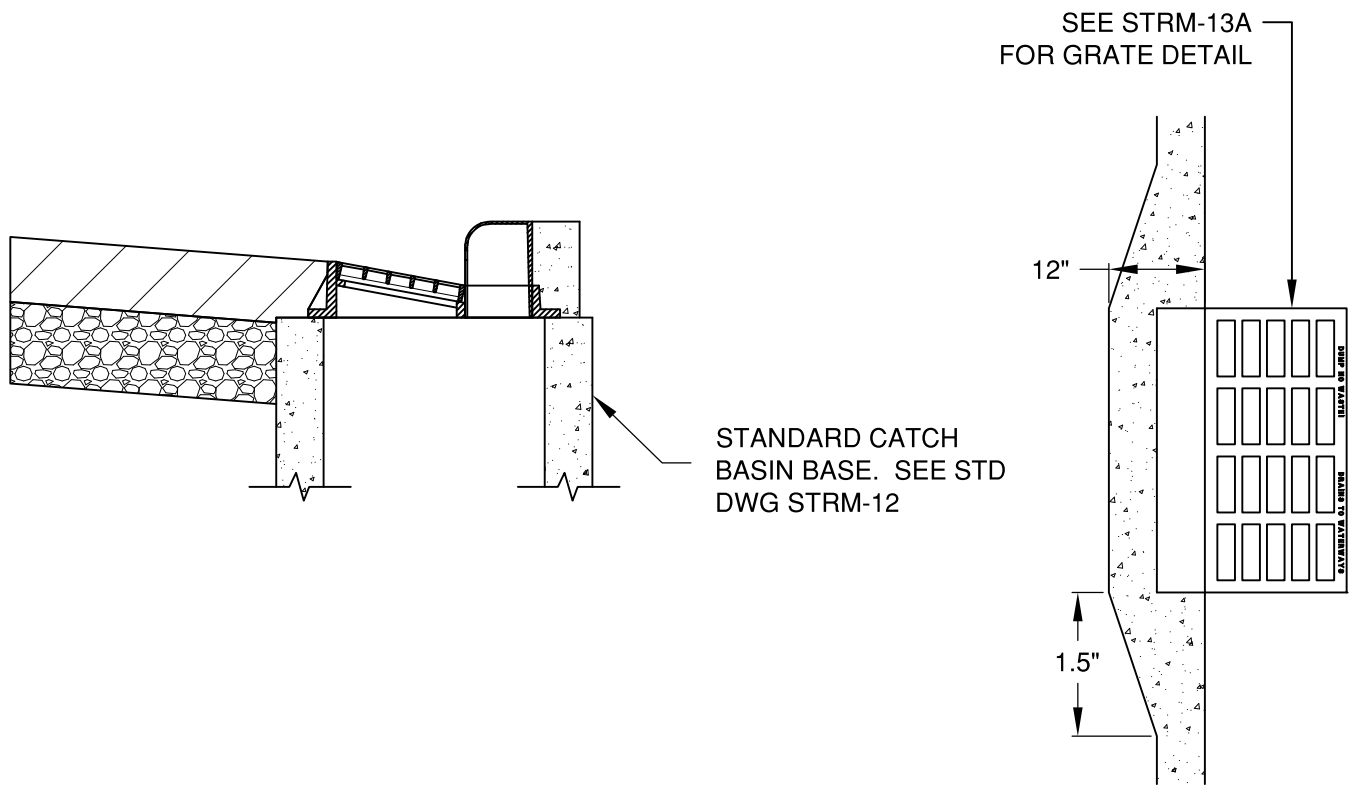
DATE 01/31/2022

APPR

STD DWG STRM-13A



**CAST IRON COMBINATION CATCH BASIN INLET**



**NOTES:**

1. SEE NOTES ON STD DWG STRM-12
2. COMBINATION CATCH BASIN INLET TO BE USED ON COLLECTOR AND LOCAL STREETS WHEN THE ROAD GRADE EXCEED 6%

