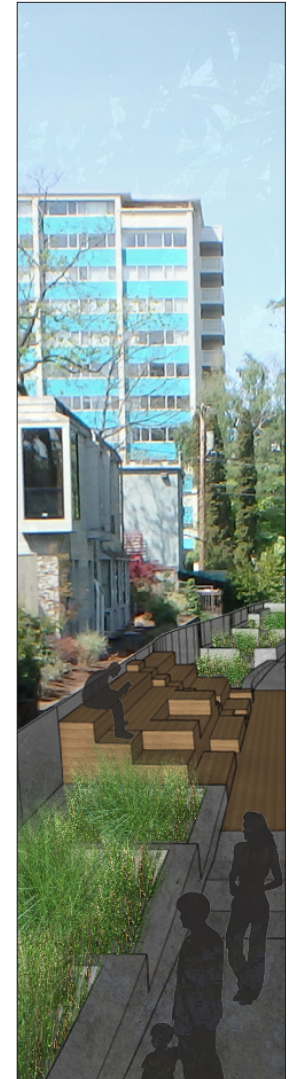
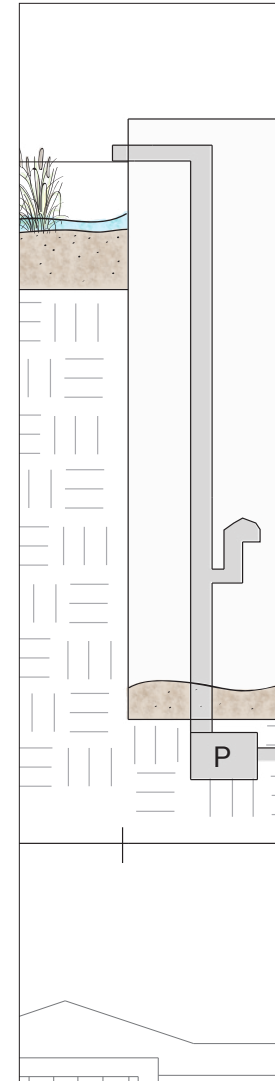
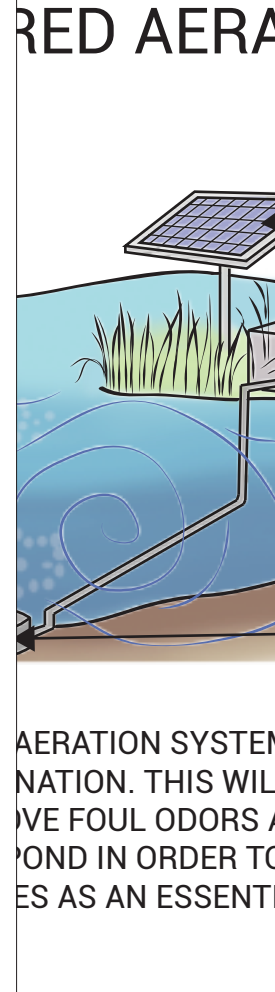
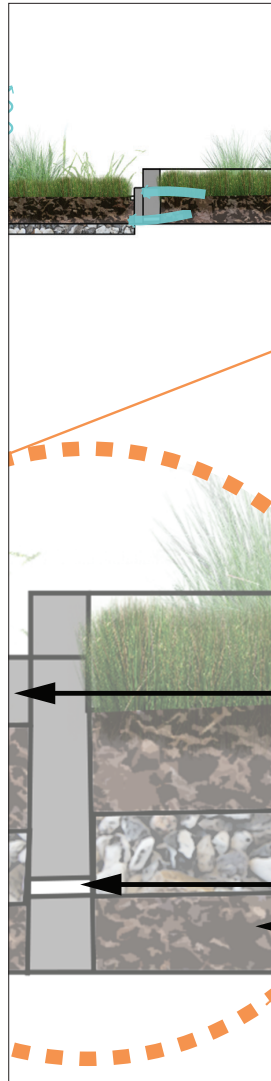
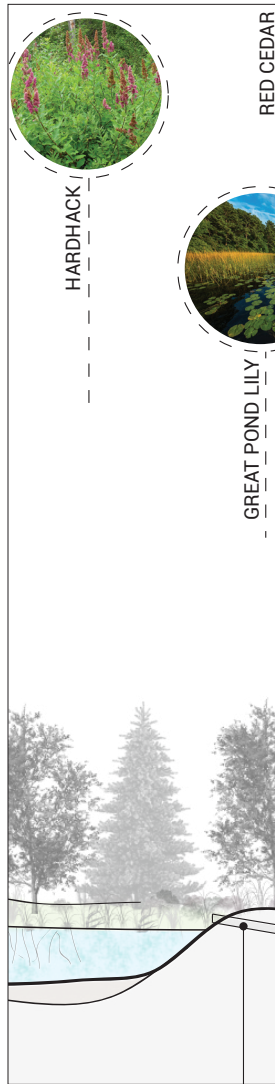


