City of Florence Public Works

Florence Stormwater Design Manual

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Public Works Director

Background

- 1996-1998 Wet Period, Flooding
- 1999 - Stormwater Planning and Public Involvement
- 2000- Stormwater Management Plan
- 2005 - Stormwater Code Adopted
- 2006 – Stormwater Utility Established
- 2009-10 Development of Stormwater Design Manual
- Present – Final Draft Stormwater Design Manual

Purpose of Stormwater Management

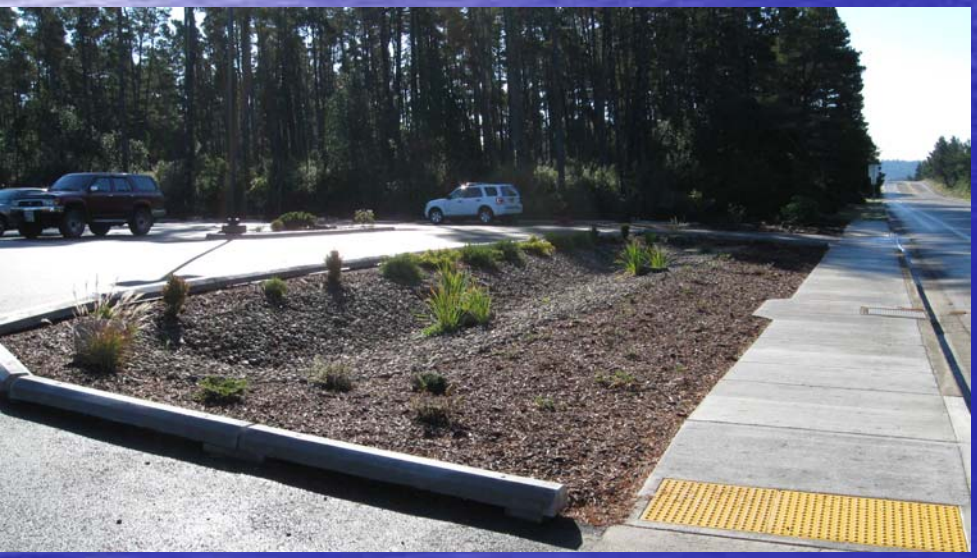
- Reduce Flooding and Stream Erosion
- Protect groundwater quality
- Improve surface water quality
- Control Erosion
- Preserve Natural Hydrology
- Protect Endangered/Threatened species

Purpose of Our Stormwater Manual

- Clarify purpose and expectations of existing regulations.
- Develop minor revisions to existing stormwater code. Substantial policy changes not anticipated.
- Provide a more accessible design manual than the city of Portland Stormwater manual for those less familiar with Stormwater Management Practices
- Establish a “simplified” process for smaller projects
- One source with all information for basic stormwater design. One resource for city and property owners alike to refer to for Stormwater Management in Florence

Purpose of Our Manual Continued ...

- Create a hybrid document with requirements unique to Florence combined with established common practices in stormwater management
- Amend the Portland Manual's design requirements and standard drawings to be tailored to Florence's climate, hydrology, geology.
- Clarify the permit, review, and inspection process
- Establish reasonable limits to design criteria.
- Create exception/appeal process
- Provides Florence Specific forms and checklists