DRAWN AJD	
DIV STORM	
REV	DATE



CITY OF BEND

**CITY OF BEND**

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

**COMBINATION CATCH BASIN INLET**

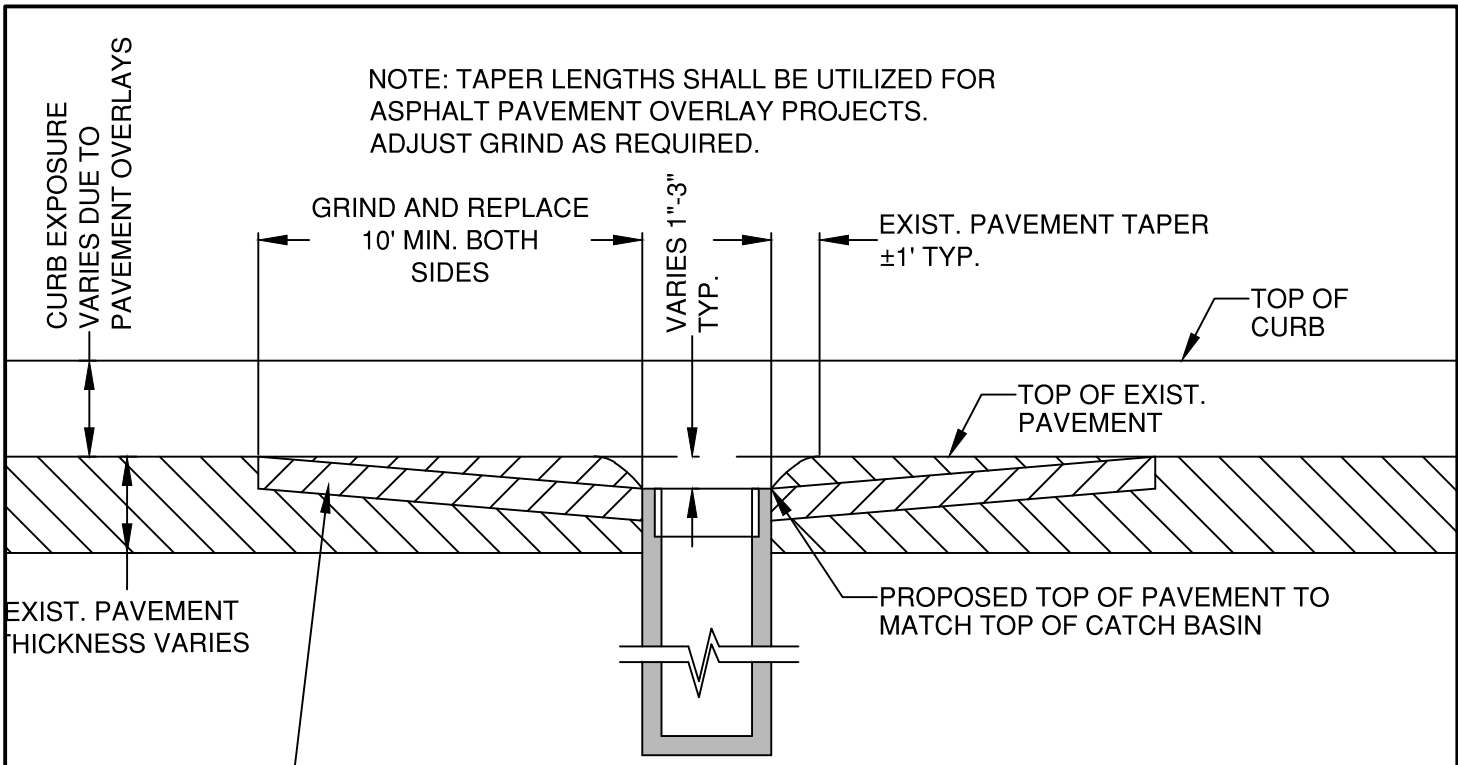
SCALE NTS

DATE 11/01/2024

APPR

STD DWG STRM-13B

NOTE: TAPER LENGTHS SHALL BE UTILIZED FOR ASPHALT PAVEMENT OVERLAY PROJECTS. ADJUST GRIND AS REQUIRED.

