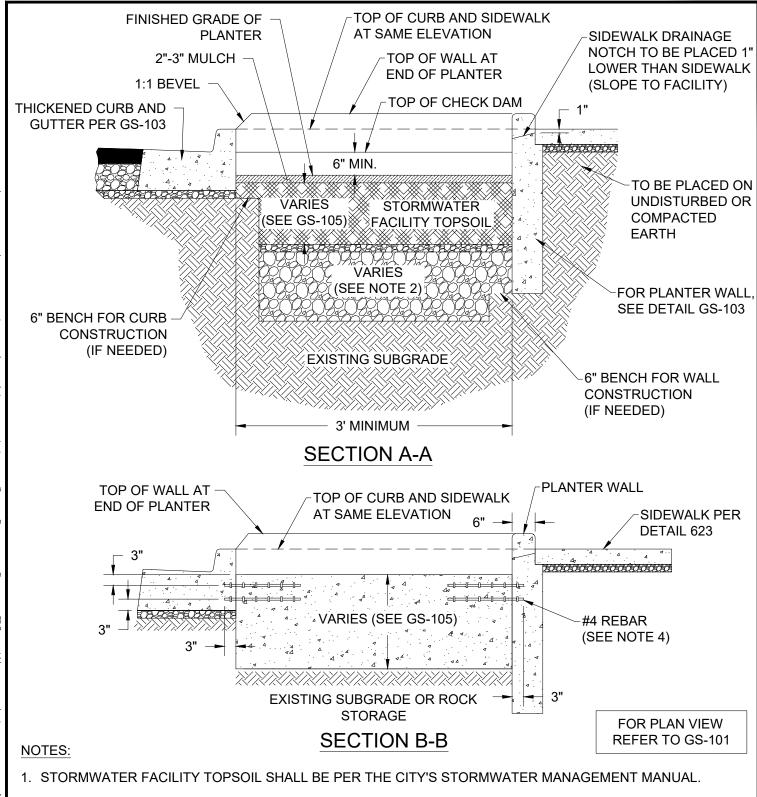


DETAIL NO. GS-101



- SEE GS-107 TO DETERMINE WHEN AGGREGATE AND UNDERDRAINS ARE REQUIRED.
- 3. AFTER INITIAL EXCAVATION AND WALL CONSTRUCTION, FRACTURE AND LOOSEN THE NATIVE SOIL TO A DEPTH OF 12" BELOW DEPTH WHERE STORMWATER FACILITY TOPSOIL WILL BE PLACED. DO NOT TILL.
- 4. EMBED OR EPOXY SET 12" MIN. LENGTH #4 REBAR INTO CURB AND PLANTER WALL.

