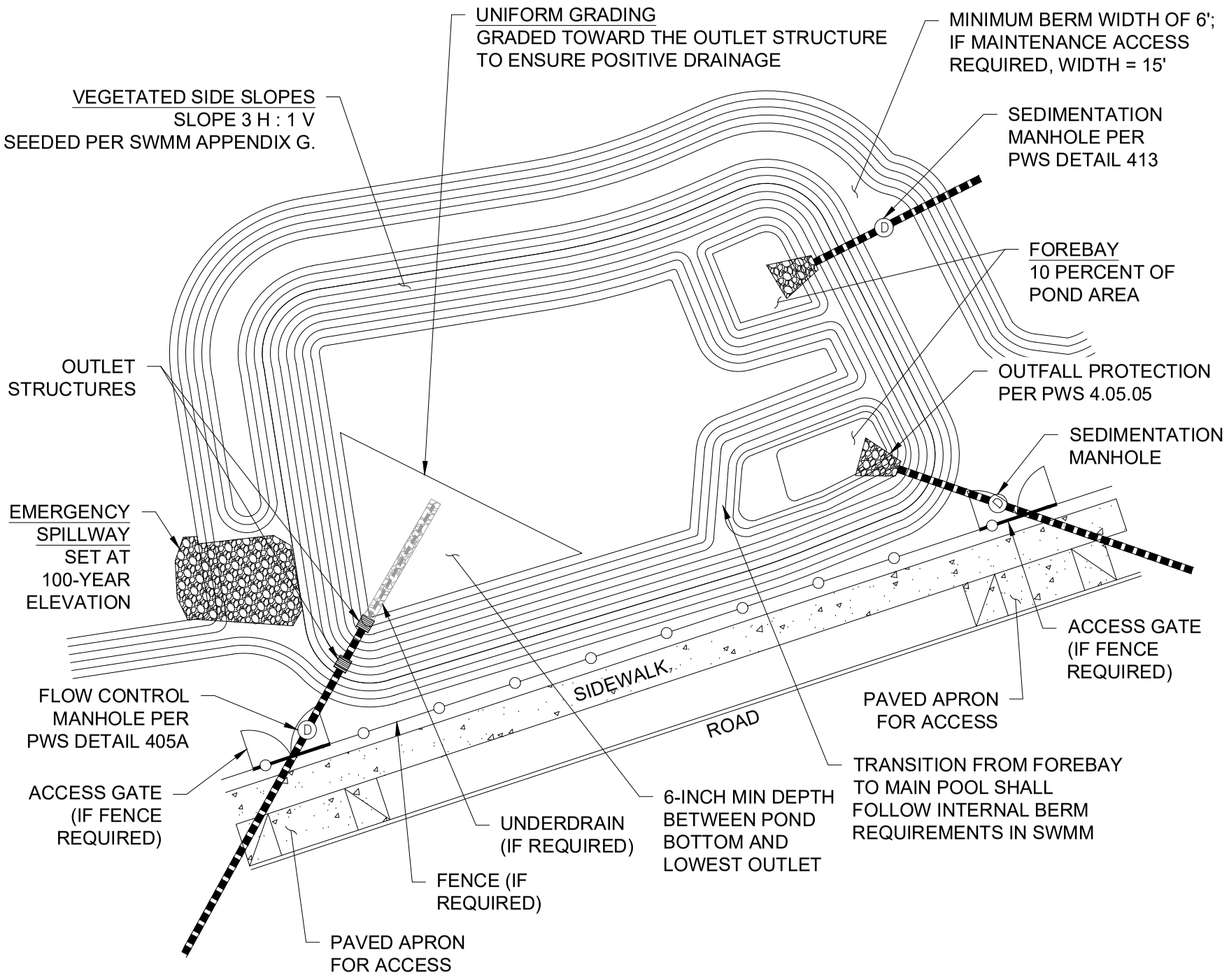
CITY OF GRESHAM

PUBLISHED: SWMM 2025

DRY POND PLAN VIEW



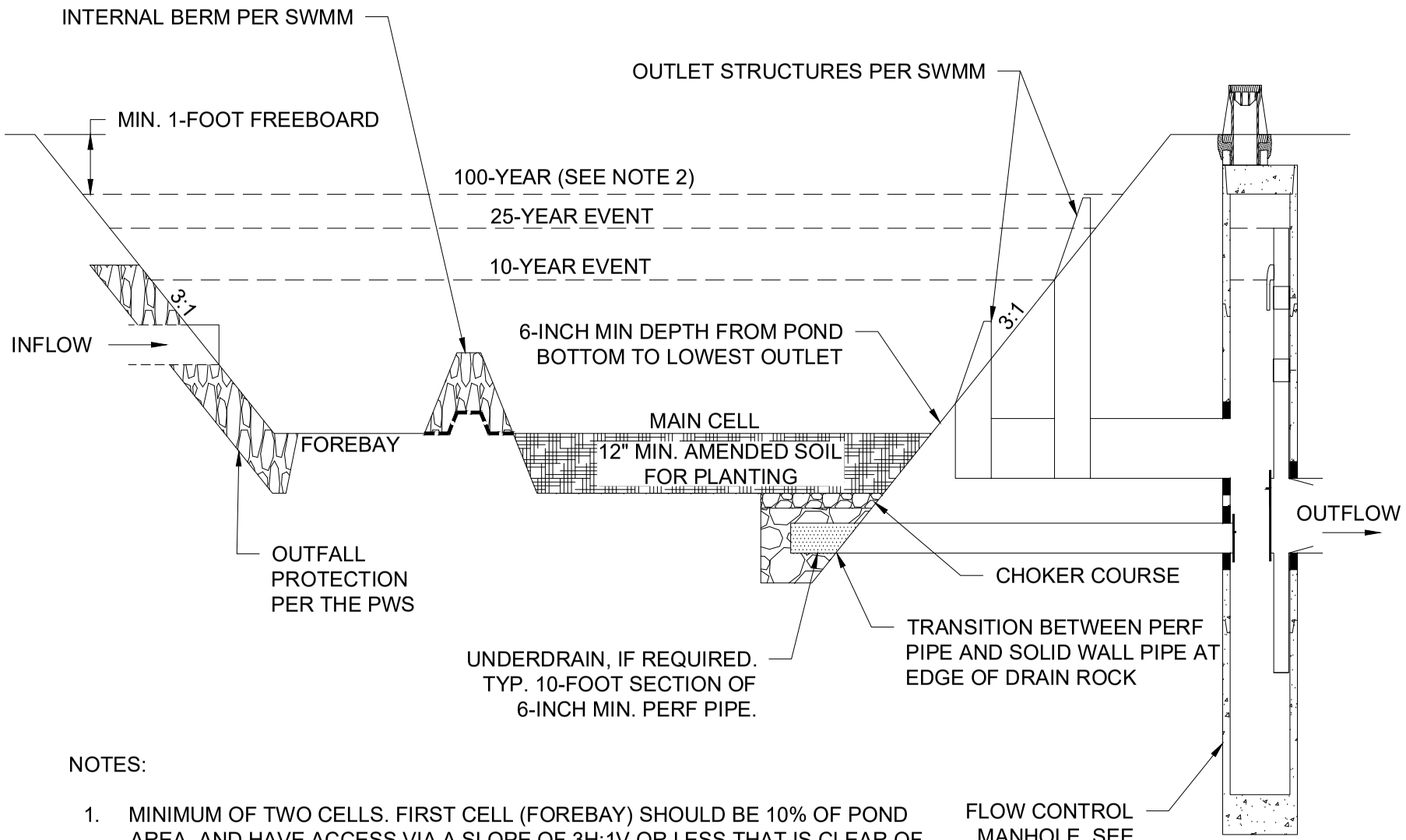
N.T.S.