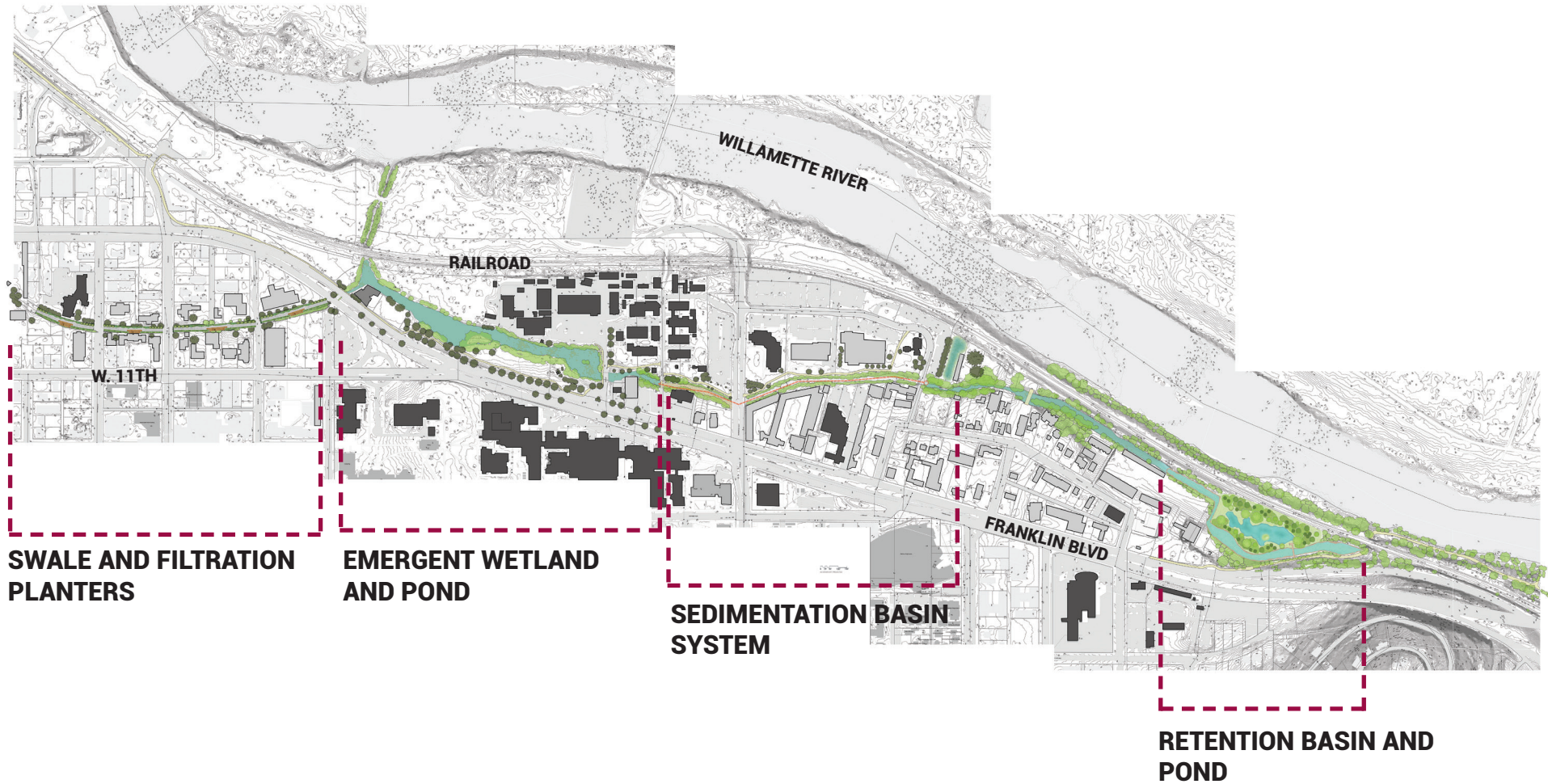
Reviving the Millrace



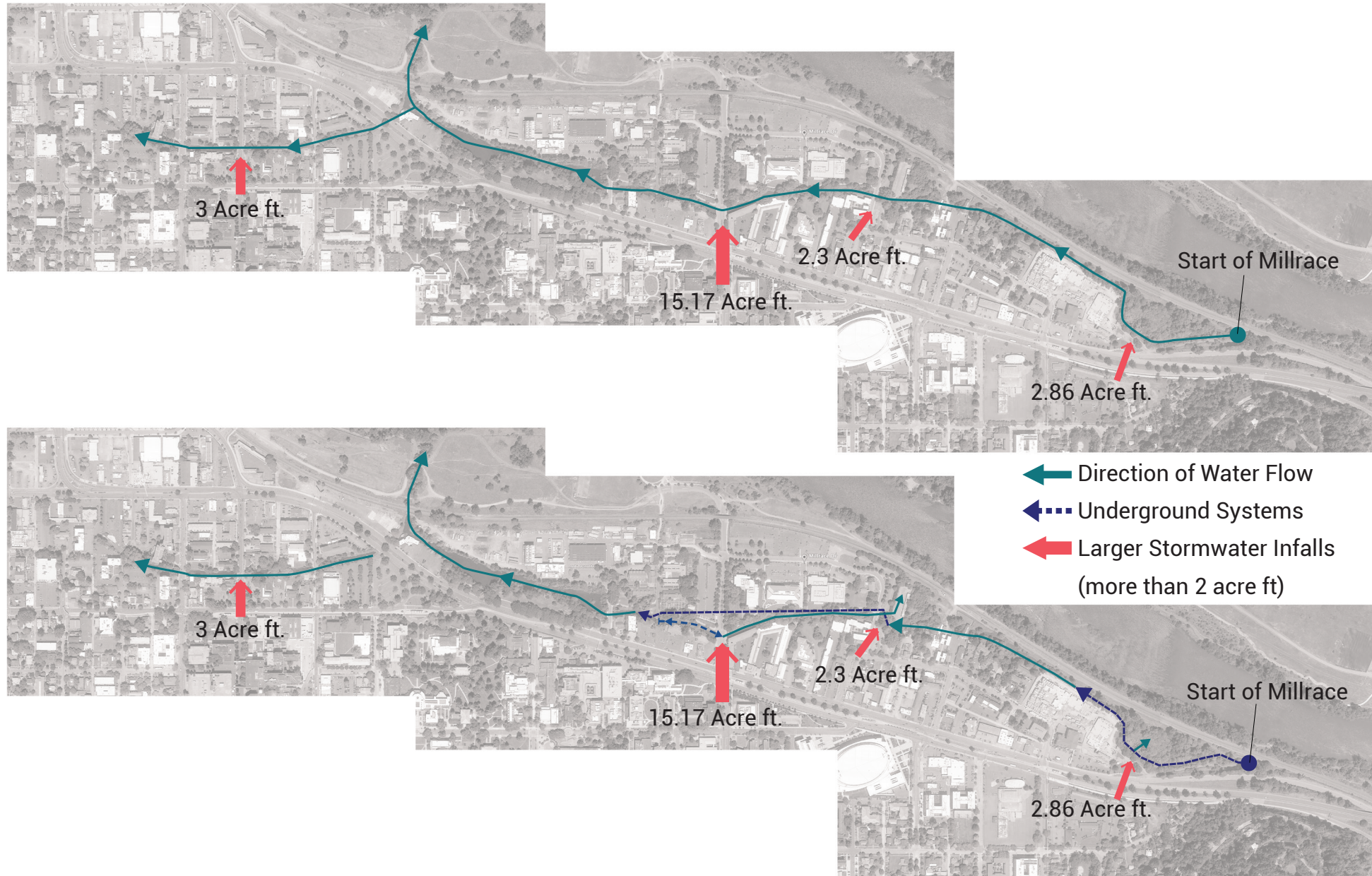
Goals

1. Capture and clean stormwater through:
 - Retention Basins
 - Sedimentations Basins
 - Emergent Wetlands
 - Pond
 - Swale and Filtering Planters
2. Create Habitat for Wildlife
3. Create recreation areas for users
4. Design with a low cost budget