DRAWN KRB

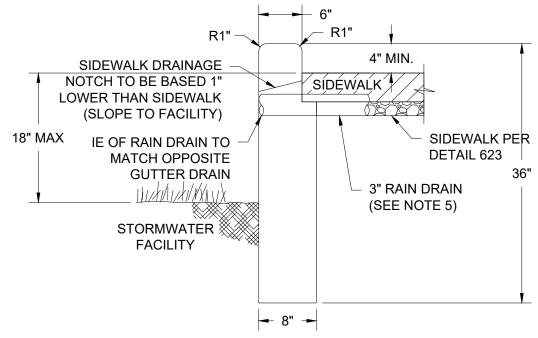
REV. JAN 2024

APPR. DETAIL NO. GS-102

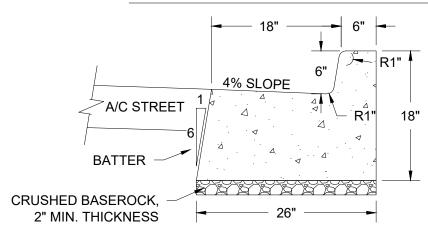
**NTS** 

GRESHAM

PLANTER SECTION VIEW



### PLANTER WALL ADJACENT TO WALK



# THICKENED MONOLITHIC CURB AND GUTTER FOR STREET SIDE OF RAIN GARDENS

#### NOTES:

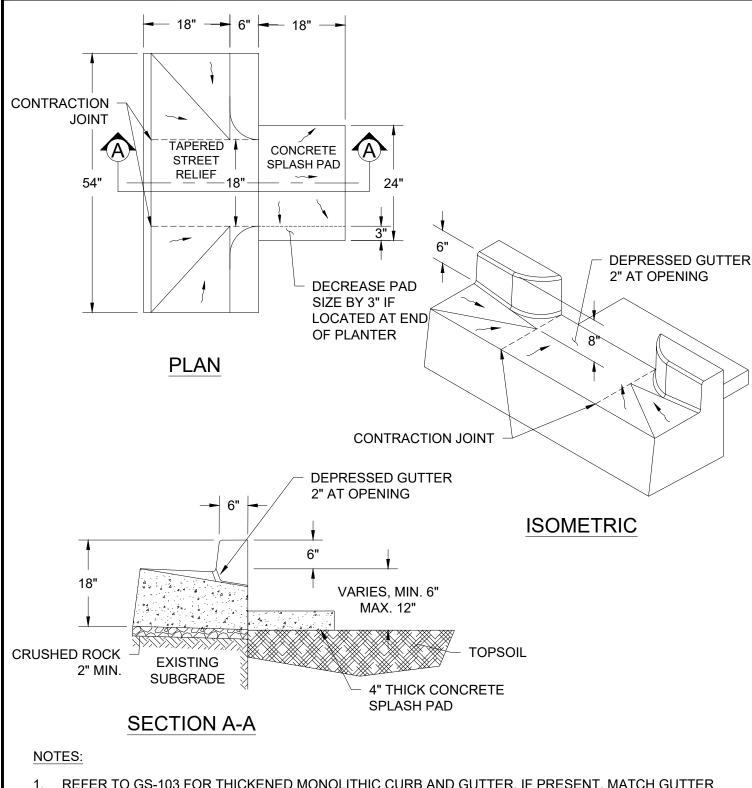
- 1. PCC SHALL BE 4,000 PSI STRENGTH AT 28 DAYS.
- 2. CONTRACTION JOINTS SHALL BE PLACED AT 15' MAX. SPACING.
- CRUSHED BASE ROCK SHALL BE COMPACTED TO 95% RELATIVE DENSITY PER ASTM D1557.
- 4. FINISH ALL EXPOSED CONCRETE SURFACES.
- IF RAIN DRAIN WILL BE PIPED TO FACILITY, EXTEND 3" SCHEDULE 40 PVC DRAIN PIPE FROM INSIDE OF PLANTER TO CONNECTION AT BACK OF SIDEWALK. RAIN DRAIN SHALL BE LOCATED ABOVE GUTTER ELEVATION.
- ADD 2" WIDE SHELF WHEN PLANTER WALL IS DESIGNED TO BE ADJACENT TO SIDEWALK.

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PLANTER WALL AND MODIFIED CURB

REV. MAR 2021
APPR.
DETAIL NO. GS-103



- 1. REFER TO GS-103 FOR THICKENED MONOLITHIC CURB AND GUTTER. IF PRESENT, MATCH GUTTER PAN WIDTH OF ADJACENT CURB AND GUTTER.
- 2. SEE CHECK DAM DETAIL GS-105 FOR DISTANCE TO TOP OF SPLASH PAD.
- 3. MAXIMUM DISTANCE BETWEEN INLETS SHALL BE 25 FEET.

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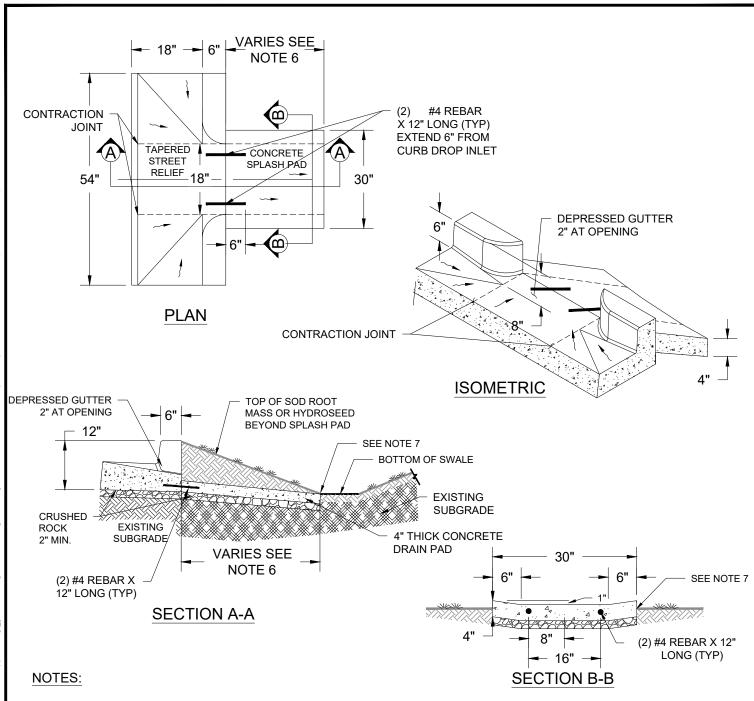
ing projects/public works standards\2.0 pws revision copy/details\g.s. green streets\green street cad\gs-104a.dwg, Plotted 11/20/2025 2:12 PN, By: Anthony Dollowitch, ANSI FULL BLEED A (8:50 x 11.00 INCHES)

CONCRETE CURB INLET

REV. DEC 2024

APPR.

DETAIL NO. GS-104A



- IF PRESENT, MATCH GUTTER PAN WIDTH OF ADJACENT CURB AND GUTTER.
- 2. GUTTER AND DRAIN PAD SHALL TIED TOGETHER WITH #4 REBAR, 8" ON CENTER.
- SEE CHECK DAM DETAIL GS-105 FOR DISTANCE TO TOP OF SPLASH PAD.
- MAX SPACING BETWEEN INLETS SHALL BE 50' WHEN ROAD GRADE IS LESS THEN 2%.
   MAX 25' WHEN ROAD GRADE IS GREATER THEN 2%.
- INTENDED FOR USE WITH STORMWATER SWALES. SEE GS-114.
- SWALE DRAIN PAD TO EXTEND TO BOTTOM OF SWALE.
- 7. MAINTAIN 2" EXPOSURE BETWEEN TOP OF SOD ROOT MASS OR HYDROSEED & TOP OF SWALE DRAIN PAD.

