New Jersey Turnpike Authority

P.O. Box 5042, Woodbridge, NJ 07095

September 13, 2017

Document Change Announcement

2007 Procedures Manual

Contaminated Soil and Groundwater

DCA2017PM-03

Subject: Revisions to

Section 5 Geotechnical Engineering, Subsection 5.2 Geotechnical Investigation

Description of Change:

Changes are being proposed to these documents to better define issues and requirements associated with contaminated soil and groundwater.

Notice to NJTA Staff and Design Consultants:

Effective immediately, all contracts currently in the design phase shall incorporate the revisions herein. For advertised contracts awaiting the opening of bids this revision may be incorporated via addendum. Contact your NJTA Project Manager for instruction.

The revisions may be accessed on the Authority's webpage: http://www.state.nj.us/turnpike/professional-services.html

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Distribution: Senior Staff Engineering, Law, Maintenance & Operations Depts., All Prequalified Consultant Firms, File

5.2 GEOTECHNICAL INVESTIGATION

The following is a brief outline of the necessary steps in such an investigation and some suggested possible subsurface investigation methods that might be used.

5.2.1 Preliminary Investigation

Prior to beginning the plan layout of the borings, the Geotechnical Engineer shall investigate all possible sources of existing information to inform themselves of the geology of the area and the nature of the soils. -References shall include geology maps or papers, existing boring logs and foundations plans, soil and foundation reports, agricultural soil maps, borings made for previous construction nearby and Photogeologic Interpretation reports. –Field reconnaissance of the proposed corridor and discussions with local residents ~~sometimes~~ –may provide invaluable information not found in standard references. –~~"~~The Geologic Map of New Jersey ~~by Lewis and Kummel"~~(DGS04-6 Bedrock Geology of New Jersey (Scale 1:100,000)) is available on the ~~standard reference~~NJDEP website (http://www.state.nj.us/dep/njgs/geodata/). In addition, the NJDEP has topographic quadrangle maps available with the bedrock (DGS15-1 Bedrock Geology of New Jersey (Scale 1:24,000)) or surficial geology ~~map of New Jersey.~~ (DGS10-2 Surficial Geology of New Jersey (Scale 1:24,000)). Preliminary engineering soils information including engineering soil maps, by county, can be obtained from the Rutgers University publications entitled, "Engineering Soil Survey of New Jersey". -The United States Department of Agriculture, Soil Conservation Service also publishes soil maps which are useful when evaluating the upper layers of soil.

Normally the next step will be to proceed with the planning of the required additional subsurface investigations needed for design. –However, there may be a few cases where additional preliminary information will be necessary for conceptual decisions to be made prior to design. -A preliminary test boring program or other type of geophysical or photogeologic investigation should then be developed, approved by the Authority and implemented.

5.2.3 Test Boring Contract

5.2.3.6 Environmental Contamination

Environmental investigations will normally precede the geotechnical investigation to determine if contamination is present. It is possible that geotechnical borings installed in areas thought to be uncontaminated may encounter contamination. The Authority's Project Manager shall be immediately notified if environmental contamination is encountered during installation of soil borings. Any testing for and management of contamination within the project site must be performed in accordance with current NJDEP Site Remediation regulations and the NJDEP's Field Sampling Procedures Manual. Refer to the Authority's Design Manual for "Environmental Engineering" requirements.