Completeness Review Response

Re: 24-105597-PLN

Submittal Requirements; I am requesting to partition my property into three lots with each lot containing no more than one home.

Stormwater Management; I have included an outline and drawings to illustrate my intentions regarding the Stormwater Management.

Utility Plan; I have included an outline with the Stormwater Management and drawings to illustrate my intentions.

Flag Lot Accessway Standards; I realize on my original request I described my partitions as Multi-Family. I was incorrect, I had simply concluded that due to more than one home on the entire property that it would be considered Multi-Family. I have learned otherwise and restate as above in the Submittal Requirements that these properties will be Single-Family Residence per Partition.

Deed; It has now been submitted.

Neighborhood Contact; I have contacted both Neighborhood Associations with only one response from Highland Acknowledging that I contacted her and No response from Northgate.

Flag Lot length; The flag lot length and width meet the requirements but the length of the Driveway exceeds the 150' limit by 27' with reason due to the unknown of a future home on partion #3. The additional area falls in line with the planned Rain Garden which with approval can become a permeable paved parking or reversing area with an Overflow Basin. Options are open to later determinations should a home be built in that lot.

Note; It is at this point that I state that I do not wish to reconfigure the lots due to the convenient location of the Rain Garden acting as both a way of handling excess stormwater without runoff to the streets and as a natural fence between properties.

Should a pervious paved area be needed, it also provide a way to accomplish that with a Basin Overflow.

Also noted; that it will require the home built on Partition #3 to have an approved Home Sprinkler System as outlined in SRC 800.025.c/3/a.

Final Note; Regarding partition #2, I have presently separated the water and sewer from the main home on Proposed Partition #1, filed and completed permits to inspect the existing small home on Partition #2 in preparation for hookup to the City and would like to proceed by obtaining the demolition permit for the Garage on Partition #1 and obtaining the Permits for hookup to the City for Sewer and Water on Patition #2 the existing small home.

Thank you for your consideration of my Request.

Stormwater Management System

Single-Family Residential within Commercial Zoning
2886,2888,2890 Brooks Ave NE, Salem, OR 97301
Three Parcel Partition

Parcel #1. Parcel One, also known as 2890 Brooks Ave NE, includes the existing 1750sqf single-family home that sits on and accesses Brooks Ave NE. This parcel accesses the already constructed stormwater Facilities. Rainwater falling on the impervious areas flows to the south gravel area running parallel to the driveway, and then to the south, west and east lawn area as well as the gravel road to the north and finally to the west onto Brooks Ave NE. The Garage that is attached to the home will be removed in order to facilitate the driveway and provide access for sewer, water and stormwater for the two newly created partitions.

Parcel #2. Parcel Two, also known as 2888 Brooks Ave NE, is tentatively platted at 5278sf, which includes the existing single family home that was previously connected to both sewer and water from the Parcel One home also known as 2890 Brooks Ave NE and has always been hooked to Salem Electric separately, this home is 418sqf and with approximately 815sqf which includes a 216sqf cement slab of impervious area and is ready for water and sewer hookup to complete the partition. This Parcel with home is sitting level with less than 1% grade on an all grass lawn with no ponding or runoff observed over the last 13 years and has a perforated pipe completely encircling the home and previously attached to the stormwater/sewer of Parcel #1. The gutters drains are presently running off to the lawn both east and west. The parcel access is intended to be a 150' X 20' driveway that has direct access to Brooks Ave NE running east to west with a remaining 20'X 27' driveway that is intended to be a possible basin drain area to mitigate the overflow of a Rain Garden or specifically the proposed driveway.

Then if necessary, the covered basin overflow with a 3" sched 40 PVC drain pipe running to the curb for overflow drainage at the Brooks Ave Street, then the runoff will flow down to the Brooks Ave and McDonald St Storm Drain. The Rain Garden between both Parcel #2 and Parcel #3 as outlined in Salem OR Public Works Plan 217 with an extension of the 20' X 27' Permeable Driveway running in line to the proposed drive to the North creating an additional 20' X 59' Rain Garden or Permeable Driveway all being preferred as a Permeable Driveway. It should be possible with the additional 27' X 20' of Permeable Driveway the overflow that could exist may be handled within the property itself as it has since the beginning.

Parcel #3. Parcel Three, also known as 2886 Brooks Ave NE. is tentatively platted at 5,278sf, has no existing home and is sitting level with no impervious area and with less than 1% grade to the West it also has 100% lawn with no pooling or runoff observed over the last 13 years and will be separated from Parcel #2 to provide an accessible and buildable lot. The lot has access to Brooks Ave NE Through the 150' x 20' easement and by the 27' x 20' Rain Garden/Permeable driveway and if necessary with the covered basin overflow that is drained with a 3" sched 40 pvc pipe that exits at the curb on Brooks Ave NE

and flows from there to the stormwater drain at the corner of Brooks Ave and McDonald St NE.