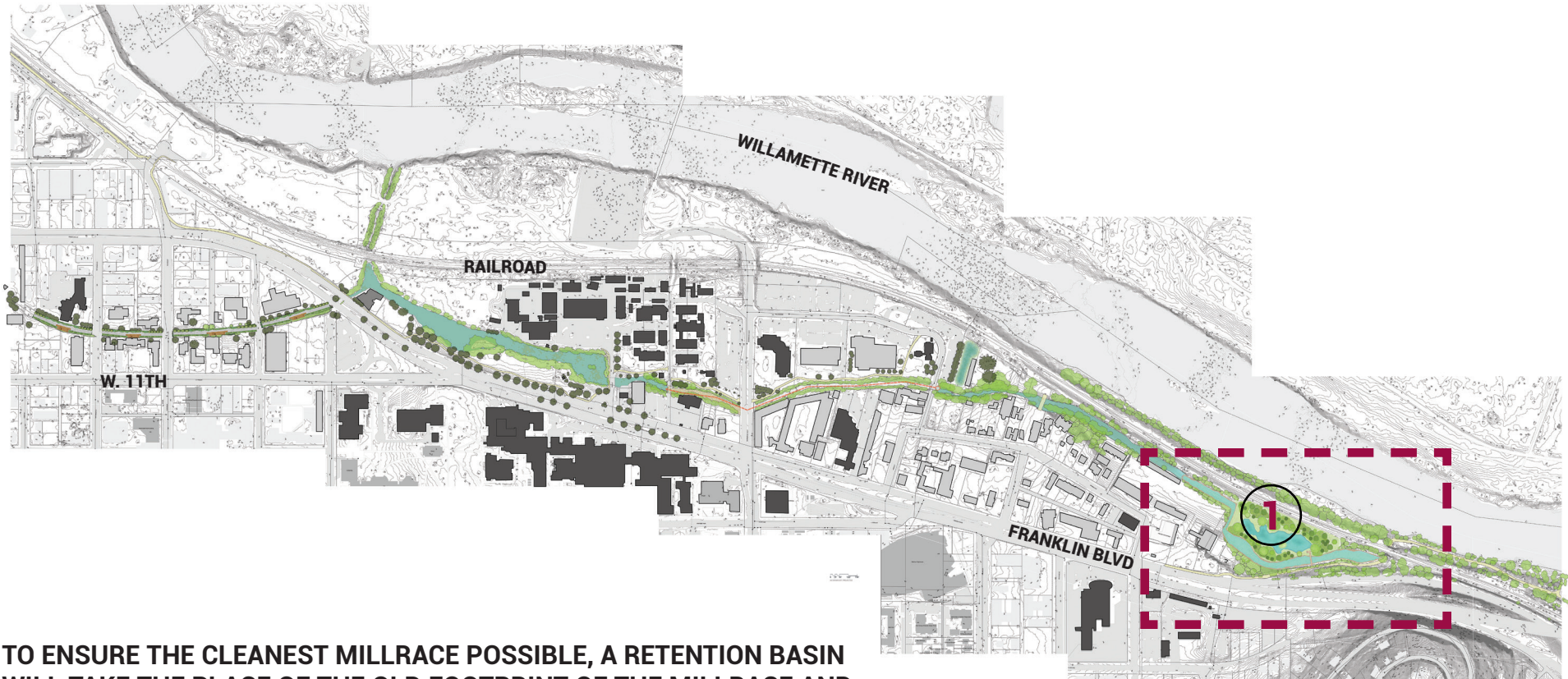
Masterplan



Proposed Change in Water Flow



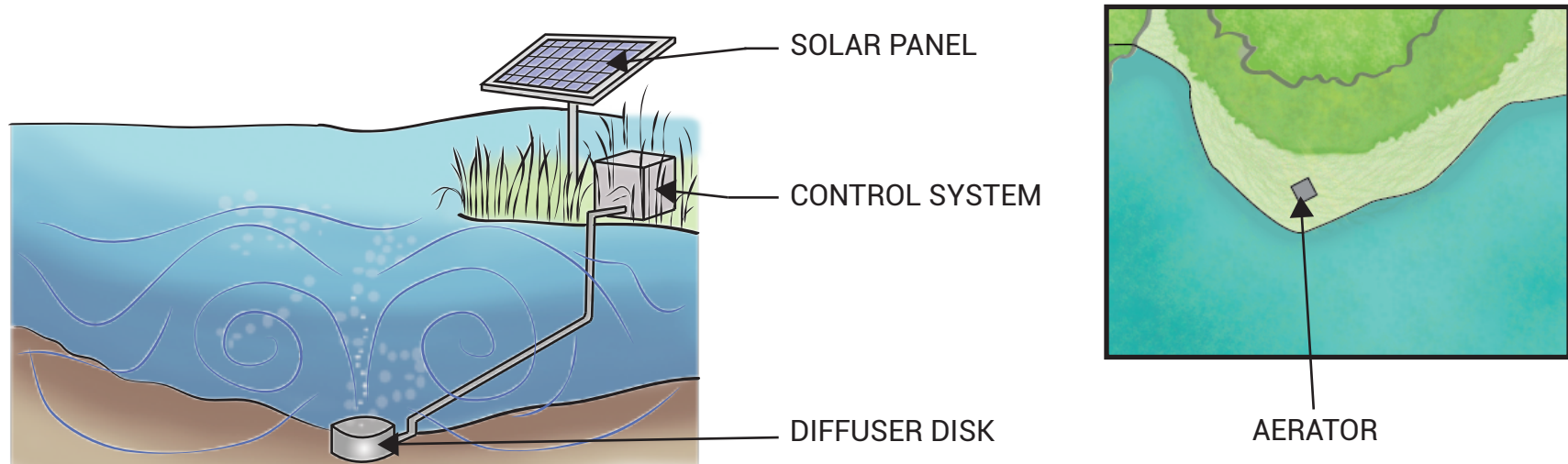
Franklin Park



TO ENSURE THE CLEANEST MILLRACE POSSIBLE, A RETENTION BASIN WILL TAKE THE PLACE OF THE OLD FOOTPRINT OF THE MILLRACE AND COLLECT 3 ACRE FT WORTH OF STORM WATER. THE MILLRACE WILL BE PIPED UNDERGROUND AND DAYLIGHT ITSELF LATER ON. A POND WILL BE ADDED TO FRANKLIN PARK IN ORDER TO PROVIDE HABITAT FOR WILDLIFE AND CREATE A BEAUTIFUL AESTHETIC FOR VISITORS.