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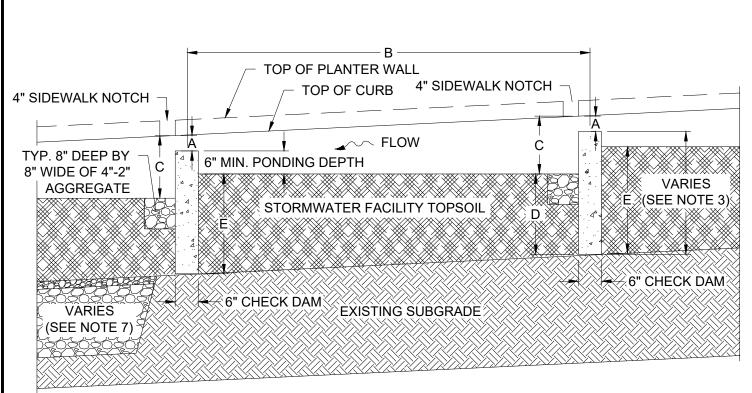
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SWALE CONCRETE DRAIN PAD

DRAWN AAD

REV. NOV 2025

APPR. DETAIL NO. GS-104B



## **SECTION C-C**

ROAD GRADE	A (SEE NOTE 2)	MIN B	MAX B	С	D	Е
>8%-15%	4"	5'	10'	18"	SEE GS-107	D + 8"
>4%-8%	5"	7.5'	15'	15"	FOR	D + 6"
0%-4%	6"	12.5'	25'	12"	DIMENSIONS	D

### NOTES:

- 1. CHECK DAM TO BE PLACED ON UNDISTURBED NATIVE SOIL, OR ON AGGREGATE IF REQUIRED.
- 2. TOP OF CHECK DAM SHALL BE A MINIMUM OF 1" BELOW THE UPSTREAM INLET GUTTERLINE ELEVATION.
- 3. CHECK DAM WIDTH IS 6". HEIGHT VARIES DEPENDING ON ROAD GRADE.
- 4. DIMENSION B VARIES BASED ON EQUAL SPACING REQUIREMENT ON GS-101.
- 5. SIDEWALK DRAINAGE NOTCHES TO BE LOCATED IMMEDIATELY DOWNSTREAM OF EACH CHECK DAM.
- 6. SIDEWALK NOTCH TO BE 1" LOWER THAN SIDEWALK AND SLOPED TO FACILITY. WIDTH IS 4" AND MINIMUM DEPTH 5" WHEN 4" TOE KICK PLANNED FOR.
- 7. SEE GS-107 TO DETERMINE WHEN AGGREGATE AND UNDERDRAIN ARE REQUIRED.

DRAWN KRB

REV. JAN 2024

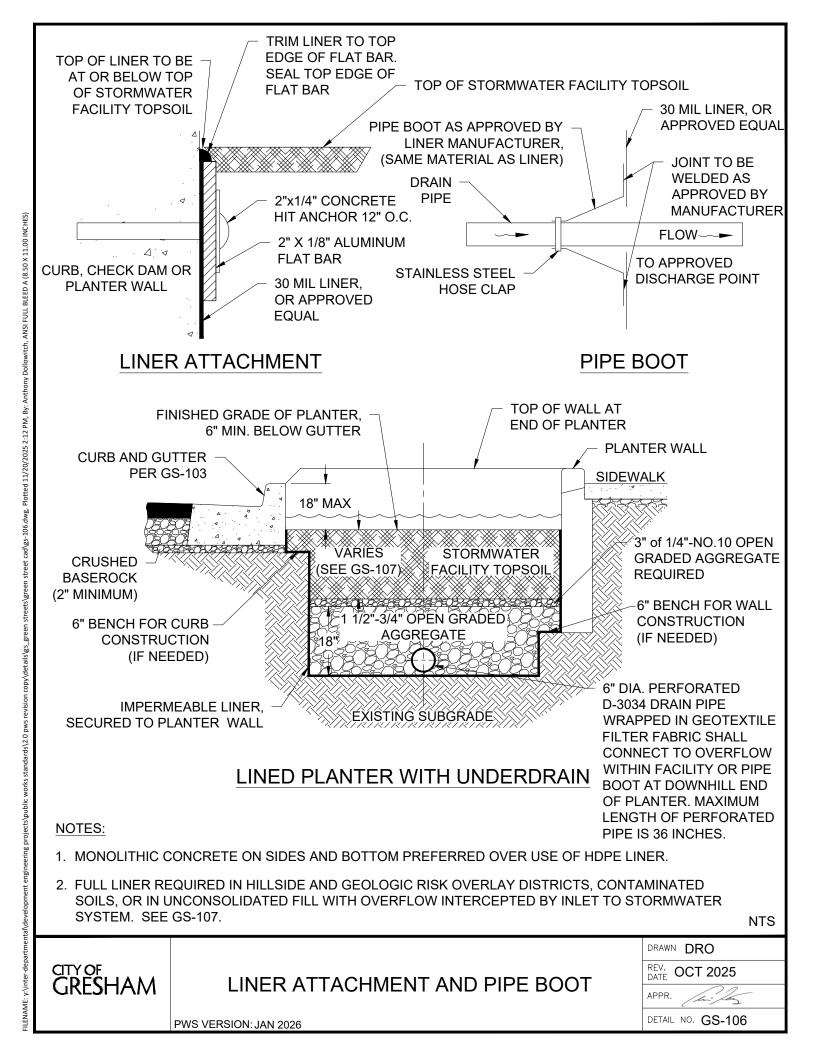
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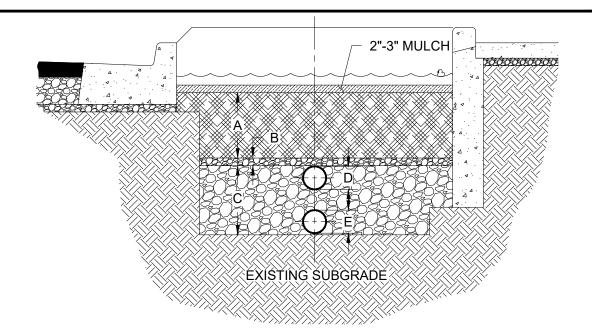
DETAIL NO. GS-105