Parcels #1,2 & 3 all exist on a RS zone surrounded by Residential Rentals as well as Commercial Properties, both East and West. There remain only two trees on Parcel #1 and they exist on the parking strip alongside Brooks Ave NE to the west which sets directly over the main sewer. Previous trees have been removed on the property due to rot and danger to existing structures. Trees that do exist are outside the property boundaries in neighboring homes. The driveway easement that has been determined to be 150' X 20' which gives access to all three parcels will also continue for an additional 27' so as to provide a stormwater drainage solution as a Rain Garden or Permeable asphalt then if necessary to a covered overflow basin which will have a 3" sched 40 pvc overflow drain pipe that will exit at the curb on Brooks Ave NE which will provide drainage for the Impervious driveway and any runoff created on the two Parcels.

Previous owners of the property used that small home and the Garage as homes for others to rent causing the city to provide the additional address numbers, 2888 Brooks Ave NE for the small home and 2886 for the Garage. The open lawn area was previously used as a food garden. There remains two Concord Grape vines on the East end of Parcel #3 which also has an 12" cement retaining wall separating the commercial property from the east to Parcel #3

Parcel #2 will remain as the small single family home on the 5,278sqf

Parcel #3 has room on the 5,278sf property to build a single family residence but there is no plan at this time, the property which is desired by our neighbor have plans for personal use at this time causing the necessity for the separation of Parcel #2 and Parcel#3 due to the ability to sell Parcel #2.

Information used includes:

City of Salem Stormwater Design Handbook, utilizing the simplified method
NFWF the Homeowners Guide to Stormwater, Pennsylvania PA
The Oregon Rain Garden Guide from Sea Grant of Oregon
City of Portland Stormwater Management Manual

Questions outstanding;

Can two sewer pipes run in the same ditch with each other?
Can the stormwater drain pipe, 3"pvc, run out to the curb for overflow?
Can two water pipes run in the same ditch with each other and below a storm drain pipe to the curb?
Can any pipe cross or run parallel through another property?

Exhibit "A"

Real property in the City of Salem, County of Marion, State of Oregon, described as follows:

LOT 4 OF J.F. MCDONALD'S FRUIT TRACTS, LOCATED IN TOWNSHIP 7 SOUTH, RANGE 3 WEST IN MARION COUNTY, STATE OF OREGON, AS SHOWN BY PLAT THEREOF, RECORDED IN VOL. 5, PAGE 24, RECORD OF TOWN PLATS FOR SAID COUNTY AND STATE.

SAVE AND EXCEPT THEREFROM THE FOLLOWING PORTION THEREOF, TO -WIT: BEGINNING AT THE SOUTHWEST CORNER OF TRACT 4 IN J.F. MCDONALD'S FRUIT TRACTS LOCATED IN TOWNSHIP 7 SOUTH, RANGE 3 WEST OF THE WILLAMETTE MERIDIAN IN MARION COUNTY, OREGON, AS SHOWN AND DESIGNATED ON PAGE 24 OF VOLUME 5 OF THE RECORD OF TOWN PLATS FOR MARION COUNTY, OREGON; AND RUNNING THENCE EAST ALONG THE SOUTH BOUNDARY LINE OF SAID TRACT 287 FEET TO THE SOUTHEAST CORNER OF SAID TRACT; THENCE NORTH AND ALONG THE EAST BOUNDARY LINE OF SAID TRACT, 75 FEET; THENCE WEST AND PARALLEL WITH THE SOUTH BOUNDARY LINE OF SAID TRACT, 287 FEET TO A POINT ON THE WEST BOUNDARY LINE OF SAID TRACT WHICH IS 75 FEET NORTH FROM THE PLACE OF BEGINNING; THENCE SOUTH 75 FEET TO THE PLACE OF BEGINNING.

NOTE: This legal description was created prior to January 1, 2008.

Tax Parcel Number: R82067

CITY OF Salem AT YOUR SERVICE

2888 BROOKS AVE NE, SALEM, OR 97301

Simplified Method Form

The City has produced this form to provide a quick and simple approach to managing stormwater on-site. Facilities sized with this form are presumed to comply with basic treatment and flow control requirements.

INSTRUCTIONS		SITE INFORMATION	
1.	Enter Square footage of new and/or replaced impervious site area.	(1) Total Impervious Area	Ø sf
2.	Enter amount of area reduction. This includes trees, pervious pavement, green roofs, and areas with rainwater harvesting.	(2) Total Impervious Area Reduction	Ø sf
3.	Subtract (2) from (1) to calculate total impervious area requiring stormwater facilities (3) = (1) – (2)	(3) Required Mitigation Area	Ø sf
4.	Select desired stormwater facilities from rows (b) through (f) in Column 1, below. Enter the square footage of impervious area that will flow into each facility type in Column 2.		
5.	Multiply each impervious area from Column 2 by the corresponding sizing factor in Column 3, and enter the result in Column 4. This is the facility surface area required.		
6.	Total Column 2 (Rows b - f) and enter the resulting "Impervious Area Managed" on line (6).	(6) Total Impervious Area Managed	860 sf
7.	Subtract (6) from (3) and enter the result on line (7). This must be zero or less. Submit this form with the application for permit. (7) = (3) - (6)	(7) Remaining Area	-860 sf