DRAWN	REV. DATE	APPR.	DETAIL NO.
KRB	DEC 2024		415

CITY OF GRESHAM

PUBLISHED: SWMM 2025

DRY POND PROFILE VIEW



NOTES:

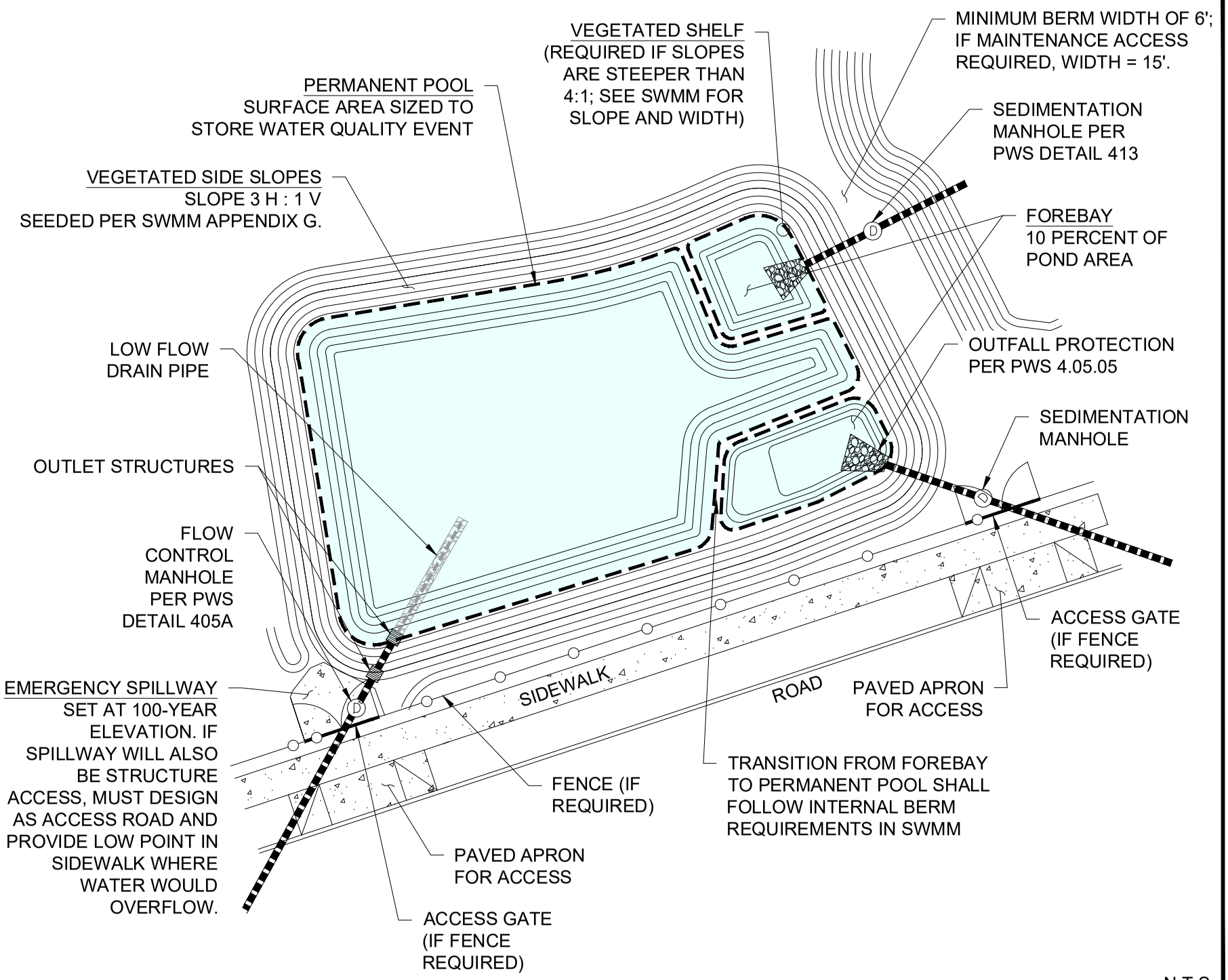
1. MINIMUM OF TWO CELLS. FIRST CELL (FOREBAY) SHOULD BE 10% OF POND AREA, AND HAVE ACCESS VIA A SLOPE OF 3H:1V OR LESS THAT IS CLEAR OF WOODY VEGETATION.
2. POND DESIGNER MUST CONSTRUCT AN EMERGENCY SPILLWAY AT THE 100-YEAR POND ELEVATION THAT IS A MINIMUM OF 1-FOOT BELOW TOP OF POND.
3. PERF PIPE MAY BE REQUIRED FOR FACILITIES WHERE WATER QUALITY EVENT CANNOT BE STORED WITHOUT OVERFLOW AND THEN DRAW DOWN WITHIN 48 HOURS.