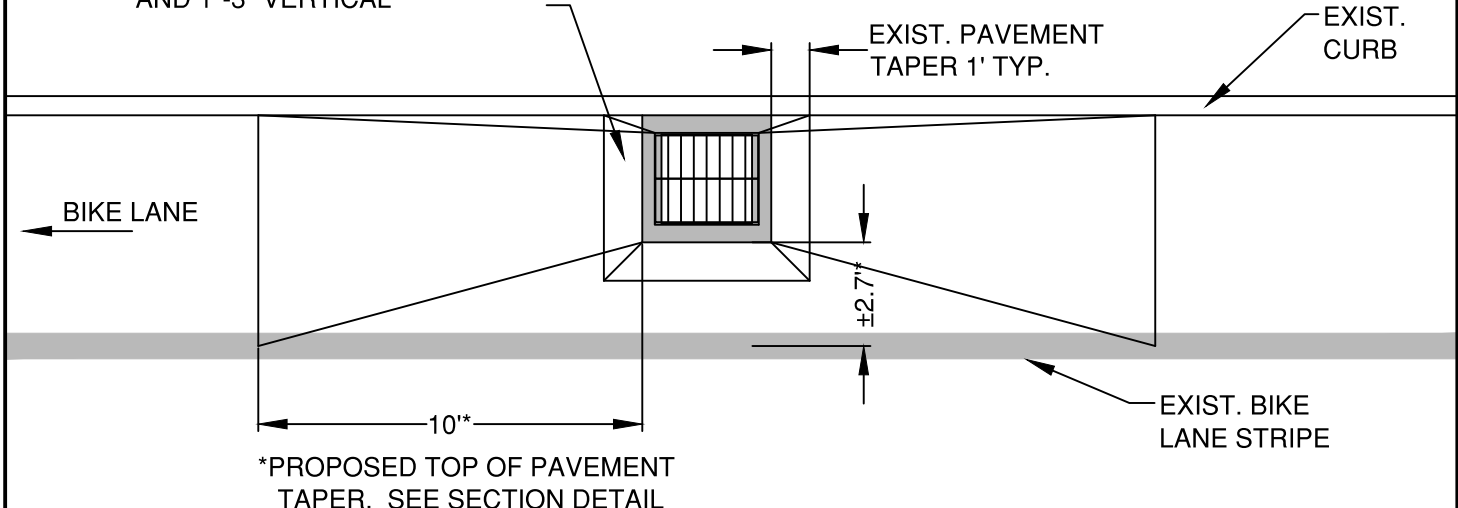


**SECTION VIEW**

SCALE:  
HORIZONTAL: 1"=5'  
VERTICAL: 1"=1'

GRIND AND REPLACE EXIST. AC PAVEMENT. (2" DEPTH) APPLY BITUMINOUS TACK COAT ON ALL SURFACES

EXIST. TOP OF PAVEMENT TAPER ±1' HORIZONTAL AROUND CATCH BASIN AND 1"-3" VERTICAL



**PLAN VIEW**

SCALE:  
HORIZONTAL: 1"=5'

