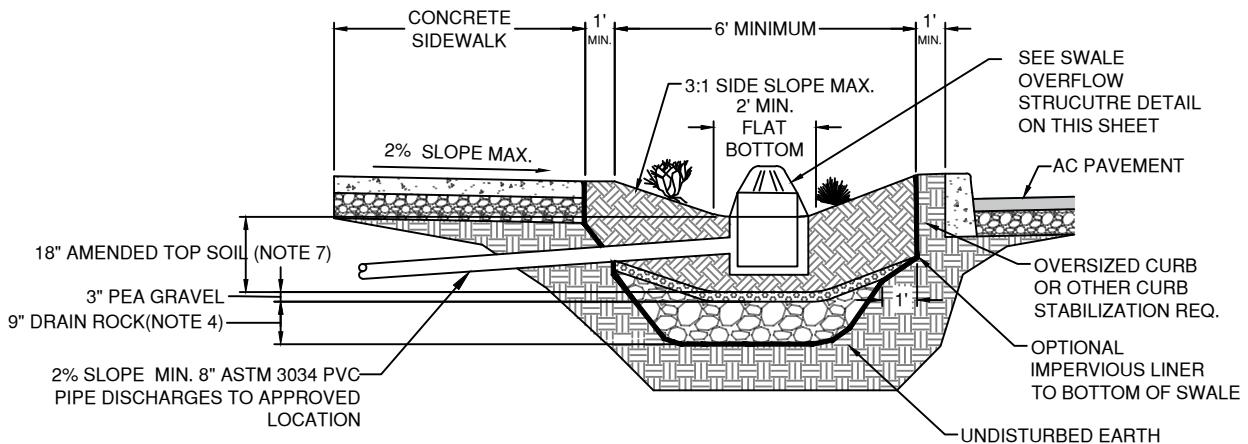
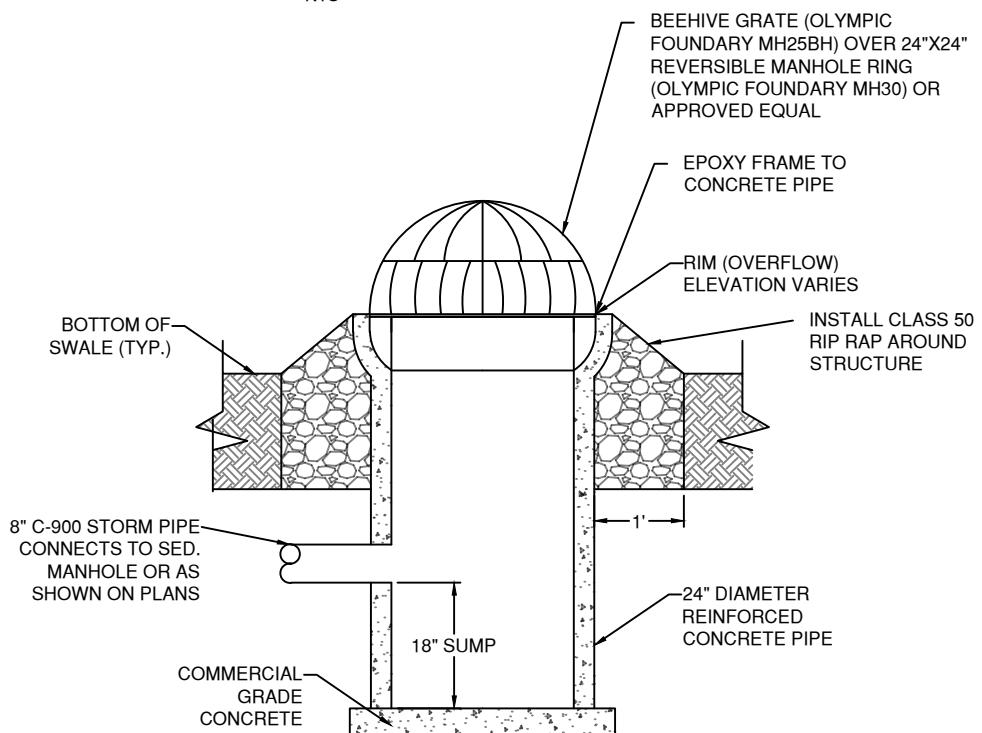

CITY OF BEND STANDARD DRAWINGS
Stormwater (STRM)



VEGETATED SWALE WITH OPTIONAL ROCK STORAGE RESERVOIR

NTS



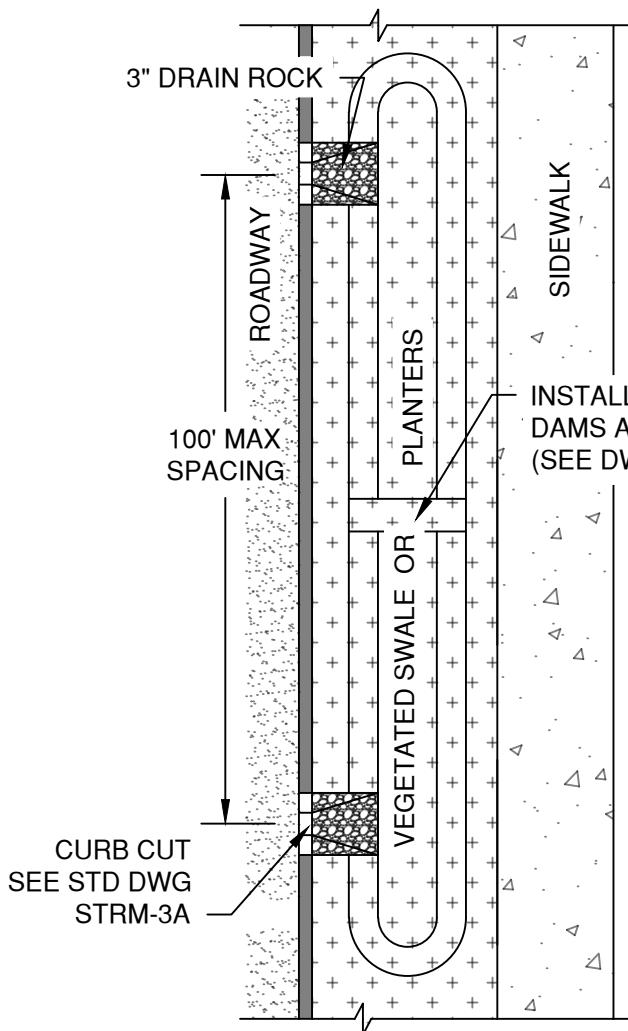
SWALE OVERFLOW STRUCTURE

NTS

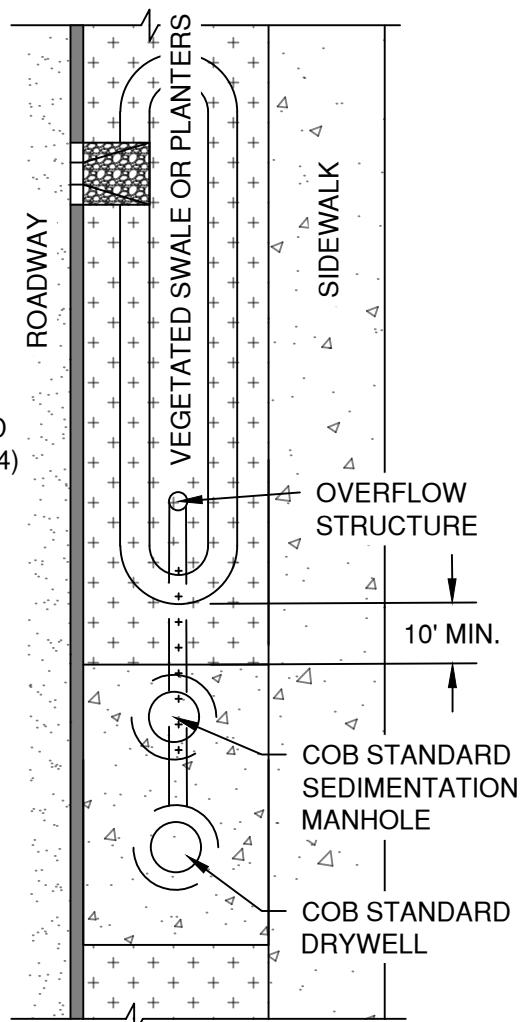
NOTES:

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	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE	NTS
DIV	STORM			DATE	01/31/2022
REV	DATE	VEGETATED SWALE DETAIL		APPR	
				STD DWG	STRM-2



VEGETATED SWALE/ PLANTER
NTS

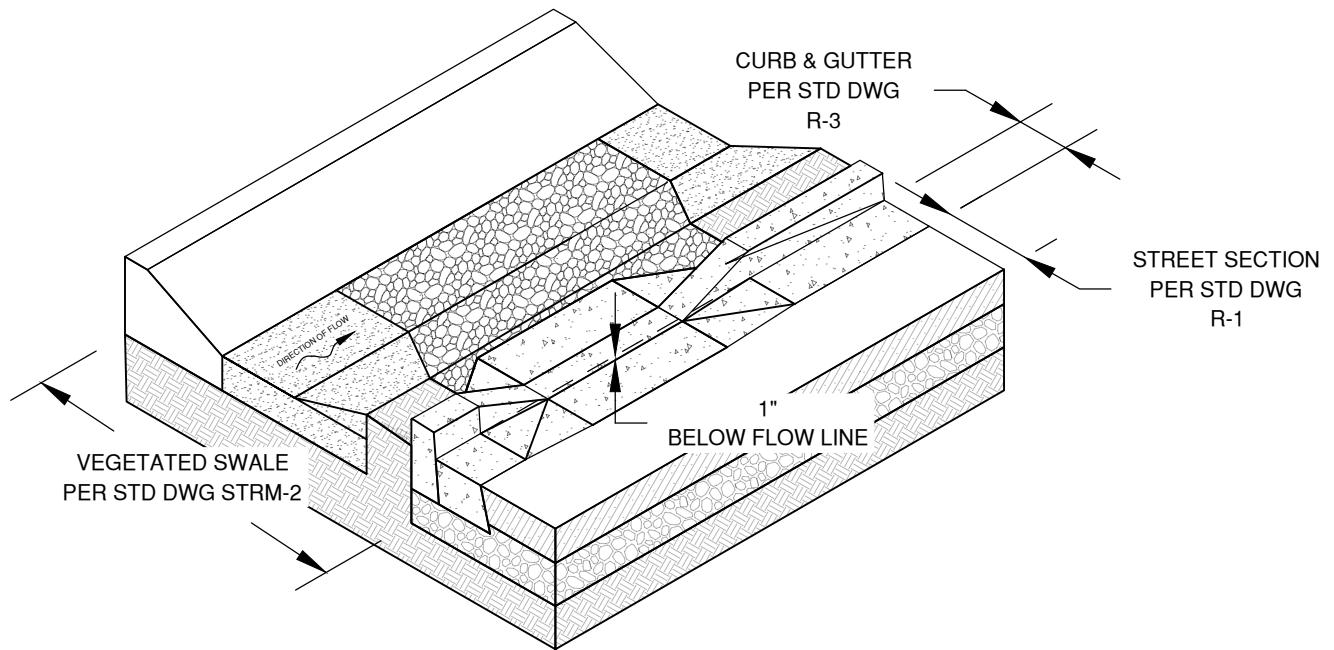
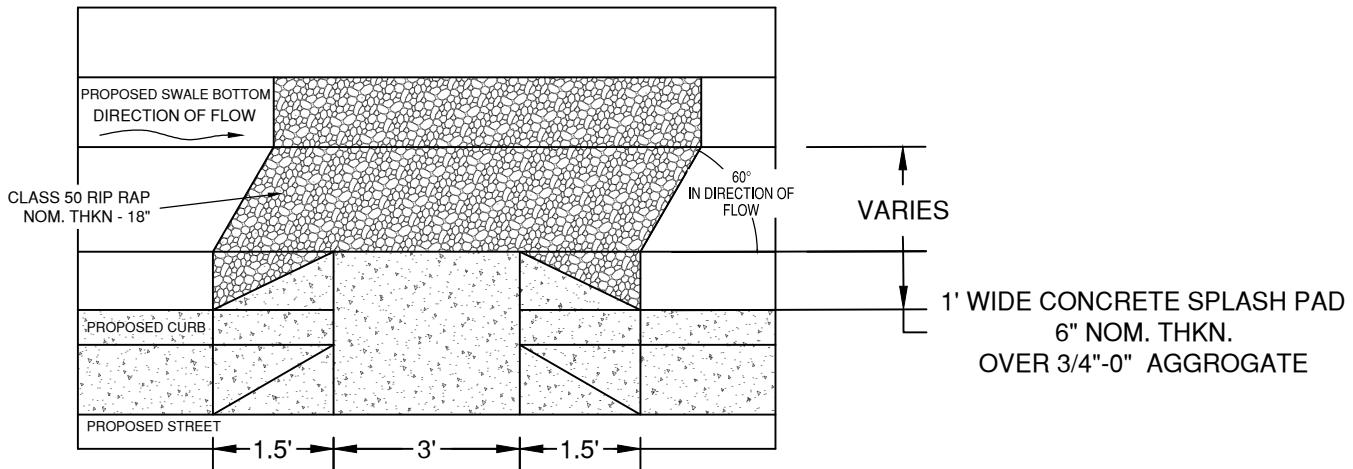