DRAWN	REV. DATE	APPR.	DETAIL NO.
KRB	DEC 2024		416

CITY OF GRESHAM

PUBLISHED: SWMM 2025

WET POND PLAN VIEW



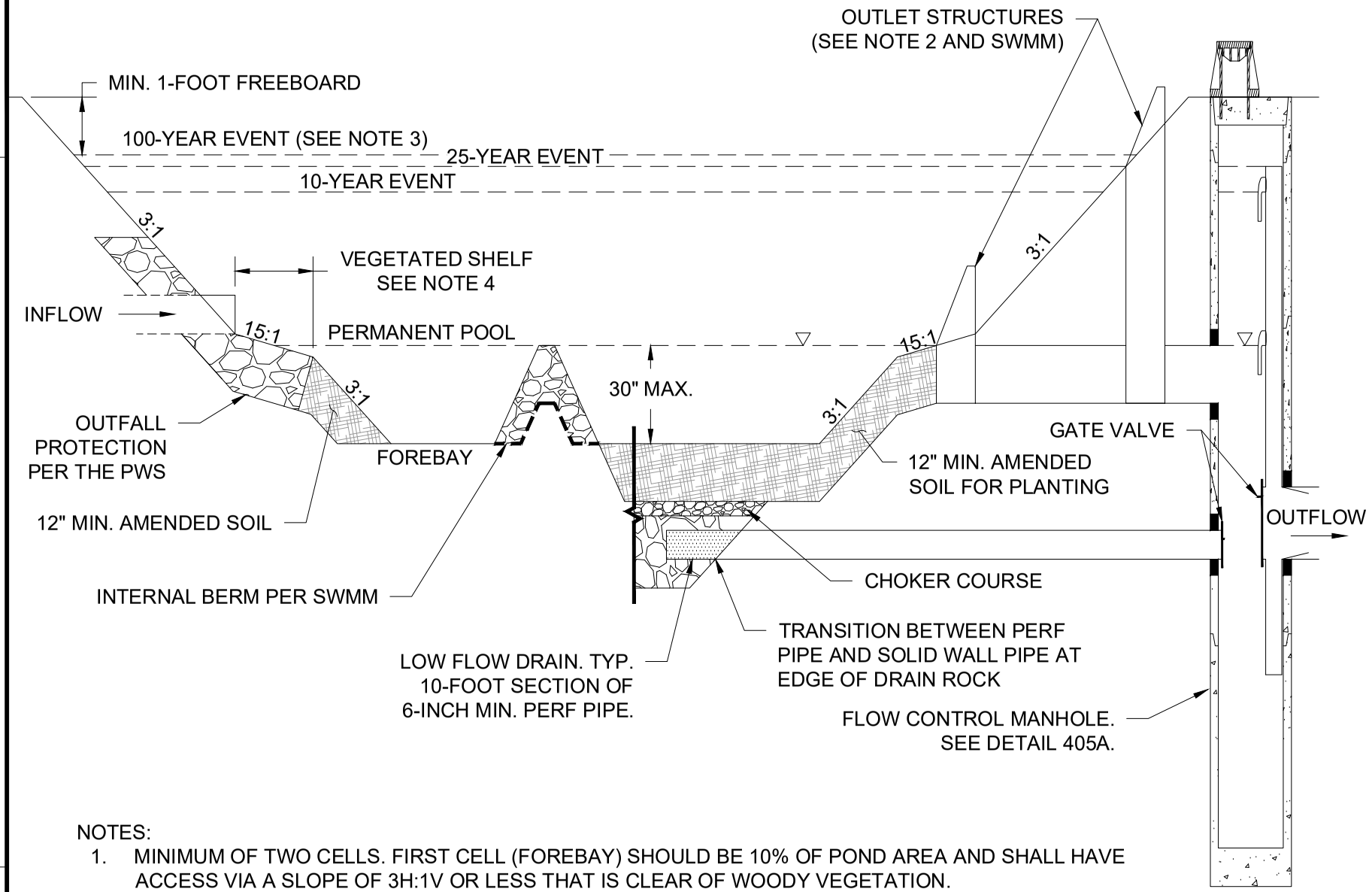
N.T.S.

