



Infrastructure and Asset Management

Request for Qualifications for Cabarrus County Infrastructure and Asset Management

November 12, 2019

Project Description

Cabarrus County Infrastructure and Asset Management (IAM) is soliciting responses from qualified firms licensed in North Carolina to provide Special Inspections and Construction Materials Testing to the County during the construction of a new courthouse and renovations to the existing courthouse located at the intersection of Union street and Church Street SE.

Services and tasks may include, but are not limited to, the following:

- Soils evaluation and testing
- Earthwork monitoring and testing
- Fill placement observations and compaction testing including backfill at retaining walls
- Cast-In-Place concrete inspection and testing
- Rammed aggregate pier inspection and testing
- Asphalt placement/thickness observations
- Masonry inspections and testing
- Foundation construction monitoring
- Reinforcing steel inspection
- Structural steel framing inspections
- Composite metal floor deck and shear stud inspections
- Metal roof deck inspections
- Spray applied fireproofing and intumescent paint testing and inspections
- Other construction services as requested
- **A list of special inspection qualifications is listed at the end of the RFQ per our civil, MEP, and structural engineering firm**



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Qualification Package Evaluation Criteria

Qualifications packages will be evaluated on the firm's ability to meet the requirements of this RFQ. Special emphasis will be placed on the proposed team's experience and qualifications.

Evaluation criteria are as follows:

- Firm and individual experience with new construction materials testing.
- Quality and timeliness of past similar projects
- Qualifications, certifications, abilities, availability and geographic location of the key individuals
- References and previous project relevance
- Qualifications package responsiveness, appearance, and presentation

SOQ Requirements

Firms that are interested in providing the requested services to Cabarrus County are invited to submit a Statement of Qualifications (SOQ), in electronic format only, to Kyle Bilafer at kdbilafer@cabarruscounty.us.

Each firm is solely responsible for the timely delivery of its SOQ. All SOQ packages must be delivered by 3:00 pm local time on November 27, 2019. No qualification packages will be accepted after this deadline. Firms accept all risk of late delivery regardless of fault.

The SOQ package should be no more than **20** pages in length.

Please identify a contact person for questions during the RFQ process and provide contact information including telephone number, email, and postal address.



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Terms and Conditions

The following terms and conditions apply to this RFQ:

1. All responses shall become the property of the County.
2. Due care and diligence has been exercised in the preparation of this RFQ and all information contained herein is believed to be substantially correct. However, the responsibility for determining the full extent of the services rests solely with those making responses. Neither the County nor its representatives shall be responsible for any error or omission in this response, nor for the failure on the part of the respondents to determine the full extent of their exposures.
3. The County reserves the right to select the vendor from the responses received; to waive any or all informalities and/or irregularities; to re-advertise with either an identical or revised scope, or to cancel any requirement in its entirety; or to reject any or all proposals received.
4. A response to this RFQ does not constitute a formal bid; therefore, the County retains the right to contact any/all proposing vendors after submittal in order to obtain supplemental information and/or clarification in either oral or written form. Furthermore, an explicit provision of this RFQ is that any oral communication made is not binding on the County's proposal process.
5. The County will not be liable for, nor pay for any costs incurred by responding vendors relating to the preparation of any proposal for this RFQ.
6. Acceptance will be defined as the County selecting you as our provider of service for the intent of negotiating a contract for services.
7. It is the intent of the County that after the successful Vendor has been selected, the County and the selected vendor will enter into contract negotiations containing all terms and conditions of the proposed service. Any acceptance of a proposal is contingent upon the execution of a written contract and the County shall not be contractually bound to any bidder prior to the execution of such written contractual agreement. The contents of the bid submitted shall become part of the contractual obligation and incorporated by reference into the ensuing contract. The contract with a successful vendor may include penalties for non-performance and failure to meet the proposal implementation schedule.



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This *Schedule of Special Inspections* includes the following building systems:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Soils and Foundations | <input checked="" type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input checked="" type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input checked="" type="checkbox"/> Cold-Formed Metal Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspector		
2. Geotechnical Testing Agency		
3. Construction Materials Testing Agency		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.



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The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT Concrete Field Testing Technician – Grade 1
ACI-CCI Concrete Construction Inspector
ACI-LTT Laboratory Testing Technician – Grade 1&2
ACI-STT Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI Certified Welding Inspector
AWS/AISC-SSI Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSI Structural Masonry Special Inspector
ICC-SWSI Structural Steel and Welding Special Inspector
ICC-SFSI Spray-Applied Fireproofing Special Inspector
ICC-PCSI Prestressed Concrete Special Inspector
ICC-RCSI Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT Concrete Technician – Levels I, II, III & IV



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NICET-ST
NICET-GET

Soils Technician - Levels I, II, III & IV
Geotechnical Engineering Technician - Levels I, II, III & IV

Soils and Foundations

Item	Agency # (Qualif.)	Scope
1. Subgrade Preparation	2 PE/GE	<p><i>Periodically observe that all vegetation, topsoil, uncompacted fill, debris and portions of previous building foundations and structures have been completely stripped and removed from building pad.</i></p> <p><i>Continuously observe proof rolling of prepared subgrade and provide direction for removal and replacement of any unsuitable soils.</i></p>
2. Rammed Aggregate Piers	2 PE/GE	<p><i>Continuously verify installation of aggregate piers complies with specialty design-build contractor's submitted and approved shop drawings including location, quantity and depth of pier elements.</i></p>
3. Controlled Structural Fill	2 PE/GE	<p><i>Periodically perform classification and testing of compacted fill materials.</i></p> <p><i>Continuously verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.</i></p>
4. Shallow Foundations	2 PE/GE	<p><i>Periodically verify materials below shallow foundations are adequate to achieve the design bearing capacity.</i></p> <p><i>Periodically verify excavations are extended to proper depth and have reached proper material.</i></p>