Column 1	Column 2	Column 3		Column 4
Stormwater Management Facility	Impervious Area Managed	Infiltration Rate	Sizing Factor	Facility Surface Area
b. Infiltration Planter (Standard Plan STD215)	sf	0.5-0.75	0.11	= sf
		0.75-1.25	0.09	= sf
		1.25-1.75	0.07	= sf
		>1.75	0.06	= sf
c. Filtration Planter (Standard Plan STD216)	sf		0.06	= sf
d. Infiltration Rain Garden (Standard Plan STD217)	860 sf	0.5-0.75	0.11	= 94.6 sf
		0.75-1.25	0.09	= sf
		1.25-1.75	0.07	= sf
		>1.75	0.06	= sf
e. Filtration Rain Garden (Standard Plan STD217)	sf		0.06	= sf
f. Vegetated Filter Strip (Standard Plan STD218)	sf		0.20	= sf

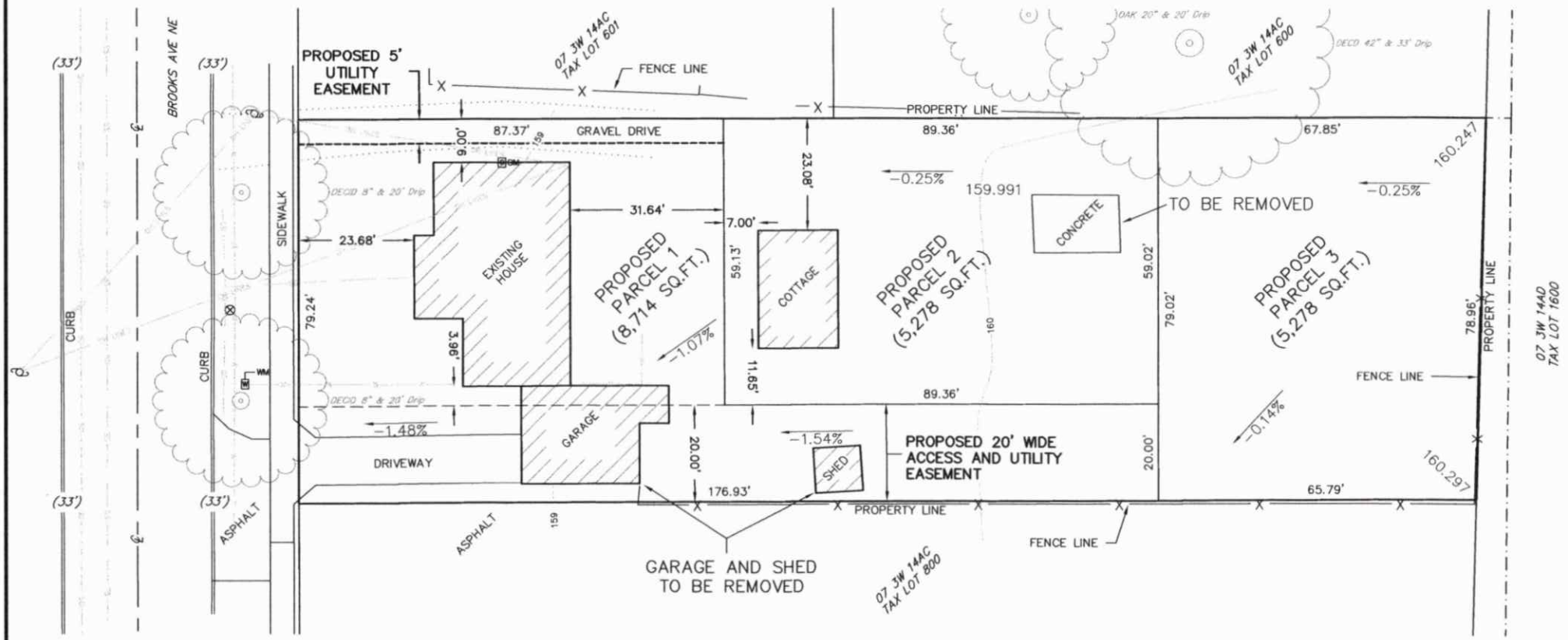
Basic Method—Open Pit Infiltration Test Form

