

# Work Type Definition and Submittal Requirements

## 6.9 Soils Analysis & Recommendations

### Work Type Definition

Page 1 details the work type definition. In order to become *pre-qualified* for this work type, please see the “Work Type Submittal Requirements” on page 2.

#### **I. Description**

The purpose of this work type is to analyze field boring work and laboratory soils tests to develop recommendations that include but are not limited to muck excavation, subgrade excavation, embankment construction, subsurface drainage, dewatering, ponding, berms, shrinkage factors, use of onsite materials and grading, base and surfacing design. The required outline for the Materials Design Recommendations Report can be found in Chapter 8 of the MnDOT Geotechnical and Pavement Design Manual.

#### **II. Standards and Specifications**

**Standards and specifications required for a project under this work type may include the following:**

- A. All tasks will be performed in accordance with current ASTM, AASHTO, and MnDOT Standards, Specifications, and Manuals. The current MnDOT Specifications for Soils Surveys, Engineering Analysis, Laboratory, and Field Soils Tests can be found at:  
<http://www.mrr.dot.state.mn.us/pavement/PvmtDesign/Documentation/soilsinv.pdf>.

#### **III. Provided By MnDOT**

**Information to be supplied by MnDOT for a project may include the following:**

- A. Plans showing existing topography, proposed alignments, locations of the existing and proposed structures and locations of borings.
- B. Completed soils investigation including boring logs in electronic format (MnDOT’s Soils Data Dictionary format).
- C. Approved traffic forecast.
- D. American Society for Testing and Materials (ASTM), American Association of State Highway & Transportation Officials (AASHTO), MnDOT Geotechnical and Pavement Manual, MnDOT Standard Specifications and Technical Memoranda.

#### **IV. Provided by Consultant**

**Deliverables to be supplied by the consultant for a project may include the following:**

- A. Final Materials Design Recommendation Report.
  - a. Laboratory testing reports.
  - b. Plotted boring plan and soils profile in electronic format (hard copy may be required).
  - c. A Final Materials Design Recommendation Report (if required) summarizing the results of the investigation, testing, analyses, and recommendations.

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## Work Type Definition and Submittal Requirements

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### Work Type Submittal Requirements

*A consultant firm becomes pre-qualified based on the qualifications of the personnel that are employed by the firm.*

<b>Key Personnel Requirements</b>	
Minimum Number of Staff:	<ul style="list-style-type: none"> <li>• One Professional Engineer</li> </ul>
Professional Certification/Licensure:	<ul style="list-style-type: none"> <li>• Qualified professional engineer must be a licensed Professional Engineer in the state of Minnesota.</li> </ul>
<b>Work Type Submittal Requirements*</b>	
<b>I. Resume and Relevant Project Experience Form (Form PQ1)</b>  <i>Submit in Word format</i>	A. Complete Parts 1, 1A, 2 and 3 of Form PQ1 <u><b>Part 1:</b></u> Fill out general information and names of personnel  <u><b>Part 1A:</b></u> Qualified professional engineer must have a minimum of 5 years relevant experience. Must show at least two completed projects (maximum of 5) within the last 10 years.  <u><b>Part 2:</b></u> Complete according to requirements in “Project Example Requirements” below.  <u><b>Part 3:</b></u> NOT APPLICABLE
<b>II. Project Example Requirements</b>  <i>Submit in PDF format</i>	A. One project example is required. The example must include a complete design recommendations report and supporting data from a project as outlined in Chapter 8, excluding section 800 of the MnDOT Geotechnical and Pavement Manual.
<b>III. Proof of Professional Certification/Licensure</b>  <i>Submit in PDF format</i>	A. Provide a current copy of applicable Professional Certification/Licensure.
<b>*Work Type Submittal Instructions:</b>  Create a CD or flash drive that includes the following individual files or folders in this order:  I. Resume and Relevant Project Experience Form (Form PQ1) II. Project Example Requirements (this should be a folder that includes individual files clearly named according to Part 2 of the PQ1) III. Proof of Professional Certification/Licensure  <p style="text-align: center;"><b>Each file should be saved in the format identified above. Submit 5 copies of the CD or flash drive.</b></p>	