

# Chub Cay Club Resort Infrastructure Development

Moss & Associates

Chub Cay, Berry Islands, Bahamas

## Services Rendered

- Coordination with International Design Professionals
- Planning and Design of Roads, Water Distribution, Wastewater Collection, Pumping and Transmission Systems, Reuse Water Distribution System, Grading and Geometry Plans, and Stormwater Drainage Systems
- Construction Management Services

## Project Summary

The Chub Cay Club Resort is a 140-acre site located 30 miles west of Nassau on Chub Cay in the Berry Islands. When complete, the Moss project will include a 200-slip marina, including megayacht facilities and dry rack storage, approximately 60 two-story villas, a marina reception and sales building, a ships store with dive shop and restaurant, a new clubhouse with pool and other amenities, and staff housing.

ATM is providing engineering design and construction administration services to Moss & Associates for the civil infrastructure that includes the water distribution system, wastewater collection, pumping and transmission systems, reuse distribution system, and site grading and drainage of all roadways, lots, and areas within the resort. The water distribution system design included estimating water use demands for the resort and marina, EPANet modeling of the distribution system for average daily flow, maximum daily flow plus fire flow, and peak hourly flow demand, and preparation of construction drawings and specifications for the water distribution system in accordance with the model results. Wastewater collection and transmission system design included estimating wastewater generation rates for the resort and marina, preparation of hydraulic calculations, modeling of manifolded pump stations, and preparation of construction drawings and specifications. The water distribution system consisted of approximately 20,000 linear feet of 2-, 3-, 4-, 8-, and 10-inch HDPE pipe. The wastewater system consisted of gravity sewer, six pump stations, and approximately 5,000 linear feet of 2-, 4-, and 6-inch forcemains. Reuse distribution system design included preparation of construction drawings and specifications for reuse irrigation piping. Grading and drainage design included grading of all roadways and lots, delineation of drainage basins, preparation of runoff calculations, preparation of construction drawings, and specifications for grading and swales, area drains, and drainage wells.

In addition to design and construction management, ATM prepared permit applications for the water, wastewater, drainage systems, and roadway design for the Ministry of Works and Utilities and the Bahamas Water and Sewer Authority.