Location: 2886 BROOKS AVE NE SALEM, OR 97301	Tester's Name: STEVE JASPERSON	Date: 2-4-24
Depth to bottom of hole: 46"	Diameter of hole: 12"	Test Number:

n	A	B	C	D	E	F
	Time	Time interval, minutes ($A_n - A_{n-1}$)	Measurement, inches	Drop in water level, inches ($C_n - C_{n-1}$)	Infiltration rate, inches per hour (D/B) * 60 min/hr	Comments
0	1:25PM	START	39.5	Ø	Ø	
1	1:45	20 M	39.6875	.1875	.5625	
2	2:05	20	39.8125	.125	.375	
3	2:25	20	40	.1875	.5625	
4	2:45	20	40.125	.125	.375	
5	3:05	20	40.250	.125	.375	
6						
7						
8					2.25/5=.45	
				Average Infiltration Rate	.45	

Ryan Makie

PROPOSED LAND PARTITION (OPTION 2)
2886 BROOKS AVE NE



OWNER
STEVEN JASPERSON & PHI L. LIEU
170 W ELLLENDALE DR #103 B 119
DALLAS, OR 97338

SITE ADRESS
2886 BROOKS AVE NE
SALEM, OR 97301

ZONING INFO
SINGLE FAMILY RESIDENTIAL (RS)

TAX LOT
073W14AD 700

TOTAL AREA
19,270 SQAURE FEET

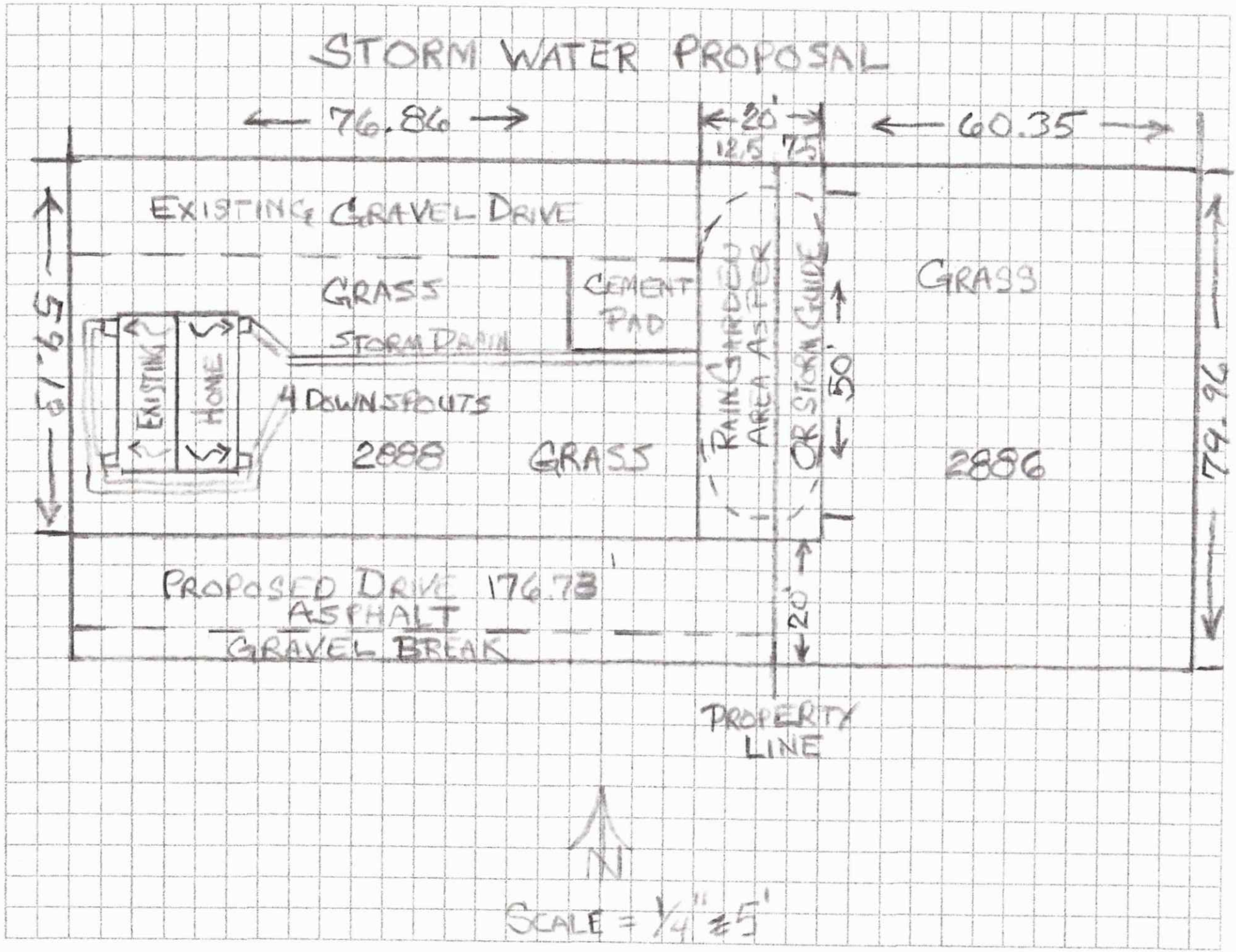
SURVEYOR
GREGORY L. WILSON
BARKER SURVEYING
3657 KASHMIR WAY SE
SALEM, OR 97317
503-588-8800
greg@barkerwilson.com