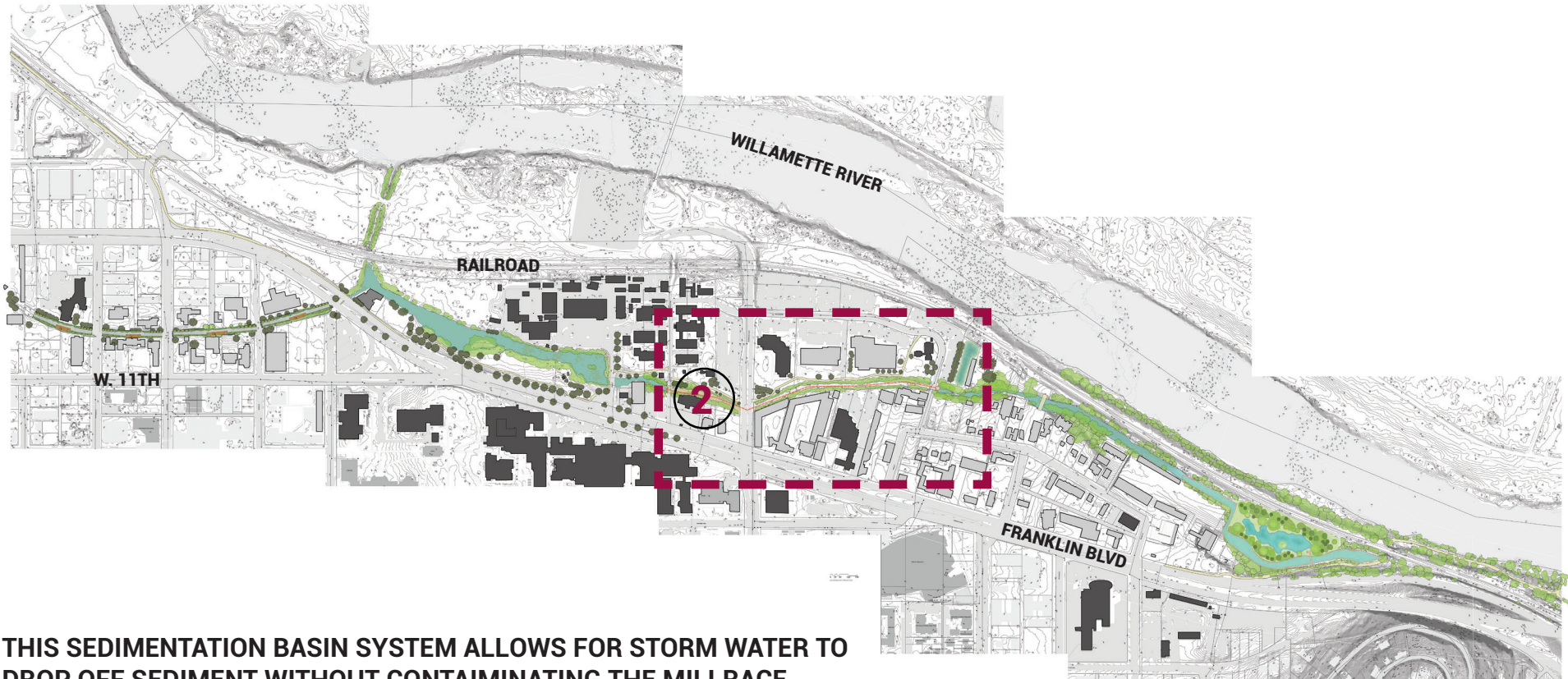
Solar Powered Aeration System

1



THIS AERATION SYSTEM WILL MIX OXYGEN TO THE POND WATER TO PREVENT STAGNATION. THIS WILL ENHANCE HABITAT, IMPROVE WATER QUALITY, AND REMOVE FOUL ODORS AND ALGAE. IT WILL BE LOCATED IN A DEEP SECTION OF THE POND IN ORDER TO AERATE THE WHOLE SYSTEM. THE AERATION SYSTEM SERVES AS AN ESSENTIAL HYDROLOGIC FEATURE IN THIS POND DESIGN.

