

**GEOTECHNICAL CONSULTANT PREQUALIFICATION REQUIREMENTS  
(REVISED 12/8/11)**

Geotechnical consultants shall submit at least one key person per role for each discipline. For each unit, submit an organizational chart showing disciplines, key personnel and Drilling Contractor. For each engineer and geologist per discipline, submit 2 examples of department of transportation or similar work sealed by each engineer or geologist and completed within the last 3 years. Submit the same for each geophysicist except examples are not required to be sealed. Also, submit documentation verifying the following requirements:

- Experience/examples/Drilling Contractor and equipment meet the miscellaneous requirements for each discipline
- Key personnel meet the registration required, if applicable
- Key personnel meet the years of experience required
- Key personnel are permanent employees of the consultant
- Consultant meets the firm registration required, if applicable

Documentation should include project lists and descriptions including names and current contact information of clients and owners, resumes, references, certificates, experience descriptions and details, etc. If a consultant has previously completed work for the NCDOT Geotechnical Engineering Unit, this work will also be considered for prequalification. For questions about these prequalification requirements, contact Scott Hidden, P.E. or Mohammed Mulla, P.E. of the Geotechnical Engineering Unit at (919) 707-6850.

Discipline Code	Discipline	Unit	Type of Work	Key Personnel Required	Registration Required*	Years of Experience Required	Firm Registration Required*	Miscellaneous Requirements
00294	Roadway Foundation Investigation & Design	Geotechnical Engineering Services		Geotechnical Engineer	P.E.	5	P.E.	Drilling Contractor prequalified by the NCDOT Contractual Services Unit for Drilling for Geotechnical Investigations work (work code 3050) Drilling equipment (in-house or outsourced) to access wooded and overgrown areas, obtain N and H size cores and drill 120 ft SPT borings and 200 ft mud borings
				Project Geologist or Geological Engineer	L.G. or P.E.	5		
00295	Structure Foundation Investigation & Design	Geotechnical Engineering Services	Shallow and Deep Foundations	Geotechnical Engineer	P.E.	5	P.E.	One shallow or driven pile foundation example and one deep foundation example other than driven piles; both examples in accordance with <i>AASHTO LRFD Bridge Design Specifications</i> See miscellaneous requirements for Roadway Foundation Investigation & Design Discipline for Drilling Contractor and equipment requirements
				Project Geologist or Geological Engineer	L.G. or P.E.	5		
00296	Retaining Wall Investigation & Design	Geotechnical Engineering Services	Post-Bid Design Retaining Walls	Geotechnical Engineer	P.E.	5	P.E.	One cut wall example and one fill wall example; both examples with at least 1,500 ft <sup>2</sup> of wall face area See miscellaneous requirements for Roadway Foundation Investigation & Design Discipline for Drilling Contractor and equipment requirements
				Project Geologist or Geological Engineer	L.G. or P.E.	5		
00297	Pavement Design Investigation	Geotechnical Engineering Services	Subgrade Design and Chemical Stabilization	Geotechnical Engineer	P.E.	5	P.E.	Experience with using dynamic cone penetrometers, collecting load cell data and recovering pavement cores using thin walled core barrels One example for each type of work Drilling Contractor prequalified by the NCDOT Contractual Services Unit for Drilling for Geotechnical Investigations work (work code 3050) Drilling equipment (in-house or outsourced) to complete 20 pavement cores per rig per day, obtain 4" to 6" dia. pavement cores from pavements up to 24" thick and drill pavement borings to a depth of 20 ft
				Project Geologist or Geological Engineer	L.G. or P.E.	5		

\*Professional Engineer (P.E.) or Licensed Geologist (L.G.) licensed in the State of North Carolina

