

INNOVATIVE SOLUTIONS



Networks of Drains



Central 70



BEYOND CONSTRUCTION PHASING, water has also posed unique challenges for the neighborhood and the project. On the new interstate, precipitation is designed to flow to the shoulders, into storm drain inlets and through pipes to a central pump station. Once there, stormwater will be pumped up to the surface and out to a detention pond for water quality treatment before traveling downstream to the South Platte River. In the event of a vehicle fire, the Fixed Fire Suppression System located under the cover top will be activated, diverting these hazardous flows to a large on-site tank for storage, testing and eventual off-site disposal.

On top of the cover, water falling on the park is allowed to seep down through multiple layers before it is collected in a dedicated waterproof layer sandwiched between the park amenities and the bridge deck. It is then collected into pipes and moved toward an existing storm sewer in York Street. This method prevents ponding in the park and potential leakage onto the highway below.

DID YOU KNOW?

The pump station is about 50 feet in diameter, approximately 50 feet deep and can pump up to 50,000 of these containers (gallons) of water per minute.



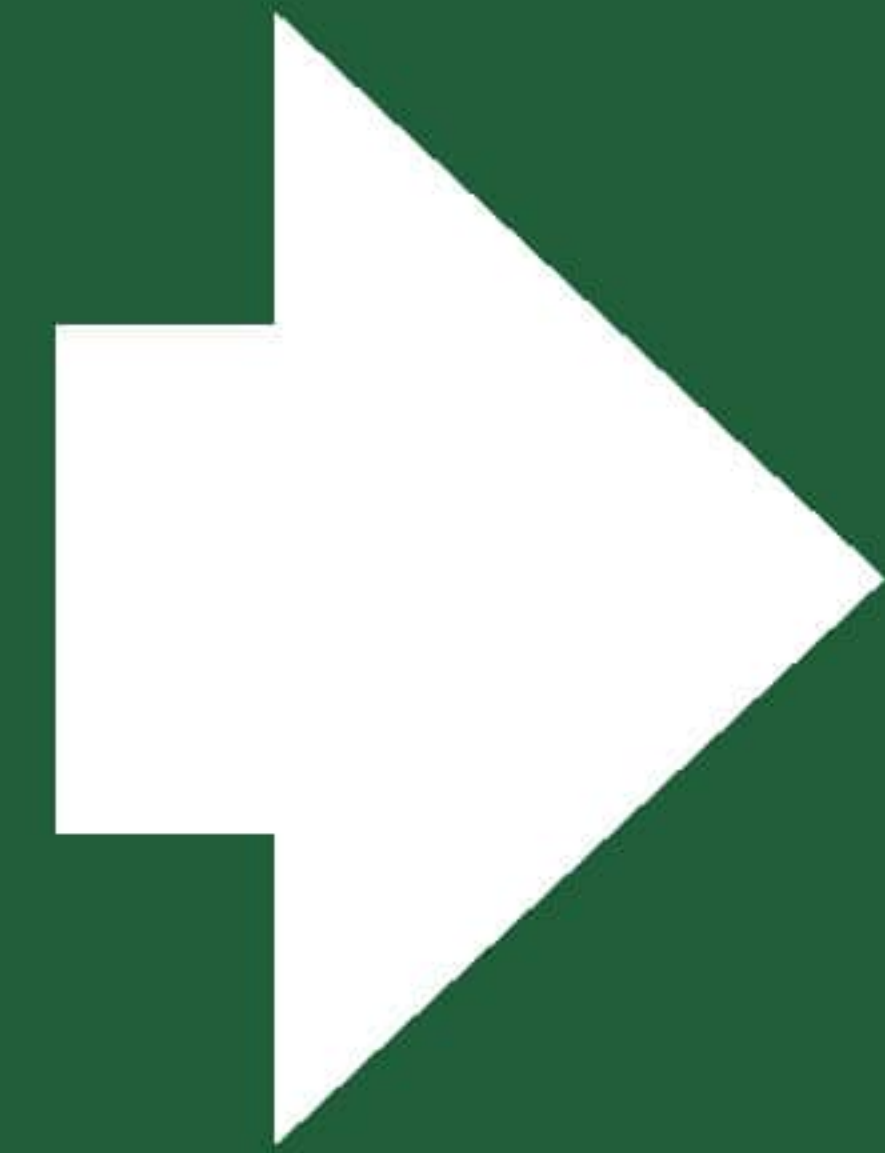
DID YOU KNOW?