DRAWN LJC	
DIV STORM	
REV	DATE



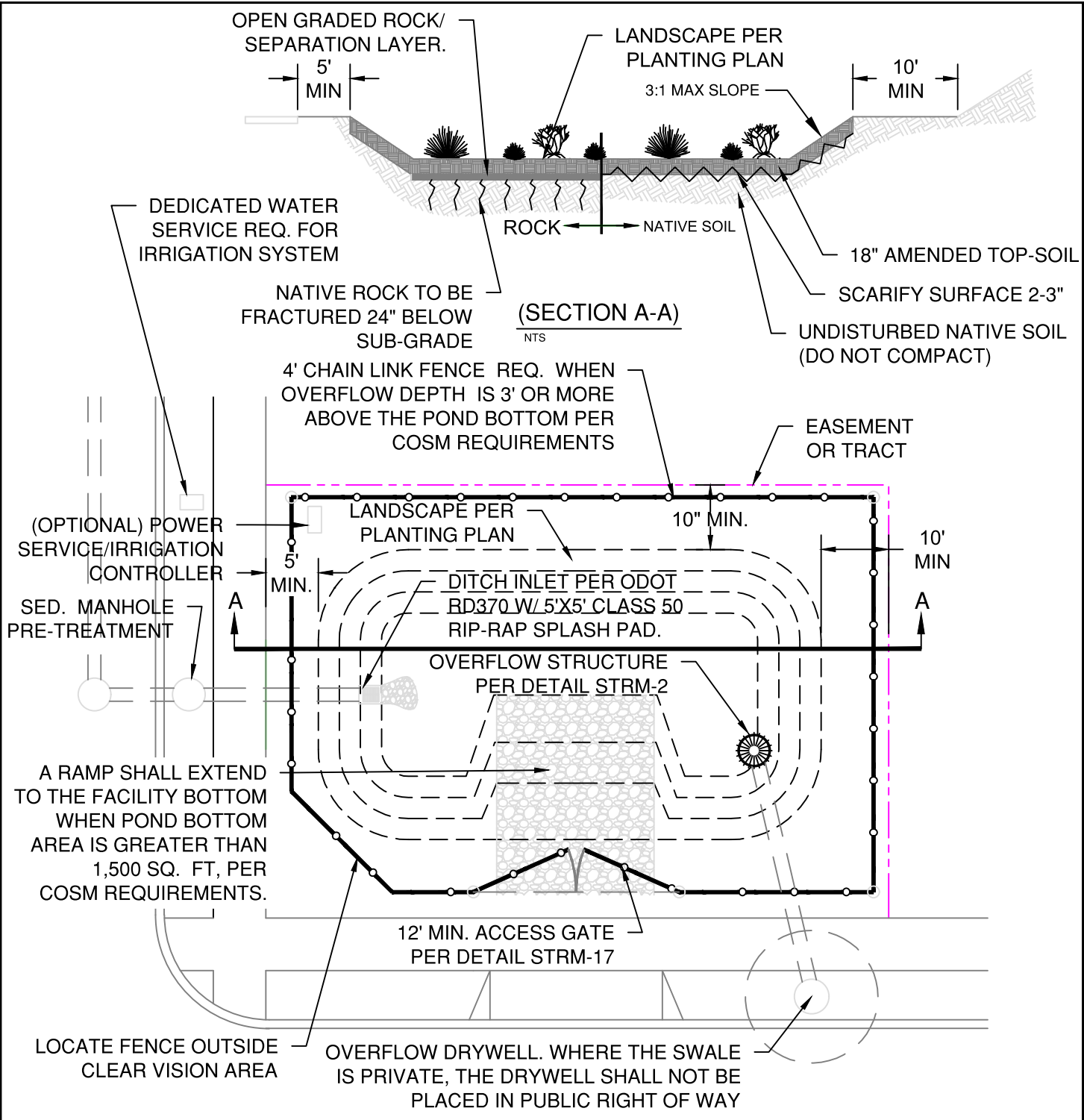
CITY OF BEND

**CITY OF BEND**  
STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

**EXISTING CATCH BASIN PAVEMENT RESURFACING**

SCALE NTS
DATE 3/31/19
APPR
STD DWG STRM-14



**EXTENDED DETENTION DRY POND (PLAN VIEW)**  
NTS

**NOTE:**  
 THE WATER QUALITY TREATMENT STORM SHOULD DRAIN WITHIN 48 HOURS. IF ADDITIONAL STORAGE IS INCLUDED IN THE POND FOR LARGER STORM EVENTS, THE TOTAL FACILITY SHOULD DRAIN WITHIN 72 HOURS FOLLOWING THE PEAK DESIGN STORM EVENT.

