

Case Study

StormChambers

SAN DIEGO AIRPORT USES NDS STORMCHAMBERS TO MEET SUSTAINABILITY GOALS FOR NEW TERMINAL

A multibillion-dollar project was approved for the construction of a new Terminal-1 at the San Diego International Airport. This multi-phase project started in November 2021 and is designed to meet LEED Gold certification. Typical open surface detention systems were not allowed due to the attraction of birds near an airport. A 6,800 CFS underground infiltration system was required.

NDS TURNS AROUND SUB-SURFACE STORMWATER DETENTION DESIGN IN 48 HOURS

With the project on fast-track, the specifier - along with the San Diego Airport Authority and Port of San Diego - chose to work with NDS. Its DesignWorx team was able to provide a comprehensive layout within two days, showcasing an efficient StormChamber solution. By tapping into value-added services from the NDS DesignWorx team, the specifier kept the project on task and under budget.

SUSTAINABLE SOLUTION LEADS TO MORE EFFICIENCIES

The NDS StormChamber system was utilized for a number of reasons. A significant benefit is that the system provides accommodations for larger volumes of water within a relatively small footprint when compared to competitive products.



"We are very satisfied with the efficiency of NDS on the design and assistance during the install."

- Casey M., Specifier

Each SC44 StormChamber used in this design is space efficient and can be stacked if needed, adding significantly more storage per chamber than other available chambers and resulting in fewer chambers and a smaller footprint. The smaller footprint is also the result of the elimination of an exterior pipe manifold system, as other chamber systems often require. In addition, this design removed the need for a crane rental, which is often used for designs with concrete vaults. NDS worked closely with the contractor, holding pre-con and on-site meetings to answer questions prior to the installation.

In addition, the product's unique design allowed for a smoother installation process and enabled the team to support its industry-leading commitment to sustainability through energy and water conservation.

PROJECT SUMMARY

PROJECT TYPE

Storage & Infiltration

PROPERTY

Airport

STAKEHOLDERS

Latitude 33 Planning & Engineering

NDS PRODUCTS USED

- (41) SC-44105 chambers
- (6) SC-ST sediment traps
- (3) SC-NWFF-500 rolls of nonwoven geotextile
- (3) SC-WFF-75 rolls of woven geotextile
- (6) SC-3020P 30x20" HDPE pipe
- (6) SC-FL-10 10" cast iron frame and lid

NDS DesignWorx Services Utilized:

1. Product specification
2. Drainage calculation
3. Plan evaluation
4. CAD file creation
5. Safety and regulatory compliance
6. Submittal drawing preparation