DRAWN	REV. DATE	APPR.	DETAIL NO.
KRB	DEC 2024		417

CITY OF GRESHAM

PUBLISHED: SWMM 2025

WET POND PROFILE VIEW

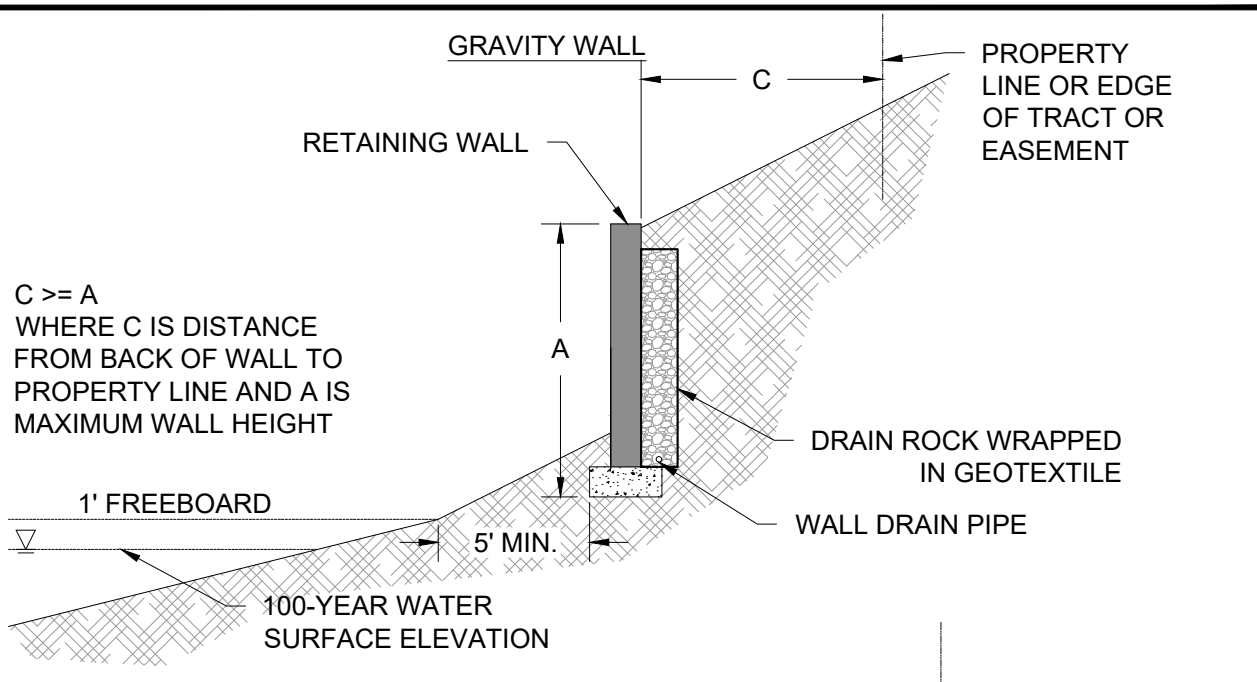


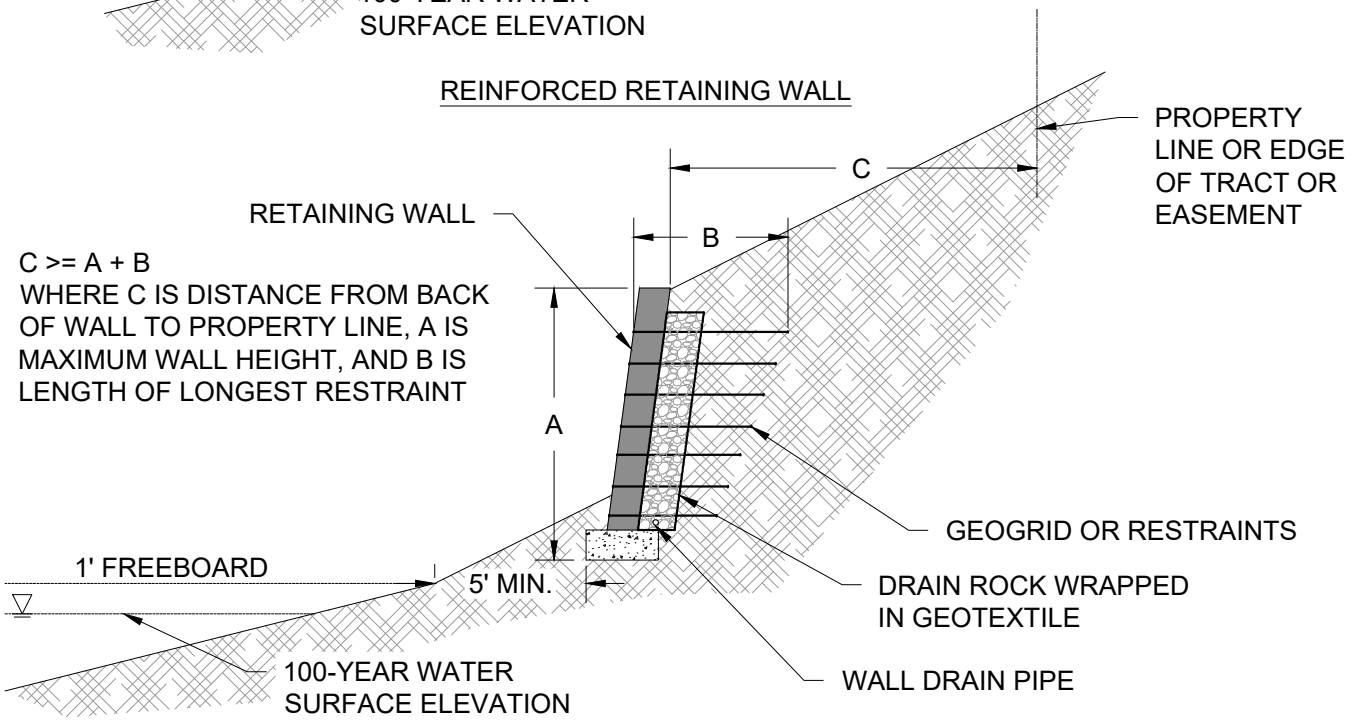
NOTES:

1. MINIMUM OF TWO CELLS. FIRST CELL (FOREBAY) SHOULD BE 10% OF POND AREA AND SHALL HAVE ACCESS VIA A SLOPE OF 3H:1V OR LESS THAT IS CLEAR OF WOODY VEGETATION.
2. LOWEST OUTLET STRUCTURE SHALL BE LOCATED WITHIN VEGETATED SHELF (WHEN REQUIRED), OR AT LEVEL OF PERMANENT POOL, AND PROVIDE MAINTENANCE ACCESS THAT IS CLEAR OF WOODY VEGETATION.
3. POND DESIGNER MUST CONSTRUCT AN EMERGENCY SPILLWAY AT THE 100-YEAR POND ELEVATION THAT IS A MINIMUM OF 1-FOOT BELOW TOP OF POND.
4. VEGETATED SHELF SHOWN FOR REFERENCE. ONLY REQUIRED IF SLOPES ARE STEEPER THAN 4H:1V. SEE SWMM FOR REQUIREMENTS.

N.T.S.