DRAWN CJH	
DIV STORM	
REV	DATE

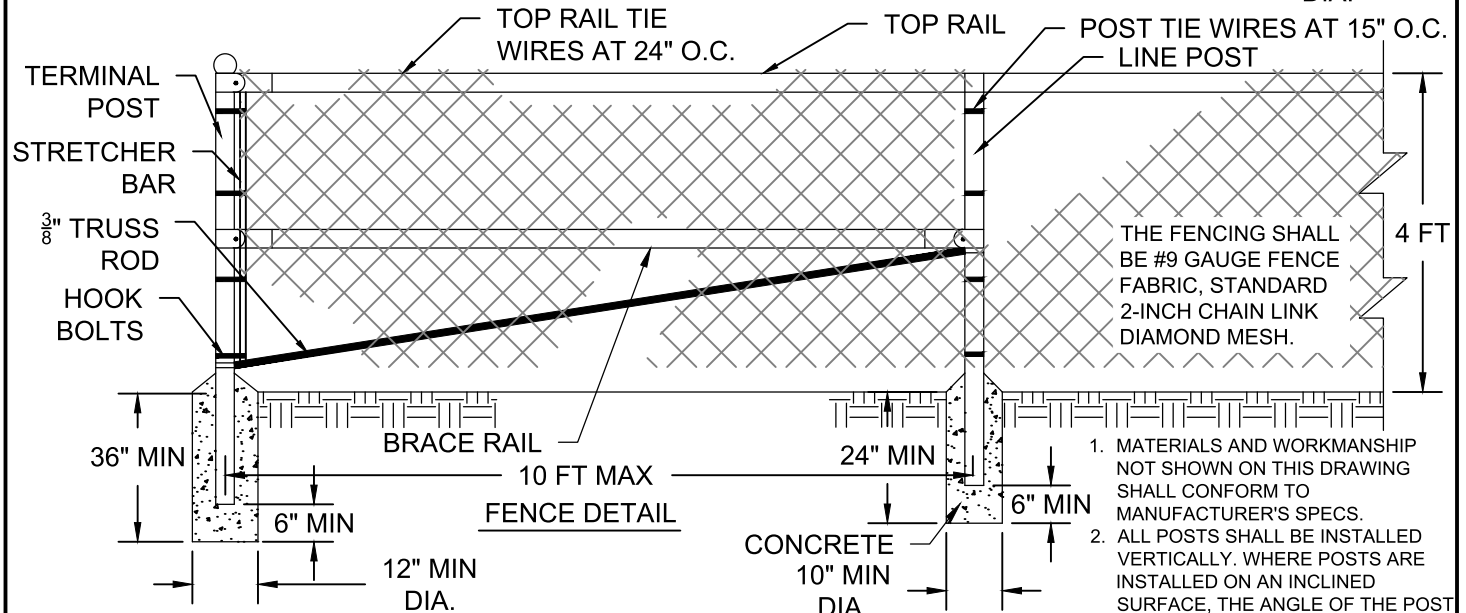
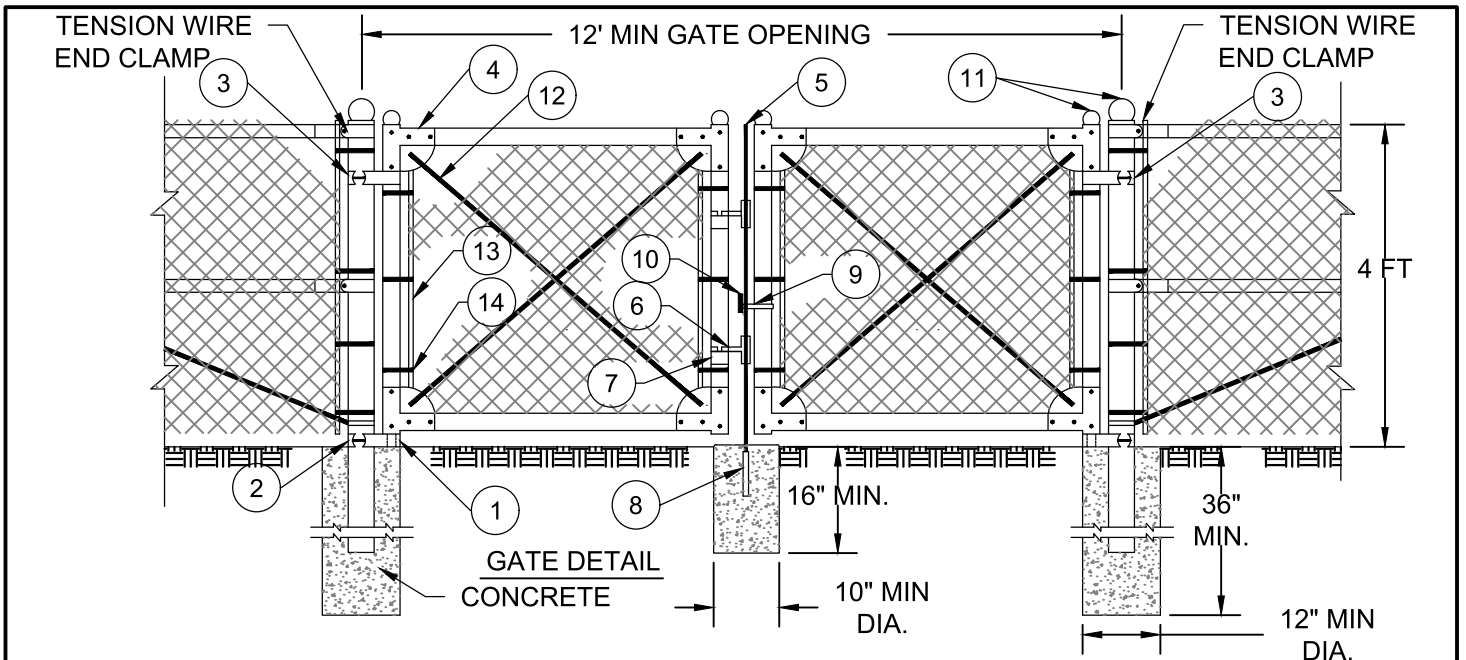


