Pritchard Street Streetscape
SoLoCo Plan Compliance
Design Compliance/MEP Narrative

The Stormwater objectives for Pritchard Street Streetscape project is provided. The project has incorporated SoLoCo Stormwater Design Manual and Ordinance (adopted by The Town of Bluffton on September 14,2021) plan presentation requirements to serve as a model for future Development plan applications required to meet the newly adopted Stormwater requirements.

Pritchard Street Streetscape Stormwater Design Objectives

The project was obligated to meet the requirements of the new SoLoCo Stormwater Design Manual and Ordinance. Most of the work being performed within the project's limits of disturbance includes road surface milling and repaving operations as well as road/impervious surface removal. Pavement milling down to the rock subbase is considered maintenance and runoff reduction is not required for the maintenance portion of projects. The impervious area within the limits of disturbance is reduced by approximately 10,579 square feet (0.24 acres). This equates to an overall impervious area reduction of 10% for the contributing drainage area to the eight BMP systems discussed below.

As part of the Town's Impervious Area Restoration Program, The Town's design objective for the project is to capture and improve water quality of 1.95" of rainfall from the Regulated Area, or Site Drainage Area (SDA) that drains to each BMP and not the Contributing Drainage Area (CDA) to each system. The Regulated Area (SDA), which was limited to the Right-of-Ways, was used to determine the Required Stormwater Runoff Volume (SWrv). The CDA was not used for this calculation because as properties adjacent to the Right-of-Way areas get developed, they will be responsible for retaining their own SWrv. However, the CDA was used to properly size the underground detention systems as they are used for primary conveyance and will receive runoff from the entire CDA.

Eight BMP systems are proposed to treat runoff from the contributing drainage area. The BMP systems feature in-series infiltration practices which provide a treatment train, treating runoff from approximately 2.97 acres. Pervious parking areas receive runoff from the contributing areas, with excess runoff collecting in underground detention systems comprised of perforated pipe fully encompassed in a stone reservoir. As the underground detention system also serves as primary stormwater conveyance to the outfalls, weirs were strategically placed in structures to accommodate the required stormwater retention volume and allow excess flows to pass safely through the system. The eight BMPs were broken up into two versions of the SoLoCo Compliance Calculator, Version 1 includes the raingarden and BMPs 1-3, and Version 2 includes BMPs 4-8.

BMP	Target Retention Volume (cf)	Retention Volume Achieved (cf)
BMP 1	8,725	10,283
BMP 2	6,279	7,528

Geotechnical explorations were performed to confirm soil type, infiltration rate and groundwater table elevation. This testing confirmed infiltration BMPs are suitable for meeting the SWrv and water quality goals of the project.

BMP	BMP TYPE
BMP 1	Rain Garden
BMP 2	Perforated HDPE
BMP 3	Perforated HDPE
BMP 4	Perforated HDPE
BMP 5	Perforated HDPE
BMP 6	Perforated HDPE
BMP 7	Perforated HDPE
BMP 8	Perforated HDPE