Common Stormwater Pollutants

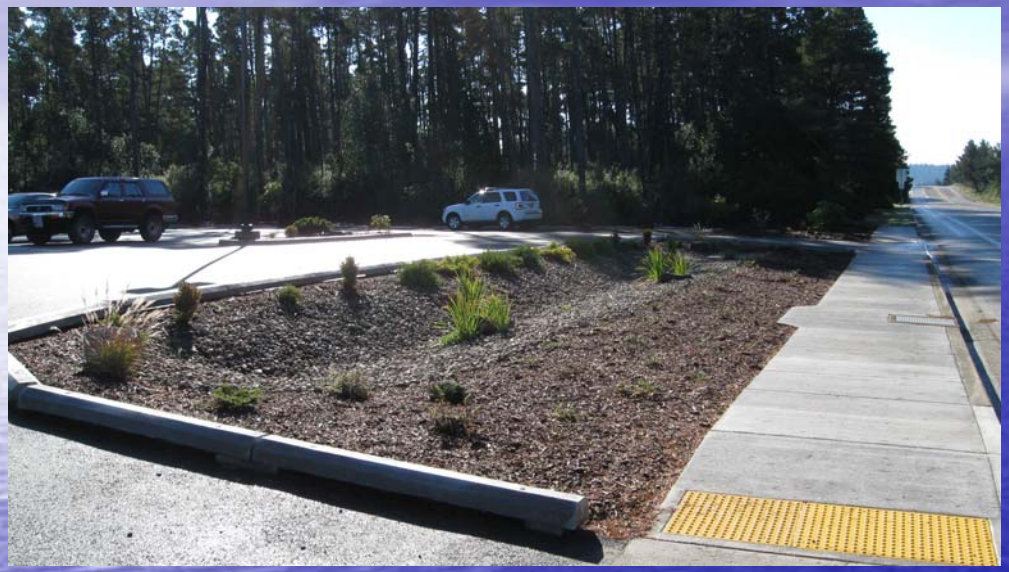
- Metals (zinc, lead, copper etc)
- Oil and Grease
- Chemicals (pesticides, herbicides, etc)
- Sediment (turbidity)
- Nutrients (Nitrogen, Phosphorus, etc)
- Temperature
- pH
- Pathogens

Tools for Stormwater

- Impervious Area Reduction techniques
  - Pervious Pavement (permeable pavers, porous concrete, etc)
- Vegetative Treatment Facilities
  - Swale
  - Planter
  - Rain Garden
  - Filter Strip
- Structural Facilities
  - Soakage Trench, Drywells (Drywells require UIC permit)
  - Ponds, Tanks
  - Manufactured Treatment Technologies (treatment manholes, vaults etc)

Impervious Area Reduction

Vegetative Treatment Facilities



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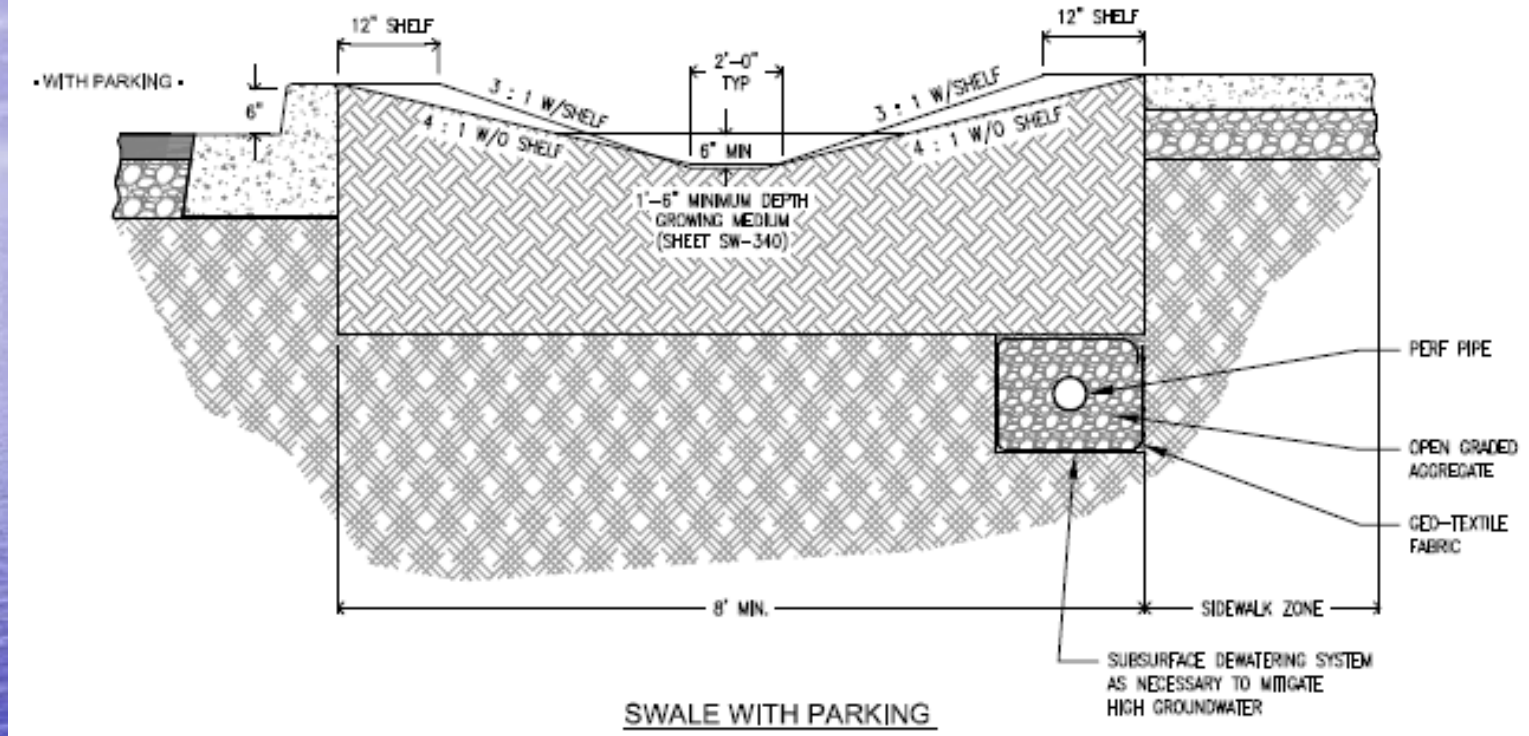