DRAWN	REV. DATE	APPR.	DETAIL NO.
KRB	DEC 2024		418





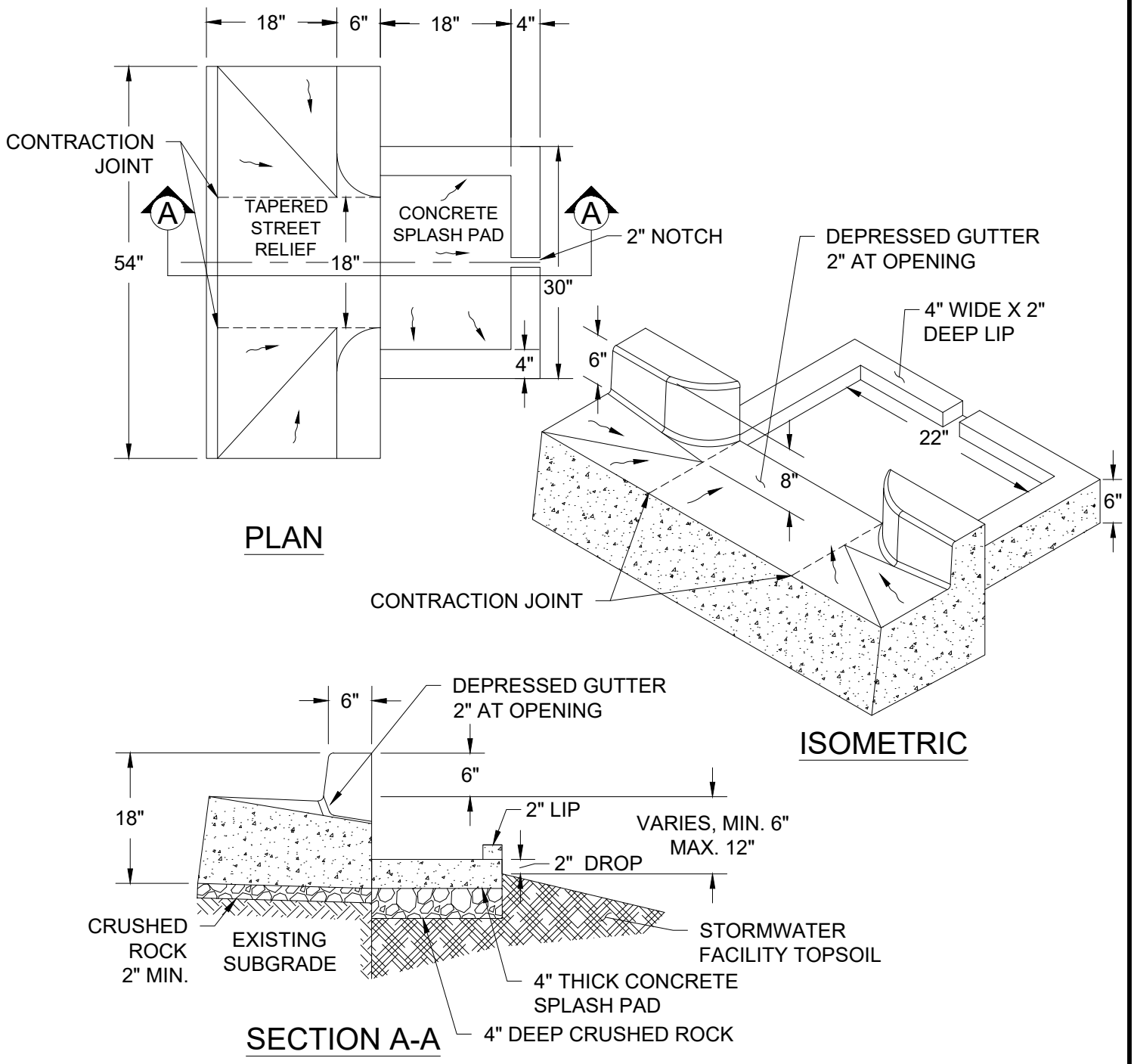
1. RETAINING WALLS ARE NOT ALLOWED WITHIN THE ACTIVE POND AREA. ALL PARTS OF THE WALL MUST BE A MINIMUM DISTANCE OF 5 FEET AWAY FROM THE BOUNDARY DEFINED BY THE FREEBOARD ELEVATION.
2. GRAVITY WALLS SHALL BE SET BACK FROM THE NEAREST PROPERTY LINE OR EDGE OF TRACT OR EASEMENT BY AT LEAST THE DISTANCE EQUAL TO THE WALL HEIGHT.
3. REINFORCED RETAINING WALLS SHALL BE SET BACK FROM THE NEAREST PROPERTY LINE OR EDGE OF TRACT OR EASEMENT BY AT LEAST THE DISTANCE EQUAL TO THE MAXIMUM WALL HEIGHT PLUS THE LENGTH OF THE LONGEST RESTRAINT.
4. DRAIN ROCK WRAPPED IN GEOTEXTILE SHALL BE INCLUDED BEHIND WALLS.
5. NO PERFORATIONS FOR PRIVATE STORM LINES SHALL PASS THROUGH RETAINING WALLS.
6. STRUCTURAL DESIGN CALCULATIONS MUST BE SUBMITTED WITH EVERY RETAINING WALL PROPOSAL.
7. WALLS SHALL NOT INHIBIT MAINTENANCE ACCESS INTO THE FACILITY, PARTICULARLY THE FOREBAYS.

CITY OF GRESHAM

RETAINING WALLS ADJACENT TO PONDS

PUBLISHED: SWMM 2025

DRAWN	TFH
REV. DATE	NOV 2024
APPR.	
DETAIL NO.	419



NOTES:

1. REFER TO GS-103 FOR THICKENED MONOLITHIC CURB AND GUTTER. IF PRESENT, MATCH GUTTER PAN WIDTH OF ADJACENT CURB AND GUTTER.
2. GUTTER AND SPLASH PAD SHALL BE MONOLITHIC OR TIED TOGETHER WITH #4 REBAR, 8" ON CENTER.
3. SEE CHECK DAM DETAIL GS-105 FOR DISTANCE TO TOP OF SPLASH PAD.
4. MAXIMUM DISTANCE BETWEEN INLETS SHALL BE 25 FEET.
5. INTENDED FOR USE WITH STORMWATER SWALES. SEE GS-114.