The drainage system and pump station are designed to withstand up to a 100-year flood event. That's the type of storm that has a 1% chance of happening in any given year.





The circle shown here is the same size as the inside of some of the largest pipes in the Central 70 drainage system.



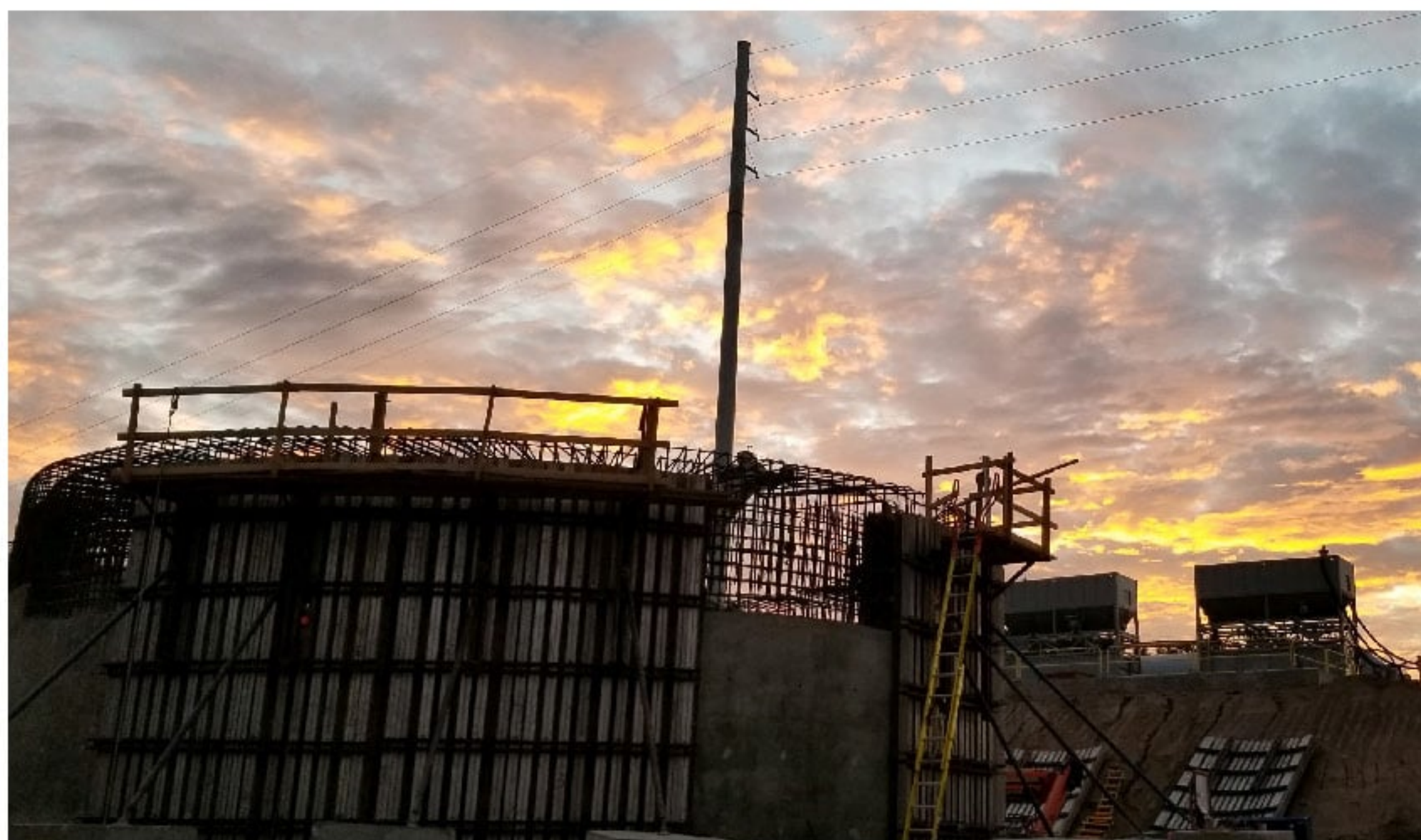
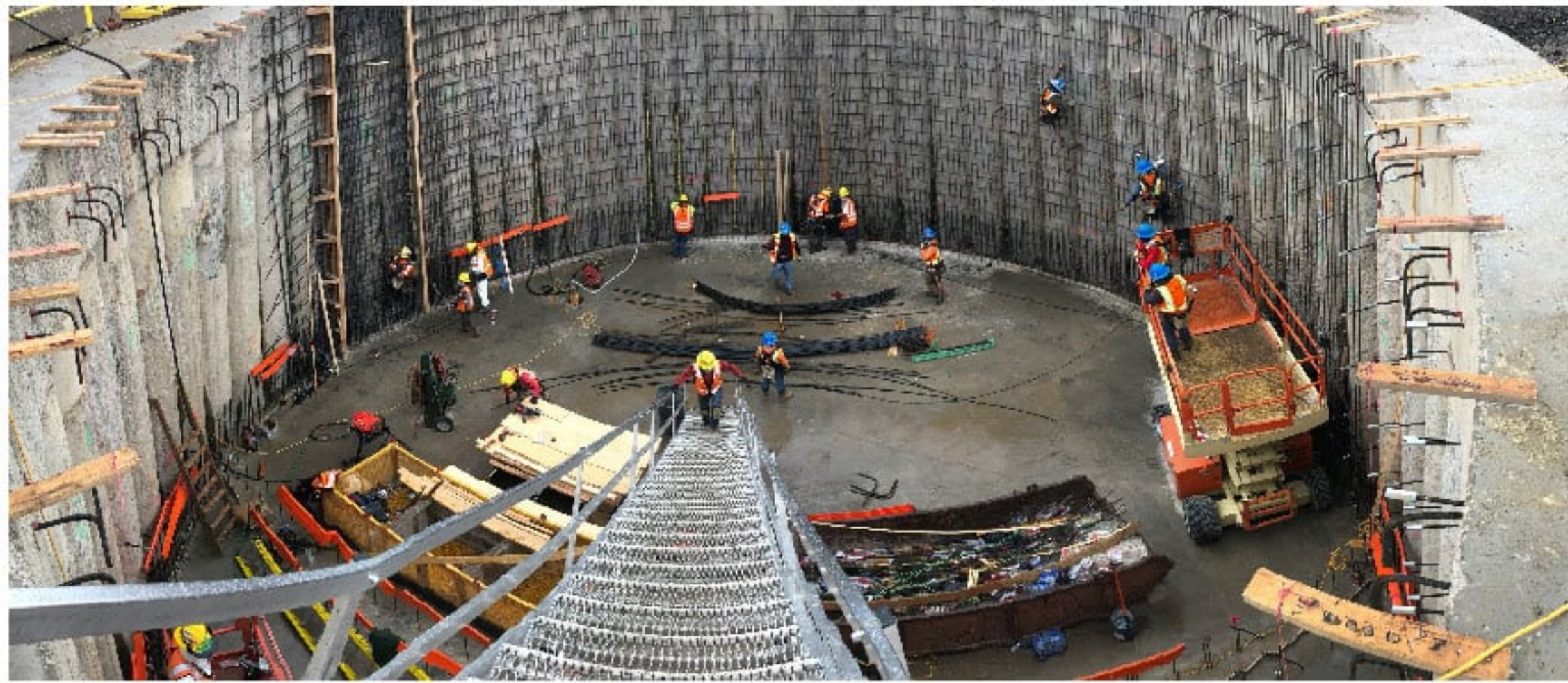
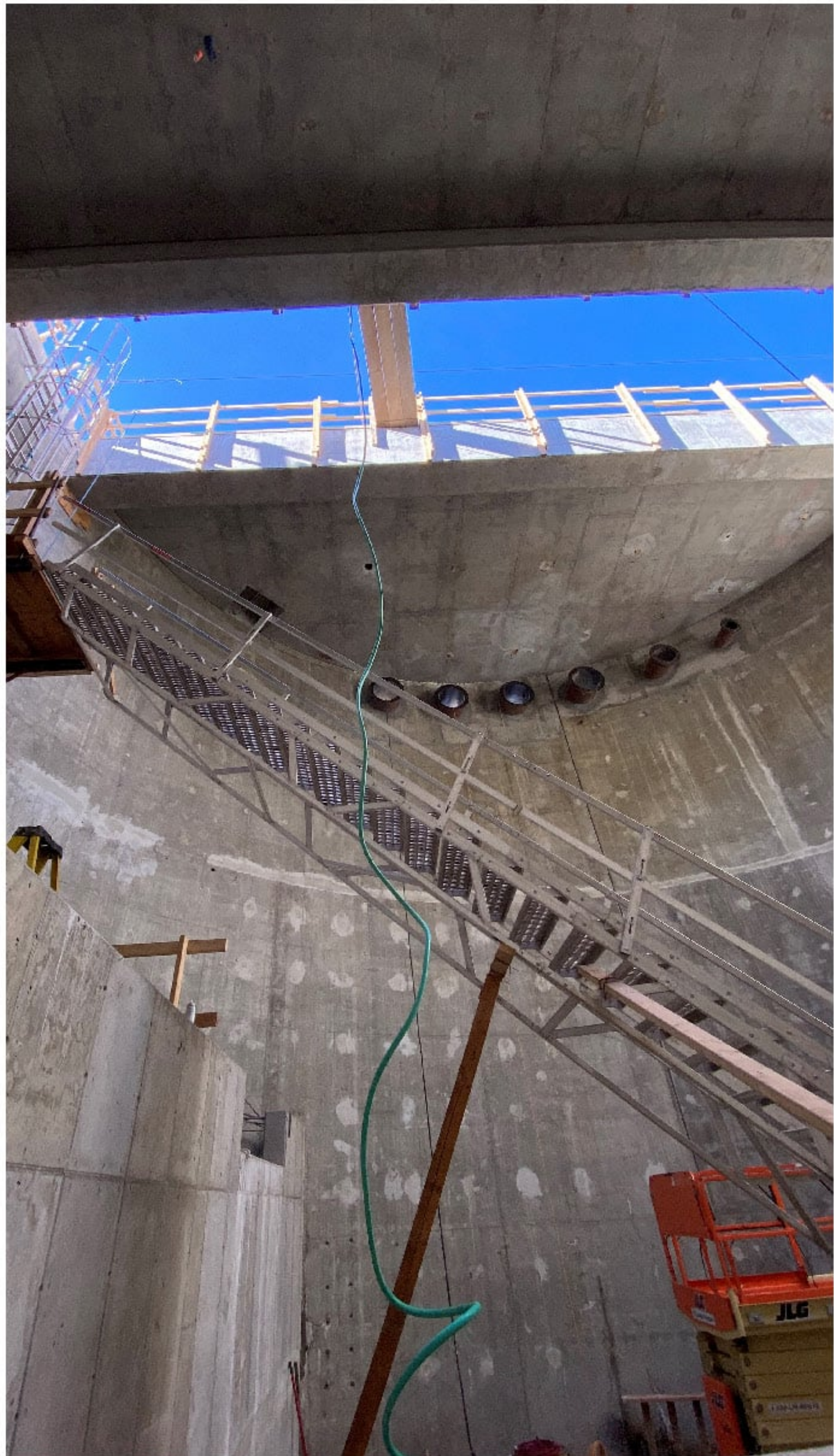
Pre-Project Stormwater Flow



Post-Project Stormwater Flow



Prior to the Central 70 Project, stormwater would flow in 'sheets' across the community.



Pump Station Construction.