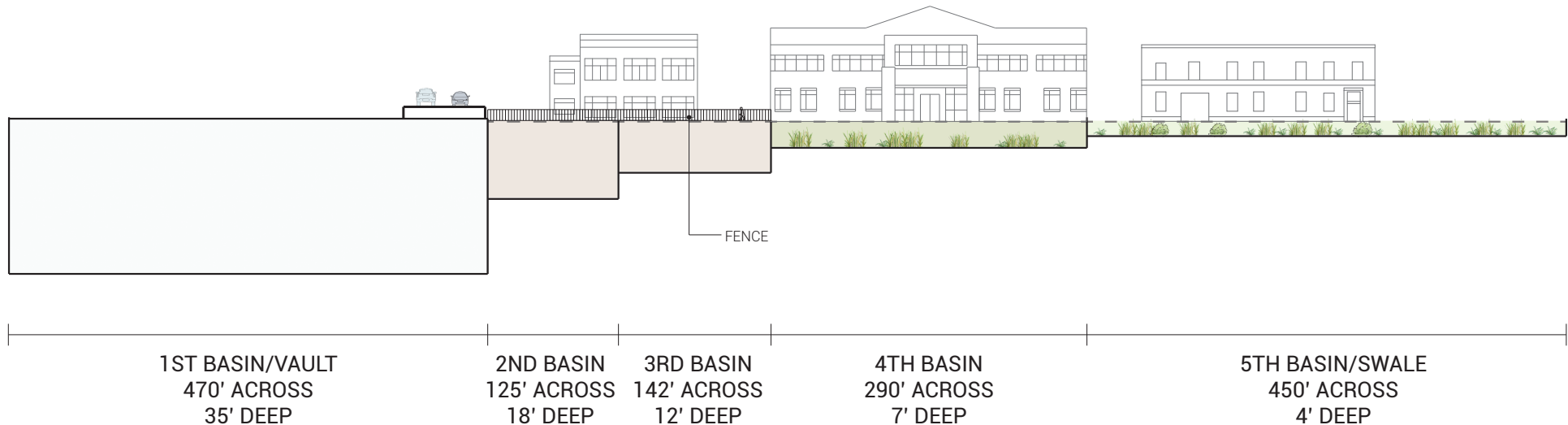
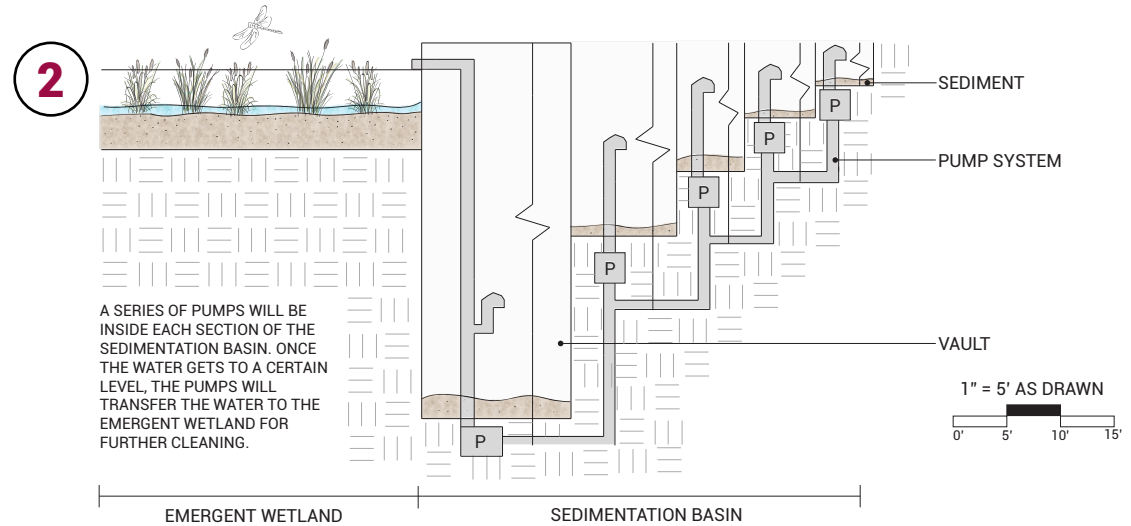
Sedimentation Basin System



THIS SEDIMENTATION BASIN SYSTEM ALLOWS FOR STORM WATER TO DROP OFF SEDIMENT WITHOUT CONTAMINATING THE MILLRACE.

Sedimentation Basin cont.