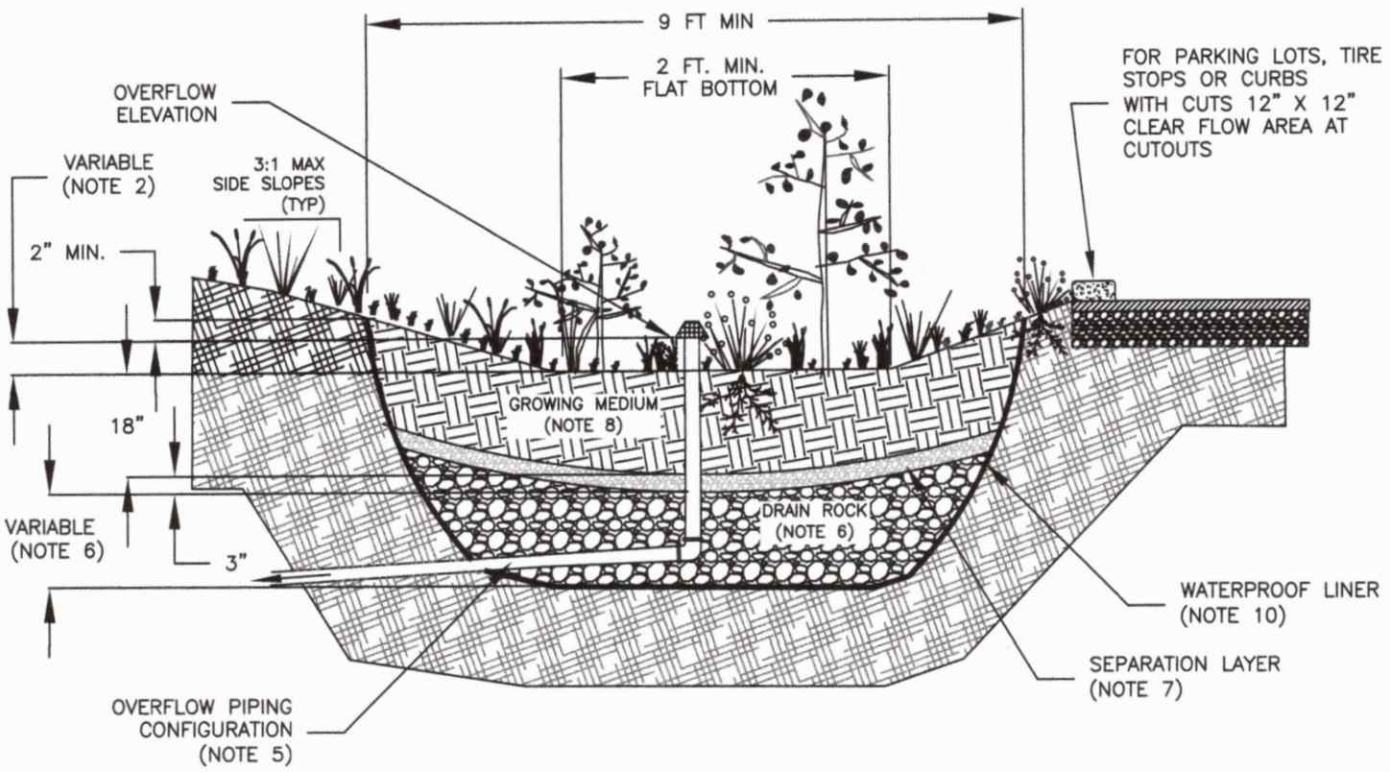
SCALE:
1" = 30'

SUBJECT PROPERTY IS LOCATED IN FEMA ZONE X (OUTSIDE 500-YEAR FLOODPLAIN) PER FEMA #41047C0334H DATED 01/02/2003

BARKER SURVEYING
3657 KASHMIR WAY SE
SALEM, OREGON 97317
PHONE (503) 588-8800
FAX (503) 363-2469
EMAIL: INFO@BARKERWILSON.COM

MAIN SEWER
SIDEWALK
DRIVEWAY
SIDEWALK
GRAVEL DRIVE
2890
EXISTING HOME
2886 WATER LINE
2885 WATER LINE
2886 SEWER
2886 SEWER
PROPOSED UTILITY HOOK UP
PROPOSED SEWER
PROPERTY LINE
2888
EXISTING ELEC METER
EXISTING HOME
PROPOSED WATER
PROPOSED SEWER
PROPERTY LINE
2886
N
NOT TO SCALE





NOTES:

1. PROVIDE PROTECTION FROM ALL VEHICLE TRAFFIC, EQUIPMENT STAGING, AND FOOT TRAFFIC IN PROPOSED INFILTRATION AREAS PRIOR TO, DURING, AND AFTER CONSTRUCTION.