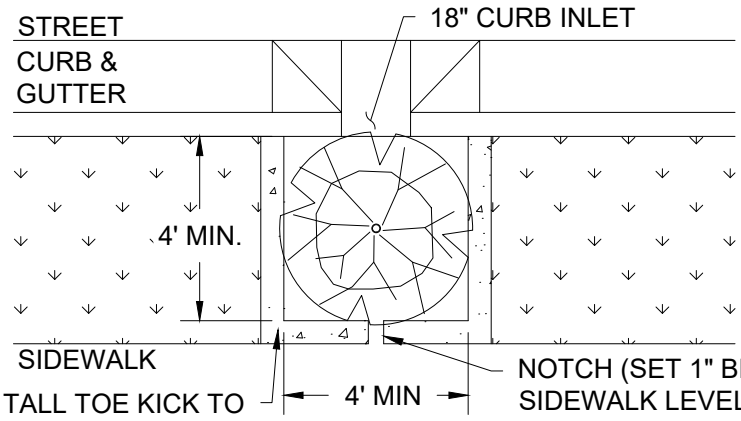
NTS

CITY OF GRESHAM

CONCRETE SPLASH PAD WITH LIP

PWS VERSION: SWMM 2025

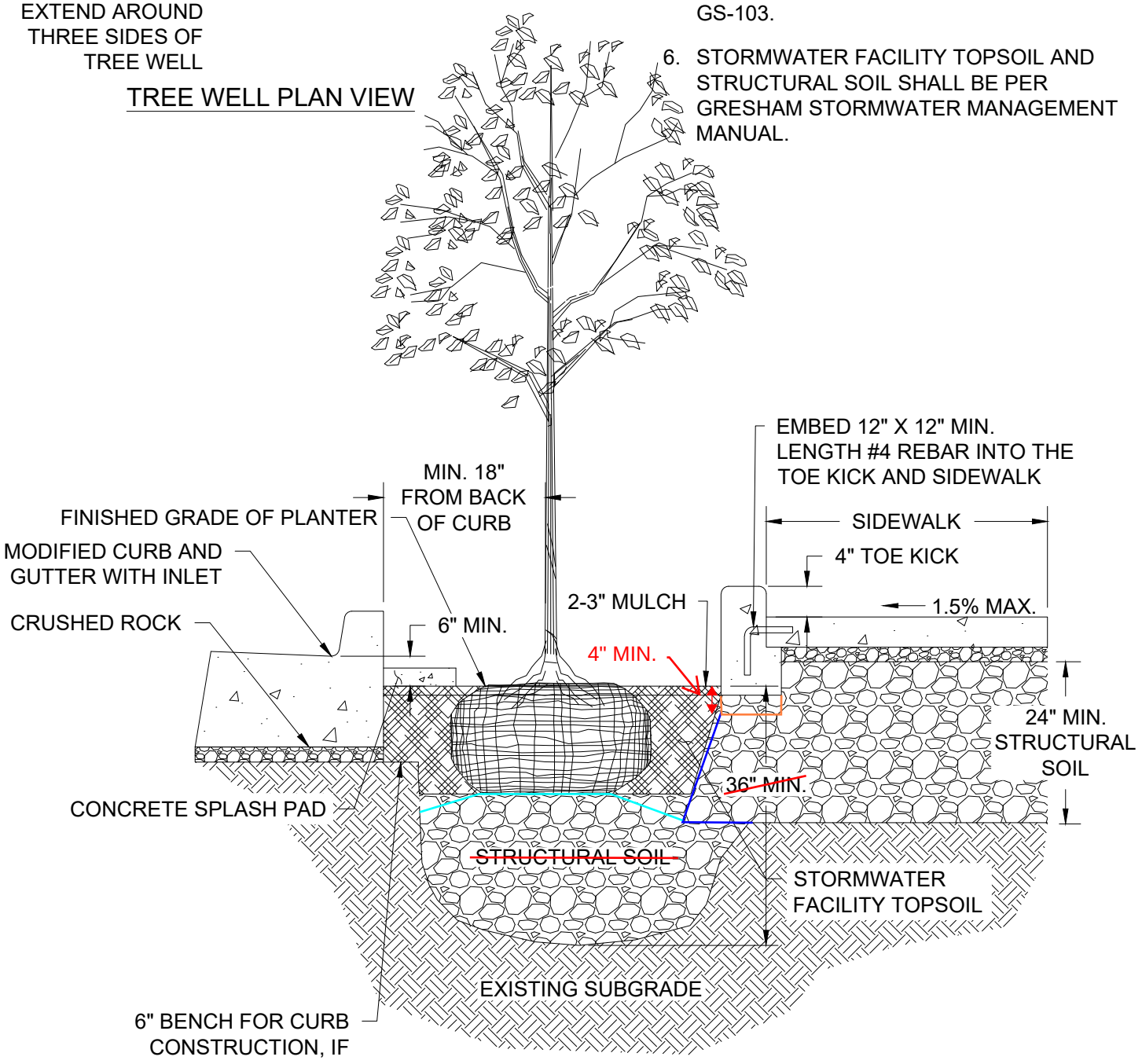
DRAWN	TFH
REV. DATE	DEC 2024
APPR.	
DETAIL NO.	GS-104B



TREE WELL PLAN VIEW

NOTES:

1. REMOVE WIRE AND BURLAP FROM ROOT BALL PRIOR TO BACKFILLING.
   PLANT TREE ON PEDESTAL OF NATIVE SOIL, ADJ
2. SET TOP OF ROOT BALL A MINIMUM OF 1"-2" ABOVE TOPSOIL SURFACE.
3. SET ONE "DRAINS TO RIVER" BUTTON INTO CURB BEFORE CONCRETE HAS DRIED.
4. SEE GS-104 FOR CURB INLET DETAILS.
5. USE MODIFIED CURB AND GUTTER PER GS-103.
6. STORMWATER FACILITY TOPSOIL AND STRUCTURAL SOIL SHALL BE PER GRESHAM STORMWATER MANAGEMENT MANUAL.



NTS

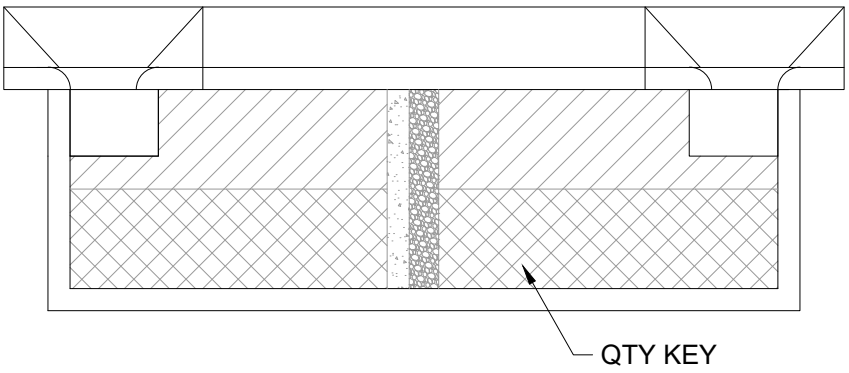
CITY OF GRESHAM

STORMWATER TREE WELL WITH STRUCTURAL SOIL

PWS VERSION: SWMM 2025

DRAWN	KRB
REV. DATE	NOV 2024
APPR.	
DETAIL NO.	GS-111

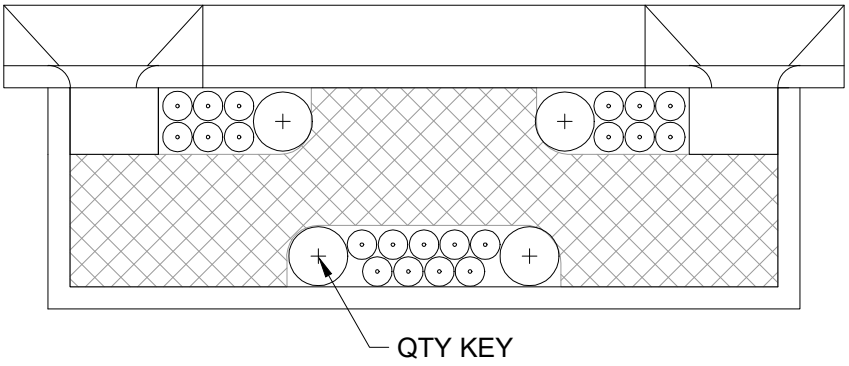
TEMPLATE 1



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
	CAREX OBNUPTA SLOUGH SEDGE
	SPIRAEA JAPONICA 'GOLD MOUND' GOLDMOUND JAPANESE SPIREA

SAMPLE PLANTING LEGEND

				SQ. FOOT AREA =	X
SYMBOL	BOTANIC NAME	COMMON NAME	SPACING	SPACING	QTY.
	Xxxxxx xxxxx	xxxxx	X	X	X
	Xxxxxx xxxxx	xxxxx	X	X	X

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.