**CITY OF BEND**  
 STANDARD DRAWING  
 710 NW WALL ST., BEND, OREGON 97701

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**INFILTRATION POND DETAIL**

SCALE NTS
DATE 1/2021
APPR
STD DWG STRM-16



1. MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO MANUFACTURER'S SPECS.
2. ALL POSTS SHALL BE INSTALLED VERTICALLY. WHERE POSTS ARE INSTALLED ON AN INCLINED SURFACE, THE ANGLE OF THE POST SHALL BE ADJUSTED SO THAT THE POST WILL BE VERTICAL.

PART NO.	DESCRIPTION
1	STRAIGHT PLUG
2	BOTTOM HINGE
3	TOP HINGE
4	CORNER ELBOW
5	PLUNGER ROD
6	LATCH FORK
7	FORK CATCH
8	PLUNGER ROD CATCH
9	LOCK KEEPER GUIDE
10	LOCK KEEPER W/ CITY LOCK
11	ORNAMENTAL TOPS
12	TRUSS RODS
13	STRETCHER BAR
14	HOOK BOLTS

GATE FRAME MEMBERS SIZE & WEIGHT		
GATE LEAF WIDTH OF 6 FT OR LESS	OUTSIDE DIMENSIONS INCHES	WEIGHT LBS/FT
ROUND	1.66	2.27
*ROUND	1.66	1.84

\* GRADE B HIGH STRENGTH STEEL

GATE POST SIZE AND WEIGHT		
GATE LEAF WIDTH OF 6 FT OR LESS	OUTSIDE DIMENSIONS INCHES	WEIGHT LBS/FT
ROUND	2.875	5.79
*ROUND	2.875	4.64

\* GRADE B HIGH STRENGTH STEEL

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FENCE POSTS AND RAILS			
ITEM	SHAPE	OUTSIDE DIMENSIONS INCHES	WEIGHT LBS/FT.
TERMINAL POST	ROUND	2.375	3.65
LINE POSTS	*ROUND	2.375	3.12
TOP & BRACE RAILS	ROUND	1.90	2.72
	*ROUND	1.90	2.28
	ROUND	1.66	2.27
	*ROUND	1.66	1.84

\* GRADE B HIGH STRENGTH STEEL  
 \*\* INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

DRAWN A.JD  
 DIV STORM  
 REV DATE



**CITY OF BEND**  
 STANDARD DRAWING  
 710 NW WALL ST., BEND, OREGON 97701

**CHAINLINK FENCE DETAIL**

SCALE NTS  
 DATE 01/31/2022  
 APPR  
 STD DWG STRM-17