

Mullivan's Island

Multi-Basin Drainage Project

MA Grant DR-4241

May 21, 2024

Outline

- Quick Overview of Proposed Drainage Project
- Study Area
- Drainage Basins
- Proposed Improvements
- Costs / FEMA Grant

Drainage Basins



Why Flooding and Project Goals

- Flooding occurs because:

- The area is in a natural low (a bowl) with no outlet
- Existing stormwater pump station inoperable
- Existing drainage not designed to current standards (undersize infrastructure)

- Goals

- Design to 10-year 24-hour storm event (6.6-inches)
- Provide protection against 100-year, 5-day precipitation (13.1-inches)
 - ✓ Ponding during this storm event is estimated to drain down within an hour
- Provide redundant power (standby generator) to provide uninterrupted operation in the event of power outage.

Flooding Conditions



Flooding Conditions



Flooding Conditions



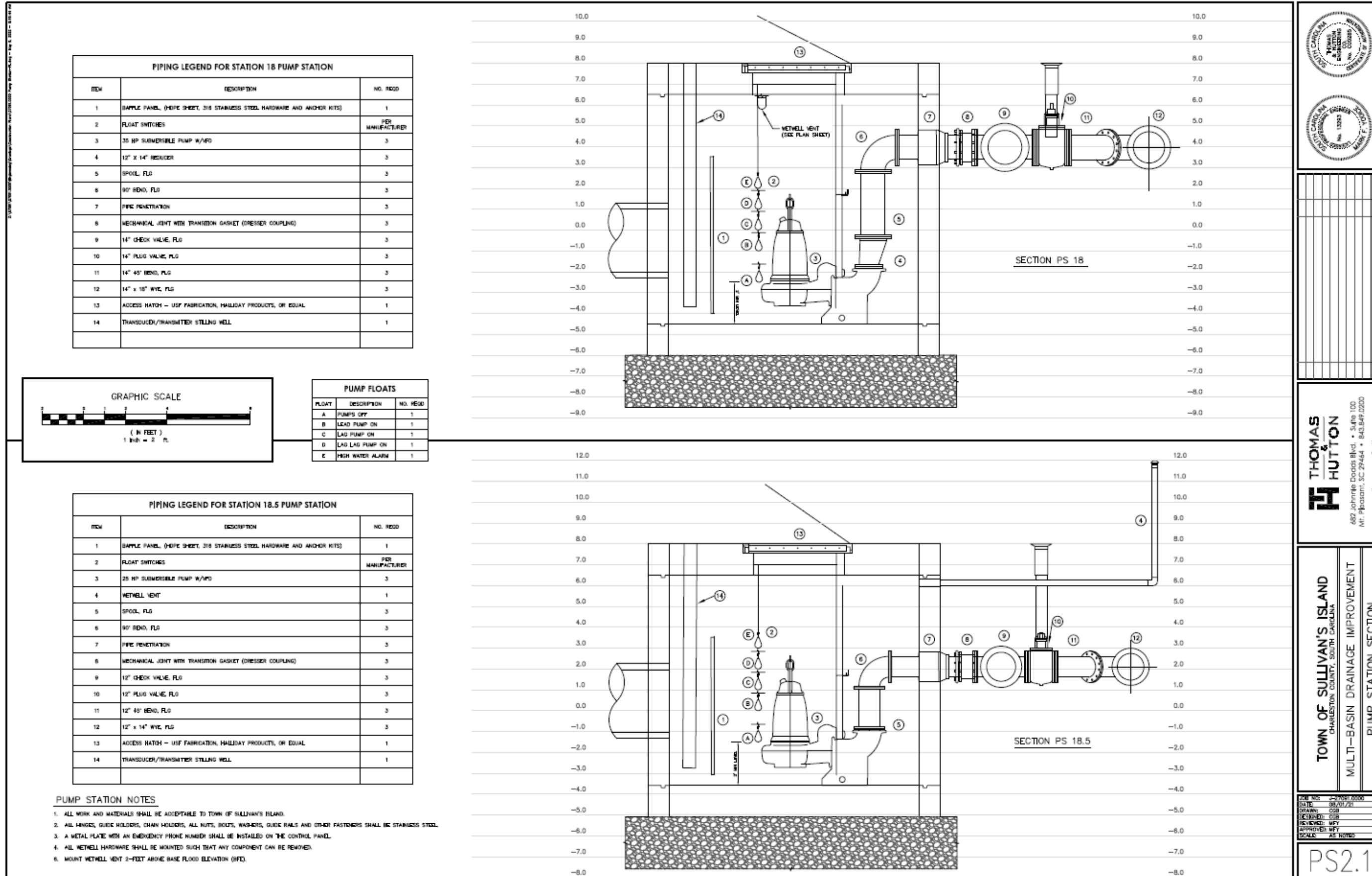
Flooding Conditions



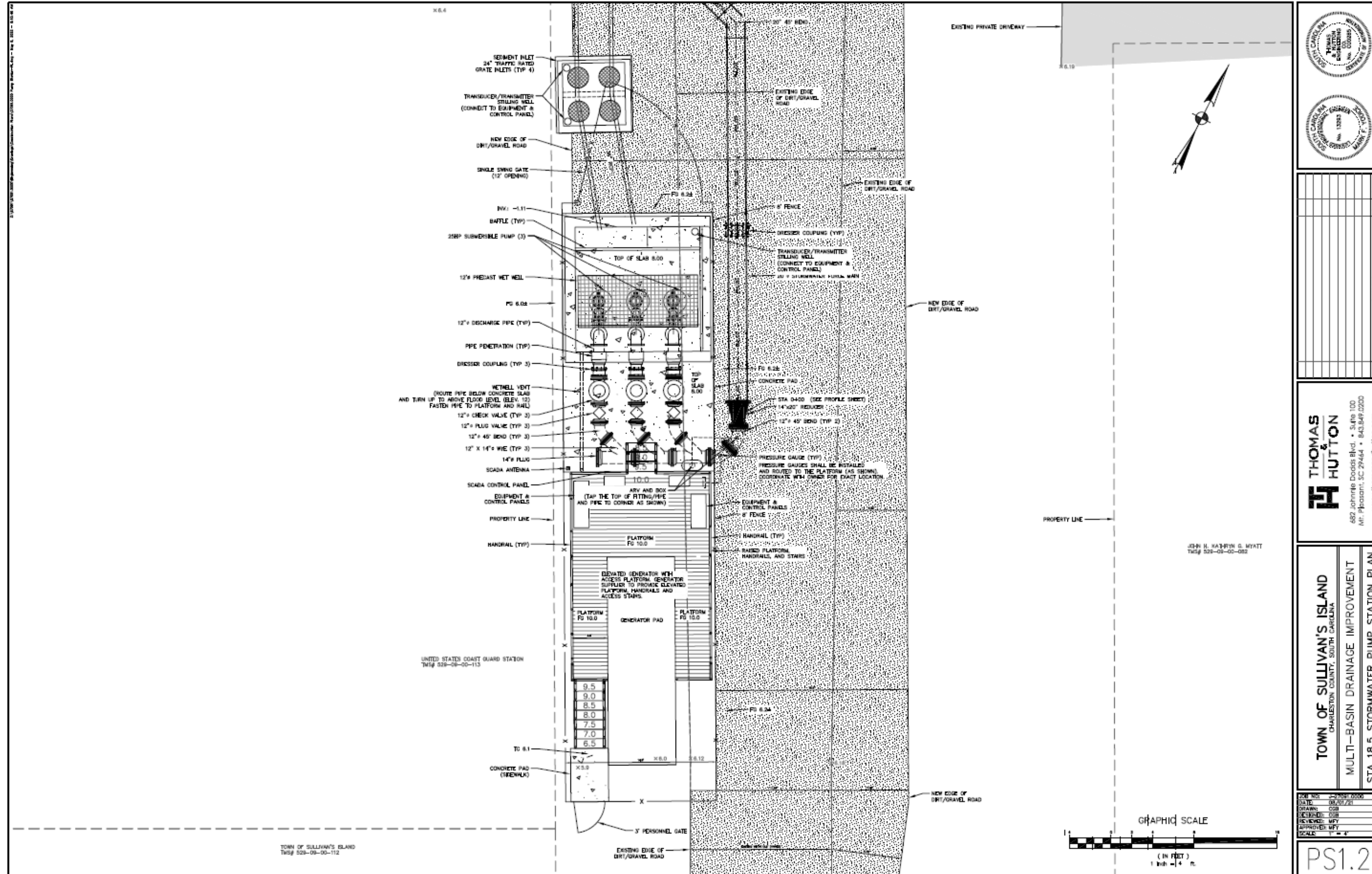
Proposed Improvements



Submersible Pump Station



Pump Station on Sta 18 1/2



NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
 682 Johnnie Dodds Blvd. • Suite 100
 Mt. Pleasant, SC 29464 • 843.849.0200
 www.thomasandhutton.com