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CITY OF GRESHAM

## CONCRETE CHECK DAM FOR PLANTER





CONDITION	А	В	С	D	Е
GOOD INFILTRATING SOILS (>2"/hr)	12" (MIN) TOPSOIL	0"	0"	NA	NA
LOW INFILTRATING SOILS (0.5 to 2"/hr)	18" (MIN) TOPSOIL	0"	0"	NA	NA
POOR INFILTRATING SOILS (<0.5"/hr)	24" (MIN) TOPSOIL	3" OF 1/4"-NO. 10 OPEN GRADED AGGREGATE	18" MIN. 1 1/2"-3/4" OPEN GRADED AGGREGATE	6" PERF PIPE	NA
LINED FACILITIES	24" (MIN) TOPSOIL	3" OF 1/4"-NO. 10 OPEN GRADED AGGREGATE	18" MIN. 1 1/2"-3/4" OPEN GRADED AGGREGATE	NA	6" PERF PIPE

### NOTES:

- SEE STORMWATER MANAGEMENT MANUAL FOR DETAILS ON STORMWATER FACILITY TOPSOIL SPECIFICATIONS.
- MINIMUM DEPTH FOR A IS 12 INCHES. SEE GS-105 TO DETERMINE DEPTHS FOR SLOPED FACILITIES.
- 3. LINED FACILITIES ONLY ALLOWED FOR STEEP SLOPES (>20%), UNCONSOLIDATED FILL (WITH SLOPES OR LOW INFILTRATION SOILS) OR IN CONTAMINATED SOILS, SEE GS-106 FOR DETAILS ON LINED FACILITIES.
- 4. TREES INCLUDED IN PLANTERS MUST FOLLOW GS-112. TREES ARE NOT ALLOWED IN LINED FACILITIES OR TO HAVE ROCK OR UNDERDRAIN UNDER PORTIONS OF THE FACILITY WHERE TREES WILL BE PLANTED.
- 5. MAXIMUM LENGTH OF PERFORATED PIPE IS 36 INCHES.