VEGETATED SWALE/ PLANTERS
W/ DRYWELL OVERFLOW
NTS

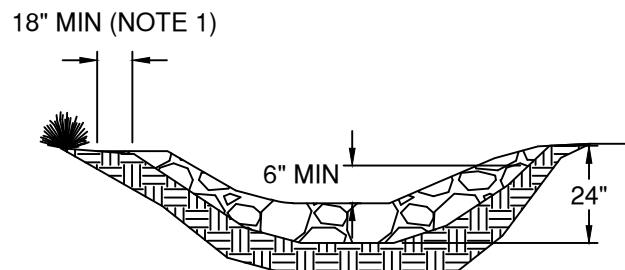
NOTES:

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

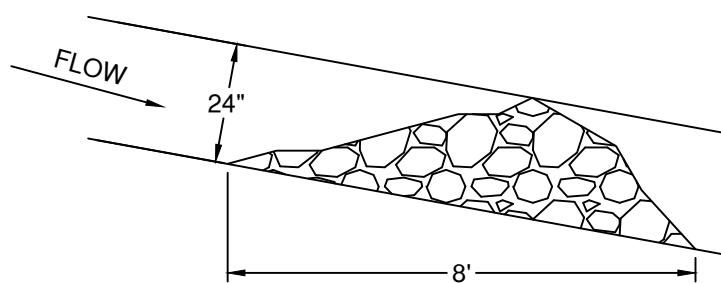
DRAWN AJD	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 TYPICAL SWALE LAYOUT	SCALE NTS
DIV STORM			DATE 01/31/2022
REV DATE			APPR
			STD DWG STRM-3



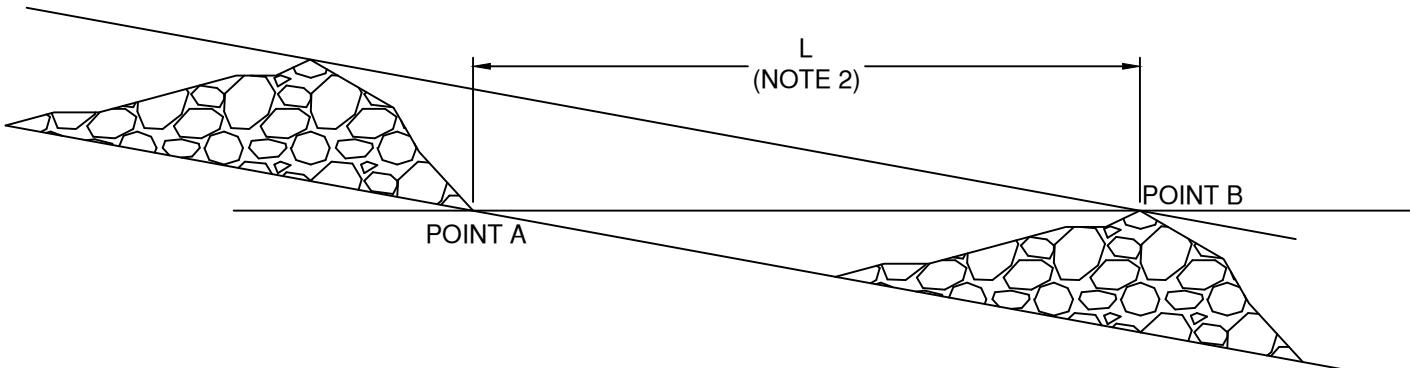
DRAWN AJD	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 TYPICAL CURB CUT	SCALE NTS
DIV STORM			DATE 01/31/2022
REV DATE			APPR
			STD DWG STRM-3A



CHANNEL CROSS SECTION



CHECK DAM PROFILE

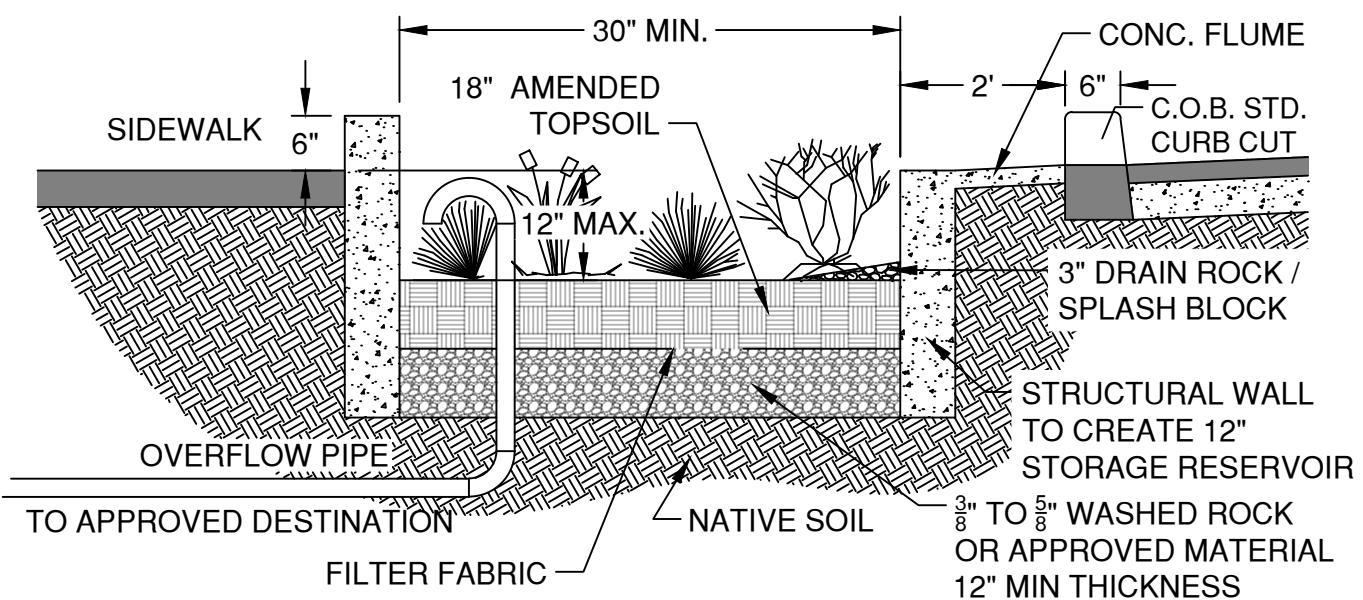


SPACING BETWEEN CHECK DAMS

NOTES:

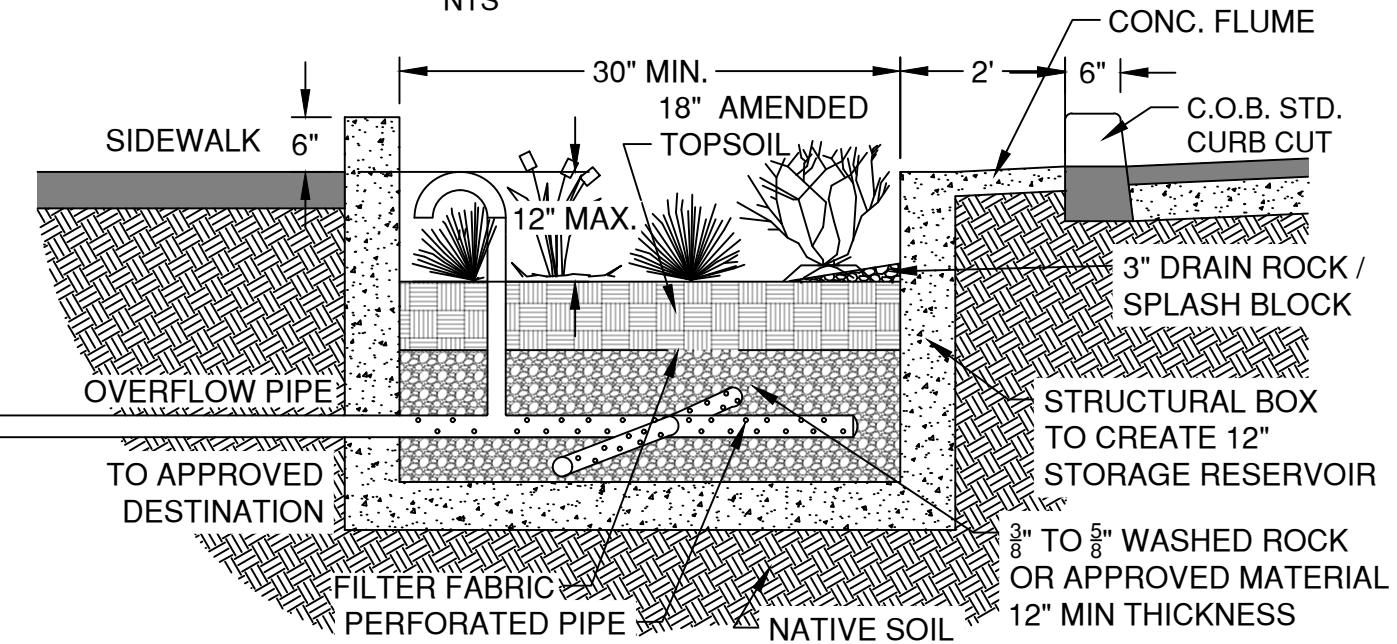
1. KEY STONE INTO THE CHANNEL BANKS AND EXTEND DAM A MINIMUM OF 18" TO PREVENT FLOW AROUND DAM.
2. L IS EQUAL TO THE DISTANCE SUCH THAT 'POINT A' AND 'POINT B' ARE OF EQUAL ELEVATION.
3. CHECK DAMS SHALL BE INSTALLED PER CENTRAL OREGON STORMWATER MANUAL (COSM) REQUIREMENTS.