SWALE WITH PARKING

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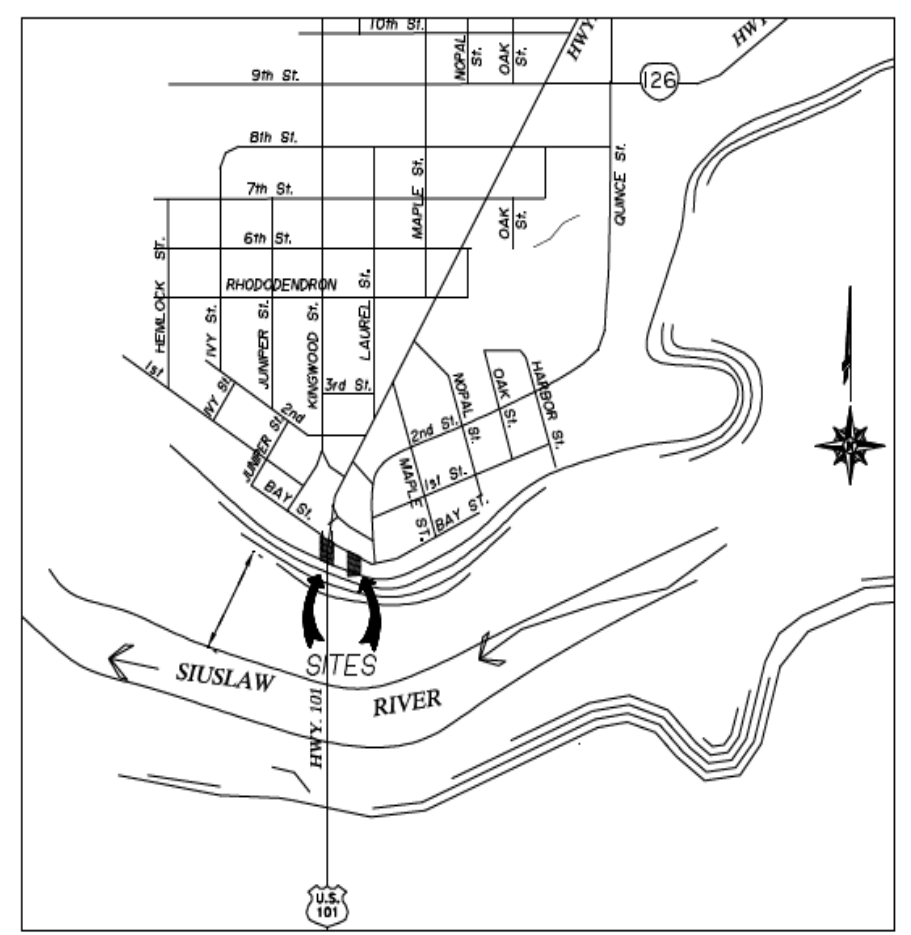
Manufactured Treatment Technologies