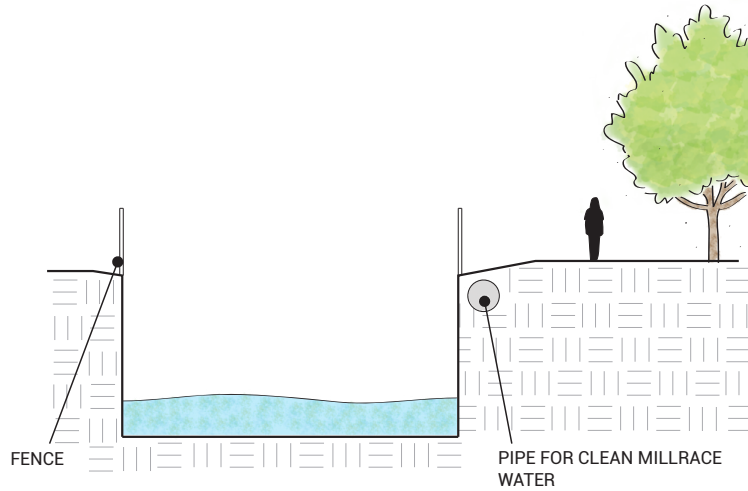
THIS BASIN EXTENDS FOR APPROXIMATELY 1500FT DOWN THE MILLRACE, BEGINNING AT THE URBAN FARM AND ENDING NEAR MILLRACE DRIVE. IT IS DIVIDED INTO 5 SECTIONS THAT VARY IN DEPTH. THE FIRST SECTION IS A VAULT THAT IS DESIGNED TO HOLD WATER FOR THE MAJORITY OF THE YEAR. THE PROCEEDING SECTIONS GRADUALLY GET SHALLOWER UNTIL THE LAST SECTION WHICH IS SO SHALLOW (ABOUT 4FT DEEP) THAT IT CAN ALMOST BE CONSIDERED A SWALE. THIS WATER WILL BE PUMPED INTO THE EMERGENT WETLAND (DRAGONFLY HABITAT) AFTER THE SEDIMENT HAS BEEN CONTAINED IN THE BASINS.



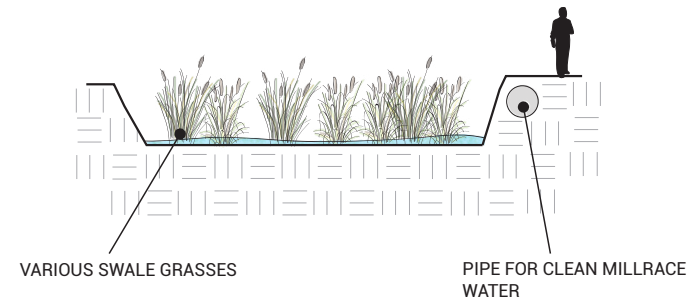
THE CAPACITY OF EACH BASIN IS CALCULATED BASED ON THEIR VARIED LENGTHS, DEPTHS, AND A WIDTH OF 25 FT. WHEN ADDED TOGETHER, THE BASINS ARE ABLE TO HOLD THE 15 ACRE FEET OF STORM WATER THAT WILL BE RELEASED FROM THE TEN YEAR STORM.

Sedimentation Basin

EACH SEPARATE BASIN VARIES GREATLY IN DEPTH WHICH PROVIDES VISITORS WITH DIFFERENT EXPERIENCES THROUGHOUT THE SEDIMENTATION SYSTEM. AS SHOWN IN THESE SECTIONS, THE EARLIER BASINS ARE CLOSED OFF FROM THE PUBLIC BECAUSE THEY ARE TOO DEEP TO BE SAFELY ACCESSED. THE LAST FEW BASINS ARE NOT FENCED OFF AND HAVE A MUCH MORE NATURALISTIC FEEL, AS MORE PLANTS CAN BE ADDED. PEOPLE CAN ALSO ACCESS THESE AREAS BECAUSE THEY ARE FAR LESS POLLUTED THAN EARLIER BASINS IN THE SYSTEM.