DRAWN	LJC		CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE	NTS
DIV	STORM			DATE	12/1/17
REV	DATE			APPR	
				STD DWG	STRM-4
CITY OF BEND		CHECK DAM DETAIL			



INFILTRATION PLANTER TYPICAL SECTION

NTS



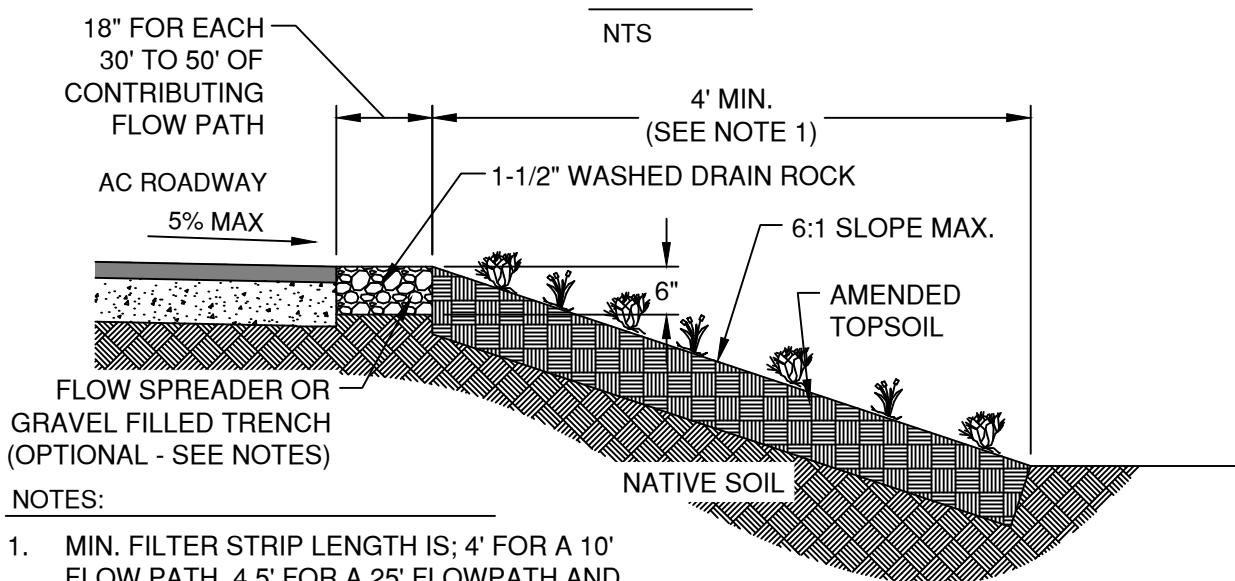
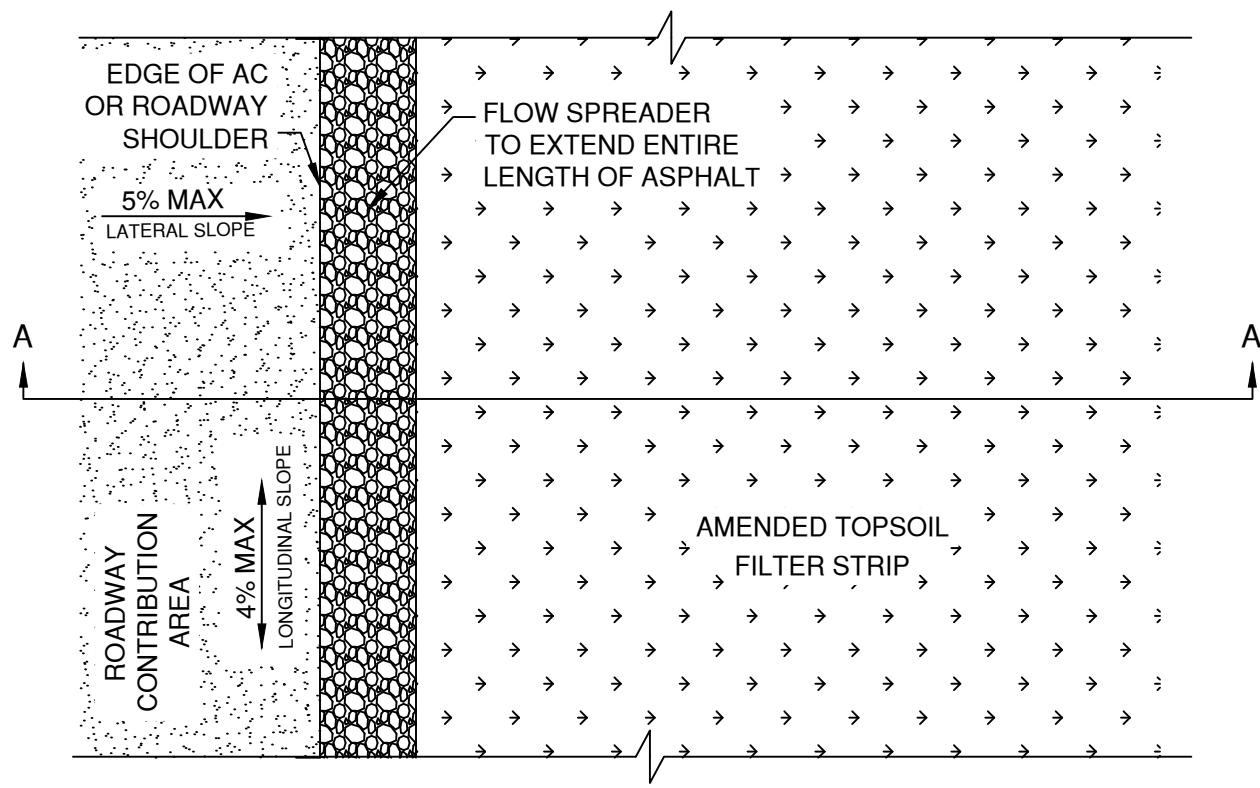
FLOW-THROUGH PLANTER TYPICAL SECTION

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	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 STORMWATER PLANTER DETAIL	SCALE	NTS
DIV	STORM			DATE	01/31/2022
REV				APPR	
				STD DWG	STRM-5



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.