2. DIMENSIONS:
   A. WIDTH: 9 FT. MINIMUM.
   B. DEPTH OF RAIN GARDEN (MEASURED FROM TOP OF GROWING MEDIUM TO OVERFLOW ELEVATION):
      1)SIMPLIFIED 12"
      2)ENGINEERED 6"–18"
   C. SLOPE OF PLANTER: 0.5% OR LESS

3. SETBACKS (FROM NEAREST POINT AT FINISHED GRADE):
   A. INFILTRATION–10 FT. FROM FOUNDATIONS
   B. FILTRATION MUST BE LINED, NO SETBACK REQUIREMENT FROM FOUNDATIONS
   C. SETBACKS FROM PROPERTY LINES VARY DEPENDING ON SITE CONDITIONS (SEE DESIGN STANDARDS)

4. OVERFLOW:
   A. INLET ELEVATION MUST ALLOW FOR 2" OF FREEBOARD, MINIMUM
   B. PROTECT FROM DEBRIS AND SEDIMENT WITH STRAINER OR GRATE

5. PIPING:
   SEE STANDARD PLAN 221

6. DRAIN ROCK:
   A. 1 ½"–3/4" WASHED AGGREGATE WITH 40% VOIDS
   B. DEPTH:
      SIMPLIFIED– 18" (IF ≤ 1.75 "/hr INFILTRATION RATE)
      12" (IF > 1.75 "/hr INFILTRATION RATE)
      ENGINEERED– 0"–48"

7. SEPARATION BETWEEN DRAIN ROCK AND GROWING MEDIUM SHALL BE A 3" LAYER OF ¾"–¼" OPEN GRADED AGGREGATE.

8. GROWING MEDIUM:
   A. DEPTH: 18"
   B. SEE DESIGN STANDARDS FOR REQUIREMENTS

9. VEGETATION: FOLLOW LANDSCAPE PLANS OR REFER TO PLANTING REQUIREMENTS IN DESIGN STANDARDS.

10. FOR FILTRATION RAIN GARDEN INSTALL 30 mil. PVC, HDPE OR EQUIVALENT WATERPROOF LINER(SEE STANDARD PLAN #221).

11. INSTALL RIVER ROCK SPLASH PAD TO TRANSITION FROM INLETS TO GROWING MEDIUM.

CITY OF SALEM
DEPARTMENT OF PUBLIC WORKS

STANDARD PLAN
RAIN GARDEN

APPROVED	James L. Sprint	1/01/14	DRAWN BY	KAK	12/2013	**NO. 217**
	CITY ENGINEER	DATE	CHECKED BY	KR	12/2013	

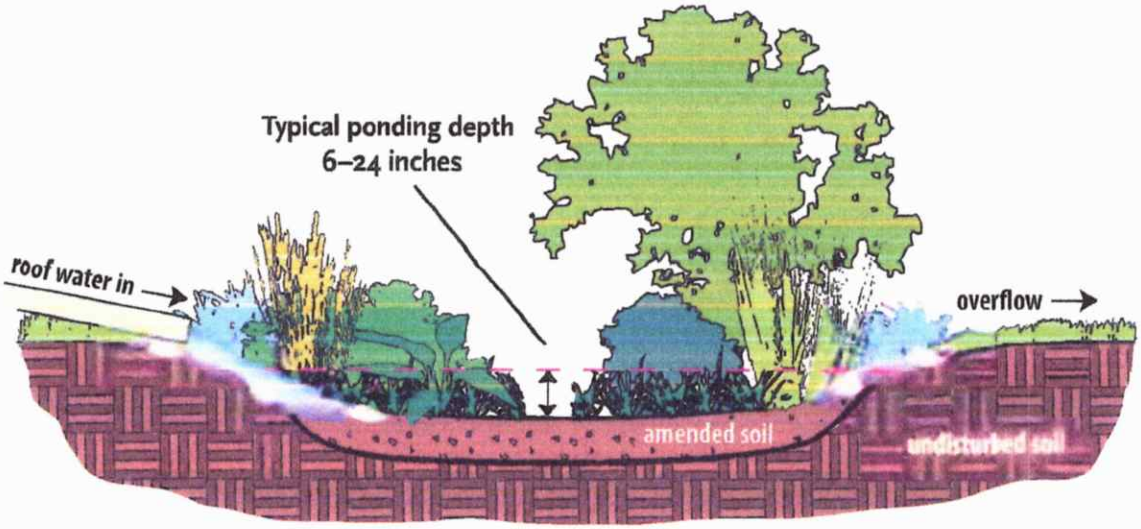


Figure 8: *Ponding surface is denoted by the dotted line.* *(Graphic: EMSWCD)*

(Length of surface area x Width of surface area) x .10 = total rain garden area

An example: 30 feet x 12 feet = 360 square feet x .10 = 36 square feet of rain garden

The more impervious area you want to treat, the bigger your garden. The size of your rain garden will also depend on the space available and your budget. If you don't have enough space, you can build multiple rain gardens or build a smaller one and plan for it to overflow more often.

