



GILMORE & ASSOCIATES, INC.

FULL SERVICE CIVIL ENGINEERING & CONSULTING



## THE PHILADELPHIA ZOO Philadelphia, PA

Gilmore & Associates, Inc. (G&A) was engaged by the Philadelphia Zoo to provide geotechnical engineering and geoscience services to support the redevelopment of the Pachyderm building and adjacent animal enclosures for the proposed Children's Zoo and Education Center. The improvements will include new animal enclosure structures, attendee restroom facilities, a variety of walkway surfaces, and animal exhibit spaces. The proposed construction will utilize sustainable practices, such as; new stormwater best management practices; repurposing existing structures; and recycling construction material.

The geotechnical engineering scope included site reconnaissance, five test borings; one test pit, laboratory analysis of the soils encountered, engineering analysis of the subsurface information, and preparation of a geotechnical report. The report provided a description of the site and discussed the subsurface/geologic conditions and their impact on construction. Additionally, the report provided recommendations for design of earthwork, foundations, floor slabs, and elevations of existing footings at specific locations of the Pachyderm building.

The geoscience services G&A performed were a deep-hole test pit investigation, five double-ring infiltrometer tests, and six standard percolation tests in support of subsurface stormwater management facilities. G&A provided the design engineer with infiltration test results, soil descriptions (USCS & USDA), and recommendations relative to the proposed stormwater Best Management Practices (BMPs).

All investigations were performed simultaneously to decrease disruption to the animals residing in the Pachyderm house, the general public, and the surrounding facilities and animal enclosures.

In addition, G&A hopes to provide construction testing services, including soil compaction testing and underground utility and stormwater facility installation observation in the future.

### Contact Information

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### Client Information

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### Services Provided by G&A

- Geotechnical Borings
- Geoscience Infiltration
- Construction Testing