SECTION A-A

NTS

DRAWN	AJD
DIV	STORM
REV	DATE

CITY OF BEND

CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

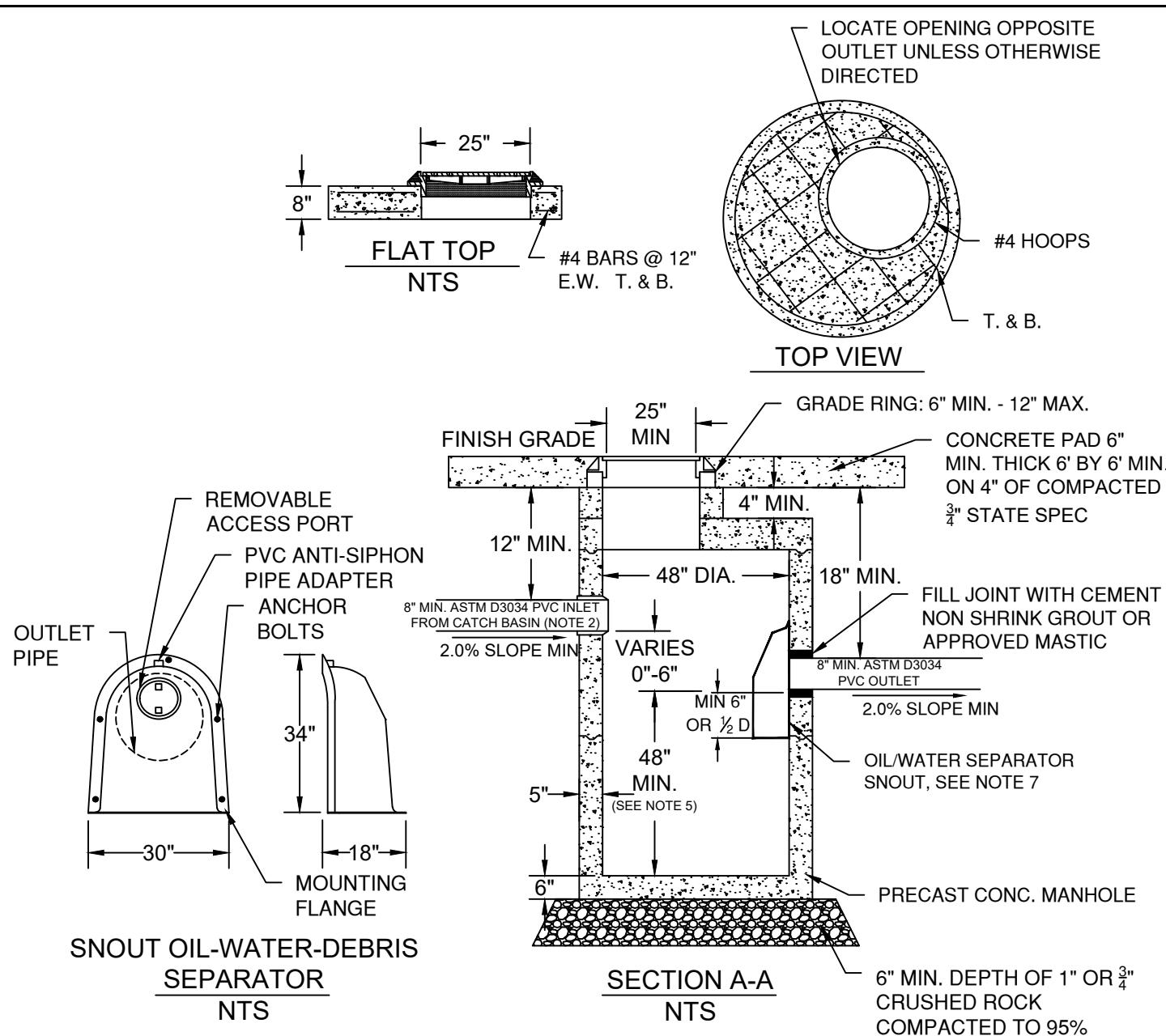
STORMWATER FILTER DETAIL

SCALE NTS

DATE 01/31/2022

APPR

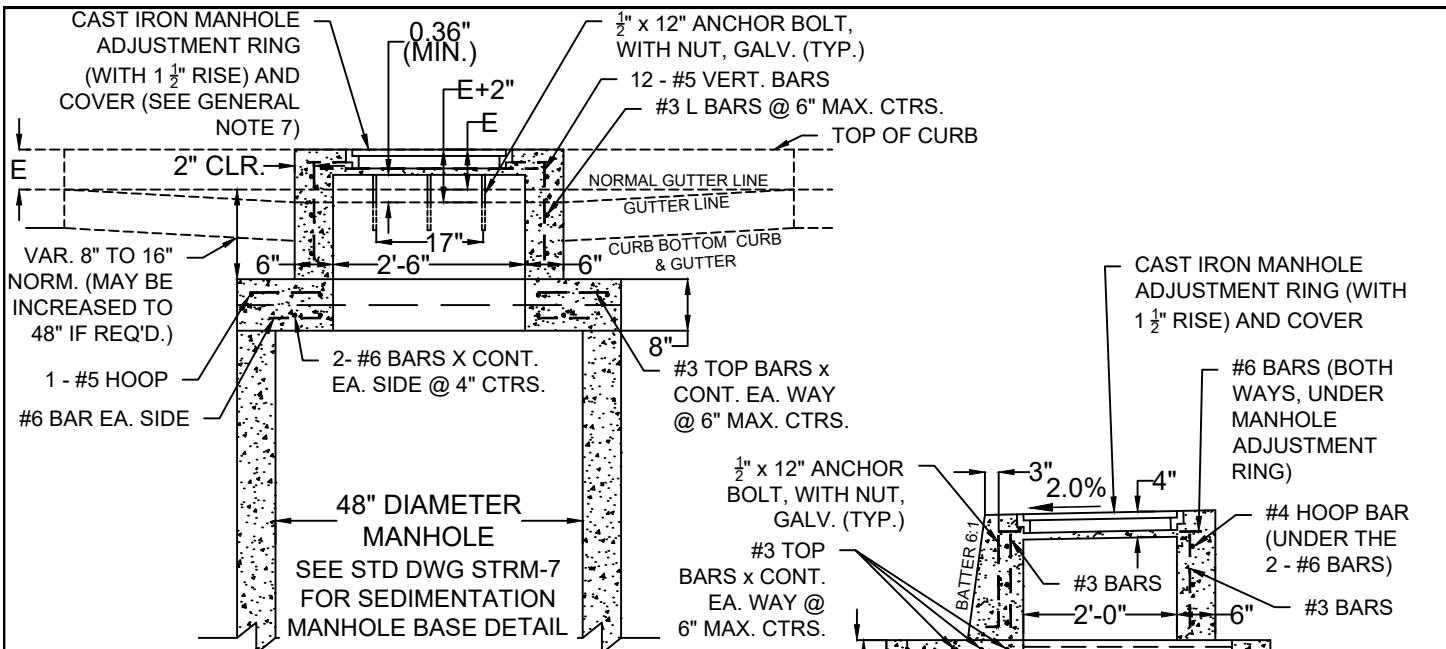
STD DWG STRM-6



NOTES:

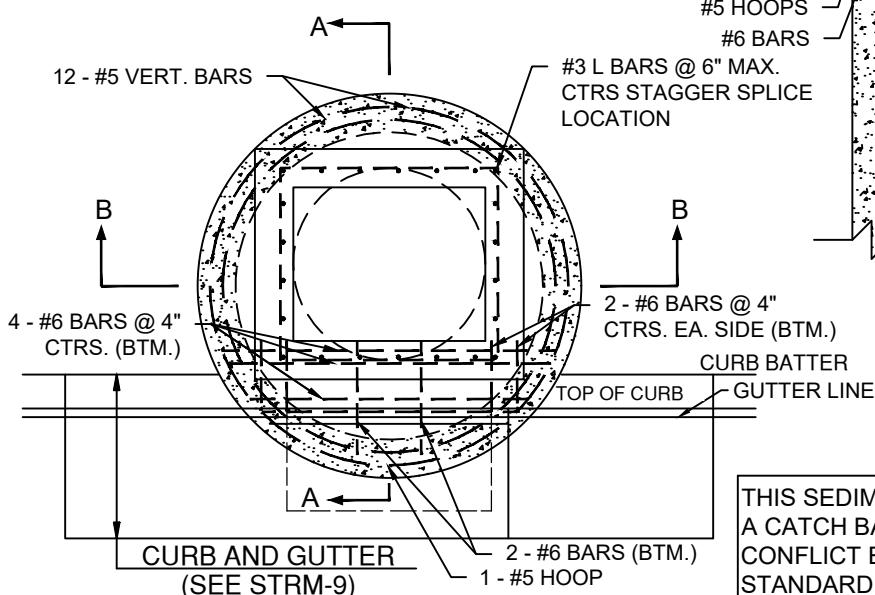
1. ALL PRE-CAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF ASTM C-478.
2. AWWA C900 PIPE SHALL BE USED WITHIN TRAVEL AREAS. ASTM D3034 PIPE WHERE STORM PIPE WILL BE INSTALLED PERSANITARY SEWER REQUIREMENTS OR OUTSIDE OF TRAVEL AREAS.
3. MANHOLES SHALL BE PLACED OUTSIDE SIDEWALK, APRONS & STREET SURFACES 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) $\frac{3}{8}$ "x1-12" STAINLESS STEEL RED HEAD BOLTS, WASHERS AND NUTS, OR AS APPROVED BY MANUFACTURER.

DRAWN AJD	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 STORMWATER SEDIMENTATION MANHOLE	SCALE NTS
DIV STORM			DATE 11/01/2024
REV DATE			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 AJD

DIV STORM

REV DATE



CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

SCALE NTS

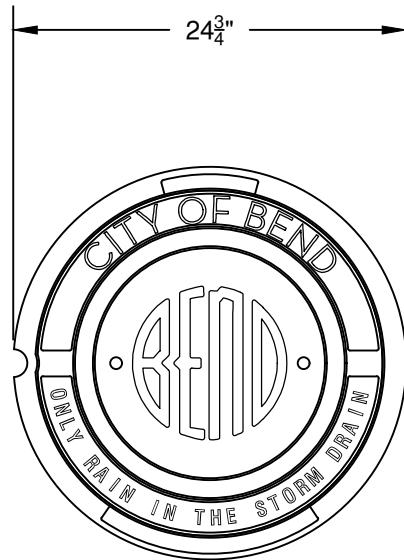
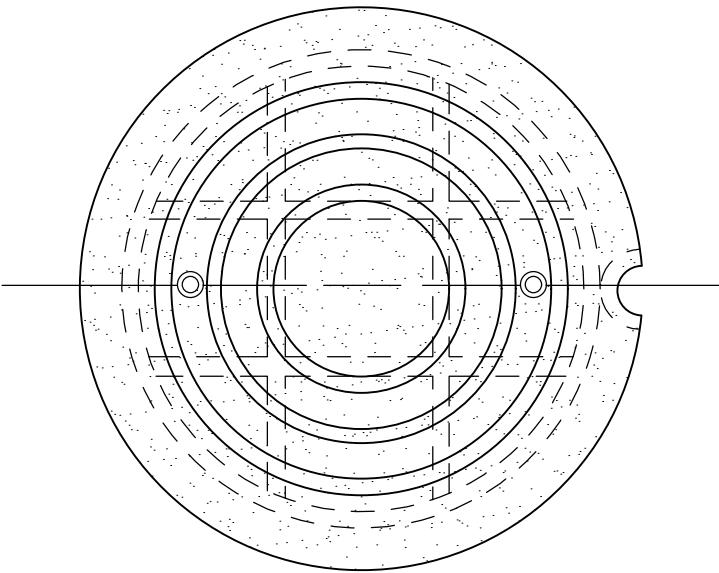
DATE 11/01/2024

APPR

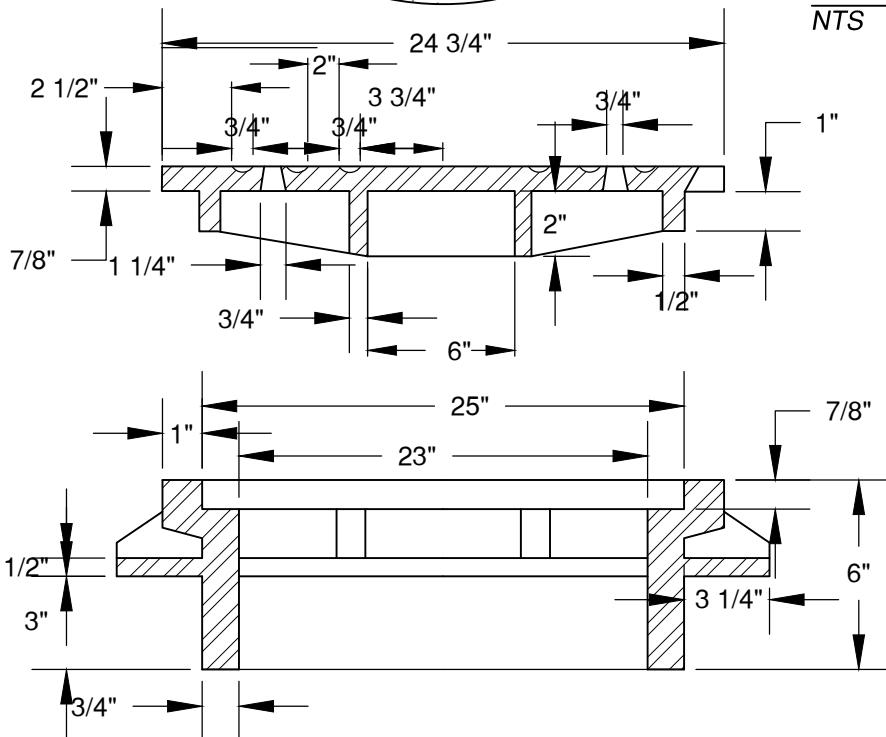
STD DWG STRM-7A

CITY OF BEND

STORMWATER SEDIMENTATION MANHOLE - ALTERNATE



STORMWATER MANHOLE LID DETAIL
NTS



NOTE:

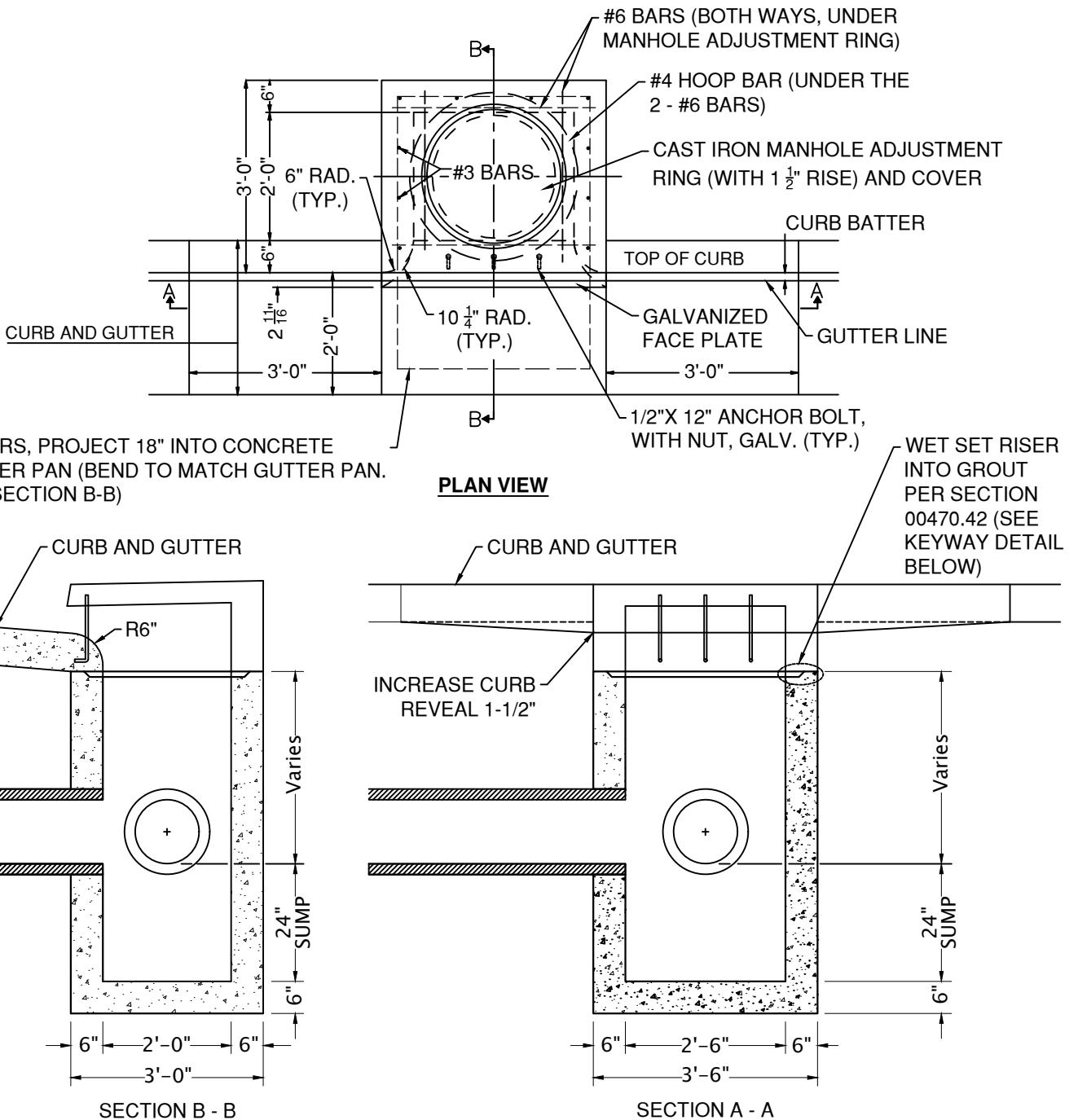
1. MANHOLE LID ONLY TO BE USED ON CITY OF BEND PUBLIC DRYWELLS AND SEDIMENTATION MANHOLES. PRIVATELY OWNED DRYWELLS AND SEDIMENT MANHOLES SHALL NOT USE A CITY OF BEND MANHOLE LID.
2. HINGED MANHOLE LIDS ARE NOT PERMITTED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
3. ALL MANHOLE LIDS SHALL BE PLACED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

DRAWN	AJD
DIV	STORM
REV	DATE

CITY OF BEND

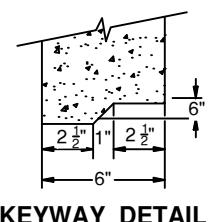
CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701
STORMWATER MANHOLE LID DETAIL

SCALE	NTS
DATE	01/31/2022
APPR	
STD DWG	STRM-8



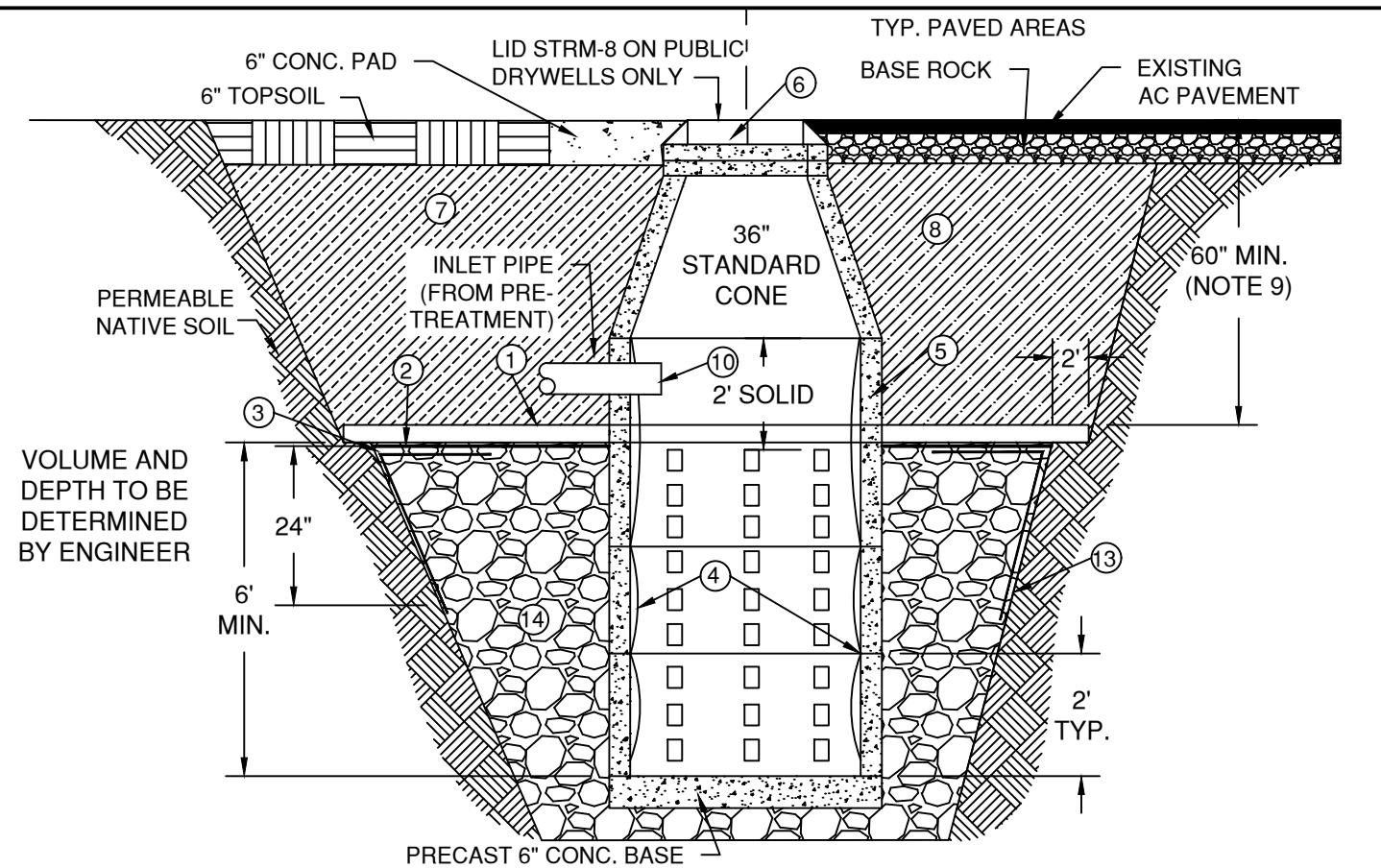
NOTES:

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	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 STANDARD CURB INLET	SCALE NTS
DIV STORM			DATE 11/01/2024
REV DATE			APPR
			STD DWG STRM-9

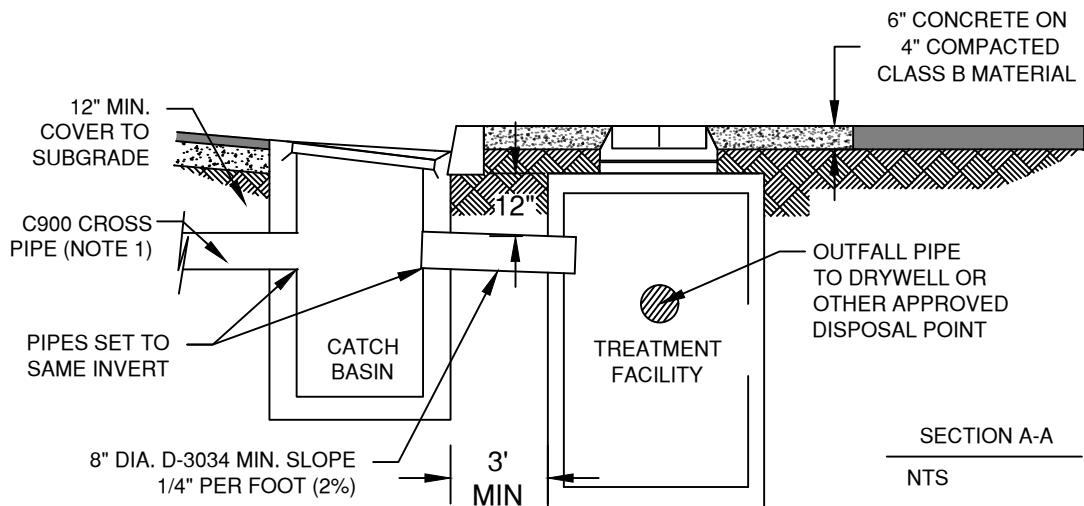
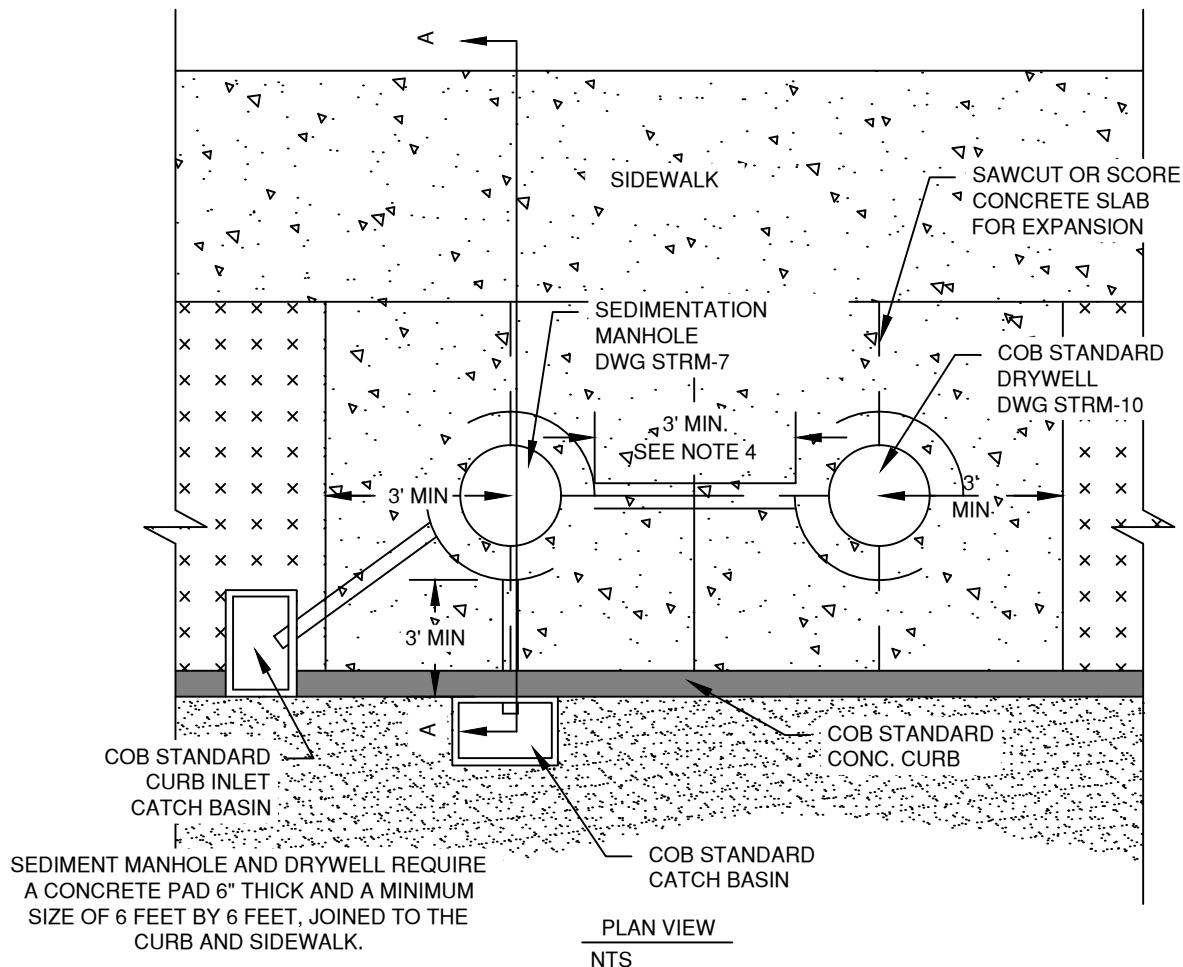