Siuslaw Bridge Interpretive Wayside Stormwater Demonstration Project



Vicinity Map

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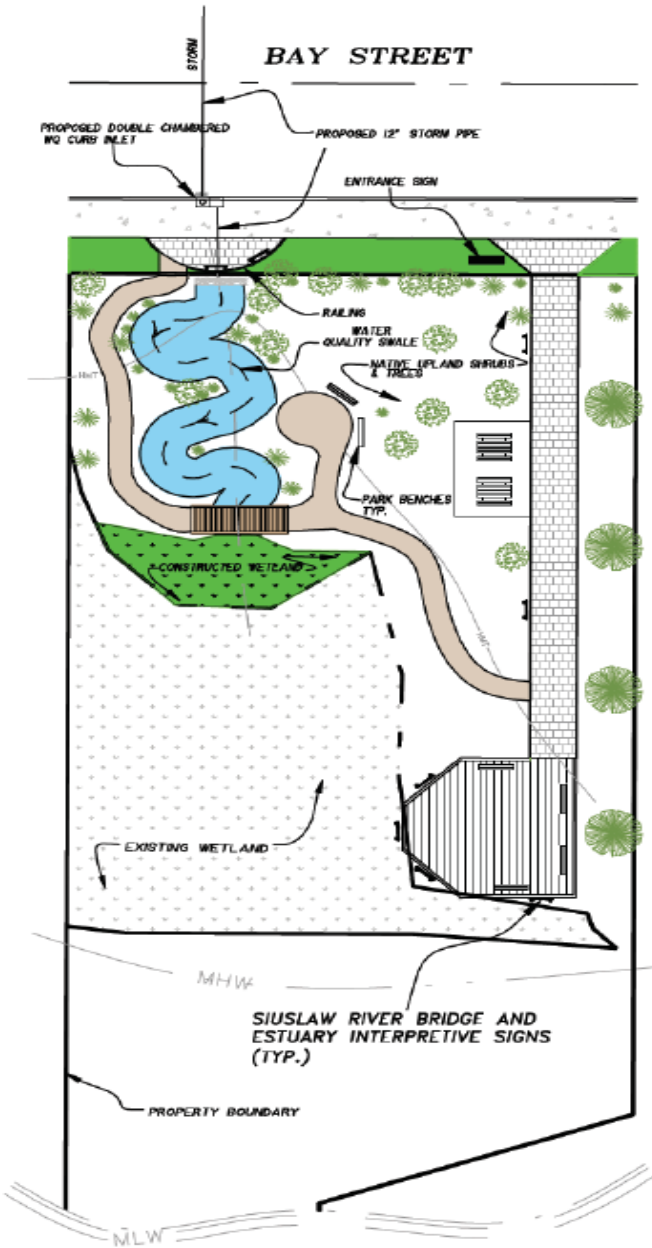
SIUSLAW RIVER BRIDGE INTERPRETIVE WAYSIDE CONCEPTUAL PLAN FLORENCE, OREGON APRIL 18, 2008



LEGEND

EXISTING CONDITIONS

- EXISTING WETLANDS
- -HMT- HIGHEST MEASURED TIDE LINE APPROX EL. 7' NGVD (ACOE/DSL JURISDICTION LINE)
- -MHW- MEAN HIGH WATER LINE
- -MLW- MEAN LOW WATER LINE
- EXISTING DRAINAGE DITCH
- EXISTING CATCH BASIN

PROPOSED IMPROVEMENTS

- CONSTRUCTED WETLANDS
- INTERPRETIVE SIGN
- PICNIC BENCH
- FOOT BRIDGE
- BARK/GRAVEL INTERPRETIVE PATH
- STORMWATER TREATMENT SWALE
- OBSERVATION DECK
- PAVER WALKWAY
- PROPOSED SHRUBS

