

EDUCATION:

Bachelor of Science, Civil Engineering, Florida Atlantic University (December 2011)

FES/FICE Florida Engineering Leadership Institute (2015-2016)

REGISTRATIONS:

Florida Licensed P.E. No. 86390

EPA/FDEP NPDES Inspector

AFFILIATIONS:

2019/Present FES Broward State Director

ASCE Member since 2012

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## SUMMARY

Noel Rodriguez, P.E. has 9 years of experience working on development projects in the public and private sector. He has been the lead designer handling all aspects of engineering design of roadway and parking lots, water systems, sewer collection and distribution systems, reclaimed water systems, stormwater management and drainage design, miscellaneous utility coordination, complete plan production, permitting, engineering cost estimate and construction administration and site inspection.

## EXPERIENCE

**Fort Lauderdale Lift Station D-38 Improvements, Fort Lauderdale, Florida.** Engineer-of-Record for the Pump Station D-38 Upgrades. The scope included the design, permitting and construction inspection associated with temporary bypass pumping, rehabilitation of existing wet well, replacement of pumps and all equipment, replacement of electrical service from 240 volts to 480 volt supply, replacement of electrical equipment including power panels, pump control panels, instrumentation panels, and station lighting, replacement of lightning and power surge equipment as well as a combustible gas detector, redesign of influent gravity main and manholes, redesign of force main and connection to manifold system, raised rim elevations and electrical services to meet current flood requirements, roadway repair, and median landscaping.

**42-inch HDD - 1,500 LF HDPE Reclaimed Water Transmission Main, Broward County, Florida** – As the prime consultant and design engineer

of this 11-mile large diameter pipe project, services include preliminary design report, design, permitting, bidding assistance, and construction administration. The project is composed of two (2) bid packages; Bid Package #1 is comprised of 5 miles of a 42-inch pipe and Bid Package #2 is comprised of 6 miles of 24-inch pipe. Multiple corridors were evaluated, and cost comparisons completed for each alternative. The final design requires the installation of the proposed reclaimed water transmission main in FDOT and SFWMD right-of-way. Permitting efforts includes multiple agencies and municipalities. The estimated construction cost for the project is approximately \$35 million.

**12-inch HDD – 3,700 LF HDPE Water Main Design/Build, Broward County, Florida.** As the design engineer on the Design/Build team, T&A completed the design, permitting and construction inspection for the North Springs Improvement District (NSID). The proposed 12-inch water main connects the NSID's water treatment plant to the Palm Beach County Water Utilities potable water distribution system through an aerial crossing of the Hillsboro Canal. Five (5) HDDs were designed ranging from 600 ft to 800 ft in length for a total HDD length of 3,700 LF.

**16-inch HDD – 450 LF HDPE Water Main, Palm Beach County, Florida.** As the Prime Consultant, T&A completed civil design for the on-site and off-site improvements required for a new charter school. The offsite improvements included the widening of Lyons Road as well as the addition of over a half a mile of a 16-inch potable water main, 20-inch reclaimed water main, and a 4-inch sanitary sewer force main. There were three (3) HDD sections to avoid existing box culverts. Each HDD was approximately 450 ft in length.

**20-inch HDD – 450 LF HDPE Reclaimed Water Main, Palm Beach County, Florida.** As the Prime Consultant, T&A completed civil design for the on-site and off-site improvements required for a new charter school. The offsite improvements included the widening of Lyons Road as well as the addition of over a half a mile of a 16-inch potable water main, 20-inch reclaimed water main, and a 4-inch sanitary sewer force main. There were three (3) HDD sections to avoid existing box culverts. Each HDD was approximately 450 ft in length.



**4-inch HDD – 450 LF HDPE Sanitary Sewer Force Main Lyons Road Water Main and Force Main HDD, Palm Beach County, Florida.** As the Prime Consultant, T&A completed civil design for the on-site and off-site improvements required for a new charter school. The offsite improvements included the widening of Lyons Road as well as the addition of over a half a mile of a 16-inch potable water main, 20-inch reclaimed water main, and a 4-inch sanitary sewer force main. There were three (3) HDD sections to avoid existing box culverts. Each HDD was approximately 450 ft in length.

**Trails Charter School, Palm Beach County, Florida.** A 1,240 student private charter school located on a 7.5 acre parcel east of Military Trail Just north of Hypoluxo Road. The amenities for this K-8 charter school included an all-purpose field, playground, and secured bicycle storage. As part of the site development, a signalized intersection was designed, a parking lot improvement to an adjacent property was completed, and approximately 1,200 linear feet of 12" force main was constructed as well as right turn lane and left turn lane additions on Military Trail. The site civil development included a private lift station, force main, potable water main, fire suppression system, surface water management system, grading, pavement, sidewalks, roadway and intersection design, pavement marking and signage, and SWPPP plans. Scope included the preliminary design, design, and permitting, coordinating efforts with Florida Power & Light to relocated transmission and distribution utility poles and construction observation services; including NPDES inspections, pipe installation, water main taps, lift station start-ups, subgrade, base and asphalt inspections and alignment tests.

**Wellington Charter School, Palm Beach County, Florida.** A 1,500-student private charter school located on an 8.0-acre parcel on State Road 7 in the Village of Wellington. The amenities for this K-8 charter school included an all-purpose field, playground, and secured bicycle storage. As part of the site development, a bridge and aerial water main crossing over a canal, road improvement to an adjacent property, as well as right turn lane and left turn lane additions on State Road 7. Project included the site civil development including gravity sanitary sewer, potable water main, fire suppression system, surface water management system, grading, pavement, sidewalks, pavement marking and signage, and SWPPP plans. Scope included the preliminary design, design, permitting, and construction observation services, including NPDES inspections, pipe installation, water main taps, subgrade, base and asphalt inspections and alignment tests.

**Hillsboro Mile Sanitary Sewer System Replacement, Broward County, Florida** As the engineer-of-record for this project, the goal was to completely replace the aging sanitary sewer system for a 3 mile corridor serving up-scale beachfront single and multi-family properties. The entire project was in a 2-lane FDOT right-of-way as well as within the limits if the Town of Hillsboro Beach. Design considerations included existing sanitary sewer clean-out elevations at the property line, improved efficiency of lift stations and force mains, constructability, coordination with a concurrent water main replacement project (by others), coordination with a concurrent roadway improvement project (by others), and maintenance of traffic during construction. Every existing sewer manhole, sanitary sewer gravity main, and force main was replaced. A lift station study was completed to determine the most efficient and reliable configuration of the proposed force mains while considering the size of each pump. A new alternate force main was designed which eliminated the dependency on one sub-aqueous crossing to service the entire 3-mile island. The services provided included preliminary design report, design, permitting, bidding assistance, and construction administration. Permitting efforts included multiple agencies and required continual coordination during the course of the project. The estimated construction cost for the project is around \$7.5 million.

**UAZ 108 Water Main Replacement, Broward County, Florida** Engineer-of-Record of this project which includes over 7 miles of pipe and 570 services, our scope included the modeling (InfoWater) of the existing and proposed system, design, and permitting. The project is within an existing neighborhood and the design considered water pressures, water age, as well as fire flows through the community. The customers were primarily single family residential, however there were about 5% commercial uses. Multiple pipe scenarios were evaluated. The final design combines multiple pipe sizes to balance performance, service, and efficiency for BCWWS. Permitting efforts included the Florida Department of Environmental Protection, Broward County, and the City of Lauderdale Lakes. The estimated construction cost for the project is approximately \$ 12 million.