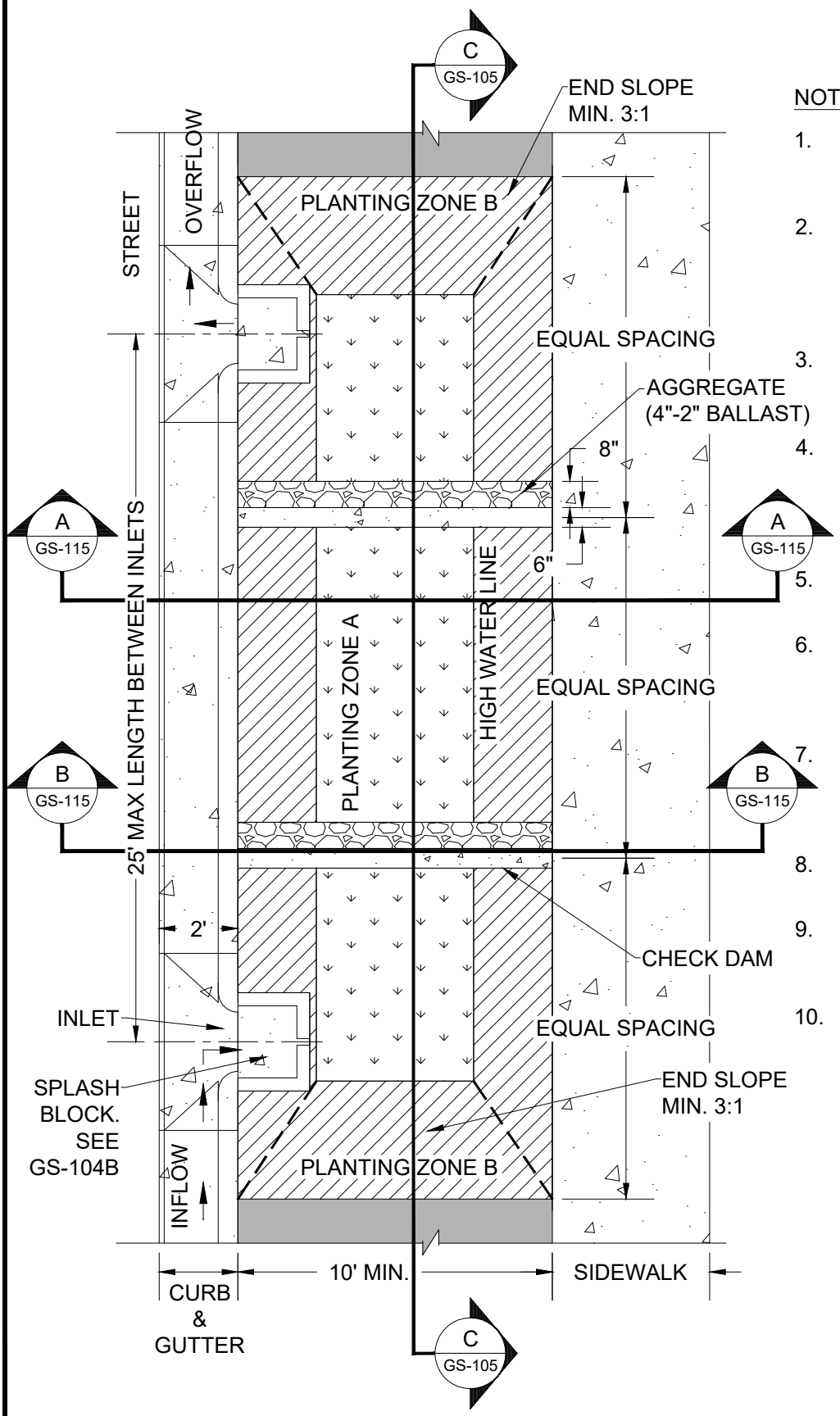
– DRAWING NOT TO SCALE –
ORIGINAL DRAWING AND SPECIFICATIONS FROM PORTLAND BUREAU OF ENVIRONMENTAL SERVICES

CITY OF GRESHAM

PUBLIC FACILITY LANDSCAPING TEMPLATE

PUBLISHED: JAN 2026

DRAWN	DRO
REV. DATE	APR 2018
APPR.	
DETAIL NO.	GS-113



NOTES:

1. SPECIFIC FACILITY DIMENSIONS MUST BE SHOWN ON STORMWATER UTILITY PLAN.
2. LONGITUDINAL SLOPE OF SWALE SHALL MATCH ROAD, UNLESS CHECK DAMS ARE USED, SEE GS-105 FOR CHECK DAM REQUIREMENTS.
3. PROVIDE STATIONS AND ELEVATIONS AT EVERY INLET, OUTLET, AND CHECK DAM.
4. SIDEWALK ELEVATION MUST BE SET ABOVE INLET AND OUTLET ELEVATIONS TO ALLOW OVERFLOW TO DRAIN TO STREET BEFORE SIDEWALK.
5. SEE SHEET GS-104B FOR INLET DETAILS.
6. SPECIAL REQUIREMENTS FOR WATER LINES, METERS, AND FIRE HYDRANTS, SEE SHEET GS-109 FOR DETAILS.
7. SEE GRESHAM STORMWATER MANAGEMENT MANUAL FOR STORMWATER FACILITY TOPSOIL REQUIREMENTS.
8. MODIFIED CURB AND GUTTER: STANDARD DRAWING GS-103.
9. SEE GRESHAM STORMWATER MANAGEMENT MANUAL FOR PLANTING GUIDANCE.
10. IF STREET LIGHTS ARE PLACED IN FACILITY, PGE APPROVED FOUNDATION WITH 1' CONCRETE SURROUND MUST BE USED.