**GEOTECHNICAL CONSULTANT PREQUALIFICATION REQUIREMENTS  
(CONTINUED)**

<b>Discipline Code</b>	<b>Discipline</b>	<b>Unit</b>	<b>Type of Work</b>	<b>Key Personnel Required</b>	<b>Registration Required*</b>	<b>Years of Experience Required</b>	<b>Firm Registration Required*</b>	<b>Miscellaneous Requirements</b>
00298	Ground Improvement Design	Geotechnical Specialty Services	Dynamic Compaction, Grouting, Stone Columns, Wick Drains, Etc.	Geotechnical Engineer	P.E.	10	P.E.	Each example of a different type of work
00299	Cantilever Retaining Wall Design	Geotechnical Specialty Services	Sheet Pile, Cantilever Concrete, Pile Panel and Soldier Pile Retaining Walls	Geotechnical Engineer	P.E.	5	P.E.	Each example of a different type of work in accordance with <i>AASHTO LRFD Bridge Design Specifications</i>
00300	Anchored Retaining Wall Design	Geotechnical Specialty Services	Anchored (Tieback) Retaining Walls and Shoring, Soil Nail Retaining Walls and Temporary Soil Nail Walls	Geotechnical Engineer	P.E.	5	P.E.	One anchored shoring or retaining wall example in accordance with <i>AASHTO LRFD Bridge Design Specifications</i> and one soil nail retaining wall or temporary soil nail wall example in accordance with the <i>FHWA Geotechnical Engineering Circular No. 7 "Soil Nail Walls"</i> (Publication No. FHWA-IF-03-017)
00301	Dam Investigation, Evaluation & Design	Geotechnical Specialty Services		Geotechnical Engineer	P.E.	10	P.E.	See miscellaneous requirements for Roadway Foundation Investigation & Design Discipline for Drilling Contractor and equipment requirements
				Project Geologist or Geological Engineer	L.G. or P.E.	5		
00302	Landslide Investigation, Evaluation & Mitigation Design	Geotechnical Specialty Services		Geotechnical Engineer	P.E.	10	P.E.	See miscellaneous requirements for Roadway Foundation Investigation & Design Discipline for Drilling Contractor and equipment requirements
				Project Geologist or Geological Engineer	L.G. or P.E.	5		
00303	Rock Slope Investigation, Evaluation & Design	Geotechnical Specialty Services	Rock Slope Design and Stabilization Including Horizontal Drains, Rock Bolts, Rockfall Netting and Fences, Etc.	Geotechnical Engineer	P.E.	10	P.E.	One rock slope design example and one rock slope stabilization example; both examples for rock slopes taller than 50 ft and steeper than 1:1 (H:V) Successful completion of at least 1,000 ft of rock coring within the last 3 years and experience with a down hole camera See miscellaneous requirements for Roadway Foundation Investigation & Design Discipline for Drilling Contractor and equipment requirements
				Project Geologist or Geological Engineer	L.G. or P.E.	10		
00304	Rock Blasting Evaluation & Design	Geotechnical Specialty Services	Production, Controlled, Cushion or Trim, Trench and Secondary Blasting and Pre-Splitting	Geotechnical Engineer	P.E.	10	P.E.	At least one pre-splitting example
00305	Geophysical Services	Geophysical Services	Ground Penetrating Radar (GPR), Seismic Refraction/Reflection, Resistivity, Electromagnetic (EM), Etc.	Geophysicist	---	5	---	Each example of a different type of work
00330	Hazardous Waste Site Analysis & Remediation	Geoenvironmental Services		Geoenvironmental Geologist/Engineer	L.G. or P.E.	5	L.G. or P.E.	Experience with hazardous waste sites, landfills, underground storage tanks, brownfields or dry cleaning solvent remediation in North Carolina
00364	MSE Retaining Wall Design	Geotechnical Specialty Services		Geotechnical Engineer	P.E.	5	P.E.	Experience with the computer software, MSEW, version 3.0 or later, manufactured by ADAMA Engineering, Inc. 2 examples with MSEW analysis for 2 different projects in accordance with <i>AASHTO LRFD Bridge Design Specifications</i>

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