



NicNevol

Engineering Services



www.nicnevol.com

North Florida International School

Location: 2000–2400 SW Bascom Norris Drive, Lake City, FL

Owner: North Florida International School, LLC (Patrick Honoré, P.E.)

Markets: Institutional, Geotechnical Engineering, Athletics Facilities

Services: Geotechnical Exploration, Subsurface Investigation, Laboratory Testing, Foundation Recommendations

Project Description

NicNevol Engineering Services conducted a geotechnical exploration and evaluation for the proposed Tennis Forever Complex at the North Florida International School campus in Lake City, FL.

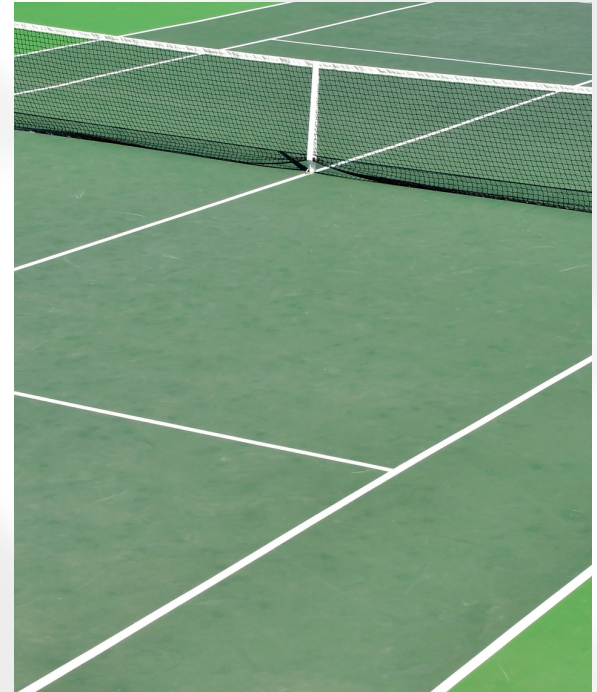
The project consisted of constructing new tennis courts, support buildings, and associated parking areas. Field exploration included three (3) Standard Penetration Test (SPT) borings advanced to 25 ft depth using a CME 55 drill rig. Groundwater was encountered at 1.5–2.0 ft below surface.

Subsurface conditions revealed fine sands in the upper 4 ft, followed by clay soils down to ~12 ft, another sand layer between 12–17 ft, and deeper clay soils extending to boring termination. Laboratory testing confirmed the soils included clays with moderate to severe shrink-swell potential, limiting their suitability as foundation soils.

Recommendations included undercutting and replacing clay soils with non-cohesive compacted fill, use of deep foundations (cast-in-place piles) where necessary, and site preparation guidelines for excavation, compaction, and drainage.

NicNevol Responsibilities

- Performing SPT borings and logging subsurface conditions.
- Conducting laboratory testing for classification and soil properties.
- Evaluating shrink-swell potential of clays and foundation risks.
- Providing recommendations for site preparation, fill placement, and compaction.
- Advising on shallow vs. deep foundation alternatives.
- Delivering final geotechnical report with engineering design parameters.



Project Highlights

- Client: North Florida International School, LLC.
- New tennis complex including courts, buildings, and parking.
- Field program: 3 SPT borings to 25 ft depth.
- Subsurface profile: fine sands (0–4 ft), clays (4–12 ft), sand (12–17 ft), clays (17–25 ft).
- Groundwater: 1.5–2.0 ft below surface.
- Laboratory testing: particle size distribution, Atterberg limits, organics.
- Recommendations: undercut clay soils, replace with compacted structural fill; consider cast-in-place piles for long-term performance; compaction to 95% Modified Proctor.



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