Note: Rain gardens should be a minimum of five feet wide to accommodate gentle side slopes that will host plants and minimize soil erosion.

Rain garden depth

Most rain gardens should be between 6 and 24 inches in ponding depth with 2–4 inches of additional depth for safety. This means that rain gardens range from 8 to 28 inches in depth. The table below is a general guide for rain garden ponding depths based on different drainage rates. Add depth where overall size is restricted by setbacks, structures, vegetation, or other obstacles.

Note: remember to account for the addition of mulch when you plan for your finished depth (see "Mulching" on page 23). For example, if you are adding 3 inches of mulch to your final planted garden and it needs to be at least 12 inches deep, you must excavate to a depth of 15 inches from grade.

RAIN GARDEN DICTIONARY:

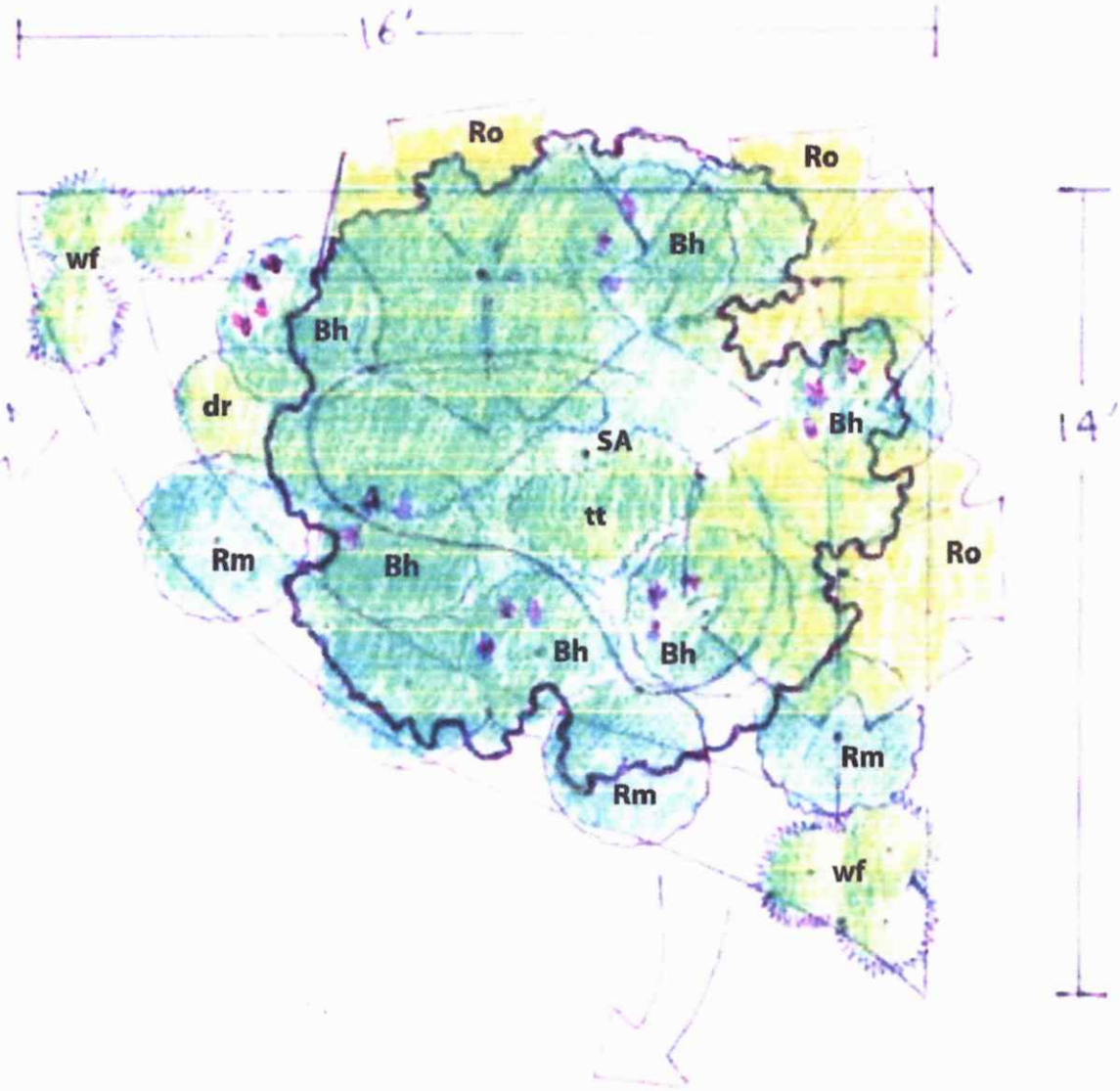
The **size** of a rain garden refers to the volume of water it can hold before the water overflows at the exit point. This volume is described in terms of ponding depth and square feet of surface area (depth x width x length).