NTS

GRESHAM

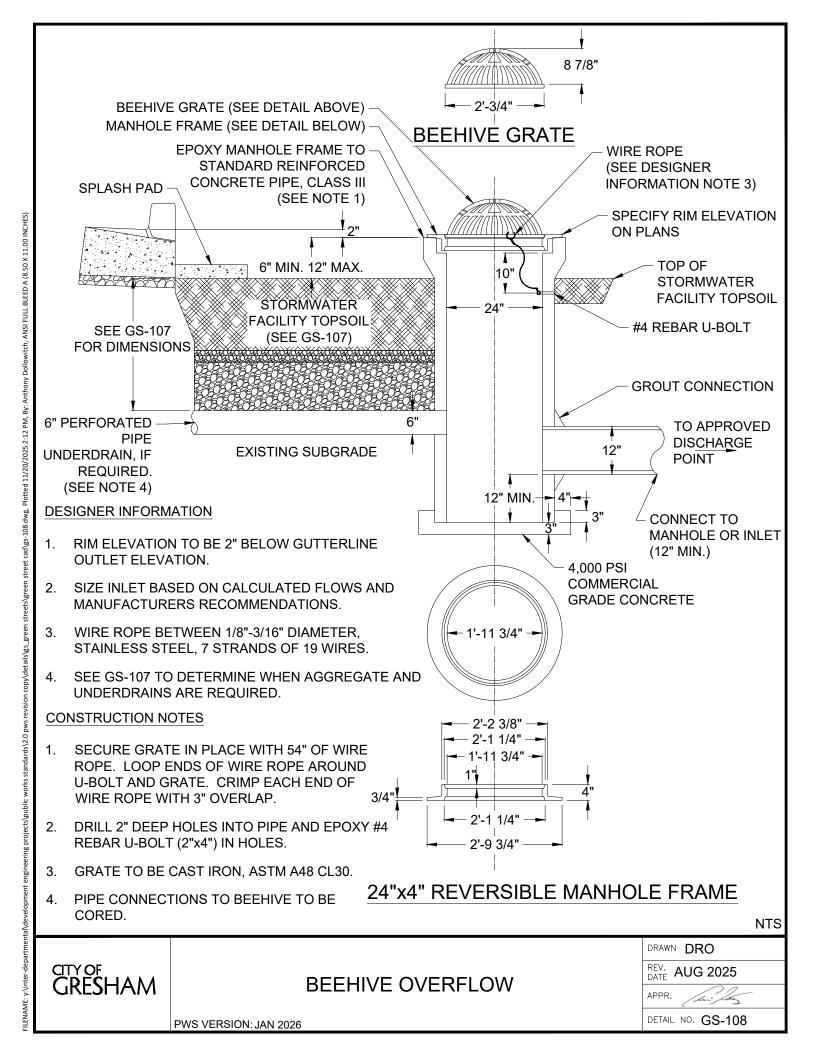
UNDERDRAIN AND ROCK REQUIREMENTS

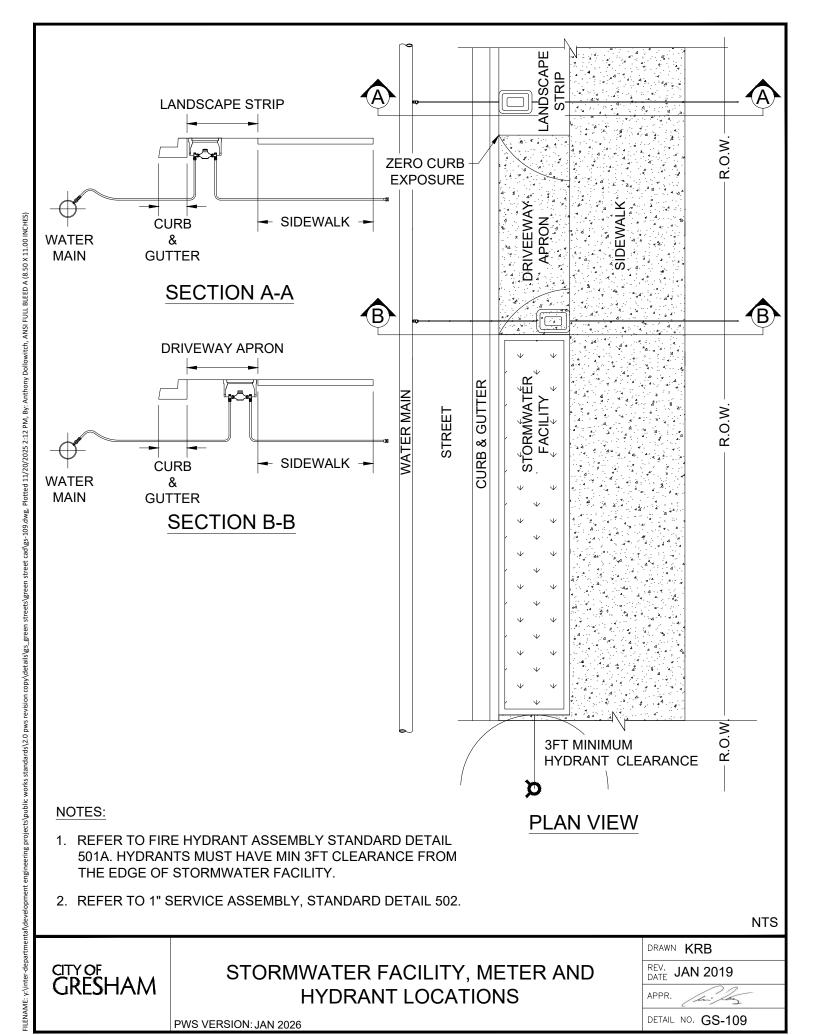
PREV. NOV 2024

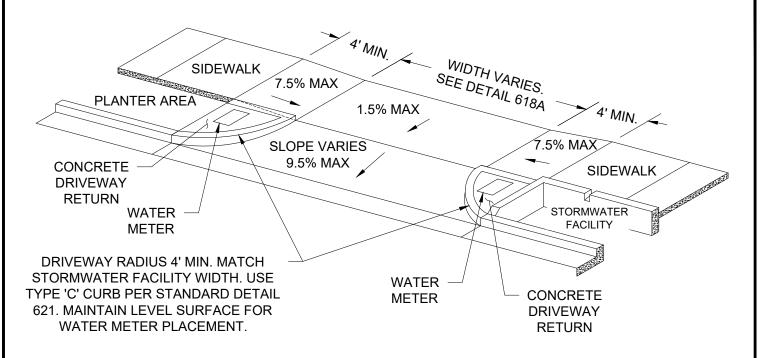
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DRAWN DRO

