

Purposes

Purposes of this exploration were to characterize subsurface soils conditions at the site and to provide our findings and evaluations.

Site Description

The site is located at Parcel No. 0359700000, 0359700300, 0359700400 and 0359701600 on the east side of NE 110th Avenue in Bronson, Florida. The site was covered with native trees and grasses at the time of drilling.

Exploration Program

Field exploration services for the geotechnical exploration consisted of the following:

- Twenty (20) direct push borings (B-1 thru B-6, B-8 thru B-12, B-14 thru B-17 and B-19 thru B-23) to depths of approximately thirty (30) feet below existing site grade (ASTM D-6282). Direct Push borings were performed on July 8, 2022
- Three (3) Standard Penetration Test (SPT) borings (B-7, B-13 and B-18) to depths of approximately sixty (60) feet below existing site grade (ASTM D-1586). SPT borings were performed on July 25, 2022.

Sampling & Testing Descriptions

Gradation (-200) Testing

A specimen of soil is washed over a seventy-five (75) μm (No. 200) sieve. Clay and other particles that are dispersed by the wash water, as well as water-soluble materials, are removed from the soil during the test. The loss in mass resulting from the wash treatment is calculated as mass percent of the original sample and is reported as the percentage of material finer than a seventy-five (75) μm (No. 200) sieve by washing.

Direct Push Sampling

Direct Push (DP) soil sampling method (ASTM D-6282) consists of advancing a sampling device into subsurface soils by applying static pressure, by applying impacts, or by applying vibration, or any combination thereof, to the above ground portion of the sampler extensions until sampler has been advanced to the desired sampling depth. The sampler is recovered from the borehole and the sample removed from the sampler. The sampler is cleaned and the procedure repeated for the next desired sampling interval.

Sampling can be continuous for full depth borehole logging or incremental for specific interval sampling. Samplers used can be protected type for controlled specimen gathering or unprotected for general soil specimen collection. Direct push methods of soil sampling are used for geologic investigation, soil chemical composition studies, and water quality investigations. Continuous sampling is used to provide a lithological detail of the subsurface strata and to gather samples for classification and index.