NOTES:

* 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 COMPAKTED TO 95.0% OPTIMUM DRY DENSITY (AASHTO T-99).
8. CLASS "B" BACKFILL COMPAKTED 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	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE NTS
DIV	STORM			DATE 03/22/2023
REV	DATE	STANDARD PRE-CAST DRYWELL		APPR
				STD DWG STRM-10

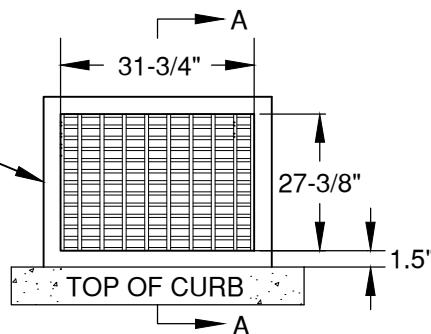


NOTES:

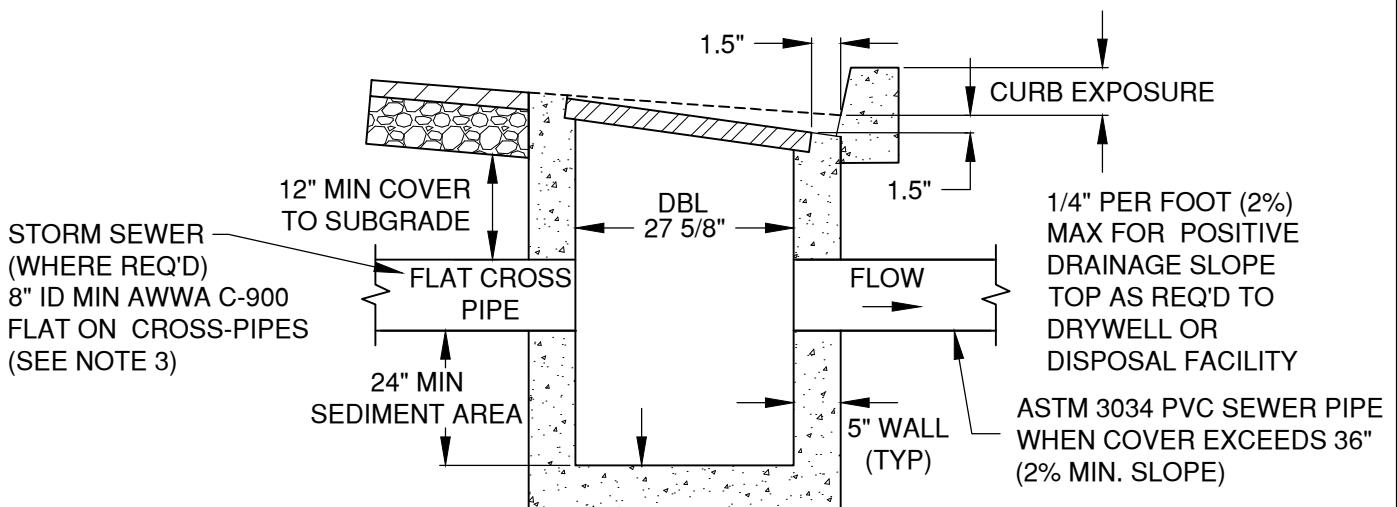
1. CROSS PIPE ELEV MAY REQUIRE OTHER UTILITIES (SEWER, WATER, ETC) TO BE LOWERED TO PROVIDE MINIMUM SEPARATIONS
2. ALL PIPE PENETRATIONS ARE TO BE GROUTED OR WATER TIGHT SEALED.
3. DRYWELL AND TREATMENT FACILITY NOT TO BE PLACED IN DRIVEWAY OR SIDEWALK UNLESS APPROVED BY THE CITY ENGINEER.
4. WHEN DRY UTILITIES WILL BE INSTALLED BETWEEN STRUCTURES, PROVIDE MINIMUM 5' SEPARATION.

DRAWN AJD	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE NTS
DIV STORM			DATE 01/31/2022
REV DATE	CITY OF BEND	APPR STD DWG STRM-11	
DRYWELL W/ MANUFACTURED TREATMENT LAYOUT			

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



PLAN VIEW



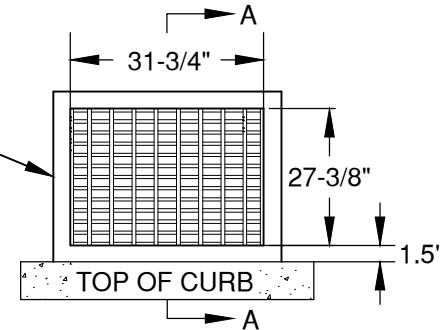
SECTION A-A

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

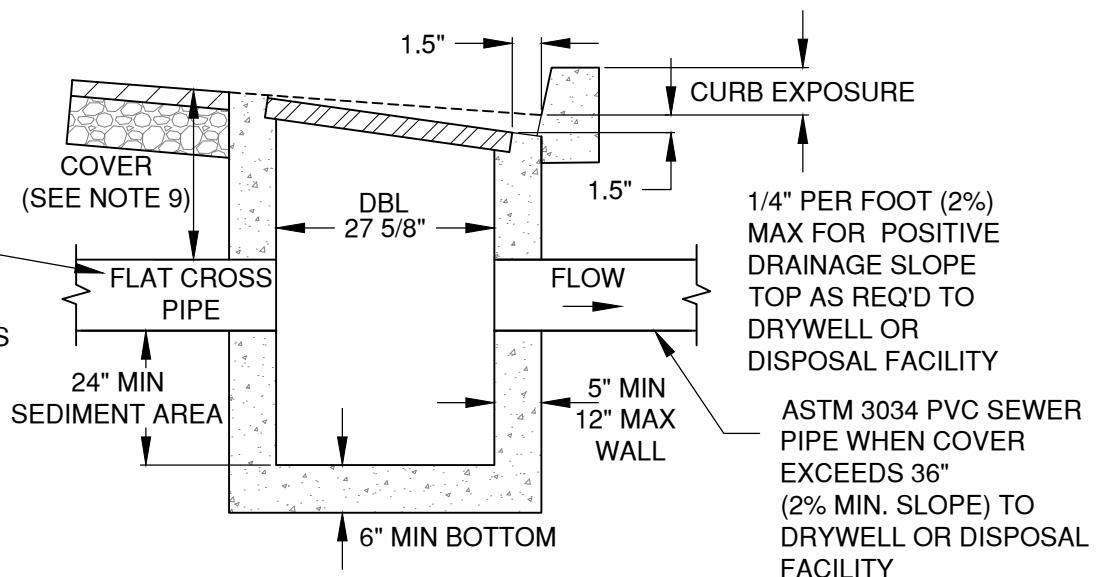
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DIV	STORM		STANDARD DRAWING	DATE 03/22/2023
REV	DATE		710 NW WALL ST., BEND, OREGON 97701	APPR
			STANDARD CATCH BASIN	STD DWG STRM-12

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



PLAN VIEW

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



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 ELEVATE 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. GROUT SHOULD BE LEVELED TO ALIGN FLUSH WITH THE INTERIOR WALL WITH NO EXTENSION OF GROUT ONTO THE INTERNAL SURFACE AREA OF THE CATCH BASIN.
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
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	AJD
DIV	STORM
REV	DATE

CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

STANDARD CATCH BASIN

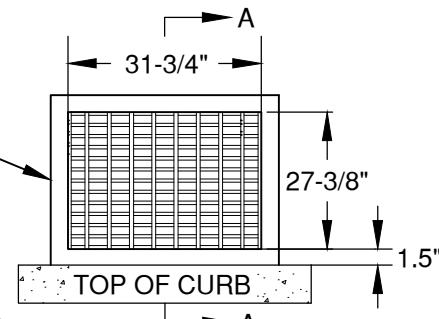
SCALE NTS

DATE 11/01/2024

APPR

STD DWG STRM-12A

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



KEYWALL DETAIL

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

8" MIN RISER
HEIGHT

WITH
RISER

WITHOUT
RISER

COVER
(SEE NOTE 9)

FLAT CROSS
PIPE

24" MIN
SEDIMENT AREA

DBL
27 5/8"

CURB EXPOSURE

1.5"

1.5"

6" MIN BOTTOM

5" MIN
SOLID WALL
NO KNOCKOUTS

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

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 ELEVATE MAY REQUIRE OTHER UTILITIES (SEWER, WATER, ETC) TO BE LOWERED TO PROVIDE MINIMUM SEPARATIONS.
4. CONTRACTOR IS RESPONSIBLE TO KEEP CATCH BASIN CLEAN AND FREE OF SEDIMENT DURING CONSTRUCTION
5. CONTRACTOR IS RESPONSIBLE TO COVER AND BARRICADE ALL CATCH BASINS UNTIL GRATE IS INSTALLED
6. 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.
7. SEE DRG 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 LEVELED 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