DETAIL NO. GS-107







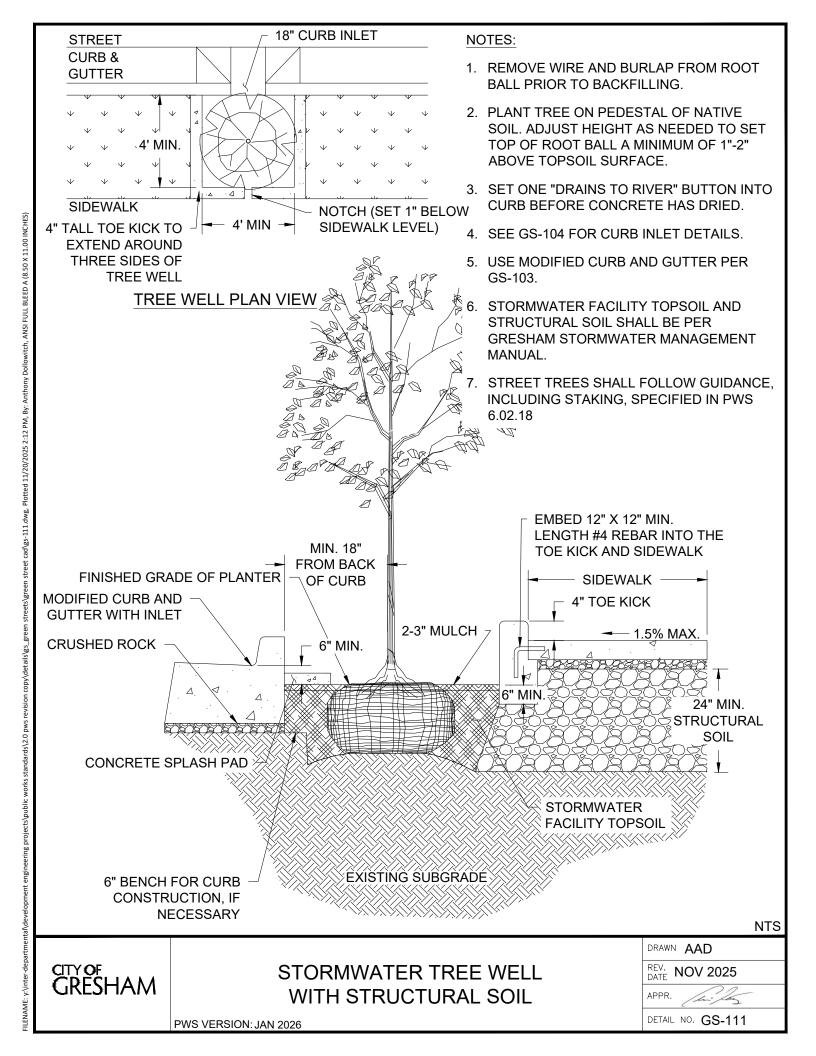
### NOTES:

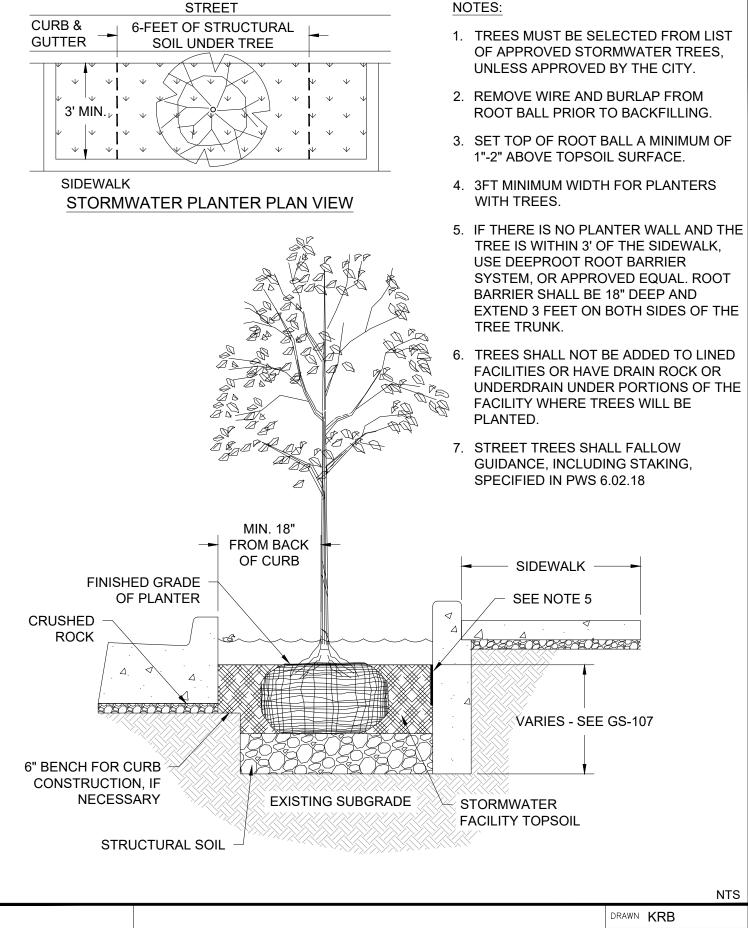
- SIDEWALK WIDTH VARIES WITH STREET CLASSIFICATION. SEE STANDARD STREET CROSS SECTIONS. (5' MINIMUM)
- 2. STORMWATER FACILITY WIDTH VARIES. SEE STANDARD STREET CROSS SECTIONS. (4' MINIMUM)
- CURB RADIUS SHALL MATCH STORMWATER FACILITY WIDTH. SEE STANDARD STREET CROSS SECTIONS.
- 4. SLOPES SHOWN ARE RELATIVE TO HORIZONTAL. TRANSITION RAMP SHALL BE 7.5% MAX SLOPE OR 15' IN LENGTH.
- 5. ALL CONCRETE SURFACES SHALL BE LIGHTLY BROOMED AND EDGED IN A WORKMANLIKE MANNER.
- SAW CUT EXISTING CURBS WHERE THEY ARE TO BE REMOVED IF LESS THAN 3' TO EXISTING
  JOINT, REMOVE TO JOINT. EXISTING ASPHALT IN FRONT OF THE APPROACH SHALL BE SAW CUT
  AND REPLACED WITH HOT MIX.
- 7. CONCRETE SHALL BE 4.000 PSI AT 28 DAYS.
- WATER METER LIDS IN CONCRETE DRIVEWAY RETURN SHALL BE TRAFFIC RATED.
- 9. CONCRETE DEPTH AND ROCK SECTION SHALL BE PER STANDARD DETAIL 618A.