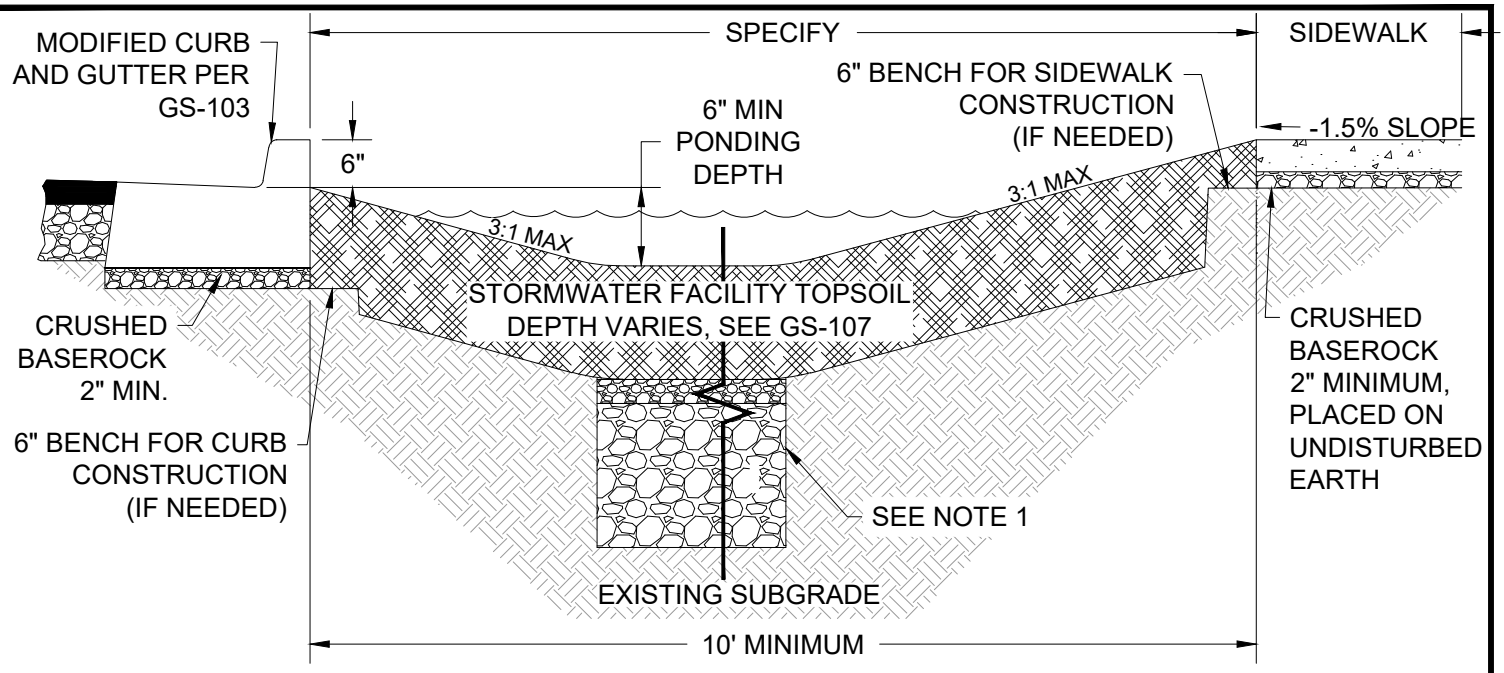
SCALE: 1"=4'-0"

CITY OF GRESHAM

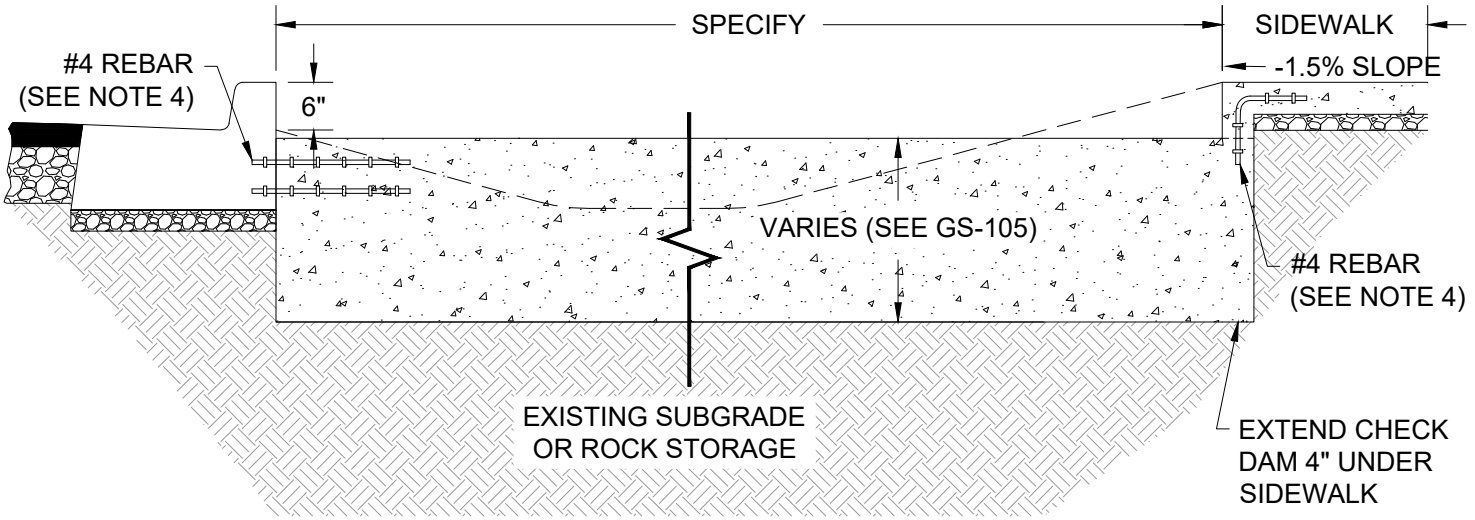
SWALE PLAN VIEW

PWS VERSION: SWMM 2025

DRAWN	KRB
REV. DATE	JAN 2025
APPR.	
DETAIL NO.	GS-114



SECTION A-A



SECTION B-B

FOR PLAN VIEW REFER TO GS-201

NOTES:

1. SEE GS-107 TO DETERMINE WHEN AGGREGATE AND UNDERDRAINS ARE REQUIRED. WHEN REQUIRED, AGGREGATE ONLY NEEDS TO BE IN THE MIDDLE PORTION OF THE SWALE.
2. FRACTURE AND LOOSEN THE NATIVE SOIL FOLLOWING INITIAL EXCAVATION AND BEFORE INSTALLING TOPSOIL OR ROCK.
3. STORMWATER FACILITY TOPSOIL SHALL BE PER THE CITY'S STORMWATER MANAGEMENT MANUAL.
4. EMBED OR EPOXY SET A 12" MIN. LENGTH #4 REBAR BETWEEN CHECK DAM AND CURB AND/OR SIDEWALK.
5. TREES PLANTED IN SWALE SHALL BE CENTERED BETWEEN CURB AND SIDEWALK. PLACE ROOT BALL ON NATIVE SOIL AND ENSURE TOP OF ROOT BALL IS 1-2" ABOVE FINAL TOPSOIL ELEVATION.

NTS

CITY OF GRESHAM

SWALE SECTION VIEW

PWS VERSION: SWMM 2025

DRAWN	KRB
REV. DATE	DEC 2024
APPR.	
DETAIL NO.	GS-115