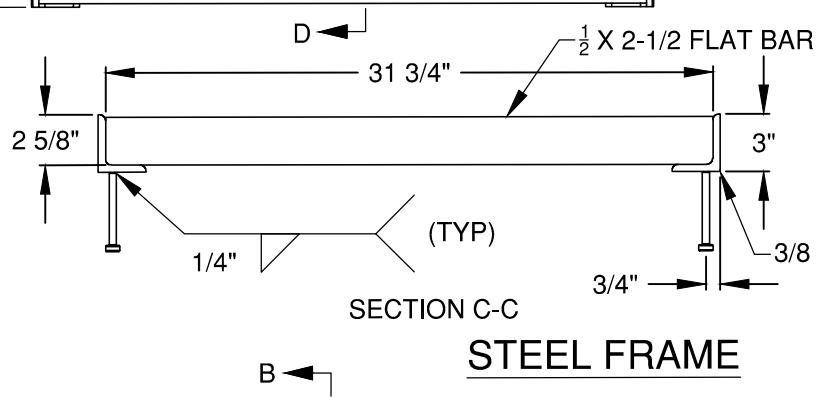
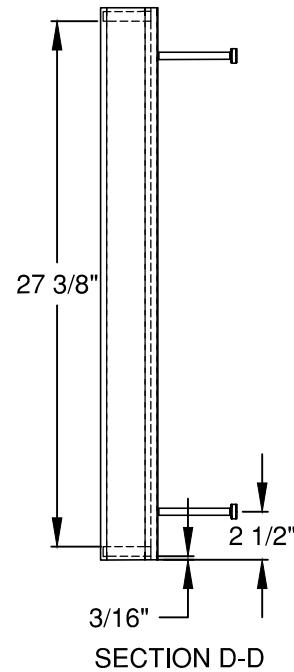
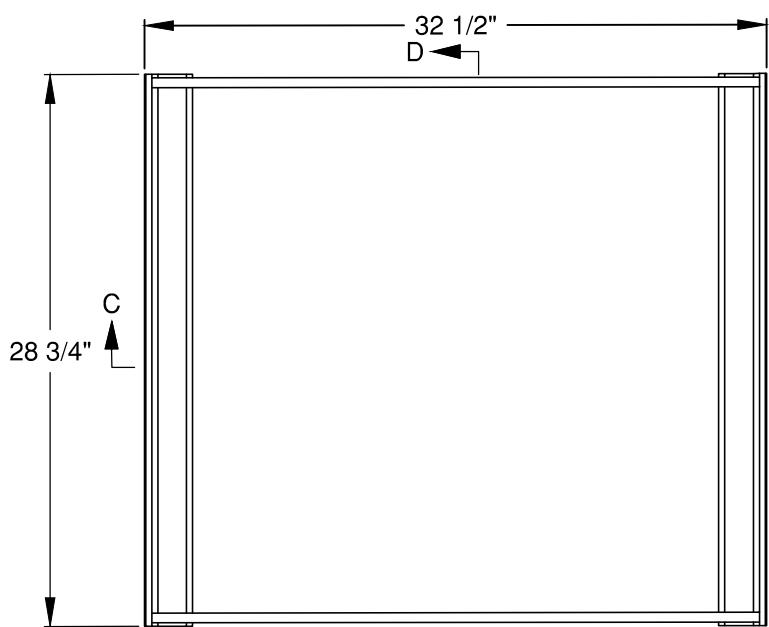
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DATE 11/01/2024

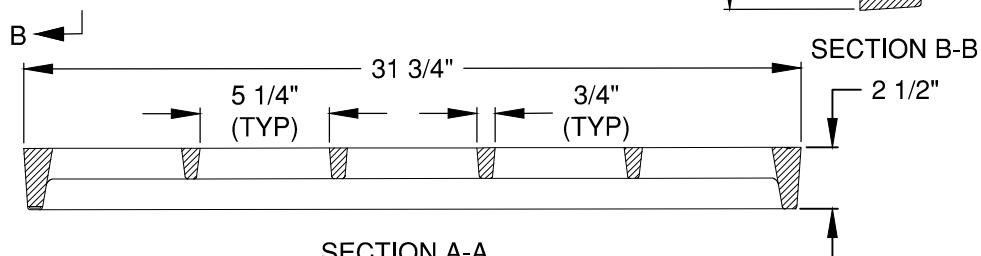
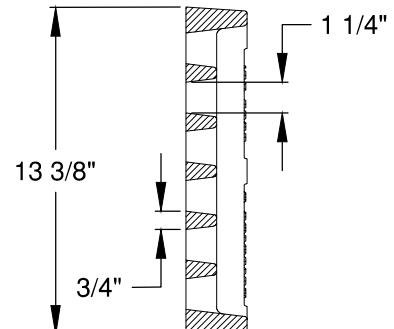
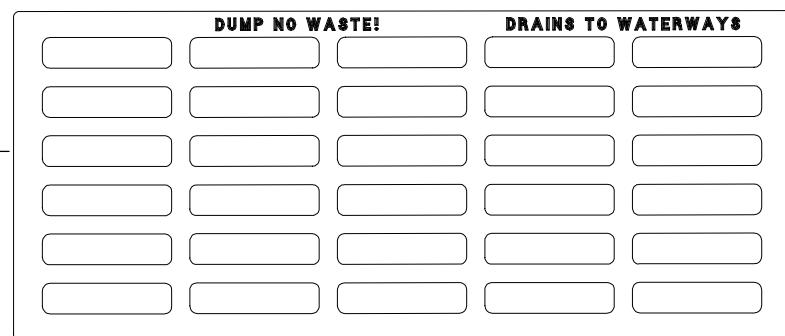
APPR

STD DWG STRM-12B

STANDARD CATCH BASIN (PRE-CAST)



STEEL FRAME



SECTION A-A

DUCTILE IRON GRATE

DRAWN	AJD
DIV	STORM
REV	DATE



CITY OF BEND

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710 NW WALL ST., BEND, OREGON 97701

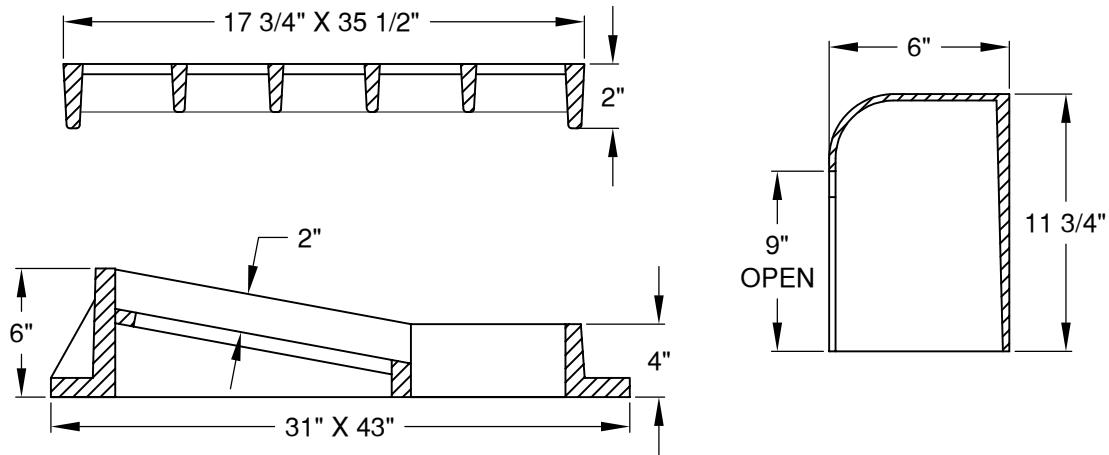
STORMWATER GRATE

SCALE NTS

DATE 01/31/2022

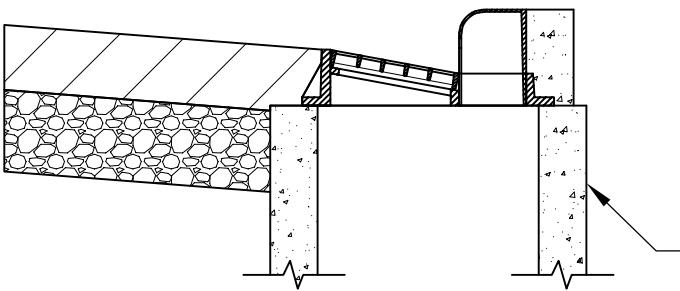
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STD DWG STRM-13A

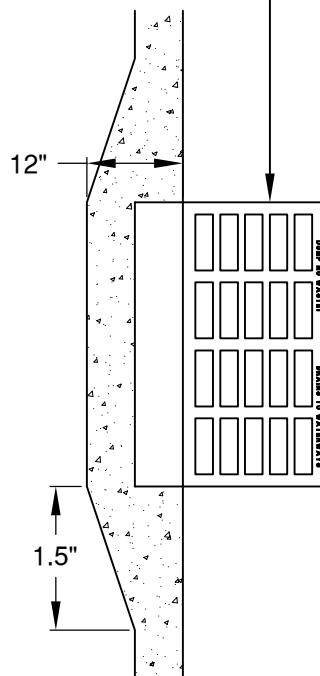


CAST IRON COMBINATION CATCH BASIN INLET

SEE STRM-13A
FOR GRATE DETAIL



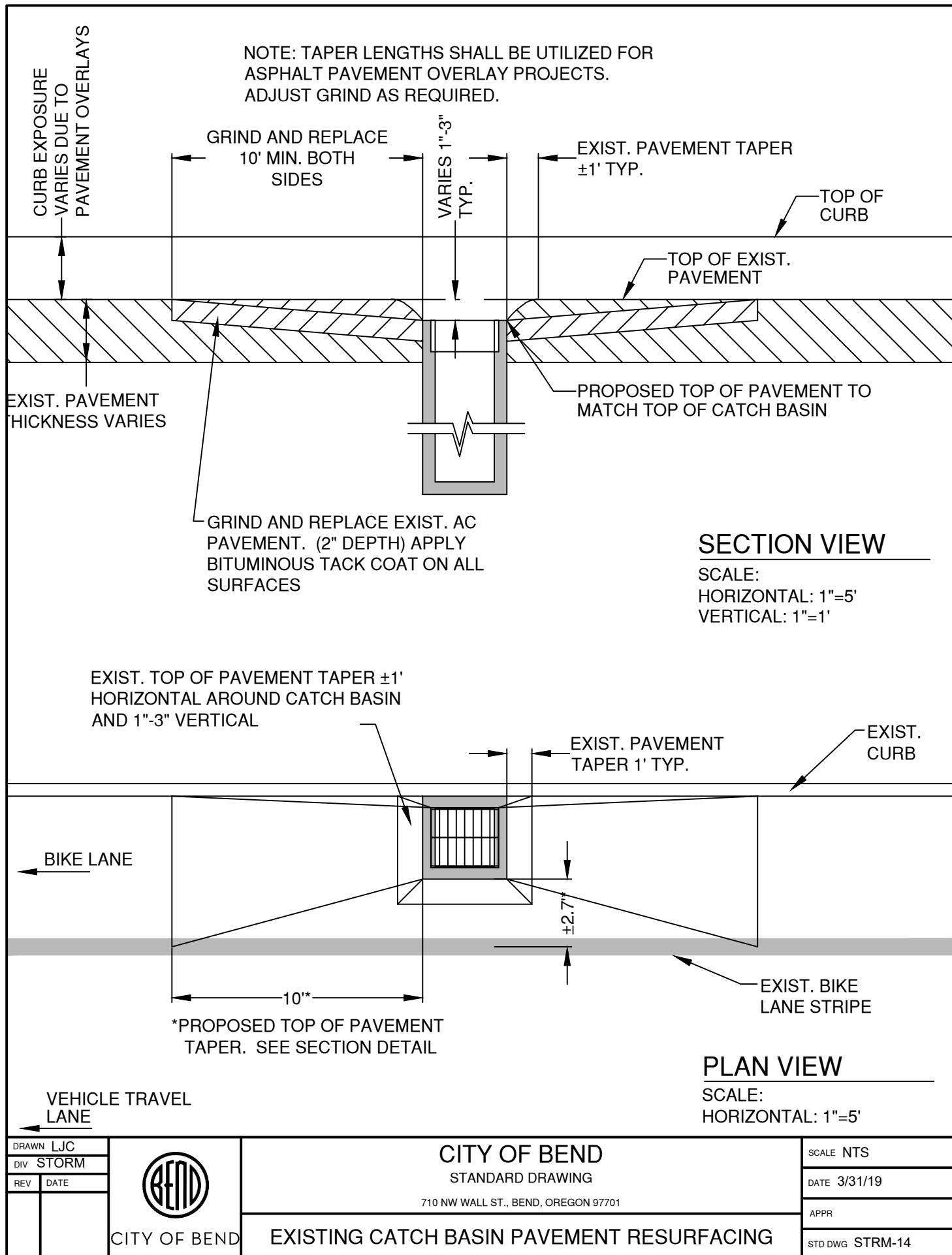
STANDARD CATCH
BASIN BASE. SEE STD
DWG STRM-12