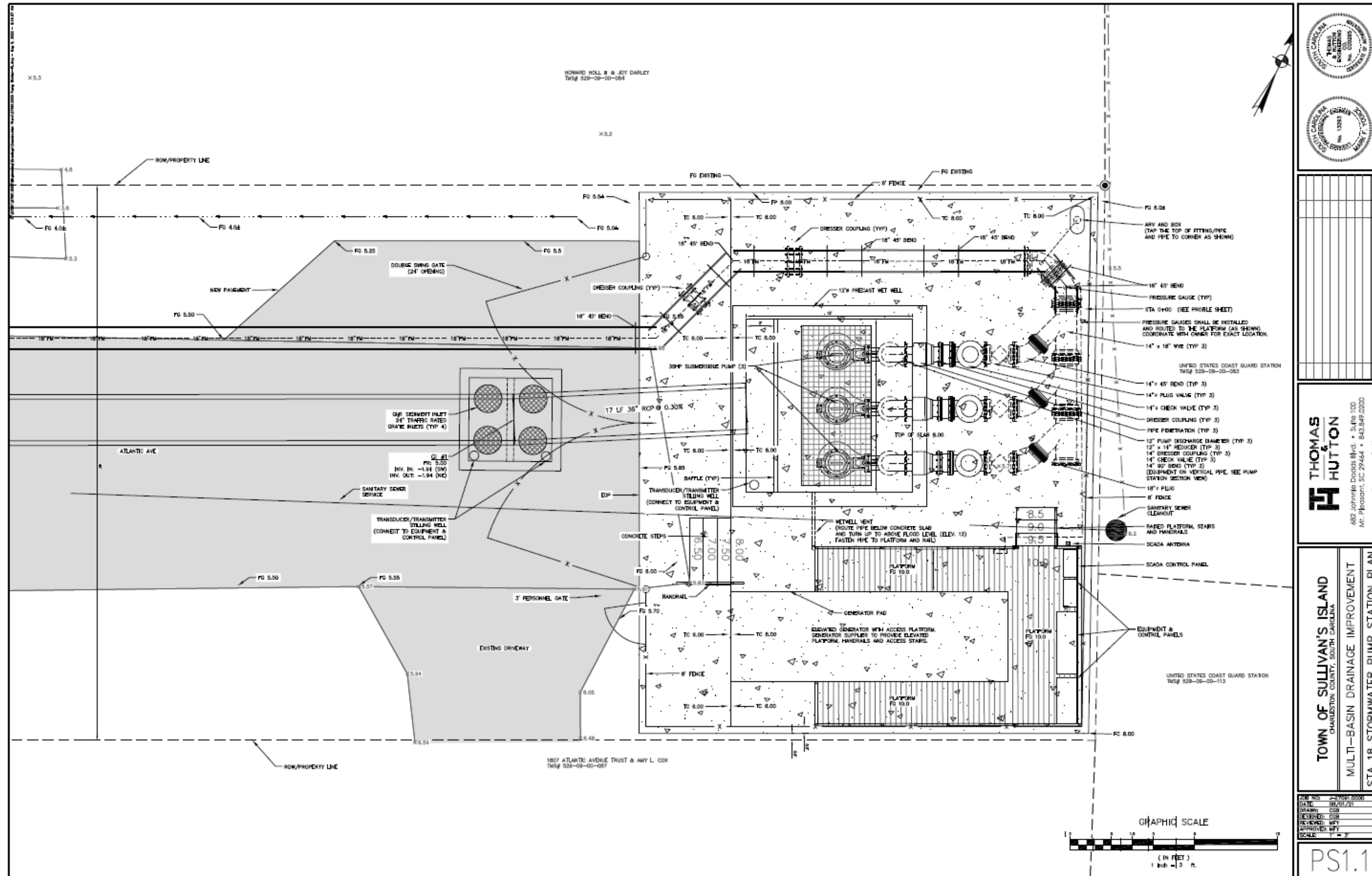
TOWN OF SULLIVAN'S ISLAND
 CHARLESTON COUNTY, SOUTH CAROLINA
MULTI-BASIN DRAINAGE IMPROVEMENT
STA 18.5 STORMWATER PUMP STATION PLAN

JOB NO.	23-000-0000
DATE	08/27/21
DRAWN	CSB
CHECKED	CSB
REVIEWED	WFT
DESIGNED BY	WFT
SCALE	1" = 4'

PS1.2



Pump Station on Sta 18



NO.	REVISIONS	BY	DATE

THOMAS & HUTTON
 682 Johnnie Dodds Blvd. • Suite 100
 Mt. Pleasant, SC 29464 • 843.849.0200
 www.thomasandhutton.com

TOWN OF SULLIVAN'S ISLAND
 CHARLESTON COUNTY, SOUTH CAROLINA
 MULTI-BASIN DRAINAGE IMPROVEMENT
 STA 18 STORMWATER PUMP STATION PLAN

DATE	08/01/20
DESIGNED	CSB
CHECKED	CSB
APPROVED	MPY
SCALE	AS SHOWN

PS1.1



Highlights

- The 22-acre study area is supposed to be drained by an inoperable, existing stormwater pump station located at the intersection of Station 18 Street and Atlantic Avenue (within SCDOT ROW). The stormwater runoff collects at the intersection and the neighboring residences adjacent to the U.S. Coast Guard Lighthouse property. The only means of stormwater drainage in this area is infiltration.
- The proposed equipment are designed to be above with the latest FEMA Flood elevation and comply with Sullivan’s Island Ordinance. Equipment will be at least one (1) foot above flood elevation.
- The new drainage system will handle the 10-year 24-hour storm event and will drain down the 100-year, 5-day rainfall in a short time (projected less than one hour).
- SCEMD is offering a 70% Federal Cost Share / 30% Non-Federal Cost Share currently (FEMA Grant) to assist with funding.

Project Total	\$5,829,214.00
70.000% Federal Share	\$4,080,449.80
30.00% Local Share	\$1,748,764.20

Questions & Answers

May 21, 2024