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Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	3 ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
2. Reinforcement Installation	1 & 3 ACI-CCI ICC-RCSI	Periodically inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
3. Welding of Reinforcing	3 AWS-CWI	Periodically inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
4. Anchor Rods	1 & 3 ACI-CCI ICC-RCSI	Periodically inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
5. Concrete Placement	3 ACI-CCI ICC-RCSI	Periodically inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
6. Sampling and Testing of Concrete	3 ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
7. Curing and Protection	3 ACI-CCI ICC-RCSI	Periodically inspect curing, cold weather protection and hot weather protection procedures.



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Masonry

Required Inspection Level: 1 2

Item	Agency # (Qualif.)	Scope
1. Mixing of Mortar and Grout	3 ICC-SMSI	<i>Periodically inspect proportioning, mixing and retempering of mortar and grout.</i>
2. Installation of Masonry	1 & 3 ICC-SMSI	<i>Periodically inspect size, layout, bonding and placement of masonry units.</i>
3. Mortar Joints	3 ICC-SMSI	<i>Periodically inspect construction of mortar joints including tooling and filling of head joints.</i>
4. Reinforcement Installation	1 & 3 ICC-SMSI AWS-CWI	<i>Periodically inspect placement, positioning and lapping of reinforcing steel.</i>
5. Grouting Operations	3 ICC-SMSI	<i>Continuously inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.</i>
6. Weather Protection	3 ICC-SMSI	<i>Periodically inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are protected against precipitation.</i>
7. Evaluation of Masonry Strength	3 ICC-SMSI	<i>Test compressive strength of mortar and grout cube samples (ASTM C780). Test compressive strength of masonry prisms (ASTM C1314).</i>
8. Anchors and Ties	1 & 3 ICC-SMSI	<i>Periodically inspect size, location, spacing and embedment of dowels, anchors and ties, including post installed anchors.</i>



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Structural Steel

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input checked="" type="checkbox"/> Fabricator Exempt	1 AWS/AISC -SSI ICC-SWSI	Review shop fabrication and quality control procedures.
2. Material Certification	3 AWS/AISC -SSI ICC-SWSI	Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes
3. Bolting	3 AWS/AISC -SSI ICC-SWSI	Periodically inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections.
4. Welding	3 AWS-CWI ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. Periodic inspection of all single pass fillet welds $\leq 5/16''$ and continuous inspection for all fillet welds $> 5/16''$ and all multi-pass and all complete or partial penetration groove welds.
5. Shear Connectors	1 & 3 AWS/AISC -SSI ICC-SWSI	Inspect size, number, positioning and welding of shear connectors. Inspect studs for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.
6. Structural Details	1 & 3 PE/SE	Periodically inspect steel frame for compliance with Contract Drawings and approved shop drawings, including member size, locations, bracing, member configuration and connection details.
7. Metal Deck	3 AWS-CWI	Periodically inspect welding and side-lap fastening of metal roof and floor deck.



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Cold-Formed Metal Framing

Item	Agency # (Qualif.)	Scope
1. Member Sizes	1 PE/SE	<i>Periodically inspect member sizes, spacing and locations for compliance with approved shop drawings.</i>
2. Material Thickness	1 PE/SE	<i>Periodically verify proper material thickness for metal studs and connections for compliance with approved shop drawings.</i>
3. Mechanical Connections	1 PE/SE	<i>Periodically verify correct connection types, pieces and fasteners and use of each connection detail at proper locations.</i>
4. Framing Details	1 PE/SE	<i>Periodically inspect installed work for compliance with framing details on the approved shop drawings.</i>



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Spray-Applied / Intumescent Fire Resistant

Item	Agency # (Qualif.)	Scope
1. Laboratory Tested Fire Resistance Design	3 ICC-SFSI	Review UL fire resistive design for each rated beam, column, or assembly.
2. Schedule of Thickness	3 ICC-SFSI	Review approved thickness schedule.
3. Surface Preparation	3 ICC-SFSI	Inspect surface preparation of steel prior to application of fireproofing
4. Application	3 ICC-SFSI	Inspect application of fireproofing.
5. Curing and Ambient Condition	3 ICC-SFSI	Verify ambient air temperature and ventilation is suitable for application and curing of fireproofing.
6. Thickness	3 ICC-SFSI	Test thickness of fireproofing (ASTM E605). Perform a set of thickness measurements for every 1,000 SF of floor and roof assemblies and on not less than 25% of rated beams and columns.
7. Density	3 ICC-SFSI	Test the density of fireproofing material (ASTM E605).
8. Bond Strength	3 ICC-SFSI	Test the cohesive/adhesive bond strength of fireproofing (ASTM E736). Perform not less than one test for each 10,000 SF.
9. Intumescent Fire-Resistant Coatings	3 ICC-SFSI	Inspect application of intumescent coatings in accordance with AWCI 12-B.