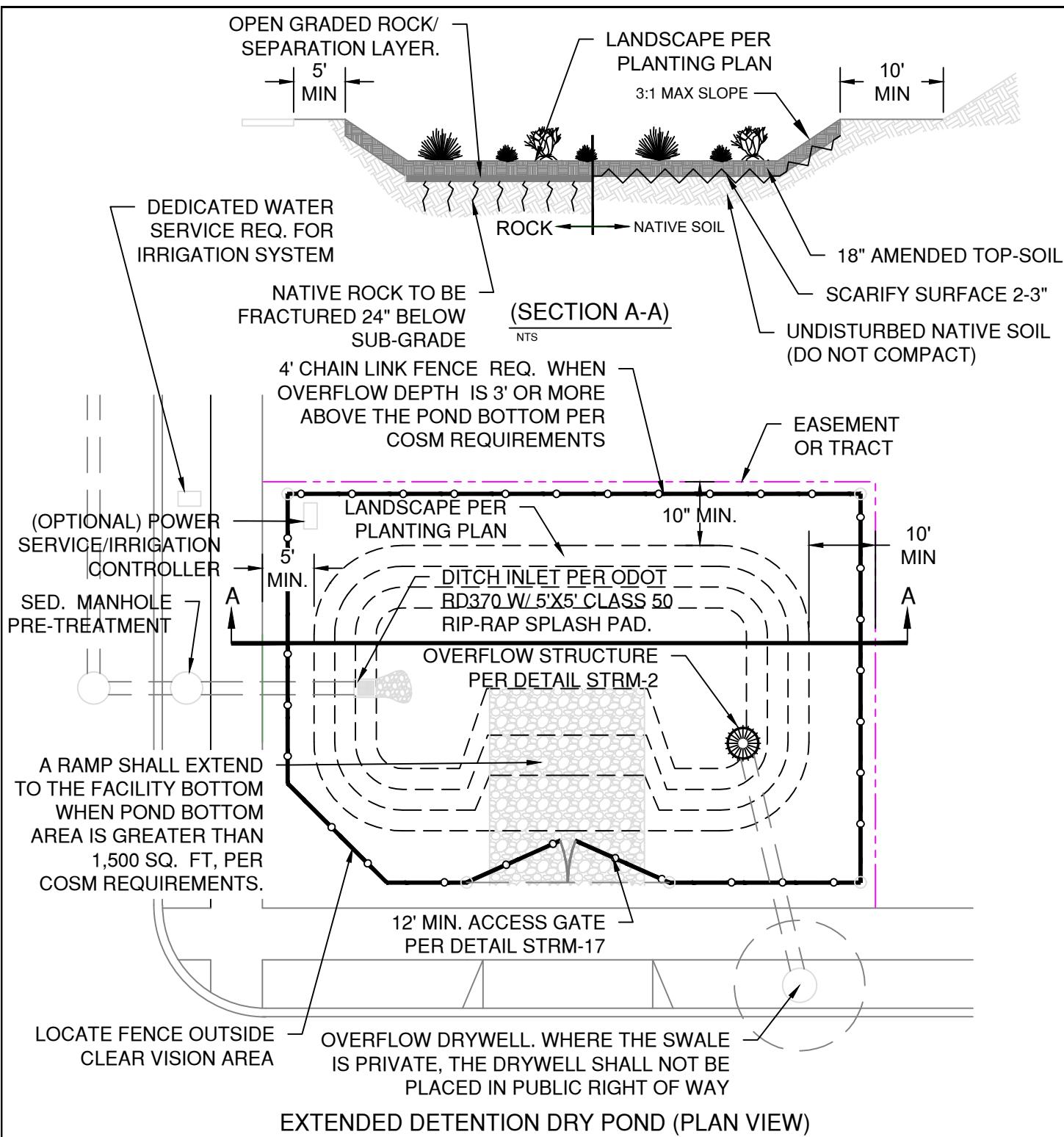


NOTES:

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	 CITY OF BEND	CITY OF BEND STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701 COMBINATION CATCH BASIN INLET	SCALE	NTS
DIV	STORM			DATE	11/01/2024
REV	DATE			APPR	
				STD DWG	STRM-13B





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

CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

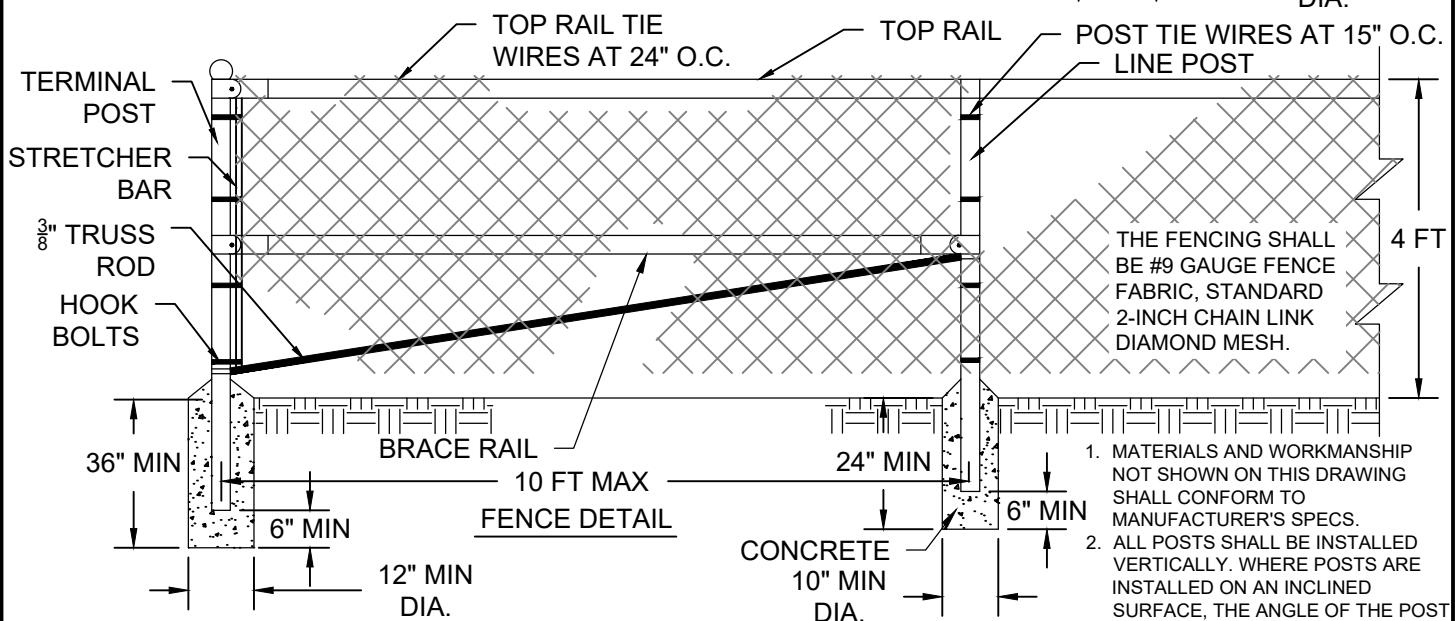
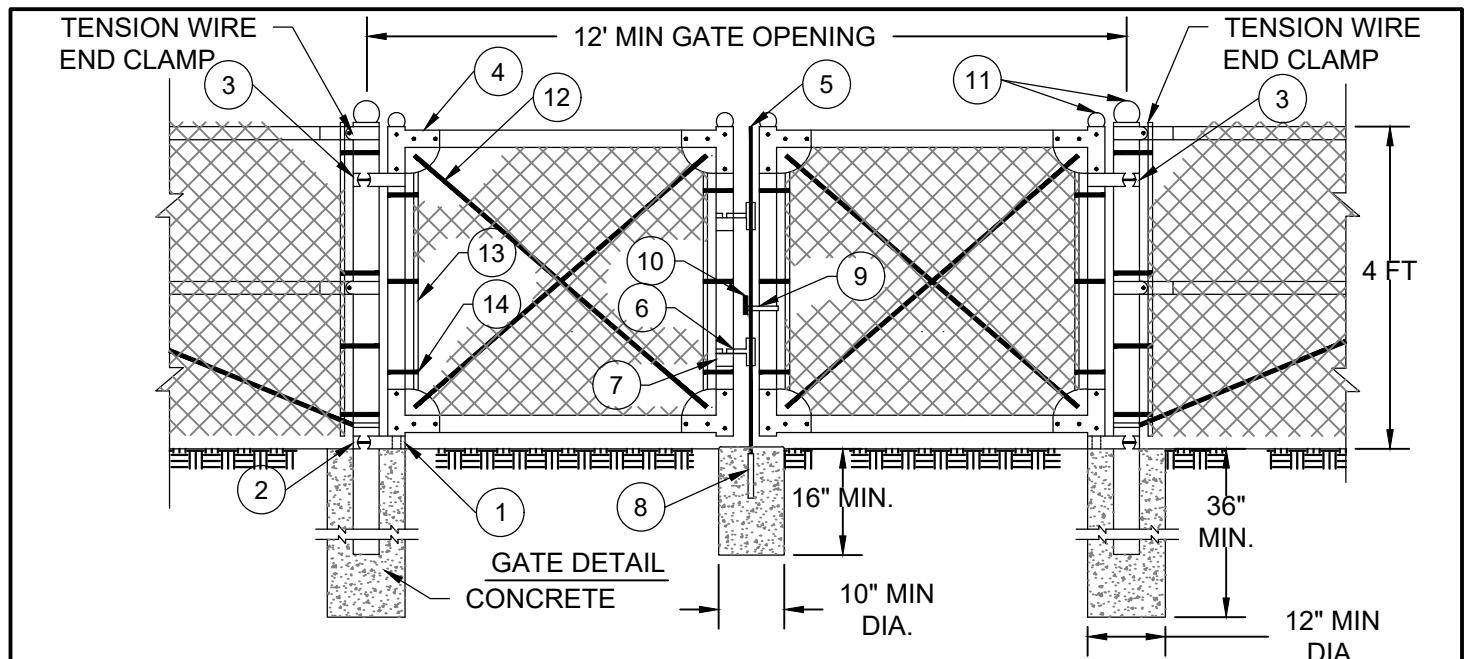
INFILTRATION POND DETAIL

SCALE NTS

DATE 1/2021

APPR

STD DWG STRM-16



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
	*ROUND	2.375	3.12
LINE POSTS	ROUND	1.90	2.72
	*ROUND	1.90	2.28
TOP & BRACE RAILS	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 AJD

DIV STORM

REV DATE



CITY OF BEND

CITY OF BEND

STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

SCALE NTS

DATE 01/31/2022

APPR

STD DWG STRM-17

CHAINLINK FENCE DETAIL