Ponding depth is the depth at which the water can pond before it flows out of the rain garden (see Figure 8). It is measured from the surface of the rain garden at its lowest point to the elevation of the outlet. Rain gardens generally should range between 6 and 24 inches in ponding depth, adding 2–4 inches of extra depth below the outflow for safety.

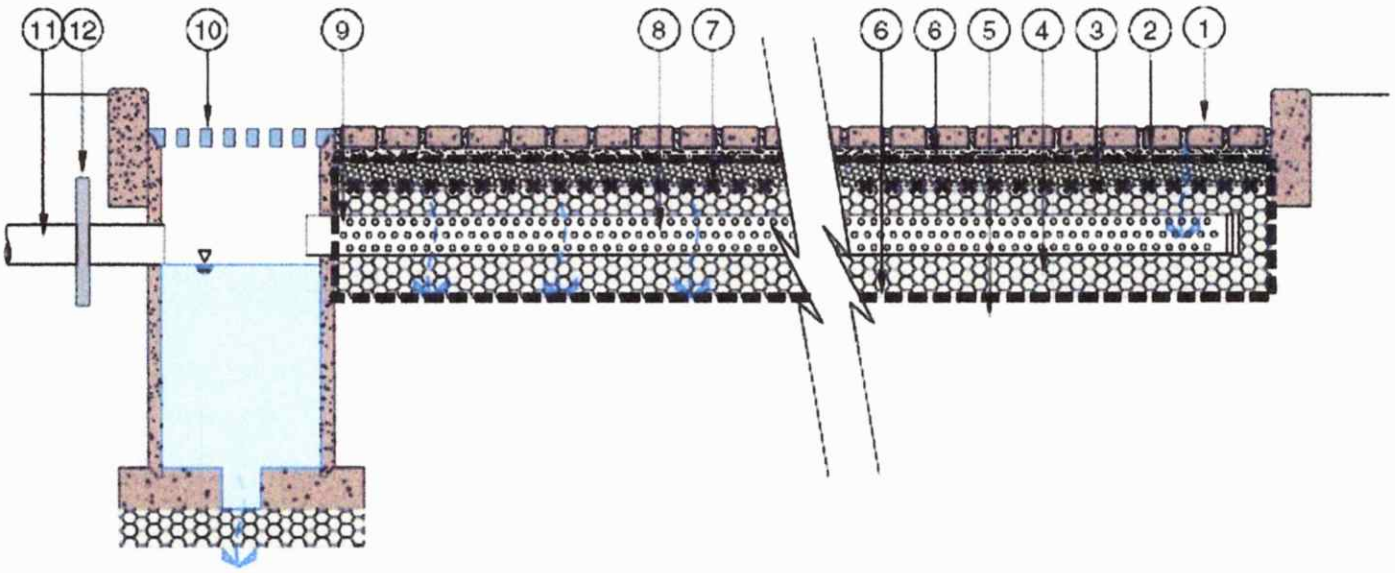
Drainage rate	Suggested rain garden ponding depth
Between 1/2 and 1 inch/hour	12–24 inches
Between 1 and 2 inches/hour	6–8 inches
Faster than 2 inches/hour	6 inches

WILLAMETTE VALLEY SUN

Abbr.	Common name	*Scientific name*	Qty.
SA	Sitka alder	*Alnus viridis ssp. sinuata*	1
Bh	Baldhip rose	*Rosa gymnocarpa*	6
Ro	Red osier dogwood	*Cornus sericea*	3
Rm	Rosemary	*Rosemarinus officianalis*	4
dr	Dagger-leaf rush	*Juncus ensifolius*	25
tt	Taper-tipped rush	*Juncus acuminatus*	10
wf	Western fescue	*Festuca occidentalis*	6



1. PERMEABLE PAVERS (MIN. 80mm THICKNESS)
2. AGGREGATE BEDDING COURSE -NOT SAND (50mm DEPTH)
3. OPEN GRADED BASE (DEPTH VARIES BY DESIGN APPLICATION)
4. OPEN GRADED SUB-BASE (DEPTH VARIES BY DESIGN APPLICATION)
5. SUBSOIL - FLAT AND SCARIFIED IN INFILTRATION DESIGNS
6. GEOTEXTILE ON ALL SIDES OF RESERVOIR
7. OPTIONAL REINFORCING GRID FOR HEAVY LOADS
8. PERFORATED DRAIN PIPE 150mm DIA MIN.
9. GEOTEXTILE ADHERED TO DRAIN AT OPENING
10. OVERFLOW INLET AT CATCH BASIN
11. OUTLET PIPE TO STORM DRAIN OR SWALE SYSTEM. LOCATE CROWN OF PIPE BELOW OPEN GRADED BASE (NO. 3) TO PREVENT HEAVING DURING FREEZE/THAW CYCLE
12. TRENCH DAMS AT ALL UTILITY CROSSINGS



4/B

PERVIOUS PAVING - PARTIAL INFILTRATION

Not To Scale

Section