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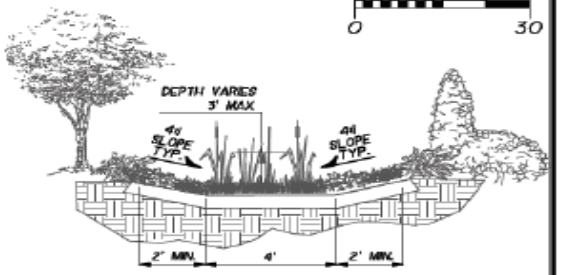
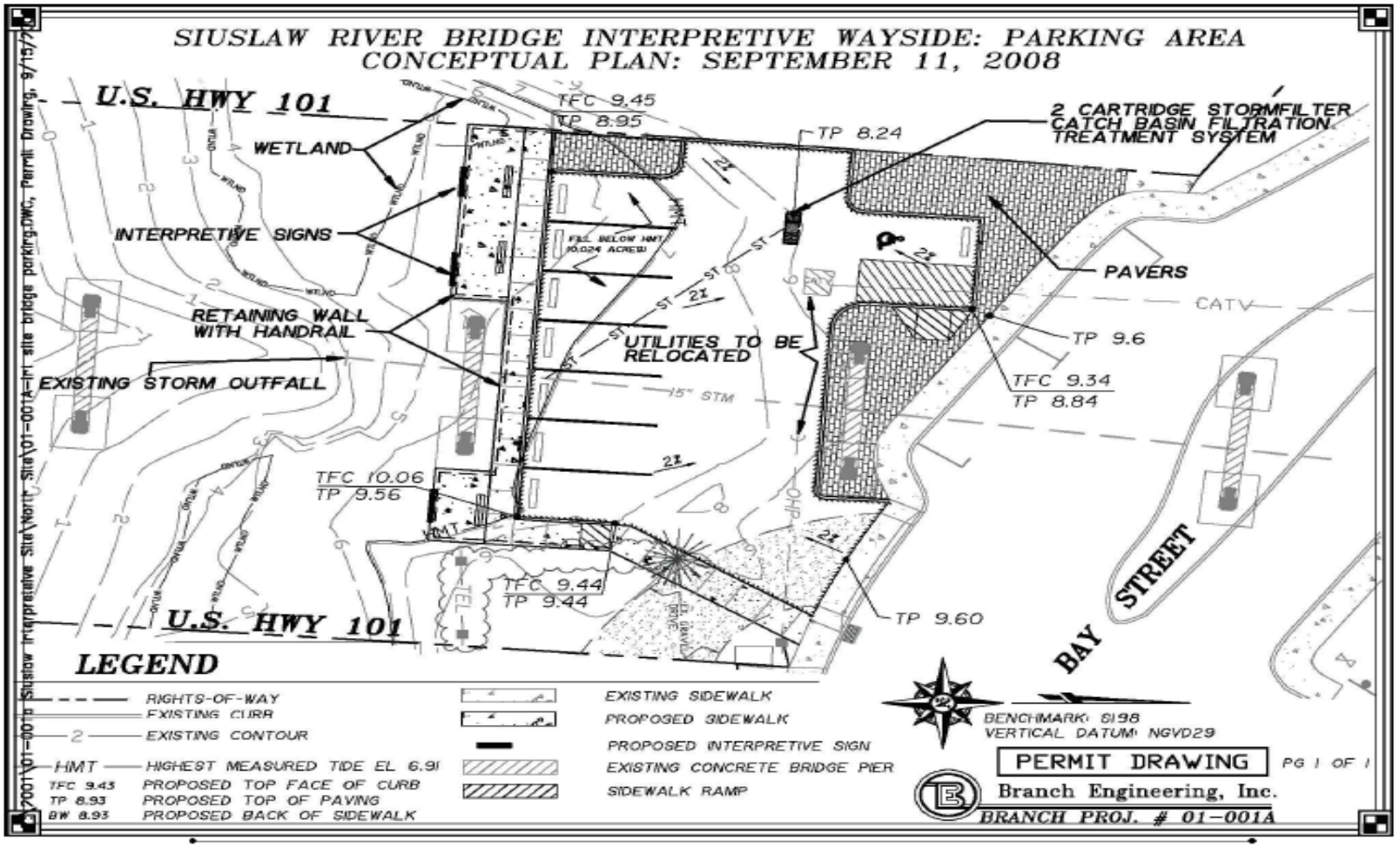


TYPICAL CROSS-SECTION
STORM WATER VEGETATED SWALE

SHEET 1 OF 1
PROJECT No. 01-001A

Branch Engineering, Inc.



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Questions and Comments