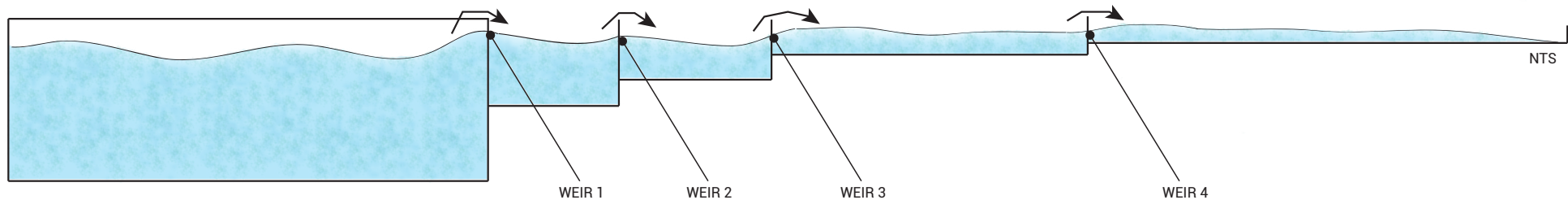


3RD BASIN



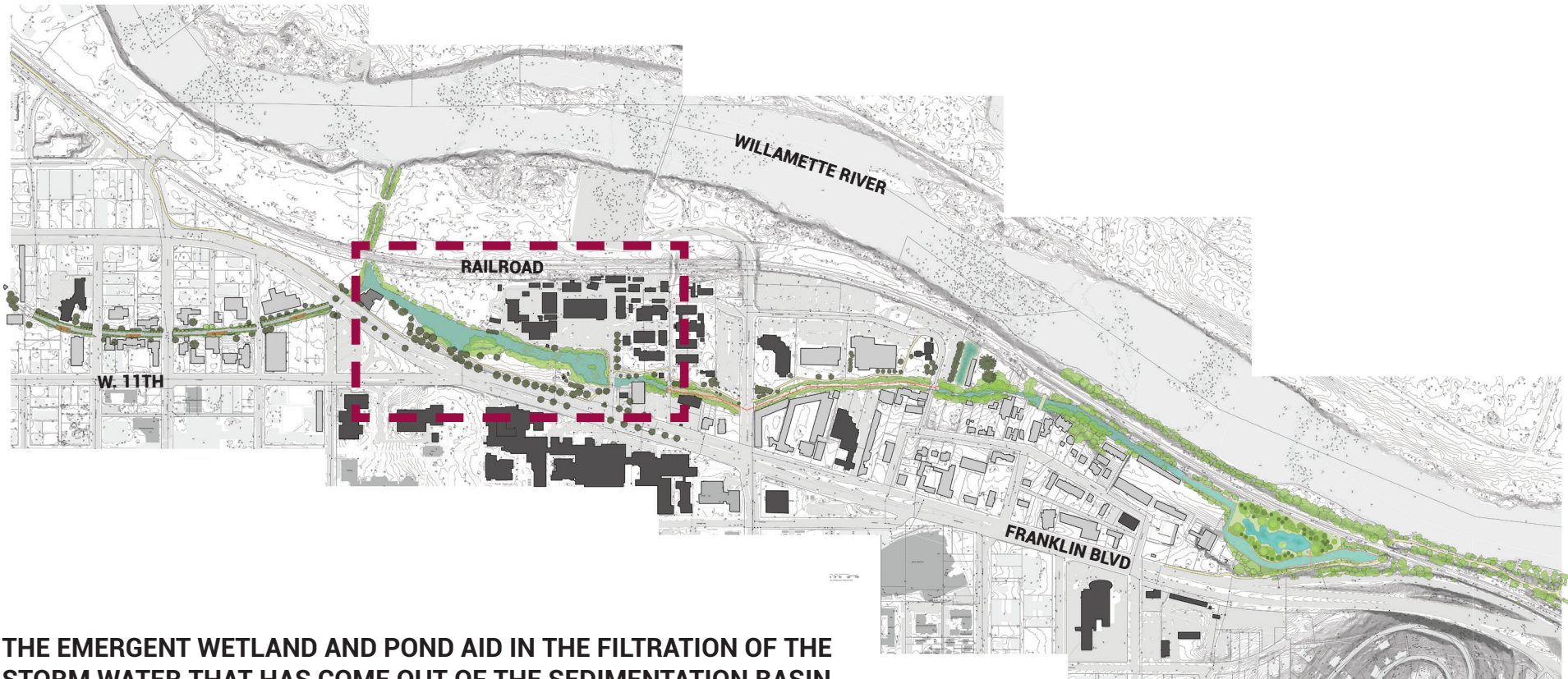
5TH BASIN/SWALE

1" = 4' AS DRAWN
0' 4' 8' 12'



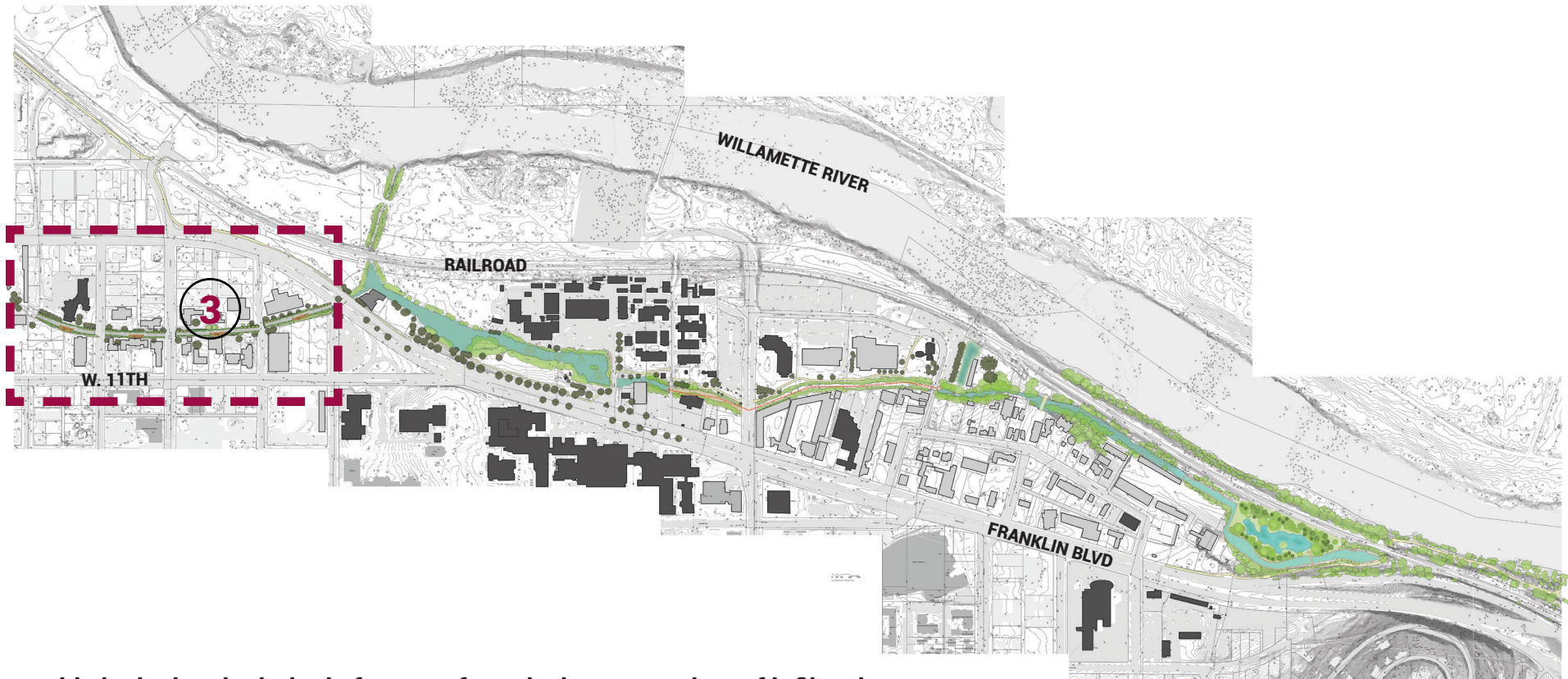
ONCE THE WATER REACHES CAPACITY IN ONE BASIN, IT WILL PASS A WEIR AND BEGIN TO FILL THE NEXT BASIN.