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## STORMWATER FACILITY RESIDENTIAL DRIVEWAY APPROACH





CITY OF GRESHAM

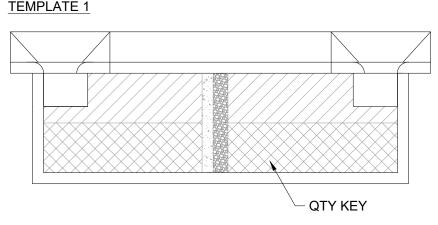
STREET TREE PLANTING WITHIN STORMWATER PLANTER

REV. NOV 2025

APPR

PWS VERSION: JAN 2026

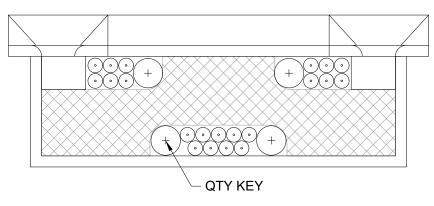
DETAIL NO. GS-112



## PLANT LEGEND 1

SYMBOL	BOTANICAL NAME COMMON NAME				
	JUNCUS PATENS SPREADING RUSH				
	CAREX OBNUPTA SLOUGH SEDGE				

### **TEMPLATE 2**



#### PLANT LEGEND 2

SYMBOL	BOTANICAL NAME COMMON NAME		
	JUNCUS PATENS SPREADING RUSH		
<u></u>	CAREX OBNUPTA SLOUGH SEDGE		
+	SPIRAEA JAPONICA 'GOLD MOUND' GOLDMOUND JAPANESE SPIREA		

SAMPLE I	PLANTING LEGEND	SQ. FOOT AREA =	X		
SYMBOL	BOTANIC NAME	COMMON NAME	SPACING	SPACING	QTY.
	Xxxxxx xxxxx	XXXXX	X	X	X
$\odot$	Xxxxxx xxxxx	XXXXX	X	X	Χ

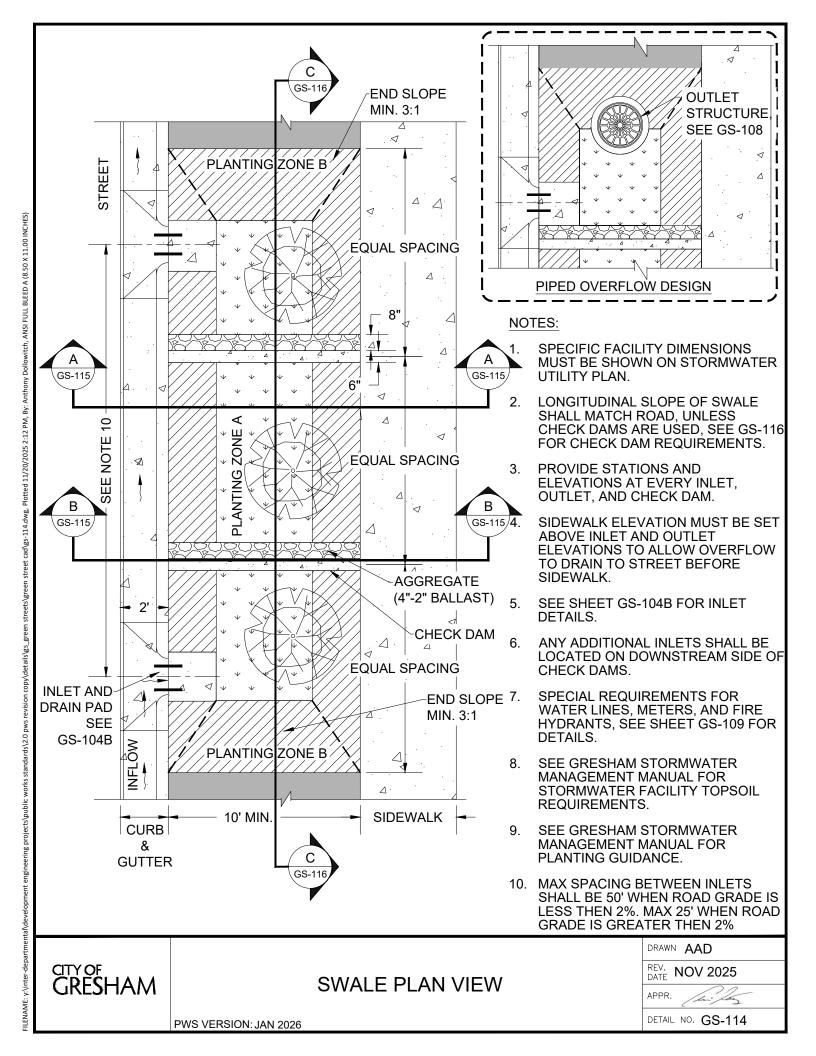
### INSTRUCTIONS:

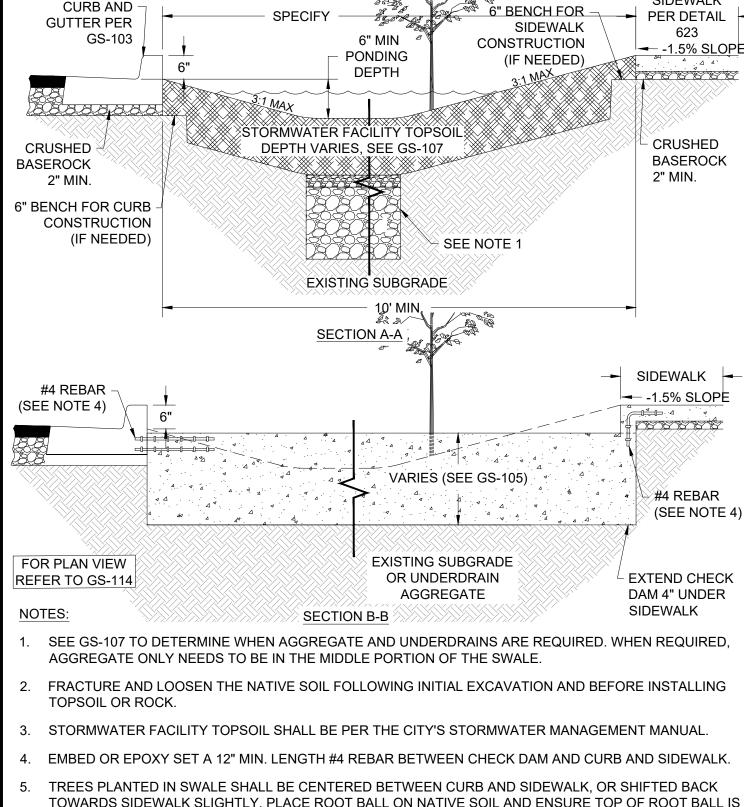
- 1. CHOOSE A TEMPLATE AND ALTER IT TO DESIGN. THESE ARE EXAMPLES OF APPROVED PLANTING TEMPLATES. OTHER PLANTING PLANS MAY BE APPROVED.
- 2. PLANT LISTS AND ON-CENTER SPACING REQUIREMENTS ARE FOUND IN THE STORMWATER MANAGEMENT MANUAL.
- 3. PLANTING LEGEND REQUIRED. STATE PLANT SPECIES, SPACING, AND QUANTITIES.
- 4. PLANTING PLANS SHALL INCLUDE LABELS FOR EACH PLANT GROUP IDENTIFYING THE PLANT SPECIES AND QUANTITY IN THE GROUP.
- DRAWING NOT TO SCALE ORIGINAL DRAWING AND SPECIFICATIONS FROM PORTLAND BUREAU OF ENVIRONMENTAL SERVICES

CITY OF GRESHAM

## PUBLIC FACILITY LANDSCAPING TEMPLATE

PUBLISHED: JAN 2026





- TOWARDS SIDEWALK SLIGHTLY. PLACE ROOT BALL ON NATIVE SOIL AND ENSURE TOP OF ROOT BALL IS 1-2" ABOVE FINAL TOPSOIL ELEVATION.
- SIDEWALK ELEVATION MUST BE EQUAL TO OR HIGHER THAN TOP OF CURB TO ENSURE WATER OVERFLOWS TO GUTTER.

STREET TREES SHALL FOLLOW GUIDANCE, INCLUDING STAKING, SPECIFIED IN PWS 6.02.18.

NTS

CITY OF GRESHAM

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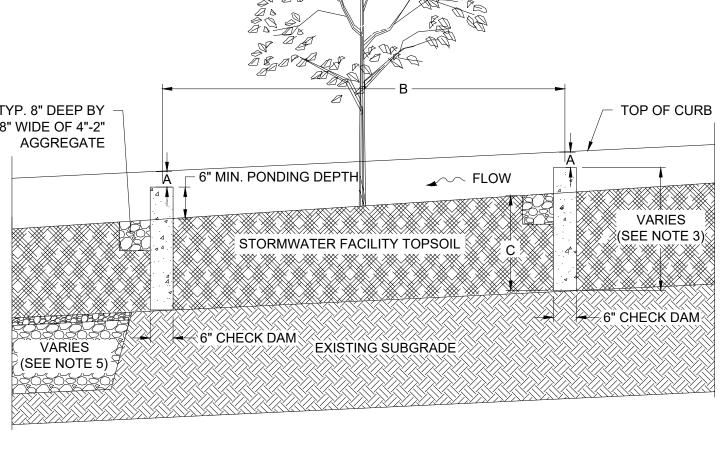
### SWALE SECTION VIEW

DRAWN AAD REV. DATE NOV 2025

APPR

**SIDEWALK** 

DETAIL NO. GS-115



## **SECTION C-C**

ROAD * GRADE	A (SEE NOTE 2)	MIN B	MAX B	С	
>8%-10%	4"	5'	10'	SEE GS-107	
>4%-8%	5"	7.5'	15'	FOR	
2%-4%	6"	12.5'	25'	DIMENSIONS	

- \* ROADS 0-2% DO NOT REQUIRE CHECK DAMS
- \*\* DIMENSION B VARIES BASED ON EQUAL SPACING **REQUIREMENT ON GS-114**
- 1. CHECK DAM TO BE PLACED ON UNDISTURBED NATIVE SOIL, OR ON UNDERDRAIN AGGREGATE IF
- 2. TOP OF CHECK DAM SHALL BE A MINIMUM OF 1" BELOW THE UPSTREAM INLET GUTTERLINE
- 3. CHECK DAM WIDTH IS 6". HEIGHT VARIES DEPENDING ON ROAD GRADE.
- 4. SEE GS-107 TO DETERMINE WHEN AGGREGATE AND UNDERDRAIN ARE REQUIRED.

NTS

CITY OF GRESHAM

**CONCRETE CHECK DAM FOR SWALE** 

REV. NOV 2025 DETAIL NO. GS-116

DRAWN AAD