Temporary Lift Station Protects Highway Construction

PROJECT SCOPE

A contractor managing a Caltrans construction project needed a temporary stormwater lift station to keep the job site free of water and the freeway open during construction.

CLIENT

Transportation Construction Contractor

INDUSTRY SEGMENT

Construction/Municipal

EQUIPMENT

- 4 12" DV200c pumps
- Pipe: Victaulic, aluminum, suction hoses
- Instrumentation: Alarm Agent; float switch pump controls
- Spillguard
- Pipestax

BACKGROUND

Freeway surfaces are typically higher than surrounding terrain and often designed with low lying areas strategically placed to collect stormwater from several miles of roadway. The collection points channel water into underground vaults, usually permanent structures that accumulate water until it reaches a specified level, at which point the lift station pumps activate and the water is pumped out. With a highway widening project in central California, the construction of additional lanes required the permanent pump station in place to be taken off line, later to be rebuilt in a new location. This disruption required installation of a temporary lift station to protect the highway from closure in case of potential flooding.

OUTCOME

Rain for Rent designed and installed a temporary system using four float-activated 12" pumps and a network of 12" Victaulic pipes to pump water from the vault and carry it 20' up in elevation to a discharge point within a stormwater sewer line. Alarm Agents and float switches added security and automation to the system, ensuring that the pumps continued to automatically come online as needed. Spillguards for containment and PipeStax® for cribbing were used to ensure site safety.

HIGHLIGHTS

- Rain for Rent's Engineering Department met with City Engineers to ensure the bypass design met strict specifications and to receive approval from the City prior to installation.
- Space and safety were key factors in the project design as the footprint for the temporary system needed to be confined to an area the width of two lanes.
- Set up completed within two days.

CUSTOMER FEEDBACK

The contractor is very happy with the project design and function; and the system is going to stay in place until the projected completion date in spring 2017.