Emergent Wetland and Pond



THE EMERGENT WETLAND AND POND AID IN THE FILTRATION OF THE STORM WATER THAT HAS COME OUT OF THE SEDIMENTATION BASIN.

Swale and Infiltration Planters

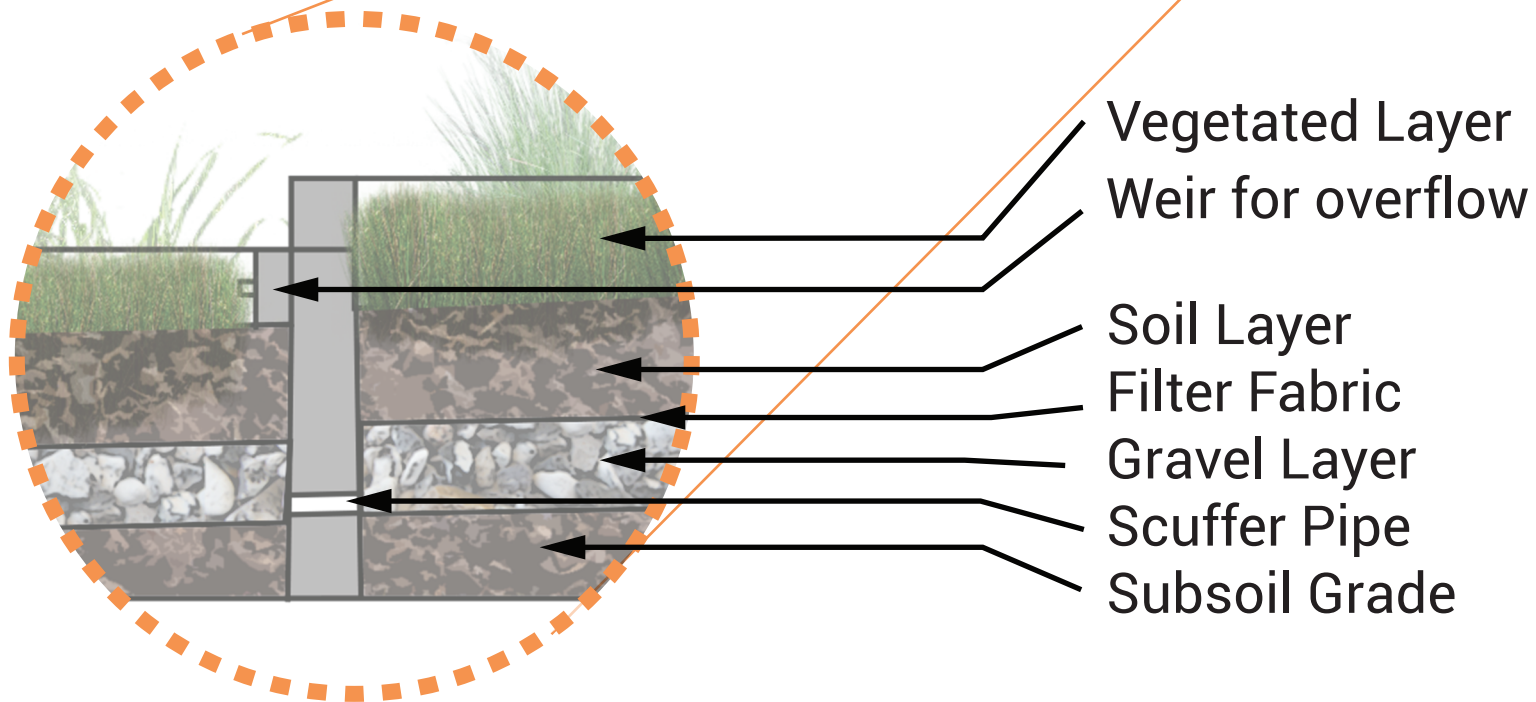
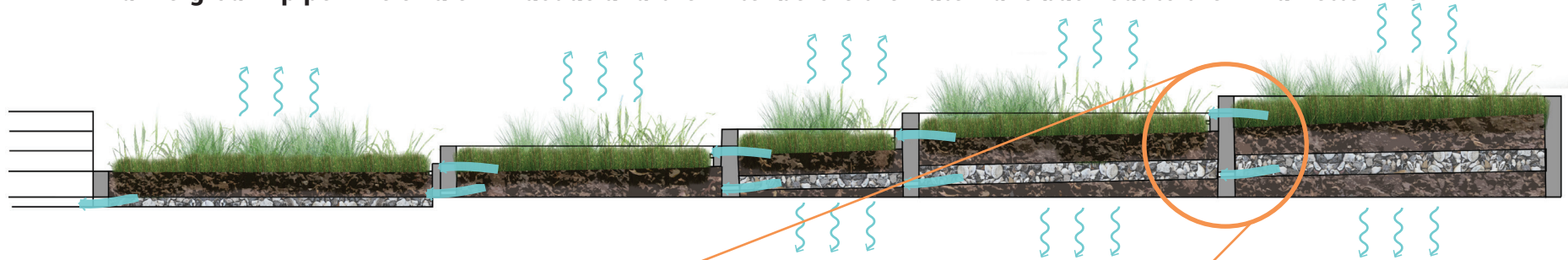


This is the last hydrologic feature of our design. It consists of infiltration planters and a swale.

Infiltration Planter

3

This hydrologic system deals primarily with the stormwater. The water is sourced from stormwater infalls of rooftops and nearby streets. Water will be treated through layers of soil, filter fabric, and gravel. This will also help to ease the flow of water from the first flush into the system. It will then be cleaned and filtered through each planter which joins to the swale by an underground pipe. The swale will act as a further filter before the water runs back out to the Willamette River.



Thank You!
